

KIC 007800227

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})
007800227-01	OBS	No	114.859248	217.418256	202.7	1.348	19.8	11.7	1.00	5780	1.44	4.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007800227-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

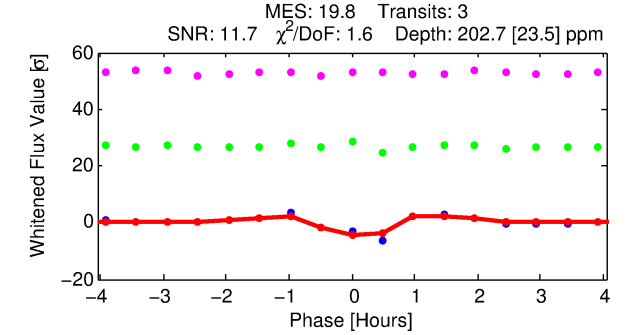
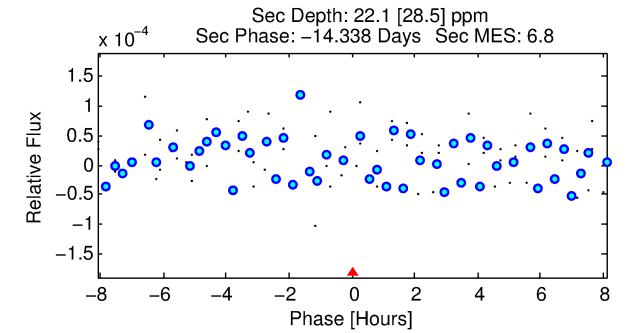
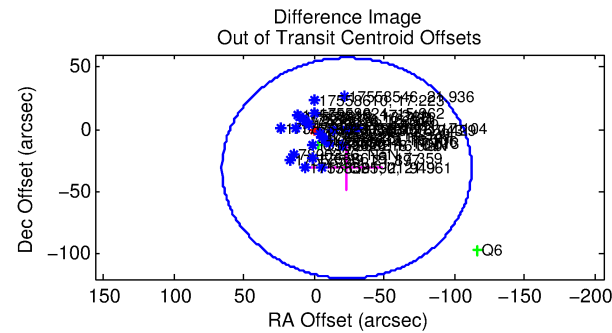
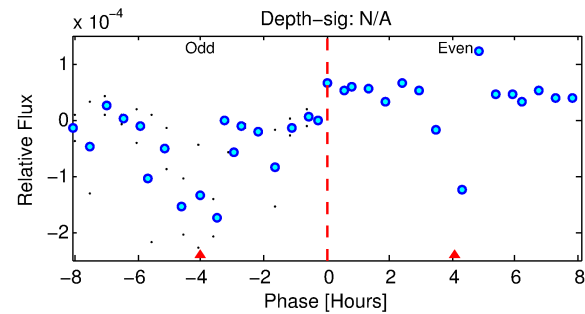
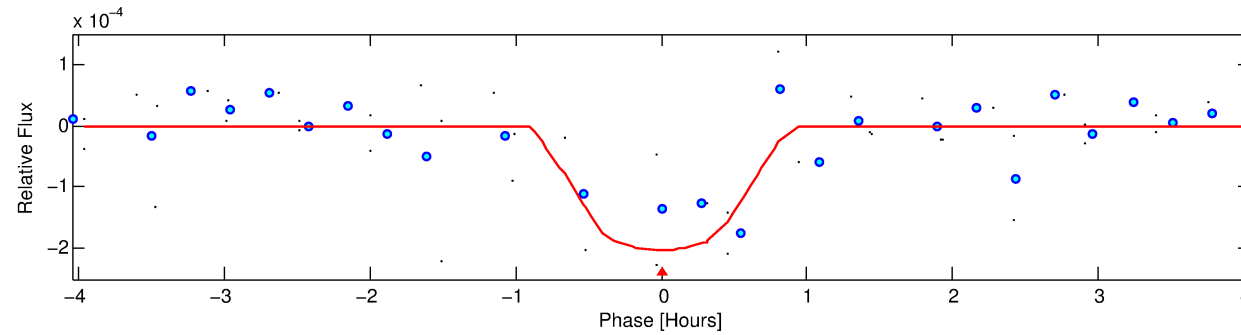
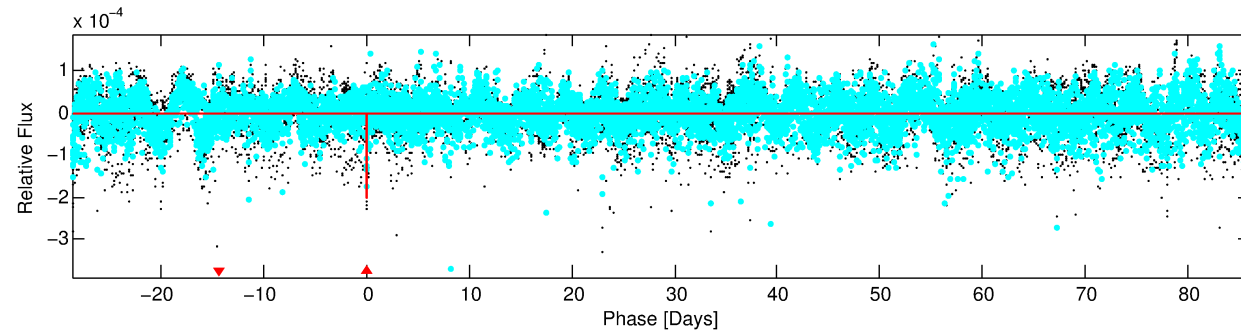
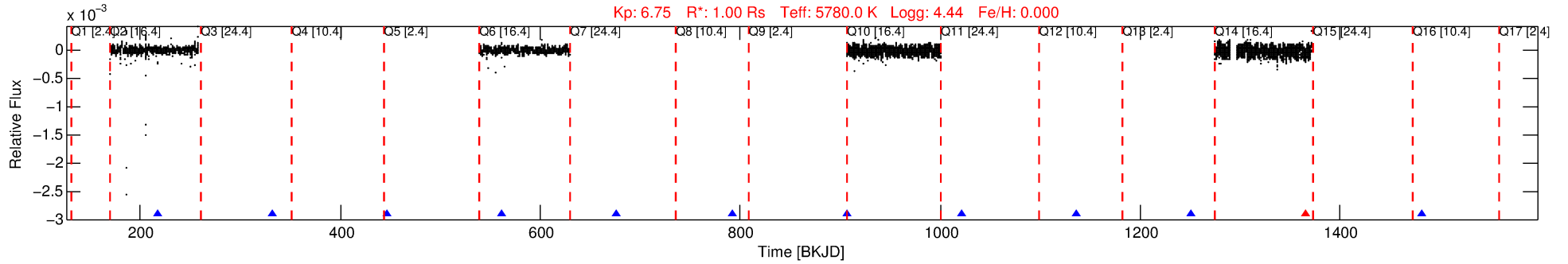
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007800227-01

No Significant Match Found

DV One-Page Summary

KIC: 7800227 Candidate: 1 of 1 Period: 114.859 d



DV Fit Results:

Period = 114.85925 [0.00073] d
Epoch = 217.4183 [0.0043] BKJD
Rp/R* = 0.0132 [0.0297]
a/R* = 607.17 [5989.40]
b = 0.40 [21.13]
Seff = 4.67 [0.00]
Teq = 375 [0] K
Rp = 1.44 [3.24] Re
a = 0.4625 [0.0000] AU
Ag = 1247.04 [5831.74] [0.21σ]
Teffp = 3445 [4027] K [0.76σ]

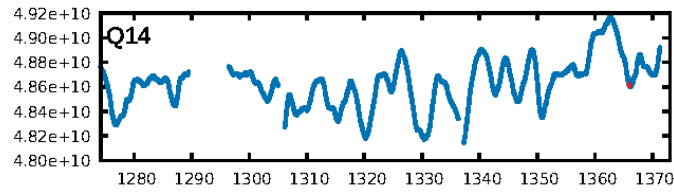
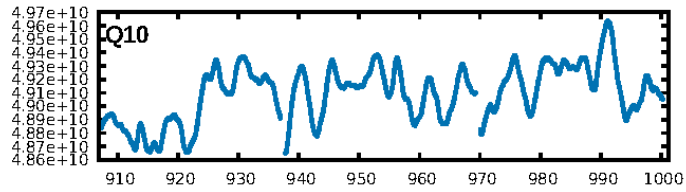
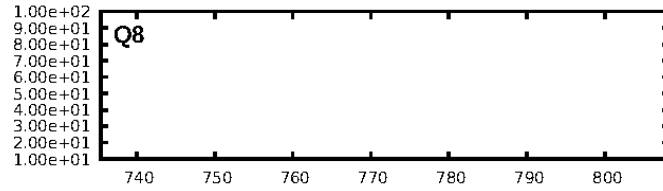
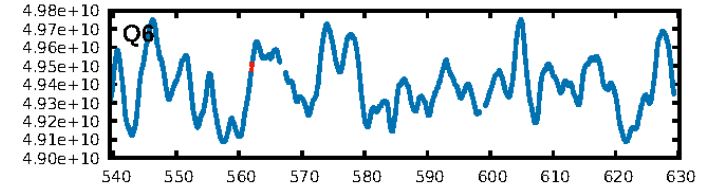
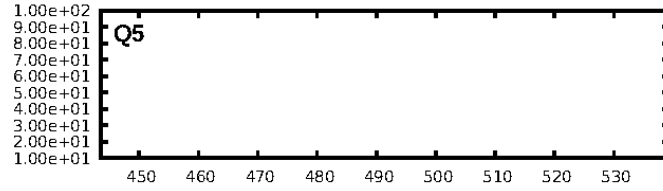
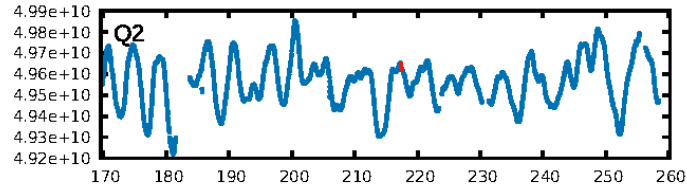
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.2%
ModelChiSquareGof-sig: 80.3%
Bootstrap-pfa: 1.18e-17
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 89.5%
Centroid-so: 36.823 arcsec [1.46σ]
OotOffset-rm: 38.902 arcsec [1.31σ]
KicOffset-rm: 69.204 arcsec [1.90σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

