

KIC 006929841

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})
006929841-01	OBS	3026.01	3.515754	134.298081	227.5	1.287	12.1	14.6	0.90	5094	1.38	269.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006929841-01	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.

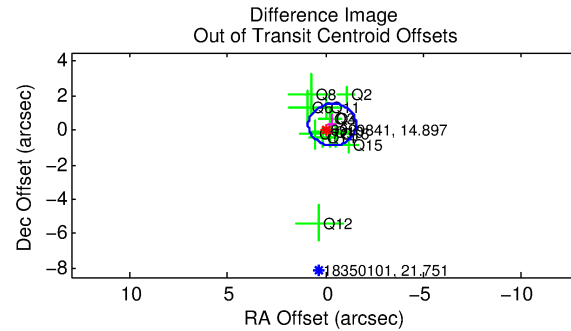
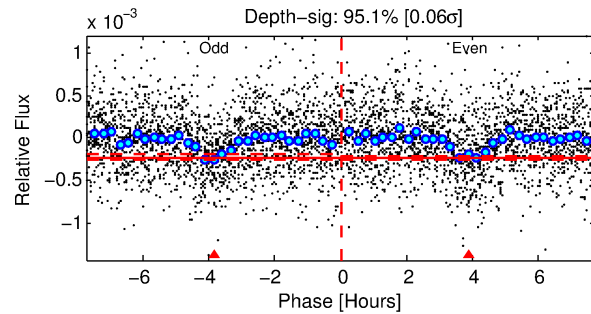
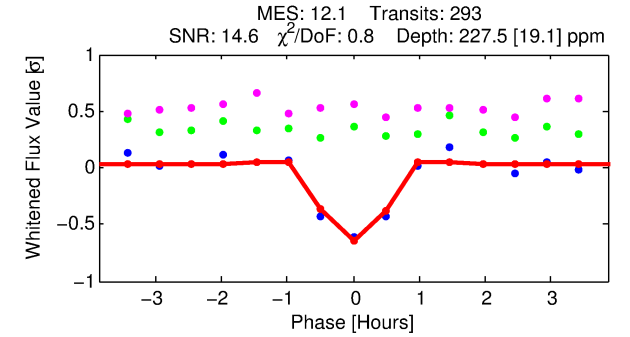
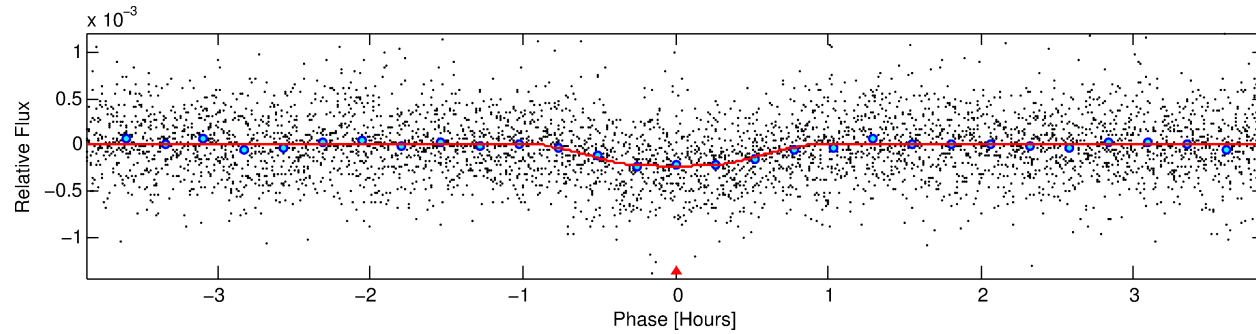
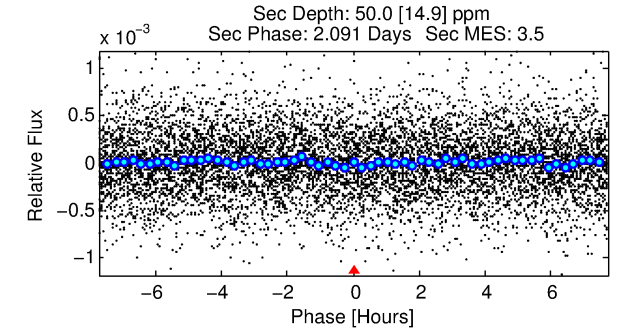
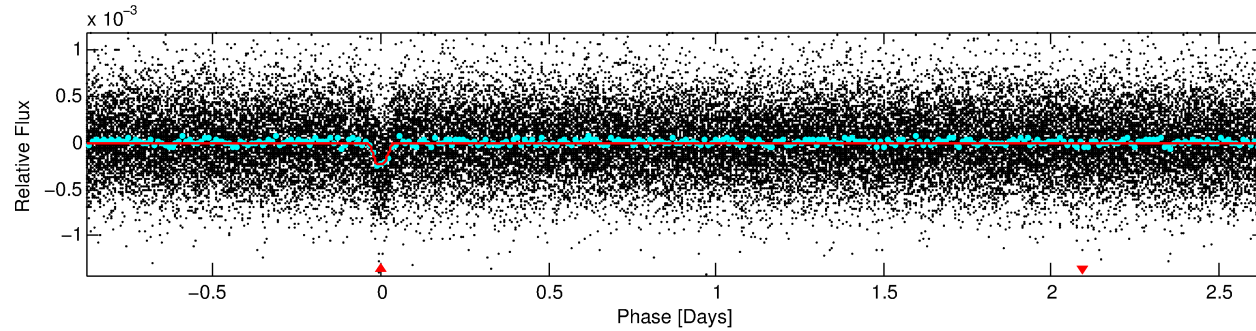
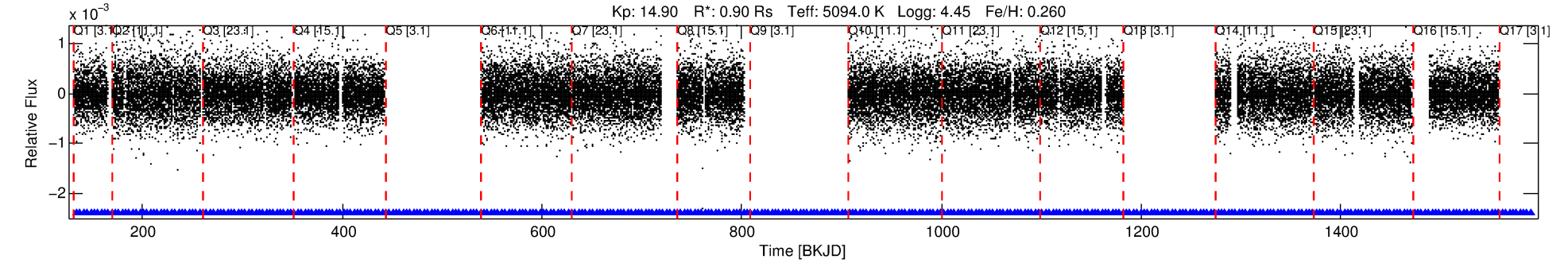
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006929841-01

