

KIC 010600955

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})
010600955-01	OBS	2227.01	65.648446	173.297977	577.2	5.511	18.5	19.6	1.25	5565	3.76	13.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010600955-01	OBS	PC	0.48	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.

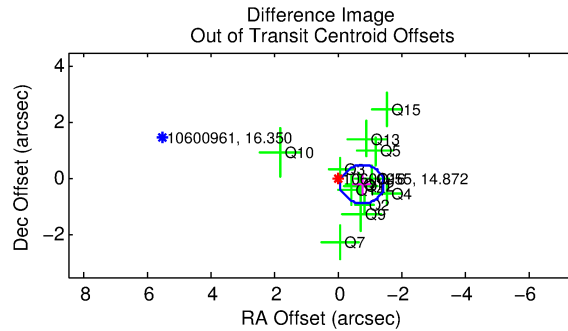
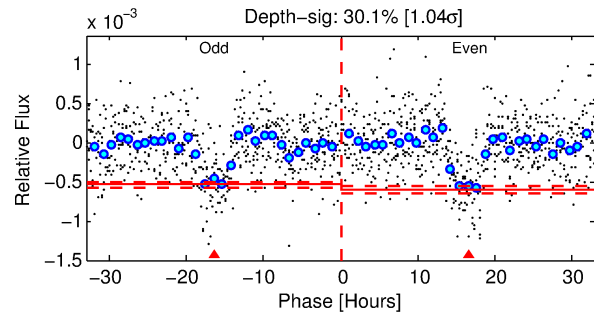
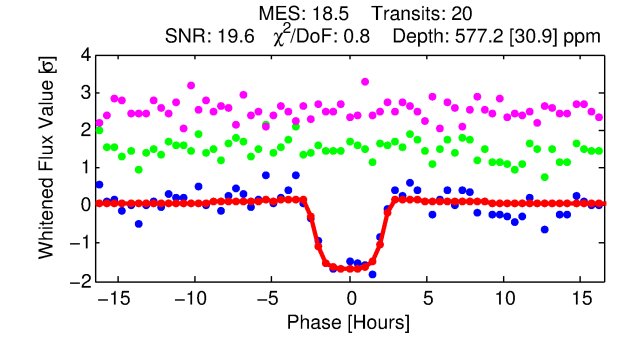
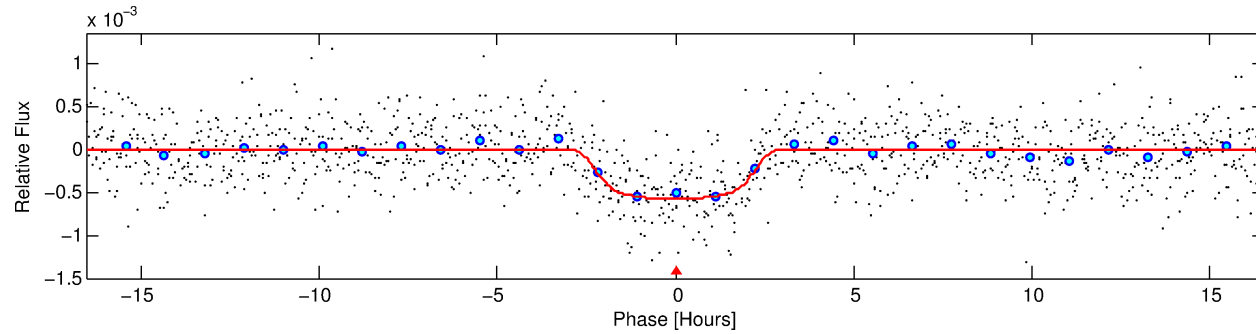
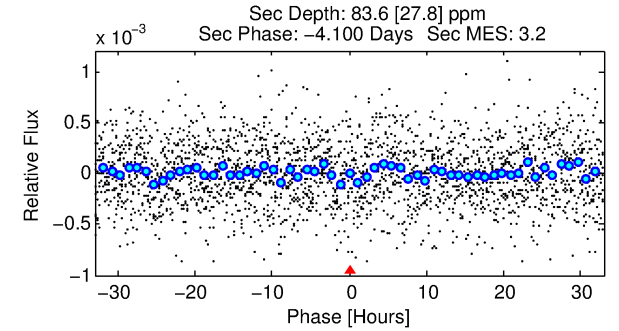
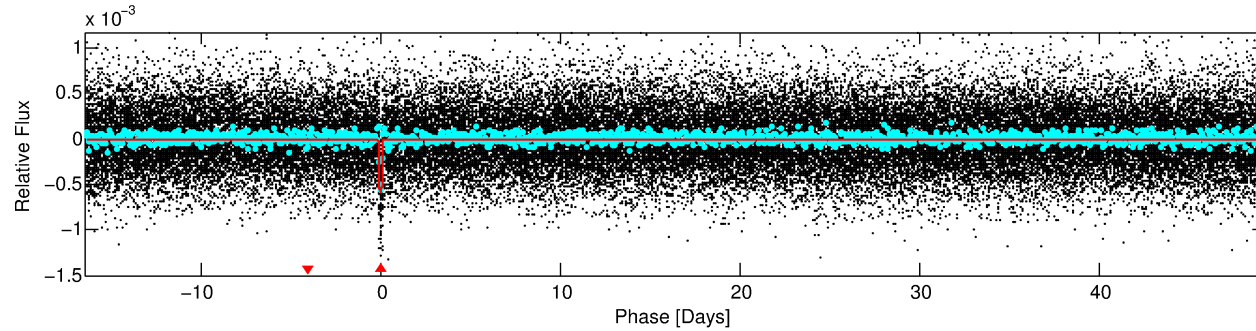
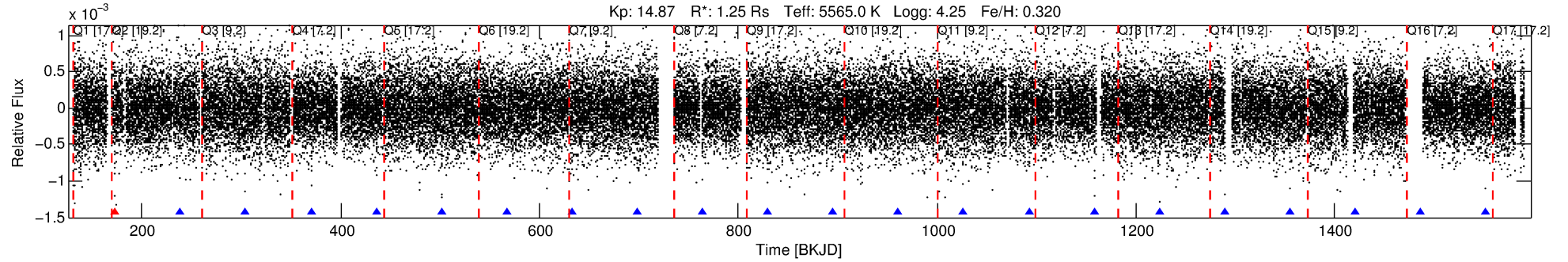
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010600955-01

No Significant Match Found

DV One-Page Summary

KIC: 10600955 Candidate: 1 of 1 Period: 65.648 d
KOI: K02227.01 Corr: 0.895



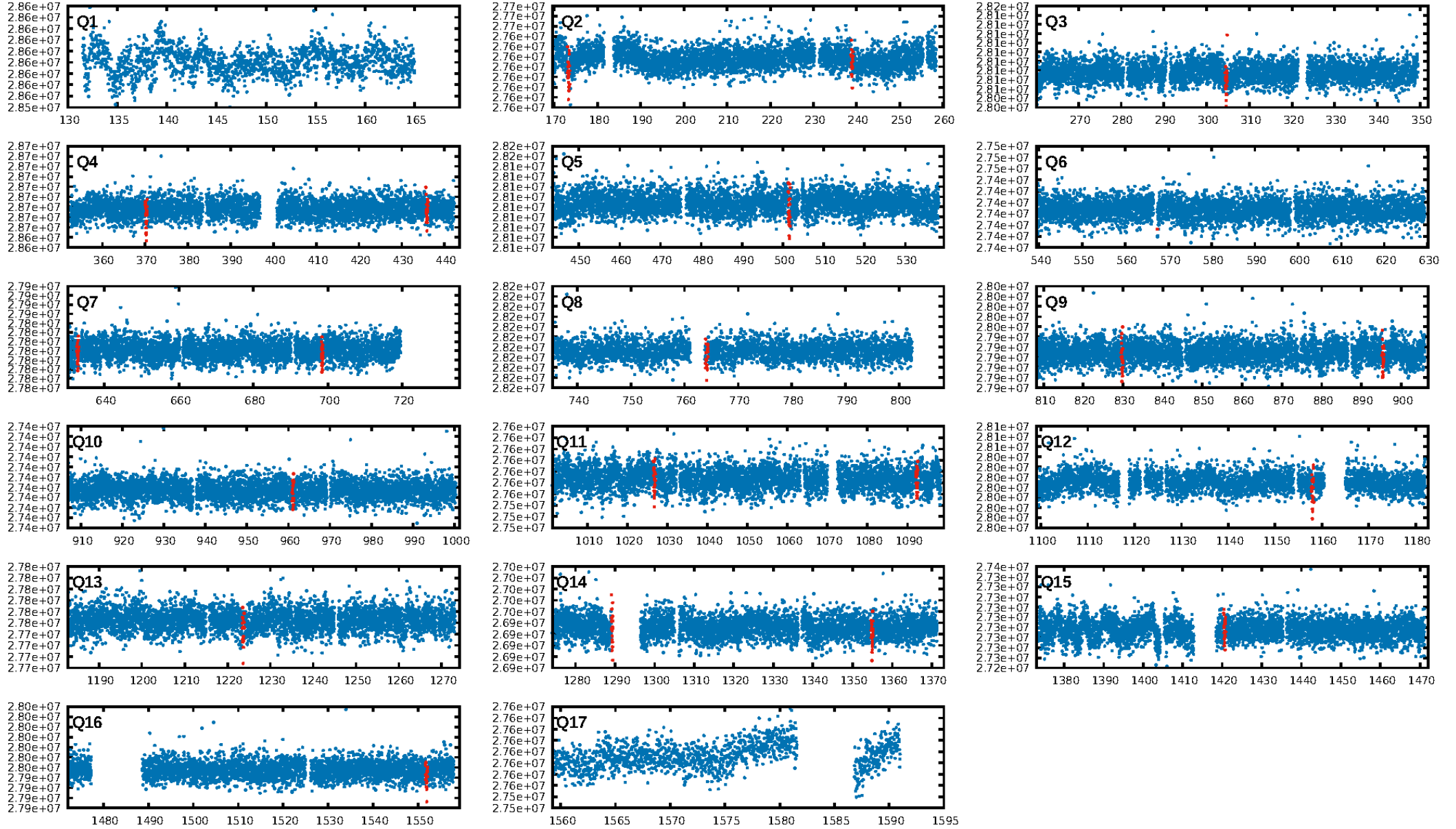
DV Fit Results:

