

KIC 007529379

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})
007529379-01	OBS	No	560.971940	186.329609	314.3	11.044	7.7	7.8	1.64	6706	3.25	2.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007529379-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

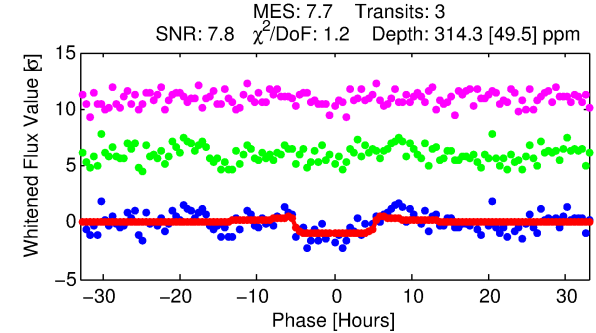
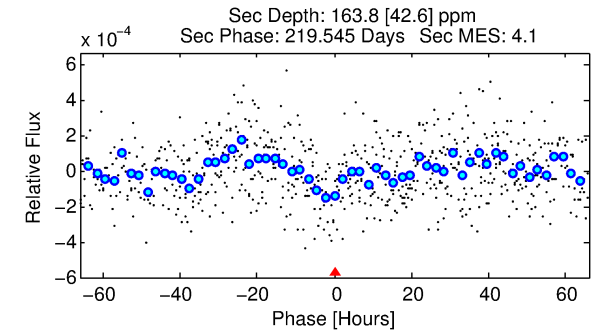
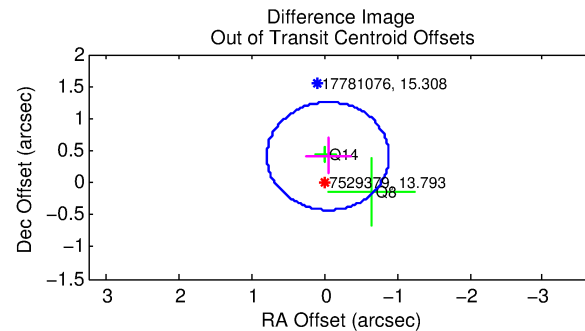
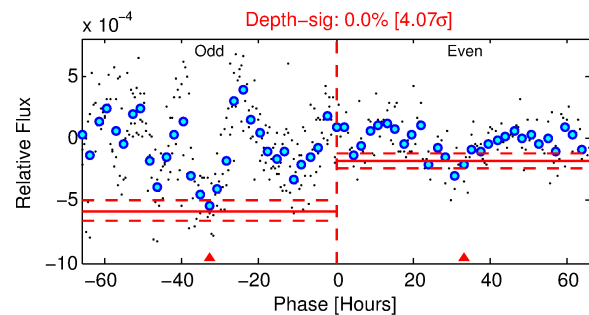
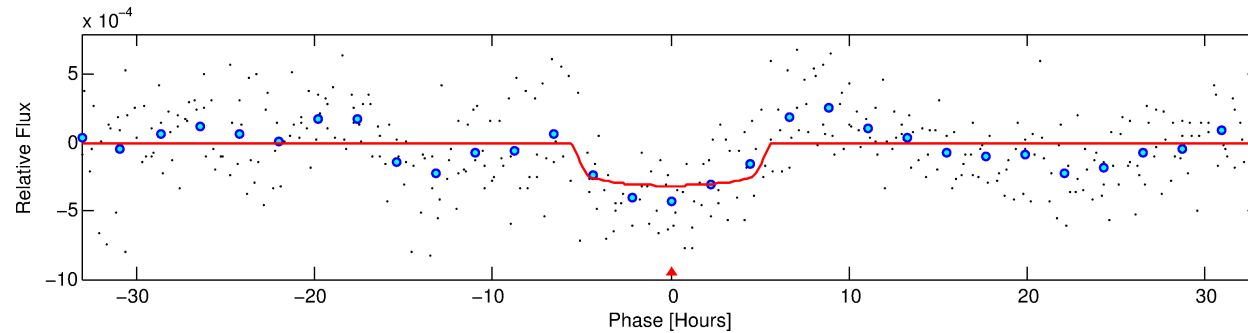
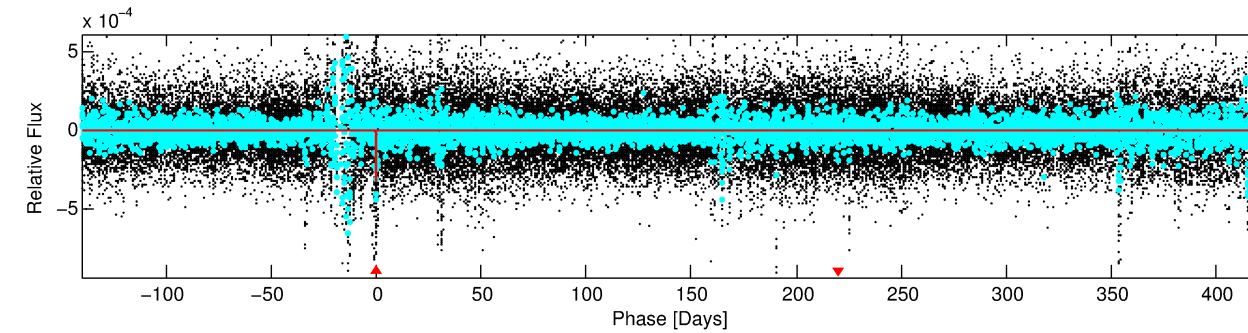
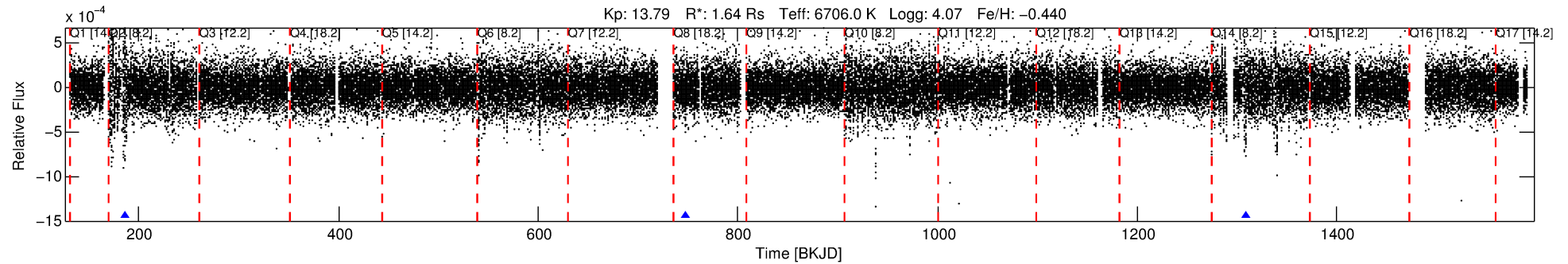
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007529379-01

No Significant Match Found

DV One-Page Summary

KIC: 7529379 Candidate: 1 of 1 Period: 560.972 d



DV Fit Results:

Period = 560.97194 [0.01173] d
Epoch = 186.3296 [0.0152] BKJD
Rp/R* = 0.0182 [0.0042]
a/R* = 226.76 [280.30]
b = 0.83 [0.45]
Seff = 2.50 [1.39]
Teq = 321 [45] K
Rp = 3.25 [1.33] Re
a = 1.3971 [0.4442] AU
Ag = 16604.23 [12175.85] [1.36 σ]
Teffp = 5626 [825] K [6.42 σ]

