

KIC 011853130

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})
011853130-01	OBS	3263.01	76.879359	146.882385	20544.1	2.364	118.4	116.3	0.44	3638	7.26	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011853130-01	OBS	PC	0.97	0	0	0	0	NO_COMMENT

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.

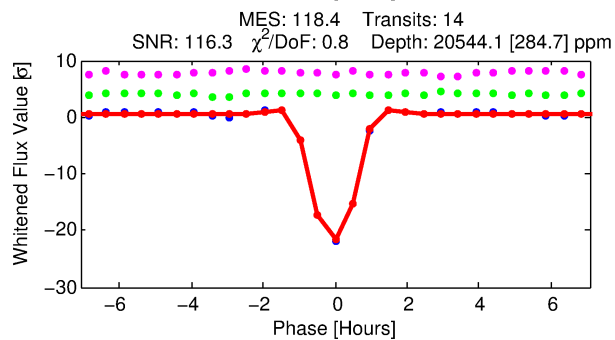
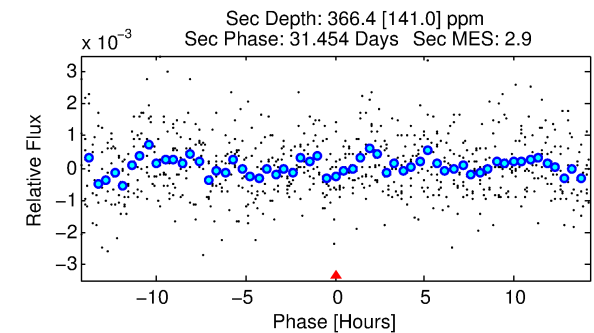
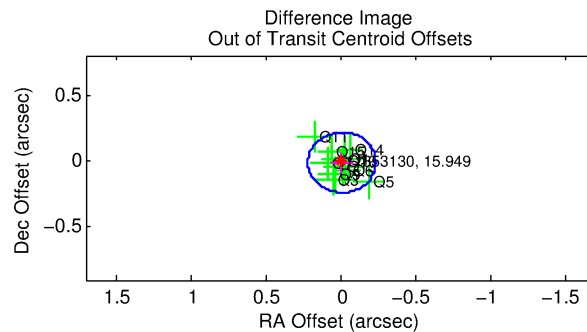
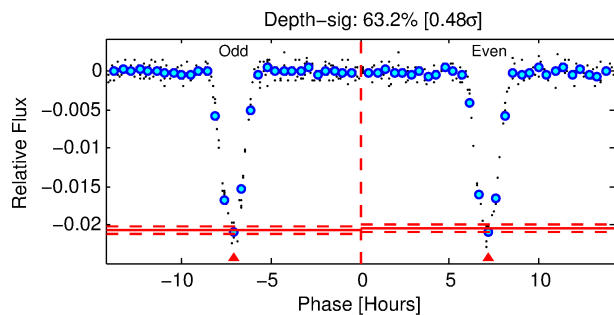
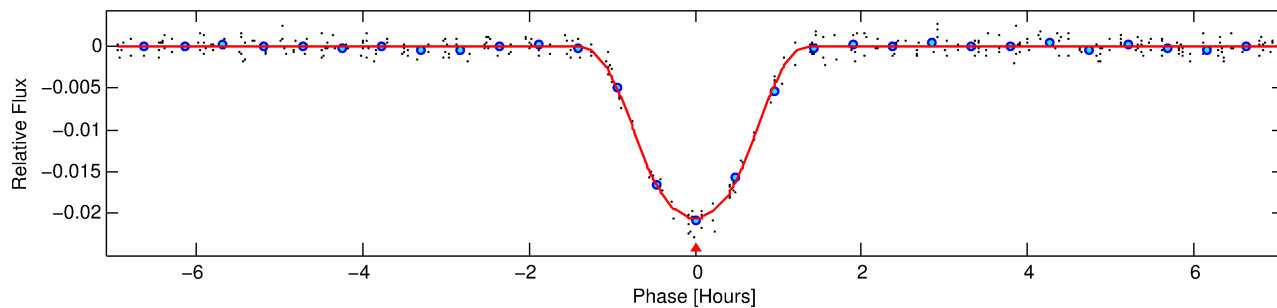
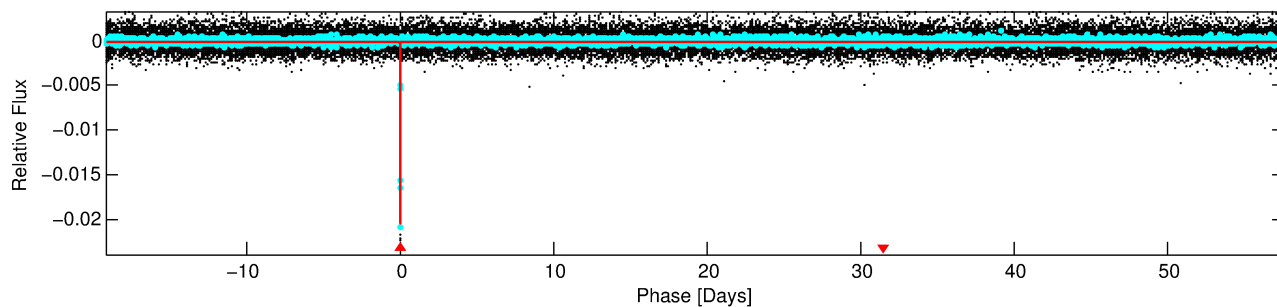
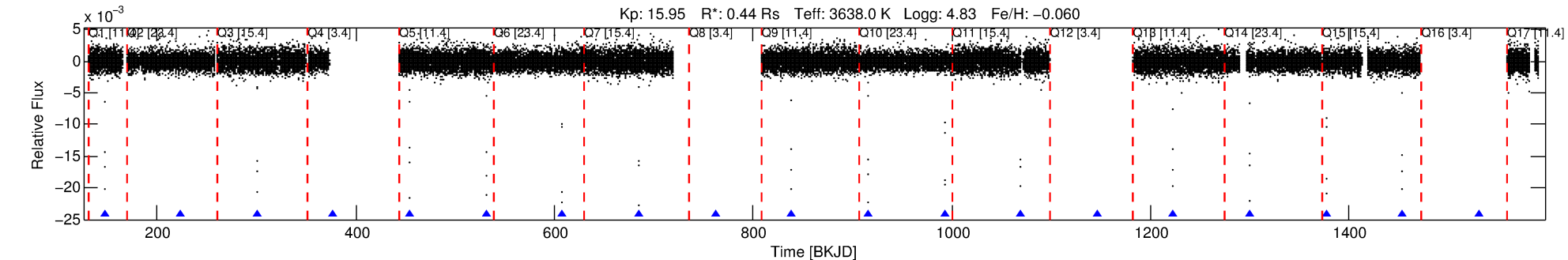
Ephemeris Match Information For 011853130-01

No Significant Match Found

DV One-Page Summary

KIC: 11853130 Candidate: 1 of 1 Period: 76.879 d
KOI: K03263.01 Corr: 0.999

Kp: 15.95 R*: 0.44 Rs Teff: 3638.0 K Logg: 4.83 Fe/H: -0.060



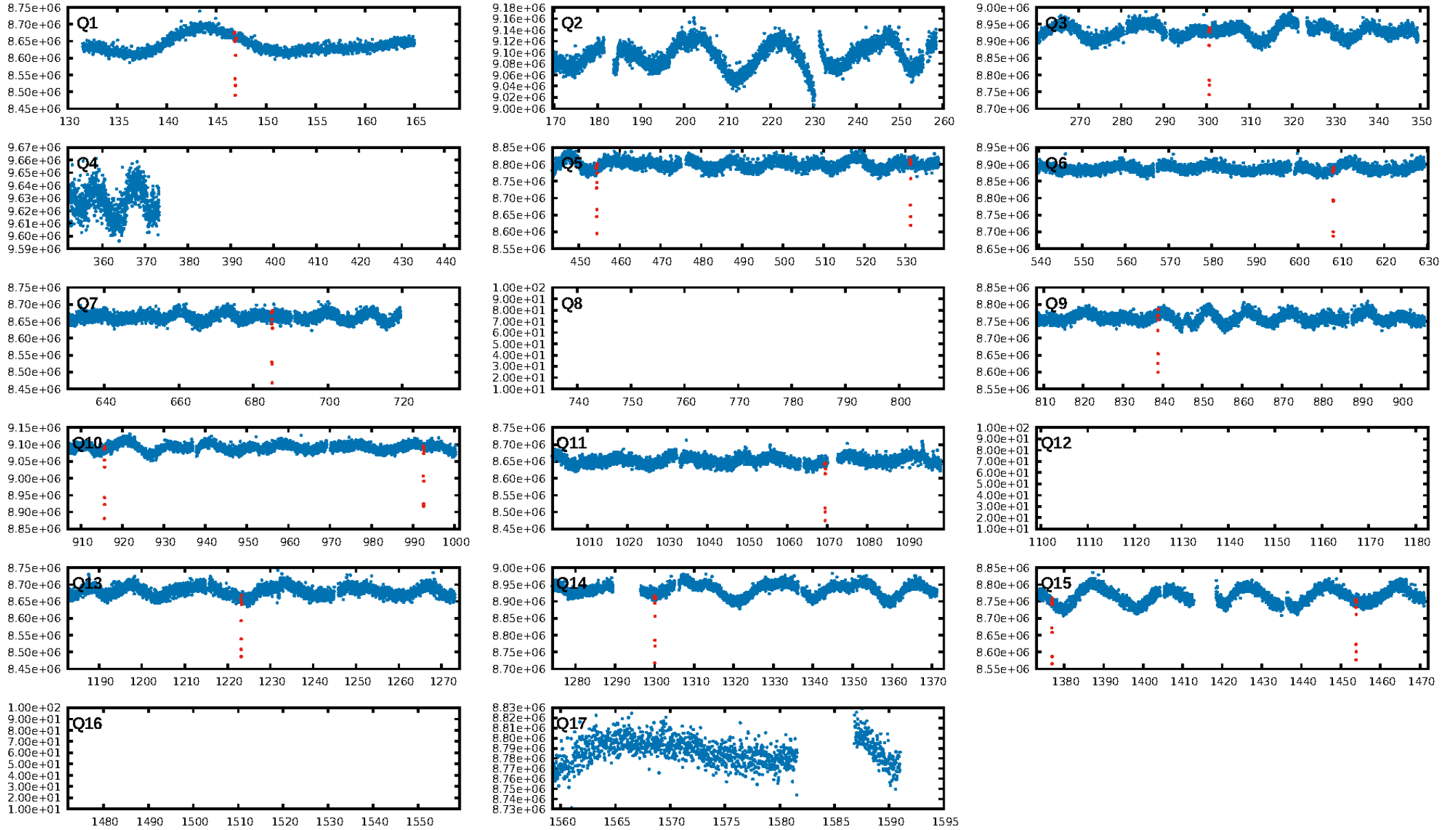
DV Fit Results:

