

KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

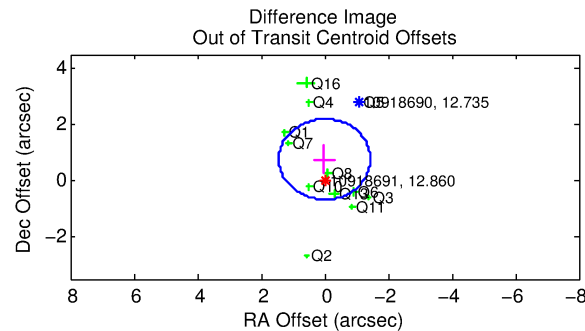
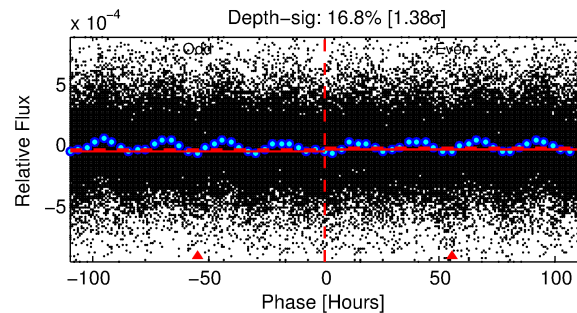
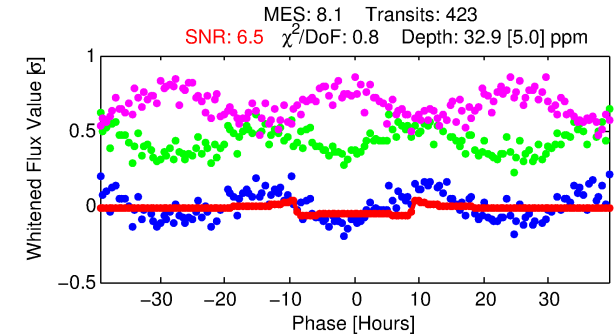
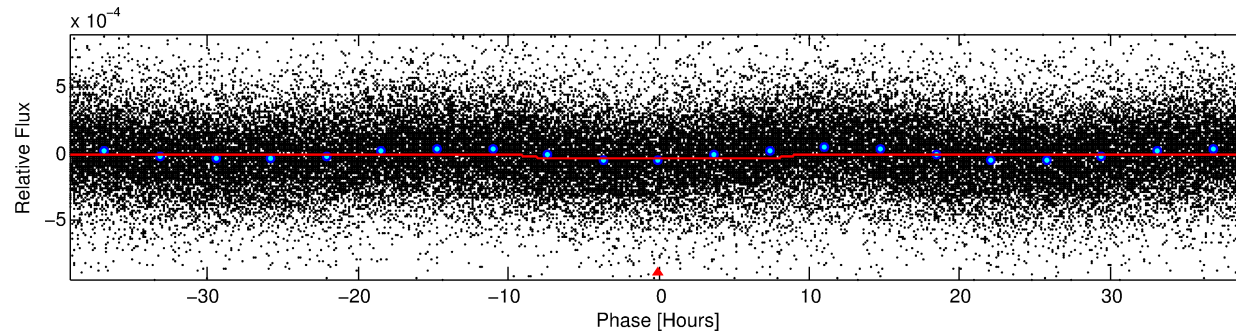
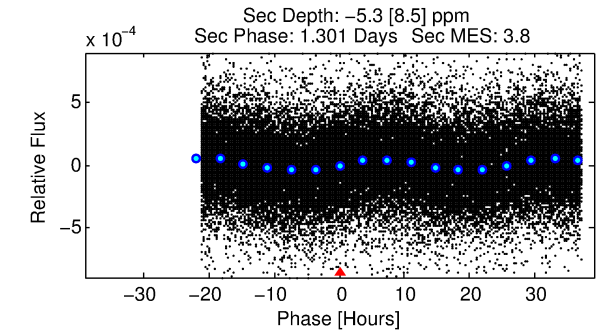
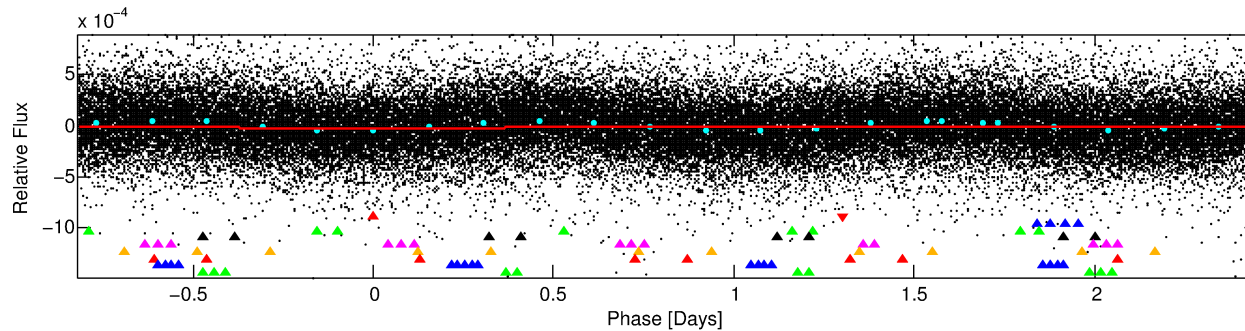
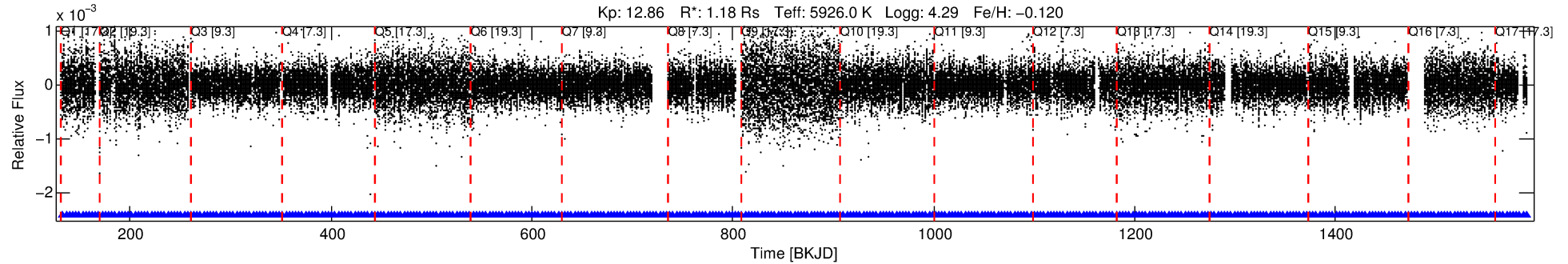
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-01

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 1 of 9 Period: 3.266 d



DV Fit Results:

Period = 3.26643 [0.00005] d
Epoch = 133.2014 [0.0093] BKJD
Rp/R* = 0.0057 [0.0017]
a/R* = 1.24 [0.62]
b = 0.76 [0.80]
Seff = 835.82 [311.72]
Teq = 1371 [128] K
Rp = 0.74 [0.31] Re
a = 0.0428 [0.0104] AU
Ag = N/A
Teffp = N/A

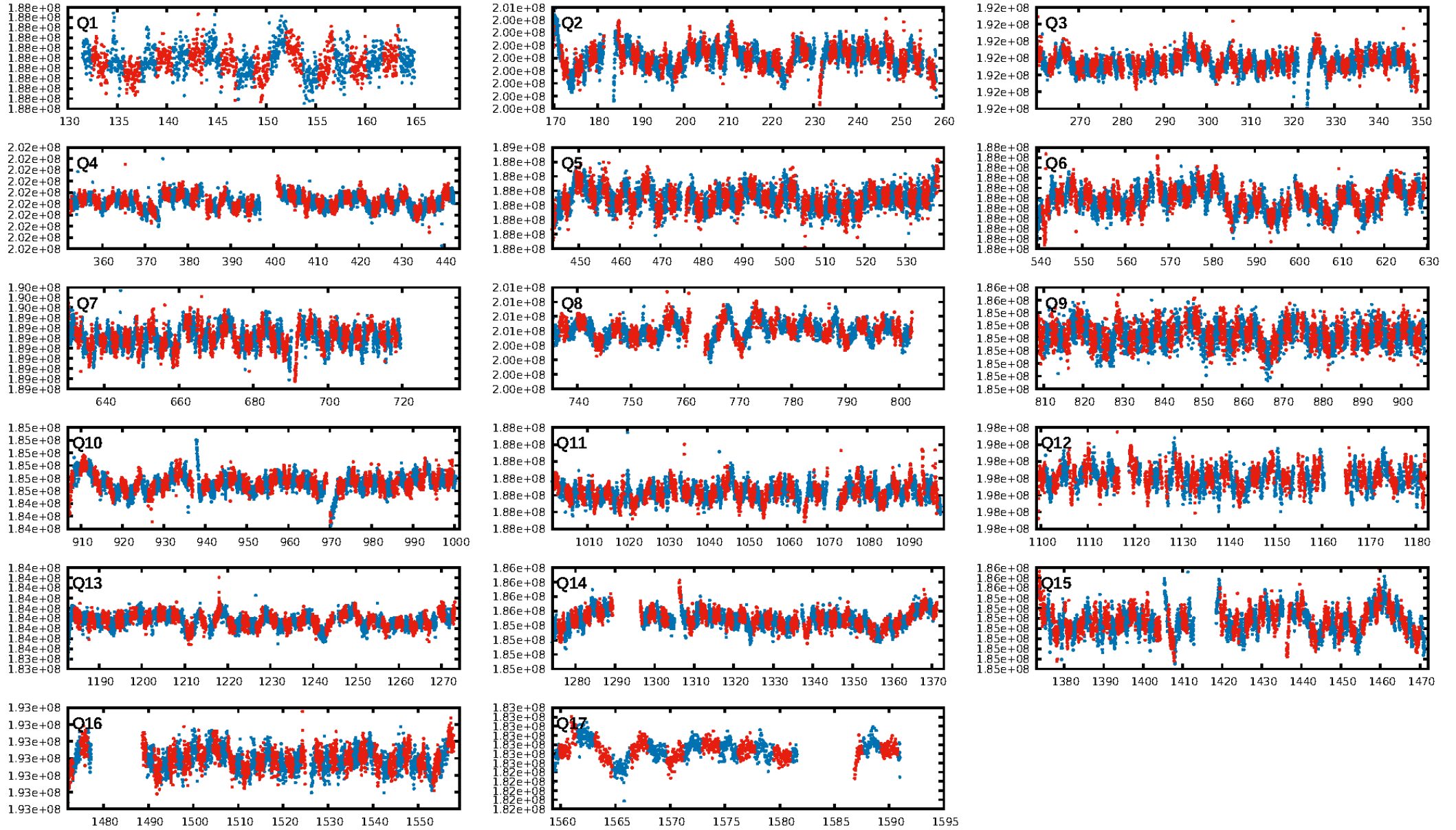
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [82.58σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [404/404]
GhostDiagnostic-chr: -83.39
Centroid-sig: 1.4%
Centroid-so: 0.992 arcsec [3.11σ]
OotOffset-rm: 0.762 arcsec [1.59σ]
KicOffset-rm: 2.404 arcsec [5.60σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [17/17]

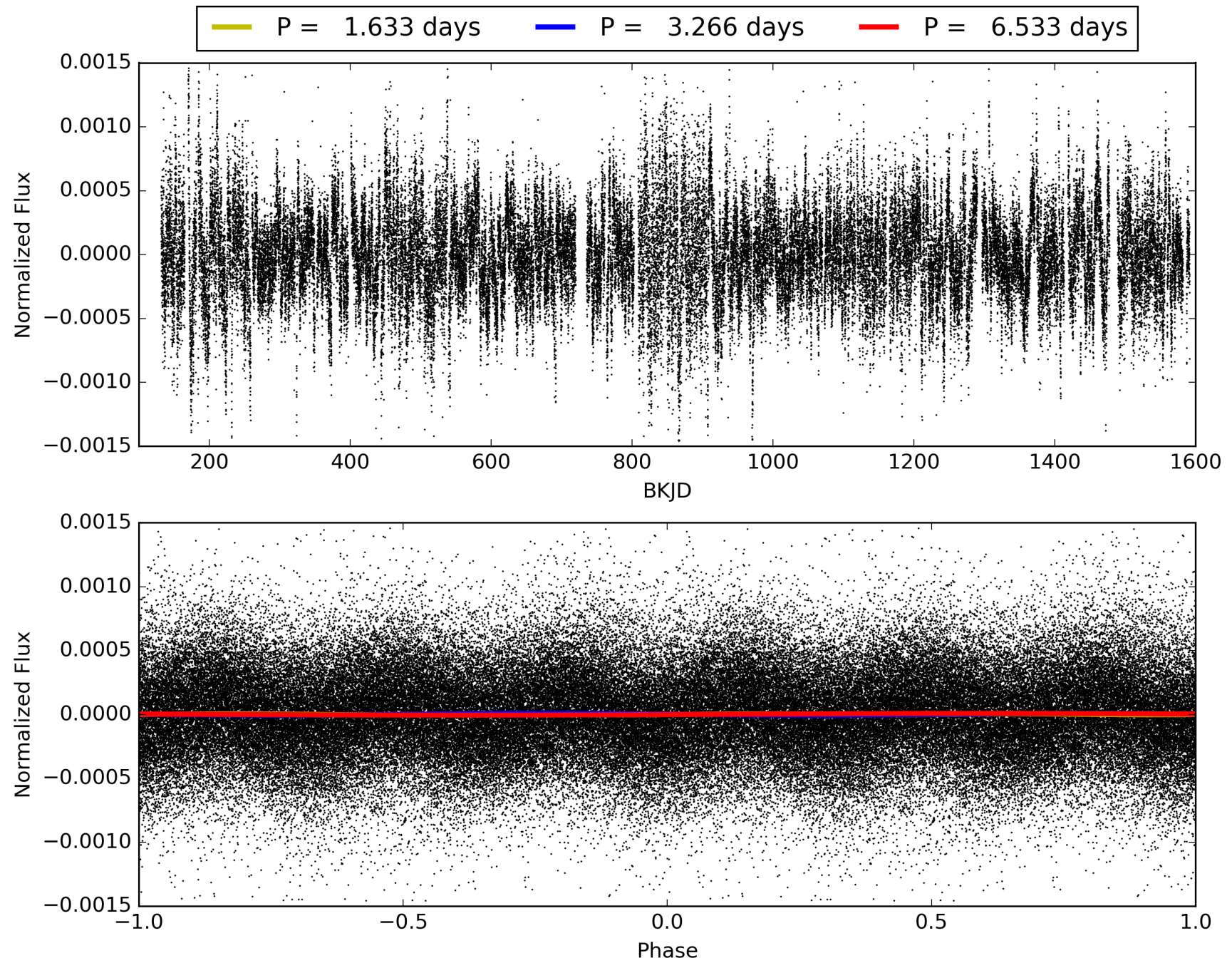
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:15:59 Z

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

TCE 010918691-01, PDC Light Curves

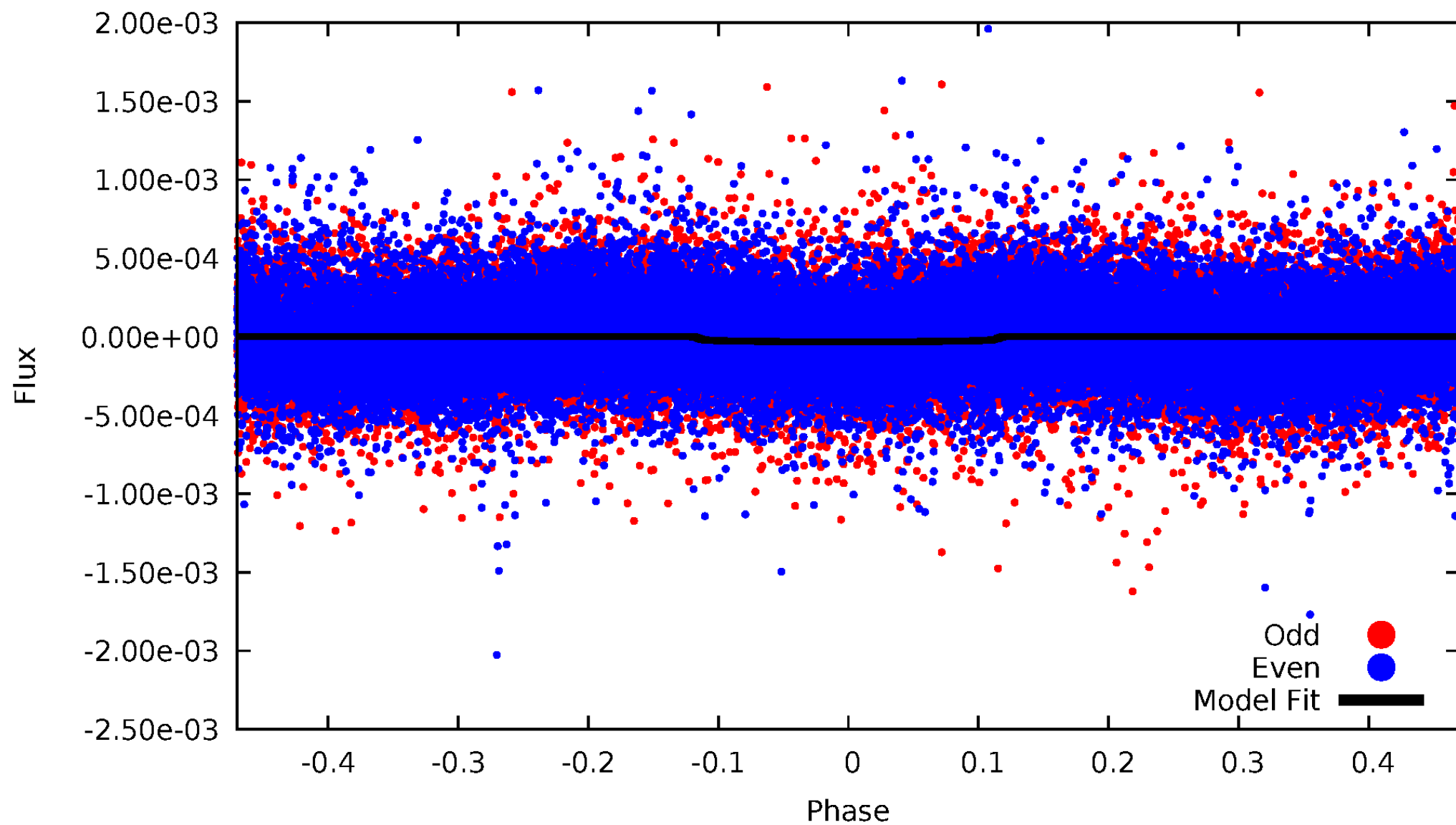


TCE 010918691-01



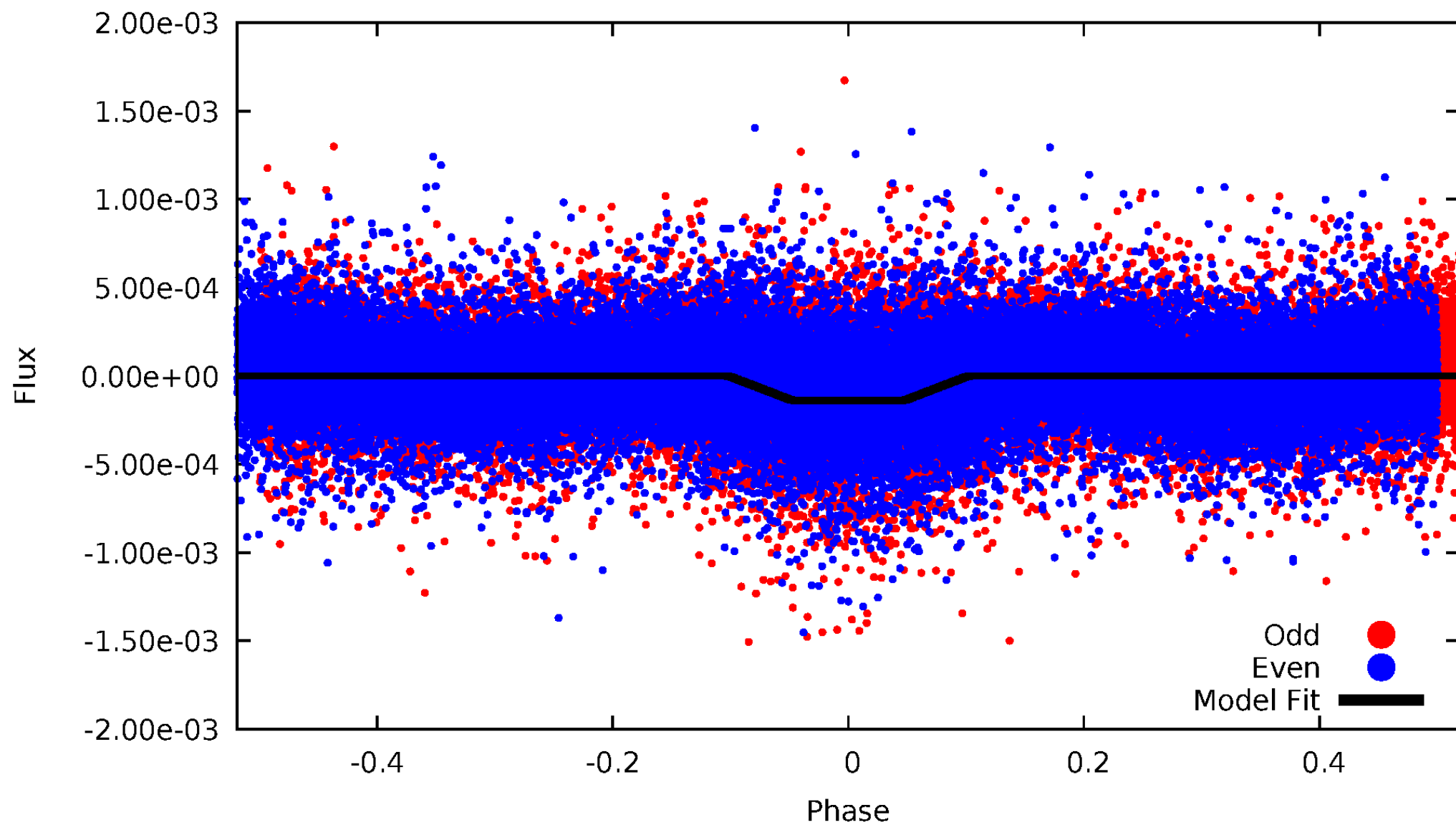
DV Odd/Even

TCE 010918691-01

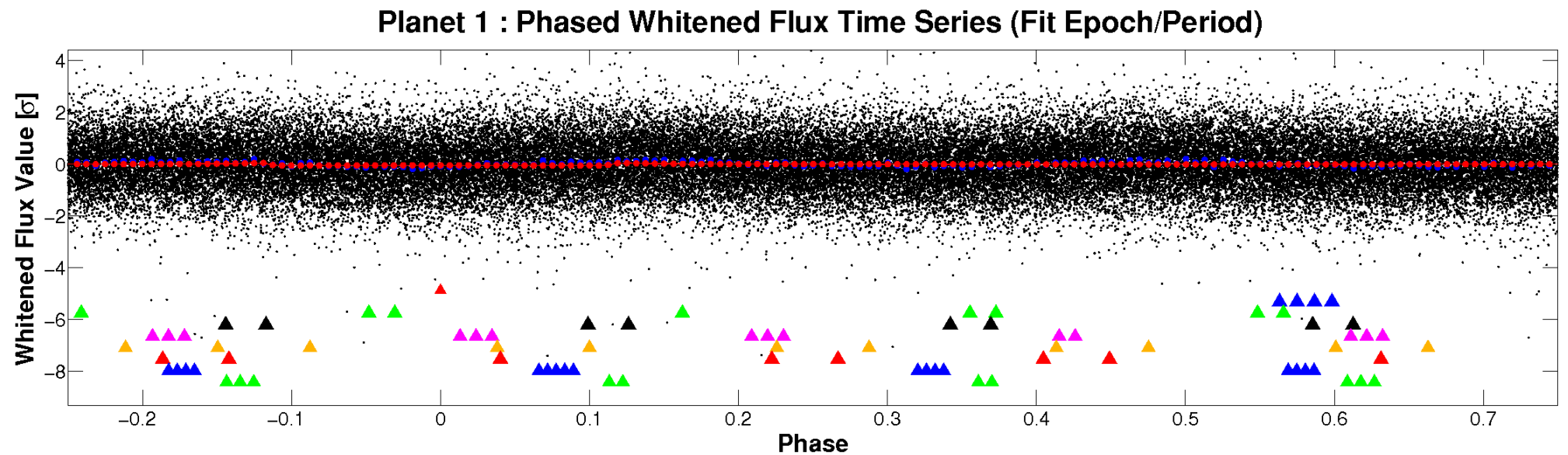
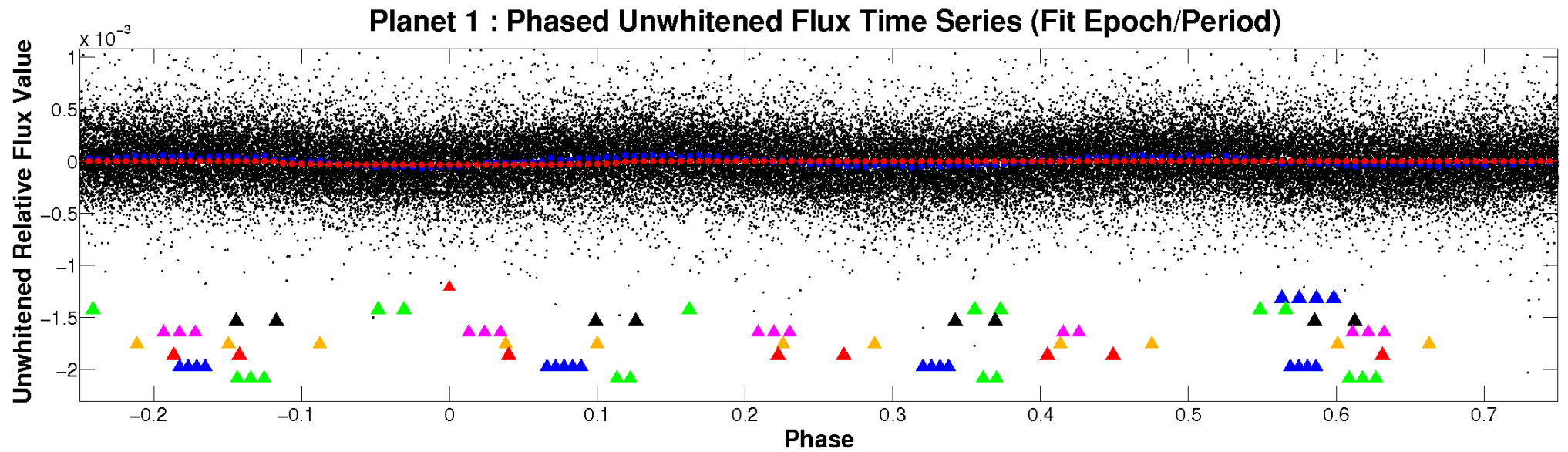


ALT Odd/Even

TCE 010918691-01

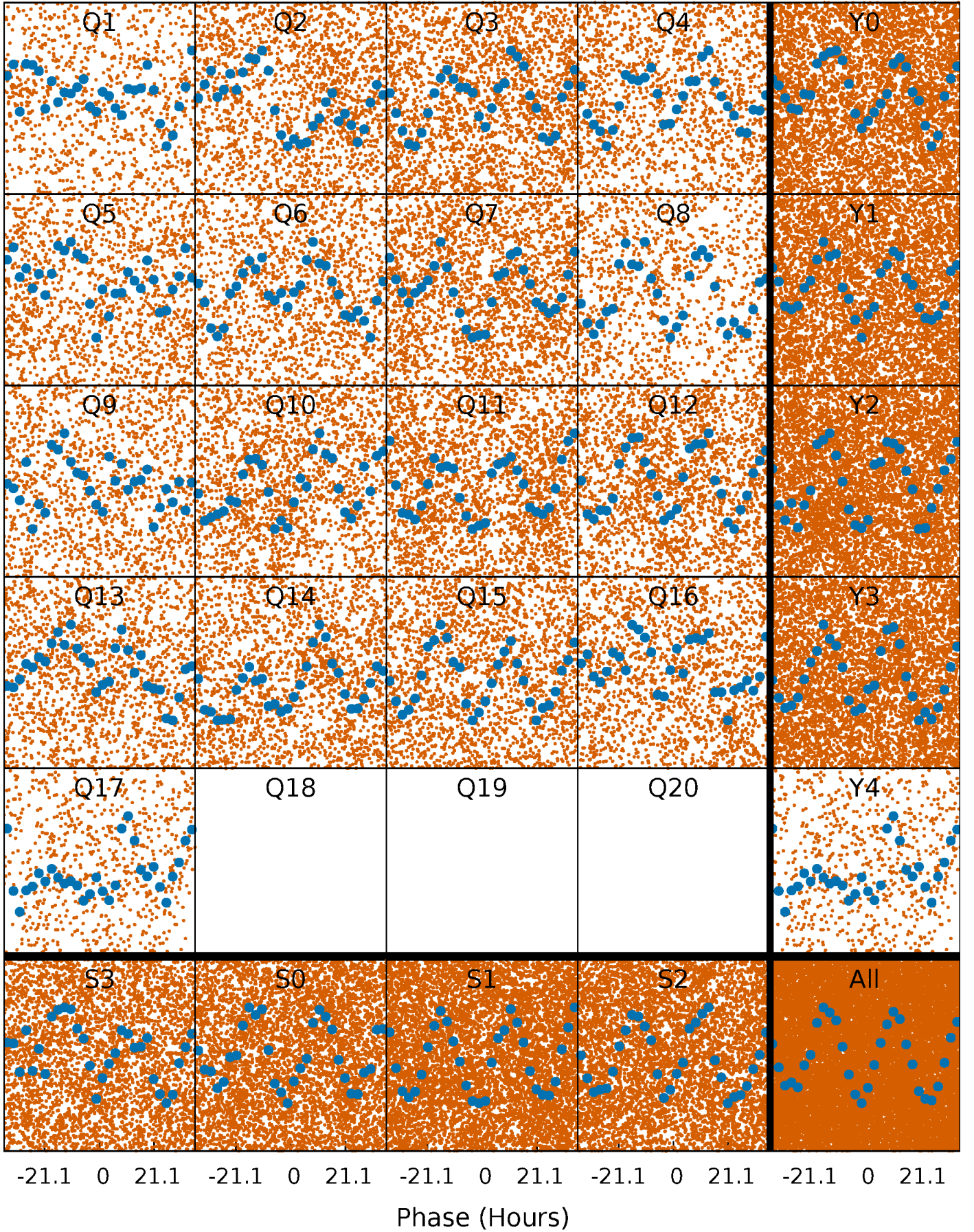


Non-Whitened Vs. Whitened Light Curve



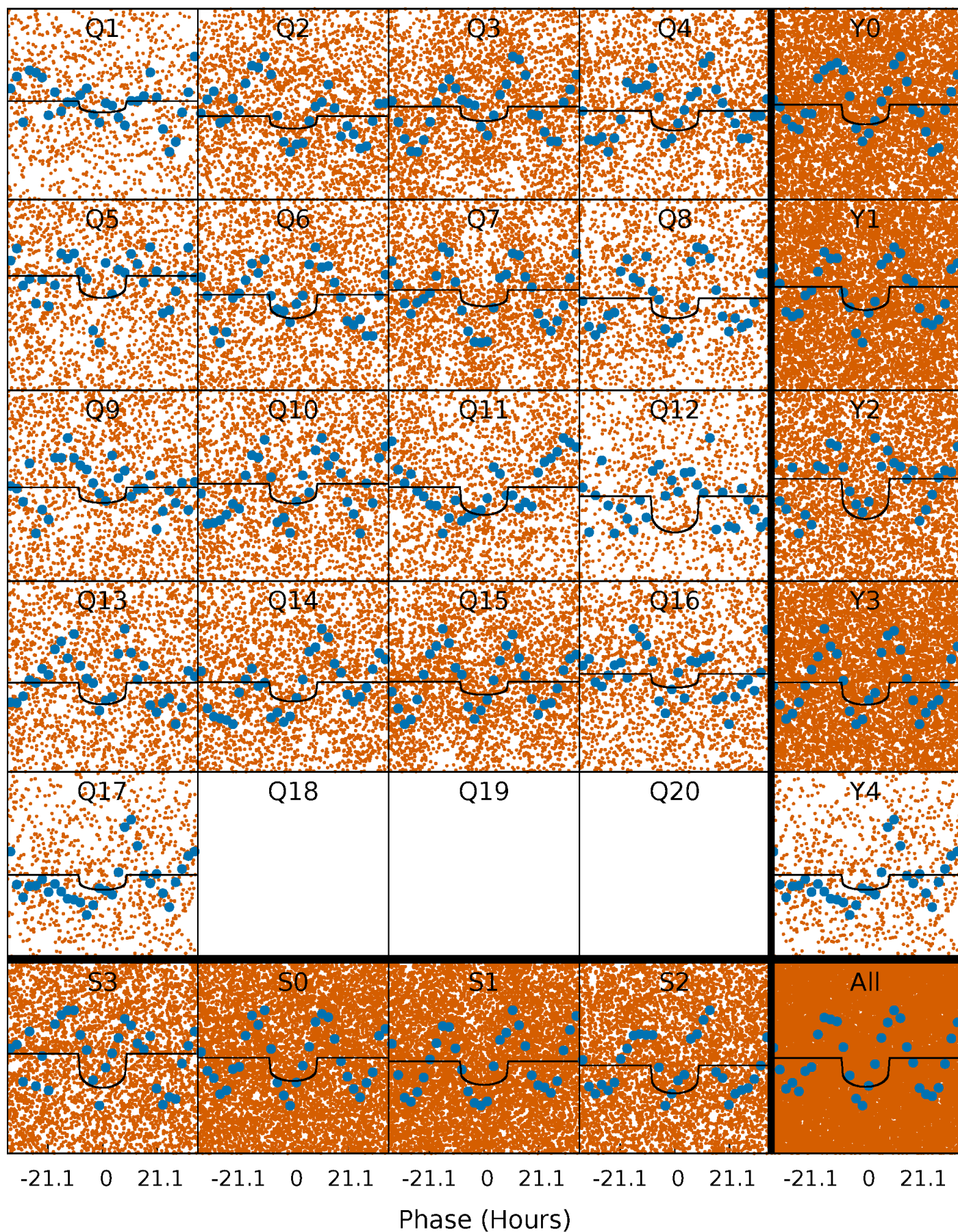
PDC Quarter-Phased Transit Curves

TCE 010918691-01 P= 3.266427 Days $T_0=133.201448$ (BKJD)



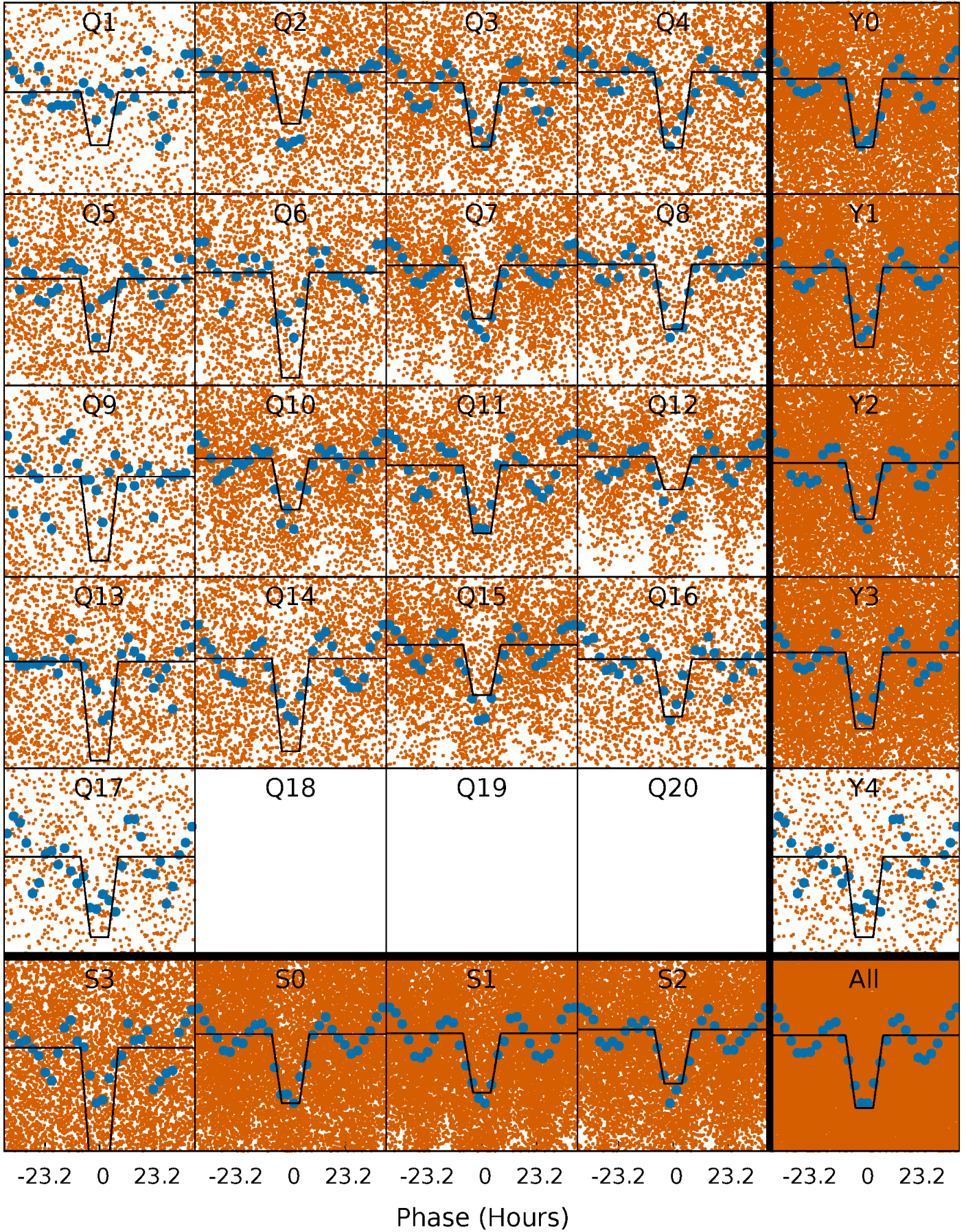
DV Quarter-Phased Transit Curves

TCE 010918691-01 P= 3.266427 Days $T_0=133.201448$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

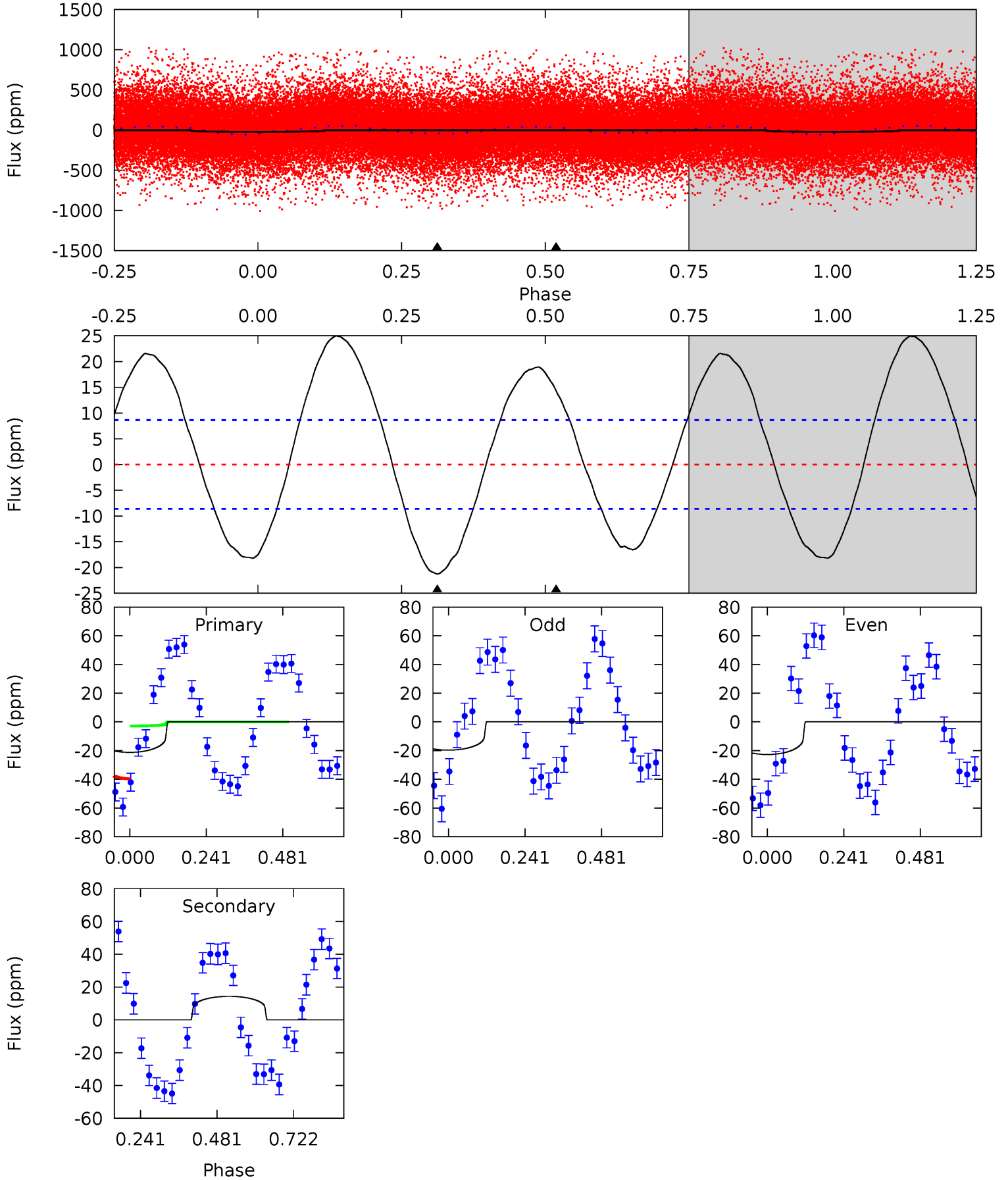
TCE 010918691-01 P= 3.266132 Days $T_0=133.191541$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-01, P = 3.266427 Days, E = 129.935021 Days

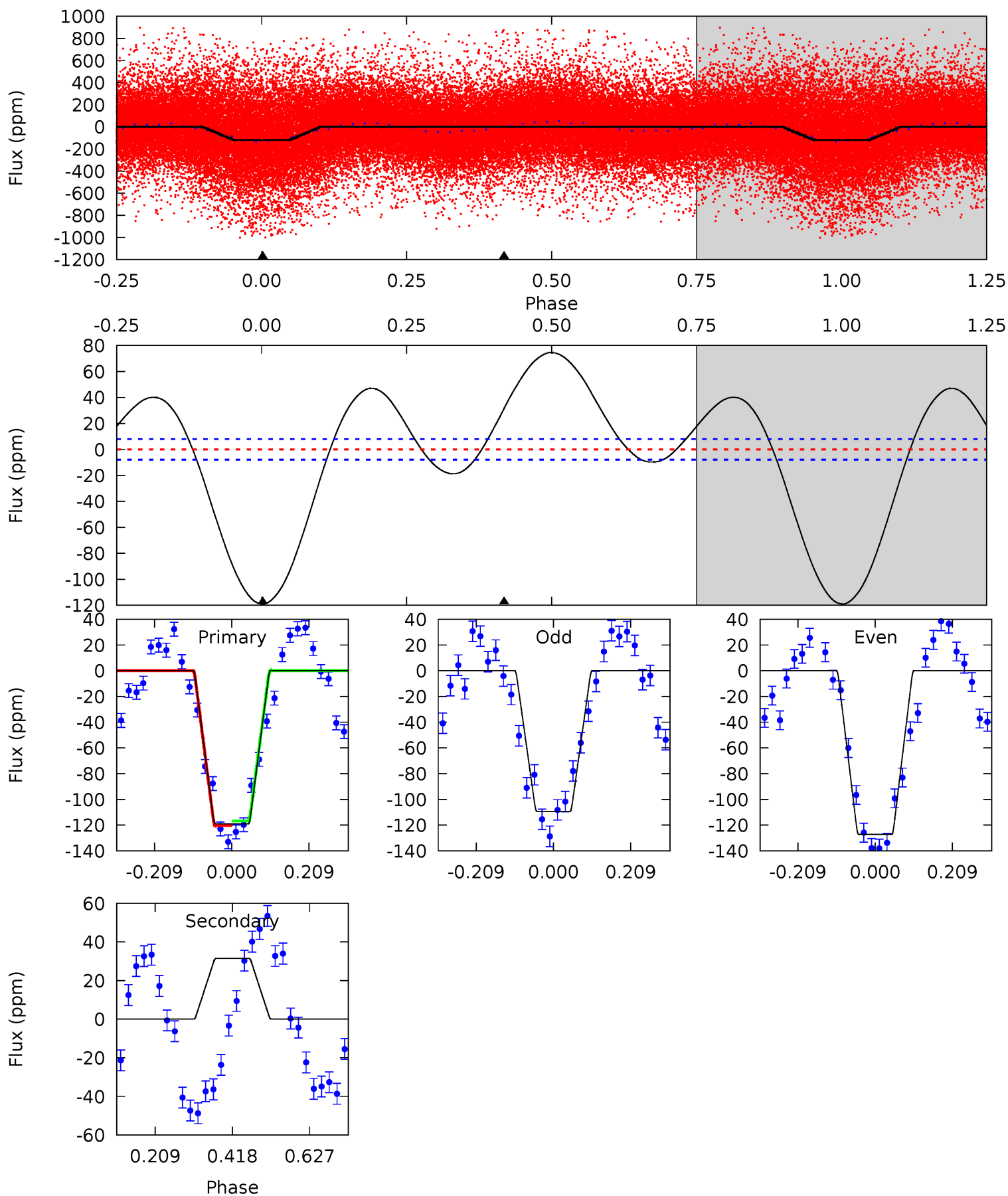
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	-7.27	0	0	4.38	1.17	7.28	10.8	10.8	-7.27	-7.27	0.78	0.84	0.54	9.44



Alt Model-Shift Uniqueness Test

010918691-01, P = 3.266132 Days, E = 129.925409 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.3	-17.5	0	0	4.41	1.26	8.43	66.3	66.3	-17.5	-17.5	4.93	1.09	0.39	1.00



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	14 ± 2	$0.73^{+0.26}_{-0.21}$	1915^{+166}_{-127}	-4940^{+545}_{-830}	$-26.902^{+12.808}_{-27.509}$
Alt.	31 ± 2	$1.50^{+0.35}_{-0.29}$	1918^{+143}_{-136}	-4337^{+238}_{-306}	$-13.835^{+4.332}_{-7.467}$

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

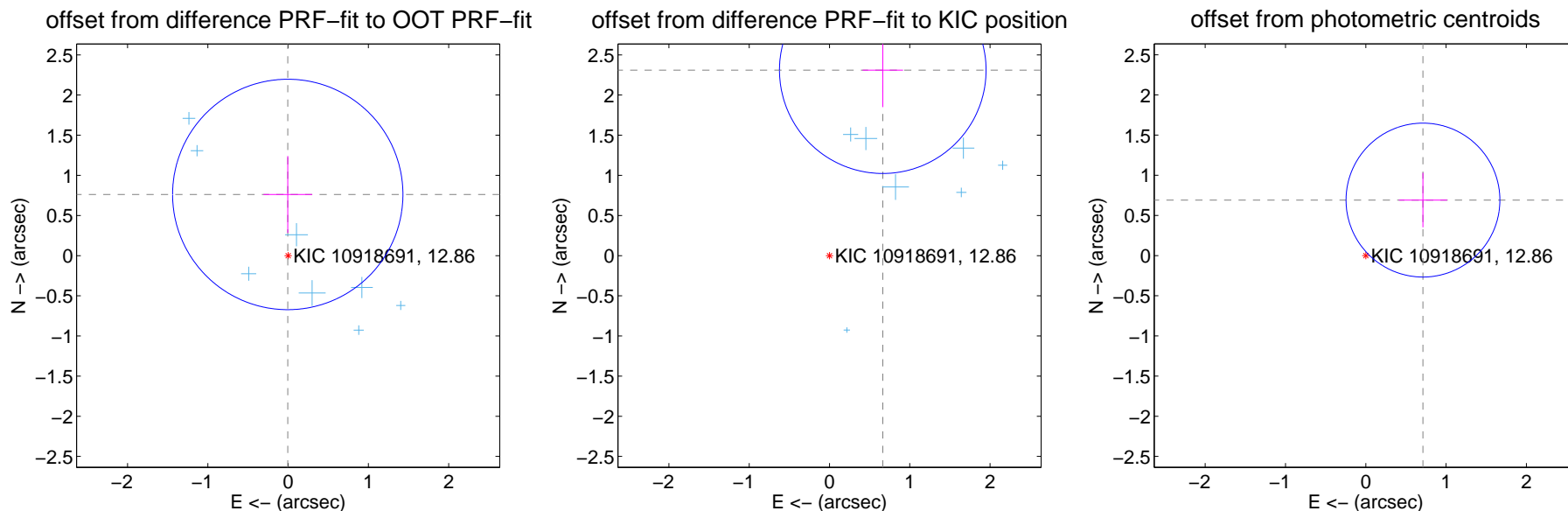
DV Centroid Data

Supplemental centroid analysis for 010918691-01. Kepler magnitude: 12.86. Transit SNR 6.54

There are 12 quarters with good PRF difference image offsets

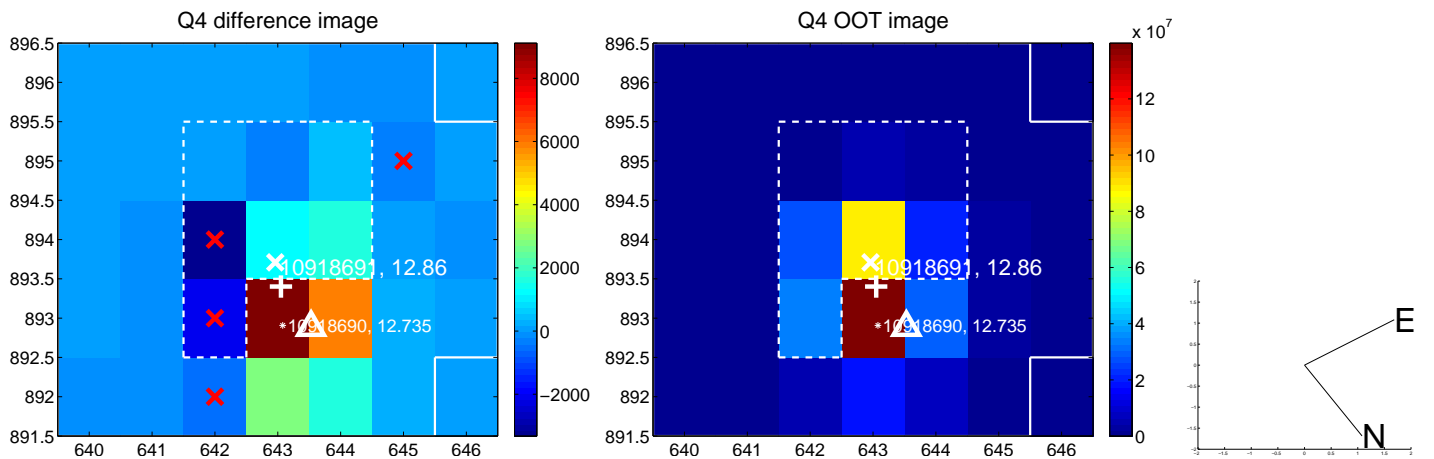
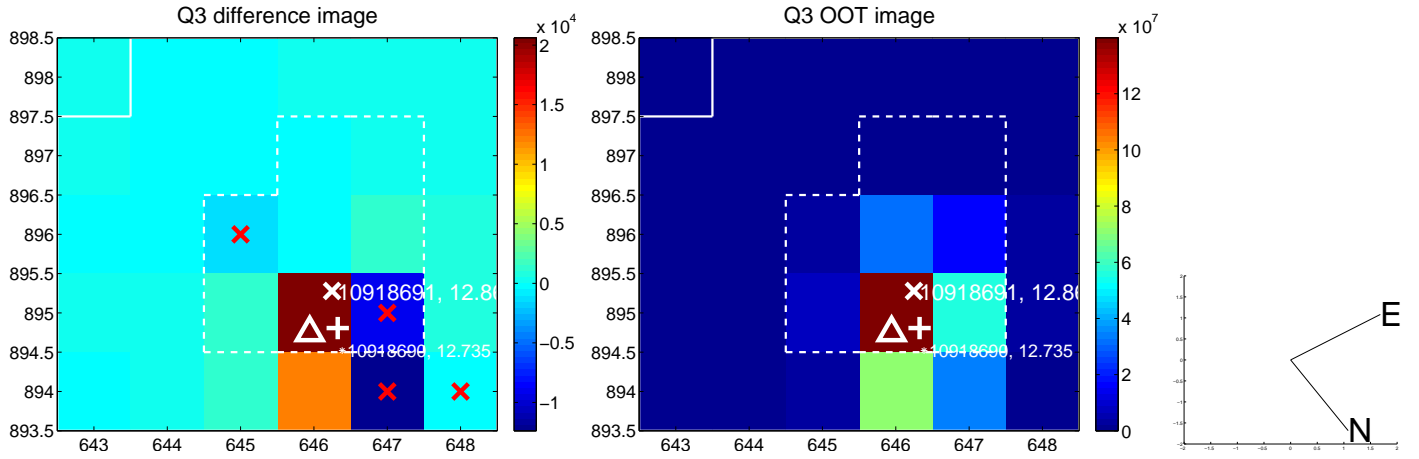
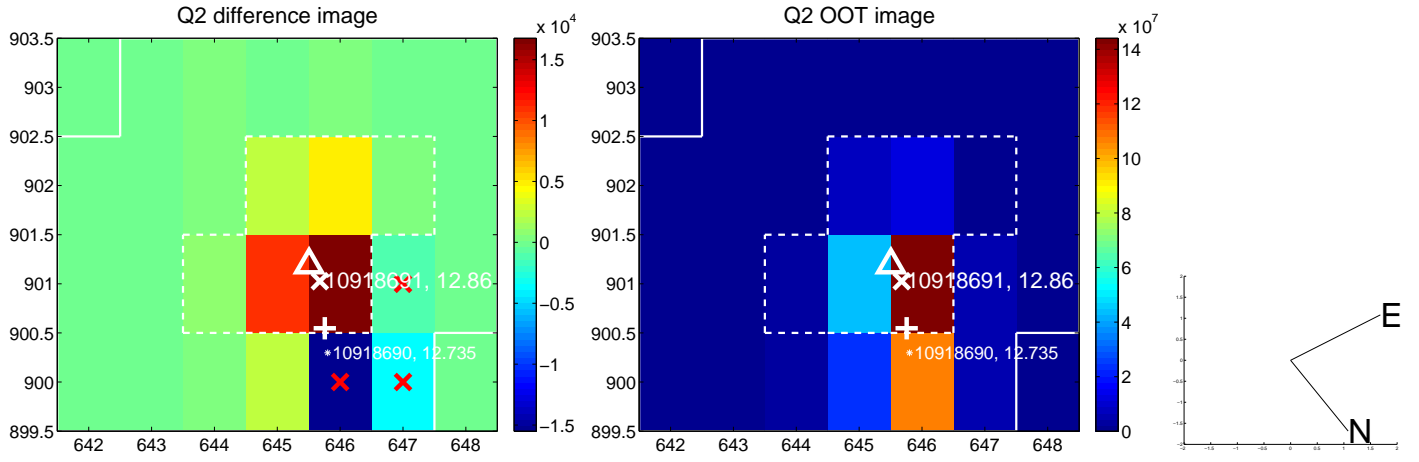
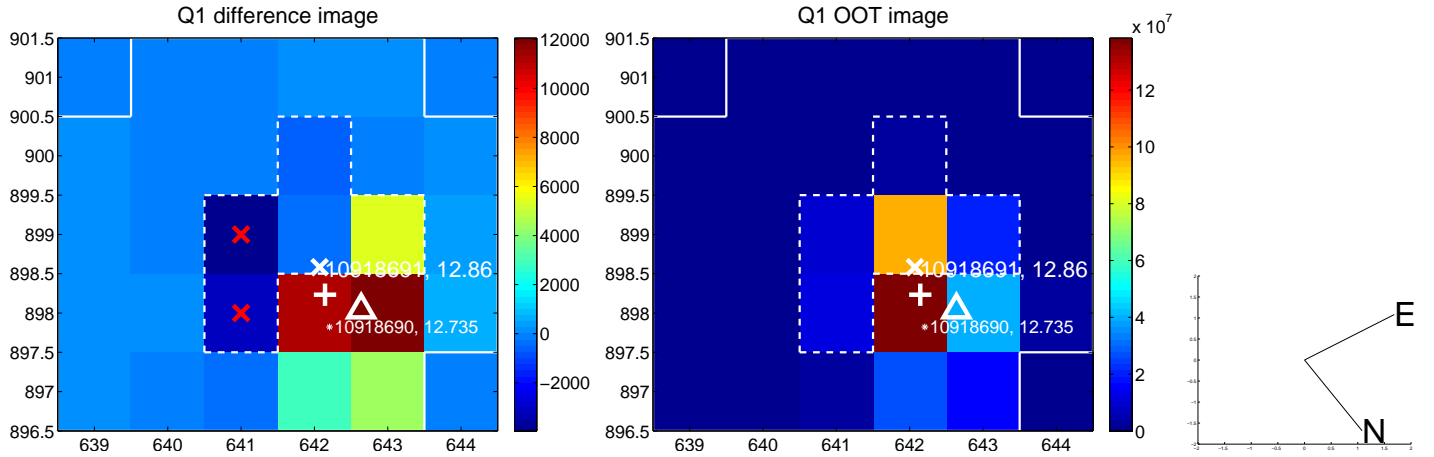
The direct PRF centroid is offset from the target star catalog position by about 1.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.762 ± 0.478	1.59	0.005 ± 0.303	0.762 ± 0.478
PRF-fit source offset from KIC position	2.404 ± 0.429	5.60	-0.664 ± 0.252	2.310 ± 0.461
photometric centroid source offset	0.99 ± 0.32	3.11	-0.71 ± 0.30	0.69 ± 0.34

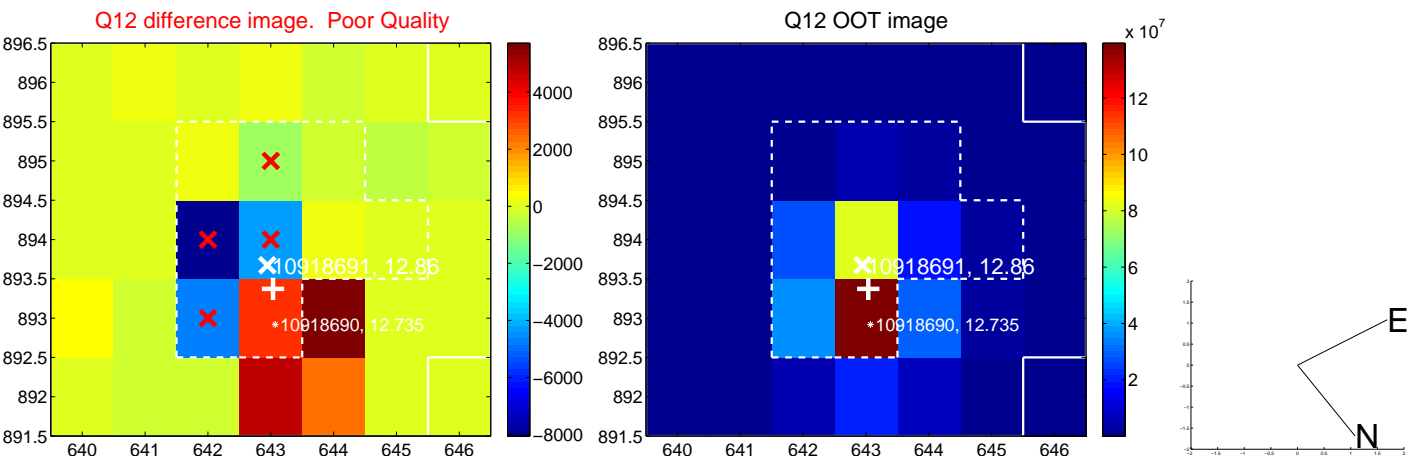
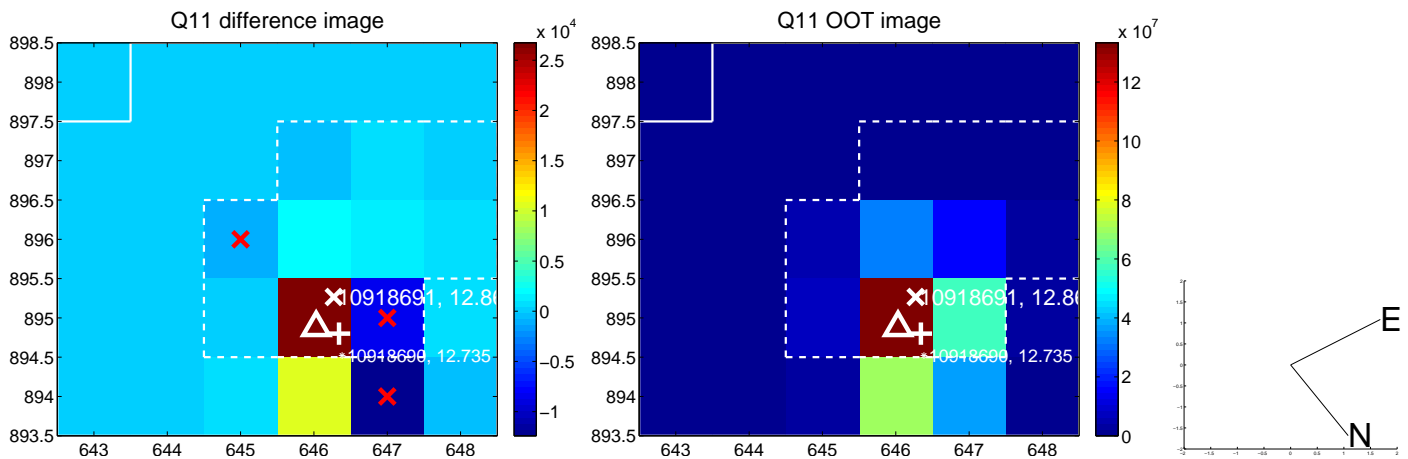
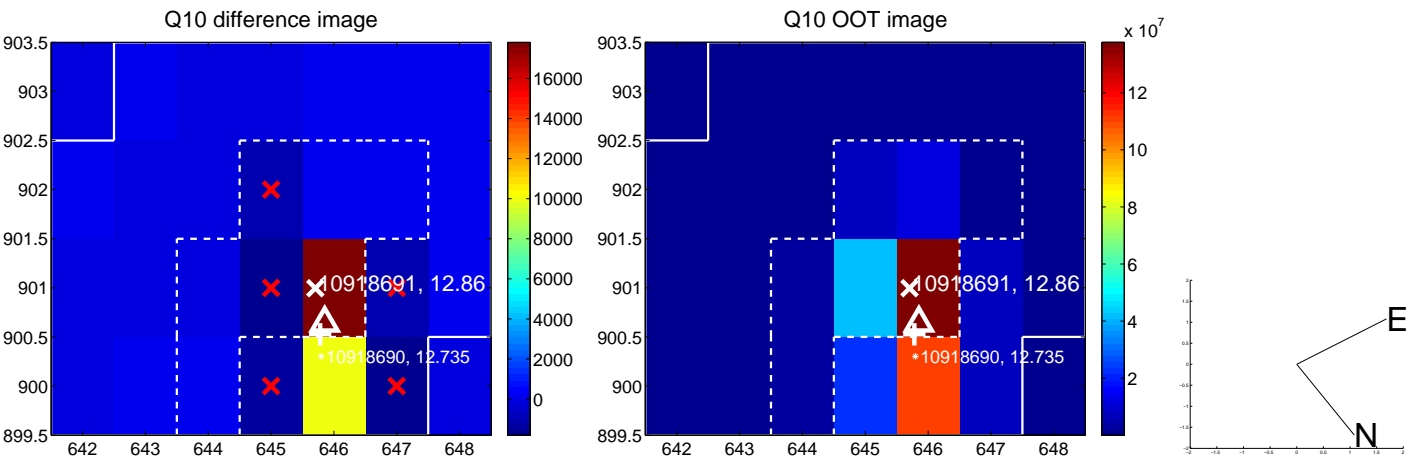
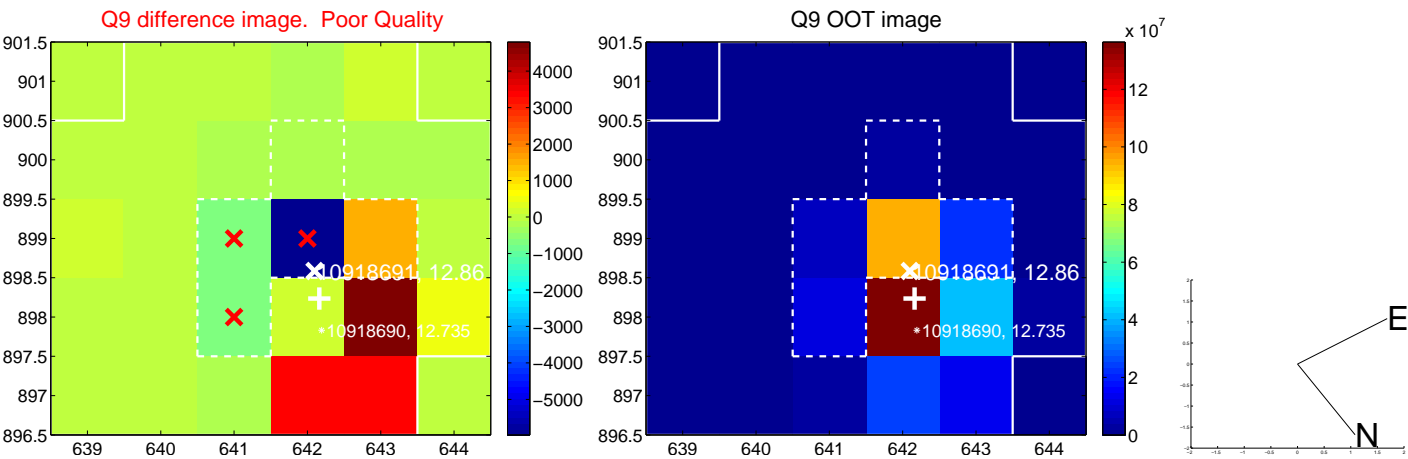


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

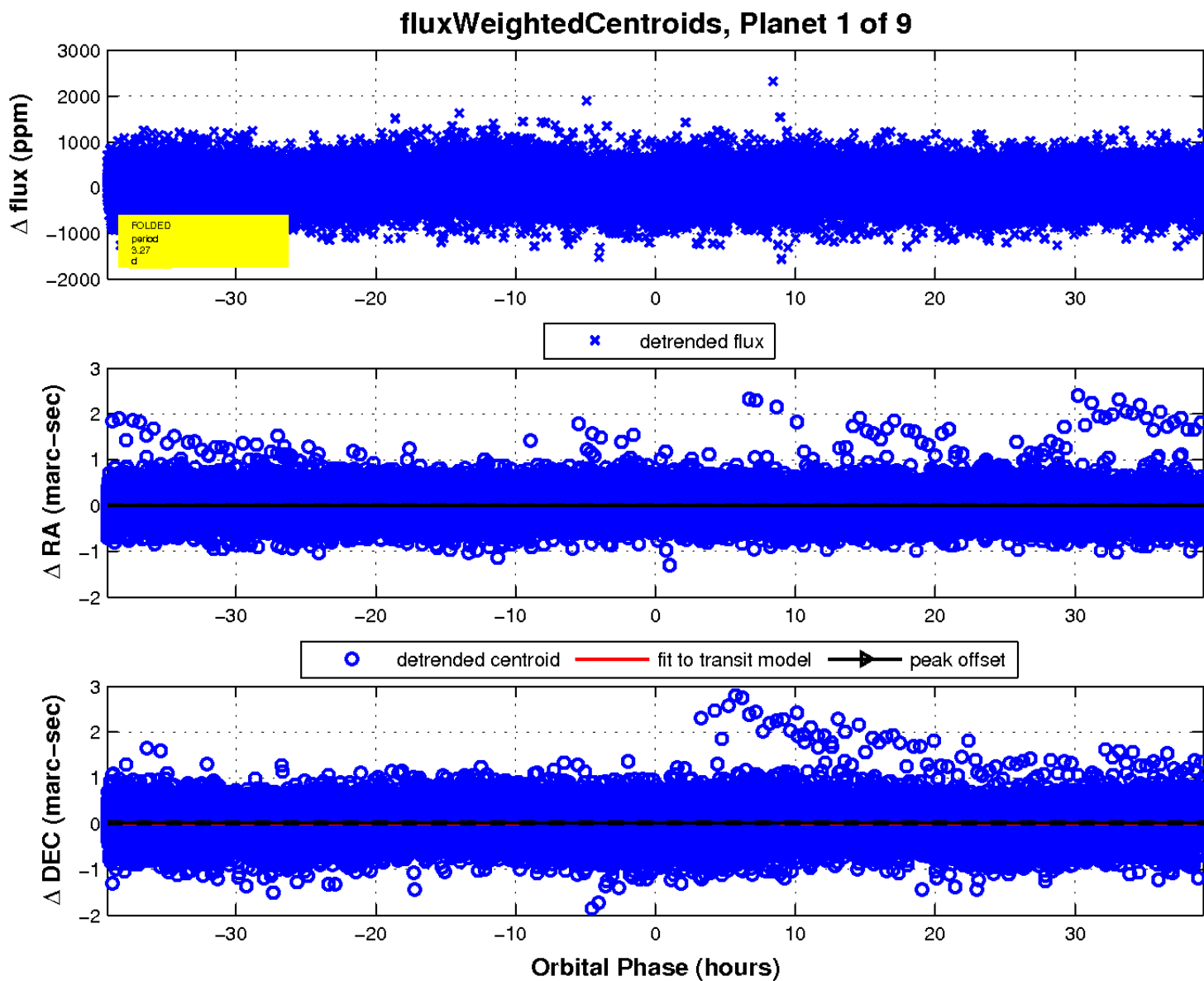
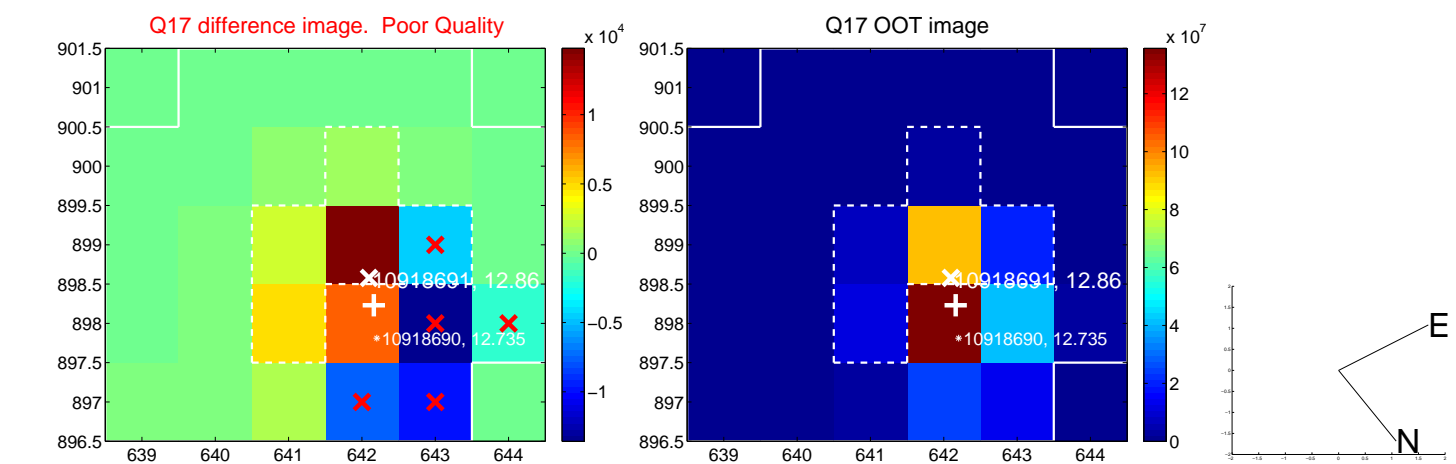
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