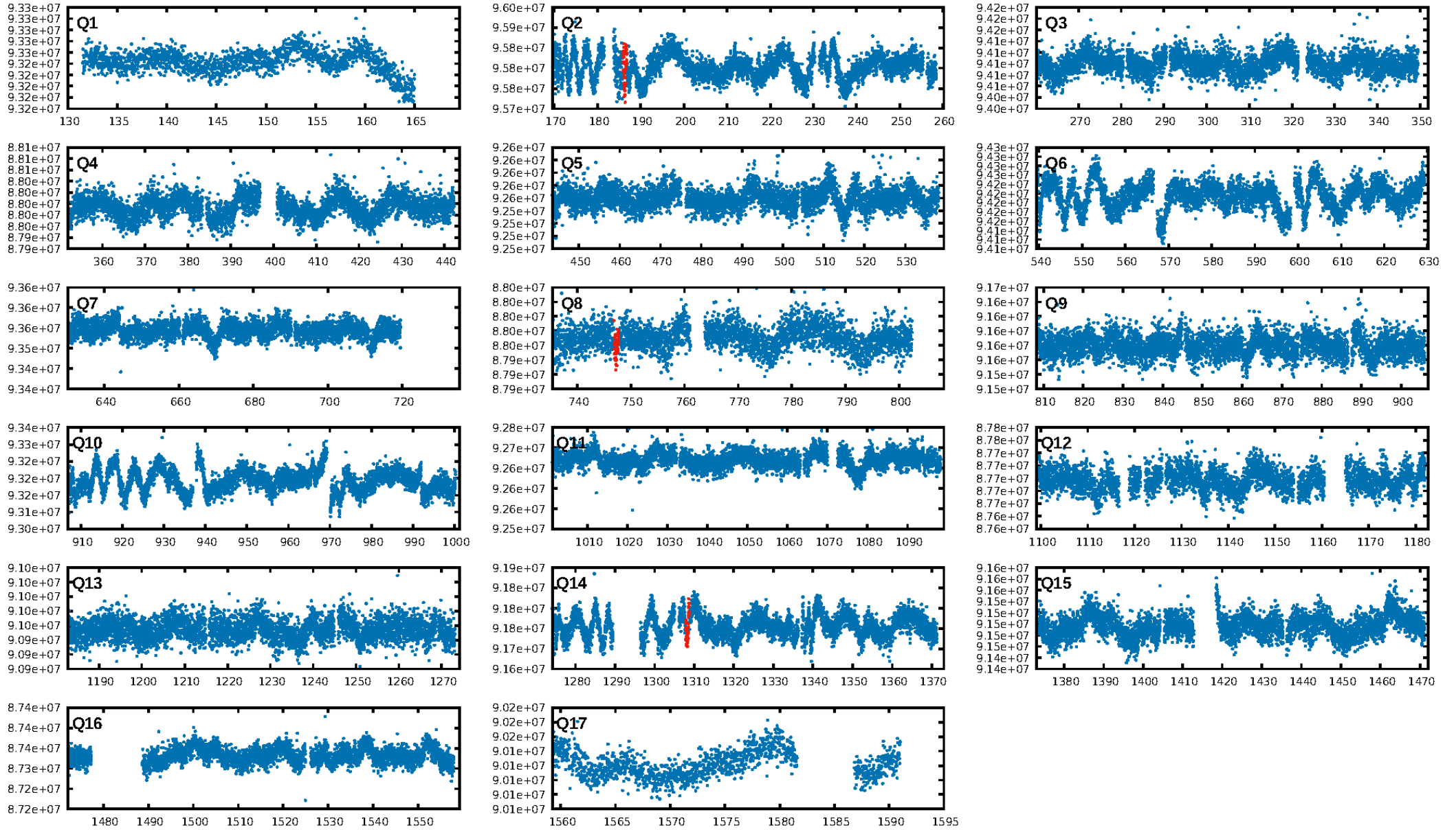
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.8%
ModelChiSquareGof-sig: 91.4%
Bootstrap-pfa: 9.37e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.158
Centroid-sig: 25.9%
Centroid-so: 1.694 arcsec [1.44 σ]
OotOffset-rm: 0.417 arcsec [1.49 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-rm: 0.564 arcsec [2.02 σ]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

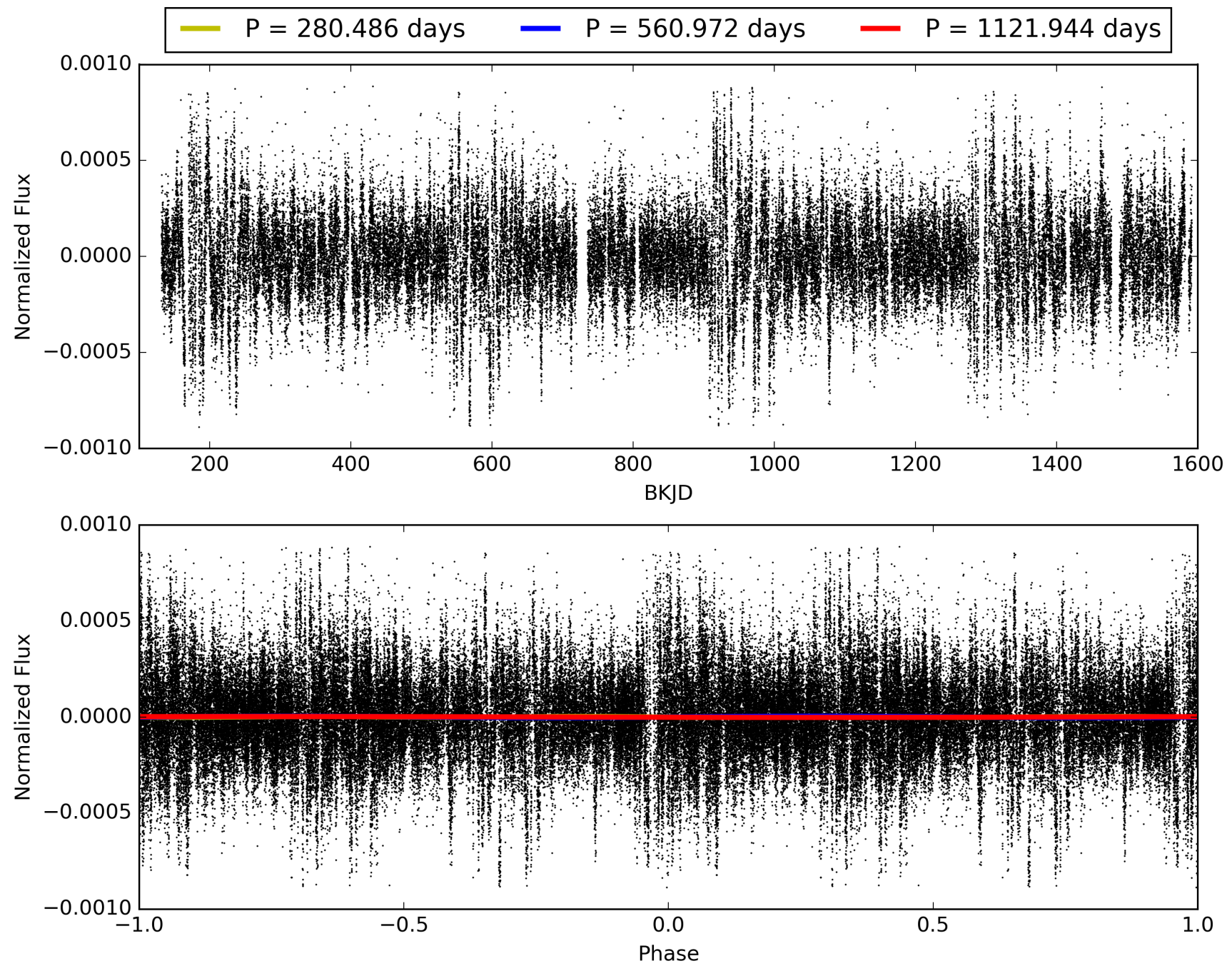
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:16:48 Z

