

KIC 006277410

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})
006277410-01	OBS	7774.01	6.325945	133.266525	197.5	1.420	8.4	8.9	0.82	5749	1.36	156.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006277410-01	OBS	PC	0.85	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.

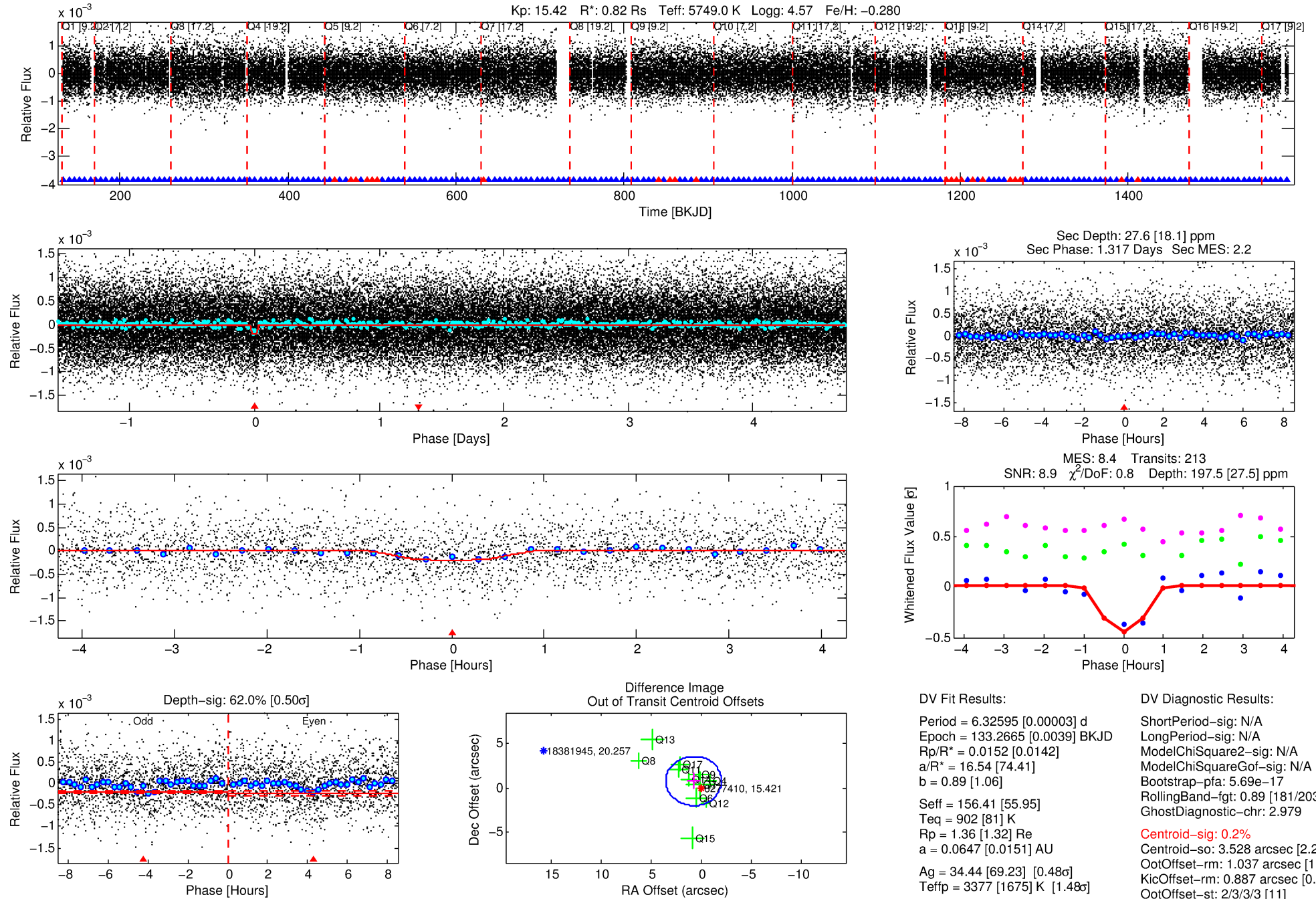
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006277410-01

No Significant Match Found

DV One-Page Summary

KIC: 6277410 Candidate: 1 of 1 Period: 6.326 d



DV Fit Results:

Period = 6.32595 [0.00003] d
Epoch = 133.2665 [0.0039] BKJD
Rp/R* = 0.0152 [0.0142]
a/R* = 16.54 [74.41]
b = 0.89 [1.06]
Seff = 156.41 [55.95]
Teq = 902 [81] K
Rp = 1.36 [1.32] Re
a = 0.0647 [0.0151] AU
Ag = 34.44 [69.23] [0.48 σ]
Teffp = 3377 [1675] K [1.48 σ]

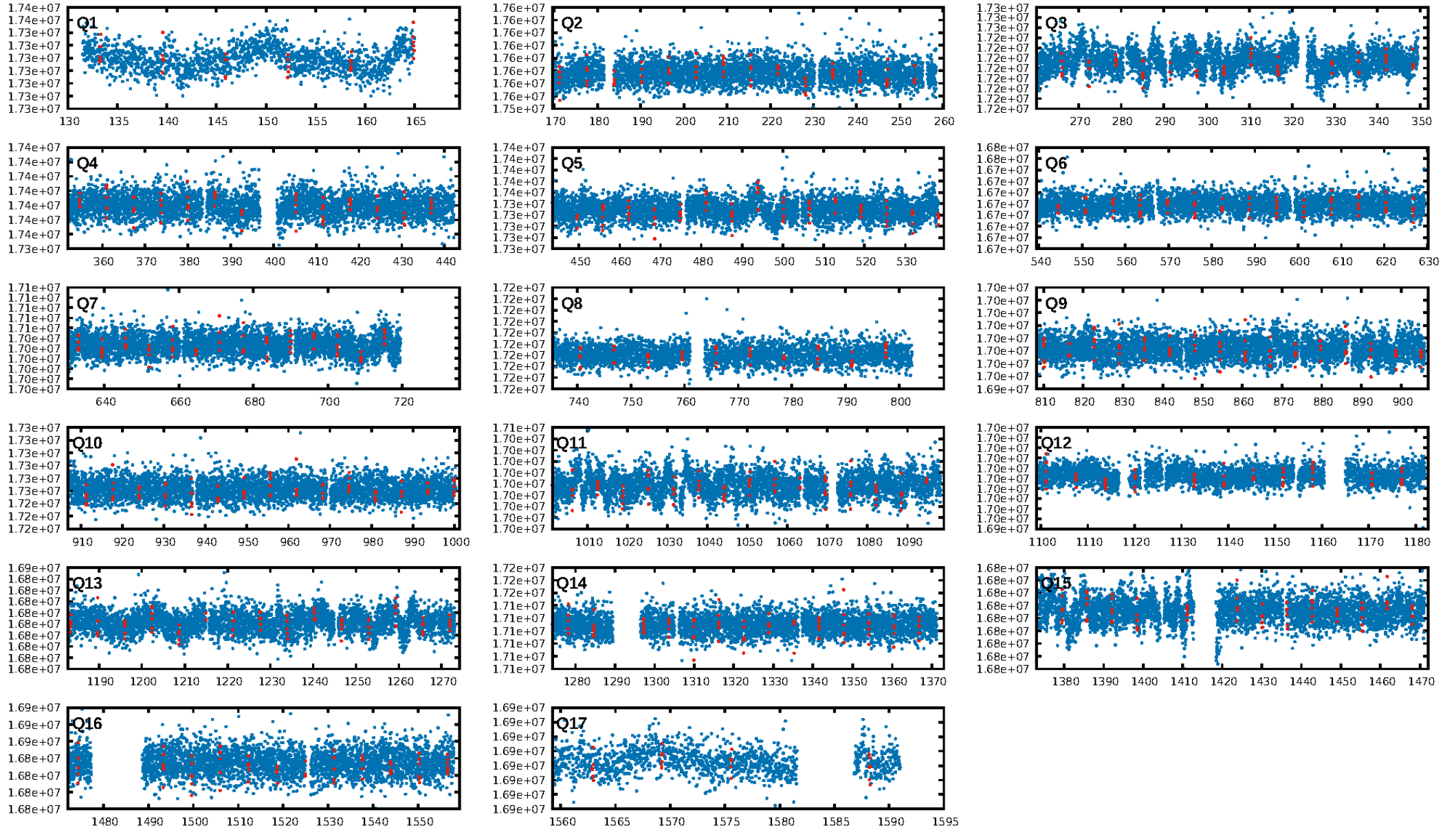
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.69e-17
RollingBand-fgt: 0.89 [181/203]
GhostDiagnostic-chr: 2.979
Centroid-sig: 0.2%
Centroid-so: 3.528 arcsec [2.22 σ]
OotOffset-rm: 1.037 arcsec [1.12 σ]
KicOffset-rm: 0.887 arcsec [0.99 σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 1.00 [17/17]

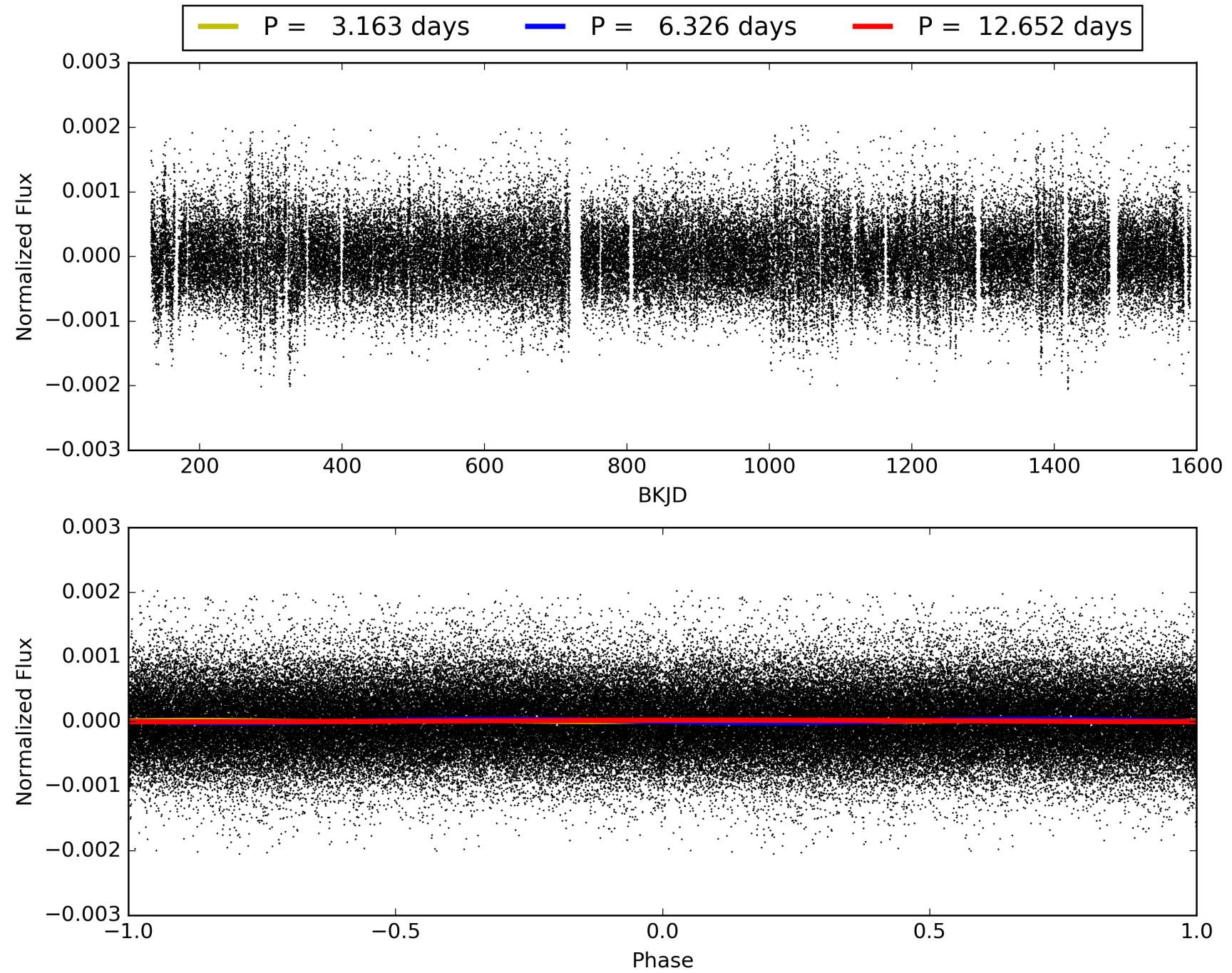
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:54:13 Z

