

KIC 006141791

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})
006141791-01	OBS	No	13.659121	139.306230	49.2	27.046	12.6	12.9	1.67	6423	1.24	267.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006141791-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

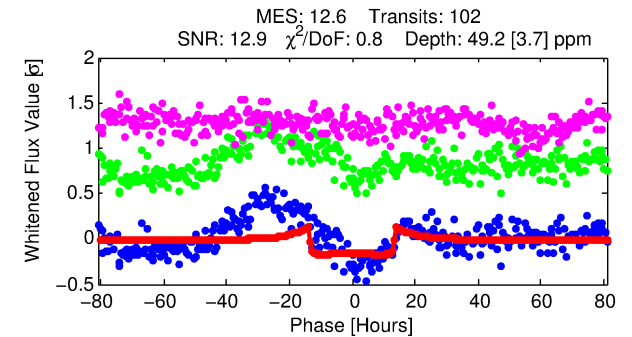
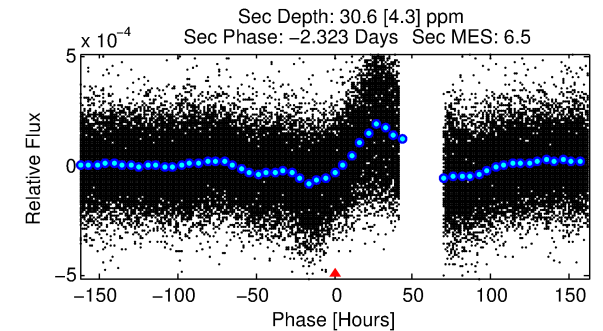
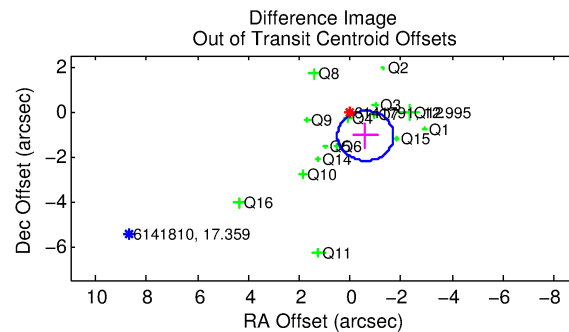
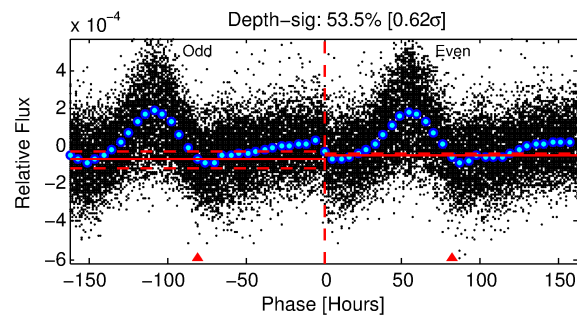
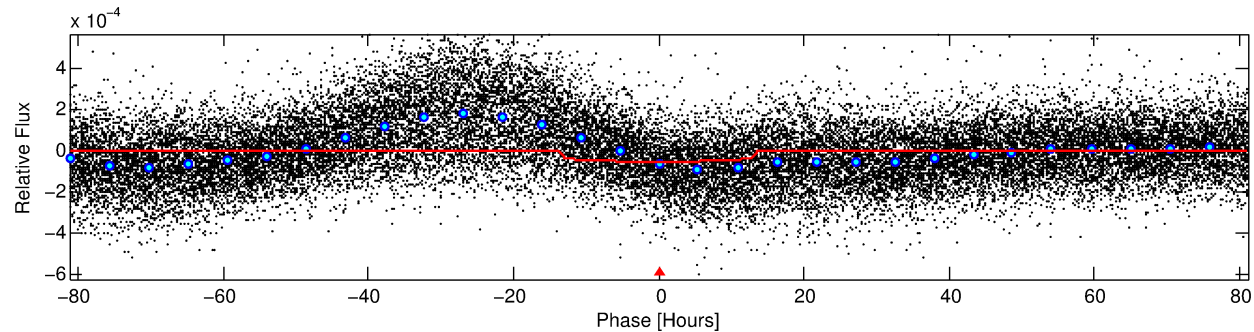
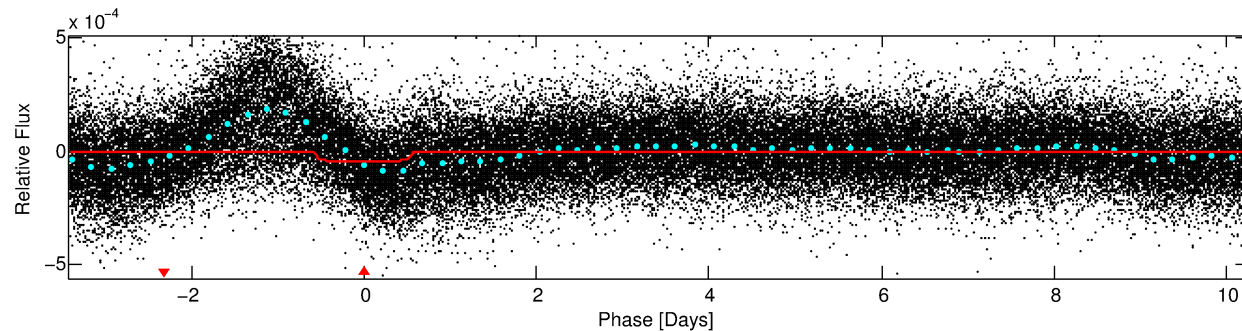
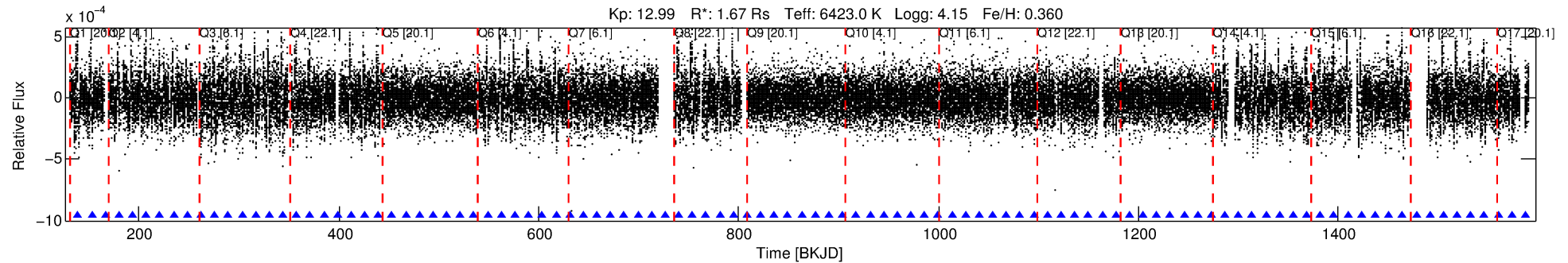
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006141791-01

No Significant Match Found

DV One-Page Summary

KIC: 6141791 Candidate: 1 of 1 Period: 13.659 d



DV Fit Results:

Period = 13.65912 [0.00022] d
Epoch = 139.3062 [0.0130] BKJD
Rp/R* = 0.0068 [0.0009]
a/R* = 2.98 [1.63]
b = 0.68 [0.49]
Seff = 267.04 [58.35]
Teq = 1031 [56] K
Rp = 1.24 [0.27] Re
a = 0.1260 [0.0186] AU
Ag = 172.97 [62.47] [2.75 σ]
Teffp = 5780 [429] K [10.98 σ]

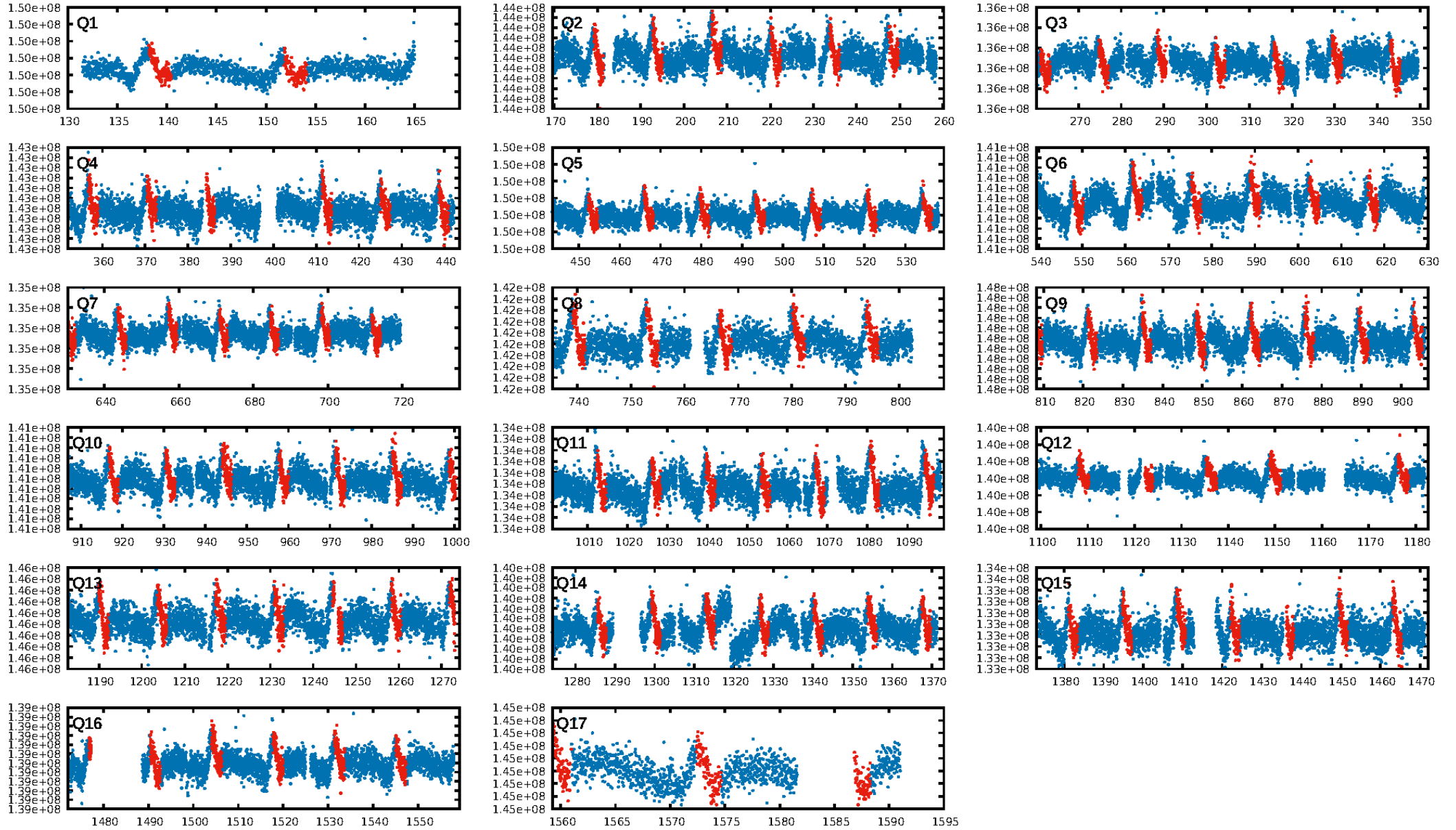
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.00e-37
RollingBand-fgt: 1.00 [97/97]
GhostDiagnostic-chr: 1.625
Centroid-sig: 79.2%
Centroid-so: 0.184 arcsec [0.27 σ]
OotOffset-rm: 1.240 arcsec [3.36 σ]
KicOffset-rm: 1.227 arcsec [3.15 σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [17/17]

