

KIC 006675757

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})
006675757-01	OBS	5310.01	22.290273	152.378363	149.8	1.571	7.8	9.0	1.00	5597	1.48	37.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006675757-01	OBS	PC	0.98	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.

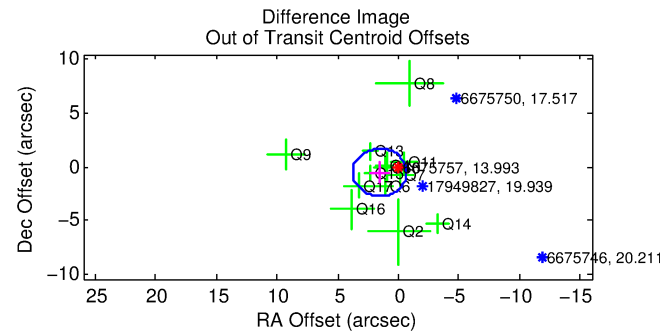
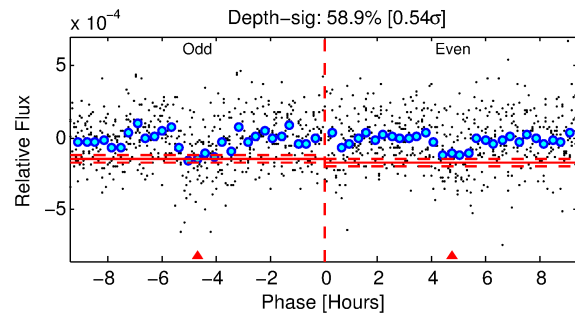
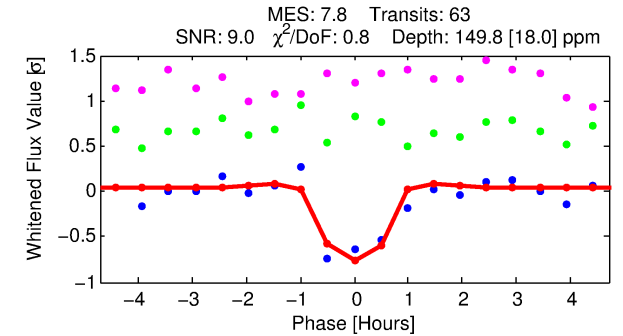
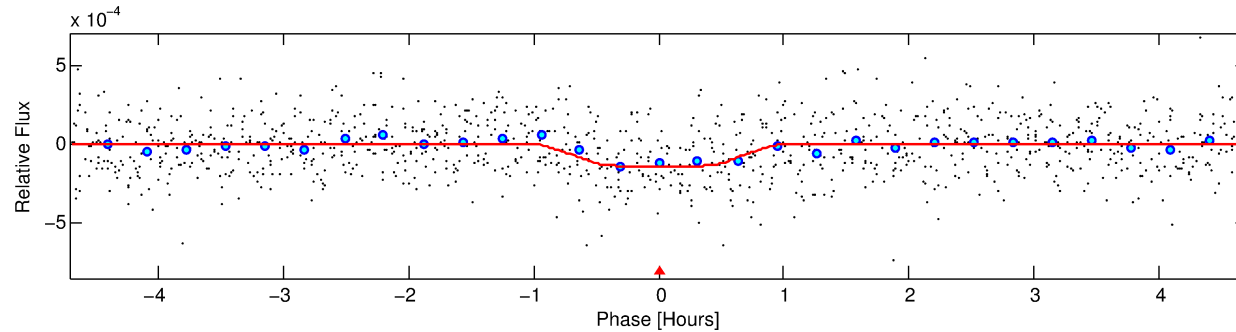
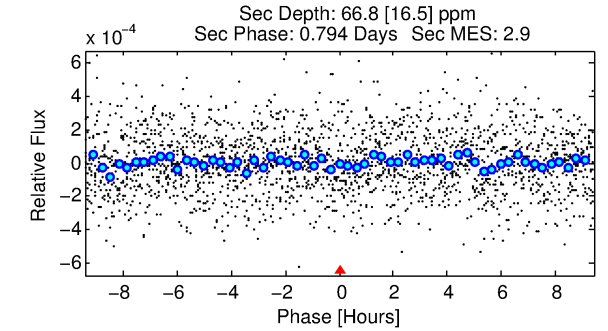
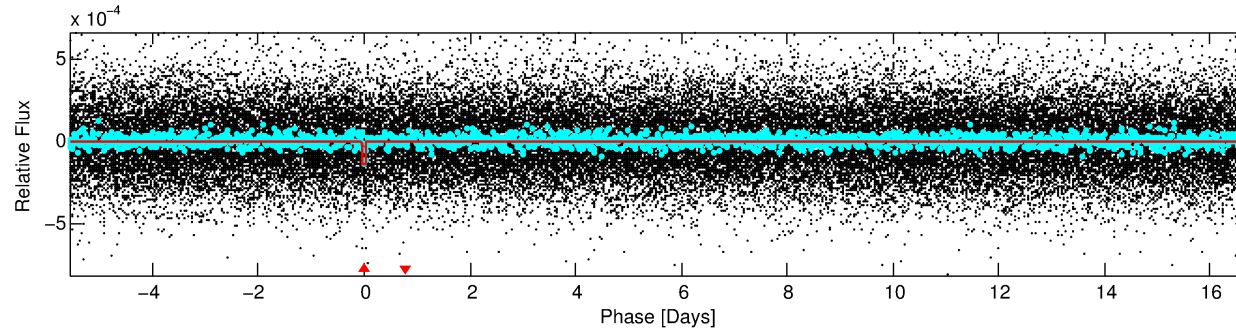
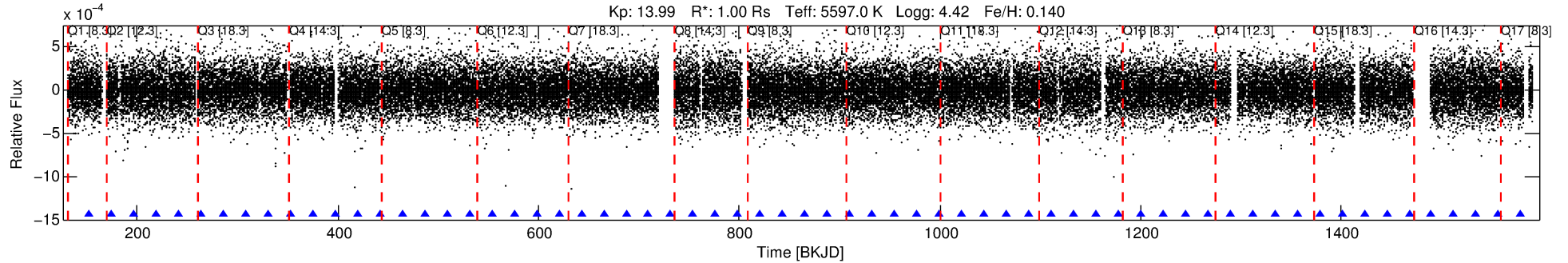
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006675757-01

No Significant Match Found

DV One-Page Summary

KIC: 6675757 Candidate: 1 of 1 Period: 22.290 d
KOI: K05310.01 Corr: 0.953



DV Fit Results:

Period = 22.29027 [0.00012] d
Epoch = 152.3784 [0.0045] BKJD
Rp/R* = 0.0135 [0.0106]
a/R* = 49.74 [175.60]
b = 0.90 [0.73]
Seff = 37.72 [7.83]
Teq = 632 [33] K
Rp = 1.48 [1.18] Re
a = 0.1527 [0.0196] AU
Ag = 393.31 [629.65] [0.62σ]
Teffp = 4351 [1729] K [2.15σ]

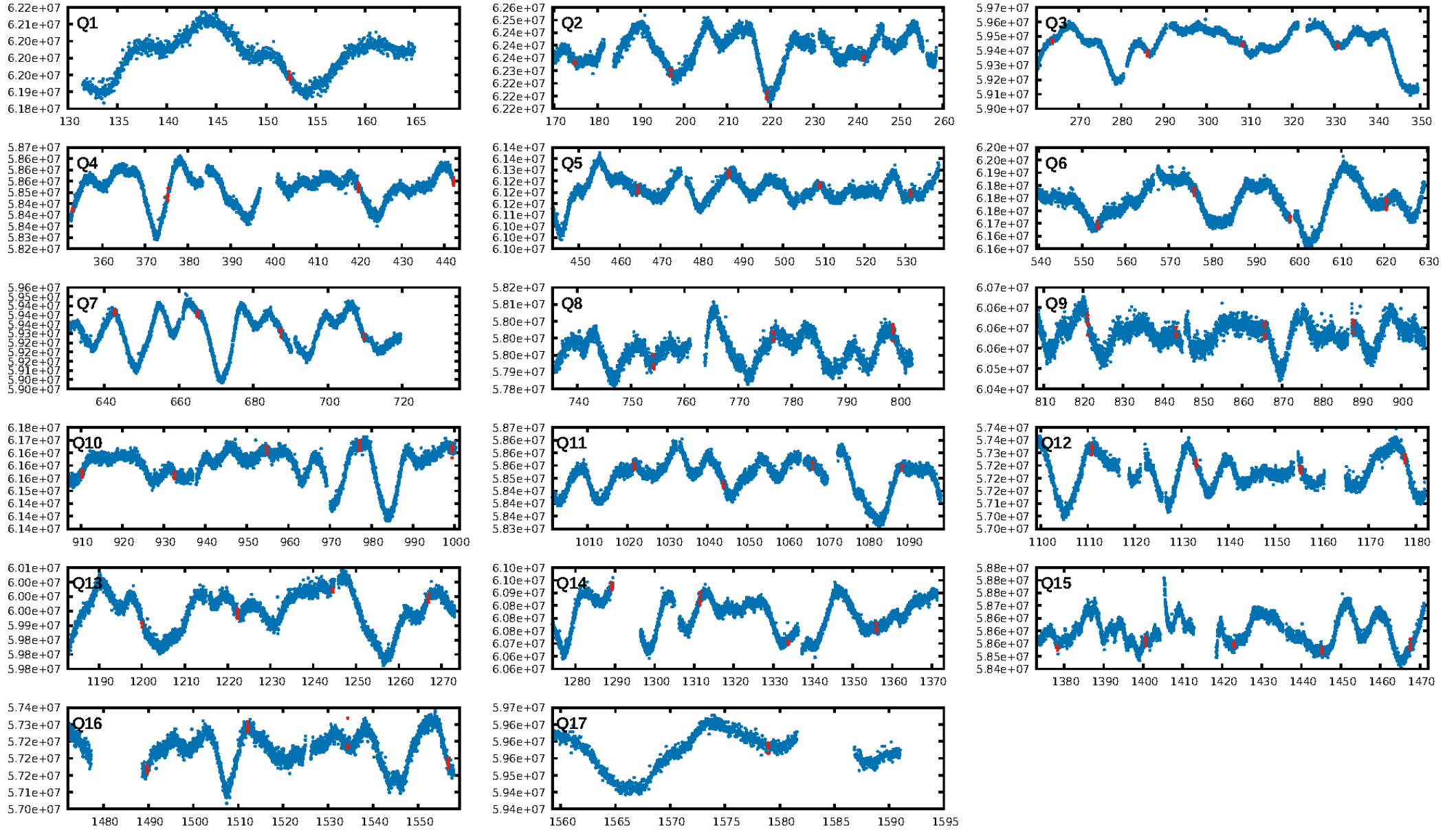
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 85.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.66e-15
RollingBand-fgt: 1.00 [61/61]
GhostDiagnostic-chr: 5.306
Centroid-sig: 38.4%
Centroid-so: 0.877 arcsec [0.65σ]
OotOffset-rm: 1.635 arcsec [2.21σ]
KicOffset-rm: 1.666 arcsec [2.17σ]
OotOffset-st: 4/3/3/3 [13]
KicOffset-st: 4/3/3/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [17/17]