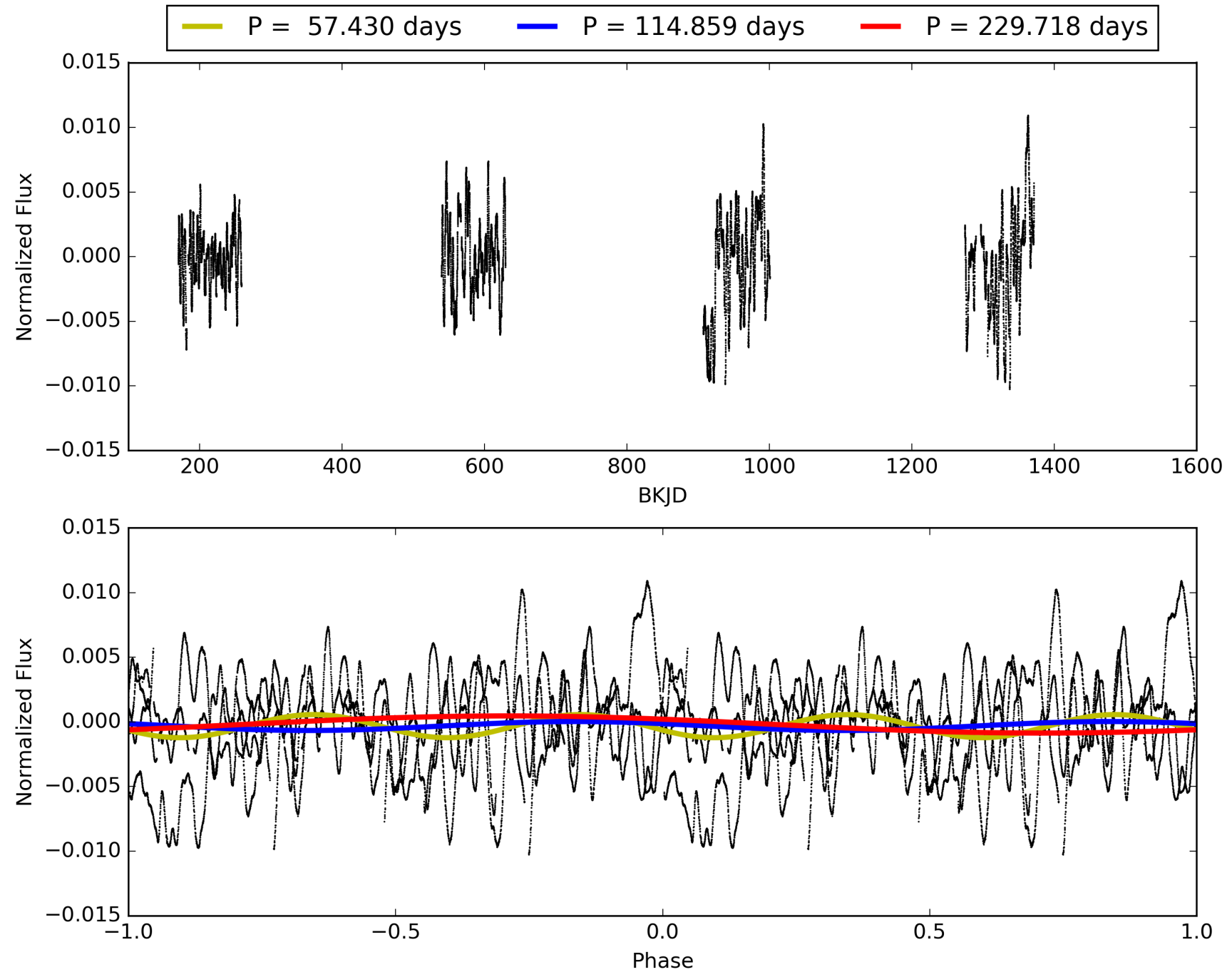
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:07:20 Z

