

KIC 011753698

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})
011753698-02	OBS	No	435.272310	153.908061	327.3	13.789	7.4	7.5	0.91	6119	1.79	0.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011753698-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

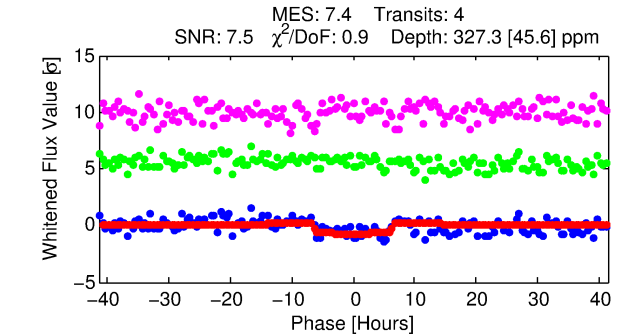
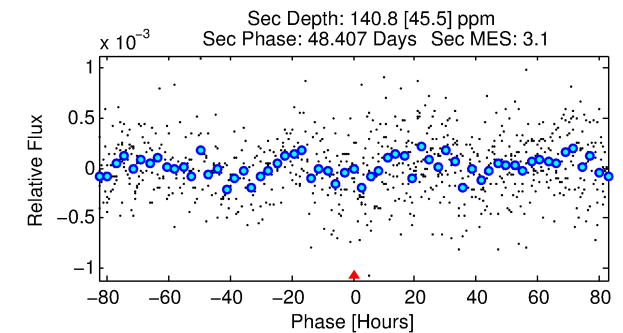
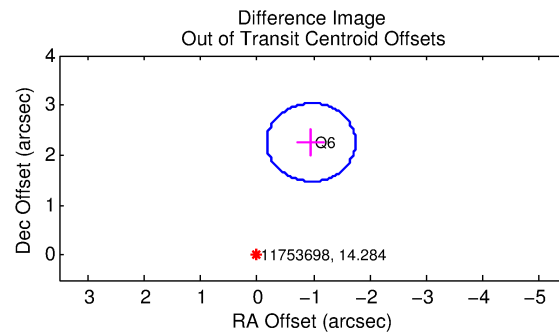
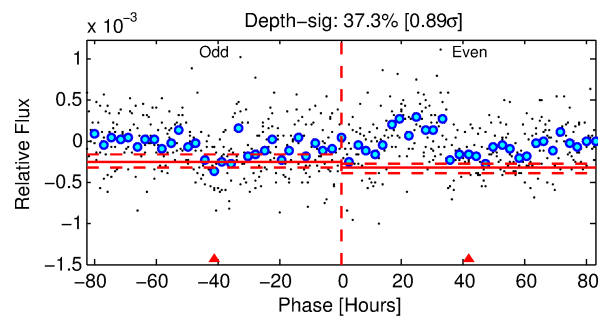
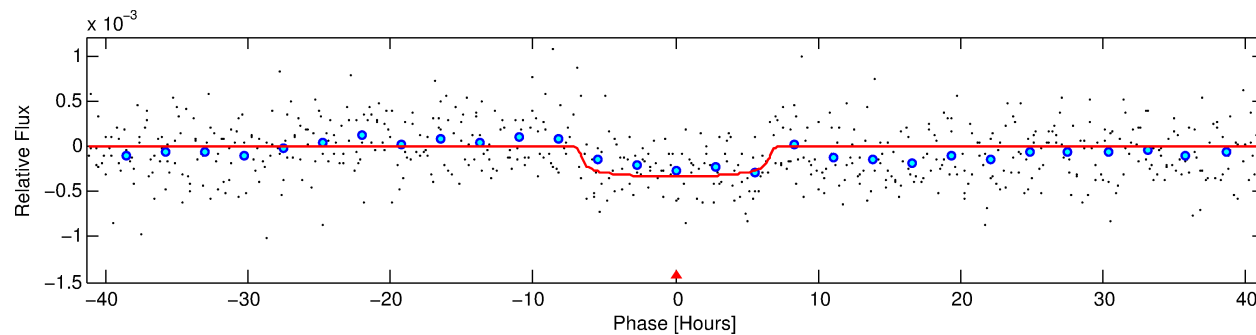
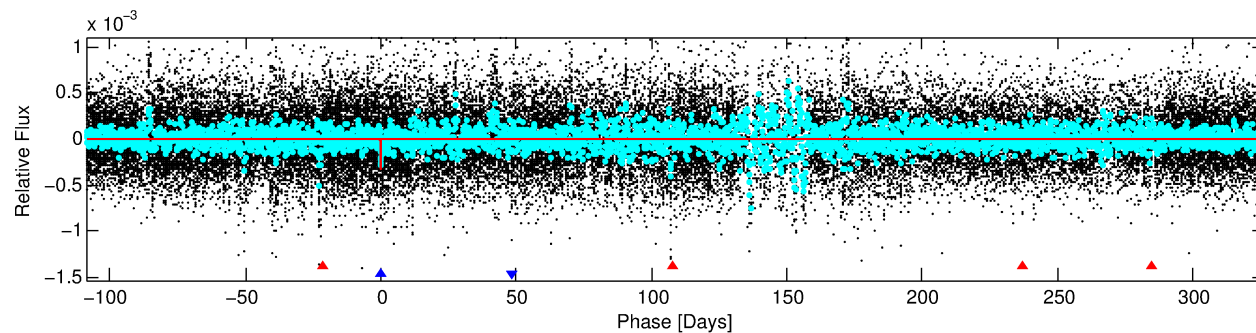
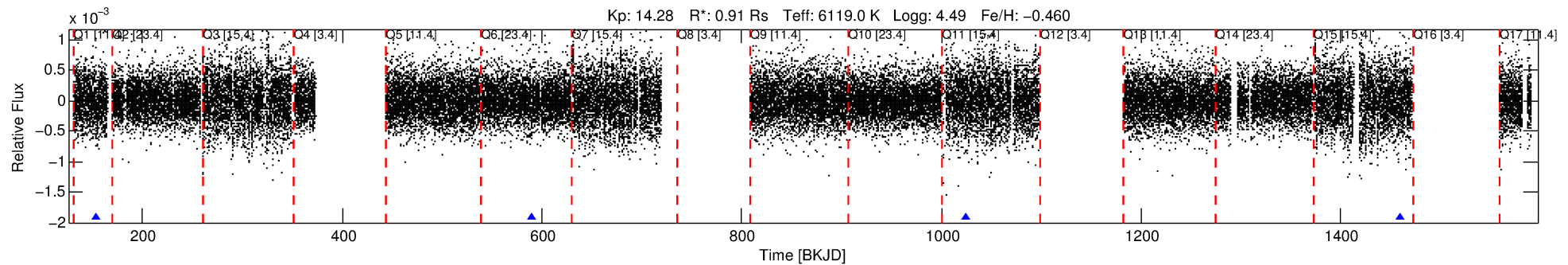
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011753698-02

No Significant Match Found

DV One-Page Summary

KIC: 11753698 Candidate: 2 of 2 Period: 435.272 d



DV Fit Results:

Period = 435.27231 [0.01078] d
Epoch = 153.9081 [0.0202] BKJD
Rp/R* = 0.0181 [0.0053]
a/R* = 160.26 [237.24]
b = 0.77 [0.78]
Seff = 0.86 [0.32]
Teq = 245 [23] K
Rp = 1.80 [0.73] Re
a = 1.0988 [0.2615] AU
Ag = 29010.80 [21984.10] [1.32 σ]
Teffp = 4952 [844] K [5.57 σ]

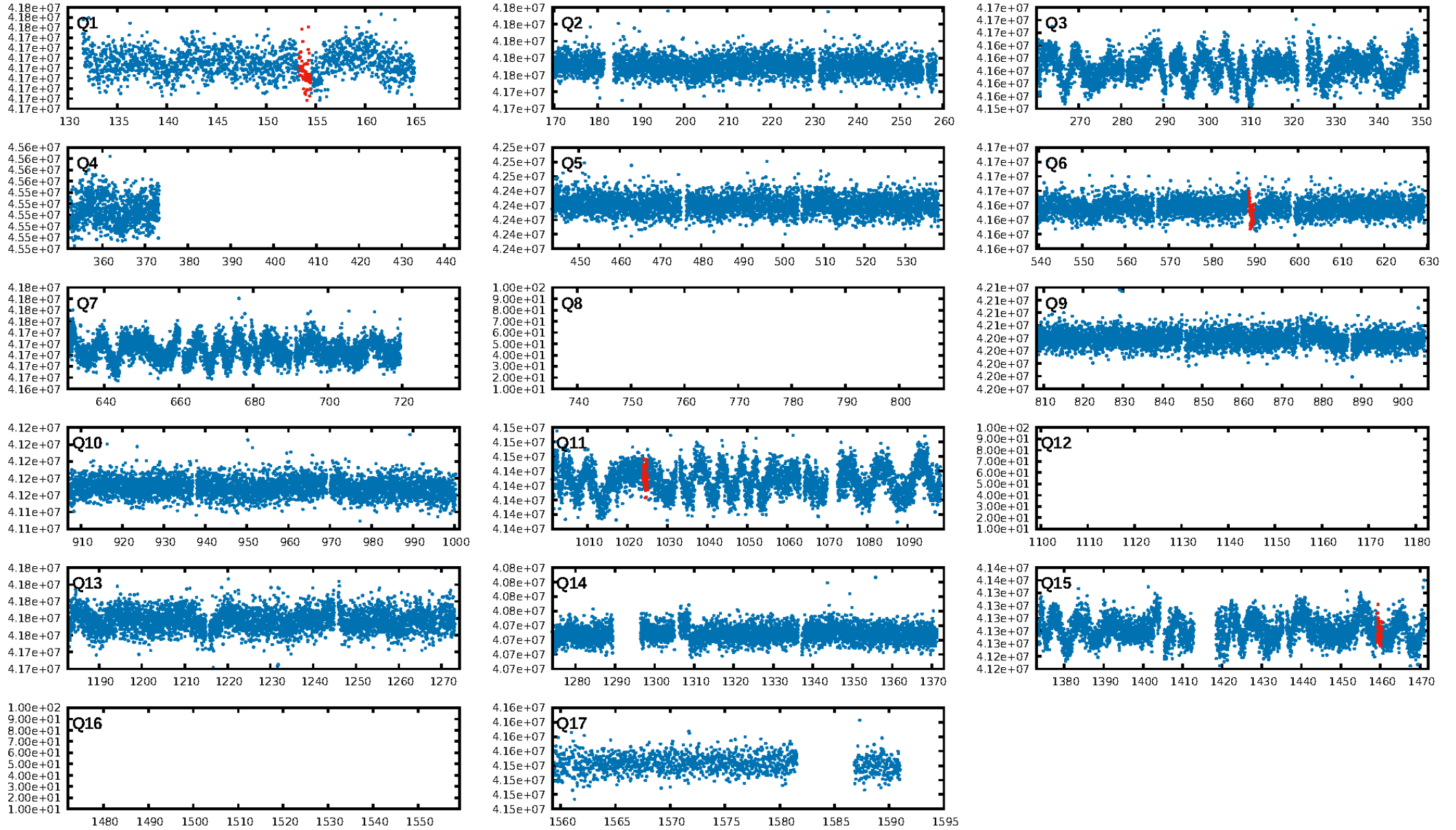
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [131.88 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 88.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.05e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.115
Centroid-sig: 3.2%
Centroid-so: 2.902 arcsec [1.60 σ]
OotOffset-rm: 2.451 arcsec [9.38 σ]
KicOffset-rm: 2.439 arcsec [9.29 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [4/4]

