

KIC 011029121

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})
011029121-01	OBS	No	453.157444	459.384360	197.2	15.742	7.3	6.6	1.24	6636	1.89	1.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011029121-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

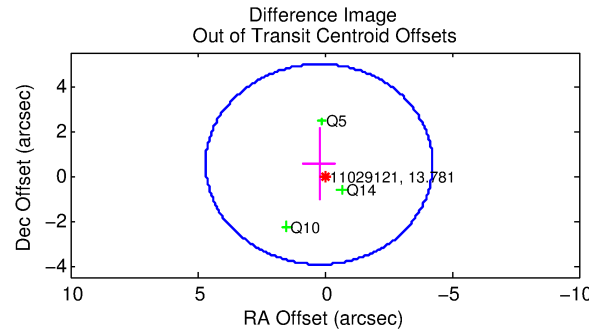
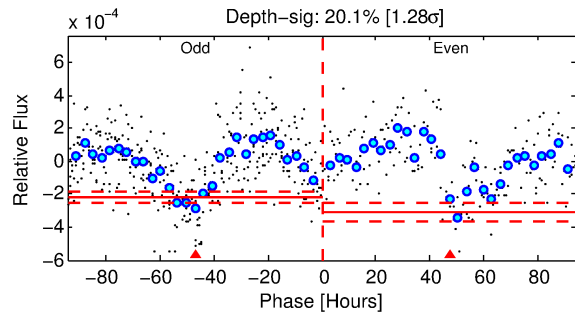
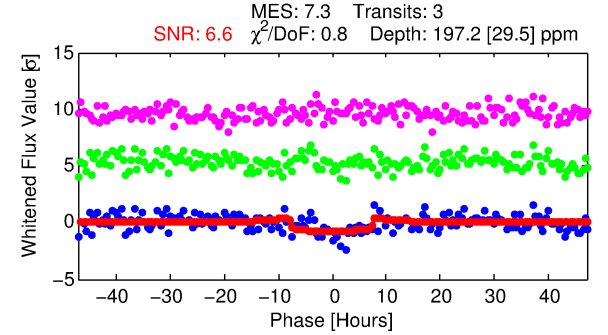
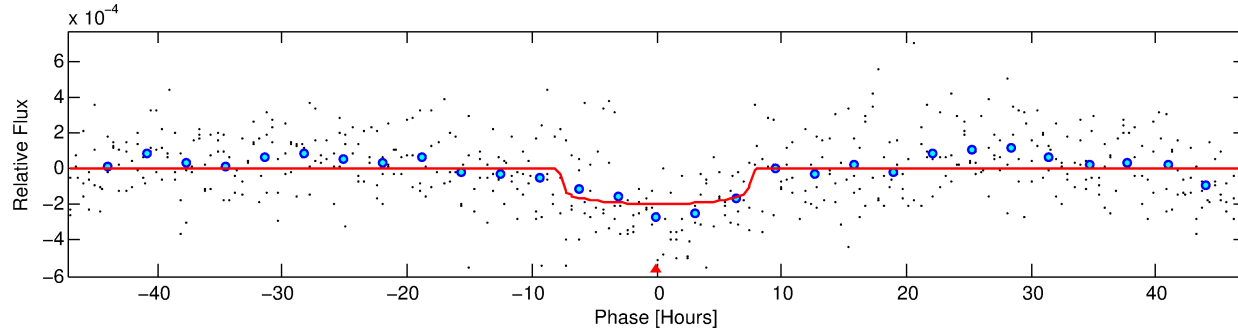
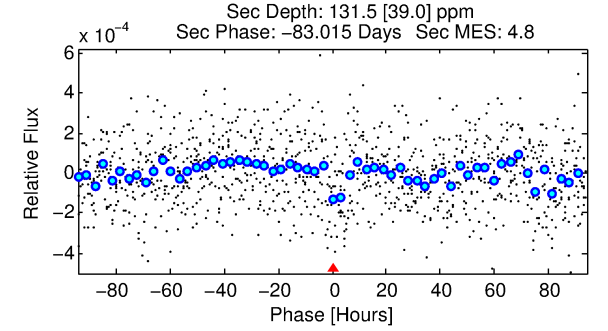
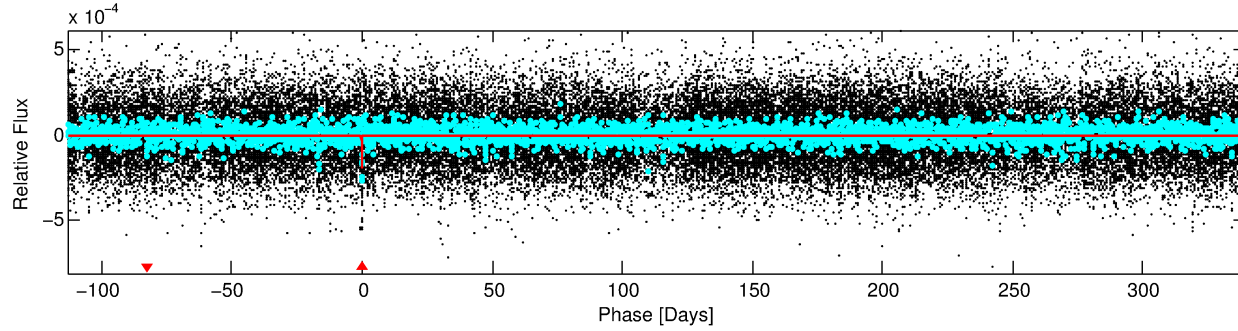
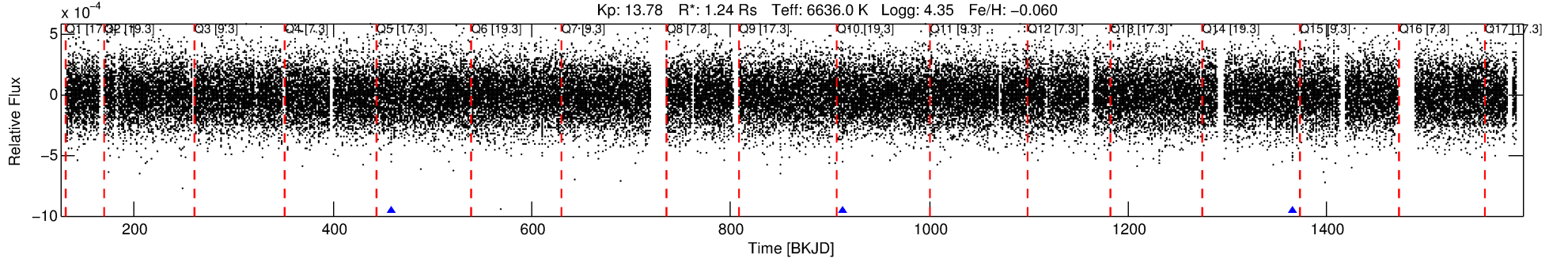
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011029121-01

No Significant Match Found

DV One-Page Summary

KIC: 11029121 Candidate: 1 of 1 Period: 453.157 d



DV Fit Results:

Period = 453.15744 [0.01541] d
Epoch = 459.3844 [0.0203] BKJD
Rp/R* = 0.0140 [0.0039]
a/R* = 148.50 [218.42]
b = 0.76 [0.84]
Seff = 1.72 [0.71]
Teq = 292 [30] K
Rp = 1.89 [0.83] Re
a = 1.2422 [0.3448] AU
Ag = 31354.46 [23378.21] [1.34σ]
Teffp = 6008 [971] K [5.88σ]

