

KIC 011140181

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})
011140181-01	OBS	No	330.162022	422.159084	303.1	2.638	10.1	5.1	0.89	5519	1.64	0.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011140181-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

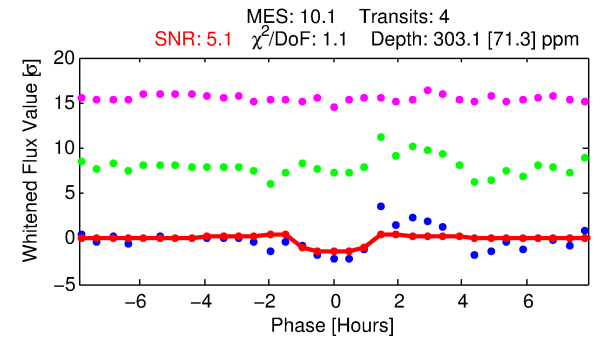
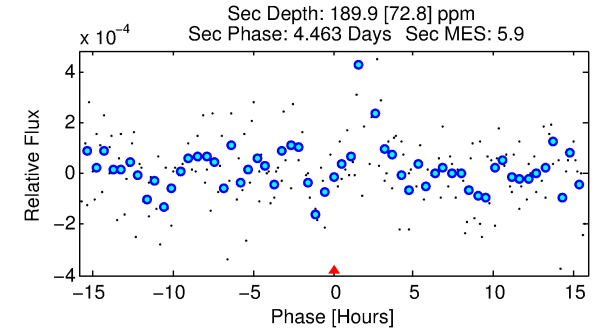
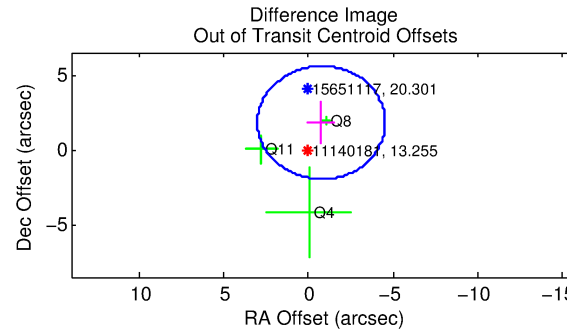
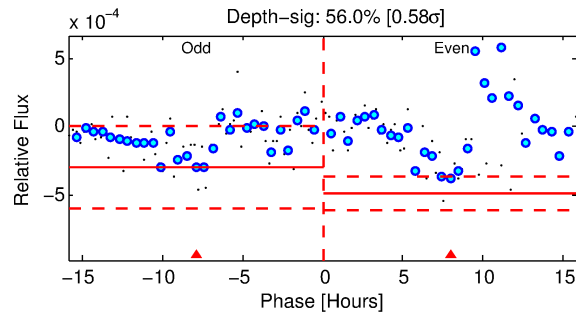
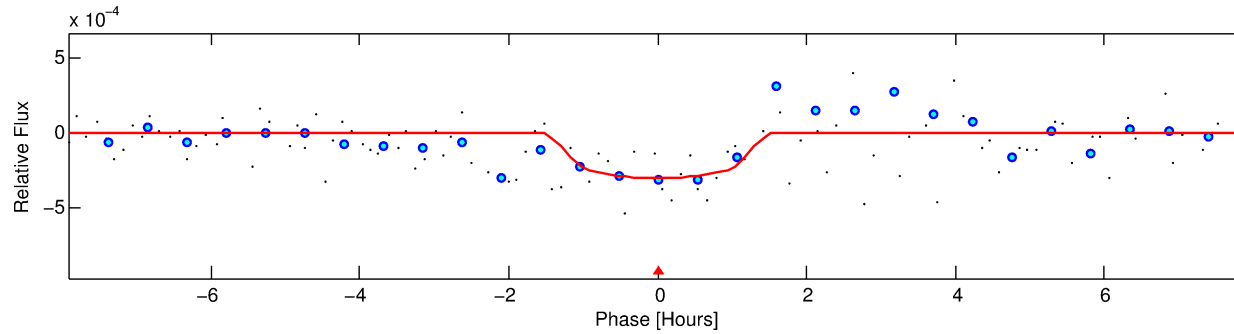
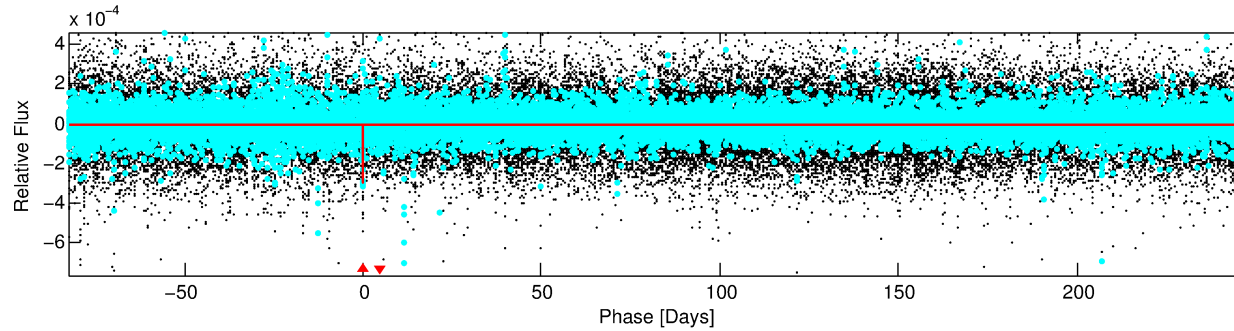
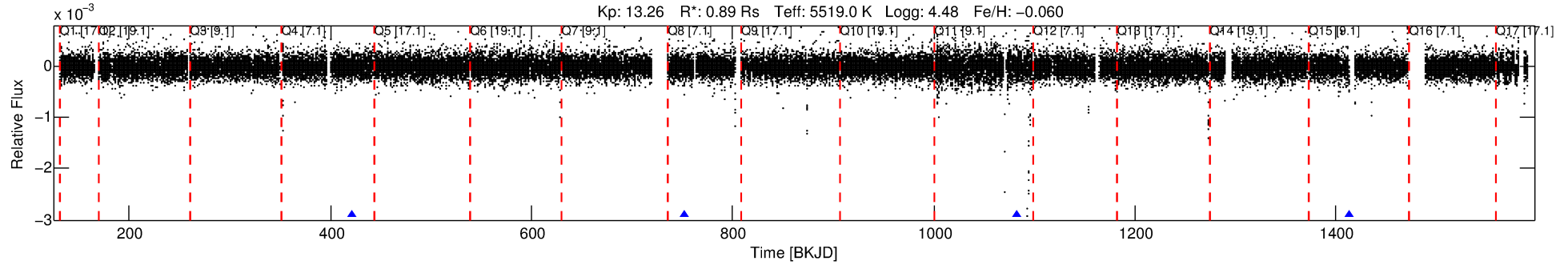
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011140181-01