No Significant Match Found

DV One-Page Summary

KIC: 6929841 Candidate: 1 of 1 Period: 3.516 d
KOI: K03026.01 Corr: 0.957



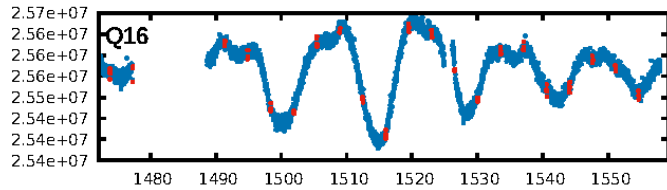
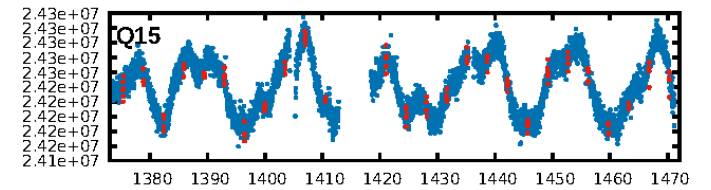
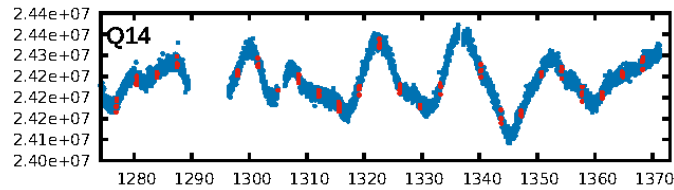
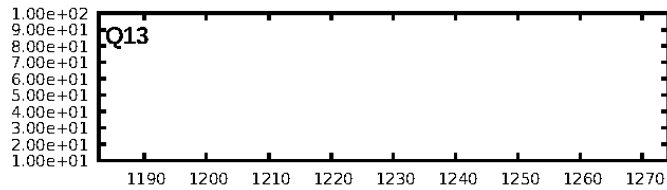
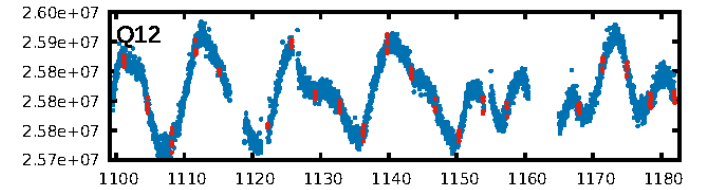
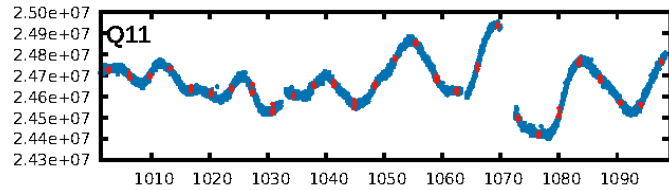
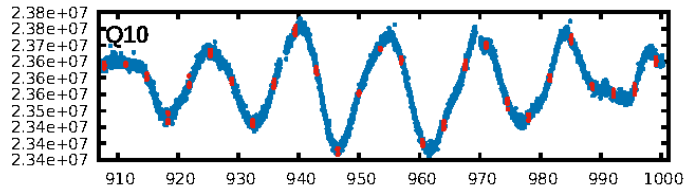
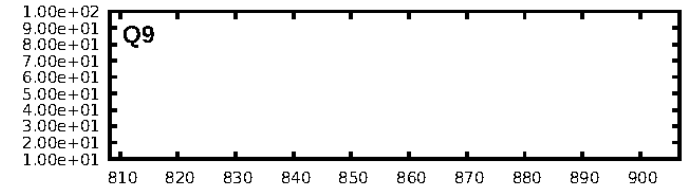
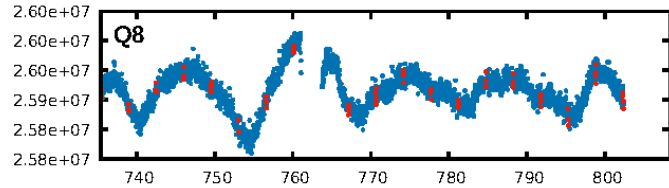
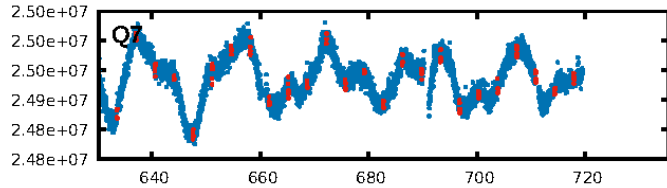
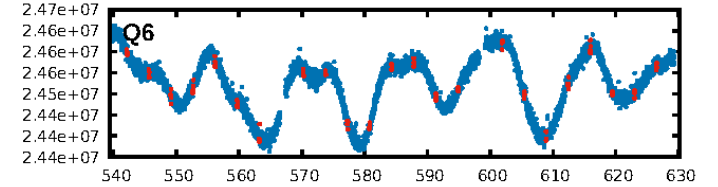
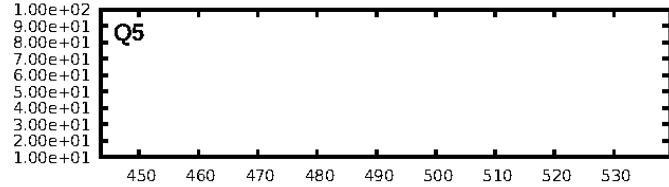
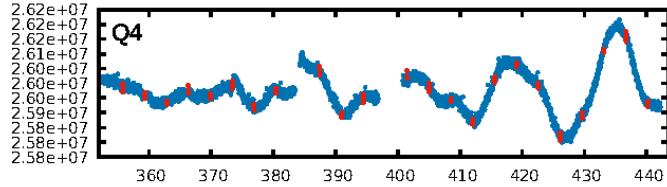
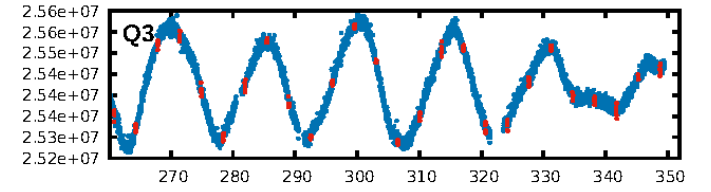
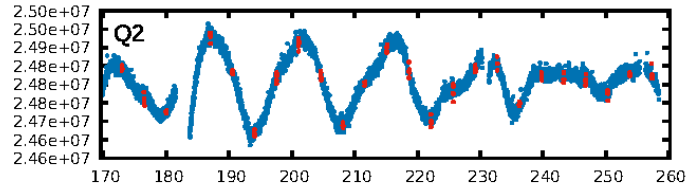
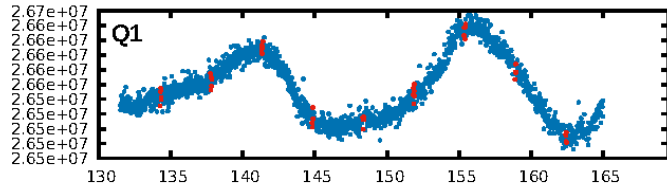
DV Fit Results:

Period = 3.51575 [0.00001] d
Epoch = 134.2981 [0.0017] BKJD
Rp/R* = 0.0140 [0.0099]
a/R* = 18.49 [44.16]
b = 0.49 [3.73]
Seff = 269.73 [154.70]
Teff = 1033 [148] K
Rp = 1.38 [1.06] Re
a = 0.0426 [0.0140] AU
Ag = 26.28 [40.74] [0.62σ]
Teffp = 3617 [1314] K [1.95σ]

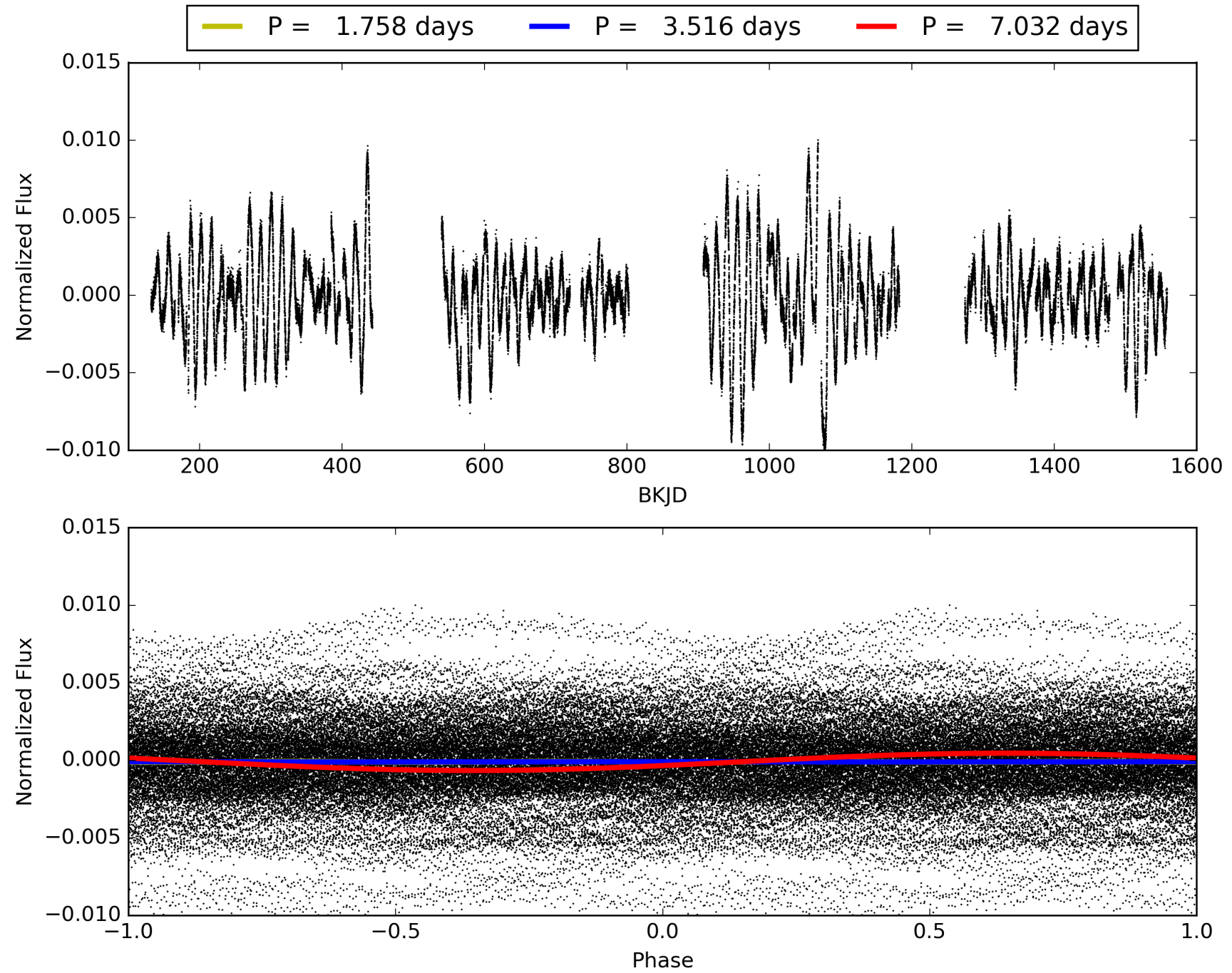
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.30e-33
RollingBand-fgt: 1.00 [284/284]
GhostDiagnostic-chr: 4.528
Centroid-sig: 0.0%
Centroid-so: 2.952 arcsec [3.16σ]
OotOffset-rm: 0.459 arcsec [1.14σ]
KicOffset-rm: 0.561 arcsec [1.23σ]
OotOffset-st: 4/4/4/0 [12]
KicOffset-st: 4/4/4/0 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 006929841-01, PDC Light Curves

