

KIC 008379547

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008379547-01	OBS	7029.01	6.042033	132.204990	128994.5	7.920	4202.9	3856.2	0.59	5030	23.10	66.78
008379547-02	OBS	No	3.020997	132.205967	15107.4	7.615	579.9	457.4	0.59	5030	8.45	168.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008379547-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE
008379547-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008379547-01

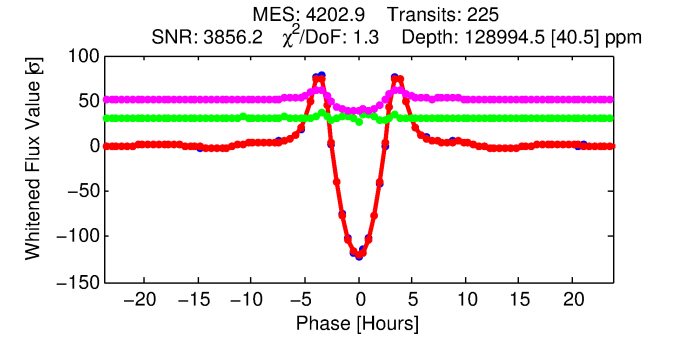
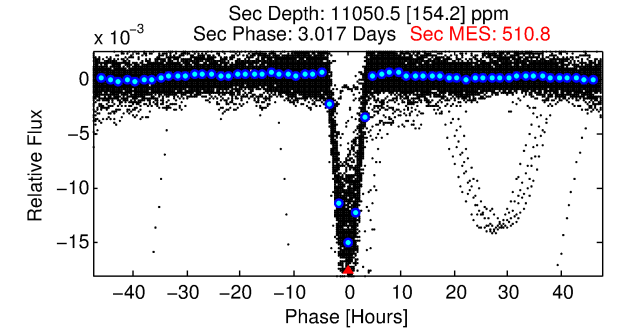
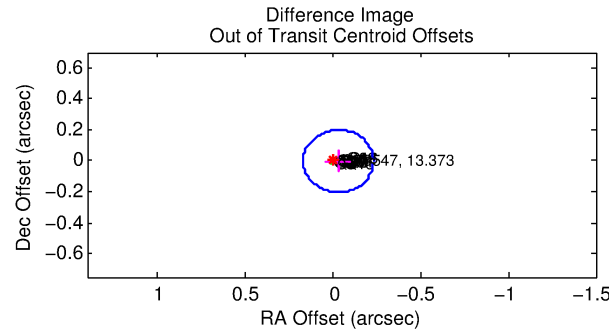
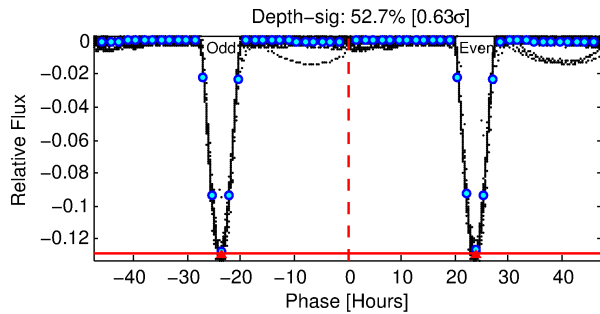
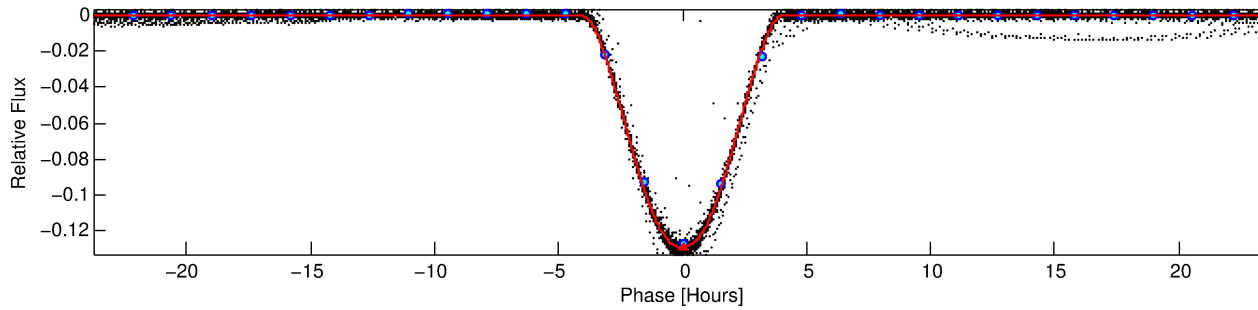
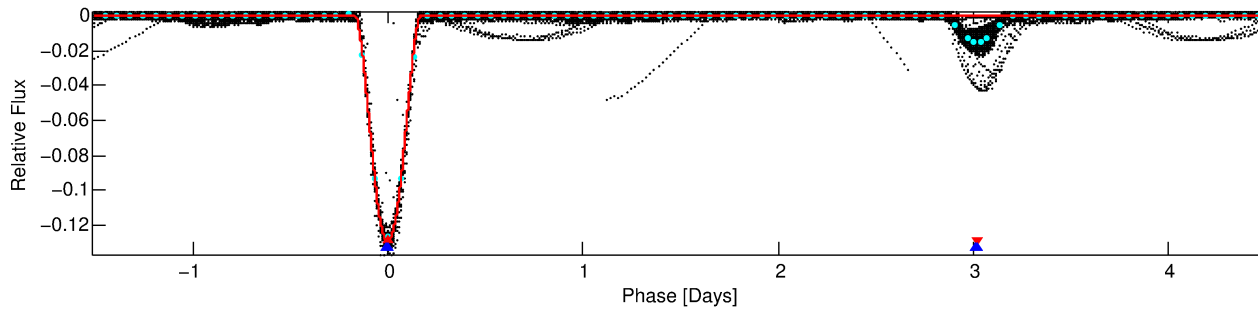
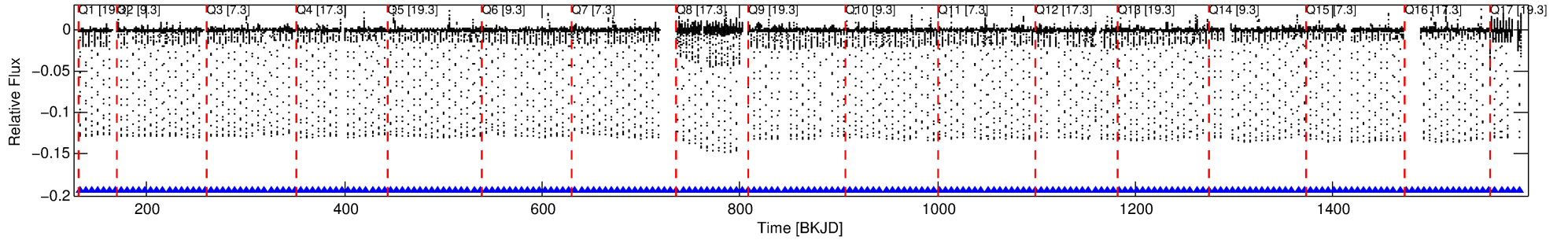
No Significant Match Found

DV One-Page Summary

KIC: 8379547 Candidate: 1 of 2 Period: 6.042 d

KOI: K07029.01 Corr: 0.990

Kp: 13.37 R*: 0.59 Rs Teff: 5030.0 K Logg: 4.67 Fe/H: -1.140



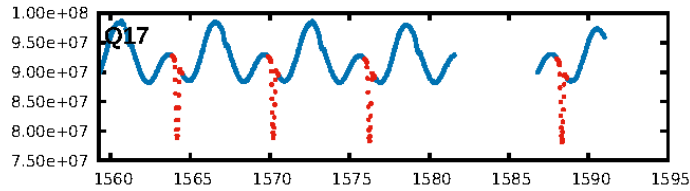
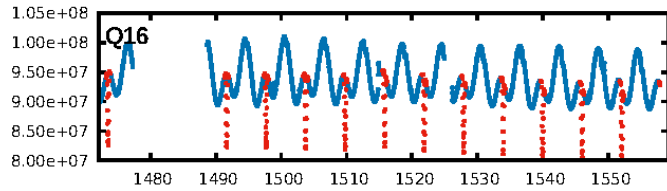
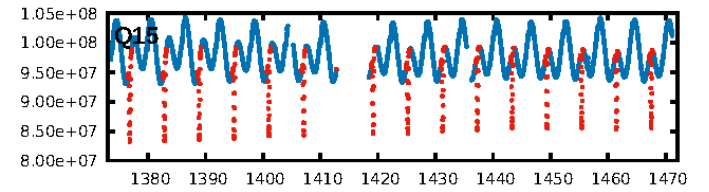
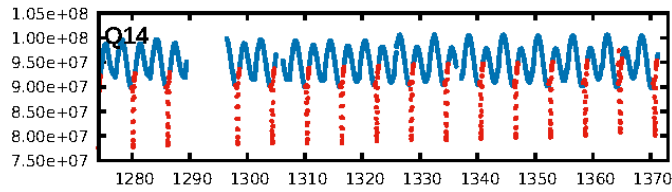
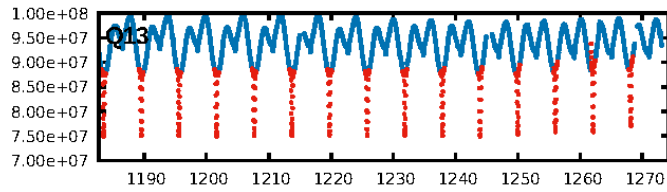
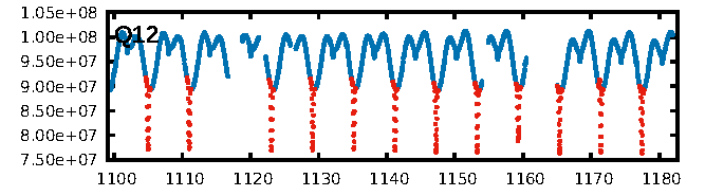
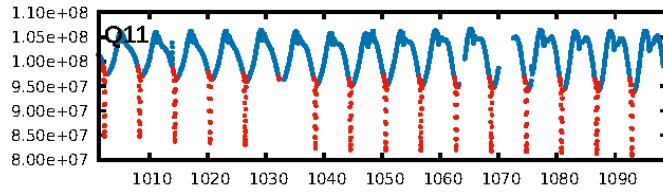
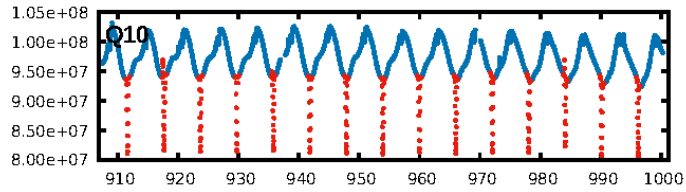
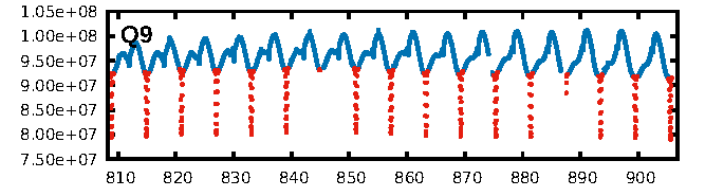
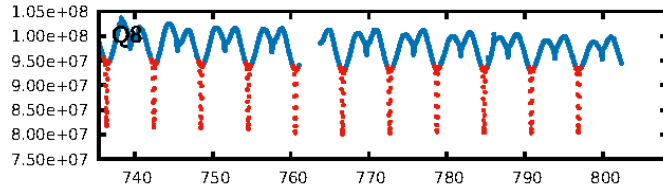
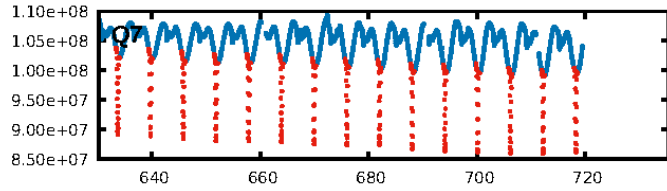
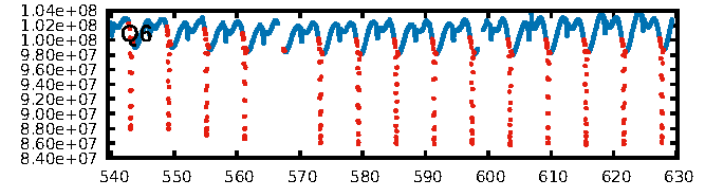
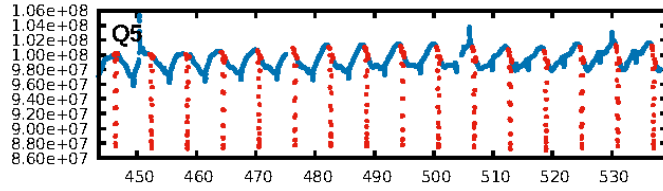
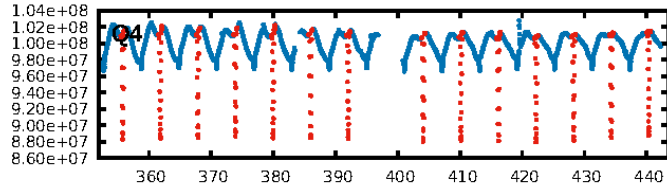
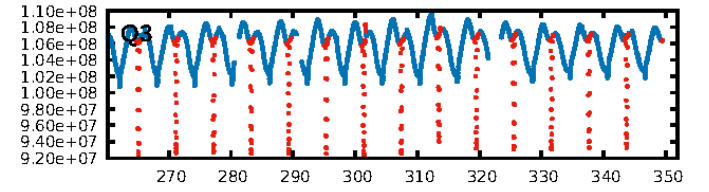
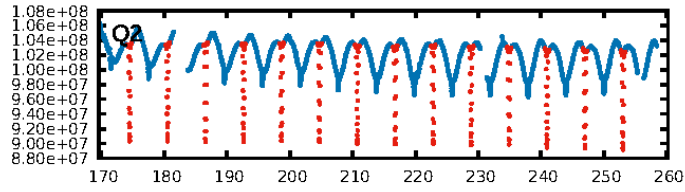
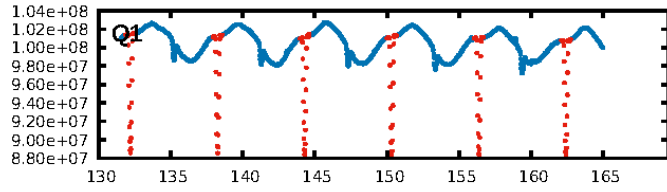
DV Fit Results:

Period = 6.04203 [0.00000] d
Epoch = 132.2050 [0.0000] BKJD
Rp/R* = 0.3606 [0.0001]
a/R* = 6.97 [0.00]
b = 0.67 [0.00]
Seff = 66.79 [11.12]
Teq = 729 [30] K
Rp = 23.10 [2.01] Re
a = 0.0544 [0.0039] AU
Ag = 33.72 [3.48] [9.39σ]
Teffp = 2716 [90] K [21.01σ]

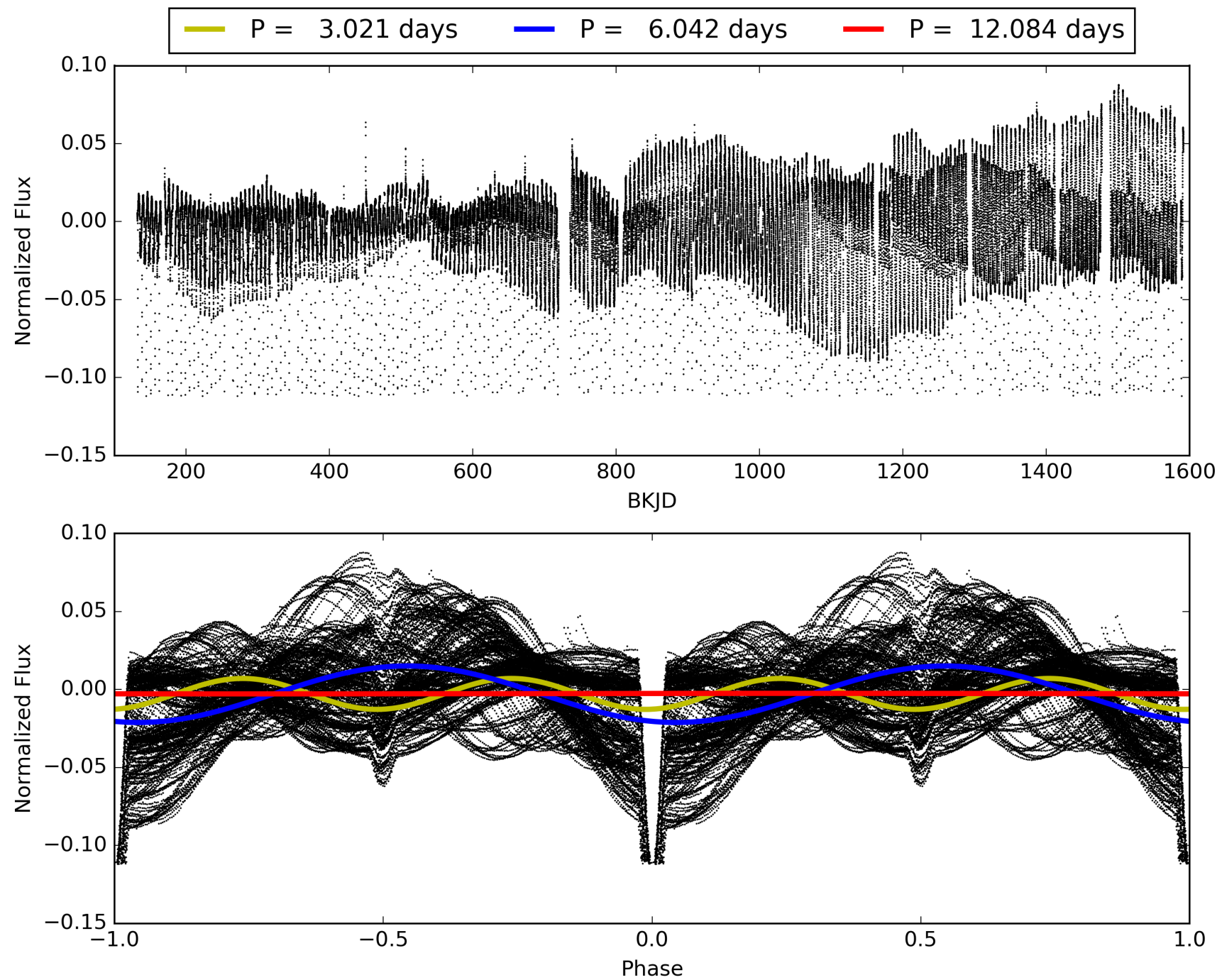
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.60σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [215/215]
GhostDiagnostic-chr: 1.376
Centroid-sig: 0.0%
Centroid-so: 0.047 arcsec [65.11σ]
OotOffset-rm: 0.031 arcsec [0.47σ]
KicOffset-rm: 0.083 arcsec [1.23σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 008379547-01, PDC Light Curves