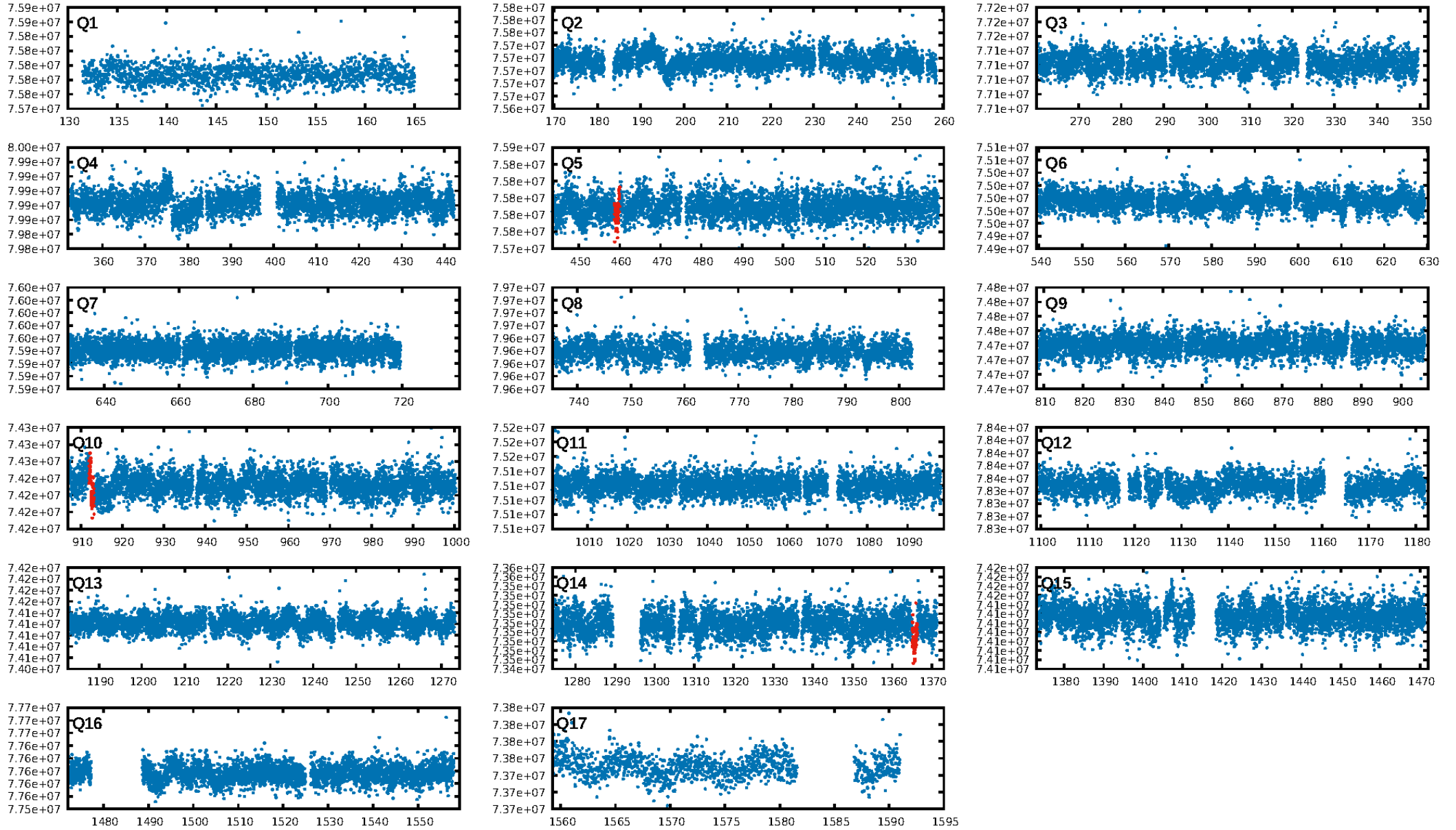
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 67.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.79e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.82
Centroid-sig: 12.2%
Centroid-so: 1.713 arcsec [1.47σ]
OotOffset-rm: 0.558 arcsec [0.38σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-rm: 0.480 arcsec [0.35σ]
KicOffset-st: 2/0/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

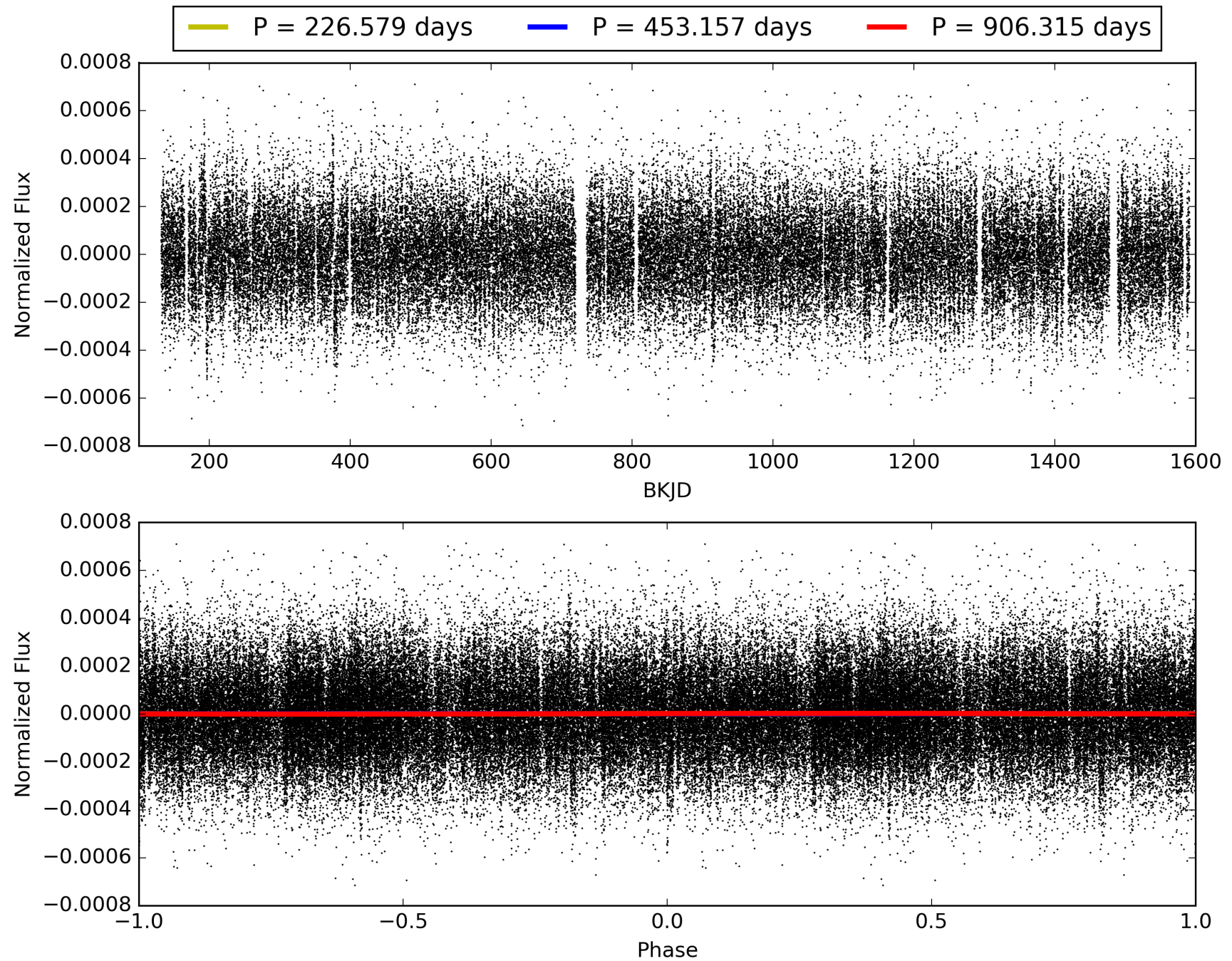
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:40:27 Z