Period = 76.87936 [0.00005] d
Epoch = 146.8824 [0.0005] BKJD
Rp/R* = 0.1526 [0.0027]
a/R* = 195.07 [4.13]
b = 0.84 [0.01]
Seff = 0.40 [0.06]
Teq = 202 [7] K
Rp = 7.26 [0.83] Re
a = 0.2745 [0.0235] AU
Ag = 288.27 [115.99] [2.48σ]
Teff = 1289 [128] K [8.50σ]

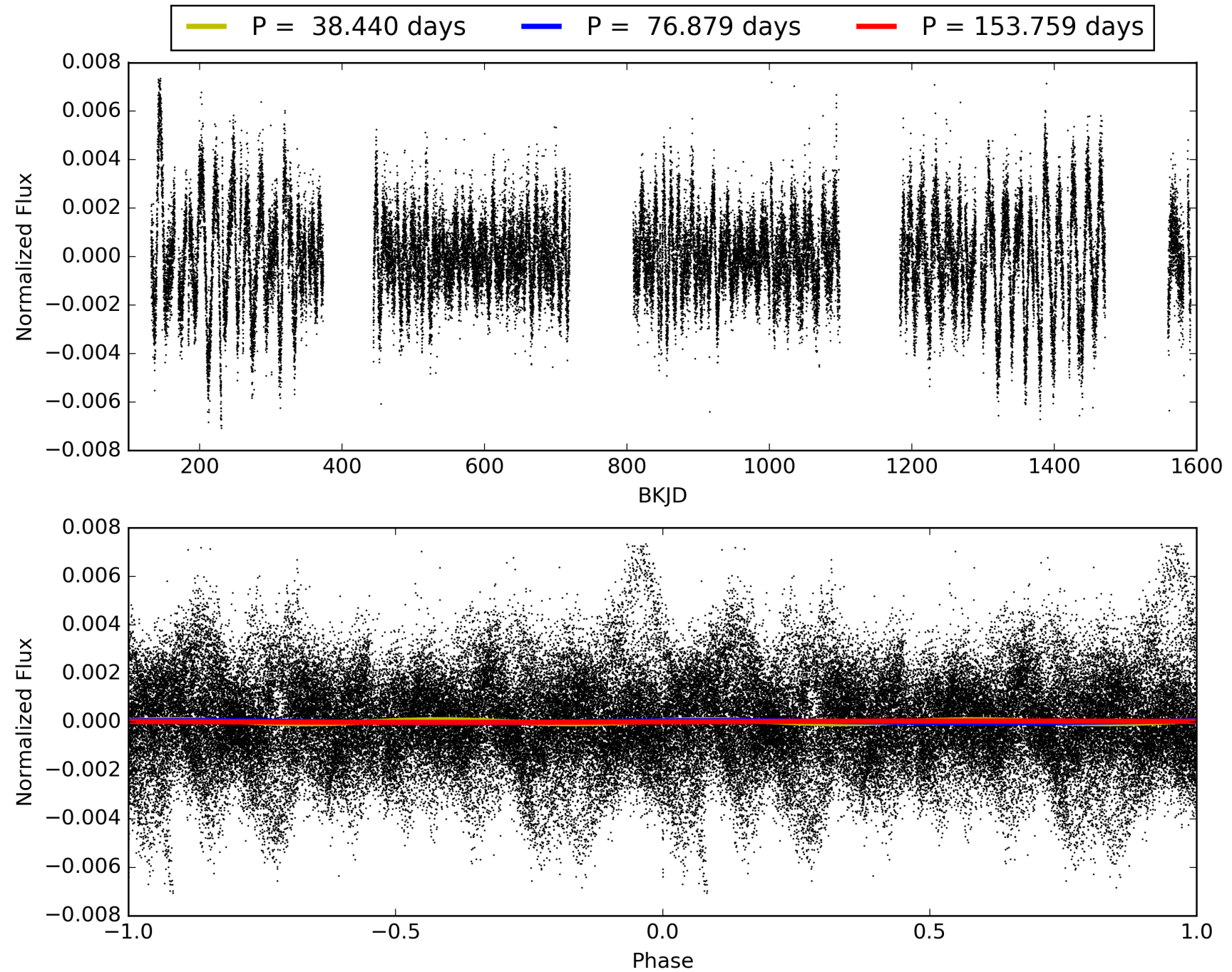
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 51.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 3.644
Centroid-sig: 0.8%
Centroid-so: 0.442 arcsec [3.99σ]
OotOffset-rm: 0.015 arcsec [0.20σ]
KicOffset-rm: 0.139 arcsec [1.42σ]
OotOffset-st: 3/4/0/4 [11]
KicOffset-st: 3/4/0/4 [11]
DiffImageQuality-fgm: 1.00 [11/11]
DiffImageOverlap-fno: 1.00 [11/11]

