

KIC 008802693

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})
008802693-01	OBS	2000.01	26.410443	149.395067	1011.7	3.189	24.8	27.2	0.73	5448	2.57	16.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008802693-01	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.

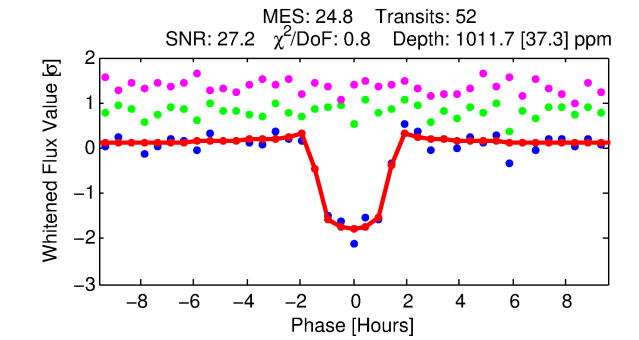
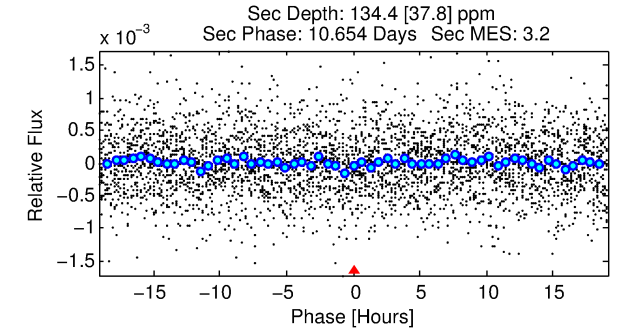
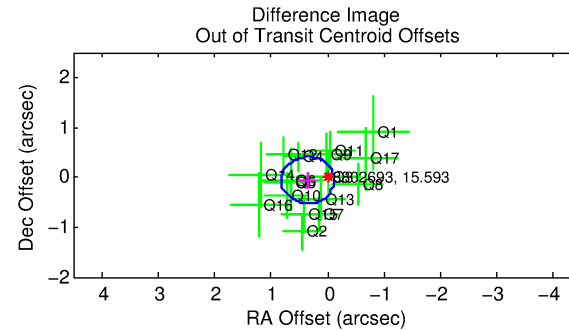
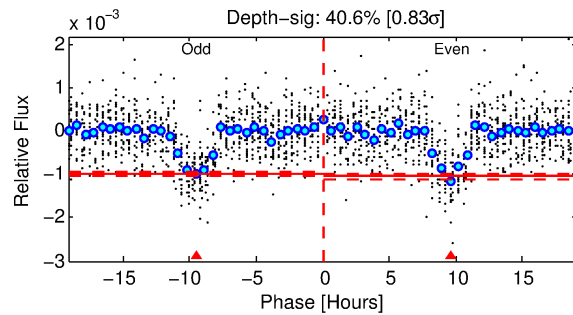
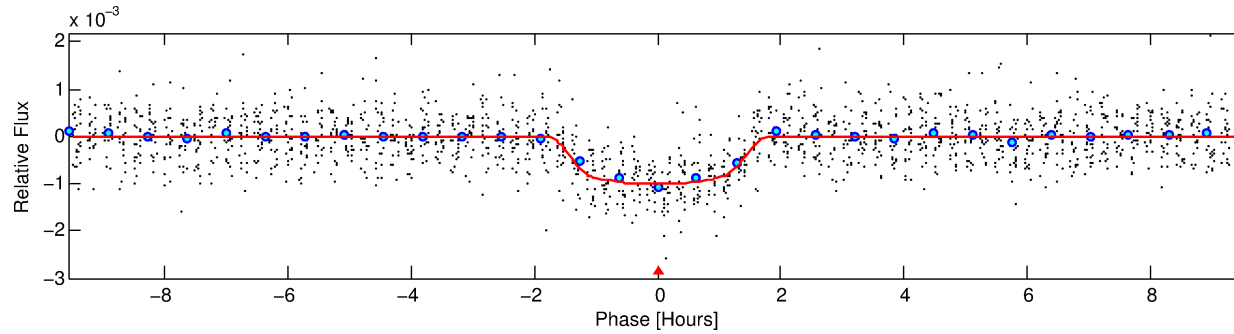
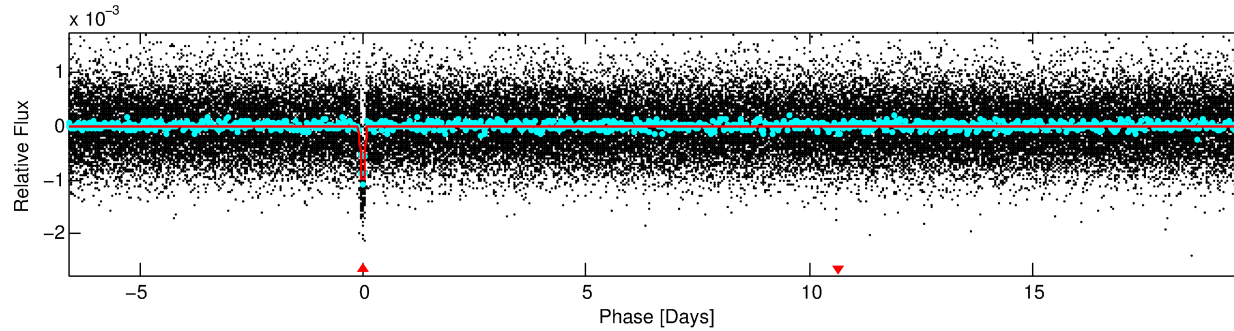
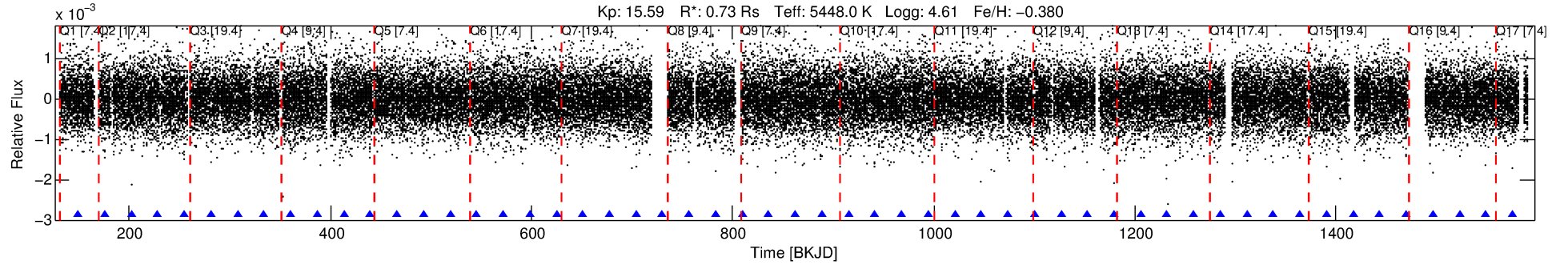
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008802693-01

No Significant Match Found

DV One-Page Summary

KIC: 8802693 Candidate: 1 of 1 Period: 26.410 d
KOI: K02000.01 Corr: 0.969



DV Fit Results:

Period = 26.41044 [0.00007] d
Epoch = 149.3951 [0.0023] BKJD
Rp/R* = 0.0321 [0.0101]
a/R* = 42.67 [56.30]
b = 0.78 [0.67]
Seff = 16.29 [3.92]
Teq = 512 [31] K
Rp = 2.57 [0.93] Re
a = 0.1616 [0.0237] AU
Ag = 291.37 [209.26] [1.39σ]
Teffp = 3272 [570] K [4.83σ]

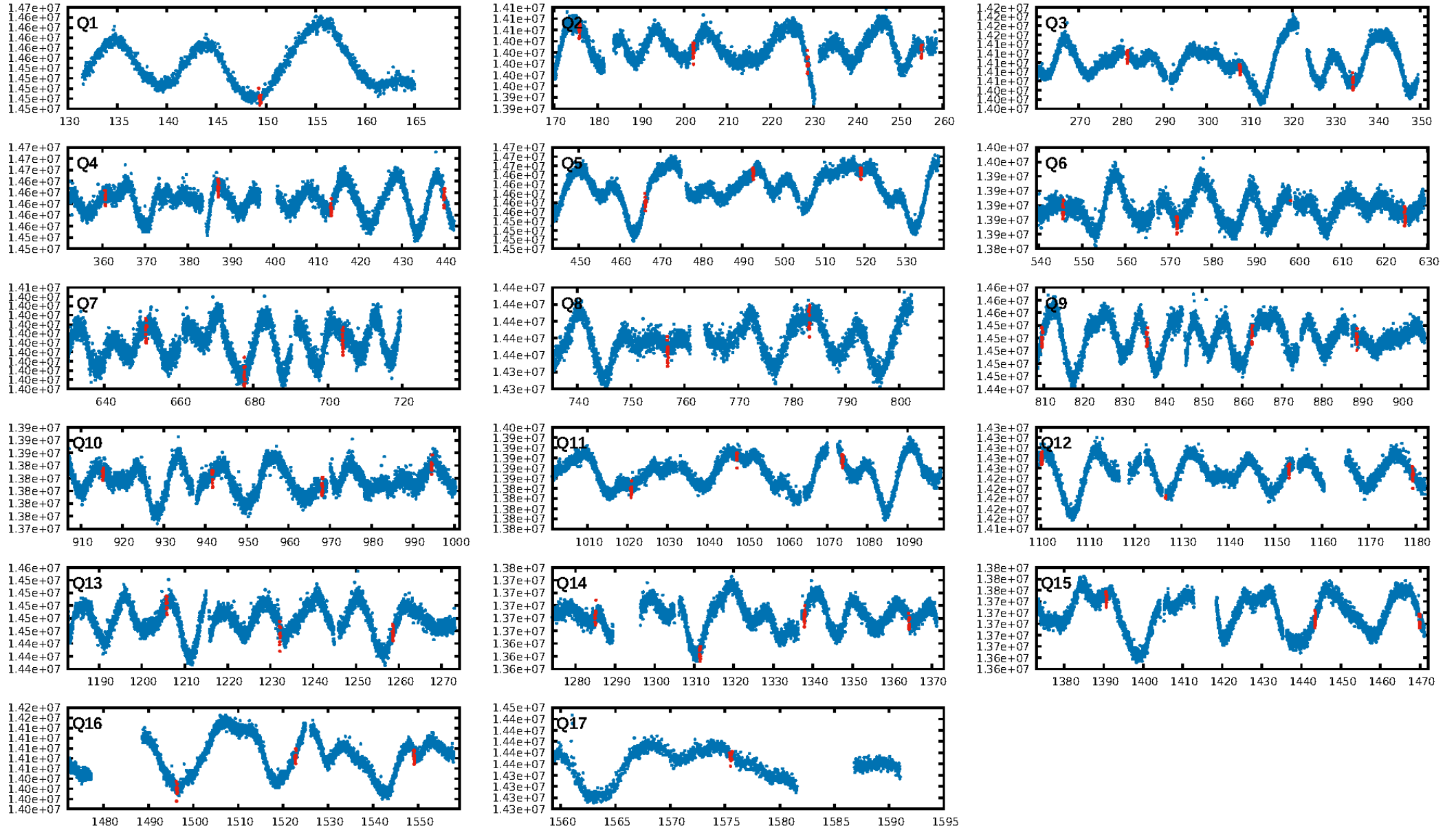
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.74e-125
RollingBand-fgt: 1.00 [50/50]
GhostDiagnostic-chr: 2.602
Centroid-sig: N/A
Centroid-so: 0.343 arcsec [0.81σ]
OotOffset-rm: 0.358 arcsec [2.30σ]
KicOffset-rm: 0.252 arcsec [1.62σ]
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]

