

KIC 005479932

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})
005479932-01	OBS	No	0.762956	131.703565	35.8	3.753	11.5	9.1	1.06	5991	0.75	5198.56
005479932-02	OBS	No	83.830909	158.853779	401.0	11.802	8.8	6.9	1.06	5991	2.23	9.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005479932-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005479932-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

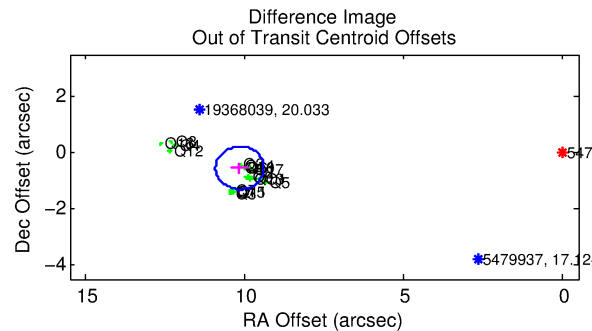
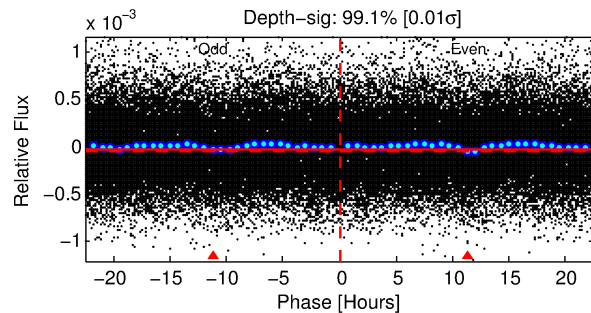
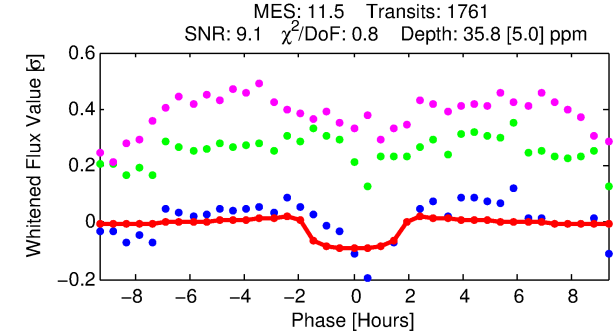
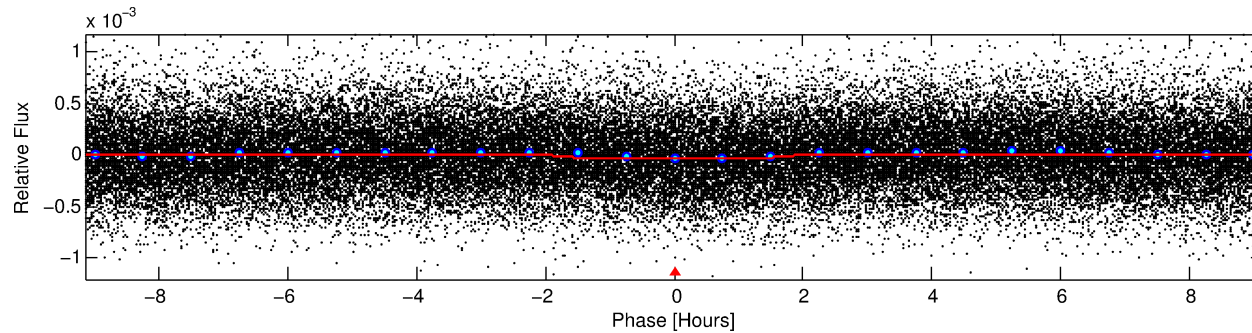
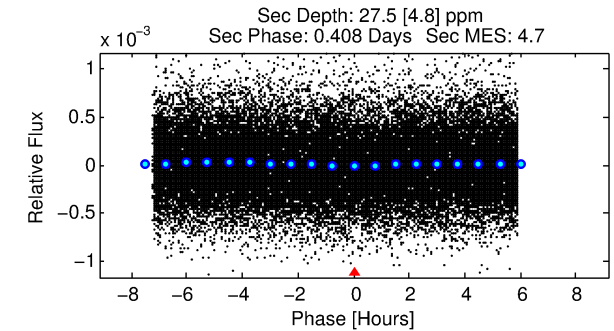
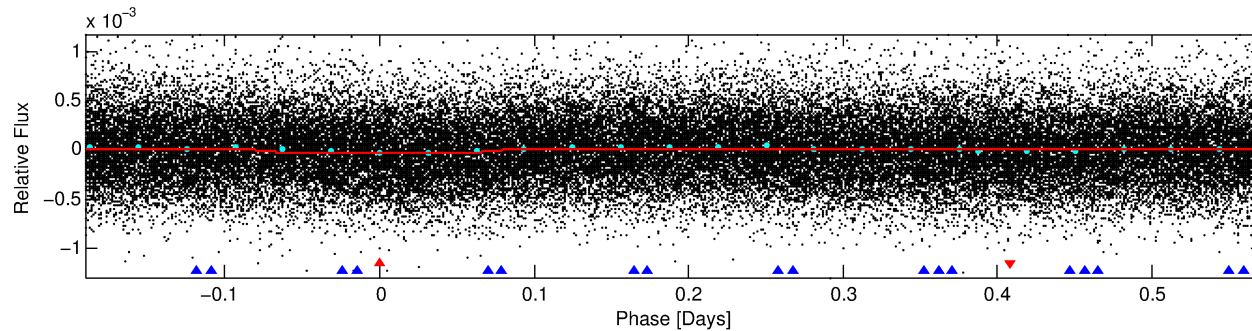
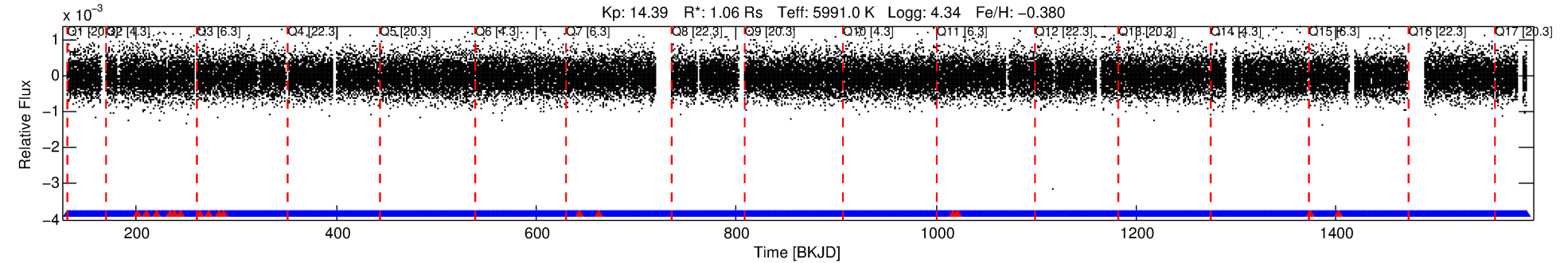
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005479932-01

No Significant Match Found

DV One-Page Summary

KIC: 5479932 Candidate: 1 of 2 Period: 0.763 d



DV Fit Results:

Period = 0.76296 [0.00001] d
Epoch = 131.7036 [0.0039] BKJD
Rp/R* = 0.0065 [0.0039]
a/R* = 1.17 [1.01]
b = 0.90 [0.68]
Seff = 5198.56 [1962.38]
Teq = 2165 [204] K
Rp = 0.75 [0.50] Re
a = 0.0158 [0.0038] AU
Ag = 6.76 [8.57] [0.67σ]
Teffp = 5397 [1654] K [1.94σ]

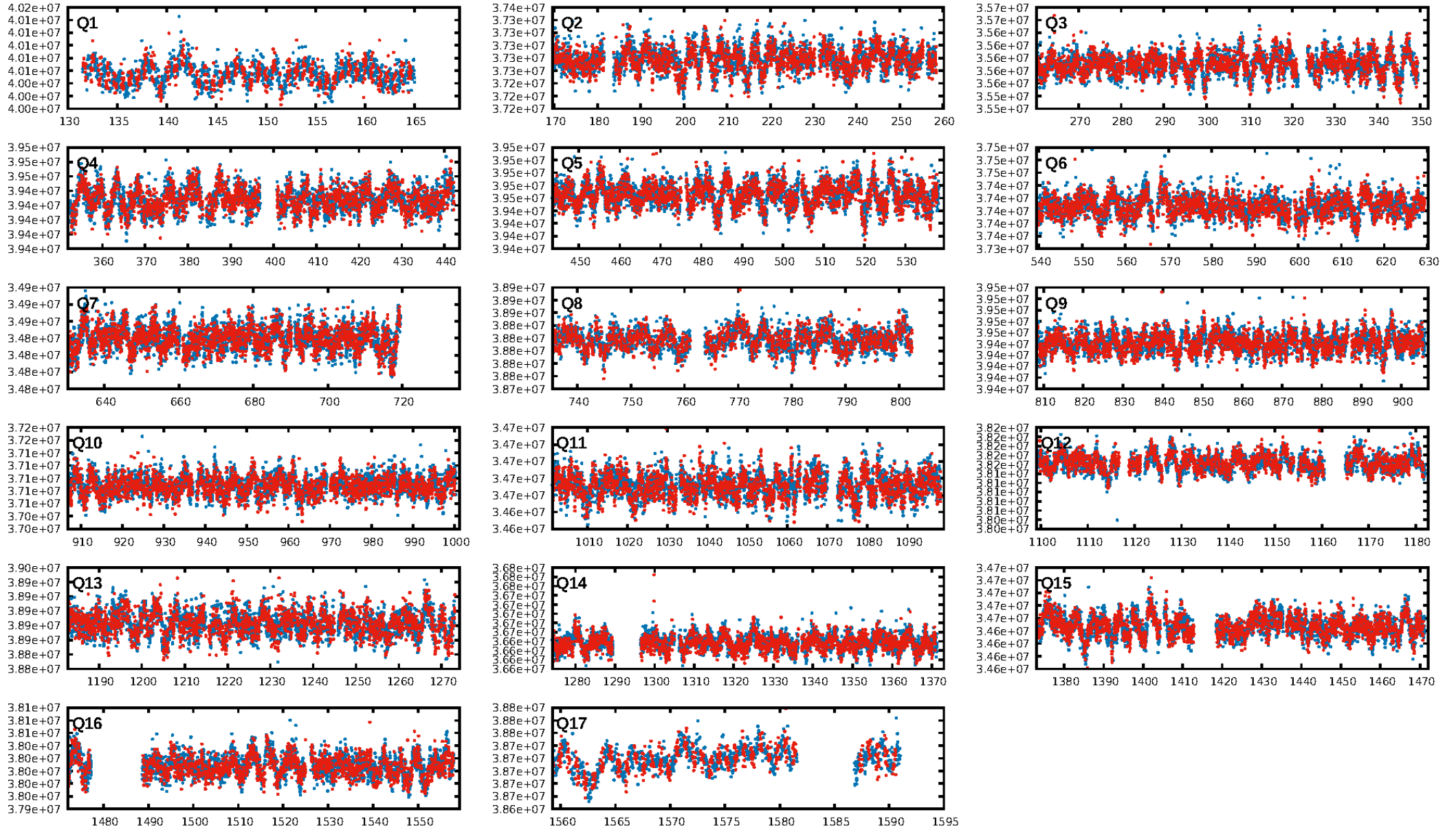
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [160.98σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.70e-25
RollingBand-fgt: 0.99 [1665/1682]
GhostDiagnostic-chr: -0.4812
Centroid-sig: 0.0%
Centroid-so: 9.136 arcsec [7.11σ]
OotOffset-rm: 10.168 arcsec [39.91σ]
KicOffset-rm: 10.305 arcsec [44.05σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

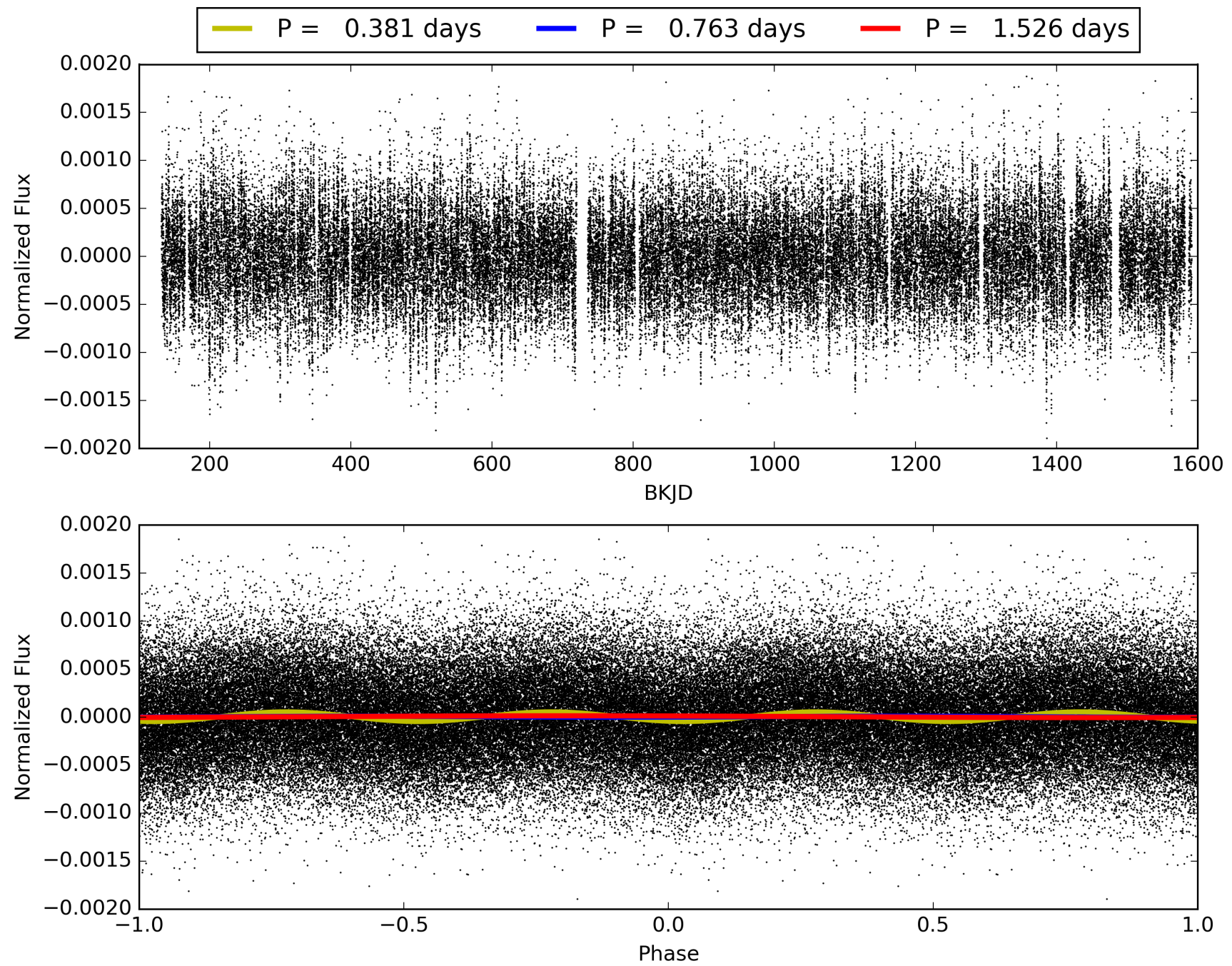
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:35:48 Z