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

TCE 011029121-01, PDC Light Curves

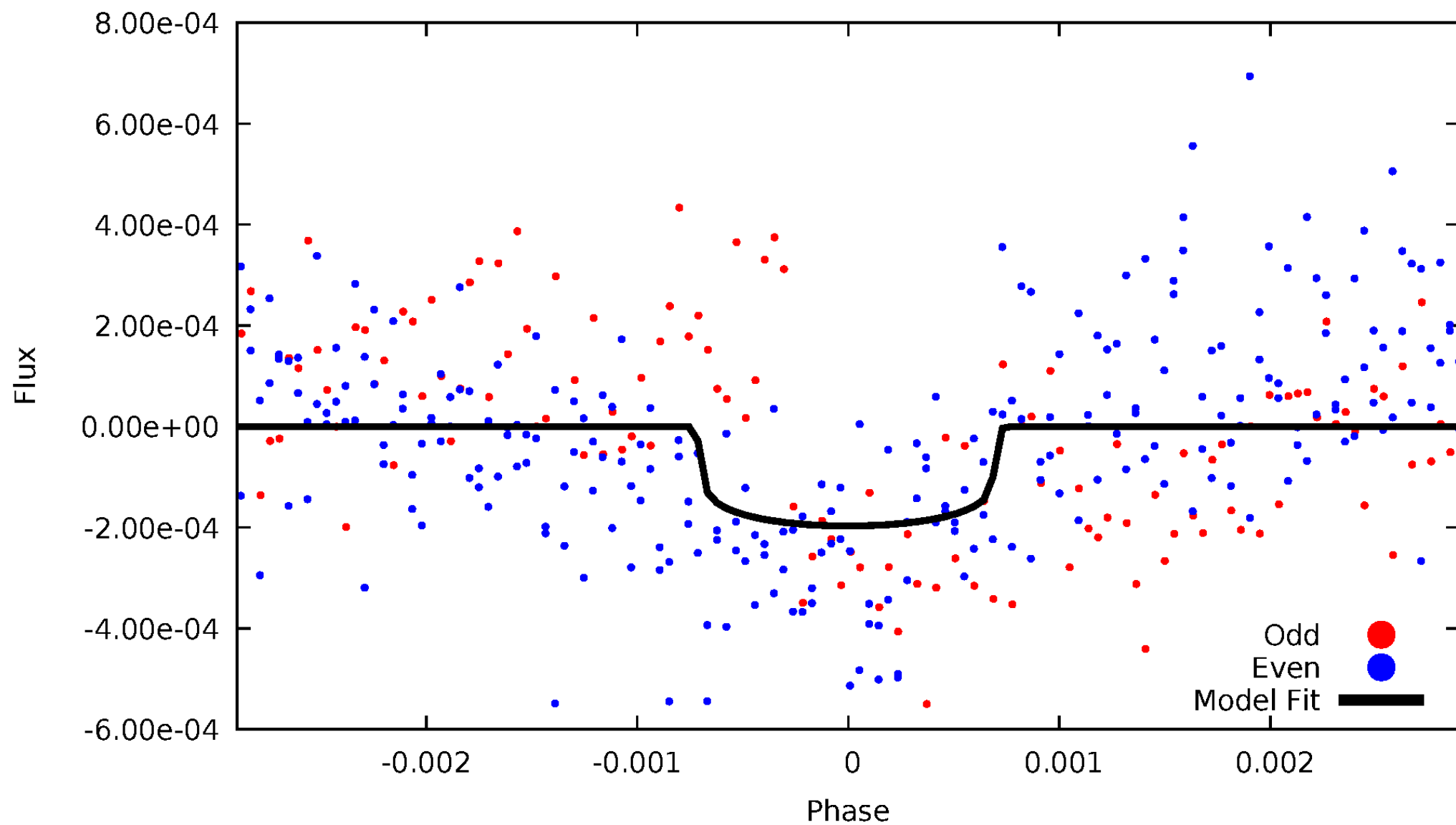


TCE 011029121-01



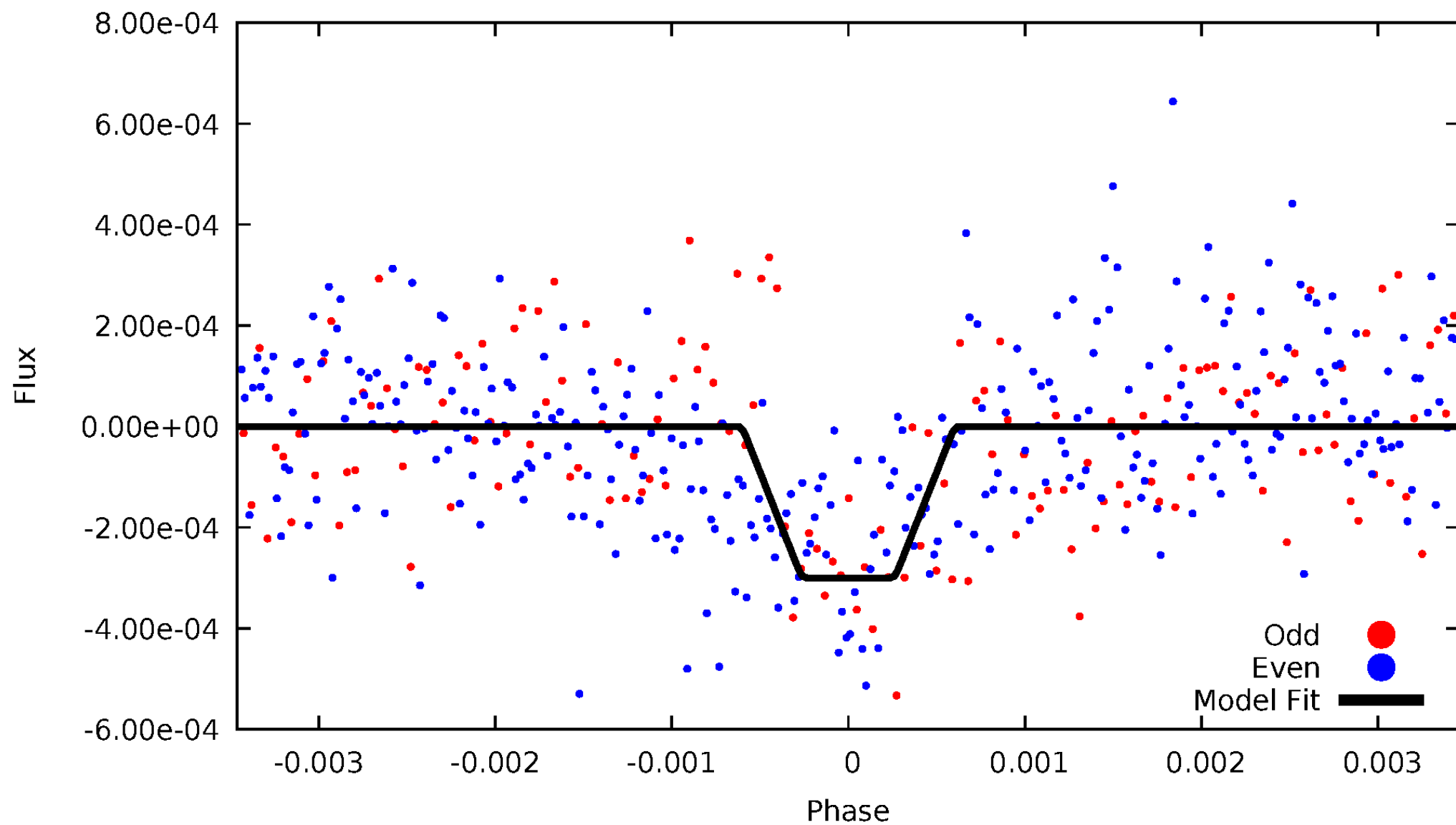
DV Odd/Even

TCE 011029121-01

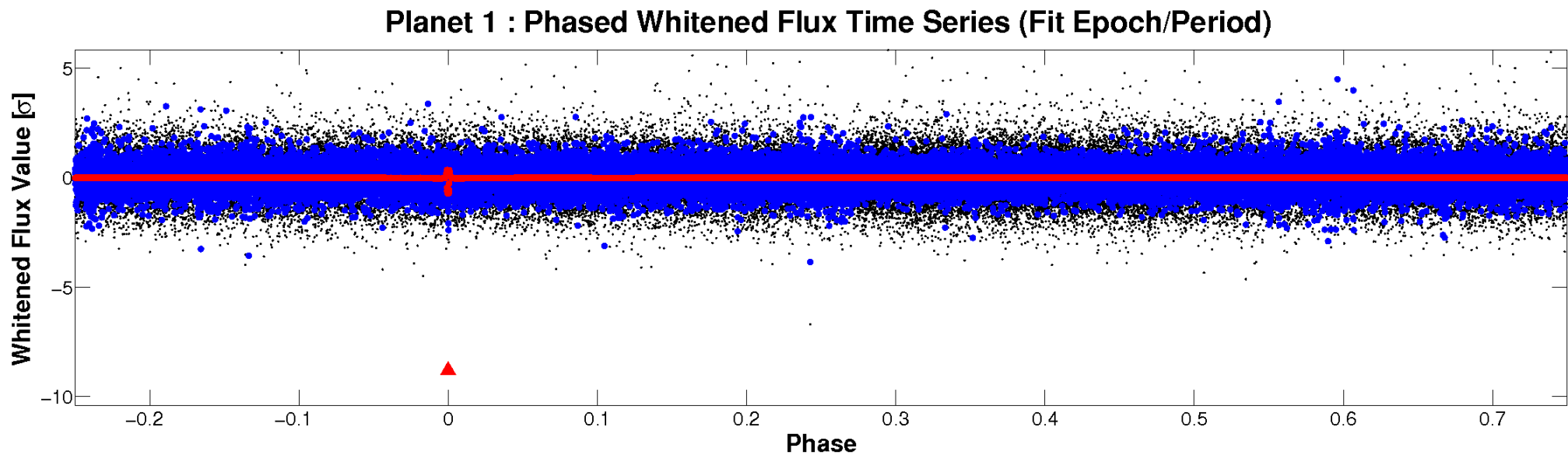
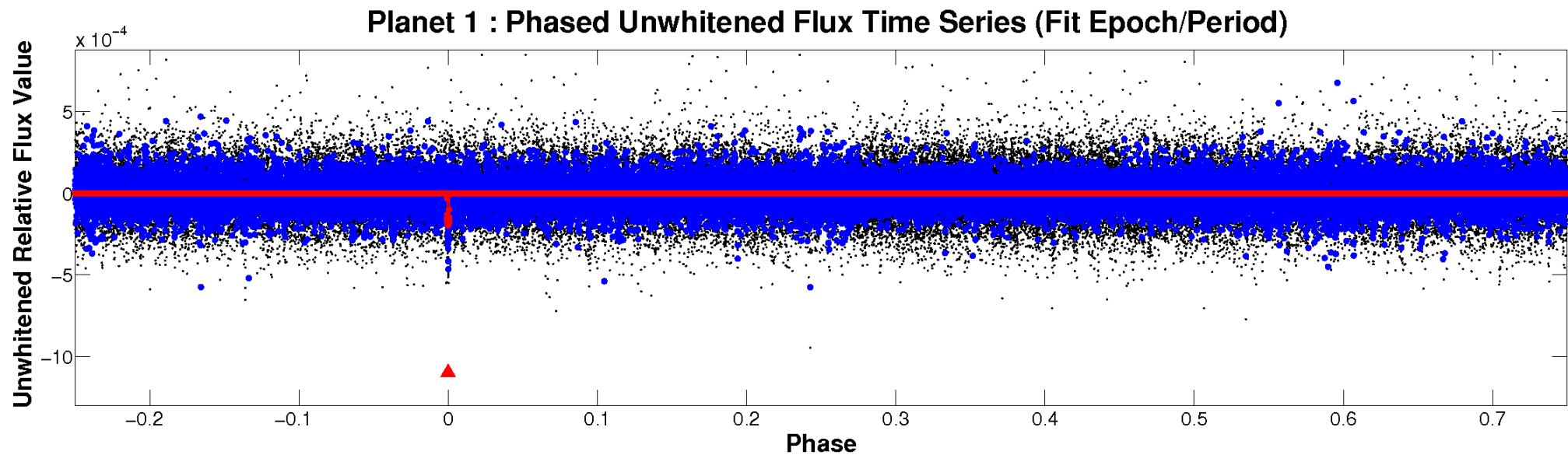


ALT Odd/Even