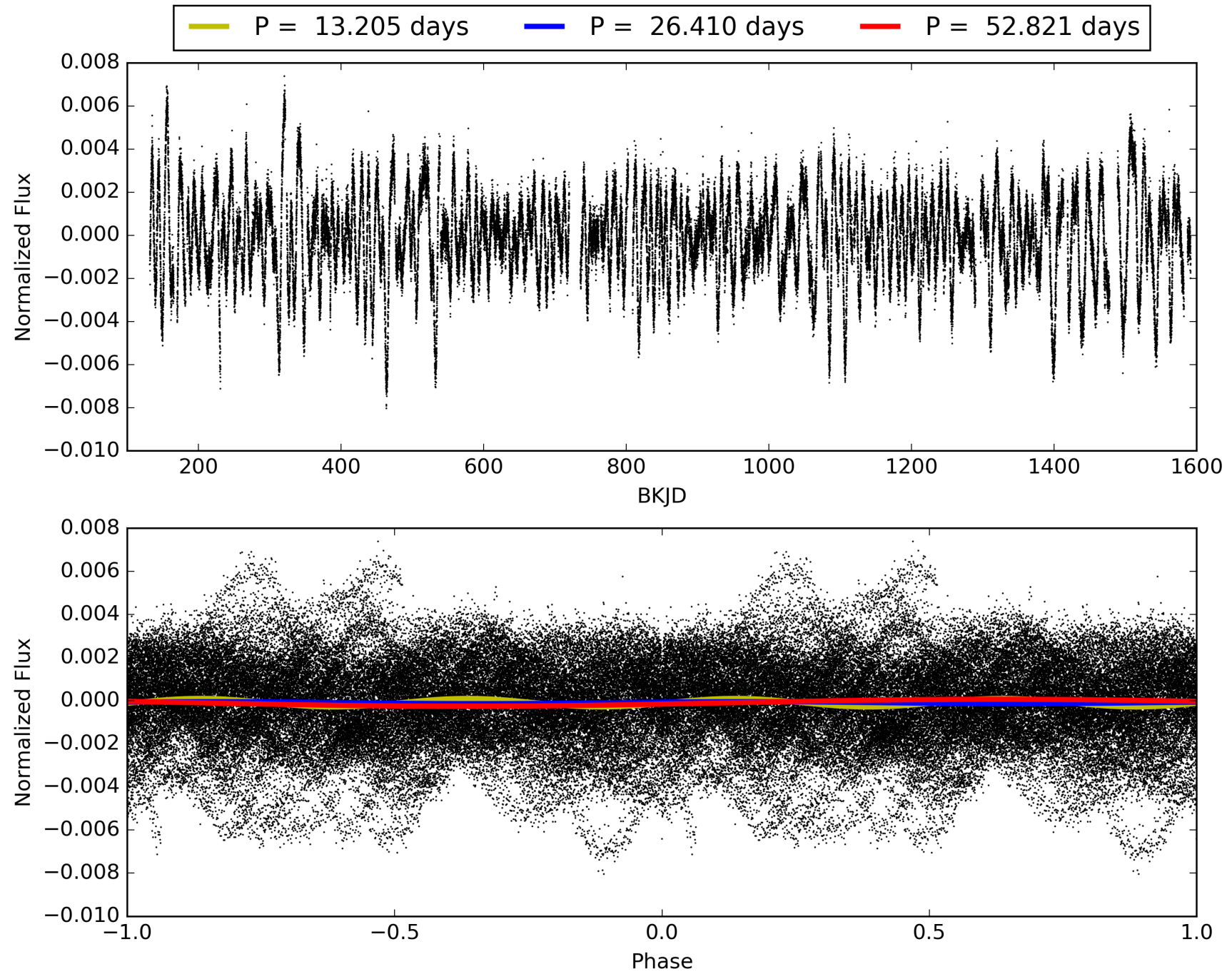
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:35:39 Z

