

KIC 005529084

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})
005529084-01	OBS	No	423.930357	287.040593	1588.5	7.437	13.1	6.9	0.75	5518	3.19	0.45

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005529084-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—LPP_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.

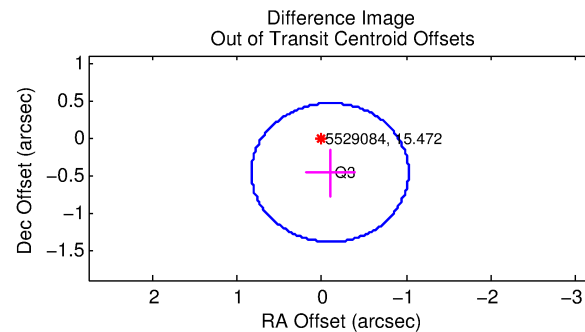
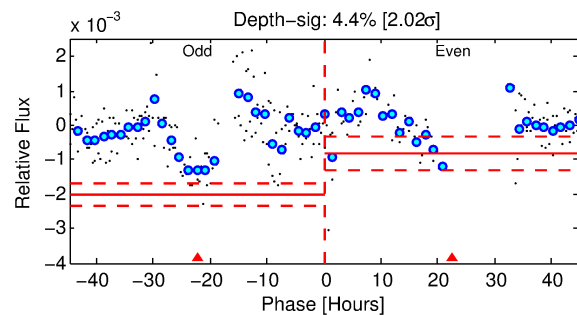
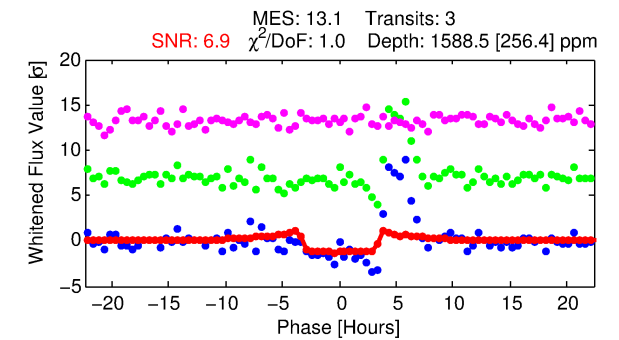
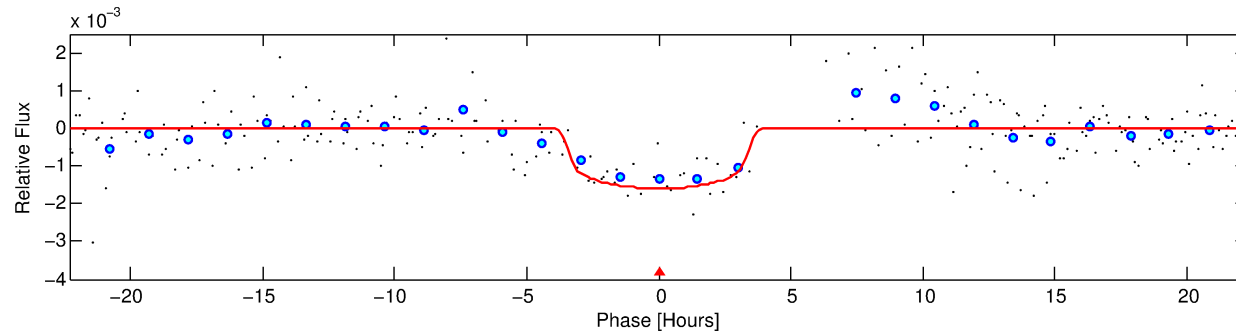
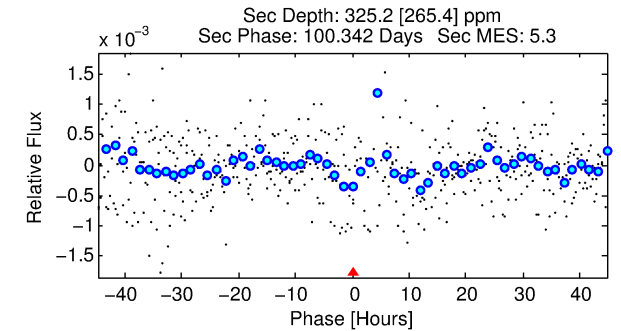
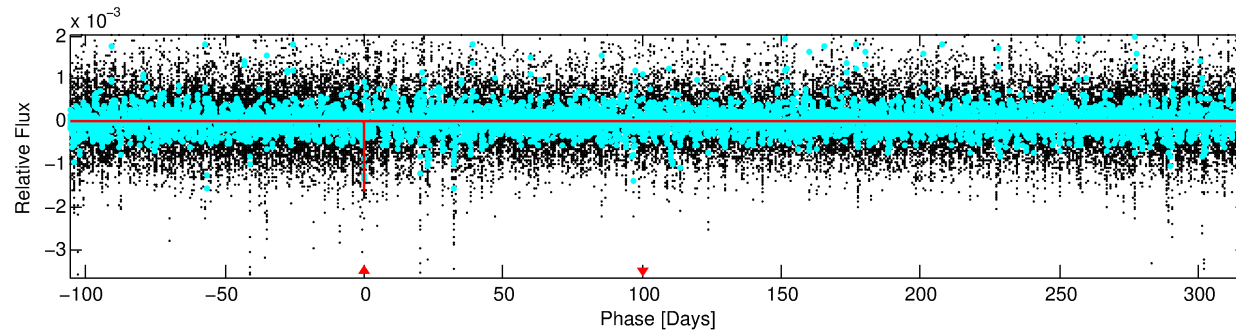
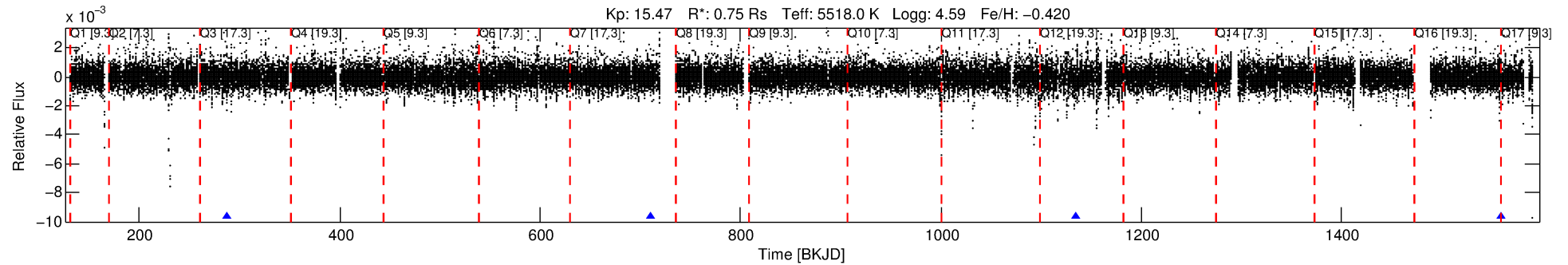
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005529084-01

No Significant Match Found

DV One-Page Summary

KIC: 5529084 Candidate: 1 of 1 Period: 423.930 d



DV Fit Results:

Period = 423.93036 [0.00629] d
Epoch = 287.0406 [0.0096] BKJD
Rp/R* = 0.0389 [0.0112]
a/R* = 337.92 [379.57]
b = 0.69 [0.86]
Seff = 0.45 [0.12]
Teq = 209 [13] K
Rp = 3.19 [1.12] Re
a = 1.0243 [0.1648] AU
Ag = 18395.37 [18840.05] [0.98σ]
Teffp = 3758 [945] K [3.76σ]