Period = 65.64845 [0.00048] d
Epoch = 173.2980 [0.0058] BKJD
Rp/R* = 0.0277 [0.0017]
a/R* = 38.84 [8.69]
b = 0.93 [0.03]
Seff = 13.07 [3.45]
Teff = 485 [32] K
Rp = 3.76 [0.70] Re
a = 0.3195 [0.0523] AU
Ag = 331.67 [145.34] [2.28 σ]
Teffp = 3199 [288] K [9.37 σ]

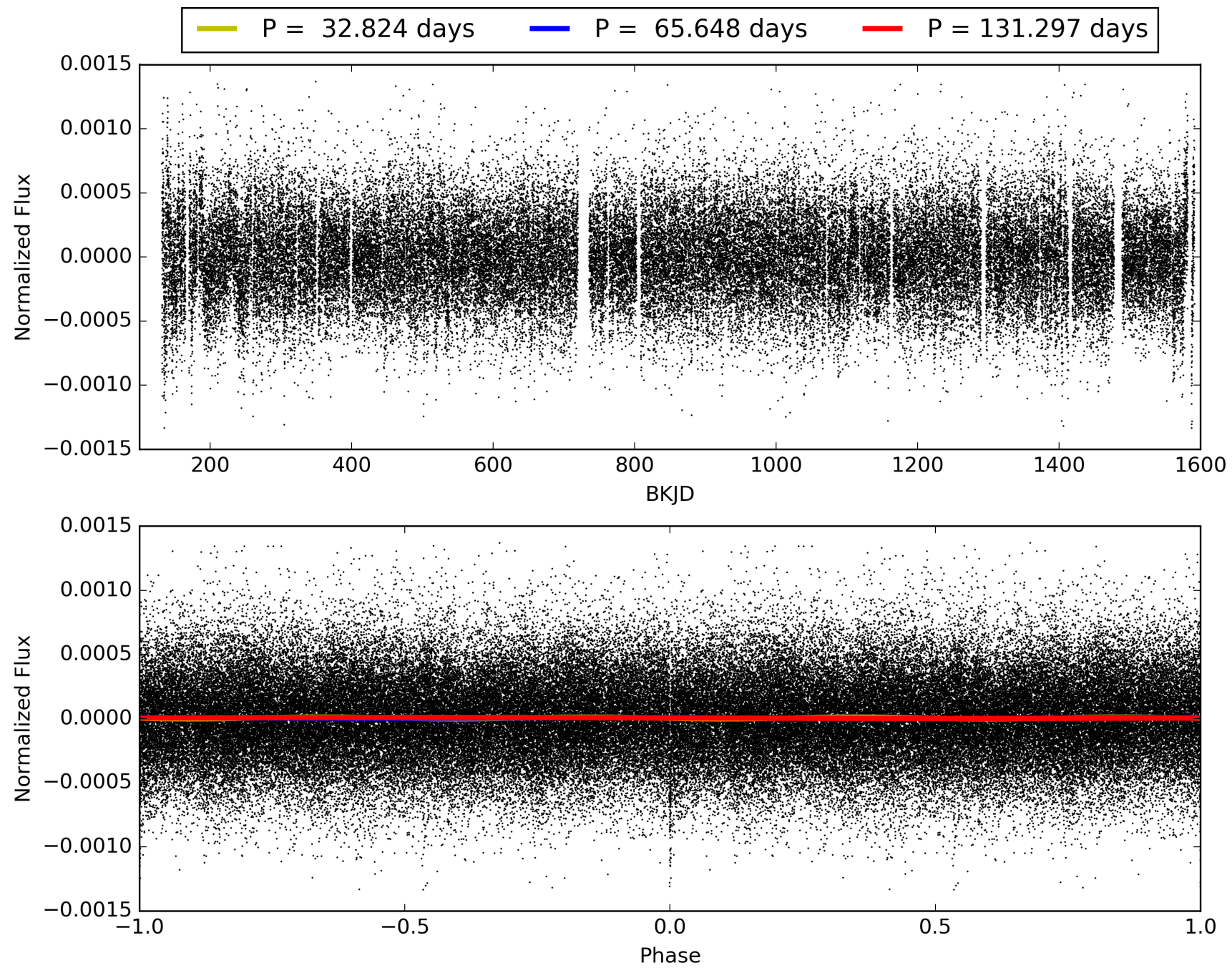
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 84.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.80e-75
RollingBand-fgt: 0.95 [19/20]
GhostDiagnostic-chr: 2.88
Centroid-sig: 1.1%
Centroid-so: 0.228 arcsec [0.40 σ]
OotOffset-rm: 0.771 arcsec [3.38 σ]
KicOffset-rm: 0.515 arcsec [2.09 σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 010600955-01, PDC Light Curves

