

KIC 011966253

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})
011966253-01	OBS	2772.01	0.643466	131.840737	84.1	1.192	16.0	15.8	0.84	5670	0.92	3799.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011966253-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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

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

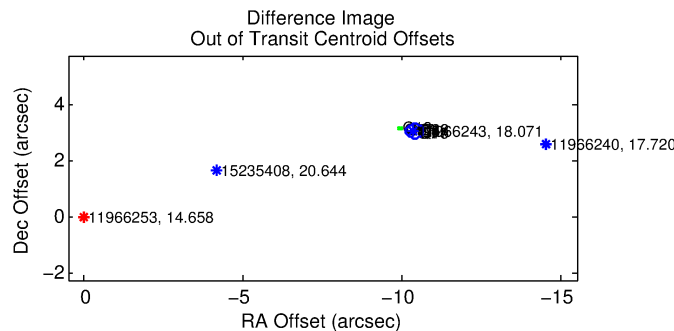
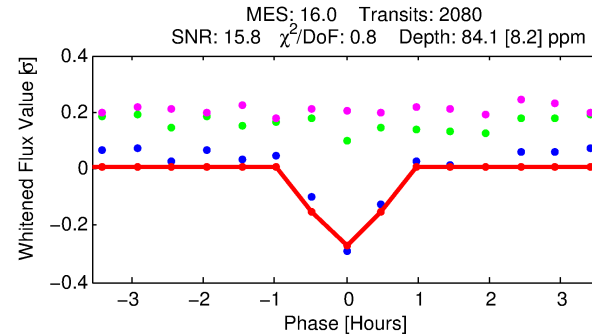
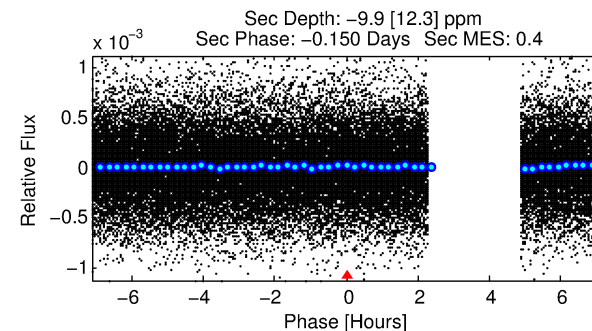
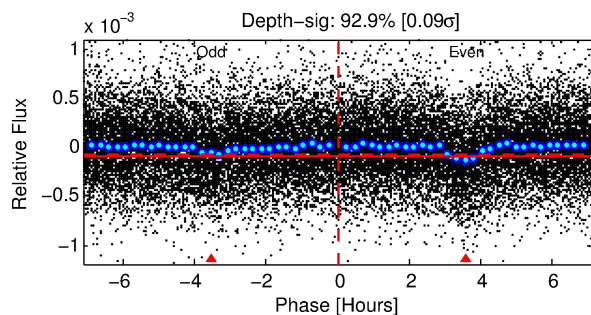
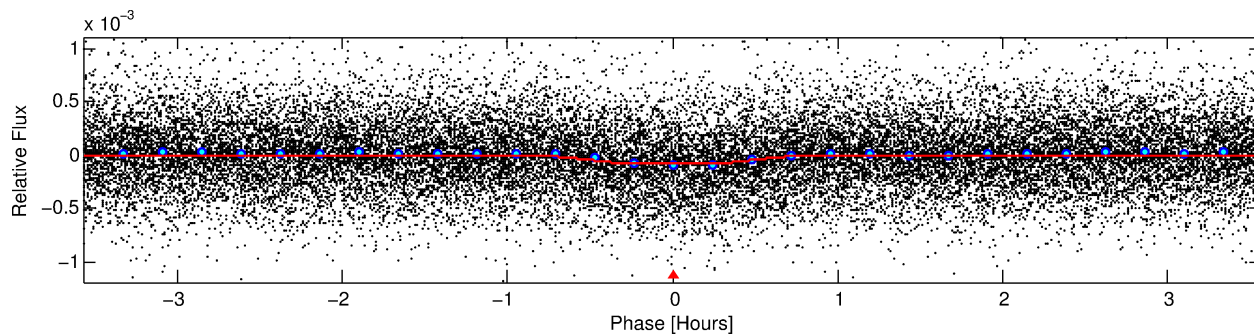
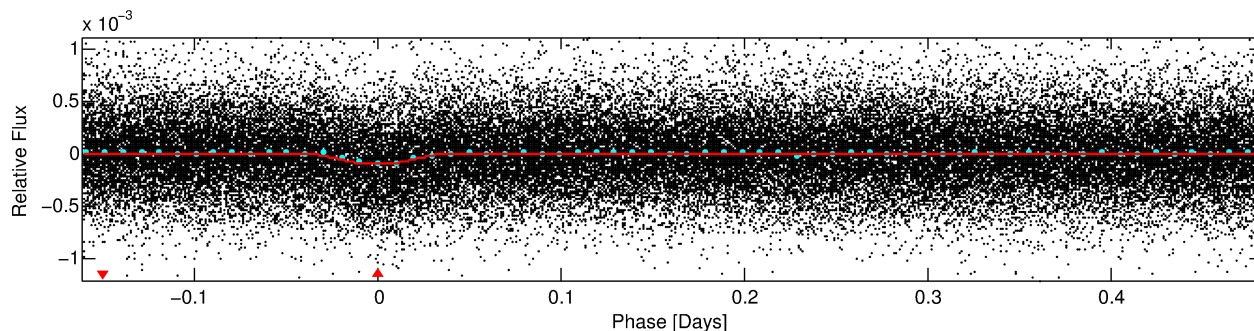
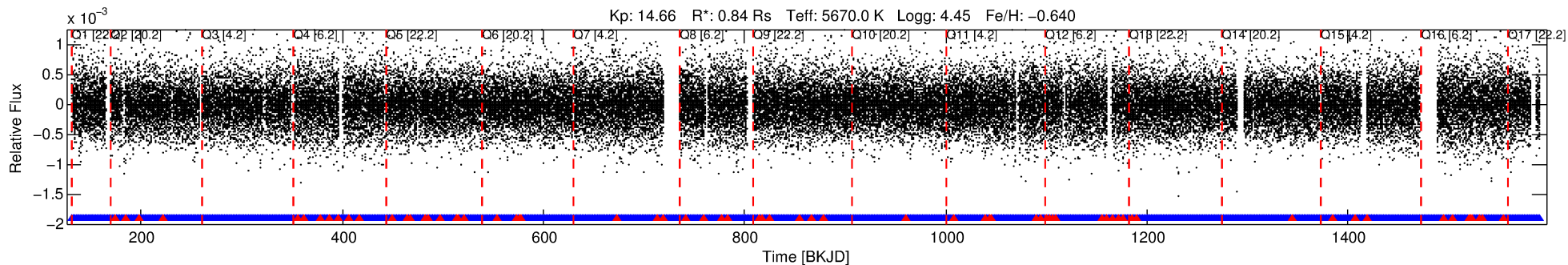
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011966253-01

No Significant Match Found

DV One-Page Summary

KIC: 11966253 Candidate: 1 of 1 Period: 0.643 d
KOI: K02772.01 Corr: 0.943



DV Fit Results:

Period = 0.64347 [0.00001] d
Epoch = 131.8407 [0.0012] BKJD
Rp/R* = 0.0100 [0.0045]
a/R* = 2.11 [3.76]
b = 0.90 [0.50]
Seff = 3799.66 [1220.62]
Teq = 2002 [161] K
Rp = 0.92 [0.46] Re
a = 0.0132 [0.0026] AU
Ag = N/A
Teffp = N/A

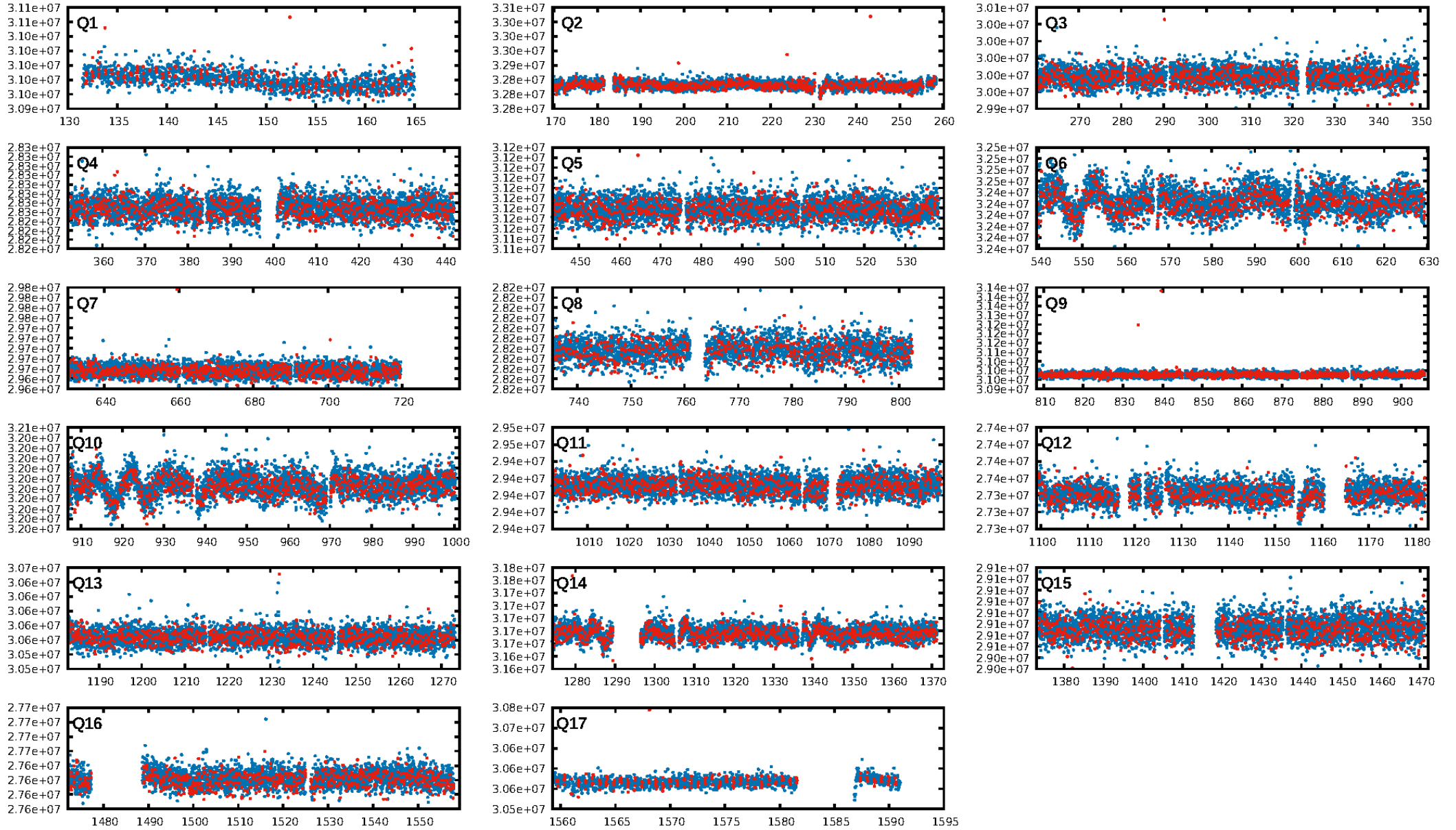
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.96e-57
RollingBand-fgt: 0.96 [1916/1987]
GhostDiagnostic-chr: -1.042
Centroid-sig: 0.0%
Centroid-so: 14.739 arcsec [14.87 σ]
OotOffset-rm: 10.826 arcsec [127.92 σ]
KicOffset-rm: 10.711 arcsec [135.86 σ]
OotOffset-st: 0/4/4/5 [13]
KicOffset-st: 0/4/4/5 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [17/17]