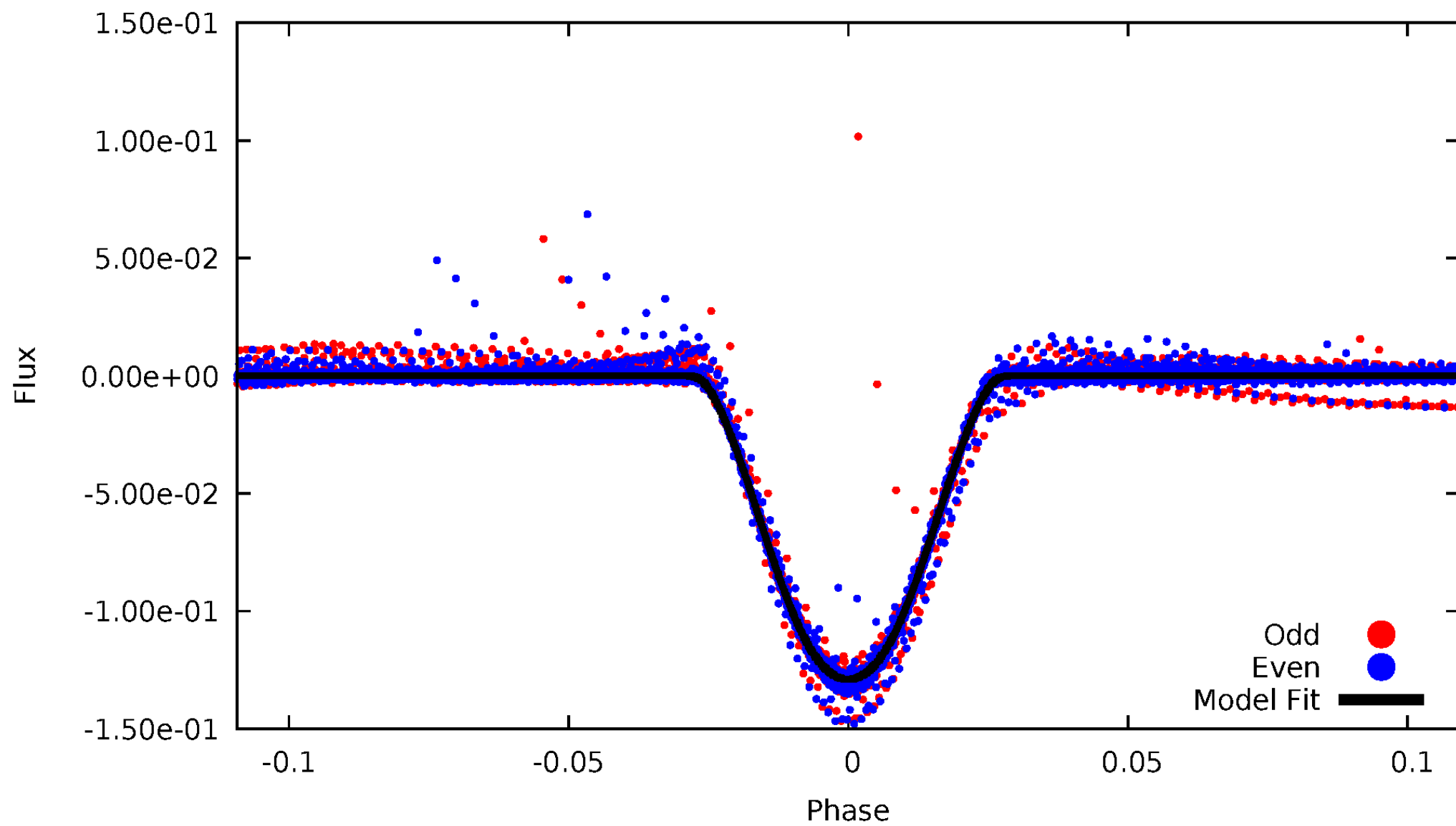


TCE 008379547-01



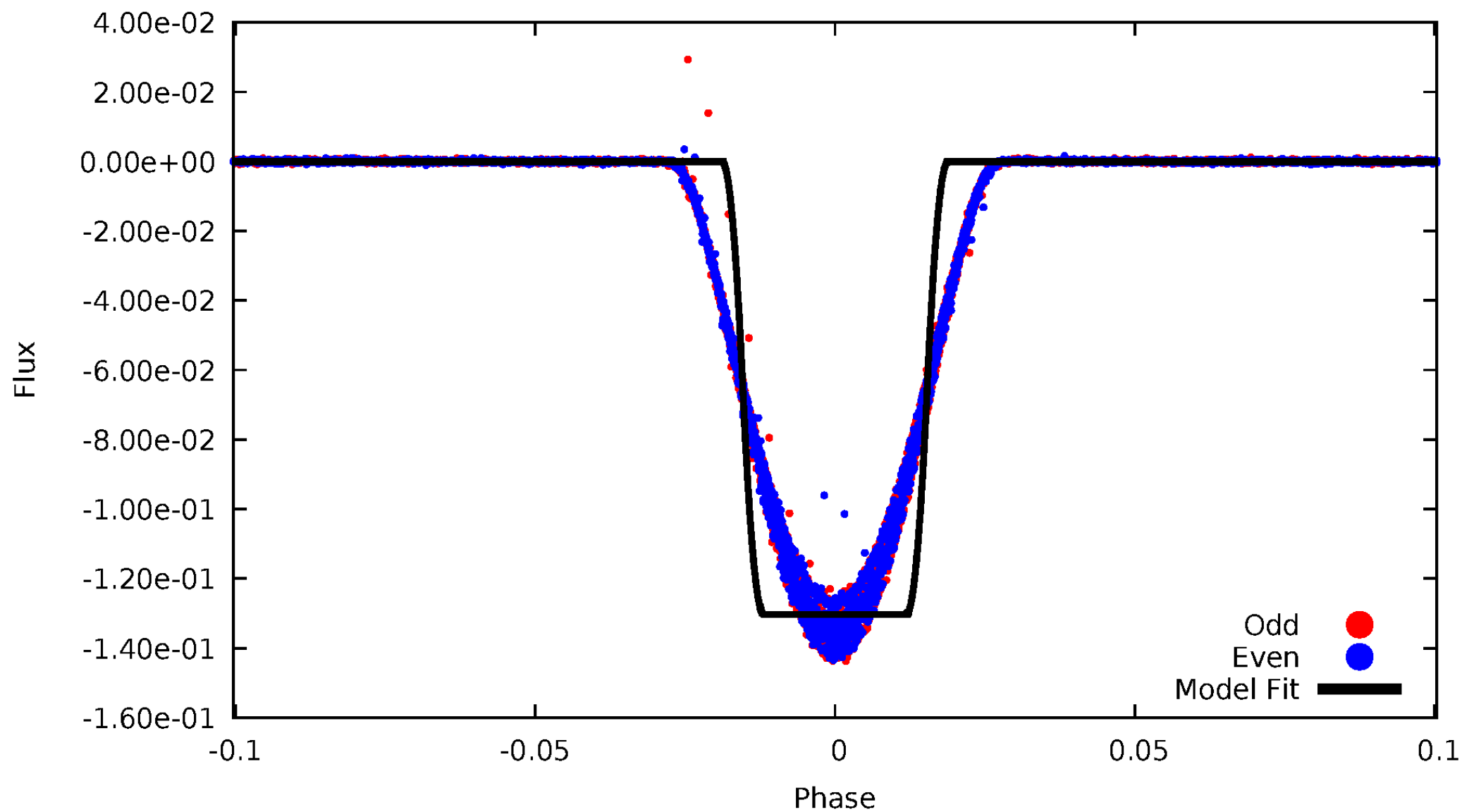
DV Odd/Even

TCE 008379547-01



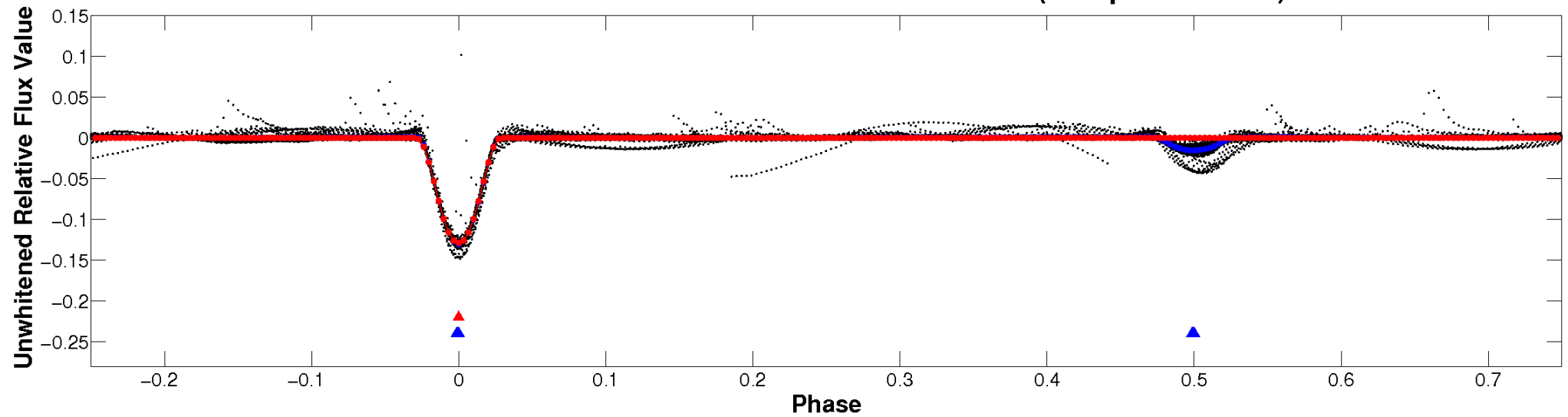
ALT Odd/Even

TCE 008379547-01

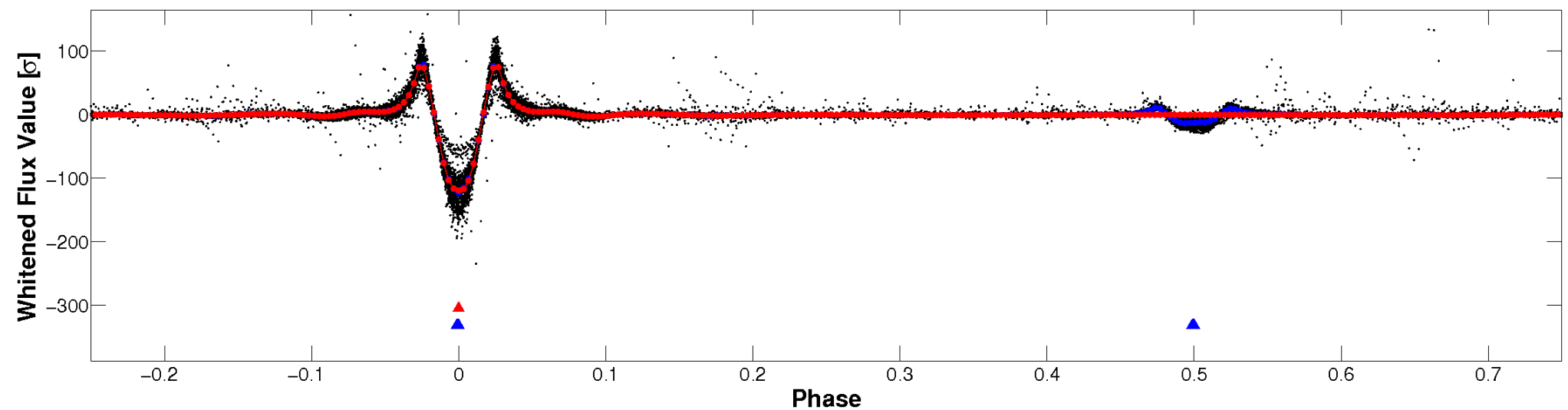


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

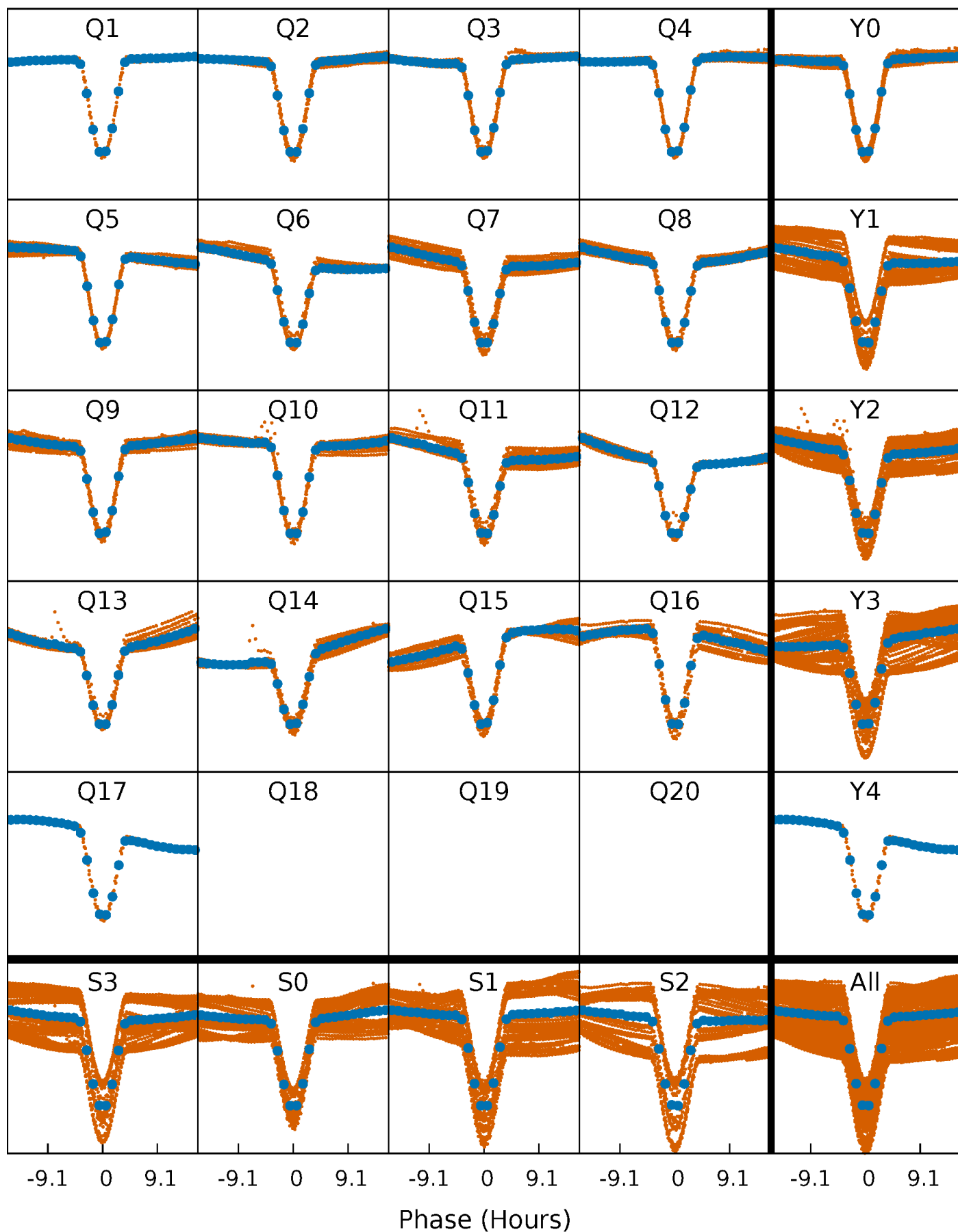


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



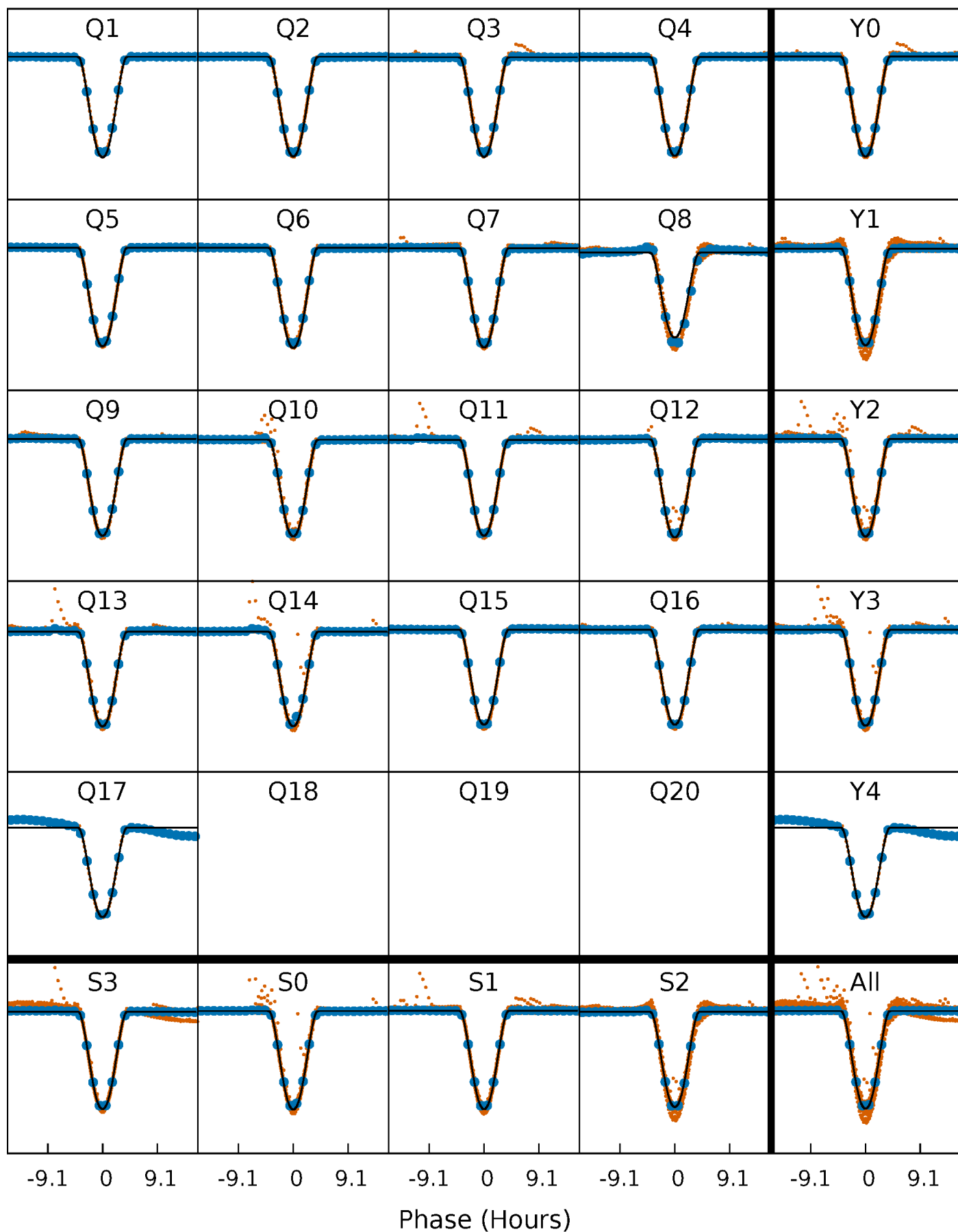
PDC Quarter-Phased Transit Curves

TCE 008379547-01 P= 6.042033 Days $T_0=132.204990$ (BKJD)



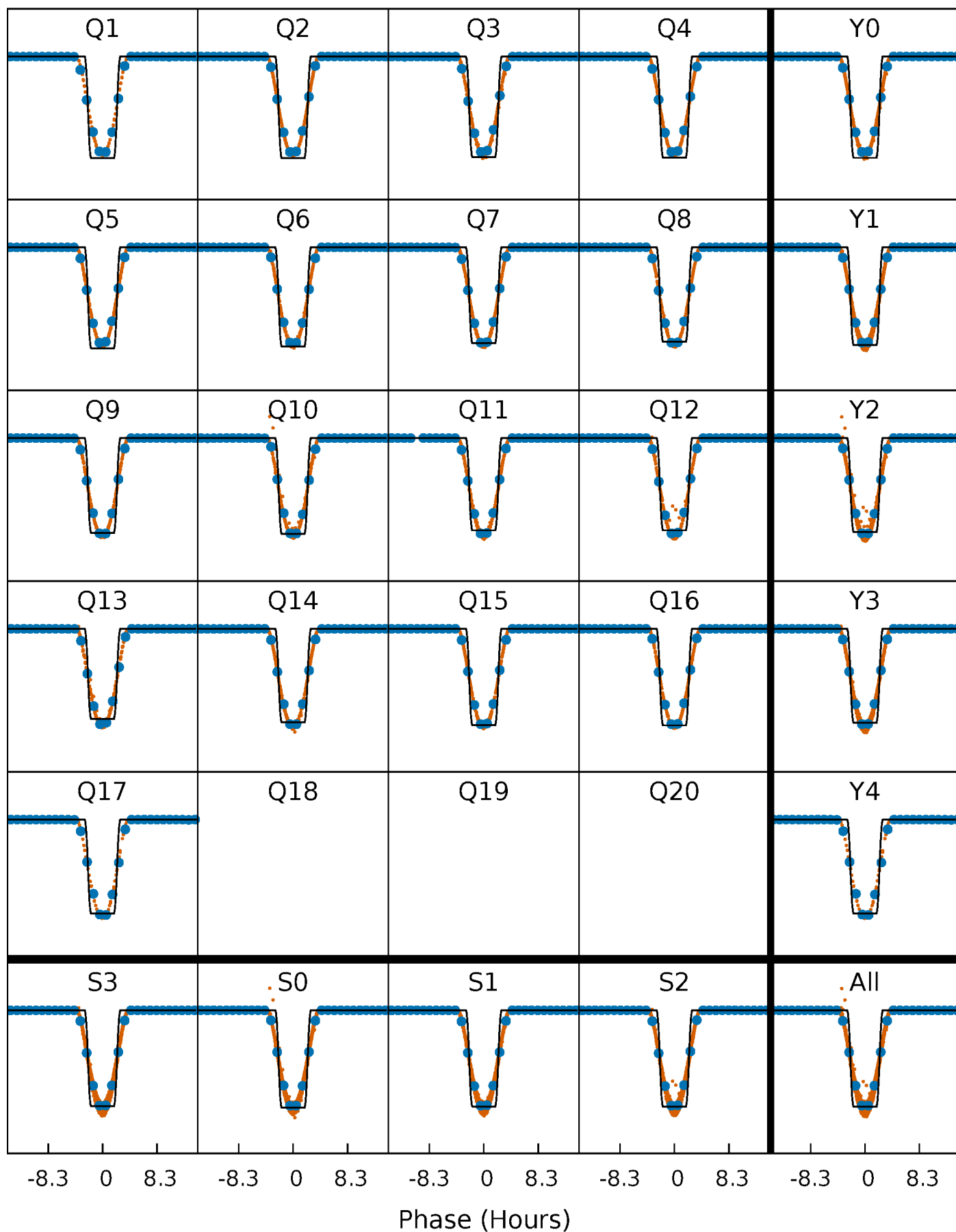
DV Quarter-Phased Transit Curves

TCE 008379547-01 P= 6.042033 Days $T_0=132.204990$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

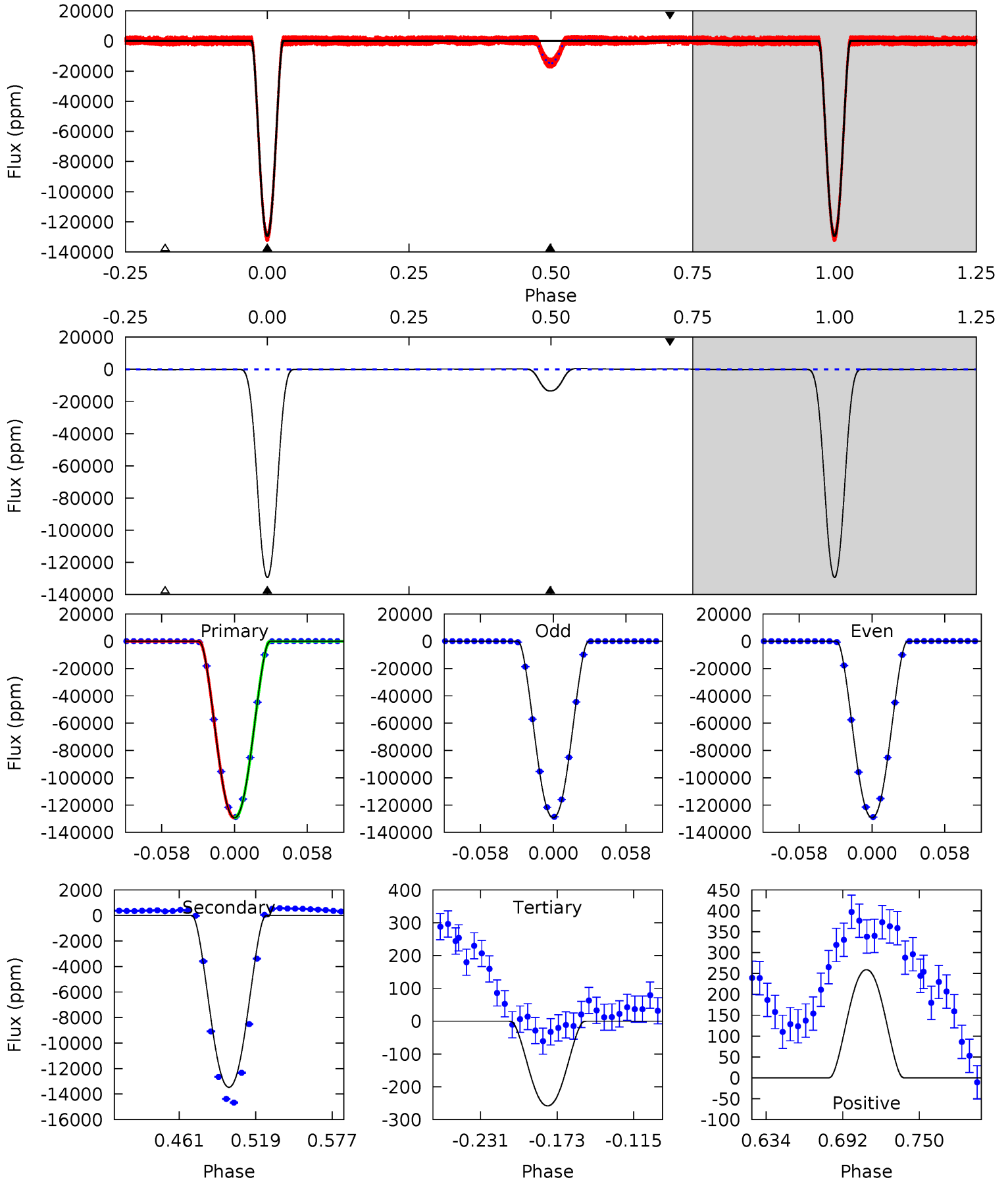
TCE 008379547-01 P= 6.042029 Days $T_0=132.205564$ (BKJD)