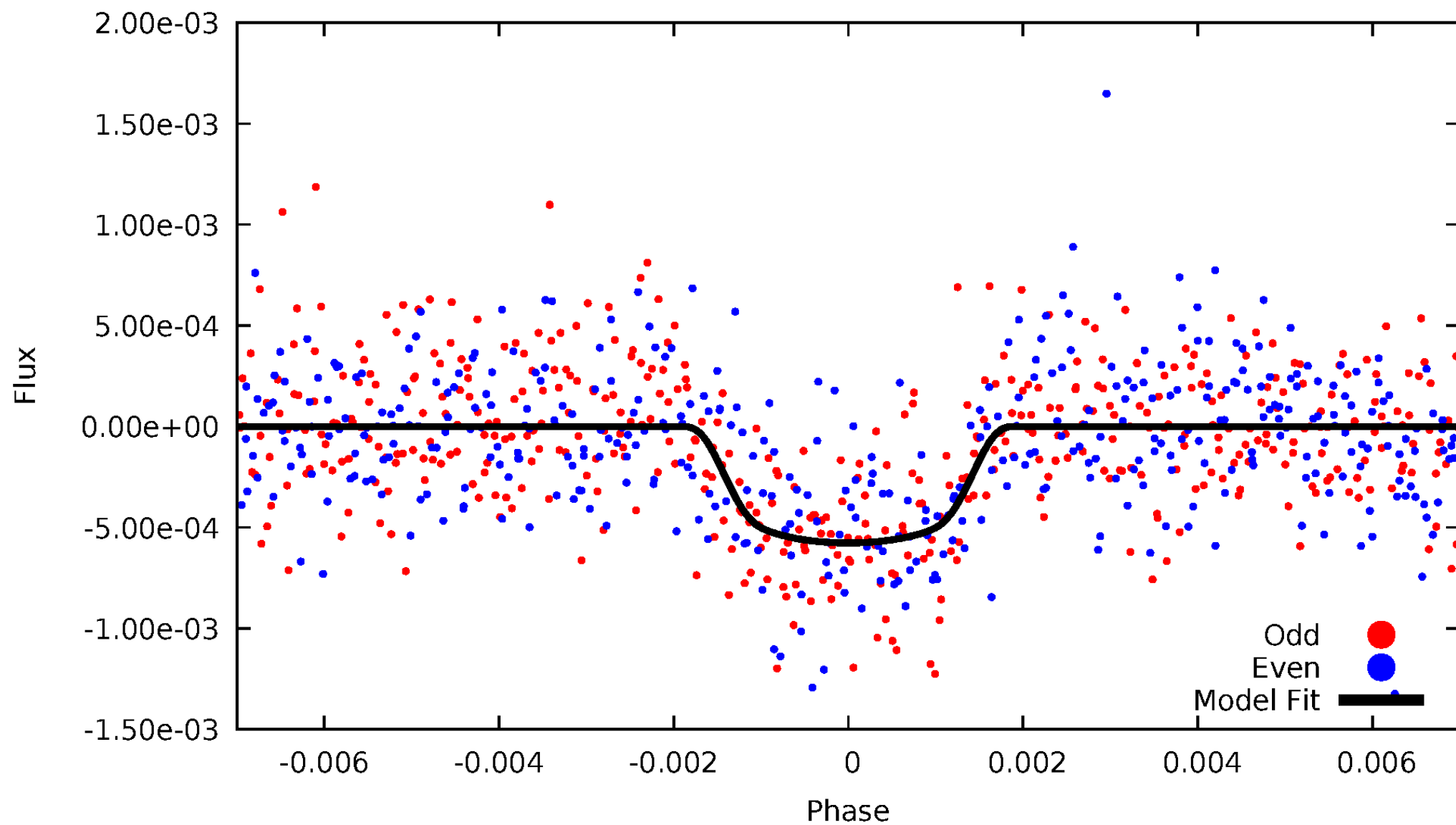


TCE 010600955-01



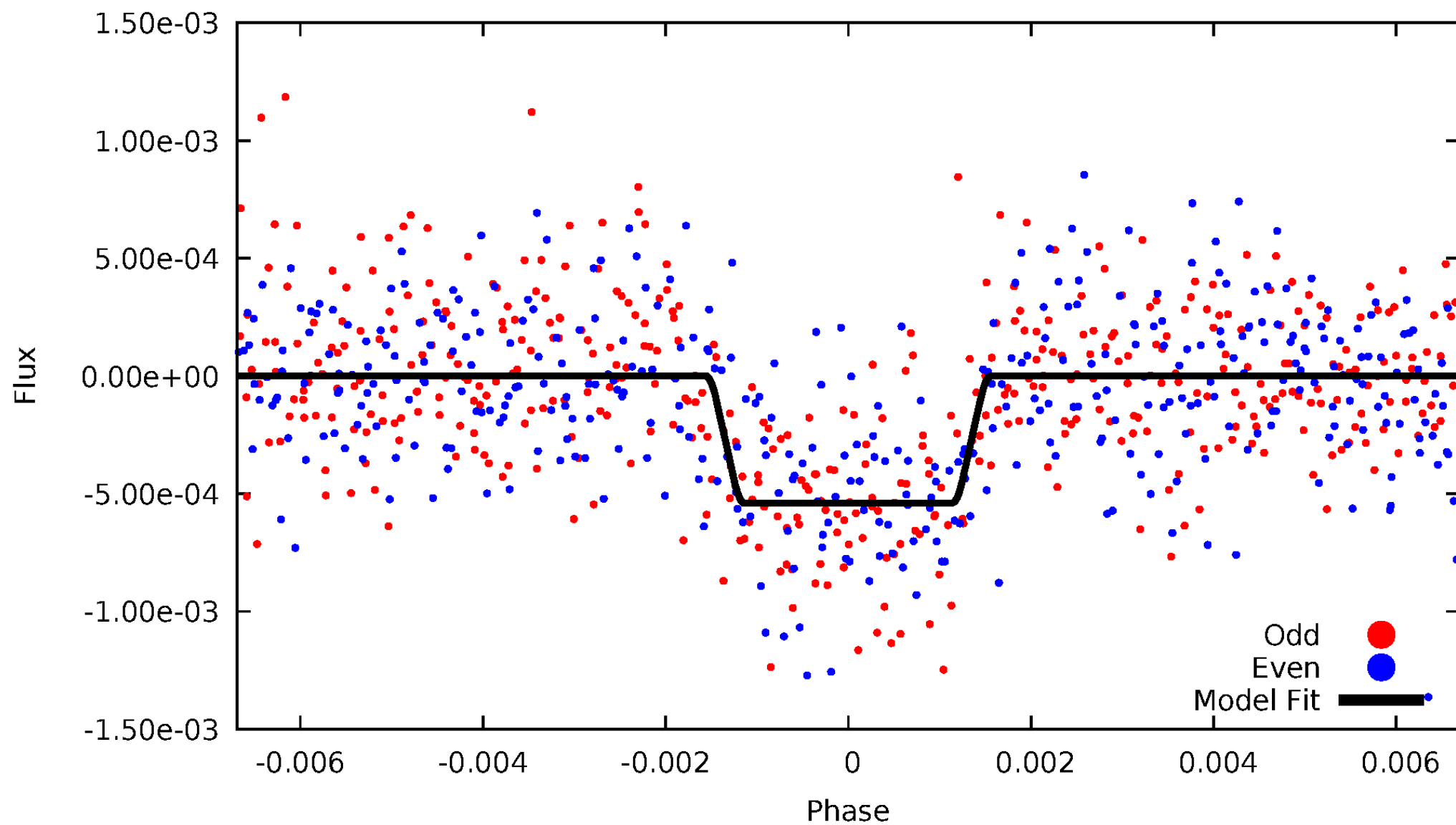
DV Odd/Even

TCE 010600955-01

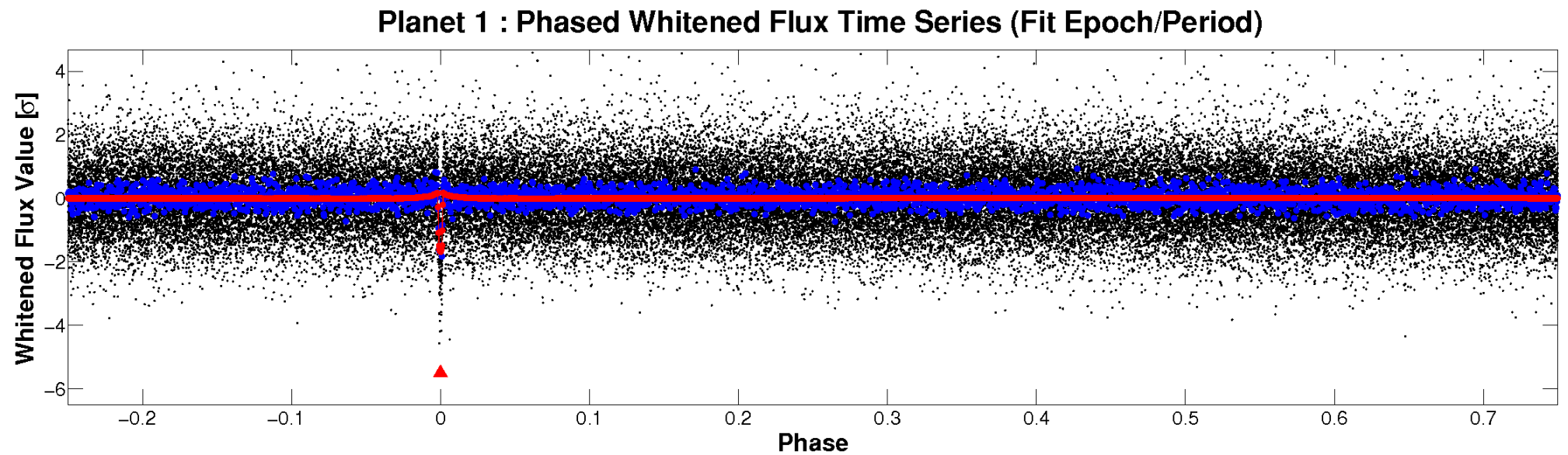
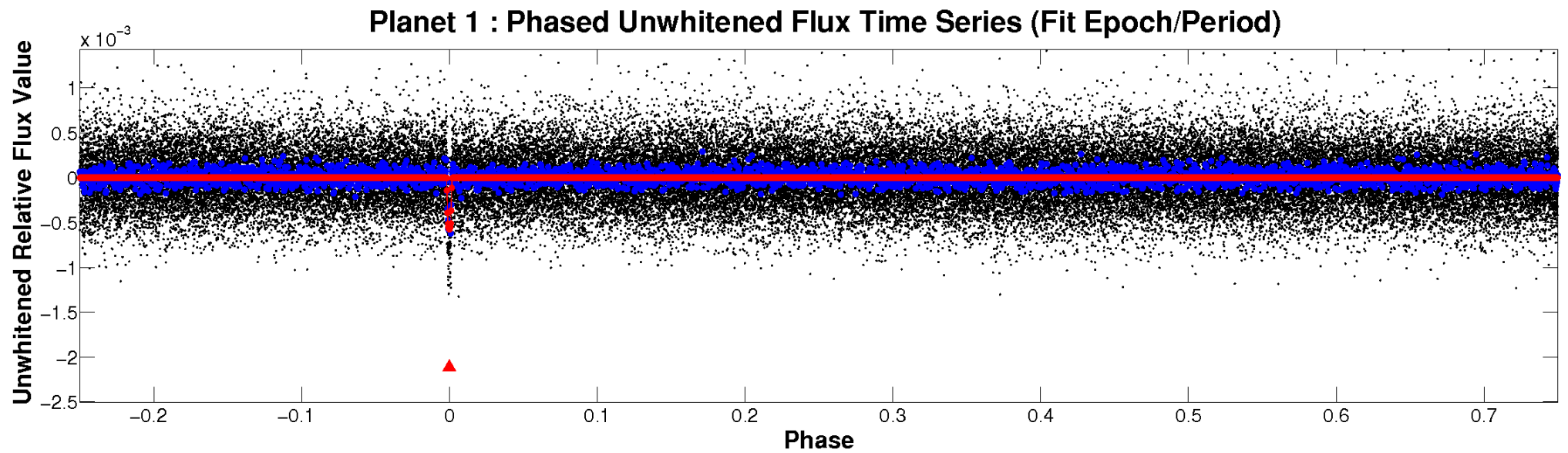