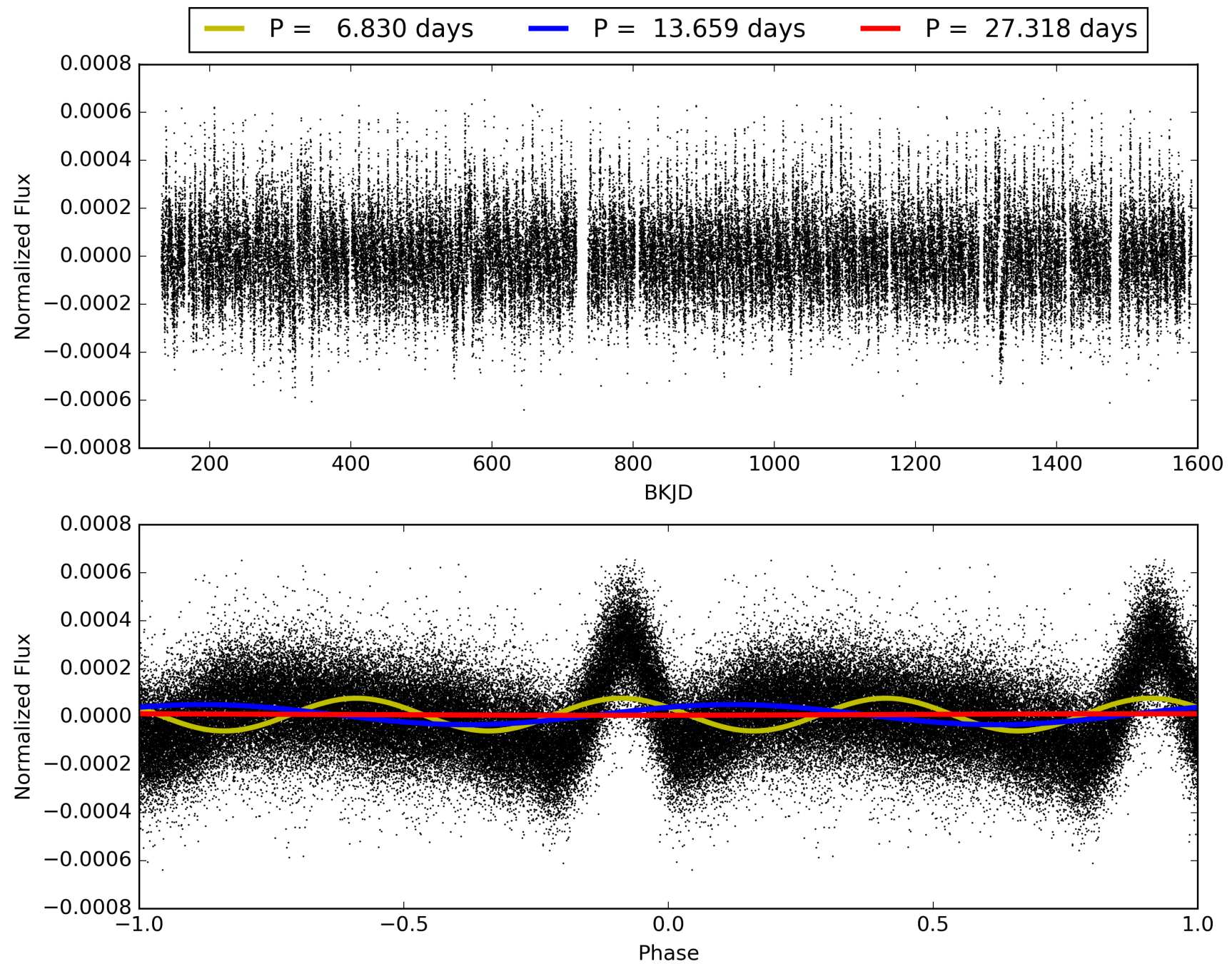
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:34:08 Z