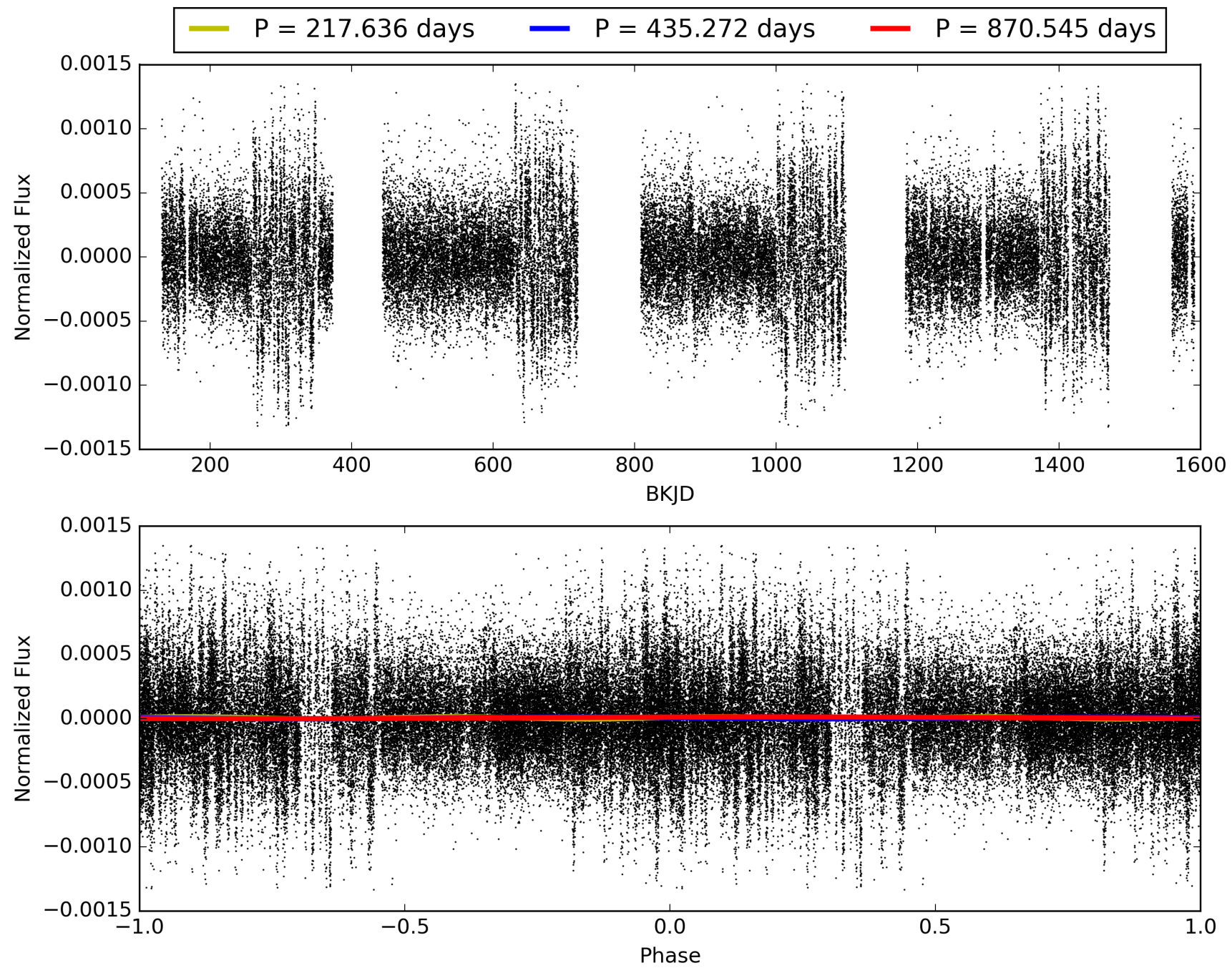
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:06:46 Z

