

KIC 005177104

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})
005177104-01	OBS	1603.01	3.021685	133.470834	163.5	2.955	27.3	28.8	0.99	6201	1.49	745.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005177104-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

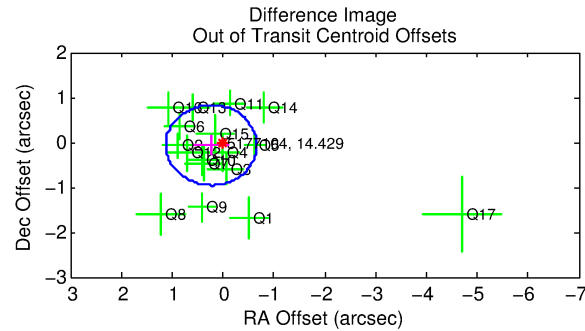
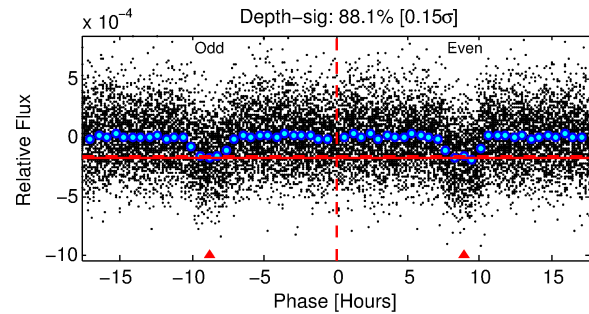
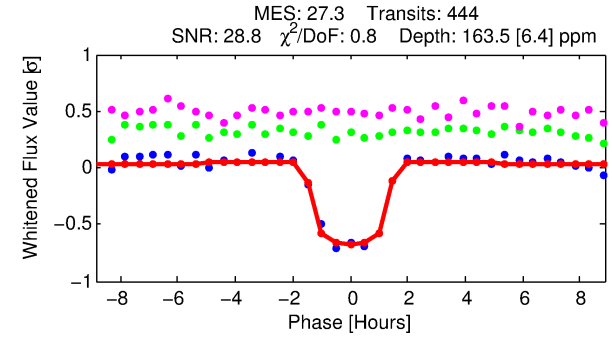
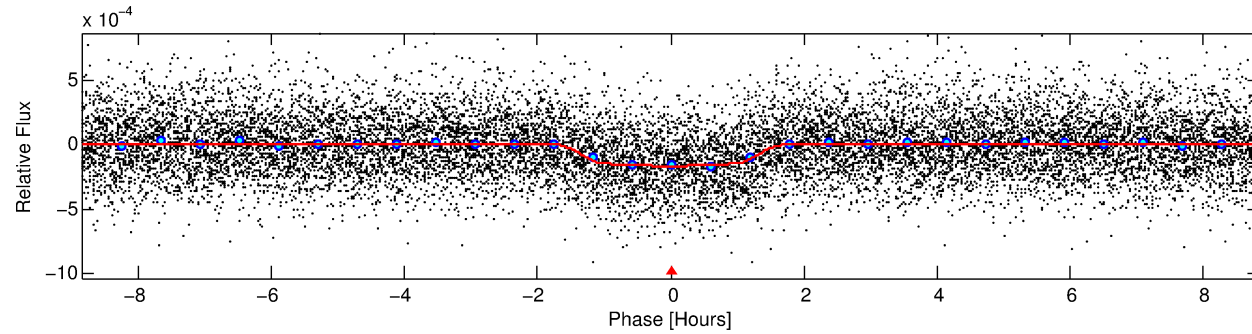
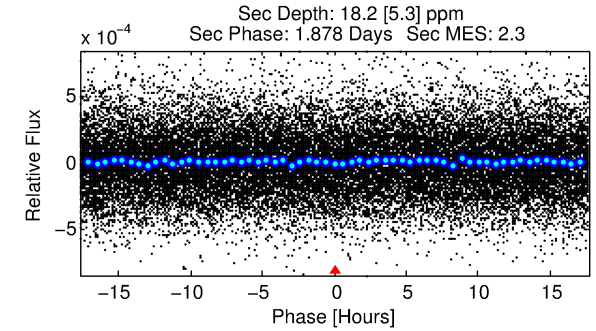
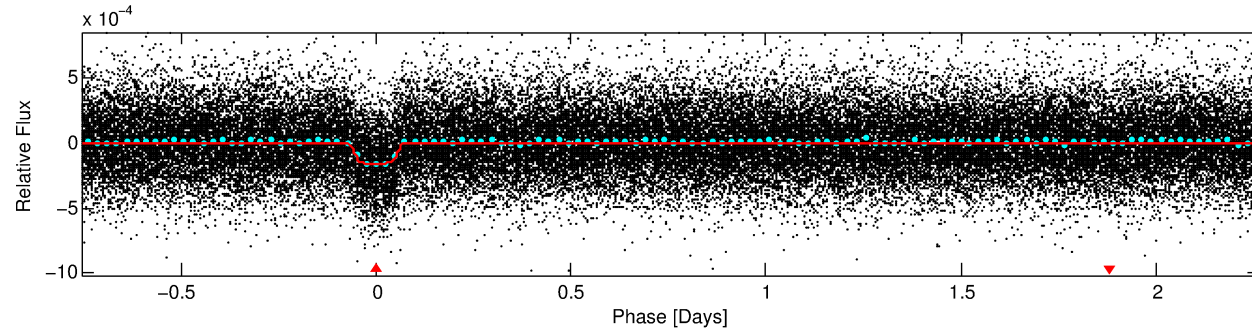
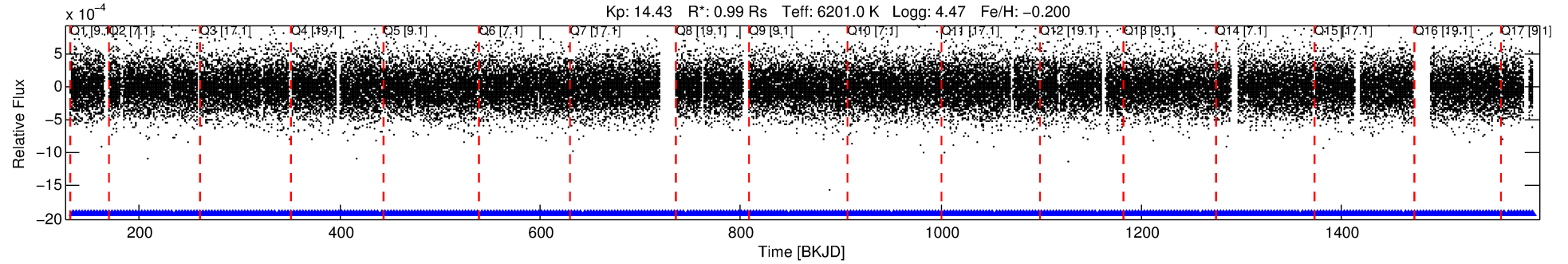
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005177104-01

No Significant Match Found

DV One-Page Summary

KIC: 5177104 Candidate: 1 of 1 Period: 3.022 d
KOI: K01603.01 Corr: 0.965



DV Fit Results:

Period = 3.02169 [0.00001] d
Epoch = 133.4708 [0.0015] BKJD
Rp/R* = 0.0138 [0.0024]
a/R* = 3.74 [3.29]
b = 0.90 [0.20]
Seff = 745.66 [289.17]
Teq = 1332 [129] K
Rp = 1.49 [0.51] Re
a = 0.0417 [0.0104] AU
Ag = 7.86 [4.59] [1.50σ]
Teffp = 3450 [409] K [4.93σ]

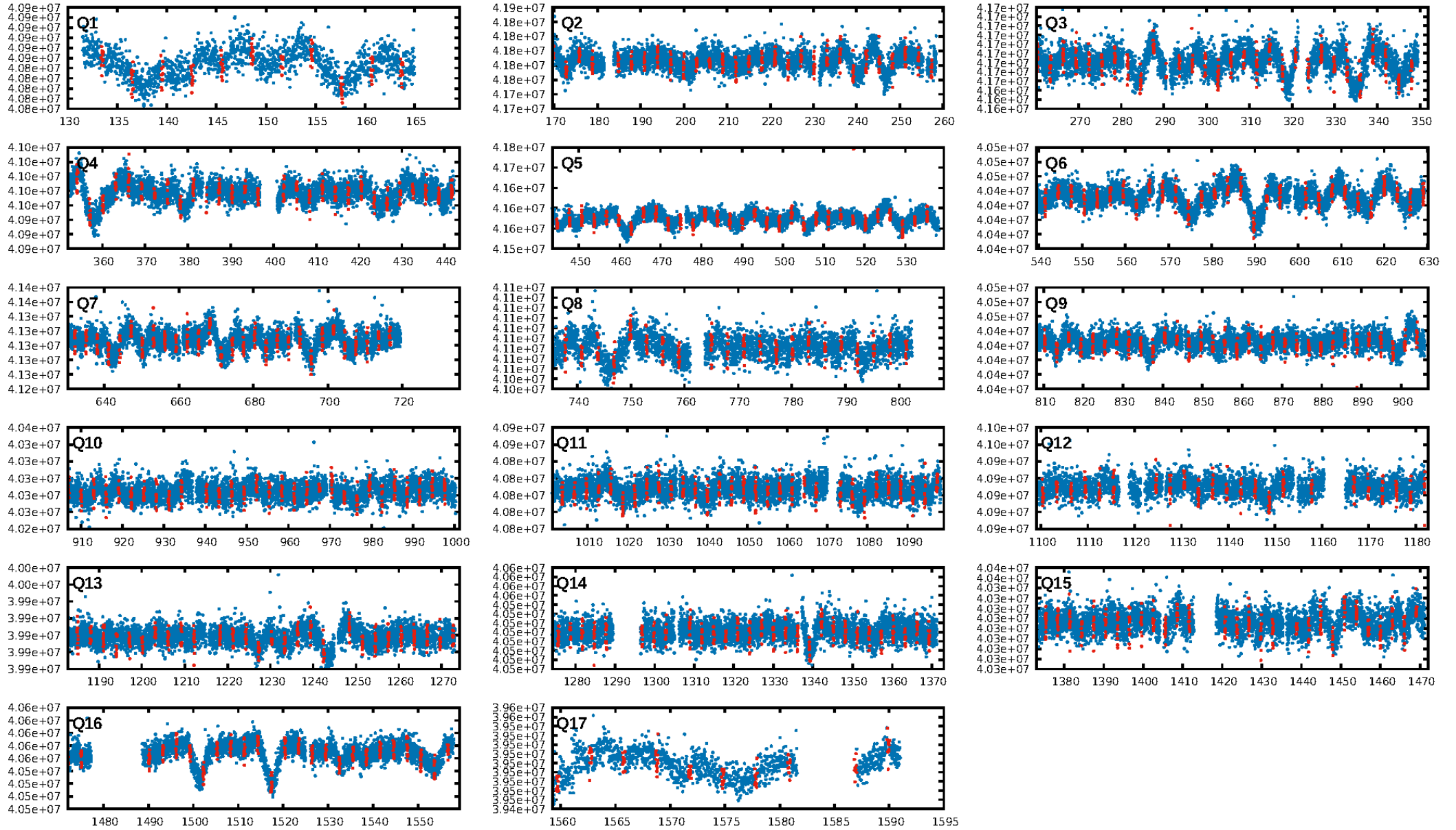
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.55e-160
RollingBand-fgt: 1.00 [423/423]
GhostDiagnostic-chr: 2.755
Centroid-sig: N/A
Centroid-so: 0.490 arcsec [1.19σ]
OotOffset-rm: 0.239 arcsec [0.81σ]
KicOffset-rm: 0.188 arcsec [0.78σ]
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]