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

TCE 005479932-01, PDC Light Curves

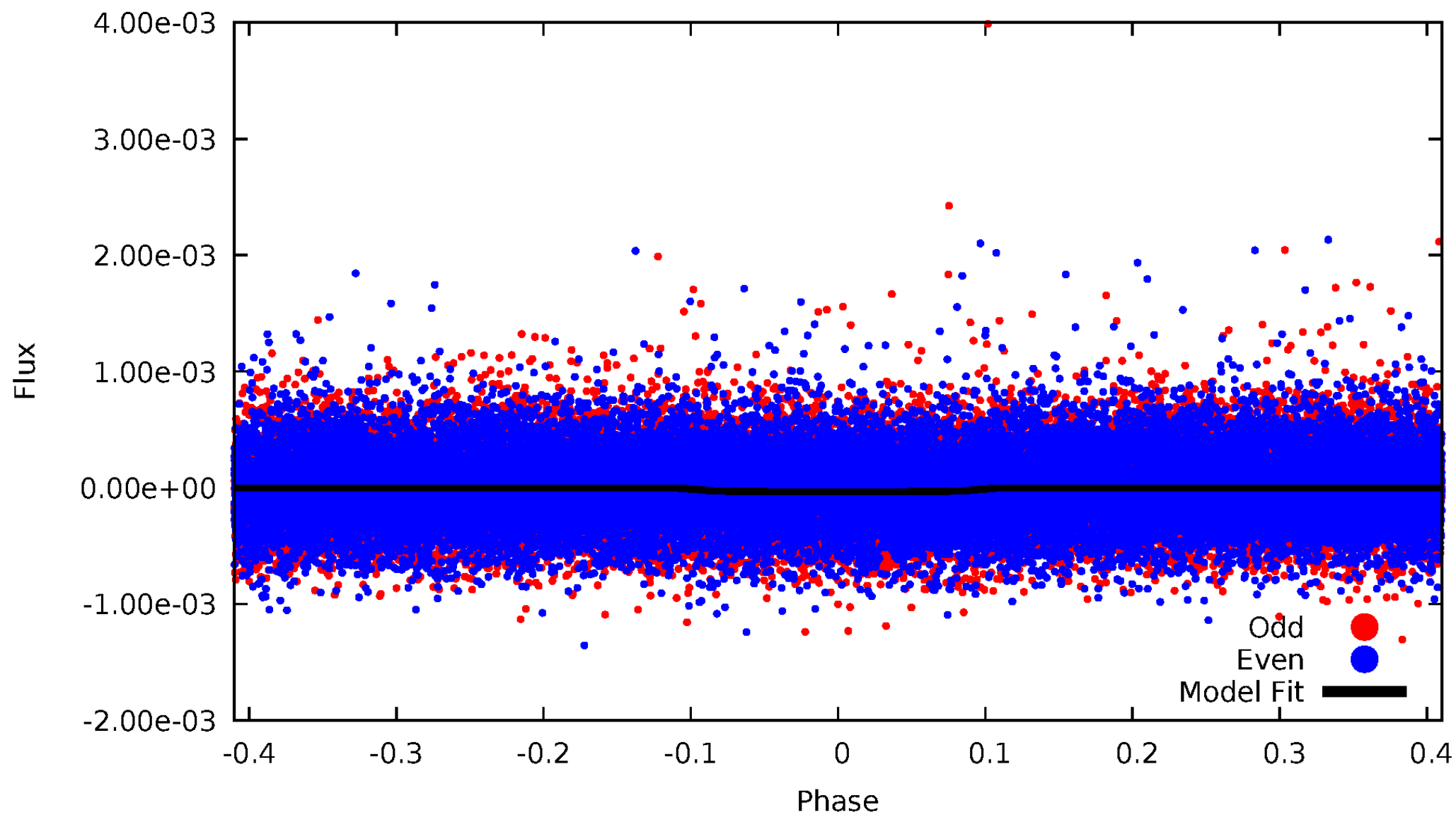


TCE 005479932-01



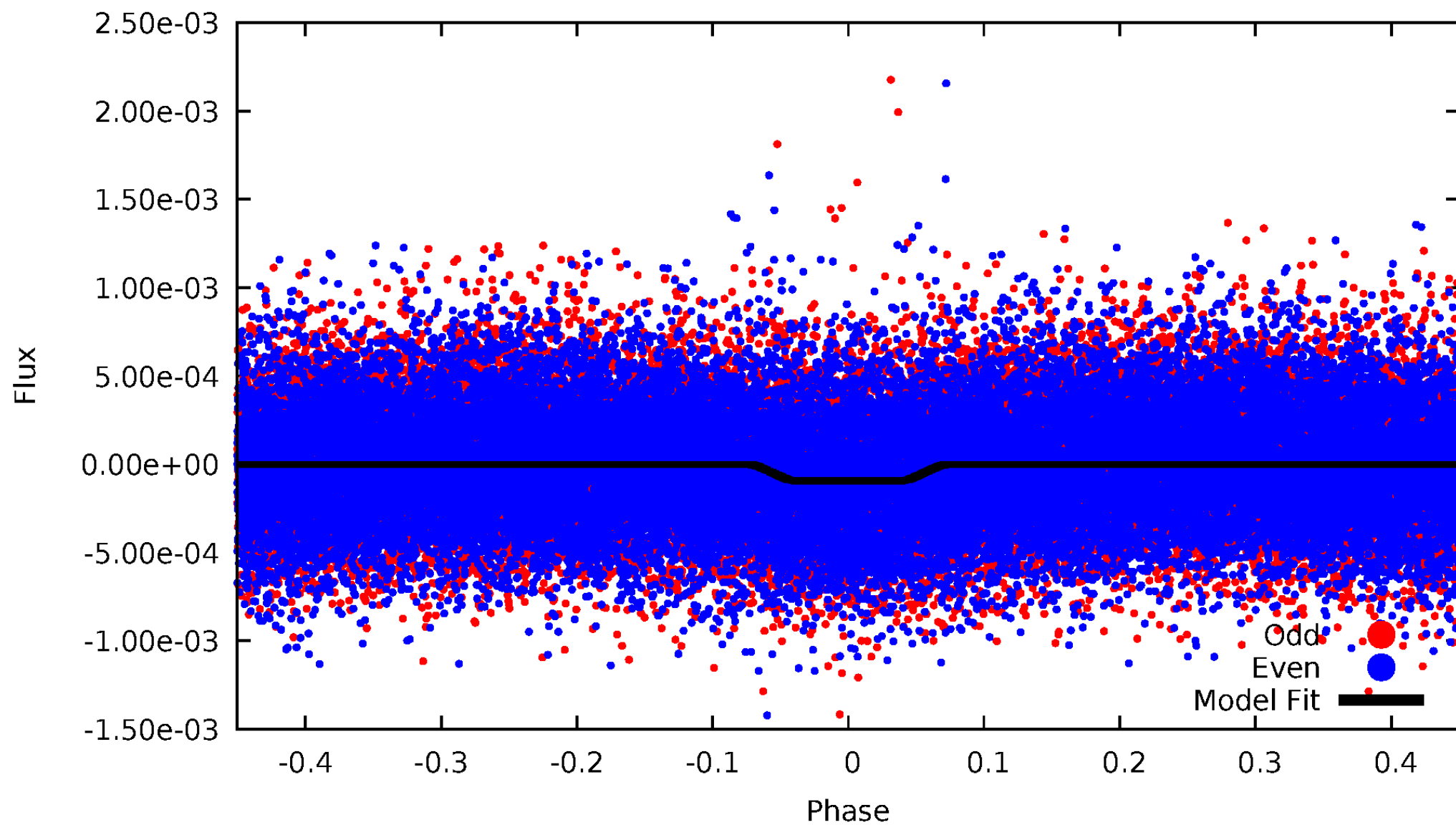
DV Odd/Even

TCE 005479932-01

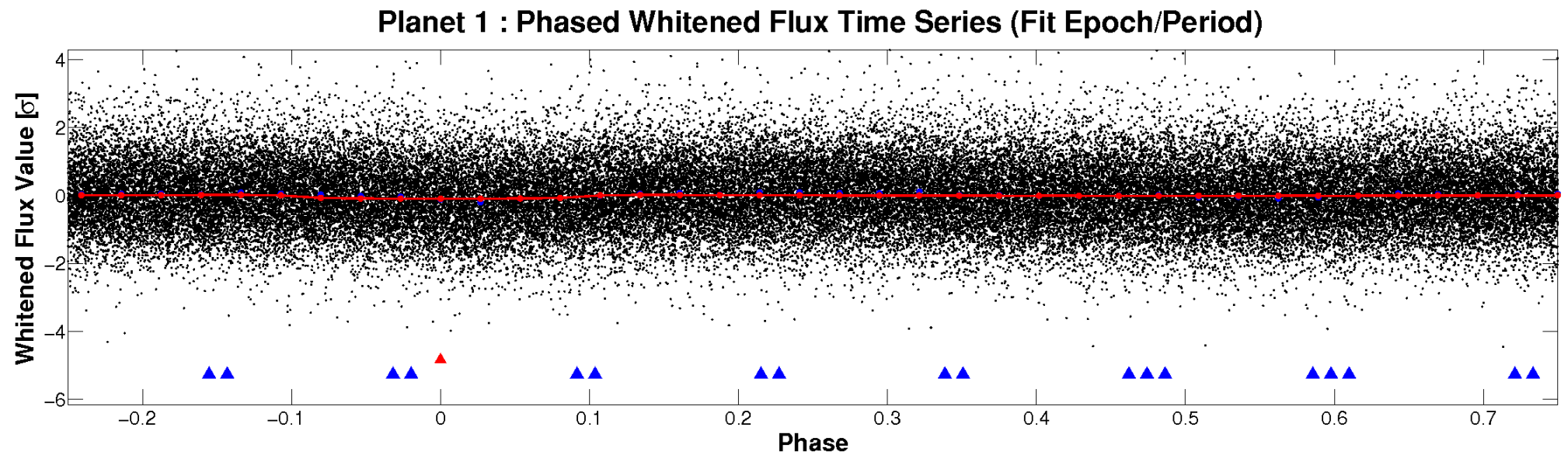
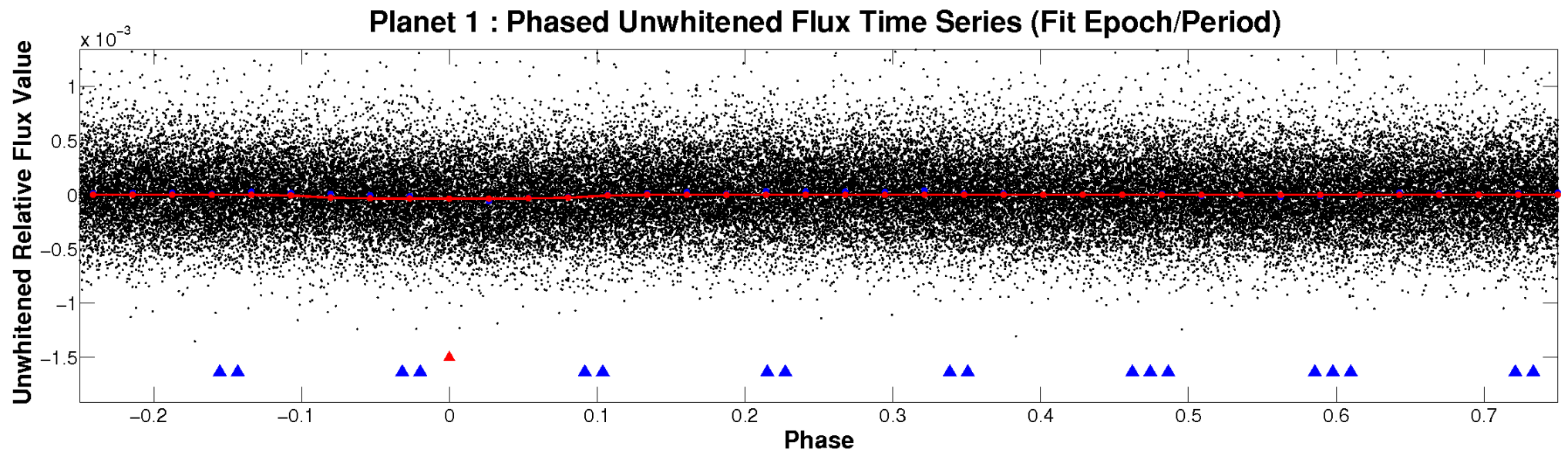


ALT Odd/Even

TCE 005479932-01

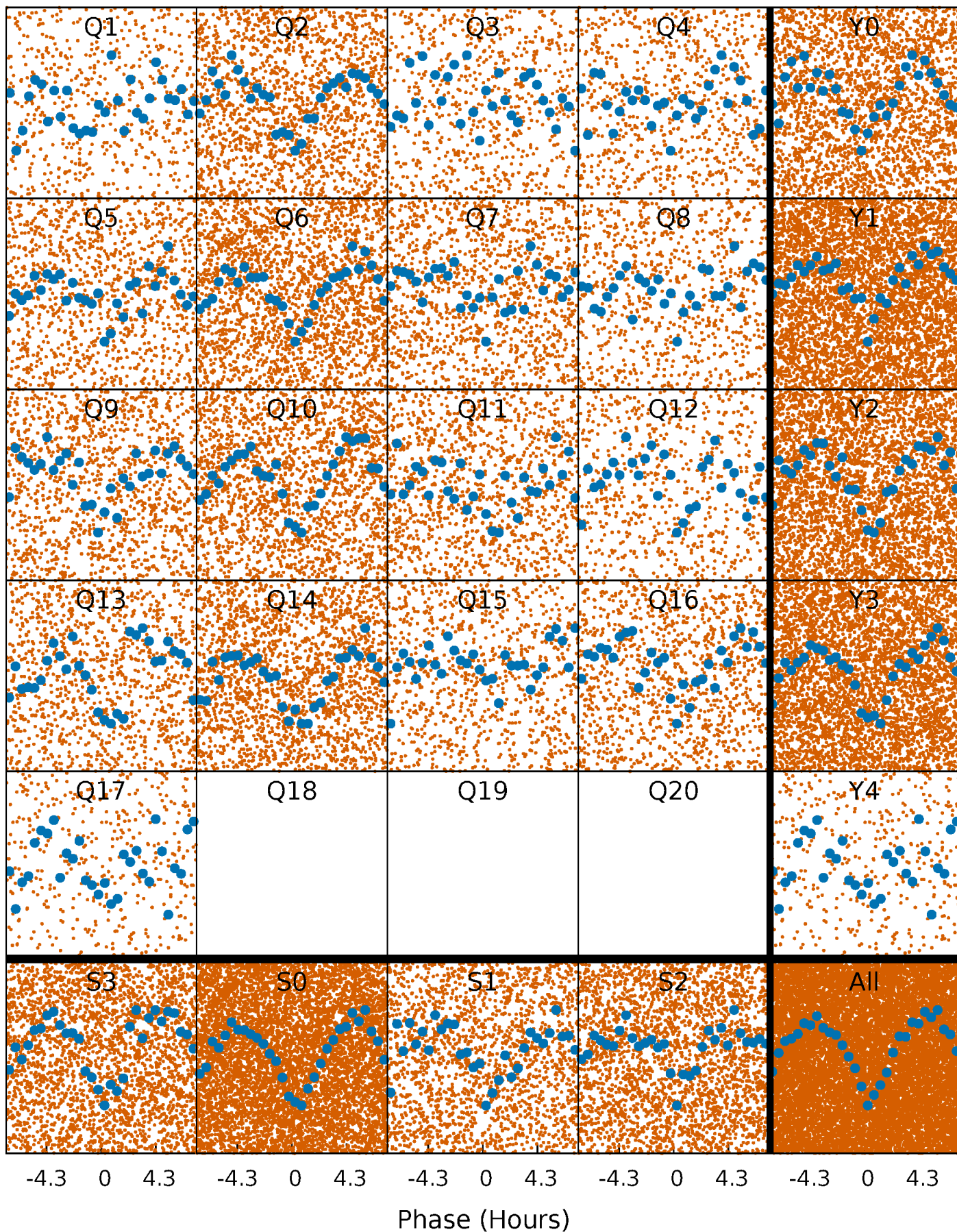


Non-Whitened Vs. Whitened Light Curve



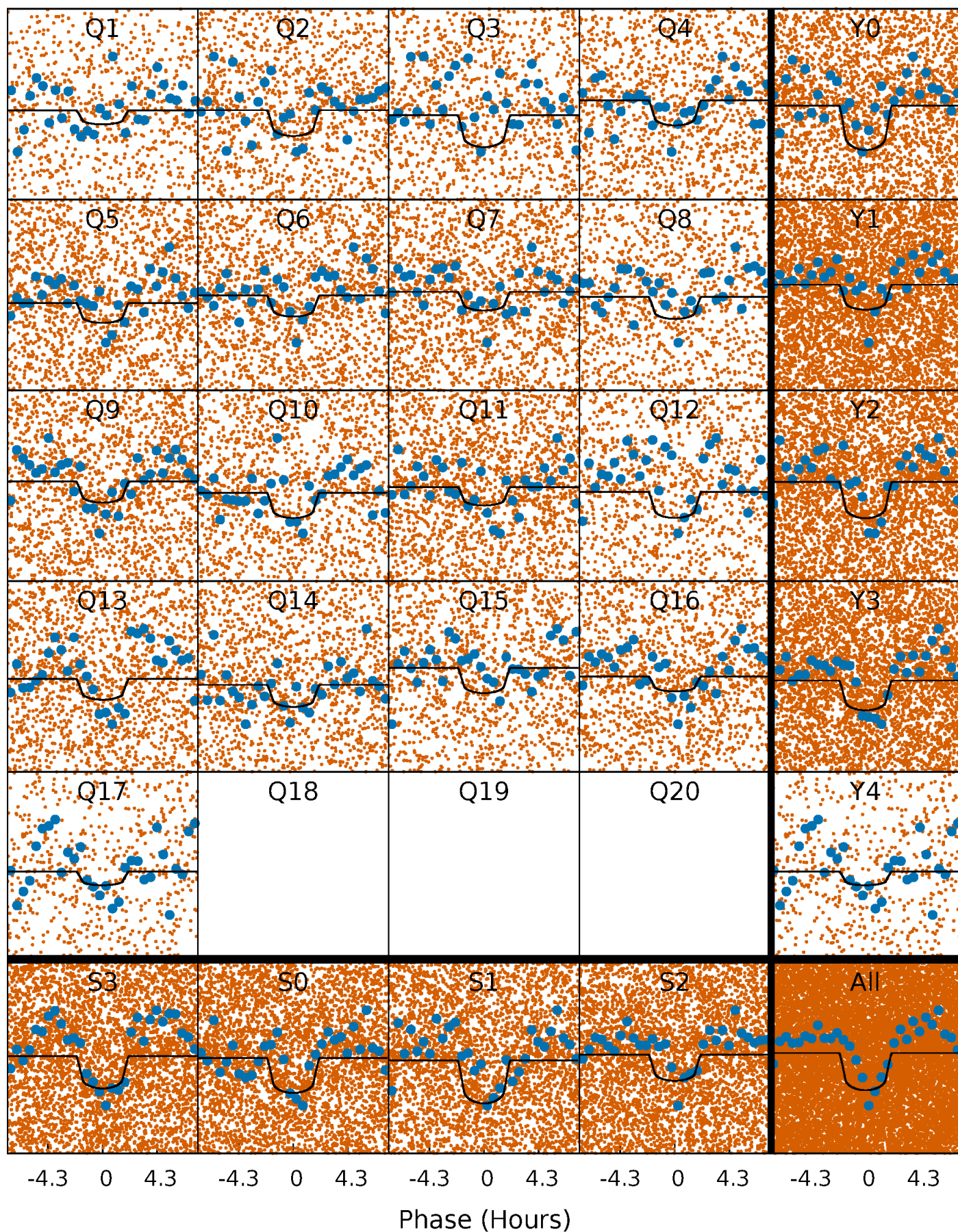
PDC Quarter-Phased Transit Curves

TCE 005479932-01 P= 0.762956 Days $T_0=131.703565$ (BKJD)



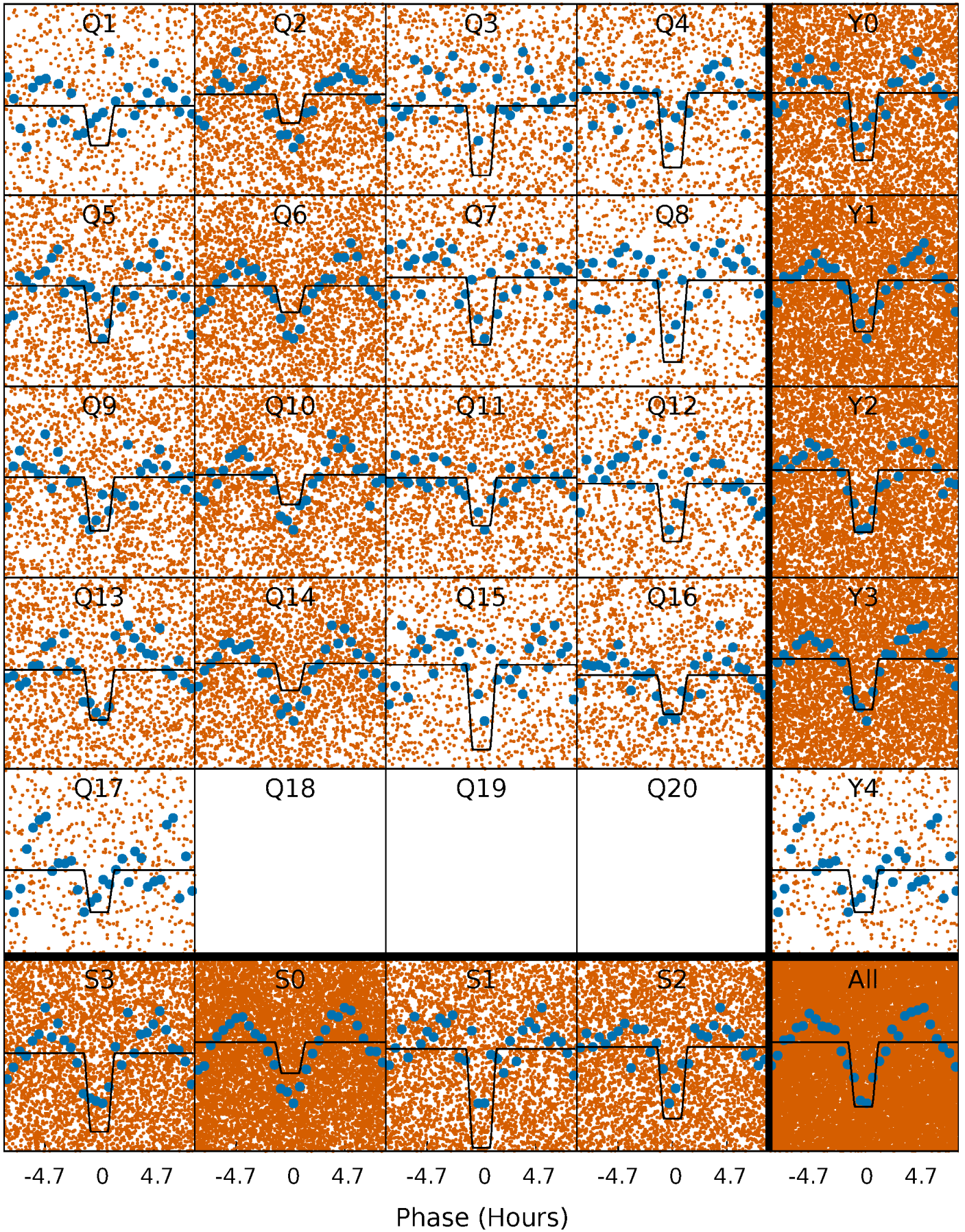
DV Quarter-Phased Transit Curves

TCE 005479932-01 P= 0.762956 Days $T_0=131.703565$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

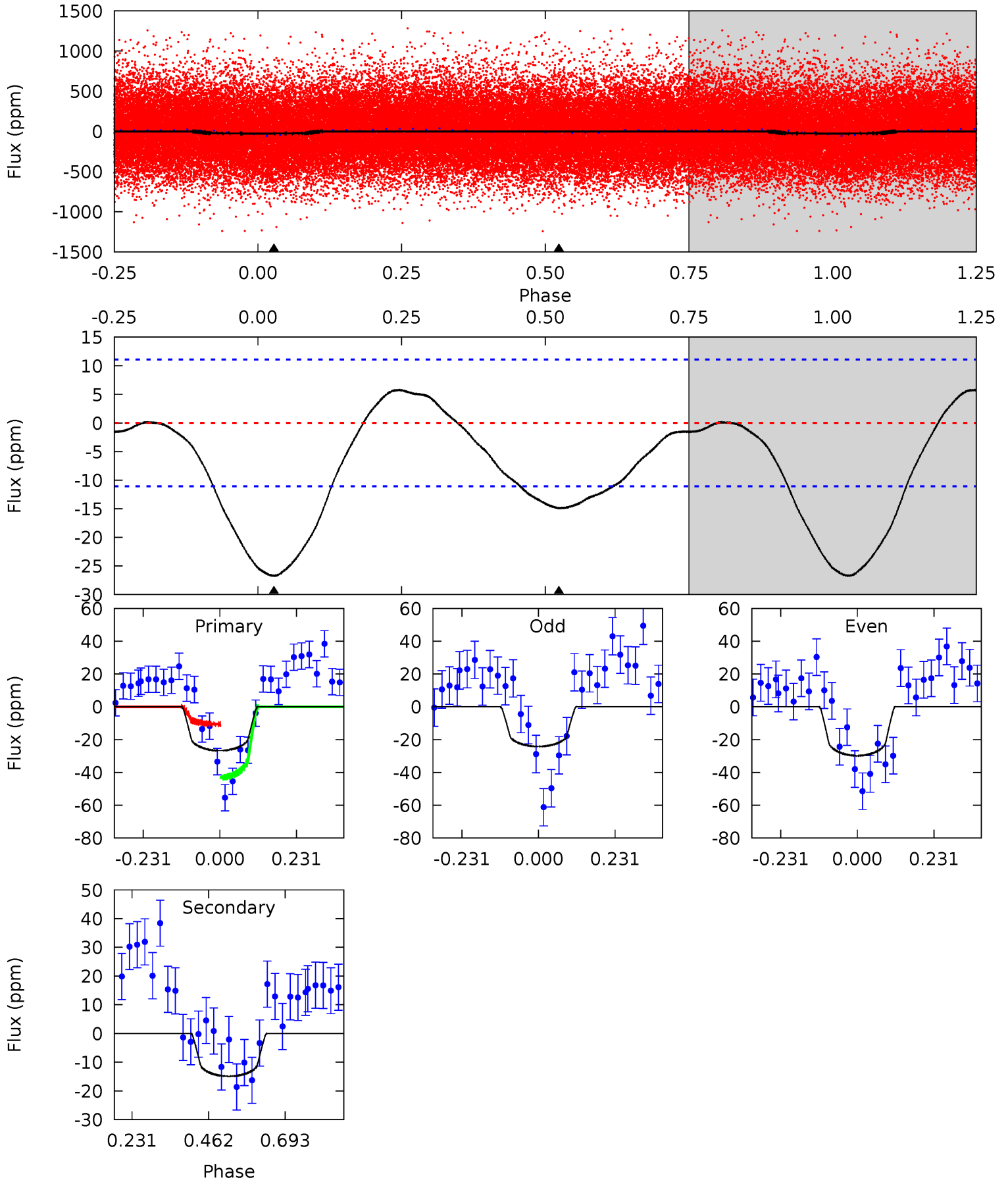
TCE 005479932-01 P= 0.762980 Days $T_0=131.699808$ (BKJD)