TCE 011853130-01, PDC Light Curves

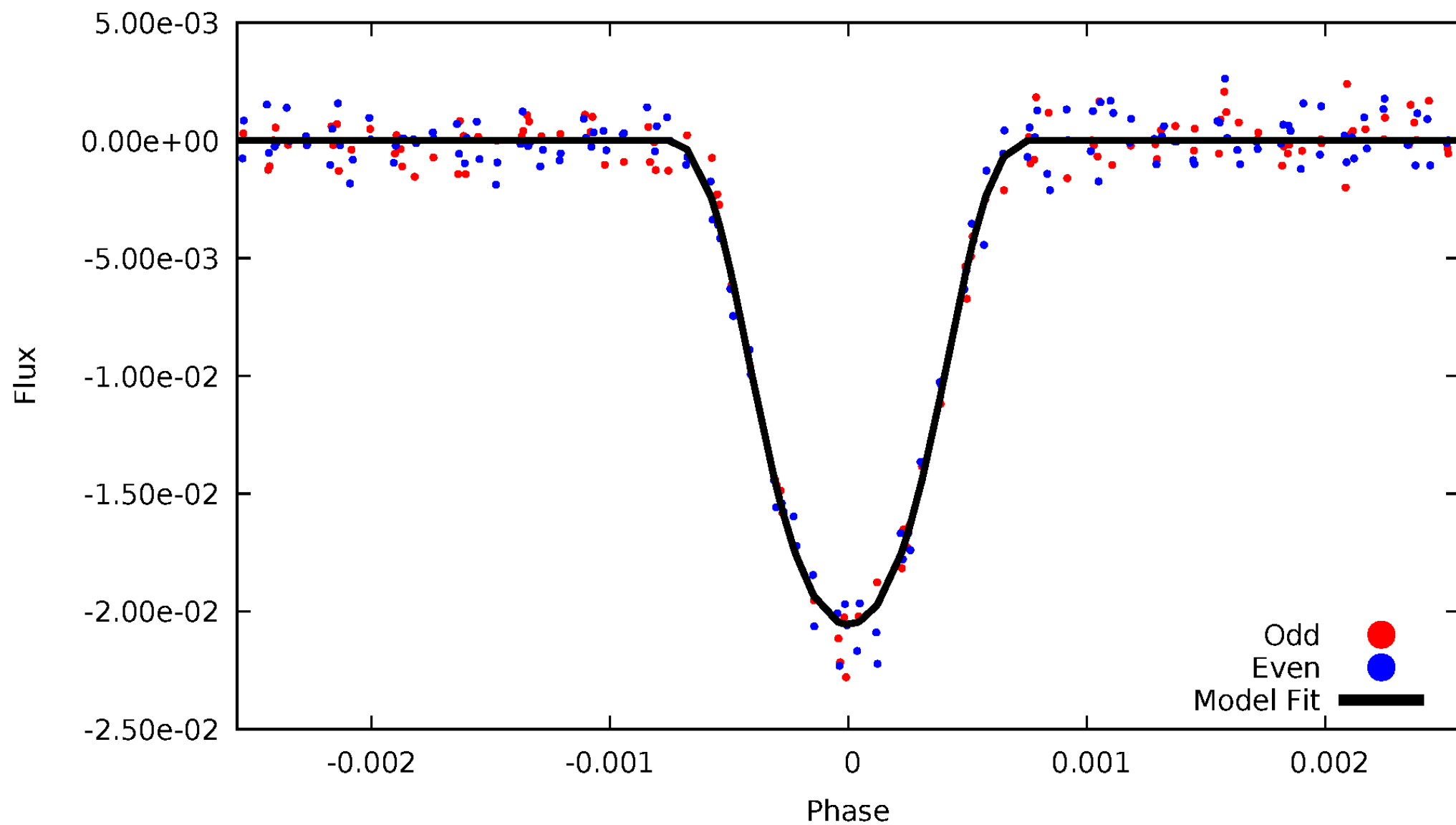


TCE 011853130-01



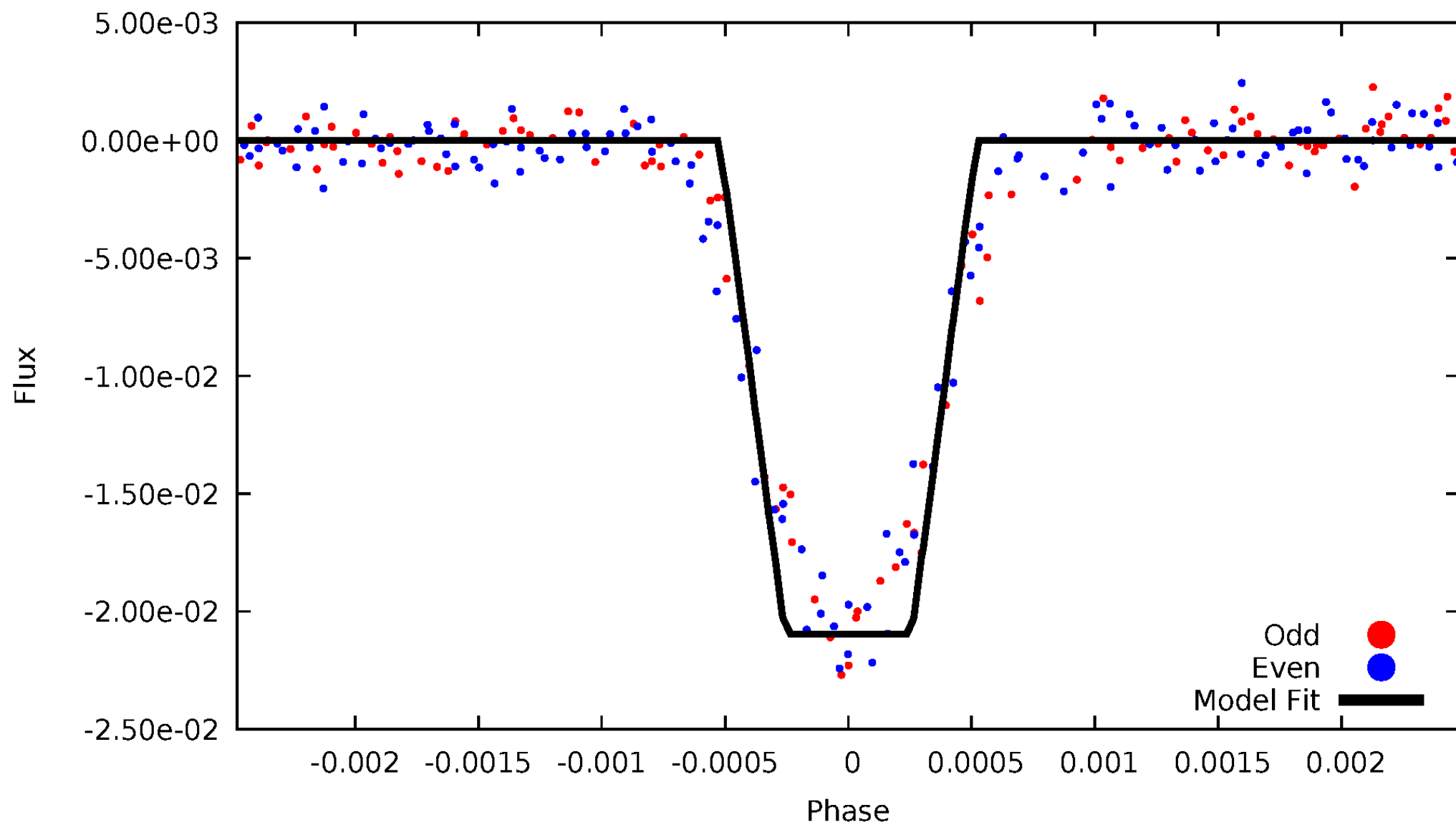
DV Odd/Even

TCE 011853130-01



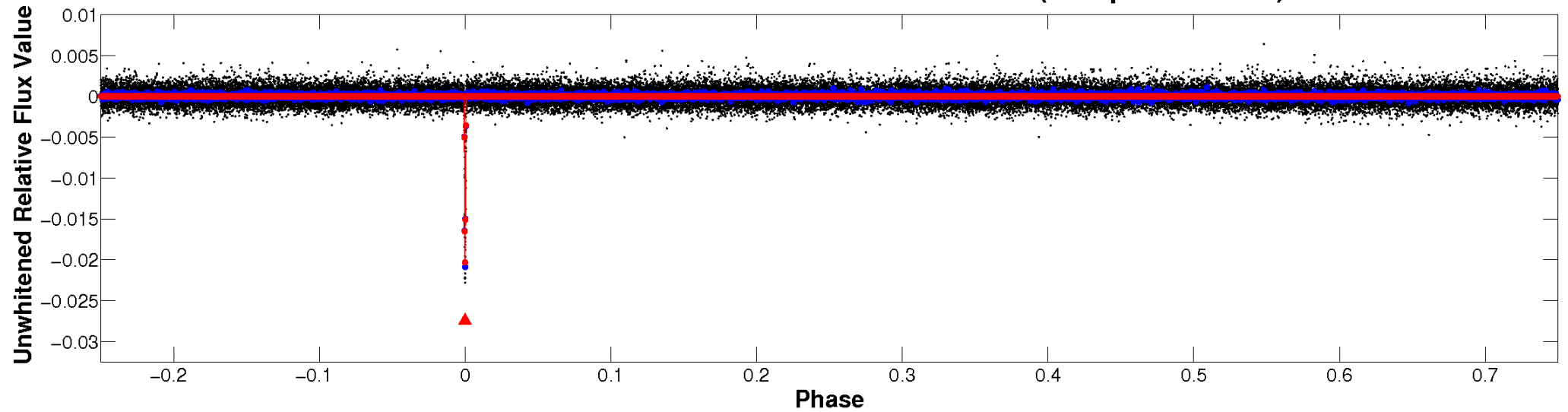
ALT Odd/Even

TCE 011853130-01

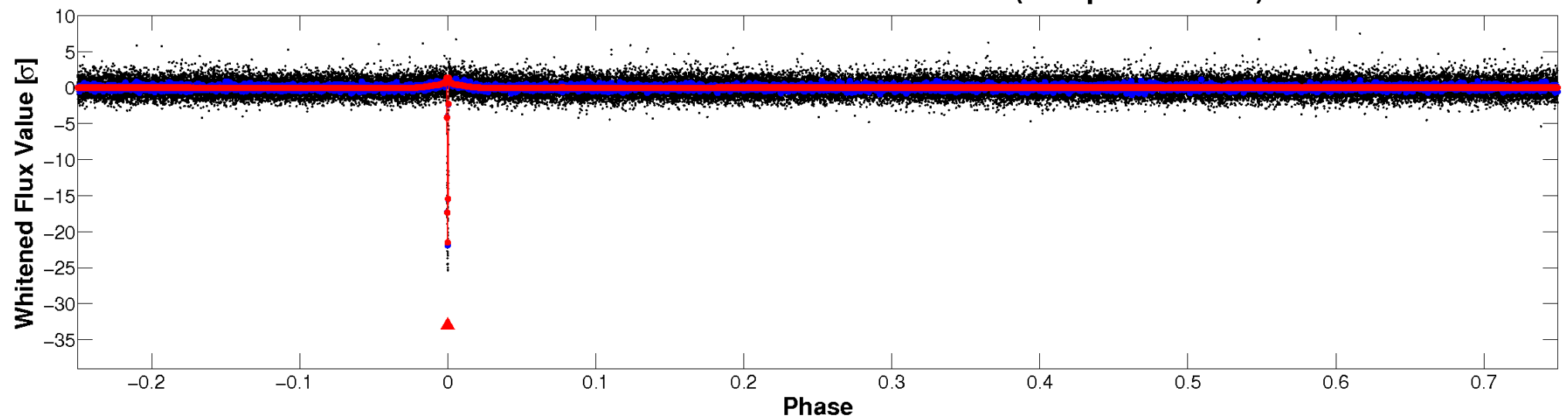


Non-Whitened Vs. Whitened Light Curve

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

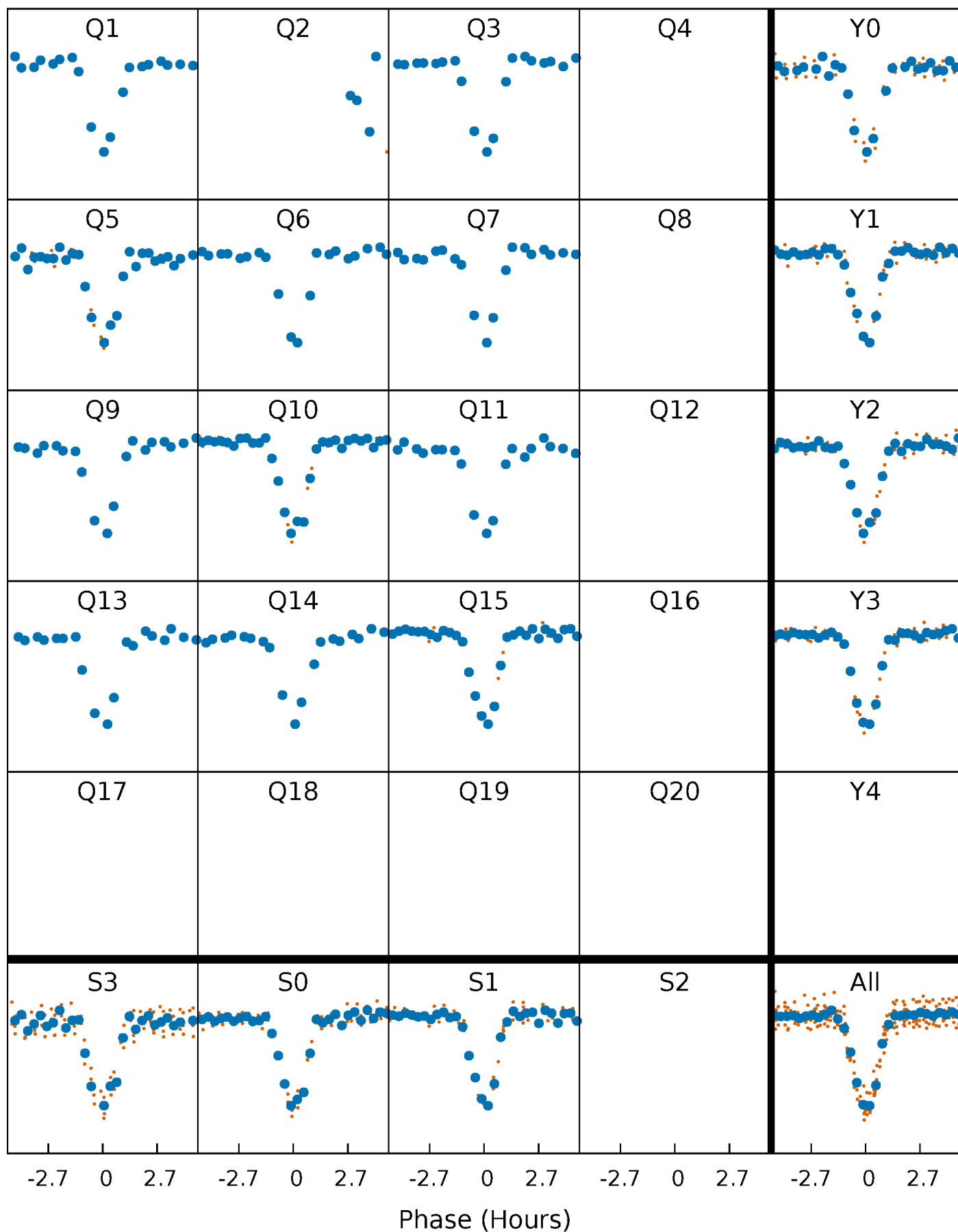