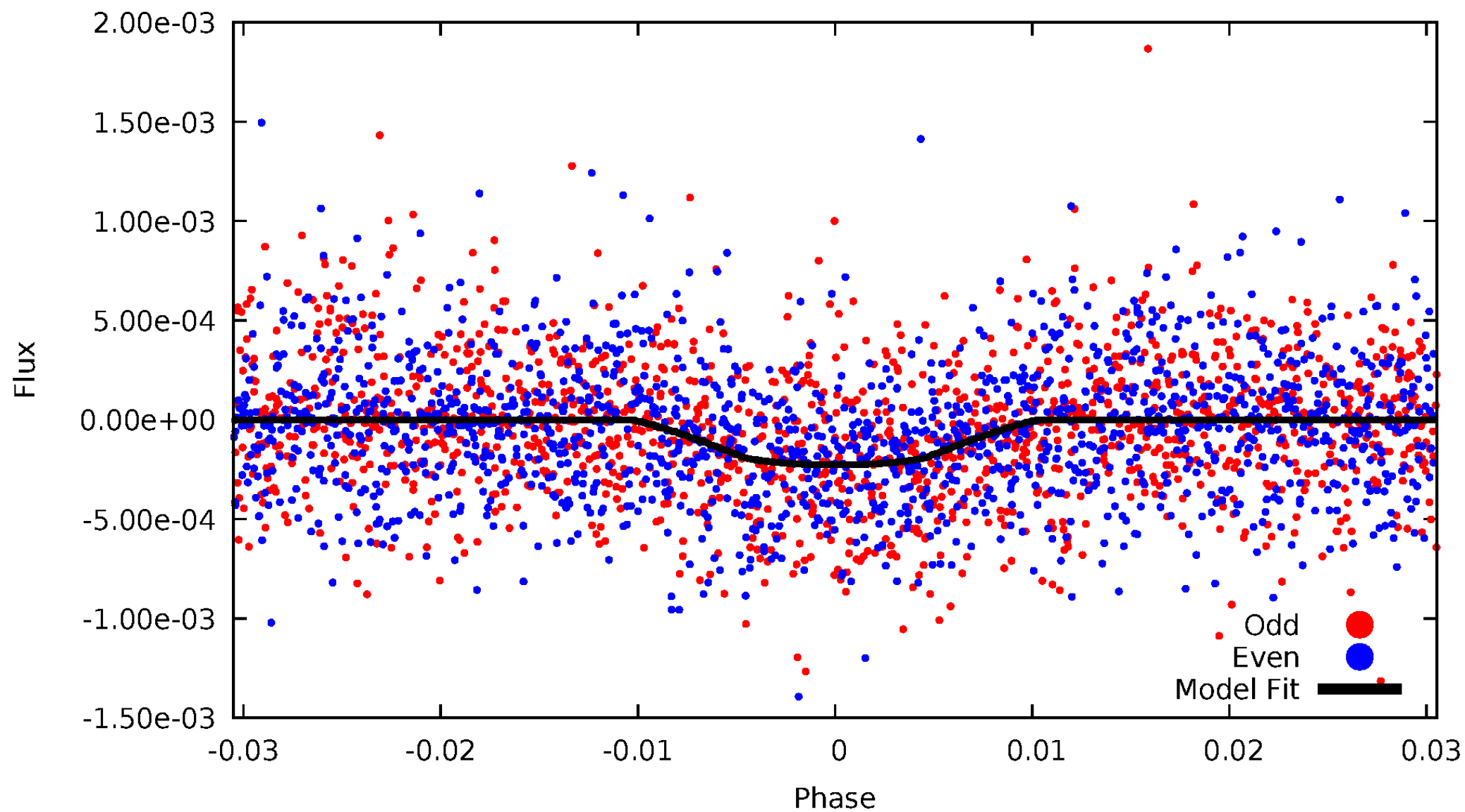


TCE 006929841-01



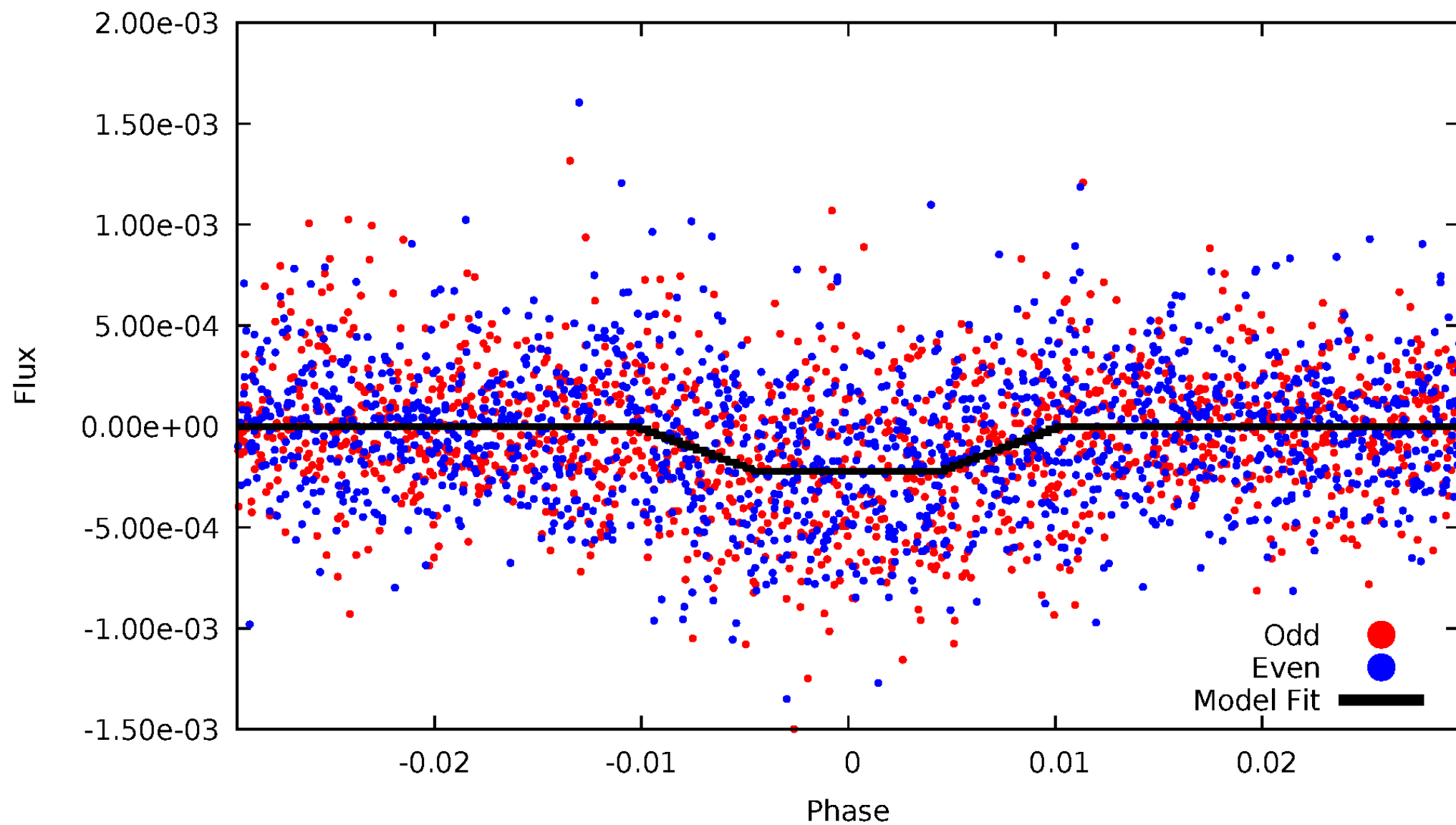
DV Odd/Even

TCE 006929841-01

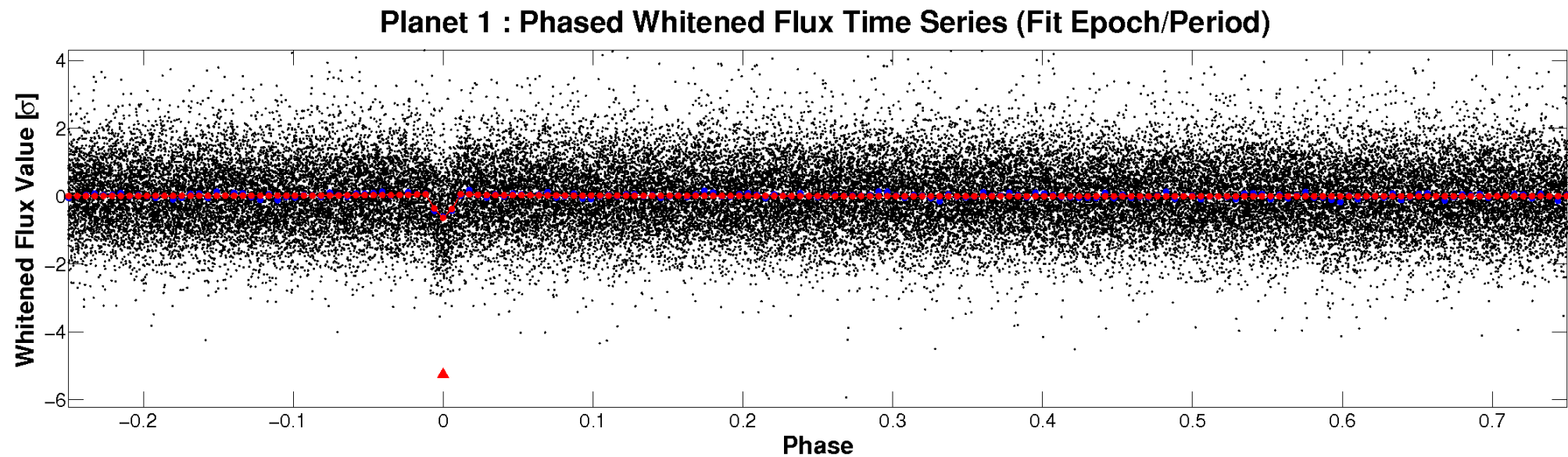
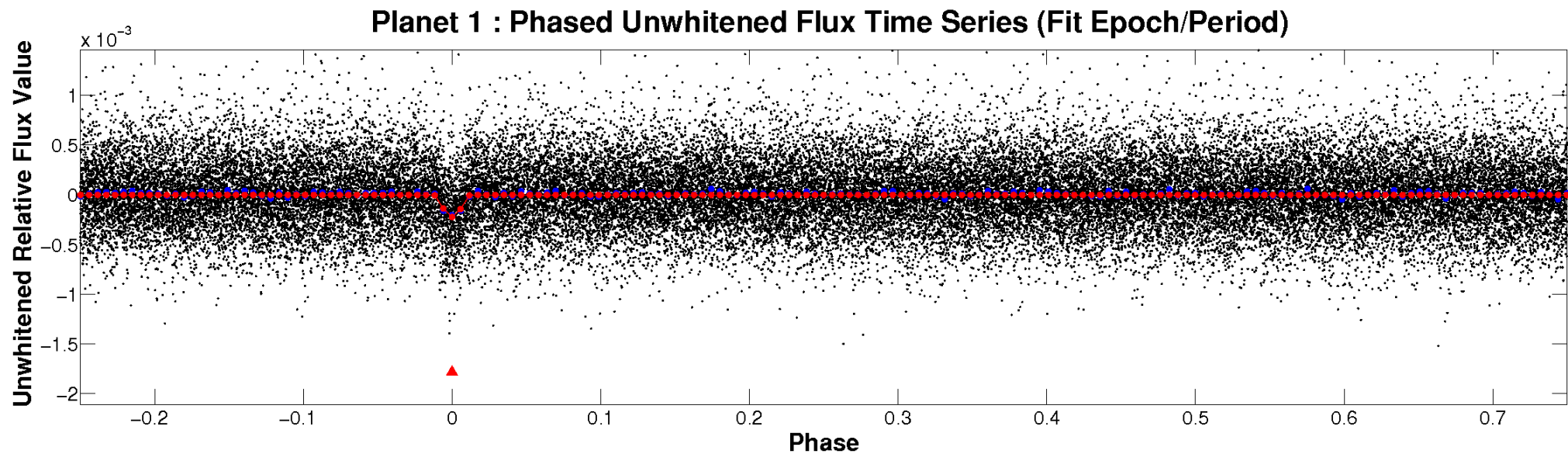


