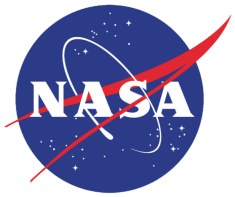

Data Validation (DV) Report
for Kepler ID 9602613
Quarters 1 - 17

This Data Validation Report was produced in the
Kepler Science Operations Center Pipeline
at NASA Ames Research Center

31-Jan-2016 11:21:29 Z

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Contents

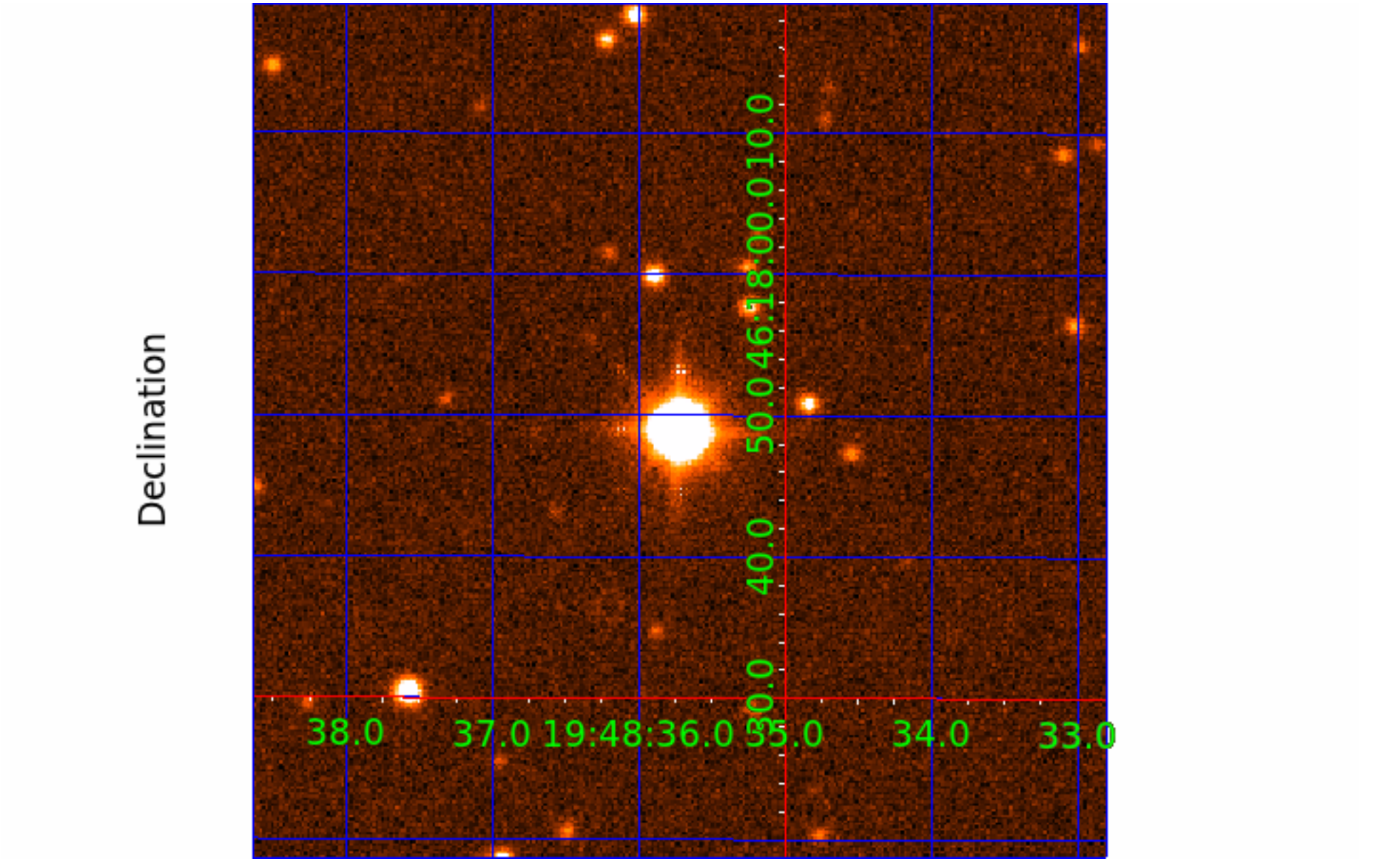
1 Summary

Target Properties	Value	Uncertainty	Units	Provenance
Kepler ID	9602613			
KOI ID	K02612			
Kepler Name	-			
Sky Group	33			
RA	19.80992130	0	hours	KIC
Dec	46.29695000	0	degrees	KIC
Magnitude	11.83	0		KIC
Radius	0.96	0.115	Solar radii	DSEP
Effective Temperature	5495	82	Kelvin	SPE90
log(g)	4.44	0.099	cm/sec^2	SPE90
[Fe/H]	0.16	0.15	Solar metallicity	SPE90
Number of Planet Candidates	2			
Categories	ST_SC1, MERGED, ST_SC3, PLANETARY, ST_SC2, PPA_STELLAR, INCLUDE			
KOI Model	cumulative_20150925110000.csv			
Kepler Names Model	keplernames_20150925110000.csv			
External TCE Model	-			
Software Revision	svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958			
Date Report Generated	31-Jan-2016 11:21:29 Z			

Quarter	Target Table	Module/ Output	Crowding Metric	Flux Fraction	Limb Darkening Coefficients 1	2	3	4
1	20	23/1	0.9995	0.9733	0.6157	-0.3160	0.9245	-0.4384
2	21	15/1	0.9989	0.9629	0.6157	-0.3160	0.9245	-0.4384
3	26	3/1	0.9993	0.9705	0.6157	-0.3160	0.9245	-0.4384
4	29	11/1	0.9990	0.9739	0.6157	-0.3160	0.9245	-0.4384
5	32	23/1	0.9991	0.9663	0.6157	-0.3160	0.9245	-0.4384
6	35	15/1	0.9999	0.8447	0.6157	-0.3160	0.9245	-0.4384
8	41	11/1	0.9995	0.9648	0.6157	-0.3160	0.9245	-0.4384
9	44	23/1	0.9989	0.9798	0.6157	-0.3160	0.9245	-0.4384
10	47	15/1	0.9992	0.9575	0.6157	-0.3160	0.9245	-0.4384
12	53	11/1	0.9993	0.9638	0.6157	-0.3160	0.9245	-0.4384
13	56	23/1	0.9990	0.9821	0.6157	-0.3160	0.9245	-0.4384
14	59	15/1	0.9987	0.9683	0.6157	-0.3160	0.9245	-0.4384
16	65	11/1	0.9994	0.9640	0.6157	-0.3160	0.9245	-0.4384
17	68	23/1	0.9985	0.9891	0.6157	-0.3160	0.9245	-0.4384

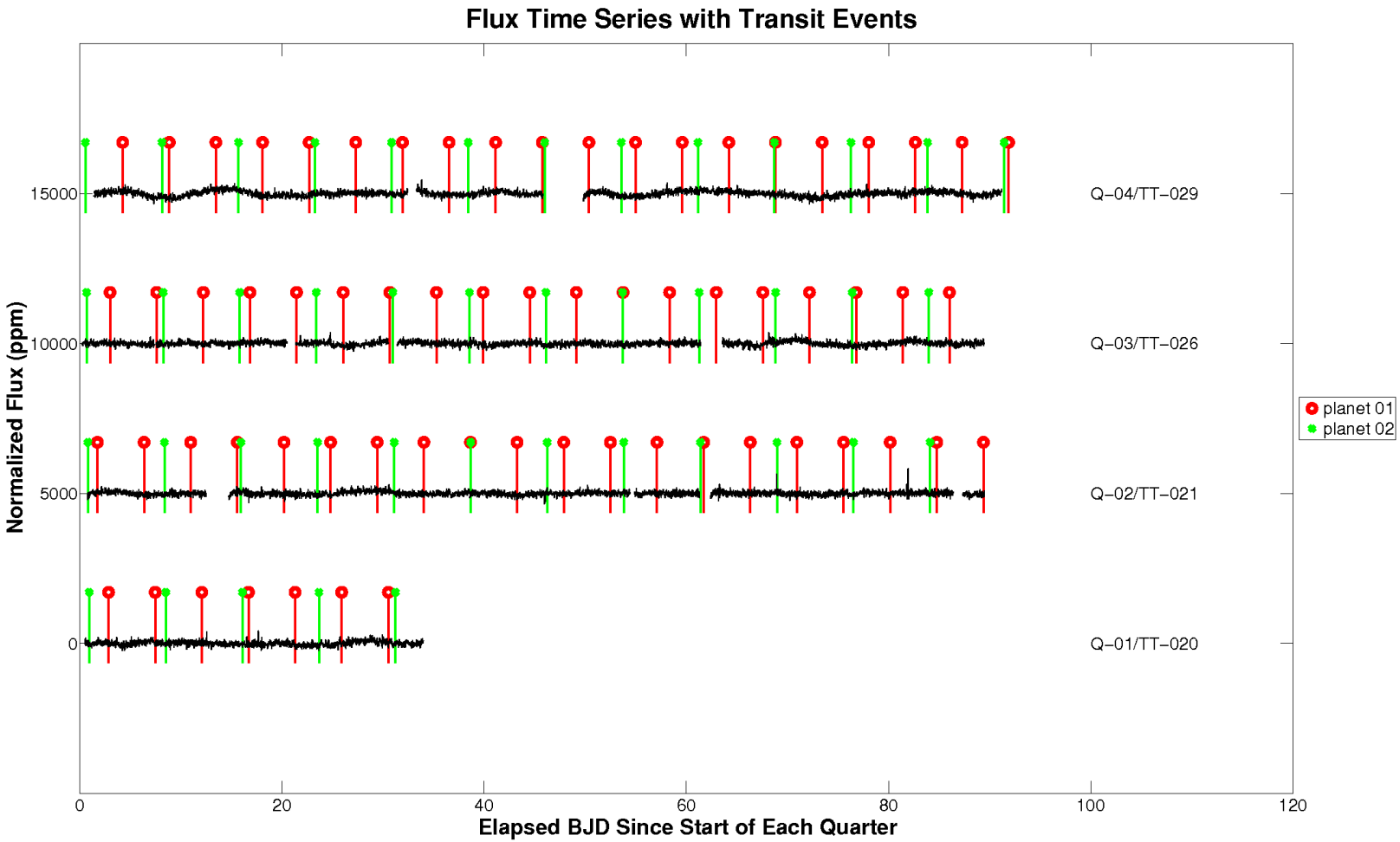
Planet Candidate	KOI ID	Kepler Name	KOI Correlation	Period (days)	Period Ratio	Epoch (BKJD)	Semi-major Axis (AU)	Radius (Re)	Teq (K)	False Alarm	Suspected EB
1	K02612.01	-	0.96	4.6	1.0	133.9	0.1	0.6	1032	8.59e-29	false
2	K02612.02	-	0.96	7.6	1.6	131.9	0.1	0.6	875	3.92e-16	false

2 UKIRT Image

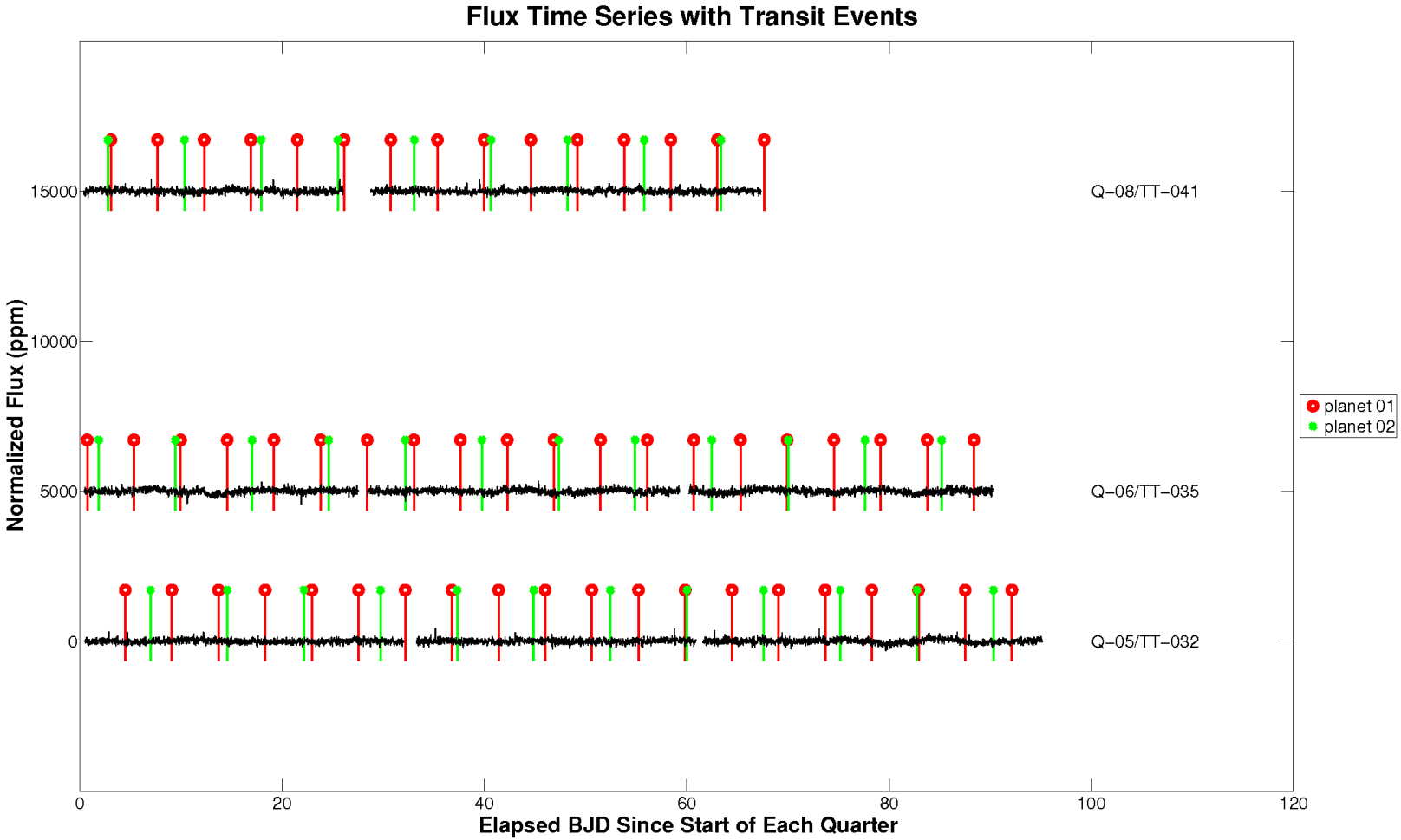


UKIRT Wide Field Camera (WFCAM) infra-red J-band image. The 1' x 1' image is centered on the target (9602613).

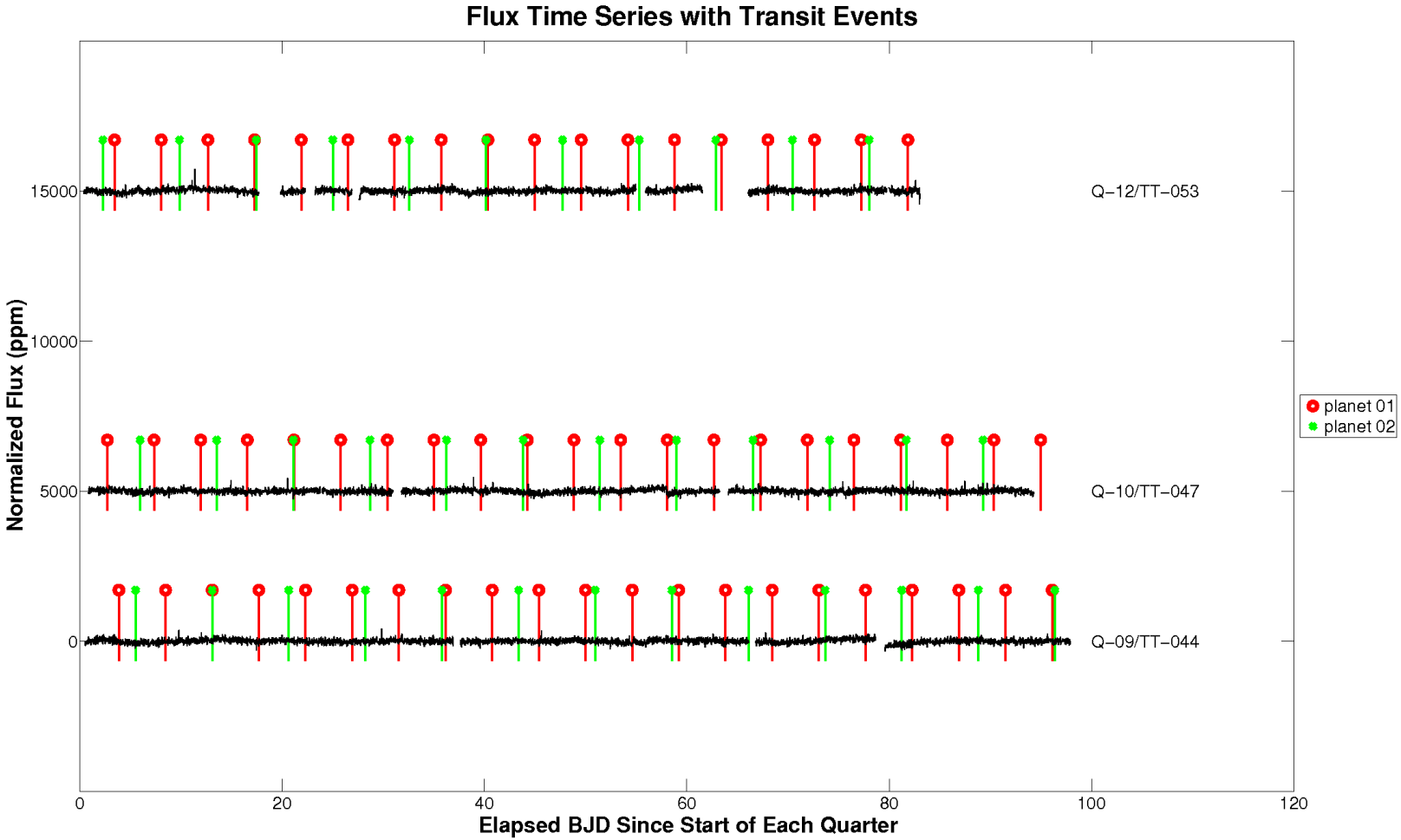
3 Flux Time Series



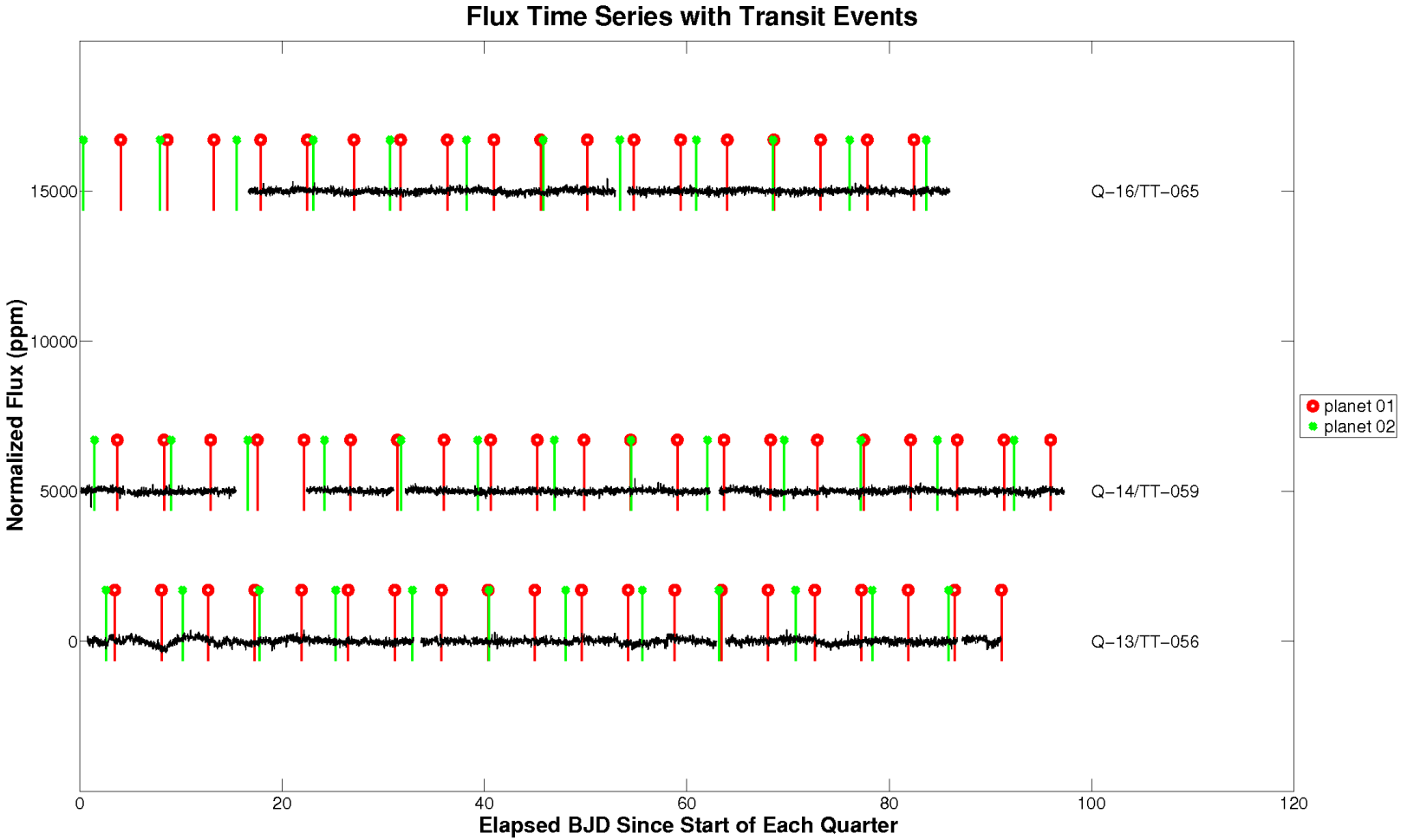
Summary plot of quarter-stitched PDC flux time series and transits for target 9602613, marked with DV fitted epoch/period (or TPS epoch/period if fit was not successful). Transits of identified planets are labeled with epoch BKJD and orbital period. For the data of quarter 1, target table 20, start BJD is 2454964 and the vertical offset is 0 ppm. For the data of quarter 2, target table 21, start BJD is 2455002 and the vertical offset is 5000 ppm. For the data of quarter 3, target table 26, start BJD is 2455093 and the vertical offset is 10000 ppm. For the data of quarter 4, target table 29, start BJD is 2455184 and the vertical offset is 15000 ppm.
Open `./summary-plots/009602613-00-flux-dv-fit-01-020.fig`



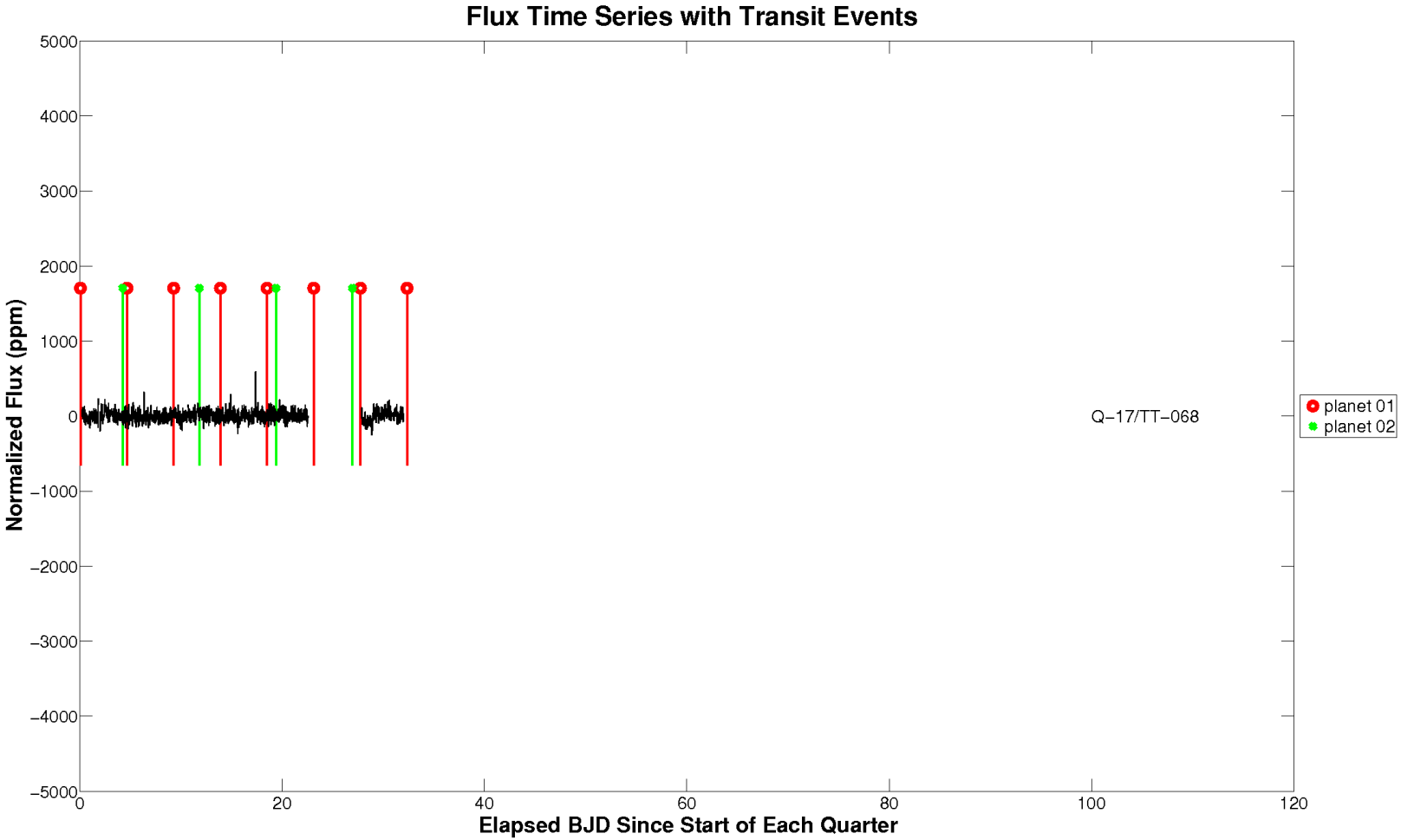
Summary plot of quarter-stitched PDC flux time series and transits for target 9602613, marked with DV fitted epoch/period (or TPS epoch/period if fit was not successful). Transits of identified planets are labeled with epoch BKJD and orbital period. For the data of quarter 5, target table 32, start BJD is 2455276 and the vertical offset is 0 ppm. For the data of quarter 6, target table 35, start BJD is 2455372 and the vertical offset is 5000 ppm. For the data of quarter 7, target table 38, start BJD is 2455463 and the vertical offset is 10000 ppm. For the data of quarter 8, target table 41, start BJD is 2455568 and the vertical offset is 15000 ppm.
Open `./summary-plots/009602613-00-flux-dv-fit-05-032.fig`



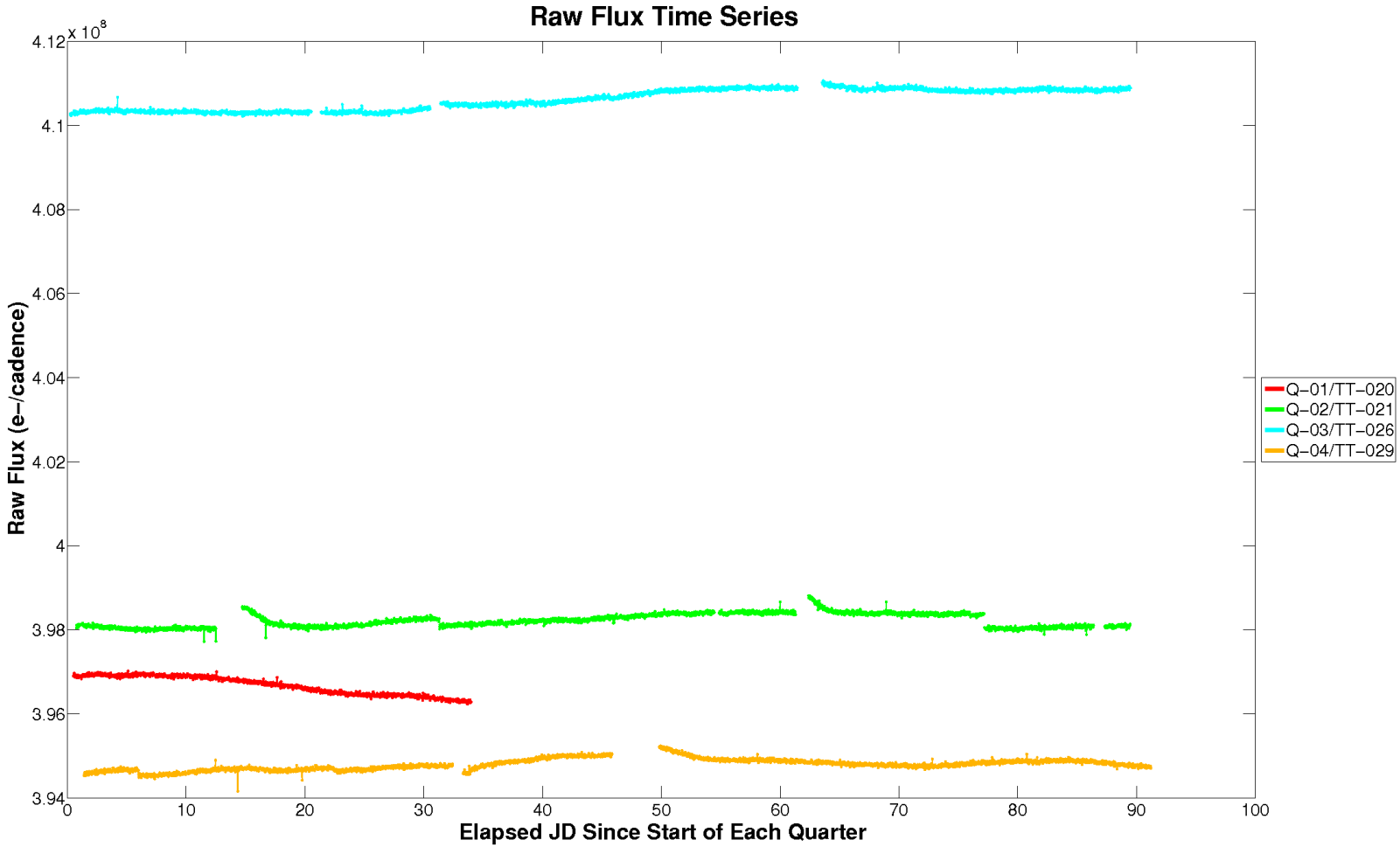
Summary plot of quarter-stitched PDC flux time series and transits for target 9602613, marked with DV fitted epoch/period (or TPS epoch/period if fit was not successful). Transits of identified planets are labeled with epoch BKJD and orbital period. For the data of quarter 9, target table 44, start BJD is 2455641 and the vertical offset is 0 ppm. For the data of quarter 10, target table 47, start BJD is 2455739 and the vertical offset is 5000 ppm. For the data of quarter 11, target table 50, start BJD is 2455834 and the vertical offset is 10000 ppm. For the data of quarter 12, target table 53, start BJD is 2455932 and the vertical offset is 15000 ppm.
Open `./summary-plots/009602613-00-flux-dv-fit-09-044.fig`



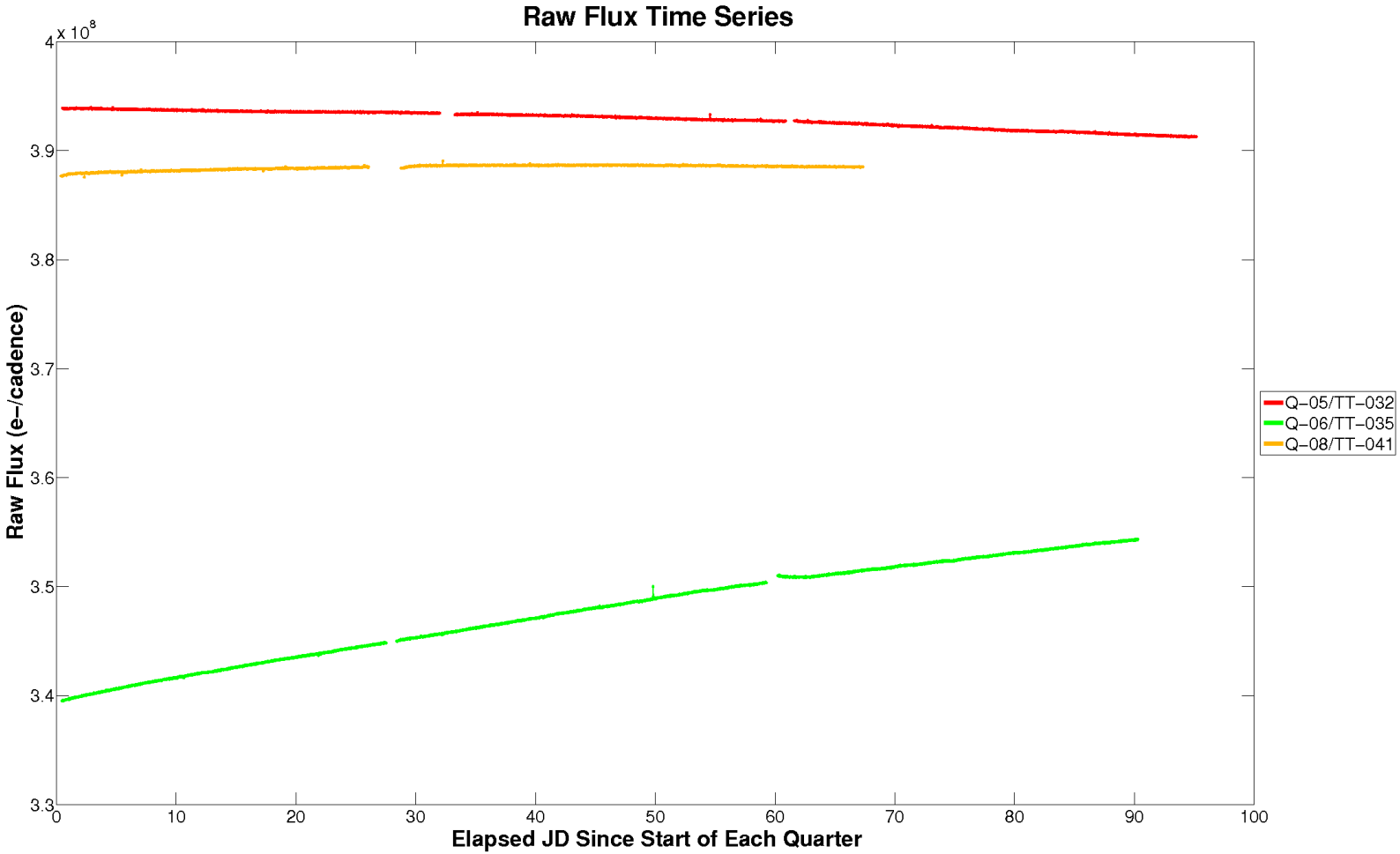
Summary plot of quarter-stitched PDC flux time series and transits for target 9602613, marked with DV fitted epoch/period (or TPS epoch/period if fit was not successful). Transits of identified planets are labeled with epoch BKJD and orbital period. For the data of quarter 13, target table 56, start BJD is 2456015 and the vertical offset is 0 ppm. For the data of quarter 14, target table 59, start BJD is 2456107 and the vertical offset is 5000 ppm. For the data of quarter 15, target table 62, start BJD is 2456206 and the vertical offset is 10000 ppm. For the data of quarter 16, target table 65, start BJD is 2456305 and the vertical offset is 15000 ppm.
Open `./summary-plots/009602613-00-flux-dv-fit-13-056.fig`



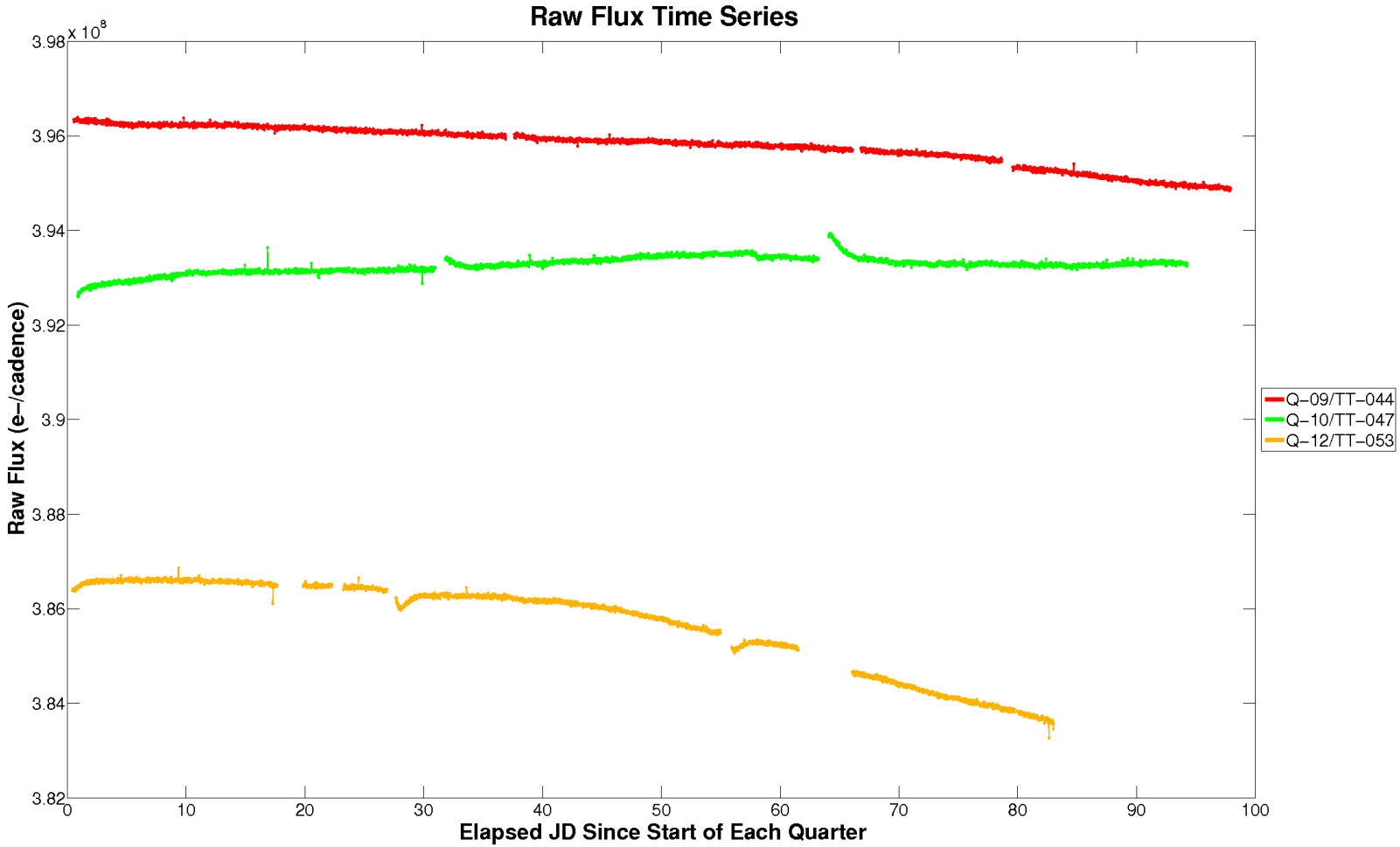
Summary plot of quarter-stitched PDC flux time series and transits for target 9602613, marked with DV fitted epoch/period (or TPS epoch/period if fit was not successful). Transits of identified planets are labeled with epoch BKJD and orbital period. For the data of quarter 17, target table 68, start BJD is 2456392.
Open `./summary-plots/009602613-00-flux-dv-fit-17-068.fig`



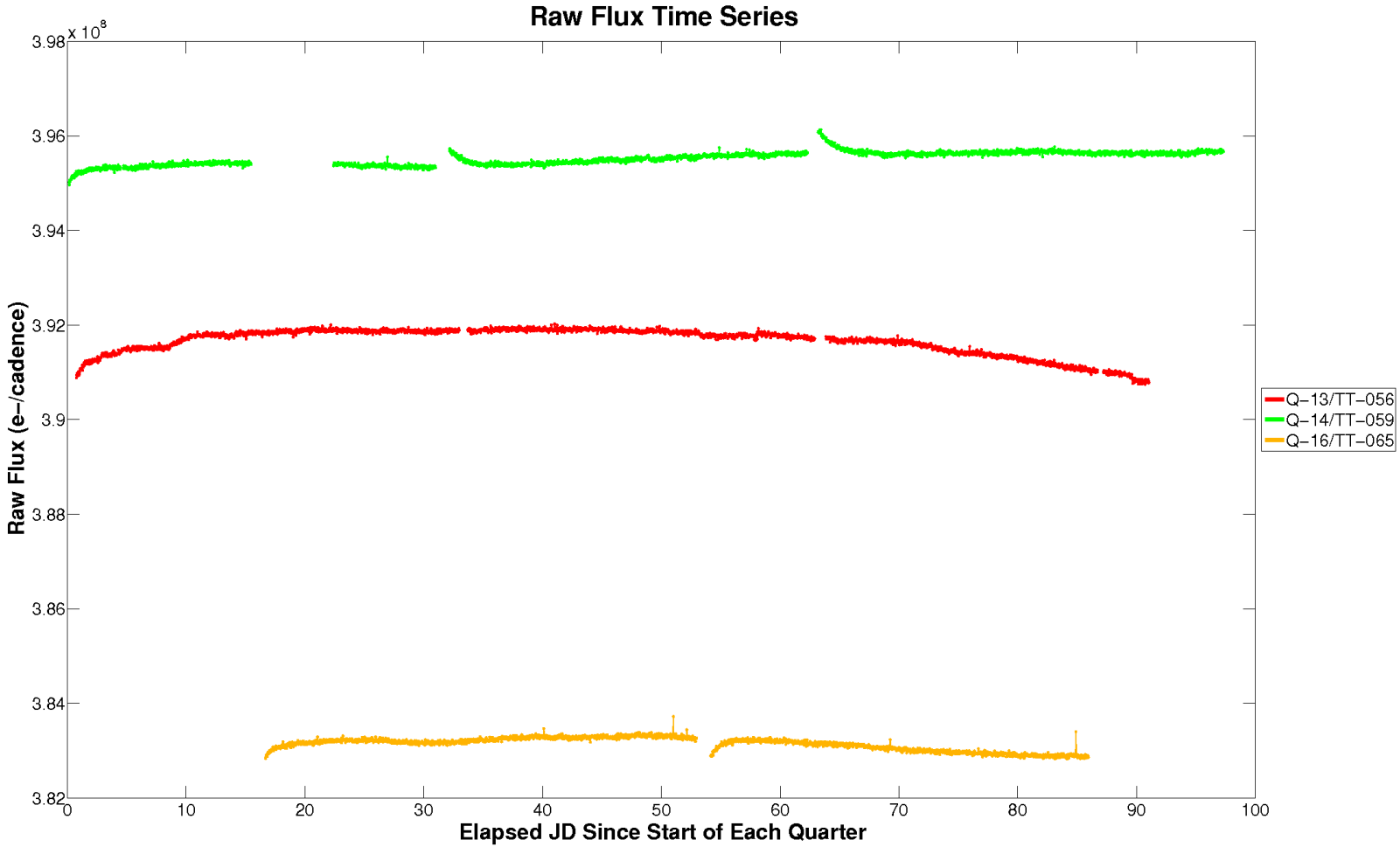
Summary plot of raw flux time series. For the data of quarter 1, target table 20, start JD is 2454964 and the vertical offset is 0 electrons/cadence. For the data of quarter 2, target table 21, start JD is 2455002 and the vertical offset is 0 electrons/cadence. For the data of quarter 3, target table 26, start JD is 2455093 and the vertical offset is 0 electrons/cadence. For the data of quarter 4, target table 29, start JD is 2455184 and the vertical offset is 0 electrons/cadence.
Open `./summary-plots/009602613-00-raw-flux-01-020.fig`



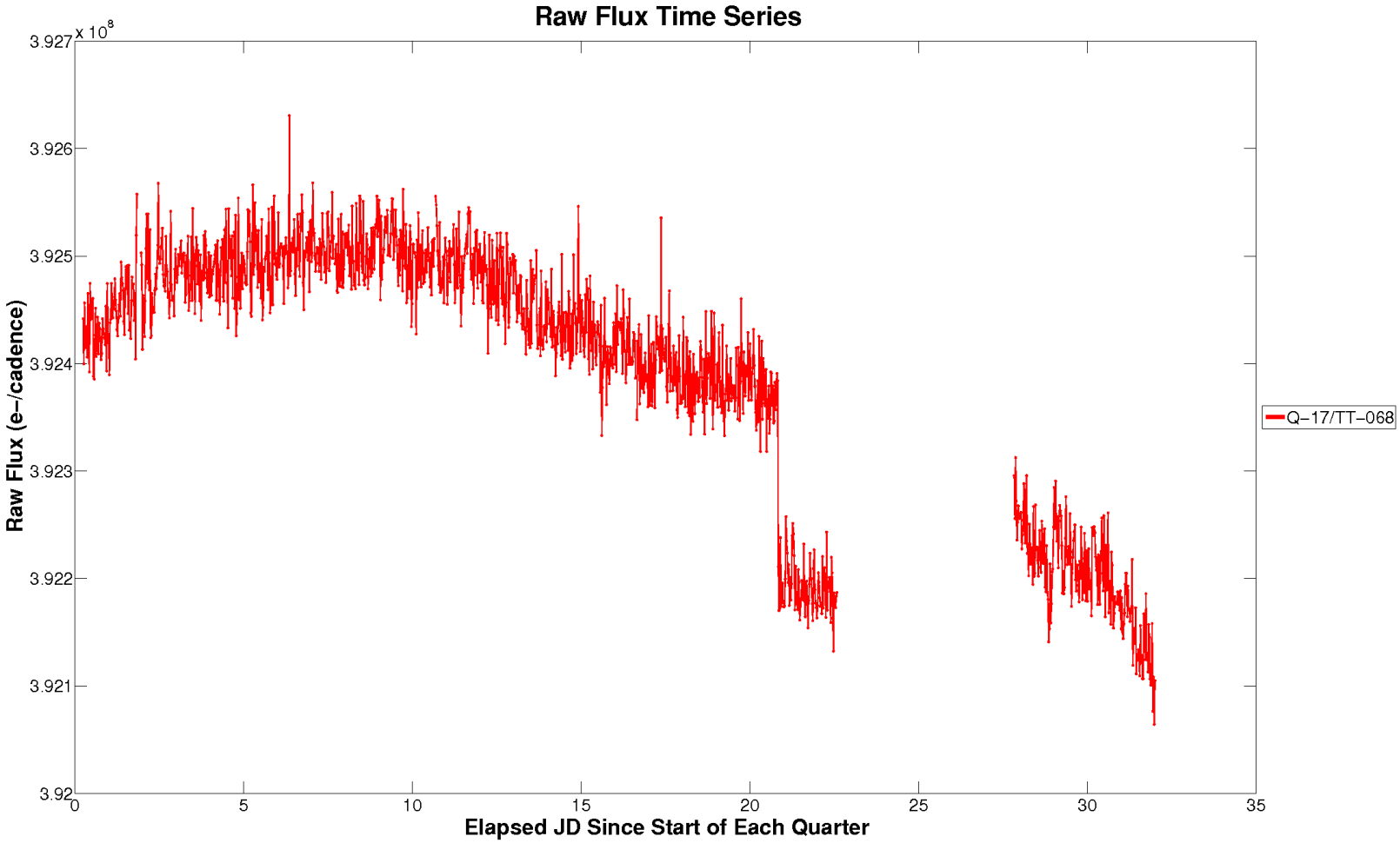
Summary plot of raw flux time series. For the data of quarter 5, target table 32, start JD is 2455276 and the vertical offset is 0 electrons/cadence. For the data of quarter 6, target table 35, start JD is 2455372 and the vertical offset is 0 electrons/cadence. For the data of quarter 7, target table 38, start JD is 2455463 and the vertical offset is 0 electrons/cadence. For the data of quarter 8, target table 41, start JD is 2455568 and the vertical offset is 0 electrons/cadence.
Open `./summary-plots/009602613-00-raw-flux-05-032.fig`



Summary plot of raw flux time series. For the data of quarter 9, target table 44, start JD is 2455641 and the vertical offset is 0 electrons/cadence. For the data of quarter 10, target table 47, start JD is 2455739 and the vertical offset is 0 electrons/cadence. For the data of quarter 11, target table 50, start JD is 2455834 and the vertical offset is 0 electrons/cadence. For the data of quarter 12, target table 53, start JD is 2455932 and the vertical offset is 0 electrons/cadence.
Open `./summary-plots/009602613-00-raw-flux-09-044.fig`



Summary plot of raw flux time series. For the data of quarter 13, target table 56, start JD is 2456015 and the vertical offset is 0 electrons/cadence. For the data of quarter 14, target table 59, start JD is 2456107 and the vertical offset is 0 electrons/cadence. For the data of quarter 15, target table 62, start JD is 2456206 and the vertical offset is 0 electrons/cadence. For the data of quarter 16, target table 65, start JD is 2456305 and the vertical offset is 0 electrons/cadence.
Open `./summary-plots/009602613-00-raw-flux-13-056.fig`



Summary plot of raw flux time series. For the data of quarter 17, target table 68, start JD is 2456392.
Open `./summary-plots/009602613-00-raw-flux-17-068.fig`

4 Dashboards

Planet Candidate 1

<table>
<tr><td rowspan="2">Model Fitter</td><td colspan="2">Stellar Radius
1.0 ± 0.1 Solar units</td><td rowspan="2">Flux Weighted Motion Detection Statistic

Value = 2.20e+01
Significance = 0.00%
Peak RA Offset 4.06e-06 ± 2.71e-05 arcsec (0.15 σ)
Peak Dec Offset = -6.46e-05 ± 2.41e-05 arcsec (-2.7 σ)
Peak Offset Distance = 6.47e-05 ± 2.41e-05 arcsec (2.7 σ)
Source RA Offset = -2.14e-01 ± 9.25e-01 arcsec (-0.23 σ)
Source Dec Offset = 2.11e+00 ± 8.23e-01 arcsec (2.6 σ)
Source Offset Distance = 2.12e+00 ± 8.24e-01 arcsec (2.6 σ)</td><td rowspan="2">Centroid Test</td></tr>
<tr><td colspan="2">Period = 4.6 ± 0.0 days
Depth = 29 ± 3 ppm
Planet Radius = 0.6 ± 0.2 Earth radii
Semi-major Axis = 0.1 ± 0.0 AU
Effective Stellar Flux = 268.8 ± 48.8
Equilibrium Temperature = 1032 ± 47 Kelvin
Chi-squared/DoF = 0.8
SNR = 12.2</td></tr>
<tr><td rowspan="2">Eclipsing Binary Discrimination Test</td><td>Odd-Even Depth Comparison Statistic
Value = 1.31e-01
Significance = 71.70%</td><td>Odd-Even Epoch Comparison Statistic
Value = 1.04e-03
Significance = 97.43%</td><td>Offsets Relative to Out of Transit Centroid
Source RA Offset = 9.88e-01 ± 3.55e-01 arcsec (2.79 σ)
Source Dec Offset = 1.35e+00 ± 4.20e-01 arcsec (3.23 σ)
Source Offset Distance = 1.68e+00 ± 4.47e-01 arcsec (3.75 σ)

Offsets Relative to KIC Position
Source RA Offset = 9.77e-01 ± 3.79e-01 arcsec (2.58 σ)
Source Dec Offset = 1.31e+00 ± 4.39e-01 arcsec (2.99 σ)
Source Offset Distance = 1.64e+00 ± 4.58e-01 arcsec (3.57 σ)</td><td>Difference Image Centroid Offsets</td></tr>
<tr><td>Shorter Period Comparison Statistic
Value = N/A
Significance = N/A</td><td>Longer Period Comparison Statistic
Value = 3.37e+02
Significance = 100.00%</td><td>False Alarm = 8.59e-29
Final Skip Count = -1
Observed Number of Transits = 228
Max Multiple Event Statistic = 11.4</td><td>Bootstrap Test</td></tr>
</table>

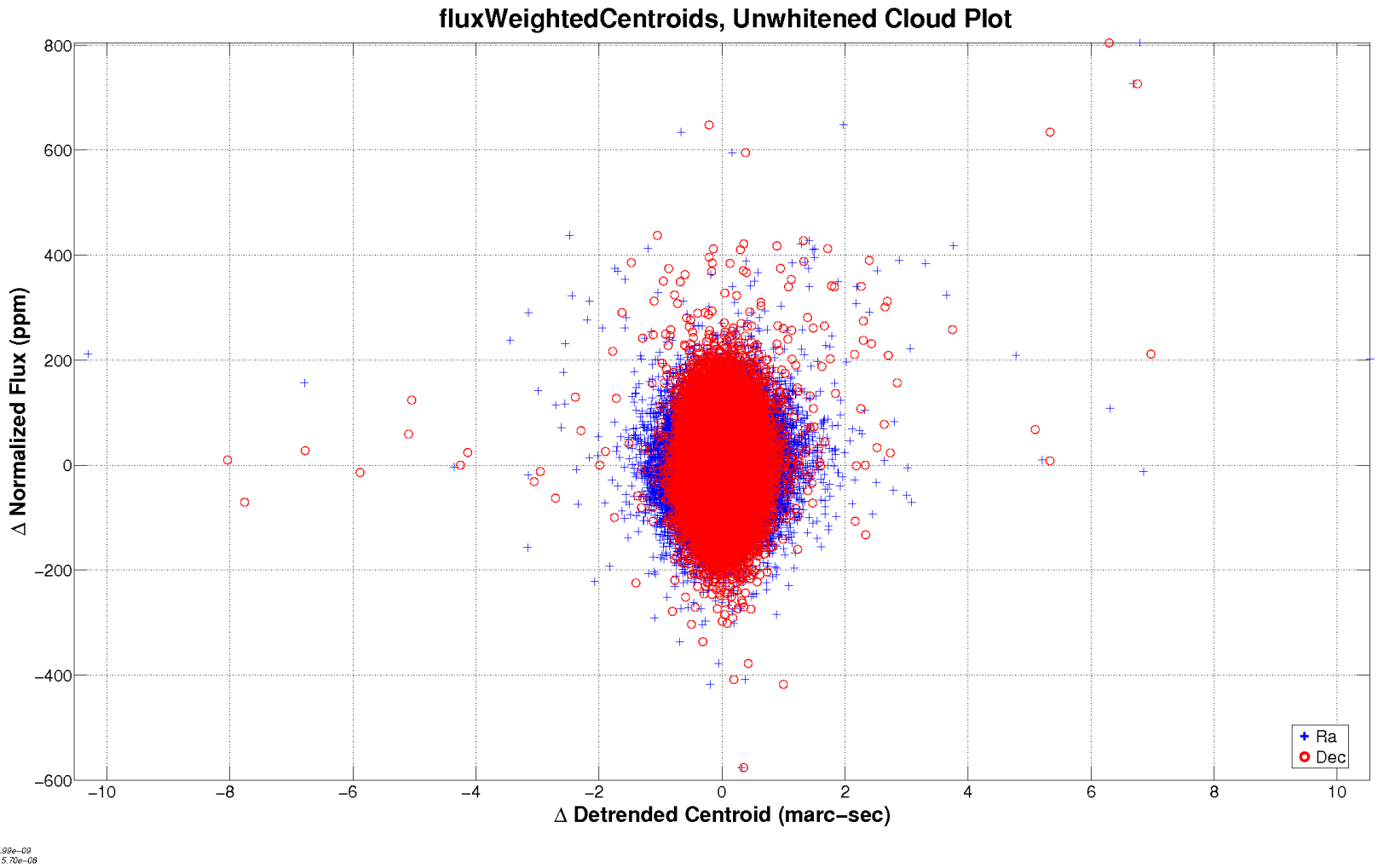
Summary of model fitter results and validation test results for target 9602613, planet candidate 1. In general, green denotes that the candidate is likely a planet, while red denotes that the candidate is unlikely to be a planet. Cyan denotes that no data is available. The color of the Model Fitter block is: green, when the SNR of the fit is greater than or equal to 10; yellow, if the SNR is greater than or equal to 7.1 but less than 10; red, if the SNR is less than 7.1 or if the fitter failed. The color of the Centroid Test and Eclipsing Binary Discrimination Test blocks are: green, when the significance is within 2-sigma; yellow, when the significance is between 2- and 3-sigma; red when the significance is greater than 3-sigma. The color of the Difference Image Centroid Offsets block is: green, when the max offset distance sigma is less than or equal to 2; yellow, when the max sigma is between 2 and 3; red when the max sigma is greater than 3. The color of the Bootstrap Test block is green whenever the false alarm probability is less than 10^{-12}, low enough to limit the total number of false alarms from a four year mission to less than one. If the false alarm probability is greater than 10^{-12}, the color of the Bootstrap Test block is: green, when the false alarm probability is less than or equal to the CCDF of a Gaussian distribution at the observed maximum multiple event statistic; yellow when the false alarm probability is between 1 and 2 times that of a Gaussian distribution at the max multiple event statistic; and red when the false alarm probability is more than 2 times that of a Gaussian distribution at the max multiple event statistic.

Planet Candidate 2

<table>
<tr><td rowspan="2">Model Fitter</td><td colspan="2">Stellar Radius
1.0 ± 0.1 Solar units</td><td>Flux Weighted Motion Detection Statistic</td><td rowspan="2">Centroid Test</td></tr>
<tr><td colspan="2">Period = 7.6 ± 0.0 days
Depth = 31 ± 3 ppm
Planet Radius = 0.6 ± 0.3 Earth radii
Semi-major Axis = 0.1 ± 0.0 AU
Effective Stellar Flux = 138.7 ± 25.2
Equilibrium Temperature = 875 ± 40 Kelvin
Chi-squared/DoF = 0.8
SNR = 9.6</td><td>Value = 3.15e+00
Significance = 20.67%
Peak RA Offset 3.72e-05 ± 3.50e-05 arcsec (1.1 σ)
Peak Dec Offset = -1.84e-05 ± 3.10e-05 arcsec (-0.59 σ)
Peak Offset Distance = 4.15e-05 ± 3.42e-05 arcsec (1.2 σ)
Source RA Offset = -1.29e+00 ± 1.14e+00 arcsec (-1.1 σ)
Source Dec Offset = 5.01e-01 ± 1.01e+00 arcsec (0.5 σ)
Source Offset Distance = 1.38e+00 ± 1.12e+00 arcsec (1.2 σ)</td></tr>
<tr><td rowspan="2">Eclipsing Binary Discrimination Test</td><td>Odd-Even Depth Comparison Statistic
Value = 1.53e-01
Significance = 69.60%</td><td>Odd-Even Epoch Comparison Statistic
Value = 5.44e-04
Significance = 98.14%</td><td>Offsets Relative to Out of Transit Centroid
Source RA Offset = 1.22e+00 ± 1.02e+00 arcsec (1.20 σ)
Source Dec Offset = 9.61e-02 ± 8.17e-01 arcsec (0.12 σ)
Source Offset Distance = 1.22e+00 ± 1.07e+00 arcsec (1.14 σ)
Offsets Relative to KIC Position
Source RA Offset = 1.21e+00 ± 9.43e-01 arcsec (1.29 σ)
Source Dec Offset = 7.74e-02 ± 7.59e-01 arcsec (0.10 σ)
Source Offset Distance = 1.22e+00 ± 9.82e-01 arcsec (1.24 σ)</td><td>Difference Image Centroid Offsets</td></tr>
<tr><td>Shorter Period Comparison Statistic
Value = 3.37e+02
Significance = 100.00%</td><td>Longer Period Comparison Statistic
Value = N/A
Significance = N/A</td><td>False Alarm = 3.92e-16
Final Skip Count = -1
Observed Number of Transits = 128
Max Multiple Event Statistic = 8.3</td><td>Bootstrap Test</td></tr>
</table>

Summary of model fitter results and validation test results for target 9602613, planet candidate 2. In general, green denotes that the candidate is likely a planet, while red denotes that the candidate is unlikely to be a planet. Cyan denotes that no data is available. The color of the Model Fitter block is: green, when the SNR of the fit is greater than or equal to 10; yellow, if the SNR is greater than or equal to 7.1 but less than 10; red, if the SNR is less than 7.1 or if the fitter failed. The color of the Centroid Test and Eclipsing Binary Discrimination Test blocks are: green, when the significance is within 2-sigma; yellow, when the significance is between 2- and 3-sigma; red when the significance is greater than 3-sigma. The color of the Difference Image Centroid Offsets block is: green, when the max offset distance sigma is less than or equal to 2; yellow, when the max sigma is between 2 and 3; red when the max sigma is greater than 3. The color of the Bootstrap Test block is green whenever the false alarm probability is less than 10^{-12}, low enough to limit the total number of false alarms from a four year mission to less than one. If the false alarm probability is greater than 10^{-12}, the color of the Bootstrap Test block is: green, when the false alarm probability is less than or equal to the CCDF of a Gaussian distribution at the observed maximum multiple event statistic; yellow when the false alarm probability is between 1 and 2 times that of a Gaussian distribution at the max multiple event statistic; and red when the false alarm probability is more than 2 times that of a Gaussian distribution at the max multiple event statistic.

5 Centroid Cloud Plot



KeplerId 9602613, KeplerMag 11.83 - This figure shows median detrended flux as a function of median detrended centroids for both ra and dec on the sky. Transit features above the noise jitter are seen as scatter outside the central cloud. Features in the flux time series are seen in the vertical direction while features in the centroid time series are seen in the horizontal direction. Any tilt to the out-of-cloud scatter indicates correlation between transit features in the flux and centroid time series. The out of transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust values.
Open `./summary-plots/009602613-00-fluxWeighted-centroids-cloud.fig`

6 Image Artifacts

6.1 Planet Candidate 1

Rolling Band Contamination

Severity Level	Transit Count	Transit Fraction
0	217	1.00
1	0	0.00
2	0	0.00
3	0	0.00
4	0	0.00
	217	1.00

6.2 Planet Candidate 2

Rolling Band Contamination

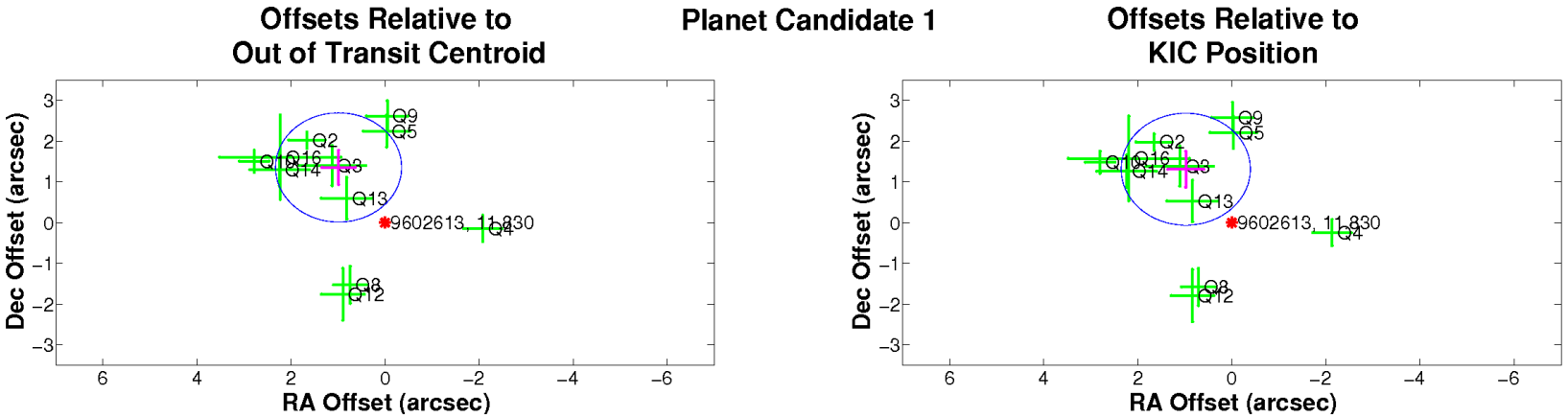
Severity Level	Transit Count	Transit Fraction
0	120	1.00
1	0	0.00
2	0	0.00
3	0	0.00
4	0	0.00
	120	1.00

7 Pixel Level Diagnostics

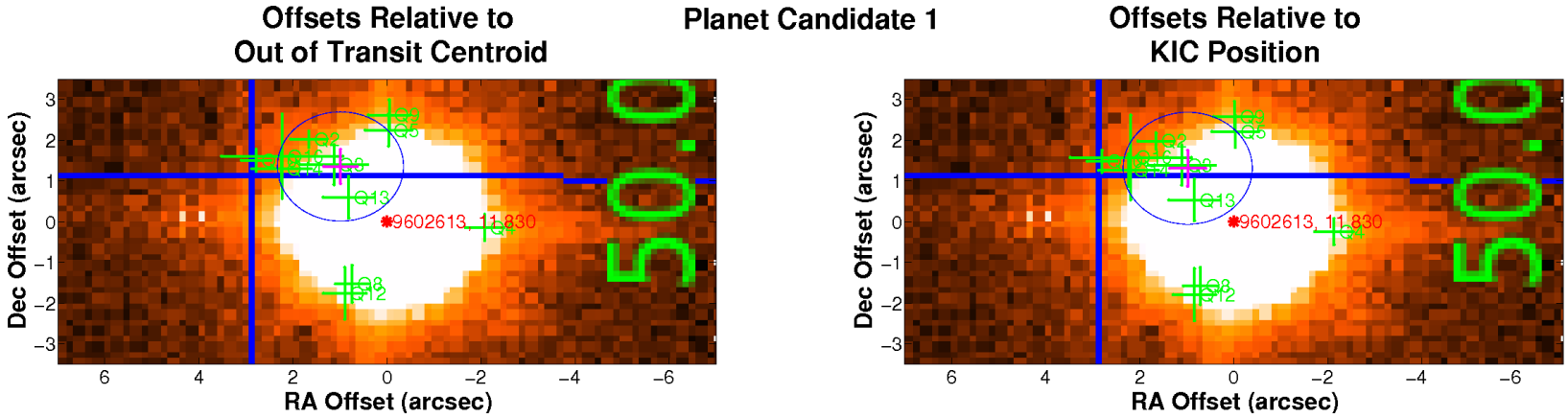
7.1 Planet Candidate 1

Difference Image Summary Metrics

Number of Difference Images	Number of Metrics	Number of Good Metrics	Fraction of Good Metrics	Quality Threshold
14	11	10	0.9091	0.70



Difference image centroid offsets for target 9602613, planet candidate 1. Left: difference image PRF centroid offsets in RA and Dec with respect to the quarterly out-of-transit centroids for the given target. Right: difference image PRF centroid offsets in RA and Dec with respect to the KIC coordinates of the given target. Symbol key: green cross: quarterly centroid offsets with 1-sigma error bars in RA and Dec; magenta cross: robust weighted mean offset over all quarters with 1-sigma error bars in RA and Dec; blue circle: 3-sigma radius of confusion for weighted mean offset; red cross (where applicable): multi-quarter PRF centroid offset with 1-sigma error bars in RA and Dec; cyan circle (where applicable): 3-sigma radius of confusion for multi-quarter PRF offset; red asterisk: location of target star; blue asterisk: location of other KIC objects in the neighborhood. KIC ID and magnitude are noted in the text associated with each marked object (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000). A constant error term of 0.0667 arcseconds has been added in quadrature to the computed uncertainty in the RA and Dec components of the robust mean offset and the multi-quarter PRF offset.
Open `./planet-01/difference-image/009602613-01-difference-image-centroid-offsets.fig`



Difference image centroid offsets for target 9602613, planet candidate 1, diplayed on UKIRT image for given target. Left: difference image PRF centroid offsets in RA and Dec with respect to the quarterly out-of-transit centroids for the given target. Right: difference image PRF centroid offsets in RA and Dec with respect to the KIC coordinates of the given target. Symbol key: green cross: quarterly centroid offsets with 1-sigma error bars in RA and Dec; magenta cross: robust weighted mean offset over all quarters with 1-sigma error bars in RA and Dec; blue circle: 3-sigma radius of confusion for weighted mean offset; red asterisk: location of target star; blue asterisk: location of other KIC objects in the neighborhood. KIC ID and magnitude are noted in the text associated with each marked object (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000). A constant error term of 0.0667 arcseconds has been added in quadrature to the computed uncertainty in the RA and Dec components of the robust mean offset and the multi-quarter PRF offset.
Open `./planet-01/difference-image/009602613-01-difference-image-centroid-offsets-ukirt.fig`

Multi-Quarter Average PRF Fit of the Difference Images

Mean offset from the PRF fit to the out of transit image

	RA	Dec	Units
Offset	$0.9882 \pm 3.55e-01$	$1.3546 \pm 4.20e-01$	arcseconds
Offset/σ	2.79	3.23	
Offset Distance	$1.6767 \pm 4.47e-01$		arcseconds
Offset Distance/σ	3.75		
3σ Radius	1.3403		arcseconds

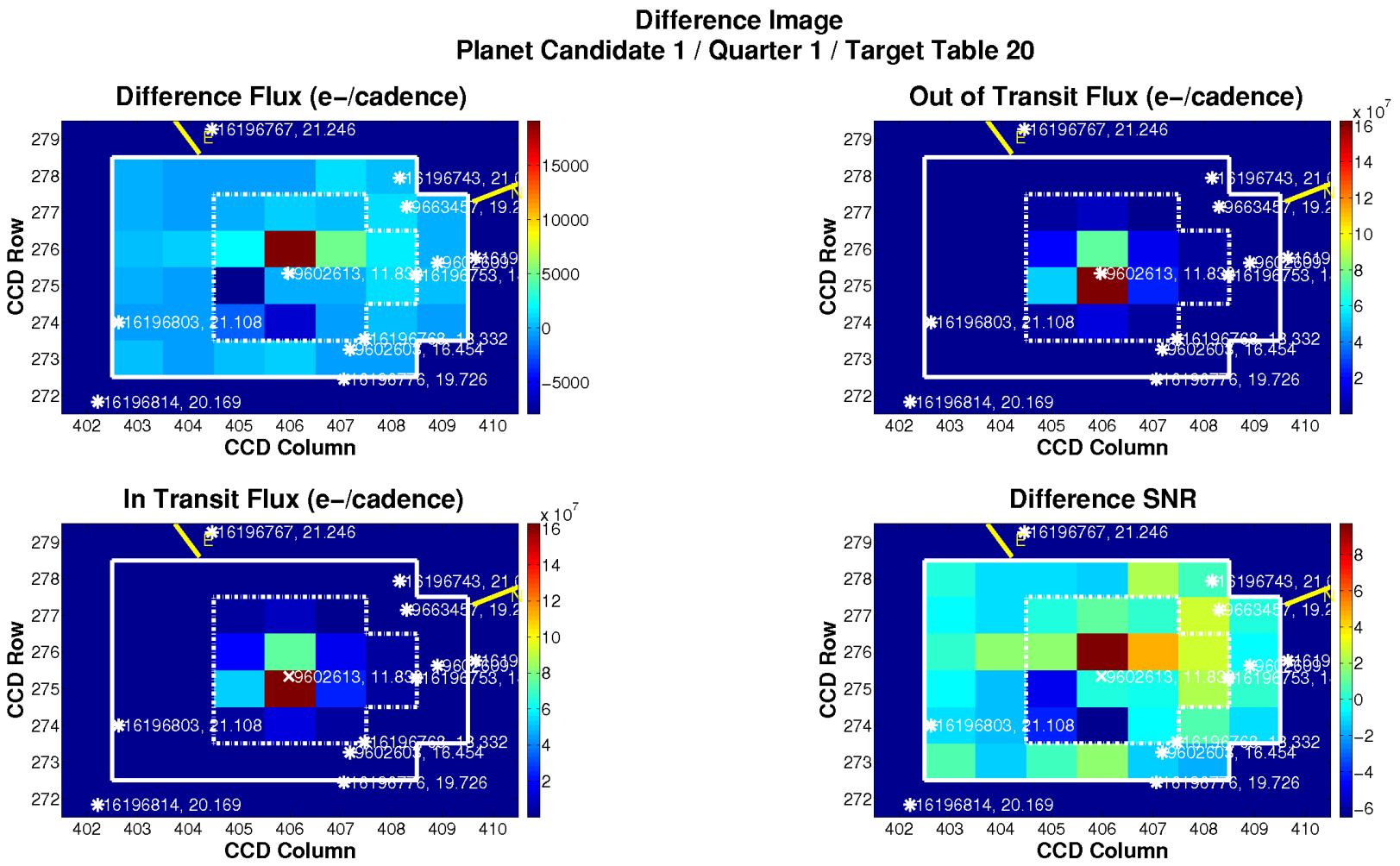
Mean offset from the KIC RA and Dec

	RA	Dec	Units
Offset	$0.9775 \pm 3.79e-01$	$1.3114 \pm 4.39e-01$	arcseconds
Offset/σ	2.58	2.99	
Offset Distance	$1.6356 \pm 4.58e-01$		arcseconds
Offset Distance/σ	3.57		
3σ Radius	1.3735		arcseconds

Bootstrap Multi-Quarter PRF Fit of the Difference Images

Bootstrap multi-quarter PRF fit results for the difference images associated with this planet candidate are not available.

