

KIC 011601357

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})
011601357-01	OBS	7459.01	3.550341	133.759576	190.7	2.169	7.4	7.2	0.80	5497	1.32	272.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011601357-01	OBS	FP	0.40	1	0	0	0	MOD_NONUNIQ_ALT

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 011601357-01

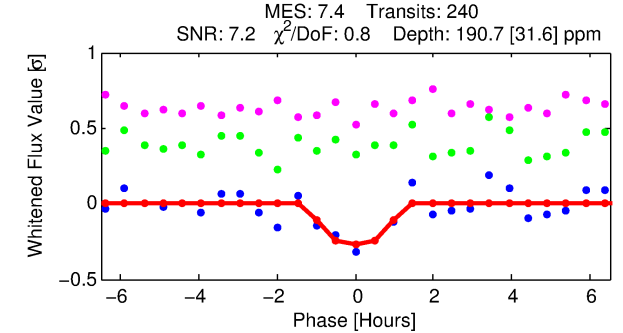
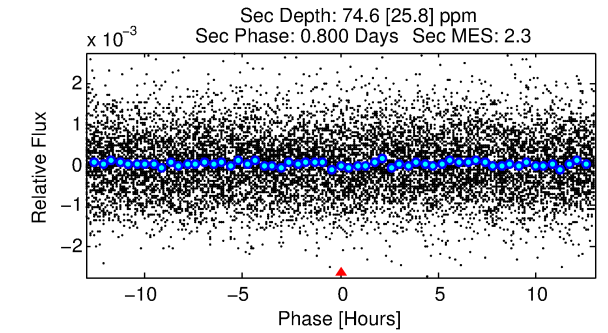
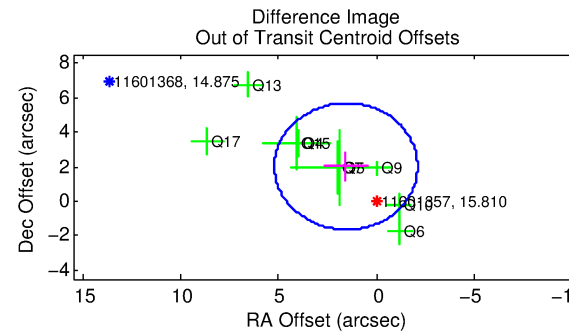
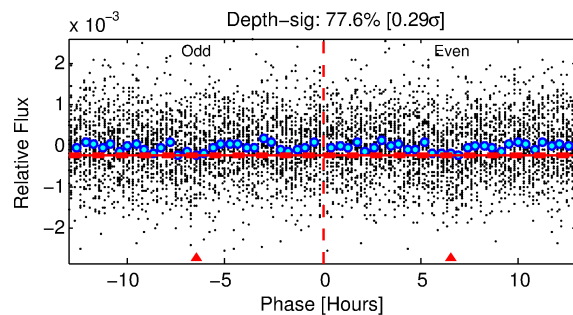
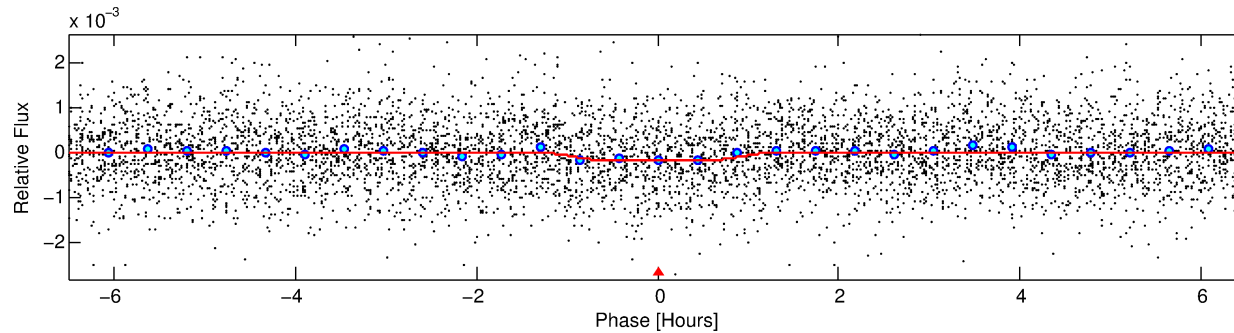
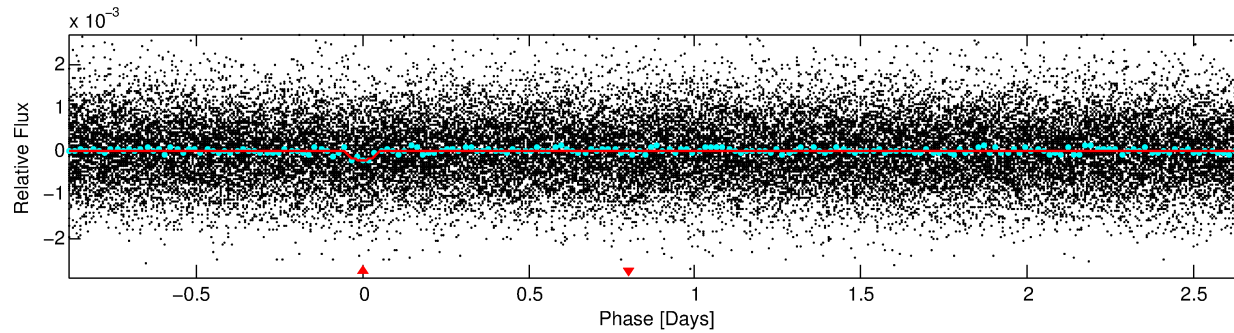
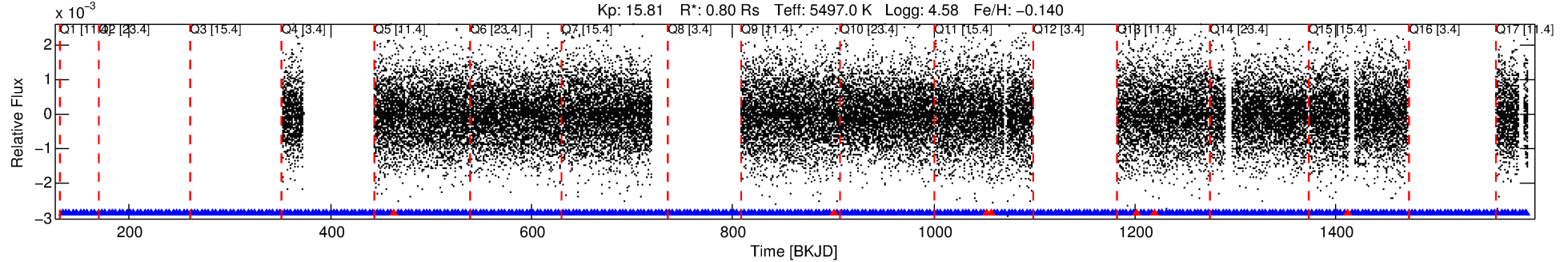
No Significant Match Found

DV One-Page Summary

KIC: 11601357 Candidate: 1 of 1 Period: 3.550 d

KOI: K07459.01 Corr: 0.889

Kp: 15.81 R*: 0.80 Rs Teff: 5497.0 K Logg: 4.58 Fe/H: -0.140



DV Fit Results:

Period = 3.55034 [0.00003] d
Epoch = 133.7596 [0.0059] BKJD
Rp/R* = 0.0152 [0.0168]
a/R* = 5.95 [28.99]
b = 0.90 [1.09]
Seff = 272.75 [78.38]
Teq = 1036 [74] K
Rp = 1.32 [1.50] Re
a = 0.0438 [0.0075] AU
Ag = 44.94 [101.67] [0.43σ]
Teff = 4148 [2337] K [1.33σ]

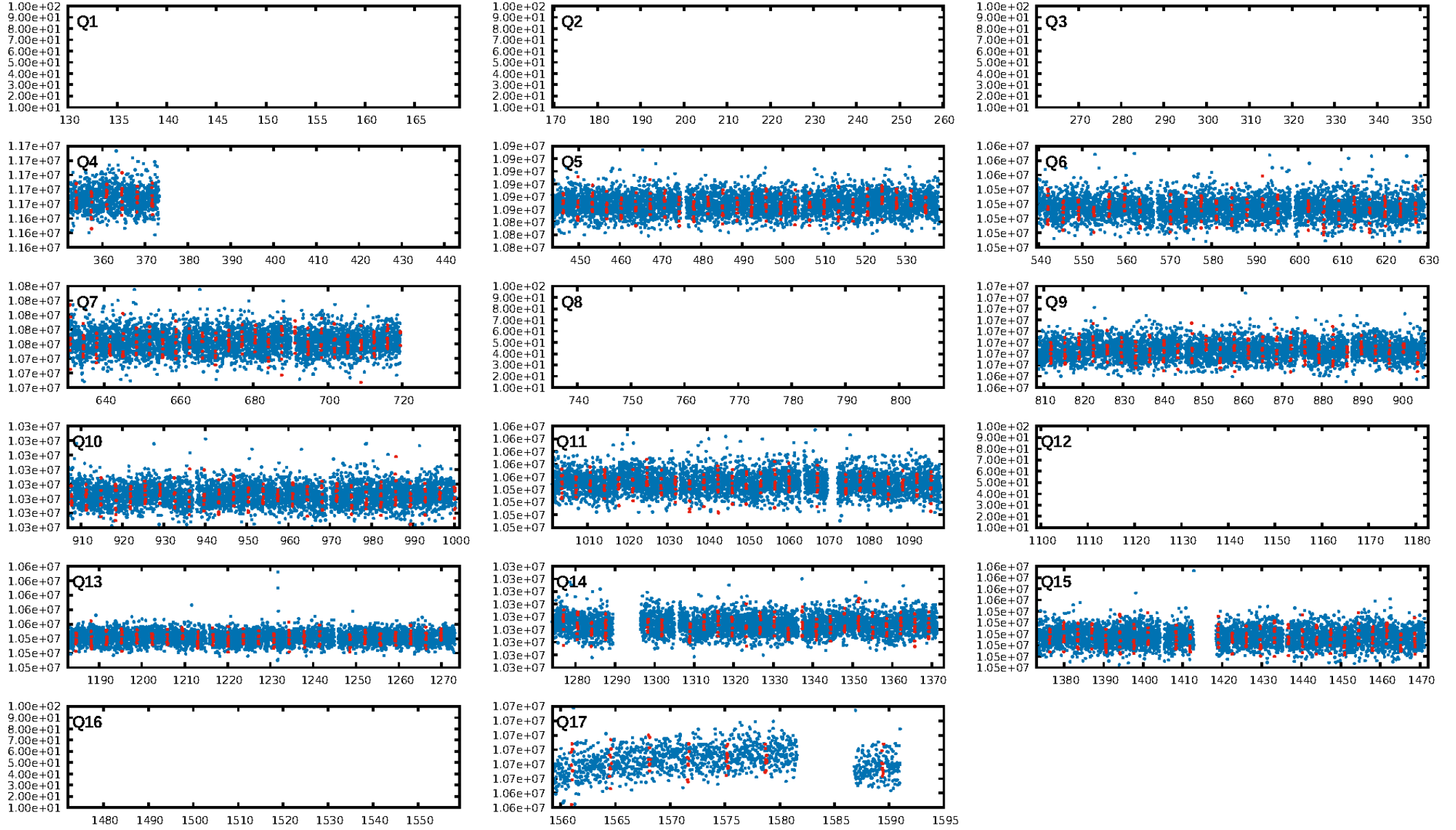
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.82e-14
RollingBand-fgt: 0.97 [220/227]
GhostDiagnostic-chr: 1.737
Centroid-sig: 3.4%
Centroid-so: 4.565 arcsec [2.02σ]
OotOffset-rm: 2.542 arcsec [2.08σ]
KicOffset-rm: 2.662 arcsec [1.91σ]
OotOffset-st: 2/2/1/4 [9]
KicOffset-st: 2/2/1/4 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 1.00 [11/11]