No Significant Match Found

DV One-Page Summary

KIC: 11140181 Candidate: 1 of 1 Period: 330.162 d



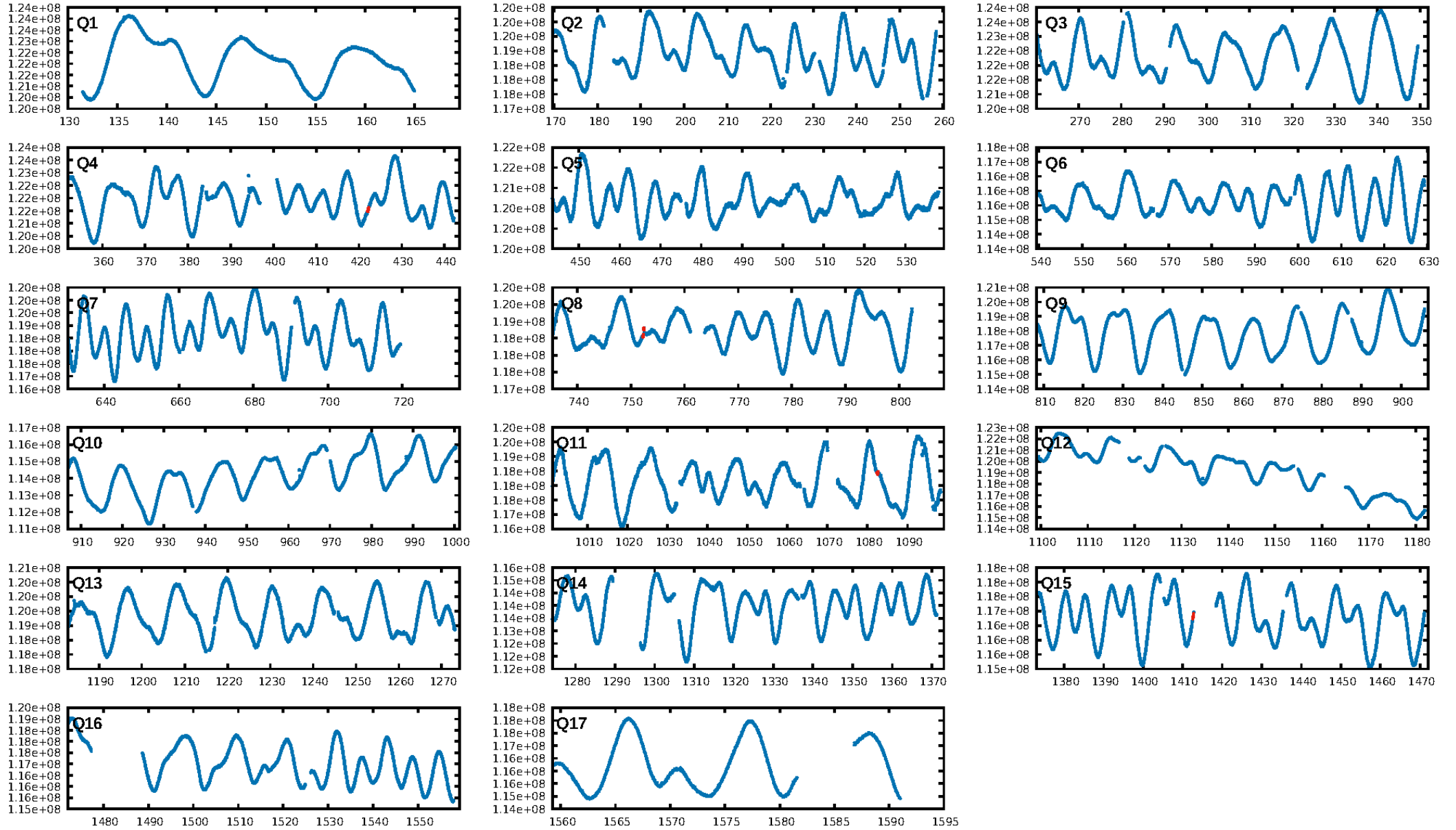
DV Fit Results:

Period = 330.16202 [0.00507] d
Epoch = 422.1591 [0.0092] BKJD
Rp/R* = 0.0169 [0.0366]
a/R* = 736.54 [6540.58]
b = 0.66 [7.55]
Seff = 0.82 [0.13]
Teq = 243 [10] K
Rp = 1.64 [3.56] Re
a = 0.8949 [0.0863] AU
Ag = 31161.69 [135938.12] [0.23 σ]
Teffp = 4991 [5440] K [0.87 σ]

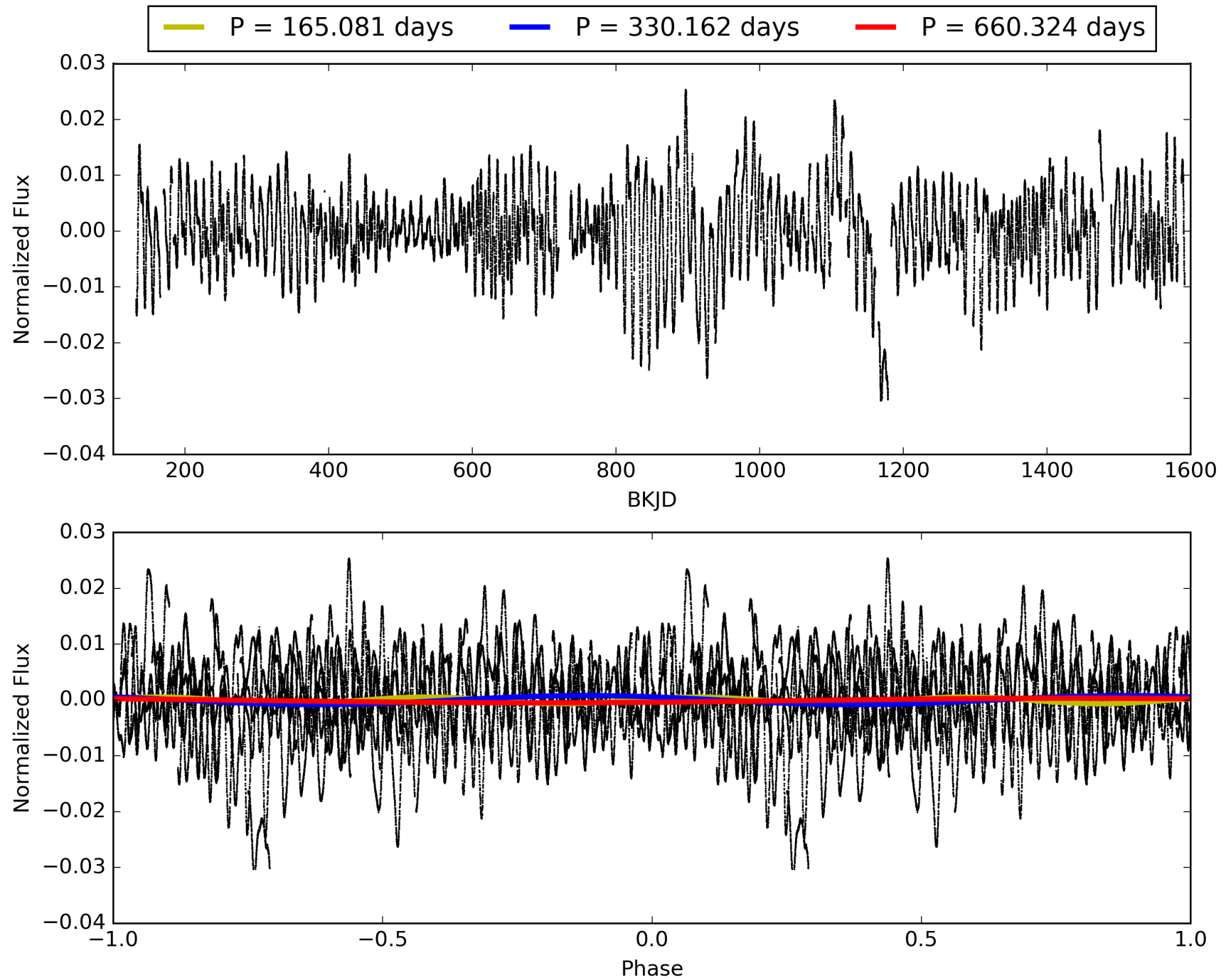
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 89.4%
Bootstrap-pfa: 1.26e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.4204
Centroid-sig: 38.9%
Centroid-so: 0.888 arcsec [0.72 σ]
OotOffset-rm: 1.958 arcsec [1.56 σ]
KicOffset-rm: 1.765 arcsec [0.95 σ]
OotOffset-st: 0/1/2/0 [3]
KicOffset-st: 0/1/2/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011140181-01, PDC Light Curves