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

TCE 006141791-01, PDC Light Curves

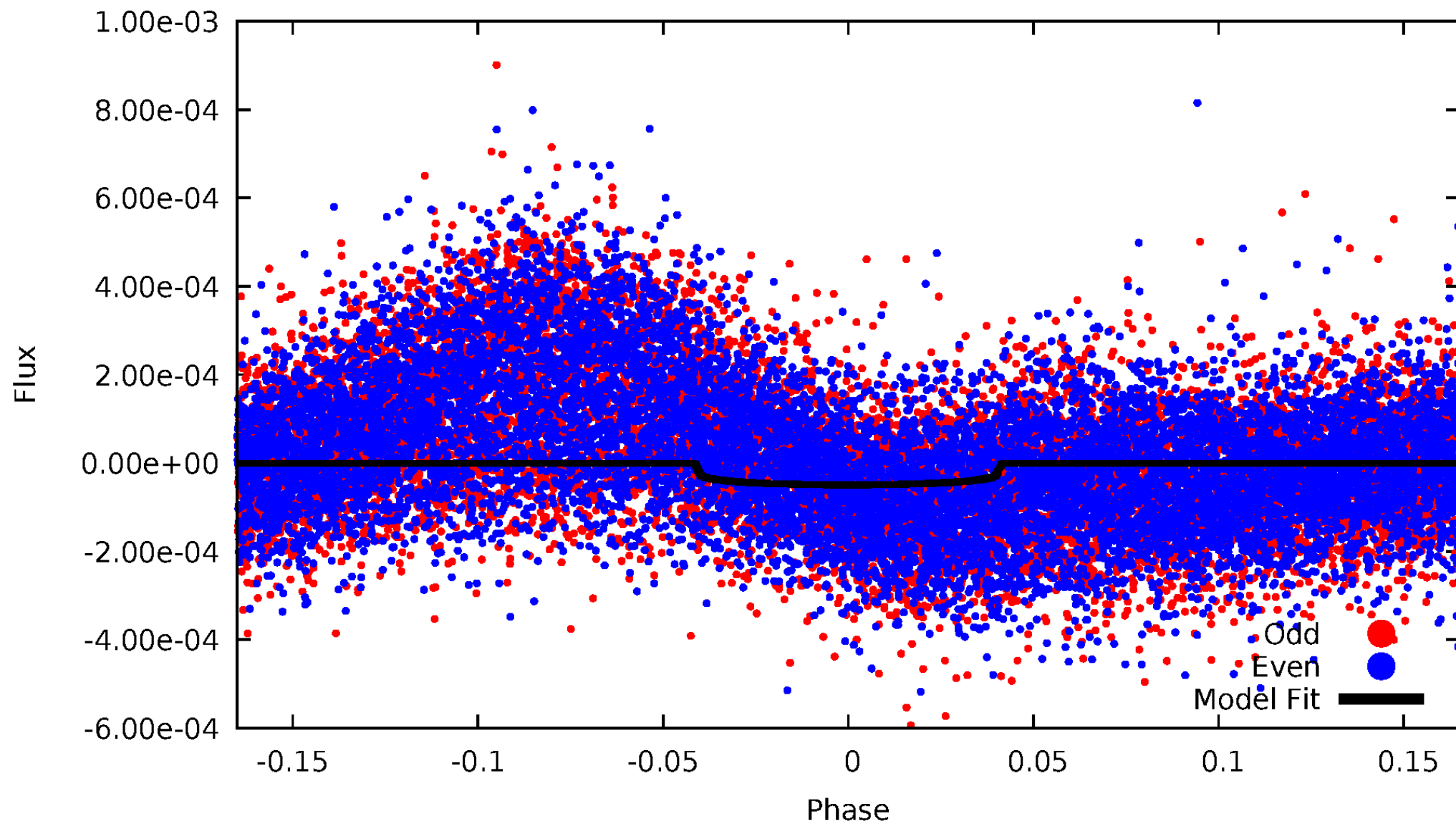


TCE 006141791-01



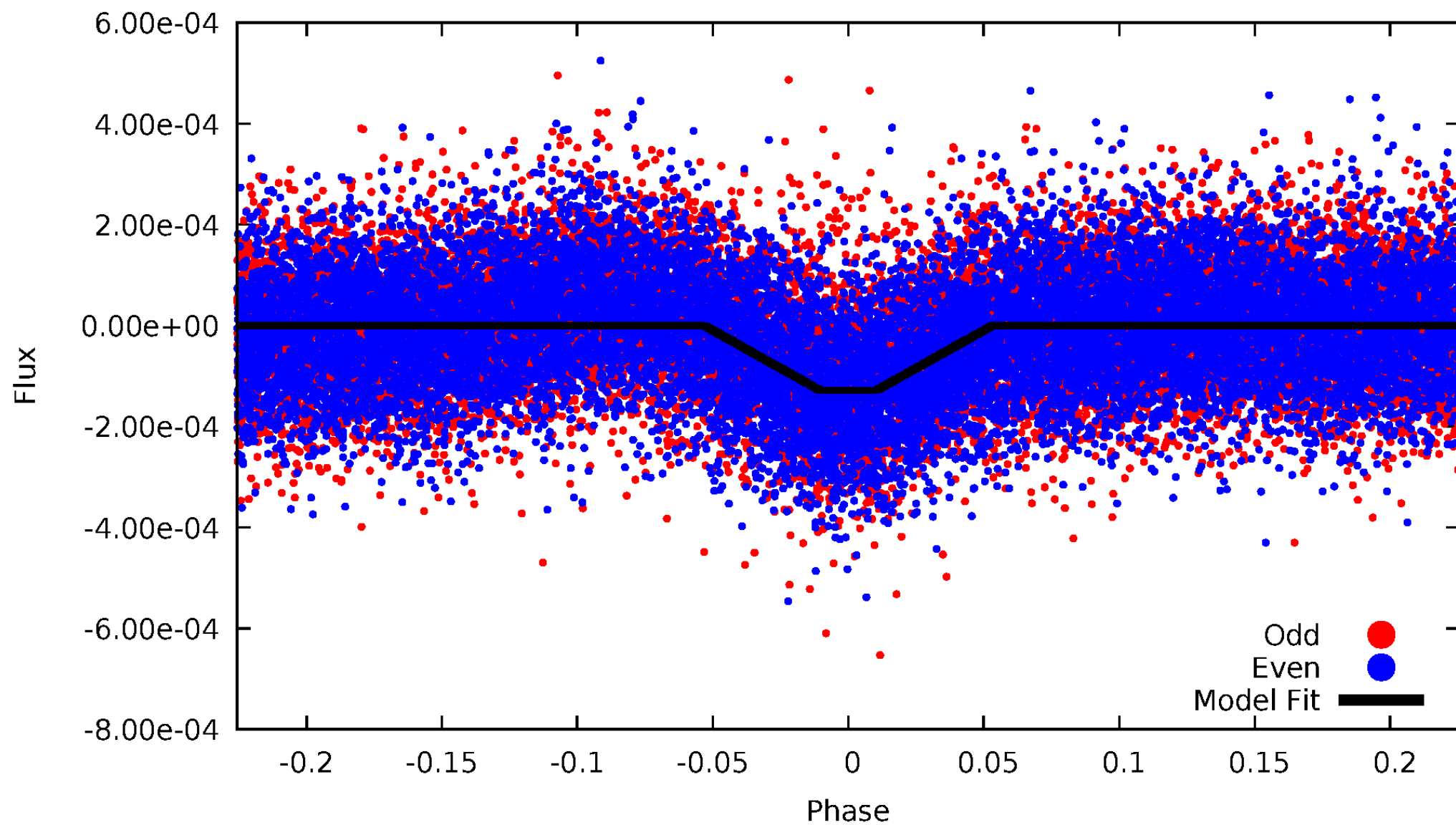
DV Odd/Even

TCE 006141791-01



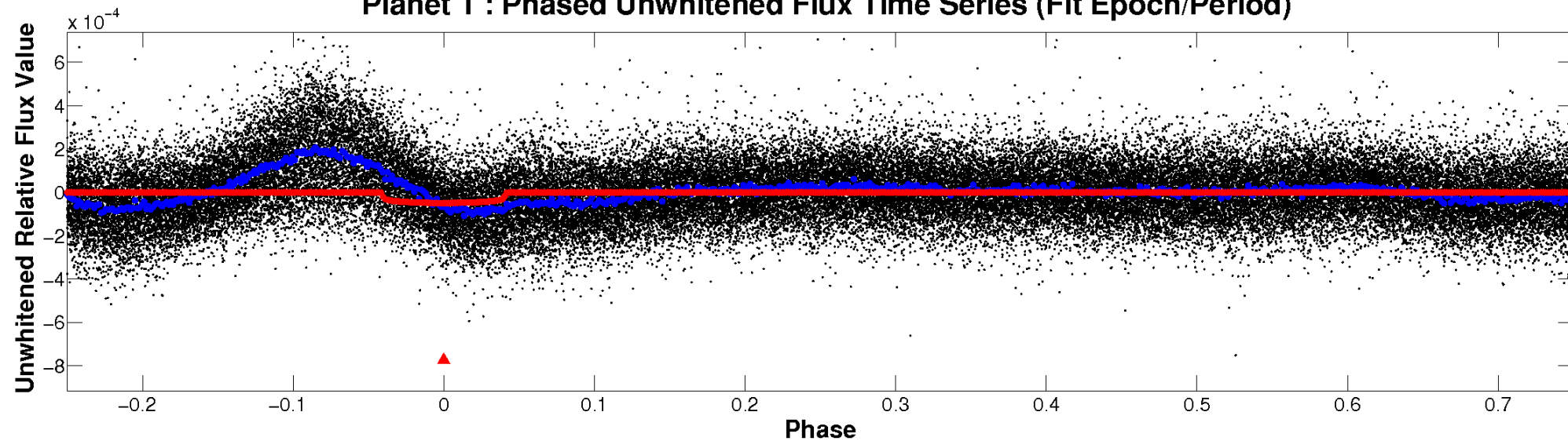
ALT Odd/Even

TCE 006141791-01

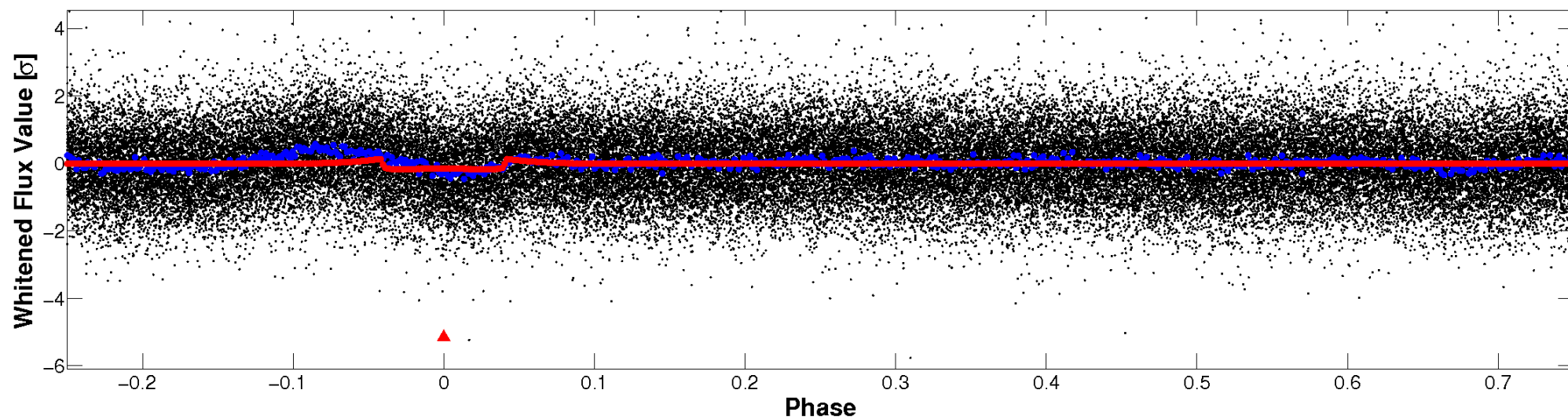


Non-Whitened Vs. Whitened Light Curve

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

