

KIC 007364176

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})
007364176-01	OBS	0373.01	135.188126	190.931993	659.9	9.012	63.0	62.4	0.91	5731	2.50	3.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007364176-01	OBS	PC	1.00	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.

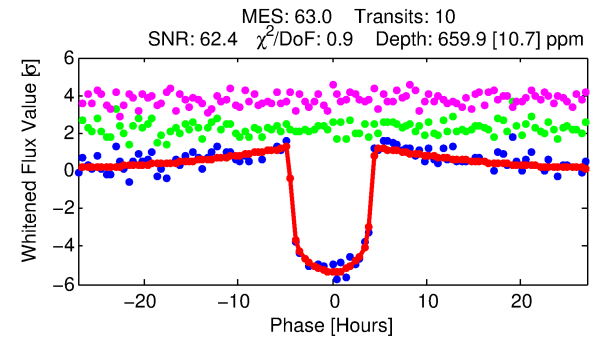
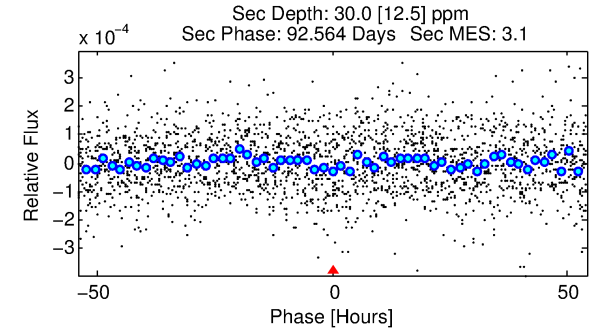
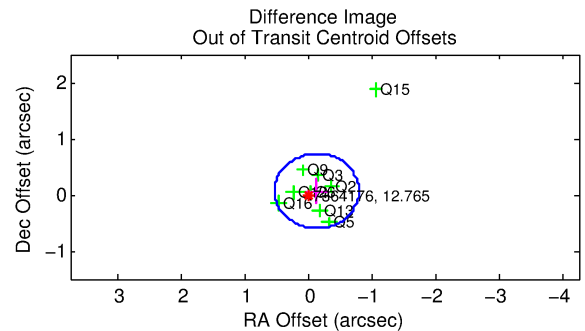
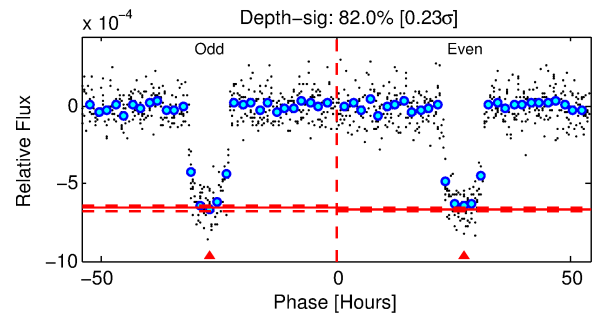
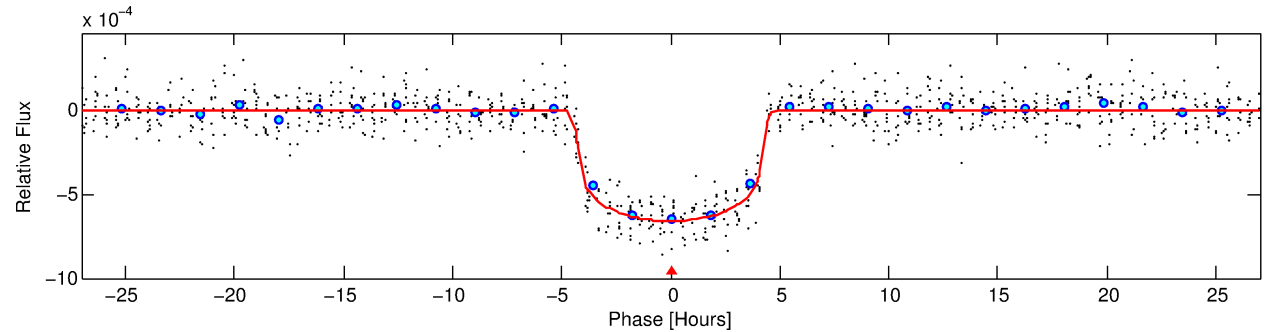
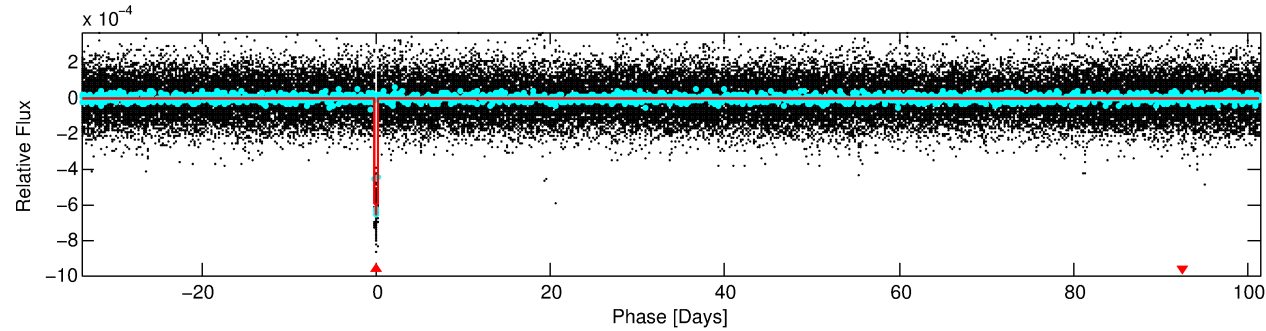
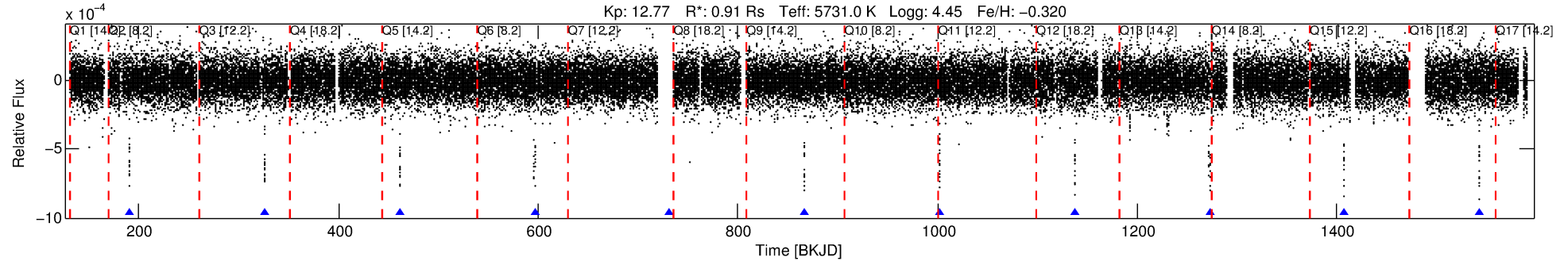
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007364176-01

No Significant Match Found

DV One-Page Summary

KIC: 7364176 Candidate: 1 of 1 Period: 135.188 d
KOI: K00373.01 Corr: 0.992



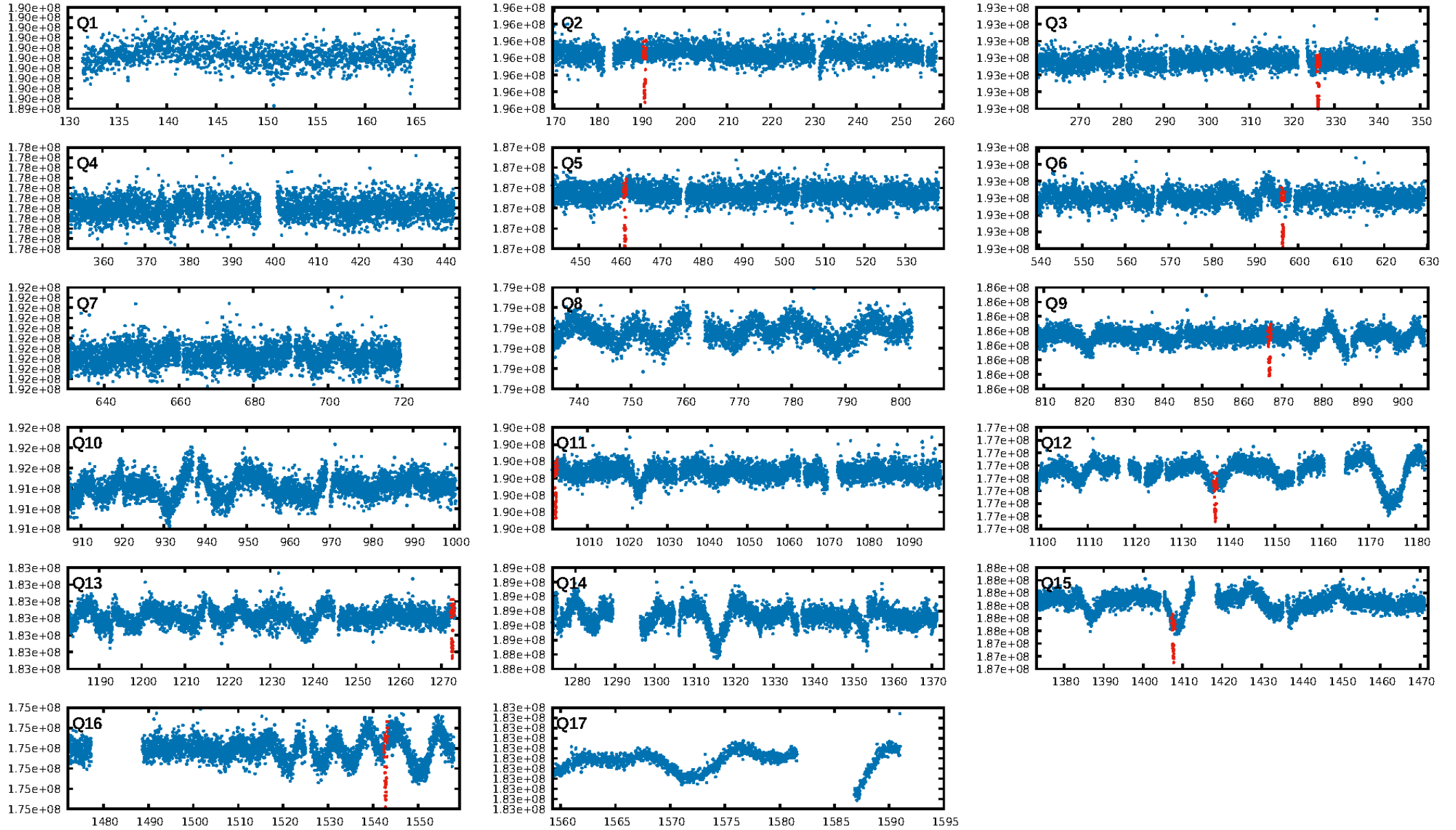
DV Fit Results:

Period = 135.18813 [0.00036] d
Epoch = 190.9320 [0.0022] BKJD
Rp/R* = 0.0252 [0.0015]
a/R* = 84.31 [22.45]
b = 0.71 [0.19]
Seff = 3.34 [0.63]
Teq = 345 [16] K
Rp = 2.50 [0.36] Re
a = 0.4876 [0.0556] AU
Ag = 629.17 [292.95] [2.14 σ]
Teffp = 2669 [294] K [7.89 σ]

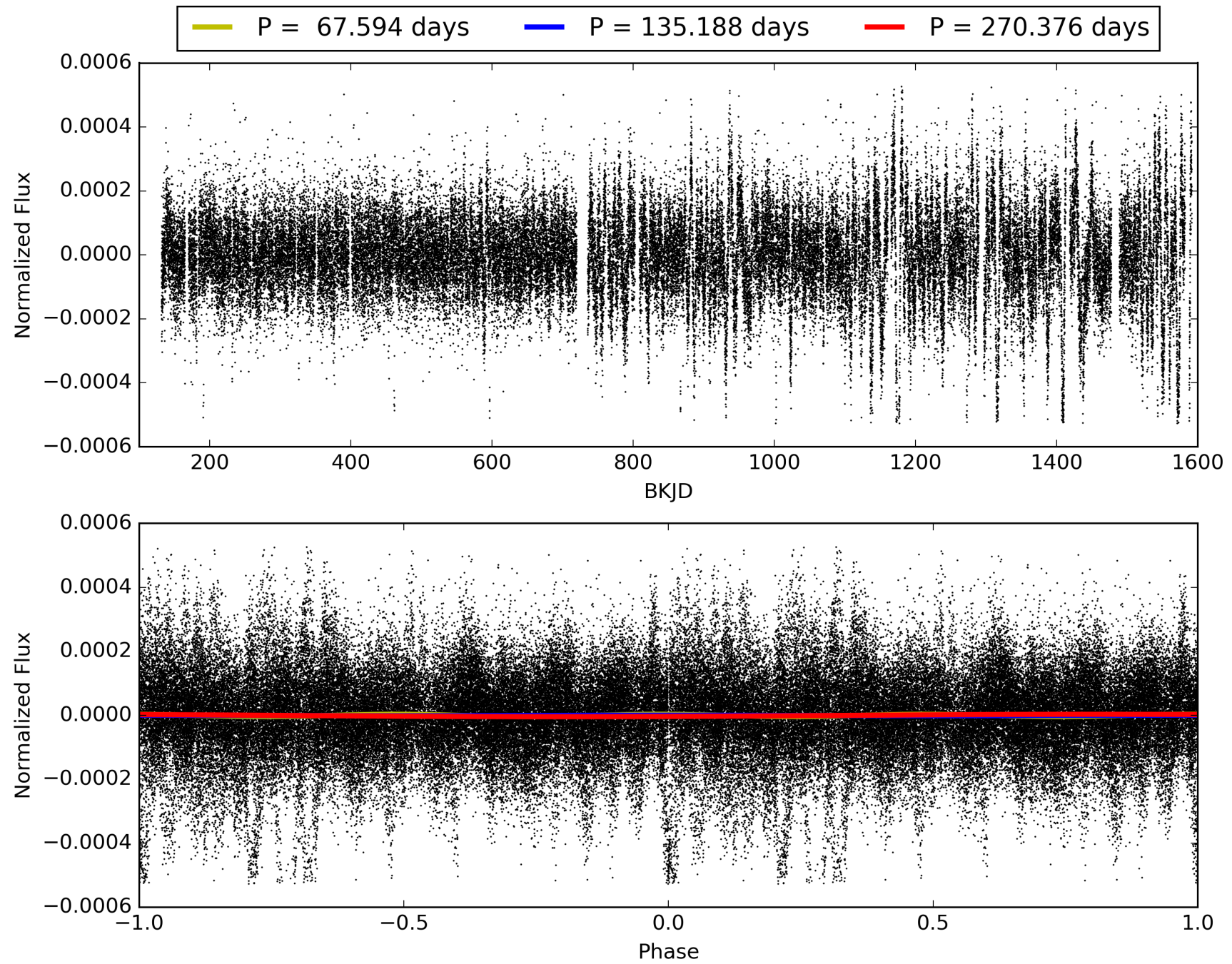
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 126.6
Centroid-sig: 58.0%
Centroid-so: 0.121 arcsec [0.70 σ]
OotOffset-rm: 0.140 arcsec [0.63 σ]
KicOffset-rm: 0.162 arcsec [0.72 σ]
OotOffset-st: 2/2/2/3 [9]
KicOffset-st: 2/2/2/3 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