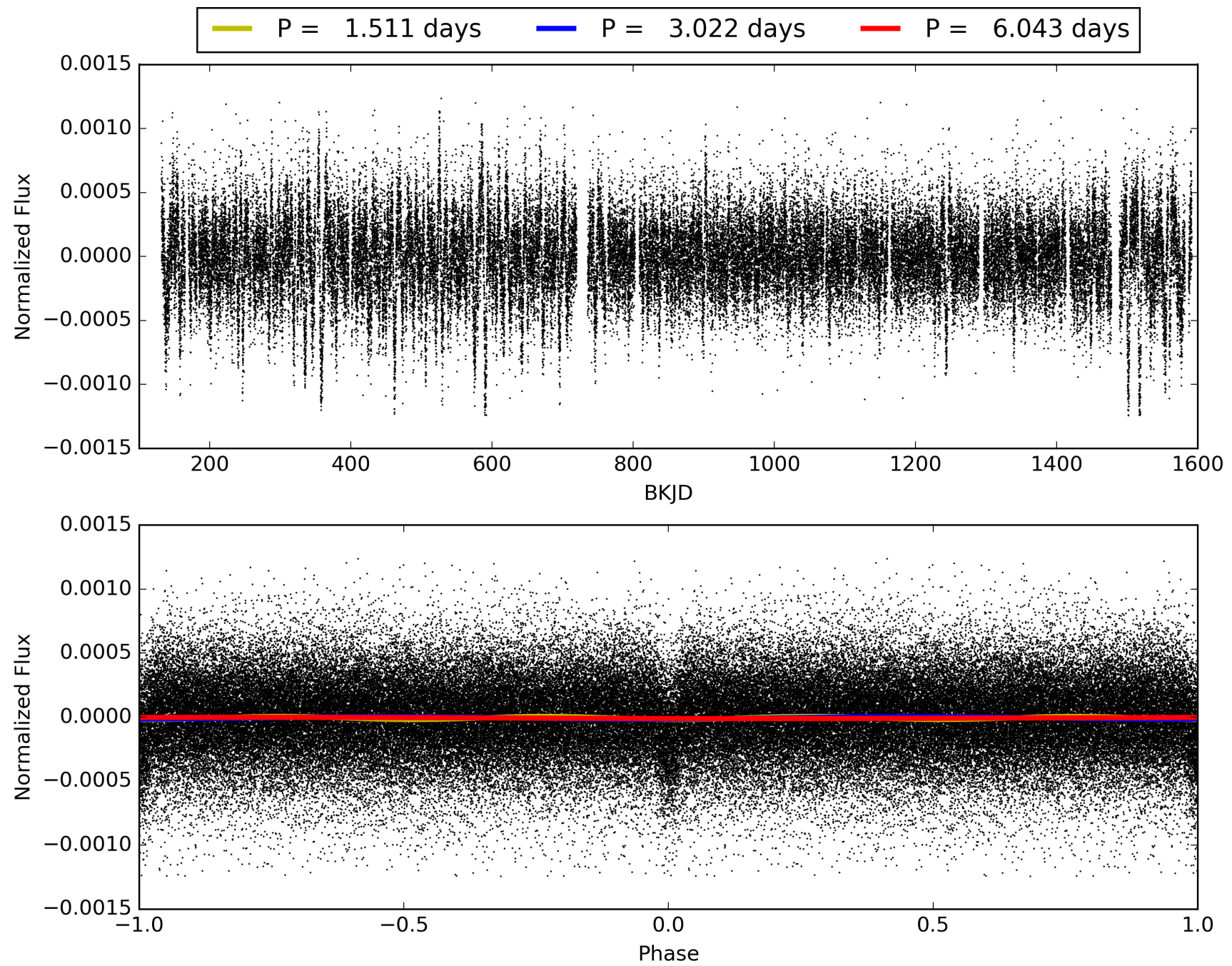
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:37:15 Z