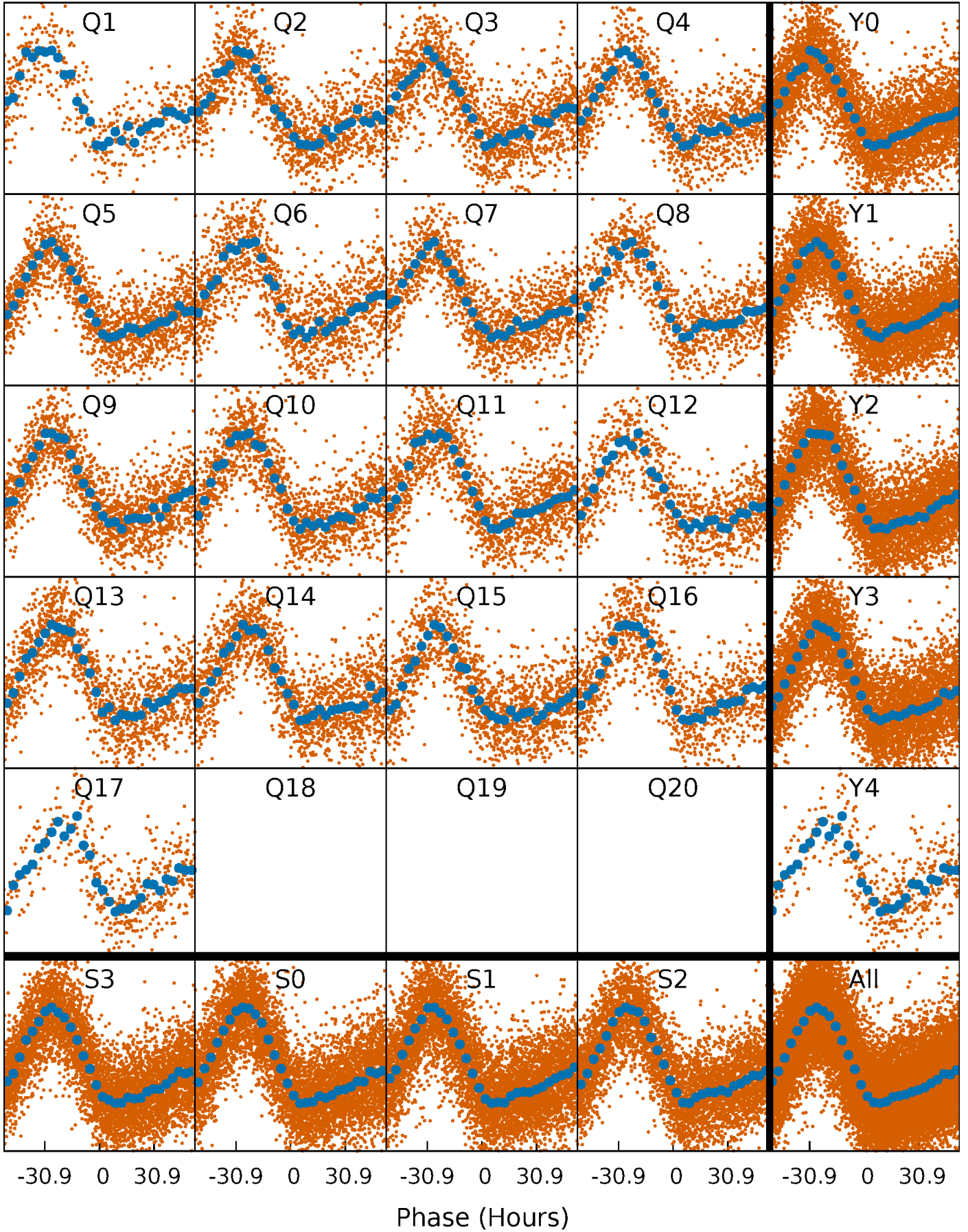


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



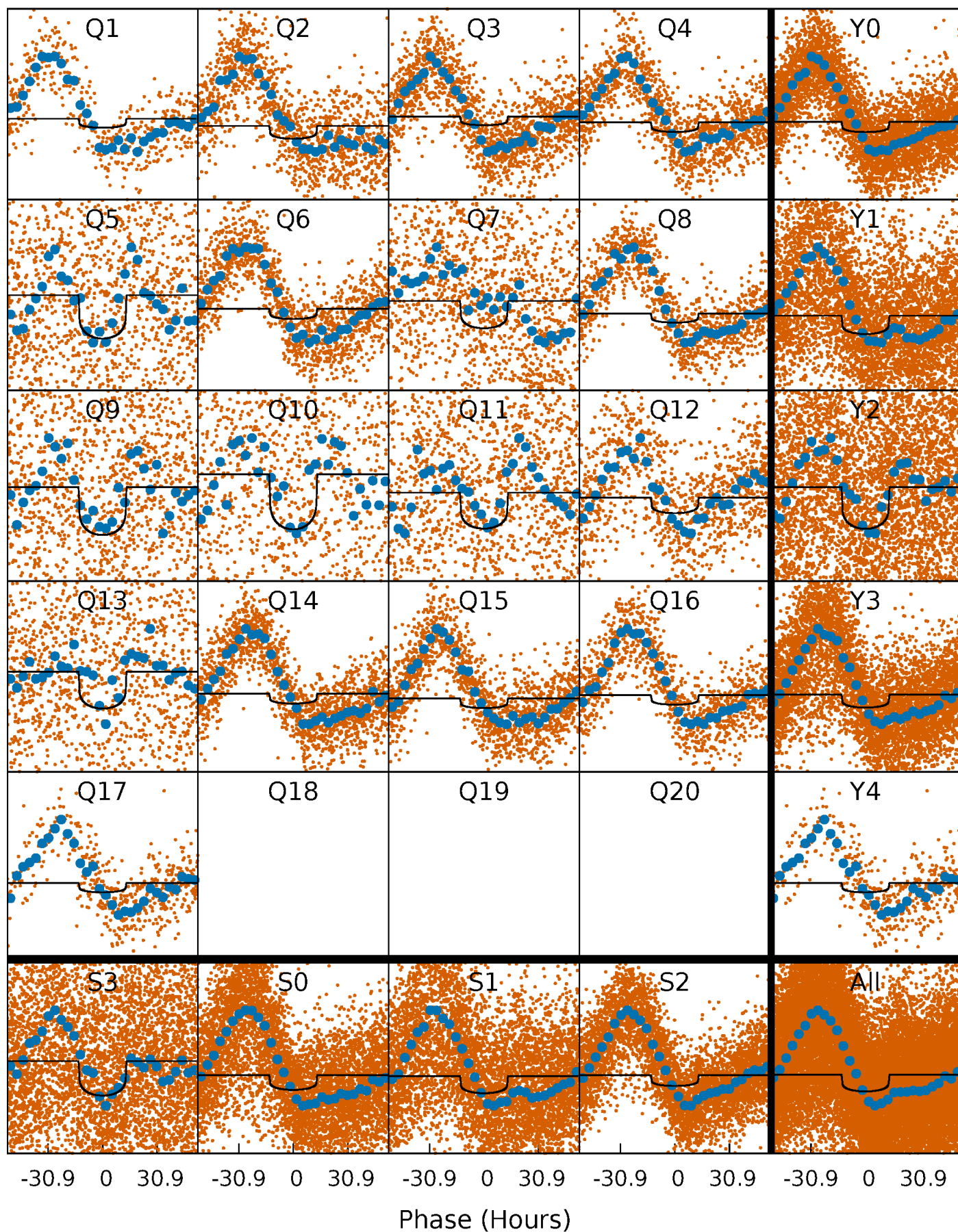
PDC Quarter-Phased Transit Curves

TCE 006141791-01 P= 13.659121 Days $T_0=139.306230$ (BKJD)



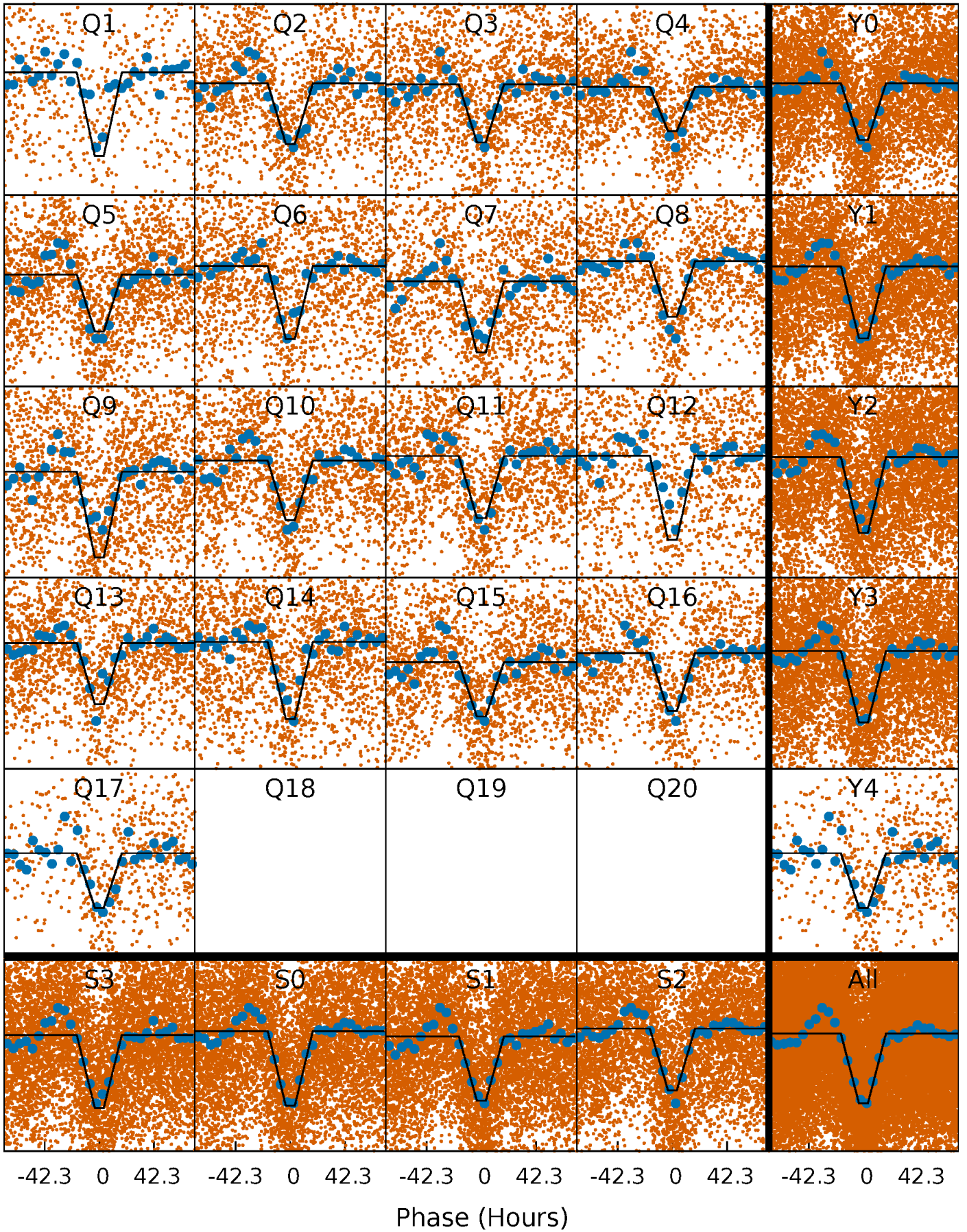
DV Quarter-Phased Transit Curves

TCE 006141791-01 P= 13.659121 Days $T_0=139.306230$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

