

**Data Validation (DV) Report  
for Kepler ID 9602613  
Quarters 1 - 12**

# Contents

<b>1</b>	<b>Summary</b>	<b>1</b>
<b>2</b>	<b>Flux Time Series</b>	<b>2</b>
<b>3</b>	<b>Dashboards</b>	<b>11</b>
<b>4</b>	<b>Centroid Cloud Plot</b>	<b>13</b>
<b>5</b>	<b>Pixel Level Diagnostics</b>	<b>14</b>
5.1	Planet Candidate 1 . . . . .	14
5.2	Planet Candidate 2 . . . . .	47
<b>6</b>	<b>Planet Candidate 1</b>	<b>80</b>
6.1	Model Fitter: All Transits . . . . .	80
6.2	Model Fitter: Reduced Parameter Fit Results . . . . .	86
6.3	Validation Tests . . . . .	87
6.3.1	Flux-Weighted Centroid Test . . . . .	87
6.3.2	Eclipsing Binary Discrimination Test . . . . .	87
6.3.3	Bootstrap Test . . . . .	87
<b>7</b>	<b>Planet Candidate 2</b>	<b>100</b>
7.1	Model Fitter: All Transits . . . . .	100
7.2	Model Fitter: Reduced Parameter Fit Results . . . . .	106
7.3	Validation Tests . . . . .	107
7.3.1	Flux-Weighted Centroid Test . . . . .	107
7.3.2	Eclipsing Binary Discrimination Test . . . . .	107
7.3.3	Bootstrap Test . . . . .	107
<b>Appendices</b>		<b>120</b>
<b>A</b>	<b>Planet Candidate 1</b>	<b>120</b>
A.1	Model Fitter: All Transits . . . . .	120
A.2	Model Fitter: Odd & Even Transits . . . . .	122
A.3	Eclipsing Binary Discrimination Test . . . . .	130
<b>B</b>	<b>Planet Candidate 2</b>	<b>131</b>
B.1	Model Fitter: All Transits . . . . .	131
B.2	Model Fitter: Odd & Even Transits . . . . .	133
B.3	Eclipsing Binary Discrimination Test . . . . .	141
<b>C</b>	<b>Single Event Statistics from Residual Flux</b>	<b>142</b>
<b>D</b>	<b>Alerts</b>	<b>143</b>

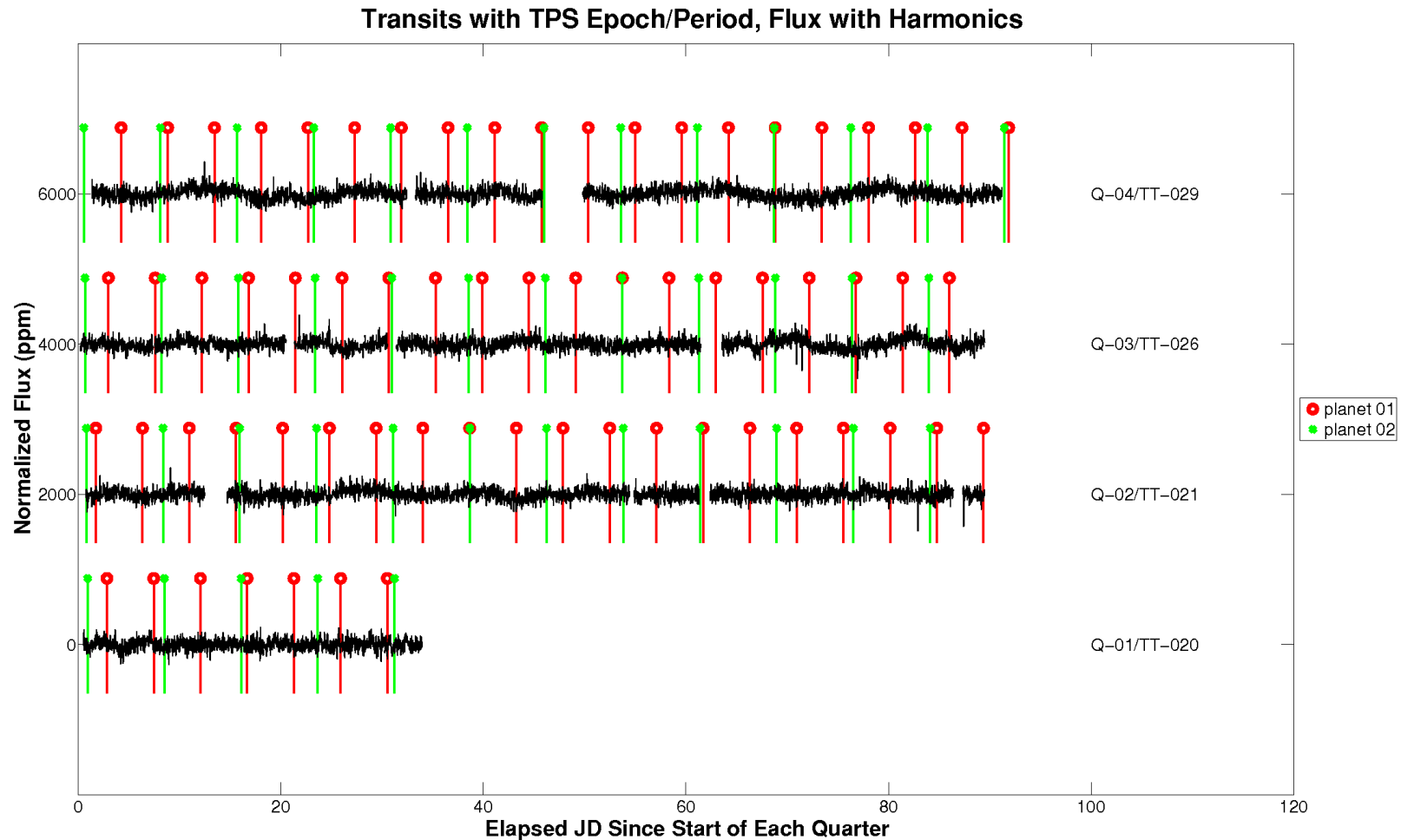
# 1 Summary

Target Properties	Value	Uncertainty	Units
Sky Group	33		
RA	19.80992130		hours
Dec	46.29695000		degrees
Magnitude	11.83		
Radius	0.92	0.396	Solar radii
Effective Temperature	5452	63	Kelvin
log(g)	4.43	0.239	cm/sec <sup>2</sup>
[Fe/H]	-0.20	0	Solar metallicity
Number of Planet Candidates	2		
Categories	ST_SC1, MERGED, ST_SC3, PLANETARY, ST_SC2, PPA_STELLAR, INCLUDE		
Prior Pipeline Instance ID	-		
Software Revision	svn+ssh://murzim/repo/soc/tags/release/8.3.1@49247		
Date Report Generated	30-Oct-2012 04:31:14 Z		

Quarter	Target Table	Module/ Output	Crowding Metric	Flux Fraction	Limb Darkening Coefficients			
					1	2	3	4
1	20	23/1	0.9873	0.9724	0.5096	-0.0492	0.6544	-0.3535
2	21	15/1	0.9916	0.9621	0.5096	-0.0492	0.6544	-0.3535
3	26	3/1	0.9897	0.9694	0.5096	-0.0492	0.6544	-0.3535
4	29	11/1	0.9851	0.9685	0.5096	-0.0492	0.6544	-0.3535
5	32	23/1	0.9865	0.9718	0.5096	-0.0492	0.6544	-0.3535
6	35	15/1	0.9910	0.9665	0.5096	-0.0492	0.6544	-0.3535
8	41	11/1	0.9851	0.9688	0.5096	-0.0492	0.6544	-0.3535
9	44	23/1	0.9864	0.9720	0.5096	-0.0492	0.6544	-0.3535
10	47	15/1	0.9910	0.9665	0.5096	-0.0492	0.6544	-0.3535
12	53	11/1	0.9852	0.9682	0.5096	-0.0492	0.6544	-0.3535

Planet Candidate	TPS Period (days)	DV Period (days)	Period Ratio (DV)	TPS Epoch (JD-2454833)	DV Epoch (BKJD)	Semi-major Axis (AU)	Radius (Earth radii)	False Alarm	Suspected EB
1	4.6	4.6	1.0	133.8	133.9	0.1	0.5	N/A	false
2	7.6	7.6	1.6	131.9	131.9	0.1	0.5	N/A	false

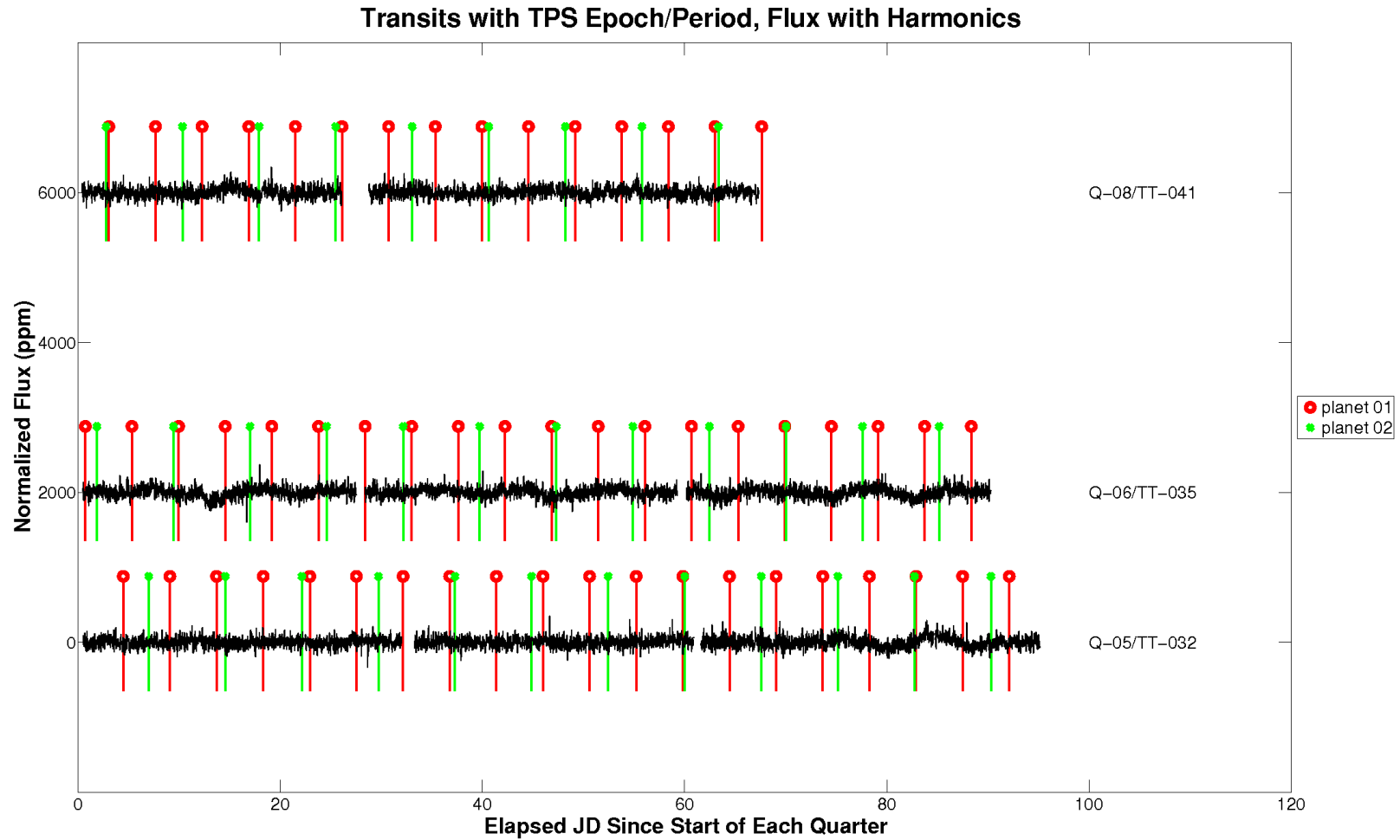
## 2 Flux Time Series



Summary plot of PDC flux time series (with harmonic content) and transits for target 9602613, marked with TPS epoch/period. Transits of identified planets are labeled with epoch KJD and orbital period determined by TPS. For the data of quarter 1, target table 20, start JD is 2454964 and the vertical offset is 0 ppm. For the data of quarter 2, target table 21, start JD is 2455002 and the vertical offset is 2000 ppm. For the data of quarter 3, target table 26, start JD is 2455093 and the vertical offset is 4000 ppm. For the data of quarter 4, target table 29, start JD is 2455184 and the vertical offset is 6000 ppm.

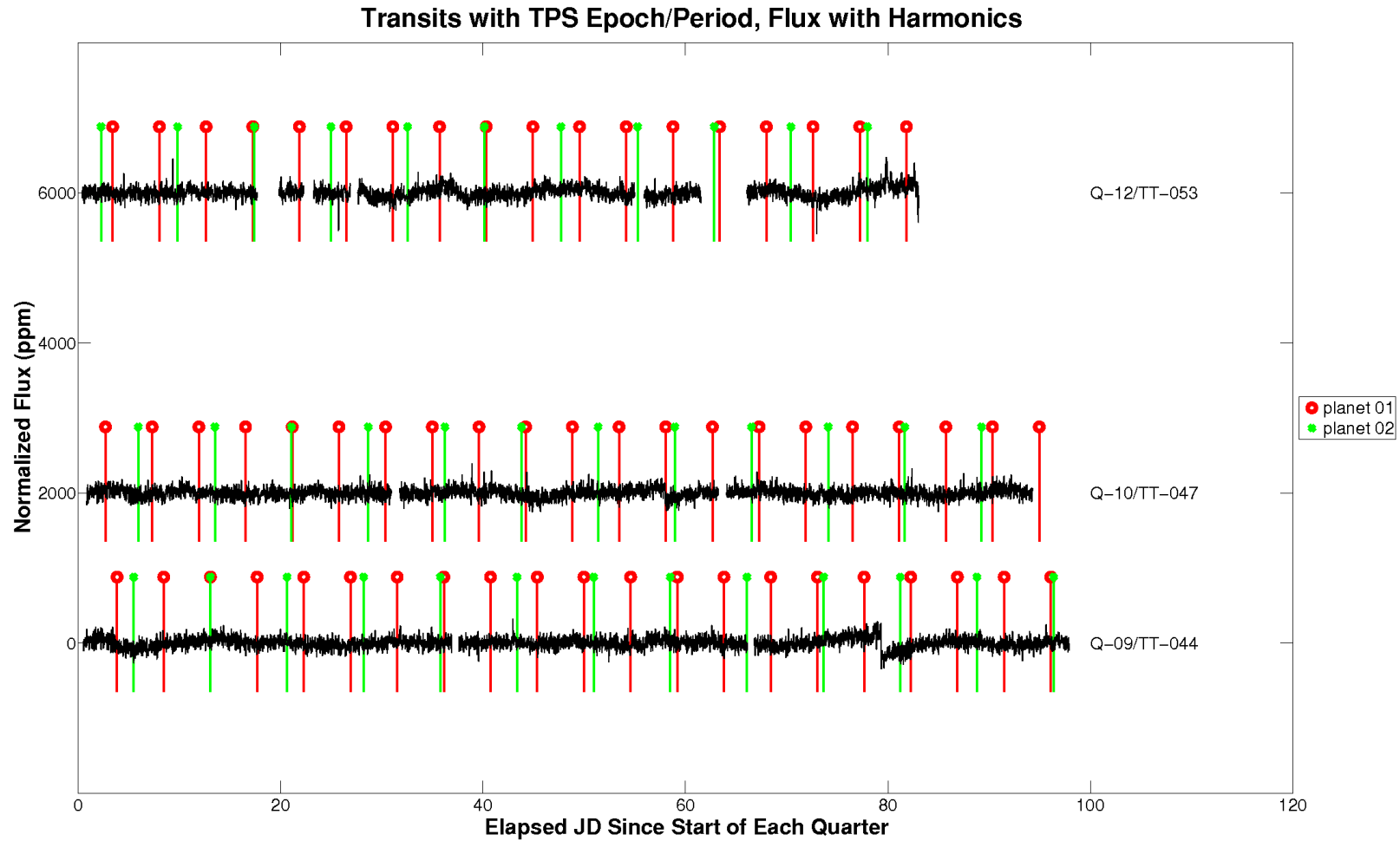
Open `./summary-plots/009602613-00-flux-with-harmonics-tps-01-020.fig`





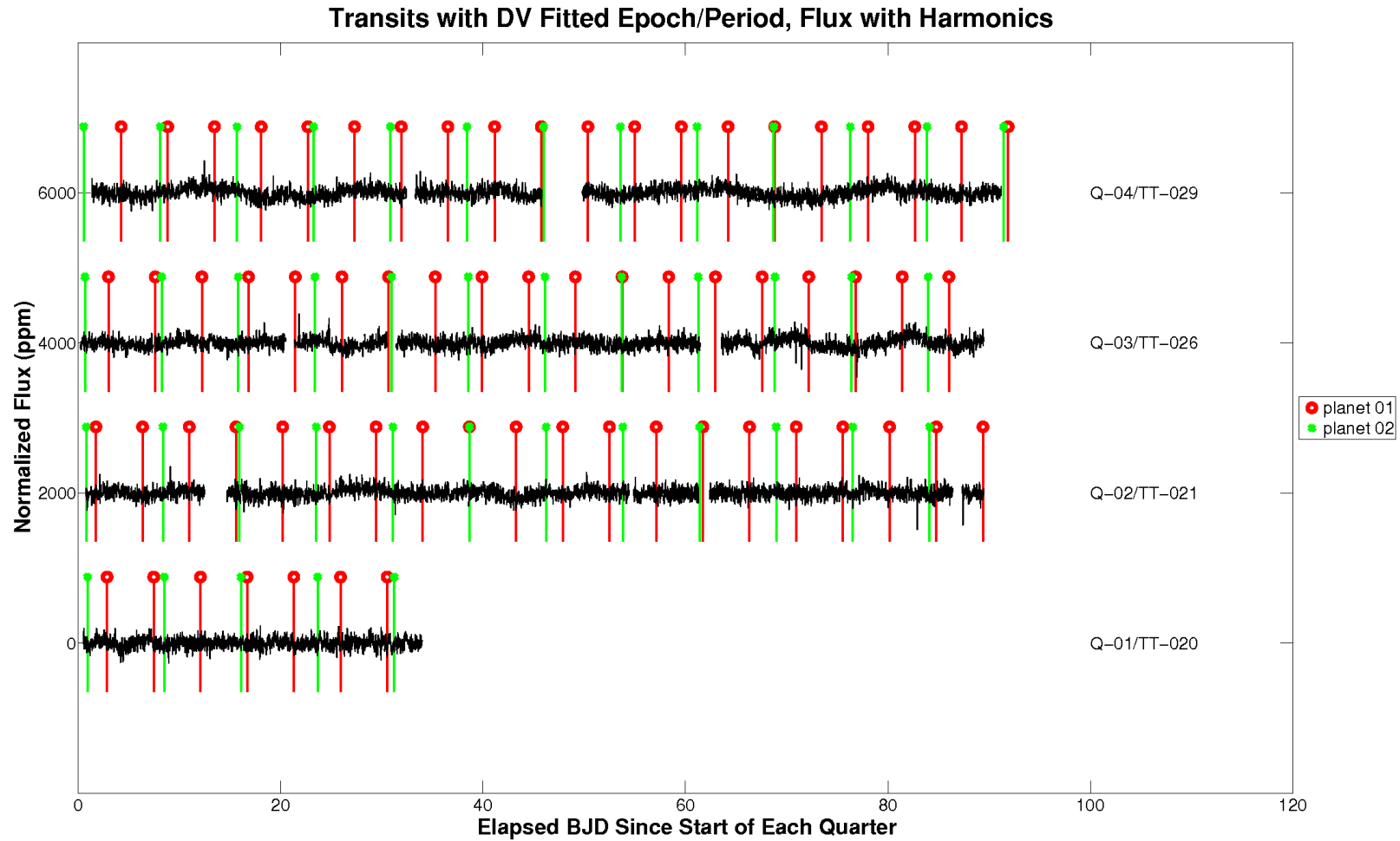
Summary plot of PDC flux time series (with harmonic content) and transits for target 9602613, marked with TPS epoch/period. Transits of identified planets are labeled with epoch KJD and orbital period determined by TPS. For the data of quarter 5, target table 32, start JD is 2455276 and the vertical offset is 0 ppm. For the data of quarter 6, target table 35, start JD is 2455372 and the vertical offset is 2000 ppm. For the data of quarter 7, target table 38, start JD is 2455463 and the vertical offset is 4000 ppm. For the data of quarter 8, target table 41, start JD is 2455568 and the vertical offset is 6000 ppm.

Open `./summary-plots/009602613-00-flux-with-harmonics-tps-05-032.fig`



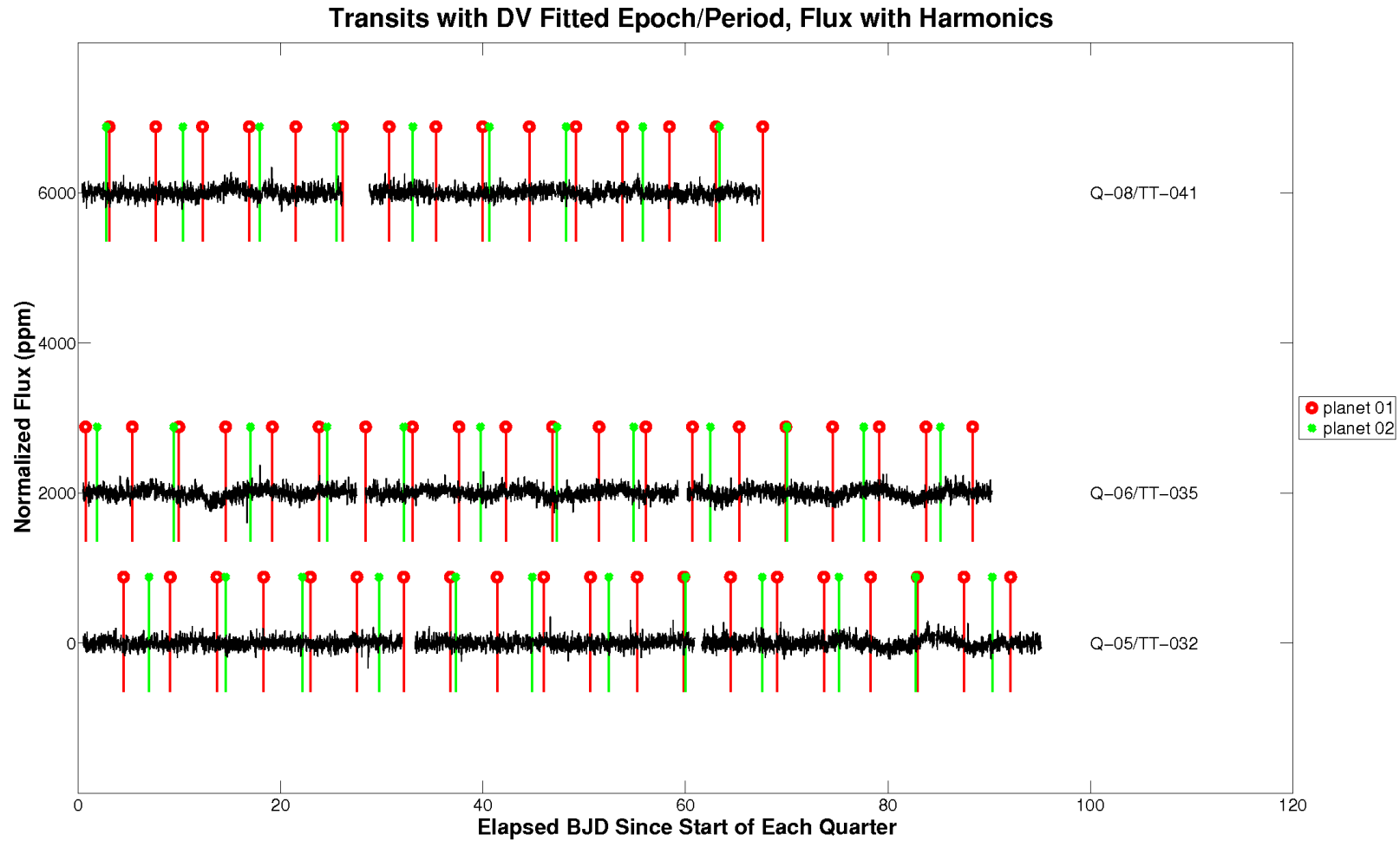
Summary plot of PDC flux time series (with harmonic content) and transits for target 9602613, marked with TPS epoch/period. Transits of identified planets are labeled with epoch KJD and orbital period determined by TPS. For the data of quarter 9, target table 44, start JD is 2455641 and the vertical offset is 0 ppm. For the data of quarter 10, target table 47, start JD is 2455739 and the vertical offset is 2000 ppm. For the data of quarter 11, target table 50, start JD is 2455834 and the vertical offset is 4000 ppm. For the data of quarter 12, target table 53, start JD is 2455932 and the vertical offset is 6000 ppm.

Open `./summary-plots/009602613-00-flux-with-harmonics-tps-09-044.fig`



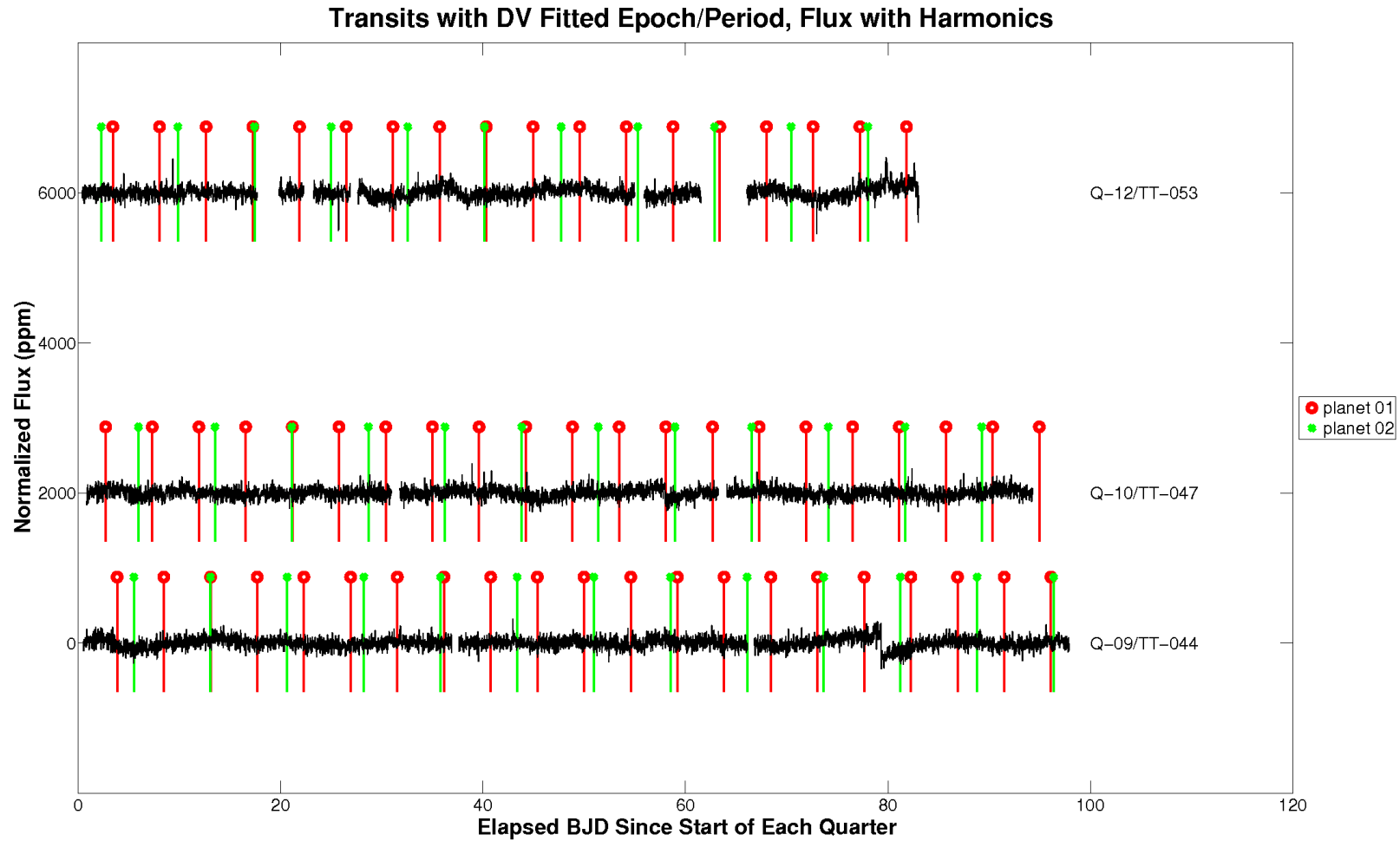
Summary plot of PDC flux time series (with harmonic content) and transits for target 9602613, marked with DV fitted epoch/period. Transits of identified planets are labeled with epoch BJD and orbital period determined by DV transit fitter. For the data of quarter 1, target table 20, start BJD is 2454964 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 2000 ppm. For the data of quarter 3, target table 26, start BJD is 2455093 and the vertical offset is 4000 ppm. For the data of quarter 4, target table 29, start BJD is 2455184 and the vertical offset is 6000 ppm.

Open `./summary-plots/009602613-00-flux-with-harmonics-dv-fit-01-020.fig`



Summary plot of PDC flux time series (with harmonic content) and transits for target 9602613, marked with DV fitted epoch/period. Transits of identified planets are labeled with epoch BJD and orbital period determined by DV transit fitter. 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 2000 ppm. For the data of quarter 7, target table 38, start BJD is 2455463 and the vertical offset is 4000 ppm. For the data of quarter 8, target table 41, start BJD is 2455568 and the vertical offset is 6000 ppm.

Open `./summary-plots/009602613-00-flux-with-harmonics-dv-fit-05-032.fig`

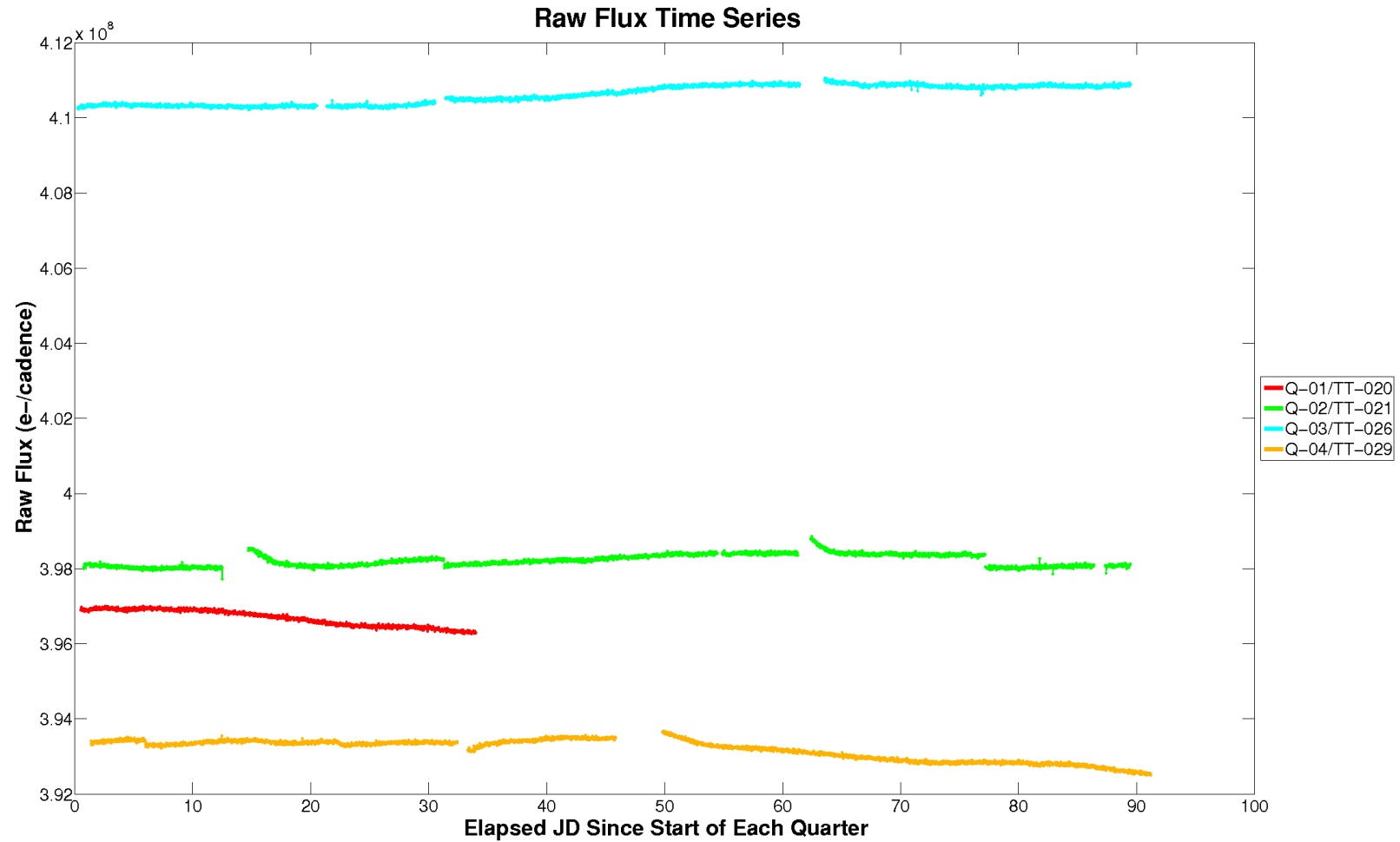


Summary plot of PDC flux time series (with harmonic content) and transits for target 9602613, marked with DV fitted epoch/period. Transits of identified planets are labeled with epoch BJD and orbital period determined by DV transit fitter. For the data of quarter 9, target table 44, start BJD is 2455641 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 2000 ppm. For the data of quarter 11, target table 50, start BJD is 2455834 and the vertical offset is 4000 ppm. For the data of quarter 12, target table 53, start BJD is 2455932 and the vertical offset is 6000 ppm.

Open `./summary-plots/009602613-00-flux-with-harmonics-dv-fit-09-044.fig`

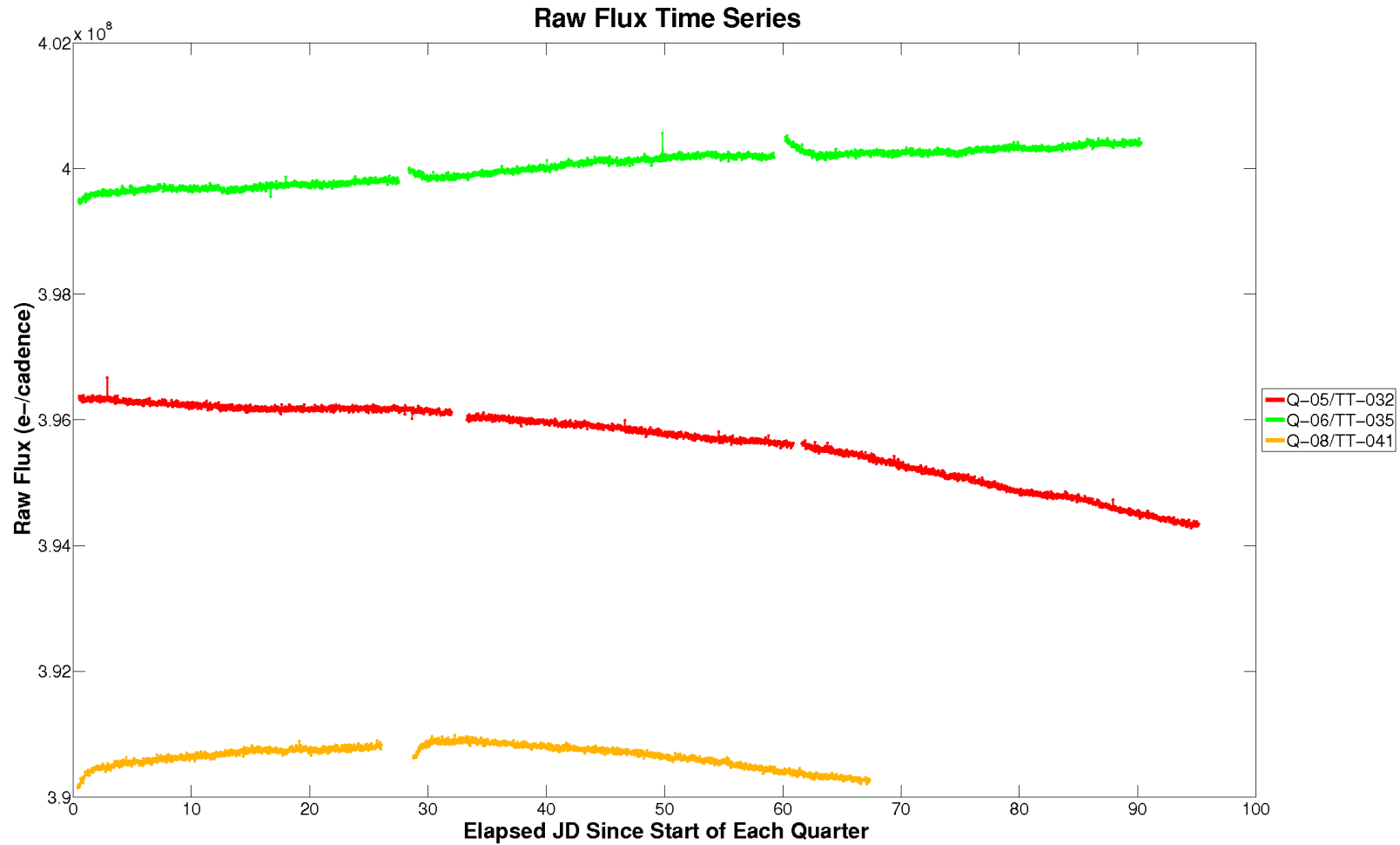
No figures named `009602613-00-flux-harmonics-free-tps-*.fig` are available.

No figures named `009602613-00-flux-harmonics-free-dv-fit-*.fig` are available.



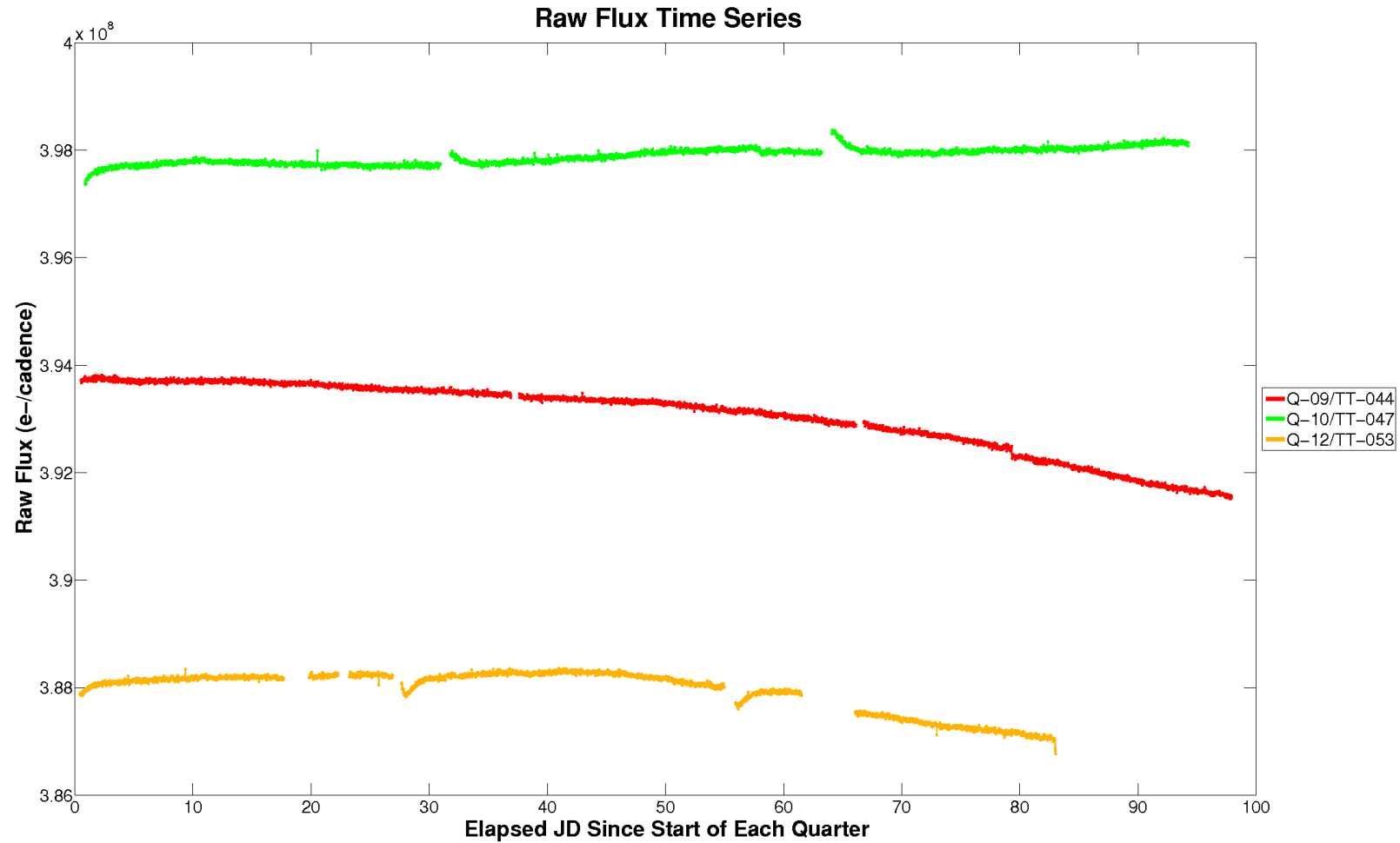
Summary plot of raw flux time series. For the data of quarter 1, target table 20, start JD is 2454964 and the vertical offset is 0 electrons/cadence. For the data of quarter 2, target table 21, start JD is 2455002 and the vertical offset is 0 electrons/cadence. For the data of quarter 3, target table 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`



## 3 Dashboards

## Planet Candidate 1

Model Fitter	<b>Stellar Radius</b> $0.9 \pm 0.0$ Solar units		<b>Flux Weighted Motion Detection Statistic</b> Value = $2.89\text{e}+01$ Significance = 0.00% Peak RA Offset = $-2.91\text{e}-06 \pm 3.76\text{e}-06$ arcsec ( $-0.77 \sigma$ ) Peak Dec Offset = $-6.08\text{e}-06 \pm 1.94\text{e}-06$ arcsec ( $-3.1 \sigma$ ) Source RA Offset = $9.76\text{e}-02 \pm 1.26\text{e}-01$ arcsec ( $0.77 \sigma$ ) Source Dec Offset = $2.04\text{e}-01 \pm 6.52\text{e}-02$ arcsec ( $3.1 \sigma$ )	Centroid Test
	Period = $4.6 \pm 0.0$ days Depth = $30 \pm 3$ ppm Planet Radius = $0.5 \pm 0.4$ Earth radii Semi-major Axis = $0.1 \pm 0.0$ AU Equilibrium Temperature = $1020 \pm 221$ Kelvin Chi-squared/DoF = 0.8 SNR = 10.6			
Eclipsing Binary Discrimination Test	<b>Odd-Even Depth Comparison Statistic</b> Value = $1.06\text{e}-02$ Significance = 91.80%	<b>Odd-Even Epoch Comparison Statistic</b> Value = $4.68\text{e}-03$ Significance = 94.55%	<b>Offsets Relative to Out of Transit Centroid</b> Source RA Offset = $2.35\text{e}-01 \pm 6.03\text{e}-01$ arcsec ( $0.39 \sigma$ ) Source Dec Offset = $6.70\text{e}-01 \pm 6.07\text{e}-01$ arcsec ( $1.10 \sigma$ ) Source Offset Distance = $7.10\text{e}-01 \pm 6.06\text{e}-01$ arcsec ( $1.17 \sigma$ )  <b>Offsets Relative to KIC Position</b> Source RA Offset = $2.23\text{e}-01 \pm 6.00\text{e}-01$ arcsec ( $0.37 \sigma$ ) Source Dec Offset = $6.23\text{e}-01 \pm 6.04\text{e}-01$ arcsec ( $1.03 \sigma$ ) Source Offset Distance = $6.61\text{e}-01 \pm 6.03\text{e}-01$ arcsec ( $1.10 \sigma$ )	Difference Image Centroid Offsets
	<b>Shorter Period Comparison Statistic</b> Value = $N/A$ Significance = $N/A$	<b>Longer Period Comparison Statistic</b> Value = $3.75\text{e}+02$ Significance = 100.00%		

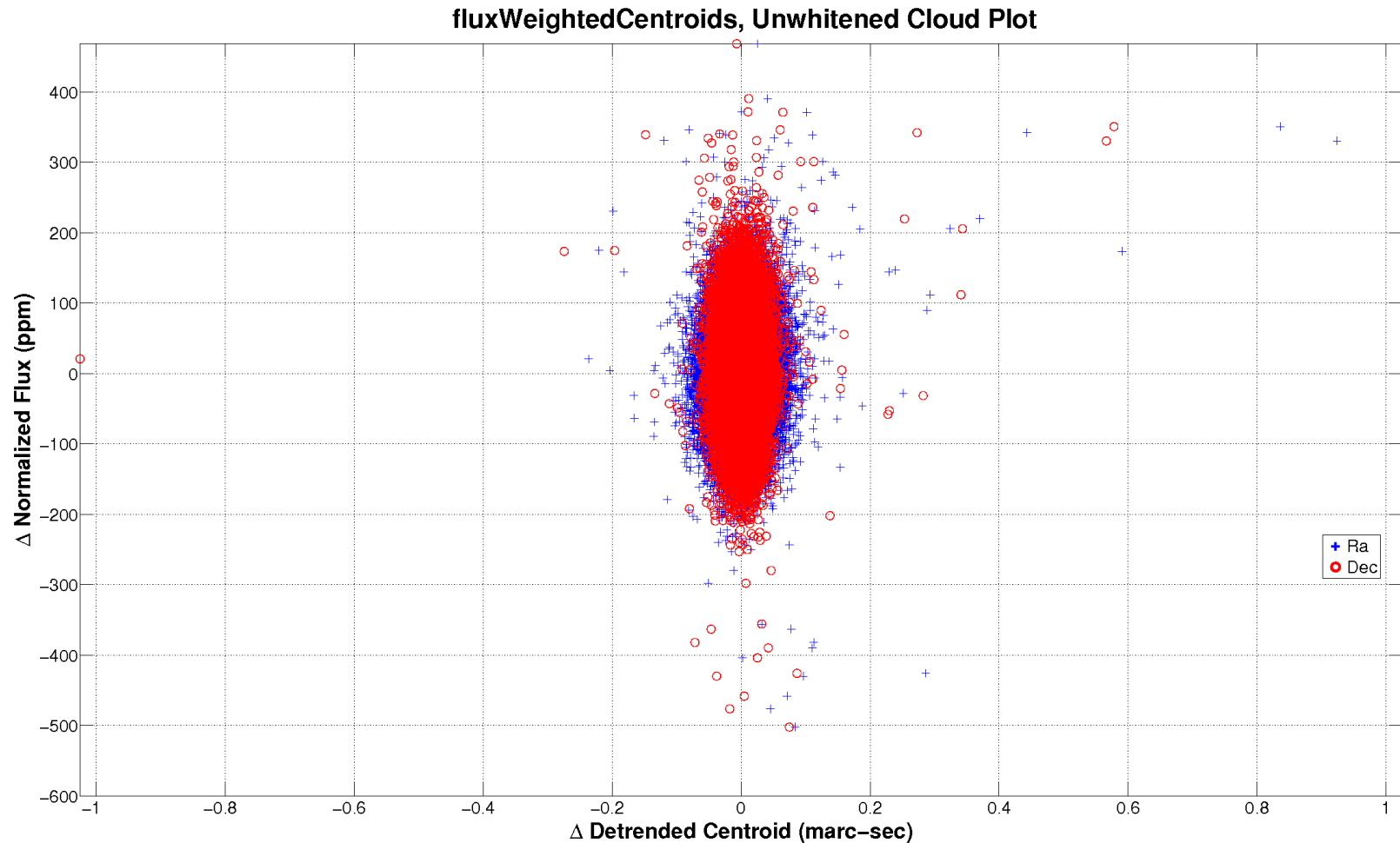
Summary of model fitter results and validation test results for target 9602613, planet candidate 1. In general, green denotes that the candidate is likely a planet, while red denotes that the candidate is unlikely to be a planet. Cyan denotes that no data is available. The color of the Model Fitter block 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 Stellar Radius blocks are: green, if the KIC stellar radius differs from the fitted stellar radius by less than 20%; yellow, if this difference is greater than or equal to 20% but less than or equal to 100%; red, if the difference is greater than 100%. 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, when the false alarm is less than or equal to the CCDF of the Gaussian at the max multiple event statistic; yellow, if the false alarm is greater than the CCDF of the Gaussian at the max multiple event statistic but less than or equal to 2 times the CCDF of the Gaussian at the max multiple event statistic; red, if the false alarm is greater than 2 times the CCDF of the Gaussian at the max multiple event statistic.