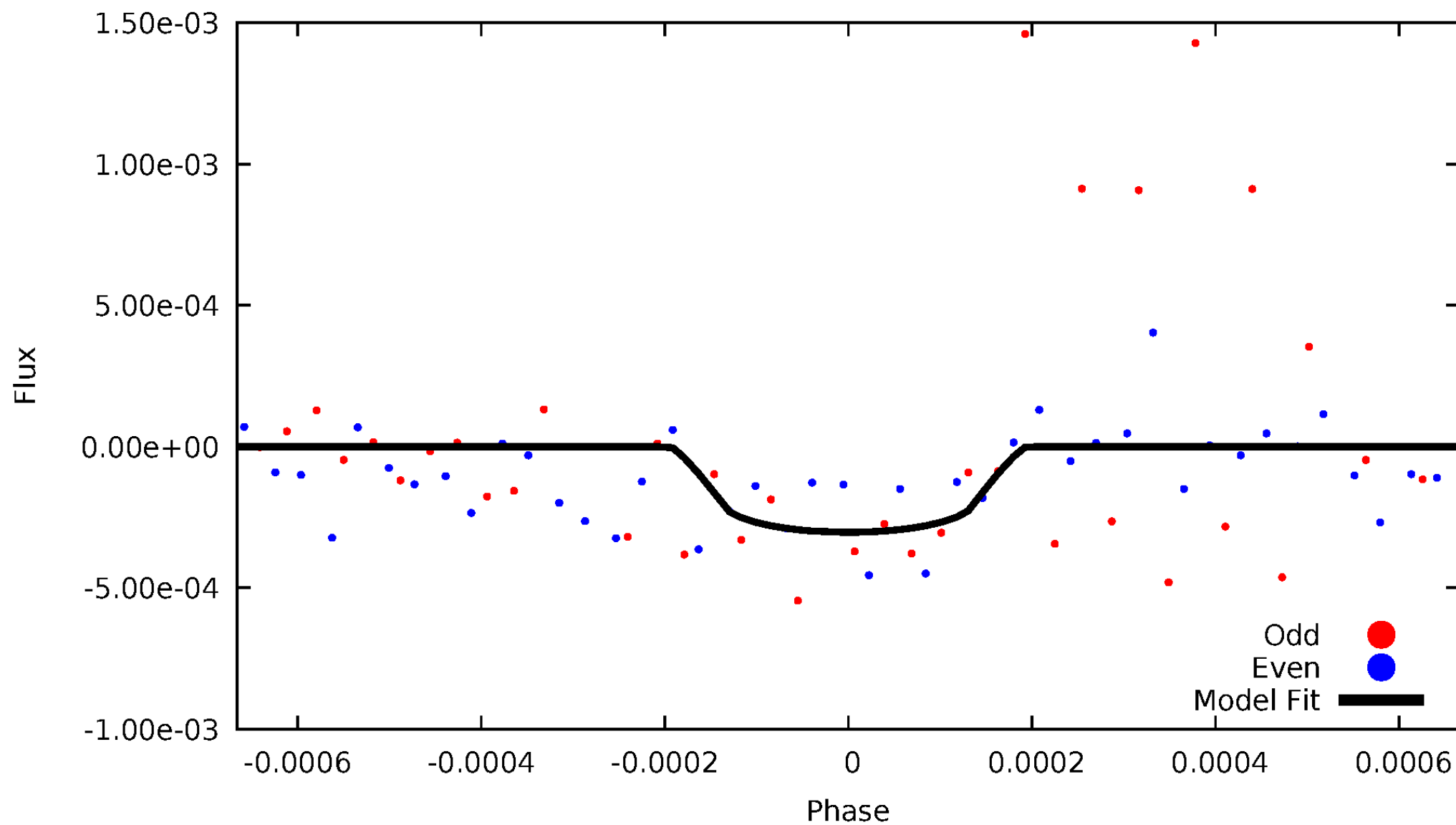


TCE 011140181-01



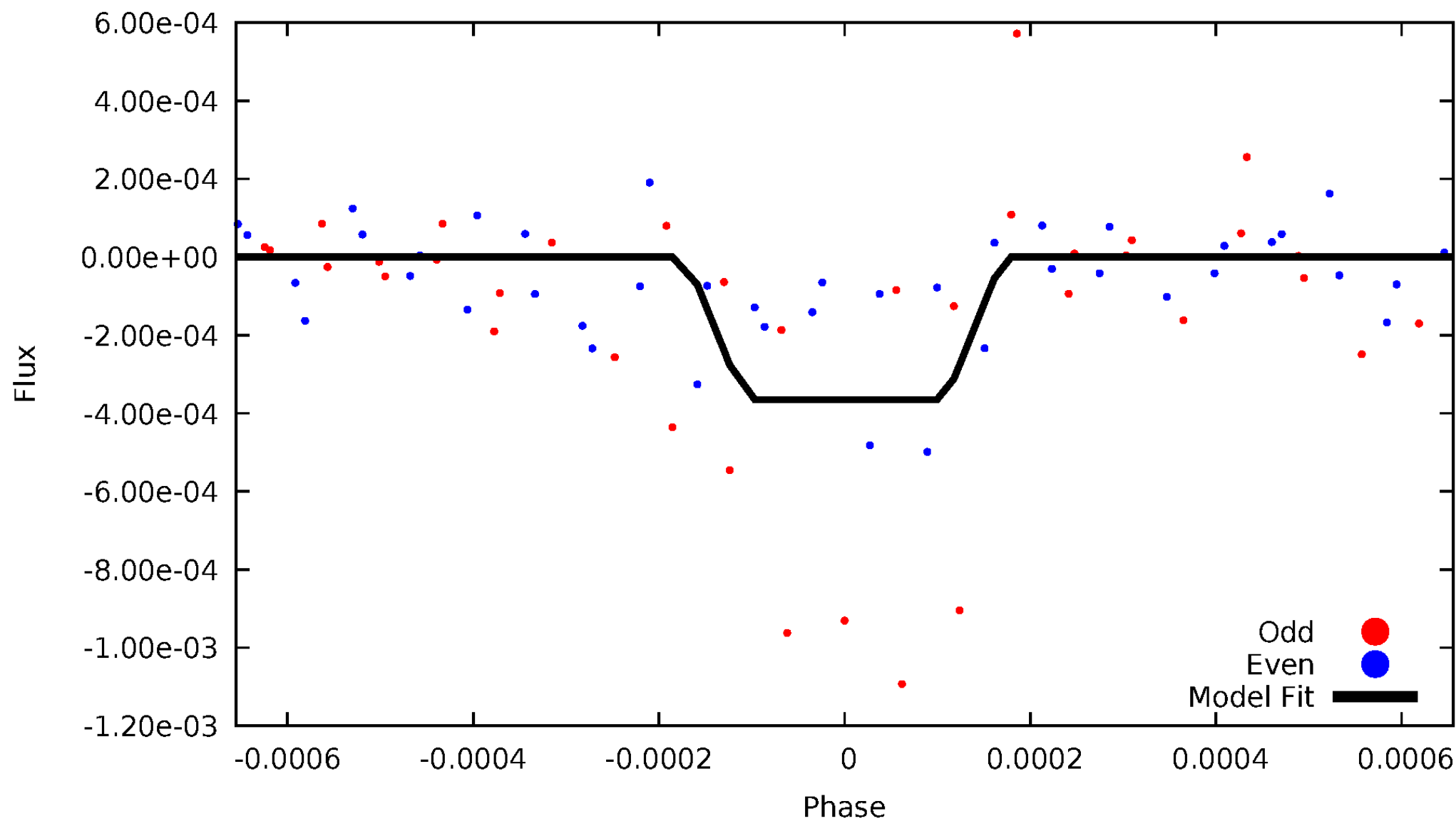
DV Odd/Even

TCE 011140181-01

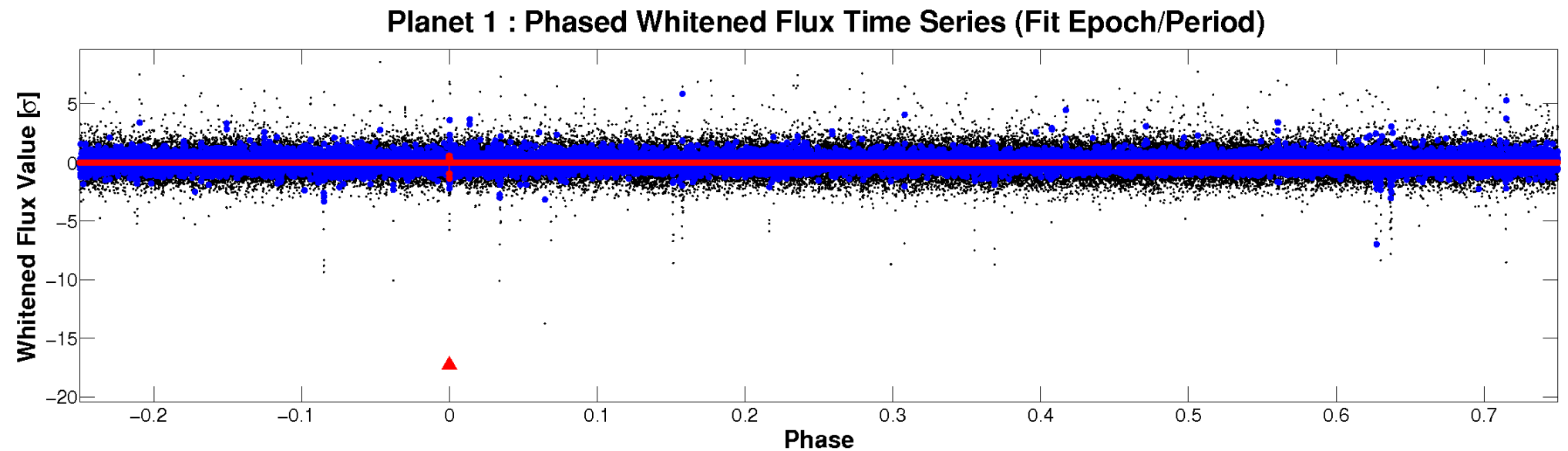
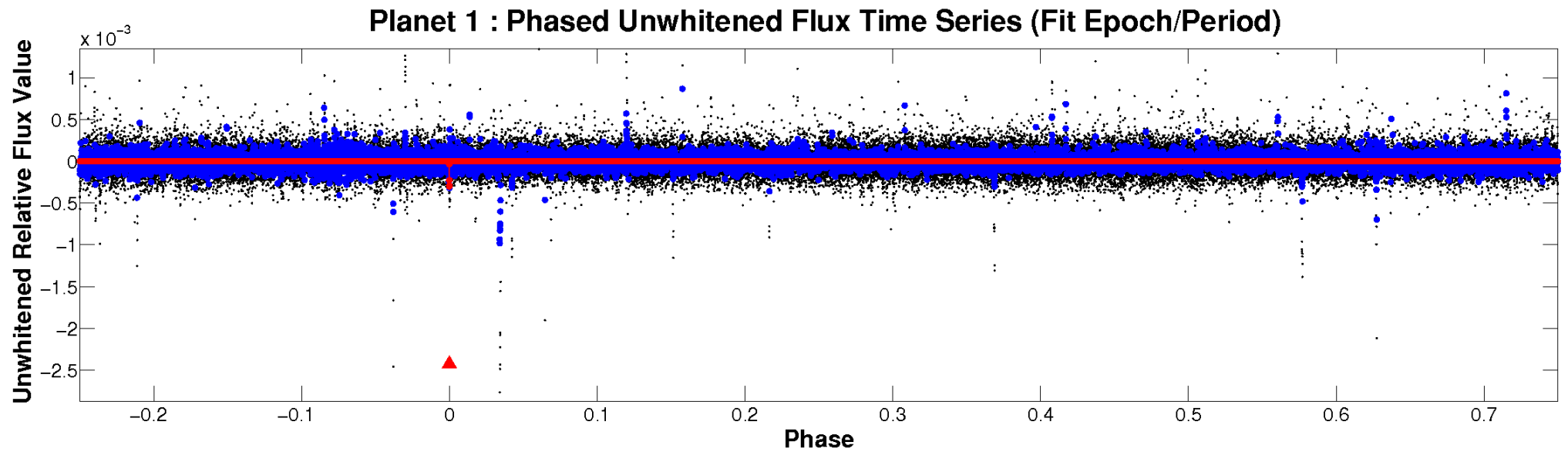