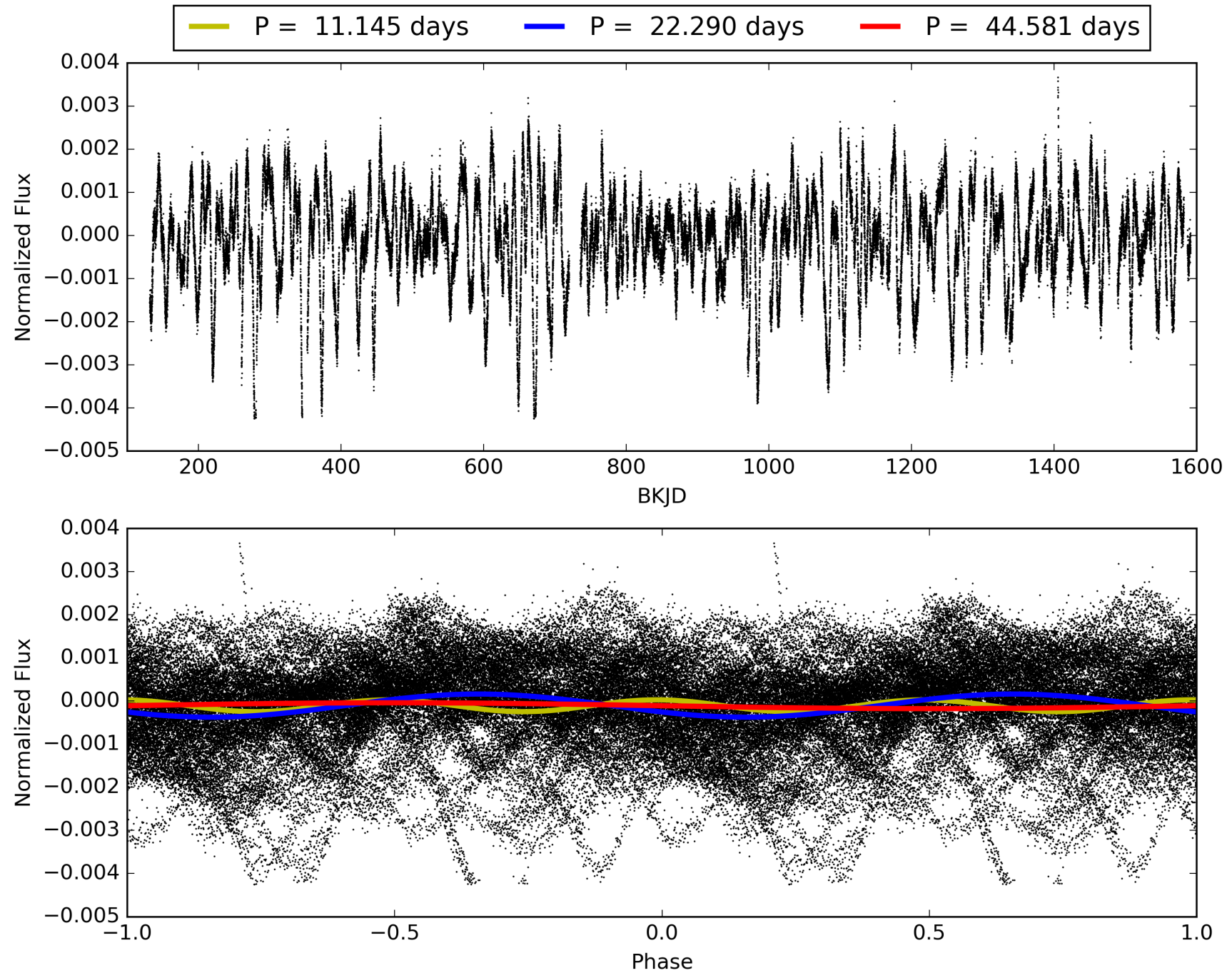
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:15:08 Z