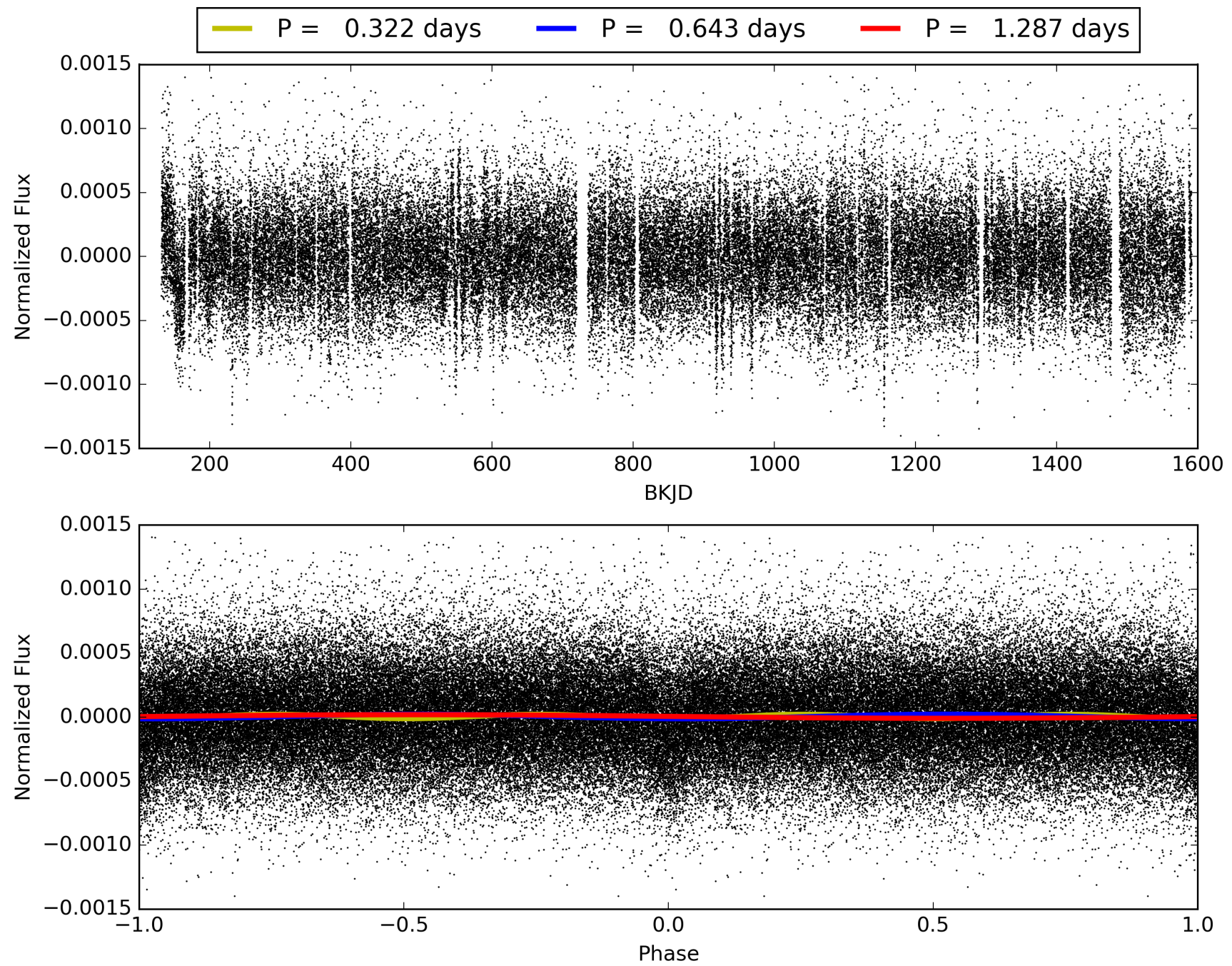
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:12:37 Z