## Planet Candidate 2

Model Fitter	<b>Stellar Radius</b> 0.9 ± 0.0 Solar units		<b>Flux Weighted Motion Detection Statistic</b>	Centroid Test
	Period = 7.6 ± 0.0 days Depth = 27 ± 4 ppm Planet Radius = 0.5 ± 0.5 Earth radii Semi-major Axis = 0.1 ± 0.0 AU Equilibrium Temperature = 864 ± 187 Kelvin Chi-squared/DoF = 0.8 SNR = 7.4		Value = 6.33e+00 Significance = 4.21% Peak RA Offset 3.37e-06 ± 4.71e-06 arcsec (0.72 $\sigma$ ) Peak Dec Offset = 2.88e-06 ± 2.45e-06 arcsec (1.2 $\sigma$ ) Source RA Offset = -1.25e-01 ± 1.74e-01 arcsec (-0.72 $\sigma$ ) Source Dec Offset = -1.07e-01 ± 9.06e-02 arcsec (-1.2 $\sigma$ )	
Eclipsing Binary Discrimination Test	<b>Odd-Even Depth Comparison Statistic</b> Value = 1.33e+00 Significance = 24.85%	<b>Odd-Even Epoch Comparison Statistic</b> Value = 1.65e-02 Significance = 89.78%	<b>Offsets Relative to Out of Transit Centroid</b> Source RA Offset = 1.54e+00 ± 5.43e-01 arcsec (2.84 $\sigma$ ) Source Dec Offset = 4.36e-01 ± 2.93e-01 arcsec (1.49 $\sigma$ ) Source Offset Distance = 1.60e+00 ± 5.28e-01 arcsec (3.03 $\sigma$ )  <b>Offsets Relative to KIC Position</b> Source RA Offset = 1.53e+00 ± 5.41e-01 arcsec (2.83 $\sigma$ ) Source Dec Offset = 3.94e-01 ± 2.98e-01 arcsec (1.32 $\sigma$ ) Source Offset Distance = 1.58e+00 ± 5.29e-01 arcsec (2.99 $\sigma$ )	Difference Image Centroid Offsets
	<b>Shorter Period Comparison Statistic</b> Value = 3.75e+02 Significance = 100.00%	<b>Longer Period Comparison Statistic</b> Value = <i>N/A</i> Significance = <i>N/A</i>	False Alarm = <i>N/A</i> Final Skip Count = <i>N/A</i> Observed Number of Transits = 98 Max Multiple Event Statistic = 8.00e+00	Bootstrap Test

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 Stellar Radius blocks are: green, if the KIC stellar radius differs from the fitted stellar radius by less than 20%; yellow, if this difference is greater than or equal to 20% but less than or equal to 100%; red, if the difference is greater than 100%. 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, when the false alarm is less than or equal to the CCDF of the Gaussian at the max multiple event statistic; yellow, if the false alarm is greater than the CCDF of the Gaussian at the max multiple event statistic but less than or equal to 2 times the CCDF of the Gaussian at the max multiple event statistic; red, if the false alarm is greater than 2 times the CCDF of the Gaussian at the max multiple event statistic.

## 4 Centroid Cloud Plot



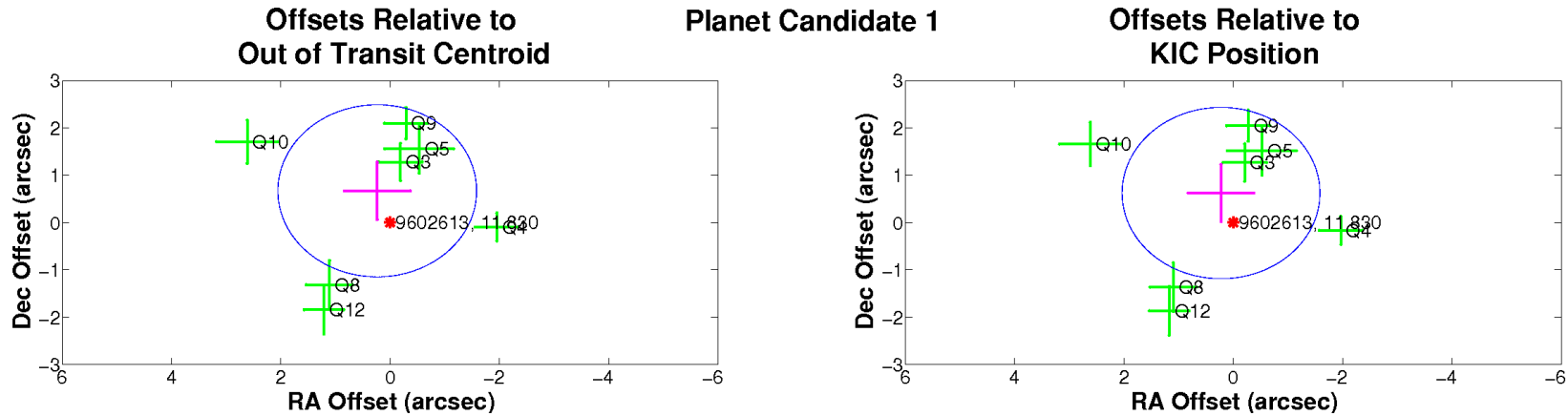
Out of Transit Centroid  
 ra(hours): mean 19.90991911, SD 6.12e-09  
 dec(degrees): mean 46.296022, SD 5.68e-08

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`

## 5 Pixel Level Diagnostics

### 5.1 Planet Candidate 1



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.

Open `./planet-01/difference-image/009602613-01-difference-image-centroid-offsets.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	$0.2348 \pm 6.03e - 01$	$0.6700 \pm 6.07e - 01$	arcseconds
Offset/ $\sigma$	0.39	1.10	
Offset Distance	$0.7100 \pm 6.06e - 01$		arcseconds
Offset Distance/ $\sigma$	1.17		
$3\sigma$ Radius	1.8186		arcseconds

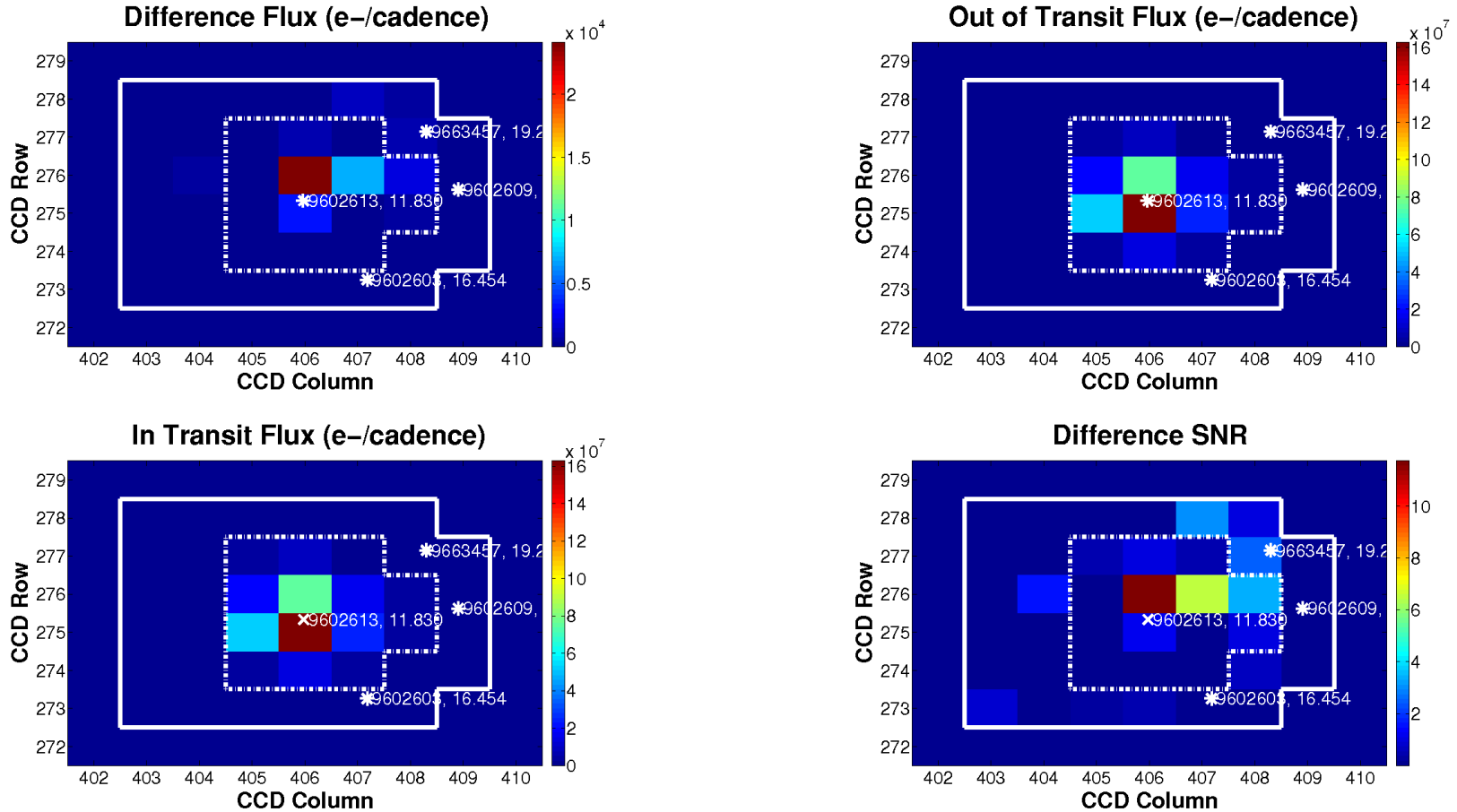
Mean offset from the KIC RA and Dec			
	RA	Dec	Units
Offset	$0.2228 \pm 6.00e - 01$	$0.6228 \pm 6.04e - 01$	arcseconds
Offset/ $\sigma$	0.37	1.03	
Offset Distance	$0.6614 \pm 6.03e - 01$		arcseconds
Offset Distance/ $\sigma$	1.10		
$3\sigma$ Radius	1.8101		arcseconds

### 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 cannot be generated because there are no valid centroid offsets.

### Difference Image Planet Candidate 1 / Quarter 1 / Target Table 20



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; +: 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 = 27; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 73; number of out-of-transit cadence gaps = 1.

Open `./planet-01/difference-image/009602613-01-difference-image-01-020.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate in target table 20.



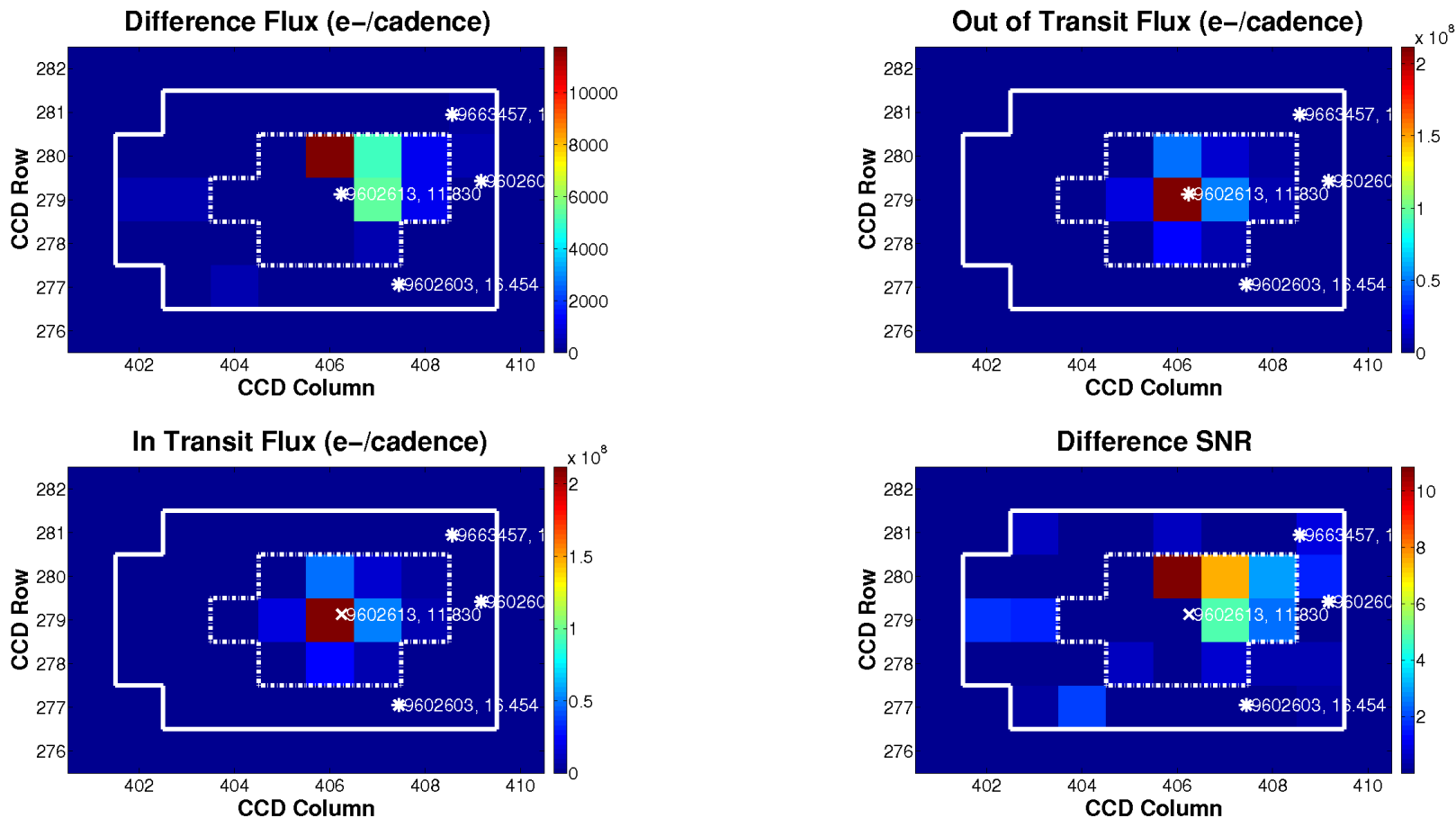
### PRF Fit of the Difference Image

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 Planet Candidate 1 / Quarter 2 / Target Table 21



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; +: 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 = 65; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 162; number of out-of-transit cadence gaps = 2.

Open `./planet-01/difference-image/009602613-01-difference-image-02-021.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate in target table 21.

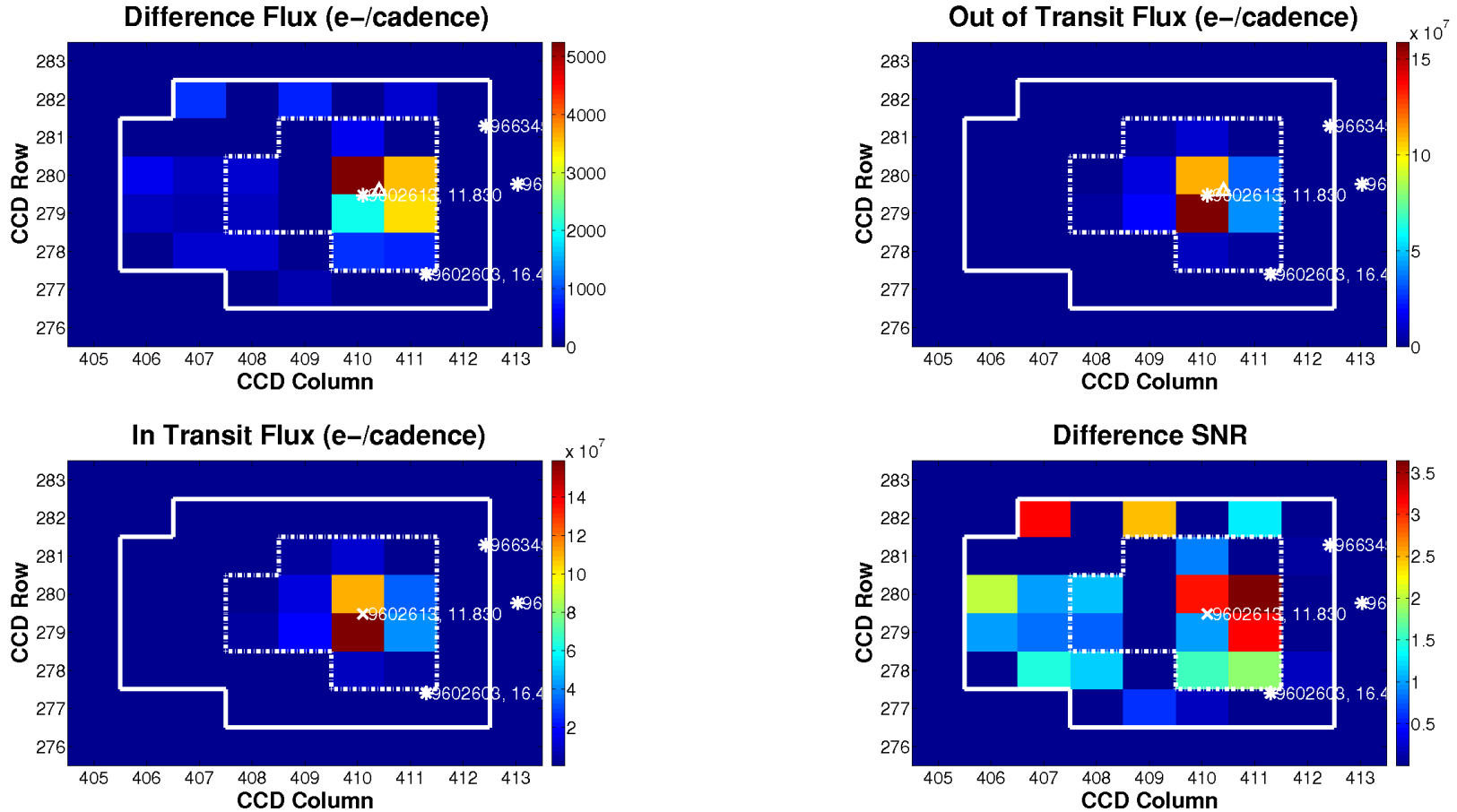
### PRF Fit of the Difference Image

The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 1, 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 1, in target table 21.

### Difference Image Planet Candidate 1 / Quarter 3 / Target Table 26



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; +: 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 = 56; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 144; number of out-of-transit cadence gaps = 1.

Open `./planet-01/difference-image/009602613-01-difference-image-03-026.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$279.47 \pm 1.94e - 06$	$410.10 \pm 2.64e - 06$	pixels	$19.80992070 \pm 8.01e - 10$	$46.29694725 \pm 7.39e - 09$	hours/degrees
Difference Image Centroid	$279.58 \pm 8.88e - 02$	$410.41 \pm 1.09e - 01$	pixels	$19.80991563 \pm 1.07e - 05$	$46.29730257 \pm 1.10e - 04$	hours/degrees
Offset	$0.1109 \pm 8.88e - 02$	$0.3059 \pm 1.09e - 01$	pixels	$-0.1893 \pm 3.98e - 01$	$1.2791 \pm 3.95e - 01$	arcseconds
Offset/ $\sigma$	1.25	2.80		-0.48	3.24	
Offset Distance	$0.3254 \pm 1.03e - 01$		pixels	$1.2931 \pm 4.09e - 01$		arcseconds
Offset Distance/ $\sigma$	3.16			3.16		

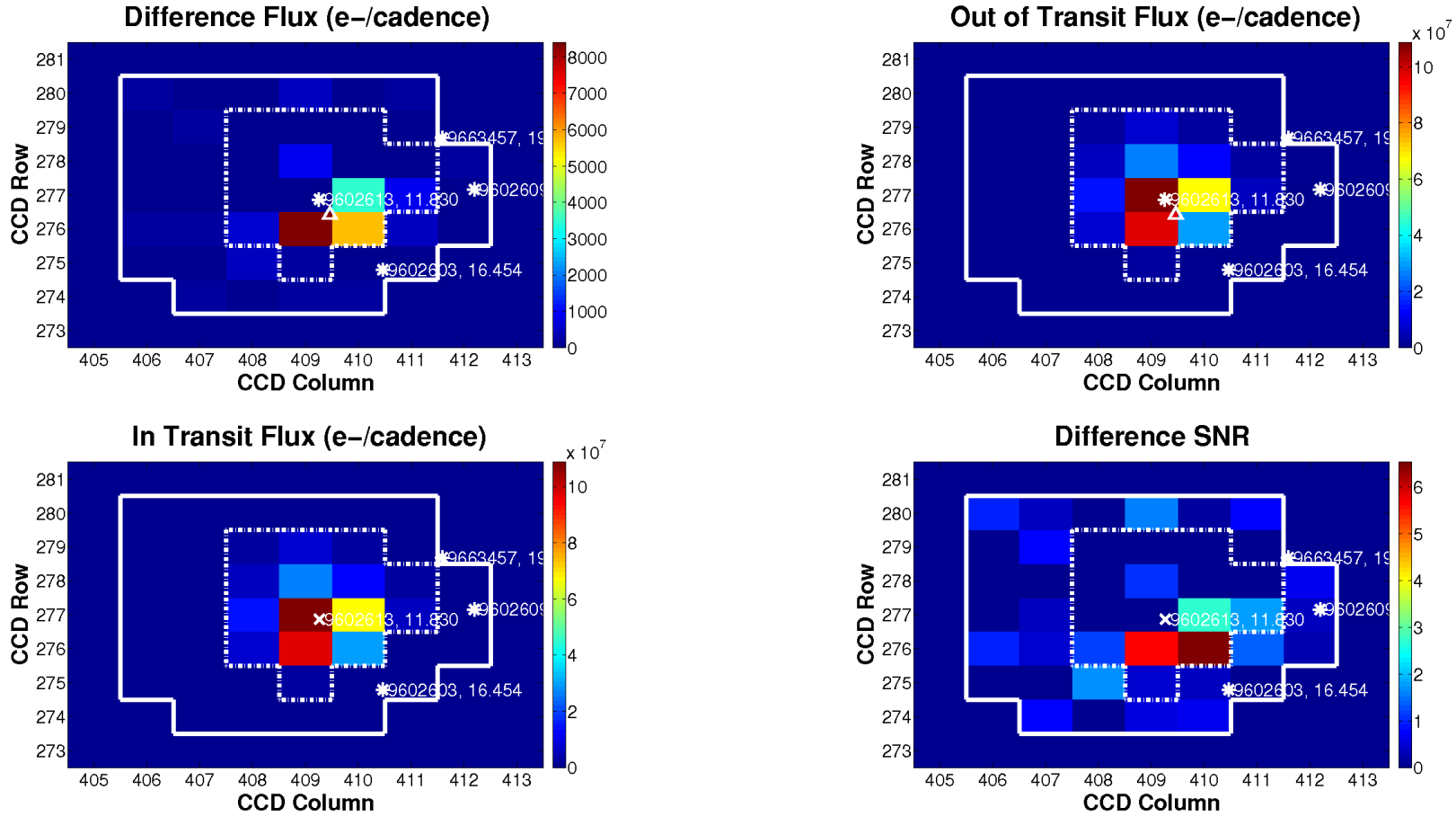
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.48 \pm 7.51e - 06$	$410.10 \pm 5.78e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$279.58 \pm 8.88e - 02$	$410.41 \pm 1.09e - 01$	pixels	$19.80991563 \pm 1.07e - 05$	$46.29730257 \pm 1.10e - 04$	hours/degrees
Offset	$0.1048 \pm 8.88e - 02$	$0.3063 \pm 1.09e - 01$	pixels	$-0.2115 \pm 3.98e - 01$	$1.2692 \pm 3.95e - 01$	arcseconds
Offset/ $\sigma$	1.18	2.81		-0.53	3.21	
Offset Distance	$0.3238 \pm 1.03e - 01$		pixels	$1.2867 \pm 4.11e - 01$		arcseconds
Offset Distance/ $\sigma$	3.14			3.13		

## 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 Planet Candidate 1 / Quarter 4 / Target Table 29



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; +: 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 = 66; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 158; number of out-of-transit cadence gaps = 5.

Open `./planet-01/difference-image/009602613-01-difference-image-04-029.fig`



The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$276.86 \pm 2.17e - 06$	$409.25 \pm 2.61e - 06$	pixels	$19.80992085 \pm 1.17e - 09$	$46.29692983 \pm 1.17e - 08$	hours/degrees
Difference Image Centroid	$276.41 \pm 1.07e - 01$	$409.46 \pm 6.26e - 02$	pixels	$19.80986853 \pm 1.06e - 05$	$46.29690392 \pm 8.23e - 05$	hours/degrees
Offset	$-0.4432 \pm 1.07e - 01$	$0.2122 \pm 6.26e - 02$	pixels	$-1.9520 \pm 3.96e - 01$	$-0.0933 \pm 2.96e - 01$	arcseconds
Offset/ $\sigma$	-4.14	3.39		-4.93	-0.31	
Offset Distance	$0.4914 \pm 1.00e - 01$		pixels	$1.9543 \pm 4.02e - 01$		arcseconds
Offset Distance/ $\sigma$	4.90			4.87		

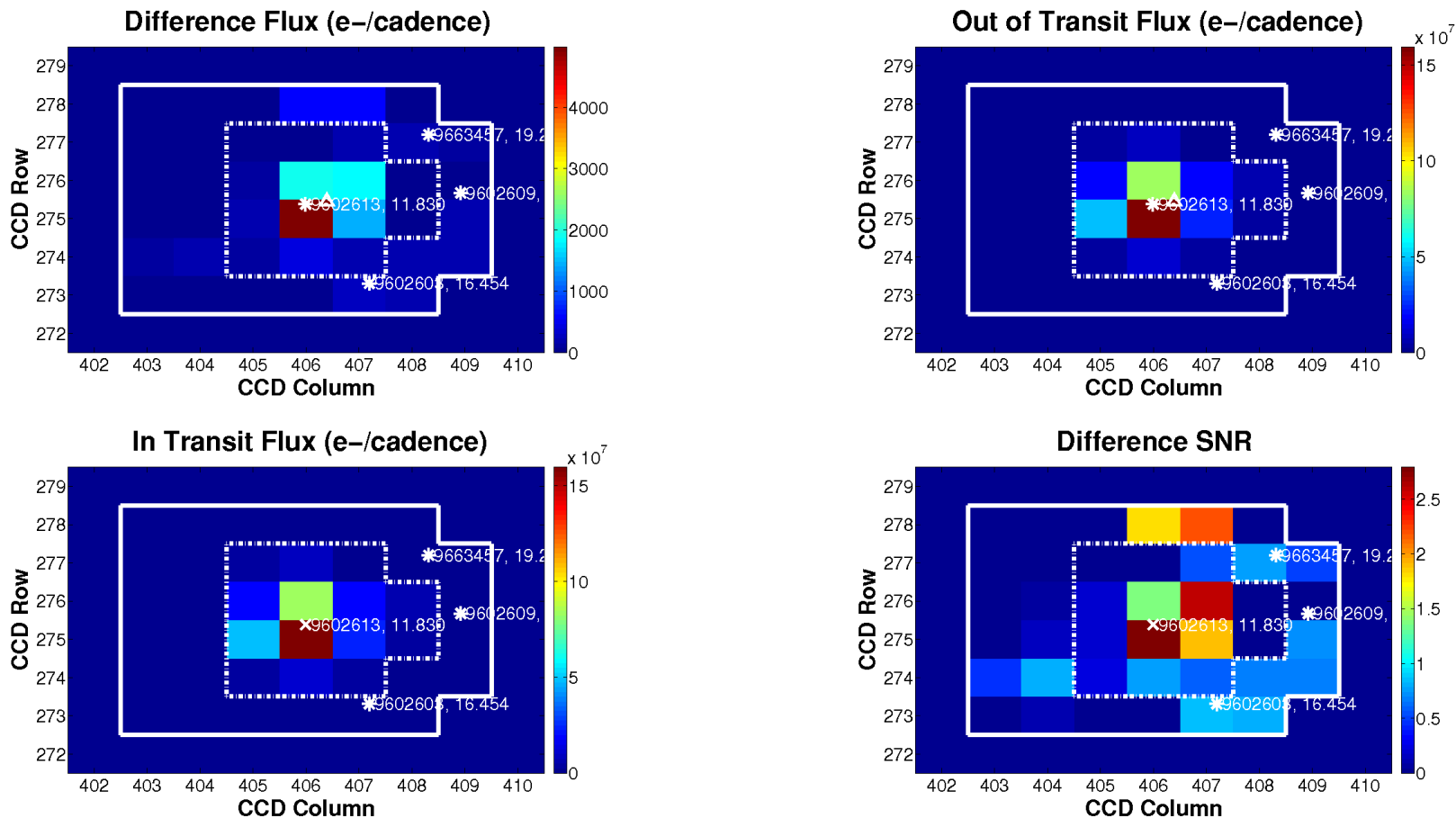
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.87 \pm 1.09e - 05$	$409.26 \pm 1.01e - 05$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$276.41 \pm 1.07e - 01$	$409.46 \pm 6.26e - 02$	pixels	$19.80986853 \pm 1.06e - 05$	$46.29690392 \pm 8.23e - 05$	hours/degrees
Offset	$-0.4557 \pm 1.07e - 01$	$0.1981 \pm 6.26e - 02$	pixels	$-1.9689 \pm 3.96e - 01$	$-0.1659 \pm 2.96e - 01$	arcseconds
Offset/ $\sigma$	-4.26	3.16		-4.97	-0.56	
Offset Distance	$0.4969 \pm 1.01e - 01$		pixels	$1.9759 \pm 4.06e - 01$		arcseconds
Offset Distance/ $\sigma$	4.90			4.87		

## 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**  
**Planet Candidate 1 / Quarter 5 / Target Table 32**



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; +: 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 = 70; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 172; number of out-of-transit cadence gaps = 3.

Open `./planet-01/difference-image/009602613-01-difference-image-05-032.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$275.38 \pm 2.73e - 06$	$405.99 \pm 2.51e - 06$	pixels	$19.80992143 \pm 1.02e - 09$	$46.29693853 \pm 1.02e - 08$	hours/degrees
Difference Image Centroid	$275.45 \pm 1.50e - 01$	$406.39 \pm 1.39e - 01$	pixels	$19.80990718 \pm 1.69e - 05$	$46.29737140 \pm 1.43e - 04$	hours/degrees
Offset	$0.0686 \pm 1.50e - 01$	$0.4085 \pm 1.39e - 01$	pixels	$-0.5317 \pm 6.31e - 01$	$1.5583 \pm 5.15e - 01$	arcseconds
Offset/ $\sigma$	0.46	2.94		-0.84	3.03	
Offset Distance	$0.4142 \pm 1.35e - 01$		pixels	$1.6466 \pm 5.36e - 01$		arcseconds
Offset Distance/ $\sigma$	3.08			3.07		

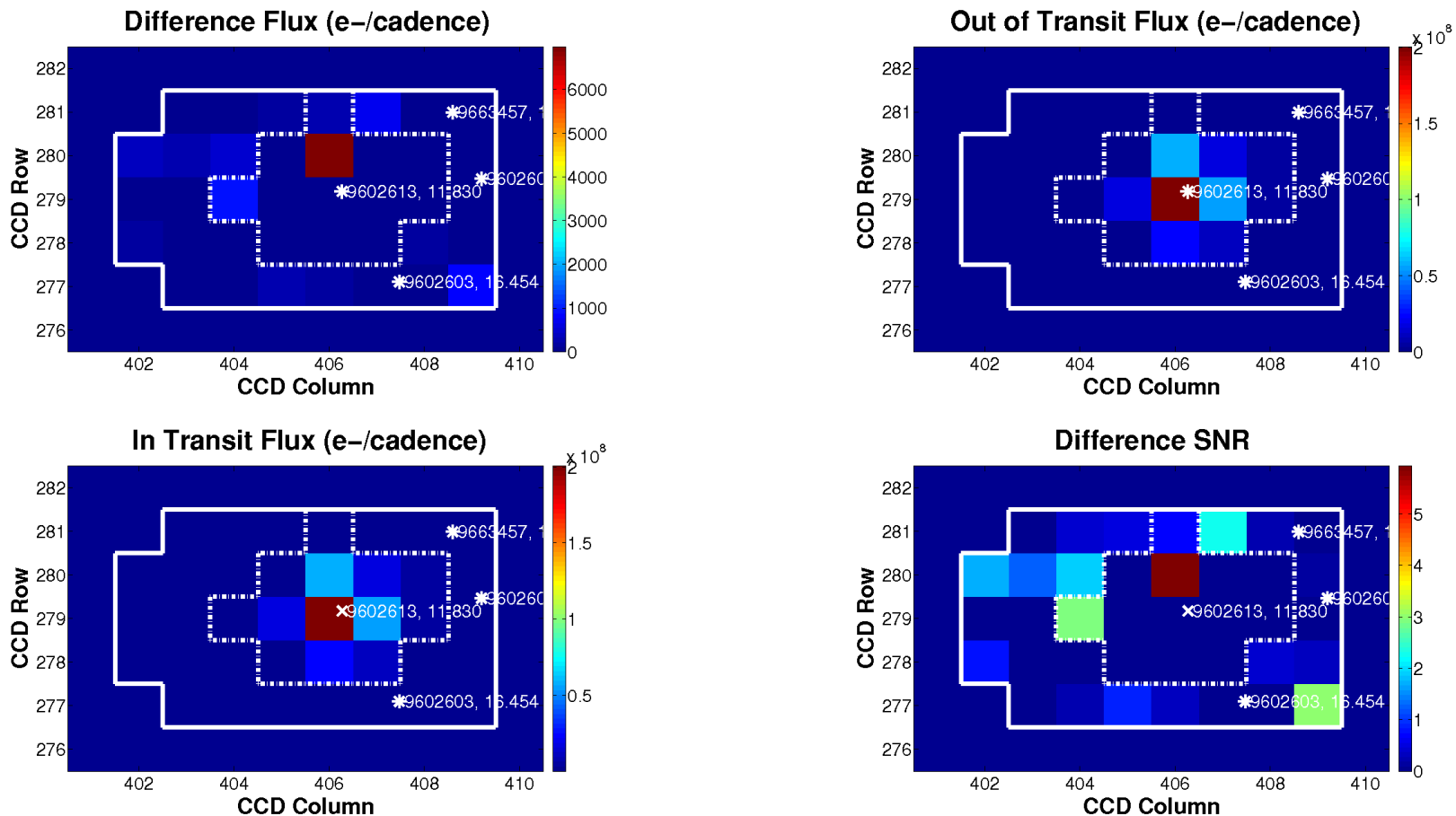
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.38 \pm 9.22e - 06$	$406.00 \pm 8.80e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$275.45 \pm 1.50e - 01$	$406.39 \pm 1.39e - 01$	pixels	$19.80990718 \pm 1.69e - 05$	$46.29737140 \pm 1.43e - 04$	hours/degrees
Offset	$0.0648 \pm 1.50e - 01$	$0.3987 \pm 1.39e - 01$	pixels	$-0.5269 \pm 6.31e - 01$	$1.5170 \pm 5.15e - 01$	arcseconds
Offset/ $\sigma$	0.43	2.87		-0.83	2.95	
Offset Distance	$0.4040 \pm 1.35e - 01$		pixels	$1.6060 \pm 5.37e - 01$		arcseconds
Offset Distance/ $\sigma$	3.00			2.99		

## 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 Planet Candidate 1 / Quarter 6 / Target Table 35



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; +: 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 = 66; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 164; number of out-of-transit cadence gaps = 1.

Open `./planet-01/difference-image/009602613-01-difference-image-06-035.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate in target table 35.

### PRF Fit of the Difference Image

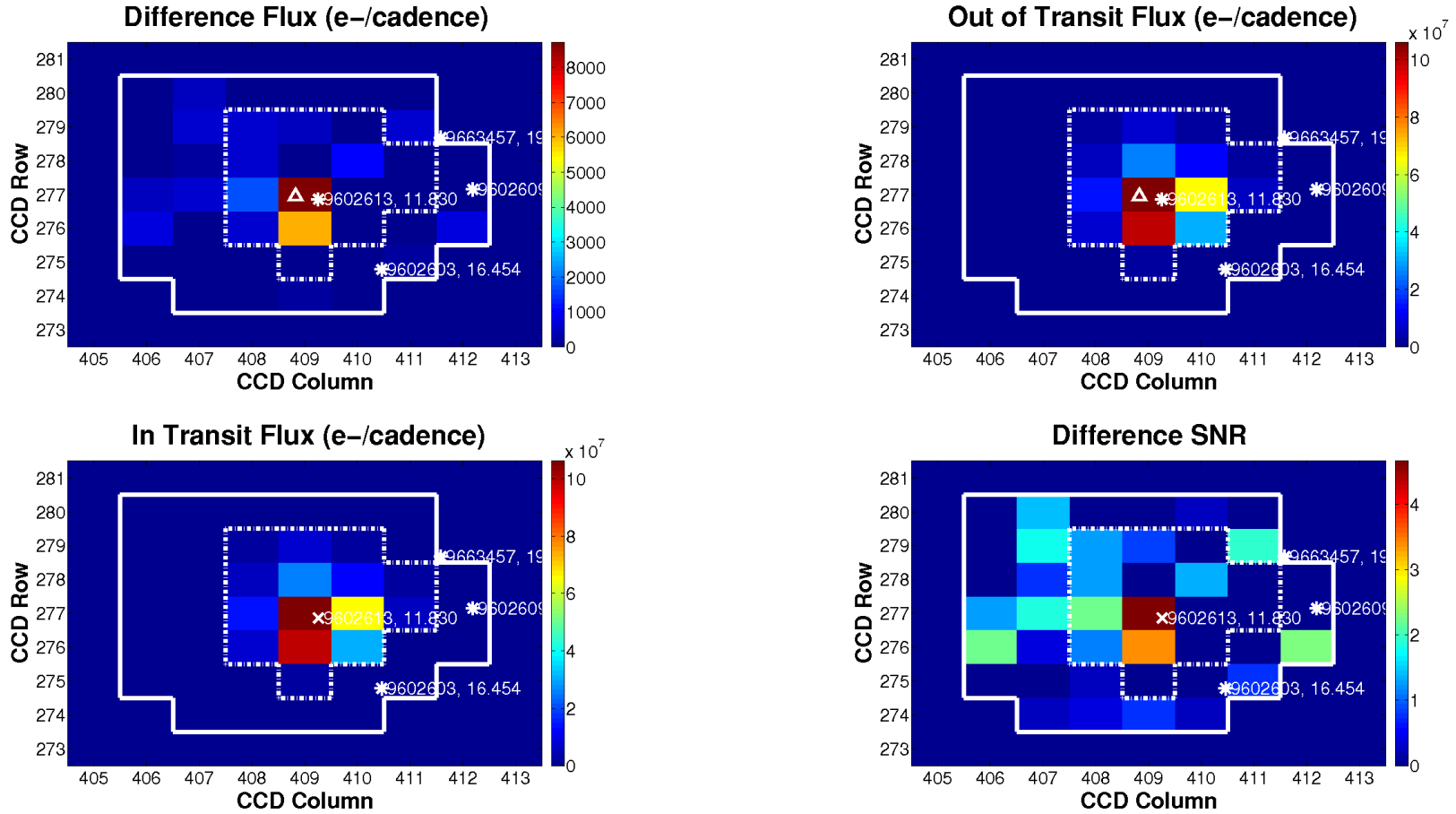
The out of transit image centroid and difference image centroid could not be calculated for target 9602613, planet candidate 1, in target table 35.

### 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 Planet Candidate 1 / Quarter 8 / Target Table 41



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; +: PRF-fit location of target from out-of-transit image; triangle: PRF-fit location of transit source. CCD row and column coordinates are 0-based. Number of transits = 11; number of valid in-transit cadences = 45; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 112; number of out-of-transit cadence gaps = 1.

Open `./planet-01/difference-image/009602613-01-difference-image-08-041.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$276.85 \pm 2.60e - 06$	$409.25 \pm 3.09e - 06$	pixels	$19.80992094 \pm 1.06e - 09$	$46.29693609 \pm 1.08e - 08$	hours/degrees
Difference Image Centroid	$276.94 \pm 1.11e - 01$	$408.83 \pm 1.26e - 01$	pixels	$19.80995067 \pm 1.14e - 05$	$46.29657065 \pm 1.43e - 04$	hours/degrees
Offset	$0.0884 \pm 1.11e - 01$	$-0.4237 \pm 1.26e - 01$	pixels	$1.1093 \pm 4.26e - 01$	$-1.3156 \pm 5.14e - 01$	arcseconds
Offset/ $\sigma$	0.80	-3.36		2.60	-2.56	
Offset Distance	$0.4328 \pm 1.22e - 01$		pixels	$1.7209 \pm 4.86e - 01$		arcseconds
Offset Distance/ $\sigma$	3.54			3.54		

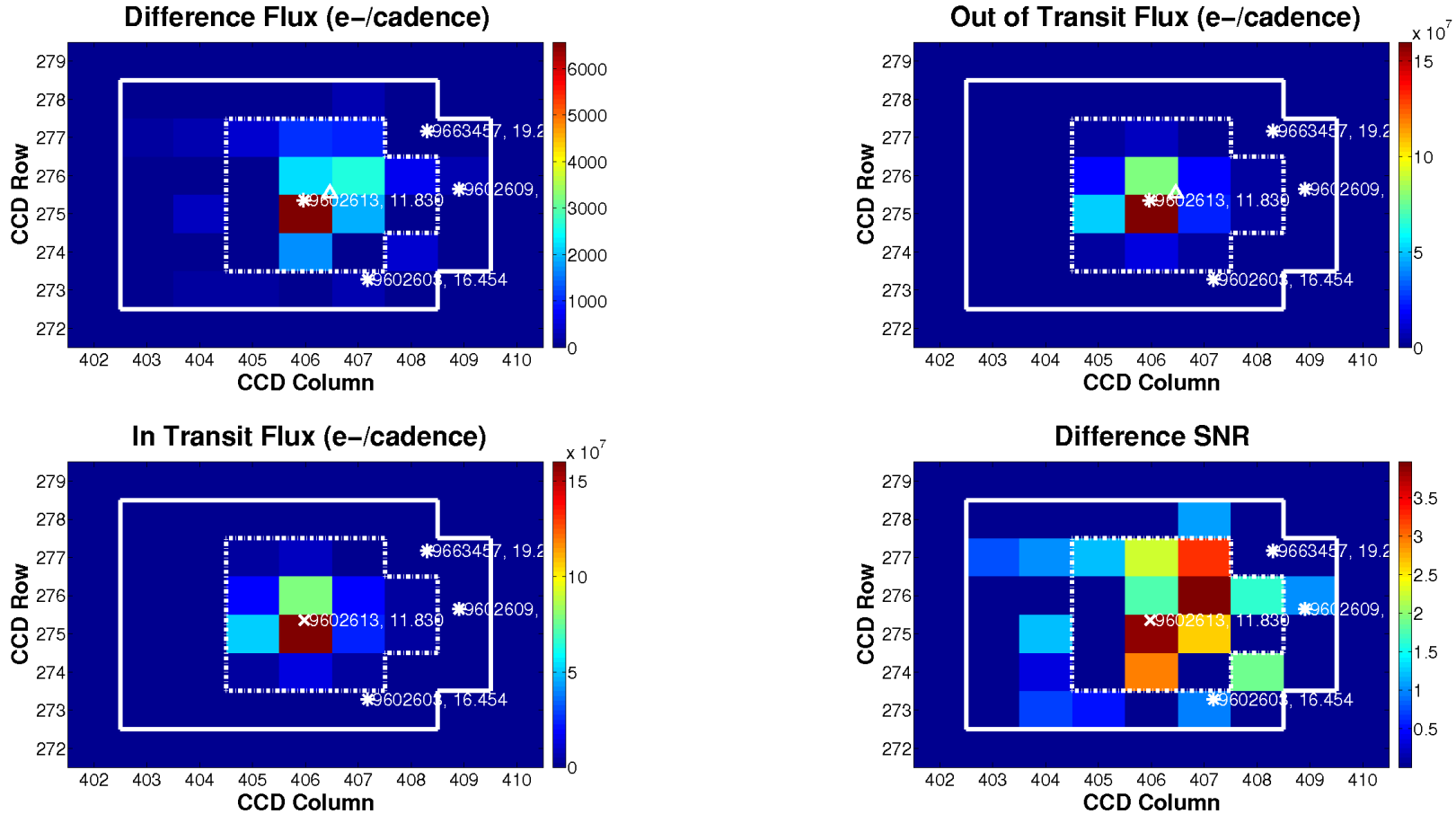
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.86 \pm 9.63e - 06$	$409.26 \pm 9.25e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$276.94 \pm 1.11e - 01$	$408.83 \pm 1.26e - 01$	pixels	$19.80995067 \pm 1.14e - 05$	$46.29657065 \pm 1.43e - 04$	hours/degrees
Offset	$0.0795 \pm 1.11e - 01$	$-0.4332 \pm 1.26e - 01$	pixels	$1.0960 \pm 4.26e - 01$	$-1.3657 \pm 5.14e - 01$	arcseconds
Offset/ $\sigma$	0.72	-3.44		2.57	-2.65	
Offset Distance	$0.4404 \pm 1.23e - 01$		pixels	$1.7511 \pm 4.88e - 01$		arcseconds
Offset Distance/ $\sigma$	3.59			3.59		

## 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 Planet Candidate 1 / Quarter 9 / Target Table 44



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; +: 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 = 76; number of in-transit cadence gaps = 2; number of valid out-of-transit cadences = 192; number of out-of-transit cadence gaps = 2.