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

TCE 007800227-01, PDC Light Curves

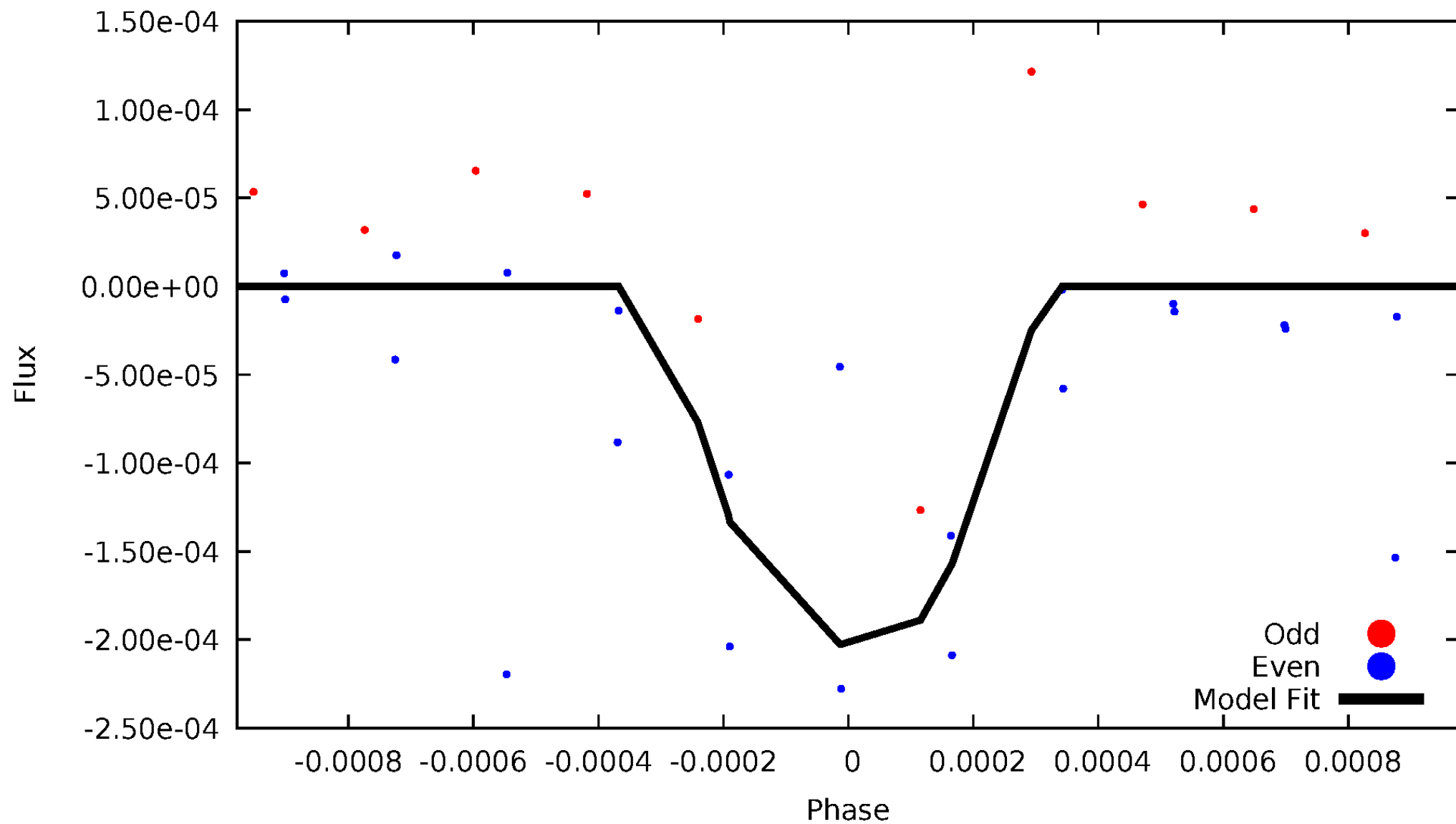


TCE 007800227-01



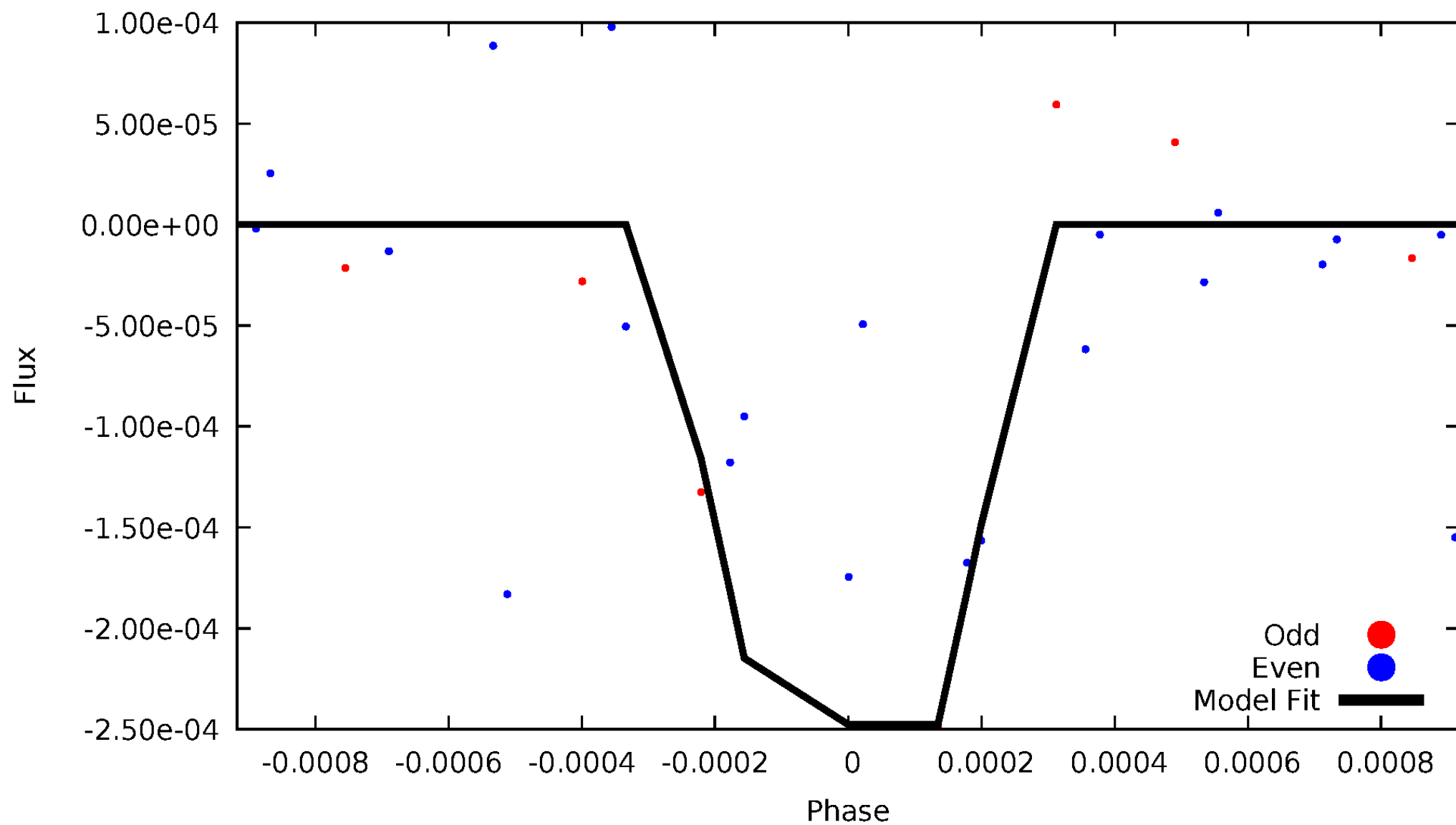
DV Odd/Even

TCE 007800227-01

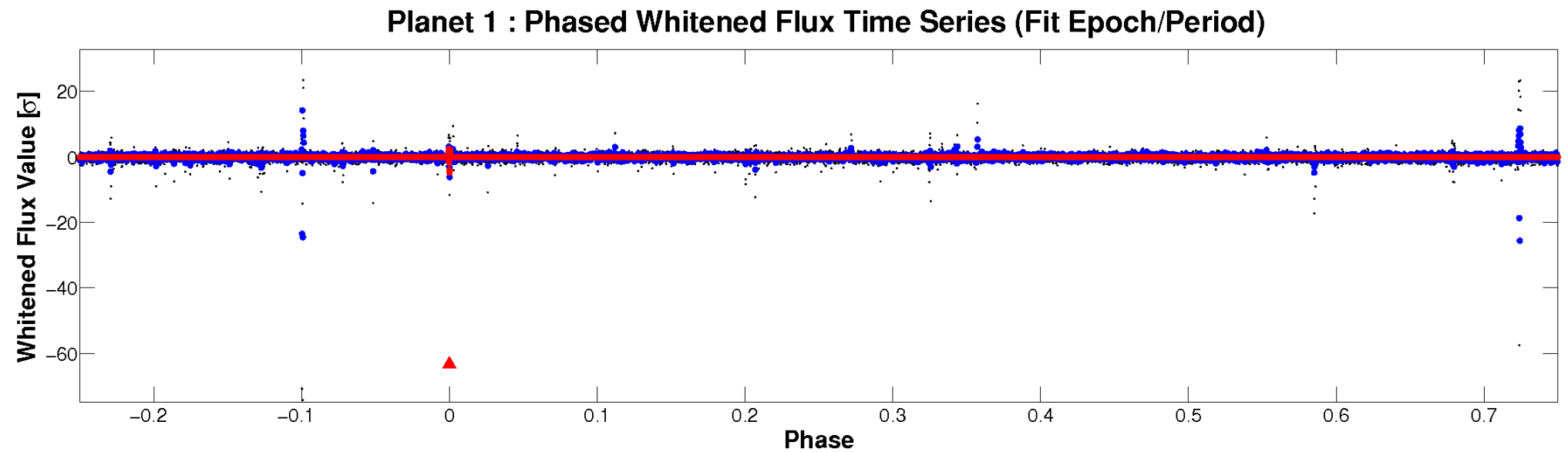
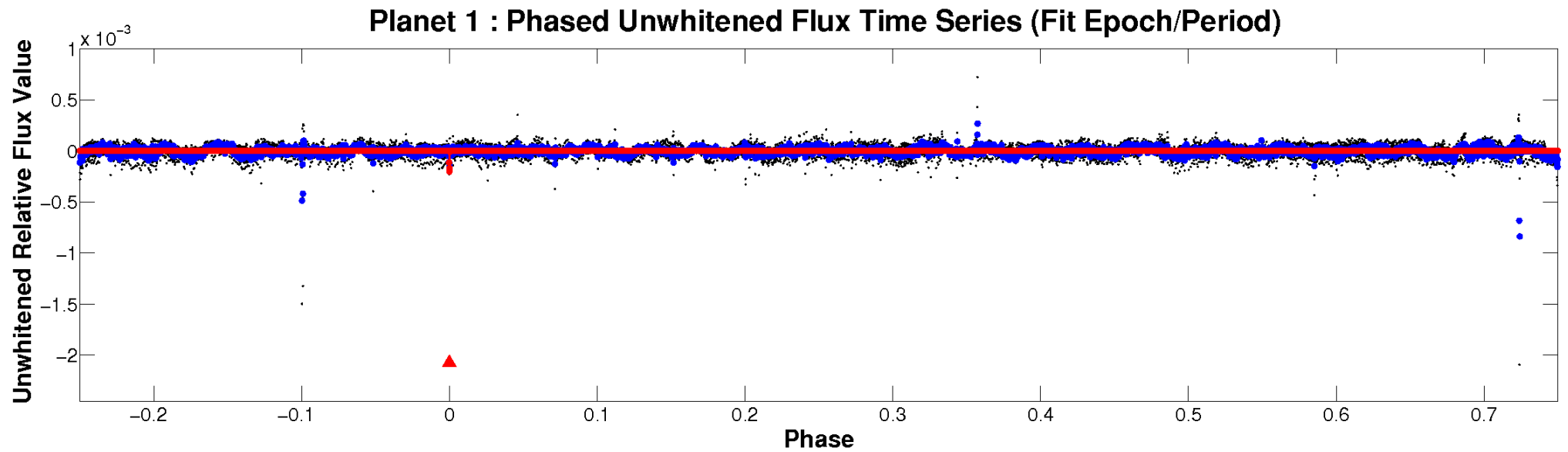