DV Model-Shift Uniqueness Test

005479932-01, P = 0.762956 Days, E = 130.940609 Days

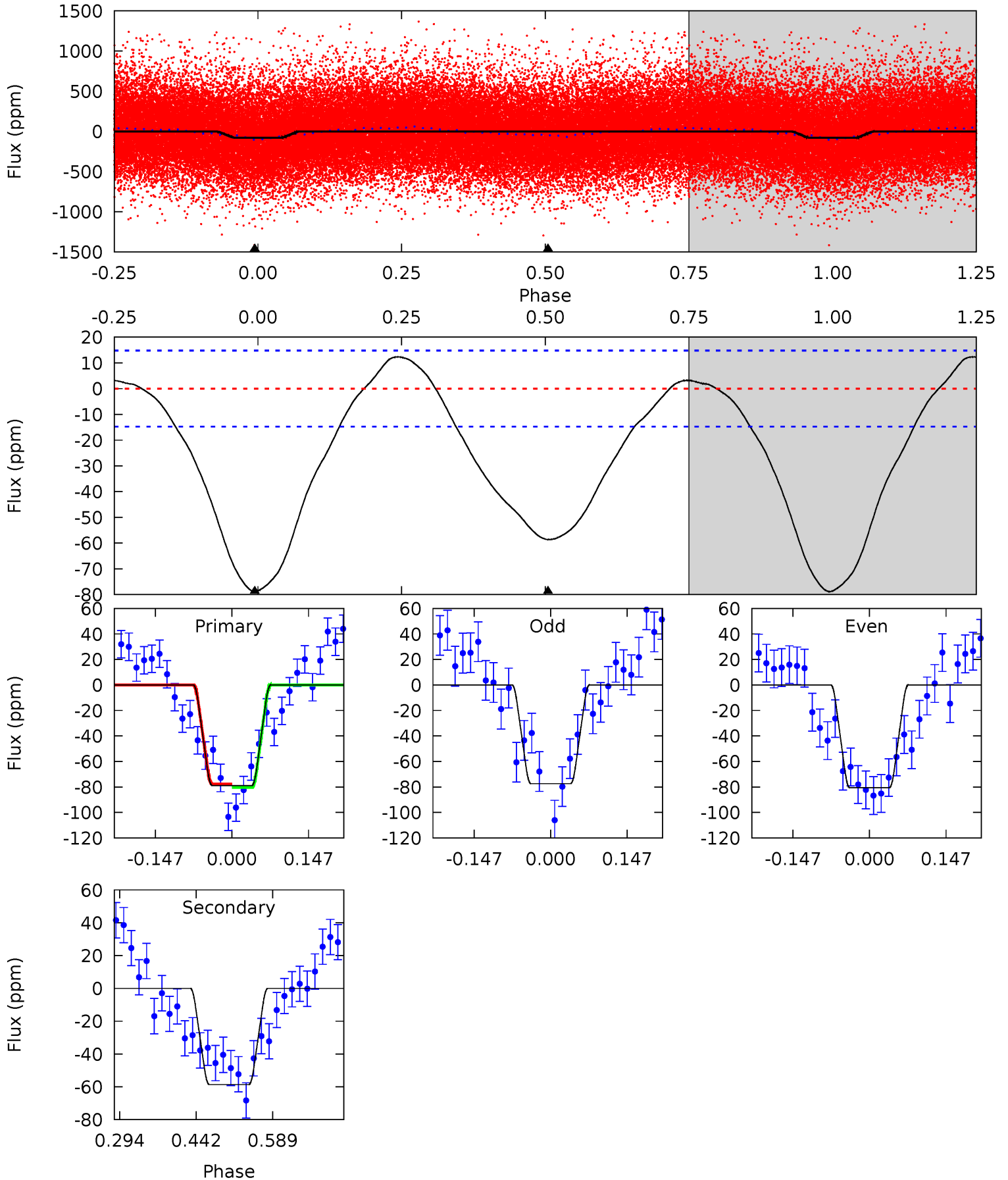
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	5.90	0	0	4.39	1.20	1.20	10.6	10.6	5.90	5.90	1.12	1.06	0.18	6.57



Alt Model-Shift Uniqueness Test

005479932-01, P = 0.762980 Days, E = 130.936828 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.9	17.8	0	0	4.48	1.45	2.38	23.9	23.9	17.8	17.8	0.47	0.97	0.13	0.42



Stellar Parameters For KIC 005479932

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5991^{+179}_{-197}	$4.342^{+0.158}_{-0.193}$	$-0.380^{+0.300}_{-0.300}$	$1.058^{+0.307}_{-0.205}$	$0.898^{+0.131}_{-0.087}$	$1.068^{+0.808}_{-0.528}$
	+3%/-3%	+4%/-4%	+79%/-79%	+29%/-19%	+15%/-10%	+76%/-49%
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 005479932-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-15 ± 3	$0.80^{+0.43}_{-0.41}$	3031^{+234}_{-190}	4568^{+1859}_{-772}	$3.263^{+10.724}_{-1.939}$
Alt.	-59 ± 3	$1.11^{+0.52}_{-0.50}$	3037^{+219}_{-199}	5386^{+1722}_{-858}	$6.612^{+14.697}_{-3.620}$

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 $A_{\text{obs}} \gg 1.0$

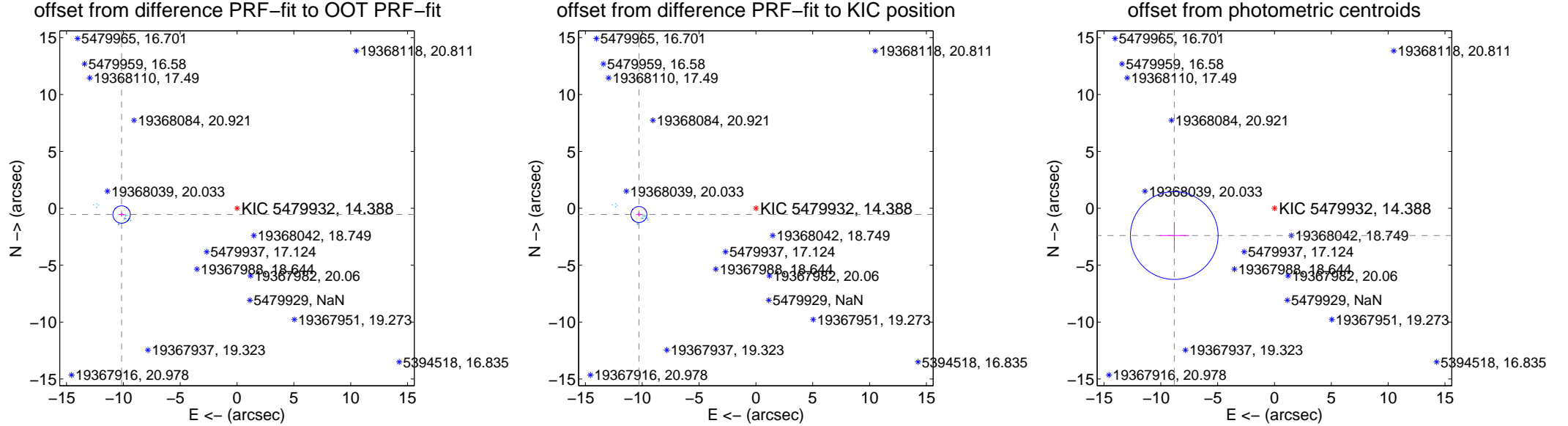
DV Centroid Data

Supplemental centroid analysis for 005479932-01. Kepler magnitude: 14.39. Transit SNR 9.09

There are 17 quarters with good PRF difference image offsets

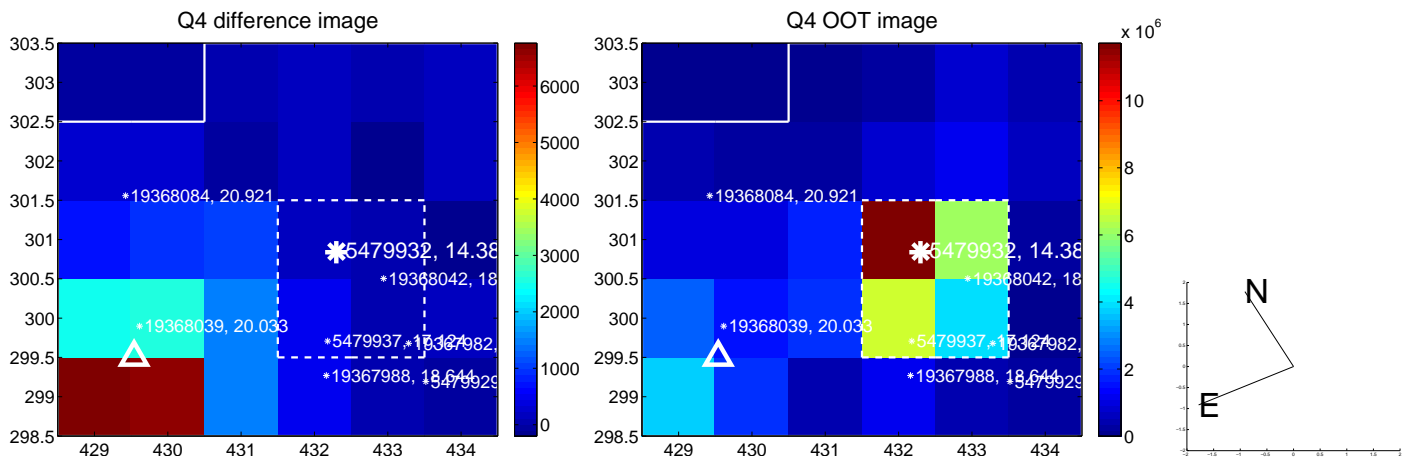
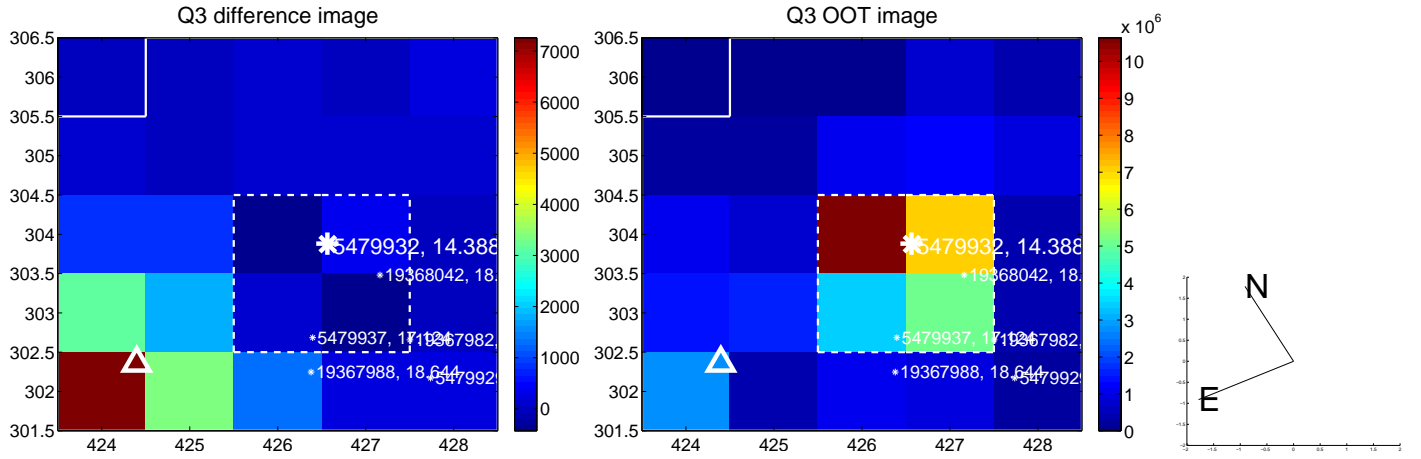
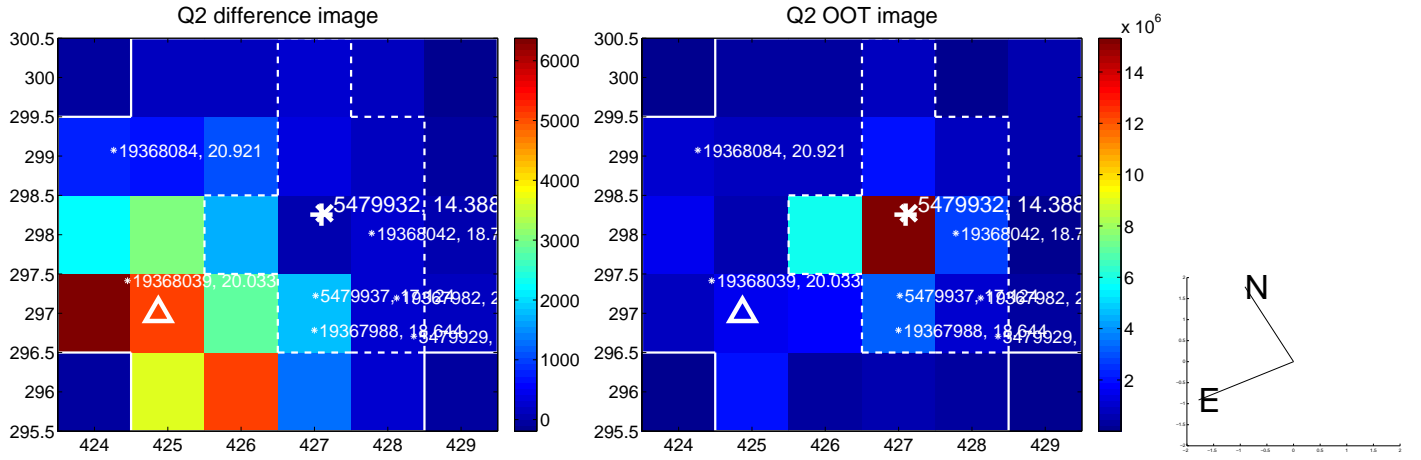
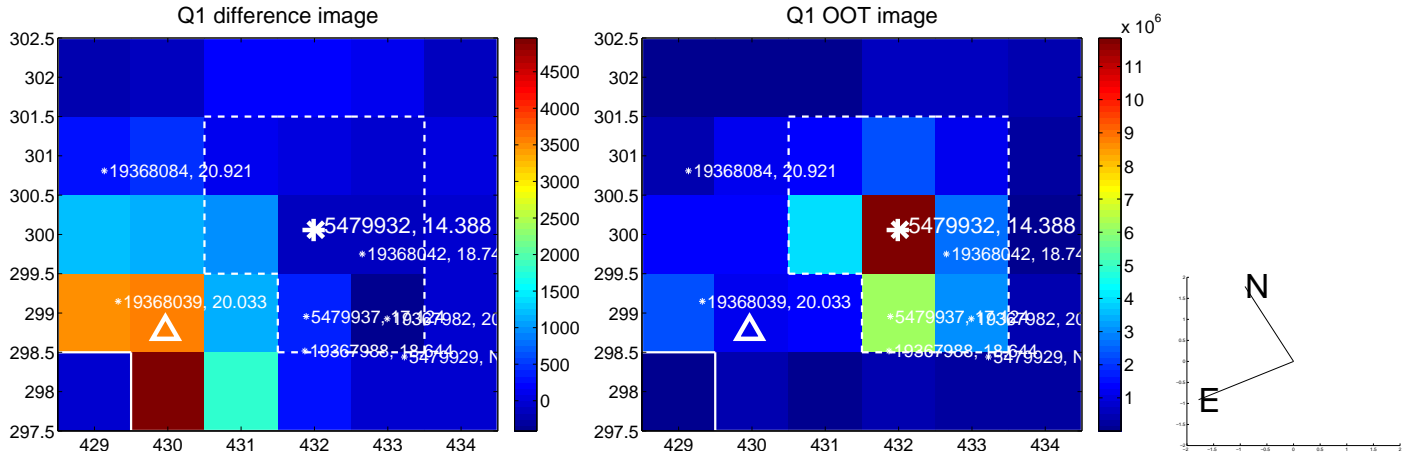
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.168 ± 0.255	39.91	10.153 ± 0.260	-0.545 ± 0.157
PRF-fit source offset from KIC position	10.305 ± 0.234	44.05	10.290 ± 0.240	-0.546 ± 0.158
photometric centroid source offset	9.14 ± 1.29	7.11	8.82 ± 1.29	-2.39 ± 1.17