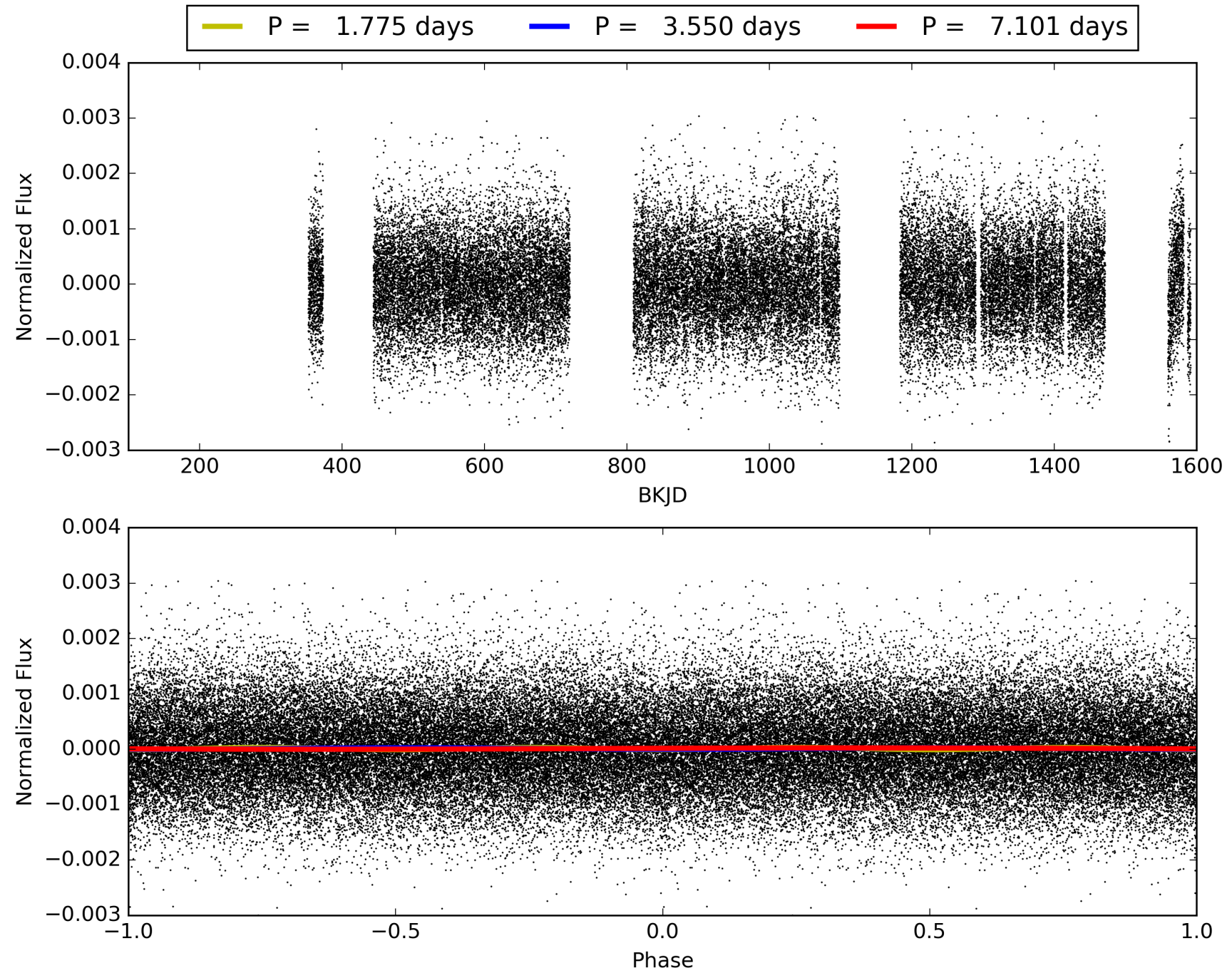
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:21:57 Z