ALT Odd/Even

TCE 007800227-01

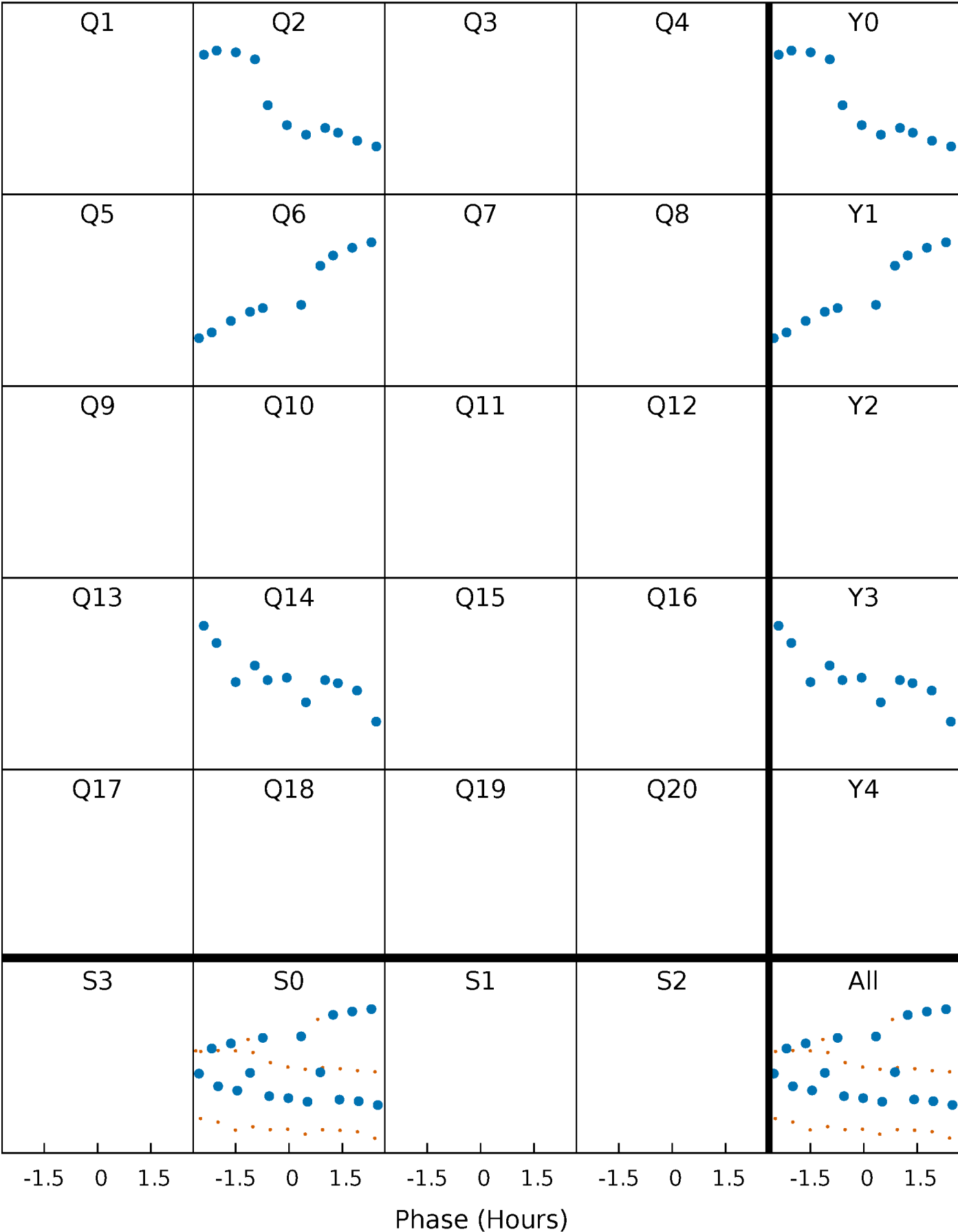


Non-Whitened Vs. Whitened Light Curve



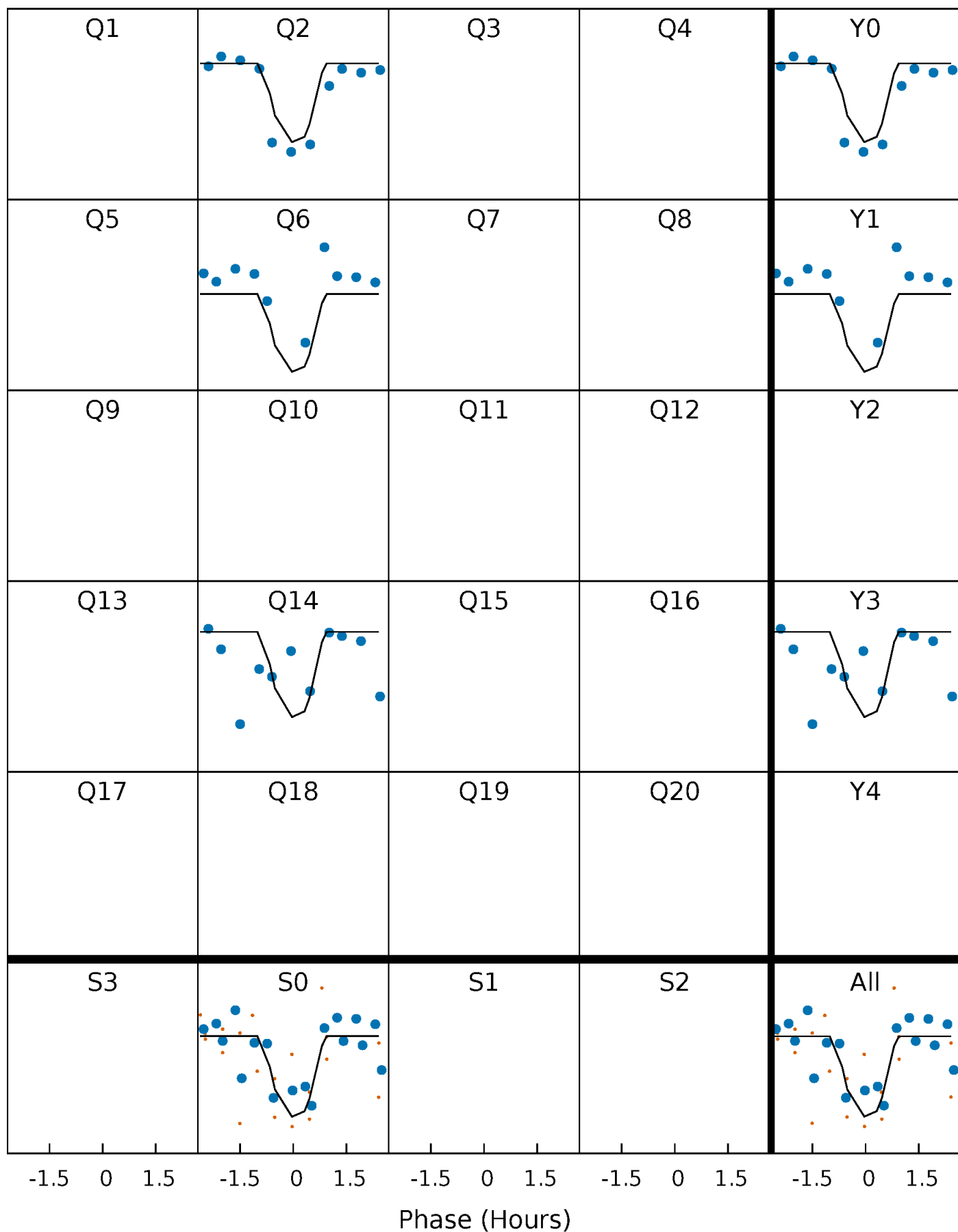
PDC Quarter-Phased Transit Curves

TCE 007800227-01 P=114.859248 Days T₀=217.418256 (BKJD)



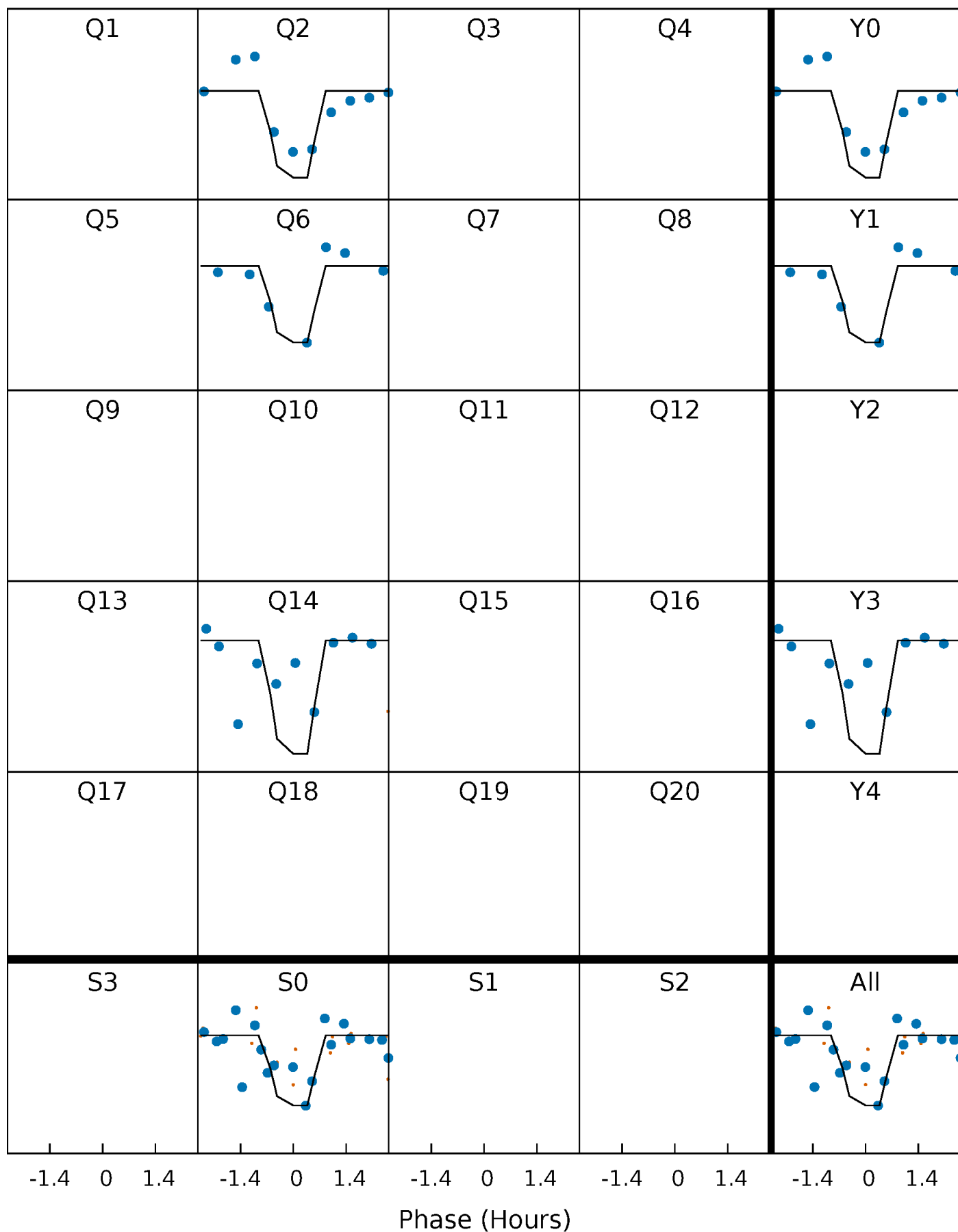
DV Quarter-Phased Transit Curves

TCE 007800227-01 P=114.859248 Days $T_0=217.418256$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