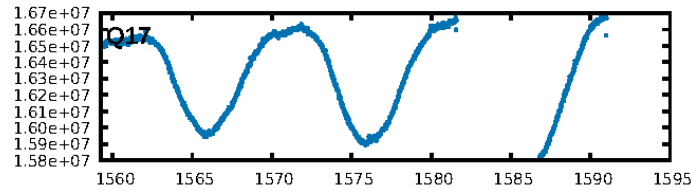
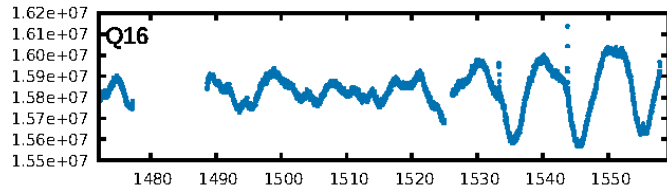
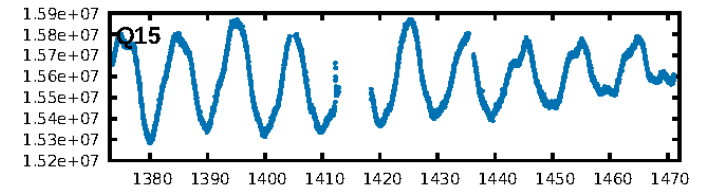
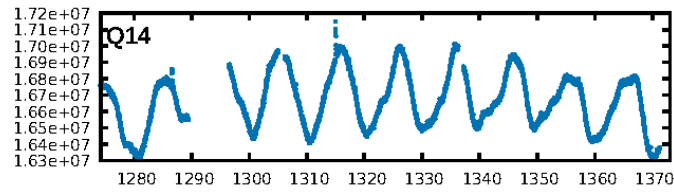
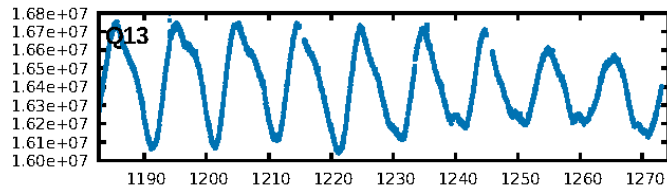
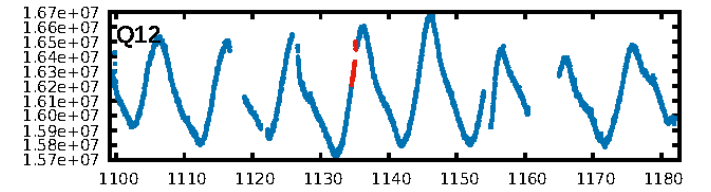
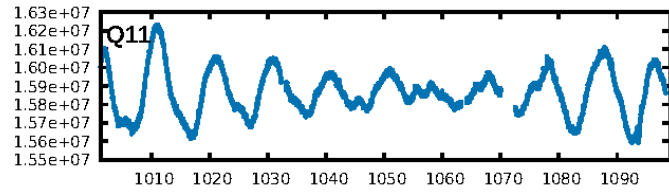
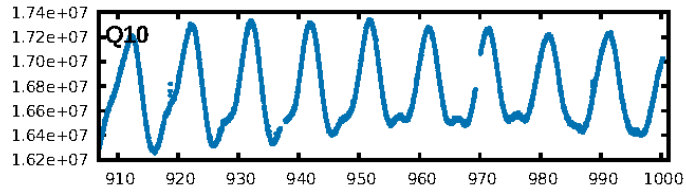
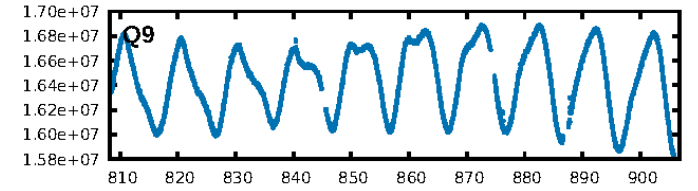
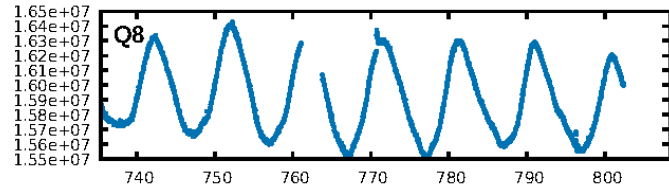
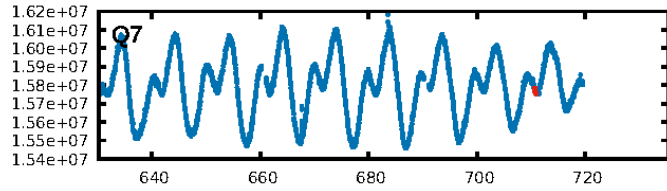
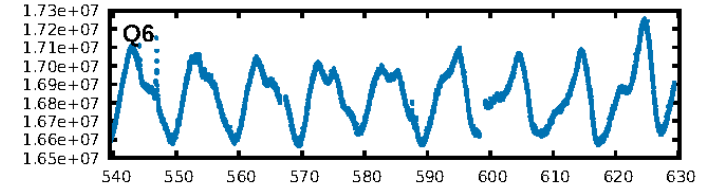
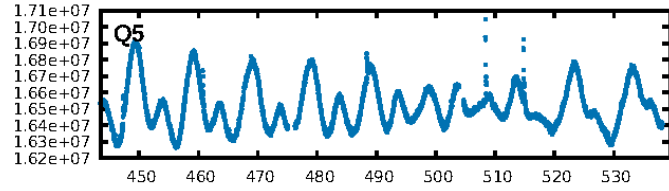
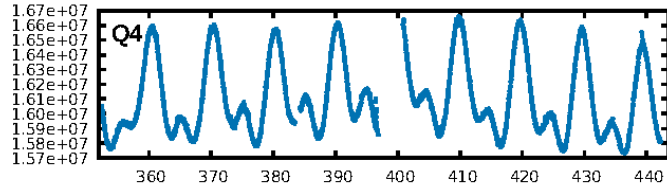
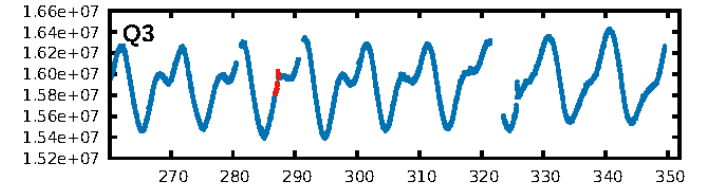
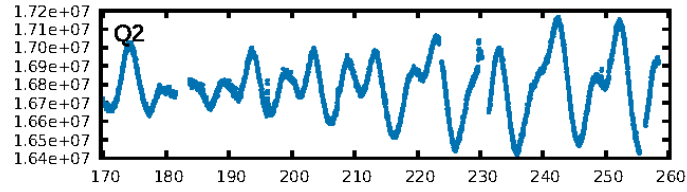
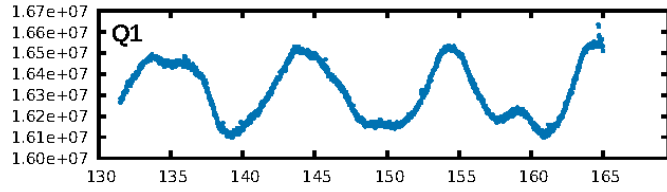
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 53.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.92e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.901
Centroid-sig: 2.2%
Centroid-so: 1.581 arcsec [1.76σ]
OotOffset-rm: 0.476 arcsec [1.54σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-rm: 0.641 arcsec [2.08σ]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