ALT Odd/Even

TCE 006929841-01

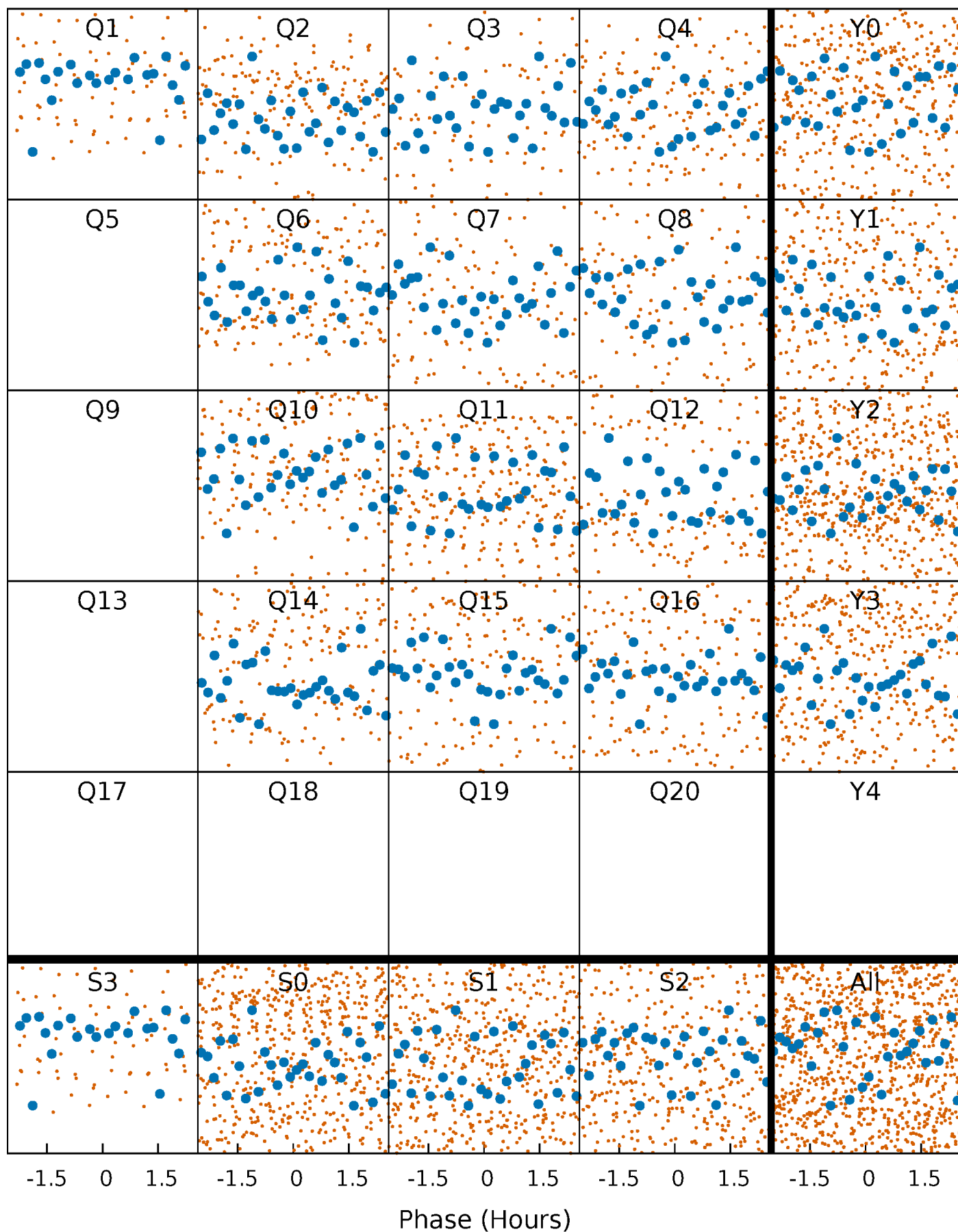


Non-Whitened Vs. Whitened Light Curve



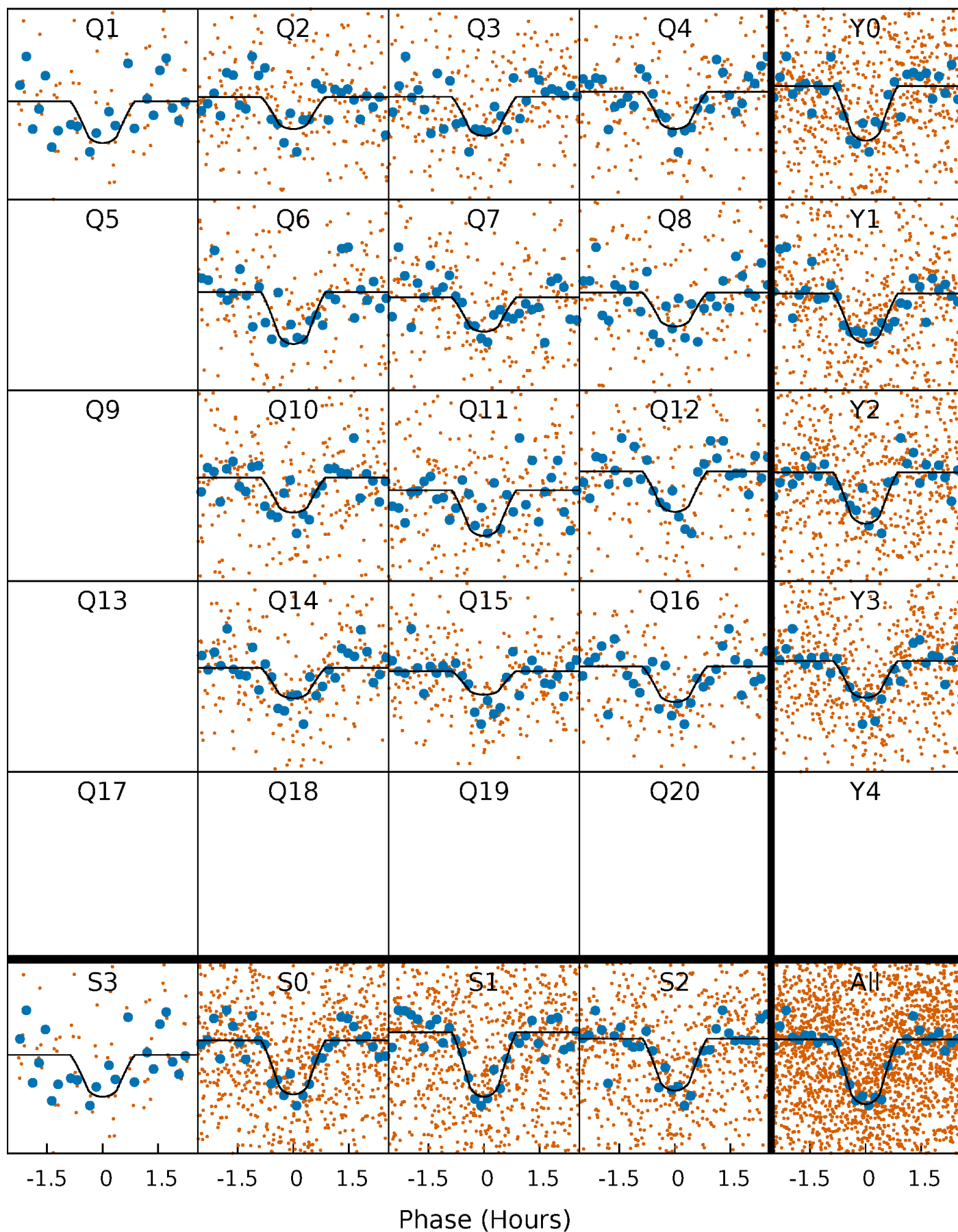
PDC Quarter-Phased Transit Curves

TCE 006929841-01 P= 3.515754 Days $T_0=134.298081$ (BKJD)