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

TCE 007529379-01, PDC Light Curves

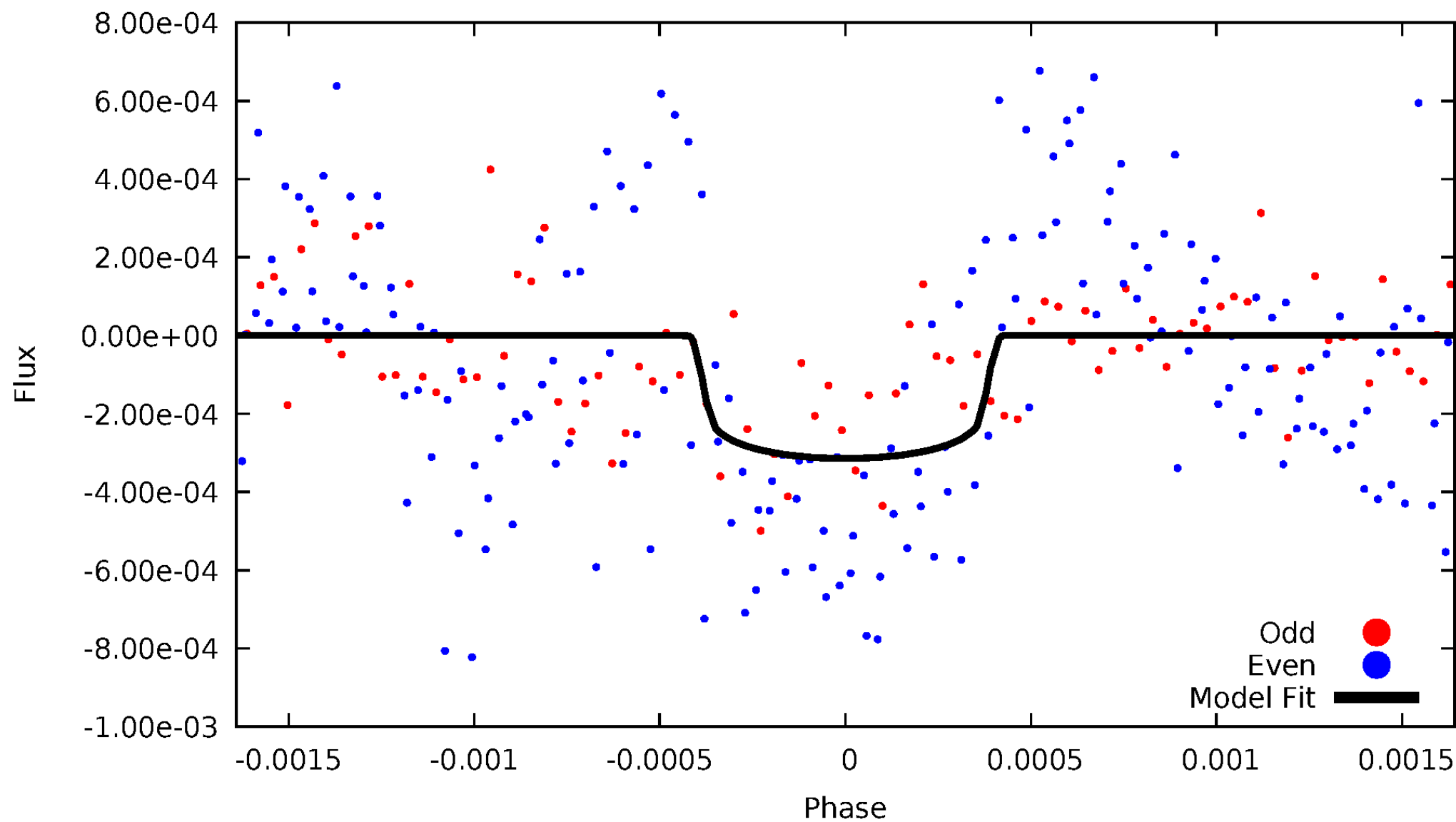


TCE 007529379-01



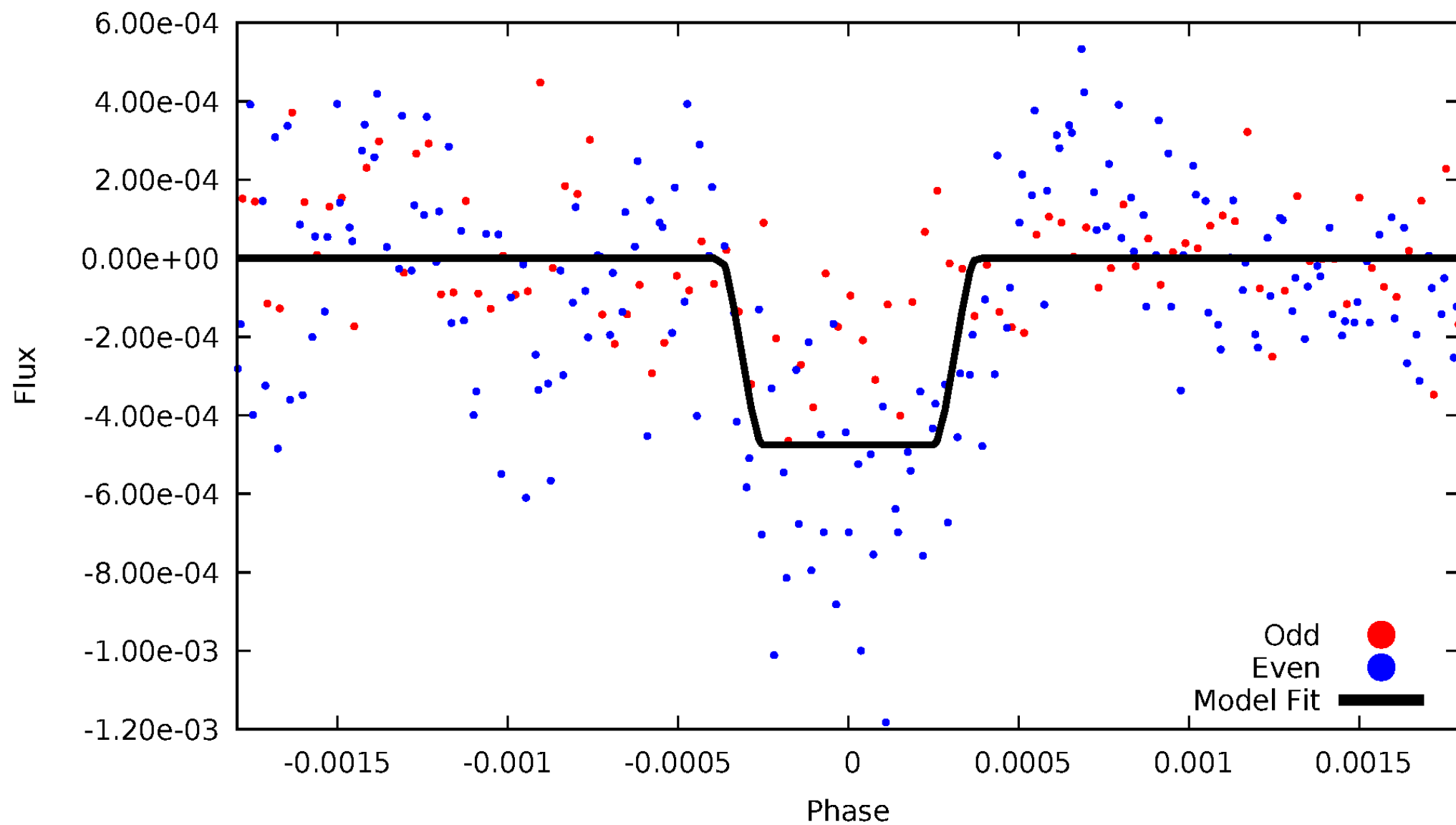
DV Odd/Even

TCE 007529379-01

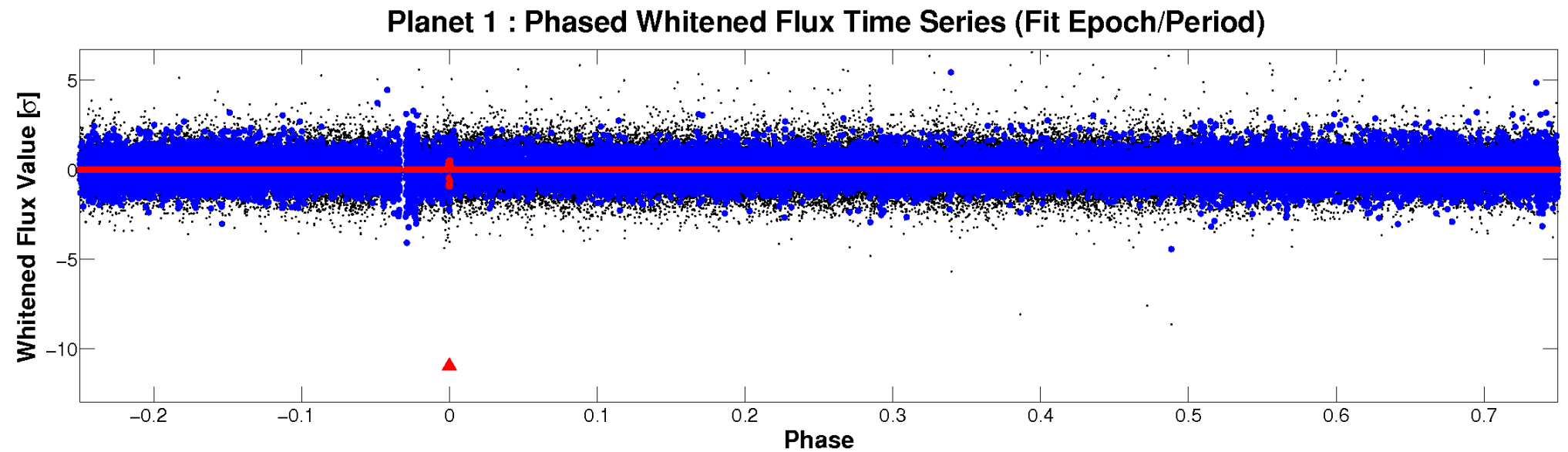
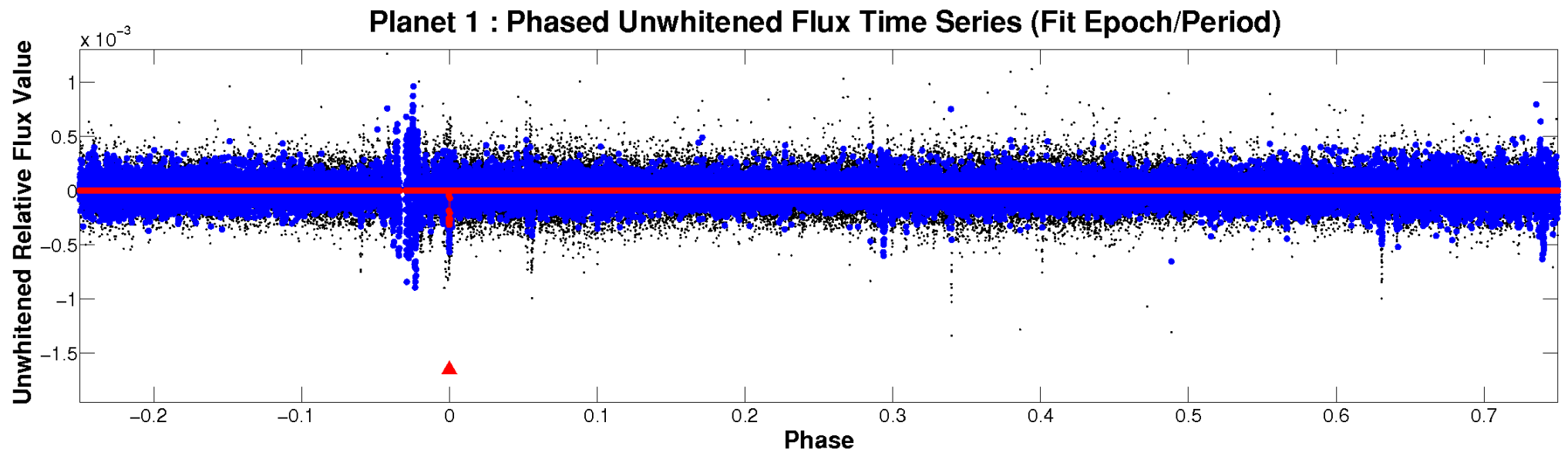