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

TCE 011966253-01, PDC Light Curves

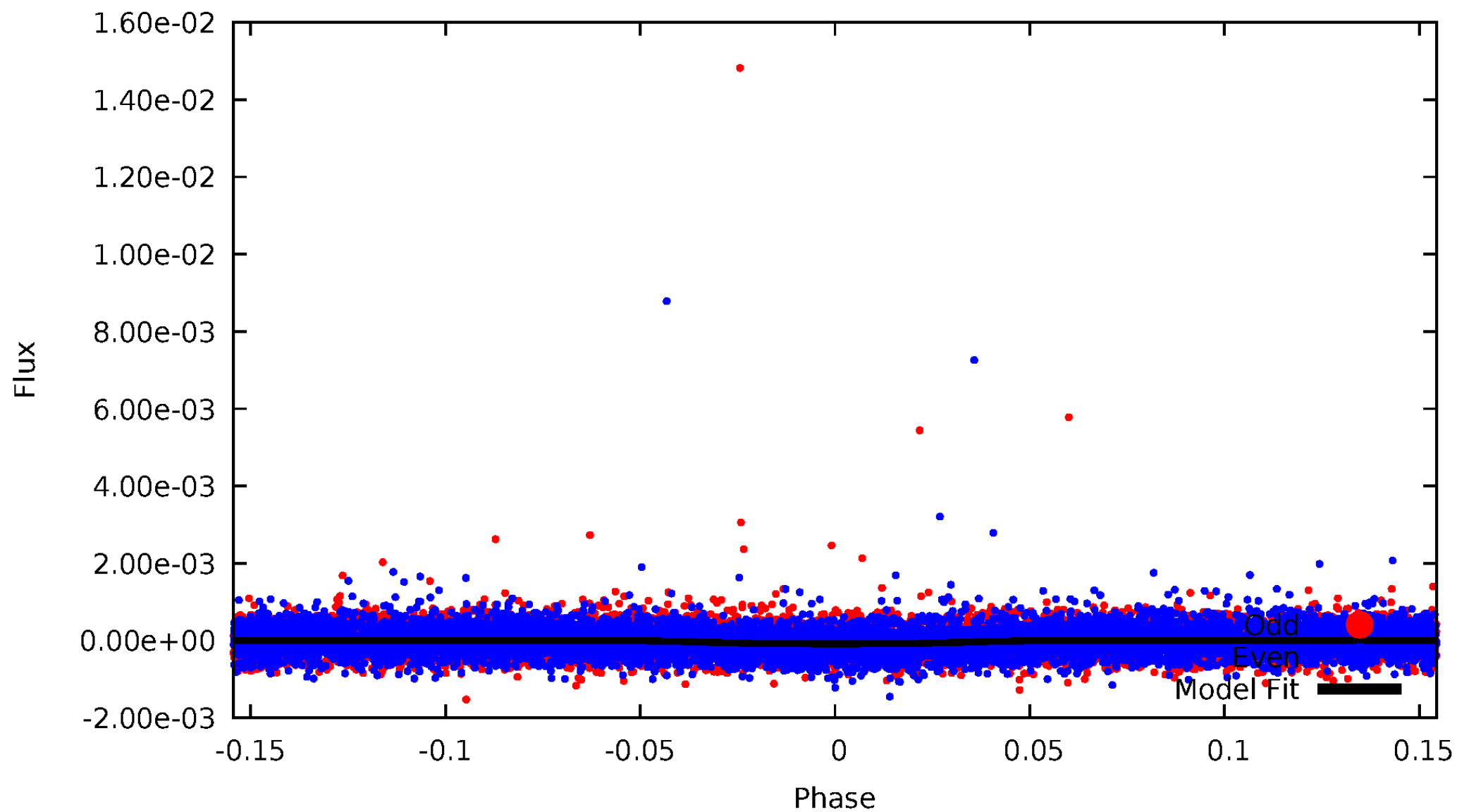


TCE 011966253-01



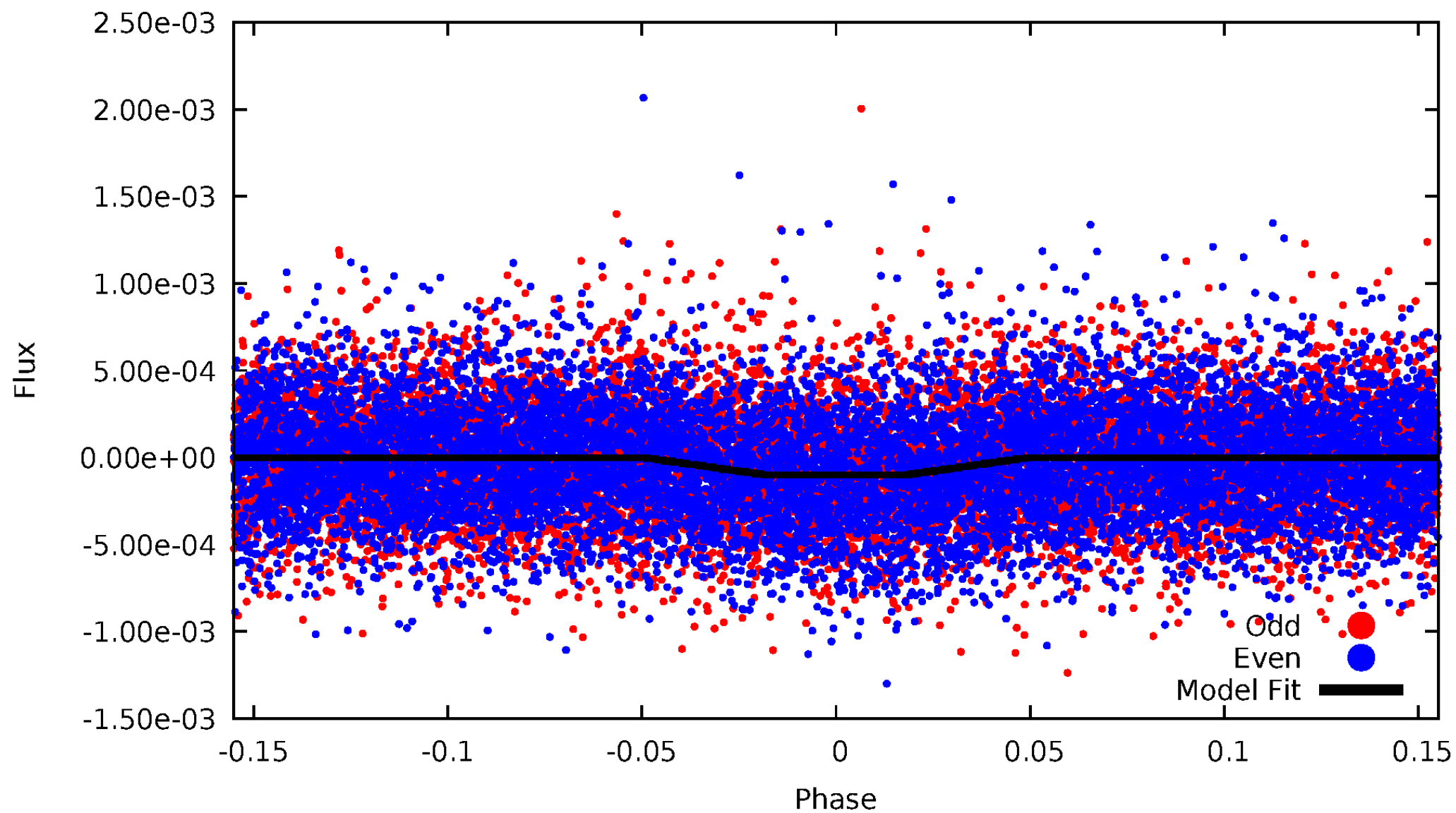
DV Odd/Even

TCE 011966253-01

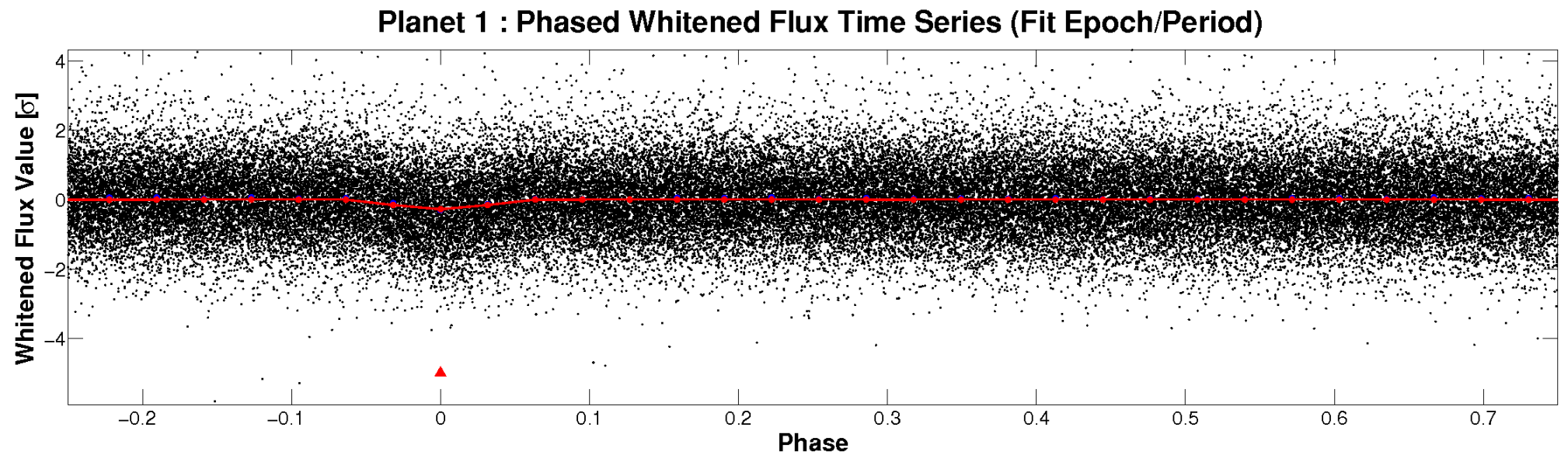
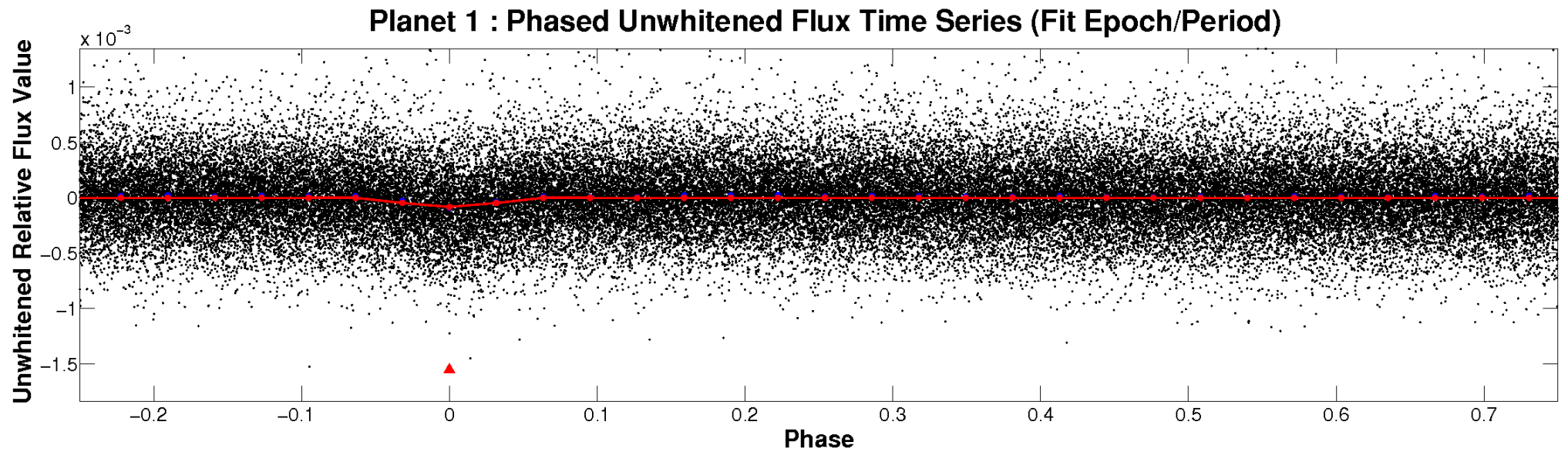