DV Model-Shift Uniqueness Test

008379547-01, P = 6.042033 Days, E = 126.162957 Days

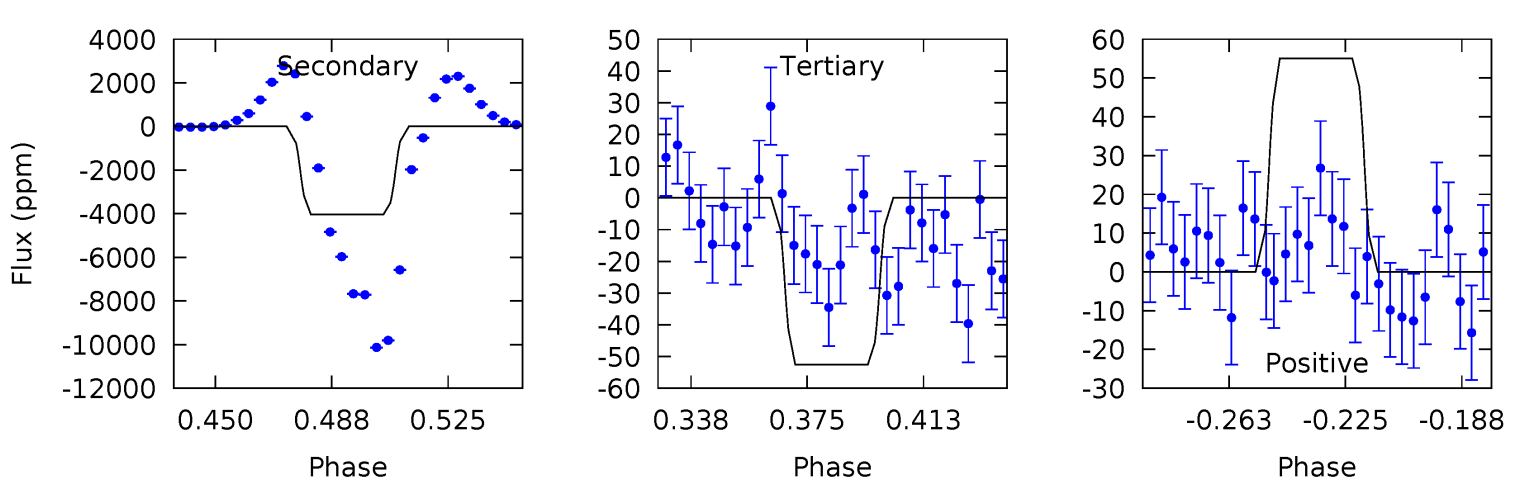
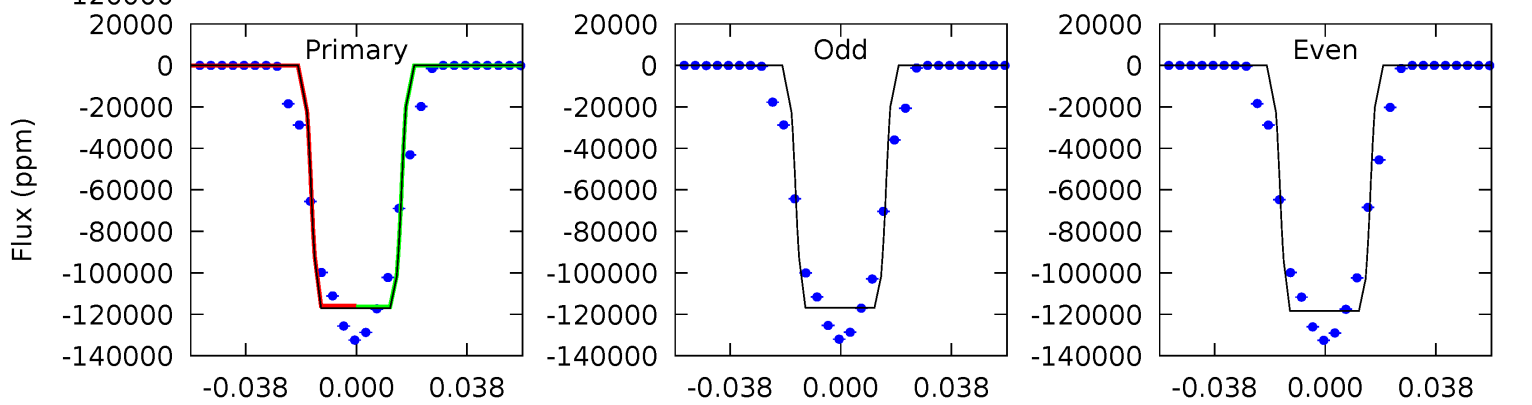
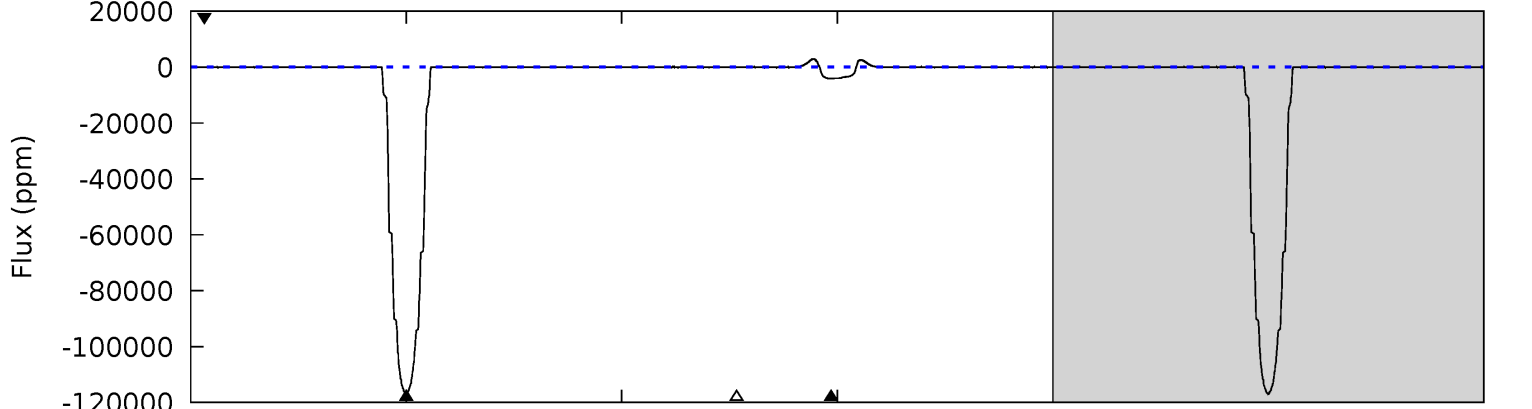
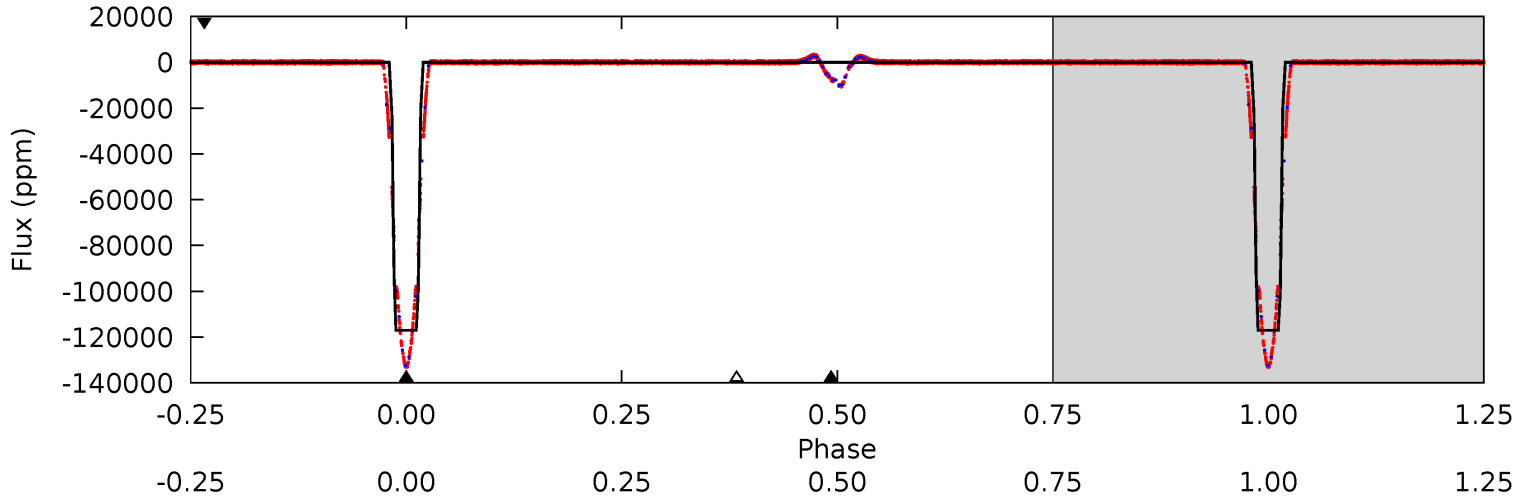
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8949	932.2	17.9	17.9	4.68	1.90	11.6	8931	8931	914.3	914.2	2.17	1.00	0.00	0.28



Alt Model-Shift Uniqueness Test

008379547-01, P = 6.042029 Days, E = 126.163535 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7838	270.1	3.52	3.68	4.77	2.08	8.17	7835	7835	266.5	266.4	48.2	1.00	0.02	0



Stellar Parameters For KIC 008379547

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5030^{+165}_{-165}	$4.670^{+0.055}_{-0.055}$	$-1.140^{+0.300}_{-0.300}$	$0.587^{+0.051}_{-0.041}$	$0.587^{+0.050}_{-0.021}$	$4.098^{+0.894}_{-0.735}$
	+3%/-3%	+1%/-1%	+26%/-26%	+9%/-7%	+9%/-4%	+22%/-18%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008379547-01 / KOI 7029.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13467 ± 14	$23.22^{+1.18}_{-0.95}$	1018^{+40}_{-40}	3350^{+76}_{-83}	41^{+3}_{-3}
Alt.	-4032 ± 15	$23.14^{+1.22}_{-0.93}$	1018^{+39}_{-38}	2809^{+53}_{-56}	12^{+1}_{-1}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

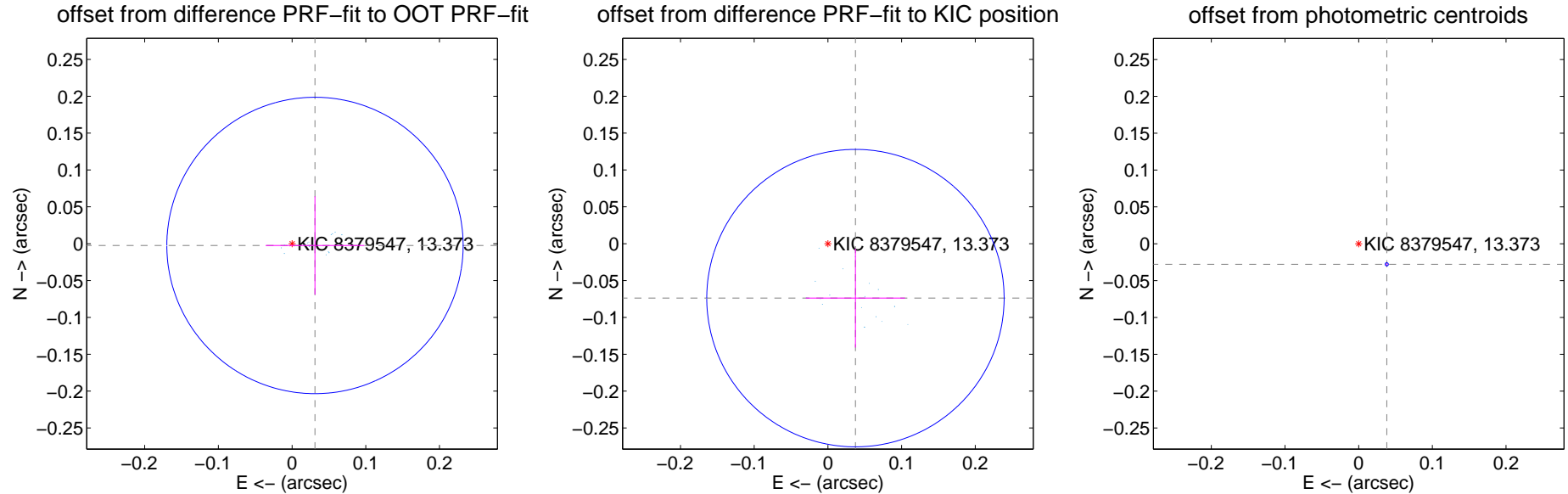
DV Centroid Data

Supplemental centroid analysis for 008379547-01. Kepler magnitude: 13.37. Transit SNR 3856.16

There are 17 quarters with good PRF difference image offsets

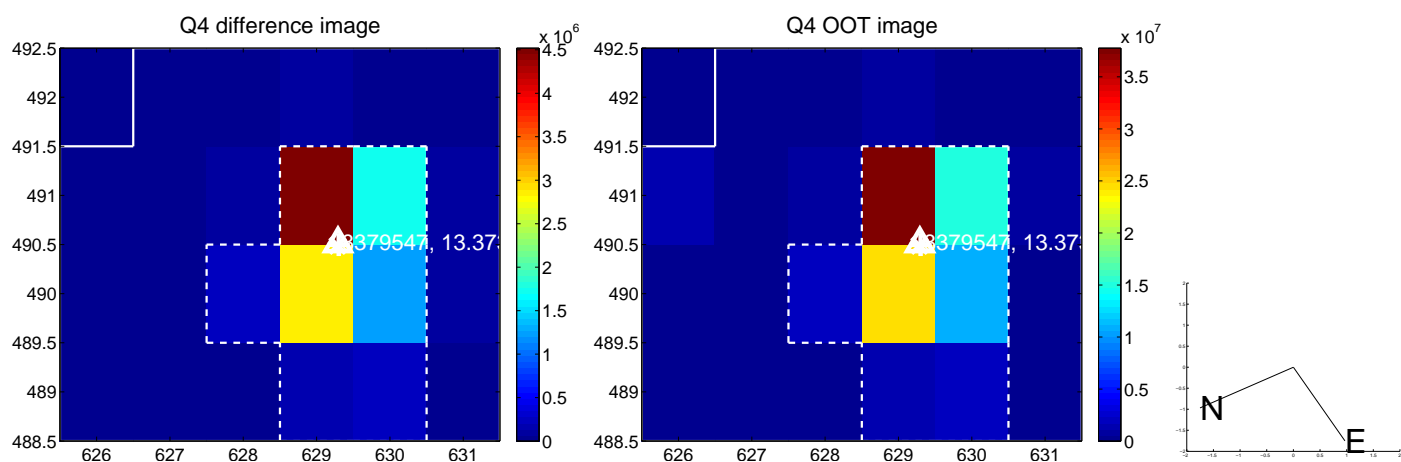
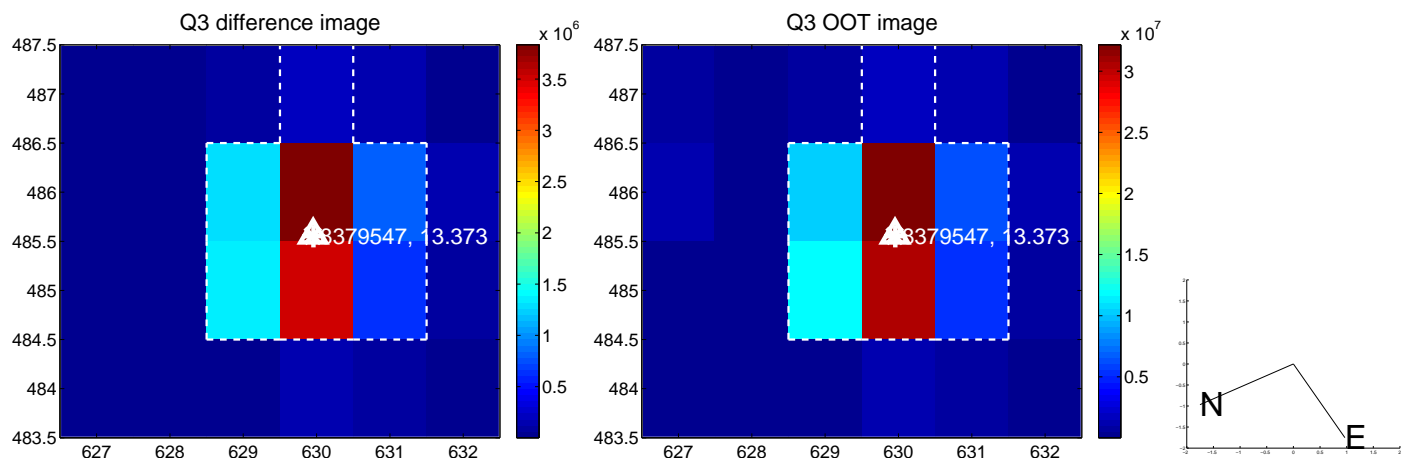
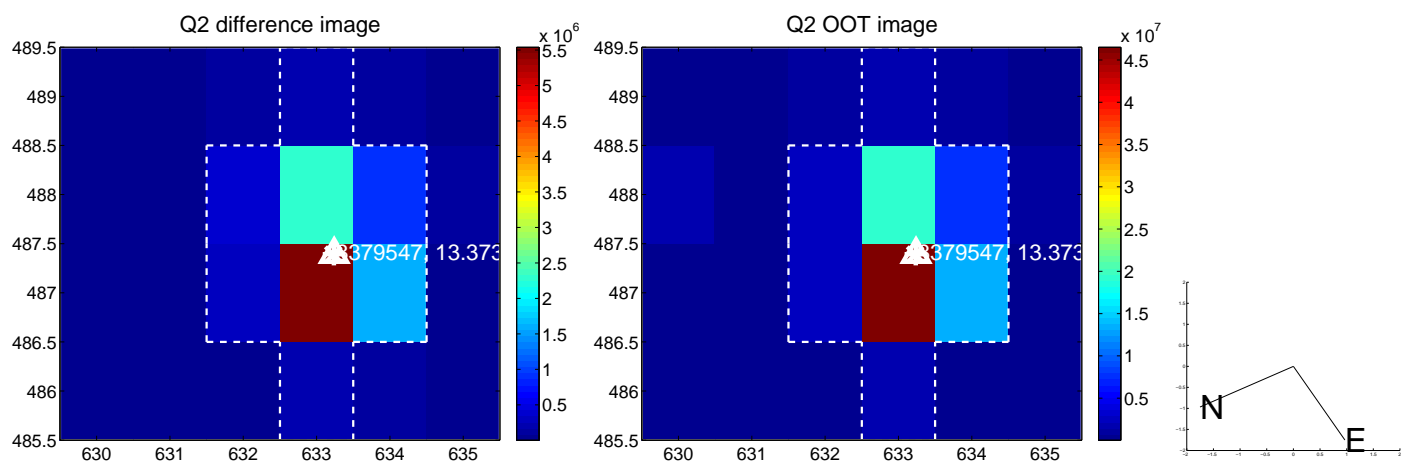
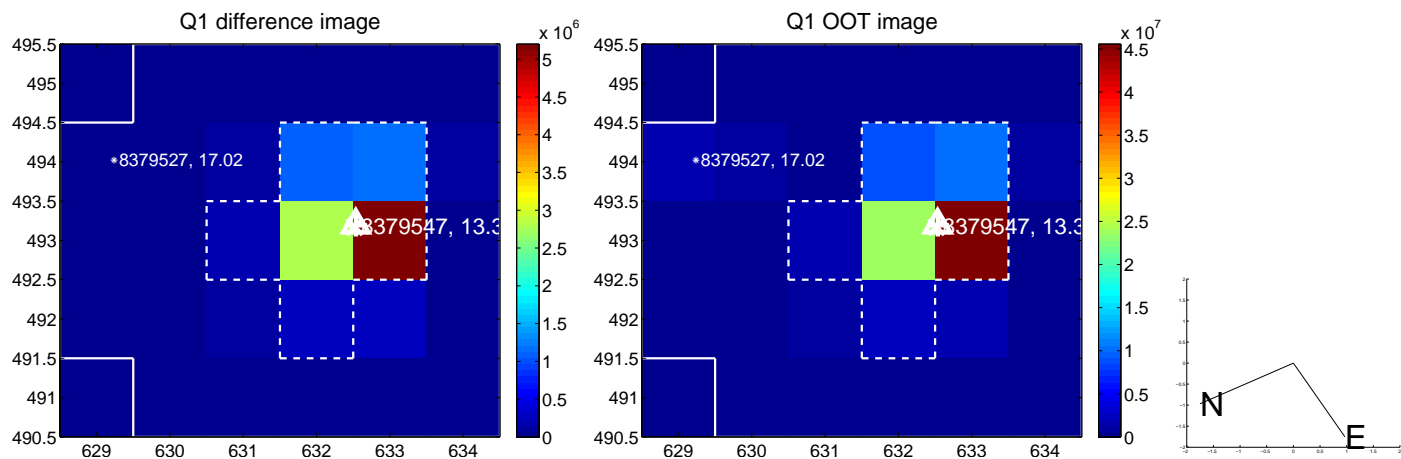
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.067	0.47	-0.031 ± 0.067	-0.002 ± 0.067
PRF-fit source offset from KIC position	0.083 ± 0.067	1.23	-0.037 ± 0.067	-0.074 ± 0.067
photometric centroid source offset	0.05 ± 0.00	65.11	-0.04 ± 0.00	-0.03 ± 0.00

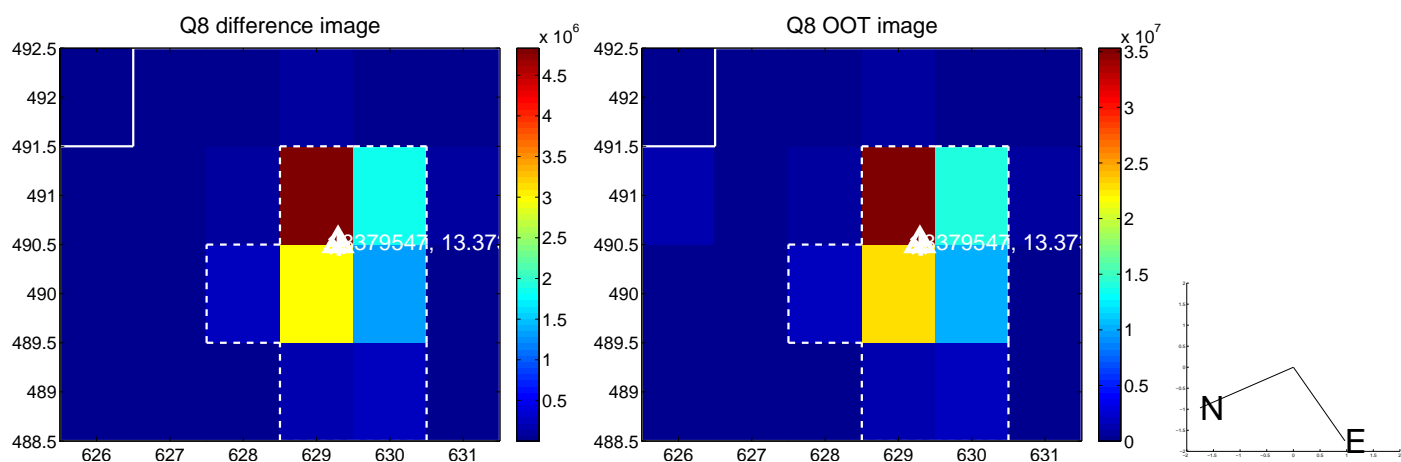
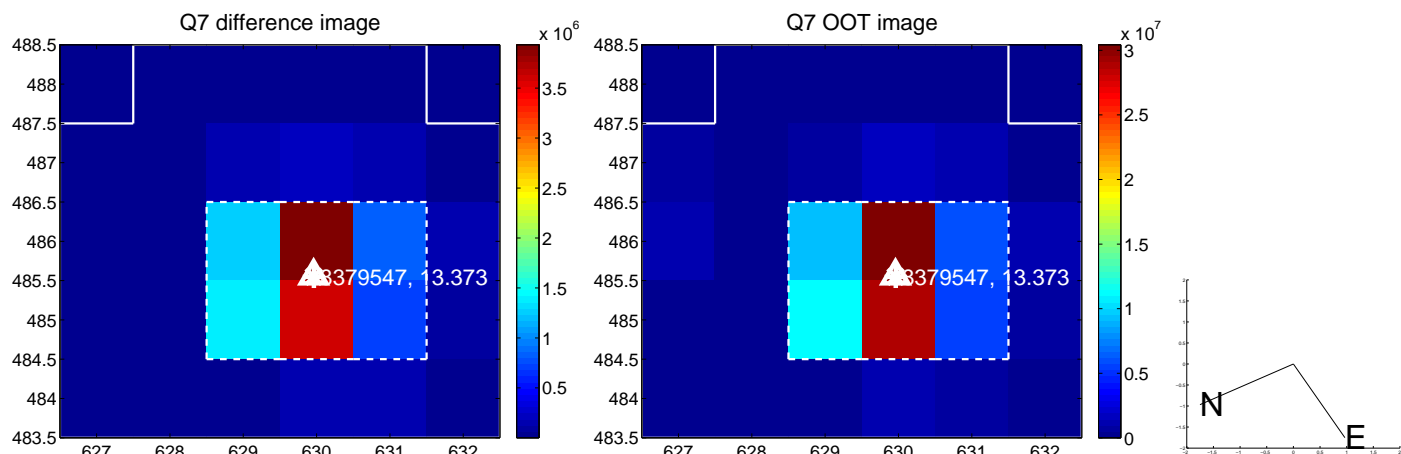
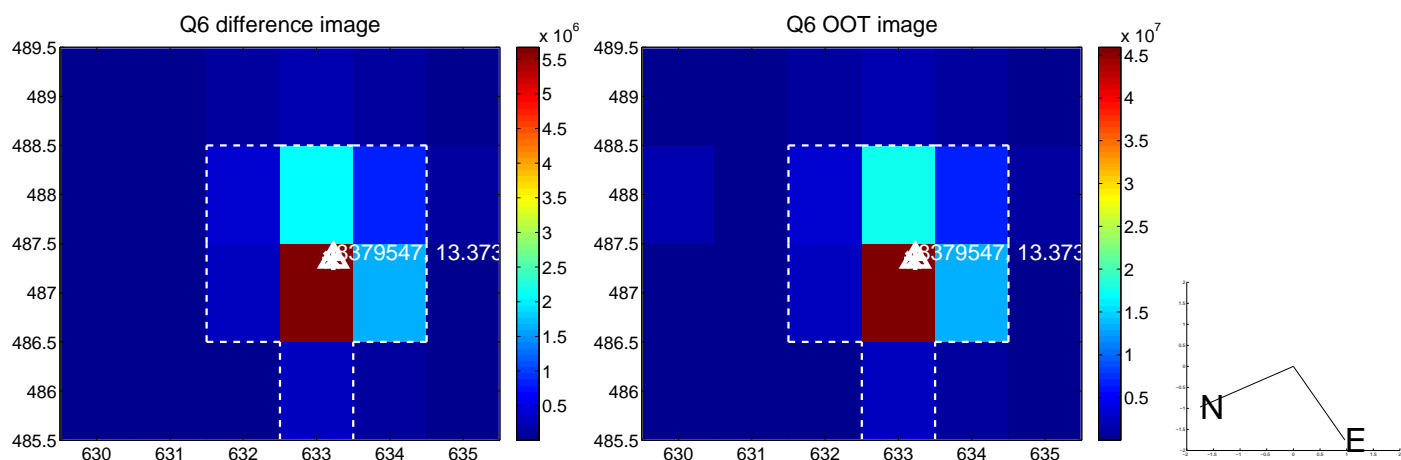
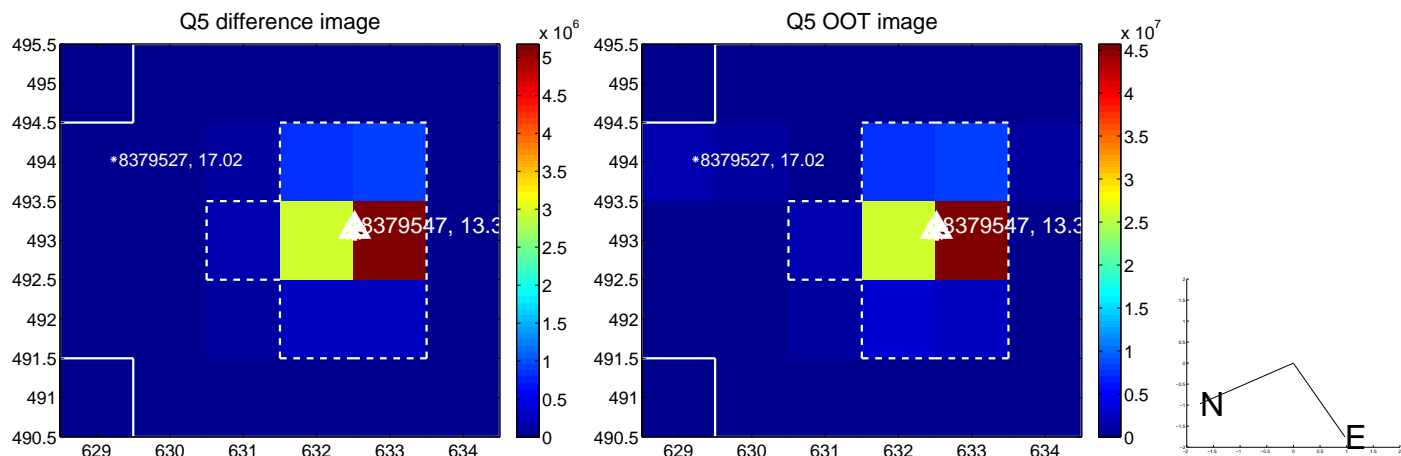