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

TCE 005177104-01, PDC Light Curves

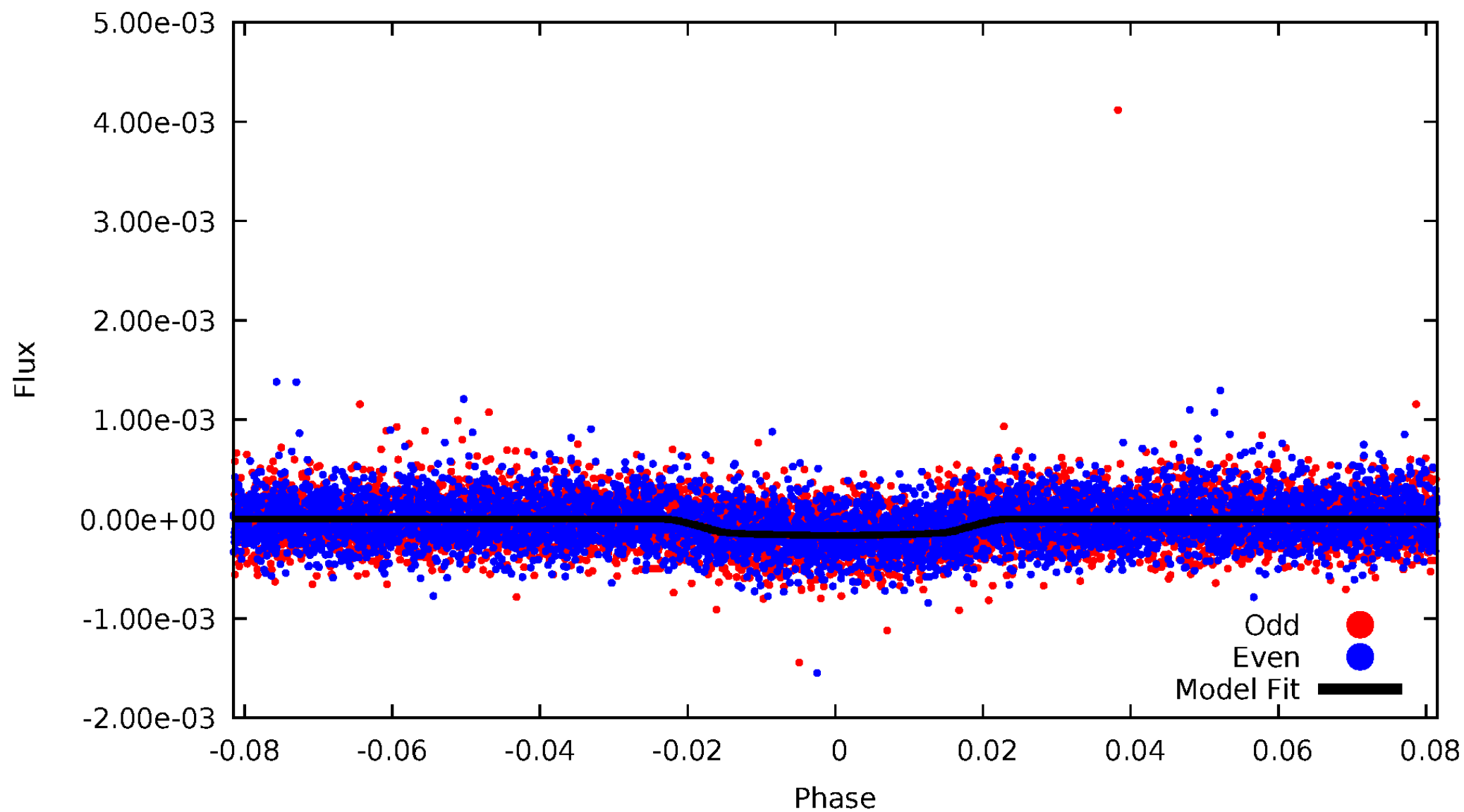


TCE 005177104-01



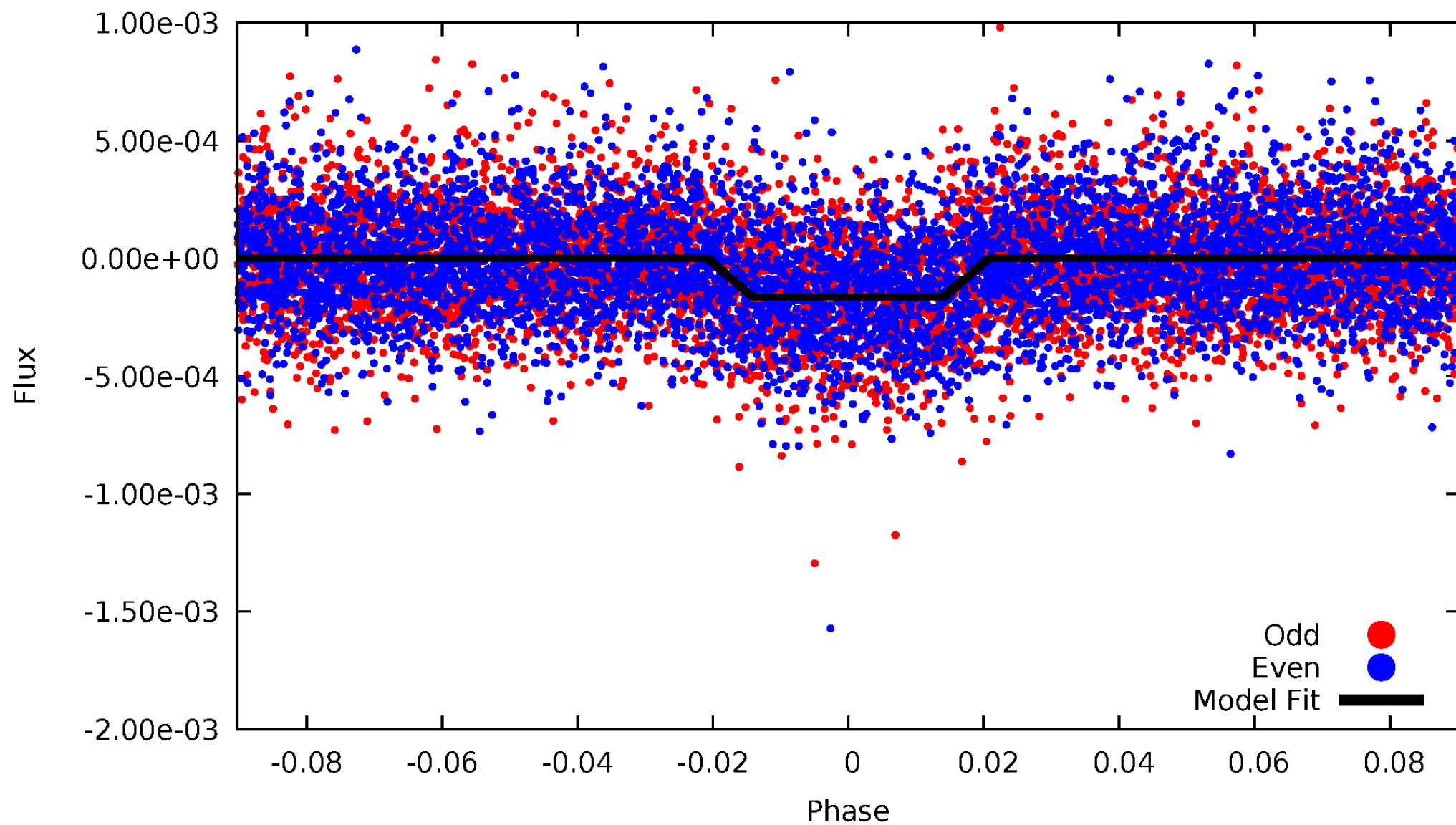
DV Odd/Even

TCE 005177104-01

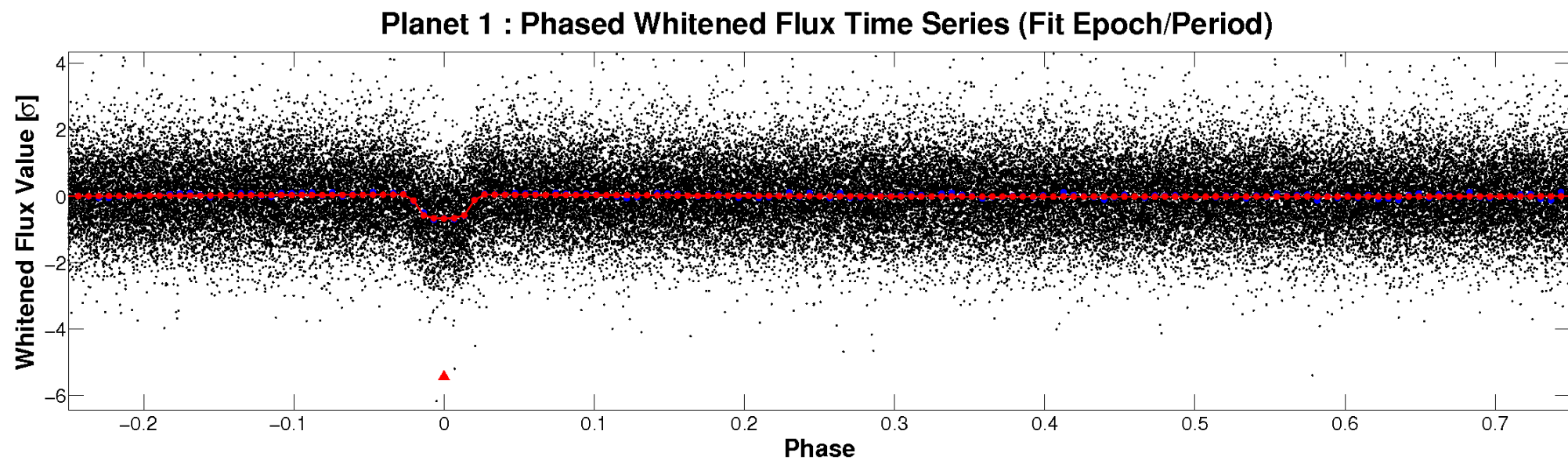
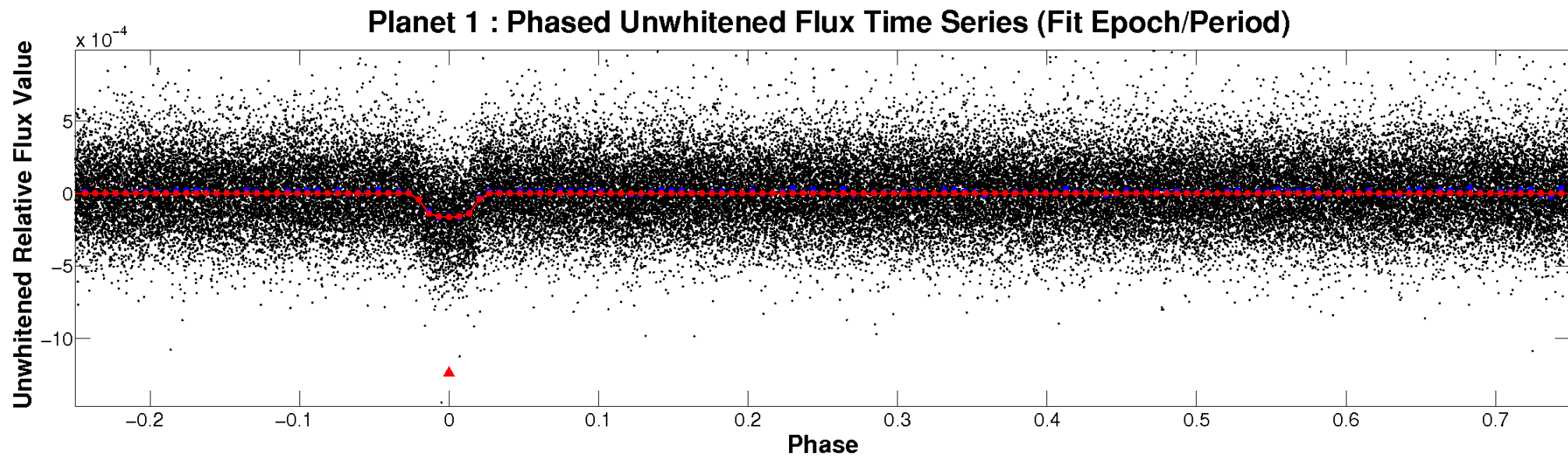