ALT Odd/Even

TCE 011966253-01

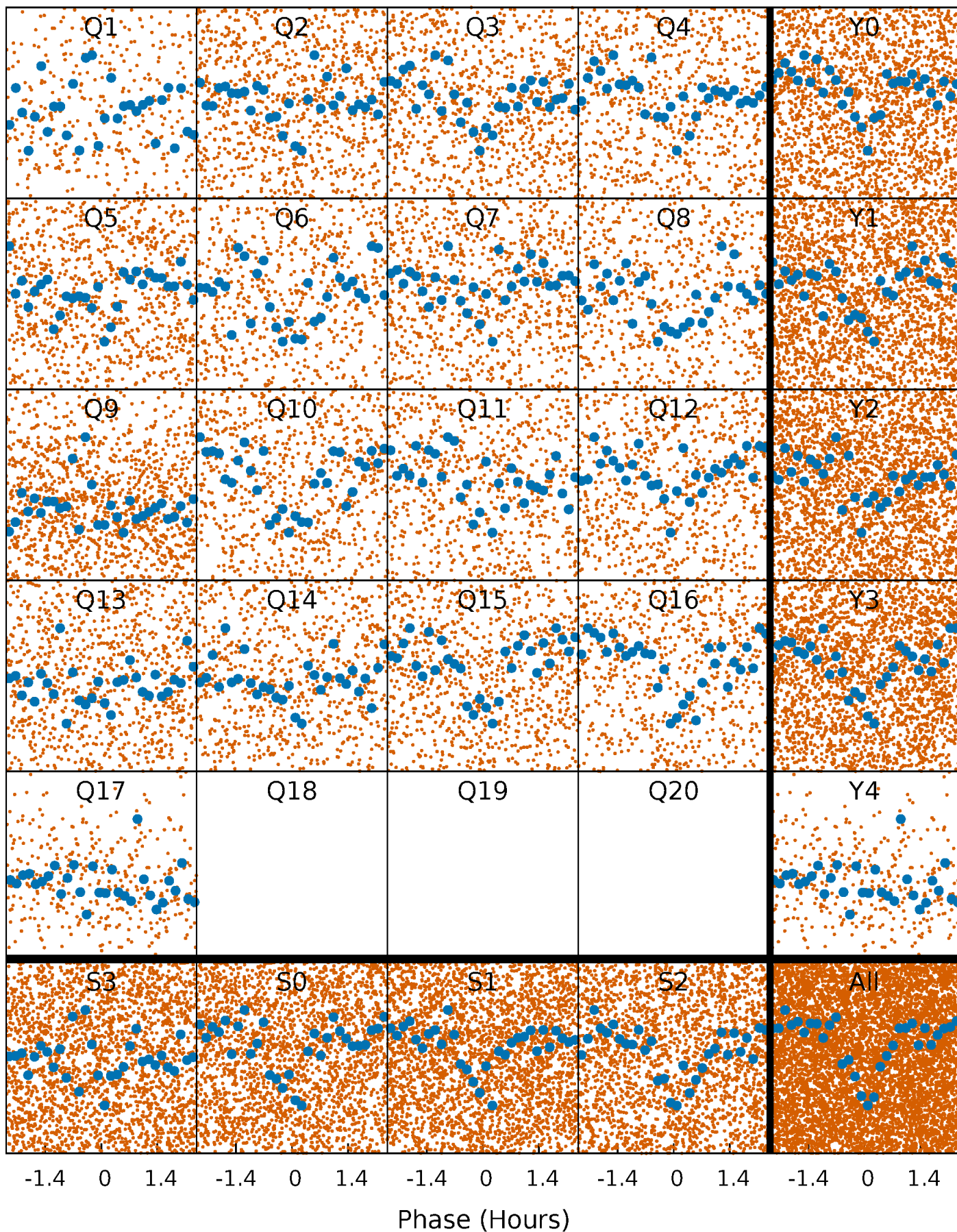


Non-Whitened Vs. Whitened Light Curve



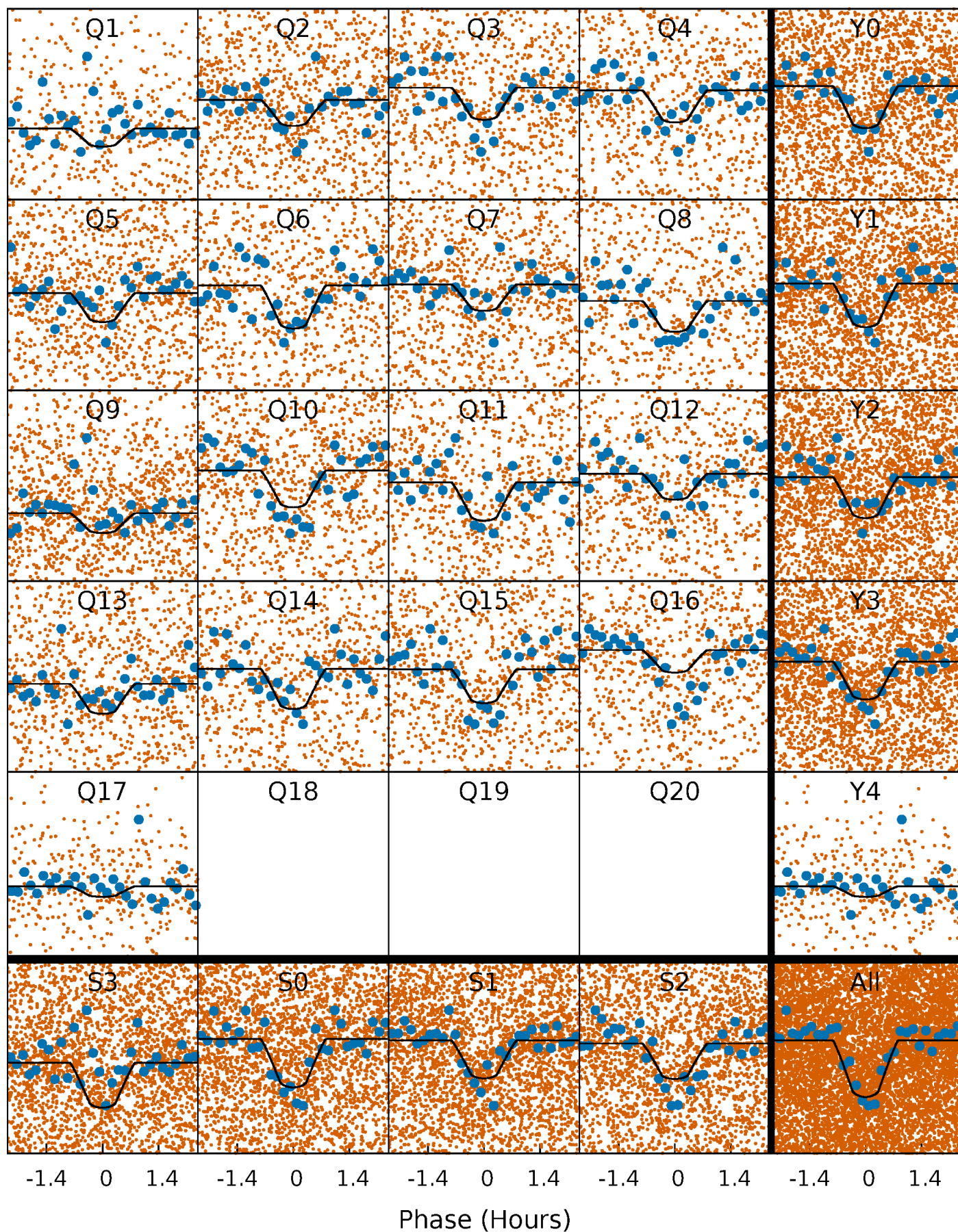
PDC Quarter-Phased Transit Curves

TCE 011966253-01 P= 0.643466 Days $T_0=131.840737$ (BKJD)



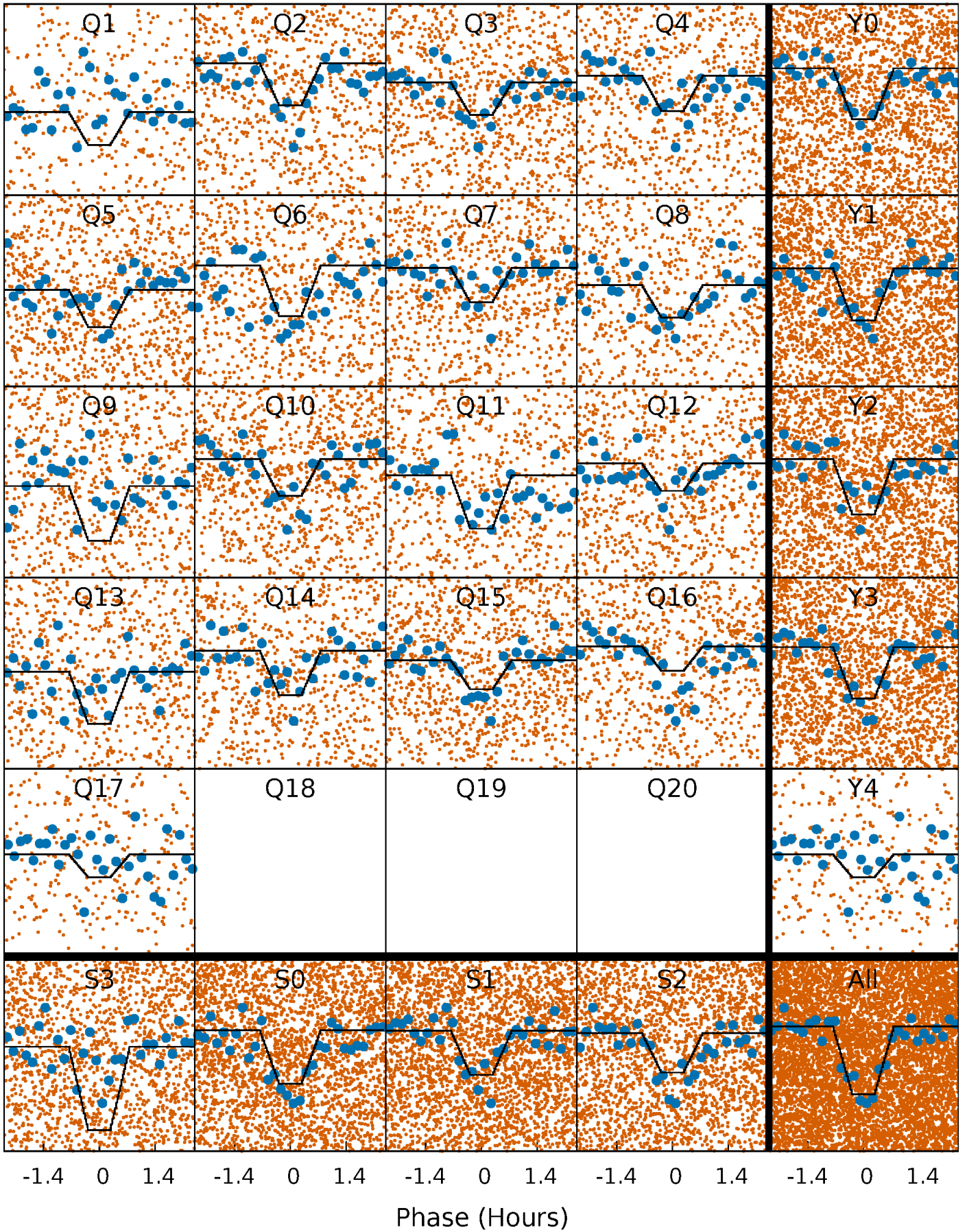
DV Quarter-Phased Transit Curves

TCE 011966253-01 P= 0.643466 Days $T_0=131.840737$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