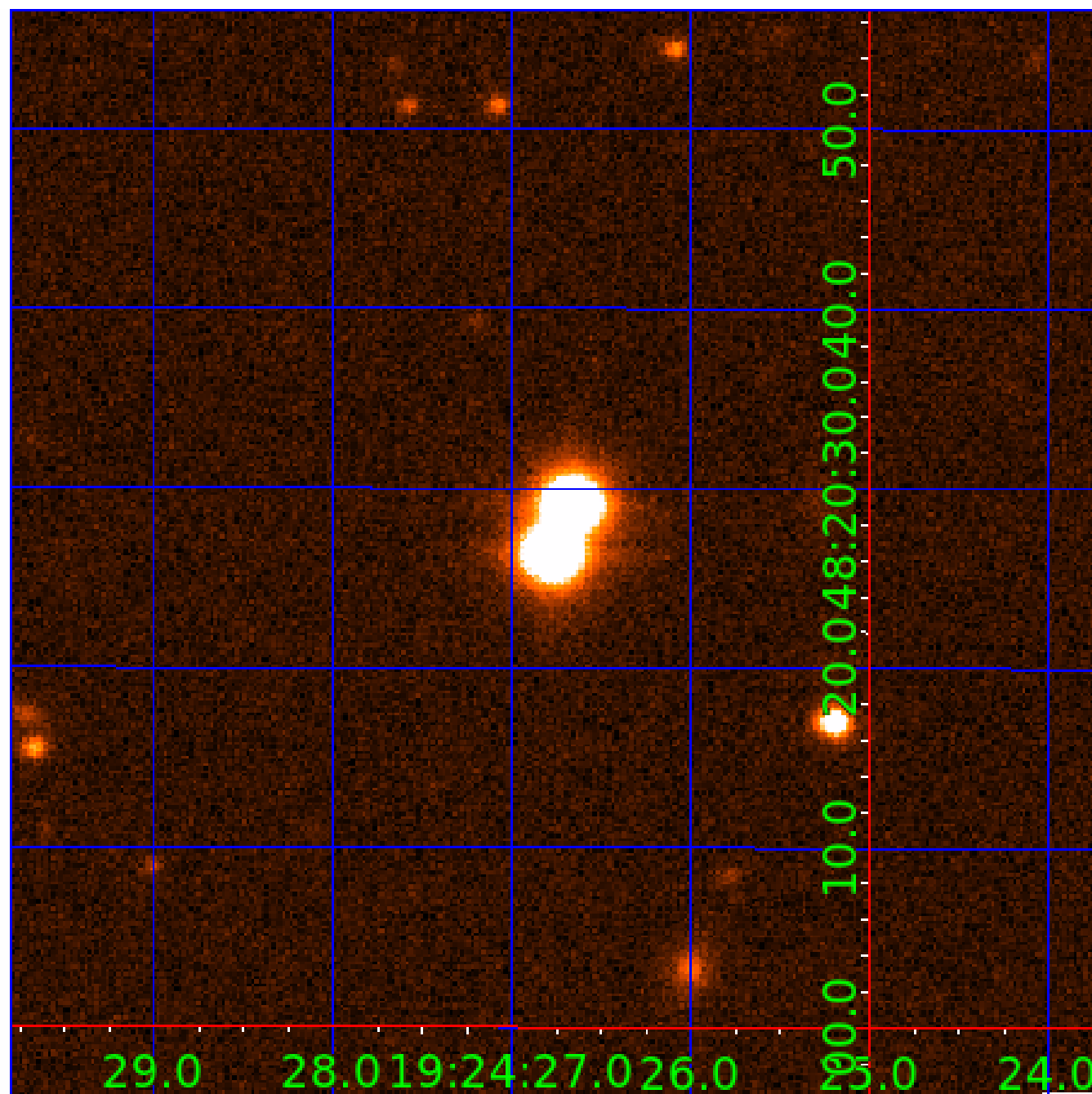


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

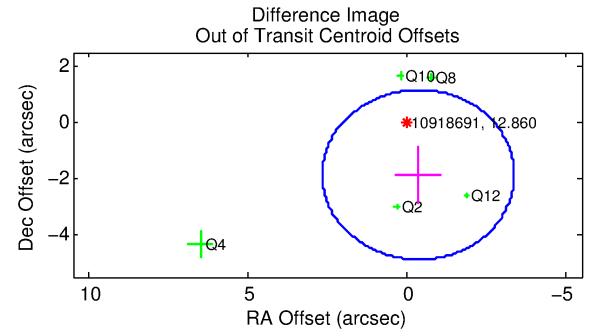
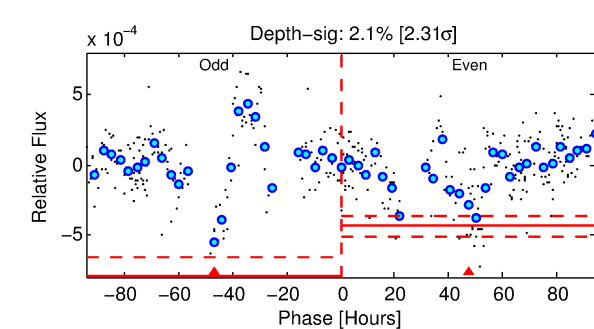
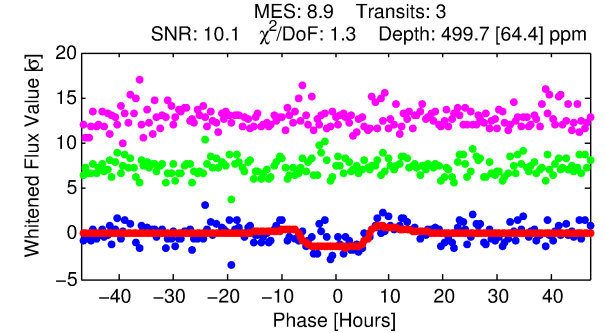
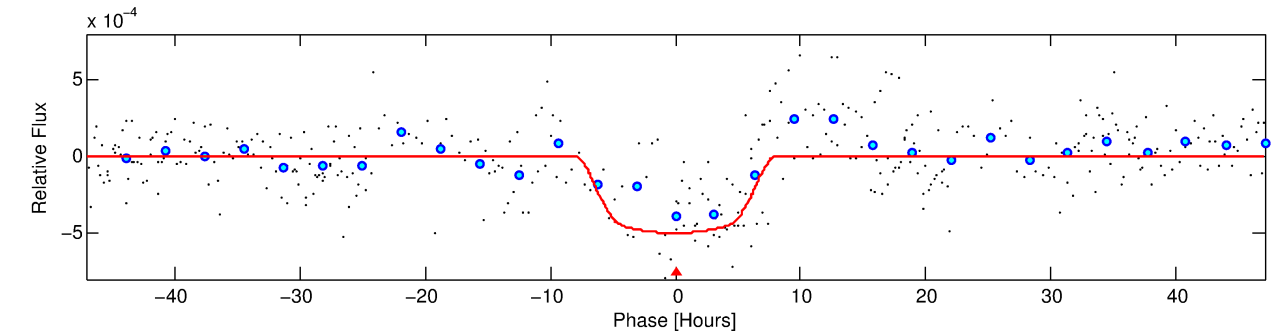
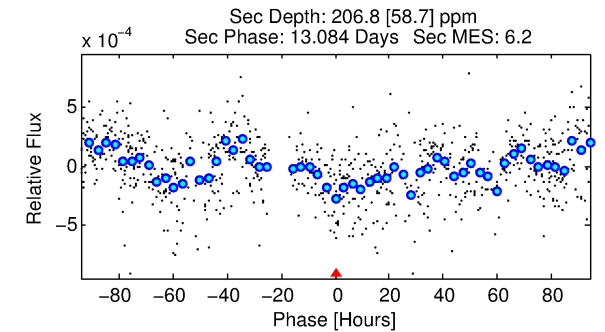
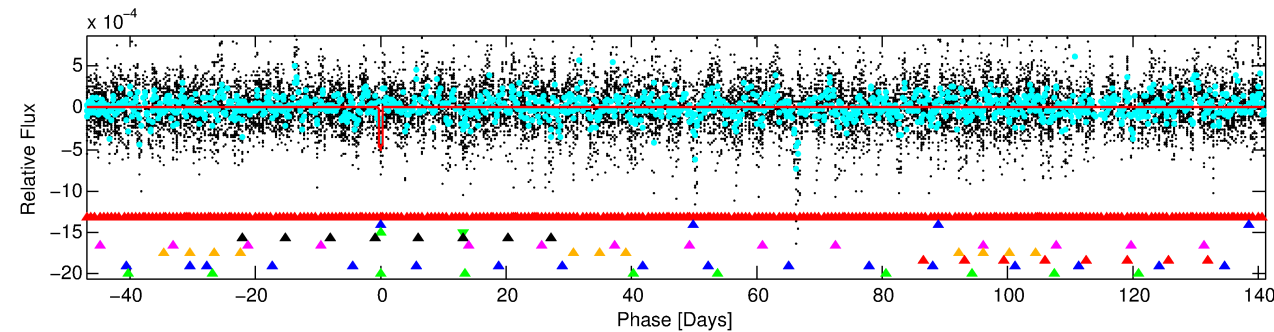
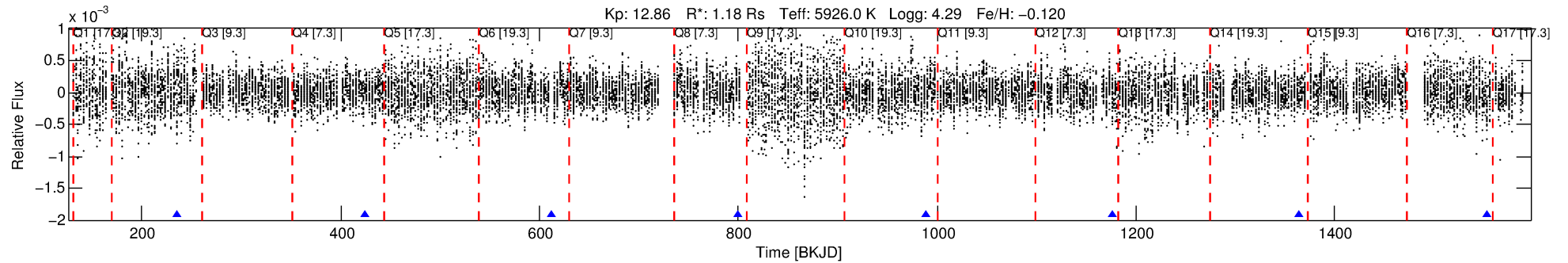
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-03

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 3 of 9 Period: 188.135 d



DV Fit Results:

Period = 188.13481 [0.00613] d
Epoch = 235.6785 [0.0376] BKJD
Rp/R* = 0.0256 [0.0022]
a/R* = 36.50 [8.85]
b = 0.95 [0.03]
Seff = 3.76 [1.40]
Teff = 355 [33] K
Rp = 3.28 [1.01] Re
a = 0.6377 [0.1550] AU
Ag = 4291.27 [2055.91] [2.09σ]
Teffp = 4443 [400] K [10.19σ]

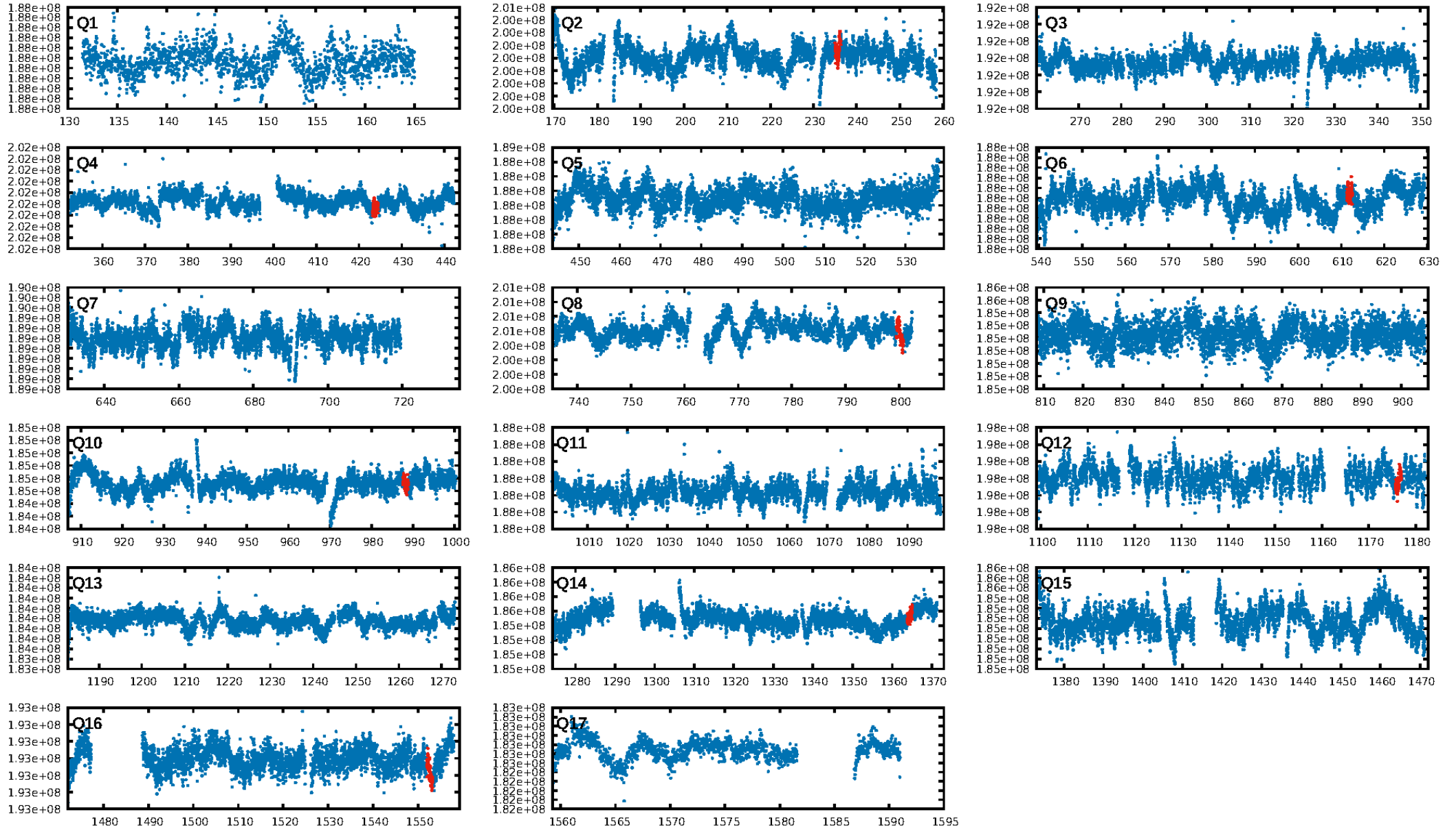
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [60.65σ]
LongPeriod-sig: 100.0% [9.69σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.1802
Centroid-sig: 50.1%
Centroid-so: 1.416 arcsec [6.40σ]
OotOffset-rm: 1.895 arcsec [1.88σ]
KicOffset-rm: 1.019 arcsec [0.98σ]
OotOffset-st: 2/0/3/0 [5]
KicOffset-st: 2/0/3/0 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.00 [0/8]

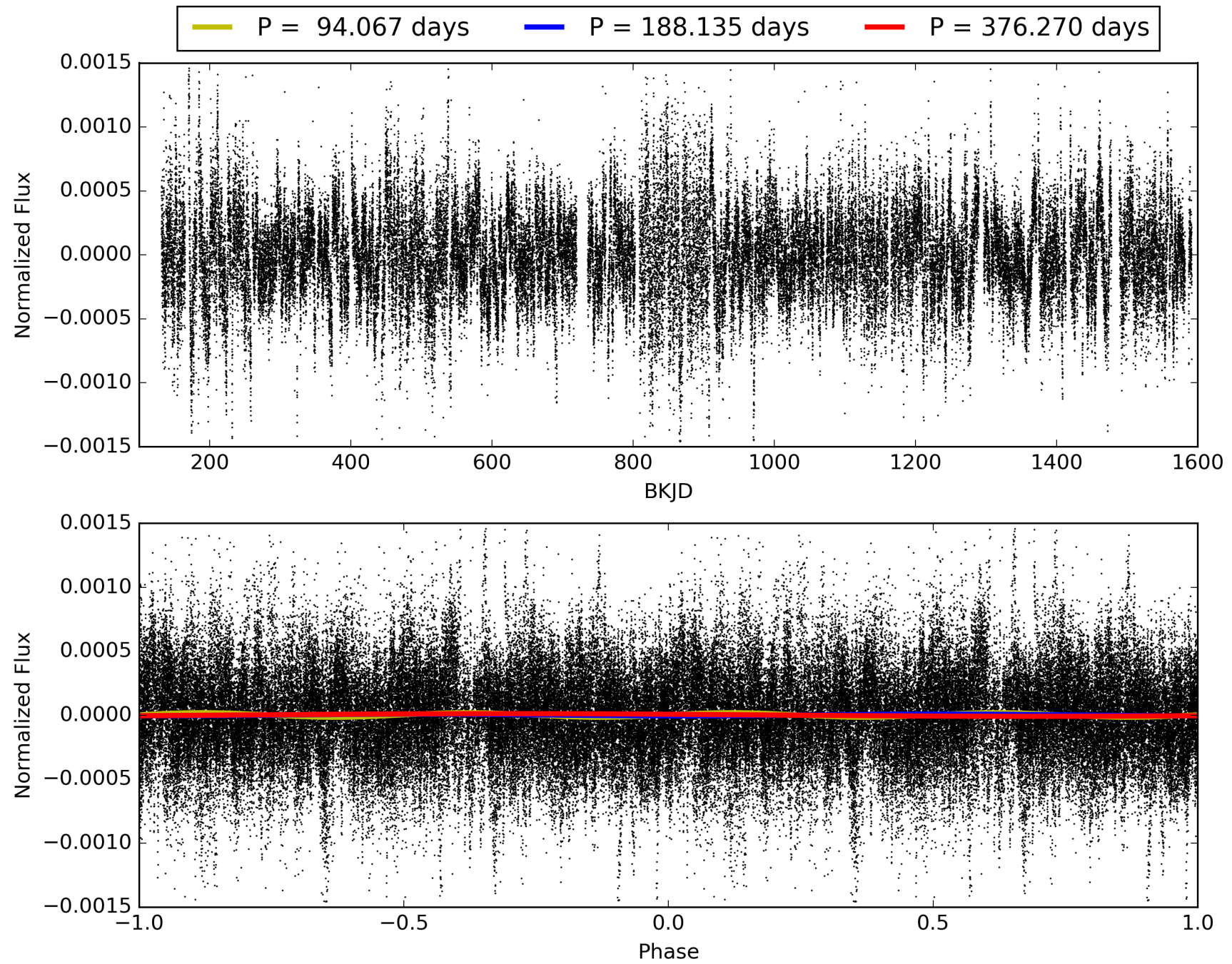
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:16:14 Z

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

TCE 010918691-03, PDC Light Curves

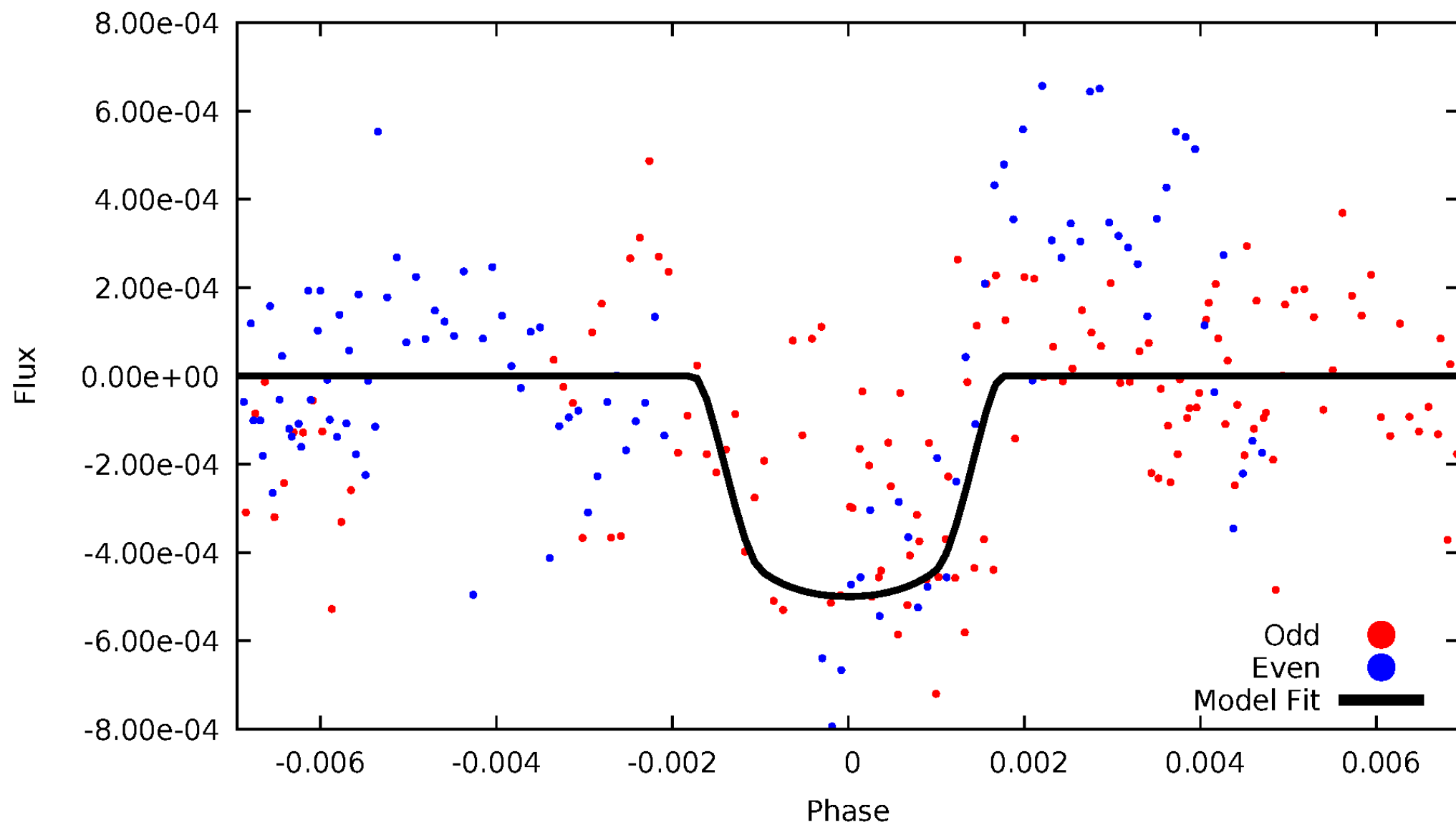


TCE 010918691-03



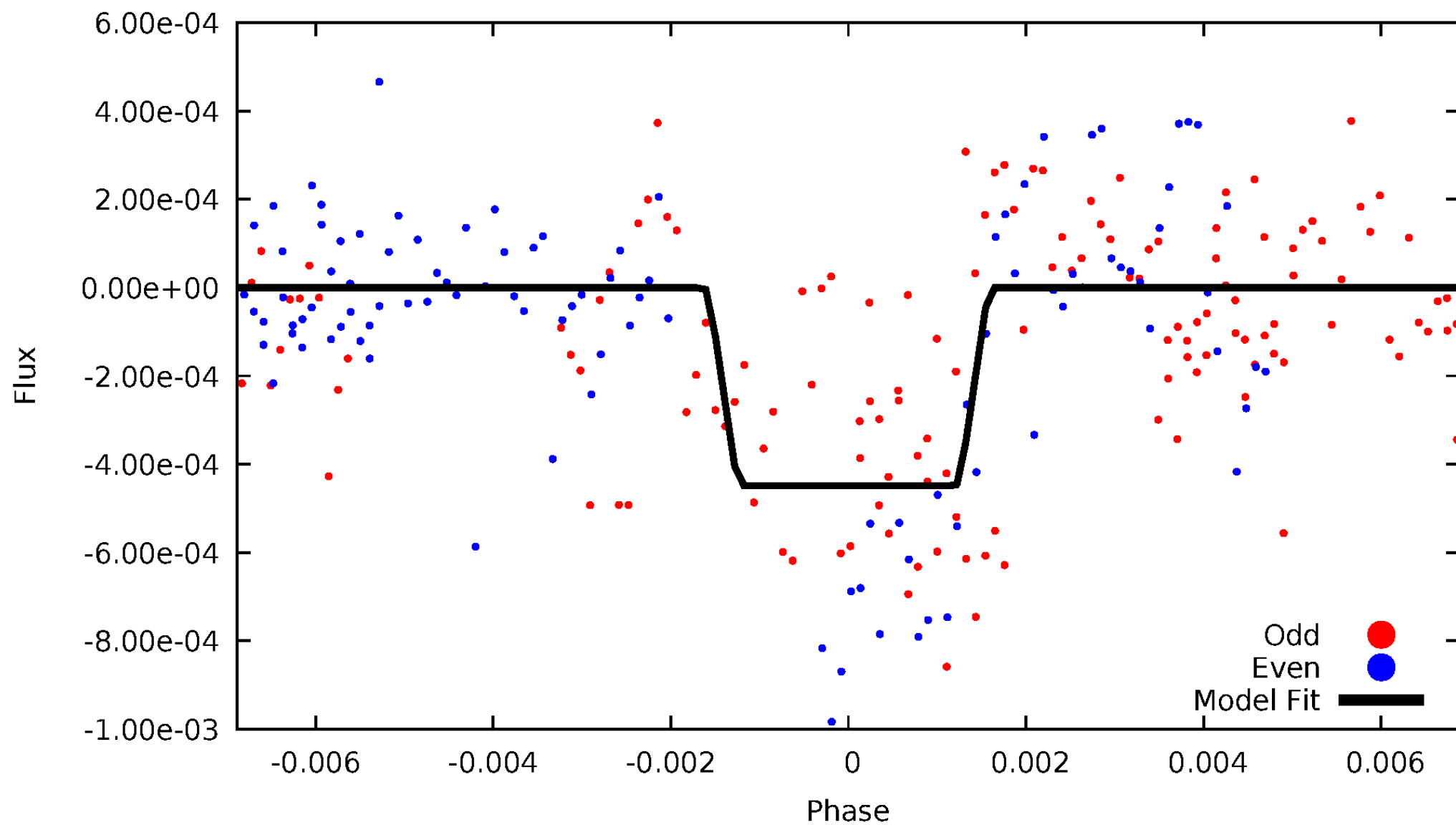
DV Odd/Even

TCE 010918691-03



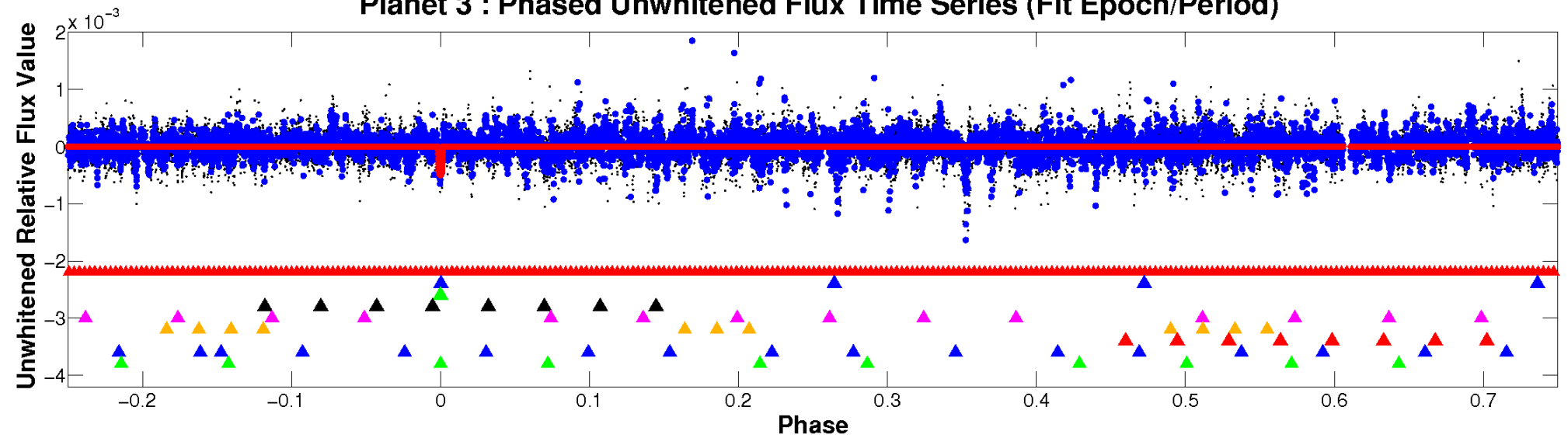
ALT Odd/Even

TCE 010918691-03

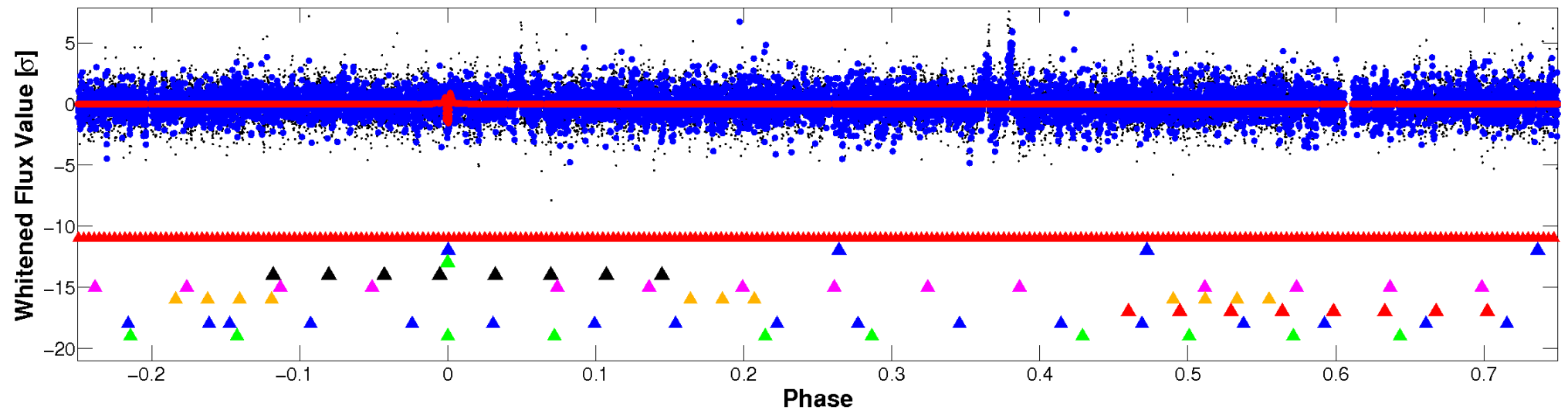


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

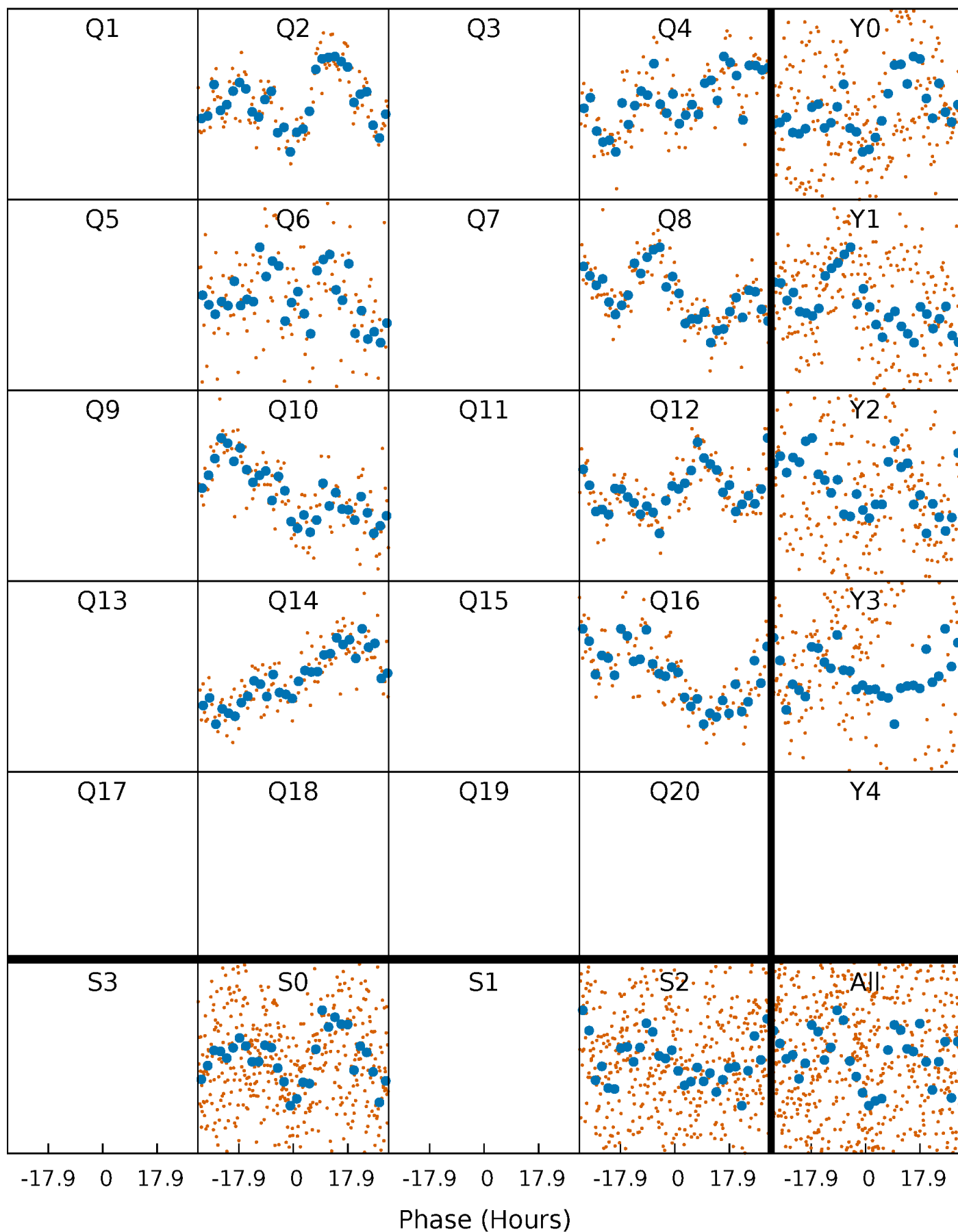


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



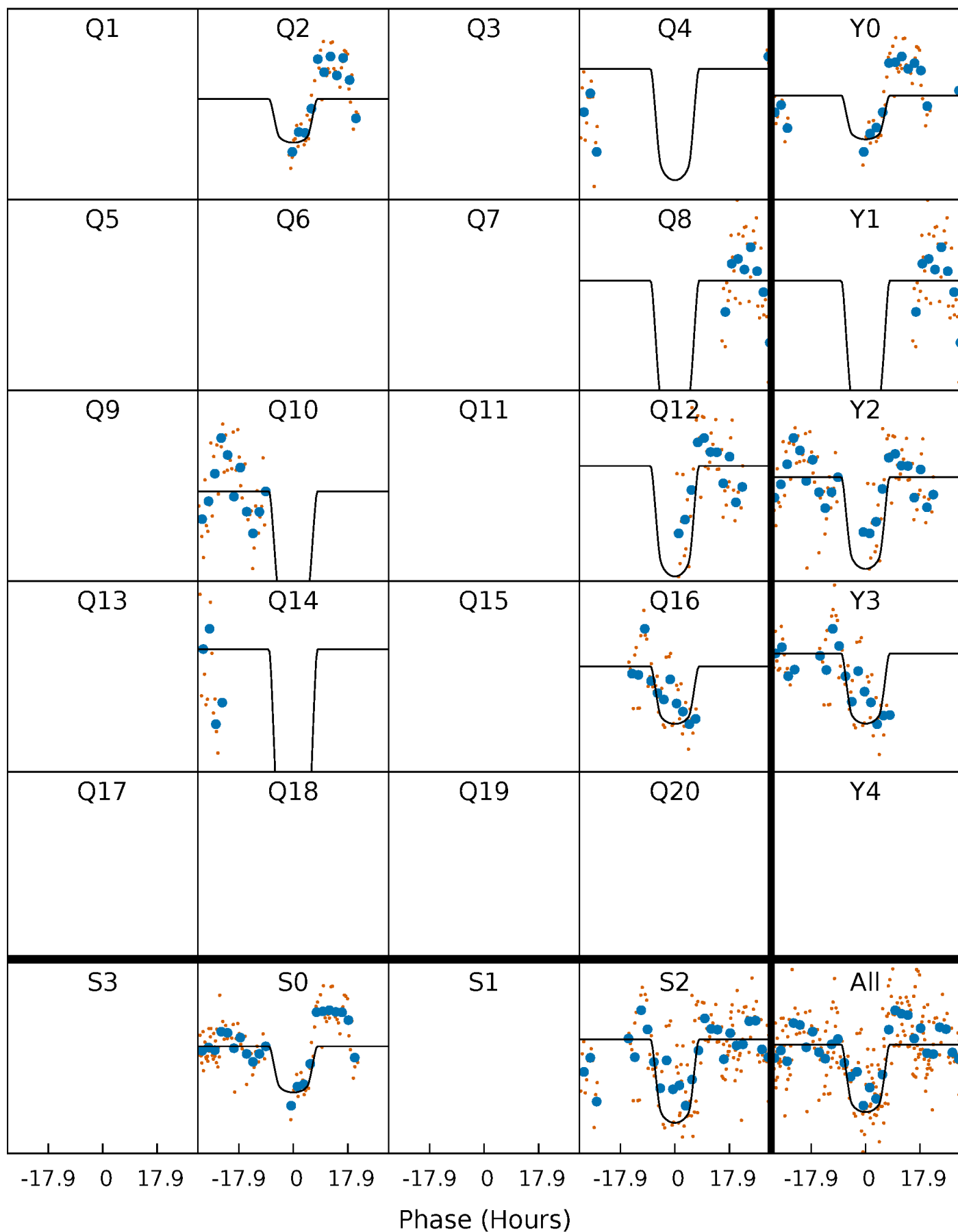
PDC Quarter-Phased Transit Curves

TCE 010918691-03 P=188.134812 Days $T_0=235.678525$ (BKJD)



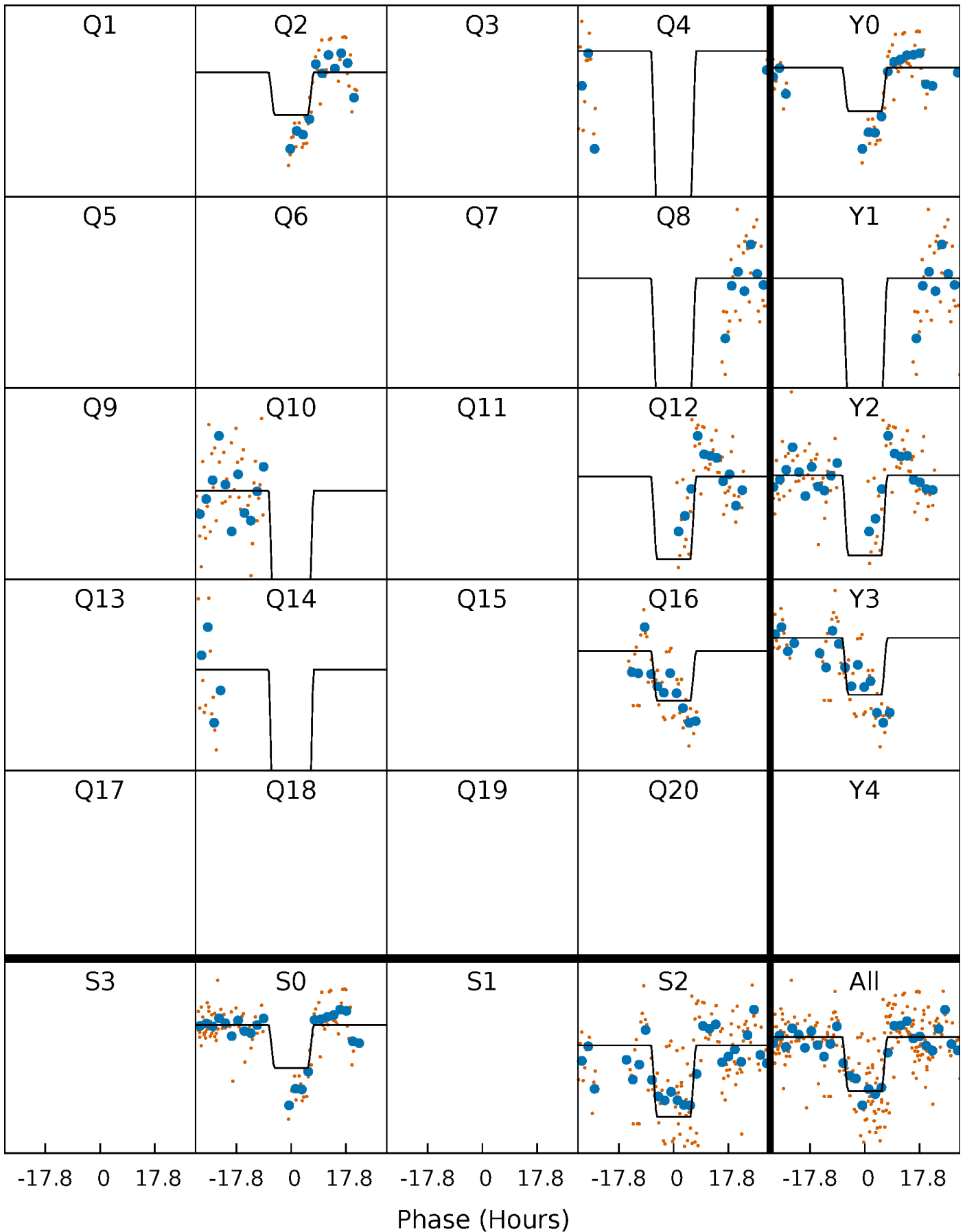
DV Quarter-Phased Transit Curves

TCE 010918691-03 P=188.134812 Days $T_0=235.678525$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

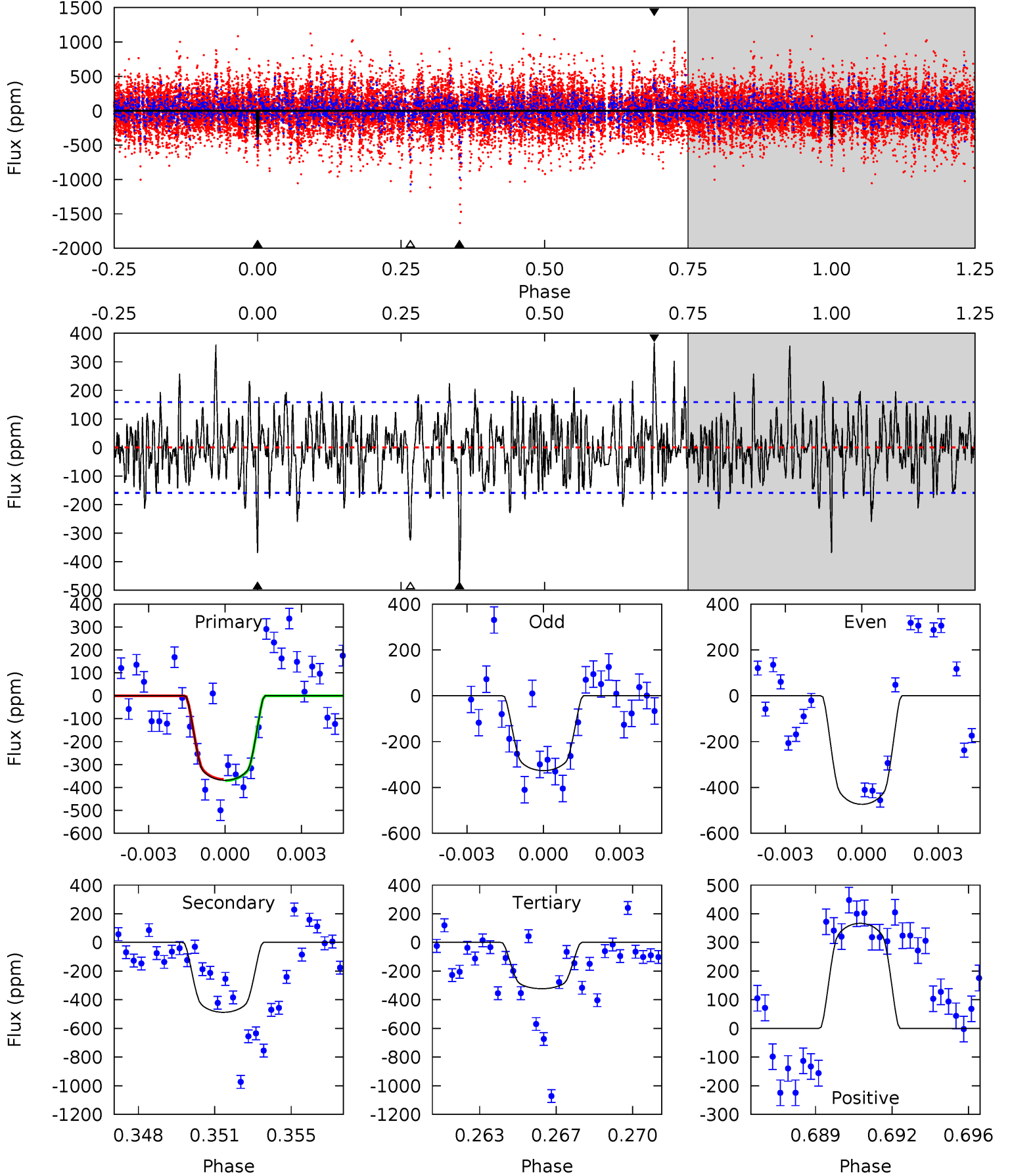
TCE 010918691-03 P=188.131787 Days $T_0=235.678658$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-03, P = 188.134812 Days, E = 47.543713 Days

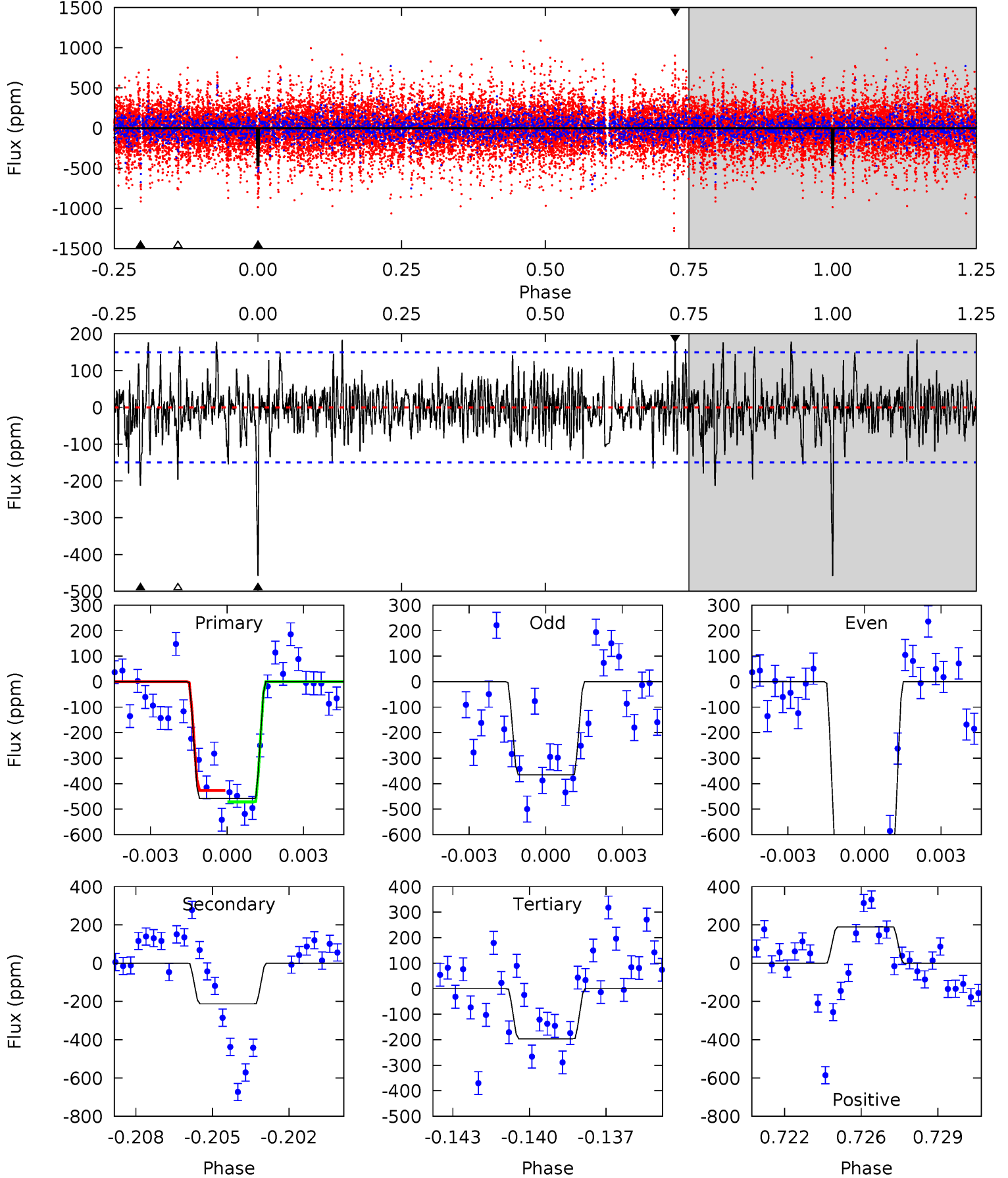
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	16.1	10.6	12.1	5.23	2.93	2.88	1.52	0.08	5.43	3.99	2.22	1.01	0.43	0.07



Alt Model-Shift Uniqueness Test

010918691-03, P = 188.131787 Days, E = 47.546871 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	7.45	6.87	6.63	5.24	2.94	1.79	9.18	9.42	0.58	0.82	5.37	1.04	0.29	0.73



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-488 ± 30	$3.32^{+0.59}_{-0.51}$	495^{+40}_{-35}	5503^{+309}_{-264}	10031^{+3815}_{-2820}
Alt.	-213 ± 29	$2.75^{+0.51}_{-0.45}$	499^{+37}_{-38}	5000^{+323}_{-294}	6278^{+2984}_{-1870}

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

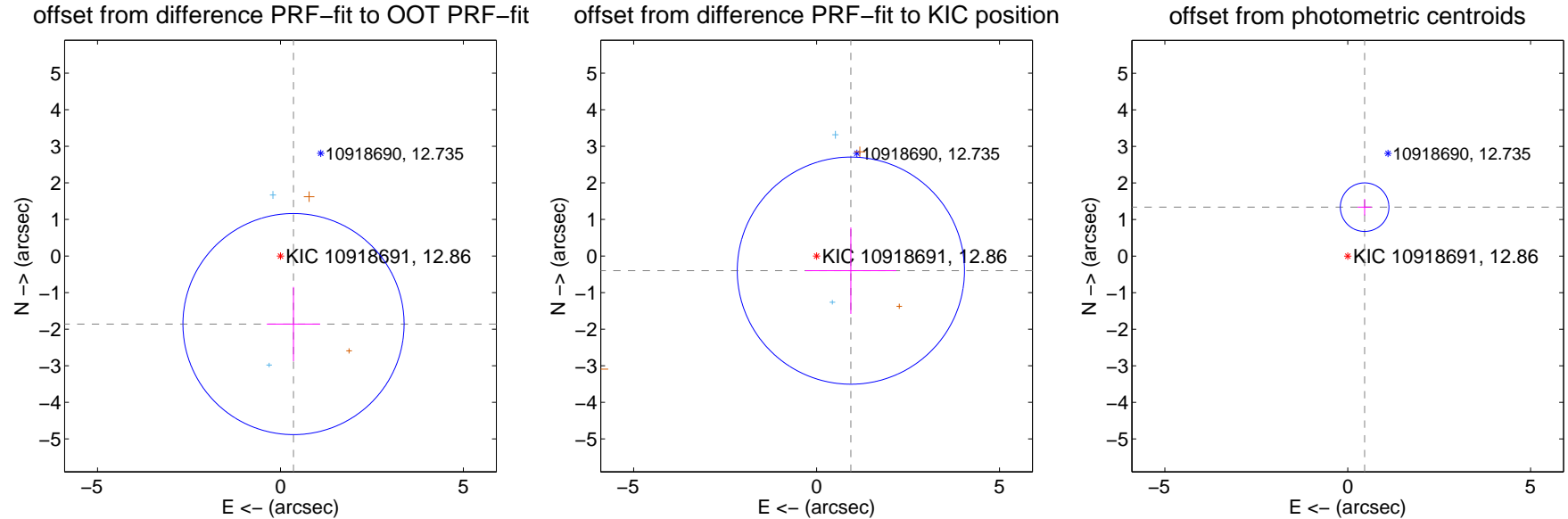
DV Centroid Data

Supplemental centroid analysis for 010918691-03. Kepler magnitude: 12.86. Transit SNR 10.06

There are 2 quarters with good PRF difference image offsets

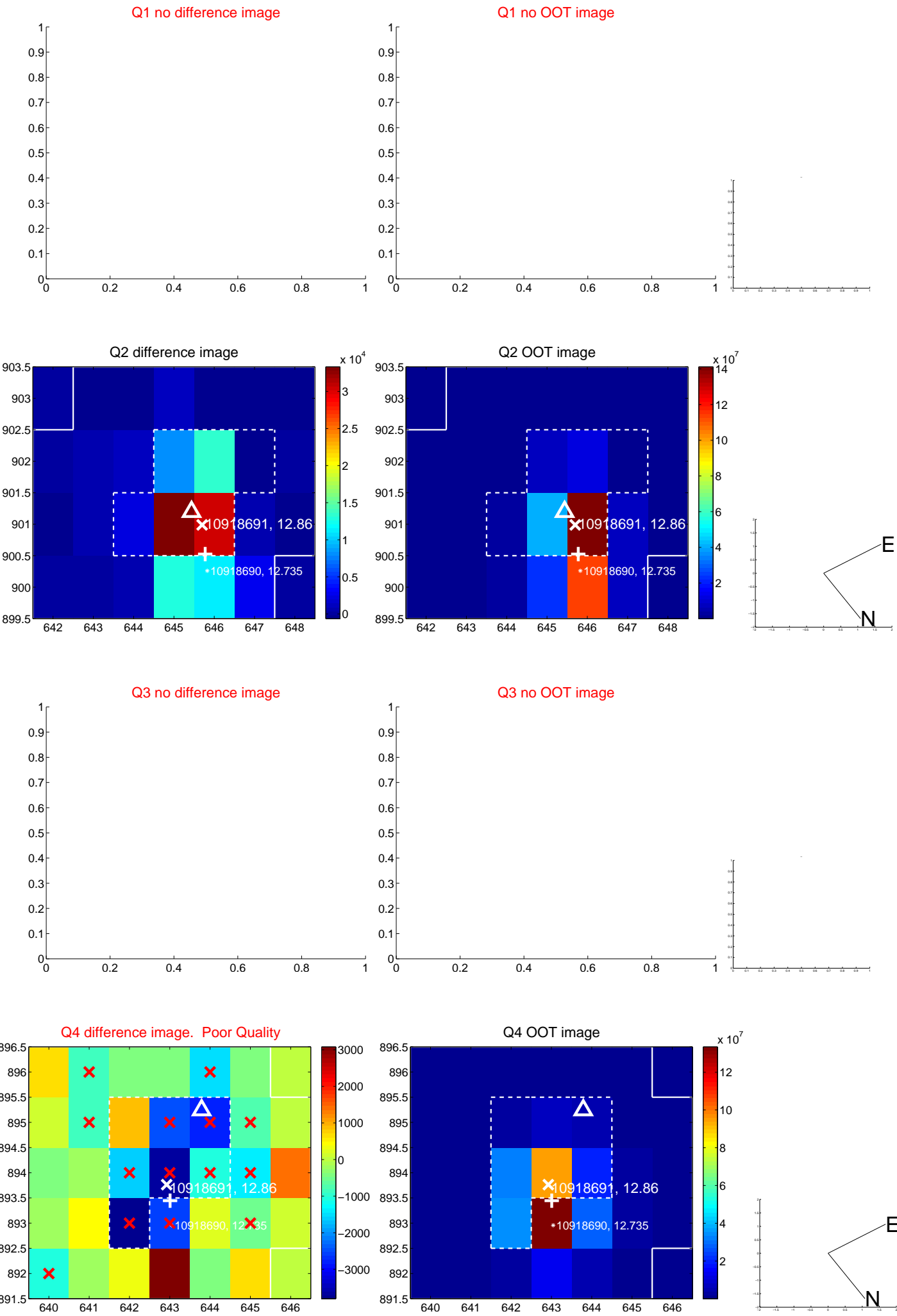
The direct PRF centroid is offset from the target star catalog position by about 1.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.895 ± 1.007	1.88	-0.357 ± 0.729	-1.861 ± 1.016
PRF-fit source offset from KIC position	1.019 ± 1.035	0.98	-0.937 ± 1.240	-0.400 ± 1.181
photometric centroid source offset	1.42 ± 0.22	6.40	-0.46 ± 0.19	1.34 ± 0.22

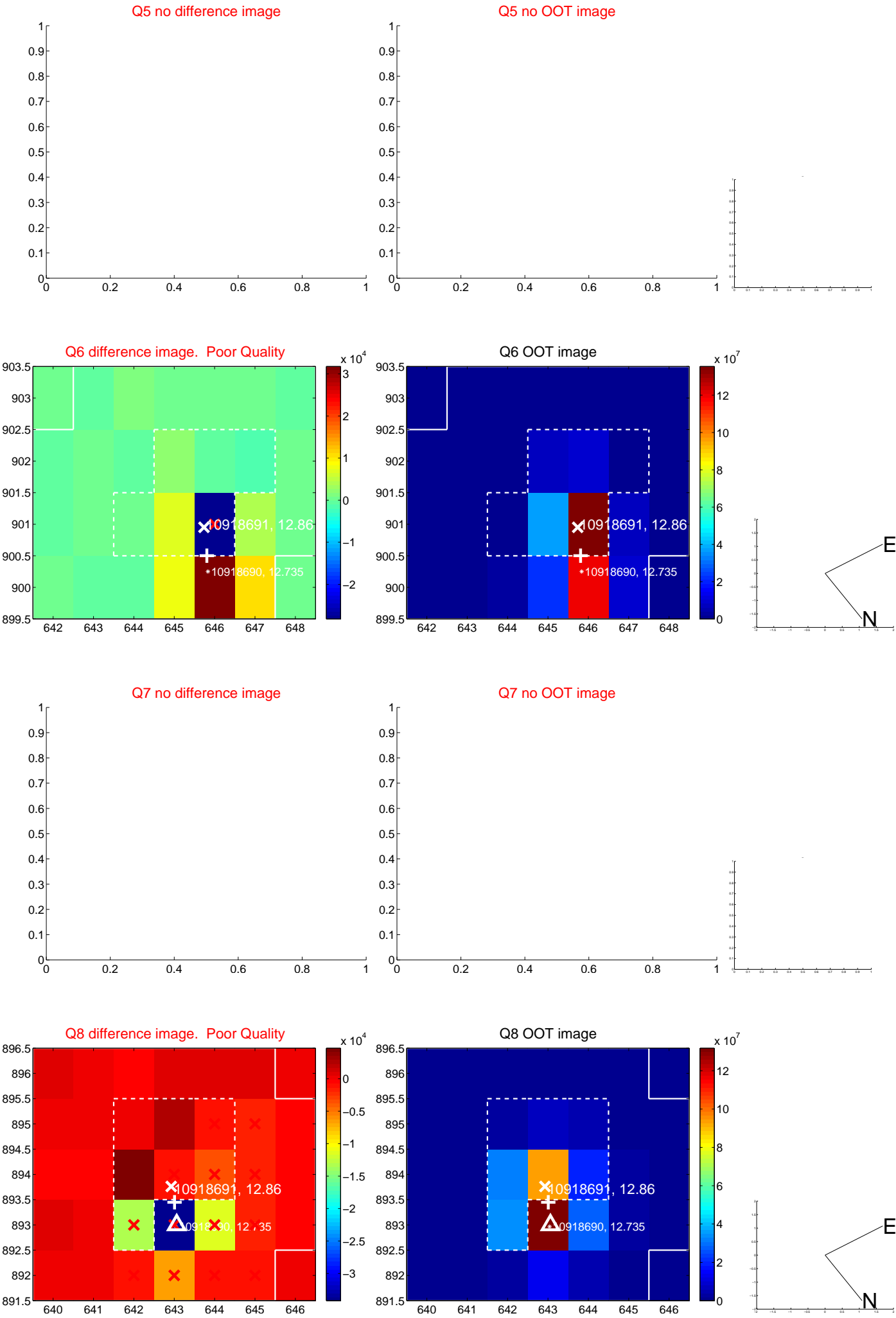


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

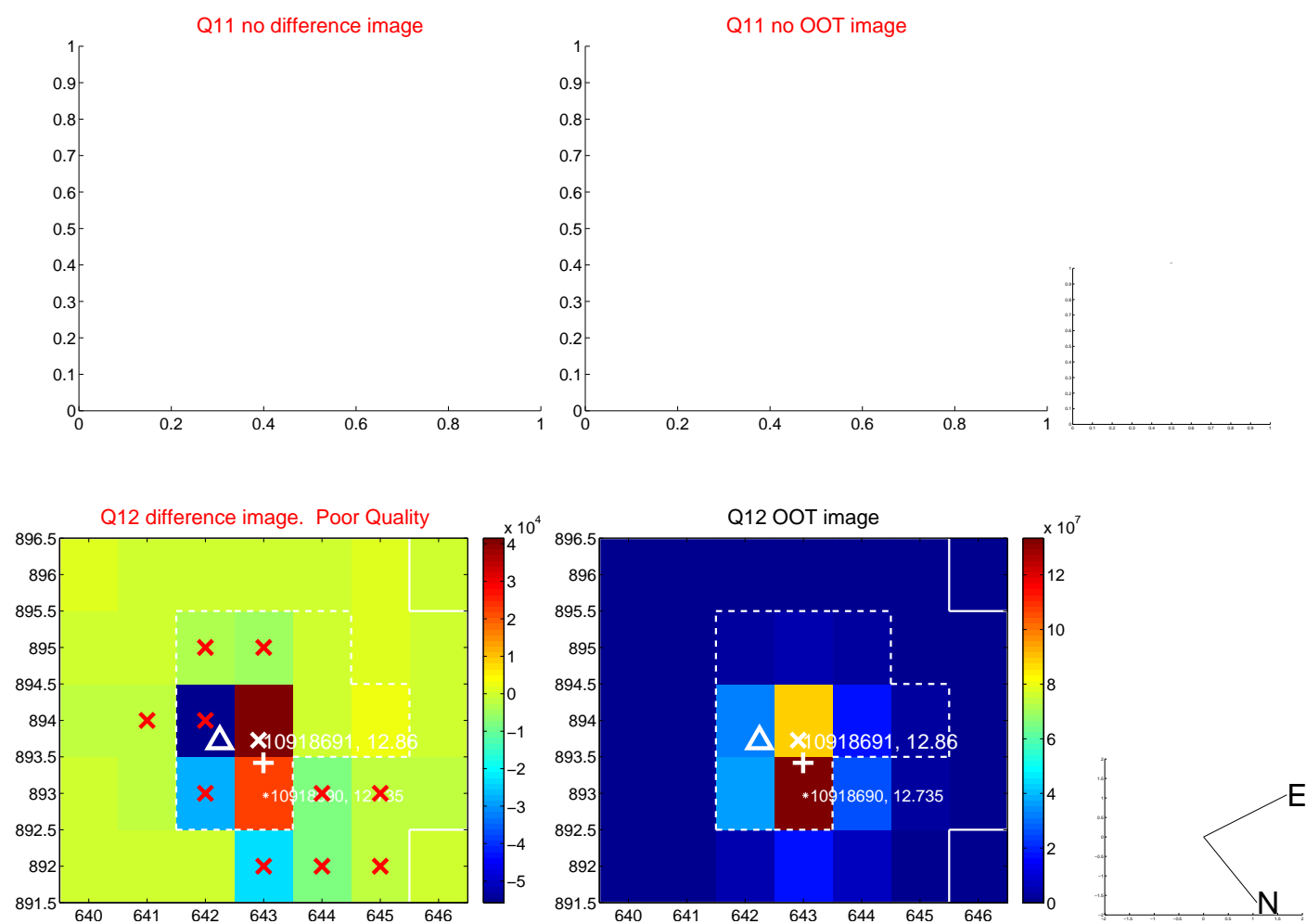
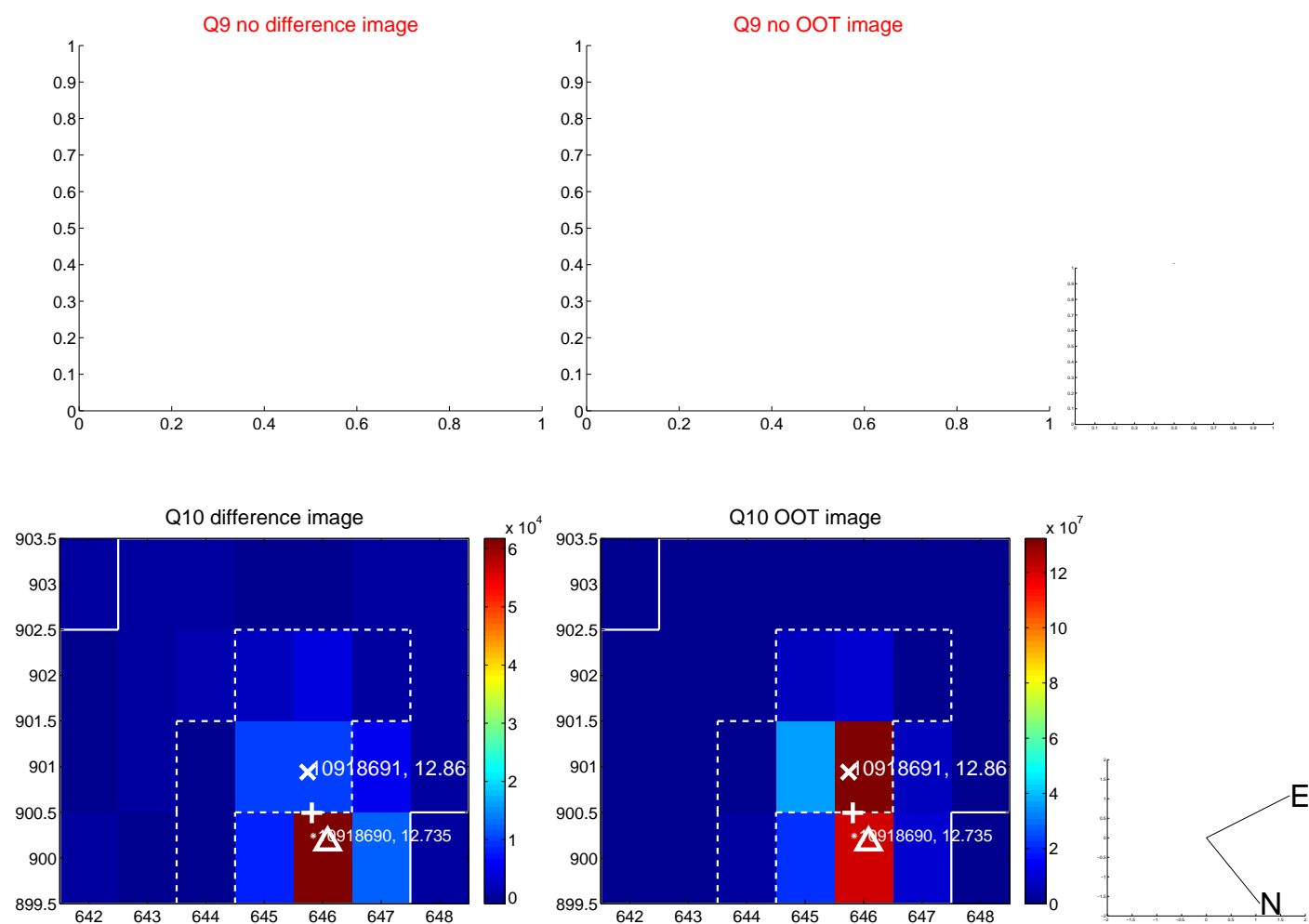
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



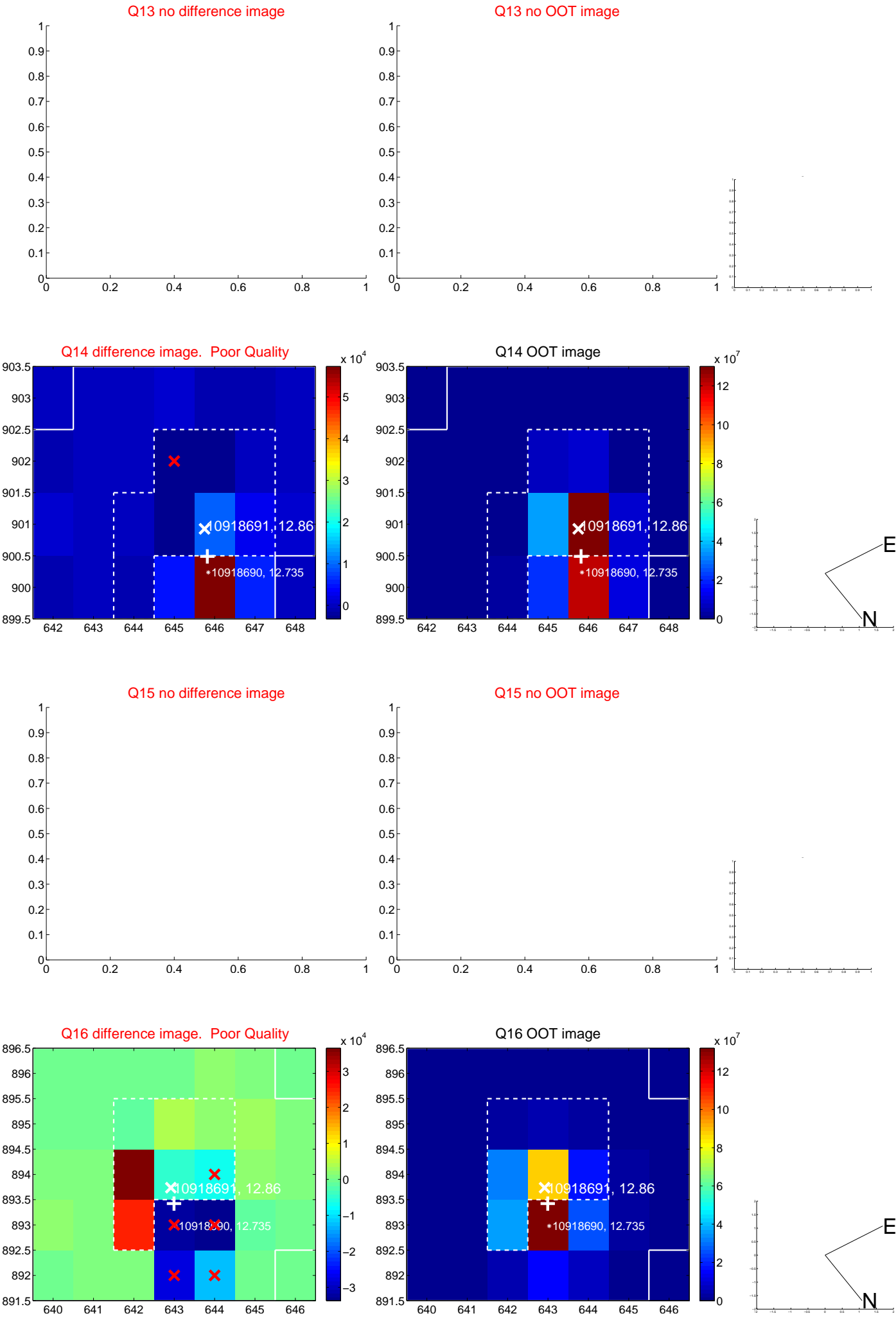
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



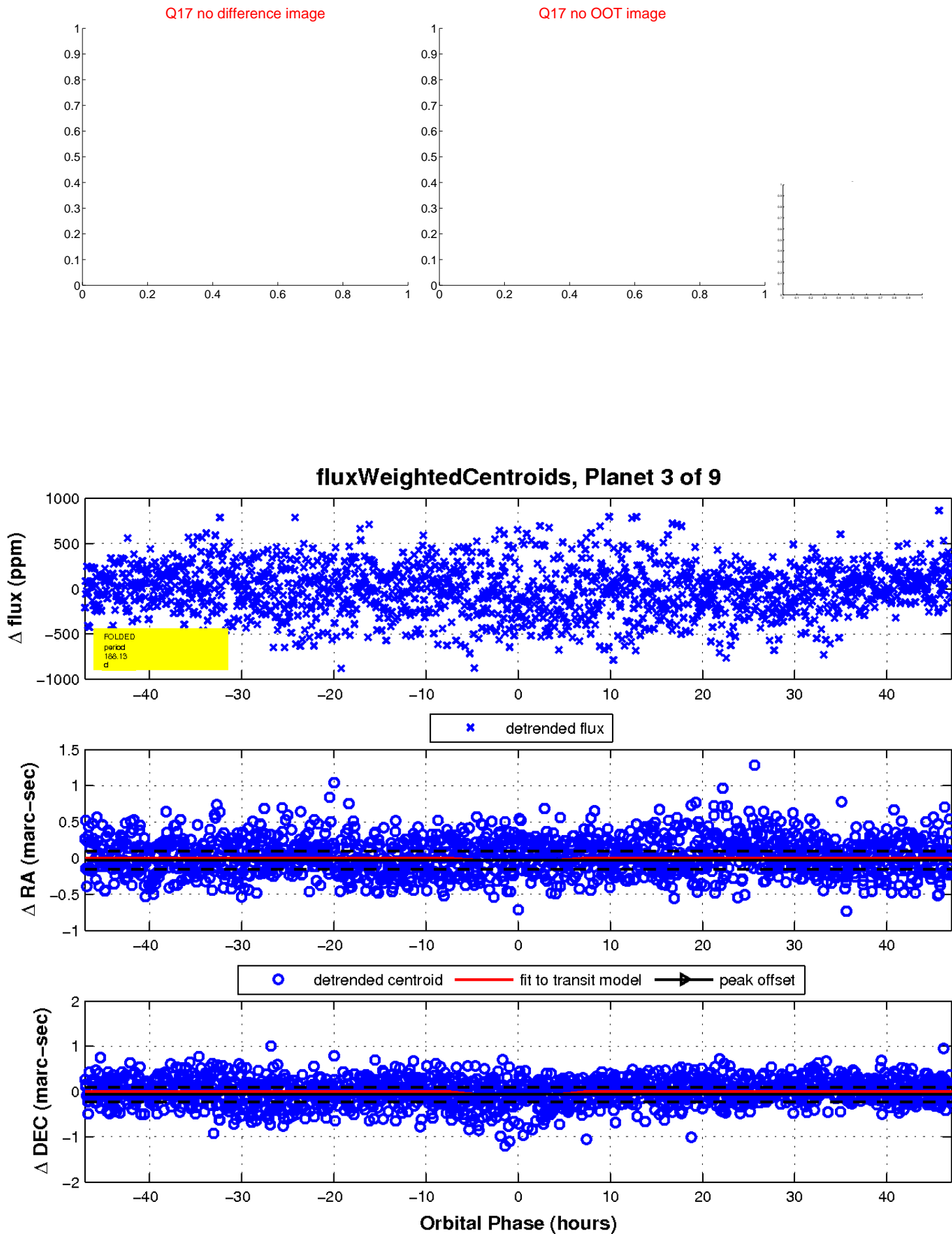
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