ALT Odd/Even

TCE 005177104-01

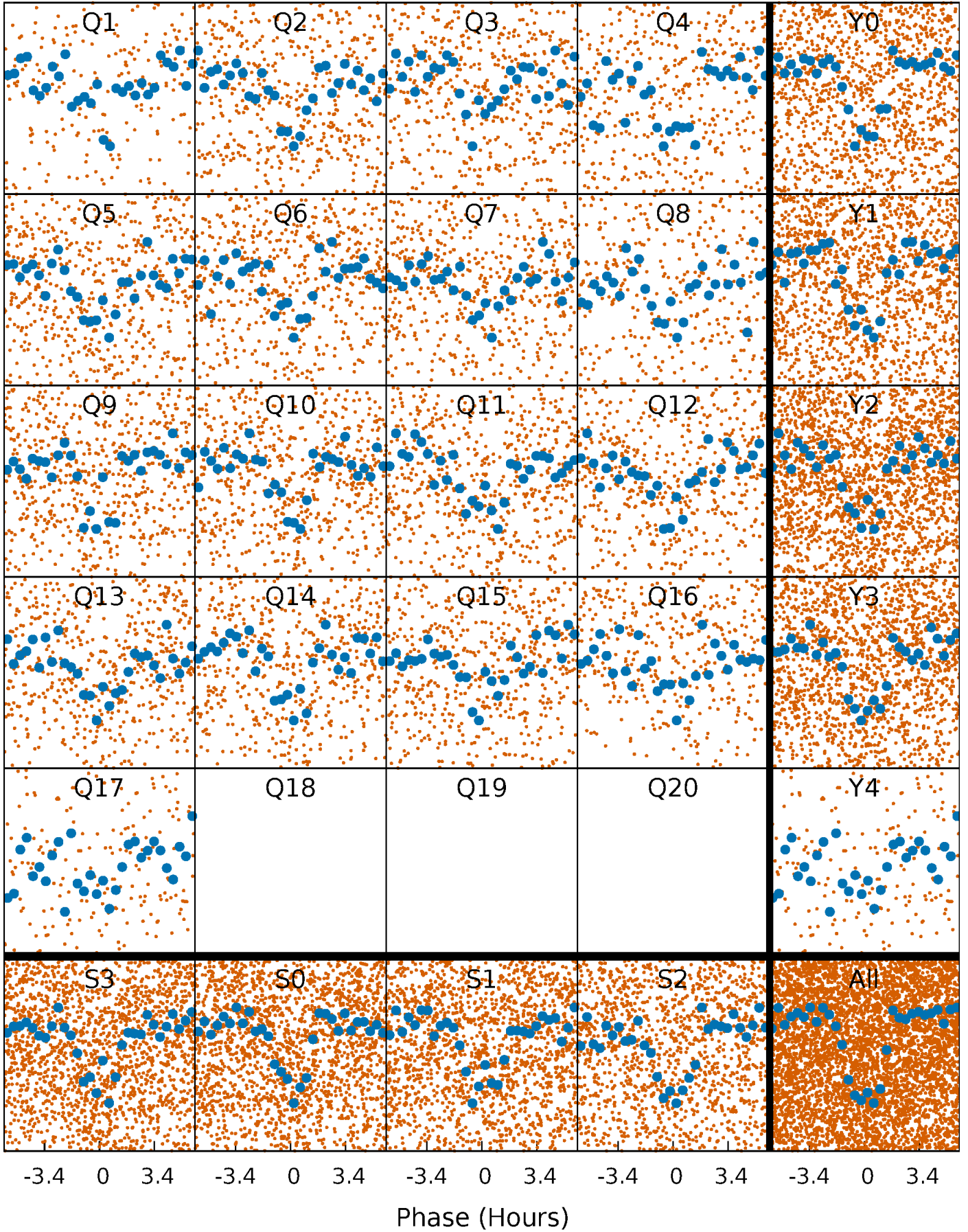


Non-Whitened Vs. Whitened Light Curve



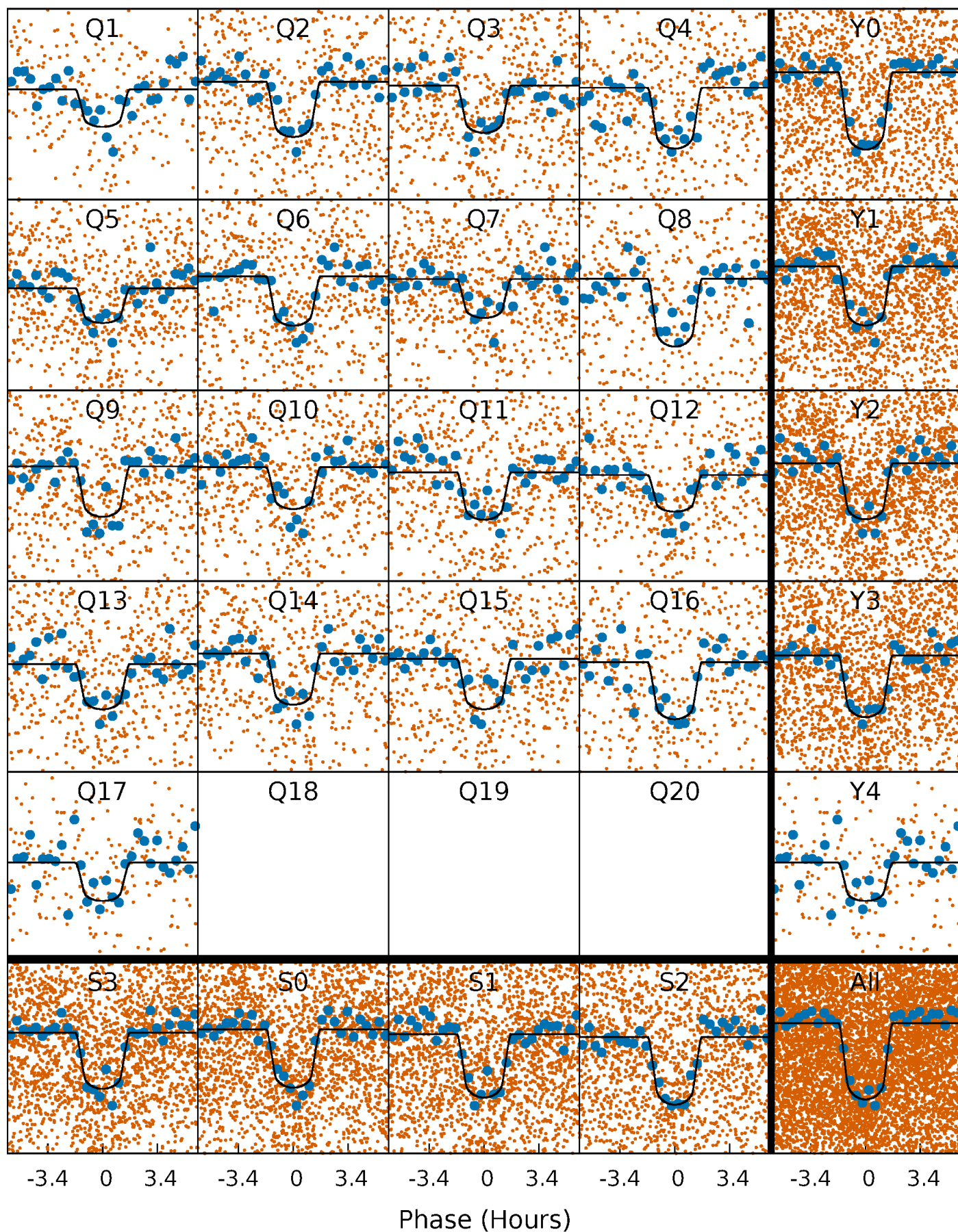
PDC Quarter-Phased Transit Curves

TCE 005177104-01 P= 3.021685 Days $T_0=133.470833$ (BKJD)



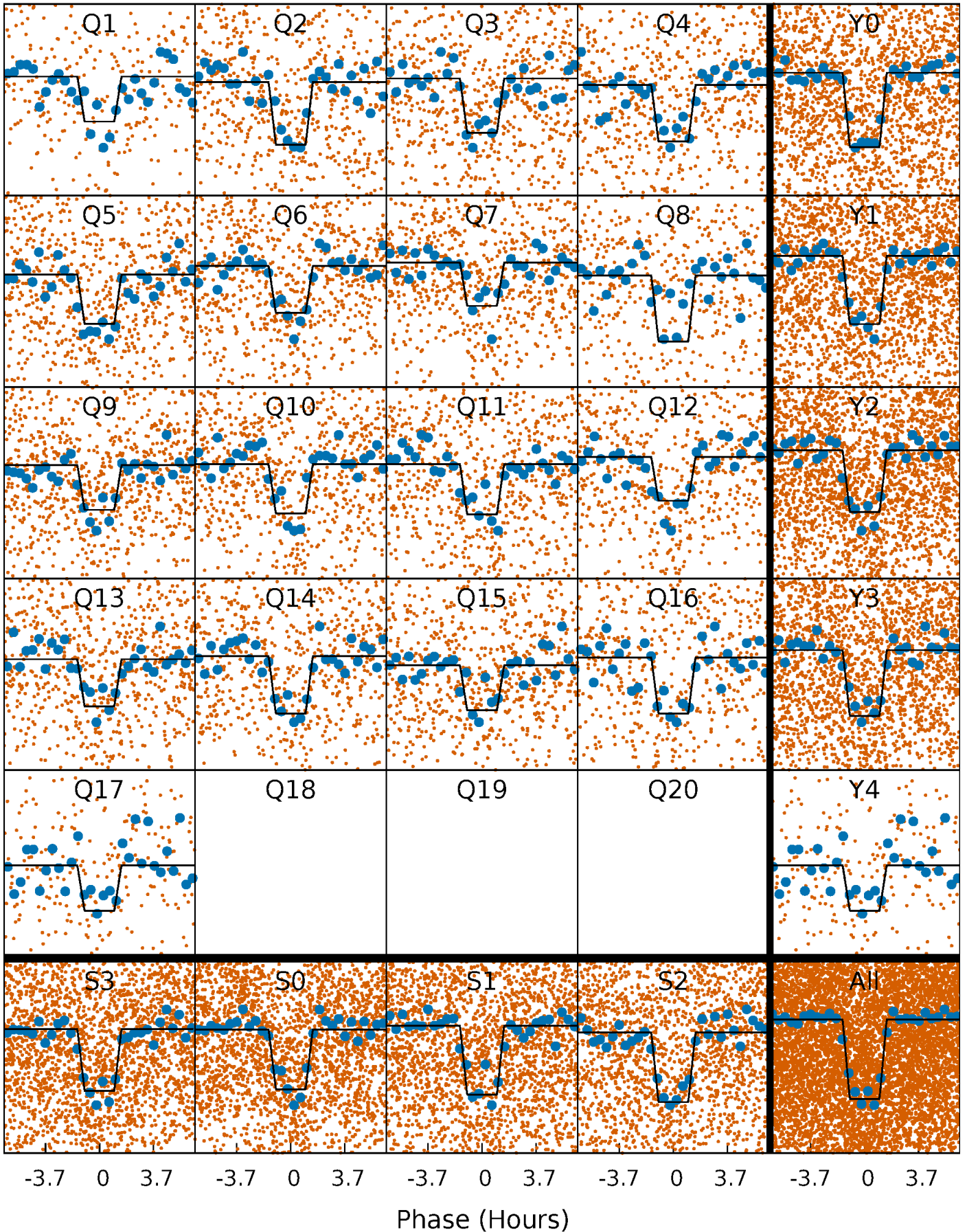
DV Quarter-Phased Transit Curves

TCE 005177104-01 P= 3.021685 Days $T_0=133.470833$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