TCE 011029121-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 011029121-01 P=453.157444 Days $T_0=459.384361$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011029121-01 P=453.157444 Days $T_0=459.384361$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

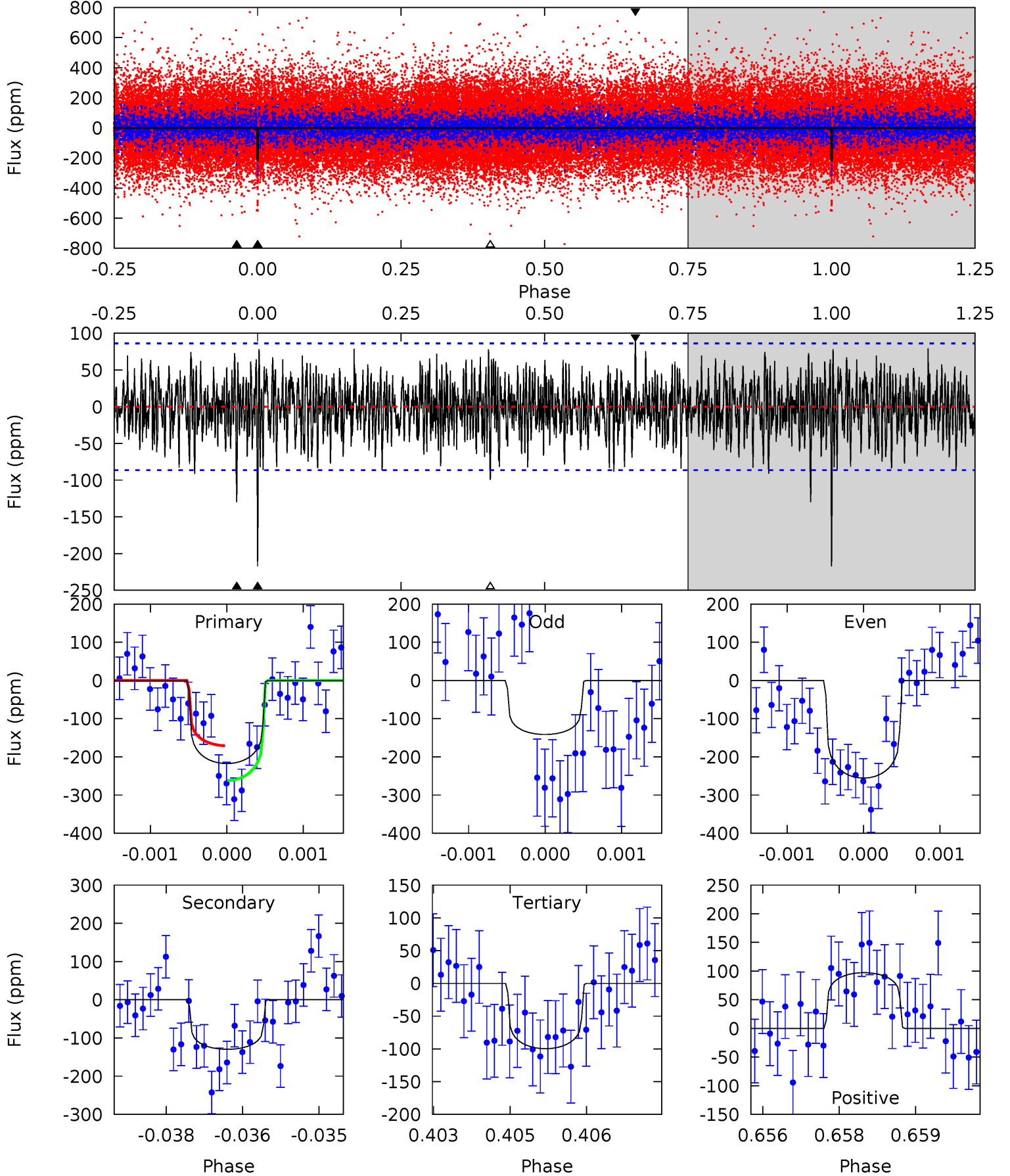
TCE 011029121-01 P=453.141438 Days $T_0=459.444978$ (BKJD)