Open `./planet-01/difference-image/009602613-01-difference-image-09-044.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$275.36 \pm 2.65e - 06$	$405.96 \pm 2.36e - 06$	pixels	$19.80992171 \pm 1.05e - 09$	$46.29693547 \pm 1.04e - 08$	hours/degrees
Difference Image Centroid	$275.54 \pm 9.47e - 02$	$406.46 \pm 8.76e - 02$	pixels	$19.80991392 \pm 1.06e - 05$	$46.29751859 \pm 9.16e - 05$	hours/degrees
Offset	$0.1867 \pm 9.47e - 02$	$0.4994 \pm 8.76e - 02$	pixels	$-0.2906 \pm 3.95e - 01$	$2.0992 \pm 3.30e - 01$	arcseconds
Offset/ $\sigma$	1.97	5.70		-0.73	6.37	
Offset Distance	$0.5332 \pm 8.35e - 02$		pixels	$2.1192 \pm 3.32e - 01$		arcseconds
Offset Distance/ $\sigma$	6.38			6.38		

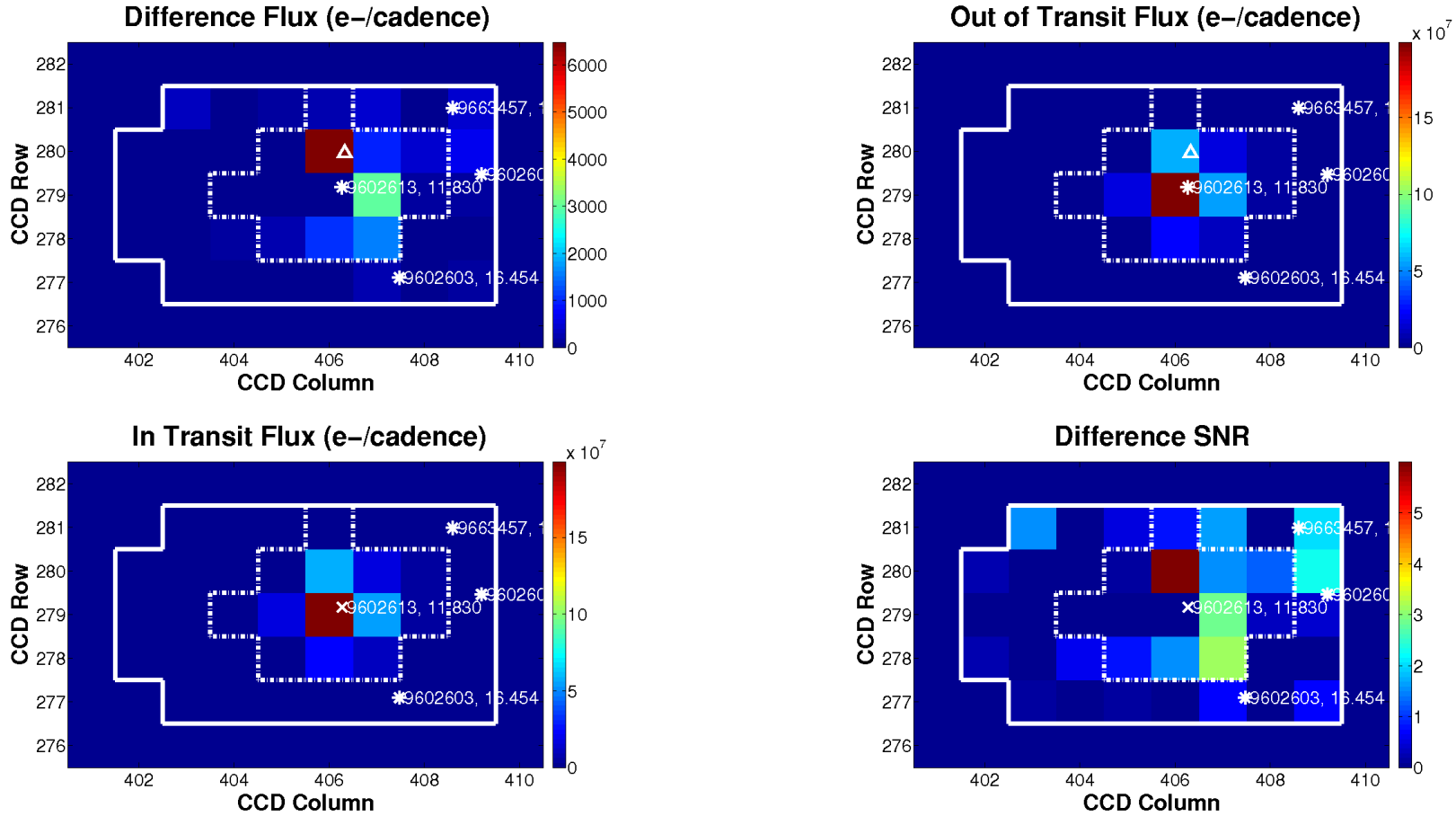
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.36 \pm 9.50e - 06$	$405.98 \pm 9.06e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$275.54 \pm 9.47e - 02$	$406.46 \pm 8.76e - 02$	pixels	$19.80991392 \pm 1.06e - 05$	$46.29751859 \pm 9.16e - 05$	hours/degrees
Offset	$0.1838 \pm 9.47e - 02$	$0.4860 \pm 8.76e - 02$	pixels	$-0.2753 \pm 3.95e - 01$	$2.0469 \pm 3.30e - 01$	arcseconds
Offset/ $\sigma$	1.94	5.55		-0.70	6.21	
Offset Distance	$0.5196 \pm 8.35e - 02$		pixels	$2.0654 \pm 3.32e - 01$		arcseconds
Offset Distance/ $\sigma$	6.22			6.22		

## 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**  
**Planet Candidate 1 / Quarter 10 / Target Table 47**



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; +: 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 = 78; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 193; number of out-of-transit cadence gaps = 2.

Open `./planet-01/difference-image/009602613-01-difference-image-10-047.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$279.17 \pm 2.10e - 06$	$406.26 \pm 2.95e - 06$	pixels	$19.80992135 \pm 9.58e - 10$	$46.29693700 \pm 1.07e - 08$	hours/degrees
Difference Image Centroid	$279.96 \pm 1.34e - 01$	$406.33 \pm 1.23e - 01$	pixels	$19.80999143 \pm 1.51e - 05$	$46.29741091 \pm 1.27e - 04$	hours/degrees
Offset	$0.7826 \pm 1.34e - 01$	$0.0656 \pm 1.23e - 01$	pixels	$2.6146 \pm 5.62e - 01$	$1.7061 \pm 4.59e - 01$	arcseconds
Offset/ $\sigma$	5.84	0.53		4.65	3.72	
Offset Distance	$0.7854 \pm 1.32e - 01$		pixels	$3.1220 \pm 5.28e - 01$		arcseconds
Offset Distance/ $\sigma$	5.94			5.92		

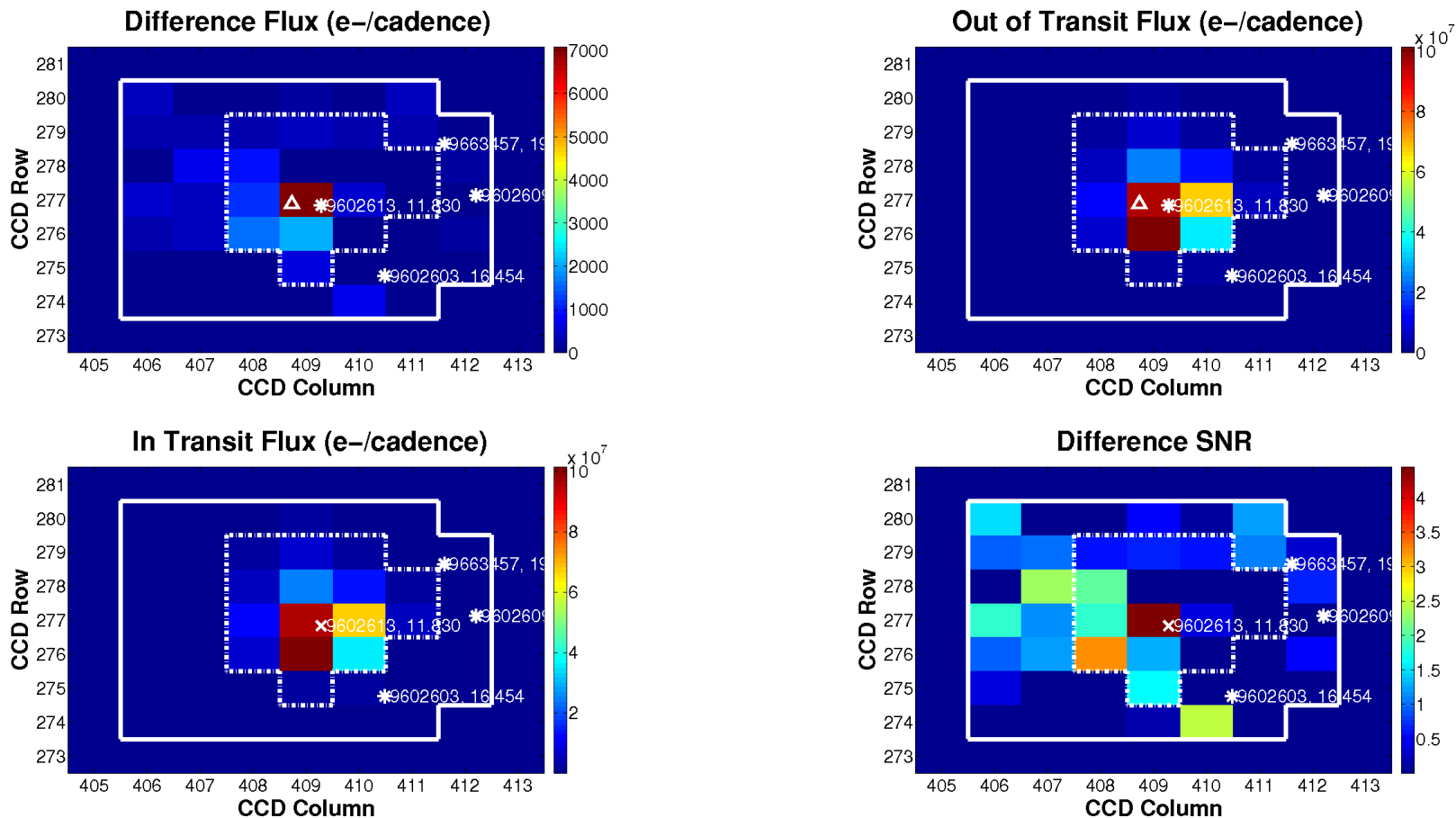
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.18 \pm 8.28e - 06$	$406.27 \pm 9.62e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$279.96 \pm 1.34e - 01$	$406.33 \pm 1.23e - 01$	pixels	$19.80999143 \pm 1.51e - 05$	$46.29741091 \pm 1.27e - 04$	hours/degrees
Offset	$0.7774 \pm 1.34e - 01$	$0.0550 \pm 1.23e - 01$	pixels	$2.6165 \pm 5.62e - 01$	$1.6593 \pm 4.59e - 01$	arcseconds
Offset/ $\sigma$	5.80	0.45		4.66	3.62	
Offset Distance	$0.7794 \pm 1.33e - 01$		pixels	$3.0983 \pm 5.29e - 01$		arcseconds
Offset Distance/ $\sigma$	5.88			5.86		

## 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 Planet Candidate 1 / Quarter 12 / Target Table 53



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; +: 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 = 57; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 144; number of out-of-transit cadence gaps = 1.

Open `./planet-01/difference-image/009602613-01-difference-image-12-053.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 1 failed, or there were no observed transits for this candidate 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	$276.82 \pm 2.38e - 06$	$409.29 \pm 2.66e - 06$	pixels	$19.80992025 \pm 1.05e - 09$	$46.29694391 \pm 9.30e - 09$	hours/degrees
Difference Image Centroid	$276.87 \pm 9.49e - 02$	$408.73 \pm 1.26e - 01$	pixels	$19.80995270 \pm 9.73e - 06$	$46.29643177 \pm 1.43e - 04$	hours/degrees
Offset	$0.0478 \pm 9.49e - 02$	$-0.5527 \pm 1.26e - 01$	pixels	$1.2107 \pm 3.63e - 01$	$-1.8437 \pm 5.14e - 01$	arcseconds
Offset/ $\sigma$	0.50	-4.38		3.34	-3.59	
Offset Distance	$0.5548 \pm 1.24e - 01$		pixels	$2.2057 \pm 4.94e - 01$		arcseconds
Offset Distance/ $\sigma$	4.47			4.47		

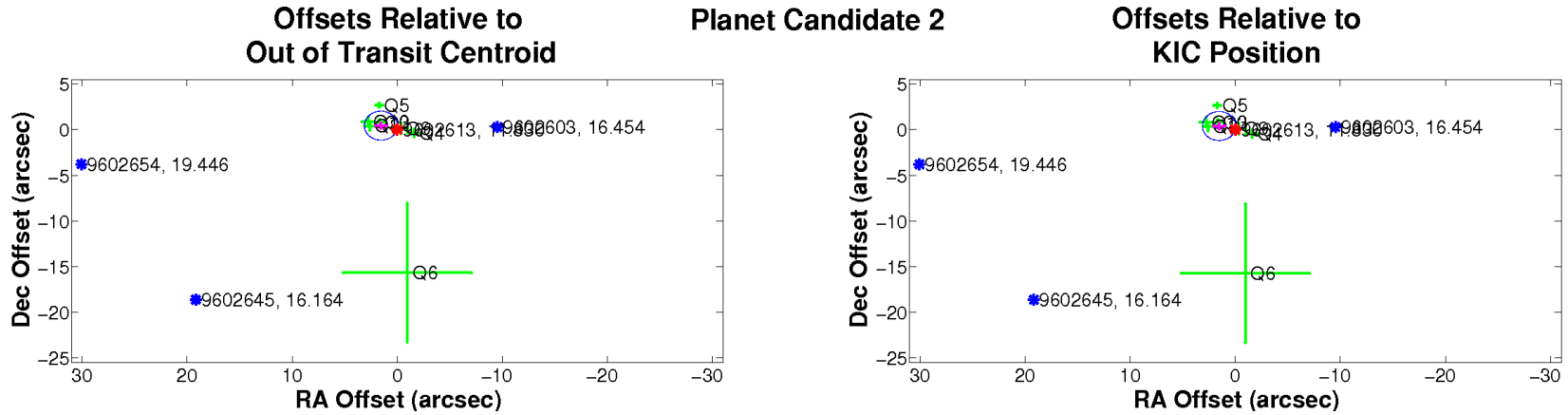
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.84 \pm 1.00e - 05$	$409.29 \pm 7.34e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$276.87 \pm 9.49e - 02$	$408.73 \pm 1.26e - 01$	pixels	$19.80995270 \pm 9.73e - 06$	$46.29643177 \pm 1.43e - 04$	hours/degrees
Offset	$0.0365 \pm 9.49e - 02$	$-0.5529 \pm 1.26e - 01$	pixels	$1.1716 \pm 3.63e - 01$	$-1.8656 \pm 5.14e - 01$	arcseconds
Offset/ $\sigma$	0.38	-4.38		3.23	-3.63	
Offset Distance	$0.5541 \pm 1.25e - 01$		pixels	$2.2030 \pm 4.96e - 01$		arcseconds
Offset Distance/ $\sigma$	4.44			4.44		

## 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.

## 5.2 Planet Candidate 2



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.

Open `./planet-02/difference-image/009602613-02-difference-image-centroid-offsets.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	$1.5417 \pm 5.43e - 01$	$0.4359 \pm 2.93e - 01$	arcseconds
Offset/ $\sigma$	2.84	1.49	
Offset Distance	$1.6021 \pm 5.28e - 01$		arcseconds
Offset Distance/ $\sigma$	3.03		
$3\sigma$ Radius	1.5853		arcseconds

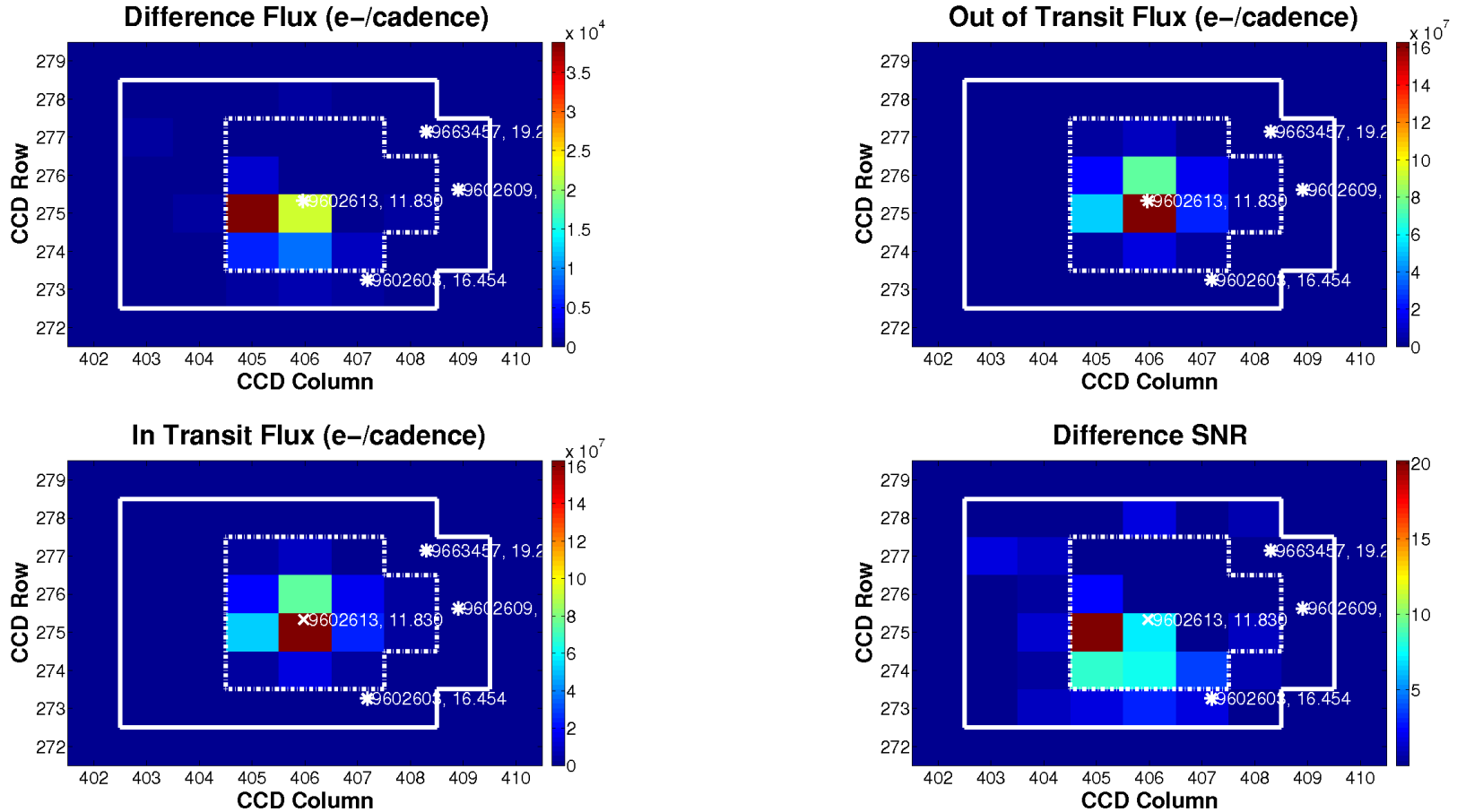
Mean offset from the KIC RA and Dec			
	RA	Dec	Units
Offset	$1.5332 \pm 5.41e - 01$	$0.3945 \pm 2.98e - 01$	arcseconds
Offset/ $\sigma$	2.83	1.32	
Offset Distance	$1.5831 \pm 5.29e - 01$		arcseconds
Offset Distance/ $\sigma$	2.99		
$3\sigma$ Radius	1.5880		arcseconds

### 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 cannot be generated because there are no valid centroid offsets.

### Difference Image Planet Candidate 2 / Quarter 1 / Target Table 20



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; +: 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 = 22; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 54; number of out-of-transit cadence gaps = 0.

Open `./planet-02/difference-image/009602613-02-difference-image-01-020.fig`



The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate in target table 20.

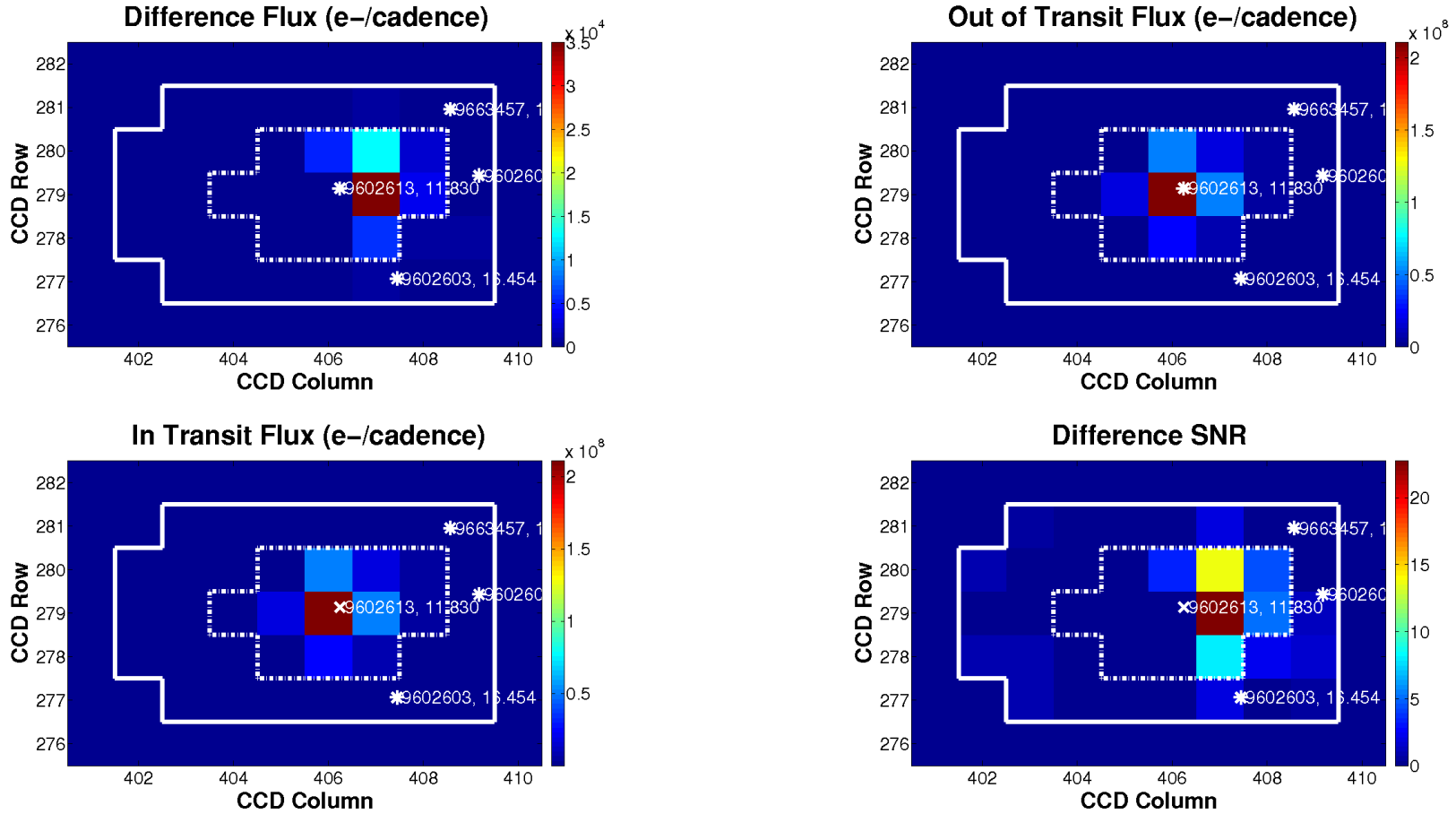
### PRF Fit of the Difference Image

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 Planet Candidate 2 / Quarter 2 / Target Table 21



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; +: 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 = 87; number of out-of-transit cadence gaps = 0.

Open `./planet-02/difference-image/009602613-02-difference-image-02-021.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate in target table 21.

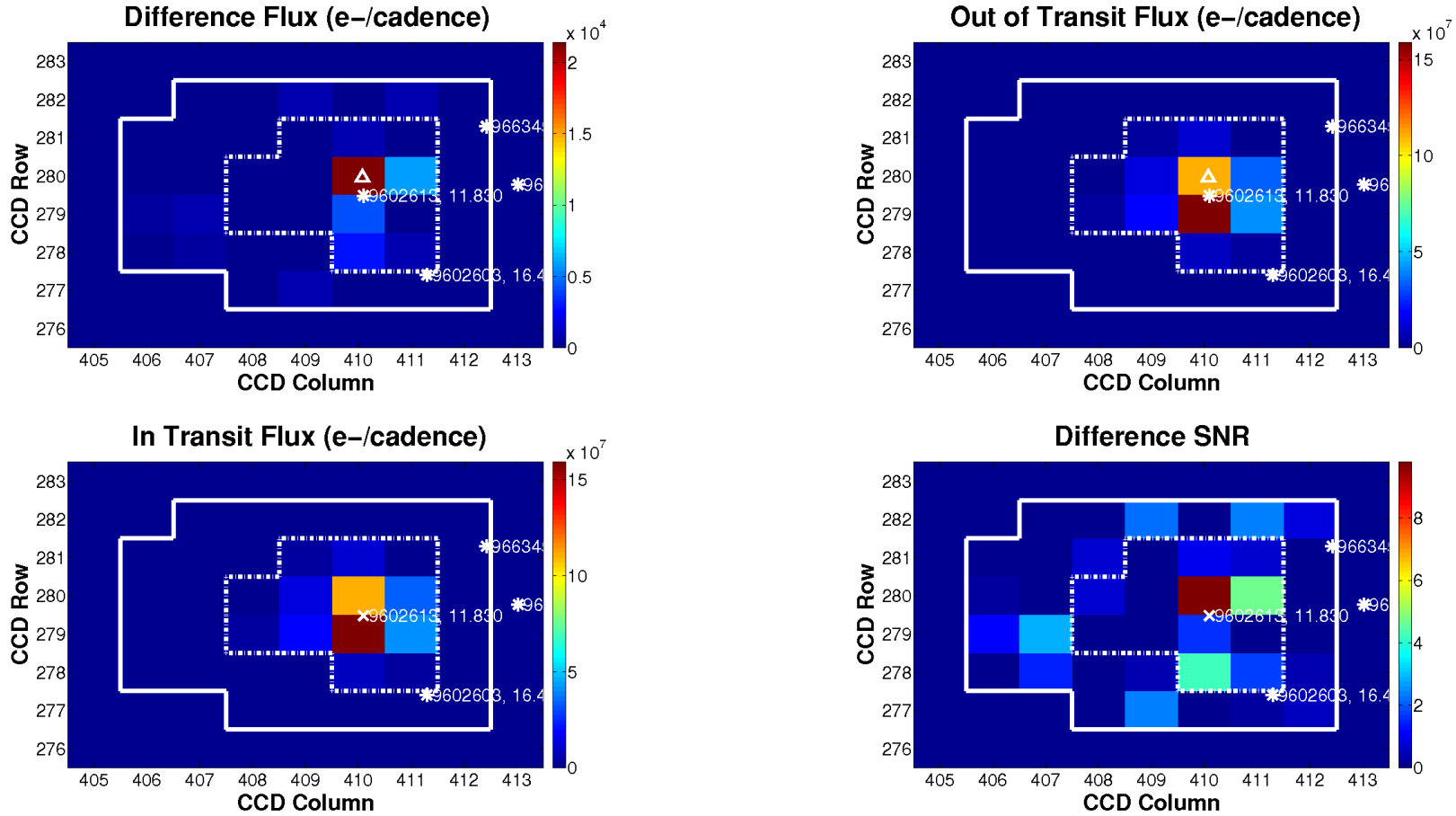
### PRF Fit of the Difference Image

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 Planet Candidate 2 / Quarter 3 / Target Table 26



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; +: 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 = 86; number of out-of-transit cadence gaps = 0.

Open `./planet-02/difference-image/009602613-02-difference-image-03-026.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$279.47 \pm 2.51e - 06$	$410.10 \pm 3.42e - 06$	pixels	$19.80992053 \pm 8.22e - 10$	$46.29694814 \pm 7.73e - 09$	hours/degrees
Difference Image Centroid	$279.95 \pm 1.13e - 01$	$410.08 \pm 7.10e - 02$	pixels	$19.80996625 \pm 1.16e - 05$	$46.29717631 \pm 8.62e - 05$	hours/degrees
Offset	$0.4758 \pm 1.13e - 01$	$-0.0215 \pm 7.10e - 02$	pixels	$1.7061 \pm 4.32e - 01$	$0.8214 \pm 3.10e - 01$	arcseconds
Offset/ $\sigma$	4.22	-0.30		3.95	2.65	
Offset Distance	$0.4763 \pm 1.13e - 01$		pixels	$1.8935 \pm 4.52e - 01$		arcseconds
Offset Distance/ $\sigma$	4.21			4.19		

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

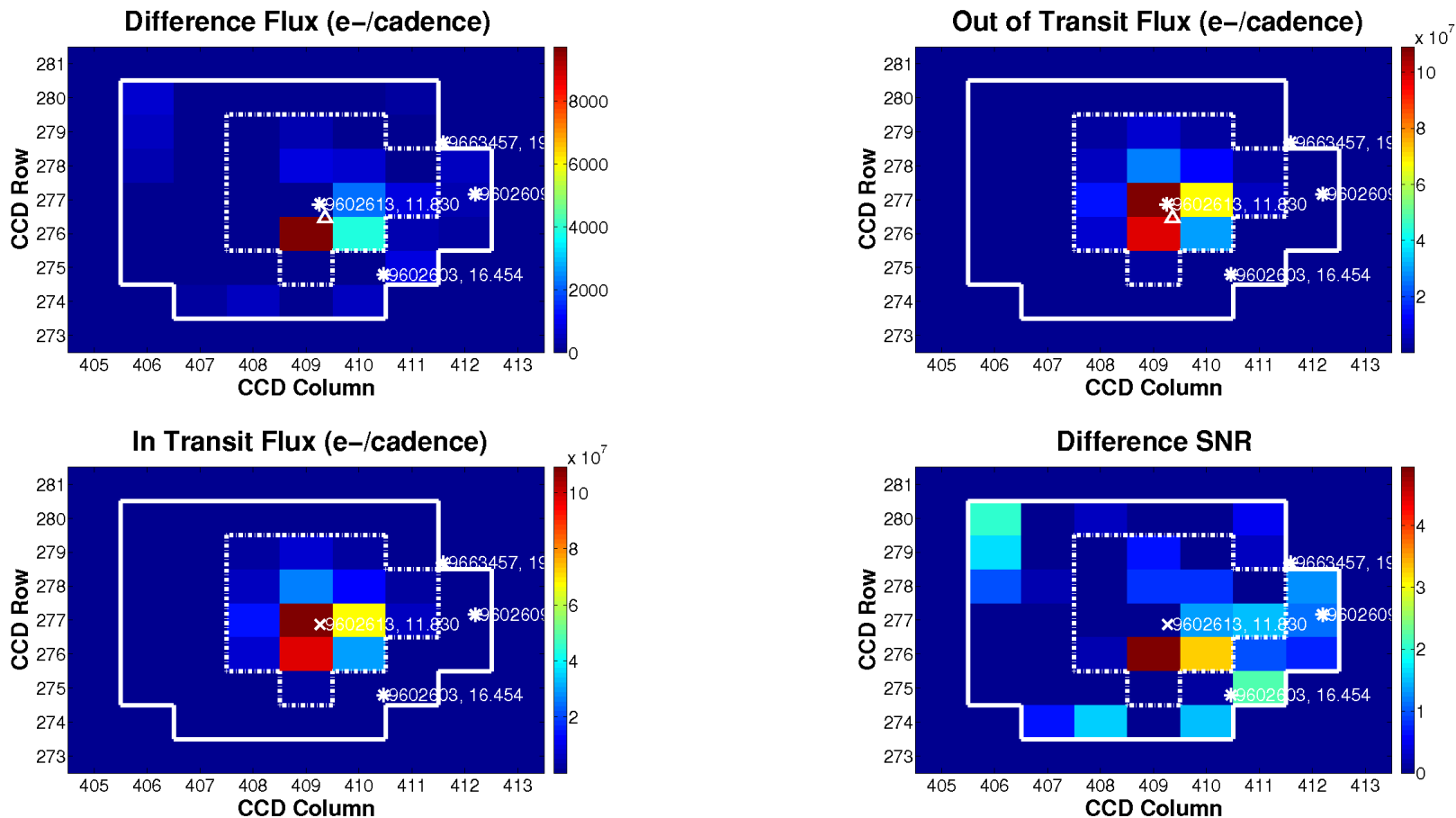
	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.48 \pm 7.52e - 06$	$410.10 \pm 5.77e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$279.95 \pm 1.13e - 01$	$410.08 \pm 7.10e - 02$	pixels	$19.80996625 \pm 1.16e - 05$	$46.29717631 \pm 8.62e - 05$	hours/degrees
Offset	$0.4686 \pm 1.13e - 01$	$-0.0196 \pm 7.10e - 02$	pixels	$1.6773 \pm 4.32e - 01$	$0.8147 \pm 3.10e - 01$	arcseconds
Offset/ $\sigma$	4.15	-0.28		3.88	2.63	
Offset Distance	$0.4690 \pm 1.13e - 01$		pixels	$1.8647 \pm 4.52e - 01$		arcseconds
Offset Distance/ $\sigma$	4.15			4.13		

## 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 Planet Candidate 2 / Quarter 4 / Target Table 29



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; +: 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 = 2; number of valid out-of-transit cadences = 95; number of out-of-transit cadence gaps = 1.

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

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$276.86 \pm 2.81e - 06$	$409.25 \pm 3.37e - 06$	pixels	$19.80992071 \pm 1.19e - 09$	$46.29692892 \pm 1.19e - 08$	hours/degrees
Difference Image Centroid	$276.46 \pm 1.67e - 01$	$409.36 \pm 8.89e - 02$	pixels	$19.80987773 \pm 1.69e - 05$	$46.29682801 \pm 1.15e - 04$	hours/degrees
Offset	$-0.3984 \pm 1.67e - 01$	$0.1109 \pm 8.89e - 02$	pixels	$-1.6038 \pm 6.31e - 01$	$-0.3633 \pm 4.14e - 01$	arcseconds
Offset/ $\sigma$	-2.39	1.25		-2.54	-0.88	
Offset Distance	$0.4136 \pm 1.65e - 01$		pixels	$1.6445 \pm 6.61e - 01$		arcseconds
Offset Distance/ $\sigma$	2.50			2.49		

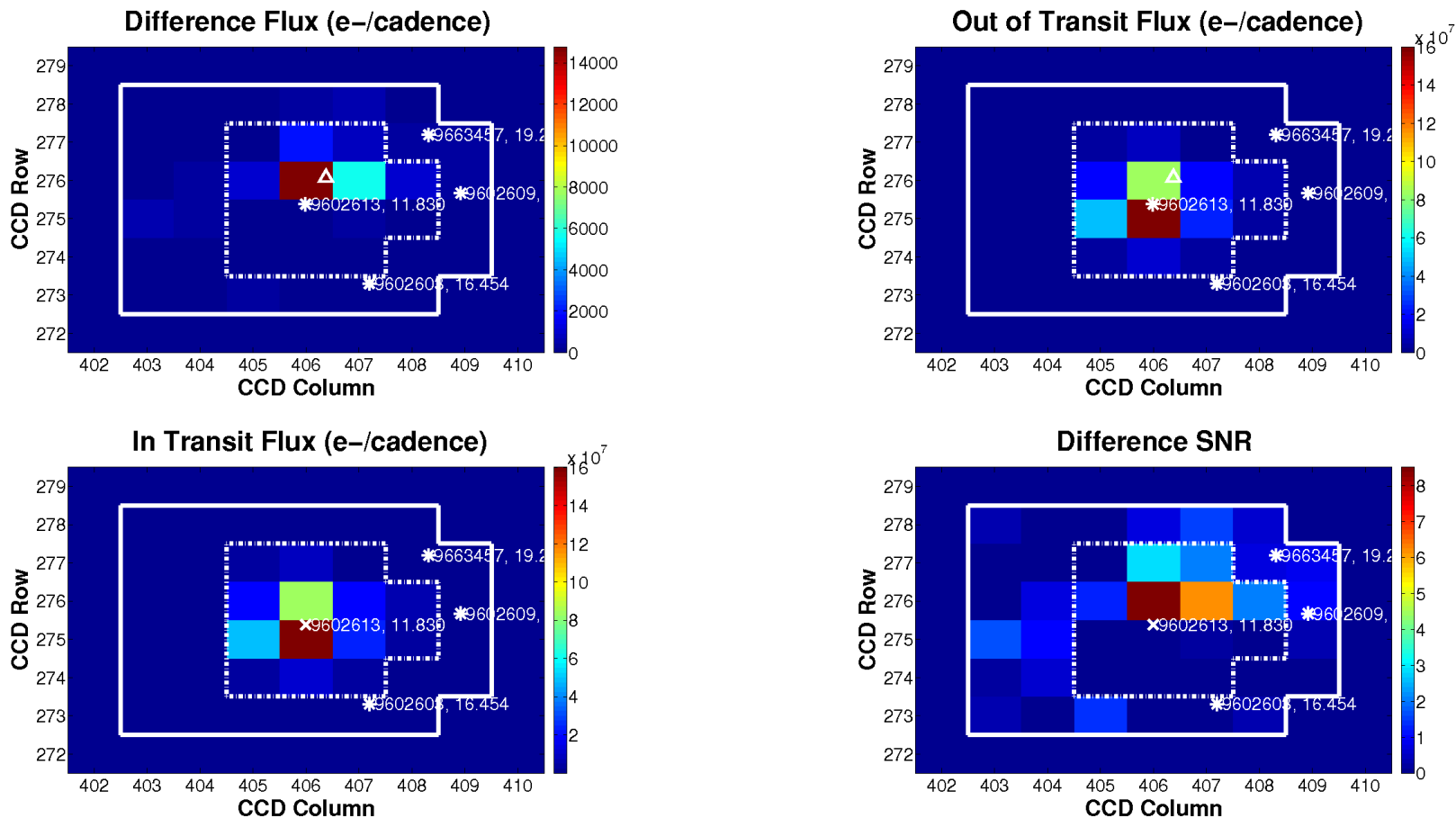
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.87 \pm 1.09e - 05$	$409.26 \pm 1.01e - 05$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$276.46 \pm 1.67e - 01$	$409.36 \pm 8.89e - 02$	pixels	$19.80987773 \pm 1.69e - 05$	$46.29682801 \pm 1.15e - 04$	hours/degrees
Offset	$-0.4123 \pm 1.67e - 01$	$0.0967 \pm 8.89e - 02$	pixels	$-1.6257 \pm 6.31e - 01$	$-0.4392 \pm 4.14e - 01$	arcseconds
Offset/ $\sigma$	-2.47	1.09		-2.58	-1.06	
Offset Distance	$0.4235 \pm 1.66e - 01$		pixels	$1.6840 \pm 6.64e - 01$		arcseconds
Offset Distance/ $\sigma$	2.55			2.54		

## 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**  
**Planet Candidate 2 / Quarter 5 / Target Table 32**



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; +: 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 = 42; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 109; number of out-of-transit cadence gaps = 1.

Open `./planet-02/difference-image/009602613-02-difference-image-05-032.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$275.38 \pm 3.43e - 06$	$405.99 \pm 3.16e - 06$	pixels	$19.80992144 \pm 1.05e - 09$	$46.29693954 \pm 1.04e - 08$	hours/degrees
Difference Image Centroid	$276.08 \pm 8.38e - 02$	$406.38 \pm 5.67e - 02$	pixels	$19.80996724 \pm 8.82e - 06$	$46.29768541 \pm 6.51e - 05$	hours/degrees
Offset	$0.6991 \pm 8.38e - 02$	$0.3904 \pm 5.67e - 02$	pixels	$1.7089 \pm 3.29e - 01$	$2.6851 \pm 2.34e - 01$	arcseconds
Offset/ $\sigma$	8.34	6.88		5.19	11.45	
Offset Distance	$0.8007 \pm 7.42e - 02$		pixels	$3.1828 \pm 2.96e - 01$		arcseconds
Offset Distance/ $\sigma$	10.78			10.76		

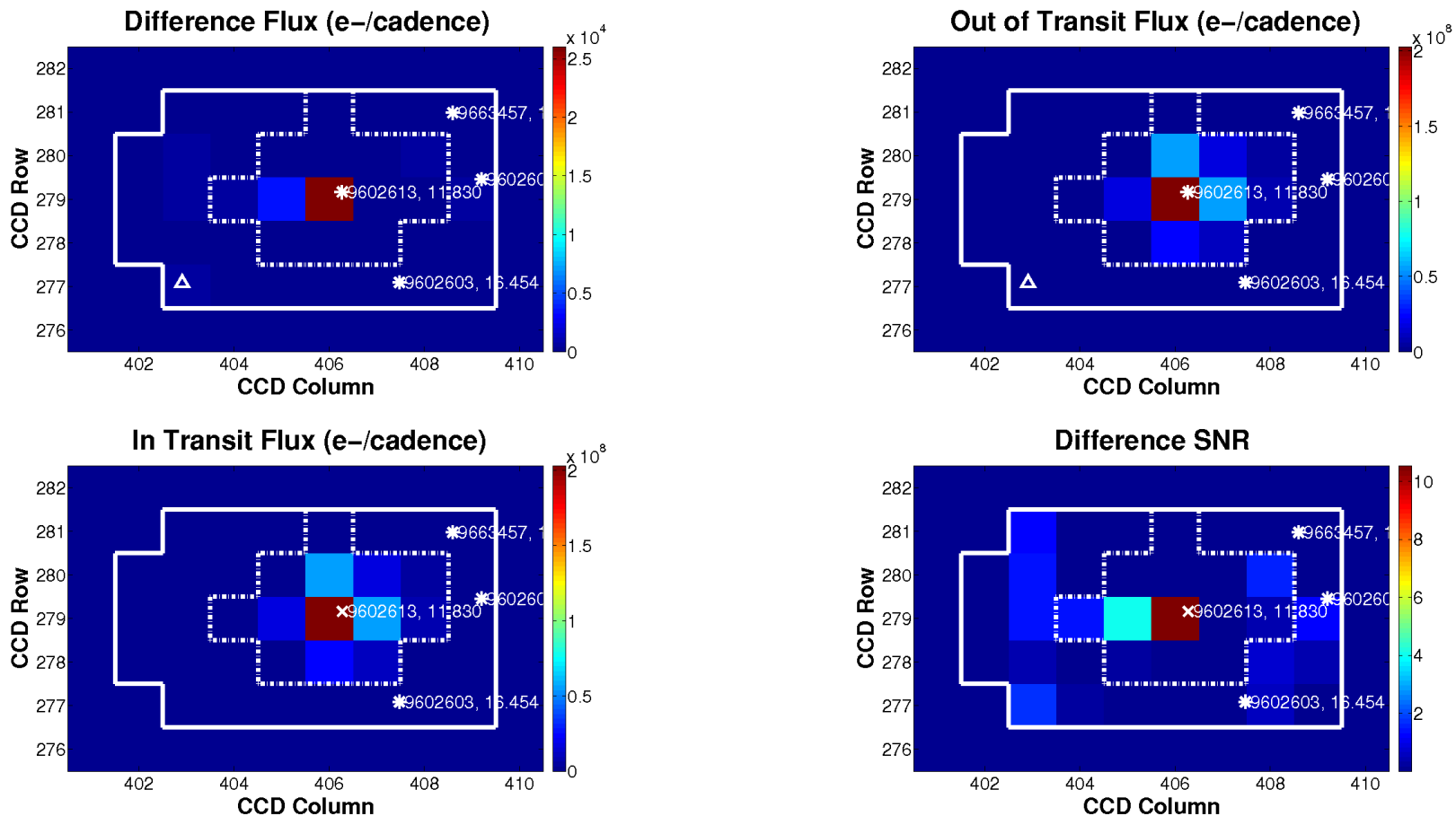
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.38 \pm 9.21e - 06$	$406.00 \pm 8.80e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$276.08 \pm 8.38e - 02$	$406.38 \pm 5.67e - 02$	pixels	$19.80996724 \pm 8.82e - 06$	$46.29768541 \pm 6.51e - 05$	hours/degrees
Offset	$0.6958 \pm 8.38e - 02$	$0.3815 \pm 5.67e - 02$	pixels	$1.7142 \pm 3.29e - 01$	$2.6475 \pm 2.34e - 01$	arcseconds
Offset/ $\sigma$	8.30	6.72		5.21	11.29	
Offset Distance	$0.7935 \pm 7.45e - 02$		pixels	$3.1540 \pm 2.97e - 01$		arcseconds
Offset Distance/ $\sigma$	10.66			10.63		

## 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 32.

### Difference Image Planet Candidate 2 / Quarter 6 / Target Table 35



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; +: 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 = 48; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 114; number of out-of-transit cadence gaps = 2.

Open `./planet-02/difference-image/009602613-02-difference-image-06-035.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$279.16 \pm 2.74e - 06$	$406.26 \pm 3.83e - 06$	pixels	$19.80992118 \pm 9.78e - 10$	$46.29693461 \pm 1.10e - 08$	hours/degrees
Difference Image Centroid	$277.07 \pm 6.96e - 01$	$402.91 \pm 2.34e + 00$	pixels	$19.80989546 \pm 1.63e - 04$	$46.29258396 \pm 2.11e - 03$	hours/degrees
Offset	$-2.0850 \pm 6.96e - 01$	$-3.3531 \pm 2.34e + 00$	pixels	$-0.9596 \pm 6.09e + 00$	$-15.6623 \pm 7.60e + 00$	arcseconds
Offset/ $\sigma$	-2.99	-1.43		-0.16	-2.06	
Offset Distance	$3.9485 \pm 1.82e + 00$		pixels	$15.6917 \pm 7.26e + 00$		arcseconds
Offset Distance/ $\sigma$	2.17			2.16		

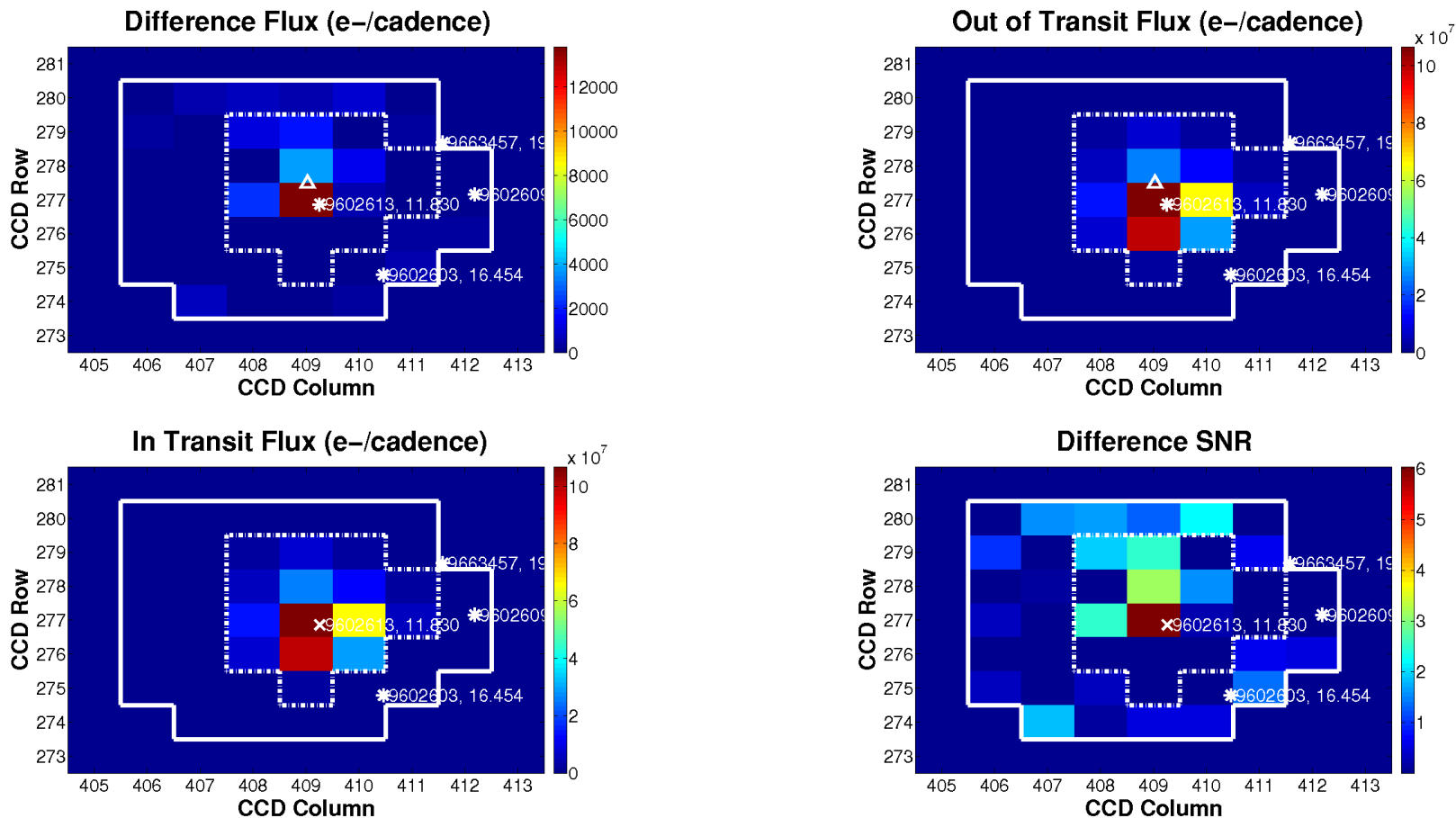
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.17 \pm 8.22e - 06$	$406.27 \pm 9.62e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$277.07 \pm 6.96e - 01$	$402.91 \pm 2.34e + 00$	pixels	$19.80989546 \pm 1.63e - 04$	$46.29258396 \pm 2.11e - 03$	hours/degrees
Offset	$-2.0927 \pm 6.96e - 01$	$-3.3648 \pm 2.34e + 00$	pixels	$-0.9642 \pm 6.09e + 00$	$-15.7177 \pm 7.60e + 00$	arcseconds
Offset/ $\sigma$	-3.00	-1.44		-0.16	-2.07	
Offset Distance	$3.9625 \pm 1.82e + 00$		pixels	$15.7473 \pm 7.26e + 00$		arcseconds
Offset Distance/ $\sigma$	2.18			2.17		

## 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 Planet Candidate 2 / Quarter 8 / Target Table 41



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; +: 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 = 72; number of out-of-transit cadence gaps = 4.