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

TCE 011753698-02, PDC Light Curves

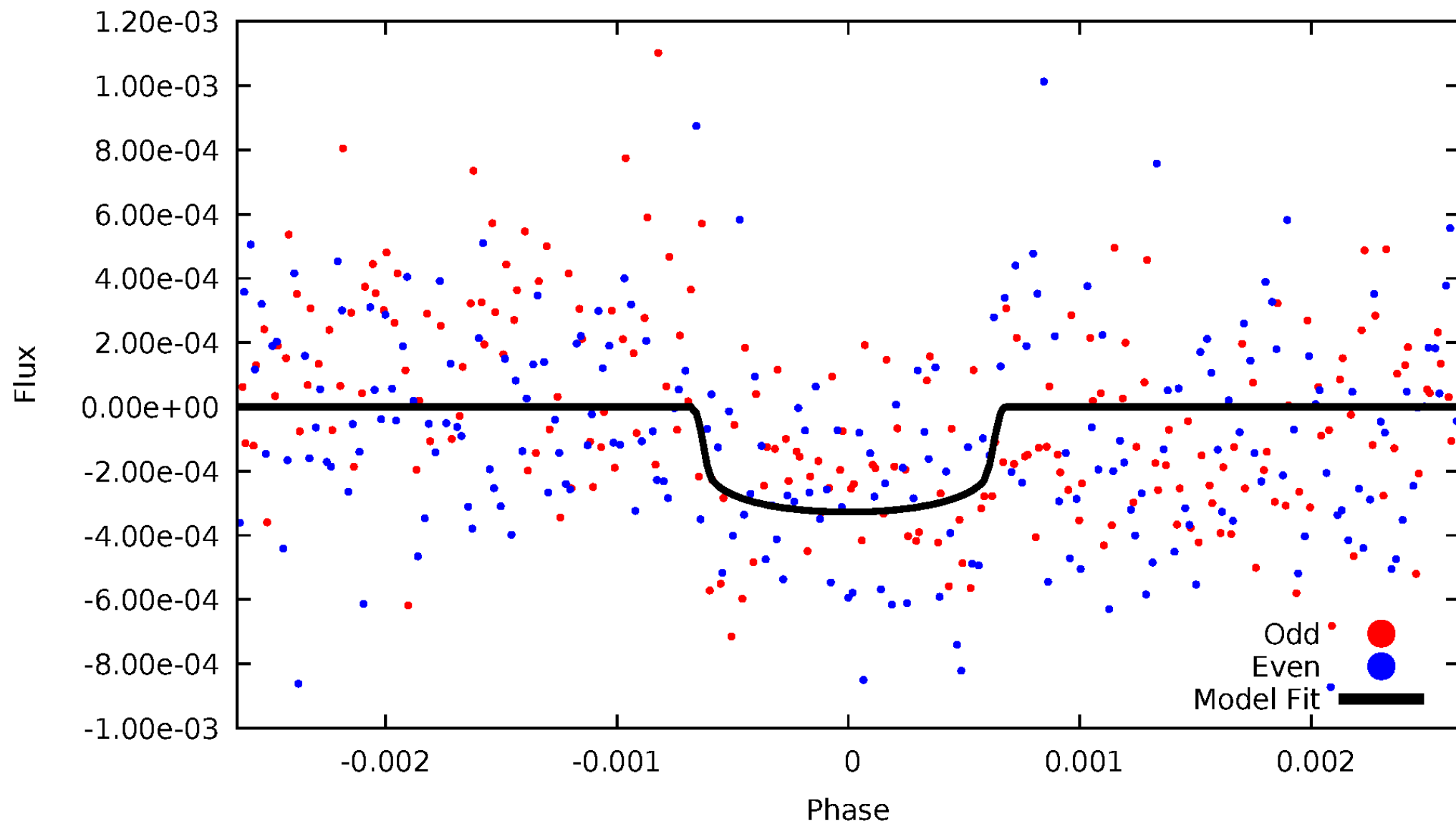


TCE 011753698-02



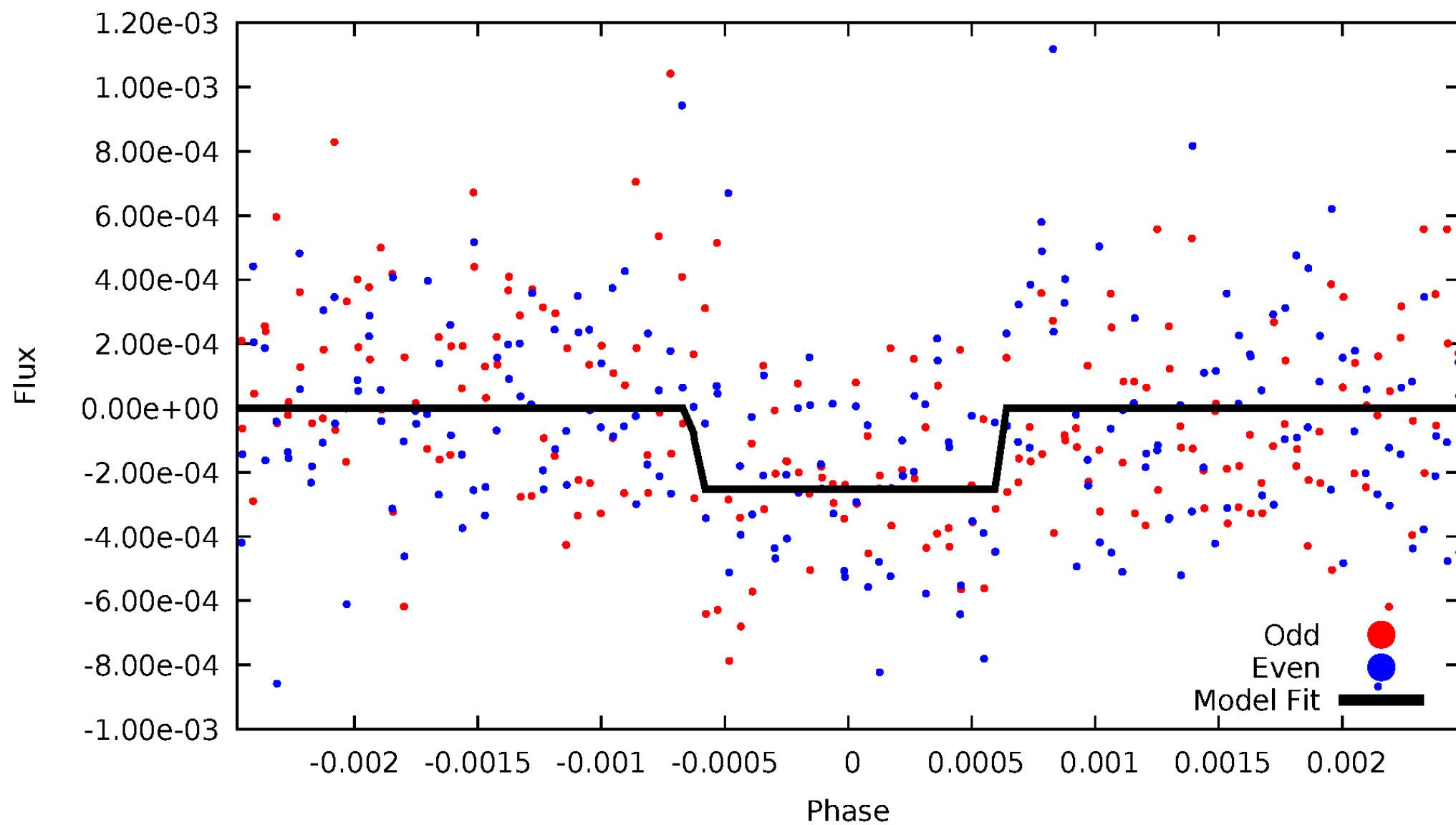
DV Odd/Even

TCE 011753698-02



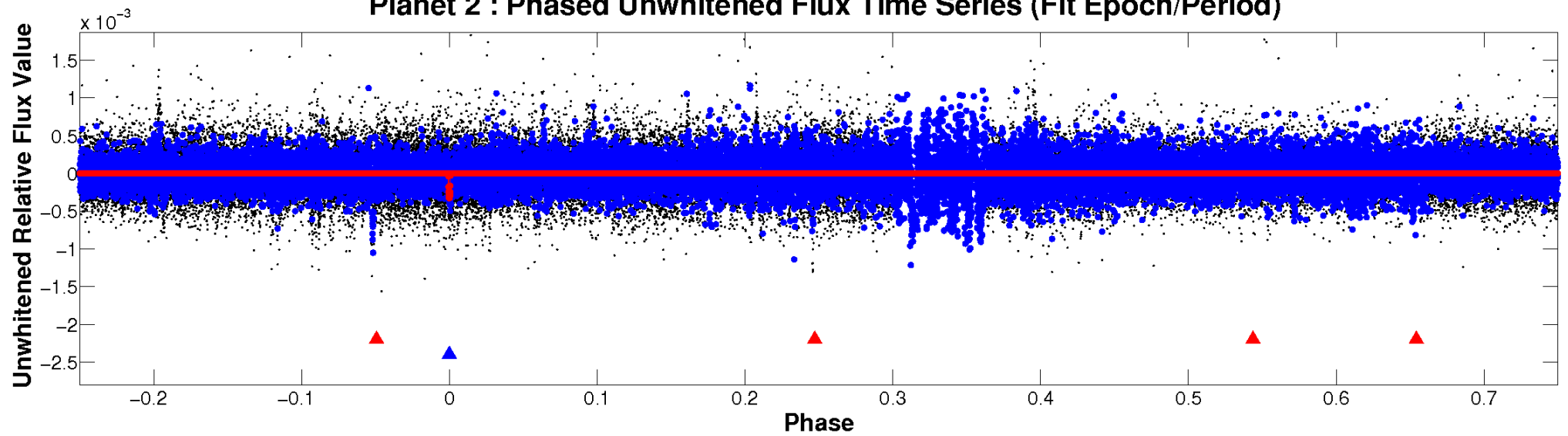
ALT Odd/Even

TCE 011753698-02

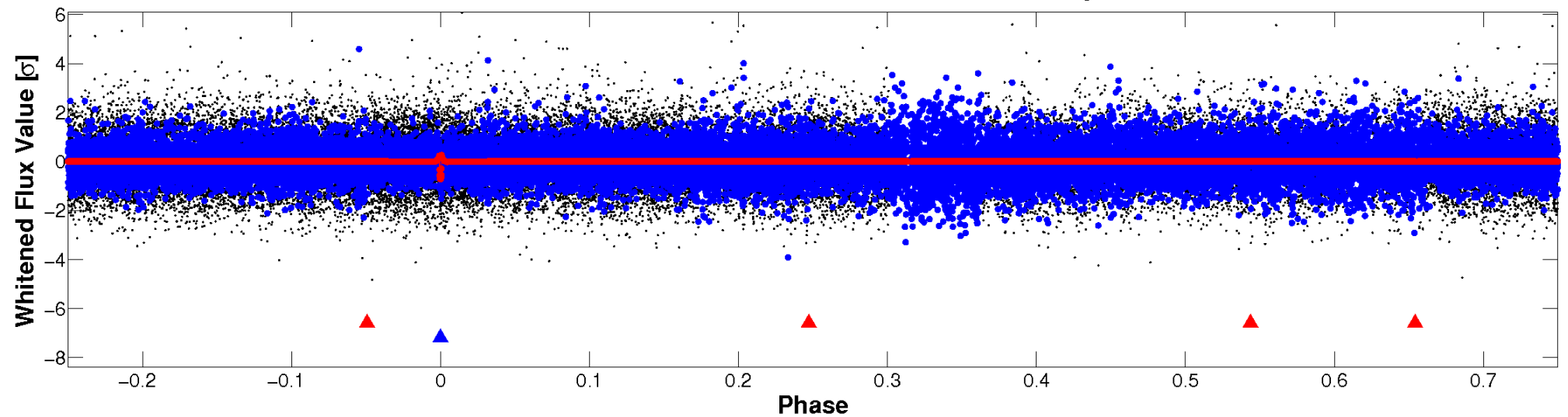


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

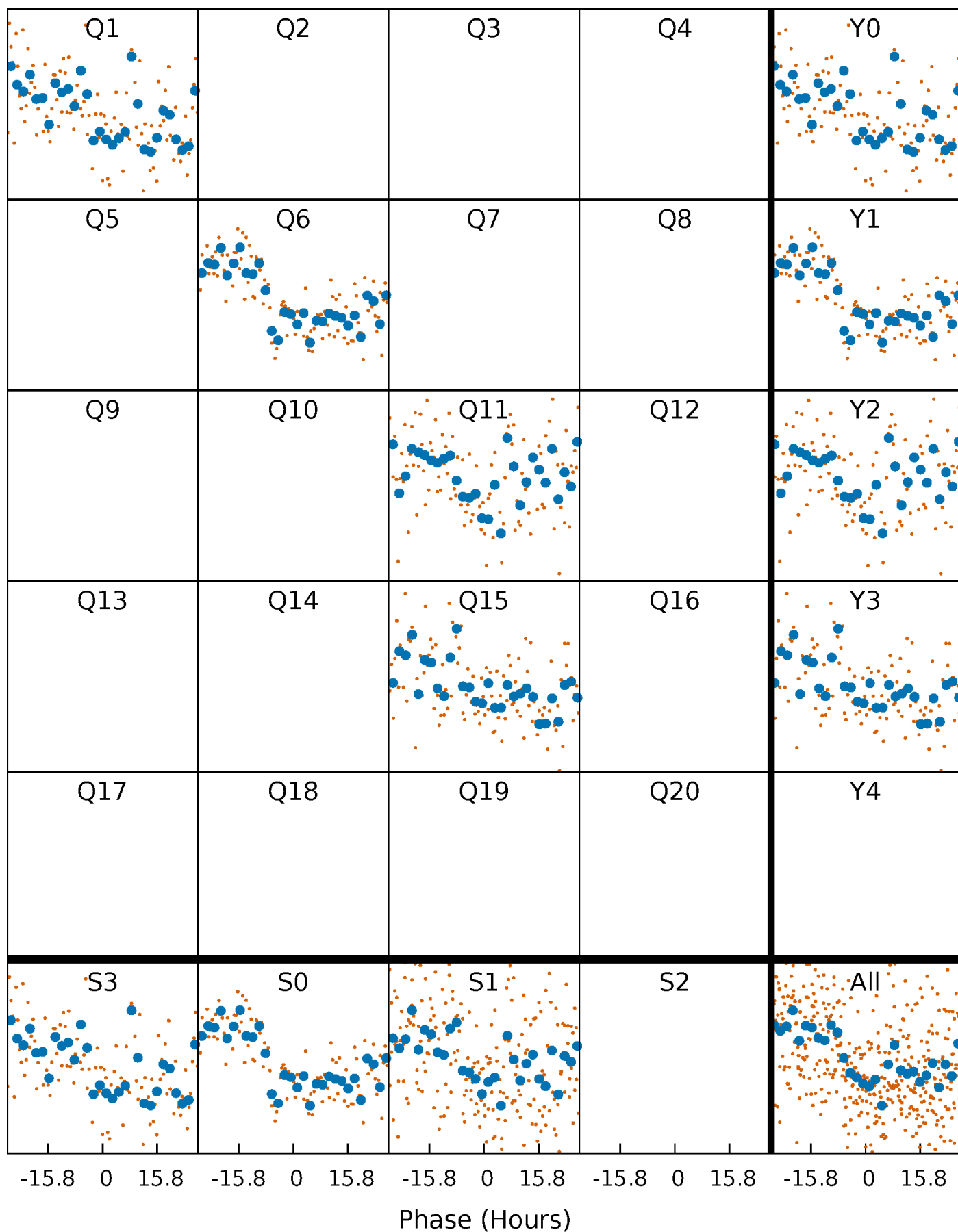