ALT Odd/Even

TCE 011140181-01

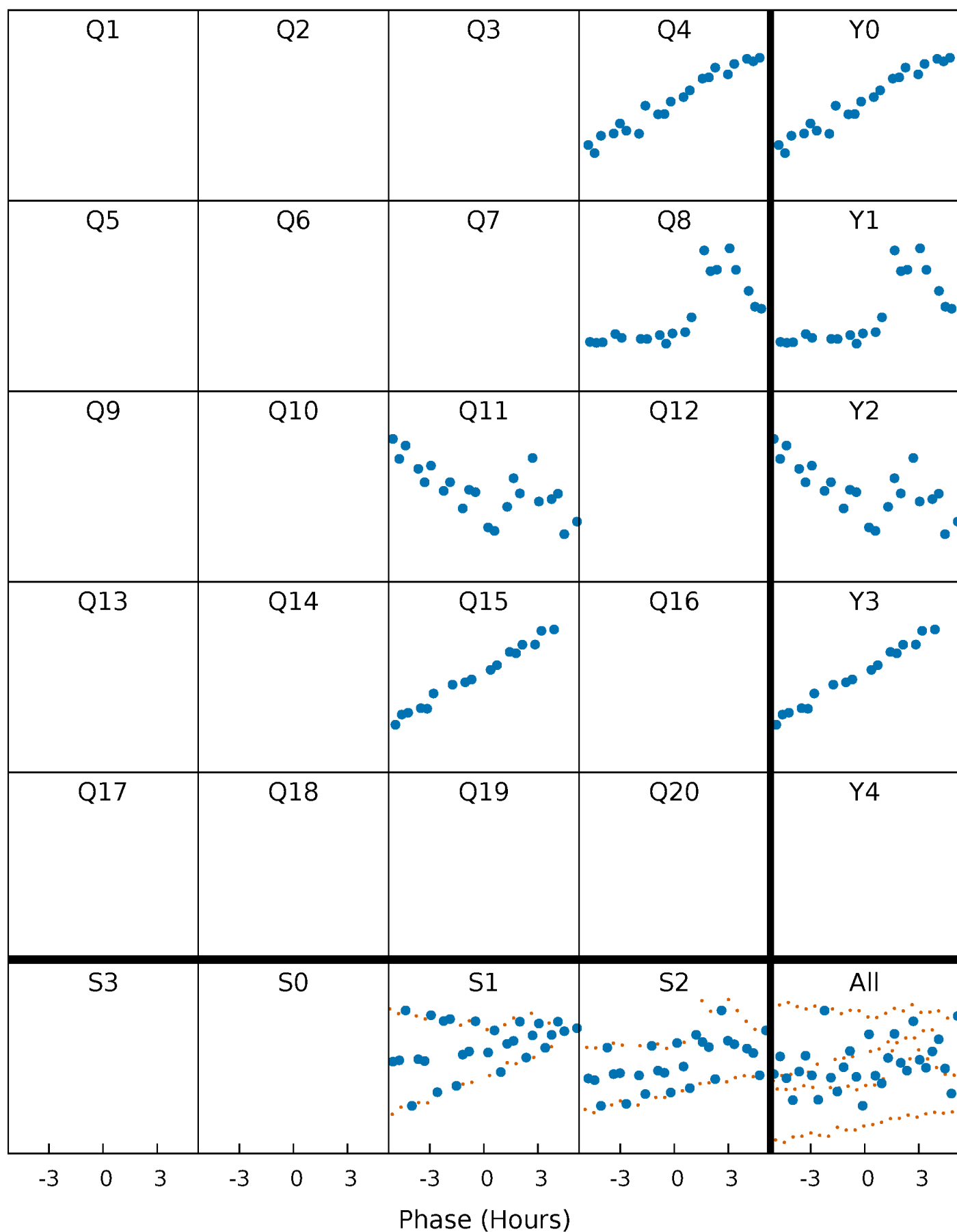


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 011140181-01 P=330.162022 Days $T_0=422.159084$ (BKJD)