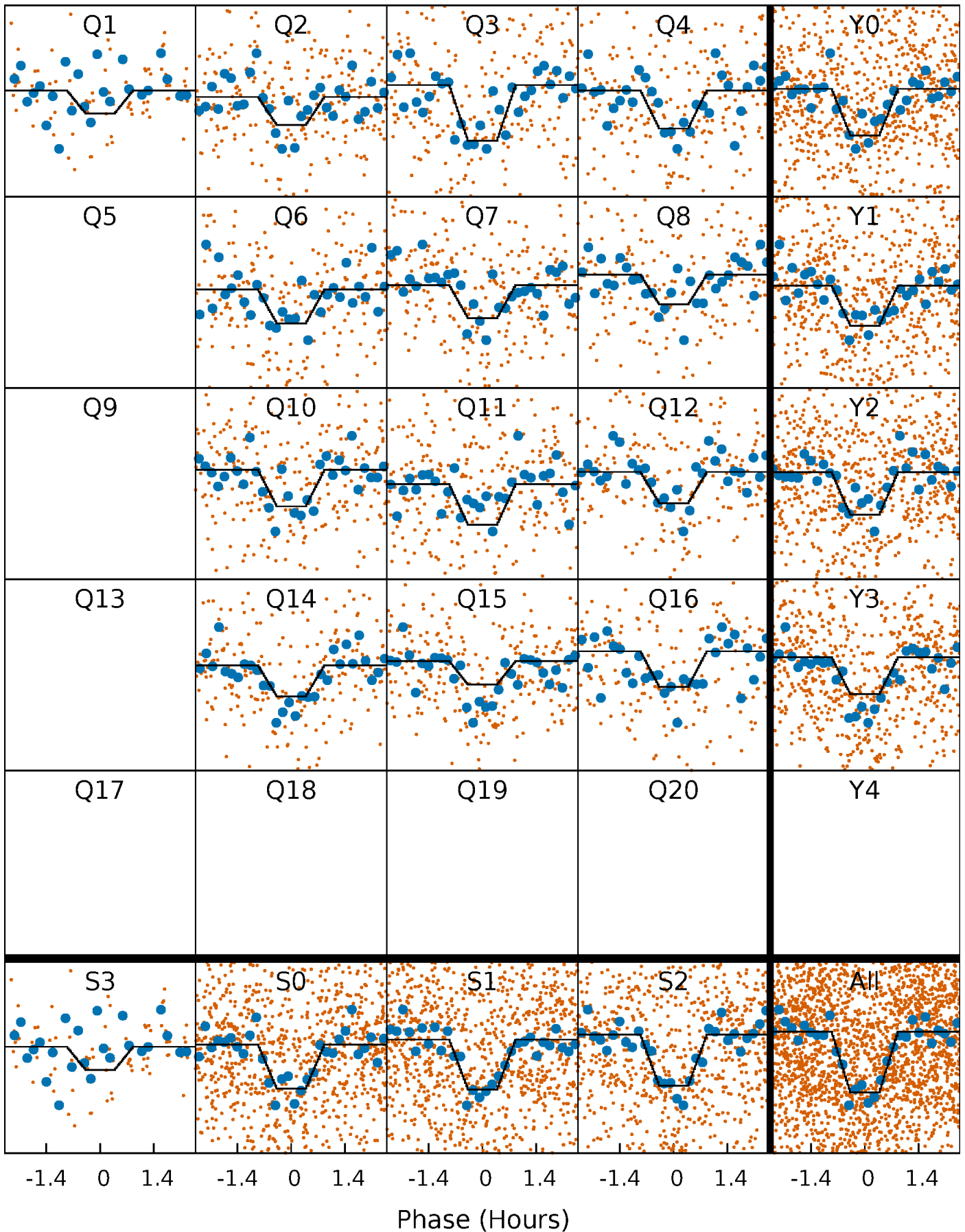
DV Quarter-Phased Transit Curves

TCE 006929841-01 P= 3.515754 Days $T_0=134.298081$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

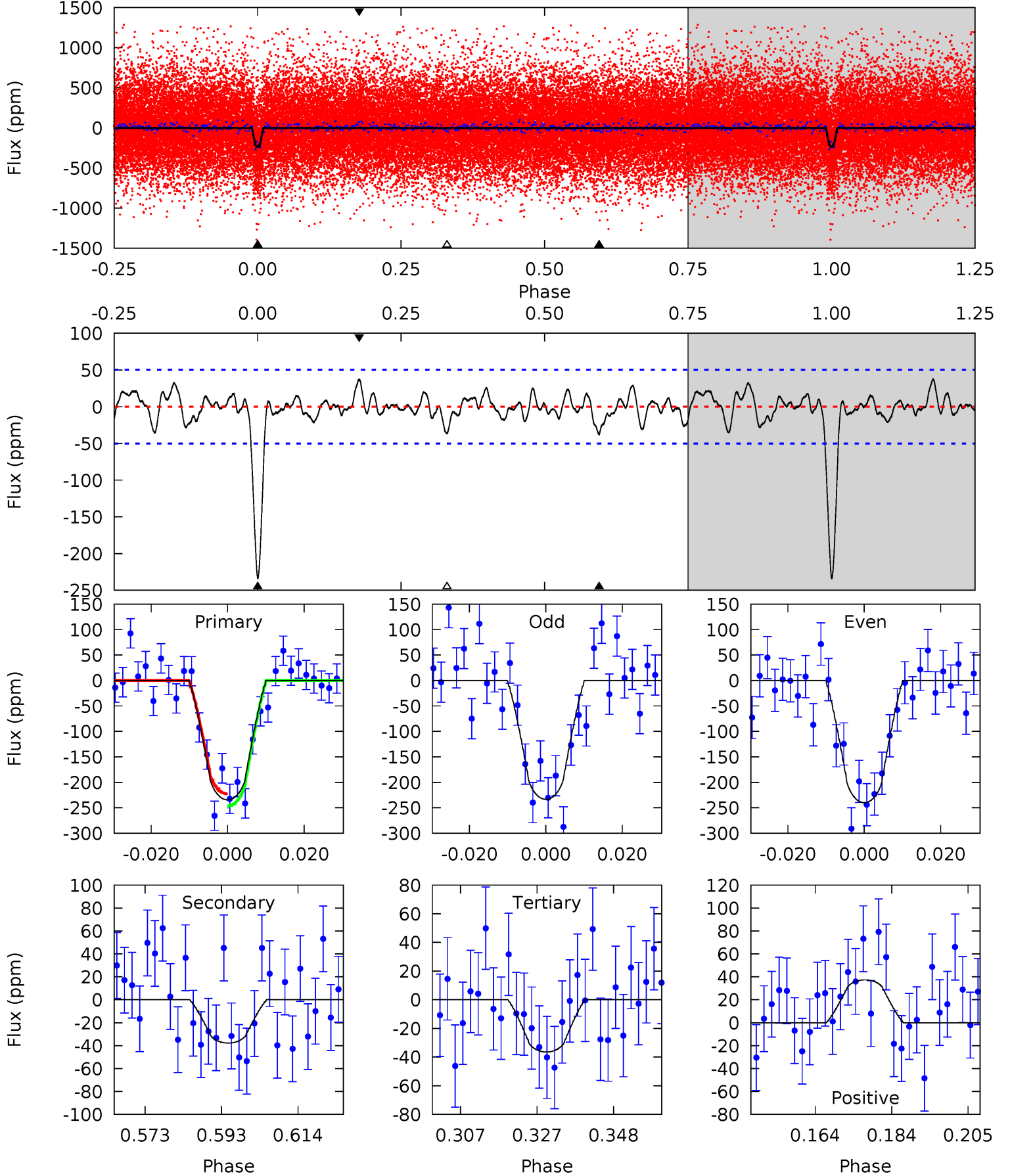
TCE 006929841-01 P= 3.515765 Days $T_0=134.298059$ (BKJD)



DV Model-Shift Uniqueness Test

006929841-01, P = 3.515754 Days, E = 130.782327 Days

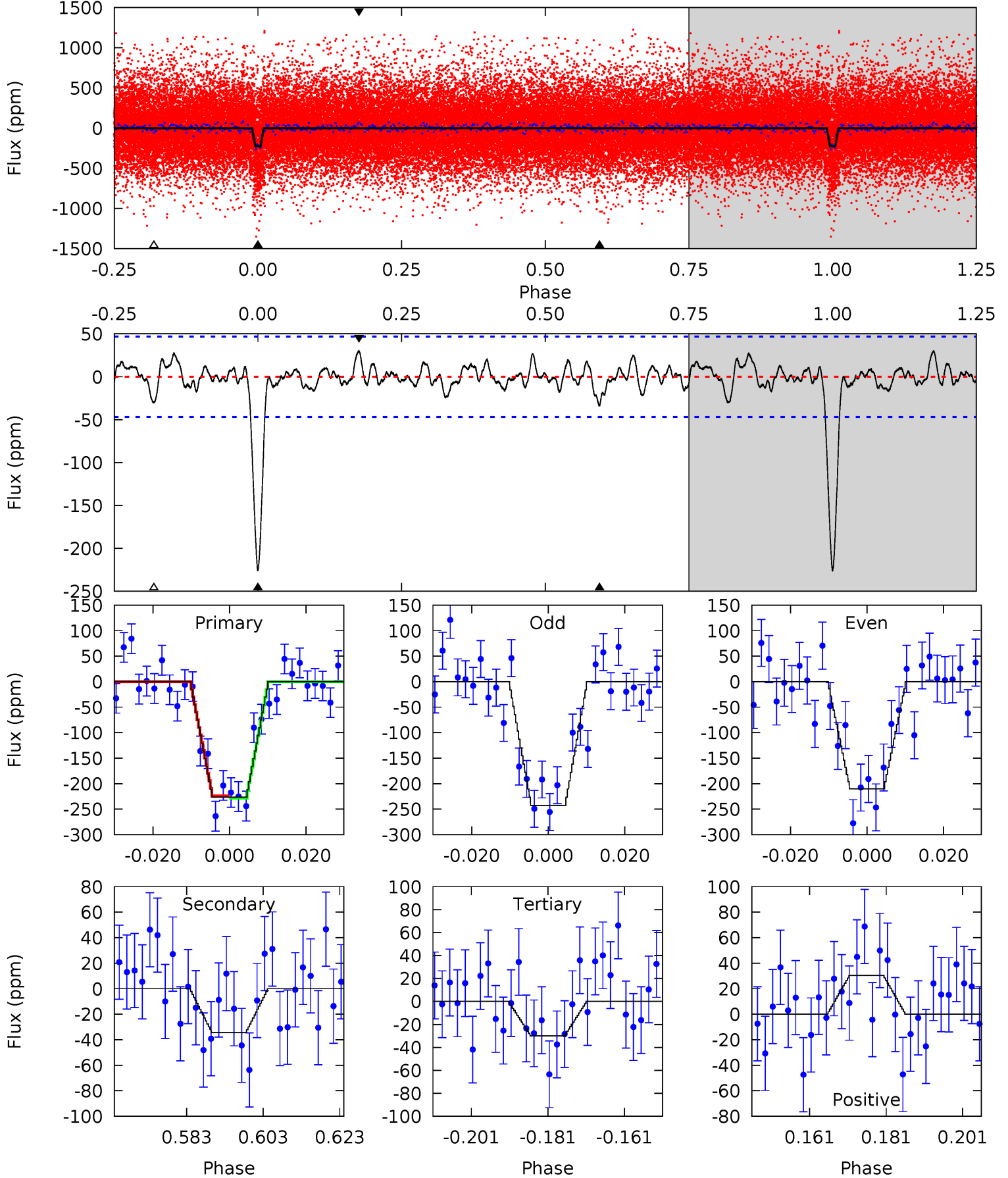
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	3.68	3.55	3.64	4.89	2.32	1.27	19.3	19.2	0.13	0.04	0.32	0.93	0.14	1.15