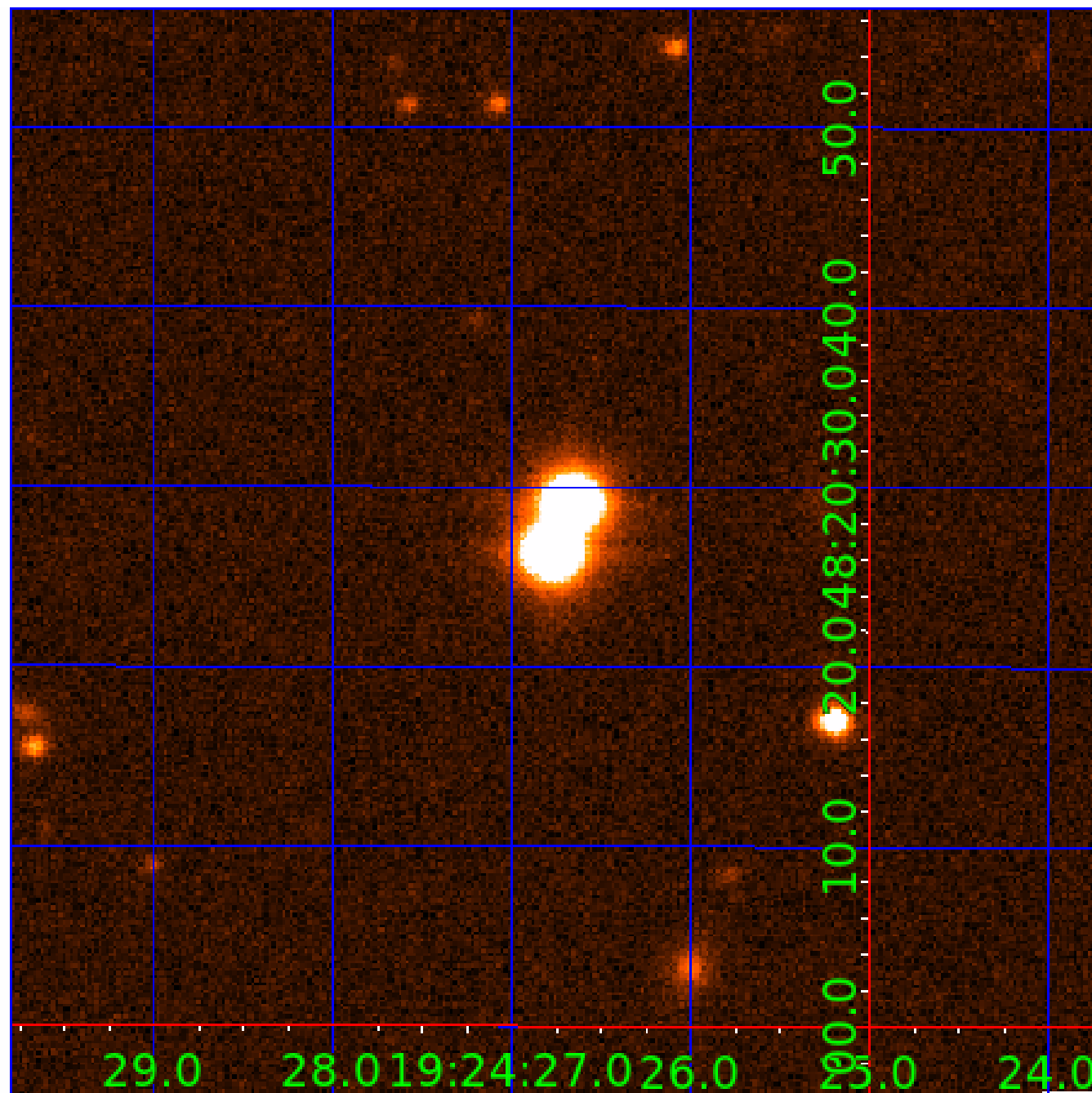


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

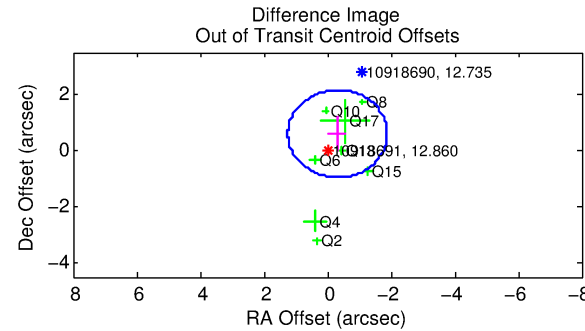
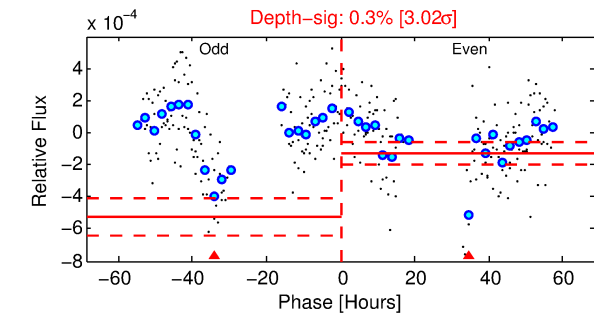
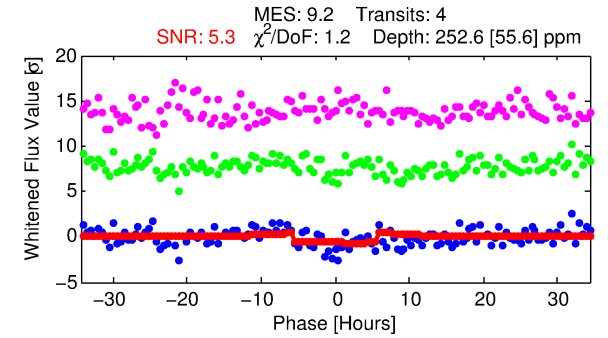
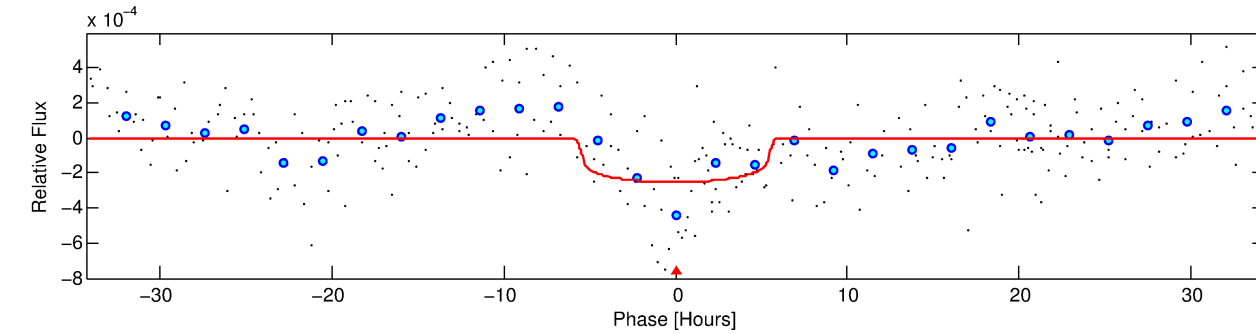
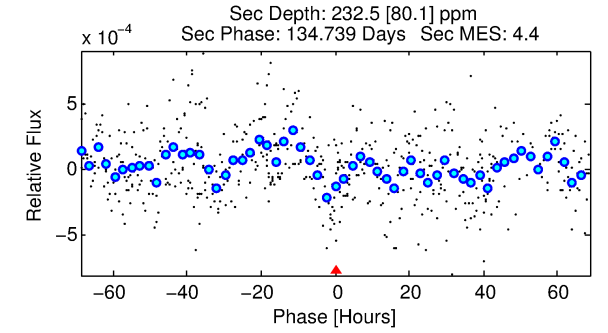
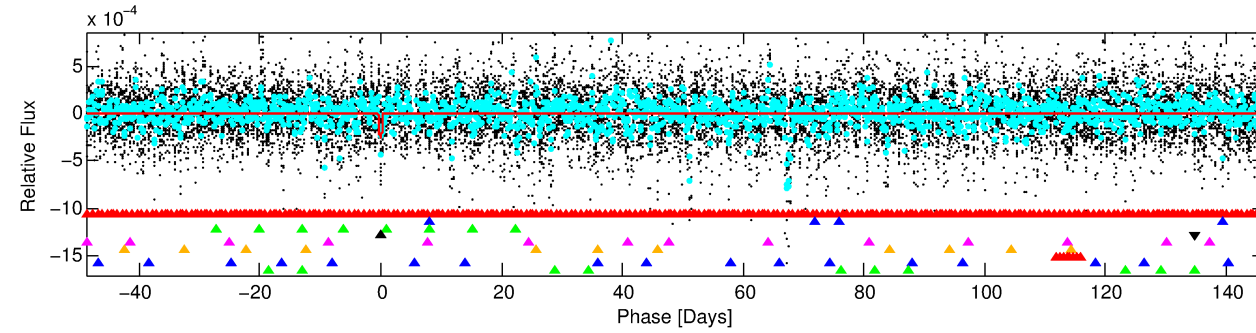
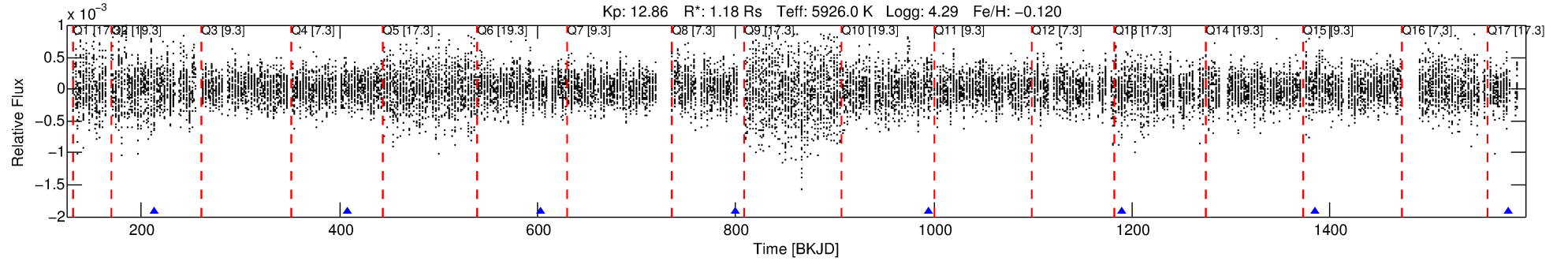
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-04

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 4 of 9 Period: 195.191 d



DV Fit Results:

Period = 195.19116 [0.00762] d
Epoch = 213.5081 [0.0234] BKJD
Rp/R* = 0.0157 [0.0090]
a/R* = 92.70 [240.38]
b = 0.73 [1.71]
Seff = 3.58 [1.33]
Teq = 351 [33] K
Rp = 2.01 [1.30] Re
a = 0.6535 [0.1589] AU
Ag = 13495.18 [16789.17] [0.80σ]
Teffp = 5844 [1758] K [3.12σ]

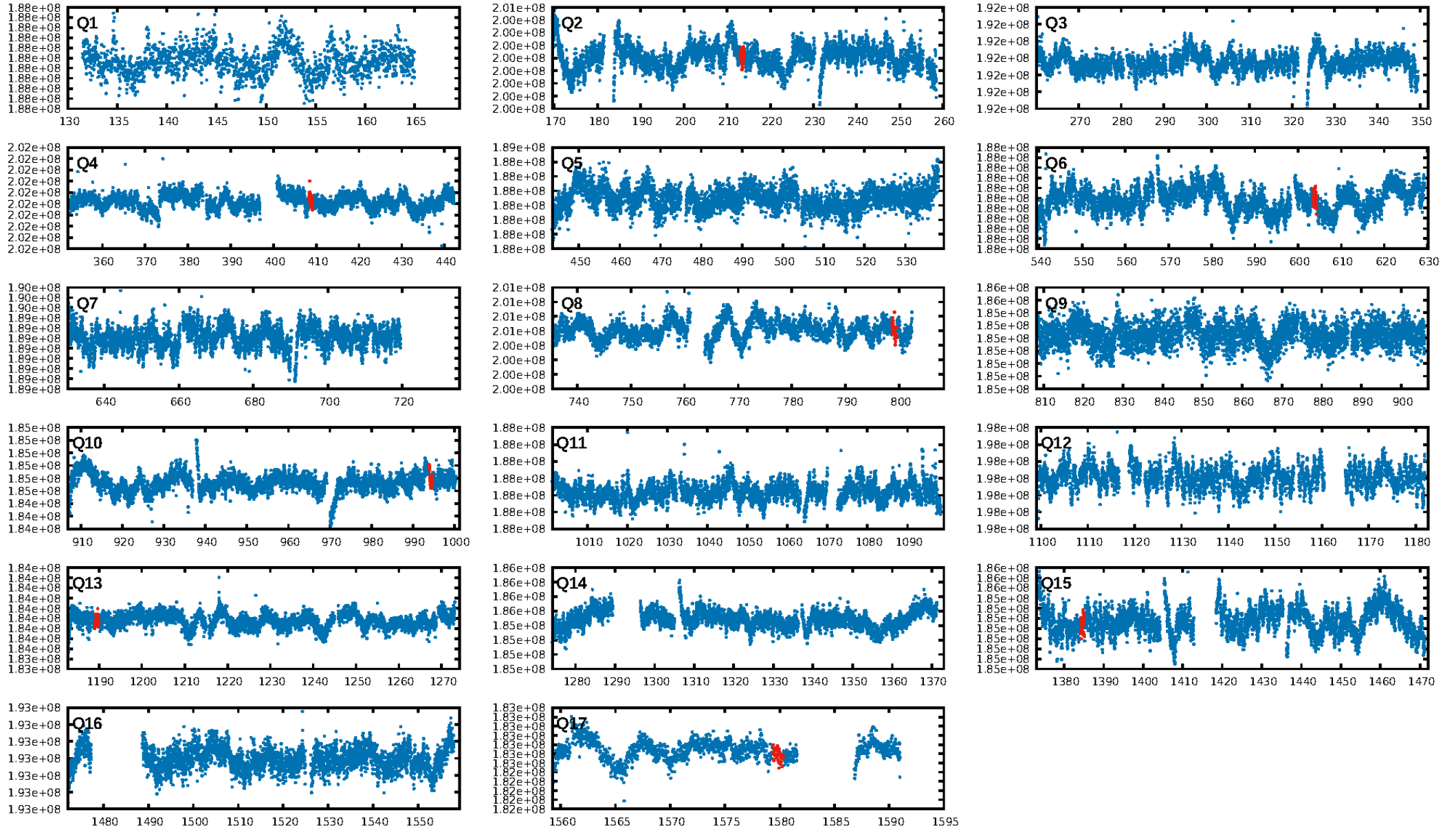
DV Diagnostic Results:

ShortPeriod-sig: 71.9% [1.08σ]
LongPeriod-sig: 100.0% [177.65σ]
ModelChiSquare2-sig: 2.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 21.9
Centroid-sig: 81.3%
Centroid-so: 1.268 arcsec [3.25σ]
OotOffset-rm: 0.679 arcsec [1.31σ]
KicOffset-rm: 2.282 arcsec [3.45σ]
OotOffset-st: 3/1/2/2 [8]
KicOffset-st: 3/1/2/2 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.25 [2/8]

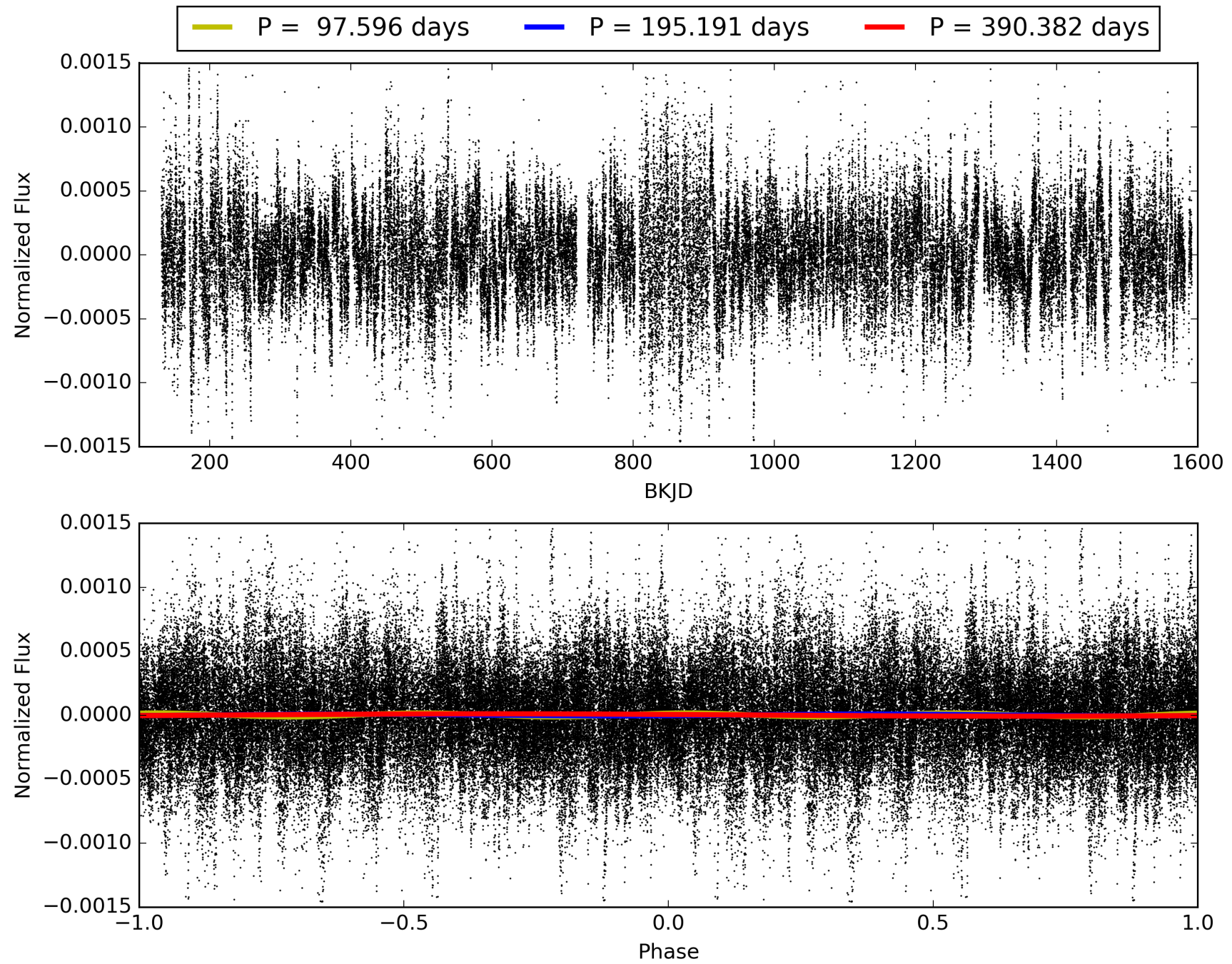
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:16:19 Z

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

TCE 010918691-04, PDC Light Curves

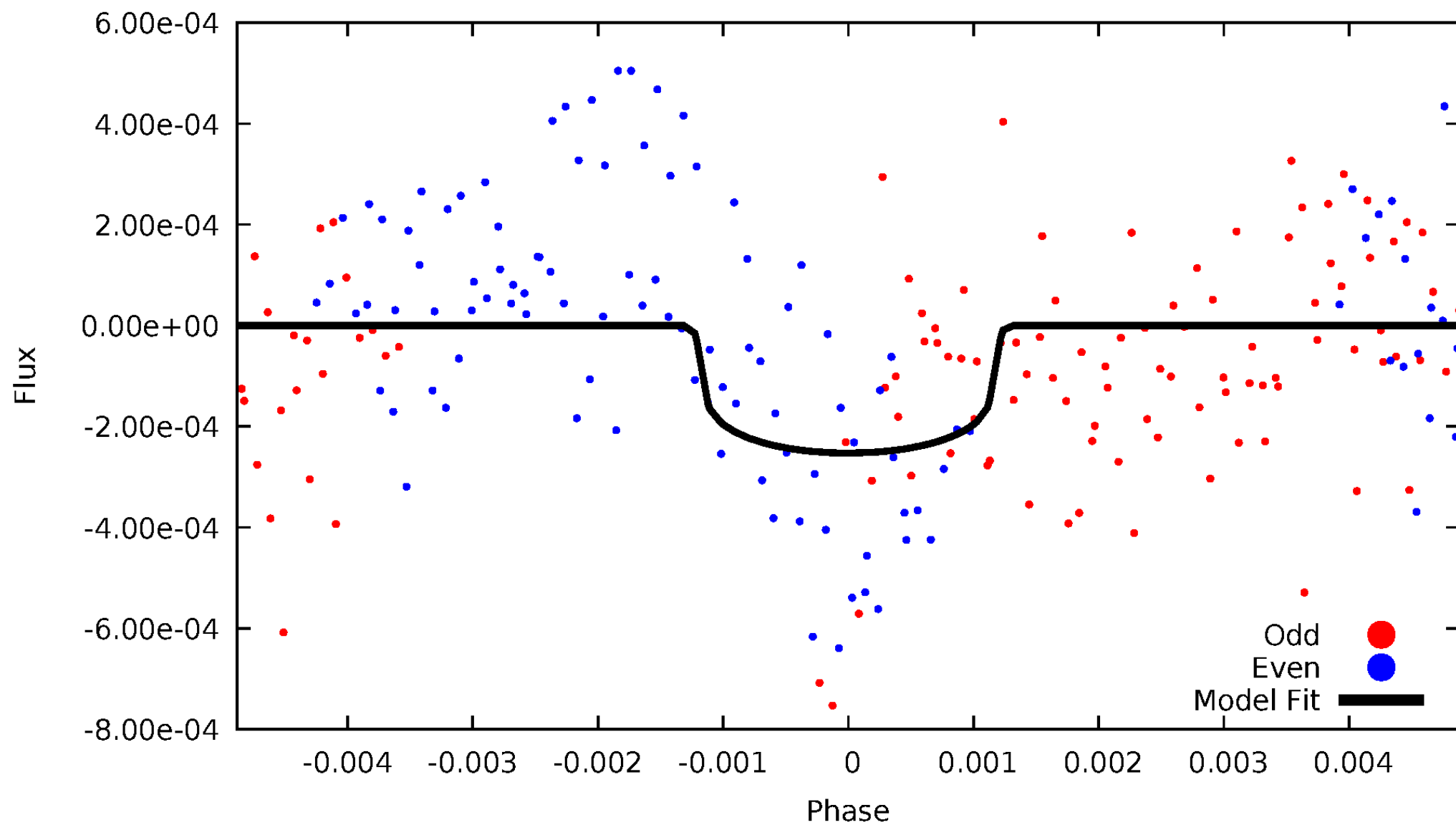


TCE 010918691-04



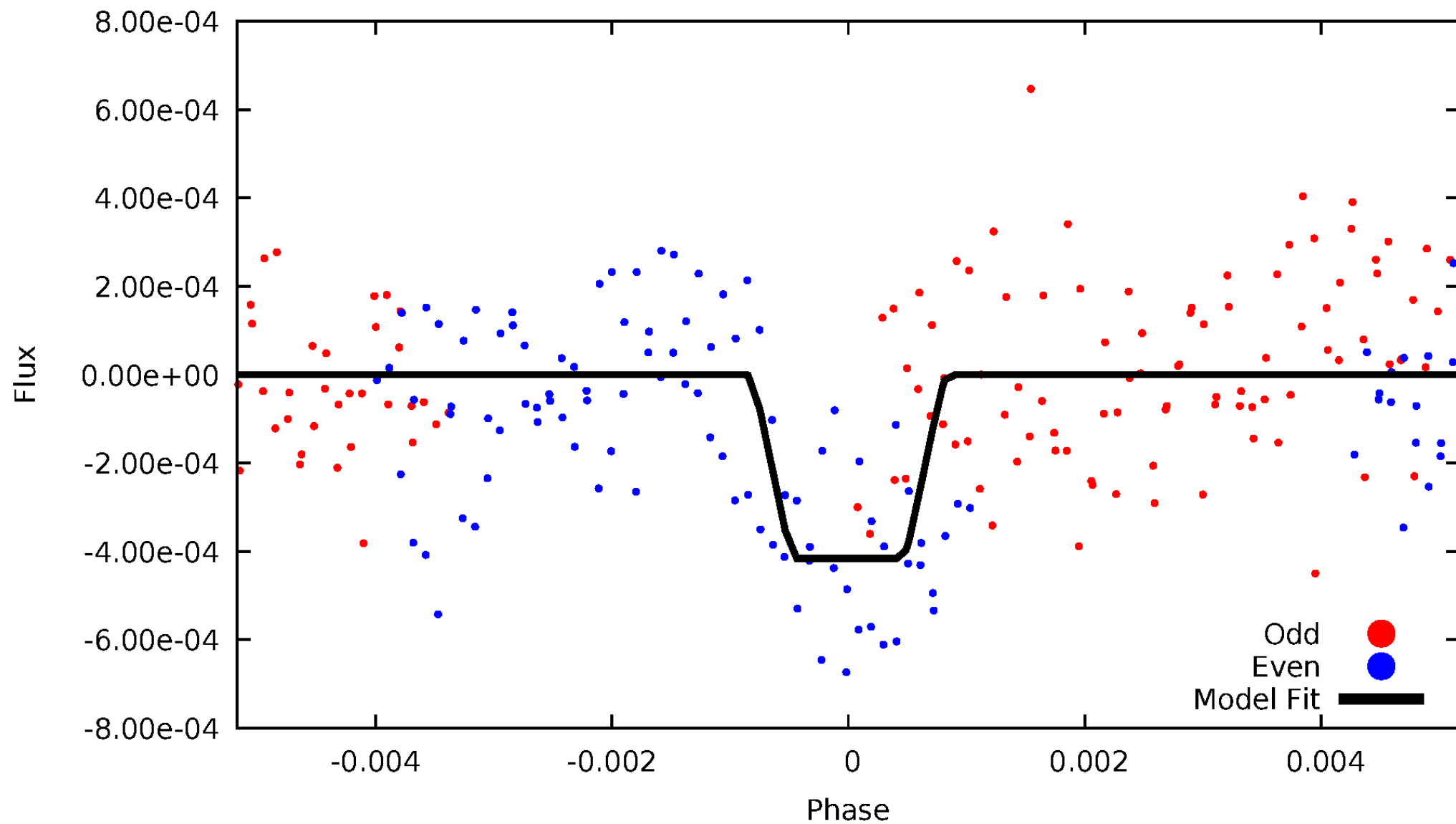
DV Odd/Even

TCE 010918691-04



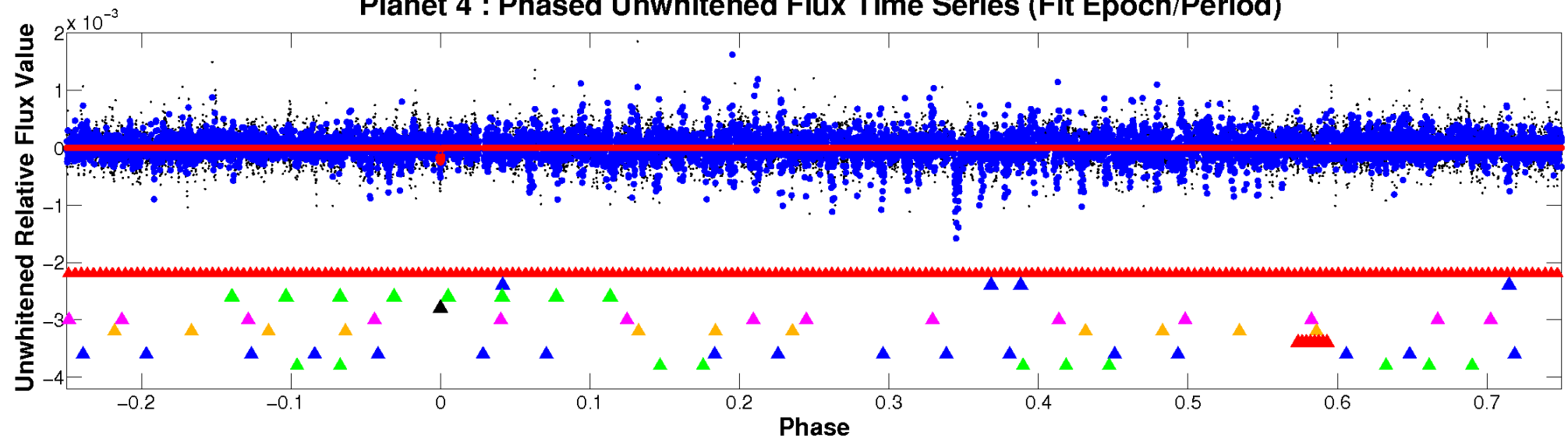
ALT Odd/Even

TCE 010918691-04

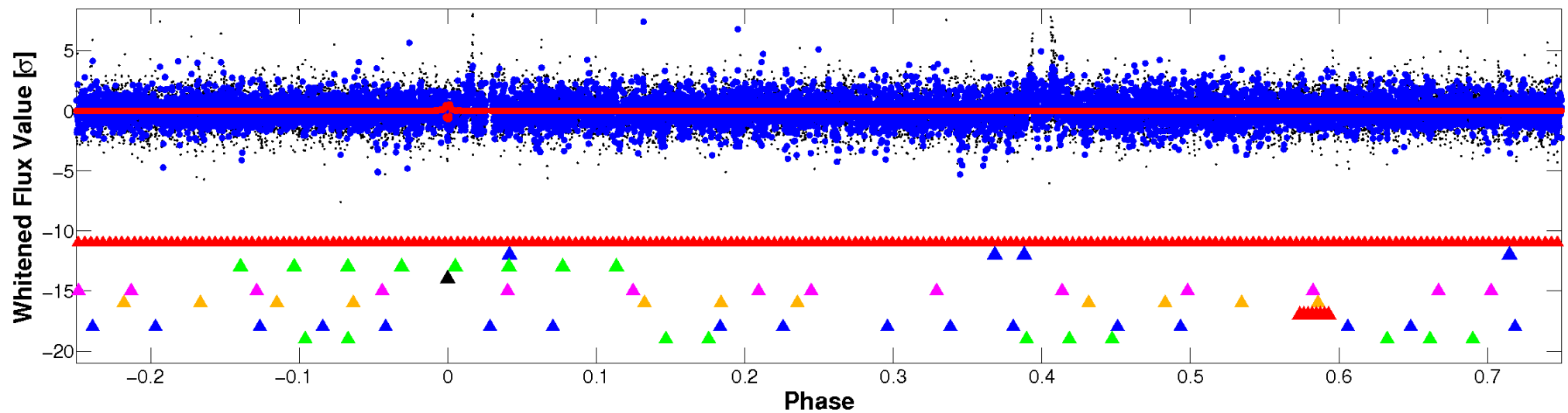


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

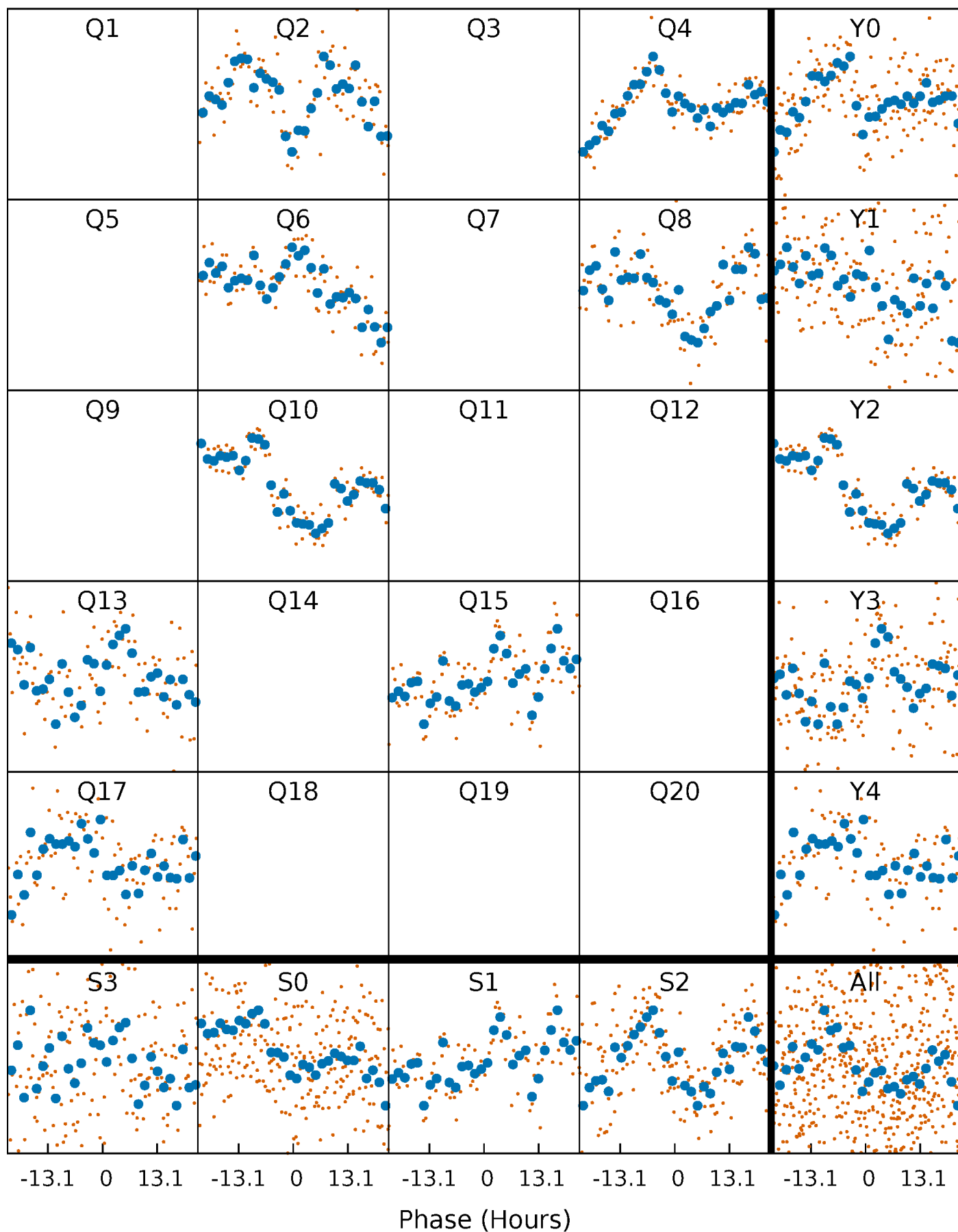


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



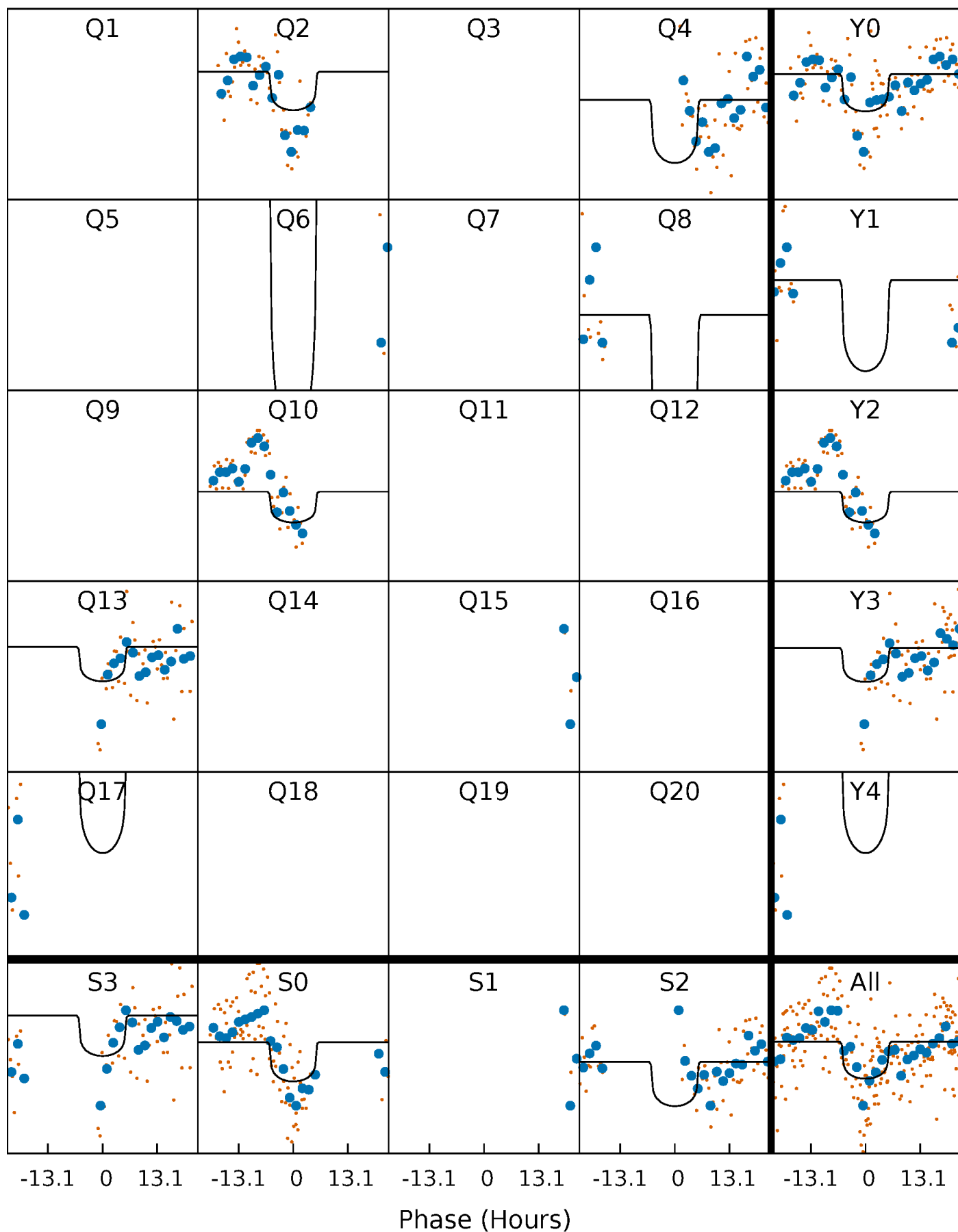
PDC Quarter-Phased Transit Curves

TCE 010918691-04 P=195.191162 Days $T_0=213.508071$ (BKJD)



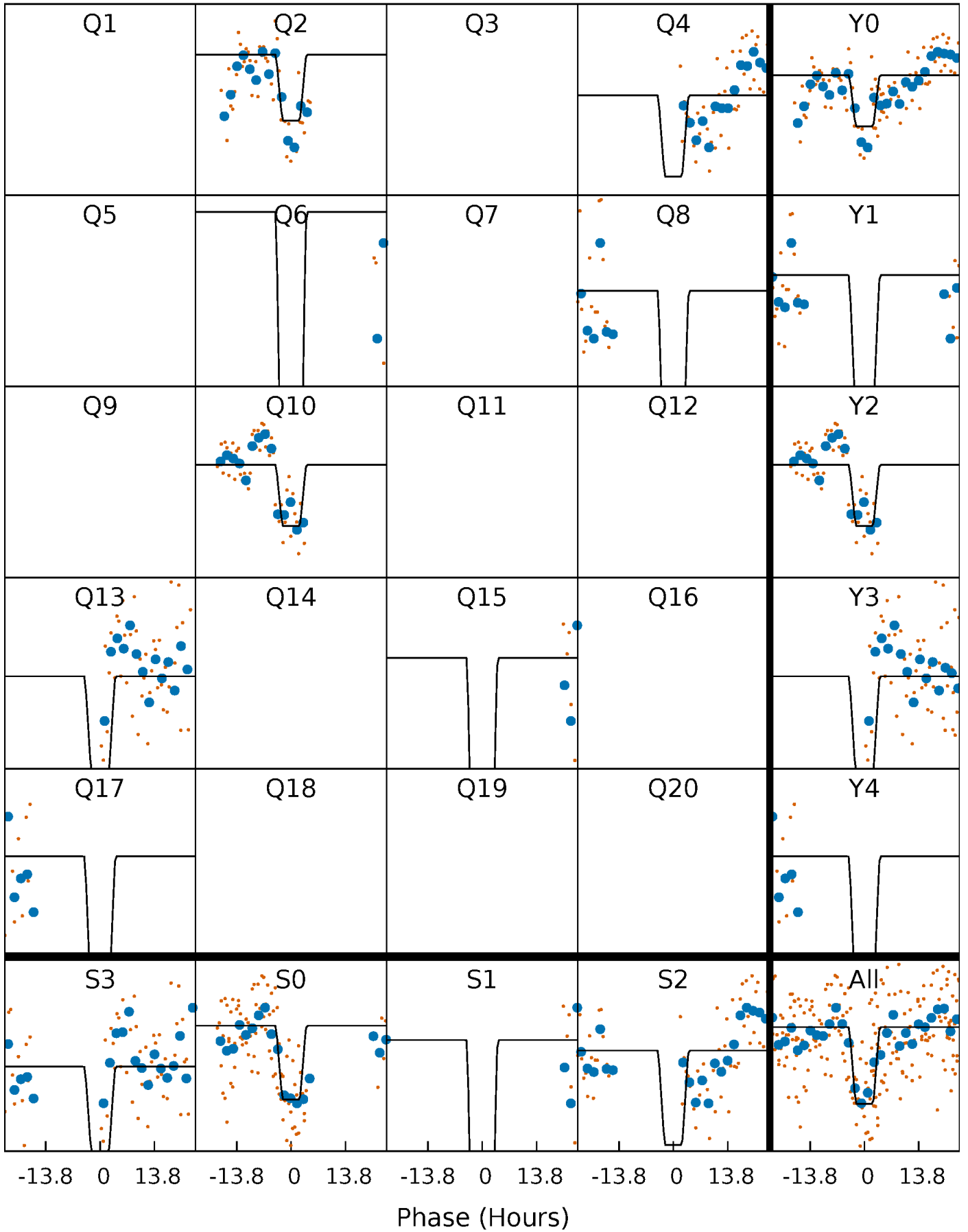
DV Quarter-Phased Transit Curves

TCE 010918691-04 P=195.191162 Days $T_0=213.508071$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

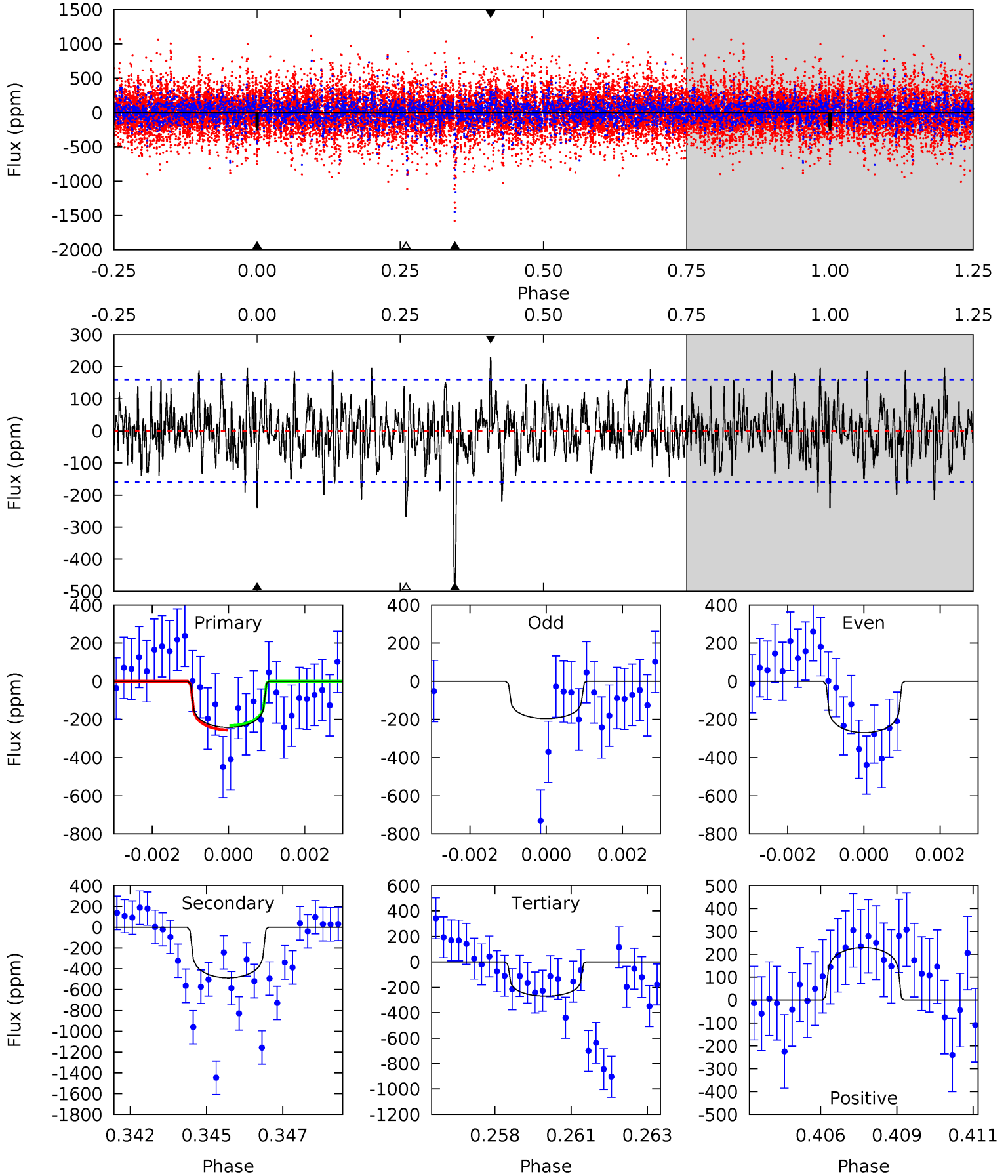
TCE 010918691-04 $P=195.181365$ Days $T_0=213.496853$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-04, $P = 195.191162$ Days, $E = 18.316909$ Days

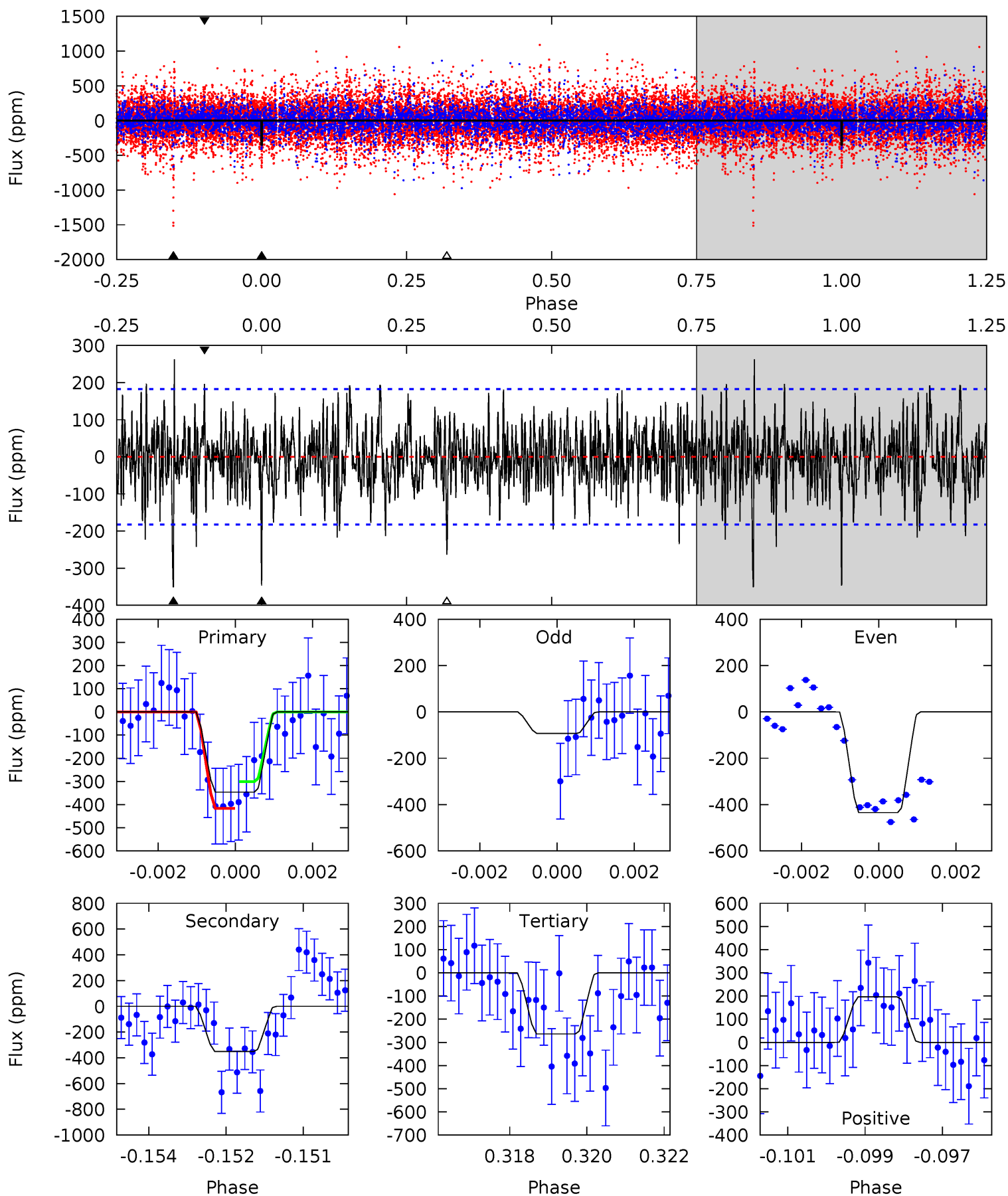
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.04	16.2	8.96	7.62	5.29	3.03	2.21	-0.92	0.42	7.24	8.57	1.18	0.88	0.32	0.38



Alt Model-Shift Uniqueness Test

010918691-04, P = 195.181365 Days, E = 18.315488 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	10.3	7.74	5.76	5.36	3.14	2.06	2.43	4.41	2.57	4.55	4.39	1.05	0.43	1.67



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-487 ± 30	$1.99^{+1.23}_{-0.94}$	491^{+38}_{-36}	6993^{+3892}_{-1399}	28245^{+77089}_{-17368}
Alt.	-351 ± 34	$2.59^{+1.16}_{-1.04}$	489^{+37}_{-33}	5704^{+1847}_{-861}	12558^{+22647}_{-6584}

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

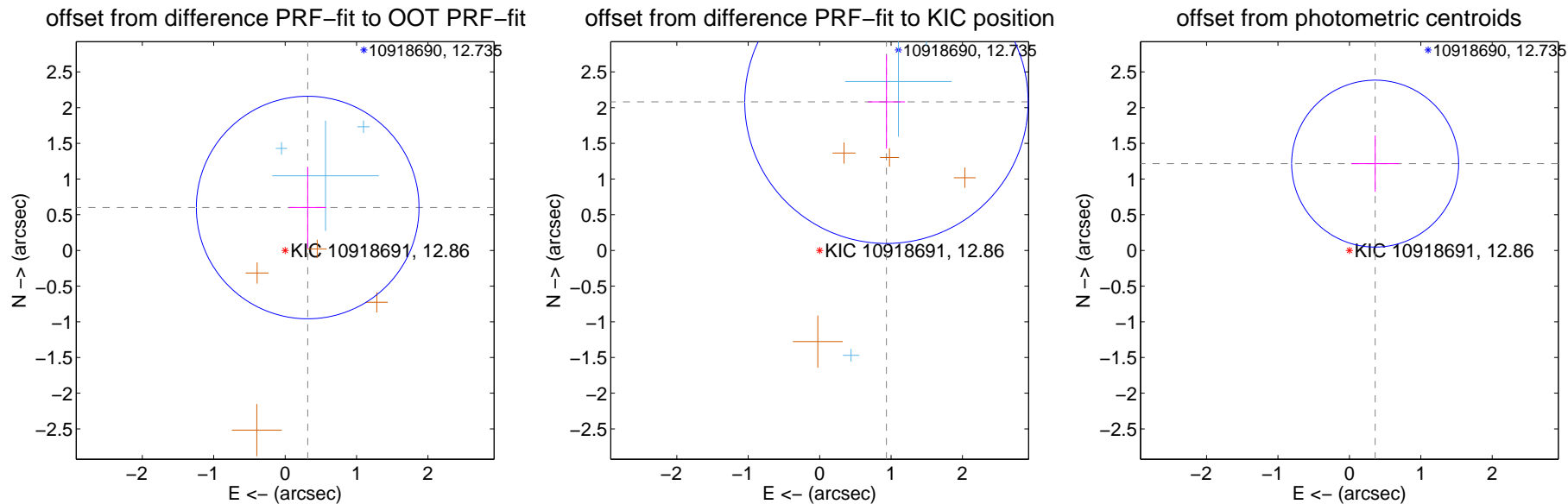
DV Centroid Data

Supplemental centroid analysis for 010918691-04. Kepler magnitude: 12.86. Transit SNR 5.28

There are 4 quarters with good PRF difference image offsets

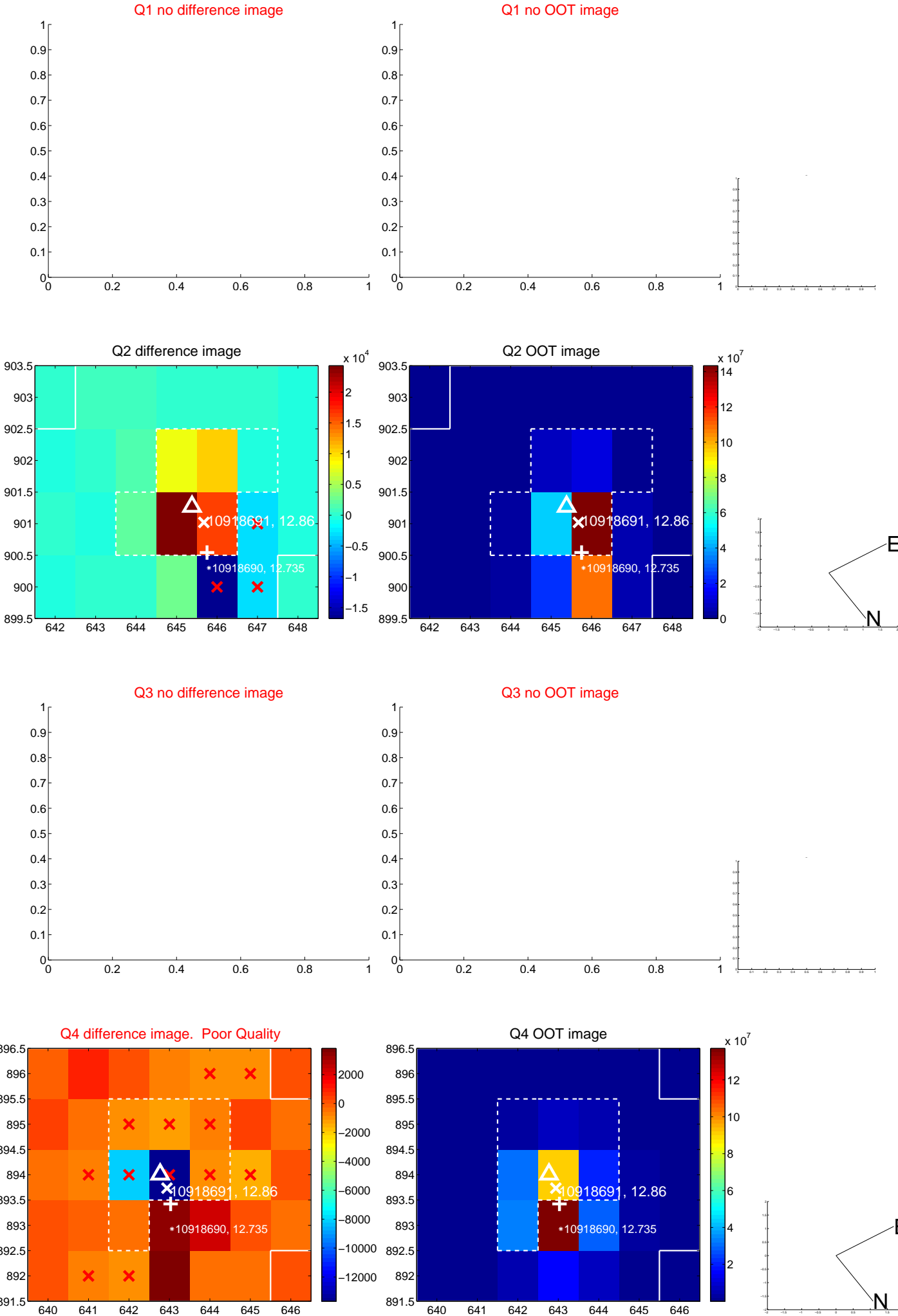
The direct PRF centroid is offset from the target star catalog position by about 1.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.679 ± 0.520	1.31	-0.316 ± 0.260	0.601 ± 0.571
PRF-fit source offset from KIC position	2.282 ± 0.661	3.45	-0.935 ± 0.259	2.081 ± 0.657
photometric centroid source offset	1.27 ± 0.39	3.25	-0.36 ± 0.33	1.22 ± 0.39

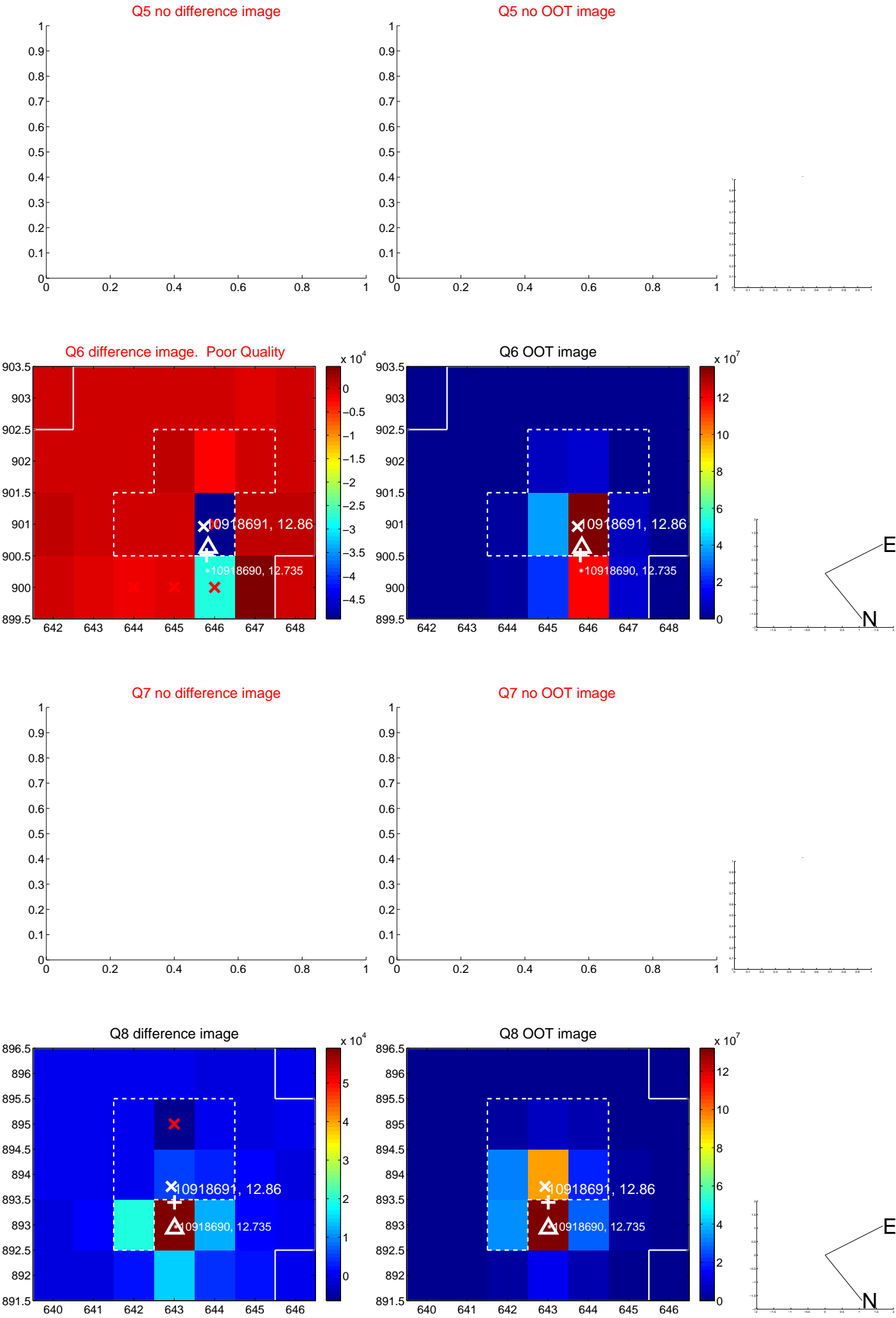


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

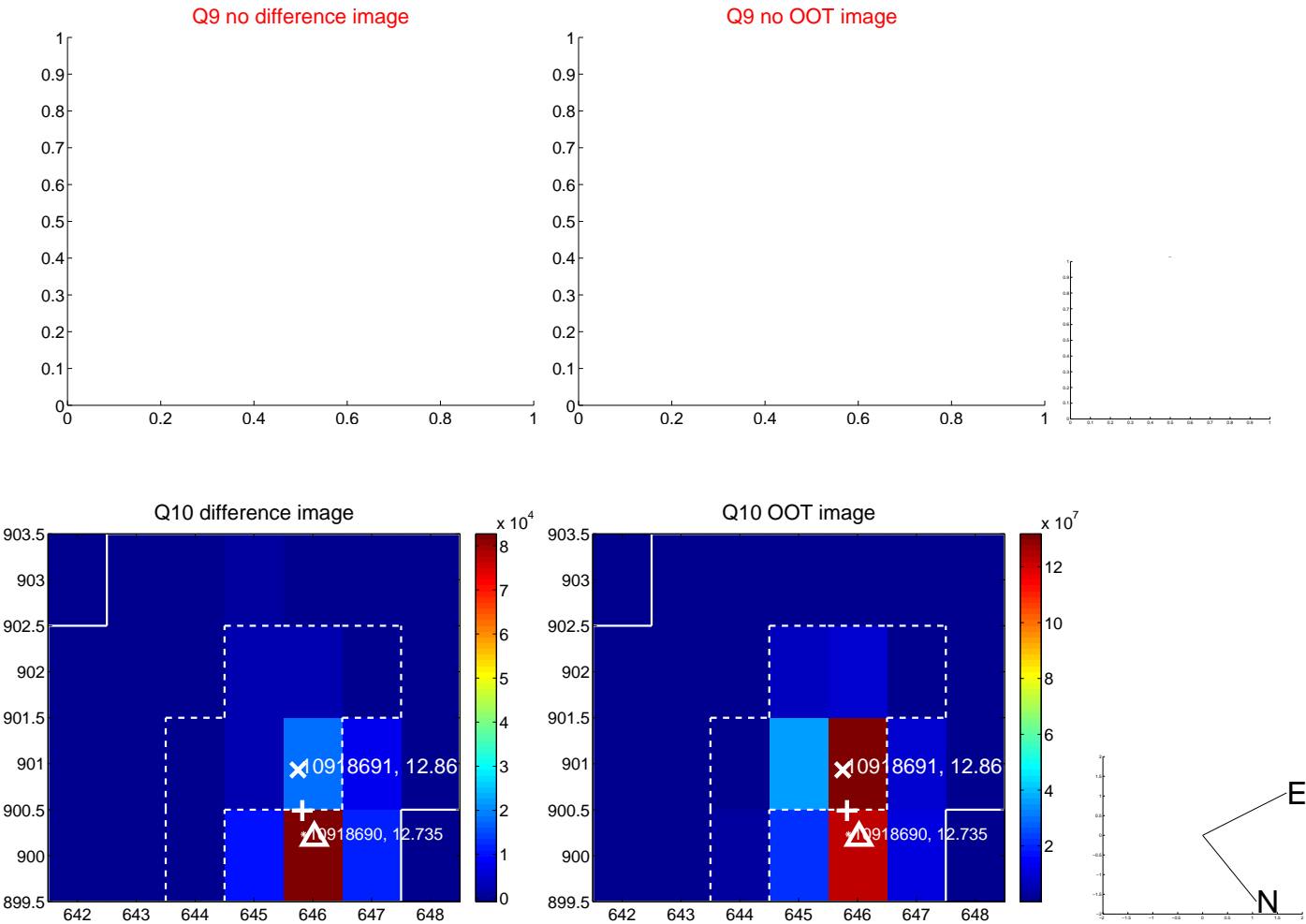
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



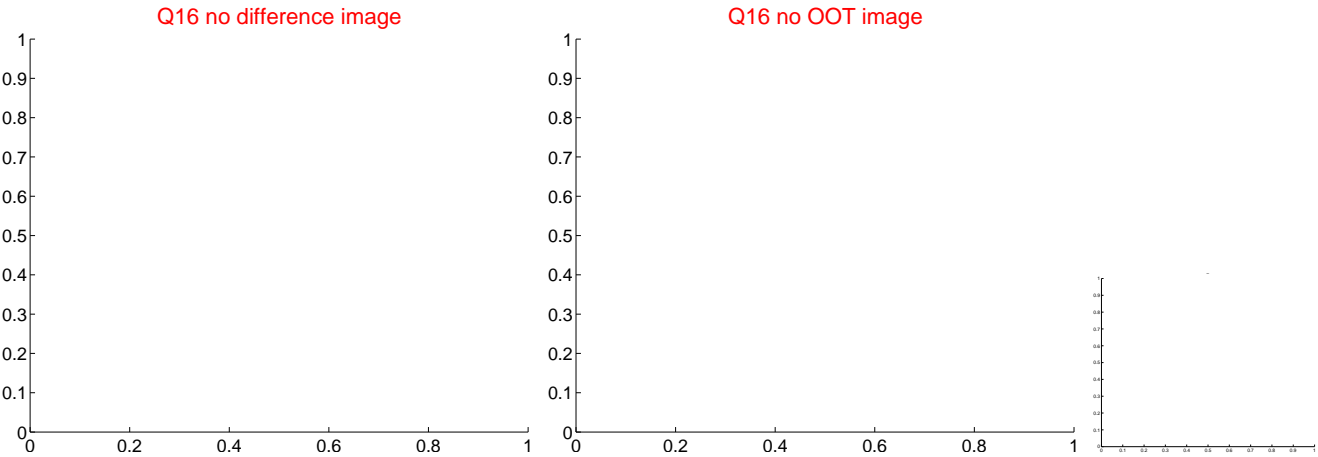
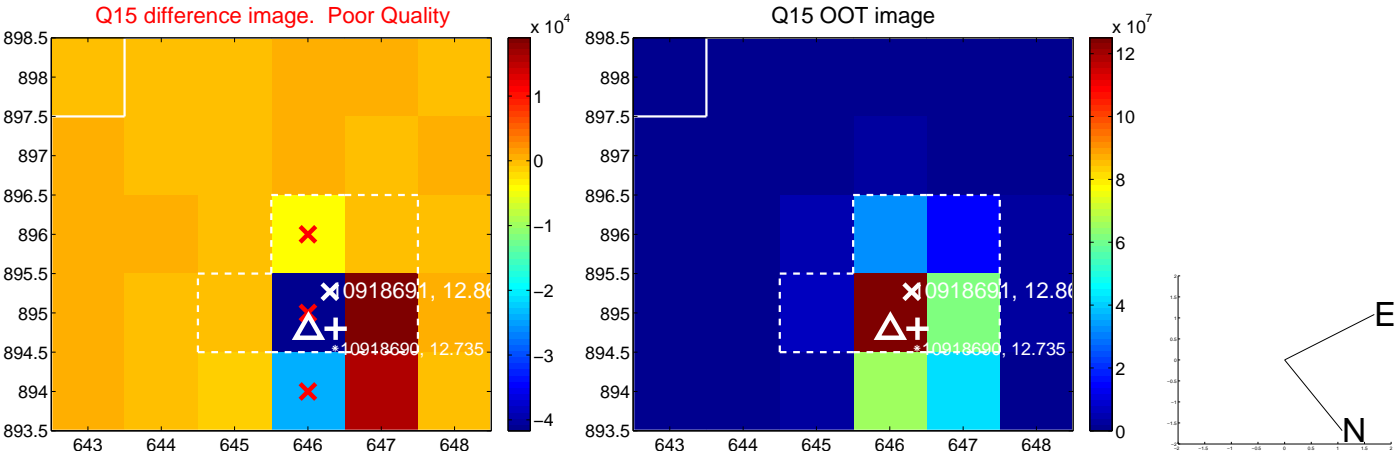
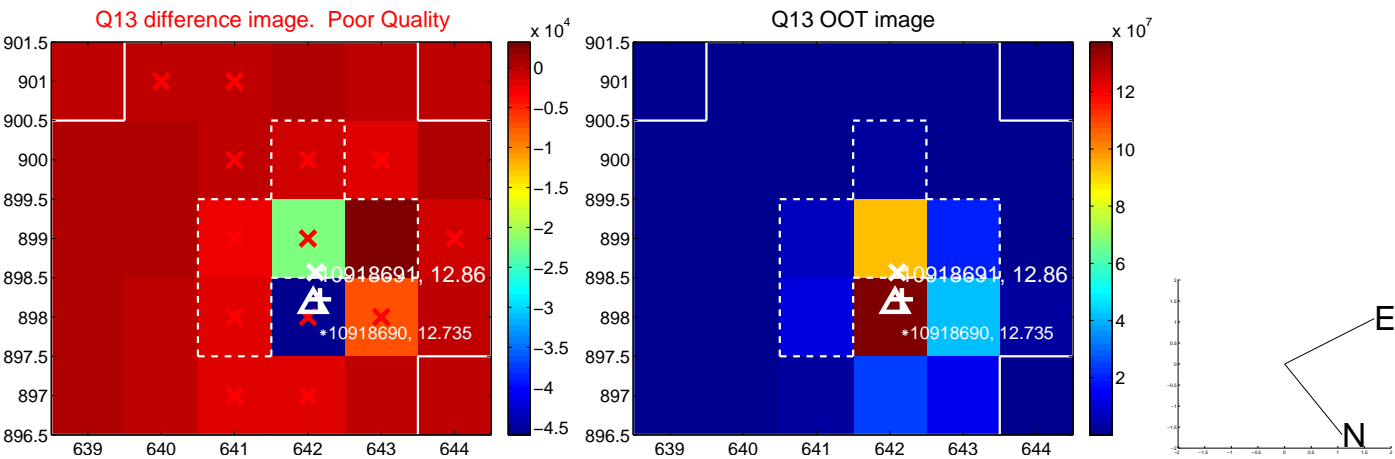
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



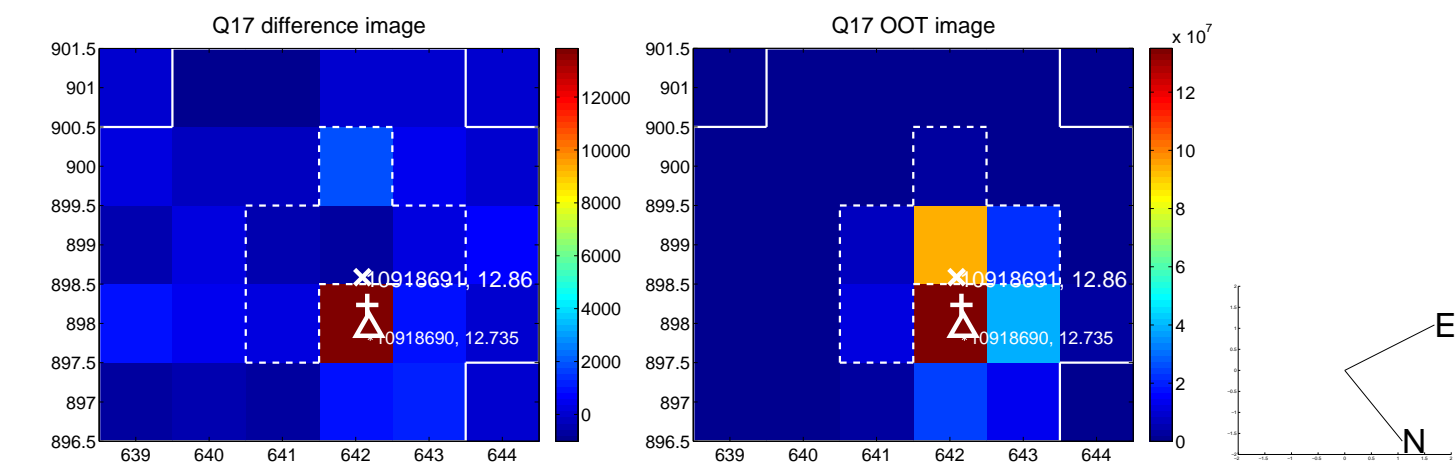
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