Open `./planet-02/difference-image/009602613-02-difference-image-08-041.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$276.85 \pm 3.25e - 06$	$409.25 \pm 3.87e - 06$	pixels	$19.80992074 \pm 1.09e - 09$	$46.29693476 \pm 1.11e - 08$	hours/degrees
Difference Image Centroid	$277.48 \pm 1.31e - 01$	$409.03 \pm 1.03e - 01$	pixels	$19.80999071 \pm 1.27e - 05$	$46.29704736 \pm 1.29e - 04$	hours/degrees
Offset	$0.6263 \pm 1.31e - 01$	$-0.2216 \pm 1.03e - 01$	pixels	$2.6104 \pm 4.76e - 01$	$0.4054 \pm 4.64e - 01$	arcseconds
Offset/ $\sigma$	4.78	-2.15		5.49	0.87	
Offset Distance	$0.6643 \pm 1.23e - 01$		pixels	$2.6417 \pm 4.94e - 01$		arcseconds
Offset Distance/ $\sigma$	5.38			5.35		

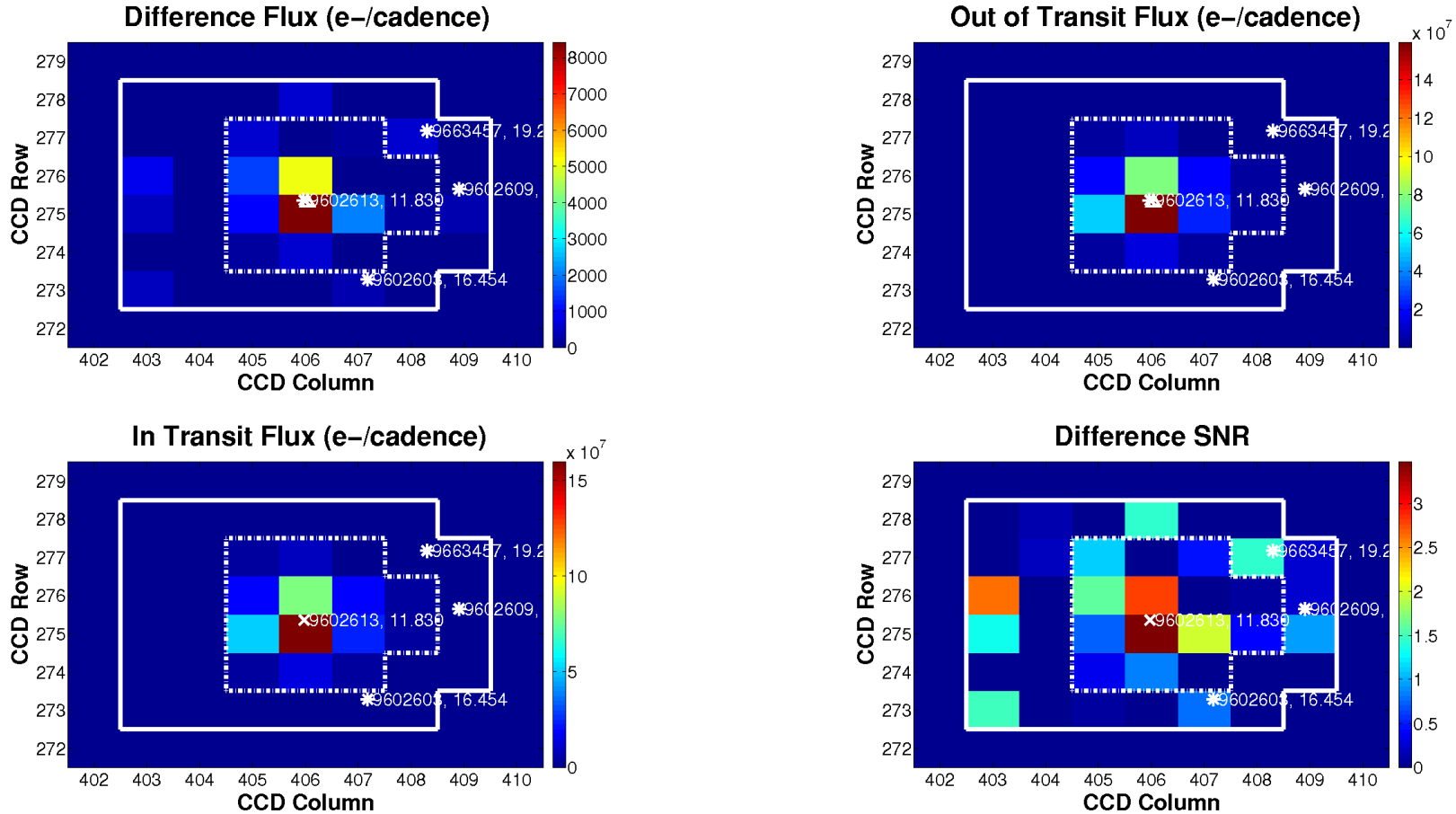
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$276.86 \pm 9.63e - 06$	$409.26 \pm 9.25e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$277.48 \pm 1.31e - 01$	$409.03 \pm 1.03e - 01$	pixels	$19.80999071 \pm 1.27e - 05$	$46.29704736 \pm 1.29e - 04$	hours/degrees
Offset	$0.6151 \pm 1.31e - 01$	$-0.2312 \pm 1.03e - 01$	pixels	$2.5895 \pm 4.76e - 01$	$0.3505 \pm 4.64e - 01$	arcseconds
Offset/ $\sigma$	4.70	-2.24		5.45	0.75	
Offset Distance	$0.6571 \pm 1.23e - 01$		pixels	$2.6131 \pm 4.92e - 01$		arcseconds
Offset Distance/ $\sigma$	5.35			5.31		

## 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 Planet Candidate 2 / Quarter 9 / Target Table 44



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; +: 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 = 98; number of out-of-transit cadence gaps = 0.

Open `./planet-02/difference-image/009602613-02-difference-image-09-044.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$275.36 \pm 3.71e-06$	$405.96 \pm 3.31e-06$	pixels	$19.80992170 \pm 1.09e-09$	$46.29693521 \pm 1.07e-08$	hours/degrees
Difference Image Centroid	$275.30 \pm 1.57e-01$	$406.04 \pm 1.52e-01$	pixels	$19.80991250 \pm 1.76e-05$	$46.29697743 \pm 1.59e-04$	hours/degrees
Offset	$-0.0577 \pm 1.57e-01$	$0.0746 \pm 1.52e-01$	pixels	$-0.3430 \pm 6.57e-01$	$0.1520 \pm 5.74e-01$	arcseconds
Offset/ $\sigma$	-0.37	0.49		-0.52	0.26	
Offset Distance	$0.0943 \pm 1.64e-01$		pixels	$0.3752 \pm 6.54e-01$		arcseconds
Offset Distance/ $\sigma$	0.58			0.57		

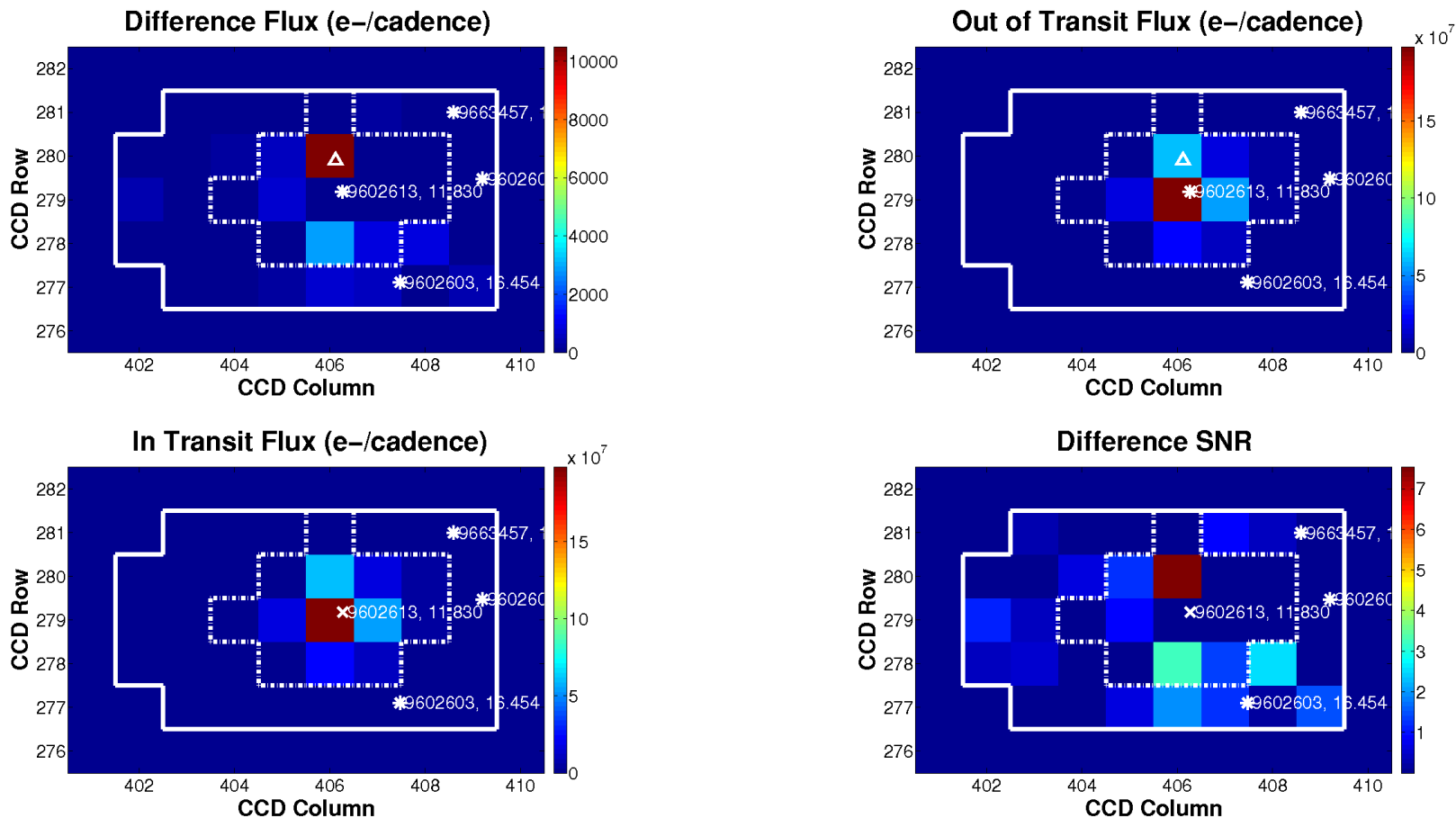
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$275.36 \pm 9.51e-06$	$405.98 \pm 9.06e-06$	pixels	$19.80992130 \pm 0.00e+00$	$46.29695000 \pm 0.00e+00$	hours/degrees
Difference Image Centroid	$275.30 \pm 1.57e-01$	$406.04 \pm 1.52e-01$	pixels	$19.80991250 \pm 1.76e-05$	$46.29697743 \pm 1.59e-04$	hours/degrees
Offset	$-0.0608 \pm 1.57e-01$	$0.0610 \pm 1.52e-01$	pixels	$-0.3282 \pm 6.57e-01$	$0.0987 \pm 5.74e-01$	arcseconds
Offset/ $\sigma$	-0.39	0.40		-0.50	0.17	
Offset Distance	$0.0862 \pm 1.64e-01$		pixels	$0.3427 \pm 6.58e-01$		arcseconds
Offset Distance/ $\sigma$	0.52			0.52		

## 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**  
**Planet Candidate 2 / Quarter 10 / Target Table 47**



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; +: 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 = 48; number of in-transit cadence gaps = 1; number of valid out-of-transit cadences = 119; number of out-of-transit cadence gaps = 0.

Open `./planet-02/difference-image/009602613-02-difference-image-10-047.fig`



The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate 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	$279.18 \pm 2.67e - 06$	$406.26 \pm 3.75e - 06$	pixels	$19.80992128 \pm 9.79e - 10$	$46.29693646 \pm 1.10e - 08$	hours/degrees
Difference Image Centroid	$279.89 \pm 1.50e - 01$	$406.12 \pm 1.24e - 01$	pixels	$19.80999515 \pm 1.59e - 05$	$46.29717479 \pm 1.38e - 04$	hours/degrees
Offset	$0.7126 \pm 1.50e - 01$	$-0.1391 \pm 1.24e - 01$	pixels	$2.7564 \pm 5.94e - 01$	$0.8580 \pm 4.98e - 01$	arcseconds
Offset/ $\sigma$	4.75	-1.13		4.64	1.72	
Offset Distance	$0.7260 \pm 1.51e - 01$		pixels	$2.8868 \pm 6.03e - 01$		arcseconds
Offset Distance/ $\sigma$	4.81			4.79		

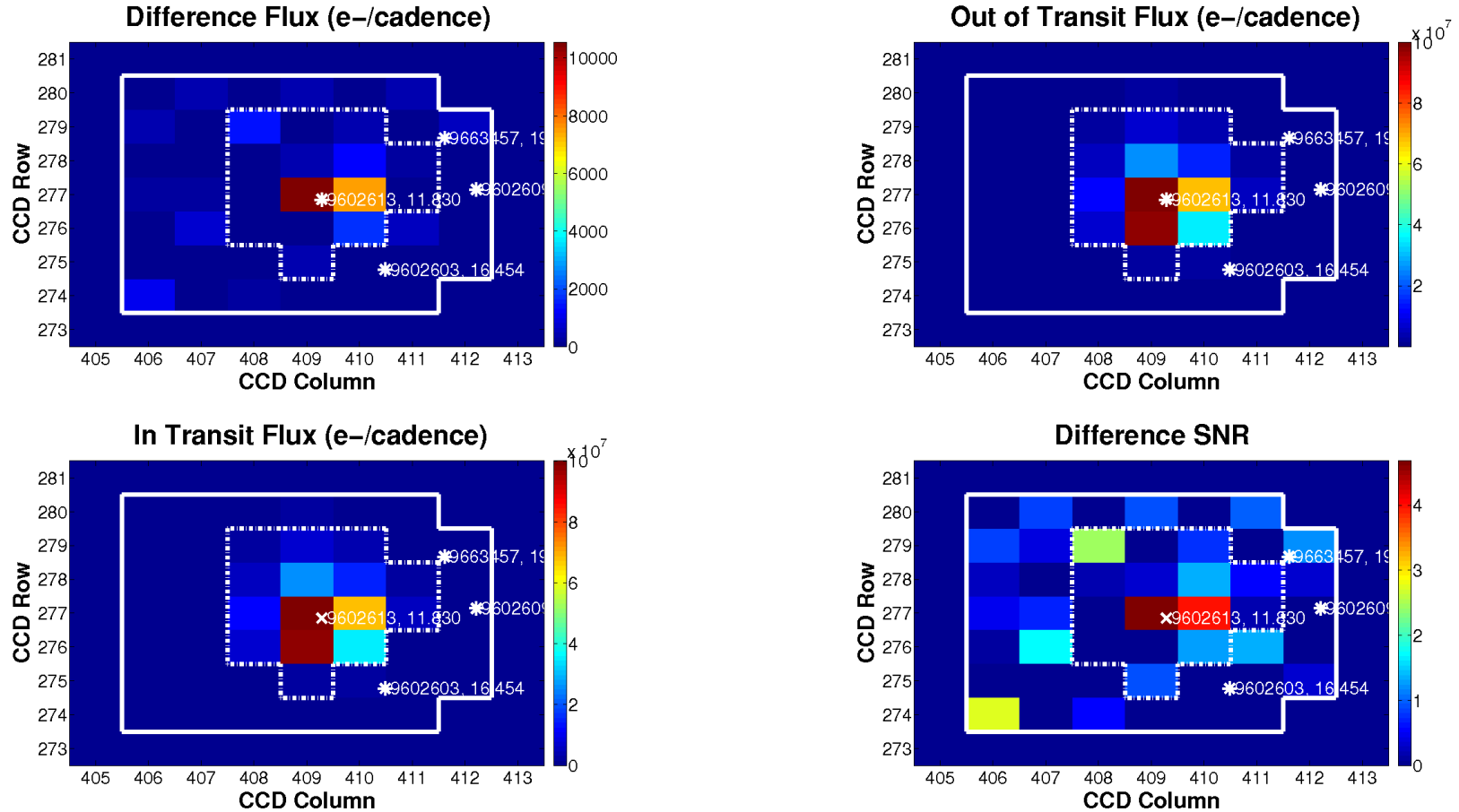
## Offset from the KIC RA and Dec converted to pixels via motion polynomials

	Row	Column	Units	RA	Dec	Units
KIC Reference Centroid	$279.19 \pm 8.28e - 06$	$406.27 \pm 9.62e - 06$	pixels	$19.80992130 \pm 0.00e + 00$	$46.29695000 \pm 0.00e + 00$	hours/degrees
Difference Image Centroid	$279.89 \pm 1.50e - 01$	$406.12 \pm 1.24e - 01$	pixels	$19.80999515 \pm 1.59e - 05$	$46.29717479 \pm 1.38e - 04$	hours/degrees
Offset	$0.7066 \pm 1.50e - 01$	$-0.1498 \pm 1.24e - 01$	pixels	$2.7555 \pm 5.94e - 01$	$0.8093 \pm 4.98e - 01$	arcseconds
Offset/ $\sigma$	4.71	-1.21		4.64	1.63	
Offset Distance	$0.7223 \pm 1.51e - 01$		pixels	$2.8719 \pm 6.03e - 01$		arcseconds
Offset Distance/ $\sigma$	4.79			4.76		

## 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 Planet Candidate 2 / Quarter 12 / Target Table 53



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; +: 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 = 29; number of in-transit cadence gaps = 0; number of valid out-of-transit cadences = 76; number of out-of-transit cadence gaps = 0.

Open `./planet-02/difference-image/009602613-02-difference-image-12-053.fig`

The pixel correlation statistic plot is not available because either the fit for target 9602613, planet candidate 2 failed, or there were no observed transits for this candidate in target table 53.

### 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 53.

### PRF Fit of the Pixel Correlation Image

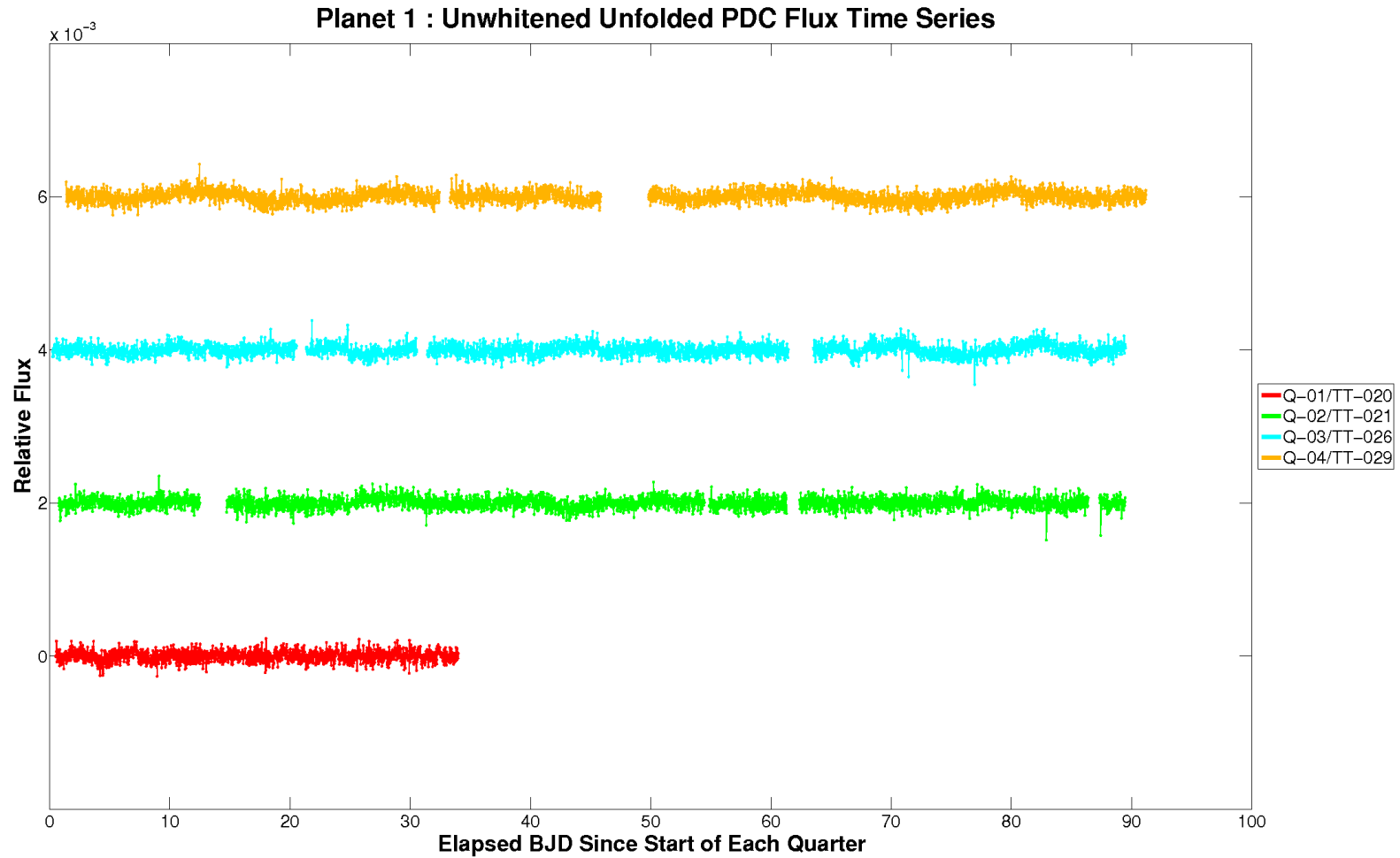
The pixel correlation image centroid could not be calculated for target 9602613, planet candidate 2, in target table 53.

## 6 Planet Candidate 1

### 6.1 Model Fitter: All Transits

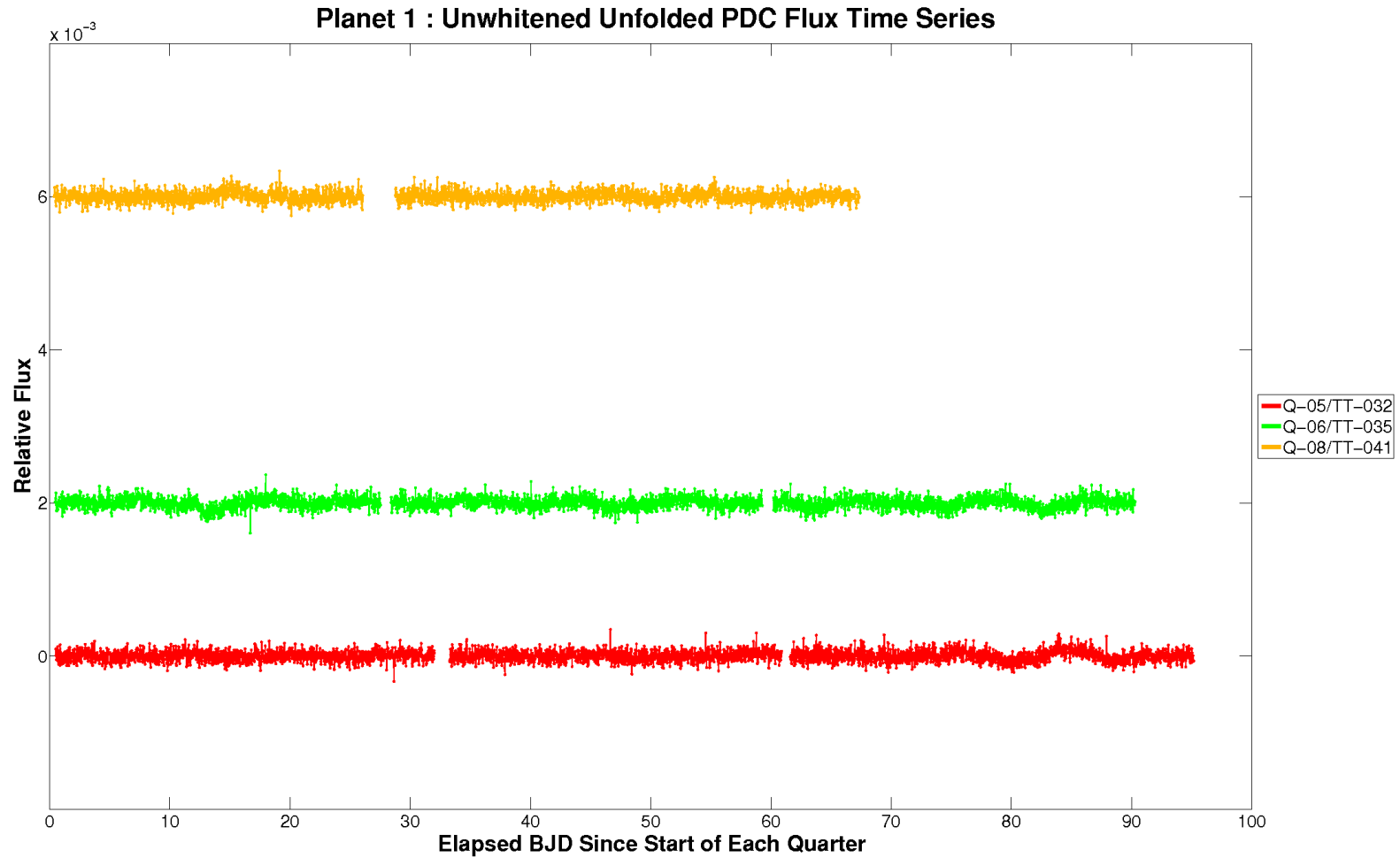
Model Characteristic	Name
Transit Model	mandel-agol_geometric_transit_model
Limb Darkening Model	claret_nonlinear_limb_darkening_model_2011

Parameter	Value	Uncertainty	Units
SNR	10.6		
Model Chi Square	1945		
Degrees of Freedom	2378		
Transit Epoch	133.8627768	4.7059e-03	BKJD
Eccentricity	0.0000	0.0000e+00	
Peri Longitude	0.0000	0.0000e+00	degrees
Planet Radius	0.4968	4.0740e-01	Earth radii
Planet Radius to Star Radius Ratio	0.0049757	4.0802e-03	
Semi-major Axis	0.0509	3.1260e-07	AU
Equilibrium Temperature	1020	2.2094e+02	Kelvin
Semi-major Axis to Star Radius Ratio	13.4279	4.4922e+01	
Impact Parameter	0.2886	1.0736e+01	
Star Radius	0.9150	0.0000e+00	solar radii
Transit Duration	2.5260	1.1886e-01	hours
Transit Ingress Time	0.0136	1.0288e-01	hours
Transit Depth	30	2.8633e+00	ppm
Orbital Period	4.6122266	4.2468e-05	days



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 0.002. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.004. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.006.

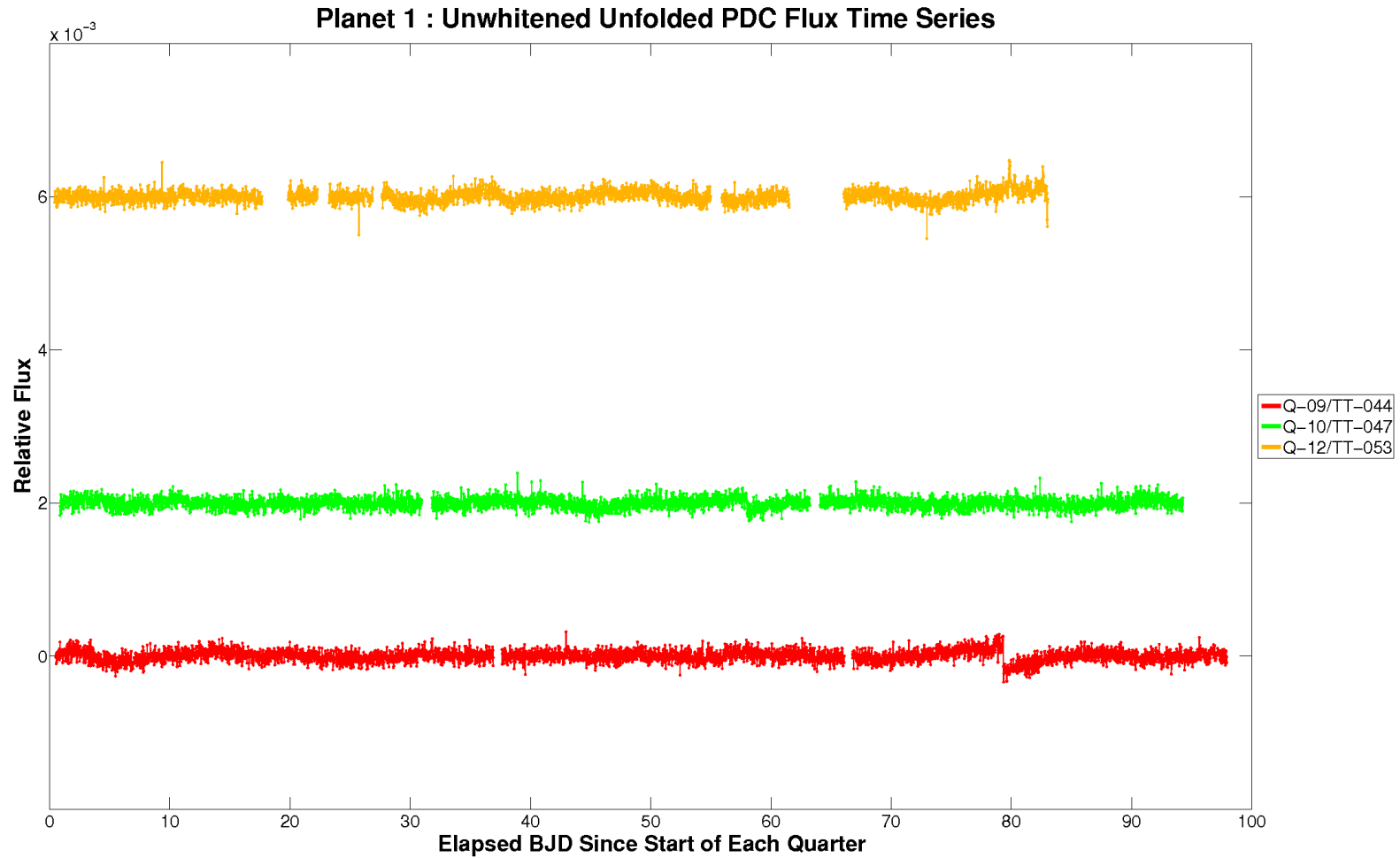
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-01-020.fig`



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 0.002. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.004. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.006.

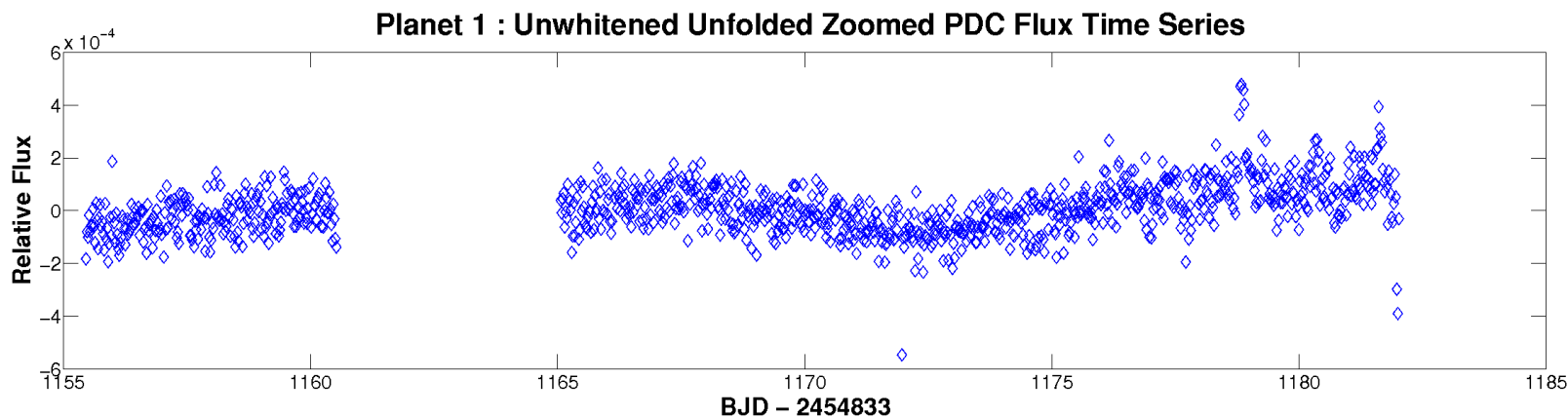
Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-05-032.fig`





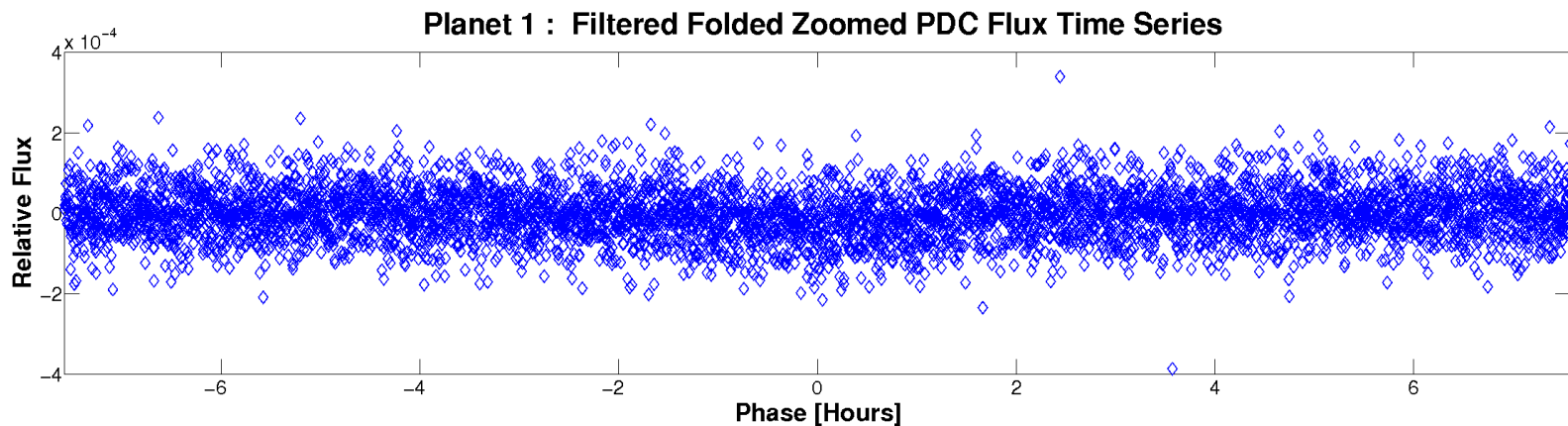
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.002. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.004. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.006.

Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-09-044.fig`



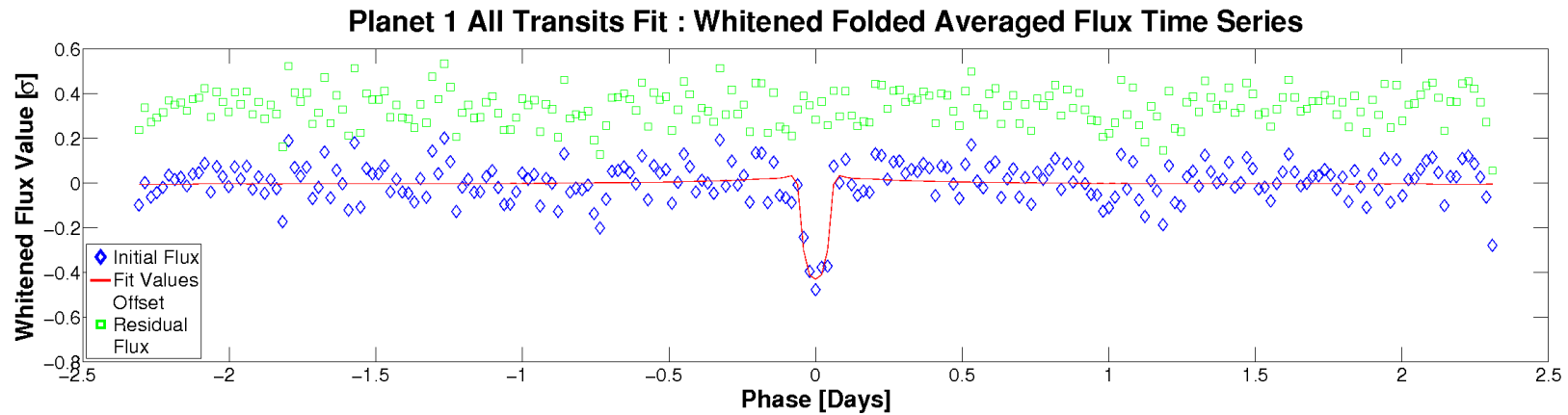
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.

Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-unwhitened-zoomed.fig`



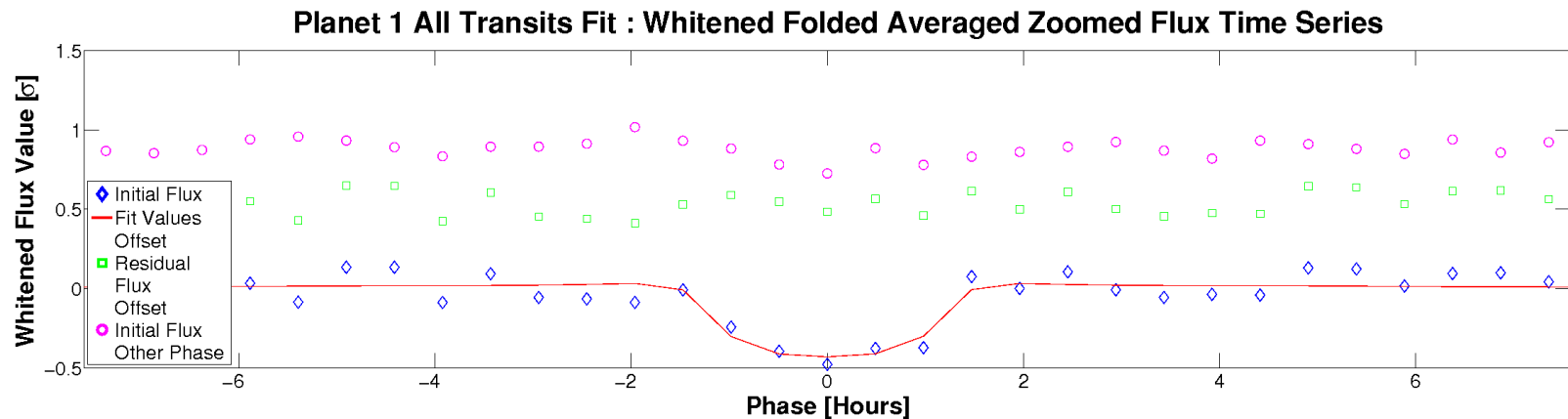
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at the geometric mean of the transit duration and the orbital period, folded per the fitted period and epoch, and zoomed to the location of the model 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. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity.

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. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity. Magenta circles are the original data but with a phase shift of 0.5 relative to the blue diamonds, vertically offset for clarity.

Open `./planet-01/planet-search-and-model-fitting-results/all-transits-fit/009602613-01-all-whitened-zoomed.fig`

## 6.2 Model Fitter: Reduced Parameter Fit Results

Reduced parameter fits not enabled.

### 6.3 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.

#### 6.3.1 Flux-Weighted Centroid Test

Result	Value	Uncertainty	Units	Value in Sigmas	Significance (%)
Stellar Magnitude	11.8300				
Motion Detection Statistic	2.8942e+01				0.00
Peak RA Offset	-2.9082e-06	3.7550e-06	arcseconds	-0.7745	
Peak Dec Offset	-6.0819e-06	1.9450e-06	arcseconds	-3.1270	
Source RA Offset	9.7559e-02	1.2596e-01	arcseconds	0.7745	
Source Dec Offset	2.0403e-01	6.5242e-02	arcseconds	3.1272	
Source RA	19.80994621	3.4990e-05	hours		
Source Dec	46.29777257	2.7184e-04	degrees		

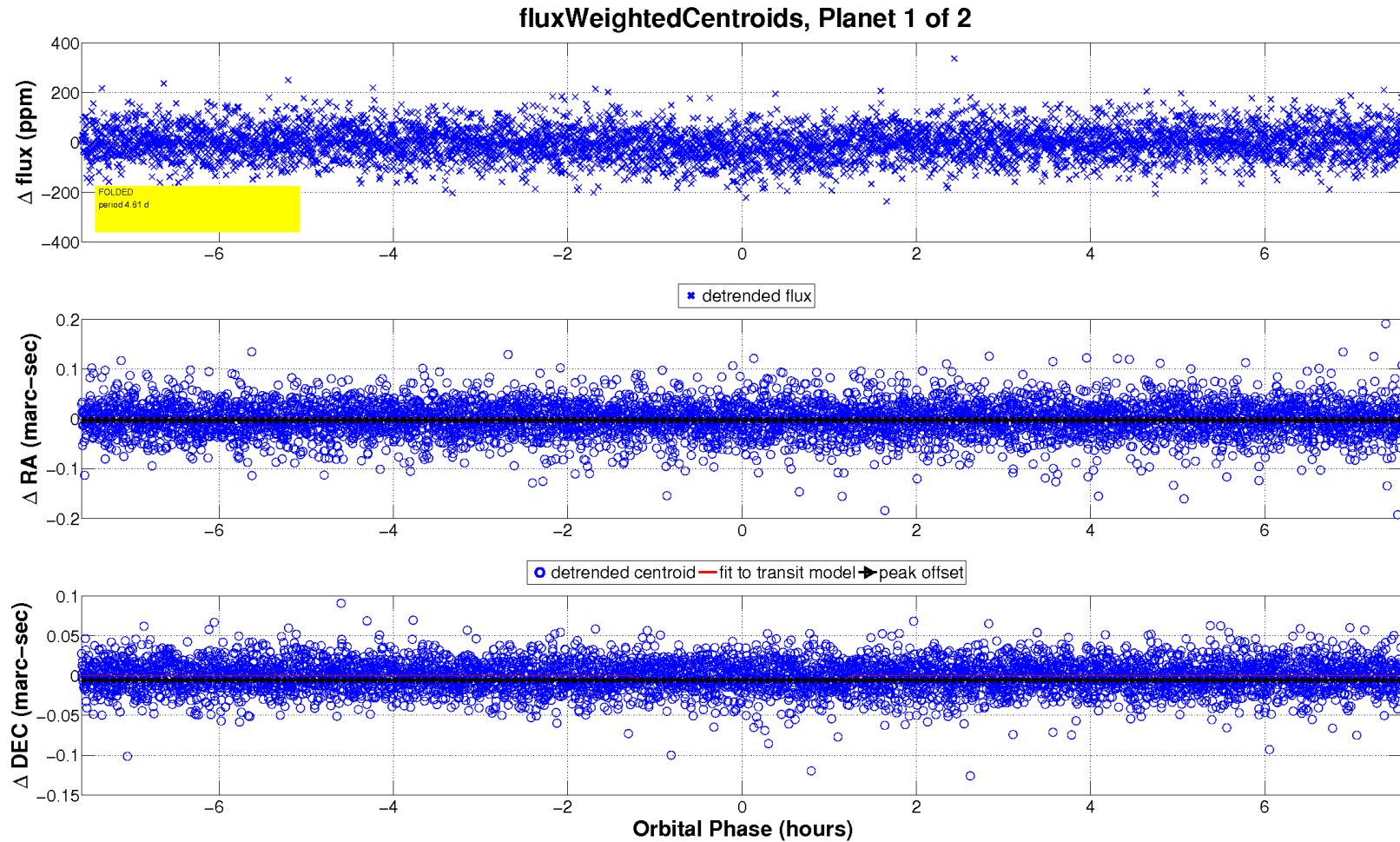
Offsets are relative to the out-of-transit centroid.

#### 6.3.2 Eclipsing Binary Discrimination Test

Result	Value	Value in Sigmas	Significance (%)
Odd Even Transit Depth Comparison Statistic	1.0599e-02	0.1030	91.80
Odd Even Transit Epoch Comparison Statistic	4.6768e-03	0.0684	94.55
Longer Period Comparison Statistic	3.7524e+02	19.3711	100.00

#### 6.3.3 Bootstrap Test

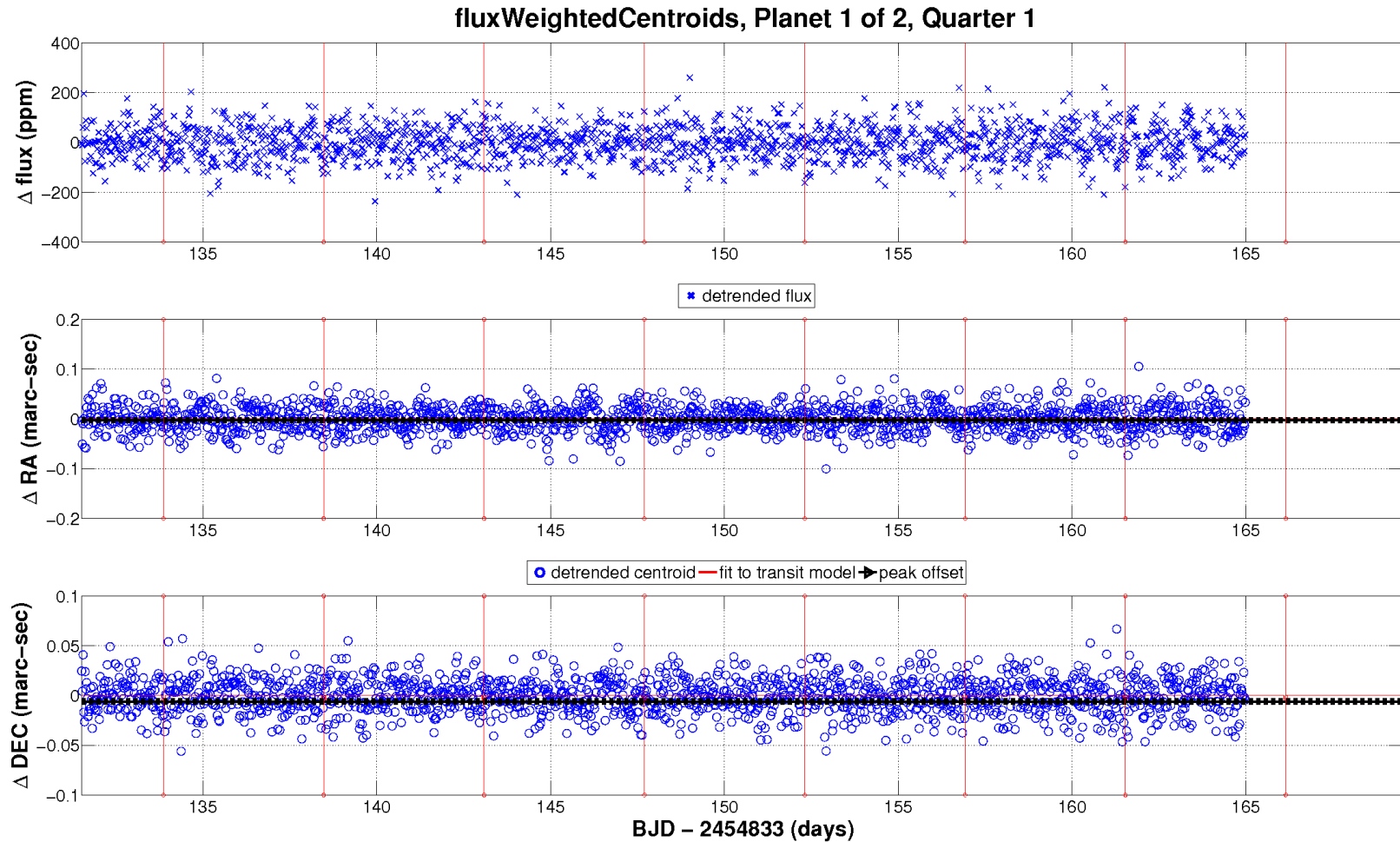
No bootstrap results available.



Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

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.

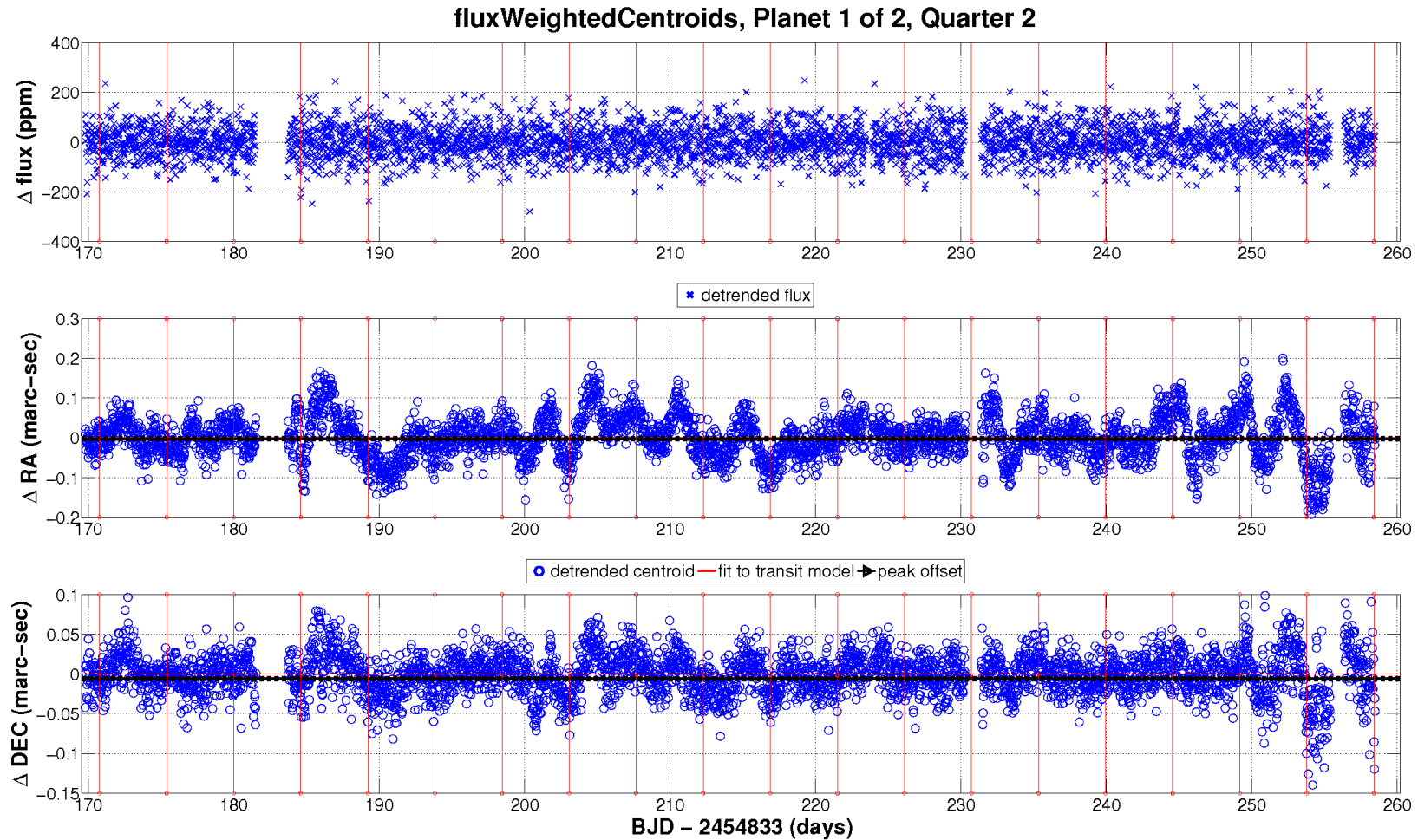
Open `./planet-01/centroid-test-results/009602613-01-folded-transit-fit-fluxWeighted-centroids.fig`



Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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`

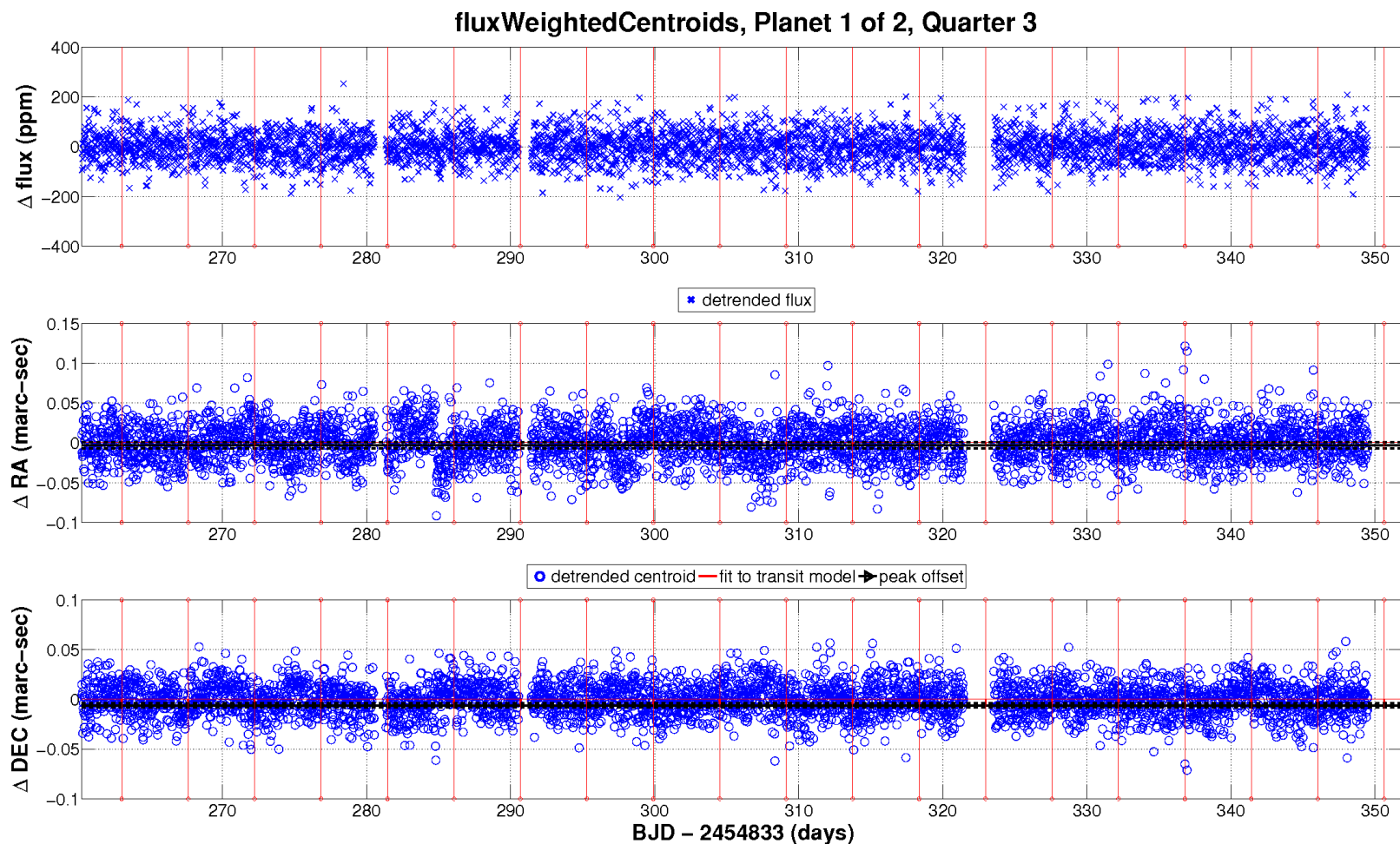


*Out of Transit Centroid*  
*(ra/arcsec): mean 19.80991911, SD 6.12e-09*  
*dec/arcsec): mean 46.29692246, SD 5.68e-08*

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 diamonds and vertical dotted 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`

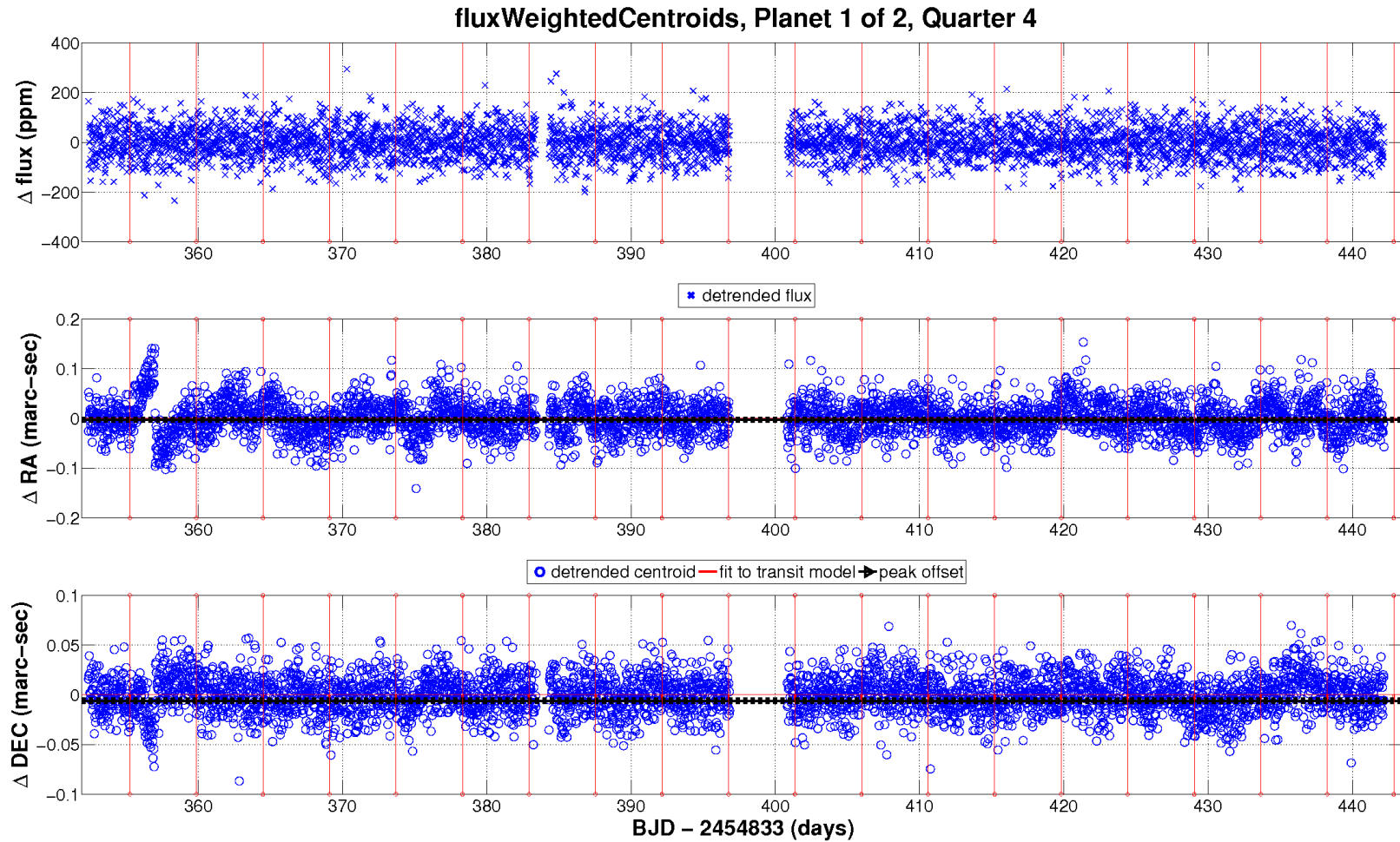




Out of Transit Centroid  
*ra(hours)*: mean 19.80991911, SD 6.12e-09  
*dec(degrees)*: mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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.

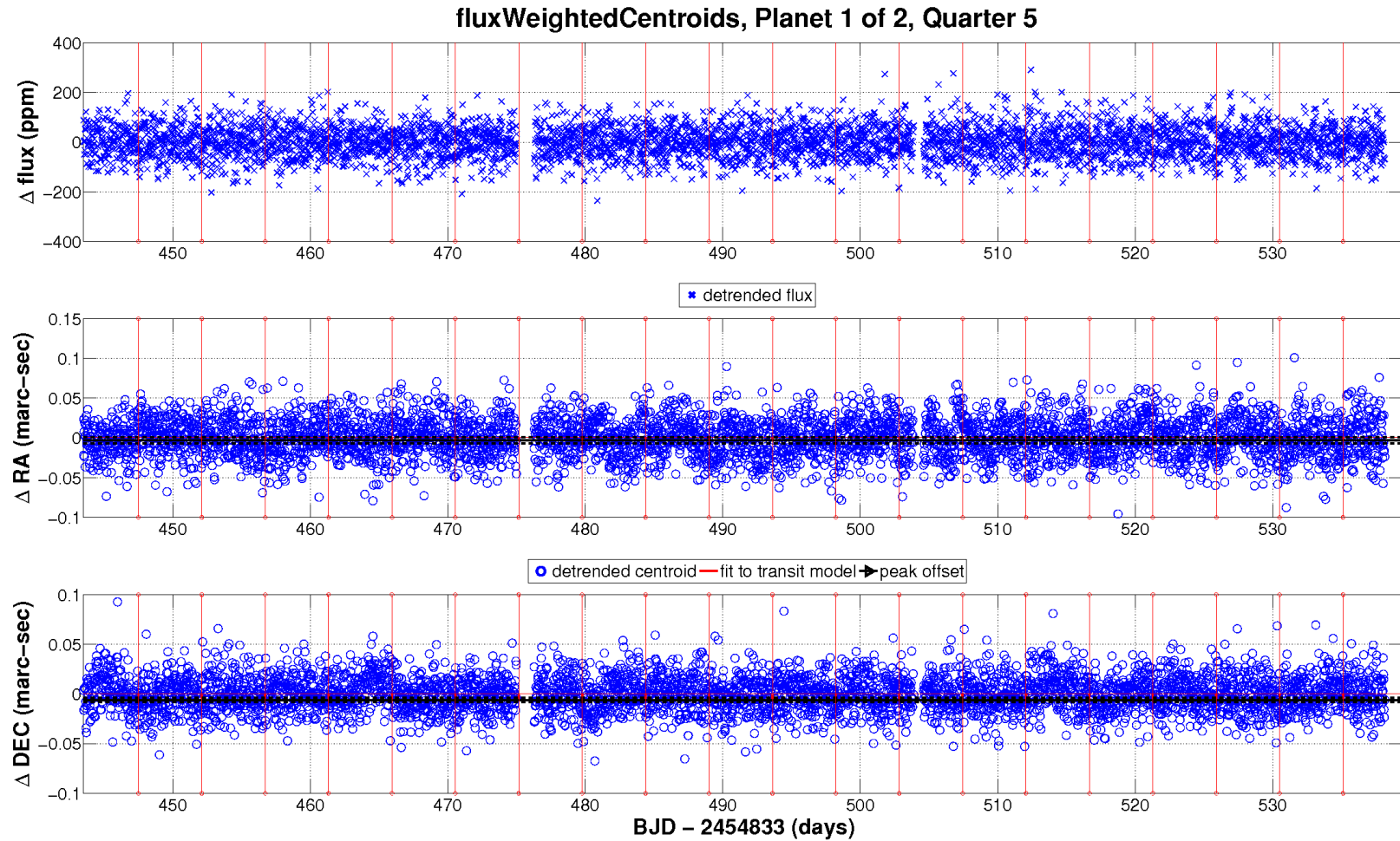
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-03.fig`



*Out of Transit Centroid*  
*ra(hours): mean 19.80991911, SD 6.12e-09*  
*dec(degrees): mean 46.29692246, SD 5.68e-08*

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 diamonds and vertical dotted 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.

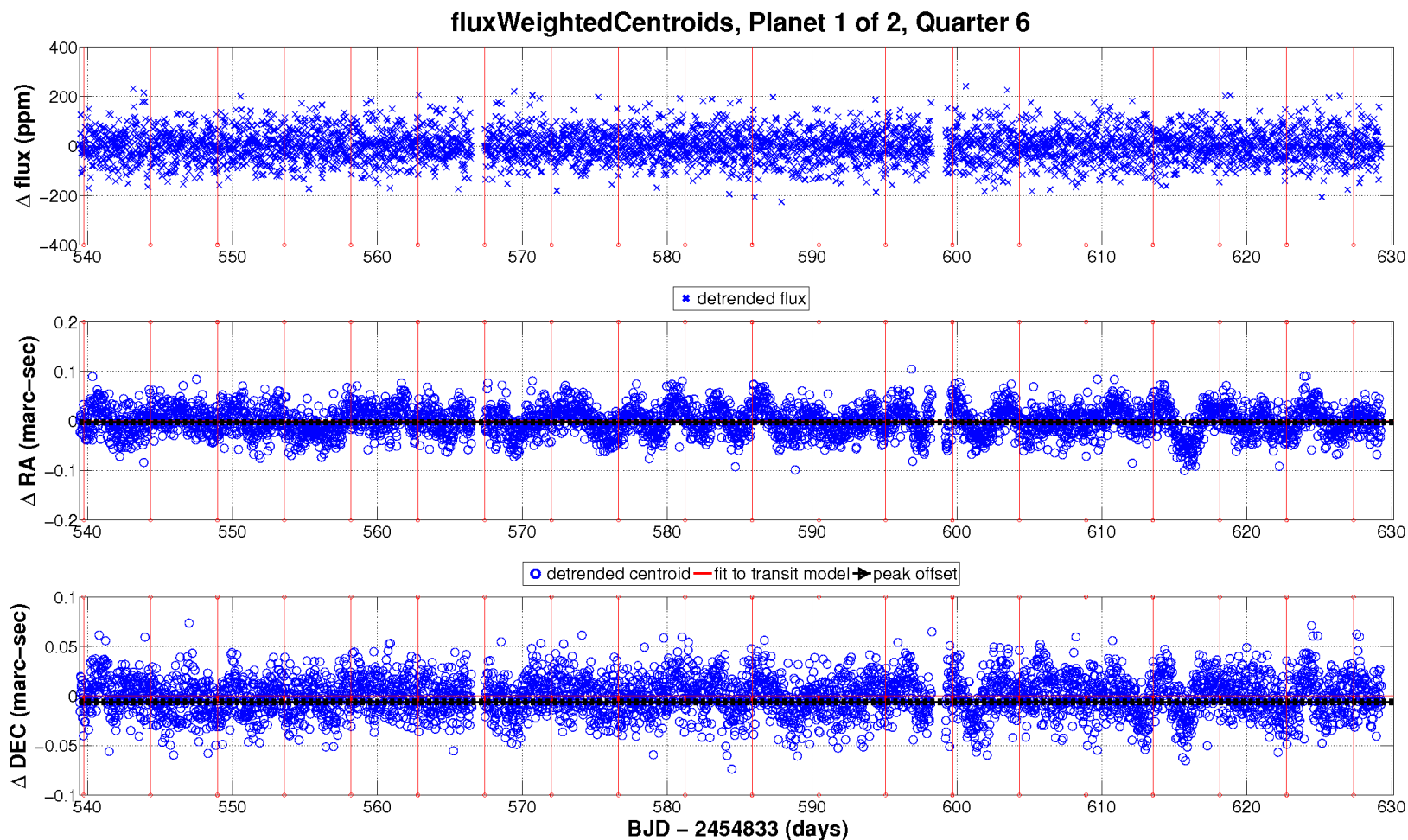
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-04.fig`



*Out of Transit Centroid*  
*(ra/arcsec): mean 19.80991911, SD 6.12e-09*  
*(dec/degrees): mean 46.29692246, SD 5.68e-08*

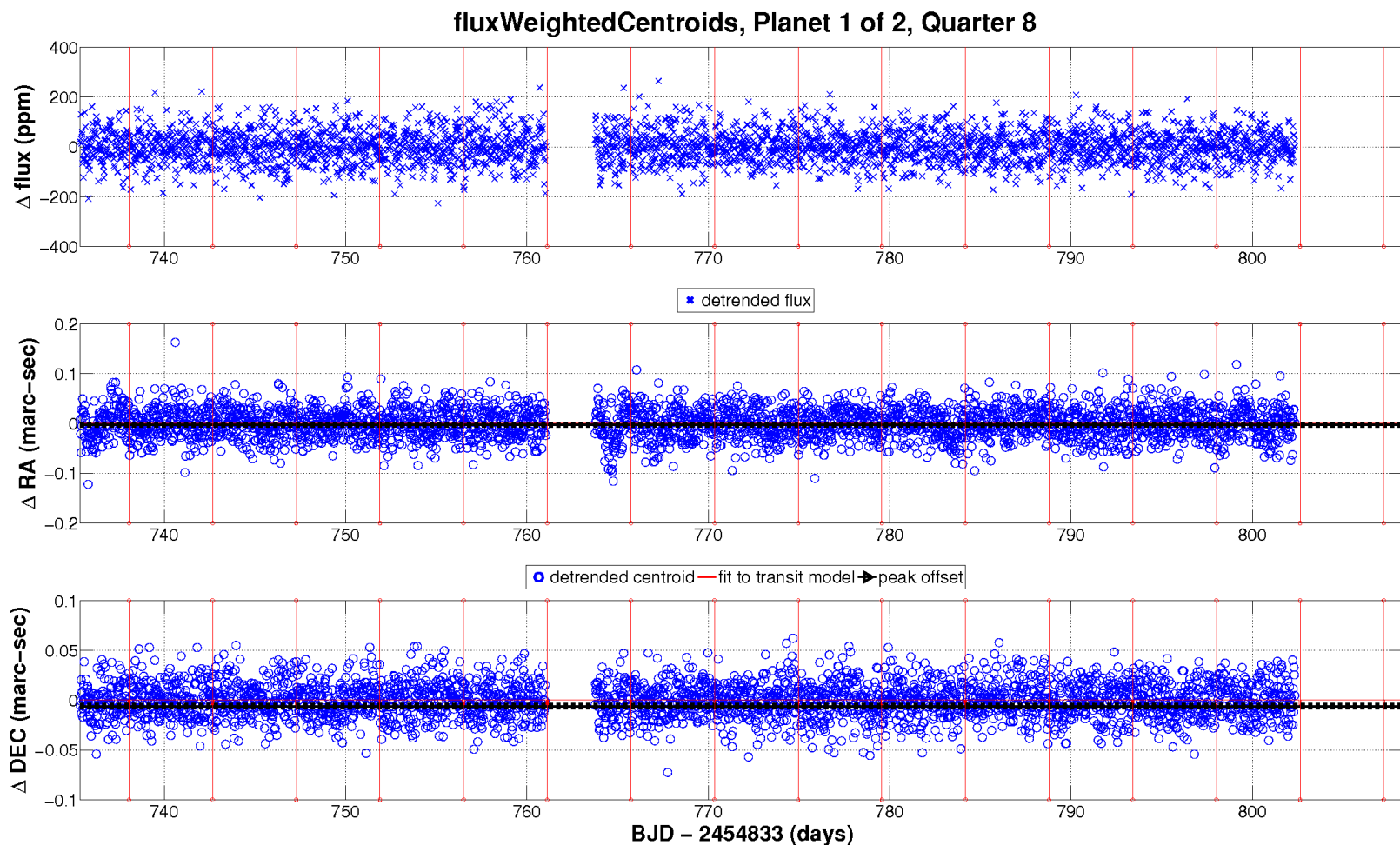
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median 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 diamonds and vertical dotted 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 diamonds and vertical dotted 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`

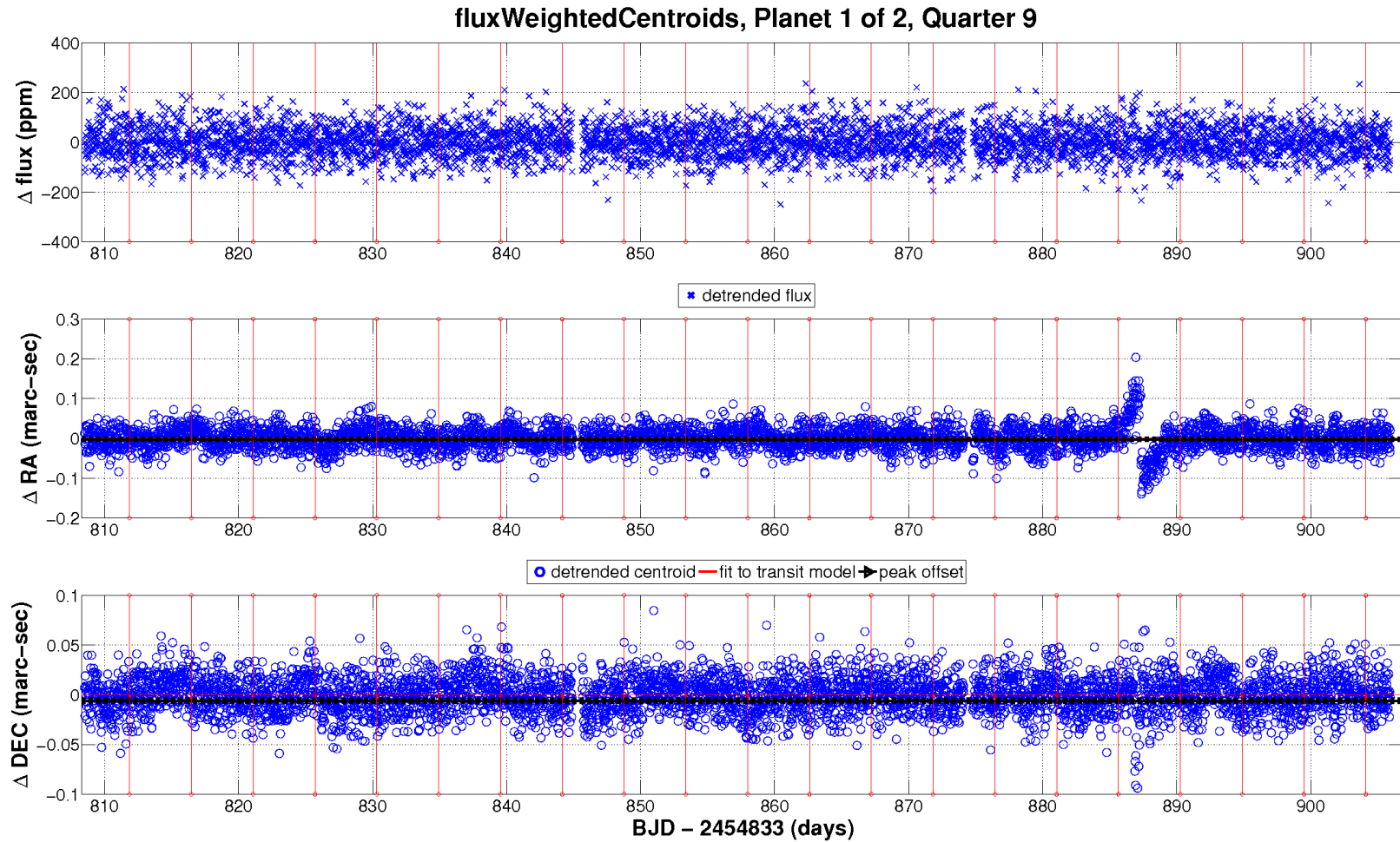


Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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`

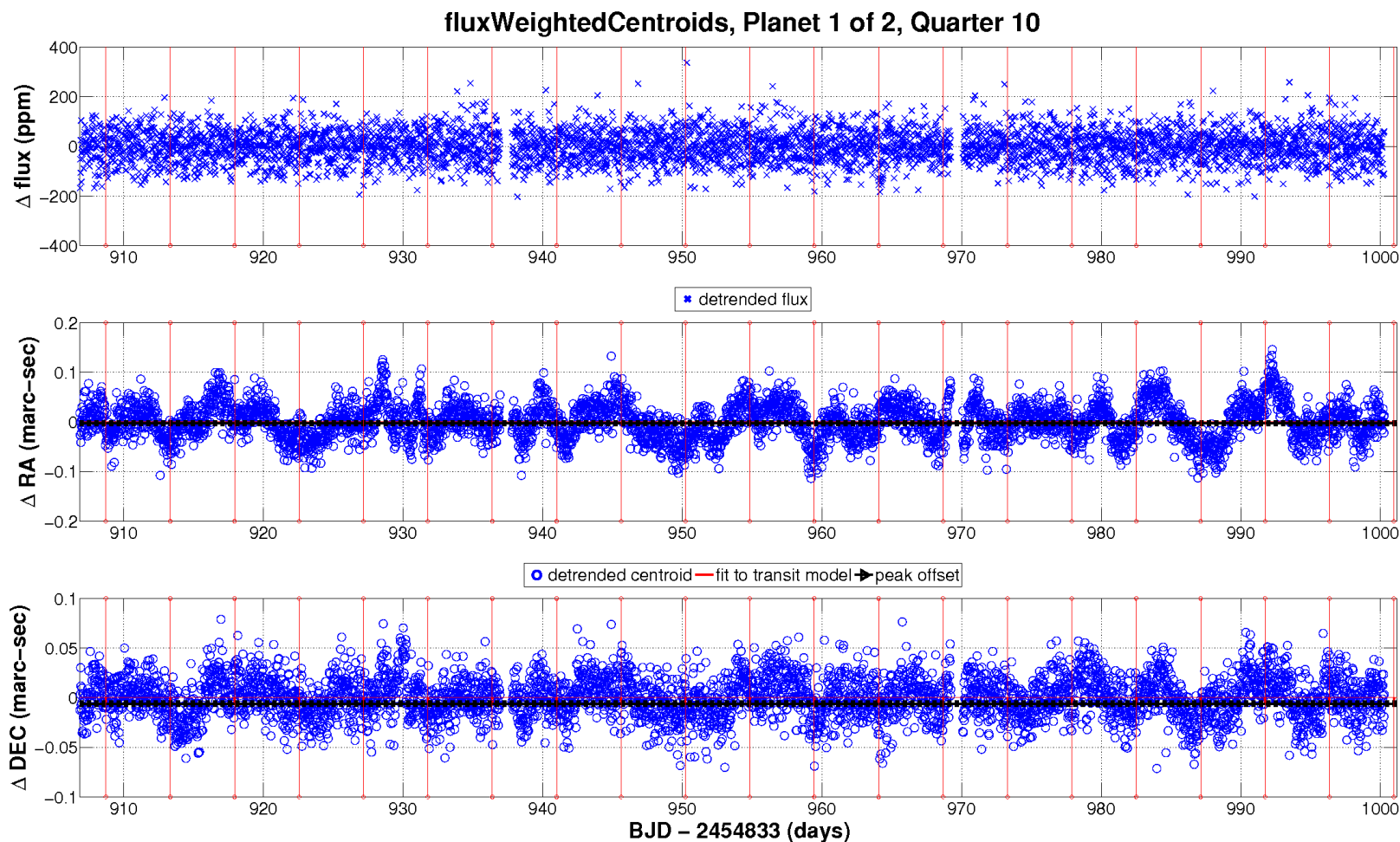




Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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.

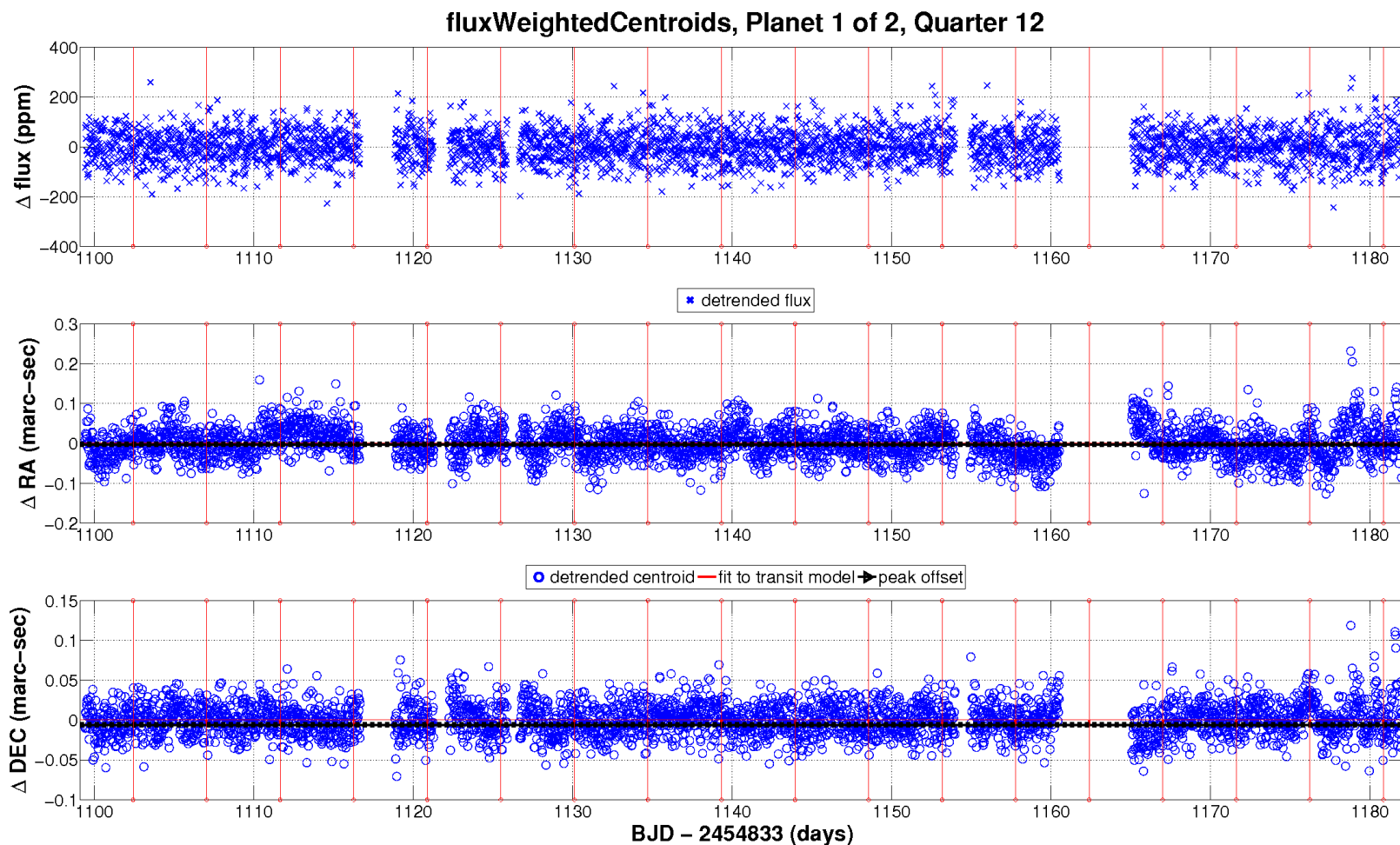
Open `./planet-01/centroid-test-results/009602613-01-transit-fit-fluxWeighted-centroids-09.fig`



*Out of Transit Centroid*  
*(ra/hours): mean 19.80991911, SD 6.12e-09*  
*dec(degrees): mean 46.29692246, SD 5.68e-08*

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 diamonds and vertical dotted 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`



*Out of Transit Centroid*  
*(ra[hours]) mean 19.80991911, SD 6.12e-09*  
*dec[degrees] mean 46.29692246, SD 5.68e-08*

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 diamonds and vertical dotted 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`



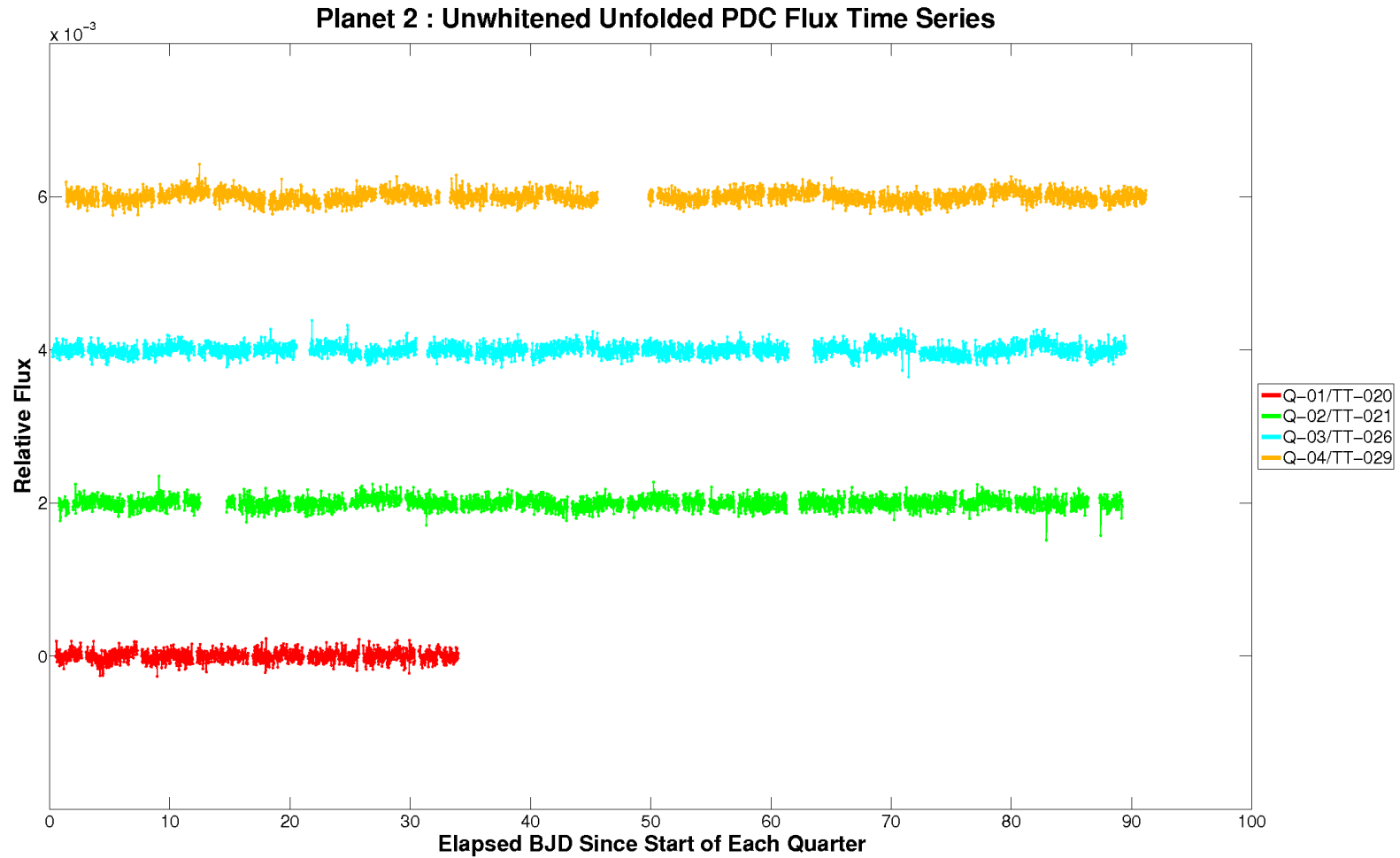
No figures named 009602613-01-bootstrap-false-alarm.fig are available.

## 7 Planet Candidate 2

### 7.1 Model Fitter: All Transits

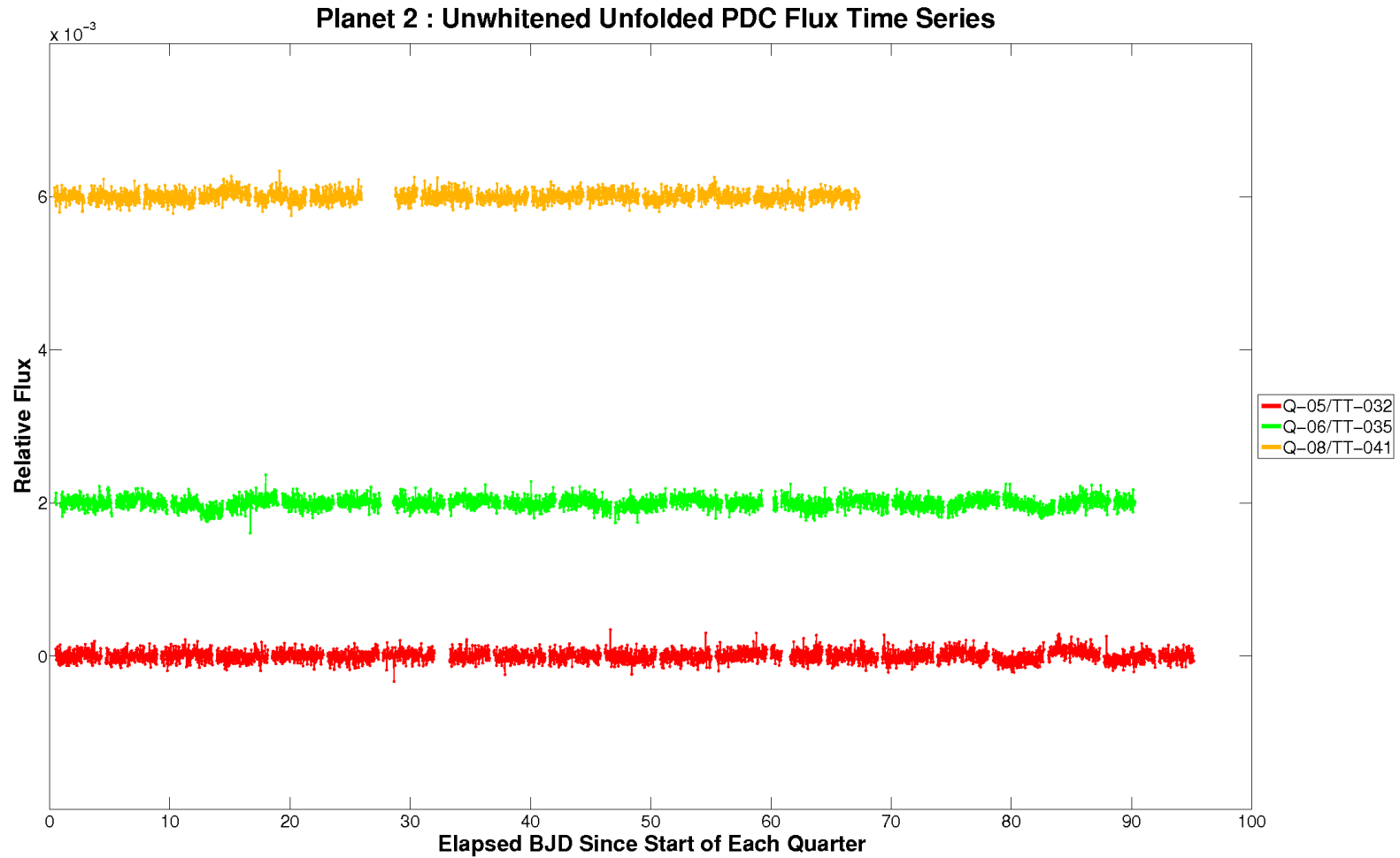
Model Characteristic	Name
Transit Model	mandel-agol_geometric_transit_model
Limb Darkening Model	claret_nonlinear_limb_darkening_model_2011

Parameter	Value	Uncertainty	Units
SNR	7.4		
Model Chi Square	1211		
Degrees of Freedom	1473		
Transit Epoch	131.9416324	7.9402e-03	BKJD
Eccentricity	0.0000	0.0000e+00	
Peri Longitude	0.0000	0.0000e+00	degrees
Planet Radius	0.4771	4.6086e-01	Earth radii
Planet Radius to Star Radius Ratio	0.0047783	4.6157e-03	
Semi-major Axis	0.0709	7.0385e-07	AU
Equilibrium Temperature	864	1.8728e+02	Kelvin
Semi-major Axis to Star Radius Ratio	20.2155	7.9567e+01	
Impact Parameter	0.3817	8.8917e+00	
Star Radius	0.9150	0.0000e+00	solar radii
Transit Duration	2.6600	1.8950e-01	hours
Transit Ingress Time	0.0148	1.3125e-01	hours
Transit Depth	27	3.7015e+00	ppm
Orbital Period	7.5729598	1.1281e-04	days



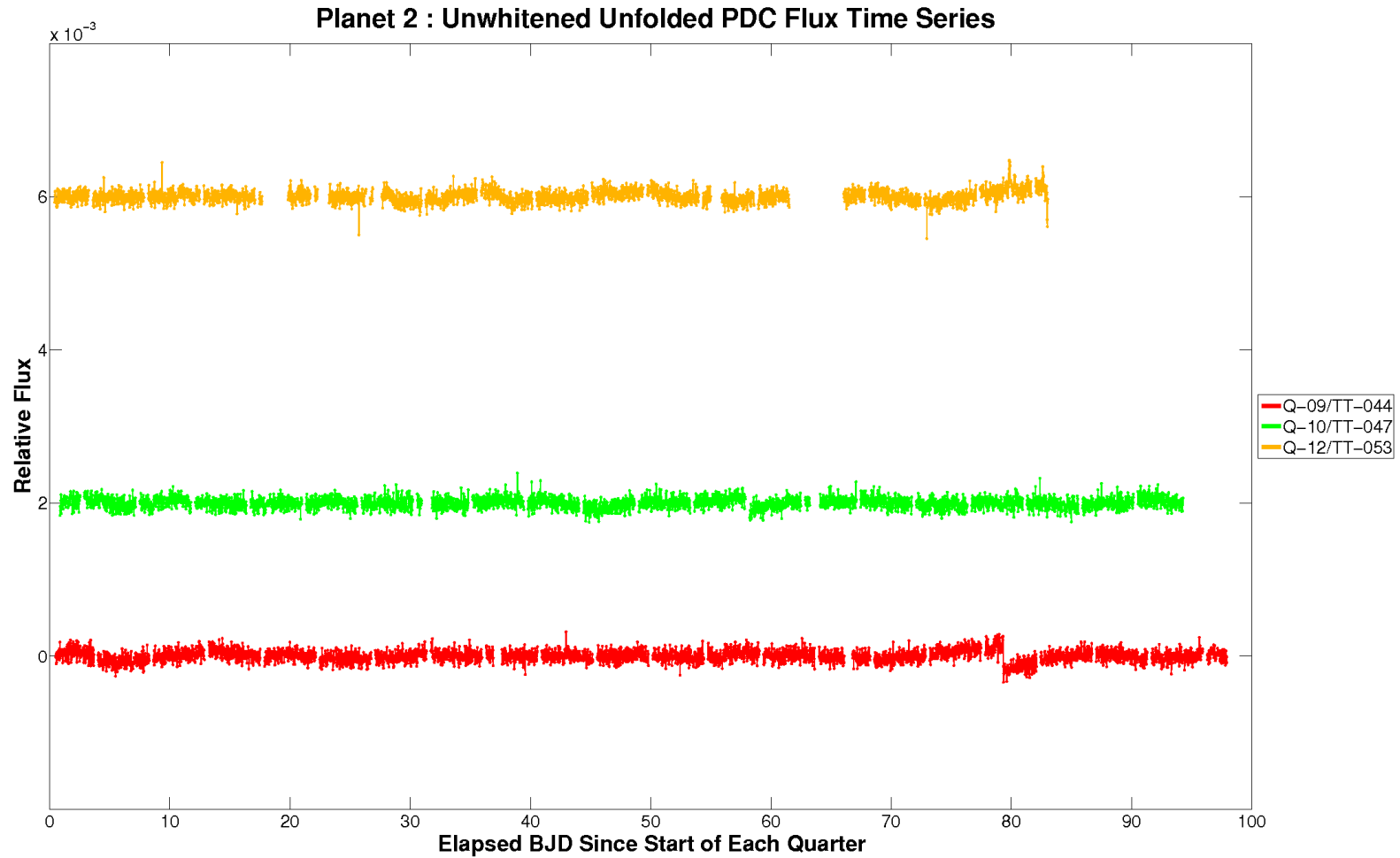
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.002. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.004. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.006.

Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-01-020.fig`



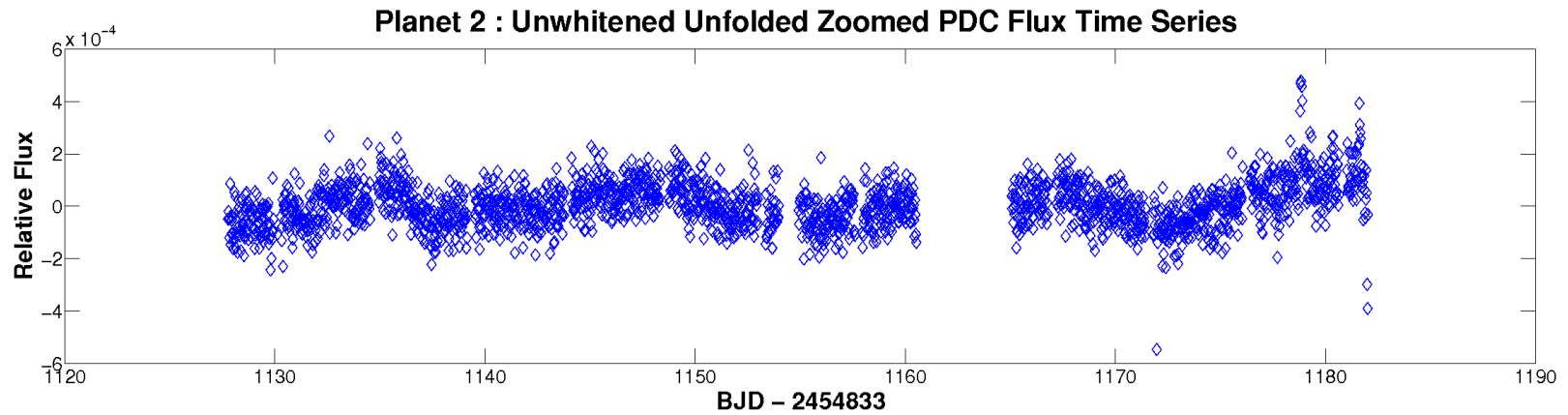
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.002. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.004. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.006.

Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-05-032.fig`



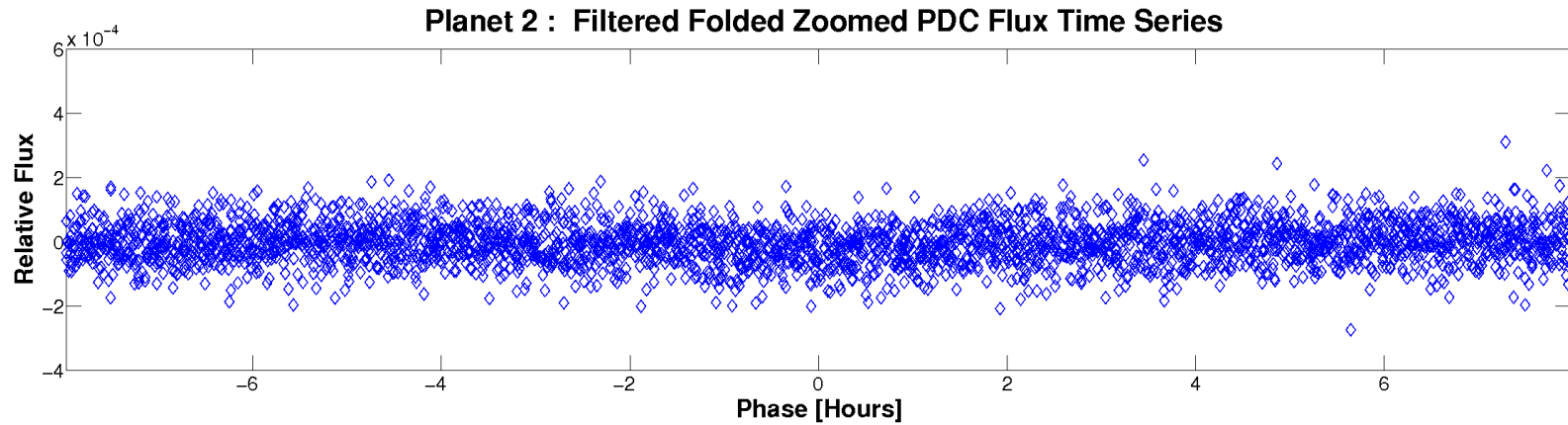
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.002. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.004. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.006.

Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-09-044.fig`



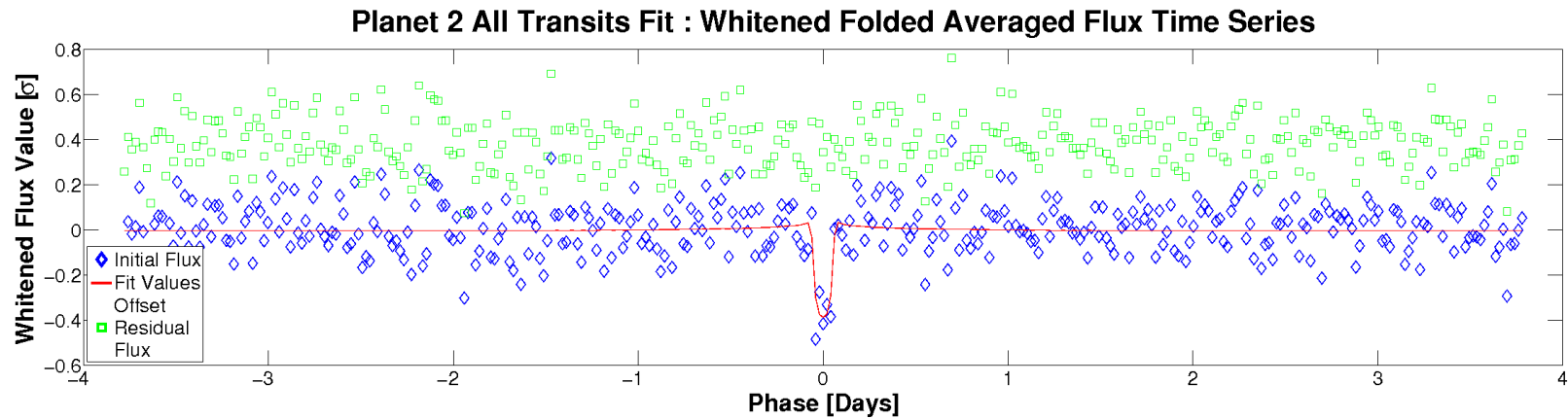
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.

Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-unwhitened-zoomed.fig`



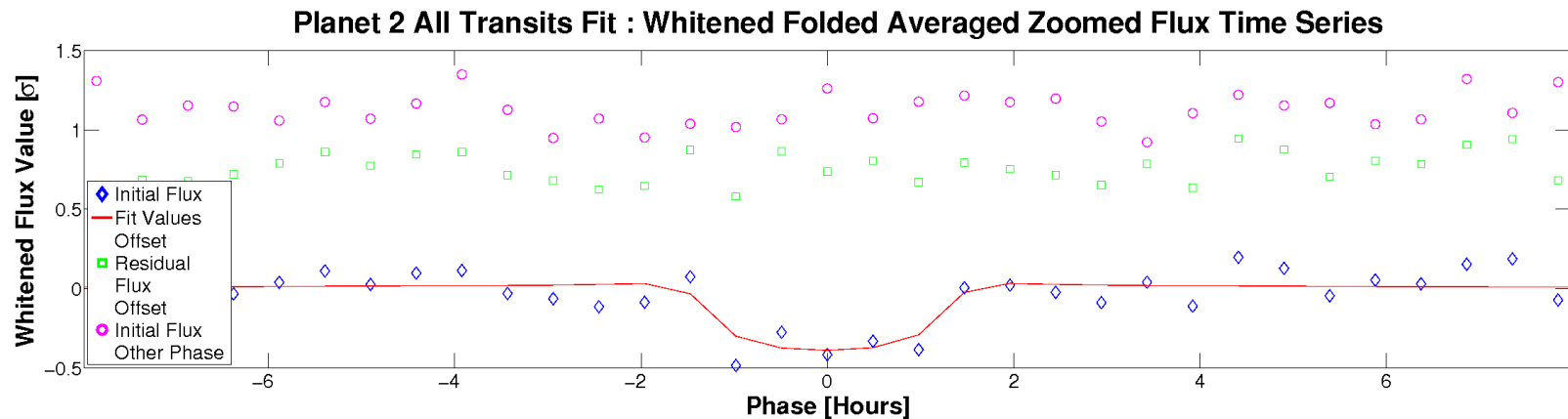
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at the geometric mean of the transit duration and the orbital period, folded per the fitted period and epoch, and zoomed to the location of the model 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. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity.

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. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity. Magenta circles are the original data but with a phase shift of 0.5 relative to the blue diamonds, vertically offset for clarity.

Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-whitened-zoomed.fig`

## 7.2 Model Fitter: Reduced Parameter Fit Results

Reduced parameter fits not enabled.



### 7.3 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.

#### 7.3.1 Flux-Weighted Centroid Test

Result	Value	Uncertainty	Units	Value in Sigmas	Significance (%)
Stellar Magnitude	11.8300				
Motion Detection Statistic	6.3340e+00				4.21
Peak RA Offset	3.3748e-06	4.7120e-06	arcseconds	0.7162	
Peak Dec Offset	2.8813e-06	2.4495e-06	arcseconds	1.1763	
Source RA Offset	-1.2484e-01	1.7430e-01	arcseconds	-0.7162	
Source Dec Offset	-1.0658e-01	9.0606e-02	arcseconds	-1.1763	
Source RA	19.80988443	4.8416e-05	hours		
Source Dec	46.29647837	3.7752e-04	degrees		

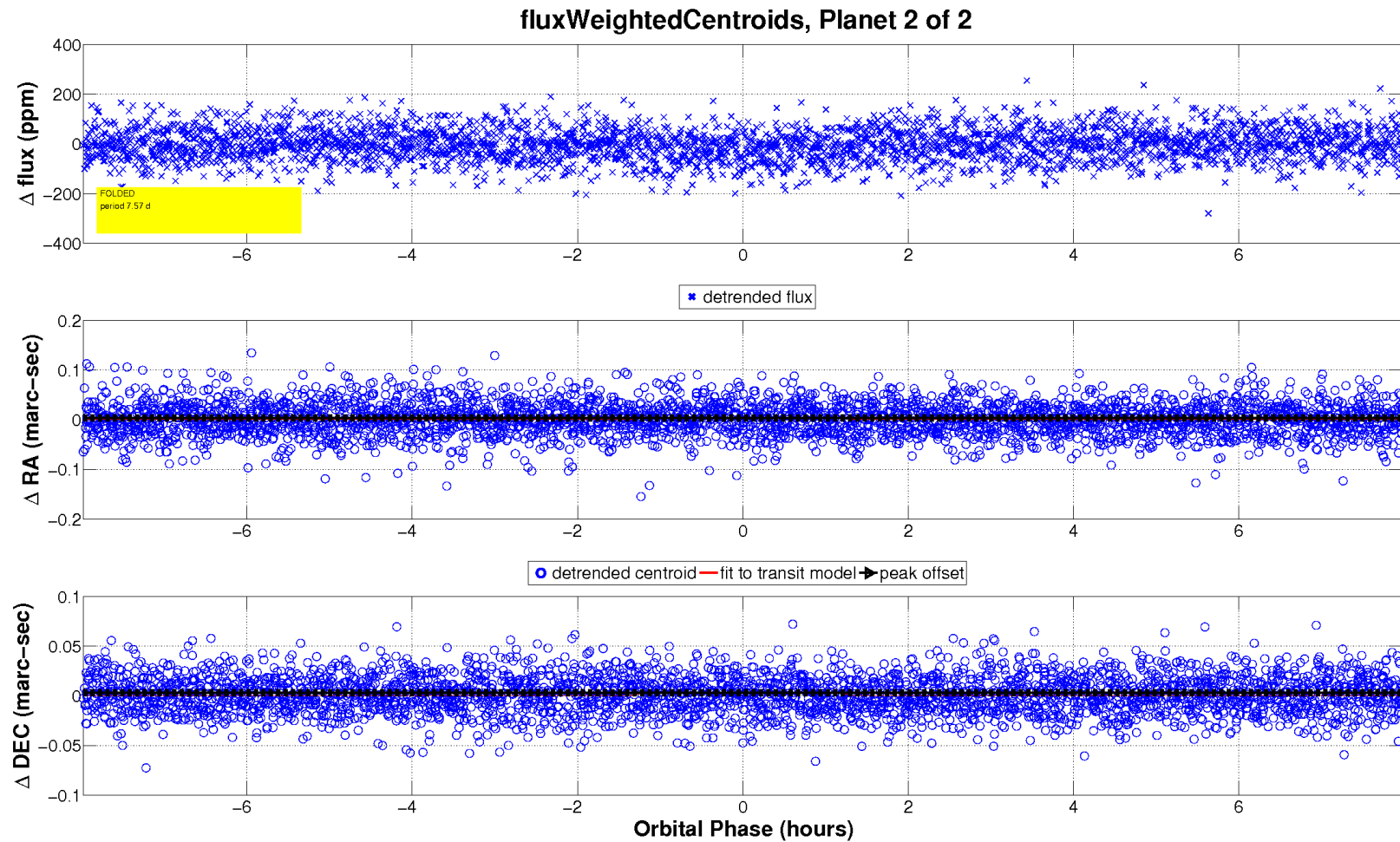
Offsets are relative to the out-of-transit centroid.

#### 7.3.2 Eclipsing Binary Discrimination Test

Result	Value	Value in Sigmas	Significance (%)
Odd Even Transit Depth Comparison Statistic	1.3320e+00	1.1541	24.85
Odd Even Transit Epoch Comparison Statistic	1.6484e-02	0.1284	89.78
Shorter Period Comparison Statistic	3.7524e+02	19.3711	100.00

#### 7.3.3 Bootstrap Test

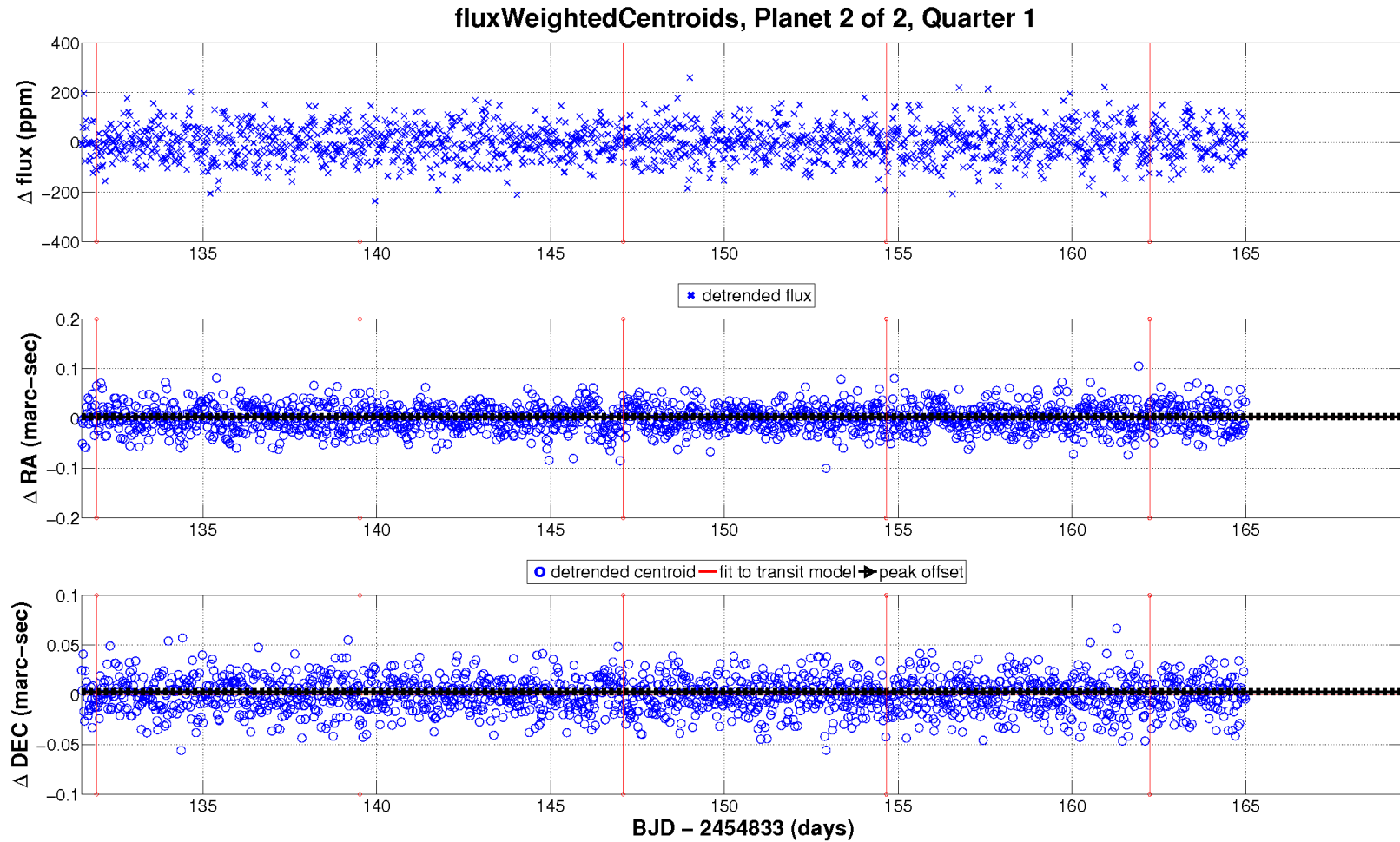
No bootstrap results available.



Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

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.

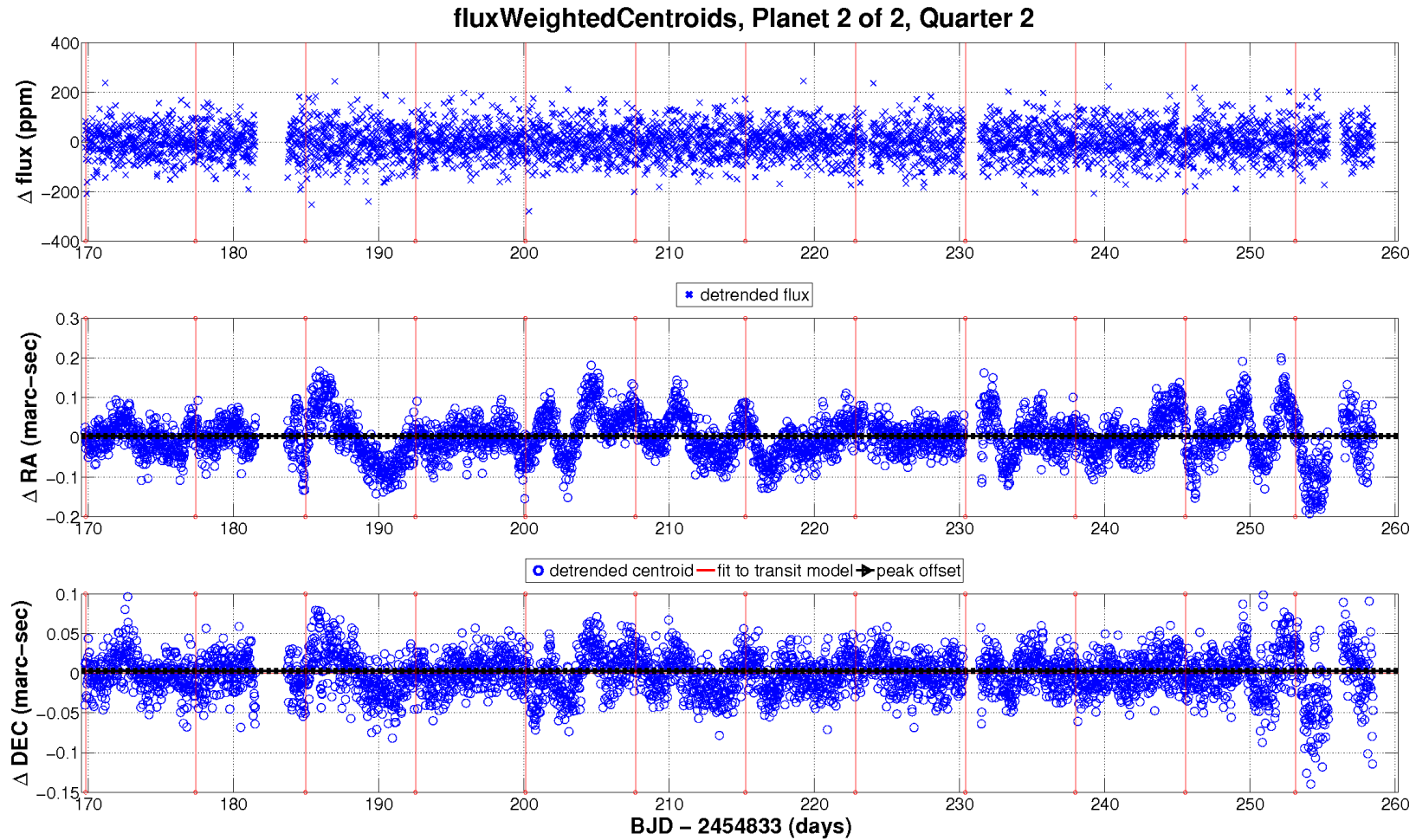
Open `./planet-02/centroid-test-results/009602613-02-folded-transit-fit-fluxWeighted-centroids.fig`



Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

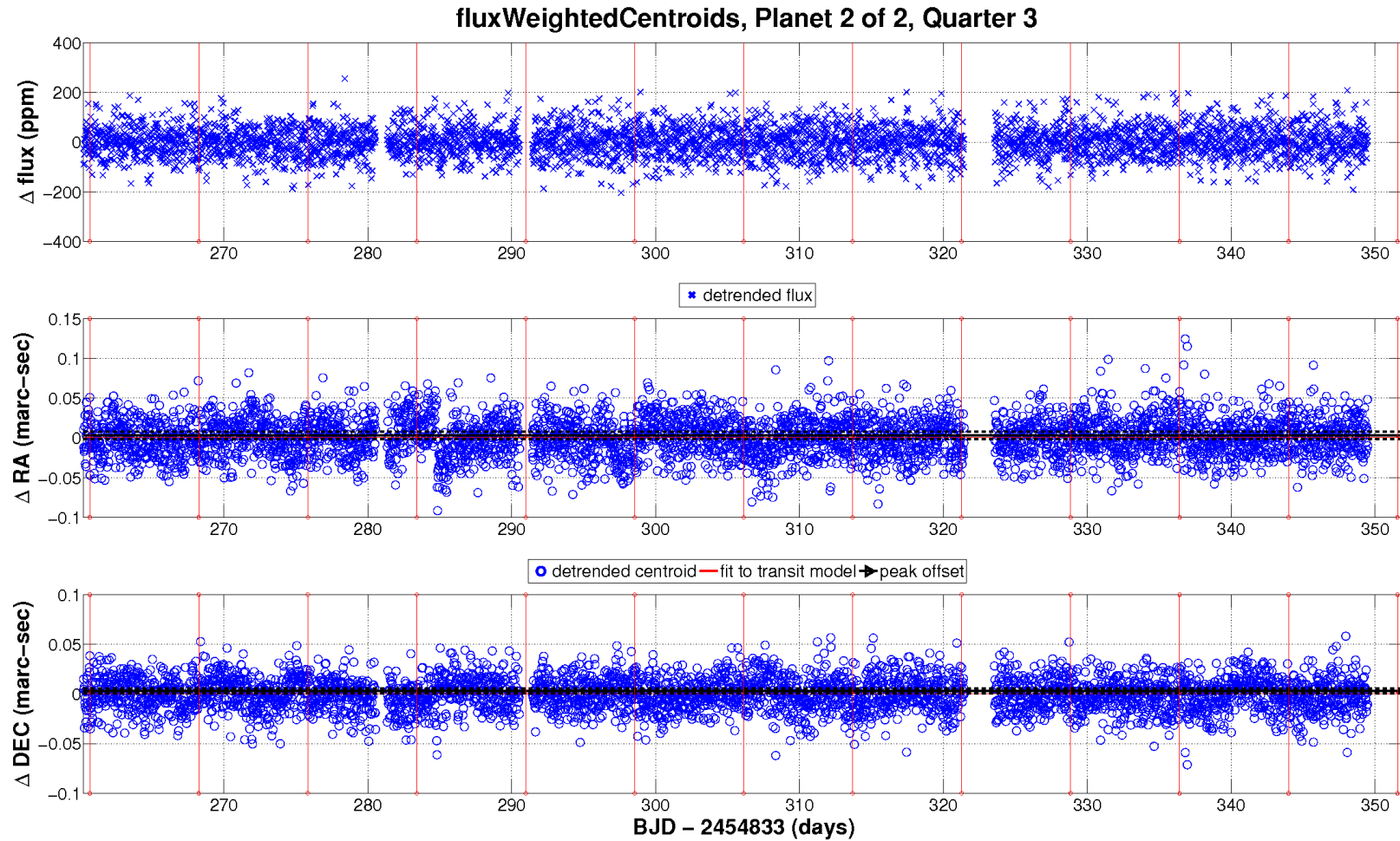
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median 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 diamonds and vertical dotted 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 diamonds and vertical dotted 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.

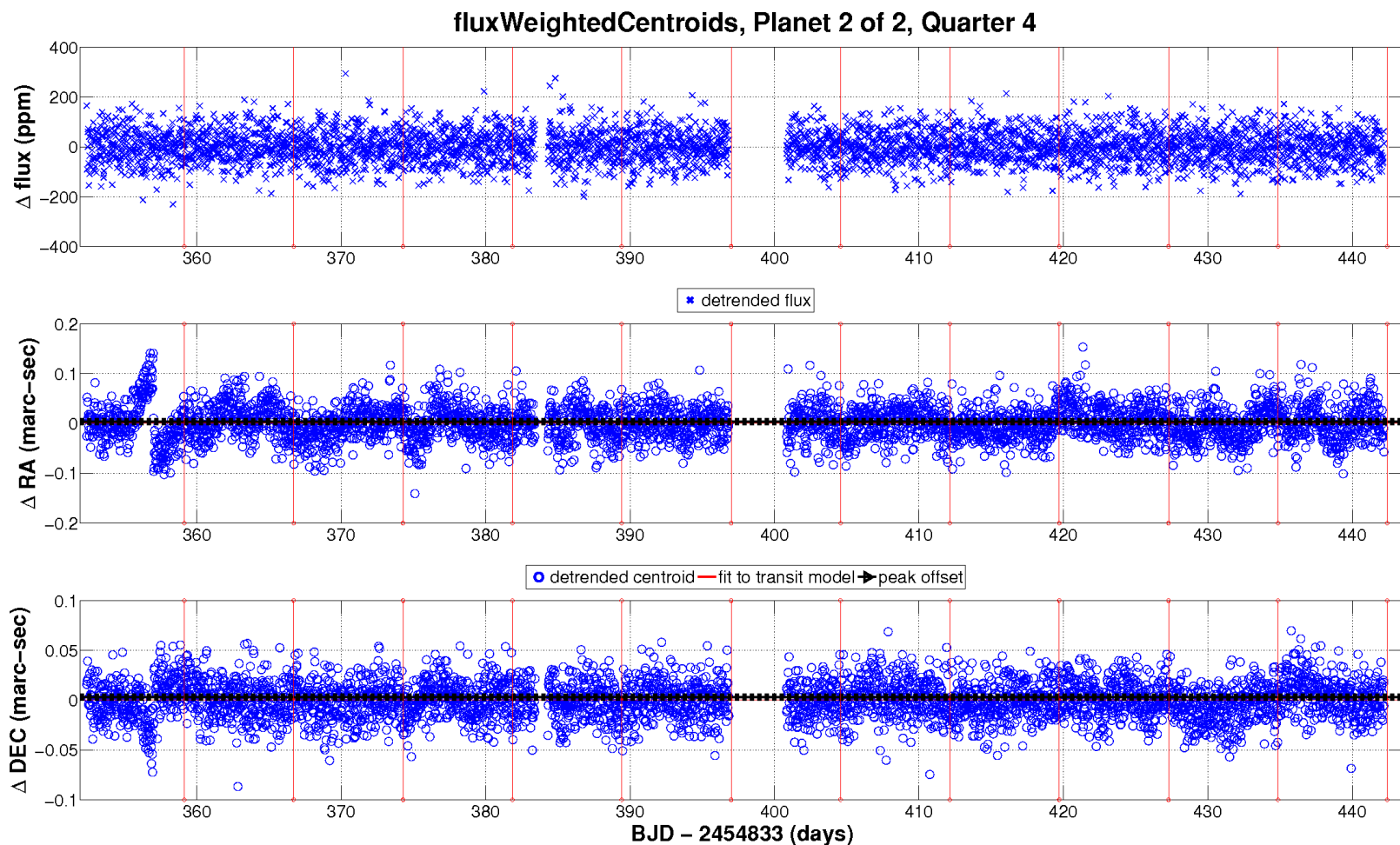
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Out of Transit Centroid  
*ra(hours)*: mean 19.80991911, SD 6.12e-09  
*dec(degrees)*: mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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`

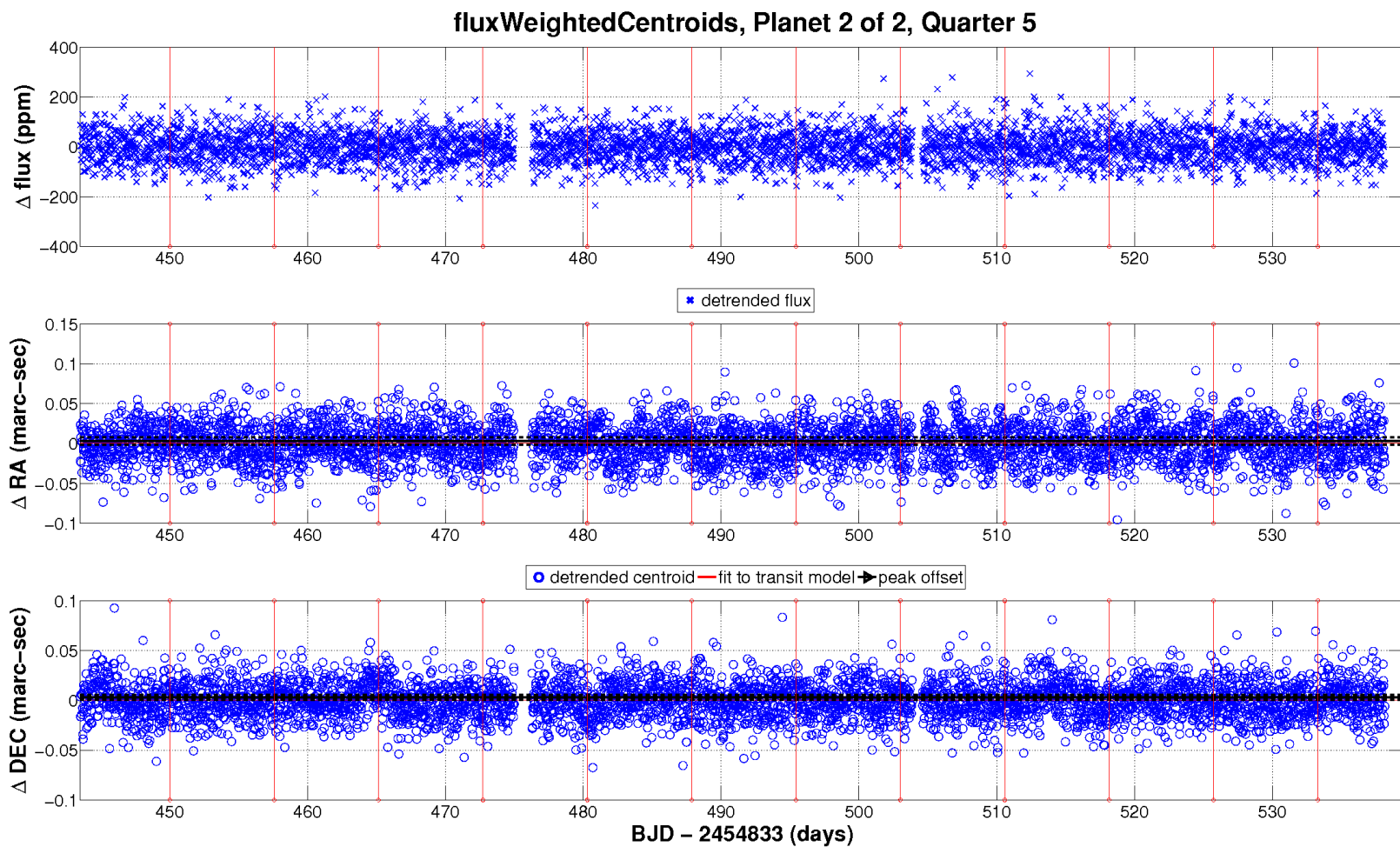


Out of Transit Centroid  
*ra(hours):* mean 19.80991911, SD 6.12e-09  
*dec(degrees):* mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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`

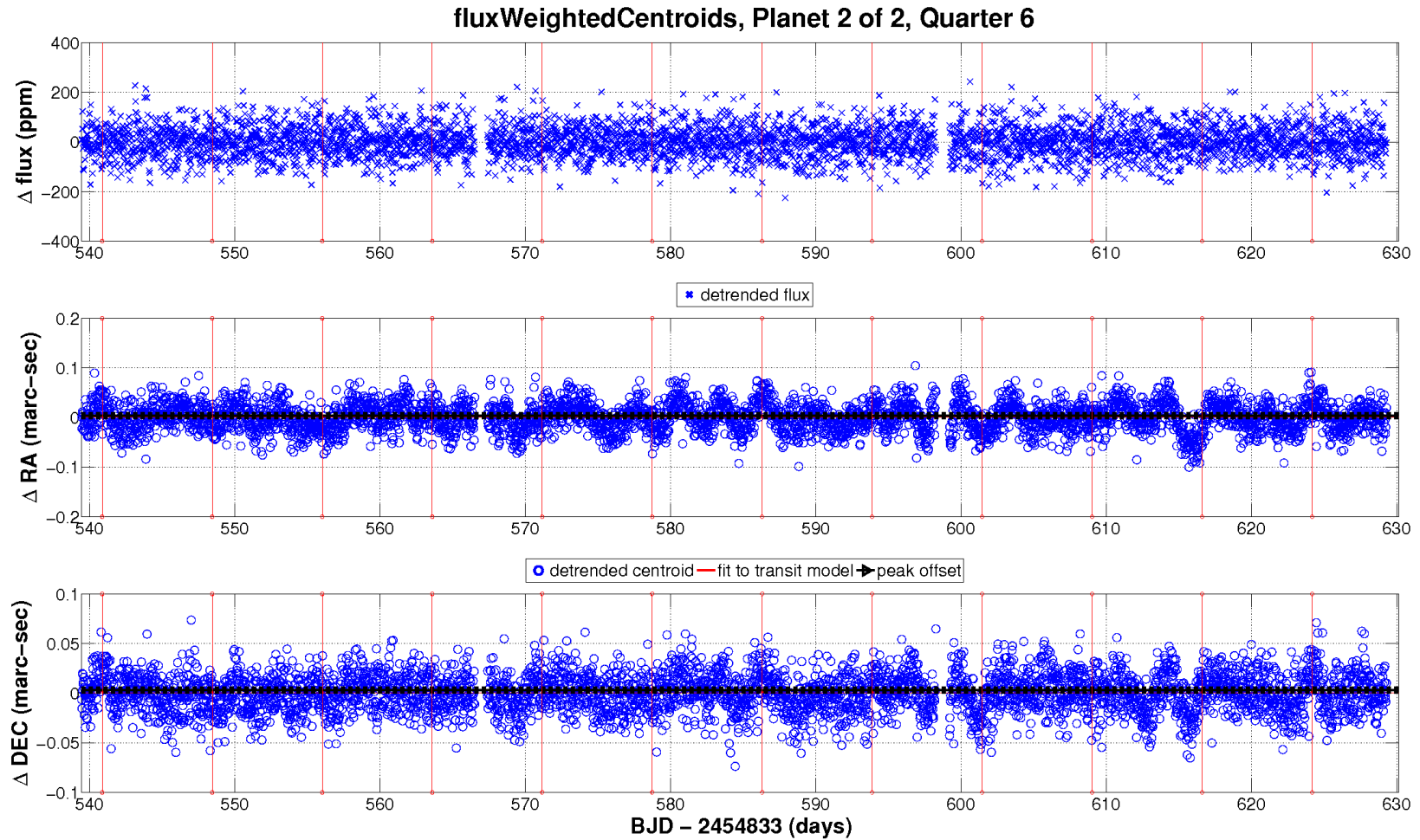




*Out of Transit Centroid*  
*(ra(hours)) mean 19.80991911, SD 6.12e-09*  
*(dec(degrees)) mean 46.29692246, SD 5.68e-08*

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 diamonds and vertical dotted 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`

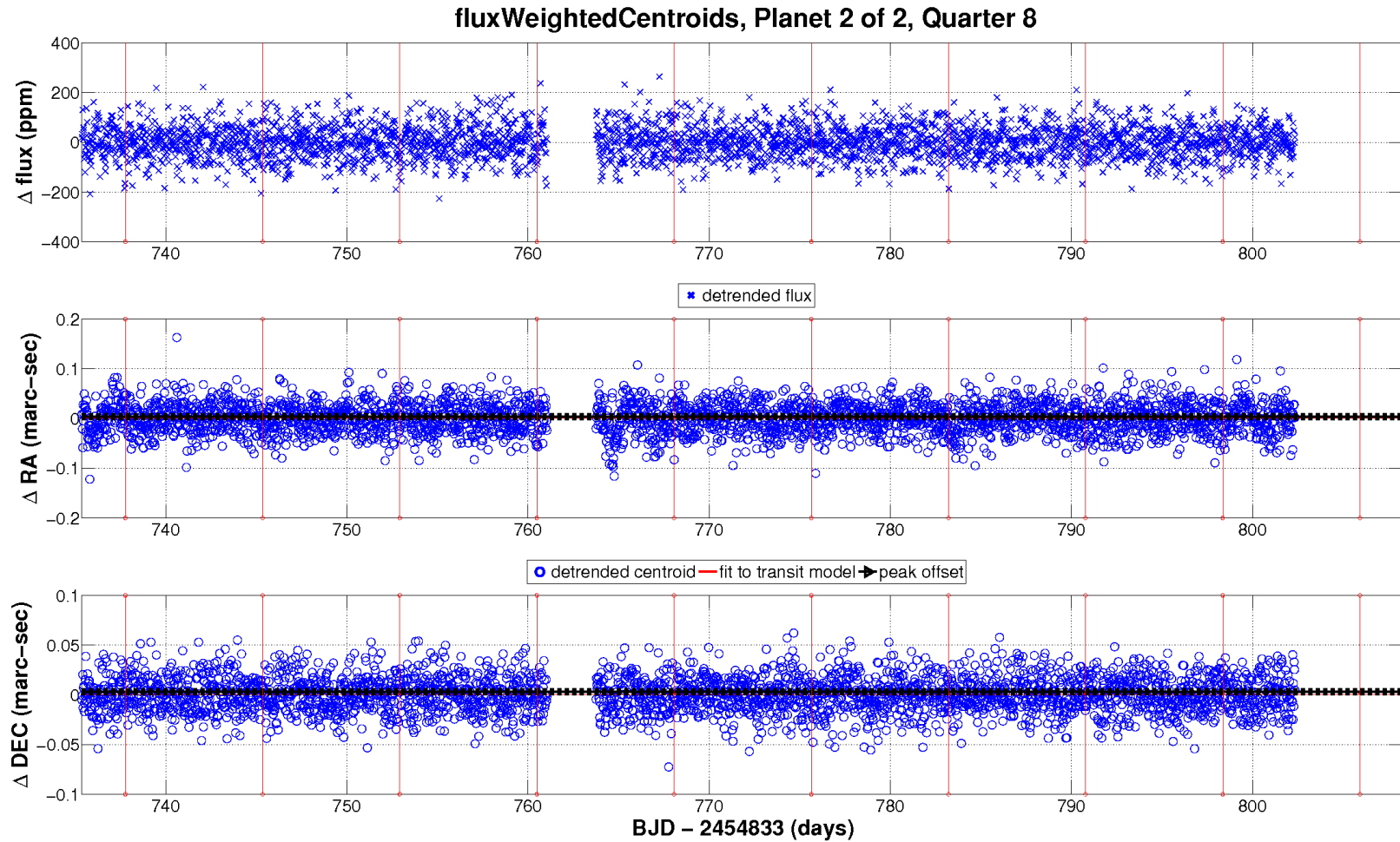


*Out of Transit Centroid*  
*(ra/seconds): mean 19.80991911, SD 6.12e-09*  
*dec(degrees): mean 46.29692246, SD 5.68e-08*

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 diamonds and vertical dotted 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-06.fig`

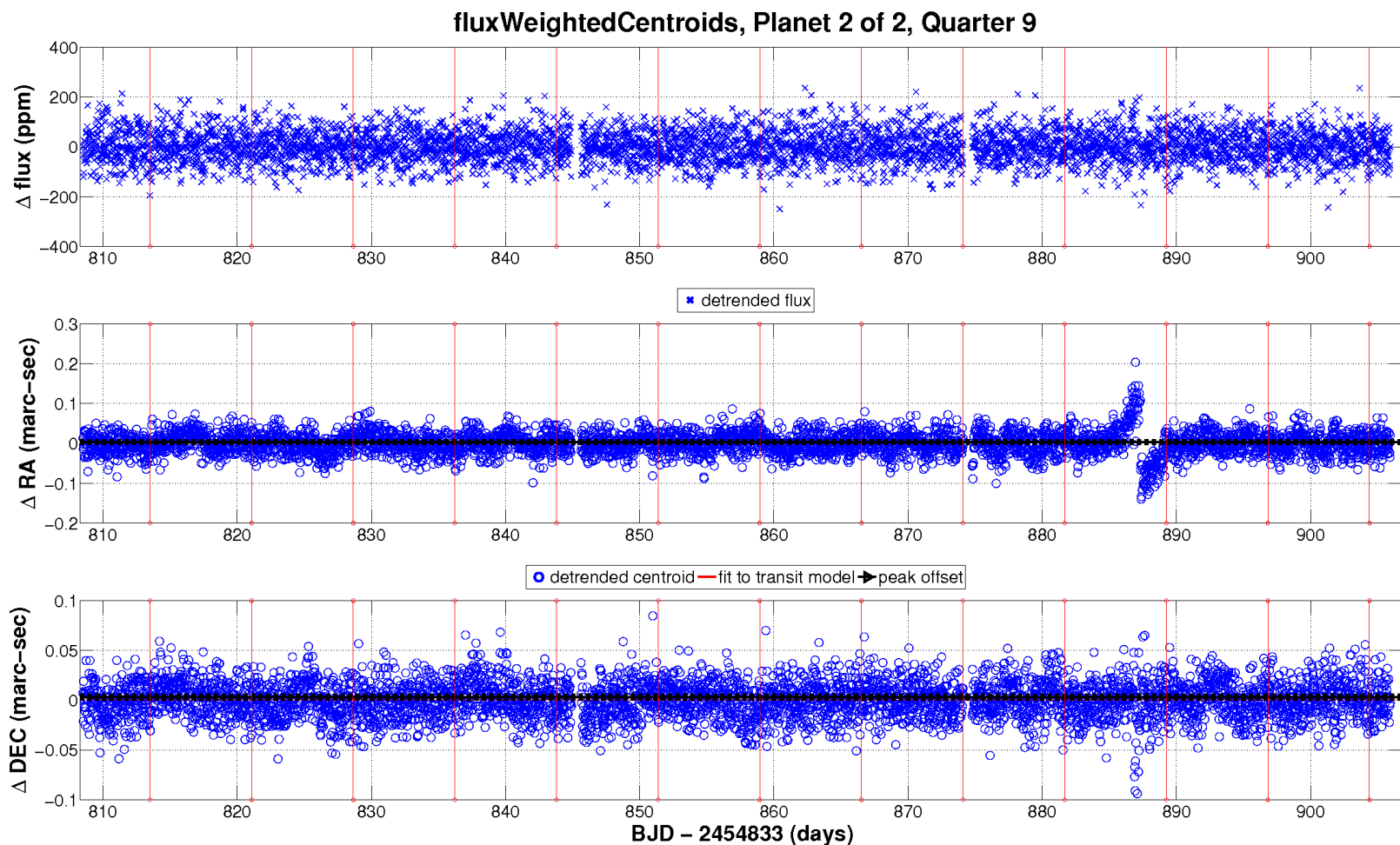




Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

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 diamonds and vertical dotted 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.