TCE 007364176-01, PDC Light Curves

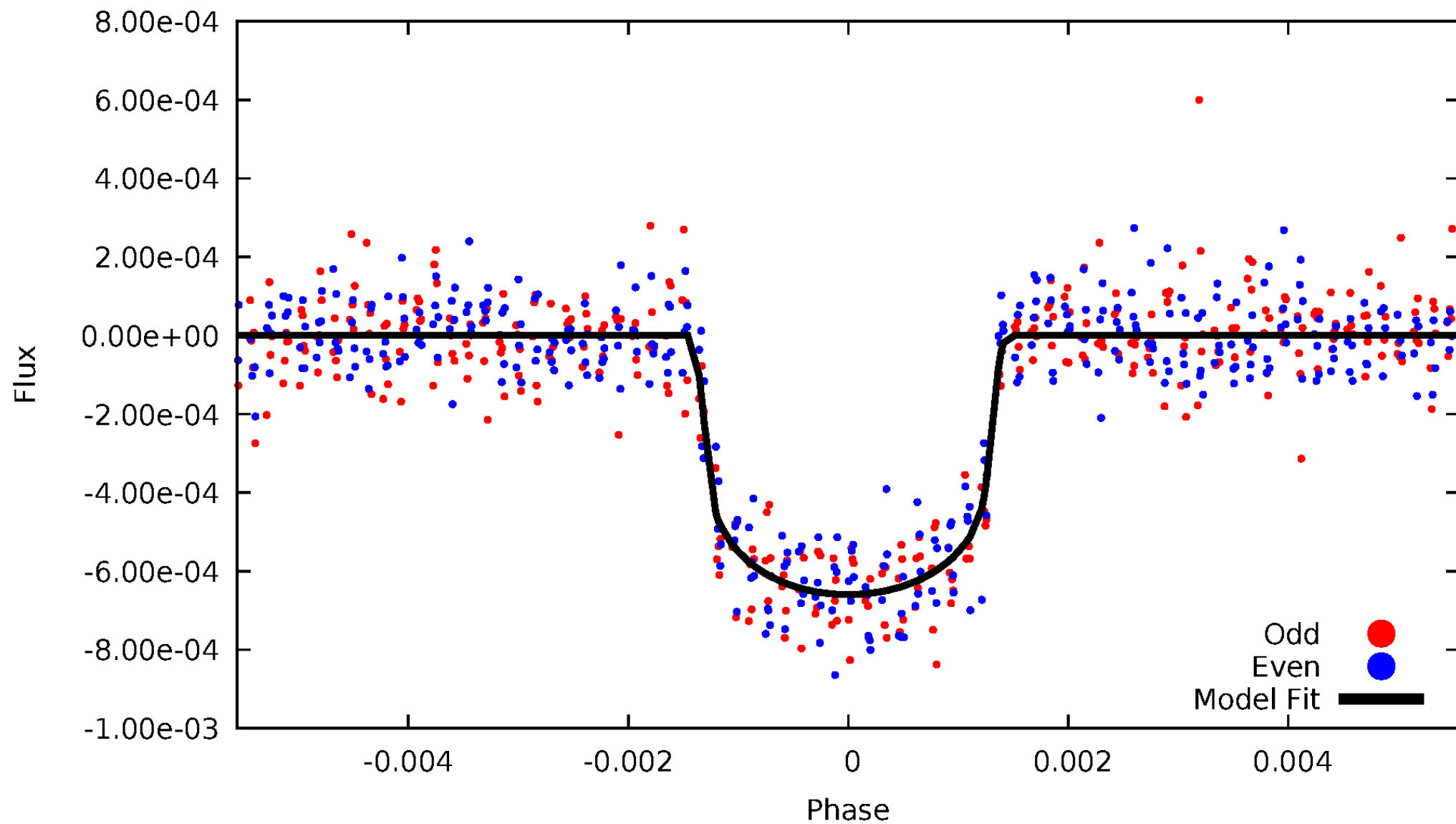


TCE 007364176-01



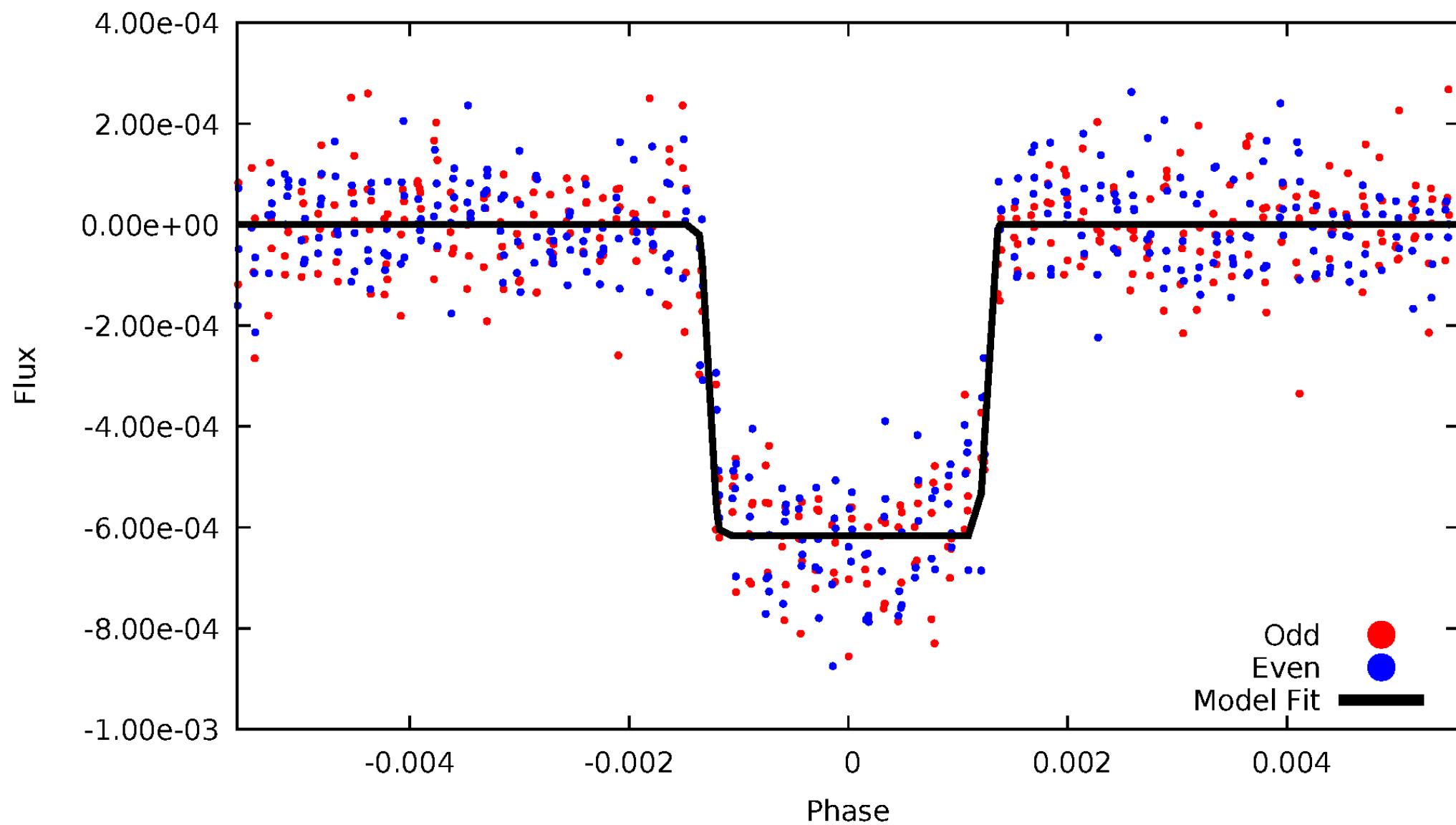
DV Odd/Even

TCE 007364176-01

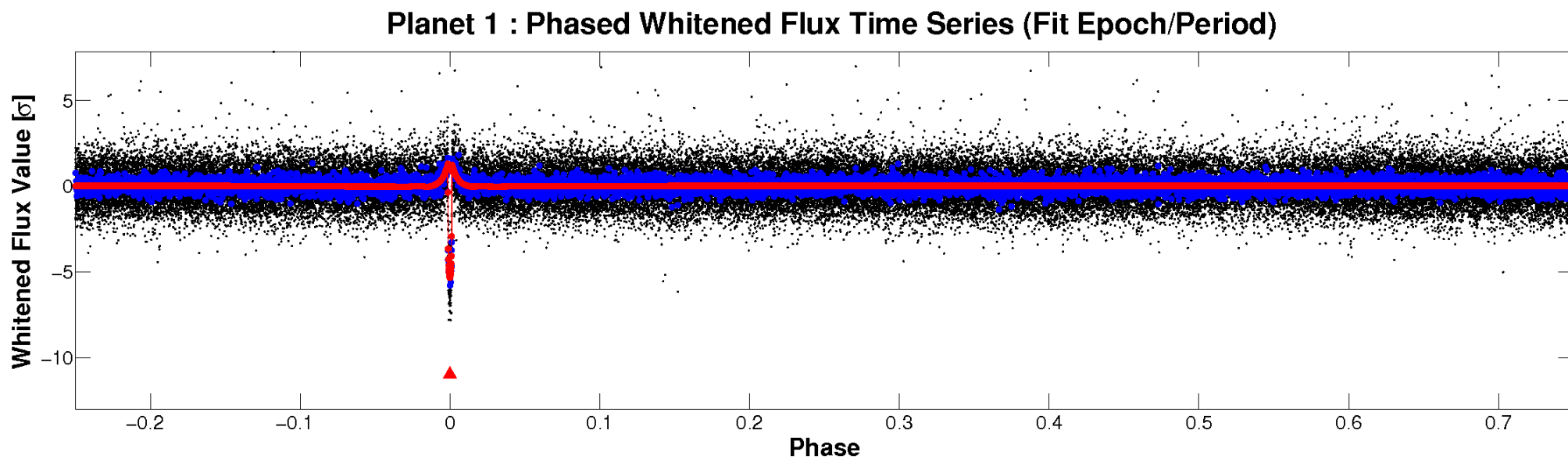
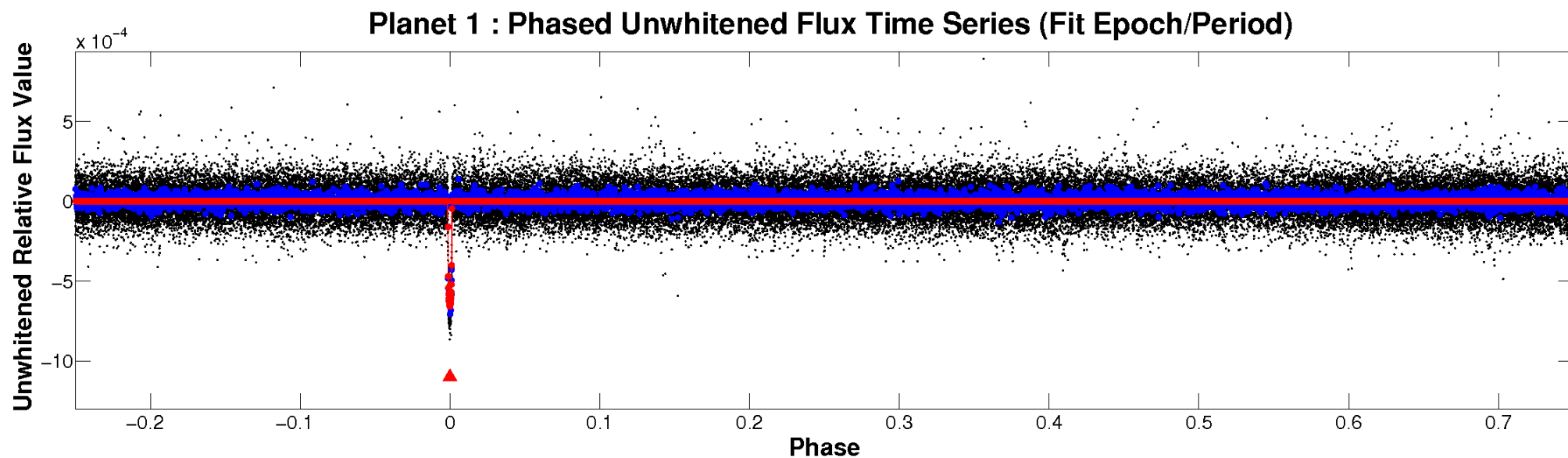