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

TCE 008802693-01, PDC Light Curves

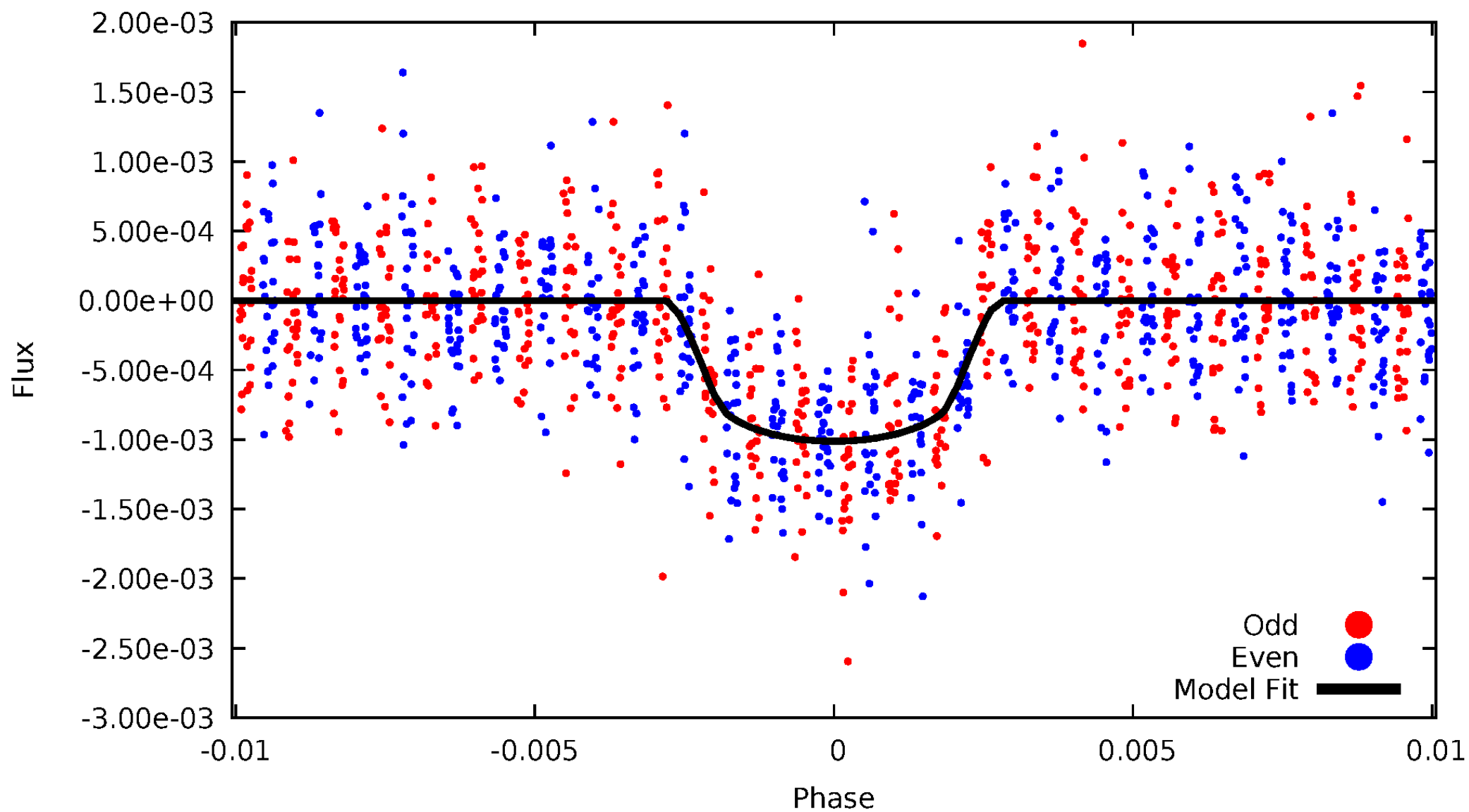


TCE 008802693-01



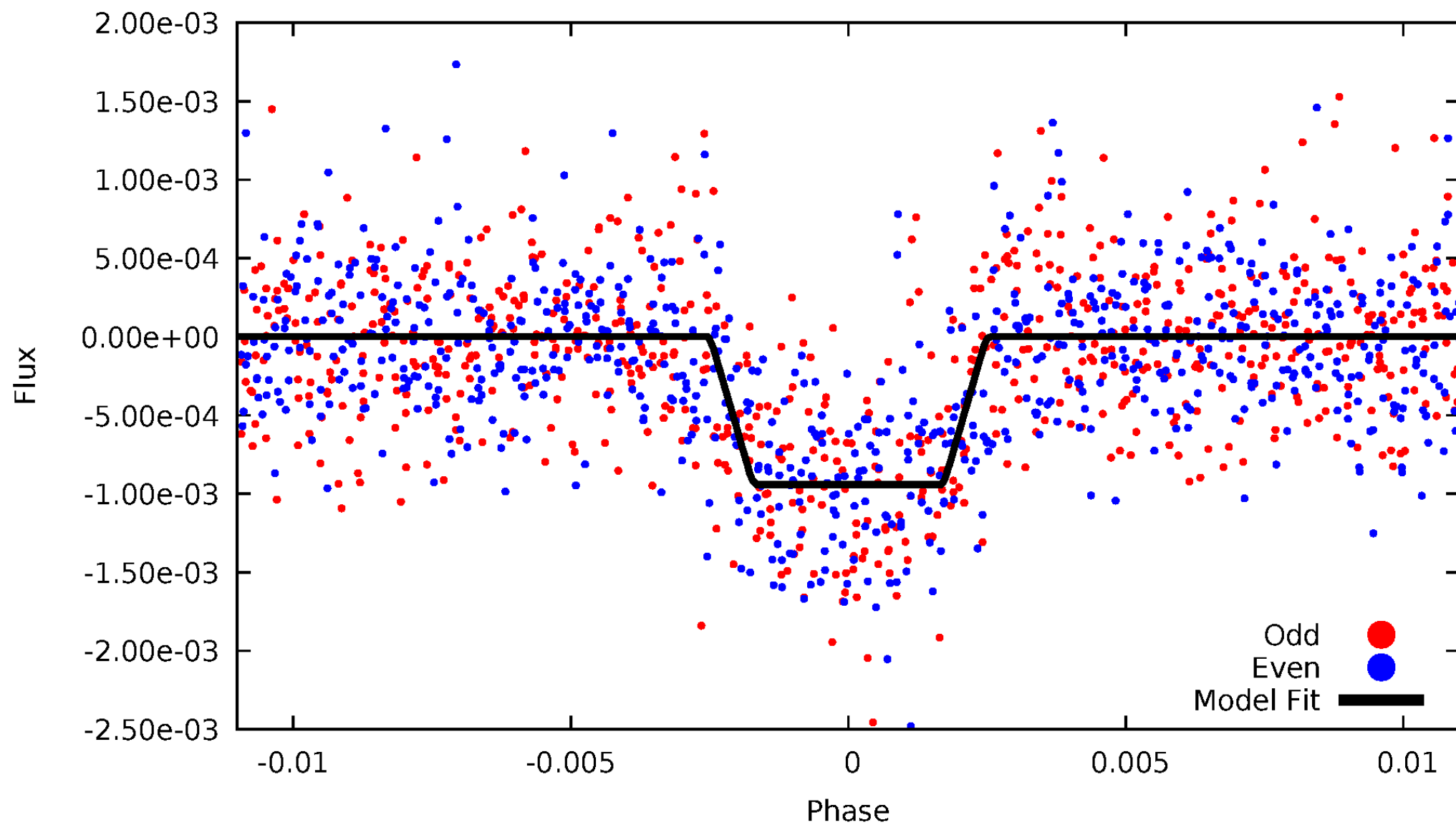
DV Odd/Even

TCE 008802693-01



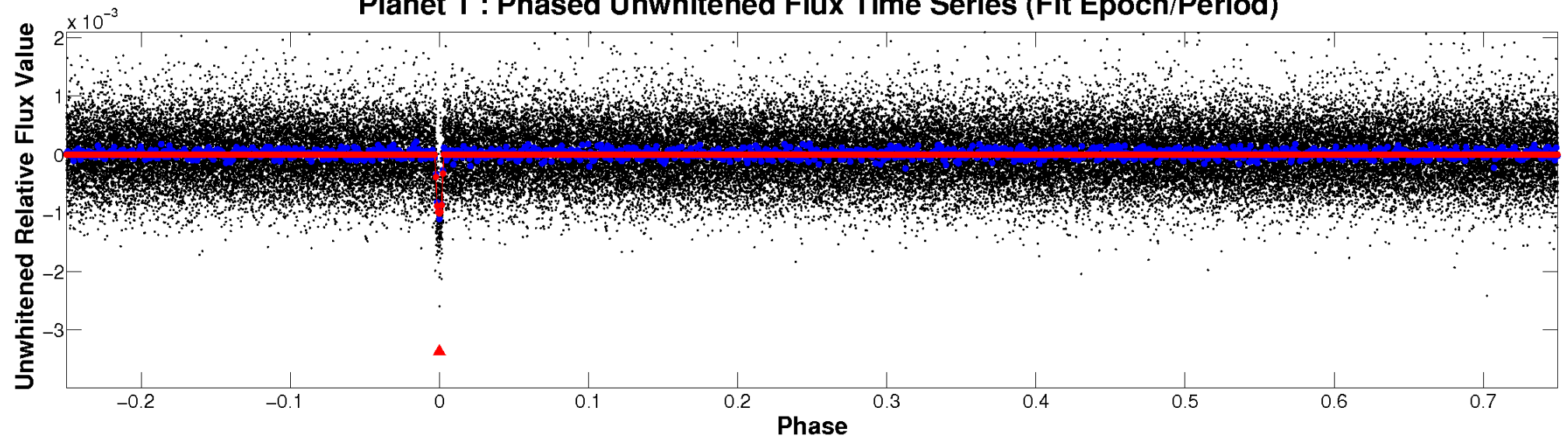
ALT Odd/Even

TCE 008802693-01

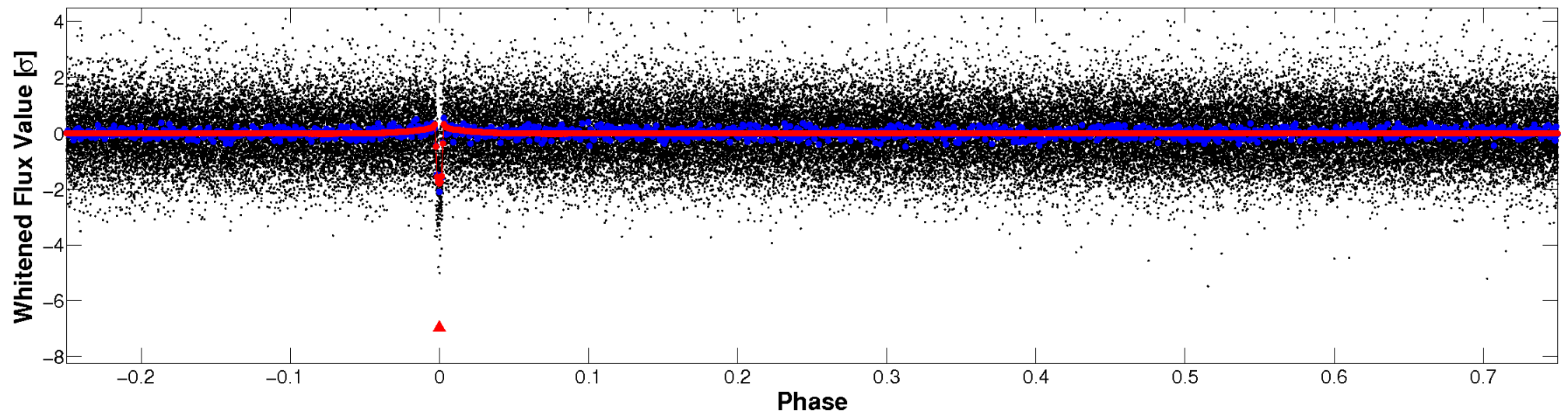


Non-Whitened Vs. Whitened Light Curve

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

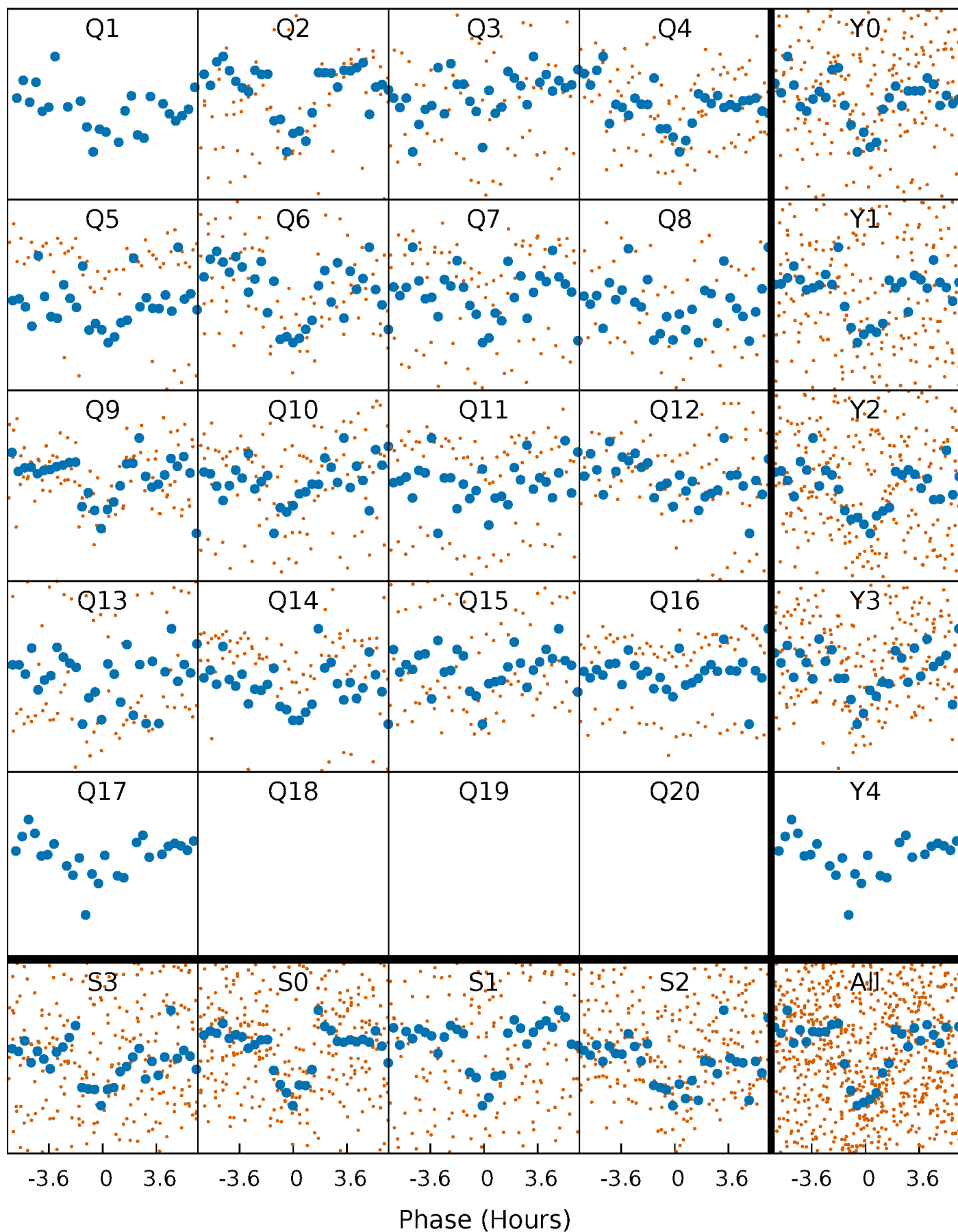