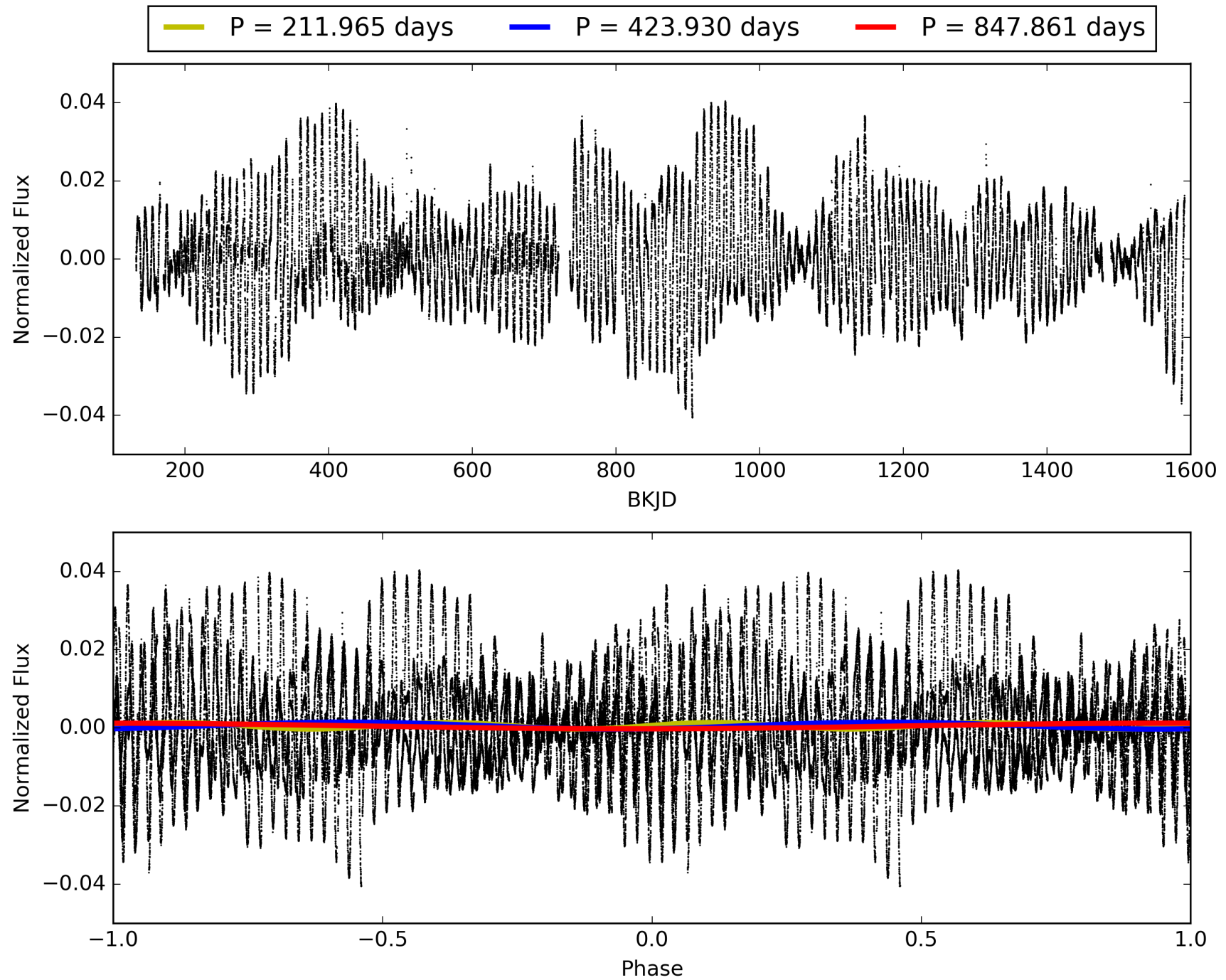
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:16:20 Z