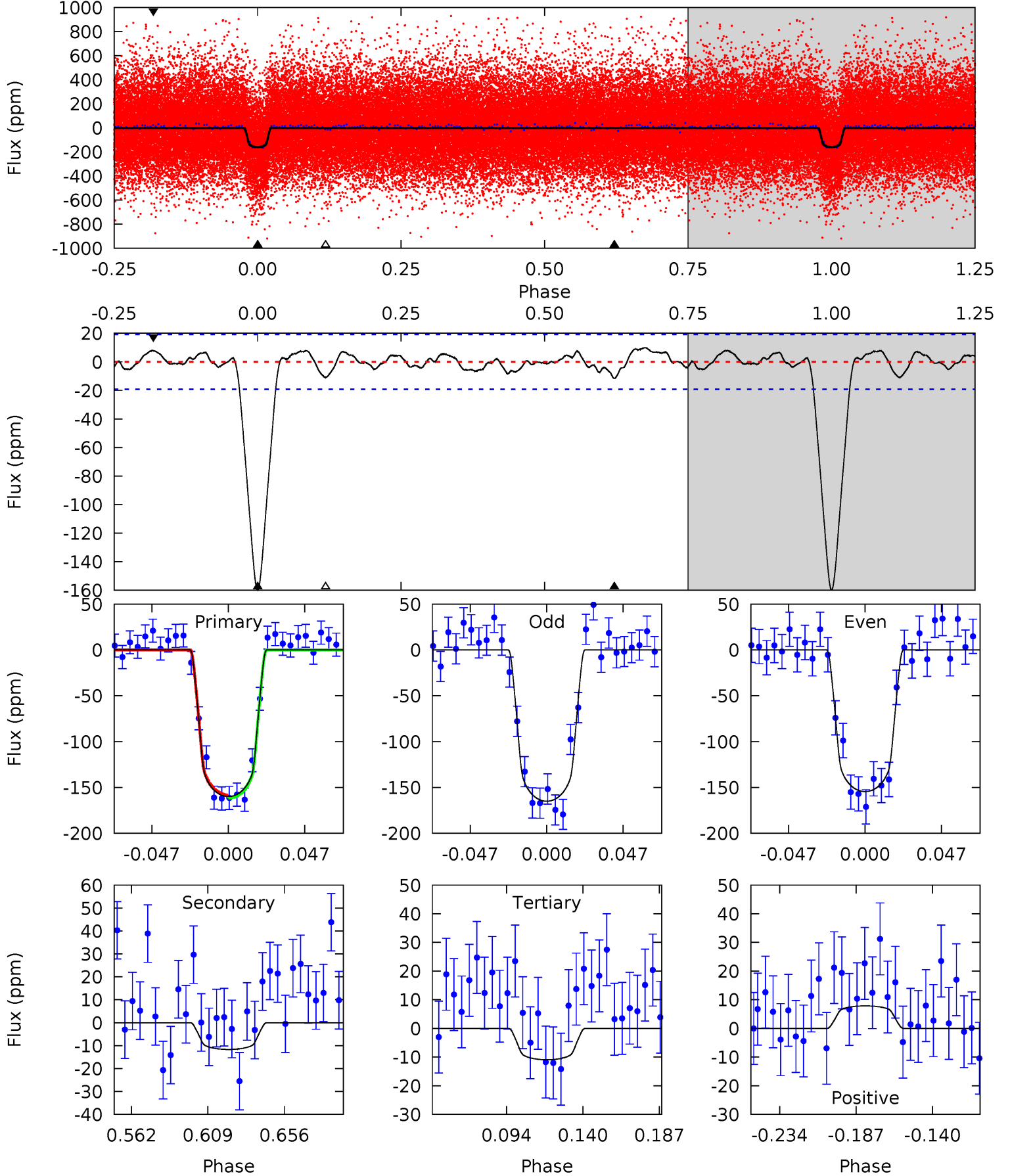
TCE 005177104-01 P= 3.021682 Days $T_0=133.472254$ (BKJD)



DV Model-Shift Uniqueness Test

005177104-01, P = 3.021685 Days, E = 130.449148 Days

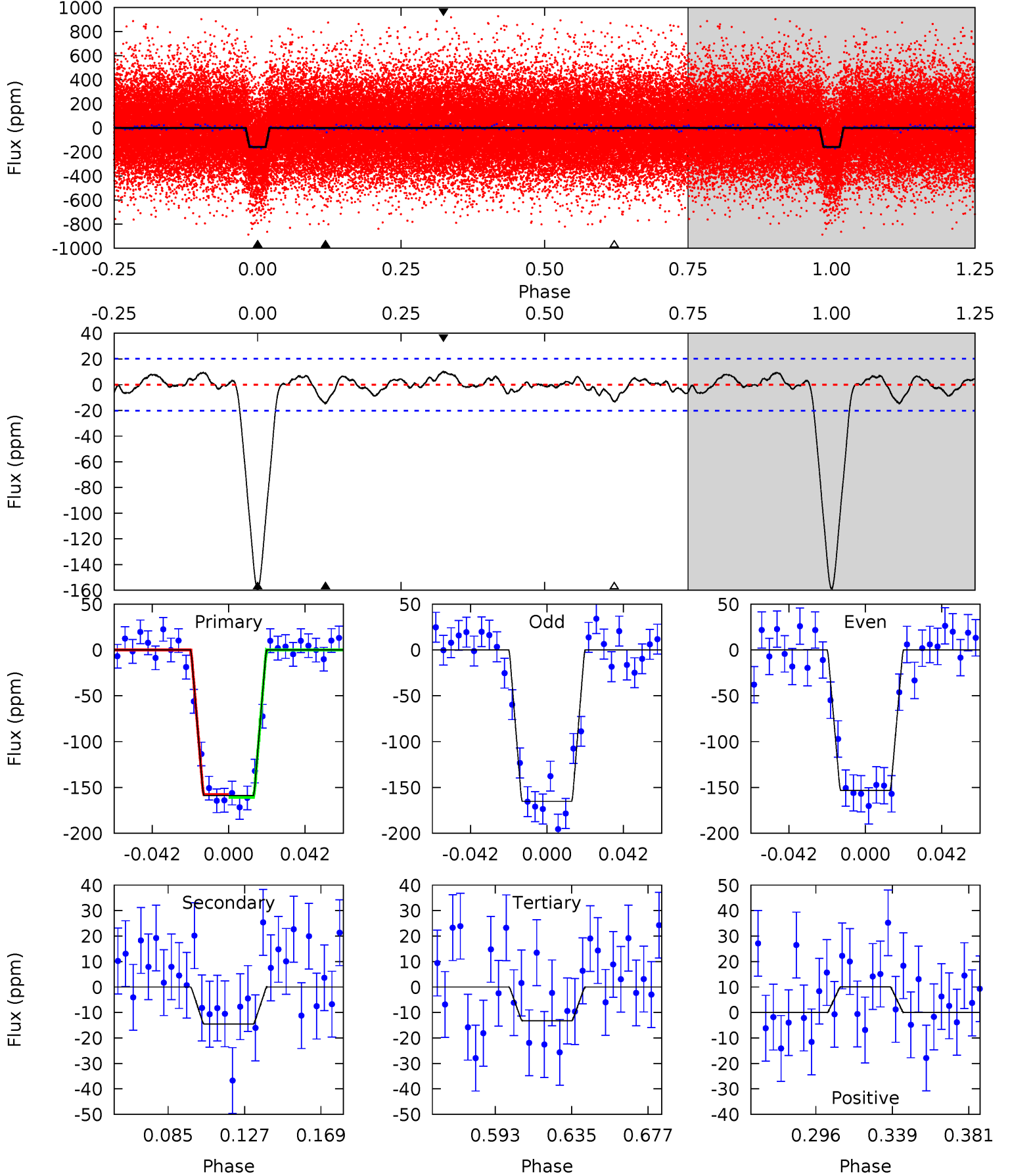
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.2	2.86	2.68	1.93	4.72	1.99	1.08	36.5	37.3	0.18	0.94	1.29	0.99	0.06	0.39



Alt Model-Shift Uniqueness Test

005177104-01, P = 3.021682 Days, E = 130.450572 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.2	3.40	3.11	2.36	4.74	2.03	1.03	34.1	34.9	0.29	1.04	1.41	1.01	0.06	0.34



Stellar Parameters For KIC 005177104

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6201^{+169}_{-206}	$4.472^{+0.050}_{-0.200}$	$-0.200^{+0.250}_{-0.300}$	$0.989^{+0.291}_{-0.097}$	$1.058^{+0.144}_{-0.129}$	$1.538^{+0.404}_{-0.769}$
	+3%/-3%	+1%/-4%	+125%/-150%	+29%/-10%	+14%/-12%	+26%/-50%
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 005177104-01 / KOI 1603.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-12 ± 4	$1.56^{+0.36}_{-0.31}$	1900^{+144}_{-84}	3503^{+311}_{-319}	$4.479^{+2.865}_{-2.101}$
Alt.	-15 ± 4	$1.42^{+0.35}_{-0.30}$	1897^{+123}_{-88}	3745^{+350}_{-327}	$6.504^{+4.675}_{-2.637}$

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

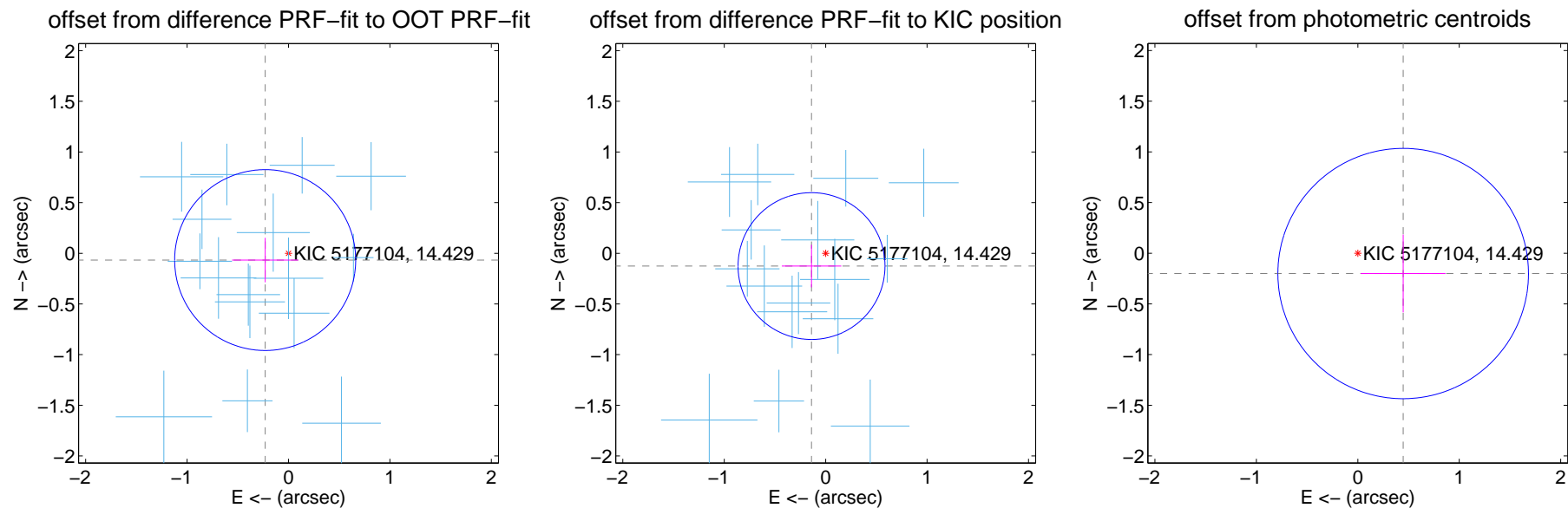
DV Centroid Data

Supplemental centroid analysis for 005177104-01. Kepler magnitude: 14.43. Transit SNR 28.85