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

TCE 006675757-01, PDC Light Curves

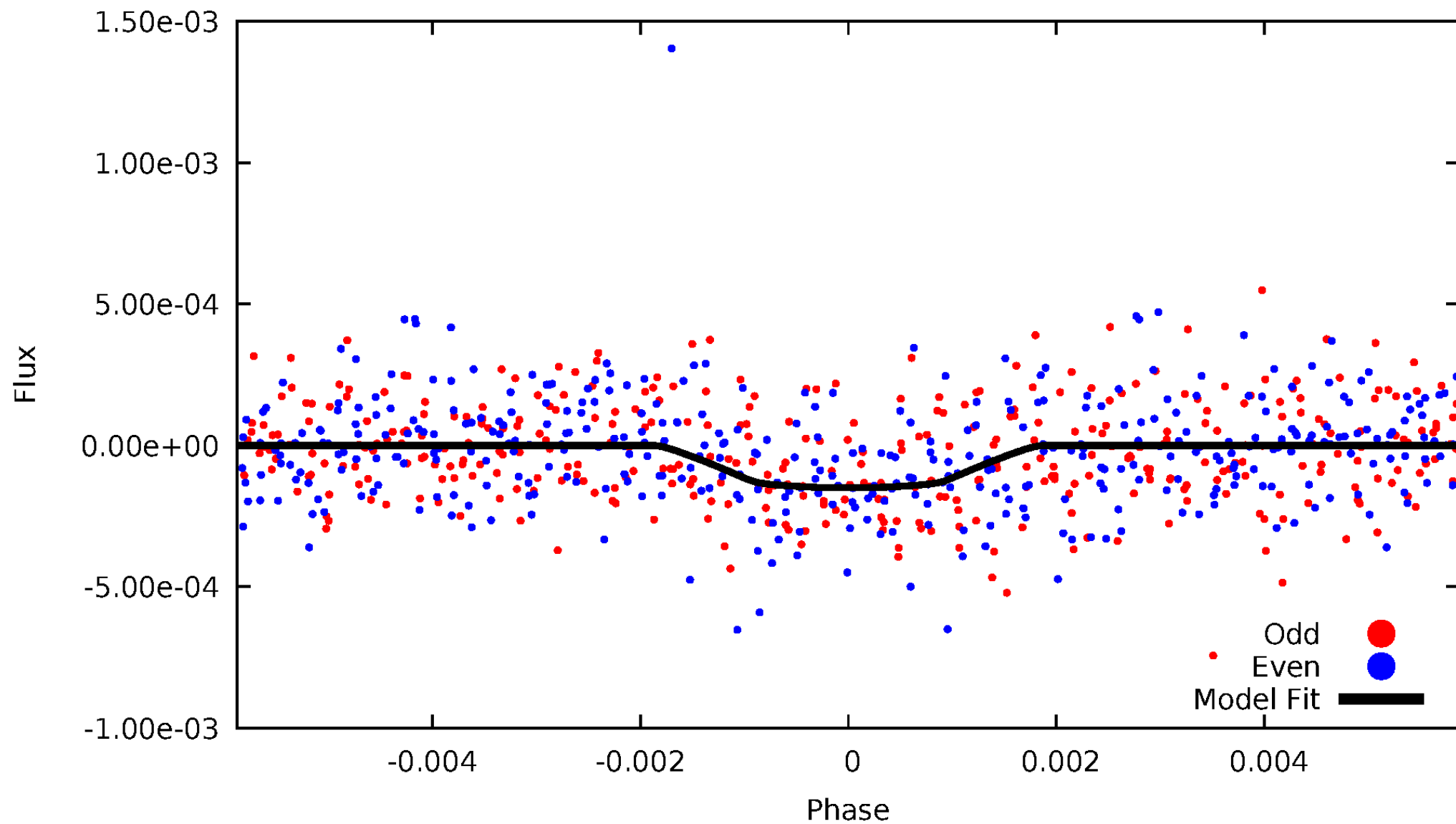


TCE 006675757-01



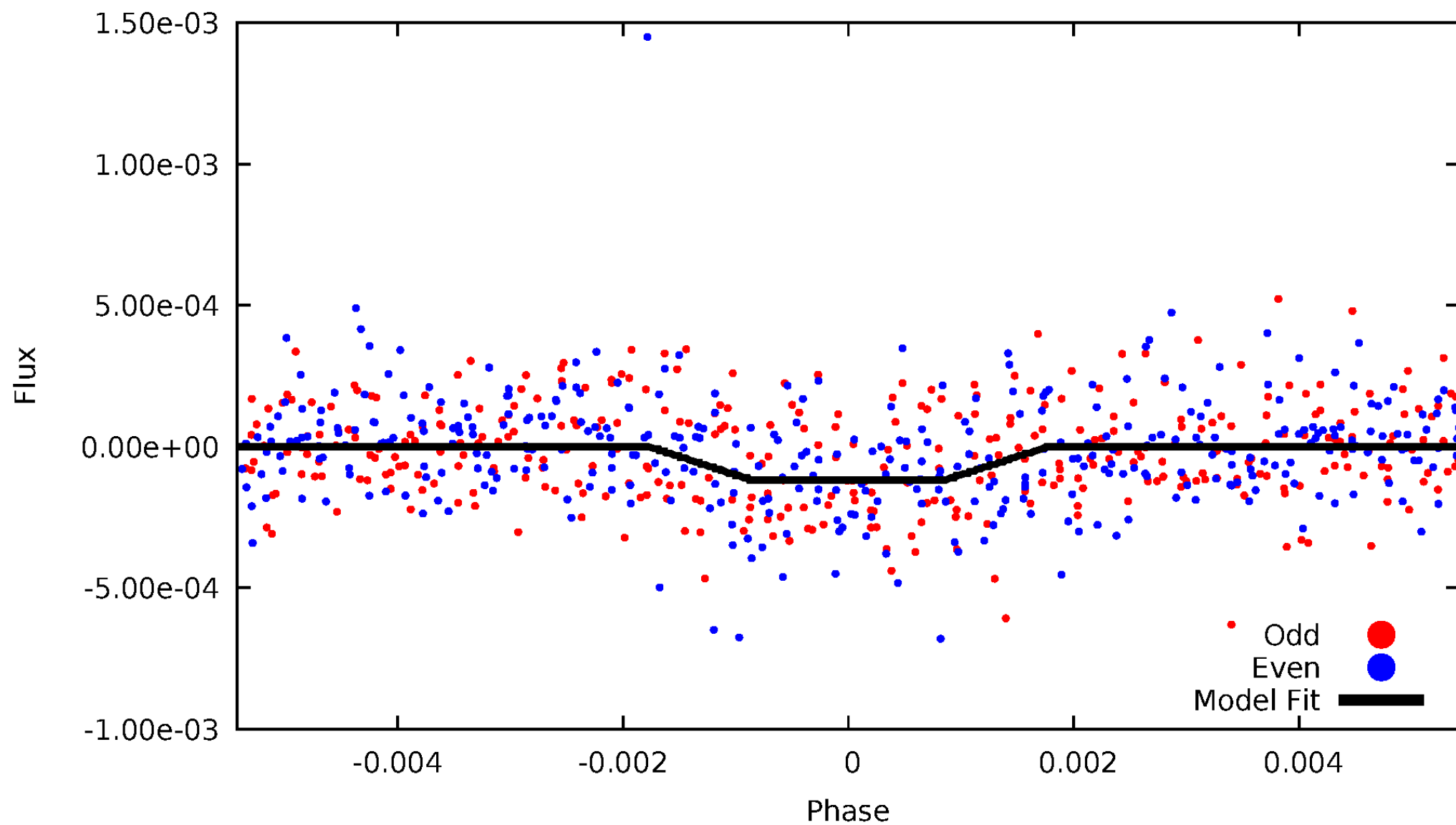
DV Odd/Even

TCE 006675757-01

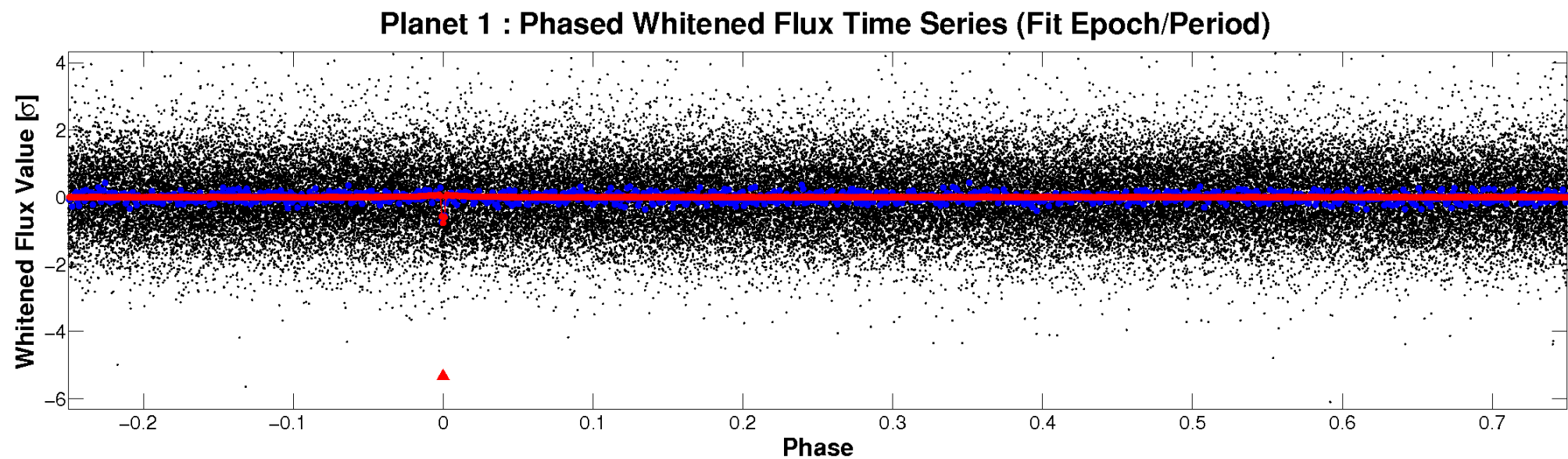
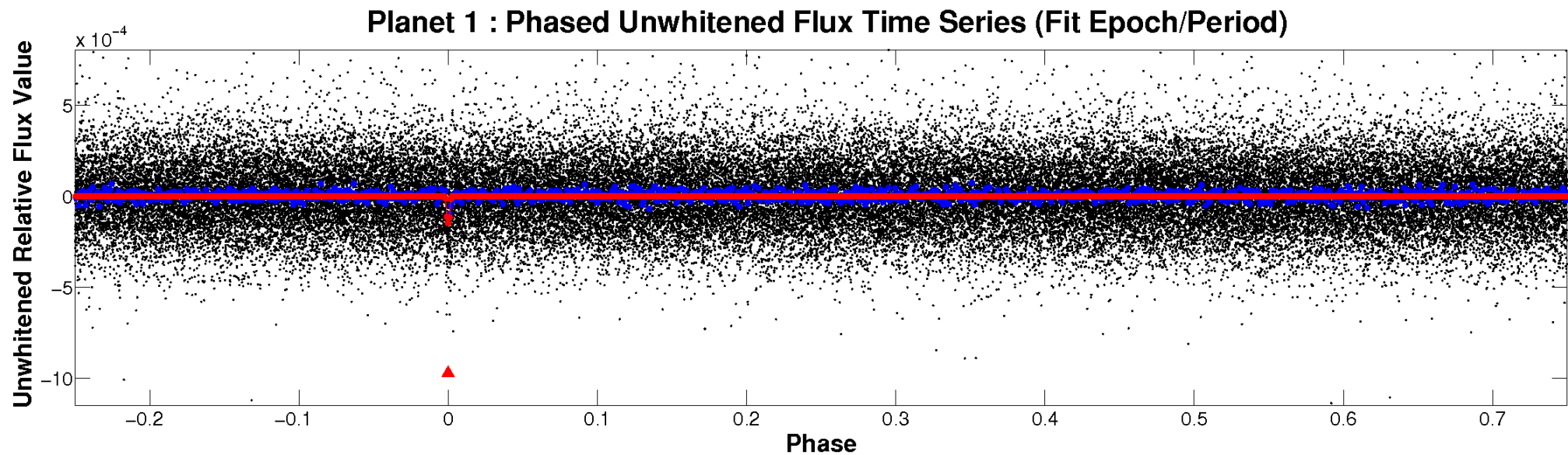