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

TCE 005529084-01, PDC Light Curves

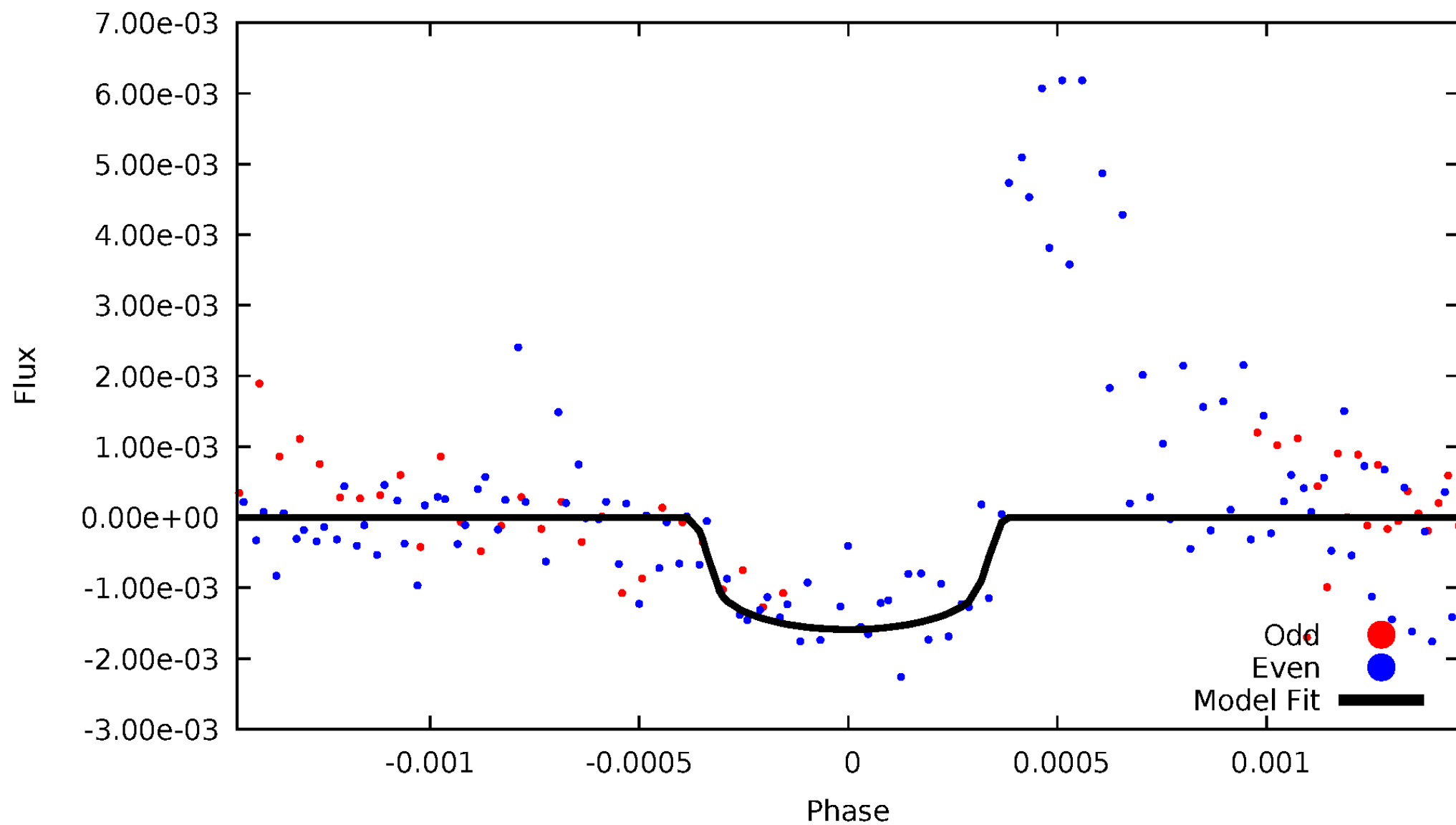


TCE 005529084-01



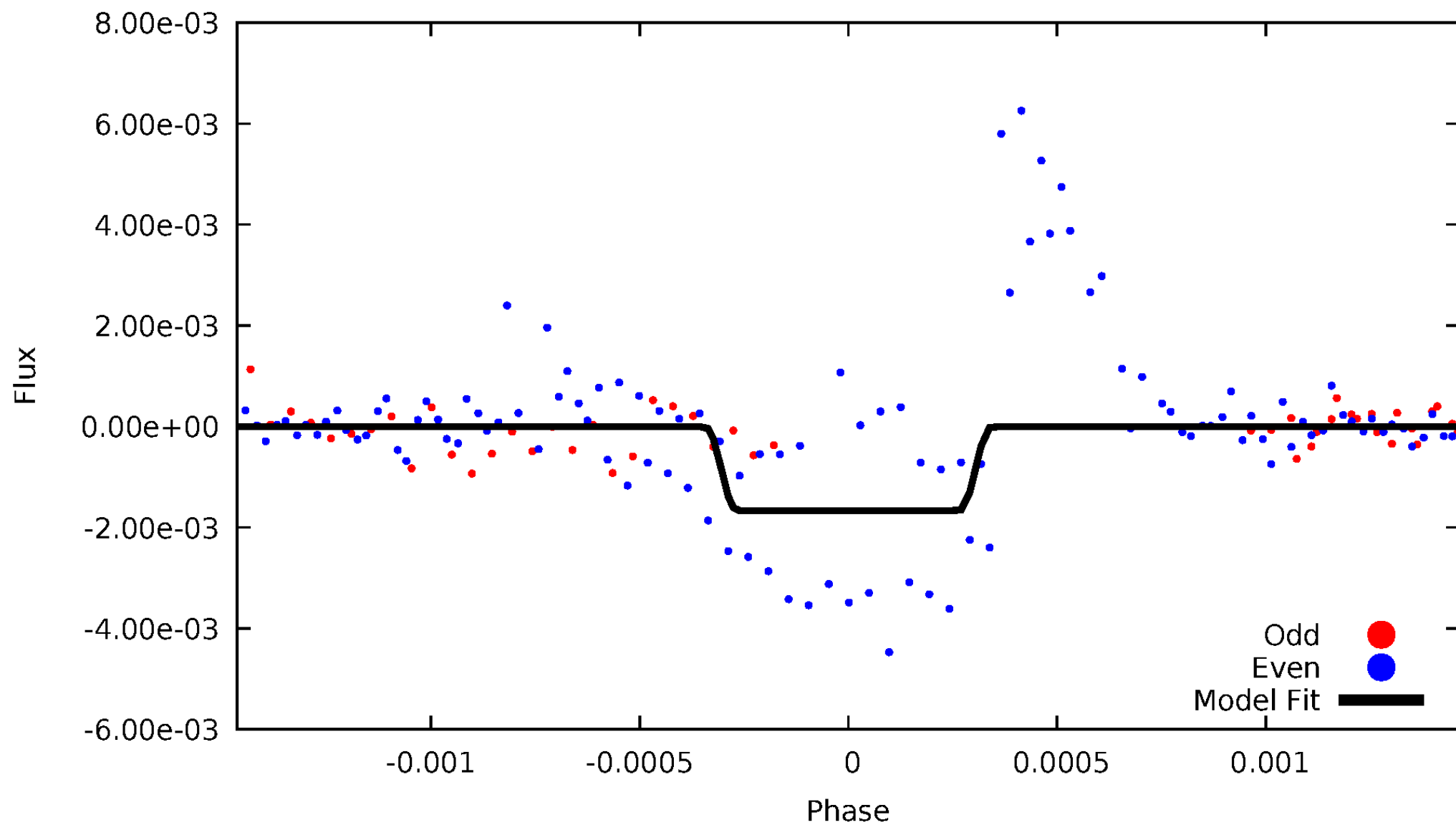
DV Odd/Even

TCE 005529084-01



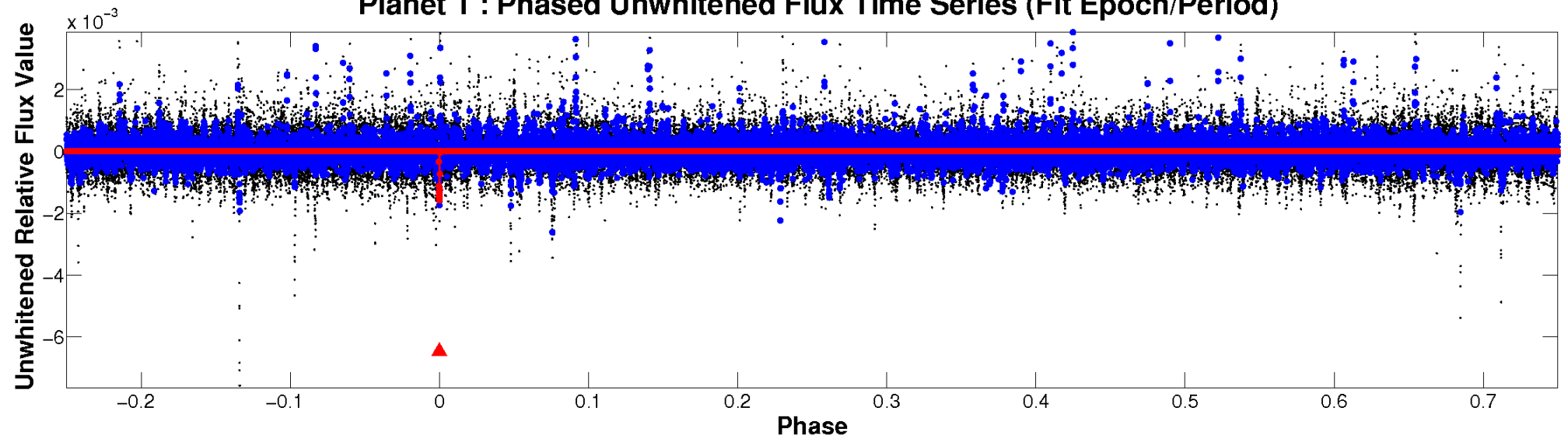
ALT Odd/Even

TCE 005529084-01

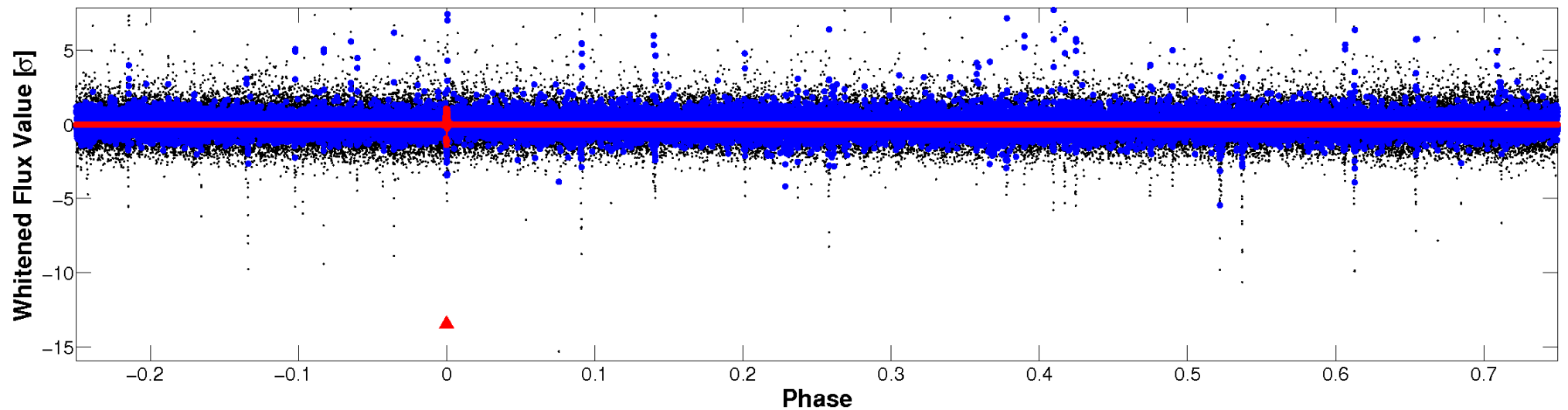