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

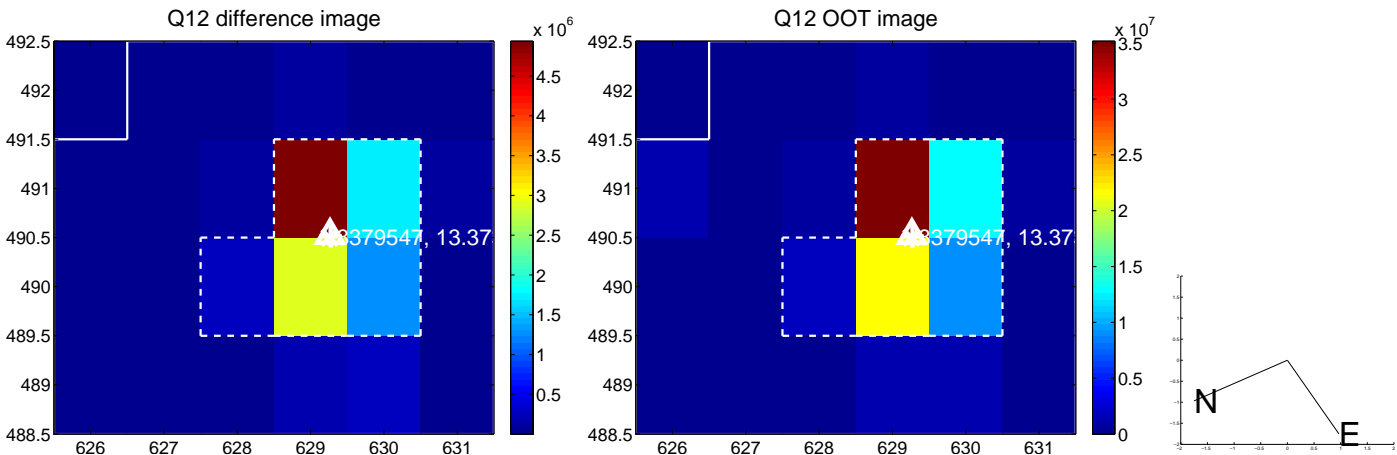
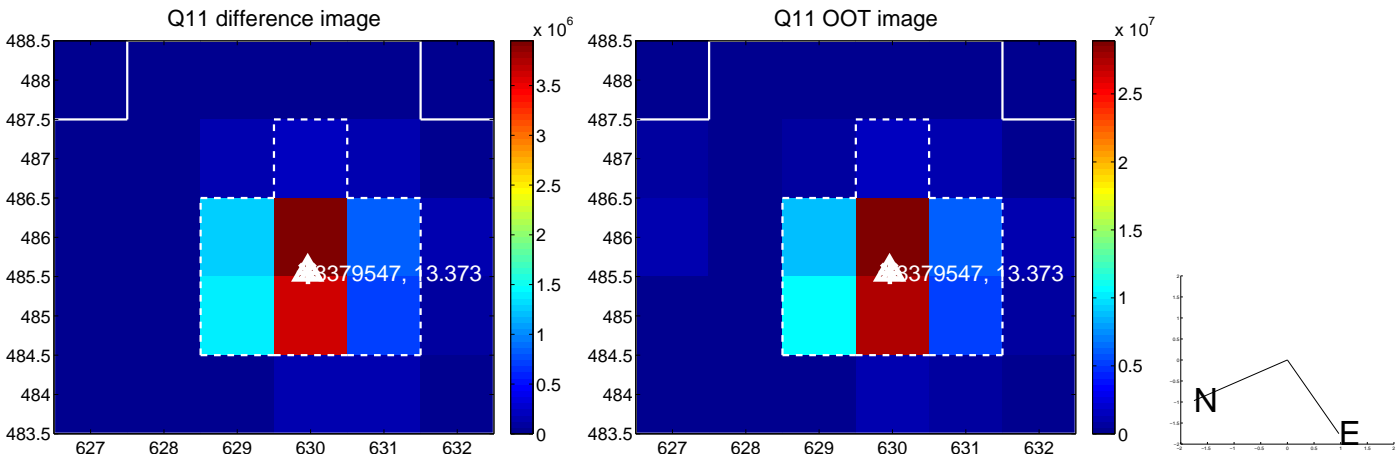
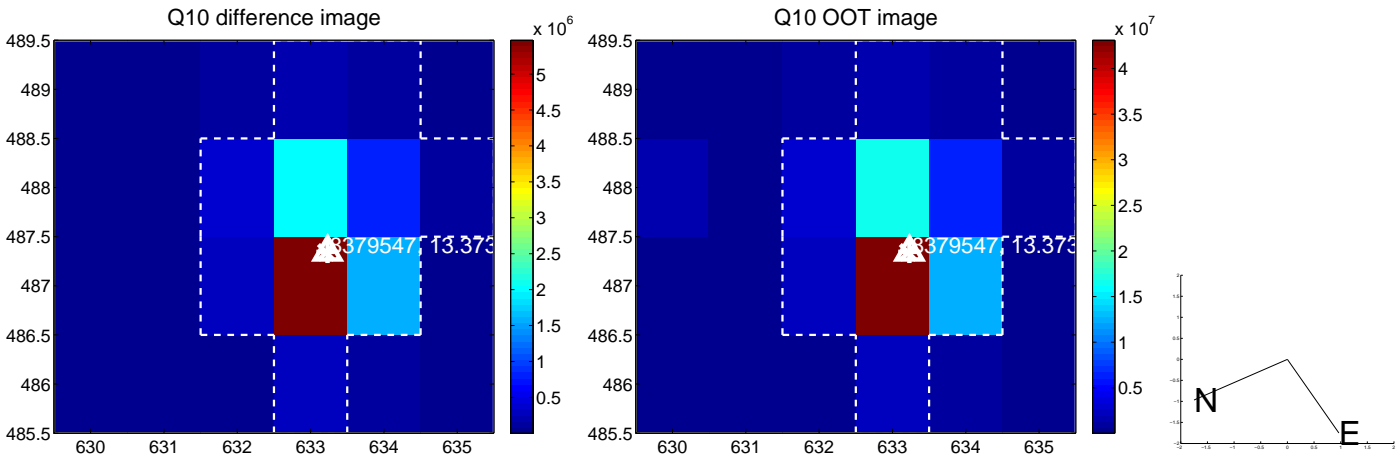
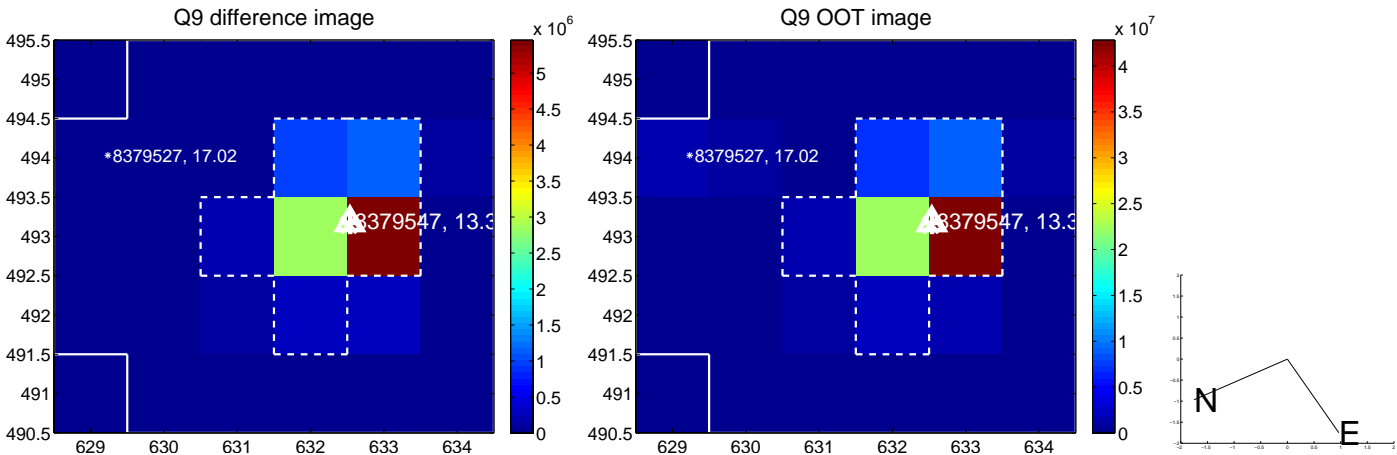
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



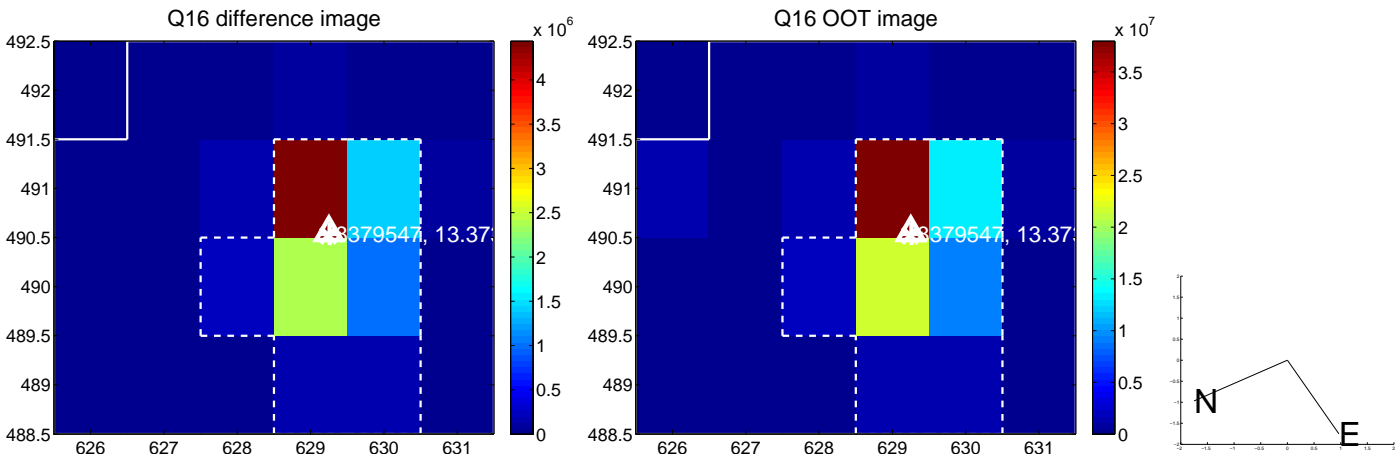
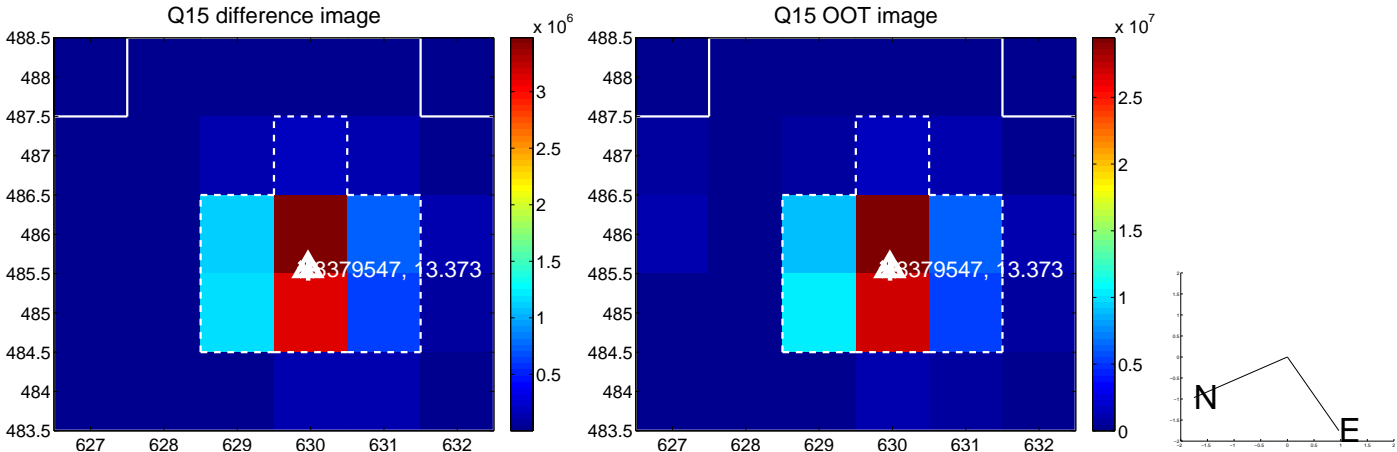
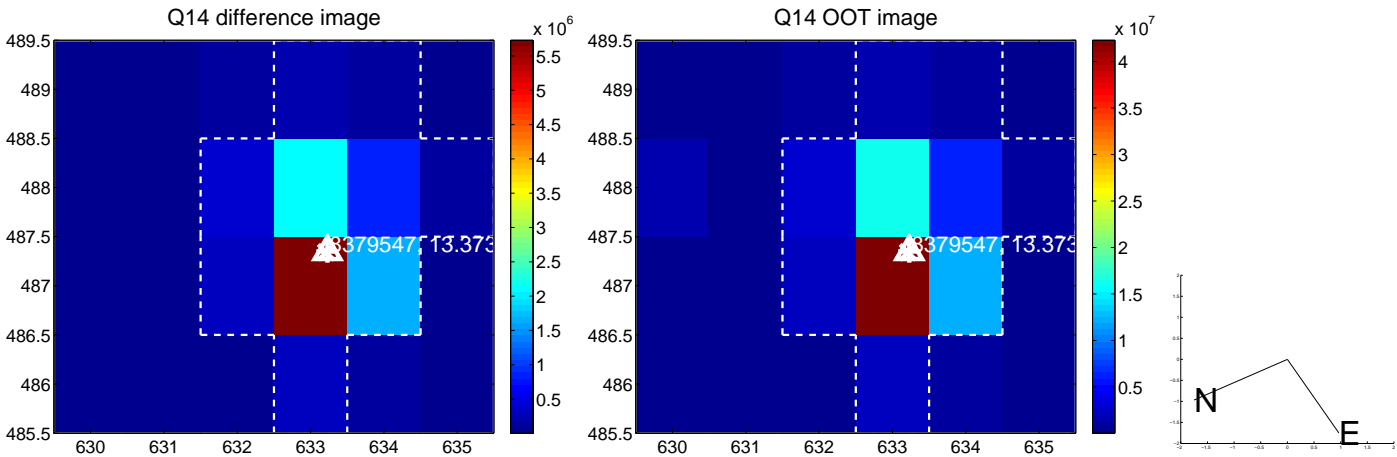
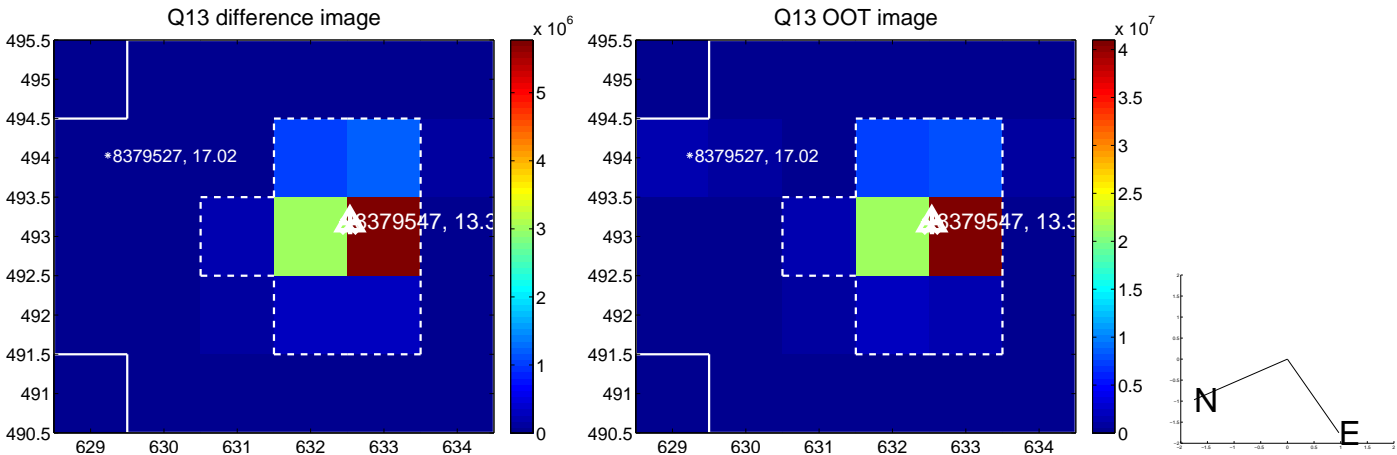
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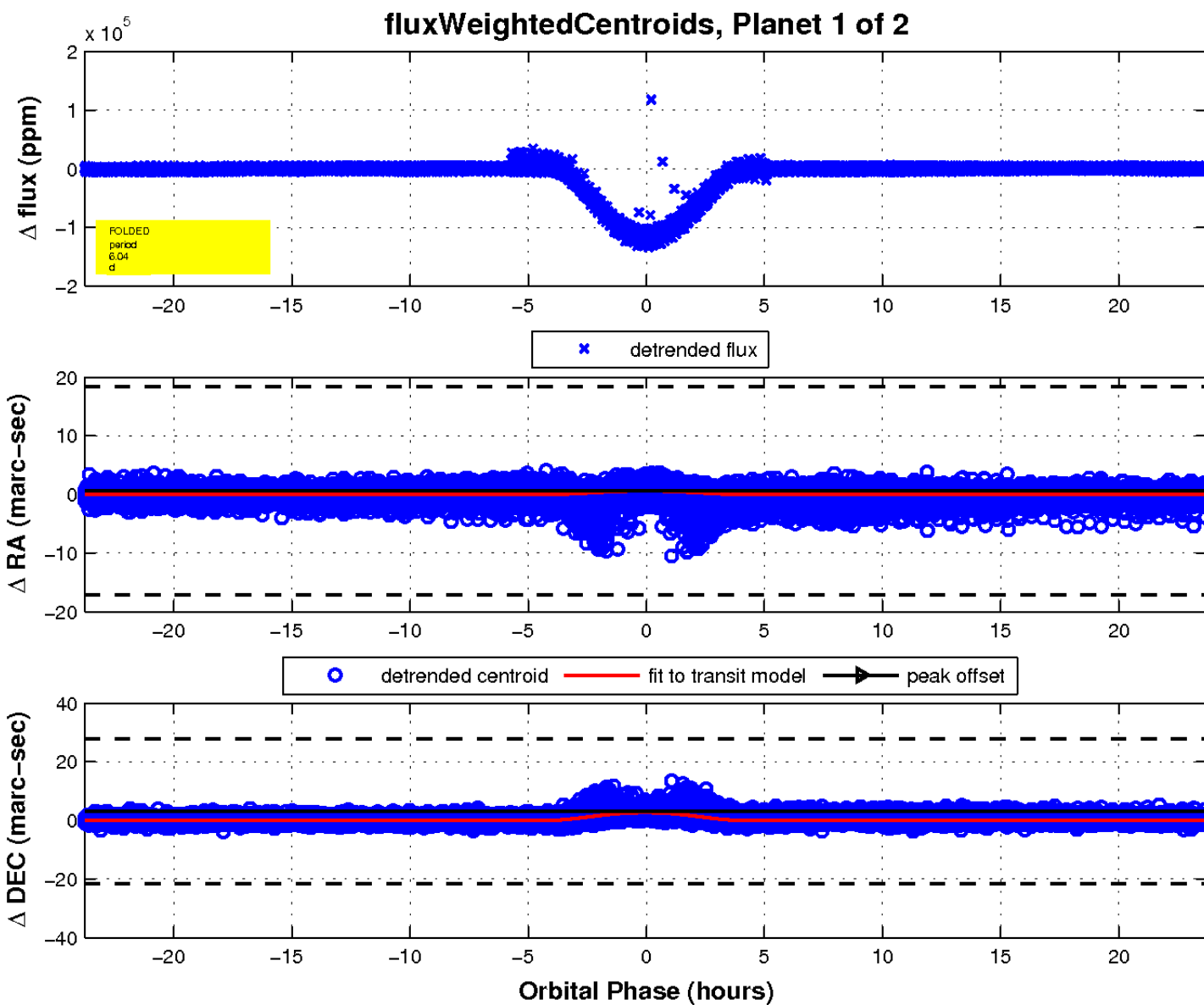
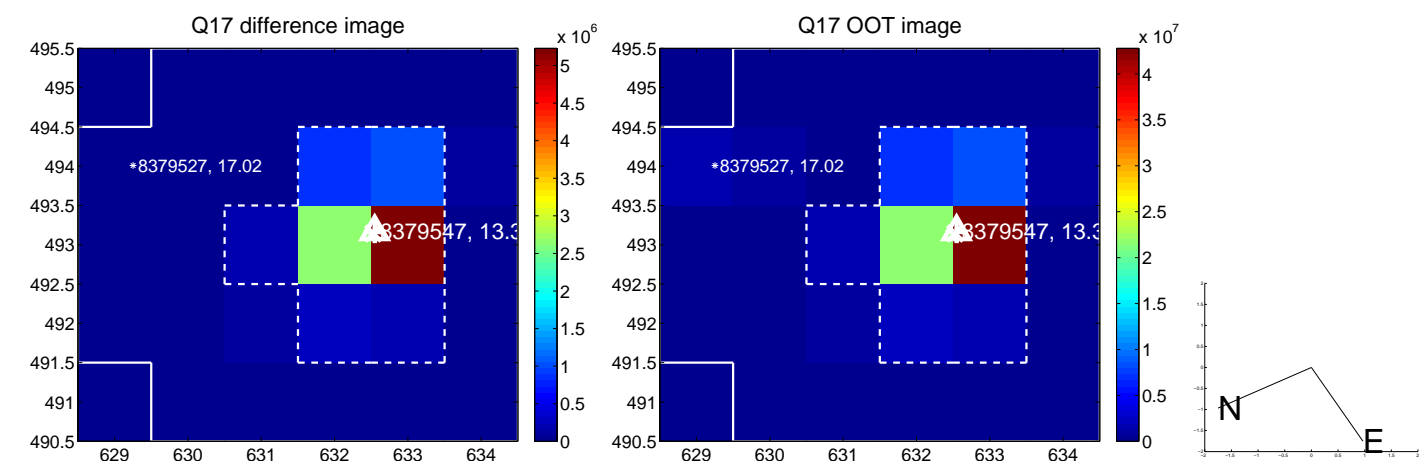
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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