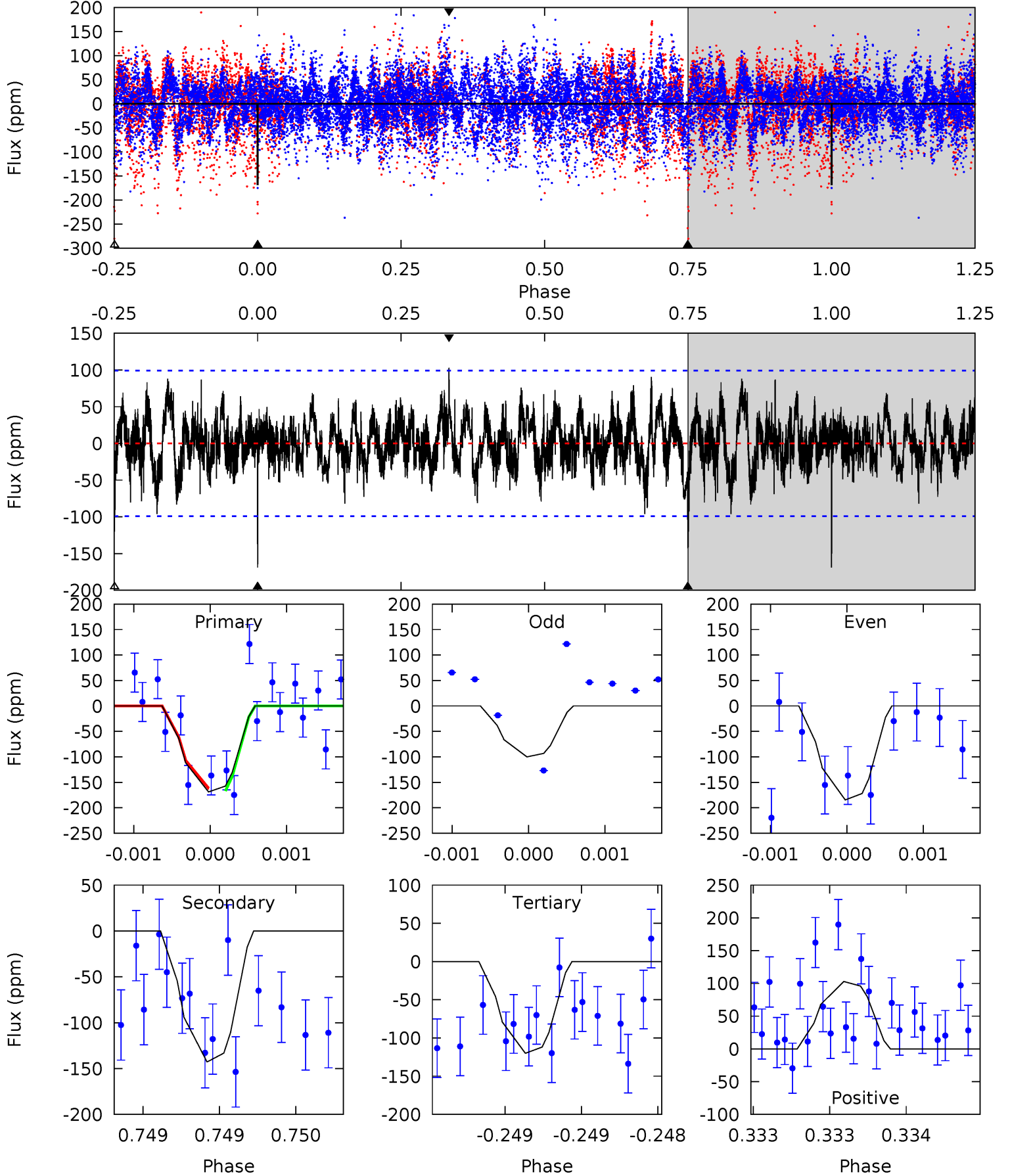
TCE 007800227-01 P=114.858983 Days $T_0=217.416848$ (BKJD)



DV Model-Shift Uniqueness Test

007800227-01, P = 114.859248 Days, E = 102.559008 Days

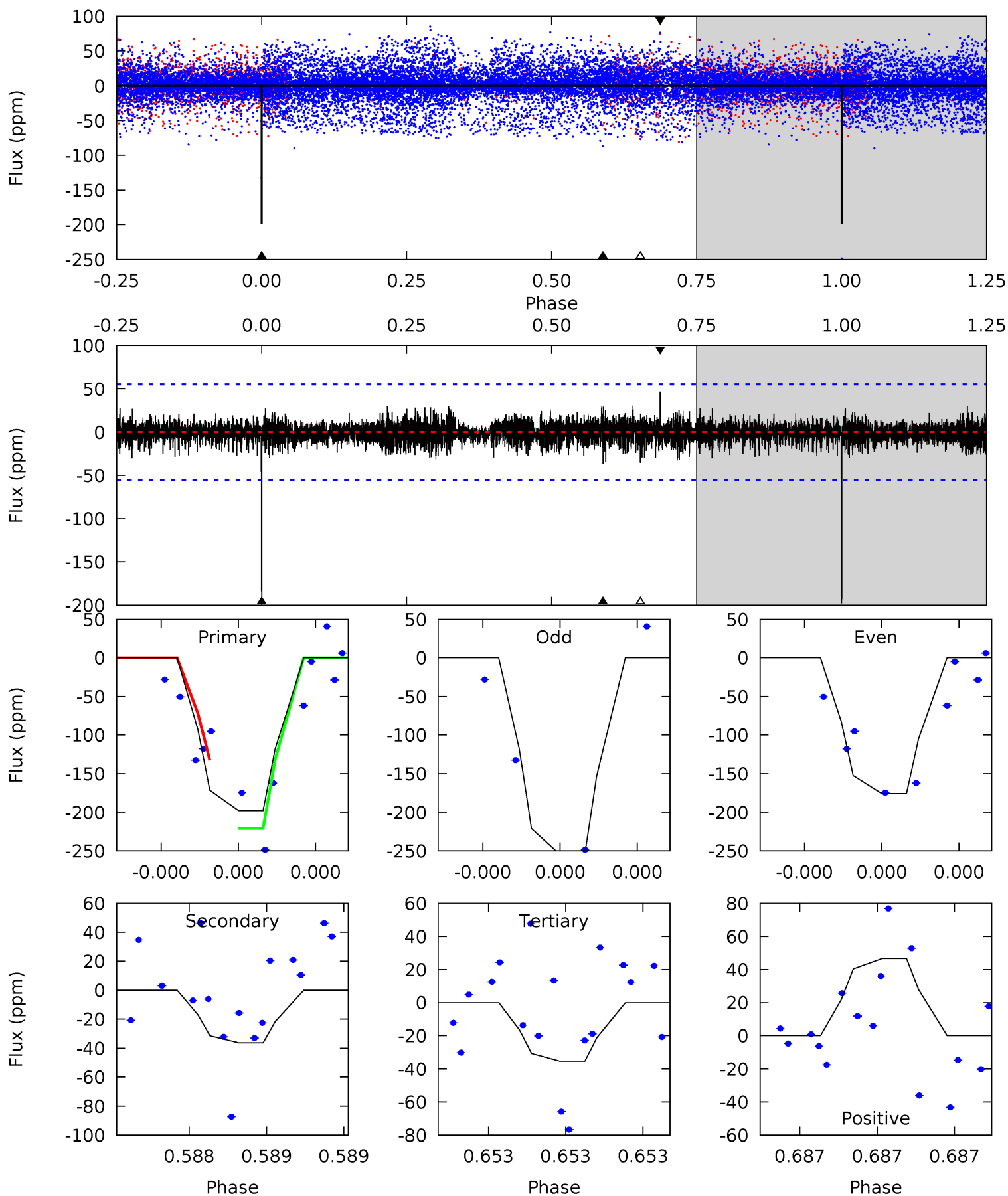
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.44	7.99	6.72	5.76	5.55	3.44	1.56	2.73	3.69	1.28	2.23	2.10	1.43	0.38	0.15



Alt Model-Shift Uniqueness Test

007800227-01, P = 114.858983 Days, E = 102.557865 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	3.68	3.59	4.73	5.60	3.53	0.87	16.5	15.3	0.08	-1.06	4.36	0.99	0.19	4.53



Stellar Parameters For KIC 007800227

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 007800227-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-143 ± 18	$2.73^{+2.34}_{-1.89}$	523^{+25}_{-24}	4266^{+2873}_{-858}	2344^{+20053}_{-1716}
Alt.	-36 ± 10	$2.96^{+2.75}_{-2.04}$	524^{+26}_{-24}	3259^{+1552}_{-525}	458^{+4223}_{-329}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