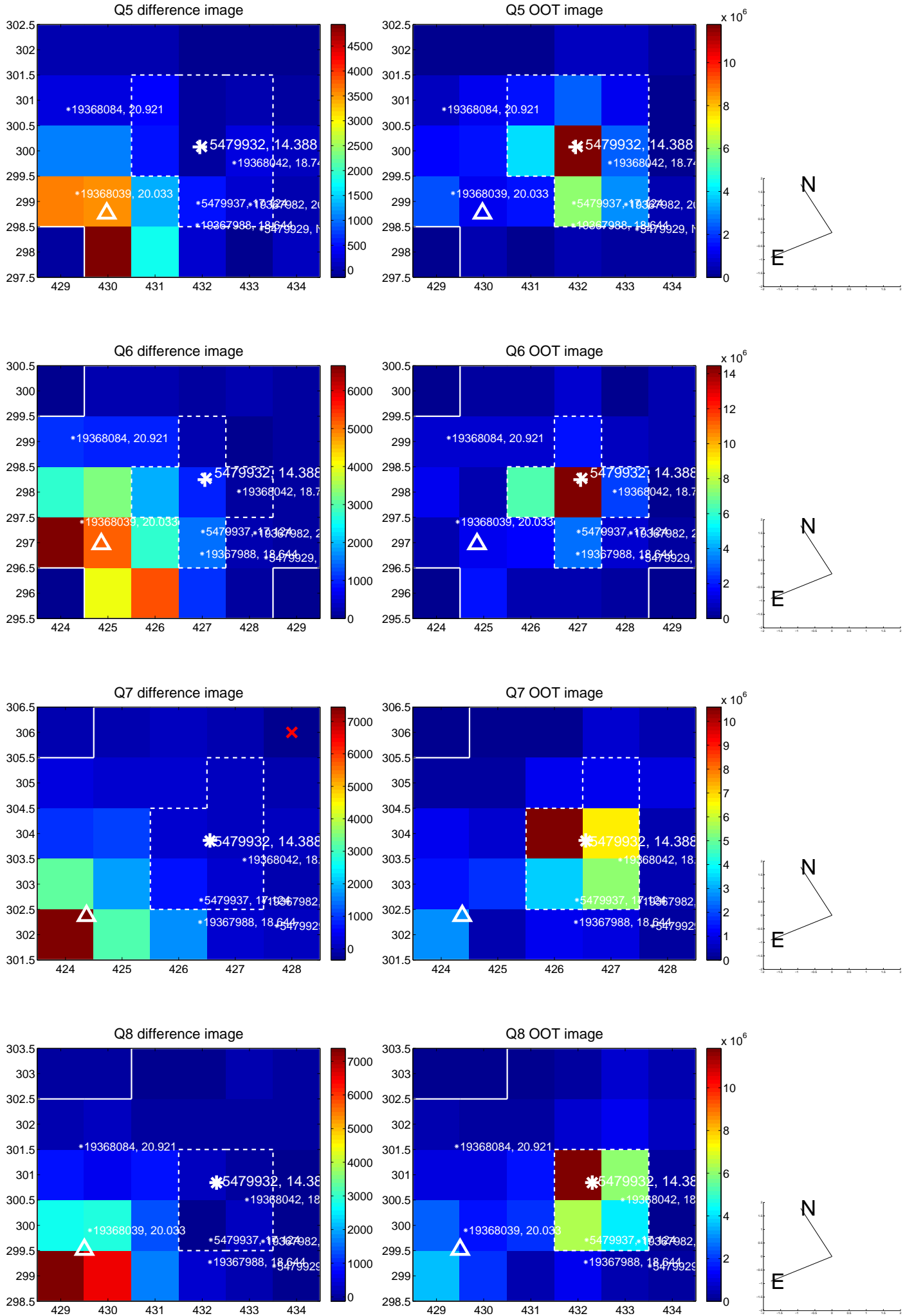


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

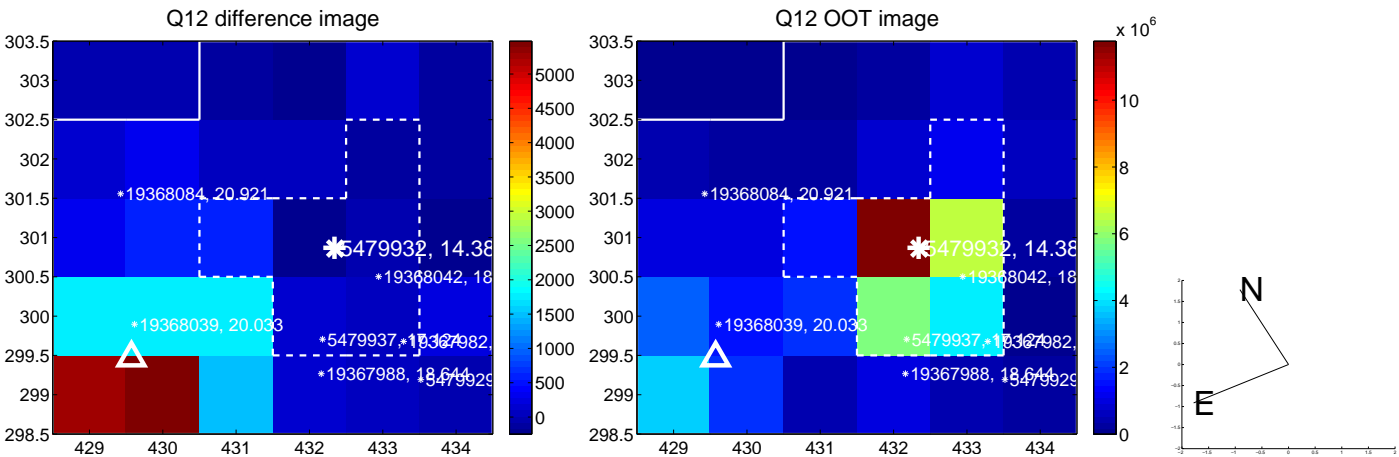
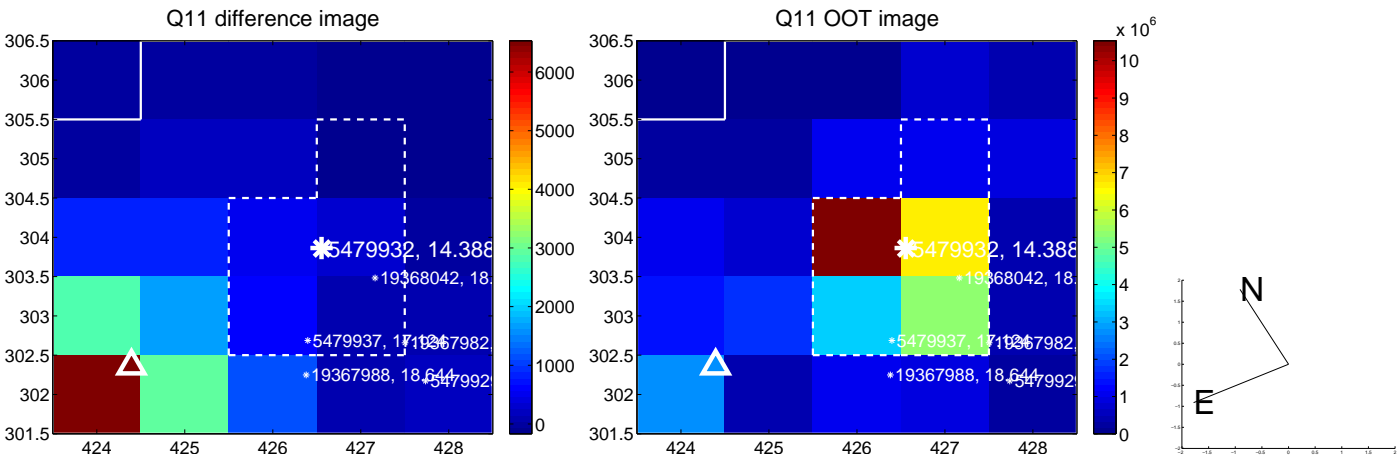
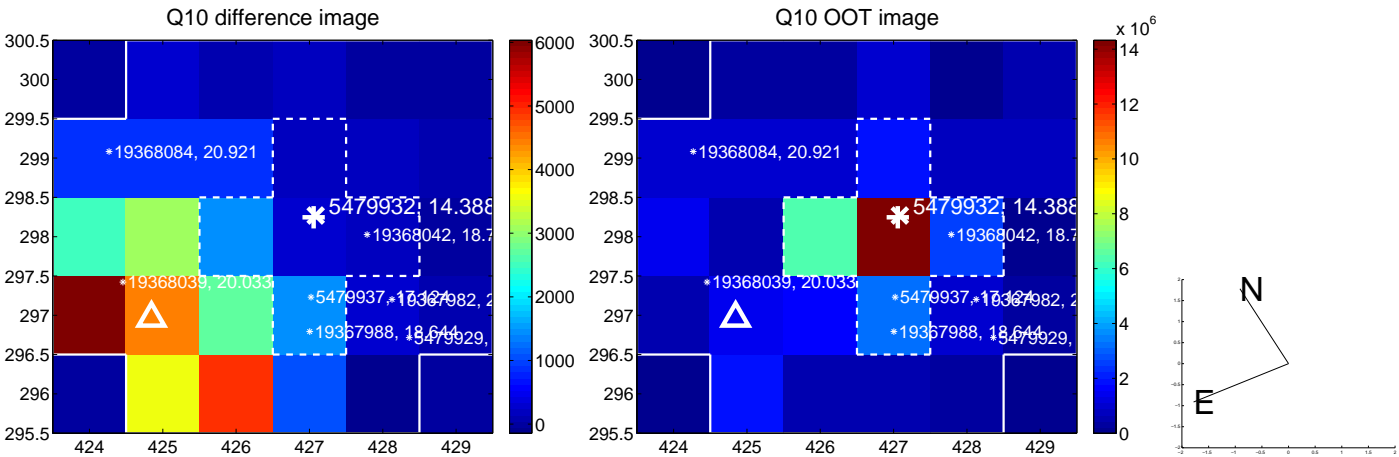
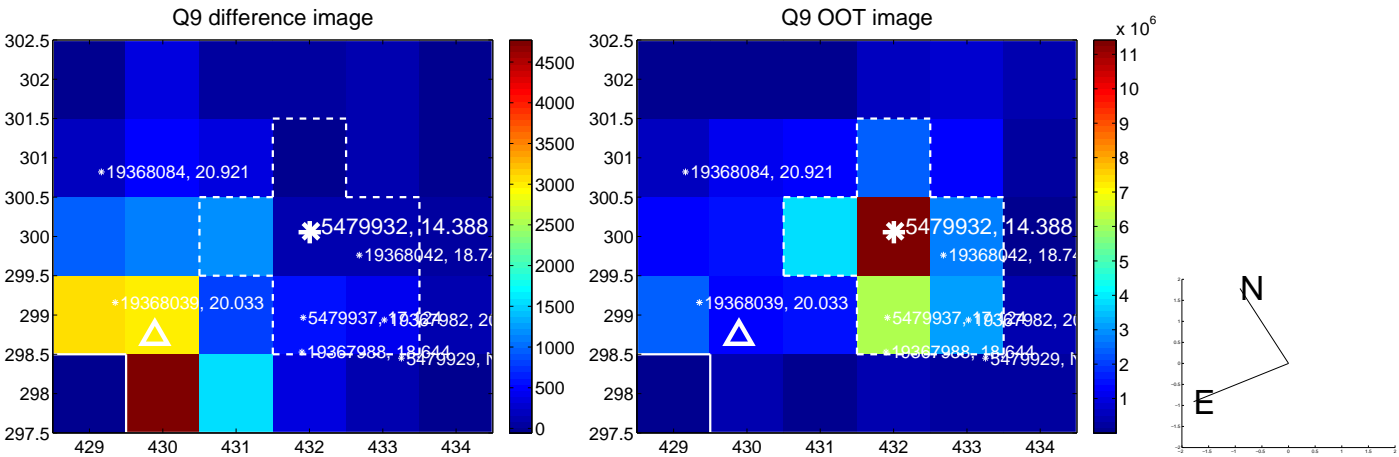
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



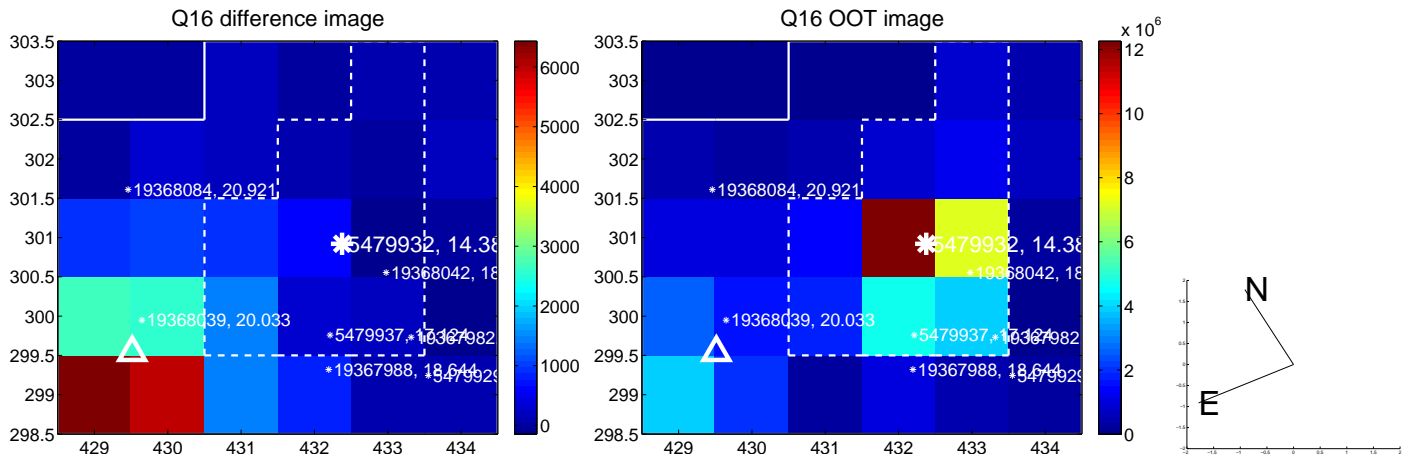
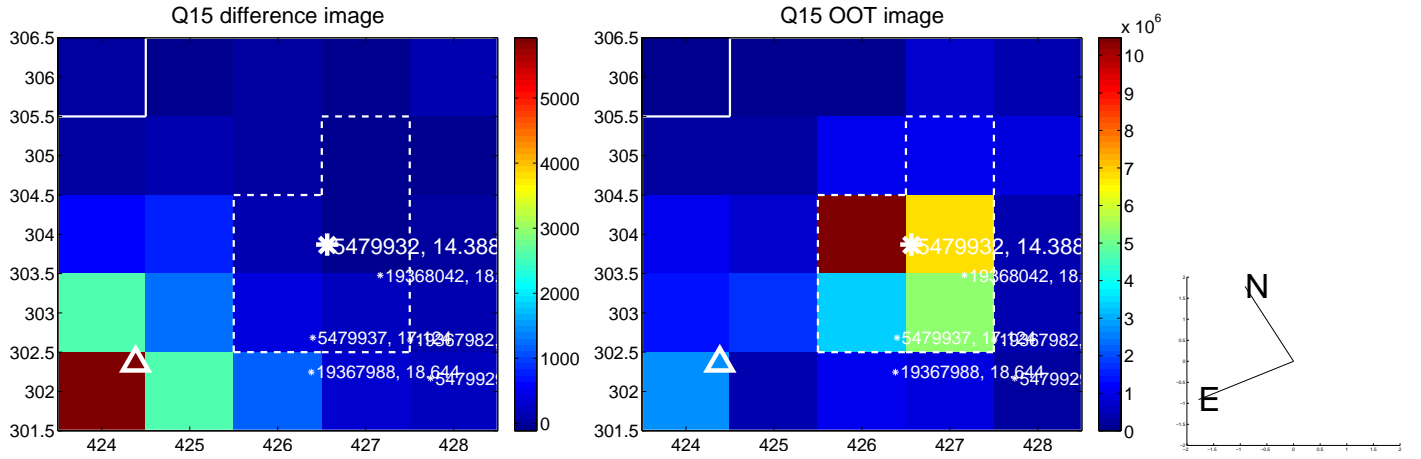
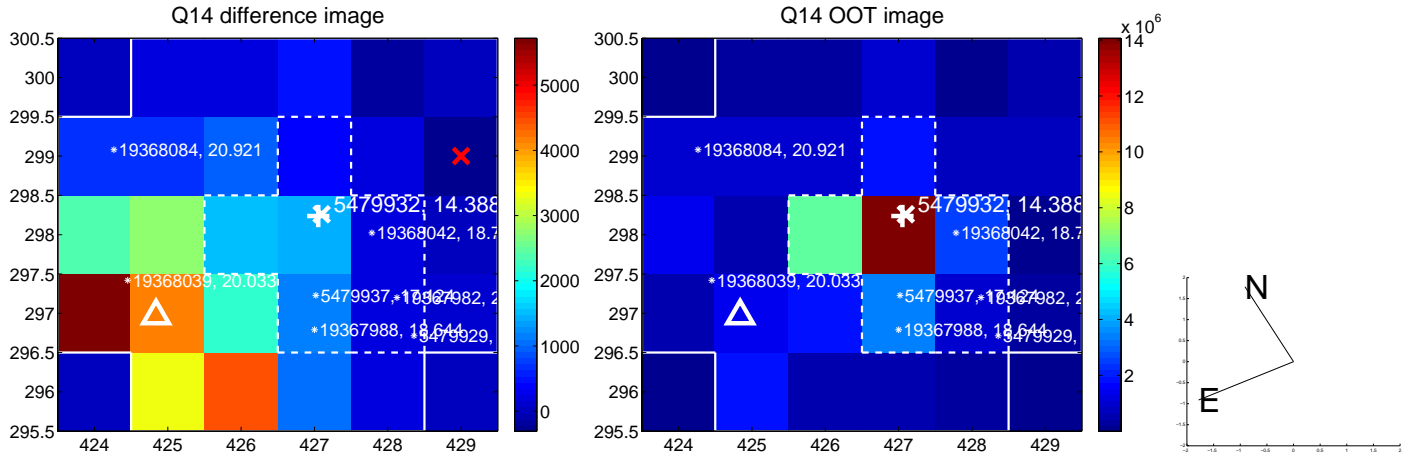
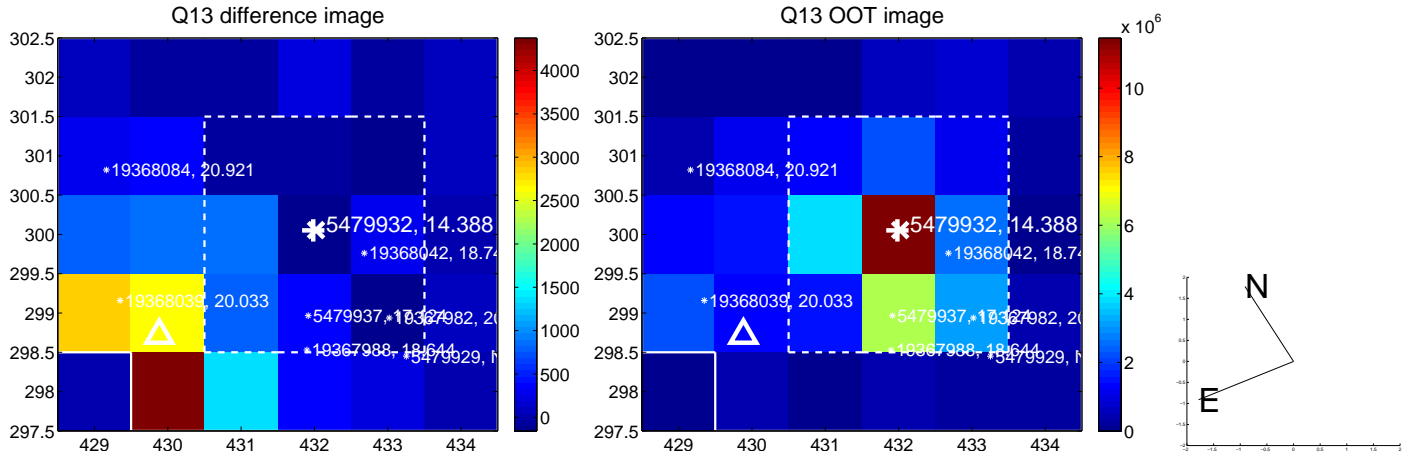
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



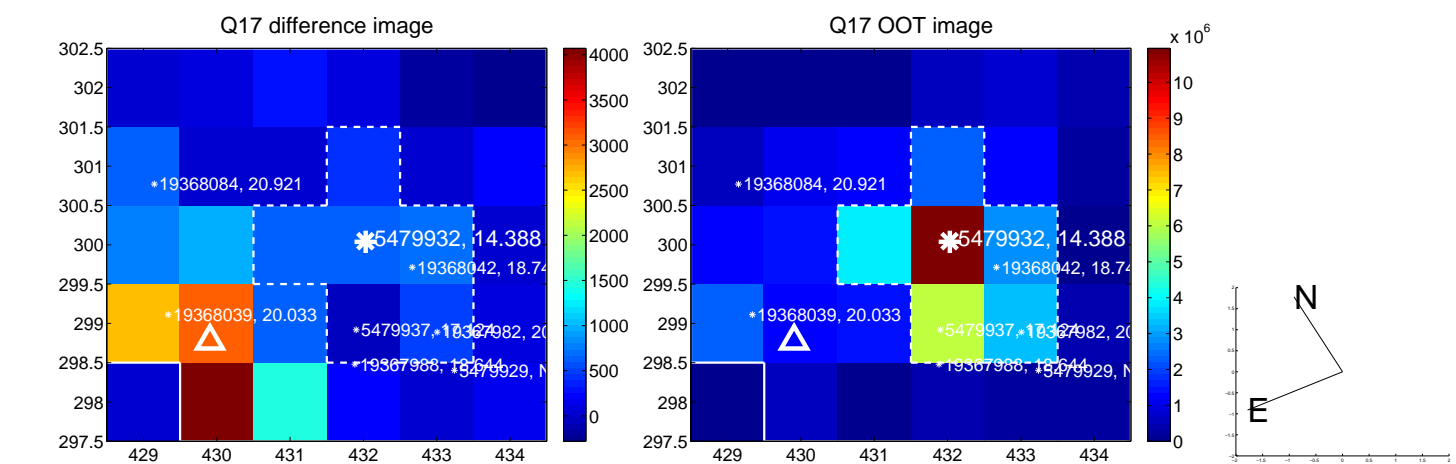
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



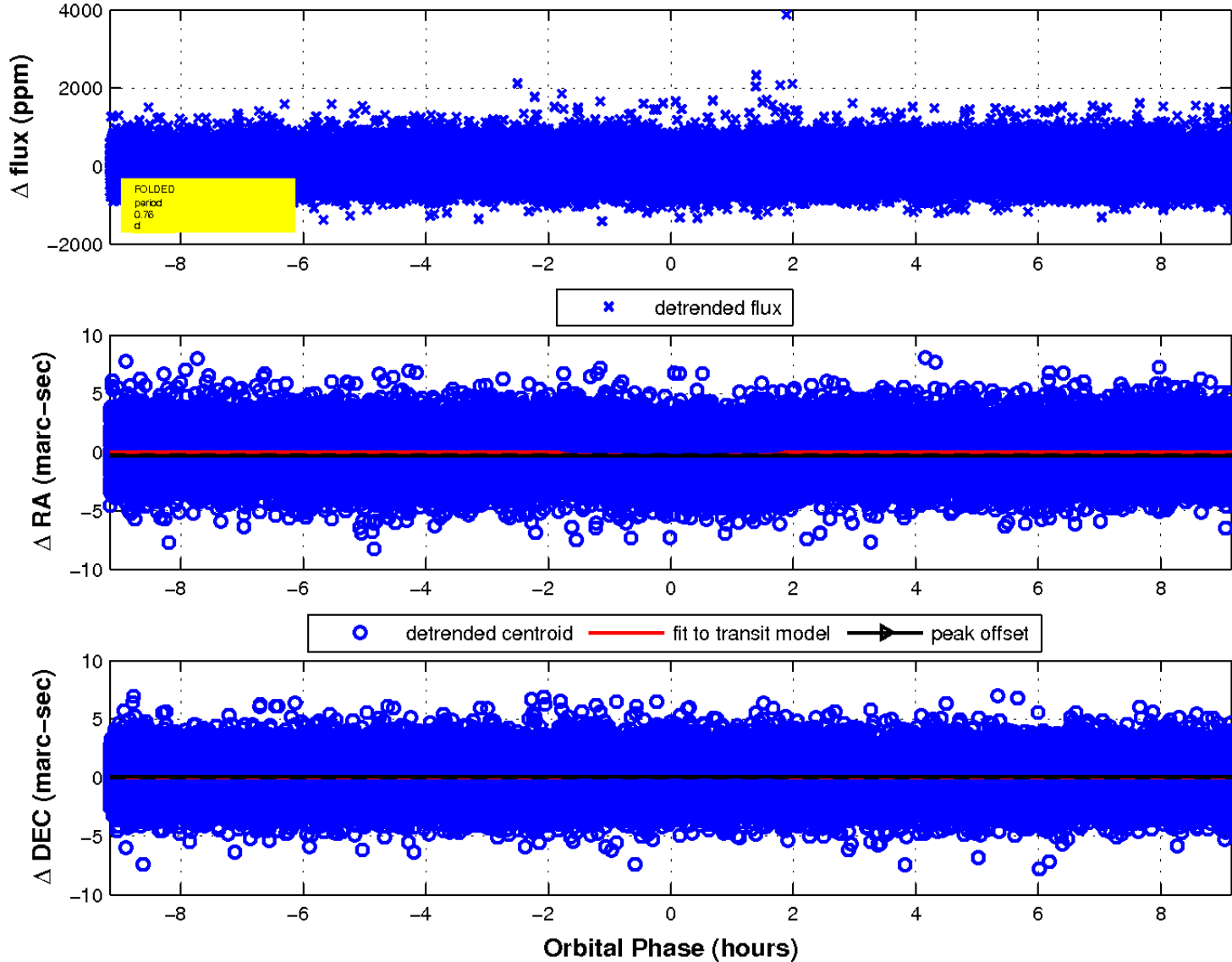
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