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



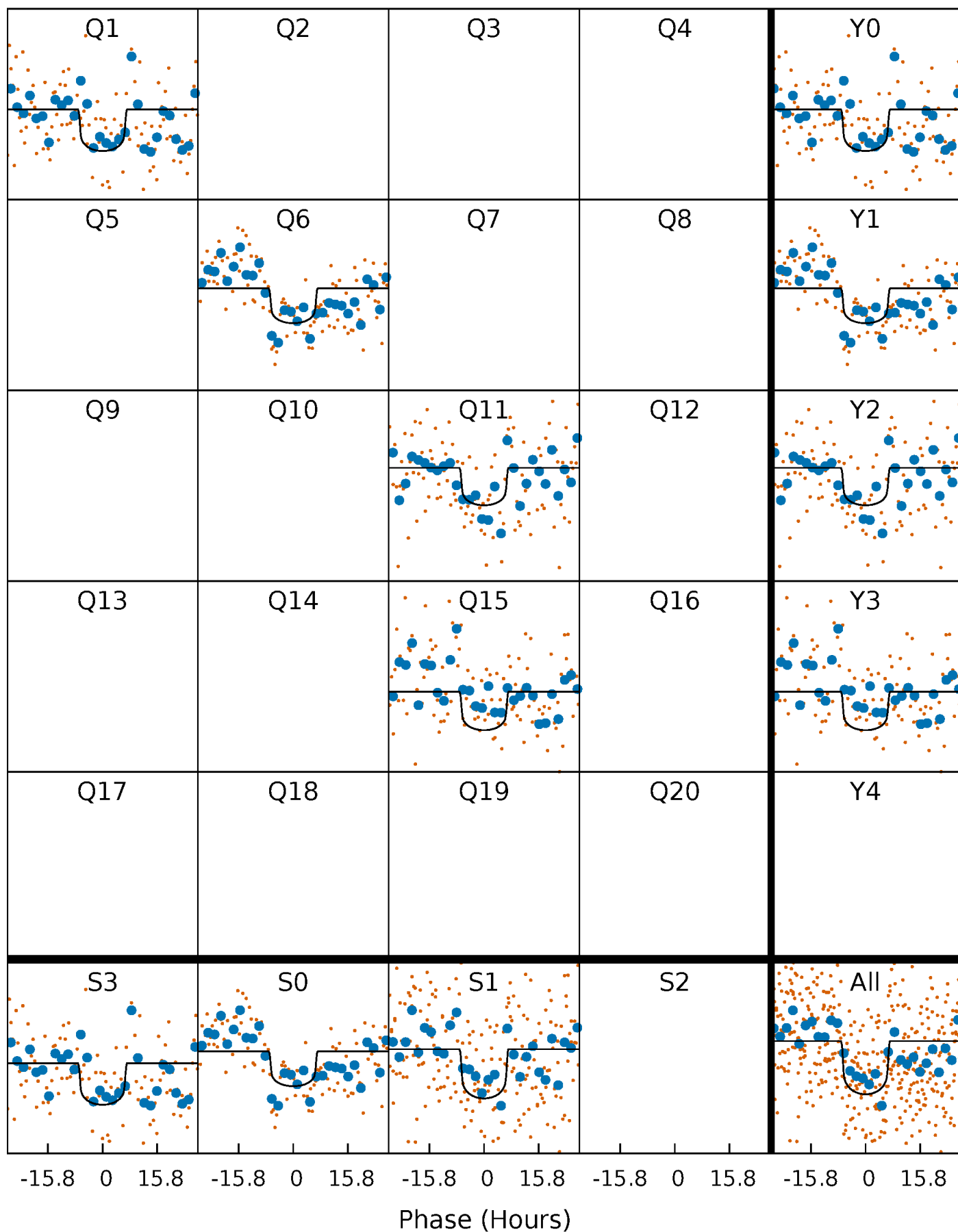
PDC Quarter-Phased Transit Curves

TCE 011753698-02 $P=435.272310$ Days $T_0=153.908061$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011753698-02 $P=435.272310$ Days $T_0=153.908061$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

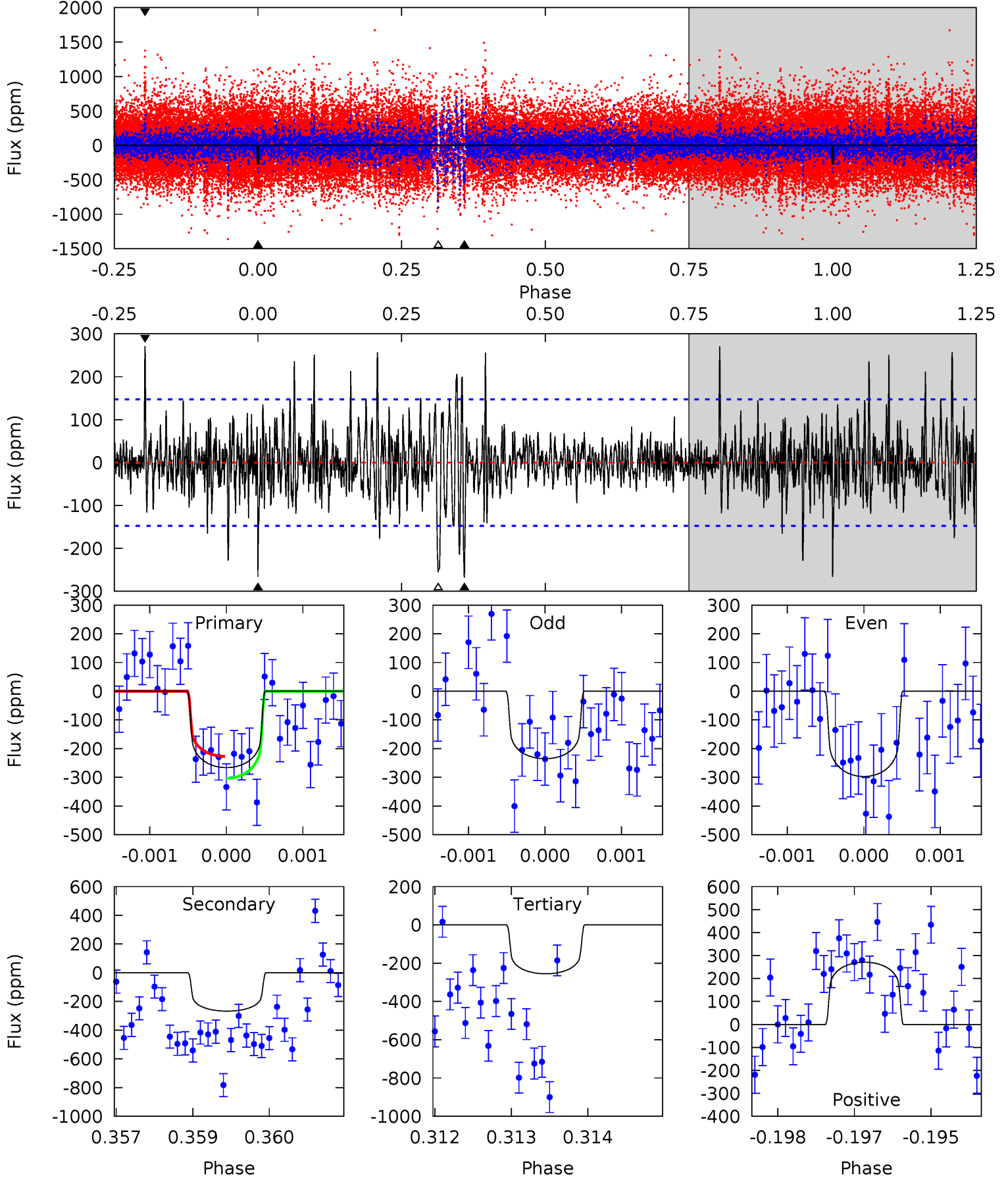
TCE 011753698-02 P=435.255262 Days $T_0=153.915339$ (BKJD)