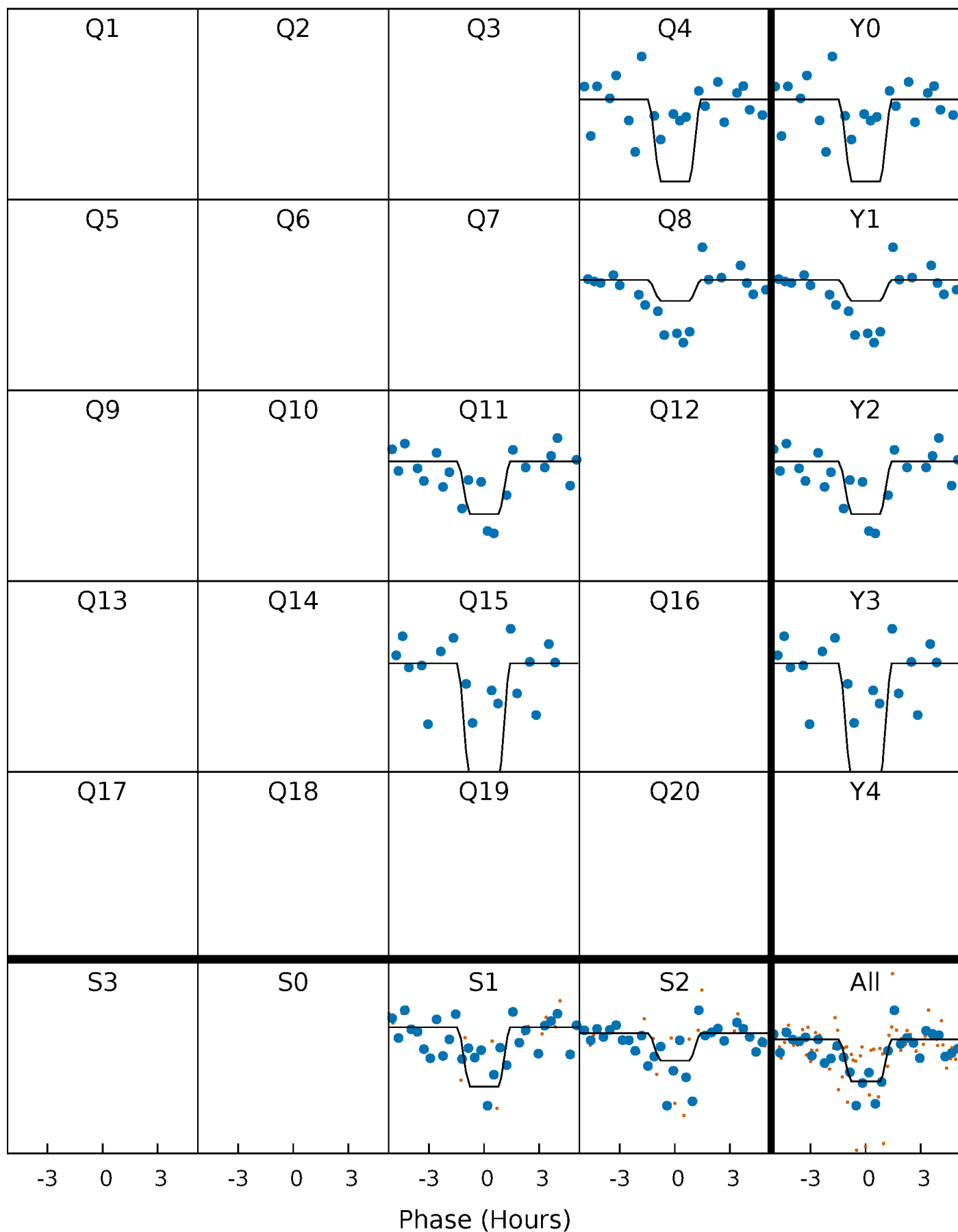
DV Quarter-Phased Transit Curves

TCE 011140181-01 $P=330.162022$ Days $T_0=422.159084$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

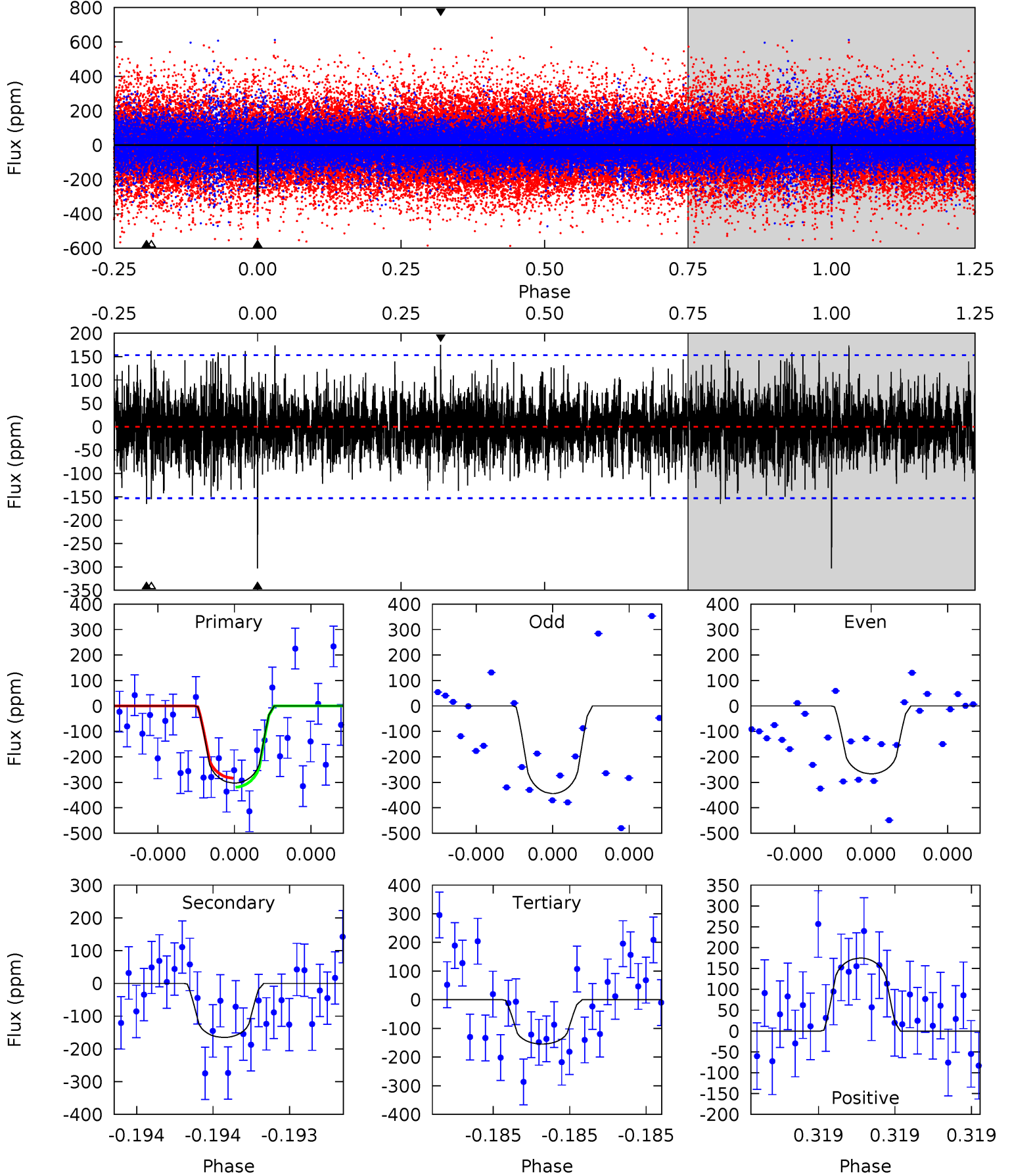
TCE 011140181-01 P=330.158179 Days $T_0=422.165234$ (BKJD)