ALT Odd/Even

TCE 007364176-01

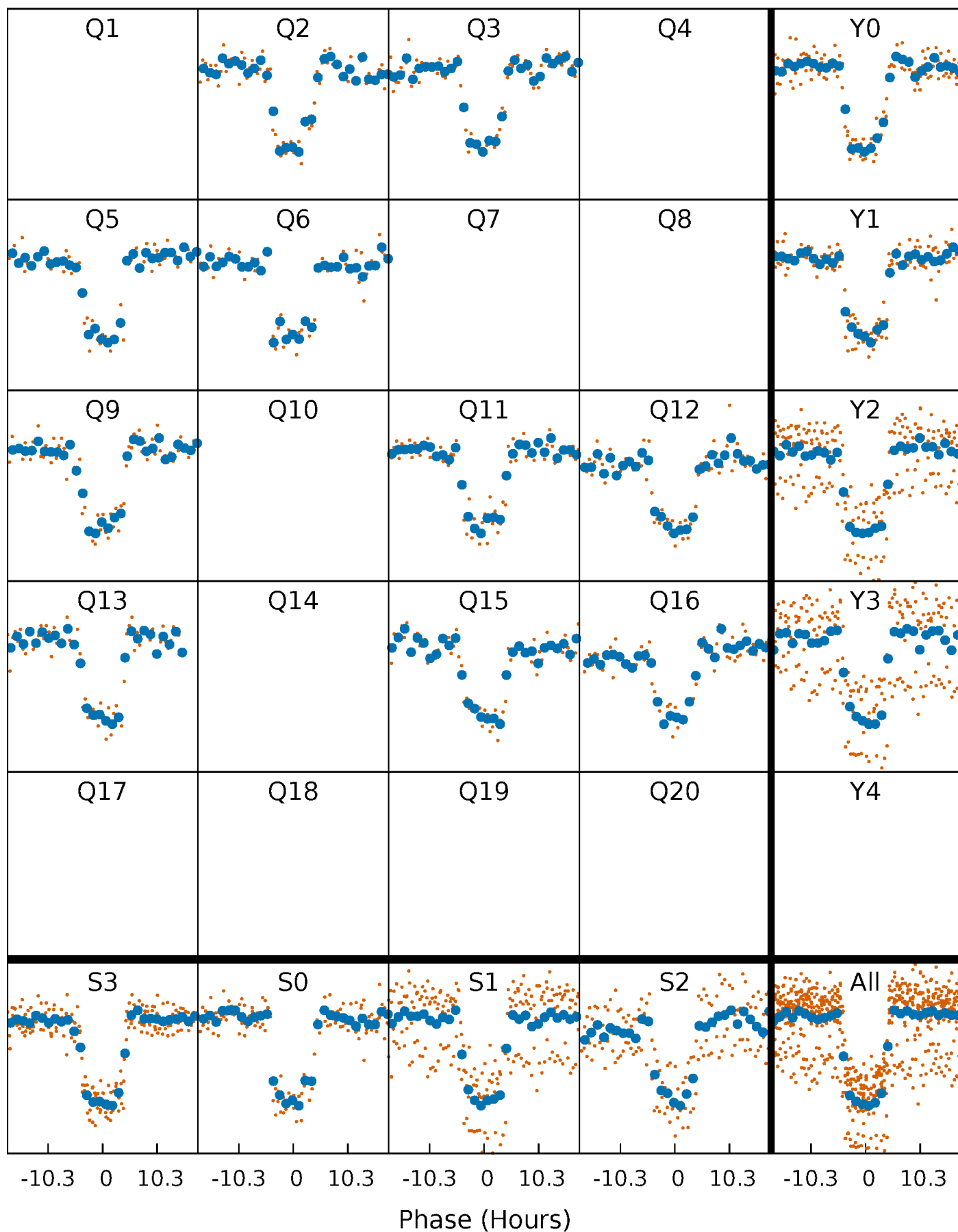


Non-Whitened Vs. Whitened Light Curve



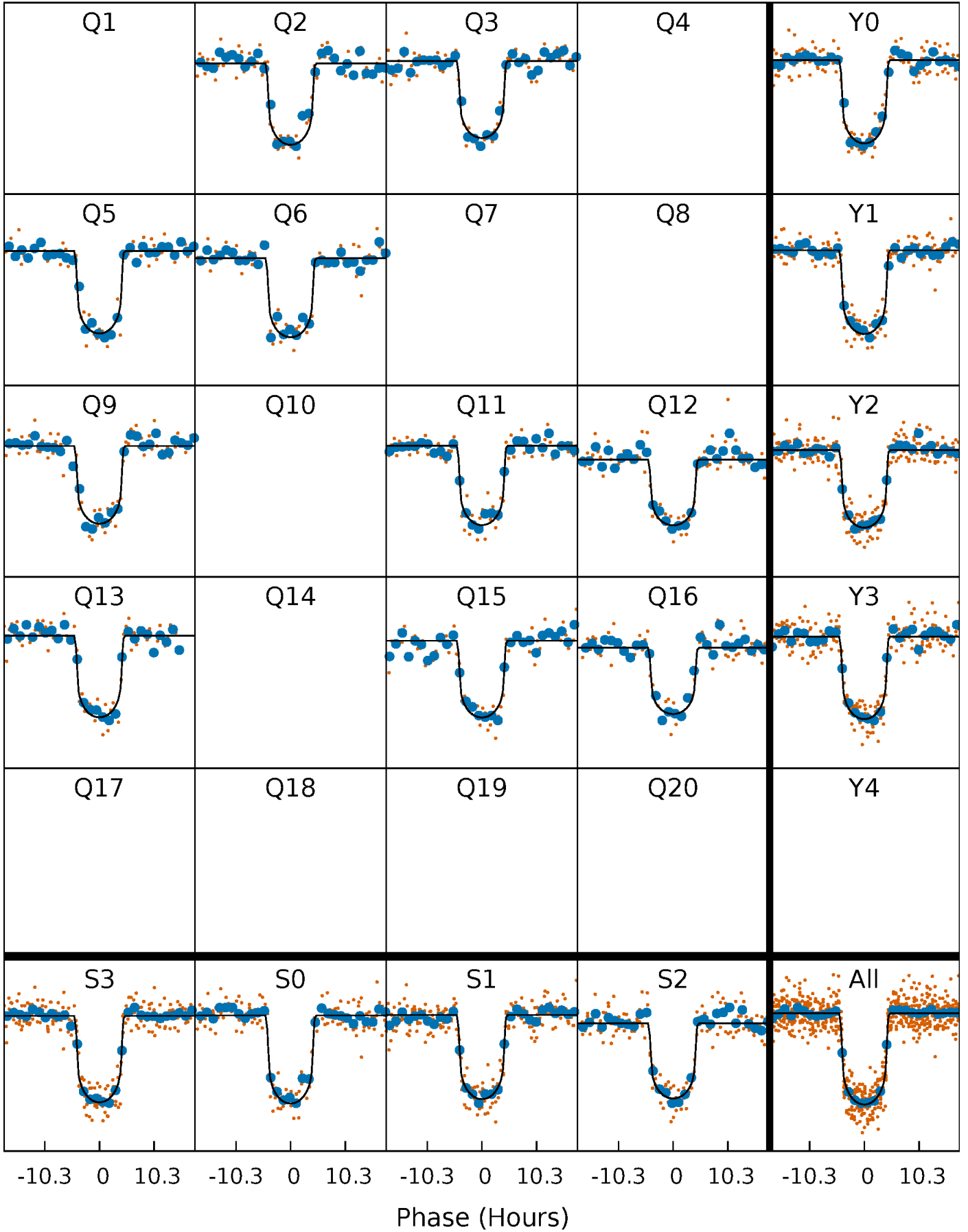
PDC Quarter-Phased Transit Curves

TCE 007364176-01 P=135.188126 Days $T_0=190.931993$ (BKJD)



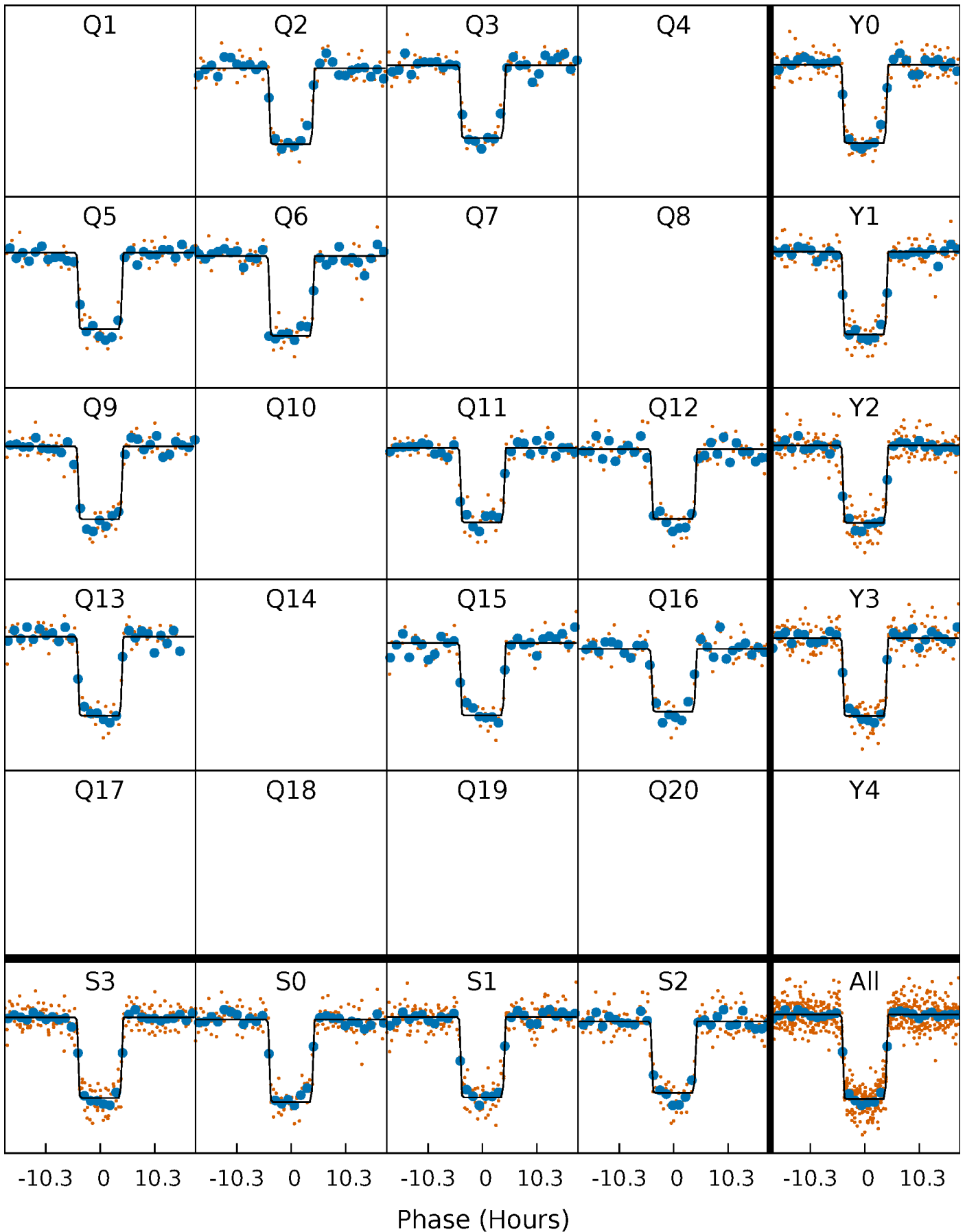
DV Quarter-Phased Transit Curves

TCE 007364176-01 P=135.188126 Days $T_0=190.931993$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