ALT Odd/Even

TCE 006675757-01

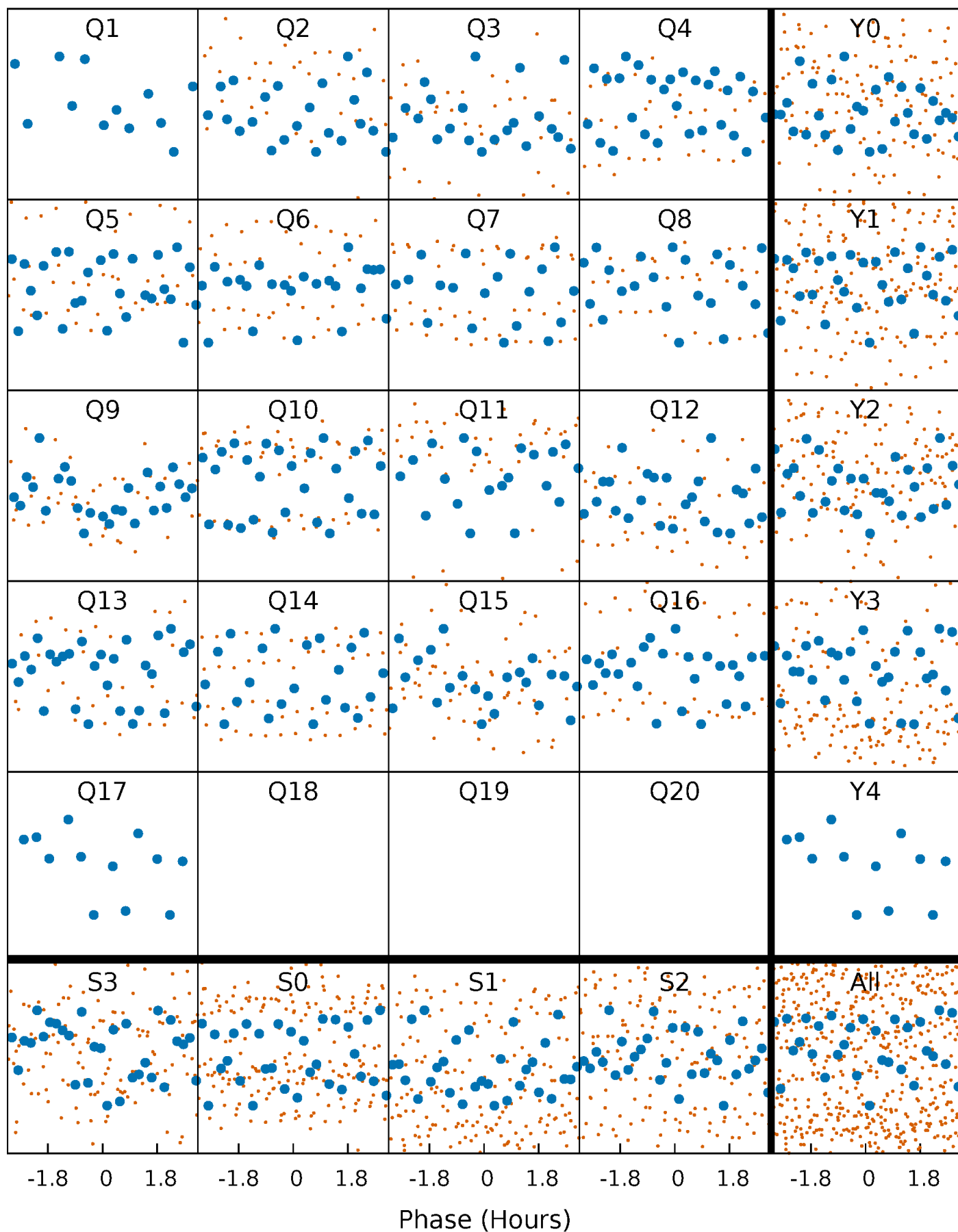


Non-Whitened Vs. Whitened Light Curve



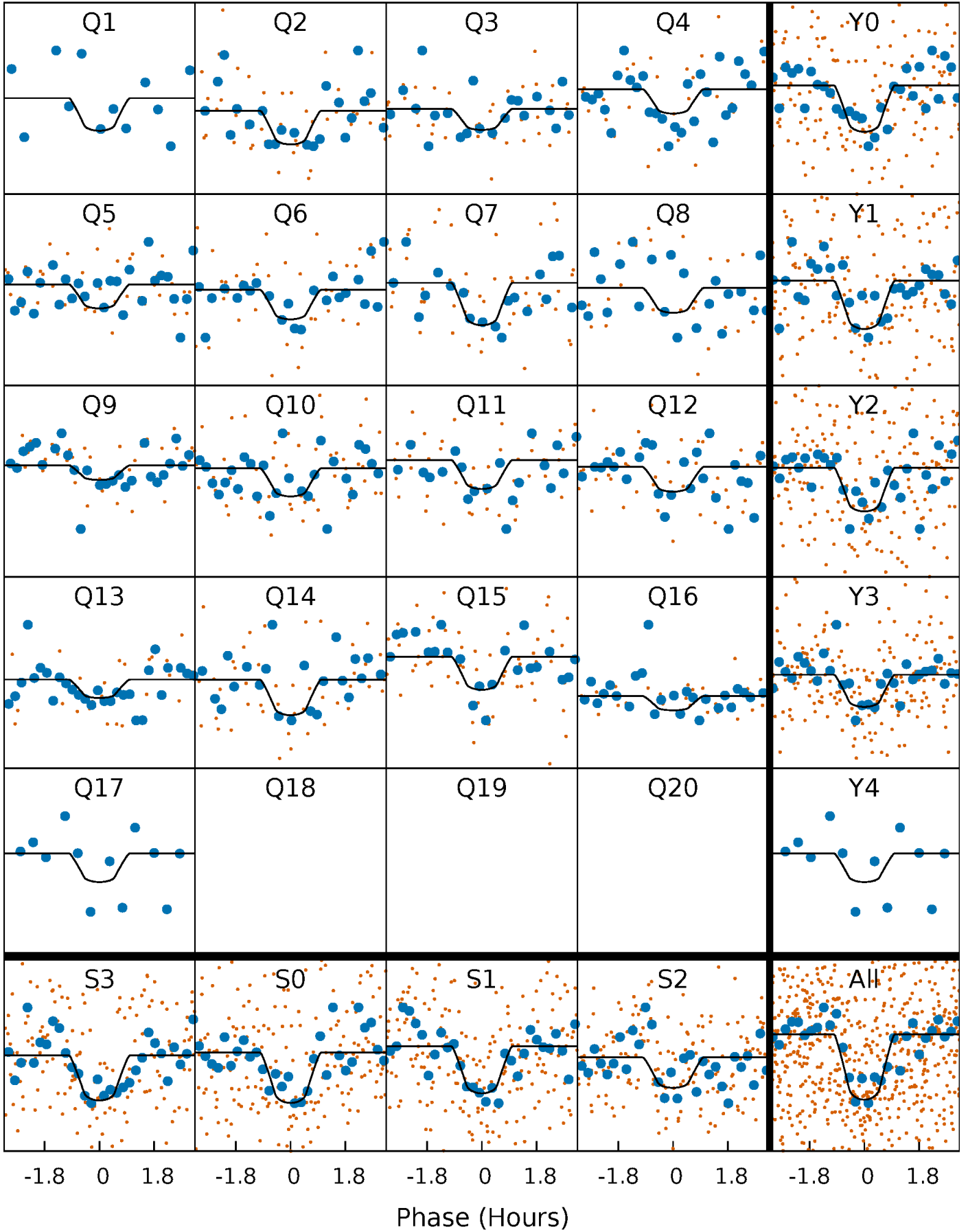
PDC Quarter-Phased Transit Curves

TCE 006675757-01 P= 22.290273 Days $T_0=152.378364$ (BKJD)



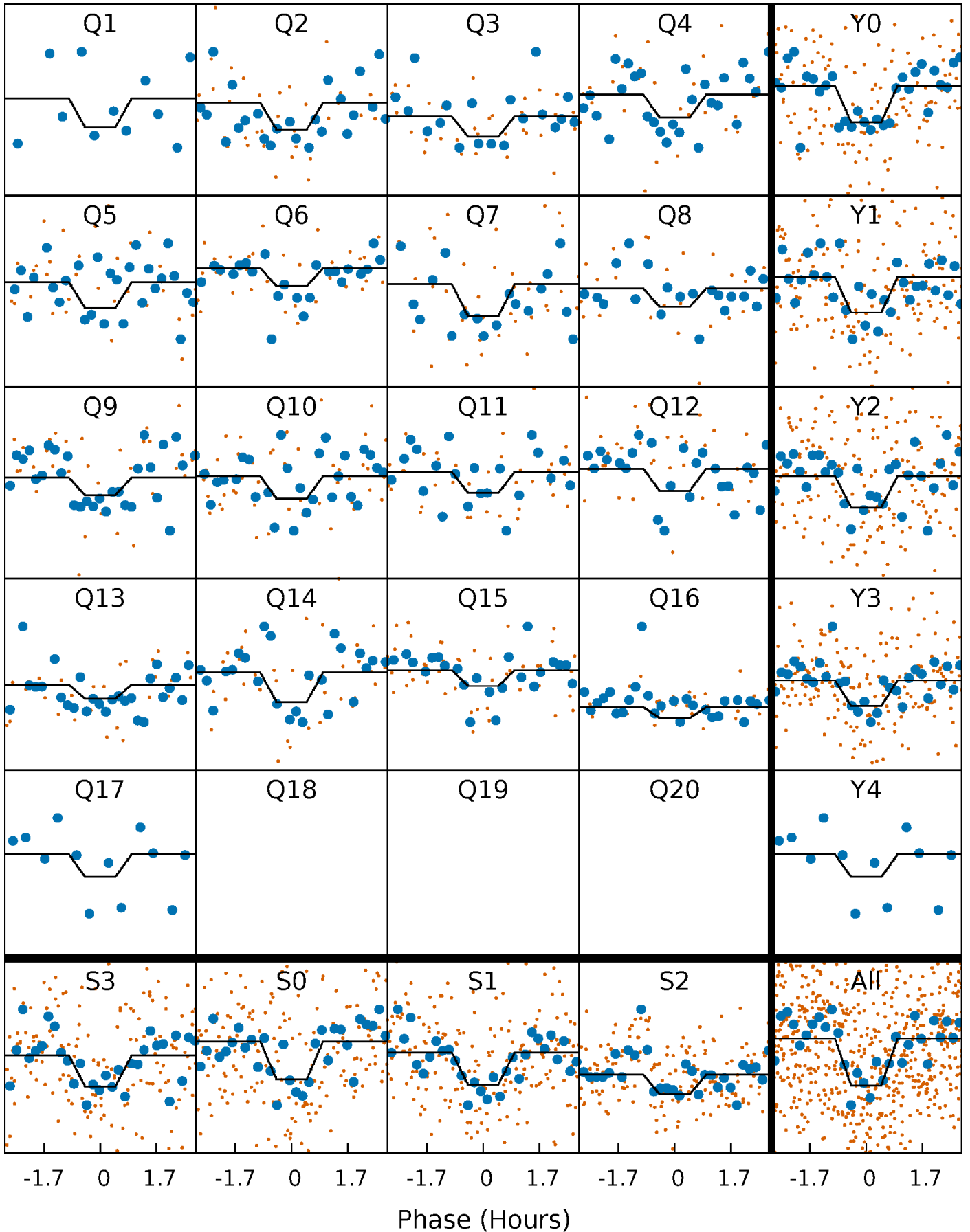
DV Quarter-Phased Transit Curves

TCE 006675757-01 P= 22.290273 Days $T_0=152.378364$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

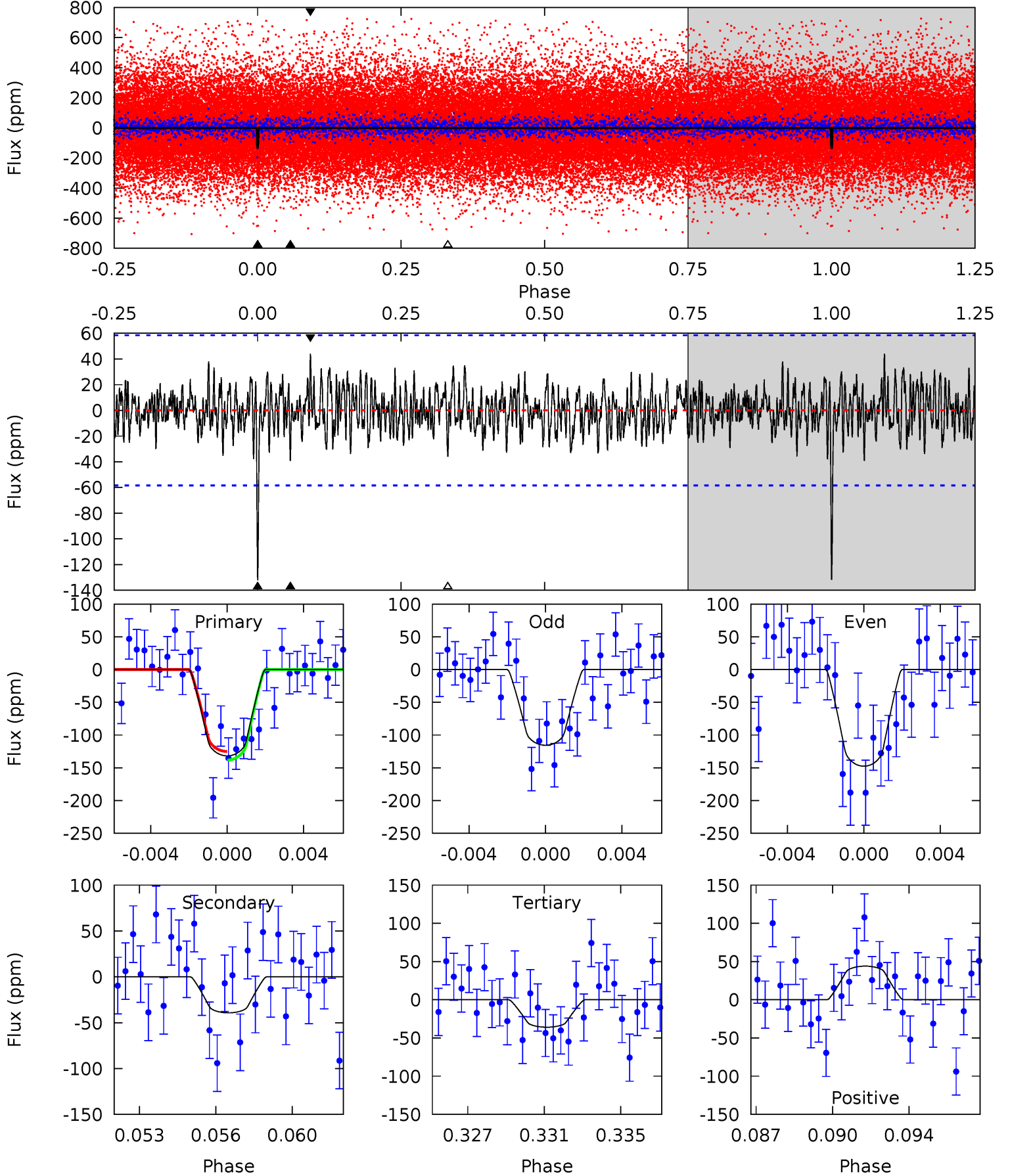
TCE 006675757-01 P= 22.290243 Days $T_0=152.382106$ (BKJD)