Non-Whitened Vs. Whitened Light Curve

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

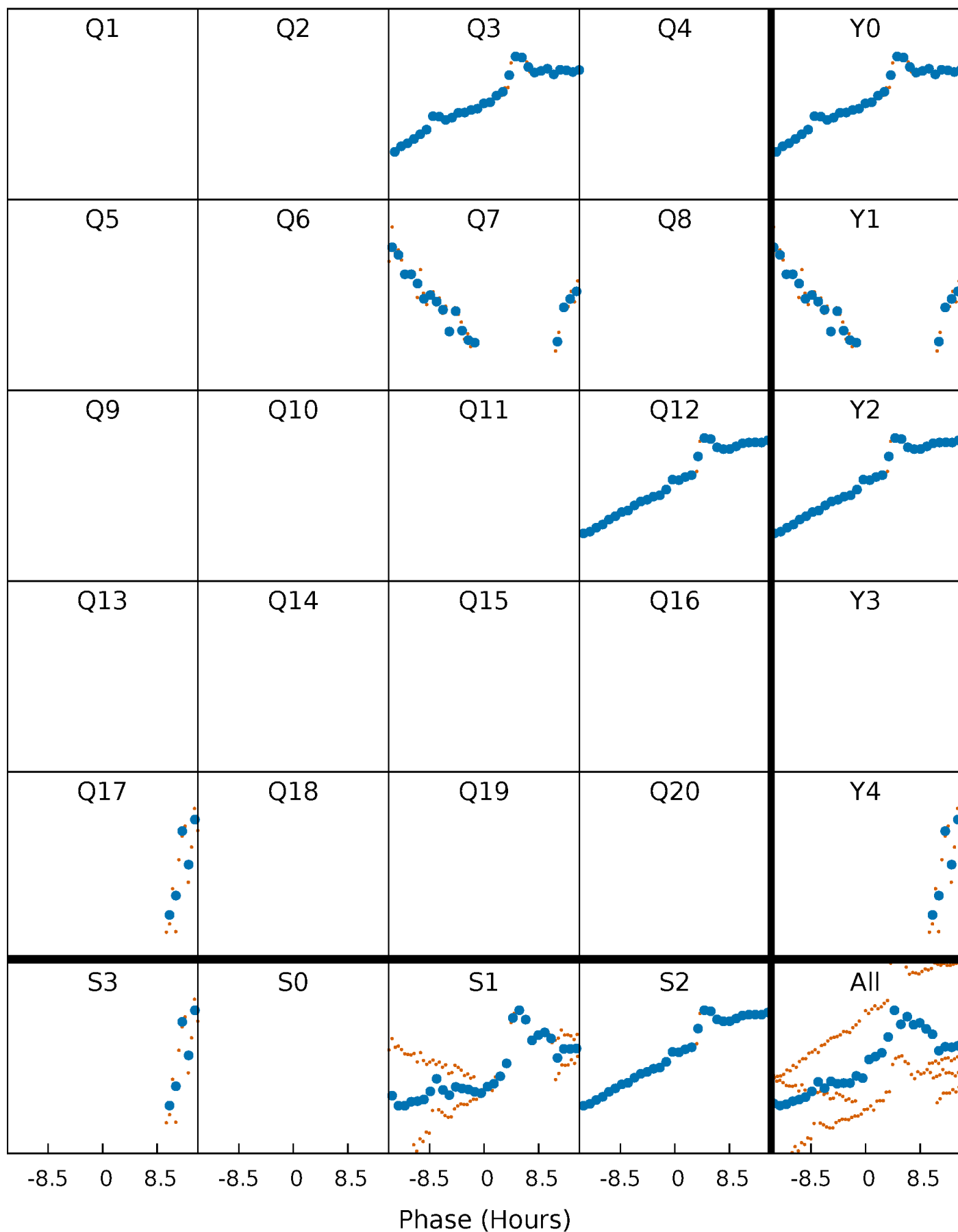


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



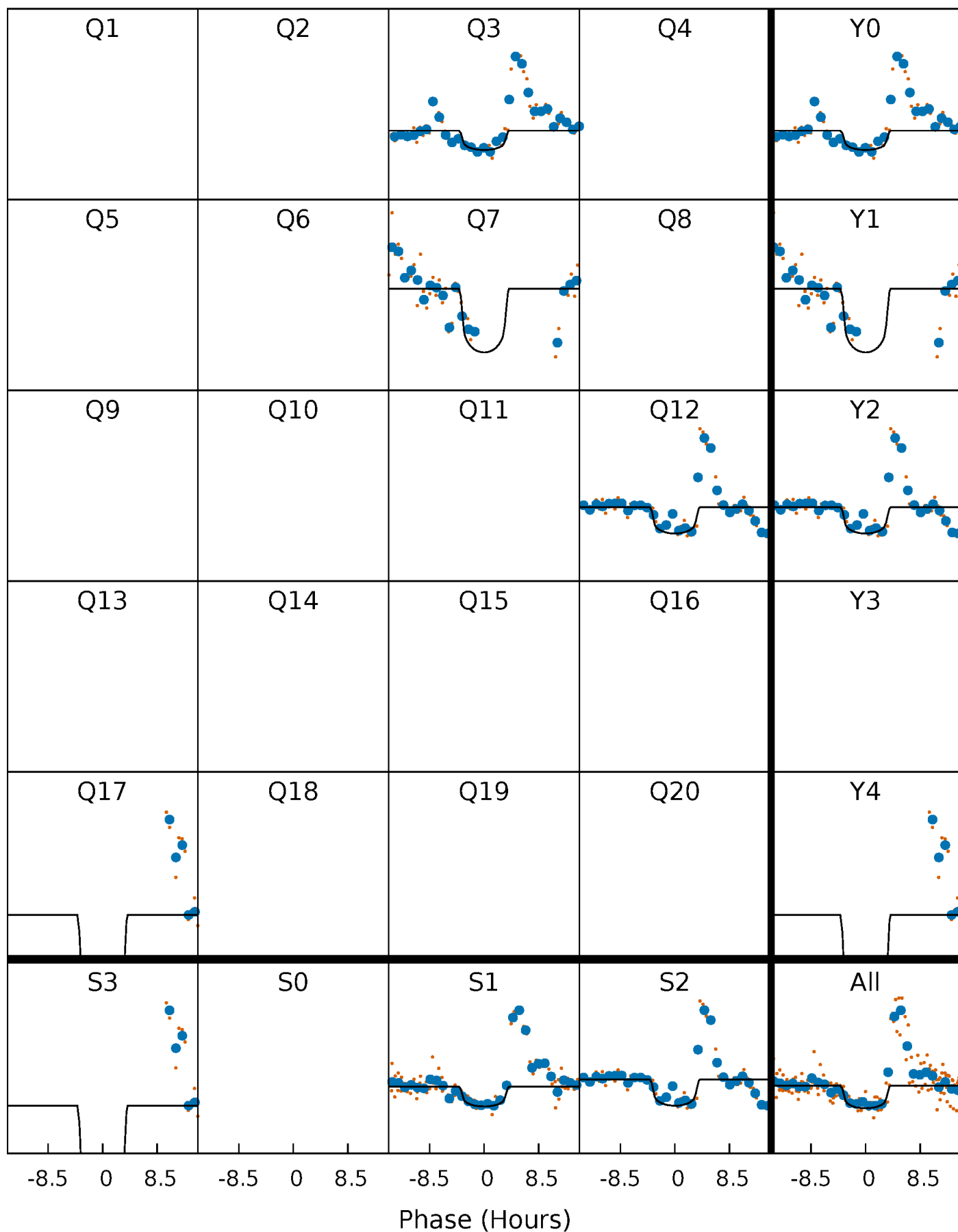
PDC Quarter-Phased Transit Curves

TCE 005529084-01 P=423.930357 Days $T_0=287.040593$ (BKJD)