Pixel correlation centroid offsets figure for this planet candidate is not available.



Difference image for target 9602613, planet candidate 1, quarter 1, target table 20. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 7; number of valid in-transit cadences = 30; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 77; number of out-of-transit cadence gaps = 1. Difference image quality metric = N/A.
Open `./planet-01/difference-image/009602613-01-difference-image-01-020.fig`

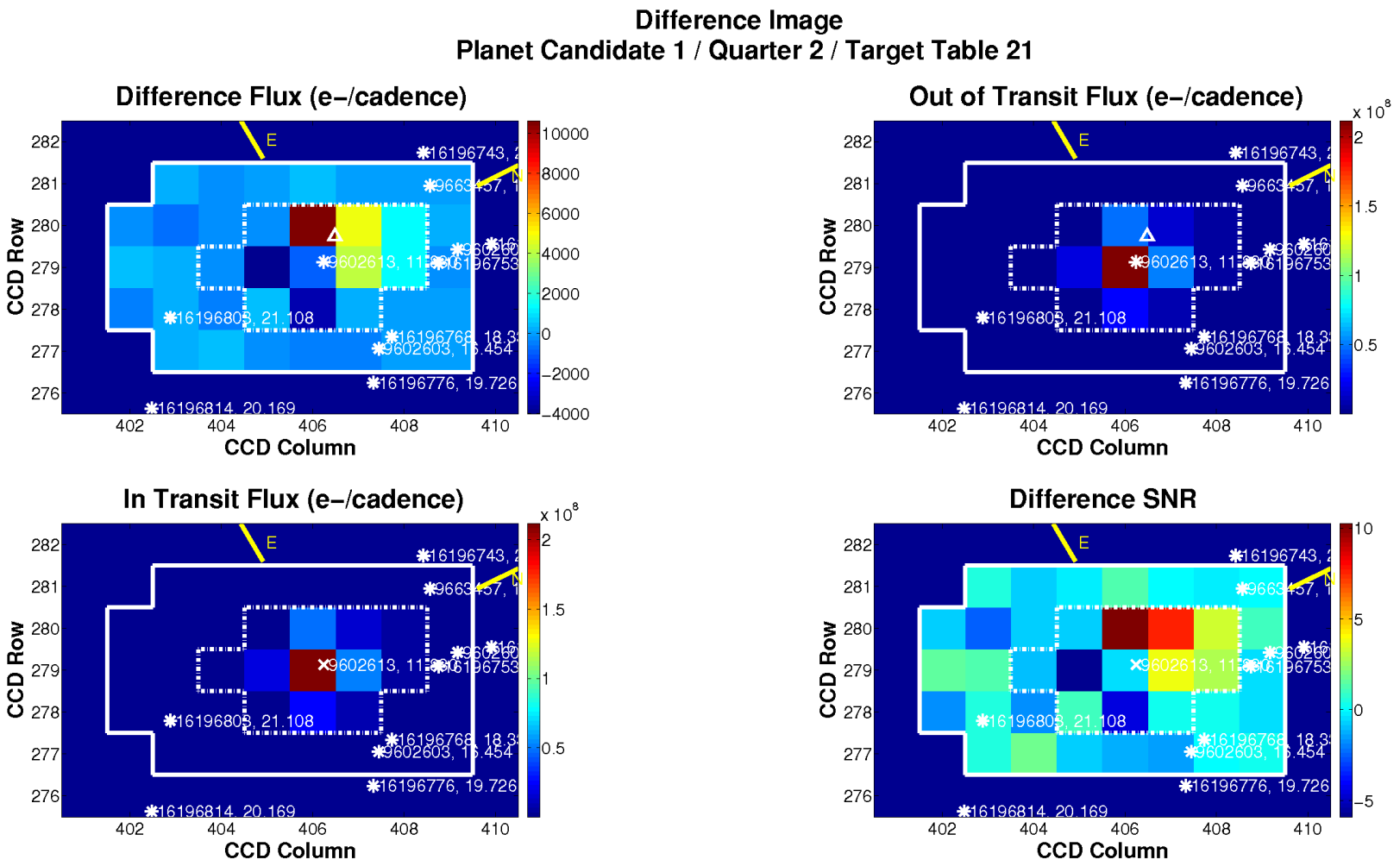
The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 20.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 1, in target table 20.

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 20.



Difference image for target 9602613, planet candidate 1, quarter 2, target table 21. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 16; number of valid in-transit cadences = 72; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 177; number of out-of-transit cadence gaps = 2. Difference image quality metric = 0.85 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-02-021.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 21.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

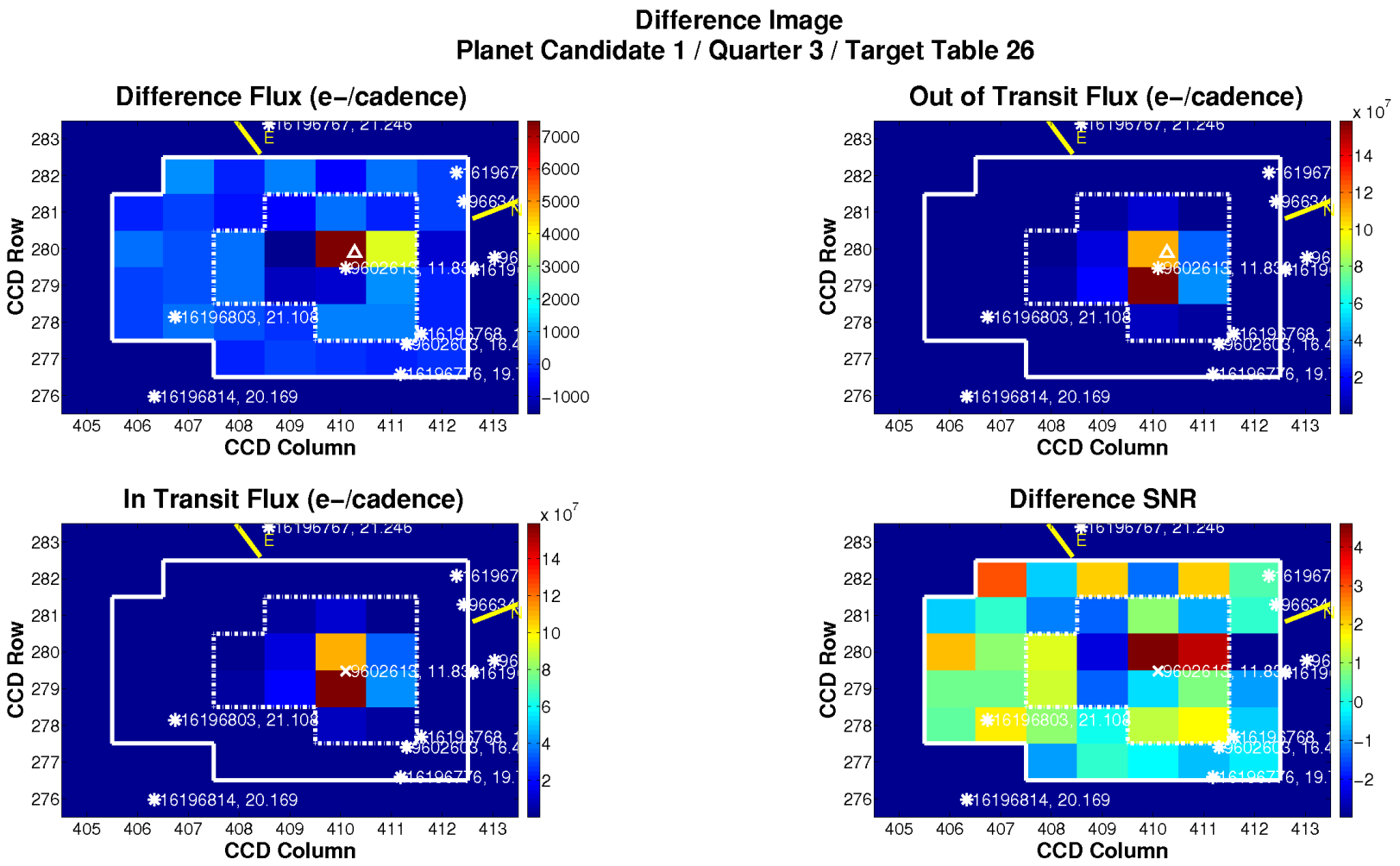
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.13 \pm 2.27e-06$	$406.24 \pm 3.18e-06$	pixels	$19.80992097 \pm 9.50e-10$	$46.29693747 \pm 1.07e-08$	hours/degrees
Difference Image Centroid	$279.74 \pm 1.01e-01$	$406.49 \pm 3.99e-02$	pixels	$19.80996551 \pm 1.04e-05$	$46.29749982 \pm 5.54e-05$	hours/degrees
Offset	$0.6098 \pm 1.01e-01$	$0.2498 \pm 3.99e-02$	pixels	$1.6618 \pm 3.87e-01$	$2.0245 \pm 1.99e-01$	arcseconds
Offset/σ	6.01	6.26		4.30	10.15	
Offset Distance	$0.6590 \pm 9.04e-02$		pixels	$2.6192 \pm 3.60e-01$		arcseconds
Offset Distance/σ	7.29			7.27		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.13 \pm 8.12e-06$	$406.24 \pm 9.54e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.74 \pm 1.01e-01$	$406.49 \pm 3.99e-02$	pixels	$19.80996551 \pm 1.04e-05$	$46.29749982 \pm 5.54e-05$	hours/degrees
Offset	$0.6017 \pm 1.01e-01$	$0.2413 \pm 3.99e-02$	pixels	$1.6495 \pm 3.87e-01$	$1.9794 \pm 1.99e-01$	arcseconds
Offset/σ	5.93	6.04		4.26	9.92	
Offset Distance	$0.6483 \pm 9.07e-02$		pixels	$2.5766 \pm 3.62e-01$		arcseconds
Offset Distance/σ	7.15			7.12		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 21.`



Difference image for target 9602613, planet candidate 1, quarter 3, target table 26. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 14; number of valid in-transit cadences = 62; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 154; number of out-of-transit cadence gaps = 1. Difference image quality metric = 0.88 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-03-026.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 26.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

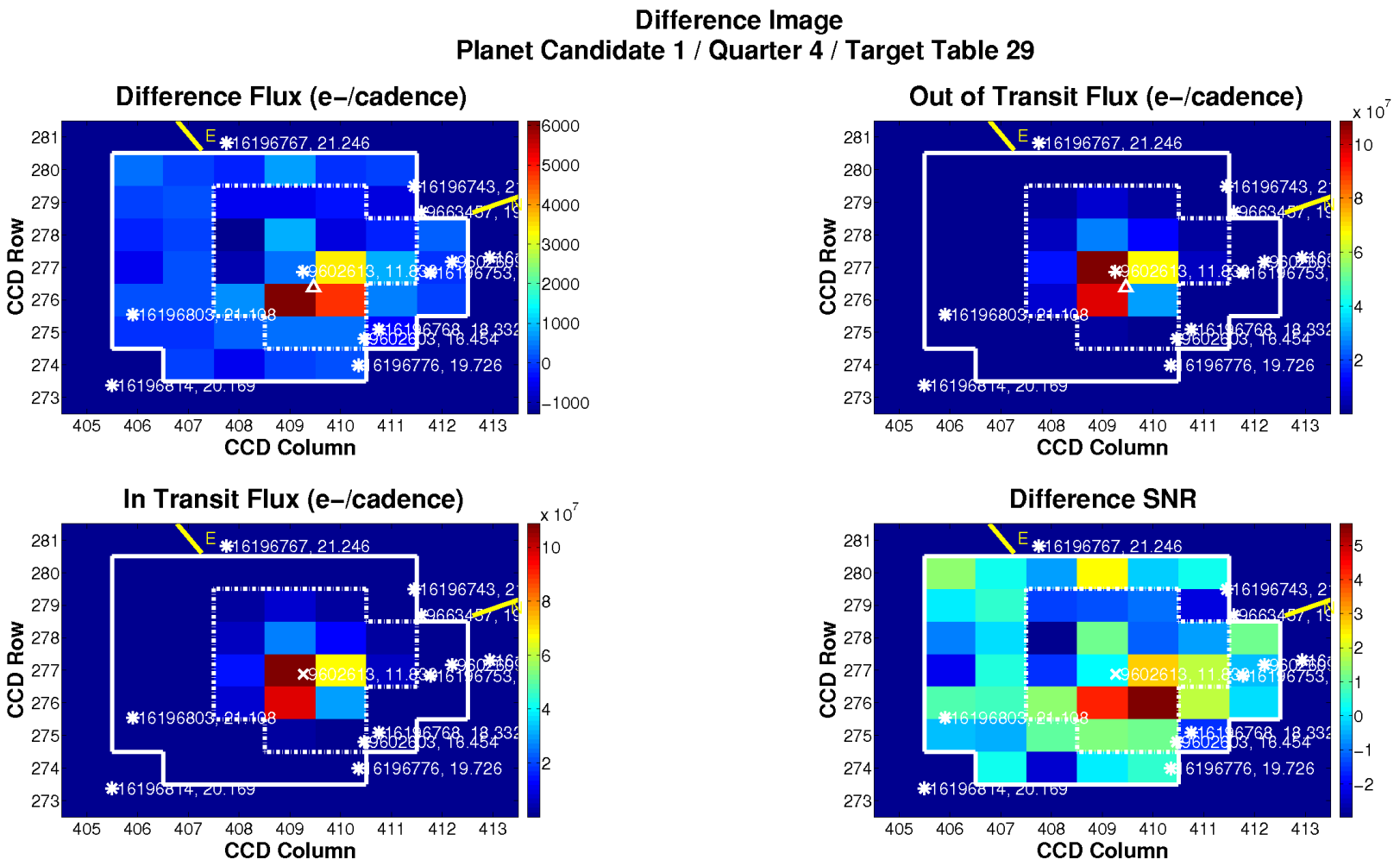
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.47 \pm 1.88e-06$	$410.10 \pm 2.56e-06$	pixels	$19.80992070 \pm 8.48e-10$	$46.29694643 \pm 7.84e-09$	hours/degrees
Difference Image Centroid	$279.89 \pm 1.98e-01$	$410.28 \pm 9.12e-02$	pixels	$19.80995092 \pm 1.92e-05$	$46.29733508 \pm 1.37e-04$	hours/degrees
Offset	$0.4167 \pm 1.98e-01$	$0.1754 \pm 9.12e-02$	pixels	$1.1273 \pm 7.16e-01$	$1.3991 \pm 4.92e-01$	arcseconds
Offset/σ	2.11	1.92		1.57	2.85	
Offset Distance	$0.4521 \pm 1.86e-01$		pixels	$1.7968 \pm 7.41e-01$		arcseconds
Offset Distance/σ	2.43			2.43		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.48 \pm 8.00e-06$	$410.10 \pm 6.25e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.89 \pm 1.98e-01$	$410.28 \pm 9.12e-02$	pixels	$19.80995092 \pm 1.92e-05$	$46.29733508 \pm 1.37e-04$	hours/degrees
Offset	$0.4102 \pm 1.98e-01$	$0.1753 \pm 9.12e-02$	pixels	$1.1050 \pm 7.16e-01$	$1.3863 \pm 4.92e-01$	arcseconds
Offset/σ	2.08	1.92		1.54	2.82	
Offset Distance	$0.4461 \pm 1.86e-01$		pixels	$1.7728 \pm 7.39e-01$		arcseconds
Offset Distance/σ	2.40			2.40		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 26.`



Difference image for target 9602613, planet candidate 1, quarter 4, target table 29. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 16; number of valid in-transit cadences = 71; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 173; number of out-of-transit cadence gaps = 5. Difference image quality metric = 0.92 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-04-029.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 29.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

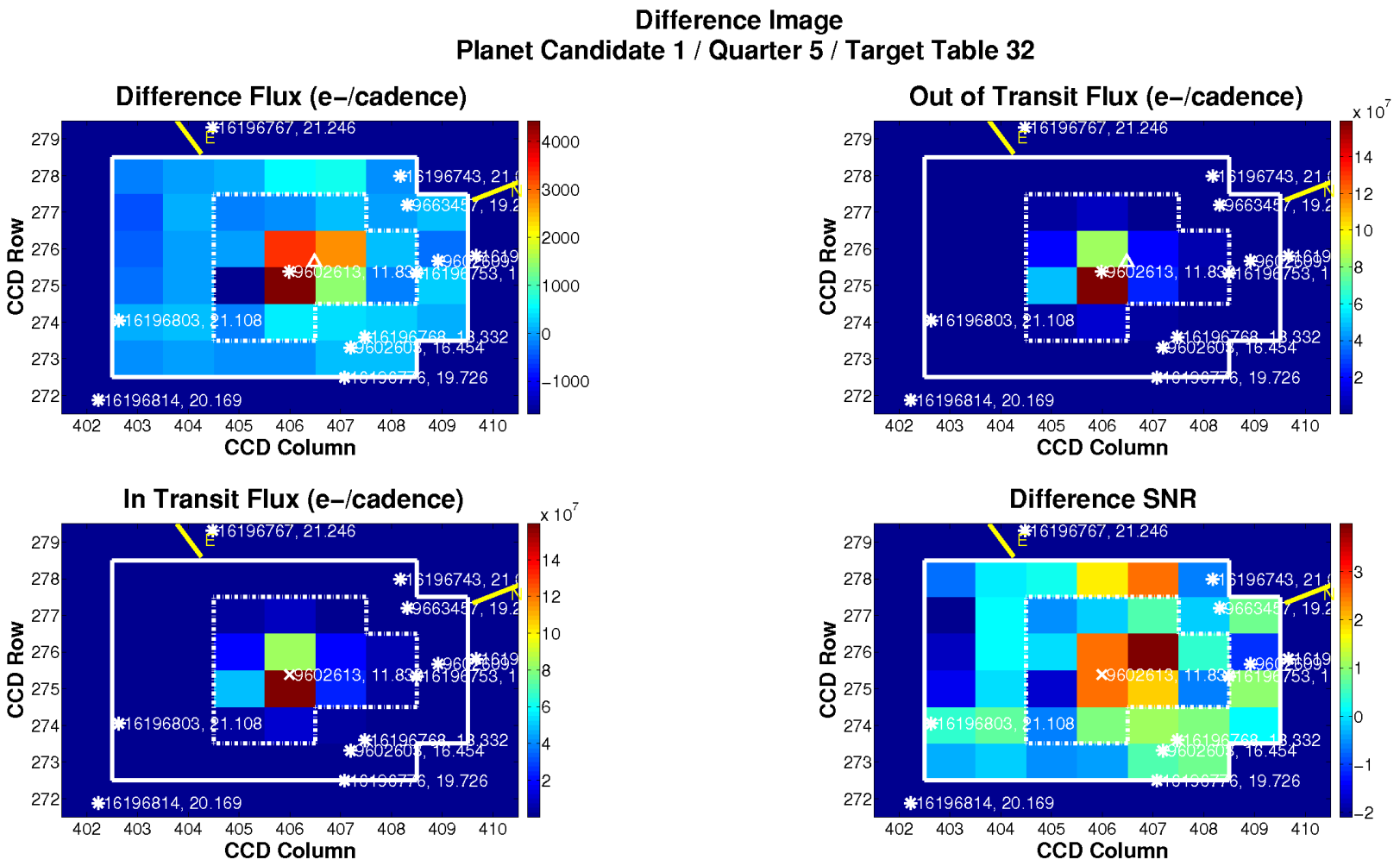
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.86 \pm 2.08e-06$	$409.25 \pm 2.49e-06$	pixels	$19.80991984 \pm 1.24e-09$	$46.29692190 \pm 1.26e-08$	hours/degrees
Difference Image Centroid	$276.38 \pm 1.10e-01$	$409.47 \pm 6.95e-02$	pixels	$19.80986417 \pm 1.09e-05$	$46.29688180 \pm 8.93e-05$	hours/degrees
Offset	$-0.4770 \pm 1.10e-01$	$0.2158 \pm 6.95e-02$	pixels	$-2.0772 \pm 4.07e-01$	$-0.1443 \pm 3.22e-01$	arcseconds
Offset/σ	-4.35	3.10		-5.11	-0.45	
Offset Distance	$0.5236 \pm 1.04e-01$		pixels	$2.0822 \pm 4.14e-01$		arcseconds
Offset Distance/σ	5.05			5.02		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.88 \pm 1.15e-05$	$409.27 \pm 1.11e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$276.38 \pm 1.10e-01$	$409.47 \pm 6.95e-02$	pixels	$19.80986417 \pm 1.09e-05$	$46.29688180 \pm 8.93e-05$	hours/degrees
Offset	$-0.5012 \pm 1.10e-01$	$0.1999 \pm 6.95e-02$	pixels	$-2.1316 \pm 4.07e-01$	$-0.2455 \pm 3.22e-01$	arcseconds
Offset/σ	-4.57	2.87		-5.24	-0.76	
Offset Distance	$0.5396 \pm 1.05e-01$		pixels	$2.1457 \pm 4.19e-01$		arcseconds
Offset Distance/σ	5.15			5.12		

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 29.



Difference image for target 9602613, planet candidate 1, quarter 5, target table 32. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 17; number of valid in-transit cadences = 74; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 190; number of out-of-transit cadence gaps = 3. Difference image quality metric = 0.92 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-05-032.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 32.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

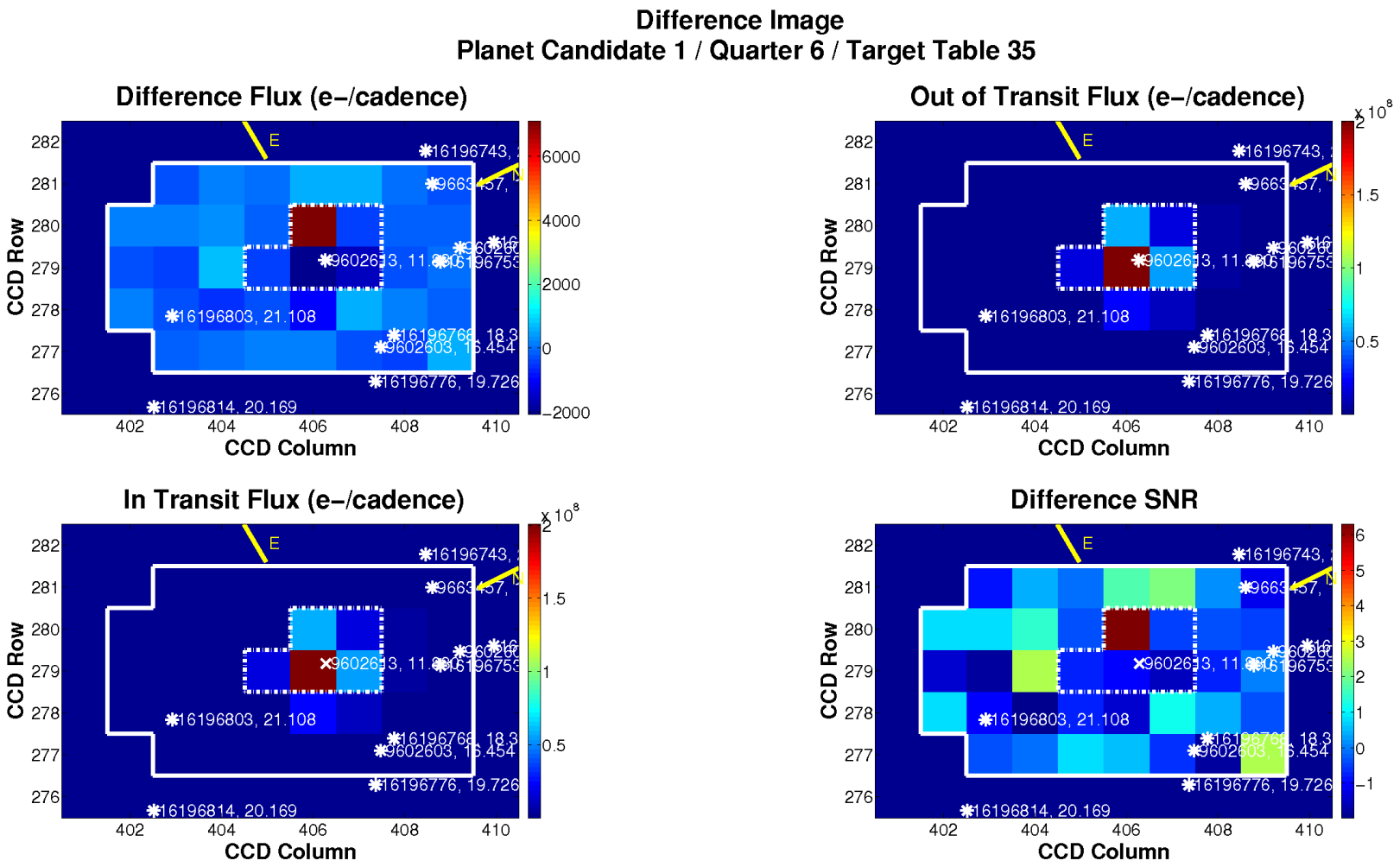
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$275.38 \pm 2.60e-06$	$405.99 \pm 2.39e-06$	pixels	$19.80992126 \pm 1.14e-09$	$46.29694130 \pm 1.13e-08$	hours/degrees
Difference Image Centroid	$275.64 \pm 1.17e-01$	$406.49 \pm 1.07e-01$	pixels	$19.80992037 \pm 1.33e-05$	$46.29756433 \pm 1.09e-04$	hours/degrees
Offset	$0.2608 \pm 1.17e-01$	$0.5005 \pm 1.07e-01$	pixels	$-0.0331 \pm 4.96e-01$	$2.2429 \pm 3.92e-01$	arcseconds
Offset/σ	2.23	4.68		−0.07	5.73	
Offset Distance	$0.5644 \pm 9.86e-02$		pixels	$2.2432 \pm 3.92e-01$		arcseconds
Offset Distance/σ	5.73			5.72		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.38 \pm 1.04e-05$	$405.99 \pm 9.87e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$275.64 \pm 1.17e-01$	$406.49 \pm 1.07e-01$	pixels	$19.80992037 \pm 1.33e-05$	$46.29756433 \pm 1.09e-04$	hours/degrees
Offset	$0.2567 \pm 1.17e-01$	$0.4937 \pm 1.07e-01$	pixels	$-0.0346 \pm 4.96e-01$	$2.2116 \pm 3.92e-01$	arcseconds
Offset/σ	2.20	4.61		−0.07	5.65	
Offset Distance	$0.5565 \pm 9.86e-02$		pixels	$2.2119 \pm 3.92e-01$		arcseconds
Offset Distance/σ	5.65			5.64		

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 32.



Difference image for target 9602613, planet candidate 1, quarter 6, target table 35. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 16; number of valid in-transit cadences = 72; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 177; number of out-of-transit cadence gaps = 1. Difference image quality metric = N/A.
Open `./planet-01/difference-image/009602613-01-difference-image-06-035.fig`

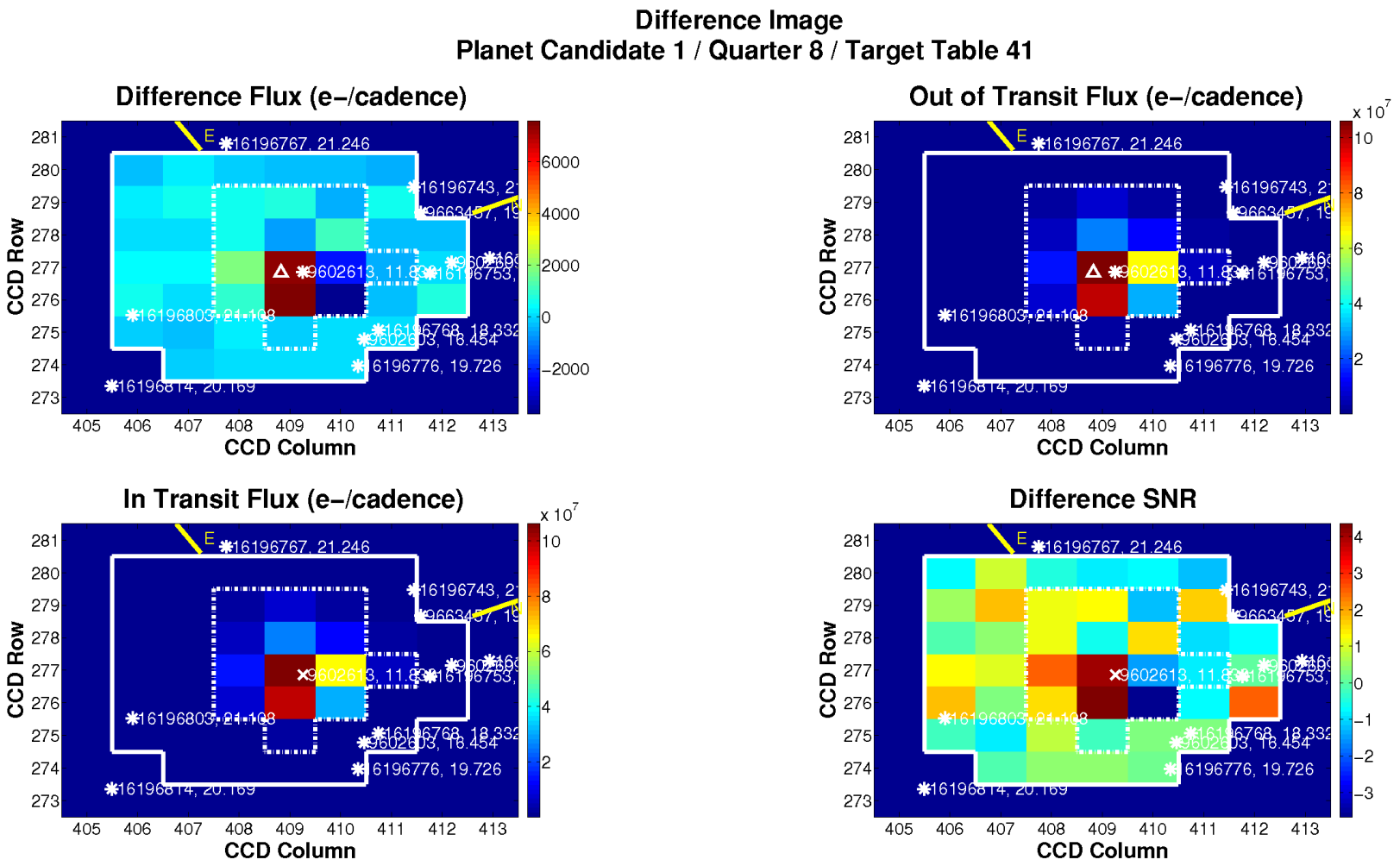
The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 35.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 1, in target table 35.

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 35.



Difference image for target 9602613, planet candidate 1, quarter 8, target table 41. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 11; number of valid in-transit cadences = 49; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 121; number of out-of-transit cadence gaps = 1. Difference image quality metric = 0.84 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-08-041.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 41.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

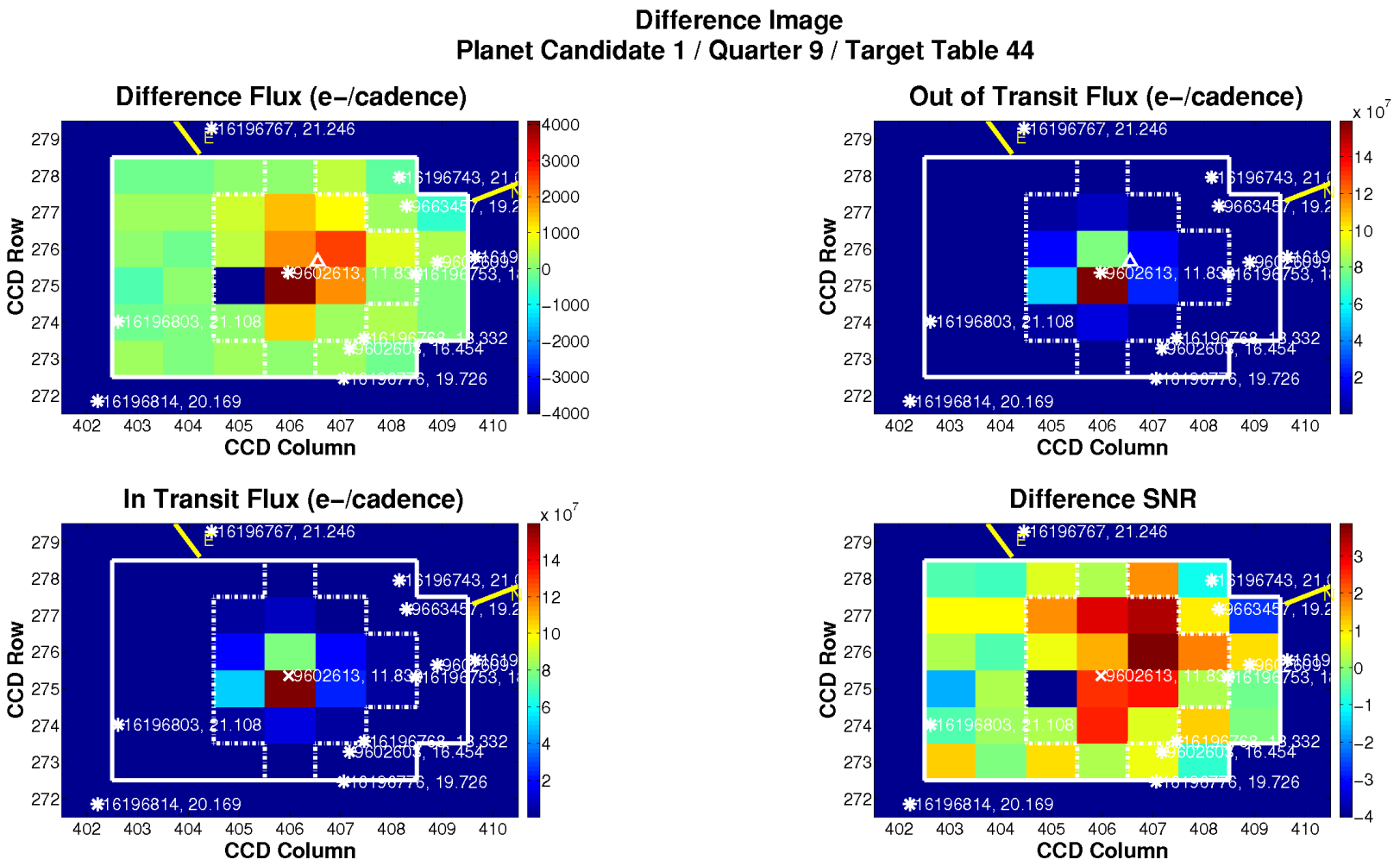
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.85 \pm 2.51e-06$	$409.25 \pm 2.97e-06$	pixels	$19.80992054 \pm 1.18e-09$	$46.29693517 \pm 1.20e-08$	hours/degrees
Difference Image Centroid	$276.83 \pm 8.75e-02$	$408.83 \pm 1.16e-01$	pixels	$19.80994037 \pm 9.57e-06$	$46.29651173 \pm 1.26e-04$	hours/degrees
Offset	$-0.0184 \pm 8.75e-02$	$-0.4258 \pm 1.16e-01$	pixels	$0.7397 \pm 3.57e-01$	$-1.5244 \pm 4.55e-01$	arcseconds
Offset/σ	-0.21	-3.67		2.07	-3.35	
Offset Distance	$0.4262 \pm 1.16e-01$		pixels	$1.6944 \pm 4.63e-01$		arcseconds
Offset Distance/σ	3.67			3.66		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.86 \pm 1.08e-05$	$409.26 \pm 1.04e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$276.83 \pm 8.75e-02$	$408.83 \pm 1.16e-01$	pixels	$19.80994037 \pm 9.57e-06$	$46.29651173 \pm 1.26e-04$	hours/degrees
Offset	$-0.0310 \pm 8.75e-02$	$-0.4343 \pm 1.16e-01$	pixels	$0.7115 \pm 3.57e-01$	$-1.5778 \pm 4.55e-01$	arcseconds
Offset/σ	-0.35	-3.75		1.99	-3.47	
Offset Distance	$0.4354 \pm 1.16e-01$		pixels	$1.7308 \pm 4.63e-01$		arcseconds
Offset Distance/σ	3.74			3.73		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 41.`



Difference image for target 9602613, planet candidate 1, quarter 9, target table 44. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 18; number of valid in-transit cadences = 80; number of in-transit cadence gaps = 2; number of valid out-of-transit cadences = 199; number of out-of-transit cadence gaps = 2. Difference image quality metric = 0.70 (not good).
Open `./planet-01/difference-image/009602613-01-difference-image-09-044.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 44.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

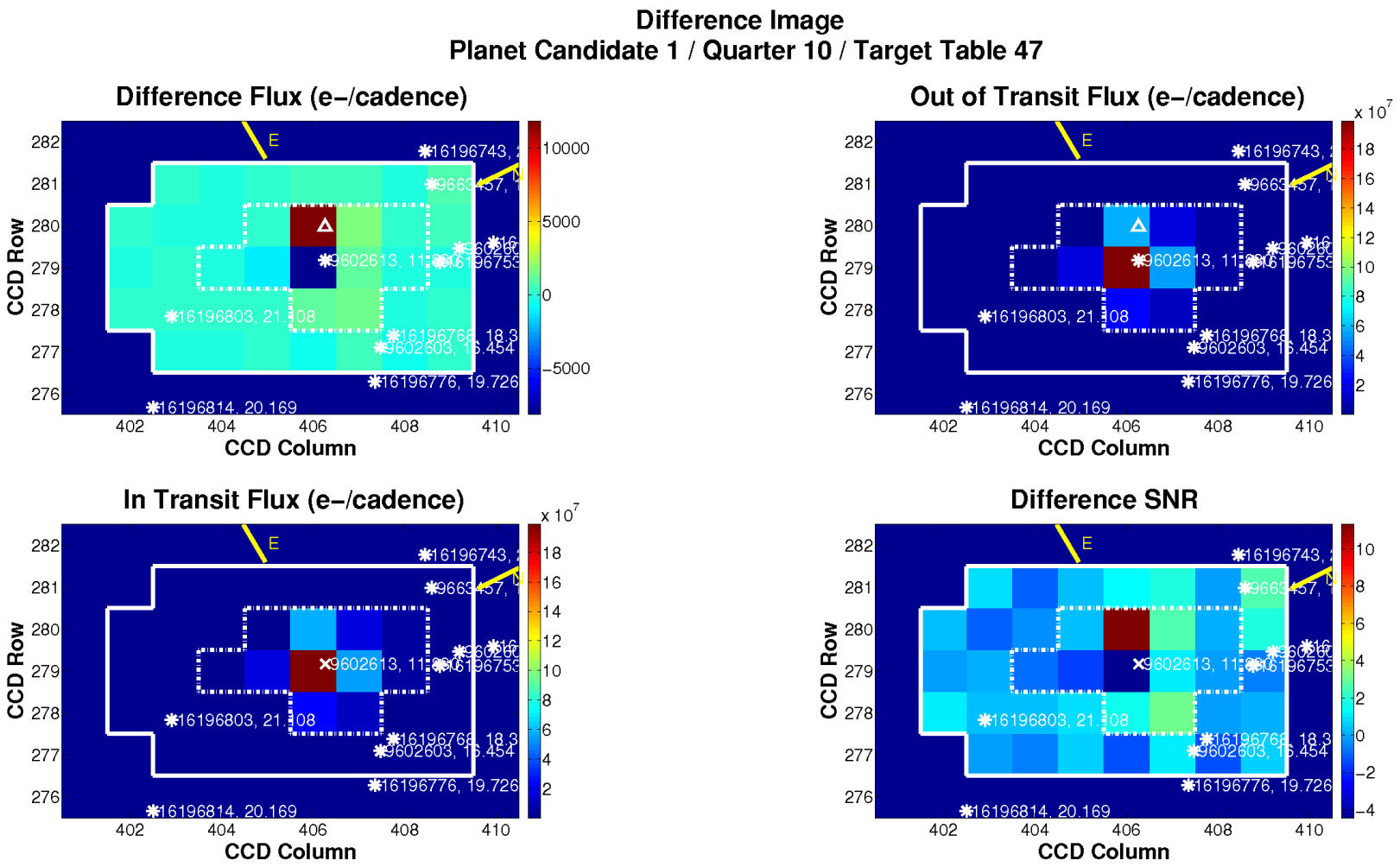
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$275.36 \pm 2.60e-06$	$405.96 \pm 2.32e-06$	pixels	$19.80992218 \pm 1.18e-09$	$46.29693910 \pm 1.17e-08$	hours/degrees
Difference Image Centroid	$275.66 \pm 1.03e-01$	$406.55 \pm 1.02e-01$	pixels	$19.80992089 \pm 1.19e-05$	$46.29766656 \pm 1.03e-04$	hours/degrees
Offset	$0.3025 \pm 1.03e-01$	$0.5855 \pm 1.02e-01$	pixels	$-0.0480 \pm 4.46e-01$	$2.6188 \pm 3.70e-01$	arcseconds
Offset/σ	2.93	5.74		-0.11	7.08	
Offset Distance	$0.6590 \pm 9.32e-02$		pixels	$2.6193 \pm 3.71e-01$		arcseconds
Offset Distance/σ	7.07			7.07		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.35 \pm 1.08e-05$	$405.98 \pm 1.03e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$275.66 \pm 1.03e-01$	$406.55 \pm 1.02e-01$	pixels	$19.80992089 \pm 1.19e-05$	$46.29766656 \pm 1.03e-04$	hours/degrees
Offset	$0.3051 \pm 1.03e-01$	$0.5729 \pm 1.02e-01$	pixels	$-0.0152 \pm 4.46e-01$	$2.5796 \pm 3.70e-01$	arcseconds
Offset/σ	2.95	5.62		-0.03	6.97	
Offset Distance	$0.6491 \pm 9.30e-02$		pixels	$2.5797 \pm 3.70e-01$		arcseconds
Offset Distance/σ	6.98			6.97		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 44.`



Difference image for target 9602613, planet candidate 1, quarter 10, target table 47. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 19; number of valid in-transit cadences = 84; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 208; number of out-of-transit cadence gaps = 3. Difference image quality metric = 0.73 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-10-047.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 47.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

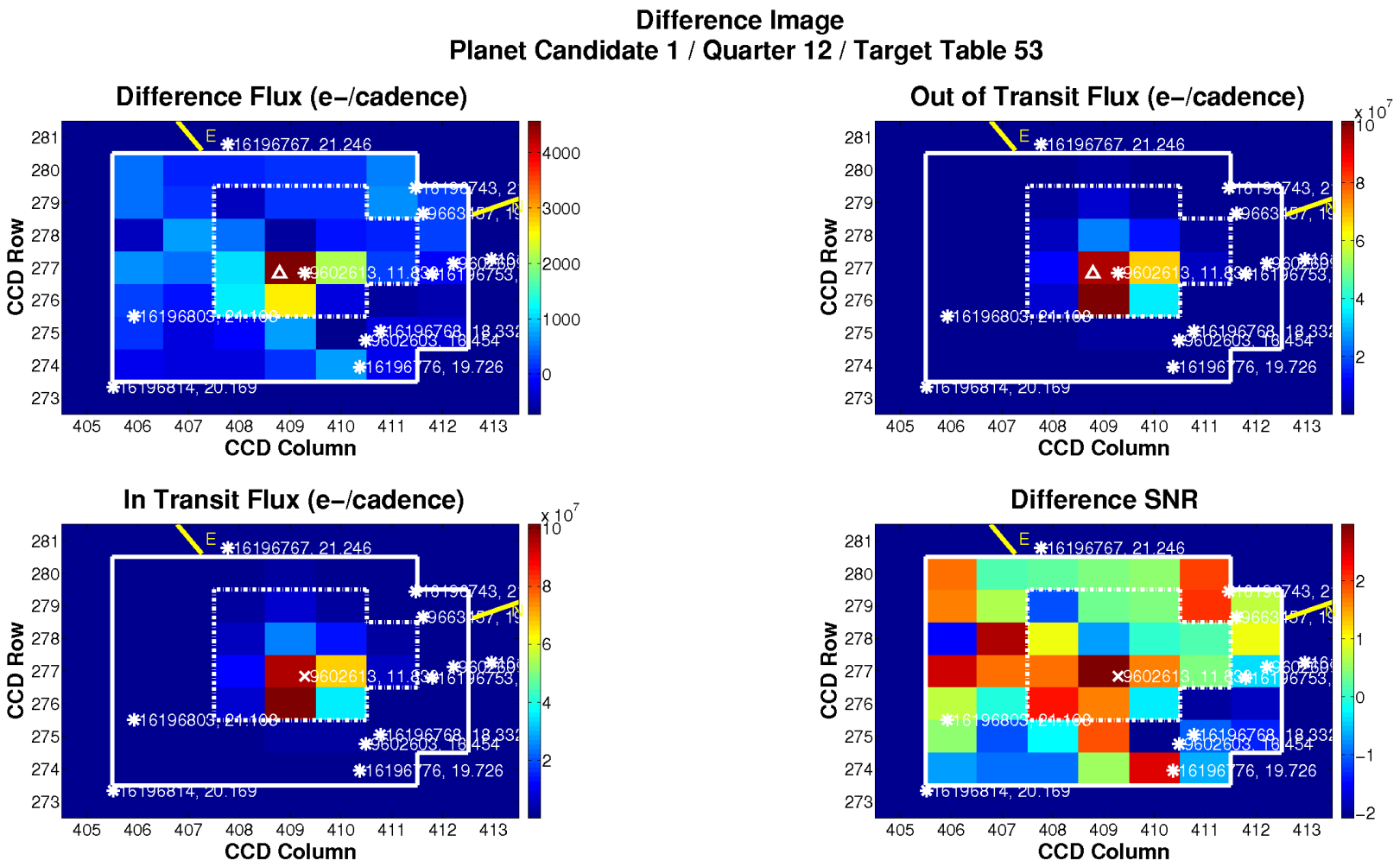
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.17 \pm 2.03e-06$	$406.26 \pm 2.83e-06$	pixels	$19.80992175 \pm 1.02e-09$	$46.29694324 \pm 1.14e-08$	hours/degrees
Difference Image Centroid	$279.97 \pm 7.02e-02$	$406.26 \pm 7.71e-02$	pixels	$19.80999630 \pm 8.45e-06$	$46.29736139 \pm 7.53e-05$	hours/degrees
Offset	$0.7956 \pm 7.02e-02$	$0.0012 \pm 7.71e-02$	pixels	$2.7816 \pm 3.15e-01$	$1.5053 \pm 2.71e-01$	arcseconds
Offset/σ	11.34	0.02		8.82	5.56	
Offset Distance	$0.7956 \pm 7.01e-02$		pixels	$3.1628 \pm 2.80e-01$		arcseconds
Offset Distance/σ	11.34			11.29		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.17 \pm 8.85e-06$	$406.27 \pm 1.03e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.97 \pm 7.02e-02$	$406.26 \pm 7.71e-02$	pixels	$19.80999630 \pm 8.45e-06$	$46.29736139 \pm 7.53e-05$	hours/degrees
Offset	$0.7963 \pm 7.02e-02$	$-0.0062 \pm 7.71e-02$	pixels	$2.7983 \pm 3.15e-01$	$1.4810 \pm 2.71e-01$	arcseconds
Offset/σ	11.35	-0.08		8.87	5.47	
Offset Distance	$0.7964 \pm 7.03e-02$		pixels	$3.1660 \pm 2.81e-01$		arcseconds
Offset Distance/σ	11.33			11.28		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 47.`



Difference image for target 9602613, planet candidate 1, quarter 12, target table 53. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 14; number of valid in-transit cadences = 61; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 156; number of out-of-transit cadence gaps = 1. Difference image quality metric = 0.83 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-12-053.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 53.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

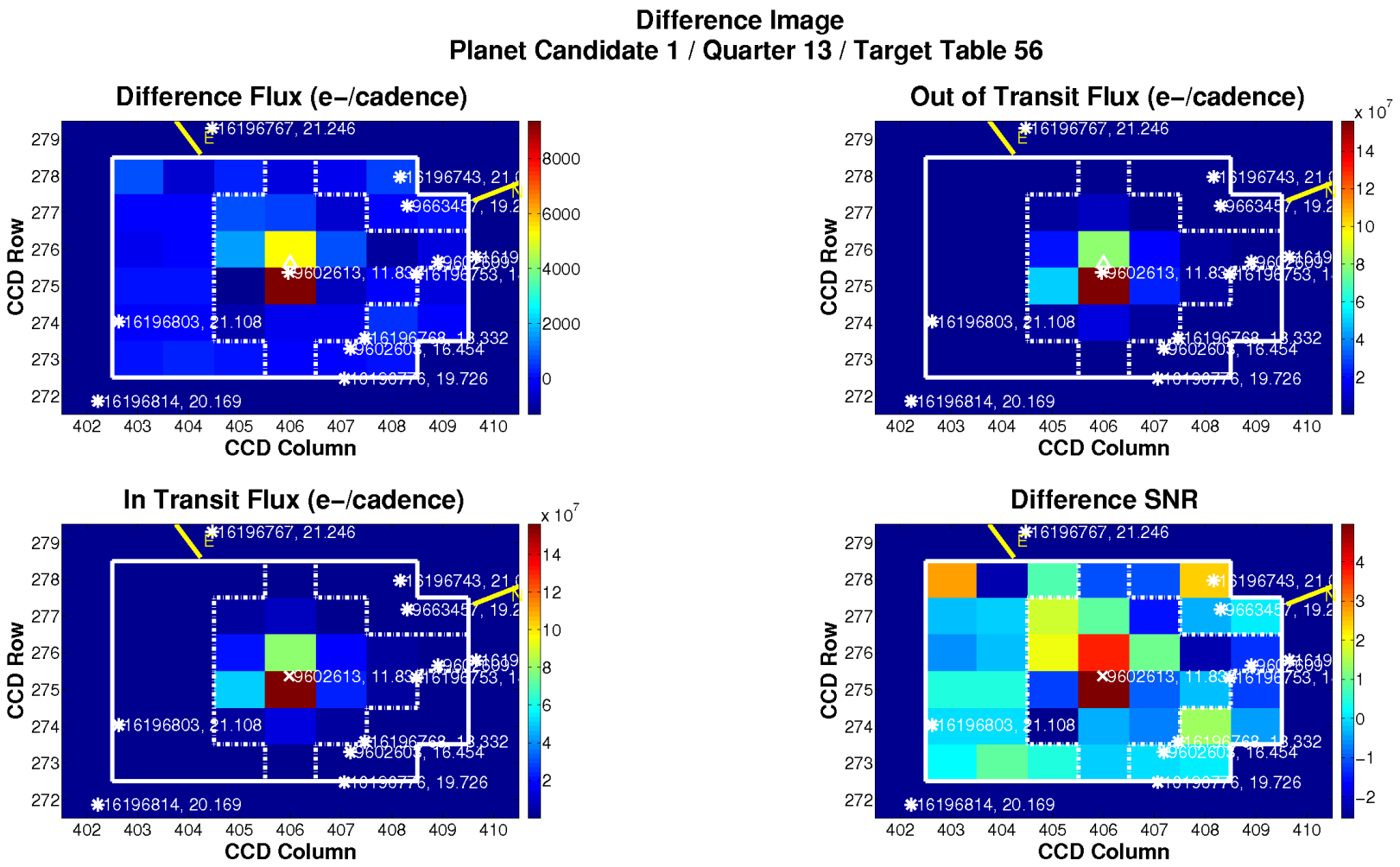
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.82 \pm 2.29e-06$	$409.29 \pm 2.56e-06$	pixels	$19.80991961 \pm 1.20e-09$	$46.29694120 \pm 1.03e-08$	hours/degrees
Difference Image Centroid	$276.81 \pm 1.14e-01$	$408.79 \pm 1.60e-01$	pixels	$19.80994366 \pm 1.21e-05$	$46.29645287 \pm 1.78e-04$	hours/degrees
Offset	$-0.0113 \pm 1.14e-01$	$-0.4964 \pm 1.60e-01$	pixels	$0.8975 \pm 4.53e-01$	$-1.7580 \pm 6.41e-01$	arcseconds
Offset/σ	-0.10	-3.09		1.98	-2.74	
Offset Distance	$0.4965 \pm 1.61e-01$		pixels	$1.9738 \pm 6.40e-01$		arcseconds
Offset Distance/σ	3.08			3.08		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.84 \pm 1.16e-05$	$409.29 \pm 8.15e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$276.81 \pm 1.14e-01$	$408.79 \pm 1.60e-01$	pixels	$19.80994366 \pm 1.21e-05$	$46.29645287 \pm 1.78e-04$	hours/degrees
Offset	$-0.0291 \pm 1.14e-01$	$-0.4958 \pm 1.60e-01$	pixels	$0.8343 \pm 4.53e-01$	$-1.7897 \pm 6.41e-01$	arcseconds
Offset/σ	-0.25	-3.09		1.84	-2.79	
Offset Distance	$0.4967 \pm 1.62e-01$		pixels	$1.9746 \pm 6.43e-01$		arcseconds
Offset Distance/σ	3.07			3.07		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 53.`



Difference image for target 9602613, planet candidate 1, quarter 13, target table 56. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 14; number of valid in-transit cadences = 62; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 154; number of out-of-transit cadence gaps = 1. Difference image quality metric = 0.87 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-13-056.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 56.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

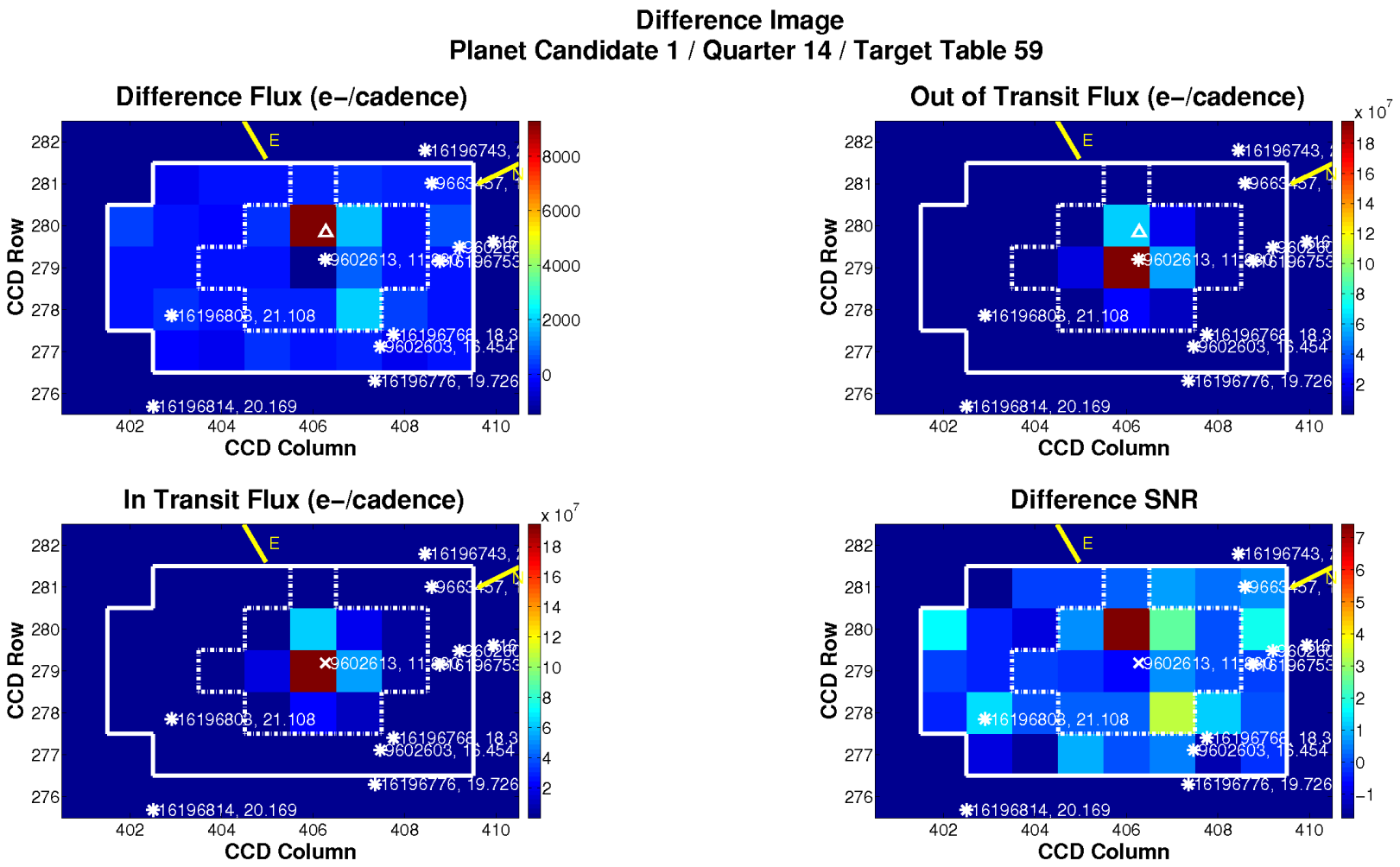
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$275.36 \pm 2.98e-06$	$405.96 \pm 2.67e-06$	pixels	$19.80992188 \pm 1.12e-09$	$46.29693092 \pm 1.12e-08$	hours/degrees
Difference Image Centroid	$275.62 \pm 1.31e-01$	$406.00 \pm 1.33e-01$	pixels	$19.80994371 \pm 1.46e-05$	$46.29709765 \pm 1.42e-04$	hours/degrees
Offset	$0.2520 \pm 1.31e-01$	$0.0356 \pm 1.33e-01$	pixels	$0.8145 \pm 5.46e-01$	$0.6002 \pm 5.10e-01$	arcseconds
Offset/σ	1.92	0.27		1.49	1.18	
Offset Distance	$0.2545 \pm 1.30e-01$		pixels	$1.0118 \pm 5.19e-01$		arcseconds
Offset Distance/σ	1.96			1.95		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.37 \pm 1.01e-05$	$405.98 \pm 9.70e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$275.62 \pm 1.31e-01$	$406.00 \pm 1.33e-01$	pixels	$19.80994371 \pm 1.46e-05$	$46.29709765 \pm 1.42e-04$	hours/degrees
Offset	$0.2486 \pm 1.31e-01$	$0.0178 \pm 1.33e-01$	pixels	$0.8362 \pm 5.46e-01$	$0.5315 \pm 5.10e-01$	arcseconds
Offset/σ	1.89	0.13		1.53	1.04	
Offset Distance	$0.2492 \pm 1.31e-01$		pixels	$0.9908 \pm 5.22e-01$		arcseconds
Offset Distance/σ	1.91			1.90		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 56.`



Difference image for target 9602613, planet candidate 1, quarter 14, target table 59. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 14; number of valid in-transit cadences = 61; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 157; number of out-of-transit cadence gaps = 1. Difference image quality metric = 0.91 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-14-059.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 59.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

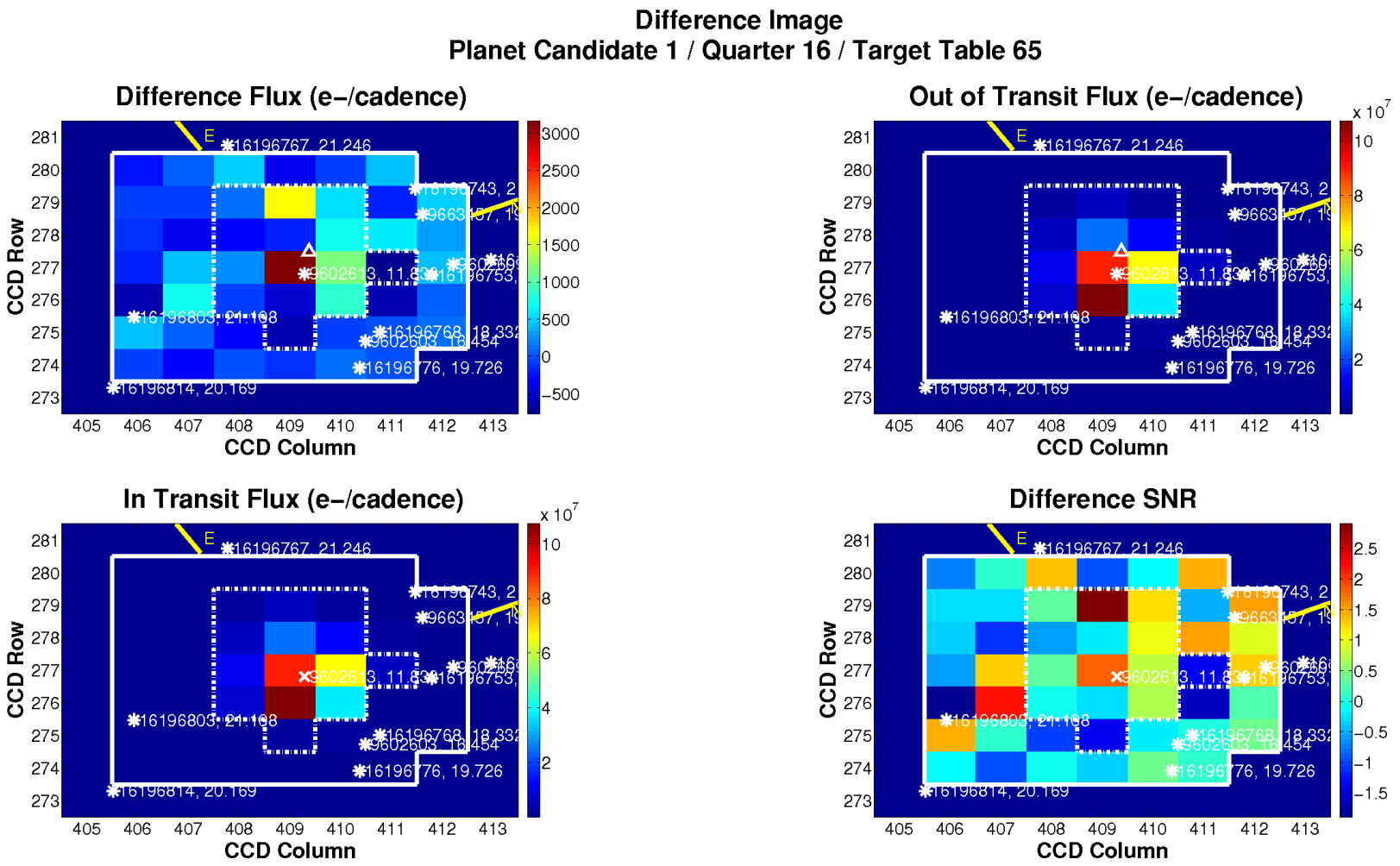
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.19 \pm 2.35e-06$	$406.26 \pm 3.28e-06$	pixels	$19.80992106 \pm 1.03e-09$	$46.29693918 \pm 1.17e-08$	hours/degrees
Difference Image Centroid	$279.84 \pm 1.53e-01$	$406.28 \pm 1.07e-01$	pixels	$19.80998124 \pm 1.69e-05$	$46.29730004 \pm 1.10e-04$	hours/degrees
Offset	$0.6522 \pm 1.53e-01$	$0.0195 \pm 1.07e-01$	pixels	$2.2454 \pm 6.32e-01$	$1.2991 \pm 3.97e-01$	arcseconds
Offset/σ	4.26	0.18		3.55	3.27	
Offset Distance	$0.6525 \pm 1.52e-01$		pixels	$2.5941 \pm 6.08e-01$		arcseconds
Offset Distance/σ	4.29			4.27		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.19 \pm 8.90e-06$	$406.27 \pm 1.05e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.84 \pm 1.53e-01$	$406.28 \pm 1.07e-01$	pixels	$19.80998124 \pm 1.69e-05$	$46.29730004 \pm 1.10e-04$	hours/degrees
Offset	$0.6456 \pm 1.53e-01$	$0.0120 \pm 1.07e-01$	pixels	$2.2365 \pm 6.32e-01$	$1.2601 \pm 3.97e-01$	arcseconds
Offset/σ	4.21	0.11		3.54	3.17	
Offset Distance	$0.6457 \pm 1.53e-01$		pixels	$2.5671 \pm 6.09e-01$		arcseconds
Offset Distance/σ	4.23			4.21		

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 59.



Difference image for target 9602613, planet candidate 1, quarter 16, target table 65. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 10; number of valid in-transit cadences = 45; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 113; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.72 (good).
Open `./planet-01/difference-image/009602613-01-difference-image-16-065.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 65.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

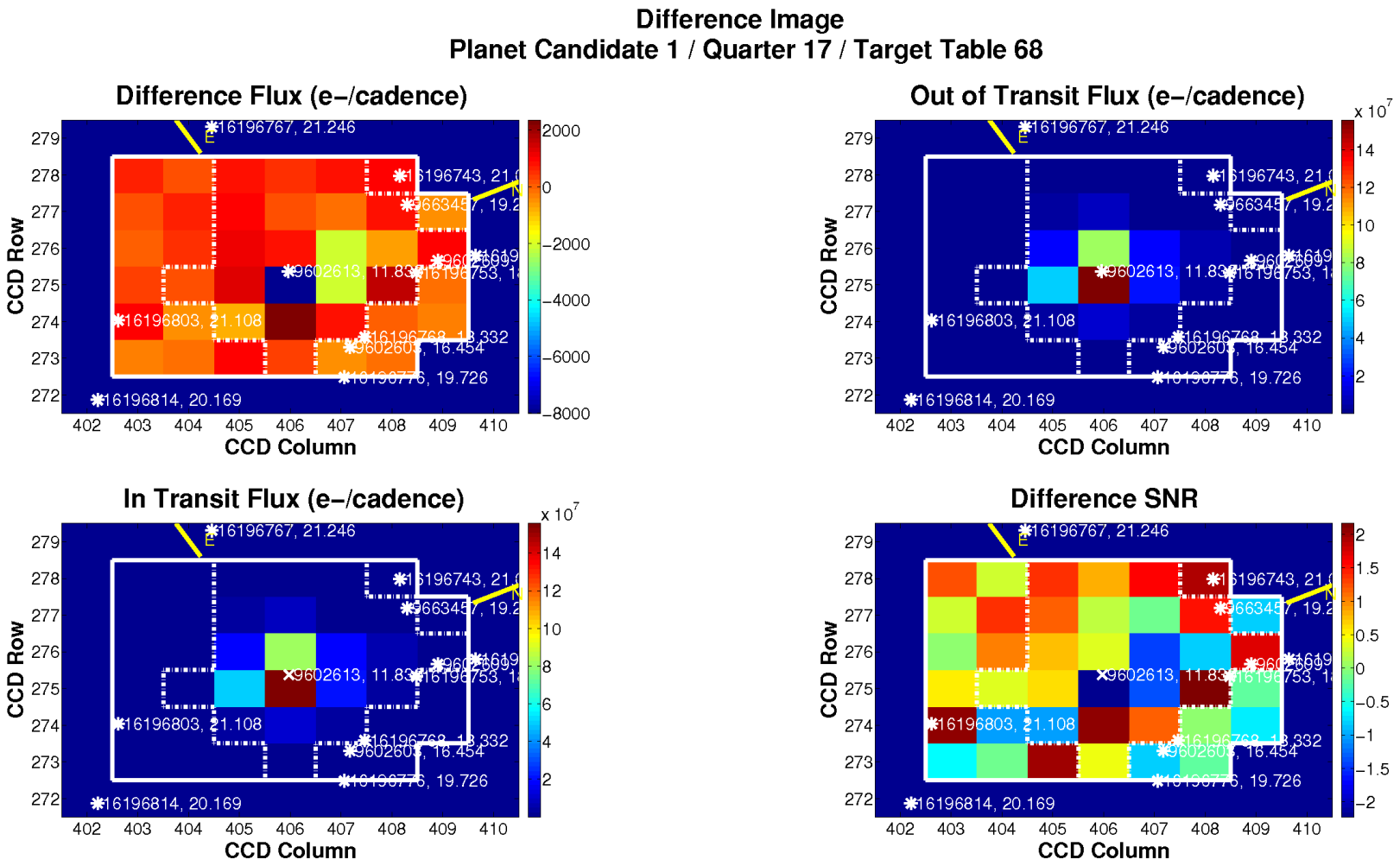
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.79 \pm 2.82e-06$	$409.29 \pm 3.00e-06$	pixels	$19.80992017 \pm 1.14e-09$	$46.29694192 \pm 9.87e-09$	hours/degrees
Difference Image Centroid	$277.48 \pm 3.49e-01$	$409.38 \pm 2.24e-01$	pixels	$19.80997991 \pm 3.46e-05$	$46.29738809 \pm 2.89e-04$	hours/degrees
Offset	$0.6853 \pm 3.49e-01$	$0.0899 \pm 2.24e-01$	pixels	$2.2289 \pm 1.29e+00$	$1.6062 \pm 1.04e+00$	arcseconds
Offset/σ	1.96	0.40		1.73	1.55	
Offset Distance	$0.6911 \pm 3.49e-01$		pixels	$2.7473 \pm 1.39e+00$		arcseconds
Offset Distance/σ	1.98			1.97		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.81 \pm 1.09e-05$	$409.29 \pm 7.63e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$277.48 \pm 3.49e-01$	$409.38 \pm 2.24e-01$	pixels	$19.80997991 \pm 3.46e-05$	$46.29738809 \pm 2.89e-04$	hours/degrees
Offset	$0.6724 \pm 3.49e-01$	$0.0884 \pm 2.24e-01$	pixels	$2.1867 \pm 1.29e+00$	$1.5771 \pm 1.04e+00$	arcseconds
Offset/σ	1.92	0.39		1.70	1.52	
Offset Distance	$0.6782 \pm 3.49e-01$		pixels	$2.6961 \pm 1.39e+00$		arcseconds
Offset Distance/σ	1.95			1.94		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 65.`



Difference image for target 9602613, planet candidate 1, quarter 17, target table 68. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 4; number of valid in-transit cadences = 17; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 45; number of out-of-transit cadence gaps = 0. Difference image quality metric = N/A.
Open `./planet-01/difference-image/009602613-01-difference-image-17-068.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 1, in target table 68.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 1, in target table 68.

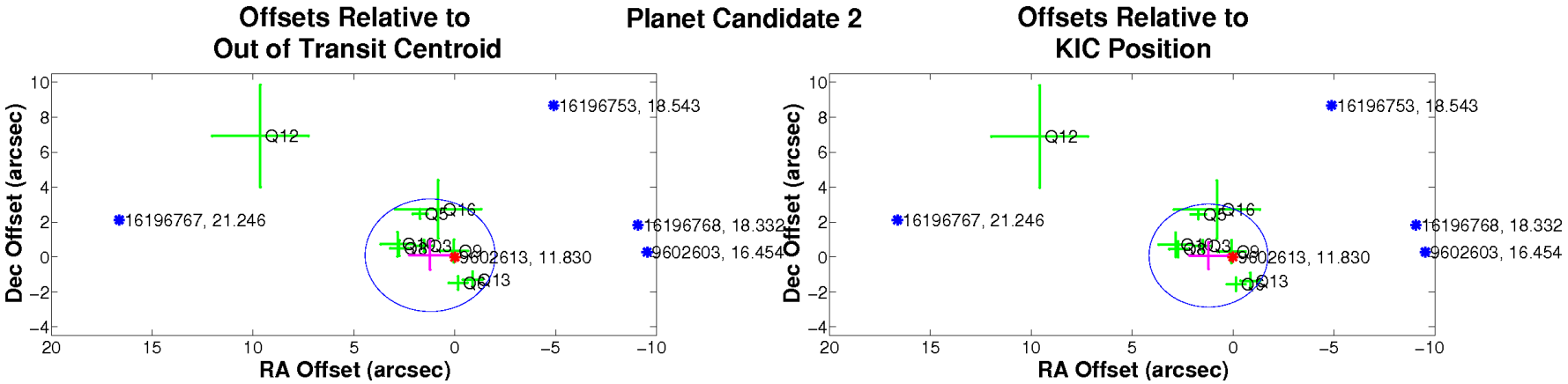
PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 1, in target table 68.