DV Model-Shift Uniqueness Test

006675757-01, P = 22.290273 Days, E = 130.088091 Days

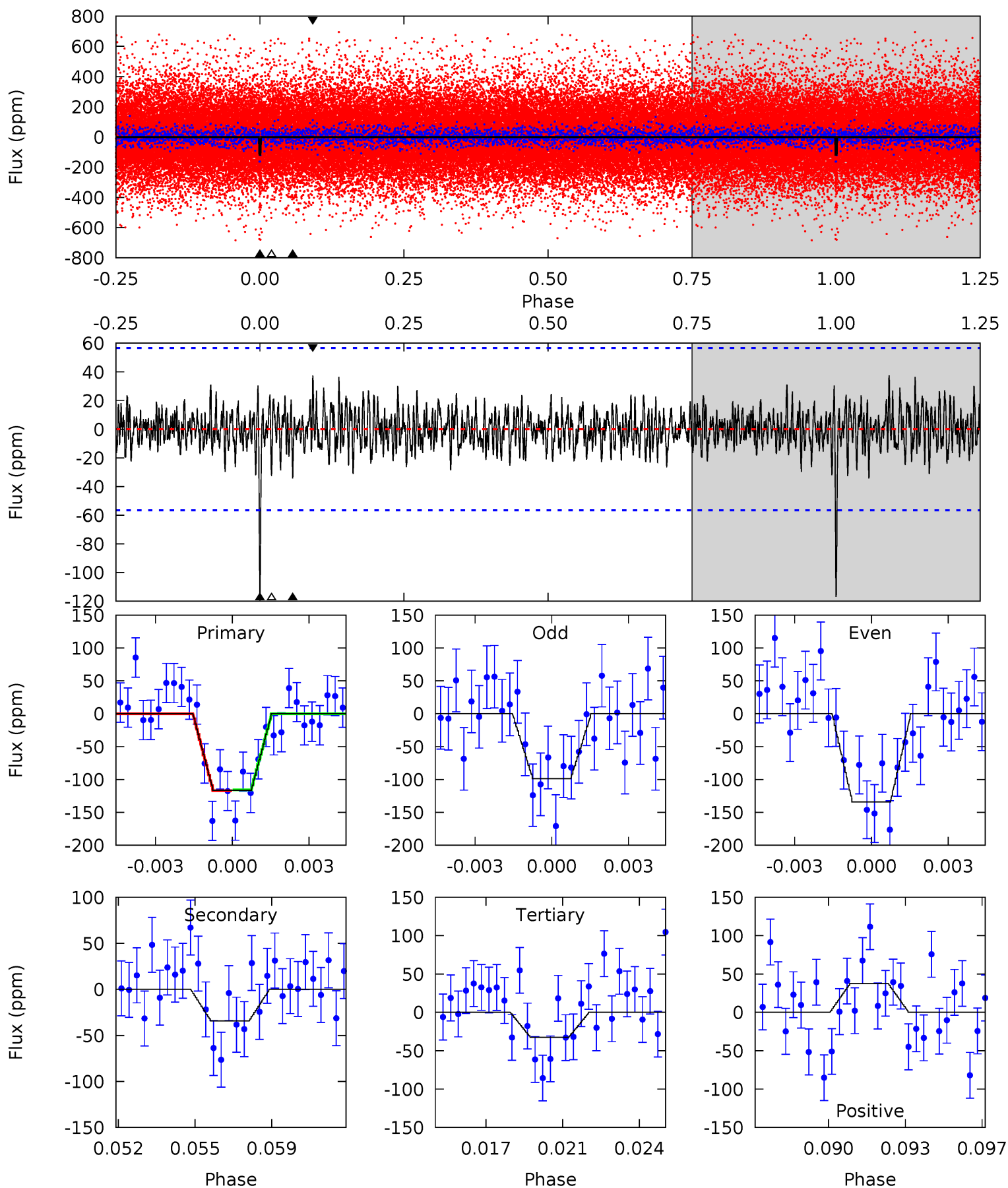
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	3.50	3.20	3.92	5.21	2.90	1.21	8.55	7.83	0.30	-0.42	1.43	1.17	0.25	0.59



Alt Model-Shift Uniqueness Test

006675757-01, P = 22.290243 Days, E = 130.091863 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	3.17	3.02	3.47	5.23	2.92	0.99	7.75	7.30	0.16	-0.30	1.64	1.29	0.24	0.06



Stellar Parameters For KIC 006675757

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5597^{+75}_{-84}	$4.418^{+0.085}_{-0.114}$	$0.140^{+0.150}_{-0.150}$	$1.000^{+0.141}_{-0.082}$	$0.956^{+0.060}_{-0.055}$	$1.346^{+0.464}_{-0.407}$
	+1%/-2%	+2%/-3%	+107%/-107%	+14%/-8%	+6%/-6%	+35%/-30%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 006675757-01 / KOI 5310.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-39 ± 11	$1.64^{+1.12}_{-0.91}$	884^{+37}_{-27}	3931^{+1587}_{-626}	184^{+803}_{-123}
Alt.	-34 ± 11	$1.41^{+1.05}_{-0.84}$	881^{+39}_{-27}	4008^{+1944}_{-669}	204^{+1134}_{-137}

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 $A_{obs} \gg 1.0$

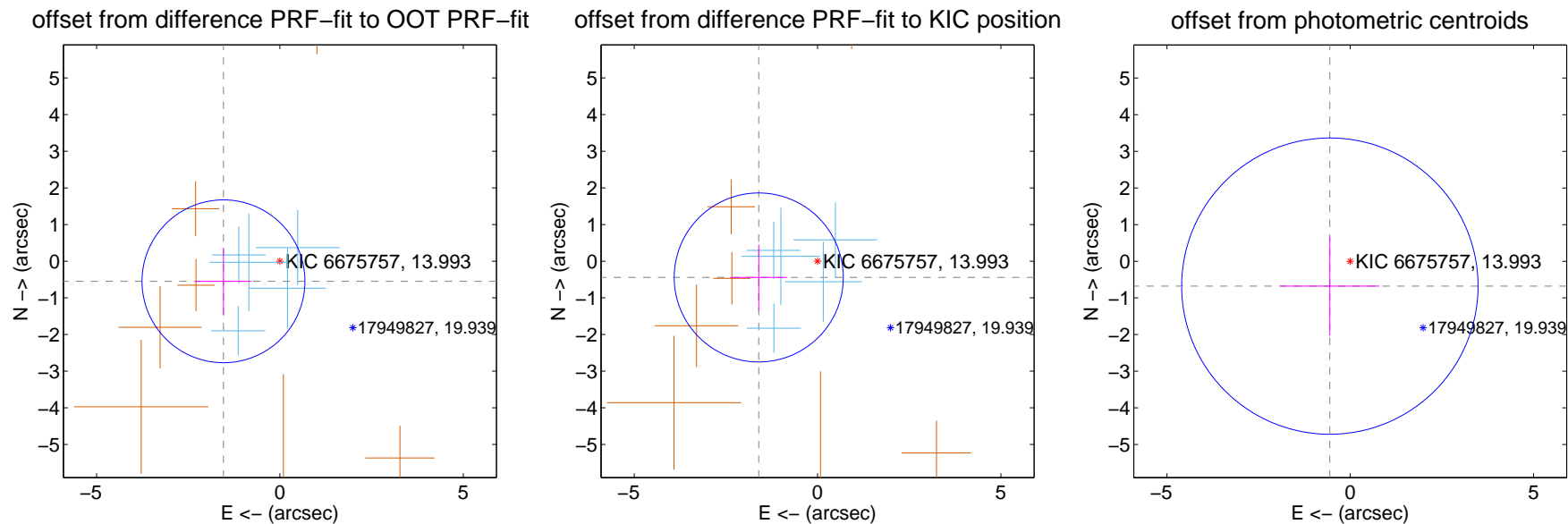
DV Centroid Data

Supplemental centroid analysis for 006675757-01. Kepler magnitude: 13.99. Transit SNR 9.01