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



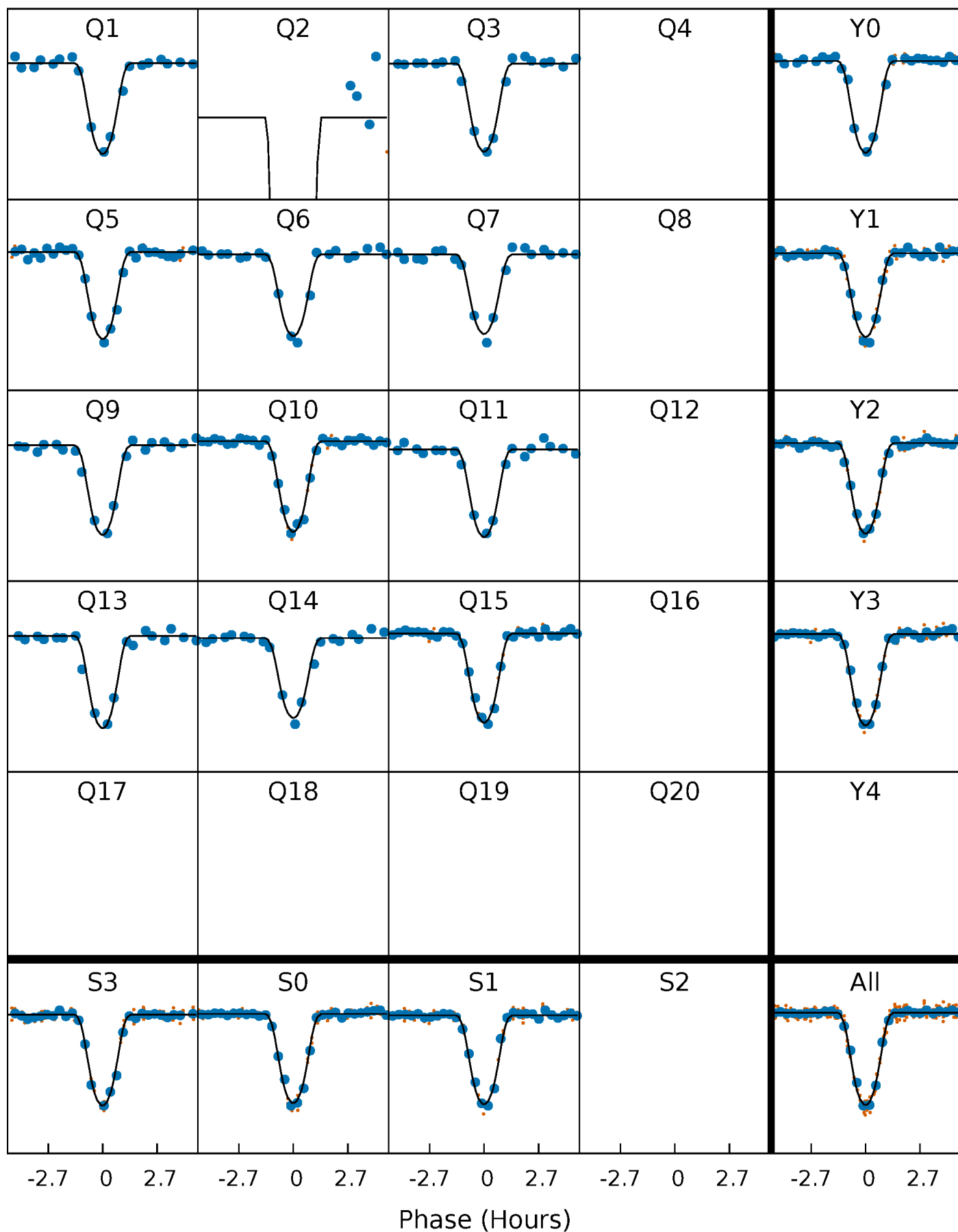
PDC Quarter-Phased Transit Curves

TCE 011853130-01 P= 76.879359 Days $T_0=146.882385$ (BKJD)



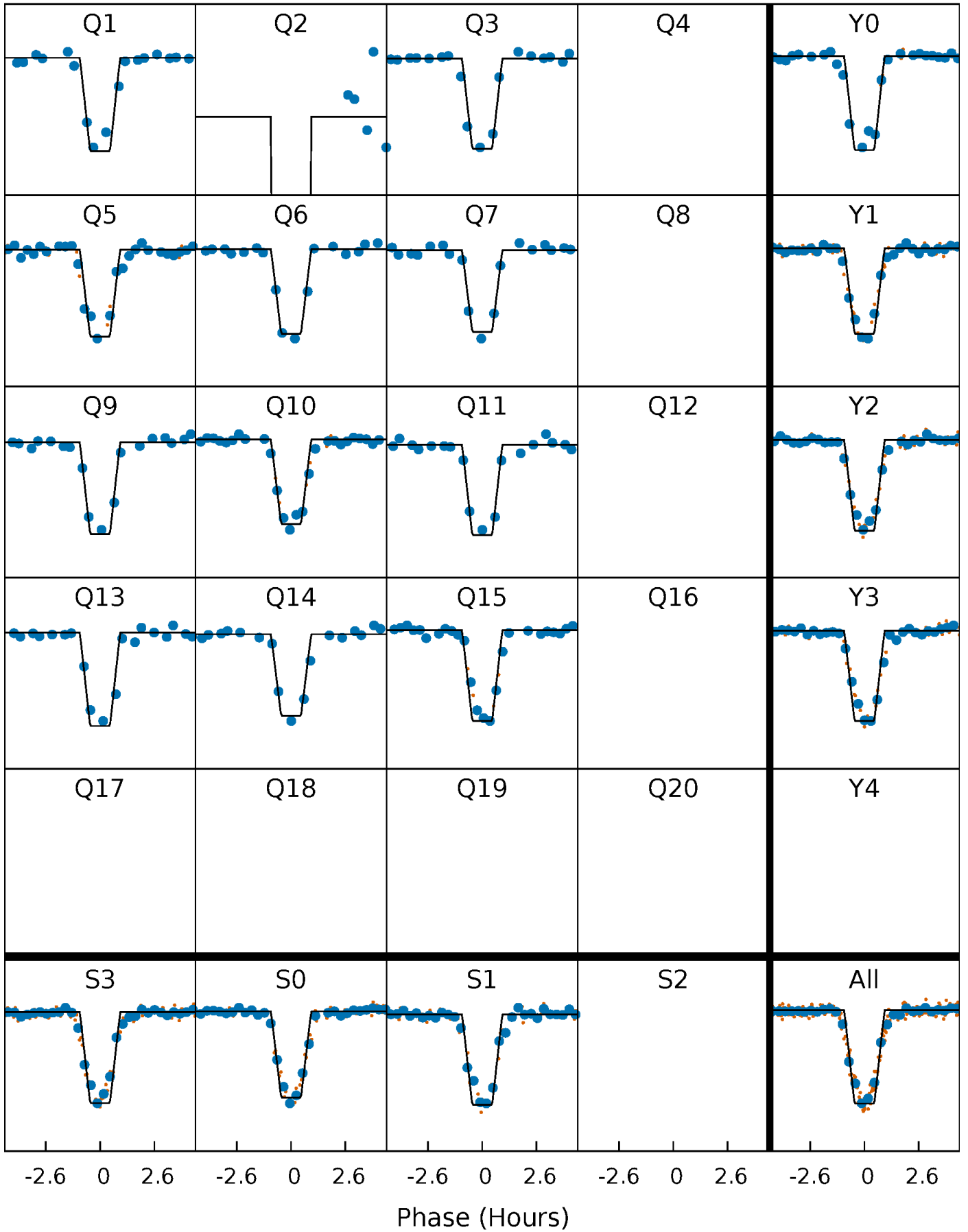
DV Quarter-Phased Transit Curves

TCE 011853130-01 P= 76.879359 Days $T_0=146.882385$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

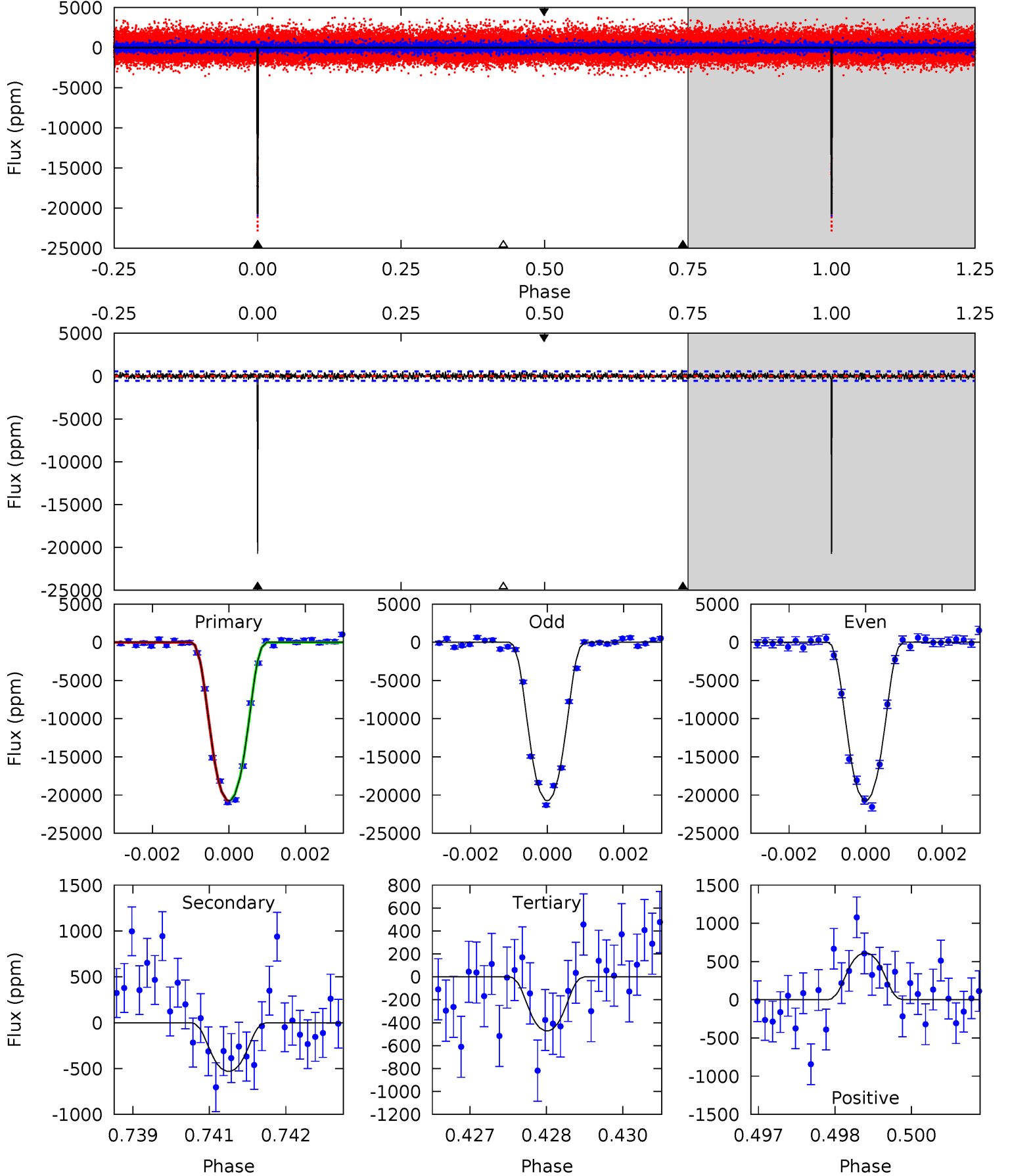
TCE 011853130-01 P= 76.878841 Days $T_0=146.887435$ (BKJD)