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

TCE 006277410-01, PDC Light Curves

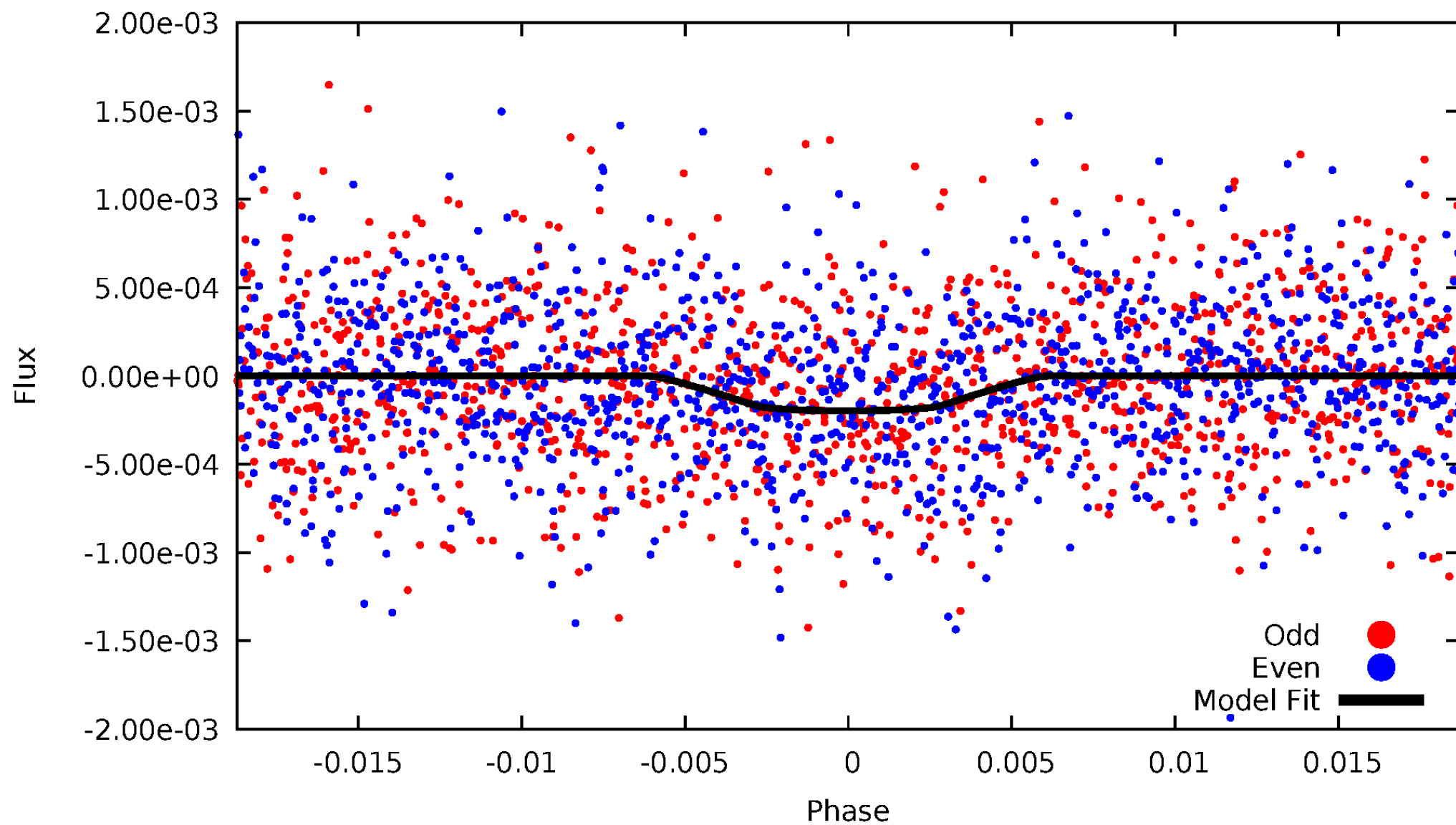


TCE 006277410-01



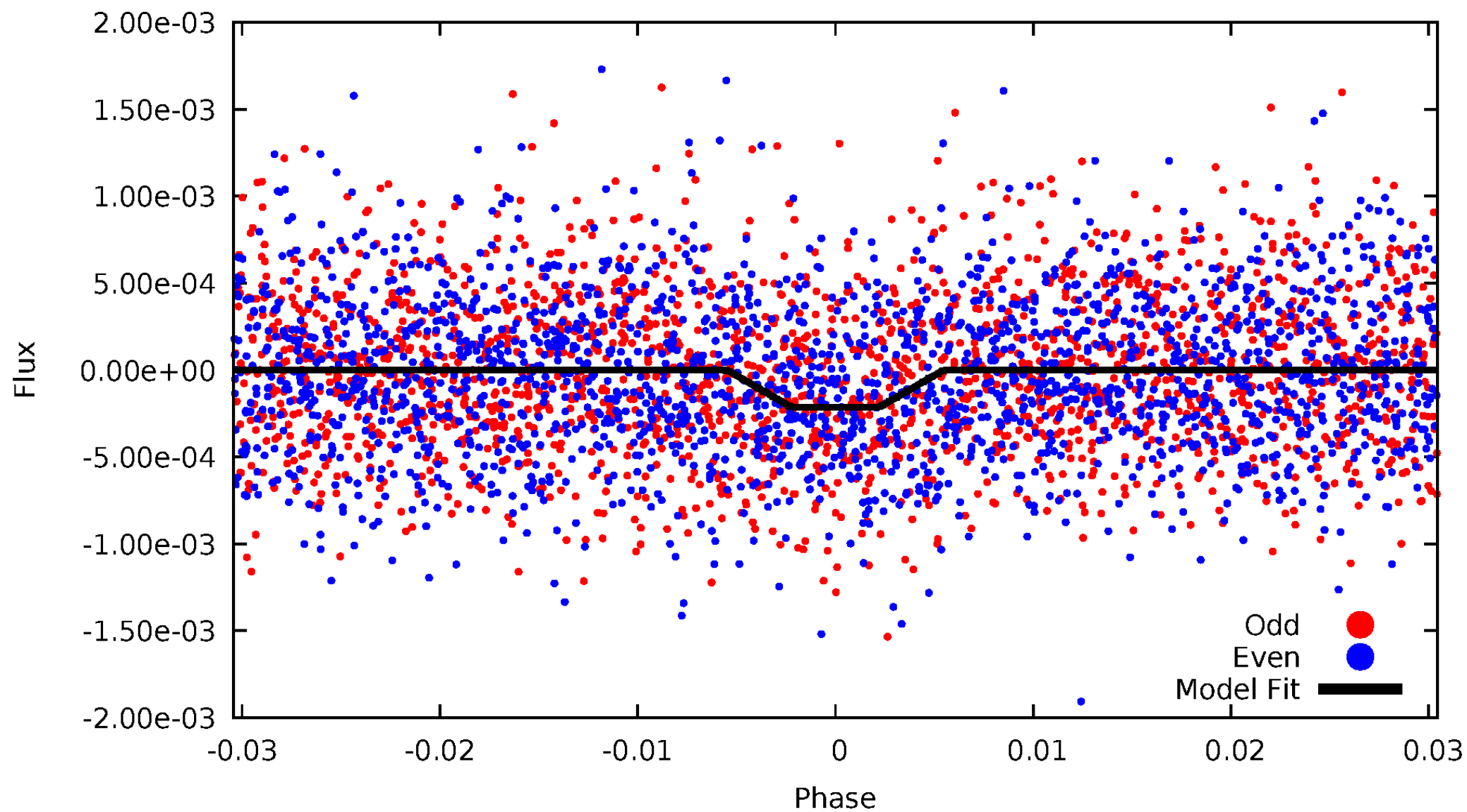
DV Odd/Even

TCE 006277410-01



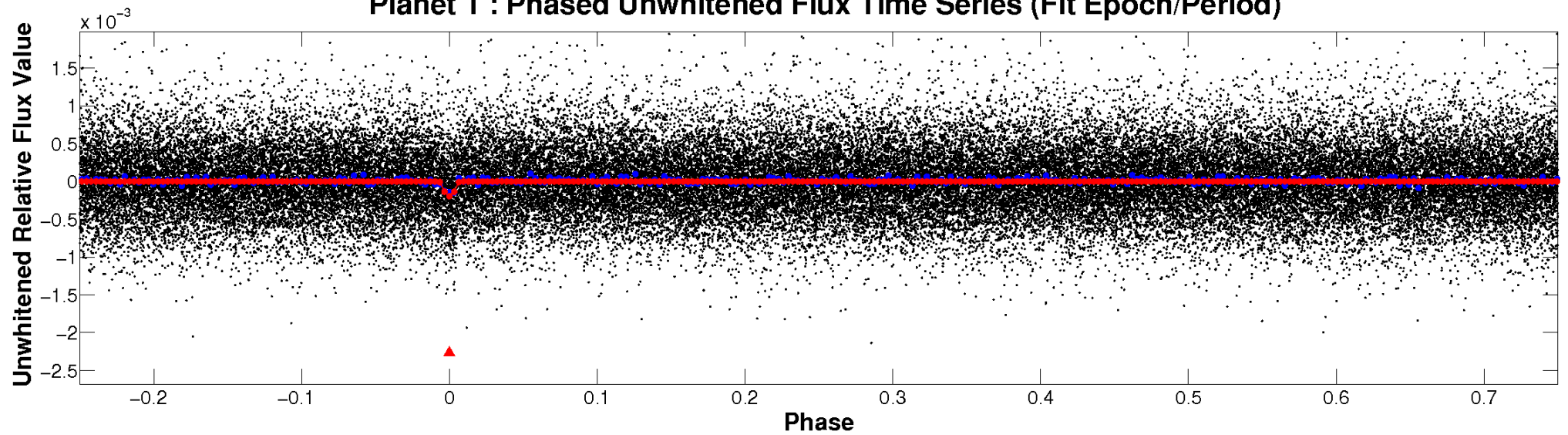
ALT Odd/Even

TCE 006277410-01

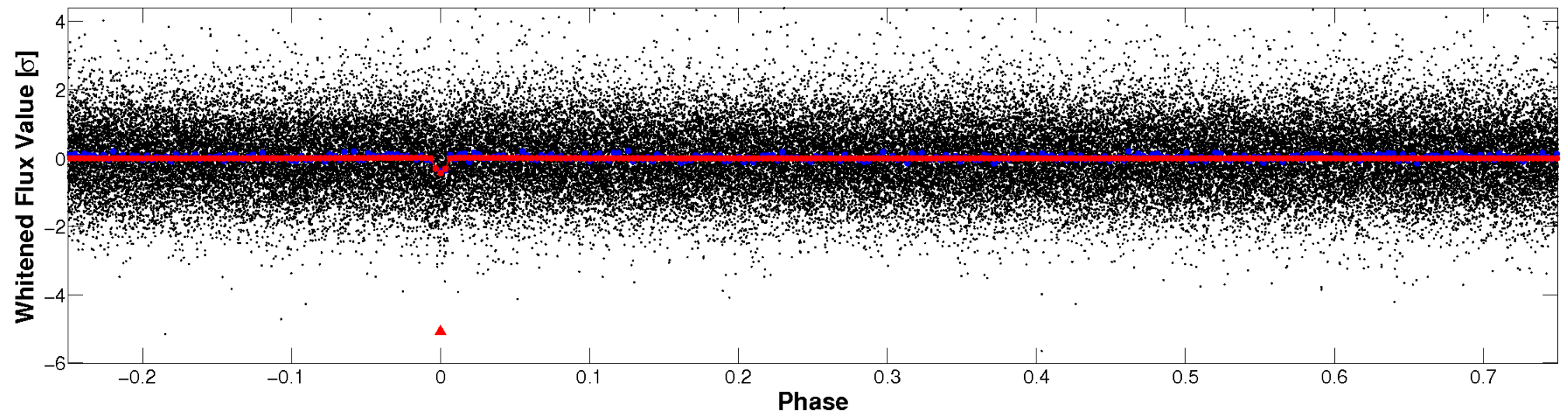