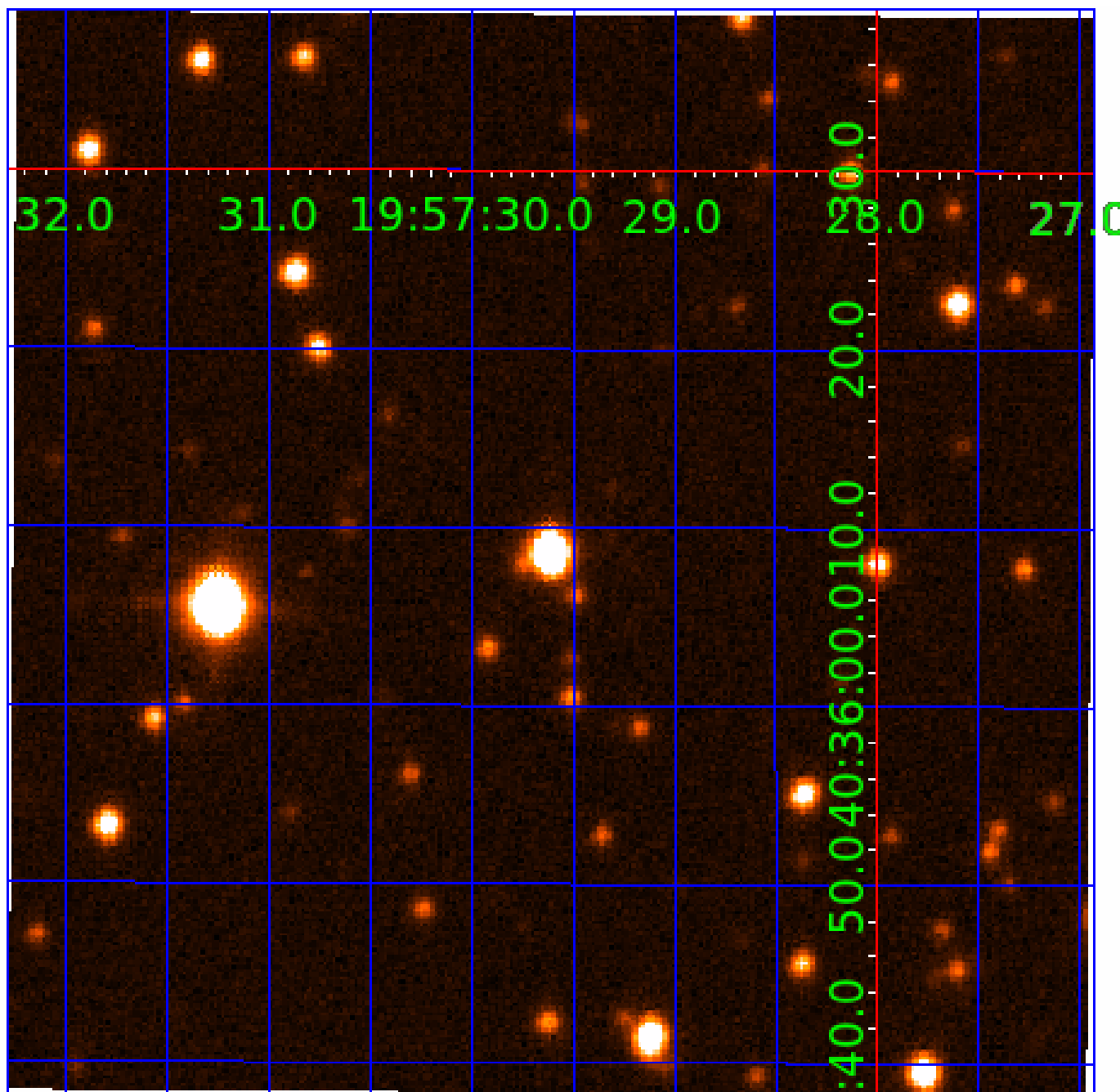


fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination



KIC 005479932

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})
005479932-01	OBS	No	0.762956	131.703565	35.8	3.753	11.5	9.1	1.06	5991	0.75	5198.56
005479932-02	OBS	No	83.830909	158.853779	401.0	11.802	8.8	6.9	1.06	5991	2.23	9.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005479932-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005479932-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

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

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

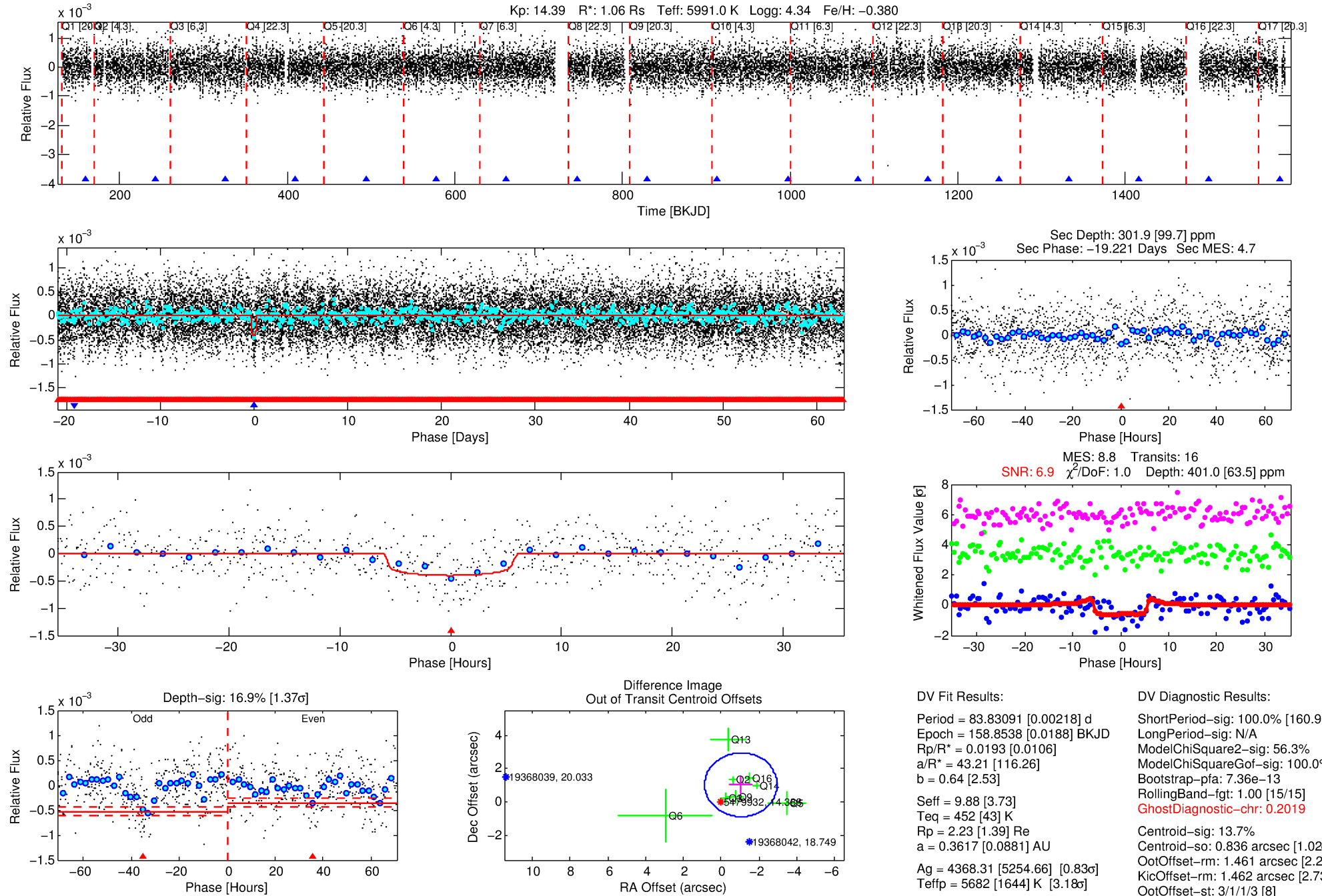
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005479932-02

No Significant Match Found

DV One-Page Summary

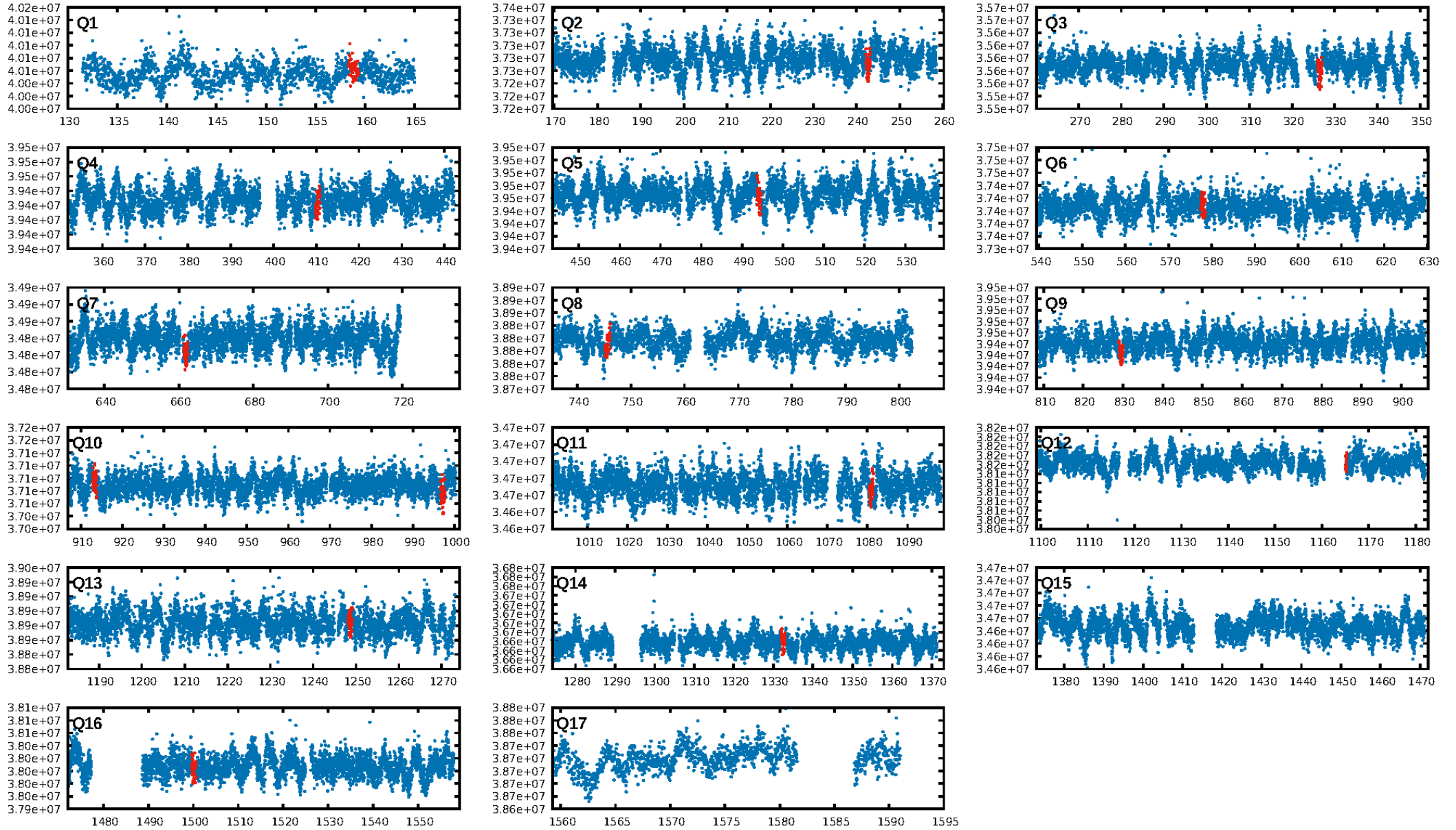
KIC: 5479932 Candidate: 2 of 2 Period: 83.831 d



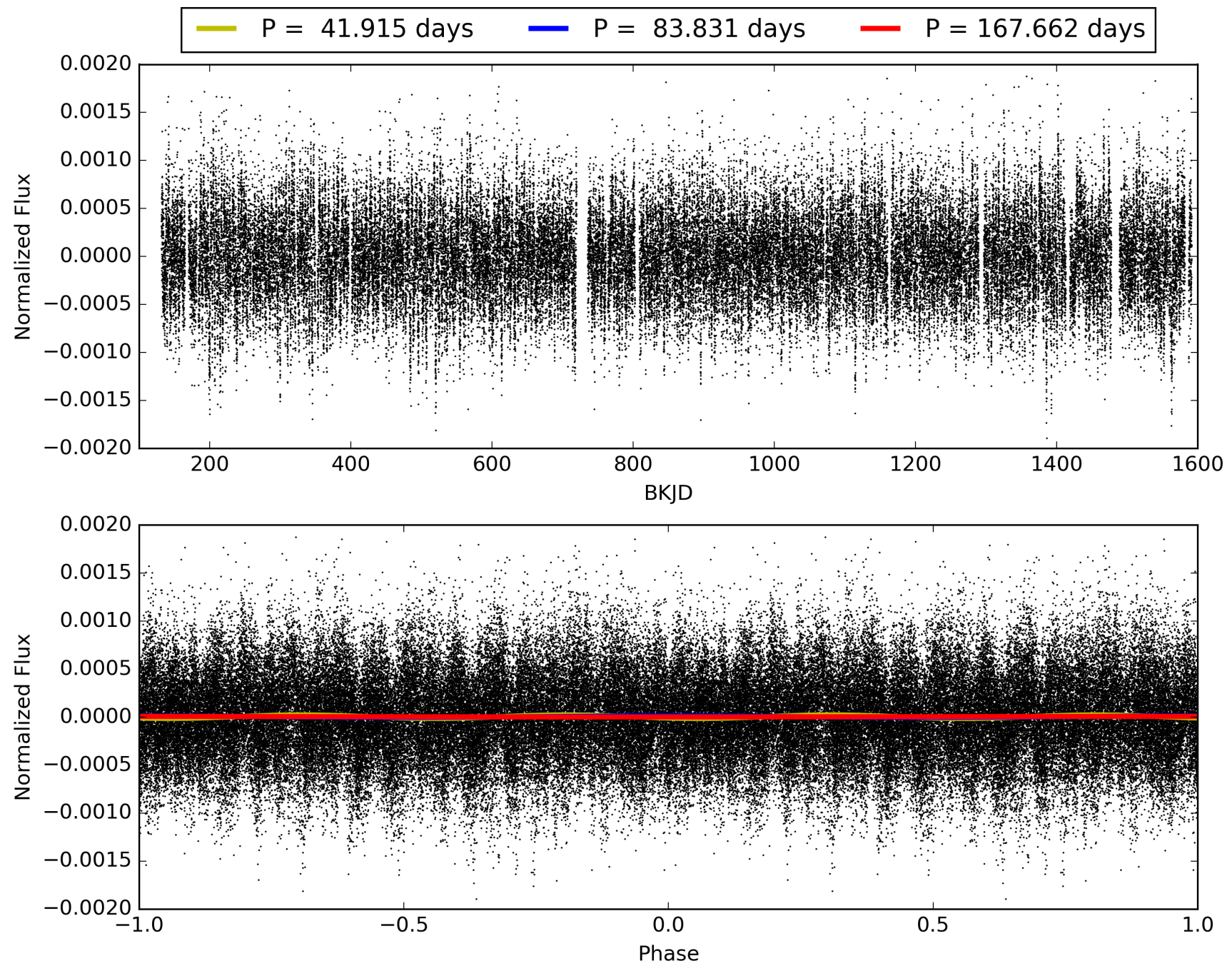
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:35:59 Z