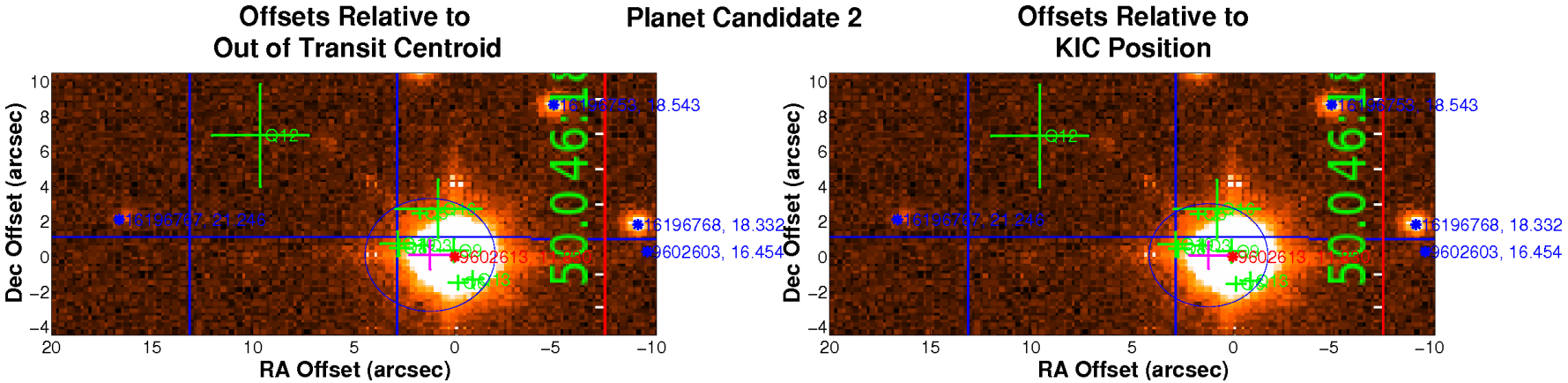
7.2 Planet Candidate 2

Difference Image Summary Metrics

Number of Difference Images	Number of Metrics	Number of Good Metrics	Fraction of Good Metrics	Quality Threshold
14	9	7	0.7778	0.70



Difference image centroid offsets for target 9602613, planet candidate 2. Left: difference image PRF centroid offsets in RA and Dec with respect to the quarterly out-of-transit centroids for the given target. Right: difference image PRF centroid offsets in RA and Dec with respect to the KIC coordinates of the given target. Symbol key: green cross: quarterly centroid offsets with 1-sigma error bars in RA and Dec; magenta cross: robust weighted mean offset over all quarters with 1-sigma error bars in RA and Dec; blue circle: 3-sigma radius of confusion for weighted mean offset; red cross (where applicable): multi-quarter PRF centroid offset with 1-sigma error bars in RA and Dec; cyan circle (where applicable): 3-sigma radius of confusion for multi-quarter PRF offset; red asterisk: location of target star; blue asterisk: location of other KIC objects in the neighborhood. KIC ID and magnitude are noted in the text associated with each marked object (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000). A constant error term of 0.0667 arcseconds has been added in quadrature to the computed uncertainty in the RA and Dec components of the robust mean offset and the multi-quarter PRF offset.
Open `./planet-02/difference-image/009602613-02-difference-image-centroid-offsets.fig`



Difference image centroid offsets for target 9602613, planet candidate 2, diplayed on UKIRT image for given target. Left: difference image PRF centroid offsets in RA and Dec with respect to the quarterly out-of-transit centroids for the given target. Right: difference image PRF centroid offsets in RA and Dec with respect to the KIC coordinates of the given target. Symbol key: green cross: quarterly centroid offsets with 1-sigma error bars in RA and Dec; magenta cross: robust weighted mean offset over all quarters with 1-sigma error bars in RA and Dec; blue circle: 3-sigma radius of confusion for weighted mean offset; red asterisk: location of target star; blue asterisk: location of other KIC objects in the neighborhood. KIC ID and magnitude are noted in the text associated with each marked object (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000). A constant error term of 0.0667 arcseconds has been added in quadrature to the computed uncertainty in the RA and Dec components of the robust mean offset and the multi-quarter PRF offset.
Open `./planet-02/difference-image/009602613-02-difference-image-centroid-offsets-ukirt.fig`

Multi-Quarter Average PRF Fit of the Difference Images

Mean offset from the PRF fit to the out of transit image

	RA	Dec	Units
Offset	$1.2212 \pm 1.02e+00$	$0.0961 \pm 8.17e-01$	arcseconds
Offset/σ	1.20	0.12	
Offset Distance	$1.2250 \pm 1.07e+00$		arcseconds
Offset Distance/σ	1.14		
3σ Radius	3.2217		arcseconds

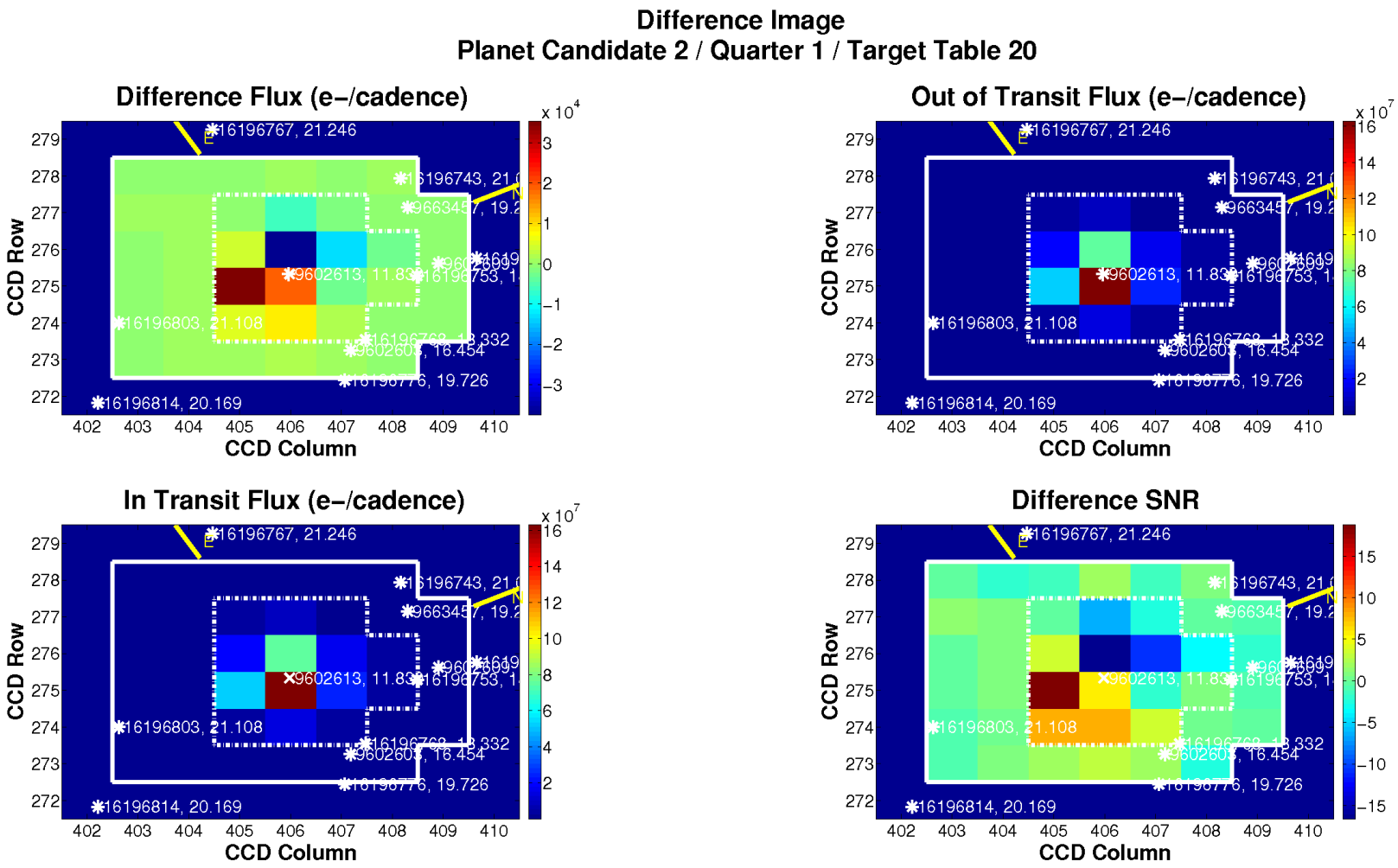
Mean offset from the KIC RA and Dec

	RA	Dec	Units
Offset	$1.2149 \pm 9.43e-01$	$0.0774 \pm 7.59e-01$	arcseconds
Offset/σ	1.29	0.10	
Offset Distance	$1.2173 \pm 9.82e-01$		arcseconds
Offset Distance/σ	1.24		
3σ Radius	2.9450		arcseconds

Bootstrap Multi-Quarter PRF Fit of the Difference Images

Bootstrap multi-quarter PRF fit results for the difference images associated with this planet candidate are not available.

Pixel correlation centroid offsets figure for this planet candidate is not available.



Difference image for target 9602613, planet candidate 2, quarter 1, target table 20. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 5; number of valid in-transit cadences = 23; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 56; number of out-of-transit cadence gaps = 0. Difference image quality metric = N/A.
Open `./planet-02/difference-image/009602613-02-difference-image-01-020.fig`

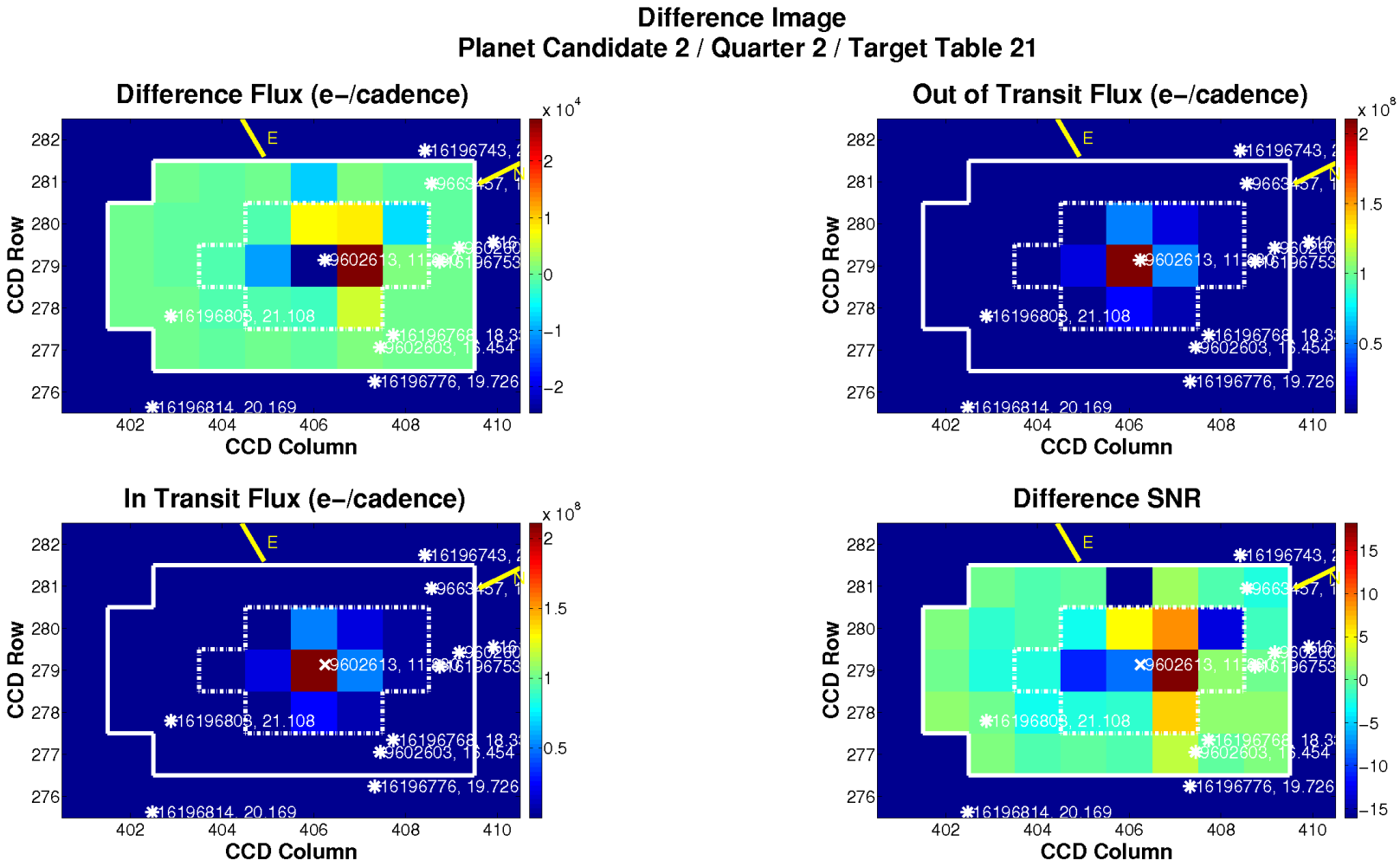
The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 20.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 2, in target table 20.

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 20.



Difference image for target 9602613, planet candidate 2, quarter 2, target table 21. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 8; number of valid in-transit cadences = 35; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 90; number of out-of-transit cadence gaps = 0. Difference image quality metric = N/A.
Open `./planet-02/difference-image/009602613-02-difference-image-02-021.fig`

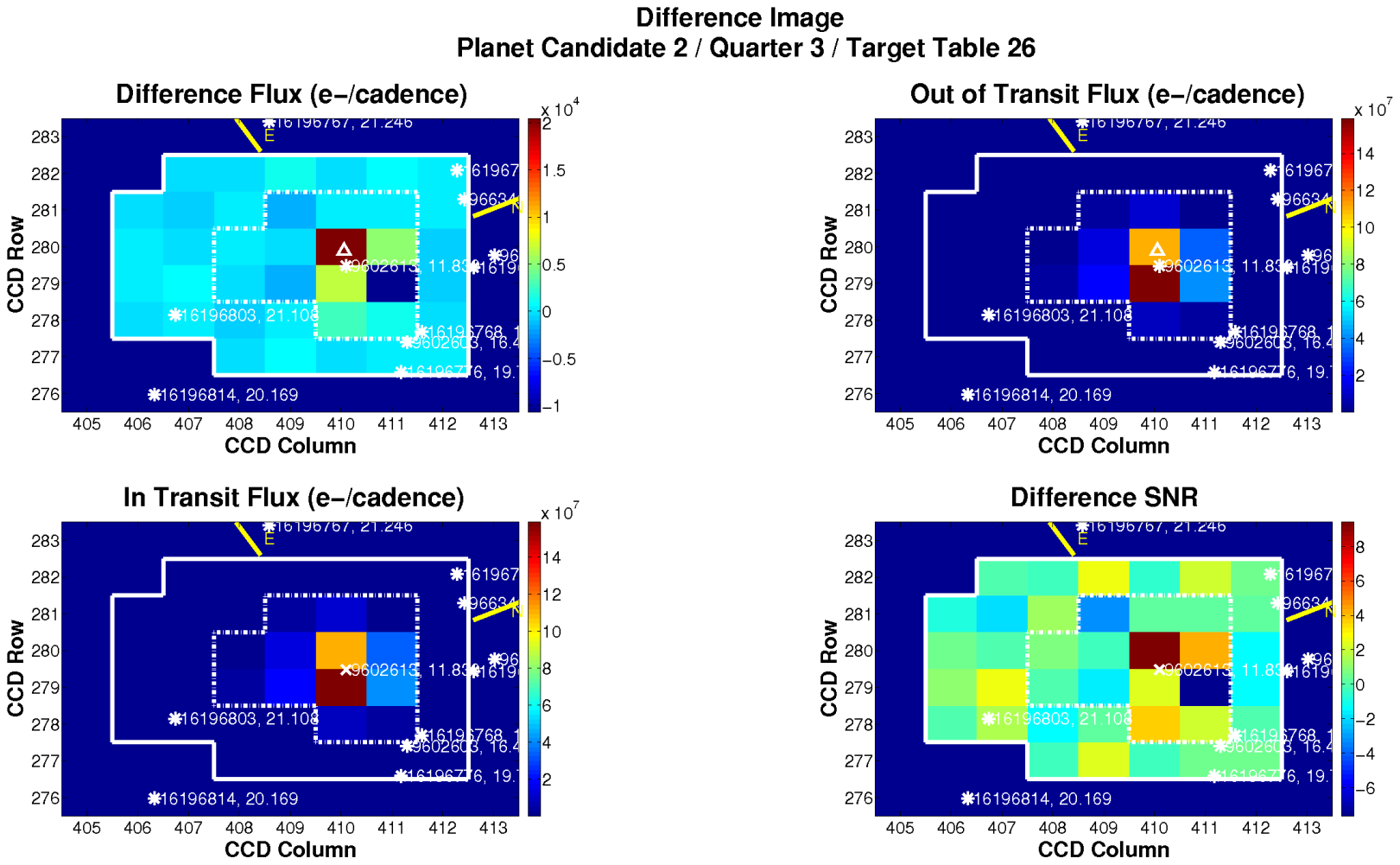
The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 21.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 2, in target table 21.

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 21.



Difference image for target 9602613, planet candidate 2, quarter 3, target table 26. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 8; number of valid in-transit cadences = 34; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 90; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.85 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-03-026.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 26.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

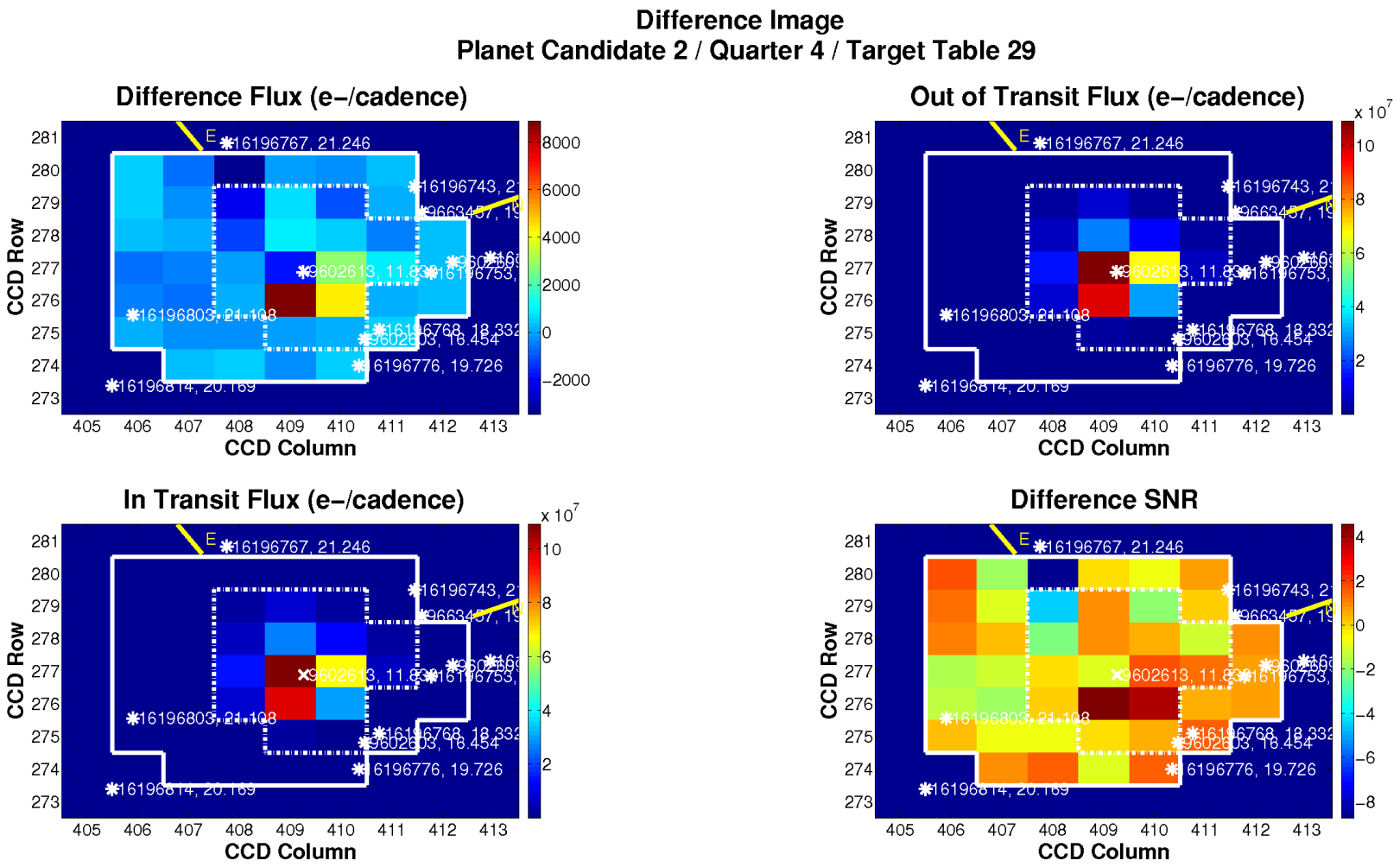
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.47 \pm 2.46e-06$	$410.10 \pm 3.34e-06$	pixels	$19.80992051 \pm 8.67e-10$	$46.29694729 \pm 8.15e-09$	hours/degrees
Difference Image Centroid	$279.89 \pm 1.12e-01$	$410.06 \pm 7.45e-02$	pixels	$19.80996139 \pm 1.15e-05$	$46.29712439 \pm 9.00e-05$	hours/degrees
Offset	$0.4138 \pm 1.12e-01$	$-0.0407 \pm 7.45e-02$	pixels	$1.5250 \pm 4.28e-01$	$0.6376 \pm 3.24e-01$	arcseconds
Offset/σ	3.69	-0.55		3.56	1.97	
Offset Distance	$0.4158 \pm 1.12e-01$		pixels	$1.6529 \pm 4.48e-01$		arcseconds
Offset Distance/σ	3.71			3.69		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.48 \pm 7.98e-06$	$410.10 \pm 6.25e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.89 \pm 1.12e-01$	$410.06 \pm 7.45e-02$	pixels	$19.80996139 \pm 1.15e-05$	$46.29712439 \pm 9.00e-05$	hours/degrees
Offset	$0.4061 \pm 1.12e-01$	$-0.0393 \pm 7.45e-02$	pixels	$1.4957 \pm 4.28e-01$	$0.6278 \pm 3.24e-01$	arcseconds
Offset/σ	3.63	-0.53		3.49	1.94	
Offset Distance	$0.4080 \pm 1.12e-01$		pixels	$1.6221 \pm 4.48e-01$		arcseconds
Offset Distance/σ	3.64			3.62		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 26.`



Difference image for target 9602613, planet candidate 2, quarter 4, target table 29. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 9; number of valid in-transit cadences = 39; number of in-transit cadence gaps = 2; number of valid out-of-transit cadences = 97; number of out-of-transit cadence gaps = 1. Difference image quality metric = N/A.

Open `./planet-02/difference-image/009602613-02-difference-image-04-029.fig`

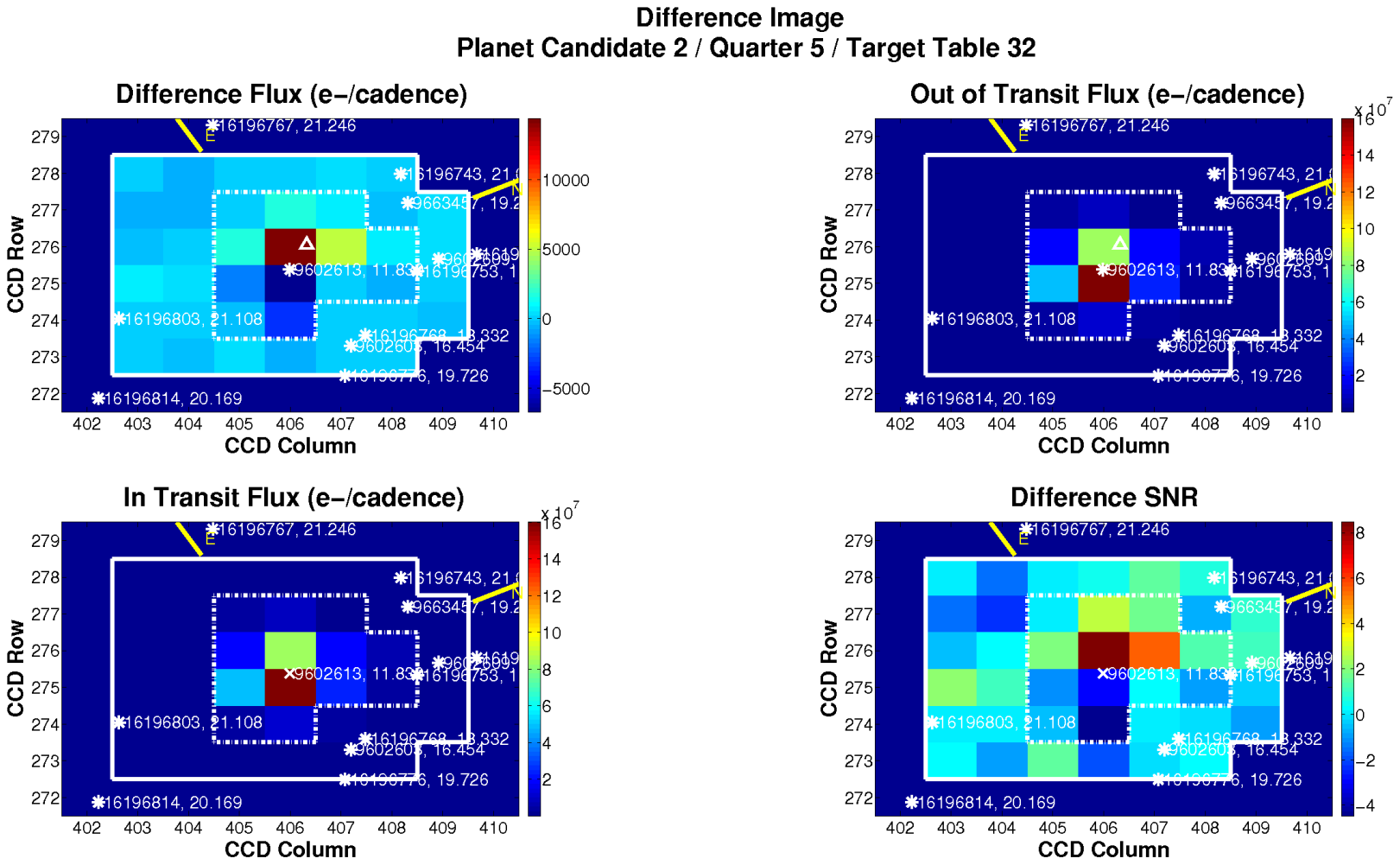
The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 29.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 2, in target table 29.

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 29.



Difference image for target 9602613, planet candidate 2, quarter 5, target table 32. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 10; number of valid in-transit cadences = 44; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 112; number of out-of-transit cadence gaps = 1. Difference image quality metric = 0.81 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-05-032.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 32.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

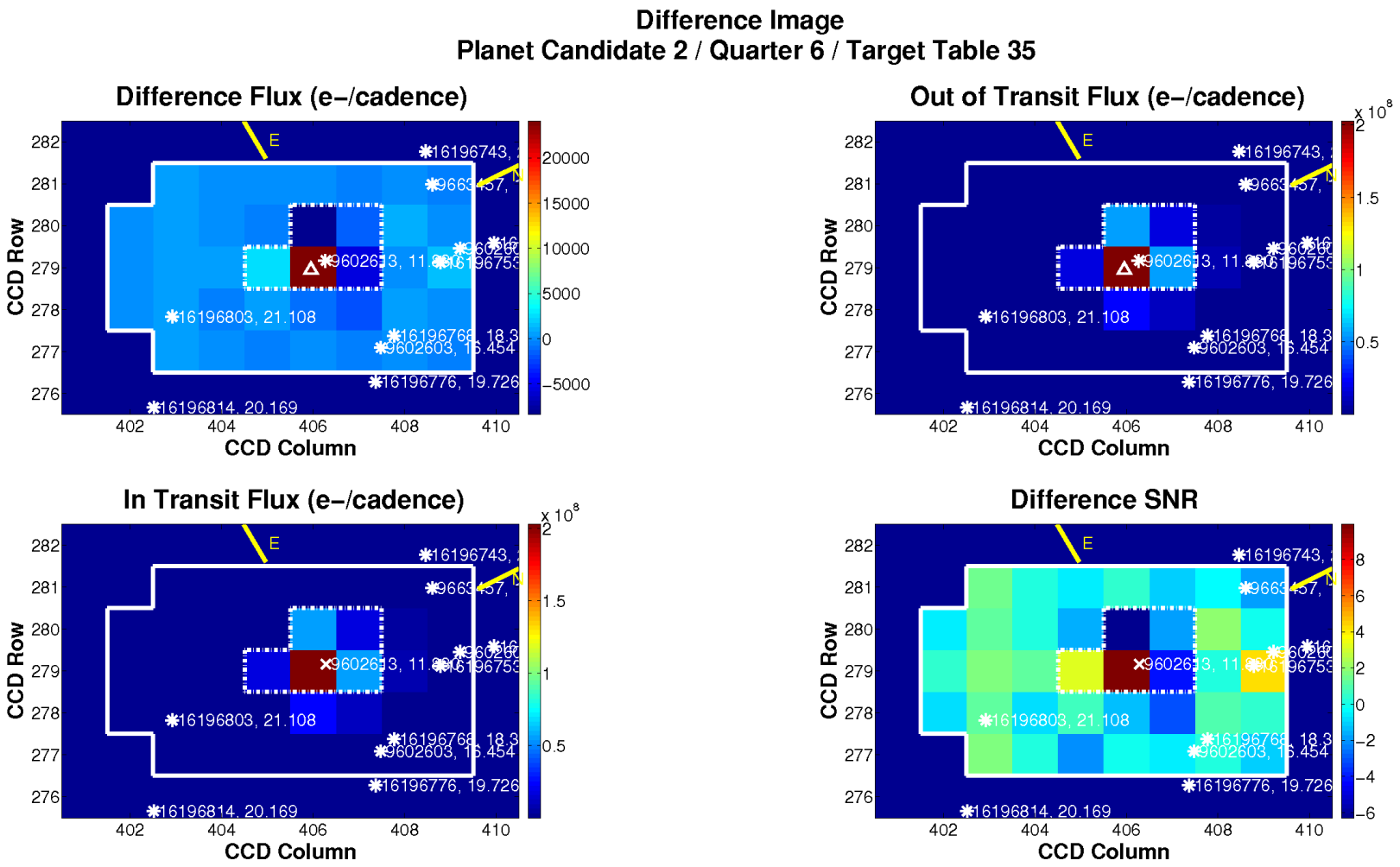
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$275.38 \pm 3.38e-06$	$405.99 \pm 3.12e-06$	pixels	$19.80992126 \pm 1.16e-09$	$46.29694246 \pm 1.15e-08$	hours/degrees
Difference Image Centroid	$276.05 \pm 9.29e-02$	$406.33 \pm 6.56e-02$	pixels	$19.80996736 \pm 9.77e-06$	$46.29762564 \pm 7.51e-05$	hours/degrees
Offset	$0.6746 \pm 9.29e-02$	$0.3391 \pm 6.56e-02$	pixels	$1.7201 \pm 3.65e-01$	$2.4594 \pm 2.70e-01$	arcseconds
Offset/σ	7.26	5.17		4.72	9.10	
Offset Distance	$0.7551 \pm 8.44e-02$		pixels	$3.0013 \pm 3.36e-01$		arcseconds
Offset Distance/σ	8.95			8.92		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.38 \pm 1.04e-05$	$405.99 \pm 9.87e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$276.05 \pm 9.29e-02$	$406.33 \pm 6.56e-02$	pixels	$19.80996736 \pm 9.77e-06$	$46.29762564 \pm 7.51e-05$	hours/degrees
Offset	$0.6710 \pm 9.29e-02$	$0.3333 \pm 6.56e-02$	pixels	$1.7184 \pm 3.65e-01$	$2.4323 \pm 2.70e-01$	arcseconds
Offset/σ	7.22	5.08		4.71	9.00	
Offset Distance	$0.7492 \pm 8.45e-02$		pixels	$2.9781 \pm 3.37e-01$		arcseconds
Offset Distance/σ	8.86			8.84		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 32.`



Difference image for target 9602613, planet candidate 2, quarter 6, target table 35. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 11; number of valid in-transit cadences = 50; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 120; number of out-of-transit cadence gaps = 2. Difference image quality metric = 0.84 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-06-035.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 35.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

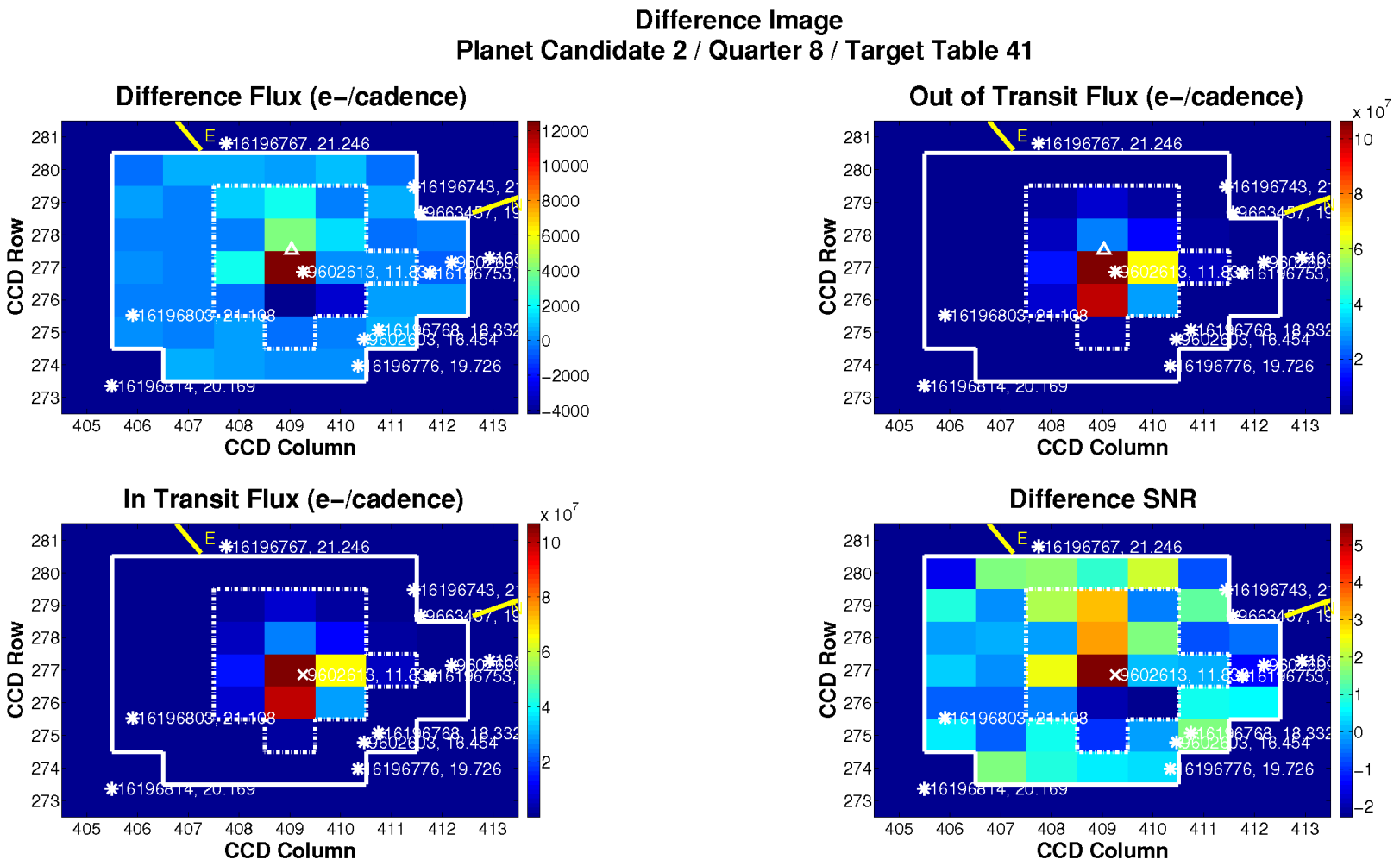
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.16 \pm 2.67e-06$	$406.26 \pm 3.73e-06$	pixels	$19.80992159 \pm 1.10e-09$	$46.29692861 \pm 1.25e-08$	hours/degrees
Difference Image Centroid	$278.95 \pm 1.18e-01$	$405.95 \pm 8.97e-02$	pixels	$19.80991717 \pm 1.23e-05$	$46.29651643 \pm 1.04e-04$	hours/degrees
Offset	$-0.2139 \pm 1.18e-01$	$-0.3088 \pm 8.97e-02$	pixels	$-0.1650 \pm 4.58e-01$	$-1.4838 \pm 3.73e-01$	arcseconds
Offset/σ	-1.82	-3.44		-0.36	-3.97	
Offset Distance	$0.3757 \pm 9.67e-02$		pixels	$1.4930 \pm 3.84e-01$		arcseconds
Offset Distance/σ	3.89			3.89		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.17 \pm 9.42e-06$	$406.28 \pm 1.11e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$278.95 \pm 1.18e-01$	$405.95 \pm 8.97e-02$	pixels	$19.80991717 \pm 1.23e-05$	$46.29651643 \pm 1.04e-04$	hours/degrees
Offset	$-0.2207 \pm 1.18e-01$	$-0.3272 \pm 8.97e-02$	pixels	$-0.1542 \pm 4.58e-01$	$-1.5608 \pm 3.73e-01$	arcseconds
Offset/σ	-1.87	-3.65		-0.34	-4.18	
Offset Distance	$0.3947 \pm 9.64e-02$		pixels	$1.5684 \pm 3.83e-01$		arcseconds
Offset Distance/σ	4.10			4.10		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 35.`



Difference image for target 9602613, planet candidate 2, quarter 8, target table 41. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 7; number of valid in-transit cadences = 32; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 74; number of out-of-transit cadence gaps = 4. Difference image quality metric = 0.89 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-08-041.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 41.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

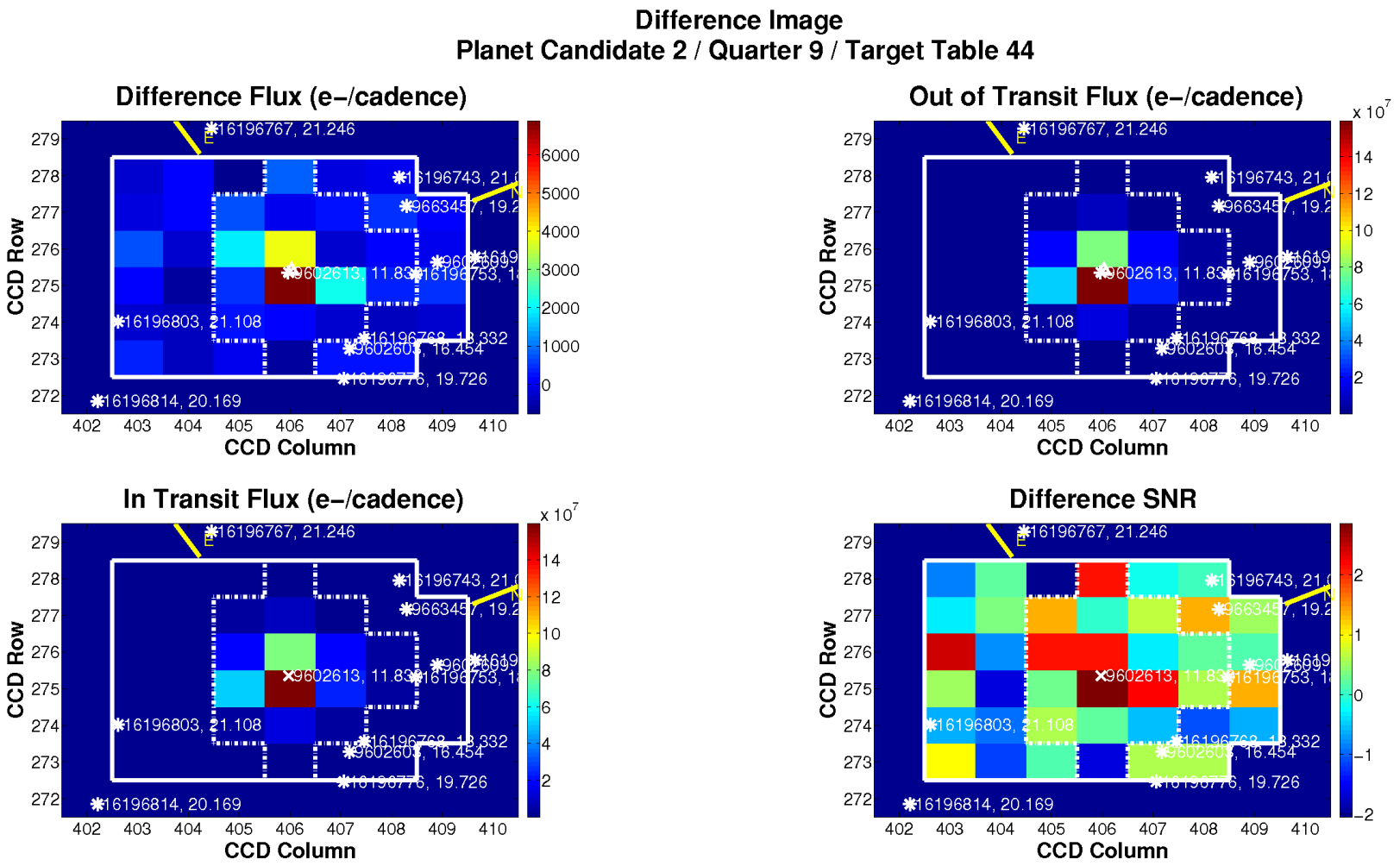
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.85 \pm 3.20e-06$	$409.25 \pm 3.81e-06$	pixels	$19.80992043 \pm 1.21e-09$	$46.29693434 \pm 1.24e-08$	hours/degrees
Difference Image Centroid	$277.52 \pm 1.19e-01$	$409.03 \pm 1.03e-01$	pixels	$19.80999413 \pm 1.19e-05$	$46.29707312 \pm 1.23e-04$	hours/degrees
Offset	$0.6683 \pm 1.19e-01$	$-0.2173 \pm 1.03e-01$	pixels	$2.7496 \pm 4.42e-01$	$0.4996 \pm 4.43e-01$	arcseconds
Offset/σ	5.64	-2.11		6.22	1.13	
Offset Distance	$0.7028 \pm 1.14e-01$		pixels	$2.7947 \pm 4.56e-01$		arcseconds
Offset Distance/σ	6.17			6.13		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.87 \pm 1.08e-05$	$409.26 \pm 1.05e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$277.52 \pm 1.19e-01$	$409.03 \pm 1.03e-01$	pixels	$19.80999413 \pm 1.19e-05$	$46.29707312 \pm 1.23e-04$	hours/degrees
Offset	$0.6544 \pm 1.19e-01$	$-0.2259 \pm 1.03e-01$	pixels	$2.7171 \pm 4.42e-01$	$0.4432 \pm 4.43e-01$	arcseconds
Offset/σ	5.52	-2.20		6.14	1.00	
Offset Distance	$0.6923 \pm 1.14e-01$		pixels	$2.7531 \pm 4.54e-01$		arcseconds
Offset Distance/σ	6.09			6.06		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 41.`



Difference image for target 9602613, planet candidate 2, quarter 9, target table 44. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 9; number of valid in-transit cadences = 38; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 102; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.92 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-09-044.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 44.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

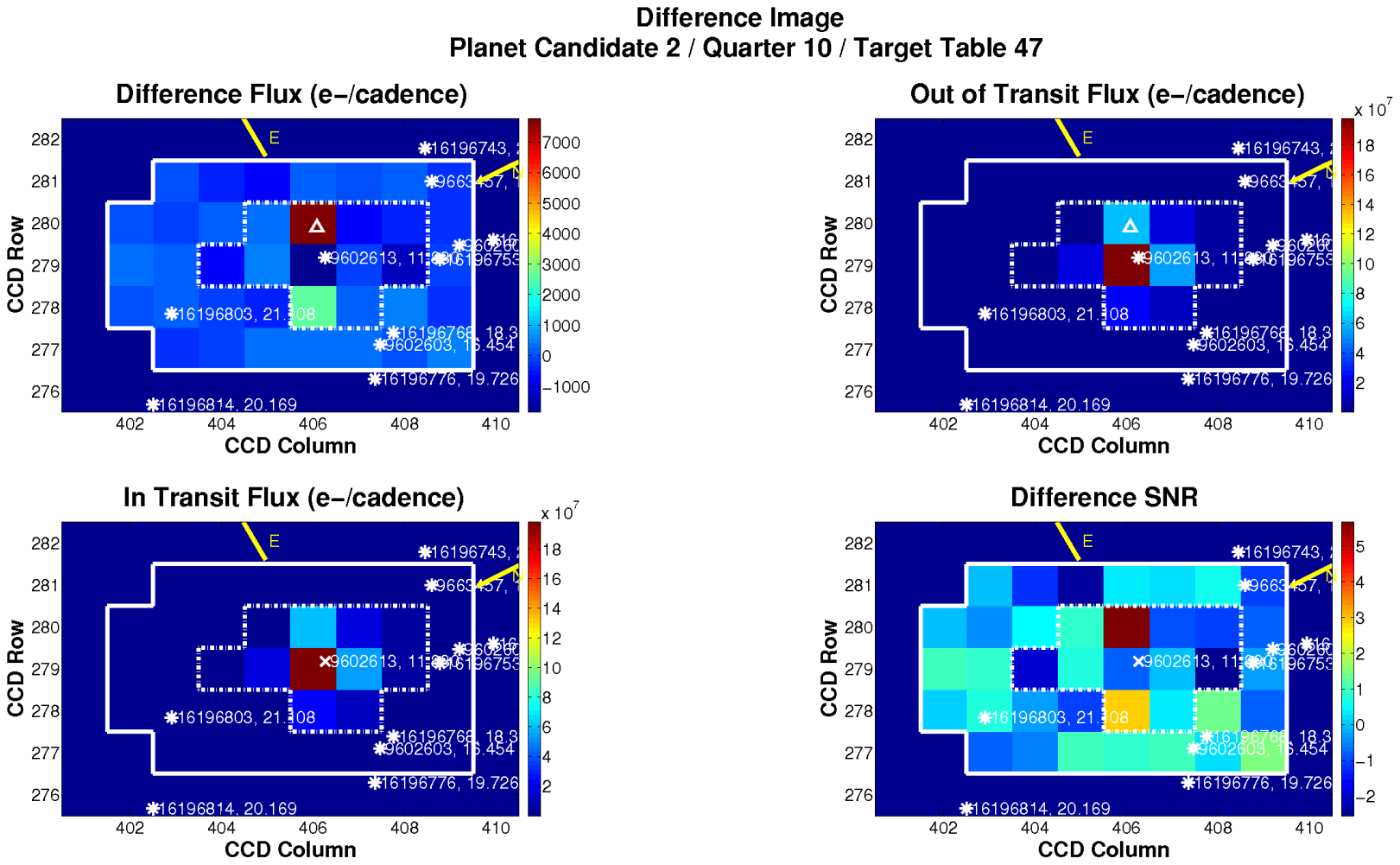
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$275.36 \pm 3.63e-06$	$405.96 \pm 3.24e-06$	pixels	$19.80992218 \pm 1.21e-09$	$46.29693885 \pm 1.20e-08$	hours/degrees
Difference Image Centroid	$275.41 \pm 1.62e-01$	$406.04 \pm 1.73e-01$	pixels	$19.80992323 \pm 1.84e-05$	$46.29703447 \pm 1.81e-04$	hours/degrees
Offset	$0.0498 \pm 1.62e-01$	$0.0716 \pm 1.73e-01$	pixels	$0.0390 \pm 6.87e-01$	$0.3442 \pm 6.51e-01$	arcseconds
Offset/σ	0.31	0.41		0.06	0.53	
Offset Distance	$0.0872 \pm 1.61e-01$		pixels	$0.3464 \pm 6.42e-01$		arcseconds
Offset Distance/σ	0.54			0.54		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.35 \pm 1.08e-05$	$405.98 \pm 1.03e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$275.41 \pm 1.62e-01$	$406.04 \pm 1.73e-01$	pixels	$19.80992323 \pm 1.84e-05$	$46.29703447 \pm 1.81e-04$	hours/degrees
Offset	$0.0523 \pm 1.62e-01$	$0.0587 \pm 1.73e-01$	pixels	$0.0718 \pm 6.87e-01$	$0.3041 \pm 6.51e-01$	arcseconds
Offset/σ	0.32	0.34		0.10	0.47	
Offset Distance	$0.0786 \pm 1.60e-01$		pixels	$0.3125 \pm 6.35e-01$		arcseconds
Offset Distance/σ	0.49			0.49		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 44.`



Difference image for target 9602613, planet candidate 2, quarter 10, target table 47. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 11; number of valid in-transit cadences = 50; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 122; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.81 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-10-047.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 47.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

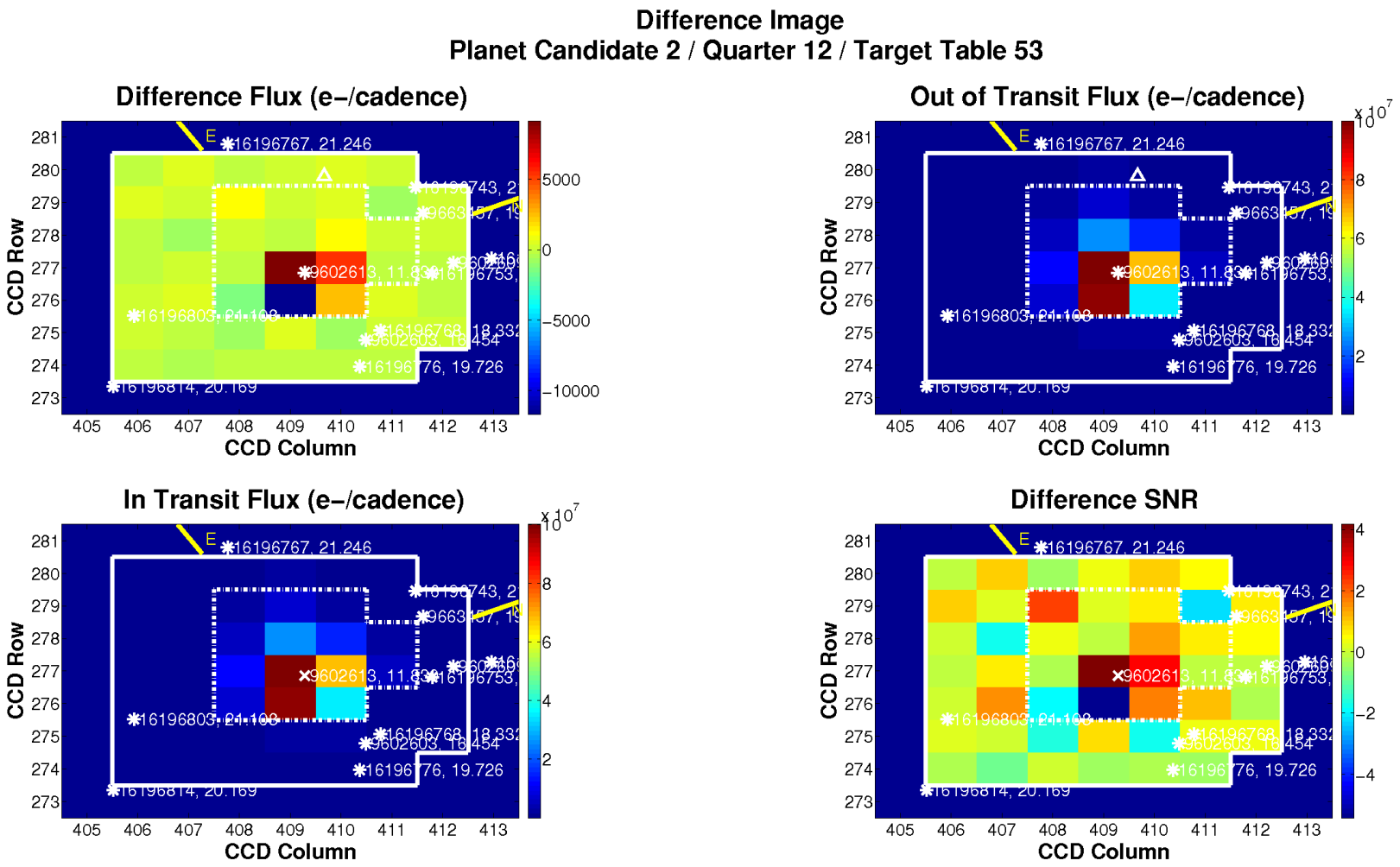
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$279.18 \pm 2.65e-06$	$406.26 \pm 3.70e-06$	pixels	$19.80992137 \pm 1.04e-09$	$46.29694157 \pm 1.16e-08$	hours/degrees
Difference Image Centroid	$279.89 \pm 2.14e-01$	$406.08 \pm 1.68e-01$	pixels	$19.80999742 \pm 2.24e-05$	$46.29714518 \pm 1.93e-04$	hours/degrees
Offset	$0.7156 \pm 2.14e-01$	$-0.1765 \pm 1.68e-01$	pixels	$2.8373 \pm 8.37e-01$	$0.7330 \pm 6.93e-01$	arcseconds
Offset/σ	3.34	-1.05		3.39	1.06	
Offset Distance	$0.7370 \pm 2.14e-01$		pixels	$2.9305 \pm 8.57e-01$		arcseconds
Offset Distance/σ	3.44			3.42		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.18 \pm 8.84e-06$	$406.27 \pm 1.03e-05$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.89 \pm 2.14e-01$	$406.08 \pm 1.68e-01$	pixels	$19.80999742 \pm 2.24e-05$	$46.29714518 \pm 1.93e-04$	hours/degrees
Offset	$0.7125 \pm 2.14e-01$	$-0.1835 \pm 1.68e-01$	pixels	$2.8399 \pm 8.37e-01$	$0.7026 \pm 6.93e-01$	arcseconds
Offset/σ	3.32	-1.09		3.39	1.01	
Offset Distance	$0.7357 \pm 2.14e-01$		pixels	$2.9255 \pm 8.56e-01$		arcseconds
Offset Distance/σ	3.43			3.42		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 47.`



Difference image for target 9602613, planet candidate 2, quarter 12, target table 53. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 7; number of valid in-transit cadences = 31; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 79; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.02 (not good).
Open `./planet-02/difference-image/009602613-02-difference-image-12-053.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 53.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

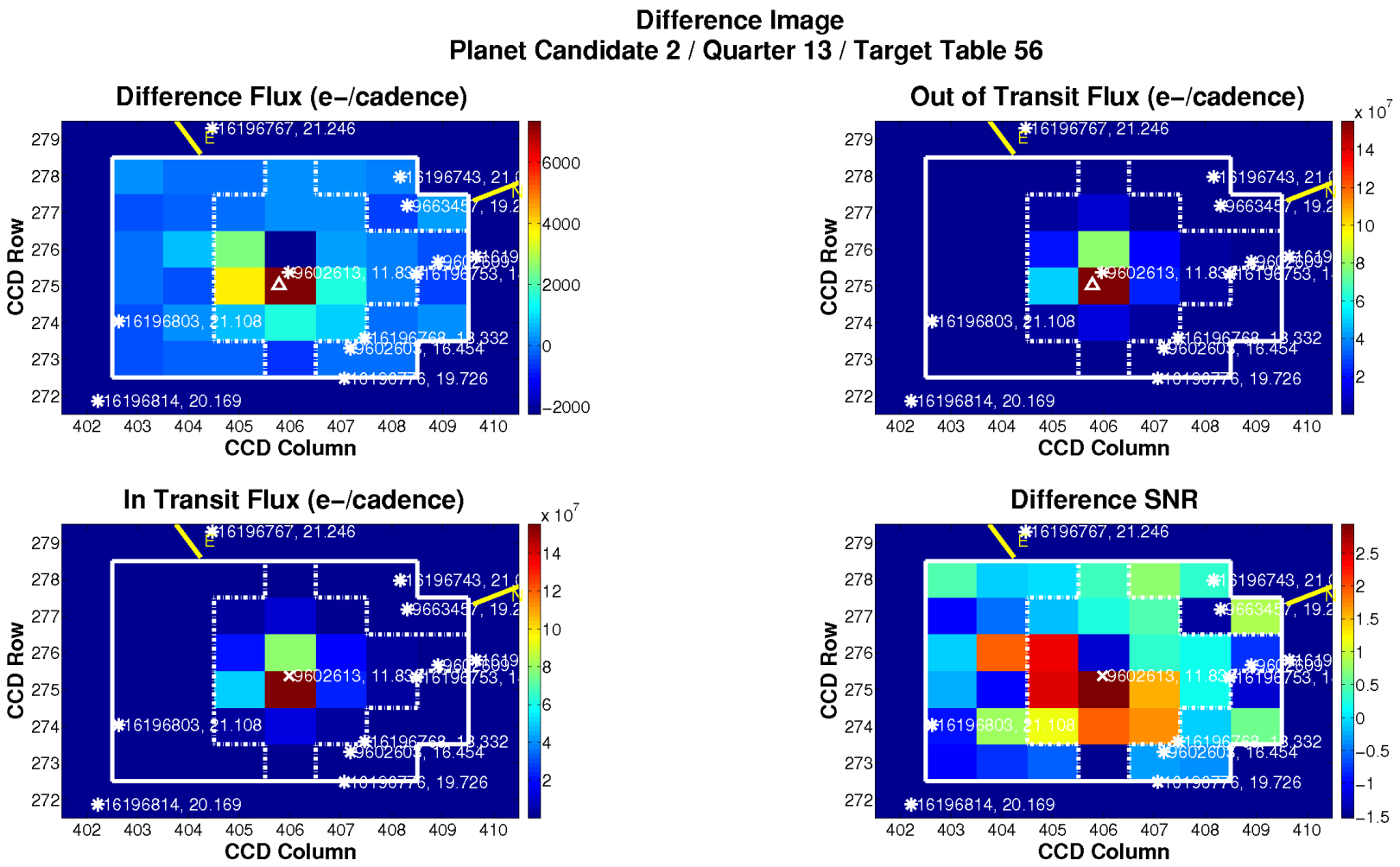
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.84 \pm 3.13e-06$	$409.29 \pm 3.63e-06$	pixels	$19.80991977 \pm 1.22e-09$	$46.29694102 \pm 1.07e-08$	hours/degrees
Difference Image Centroid	$279.80 \pm 4.49e-01$	$409.67 \pm 8.34e-01$	pixels	$19.81017811 \pm 6.40e-05$	$46.29886443 \pm 8.12e-04$	hours/degrees
Offset	$2.9606 \pm 4.49e-01$	$0.3837 \pm 8.34e-01$	pixels	$9.6387 \pm 2.39e+00$	$6.9243 \pm 2.92e+00$	arcseconds
Offset/σ	6.60	0.46		4.03	2.37	
Offset Distance	$2.9853 \pm 4.43e-01$		pixels	$11.8680 \pm 1.77e+00$		arcseconds
Offset Distance/σ	6.75			6.72		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.86 \pm 1.16e-05$	$409.29 \pm 8.16e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$279.80 \pm 4.49e-01$	$409.67 \pm 8.34e-01$	pixels	$19.81017811 \pm 6.40e-05$	$46.29886443 \pm 8.12e-04$	hours/degrees
Offset	$2.9440 \pm 4.49e-01$	$0.3834 \pm 8.34e-01$	pixels	$9.5814 \pm 2.39e+00$	$6.8919 \pm 2.92e+00$	arcseconds
Offset/σ	6.56	0.46		4.01	2.36	
Offset Distance	$2.9689 \pm 4.43e-01$		pixels	$11.8027 \pm 1.77e+00$		arcseconds
Offset Distance/σ	6.71			6.68		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 53.`



Difference image for target 9602613, planet candidate 2, quarter 13, target table 56. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 8; number of valid in-transit cadences = 34; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 91; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.86 (good).
Open `./planet-02/difference-image/009602613-02-difference-image-13-056.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 56.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

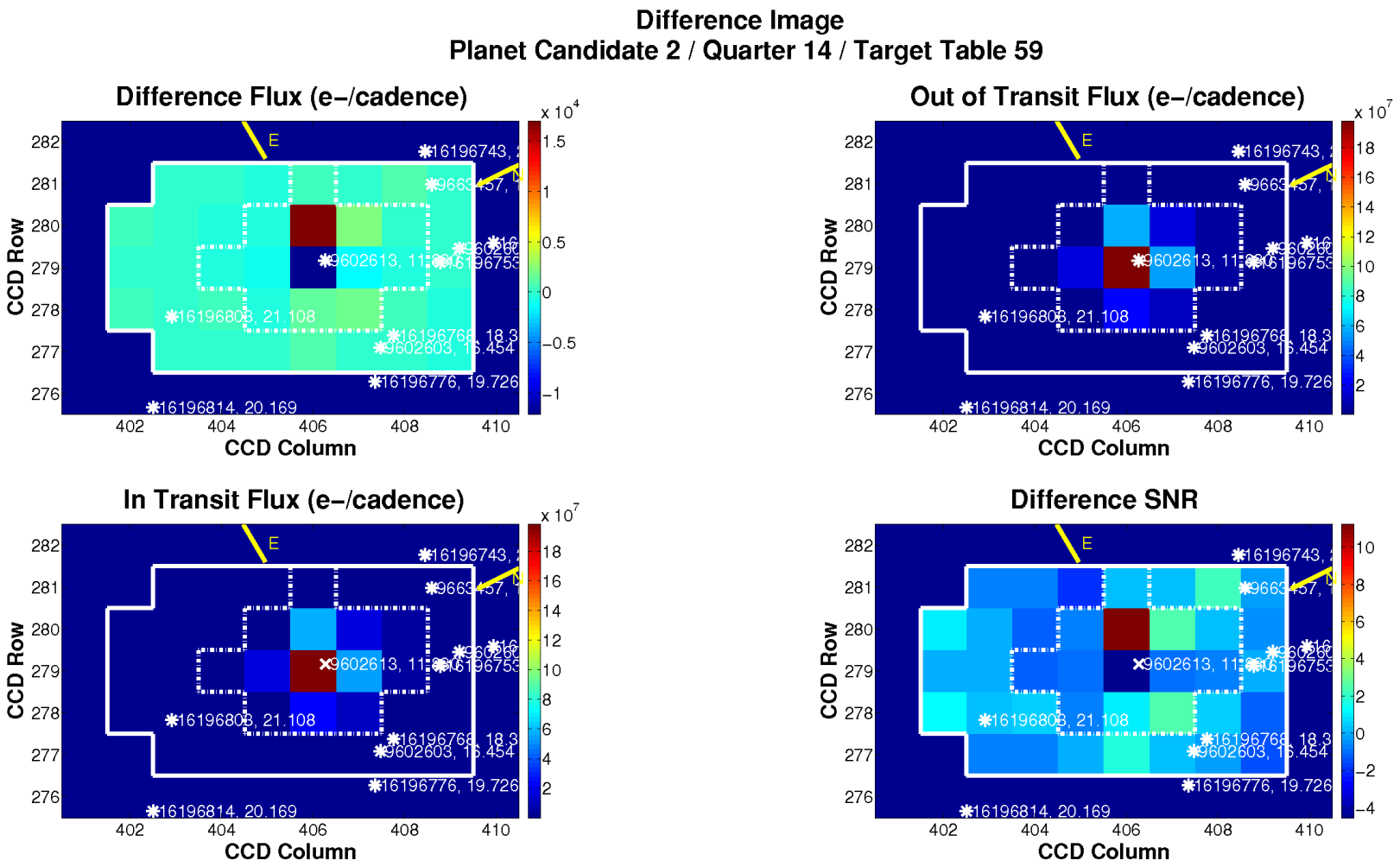
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$275.37 \pm 3.85e-06$	$405.96 \pm 3.47e-06$	pixels	$19.80992197 \pm 1.16e-09$	$46.29693069 \pm 1.15e-08$	hours/degrees
Difference Image Centroid	$275.02 \pm 1.15e-01$	$405.78 \pm 1.18e-01$	pixels	$19.80989825 \pm 1.29e-05$	$46.29657023 \pm 1.25e-04$	hours/degrees
Offset	$-0.3510 \pm 1.15e-01$	$-0.1816 \pm 1.18e-01$	pixels	$-0.8852 \pm 4.81e-01$	$-1.2976 \pm 4.50e-01$	arcseconds
Offset/σ	-3.04	-1.54		-1.84	-2.88	
Offset Distance	$0.3952 \pm 1.12e-01$		pixels	$1.5708 \pm 4.45e-01$		arcseconds
Offset Distance/σ	3.54			3.53		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.37 \pm 1.01e-05$	$405.98 \pm 9.71e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$275.02 \pm 1.15e-01$	$405.78 \pm 1.18e-01$	pixels	$19.80989825 \pm 1.29e-05$	$46.29657023 \pm 1.25e-04$	hours/degrees
Offset	$-0.3537 \pm 1.15e-01$	$-0.2000 \pm 1.18e-01$	pixels	$-0.8601 \pm 4.81e-01$	$-1.3672 \pm 4.50e-01$	arcseconds
Offset/σ	-3.07	-1.69		-1.79	-3.04	
Offset Distance	$0.4064 \pm 1.11e-01$		pixels	$1.6152 \pm 4.44e-01$		arcseconds
Offset Distance/σ	3.64			3.64		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 56.`



Difference image for target 9602613, planet candidate 2, quarter 14, target table 59. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 9; number of valid in-transit cadences = 39; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 100; number of out-of-transit cadence gaps = 1. Difference image quality metric = N/A.
Open `./planet-02/difference-image/009602613-02-difference-image-14-059.fig`

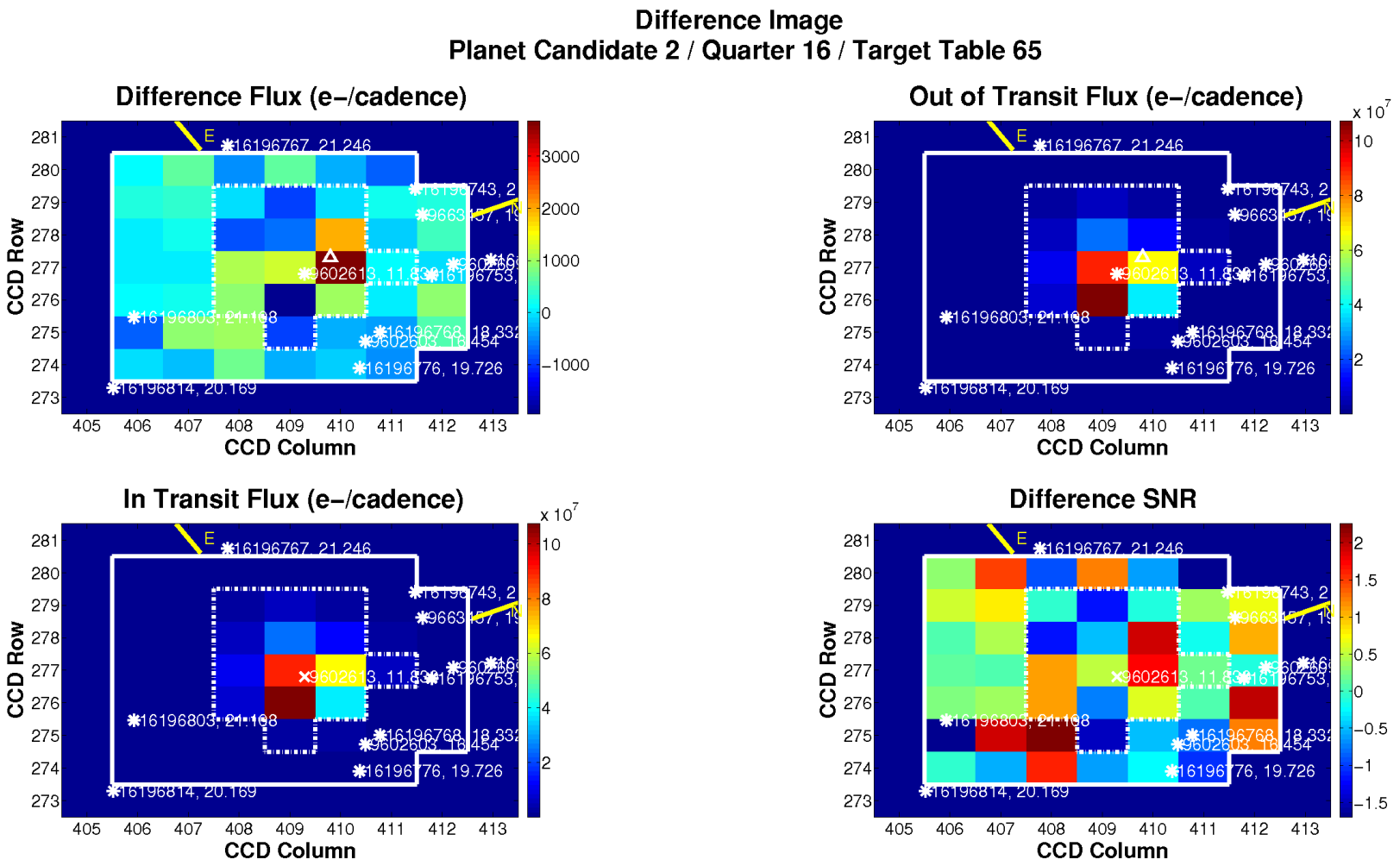
The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 59.

PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 2, in target table 59.

PRF Fit of the Pixel Correlation Image

The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 59.



Difference image for target 9602613, planet candidate 2, quarter 16, target table 65. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 5; number of valid in-transit cadences = 23; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 54; number of out-of-transit cadence gaps = 0. Difference image quality metric = 0.66 (not good).
Open `./planet-02/difference-image/009602613-02-difference-image-16-065.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 65.

PRF Fit of the Difference Image

Offset from the PRF fit to the out of transit image

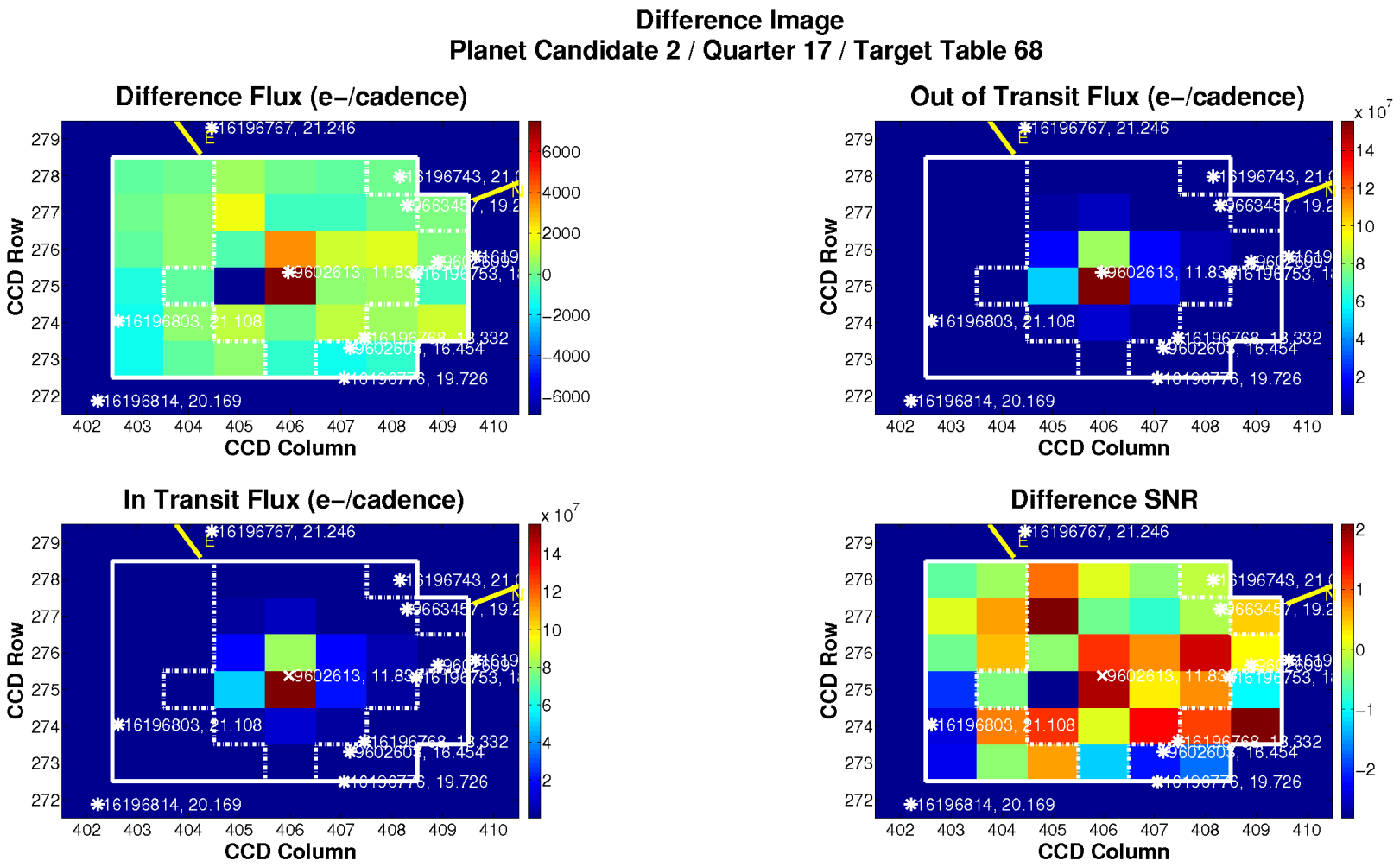
	Row	Column	Units	RA	Dec	Units
Out of Transit Image Centroid	$276.79 \pm 4.09e-06$	$409.29 \pm 4.35e-06$	pixels	$19.80992057 \pm 1.19e-09$	$46.29694429 \pm 1.04e-08$	hours/degrees
Difference Image Centroid	$277.30 \pm 5.19e-01$	$409.80 \pm 4.32e-01$	pixels	$19.80994254 \pm 5.70e-05$	$46.29770433 \pm 4.60e-04$	hours/degrees
Offset	$0.5084 \pm 5.19e-01$	$0.5081 \pm 4.32e-01$	pixels	$0.8198 \pm 2.13e+00$	$2.7361 \pm 1.66e+00$	arcseconds
Offset/σ	0.98	1.18		0.39	1.65	
Offset Distance	$0.7188 \pm 4.36e-01$		pixels	$2.8563 \pm 1.74e+00$		arcseconds
Offset Distance/σ	1.65			1.65		

Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.80 \pm 1.09e-05$	$409.29 \pm 7.59e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$277.30 \pm 5.19e-01$	$409.80 \pm 4.32e-01$	pixels	$19.80994254 \pm 5.70e-05$	$46.29770433 \pm 4.60e-04$	hours/degrees
Offset	$0.4999 \pm 5.19e-01$	$0.5068 \pm 4.32e-01$	pixels	$0.7925 \pm 2.13e+00$	$2.7156 \pm 1.66e+00$	arcseconds
Offset/σ	0.96	1.17		0.37	1.64	
Offset Distance	$0.7119 \pm 4.36e-01$		pixels	$2.8289 \pm 1.73e+00$		arcseconds
Offset Distance/σ	1.63			1.63		

PRF Fit of the Pixel Correlation Image

`The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 65.`



Difference image for target 9602613, planet candidate 2, quarter 17, target table 68. Upper left: difference between mean flux out-of-transit and in-transit; upper right: mean out-of-transit flux; lower left: mean in-transit flux; lower right: difference between mean flux out-of-transit and in-transit after normalizing by the uncertainty in the difference for each pixel. The optimal aperture is outlined with a white dash-dotted line in each panel and the target mask is outlined with a solid white line. Symbol key: x: target position from KIC RA and Dec converted to CCD coordinates via motion polynomials; *: position of nearby KIC objects converted to CCD coordinates via motion polynomials (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000); +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source from the difference image. CCD row and column coordinates are 0-based. Number of transits = 3; number of valid in-transit cadences = 13; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 33; number of out-of-transit cadence gaps = 1. Difference image quality metric = N/A.
Open `./planet-02/difference-image/009602613-02-difference-image-17-068.fig`

The pixel correlation statistic plot is not available for target 9602613, planet candidate 2, in target table 68.