ALT Odd/Even

TCE 010600955-01

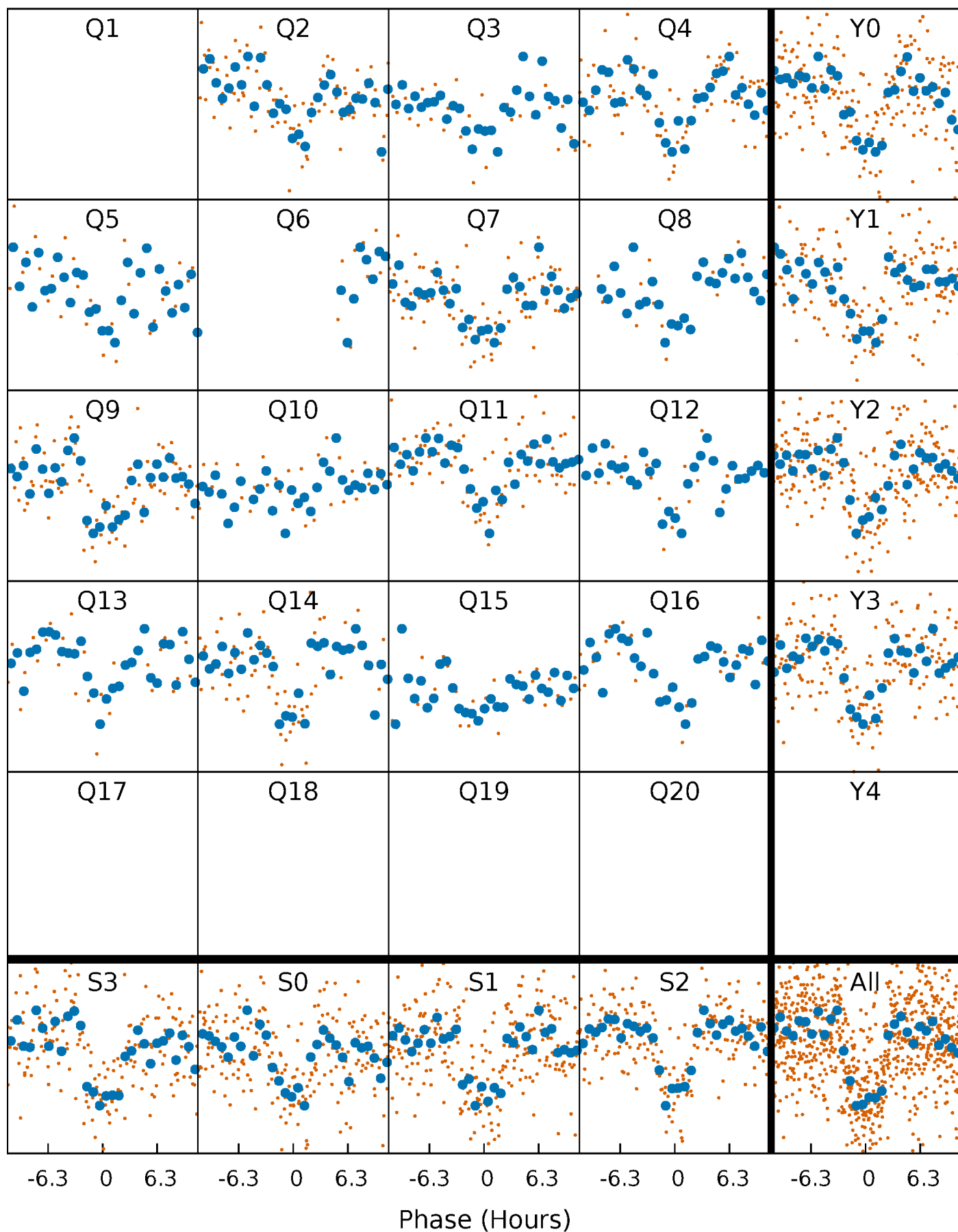


Non-Whitened Vs. Whitened Light Curve



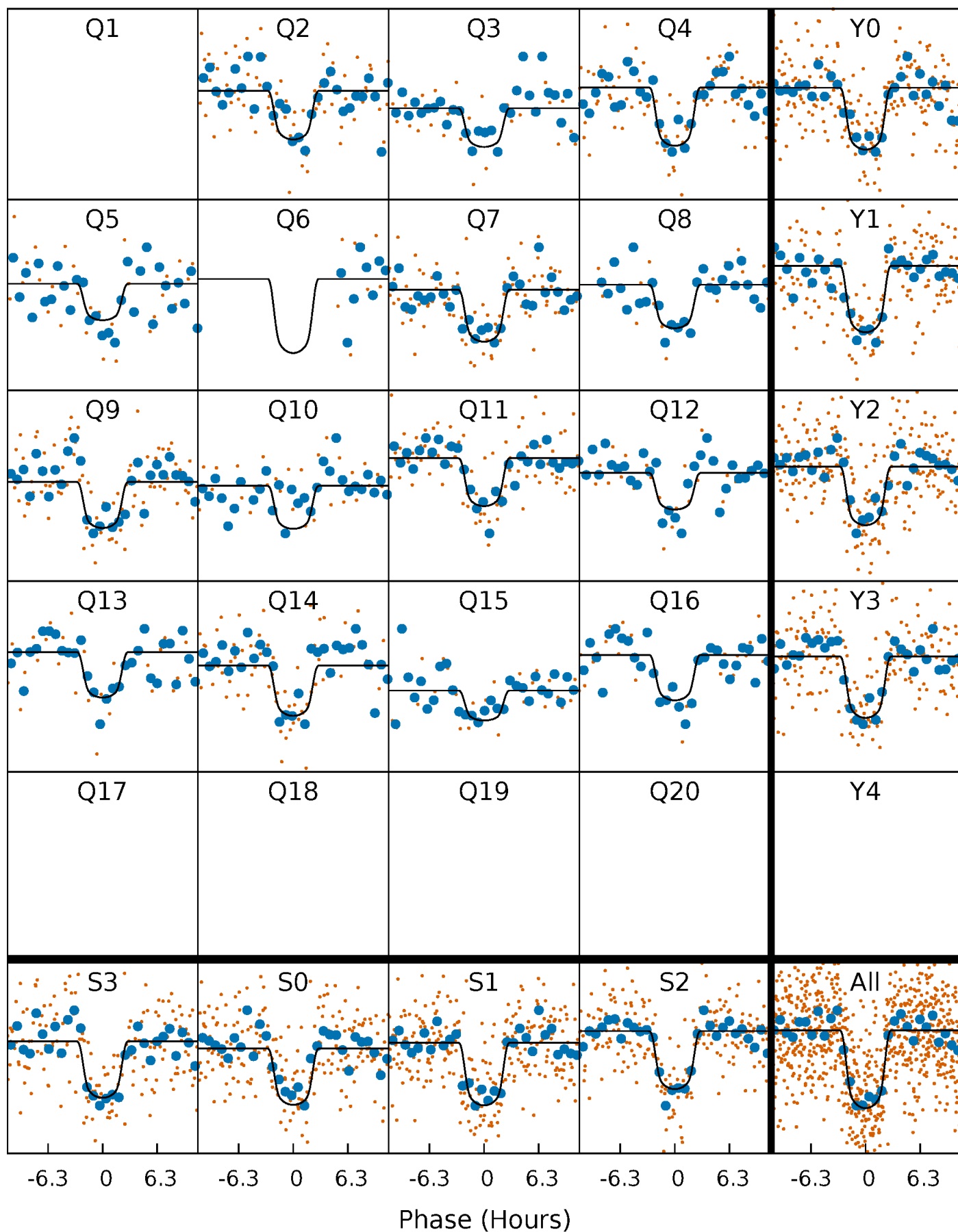
PDC Quarter-Phased Transit Curves

TCE 010600955-01 P= 65.648446 Days $T_0=173.297977$ (BKJD)



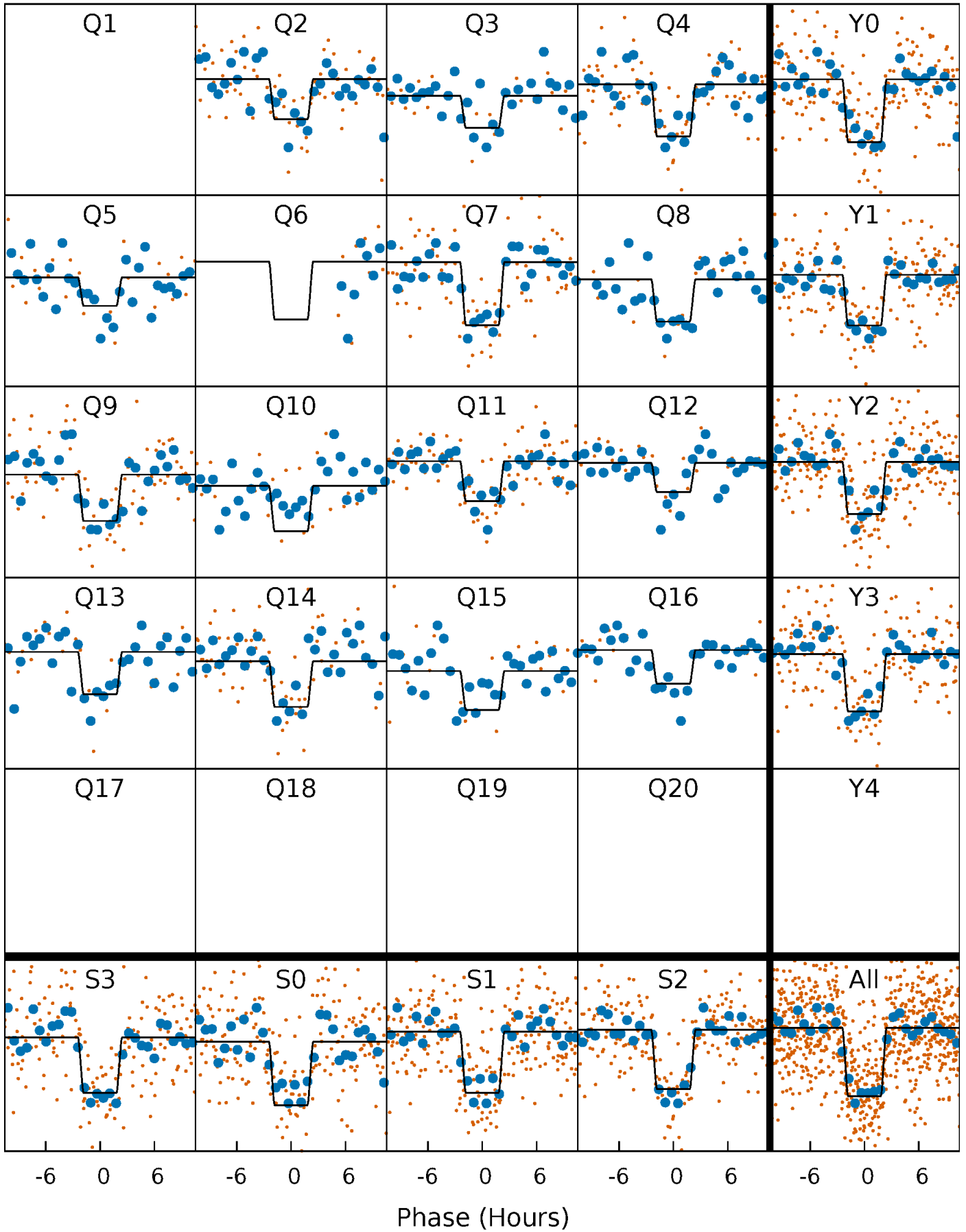
DV Quarter-Phased Transit Curves

TCE 010600955-01 P= 65.648446 Days $T_0=173.297977$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