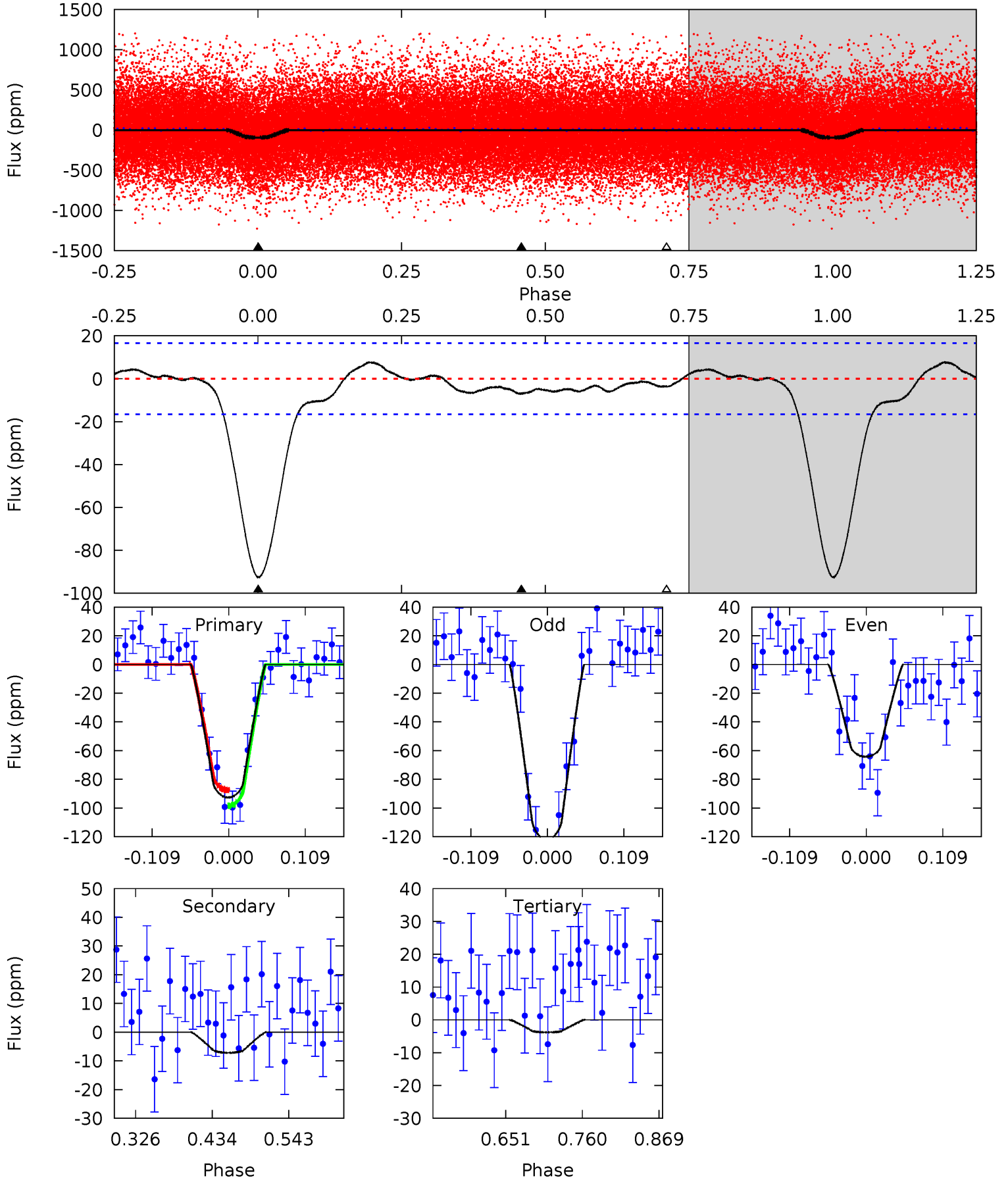
TCE 011966253-01 P= 0.643466 Days $T_0=131.840720$ (BKJD)



DV Model-Shift Uniqueness Test

011966253-01, P = 0.643466 Days, E = 131.197271 Days

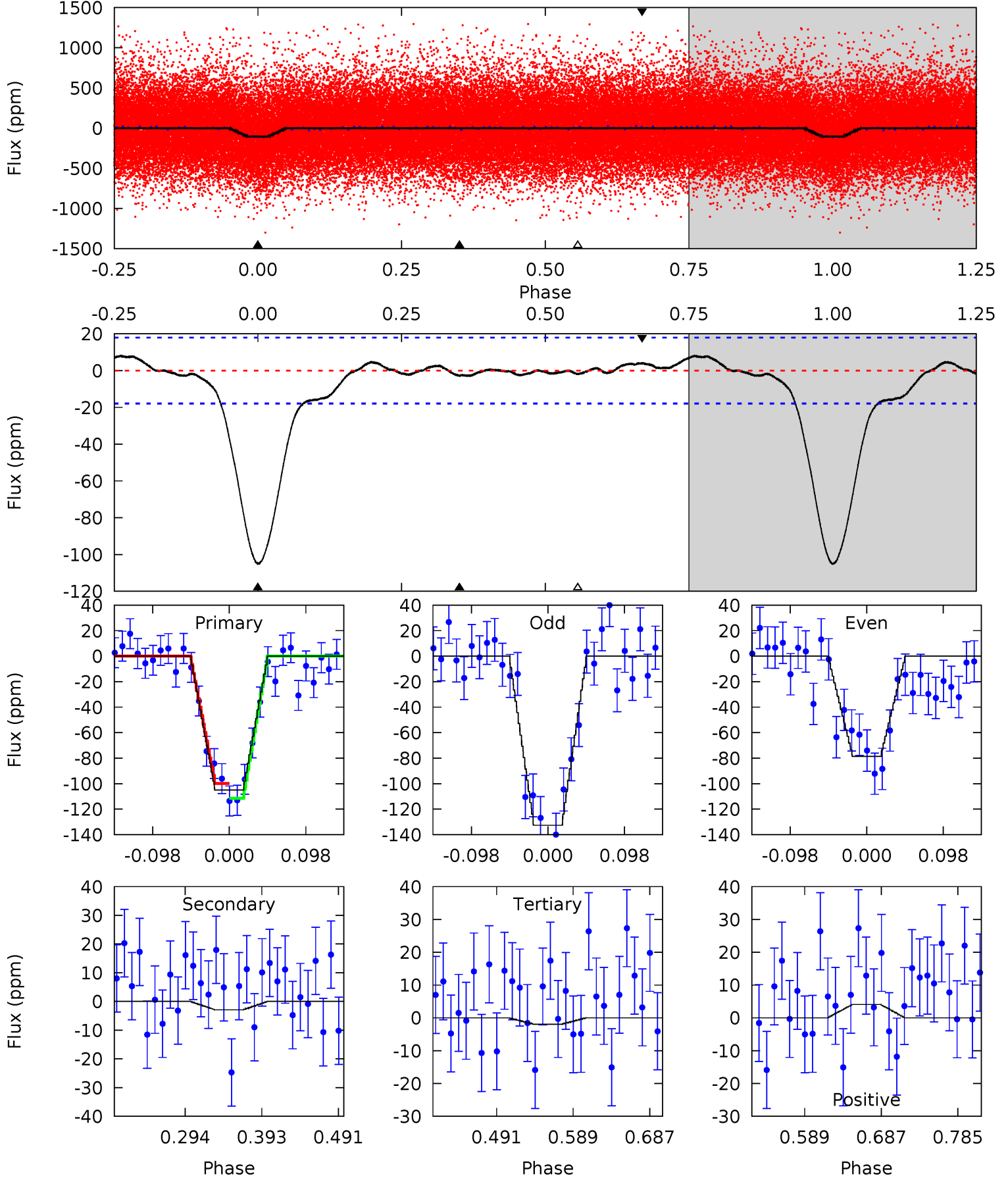
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.4	1.96	1.04	0	4.55	1.60	1.03	24.3	25.4	0.92	1.96	7.90	0.92	0.08	1.52



Alt Model-Shift Uniqueness Test

011966253-01, P = 0.643466 Days, E = 131.197254 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.8	0.74	0.50	1.04	4.57	1.65	1.22	26.3	25.7	0.24	-0.30	6.90	0.96	0.07	1.49



Stellar Parameters For KIC 011966253

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5670^{+170}_{-153}	$4.452^{+0.139}_{-0.170}$	$-0.640^{+0.350}_{-0.300}$	$0.843^{+0.182}_{-0.133}$	$0.732^{+0.106}_{-0.035}$	$1.723^{+1.130}_{-0.799}$
	+3%/-3%	+3%/-4%	+55%/-47%	+22%/-16%	+14%/-5%	+66%/-46%
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 011966253-01 / KOI 2772.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 4	$0.94^{+0.44}_{-0.43}$	2804^{+177}_{-165}	3111^{+957}_{-5394}	$0.734^{+1.814}_{-0.471}$
Alt.	-3 ± 4	$0.95^{+0.47}_{-0.40}$	2810^{+194}_{-163}	-2274^{+5702}_{-831}	$0.260^{+0.860}_{-0.337}$

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

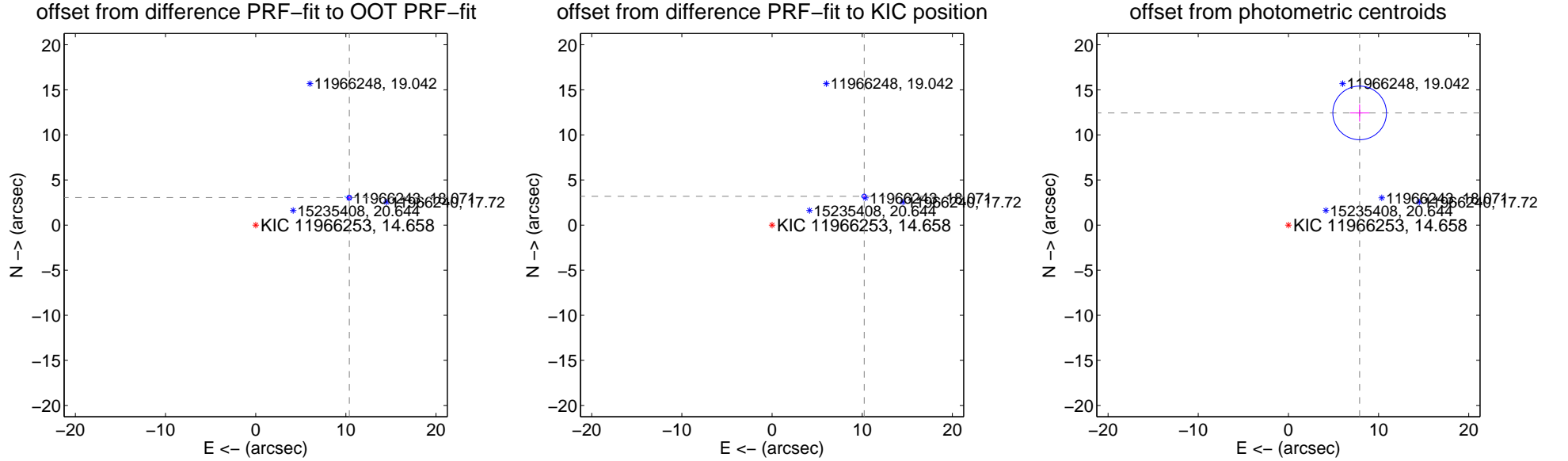
DV Centroid Data

Supplemental centroid analysis for 011966253-01. Kepler magnitude: 14.66. Transit SNR 15.81