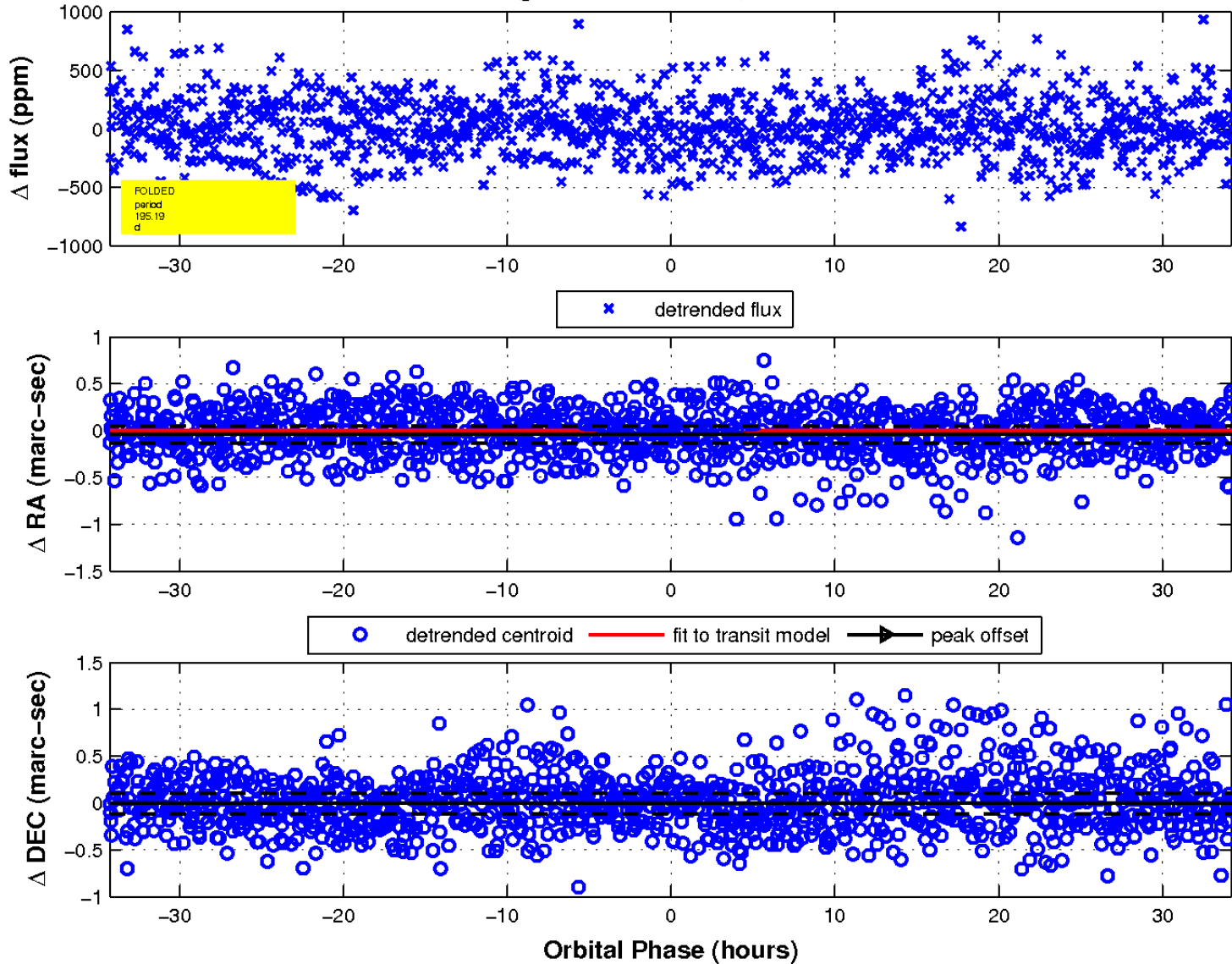
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

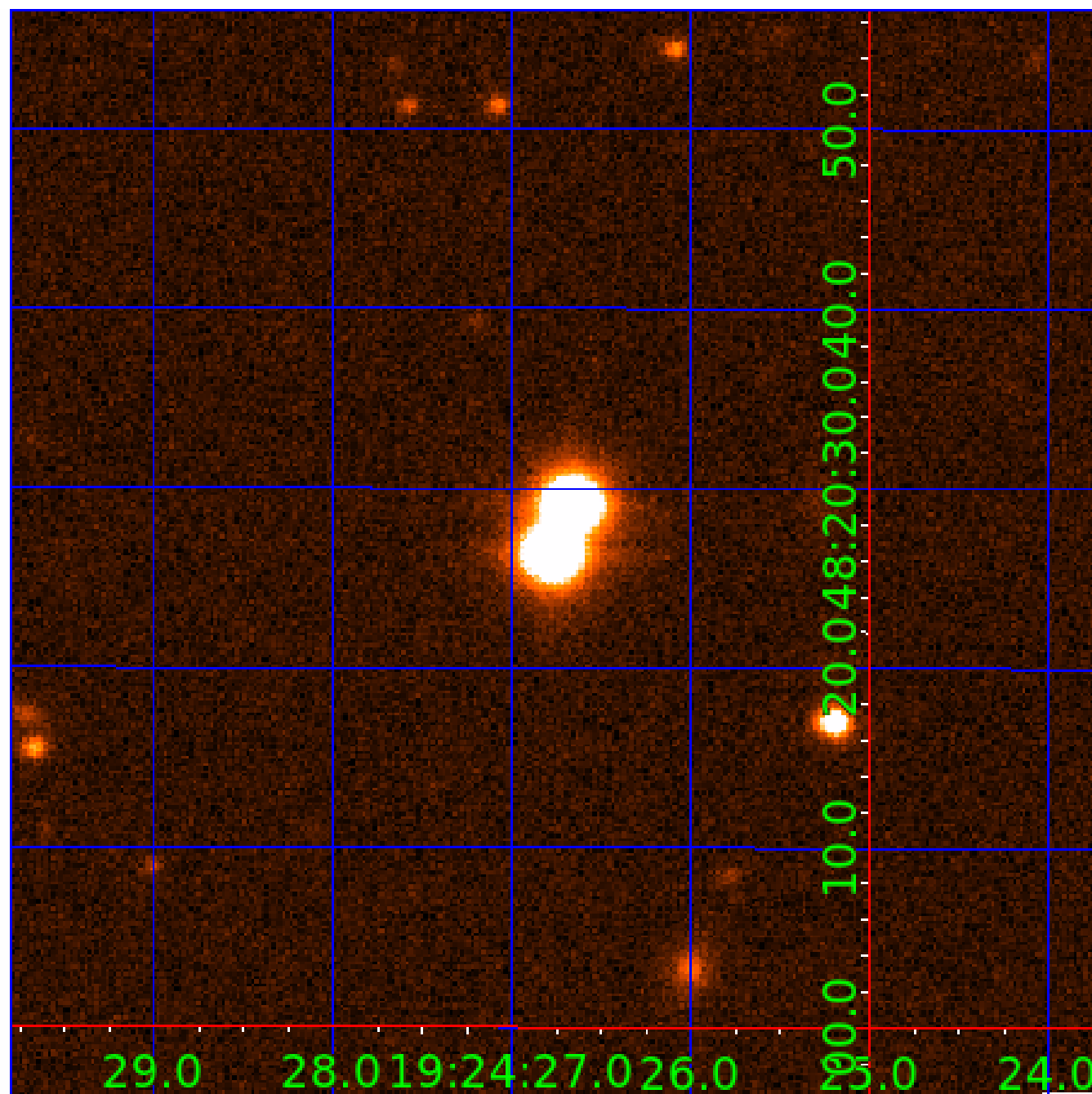


fluxWeightedCentroids, Planet 4 of 9



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

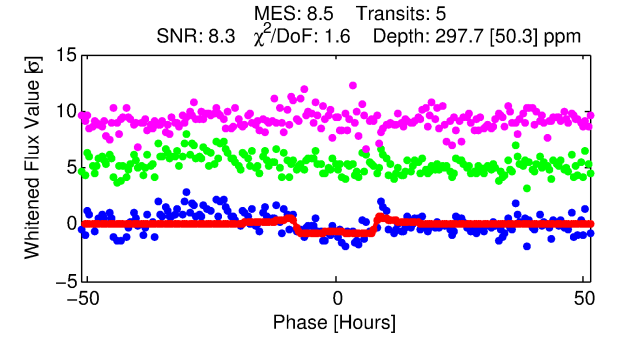
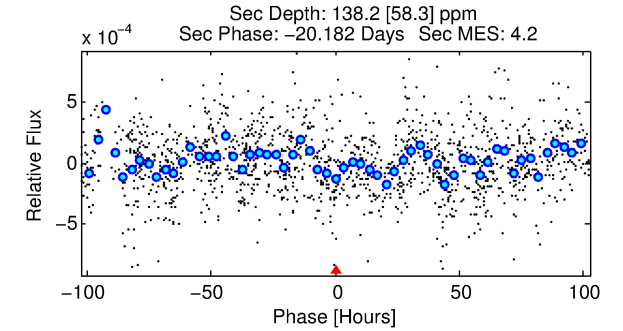
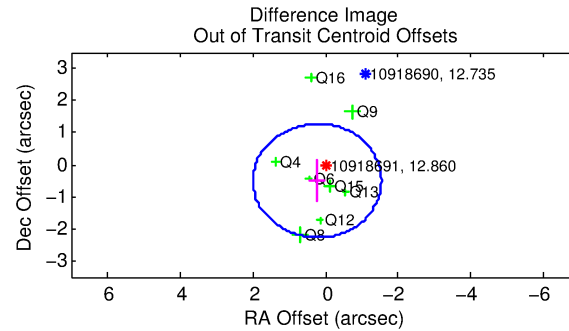
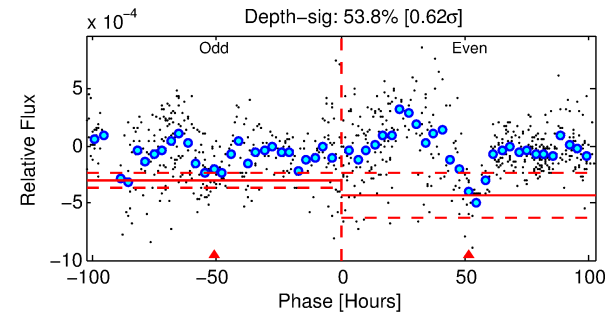
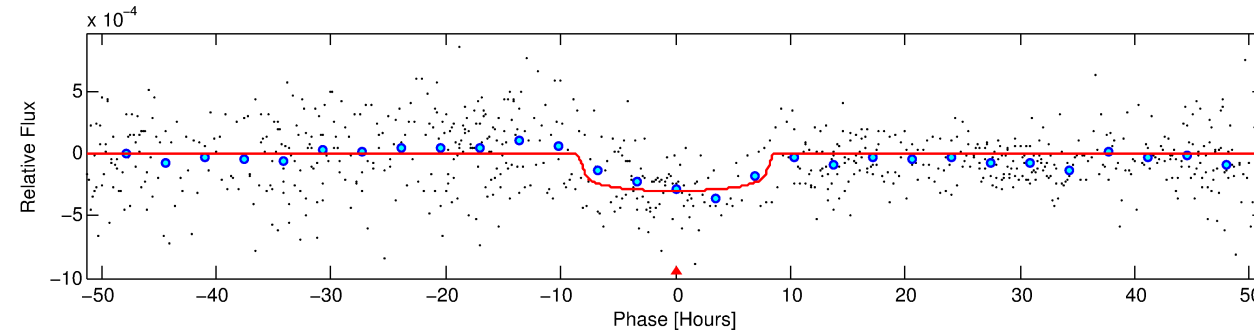
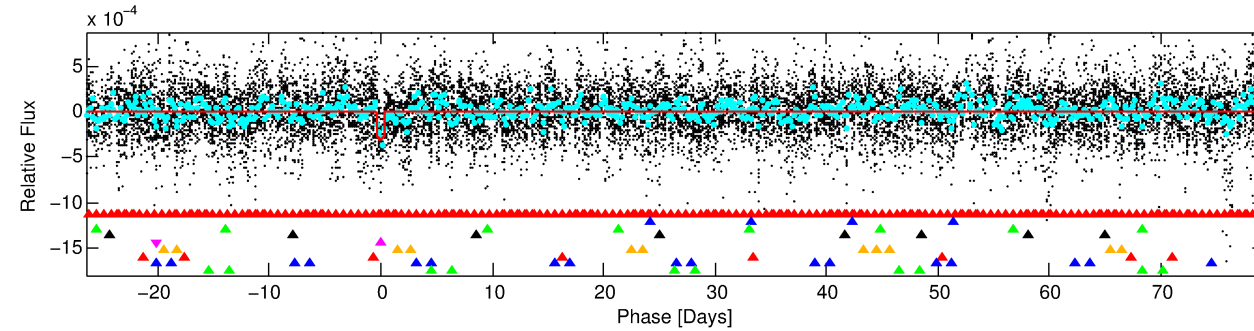
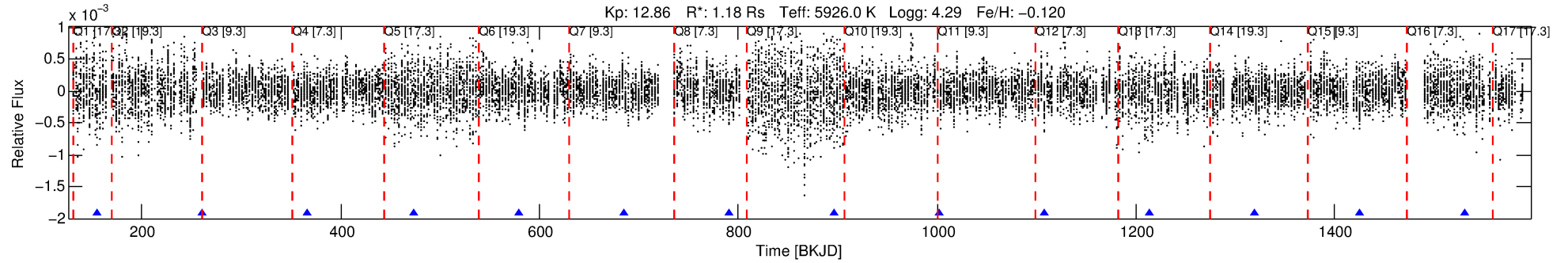
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-05

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 5 of 9 Period: 105.839 d



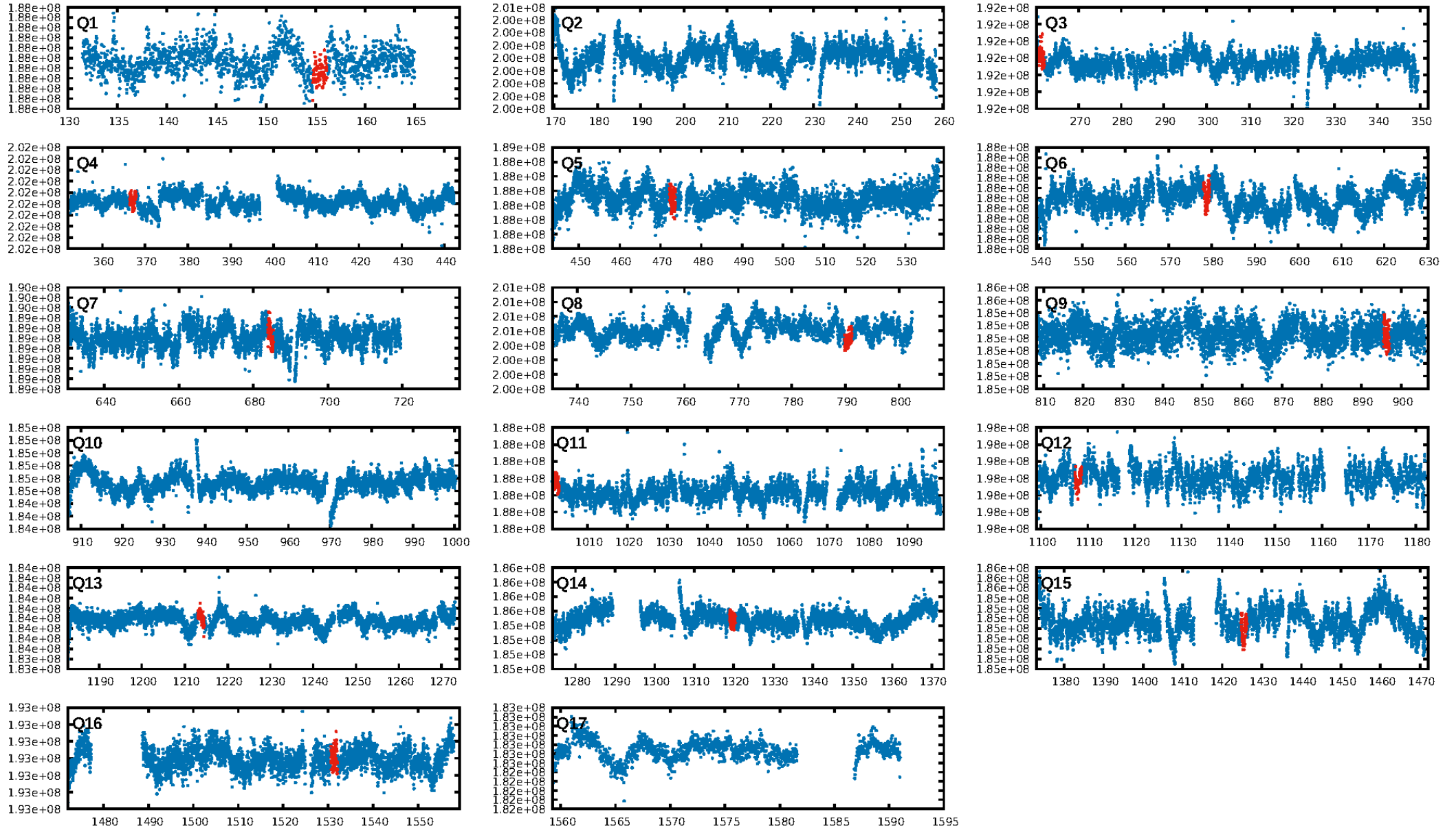
DV Fit Results:

Period = 105.83923 [0.00362] d
Epoch = 155.4351 [0.0278] BKJD
Rp/R* = 0.0176 [0.0037]
a/R* = 28.77 [25.87]
b = 0.82 [0.37]
Seff = 8.09 [3.02]
Teff = 430 [40] K
Rp = 2.26 [0.82] Re
a = 0.4346 [0.1056] AU
Ag = 2799.95 [1929.61] [1.45 σ]
Teffp = 4837 [740] K [5.94 σ]

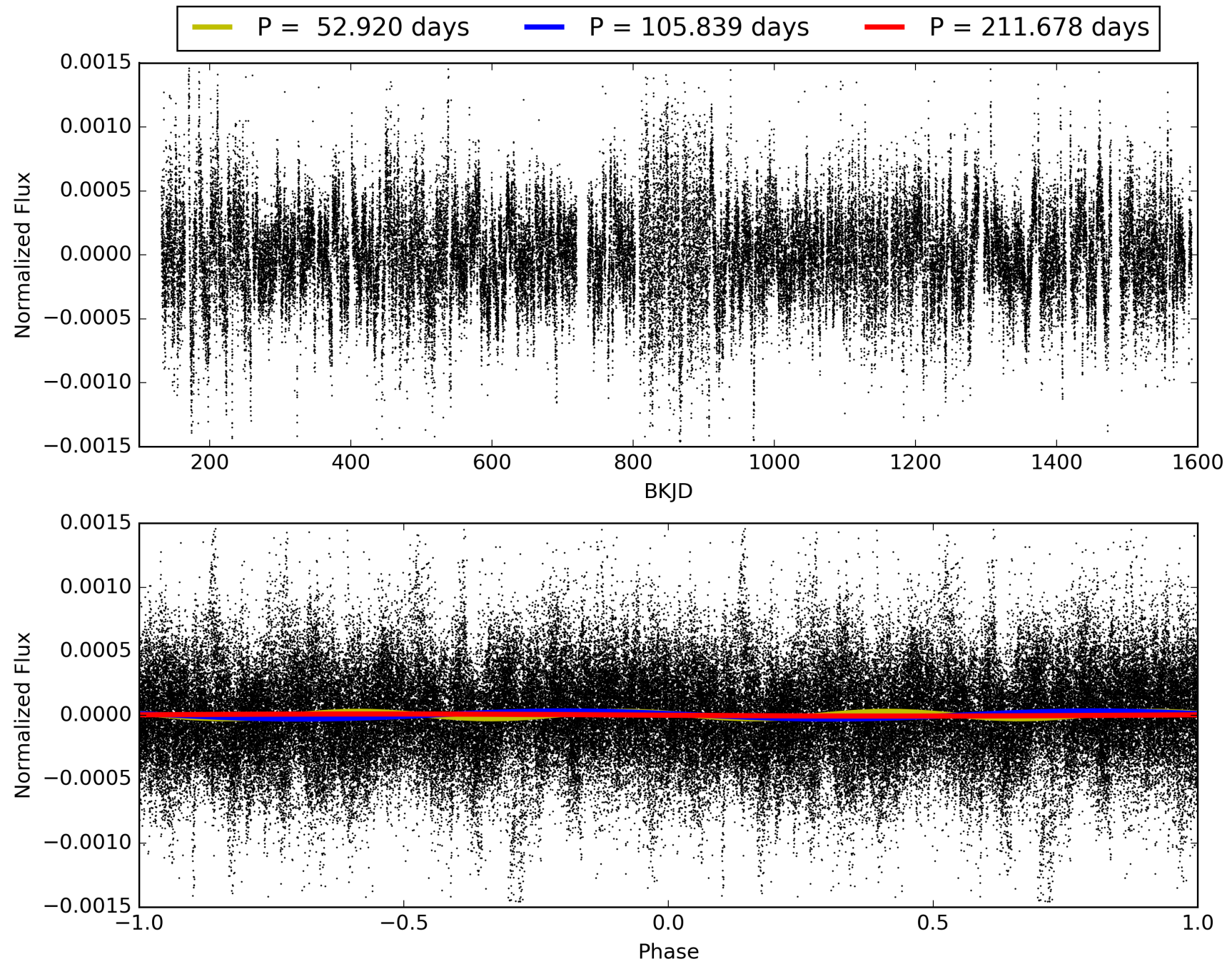
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.52 σ]
LongPeriod-sig: 100.0% [25.64 σ]
ModelChiSquare2-sig: 28.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.2622
Centroid-sig: 0.0%
Centroid-so: 0.579 arcsec [2.36 σ]
OotOffset-rm: 0.549 arcsec [0.93 σ]
KicOffset-rm: 1.060 arcsec [1.88 σ]
OotOffset-st: 1/1/4/2 [8]
KicOffset-st: 1/1/4/2 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 0.00 [0/12]

TCE 010918691-05, PDC Light Curves

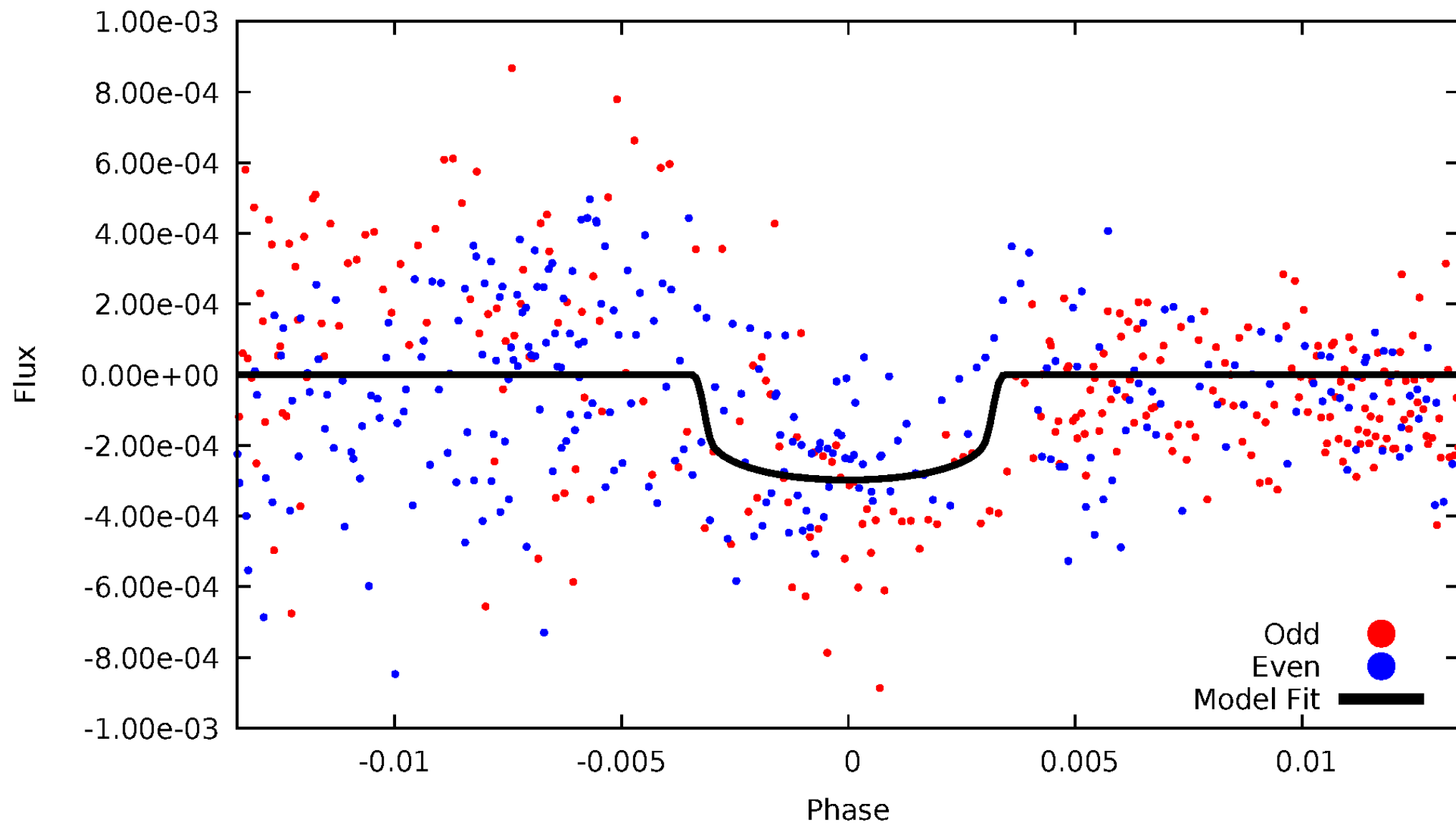


TCE 010918691-05



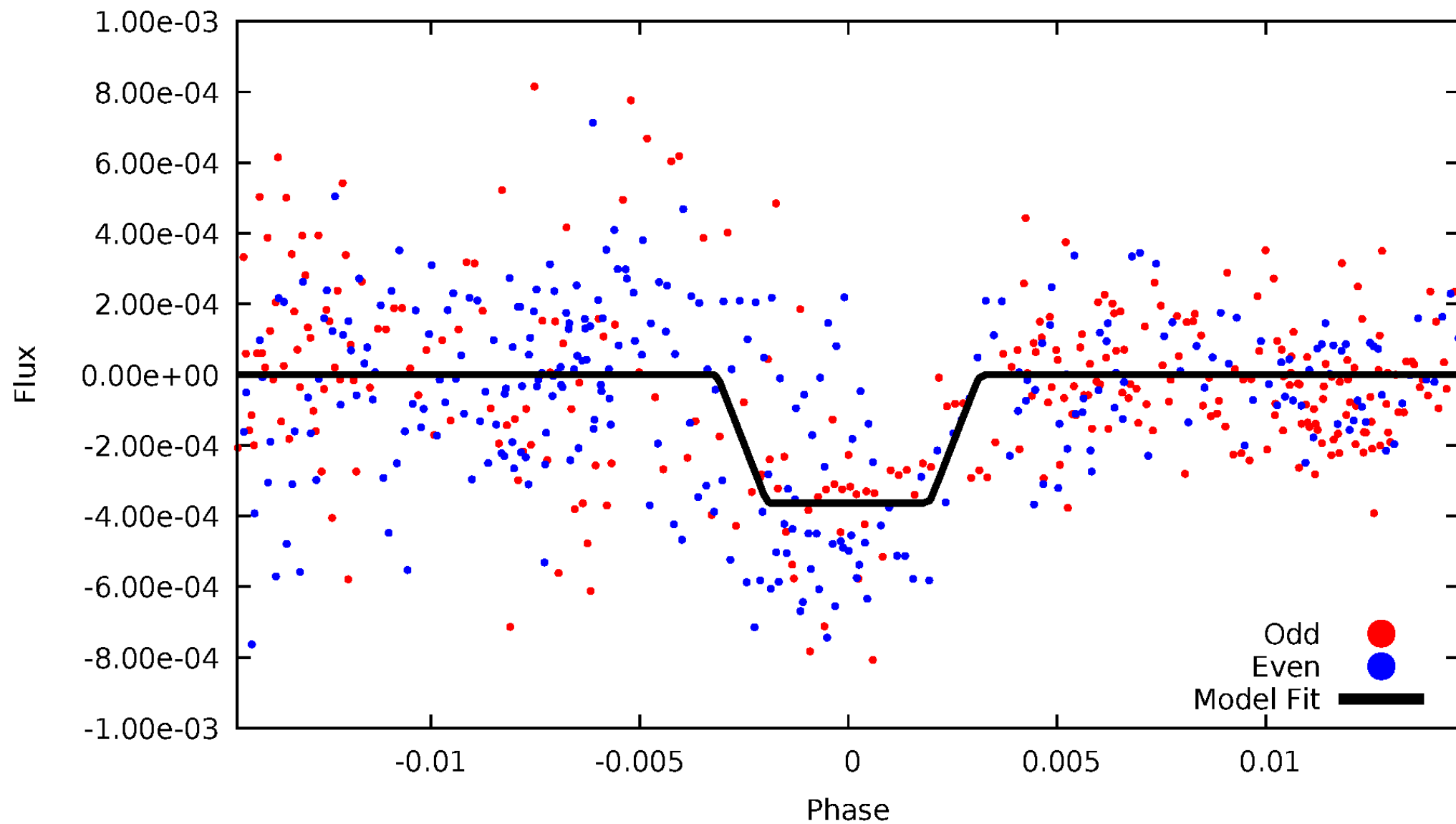
DV Odd/Even

TCE 010918691-05



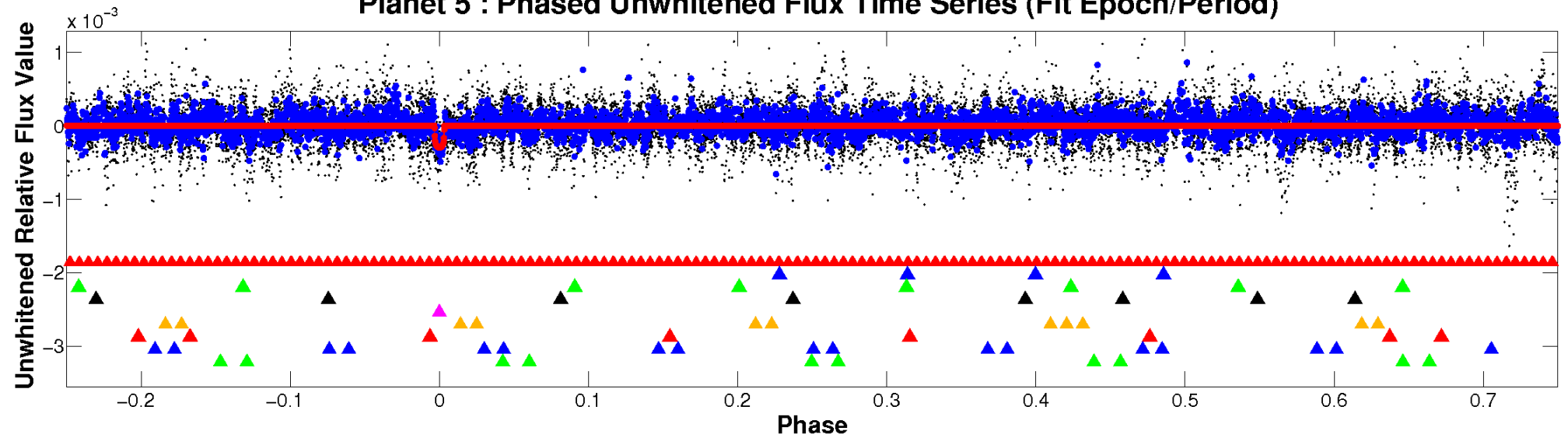
ALT Odd/Even

TCE 010918691-05

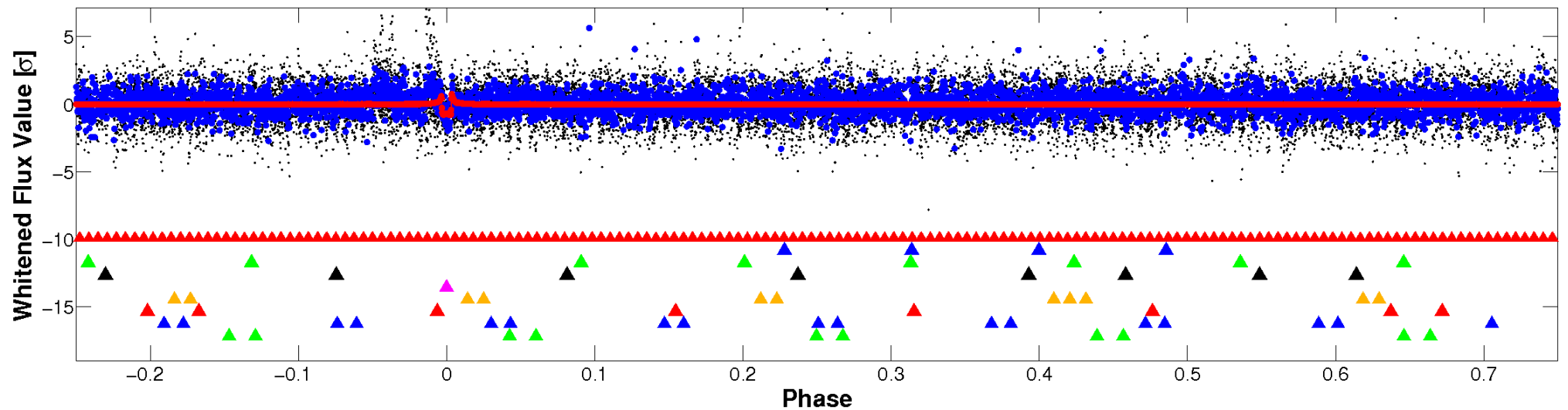


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

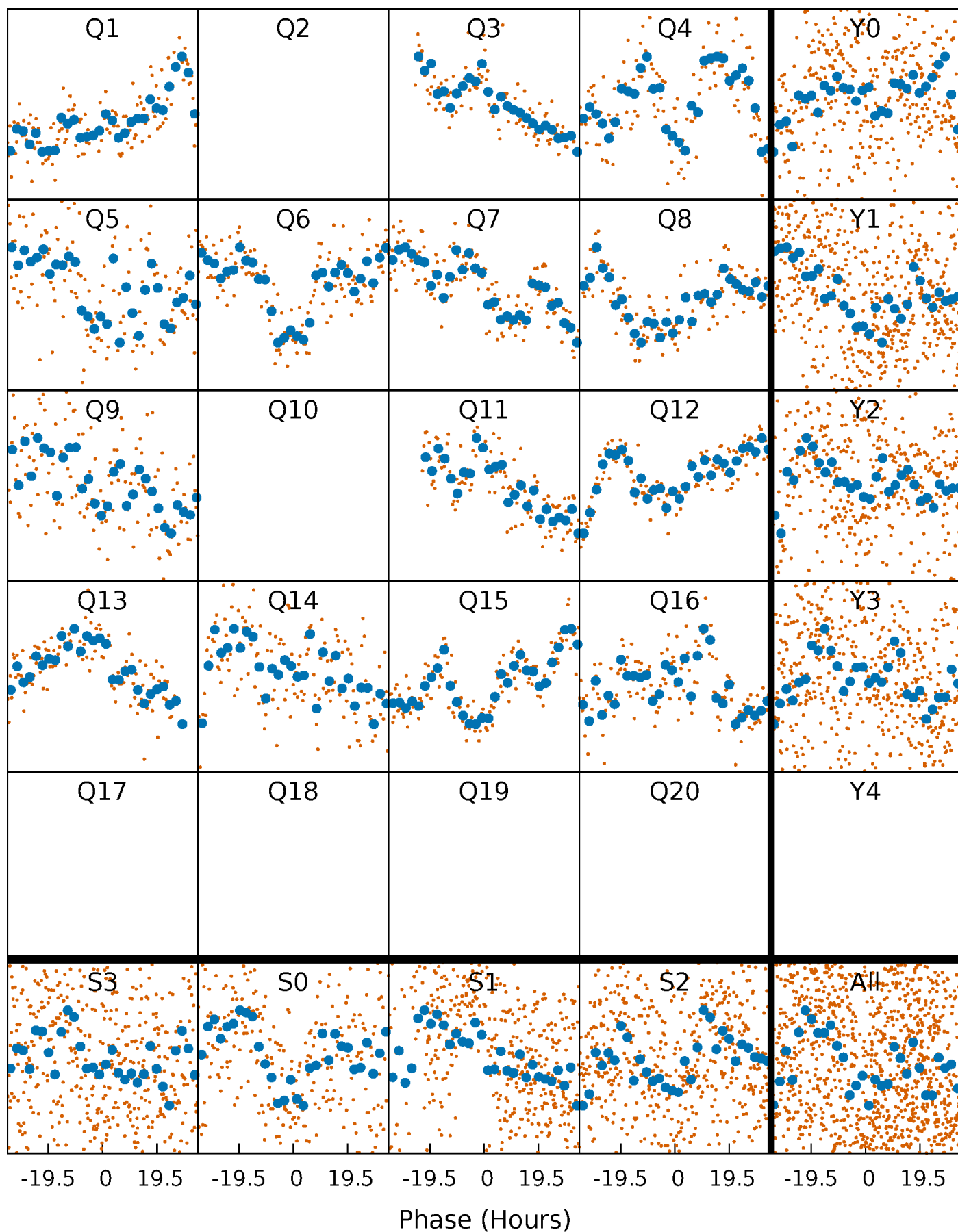


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



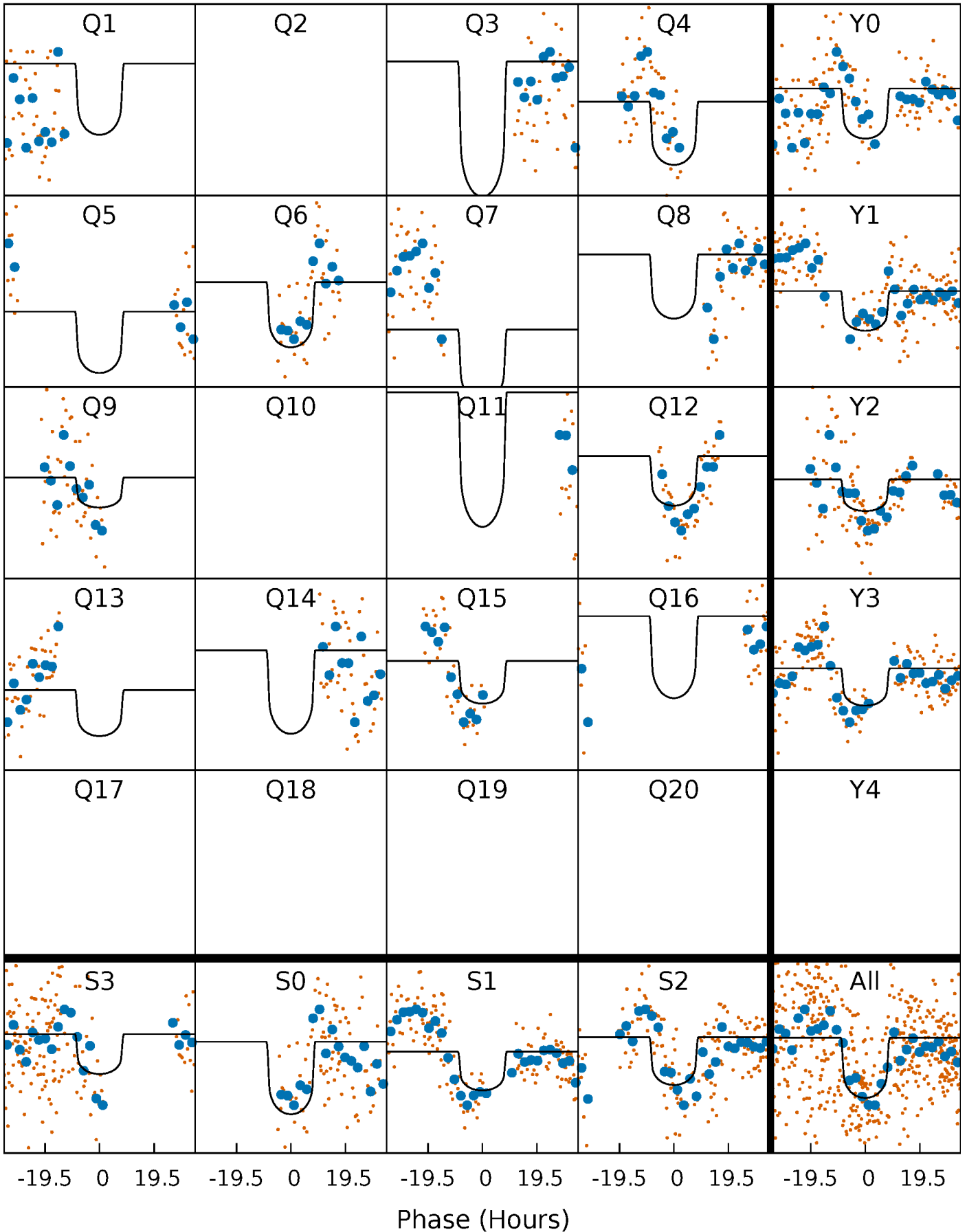
PDC Quarter-Phased Transit Curves

TCE 010918691-05 P=105.839234 Days $T_0=155.435128$ (BKJD)



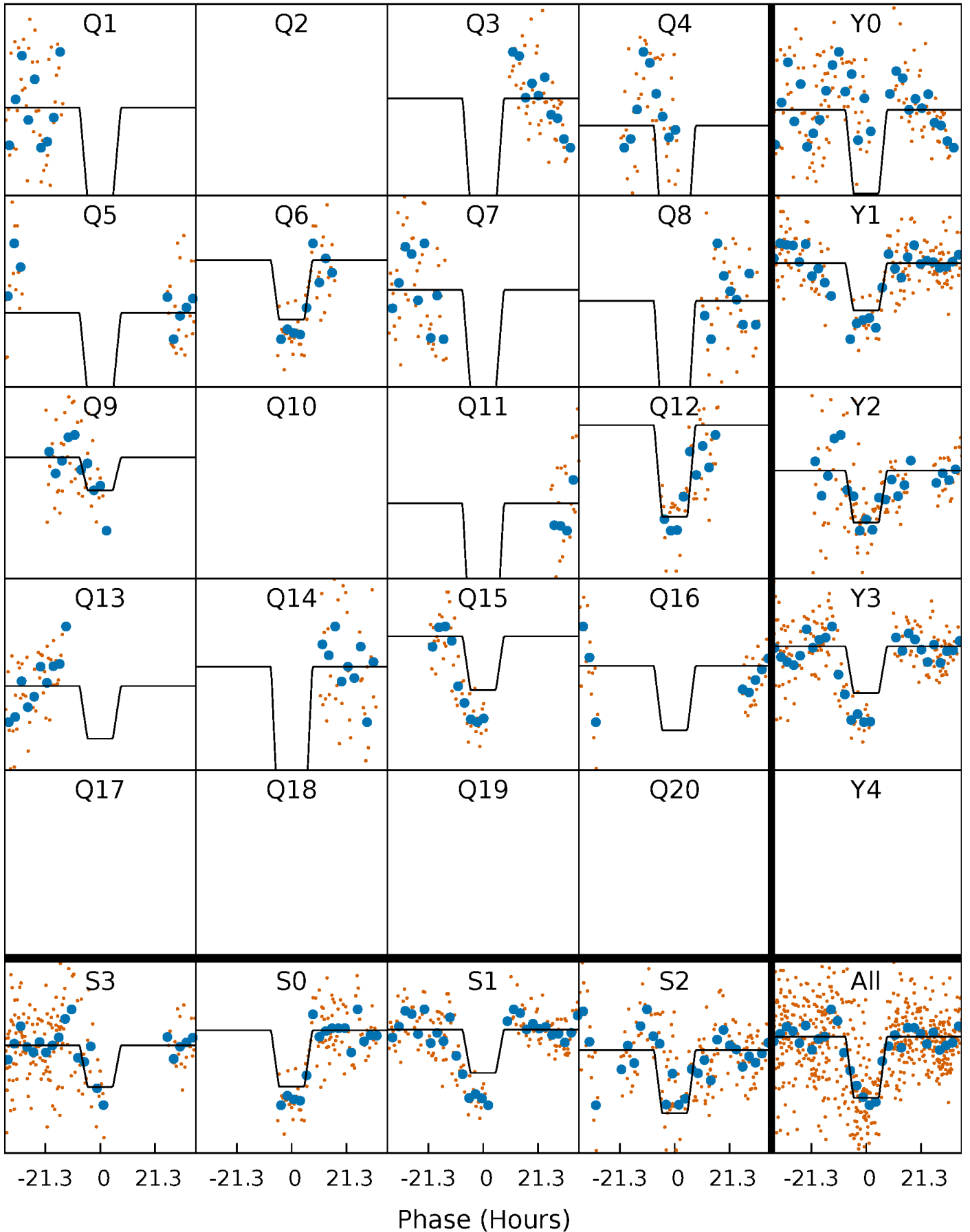
DV Quarter-Phased Transit Curves

TCE 010918691-05 $P=105.839234$ Days $T_0=155.435128$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

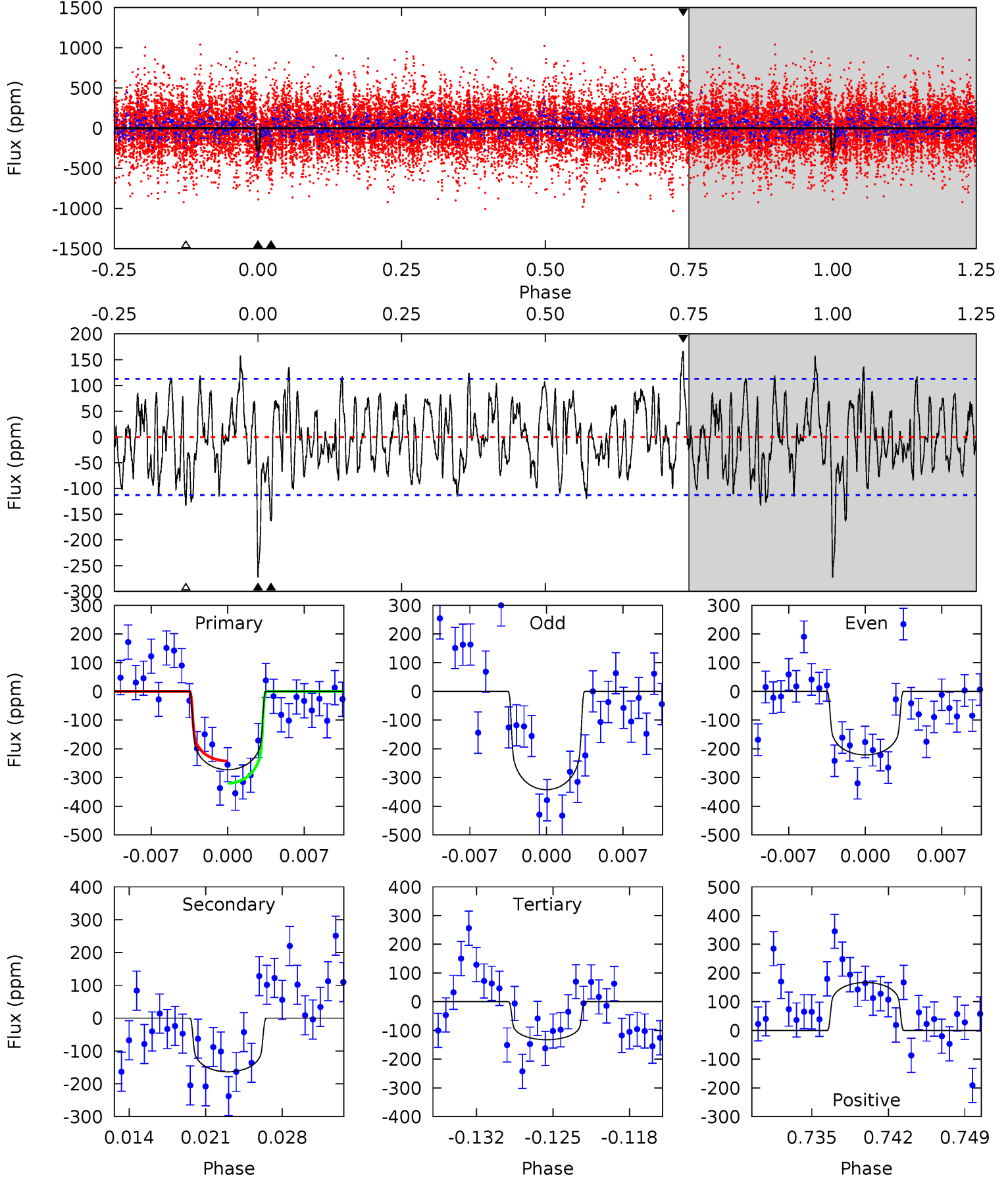
TCE 010918691-05 $P=105.832218$ Days $T_0=155.495874$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-05, P = 105.839234 Days, E = 49.595894 Days

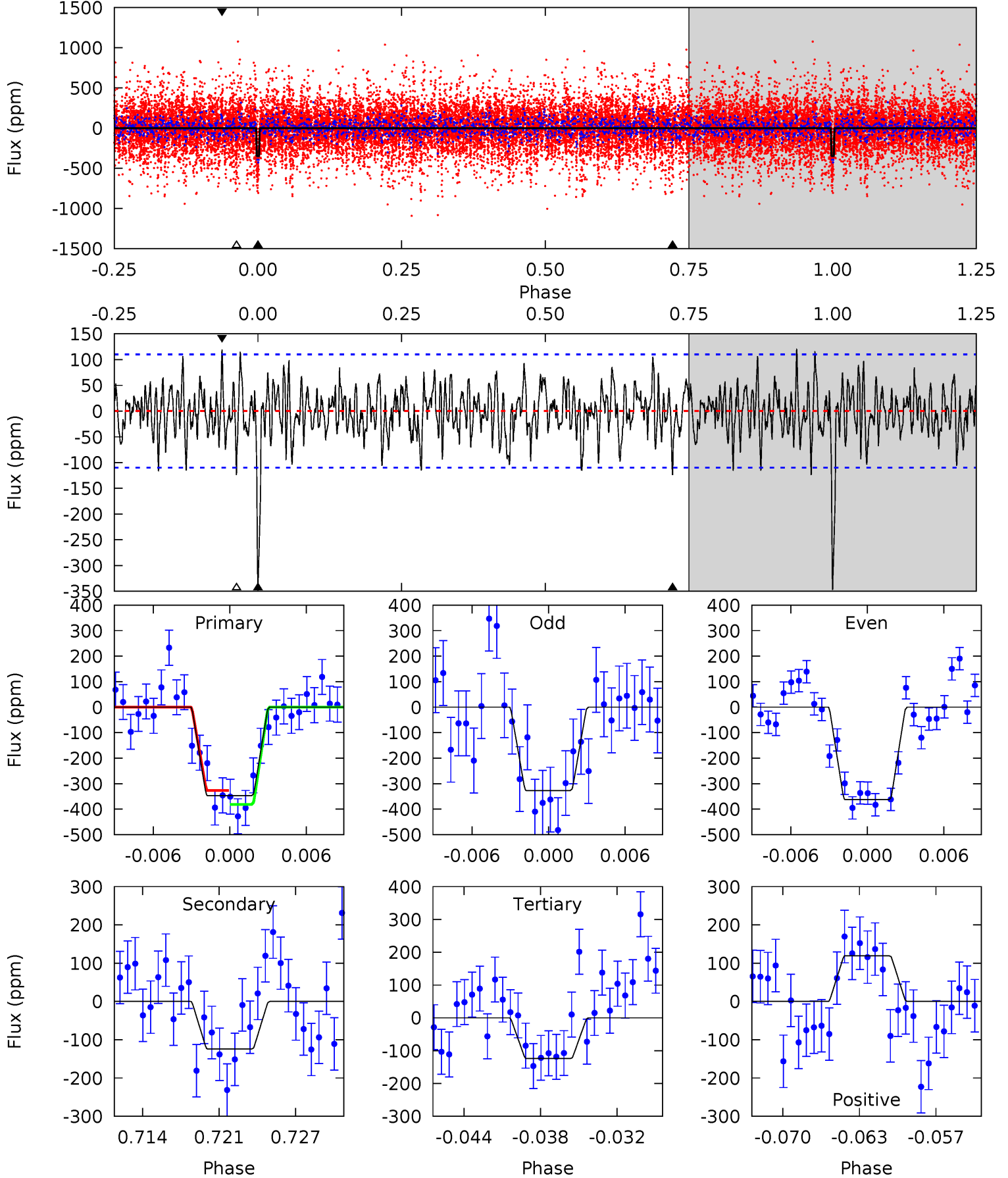
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	7.39	5.98	7.54	5.10	2.70	2.50	6.35	4.78	1.41	-0.16	2.71	0.81	0.38	1.74



Alt Model-Shift Uniqueness Test

010918691-05, $P = 105.832218$ Days, $E = 49.663656$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	5.78	5.78	5.57	5.11	2.73	1.88	10.4	10.6	0.01	0.22	0.81	0.95	0.26	1.27



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-163 ± 22	$2.27^{+0.69}_{-0.55}$	600^{+47}_{-43}	5079^{+579}_{-417}	3310^{+2383}_{-1335}
Alt.	-124 ± 21	$2.43^{+0.63}_{-0.54}$	600^{+46}_{-41}	4663^{+489}_{-352}	2121^{+1478}_{-794}

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 $A_{obs} \gg 1.0$

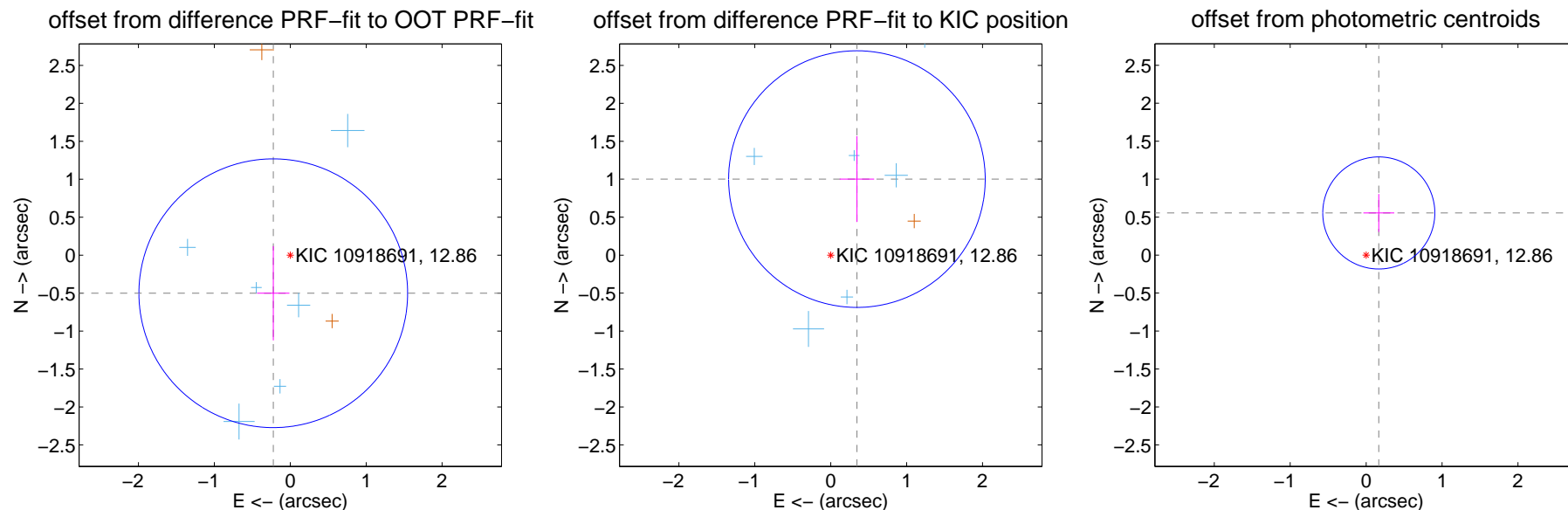
DV Centroid Data

Supplemental centroid analysis for 010918691-05. Kepler magnitude: 12.86. Transit SNR 8.35

There are 6 quarters with good PRF difference image offsets

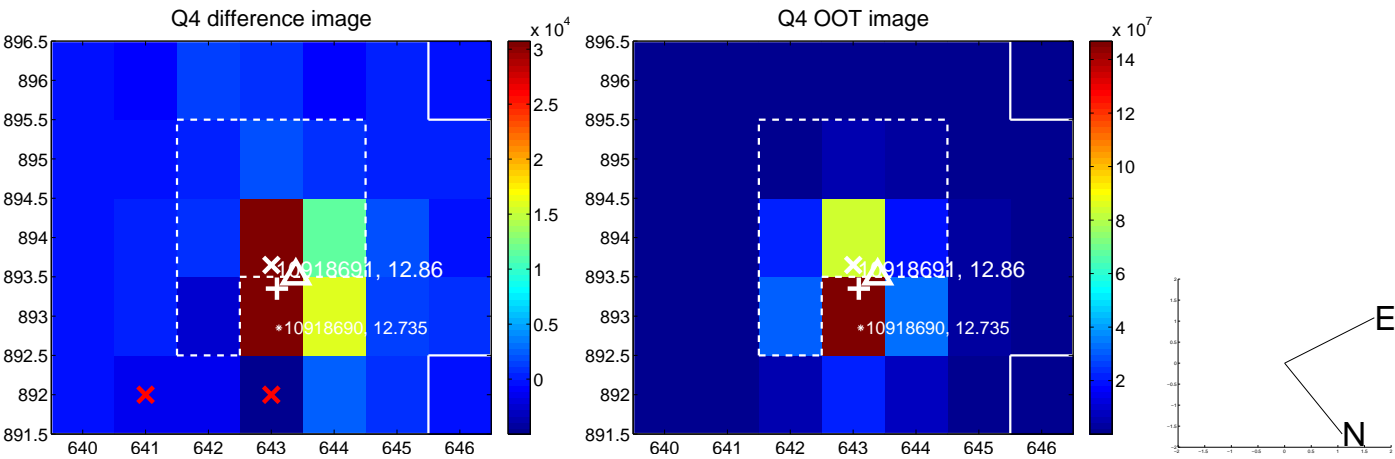
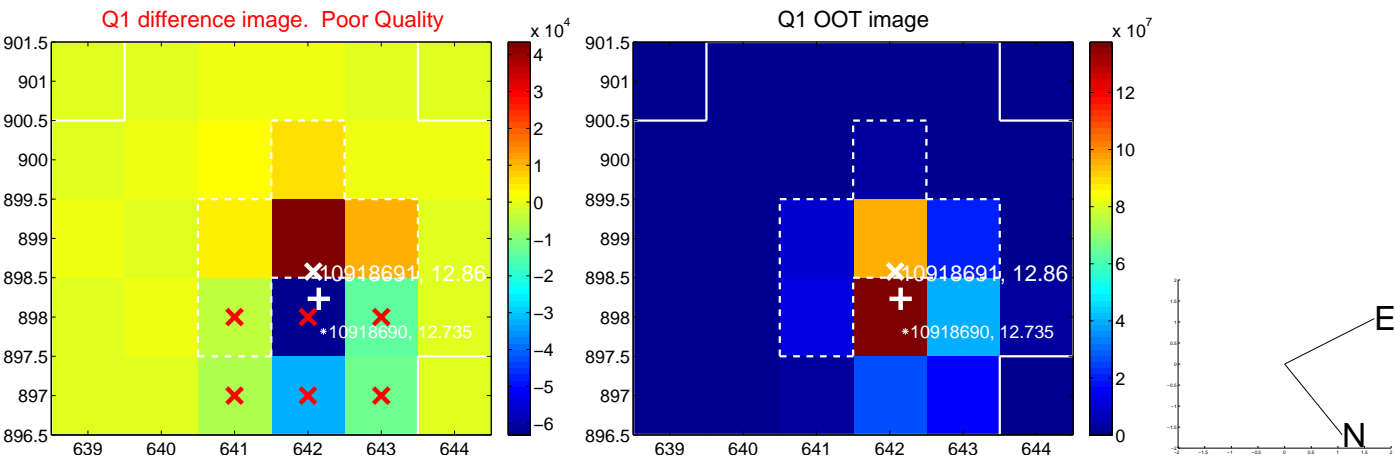
The direct PRF centroid is offset from the target star catalog position by about 1.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.549 ± 0.590	0.93	0.224 ± 0.213	-0.502 ± 0.621
PRF-fit source offset from KIC position	1.060 ± 0.564	1.88	-0.345 ± 0.227	1.002 ± 0.566
photometric centroid source offset	0.58 ± 0.25	2.36	-0.17 ± 0.20	0.55 ± 0.25

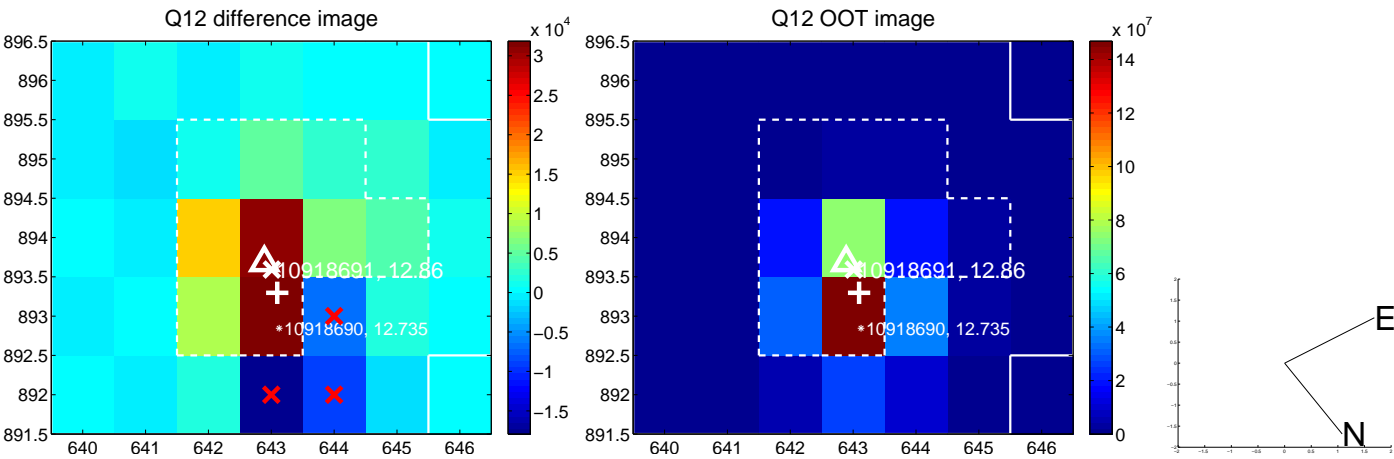
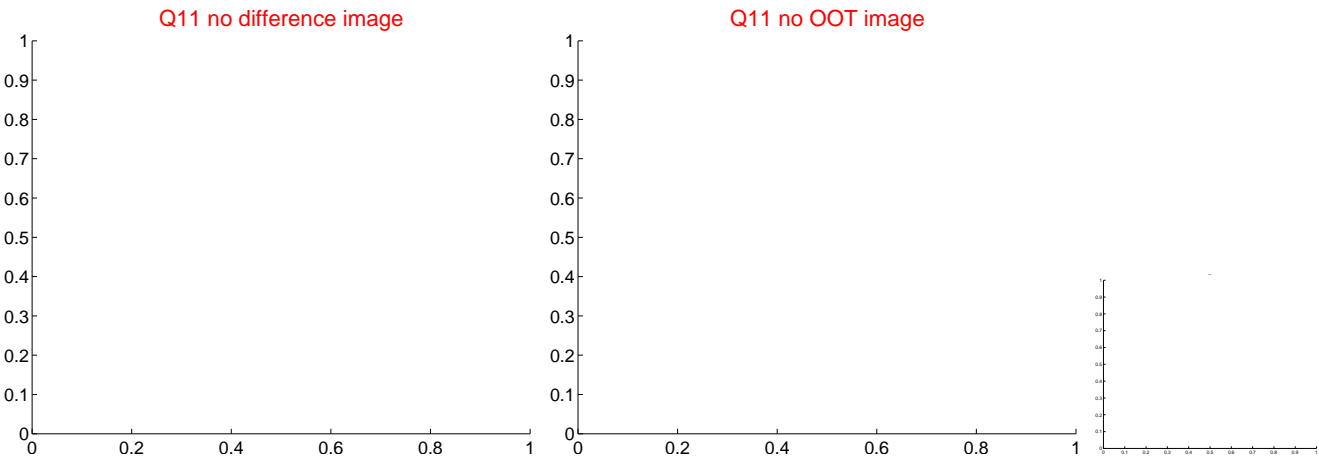
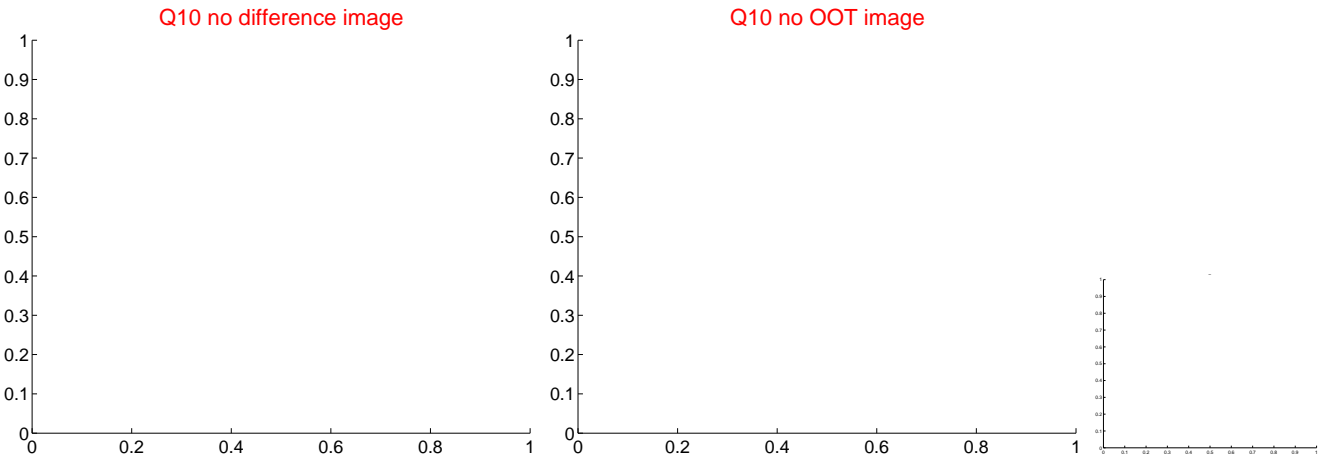
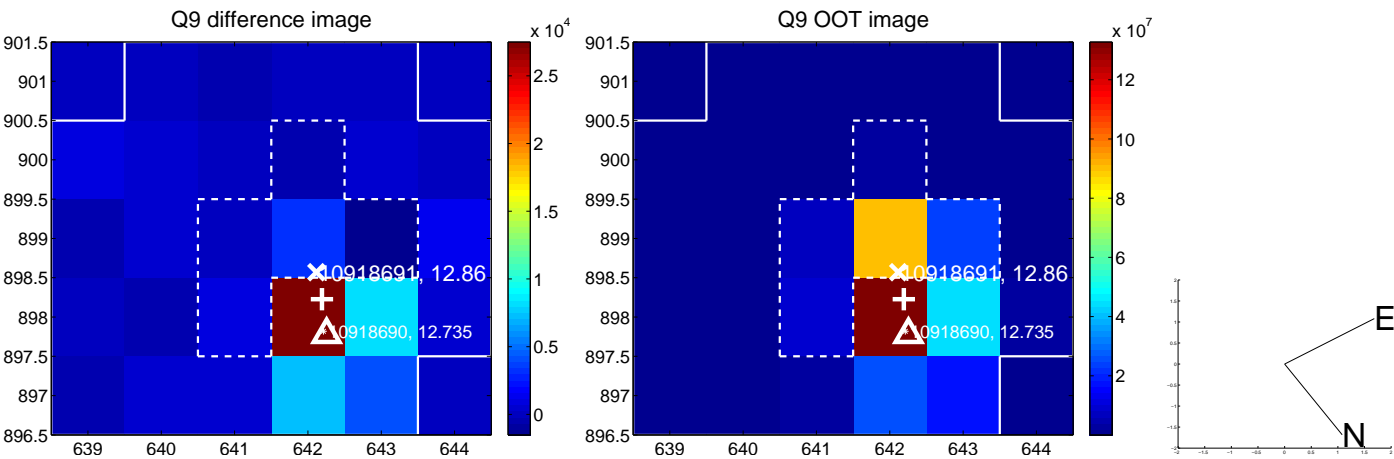