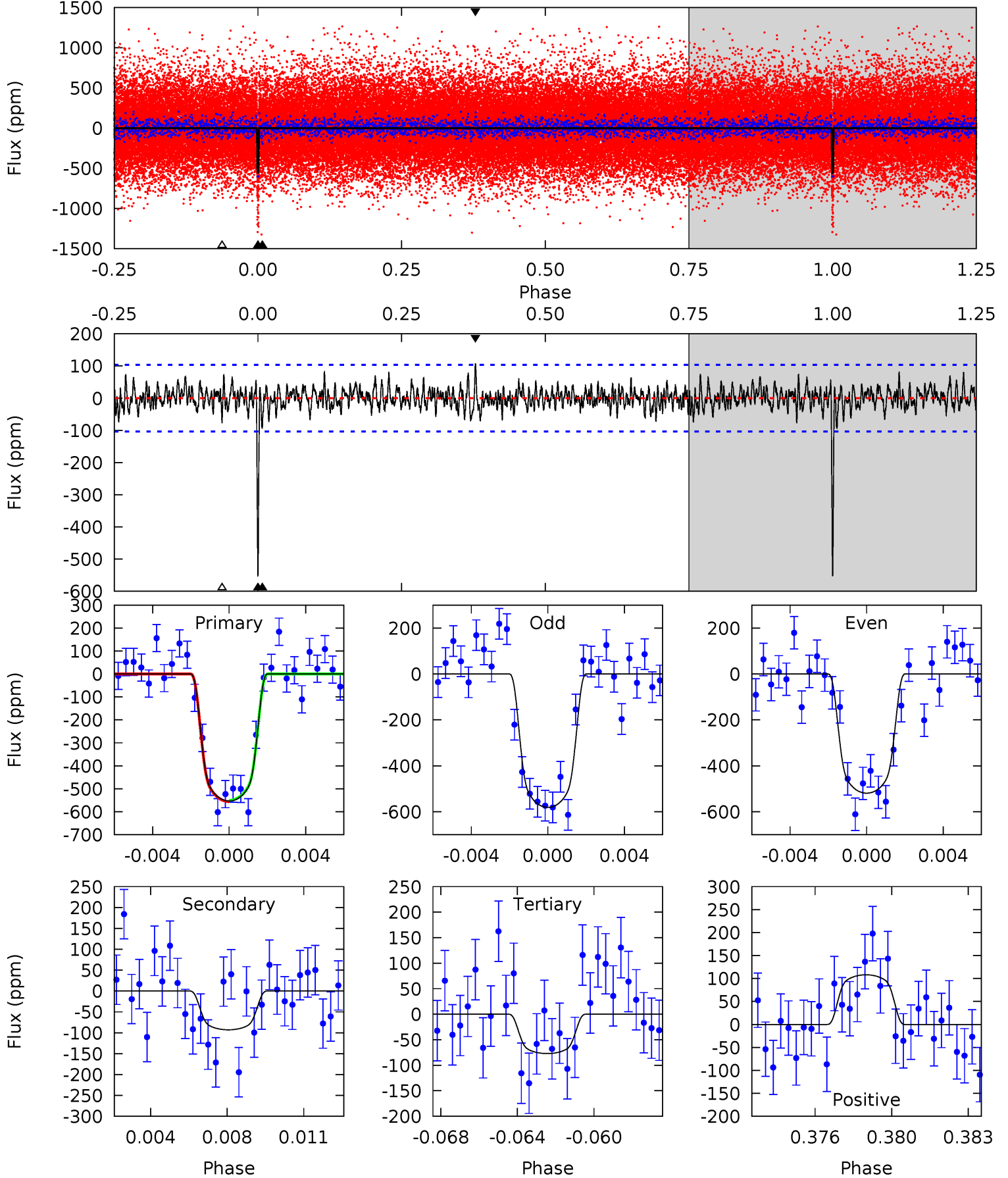
TCE 010600955-01 P= 65.648992 Days $T_0=173.291976$ (BKJD)



DV Model-Shift Uniqueness Test

010600955-01, P = 65.648446 Days, E = 107.649531 Days

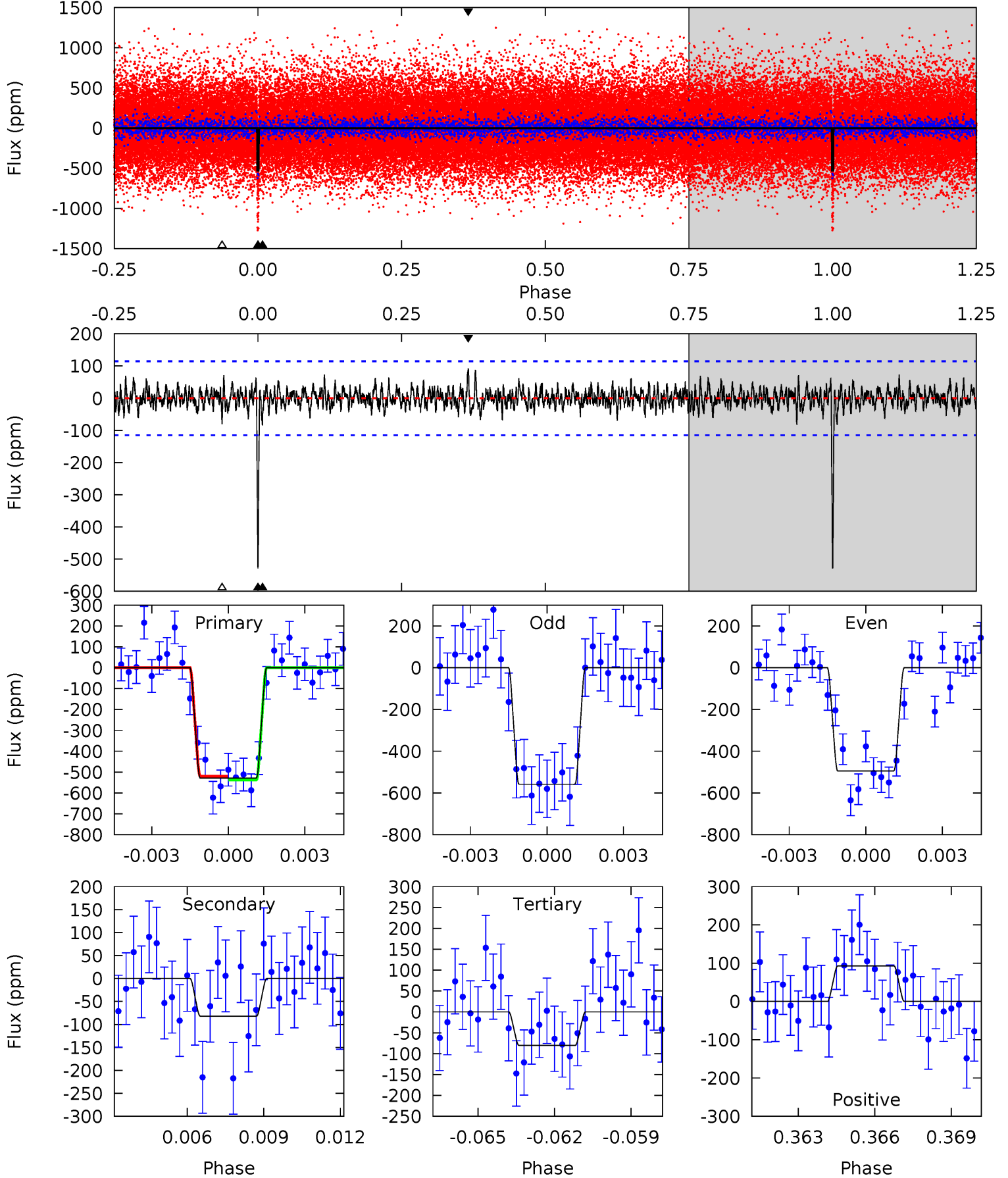
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.8	4.67	3.87	5.42	5.21	2.90	1.30	23.9	22.4	0.79	-0.76	1.55	0.99	0.16	0.14



Alt Model-Shift Uniqueness Test

010600955-01, P = 65.648992 Days, E = 107.642984 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	3.75	3.67	4.24	5.25	2.96	1.07	20.5	19.9	0.08	-0.49	1.43	0.95	0.15	0.43



Stellar Parameters For KIC 010600955

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5565^{+75}_{-83}	$4.251^{+0.149}_{-0.108}$	$0.320^{+0.150}_{-0.150}$	$1.246^{+0.179}_{-0.219}$	$1.008^{+0.057}_{-0.057}$	$0.735^{+0.539}_{-0.225}$
	+1%/-1%	+4%/-3%	+47%/-47%	+14%/-18%	+6%/-6%	+73%/-31%
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 010600955-01 / KOI 2227.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-93 ± 20	$3.77^{+0.39}_{-0.40}$	678^{+27}_{-33}	3676^{+163}_{-172}	362^{+120}_{-99}
Alt.	-82 ± 22	$3.17^{+0.36}_{-0.38}$	677^{+32}_{-34}	3820^{+211}_{-213}	451^{+201}_{-140}

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

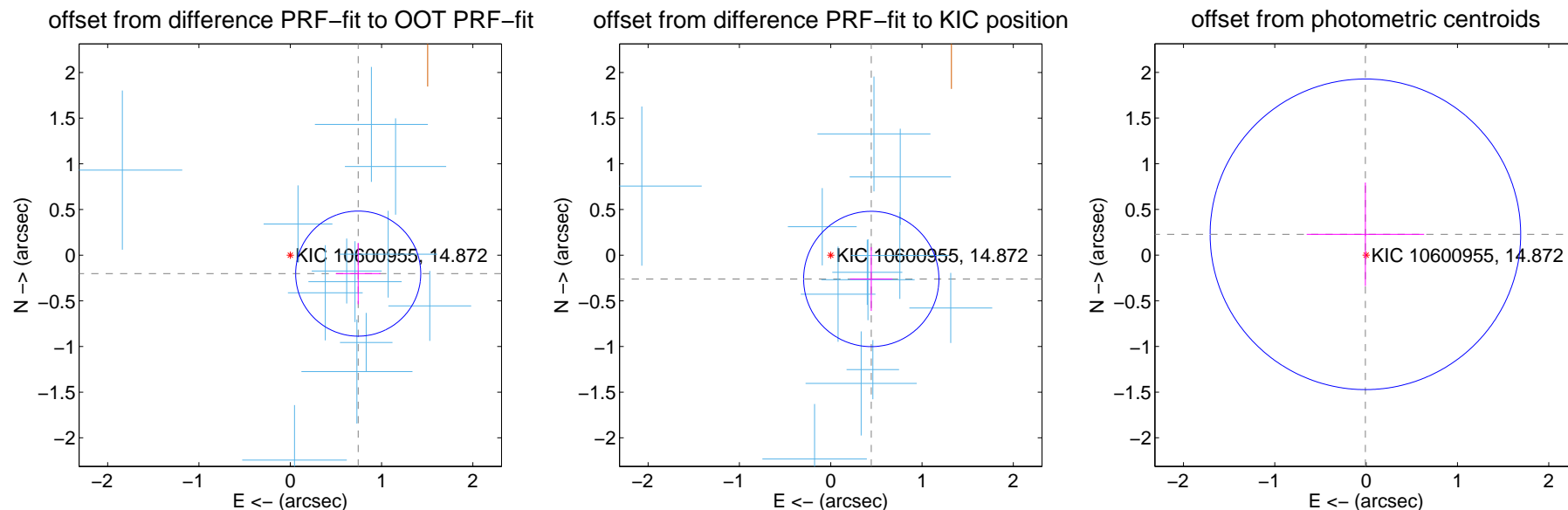
DV Centroid Data

Supplemental centroid analysis for 010600955-01. Kepler magnitude: 14.87. Transit SNR 19.63