DV Model-Shift Uniqueness Test

011029121-01, P = 453.157444 Days, E = 6.226917 Days

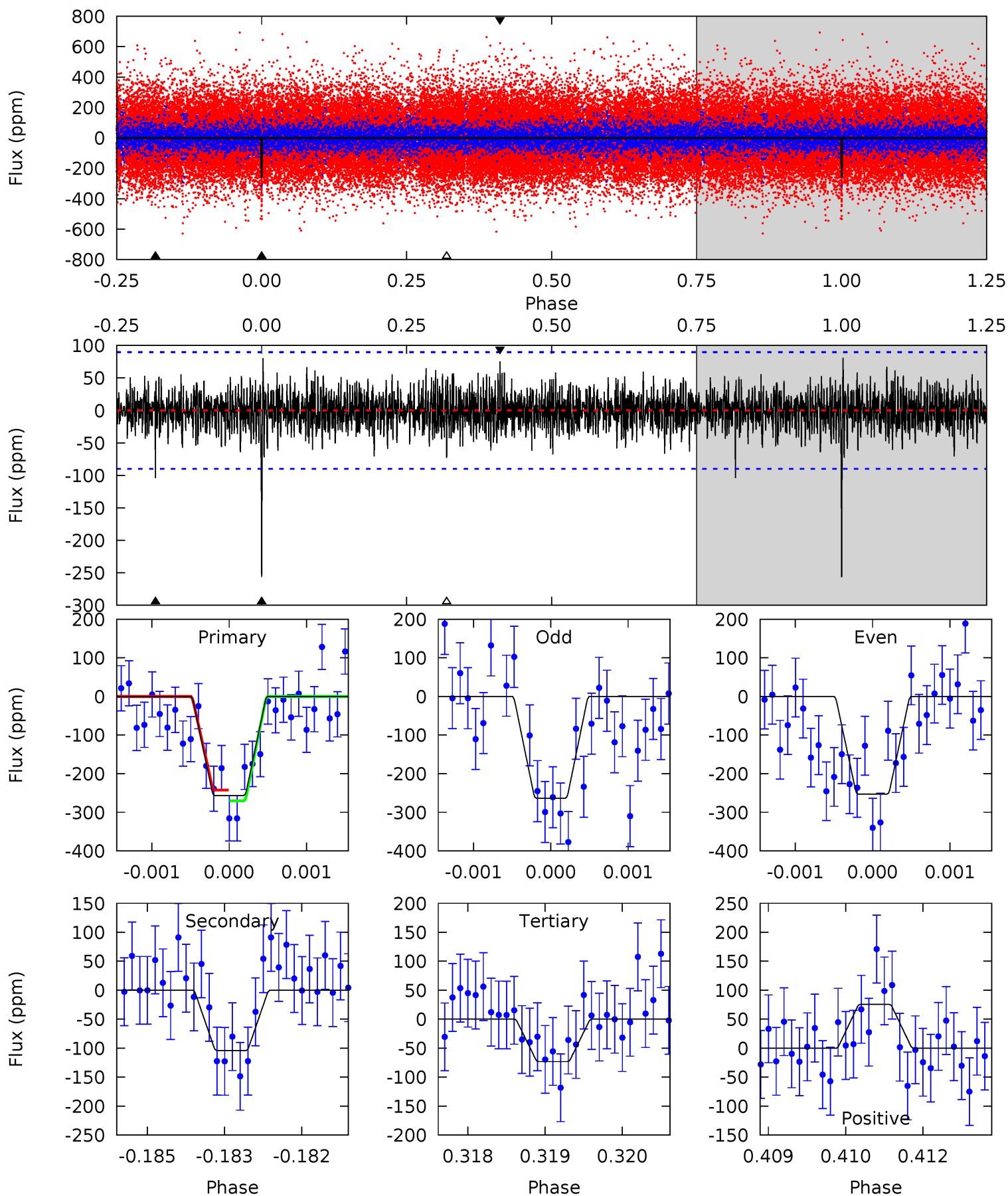
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	8.10	6.22	6.07	5.39	3.19	1.85	7.35	7.50	1.88	2.02	3.37	1.06	0.31	2.85



Alt Model-Shift Uniqueness Test

011029121-01, P = 453.141438 Days, E = 6.303540 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	6.28	4.41	4.54	5.41	3.23	1.33	11.1	10.9	1.87	1.73	0.30	0.97	0.24	0.84



Stellar Parameters For KIC 011029121

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6636^{+167}_{-218}	$4.349^{+0.070}_{-0.210}$	$-0.060^{+0.250}_{-0.300}$	$1.236^{+0.419}_{-0.140}$	$1.251^{+0.191}_{-0.174}$	$0.933^{+0.280}_{-0.512}$
	+3%/-3%	+2%/-5%	+417%/-500%	+34%/-11%	+15%/-14%	+30%/-55%
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 011029121-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-130 ± 16	$1.95^{+0.70}_{-0.59}$	415^{+30}_{-21}	5993^{+1197}_{-717}	28627^{+30723}_{-12916}
Alt.	-104 ± 17	$2.44^{+0.63}_{-0.63}$	415^{+32}_{-22}	5165^{+654}_{-496}	14668^{+11048}_{-5881}

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 $A_{obs} \gg 1.0$

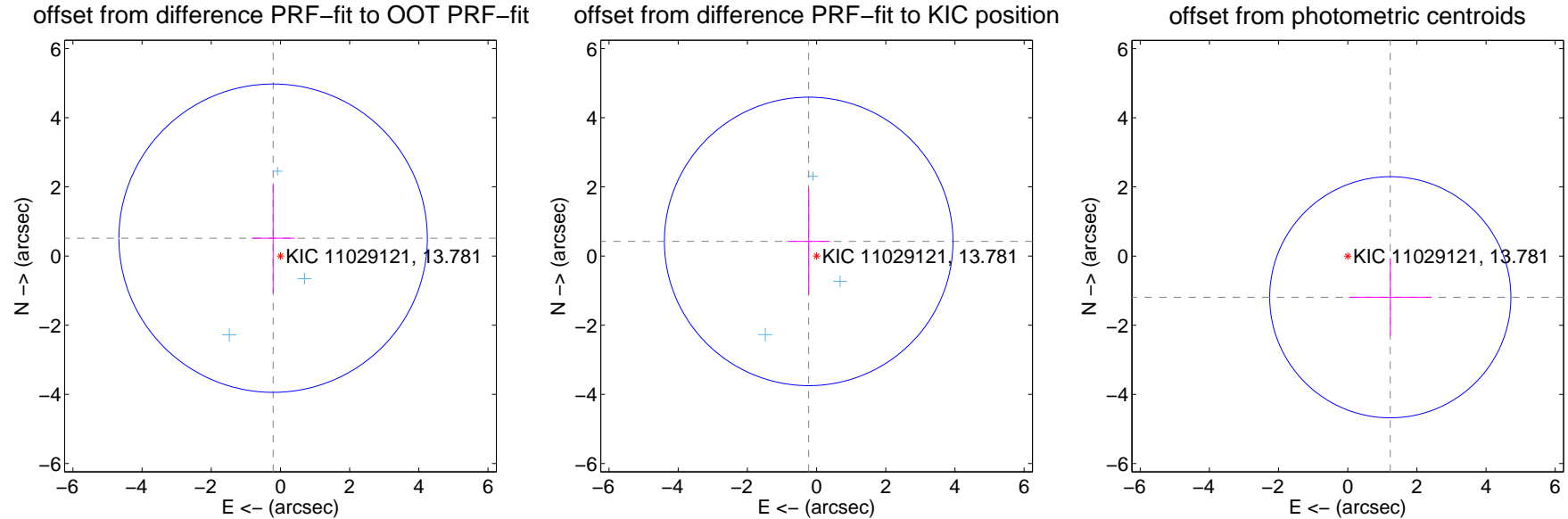
DV Centroid Data

Supplemental centroid analysis for 011029121-01. Kepler magnitude: 13.78. Transit SNR 6.58