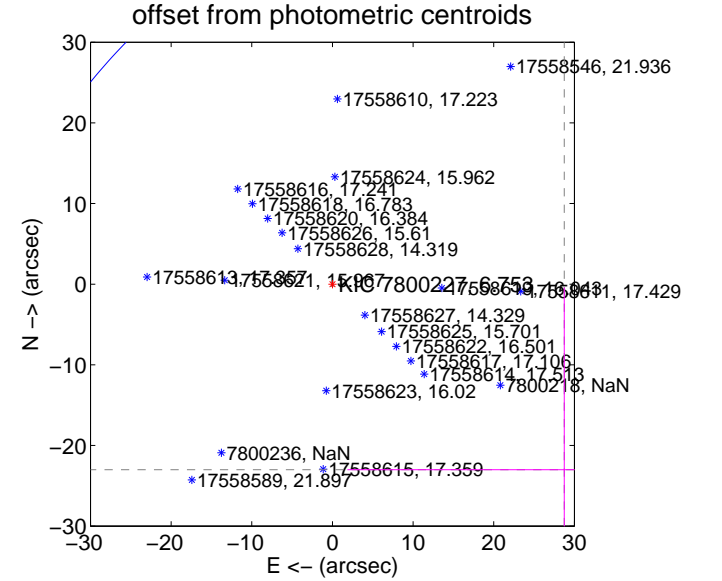
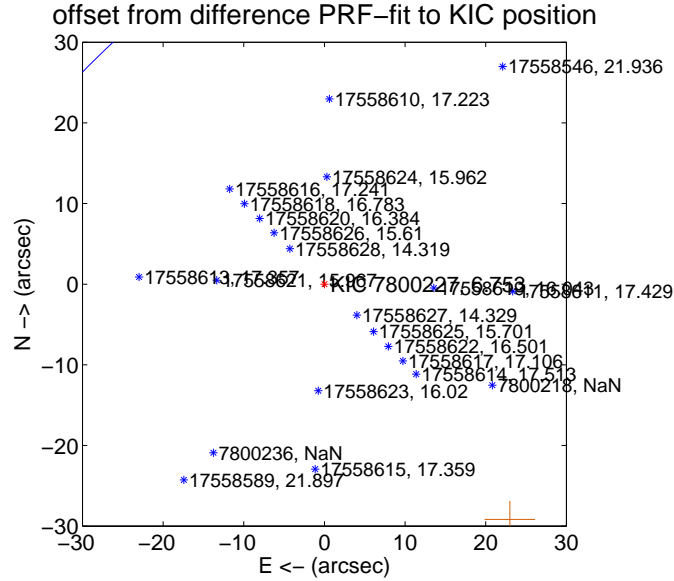
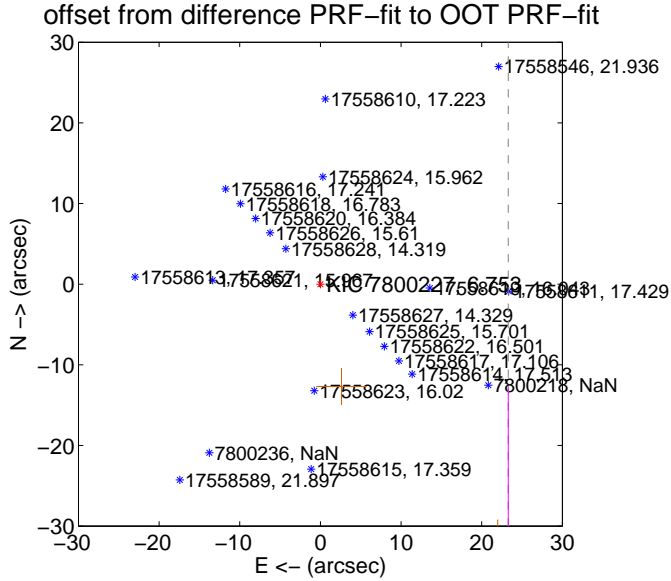
DV Centroid Data

Supplemental centroid analysis for 007800227-01. **Kepler magnitude: 6.75.** Transit SNR 11.67

There are 0 quarters with good PRF difference image offsets

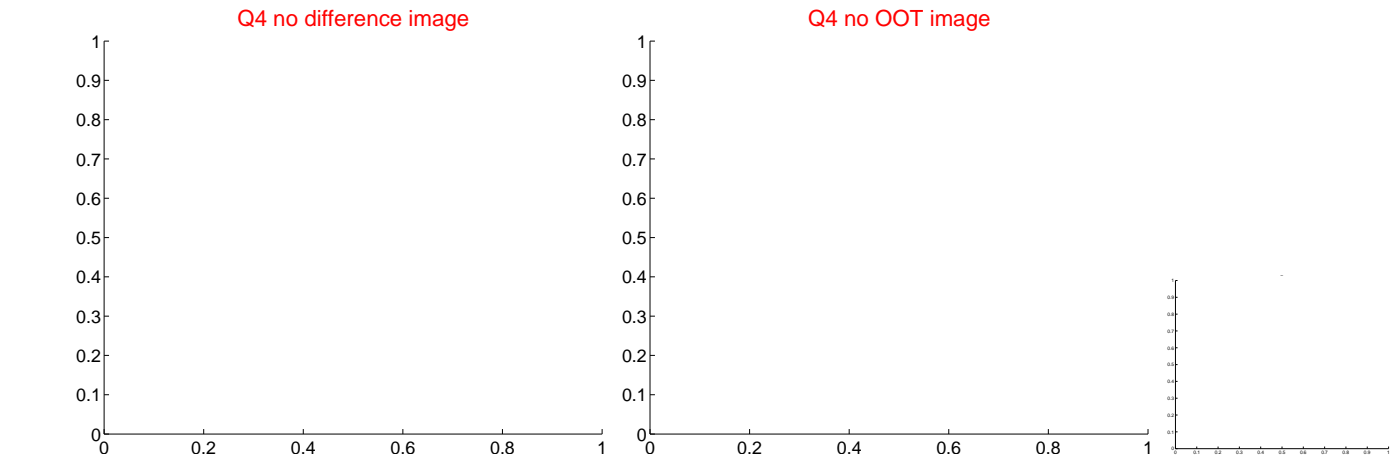
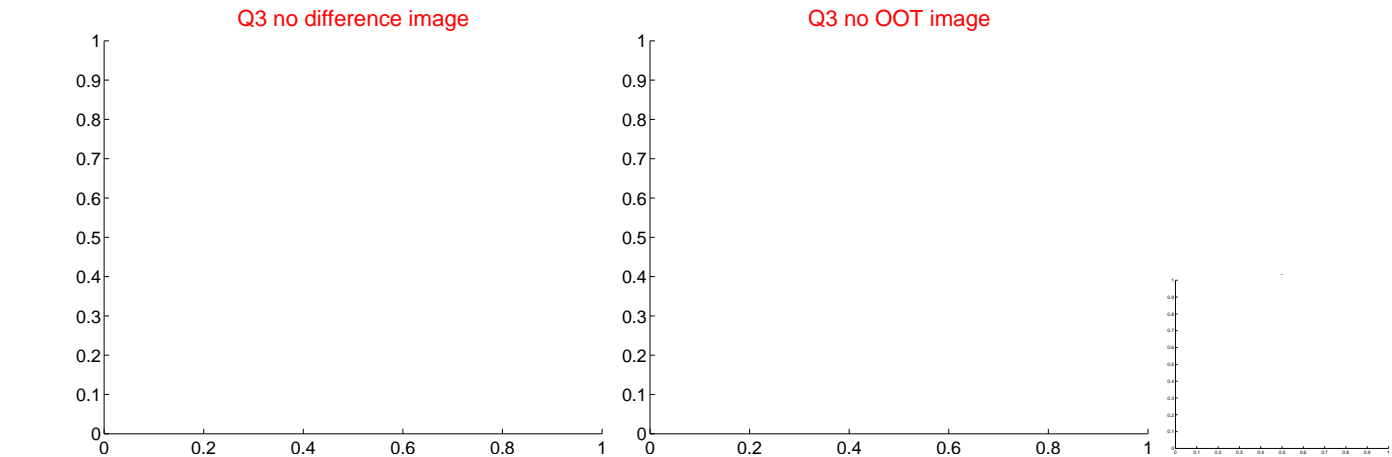
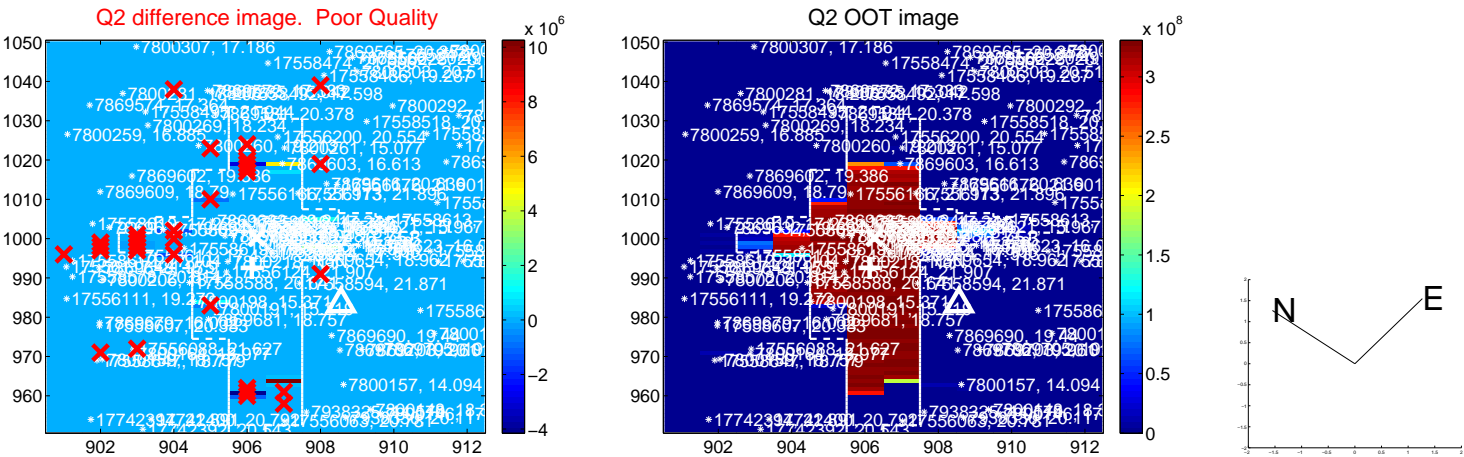
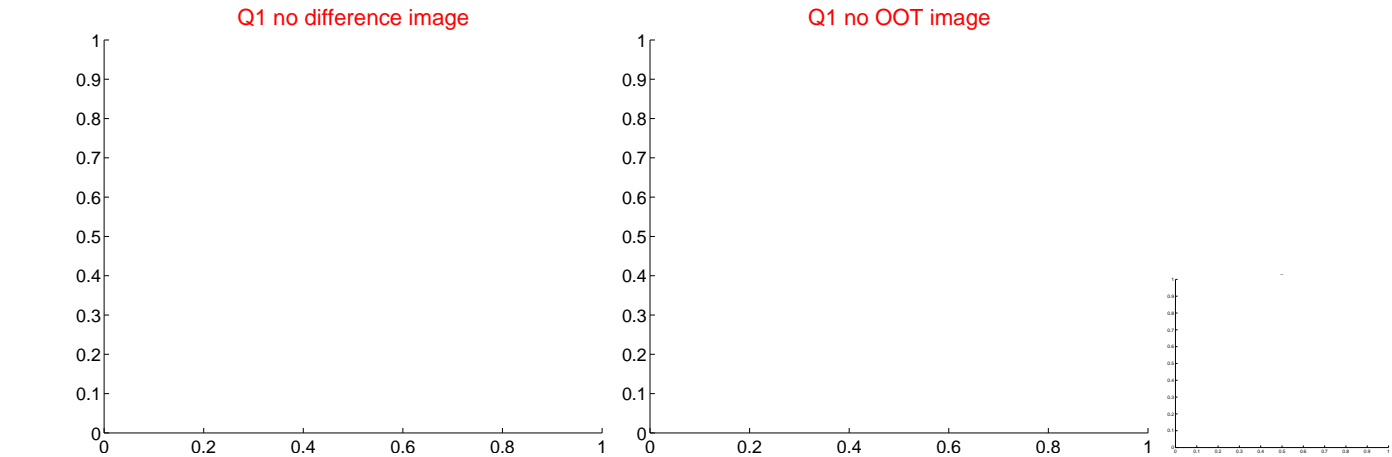
The OOT PRF centroid is offset from the target star catalog position by about 26.21 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	38.902 ± 29.603	1.31	-23.297 ± 24.977	-31.156 ± 18.291
PRF-fit source offset from KIC position	69.204 ± 36.336	1.90	-48.177 ± 29.711	-49.681 ± 21.810
photometric centroid source offset	36.83 ± 25.30	1.46	-28.75 ± 26.90	-23.01 ± 22.59