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



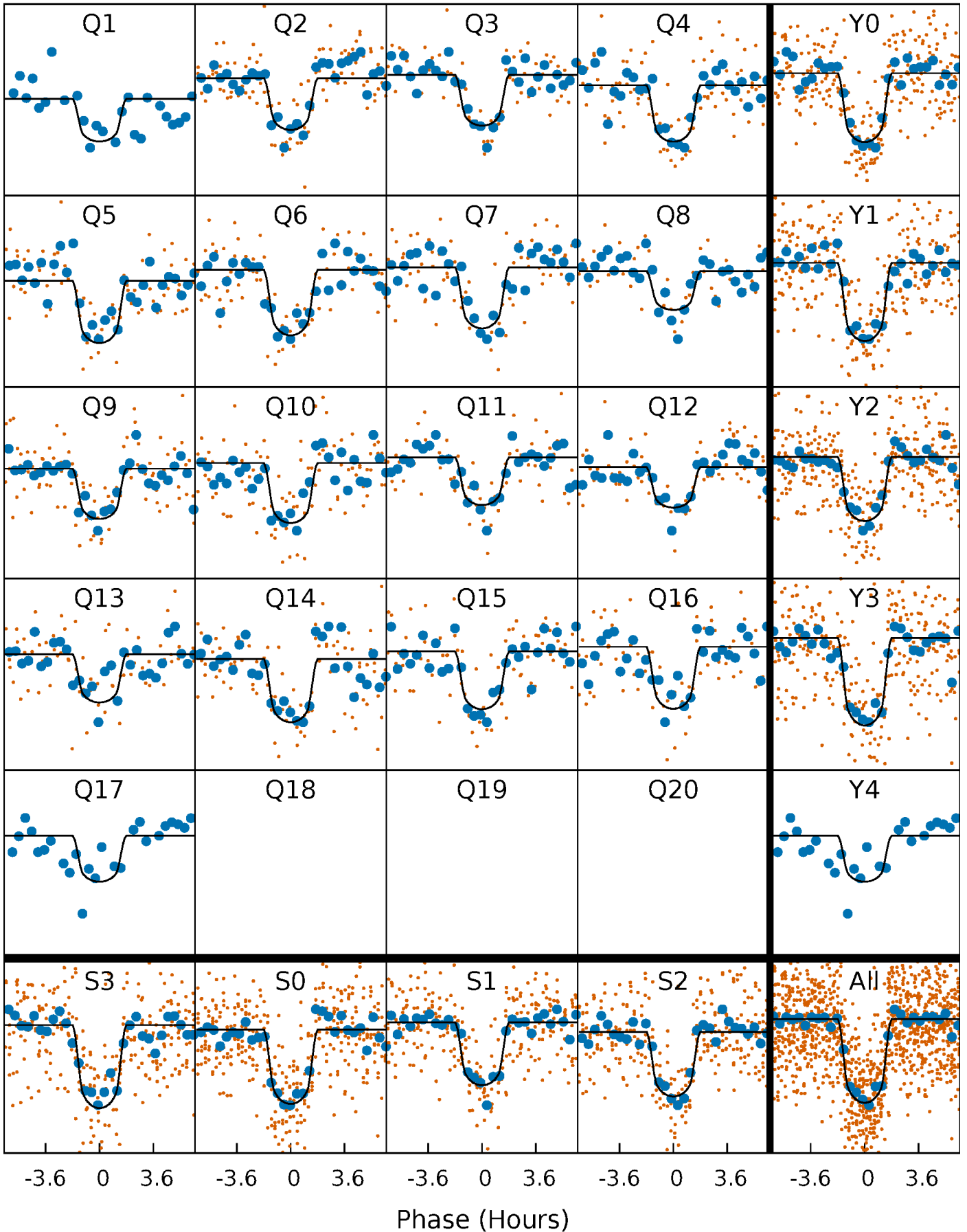
PDC Quarter-Phased Transit Curves

TCE 008802693-01 P= 26.410443 Days $T_0=149.395067$ (BKJD)



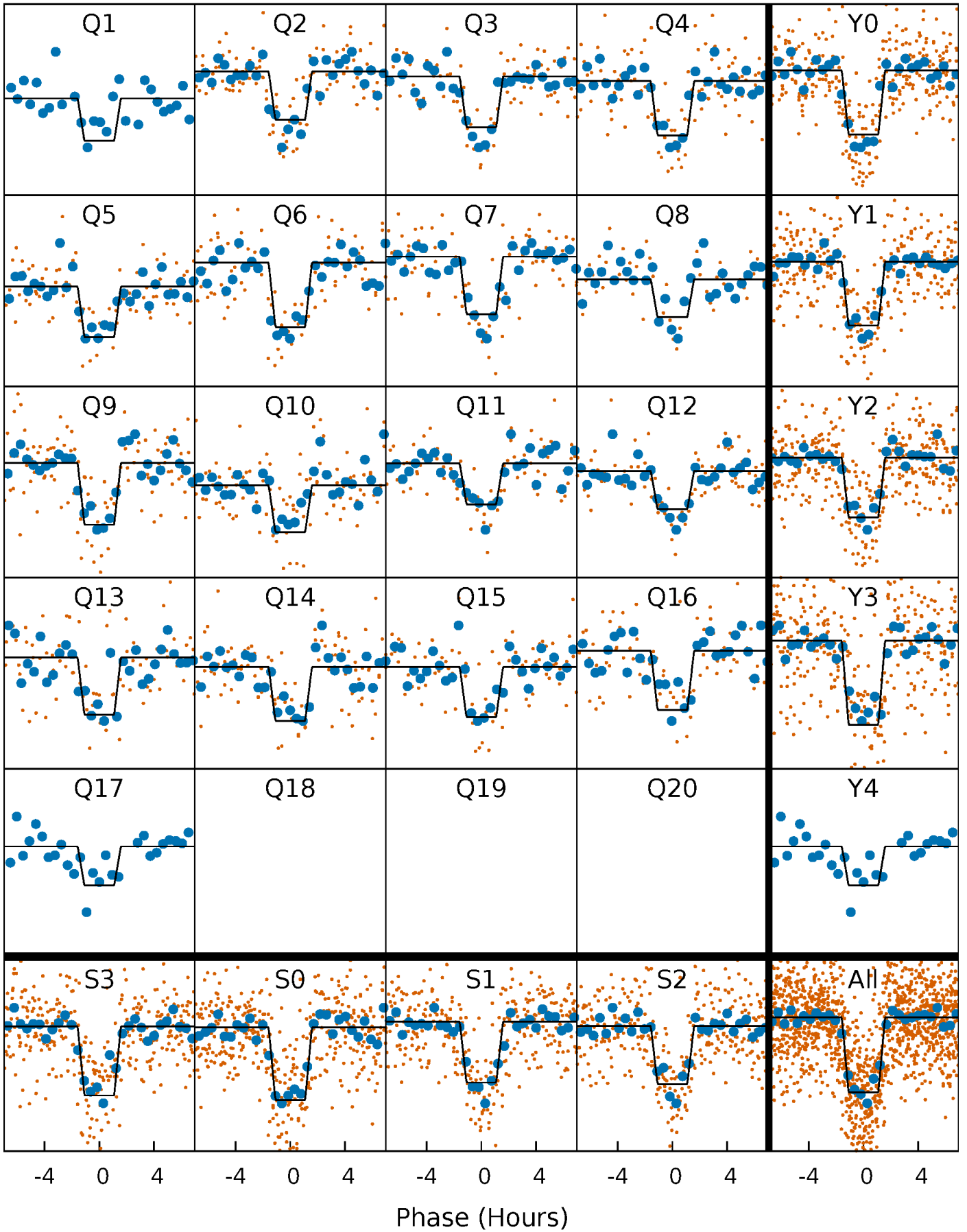
DV Quarter-Phased Transit Curves

TCE 008802693-01 P= 26.410443 Days $T_0=149.395067$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

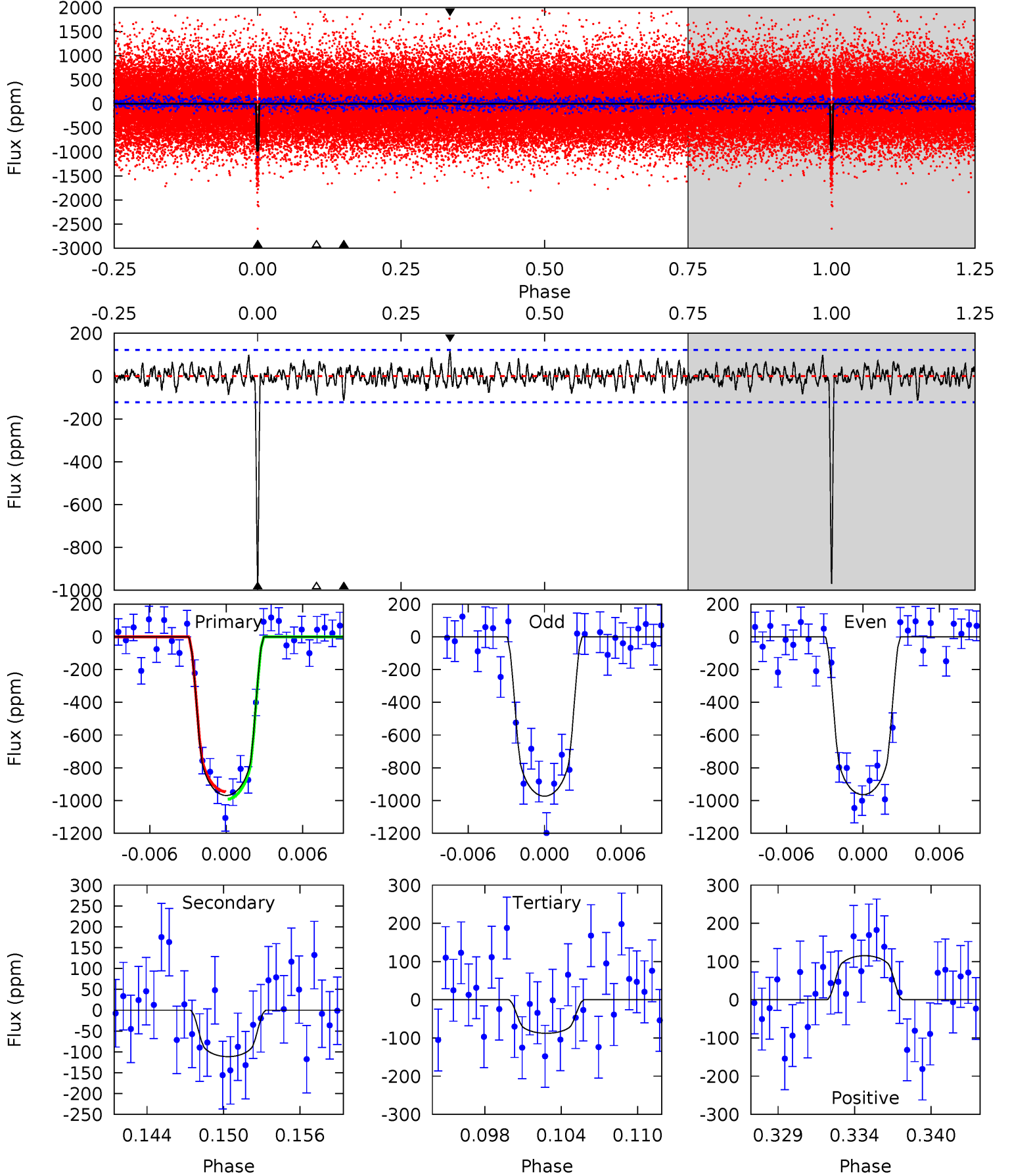
TCE 008802693-01 P= 26.410054 Days $T_0=149.405295$ (BKJD)