ALT Odd/Even

TCE 007529379-01

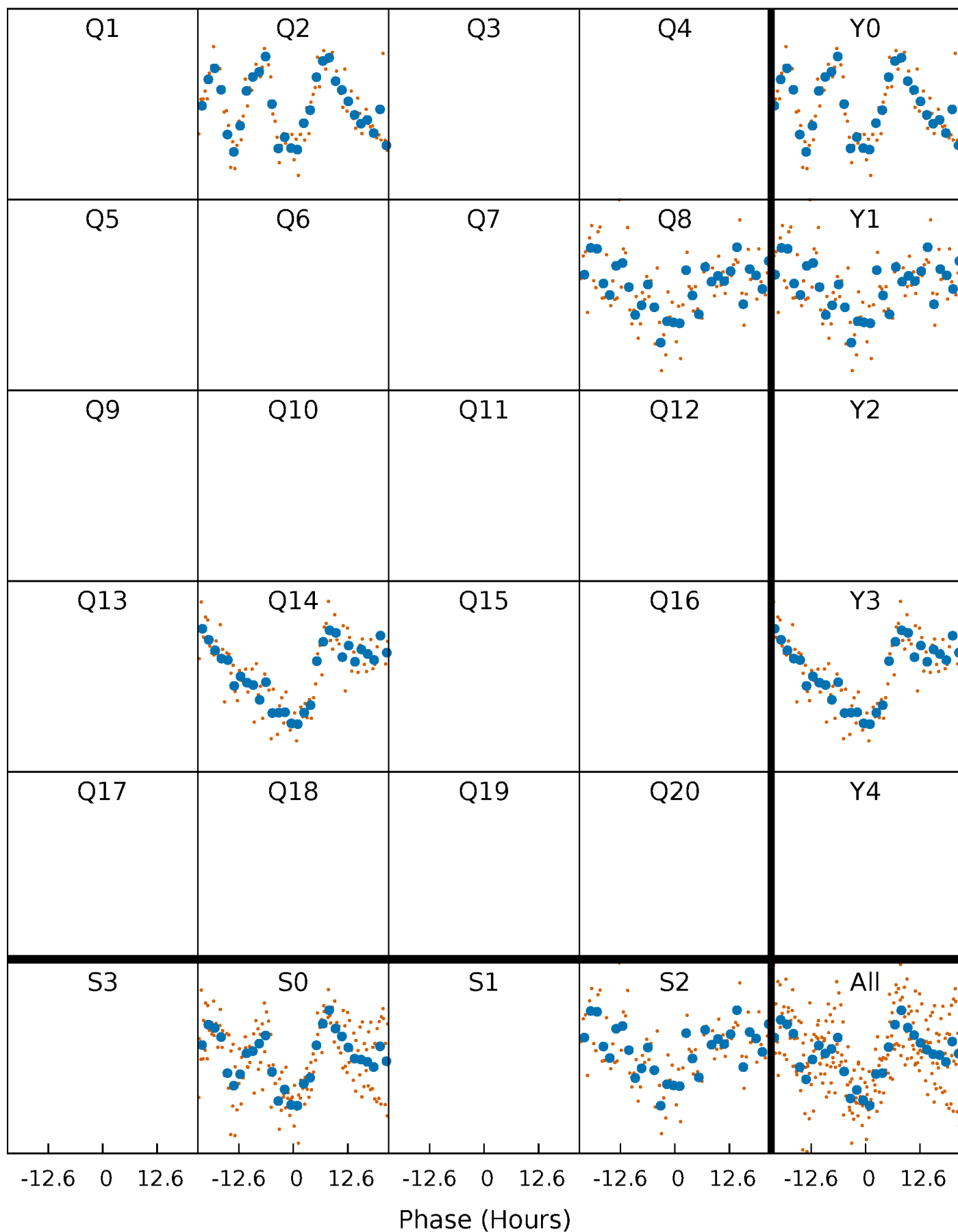


Non-Whitened Vs. Whitened Light Curve



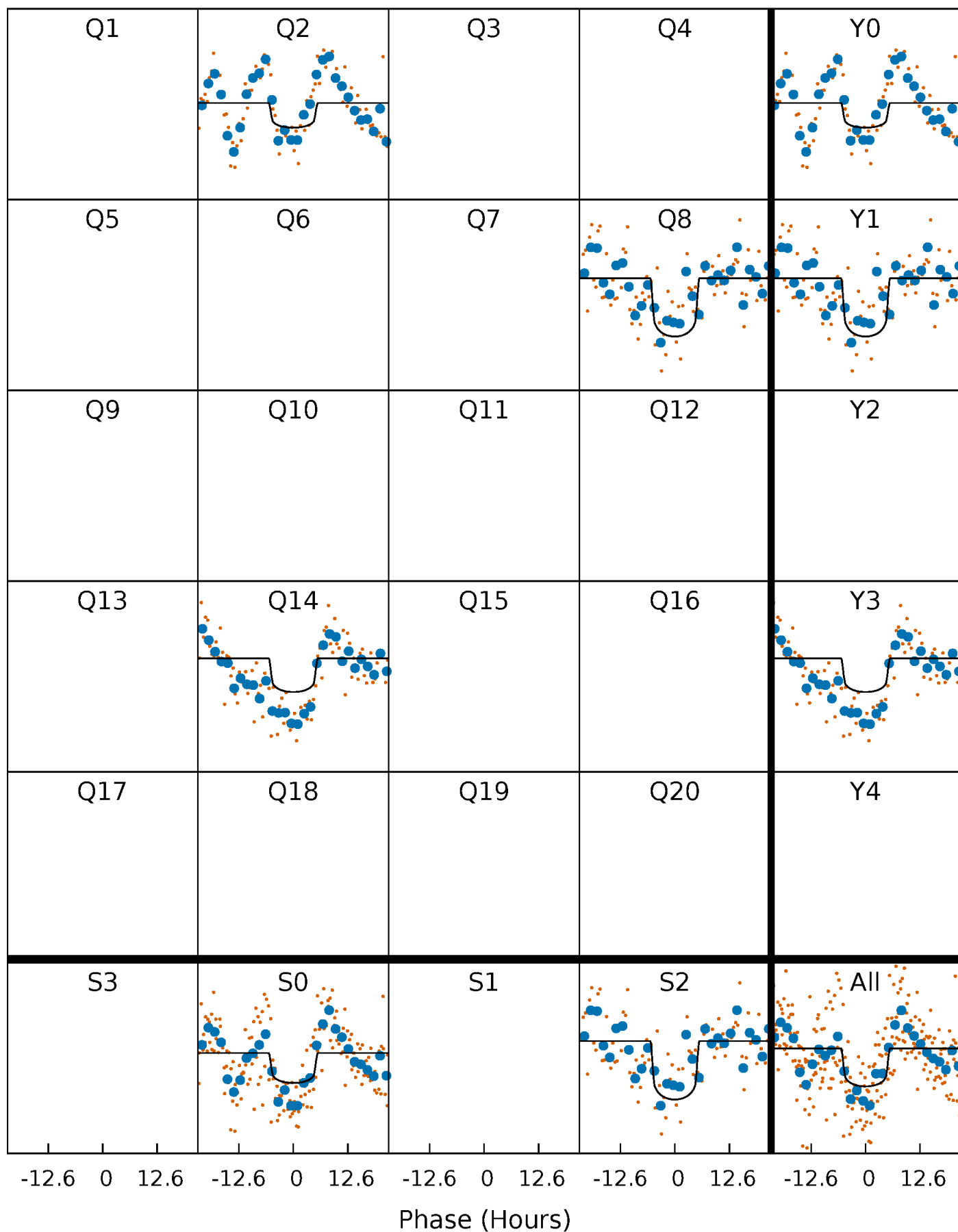
PDC Quarter-Phased Transit Curves

TCE 007529379-01 P=560.971940 Days $T_0=186.329609$ (BKJD)