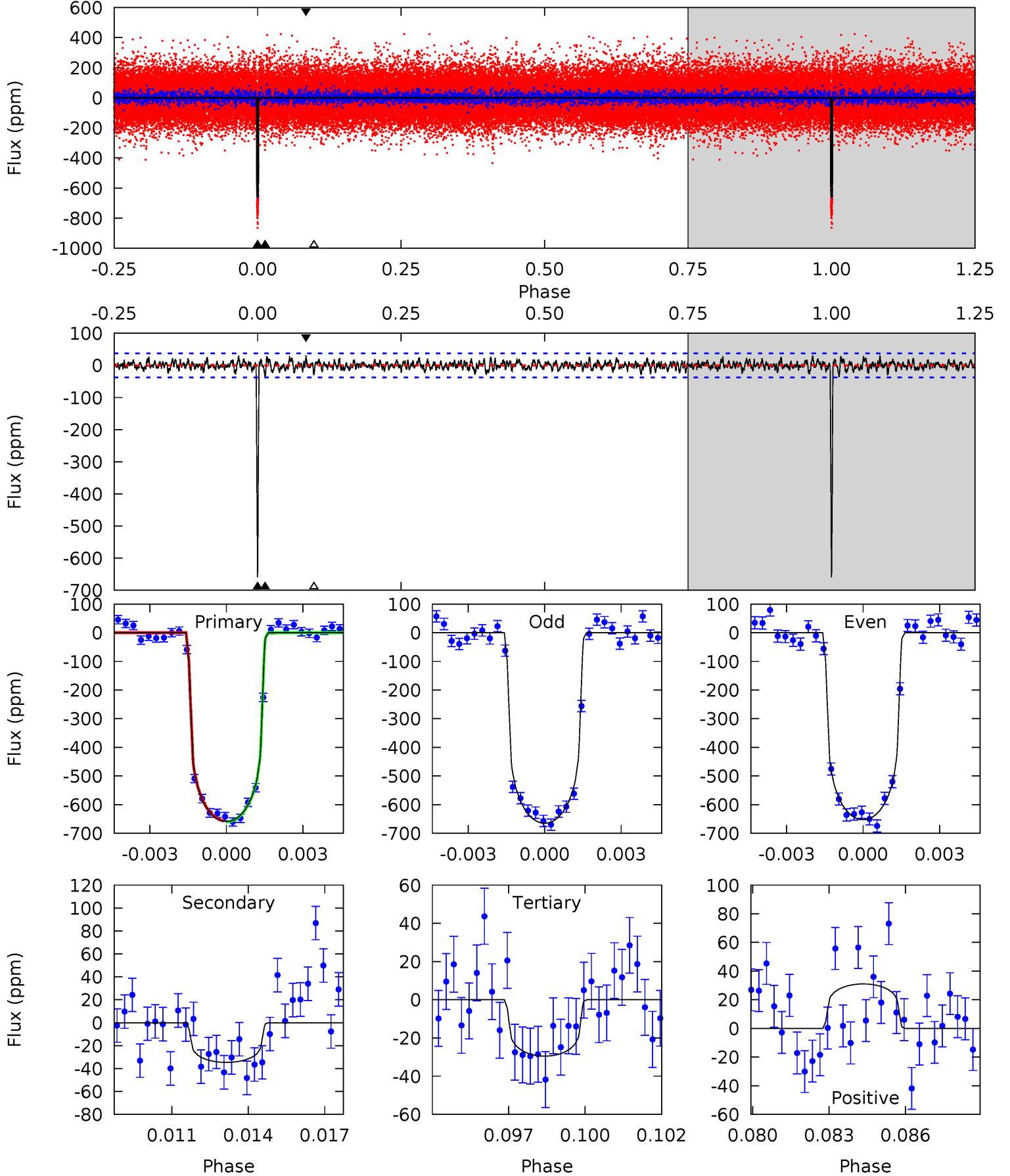
TCE 007364176-01 P=135.188433 Days $T_0=190.931648$ (BKJD)



DV Model-Shift Uniqueness Test

007364176-01, $P = 135.188126$ Days, $E = 55.743867$ Days

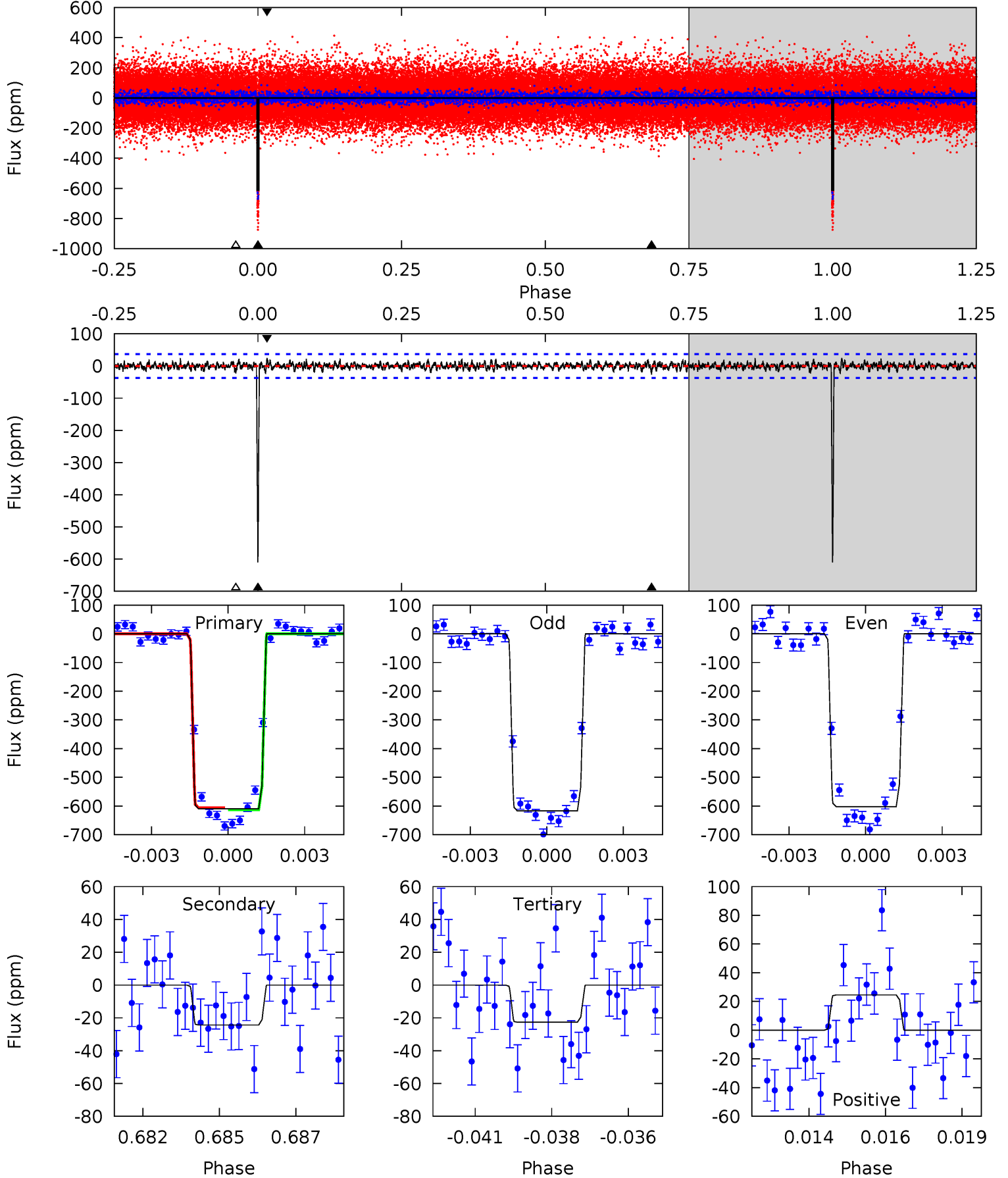
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
92.6	4.87	4.15	4.36	5.27	2.99	1.31	88.5	88.2	0.72	0.51	0.86	1.00	0.04	0.26



Alt Model-Shift Uniqueness Test

007364176-01, $P = 135.188433$ Days, $E = 55.743215$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
86.7	3.46	3.22	3.49	5.27	3.00	0.97	83.4	83.2	0.24	-0.02	1.04	1.01	0.04	0.44



Stellar Parameters For KIC 007364176

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5731^{+103}_{-115}	$4.451^{+0.095}_{-0.095}$	$-0.320^{+0.150}_{-0.150}$	$0.906^{+0.119}_{-0.080}$	$0.846^{+0.065}_{-0.049}$	$1.602^{+0.604}_{-0.474}$
	+2%/-2%	+2%/-2%	+47%/-47%	+13%/-9%	+8%/-6%	+38%/-30%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 007364176-01 / KOI 0373.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-35 ± 7	$2.51^{+0.24}_{-0.21}$	482^{+18}_{-17}	3308^{+128}_{-124}	716^{+216}_{-172}
Alt.	-24 ± 7	$2.46^{+0.25}_{-0.21}$	481^{+18}_{-16}	3161^{+145}_{-168}	528^{+201}_{-184}

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

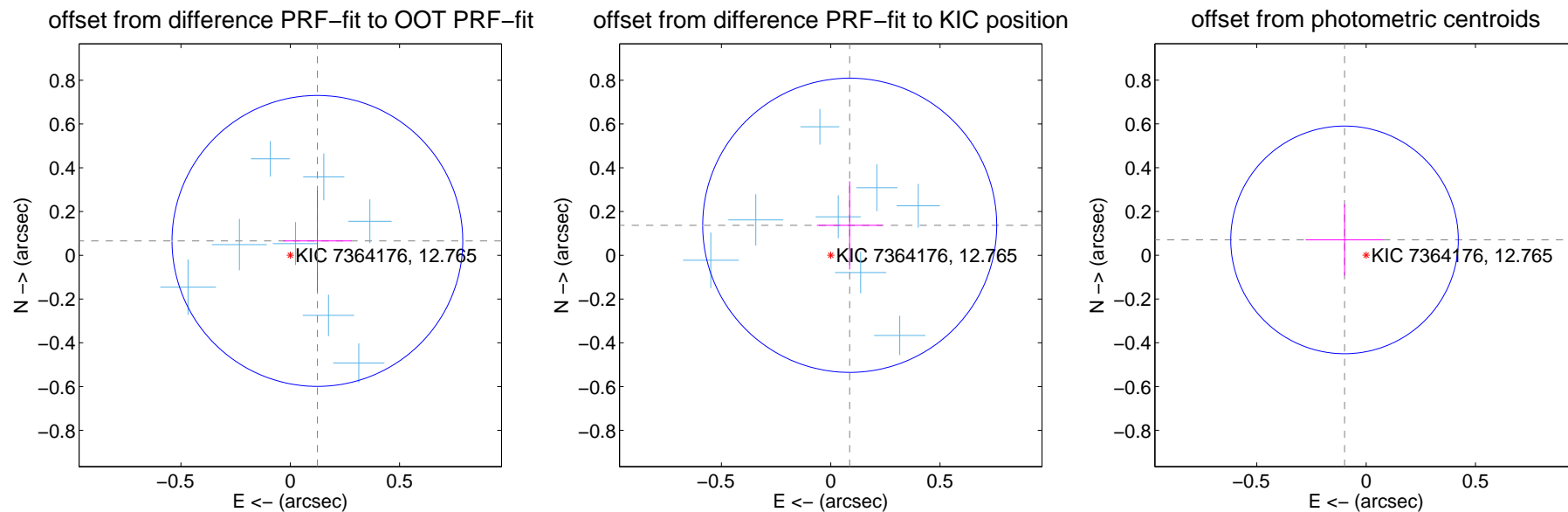
DV Centroid Data

Supplemental centroid analysis for 007364176-01. Kepler magnitude: 12.77. Transit SNR 62.36