There are 12 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

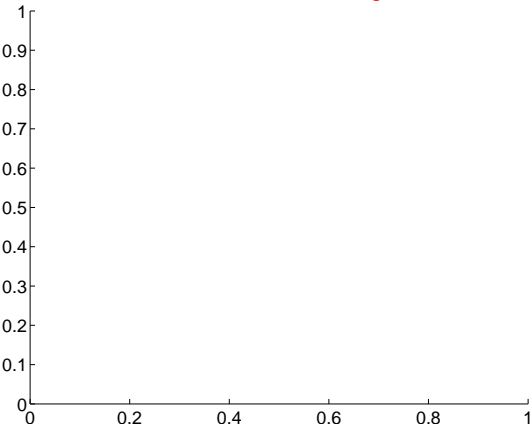
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.771 ± 0.228	3.38	-0.744 ± 0.245	-0.202 ± 0.335
PRF-fit source offset from KIC position	0.515 ± 0.247	2.09	-0.444 ± 0.232	-0.261 ± 0.349
photometric centroid source offset	0.23 ± 0.57	0.40	0.01 ± 0.64	0.23 ± 0.57



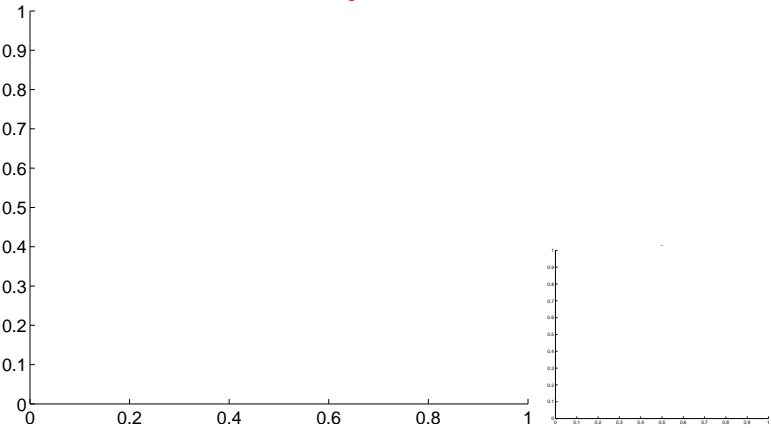
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