Non-Whitened Vs. Whitened Light Curve

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

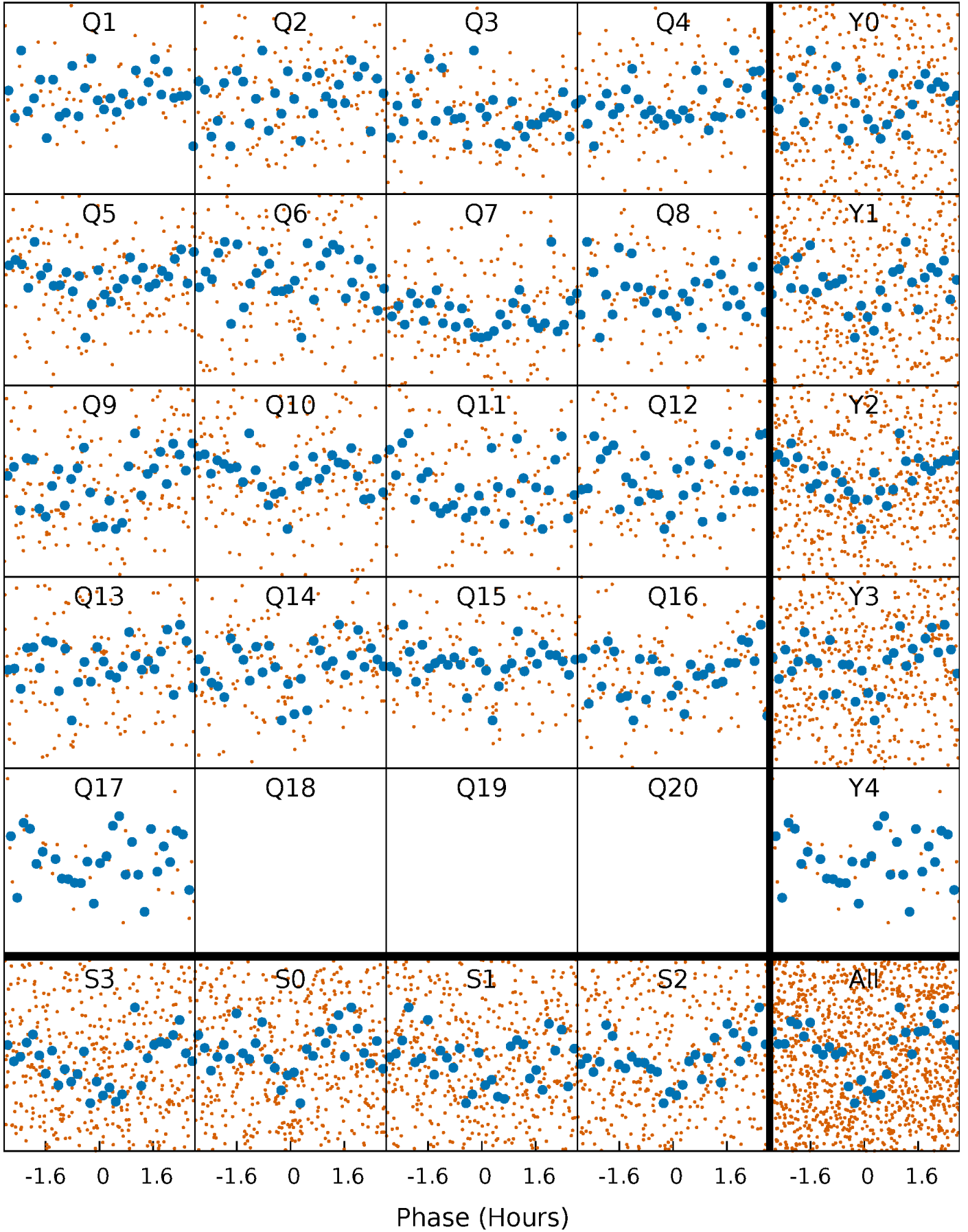


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



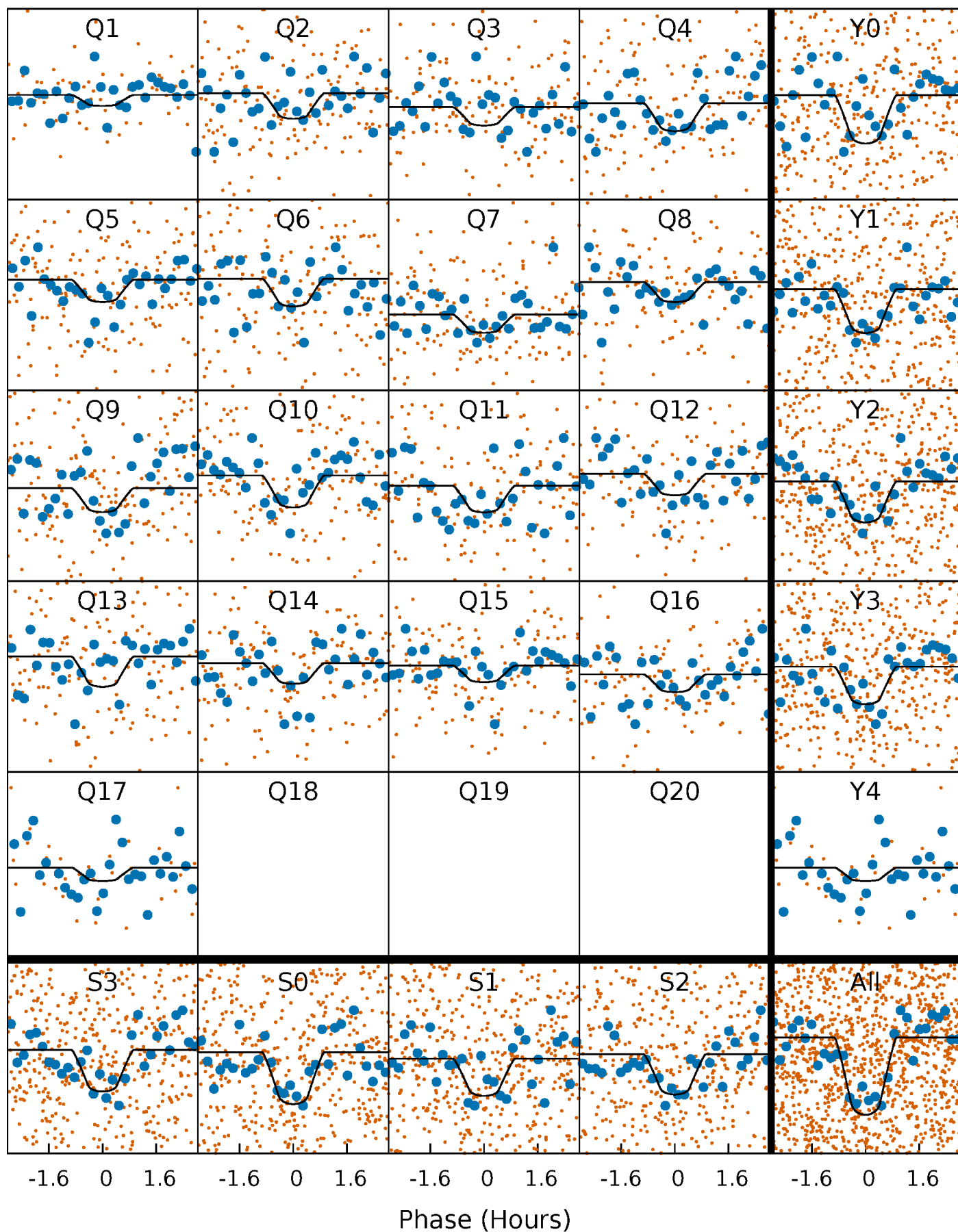
PDC Quarter-Phased Transit Curves

TCE 006277410-01 P= 6.325945 Days $T_0=133.266525$ (BKJD)