There are 9 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.140 ± 0.222	0.63	-0.124 ± 0.156	0.066 ± 0.230
PRF-fit source offset from KIC position	0.162 ± 0.224	0.72	-0.087 ± 0.150	0.137 ± 0.202
photometric centroid source offset	0.12 ± 0.17	0.70	0.10 ± 0.18	0.07 ± 0.16



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.

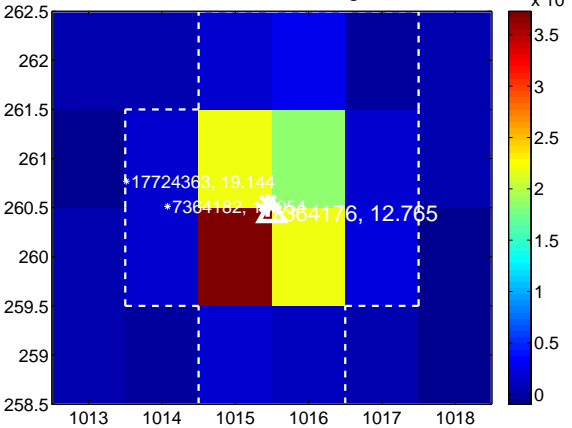
Q1 no difference image



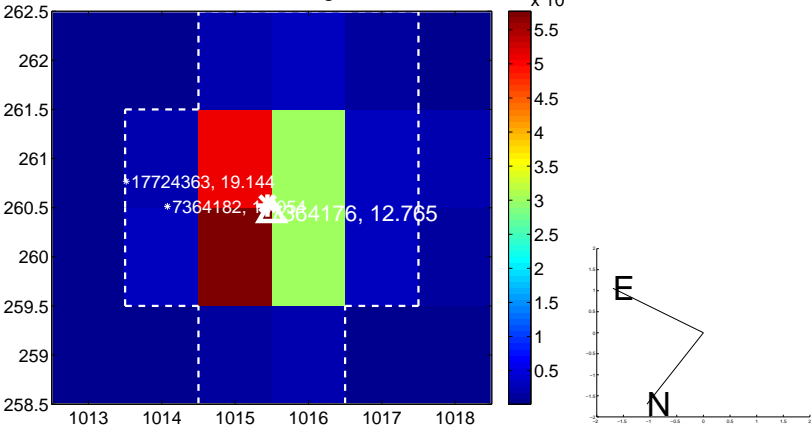
Q1 no OOT image



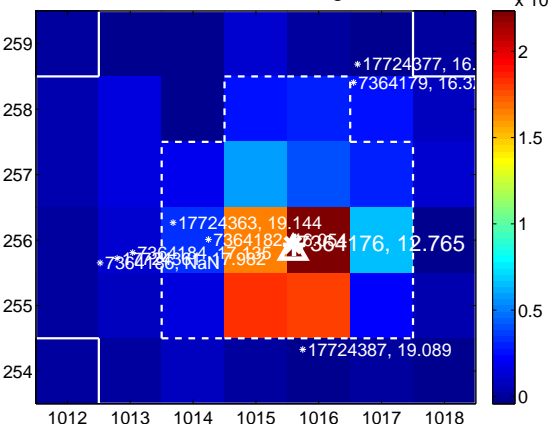