DV Model-Shift Uniqueness Test

011853130-01, $P = 76.879359$ Days, $E = 70.003026$ Days

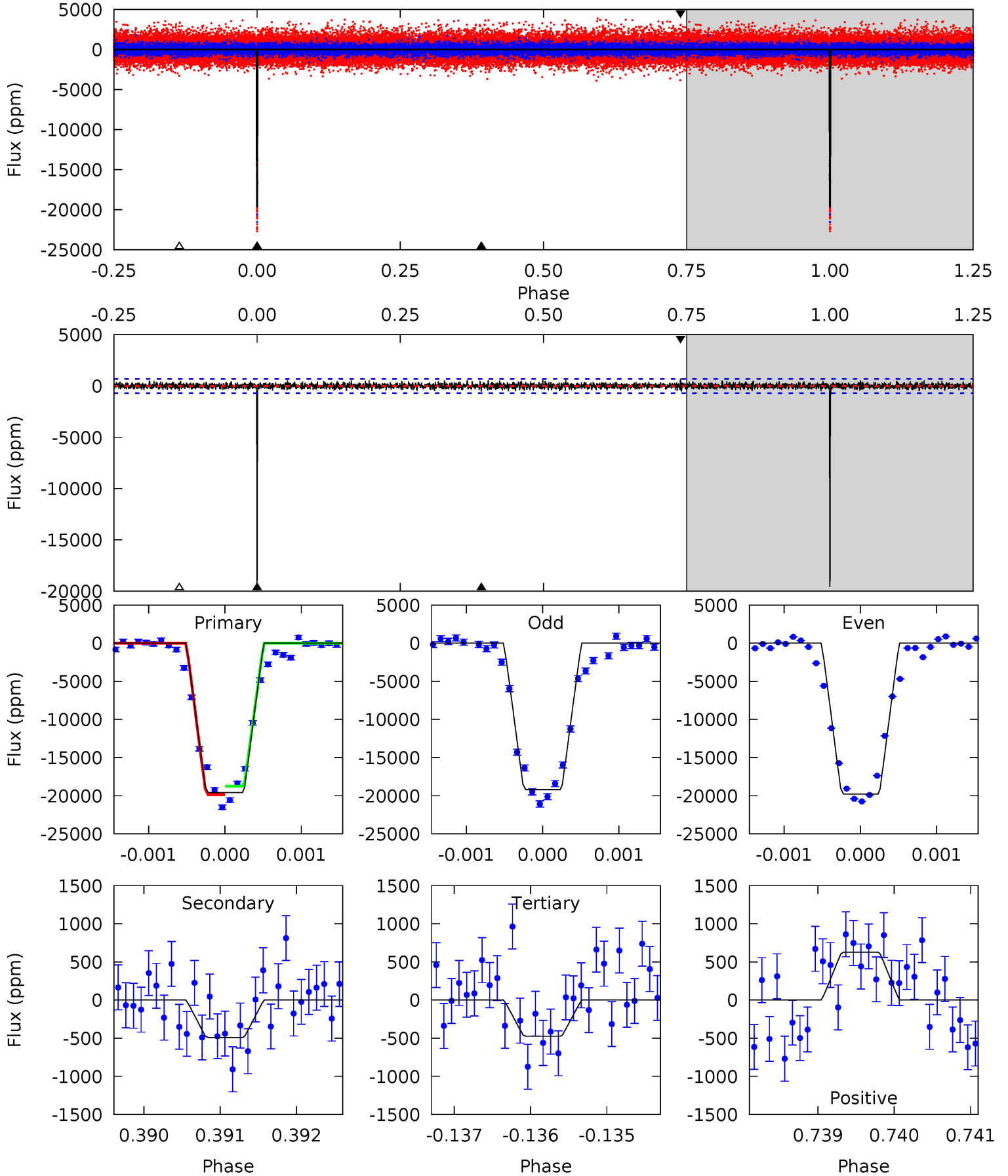
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
201.9	5.17	4.60	5.97	5.38	3.17	1.54	197.3	196.0	0.57	-0.81	0.02	1.02	0.03	0.69



Alt Model-Shift Uniqueness Test

011853130-01, P = 76.878841 Days, E = 70.008594 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
150.7	3.78	3.66	4.83	5.45	3.28	1.19	147.0	145.8	0.12	-1.05	2.12	0.99	0.03	4.08



Stellar Parameters For KIC 011853130

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3638^{+72}_{-79}	$4.828^{+0.041}_{-0.054}$	$-0.060^{+0.150}_{-0.150}$	$0.436^{+0.045}_{-0.049}$	$0.467^{+0.043}_{-0.052}$	$7.921^{+1.920}_{-1.543}$
	+2%/-2%	+1%/-1%	+250%/-250%	+10%/-11%	+9%/-11%	+24%/-19%
Source	SPE70	PHO2	SPE70	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011853130-01 / KOI 3263.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-531 ± 103	$7.28^{+0.41}_{-0.40}$	283^{+8}_{-8}	2194^{+59}_{-56}	418^{+92}_{-89}
Alt.	-491 ± 130	$6.94^{+0.41}_{-0.38}$	284^{+8}_{-9}	2202^{+72}_{-81}	420^{+128}_{-113}

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

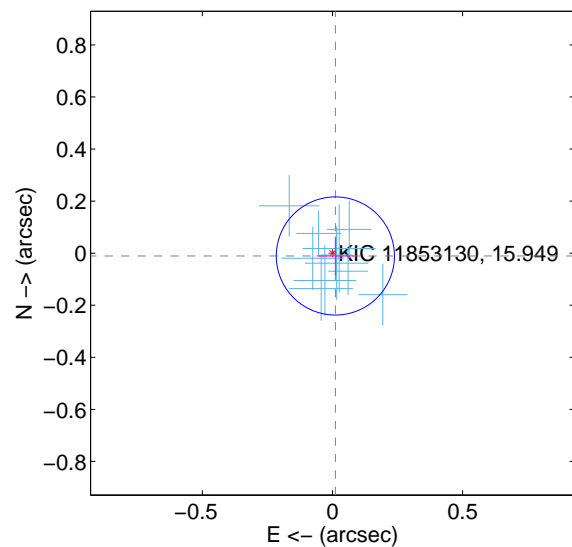
Supplemental centroid analysis for 011853130-01. Kepler magnitude: 15.95. Transit SNR 116.26

There are 11 quarters with good PRF difference image offsets

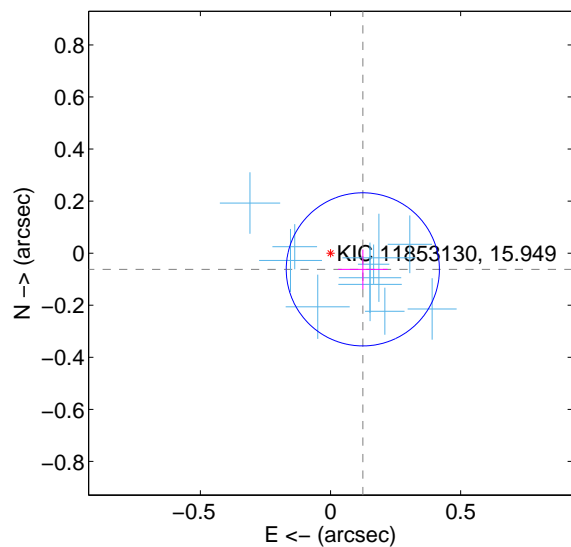
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.015 ± 0.076	0.20	-0.011 ± 0.072	-0.011 ± 0.073
PRF-fit source offset from KIC position	0.139 ± 0.098	1.42	-0.124 ± 0.095	-0.062 ± 0.076
photometric centroid source offset	0.44 ± 0.11	3.99	-0.36 ± 0.11	0.26 ± 0.11

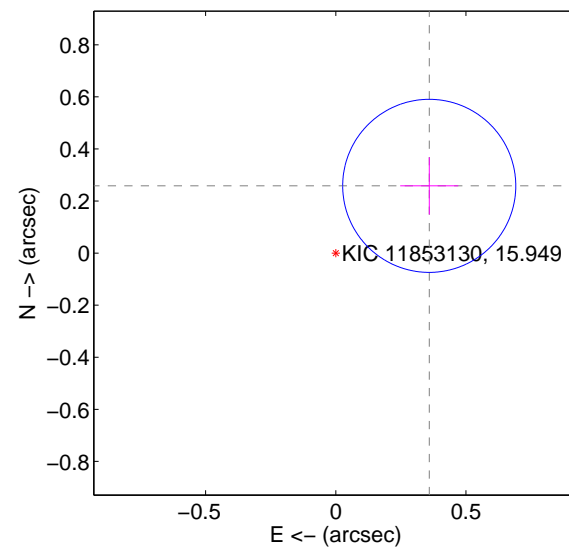
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