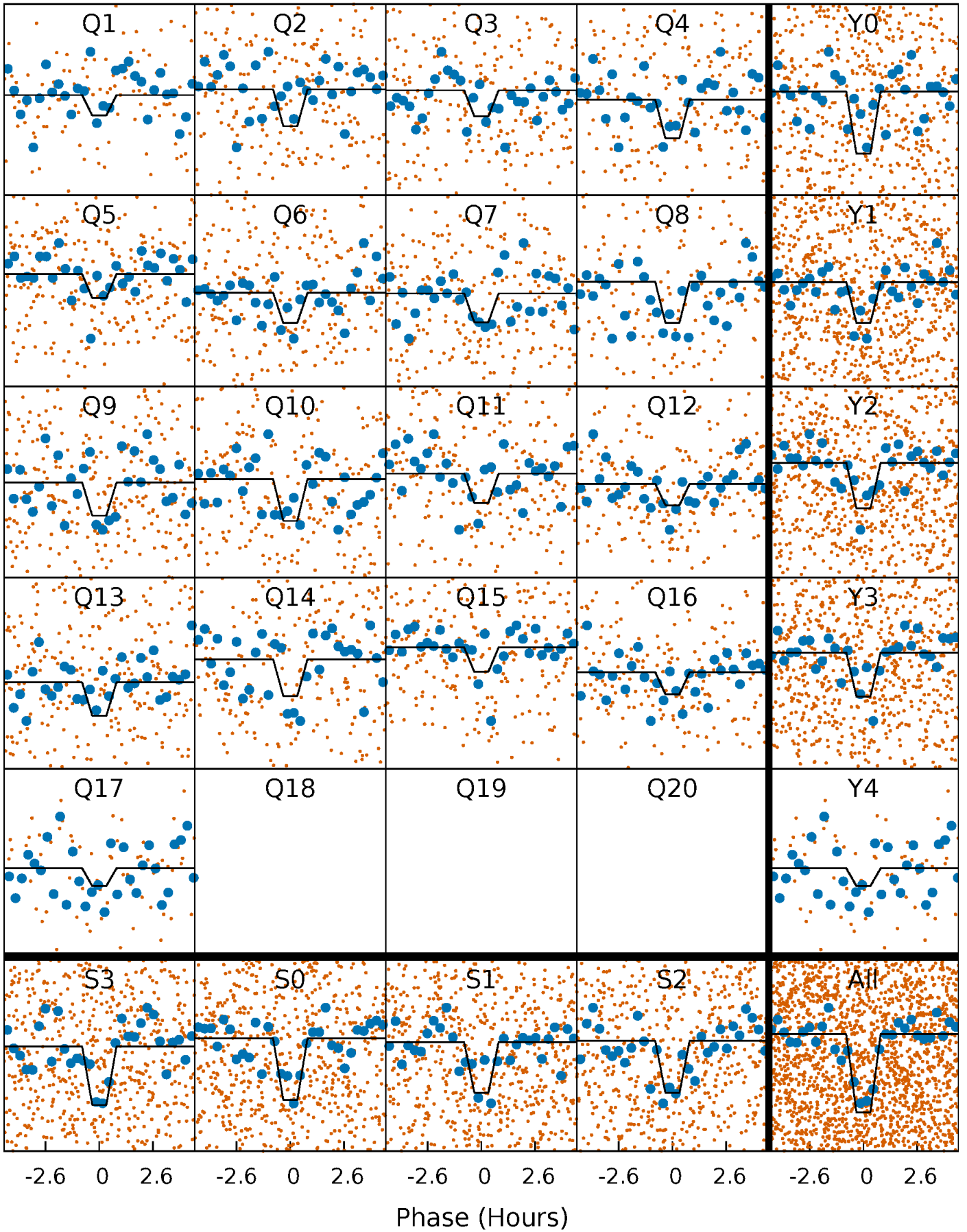
DV Quarter-Phased Transit Curves

TCE 006277410-01 P= 6.325945 Days $T_0=133.266525$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

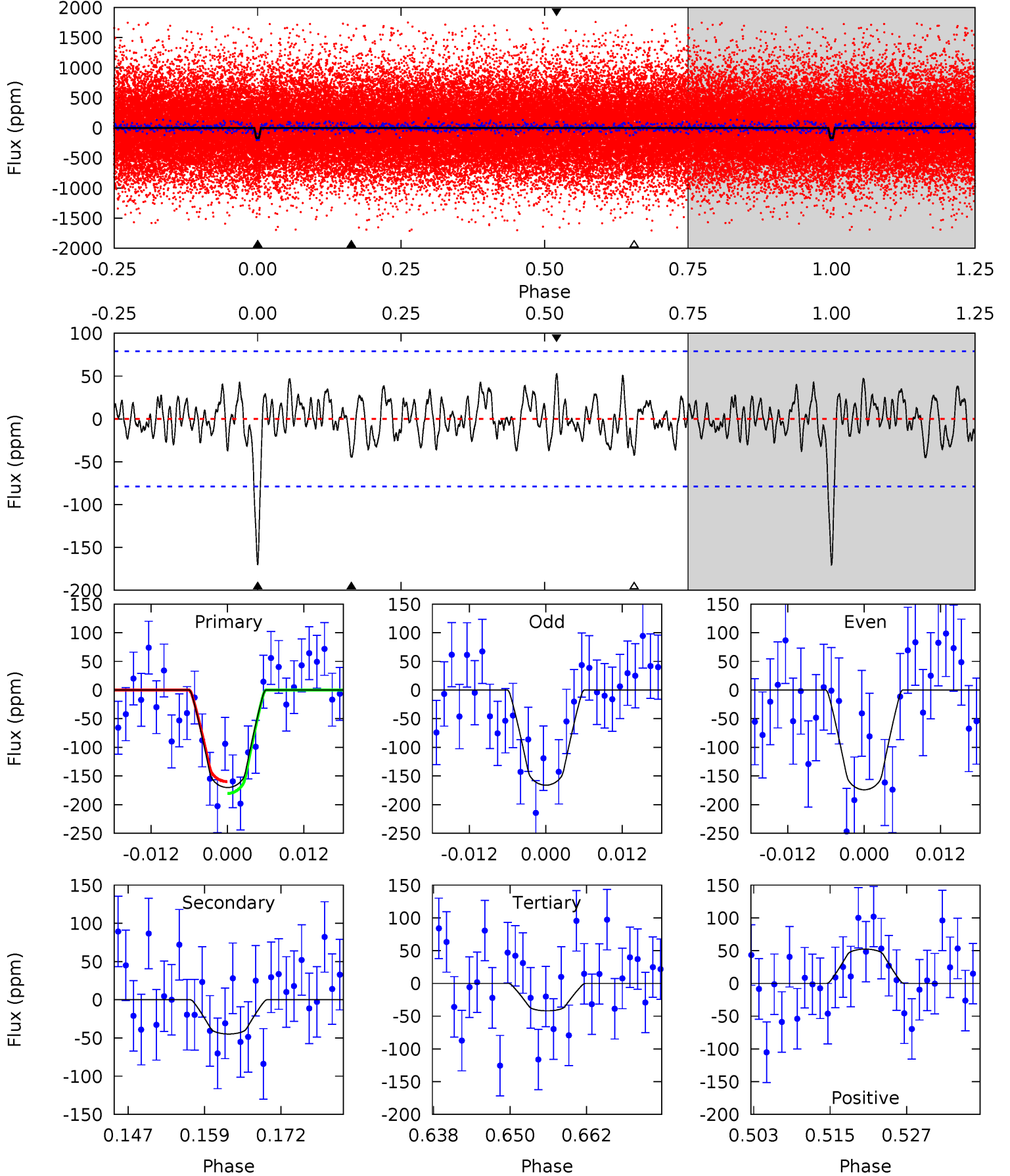
TCE 006277410-01 P= 6.325842 Days $T_0=133.276984$ (BKJD)



DV Model-Shift Uniqueness Test

006277410-01, P = 6.325945 Days, E = 126.940580 Days

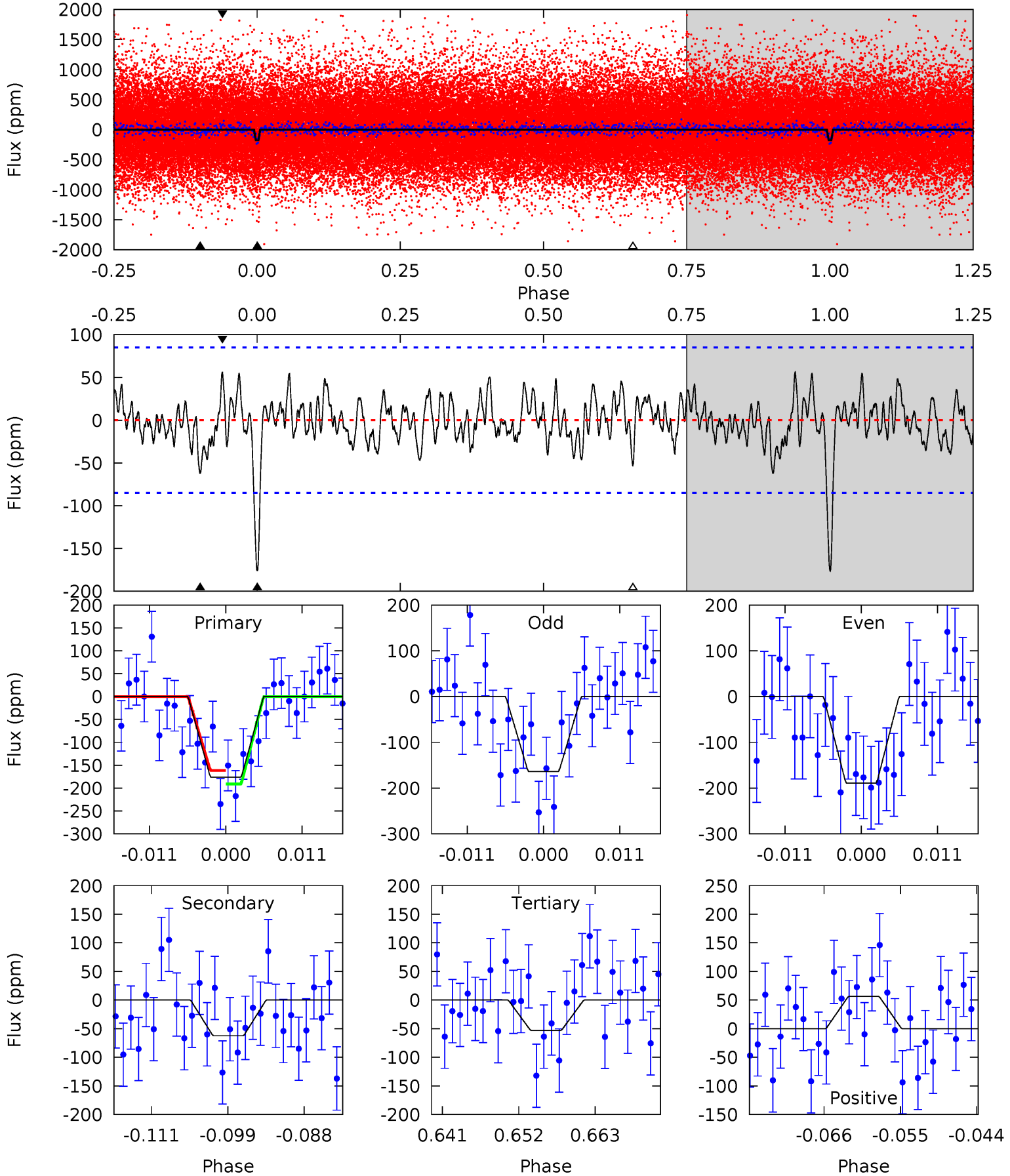
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	2.83	2.65	3.31	4.99	2.50	1.15	8.10	7.45	0.18	-0.47	0.25	0.96	0.24	0.65