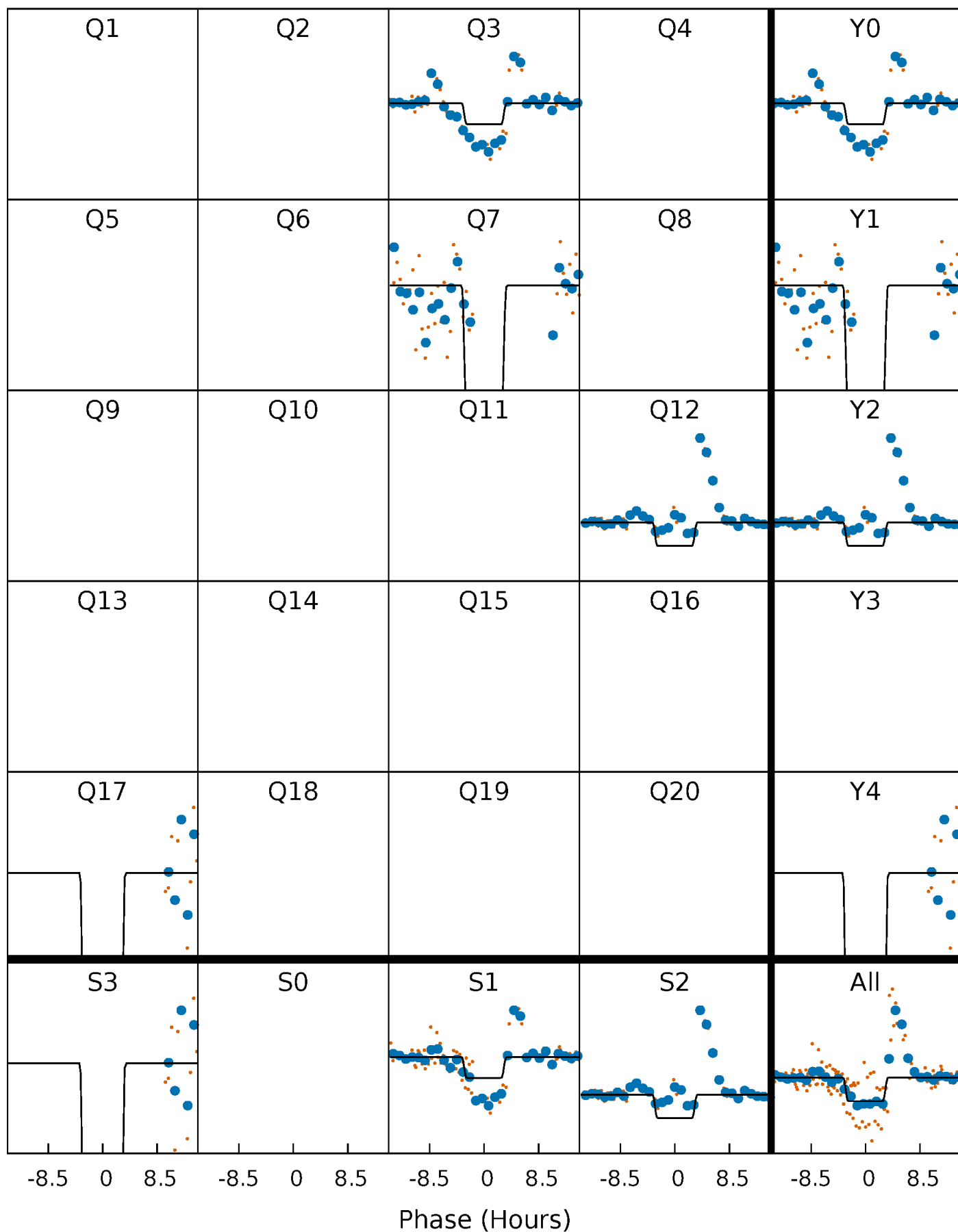
DV Quarter-Phased Transit Curves

TCE 005529084-01 P=423.930357 Days $T_0=287.040593$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

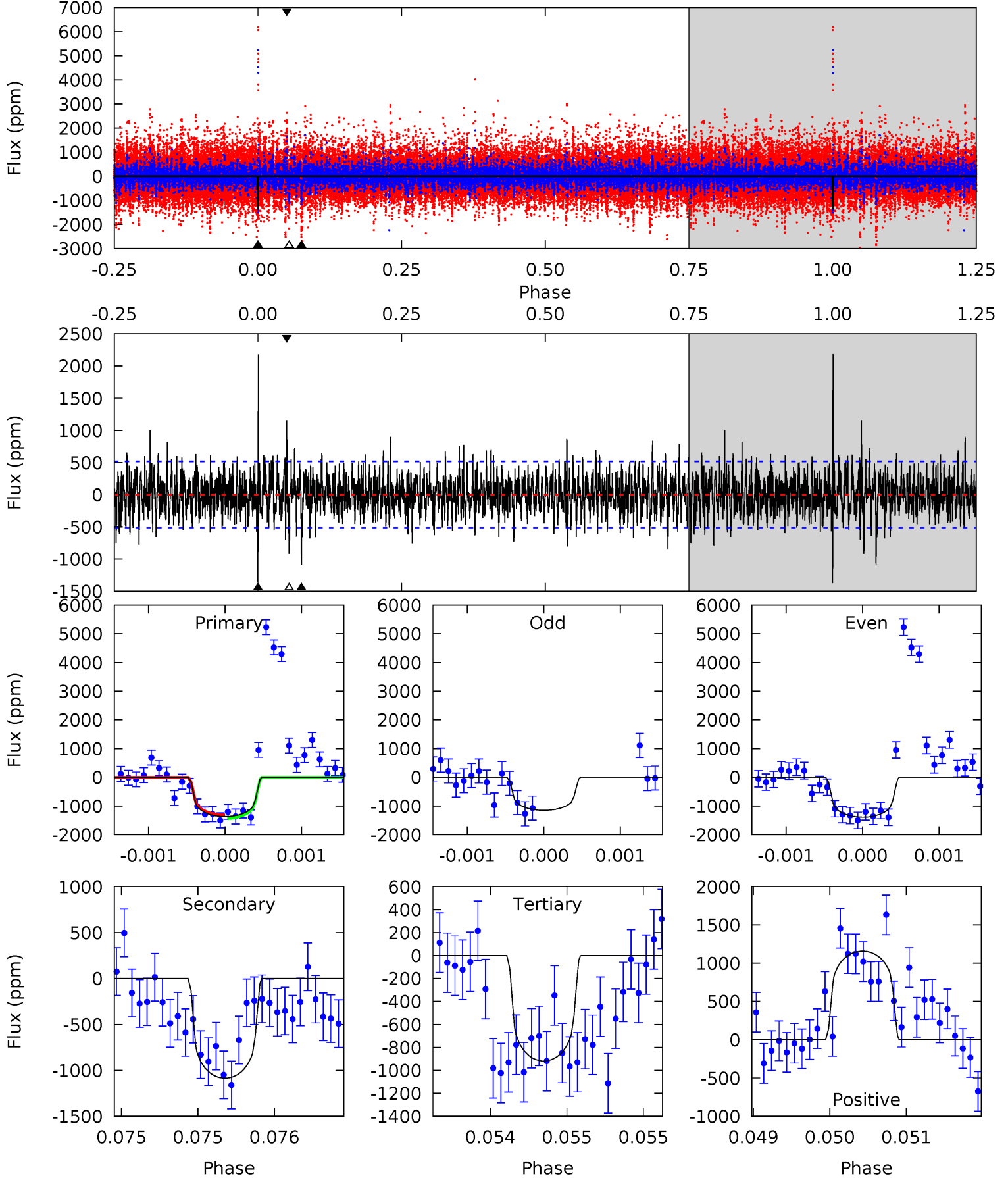
TCE 005529084-01 P=423.928258 Days $T_0=287.052516$ (BKJD)



DV Model-Shift Uniqueness Test

005529084-01, P = 423.930357 Days, E = 287.040593 Days

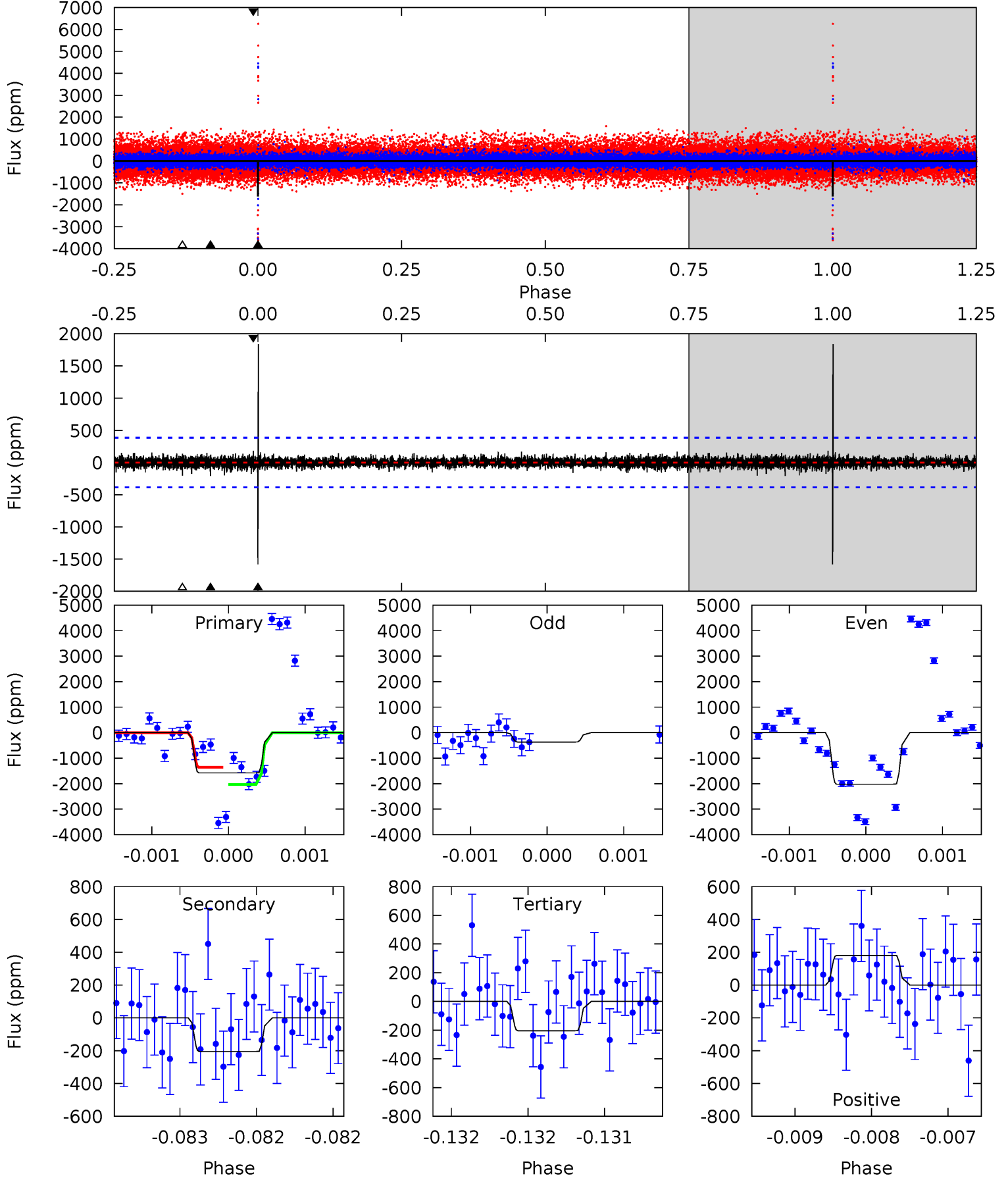
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	11.5	9.74	12.3	5.49	3.35	2.56	4.78	2.24	1.77	-0.77	0.82	1.02	0.61	0.66