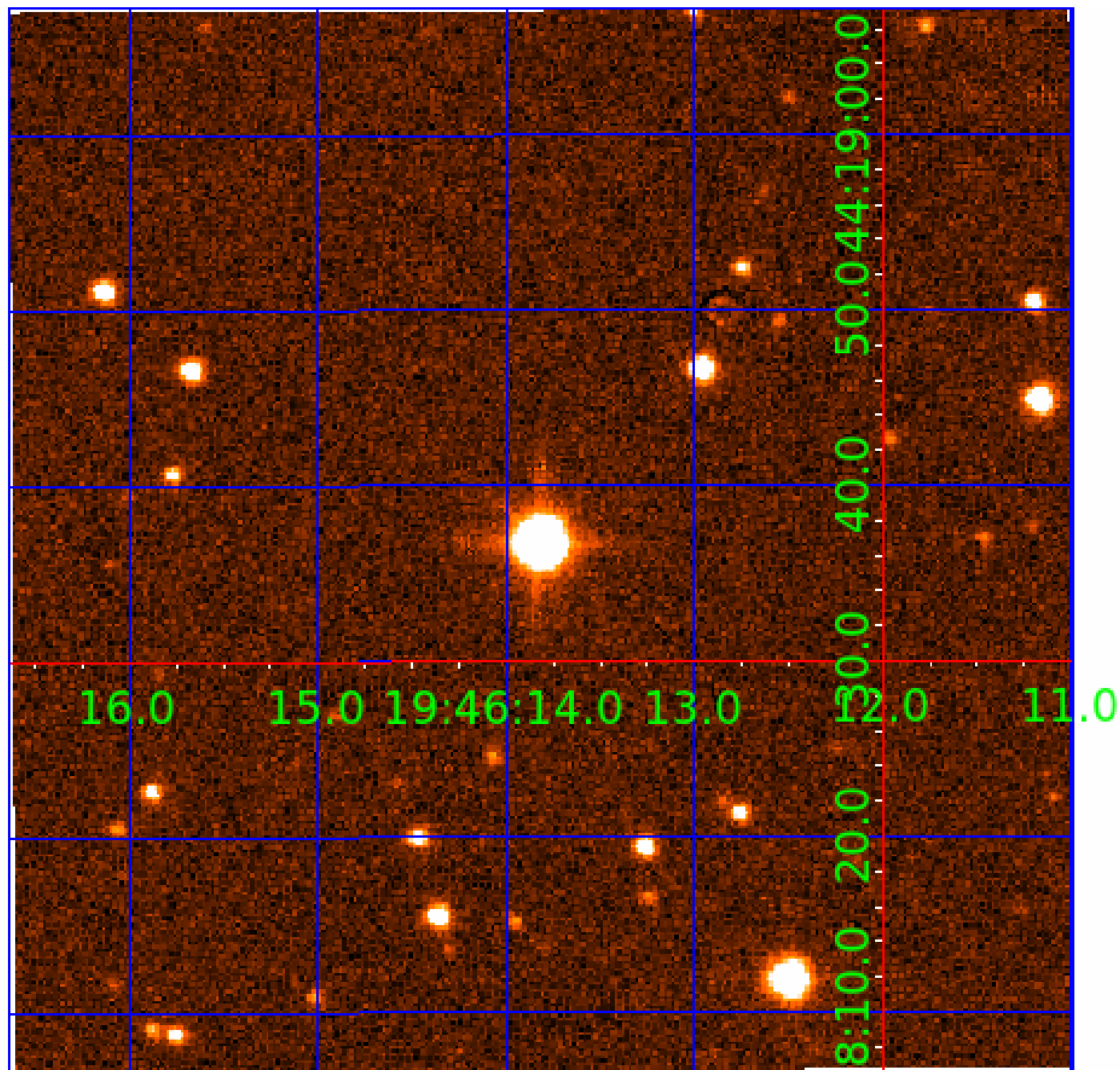


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008379547

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008379547-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

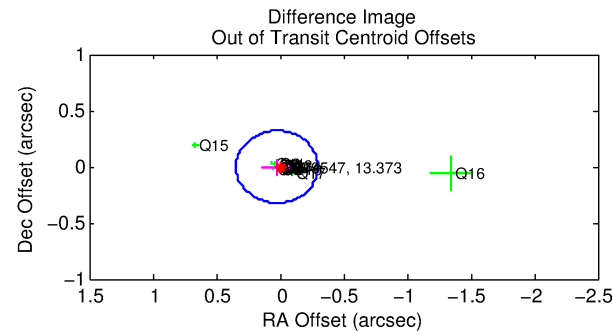
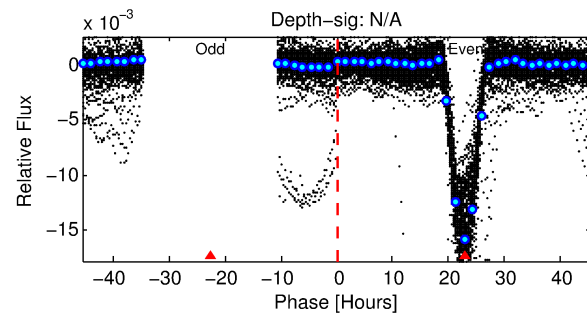
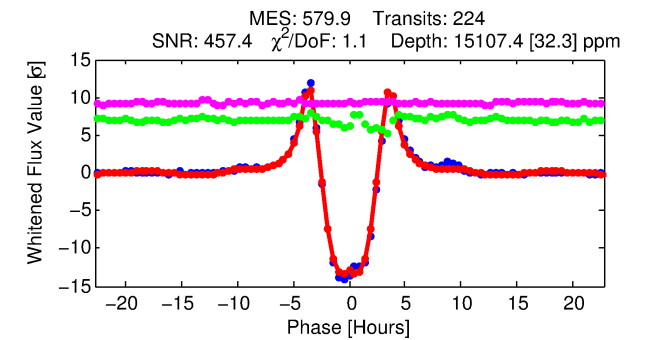
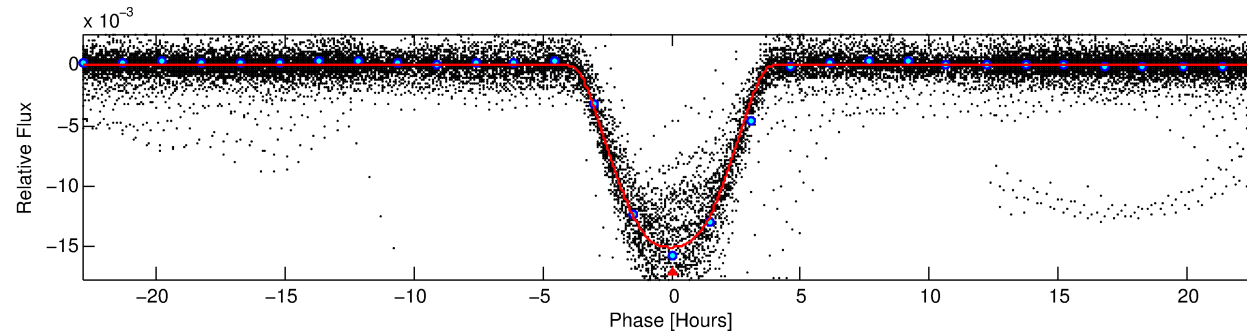
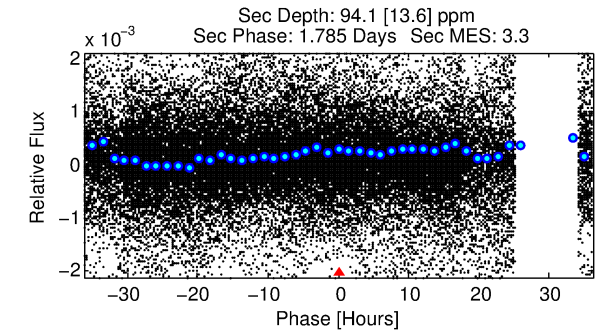
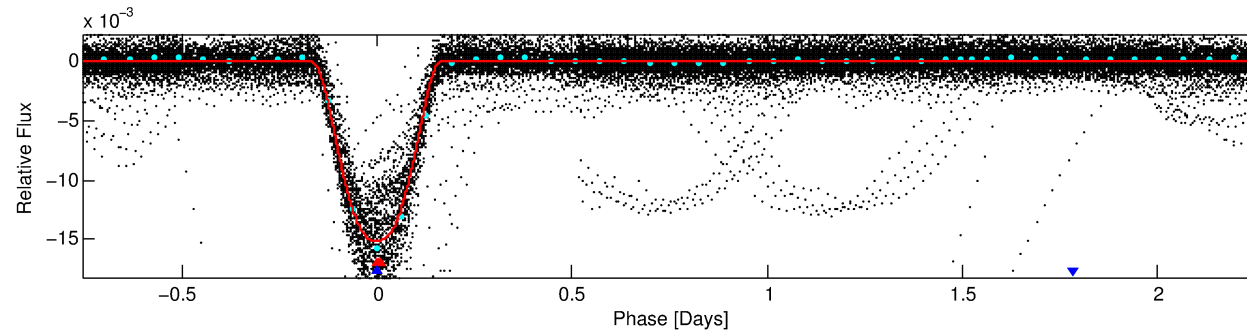
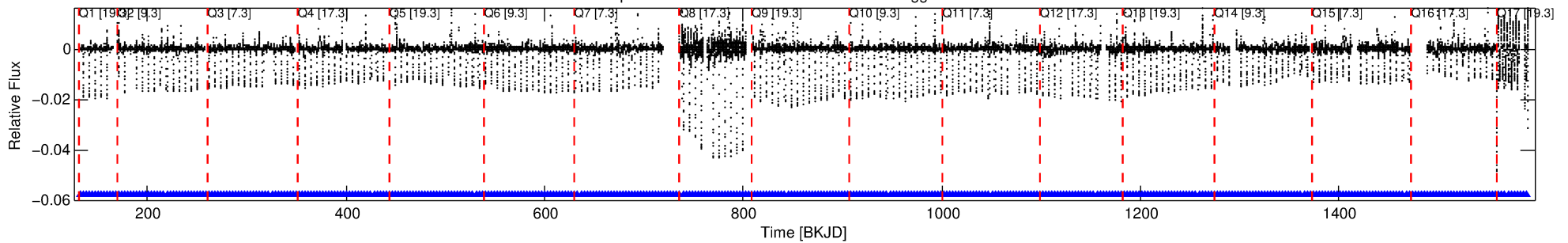
Ephemeris Match Information For 008379547-02

No Significant Match Found

DV One-Page Summary

KIC: 8379547 Candidate: 2 of 2 Period: 3.021 d
KOI: K07029 Corr: No Ephemeris Match

Kp: 13.37 R*: 0.59 Rs Teff: 5030.0 K Logg: 4.67 Fe/H: -1.140



DV Fit Results:

Period = 3.02100 [0.00000] d
Epoch = 132.2060 [0.0001] BKJD
Rp/R* = 0.1319 [0.0002]
a/R* = 2.42 [0.00]
b = 0.86 [0.00]
Seff = 168.29 [28.01]
Teff = 918 [38] K
Rp = 8.45 [0.73] Re
a = 0.0343 [0.0025] AU
Ag = 0.85 [0.15] [-0.99σ]
Teffp = 1364 [67] K [5.81σ]

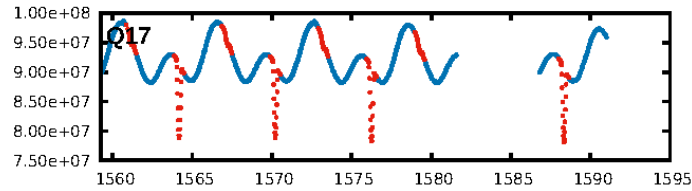
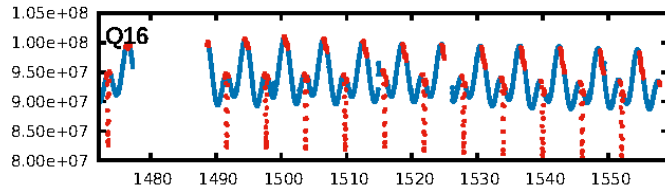
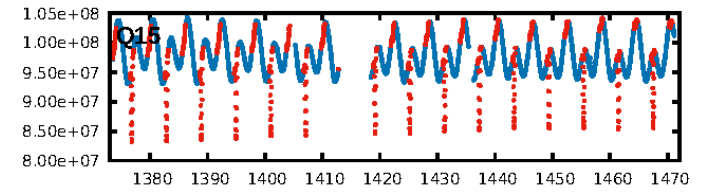
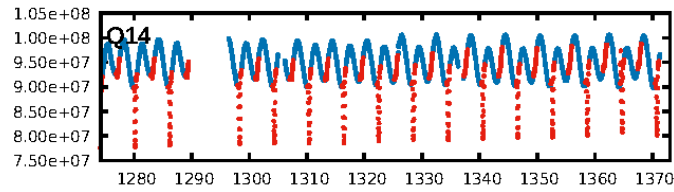
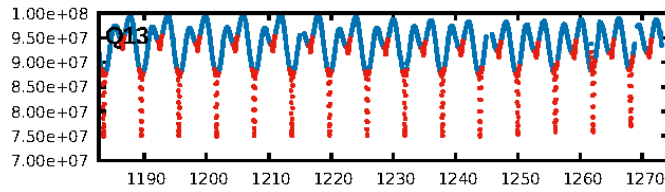
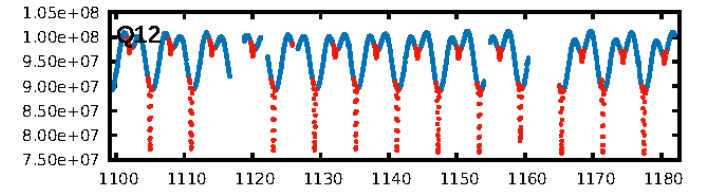
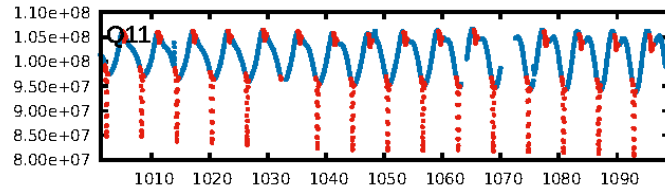
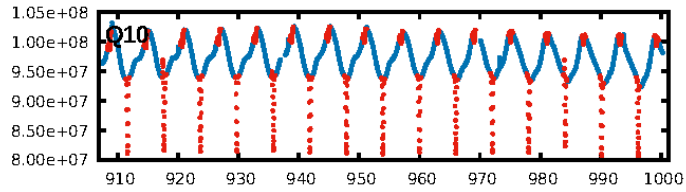
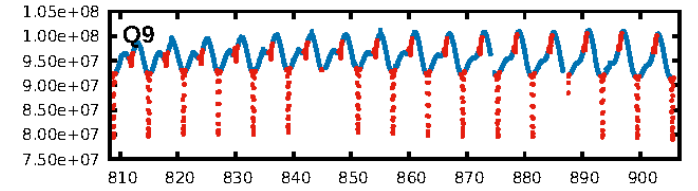
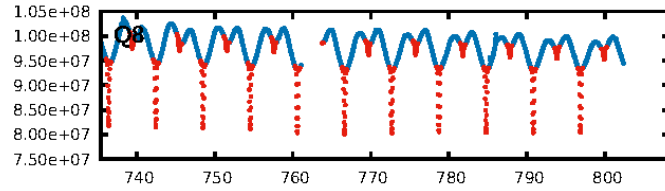
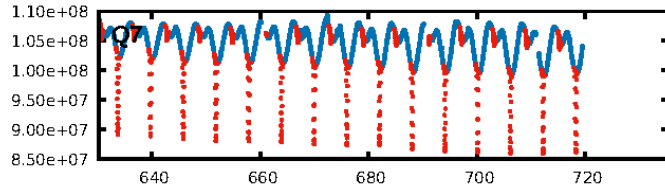
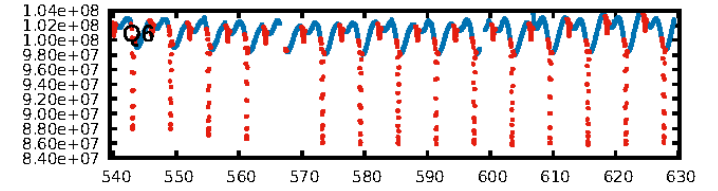
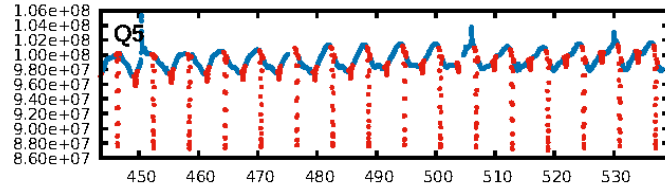
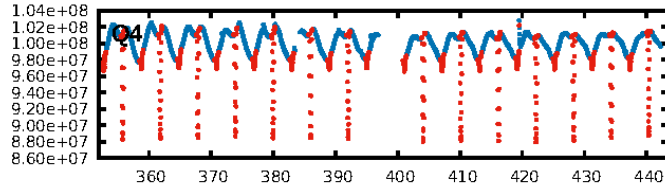
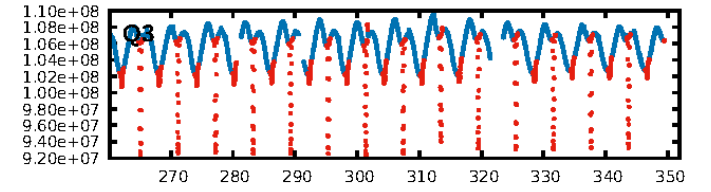
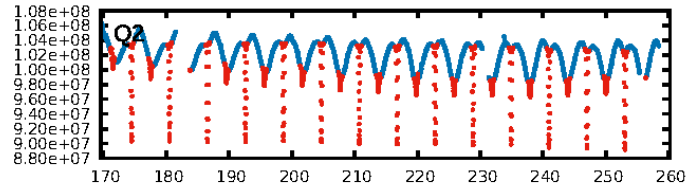
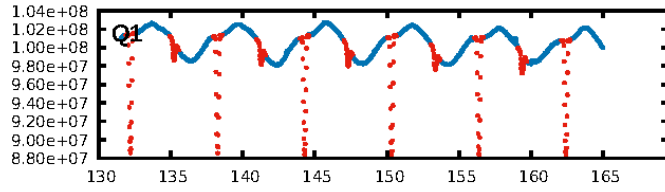
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [6.60σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [215/215]
GhostDiagnostic-chr: 1.309
Centroid-sig: 0.0%
Centroid-so: 0.035 arcsec [8.32σ]
OotOffset-rm: 0.025 arcsec [0.23σ]
KicOffset-rm: 0.097 arcsec [1.37σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

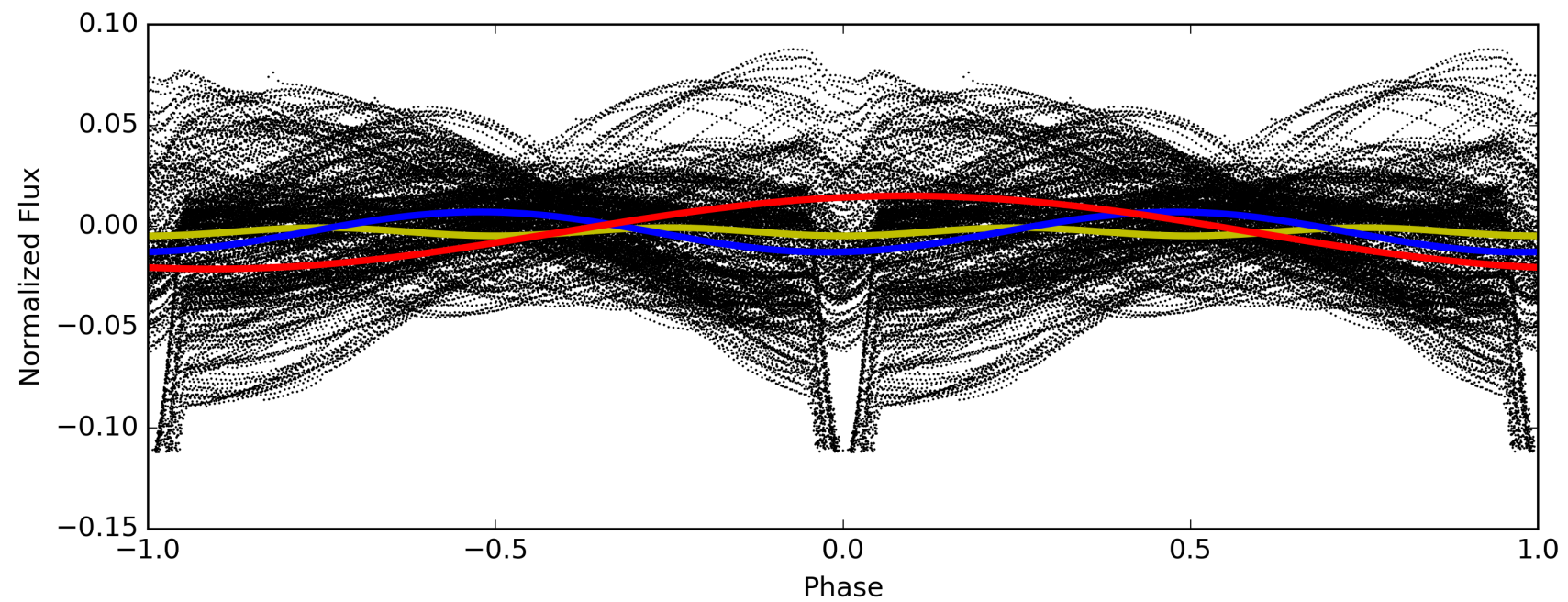
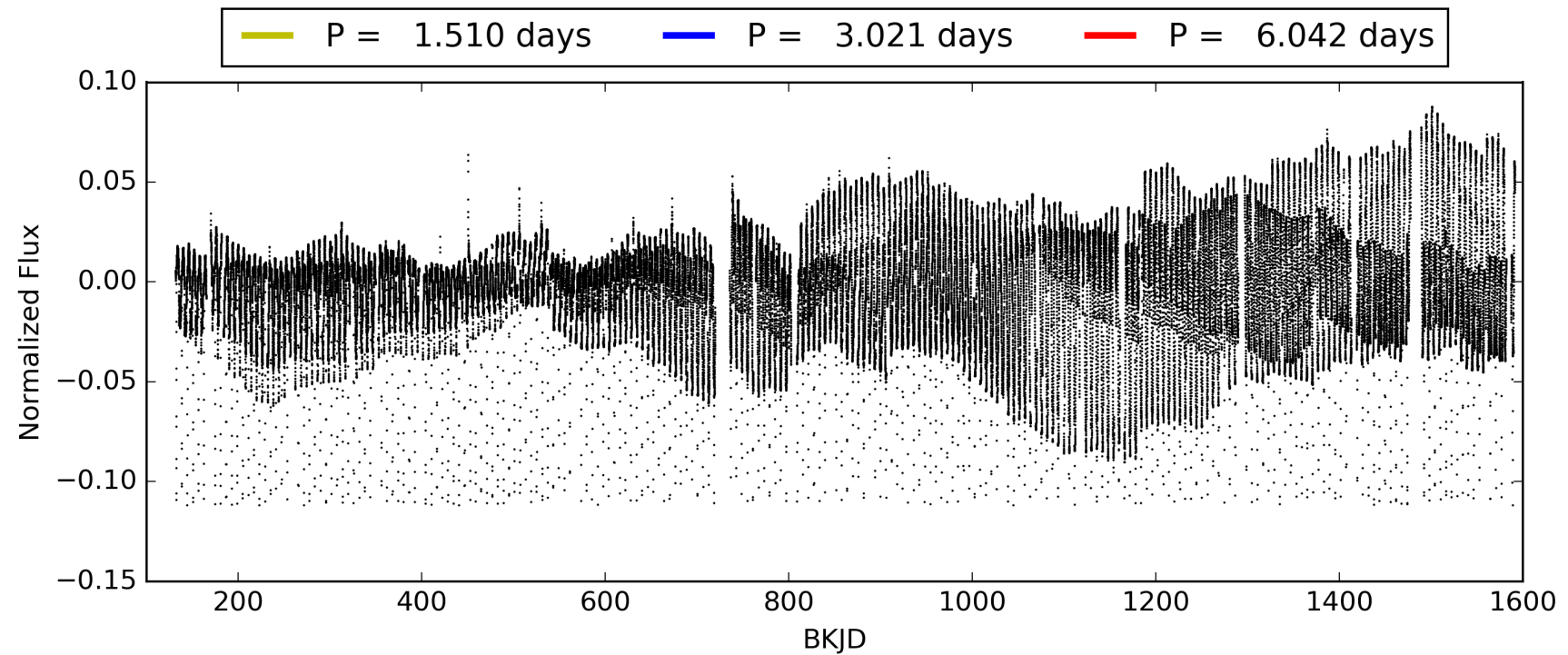
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:42:08 Z