Alt Model-Shift Uniqueness Test

006277410-01, P = 6.325842 Days, E = 126.951142 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	3.67	3.13	3.32	5.01	2.54	1.22	7.27	7.08	0.54	0.35	0.74	0.83	0.24	0.87



Stellar Parameters For KIC 006277410

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5749^{+155}_{-155}	$4.568^{+0.033}_{-0.187}$	$-0.280^{+0.300}_{-0.300}$	$0.818^{+0.226}_{-0.071}$	$0.907^{+0.100}_{-0.100}$	$2.336^{+0.413}_{-1.111}$
	+3%/-3%	+1%/-4%	+107%/-107%	+28%/-9%	+11%/-11%	+18%/-48%
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 006277410-01 / KOI 7774.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 16	$1.65^{+1.20}_{-1.01}$	1295^{+79}_{-58}	3878^{+1831}_{-674}	38^{+201}_{-26}
Alt.	-62 ± 17	$1.61^{+1.30}_{-0.95}$	1288^{+80}_{-51}	4177^{+1833}_{-821}	53^{+259}_{-37}

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

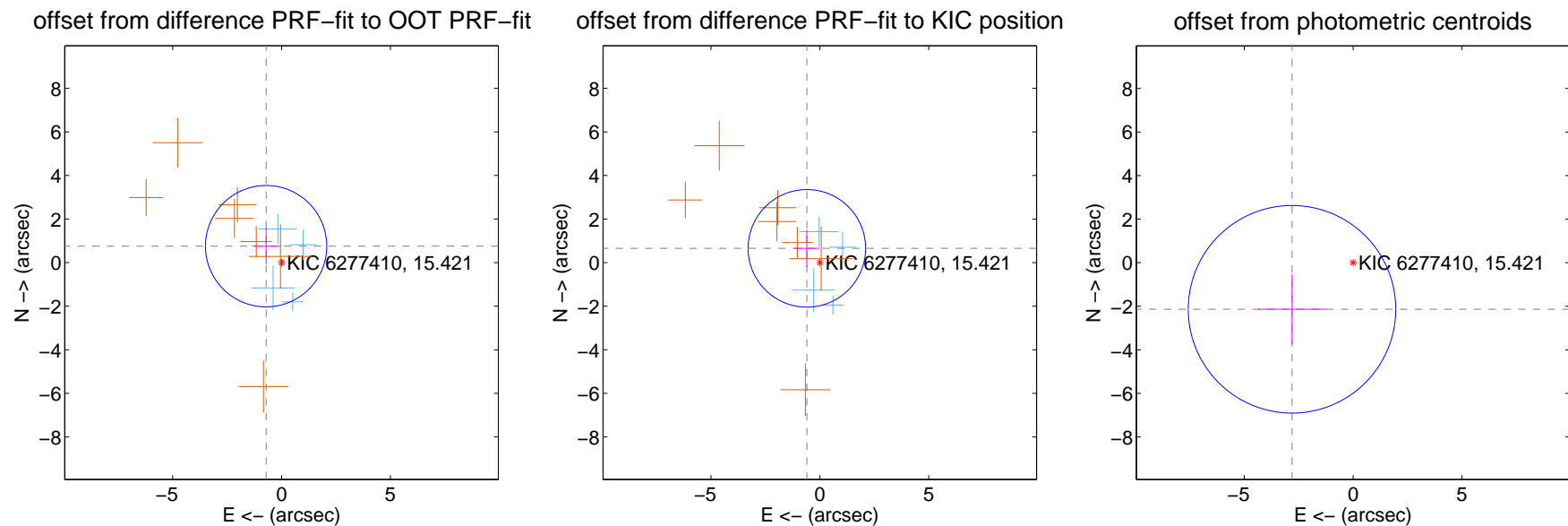
DV Centroid Data

Supplemental centroid analysis for 006277410-01. Kepler magnitude: 15.42. Transit SNR 8.92

There are 4 quarters with good PRF difference image offsets

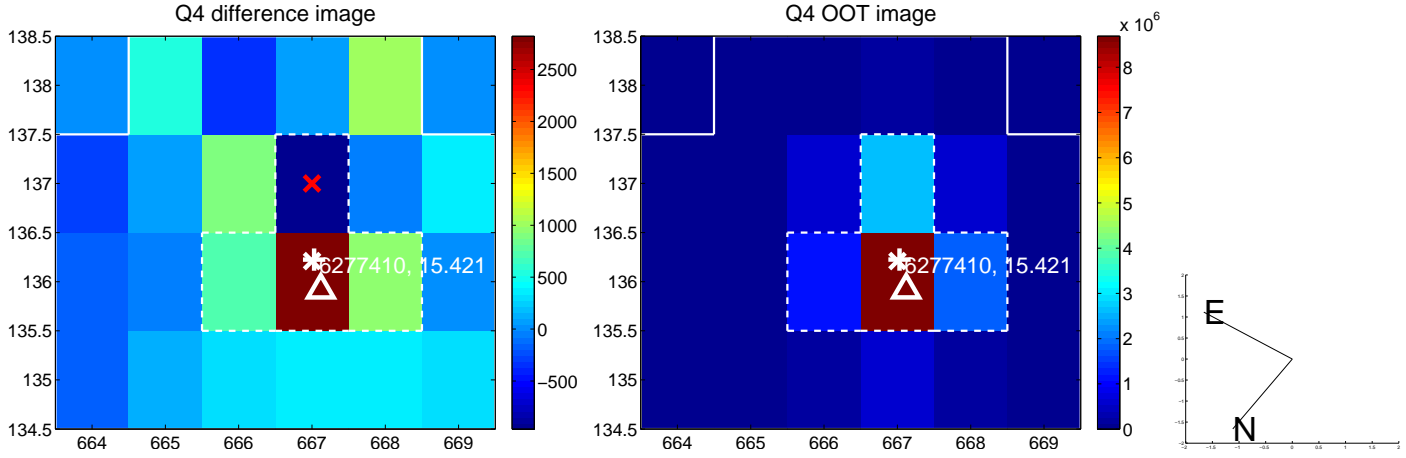
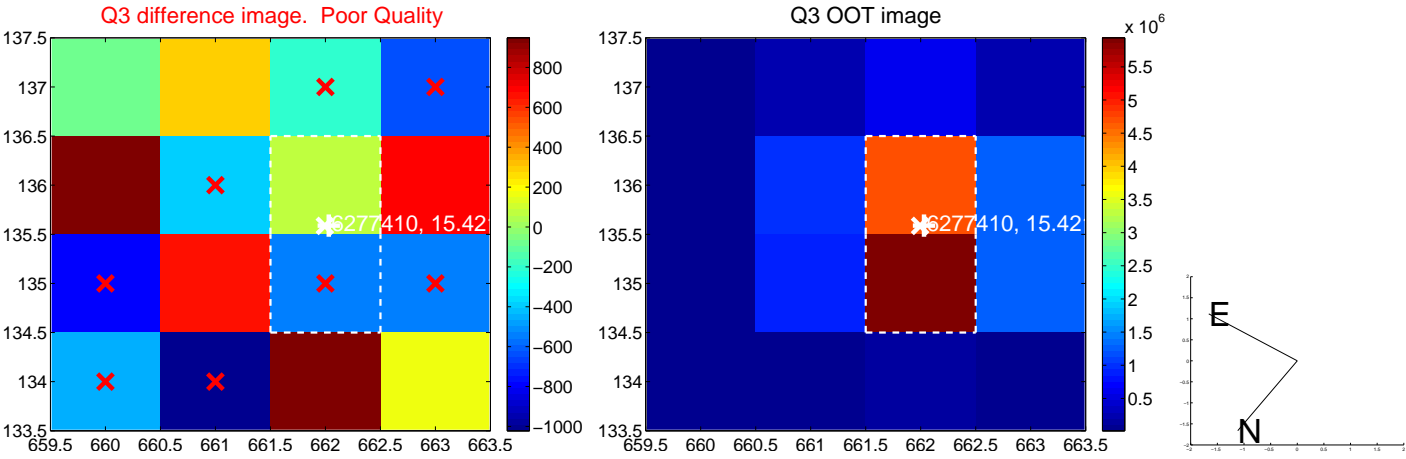
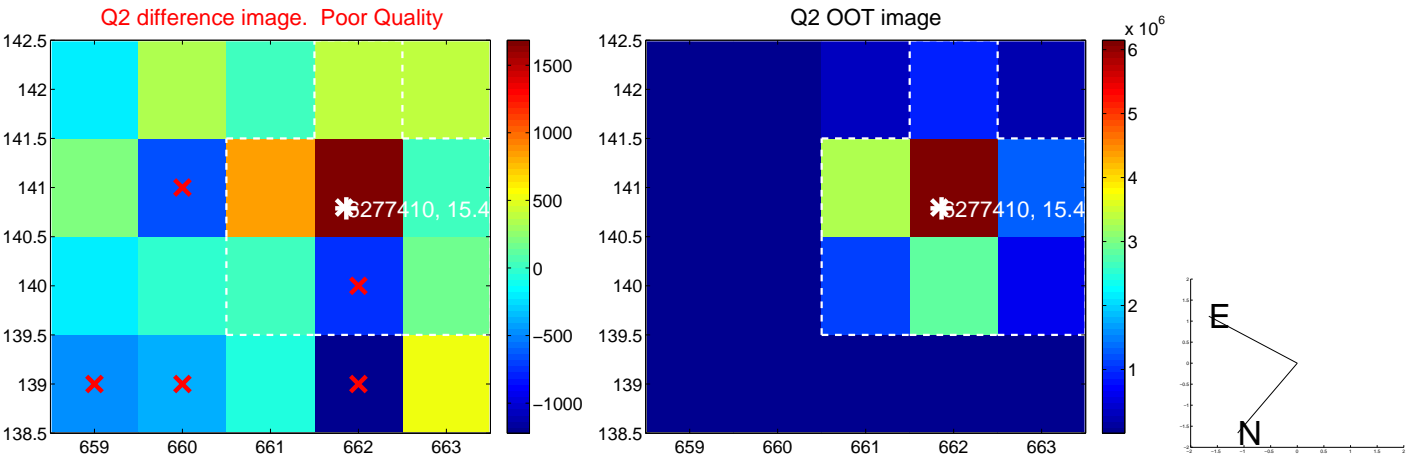
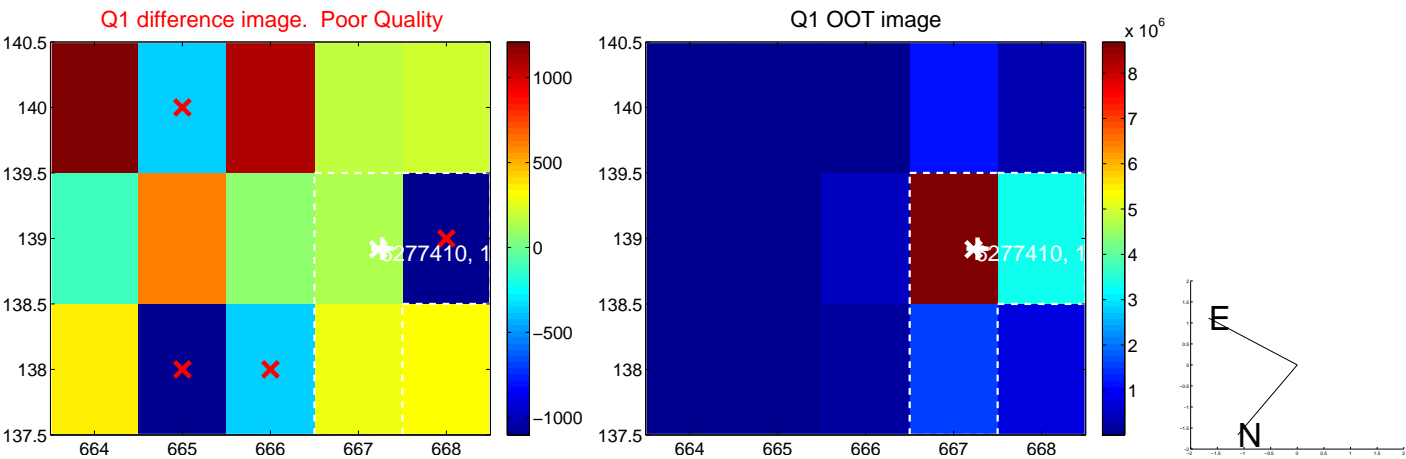
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.037 ± 0.928	1.12	0.710 ± 0.640	0.756 ± 0.832
PRF-fit source offset from KIC position	0.887 ± 0.899	0.99	0.596 ± 0.579	0.656 ± 0.857
photometric centroid source offset	3.53 ± 1.59	2.22	2.81 ± 1.58	-2.14 ± 1.61