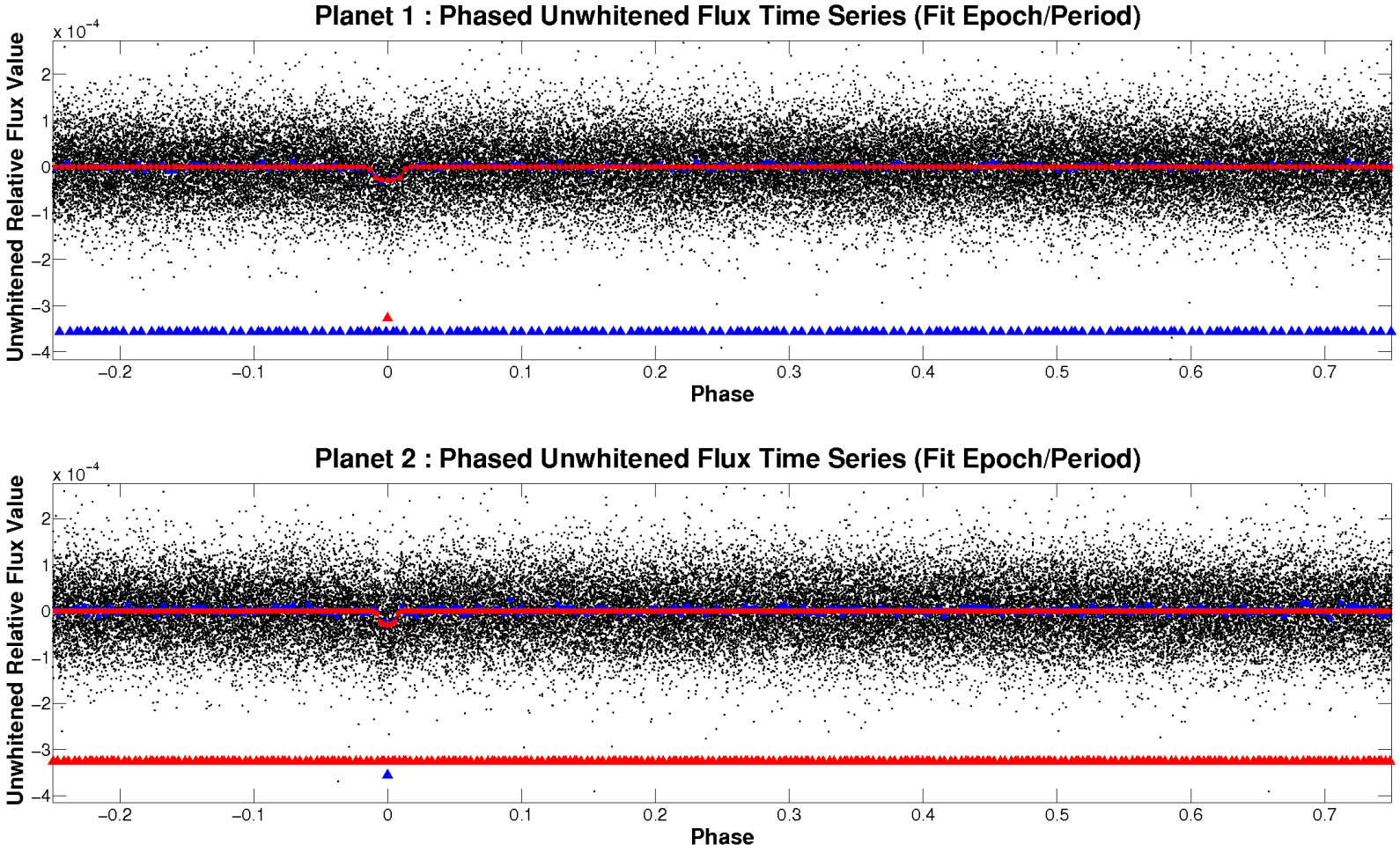
PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 2, in target table 68.

PRF Fit of the Pixel Correlation Image

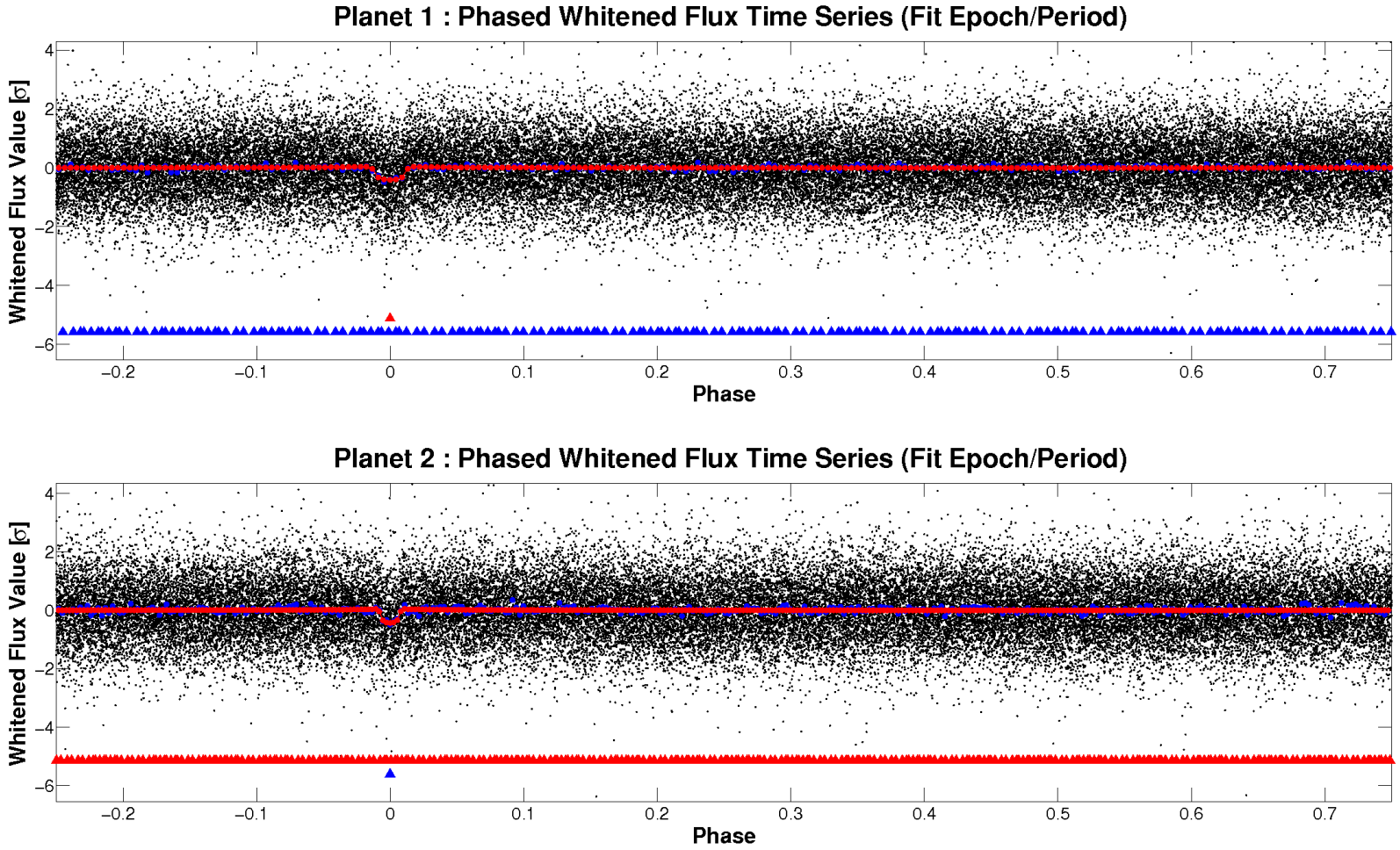
The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 68.

8 Phased Light Curves

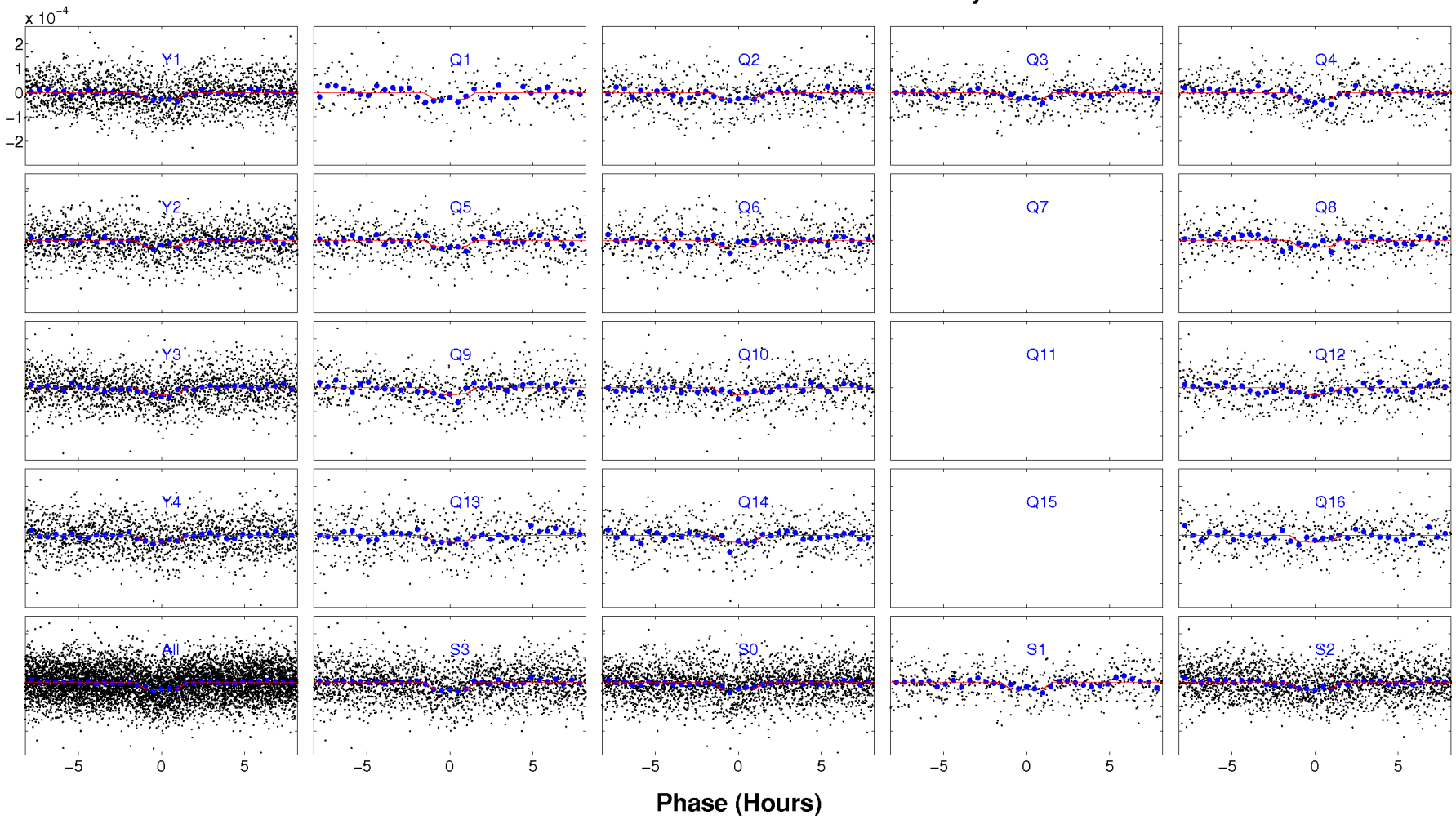


Phased unwhitened flux time series is plotted in black dots. When all transits fit completed with full or secondary convergence, the phase is determined with the fitted epoch and period; otherwise, the phase is determined with the TPS epoch and period. The values of the phased unwhitened flux time series averaged in one cadence wide bins are plotted in bigger blue dots. When all transits fit completes with full or secondary convergence, the averaged values of the phased unwhitened fitted model light curve are plotted in red dots. Transit event markers in different colors indicate the locations of the transits of all planet candidates. The transits of the same planet candidate are labeled with the markers of the same color, for example, blue markers for transits of plane candidate #1, red markers for transits of planet candidate #2, etc.

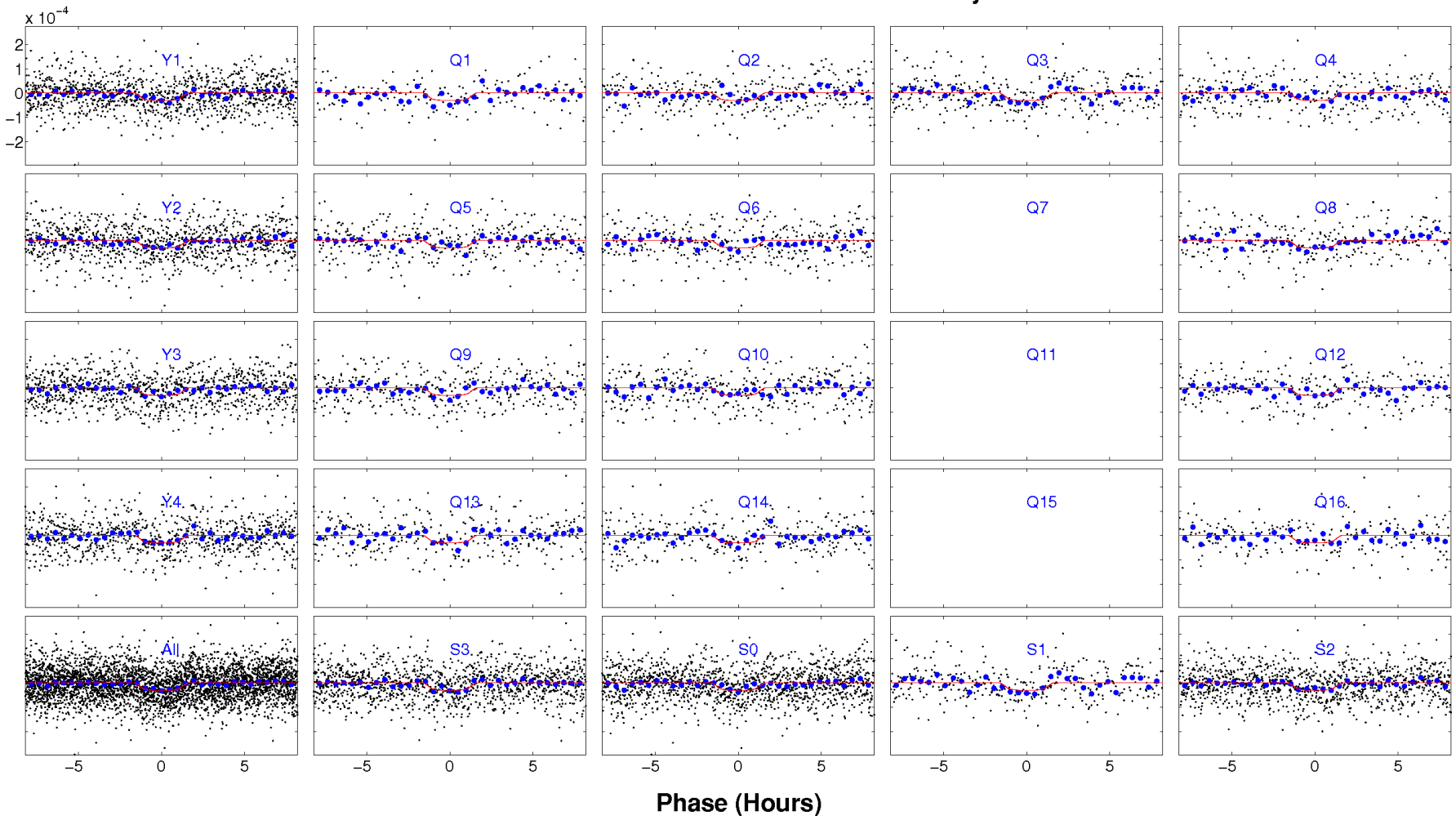
Open `./summary-plots/009602613-01-phased-unwhitened-flux-time-series.fig`



Phased whitened flux time series is plotted in black dots. When all transits fit completed with full or secondary convergence, the phase is determined with the fitted epoch and period; otherwise, the phase is determined with the TPS epoch and period. The values of the phased whitened flux time series averaged in one cadence wide bins are plotted in bigger blue dots. When all transits fit completes with full or secondary convergence, the averaged values of the phased whitened fitted model light curve are plotted in red dots. Transit event markers in different colors indicate the locations of the transits of all planet candidates. The transits of the same planet candidate are labeled with the markers of the same color, for example, blue markers for transits of plane candidate #1, red markers for transits of planet candidate #2, etc.
Open `./summary-plots/009602613-01-phased-whitened-flux-time-series.fig`



Phased unwhitened flux time series by quarter for target 9602613, planet candidate 1. Period = 4.6123 days; transit epoch = 133.8539 BKJD.
Open `./summary-plots/009602613-01-phased-unwhitened-flux-time-series-by-quarter.fig`



Phased unwhitened flux time series by quarter for target 9602613, planet candidate 2. Period = 7.573 days; transit epoch = 131.9409 BKJD.
Open `./summary-plots/009602613-02-phased-unwhitened-flux-time-series-by-quarter.fig`

9 Planet Candidate 1

9.1 Model Fitter: All Transits

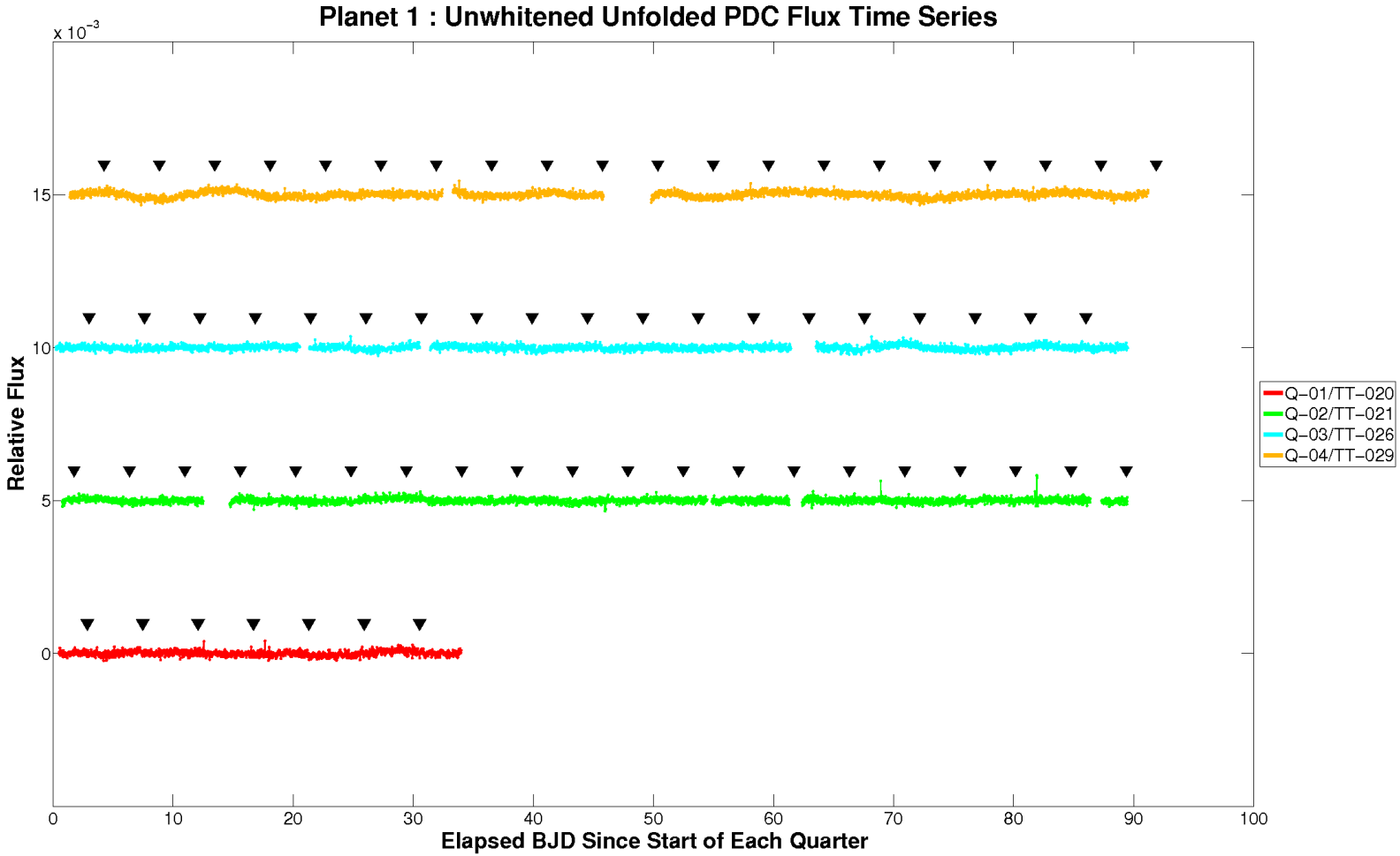
Model Characteristic	Name
Transit Model	mandel-agol_geometric_transit_model
Limb Darkening Model	claret_nonlinear_limb_darkening_model_2011

TCE Parameter	Value	Units
Trial Transit Pulse Duration	3.0	hours
Transit Epoch	54966.3632776	MJD
Orbital Period	4.6122394	days
Maximum SES	3.0	
Maximum MES	11.4	
Robust Statistic	11.6	
Chi Square Goodness of Fit Statistic (DoF)	1485.5 (1480)	
Chi Square2 Statistic (DoF)	226.7 (235.7)	
Threshold for Desired PFA		

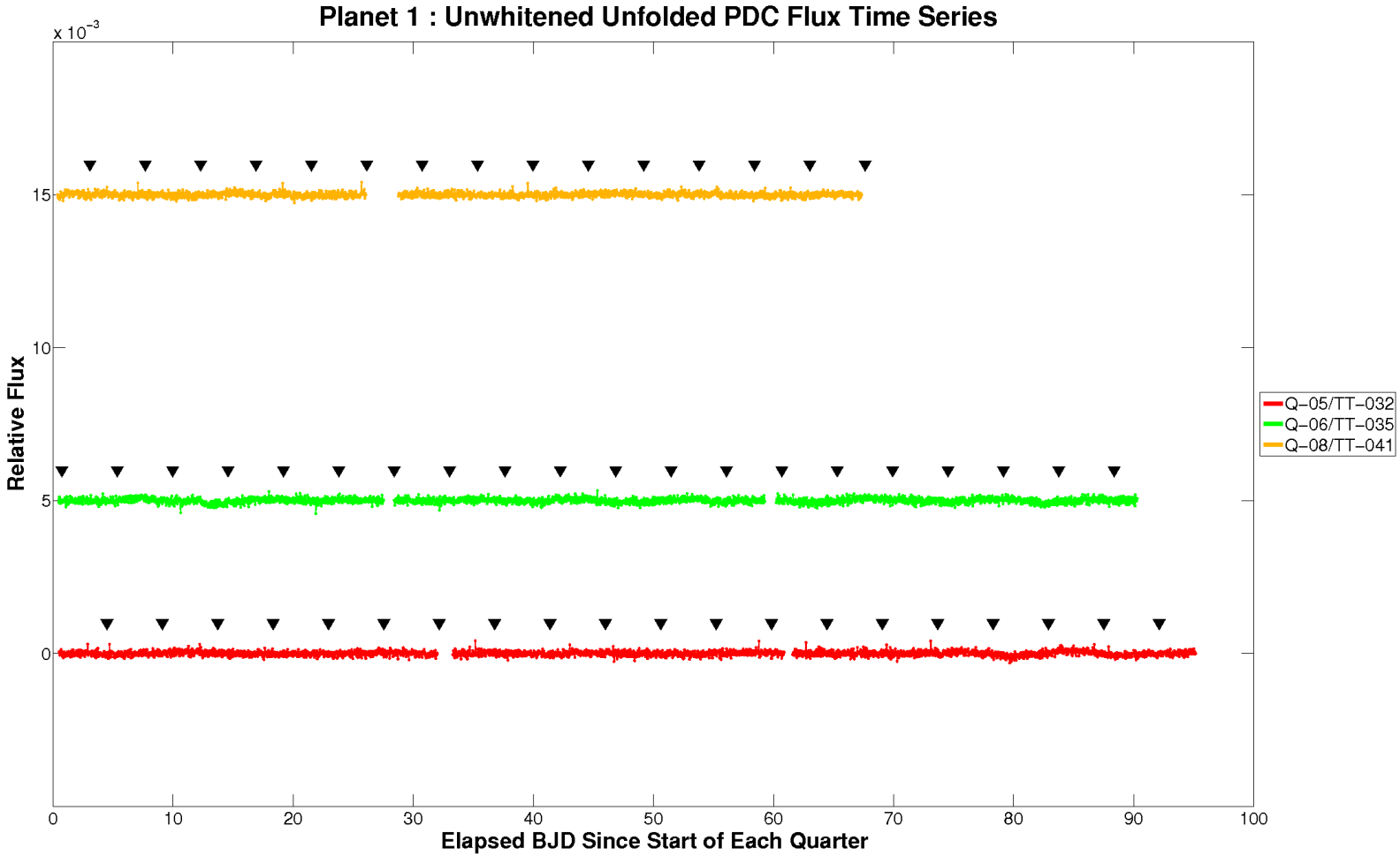
DoF: Degrees of Freedom

Parameter	Value	Uncertainty	Units
SNR	12.2		
Orbital Period	4.6123231	2.6327e-05	days
Transit Epoch	133.8538797	3.7171e-03	BKJD
Impact Parameter	0.8962	3.5838e-01	
Planet Radius to Star Radius Ratio	0.0059320	2.1359e-03	
Semi-major Axis to Star Radius Ratio	5.9535	9.2302e+00	
Planet Radius	0.6221	2.3603e-01	Earth radii
Semi-major Axis	0.0530	5.8372e-03	AU
Effective Stellar Flux	268.7537	4.8838e+01	Goldilocks
Equilibrium Temperature	1032	4.6904e+01	Kelvin
Transit Depth	29	2.5033e+00	ppm
Transit Duration	2.7377	2.2940e-01	hours
Transit Ingress Time	0.0803	2.8810e-01	hours
Eccentricity	0.0000	0.0000e+00	
Peri Longitude	0.0000	0.0000e+00	degrees
Model Chi Square Statistic (DoF)	4670.4 (5675.7)		
Model Chi Square Goodness of Fit Statistic (DoF)	-1.0 (-1)		
Model Chi Square2 Statistic (DoF)	-1.0 (-1)		

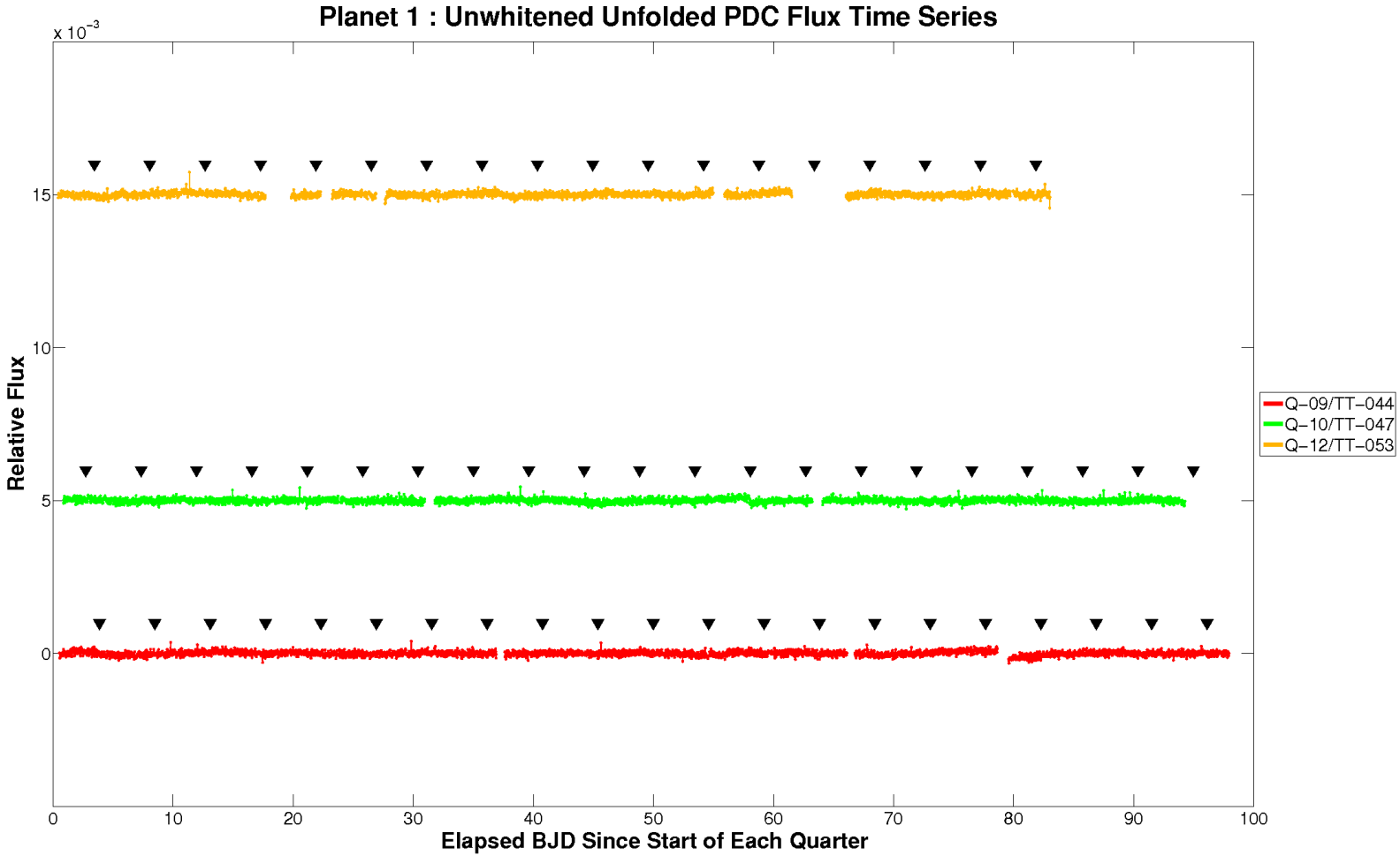
DoF: Degrees of Freedom



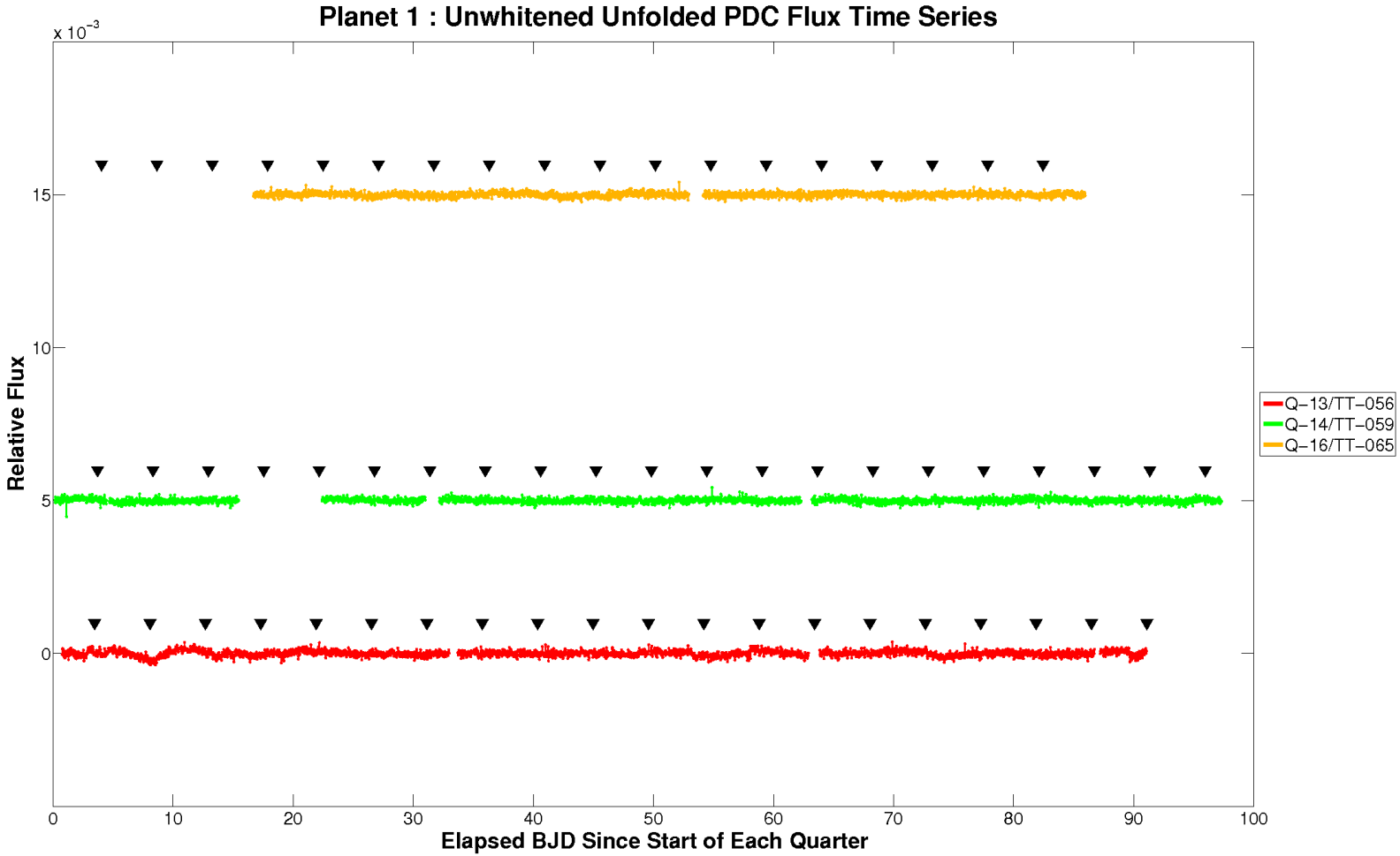
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.005. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.01. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-01-020.fig`



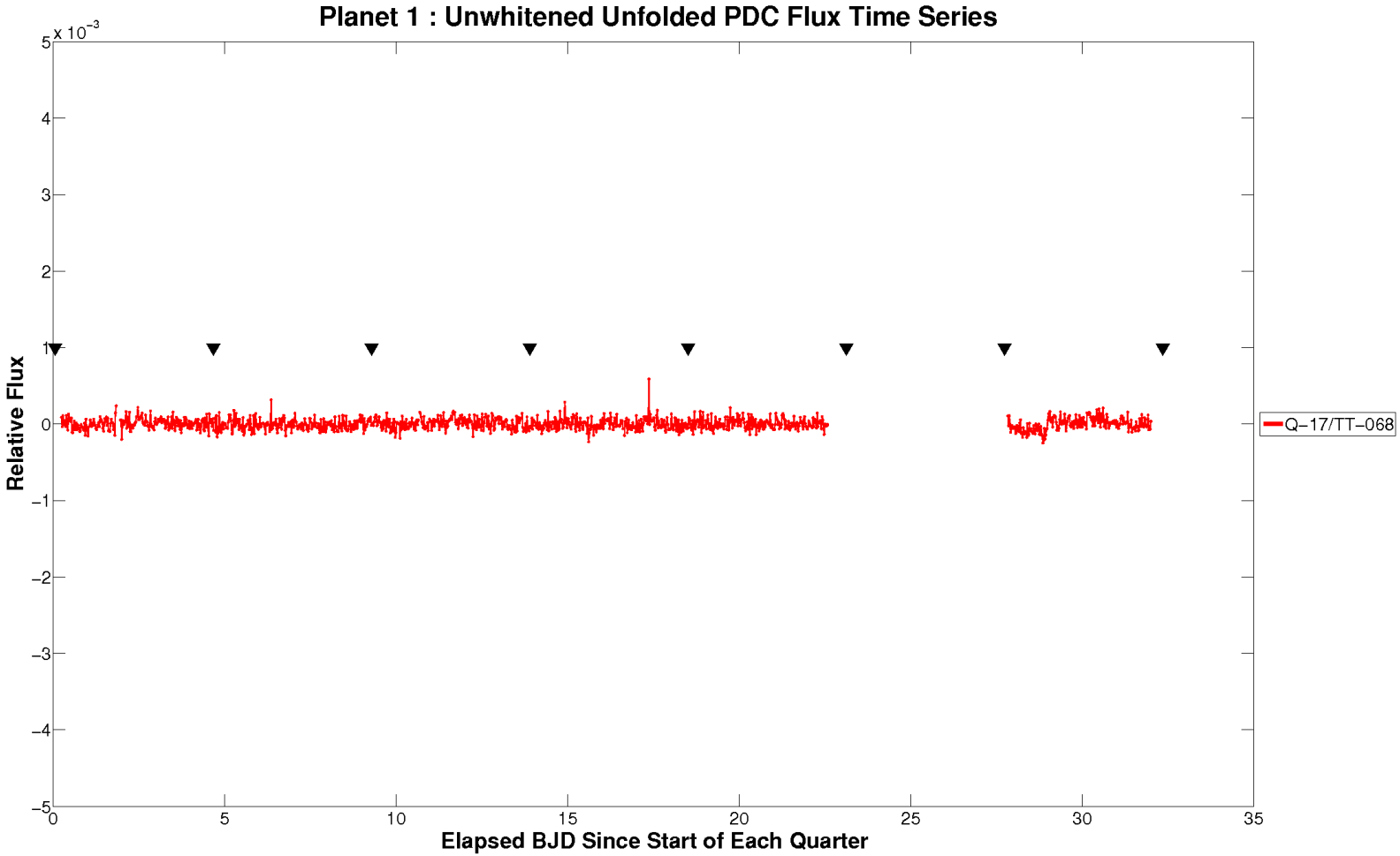
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.005. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.01. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-05-032.fig`



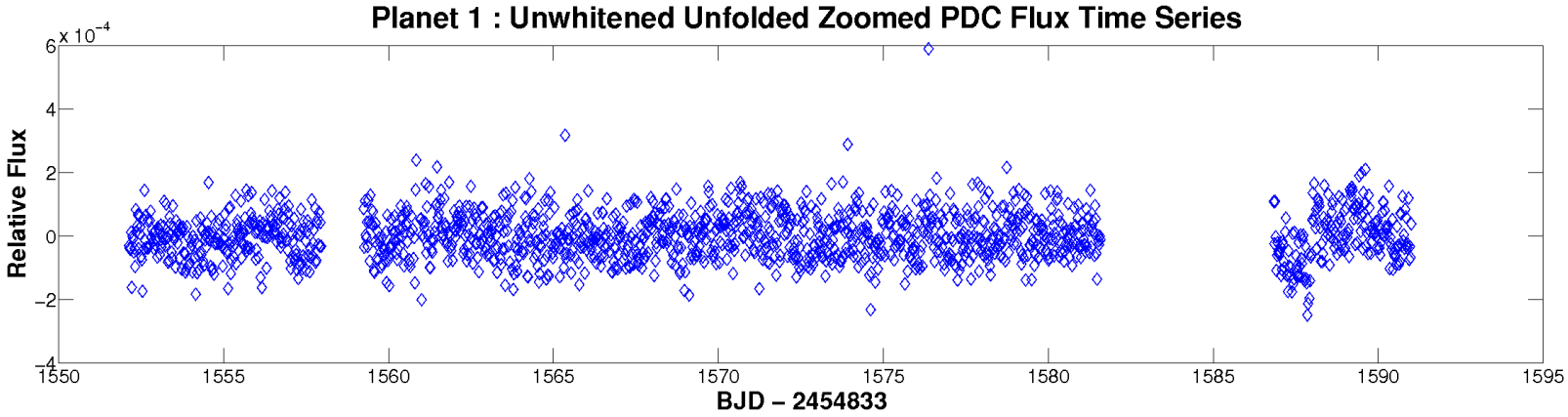
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.005. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.01. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-09-044.fig`



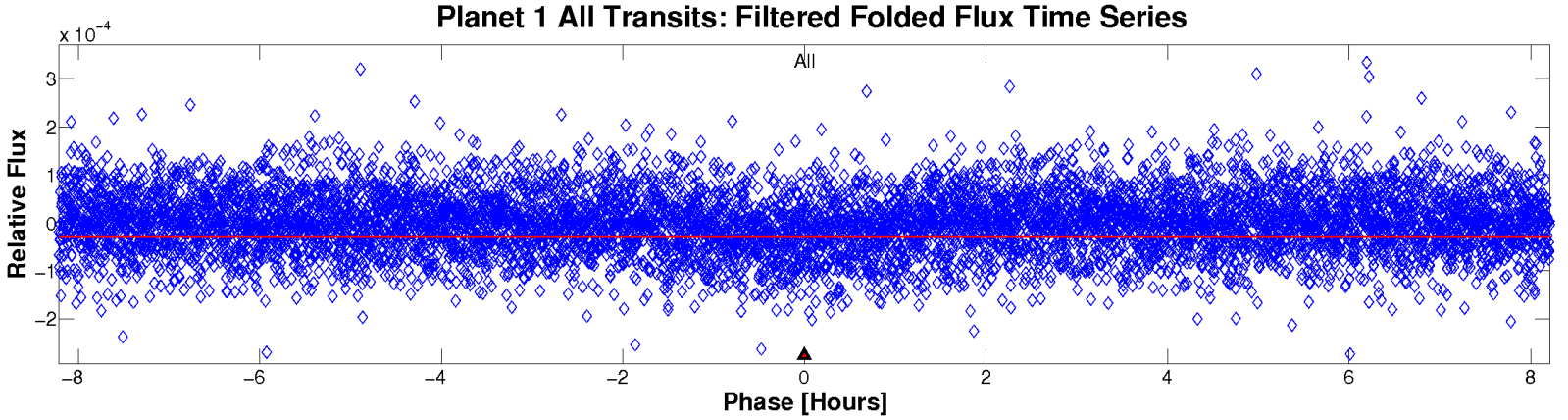
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-13/TargetTableId-056, start BJD is 2456015 and the vertical offset is 0. For the data of Quarter-14/TargetTableId-059, start BJD is 2456107 and the vertical offset is 0.005. For the data of Quarter-15/TargetTableId-062, start BJD is 2456206 and the vertical offset is 0.01. For the data of Quarter-16/TargetTableId-065, start BJD is 2456305 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-13-056.fig`



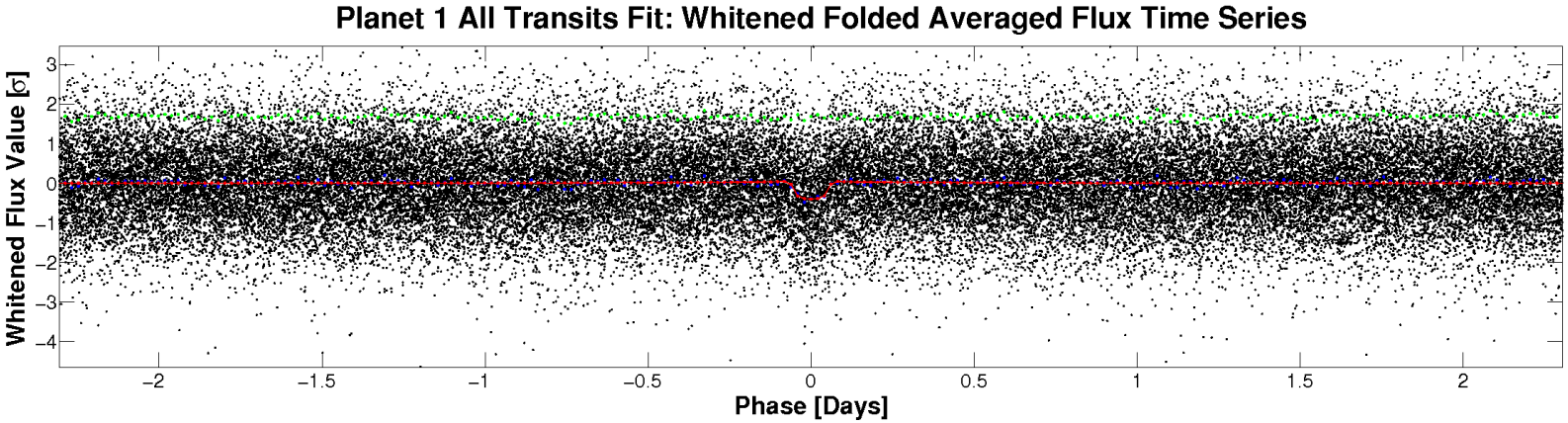
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-17/TargetTableId-068, start BJD is 2456392. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-17-068.fig`



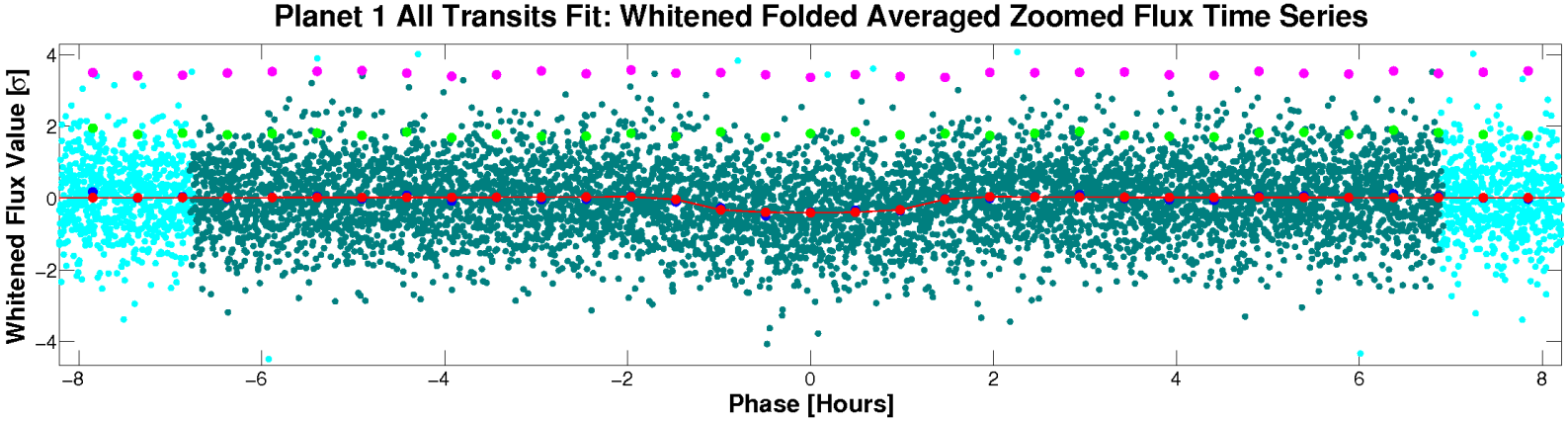
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-zoomed.fig`



PDC Flux time series of all transits for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at a specified multiple of the transit duration, folded per the fitted period and epoch, and zoomed to the location of the model transit.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-filtered-zoomed.fig`



Folded flux time series for KeplerId 9602613, Planet candidate 1 in the whitened domain is plotted in black dots. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the folded model light curve of the all transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-whitened.fig`

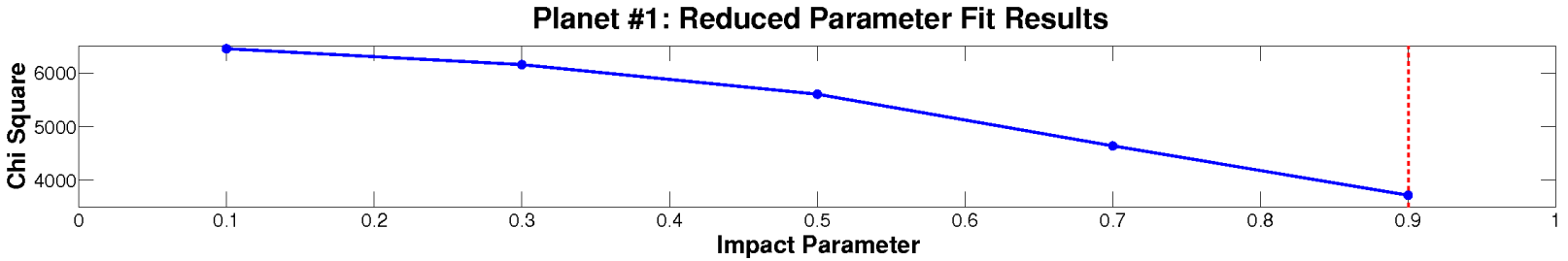


Folded flux time series for KeplerId 9602613, Planet candidate 1 in the whitened domain, zoomed on the transit. The flux data whose robust weights are larger/smaller than 0.1 are plotted in dark green/cyan dots, respectively. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the fitted model light curve of the all transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. Magenta dots are the averaged values of the folded flux time series, with a phase shift of 0.5 relative to the blue dots, vertically offset for clarity. All transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-whitened-zoomed.fig`

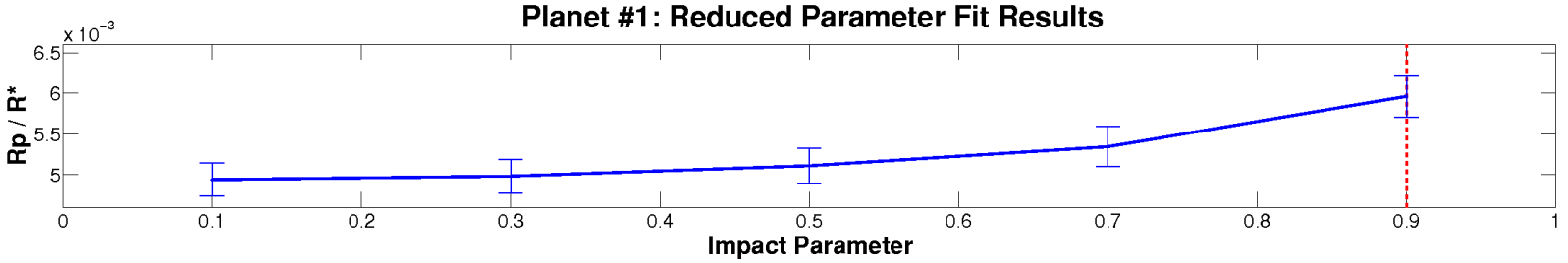
9.2 Model Fitter: Reduced Parameter Fit Results

Impact Parameter	SNR	Model Chi Square	Planet Radius to Star Radius	Uncert	Semi-major Axis to Star Radius	Uncert	Transit Depth (ppm)	Uncert	Transit Duration (hours)	Uncert
0.10	13.2	6450.5	0.0049415	2.0135e-04	12.6403	4.7427e-01	30	2.4451e+00	2.7904	1.0481e-01
0.30	13.1	6154.2	0.0049844	2.0636e-04	12.2544	5.5245e-01	30	2.4741e+00	2.7615	1.2469e-01
0.50	12.9	5602.7	0.0051116	2.1386e-04	11.5810	4.8343e-01	30	2.5028e+00	2.6578	1.1120e-01
0.70	12.1	4639.1	0.0053461	2.4716e-04	10.9480	6.2761e-01	30	2.7392e+00	2.3289	1.3395e-01
0.90	12.6	3718.0	0.0059644	2.5906e-04	6.0873	3.1591e-01	29	2.5319e+00	2.6327	1.3906e-01

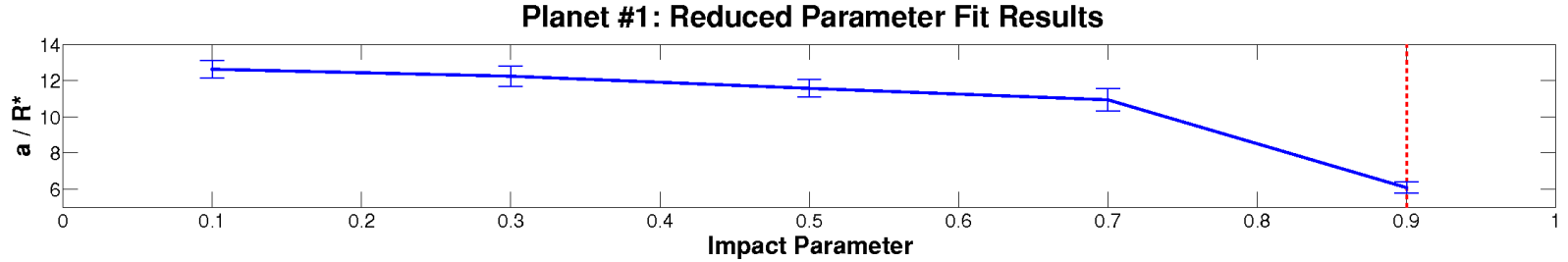
Highlighted row is the best reduced-parameter model fit.



Model chi squares of reduced parameter fits vs. impact parameter for KeplerId 9602613, Planet candidate 1. The fit result with the minimum chi square is marked with a dashed line in the plot.
Open `./planet-01/planet-search-and-model-fitting-results/reduced-parameter-fits/009602613-01-reduced-fits-chi-square.fig`



Ratios of planet radius to star radius of reduced parameter fits vs. impact parameter for KeplerId 9602613, Planet candidate 1. The fit result with the minimum chi square is marked with a dashed line in the plot.
Open `./planet-01/planet-search-and-model-fitting-results/reduced-parameter-fits/009602613-01-reduced-fits-rp-over-rstar.fig`



Ratios of semimajor axis to star radius of reduced parameter fits vs. impact parameter for KeplerId 9602613, Planet candidate 1. The fit result with the minimum chi square is marked with a dashed line in the plot.
Open `./planet-01/planet-search-and-model-fitting-results/reduced-parameter-fits/009602613-01-reduced-fits-a-over-rstar.fig`

9.3 Model Fitter: Trapezoidal Fit Results

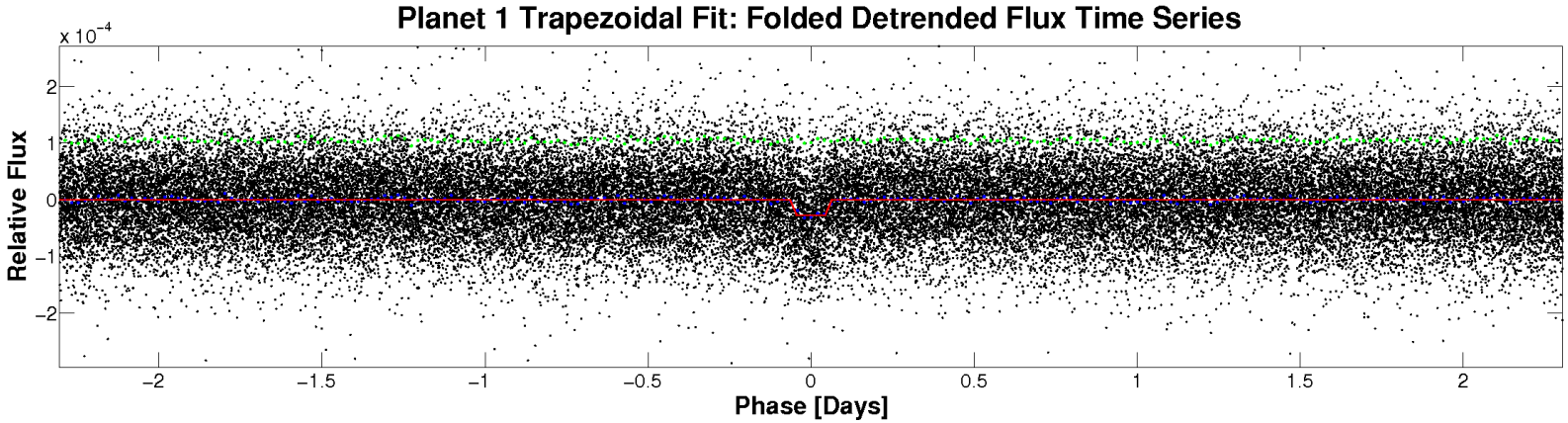
Model Characteristic	Name
Transit Model	trapezoidal_model
Limb Darkening Model	

TCE Parameter	Value	Units
Trial Transit Pulse Duration	3.0	hours
Transit Epoch	54966.3632776	MJD
Orbital Period	4.6122394	days
Maximum SES	3.0	
Maximum MES	11.4	
Robust Statistic	11.6	
Chi Square Goodness of Fit Statistic (DoF)	1485.5 (1480)	
Chi Square2 Statistic (DoF)	226.7 (235.7)	
Threshold for Desired PFA		

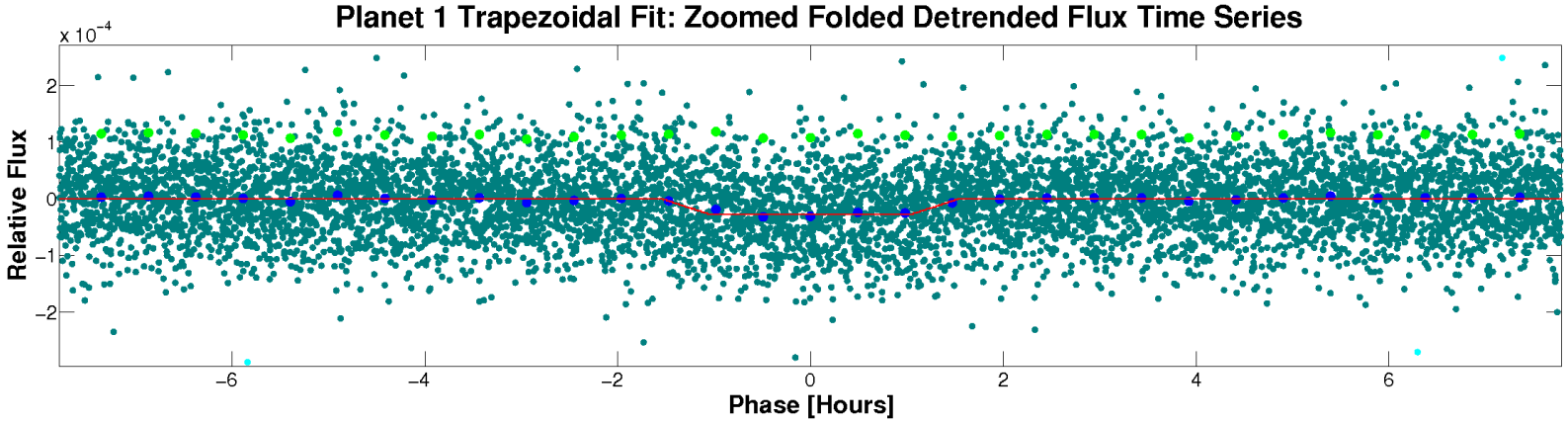
DoF: Degrees of Freedom

Parameter	Value	Uncertainty	Units
SNR	14.1		
Orbital Period	4.6122394		days
Transit Epoch	133.8628086		BKJD
Transit Depth	27		ppm
Transit Duration	2.5969		hours
Transit Ingress Time	0.0000		hours
Model Chi Square Statistic (DoF)	53294.9 (10969)		

DoF: Degrees of Freedom



Folded detrended flux time series for KeplerId 9602613, Planet candidate 1 and folded trapezoidal model light curve.
Open `./planet-01/planet-search-and-model-fitting-results/trapezoidal-model-fit/009602613-01-all-trapezoidal.fig`



Zoomed folded detrended flux time series for KeplerId 9602613, Planet candidate 1 and folded trapezoidal model light curve.
Open `./planet-01/planet-search-and-model-fitting-results/trapezoidal-model-fit/009602613-01-all-trapezoidal-zoomed.fig`

9.4 Validation Tests

The Centroid Test and Eclipsing Binary Discrimination Test are chi-squared hypothesis tests. For these tests, a significance of 100% favors a planet, while 0% indicates an unlikely planet.

9.4.1 Weak Secondary Test

Result	Value	Uncertainty	Units	Statistic in Sigmas	Significance (%)
Orbital Period	4.6122		days		
Transit Duration	3		hours		
Maximum MES	11.4				
Secondary Phase	2.3247		days		
Secondary MES	2.3				
Minimum Phase	3.3185		days		
Minimum MES	-2.4				
Median MES	-0.1				
MAD MES	0.58415				
Robust Statistic	2.3				
Secondary Depth	5.4	2.2278e+00	ppm		
Geometric Albedo	21.4	1.8153e+01		1.1226	13.08
Planet Effective Temperature	3432	7.1541e+02	Kelvin	3.3476	0.04

9.4.2 Flux-Weighted Centroid Test

Result	Value	Uncertainty	Units	Value in Sigmas	Significance (%)
Stellar Magnitude	11.8300	0.0000e+00			
Motion Detection Statistic	2.1978e+01				0.00
Peak RA Offset	4.0634e-06	2.7064e-05	arcseconds	0.1501	
Peak Dec Offset	-6.4620e-05	2.4058e-05	arcseconds	-2.6860	
Peak Offset Distance	6.4748e-05	2.4071e-05	arcseconds	2.6899	
Source RA Offset	-2.1435e-01	9.2533e-01	arcseconds	-0.2316	
Source Dec Offset	2.1137e+00	8.2251e-01	arcseconds	2.5698	
Source Offset Distance	2.1246e+00	8.2363e-01	arcseconds	2.5795	
Source RA	19.80991555	2.4801e-05	hours		
Source Dec	46.29753714	2.2848e-04	degrees		

Peak offsets are relative to the out-of-transit centroid. Source offsets are relative to the KIC target location.