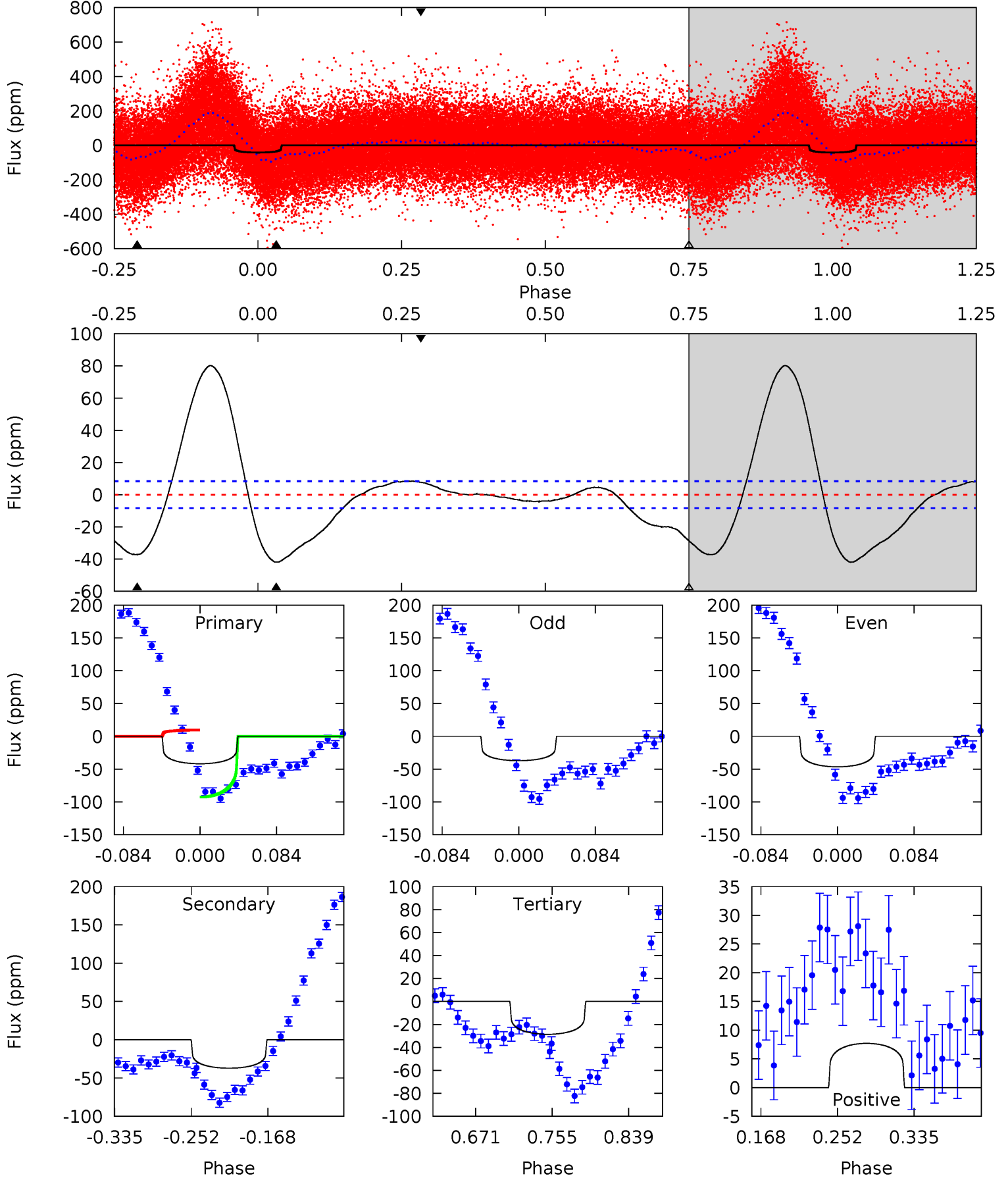
TCE 006141791-01 P= 13.660189 Days $T_0=139.373592$ (BKJD)



DV Model-Shift Uniqueness Test

006141791-01, P = 13.659121 Days, E = 125.647109 Days

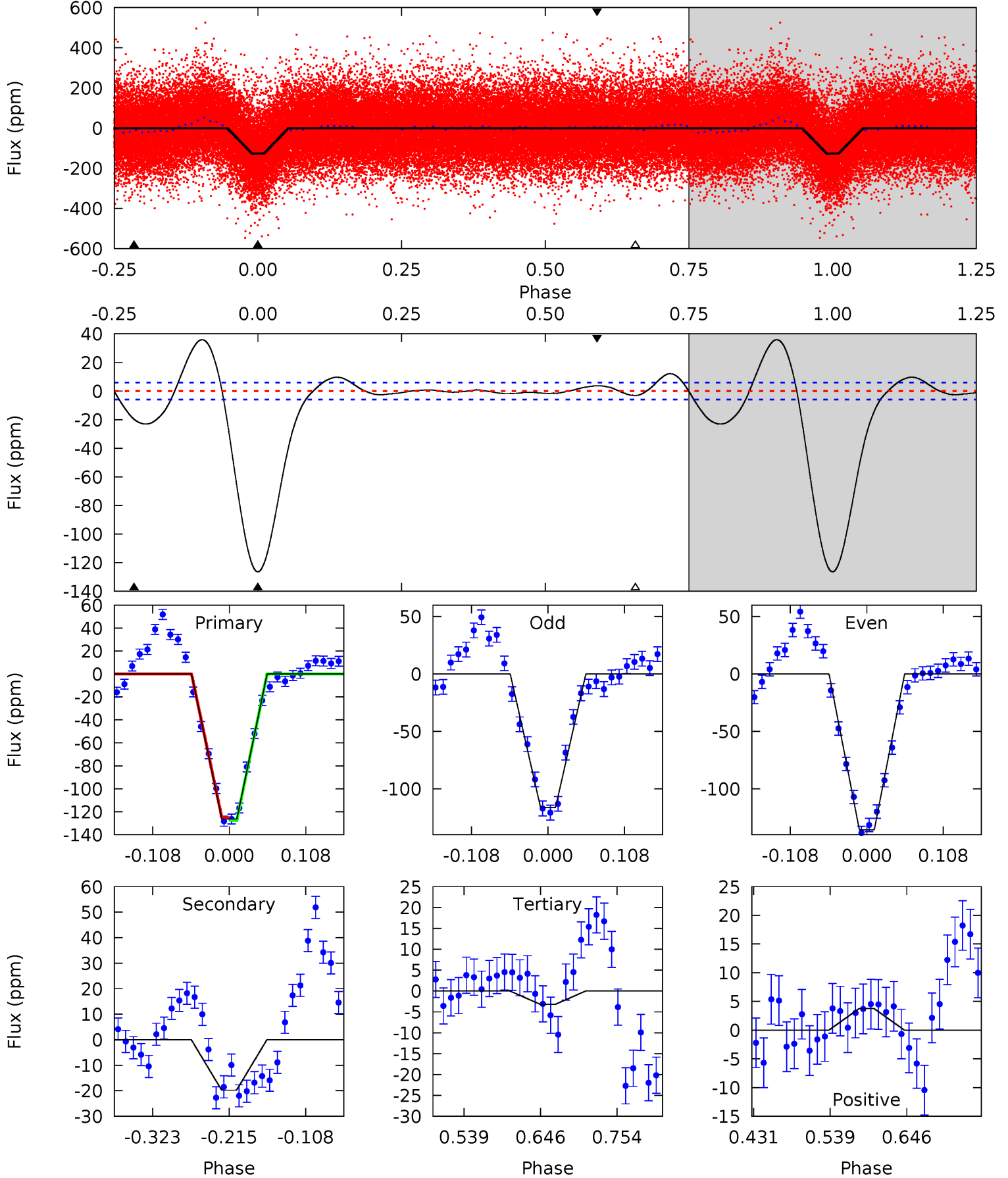
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.0	20.4	15.7	4.23	4.60	1.73	13.0	7.31	18.8	4.71	16.2	2.55	1.16	0.66	24.4



Alt Model-Shift Uniqueness Test

006141791-01, P = 13.660189 Days, E = 125.713403 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
96.2	15.0	2.44	2.86	4.55	1.61	2.88	93.7	93.3	12.6	12.2	7.38	0.98	0.22	0.95



Stellar Parameters For KIC 006141791

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6423^{+77}_{-83}	$4.149^{+0.115}_{-0.115}$	$0.360^{+0.100}_{-0.150}$	$1.667^{+0.295}_{-0.241}$	$1.426^{+0.103}_{-0.092}$	$0.433^{+0.230}_{-0.150}$
	+1%/-1%	+3%/-3%	+28%/-42%	+18%/-14%	+7%/-6%	+53%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 006141791-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-37 ± 2	$1.23^{+0.19}_{-0.18}$	1439^{+63}_{-61}	6076^{+458}_{-370}	214^{+81}_{-57}
Alt.	-20 ± 1	$2.06^{+0.25}_{-0.22}$	1442^{+63}_{-59}	4260^{+152}_{-130}	41^{+10}_{-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 $A_{obs} \gg 1.0$

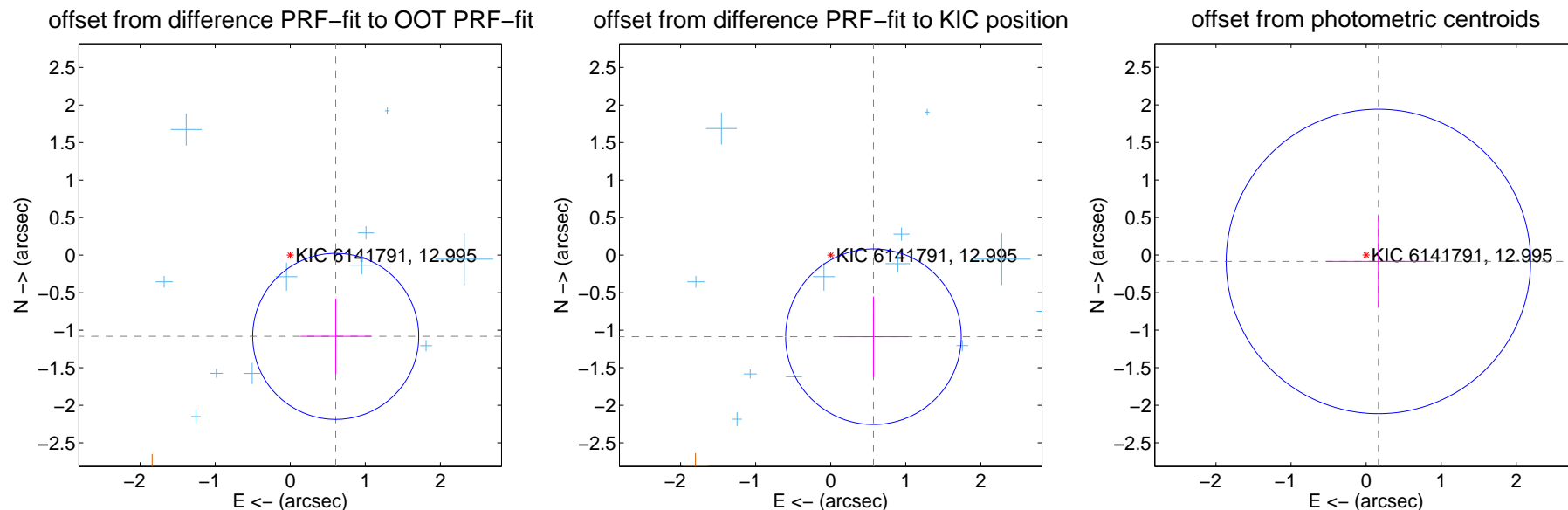
DV Centroid Data

Supplemental centroid analysis for 006141791-01. Kepler magnitude: 12.99. Transit SNR 12.85