DV Model-Shift Uniqueness Test

008802693-01, $P = 26.410443$ Days, $E = 122.984624$ Days

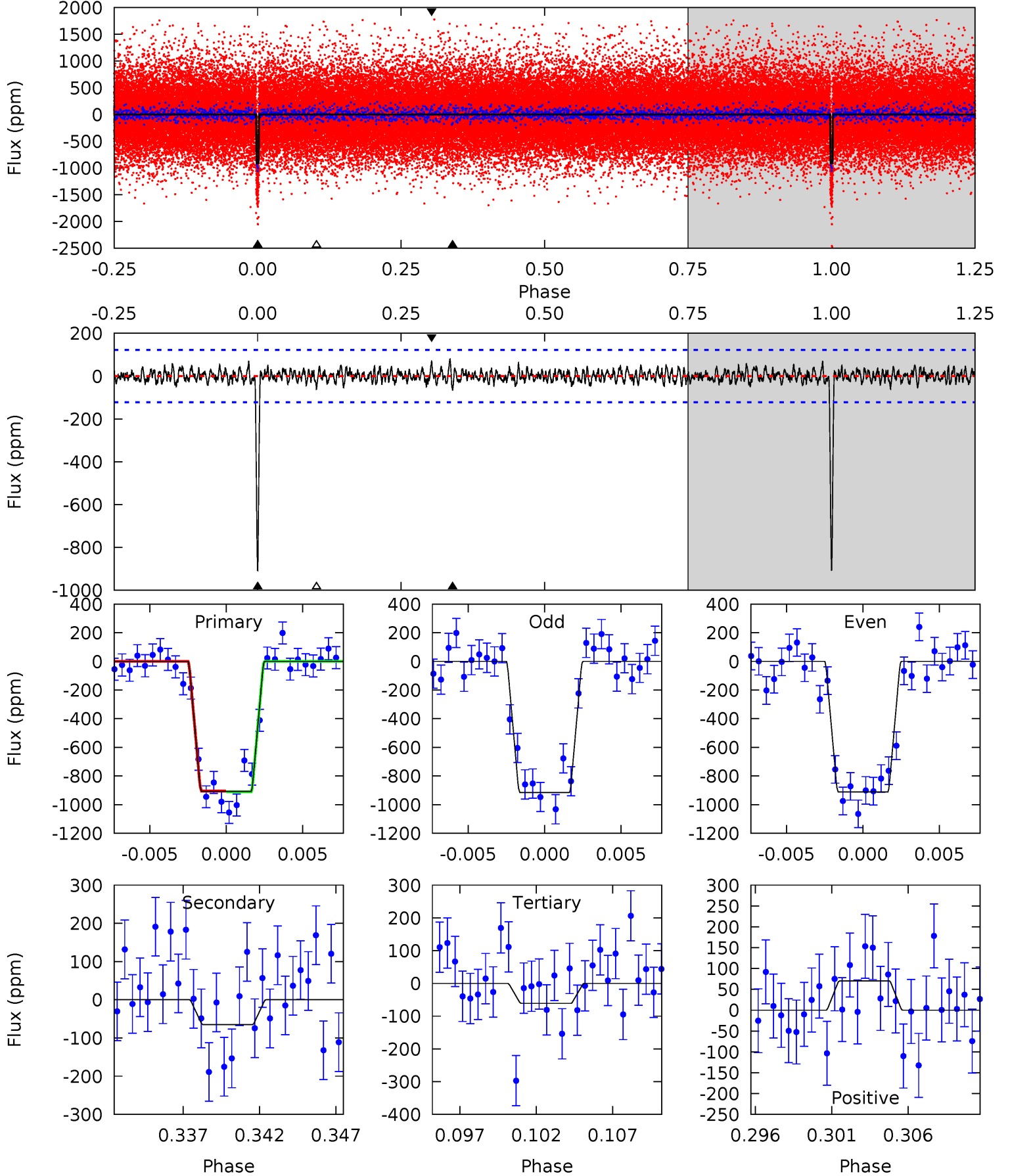
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.7	4.68	3.69	4.84	5.13	2.76	1.30	37.0	35.8	0.99	-0.16	0.19	0.99	0.11	0.98



Alt Model-Shift Uniqueness Test

008802693-01, P = 26.410054 Days, E = 122.995241 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.3	2.73	2.58	2.96	5.15	2.80	0.91	35.8	35.4	0.16	-0.23	0.08	1.01	0.08	0.10



Stellar Parameters For KIC 008802693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5448^{+162}_{-162}	$4.613^{+0.037}_{-0.112}$	$-0.380^{+0.300}_{-0.300}$	$0.734^{+0.131}_{-0.056}$	$0.815^{+0.083}_{-0.092}$	$2.901^{+0.462}_{-0.980}$
	+3%/-3%	+1%/-2%	+79%/-79%	+18%/-8%	+10%/-11%	+16%/-34%
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 008802693-01 / KOI 2000.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-111 ± 24	$2.66^{+0.78}_{-0.86}$	724^{+33}_{-28}	3557^{+506}_{-334}	221^{+262}_{-103}
Alt.	-65 ± 24	$2.52^{+0.84}_{-0.84}$	727^{+31}_{-30}	3301^{+518}_{-342}	139^{+213}_{-73}

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 $A_{obs} \gg 1.0$

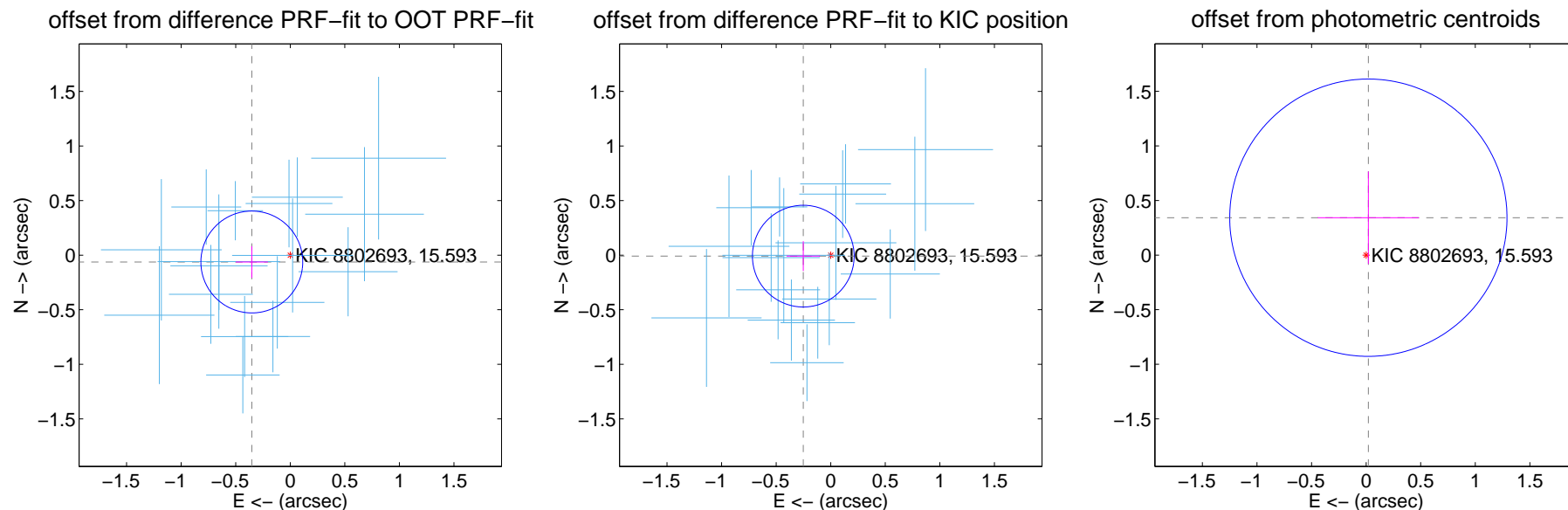
DV Centroid Data

Supplemental centroid analysis for 008802693-01. Kepler magnitude: 15.59. Transit SNR 27.23