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.558 ± 1.486	0.38	0.212 ± 0.623	0.516 ± 1.586
PRF-fit source offset from KIC position	0.480 ± 1.390	0.35	0.228 ± 0.618	0.423 ± 1.544
photometric centroid source offset	1.71 ± 1.16	1.47	-1.23 ± 1.20	-1.19 ± 1.12

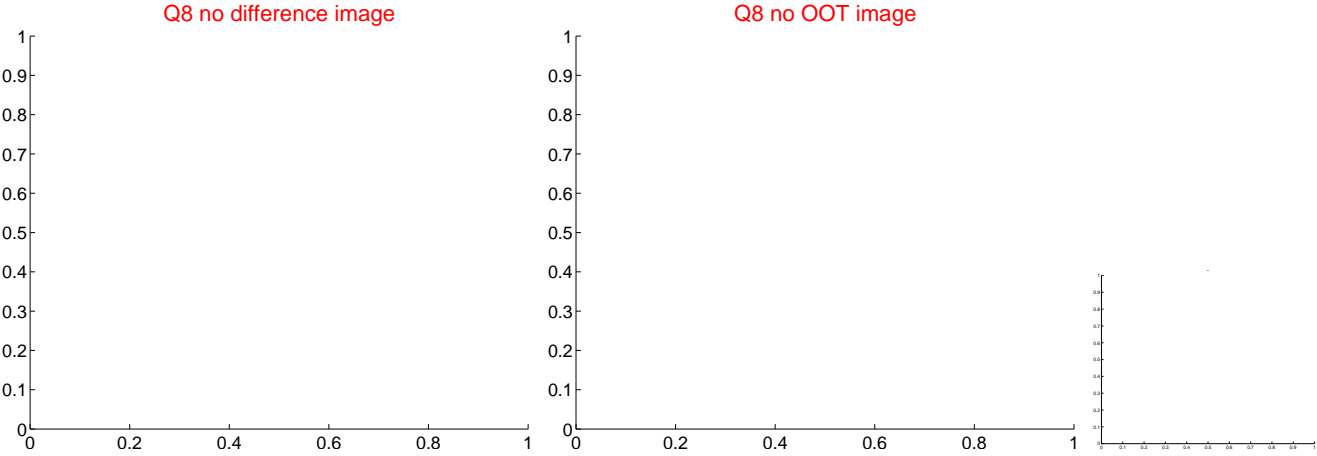
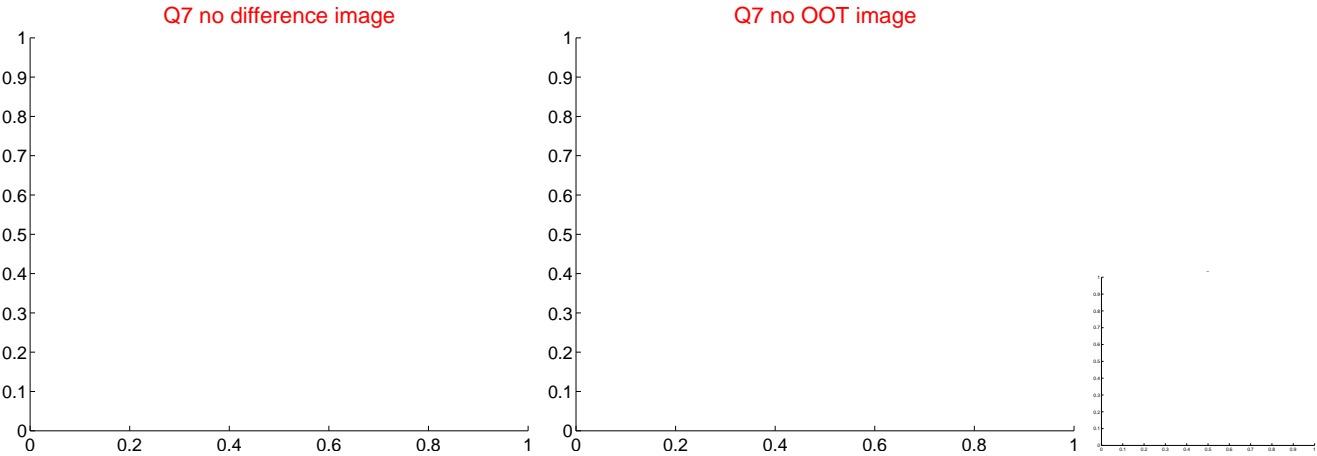
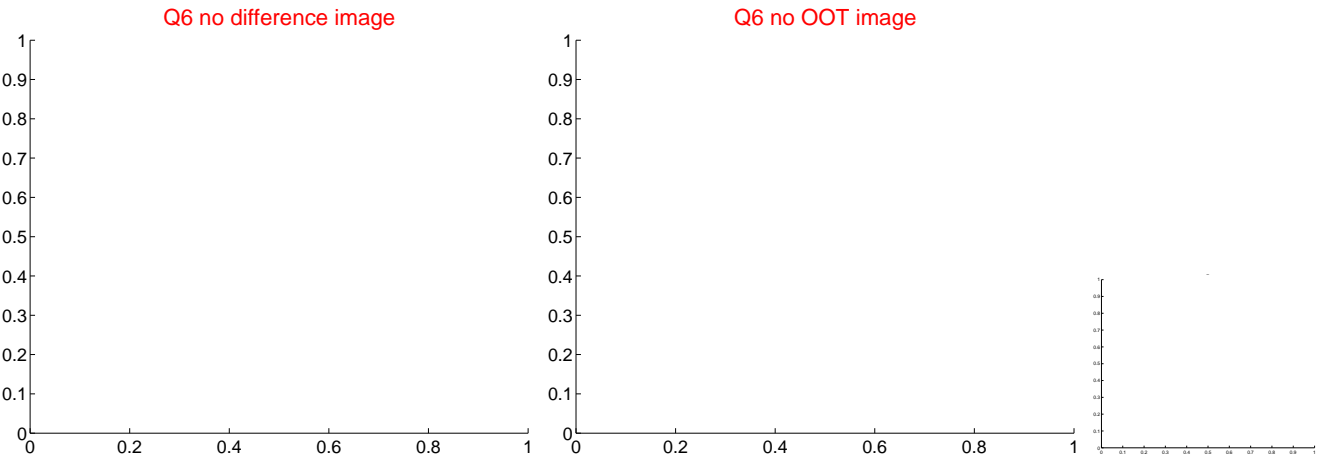
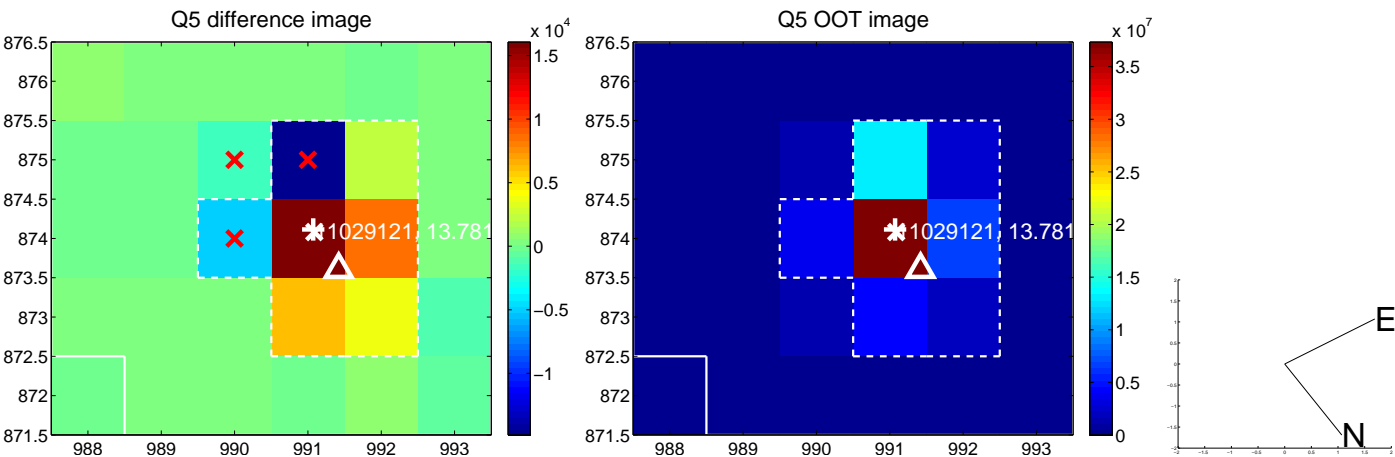