There are 5 quarters with good PRF difference image offsets

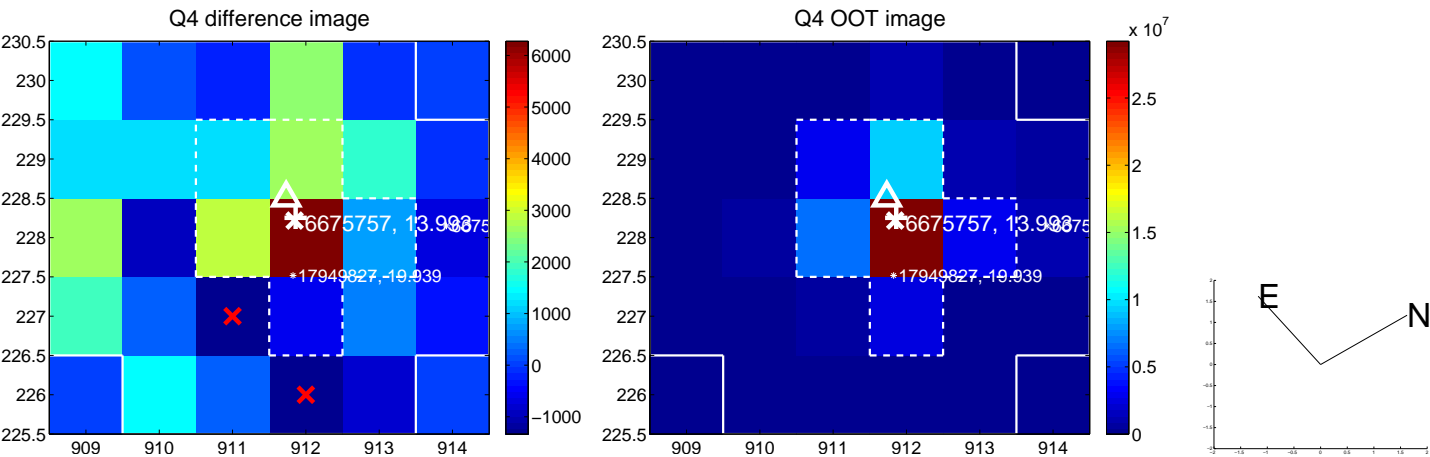
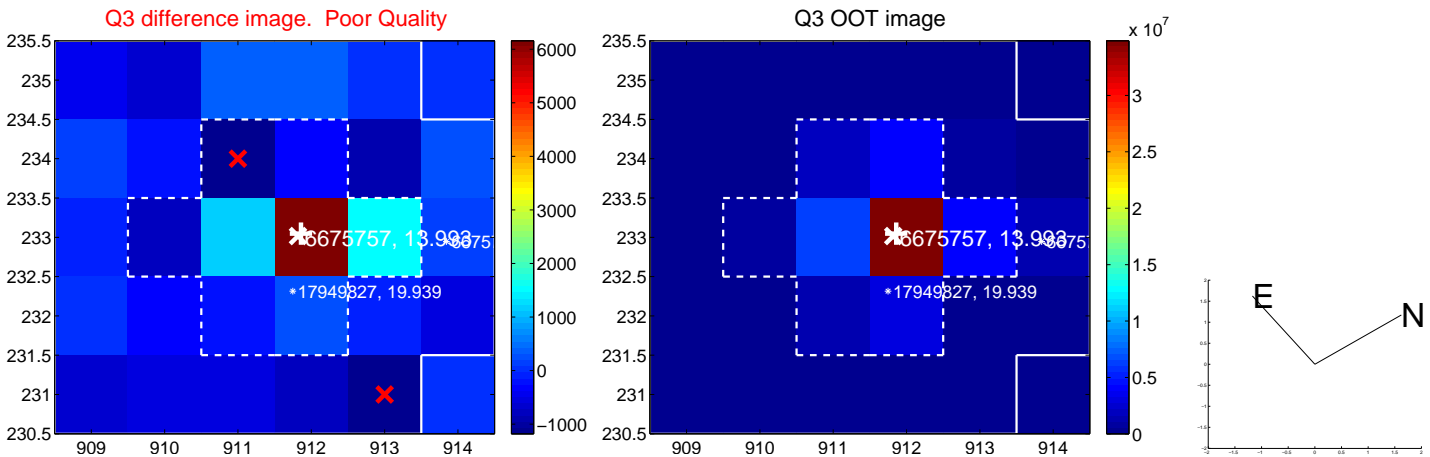
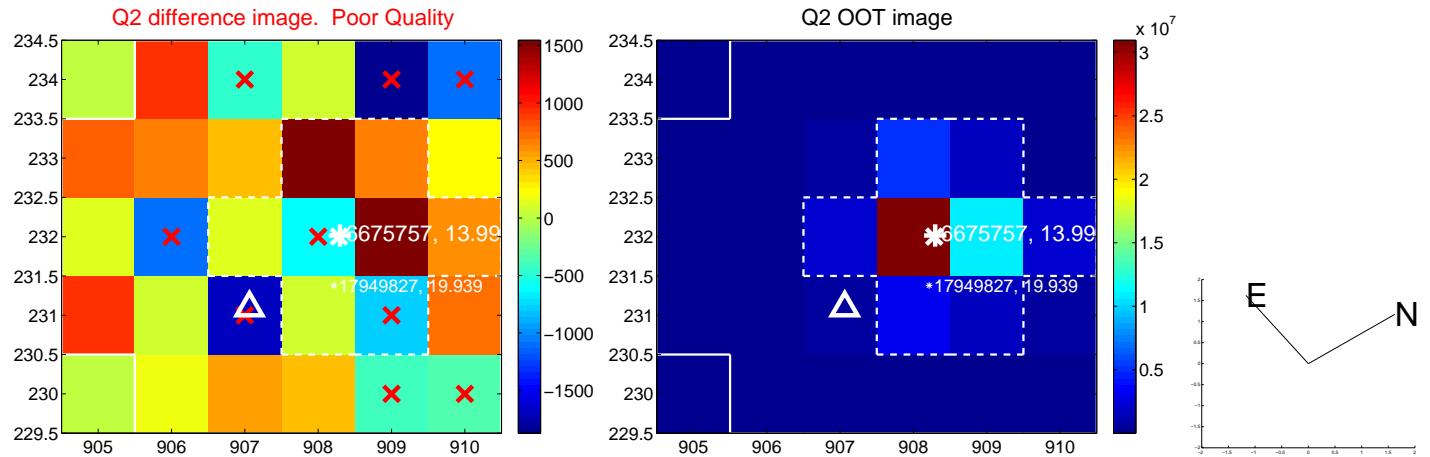
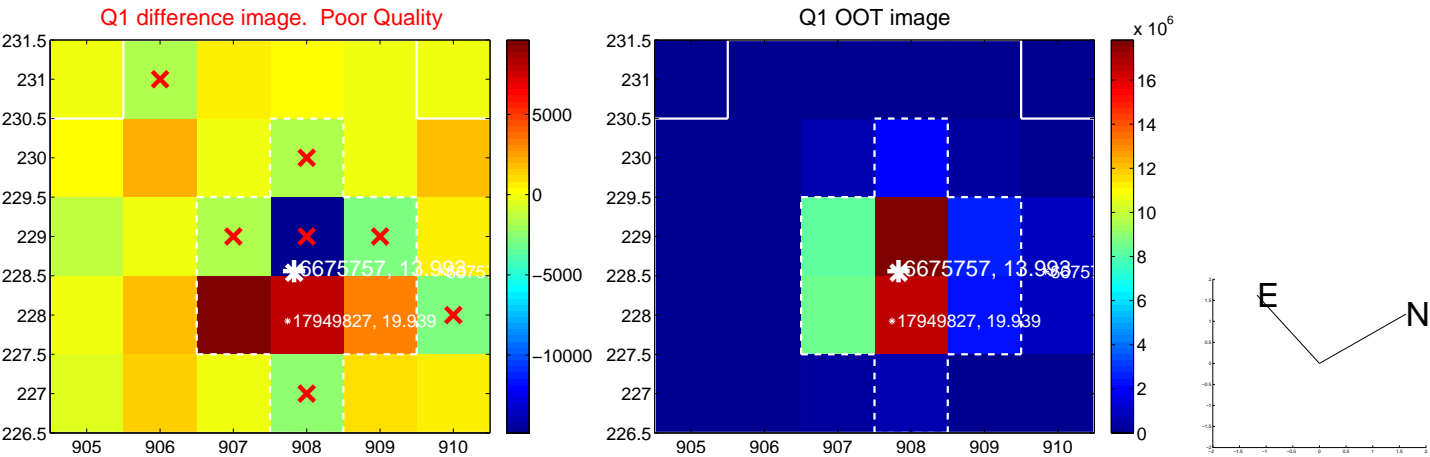
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.635 ± 0.741	2.21	1.540 ± 0.768	-0.548 ± 0.919
PRF-fit source offset from KIC position	1.666 ± 0.769	2.17	1.605 ± 0.784	-0.444 ± 0.896
photometric centroid source offset	0.88 ± 1.35	0.65	0.56 ± 1.35	-0.68 ± 1.35