Q2 difference image



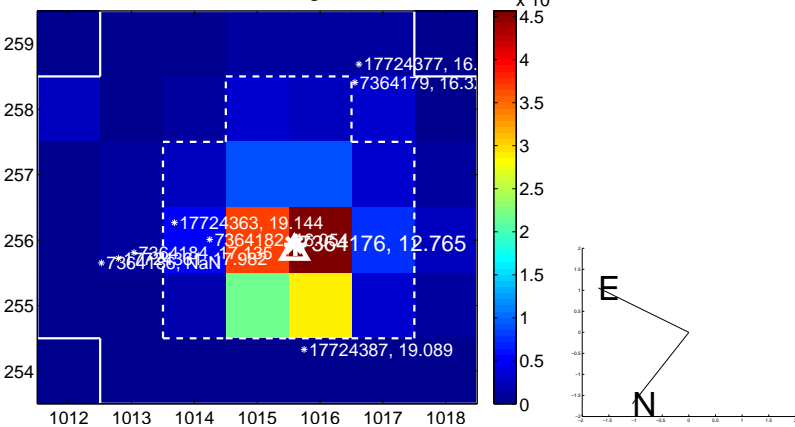
Q2 OOT image



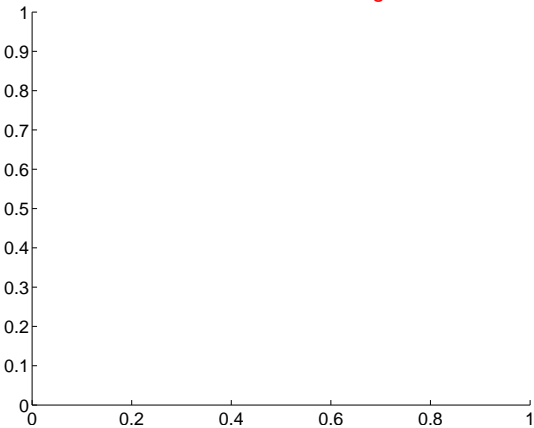
Q3 difference image



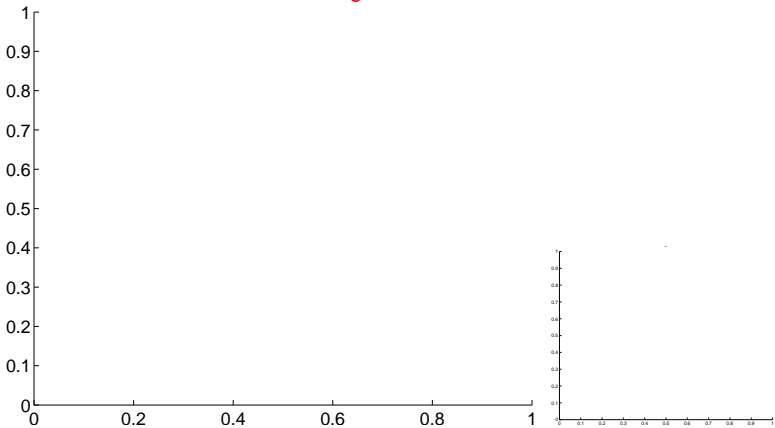
Q3 OOT image



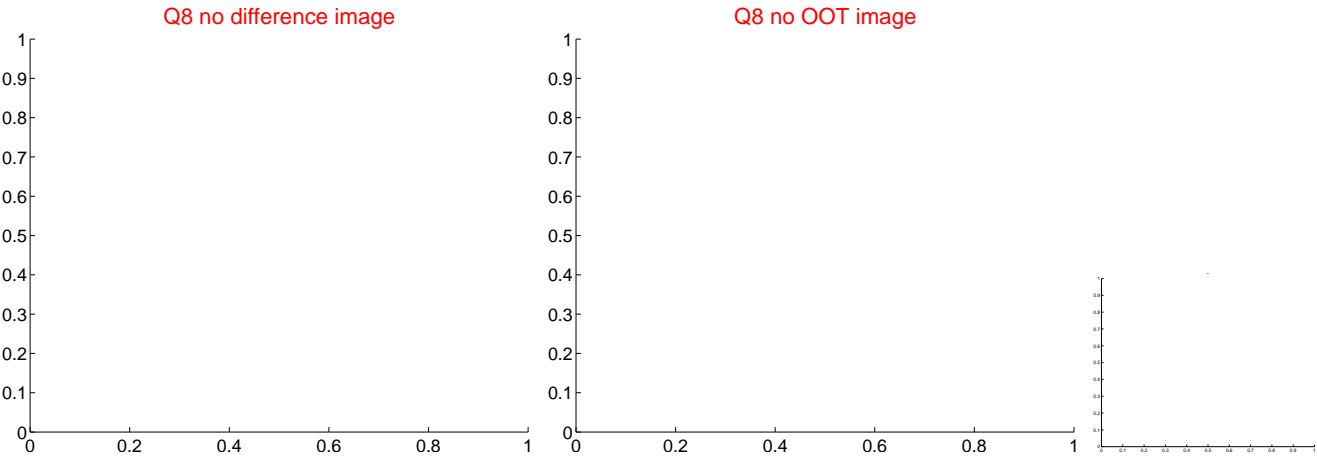
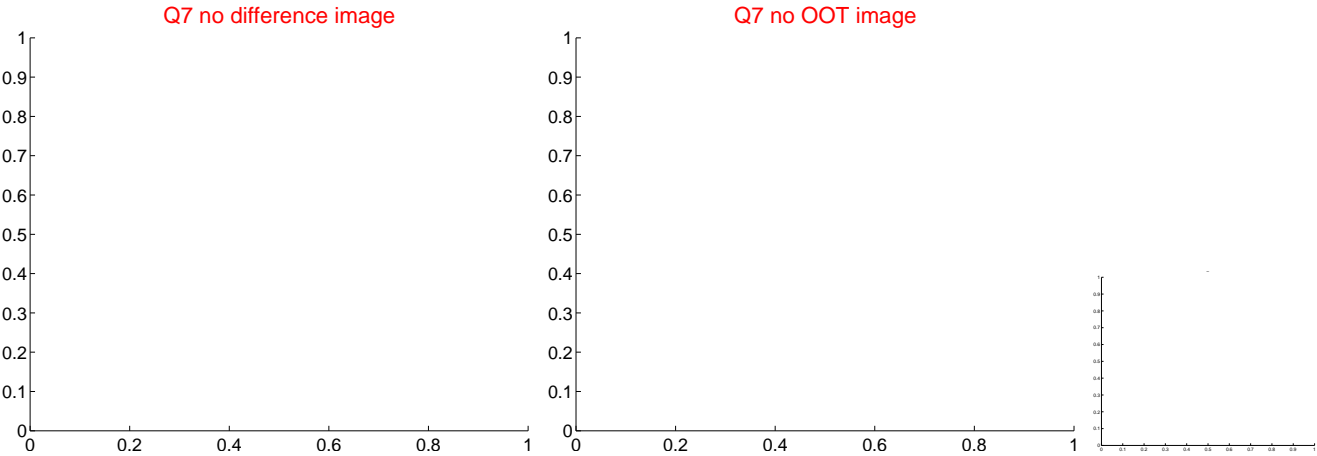
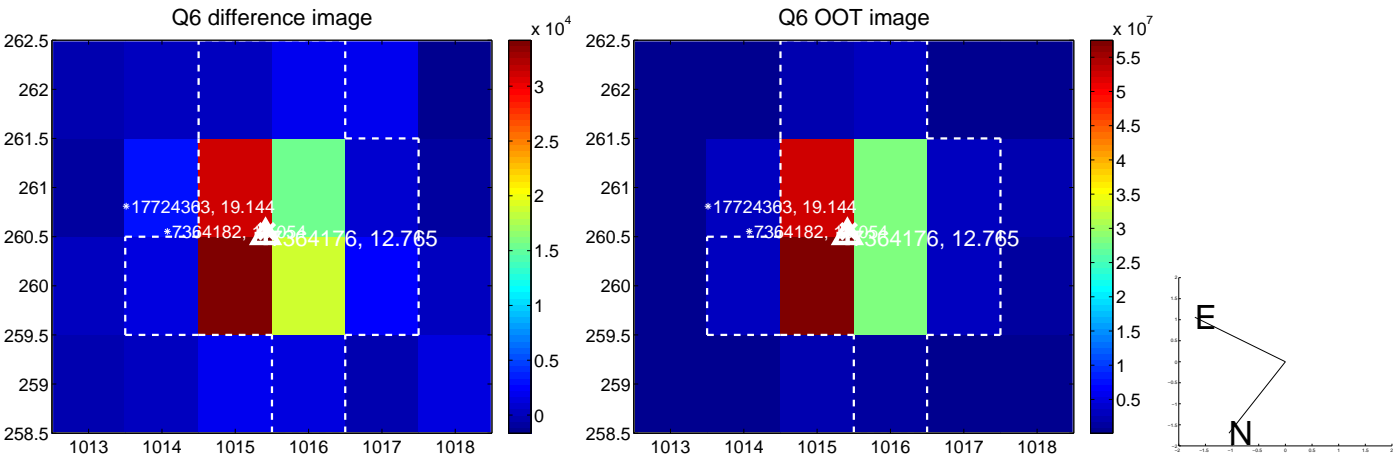
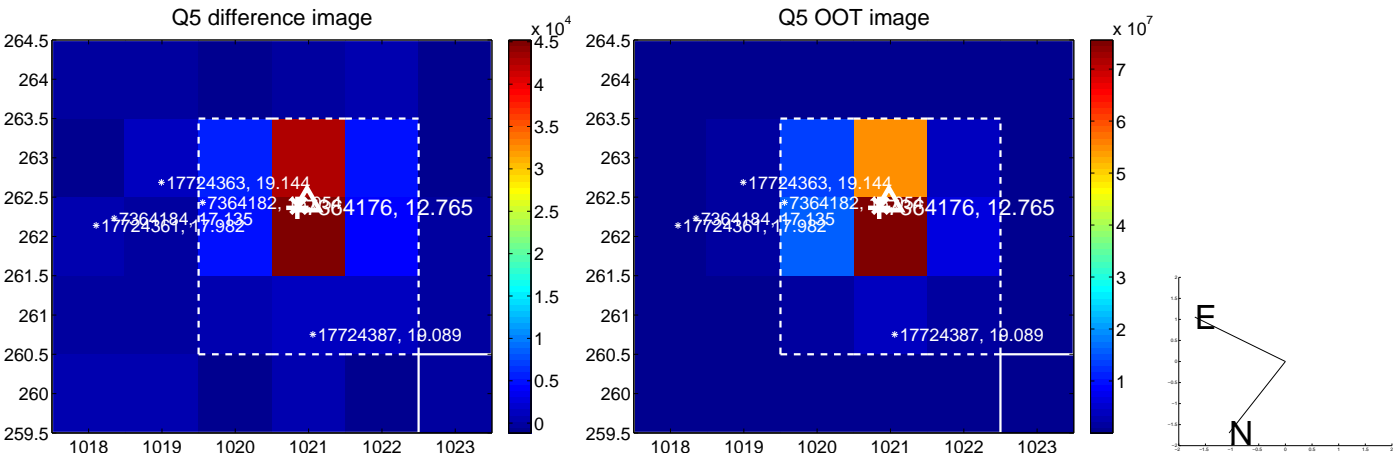
Q4 no difference image



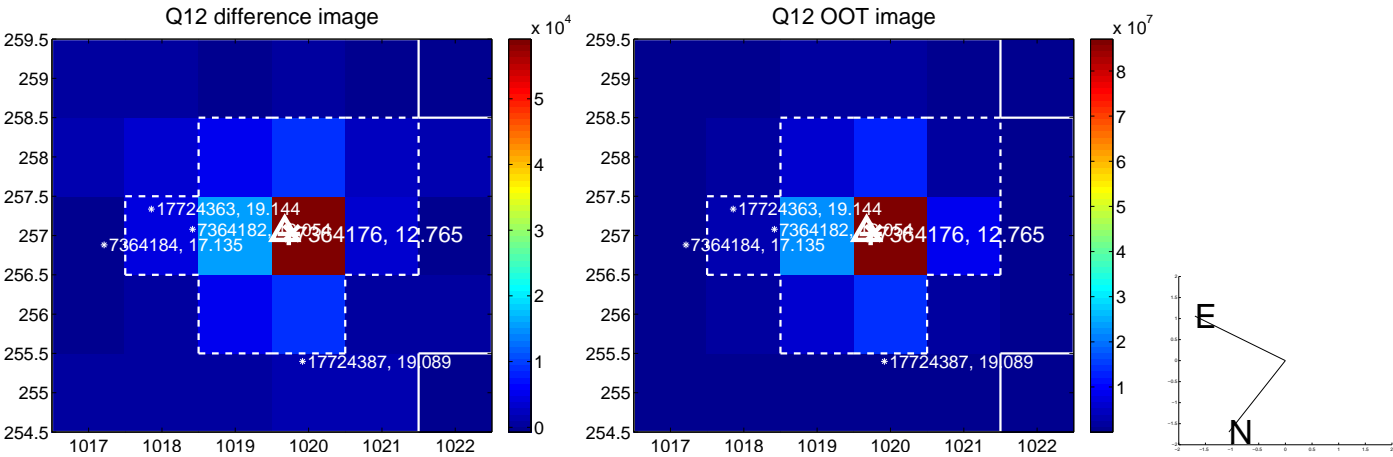
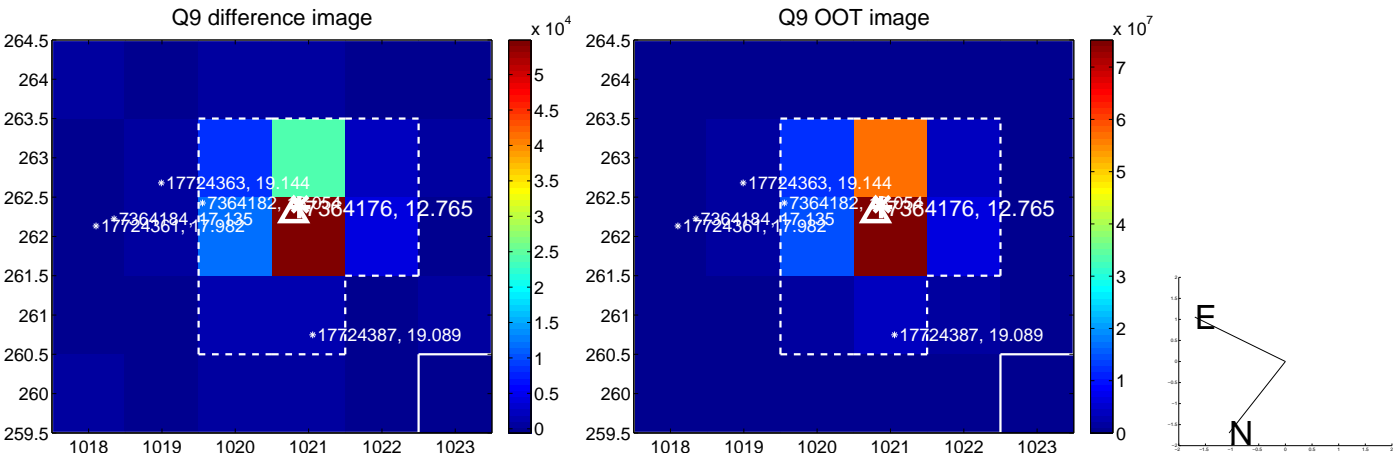
Q4 no OOT image