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

TCE 011601357-01, PDC Light Curves

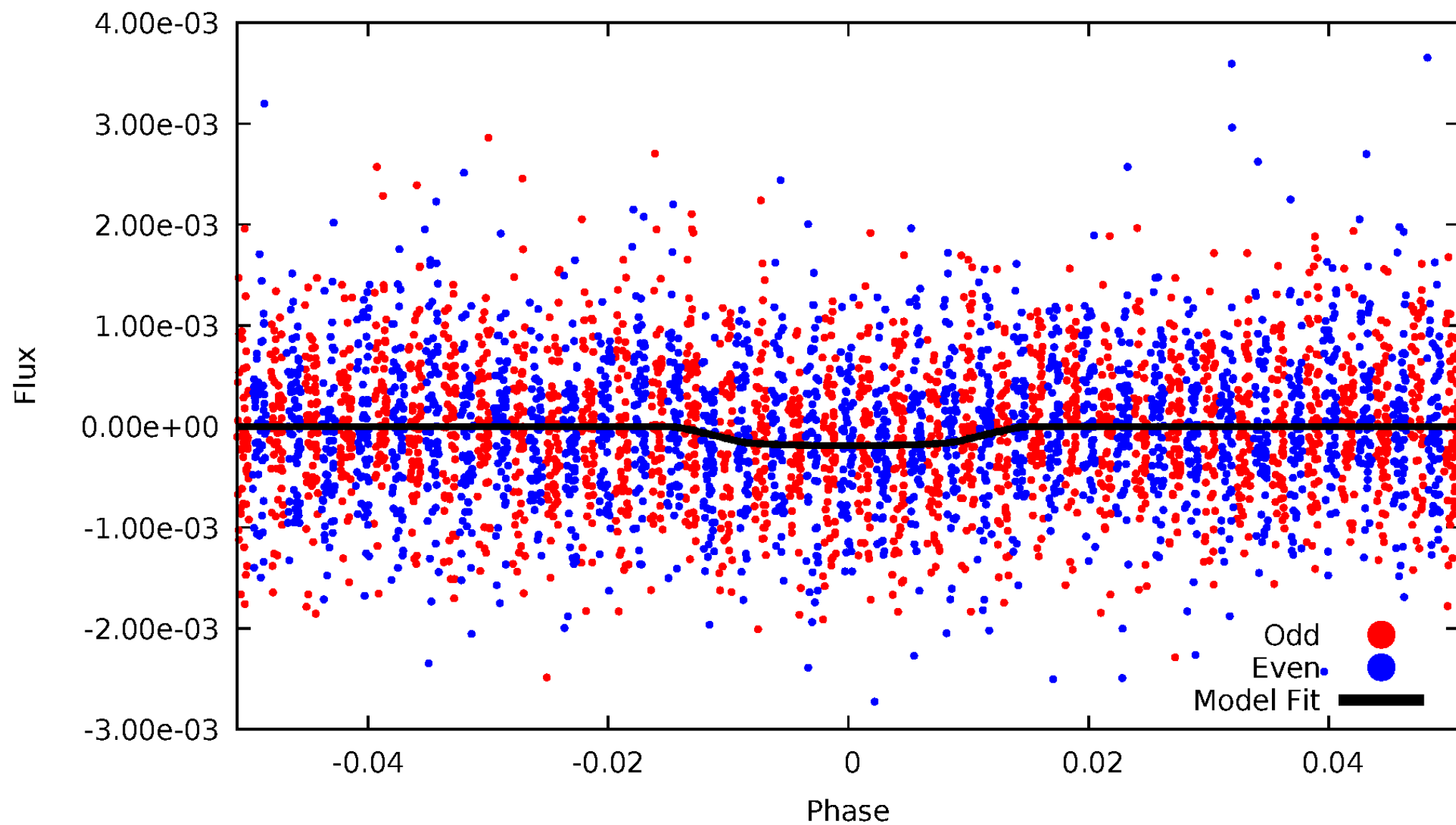


TCE 011601357-01



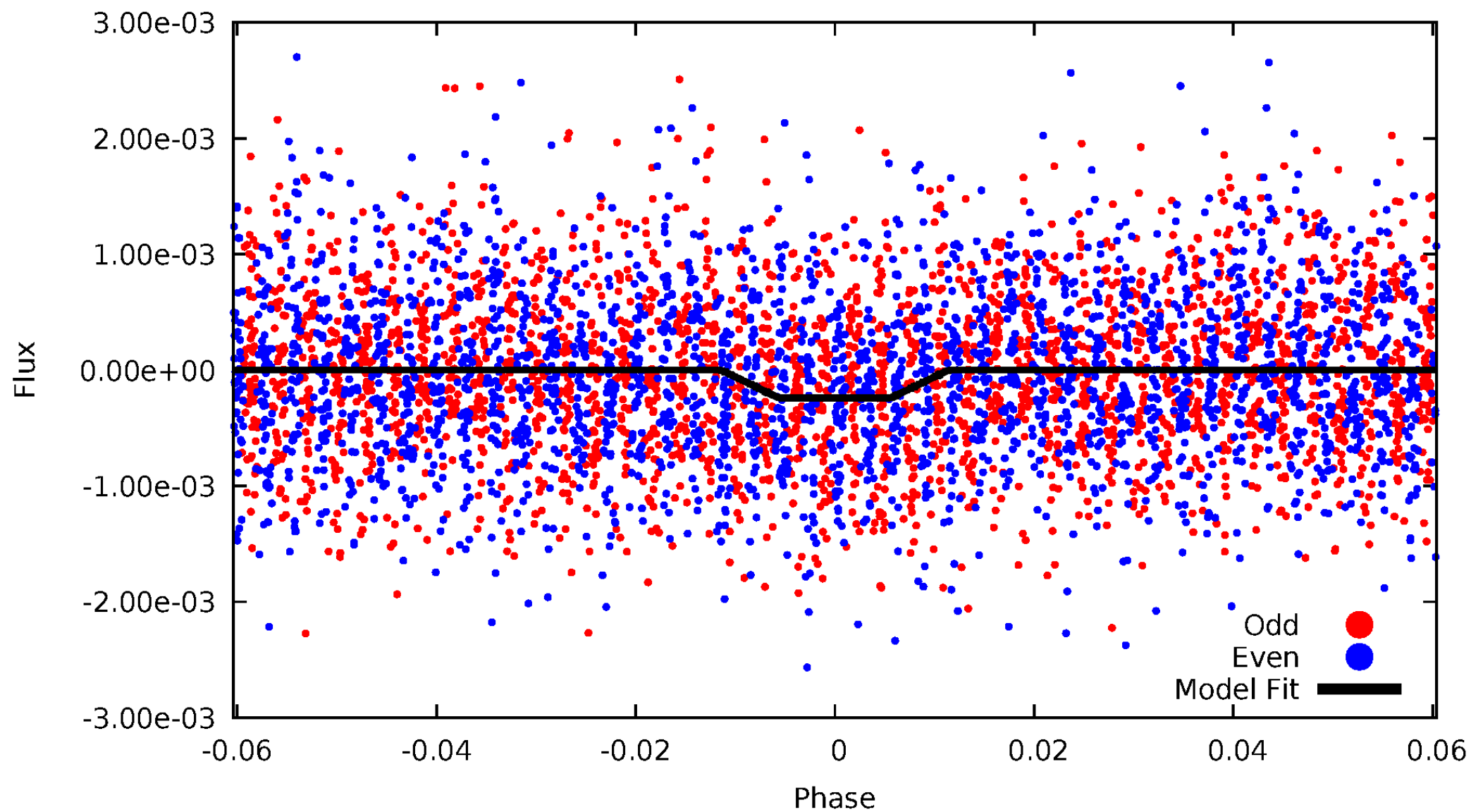
DV Odd/Even

TCE 011601357-01



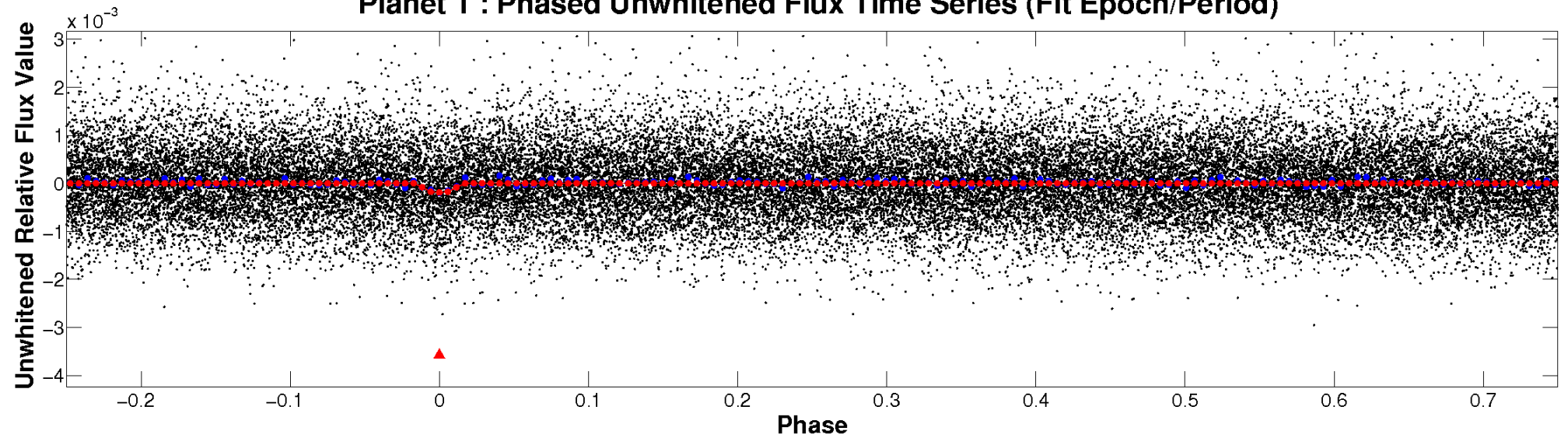
ALT Odd/Even

TCE 011601357-01

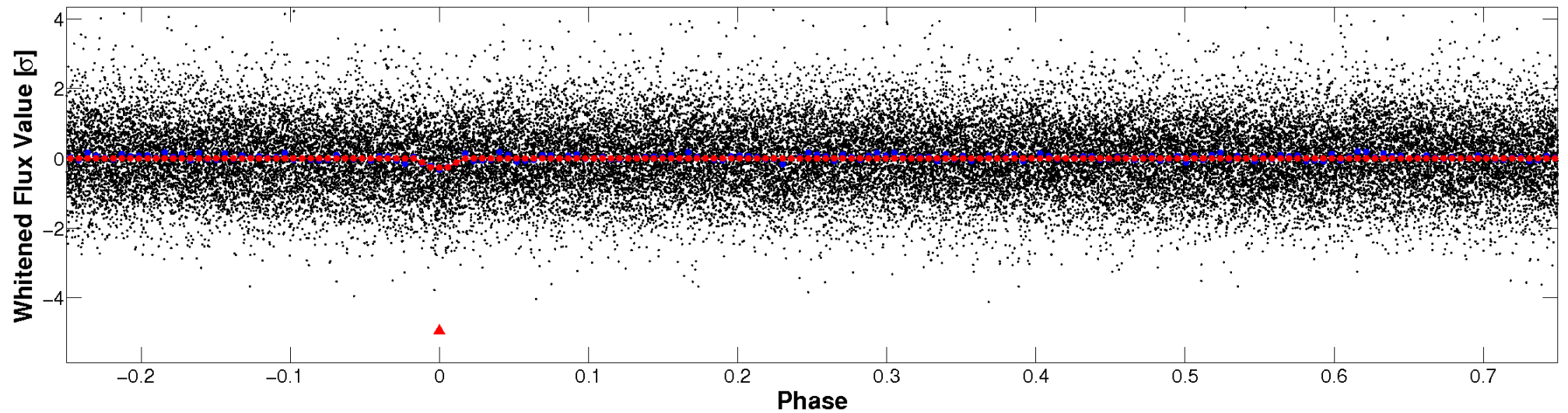


Non-Whitened Vs. Whitened Light Curve

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

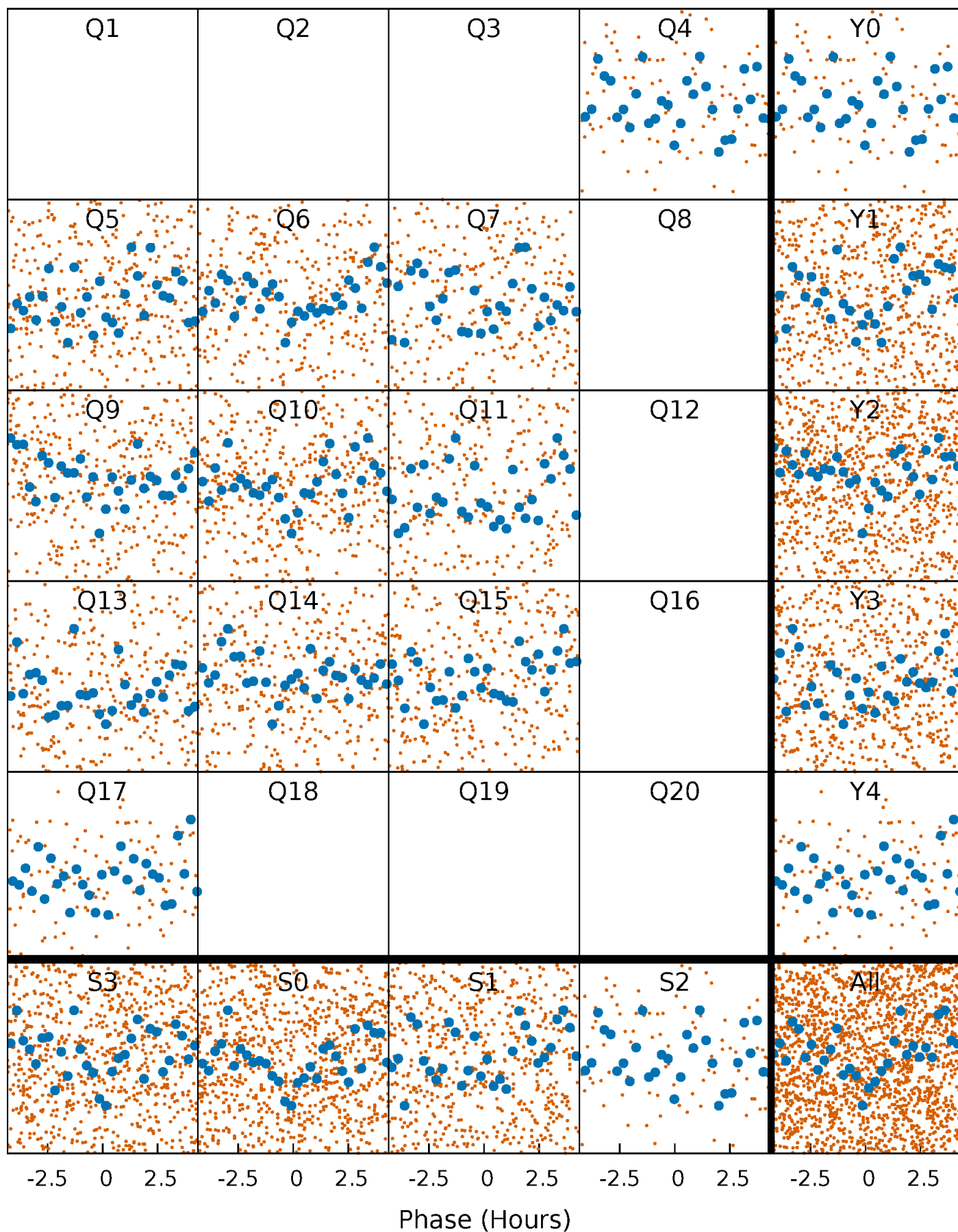


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



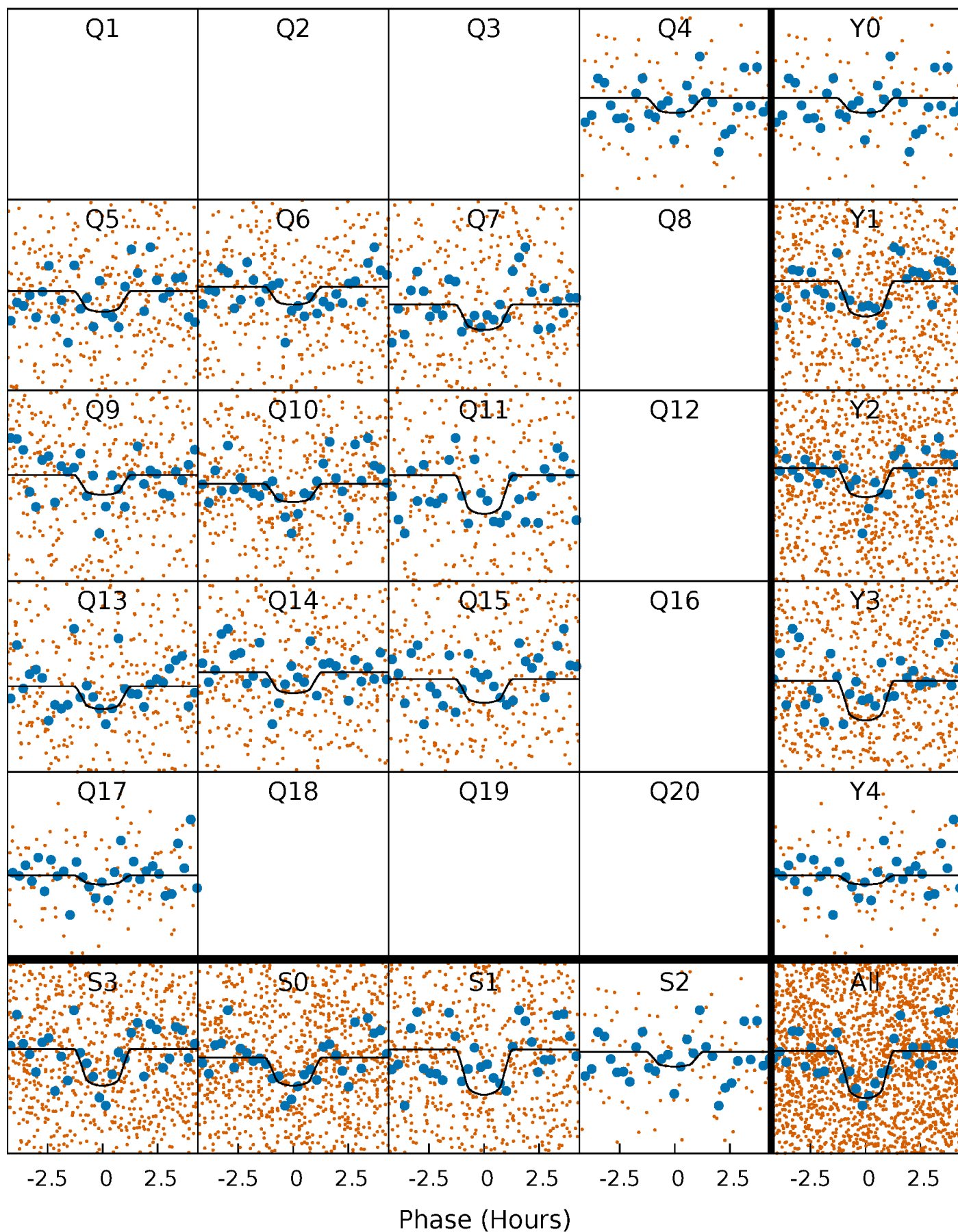
PDC Quarter-Phased Transit Curves

TCE 011601357-01 P= 3.550341 Days $T_0=133.759576$ (BKJD)