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

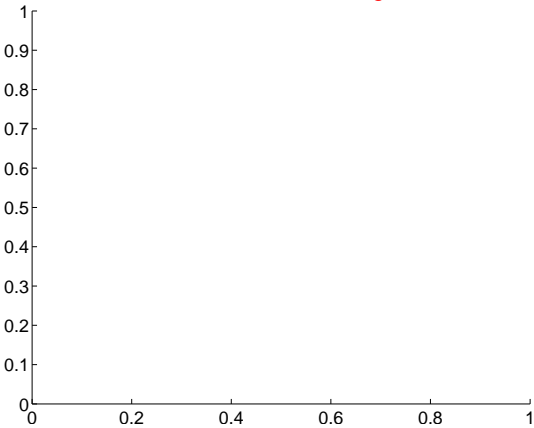


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

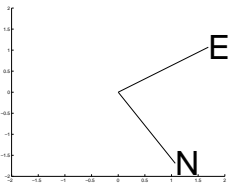
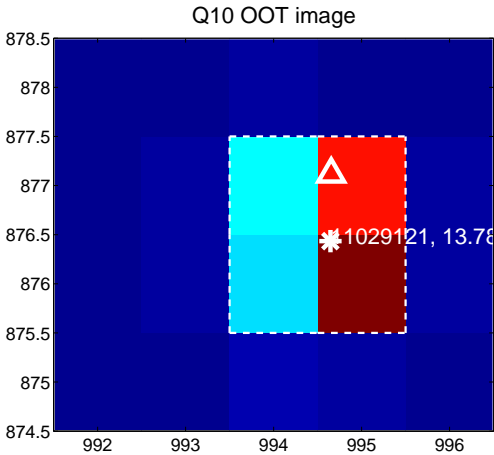
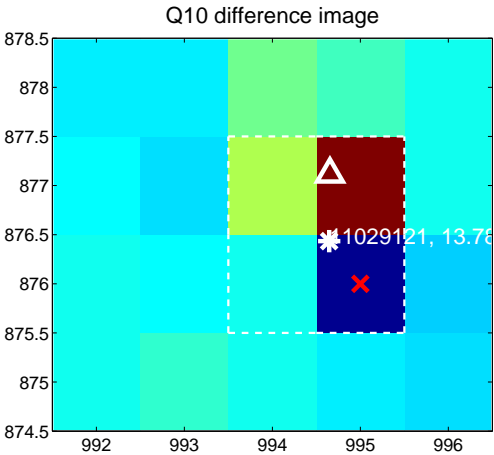
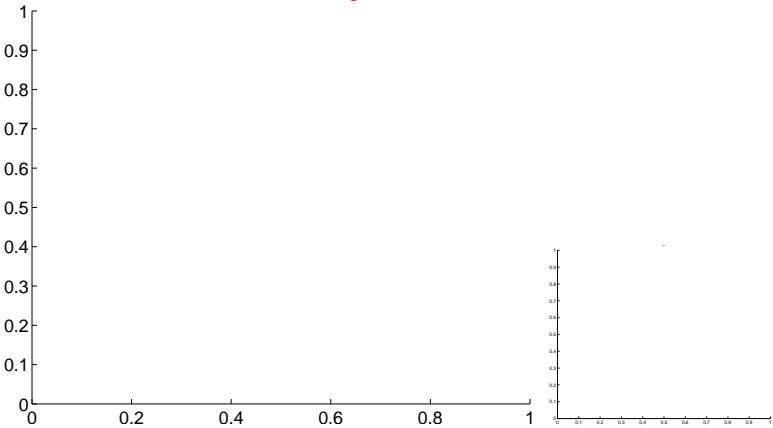