DV Model-Shift Uniqueness Test

011140181-01, $P = 330.162022$ Days, $E = 91.997062$ Days

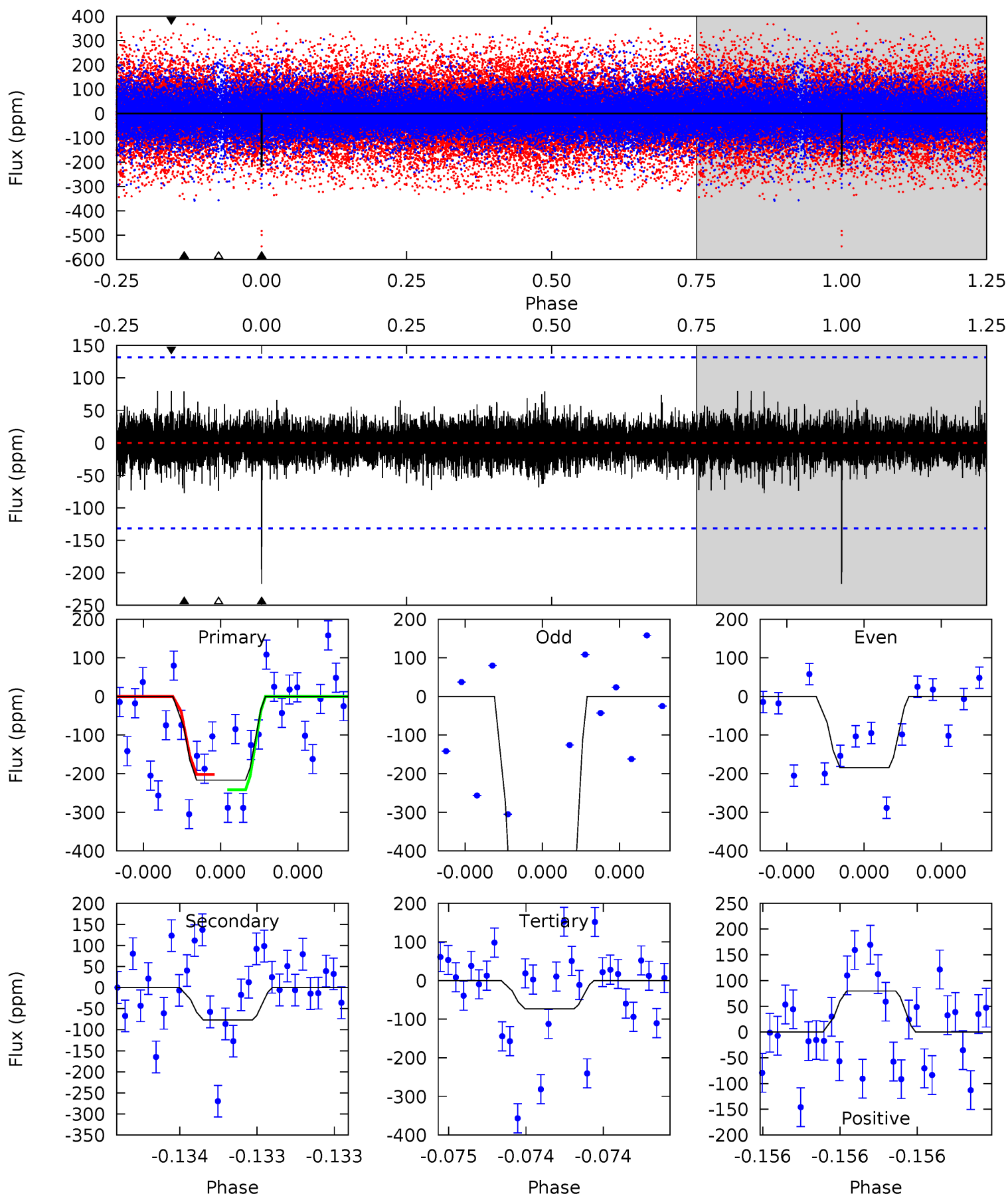
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	6.06	5.67	6.42	5.61	3.54	1.46	5.44	4.69	0.39	-0.36	1.42	1.00	0.37	0.64



Alt Model-Shift Uniqueness Test

011140181-01, $P = 330.158179$ Days, $E = 92.007055$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.30	3.30	3.15	3.42	5.66	3.61	0.73	6.15	5.88	0.16	-0.12	12.7	1.66	0.27	0



Stellar Parameters For KIC 011140181

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5519^{+74}_{-83}	$4.481^{+0.064}_{-0.088}$	$-0.060^{+0.150}_{-0.150}$	$0.891^{+0.092}_{-0.067}$	$0.877^{+0.055}_{-0.050}$	$1.745^{+0.410}_{-0.440}$
	+1%/-2%	+1%/-2%	+250%/-250%	+10%/-8%	+6%/-6%	+24%/-25%
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 011140181-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-165 ± 27	$3.22^{+3.05}_{-2.22}$	340^{+12}_{-9}	3824^{+2352}_{-724}	7030^{+70663}_{-5221}
Alt.	-77 ± 23	$3.15^{+2.98}_{-2.14}$	340^{+10}_{-9}	3375^{+1909}_{-600}	3219^{+33204}_{-2343}

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 $A_{obs} \gg 1.0$

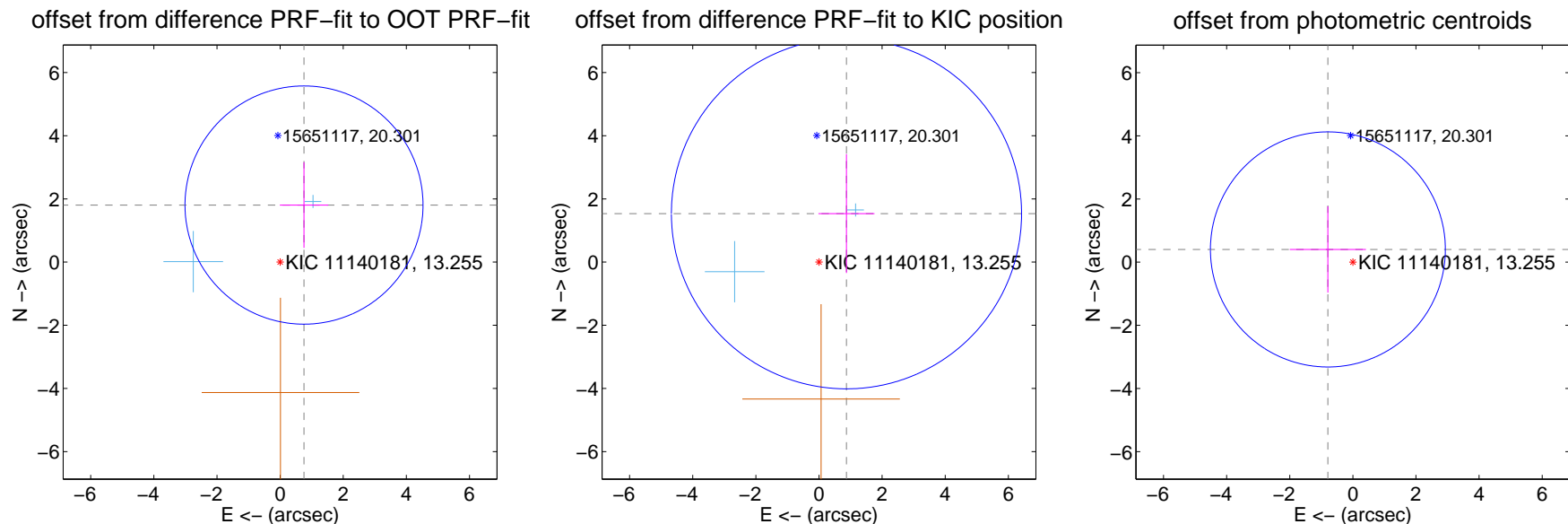
DV Centroid Data

Supplemental centroid analysis for 011140181-01. Kepler magnitude: 13.26. Transit SNR 5.09