There are 17 quarters with good PRF difference image offsets

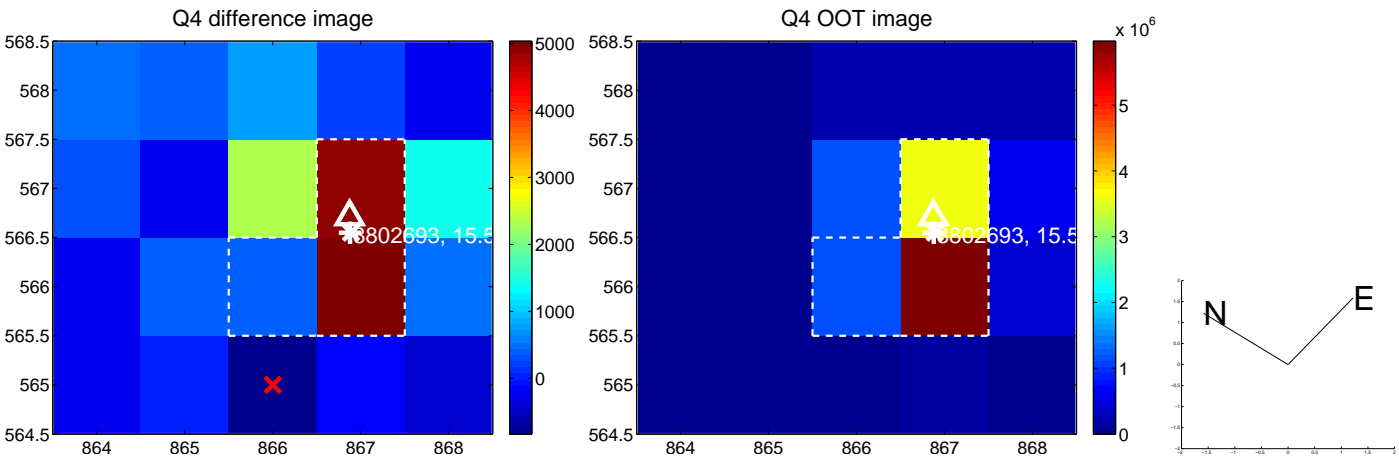
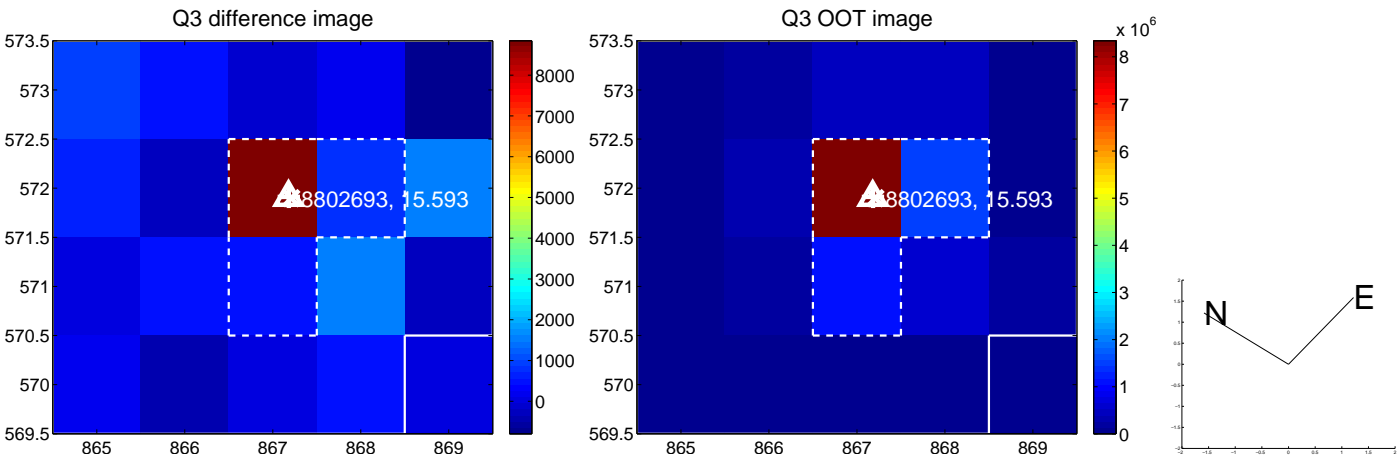
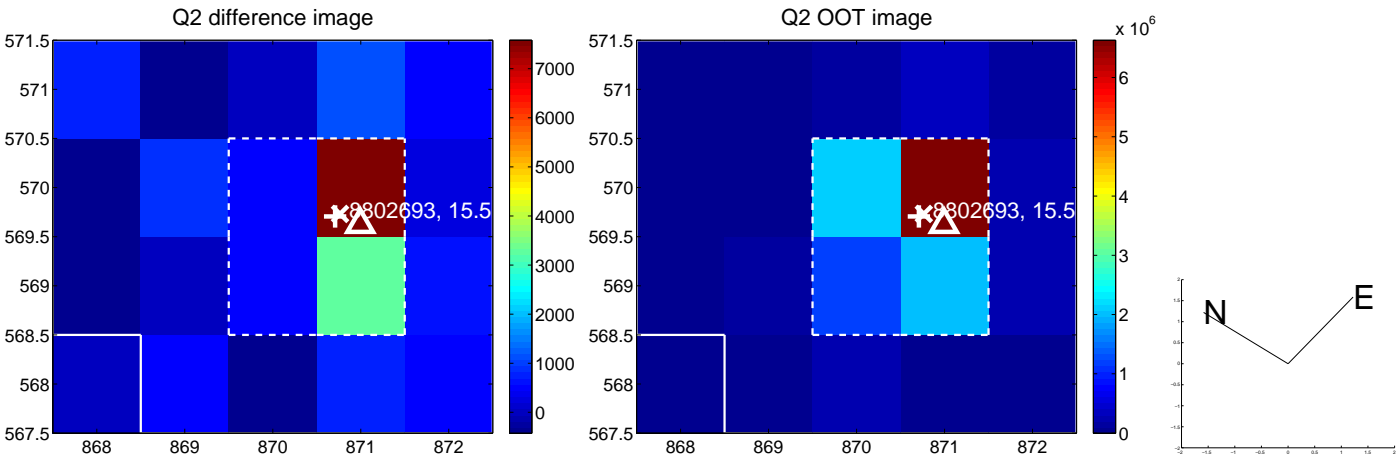
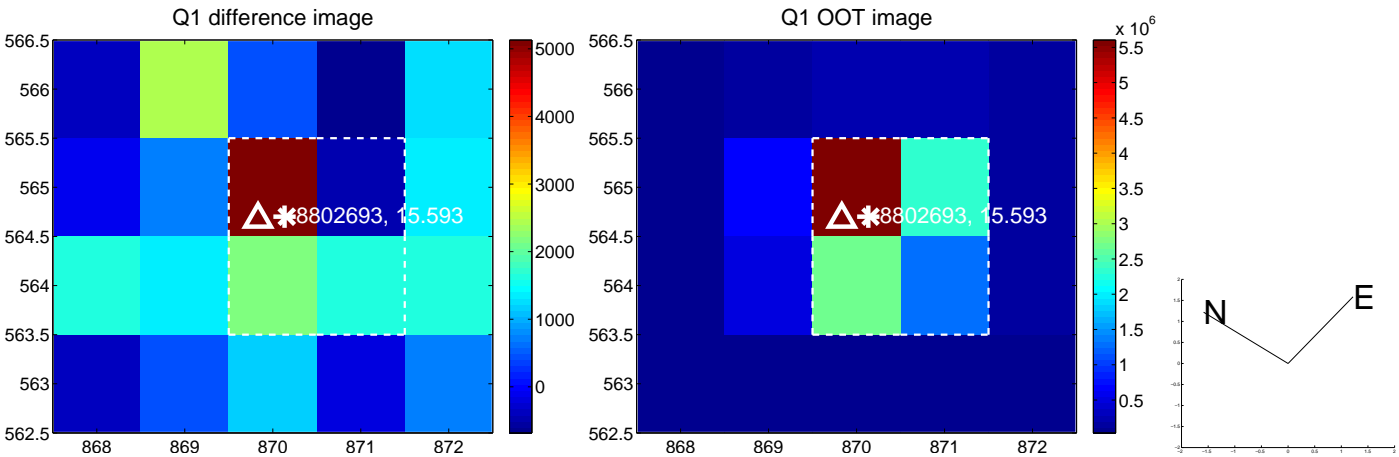
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.358 ± 0.156	2.30	0.352 ± 0.148	-0.063 ± 0.145
PRF-fit source offset from KIC position	0.252 ± 0.155	1.62	0.251 ± 0.153	-0.009 ± 0.137
photometric centroid source offset	0.34 ± 0.42	0.81	-0.02 ± 0.46	0.34 ± 0.42