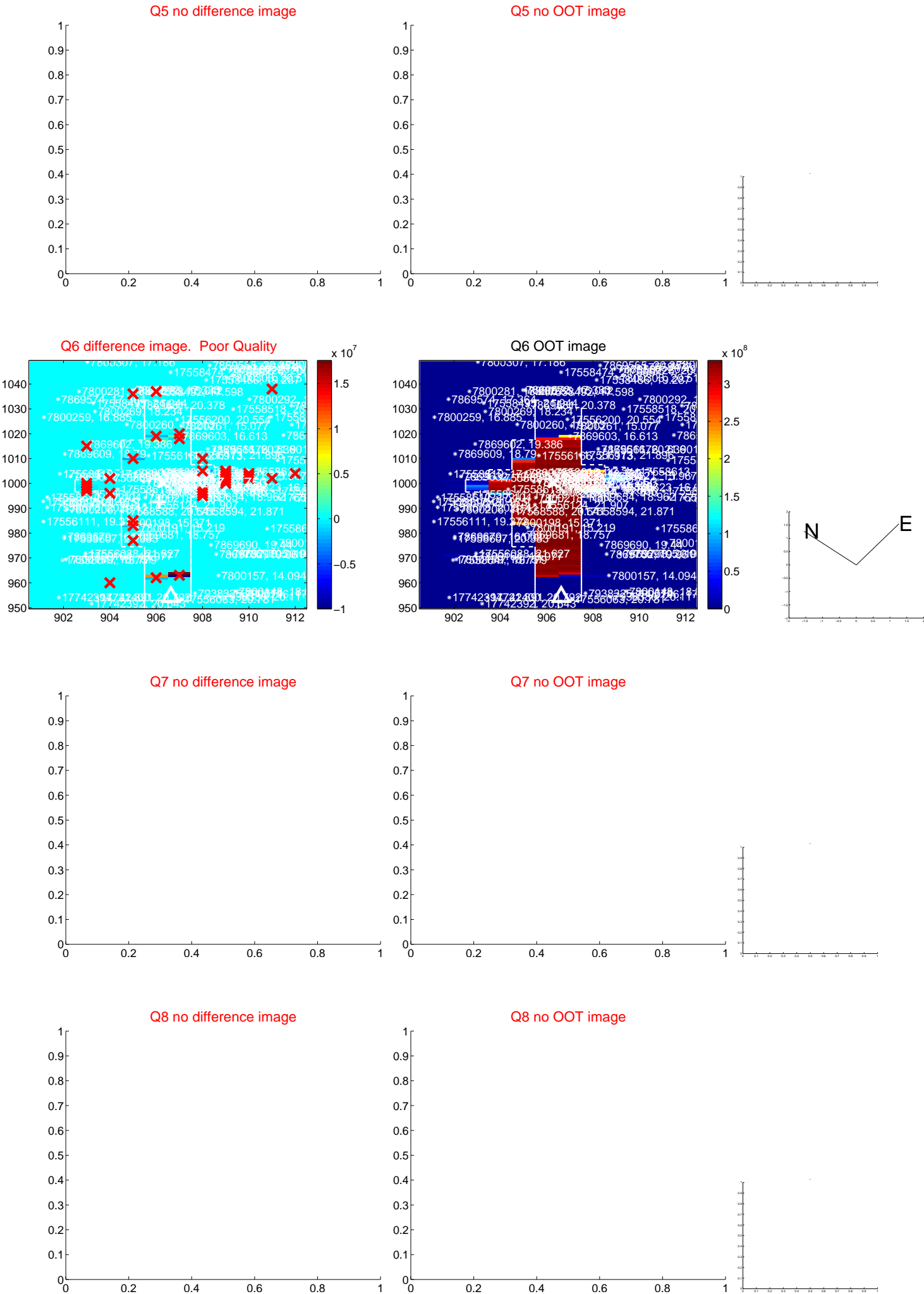


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



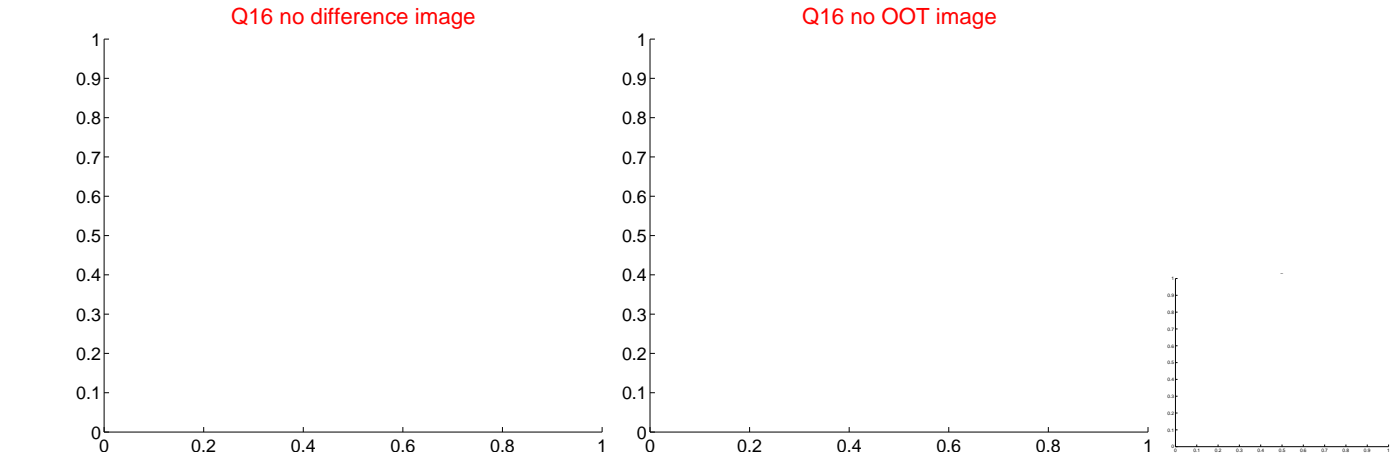
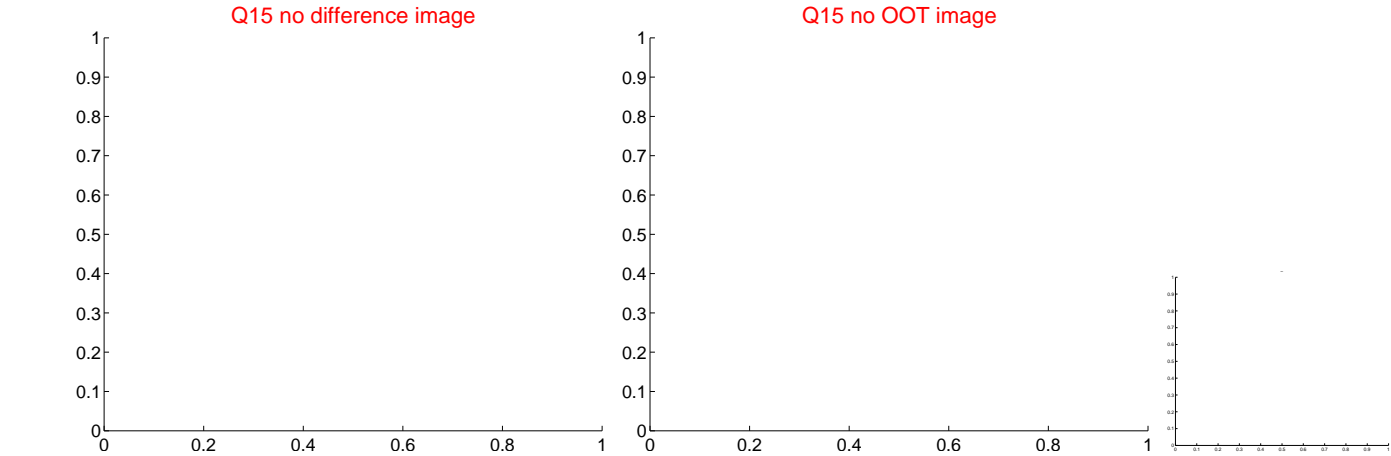
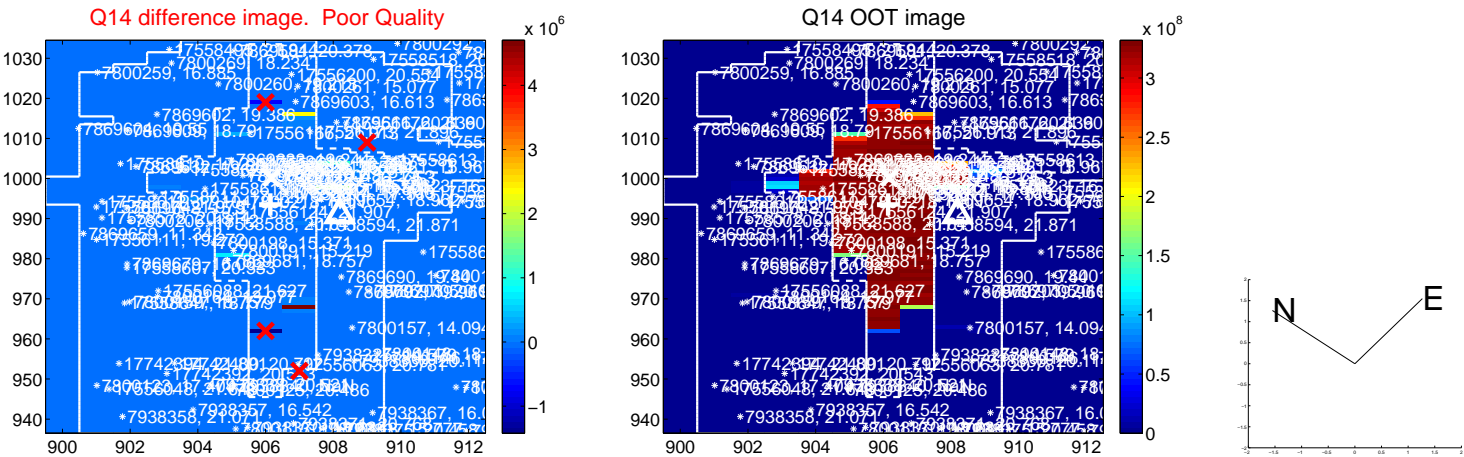