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

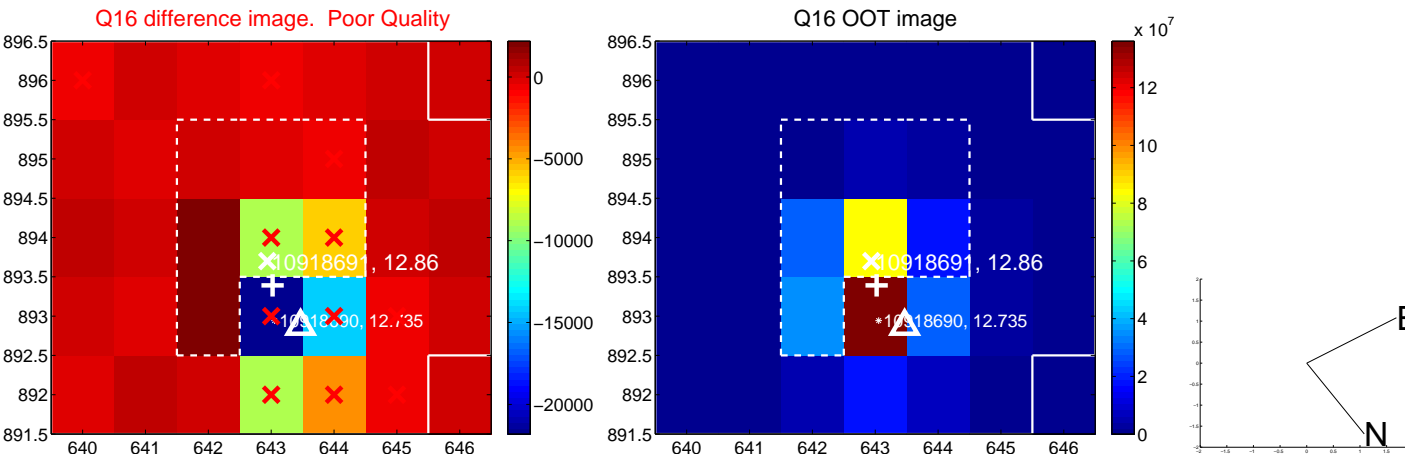
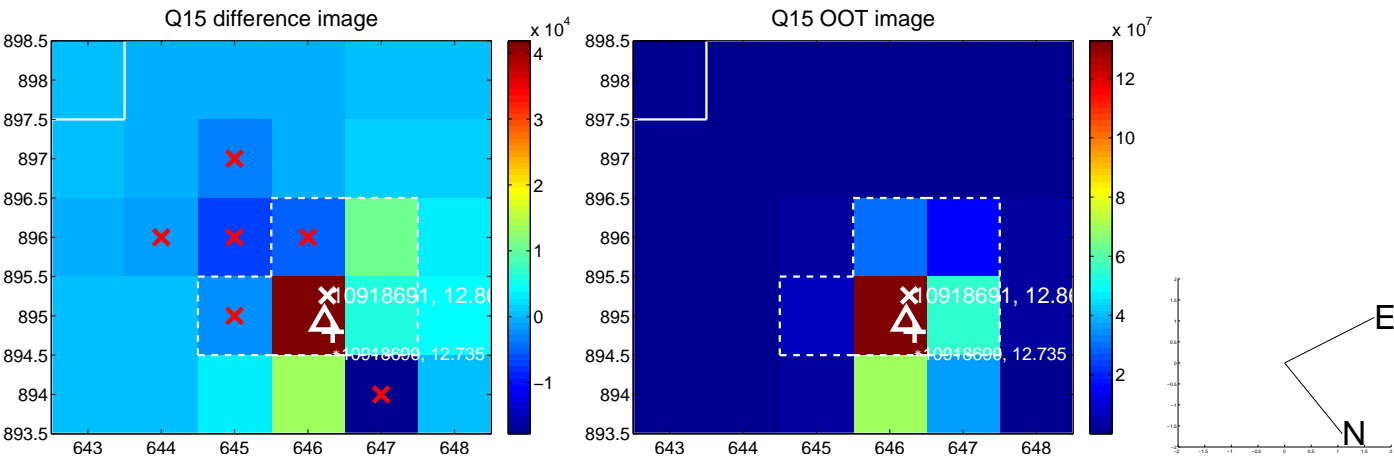
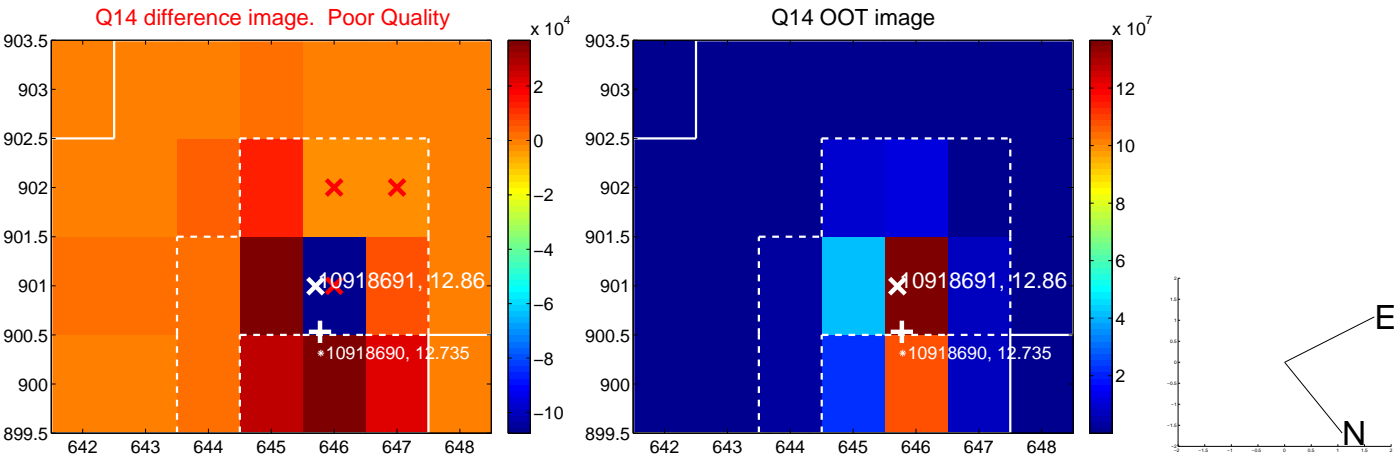
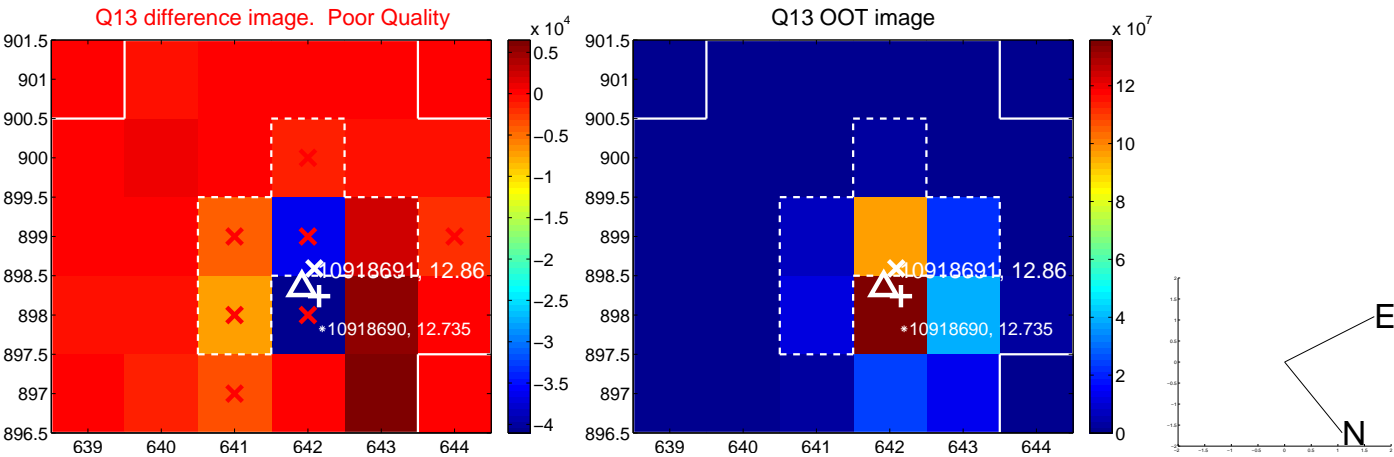
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



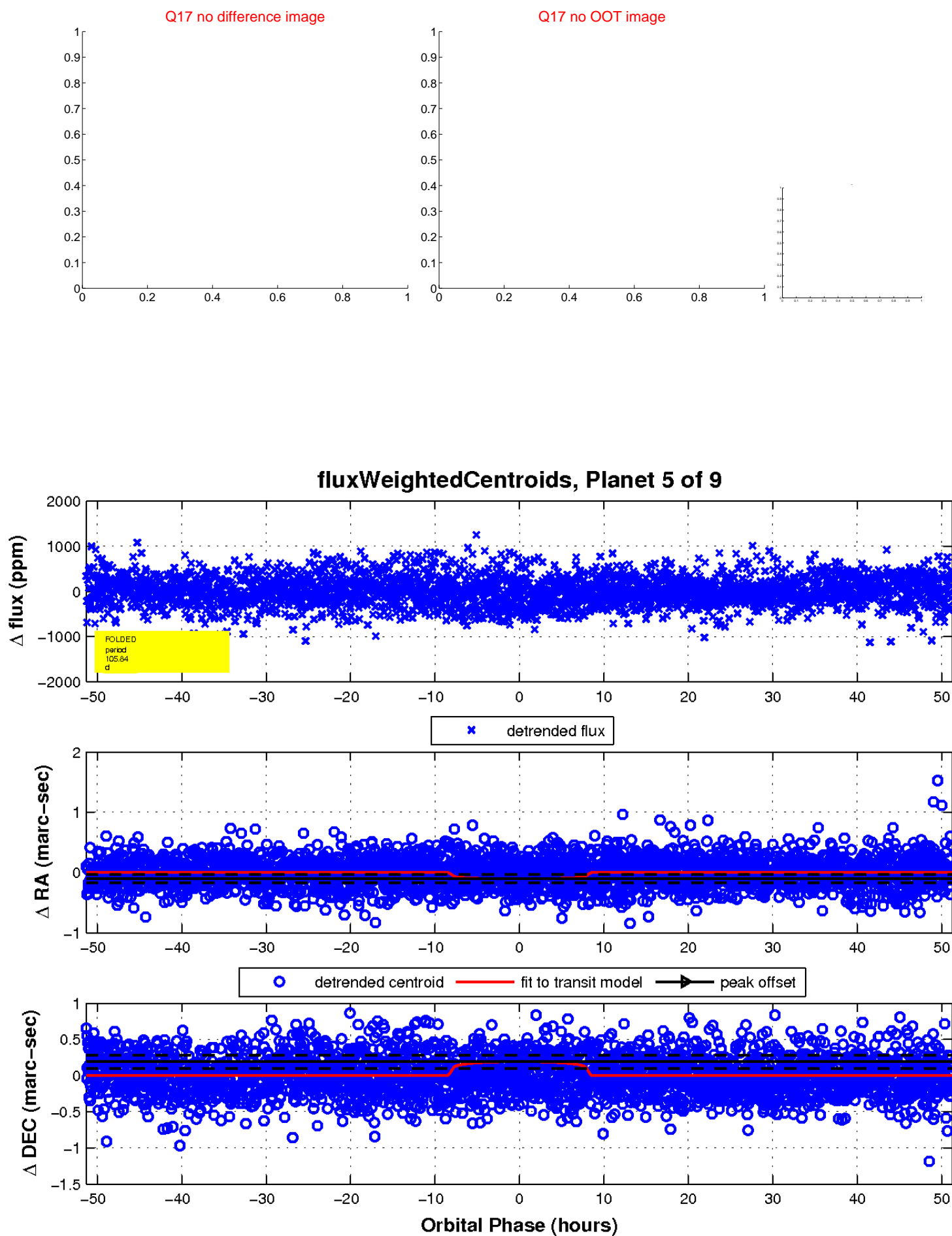
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

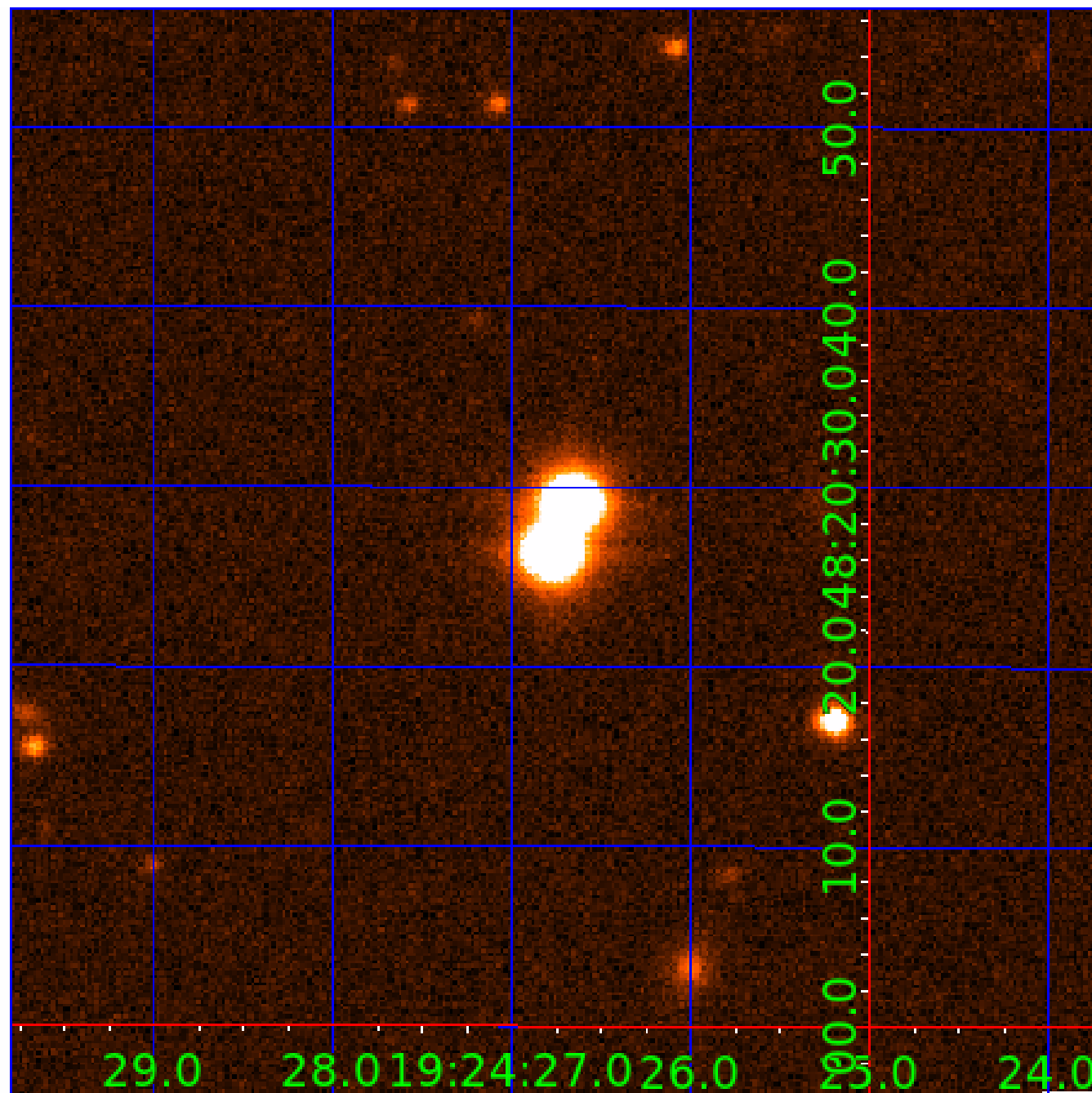


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

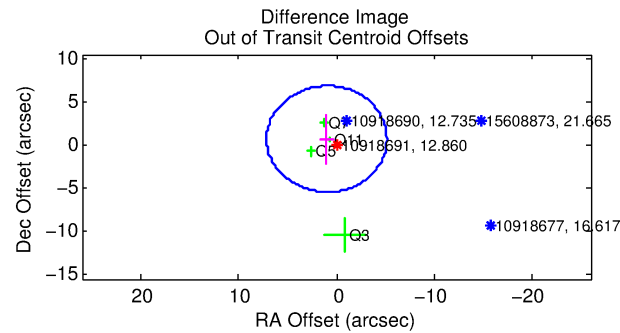
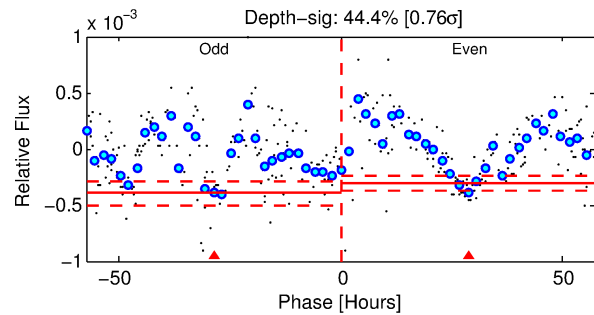
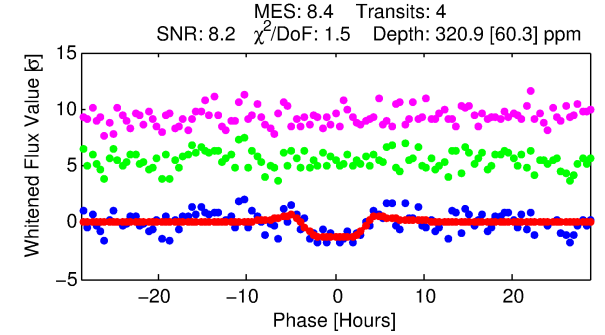
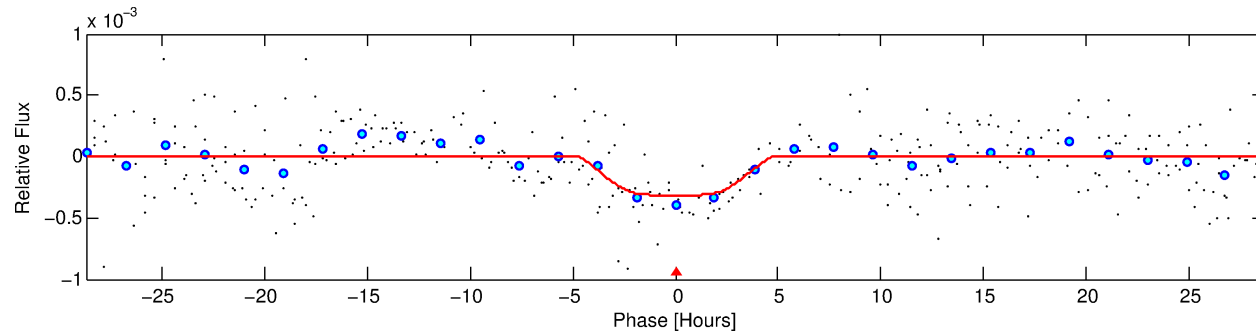
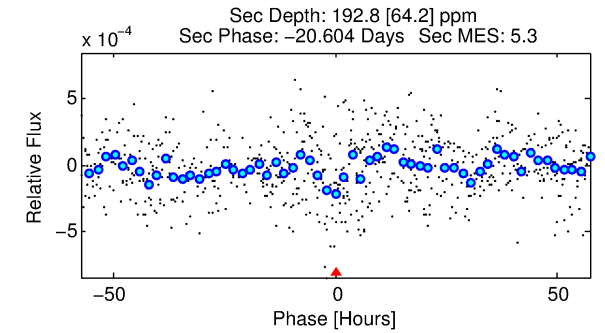
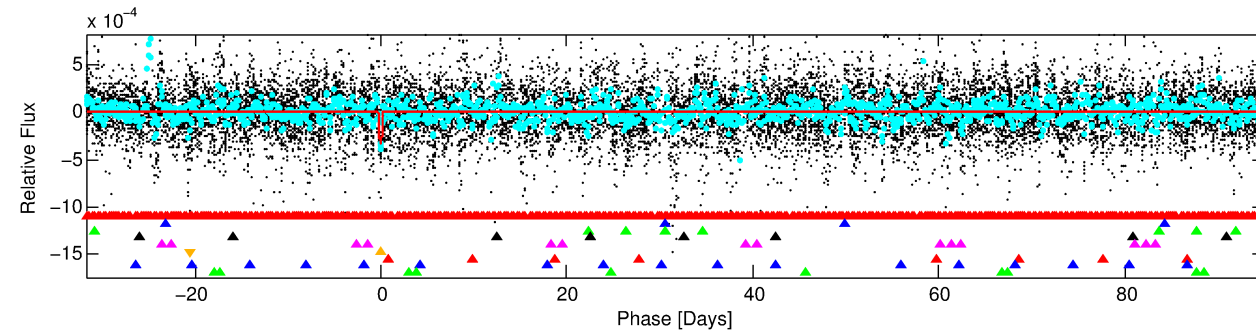
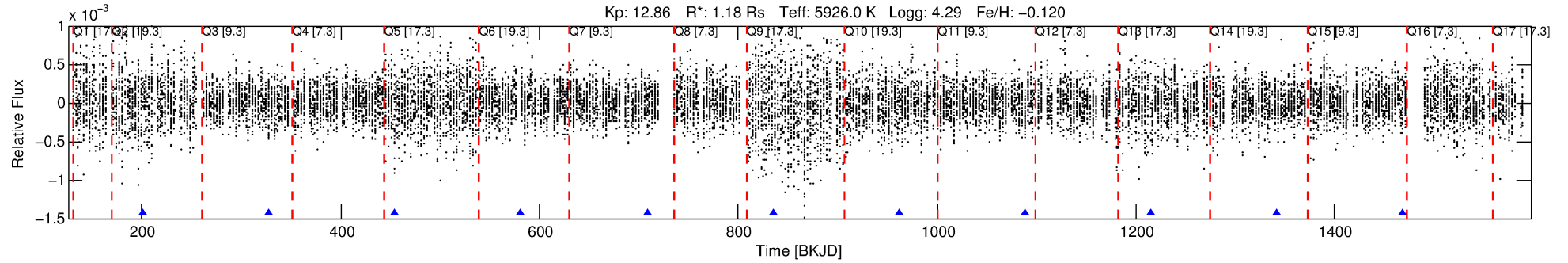
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-06

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 6 of 9 Period: 126.778 d



DV Fit Results:

Period = 126.77781 [0.00493] d
Epoch = 201.1059 [0.0259] BKJD
Rp/R* = 0.0216 [0.0025]
a/R* = 32.39 [7.98]
b = 0.97 [0.02]
Seff = 6.36 [2.37]
Teff = 405 [38] K
Rp = 2.78 [0.88] Re
a = 0.4902 [0.1191] AU
Ag = 3306.78 [1766.58] [1.87 σ]
Teffp = 4748 [511] K [8.48 σ]

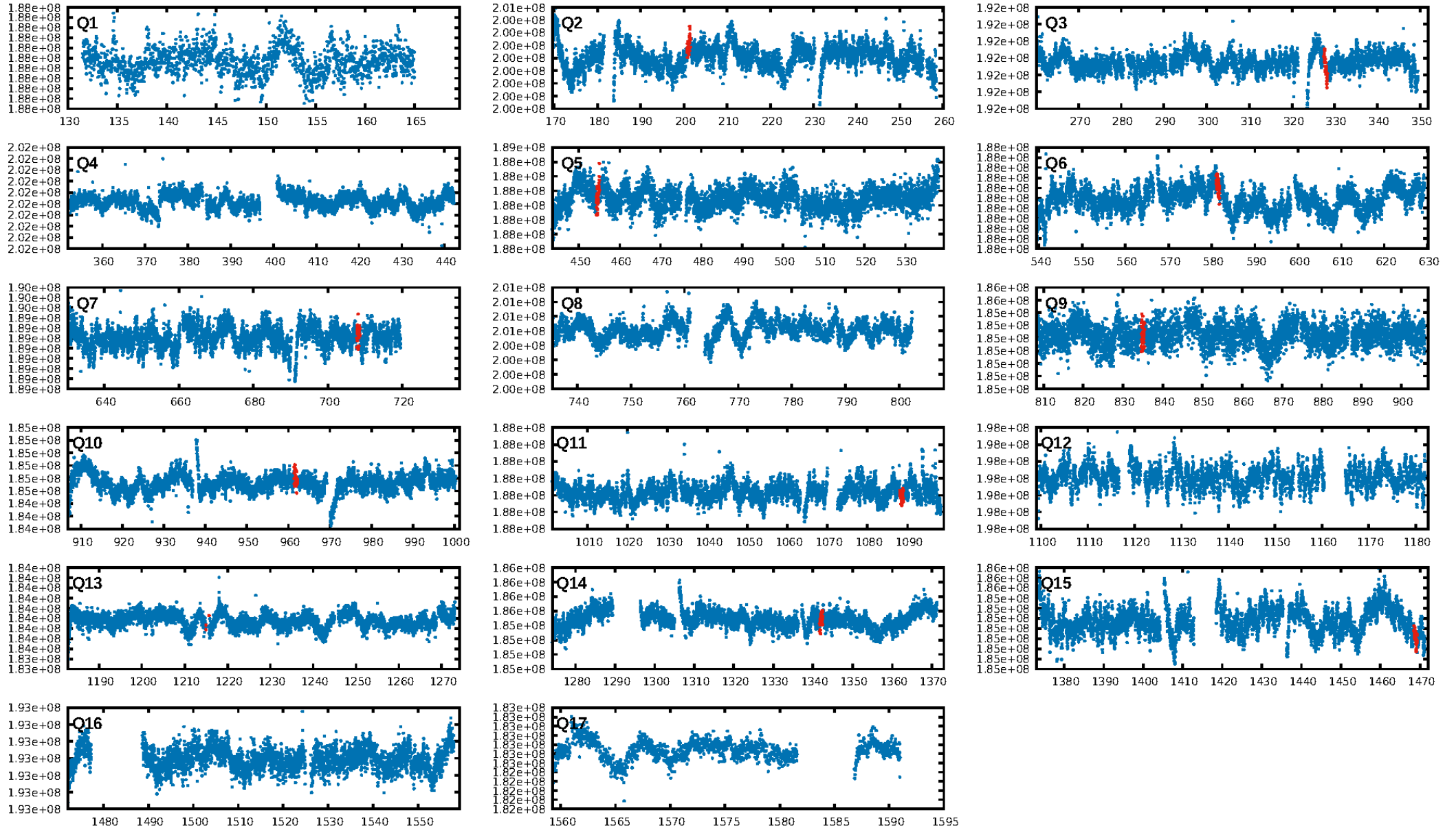
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.64 σ]
LongPeriod-sig: 100.0% [50.26 σ]
ModelChiSquare2-sig: 32.1%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -5.456
Centroid-sig: 80.7%
Centroid-so: 1.346 arcsec [4.11 σ]
OotOffset-rm: 1.207 arcsec [0.59 σ]
KicOffset-rm: 2.403 arcsec [1.15 σ]
OotOffset-st: 0/3/0/1 [4]
KicOffset-st: 0/3/0/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.30 [3/10]

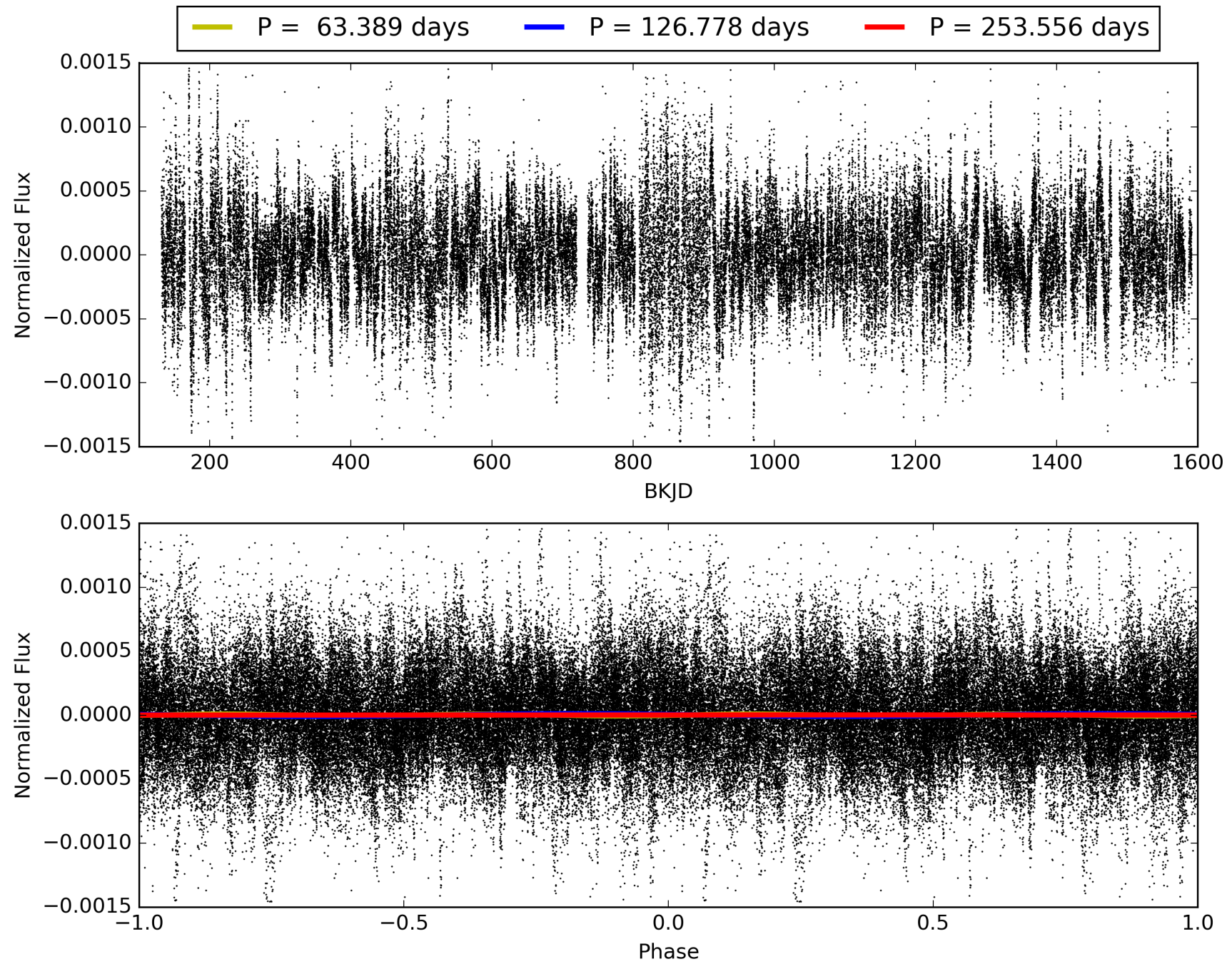
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:16:27 Z

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

TCE 010918691-06, PDC Light Curves

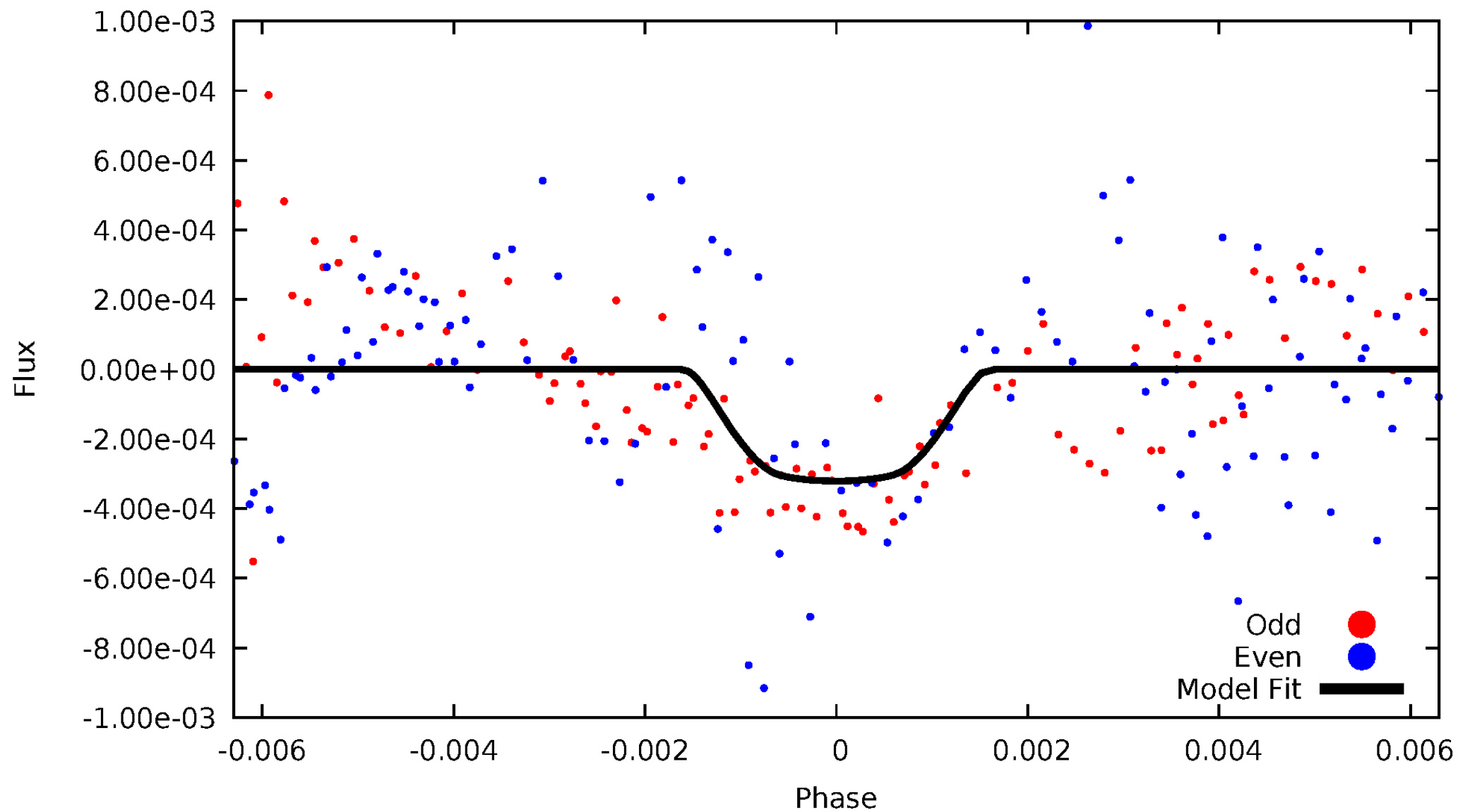


TCE 010918691-06



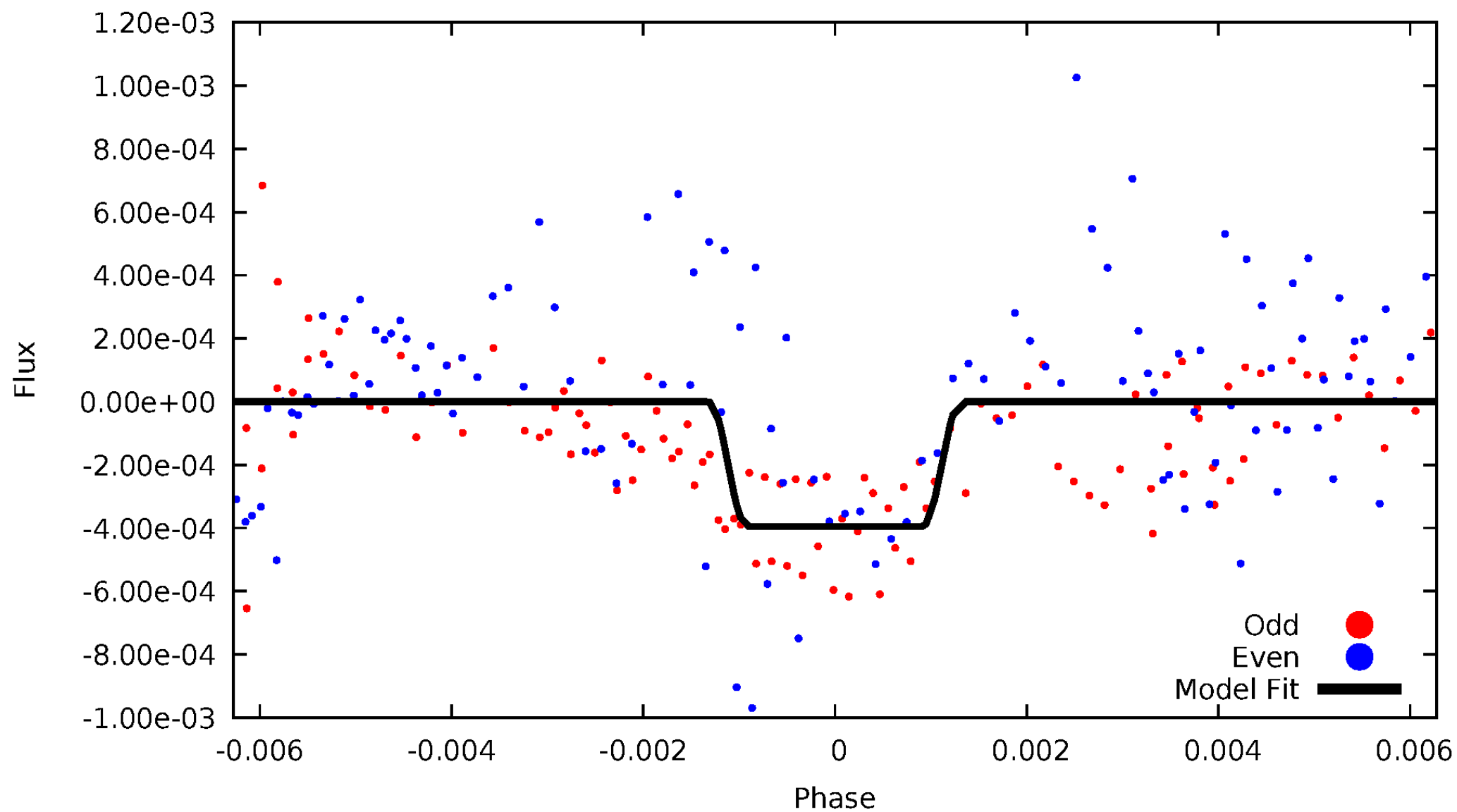
DV Odd/Even

TCE 010918691-06



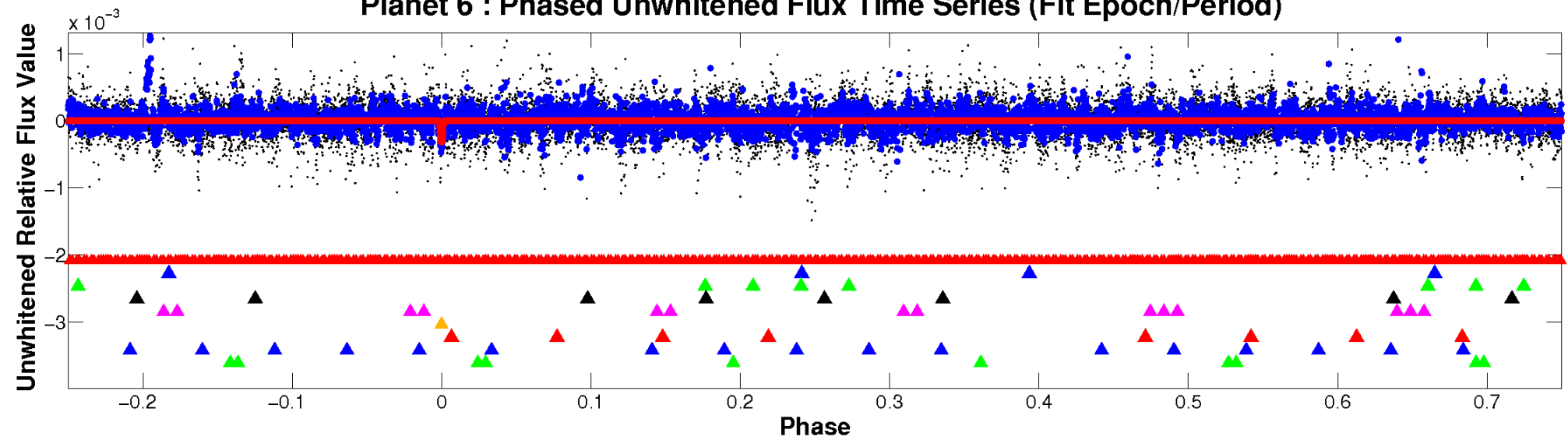
ALT Odd/Even

TCE 010918691-06

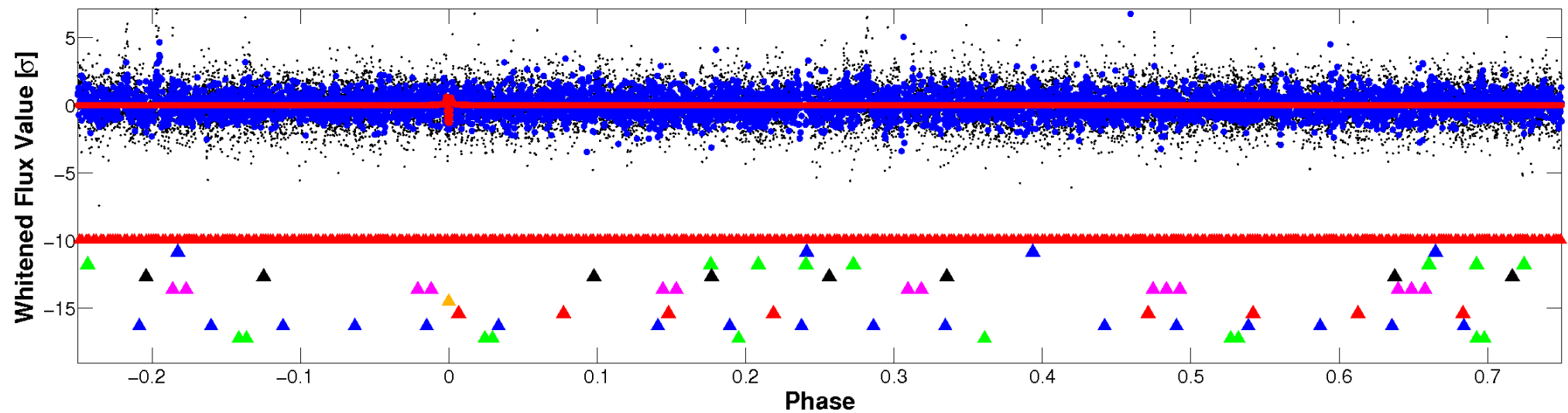


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

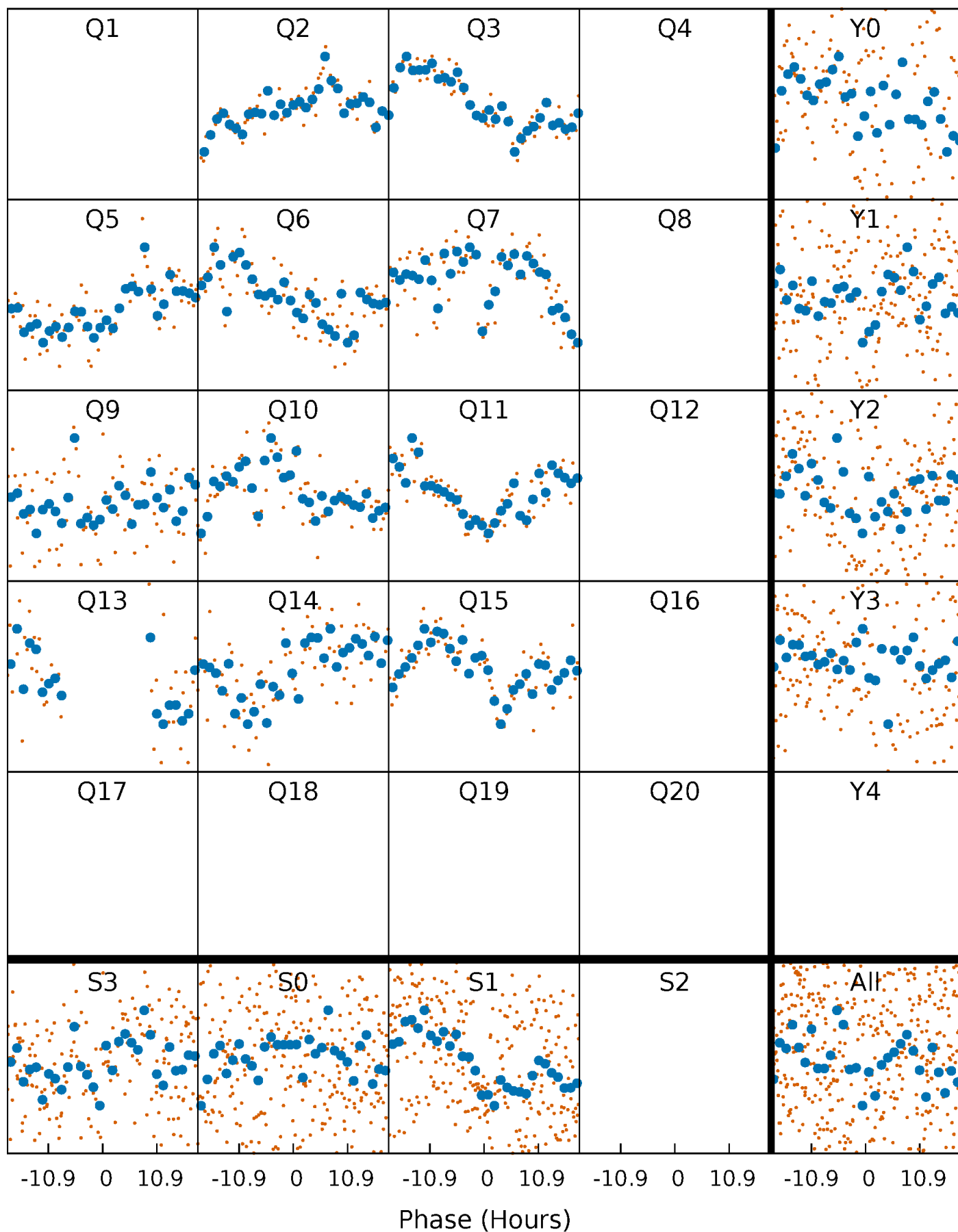


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



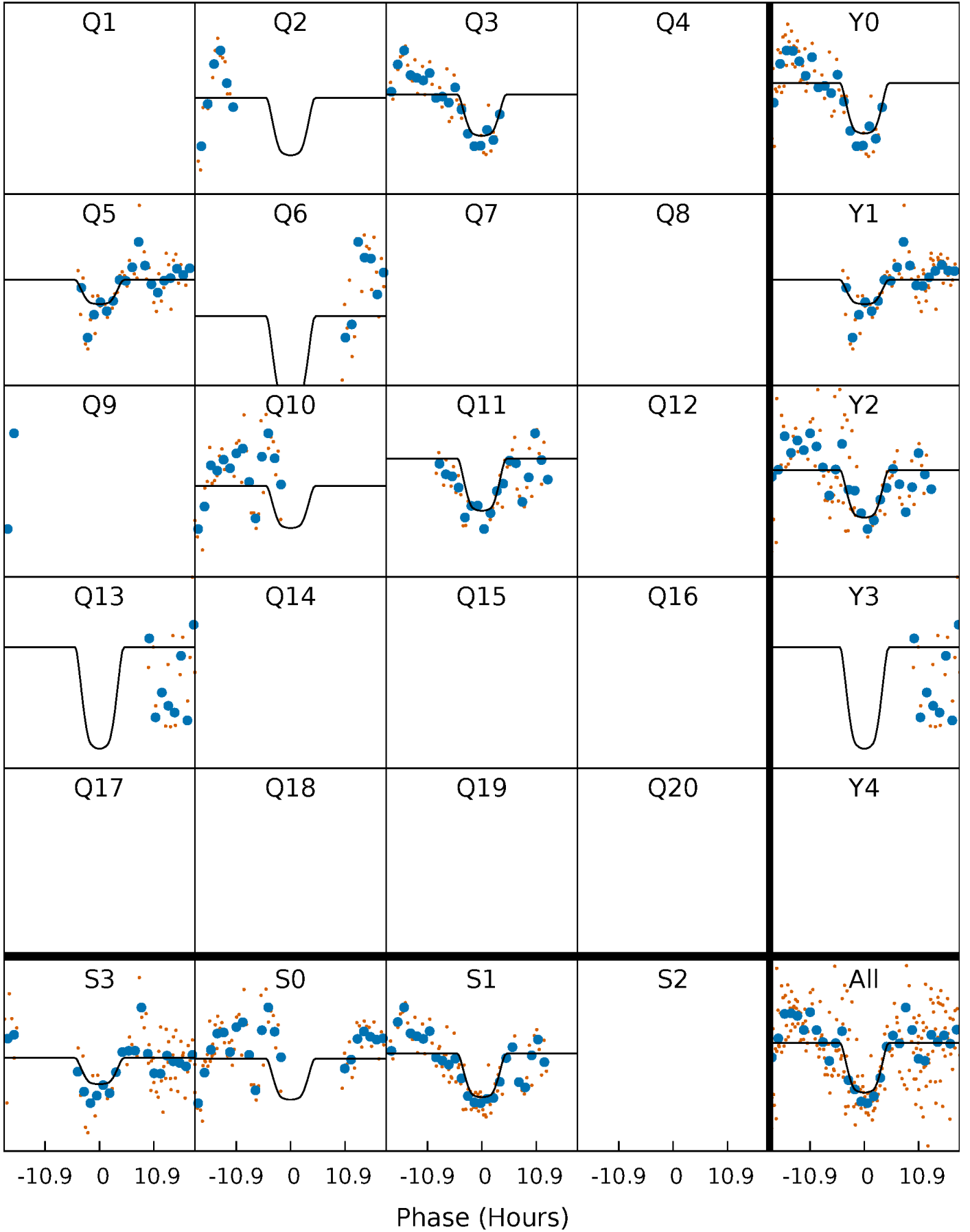
PDC Quarter-Phased Transit Curves

TCE 010918691-06 P=126.777807 Days $T_0=201.105887$ (BKJD)



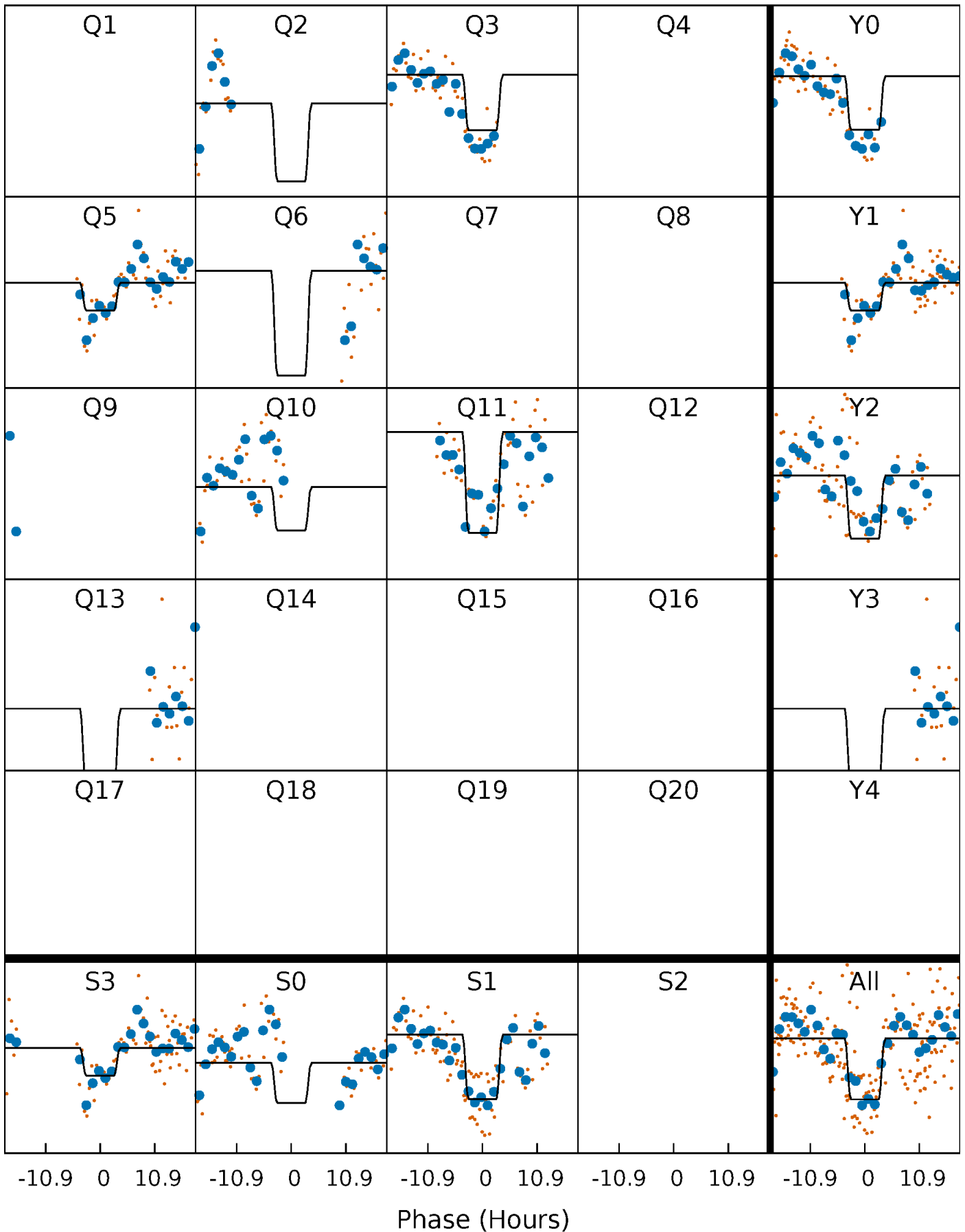
DV Quarter-Phased Transit Curves

TCE 010918691-06 P=126.777807 Days $T_0=201.105887$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

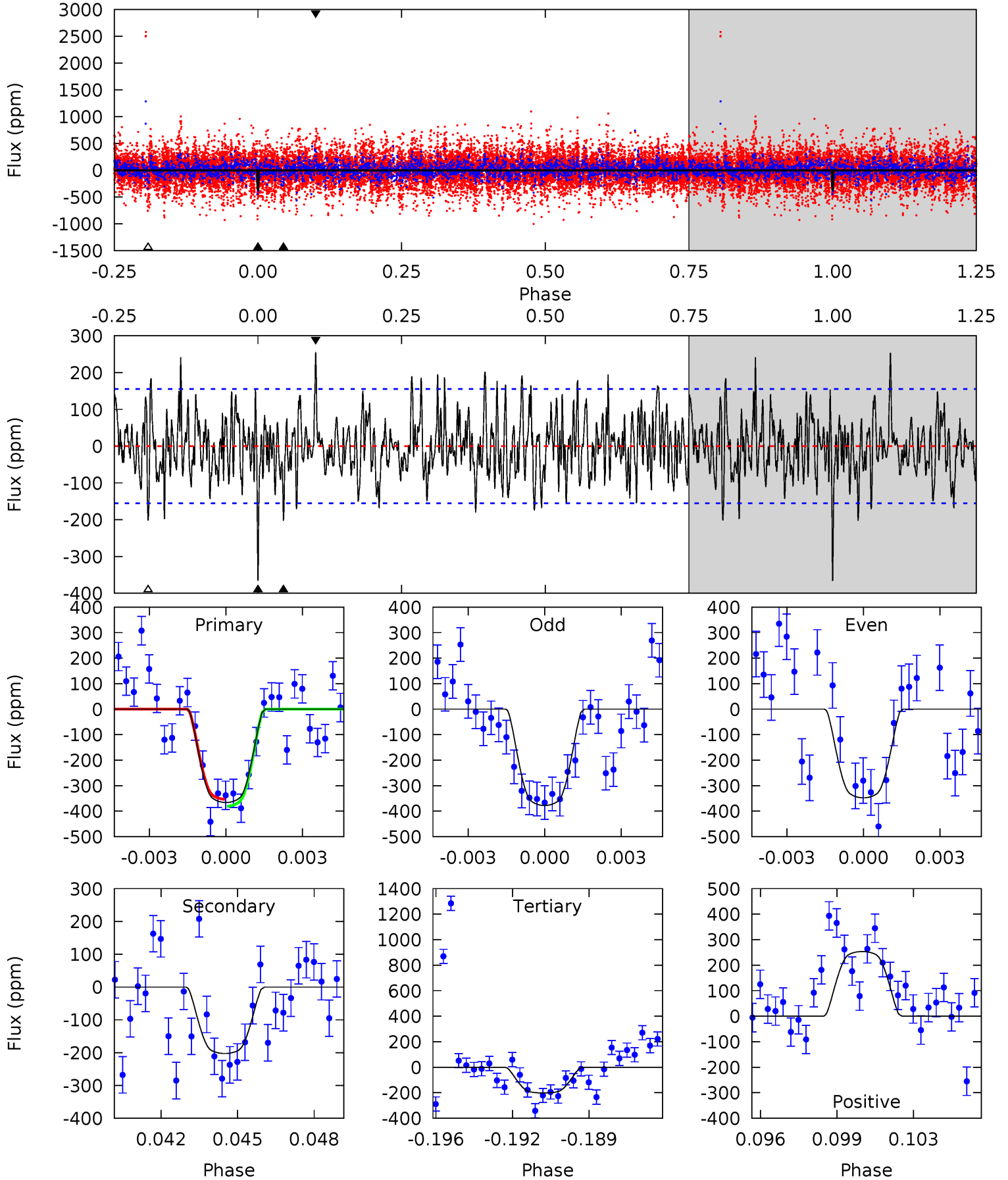
TCE 010918691-06 P=126.774868 Days $T_0=201.125558$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-06, $P = 126.777807$ Days, $E = 74.328080$ Days

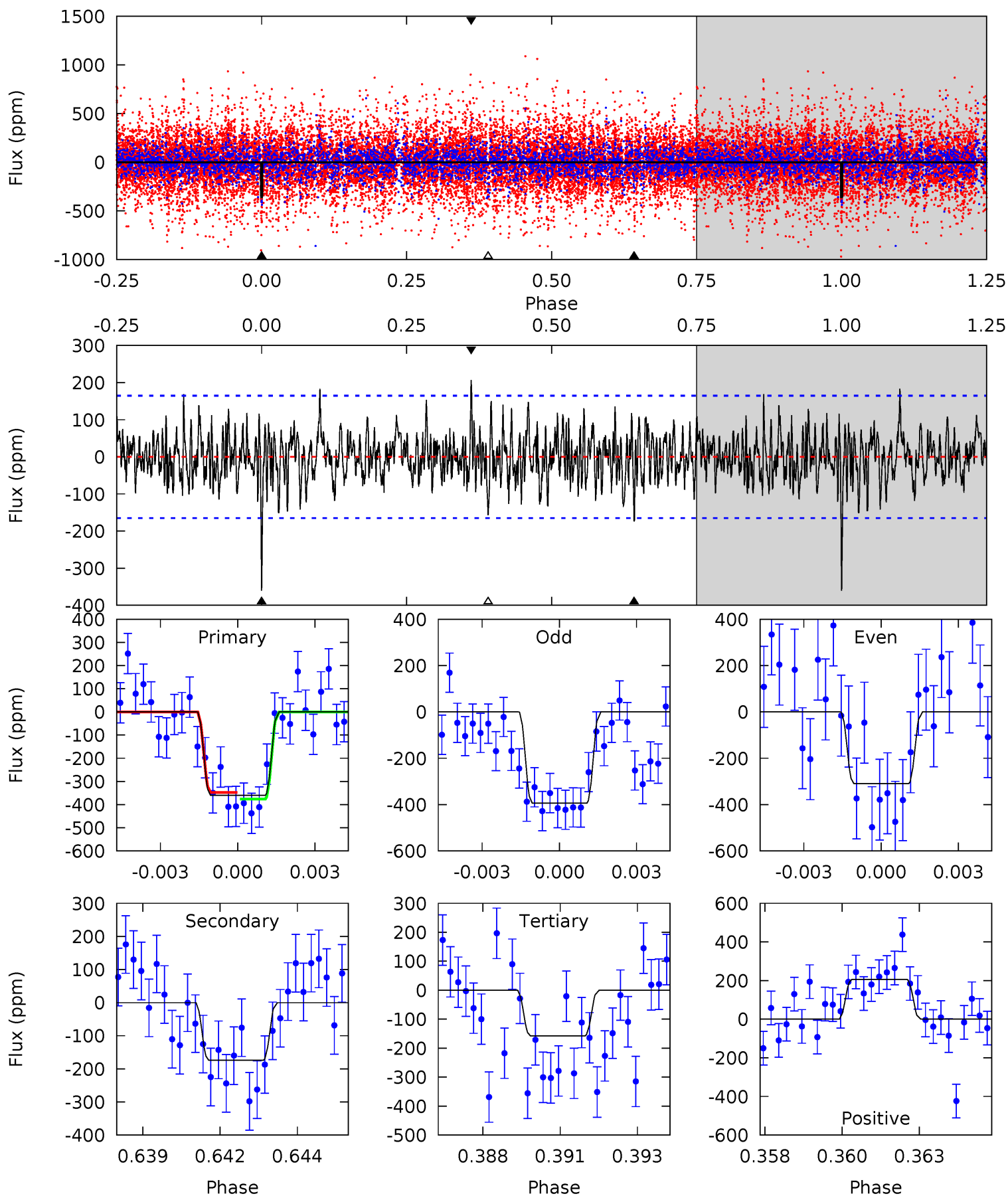
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	6.84	6.82	8.56	5.24	2.95	2.40	5.54	3.80	0.02	-1.72	0.47	0.74	0.41	0.46



Alt Model-Shift Uniqueness Test

010918691-06, P = 126.774868 Days, E = 74.350690 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	5.58	5.04	6.62	5.28	3.02	1.69	6.51	4.93	0.54	-1.04	1.31	0.67	0.36	0.44



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-203 ± 30	$2.78^{+0.62}_{-0.45}$	567^{+50}_{-41}	4907^{+362}_{-287}	3522^{+1548}_{-1322}
Alt.	-174 ± 31	$2.53^{+0.58}_{-0.43}$	569^{+47}_{-44}	4930^{+364}_{-345}	3511^{+1698}_{-1227}

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

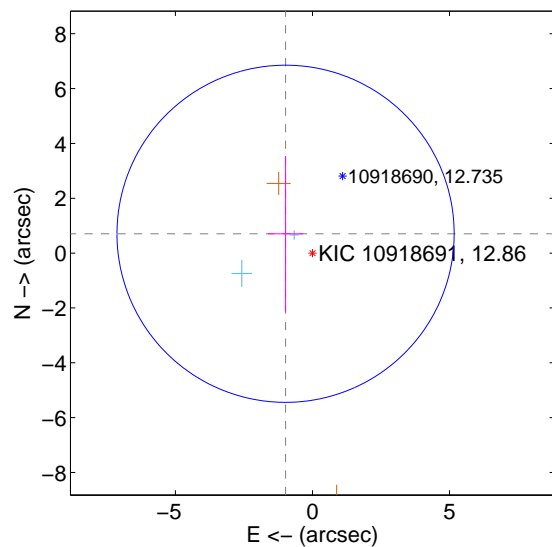
Supplemental centroid analysis for 010918691-06. Kepler magnitude: 12.86. Transit SNR 8.17

There are 2 quarters with good PRF difference image offsets

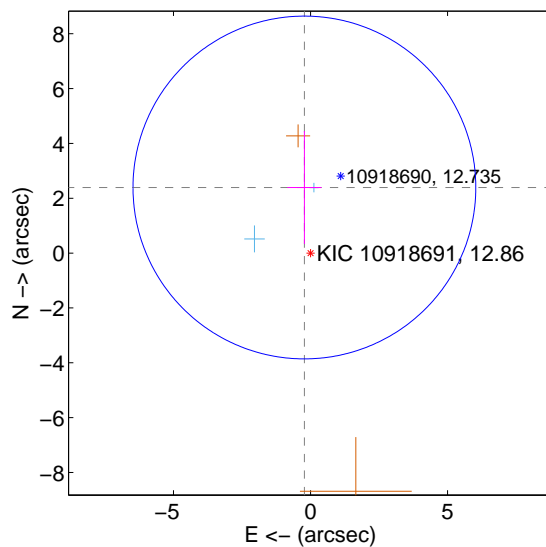
The direct PRF centroid is offset from the target star catalog position by about 1.90 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.207 ± 2.049	0.59	0.980 ± 0.644	0.705 ± 2.836
PRF-fit source offset from KIC position	2.403 ± 2.084	1.15	0.223 ± 0.624	2.393 ± 2.060
photometric centroid source offset	1.35 ± 0.33	4.11	-0.67 ± 0.28	1.17 ± 0.34

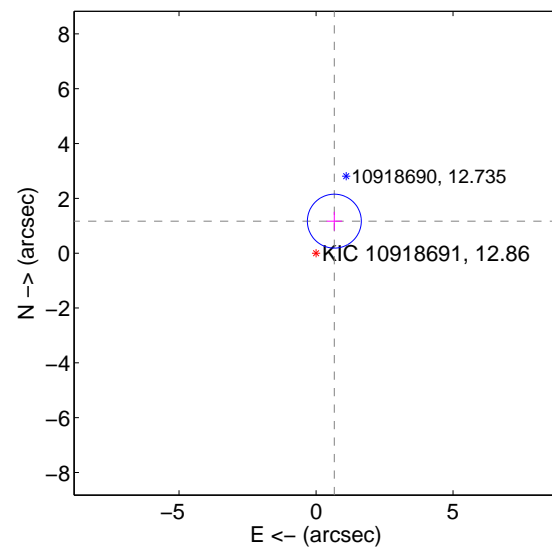
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

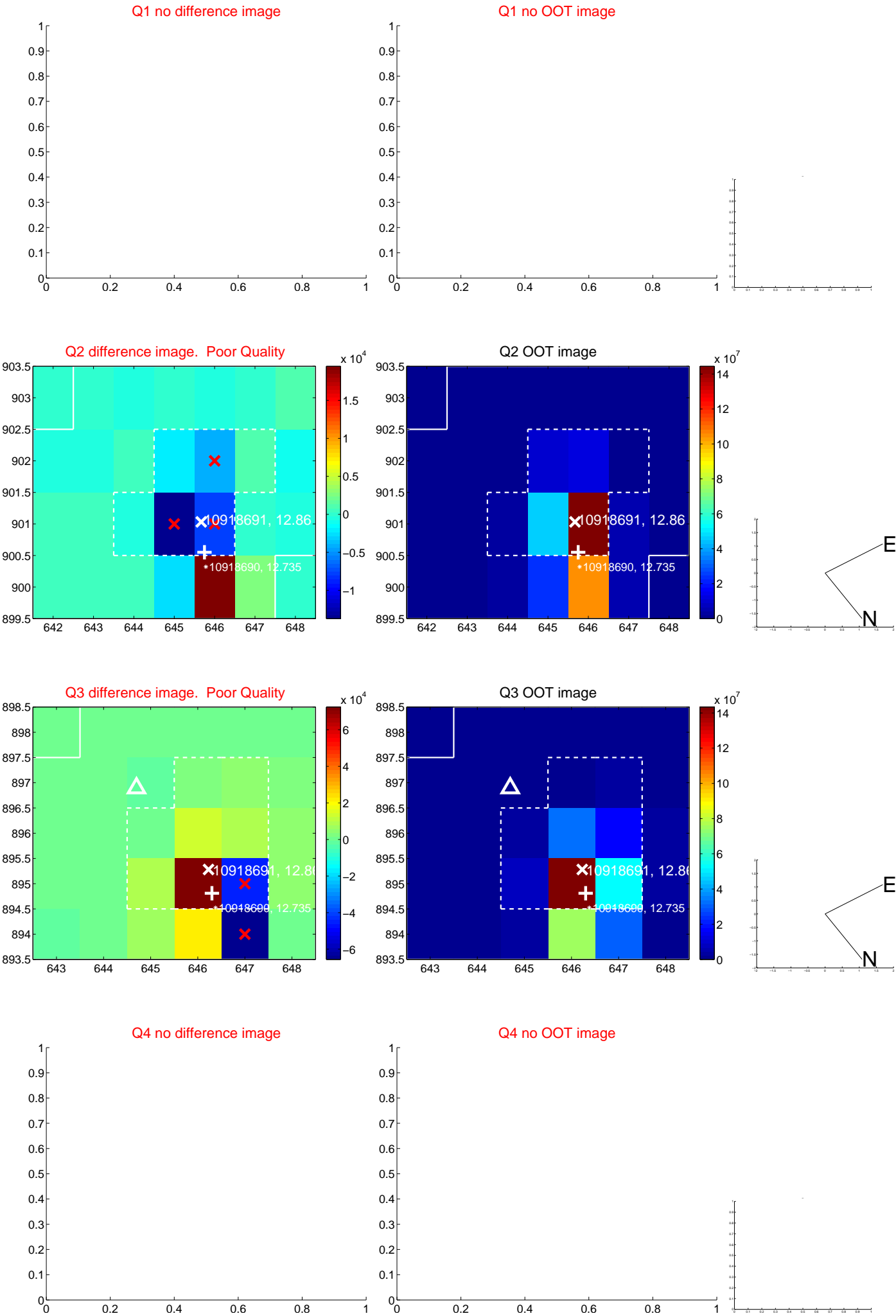


offset from photometric centroids

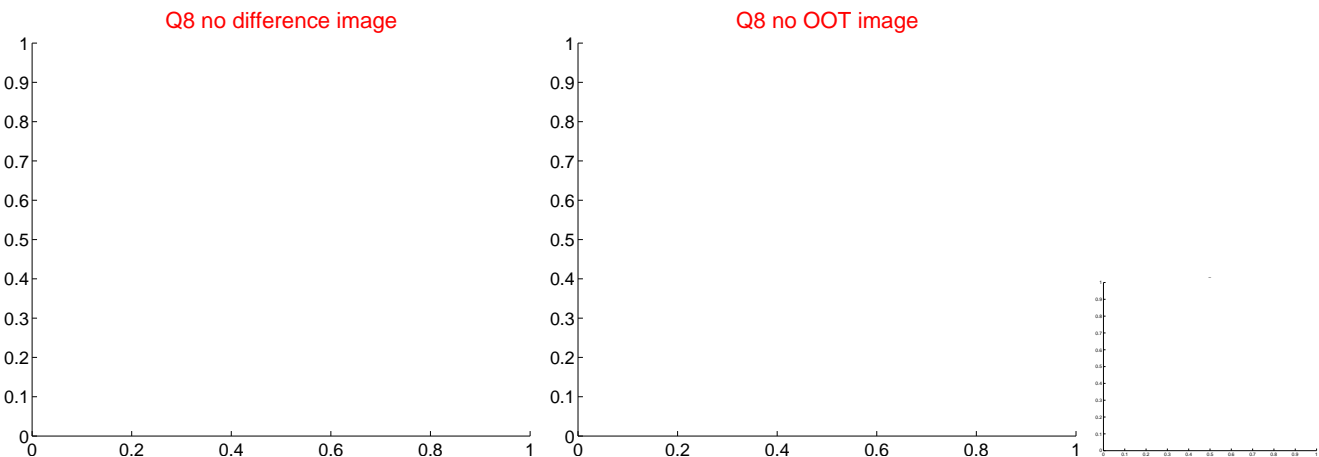
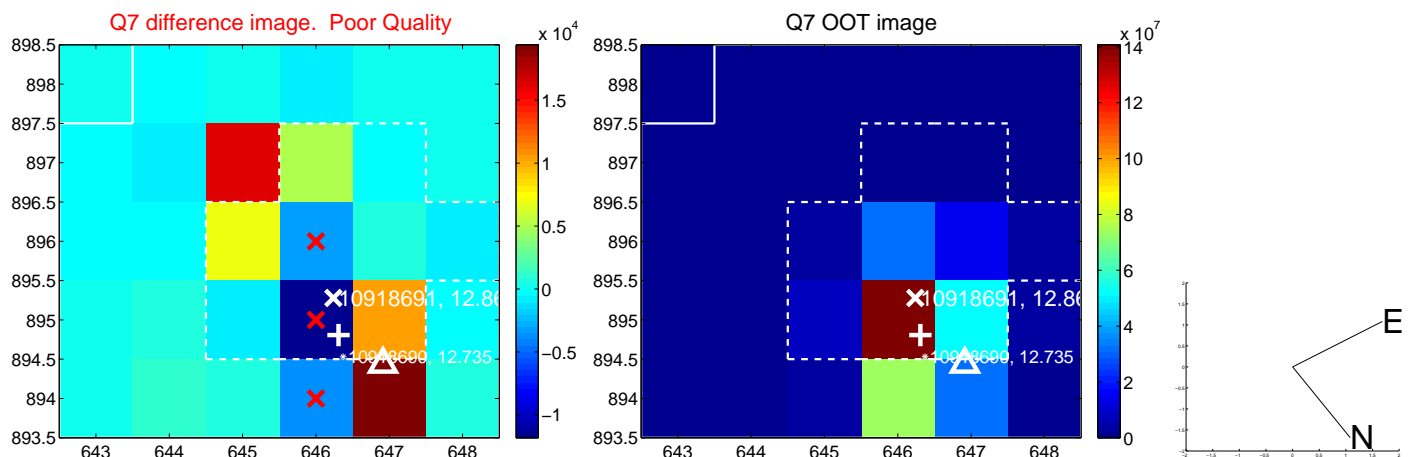
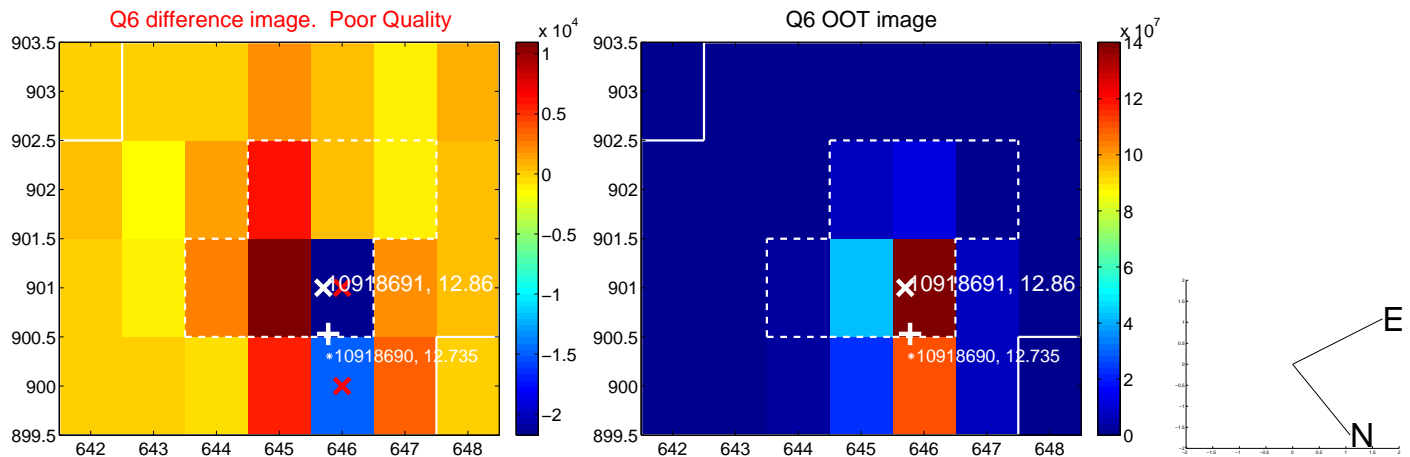
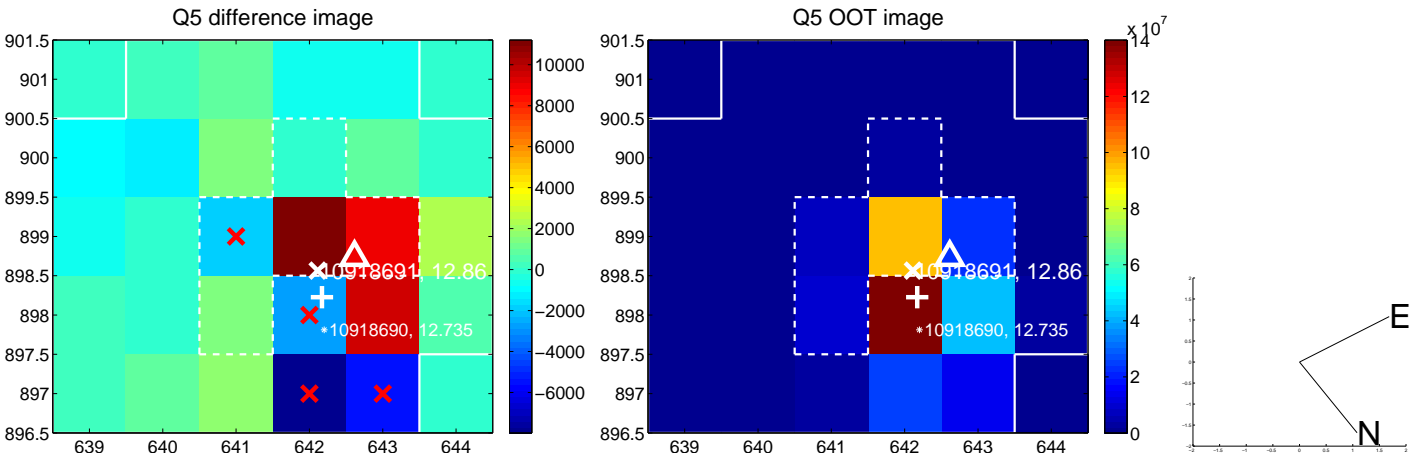