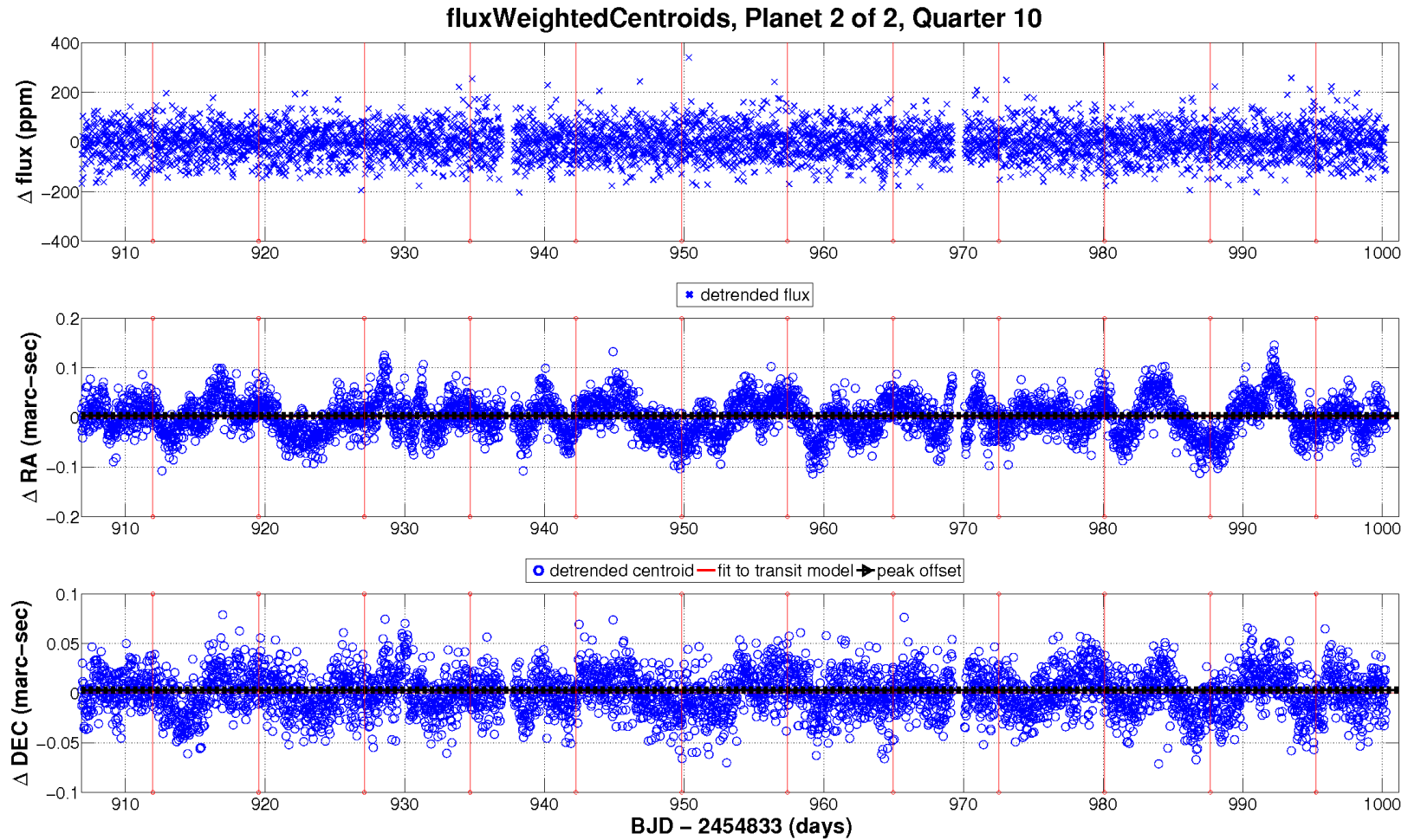
Open `./planet-02/centroid-test-results/009602613-02-transit-fit-fluxWeighted-centroids-08.fig`



Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

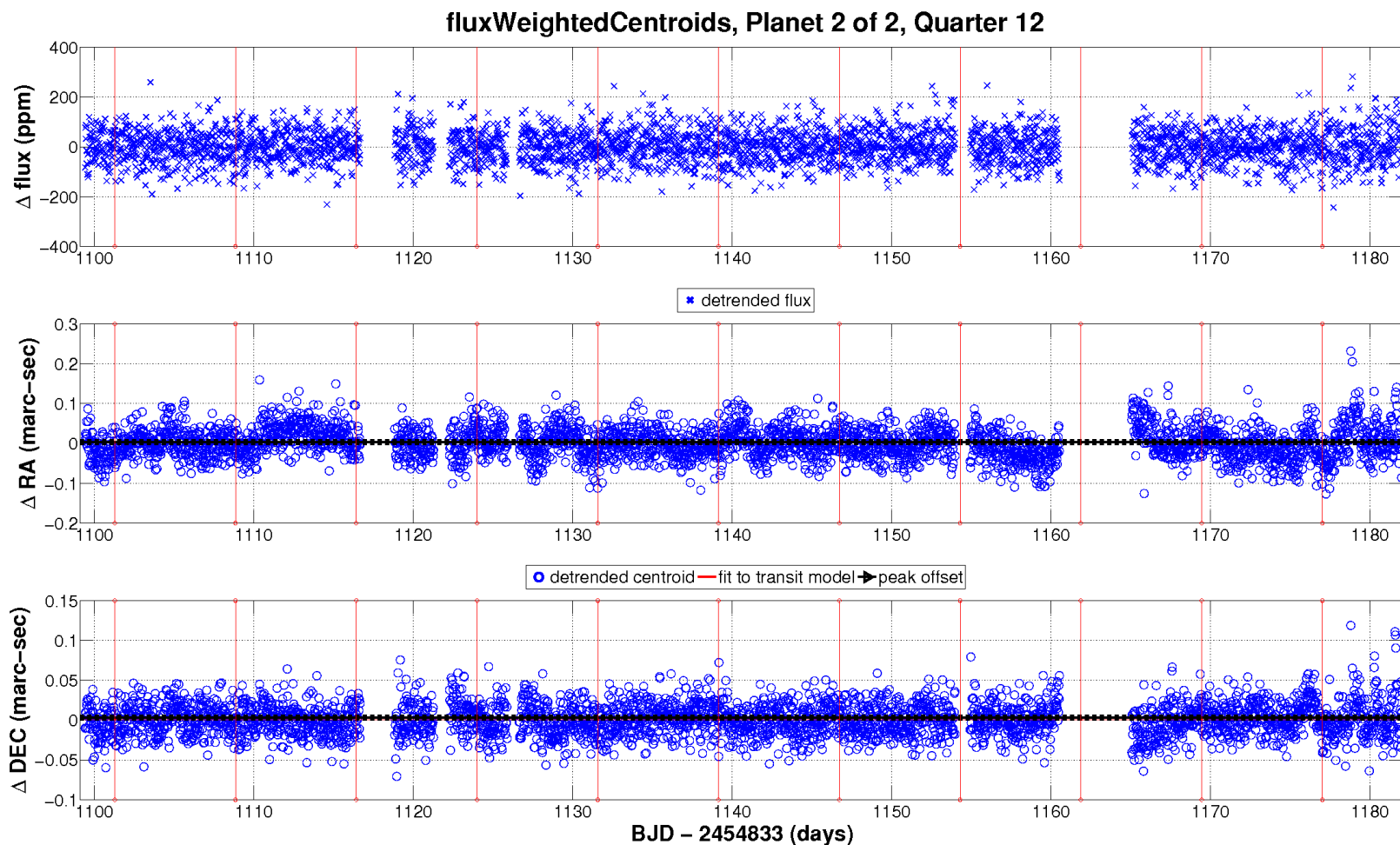
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median 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 diamonds and vertical dotted 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 diamonds and vertical dotted 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`



Out of Transit Centroid  
 ra(hours): mean 19.80991911, SD 6.12e-09  
 dec(degrees): mean 46.29692246, SD 5.68e-08

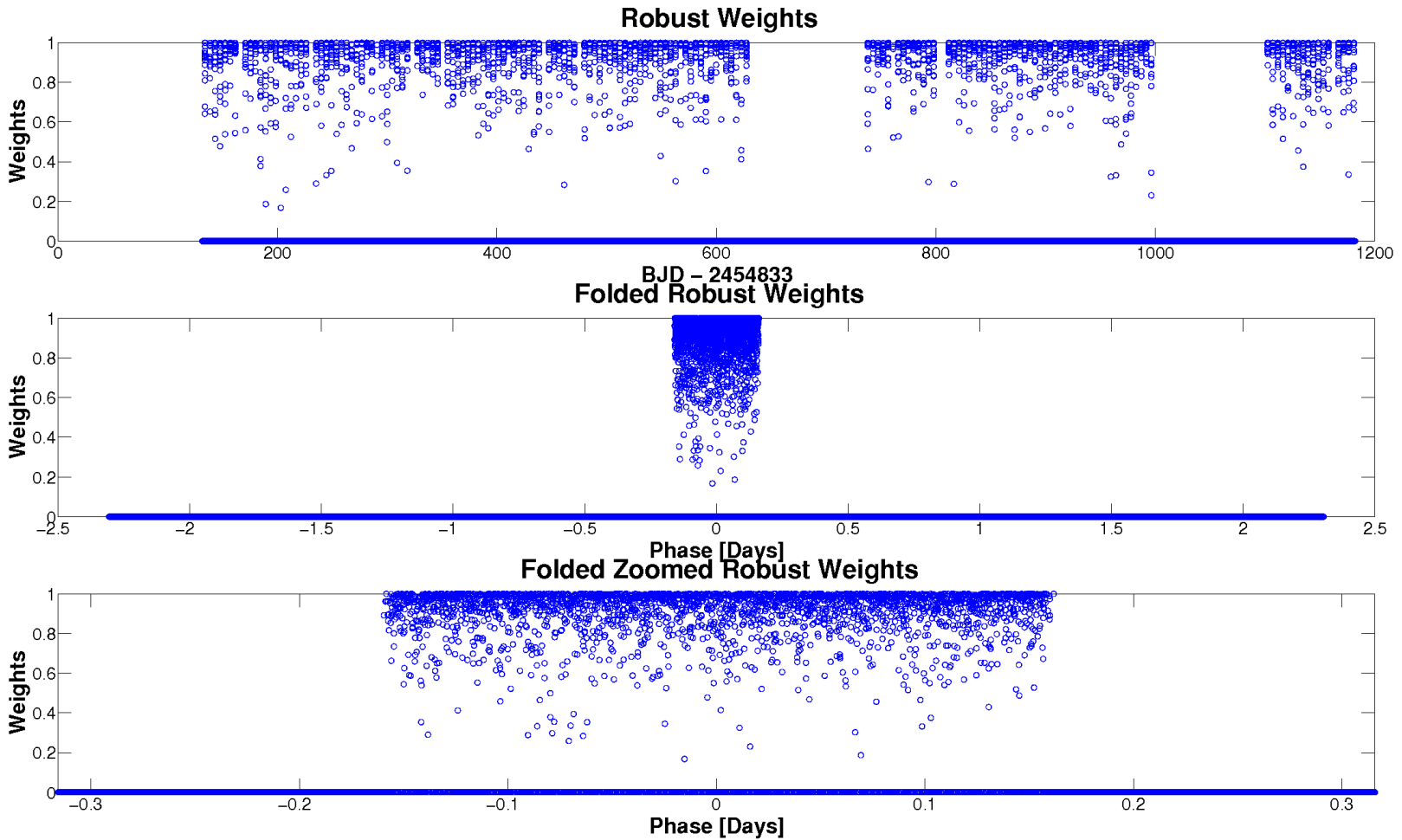
KeplerId 9602613, KeplerMag 11.83 - UNFOLDED FLUX AND CENTROIDS - This figure shows detrended flux and centroid data over the full time range of the data set. The top panel shows the change in corrected flux for this target, normalized to the median out of transit value, median detrended with the median 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 diamonds and vertical dotted 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`

No figures named 009602613-02-bootstrap-false-alarm.fig are available.

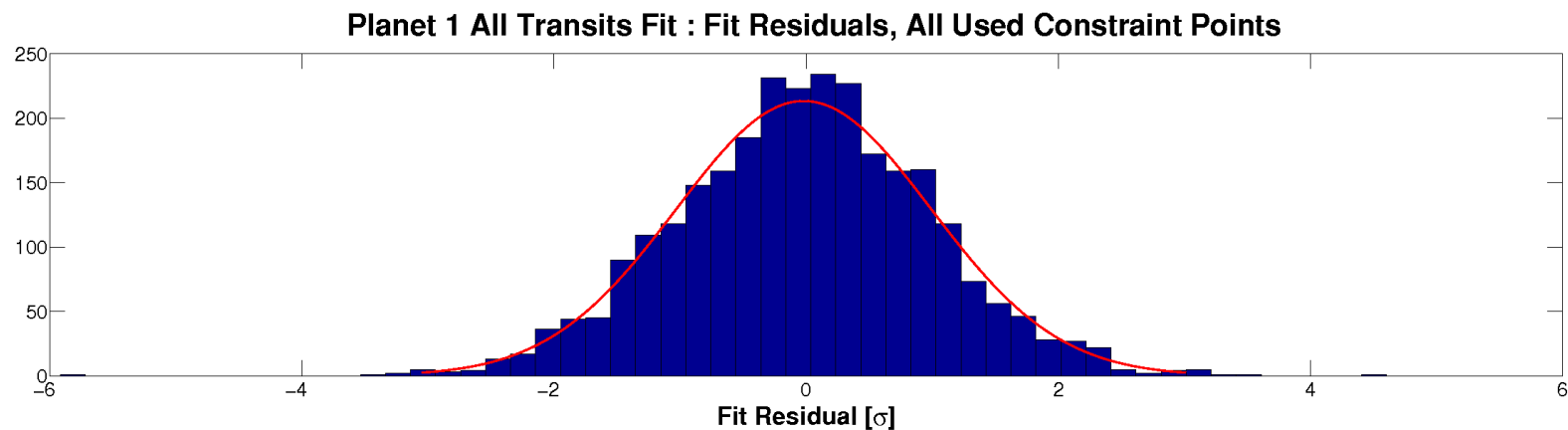
## Appendix A Planet Candidate 1

### A.1 Model Fitter: All Transits



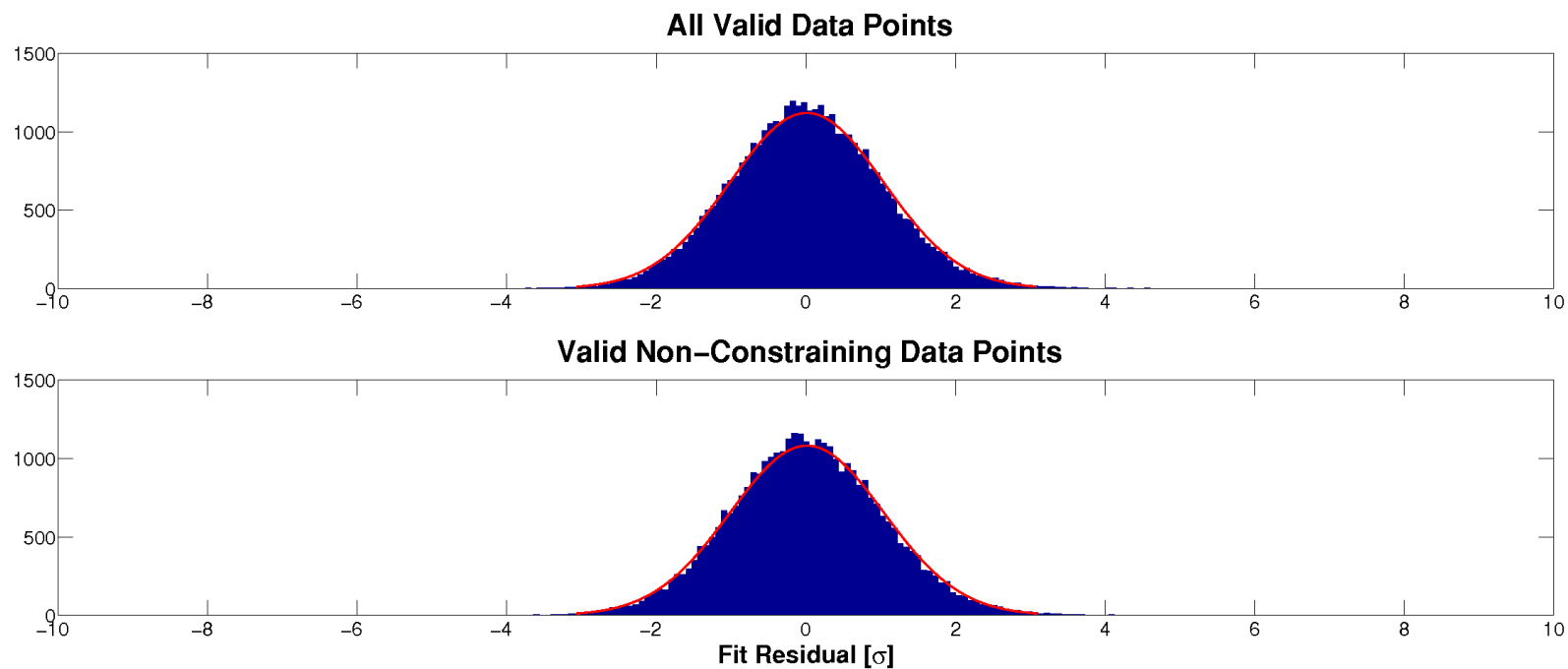
Robust weights distribution for KeplerId 9602613, Planet candidate 1. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.

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`



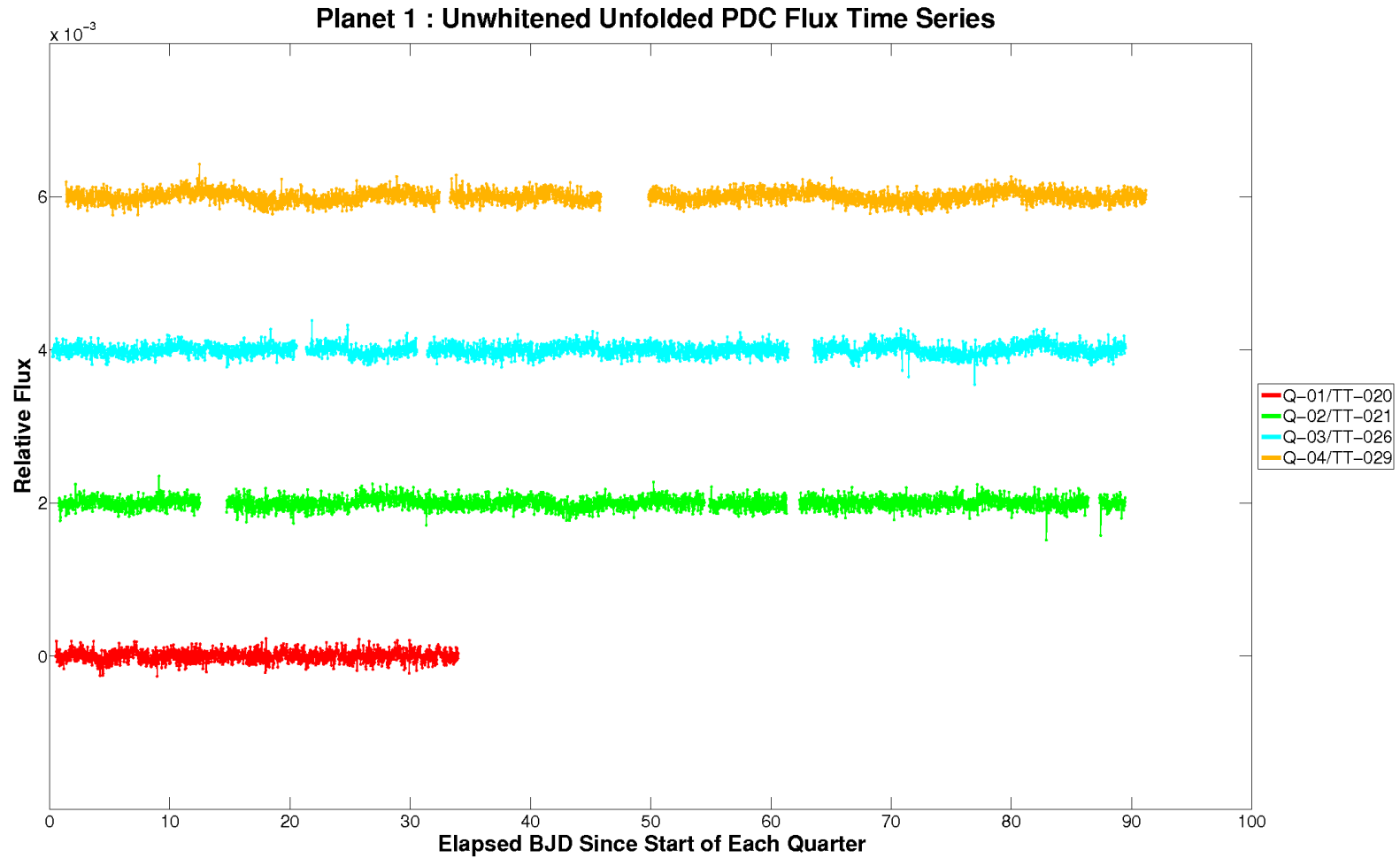
Fit residuals distribution for KeplerId 9602613, Planet candidate 1. Top plot: all valid data. Bottom plot: valid data not used to constrain fit (due to distance from a transit). Gaussian fits to the histograms are shown in red.

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 &amp; Even Transits

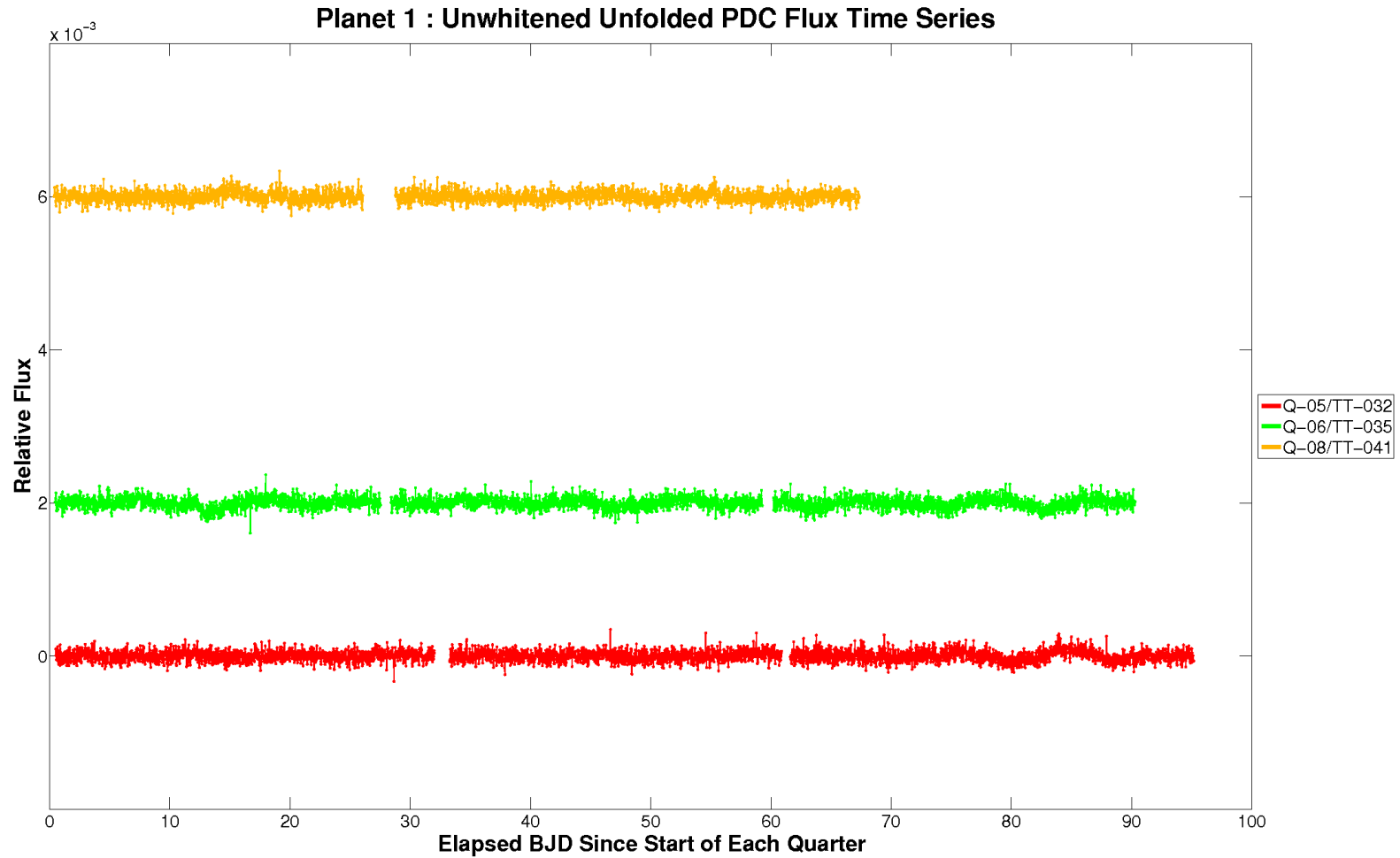
Parameter	Odd Transits Value	Odd Transits Uncertainty	Even Transits Value	Even Transits Uncertainty	Units	$\frac{\text{Difference}}{\ \text{Uncertainty}\ }$
SNR	7.5		7.8			
Model Chi Square	2176		2176			
Degrees of Freedom	2645		2645			
Transit Epoch	133.8604647	5.9441e-03	138.4799366	6.6082e-03	BKJD	8.1516e-01
Eccentricity	0.0000	0.0000e+00	0.0000	0.0000e+00		
Peri Longitude	0.0000	0.0000e+00	0.0000	0.0000e+00	degrees	
Planet Radius	0.5321	2.2144e-01	0.5062	4.8938e-01	Earth radii	4.8239e-02
Planet Radius to Star Radius Ratio	0.0053292	2.2178e-03	0.0050697	4.9013e-03		4.8239e-02
Semi-major Axis	0.0509	4.0116e-07	0.0509	4.3860e-07	AU	3.2146e+00
Equilibrium Temperature	1020	2.2093e+02	1020	2.2094e+02	Kelvin	6.1217e-05
Semi-major Axis to Star Radius Ratio	13.4277	2.2439e+01	13.0717	5.1147e+01		6.3731e-03
Impact Parameter	0.5838	1.9175e+00	0.2989	1.2109e+01		2.3235e-02
Star Radius	0.9150	0.0000e+00	0.9150	0.0000e+00	solar radii	
Transit Duration	2.1478	1.5622e-01	2.5865	1.8459e-01	hours	1.8144e+00
Transit Ingress Time	0.0172	6.5089e-02	0.0143	1.2676e-01	hours	2.0383e-02
Transit Depth	32	4.3969e+00	31	4.0478e+00	ppm	1.0295e-01
Orbital Period	4.6123784	5.4502e-05	4.6121188	5.9586e-05	days	3.2146e+00





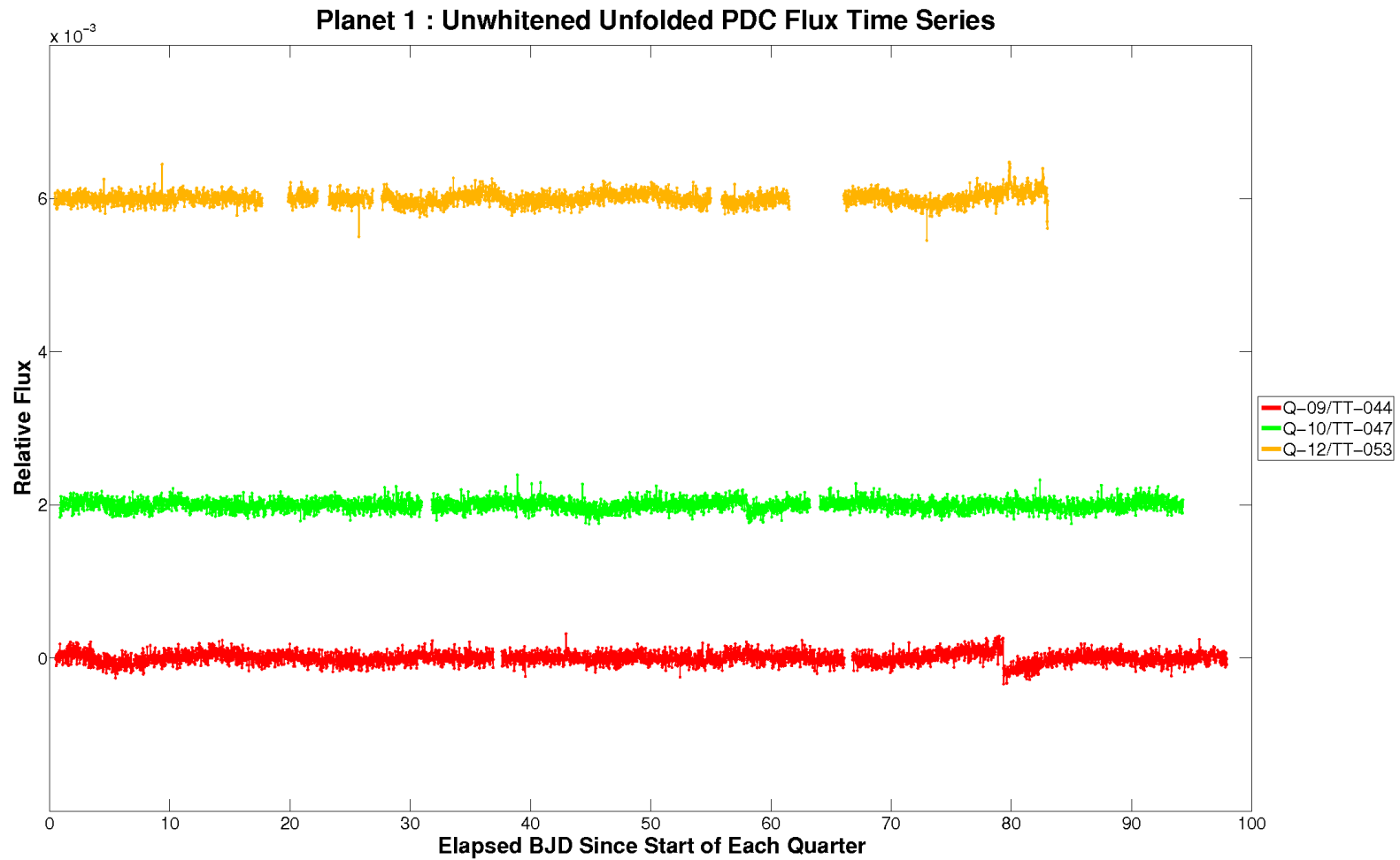
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.002. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.004. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.006.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-01-020.fig`



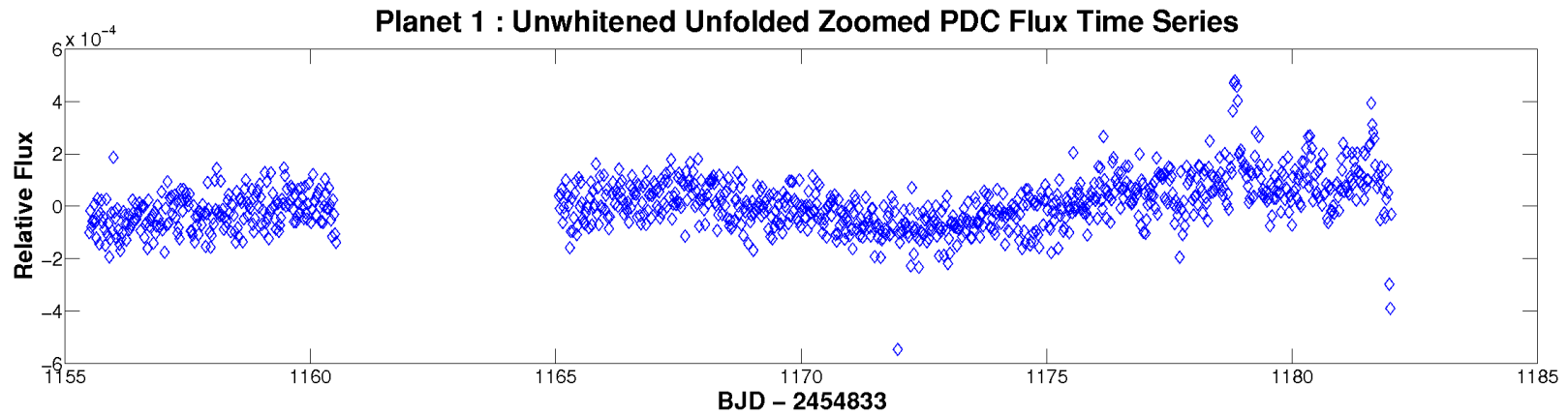
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.002. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.004. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.006.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-05-032.fig`



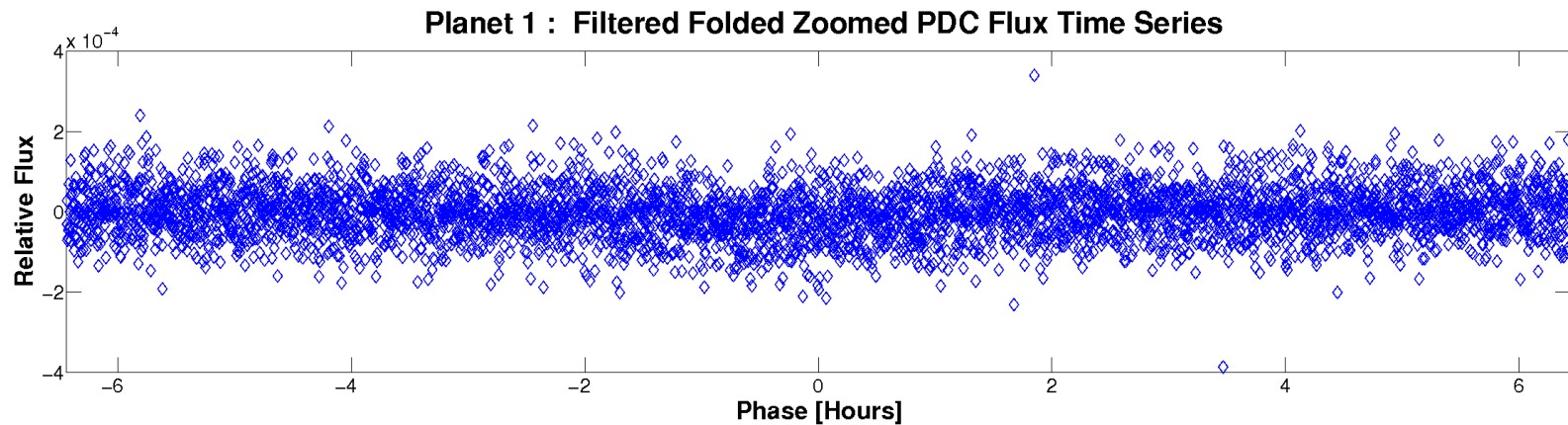
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.002. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.004. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.006.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-09-044.fig`



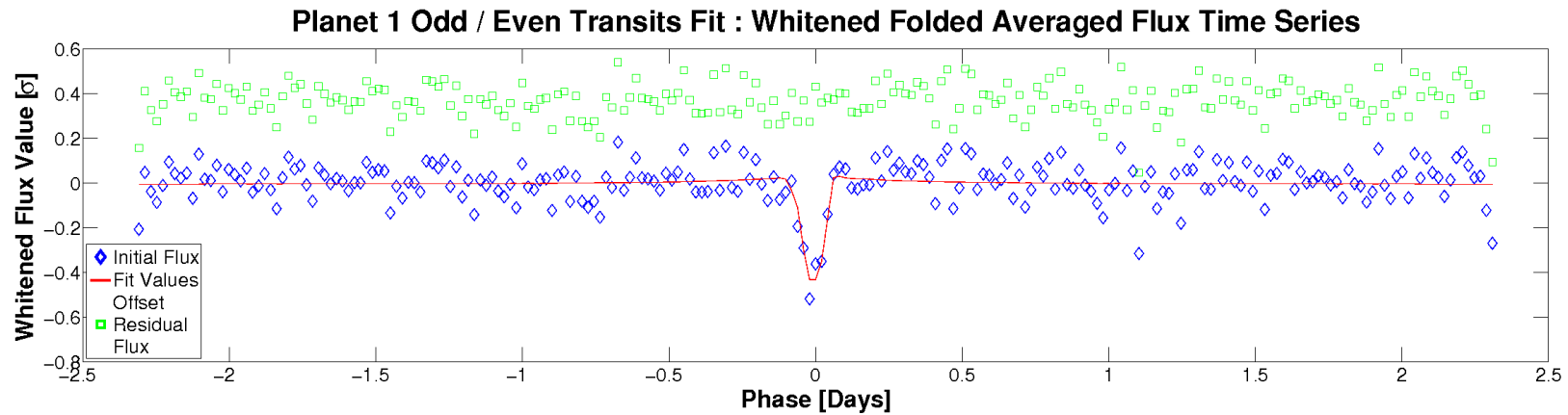
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-zoomed.fig`



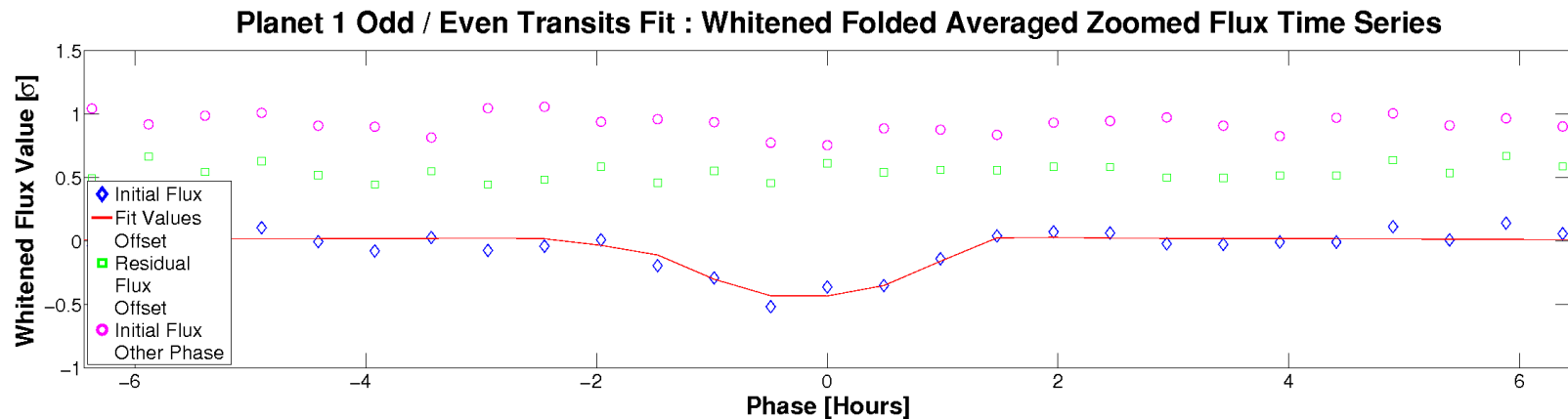
PDC Flux time series for KeplerId 9602613, Planet candidate 1 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at the geometric mean of the transit duration and the orbital period, folded per the fitted period and epoch, and zoomed to the location of the model transit.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-unwhitened-filtered-zoomed.fig`



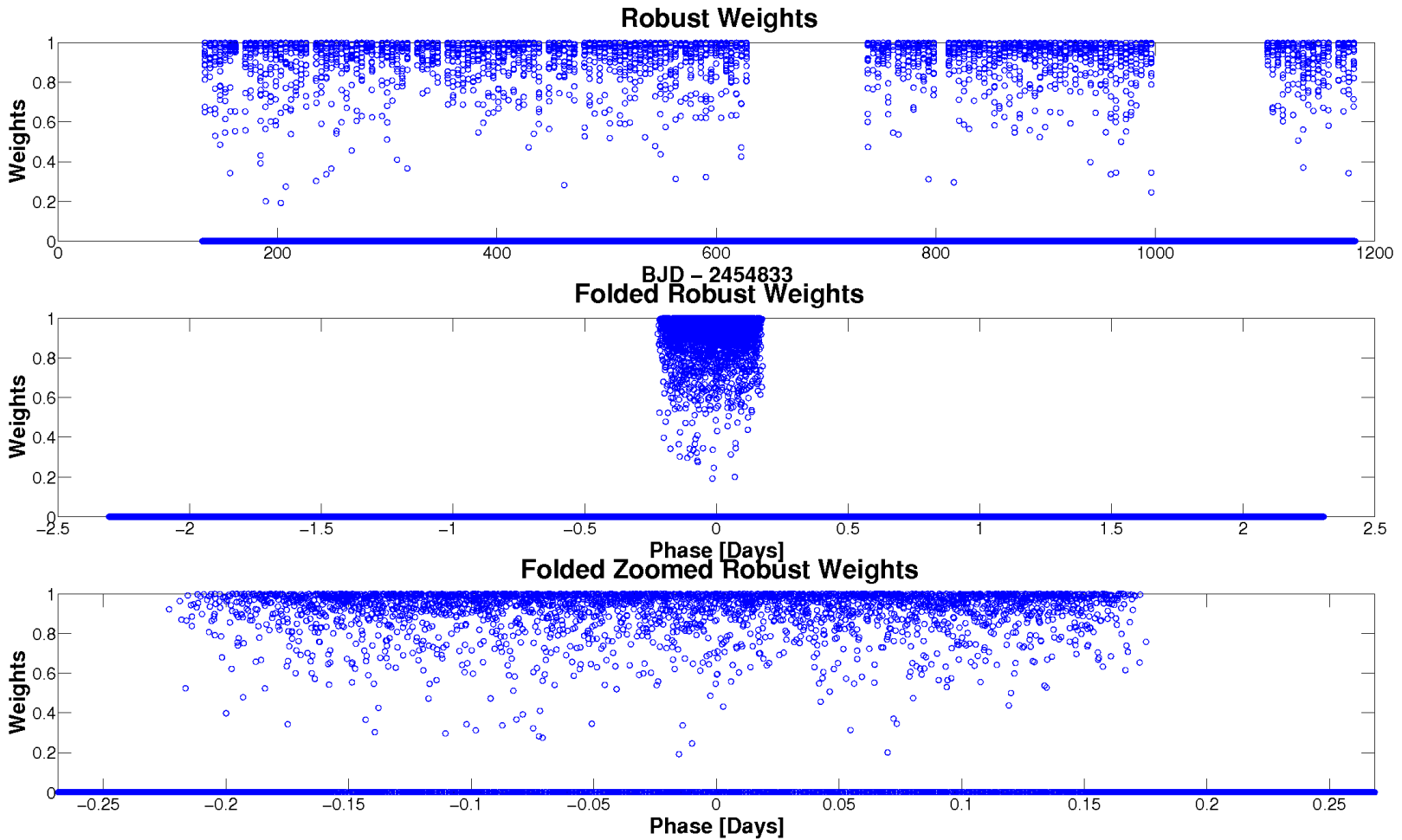
Folded flux time series for KeplerId 9602613, Planet candidate 1 in the whitened domain. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-whitened.fig`



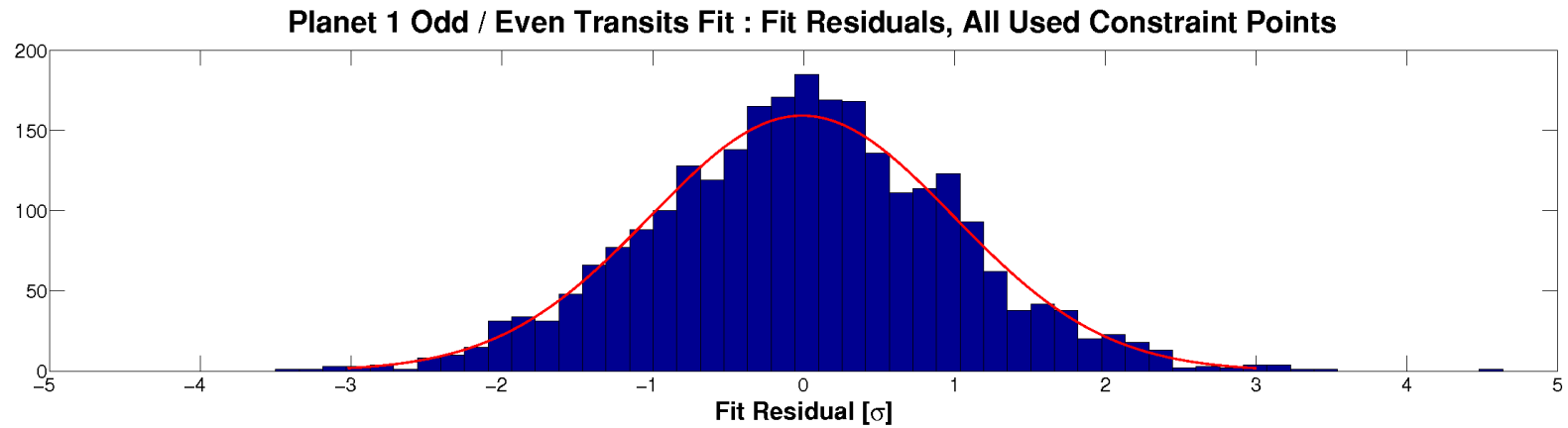
Folded flux time series for KeplerId 9602613, Planet candidate 1 in the whitened domain, zoomed on the transit. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity. Magenta circles are the original data but with a phase shift of 0.5 relative to the blue diamonds, vertically offset for clarity.

Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-whitened-zoomed.fig`



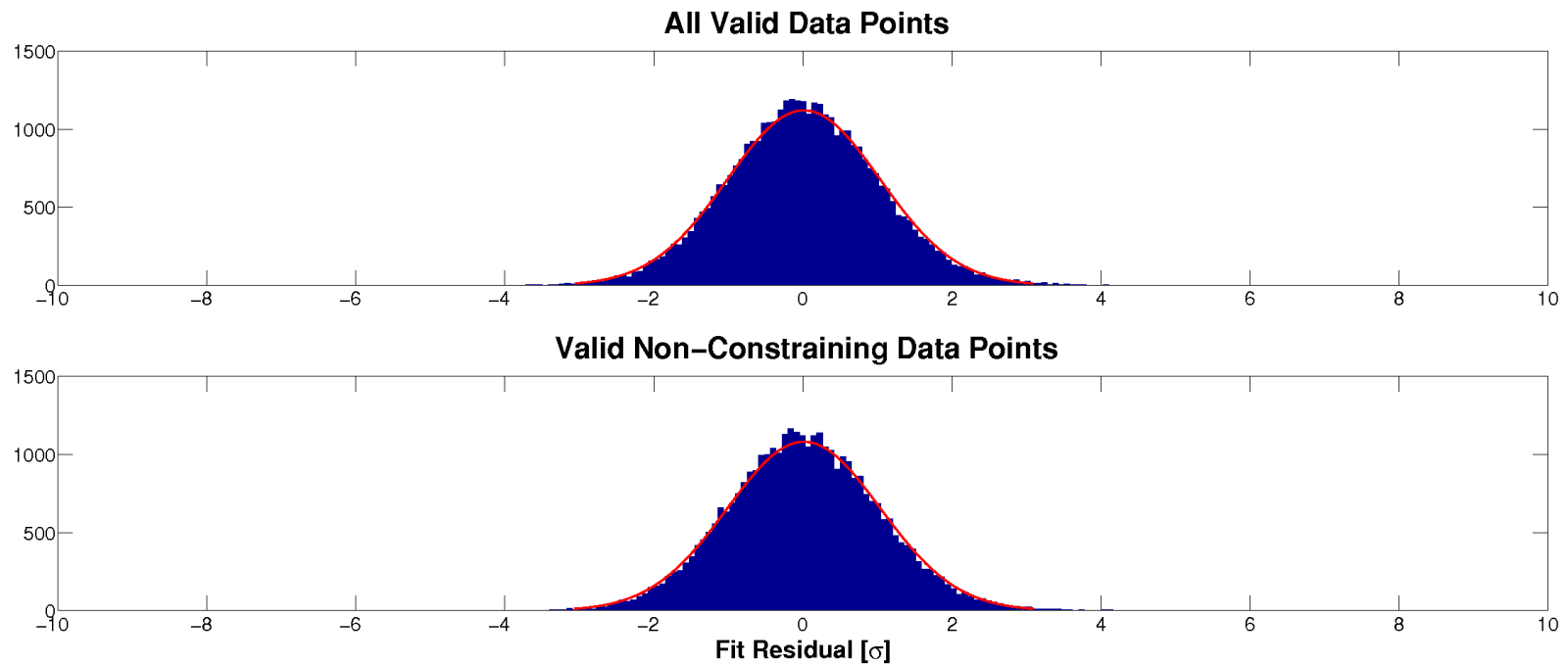
Robust weights distribution for KeplerId 9602613, Planet candidate 1. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.

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.