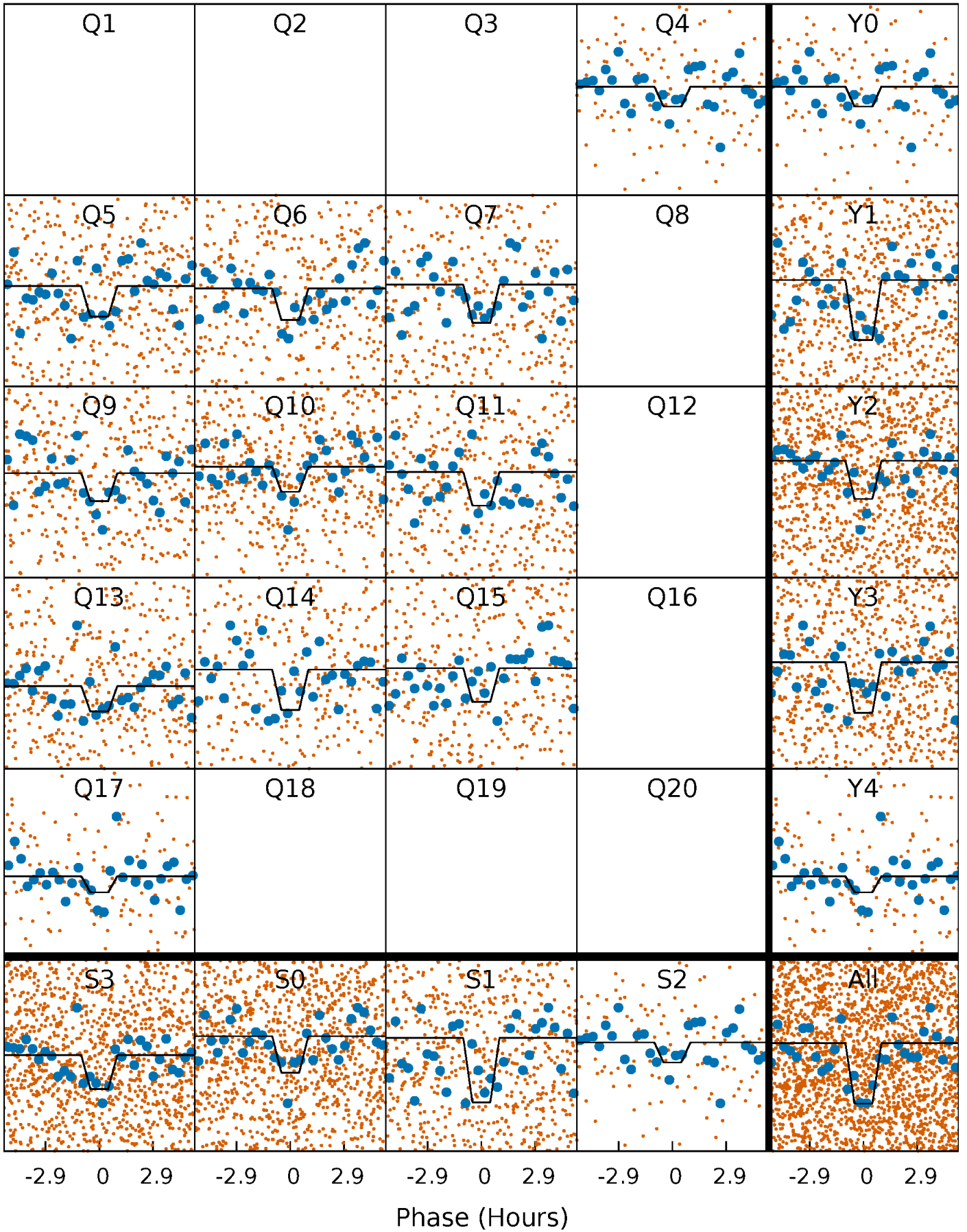
DV Quarter-Phased Transit Curves

TCE 011601357-01 P= 3.550341 Days $T_0=133.759576$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

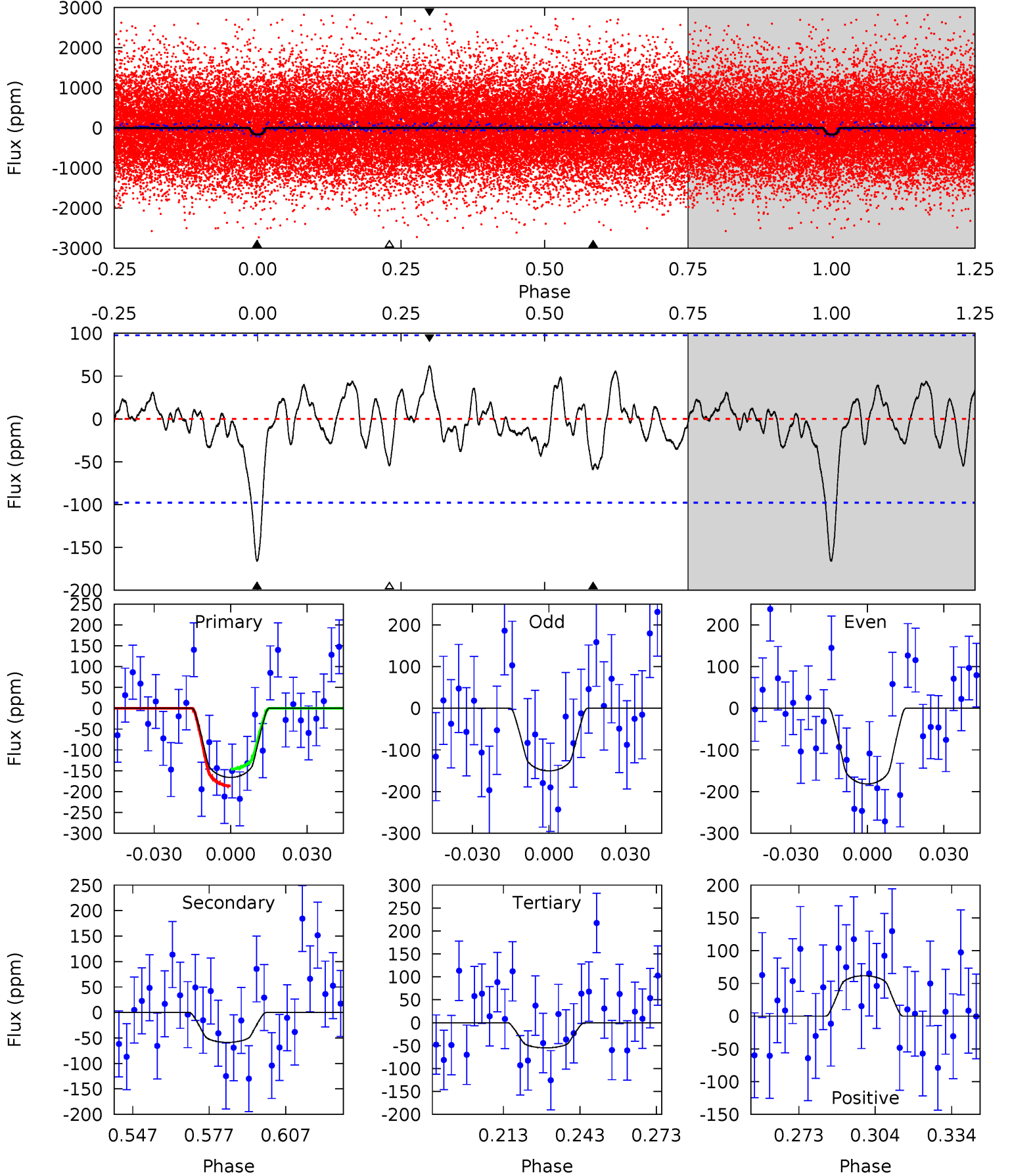
TCE 011601357-01 P= 3.550347 Days $T_0=133.756540$ (BKJD)