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

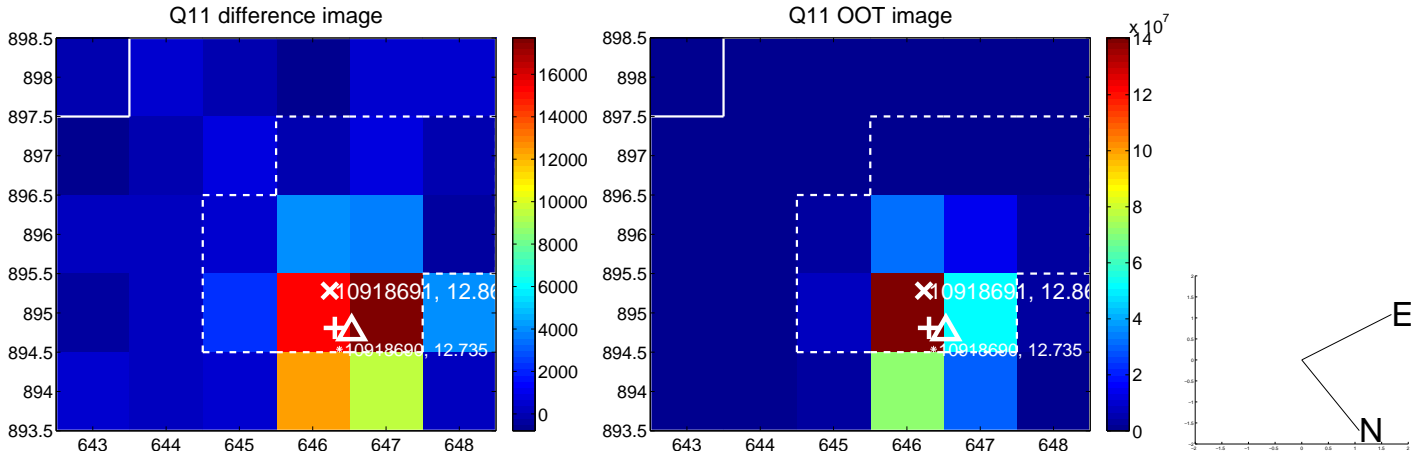
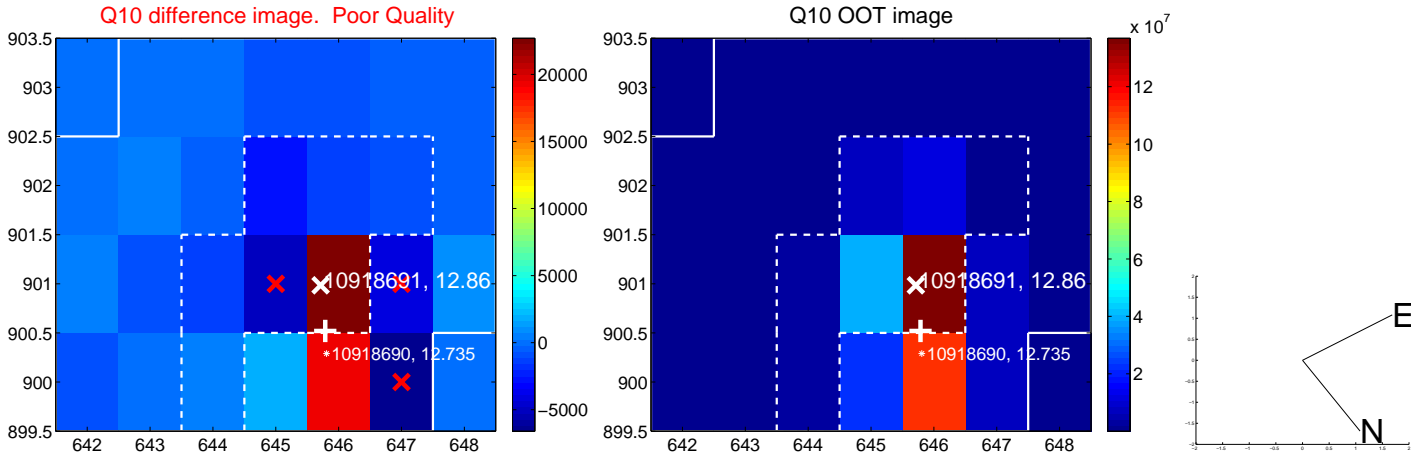
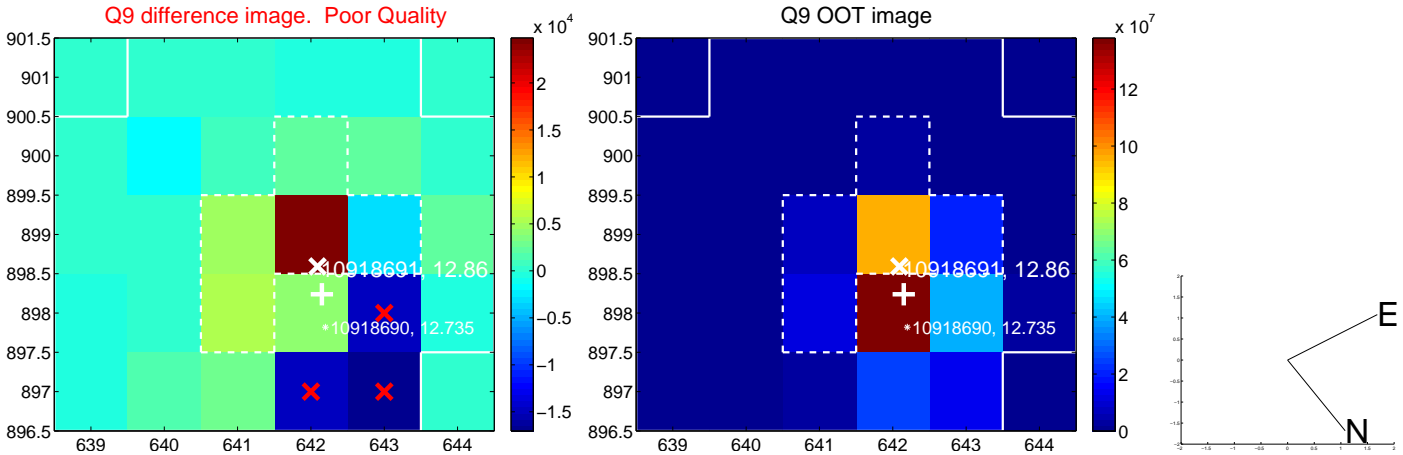
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



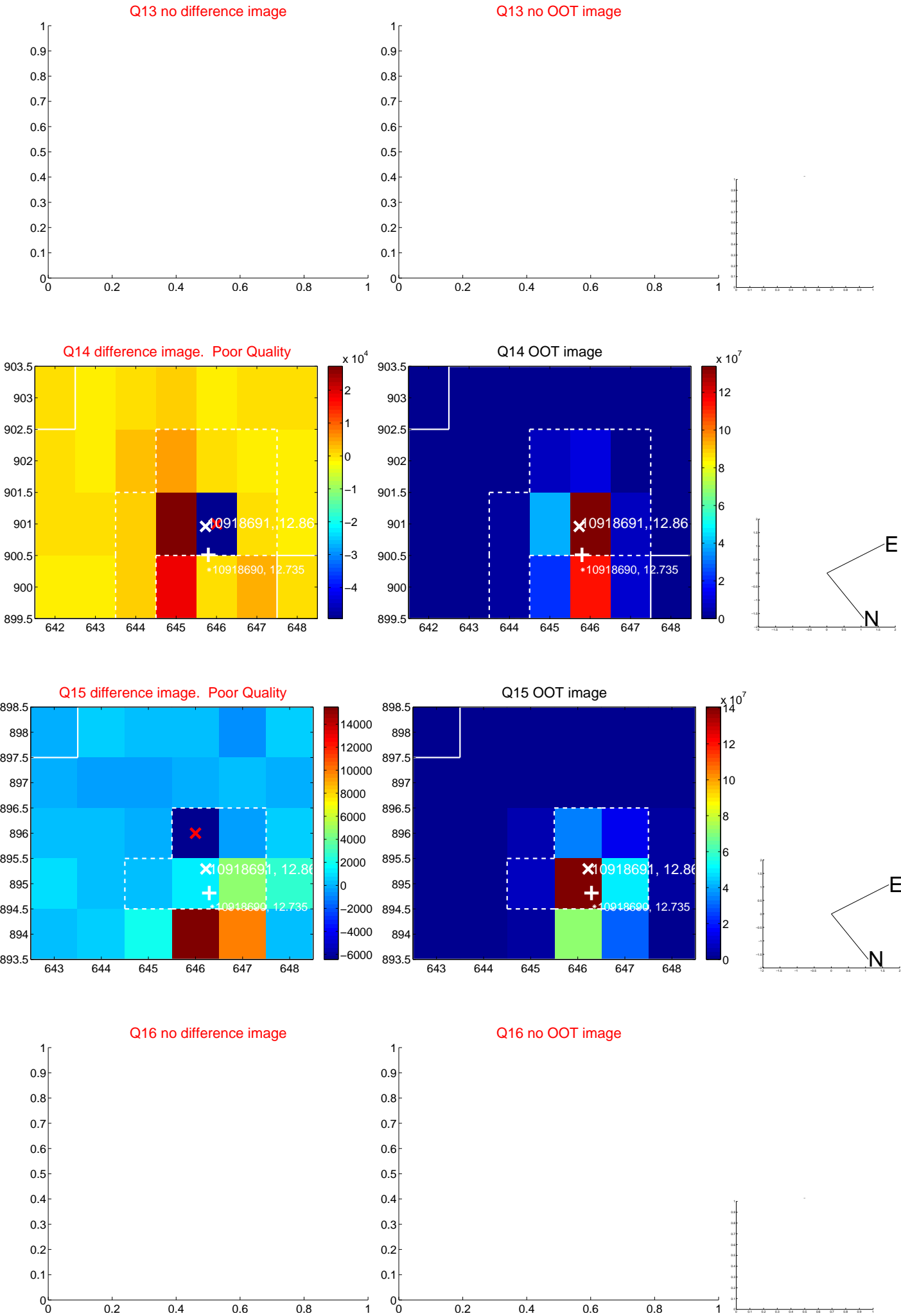
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



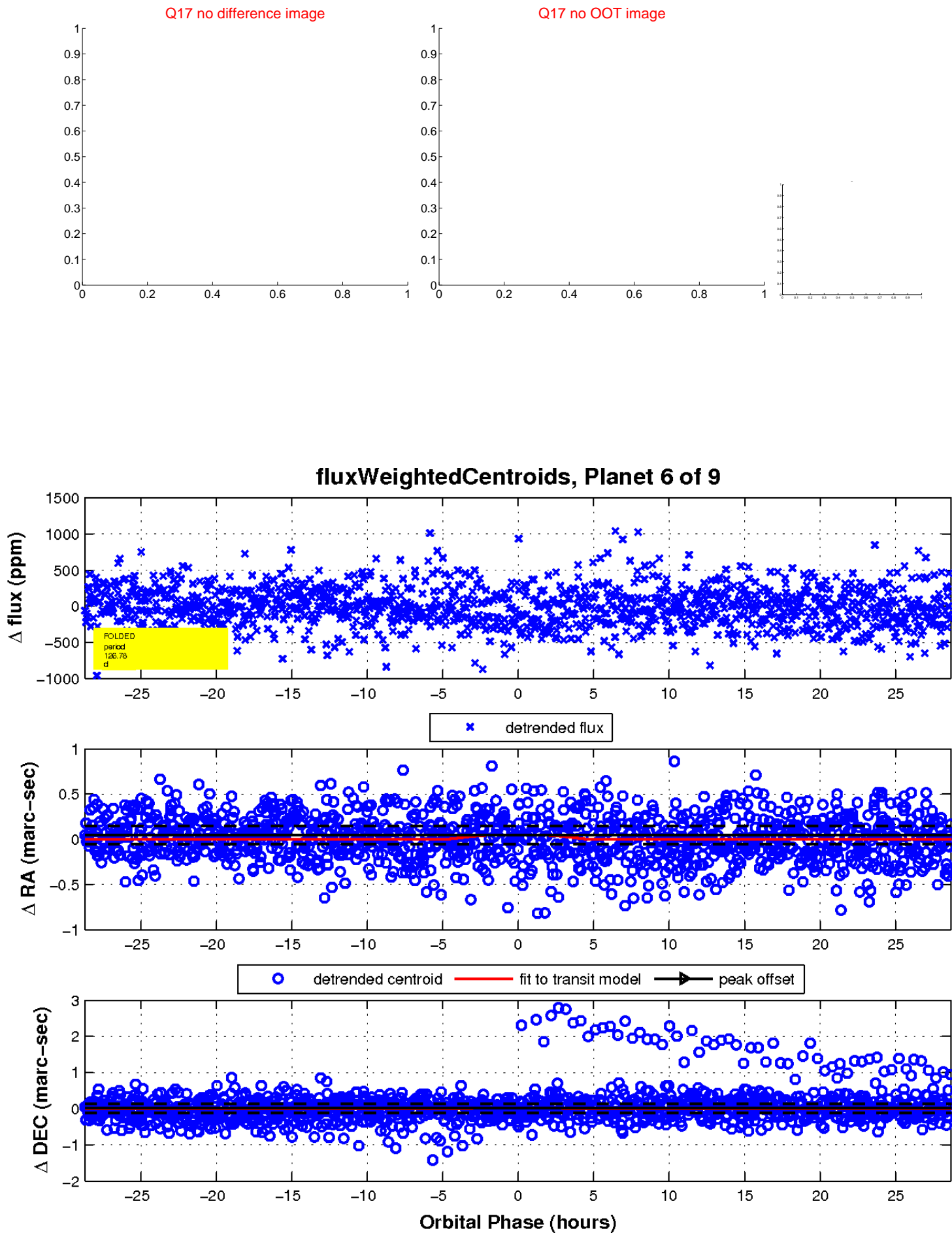
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

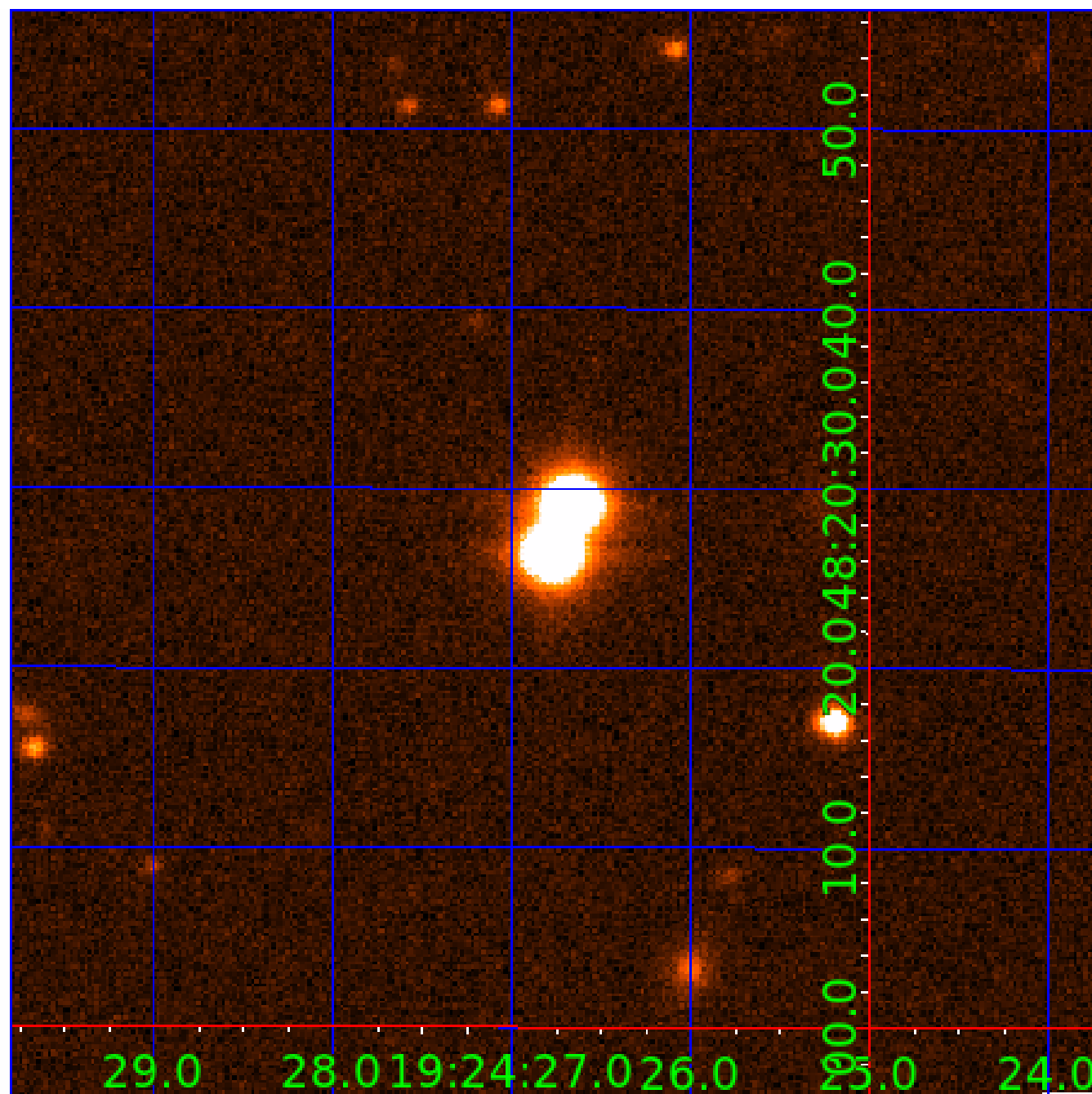


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

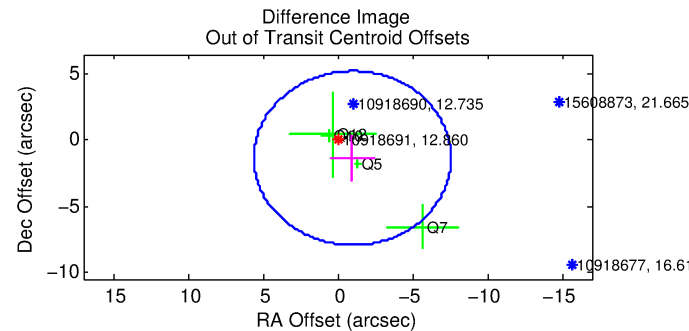
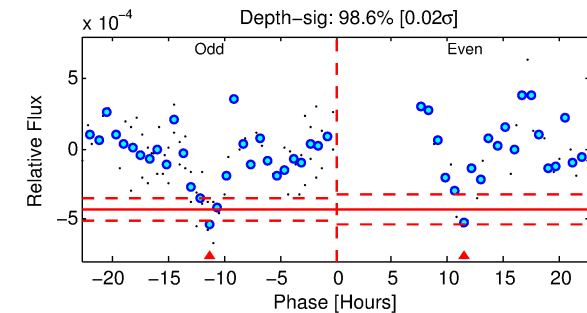
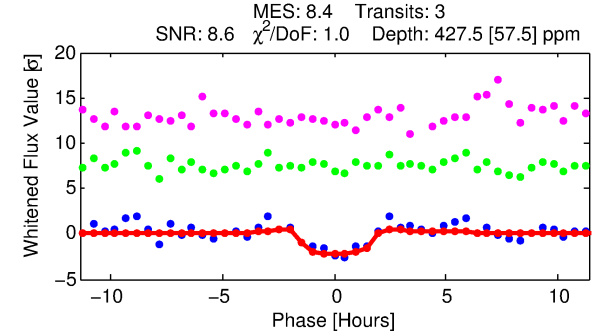
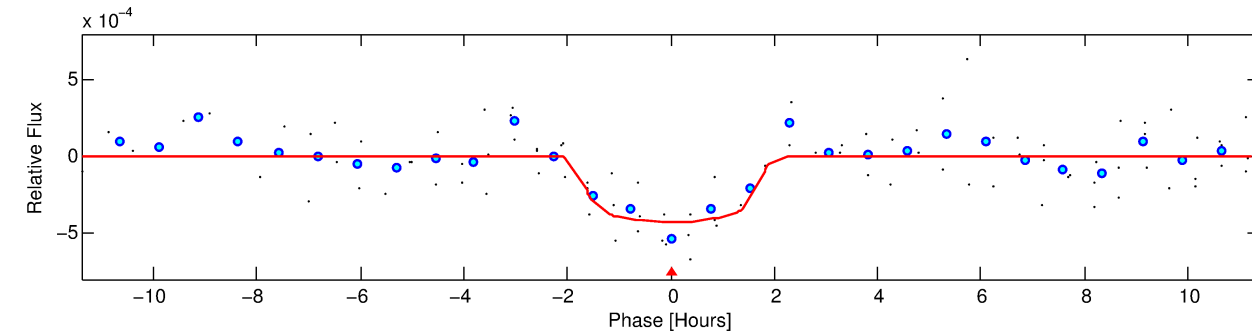
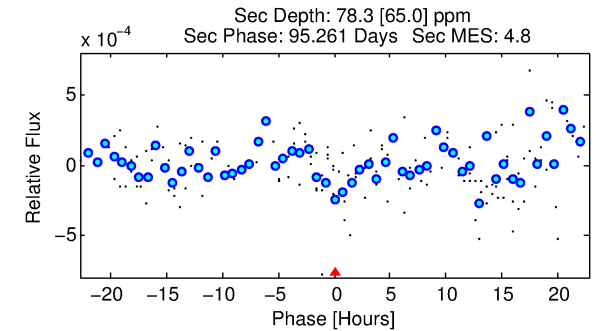
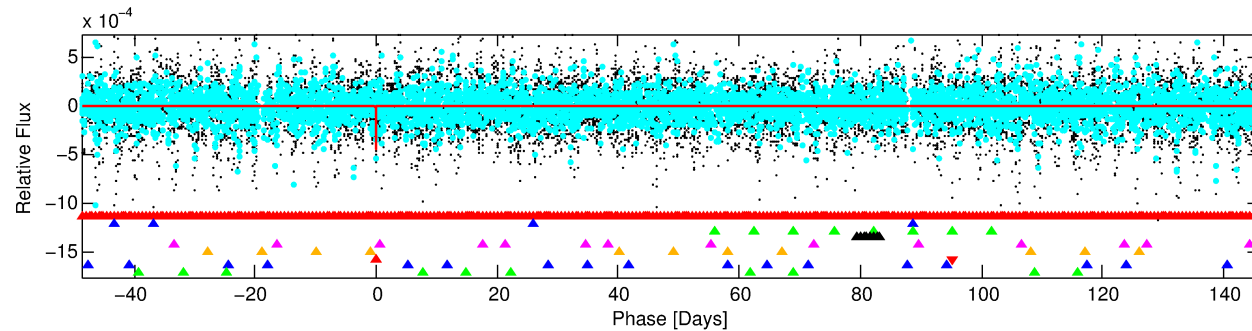
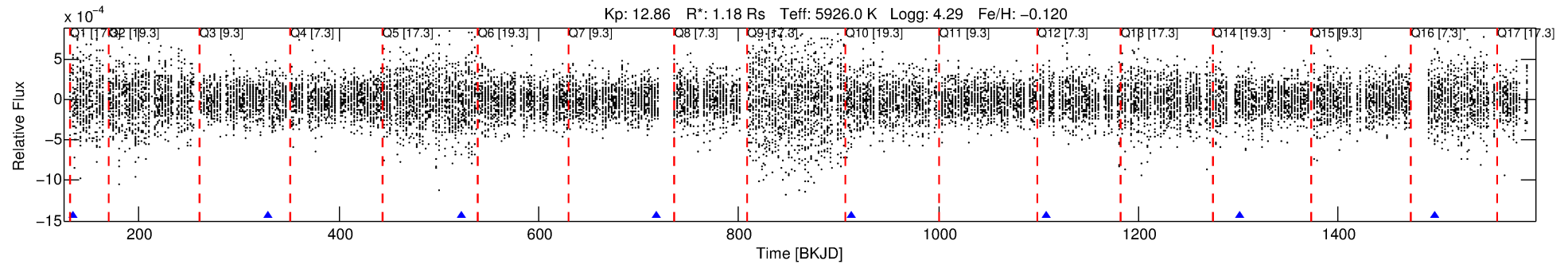
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-07

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 7 of 9 Period: 194.650 d



DV Fit Results:

Period = 194.65004 [0.00228] d
Epoch = 134.0731 [0.0124] BKJD
Rp/R* = 0.0221 [0.0167]
a/R* = 200.02 [746.36]
b = 0.89 [0.93]
Seff = 3.59 [1.34]
Teq = 351 [33] K
Rp = 2.84 [2.31] Re
a = 0.6523 [0.1586] AU
Ag = 2275.48 [4007.16] [0.57σ]
Teffp = 3748 [1623] K [2.09σ]

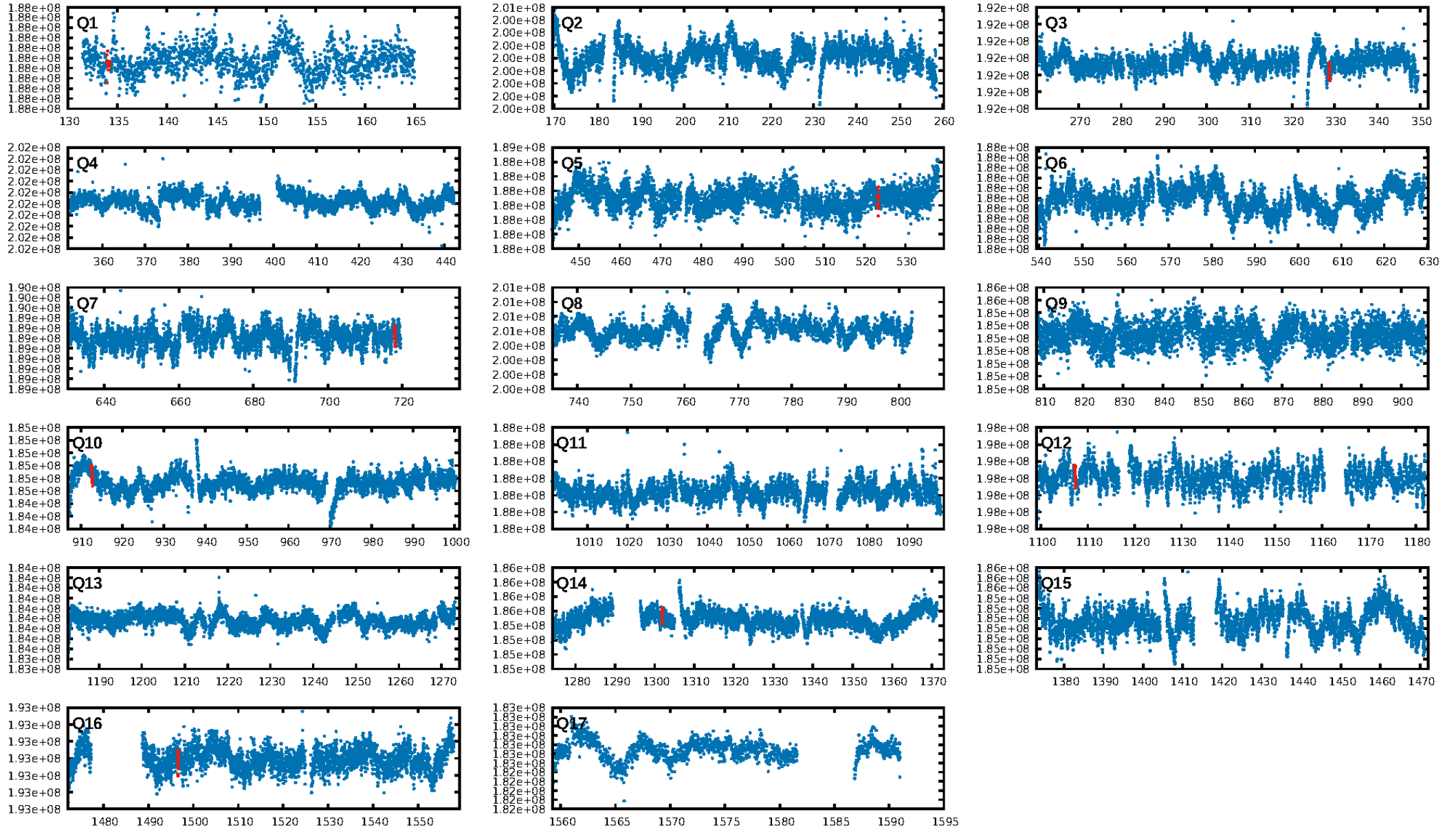
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.69σ]
LongPeriod-sig: 71.9% [1.08σ]
ModelChiSquare2-sig: 80.8%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.086
Centroid-sig: 7.3%
Centroid-so: 1.633 arcsec [5.78σ]
OotOffset-rm: 1.679 arcsec [0.76σ]
KicOffset-rm: 1.525 arcsec [1.62σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.50 [4/8]

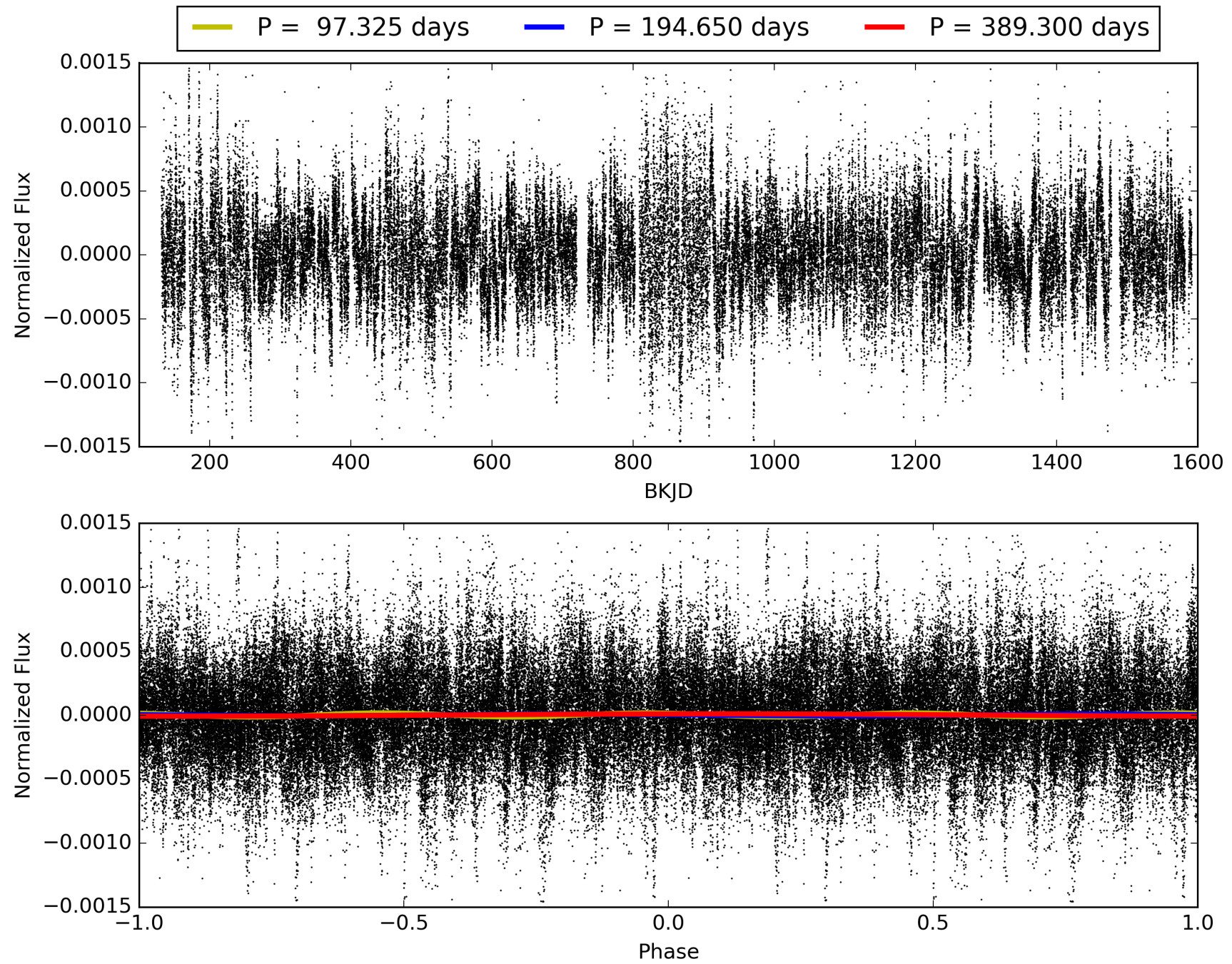
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:16:33 Z

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

TCE 010918691-07, PDC Light Curves

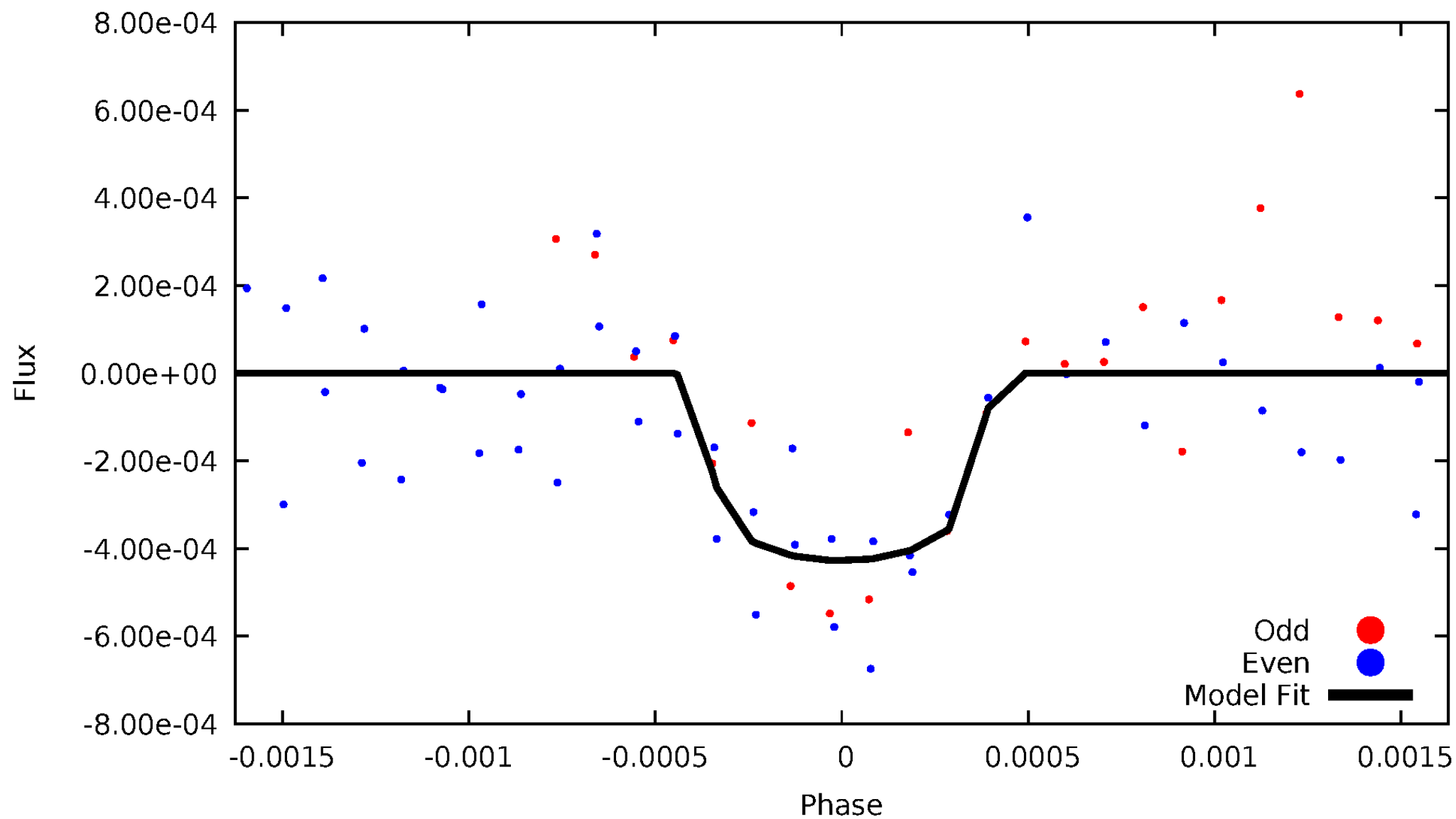


TCE 010918691-07



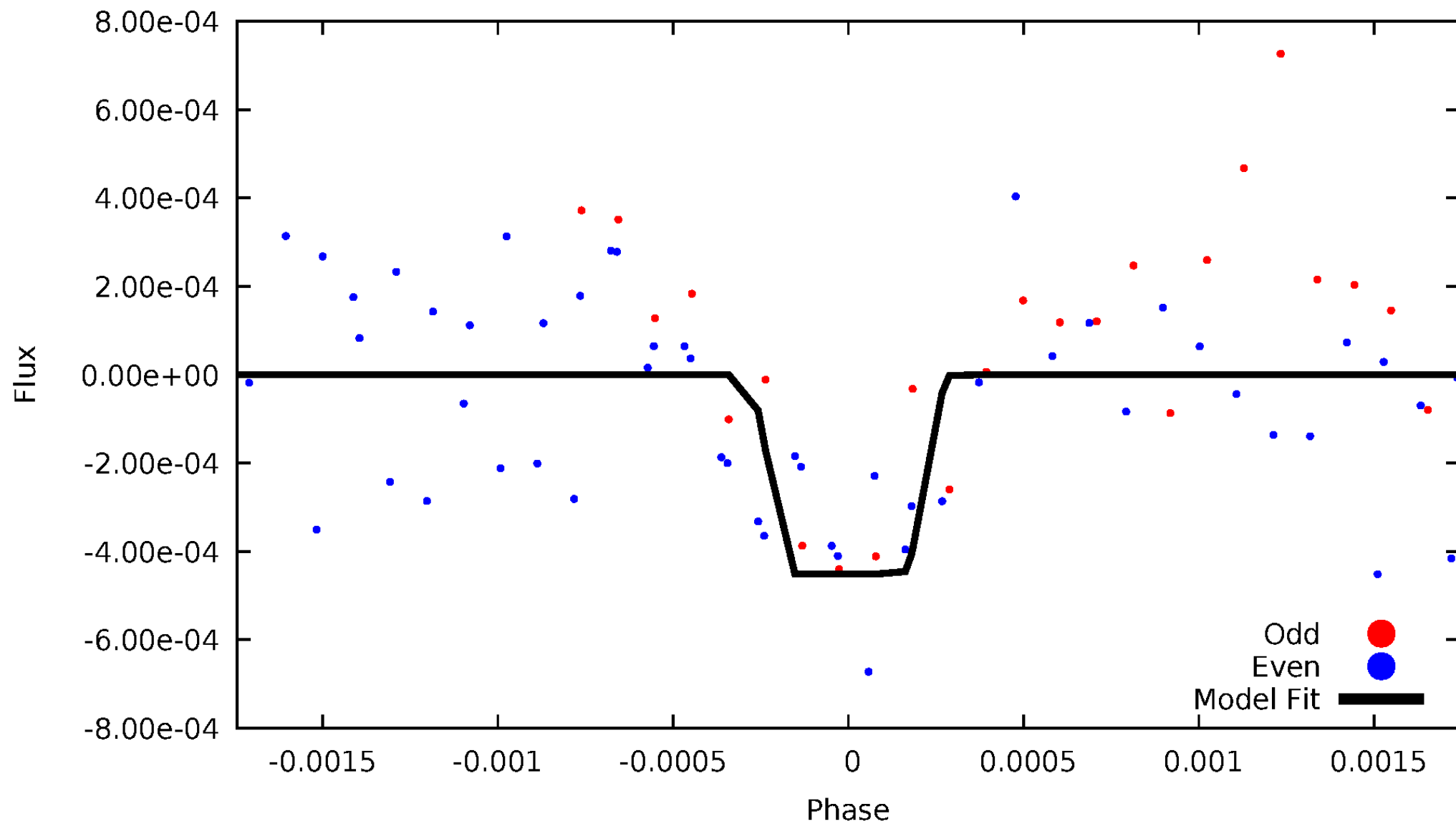
DV Odd/Even

TCE 010918691-07



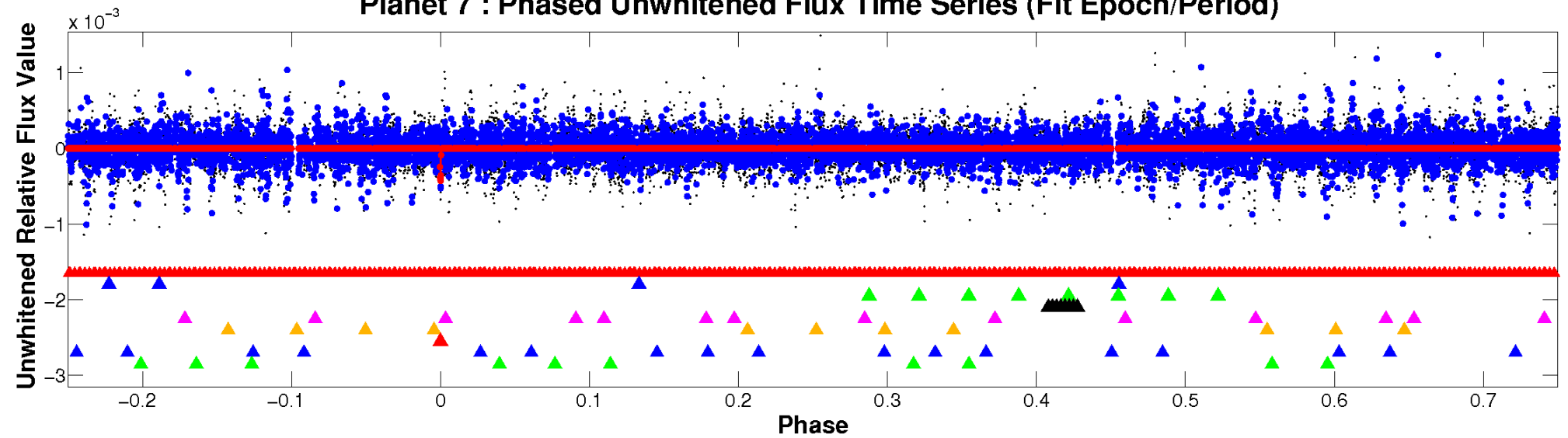
ALT Odd/Even

TCE 010918691-07

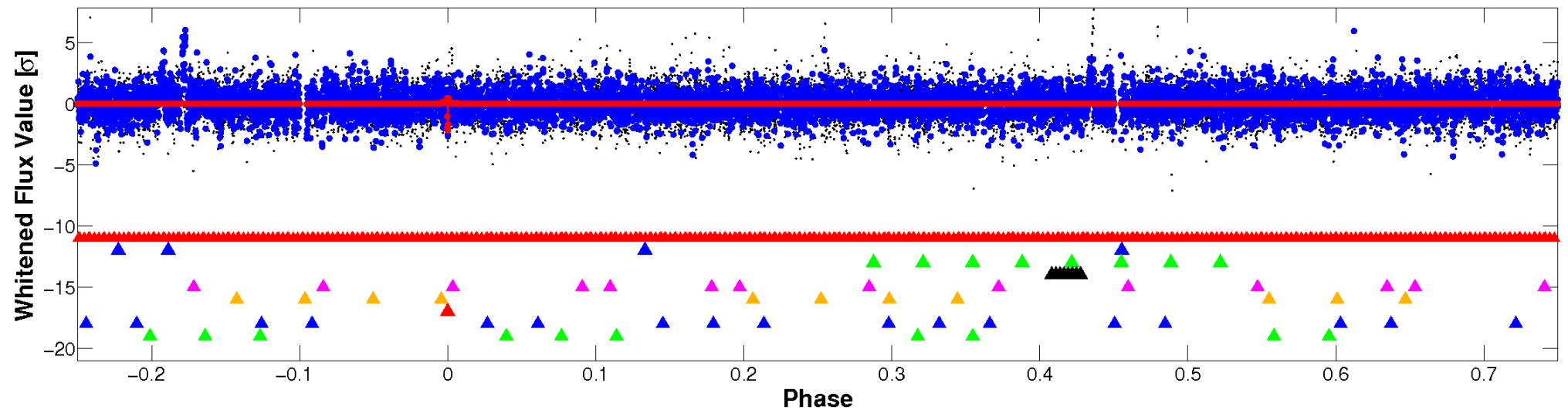


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

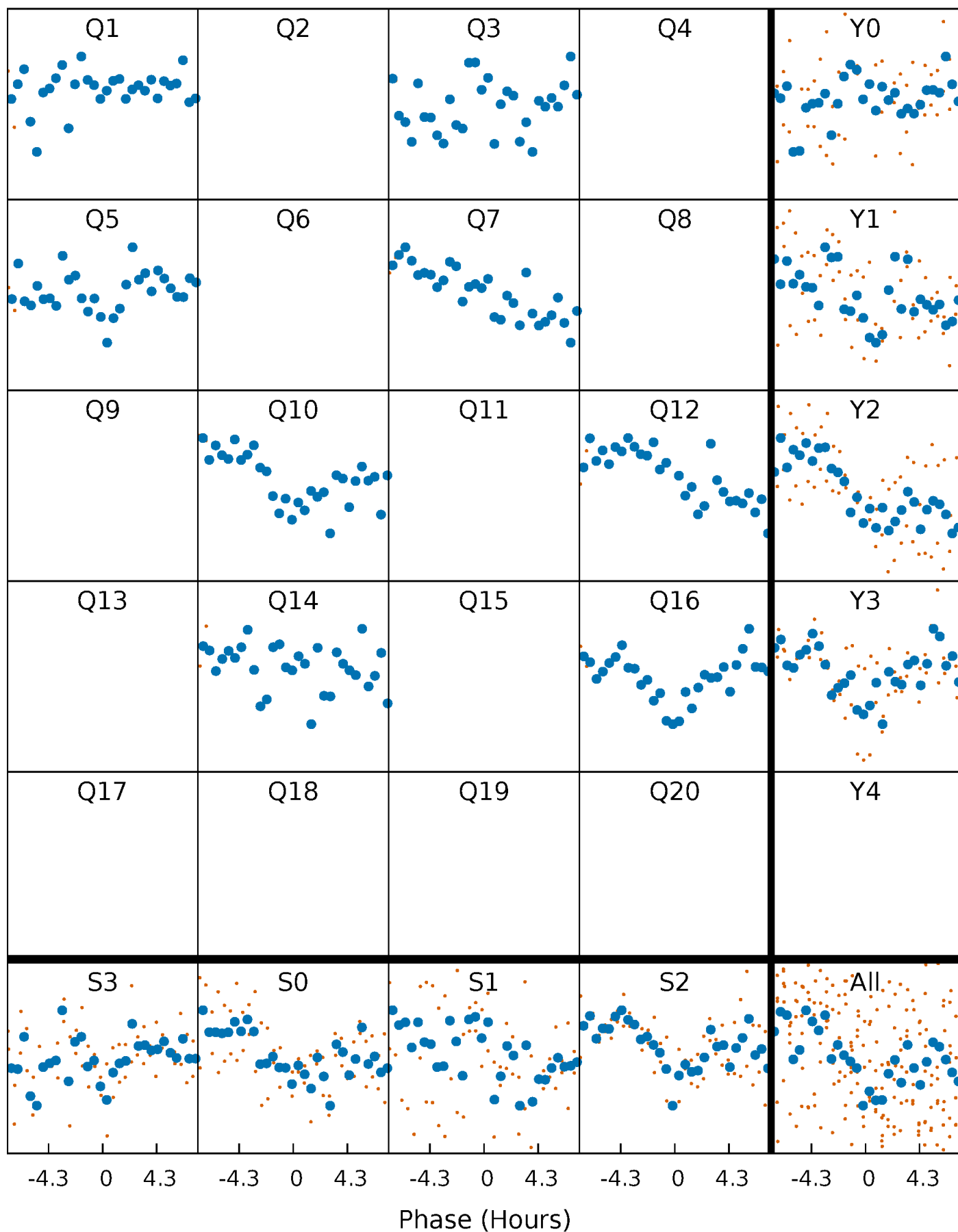


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



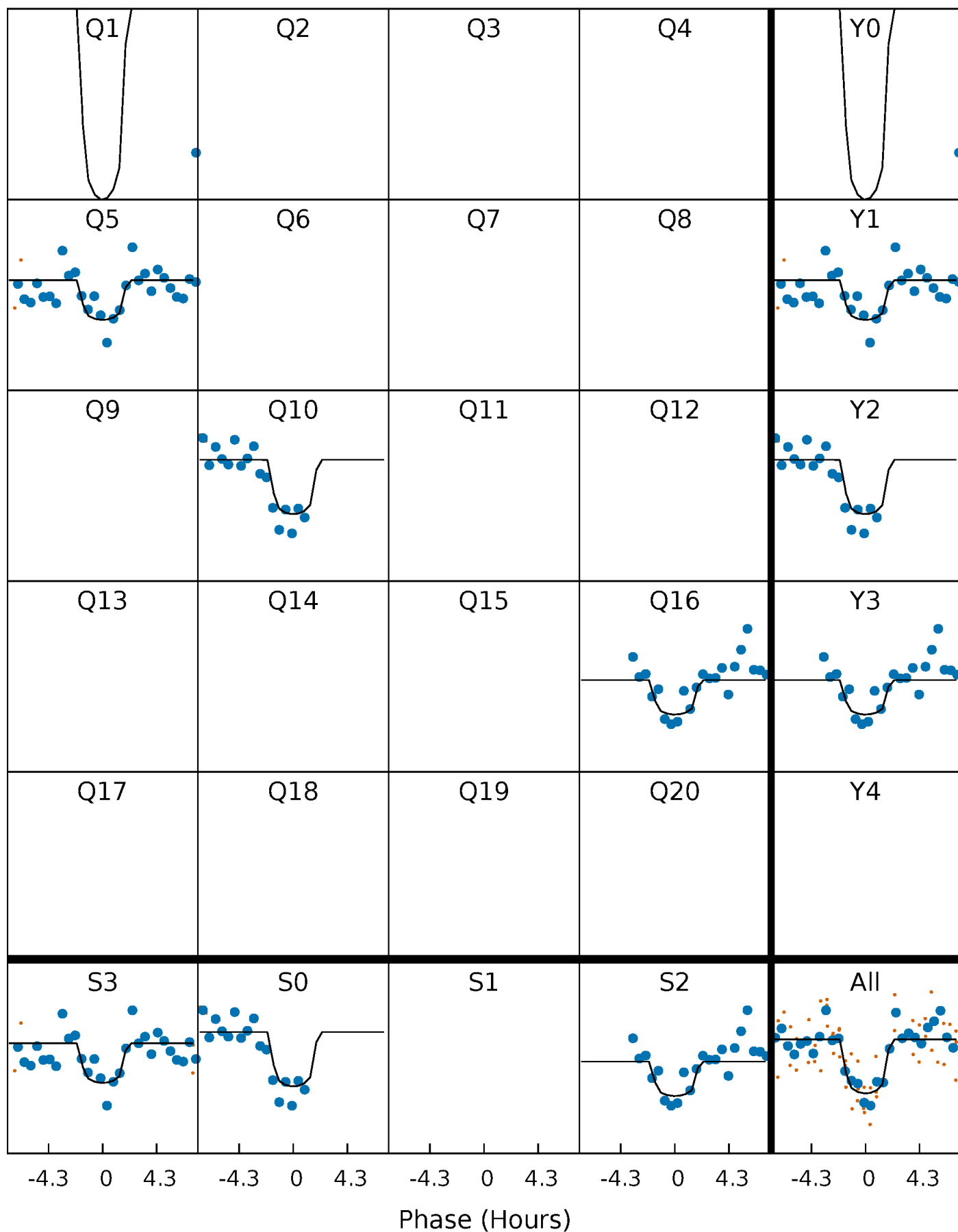
PDC Quarter-Phased Transit Curves

TCE 010918691-07 P=194.650043 Days $T_0=134.073082$ (BKJD)



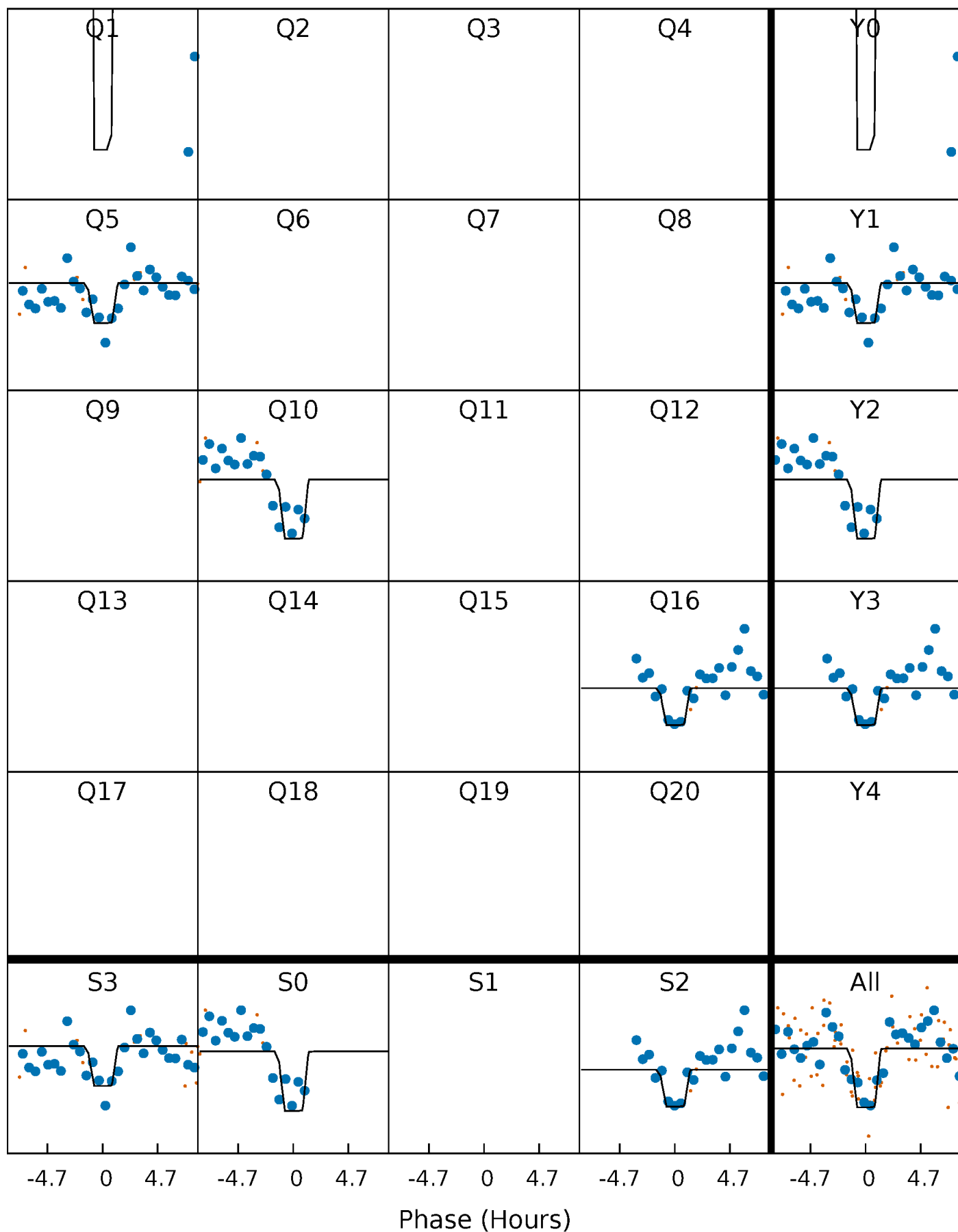
DV Quarter-Phased Transit Curves

TCE 010918691-07 P=194.650043 Days $T_0=134.073082$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

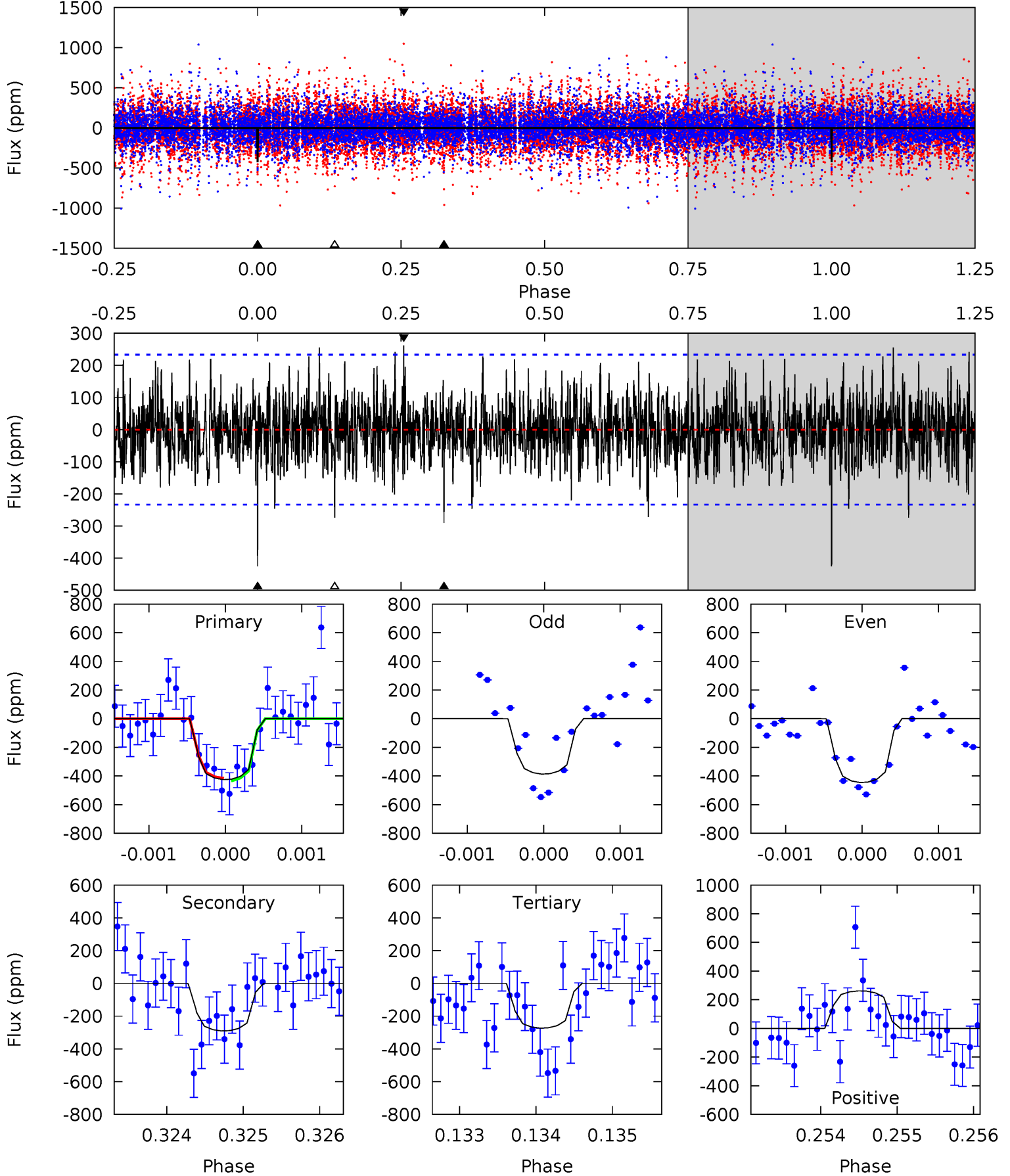
TCE 010918691-07 $P=194.649039$ Days $T_0=134.079010$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-07, P = 194.650043 Days, E = 134.073082 Days

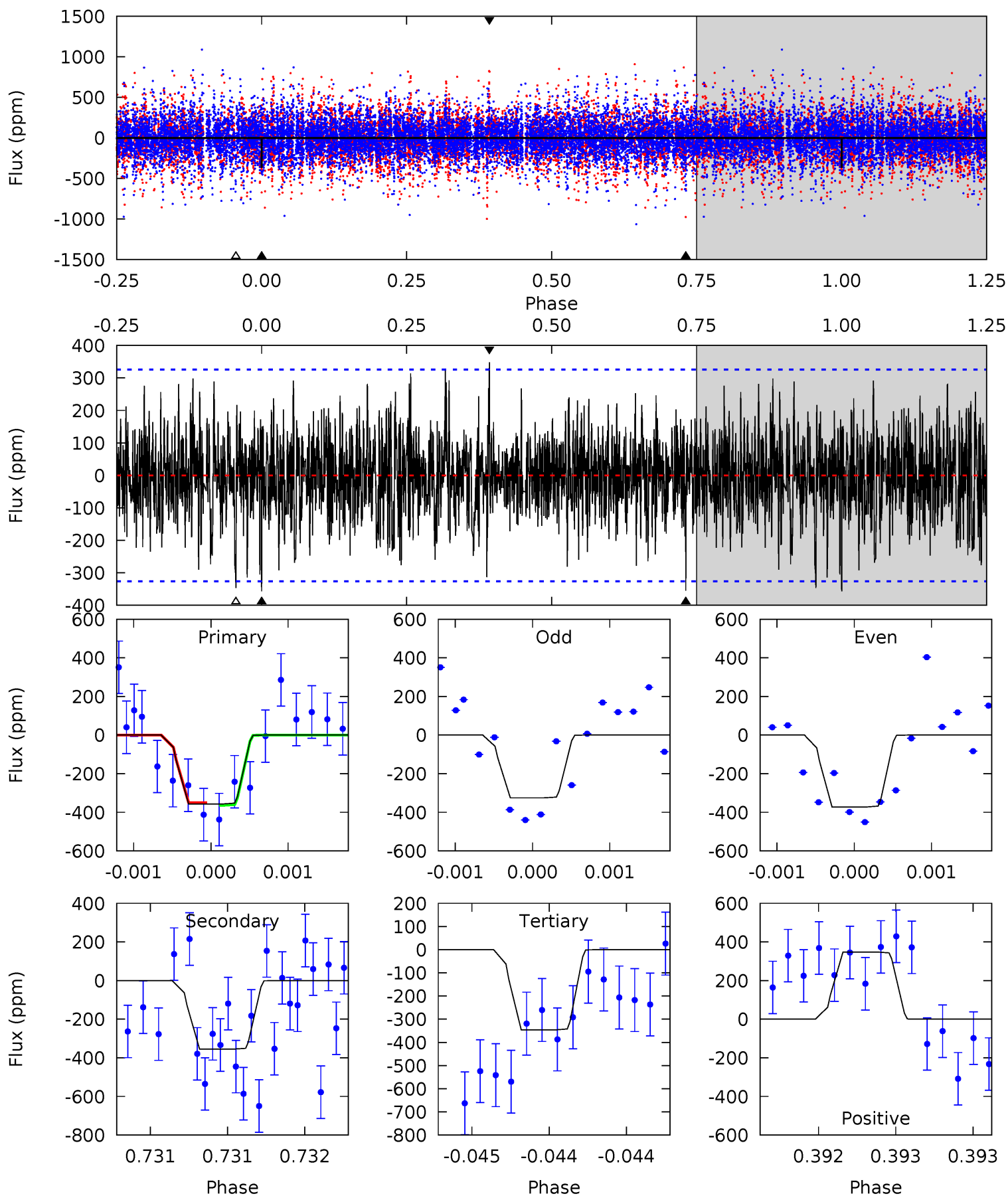
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.95	6.79	6.39	6.13	5.46	3.31	1.69	3.56	3.82	0.40	0.66	0.68	1.07	0.38	0.21



Alt Model-Shift Uniqueness Test

010918691-07, P = 194.649039 Days, E = 134.079010 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.09	6.06	5.91	5.93	5.56	3.47	1.56	0.18	0.16	0.14	0.12	0.40	1.10	0.49	0.12



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-290 ± 43	$3.19^{+1.98}_{-1.80}$	490^{+36}_{-33}	4954^{+2529}_{-824}	6676^{+29114}_{-4186}
Alt.	-355 ± 59	$3.07^{+2.04}_{-1.91}$	491^{+43}_{-34}	5306^{+3290}_{-997}	8873^{+46108}_{-5691}

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

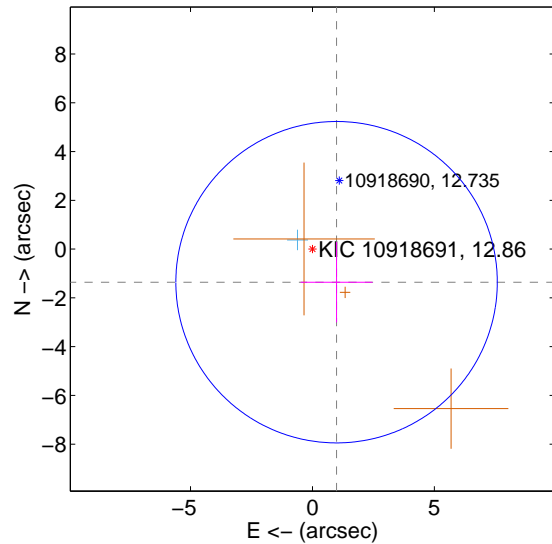
Supplemental centroid analysis for 010918691-07. Kepler magnitude: 12.86. Transit SNR 8.55

There are 1 quarters with good PRF difference image offsets

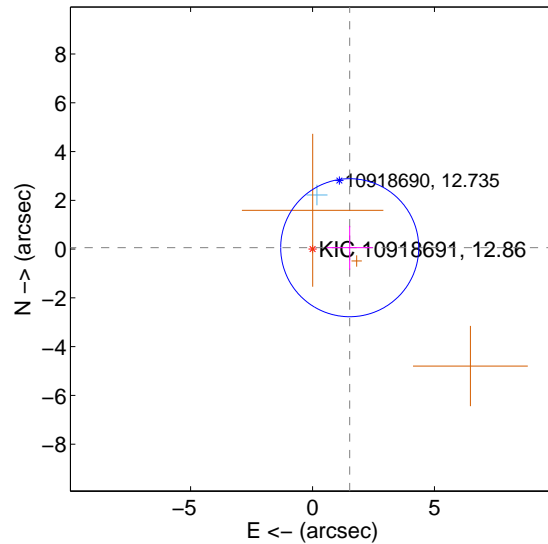
The direct PRF centroid is offset from the target star catalog position by about 1.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.679 ± 2.196	0.76	-0.989 ± 1.475	-1.357 ± 1.644
PRF-fit source offset from KIC position	1.525 ± 0.943	1.62	-1.524 ± 0.943	0.057 ± 0.895
photometric centroid source offset	1.63 ± 0.28	5.78	-1.09 ± 0.27	1.22 ± 0.29

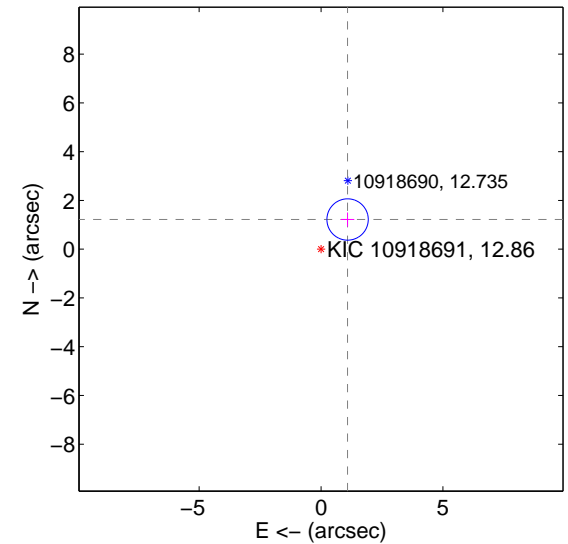
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