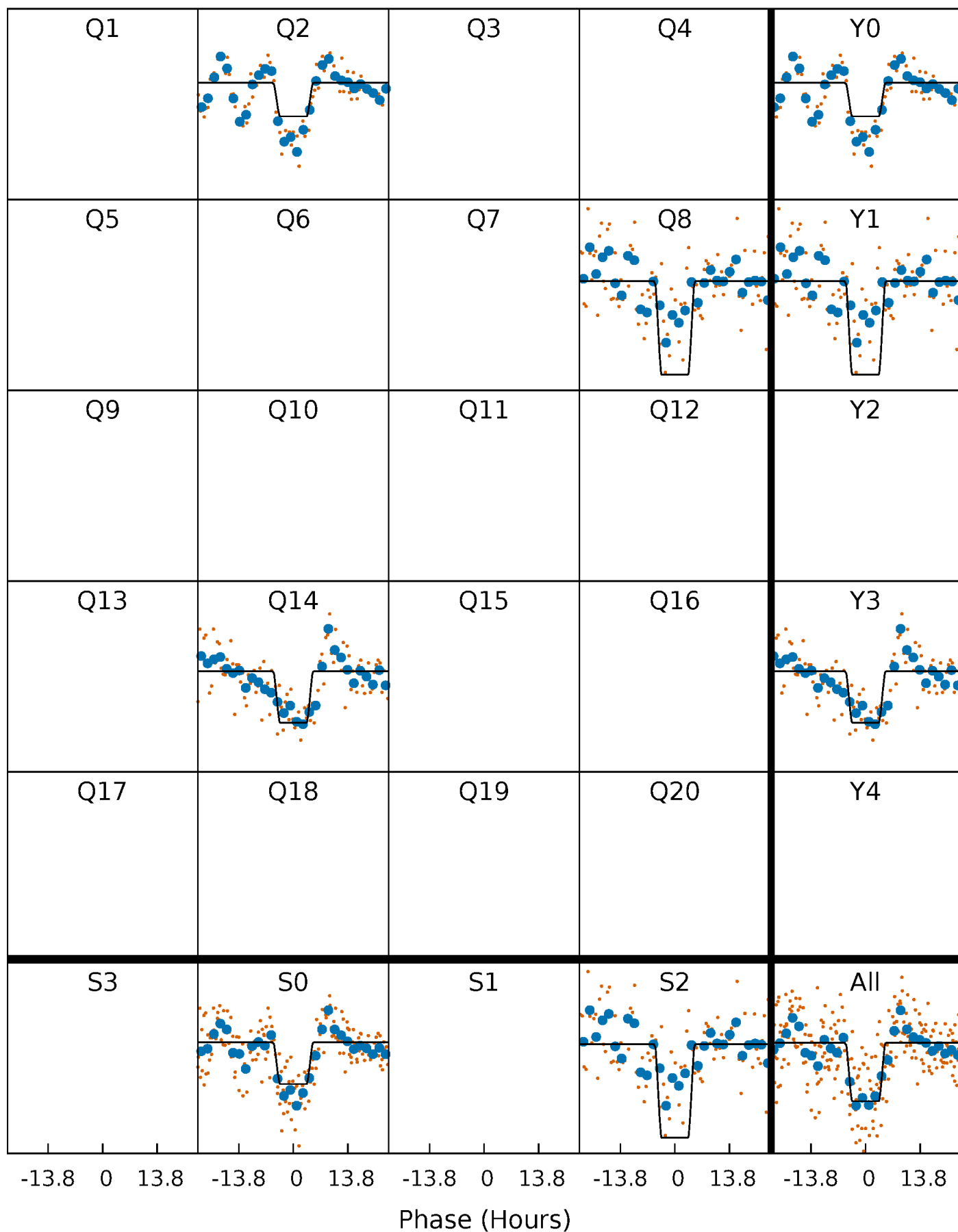
DV Quarter-Phased Transit Curves

TCE 007529379-01 P=560.971940 Days $T_0=186.329609$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

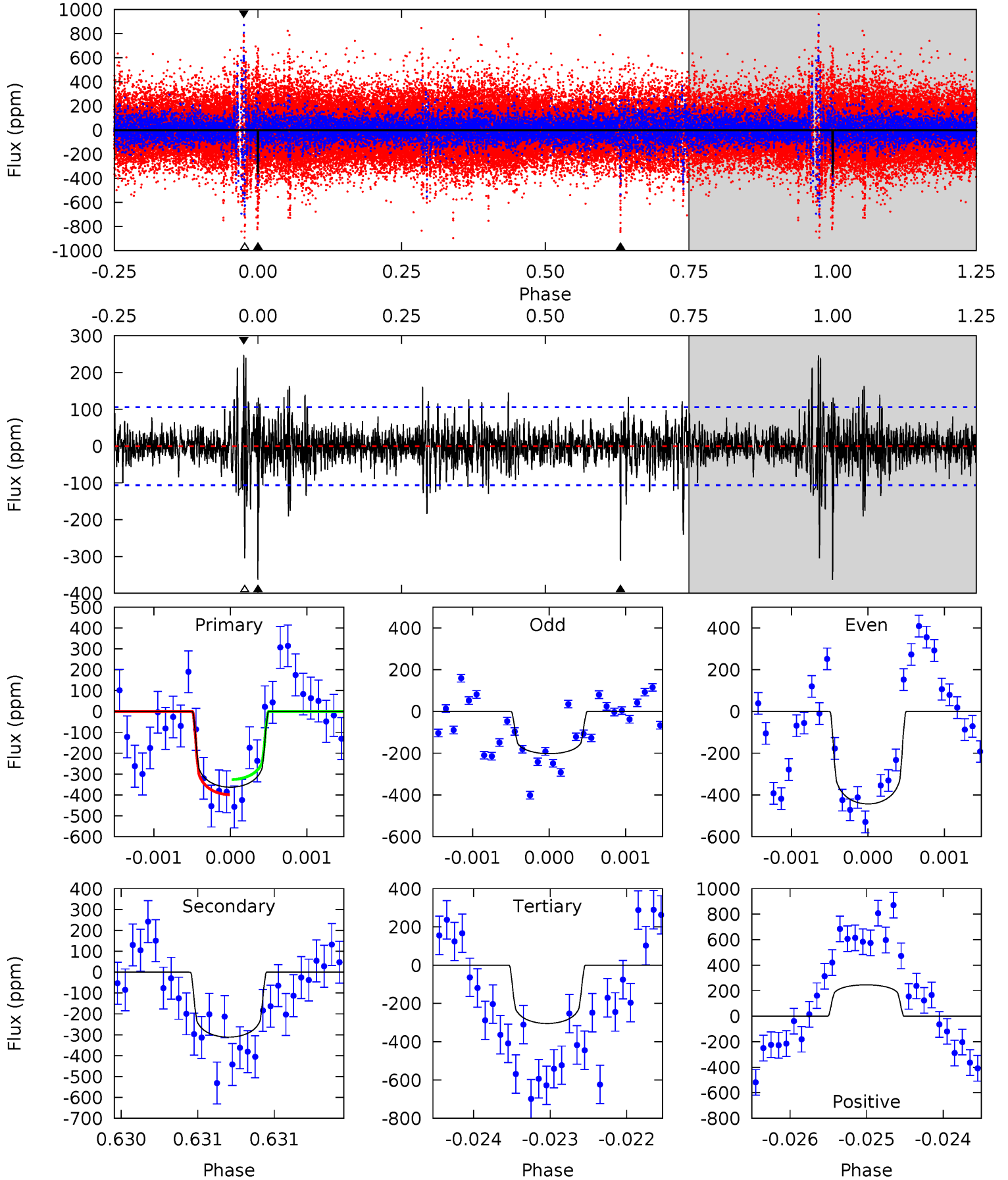
TCE 007529379-01 P=560.955712 Days $T_0=186.316577$ (BKJD)



DV Model-Shift Uniqueness Test

007529379-01, P = 560.971940 Days, E = 186.329609 Days

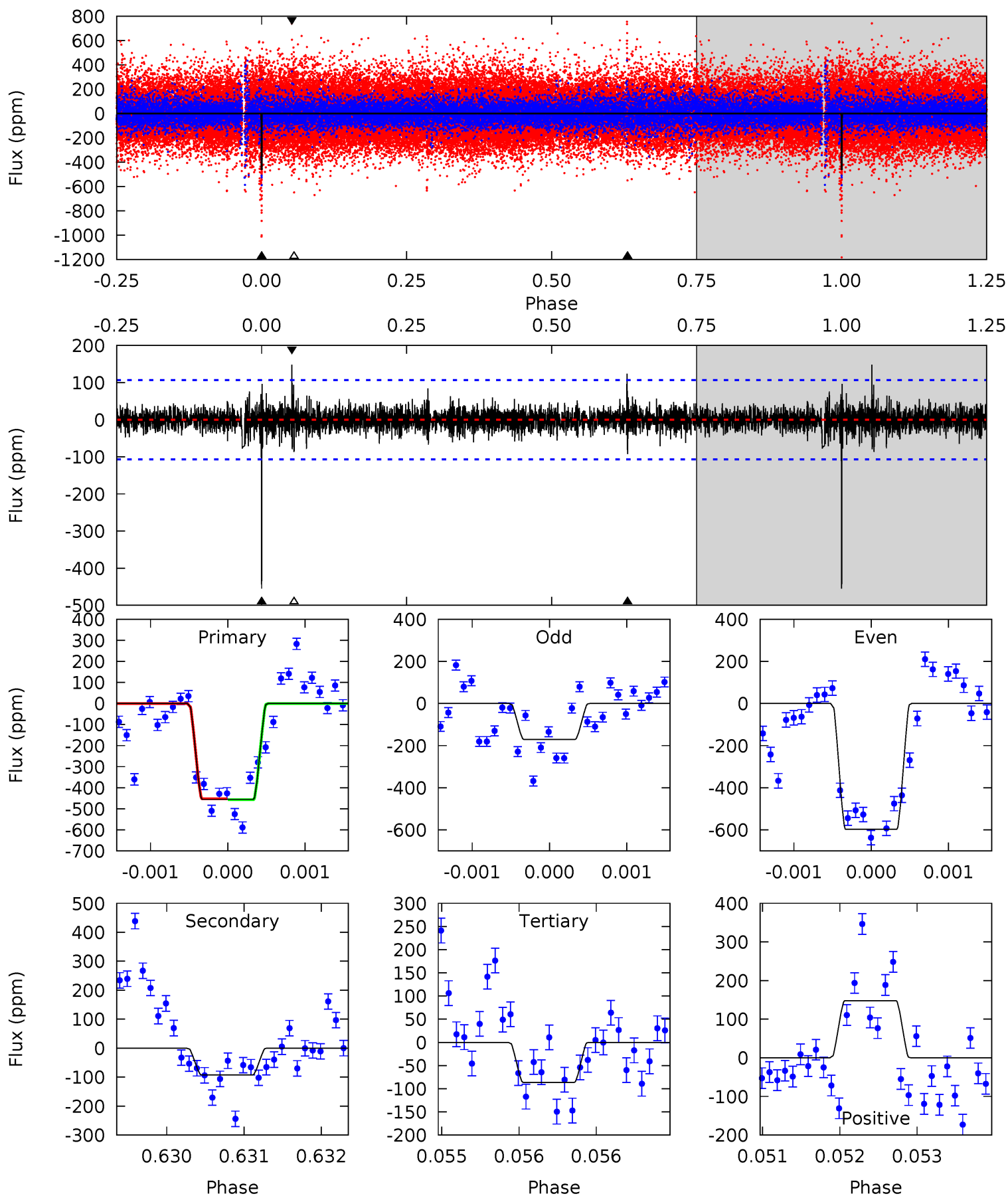
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	16.1	15.7	12.7	5.48	3.34	2.07	3.01	6.03	0.35	3.38	5.83	1.15	0.40	1.87