There are 2 quarters with good PRF difference image offsets

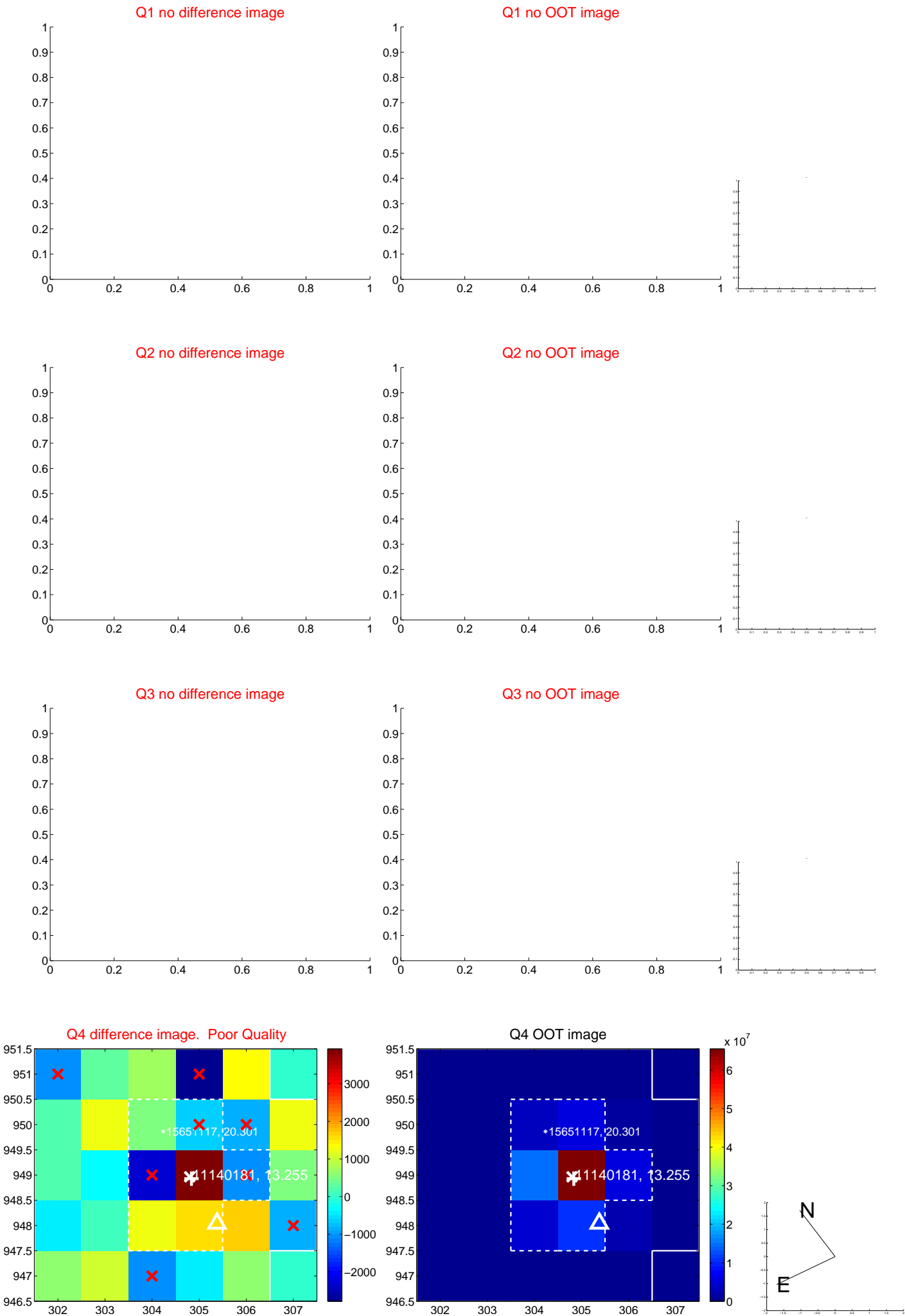
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.958 ± 1.257	1.56	-0.757 ± 0.766	1.806 ± 1.356
PRF-fit source offset from KIC position	1.765 ± 1.849	0.95	-0.871 ± 0.889	1.535 ± 1.882
photometric centroid source offset	0.89 ± 1.24	0.72	0.79 ± 1.21	0.40 ± 1.37