DV Model-Shift Uniqueness Test

011601357-01, P = 3.550341 Days, E = 133.759576 Days

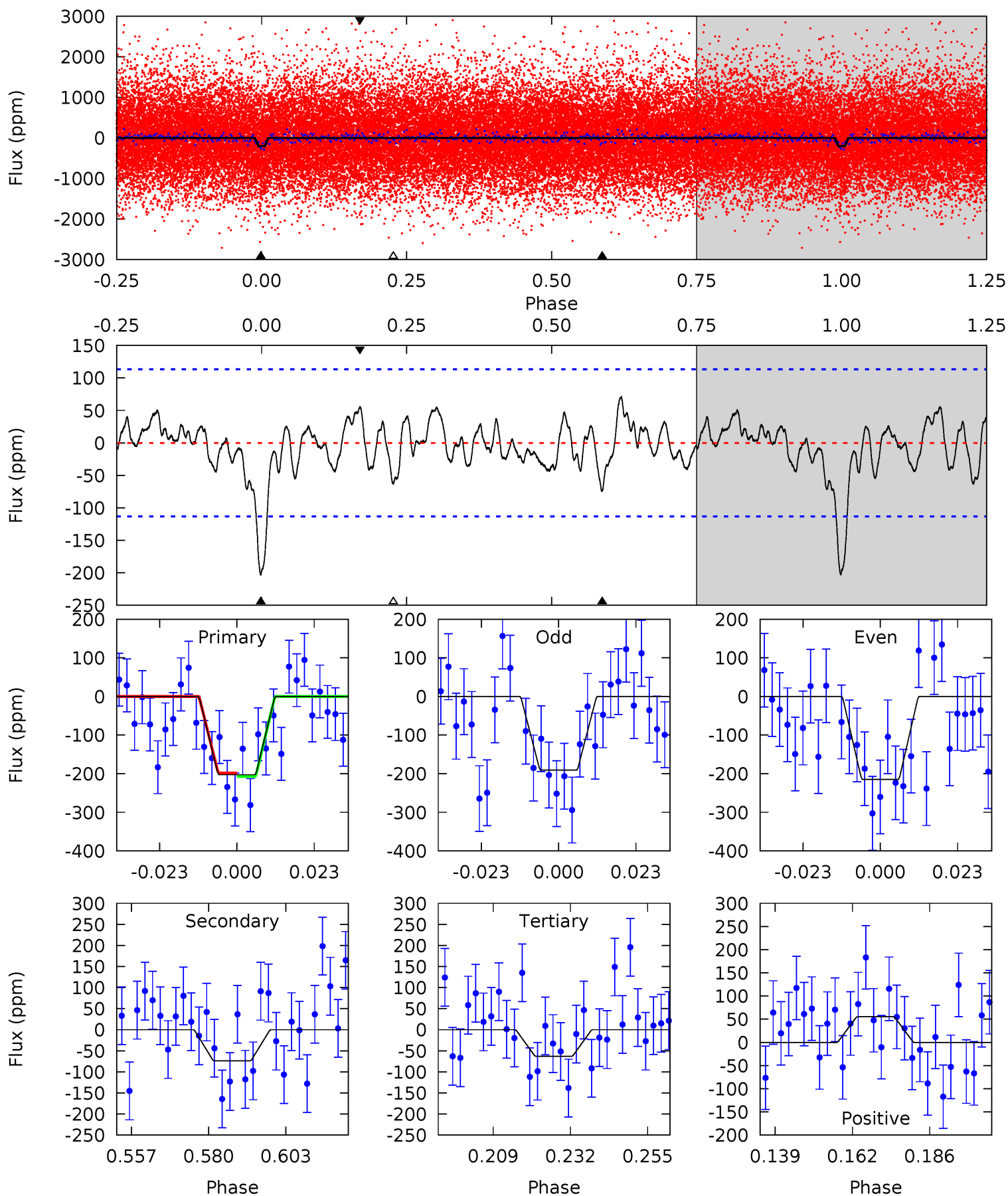
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.17	2.89	2.70	3.03	4.81	2.17	1.07	5.46	5.13	0.19	-0.15	0.77	1.18	0.27	0.99



Alt Model-Shift Uniqueness Test

011601357-01, P = 3.550347 Days, E = 133.756540 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.69	3.18	2.70	2.38	4.86	2.27	1.15	6.00	6.32	0.48	0.80	0.51	1.12	0.26	0.19



Stellar Parameters For KIC 011601357

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5497^{+182}_{-199}	$4.581^{+0.036}_{-0.135}$	$-0.140^{+0.300}_{-0.300}$	$0.800^{+0.164}_{-0.070}$	$0.896^{+0.083}_{-0.111}$	$2.467^{+0.471}_{-1.011}$
	+3%/-4%	+1%/-3%	+214%/-214%	+20%/-9%	+9%/-12%	+19%/-41%
Source	KIC0	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 011601357-01 / KOI 7459.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-59 ± 20	$1.73^{+1.41}_{-1.08}$	1472^{+66}_{-63}	3764^{+1890}_{-685}	19^{+128}_{-14}
Alt.	-74 ± 23	$1.77^{+1.33}_{-1.17}$	1475^{+81}_{-63}	3938^{+2268}_{-722}	24^{+182}_{-17}

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

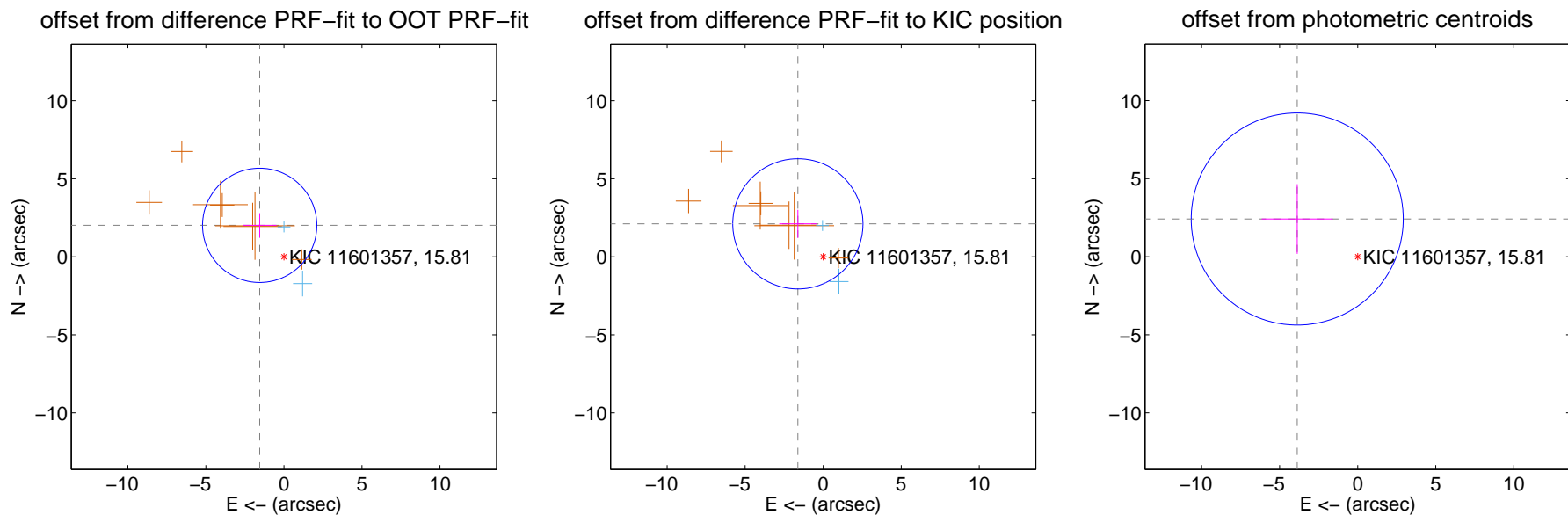
DV Centroid Data

Supplemental centroid analysis for 011601357-01. Kepler magnitude: 15.81. Transit SNR 7.17

There are 2 quarters with good PRF difference image offsets

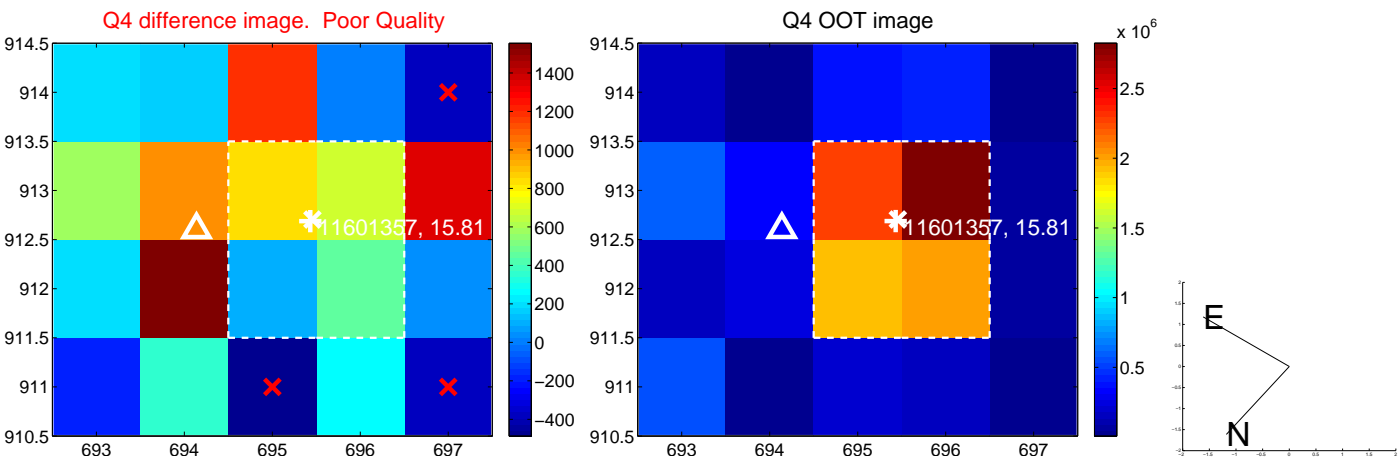
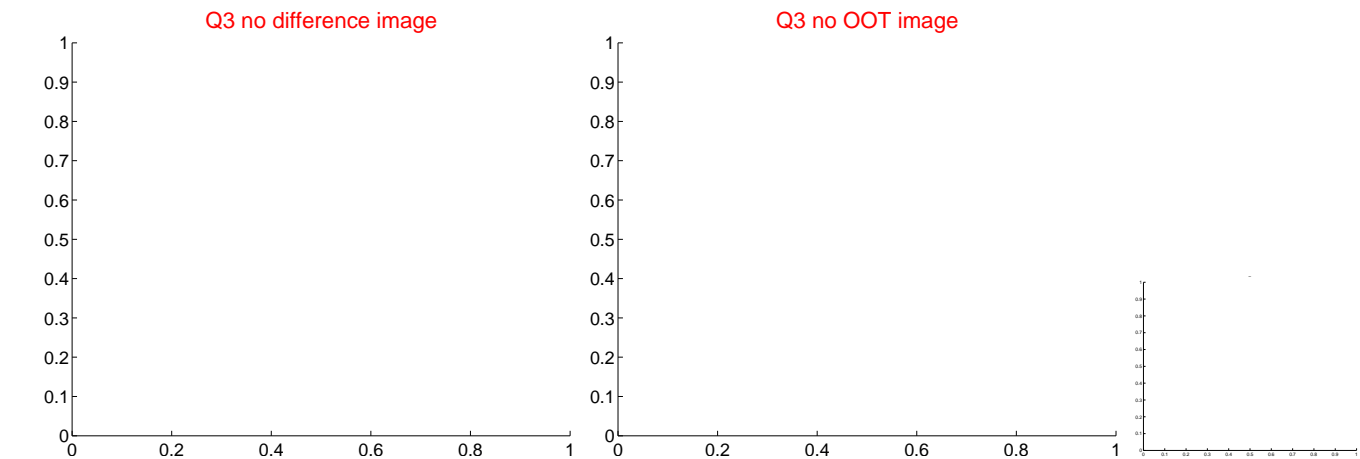
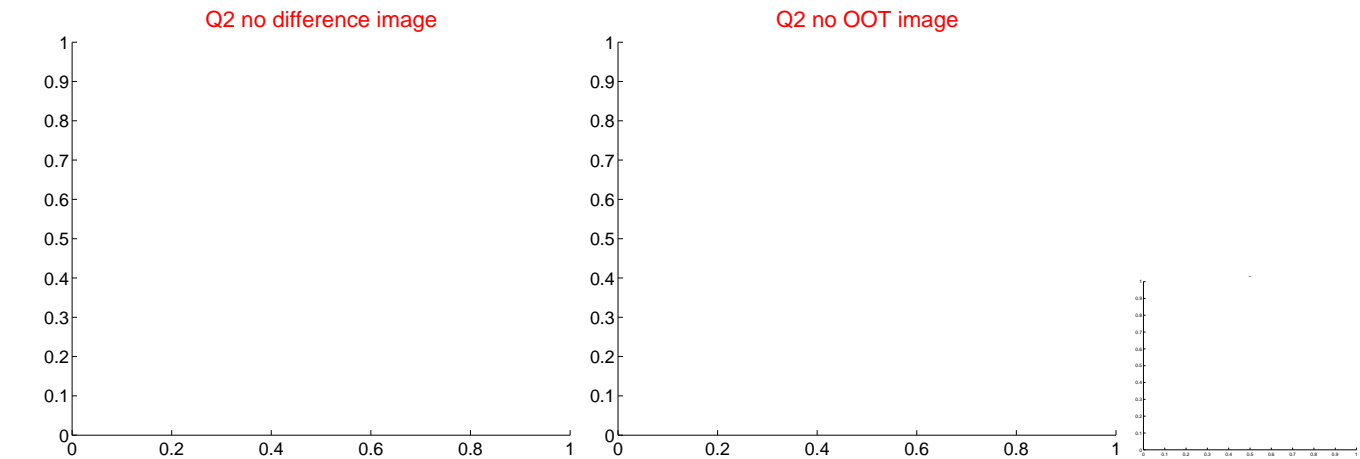
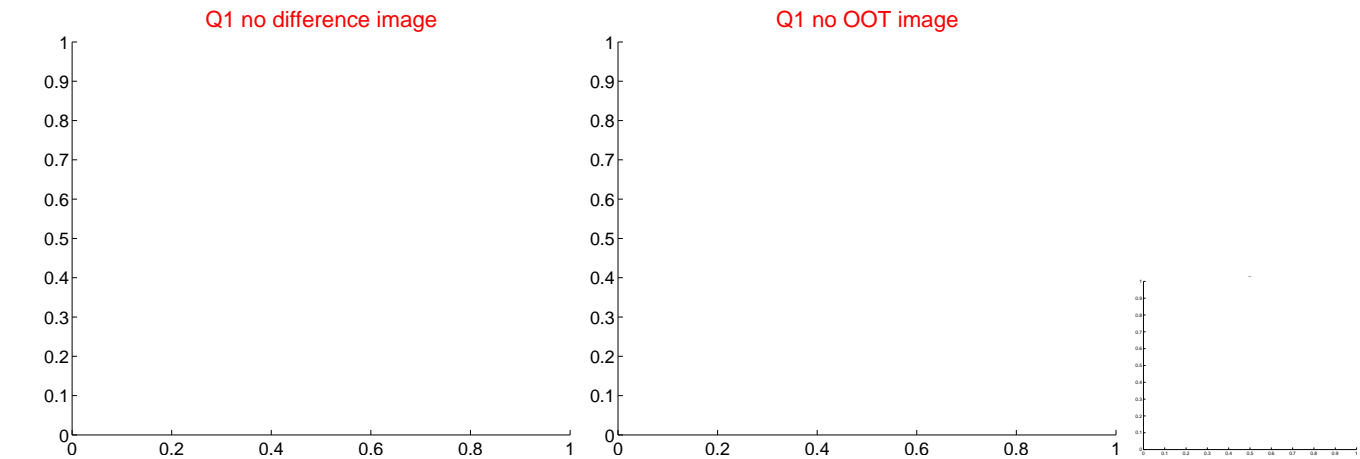
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.542 ± 1.220	2.08	1.553 ± 1.074	2.013 ± 0.783
PRF-fit source offset from KIC position	2.662 ± 1.391	1.91	1.623 ± 1.191	2.110 ± 0.898
photometric centroid source offset	4.56 ± 2.26	2.02	3.87 ± 2.28	2.42 ± 2.23