There are 13 quarters with good PRF difference image offsets

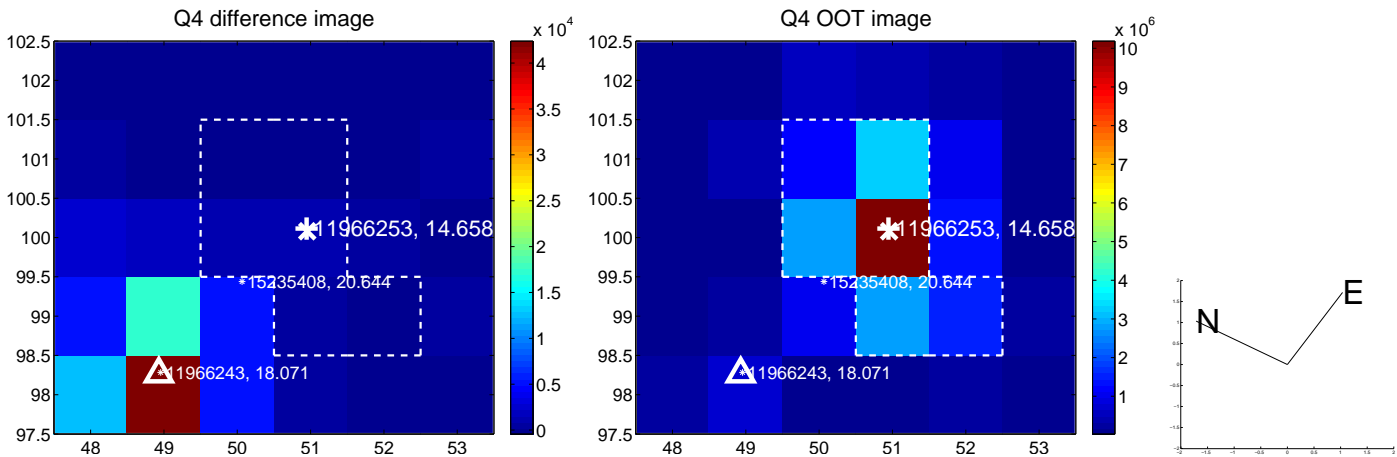
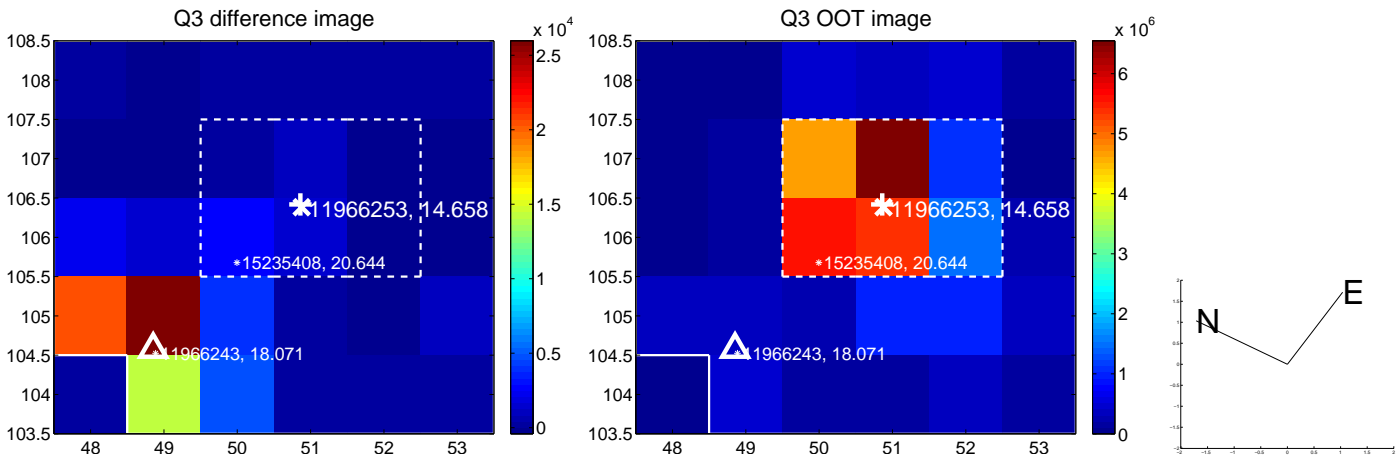
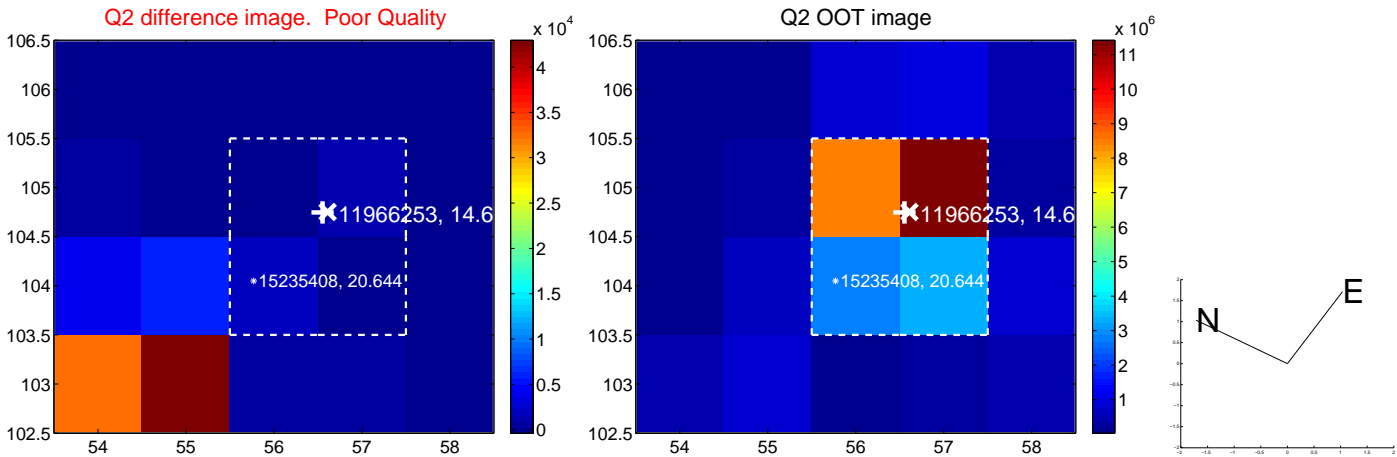
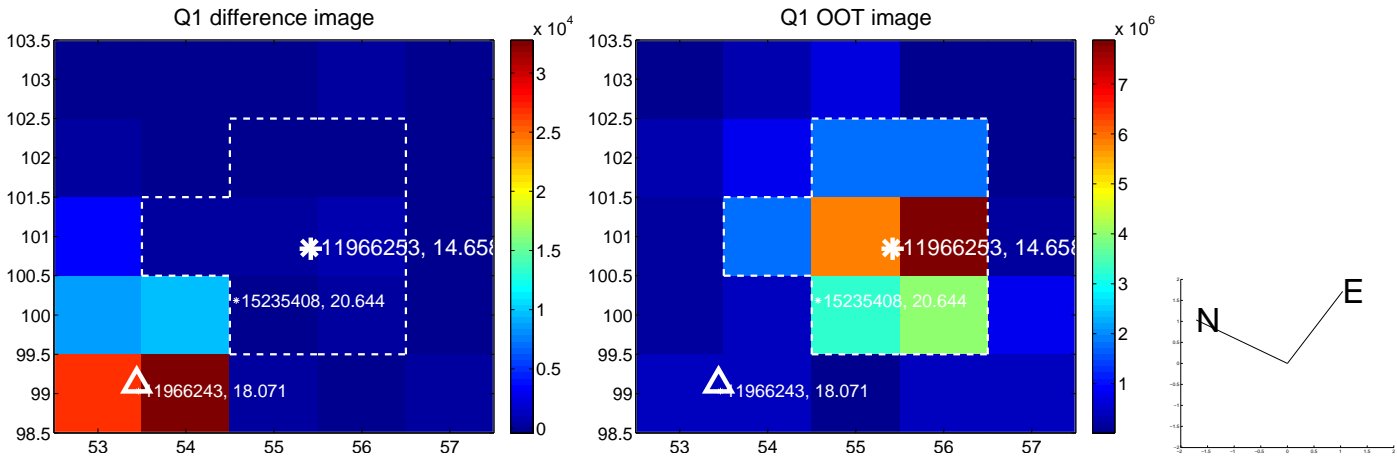
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.826 ± 0.085	127.92	-10.388 ± 0.089	3.048 ± 0.069
PRF-fit source offset from KIC position	10.711 ± 0.079	135.86	-10.223 ± 0.081	3.198 ± 0.068
photometric centroid source offset	14.74 ± 0.99	14.87	-7.90 ± 1.07	12.44 ± 0.96