There are 12 quarters with good PRF difference image offsets

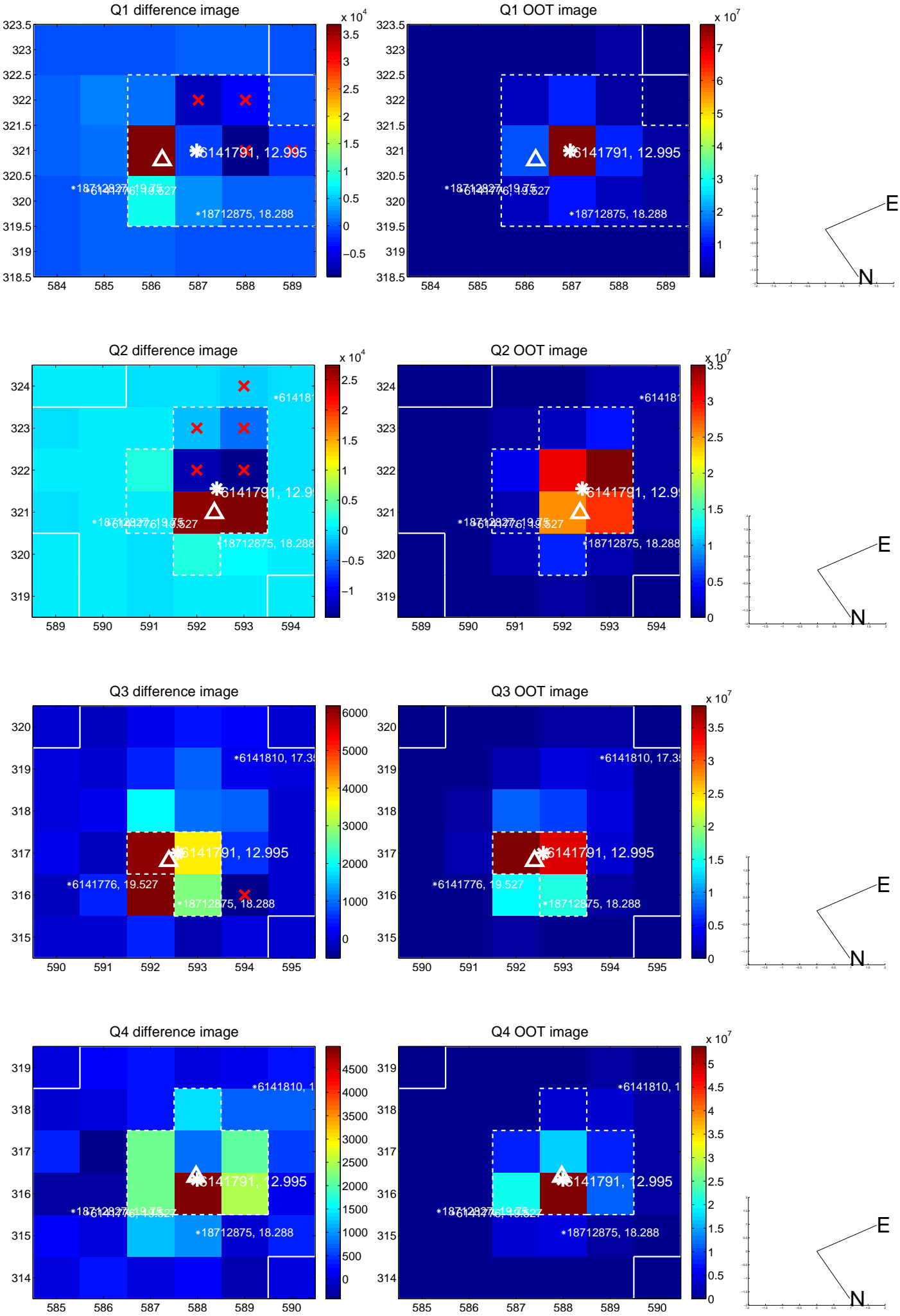
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.240 ± 0.369	3.36	-0.606 ± 0.469	-1.082 ± 0.502
PRF-fit source offset from KIC position	1.227 ± 0.390	3.15	-0.569 ± 0.456	-1.087 ± 0.535
photometric centroid source offset	0.18 ± 0.68	0.27	-0.16 ± 0.69	-0.08 ± 0.61