DV Model-Shift Uniqueness Test

011753698-02, $P = 435.272310$ Days, $E = 153.908061$ Days

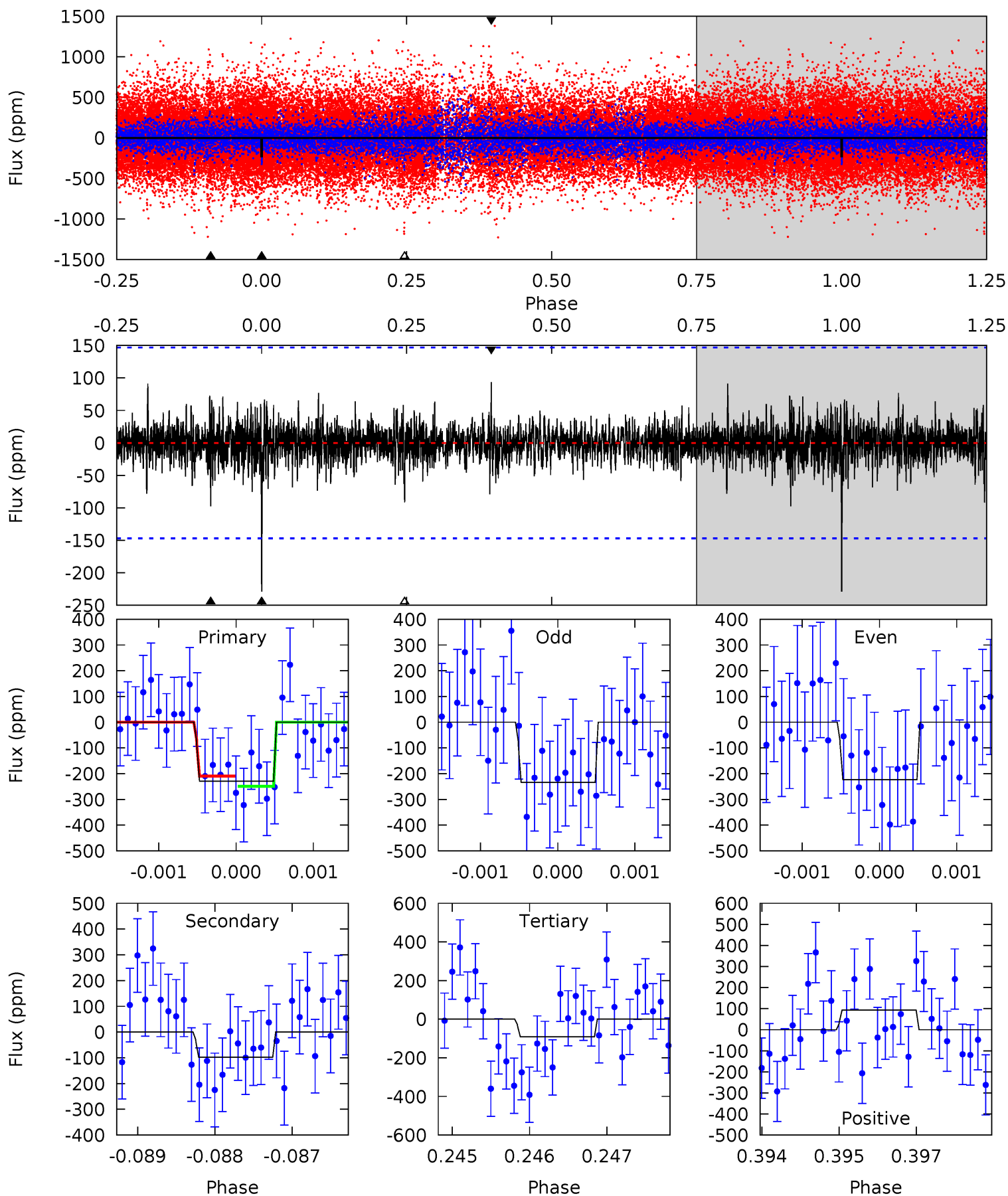
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.75	9.80	9.35	9.92	5.40	3.21	1.93	0.40	-0.17	0.45	-0.12	1.14	0.91	0.50	1.39



Alt Model-Shift Uniqueness Test

011753698-02, P = 435.255262 Days, E = 153.915339 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.44	3.59	3.37	3.44	5.42	3.23	0.74	5.06	5.00	0.22	0.15	0.20	1.02	0.29	0.73



Stellar Parameters For KIC 011753698

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6119^{+165}_{-184}	$4.492^{+0.065}_{-0.195}$	$-0.460^{+0.300}_{-0.300}$	$0.908^{+0.252}_{-0.108}$	$0.932^{+0.105}_{-0.105}$	$1.755^{+0.490}_{-0.924}$
	+3%/-3%	+1%/-4%	+65%/-65%	+28%/-12%	+11%/-11%	+28%/-53%
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 011753698-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-268 ± 27	$1.88^{+0.60}_{-0.58}$	348^{+24}_{-17}	5807^{+1093}_{-674}	49837^{+52619}_{-21163}
Alt.	-97 ± 27	$1.60^{+0.59}_{-0.49}$	349^{+25}_{-17}	4961^{+958}_{-659}	24216^{+30115}_{-12366}

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

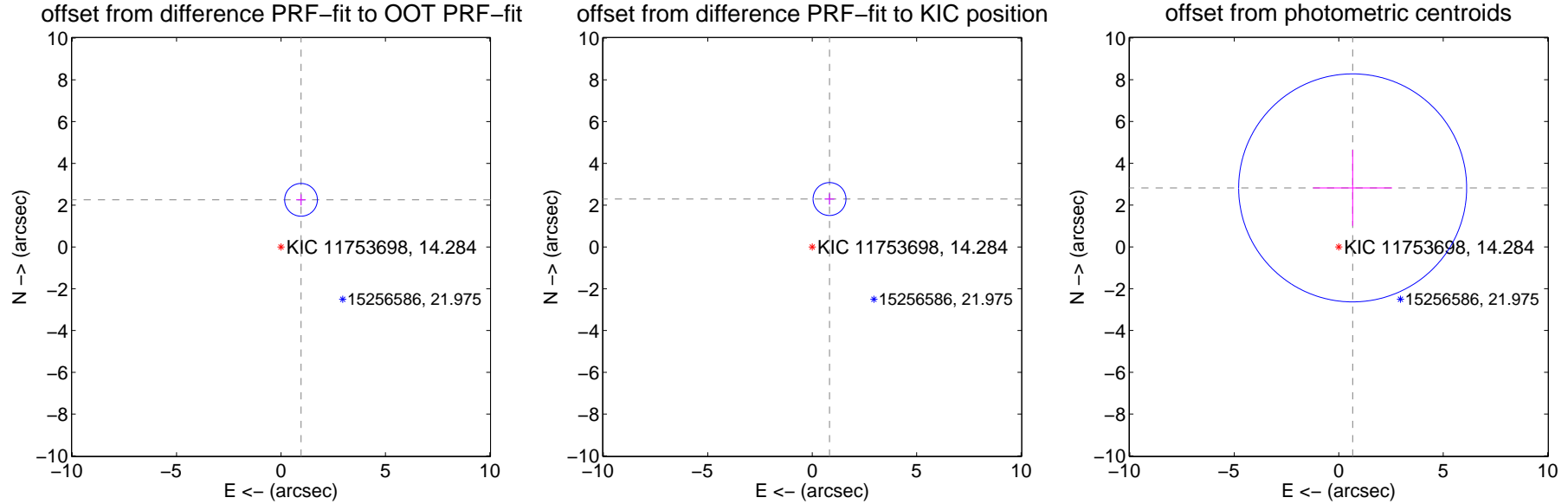
DV Centroid Data

Supplemental centroid analysis for 011753698-02. Kepler magnitude: 14.28. Transit SNR 7.49