Alt Model-Shift Uniqueness Test

007529379-01, P = 560.955712 Days, E = 186.316577 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.4	4.76	4.45	7.62	5.50	3.37	1.04	19.0	15.8	0.31	-2.86	10.4	1.10	0.25	0.11



Stellar Parameters For KIC 007529379

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6706^{+306}_{-408}	$4.071^{+0.293}_{-0.158}$	$-0.440^{+0.300}_{-0.300}$	$1.640^{+0.452}_{-0.553}$	$1.154^{+0.189}_{-0.208}$	$0.368^{+0.665}_{-0.170}$
	+5%/-6%	+7%/-4%	+68%/-68%	+28%/-34%	+16%/-18%	+181%/-46%
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 007529379-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-311 ± 19	$3.13^{+1.02}_{-0.89}$	443^{+39}_{-45}	6593^{+1122}_{-740}	33670^{+33417}_{-13879}
Alt.	-92 ± 19	$3.79^{+1.02}_{-1.02}$	442^{+40}_{-44}	4591^{+502}_{-411}	6742^{+6341}_{-2746}

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

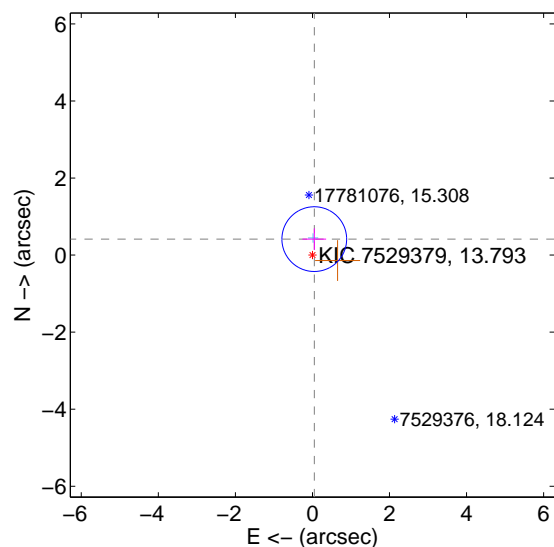
Supplemental centroid analysis for 007529379-01. Kepler magnitude: 13.79. Transit SNR 7.78

There are 1 quarters with good PRF difference image offsets

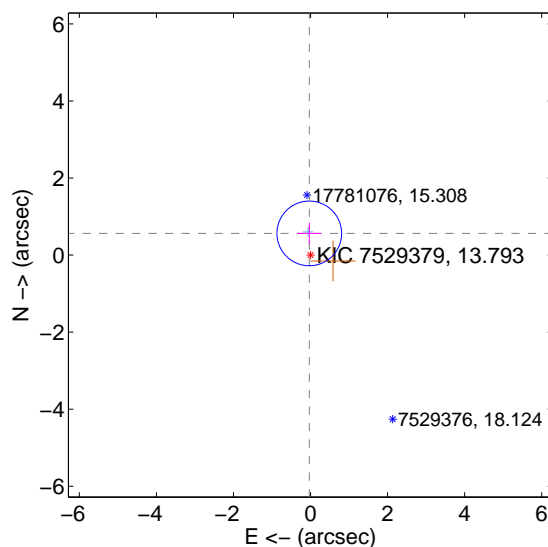
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.417 ± 0.280	1.49	-0.048 ± 0.307	0.415 ± 0.280
PRF-fit source offset from KIC position	0.564 ± 0.280	2.02	0.032 ± 0.307	0.563 ± 0.280
photometric centroid source offset	1.69 ± 1.18	1.44	-1.40 ± 1.21	0.96 ± 1.11

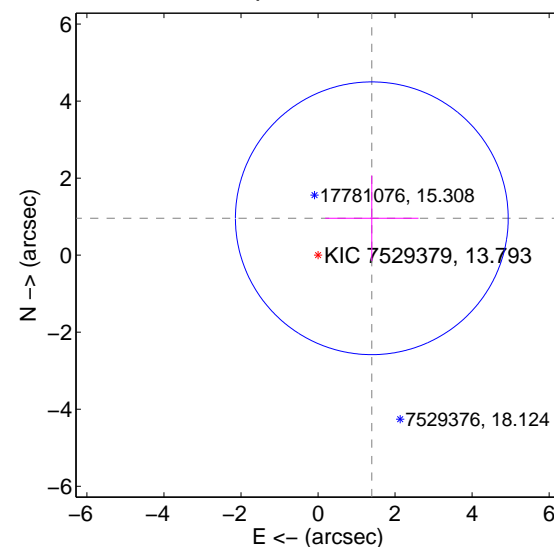
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