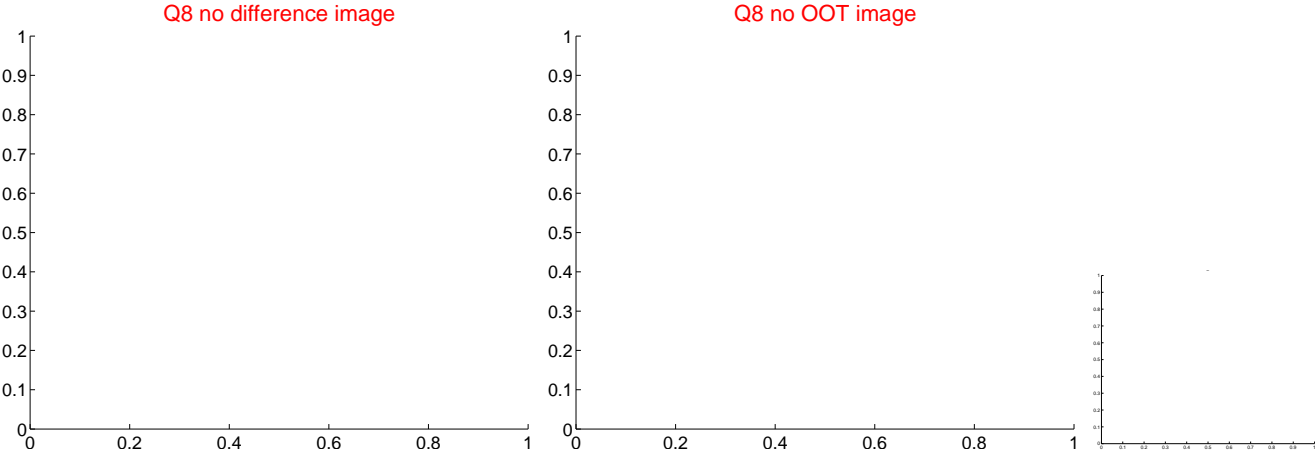
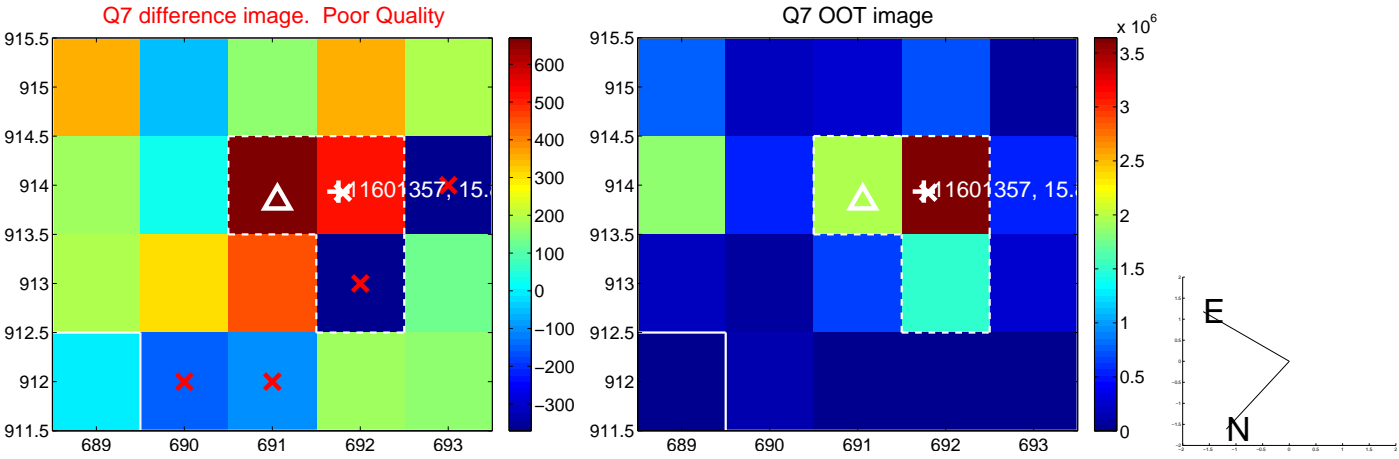
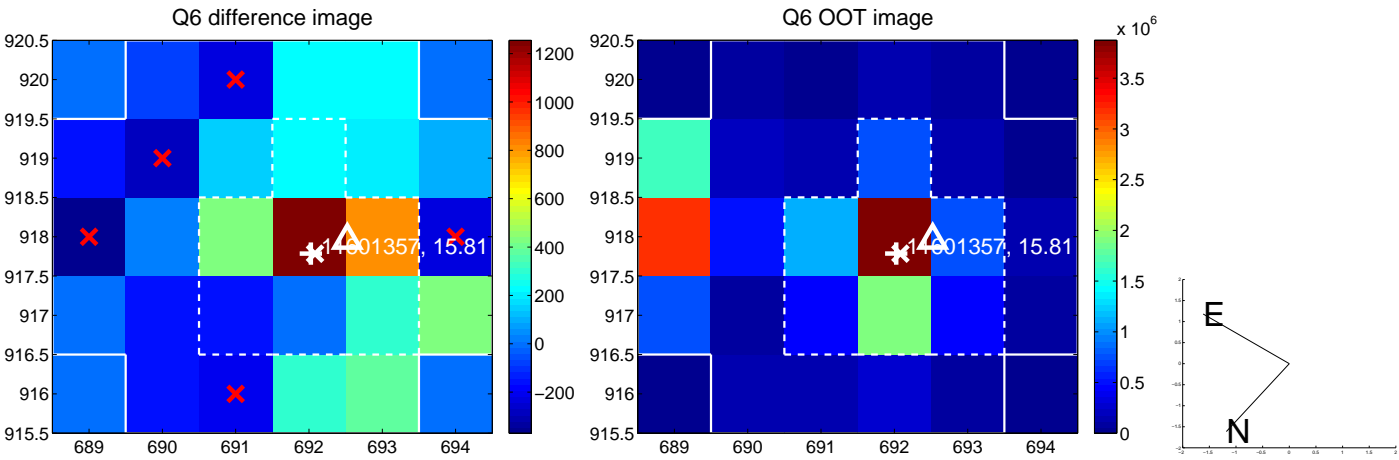
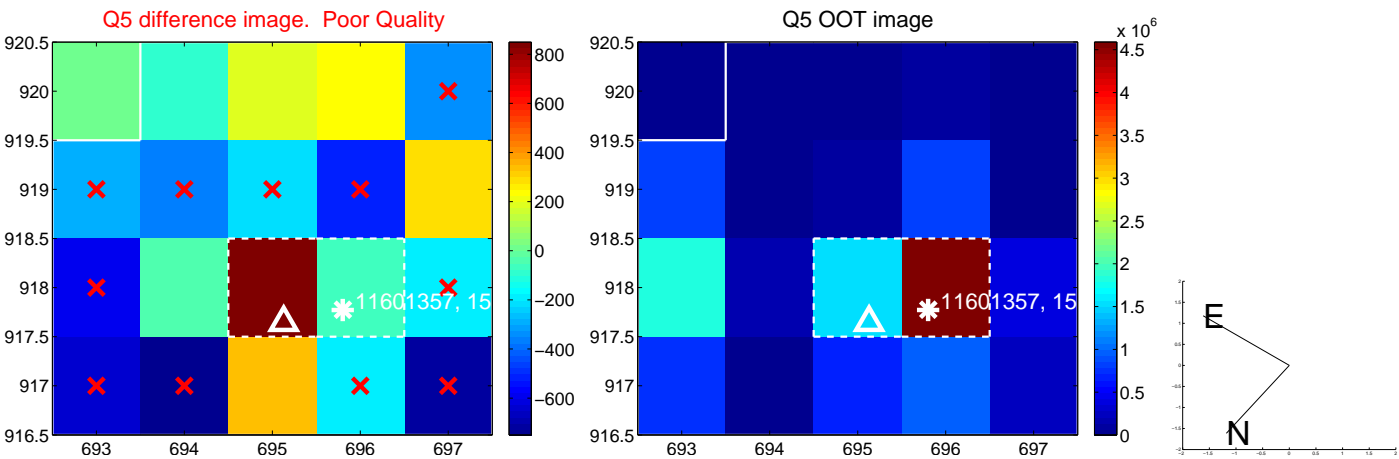