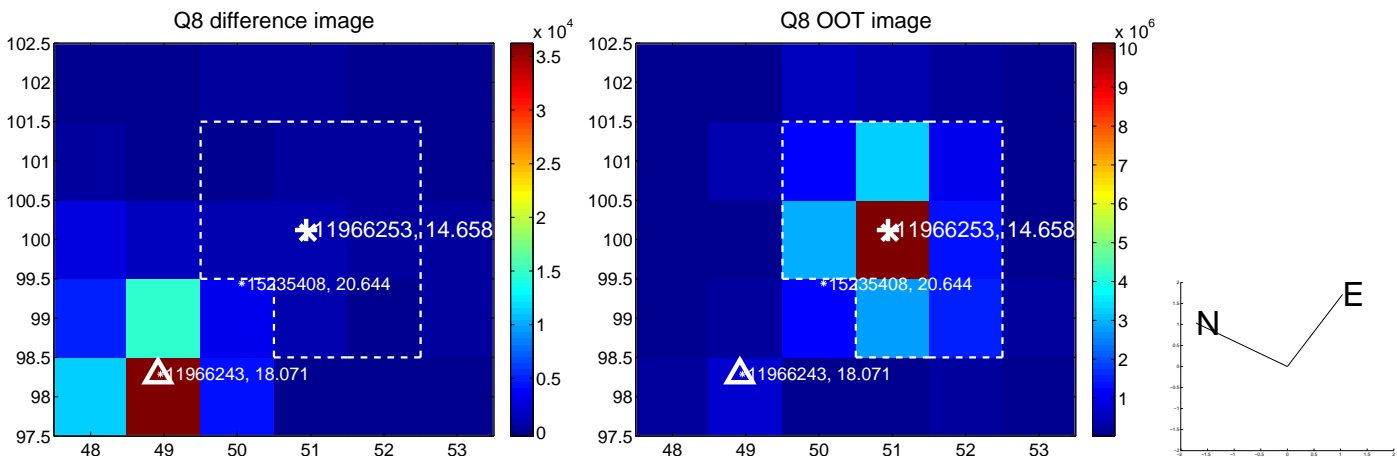
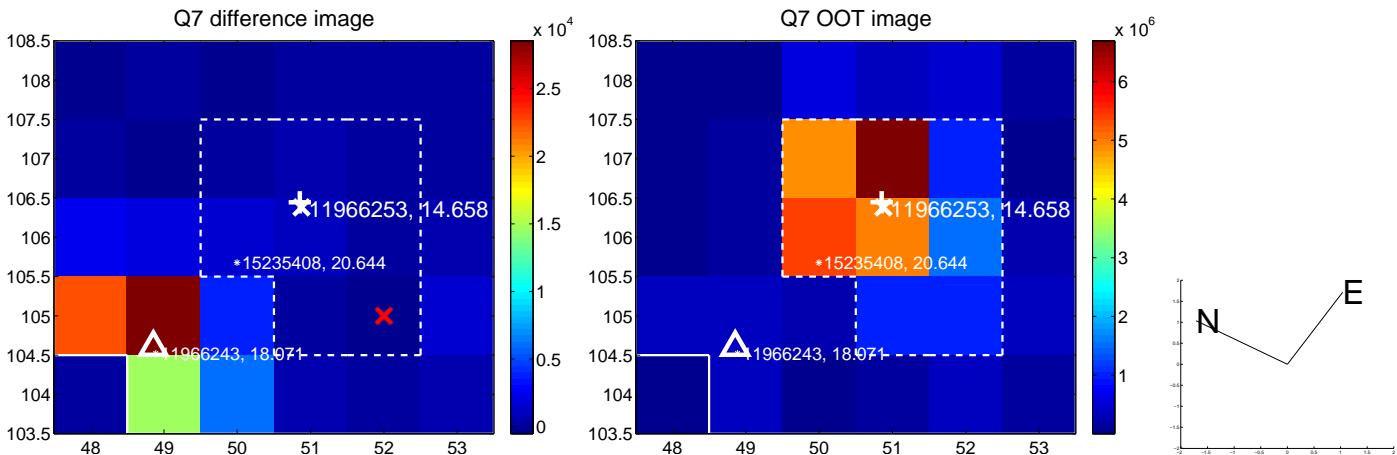
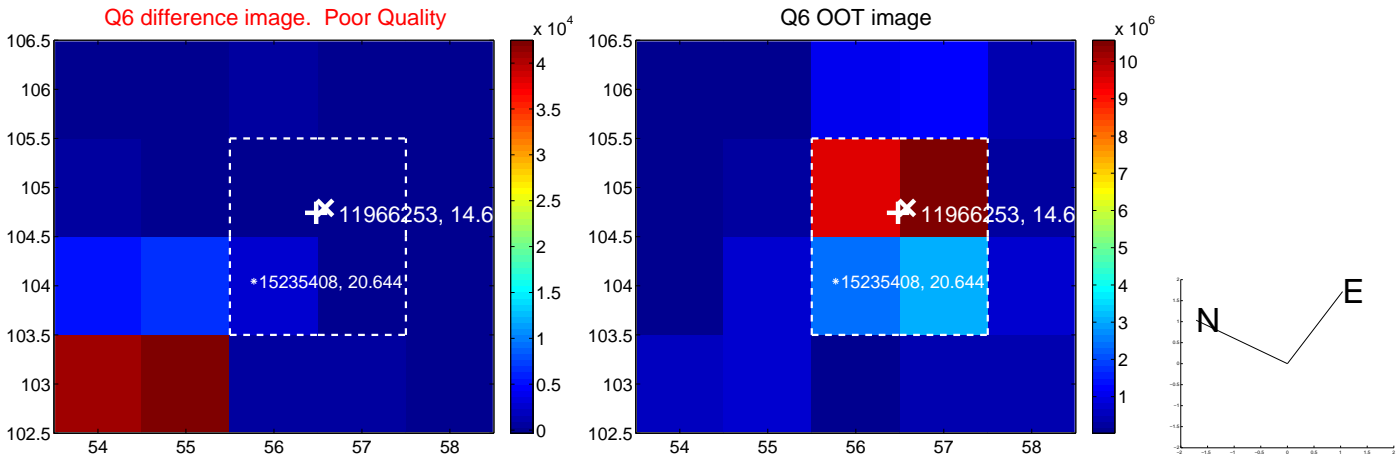
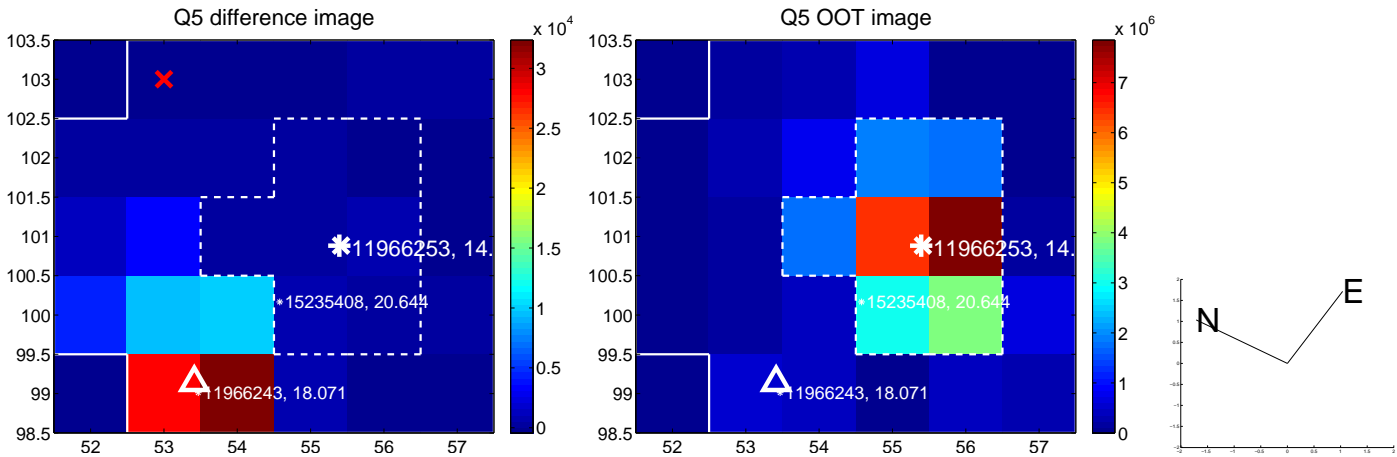