Alt Model-Shift Uniqueness Test

005529084-01, P = 423.928258 Days, E = 287.052516 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	2.94	2.92	2.59	5.52	3.40	0.59	19.7	20.0	0.02	0.35	8.81	3.61	0.54	0



Stellar Parameters For KIC 005529084

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5518^{+165}_{-149}	$4.586^{+0.048}_{-0.120}$	$-0.420^{+0.350}_{-0.300}$	$0.753^{+0.149}_{-0.060}$	$0.797^{+0.088}_{-0.070}$	$2.633^{+0.544}_{-0.936}$
	+3%/-3%	+1%/-3%	+83%/-71%	+20%/-8%	+11%/-9%	+21%/-36%
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 005529084-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1086 ± 94	$3.29^{+1.03}_{-0.90}$	295^{+16}_{-12}	5113^{+837}_{-551}	57220^{+54003}_{-23702}
Alt.	-205 ± 70	$3.46^{+1.00}_{-0.94}$	295^{+15}_{-12}	3656^{+492}_{-380}	9590^{+10303}_{-4668}

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

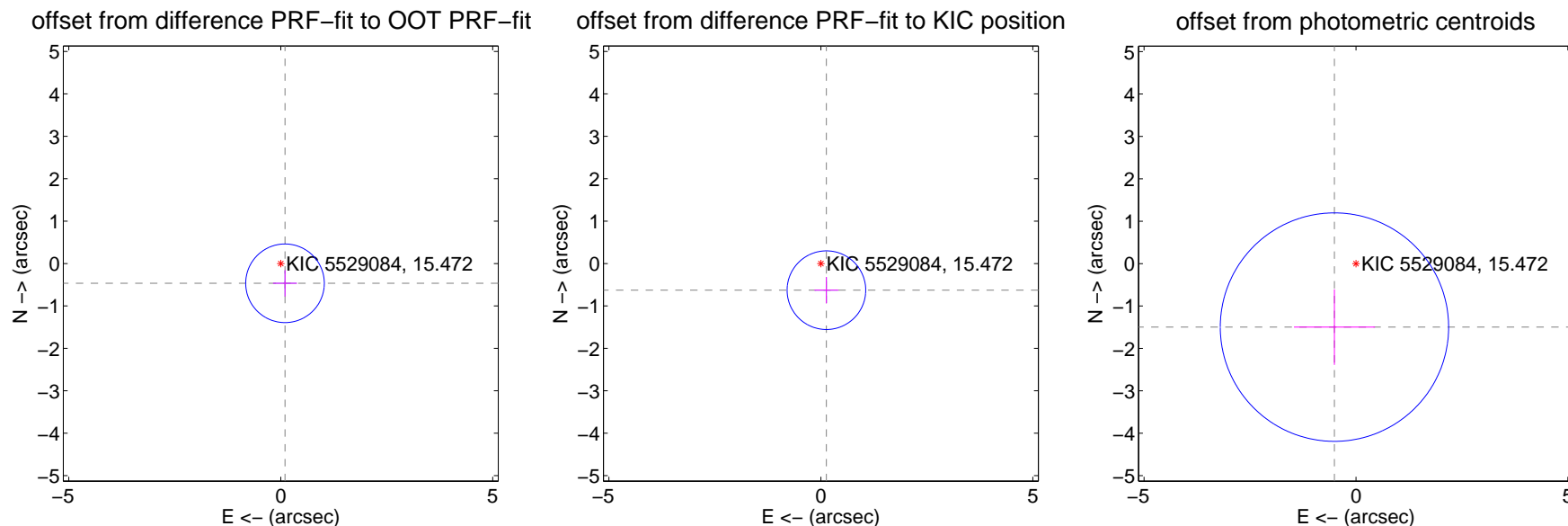
DV Centroid Data

Supplemental centroid analysis for 005529084-01. Kepler magnitude: 15.47. Transit SNR 6.92

There are 1 quarters with good PRF difference image offsets

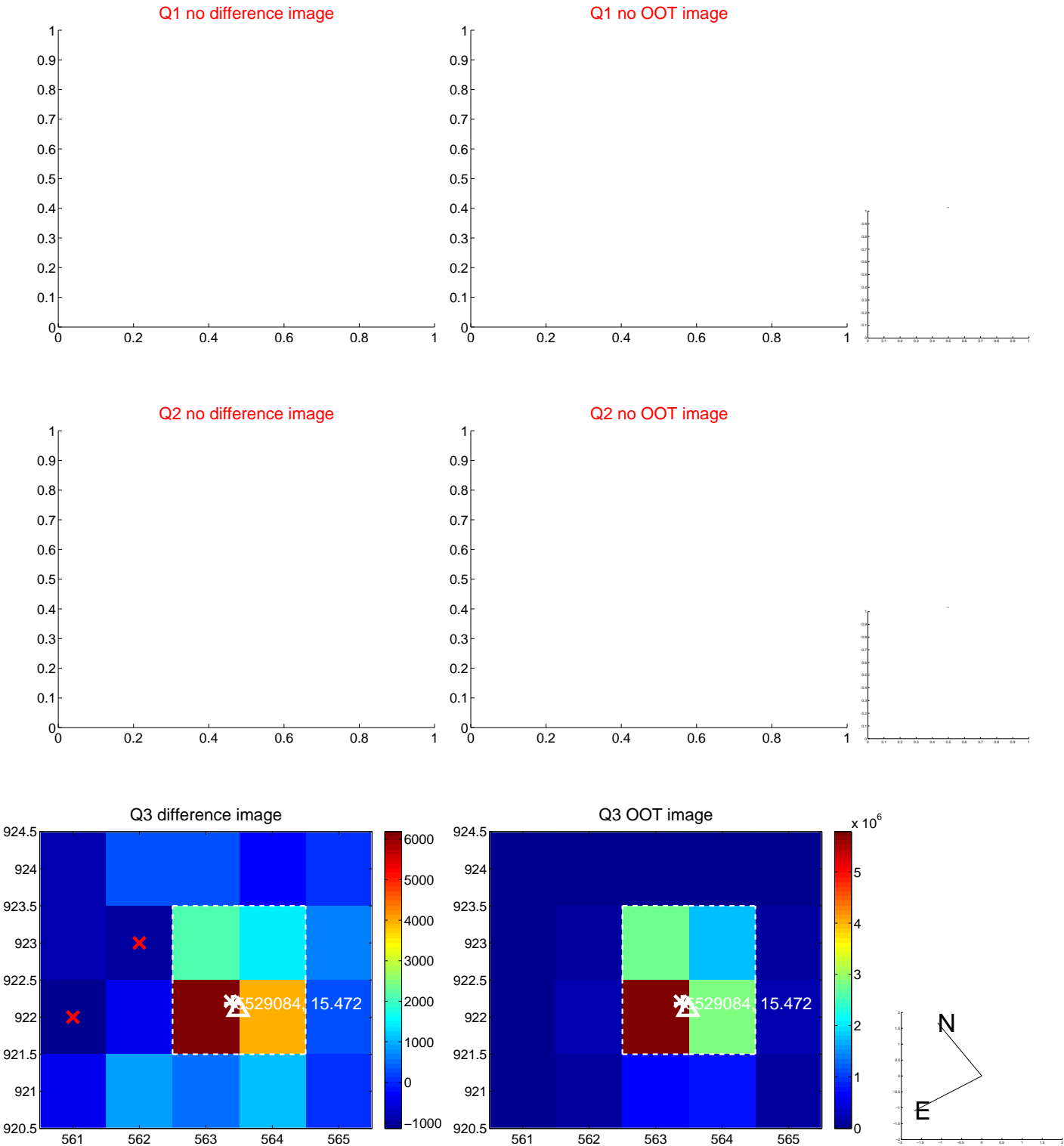
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.476 ± 0.309	1.54	-0.101 ± 0.282	-0.465 ± 0.310
PRF-fit source offset from KIC position	0.641 ± 0.309	2.08	-0.131 ± 0.282	-0.628 ± 0.310
photometric centroid source offset	1.58 ± 0.90	1.76	0.51 ± 0.96	-1.50 ± 0.89



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.