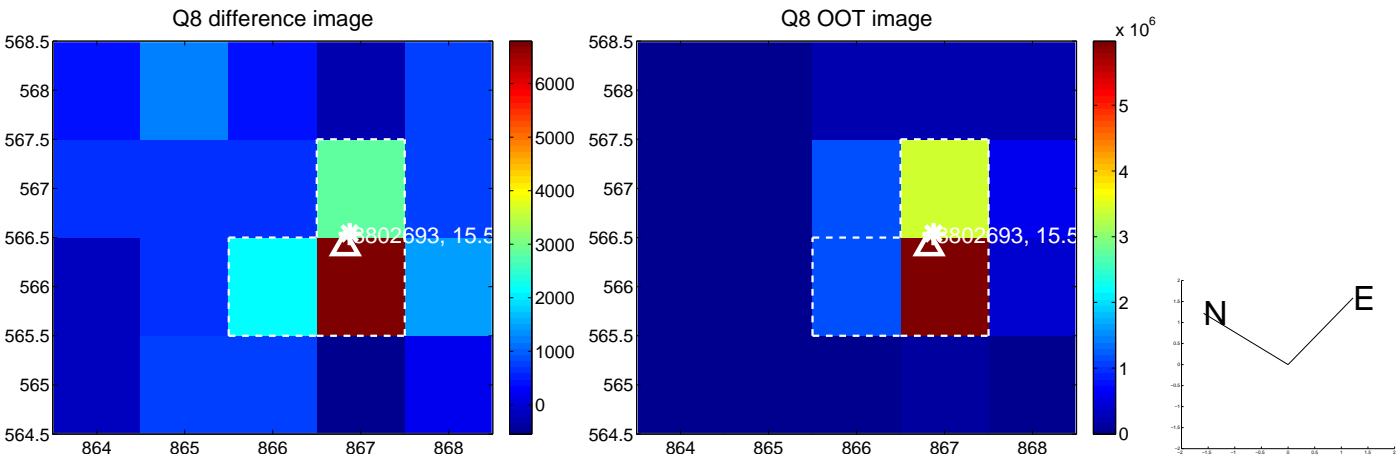
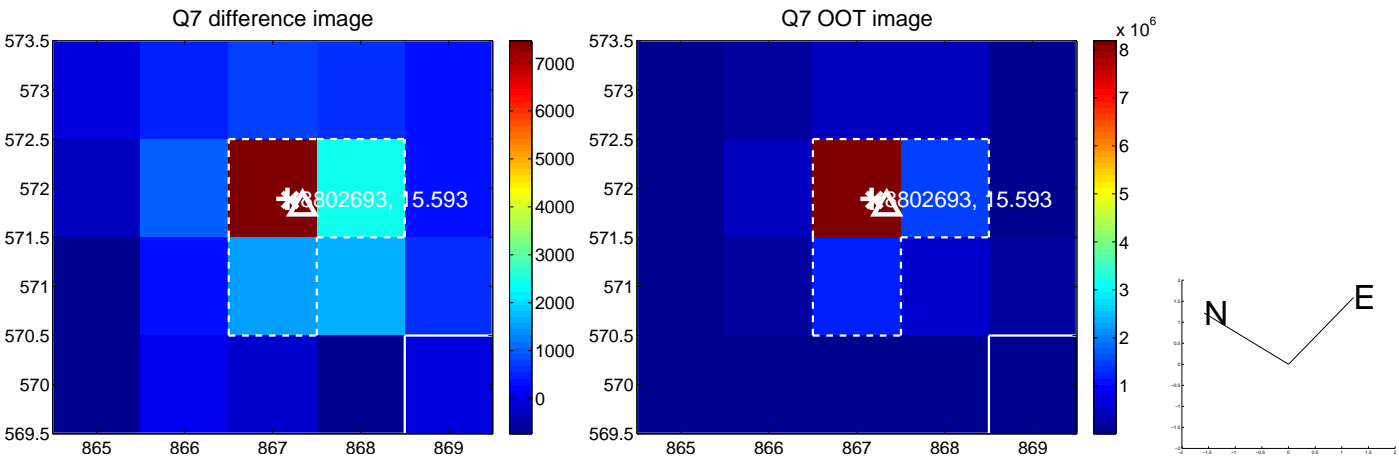
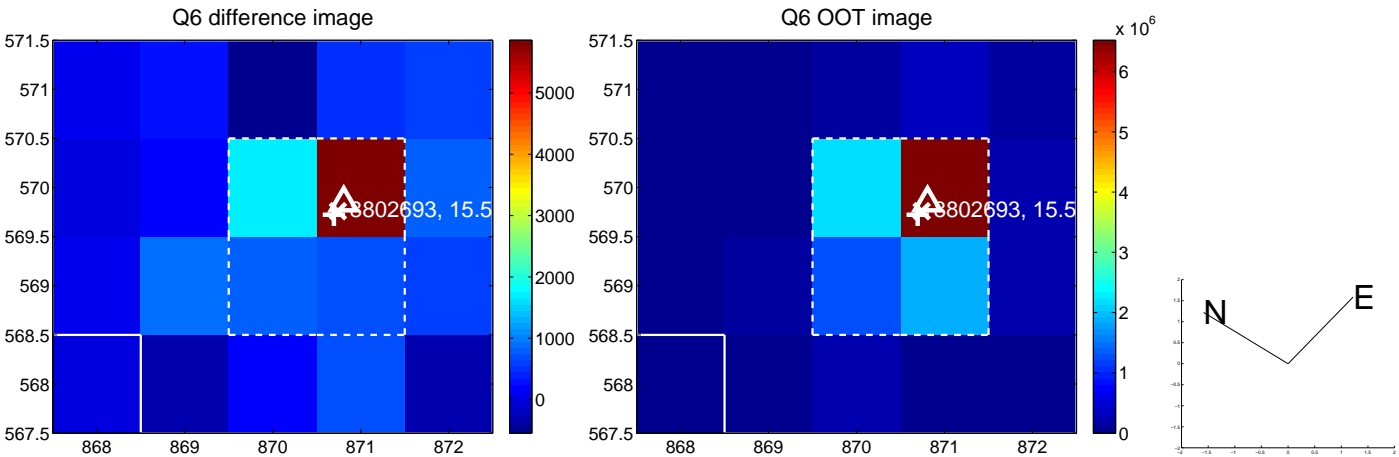
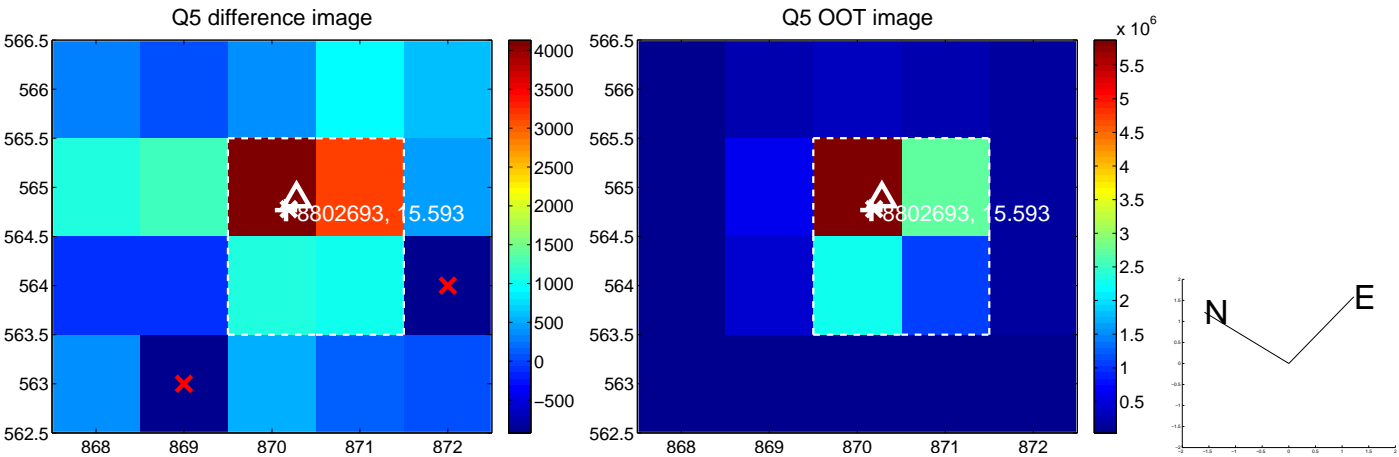