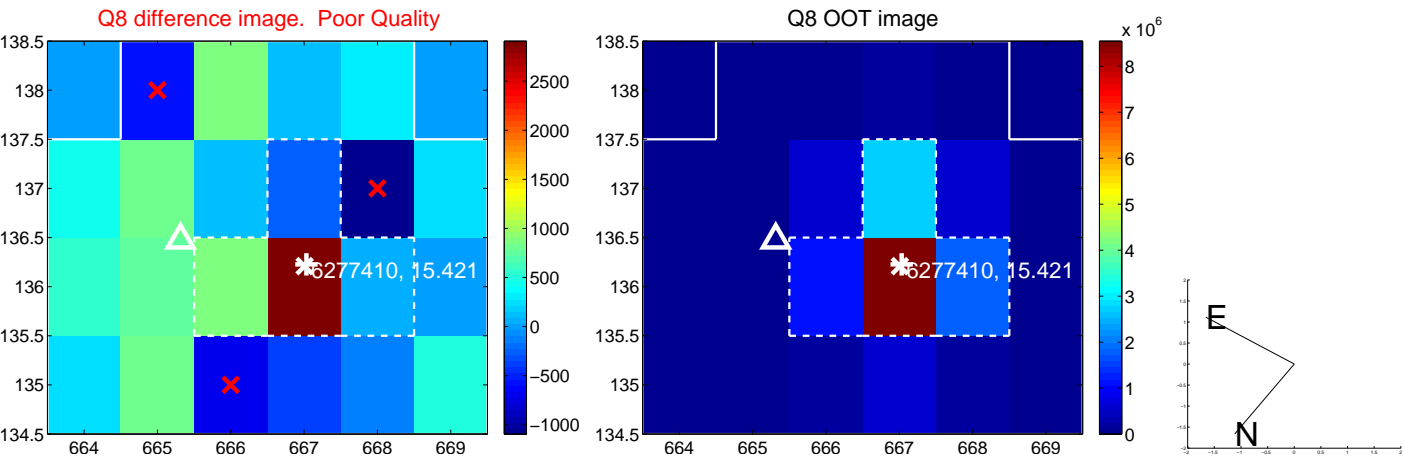
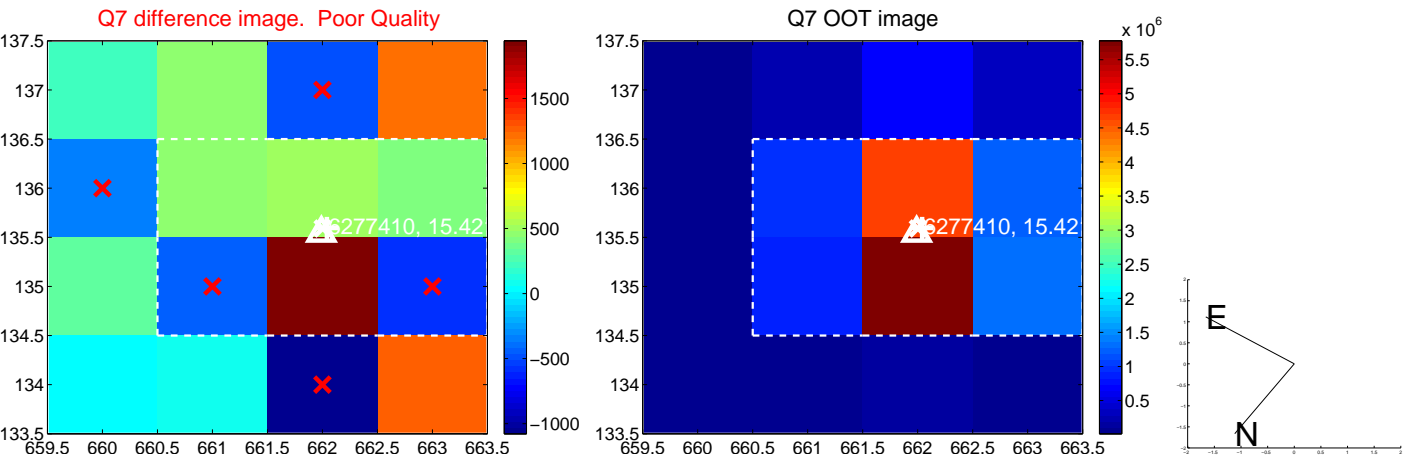
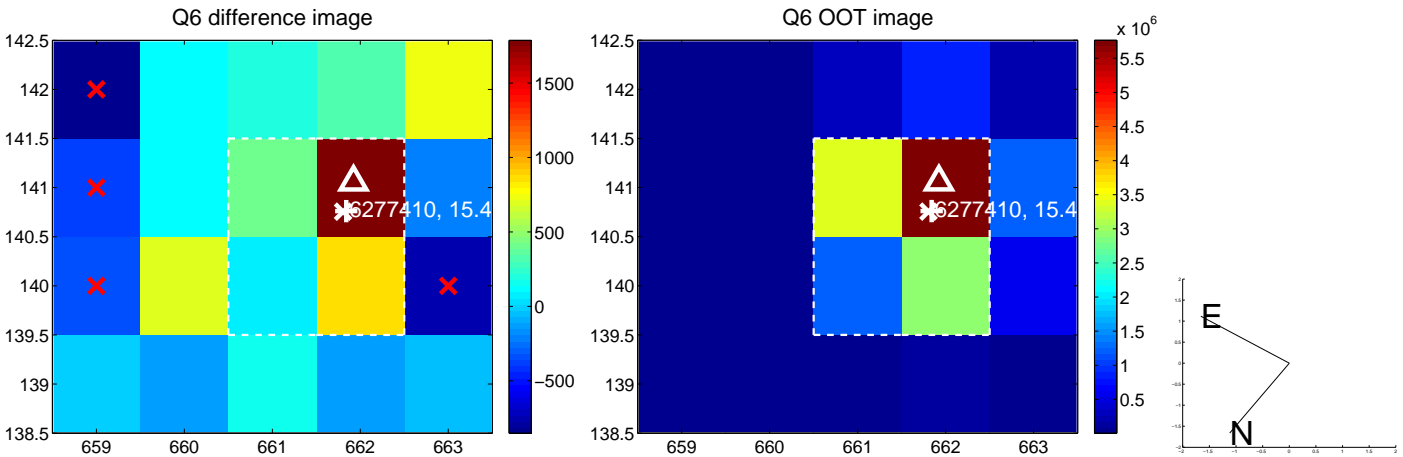
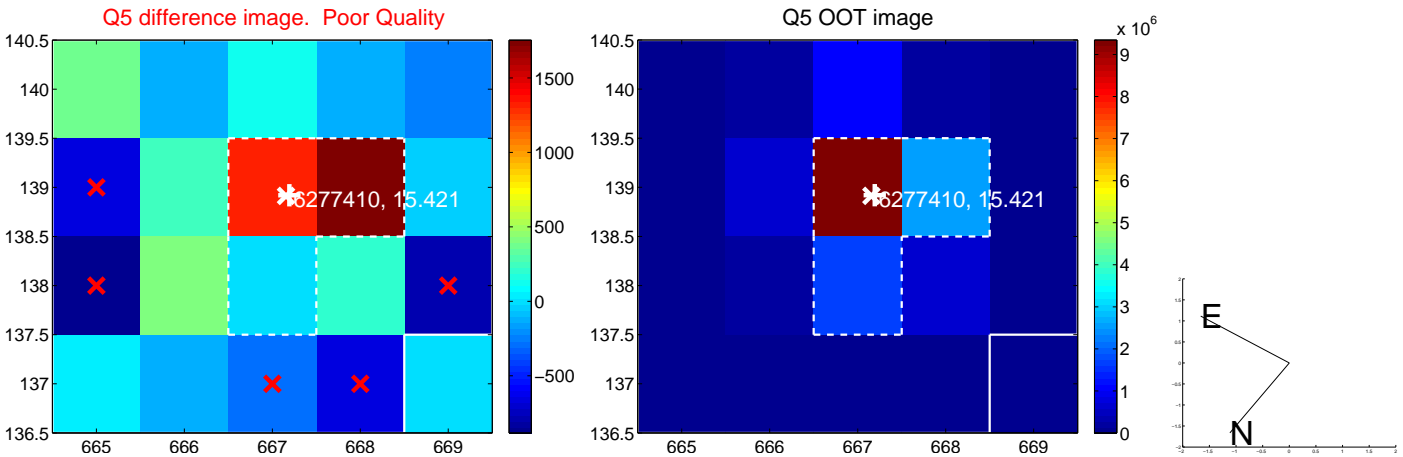