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

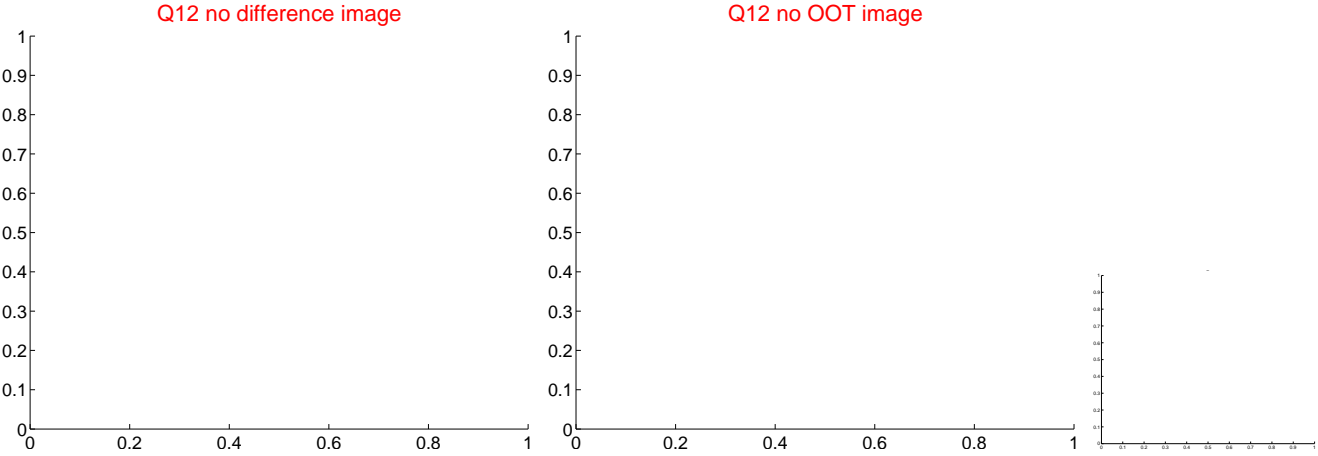
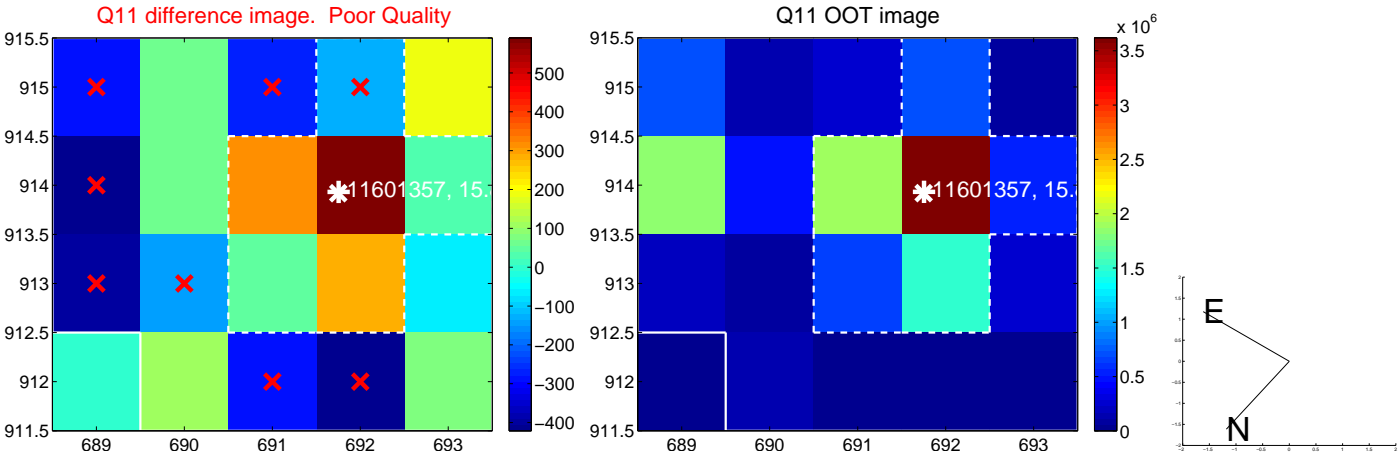
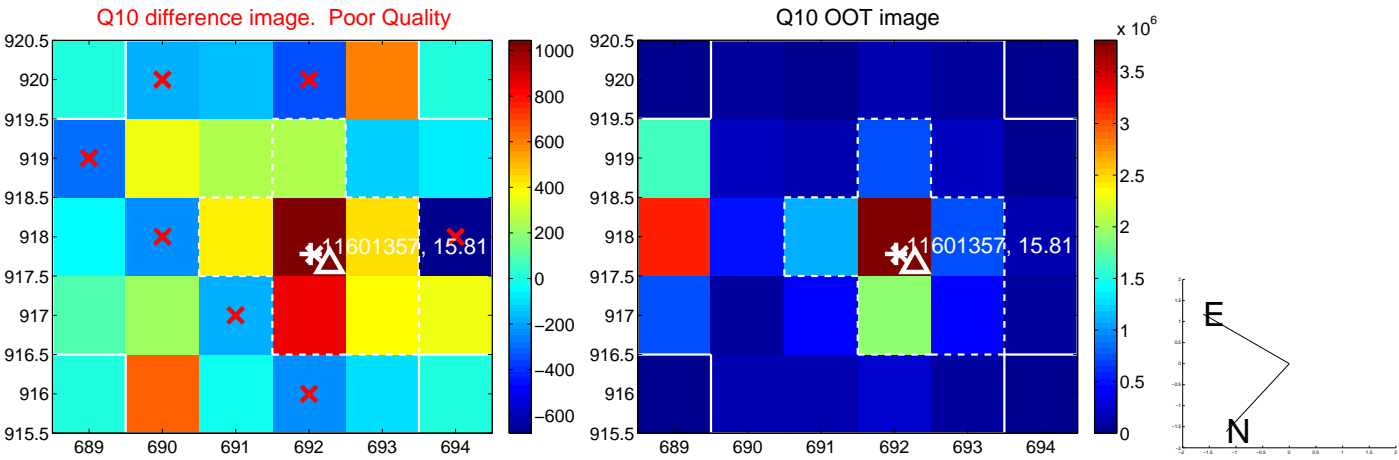
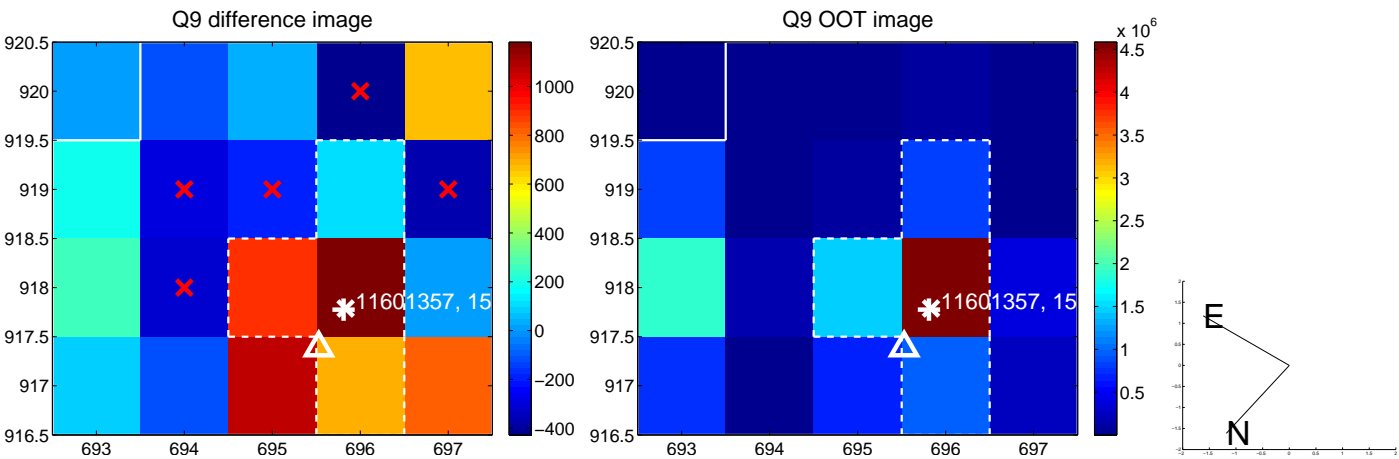
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