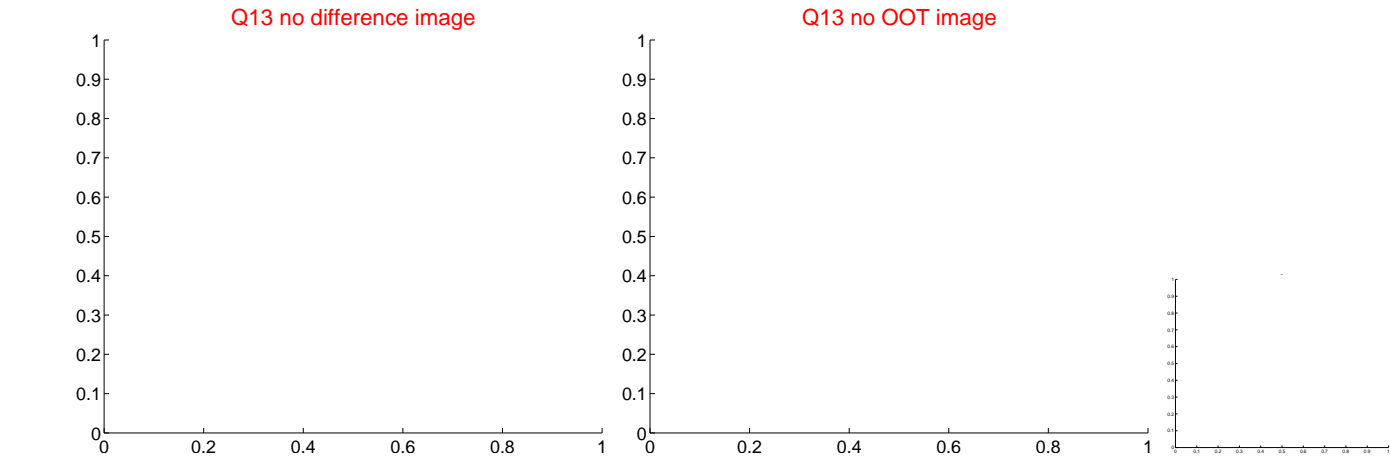
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



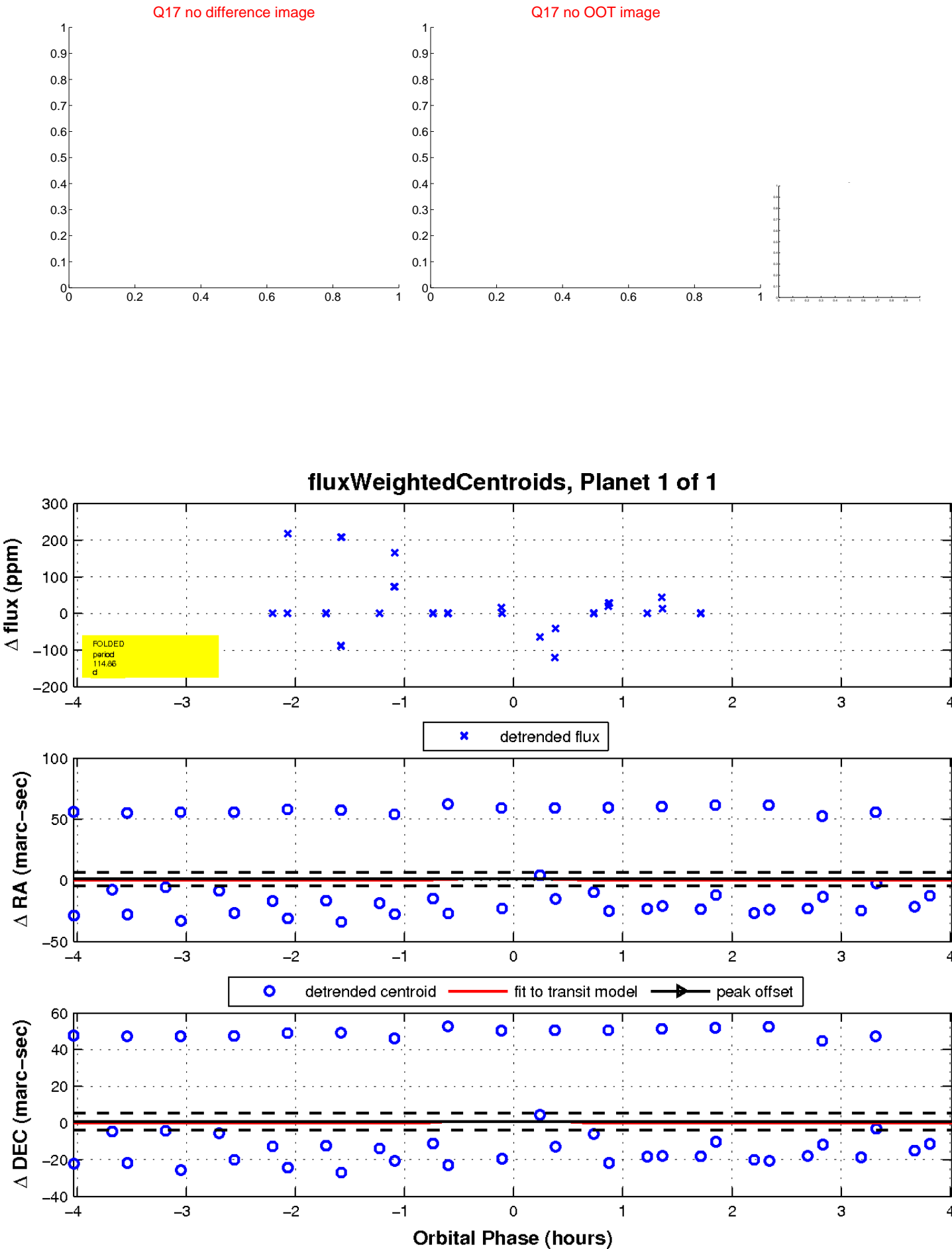
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