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

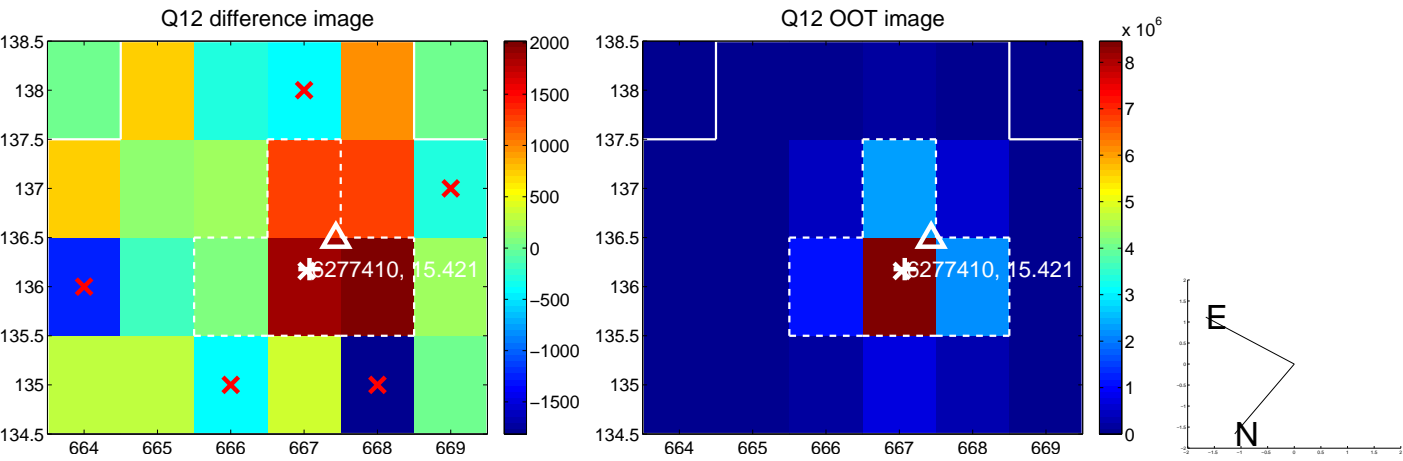
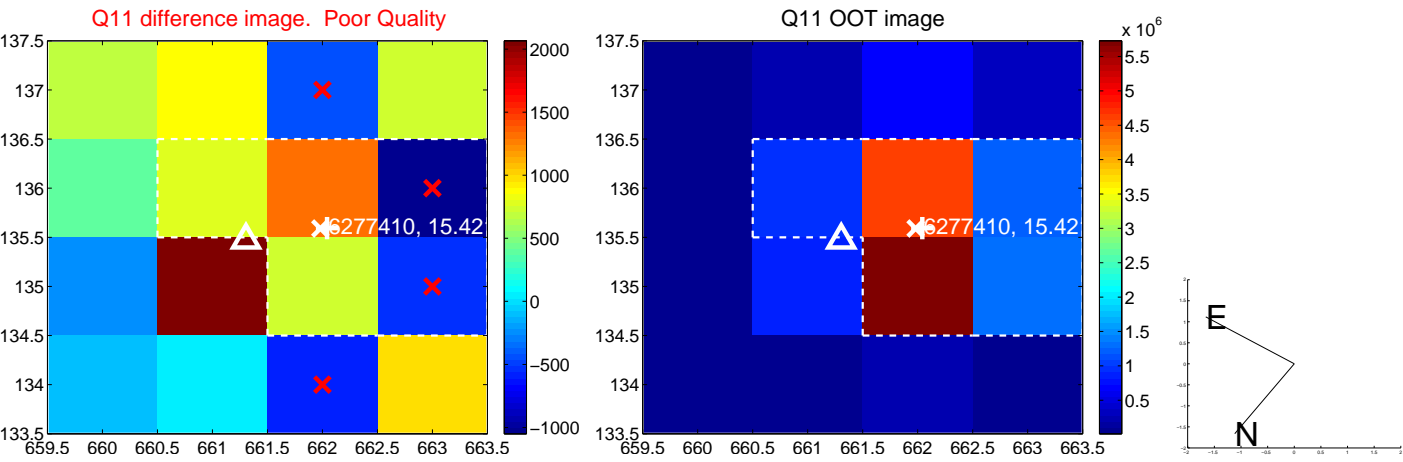
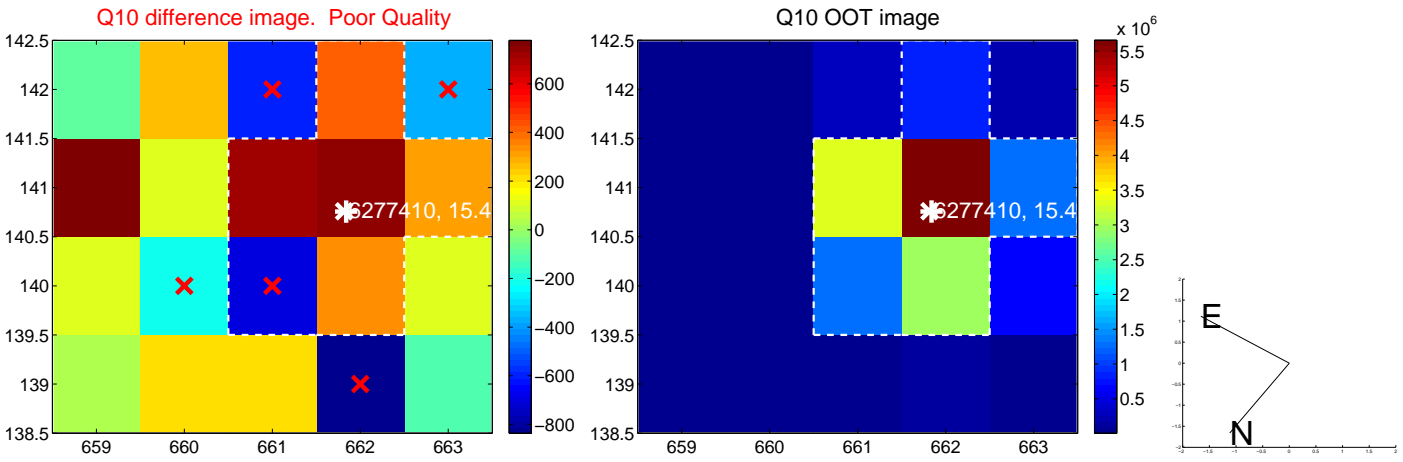
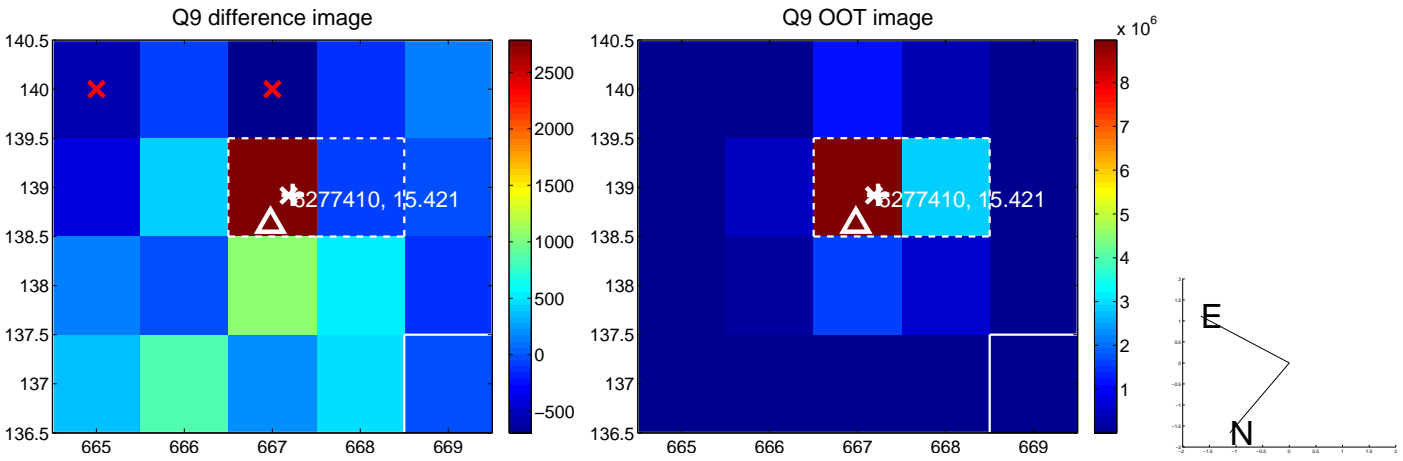
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