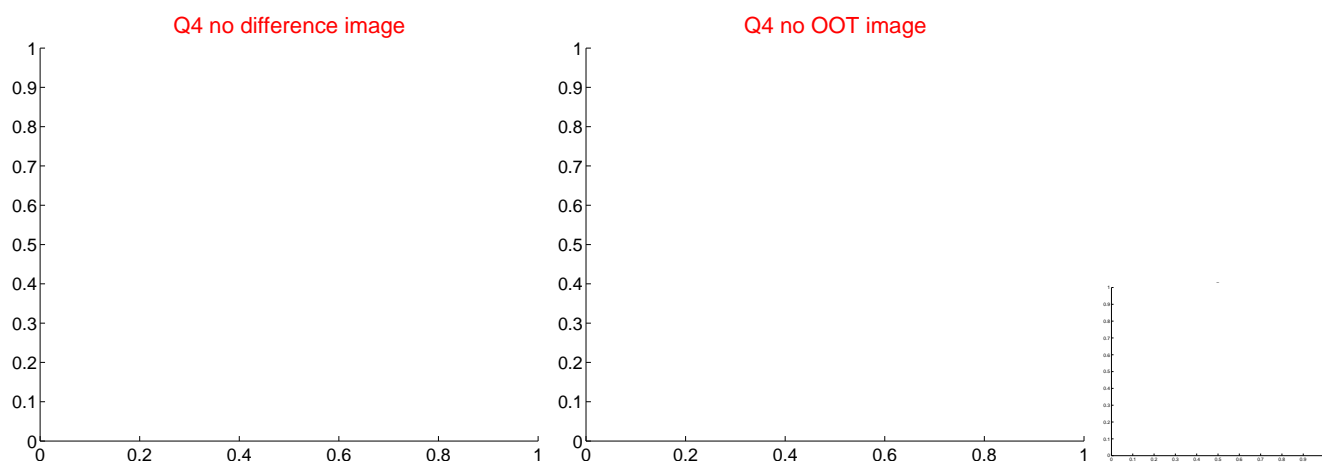
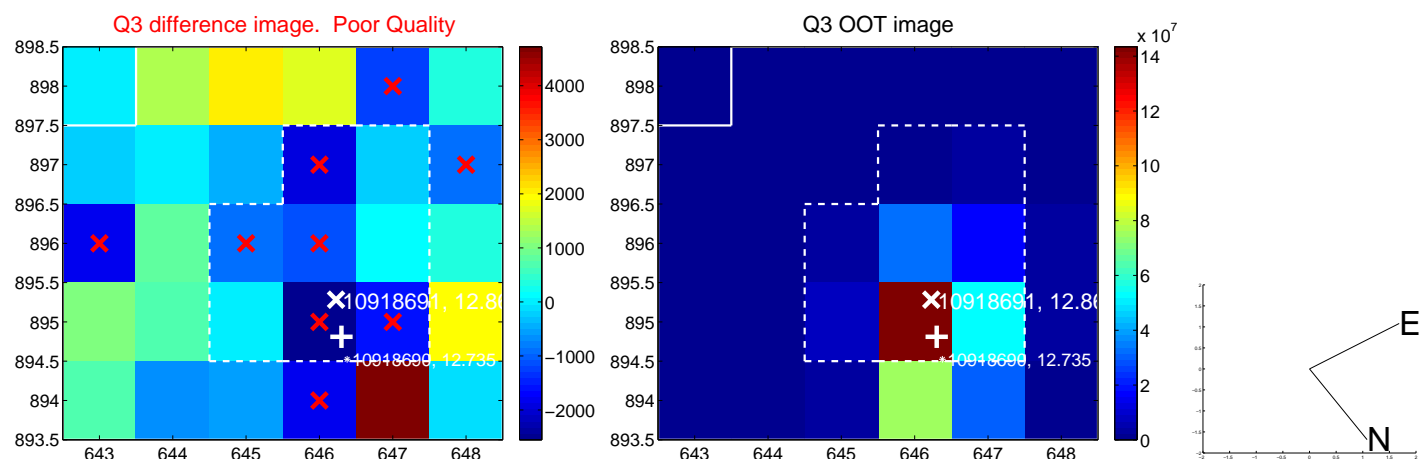
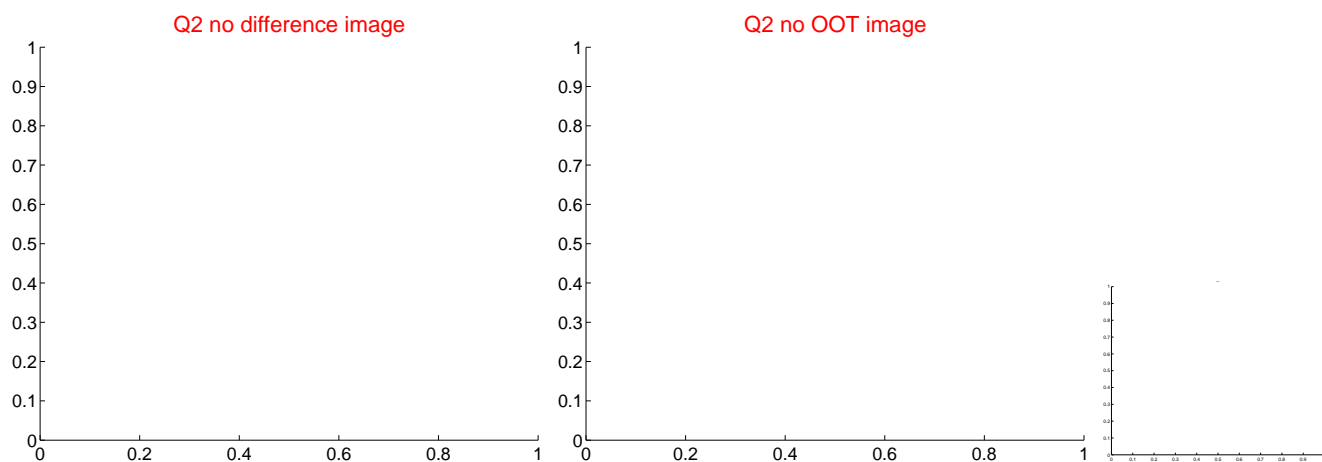
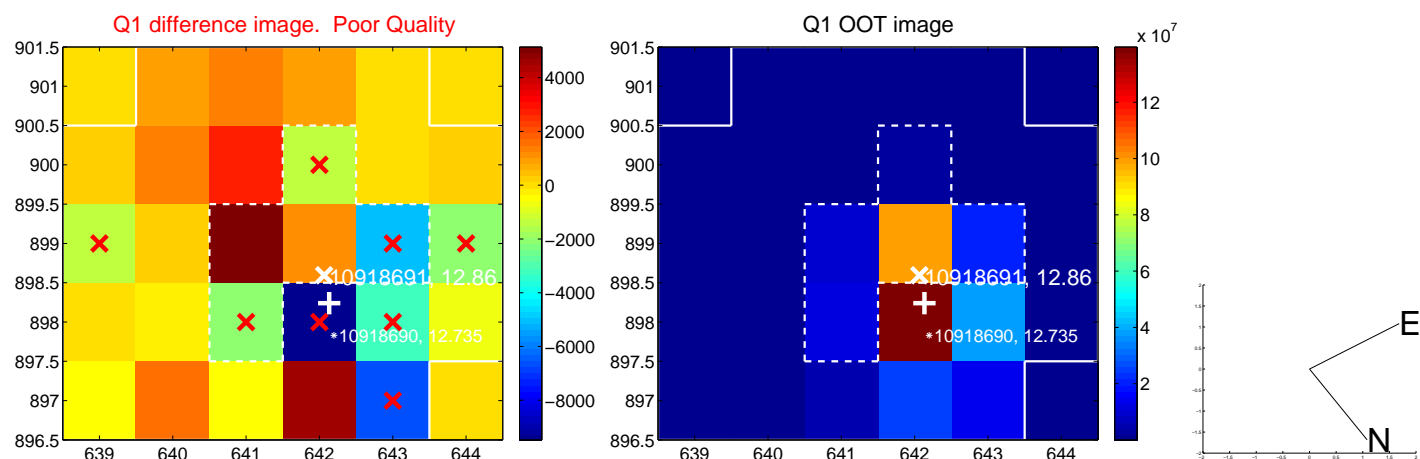


offset from photometric centroids

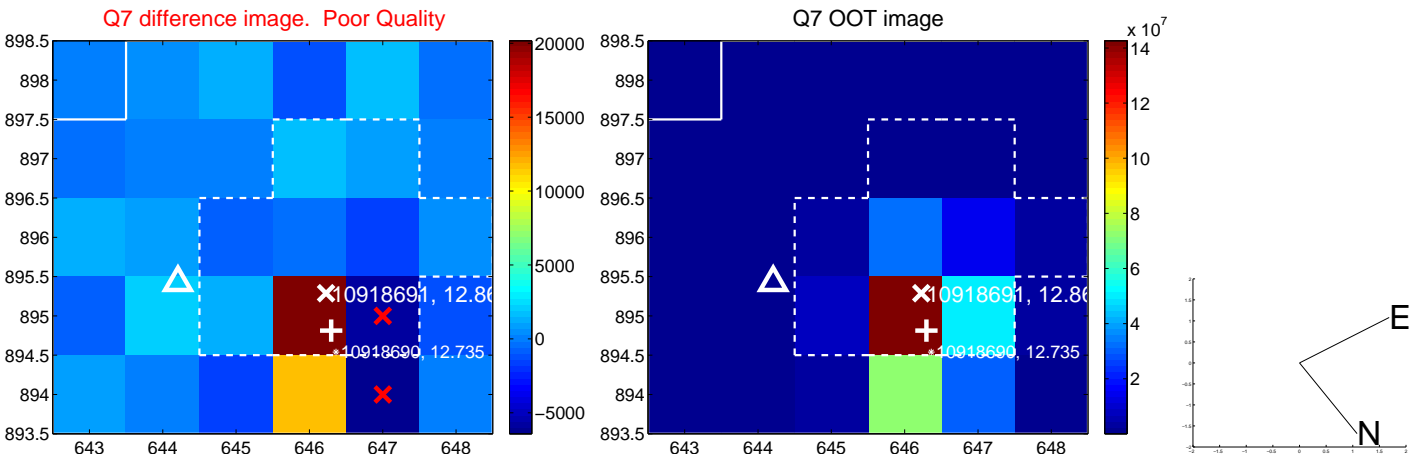
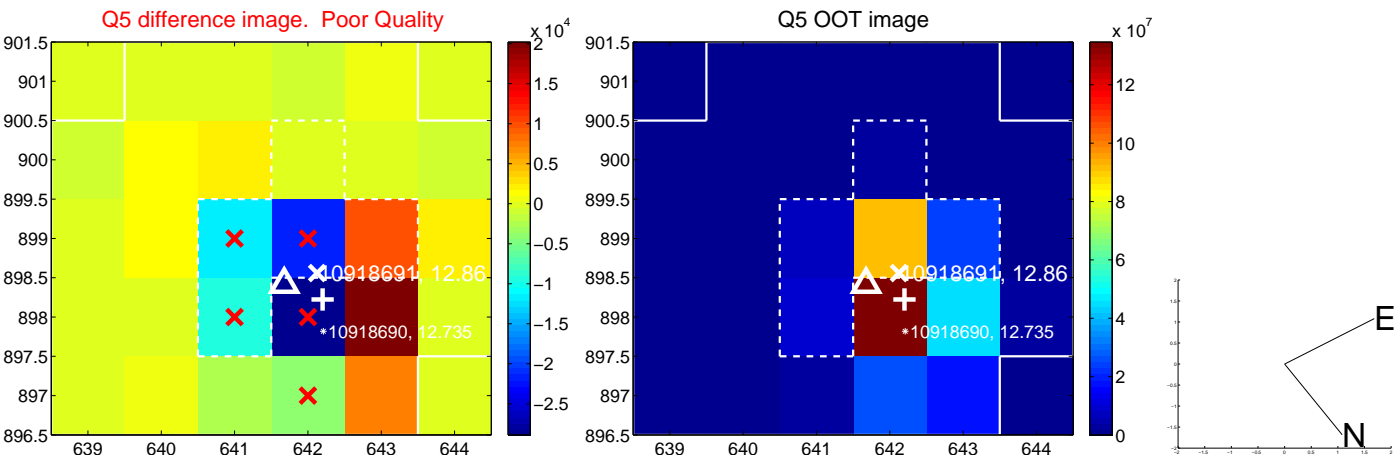


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

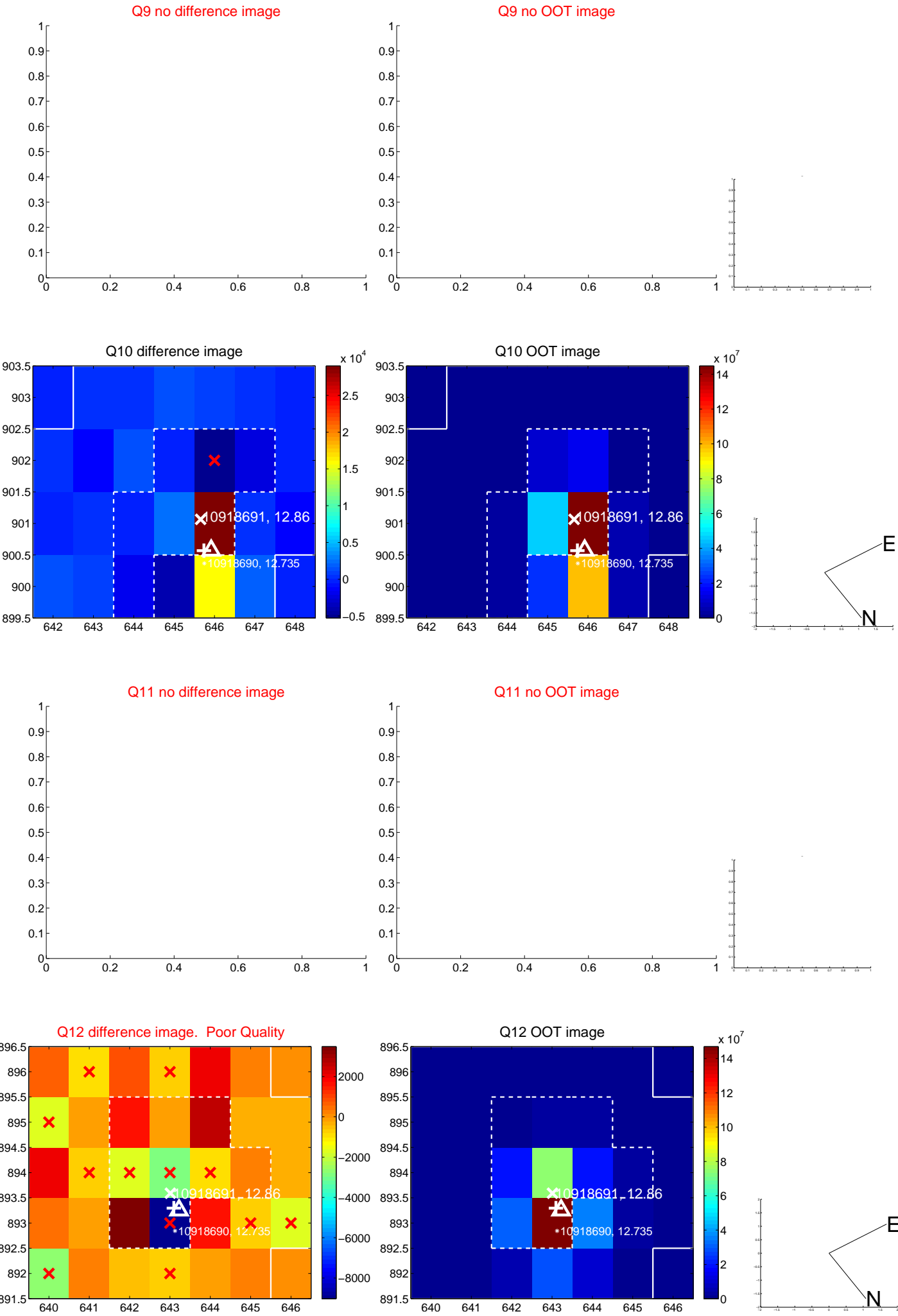
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



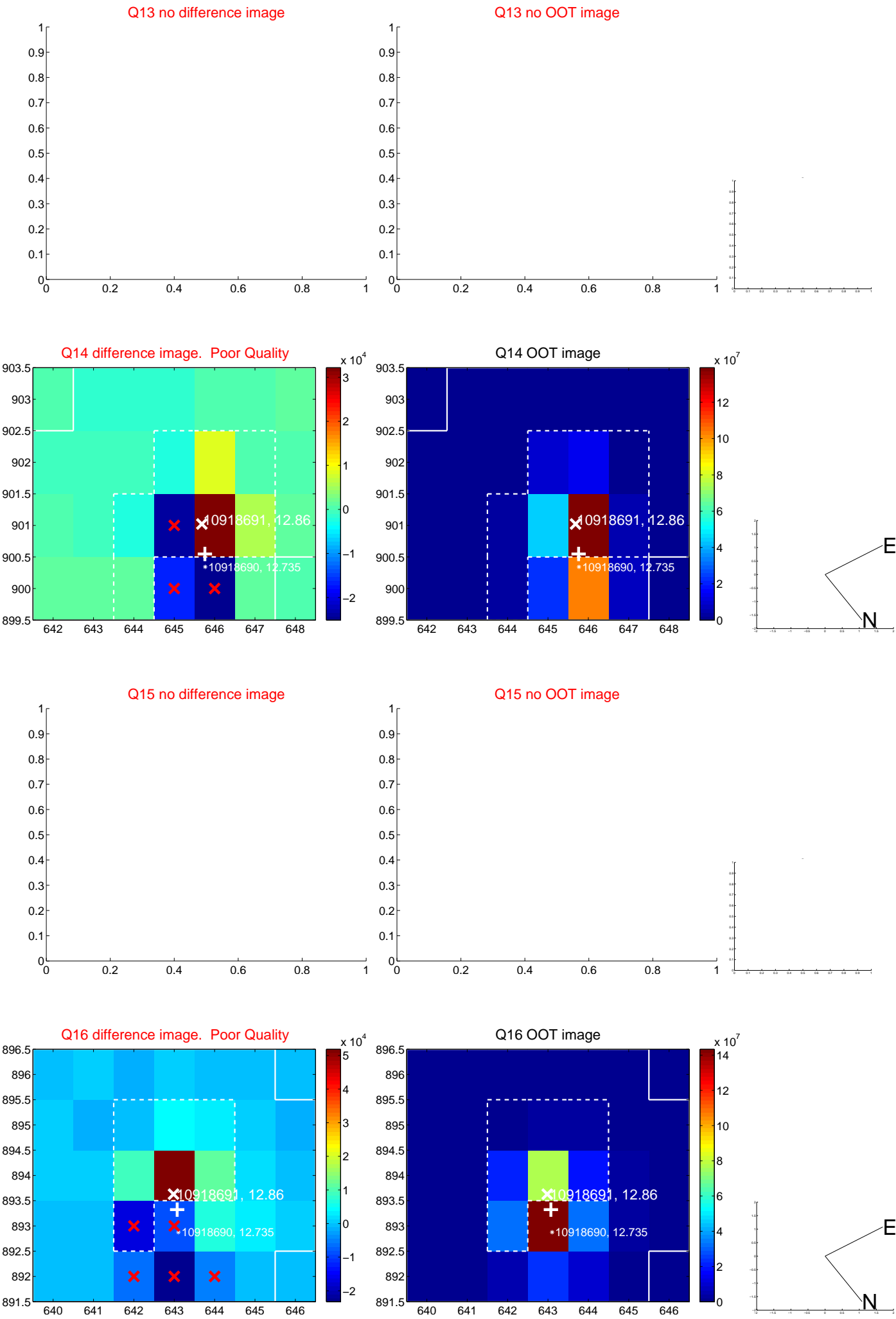
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



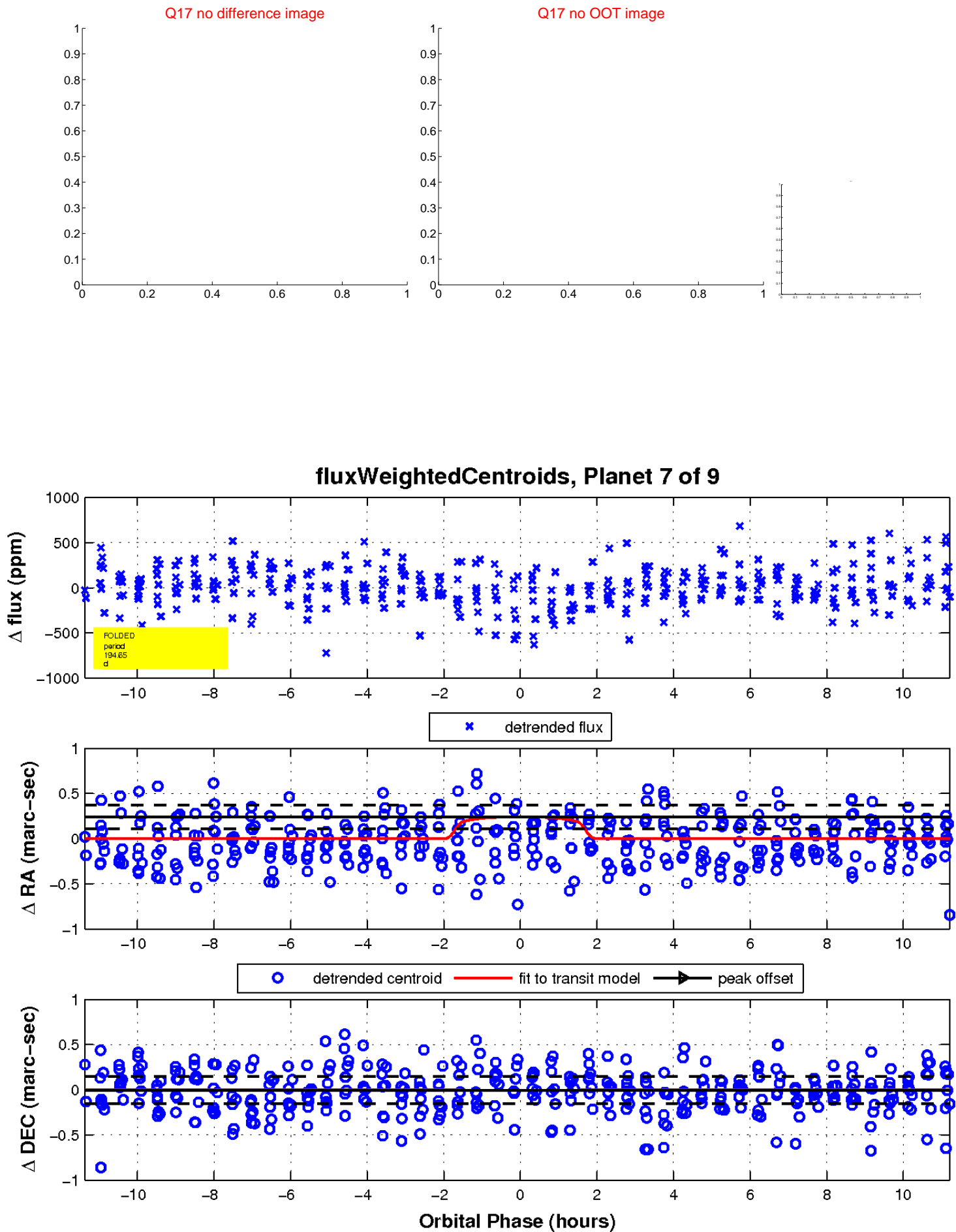
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

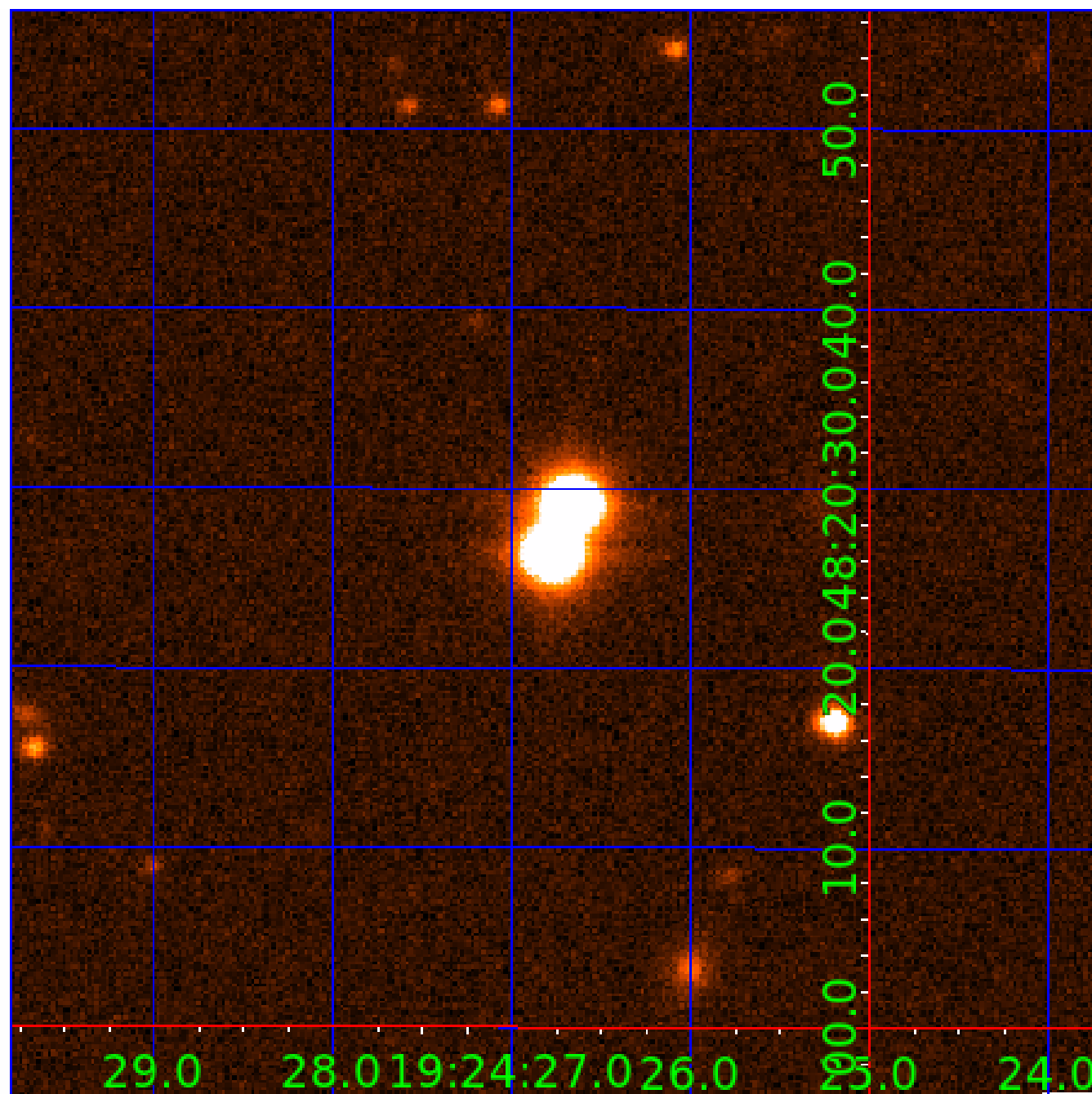


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

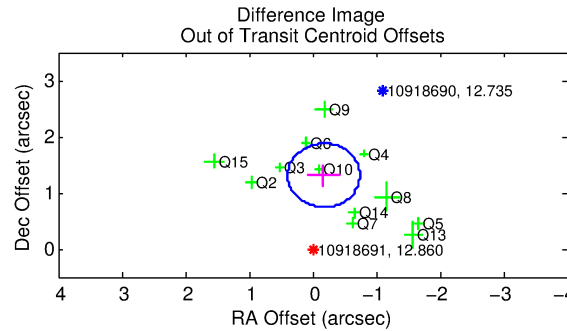
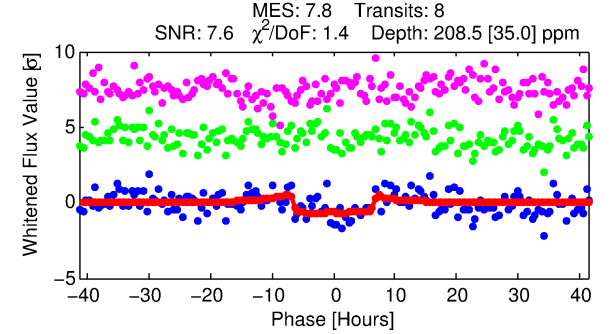
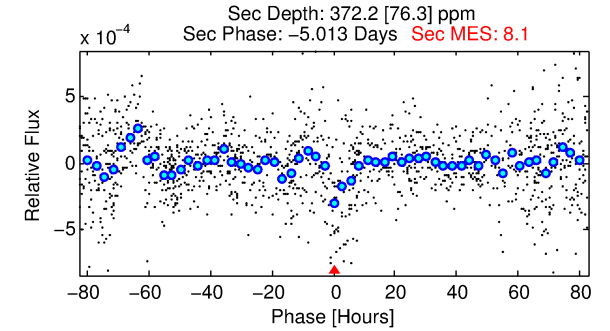
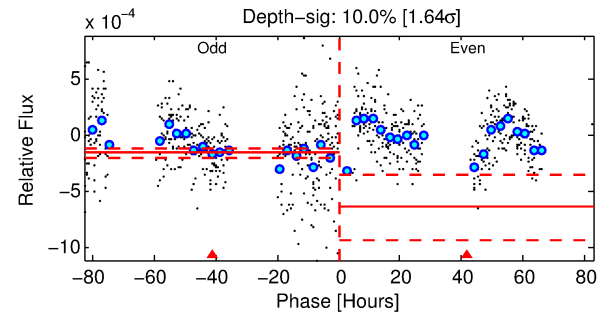
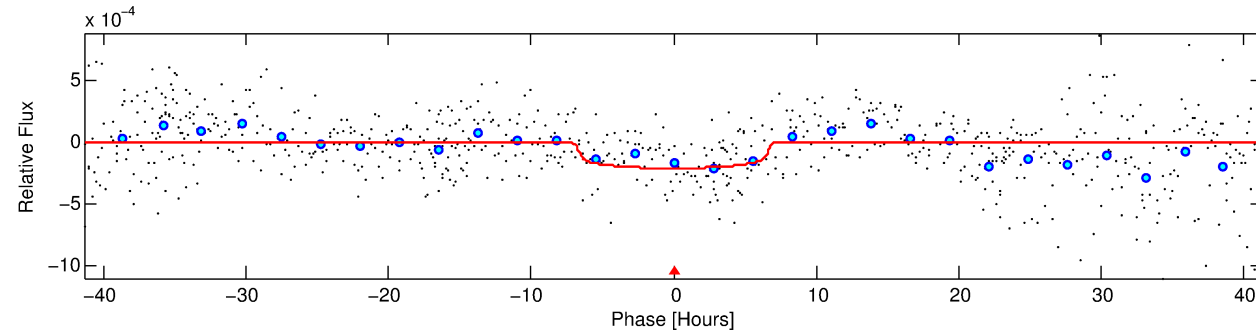
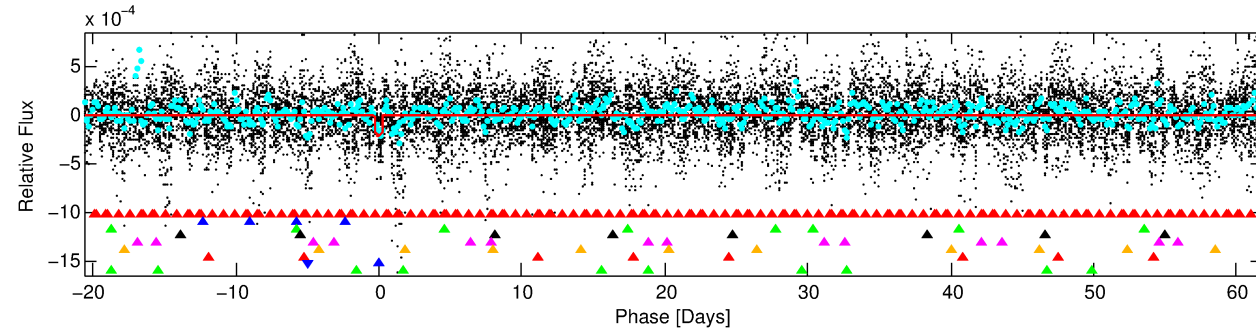
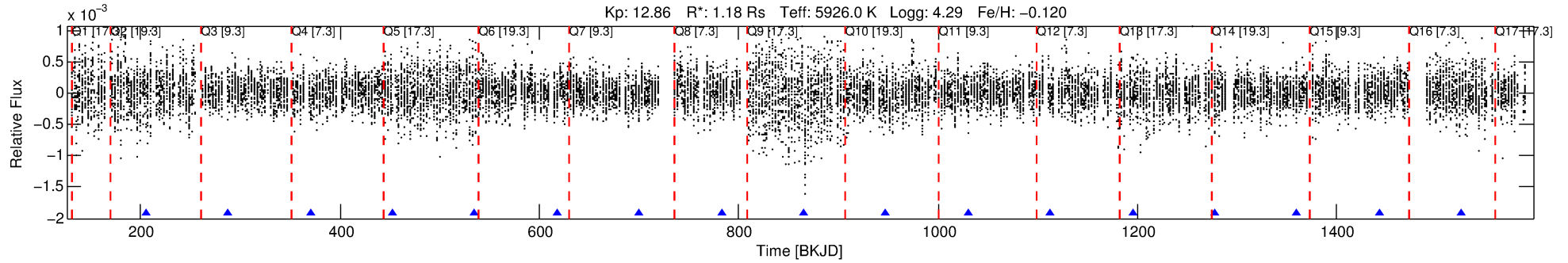
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-08

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 8 of 9 Period: 82.473 d



DV Fit Results:

Period = 82.47256 [0.00245] d
Epoch = 205.3543 [0.0216] BKJD
Rp/R* = 0.0143 [0.0055]
a/R* = 31.32 [55.08]
b = 0.75 [1.04]
Seff = 11.28 [4.21]
Teq = 467 [44] K
Rp = 1.84 [0.89] Re
a = 0.3680 [0.0894] AU
Ag = 8179.05 [7048.62] [1.16σ]
Teffp = 6872 [1377] K [4.65σ]

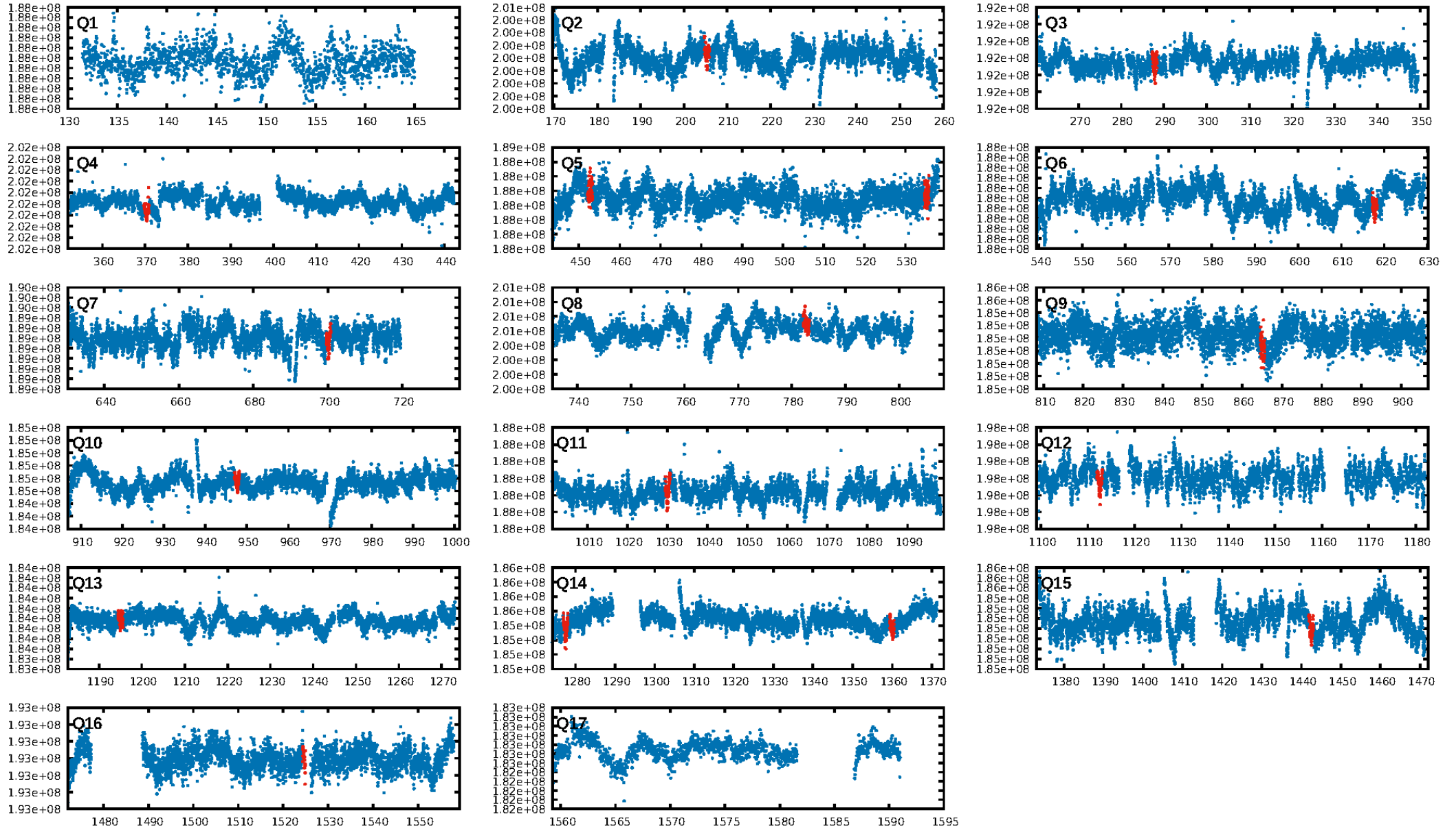
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [82.58σ]
LongPeriod-sig: 100.0% [25.52σ]
ModelChiSquare2-sig: 10.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 2.639
Centroid-sig: 4.4%
Centroid-so: 1.774 arcsec [4.86σ]
OotOffset-rm: 1.321 arcsec [6.98σ]
KicOffset-rm: 3.009 arcsec [15.47σ]
OotOffset-st: 4/3/2/3 [12]
KicOffset-st: 4/3/2/3 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 0.08 [1/12]

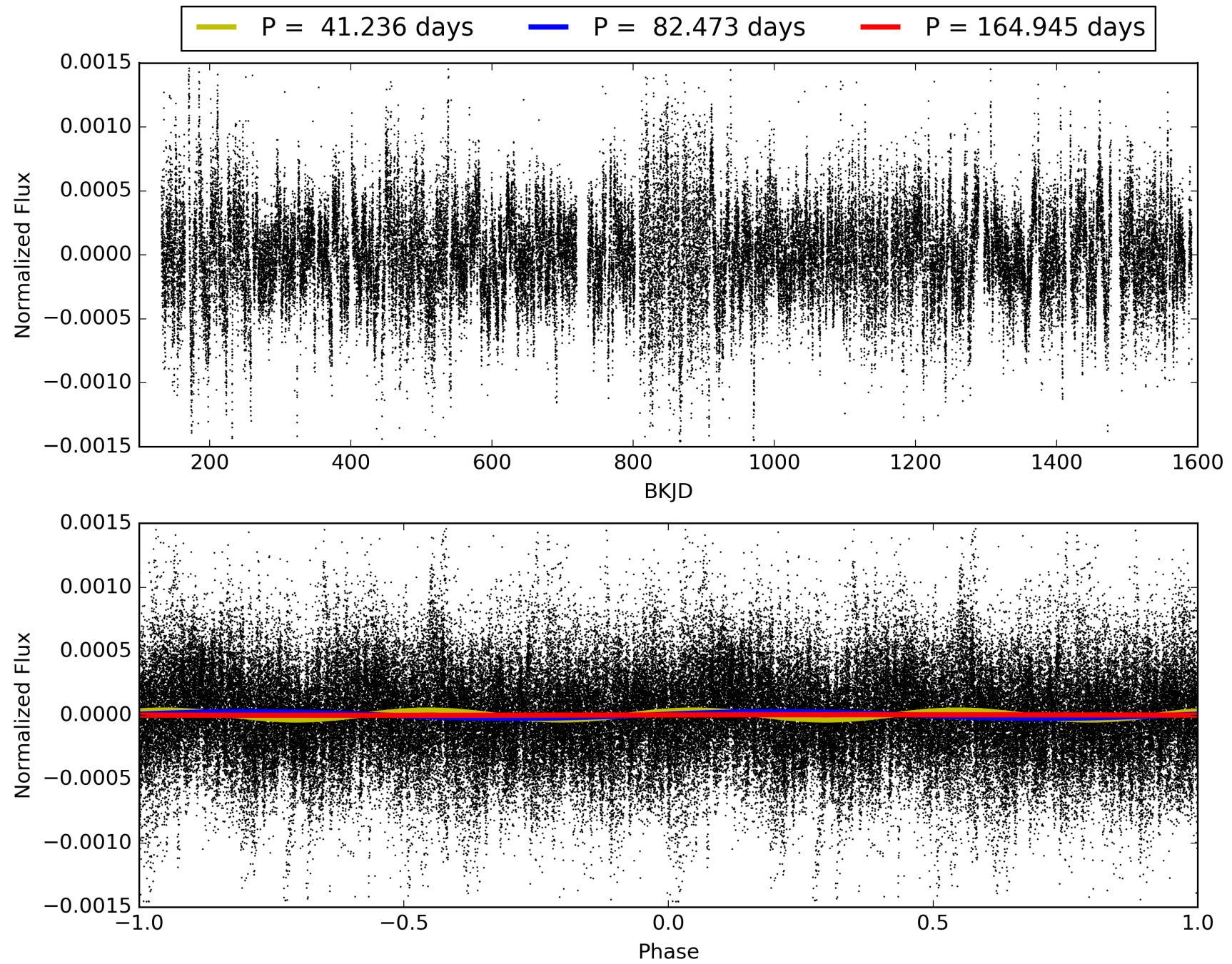
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:16:37 Z

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

TCE 010918691-08, PDC Light Curves

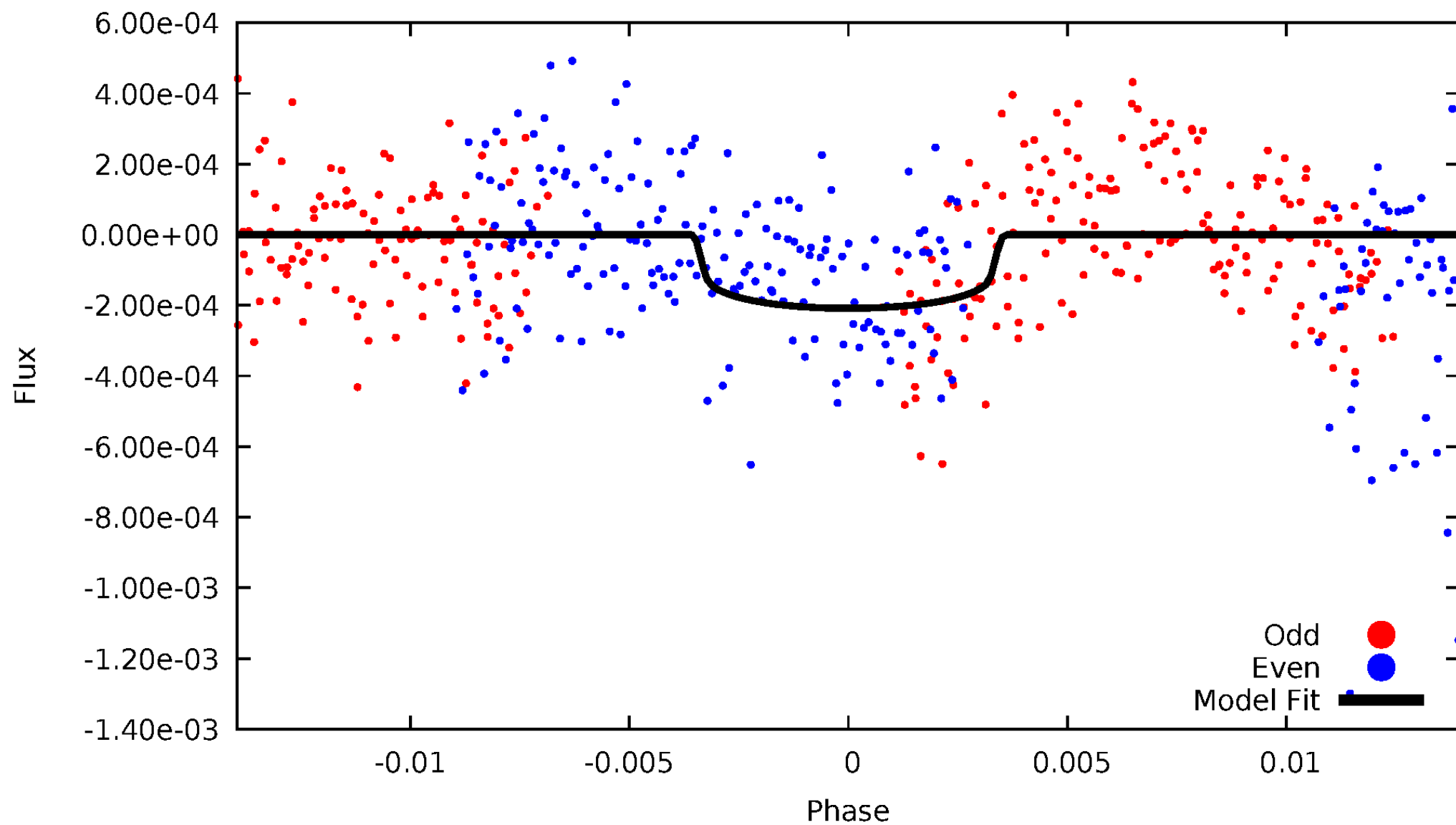


TCE 010918691-08



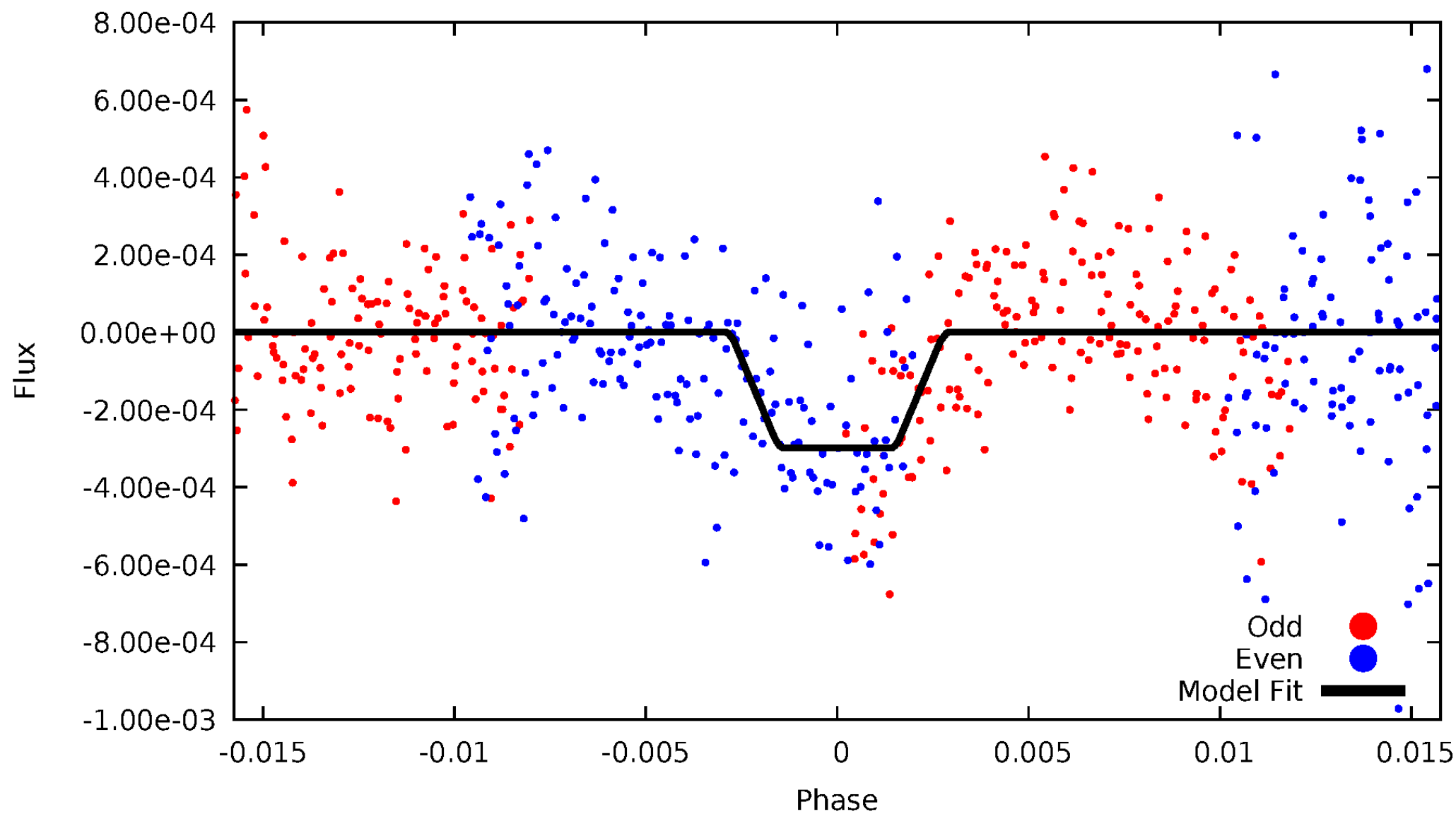
DV Odd/Even

TCE 010918691-08



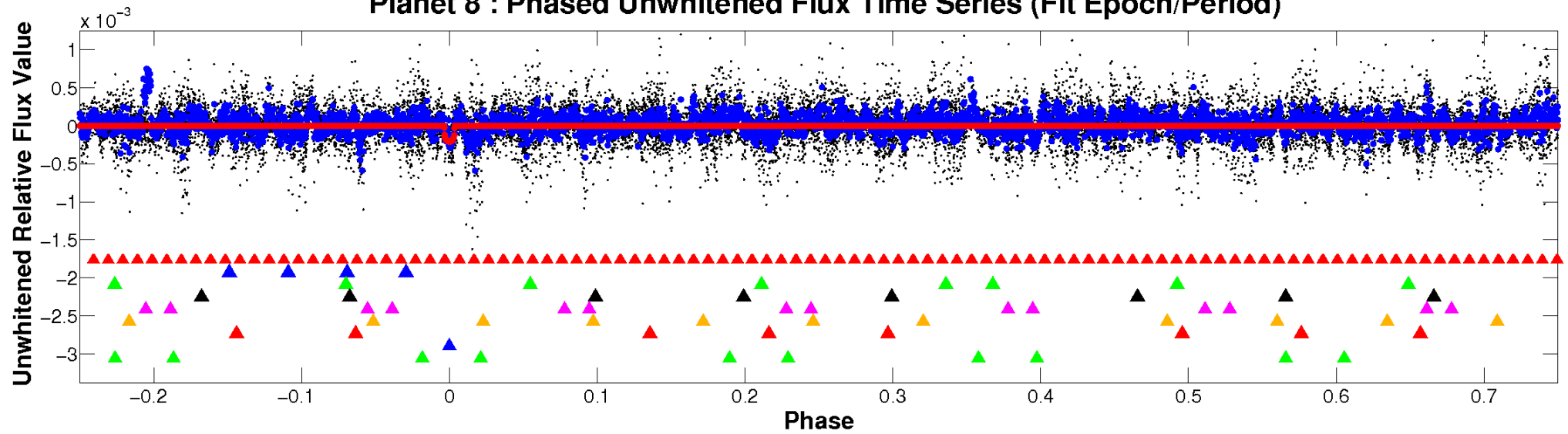
ALT Odd/Even

TCE 010918691-08

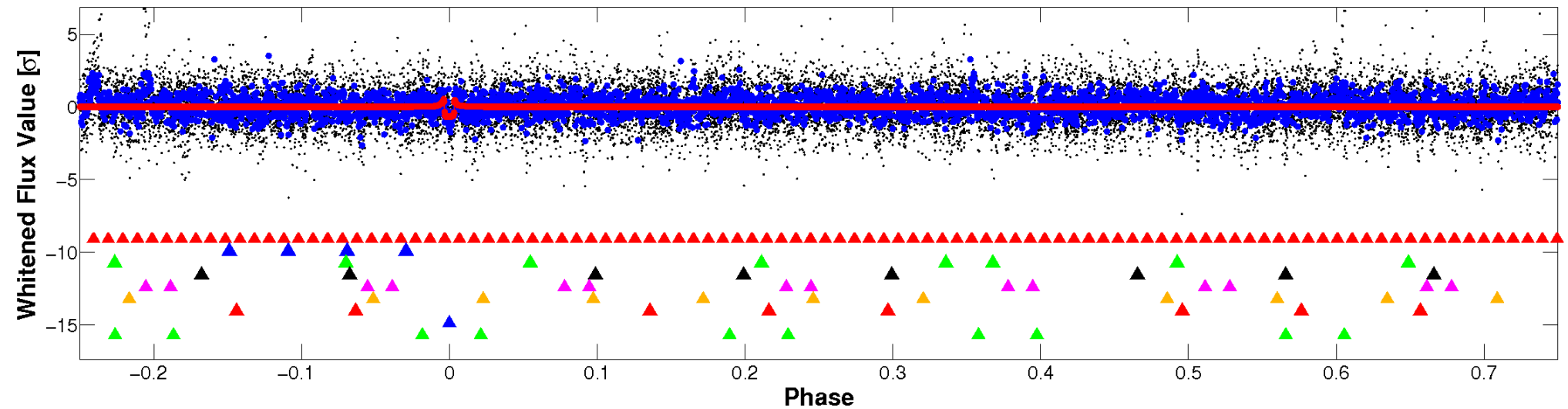


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

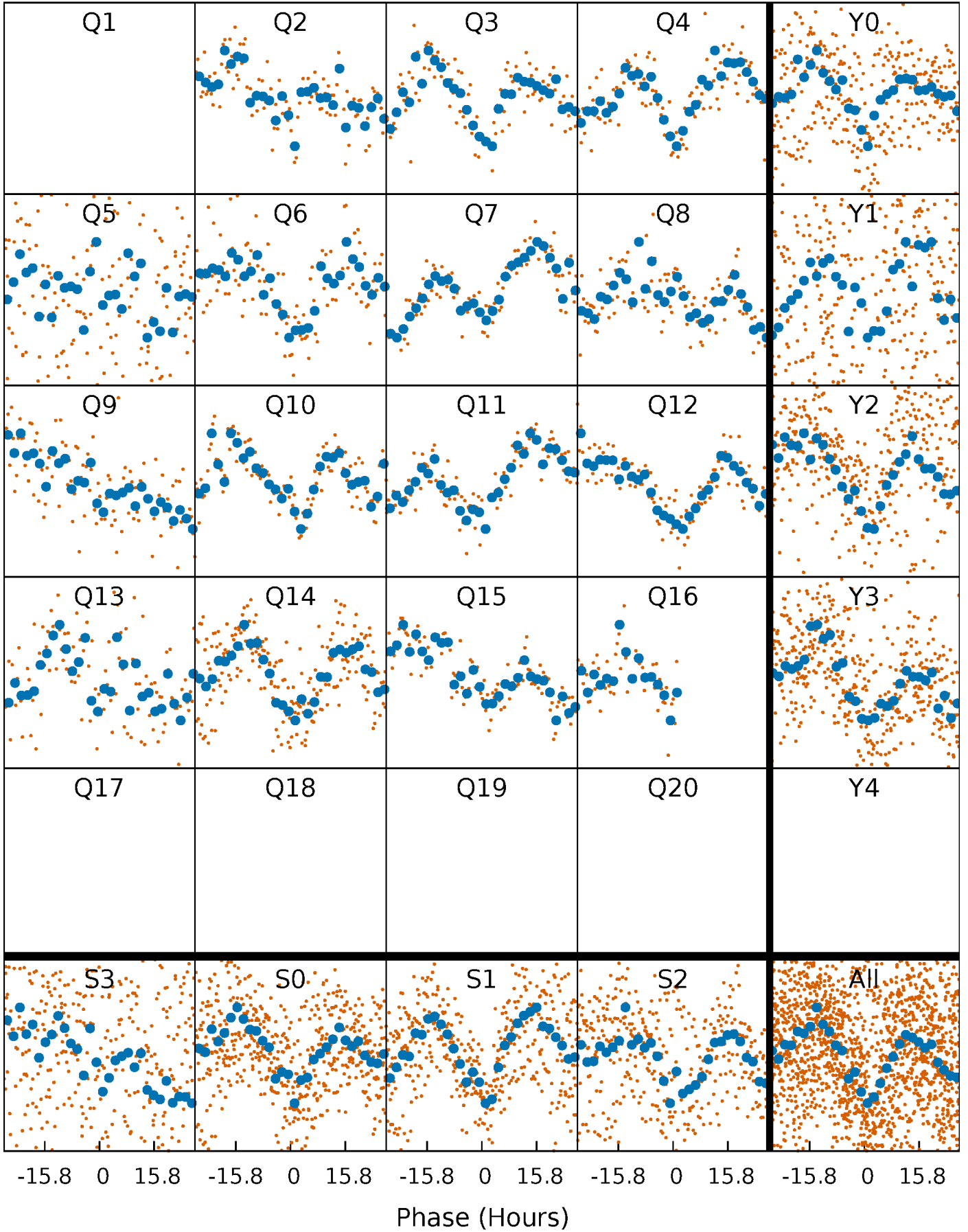


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



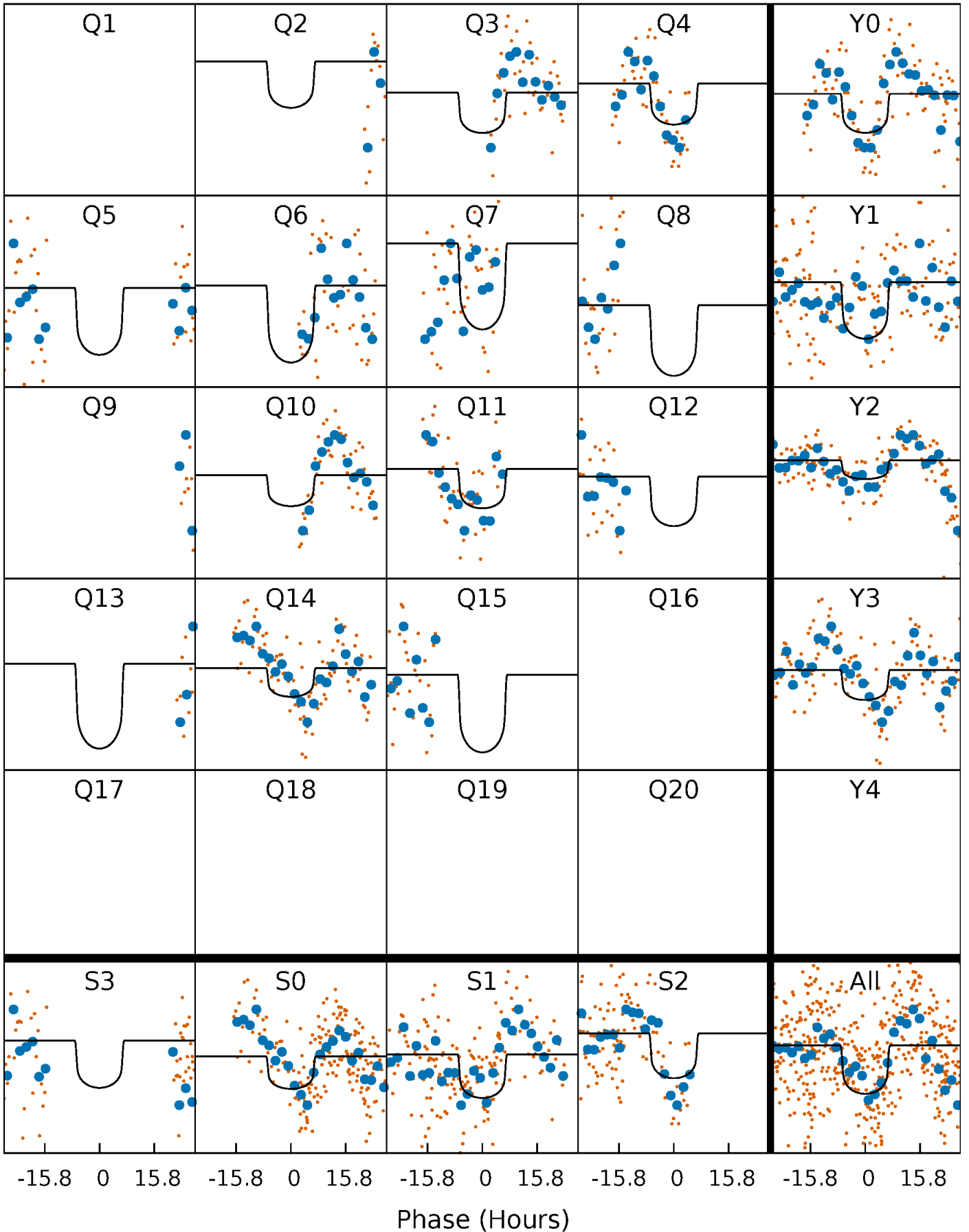
PDC Quarter-Phased Transit Curves

TCE 010918691-08 $P = 82.472563$ Days $T_0 = 205.354252$ (BKJD)



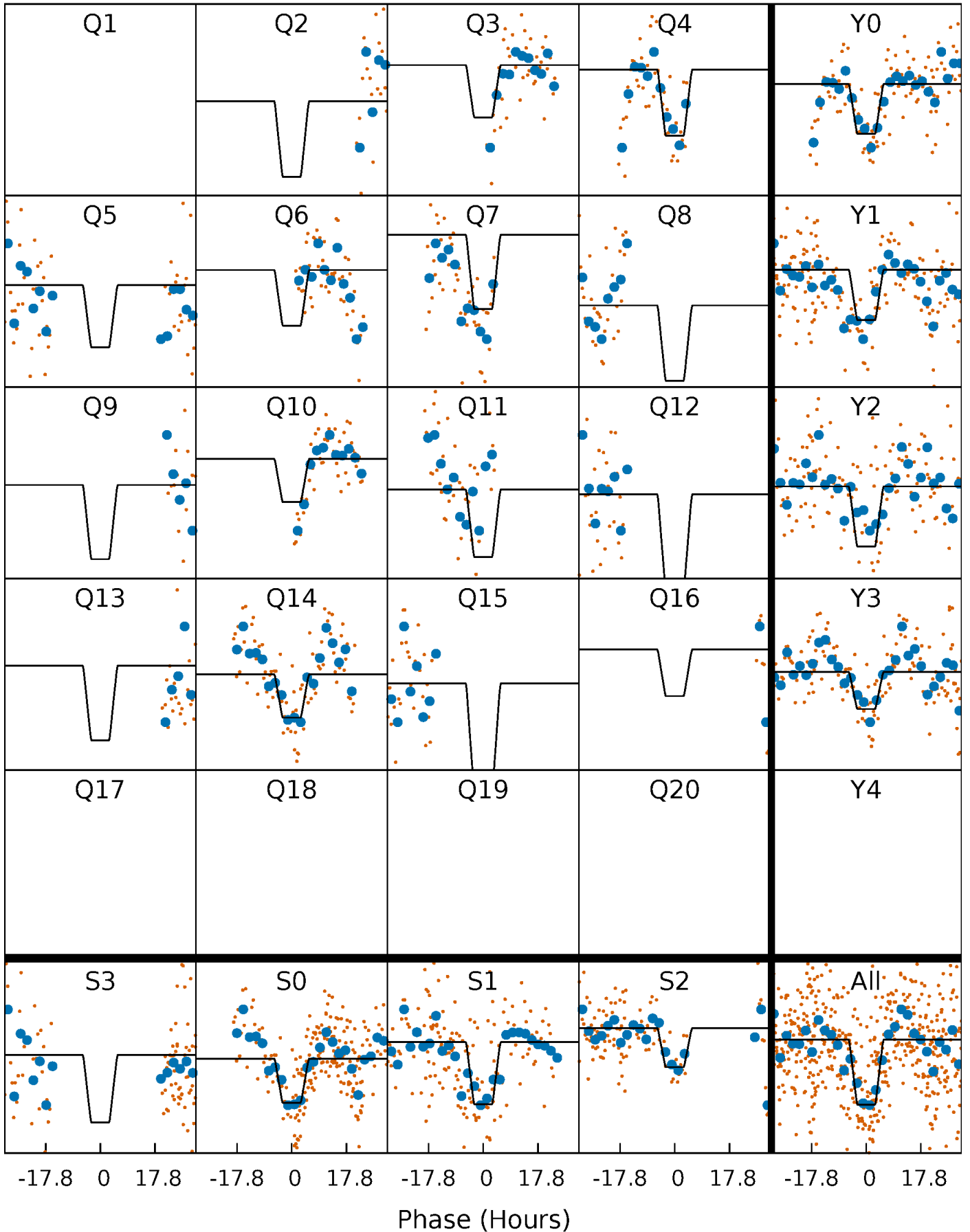
DV Quarter-Phased Transit Curves

TCE 010918691-08 P= 82.472563 Days $T_0=205.354252$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

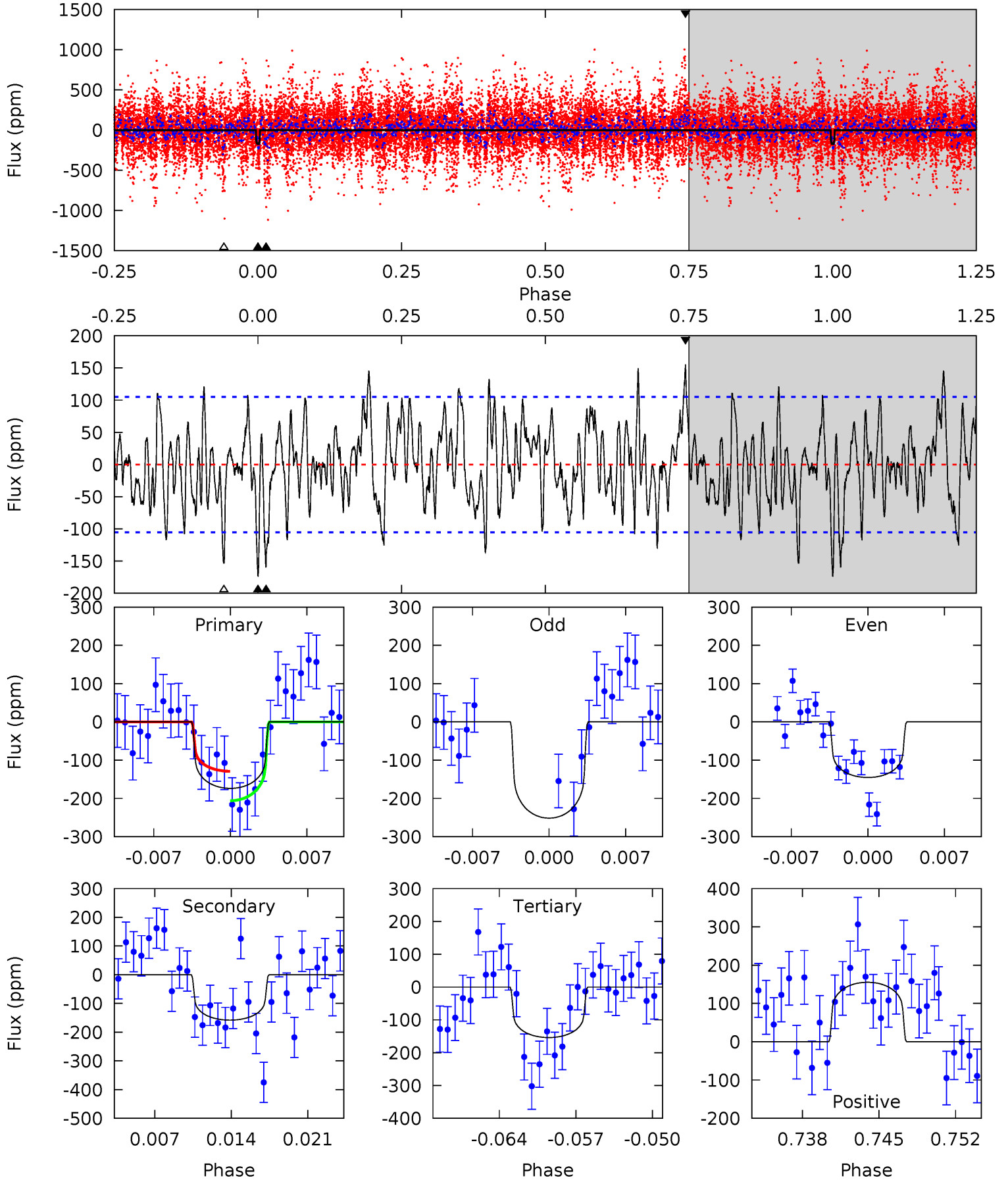
TCE 010918691-08 P= 82.479622 Days $T_0=205.359451$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-08, P = 82.472563 Days, E = 122.881689 Days

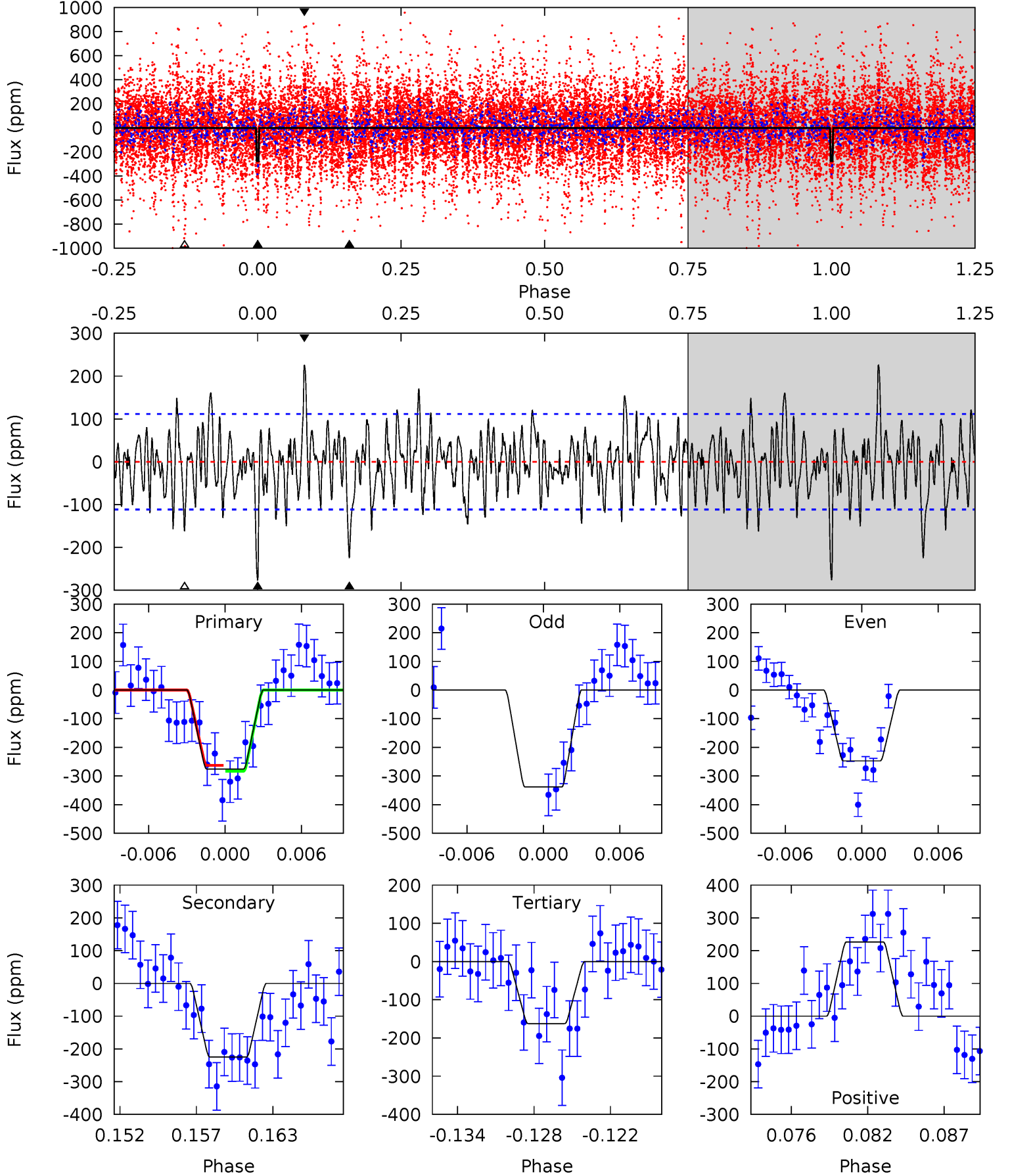
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.40	7.65	7.45	7.51	5.09	2.69	2.60	0.96	0.89	0.20	0.13	2.43	1.30	0.47	1.85



Alt Model-Shift Uniqueness Test

010918691-08, P = 82.479622 Days, E = 122.879829 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	10.3	7.46	10.4	5.13	2.76	2.75	5.20	2.26	2.86	-0.09	2.06	0.93	0.45	0.46



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-158 ± 21	$1.83^{+0.74}_{-0.74}$	652^{+51}_{-42}	5614^{+1576}_{-799}	3515^{+6282}_{-1785}
Alt.	-225 ± 22	$2.25^{+0.79}_{-0.75}$	655^{+48}_{-48}	5521^{+1143}_{-632}	3337^{+4177}_{-1458}

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 $A_{obs} \gg 1.0$

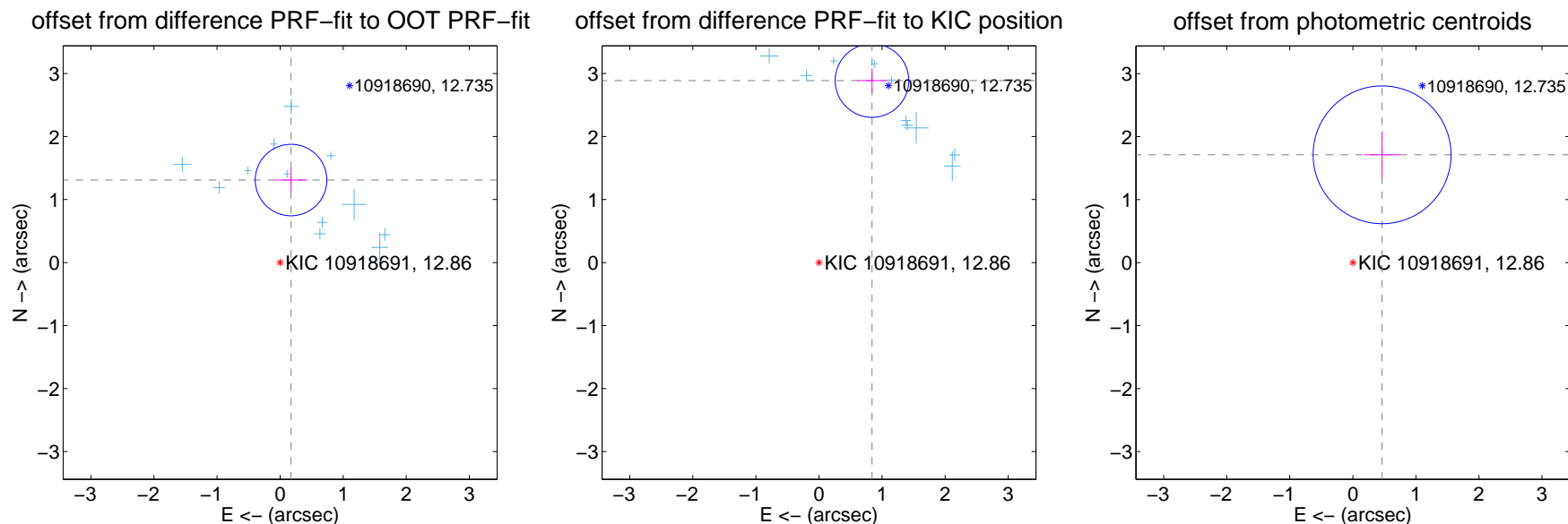
DV Centroid Data

Supplemental centroid analysis for 010918691-08. Kepler magnitude: 12.86. Transit SNR 7.57

There are 12 quarters with good PRF difference image offsets

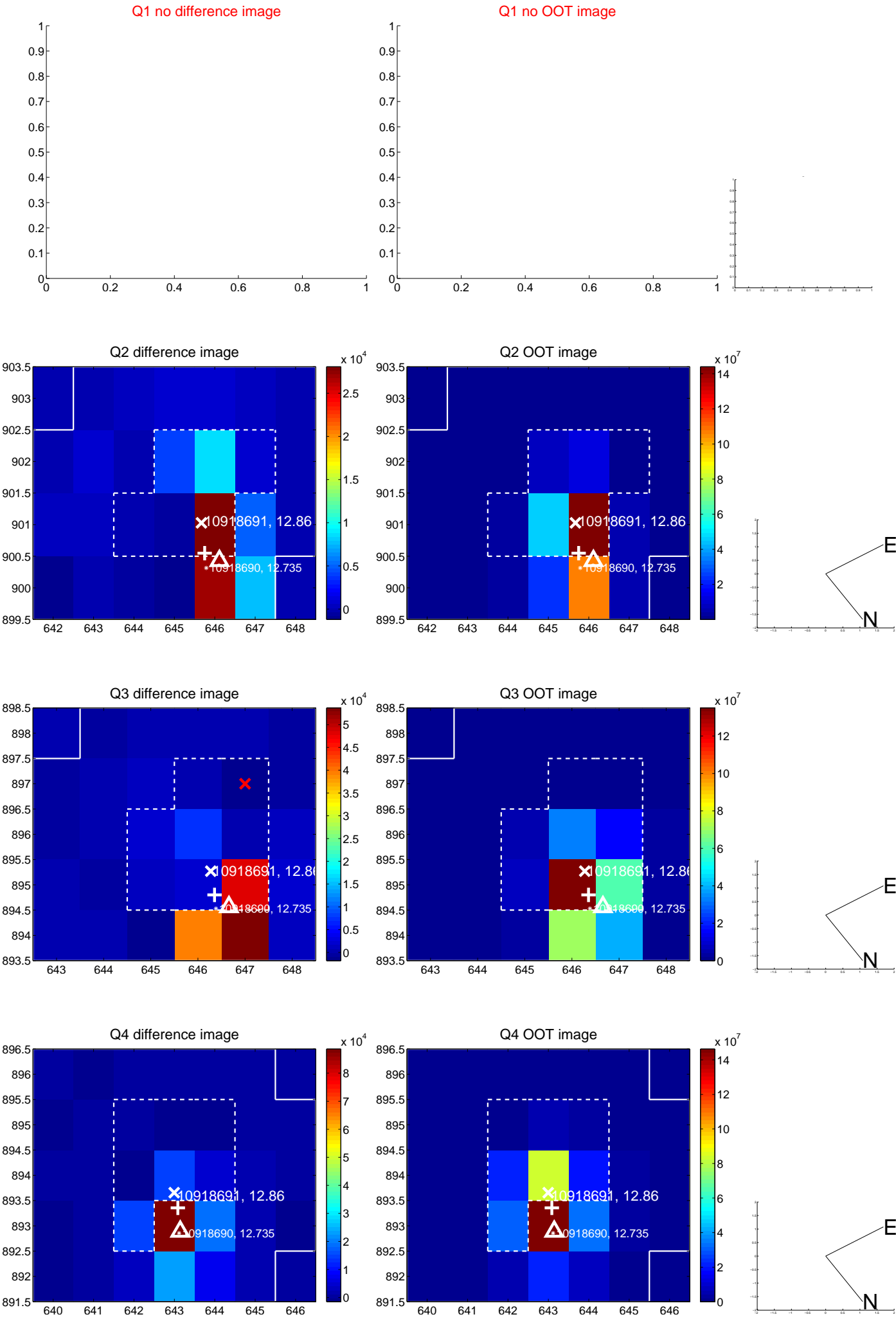
The direct PRF centroid is offset from the target star catalog position by about 1.88 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.321 ± 0.189	6.98	-0.173 ± 0.257	1.310 ± 0.188
PRF-fit source offset from KIC position	3.009 ± 0.194	15.47	-0.840 ± 0.232	2.889 ± 0.191
photometric centroid source offset	1.77 ± 0.36	4.86	-0.46 ± 0.29	1.71 ± 0.37