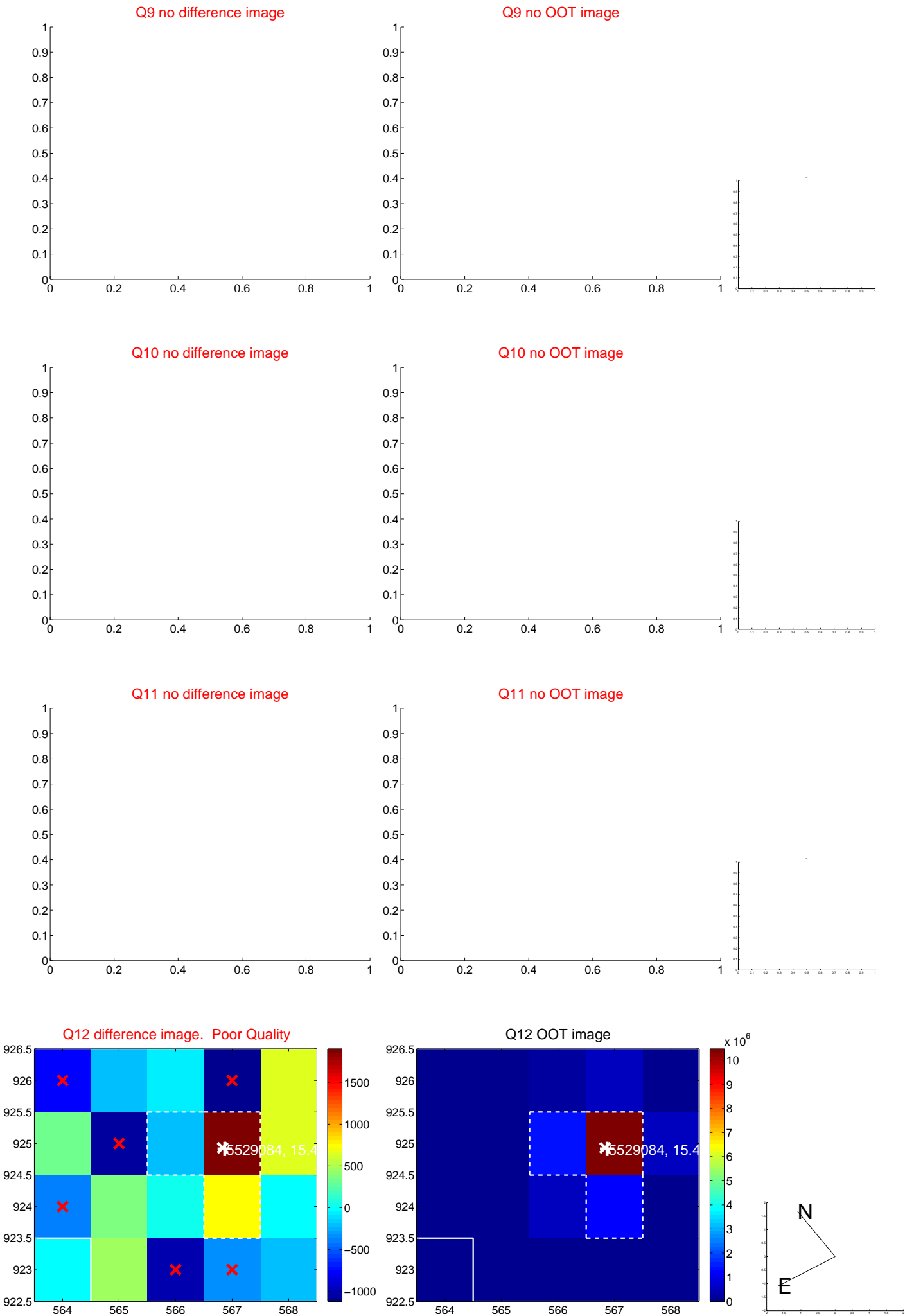
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



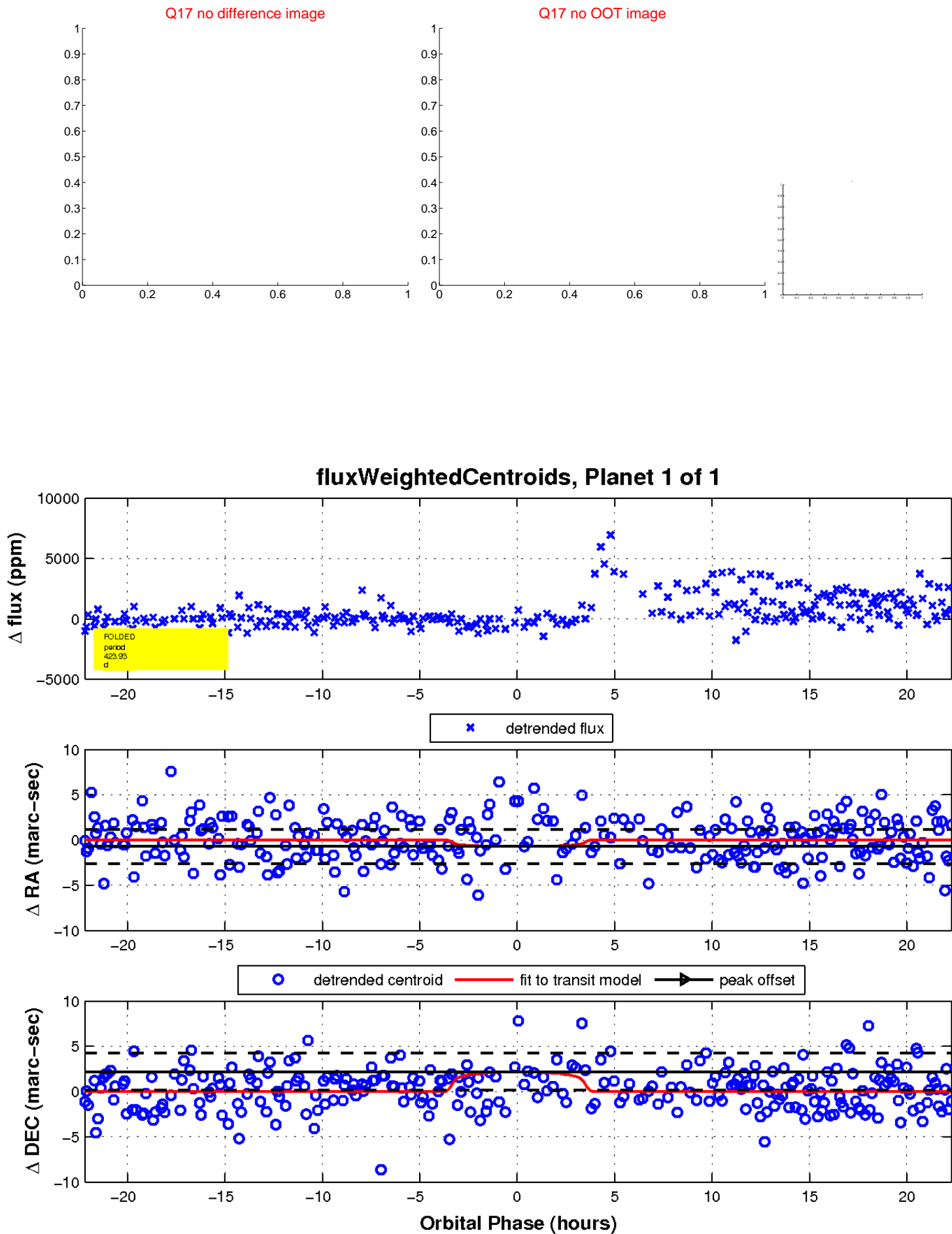
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