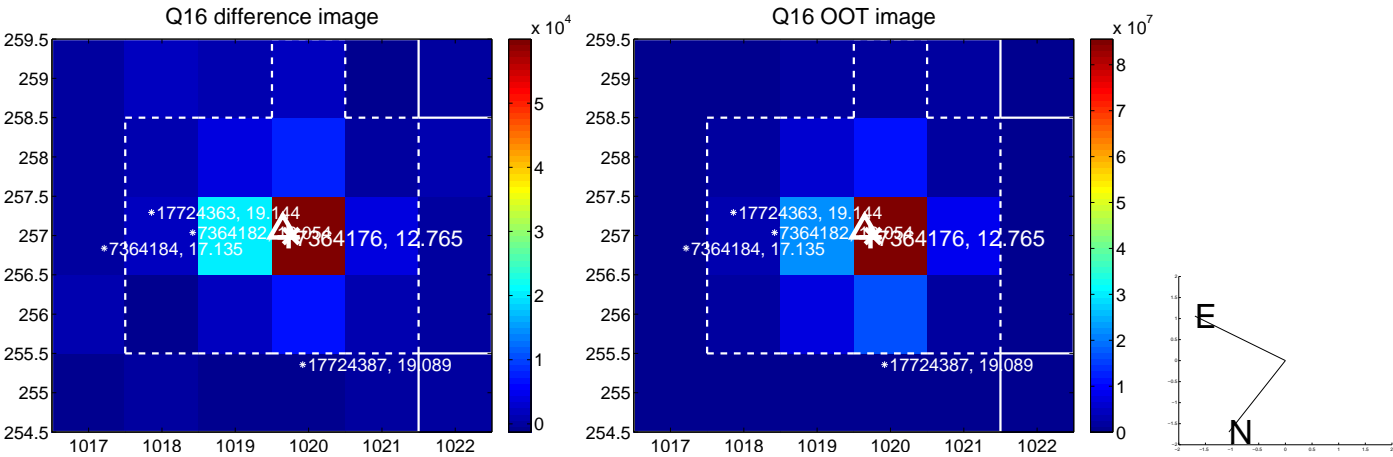
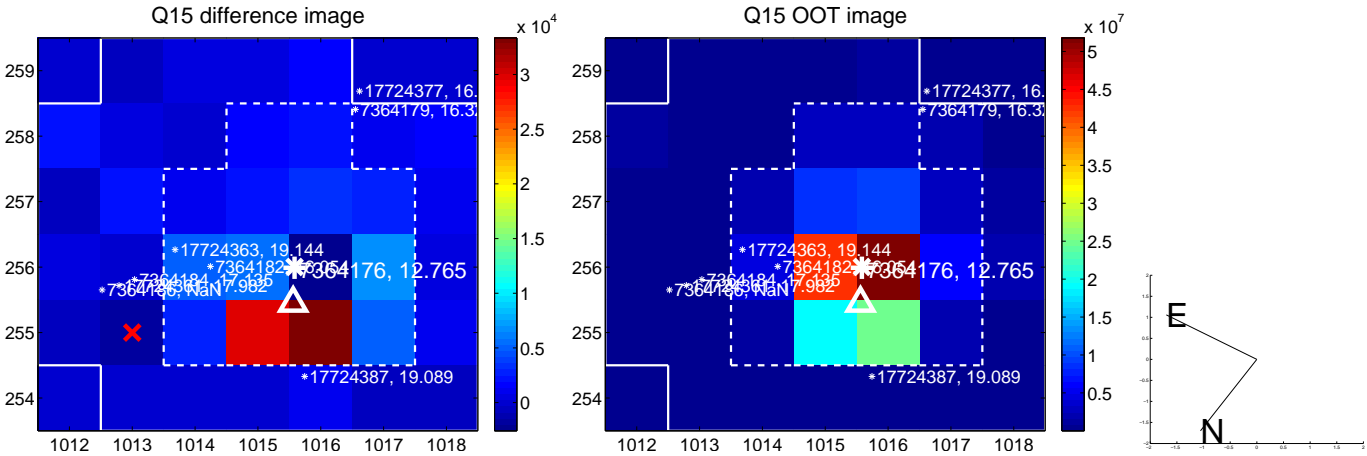
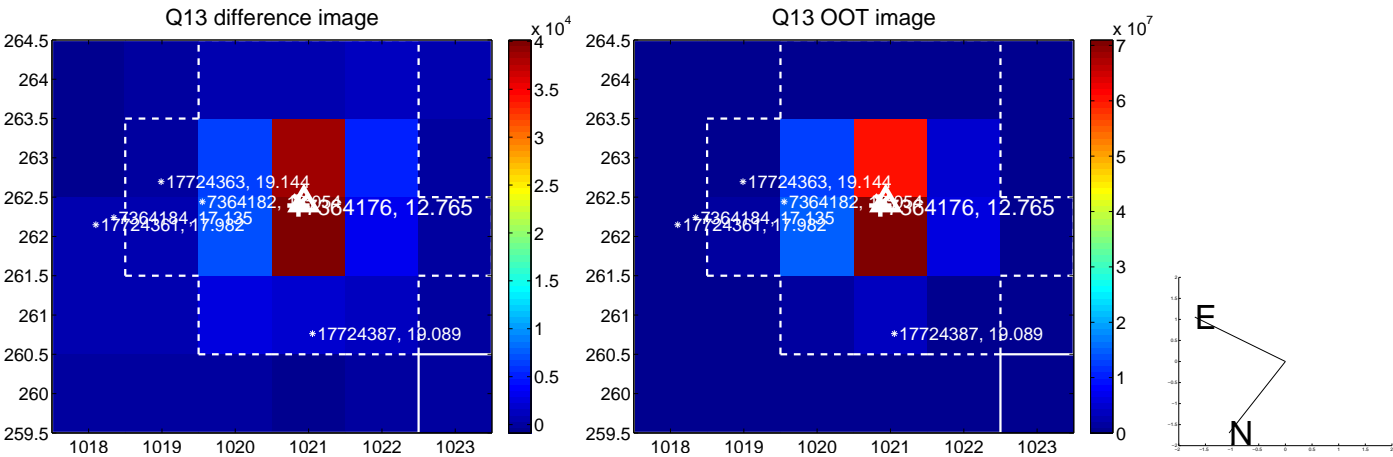
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



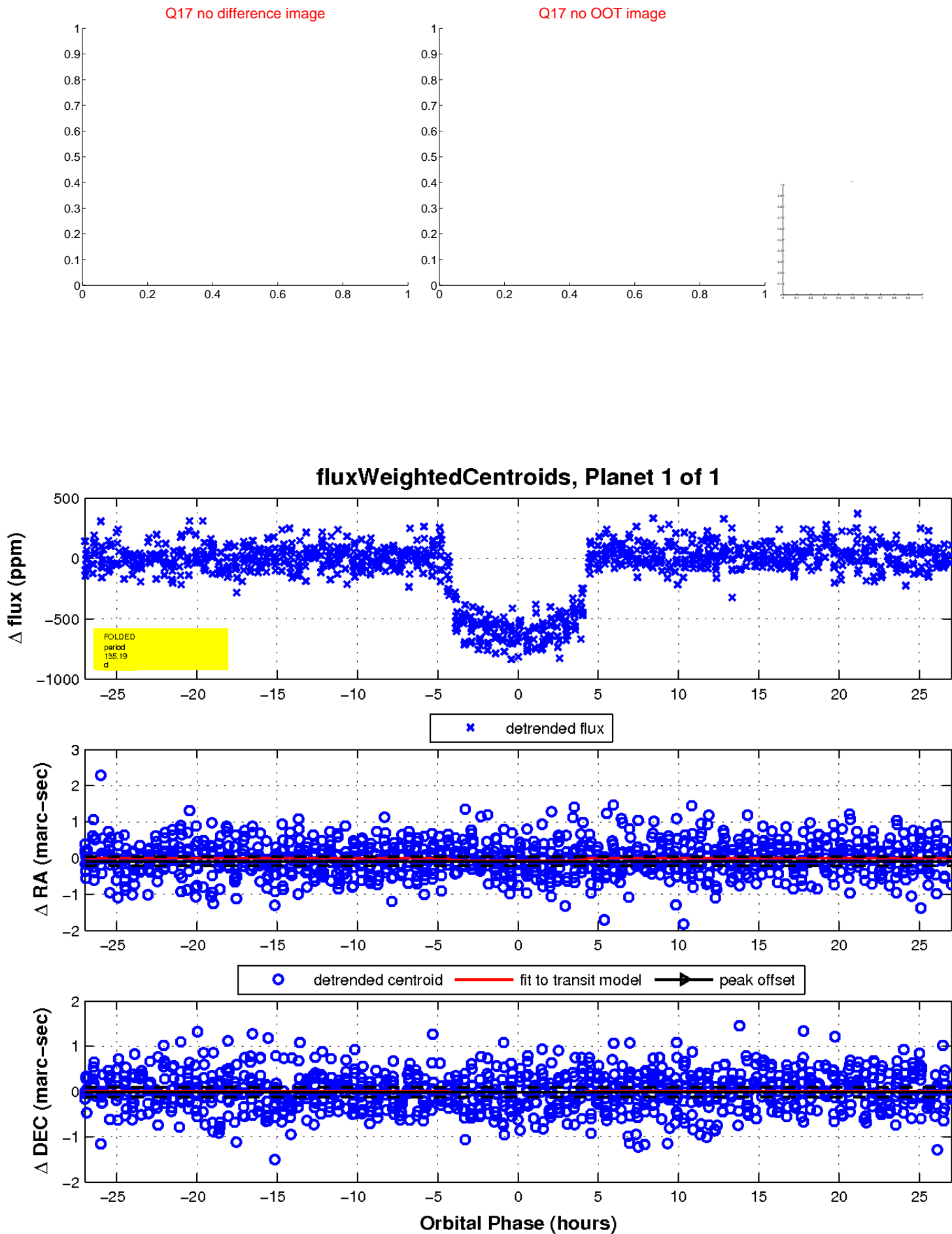
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UKIRT Image

Declination