There are 1 quarters with good PRF difference image offsets

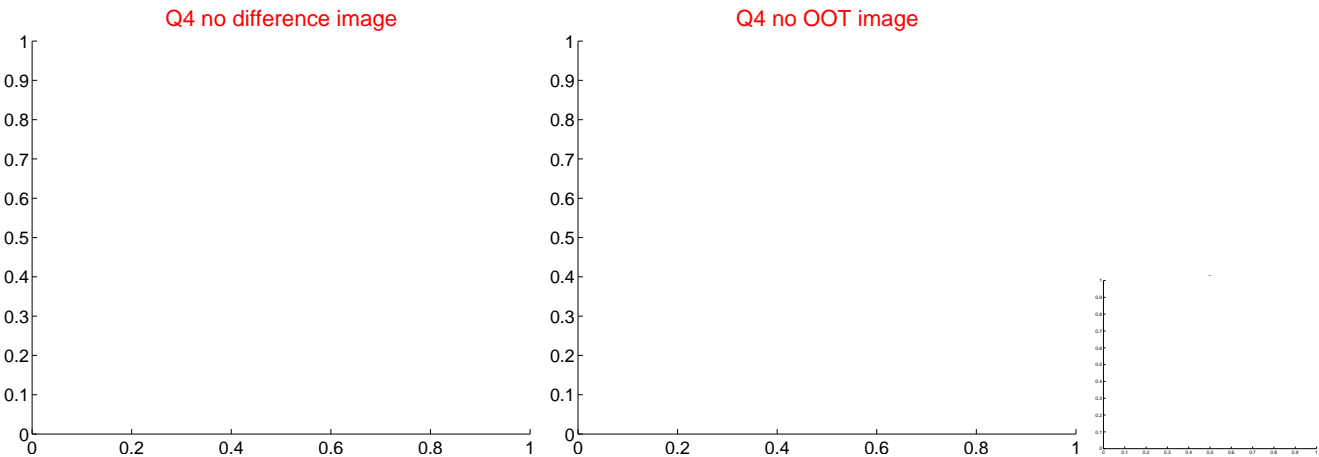
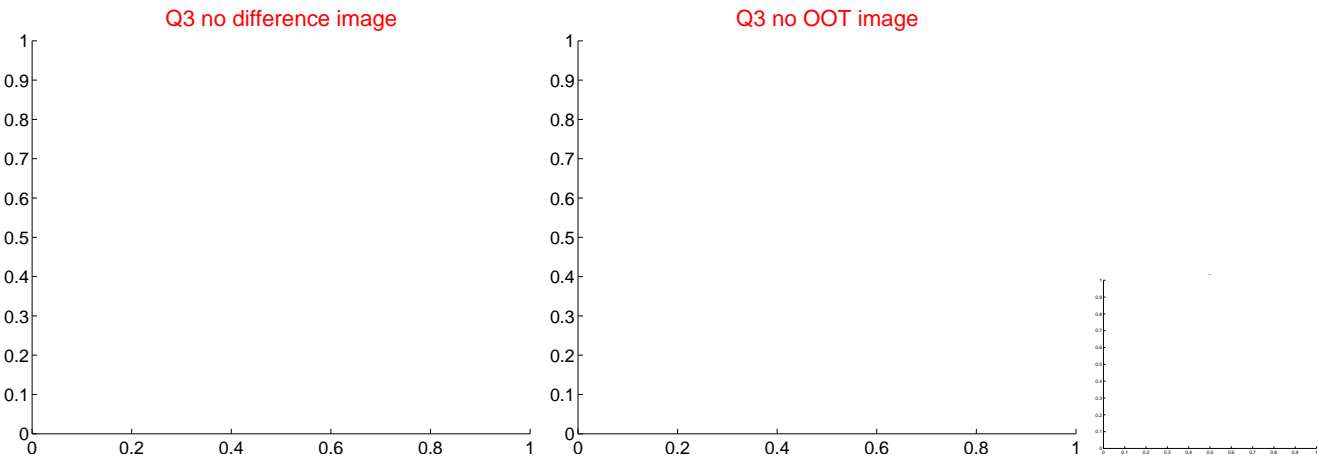
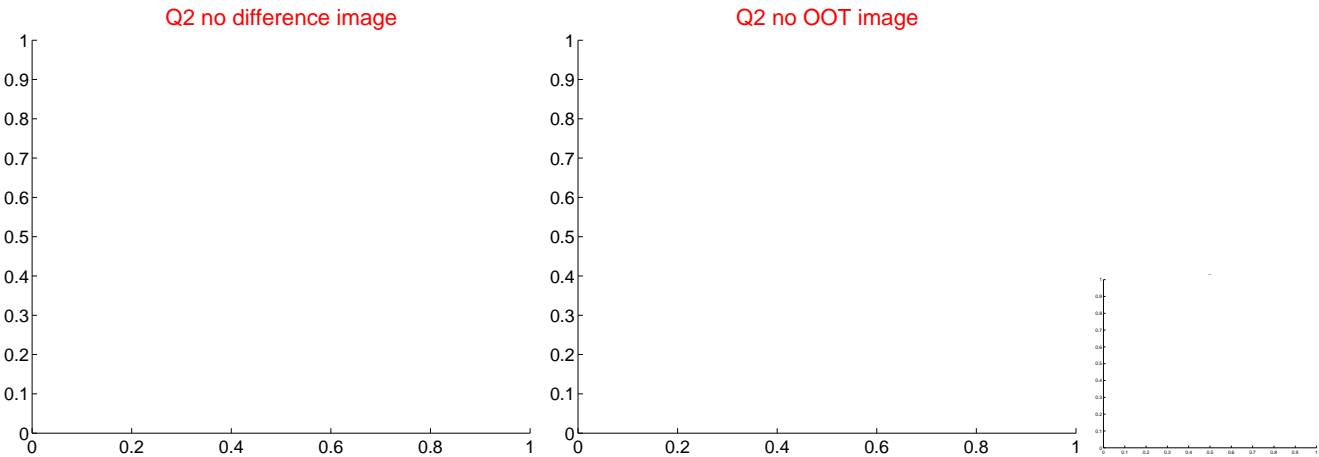
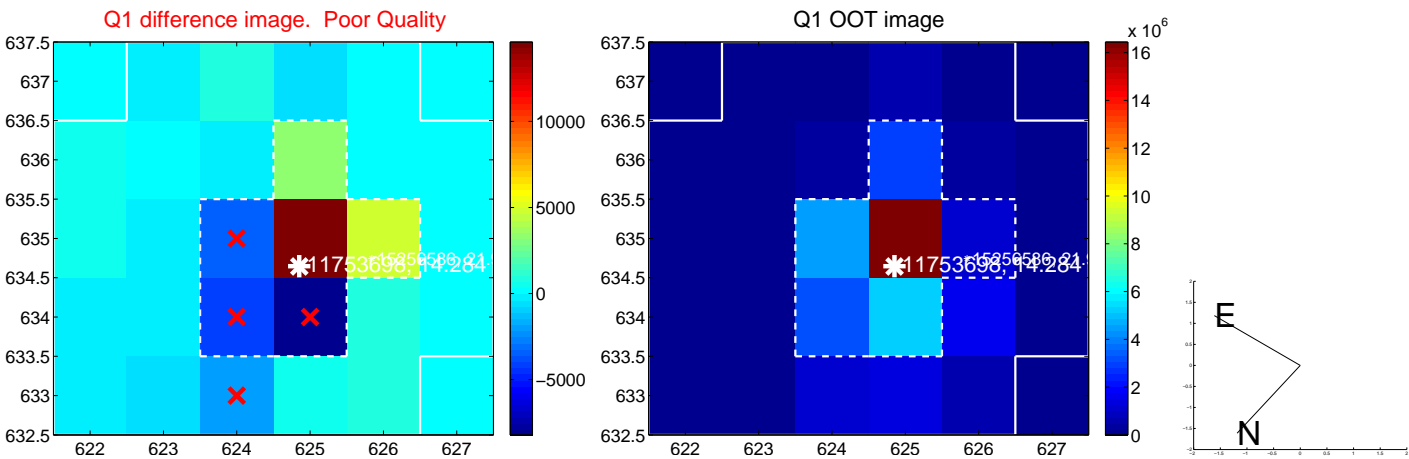
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.451 ± 0.261	9.38	-0.959 ± 0.232	2.256 ± 0.266
PRF-fit source offset from KIC position	2.439 ± 0.262	9.29	-0.829 ± 0.232	2.294 ± 0.266
photometric centroid source offset	2.90 ± 1.82	1.60	-0.67 ± 1.89	2.82 ± 1.81