9.4.3 Eclipsing Binary Discrimination Test

Result	Value	Value in Sigmas	Significance (%)
Odd Even Transit Depth Comparison Statistic	1.3142e-01	0.3625	71.70
Odd Even Transit Epoch Comparison Statistic	1.0371e-03	0.0322	97.43
Longer Period Comparison Statistic	3.3713e+02	18.3611	100.00

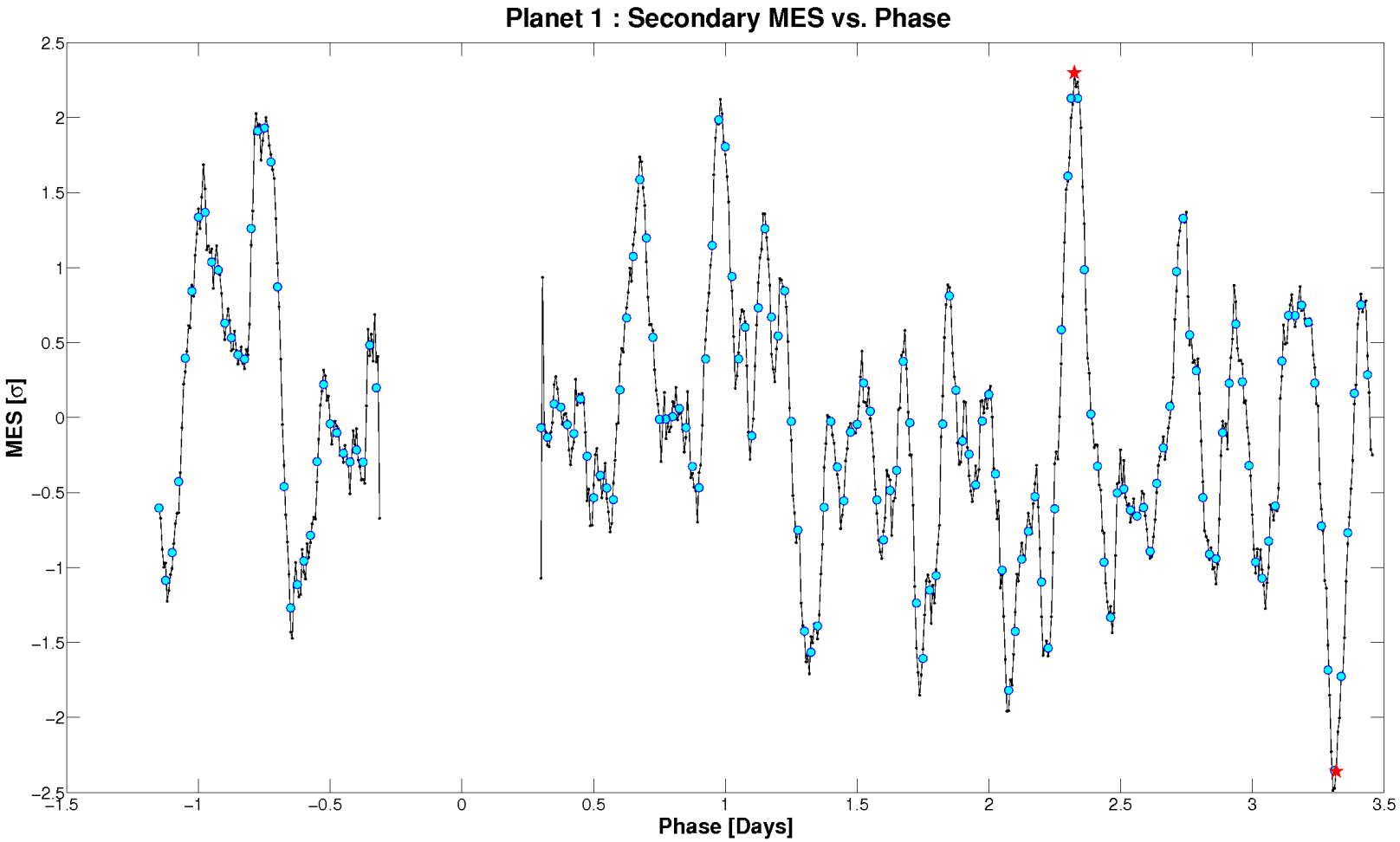
9.4.4 Bootstrap Test

Result	Value
False Alarm Probability	8.5863e-29
Bootstrap Threshold for Desired PFA	7.3
MES Mean	-0.08
MES Standard Deviation	1.04
Observed Number of Transits	228

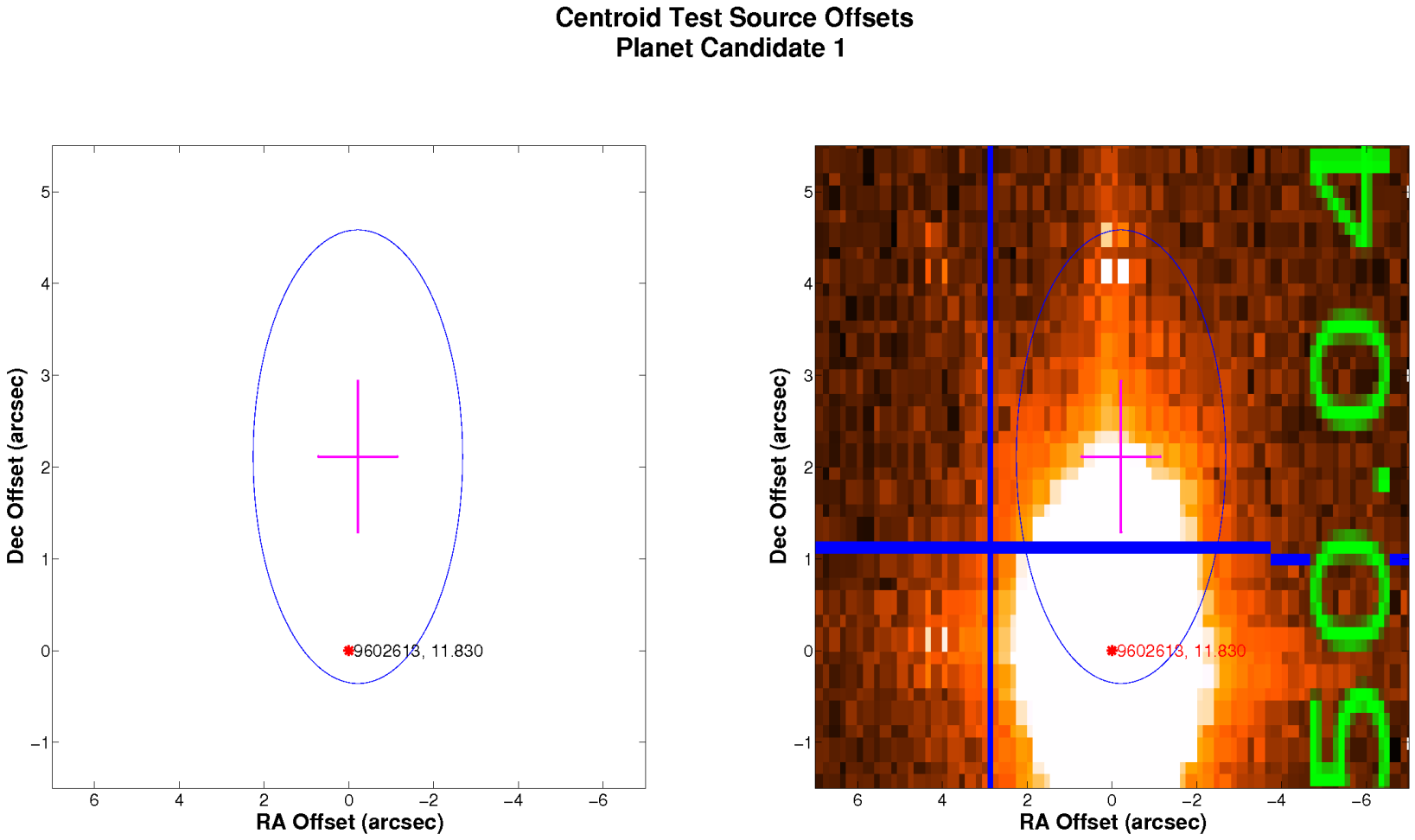
9.4.5 Ghost Diagnostic Test

Result	Value	Significance (%)
Maximum MES	11.4	
SNR	12.2	
Core Aperture Statistic	9.6856e+00	100.00
Halo Aperture Statistic	2.9009e+00	99.81
Ratio of Core/Halo Aperture Statistics	3.3388e+00	

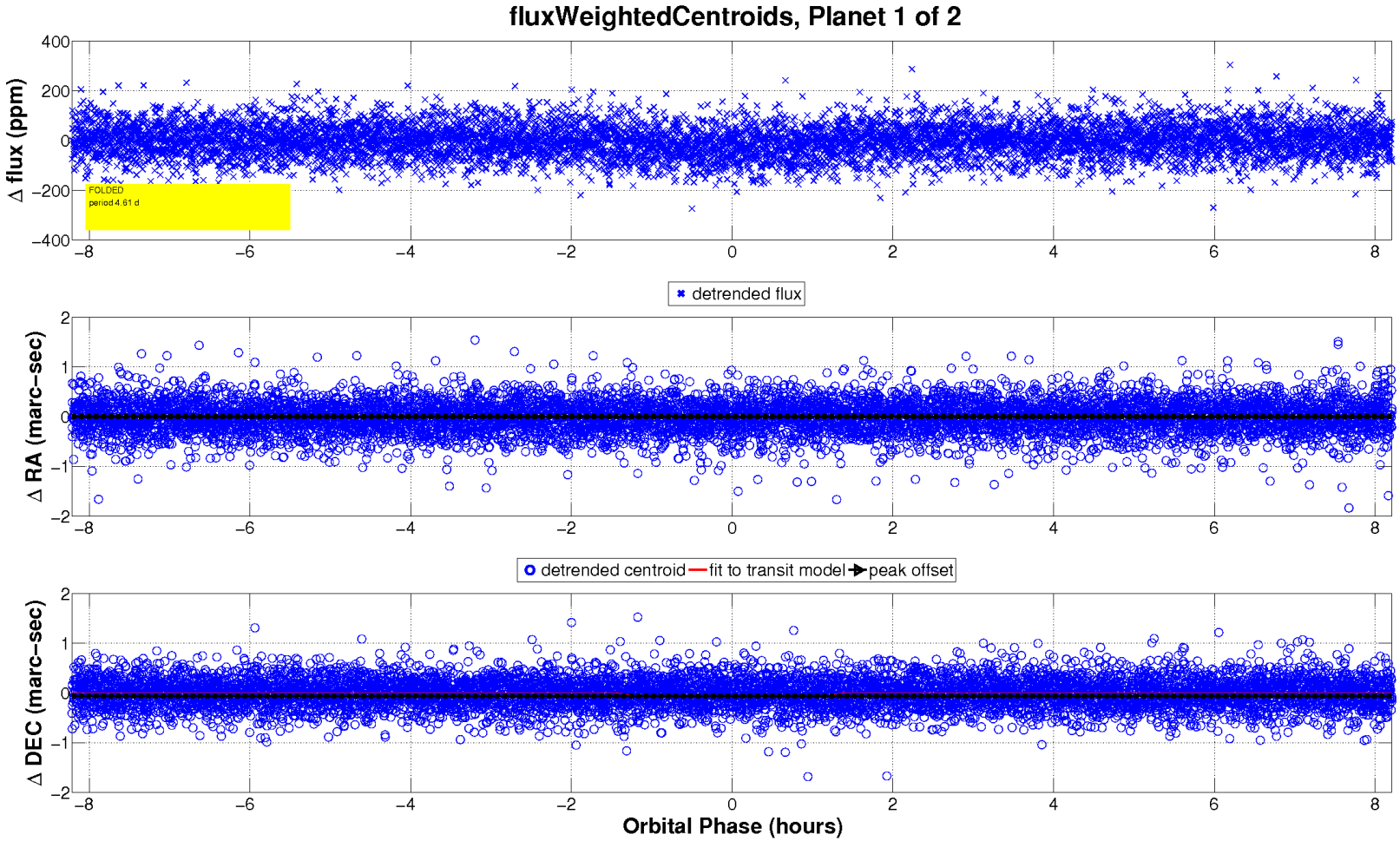
9.4.6 Validation Test Figures



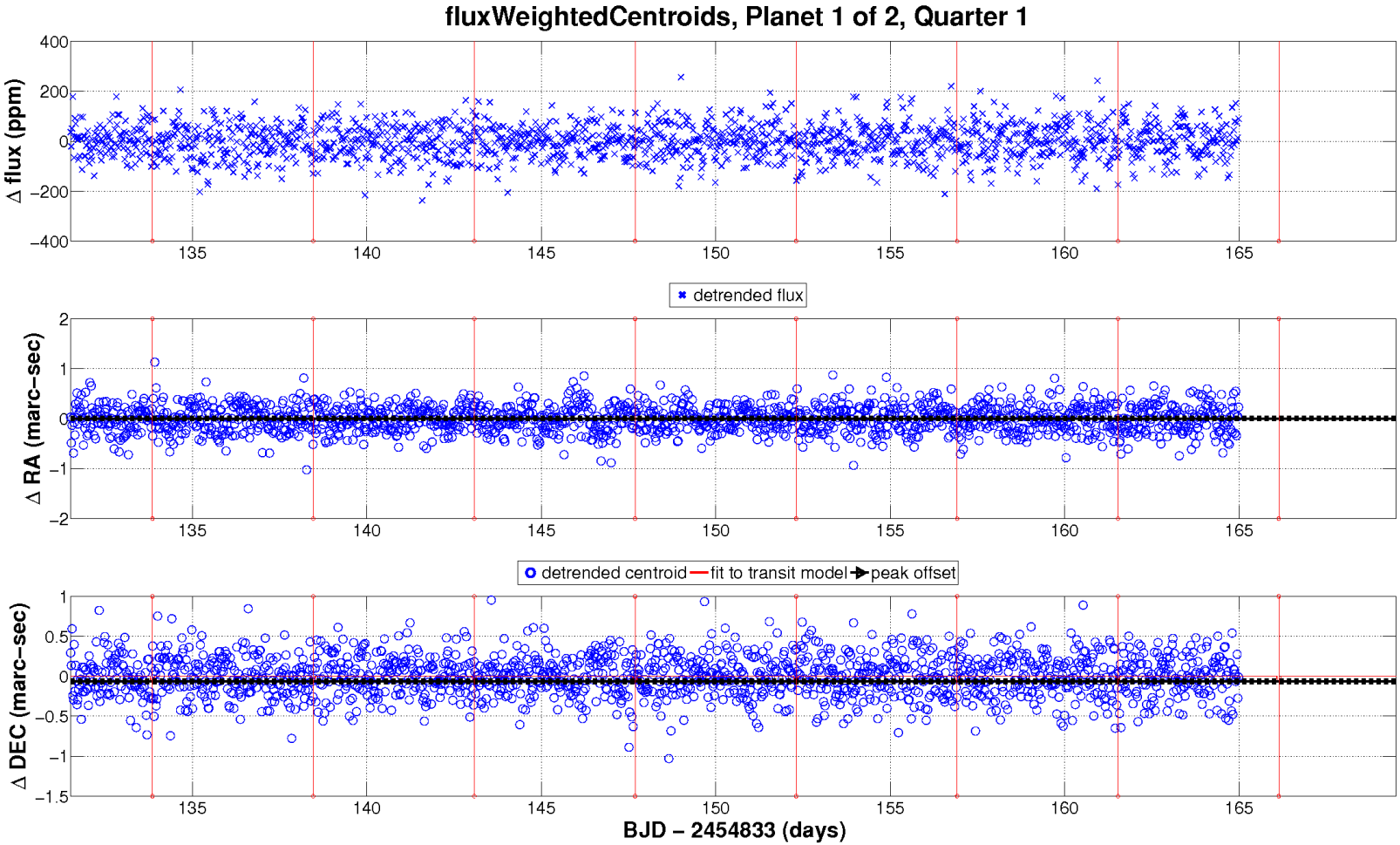
The primary event has been set to zero and both the max and min of the resulting MES vs. Phase are marked with a red star. The best matched pulse duration in hours is 3. The maximum secondary MES and corresponding phase are 2.2998 and 2.3247 days respectively. The minimum secondary MES and corresponding phase are -2.3582 and 3.3185 days respectively.
Open `./planet-01/report-summary/009602613-01-weak-secondary-diagnostic.fig`



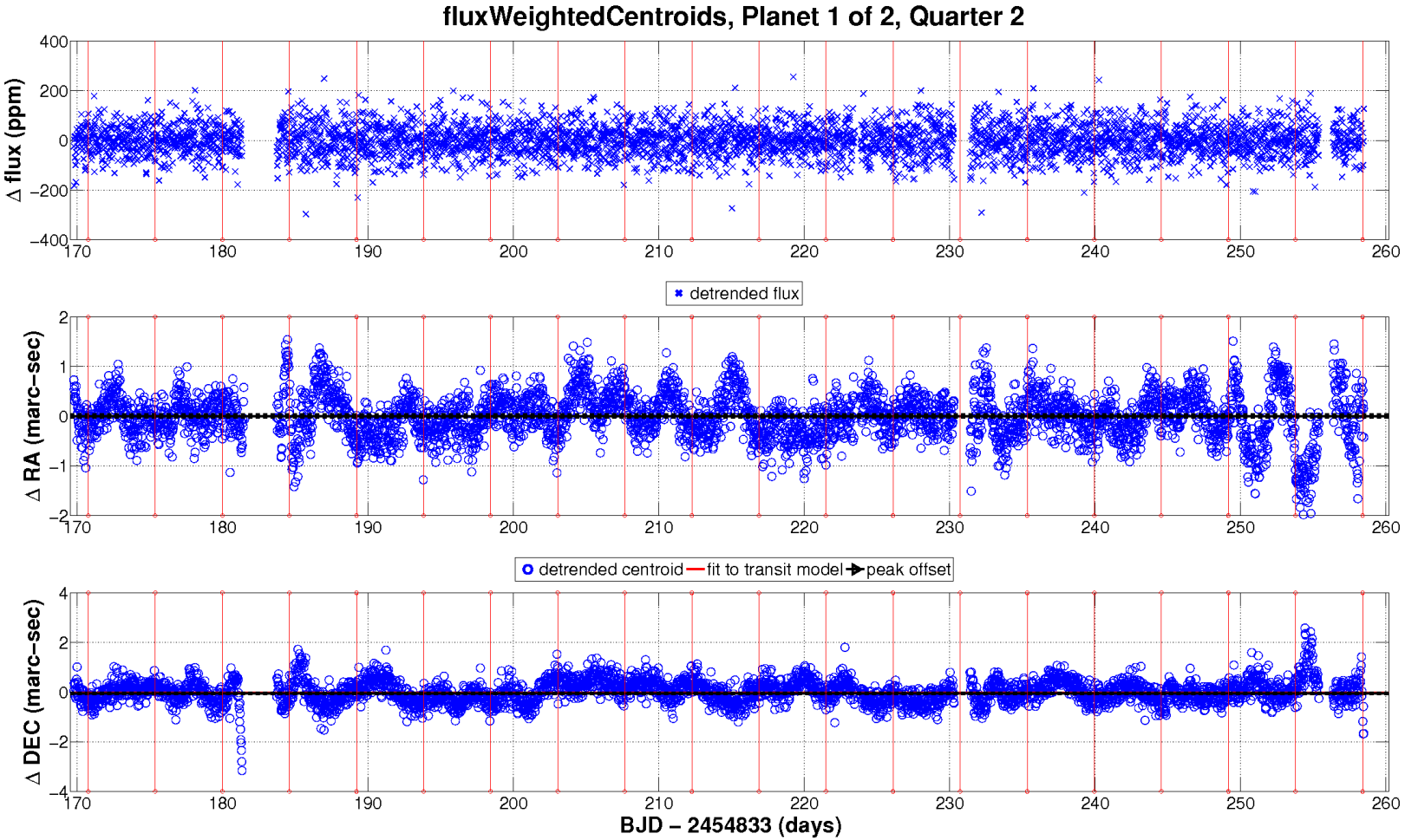
Flux weighted centroid test source offsets for target 9602613, planet candidate 1. Symbol key: magenta cross: flux weighted centroid test source offsets with 1-sigma error bars in RA and Dec; blue circle: 3-sigma radius of confusion for source offset; red asterisk: location of target star; blue asterisk: location of other KIC objects in the neighborhood. KIC ID and magnitude are noted in the text associated with each marked object (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000). Figure on right is displayed on UKIRT image for given target.
Open `./planet-01/centroid-test-results/009602613-01-centroid-test-source-offsets.fig`



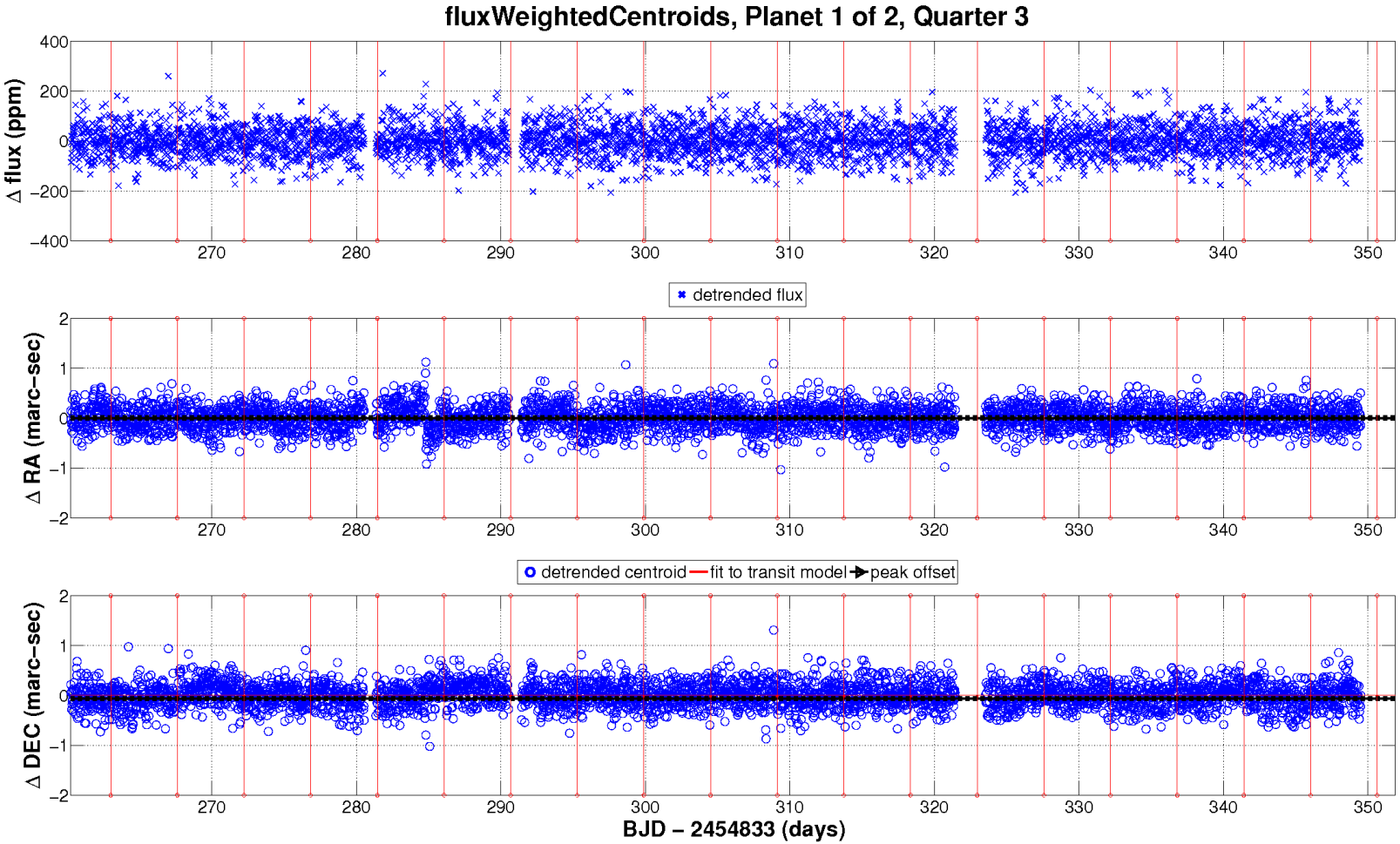
KeplerId 9602613, KeplerMag 11.83 - FOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data folded at the fitted orbital period and centered on the fitted transit over a few fitted transit durations. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out-of-transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-folded-transit-fit-fluxWeighted-centroids.fig`



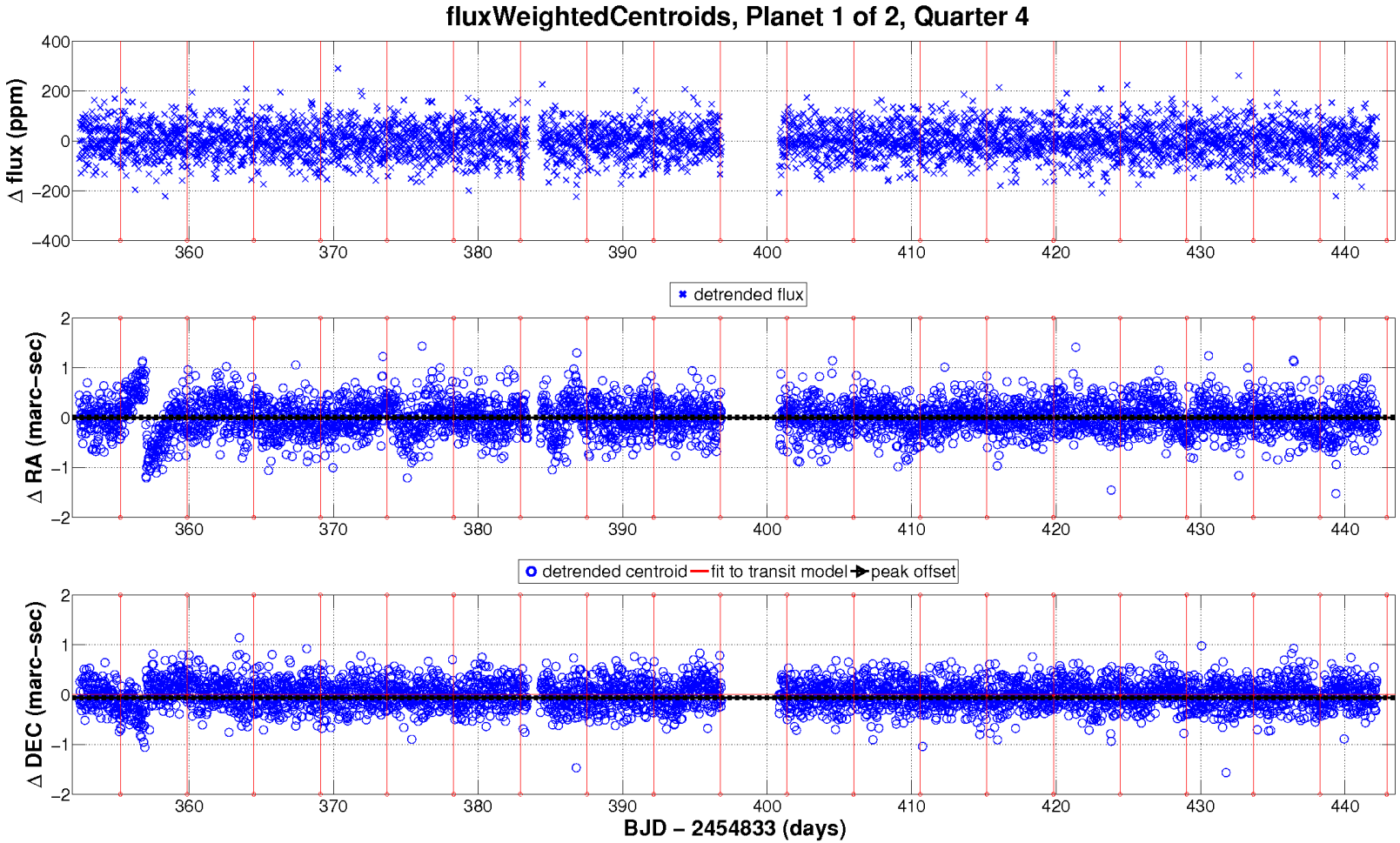
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-01.fig`



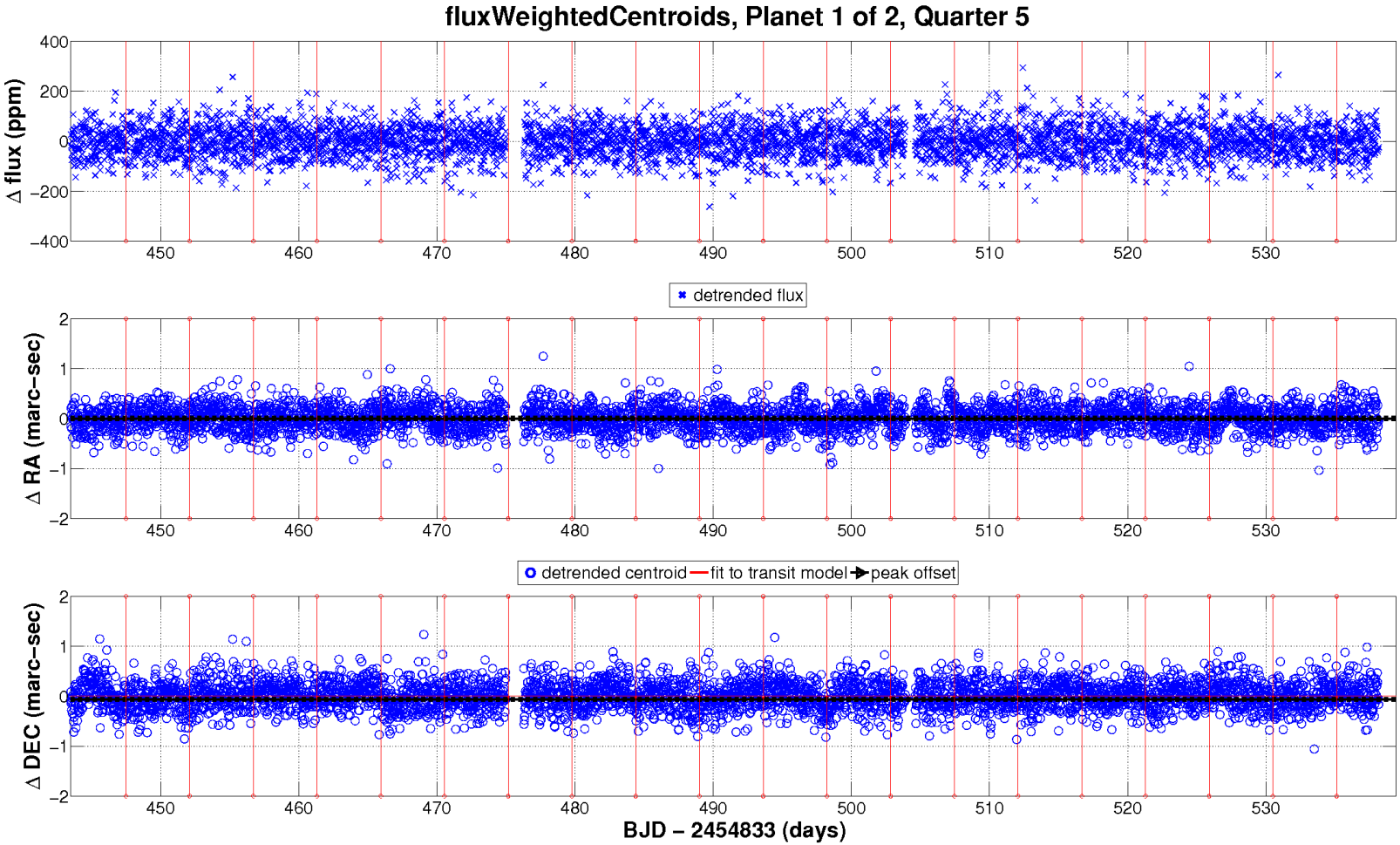
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-02.fig`



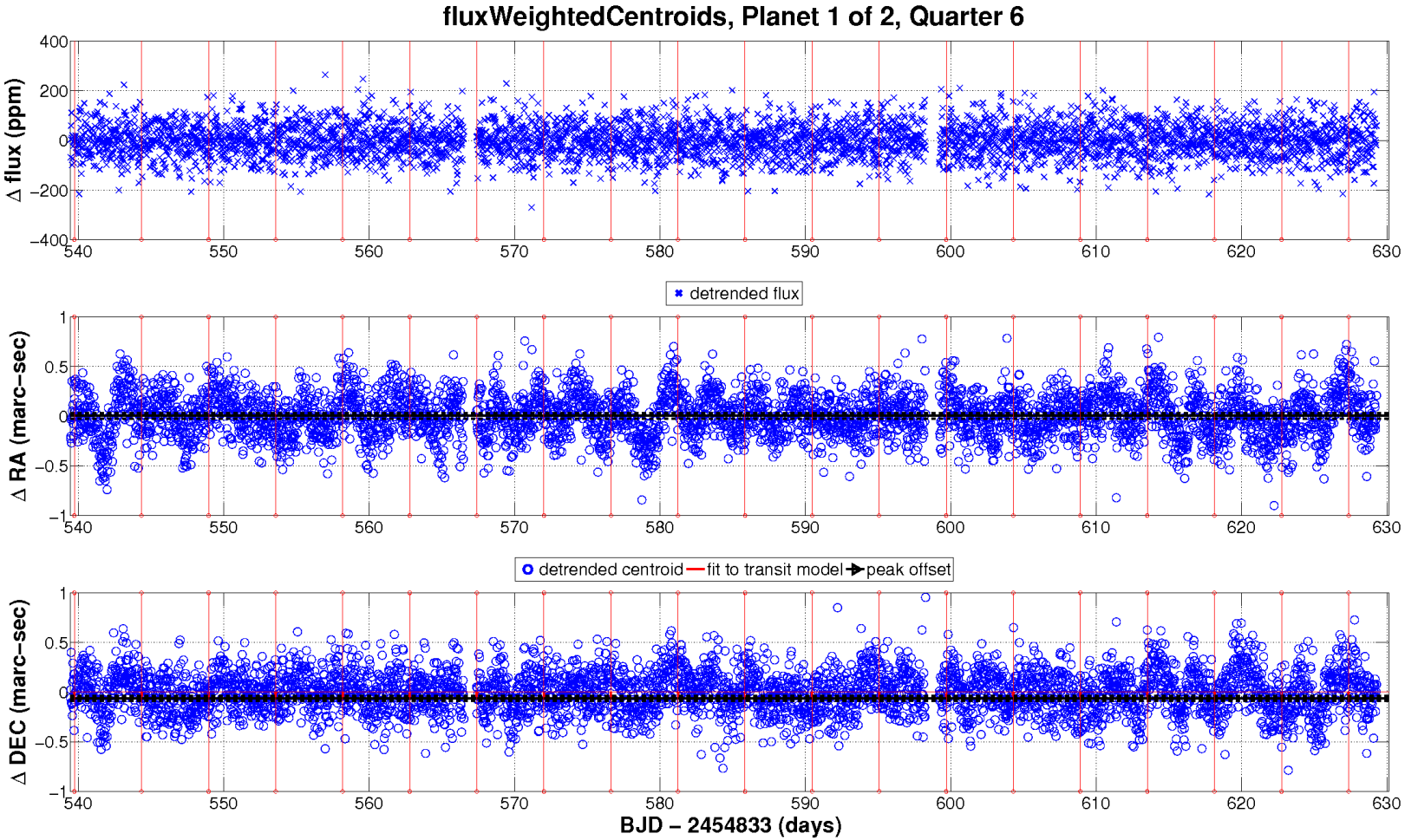
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-03.fig`



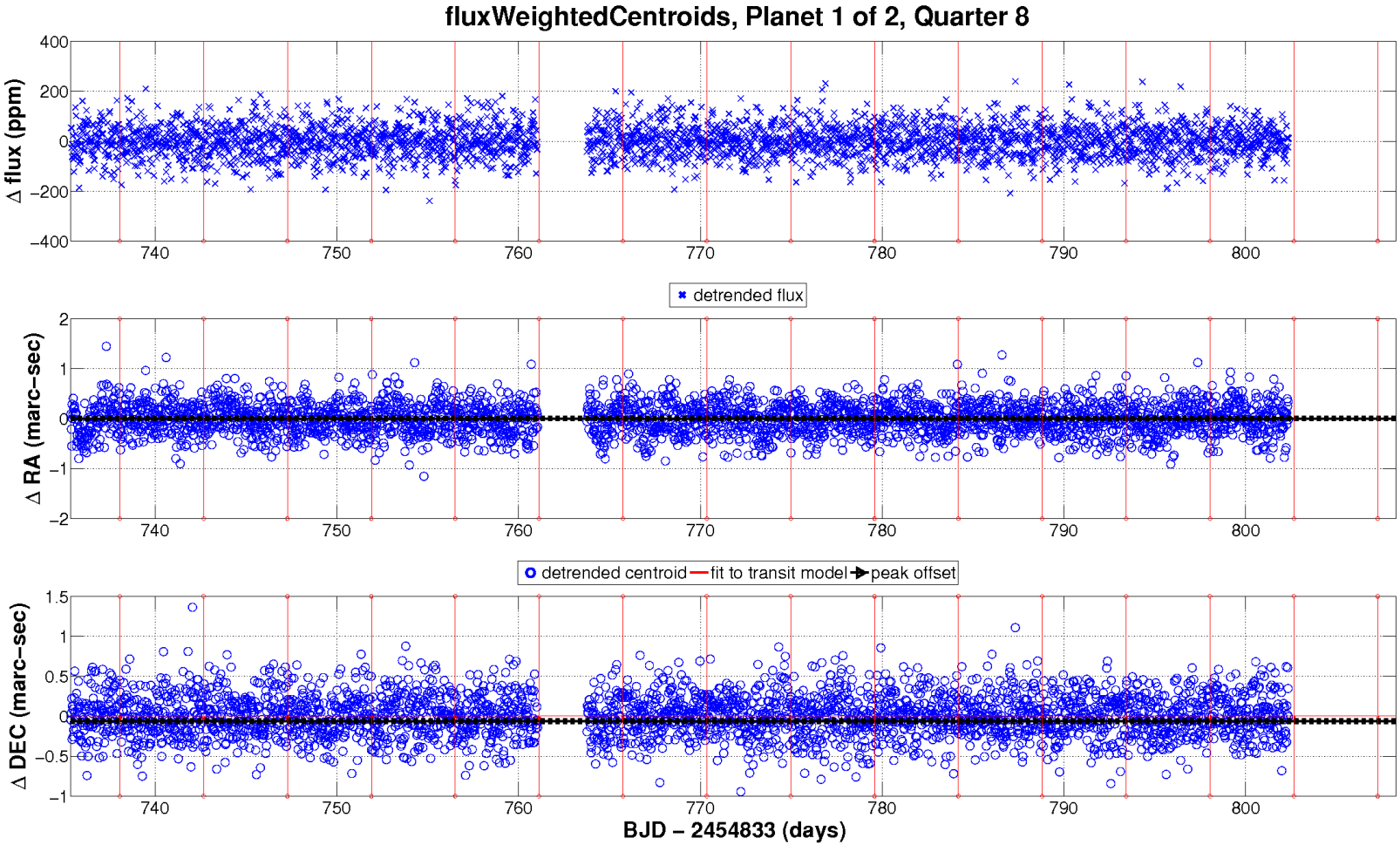
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-04.fig`



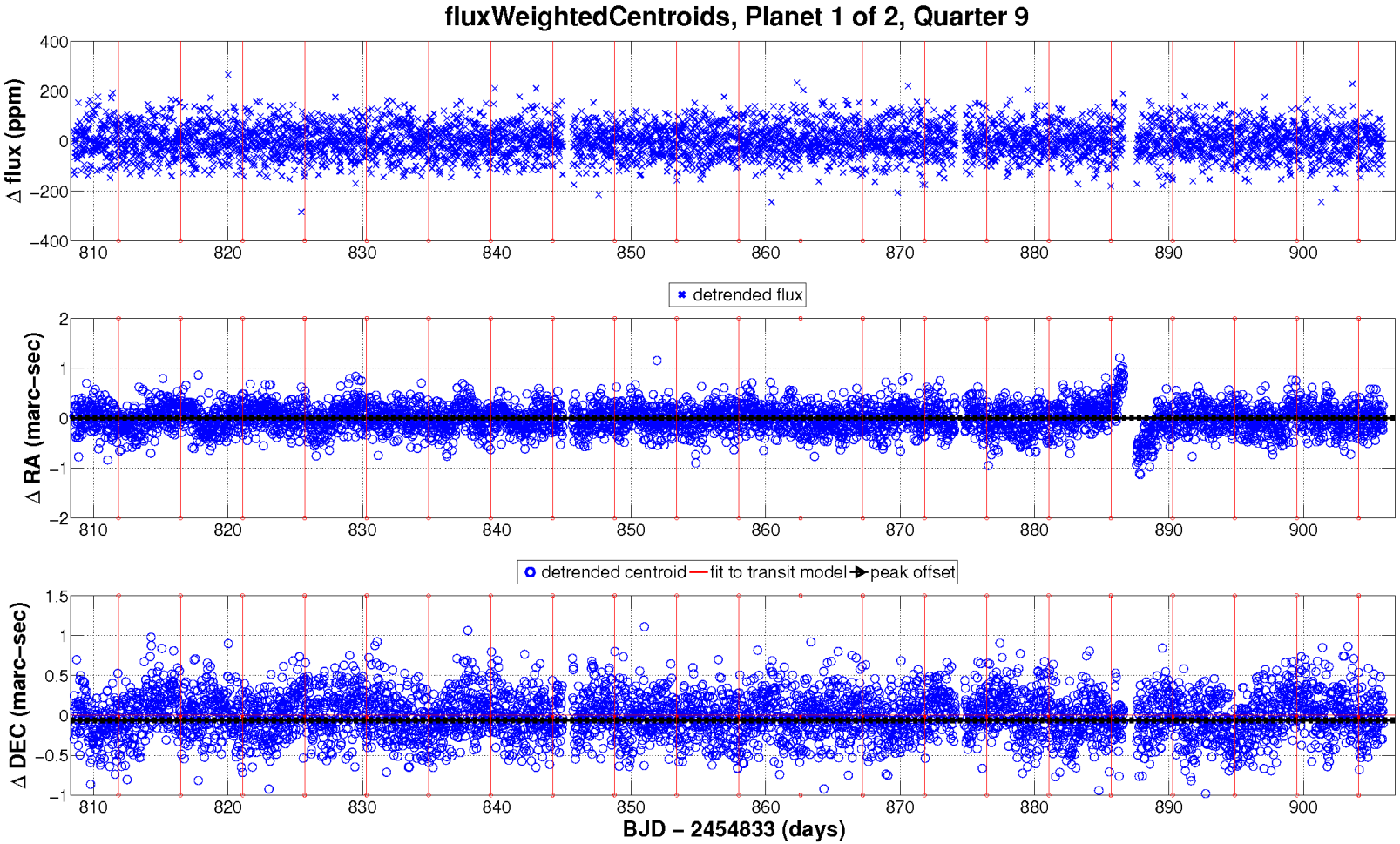
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-05.fig`



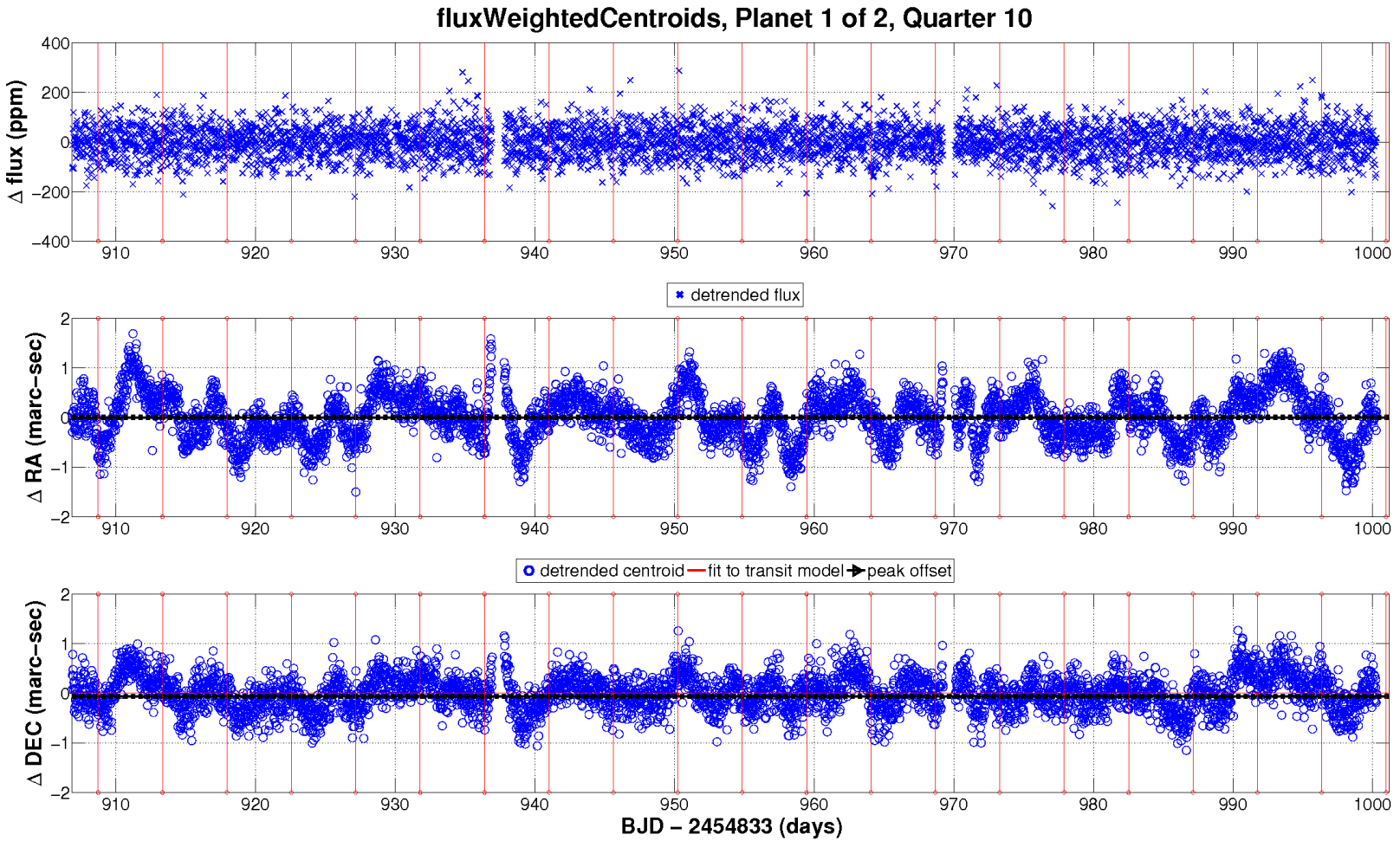
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-06.fig`



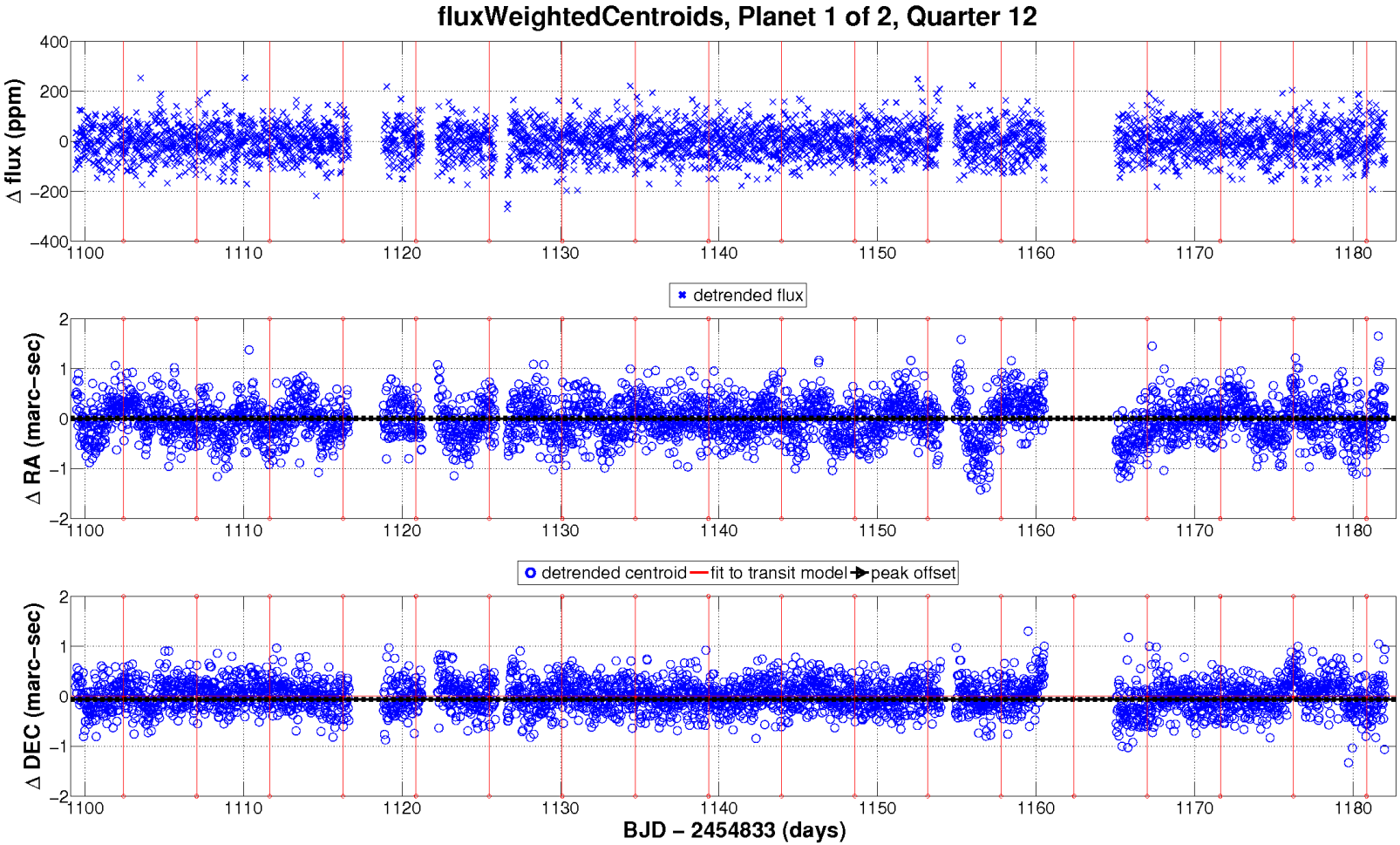
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-08.fig`



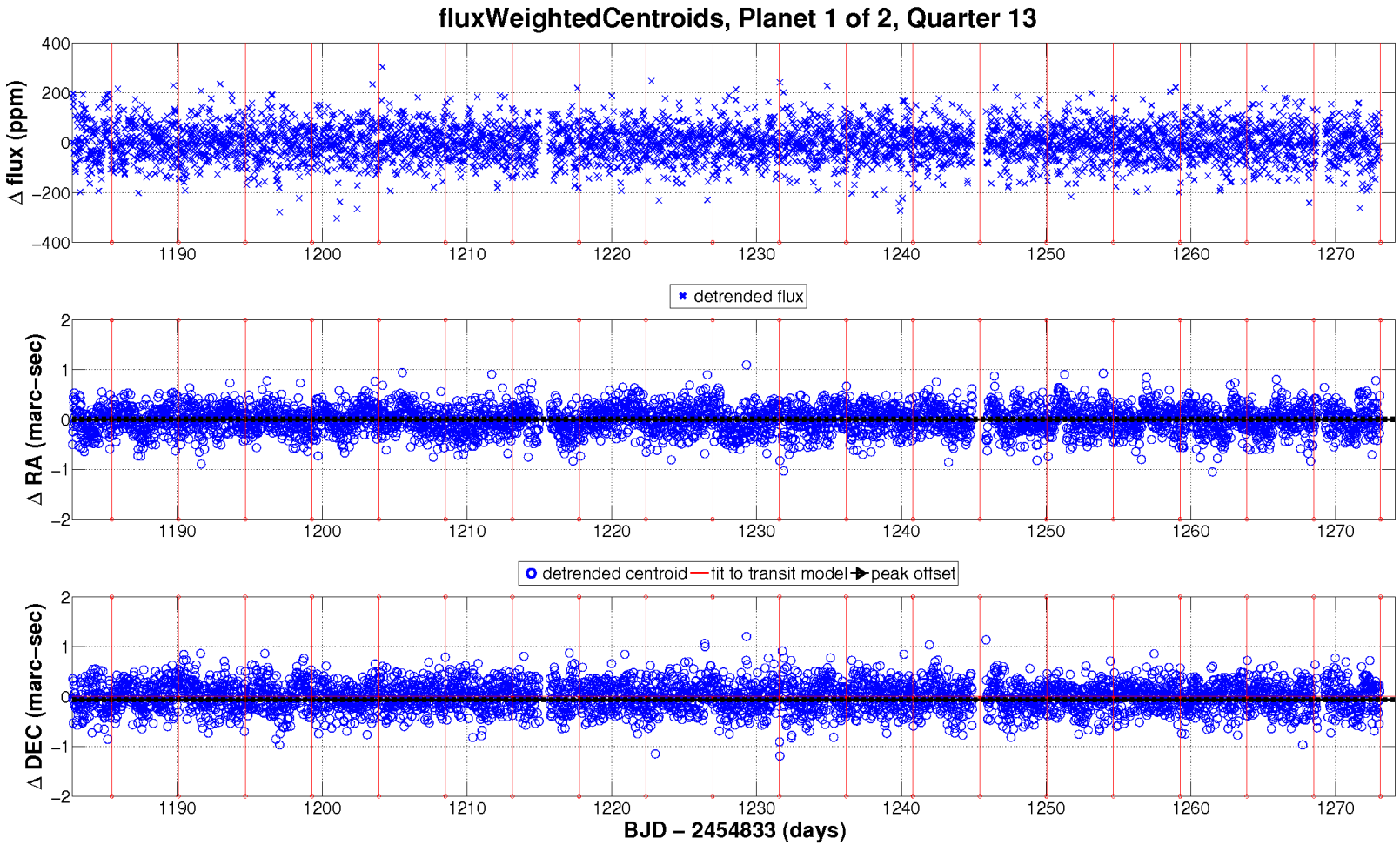
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-09.fig`



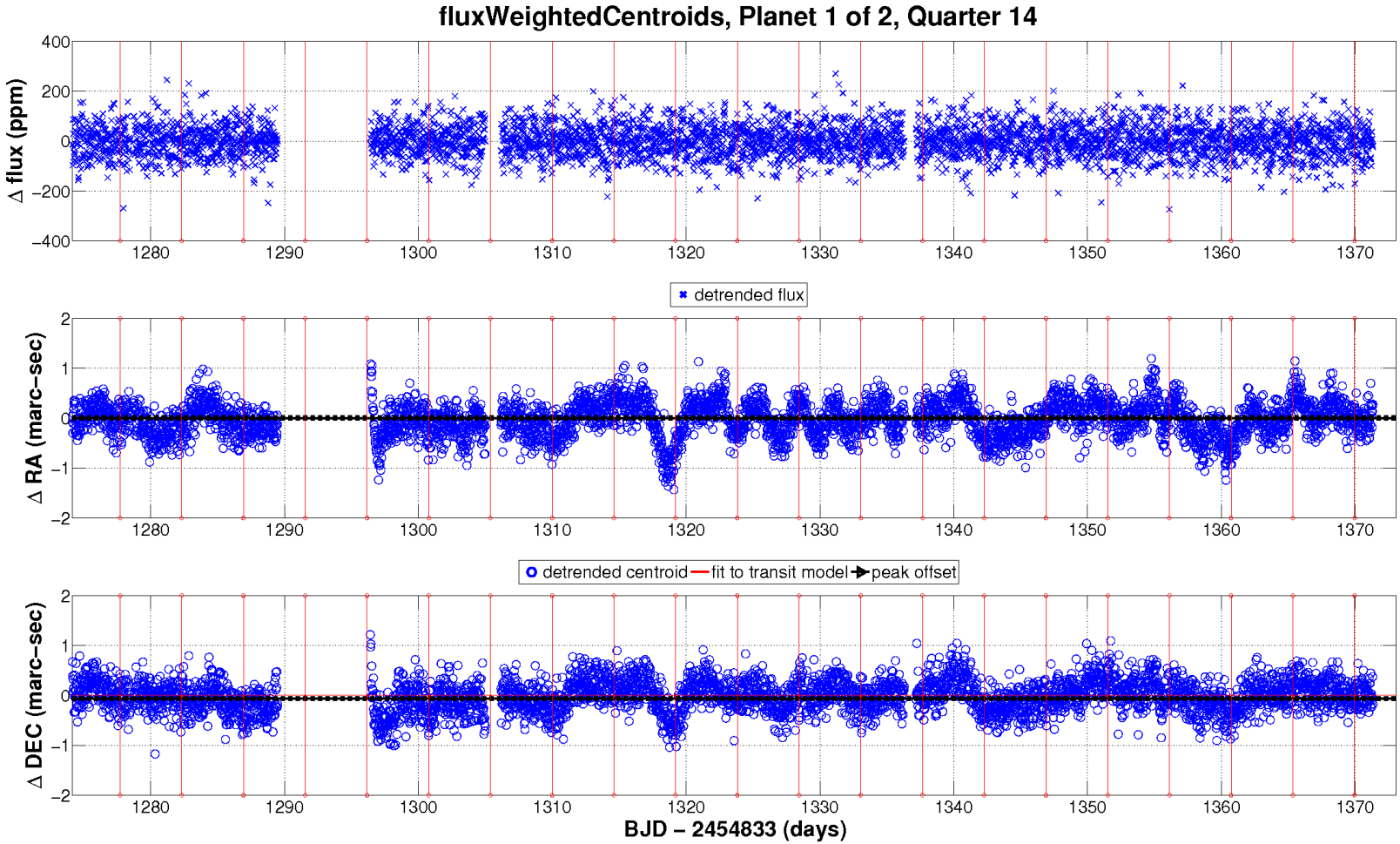
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-10.fig`



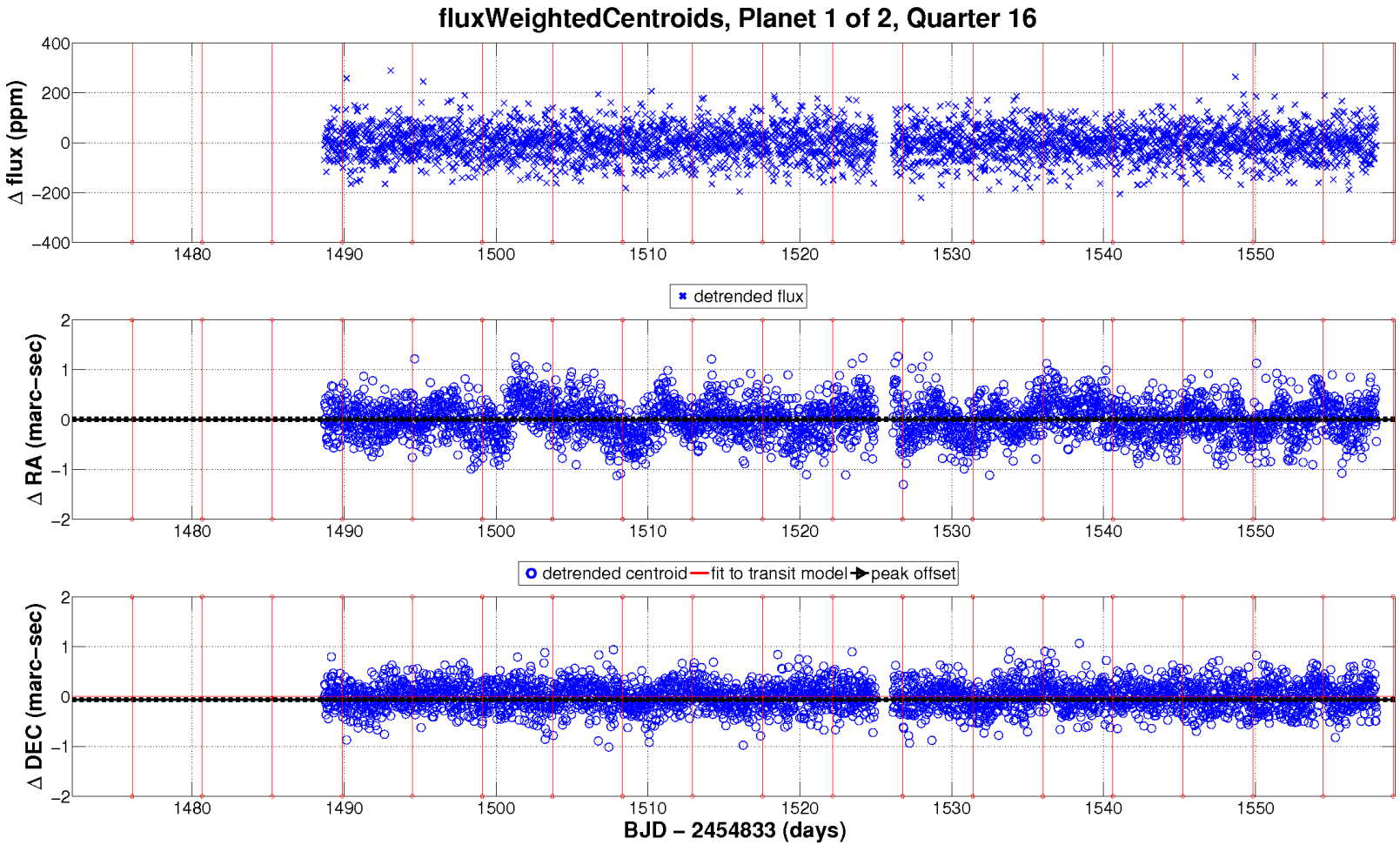
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-12.fig`



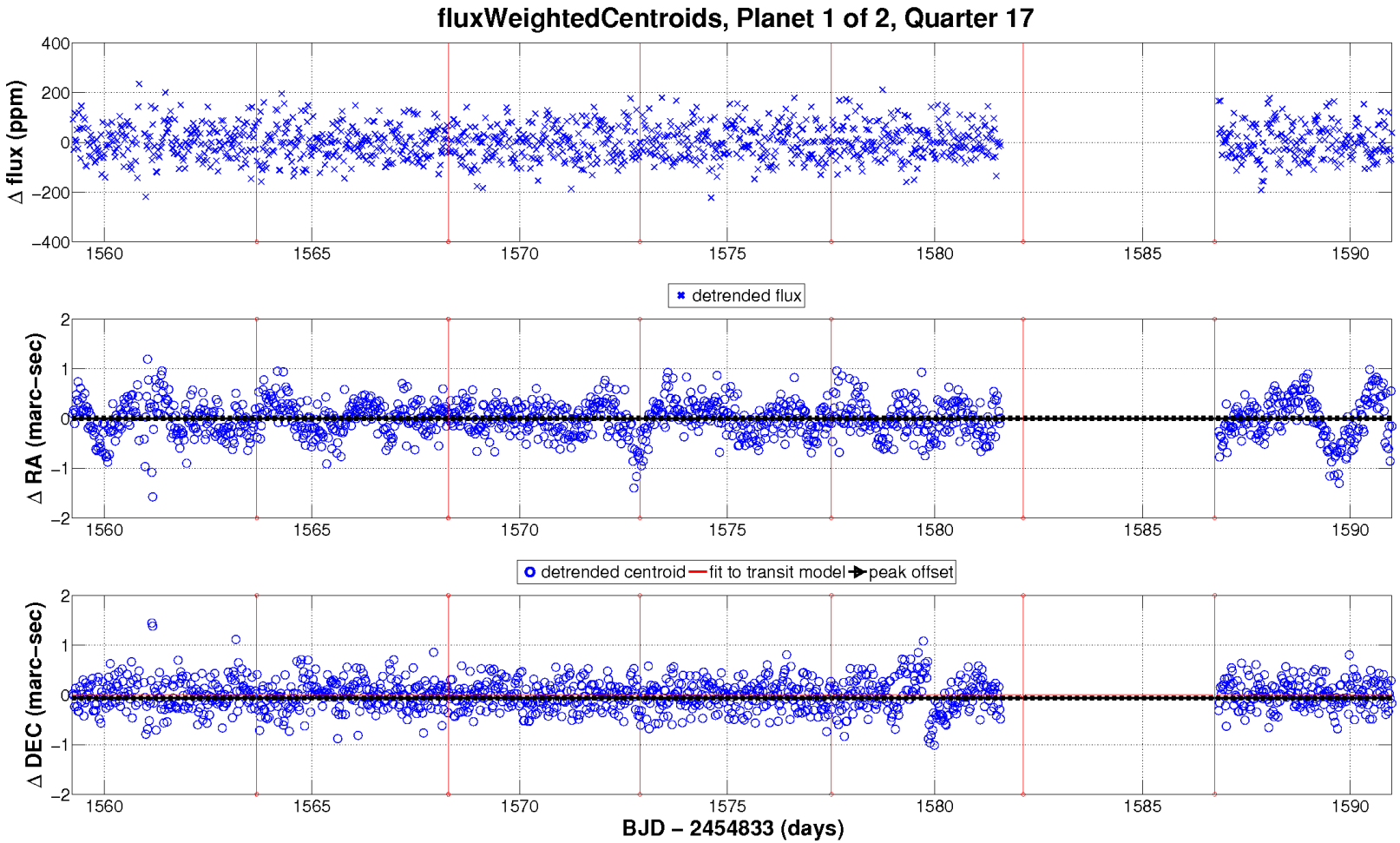
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-13.fig`



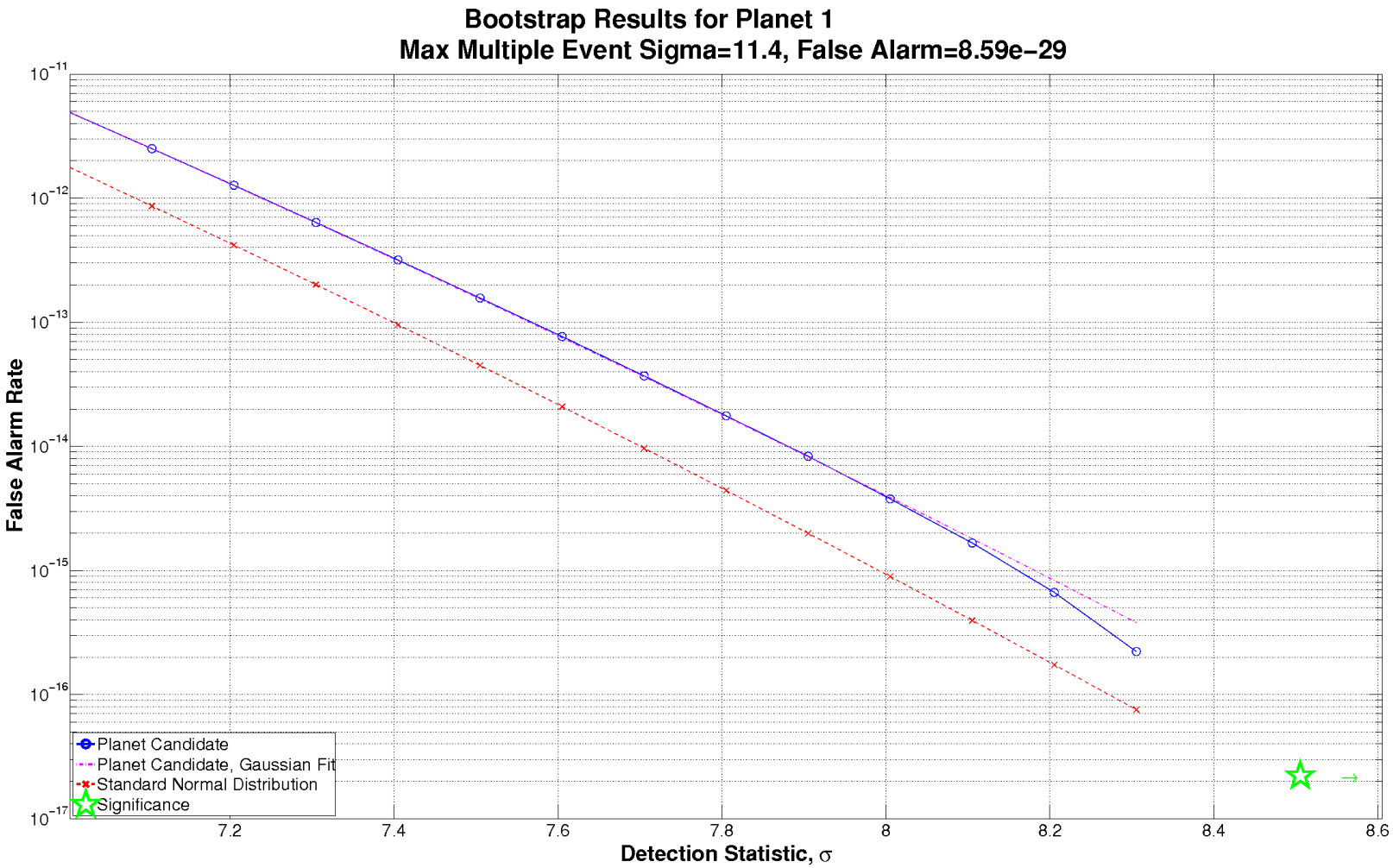
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-14.fig`



KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-16.fig`



KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-17.fig`



Bootstrap results for target 9602613, planet 1. Cumulative sum of the probabilities (derived from the histogram of counts) from upper tail to the search transit threshold; false alarm probability is indicated by the star. The Gaussian equivalent threshold for this false alarm probability is 11.0719. The threshold on this distribution that achieves the same false alarm rate as a 7.1 sigma threshold on a Gaussian distribution is 7.3091.
Open `./planet-01/bootstrap-results/009602613-01-bootstrap-false-alarm.fig`

10 Planet Candidate 2

10.1 Model Fitter: All Transits

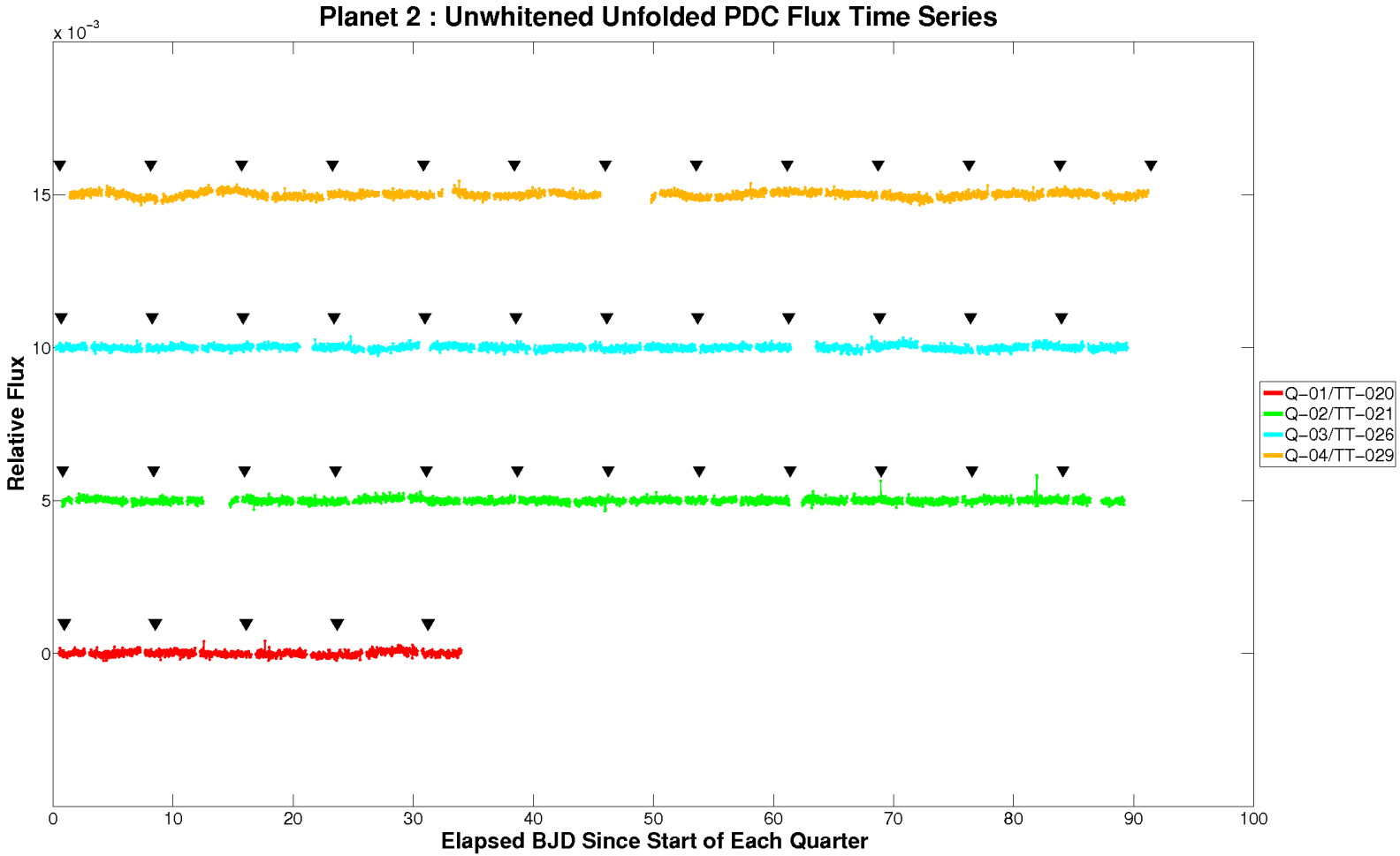
Model Characteristic	Name
Transit Model	mandel-agol_geometric_transit_model
Limb Darkening Model	claret_nonlinear_limb_darkening_model_2011

TCE Parameter	Value	Units
Trial Transit Pulse Duration	3.0	hours
Transit Epoch	54964.4382771	MJD
Orbital Period	7.5730216	days
Maximum SES	3.6	
Maximum MES	8.3	
Robust Statistic	9.3	
Chi Square Goodness of Fit Statistic (DoF)	880.7 (797)	
Chi Square2 Statistic (DoF)	138.1 (127.5)	
Threshold for Desired PFA		

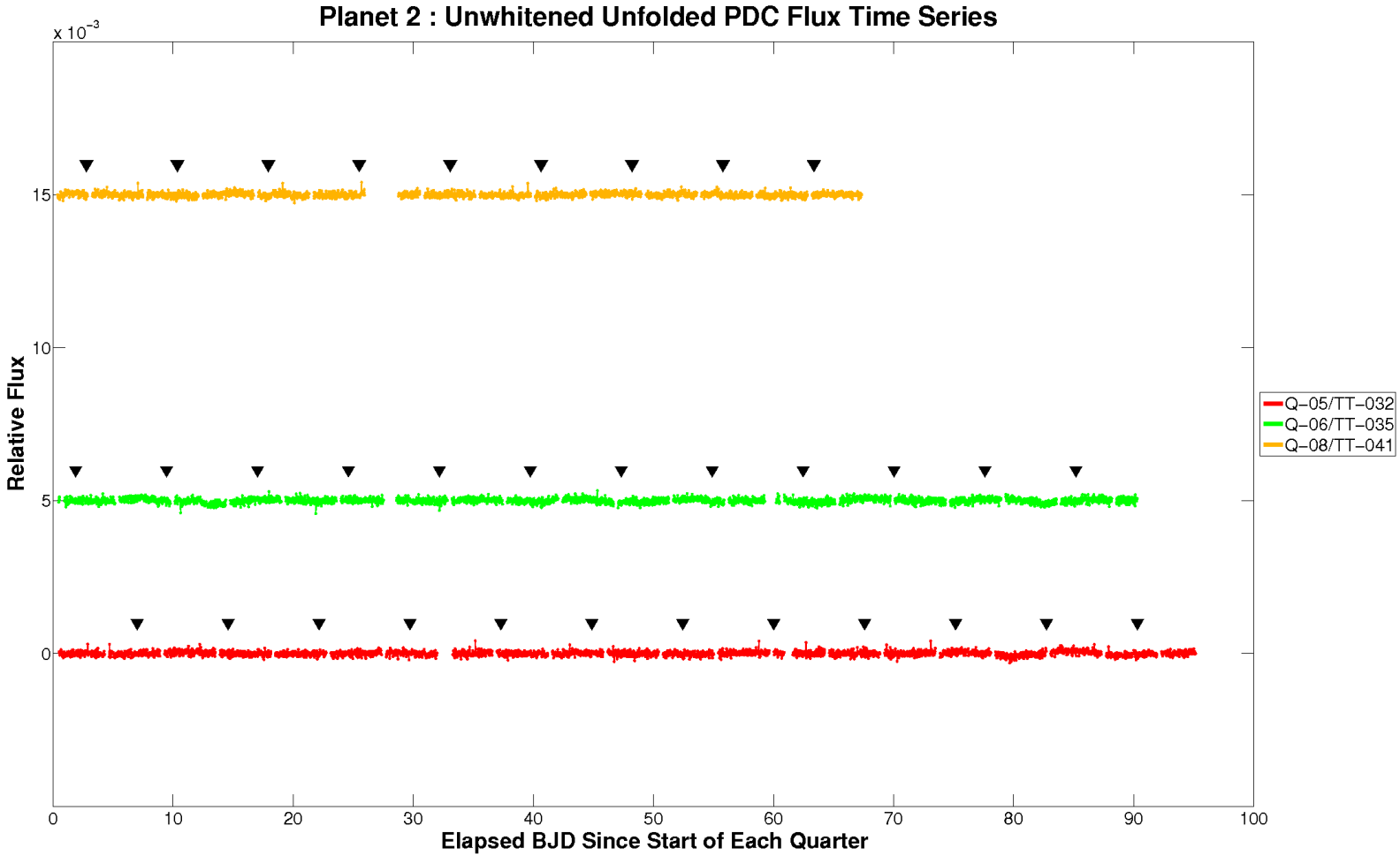
DoF: Degrees of Freedom

Parameter	Value	Uncertainty	Units
SNR	9.6		
Orbital Period	7.5730130	5.5106e-05	days
Transit Epoch	131.9409078	5.1402e-03	BKJD
Impact Parameter	0.8397	7.5038e-01	
Planet Radius to Star Radius Ratio	0.0058057	2.9003e-03	
Semi-major Axis to Star Radius Ratio	11.7445	2.4397e+01	
Planet Radius	0.6088	3.1275e-01	Earth radii
Semi-major Axis	0.0737	8.1240e-03	AU
Effective Stellar Flux	138.7466	2.5213e+01	Goldilocks
Equilibrium Temperature	875	3.9758e+01	Kelvin
Transit Depth	31	3.1798e+00	ppm
Transit Duration	2.7352	2.1313e-01	hours
Transit Ingress Time	0.0529	2.4991e-01	hours
Eccentricity	0.0000	0.0000e+00	
Peri Longitude	0.0000	0.0000e+00	degrees
Model Chi Square Statistic (DoF)	2505.6 (3244.9)		
Model Chi Square Goodness of Fit Statistic (DoF)	439.7 (830)		
Model Chi Square2 Statistic (DoF)	70.2 (127)		