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

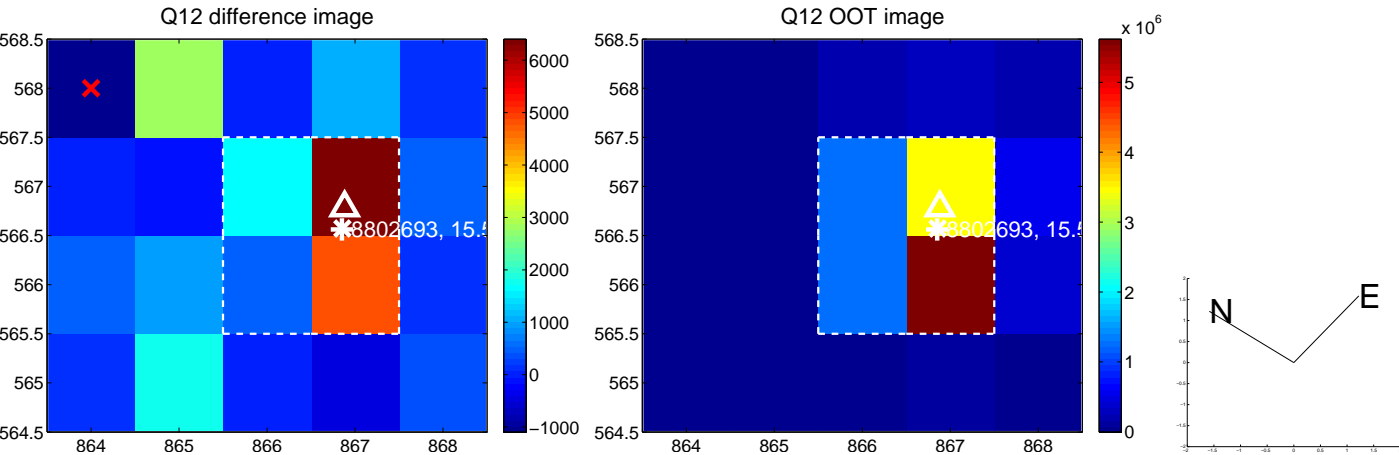
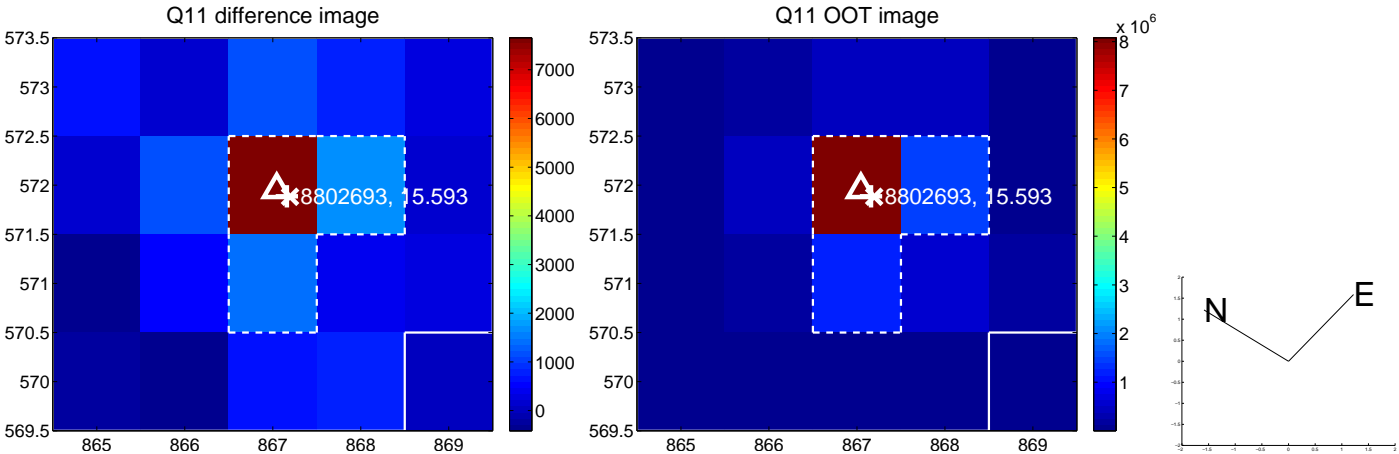
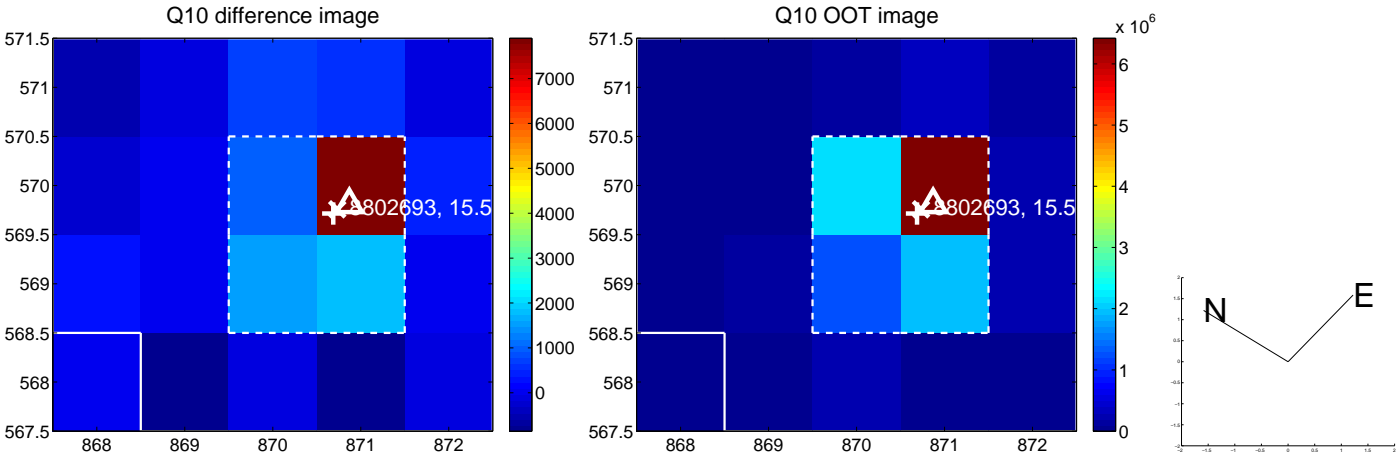
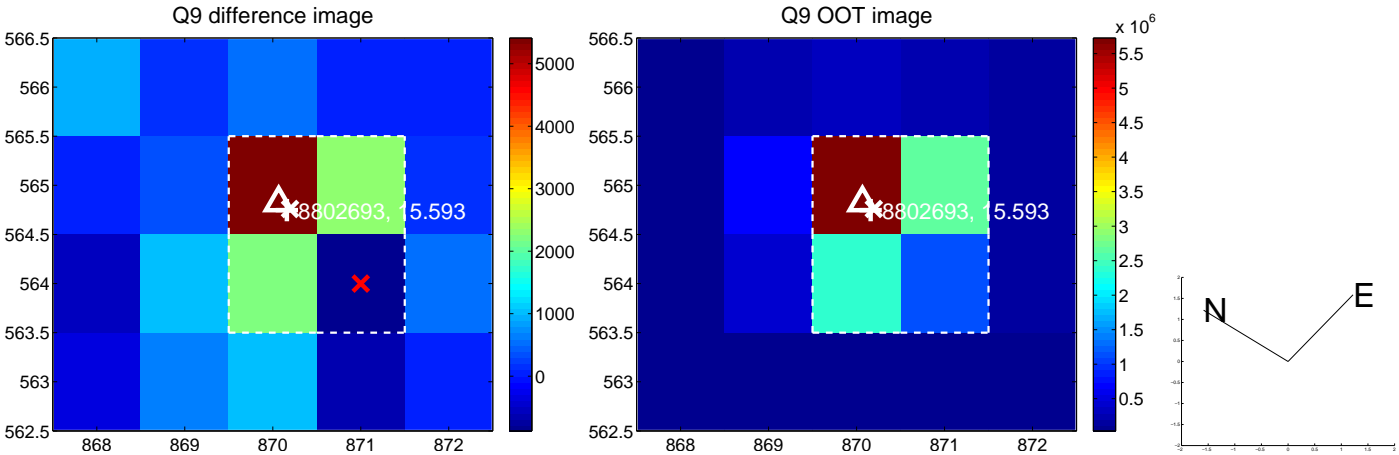
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



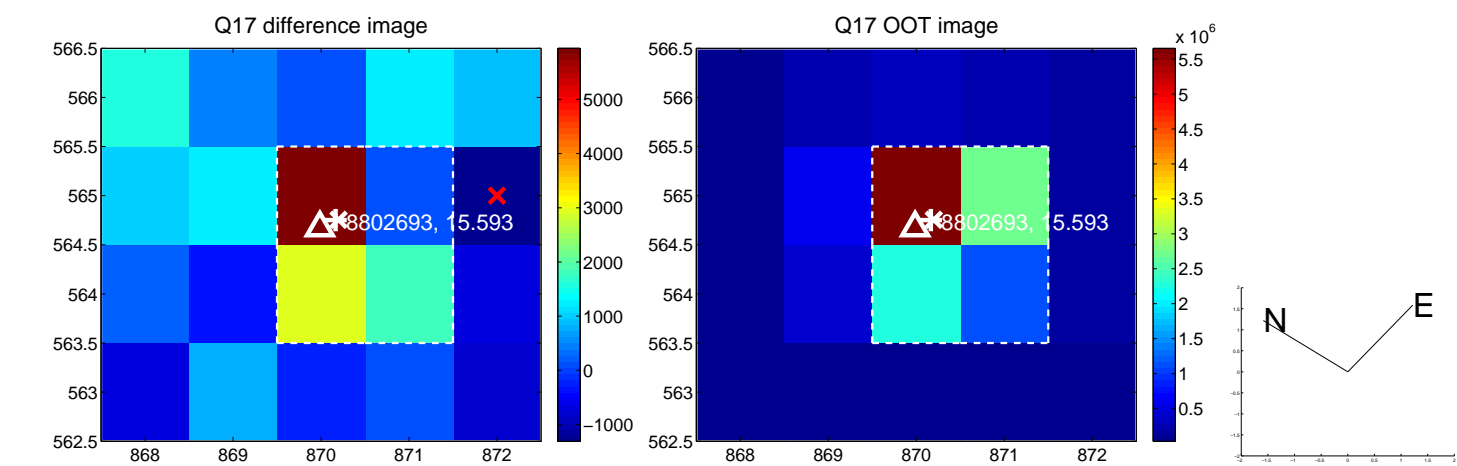
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



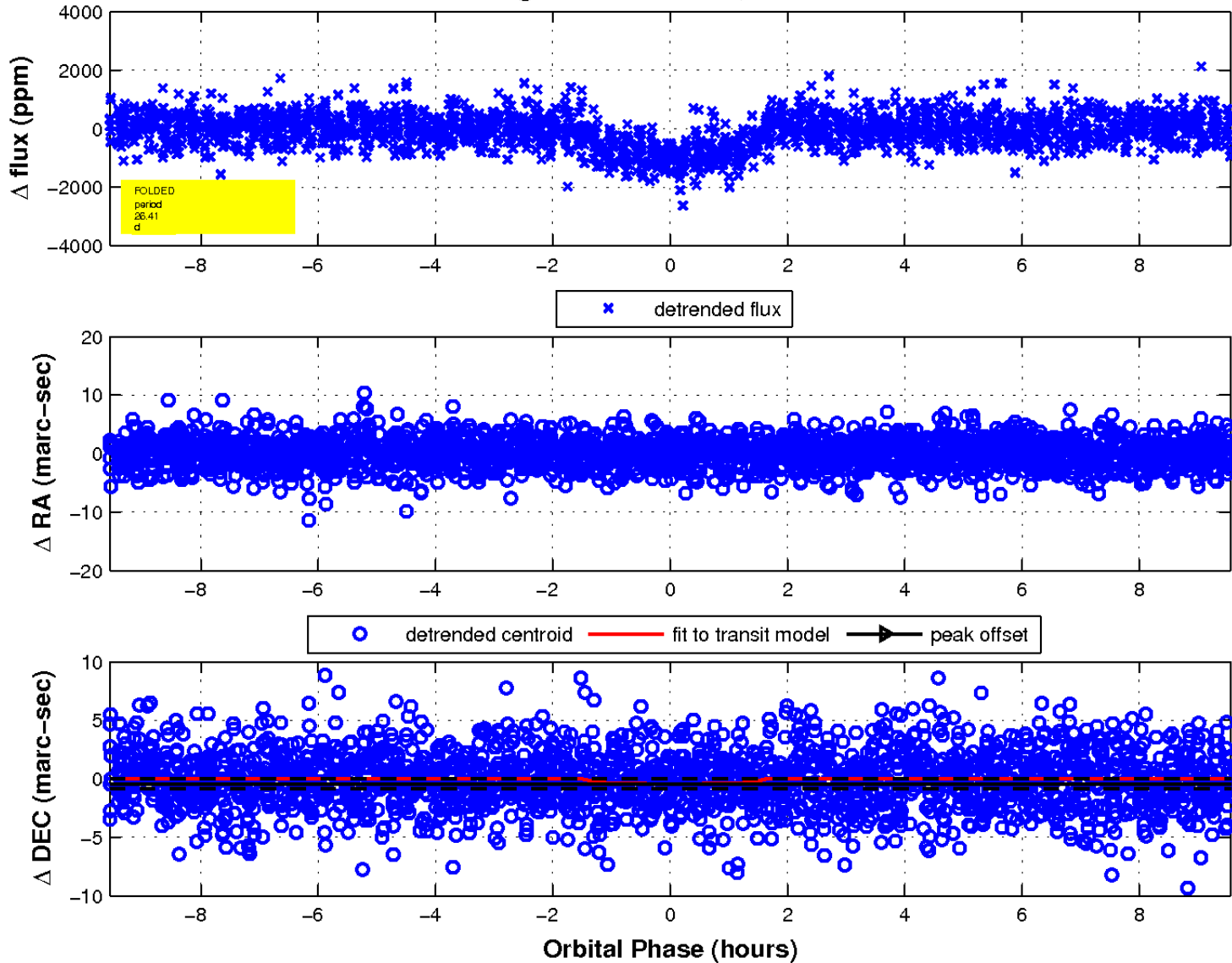
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