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

TCE 008379547-02, PDC Light Curves

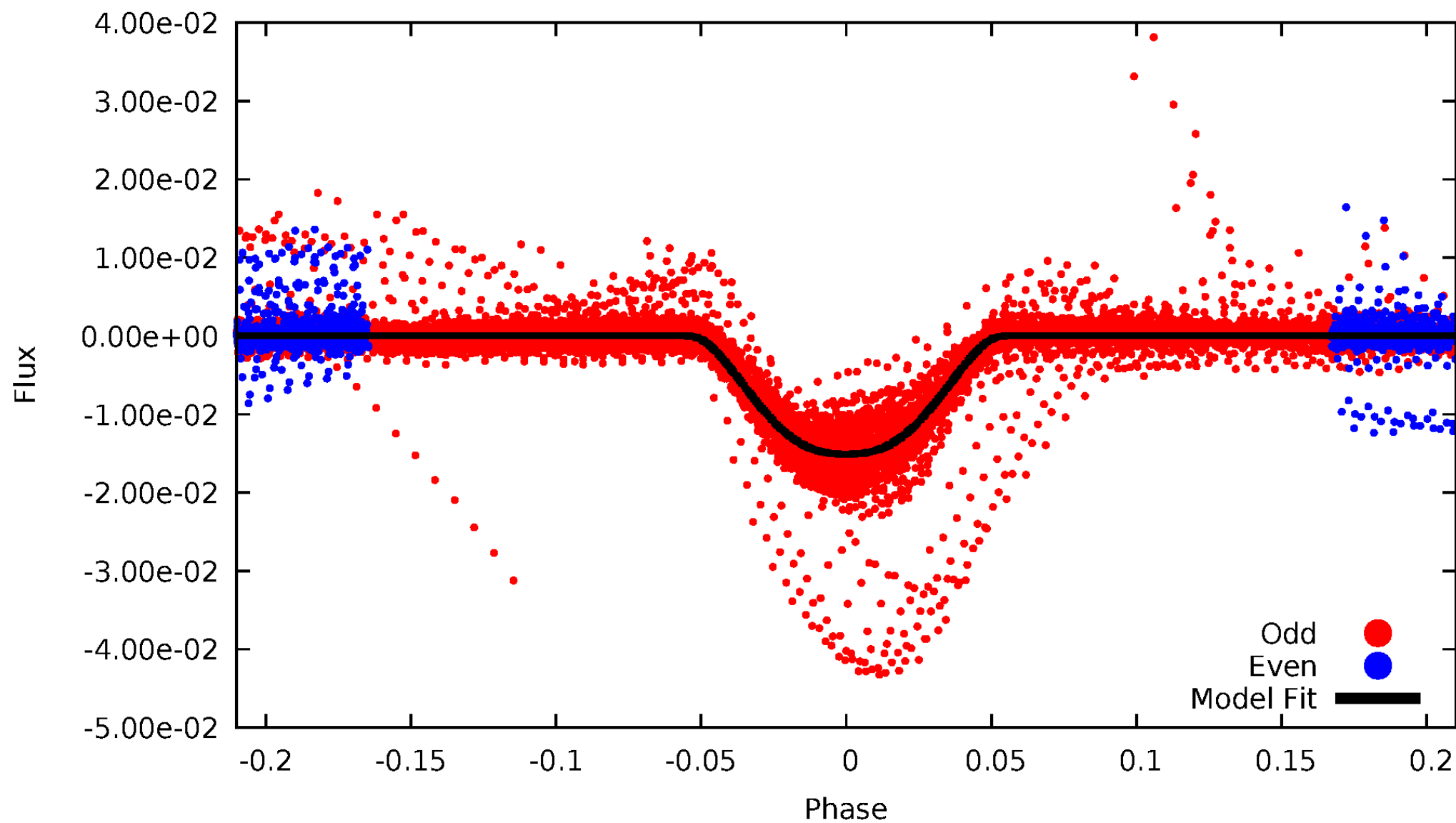


TCE 008379547-02



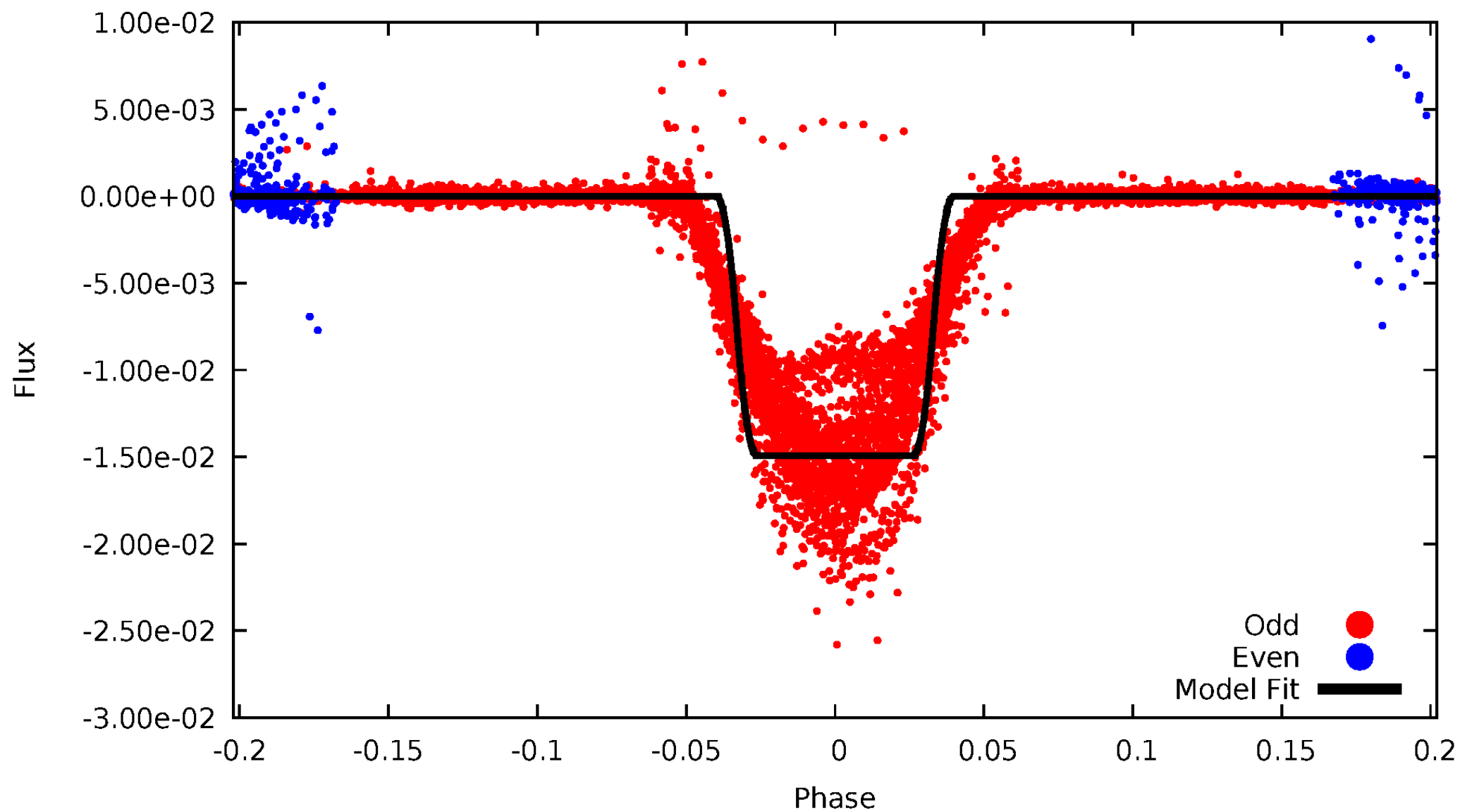
DV Odd/Even

TCE 008379547-02



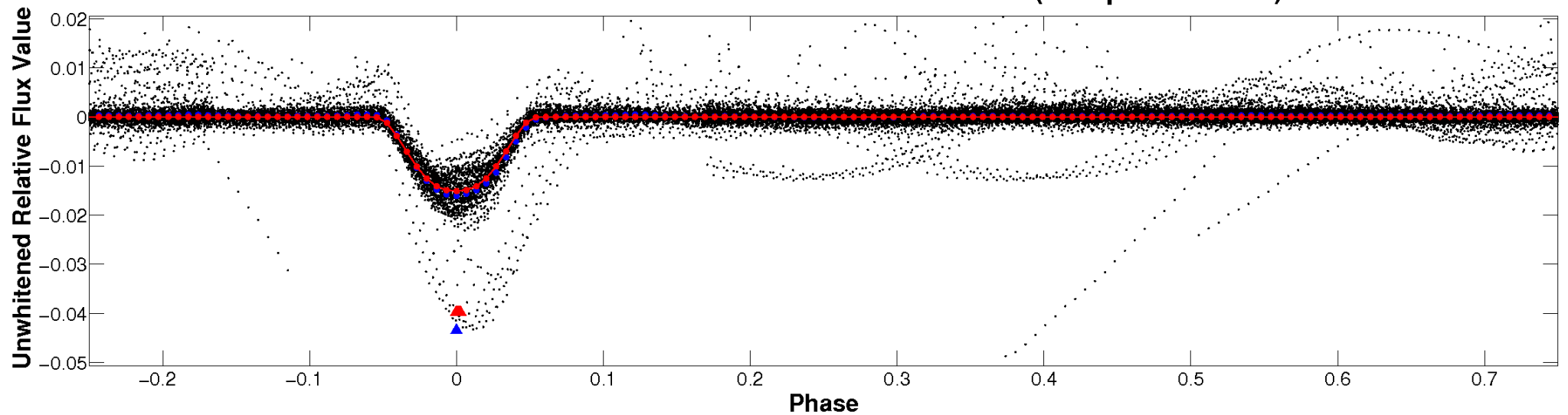
ALT Odd/Even

TCE 008379547-02

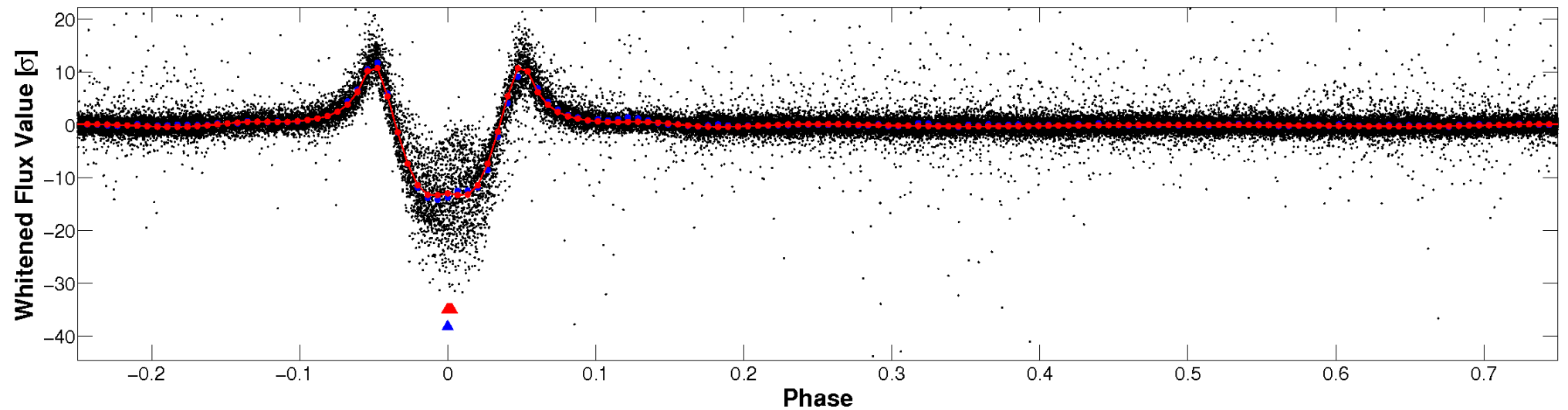


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

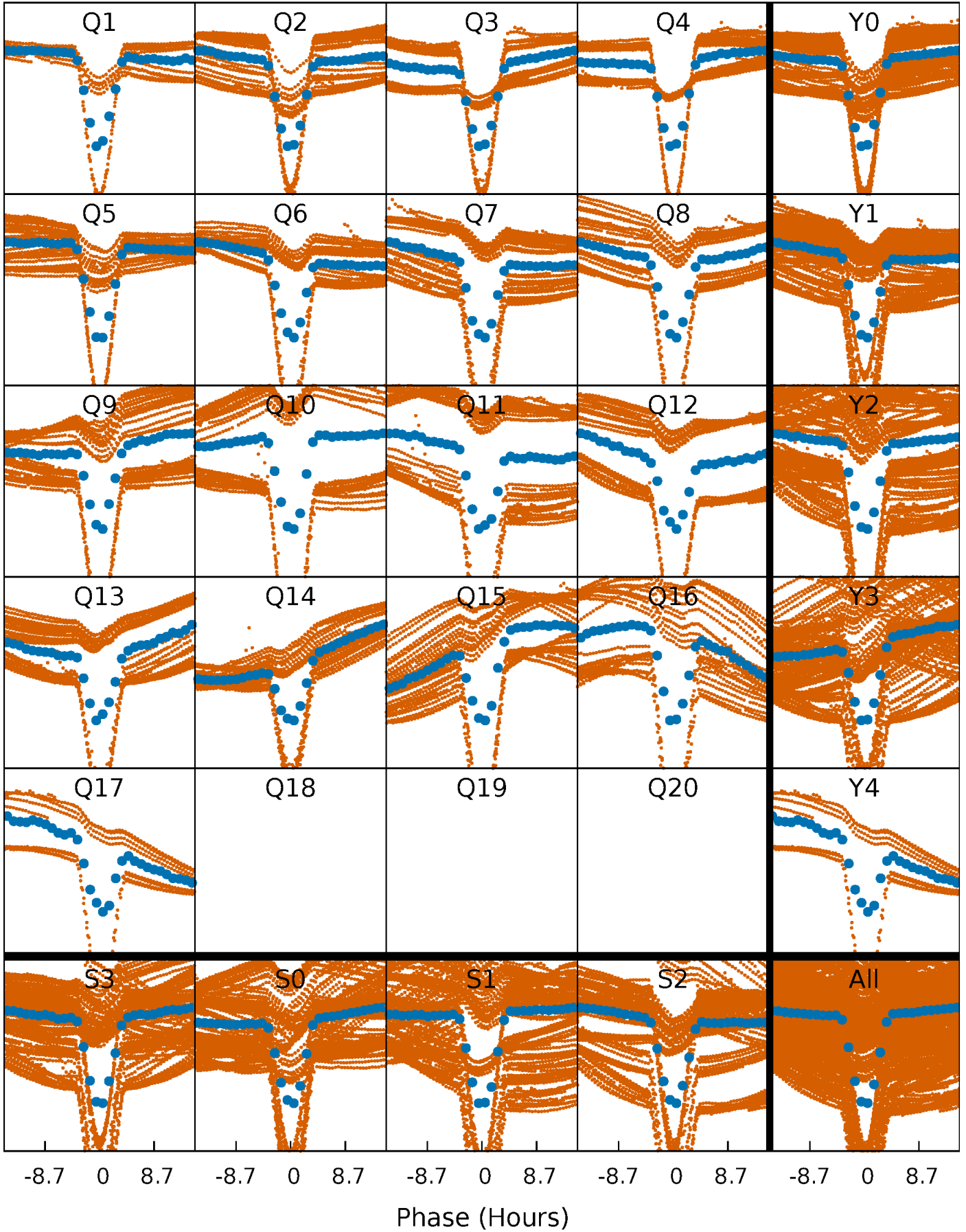


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



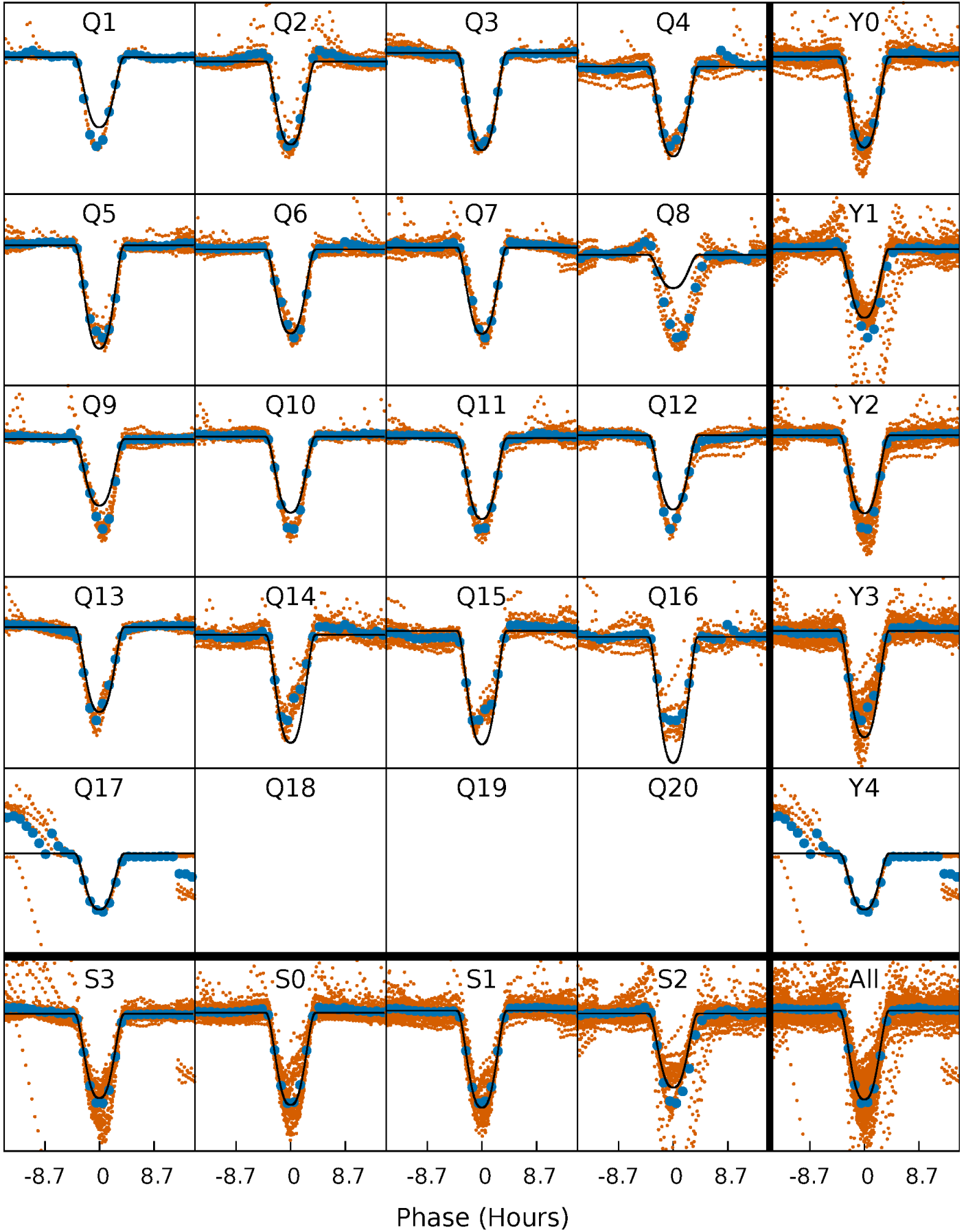
PDC Quarter-Phased Transit Curves

TCE 008379547-02 P= 3.020997 Days $T_0=132.205967$ (BKJD)



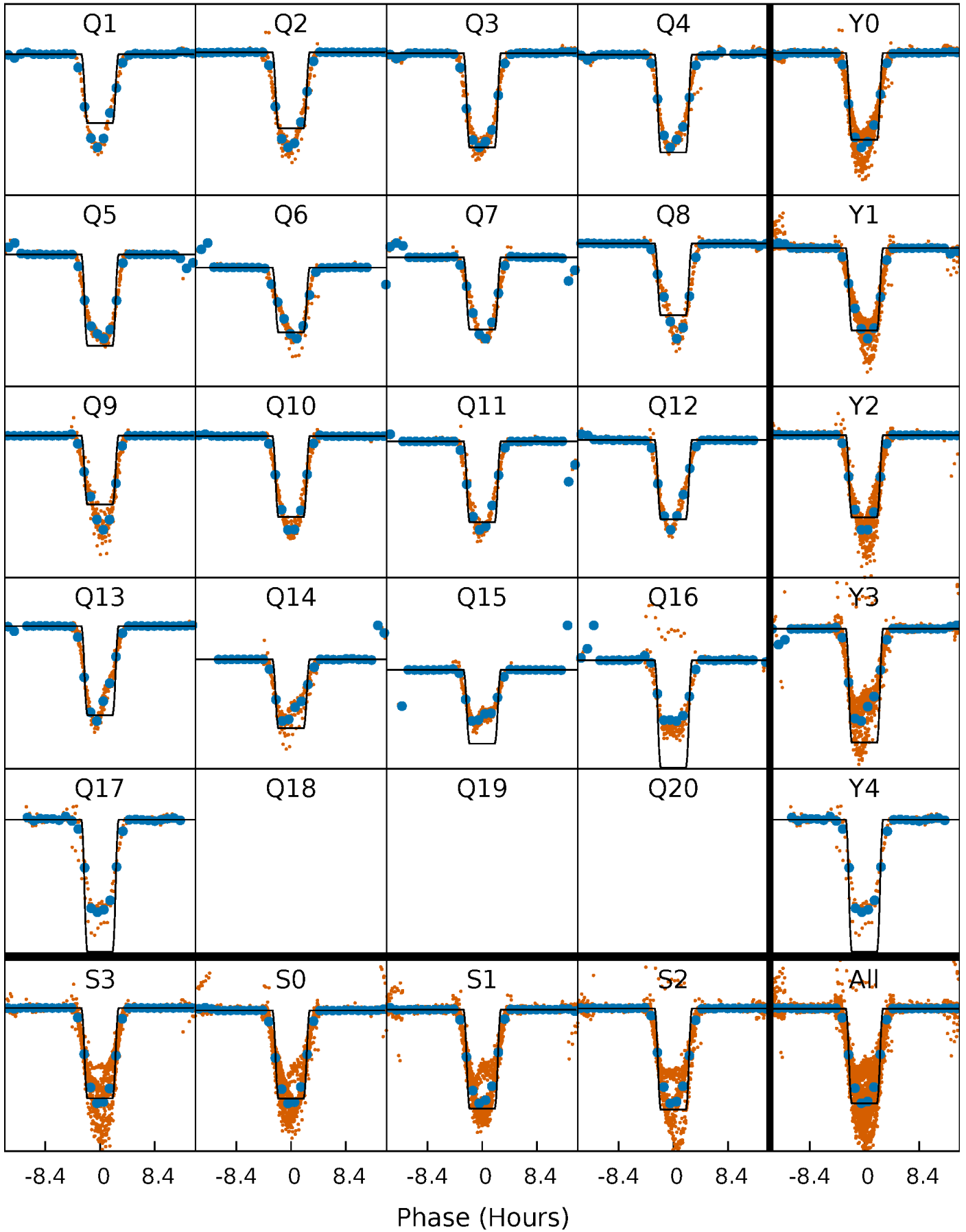
DV Quarter-Phased Transit Curves

TCE 008379547-02 P= 3.020997 Days $T_0=132.205967$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