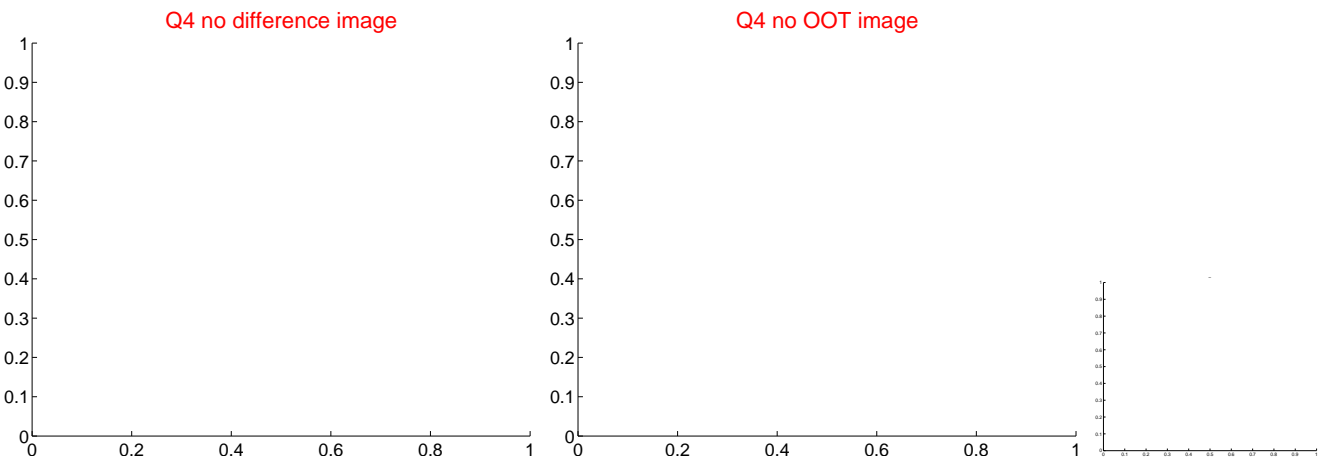
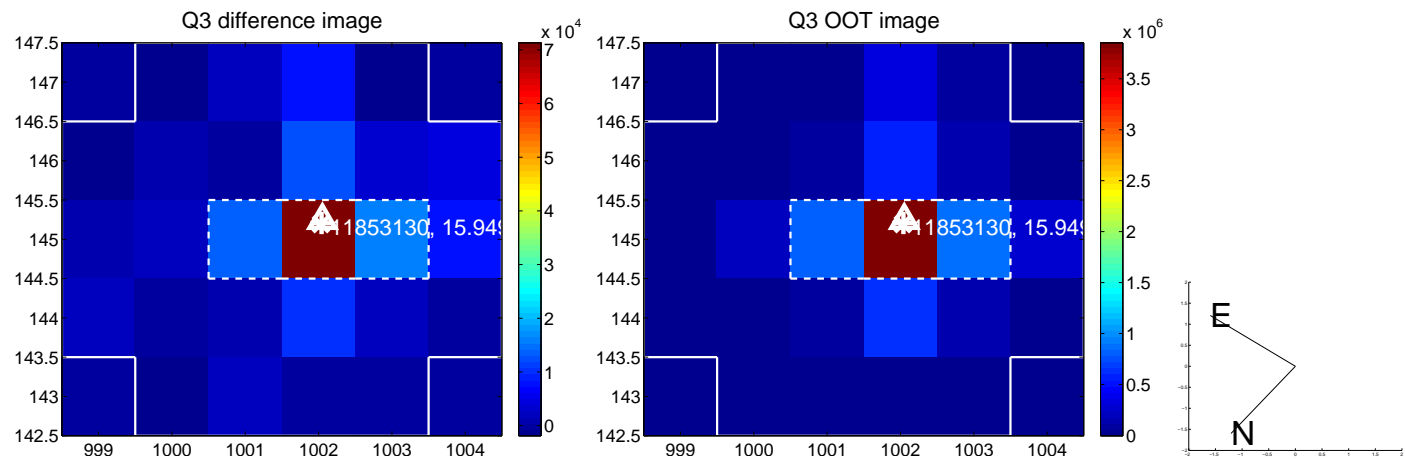
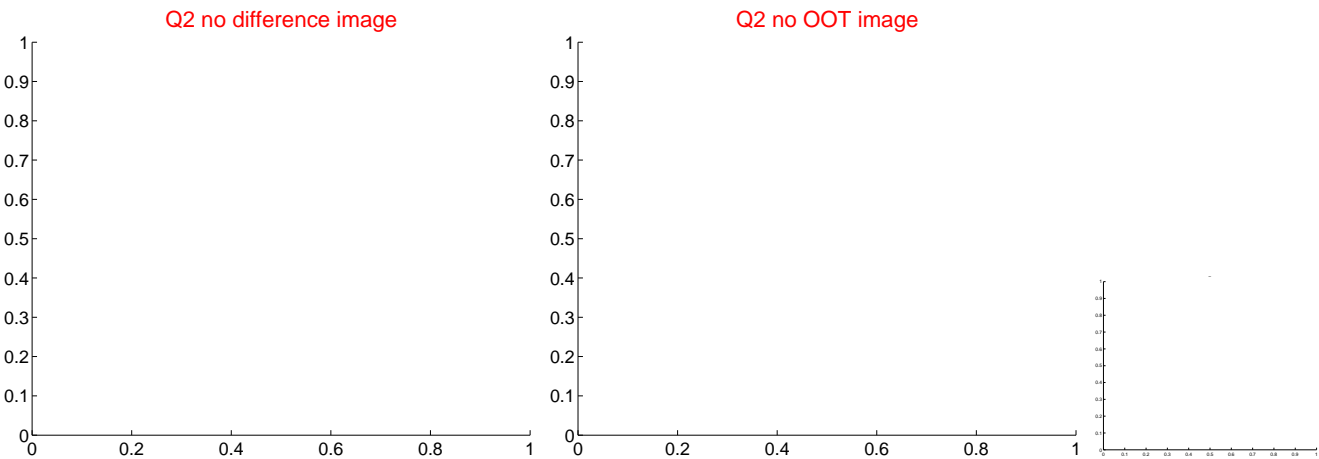
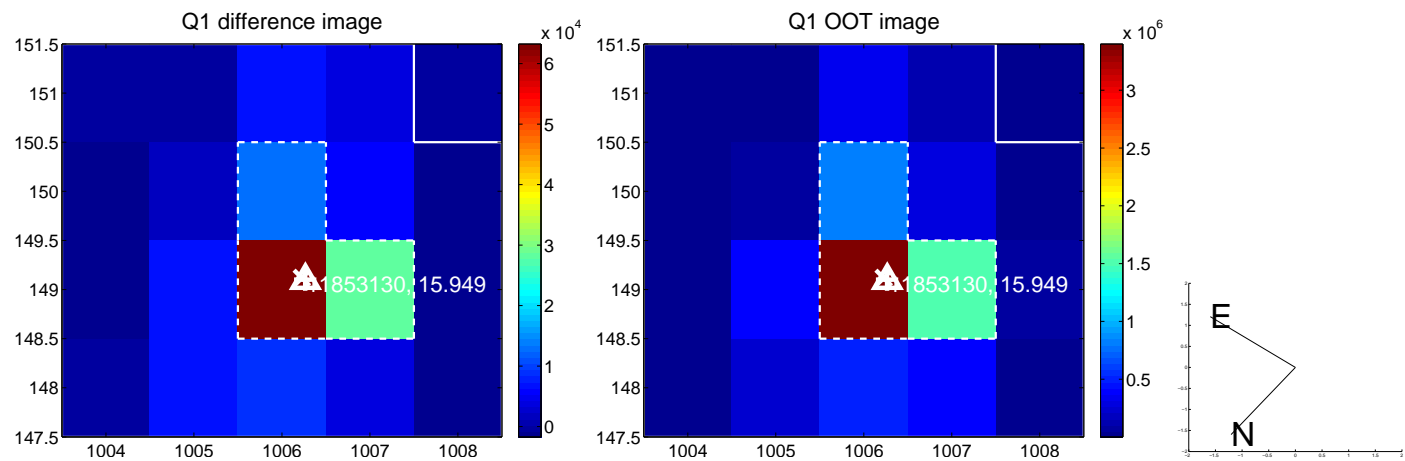