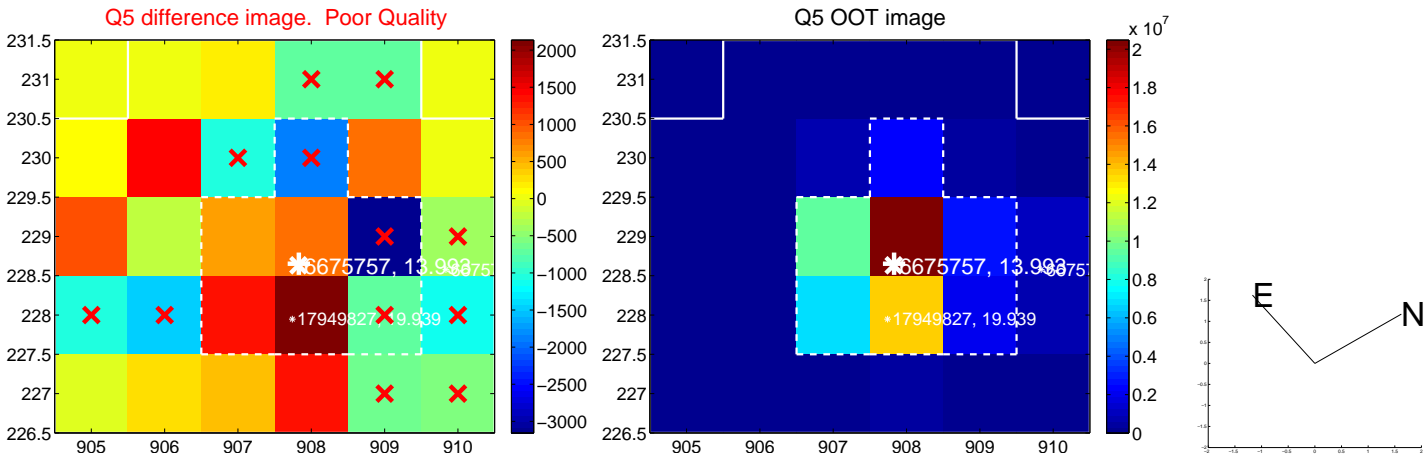


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

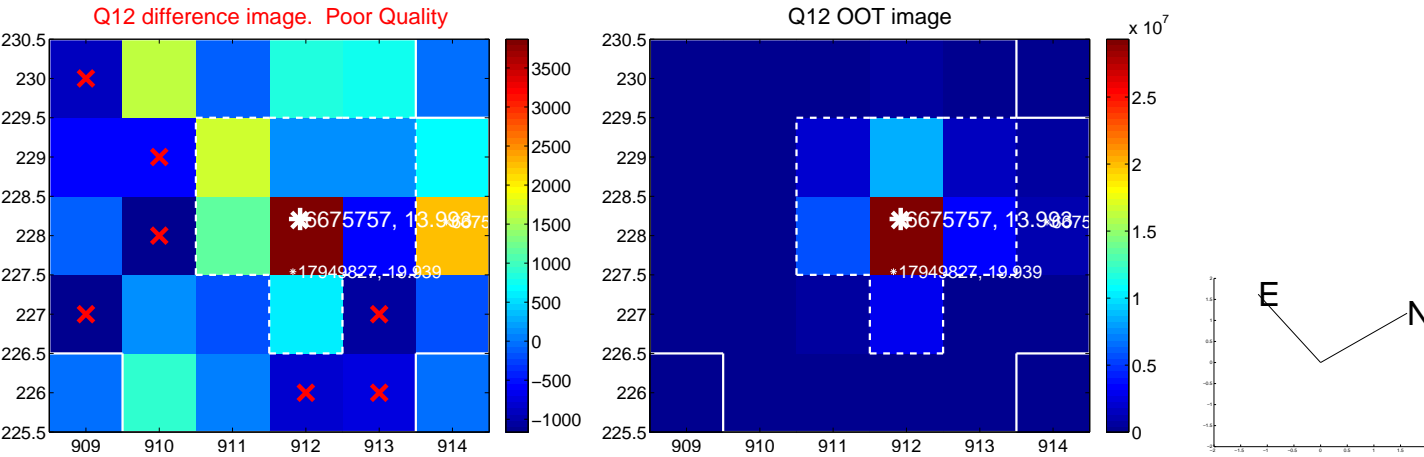
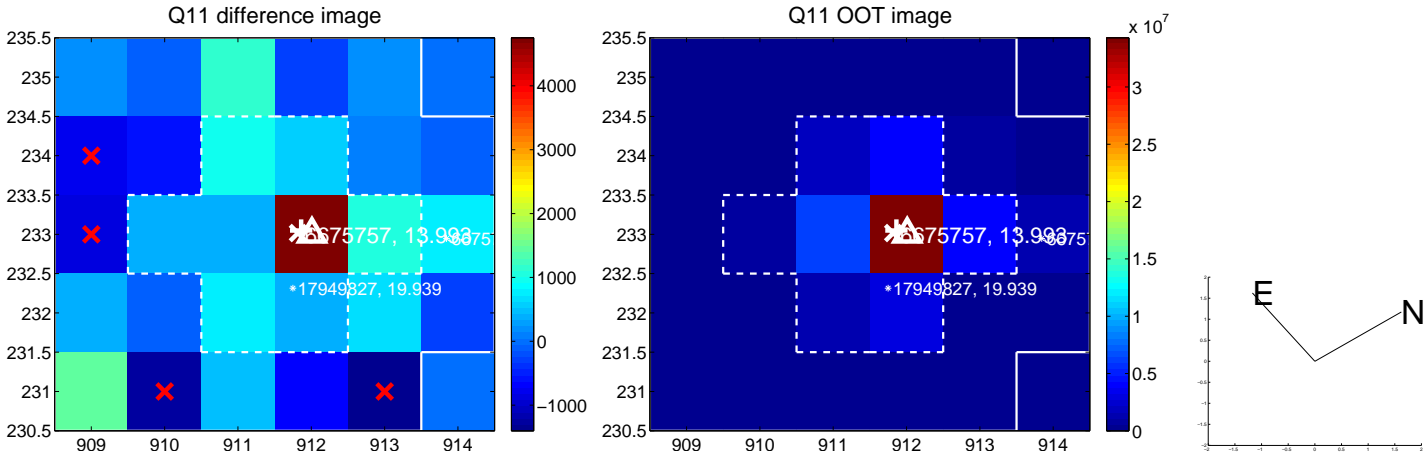
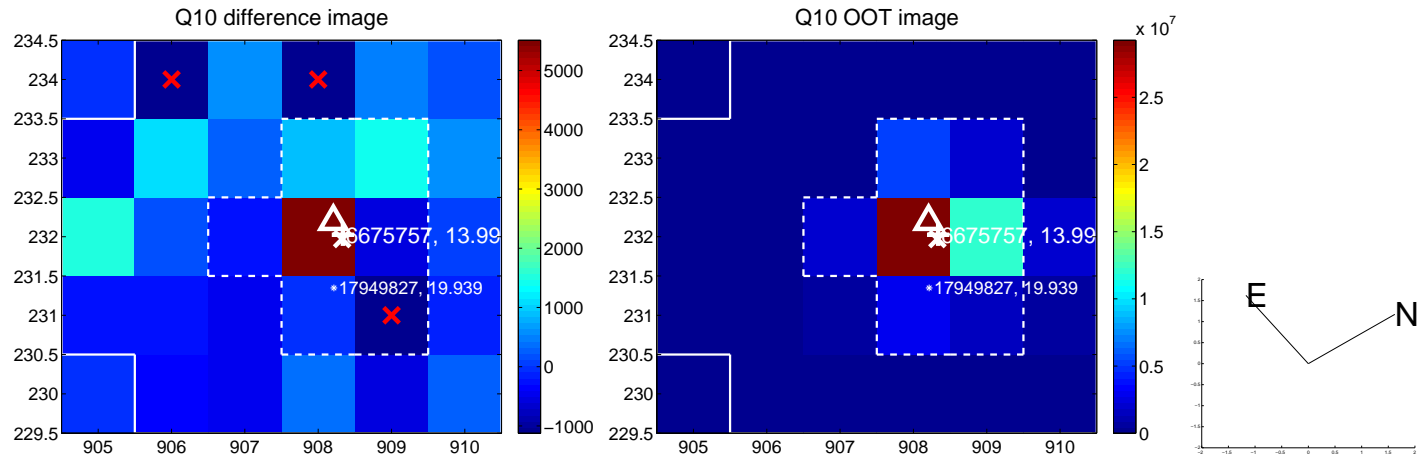
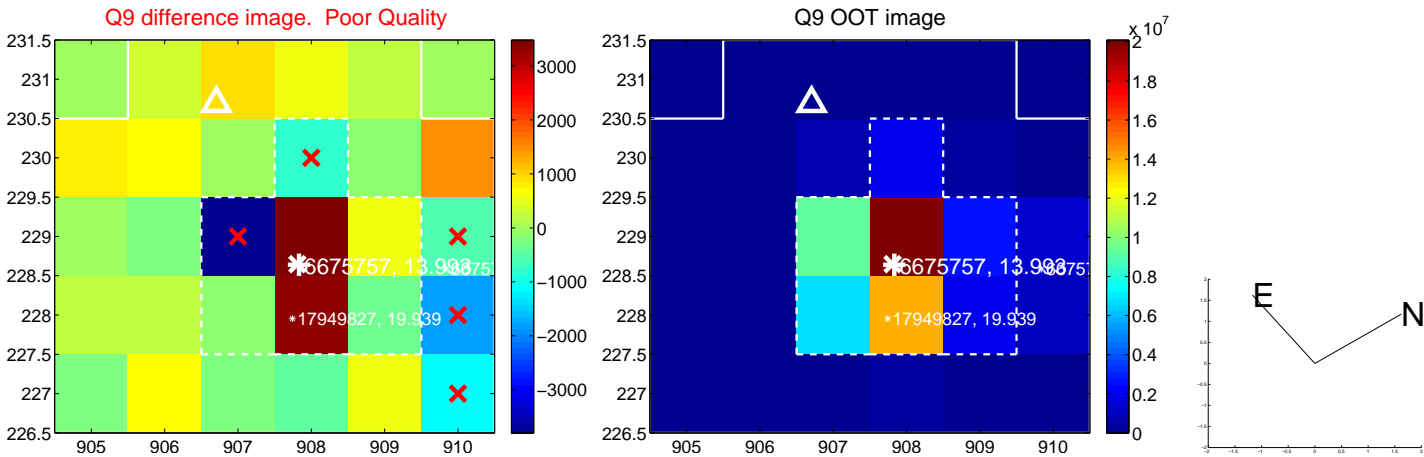
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