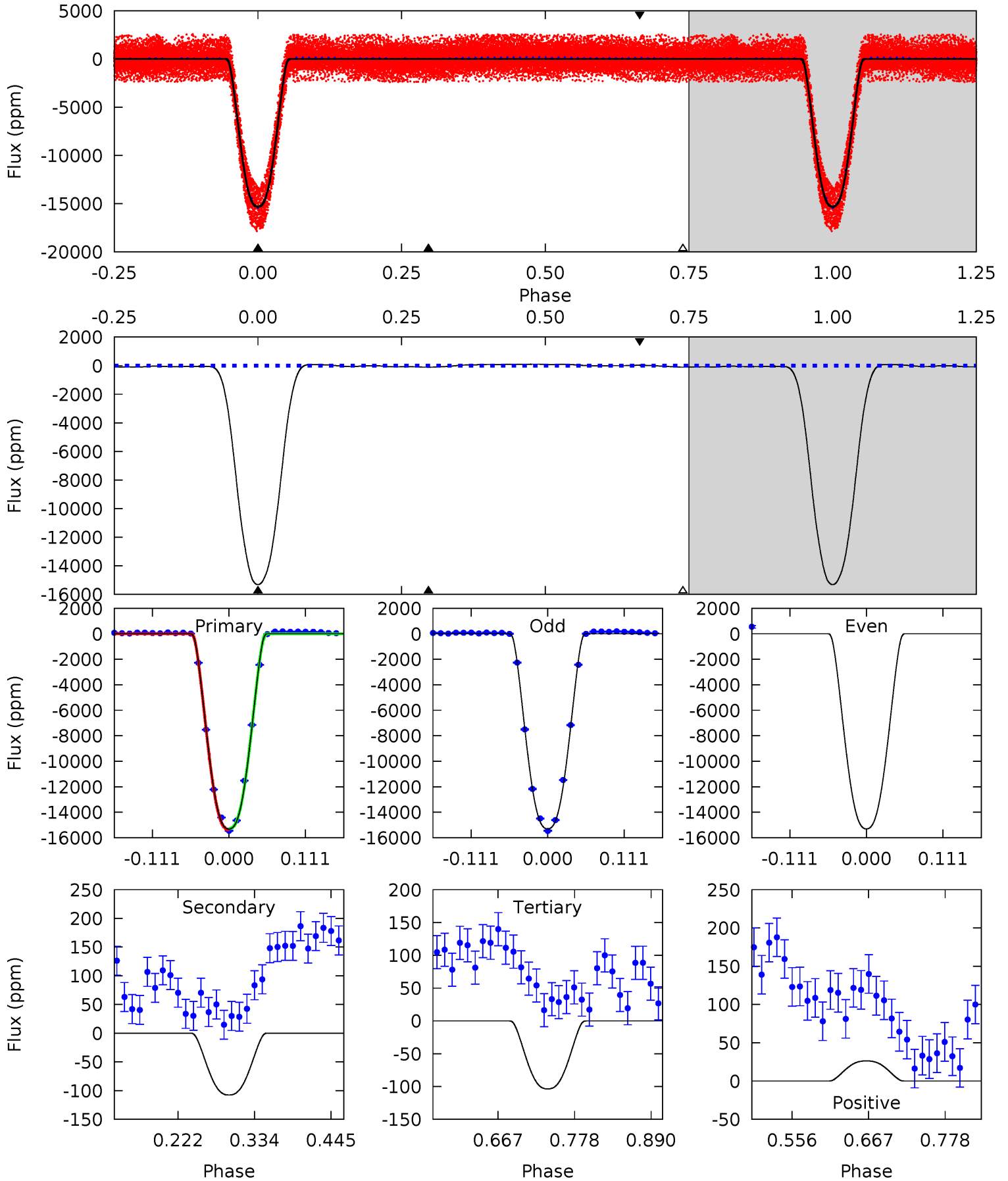
TCE 008379547-02 P= 3.021000 Days $T_0=132.207455$ (BKJD)



DV Model-Shift Uniqueness Test

008379547-02, P = 3.020997 Days, E = 129.184970 Days

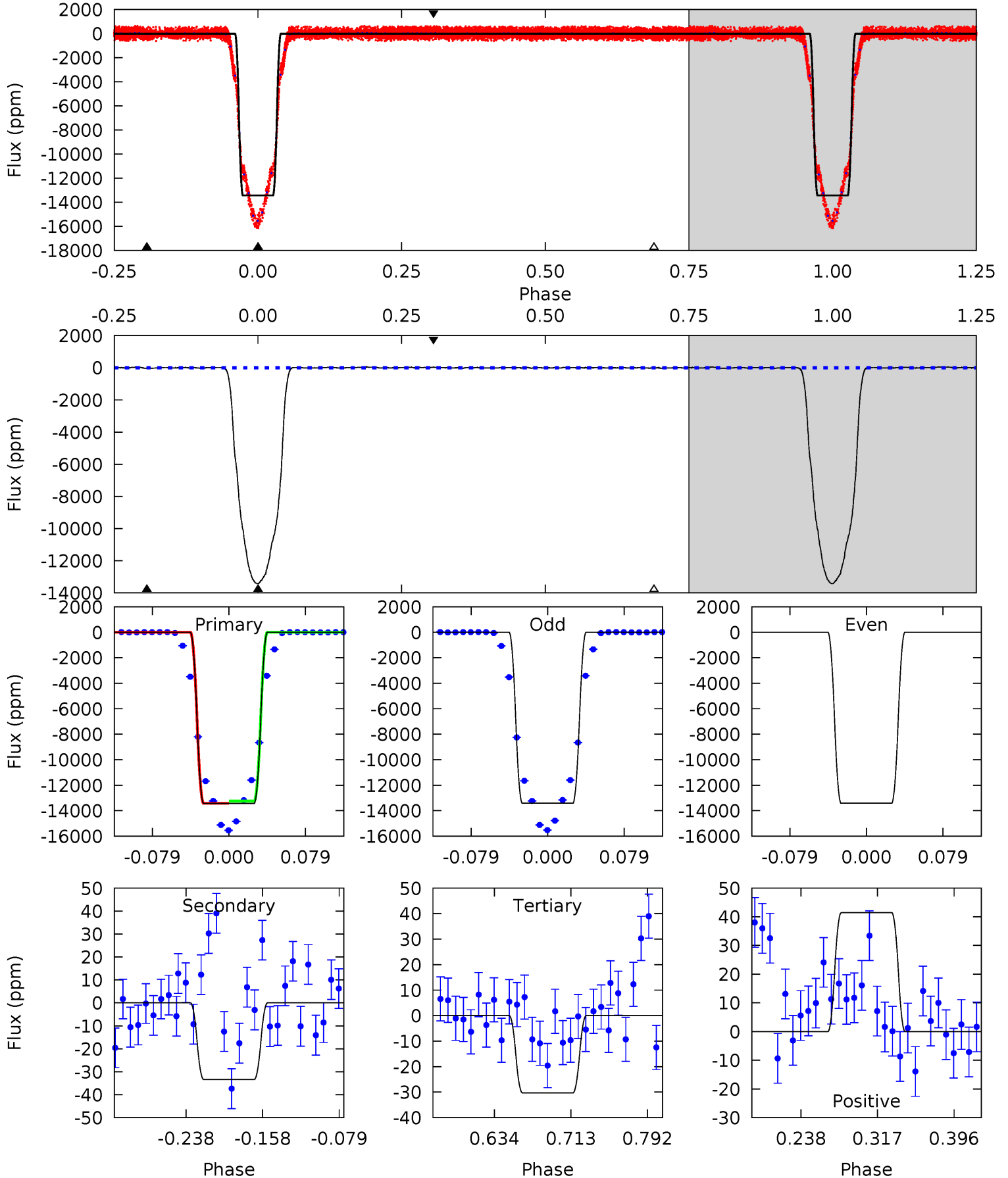
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1136	7.99	7.70	1.95	4.54	1.59	4.87	1128	1134	0.29	6.04	0	1.05	0.01	0



Alt Model-Shift Uniqueness Test

008379547-02, P = 3.021000 Days, E = 129.186455 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1857	4.62	4.18	5.73	4.61	1.76	1.65	1853	1851	0.43	-1.11	0	0.99	0.00	11.7



Stellar Parameters For KIC 008379547

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5030^{+165}_{-165}	$4.670^{+0.055}_{-0.055}$	$-1.140^{+0.300}_{-0.300}$	$0.587^{+0.051}_{-0.041}$	$0.587^{+0.050}_{-0.021}$	$4.098^{+0.894}_{-0.735}$
	+3%/-3%	+1%/-1%	+26%/-26%	+9%/-7%	+9%/-4%	+22%/-18%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008379547-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-108 ± 13	$8.46^{+0.42}_{-0.32}$	1284^{+46}_{-51}	2208^{+57}_{-60}	$0.964^{+0.154}_{-0.147}$
Alt.	-33 ± 7	$7.84^{+0.39}_{-0.33}$	1284^{+51}_{-48}	1705^{+159}_{-3355}	$0.348^{+0.082}_{-0.081}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

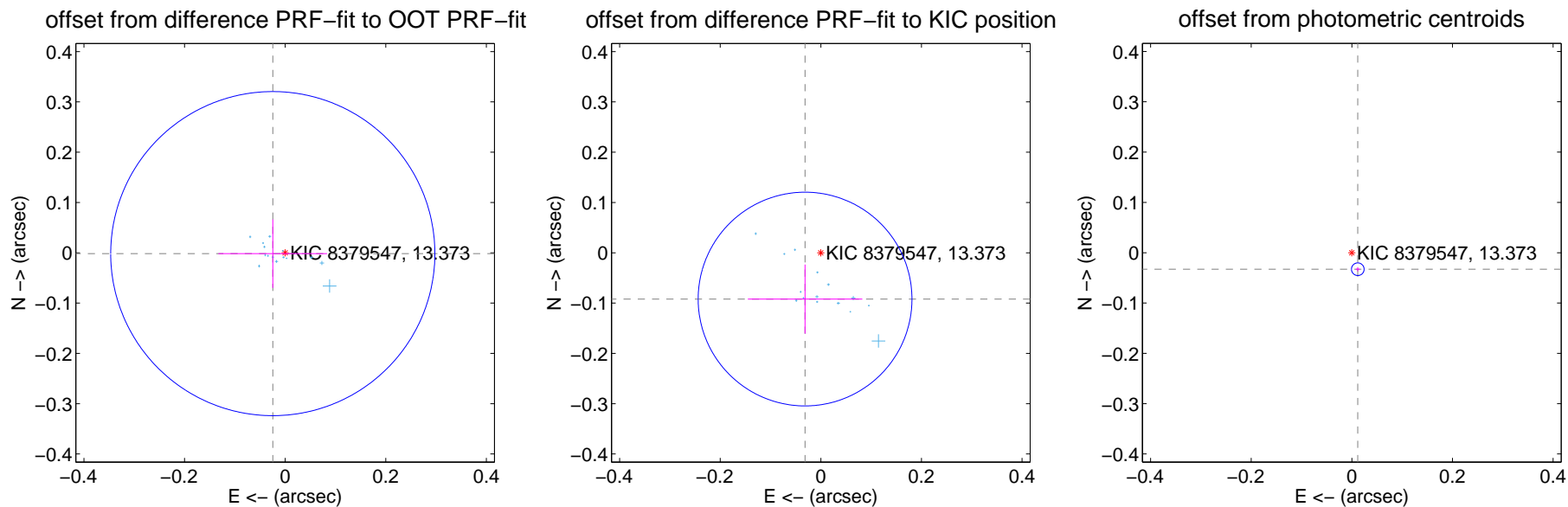
DV Centroid Data

Supplemental centroid analysis for 008379547-02. Kepler magnitude: 13.37. Transit SNR 457.36

There are 16 quarters with good PRF difference image offsets

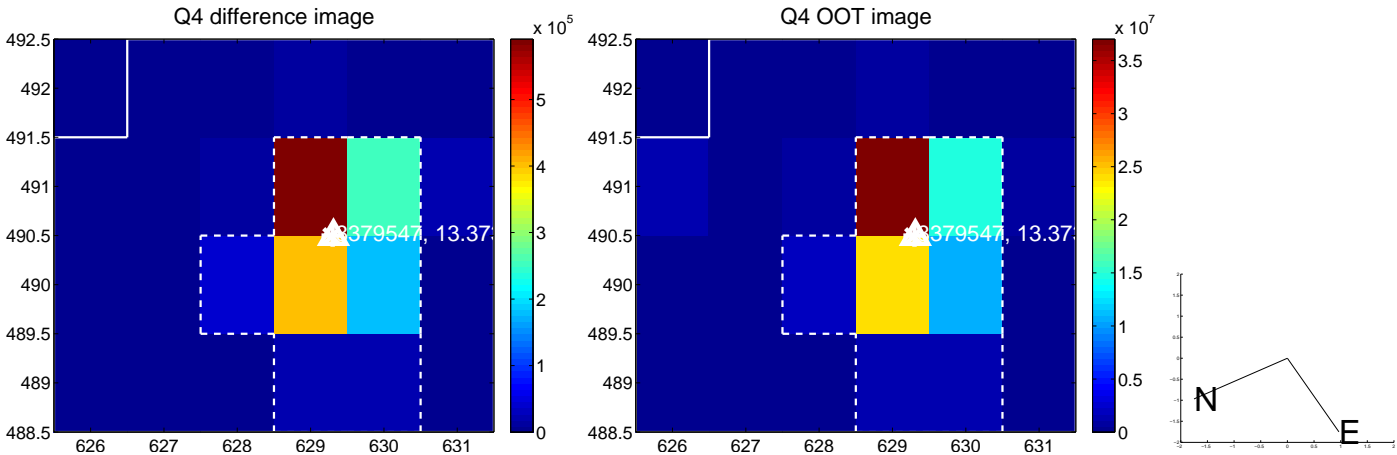
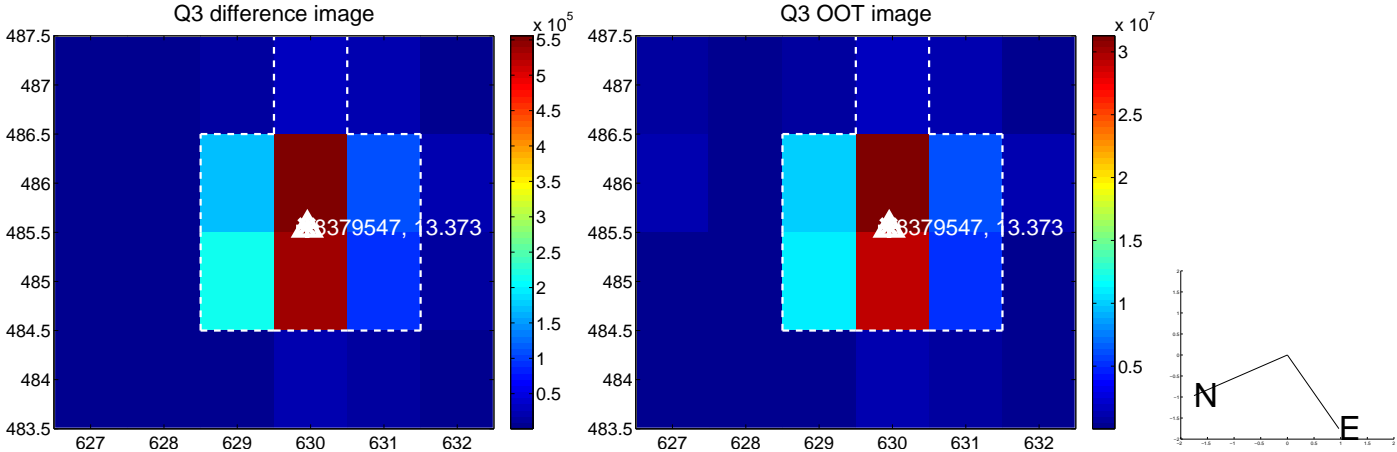
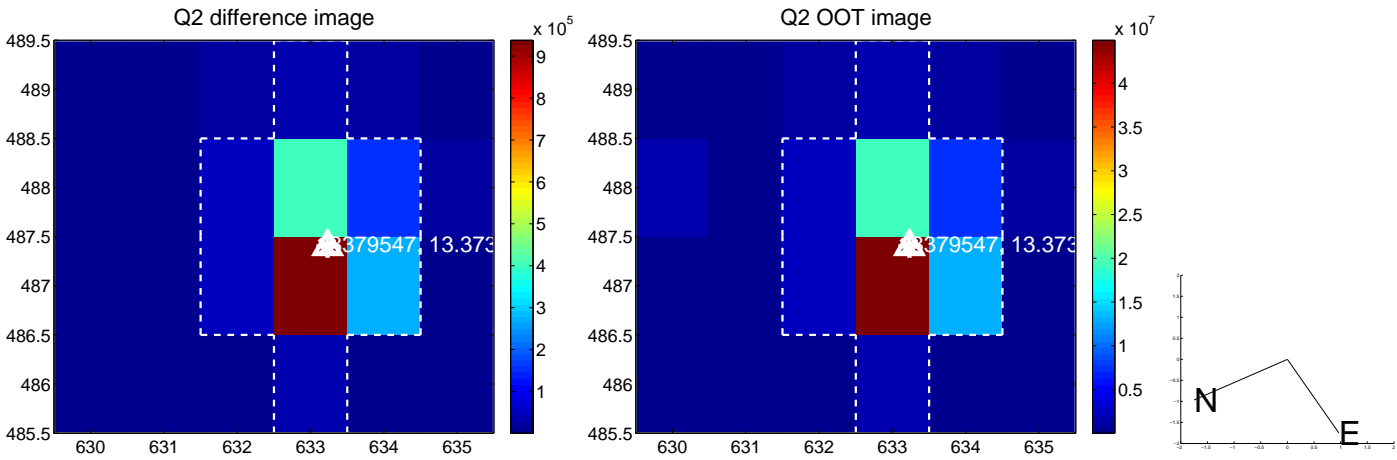
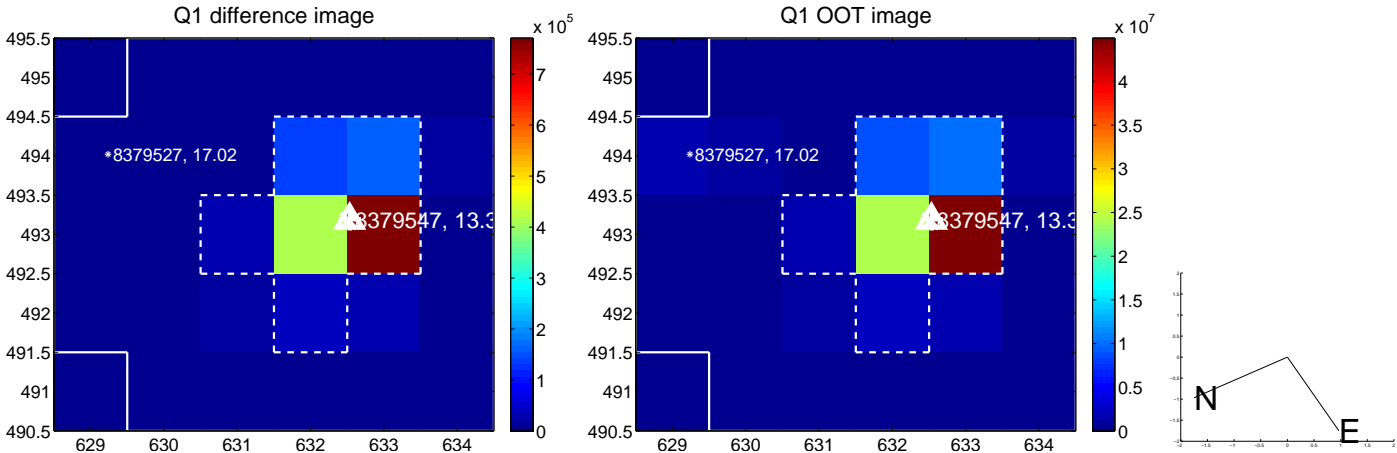
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.107	0.23	0.025 ± 0.108	-0.002 ± 0.068
PRF-fit source offset from KIC position	0.097 ± 0.071	1.37	0.031 ± 0.114	-0.092 ± 0.069
photometric centroid source offset	0.03 ± 0.00	8.32	-0.01 ± 0.00	-0.03 ± 0.00

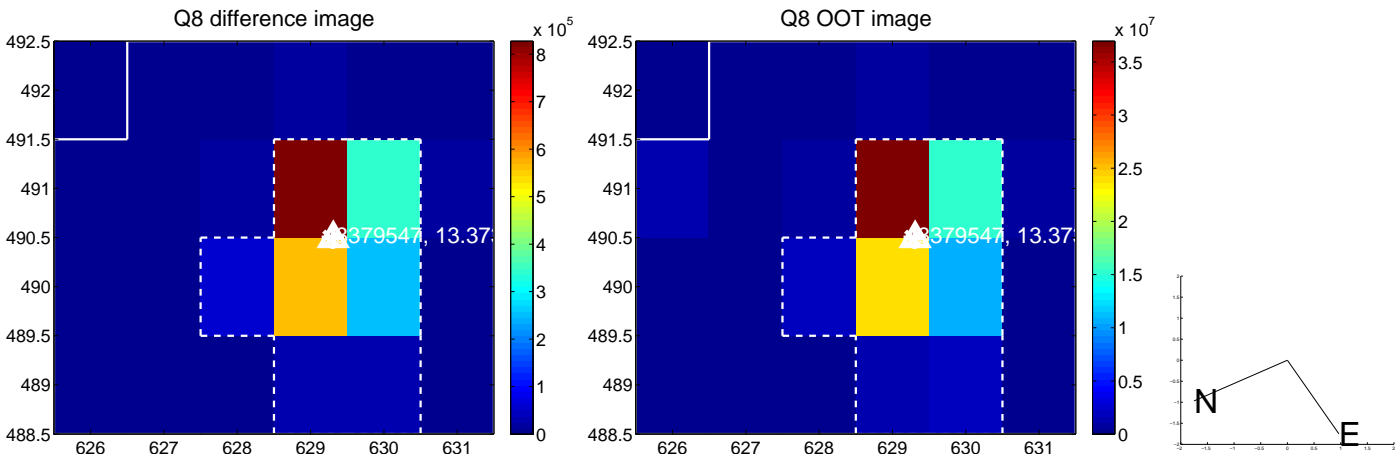
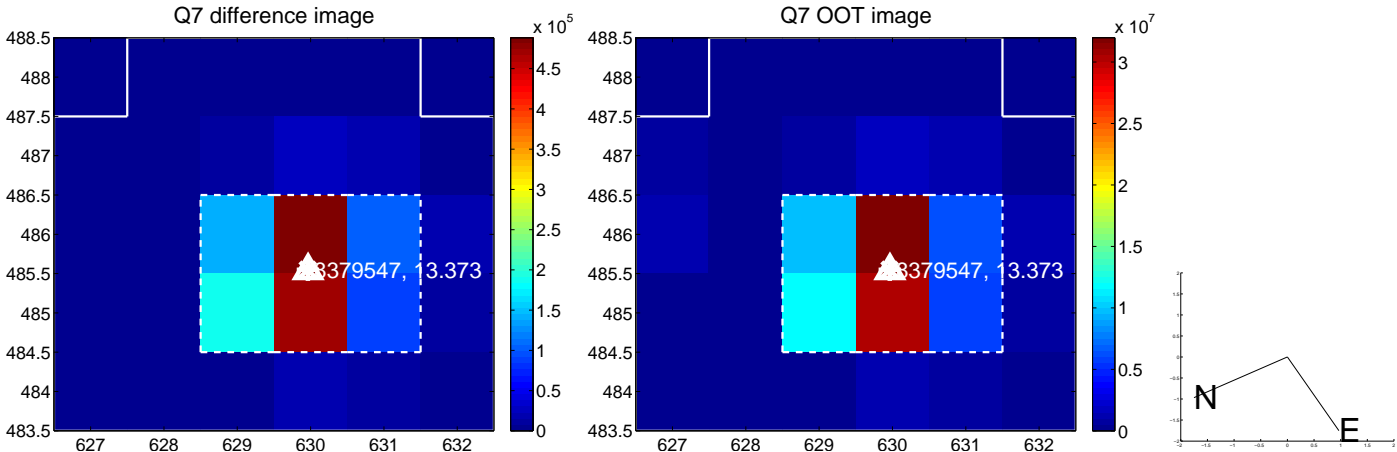
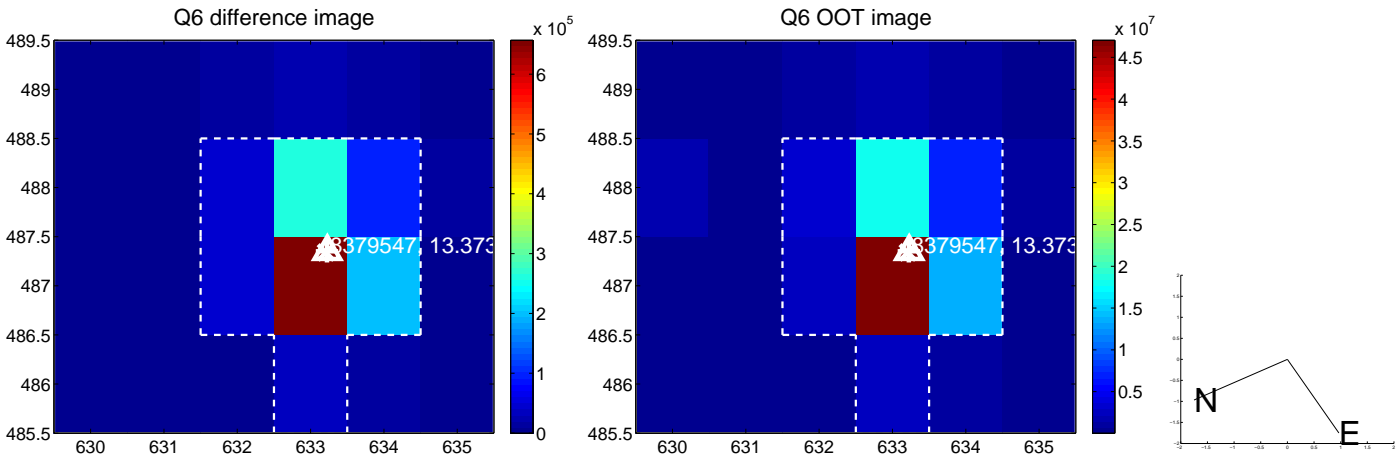
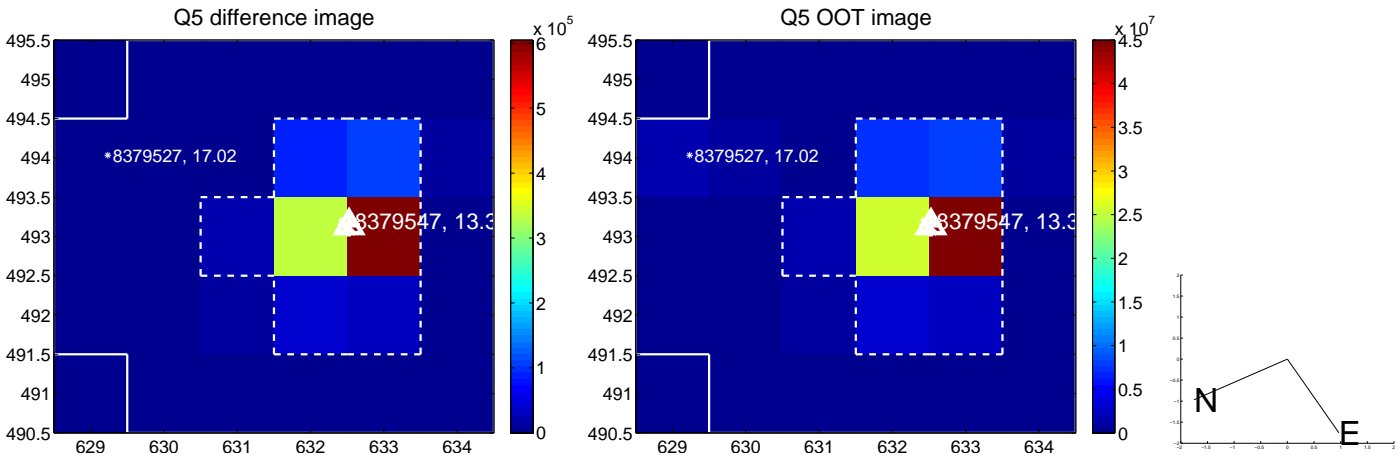