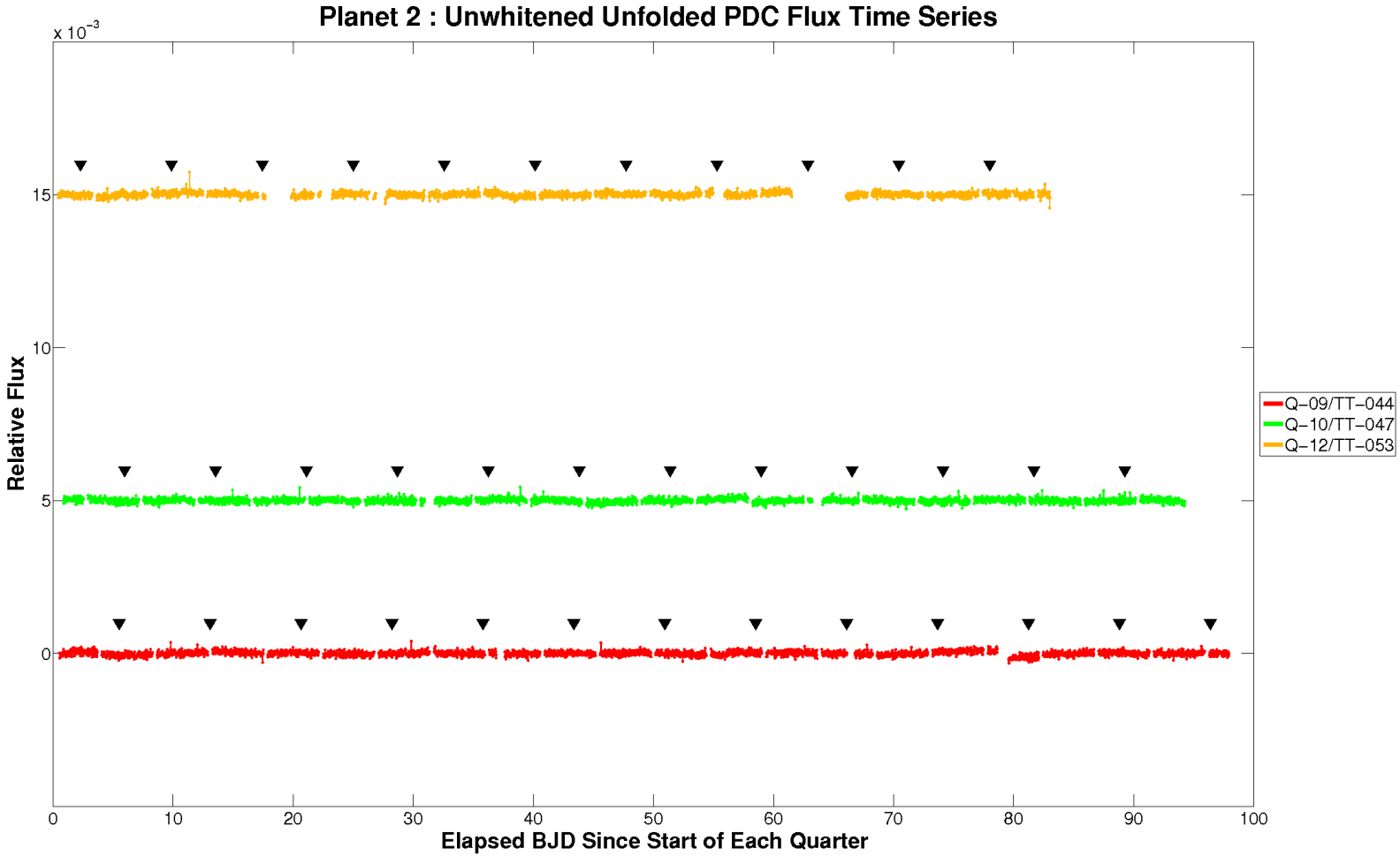
DoF: Degrees of Freedom



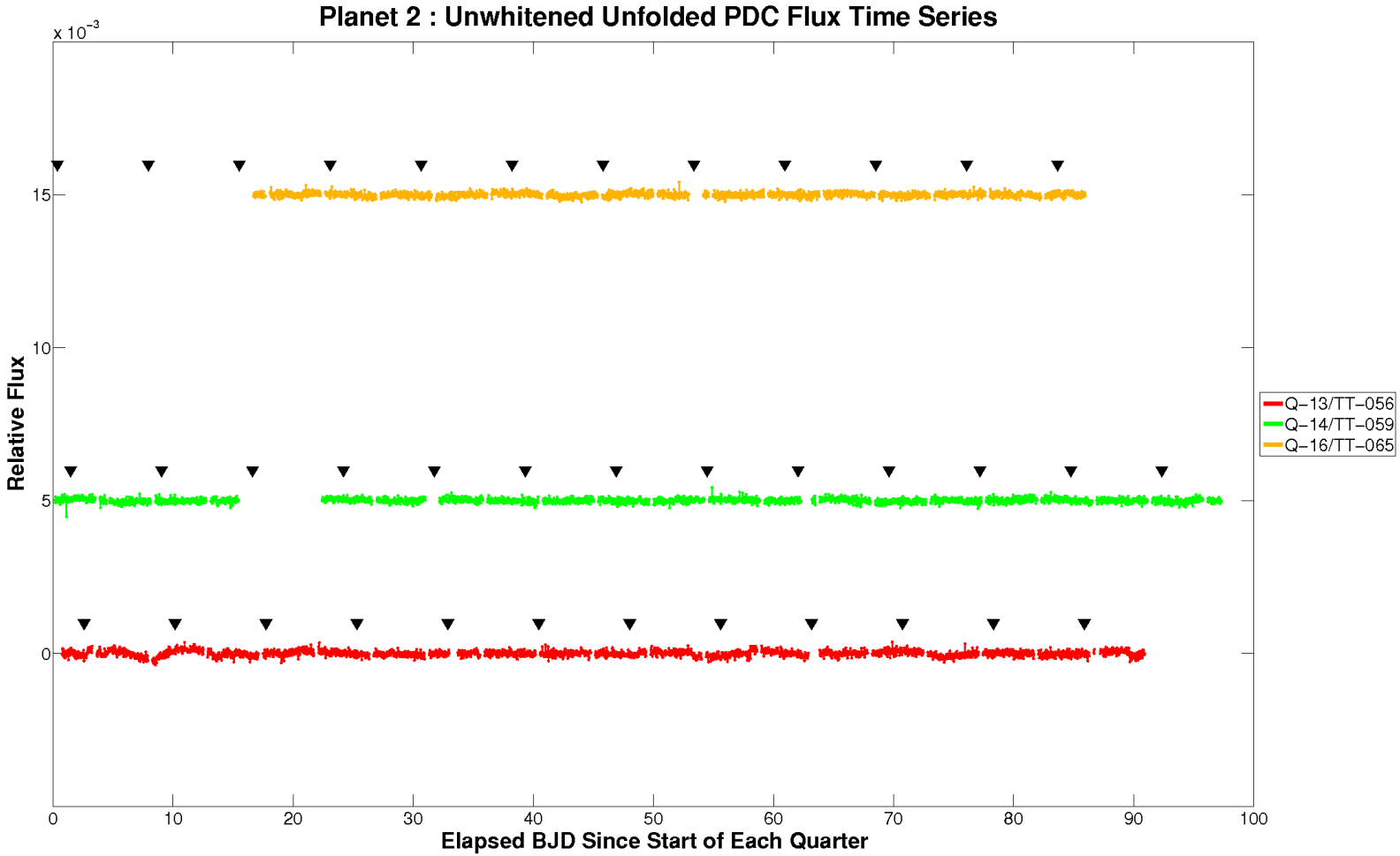
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.005. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.01. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-01-020.fig`



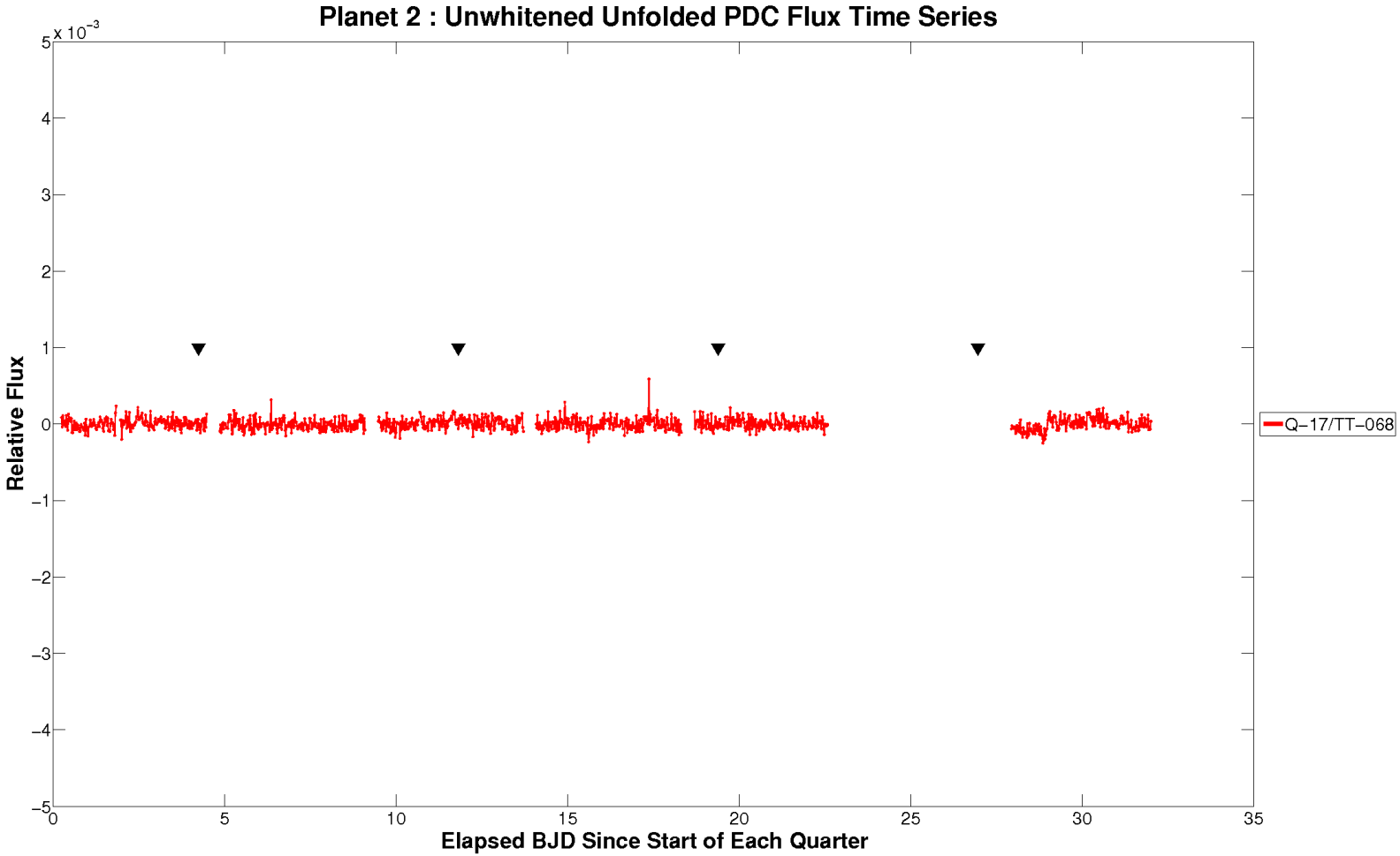
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.005. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.01. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-05-032.fig`



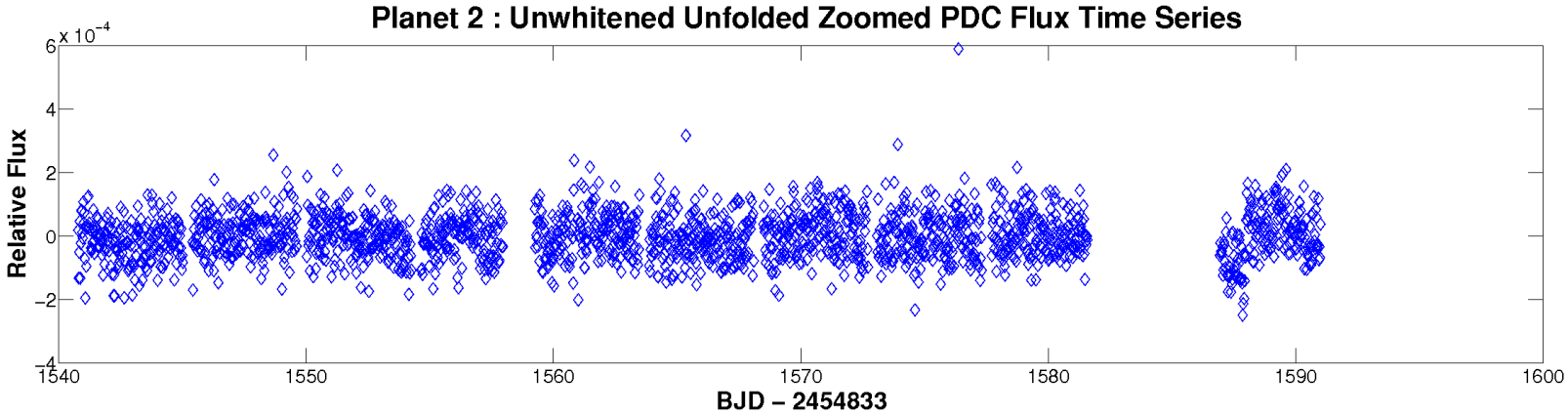
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.005. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.01. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-09-044.fig`



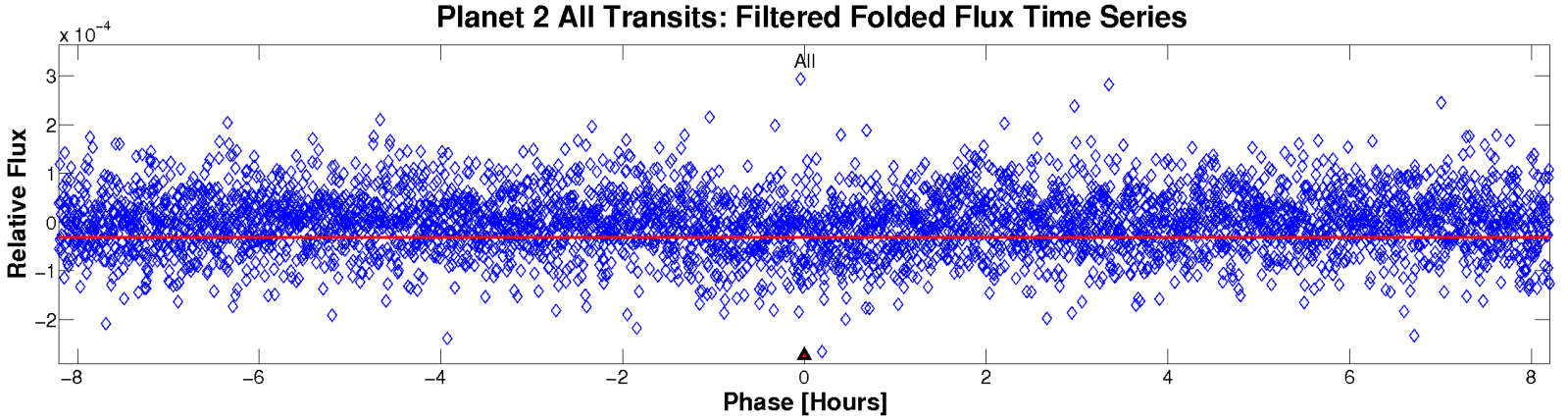
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-13/TargetTableId-056, start BJD is 2456015 and the vertical offset is 0. For the data of Quarter-14/TargetTableId-059, start BJD is 2456107 and the vertical offset is 0.005. For the data of Quarter-15/TargetTableId-062, start BJD is 2456206 and the vertical offset is 0.01. For the data of Quarter-16/TargetTableId-065, start BJD is 2456305 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-13-056.fig`



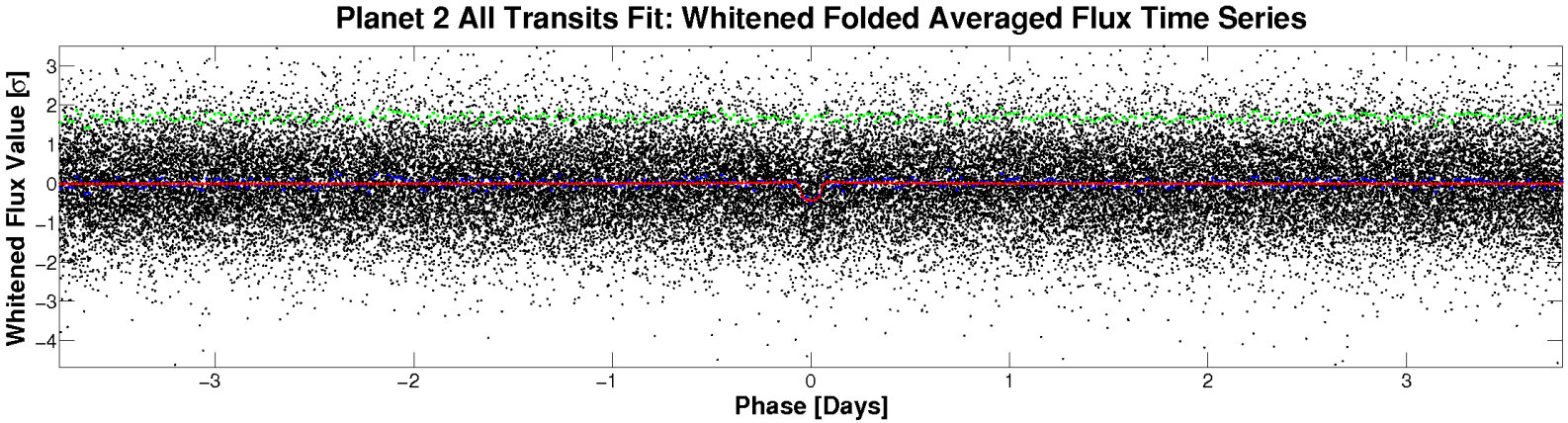
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-17/TargetTableId-068, start BJD is 2456392. Transit event markers indicate the location of transits of the given planet candidate. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-17-068.fig`



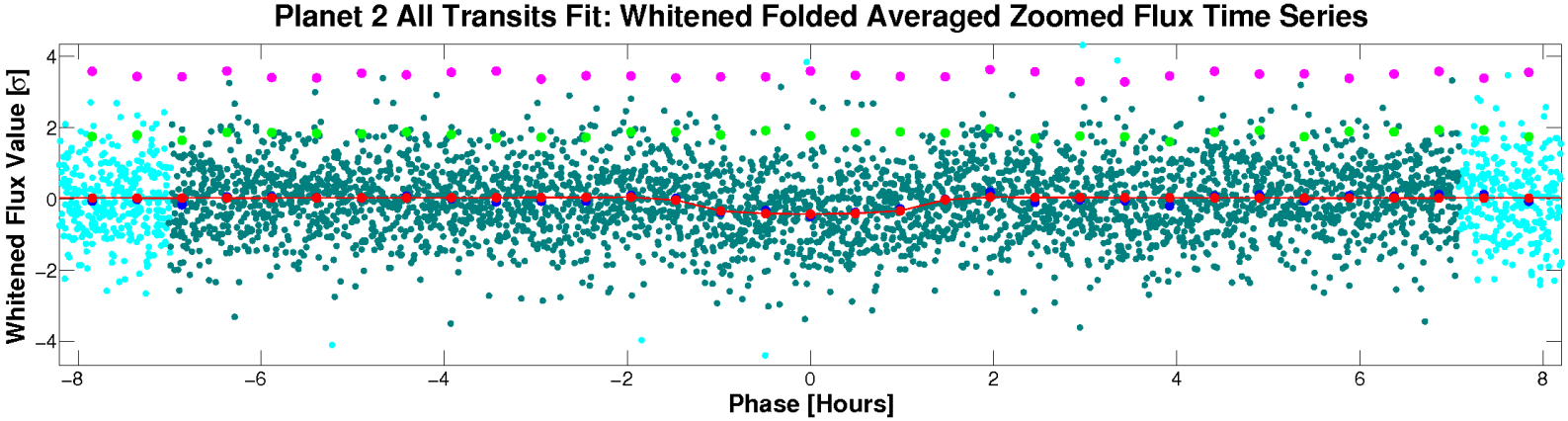
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-zoomed.fig`



PDC Flux time series of all transits for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at a specified multiple of the transit duration, folded per the fitted period and epoch, and zoomed to the location of the model transit.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-filtered-zoomed.fig`



Folded flux time series for KeplerId 9602613, Planet candidate 2 in the whitened domain is plotted in black dots. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the folded model light curve of the all transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-whitened.fig`

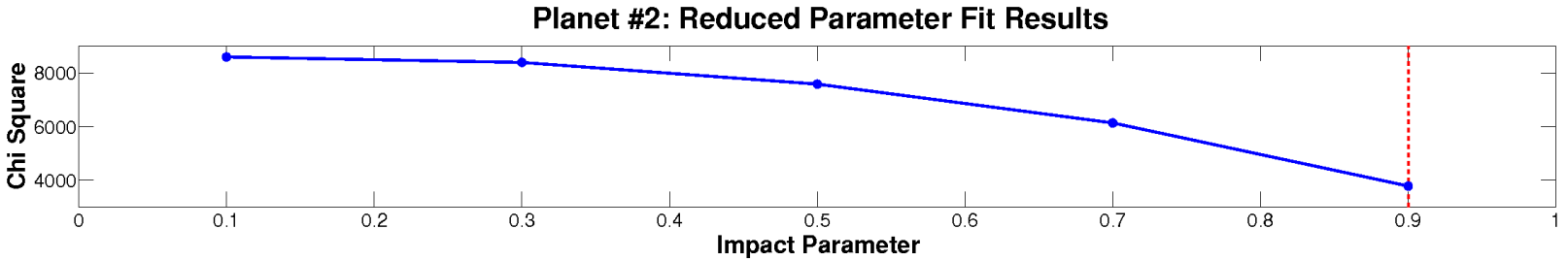


Folded flux time series for KeplerId 9602613, Planet candidate 2 in the whitened domain, zoomed on the transit. The flux data whose robust weights are larger/smaller than 0.1 are plotted in dark green/cyan dots, respectively. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the fitted model light curve of the all transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. Magenta dots are the averaged values of the folded flux time series, with a phase shift of 0.5 relative to the blue dots, vertically offset for clarity. All transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-whitened-zoomed.fig`

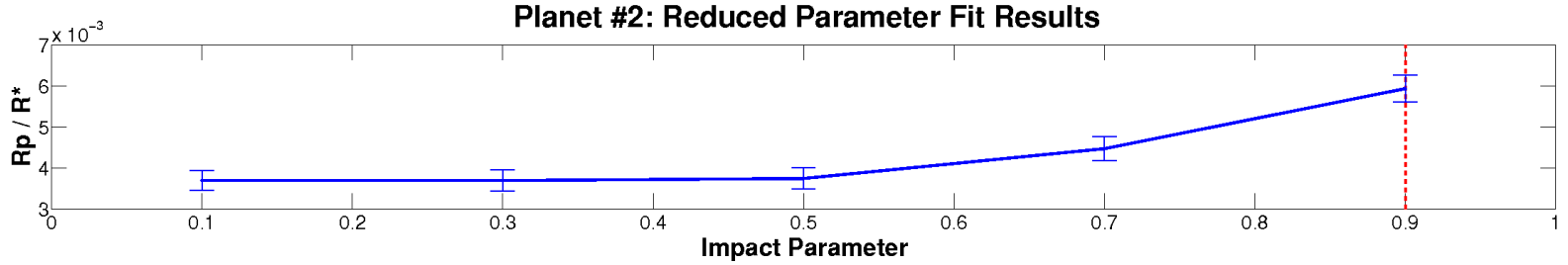
10.2 Model Fitter: Reduced Parameter Fit Results

Impact Parameter	SNR	Model Chi Square	Planet Radius to Star Radius	Uncert	Semi-major Axis to Star Radius	Uncert	Transit Depth (ppm)	Uncert	Transit Duration (hours)	Uncert
0.10	7.3	8595.7	0.0036903	2.3880e-04	10.2551	4.5015e-01	17	2.1710e+00	5.6435	2.4835e-01
0.30	7.5	8390.5	0.0036925	2.5921e-04	8.4679	4.5137e-01	17	2.3087e+00	6.5627	3.5154e-01
0.50	6.9	7582.7	0.0037421	2.6322e-04	9.3250	5.0949e-01	16	2.2616e+00	5.4155	2.9732e-01
0.70	7.5	6134.4	0.0044695	2.9441e-04	12.1866	6.8499e-01	21	2.7364e+00	3.4277	1.9316e-01
0.90	9.5	3779.4	0.0059358	3.3371e-04	9.6135	6.5925e-01	29	3.2466e+00	2.7170	1.8698e-01

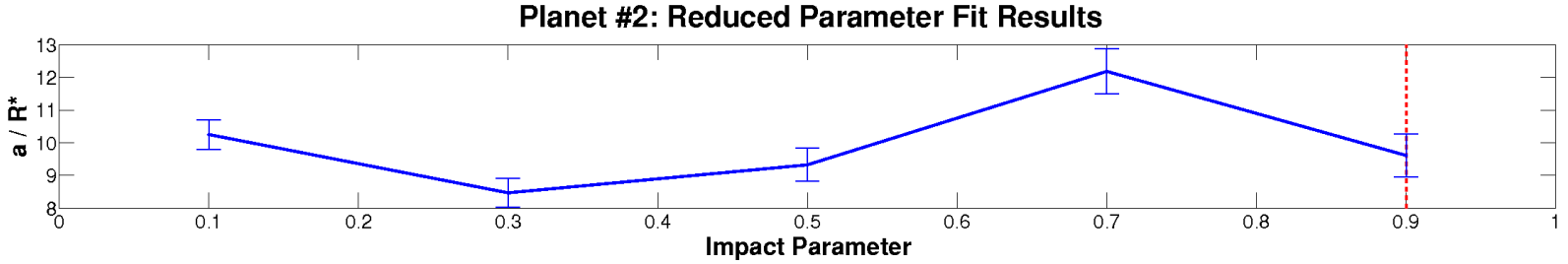
Highlighted row is the best reduced-parameter model fit.



Model chi squares of reduced parameter fits vs. impact parameter for KeplerId 9602613, Planet candidate 2. The fit result with the minimum chi square is marked with a dashed line in the plot.
Open `./planet-02/planet-search-and-model-fitting-results/reduced-parameter-fits/009602613-02-reduced-fits-chi-square.fig`



Ratios of planet radius to star radius of reduced parameter fits vs. impact parameter for KeplerId 9602613, Planet candidate 2. The fit result with the minimum chi square is marked with a dashed line in the plot.
Open `./planet-02/planet-search-and-model-fitting-results/reduced-parameter-fits/009602613-02-reduced-fits-rp-over-rstar.fig`



Ratios of semimajor axis to star radius of reduced parameter fits vs. impact parameter for KeplerId 9602613, Planet candidate 2. The fit result with the minimum chi square is marked with a dashed line in the plot.
Open `./planet-02/planet-search-and-model-fitting-results/reduced-parameter-fits/009602613-02-reduced-fits-a-over-rstar.fig`

10.3 Model Fitter: Trapezoidal Fit Results

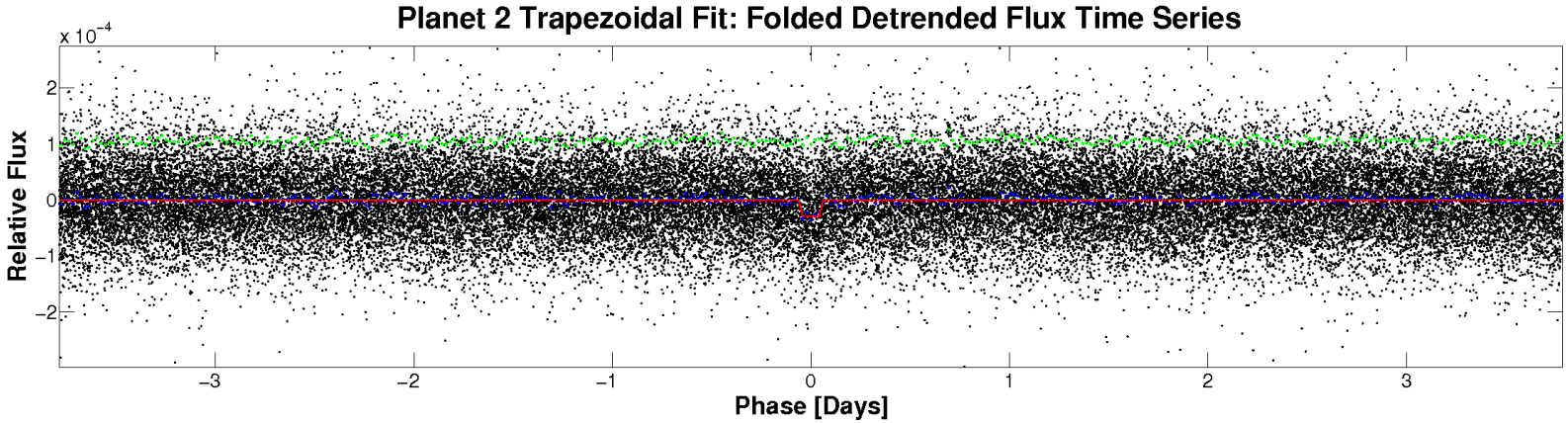
Model Characteristic	Name
Transit Model	trapezoidal_model
Limb Darkening Model	

TCE Parameter	Value	Units
Trial Transit Pulse Duration	3.0	hours
Transit Epoch	54964.4382771	MJD
Orbital Period	7.5730216	days
Maximum SES	3.6	
Maximum MES	8.3	
Robust Statistic	9.3	
Chi Square Goodness of Fit Statistic (DoF)	880.7 (797)	
Chi Square2 Statistic (DoF)	138.1 (127.5)	
Threshold for Desired PFA		

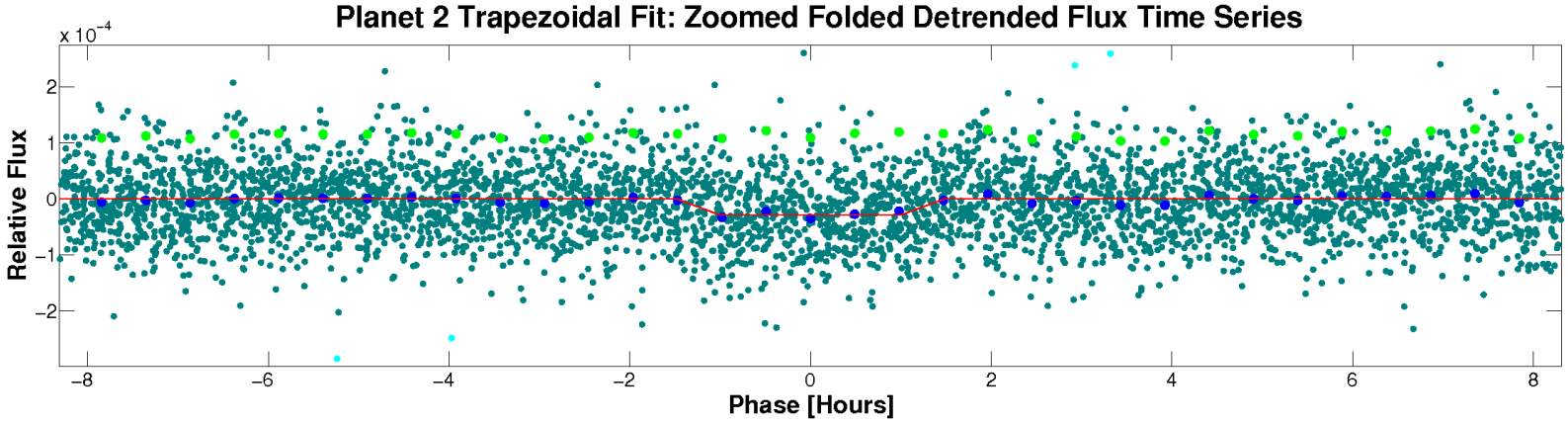
DoF: Degrees of Freedom

Parameter	Value	Uncertainty	Units
SNR	10.8		
Orbital Period	7.5730216		days
Transit Epoch	131.9412919		BKJD
Transit Depth	29		ppm
Transit Duration	2.7714		hours
Transit Ingress Time	0.2825		hours
Model Chi Square Statistic (DoF)	49167.6 (6122)		

DoF: Degrees of Freedom



Folded detrended flux time series for KeplerId 9602613, Planet candidate 2 and folded trapezoidal model light curve.
Open `./planet-02/planet-search-and-model-fitting-results/trapezoidal-model-fit/009602613-02-all-trapezoidal.fig`



Zoomed folded detrended flux time series for KeplerId 9602613, Planet candidate 2 and folded trapezoidal model light curve.
Open `./planet-02/planet-search-and-model-fitting-results/trapezoidal-model-fit/009602613-02-all-trapezoidal-zoomed.fig`

10.4 Validation Tests

The Centroid Test and Eclipsing Binary Discrimination Test are chi-squared hypothesis tests. For these tests, a significance of 100% favors a planet, while 0% indicates an unlikely planet.

10.4.1 Weak Secondary Test

Result	Value	Uncertainty	Units	Statistic in Sigmas	Significance (%)
Orbital Period	7.573		days		
Transit Duration	3		hours		
Maximum MES	8.3				
Secondary Phase	5.0875		days		
Secondary MES	1.8				
Minimum Phase	5.4938		days		
Minimum MES	-4.1				
Median MES	0.1				
MAD MES	0.703				
Robust Statistic	1.9				
Secondary Depth	6.0	3.2039e+00	ppm		
Geometric Albedo	48.8	5.5788e+01		0.8562	19.59
Planet Effective Temperature	3576	1.0125e+03	Kelvin	2.6651	0.38

10.4.2 Flux-Weighted Centroid Test

Result	Value	Uncertainty	Units	Value in Sigmas	Significance (%)
Stellar Magnitude	11.8300	0.0000e+00			
Motion Detection Statistic	3.1530e+00				20.67
Peak RA Offset	3.7231e-05	3.4951e-05	arcseconds	1.0652	
Peak Dec Offset	-1.8362e-05	3.1033e-05	arcseconds	-0.5917	
Peak Offset Distance	4.1513e-05	3.4220e-05	arcseconds	1.2131	
Source RA Offset	-1.2855e+00	1.1359e+00	arcseconds	-1.1317	
Source Dec Offset	5.0109e-01	1.0085e+00	arcseconds	0.4968	
Source Offset Distance	1.3797e+00	1.1199e+00	arcseconds	1.2319	
Source RA	19.80988685	3.0445e-05	hours		
Source Dec	46.29708919	2.8015e-04	degrees		

Peak offsets are relative to the out-of-transit centroid. Source offsets are relative to the KIC target location.

10.4.3 Eclipsing Binary Discrimination Test

Result	Value	Value in Sigmas	Significance (%)
Odd Even Transit Depth Comparison Statistic	1.5265e-01	0.3907	69.60
Odd Even Transit Epoch Comparison Statistic	5.4416e-04	0.0233	98.14
Shorter Period Comparison Statistic	3.3713e+02	18.3611	100.00

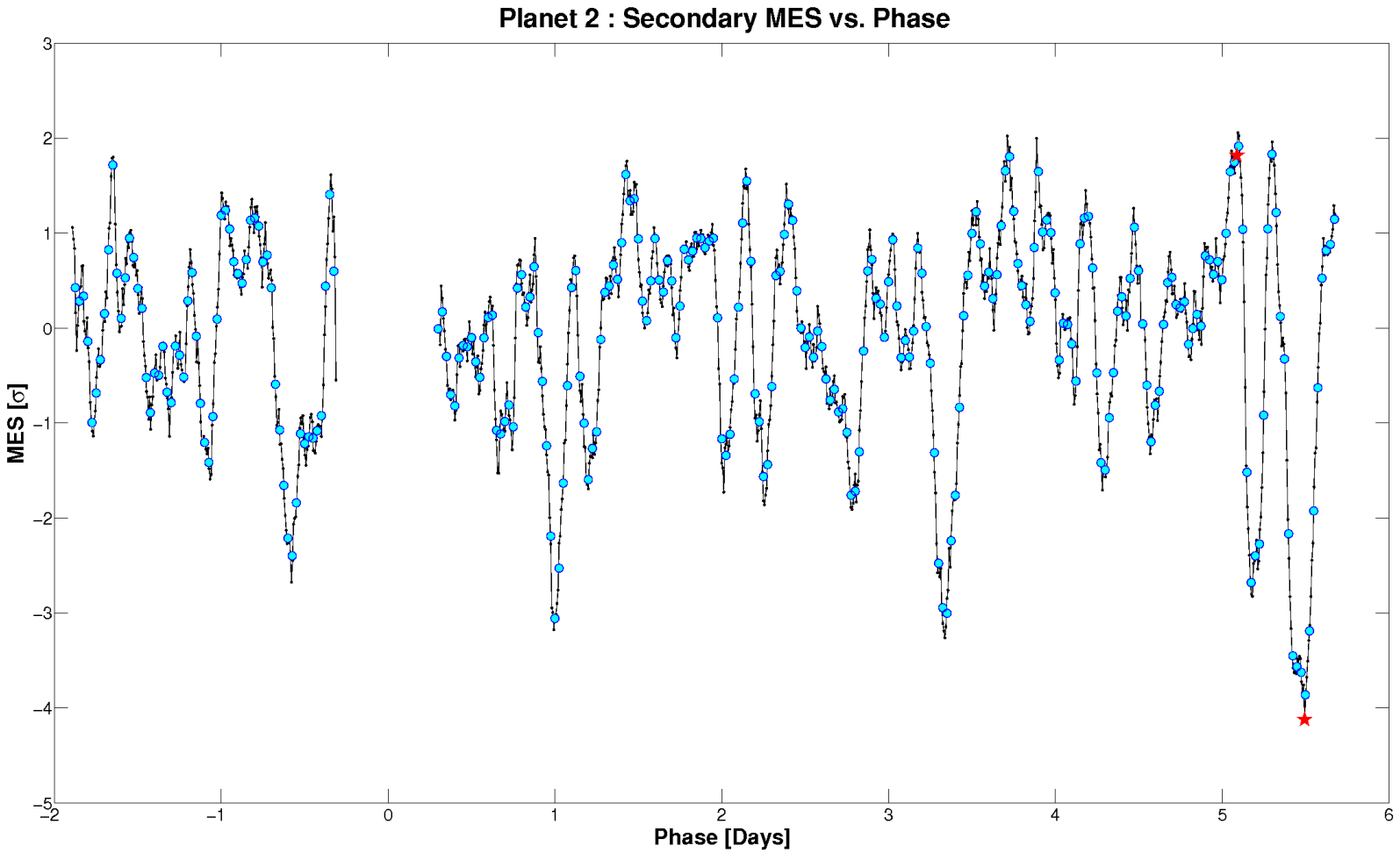
10.4.4 Bootstrap Test

Result	Value
False Alarm Probability	3.9222e-16
Bootstrap Threshold for Desired PFA	7.3
MES Mean	-0.09
MES Standard Deviation	1.05
Observed Number of Transits	128

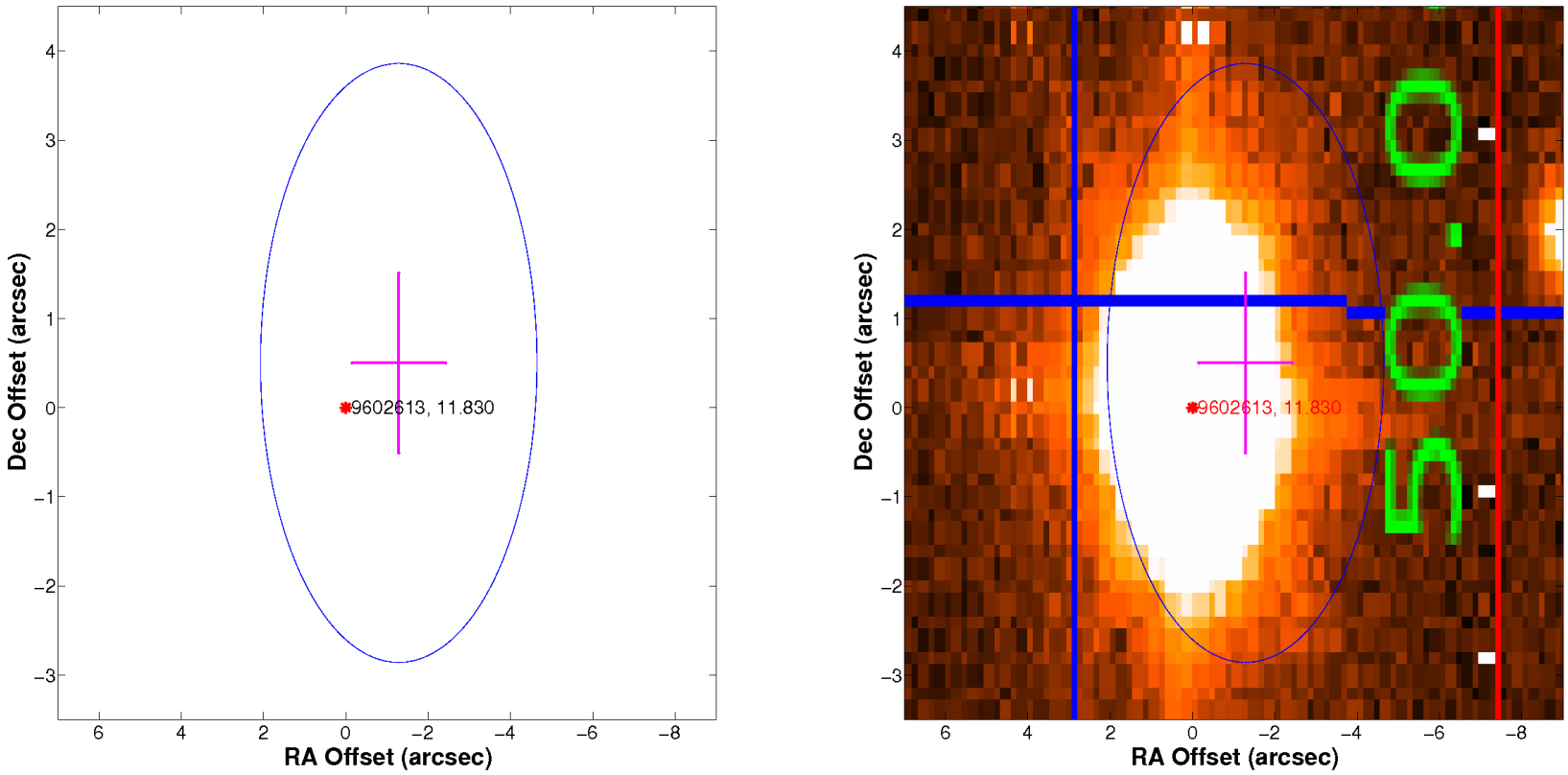
10.4.5 Ghost Diagnostic Test

Result	Value	Significance (%)
Maximum MES	8.3	
SNR	9.6	
Core Aperture Statistic	6.5041e+00	100.00
Halo Aperture Statistic	7.8922e-01	78.50
Ratio of Core/Halo Aperture Statistics	8.2412e+00	

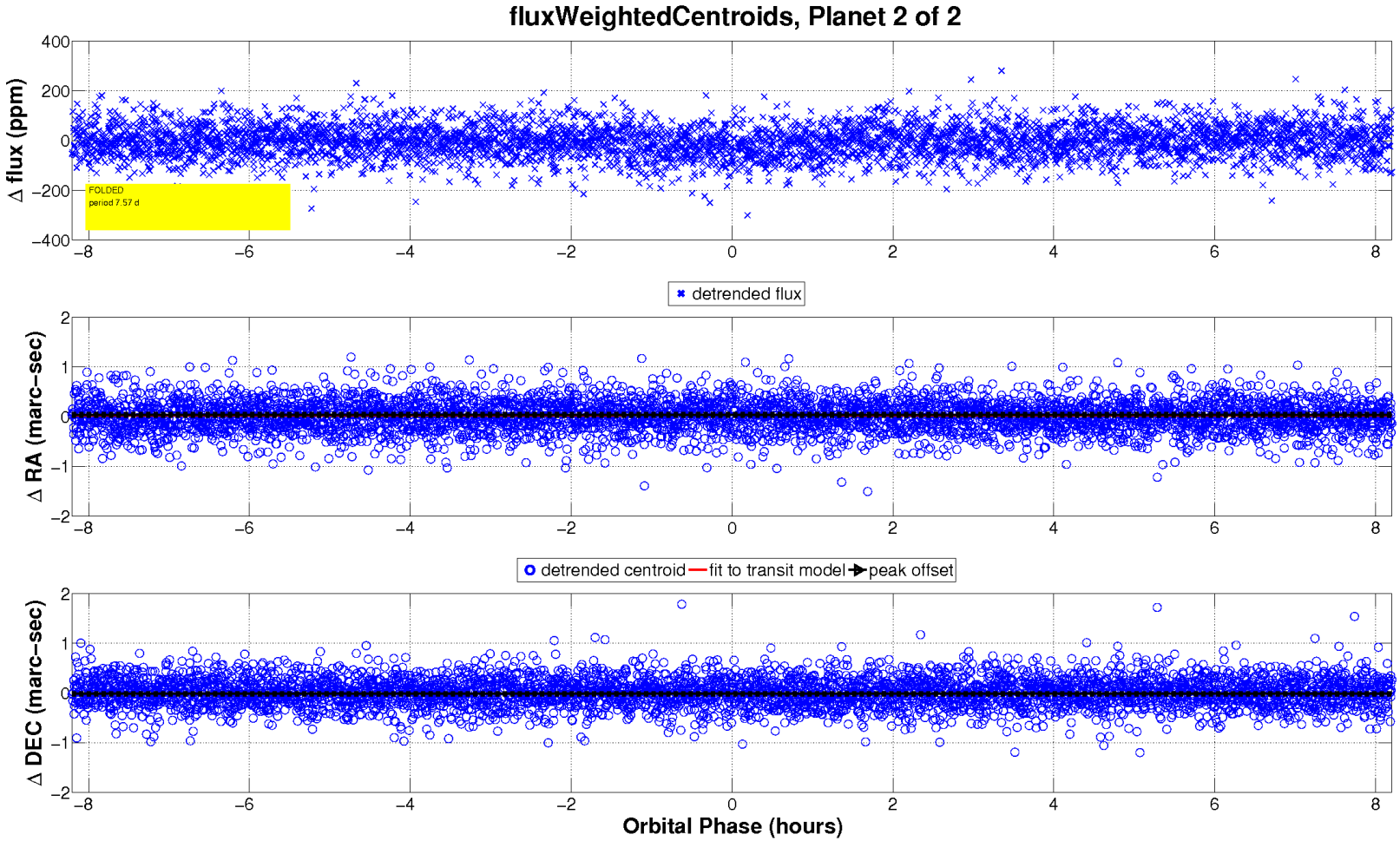
10.4.6 Validation Test Figures



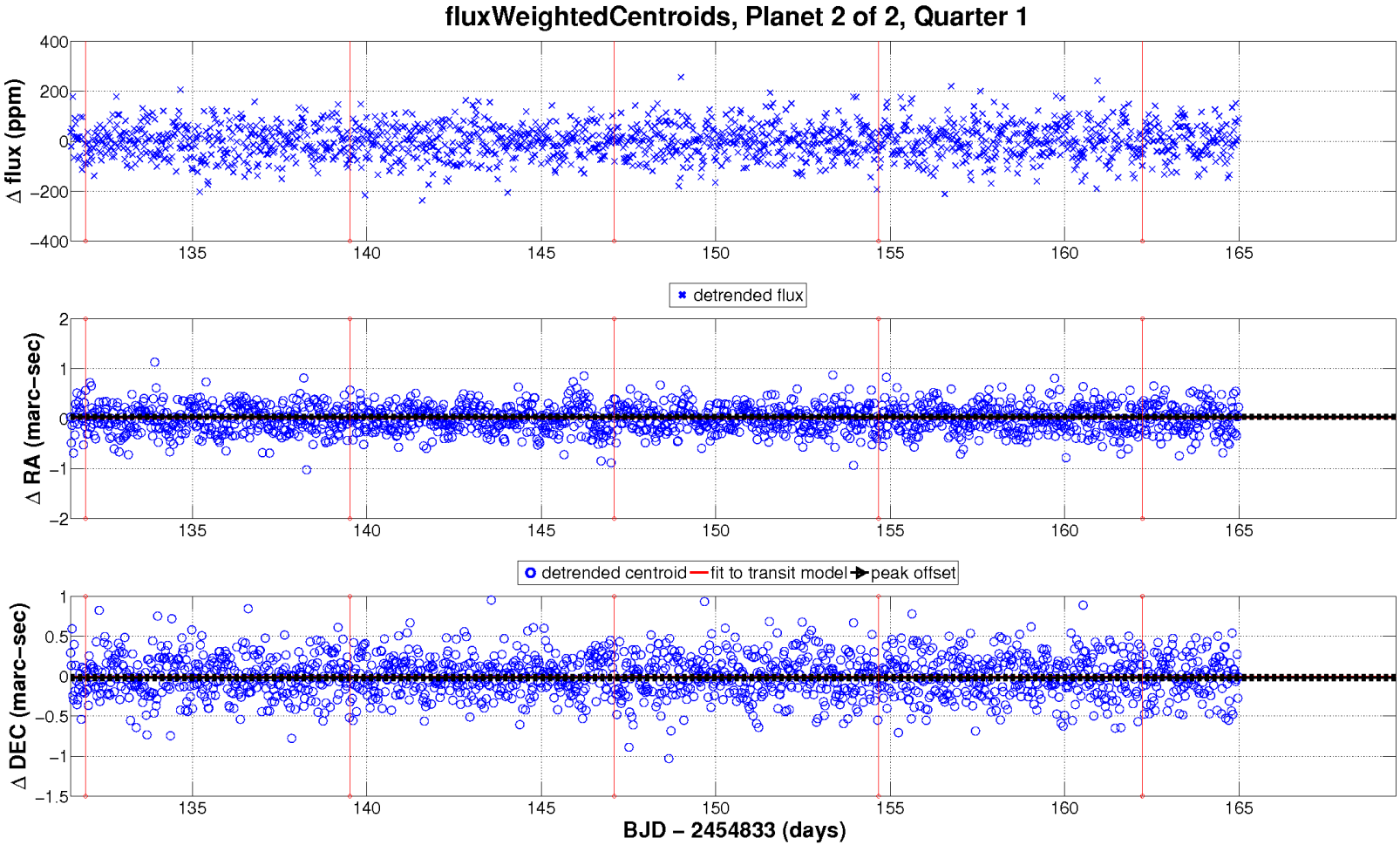
The primary event has been set to zero and both the max and min of the resulting MES vs. Phase are marked with a red star. The best matched pulse duration in hours is 3. The maximum secondary MES and corresponding phase are 1.8187 and 5.0875 days respectively. The minimum secondary MES and corresponding phase are -4.1224 and 5.4938 days respectively.
Open `./planet-02/report-summary/009602613-02-weak-secondary-diagnostic.fig`



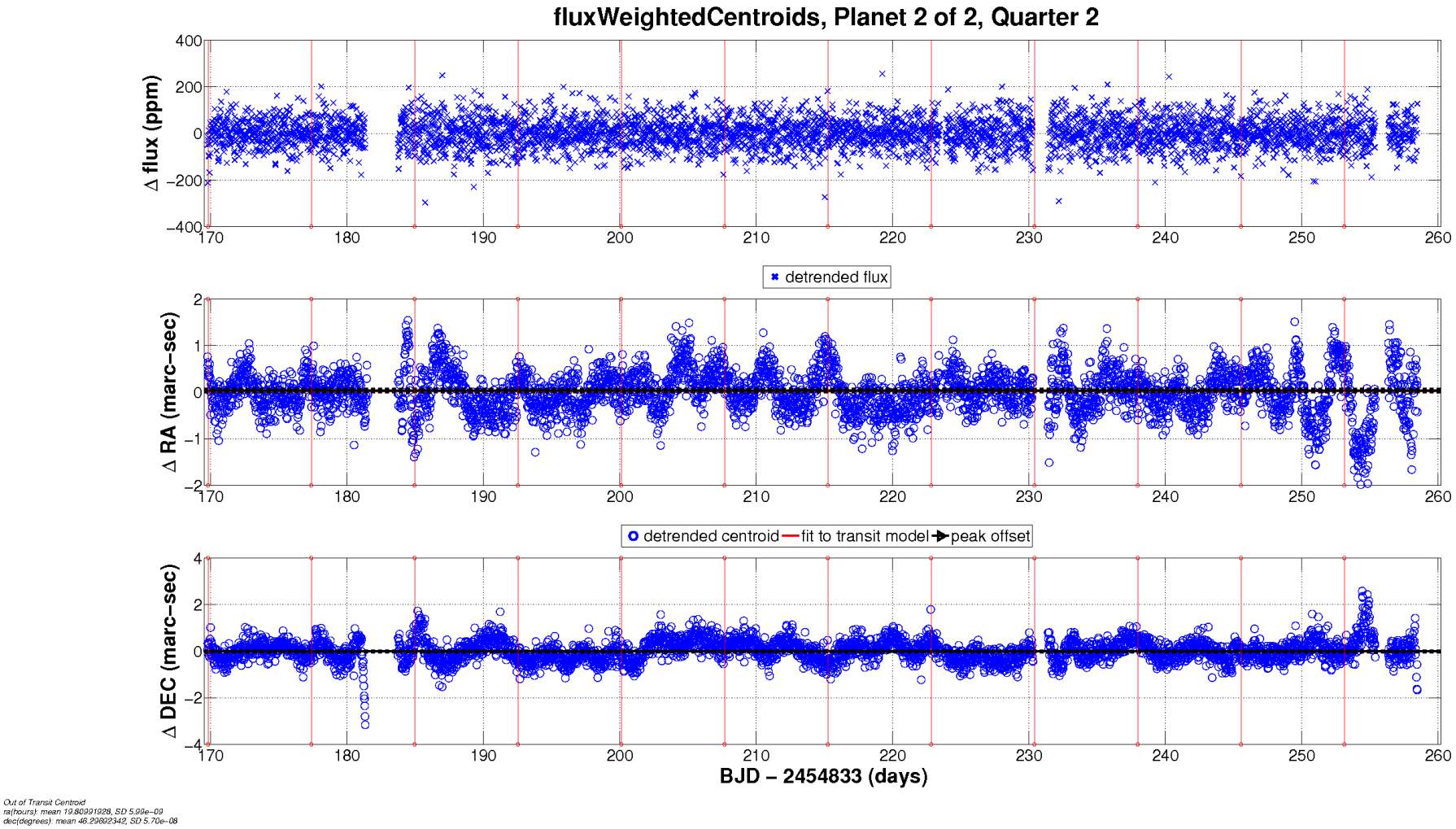
Flux weighted centroid test source offsets for target 9602613, planet candidate 2. Symbol key: magenta cross: flux weighted centroid test source offsets with 1-sigma error bars in RA and Dec; blue circle: 3-sigma radius of confusion for source offset; red asterisk: location of target star; blue asterisk: location of other KIC objects in the neighborhood. KIC ID and magnitude are noted in the text associated with each marked object (objects in the UKIRT extension to the KIC have IDs between 15,000,000 and 30,000,000). Figure on right is displayed on UKIRT image for given target.
Open `./planet-02/centroid-test-results/009602613-02-centroid-test-source-offsets.fig`



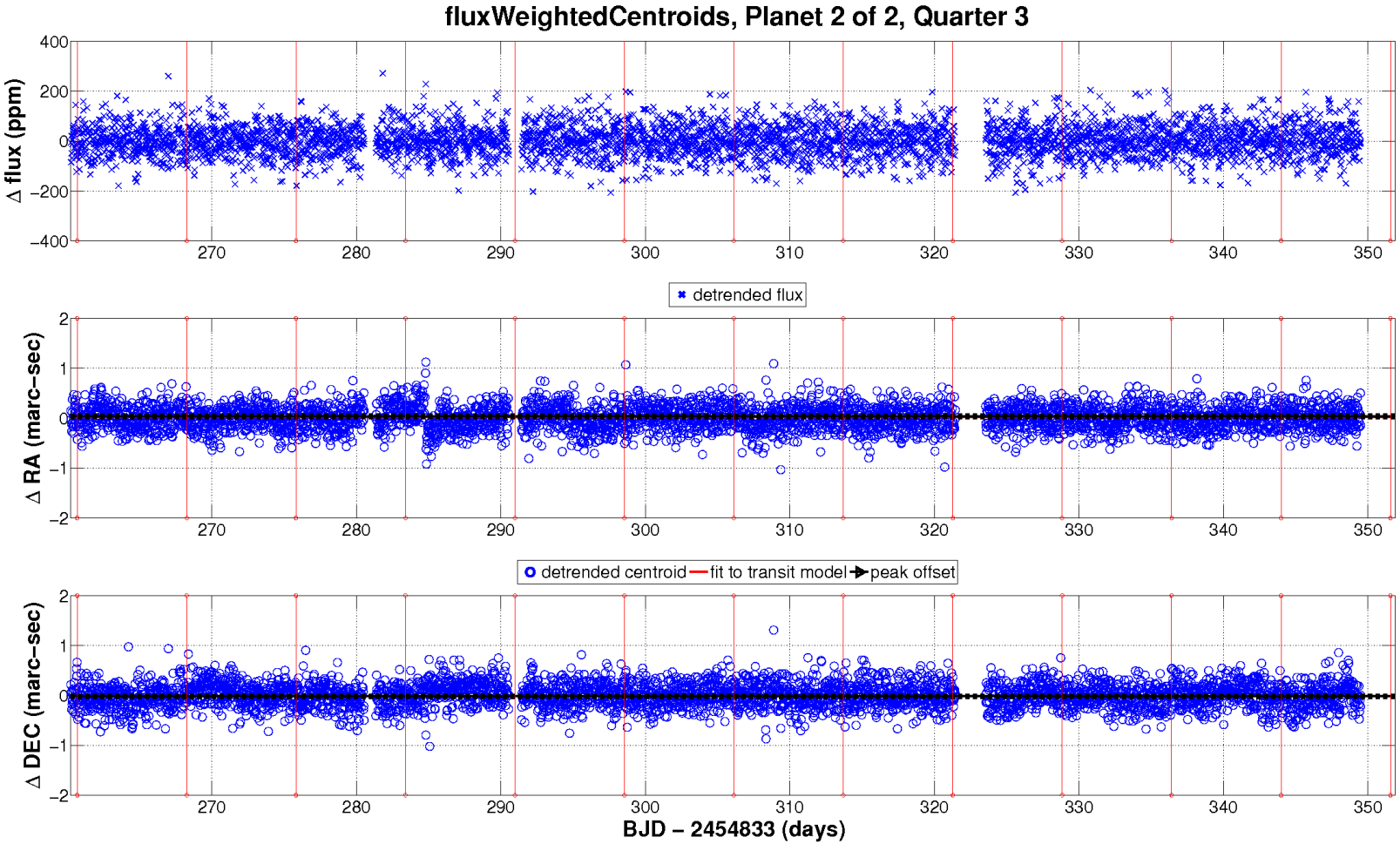
KeplerId 9602613, KeplerMag 11.83 - FOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data folded at the fitted orbital period and centered on the fitted transit over a few fitted transit durations. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out-of-transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-folded-transit-fit-fluxWeighted-centroids.fig`



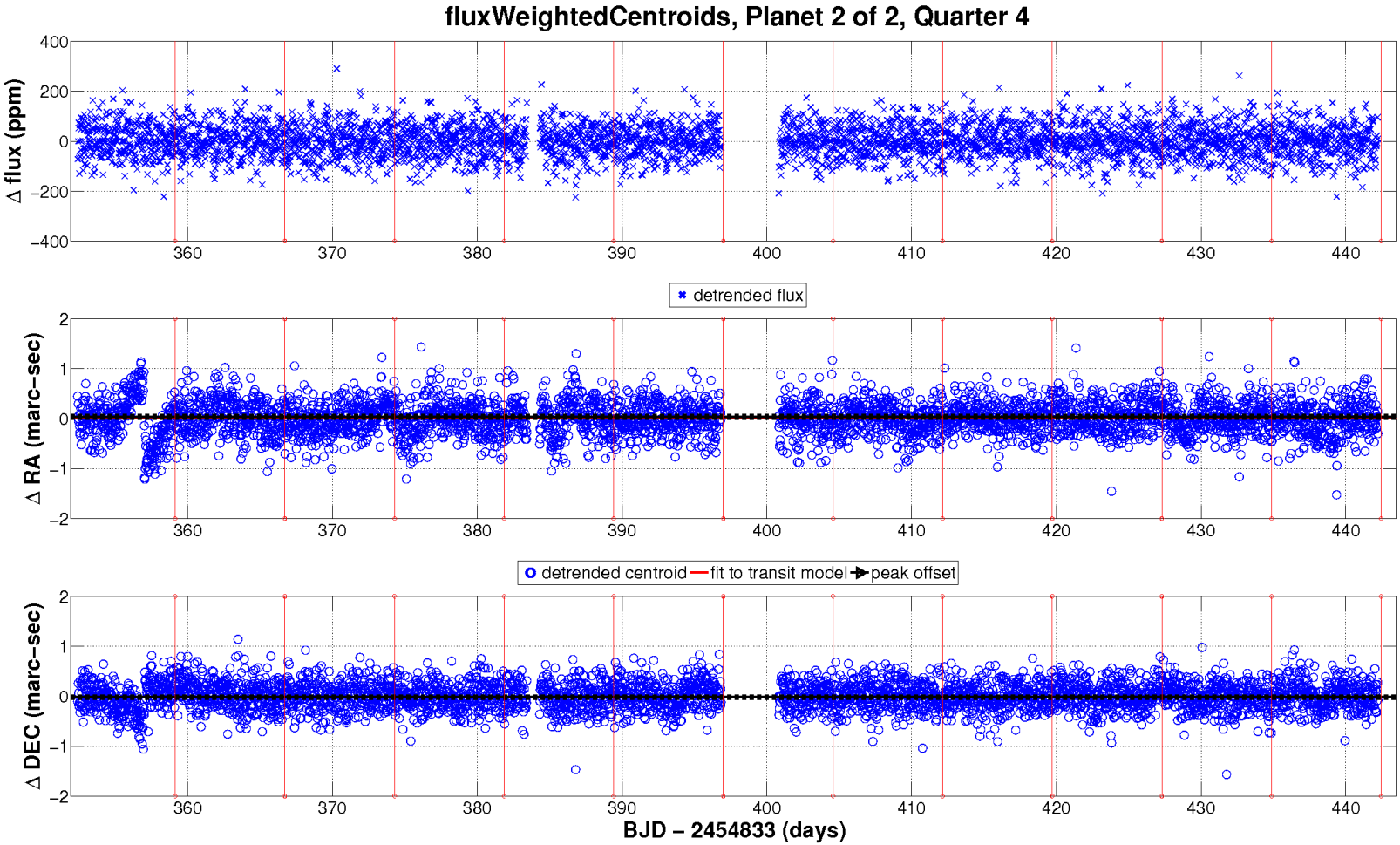
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-01.fig`



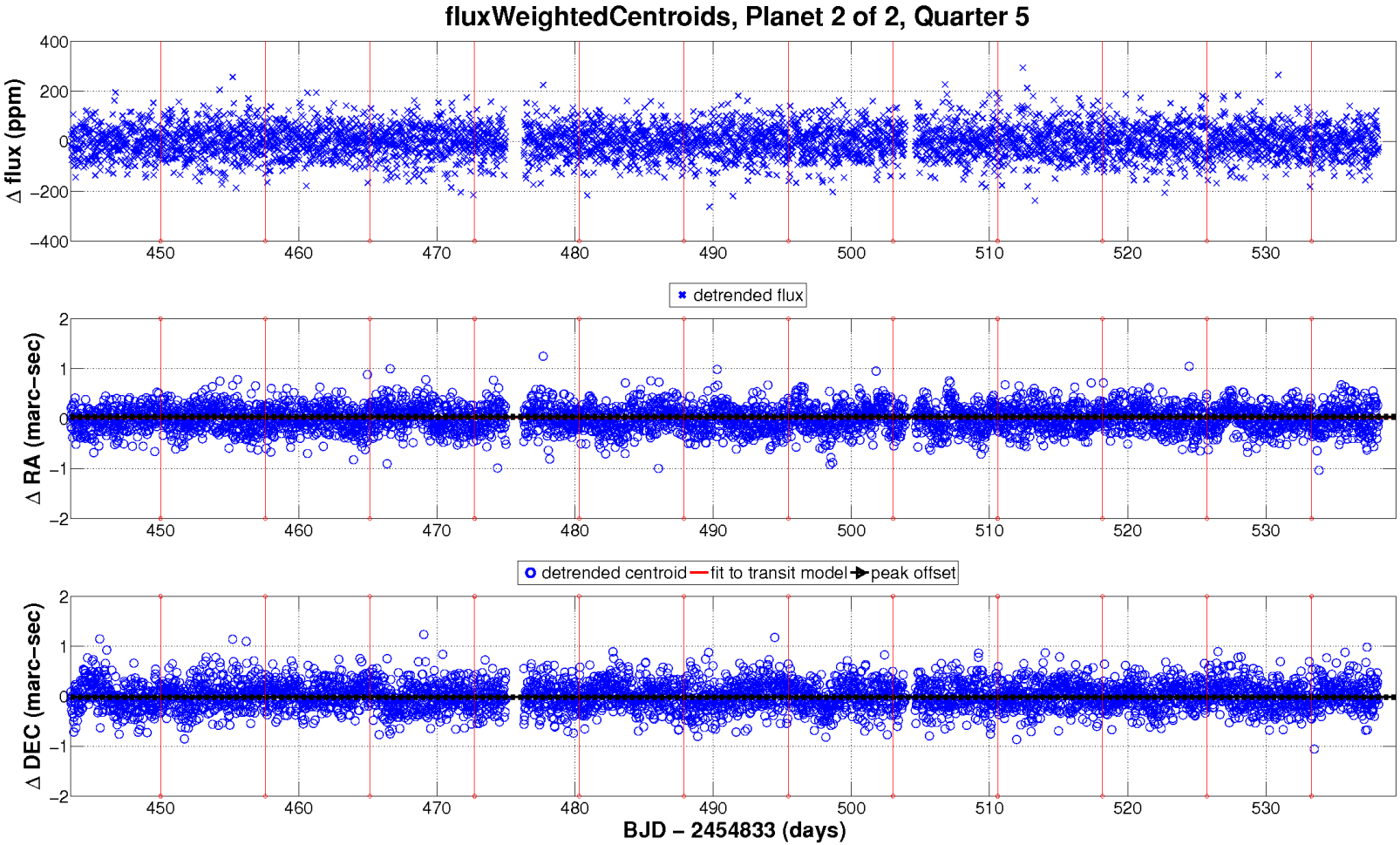
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-02.fig`



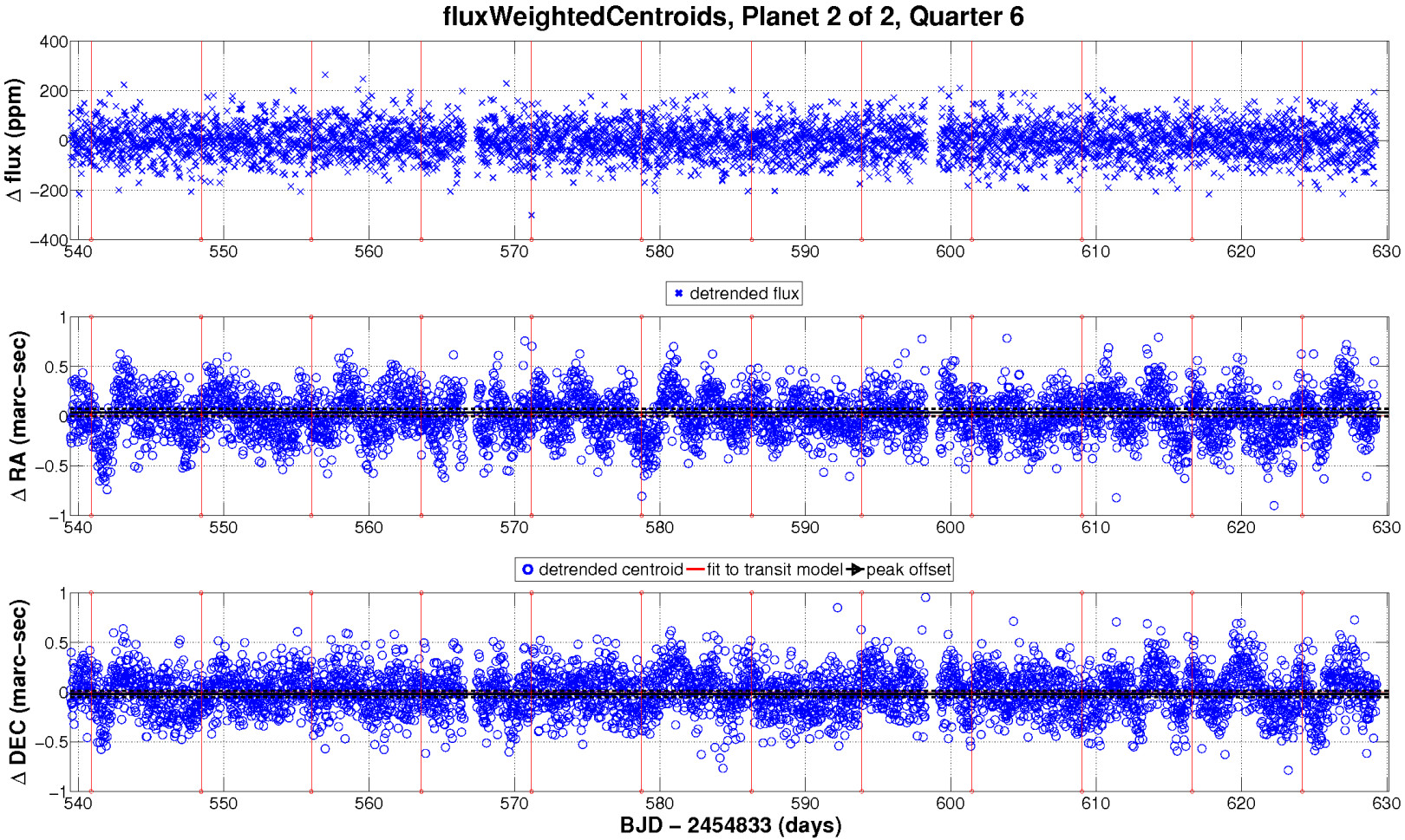
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-03.fig`



KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-04.fig`



KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-05.fig`



KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
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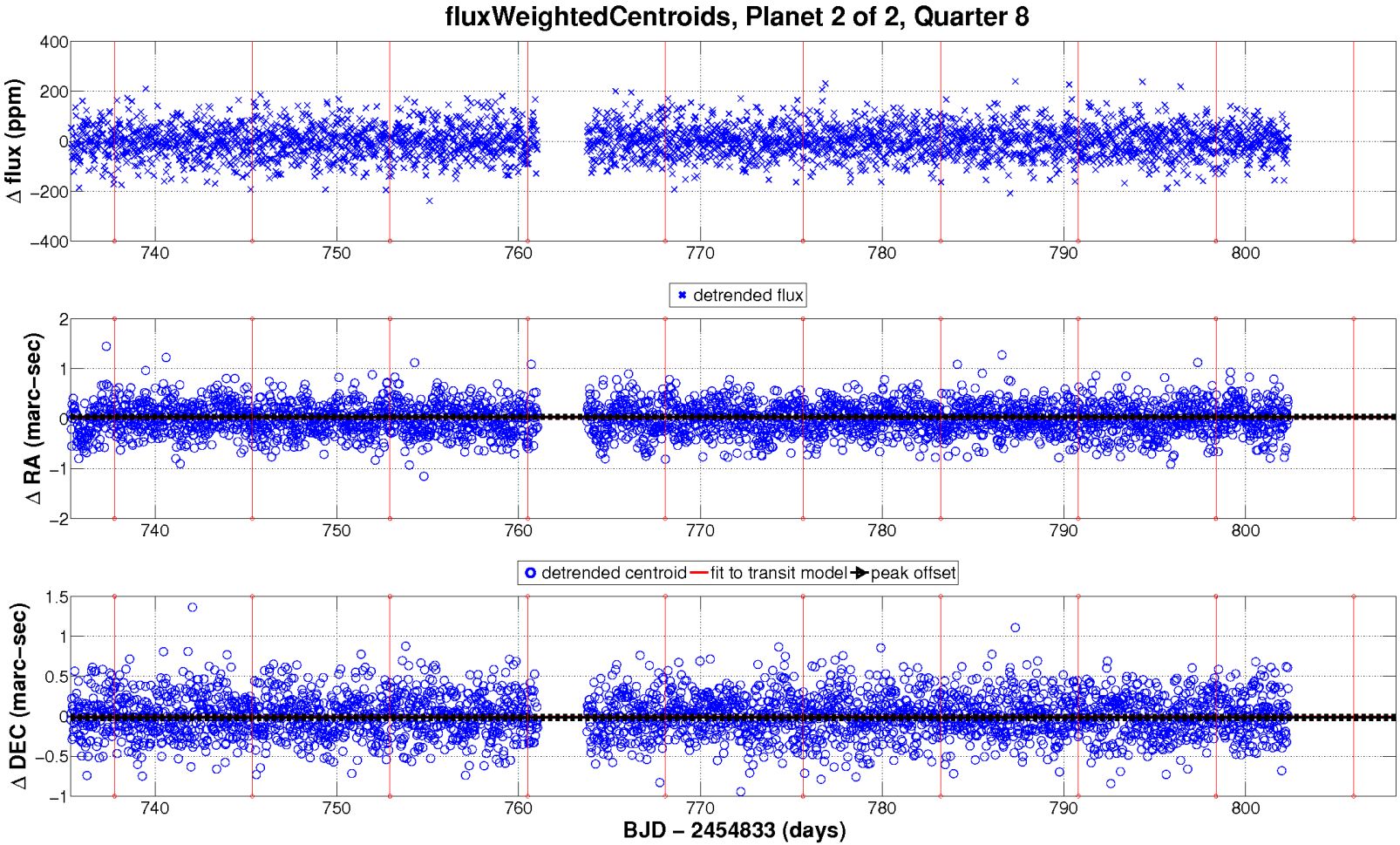
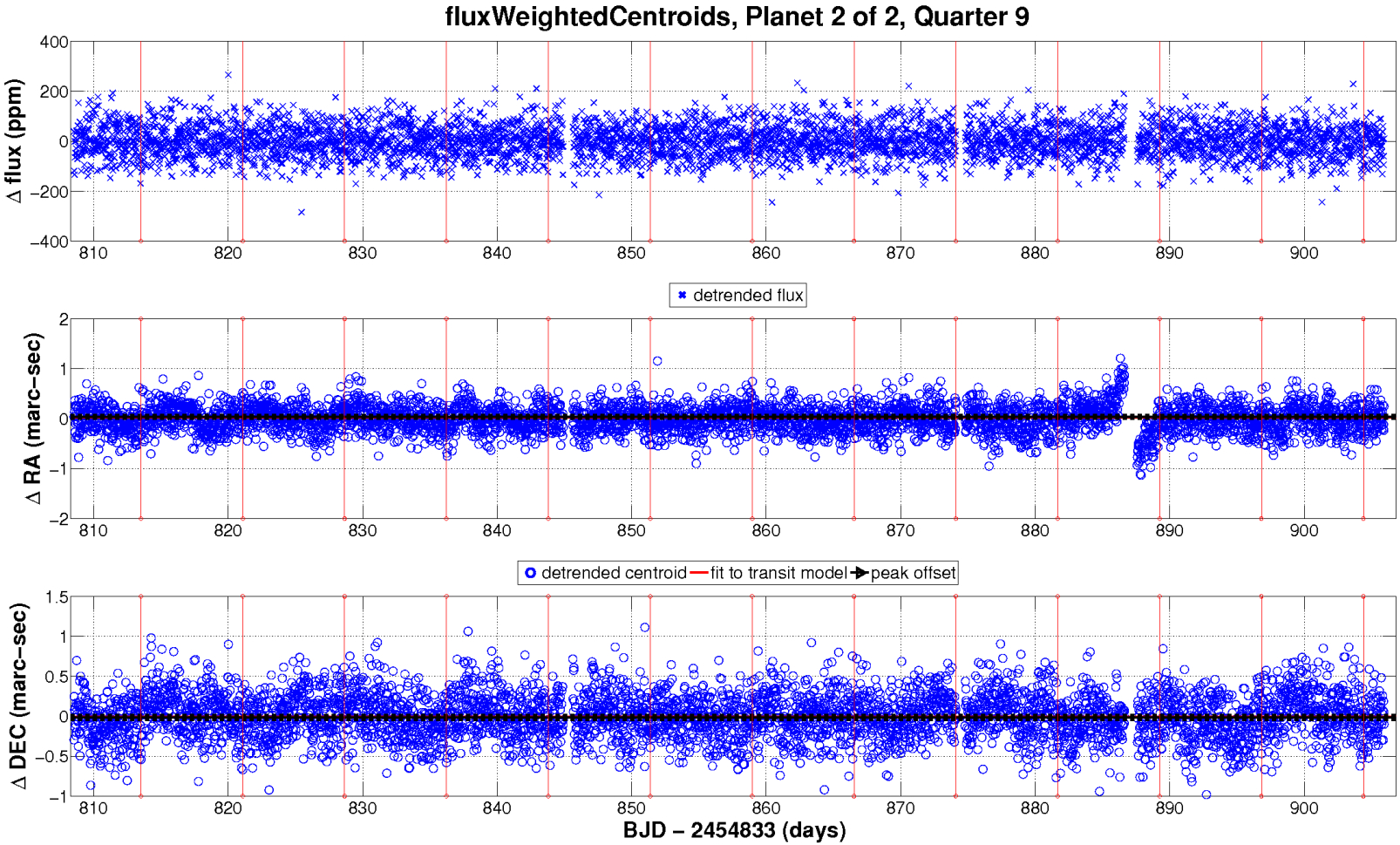
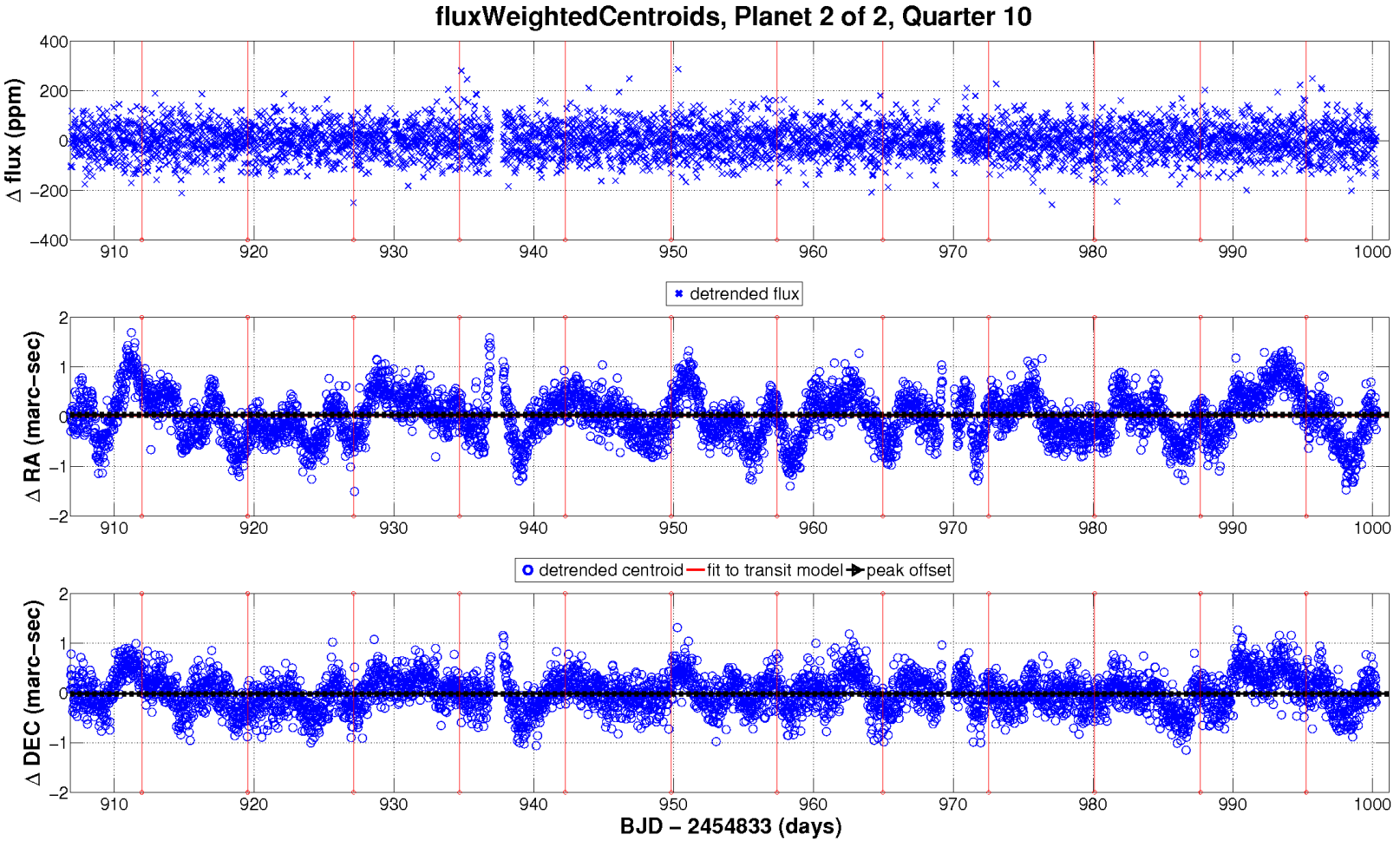


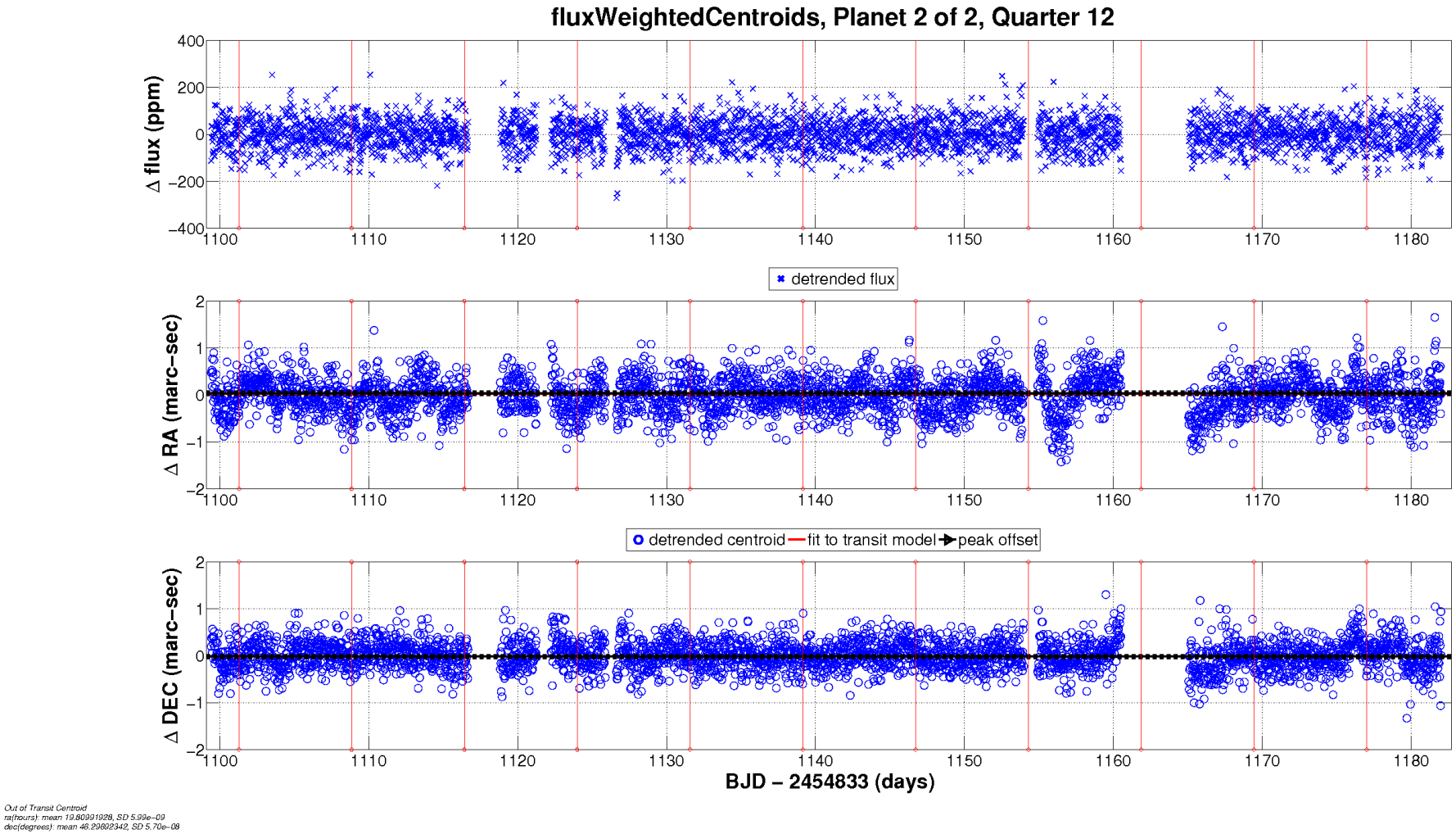
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-08.fig`



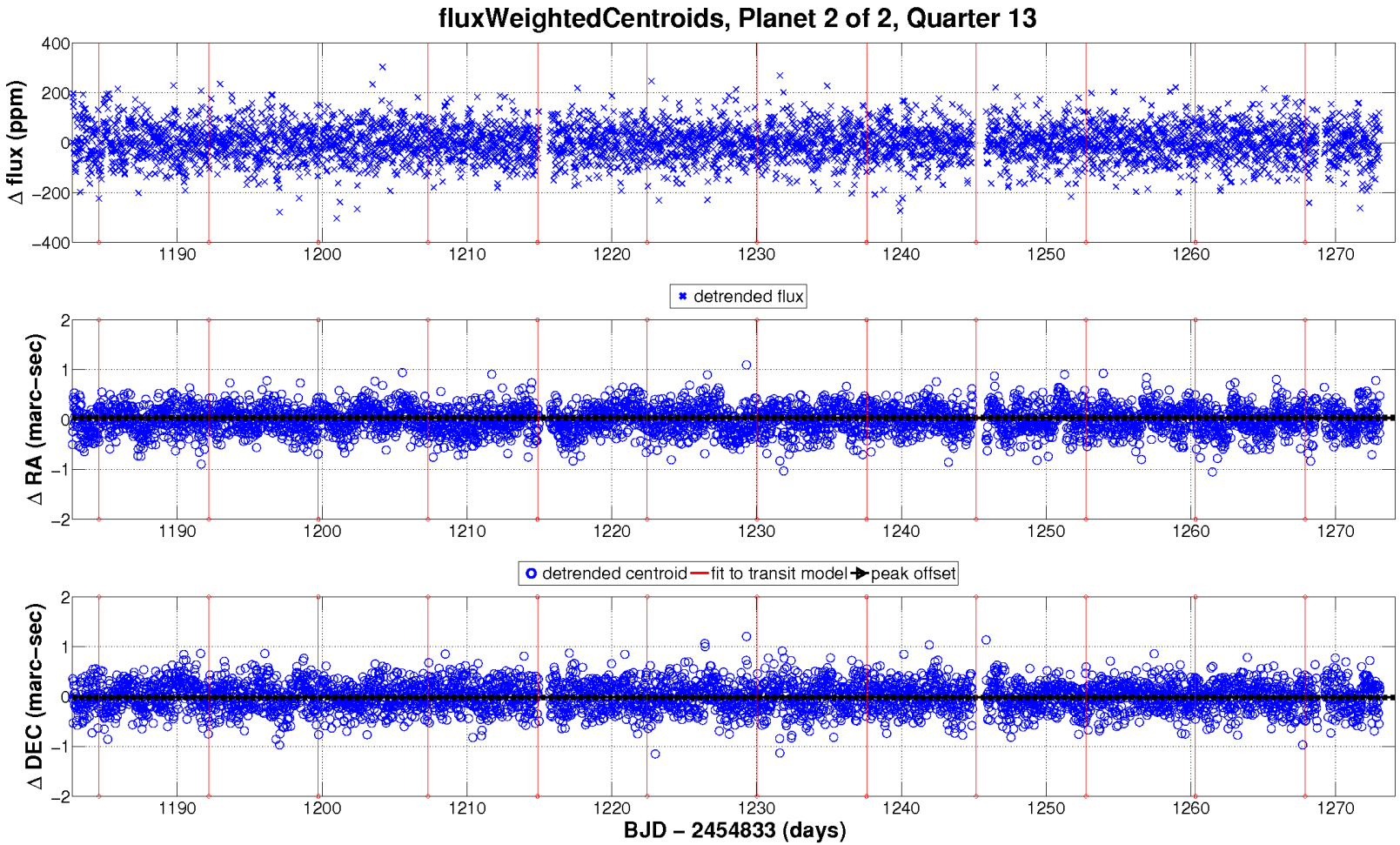
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-09.fig`



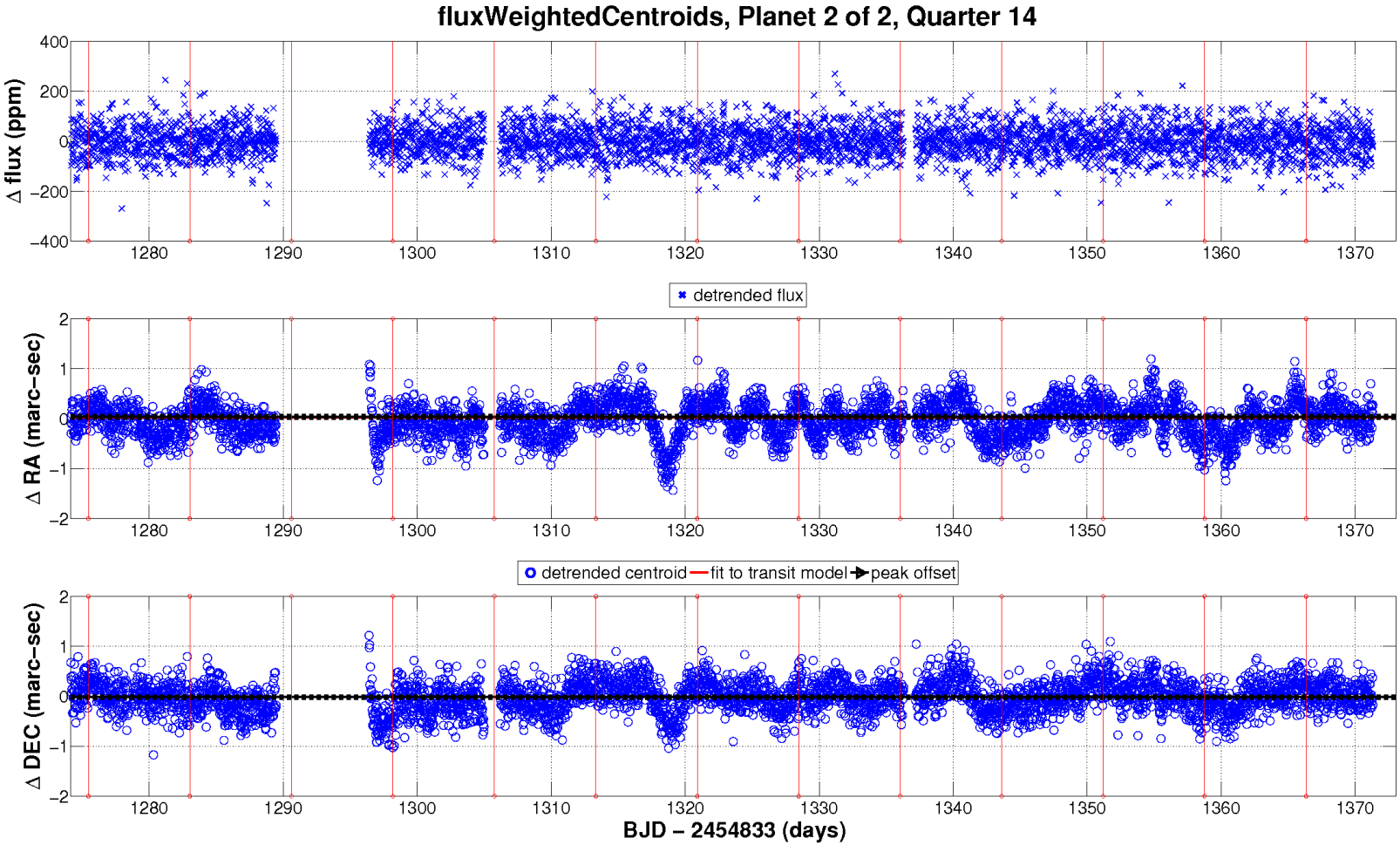
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-10.fig`



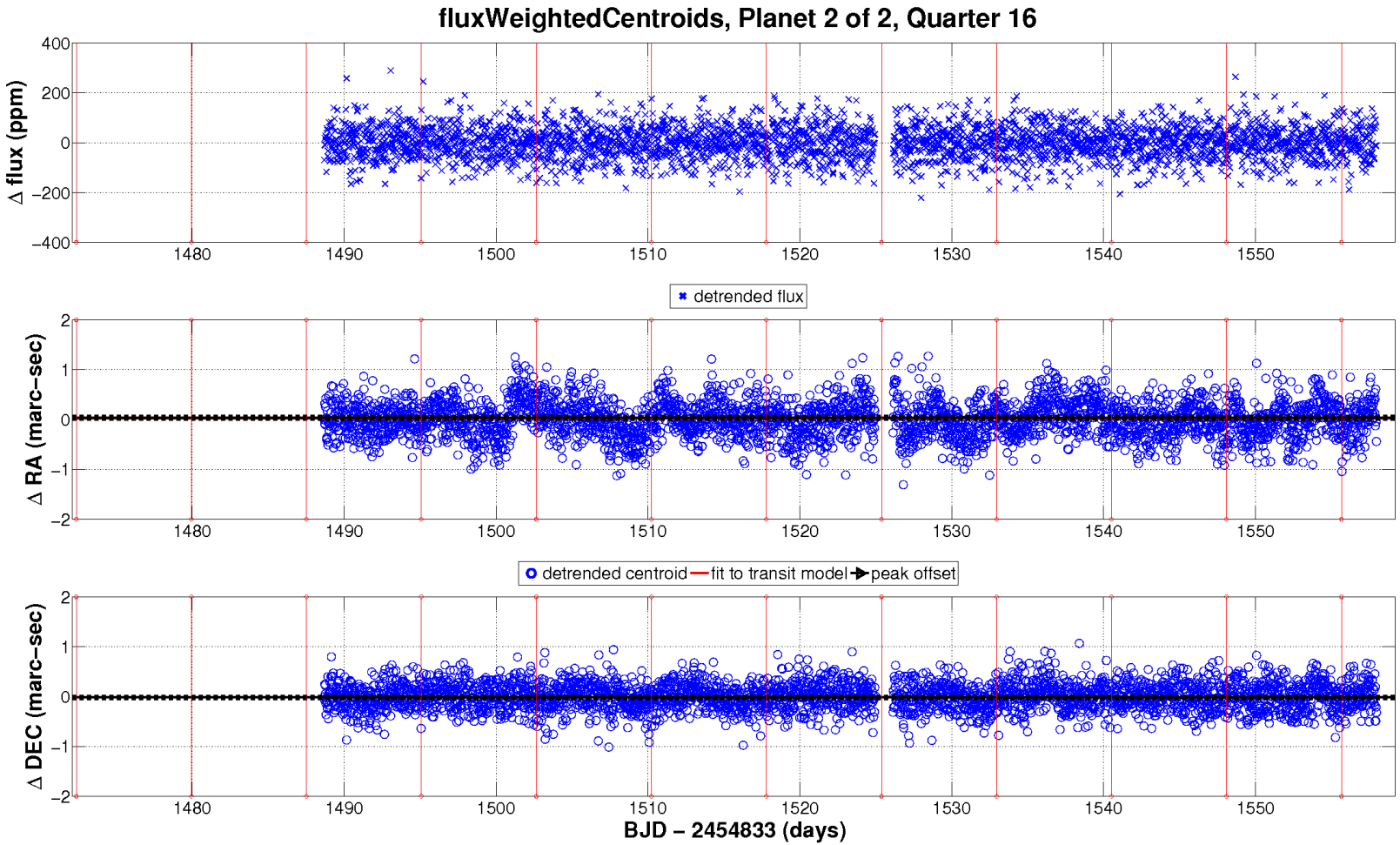
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-12.fig`



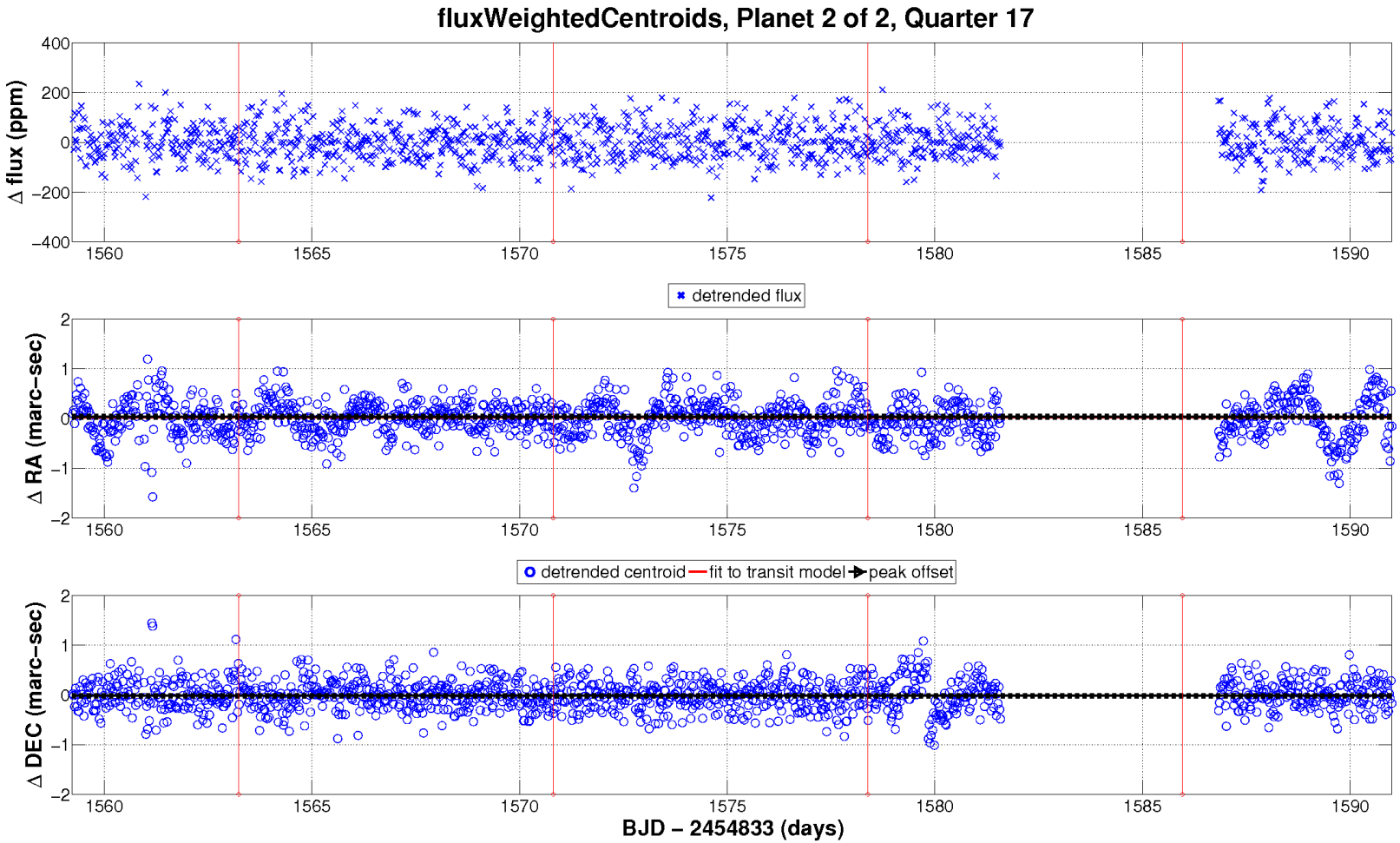
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-13.fig`



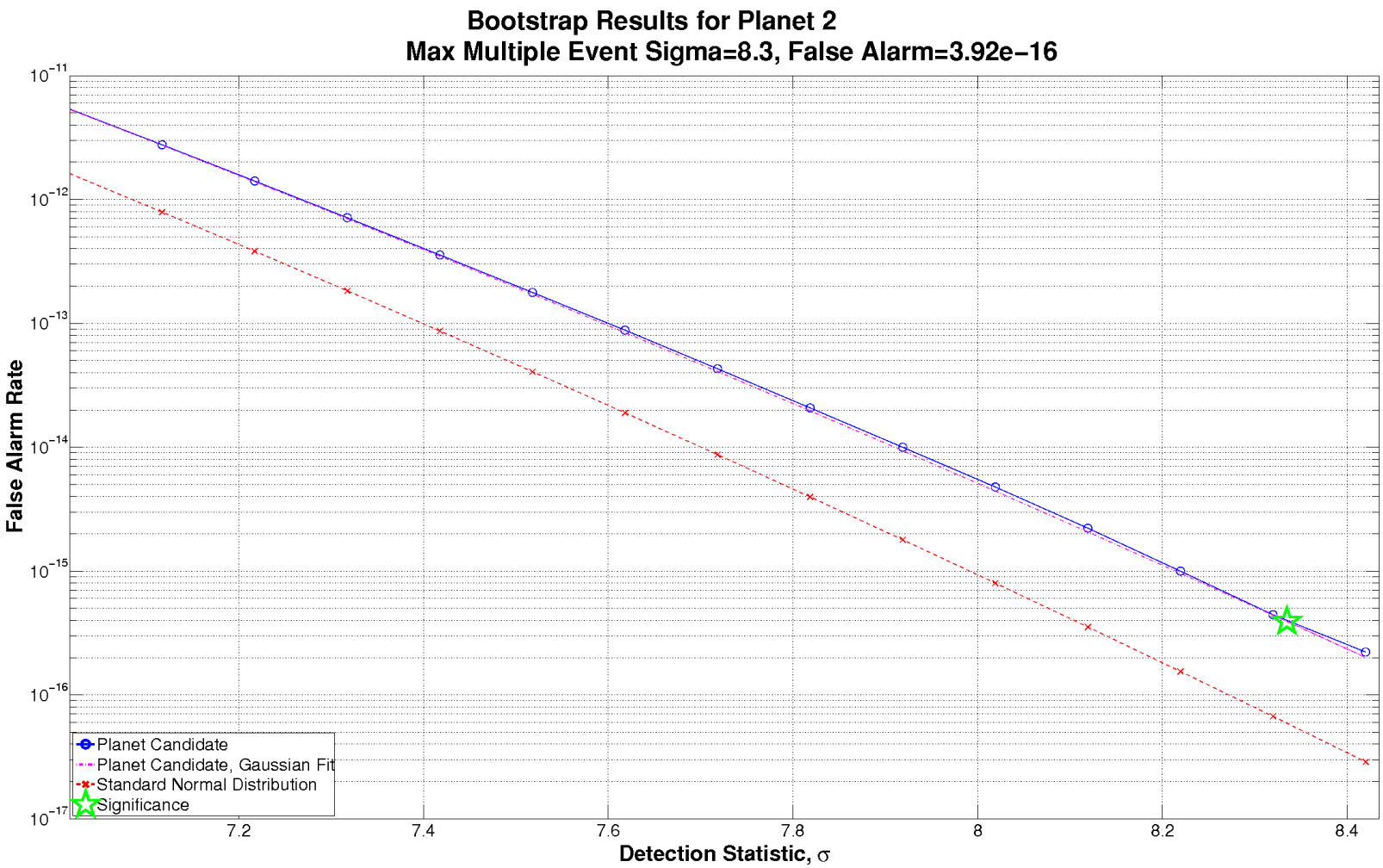
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-14.fig`



KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-16.fig`



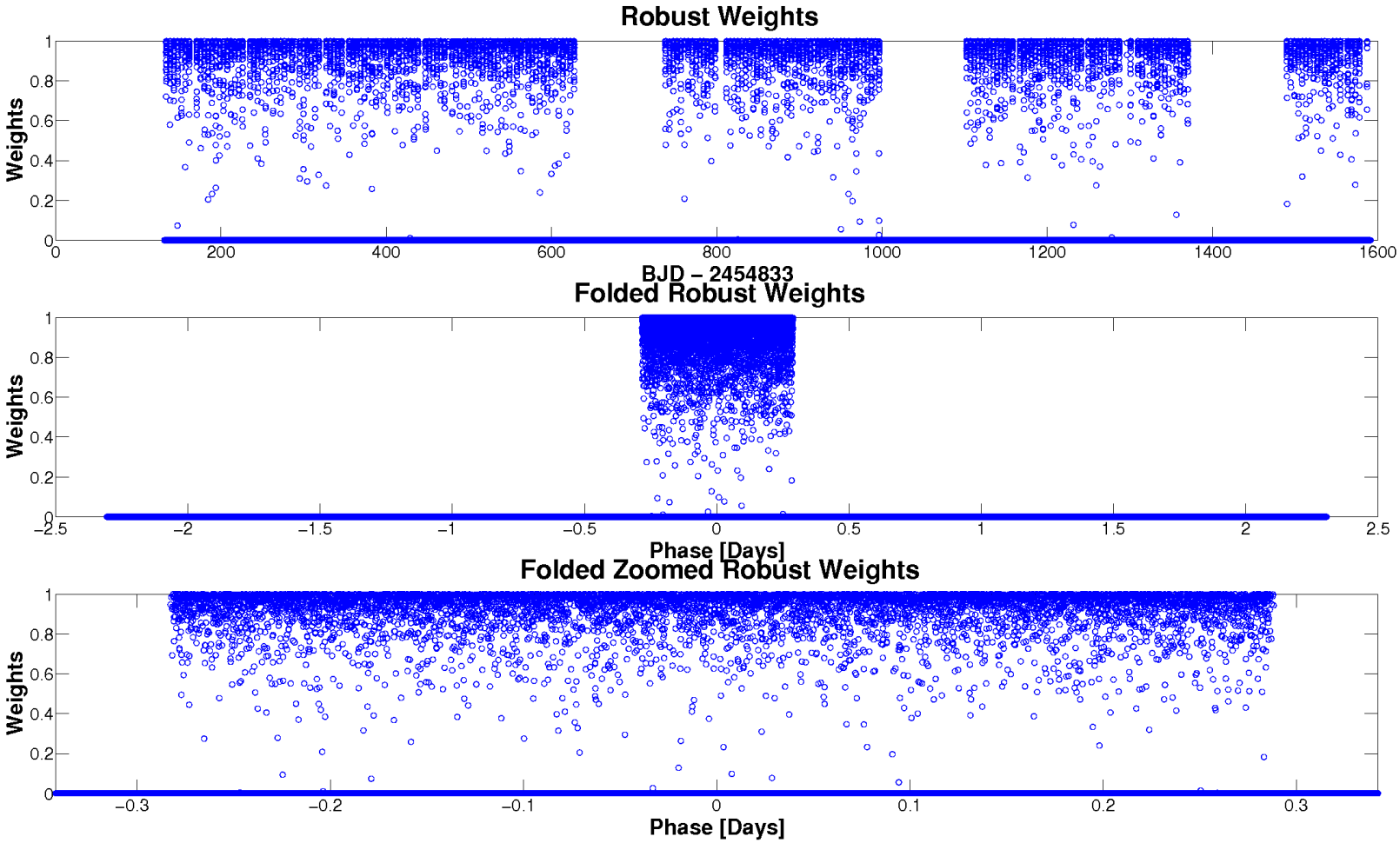
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median out of transit value removed. The bottom two panels show the corresponding change in the centroid in right ascension (RA) and declination (DEC) angles on the sky. The centroids are detrended against ancillary data and have the mean out-of-transit value removed. The scaled transit model fit to the target flux is shown on the centroid plots in red. The peak fitted offset from the out of transit centroid is indicated by the solid black horizontal line. One sigma error bars are indicated with dashed black horizontal lines. Red circles and vertical lines mark the fitted transit centers. In-transit data points for any other planets identified for this target have been gapped. The out-of-transit mean and standard deviation (SD) indicated in the lower left-hand corner are robust estimates.
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-17.fig`



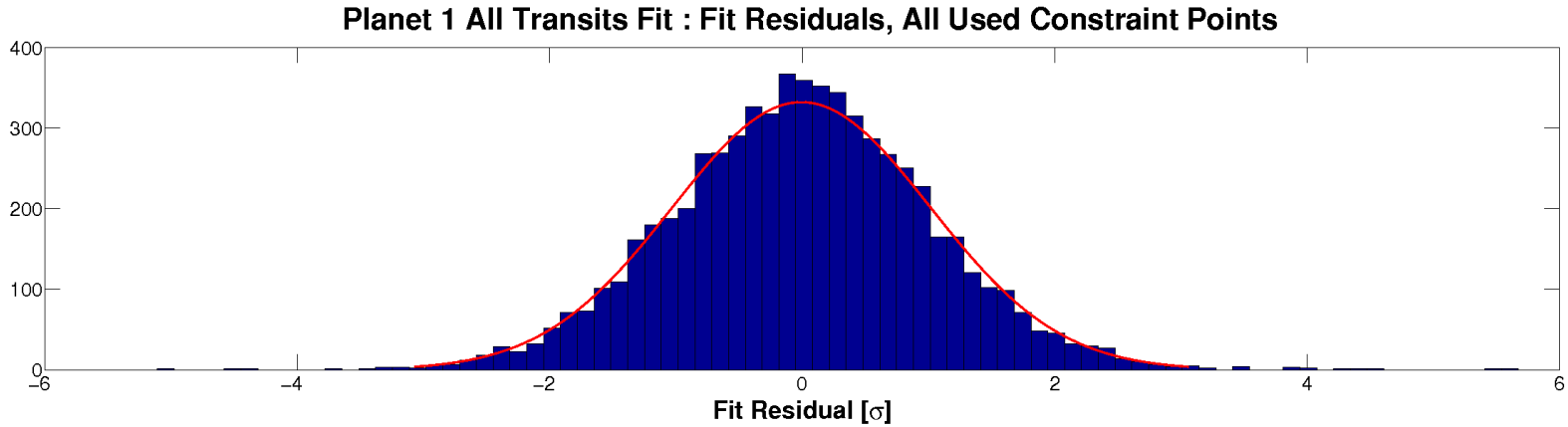
Bootstrap results for target 9602613, planet 2. Cumulative sum of the probabilities (derived from the histogram of counts) from upper tail to the search transit threshold; false alarm probability is indicated by the star. The Gaussian equivalent threshold for this false alarm probability is 8.0566. The threshold on this distribution that achieves the same false alarm rate as a 7.1 sigma threshold on a Gaussian distribution is 7.3425.
Open `./planet-02/bootstrap-results/009602613-02-bootstrap-false-alarm.fig`

Appendix A Planet Candidate 1

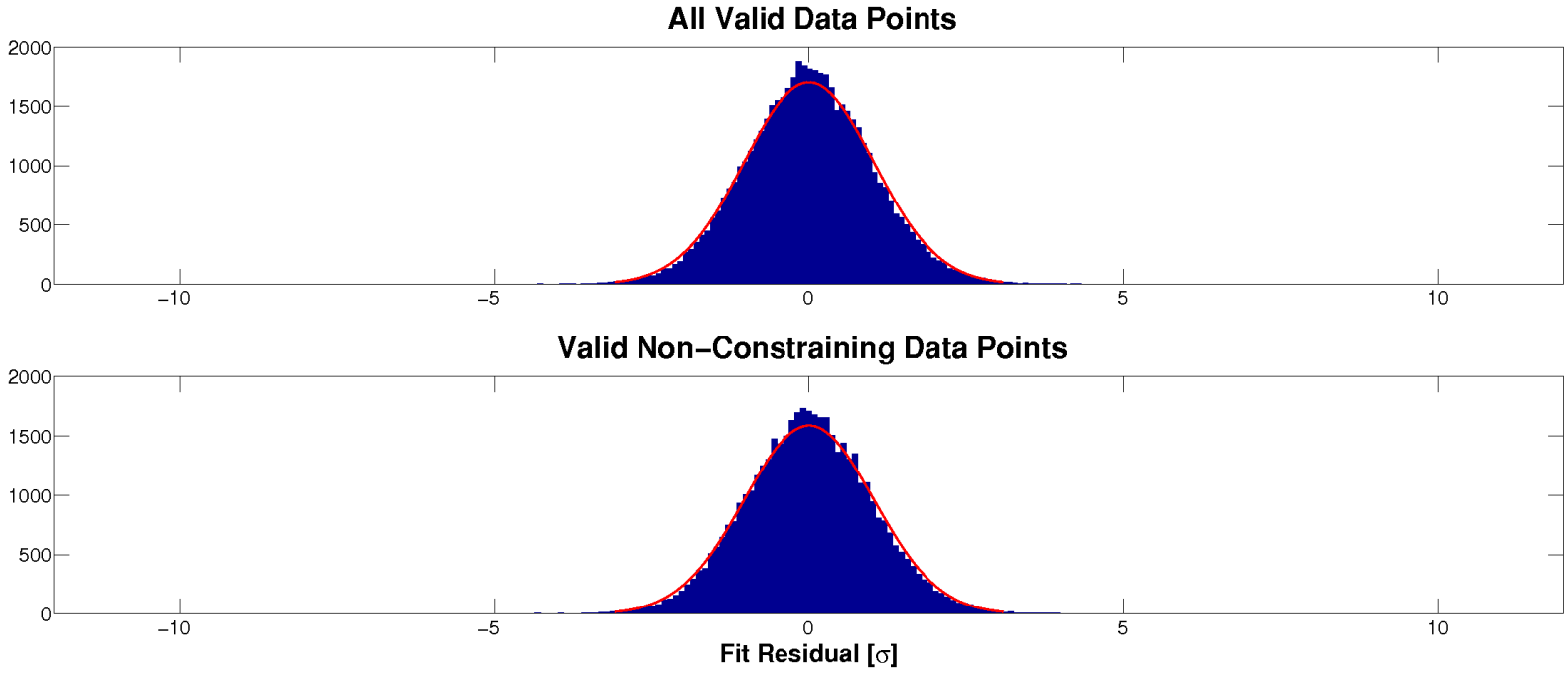
A.1 Model Fitter: All Transits



Robust weights distribution for KeplerId 9602613, Planet candidate 1. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-robust-weights.fig`



Fit residuals distribution for KeplerId 9602613, Planet candidate 1. Only the valid data points used to constrain the fit are shown here. A Gaussian fit to the histogram is shown in red.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-histo-used.fig`

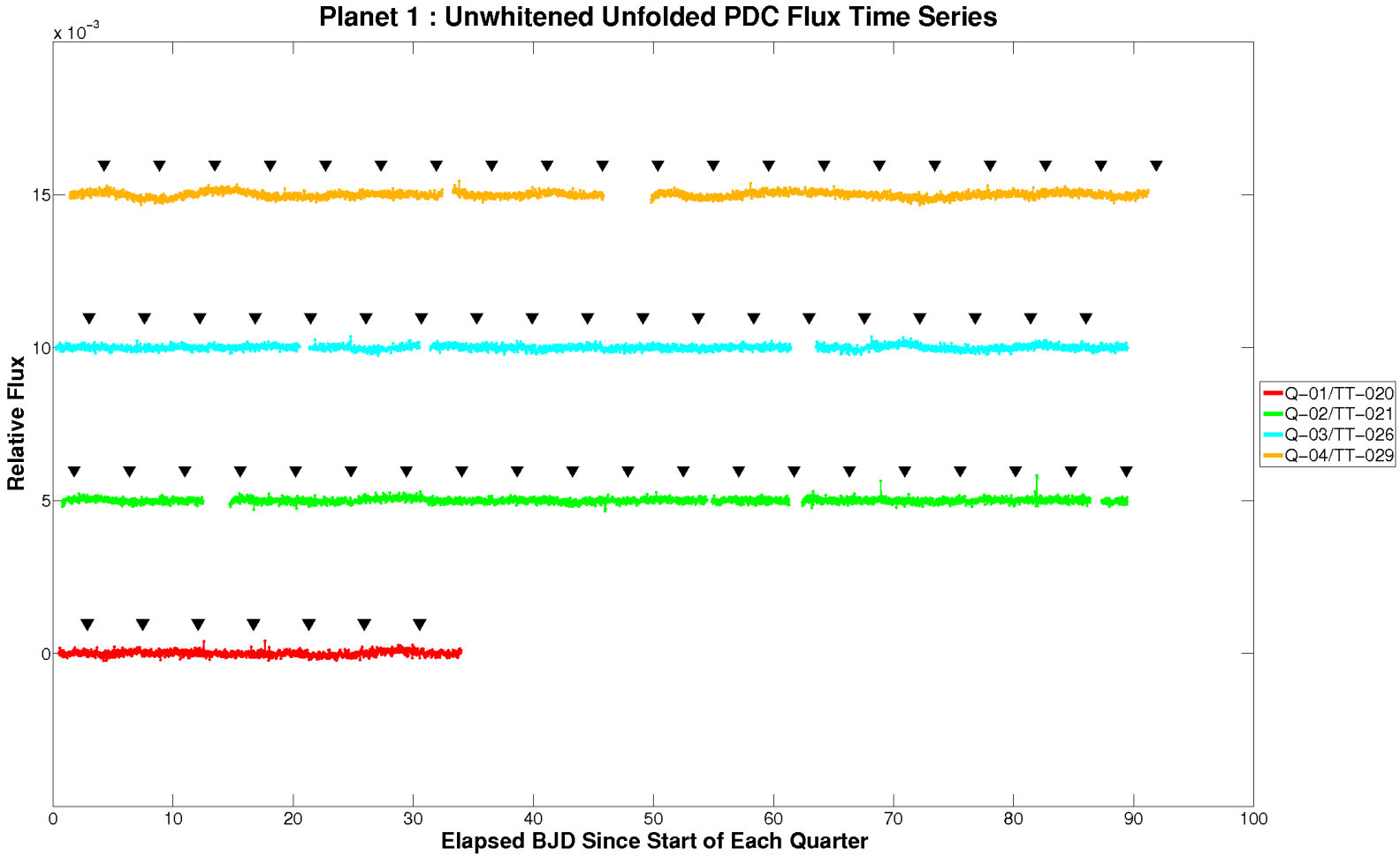


Fit residuals distribution for KeplerId 9602613, Planet candidate 1. Top plot: all valid data. Bottom plot: valid data not used to constrain fit (due to distance from a transit). Gaussian fits to the histograms are shown in red.
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-histo-all-and-unused.fig`

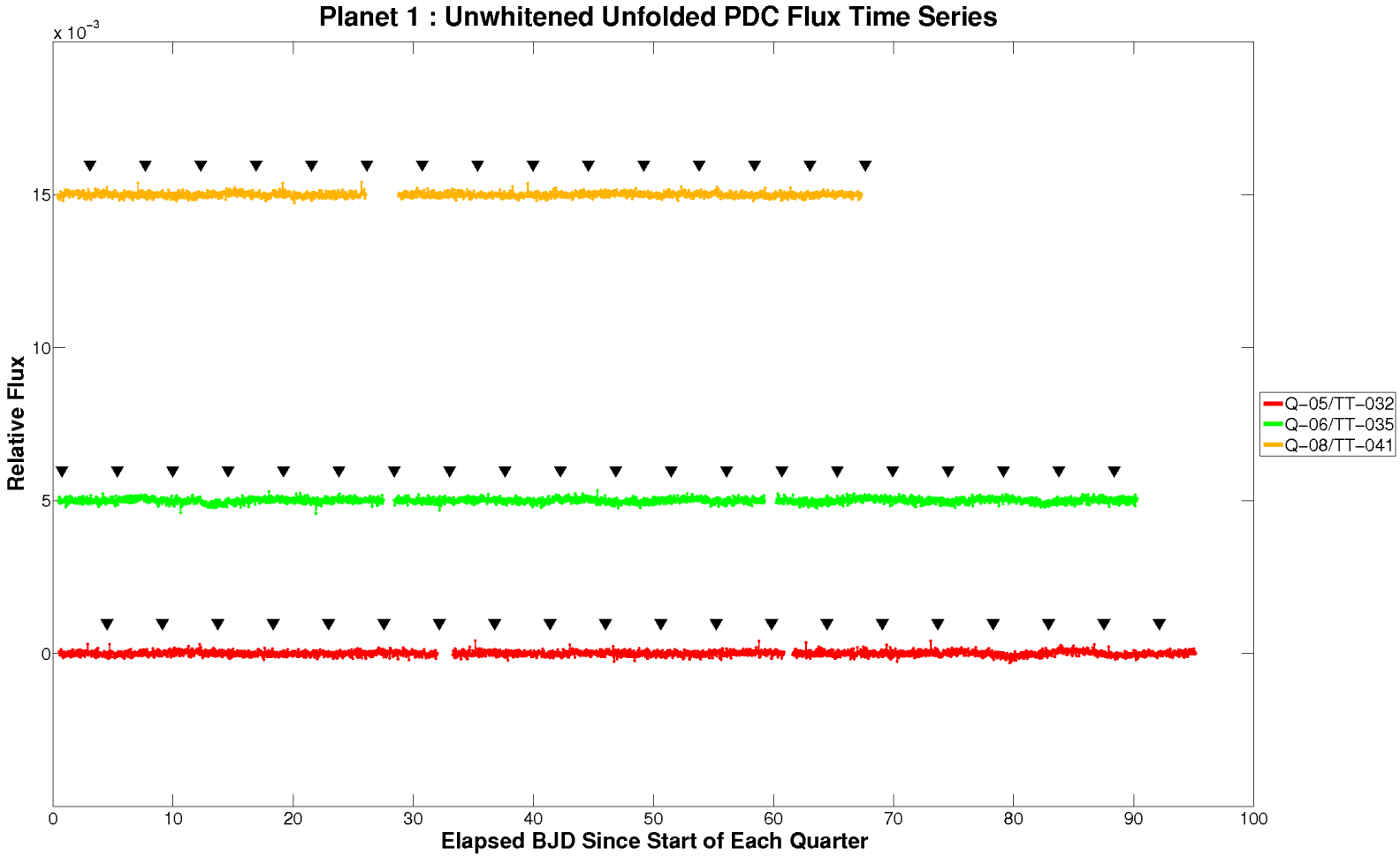
A.2 Model Fitter: Odd & Even Transits

Parameter	Odd Transits Value	Odd Transits Uncertainty	Even Transits Value	Even Transits Uncertainty	Units	Difference / ‖Uncertainty‖
SNR	8.9		8.3			
Orbital Period	4.6123580	3.5492e-05	4.6122952	3.9033e-05	days	1.1903e+00
Transit Epoch	133.8563061	5.0356e-03	138.4649513	5.5349e-03	BKJD	4.9151e-01
Impact Parameter	0.8971	4.5773e-01	0.8940	4.9377e-01		4.5617e-03
Planet Radius to Star Radius Ratio	0.0060205	2.7889e-03	0.0058167	2.8319e-03		5.1264e-02
Semi-major Axis to Star Radius Ratio	6.0469	1.2084e+01	5.8415	1.2190e+01		1.1969e-02
Planet Radius	0.6314	3.0206e-01	0.6100	3.0581e-01	Earth radii	4.9709e-02
Semi-major Axis	0.0530	5.8372e-03	0.0530	5.8372e-03	AU	5.8254e-05
Effective Stellar Flux	268.7510	4.8838e+01	268.7559	4.8839e+01	Goldilocks	7.0637e-05
Equilibrium Temperature	1032	4.6904e+01	1032	4.6904e+01	Kelvin	7.0637e-05
Transit Depth	30	3.5366e+00	28	3.5538e+00	ppm	3.6253e-01
Transit Duration	2.6858	3.0331e-01	2.8165	3.1763e-01	hours	2.9749e-01
Transit Ingress Time	0.0805	3.7201e-01	0.0795	3.8430e-01	hours	1.9157e-03
Eccentricity	0.0000	0.0000e+00	0.0000	0.0000e+00		
Peri Longitude	0.0000	0.0000e+00	0.0000	0.0000e+00	degrees	
Model Chi Square Statistic (DoF)	4675.5 (5673.5)		4675.5 (5673.5)			

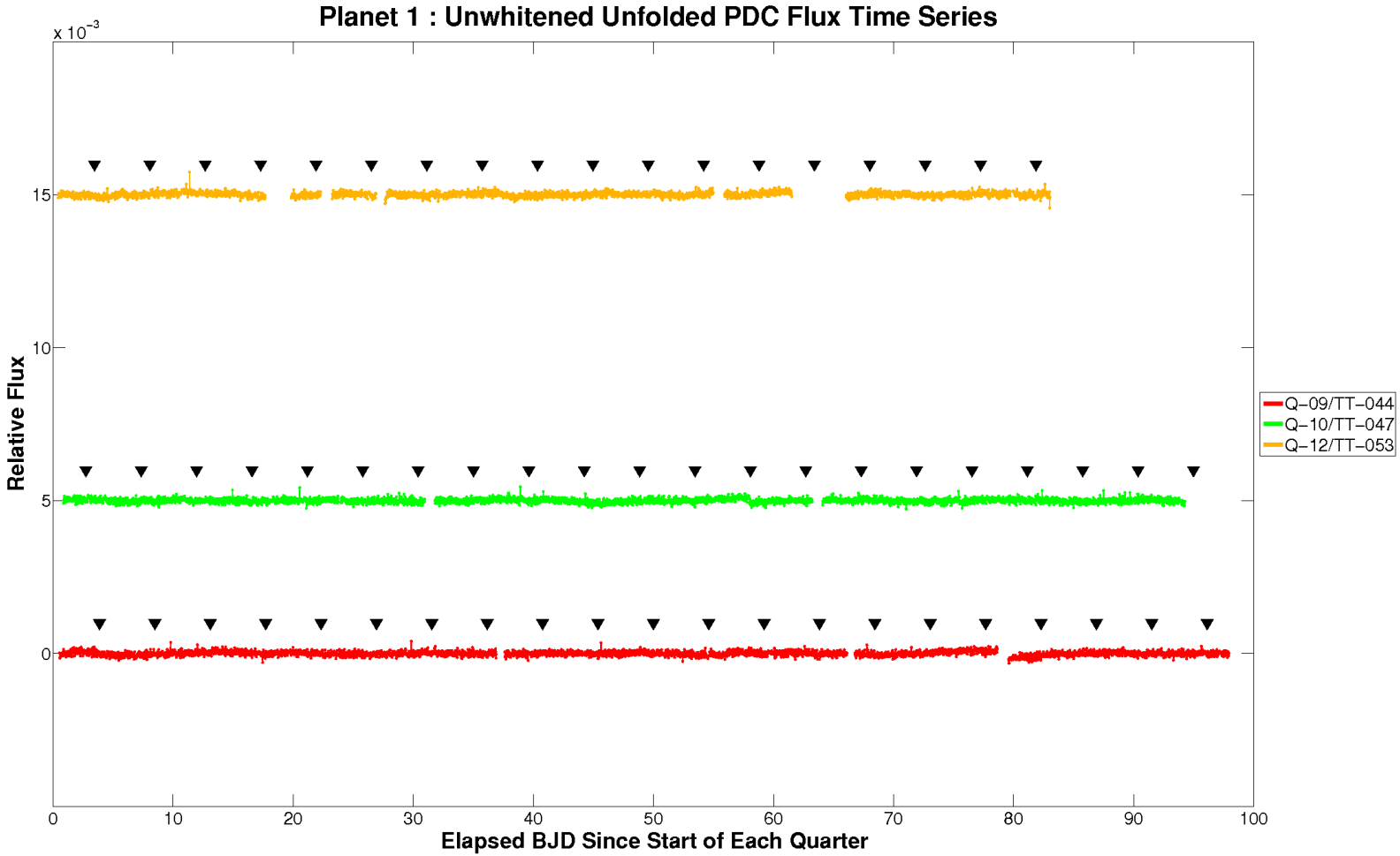
DoF: Degrees of Freedom



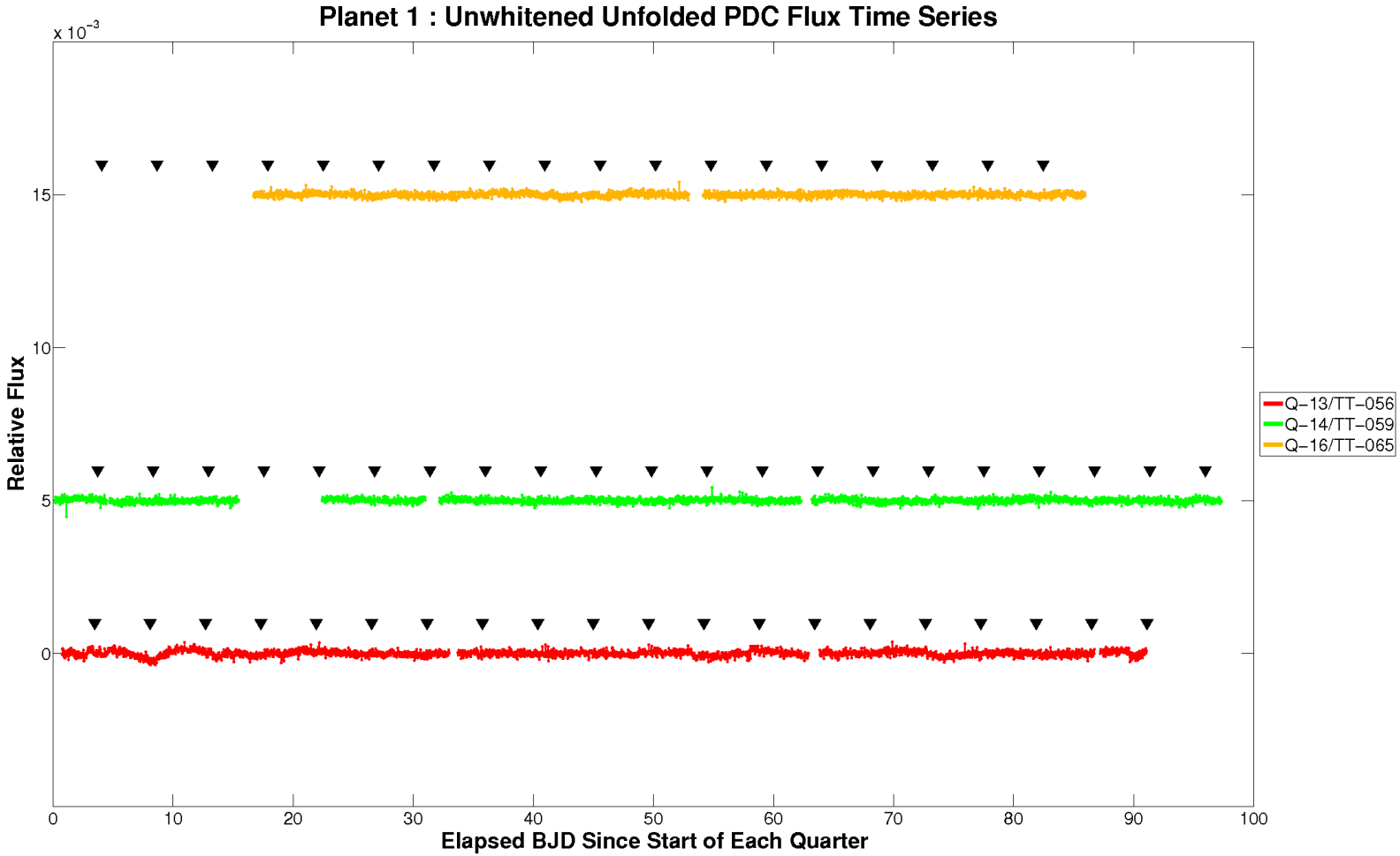
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.005. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.01. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-01-020.fig`



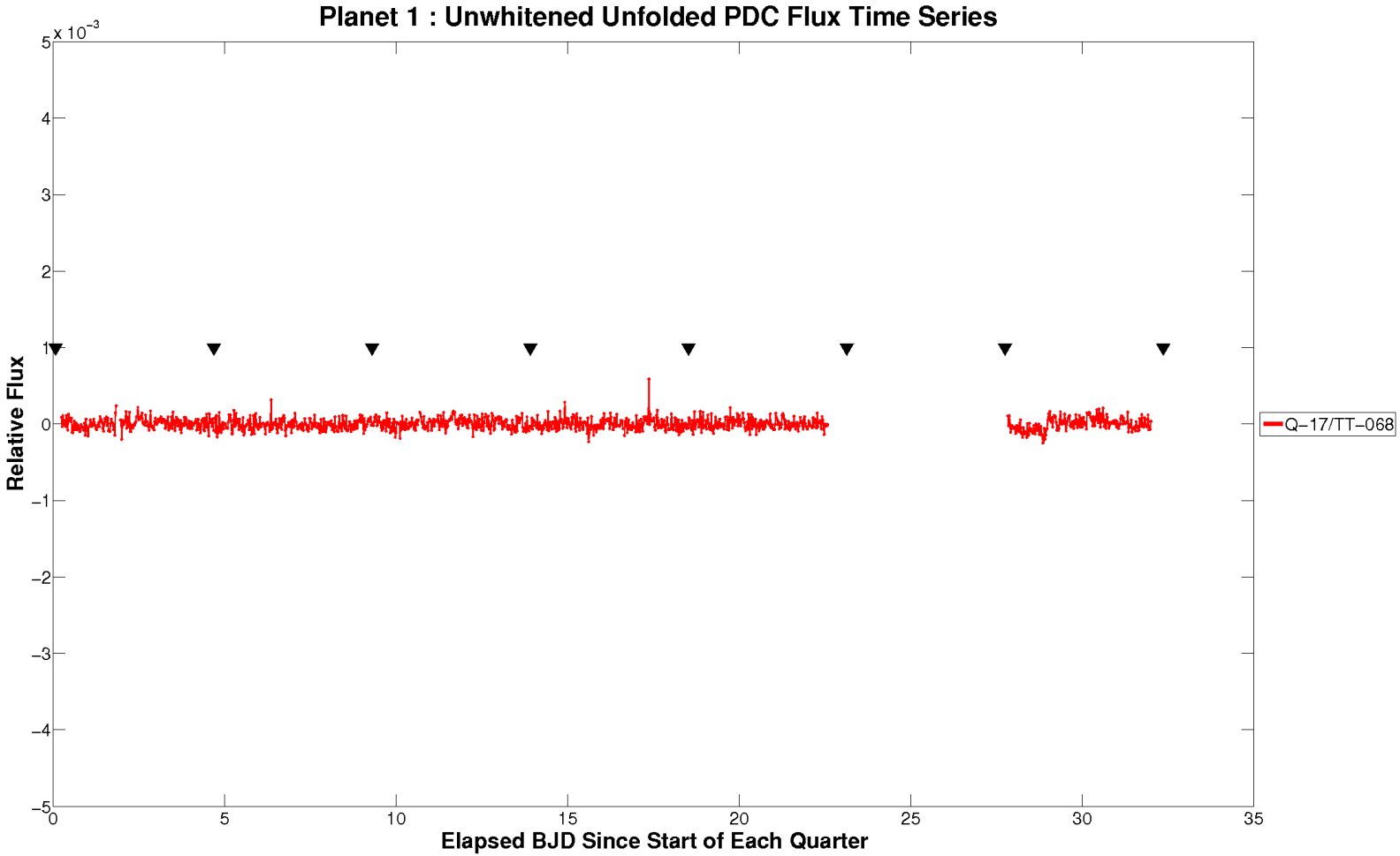
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.005. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.01. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-05-032.fig`



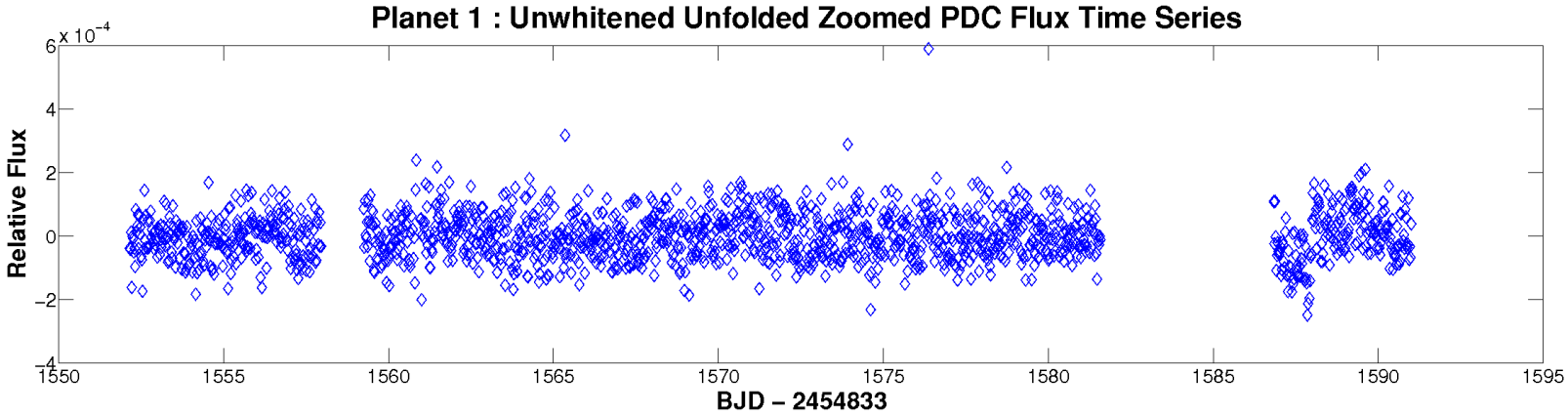
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.005. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.01. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-09-044.fig`



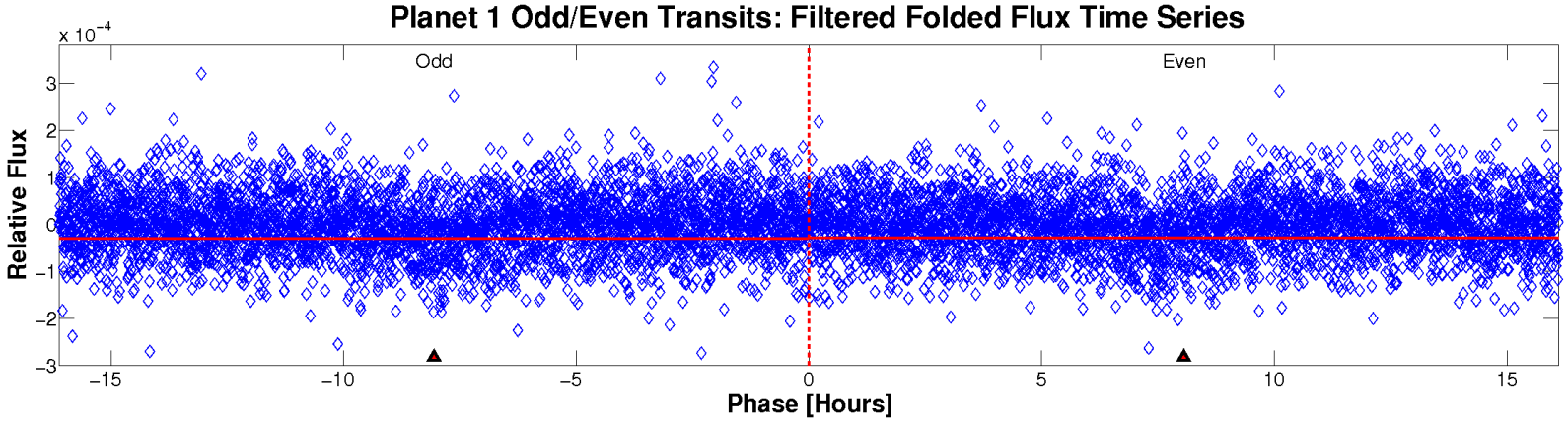
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-13/TargetTableId-056, start BJD is 2456015 and the vertical offset is 0. For the data of Quarter-14/TargetTableId-059, start BJD is 2456107 and the vertical offset is 0.005. For the data of Quarter-15/TargetTableId-062, start BJD is 2456206 and the vertical offset is 0.01. For the data of Quarter-16/TargetTableId-065, start BJD is 2456305 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-13-056.fig`



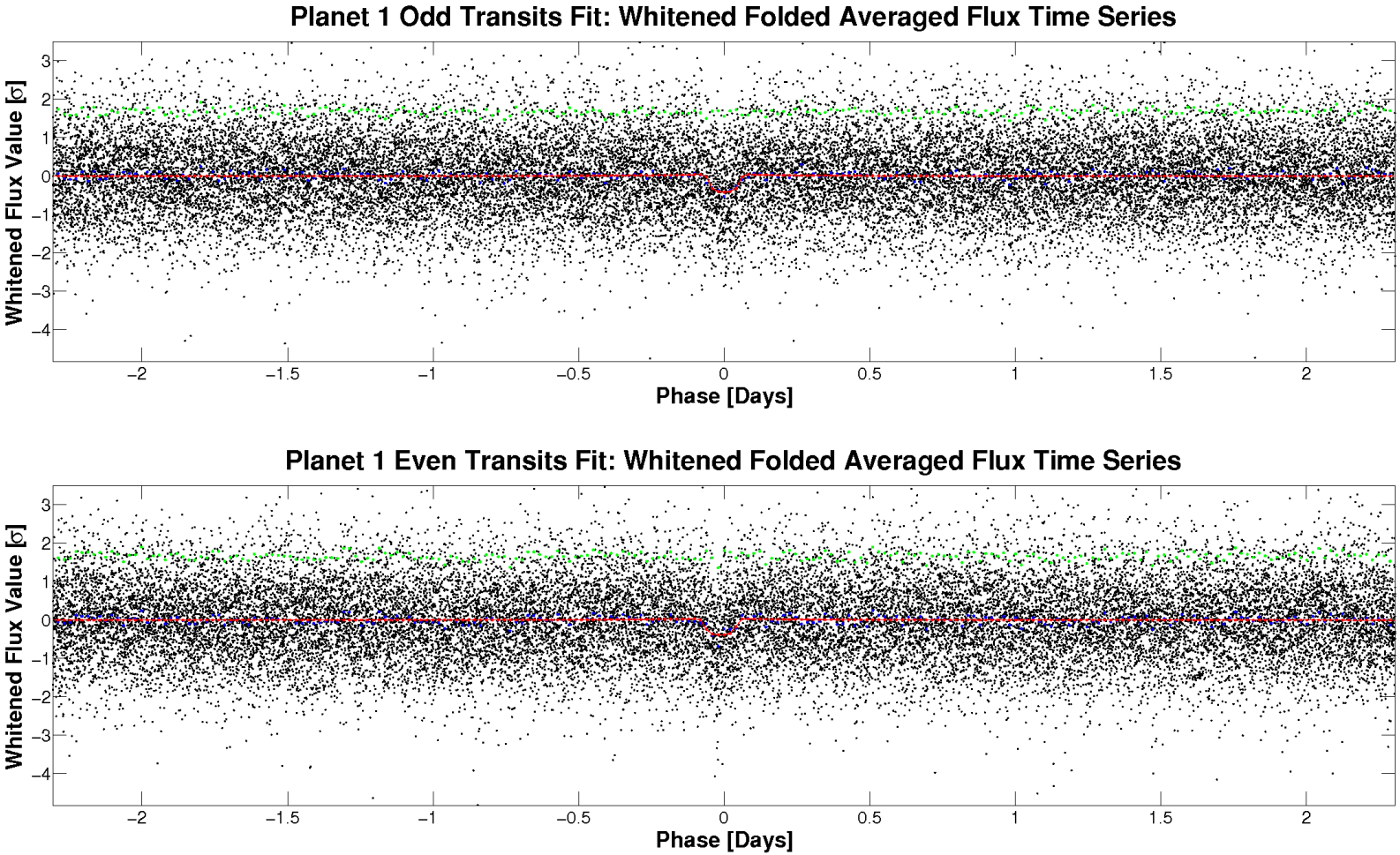
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-17/TargetTableId-068, start BJD is 2456392. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-17-068.fig`



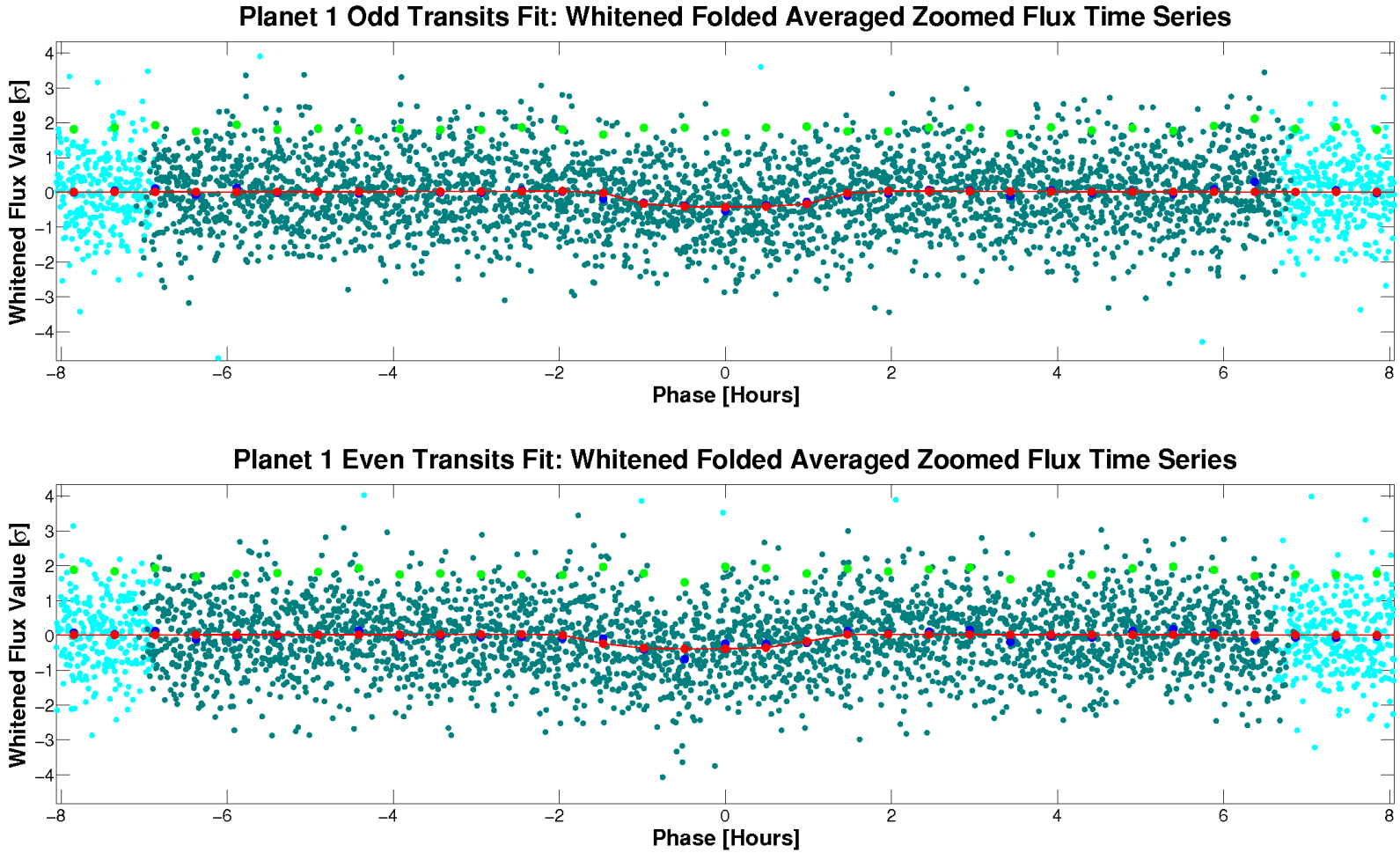
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-zoomed.fig`