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

TCE 005479932-02, PDC Light Curves

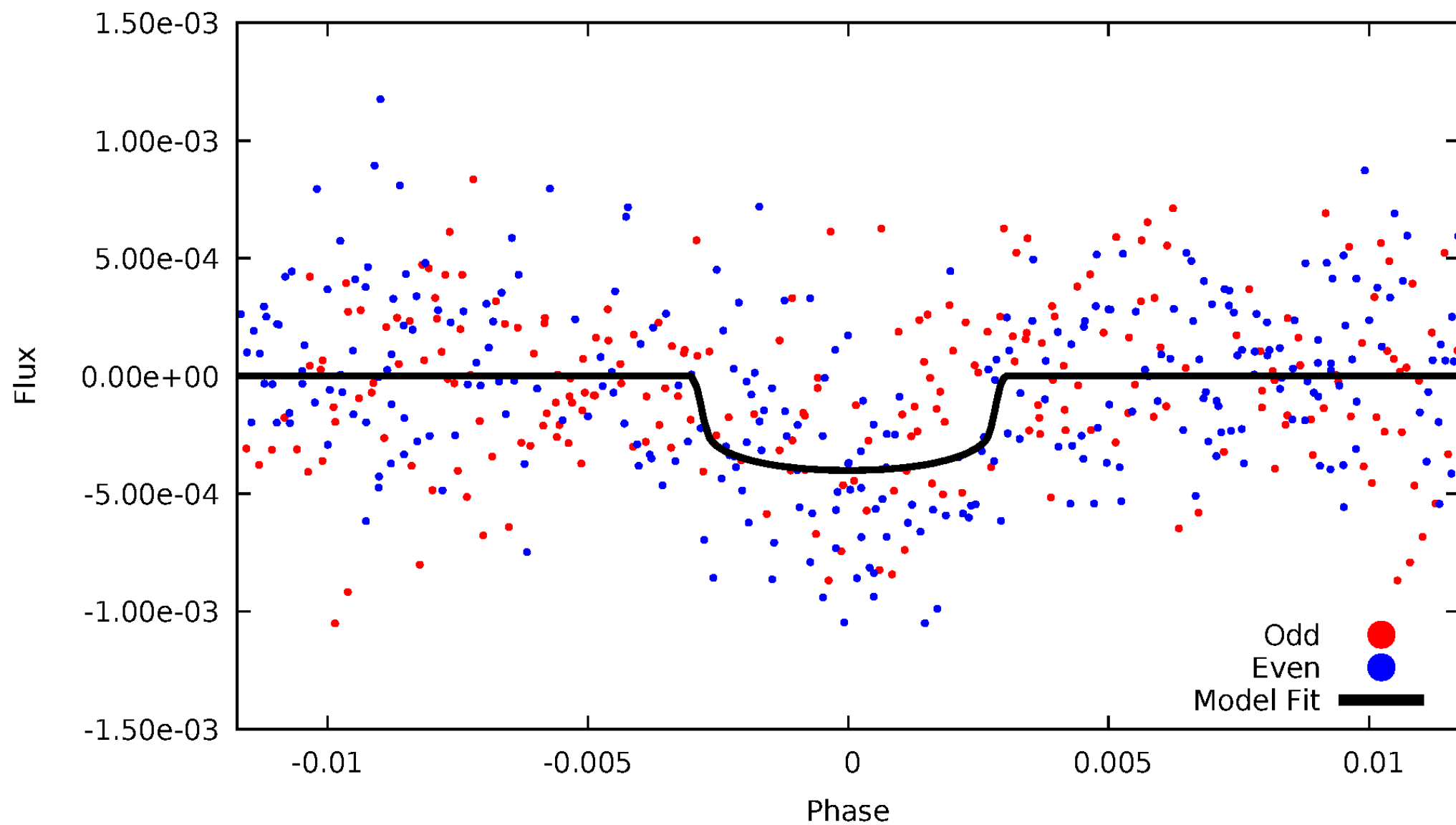


TCE 005479932-02



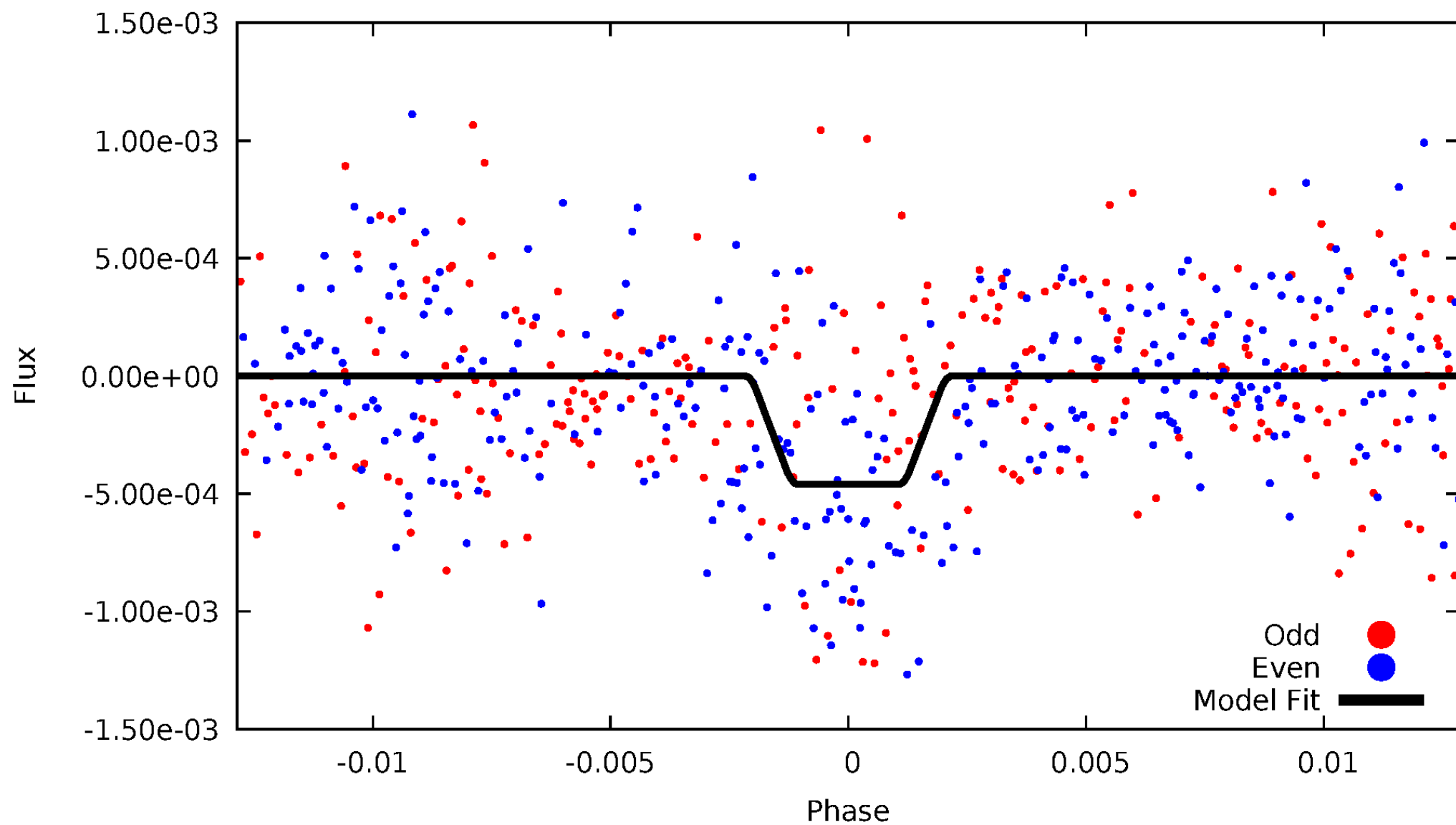
DV Odd/Even

TCE 005479932-02



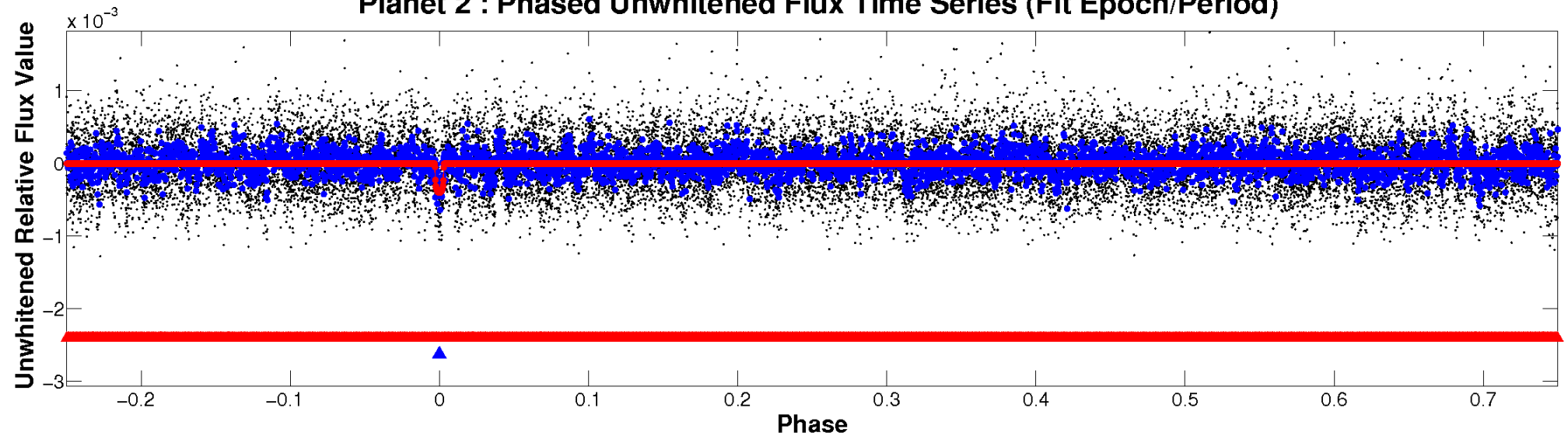
ALT Odd/Even

TCE 005479932-02

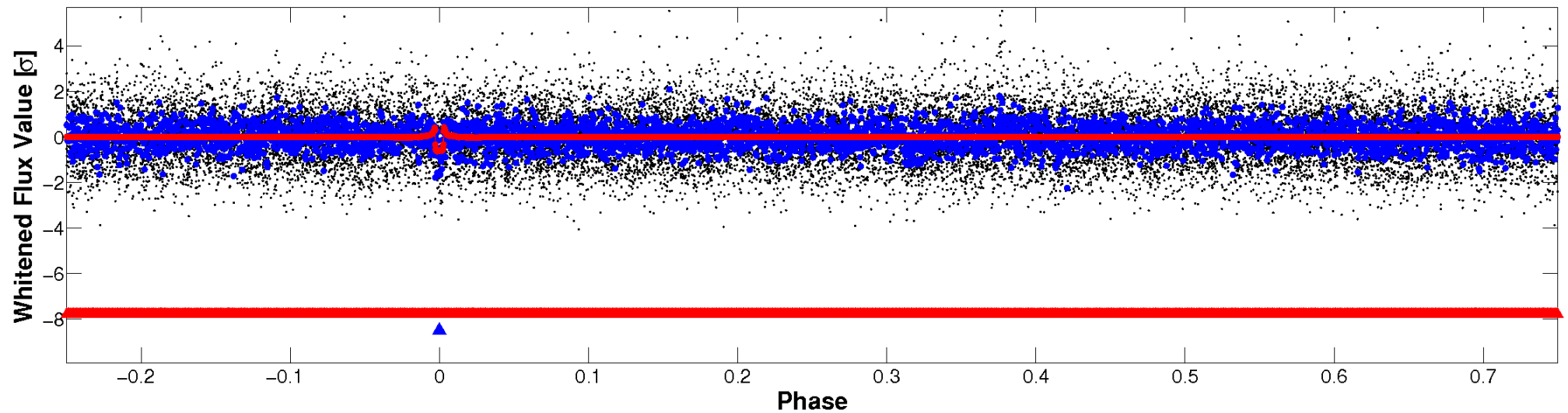


Non-Whitened Vs. Whitened Light Curve

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

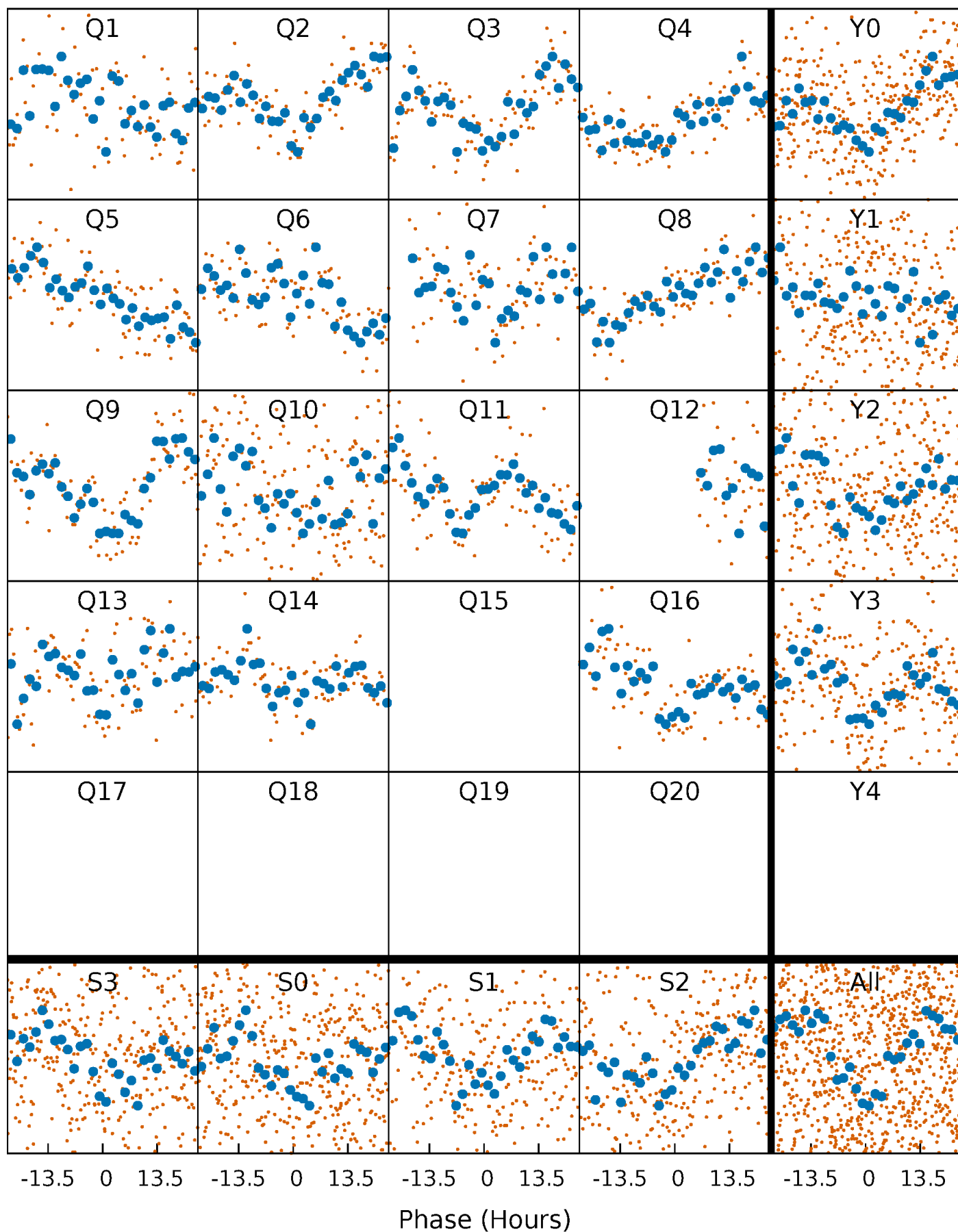


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



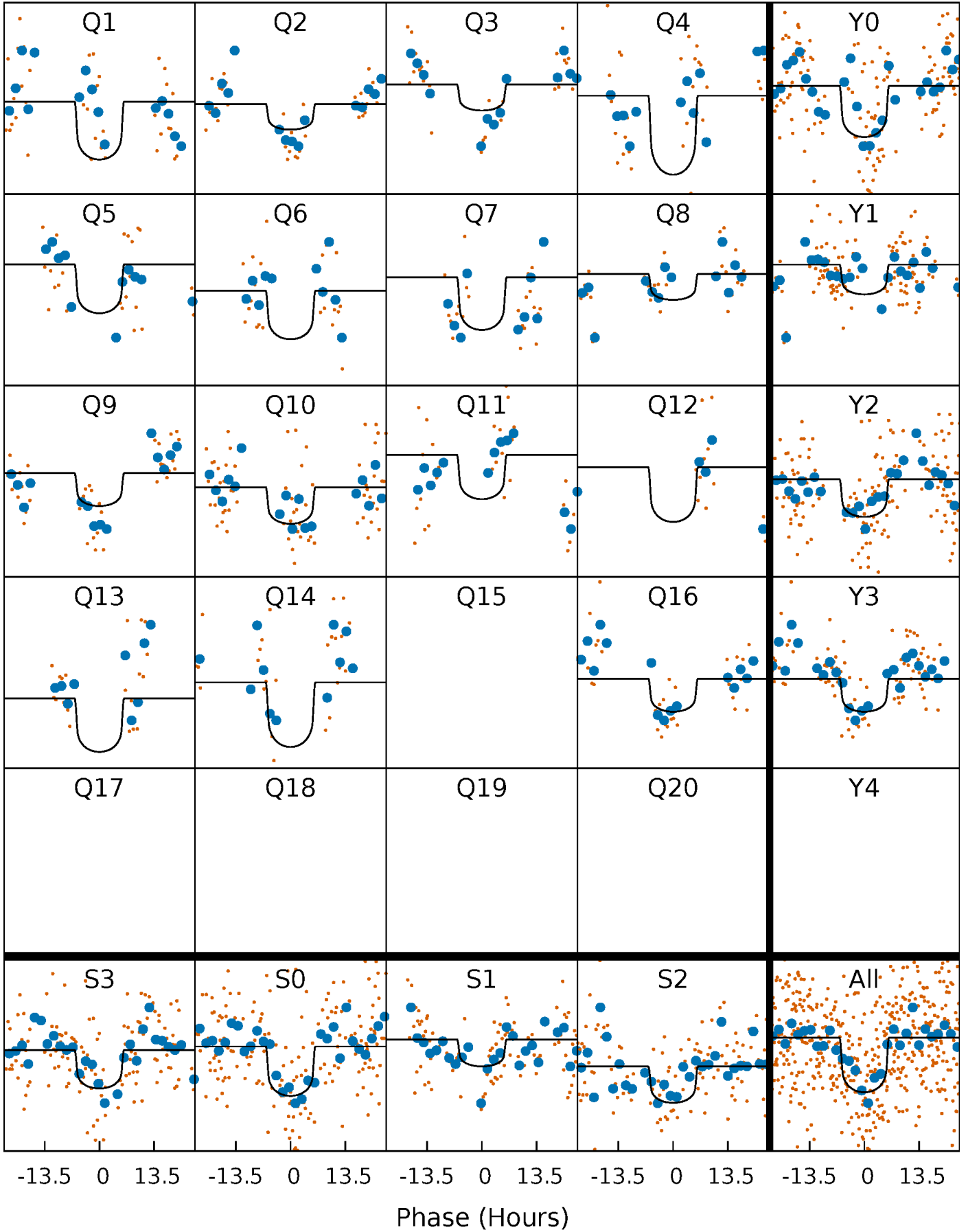
PDC Quarter-Phased Transit Curves

TCE 005479932-02 $P = 83.830909$ Days $T_0 = 158.853779$ (BKJD)



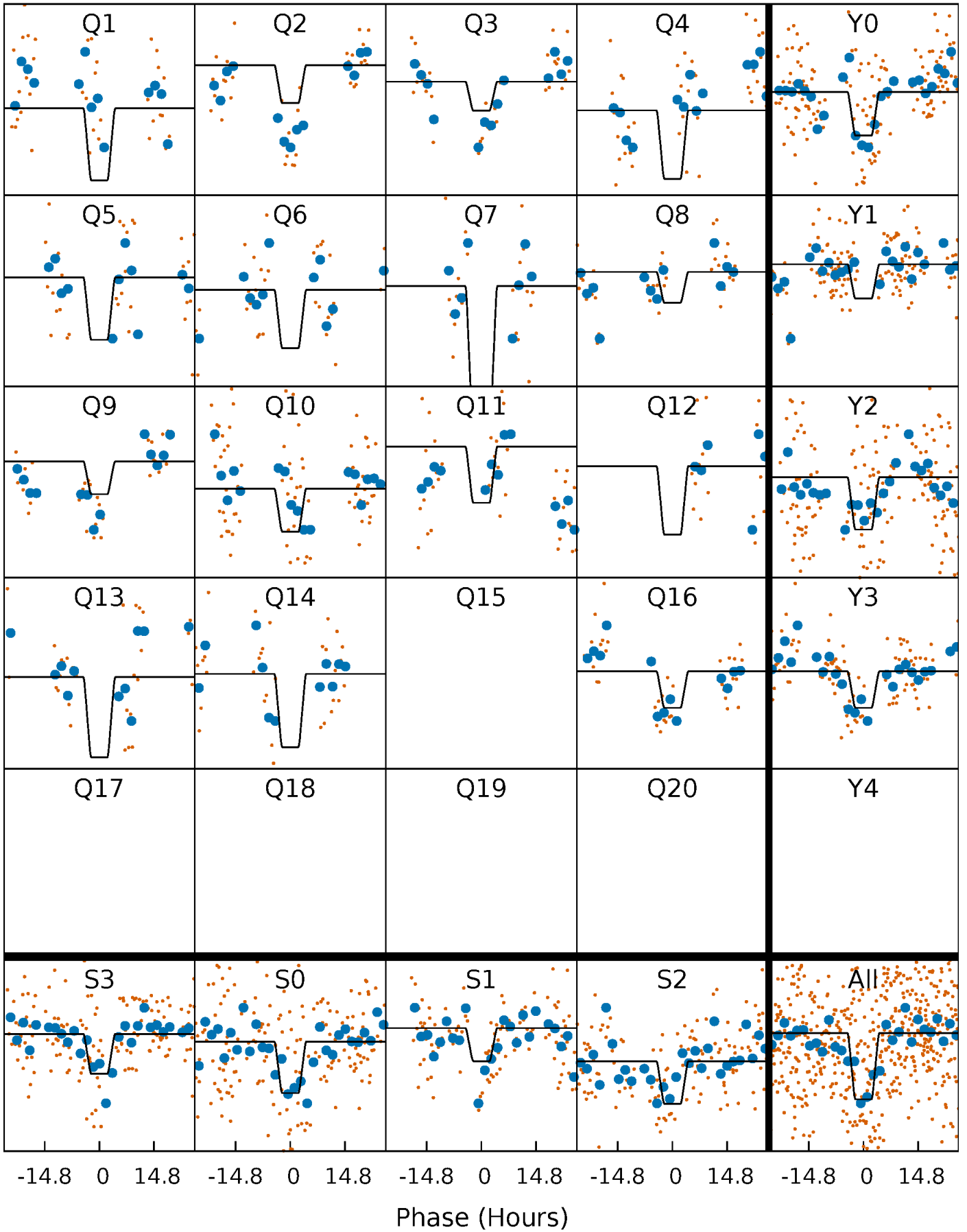
DV Quarter-Phased Transit Curves

TCE 005479932-02 P= 83.830909 Days $T_0=158.853779$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

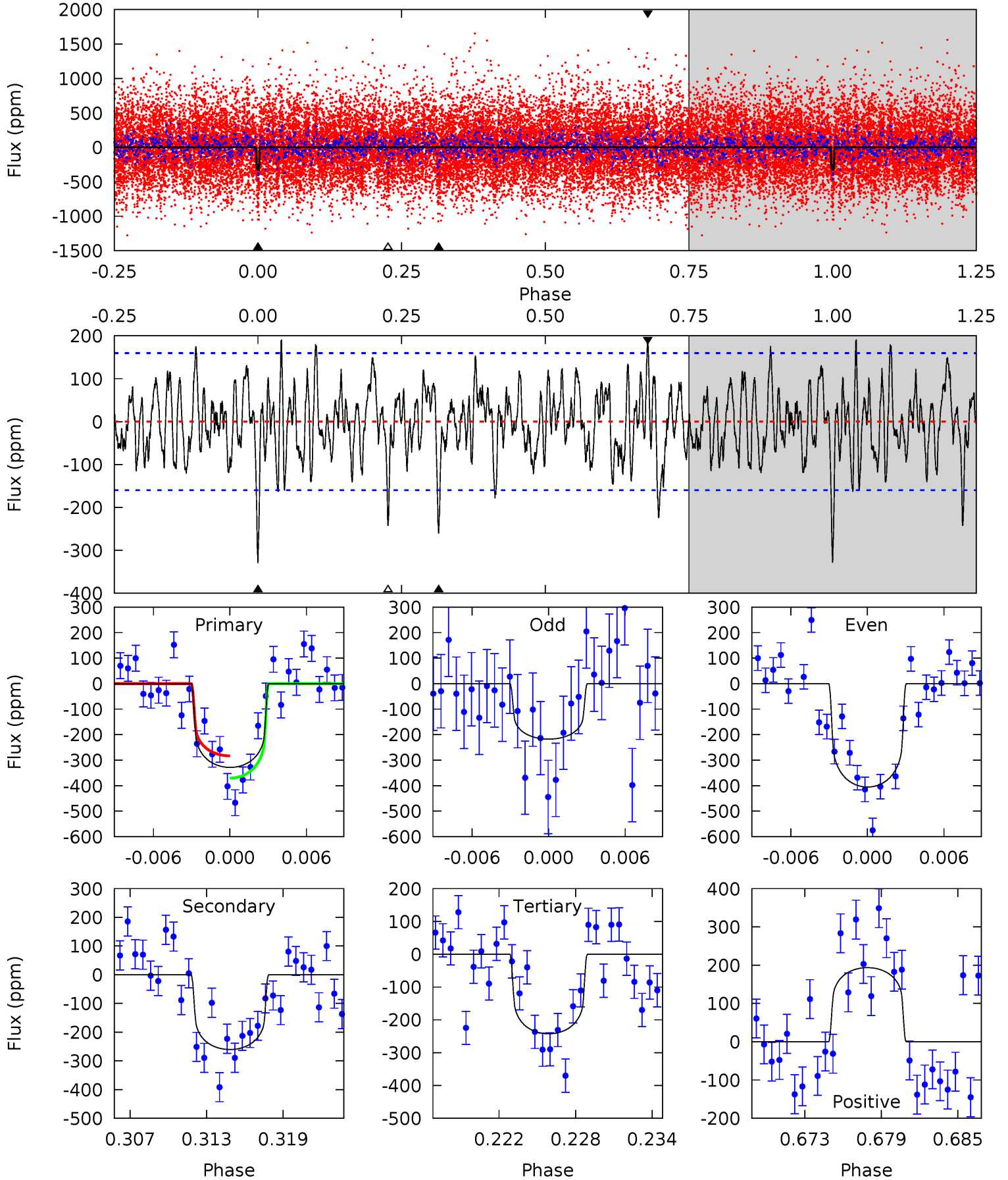
TCE 005479932-02 $P = 83.830326$ Days $T_0 = 158.878964$ (BKJD)