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

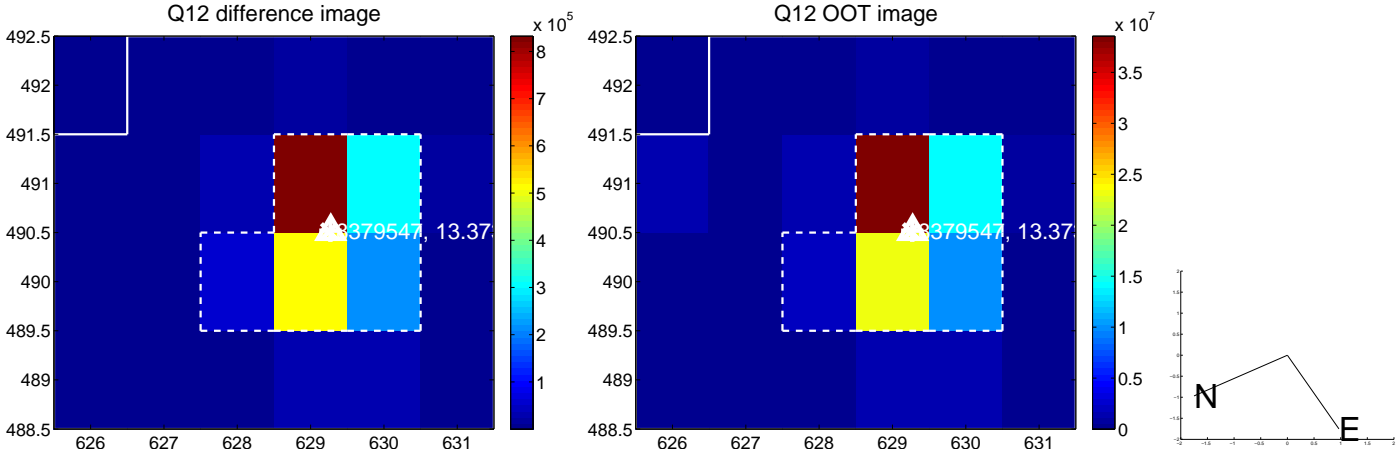
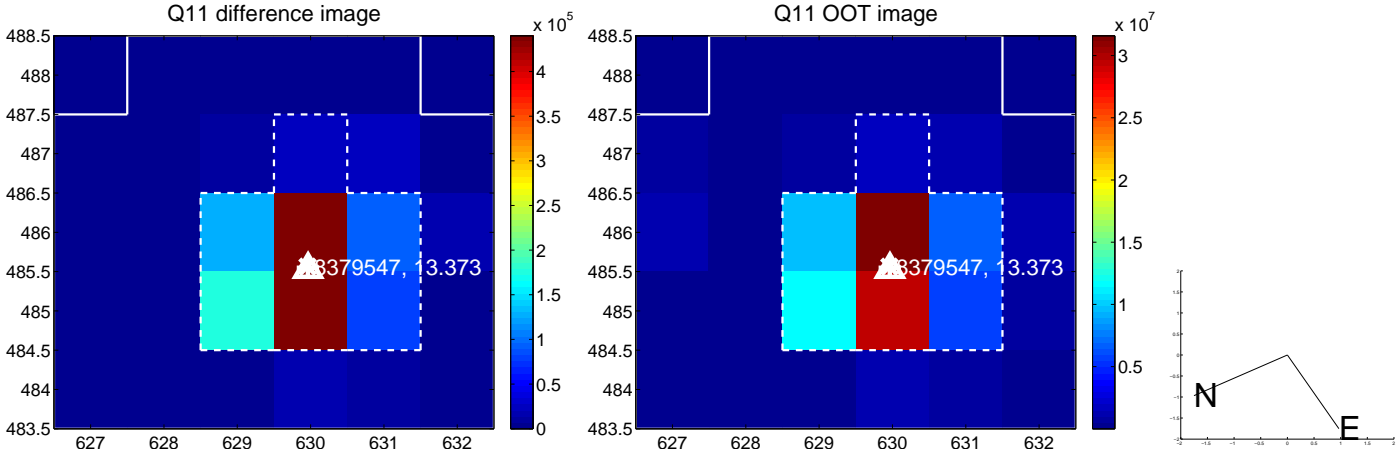
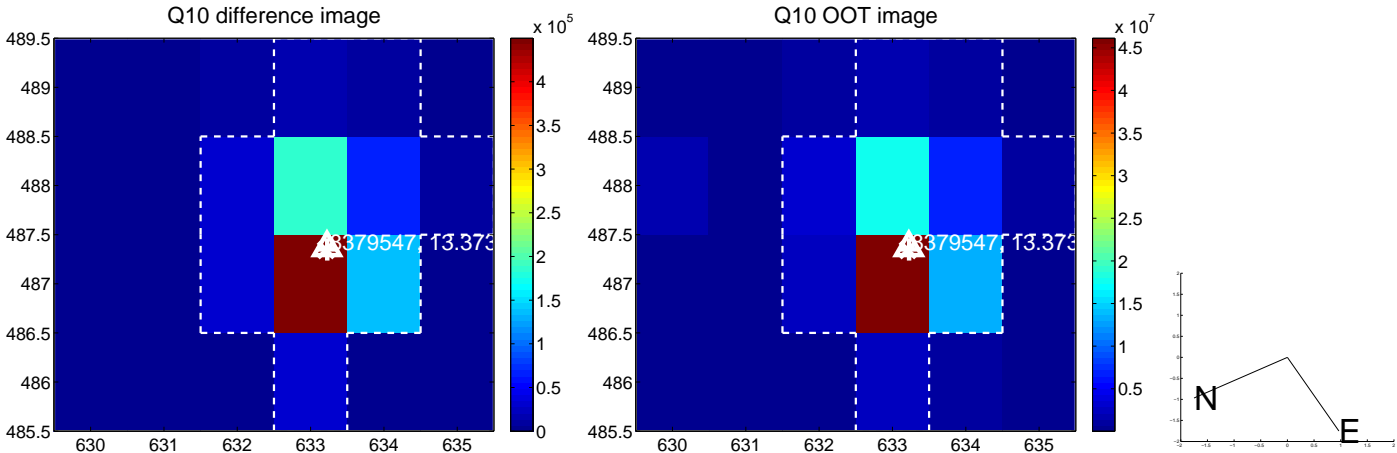
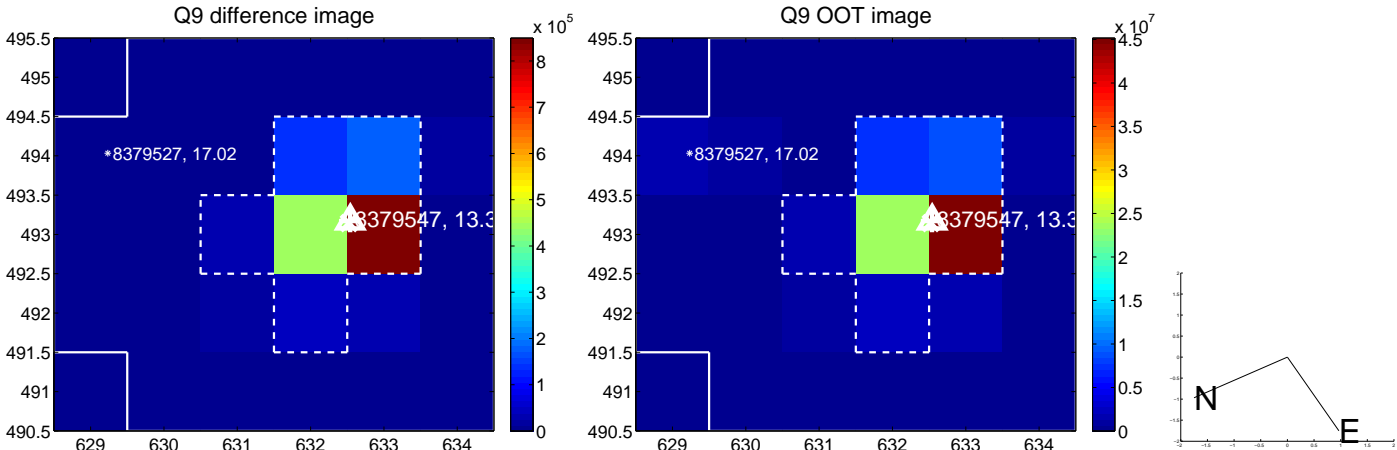
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



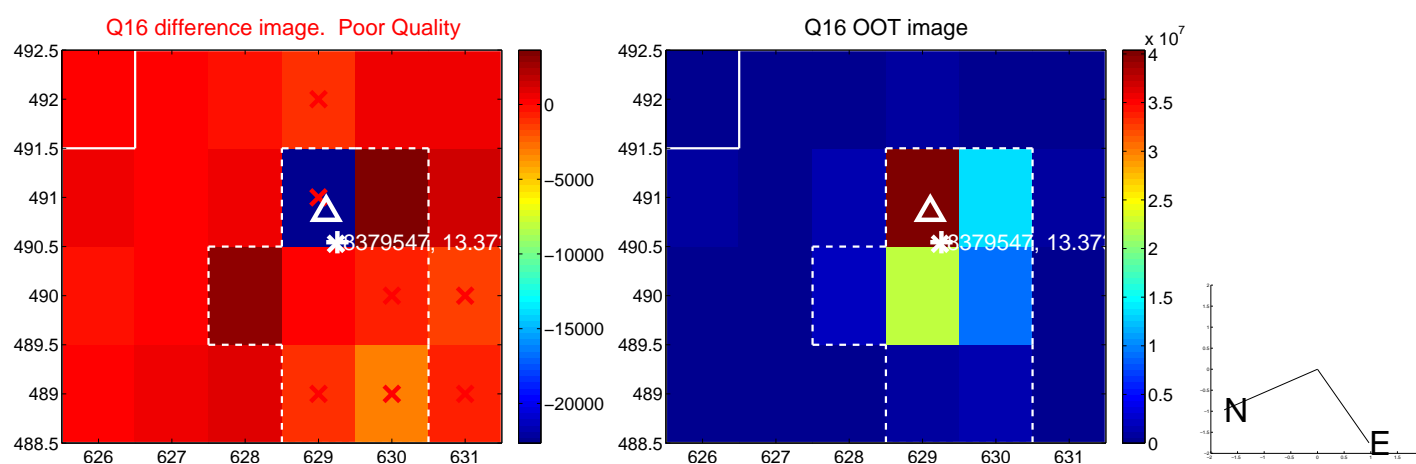
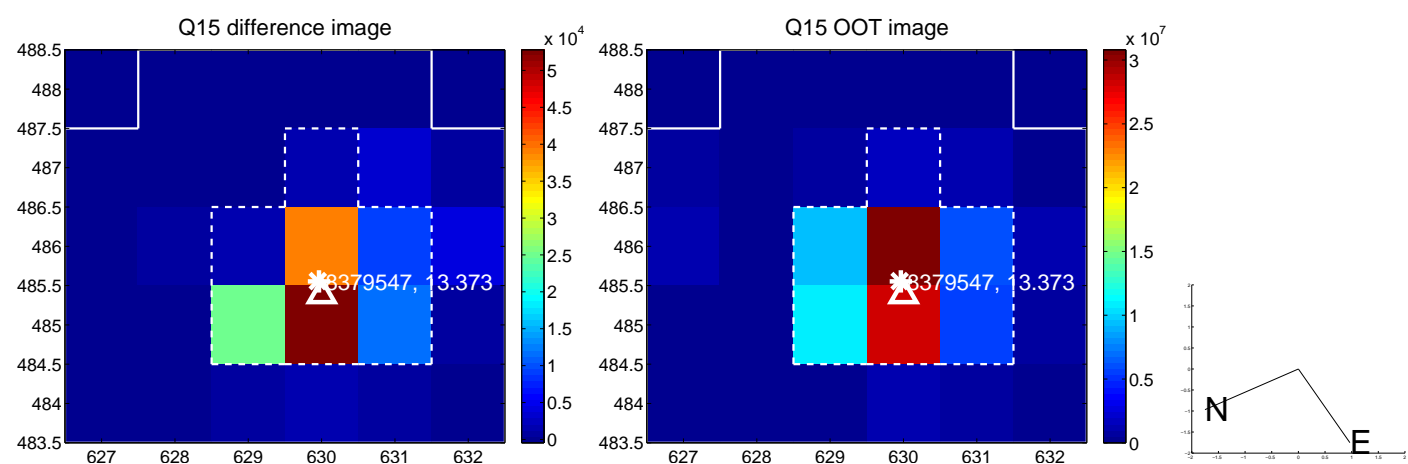
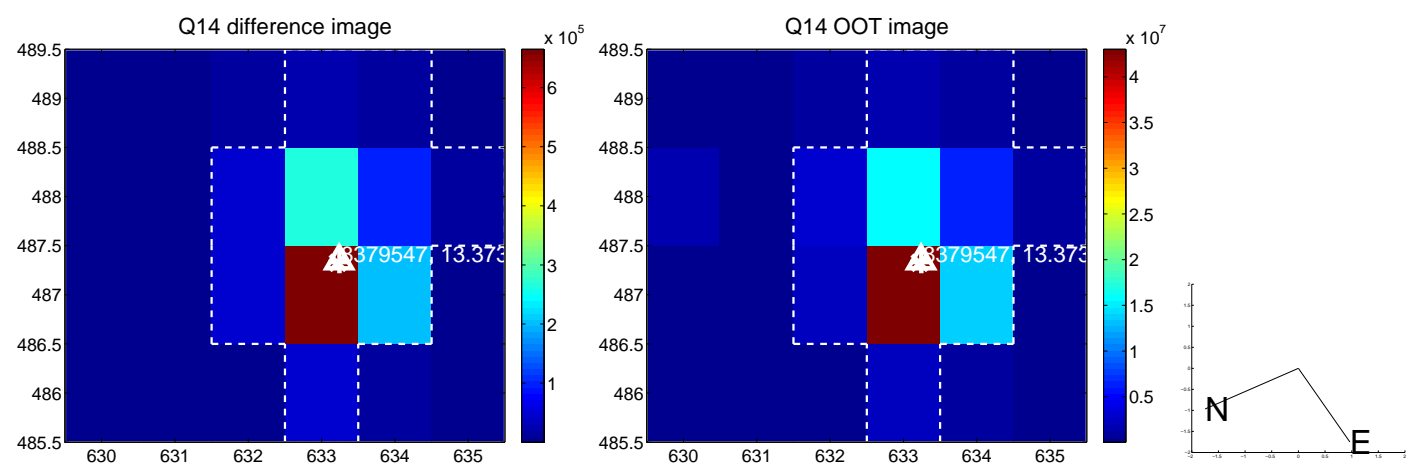
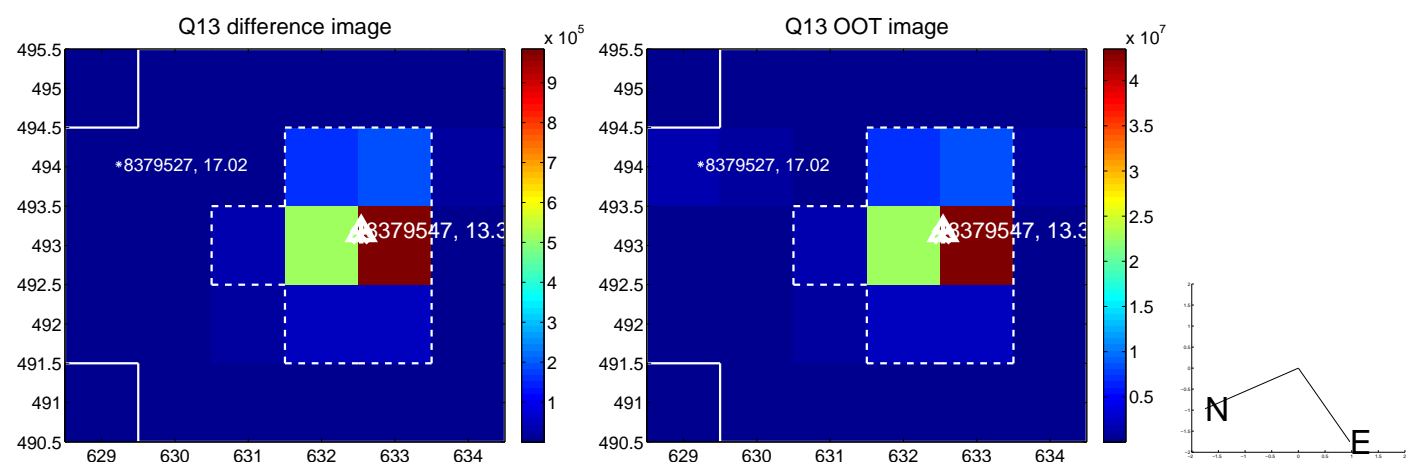
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



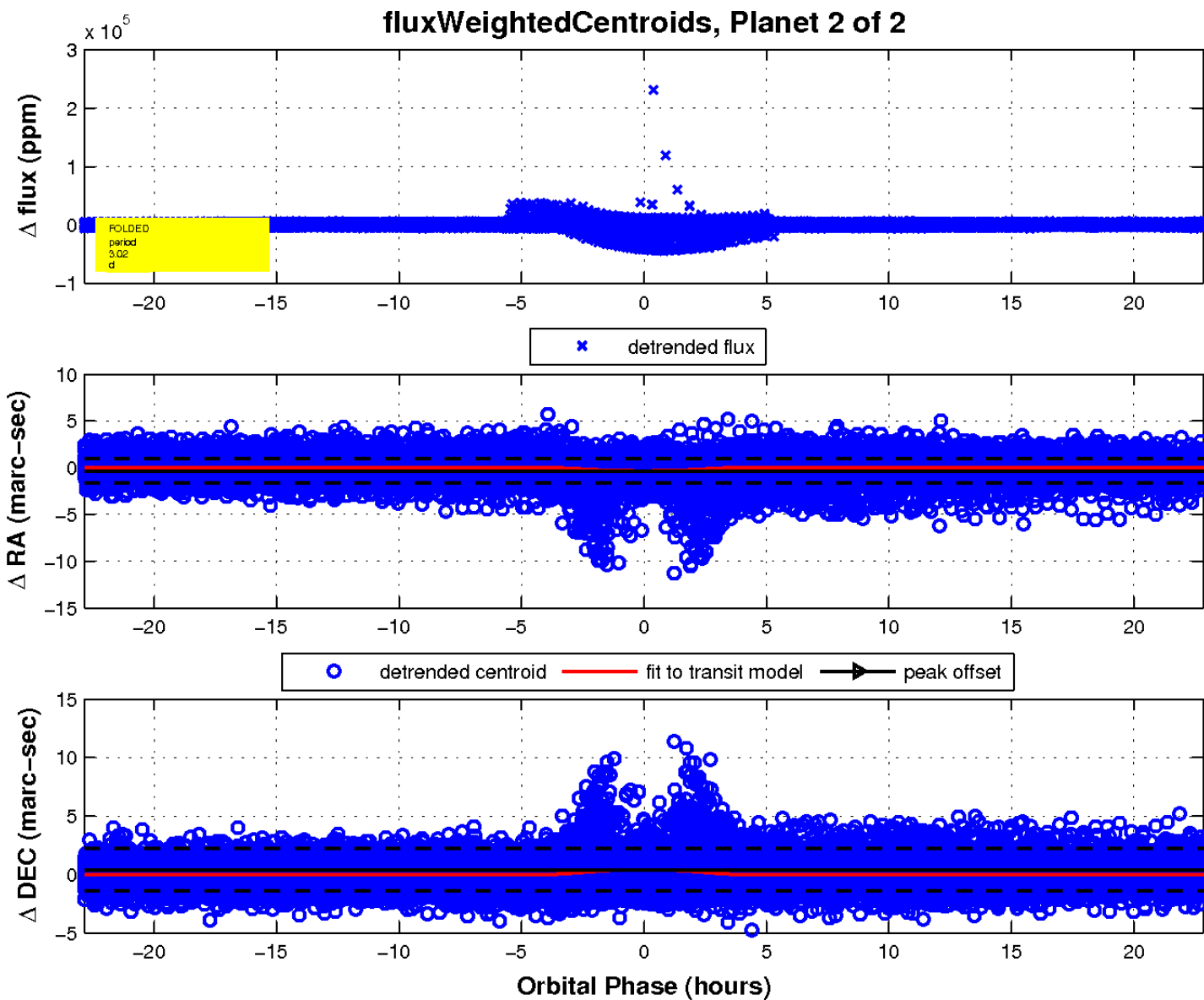
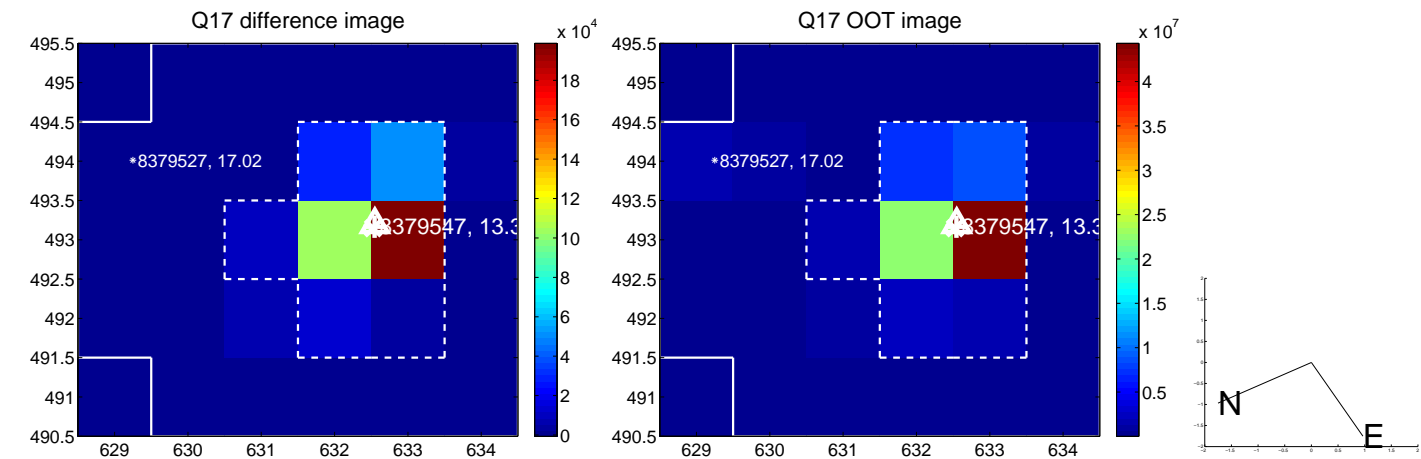
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