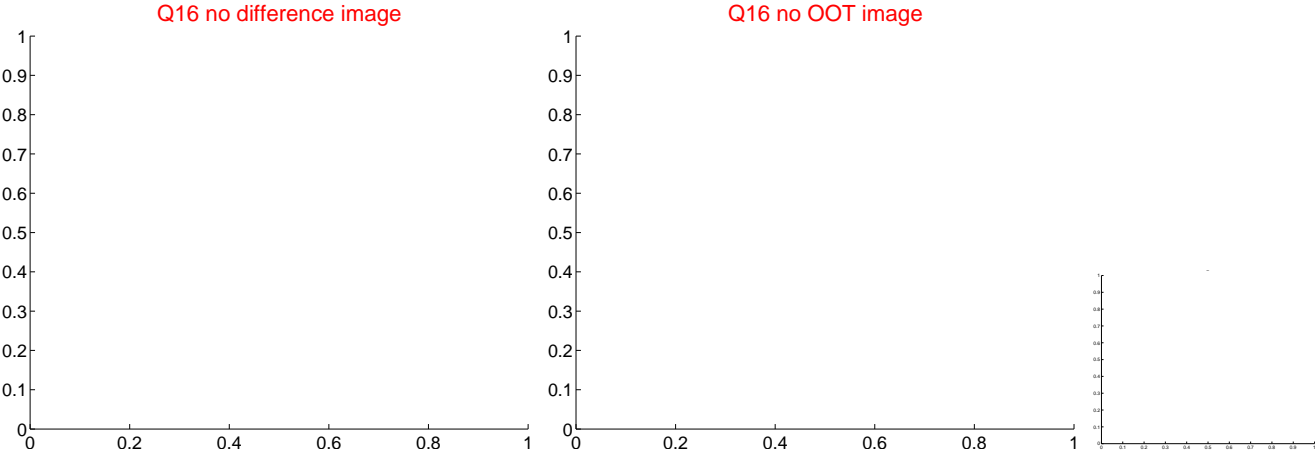
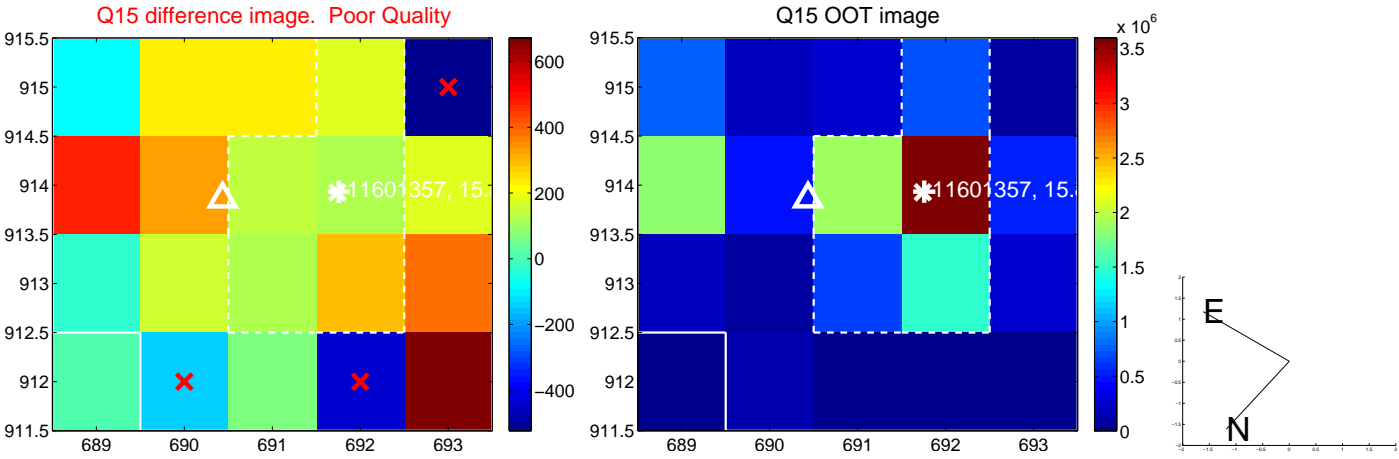
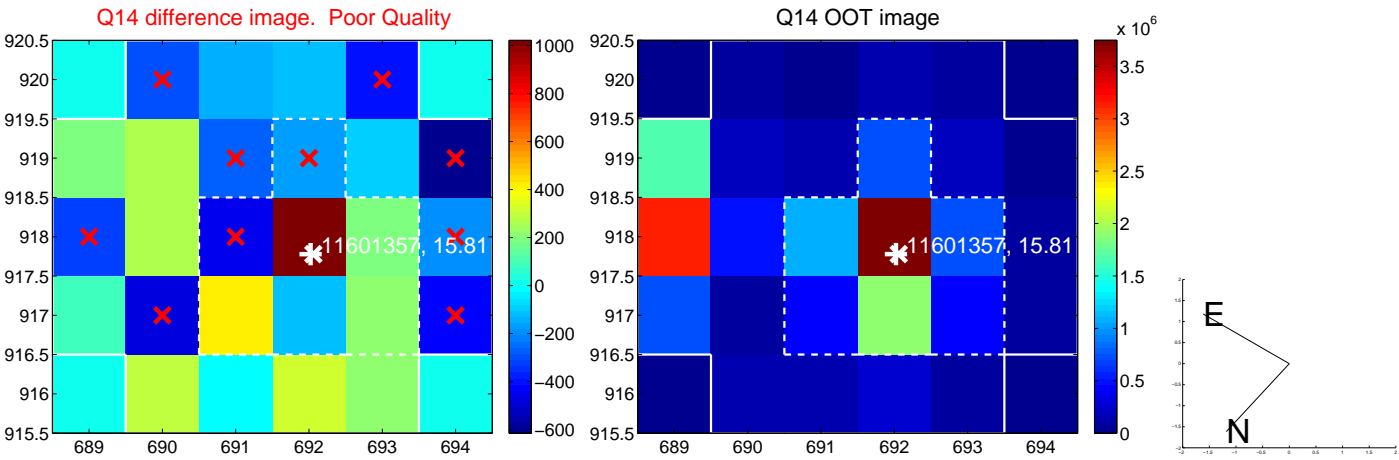
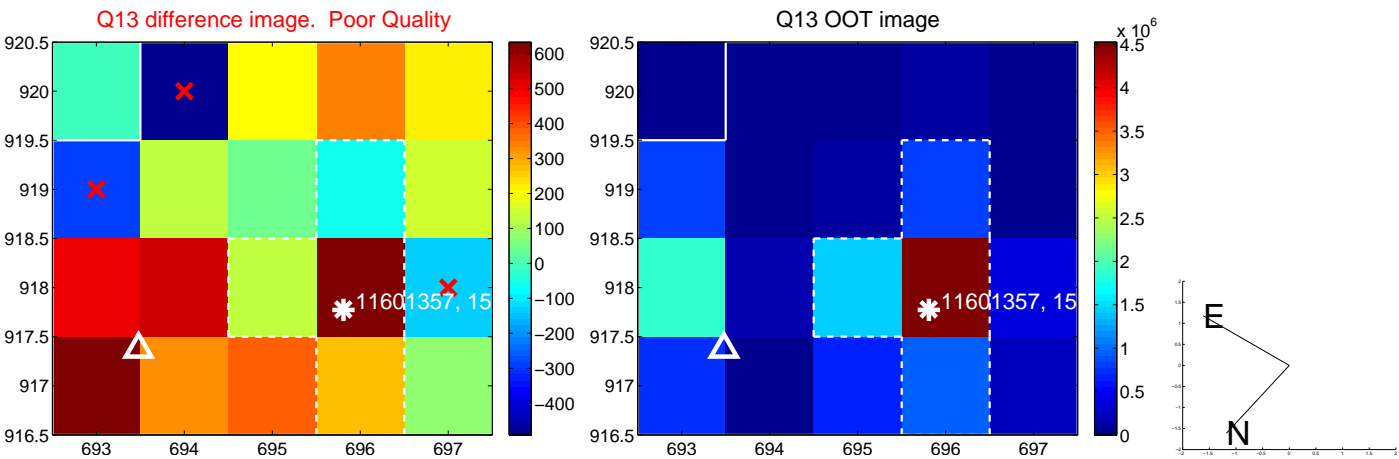
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



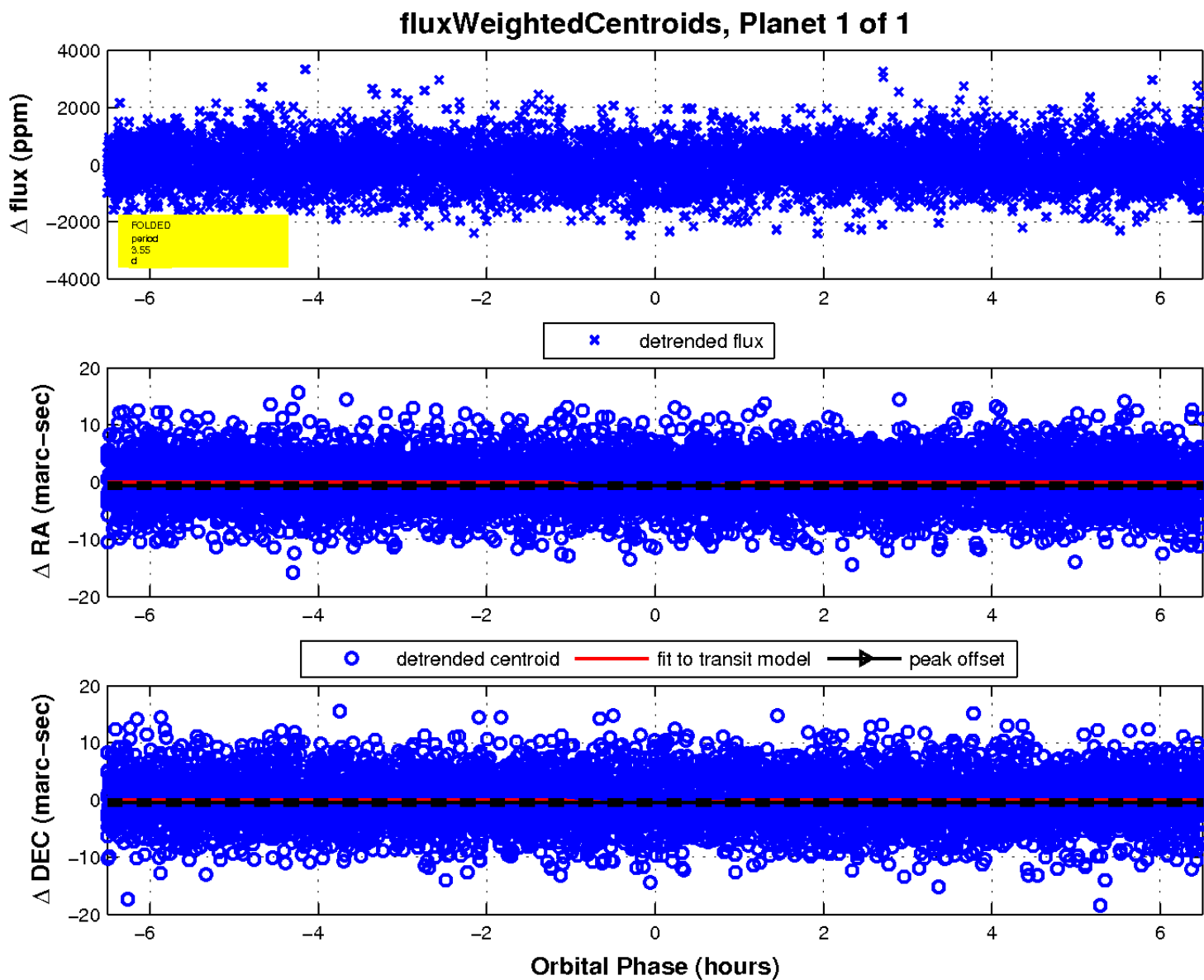
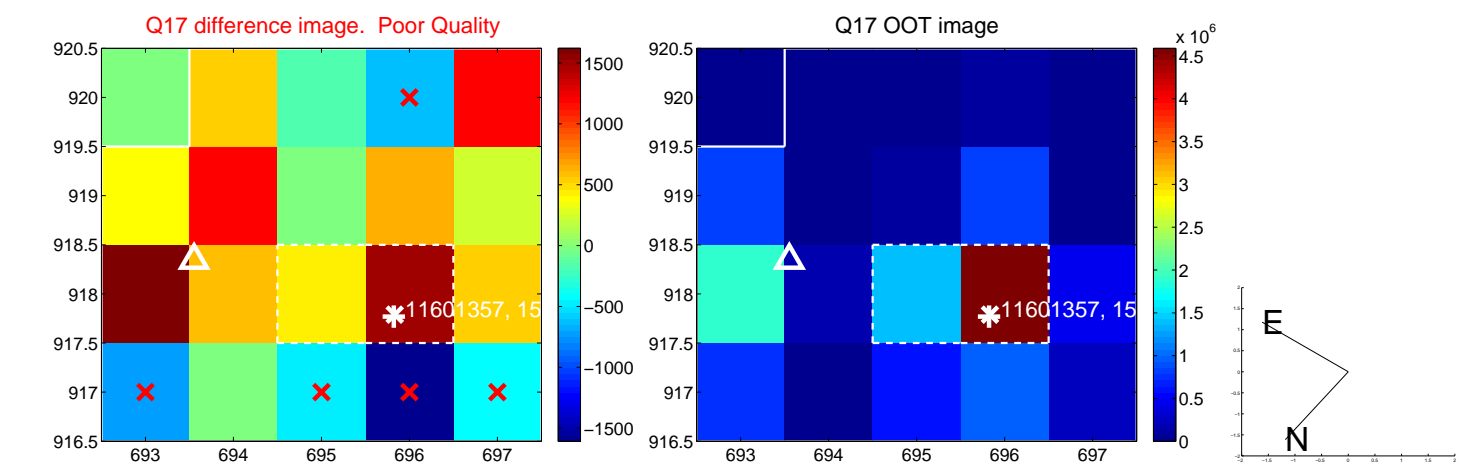
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