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

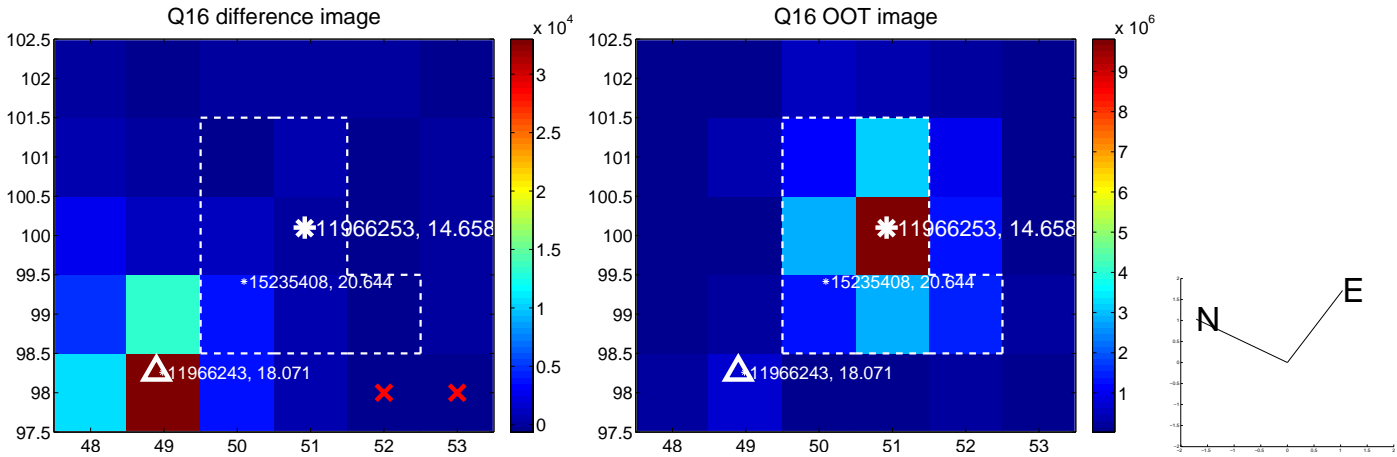
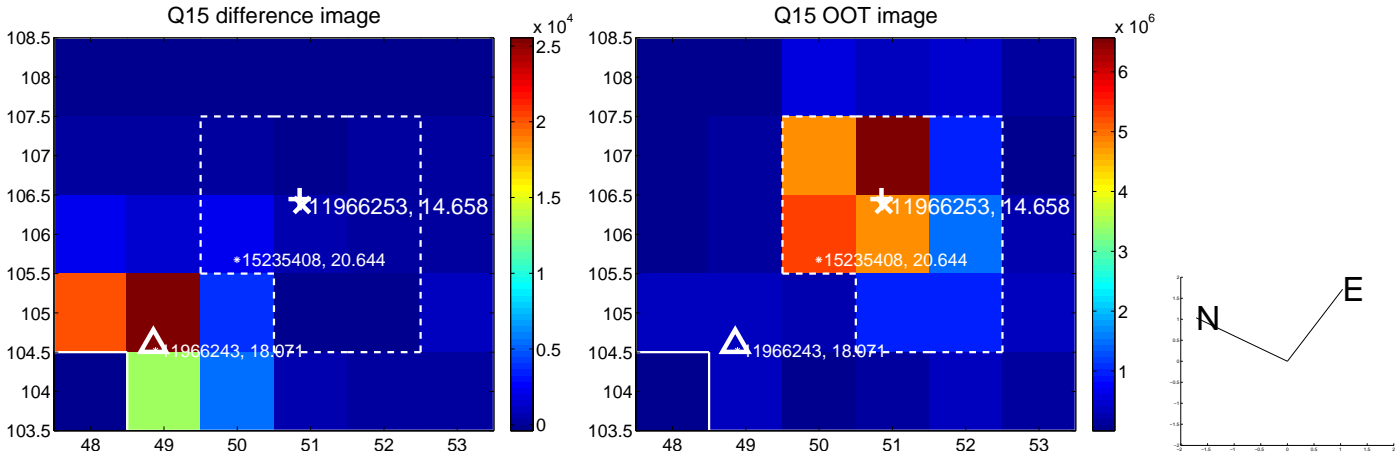
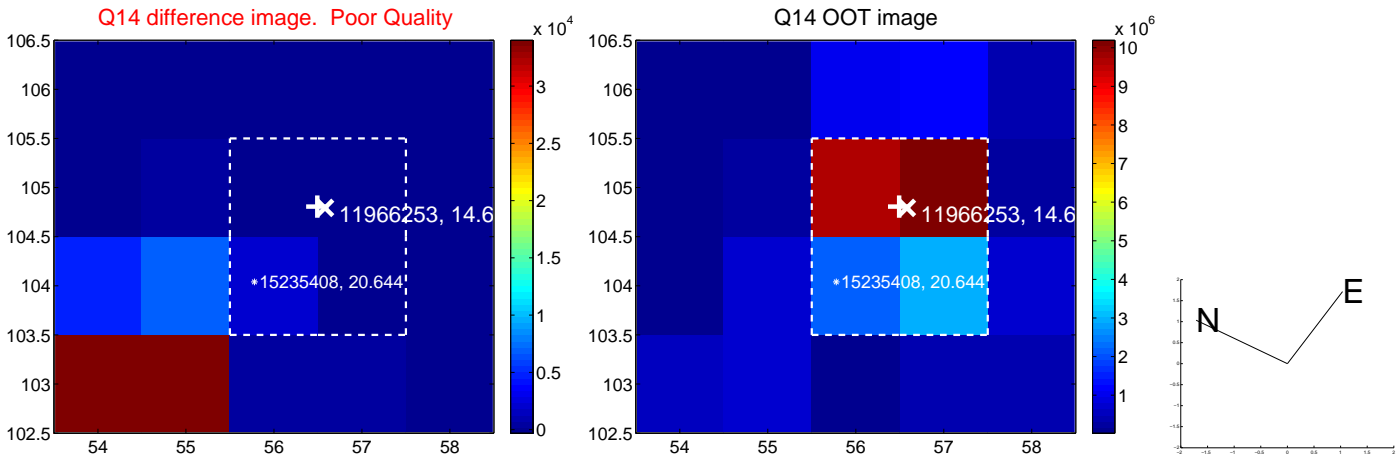
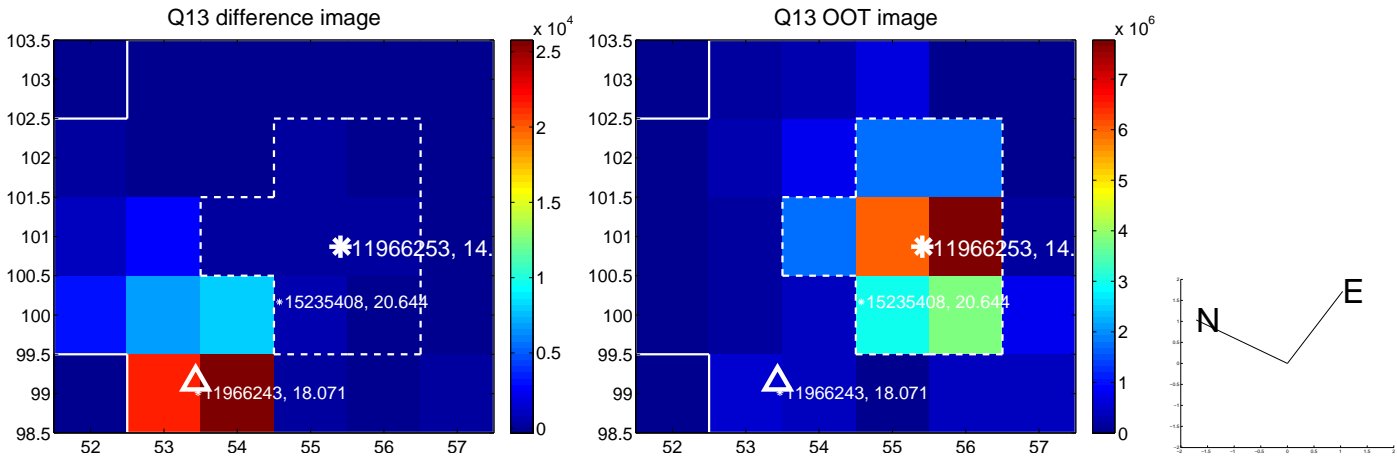
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



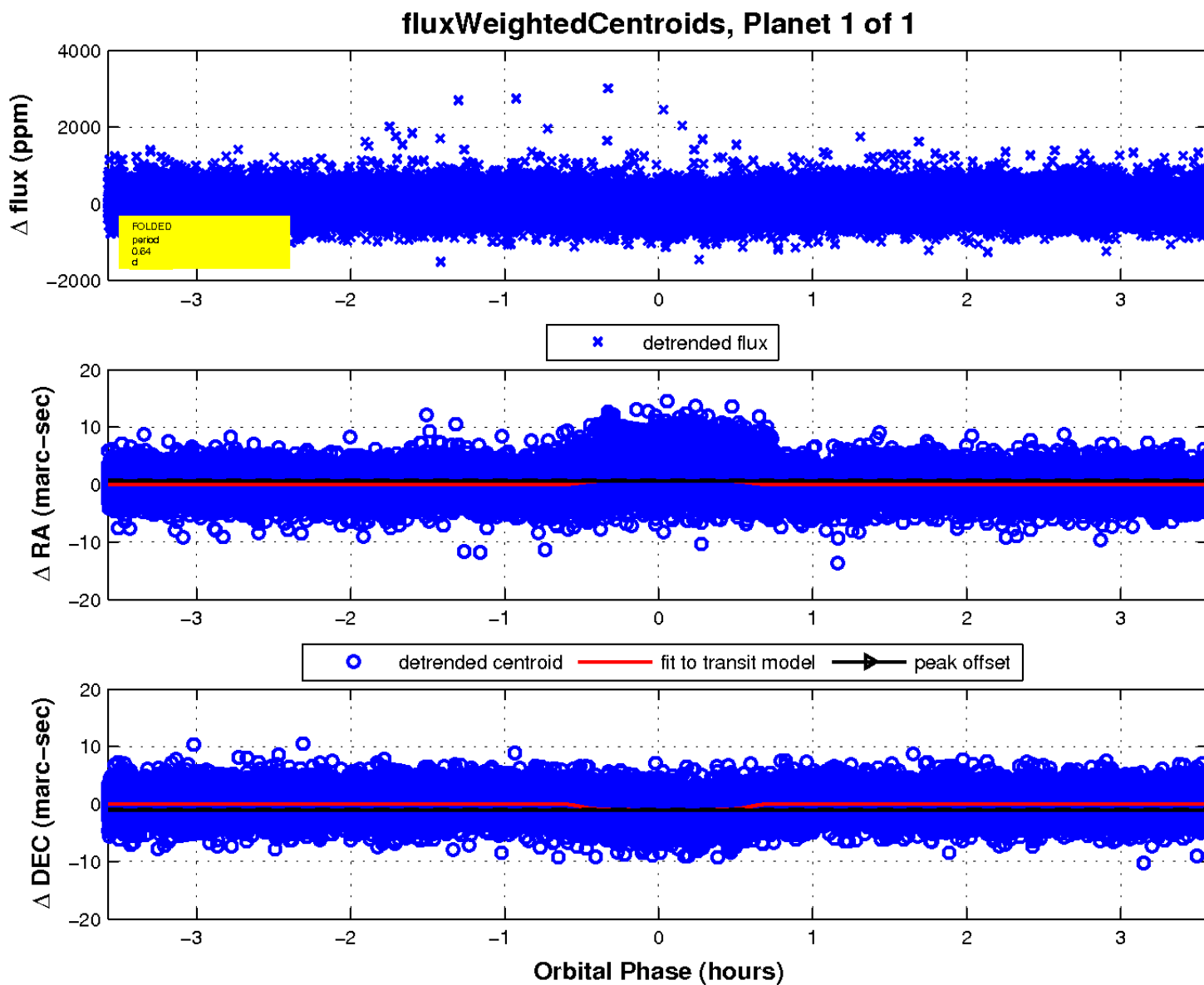
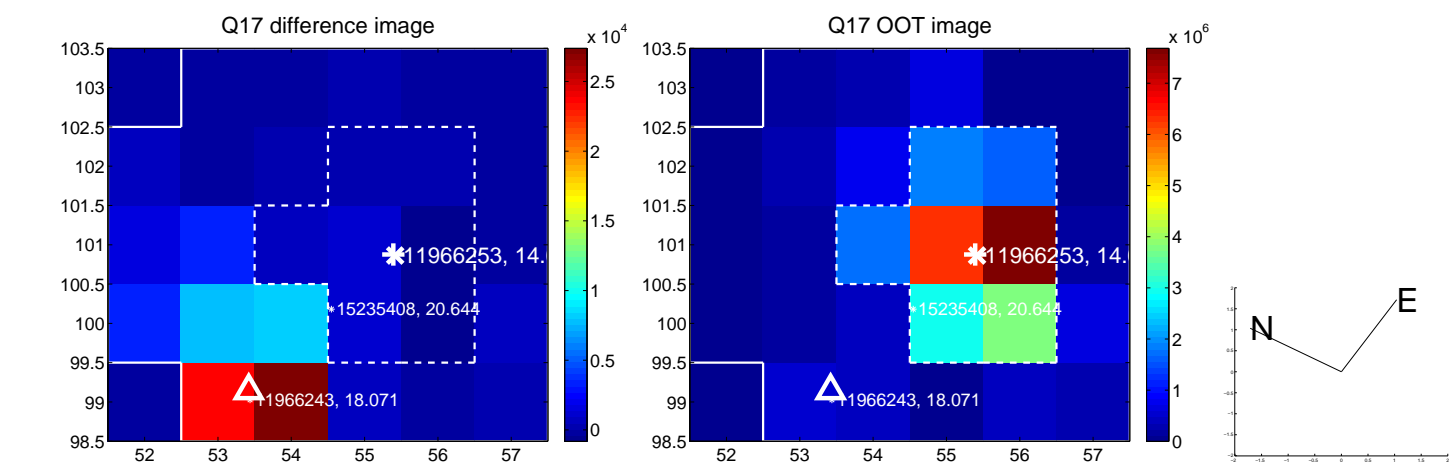
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