There are 16 quarters with good PRF difference image offsets

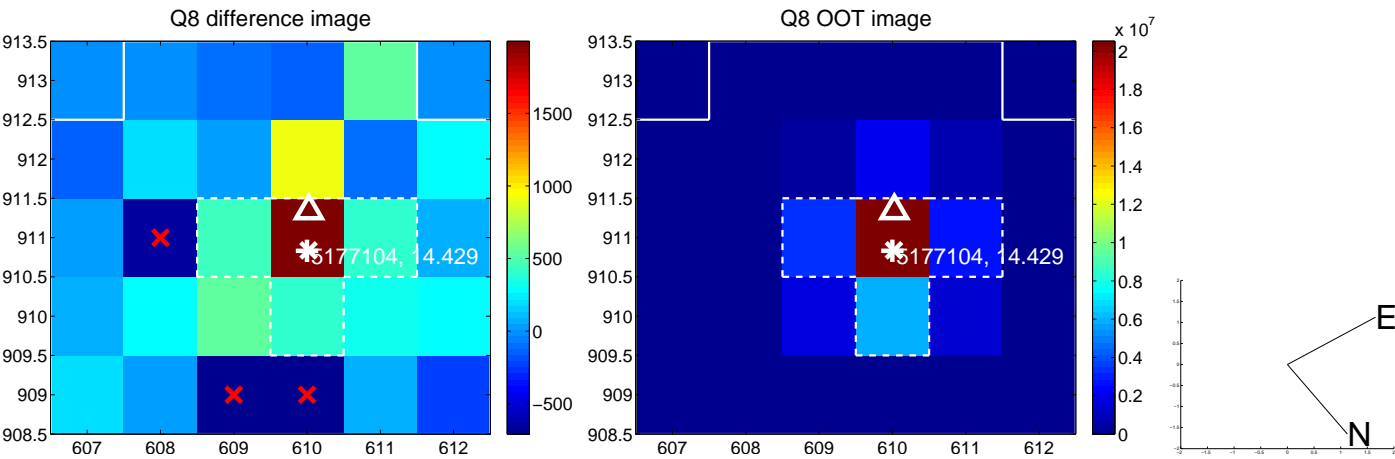
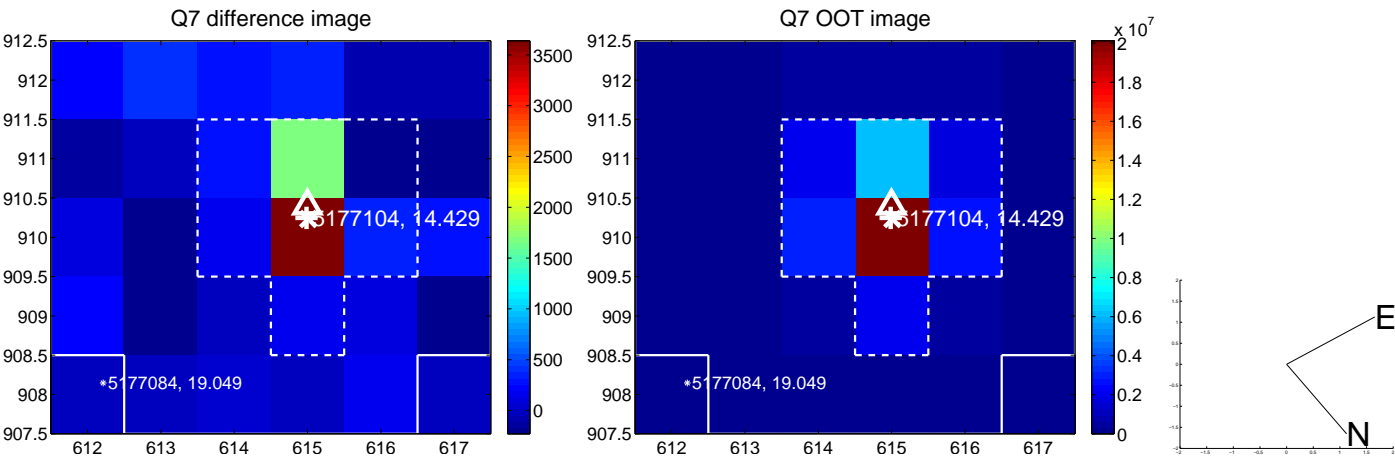
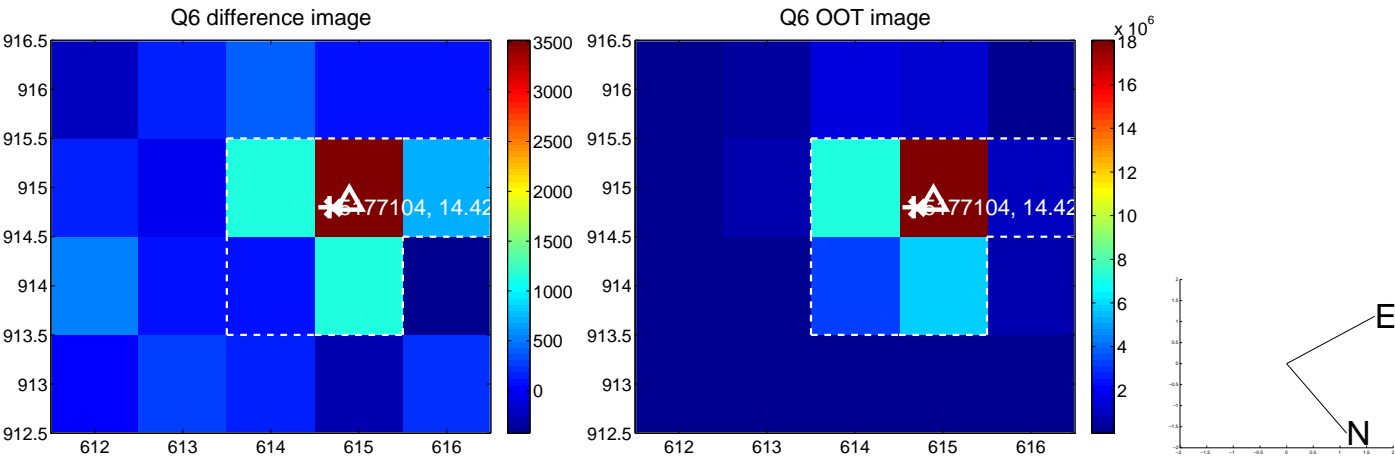
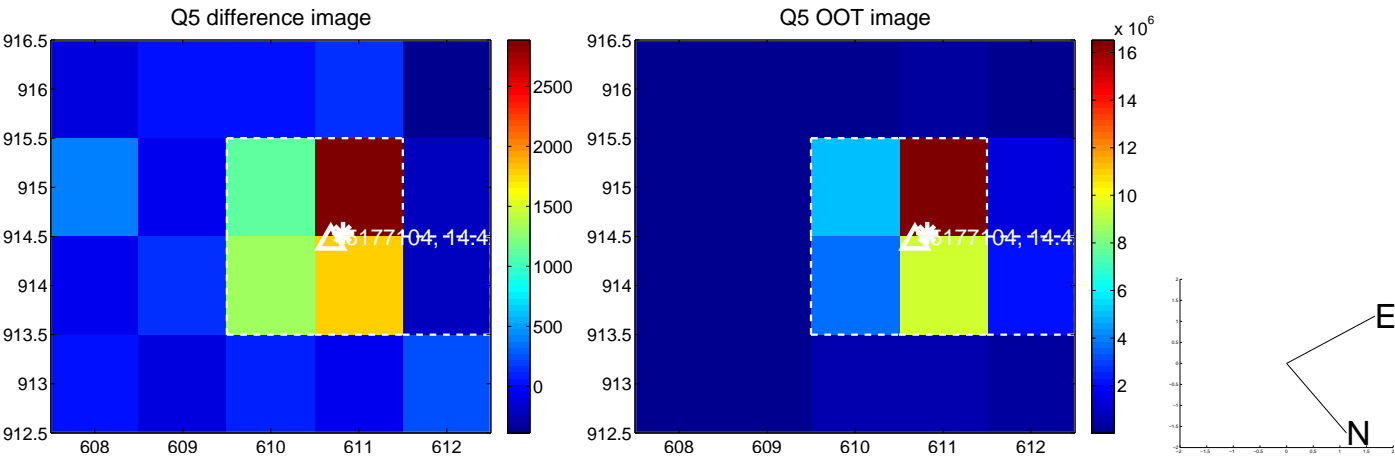
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.239 ± 0.297	0.81	0.230 ± 0.326	-0.067 ± 0.220
PRF-fit source offset from KIC position	0.188 ± 0.241	0.78	0.139 ± 0.293	-0.126 ± 0.210
photometric centroid source offset	0.49 ± 0.41	1.19	-0.45 ± 0.42	-0.20 ± 0.38