Alt Model-Shift Uniqueness Test

006929841-01, P = 3.515765 Days, E = 130.782294 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	3.60	3.13	3.18	4.89	2.32	1.08	20.5	20.5	0.47	0.42	1.70	0.90	0.12	0.22



Stellar Parameters For KIC 006929841

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5094^{+174}_{-157}	$4.450^{+0.104}_{-0.338}$	$0.260^{+0.200}_{-0.250}$	$0.901^{+0.274}_{-0.109}$	$0.833^{+0.078}_{-0.056}$	$1.606^{+0.752}_{-1.174}$
	+3%/-3%	+2%/-8%	+77%/-96%	+30%/-12%	+9%/-7%	+47%/-73%
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 006929841-01 / KOI 3026.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-38 ± 10	$1.59^{+1.00}_{-0.91}$	1480^{+137}_{-86}	3617^{+1357}_{-563}	15^{+71}_{-10}
Alt.	-34 ± 10	$1.64^{+0.93}_{-0.87}$	1481^{+129}_{-95}	3518^{+1103}_{-499}	12^{+47}_{-8}

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 $A_{obs} \gg 1.0$

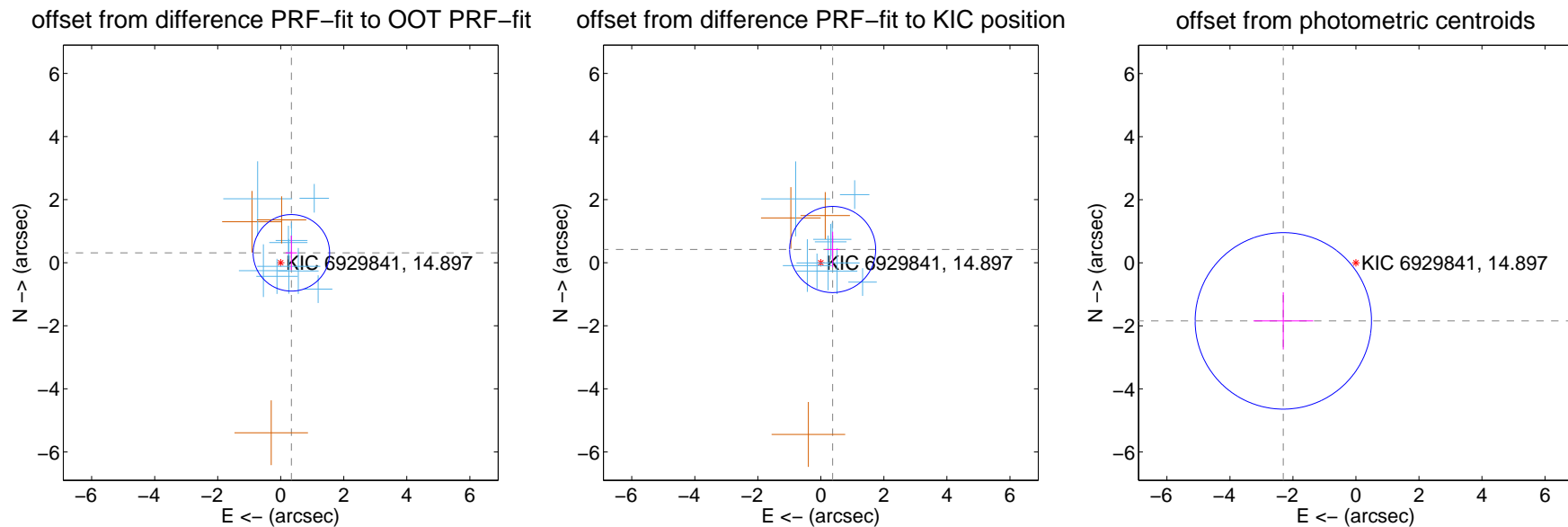
DV Centroid Data

Supplemental centroid analysis for 006929841-01. Kepler magnitude: 14.90. Transit SNR 14.60

There are 9 quarters with good PRF difference image offsets

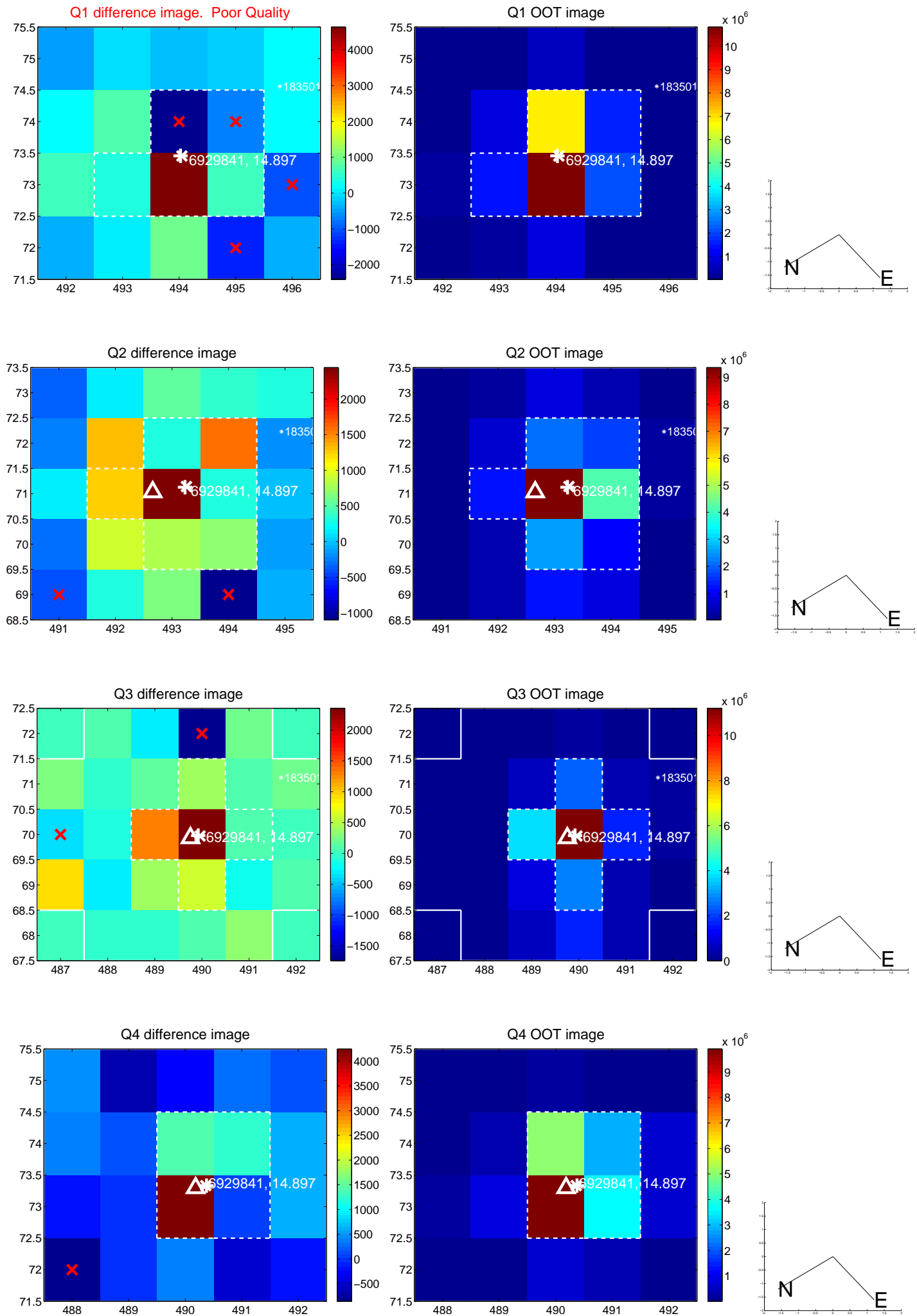
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.459 ± 0.405	1.14	-0.337 ± 0.182	0.312 ± 0.546
PRF-fit source offset from KIC position	0.561 ± 0.455	1.23	-0.374 ± 0.218	0.418 ± 0.563
photometric centroid source offset	2.95 ± 0.93	3.16	2.31 ± 0.95	-1.84 ± 0.91



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.