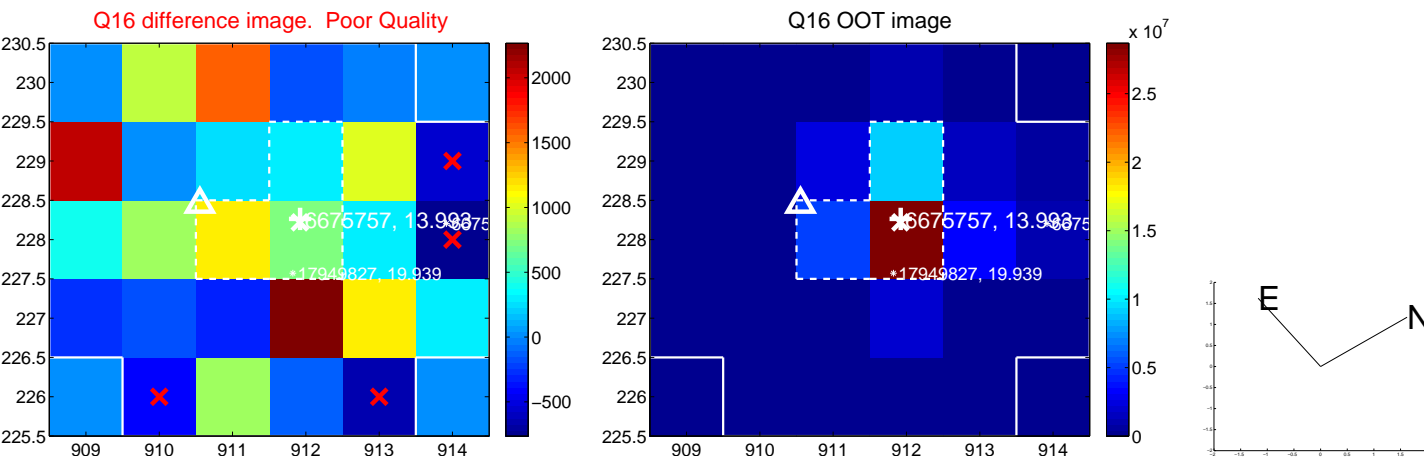
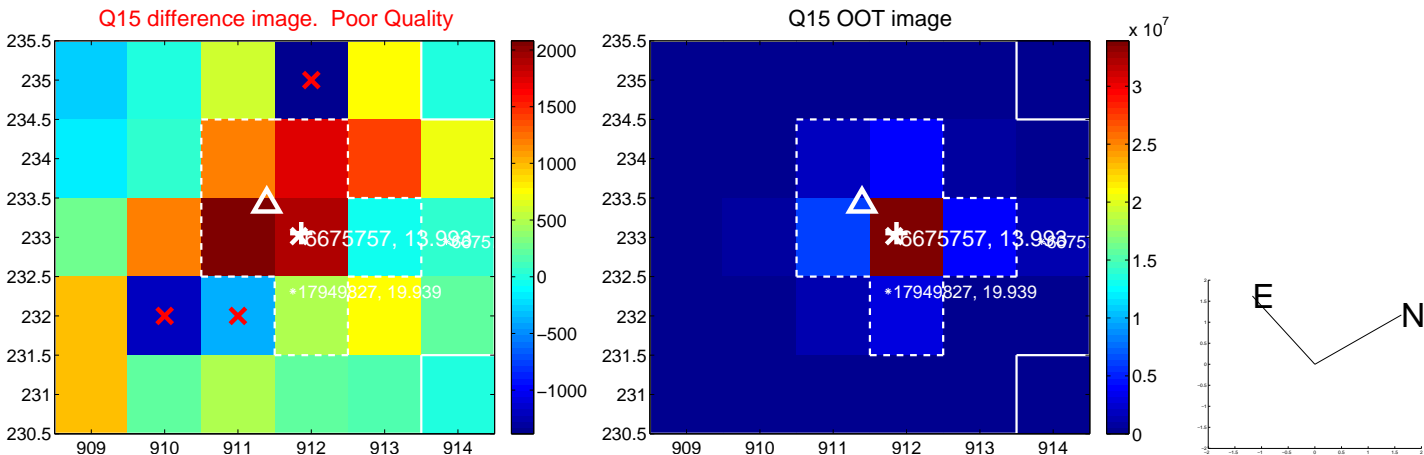
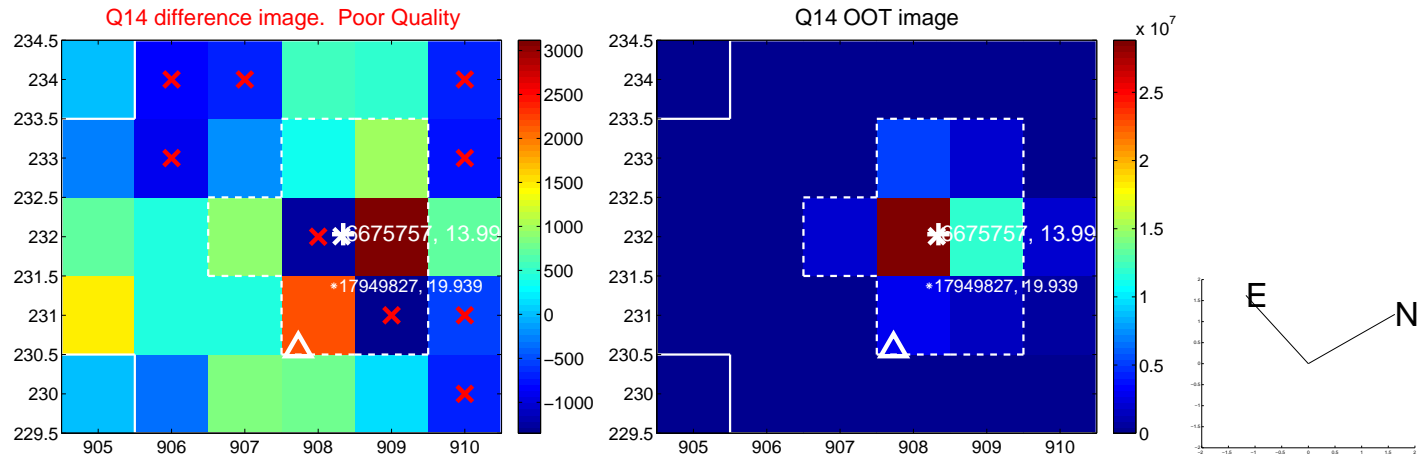
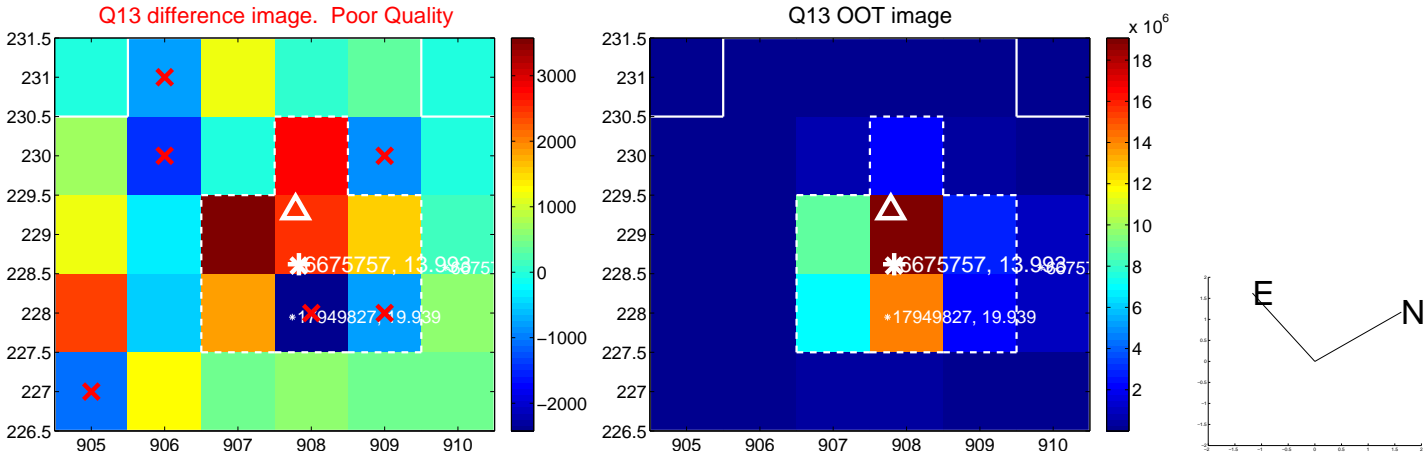
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



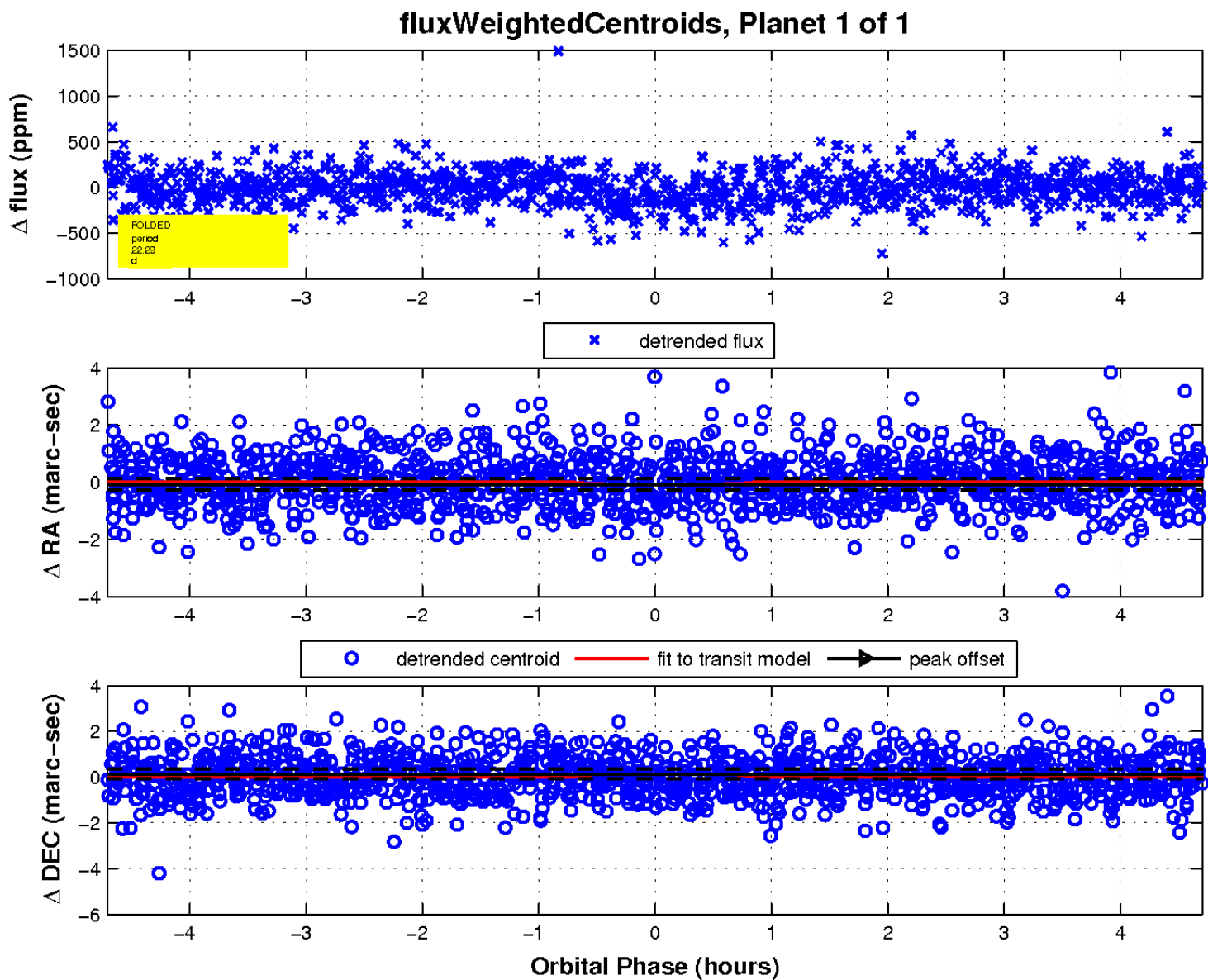
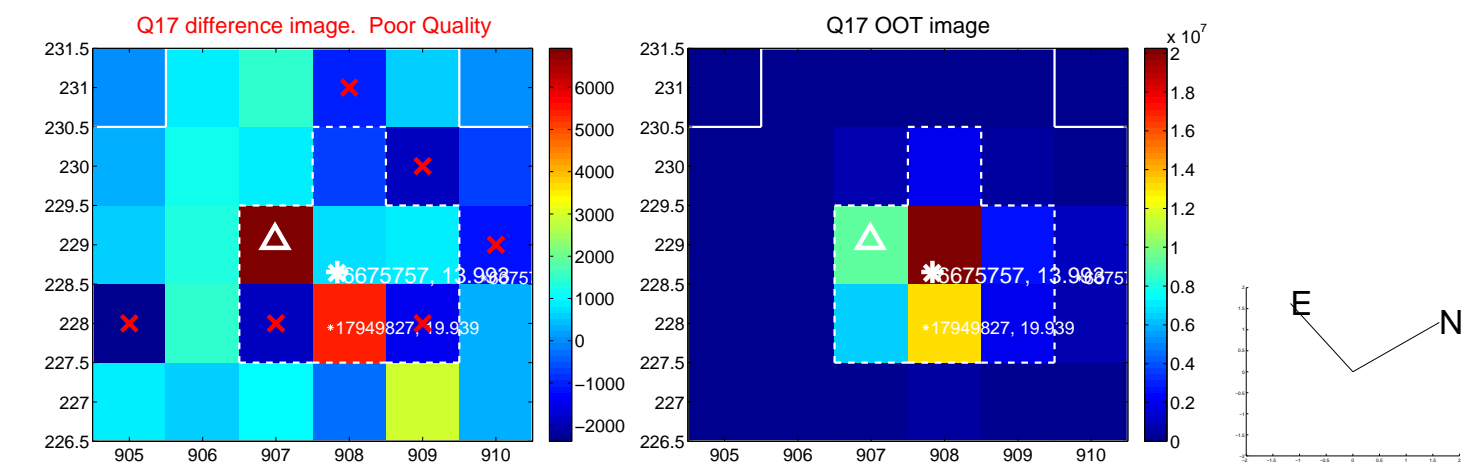
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UKIRT Image

Declination