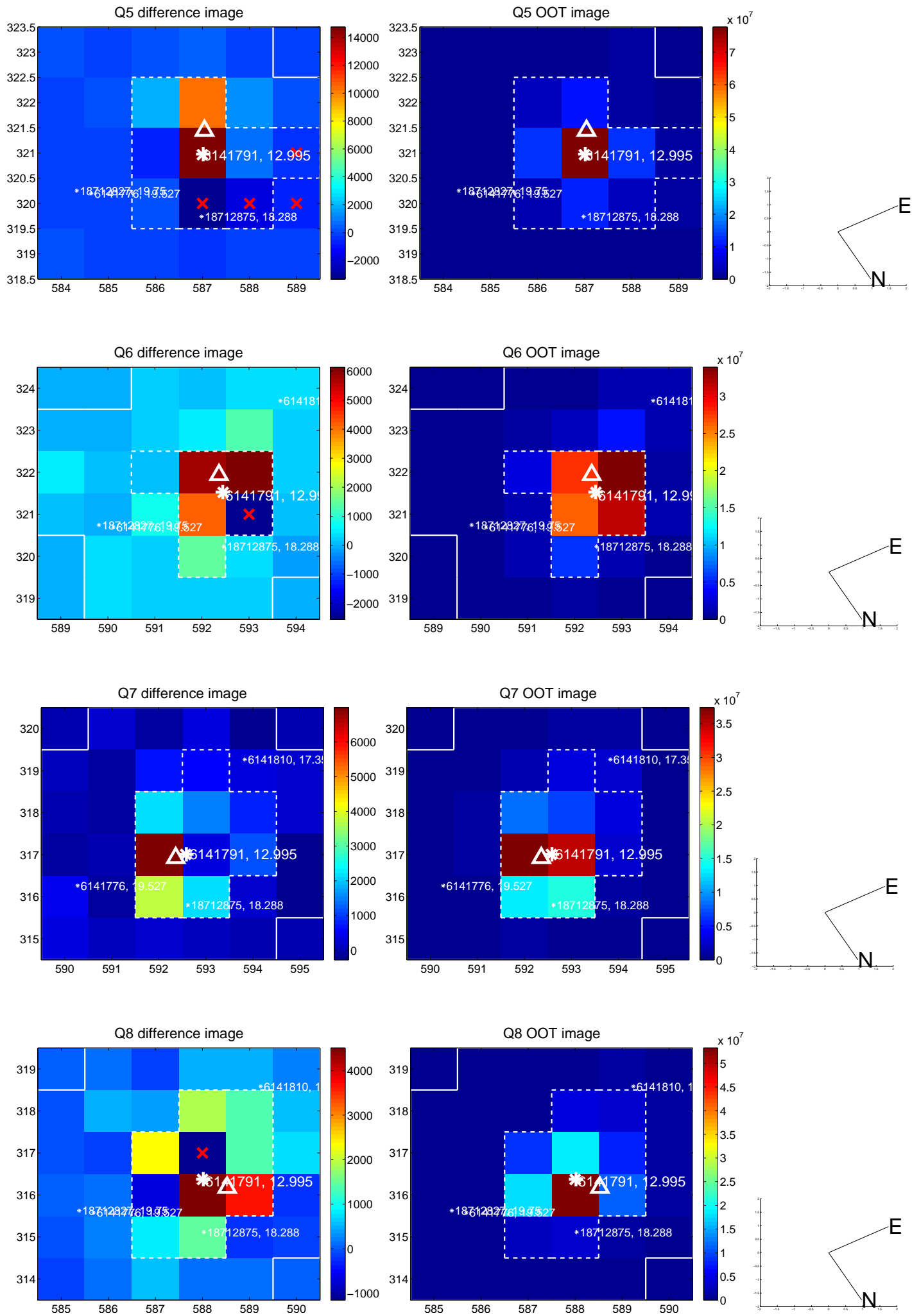


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

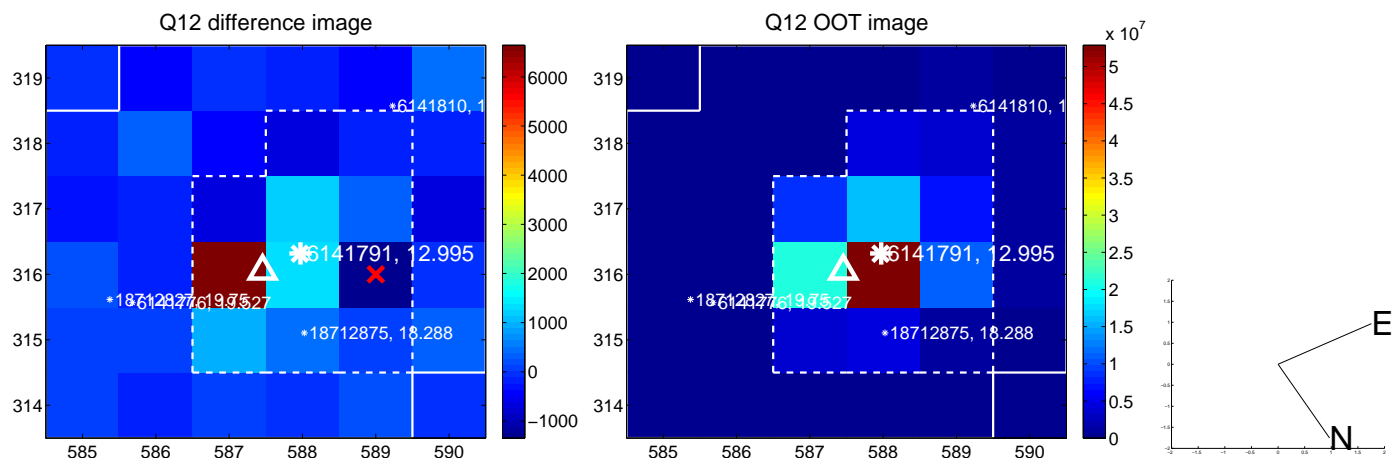
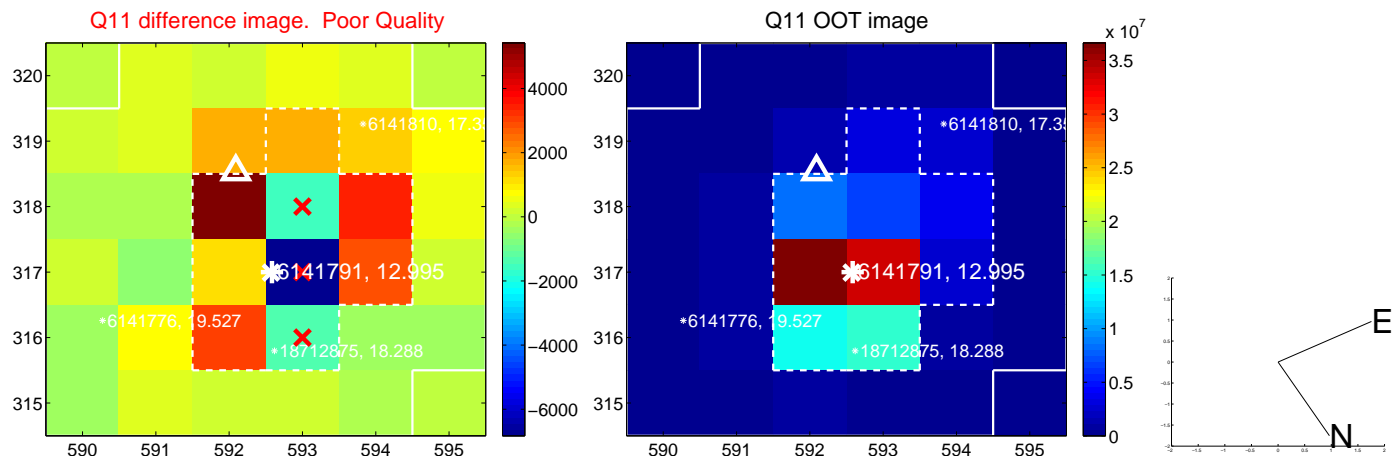
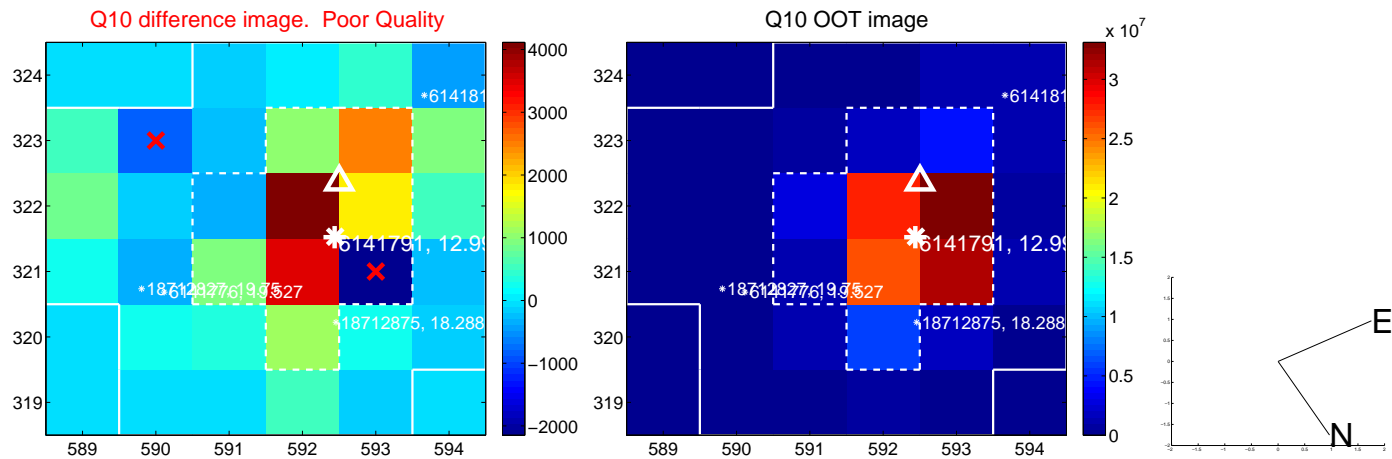
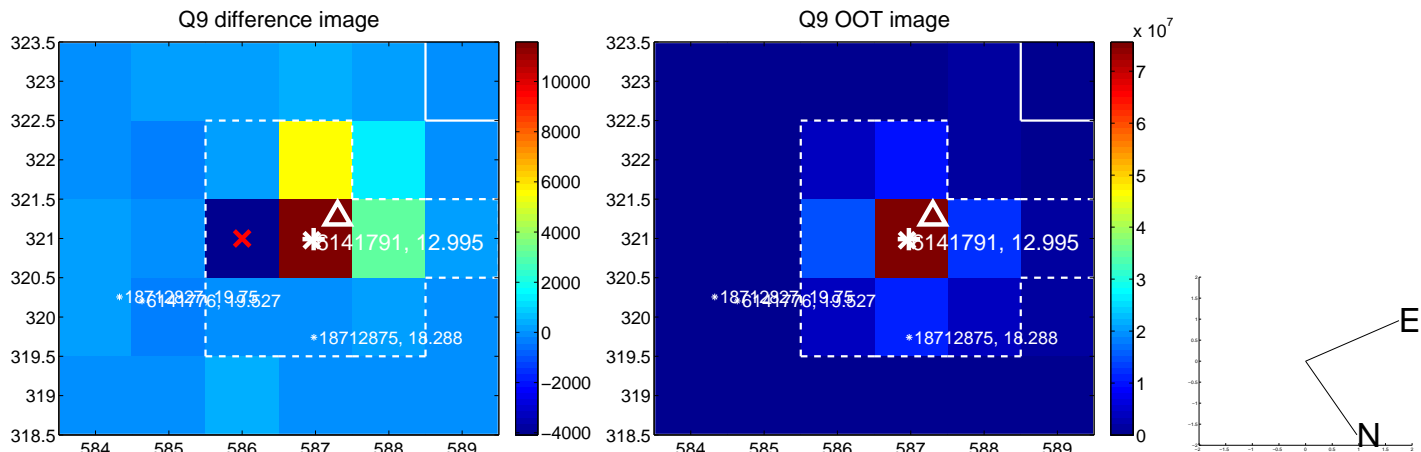
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



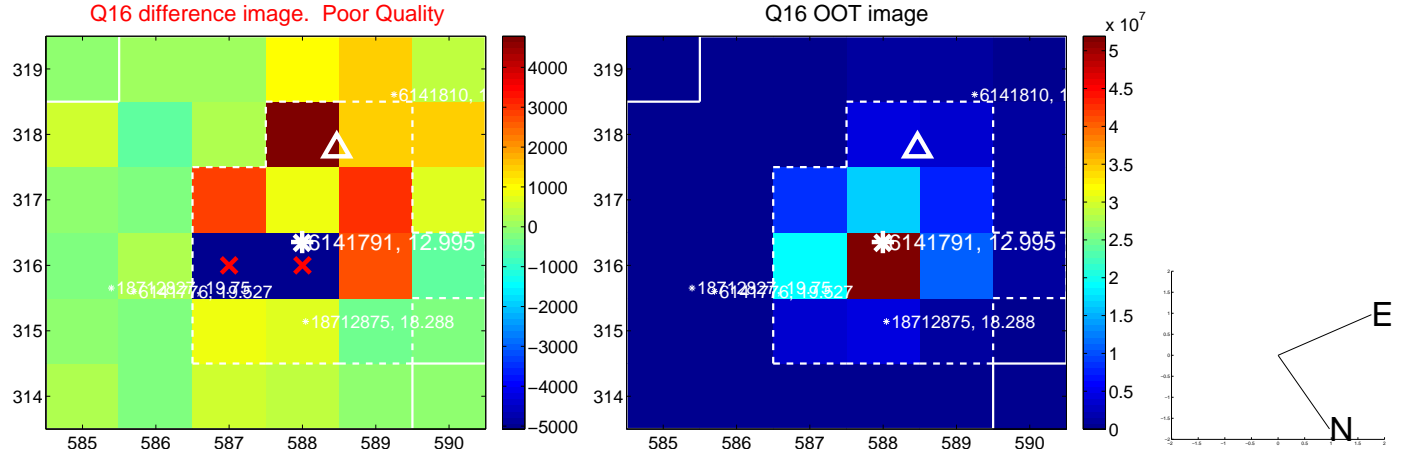
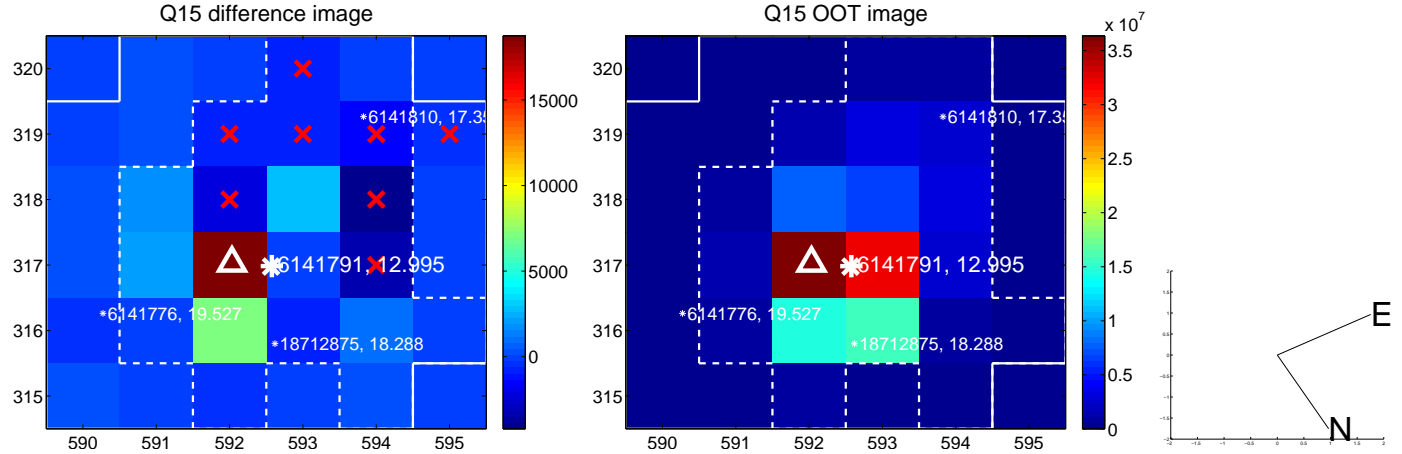
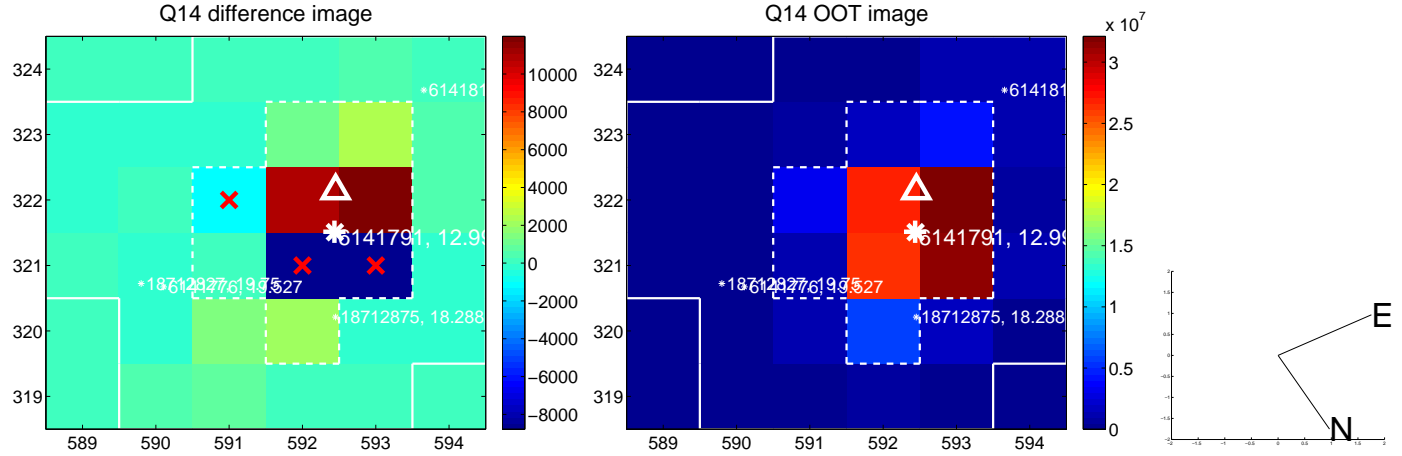
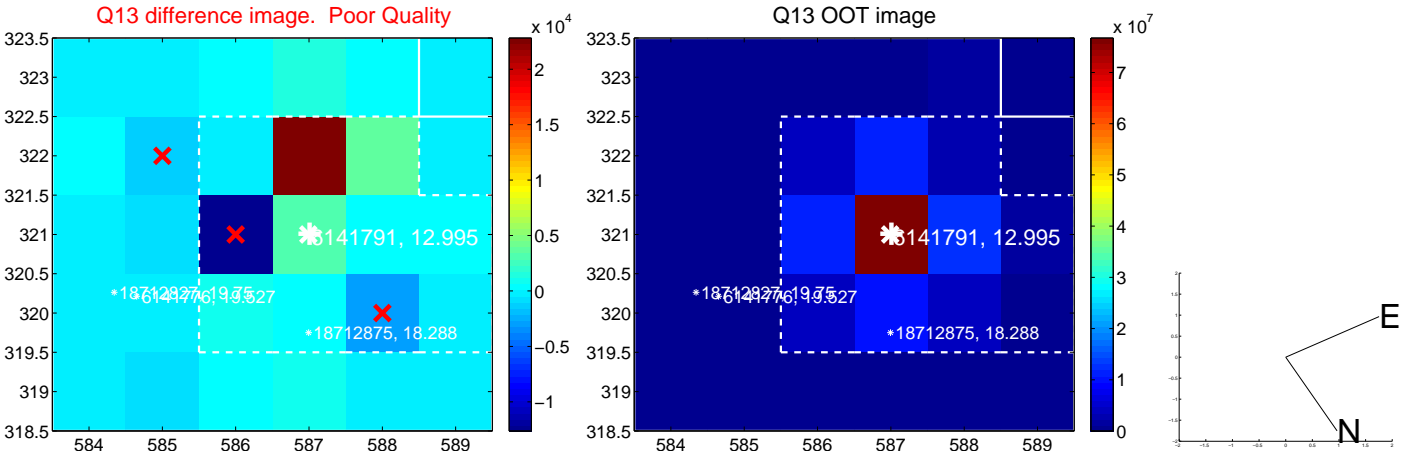
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