offset from photometric centroids

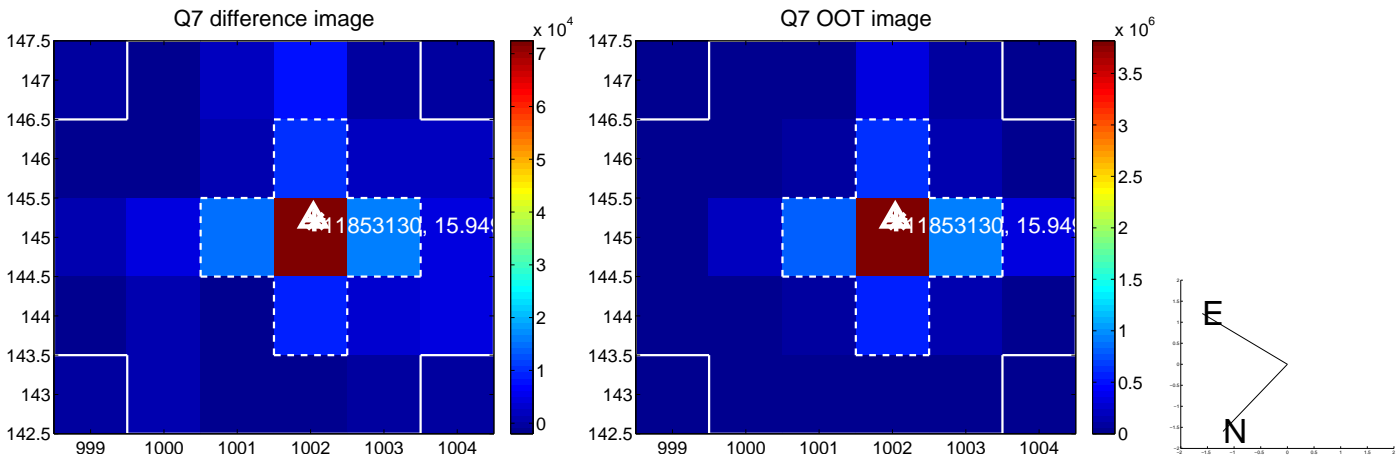
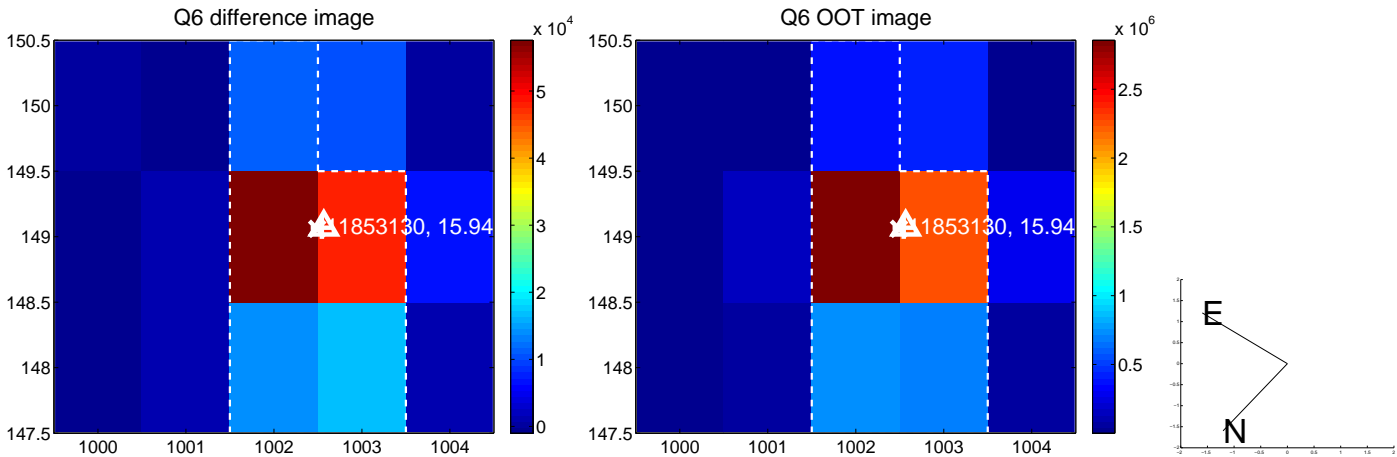
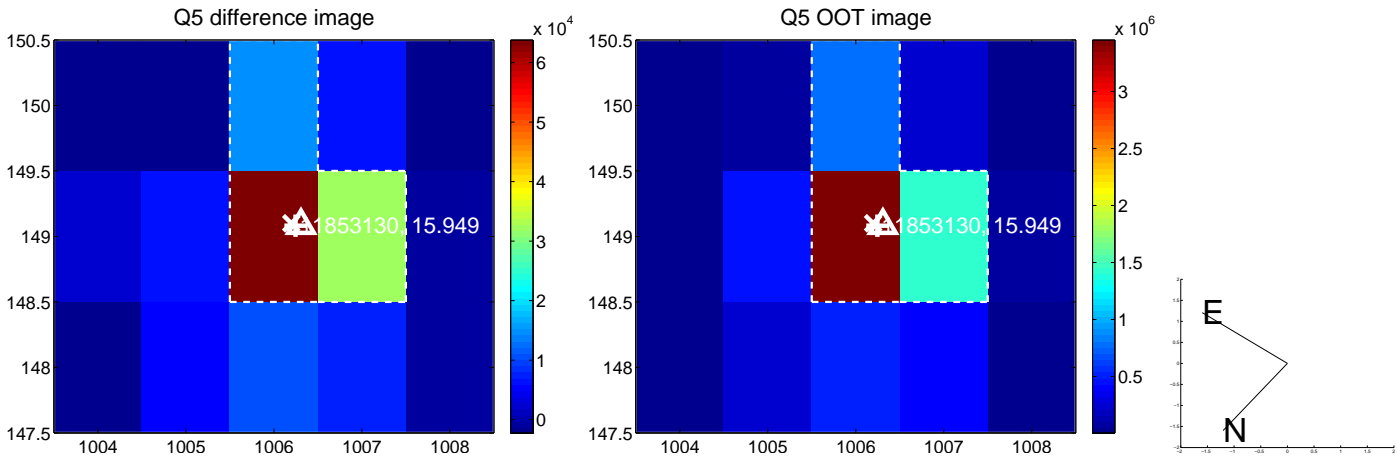


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

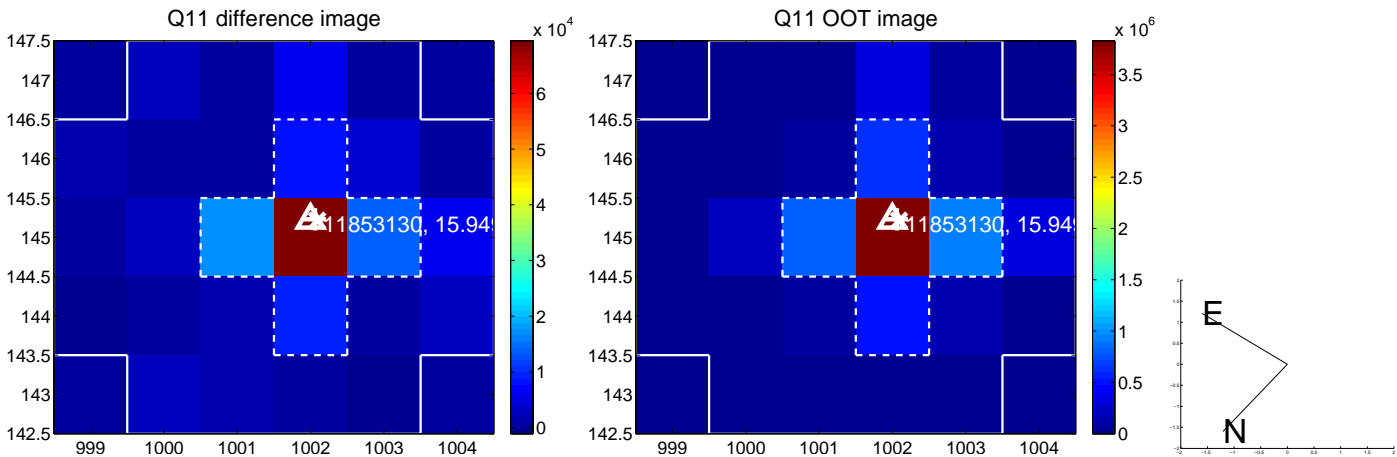
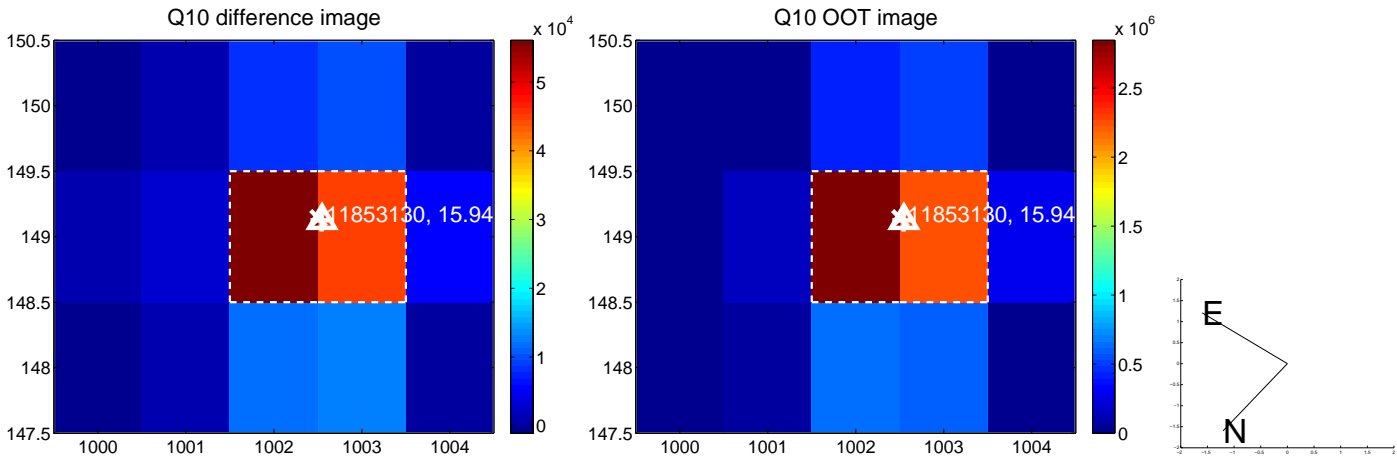
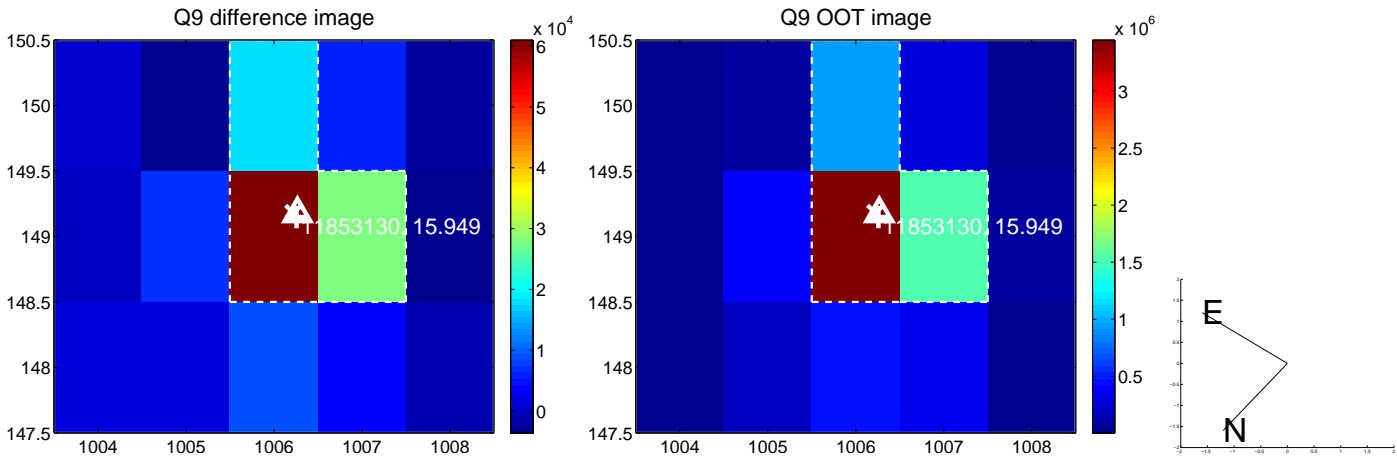
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