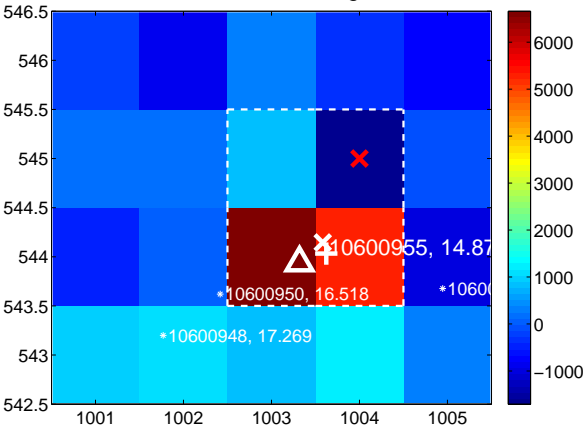
Q1 no difference image



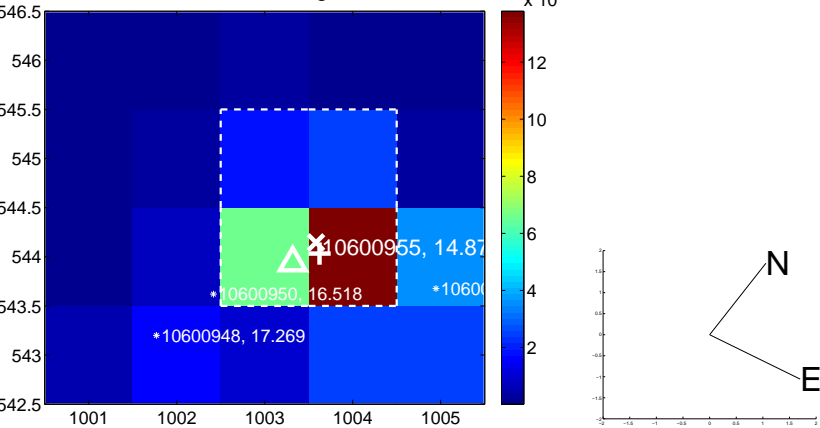
Q1 no OOT image



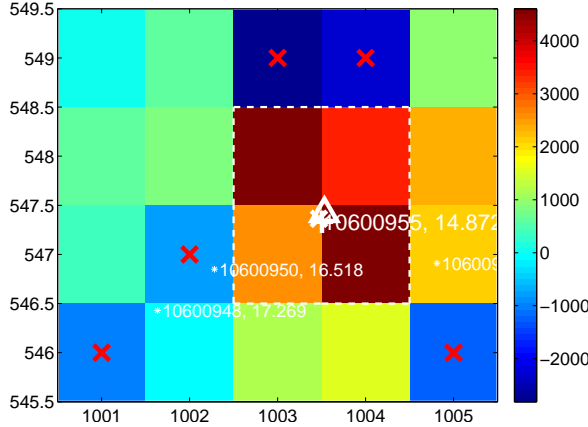
Q2 difference image



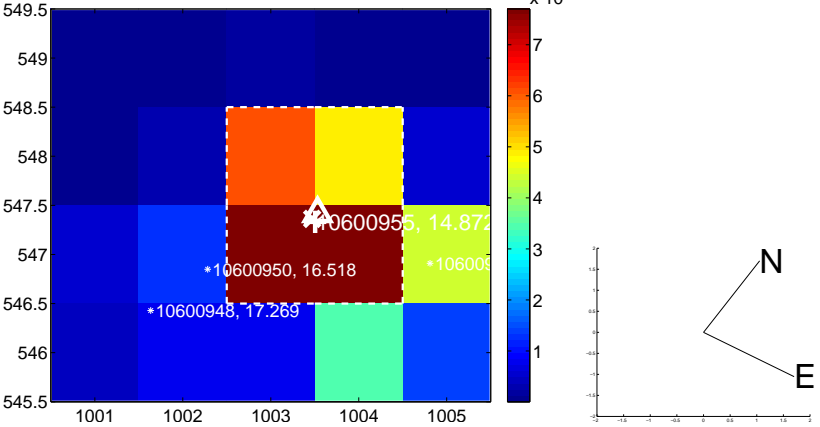
Q2 OOT image



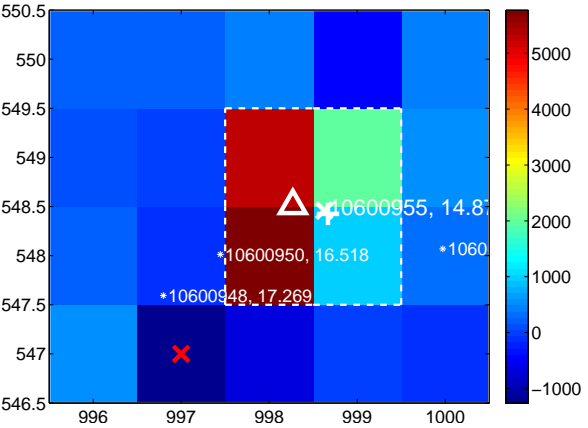
Q3 difference image



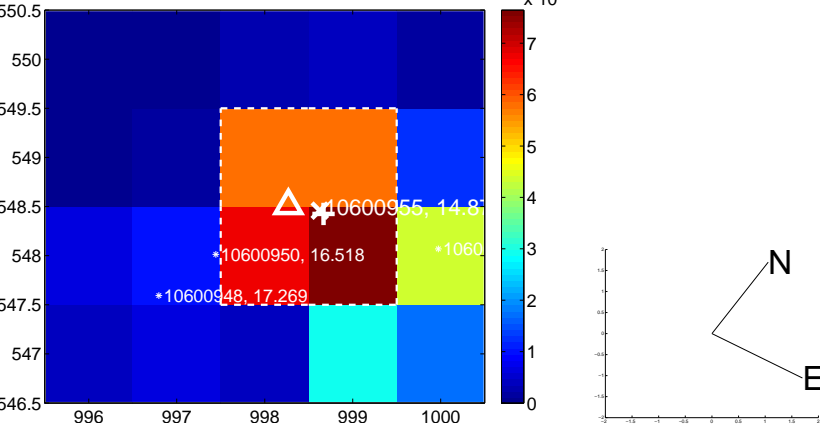
Q3 OOT image



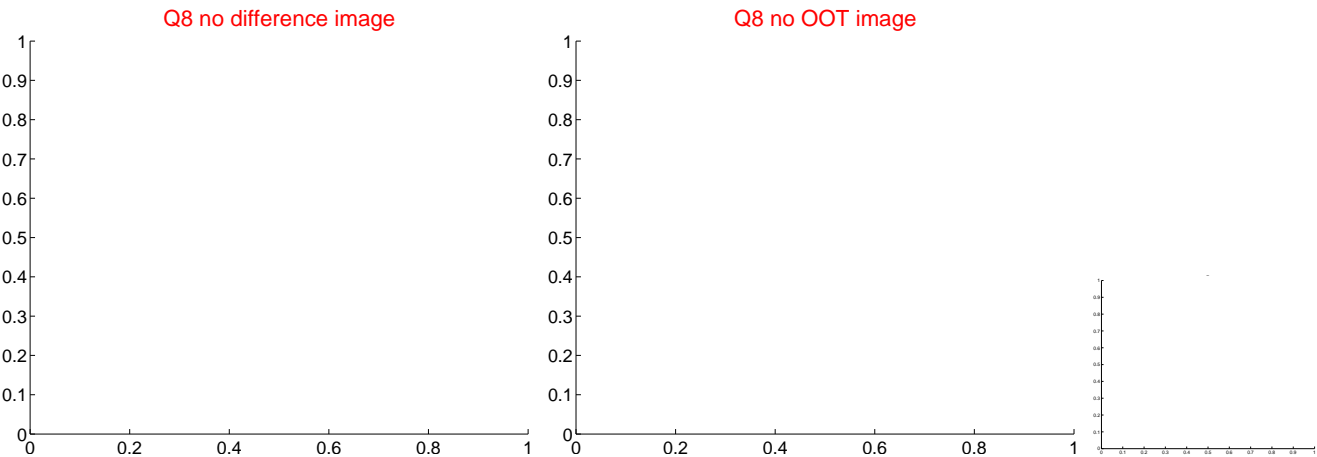
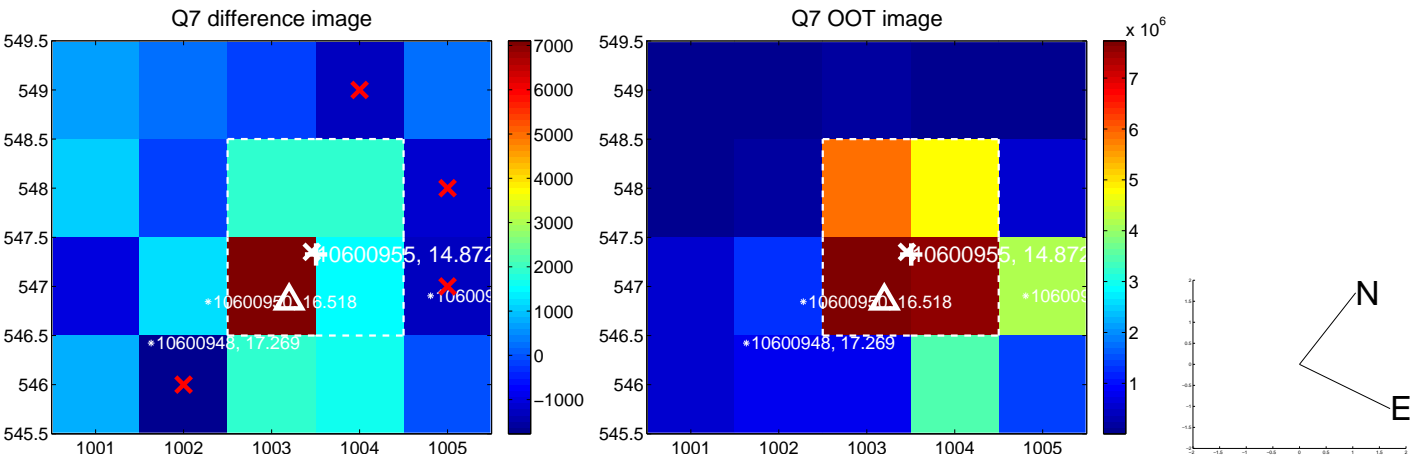
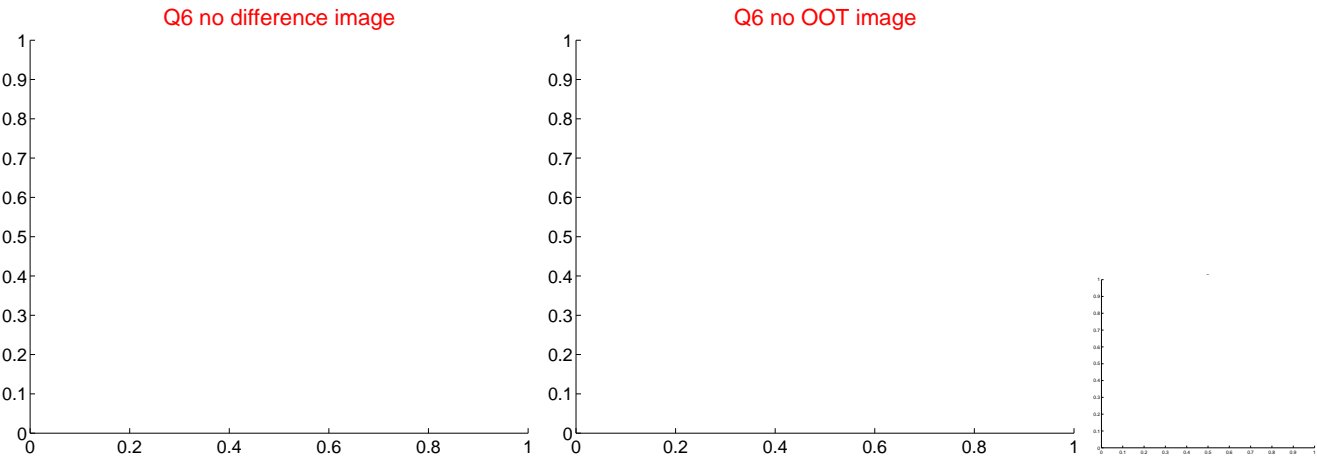
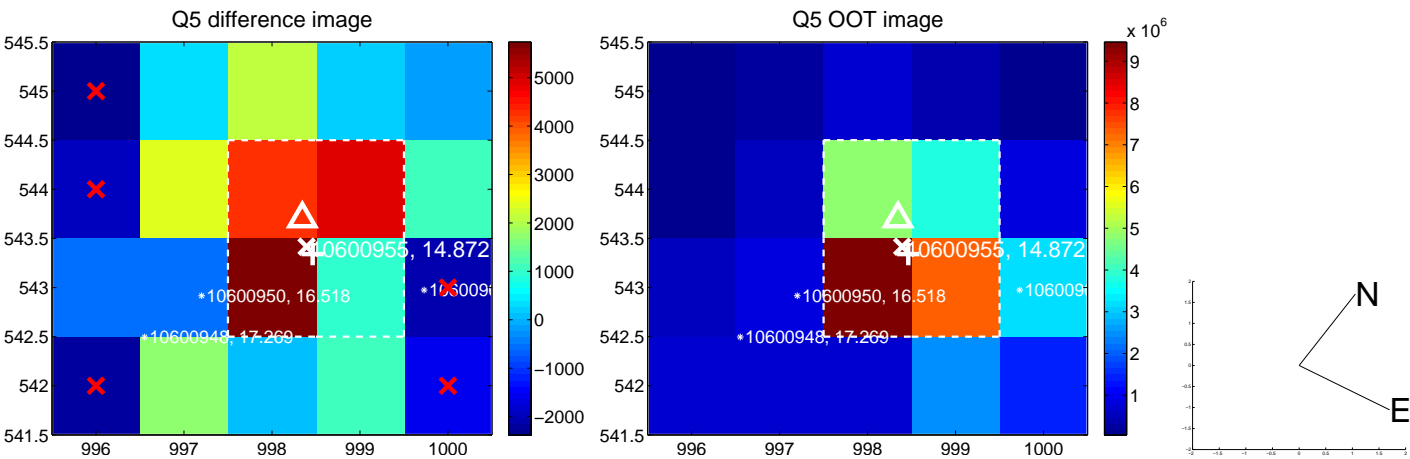
Q4 difference image