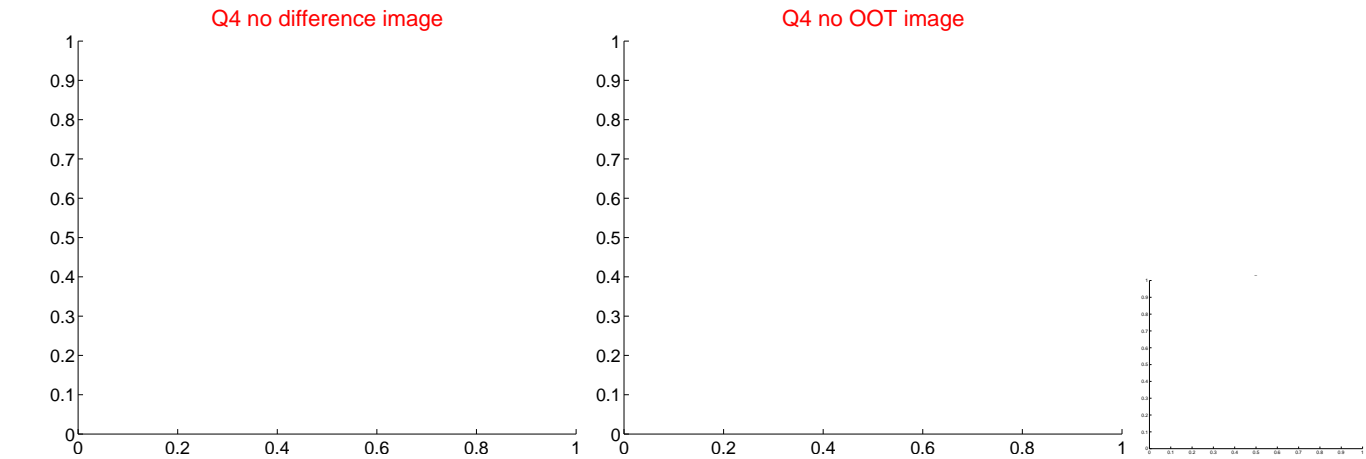
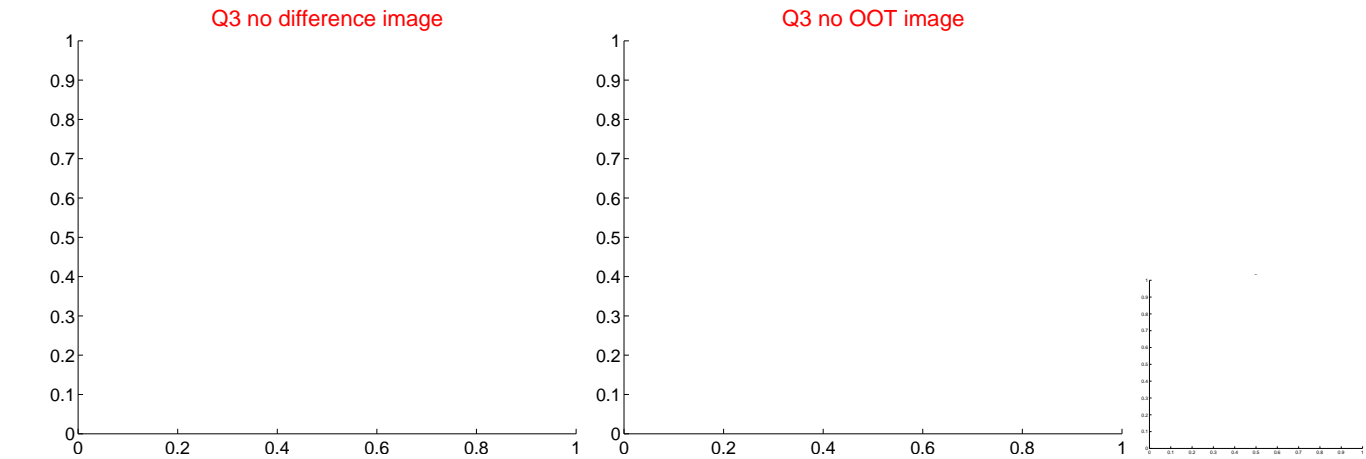
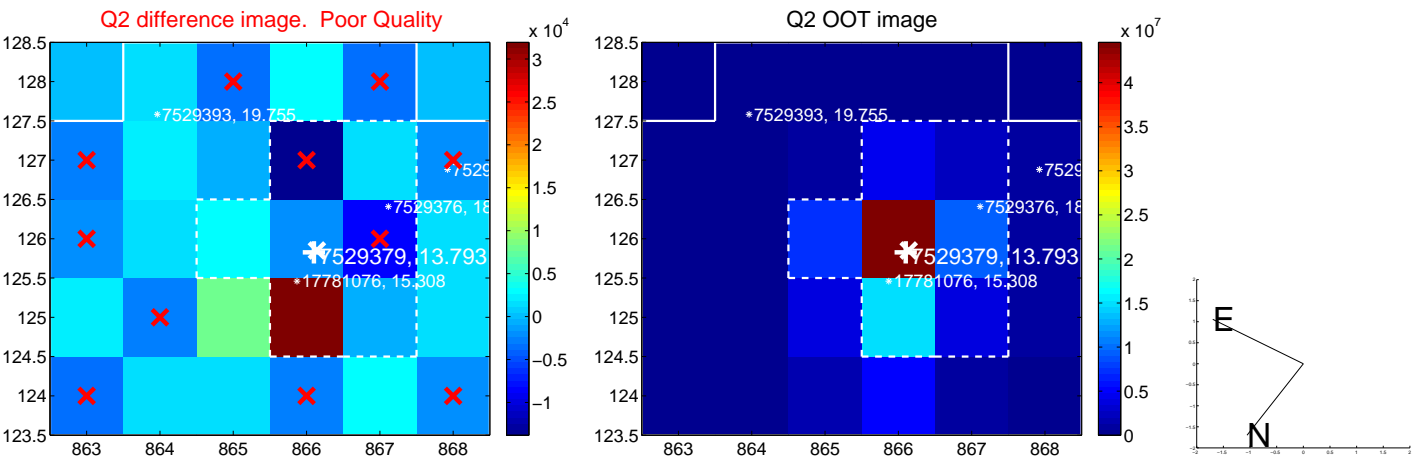
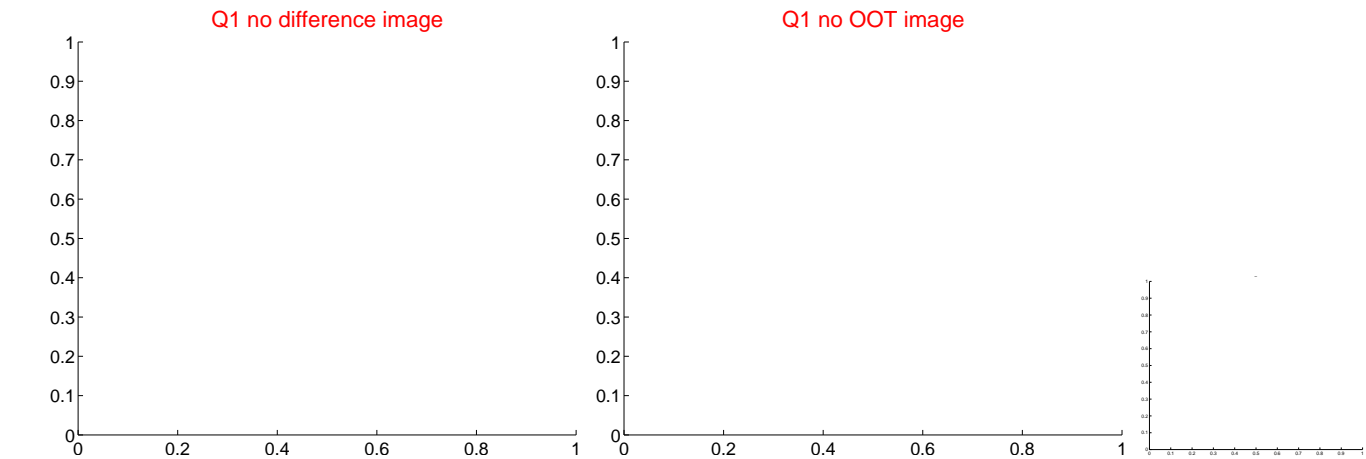