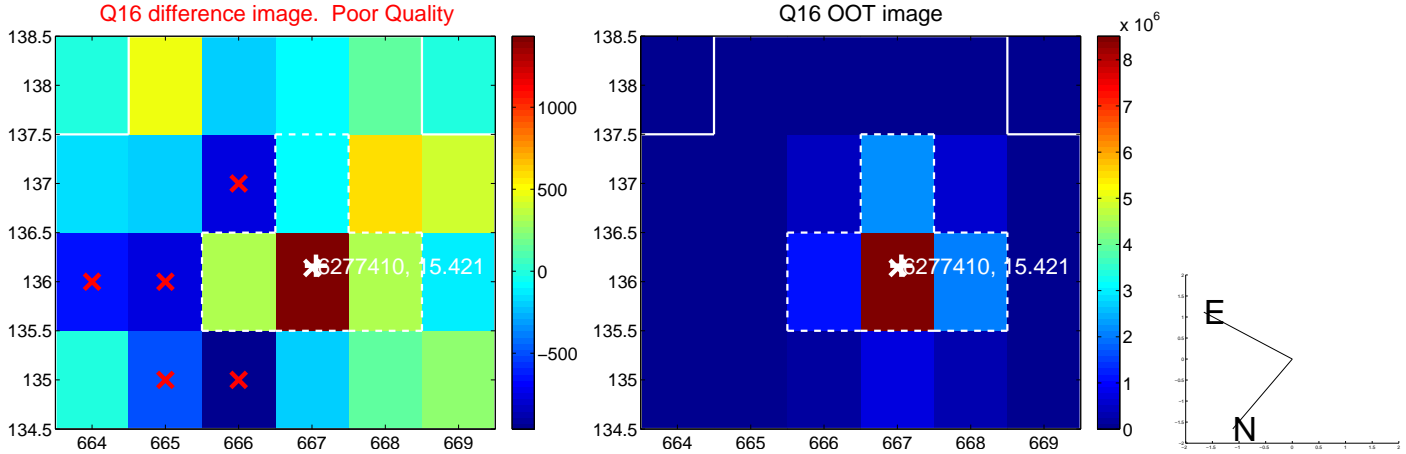
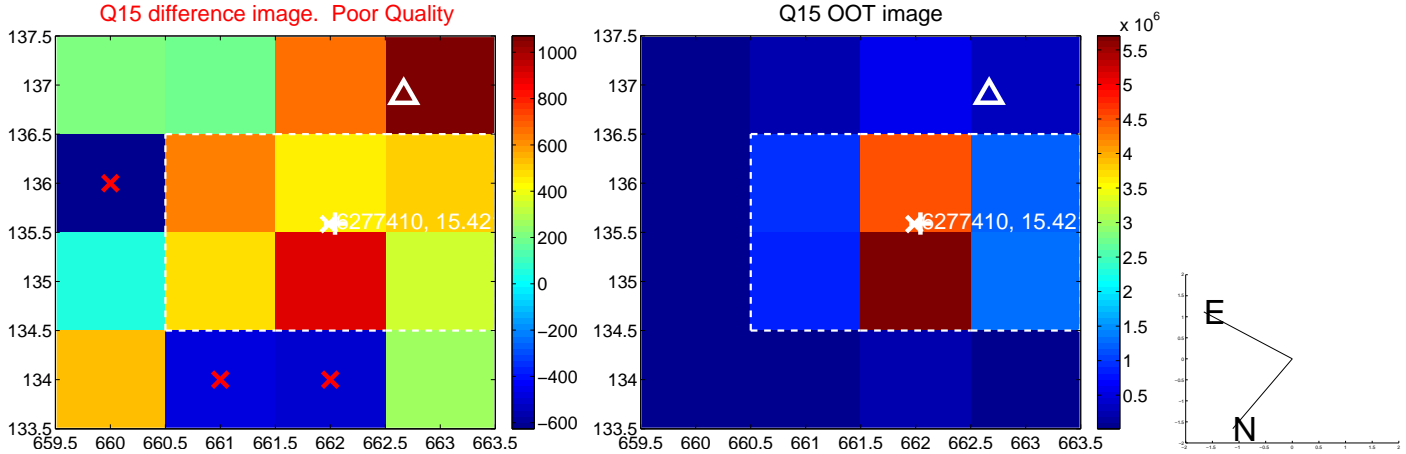
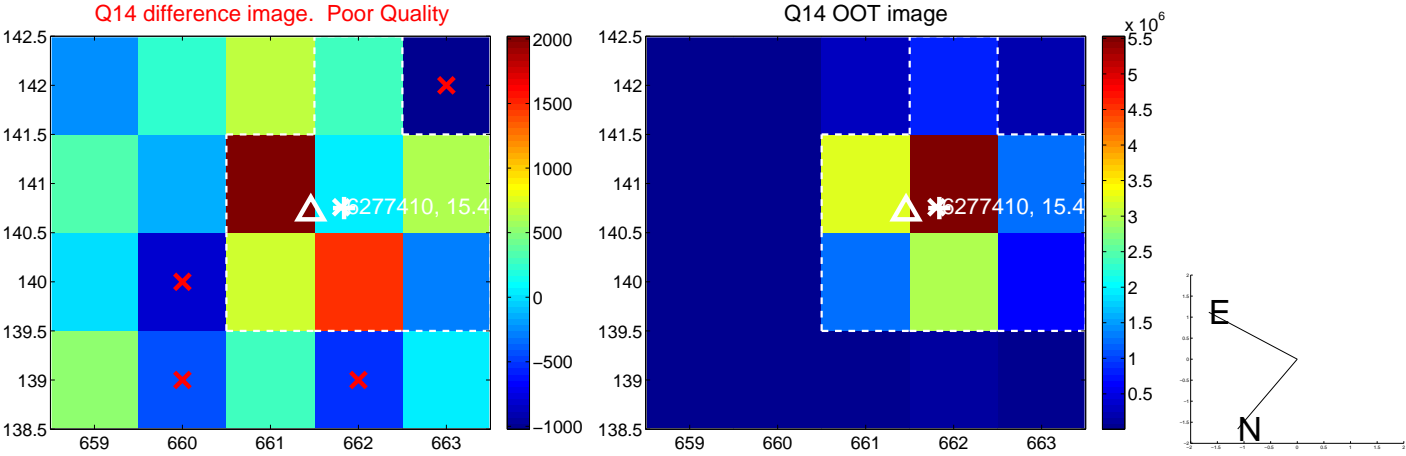
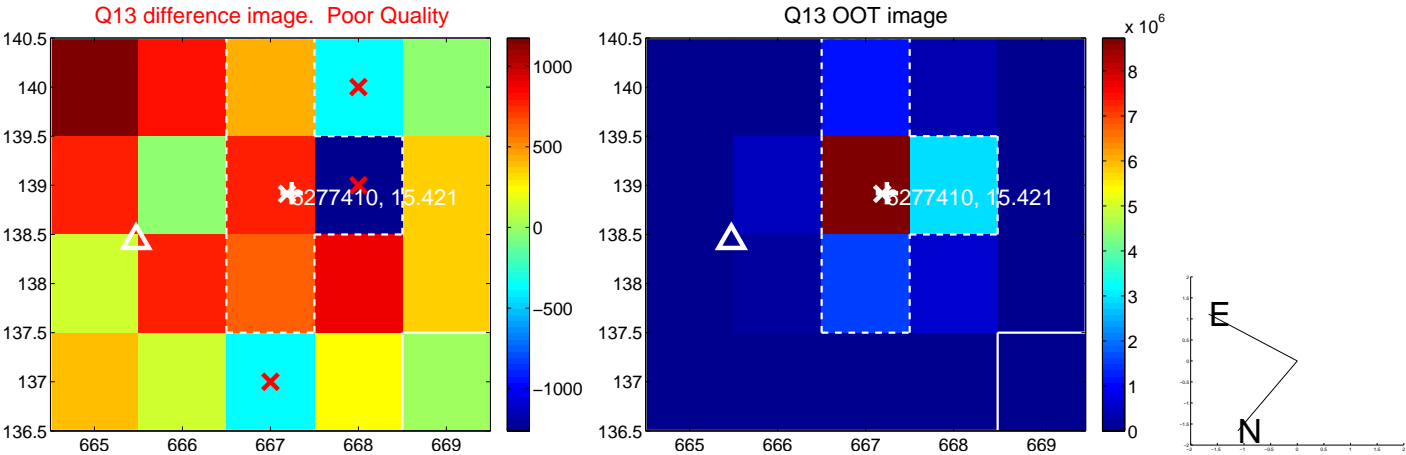
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



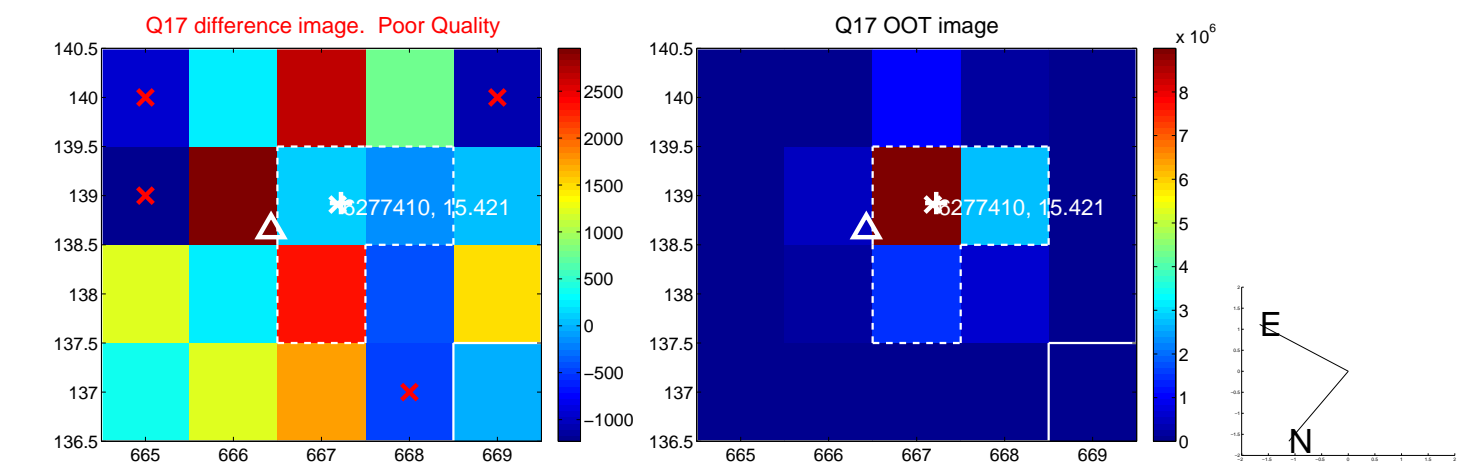
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



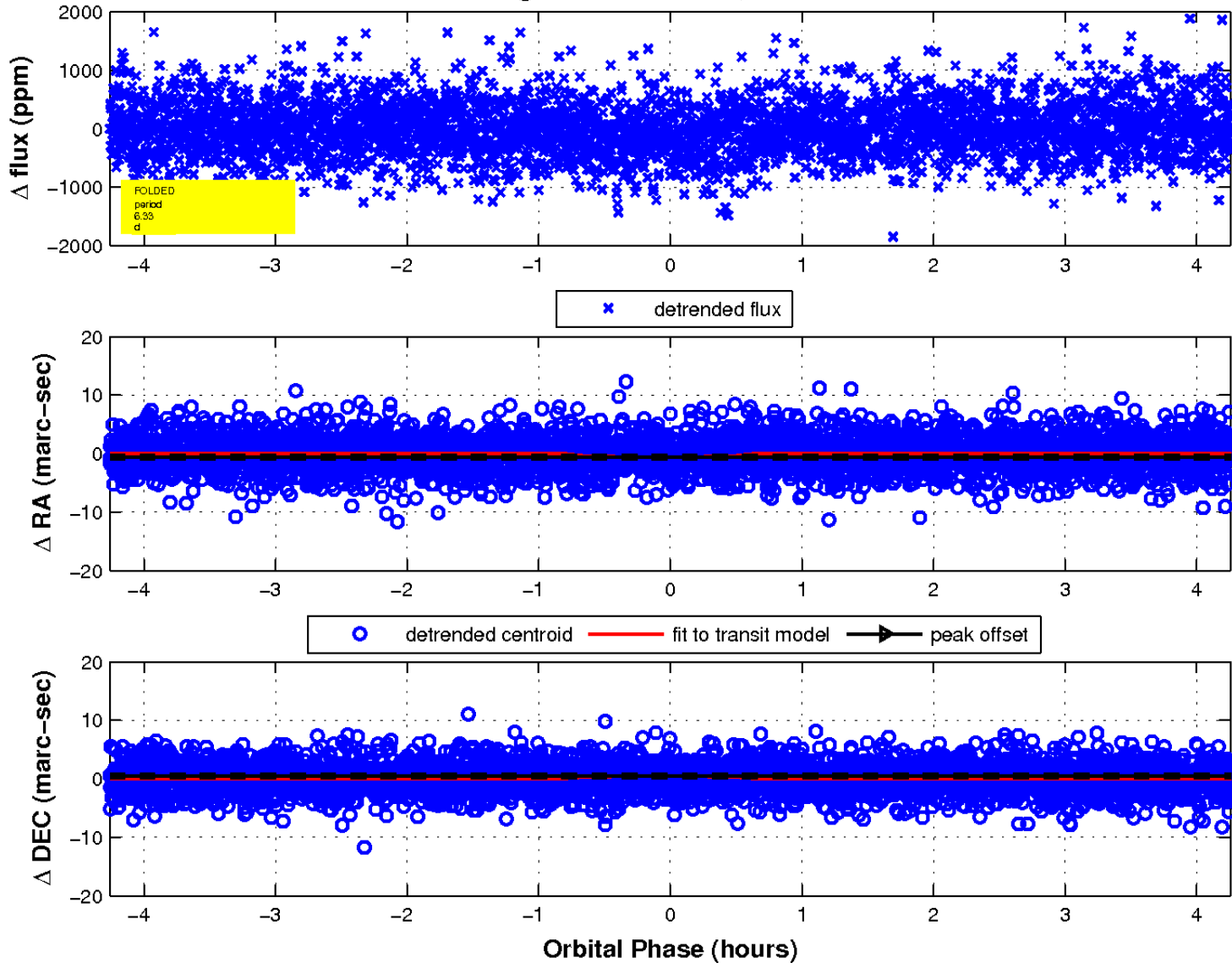
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