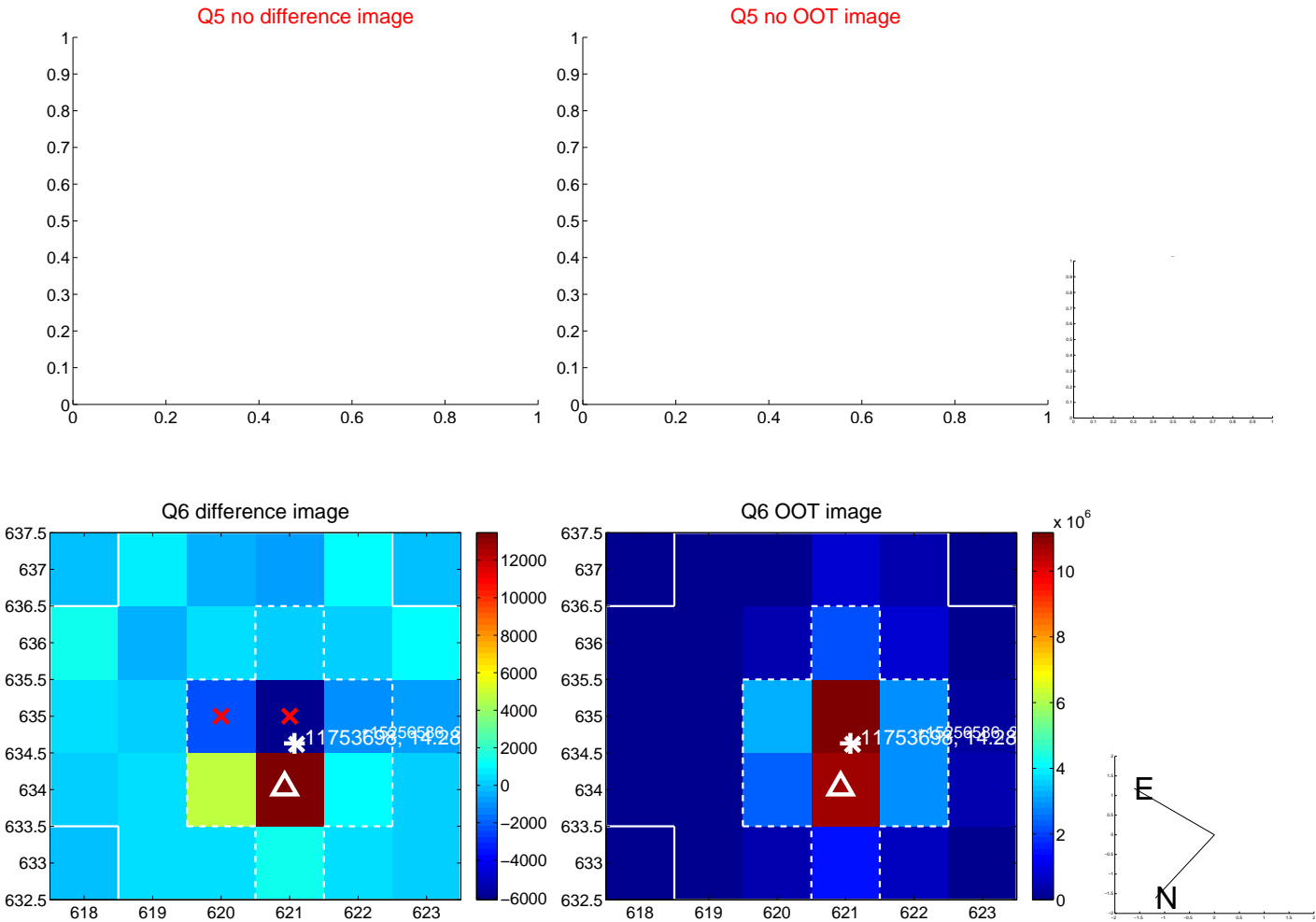


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

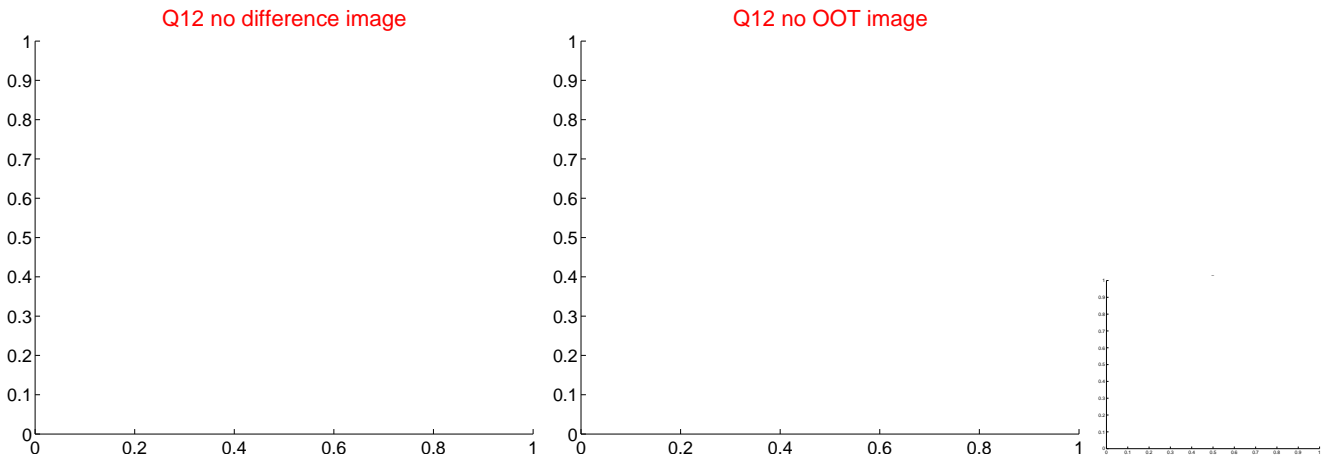
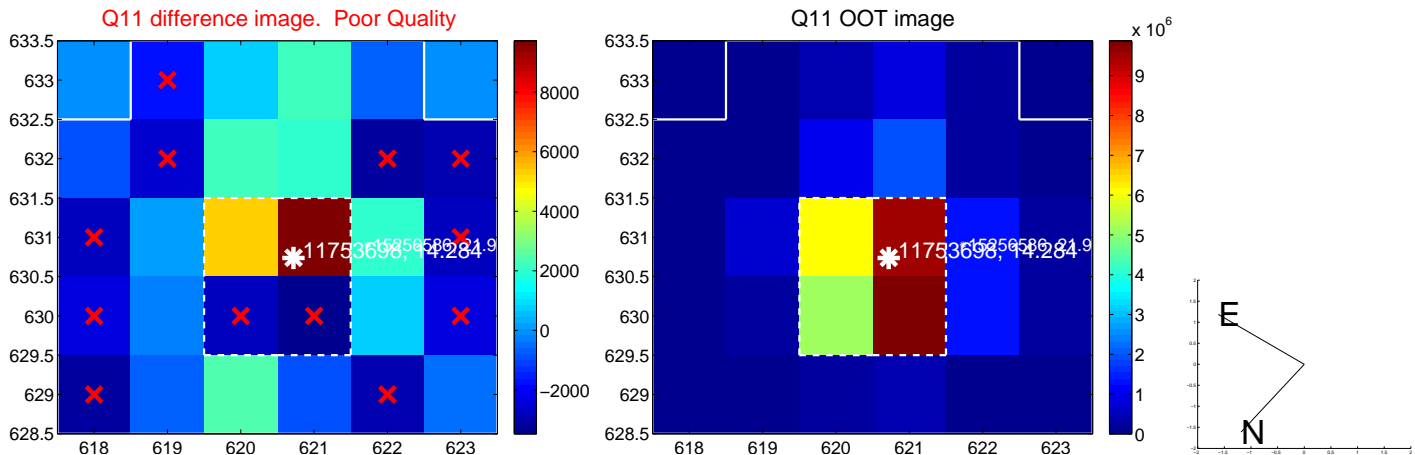
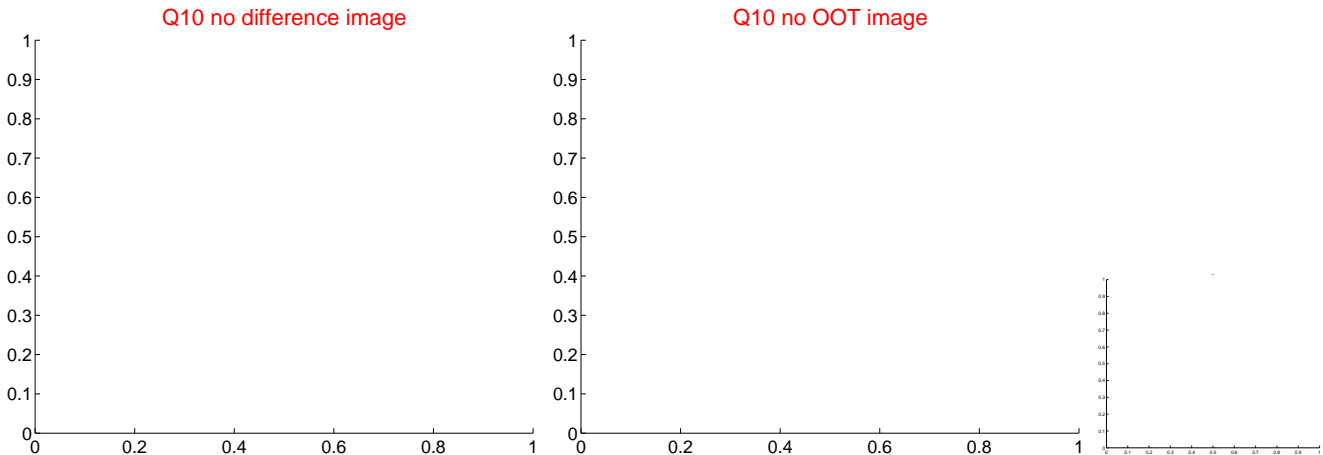
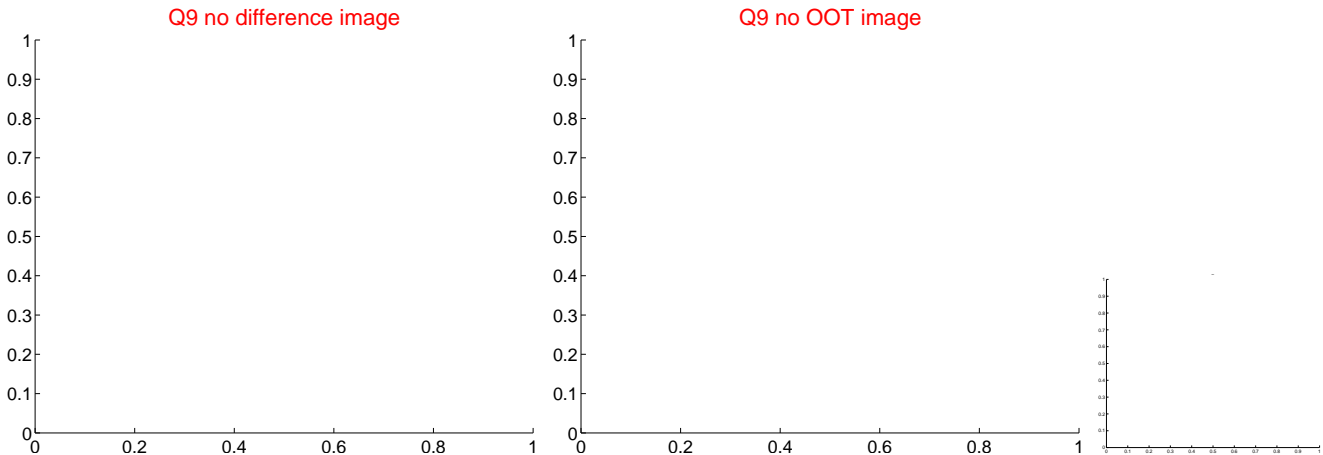
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