offset from photometric centroids

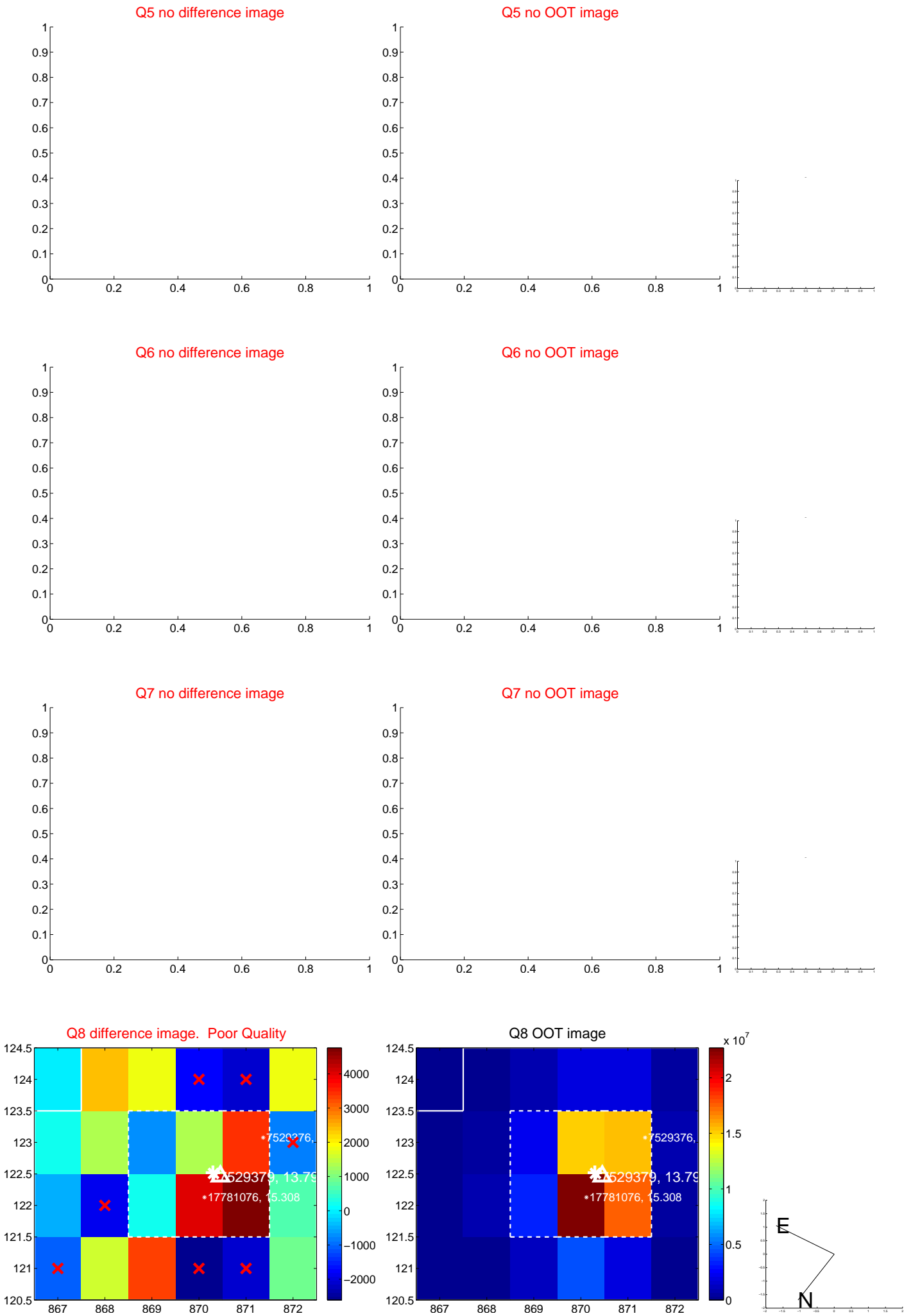


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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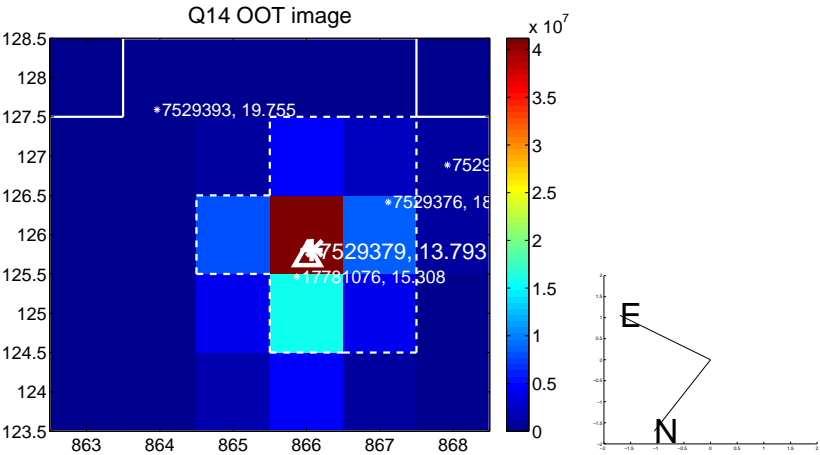
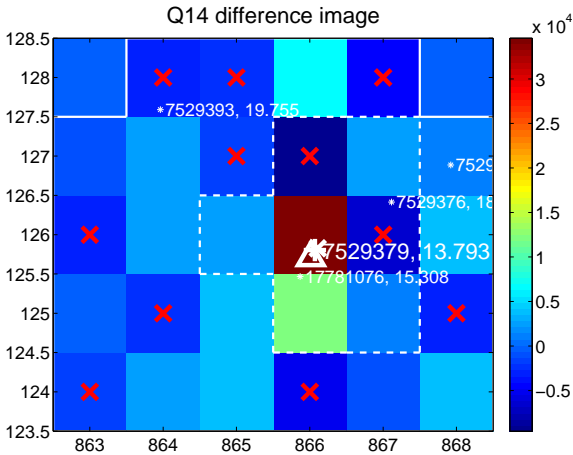


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

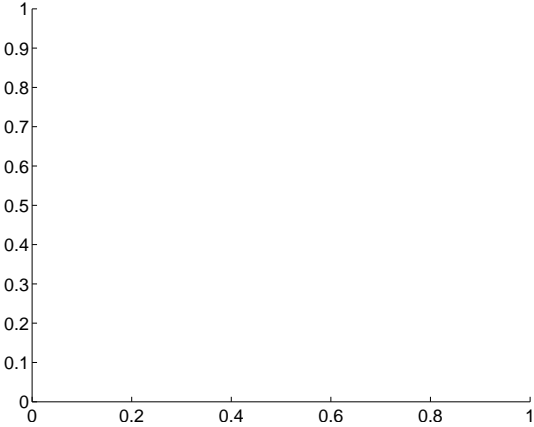
Q13 no difference image



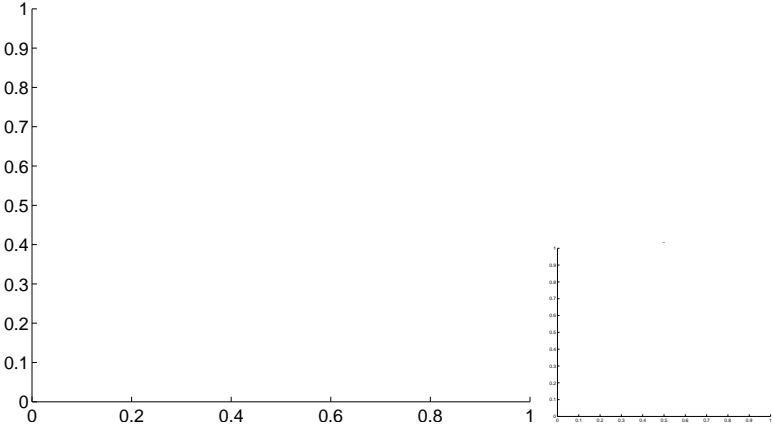
Q13 no OOT image



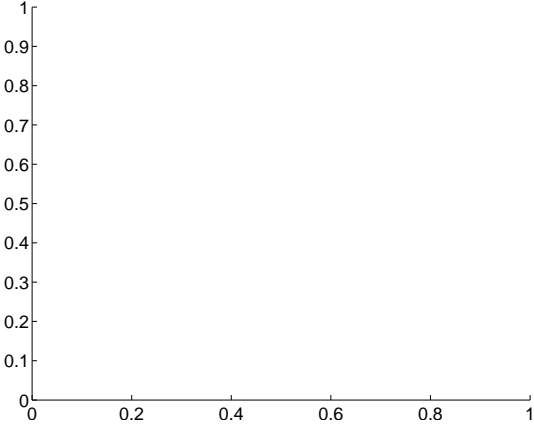
Q15 no difference image



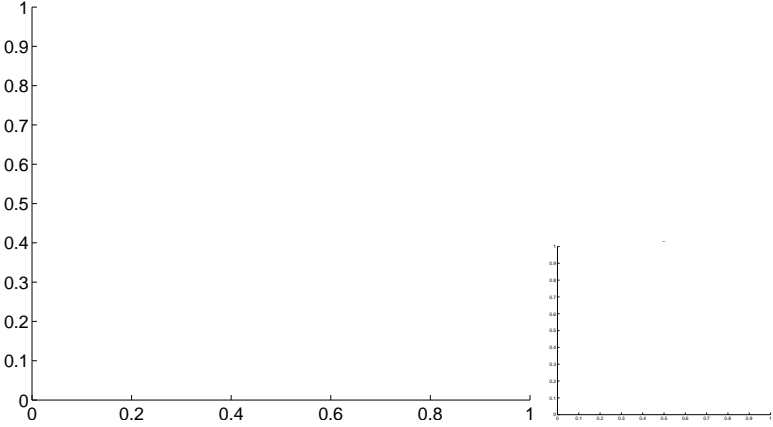
Q15 no OOT image



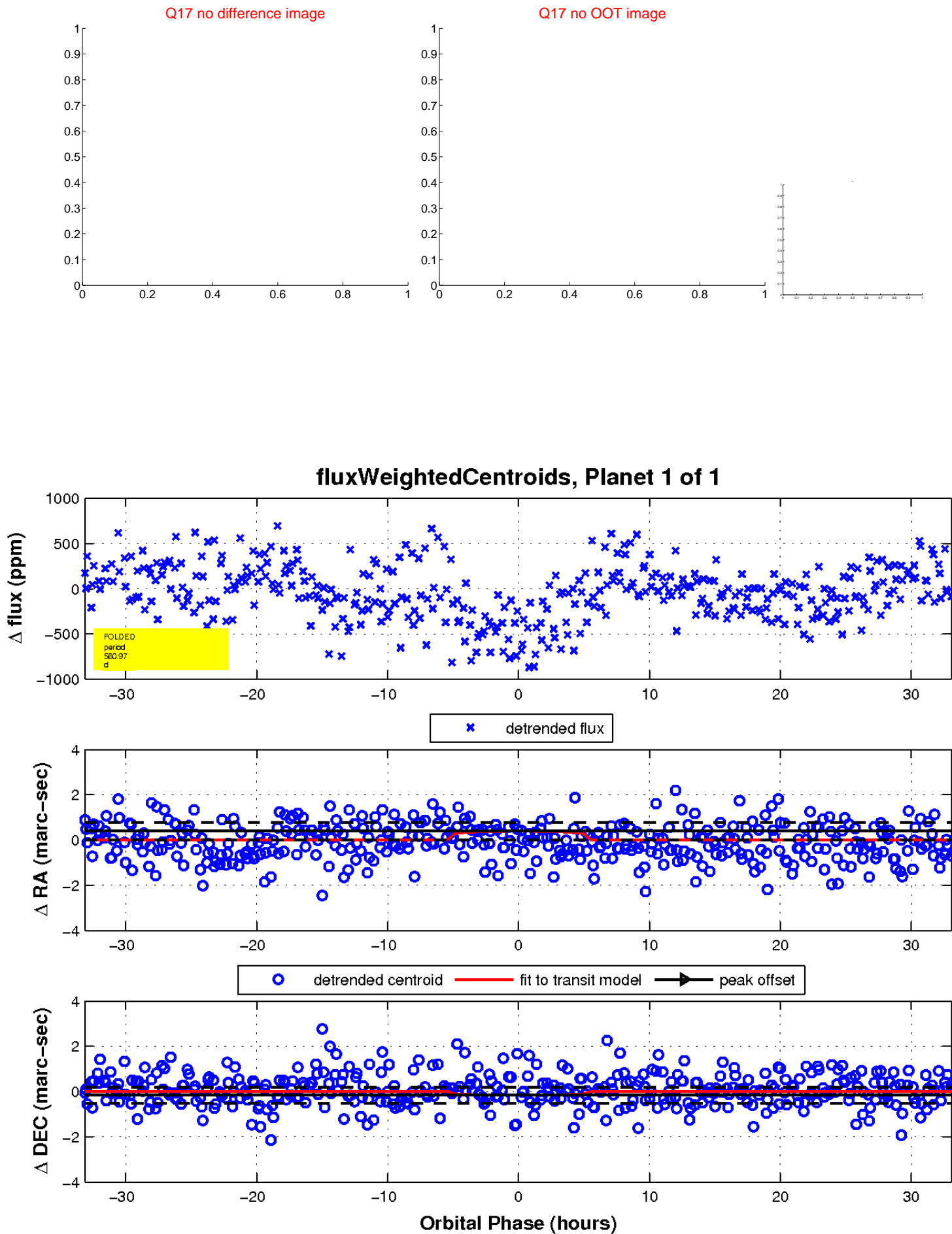
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