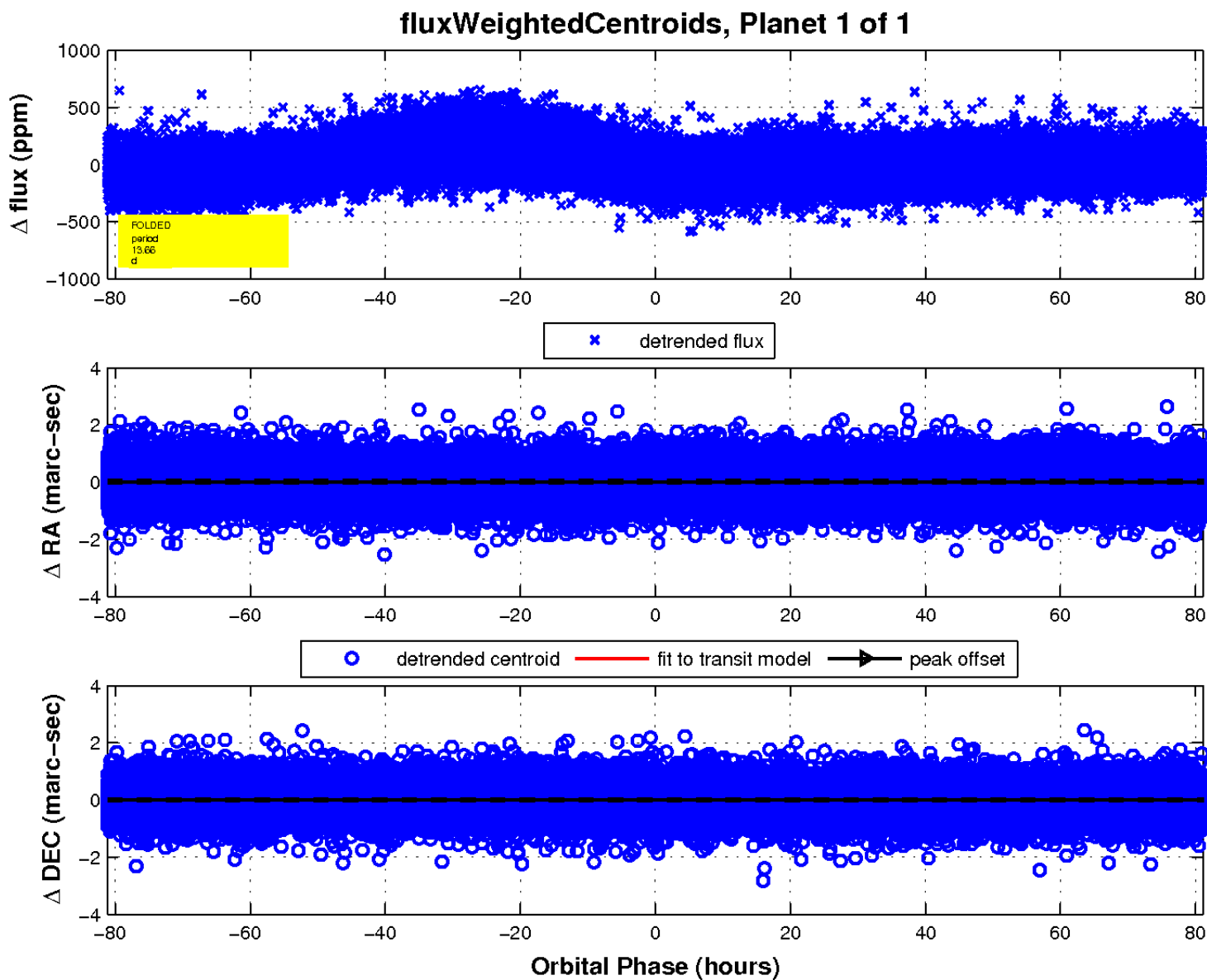
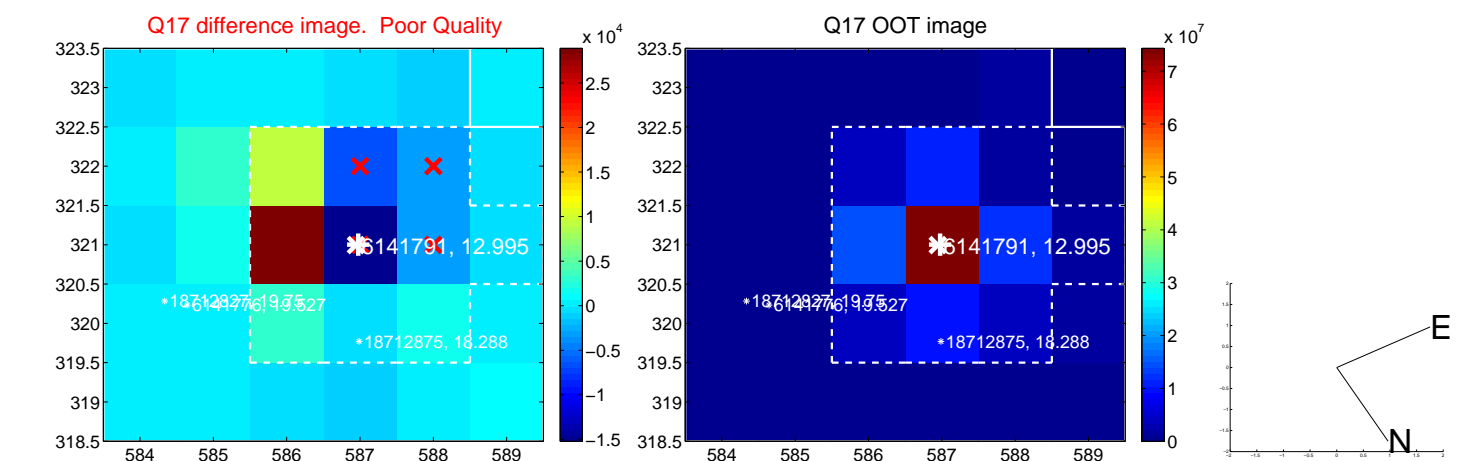
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UKIRT Image

Declination