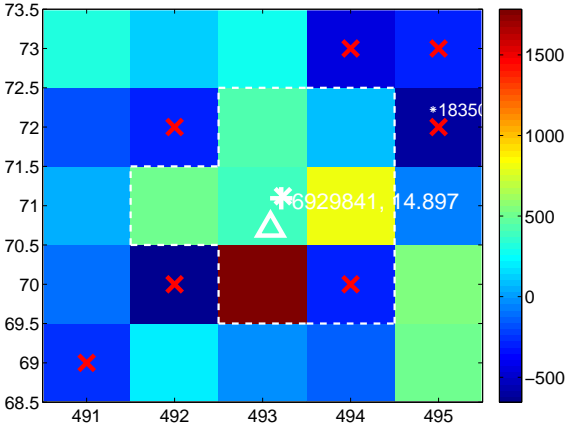
Q5 no difference image



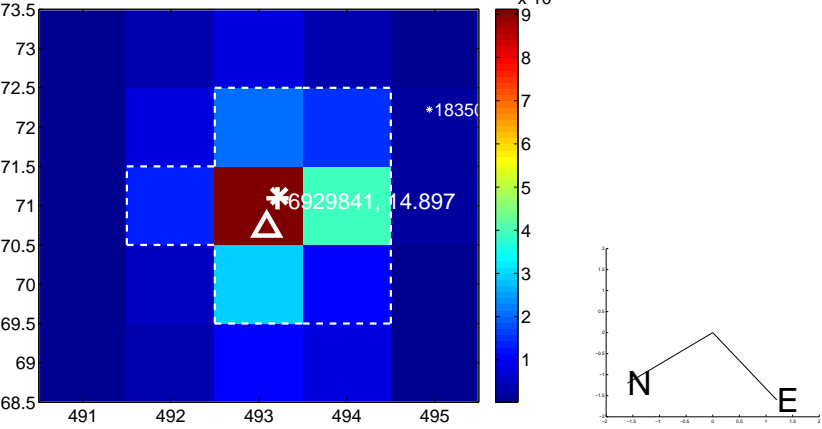
Q5 no OOT image



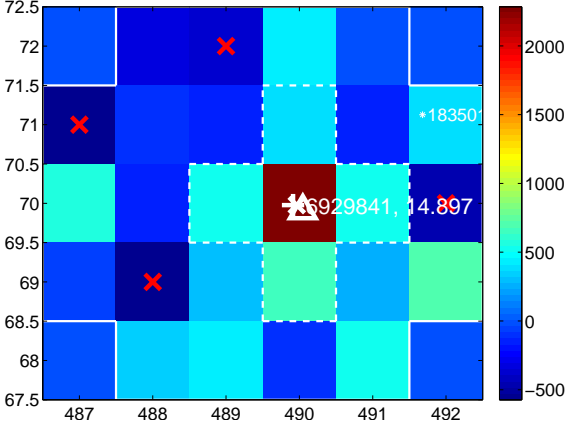
Q6 difference image. Poor Quality



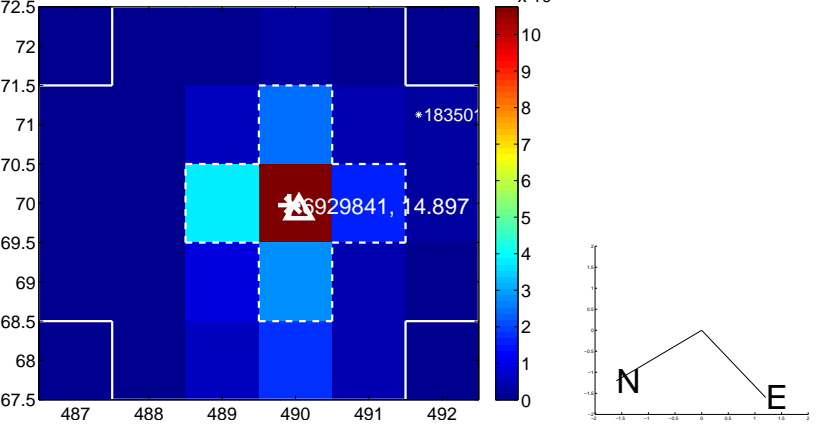
Q6 OOT image



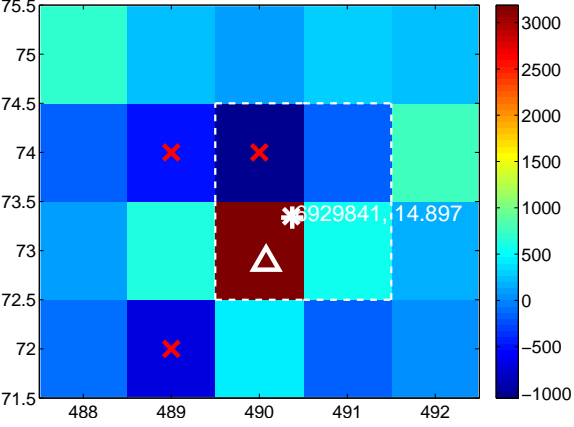
Q7 difference image



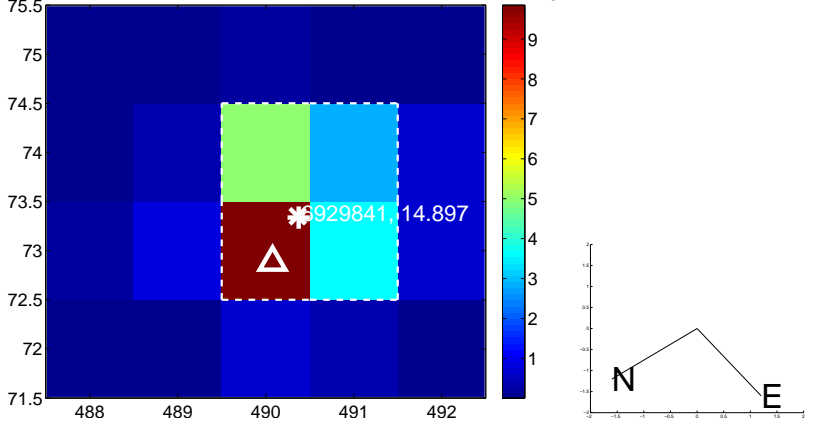
Q7 OOT image



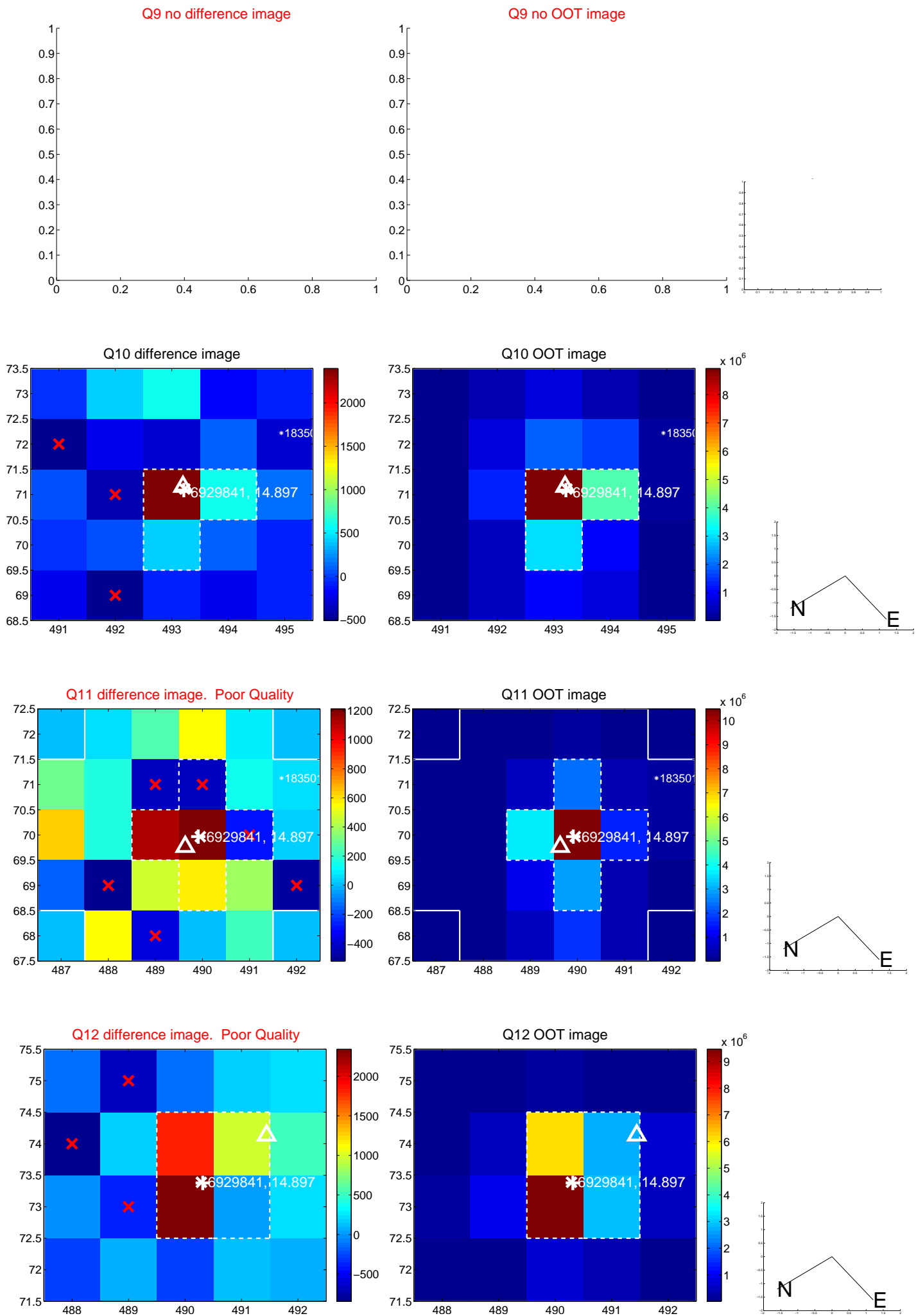
Q8 difference image



Q8 OOT image

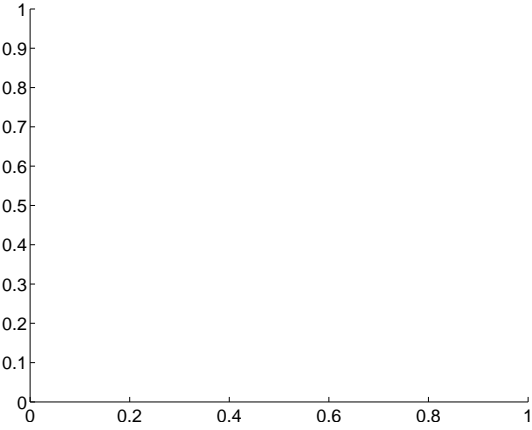


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

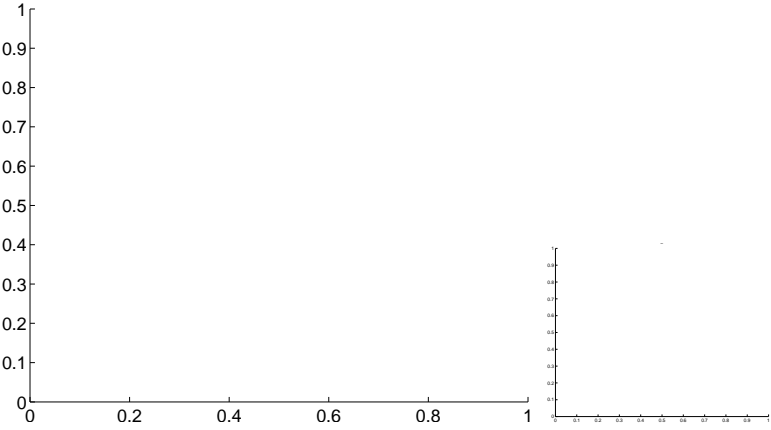


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