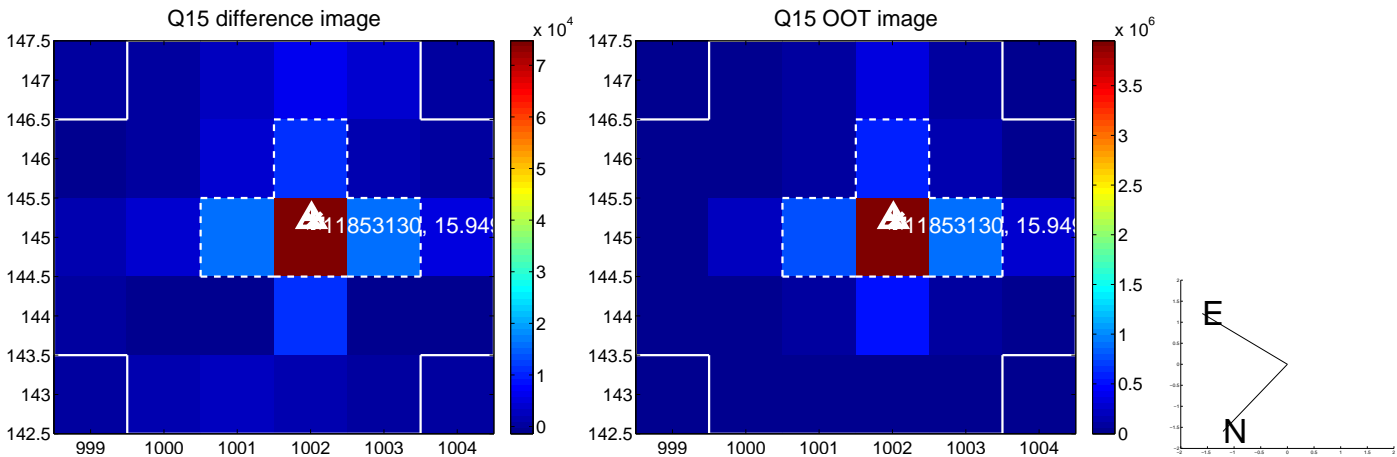
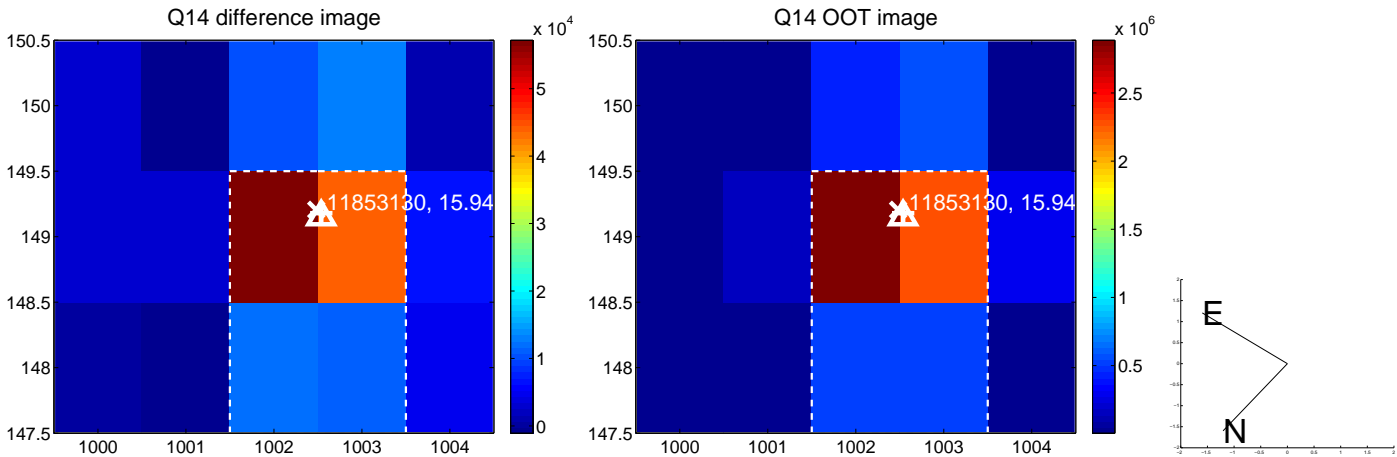
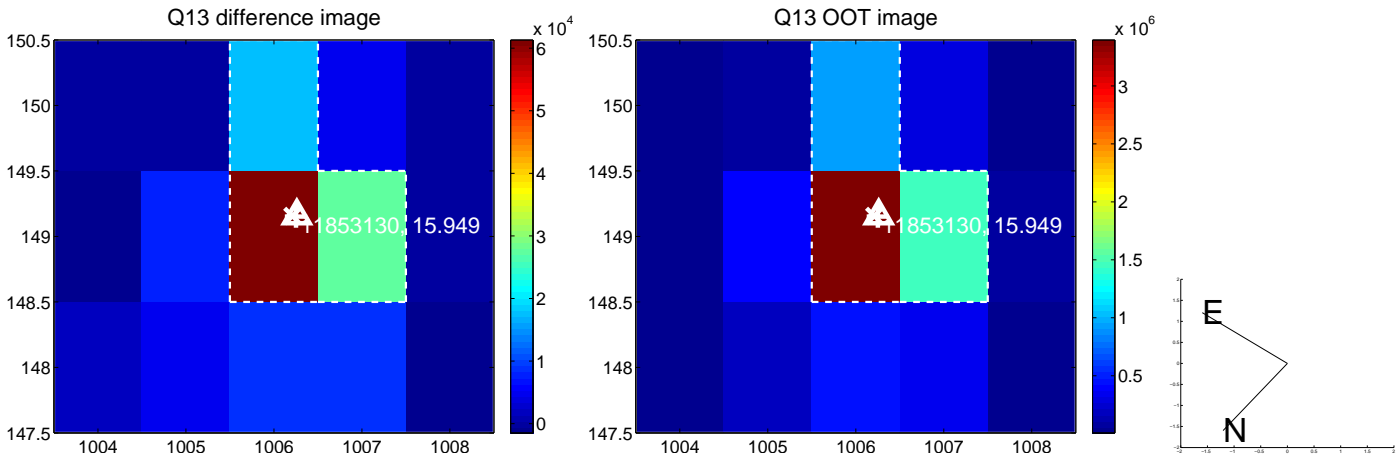
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



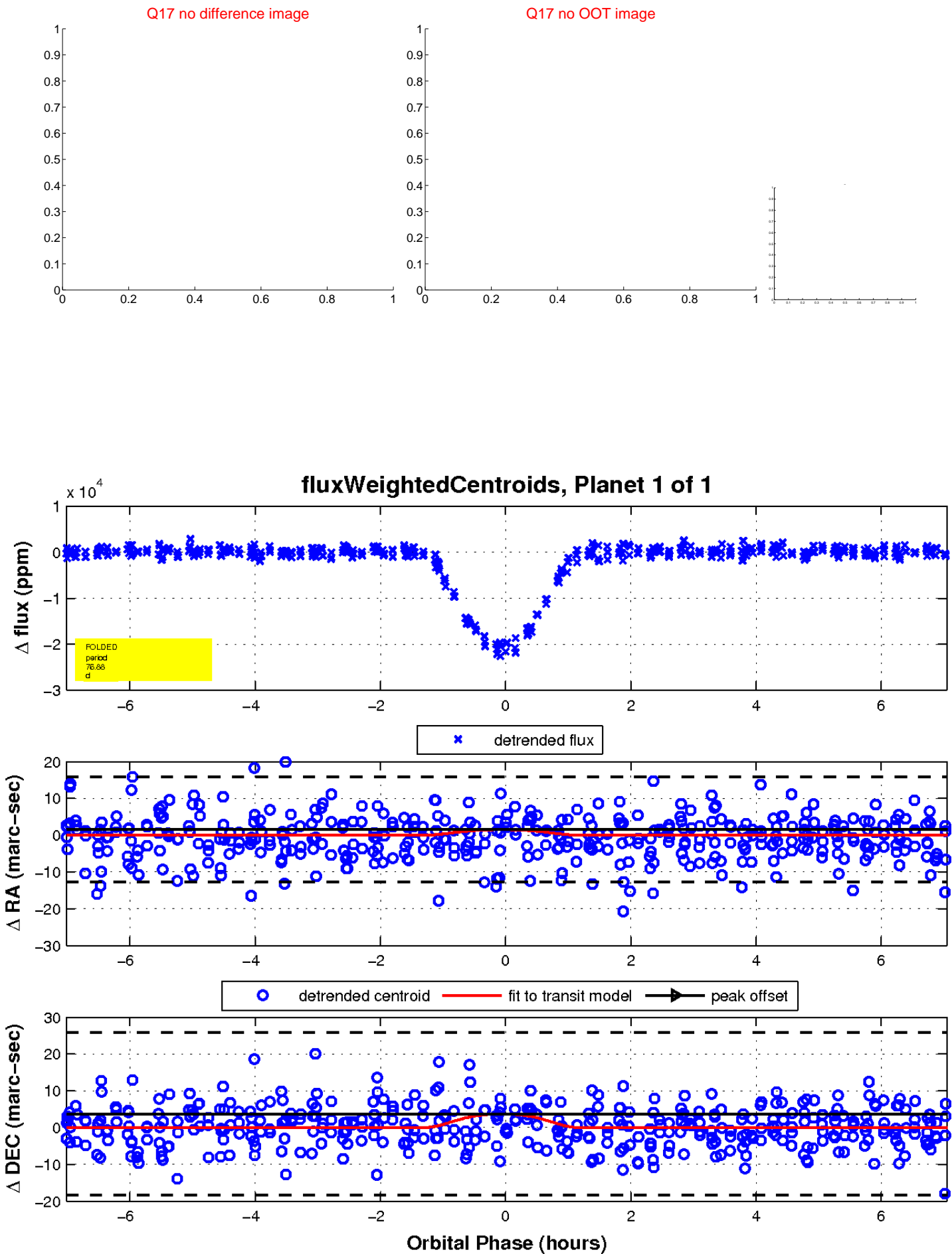
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UKIRT Image

Declination