DV Model-Shift Uniqueness Test

005479932-02, P = 83.830909 Days, E = 75.022870 Days

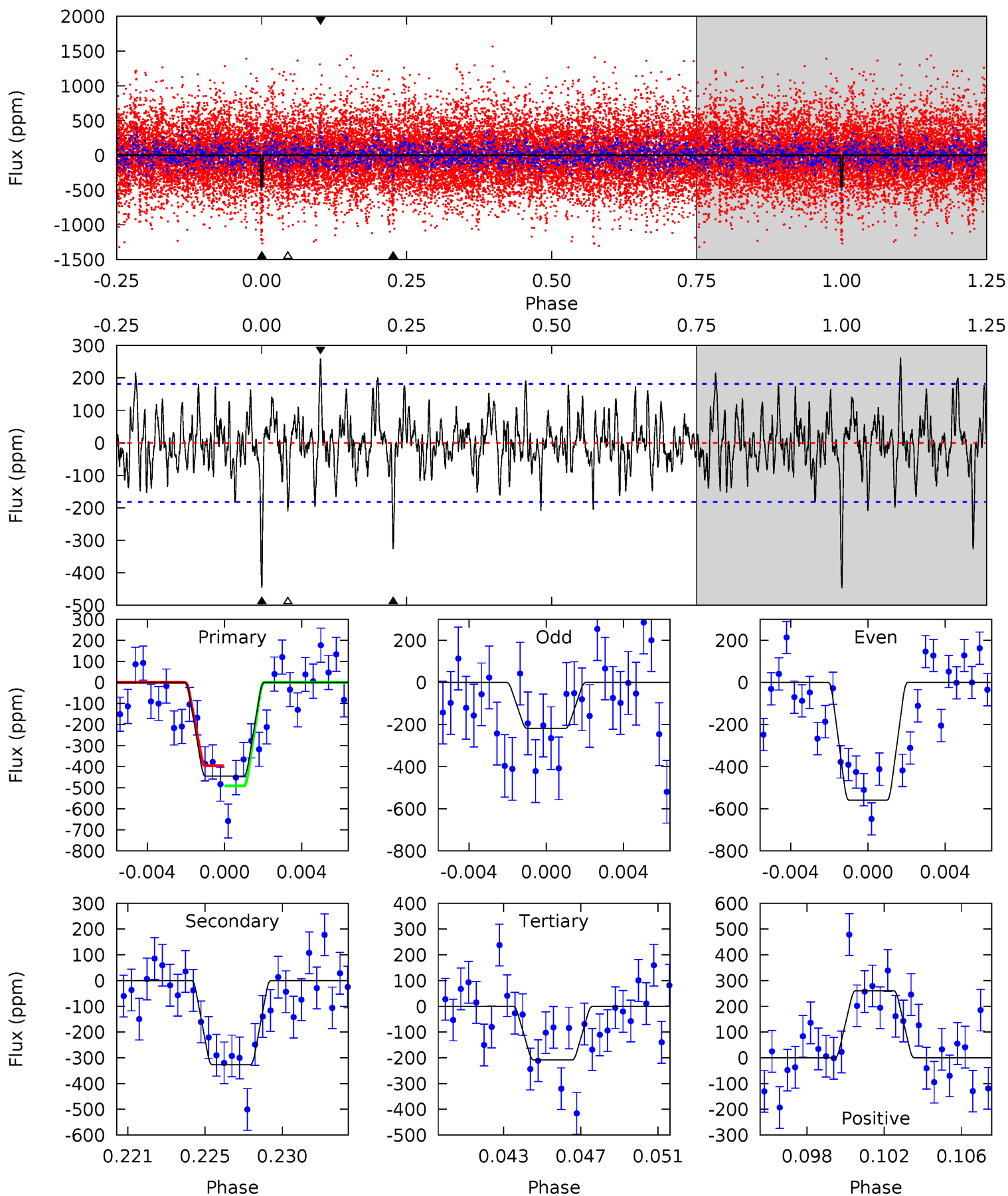
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	8.35	7.78	6.20	5.12	2.75	2.21	2.75	4.33	0.57	2.14	2.96	1.18	0.37	1.40



Alt Model-Shift Uniqueness Test

005479932-02, P = 83.830326 Days, E = 75.048638 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	9.34	5.96	7.44	5.19	2.86	1.96	6.76	5.28	3.37	1.90	4.90	1.14	0.37	1.37



Stellar Parameters For KIC 005479932

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5991^{+179}_{-197}	$4.342^{+0.158}_{-0.193}$	$-0.380^{+0.300}_{-0.300}$	$1.058^{+0.307}_{-0.205}$	$0.898^{+0.131}_{-0.087}$	$1.068^{+0.808}_{-0.528}$
	+3%/-3%	+4%/-4%	+79%/-79%	+29%/-19%	+15%/-10%	+76%/-49%
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 005479932-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-260 ± 31	$2.32^{+1.38}_{-1.21}$	634^{+48}_{-42}	5407^{+2491}_{-893}	3525^{+11304}_{-2162}
Alt.	-327 ± 35	$2.58^{+1.26}_{-1.19}$	634^{+47}_{-43}	5432^{+2076}_{-797}	3519^{+8716}_{-1886}

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 $A_{\text{obs}} \gg 1.0$

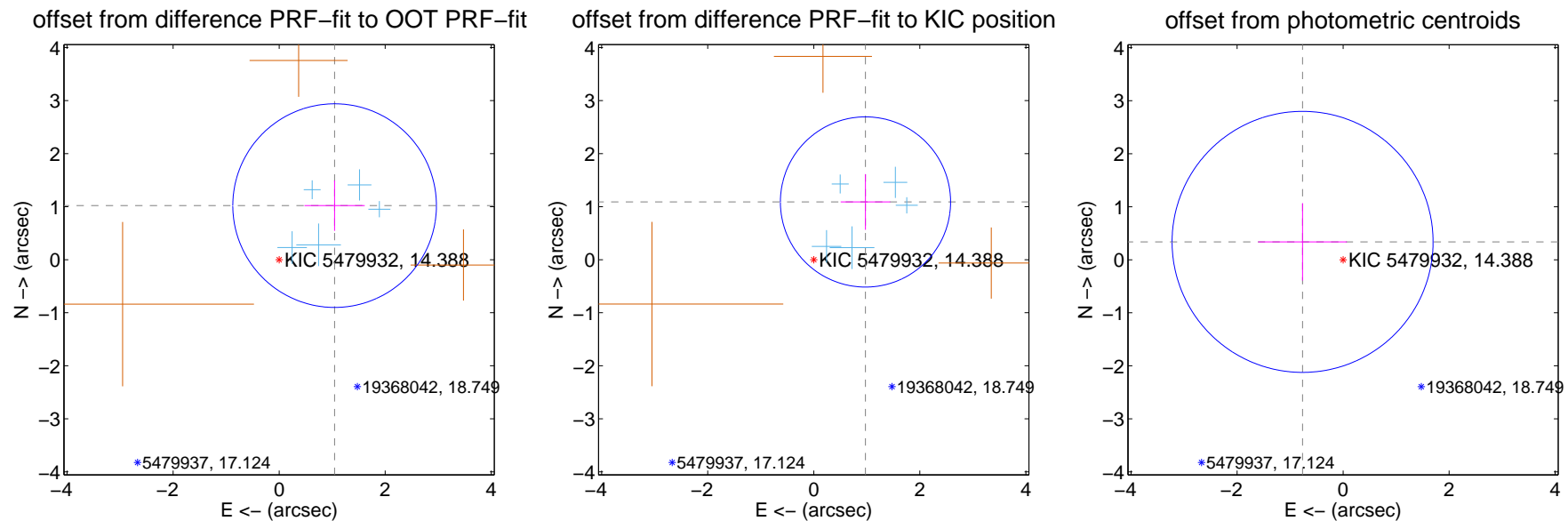
DV Centroid Data

Supplemental centroid analysis for 005479932-02. Kepler magnitude: 14.39. Transit SNR 6.94

There are 5 quarters with good PRF difference image offsets

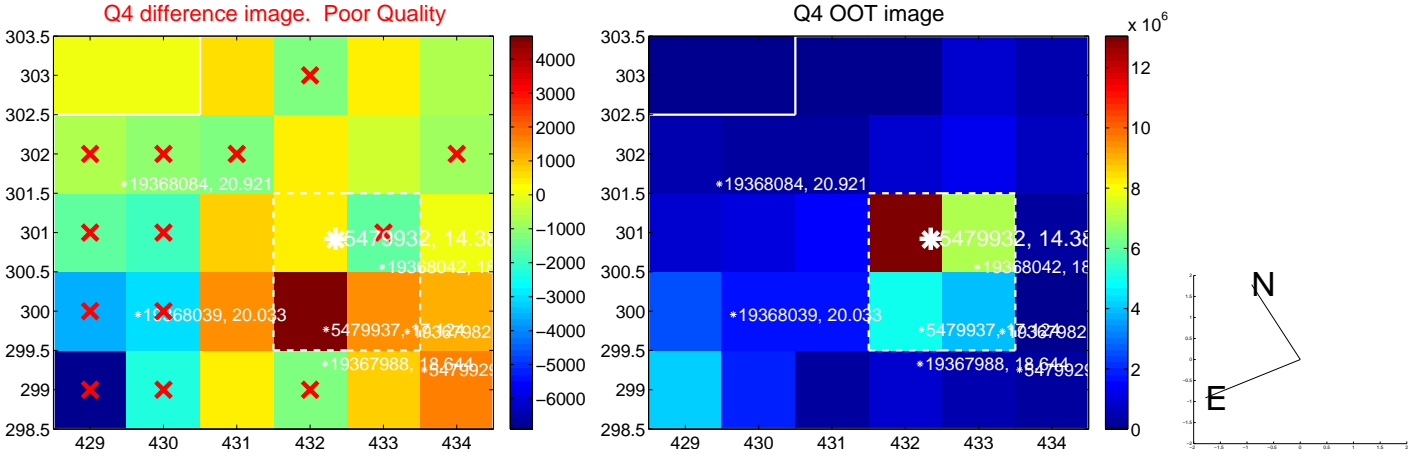
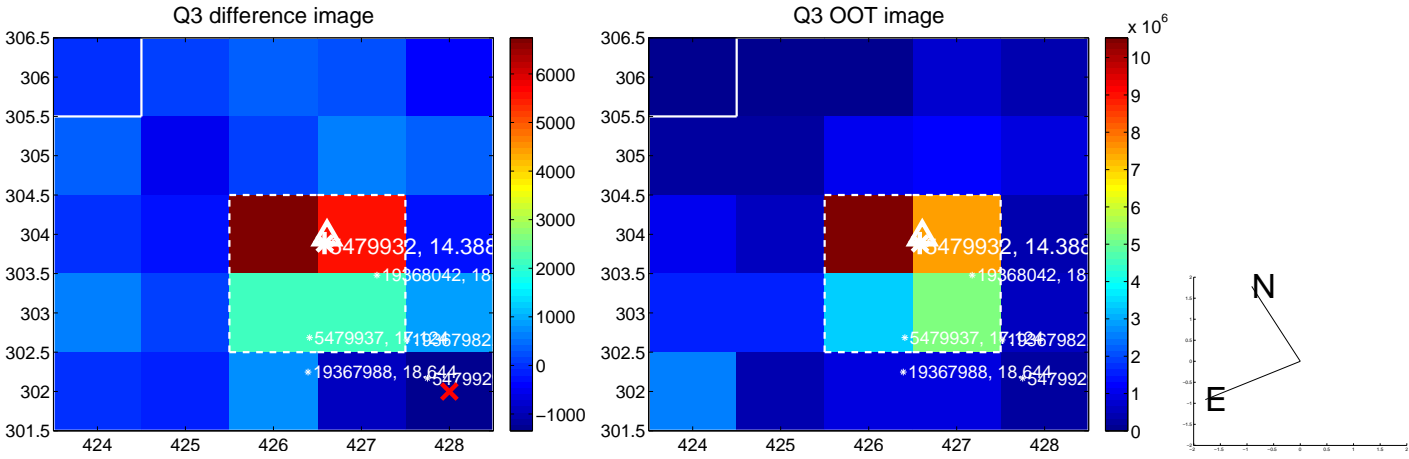
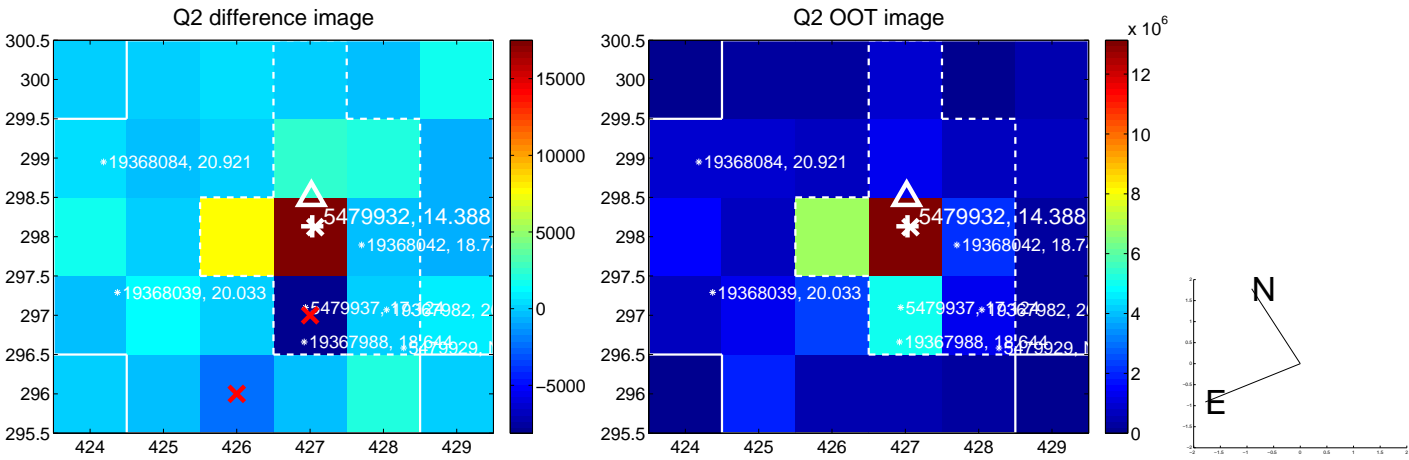
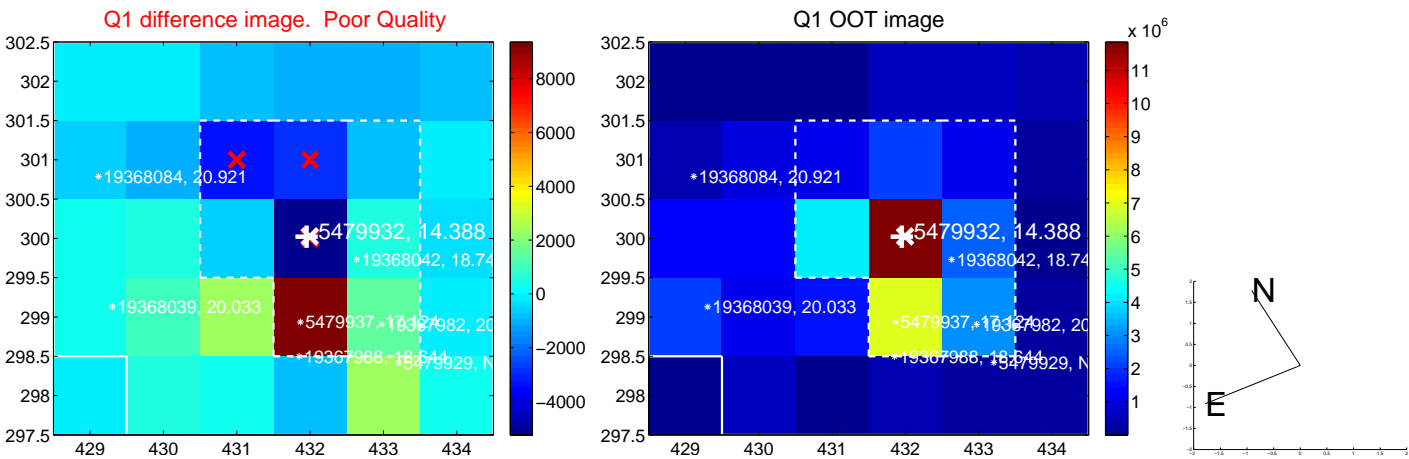
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.461 ± 0.640	2.28	-1.046 ± 0.568	1.020 ± 0.475
PRF-fit source offset from KIC position	1.462 ± 0.535	2.73	-0.975 ± 0.468	1.089 ± 0.525
photometric centroid source offset	0.84 ± 0.82	1.02	0.76 ± 0.84	0.34 ± 0.73

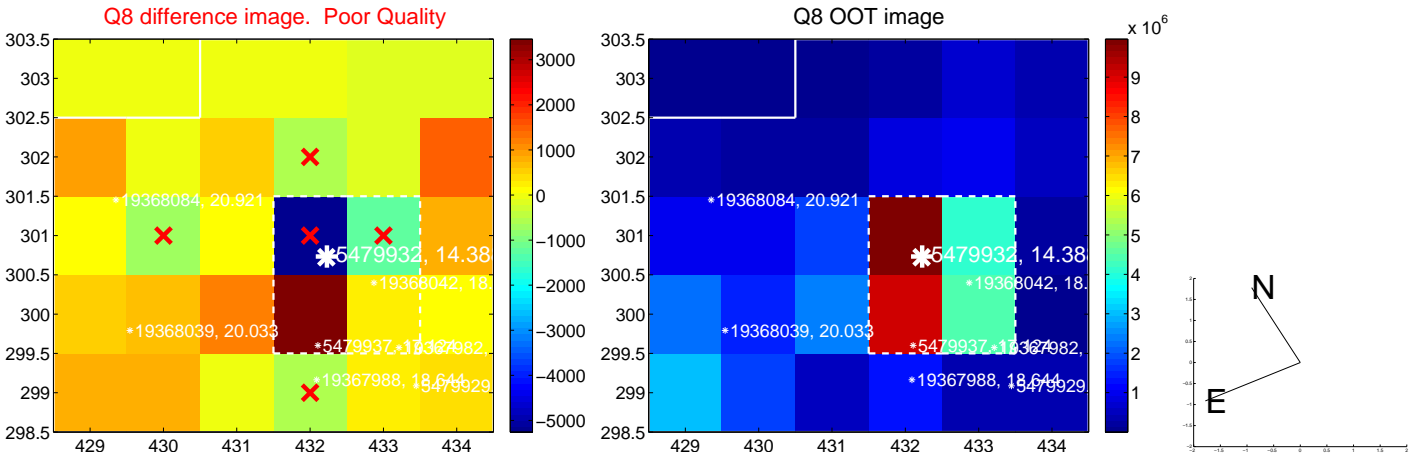
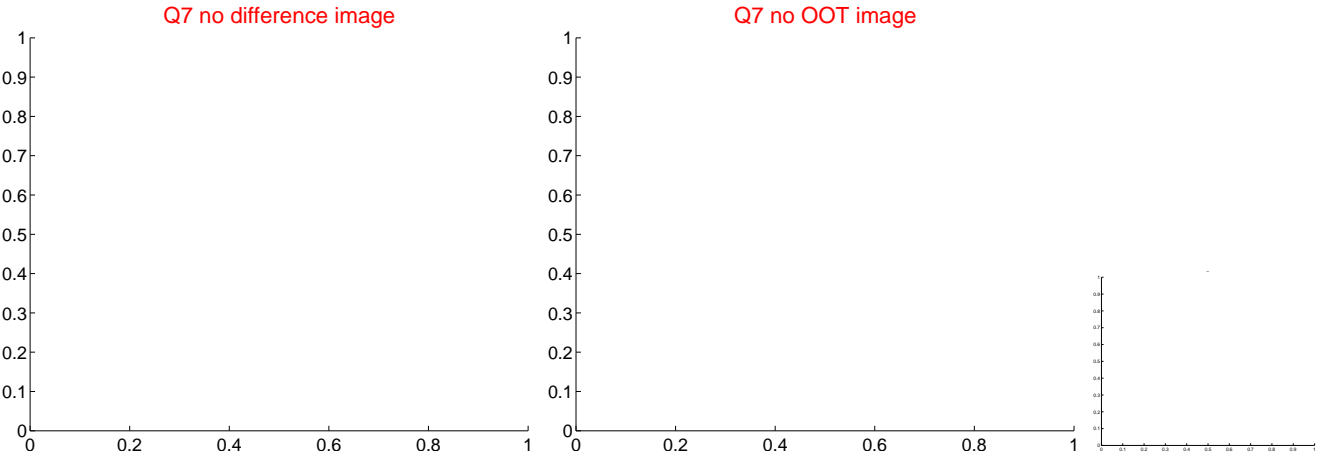
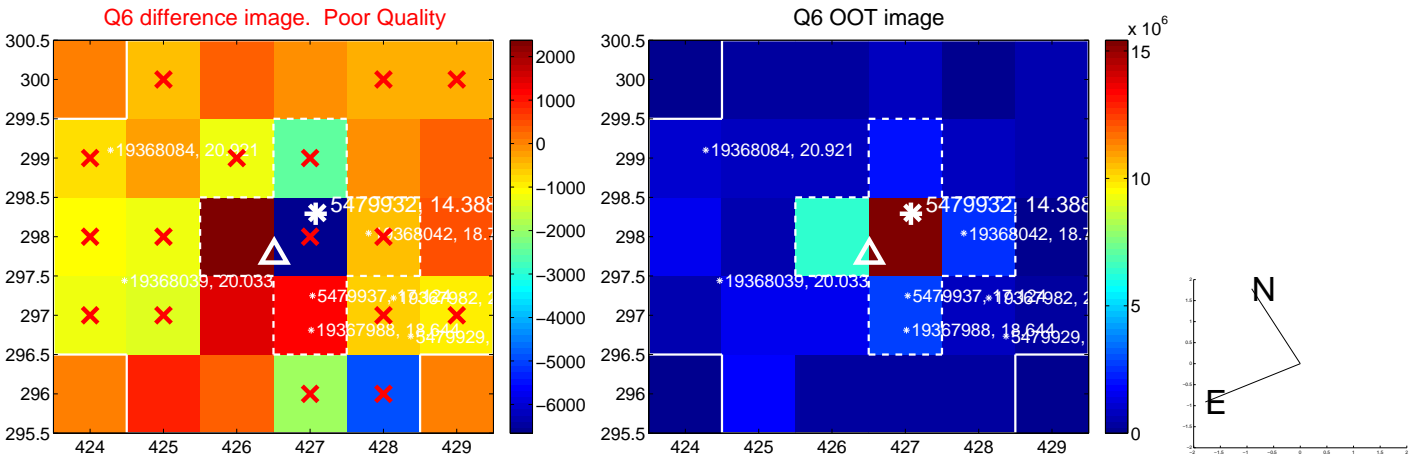
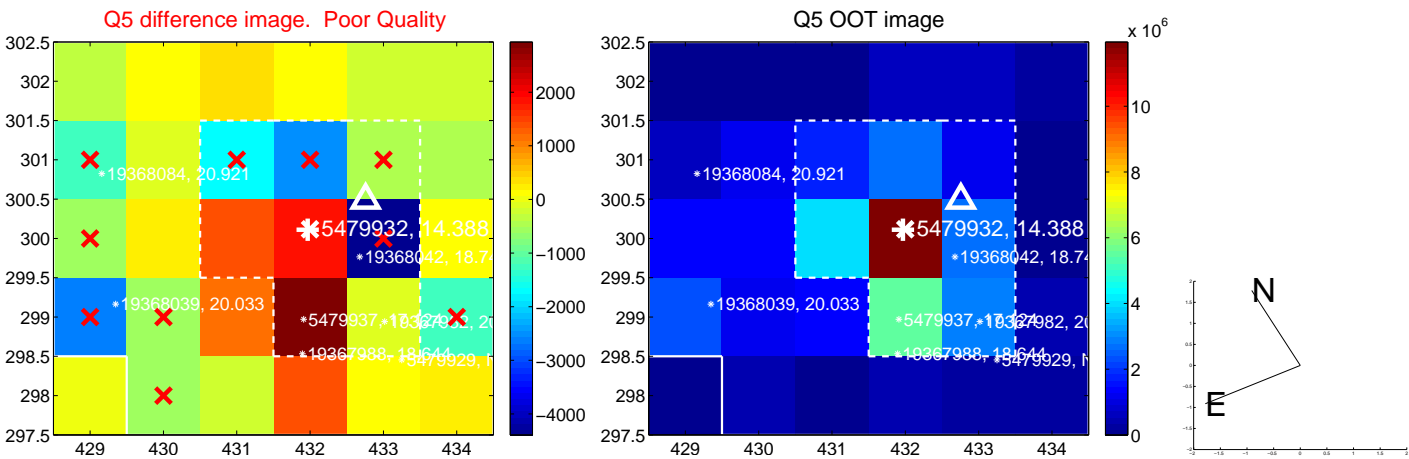