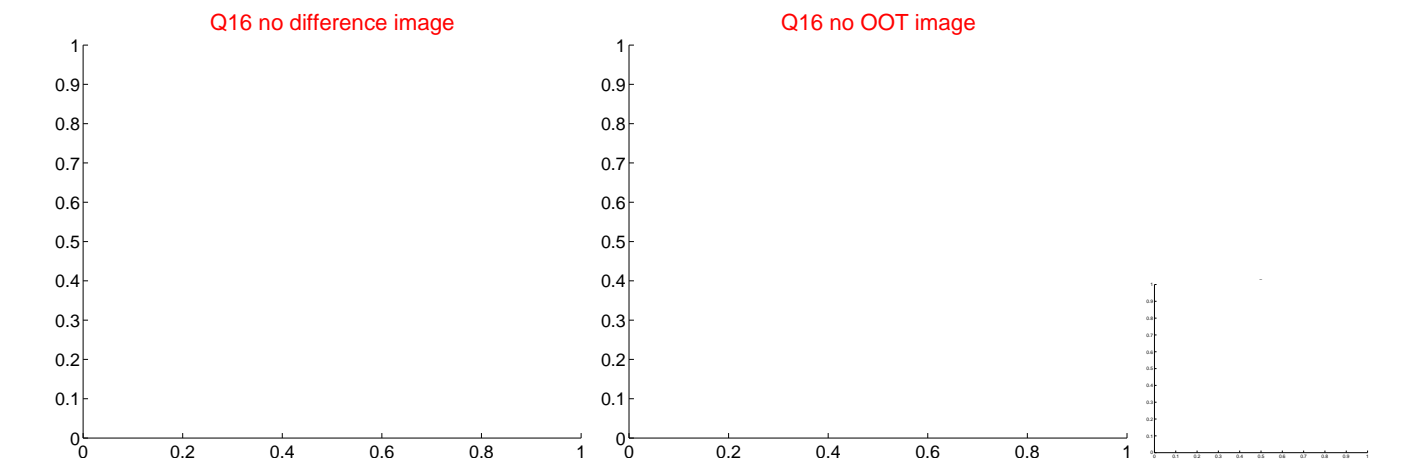
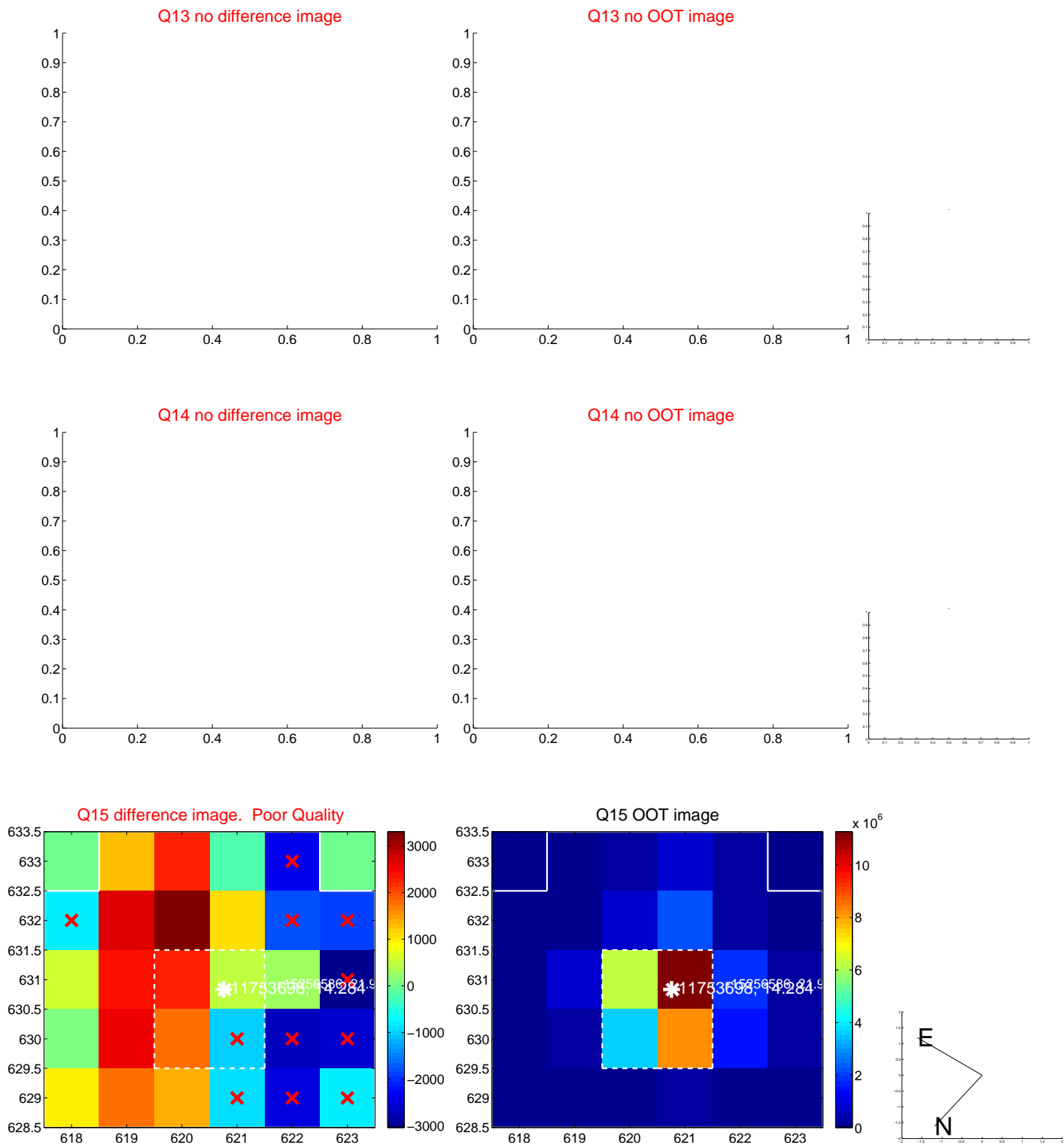
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



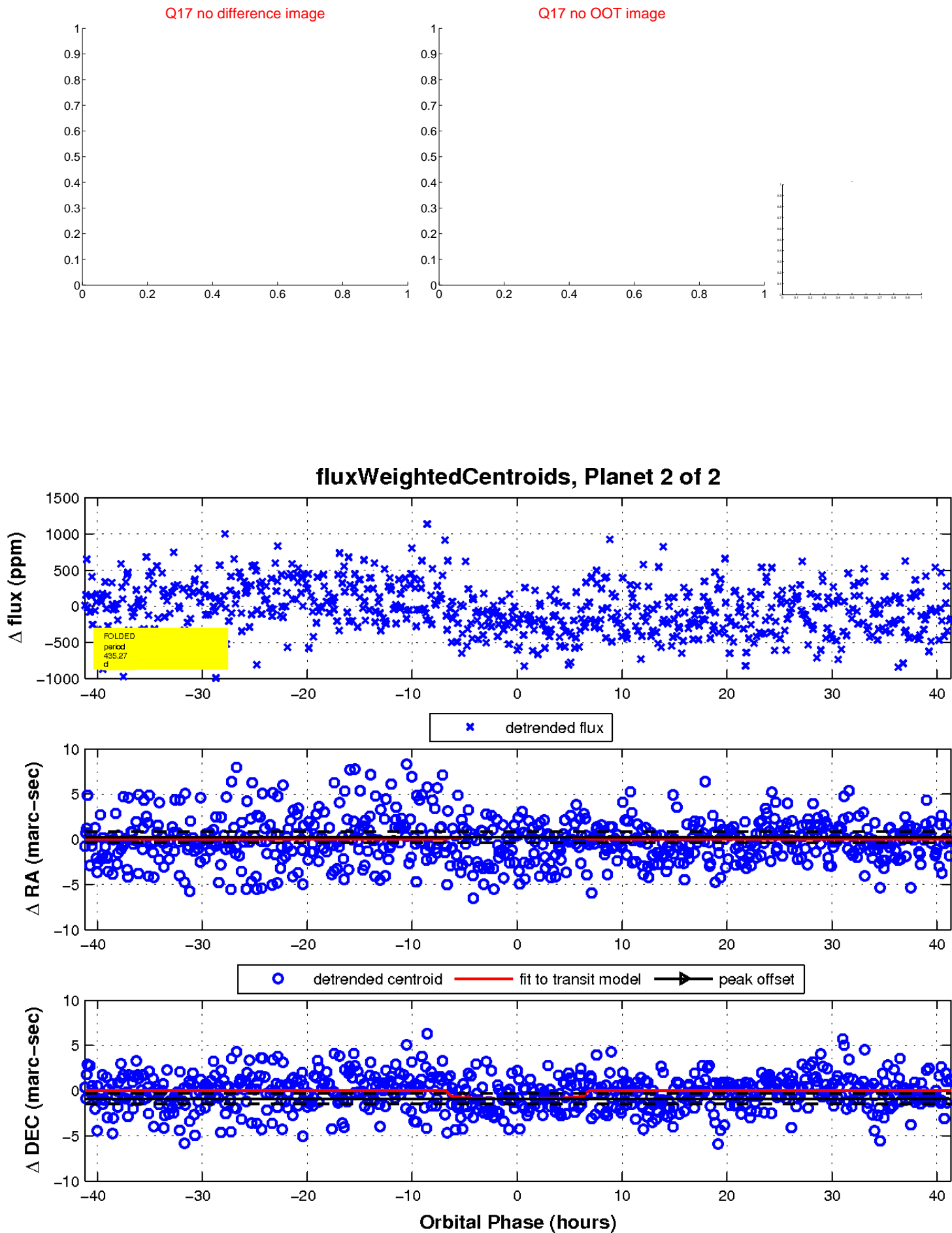
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