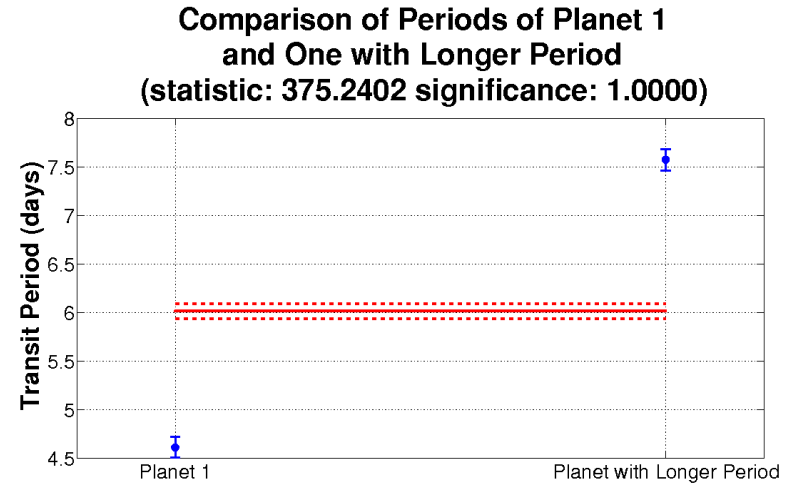
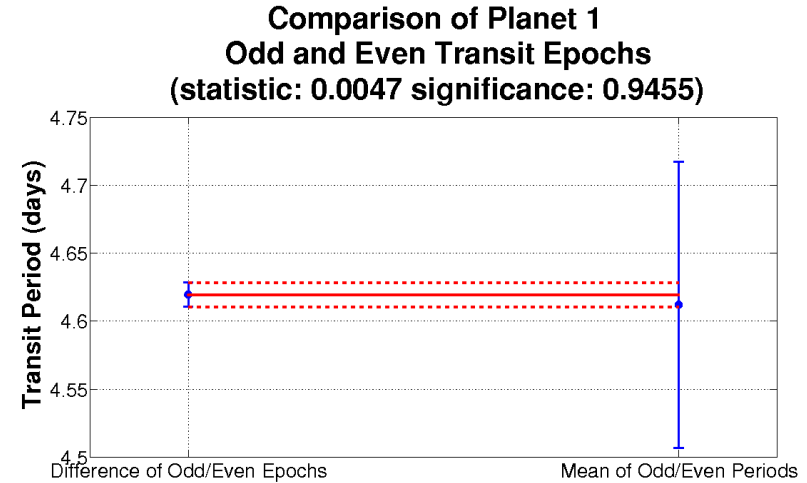
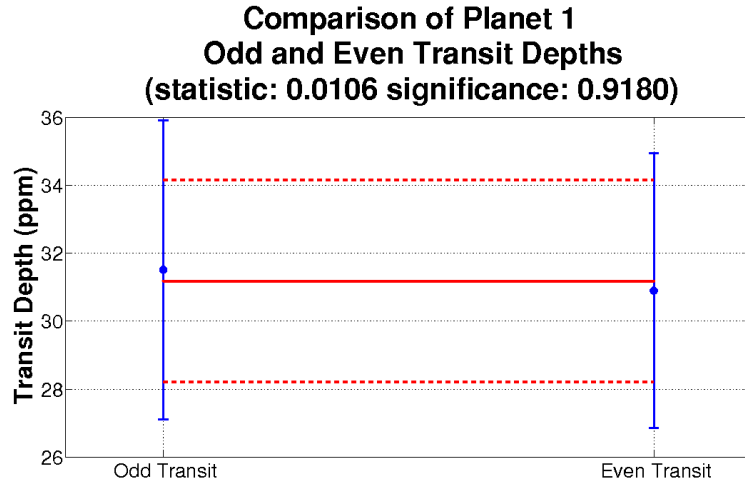
Open `./planet-01/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-01-odd-even-histo-used.fig`



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



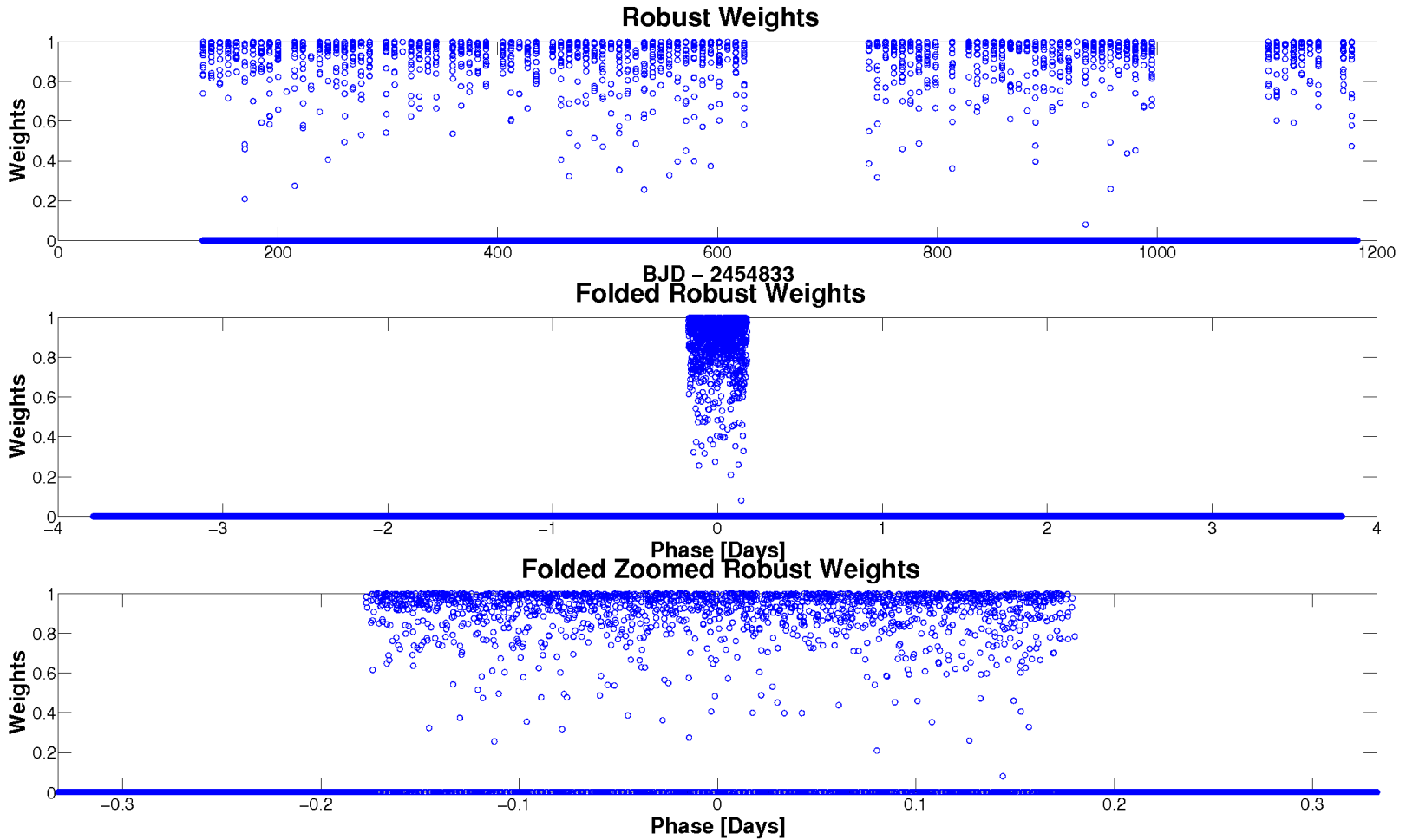
Top-left: Diagnostic plot of Odd/Even Transit Depth Test for keplerId 9602613, planet 1. A significance level close to 1/0 favors a transiting planet/an eclipsing binary.  
 Top-right: Diagnostic plot of Odd/Even Transit Epoch Test for keplerId 9602613, planet 1. A significance level close to 1/0 favors 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`



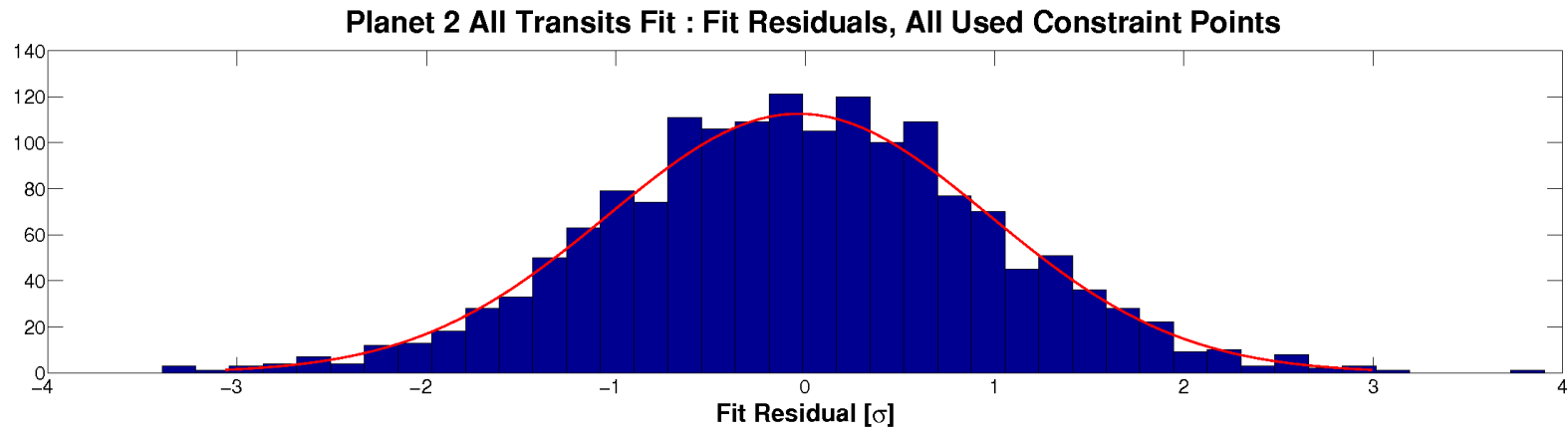
## Appendix B Planet Candidate 2

### B.1 Model Fitter: All Transits



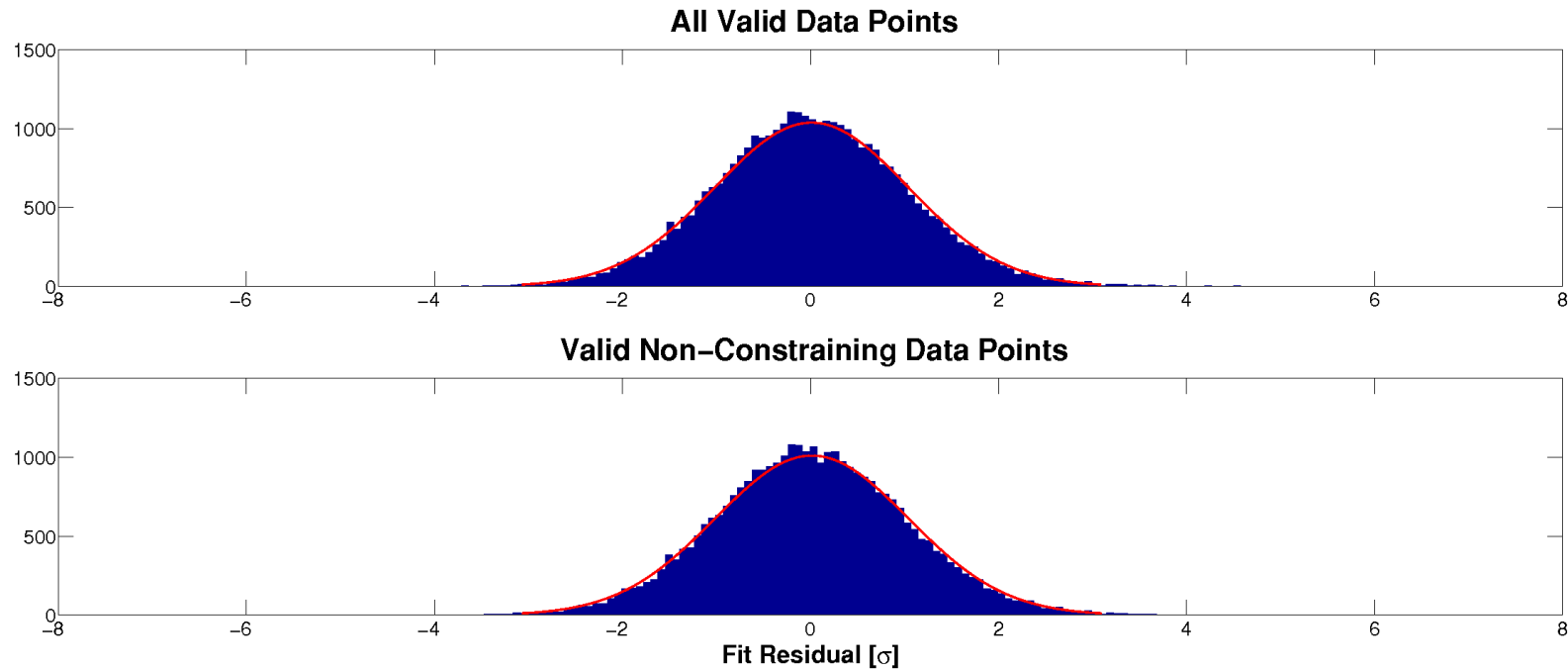
Robust weights distribution for KeplerId 9602613, Planet candidate 2. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.

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`

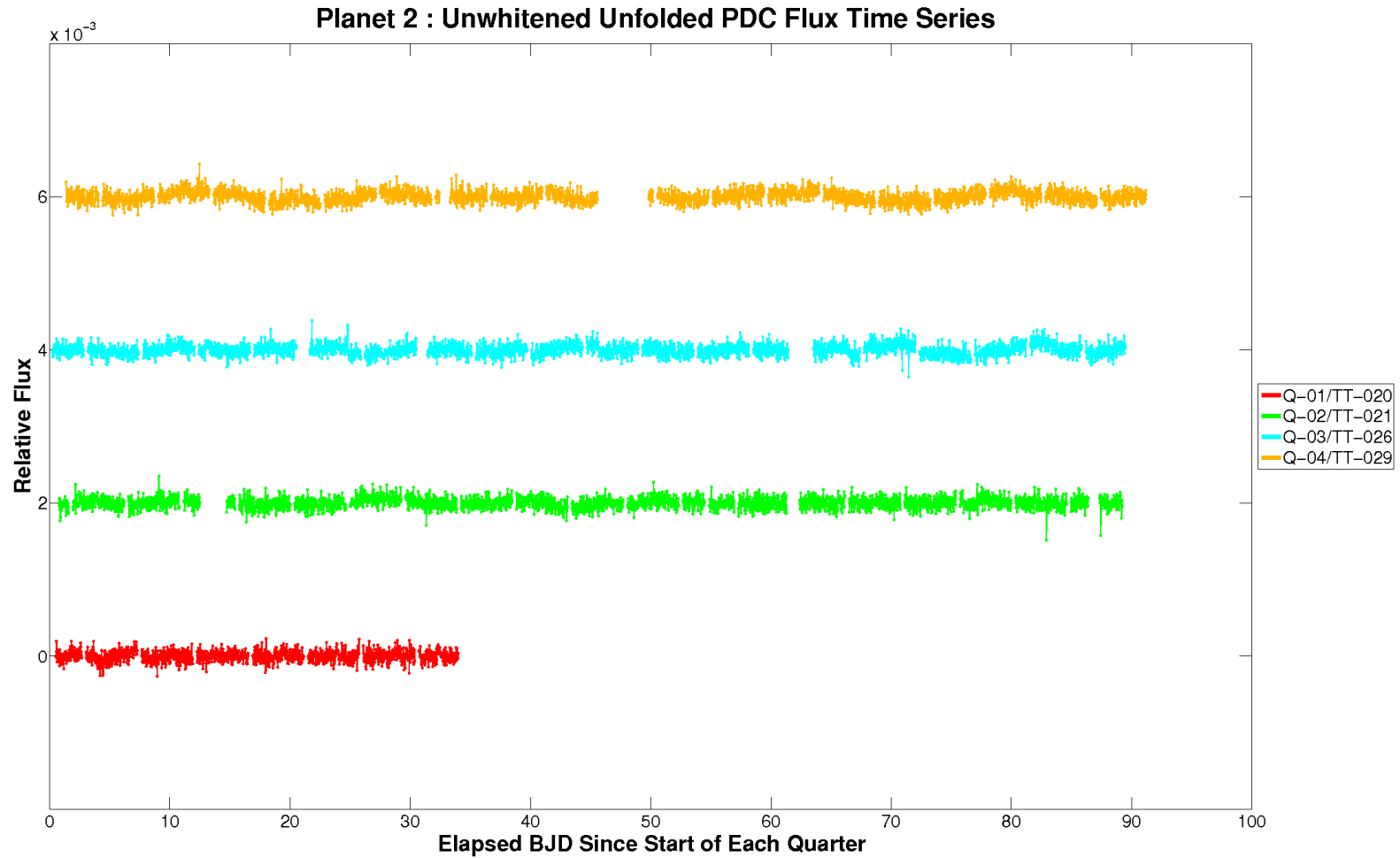


Fit residuals distribution for KeplerId 9602613, Planet candidate 2. Top plot: all valid data. Bottom plot: valid data not used to constrain fit (due to distance from a transit). Gaussian fits to the histograms are shown in red.

Open `./planet-02/planet-search-and-model-fitting-results/all-transits-fit/009602613-02-all-histo-all-and-unused.fig`

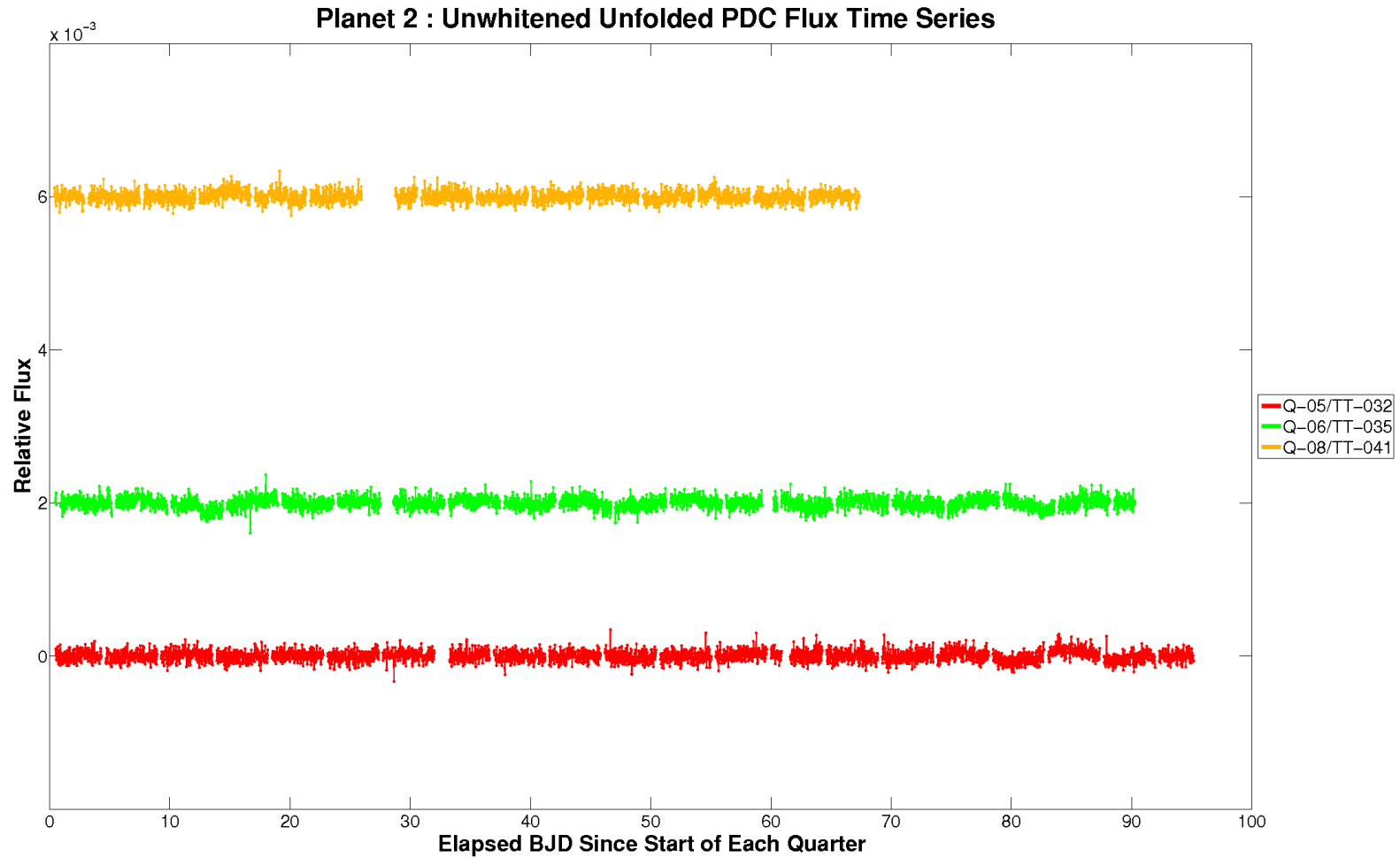
## B.2 Model Fitter: Odd &amp; Even Transits

Parameter	Odd Transits Value	Odd Transits Uncertainty	Even Transits Value	Even Transits Uncertainty	Units	$\frac{\text{Difference}}{\ \text{Uncertainty}\ }$
SNR	6.1		4.3			
Model Chi Square	1230		1230			
Degrees of Freedom	1475		1475			
Transit Epoch	131.9474742	9.1839e-03	139.5060440	1.4114e-02	BKJD	8.5456e-01
Eccentricity	0.0000	0.0000e+00	0.0000	0.0000e+00		
Peri Longitude	0.0000	0.0000e+00	0.0000	0.0000e+00	degrees	
Planet Radius	0.5061	1.2930e+00	0.4404	3.9105e-01	Earth radii	4.8650e-02
Planet Radius to Star Radius Ratio	0.0050692	1.2950e-02	0.0044110	3.9165e-03		4.8650e-02
Semi-major Axis	0.0709	8.0033e-07	0.0709	1.2754e-06	AU	9.6318e-01
Equilibrium Temperature	864	1.8728e+02	864	1.8728e+02	Kelvin	3.3386e-05
Semi-major Axis to Star Radius Ratio	22.1568	2.3148e+02	18.7707	6.7716e+01		1.4040e-02
Impact Parameter	0.2166	4.6374e+01	0.4666	6.0974e+00		5.3459e-03
Star Radius	0.9150	0.0000e+00	0.9150	0.0000e+00	solar radii	
Transit Duration	2.5626	2.4777e-01	2.7414	3.2517e-01	hours	4.3730e-01
Transit Ingress Time	0.0136	3.1912e-01	0.0154	1.2487e-01	hours	5.2929e-03
Transit Depth	31	5.2272e+00	23	5.4116e+00	ppm	1.1541e+00
Orbital Period	7.5728468	1.2827e-04	7.5730792	2.0442e-04	days	9.6317e-01



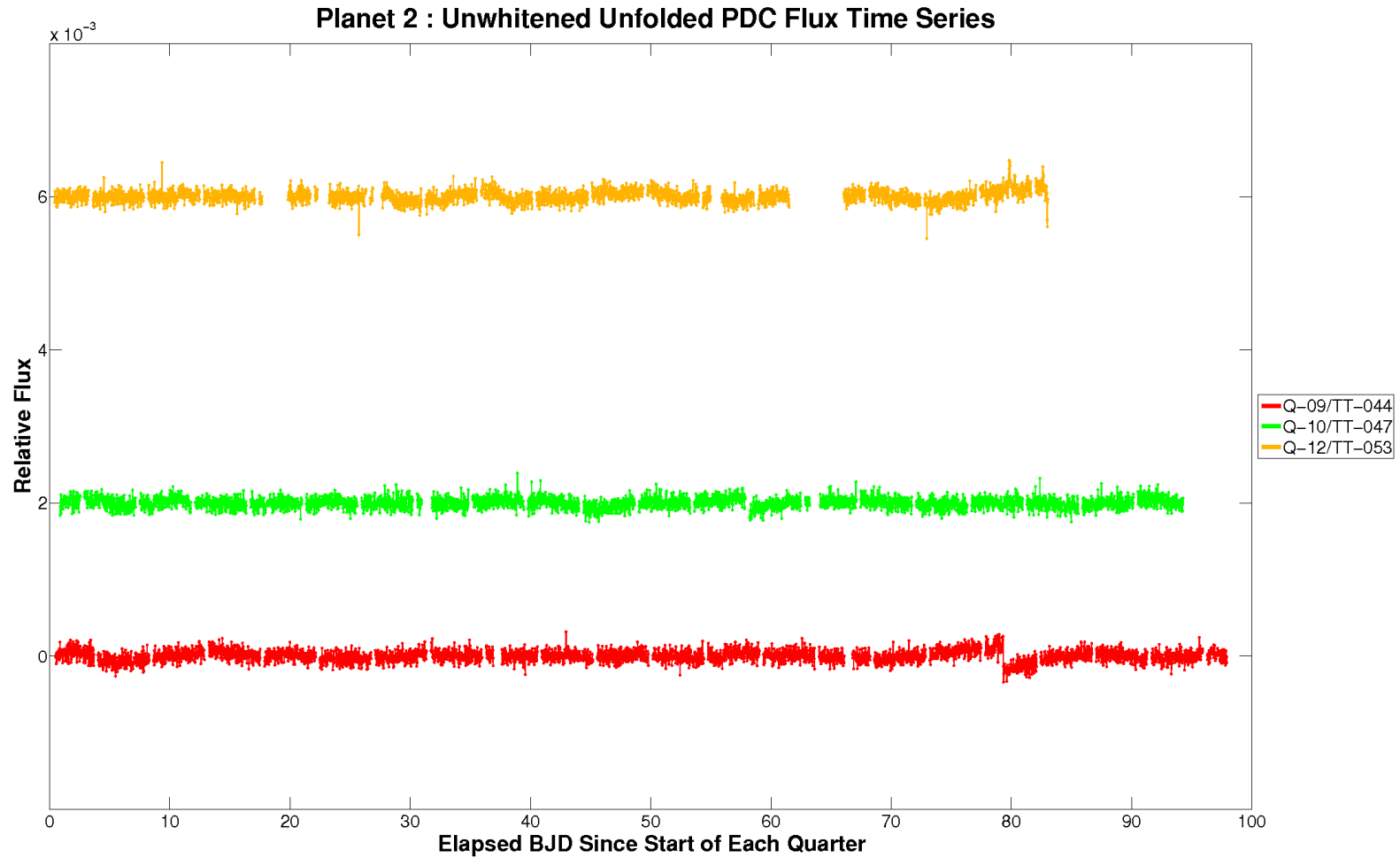
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-01/TargetTableId-020, start BJD is 2454964 and the vertical offset is 0. For the data of Quarter-02/TargetTableId-021, start BJD is 2455002 and the vertical offset is 0.002. For the data of Quarter-03/TargetTableId-026, start BJD is 2455093 and the vertical offset is 0.004. For the data of Quarter-04/TargetTableId-029, start BJD is 2455184 and the vertical offset is 0.006.

Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-01-020.fig`



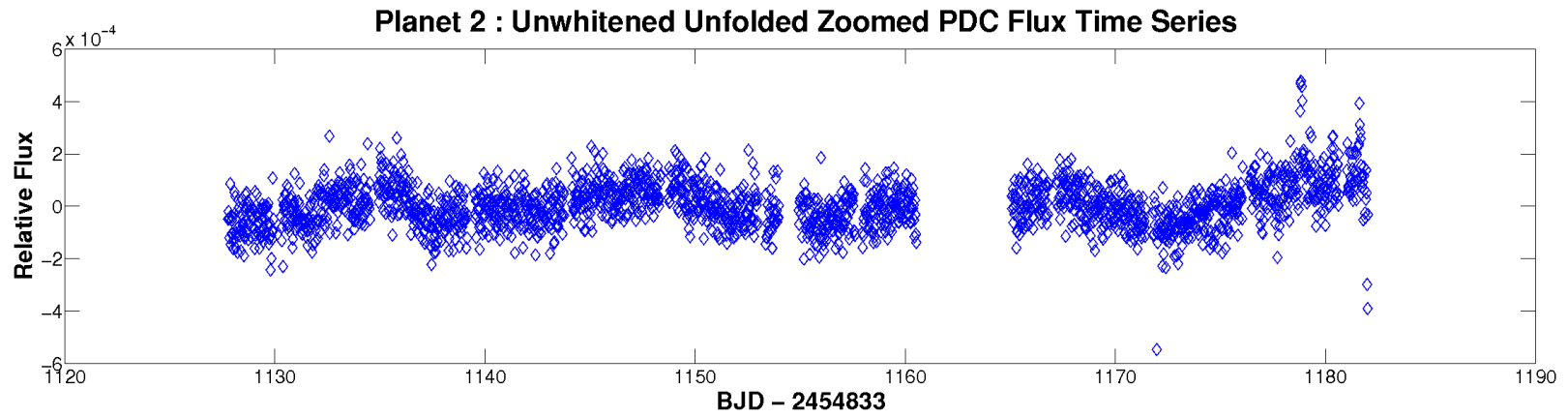
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-05/TargetTableId-032, start BJD is 2455276 and the vertical offset is 0. For the data of Quarter-06/TargetTableId-035, start BJD is 2455372 and the vertical offset is 0.002. For the data of Quarter-07/TargetTableId-038, start BJD is 2455463 and the vertical offset is 0.004. For the data of Quarter-08/TargetTableId-041, start BJD is 2455568 and the vertical offset is 0.006.

Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-05-032.fig`



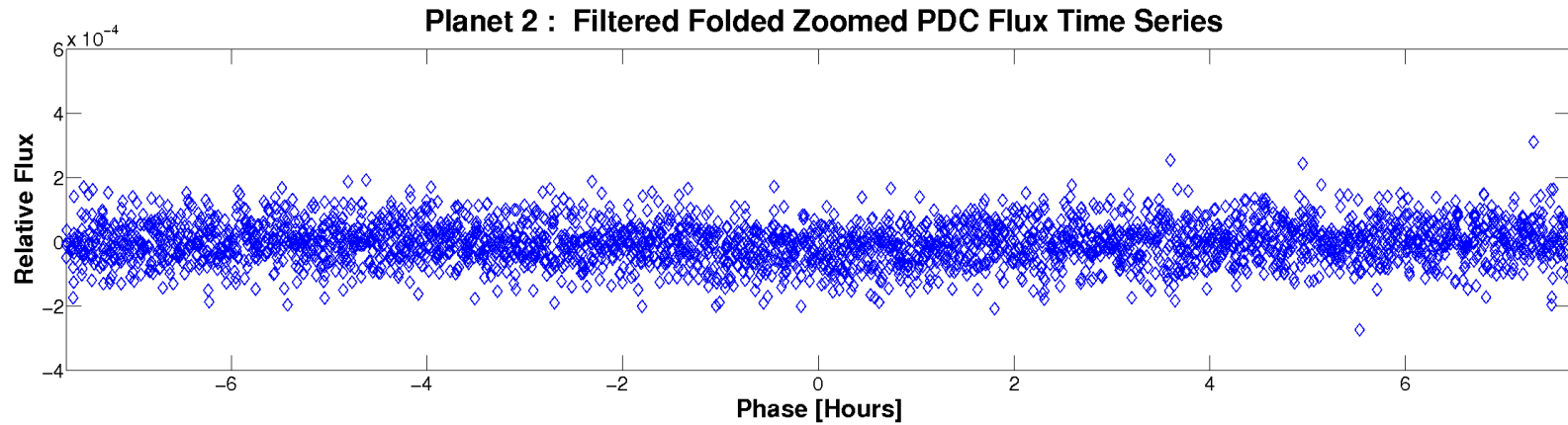
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. For the data of Quarter-09/TargetTableId-044, start BJD is 2455641 and the vertical offset is 0. For the data of Quarter-10/TargetTableId-047, start BJD is 2455739 and the vertical offset is 0.002. For the data of Quarter-11/TargetTableId-050, start BJD is 2455834 and the vertical offset is 0.004. For the data of Quarter-12/TargetTableId-053, start BJD is 2455932 and the vertical offset is 0.006.

Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-09-044.fig`



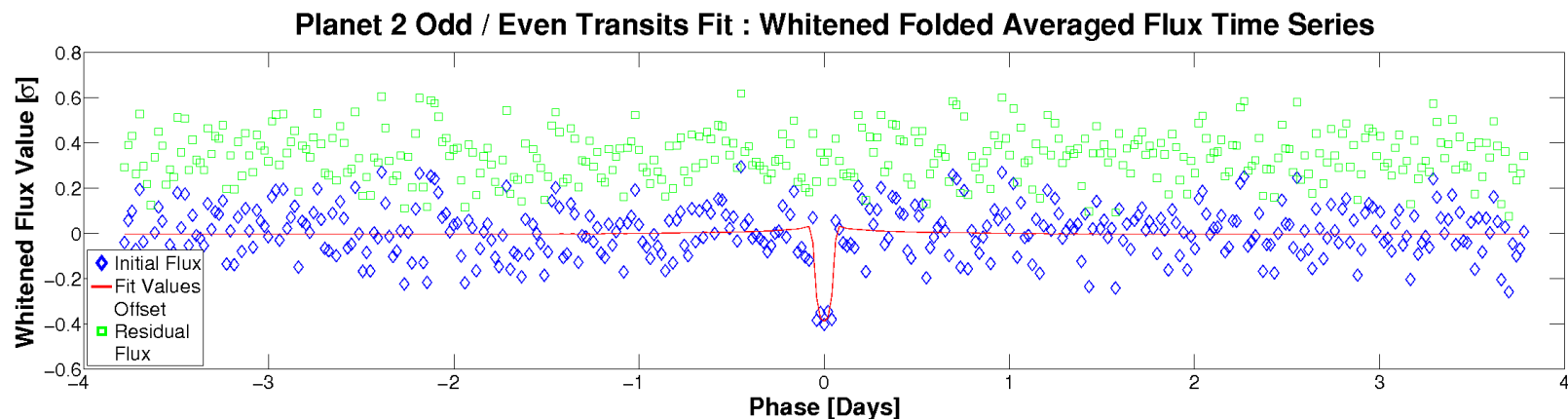
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain, zoomed on last 5 transits in the unit of work. If # of transits is smaller than 5, all transits are shown.

Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-unwhitened-zoomed.fig`



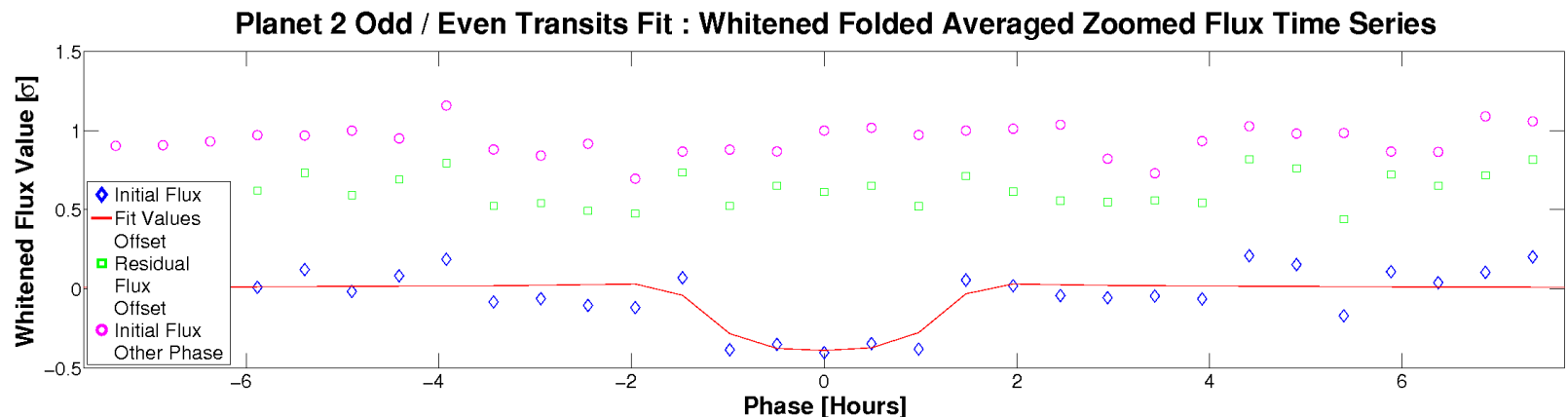
PDC Flux time series for KeplerId 9602613, Planet candidate 2 in the unwhitened domain. Data has been high-pass filtered via a median filter operating at the geometric mean of the transit duration and the orbital period, folded per the fitted period and epoch, and zoomed to the location of the model 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 whitenened domain. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity.

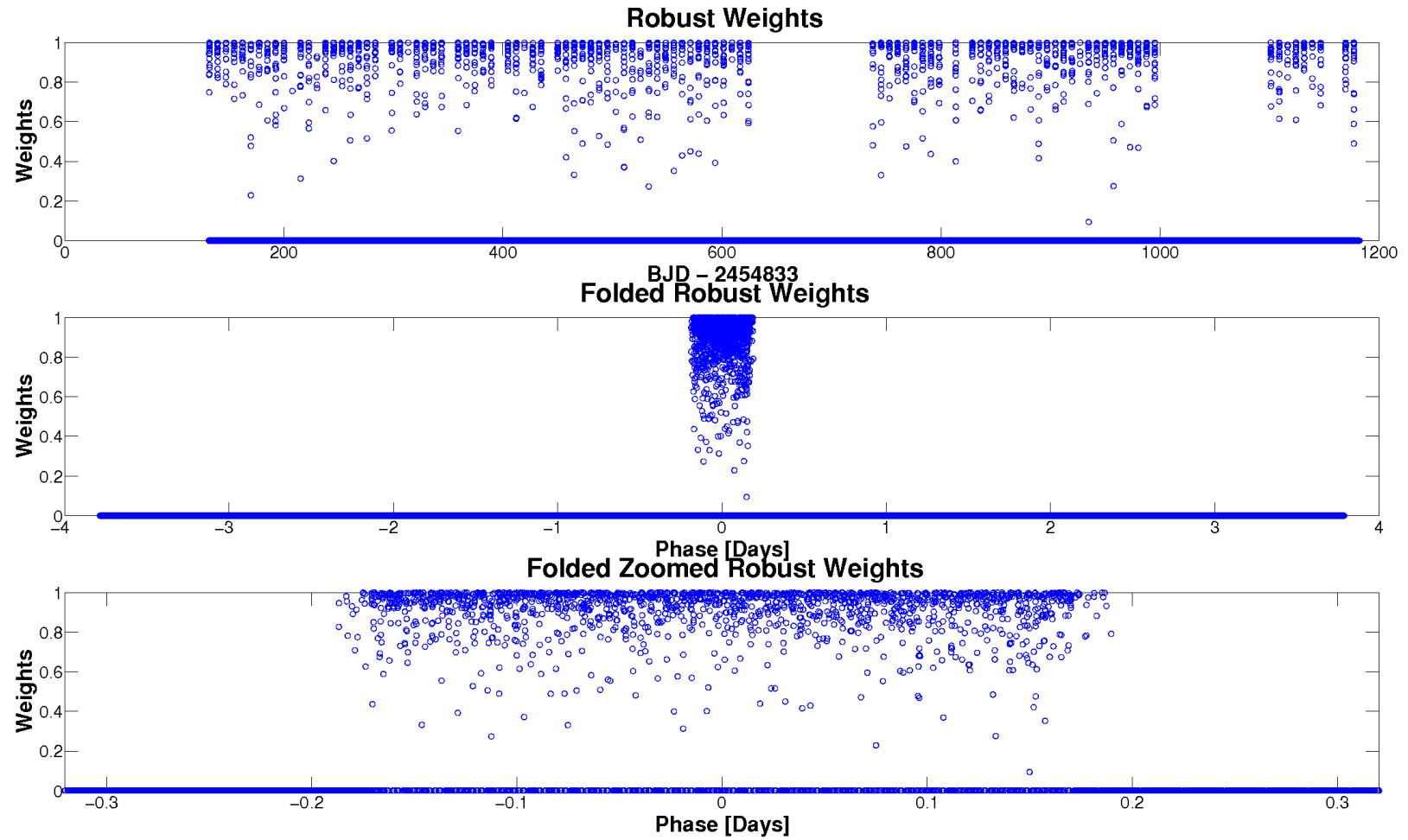
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-whitenened.fig`



Folded flux time series for KeplerId 9602613, Planet candidate 2 in the whitenened domain, zoomed on the transit. Values are averaged into 1 cadence wide bins. Blue diamonds represent the original data; the red line represents the fit; the green squares are the residuals (data - fit), vertically offset for clarity. Magenta circles are the original data but with a phase shift of 0.5 relative to the blue diamonds, vertically offset for clarity.

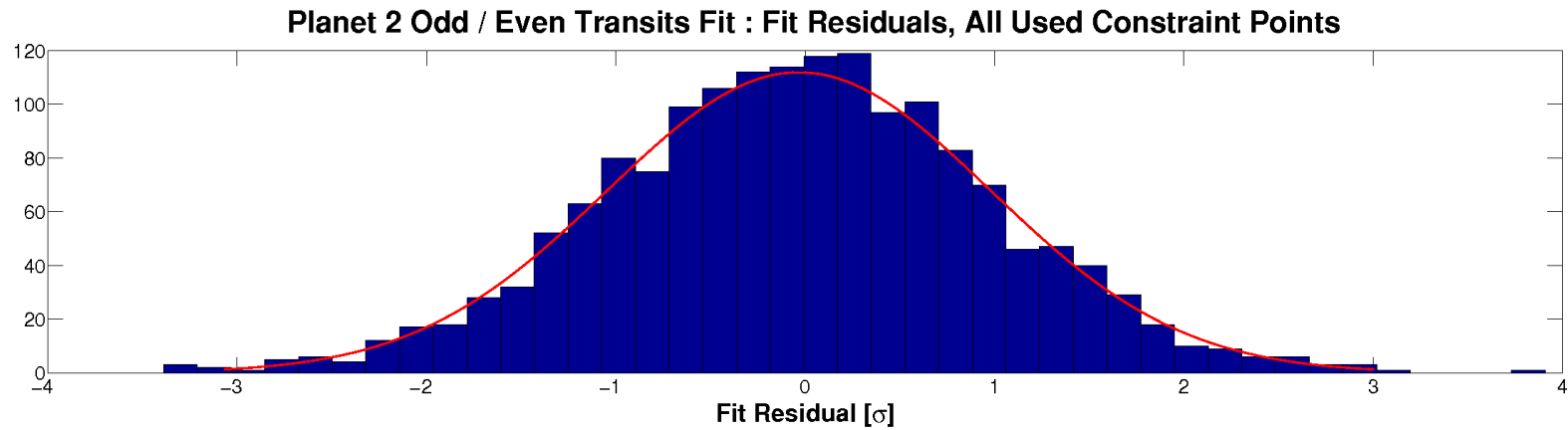
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-whitenened-zoomed.fig`





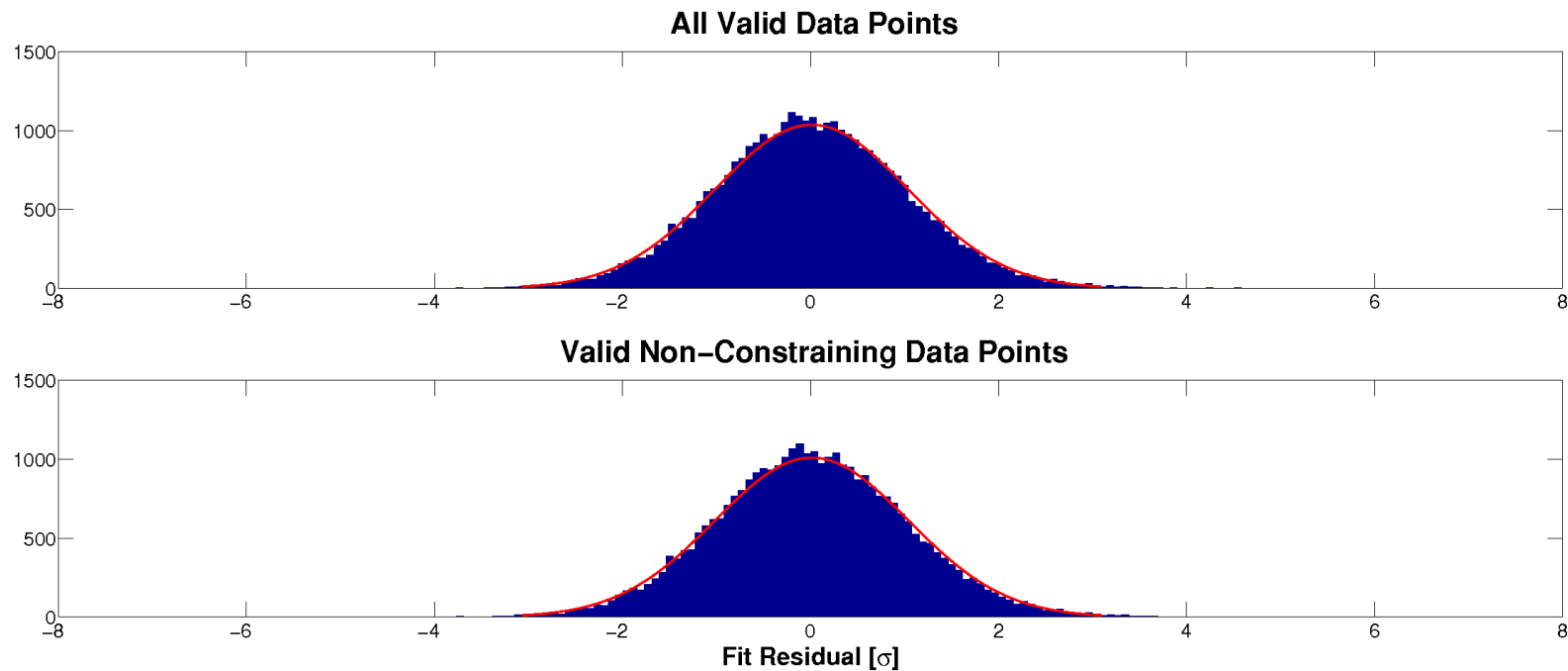
Robust weights distribution for KeplerId 9602613, Planet candidate 2. Top plot: all data points. Middle plot: all data points, folded per the fitted period and epoch. Bottom plot: all data points, folded and zoomed.

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.

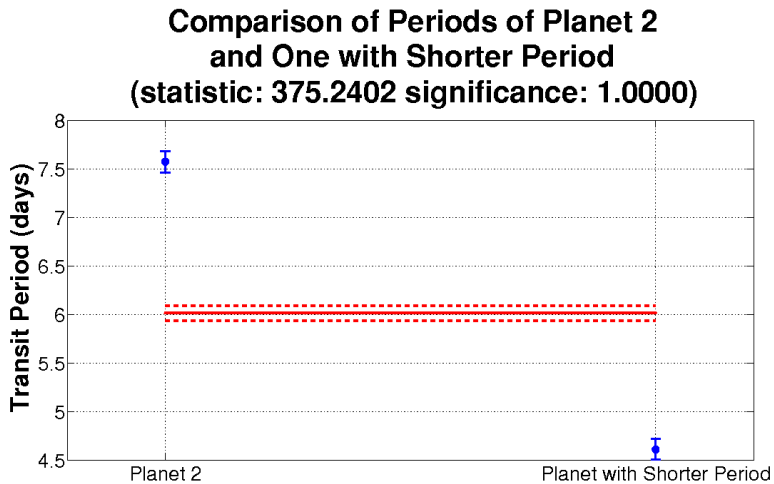
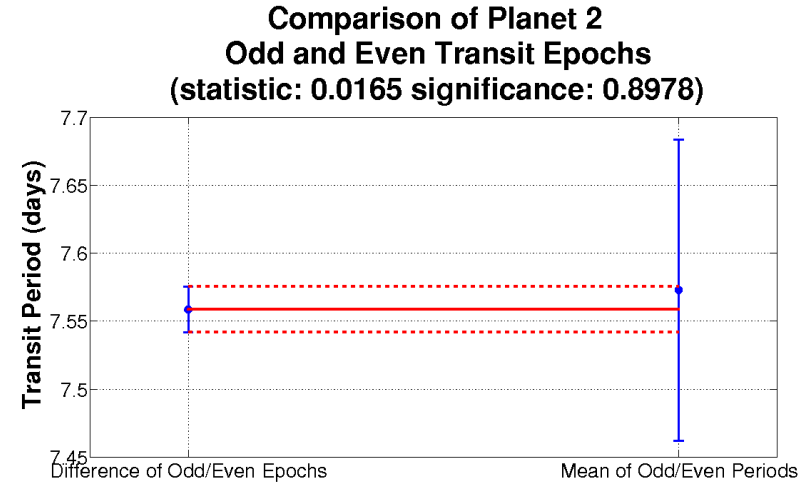
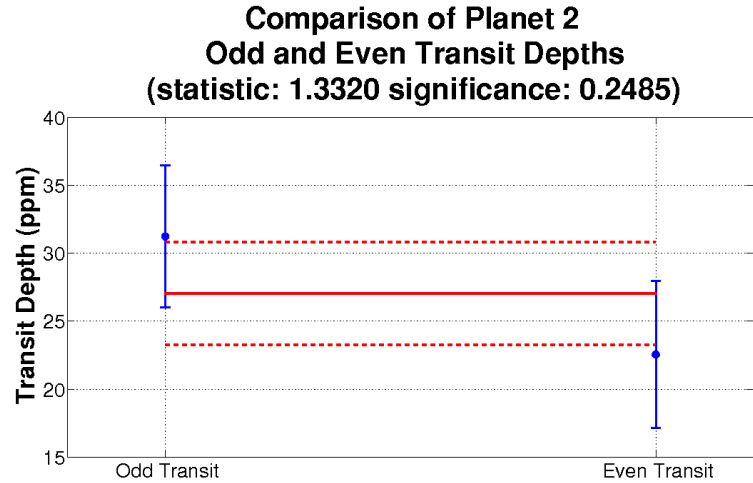
Open `./planet-02/planet-search-and-model-fitting-results/odd-even-transits-fit/009602613-02-odd-even-histo-used.fig`



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
56230.1733	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)
56230.1733	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)
56230.1833	warning	All centroid and flux data gapped. 009602613-01-transit-fit-prf-centroids-07.fig not saved. (target=1, keplerId=9602613, planet=1, component=Centroid test prf)
56230.1834	warning	All centroid and flux data gapped. 009602613-01-transit-fit-prf-centroids-11.fig not saved. (target=1, keplerId=9602613, planet=1, component=Centroid test prf)
56230.1835	warning	All centroid and flux data gapped. 009602613-02-transit-fit-prf-centroids-07.fig not saved. (target=1, keplerId=9602613, planet=2, component=Centroid test prf)
56230.1839	warning	All centroid and flux data gapped. 009602613-02-transit-fit-prf-centroids-11.fig not saved. (target=1, keplerId=9602613, planet=2, component=Centroid test prf)
56230.1879	warning	All centroid and flux data gapped. 009602613-01-transit-fit-fluxWeighted-centroids-07.fig not saved. (target=1, keplerId=9602613, planet=1, component=Centroid test fluxWeighted)
56230.1879	warning	All centroid and flux data gapped. 009602613-01-transit-fit-fluxWeighted-centroids-11.fig not saved. (target=1, keplerId=9602613, planet=1, component=Centroid test fluxWeighted)
56230.1881	warning	All centroid and flux data gapped. 009602613-02-transit-fit-fluxWeighted-centroids-07.fig not saved. (target=1, keplerId=9602613, planet=2, component=Centroid test fluxWeighted)
56230.1881	warning	All centroid and flux data gapped. 009602613-02-transit-fit-fluxWeighted-centroids-11.fig not saved. (target=1, keplerId=9602613, planet=2, component=Centroid test fluxWeighted)
56230.1882	warning	Pixel correlation test is disabled (target=1, keplerId=9602613, component=Pixel correlation test)
56230.1884	warning	Statistical bootstrap is disabled (target=1, keplerId=9602613, component=bootstrap)