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

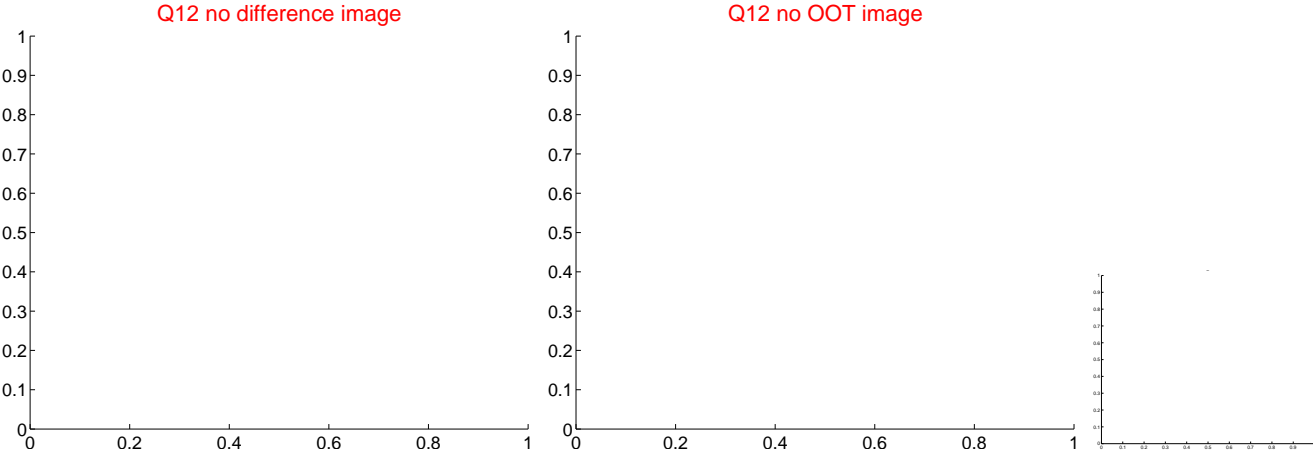
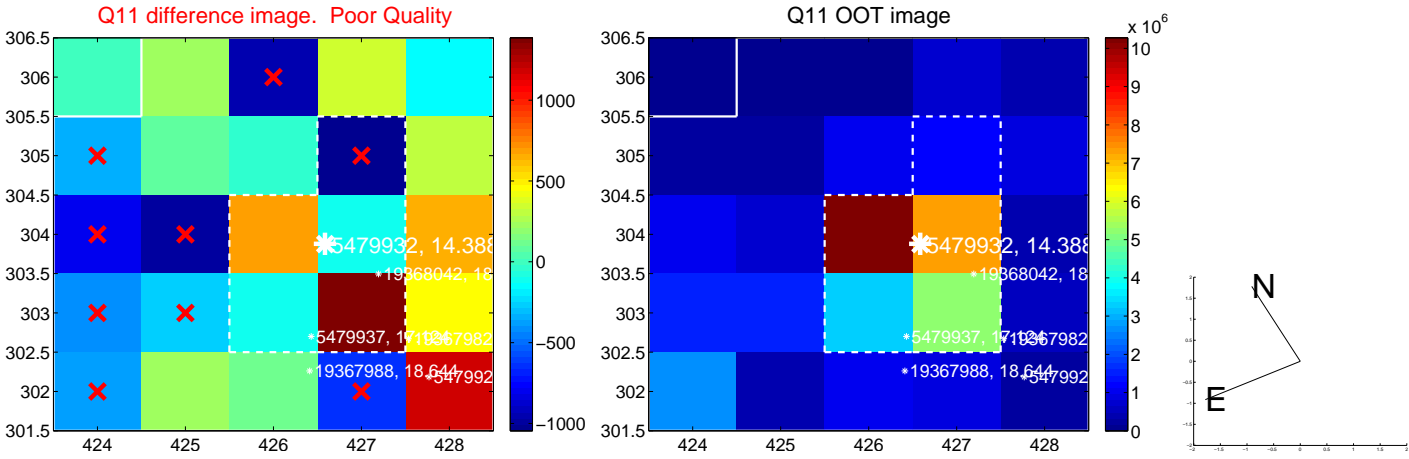
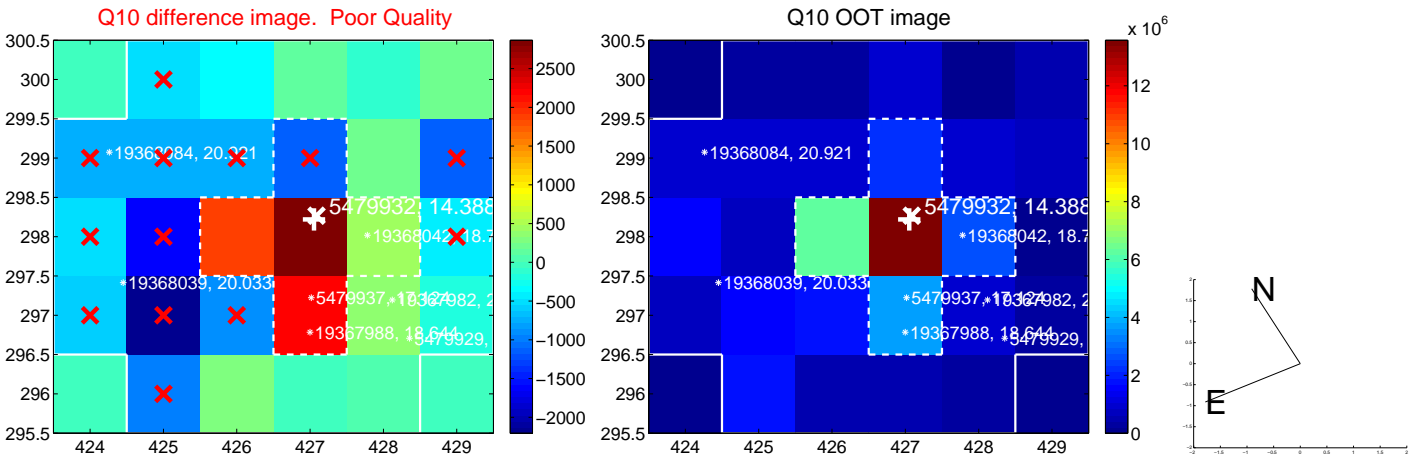
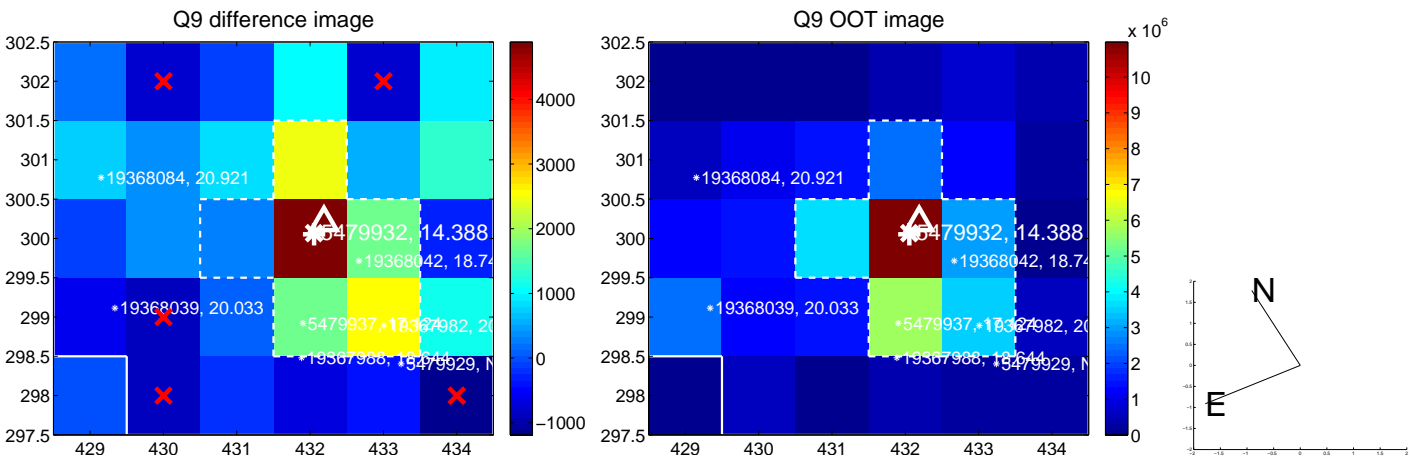
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



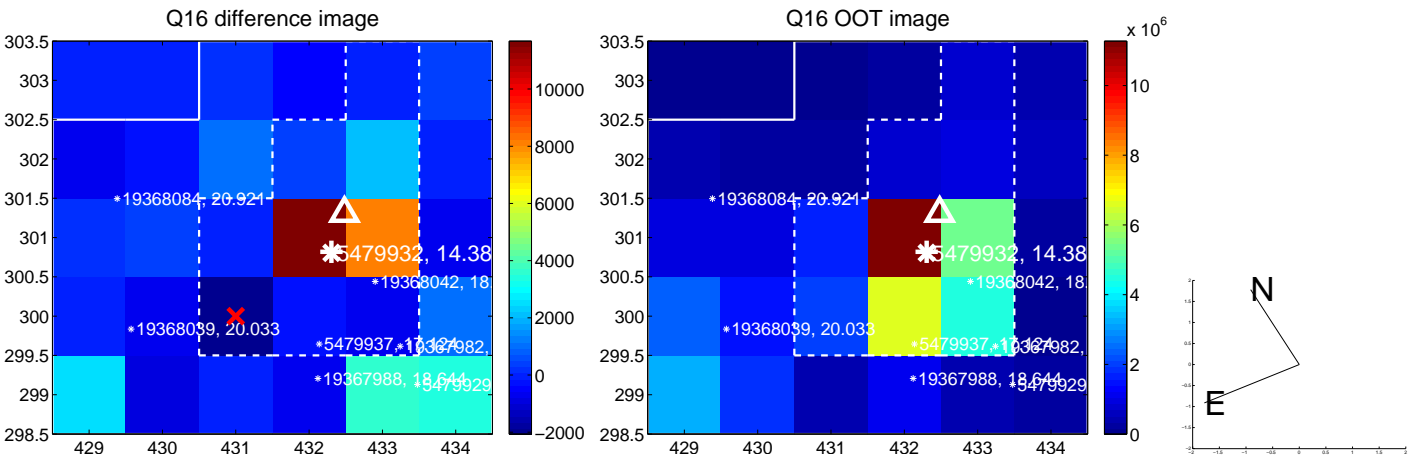
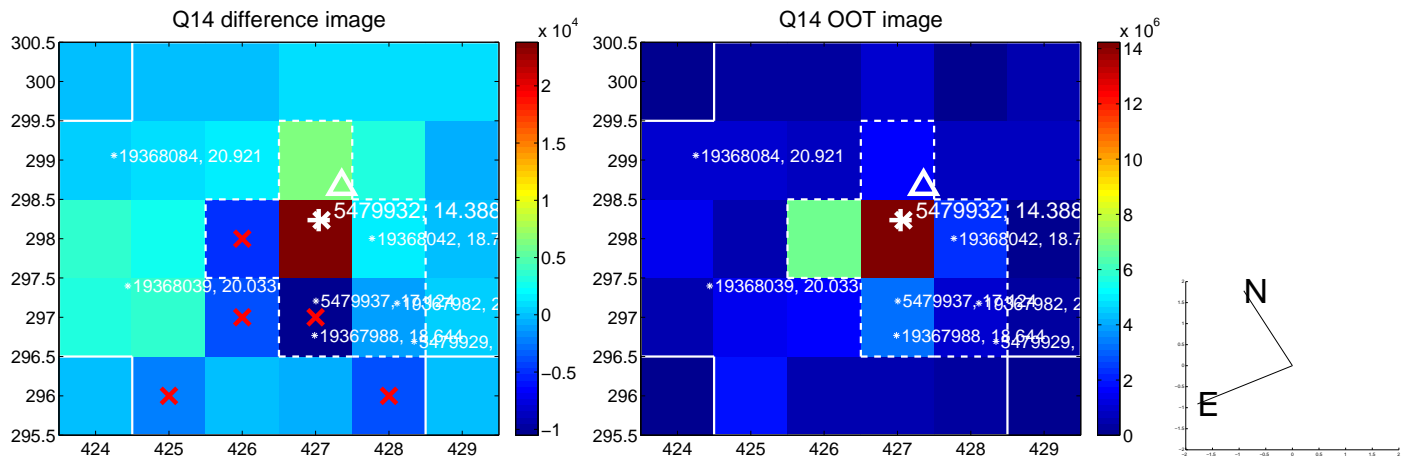
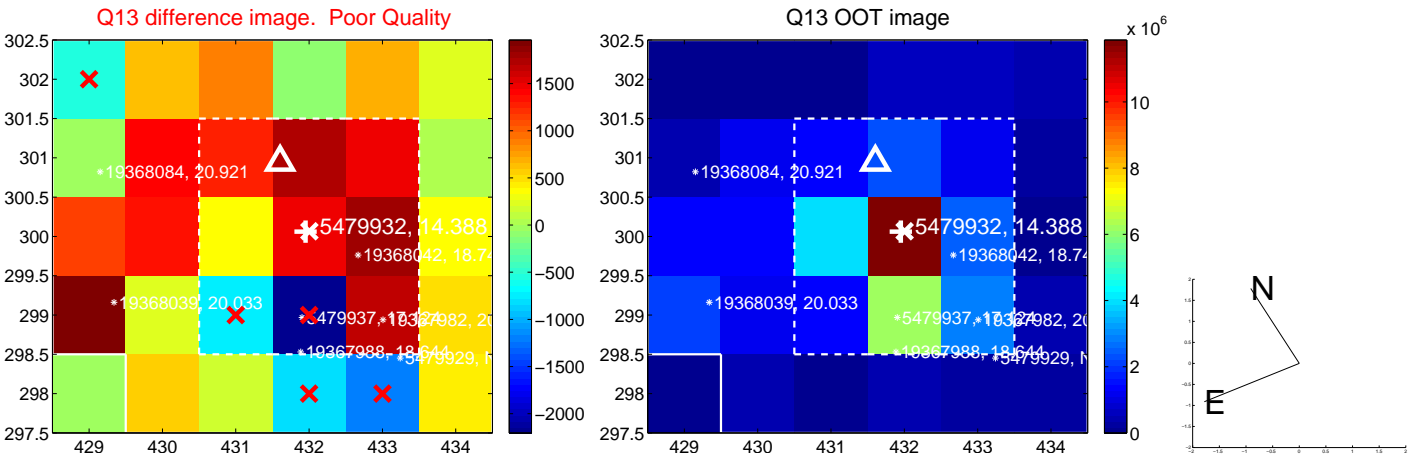
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



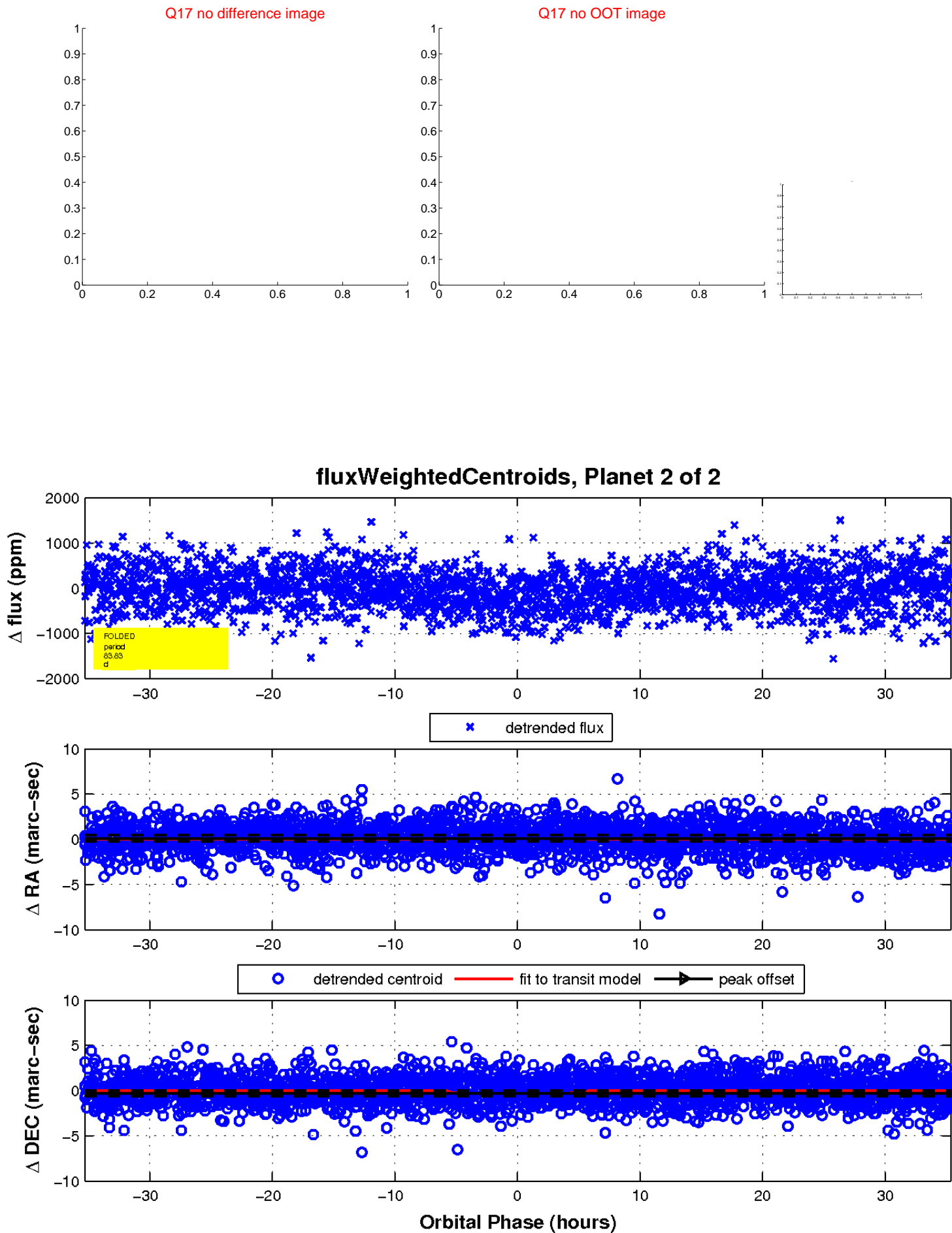
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