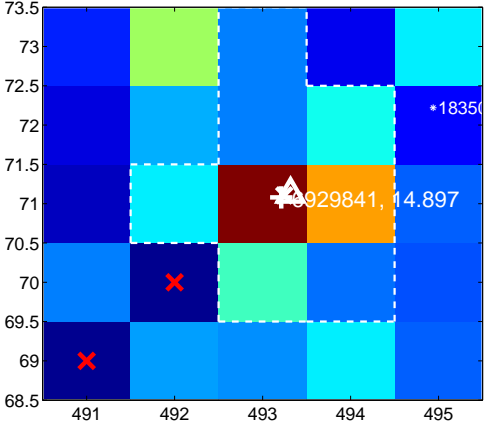
Q13 no difference image



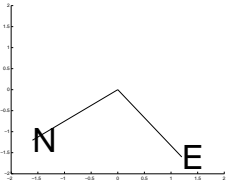
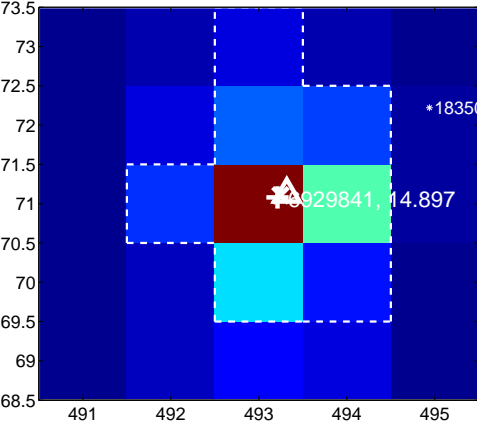
Q13 no OOT image



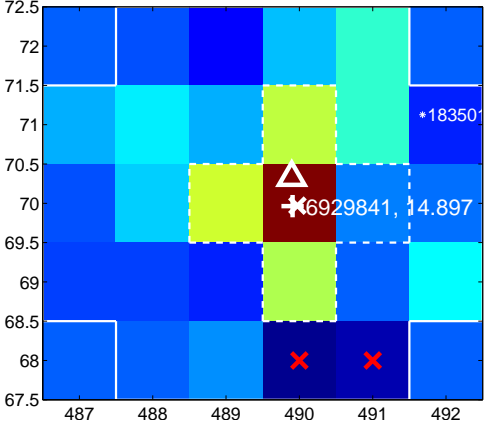
Q14 difference image



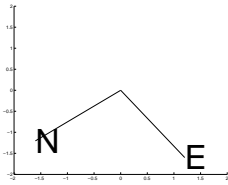
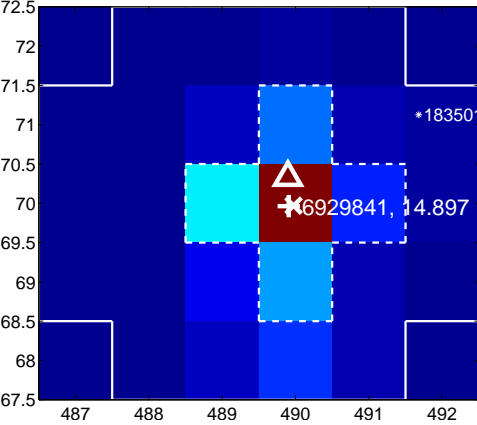
Q14 OOT image



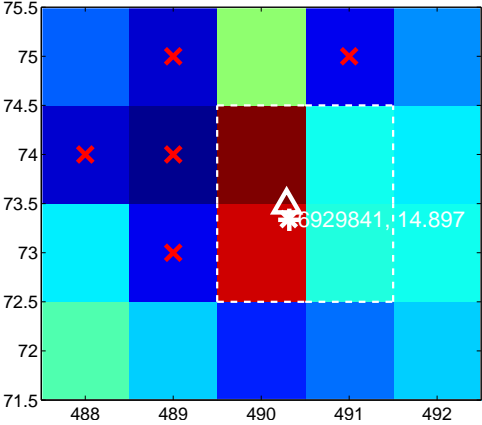
Q15 difference image



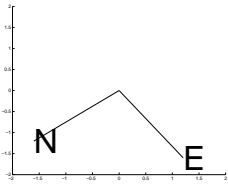
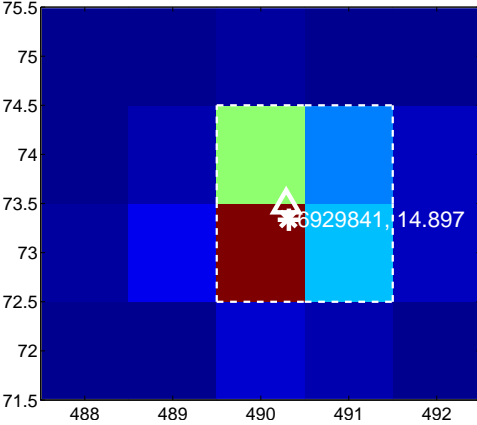
Q15 OOT image



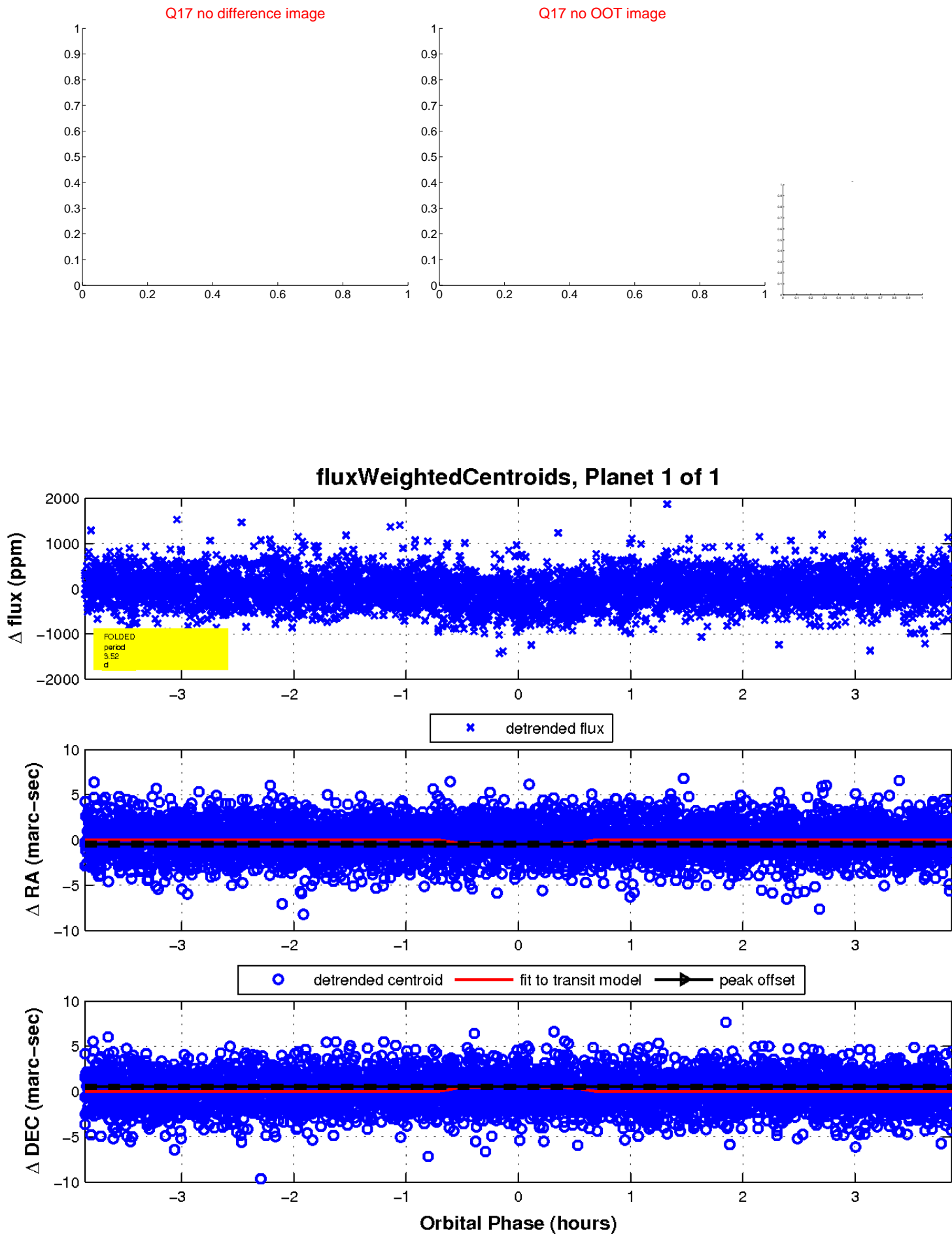
Q16 difference image



Q16 OOT image



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



UKIRT Image

Declination