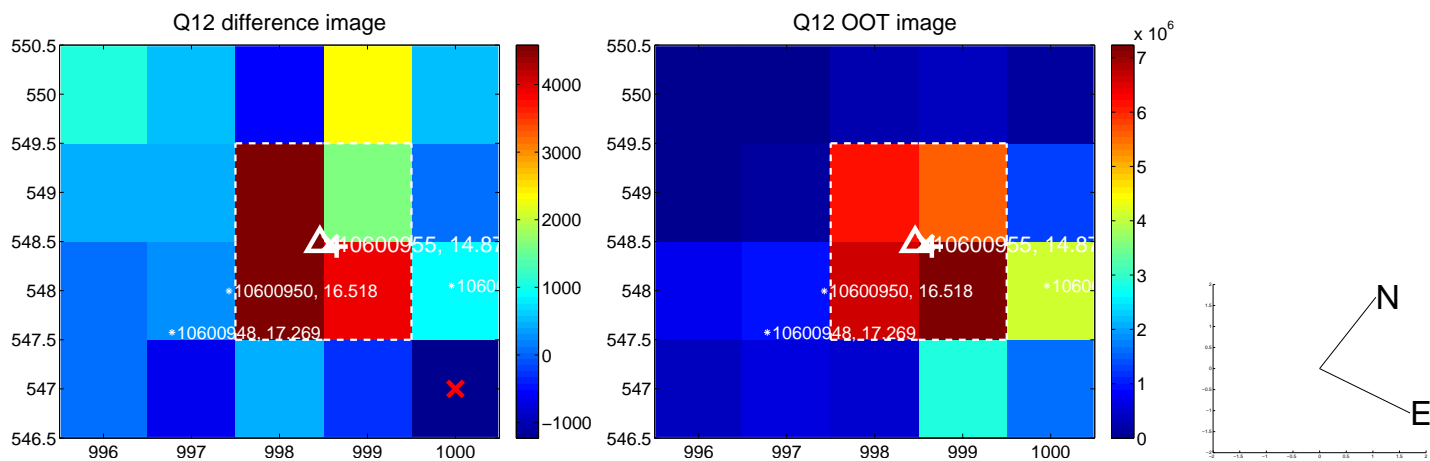
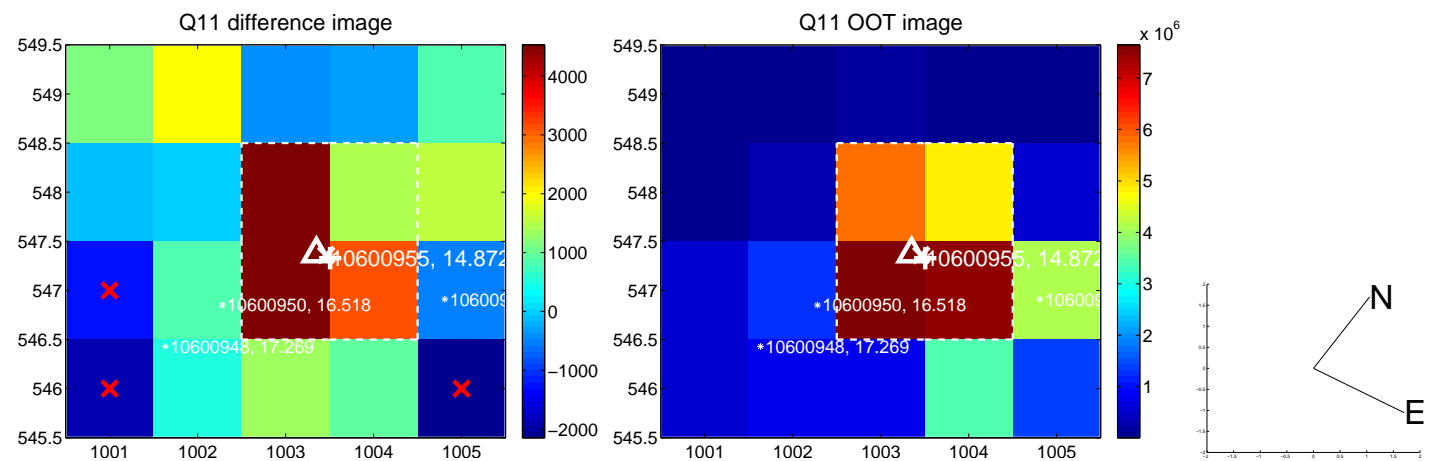
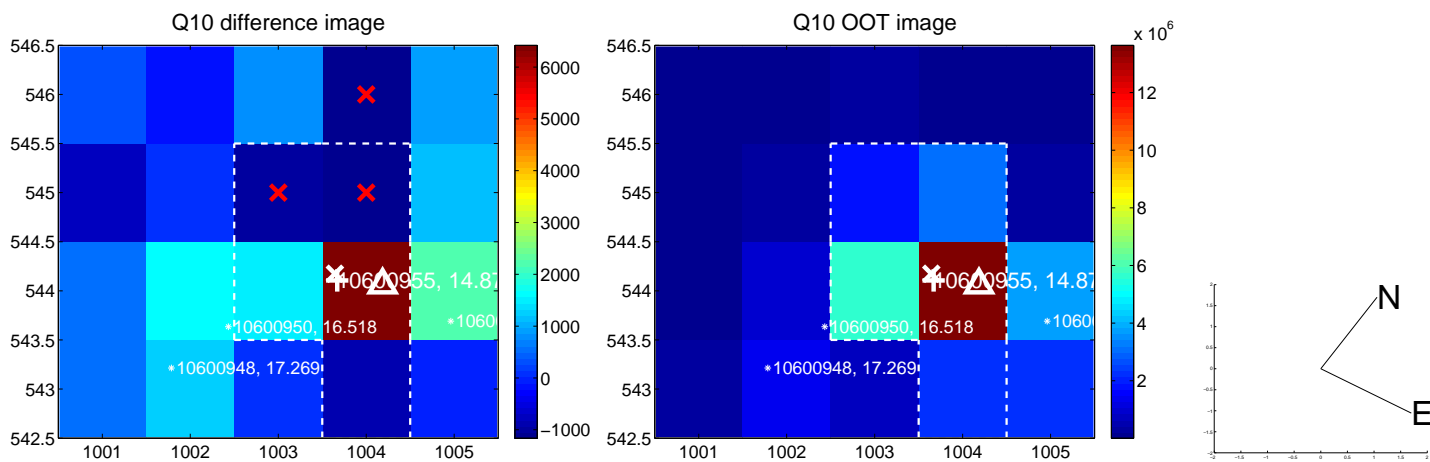
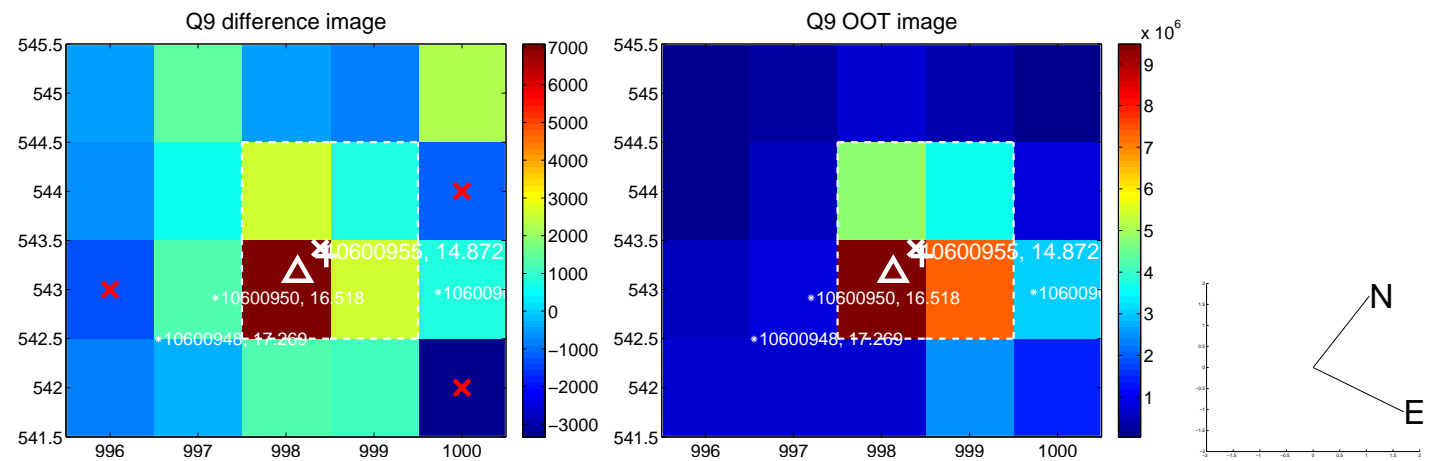
Q4 OOT image



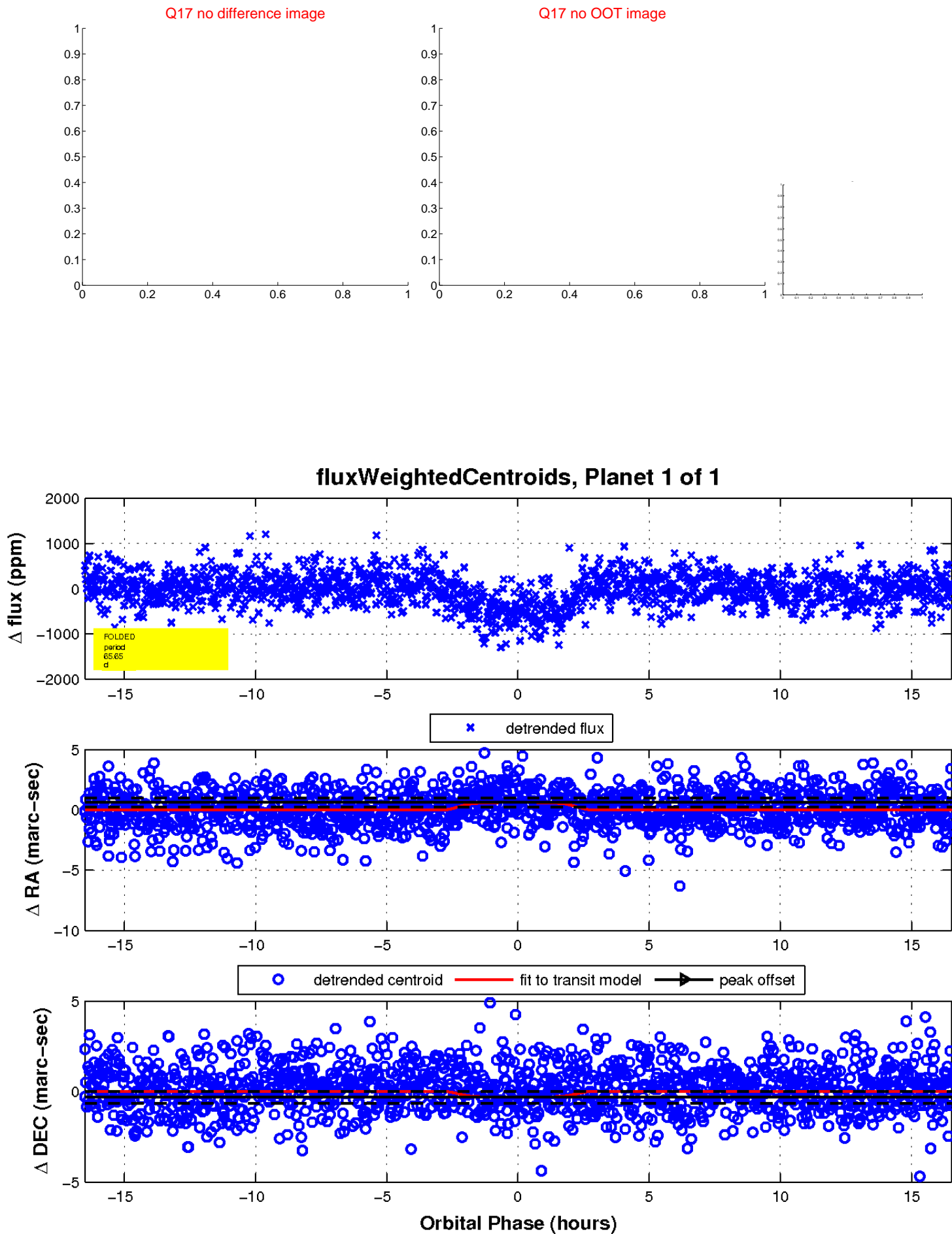
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