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

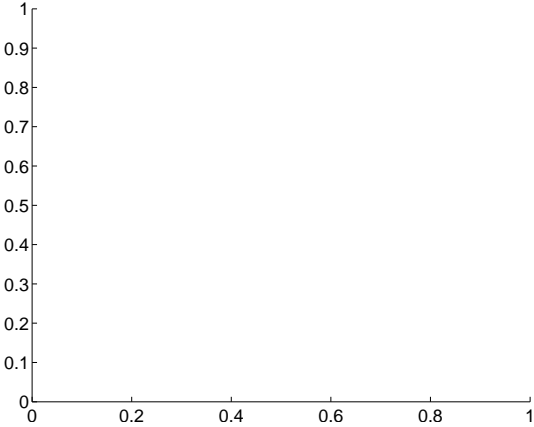
Q9 no difference image



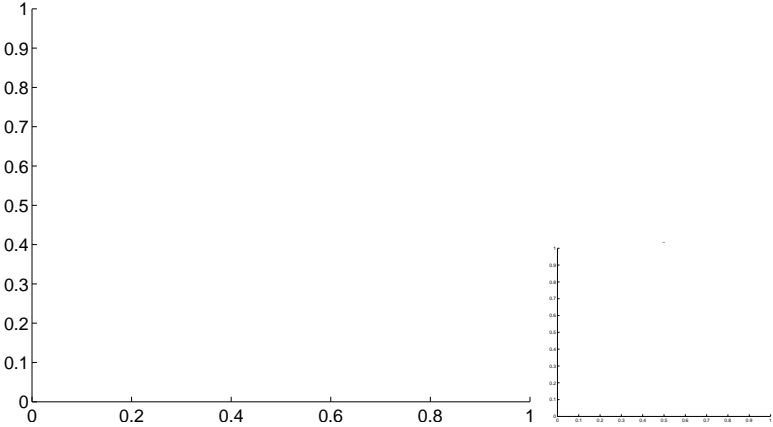
Q9 no OOT image



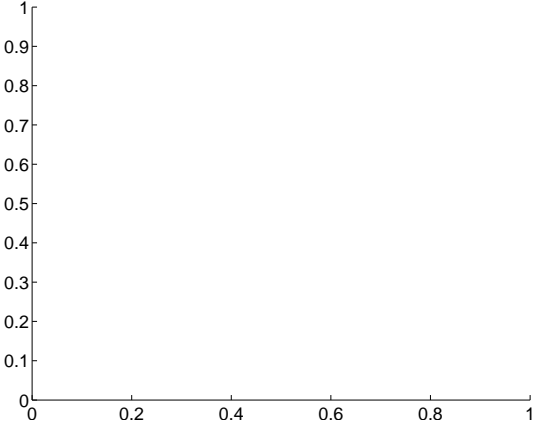
Q11 no difference image



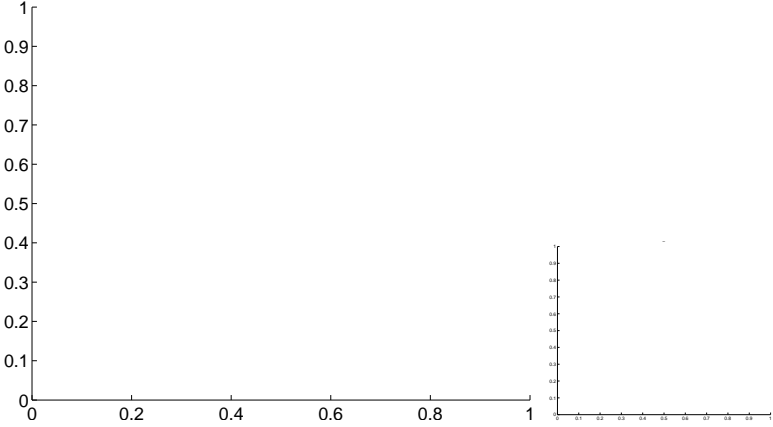
Q11 no OOT image



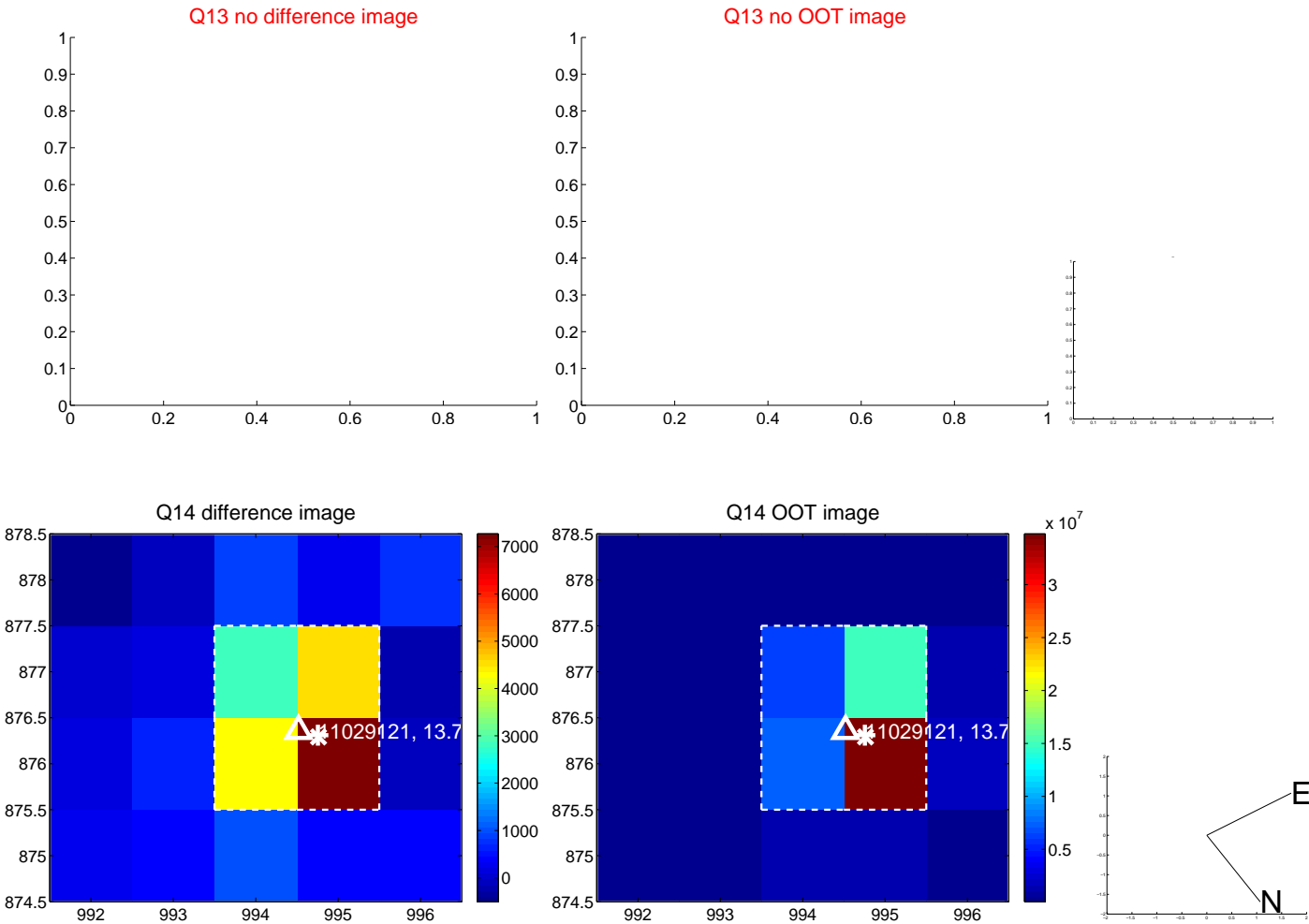
Q12 no difference image



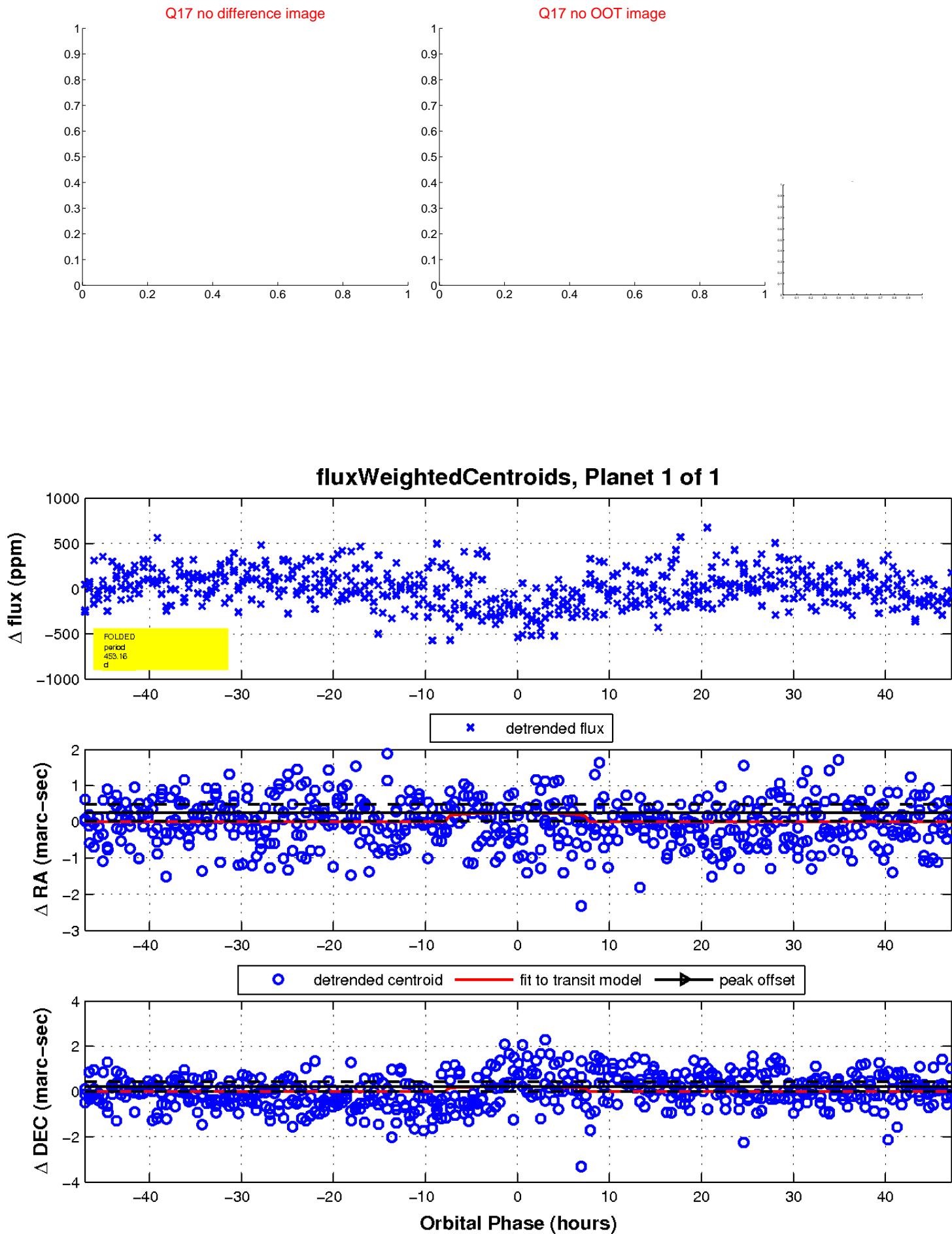
Q12 no OOT image



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