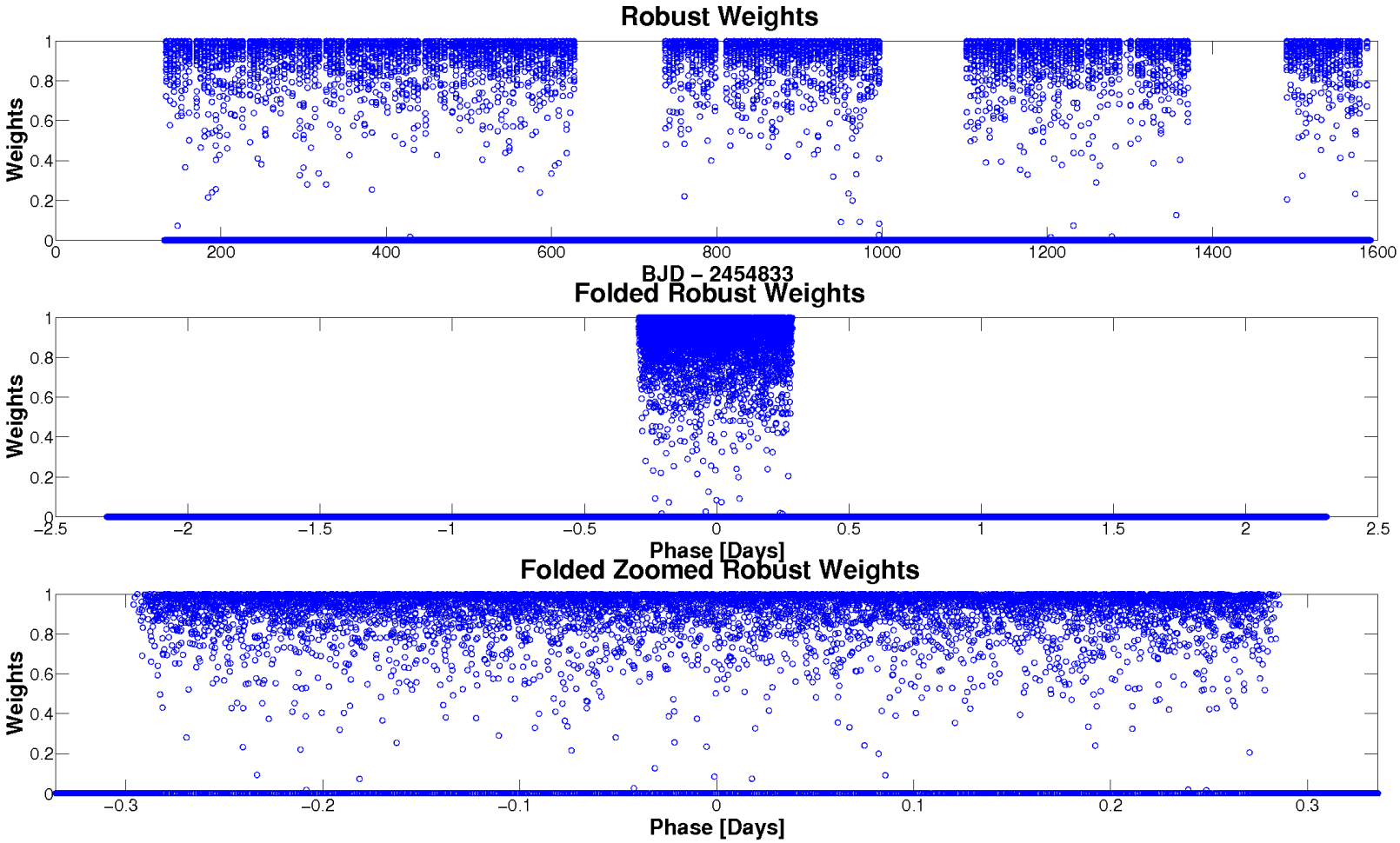
PDC Flux time series of odd/even transits for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at a specified multiple of the transit duration, folded per the fitted period and epoch, and zoomed to the location of the model transit.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-filtered-zoomed.fig`



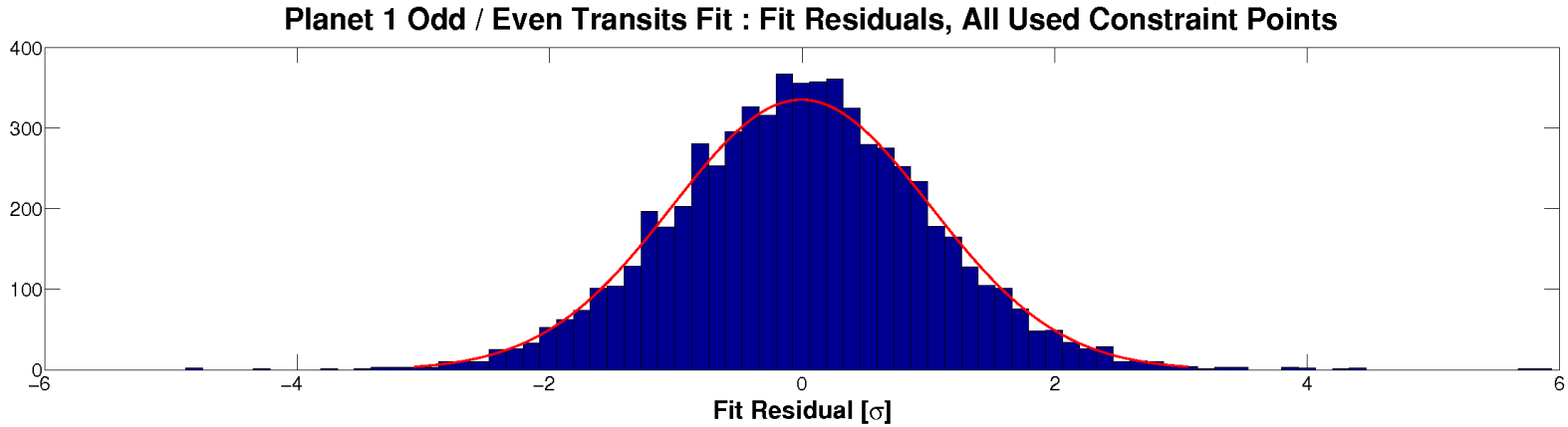
Folded flux time series for KeplerId 9602613, Planet candidate 1 in the whitened domain is plotted in black dots. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the folded model light curve of the odd/even transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-whitened.fig`



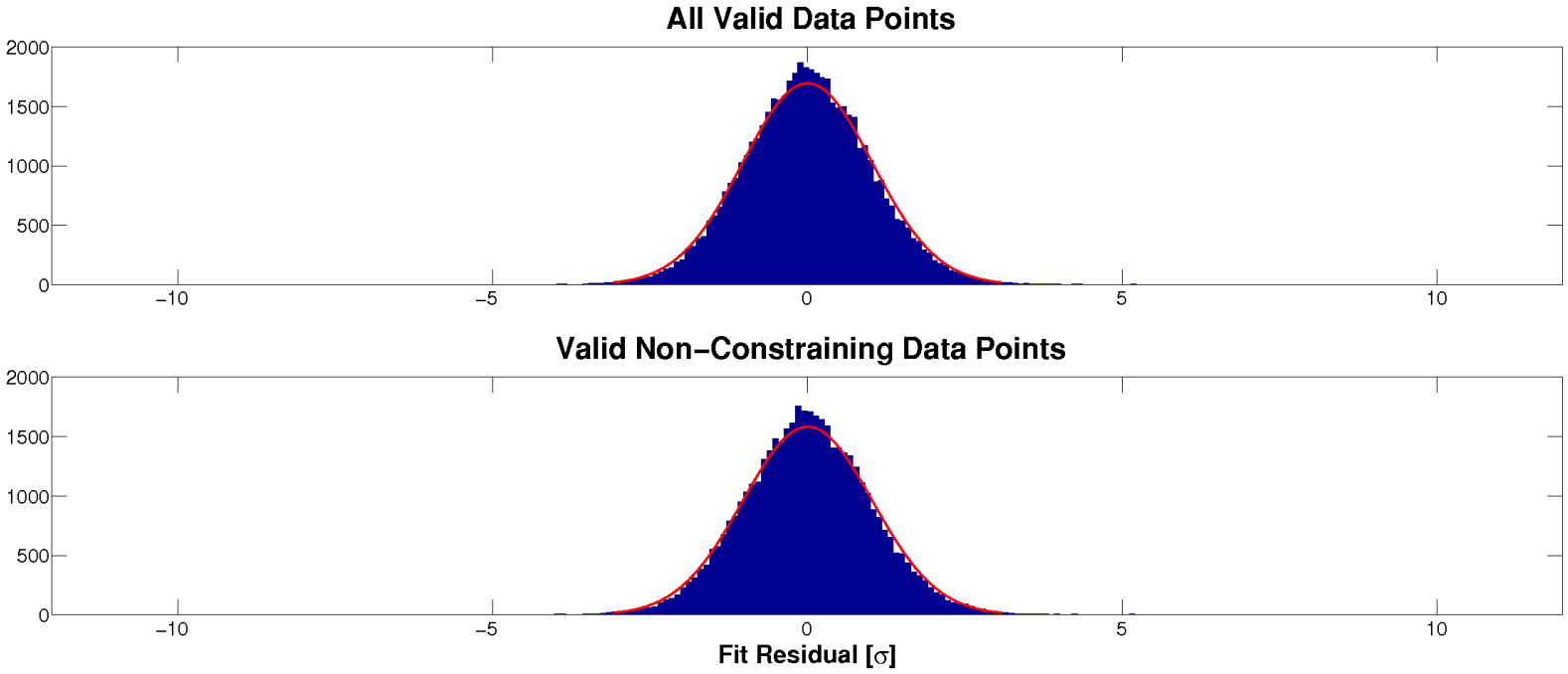
Folded flux time series for KeplerId 9602613, Planet candidate 1 in the whitened domain, zoomed on the transit. The flux data whose robust weights are larger/smaller than 0.1 are plotted in dark green/cyan dots, respectively. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the fitted model light curve of the odd/even transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. Magenta dots are the averaged values of the folded flux time series, with a phase shift of 0.5 relative to the blue dots, vertically offset for clarity. Odd-even transits fit completed with full convergence.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-whitened-zoomed.fig`



Robust weights distribution for KeplerId 9602613, Planet candidate 1. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-robust-weights.fig`

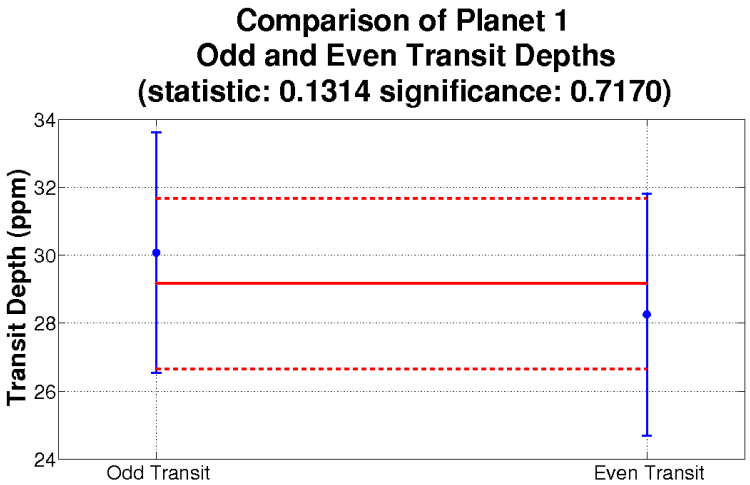


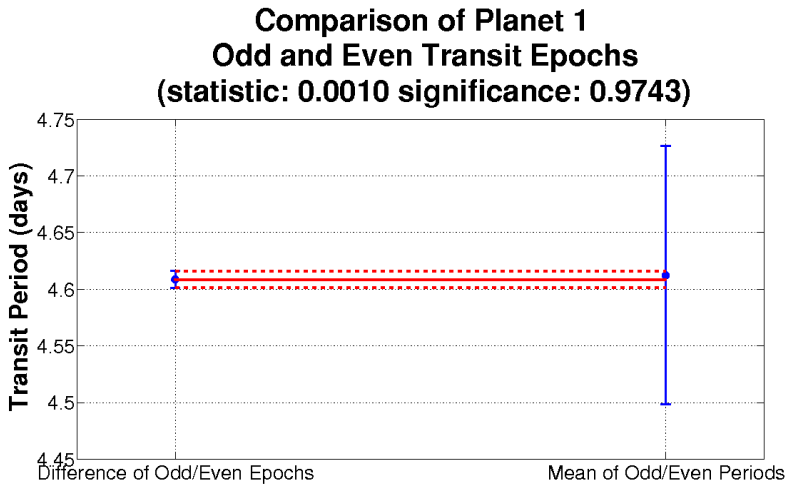
Fit residuals distribution for KeplerId 9602613, Planet candidate 1. Only the valid data points used to constrain the fit are shown here. A Gaussian fit to the histogram is shown in red.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-histo-used.fig`

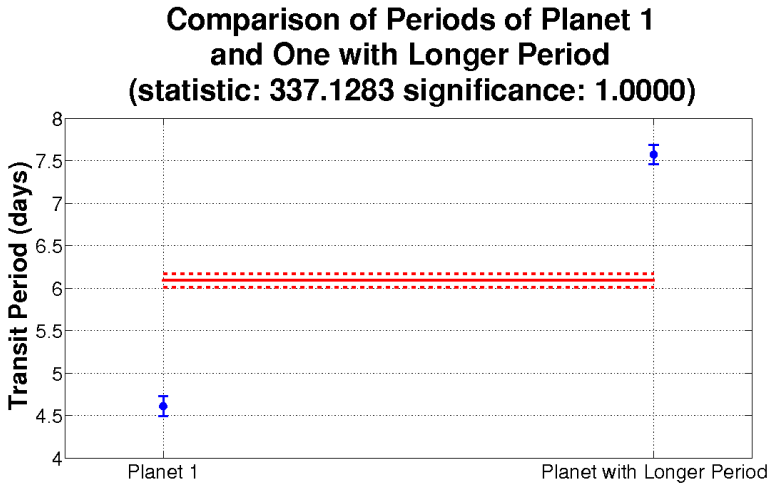


Fit residuals distribution for KeplerId 9602613, Planet candidate 1. Top plot: all valid data. Bottom plot: valid data not used to constrain fit (due to distance from a transit). Gaussian fits to the histograms are shown in red.
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-histo-all-and-unused.fig`

A.3 Eclipsing Binary Discrimination Test



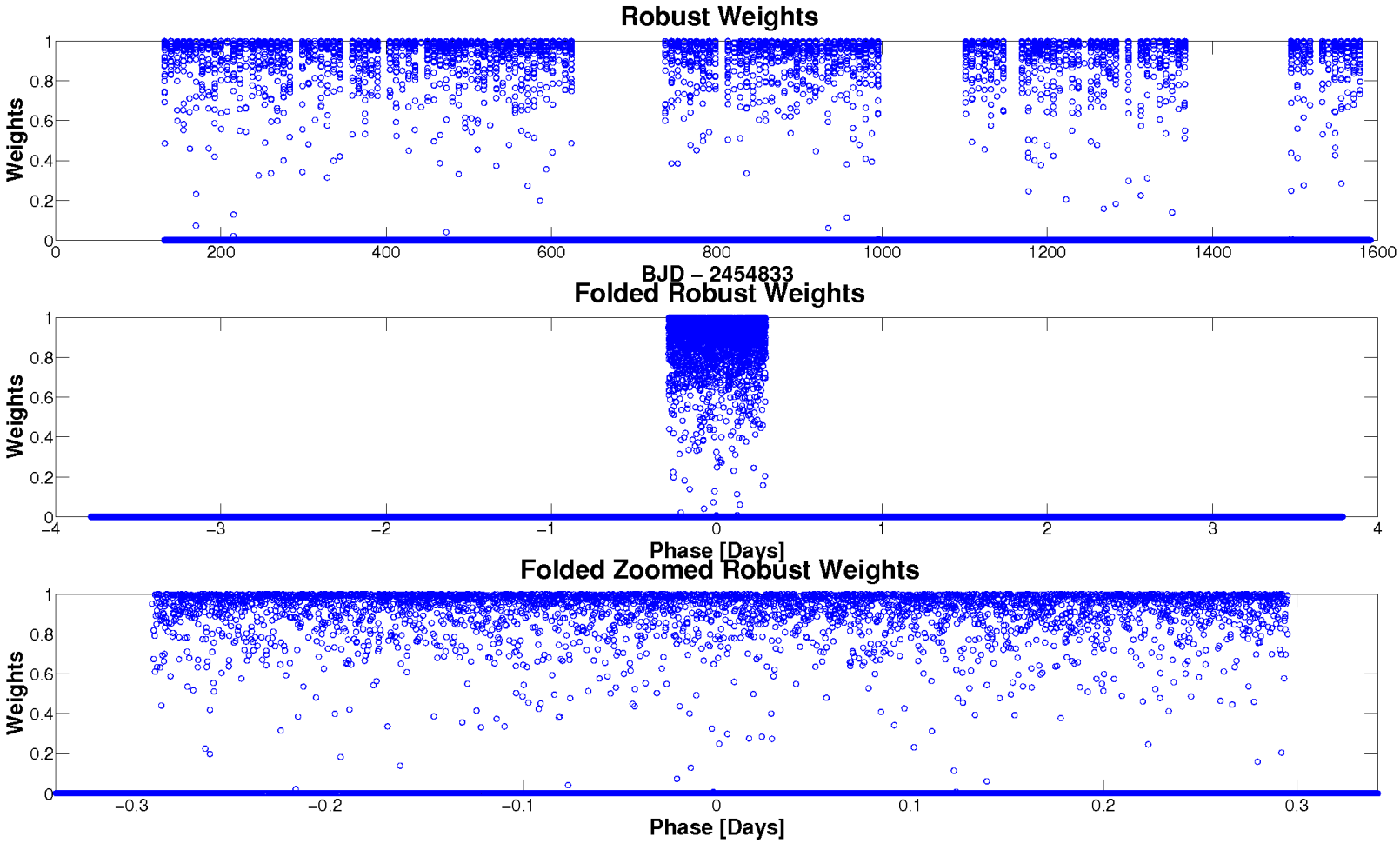




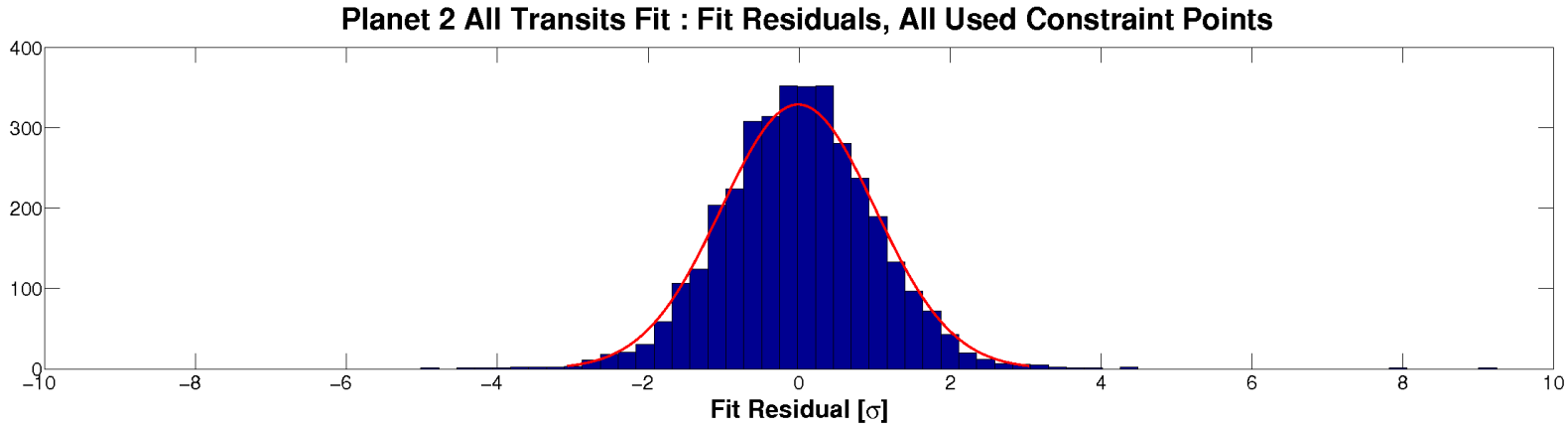
Top-left: Diagnostic plot of Odd/Even Transit Depth Test for keplerId 9602613, planet 1. A significance level close to 1/0 favors a transiting planet/an eclipsing binary. Top-right: Diagnostic plot of Odd/Even Transit Epoch Test for keplerId 9602613, planet 1. A significance level close to 1/0 favors a transiting planet/an eclipsing binary. Bottom-right: Diagnostic plot of Orbital Period Test for keplerId 9602613. Orbital periods of planet 1 and the planet with longer period are compared. A significance level close to 1/0 favors a transiting planet/an eclipsing binary.
Open `./planet-01/binary-discrimination-test-results/009602613-01-eclipsing-binary-discrimination-tests.fig`

Appendix B Planet Candidate 2

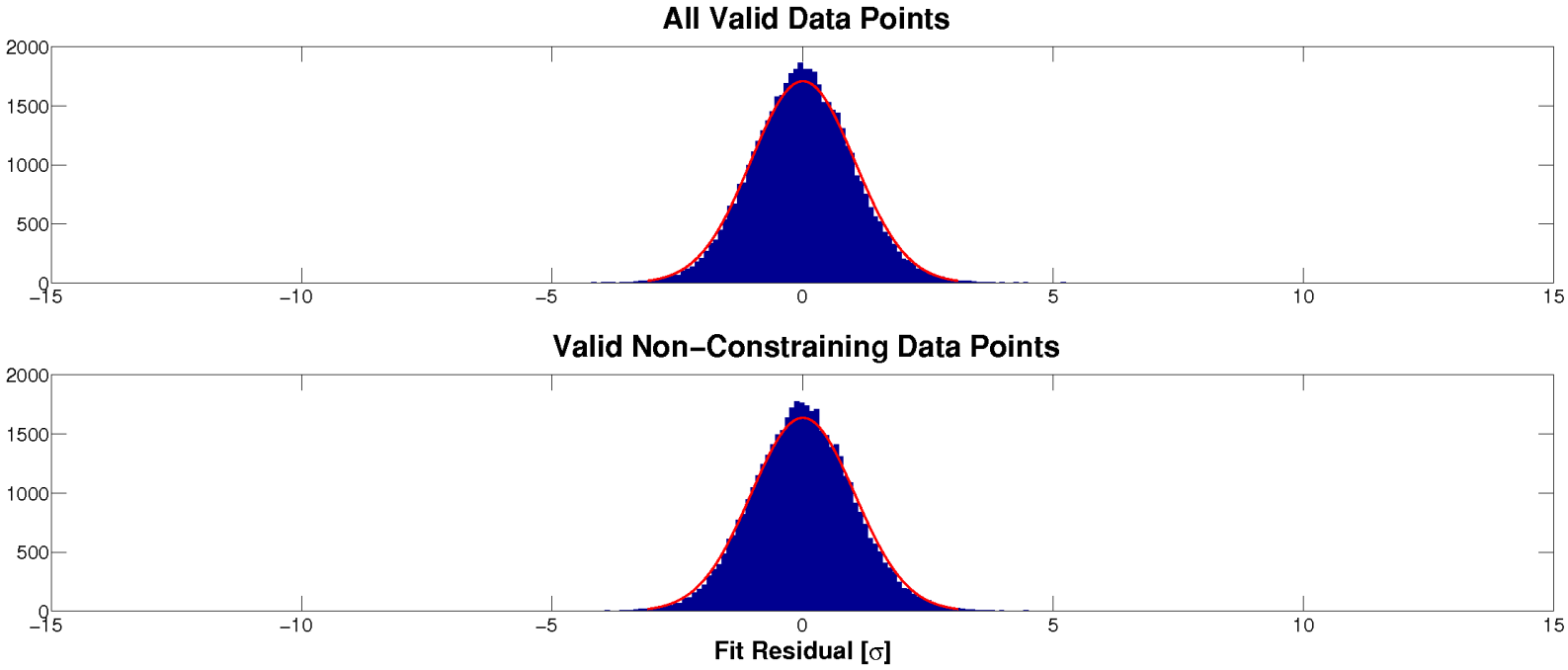
B.1 Model Fitter: All Transits



Robust weights distribution for KeplerId 9602613, Planet candidate 2. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-robust-weights.fig`



Fit residuals distribution for KeplerId 9602613, Planet candidate 2. Only the valid data points used to constrain the fit are shown here. A Gaussian fit to the histogram is shown in red.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-histo-used.fig`

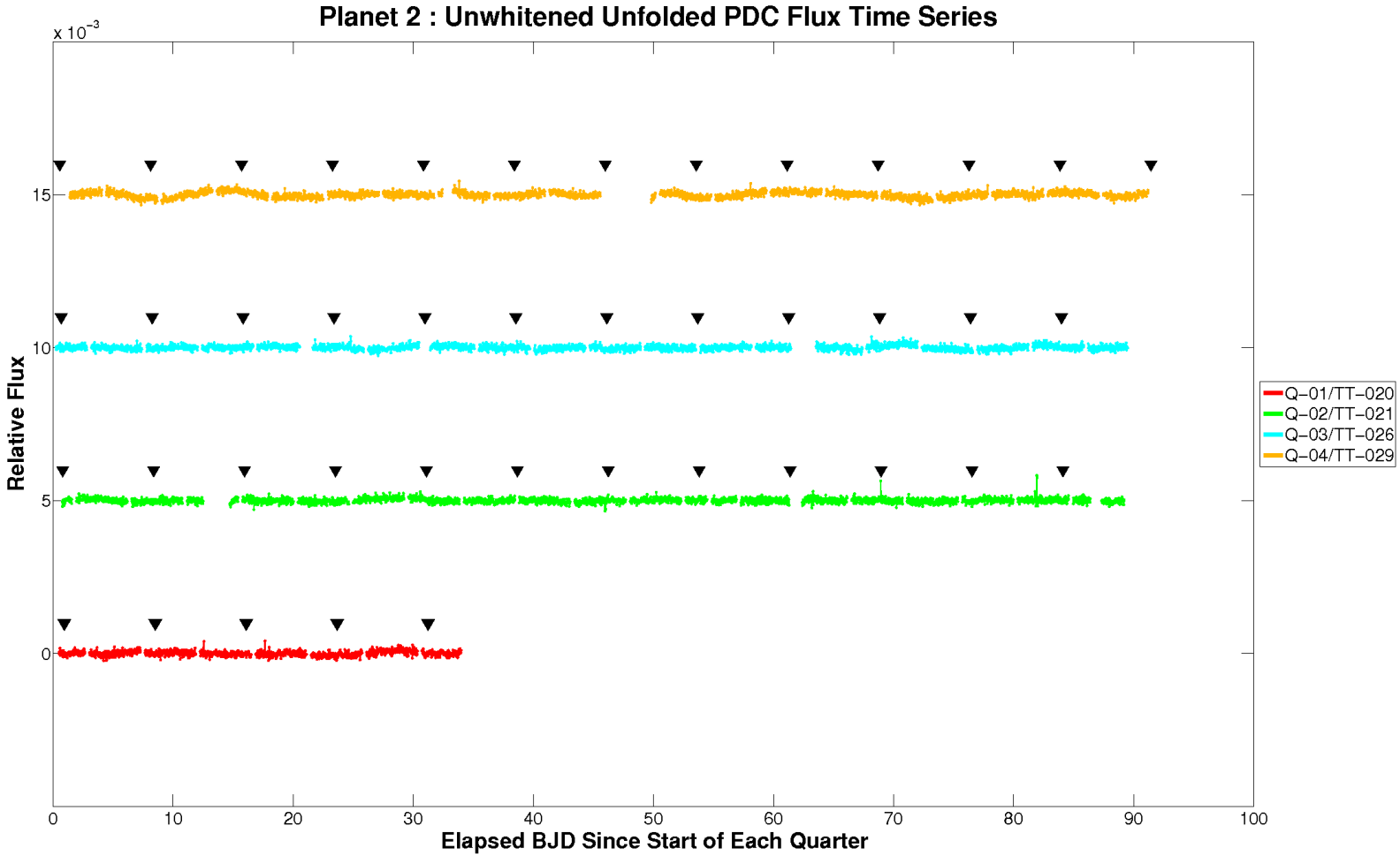


Fit residuals distribution for KeplerId 9602613, Planet candidate 2. Top plot: all valid data. Bottom plot: valid data not used to constrain fit (due to distance from a transit). Gaussian fits to the histograms are shown in red.
Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-histo-all-and-unused.fig`

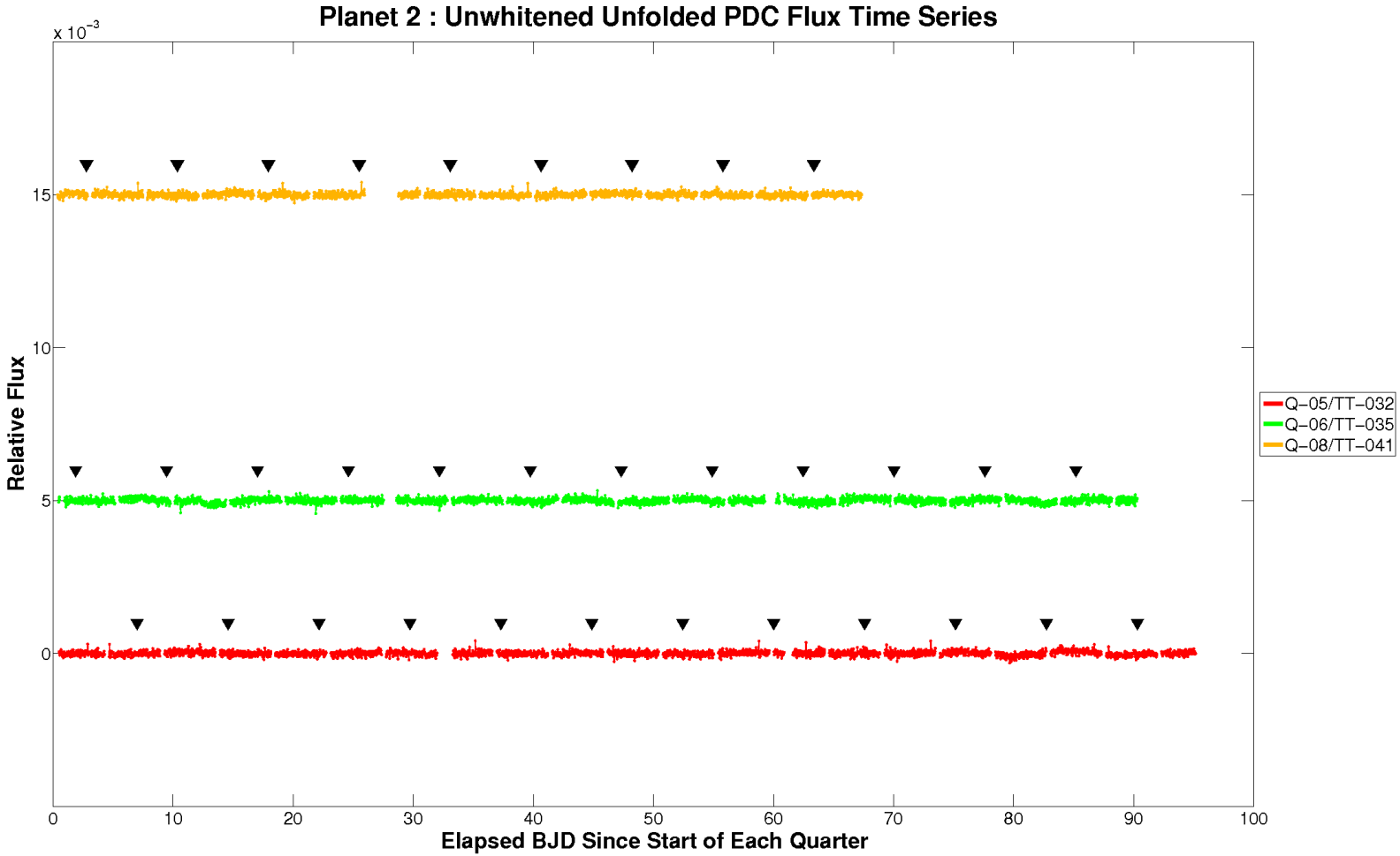
B.2 Model Fitter: Odd & Even Transits

Parameter	Odd Transits Value	Odd Transits Uncertainty	Even Transits Value	Even Transits Uncertainty	Units	Difference / ‖Uncertainty‖
SNR	6.9		6.7			
Orbital Period	7.5730191	7.1728e-05	7.5730019	7.8473e-05	days	1.6213e-01
Transit Epoch	131.9396297	6.6841e-03	139.5153088	7.3066e-03	BKJD	2.6923e-01
Impact Parameter	0.9113	5.3538e-01	0.8657	7.8666e-01		4.7839e-02
Planet Radius to Star Radius Ratio	0.0063927	3.9526e-03	0.0058703	3.6737e-03		9.6808e-02
Semi-major Axis to Star Radius Ratio	10.2516	2.8548e+01	10.7589	2.8257e+01		1.2630e-02
Planet Radius	0.6704	4.2219e-01	0.6156	3.9223e-01	Earth radii	9.5064e-02
Semi-major Axis	0.0737	8.1240e-03	0.0737	8.1240e-03	AU	9.7390e-06
Effective Stellar Flux	138.7465	2.5213e+01	138.7469	2.5213e+01	Goldilocks	1.1809e-05
Equilibrium Temperature	875	3.9758e+01	875	3.9758e+01	Kelvin	1.1809e-05
Transit Depth	33	4.7629e+00	30	4.5199e+00	ppm	3.9071e-01
Transit Duration	2.4206	4.4342e-01	2.7638	3.1000e-01	hours	6.3428e-01
Transit Ingress Time	0.0881	5.5568e-01	0.0634	3.7960e-01	hours	3.6726e-02
Eccentricity	0.0000	0.0000e+00	0.0000	0.0000e+00		
Peri Longitude	0.0000	0.0000e+00	0.0000	0.0000e+00	degrees	
Model Chi Square Statistic (DoF)	2520.1 (3243.1)		2520.1 (3243.1)			

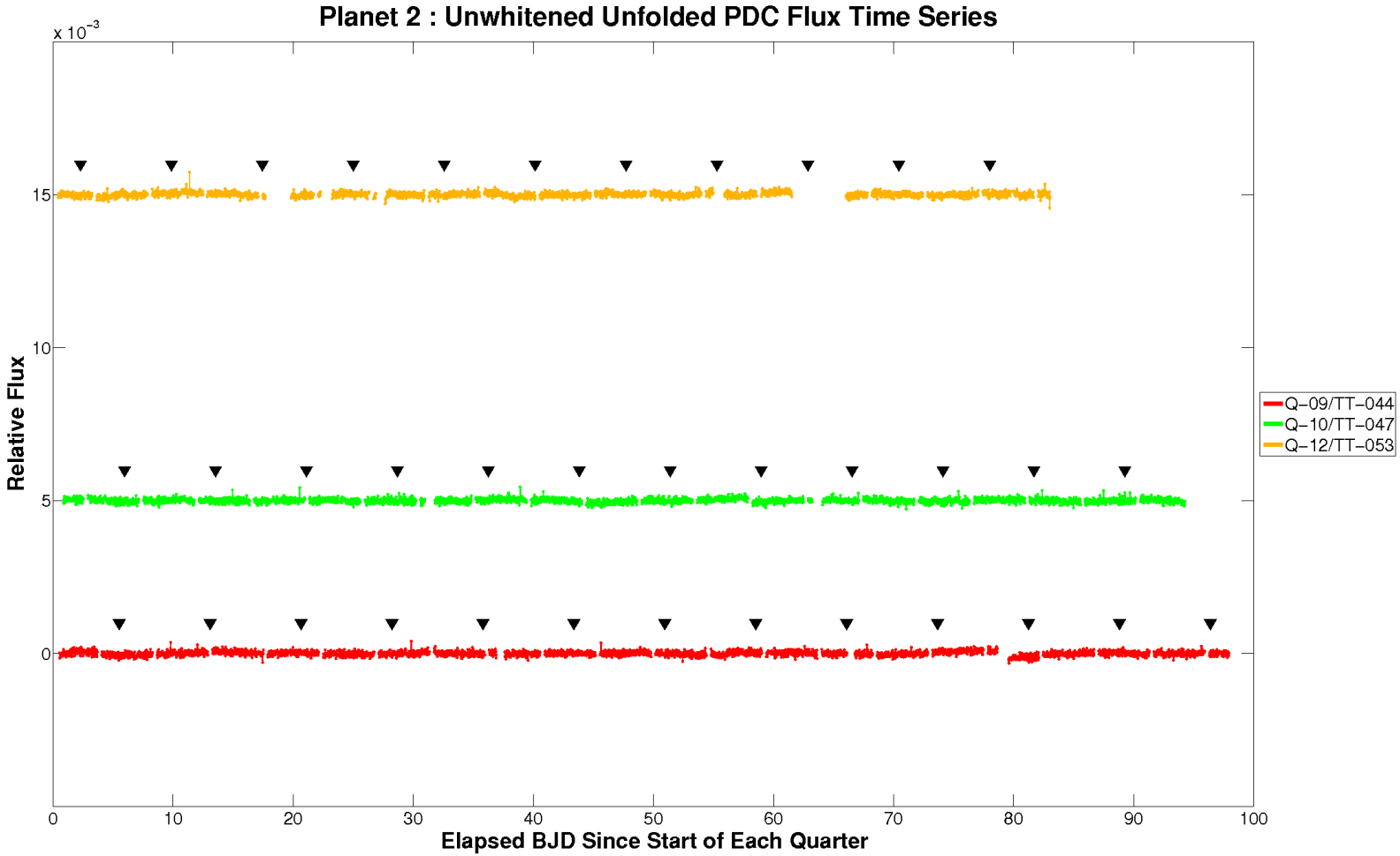
DoF: Degrees of Freedom



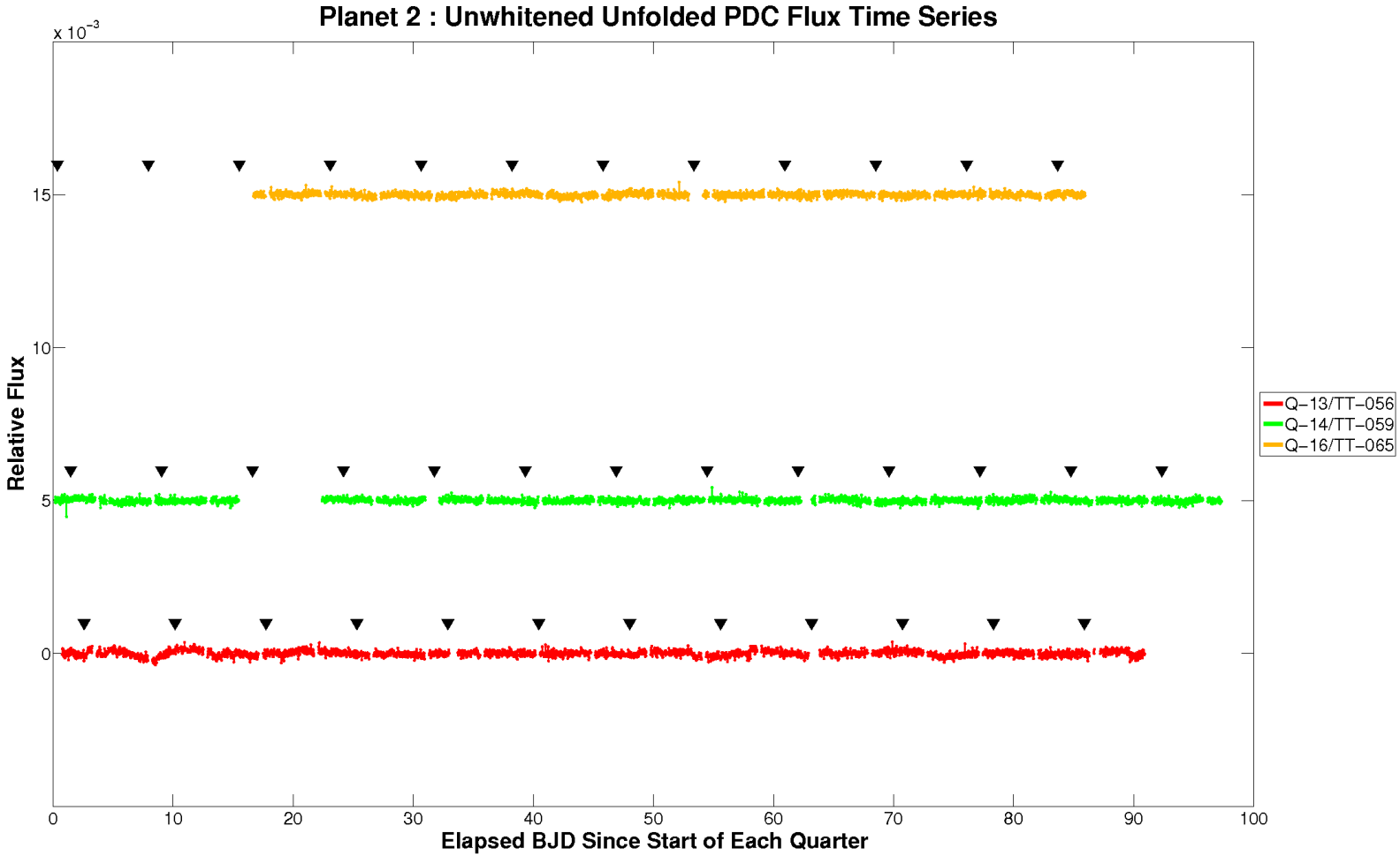
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.005. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.01. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-01-020.fig`



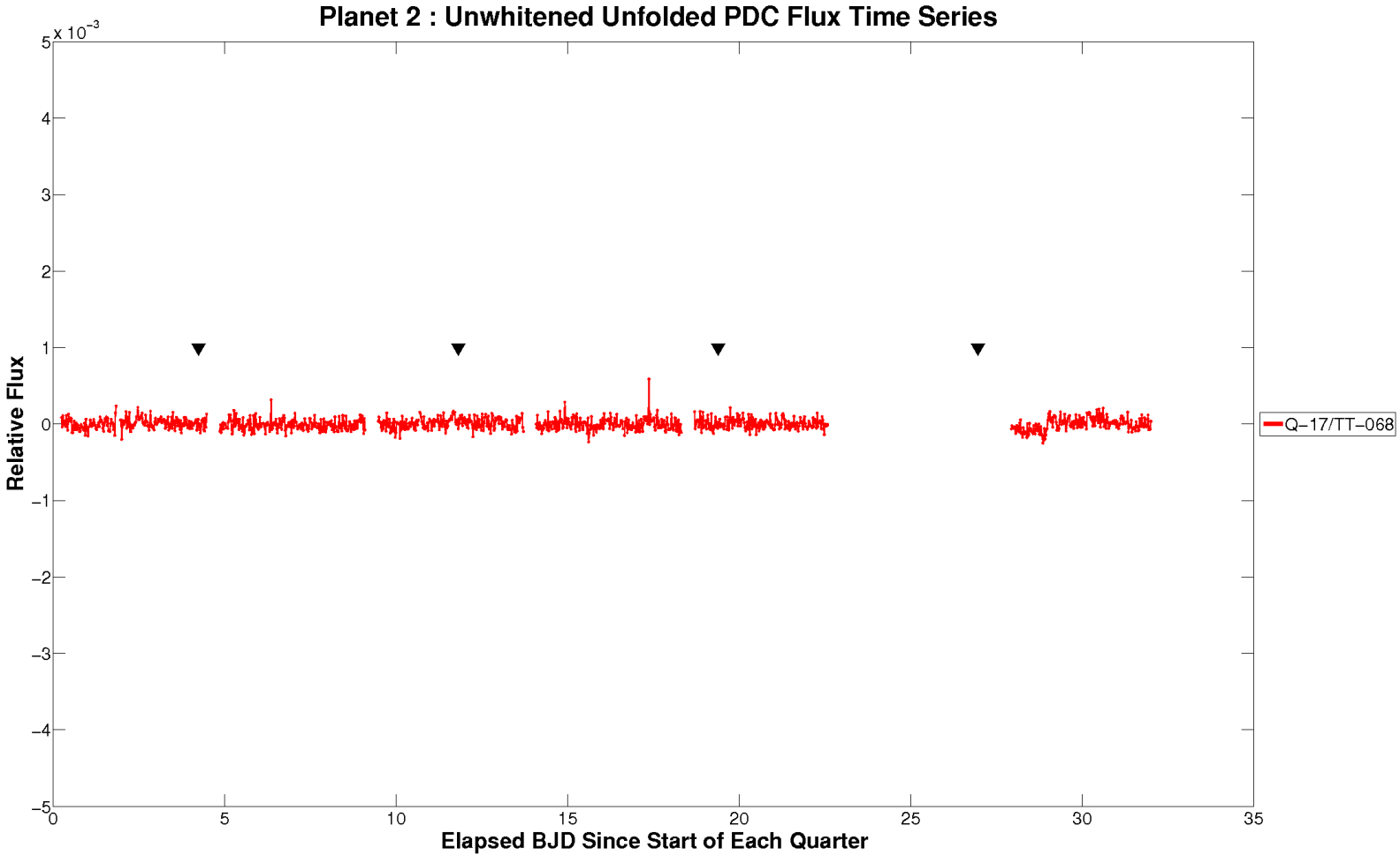
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.005. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.01. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-05-032.fig`



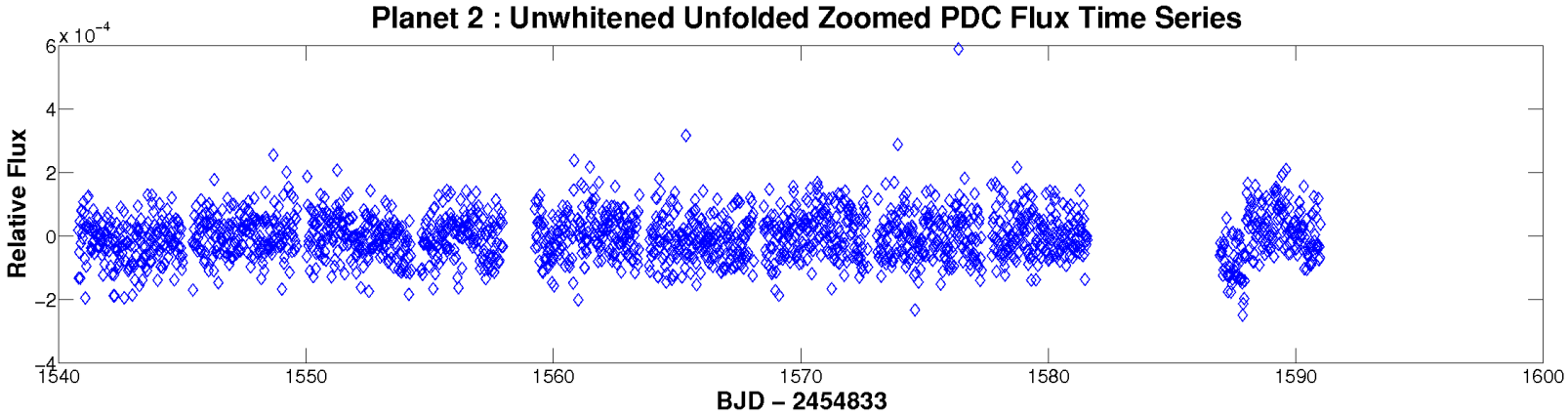
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.005. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.01. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-09-044.fig`



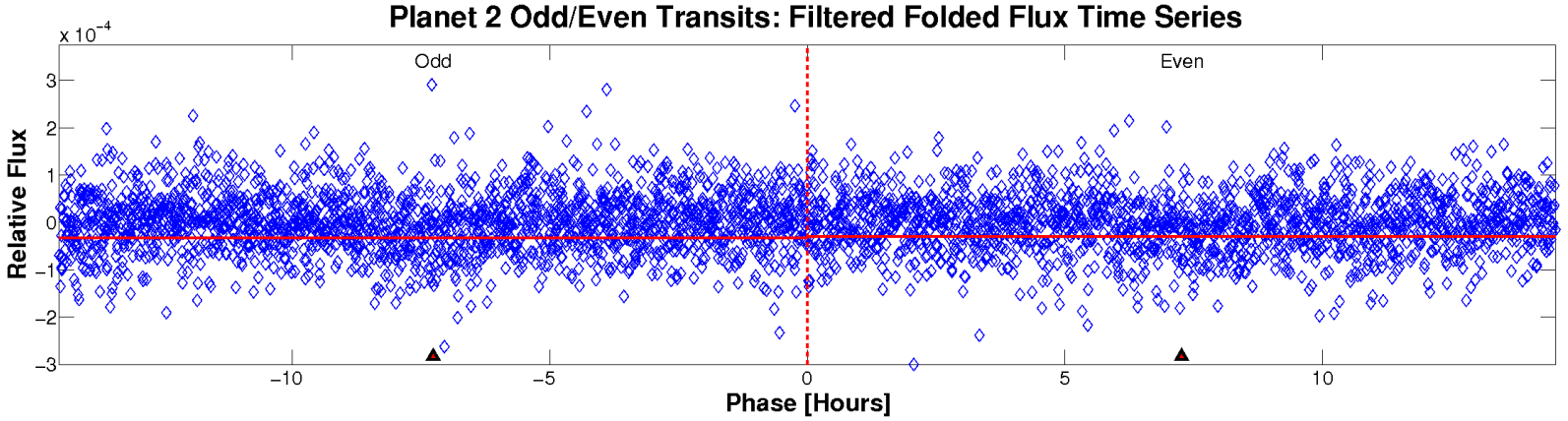
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-13/TargetTableId-056, start BJD is 2456015 and the vertical offset is 0. For the data of Quarter-14/TargetTableId-059, start BJD is 2456107 and the vertical offset is 0.005. For the data of Quarter-15/TargetTableId-062, start BJD is 2456206 and the vertical offset is 0.01. For the data of Quarter-16/TargetTableId-065, start BJD is 2456305 and the vertical offset is 0.015. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-13-056.fig`



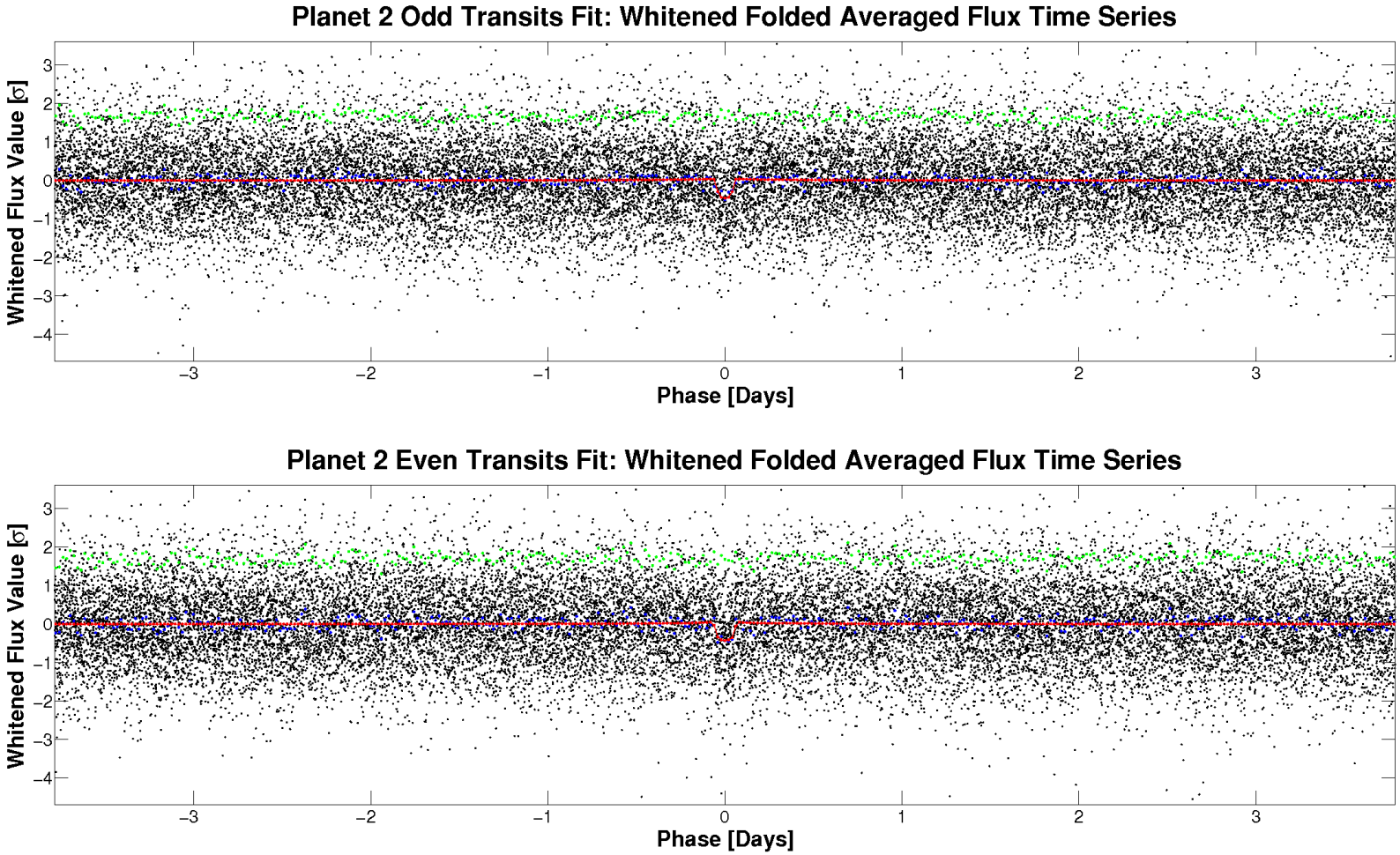
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-17/TargetTableId-068, start BJD is 2456392. Transit event markers indicate the location of transits of the given planet candidate. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-17-068.fig`



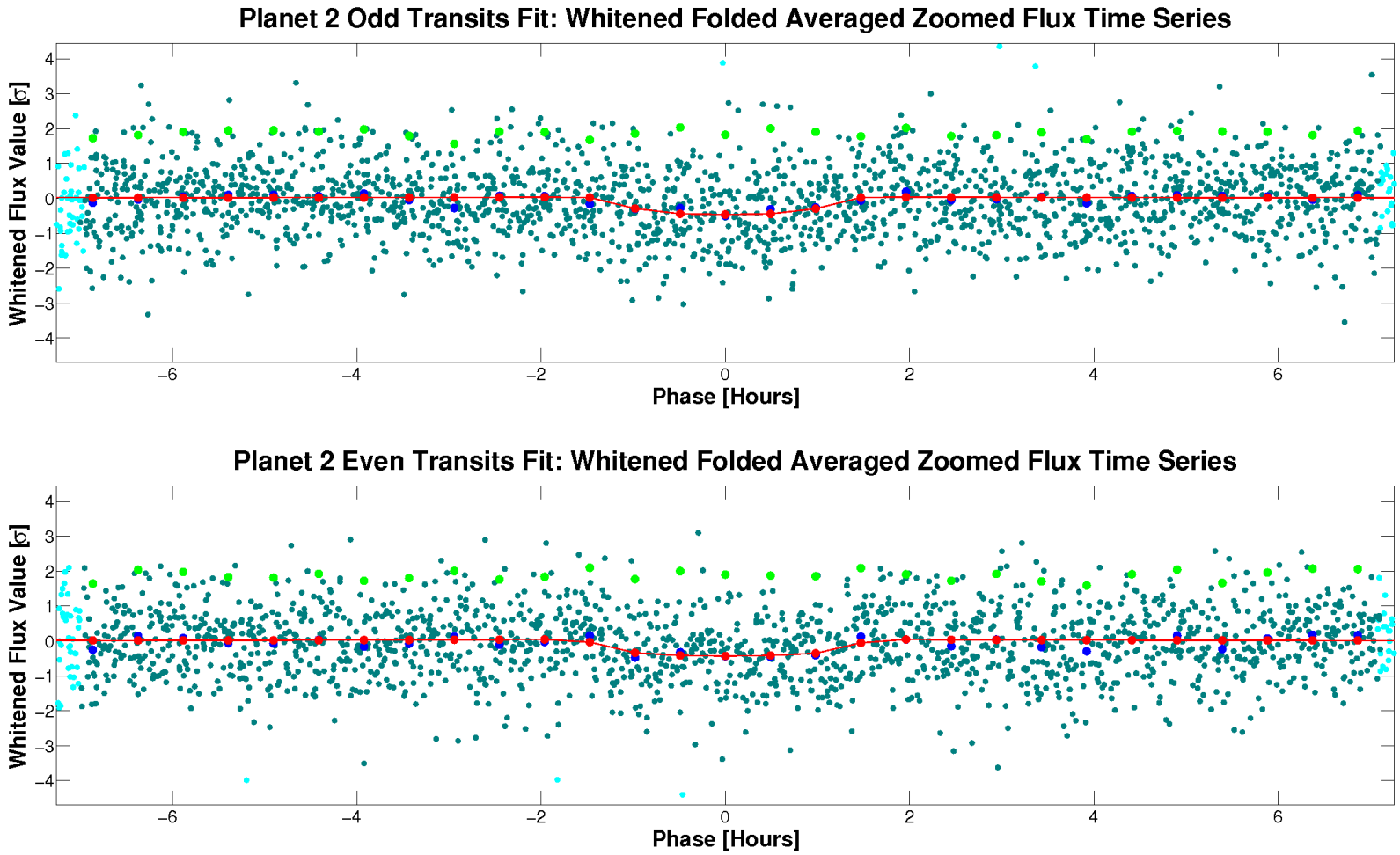
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-zoomed.fig`



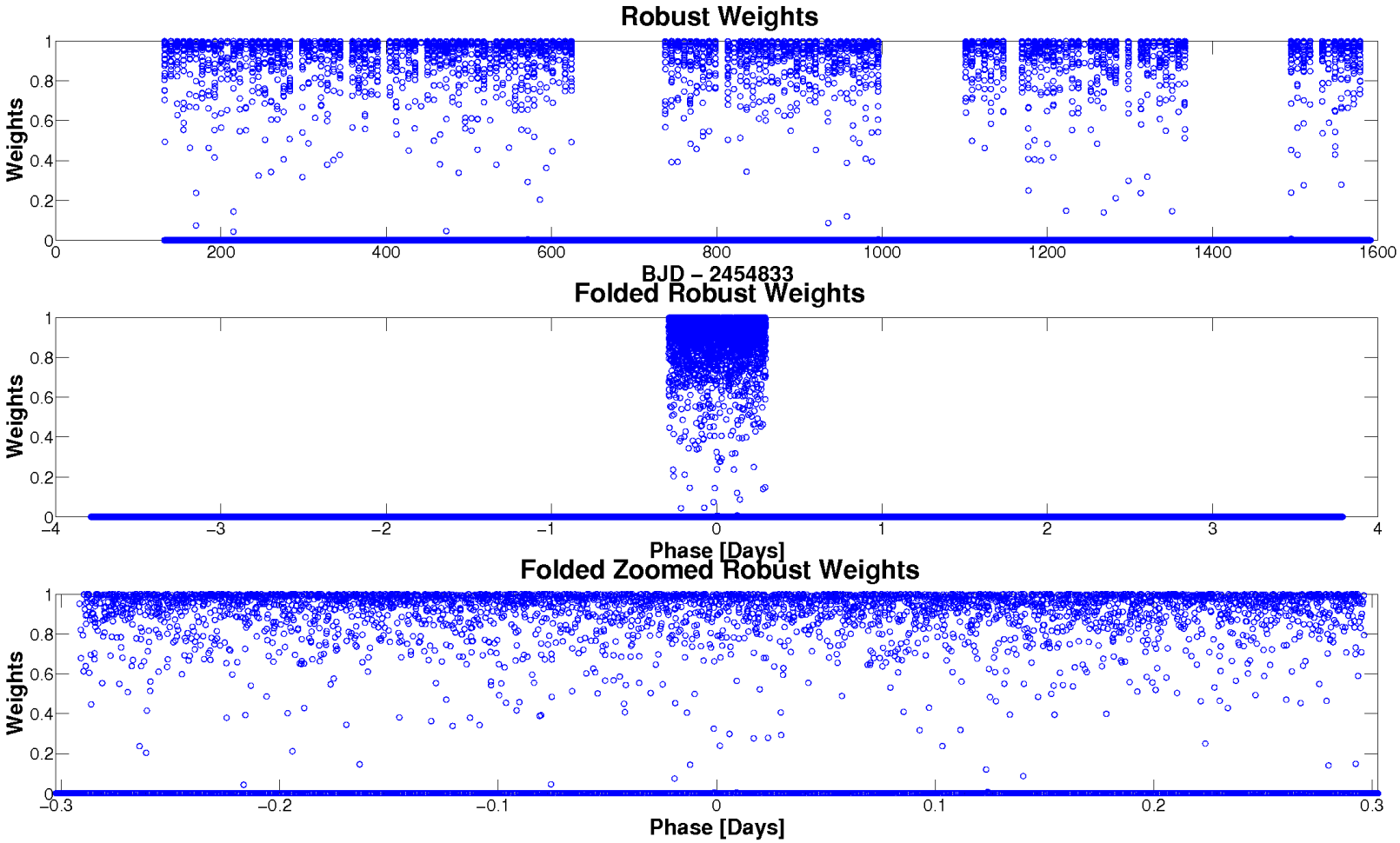
PDC Flux time series of odd/even transits for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at a specified multiple of the transit duration, folded per the fitted period and epoch, and zoomed to the location of the model transit.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-filtered-zoomed.fig`



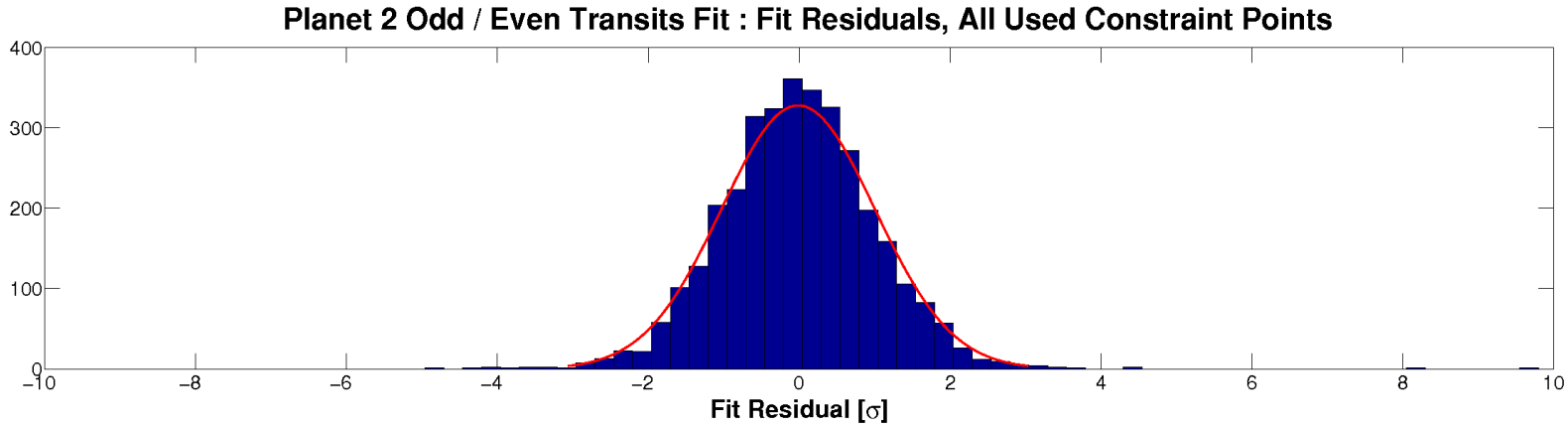
Folded flux time series for KeplerId 9602613, Planet candidate 2 in the whitened domain is plotted in black dots. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the folded model light curve of the odd/even transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-whitened.fig`



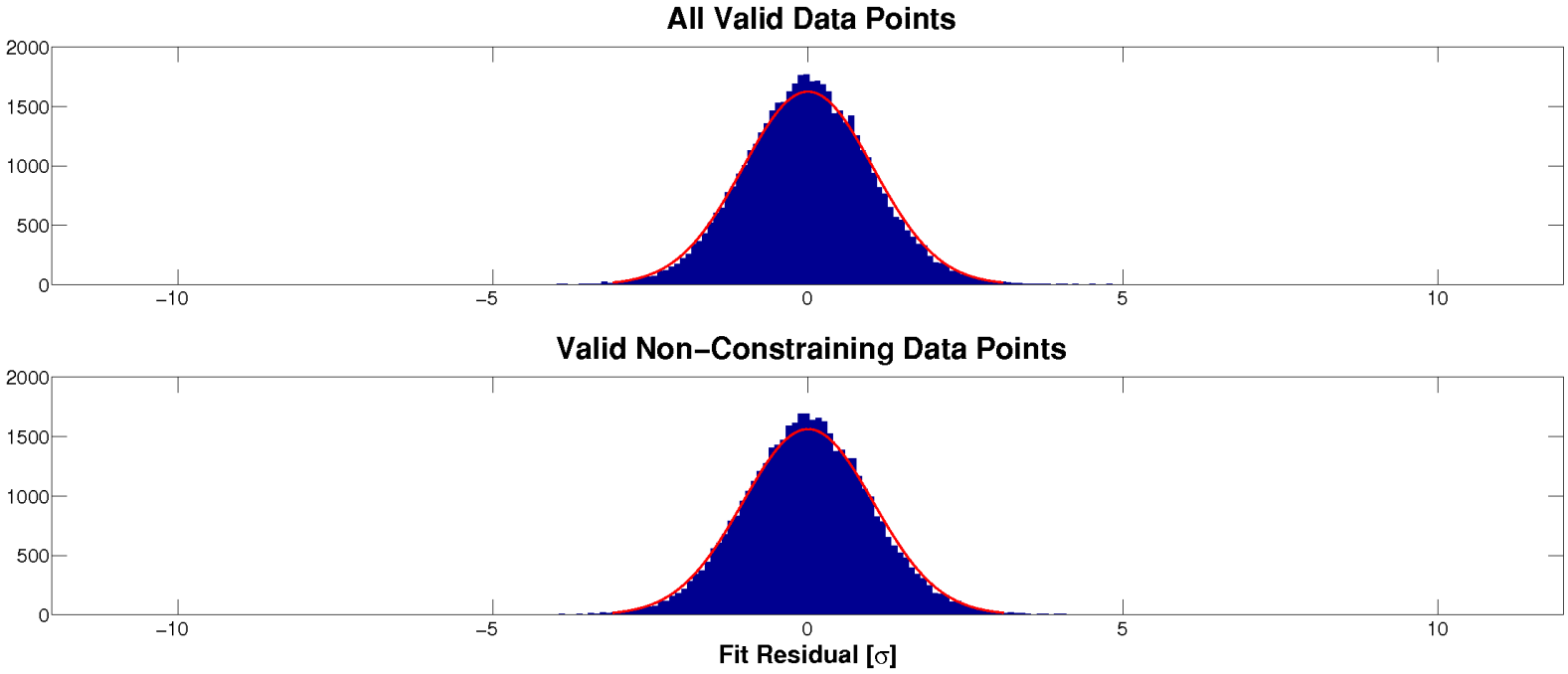
Folded flux time series for KeplerId 9602613, Planet candidate 2 in the whitened domain, zoomed on the transit. The flux data whose robust weights are larger/smaller than 0.1 are plotted in dark green/cyan dots, respectively. Values are averaged into 1 cadence wide bins. The blue dots represent the averaged values of the folded flux time series; the red dots represent the averaged values of the fitted model light curve of the odd/even transits fit; the green dots are the averaged folded fit residuals, vertically offset for clarity. Magenta dots are the averaged values of the folded flux time series, with a phase shift of 0.5 relative to the blue dots, vertically offset for clarity. Odd-even transits fit completed with full convergence.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-whitened-zoomed.fig`



Robust weights distribution for KeplerId 9602613, Planet candidate 2. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-robust-weights.fig`

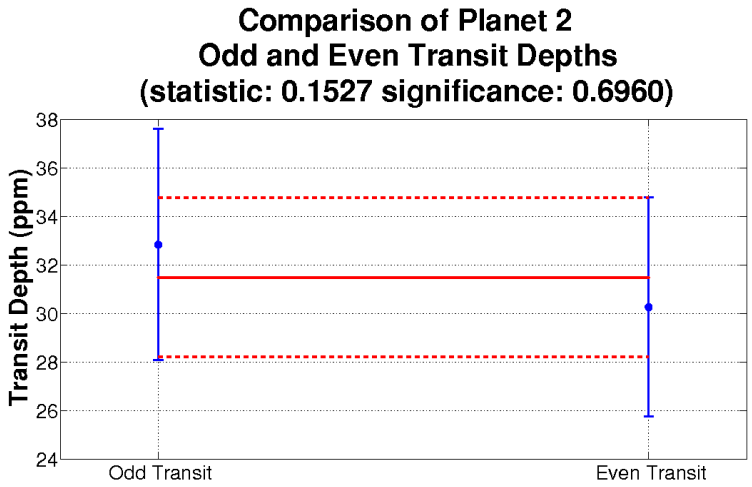


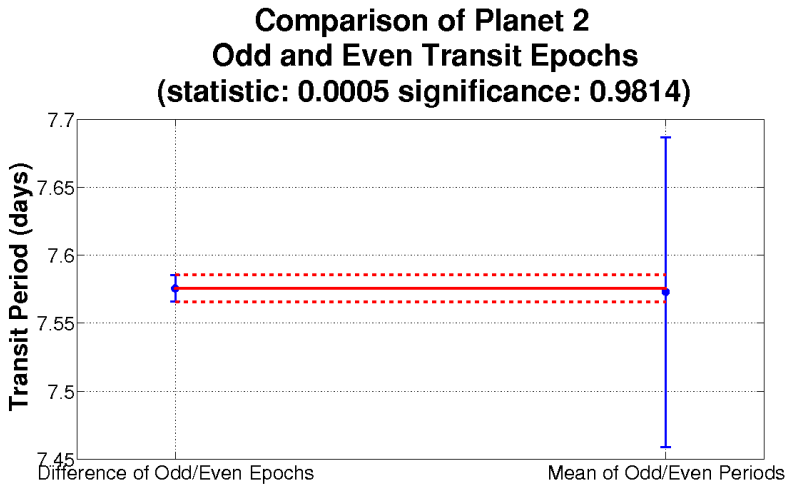
Fit residuals distribution for KeplerId 9602613, Planet candidate 2. Only the valid data points used to constrain the fit are shown here. A Gaussian fit to the histogram is shown in red.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-histo-used.fig`

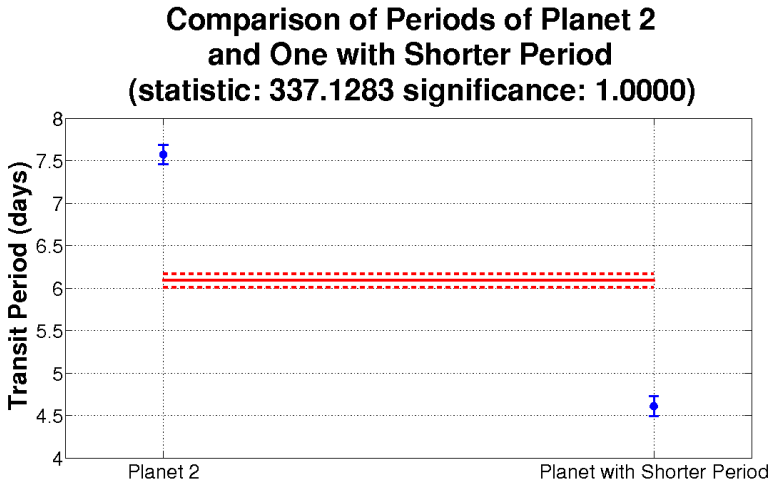


Fit residuals distribution for KeplerId 9602613, Planet candidate 2. Top plot: all valid data. Bottom plot: valid data not used to constrain fit (due to distance from a transit). Gaussian fits to the histograms are shown in red.
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-histo-all-and-unused.fig`

B.3 Eclipsing Binary Discrimination Test







Top-left: Diagnostic plot of Odd/Even Transit Depth Test for keplerId 9602613, planet 2. A significance level close to 1/0 favors a transiting planet/an eclipsing binary. Top-right: Diagnostic plot of Odd/Even Transit Epoch Test for keplerId 9602613, planet 2. A significance level close to 1/0 favors a transiting planet/an eclipsing binary. Bottom-left: Diagnostic plot of Orbital Period Test for keplerId 9602613. Orbital periods of planet 2 and the planet with shorter period are compared. A significance level close to 1/0 favors a transiting planet/an eclipsing binary.
Open `./planet-02/binary-discrimination-test-results/009602613-02-eclipsing-binary-discrimination-tests.fig`

Appendix C Single Event Statistics from Residual Flux

No figures named 009602613-00-residual-ses-*.fig are available.

Appendix D Alerts

Time	Severity	Message
57418.4459	warning	Multi-quarter PRF fitting and offset analysis will not be performed because model fit SNR is above specified threshold (target=1, keplerId=9602613, planet=1, component=generateDvDifferenceImages)
57418.4459	warning	Multi-quarter PRF fitting and offset analysis will not be performed because model fit SNR is above specified threshold (target=1, keplerId=9602613, planet=2, component=generateDvDifferenceImages)
57418.4733	warning	Pixel correlation test is disabled (target=1, keplerId=9602613, component=Pixel correlation test)