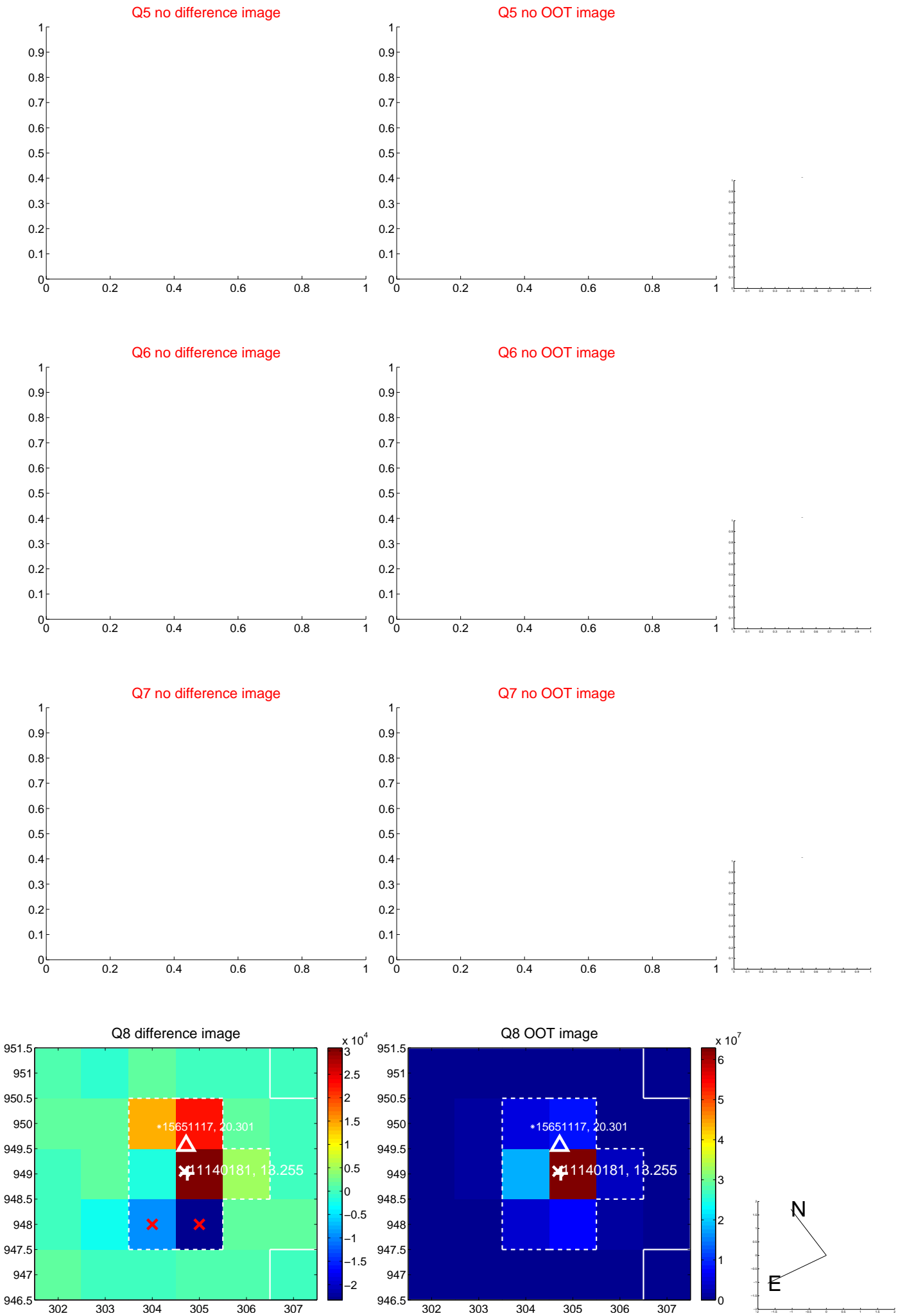


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

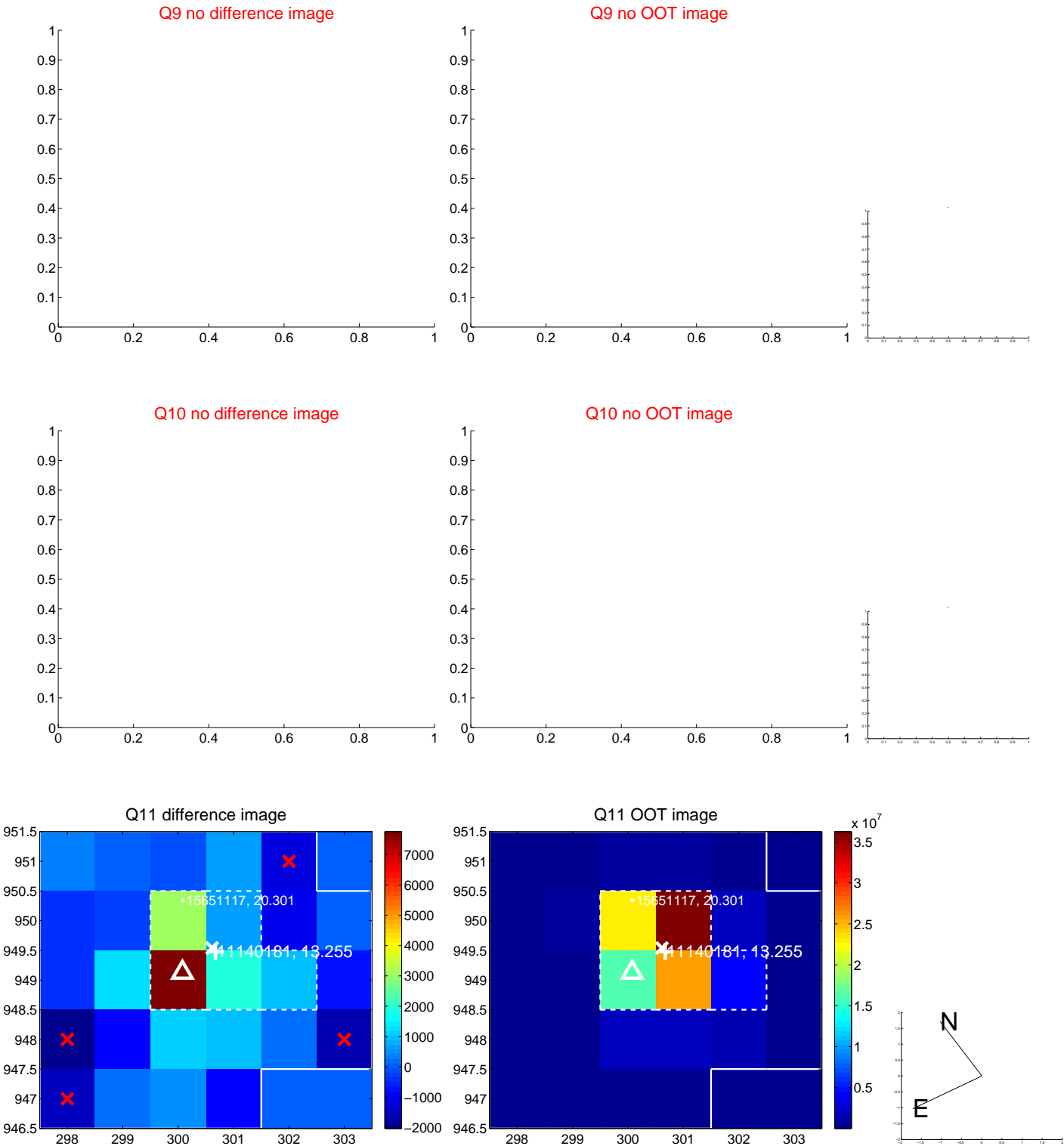
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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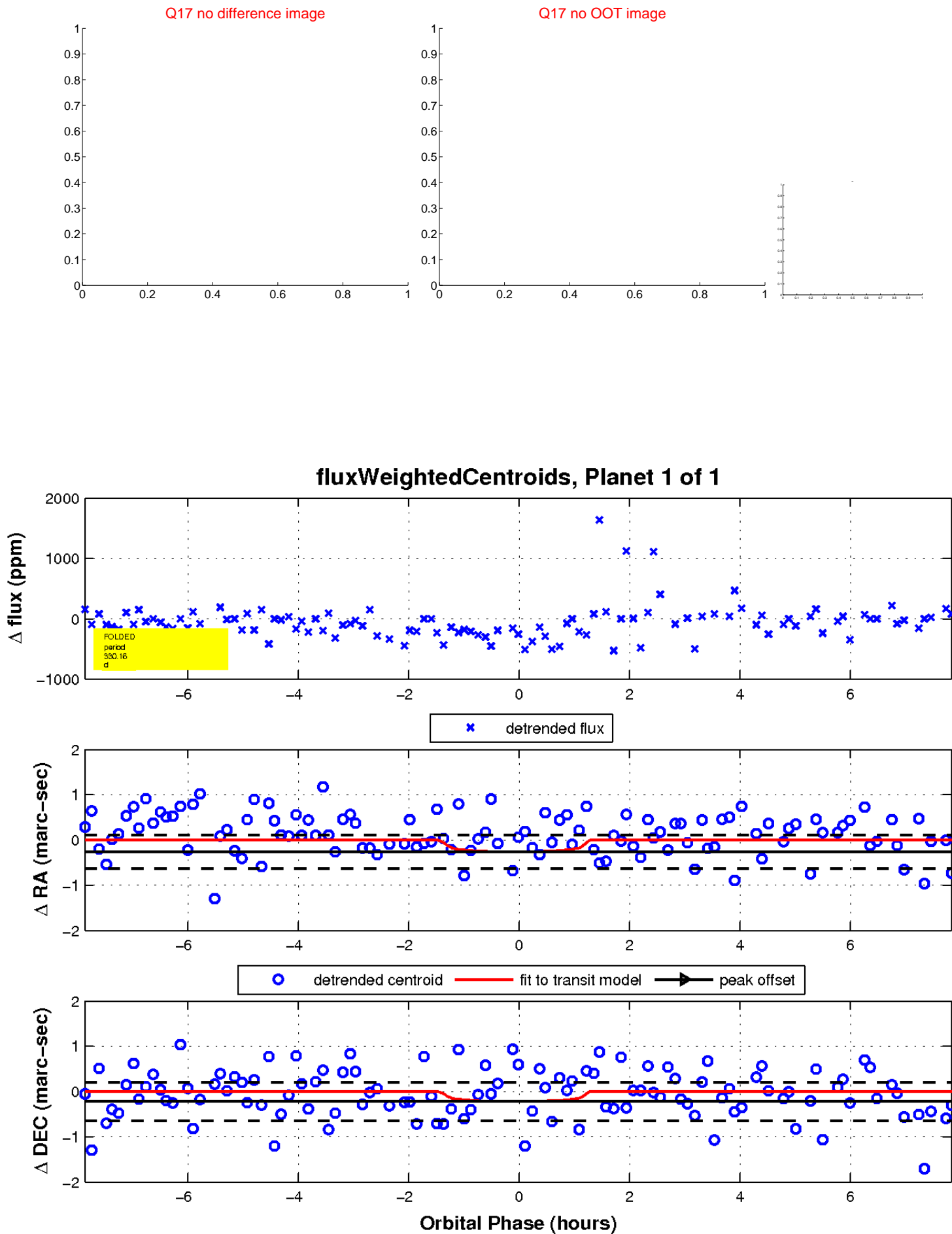
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UKIRT Image

Declination