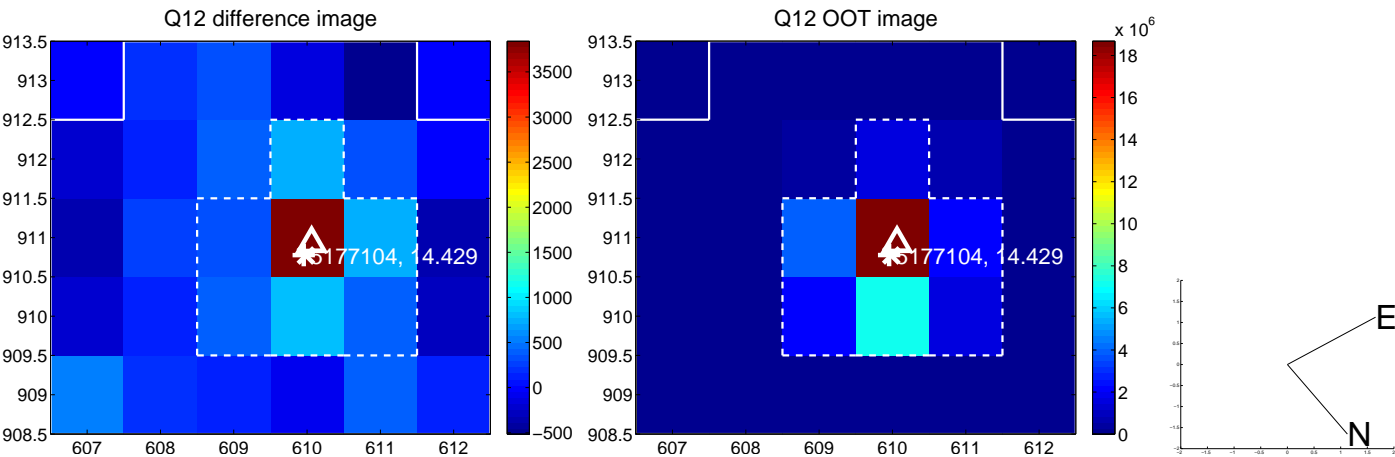
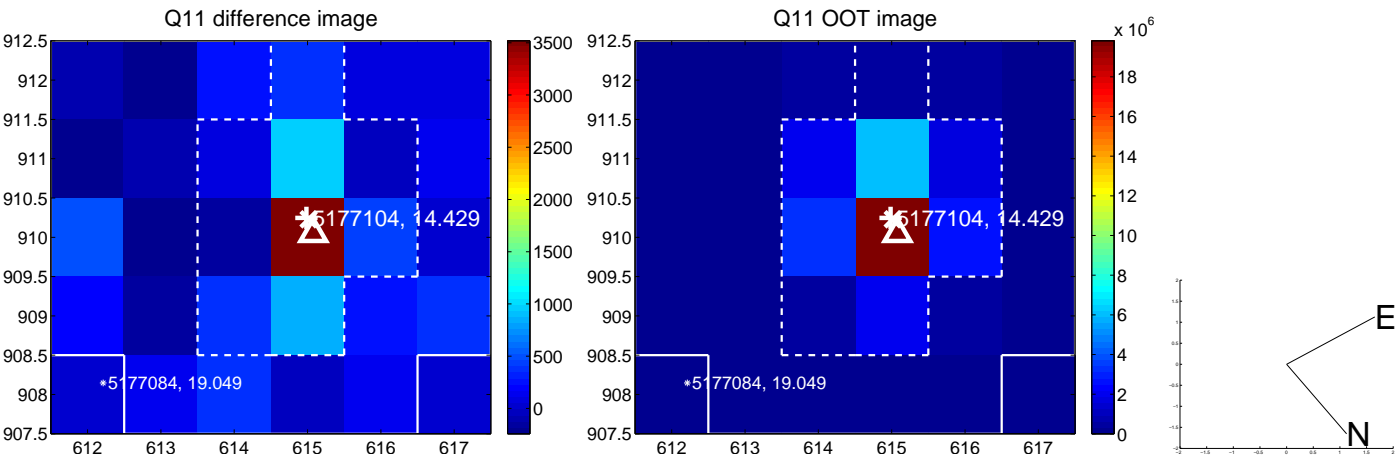
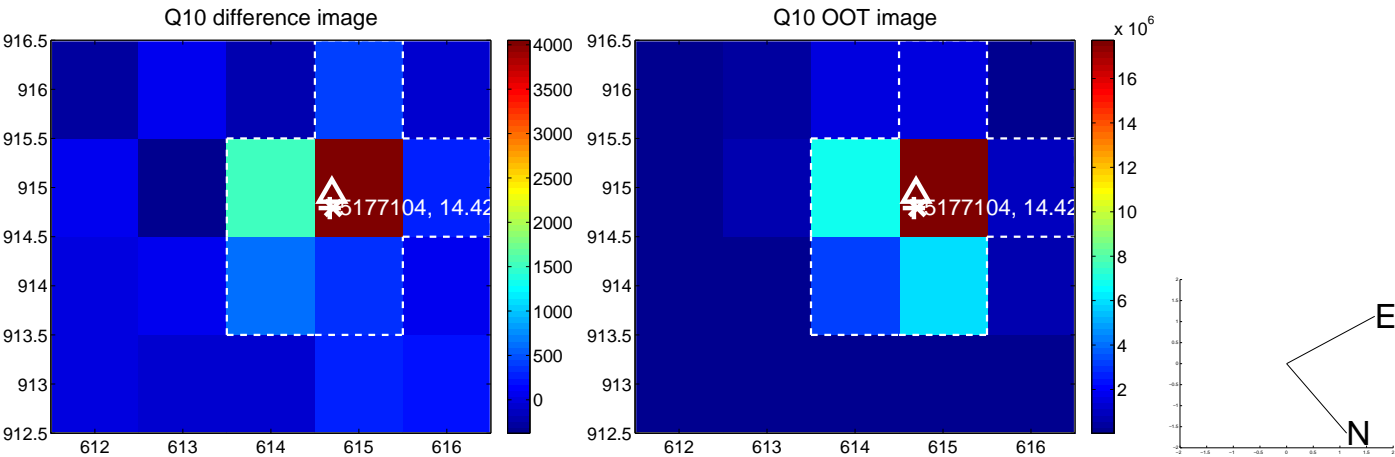
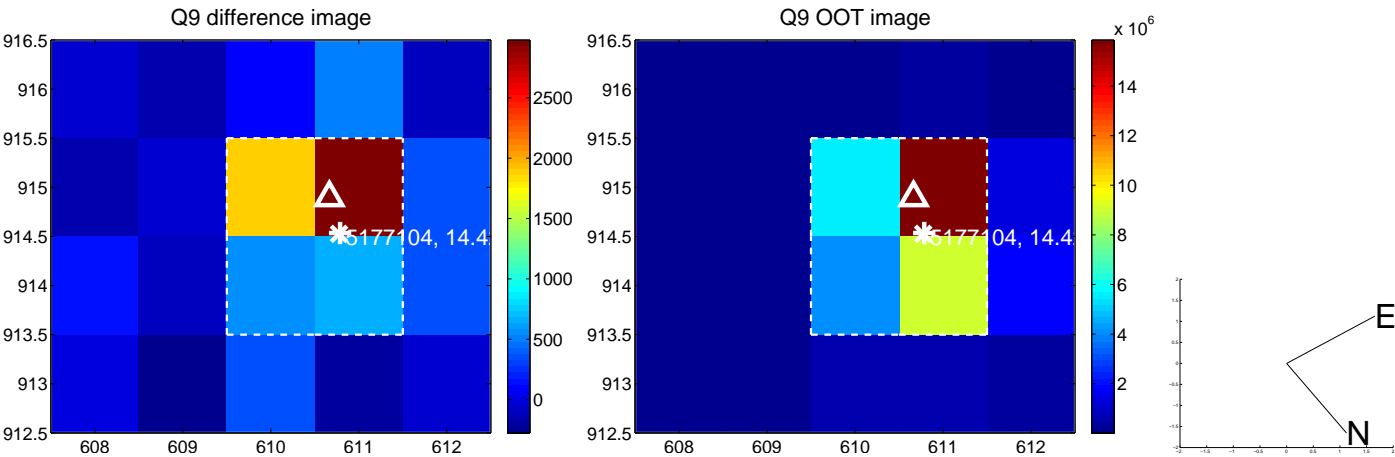


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

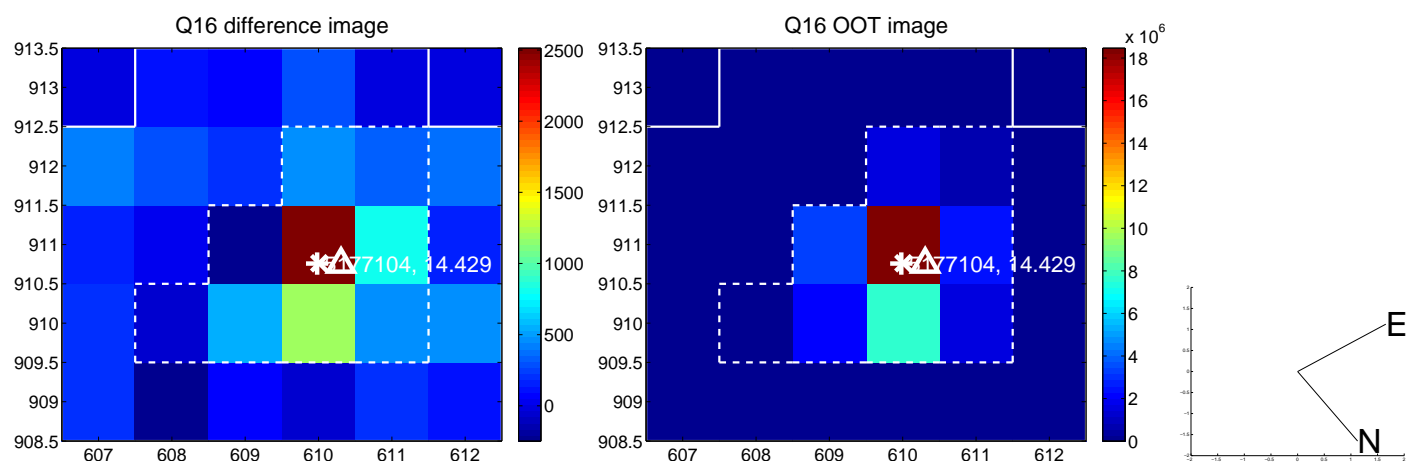
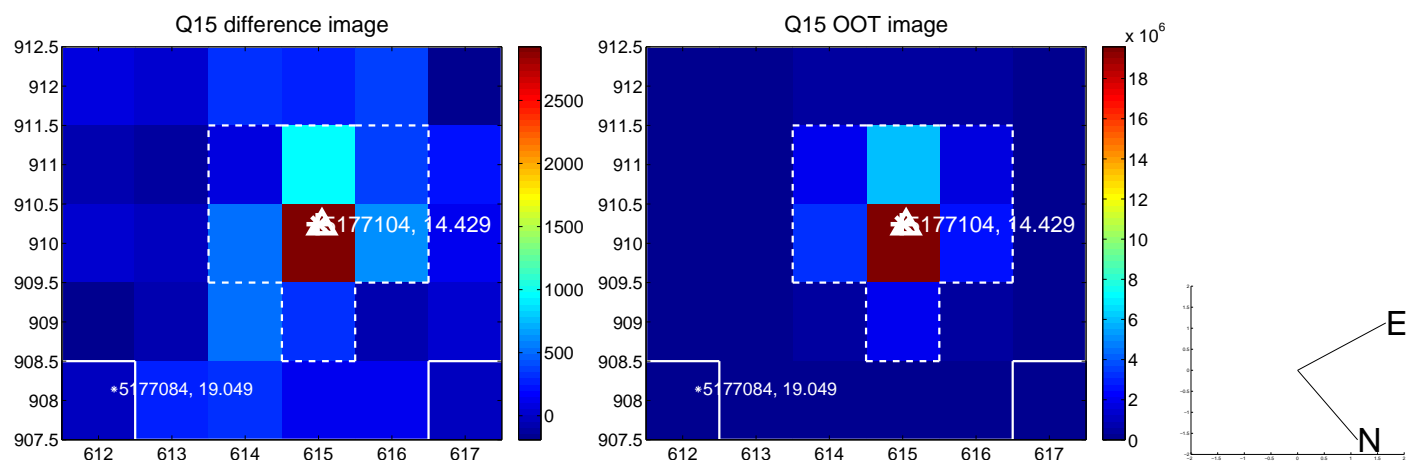
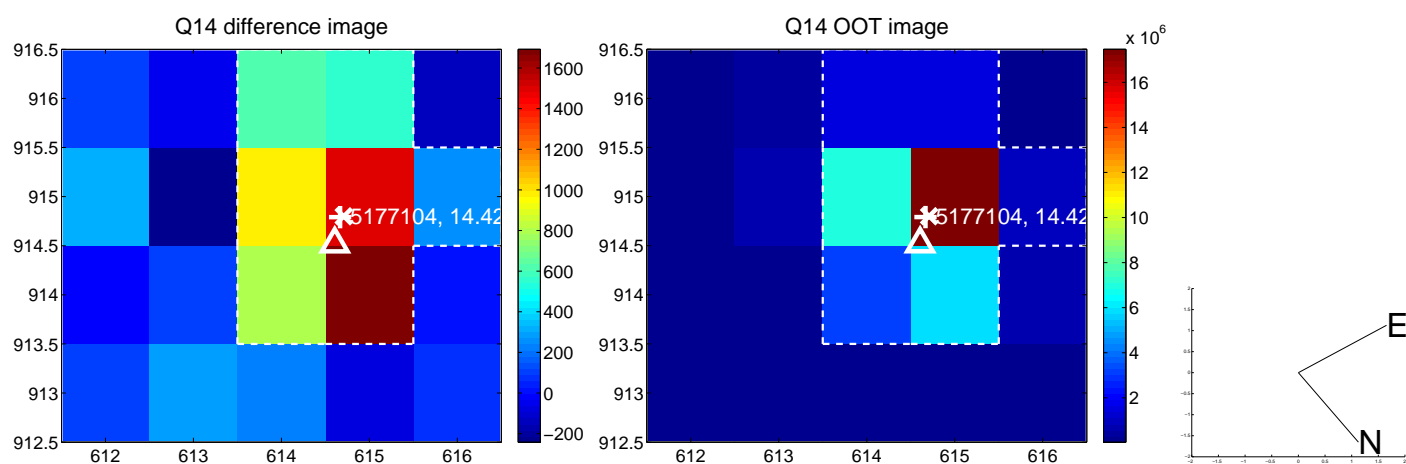
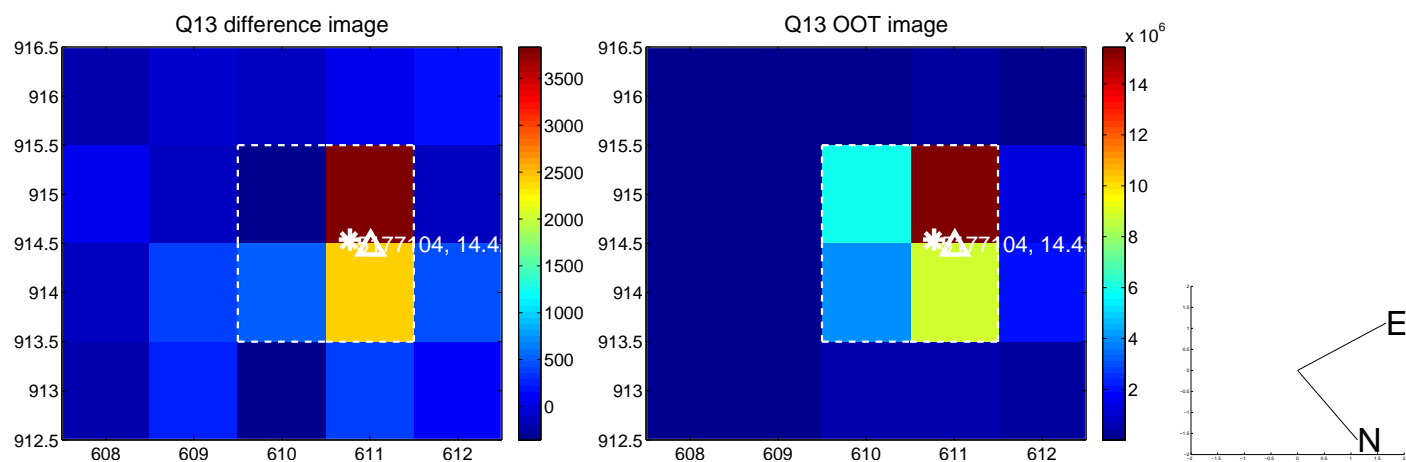
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



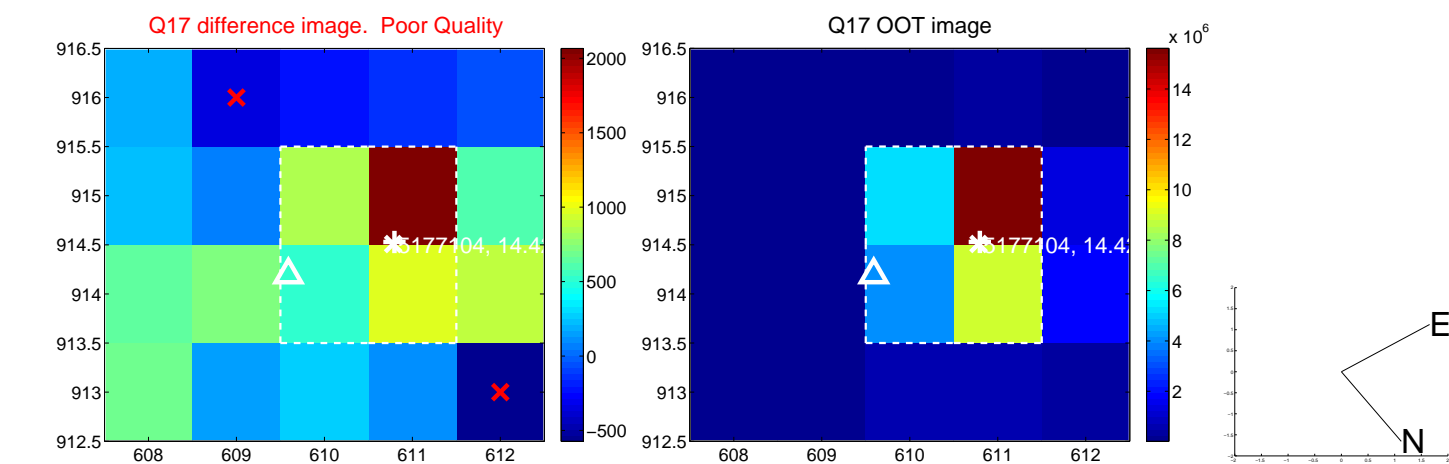
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



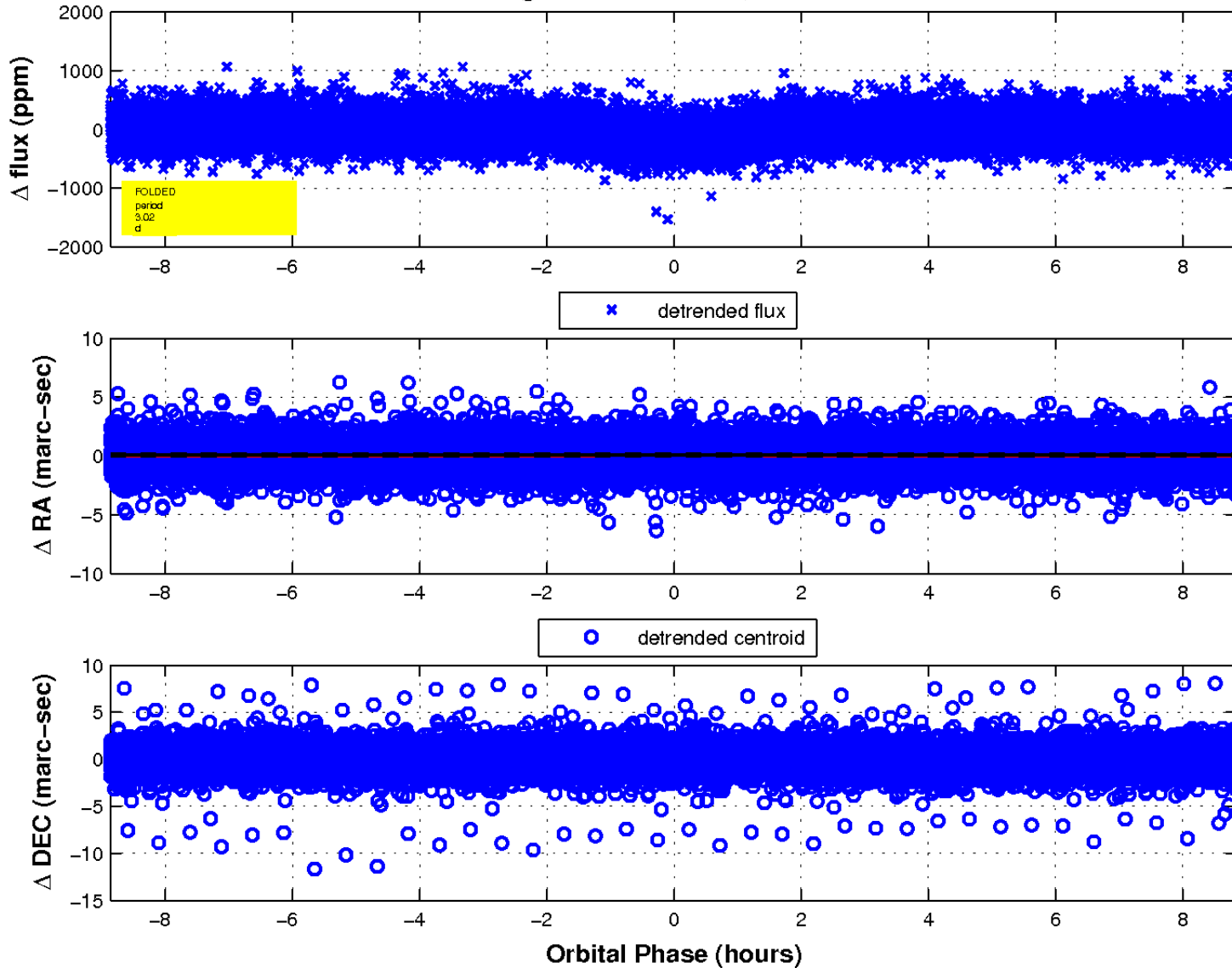
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