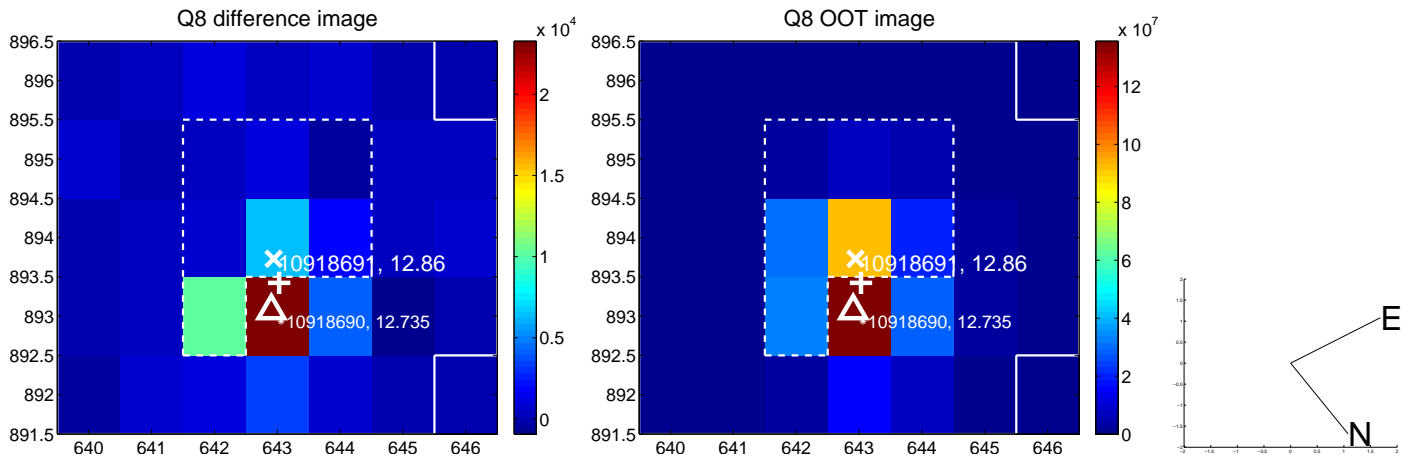
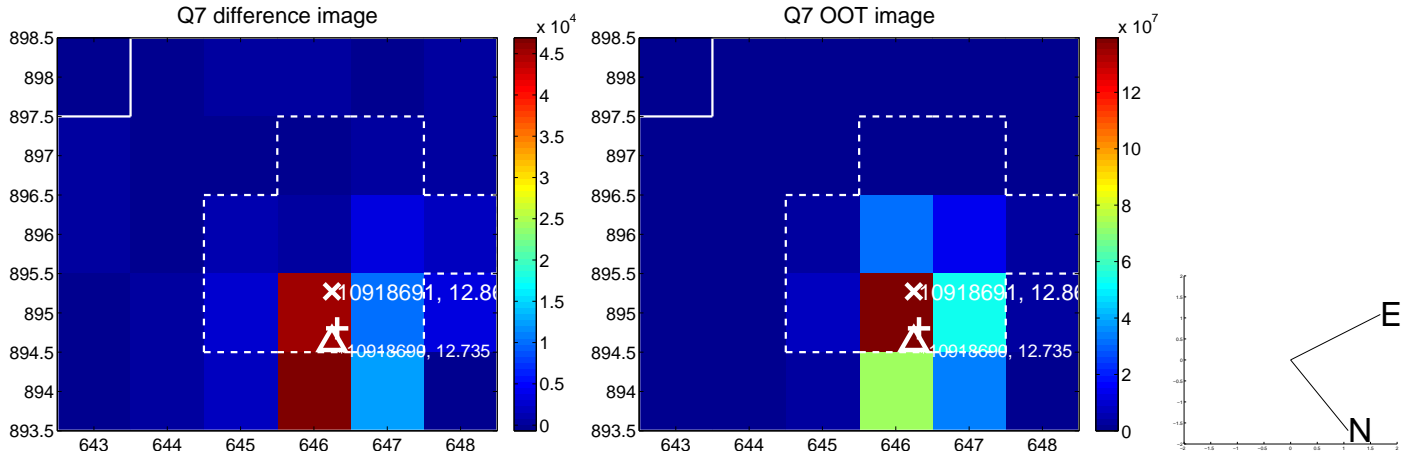
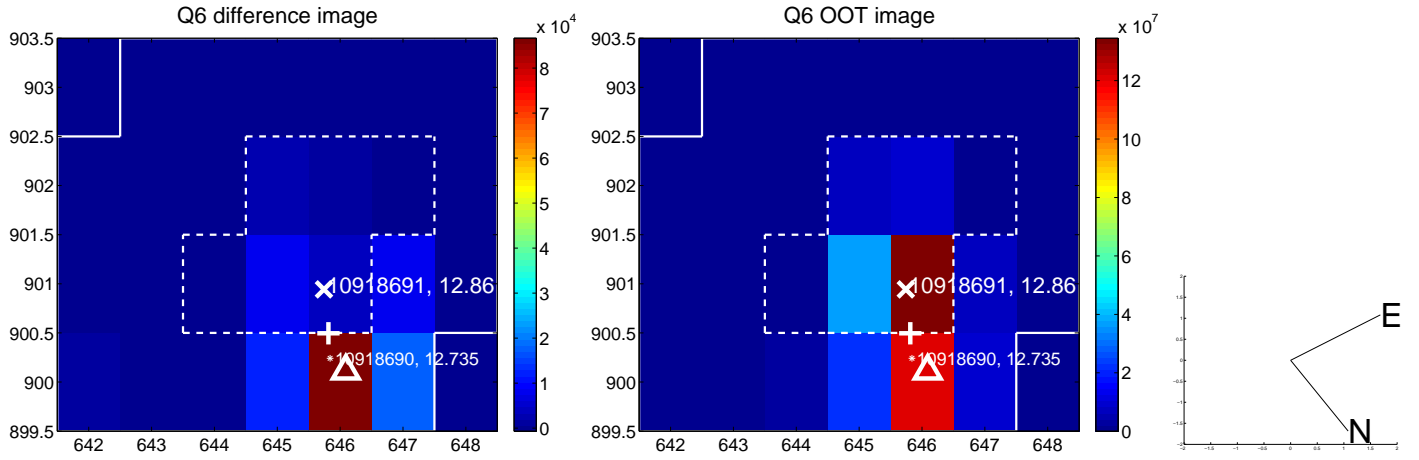
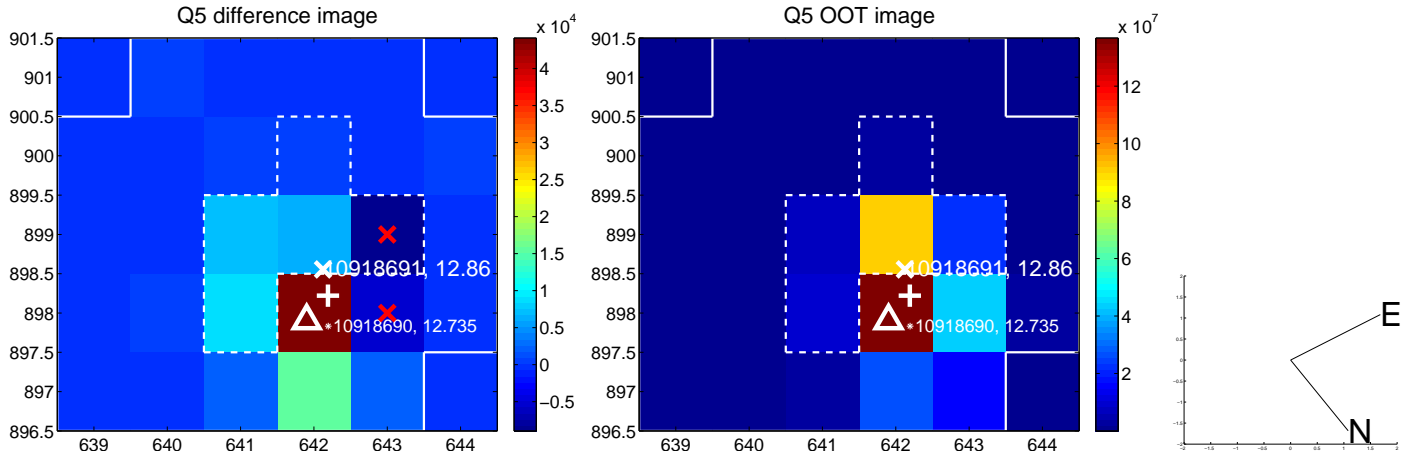


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

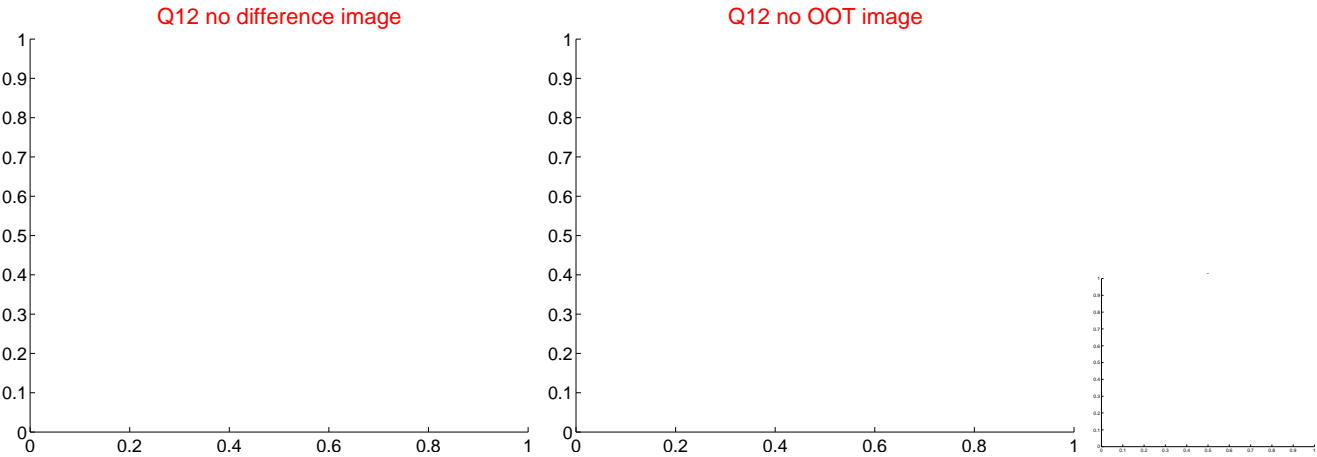
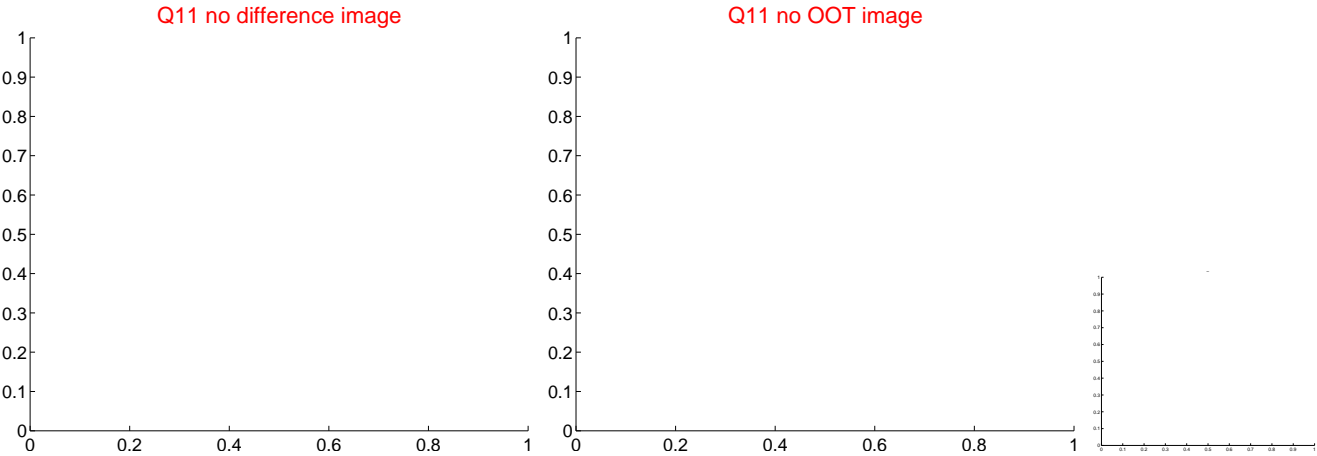
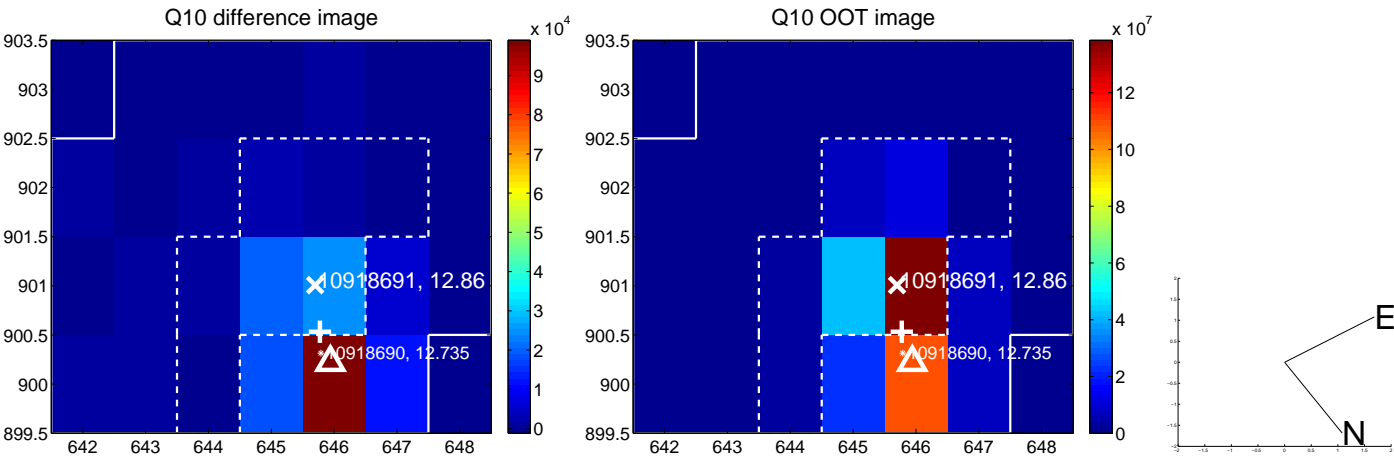
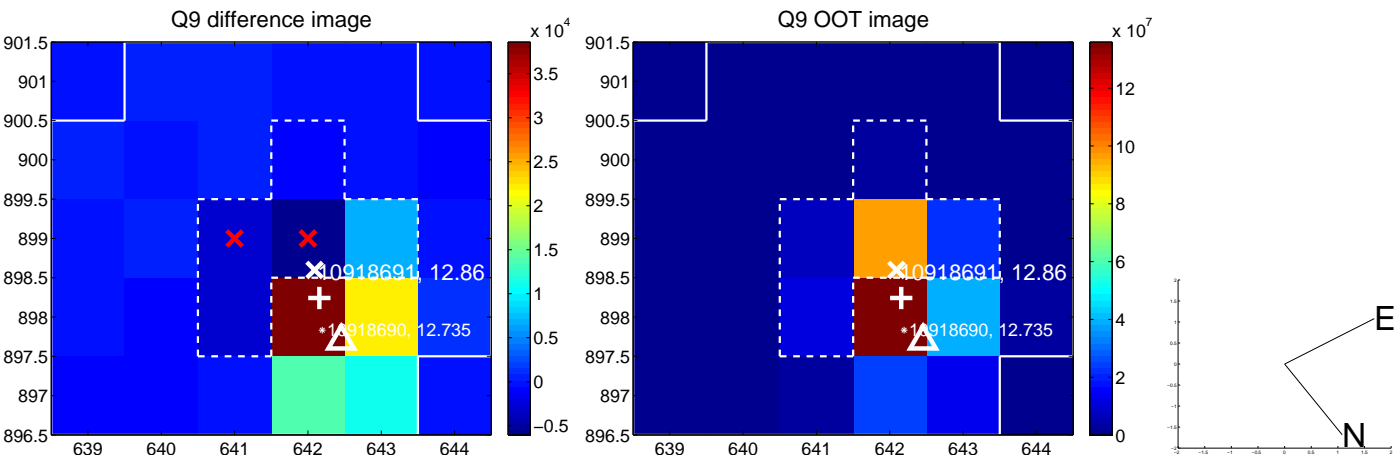
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



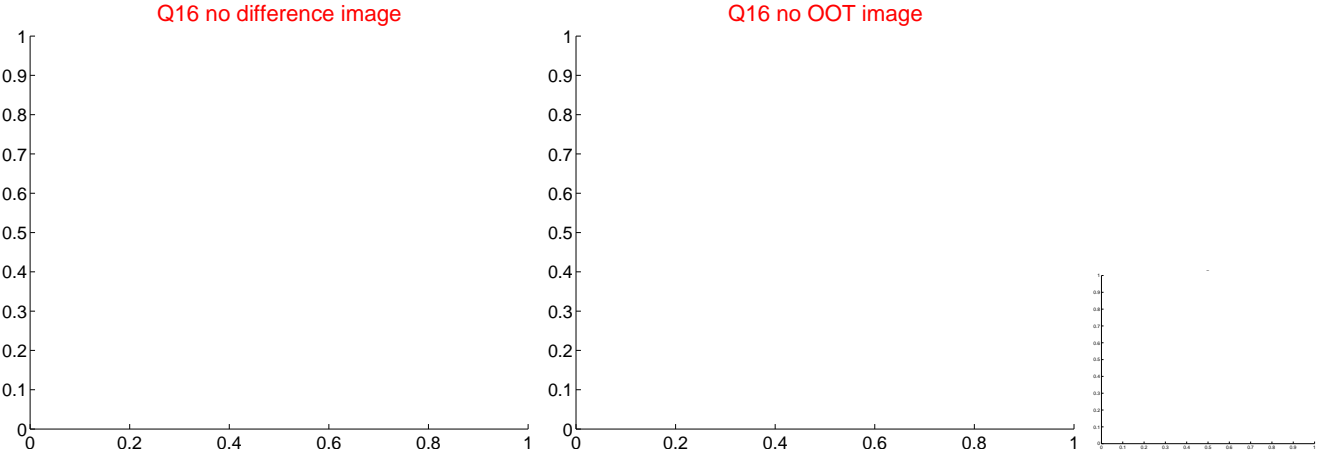
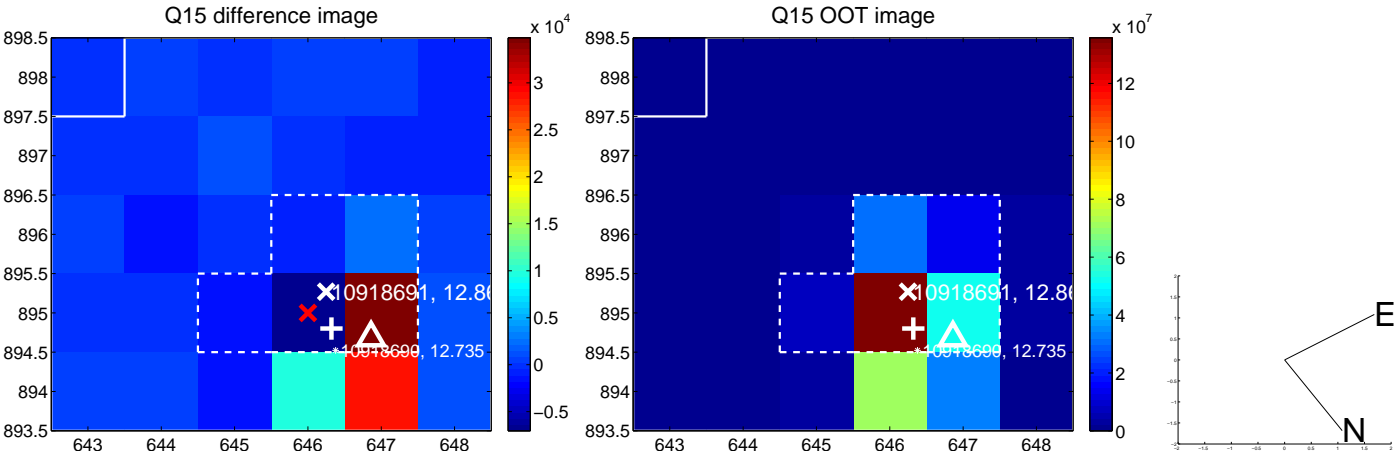
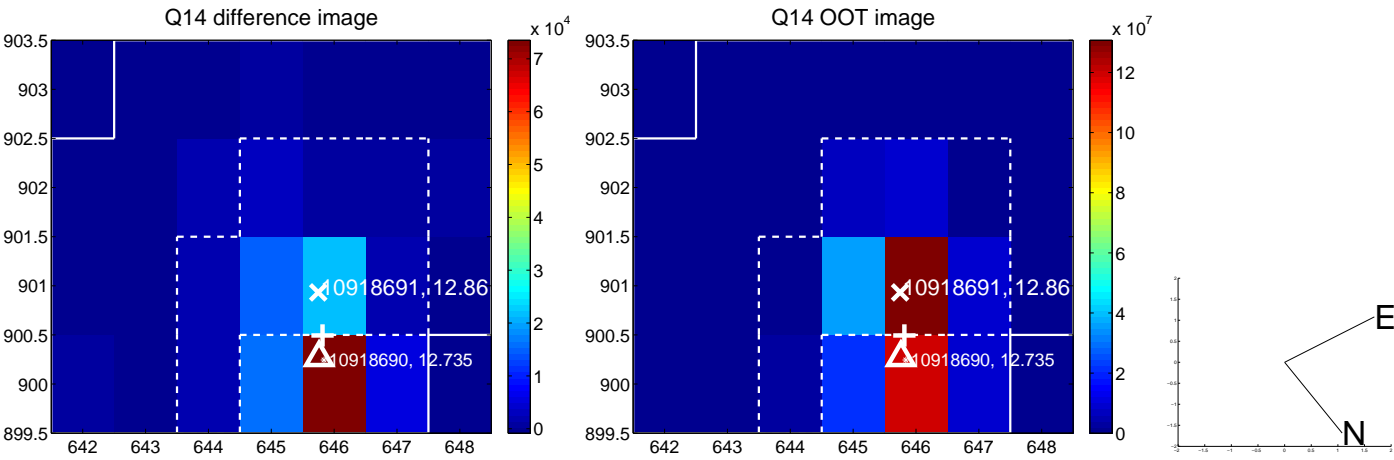
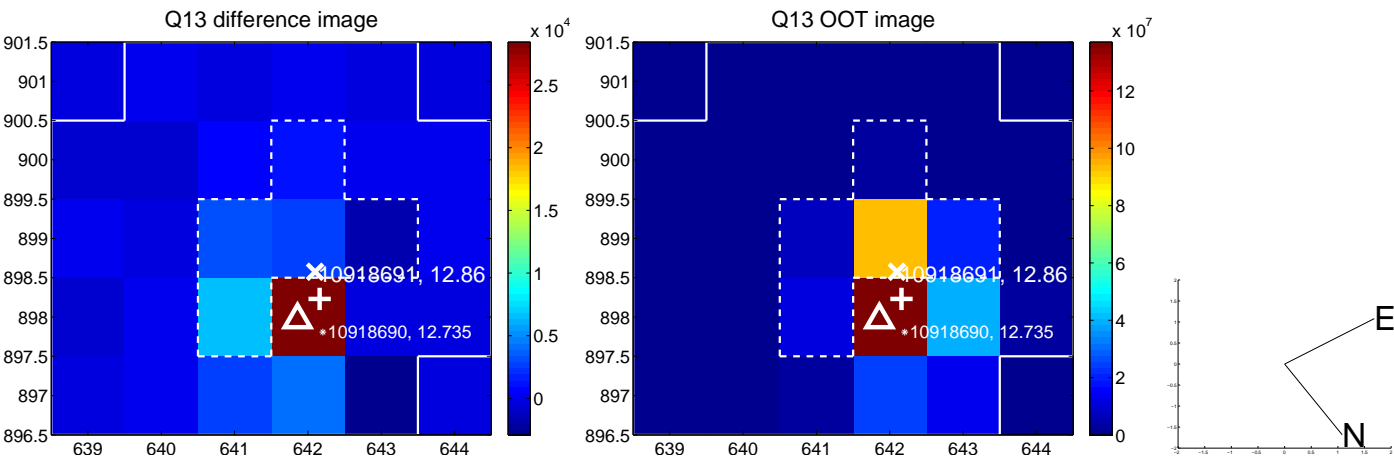
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



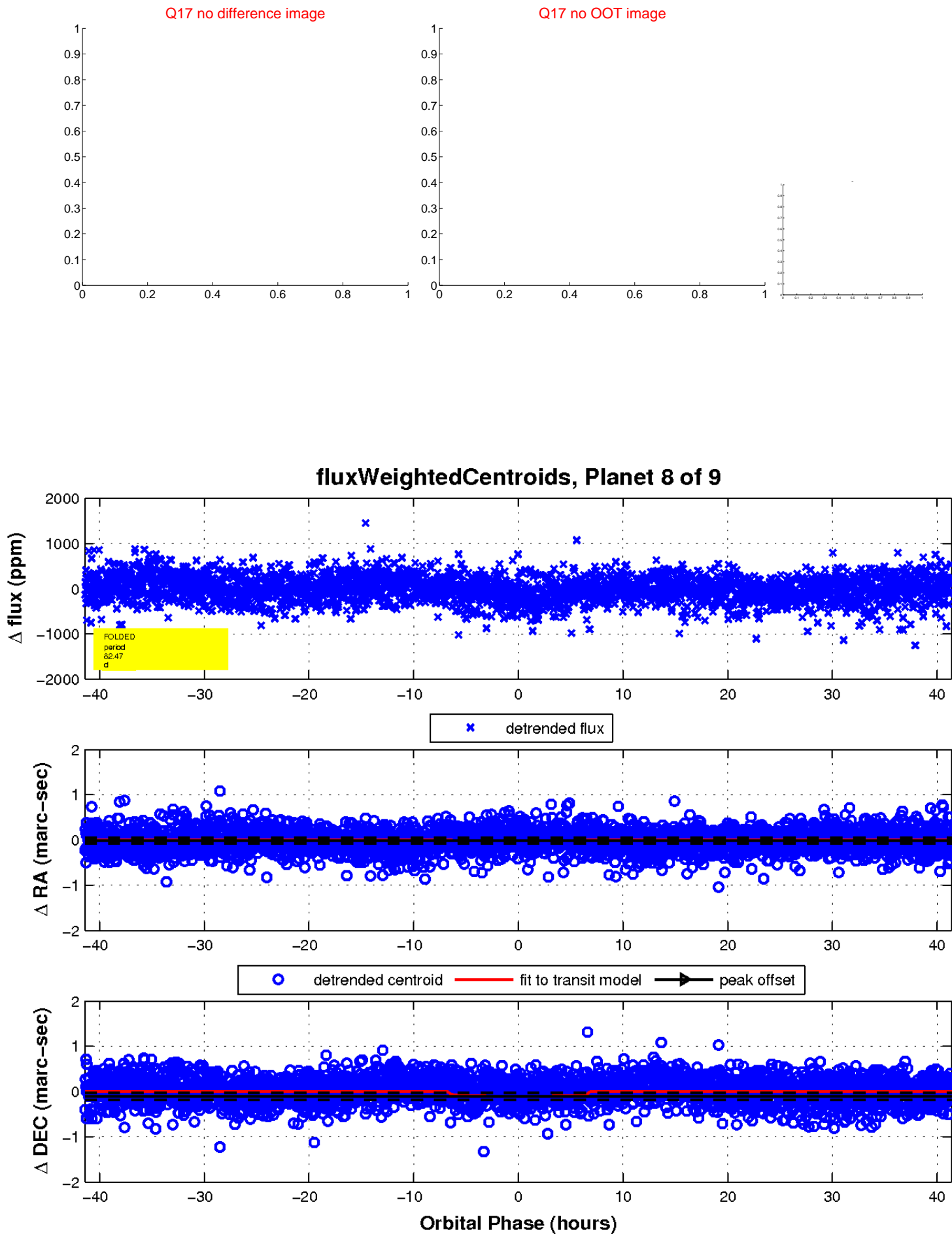
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

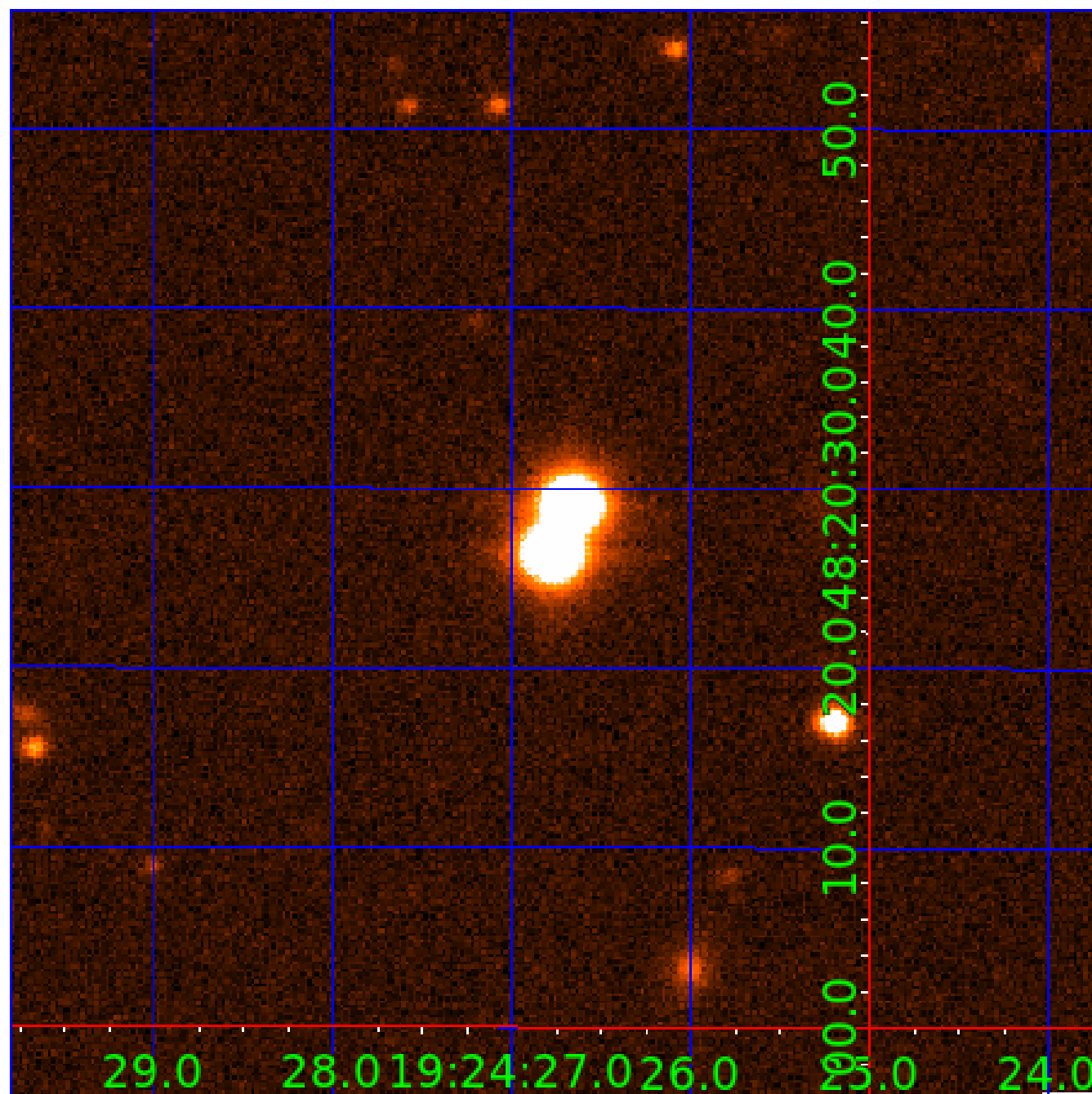


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010918691

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})
010918691-01	OBS	No	3.266427	133.201448	32.9	18.420	8.1	6.5	1.18	5926	0.73	835.83
010918691-03	OBS	No	188.134812	235.678525	499.7	15.677	8.9	10.1	1.18	5926	3.28	3.76
010918691-04	OBS	No	195.191162	213.508071	252.6	11.433	9.2	5.3	1.18	5926	2.01	3.58
010918691-05	OBS	No	105.839234	155.435128	297.7	17.102	8.5	8.3	1.18	5926	2.27	8.09
010918691-06	OBS	No	126.777807	201.105887	320.9	9.579	8.4	8.2	1.18	5926	2.78	6.36
010918691-07	OBS	No	194.650043	134.073082	427.5	3.797	8.4	8.6	1.18	5926	2.84	3.59
010918691-08	OBS	No	82.472563	205.354252	208.5	13.805	7.8	7.6	1.18	5926	1.84	11.28
010918691-09	OBS	No	147.798413	141.782029	298.9	3.000	8.1	-1.0	1.18	5926	2.02	5.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010918691-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
010918691-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_MEAS—HALO_GHOST
010918691-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_KIC_POS
010918691-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS
010918691-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010918691-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
010918691-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

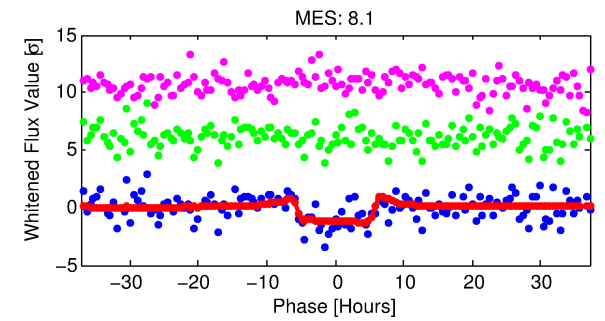
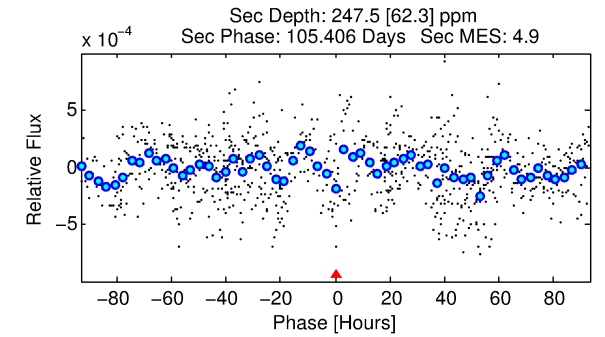
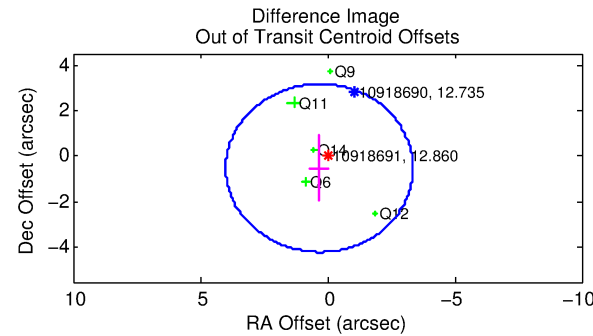
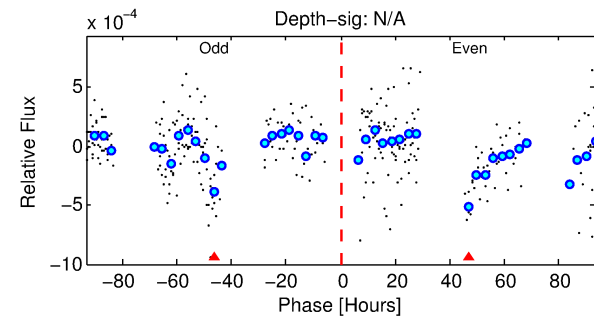
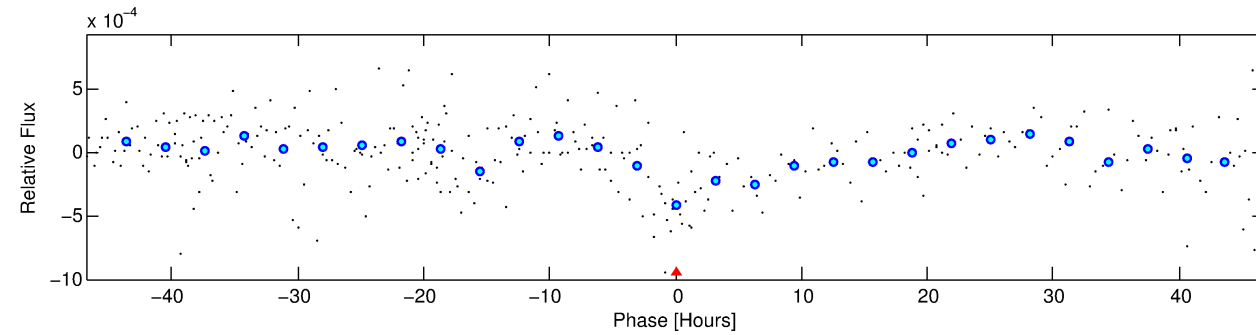
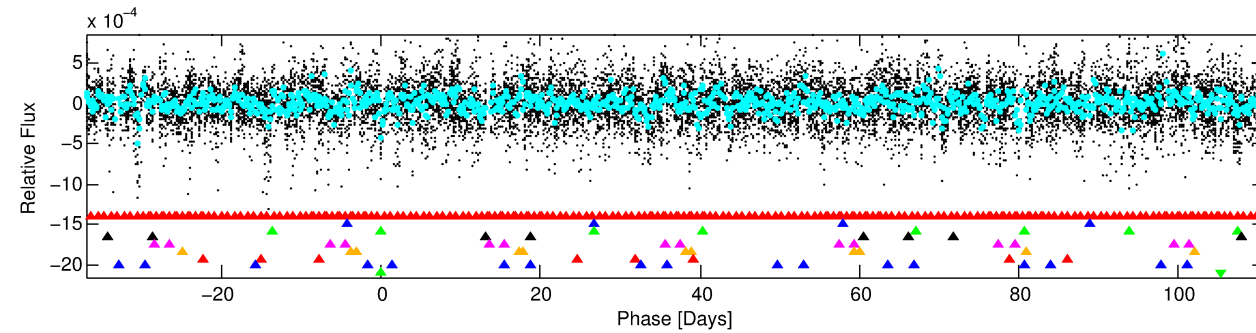
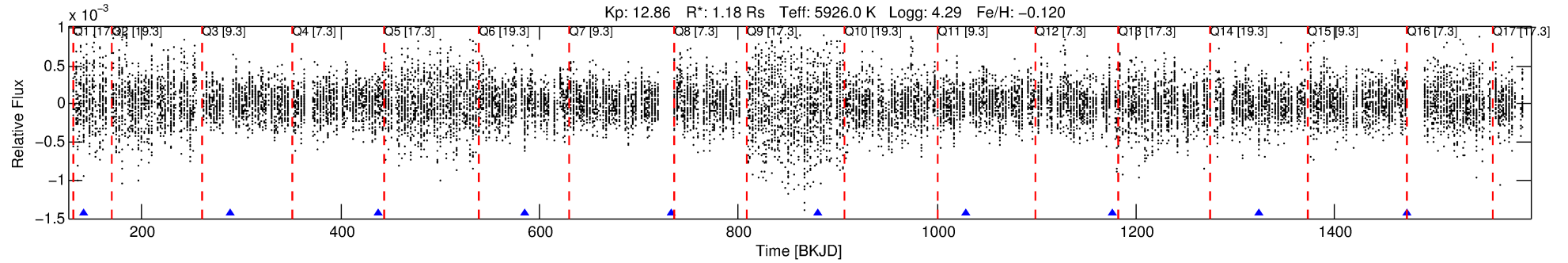
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010918691-09

No Significant Match Found

DV One-Page Summary

KIC: 10918691 Candidate: 9 of 9 Period: 147.798 d



TPS TCE Results:

Period = 147.79841 d
Epoch = 141.7820 BKJD

DV fit results are unavailable

DV Diagnostic Results:

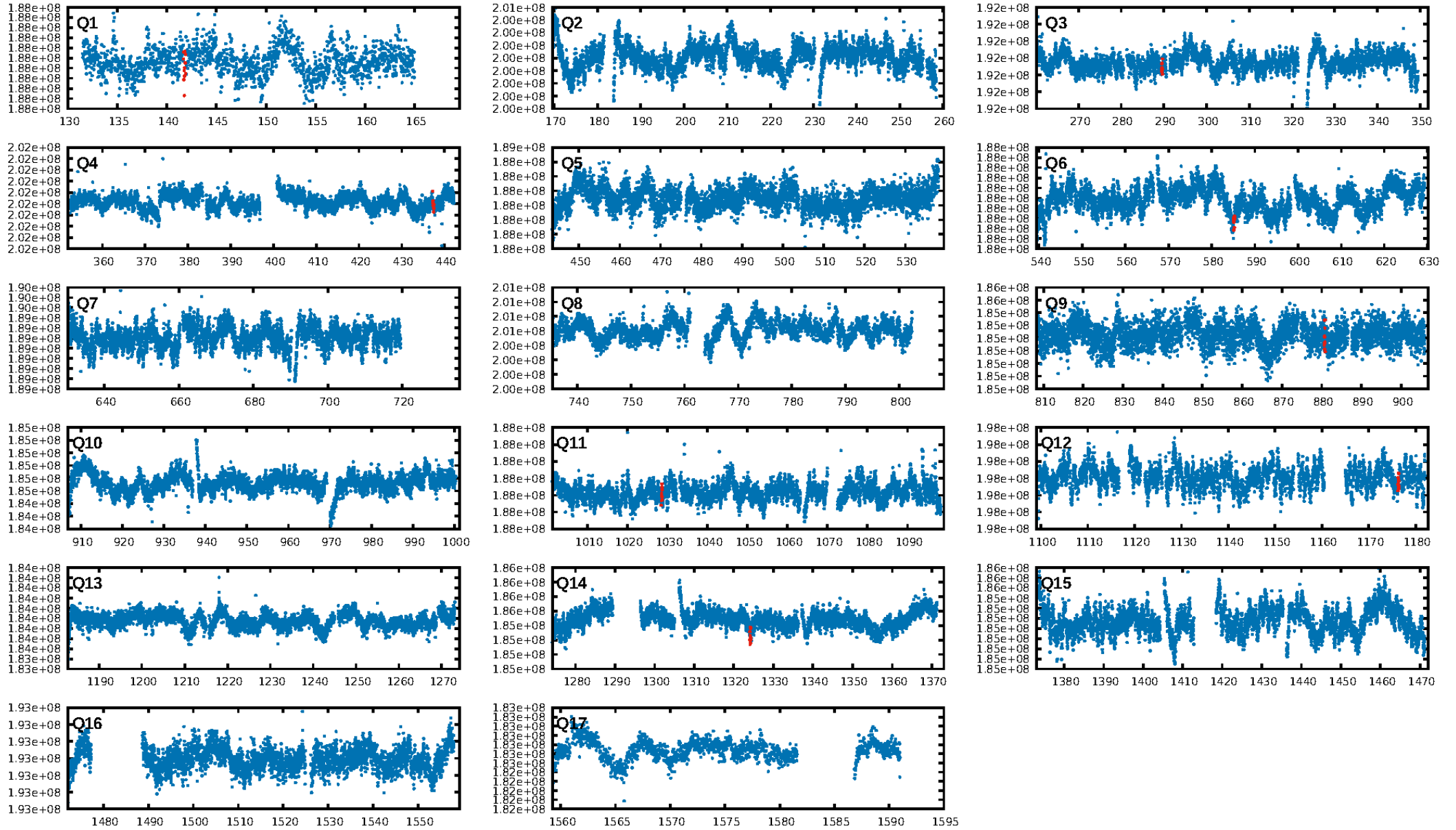
ShortPeriod-sig: 100.0% [50.26σ]
LongPeriod-sig: 100.0% [60.65σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.5414

Centroid-sig: 77.4%
Centroid-so: 1.387 arcsec [7.53σ]
OotOffset-rm: 0.603 arcsec [0.49σ]
KicOffset-rm: 1.405 arcsec [0.76σ]
OotOffset-st: 2/1/1/1 [5]
KicOffset-st: 2/1/1/1 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 0.00 [0/6]

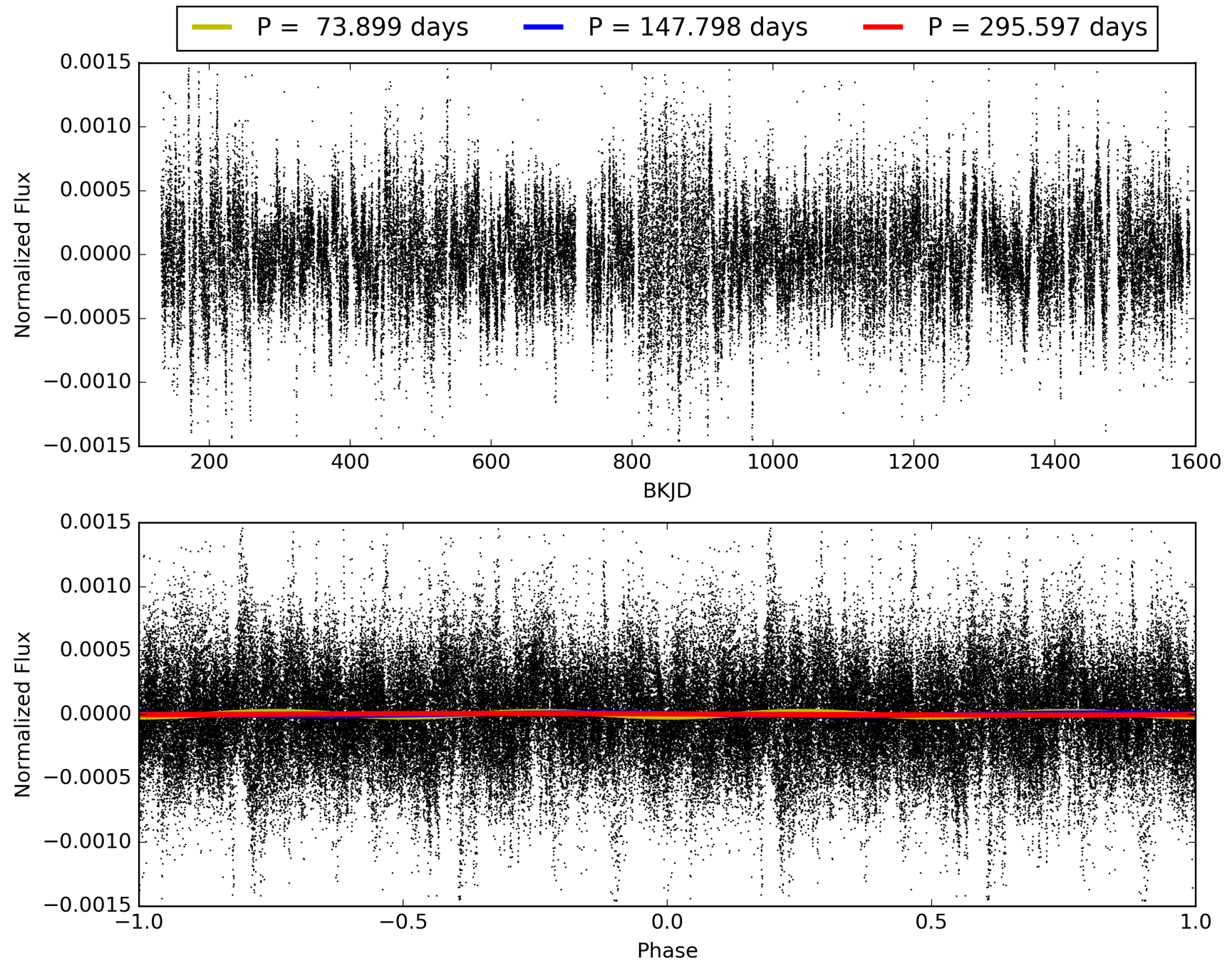
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:16:41 Z

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

TCE 010918691-09, PDC Light Curves

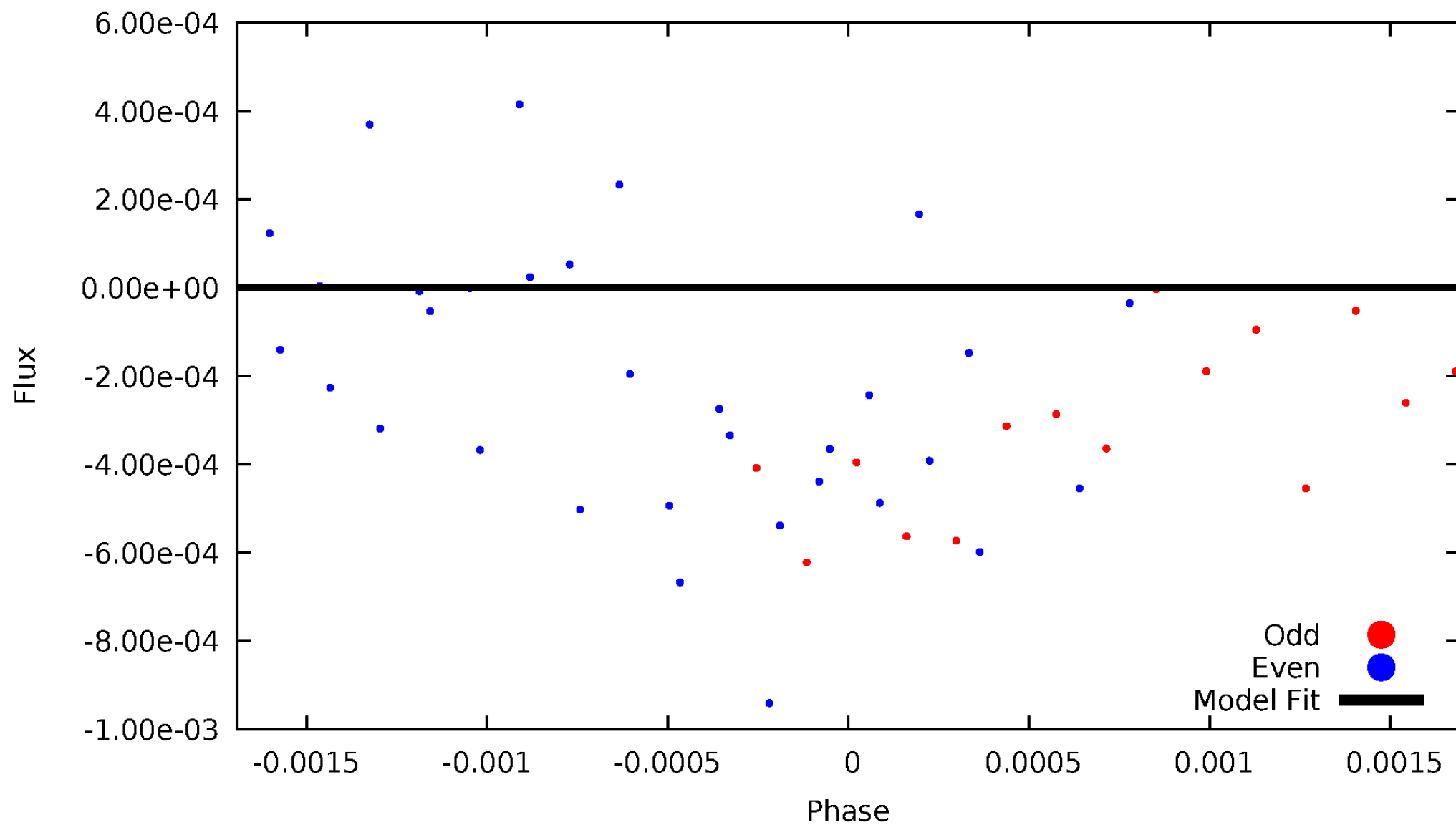


TCE 010918691-09



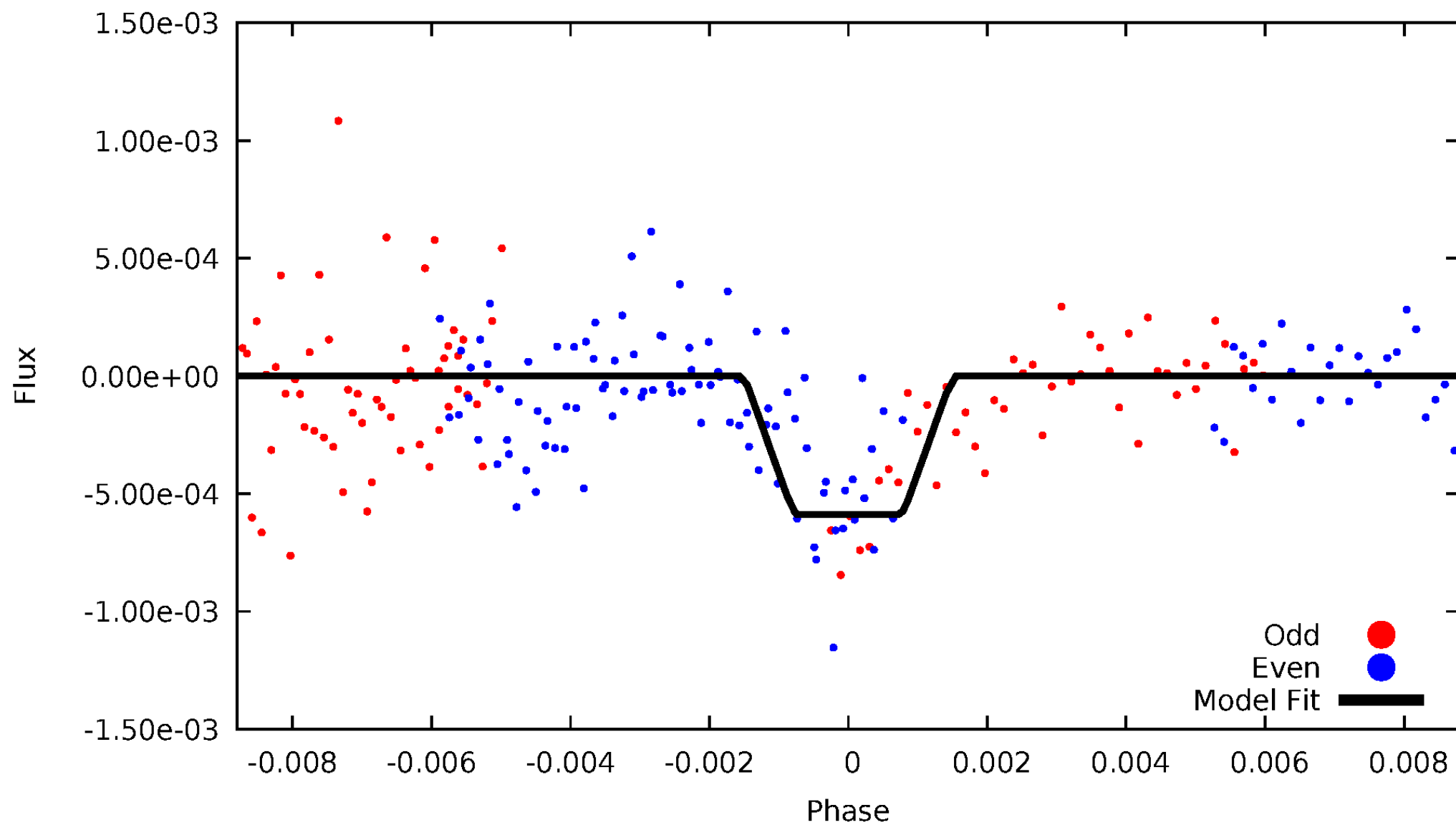
DV Odd/Even

TCE 010918691-09

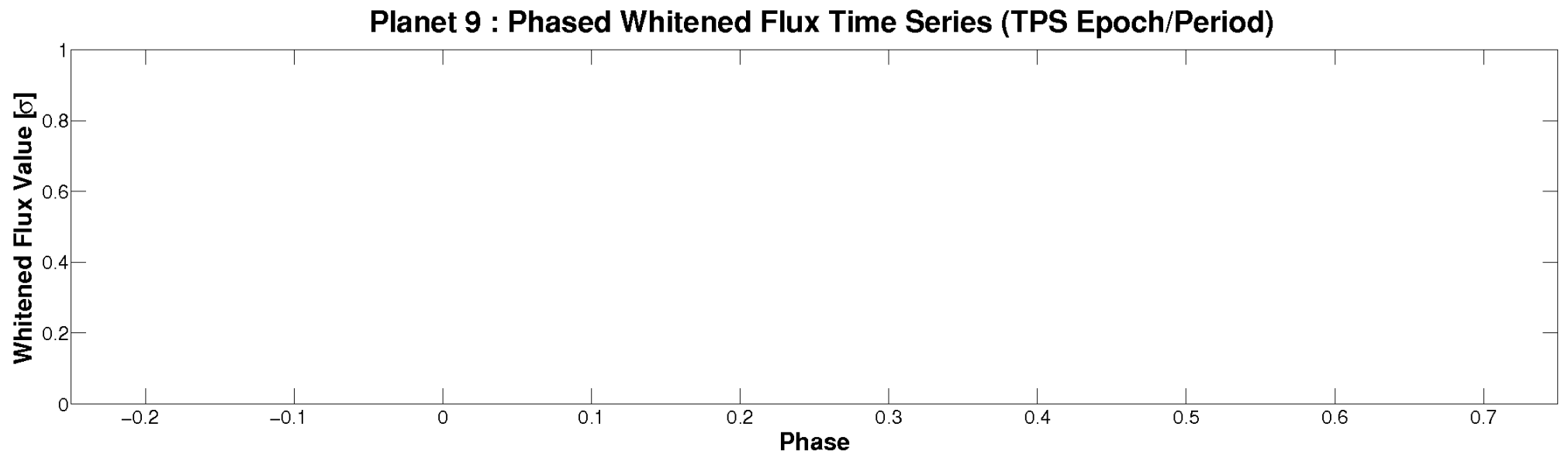
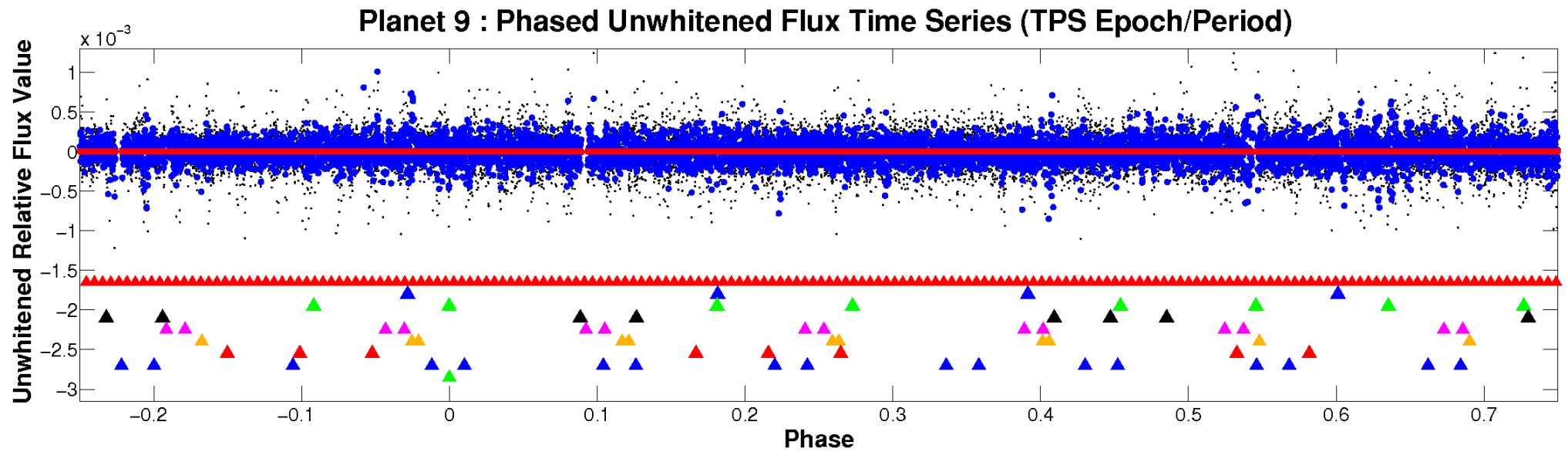


ALT Odd/Even

TCE 010918691-09

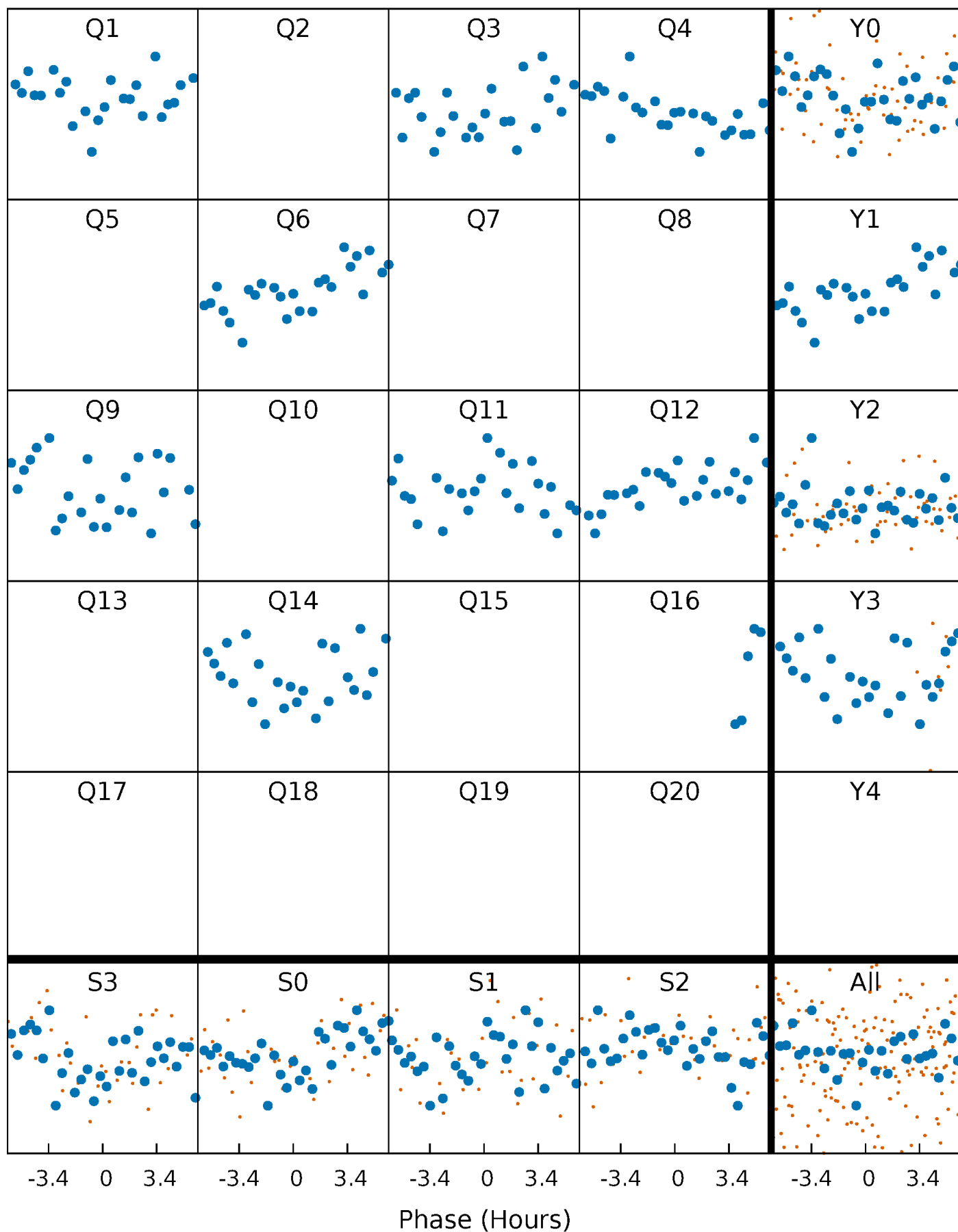


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 010918691-09 P=147.798413 Days $T_0=141.782029$ (BKJD)



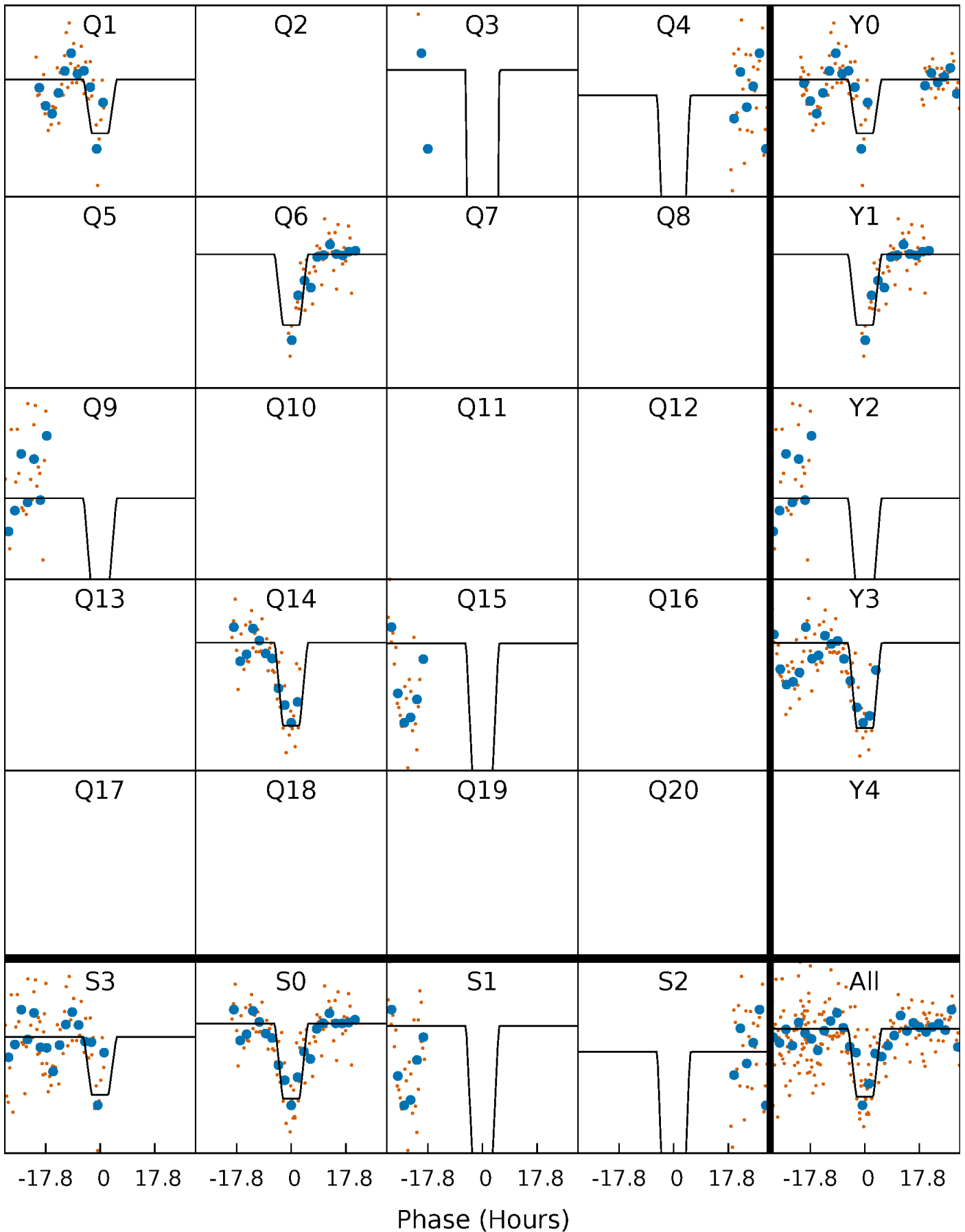
DV Quarter-Phased Transit Curves

TCE 010918691-09 P=147.798413 Days $T_0=141.782029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

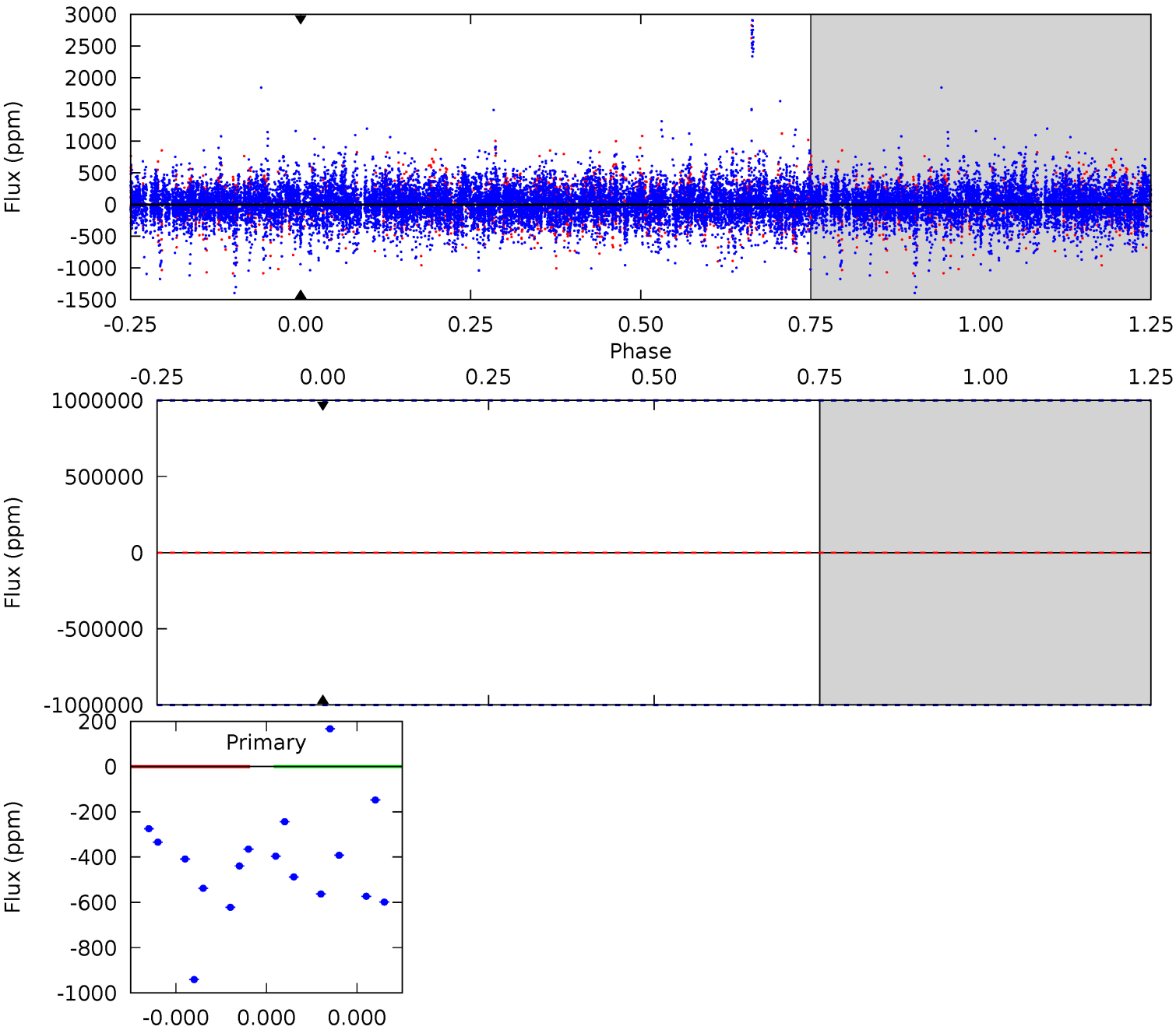
TCE 010918691-09 P=147.798413 Days $T_0=141.781228$ (BKJD)



DV Model-Shift Uniqueness Test

010918691-09, P = 147.798413 Days, E = 141.782029 Days

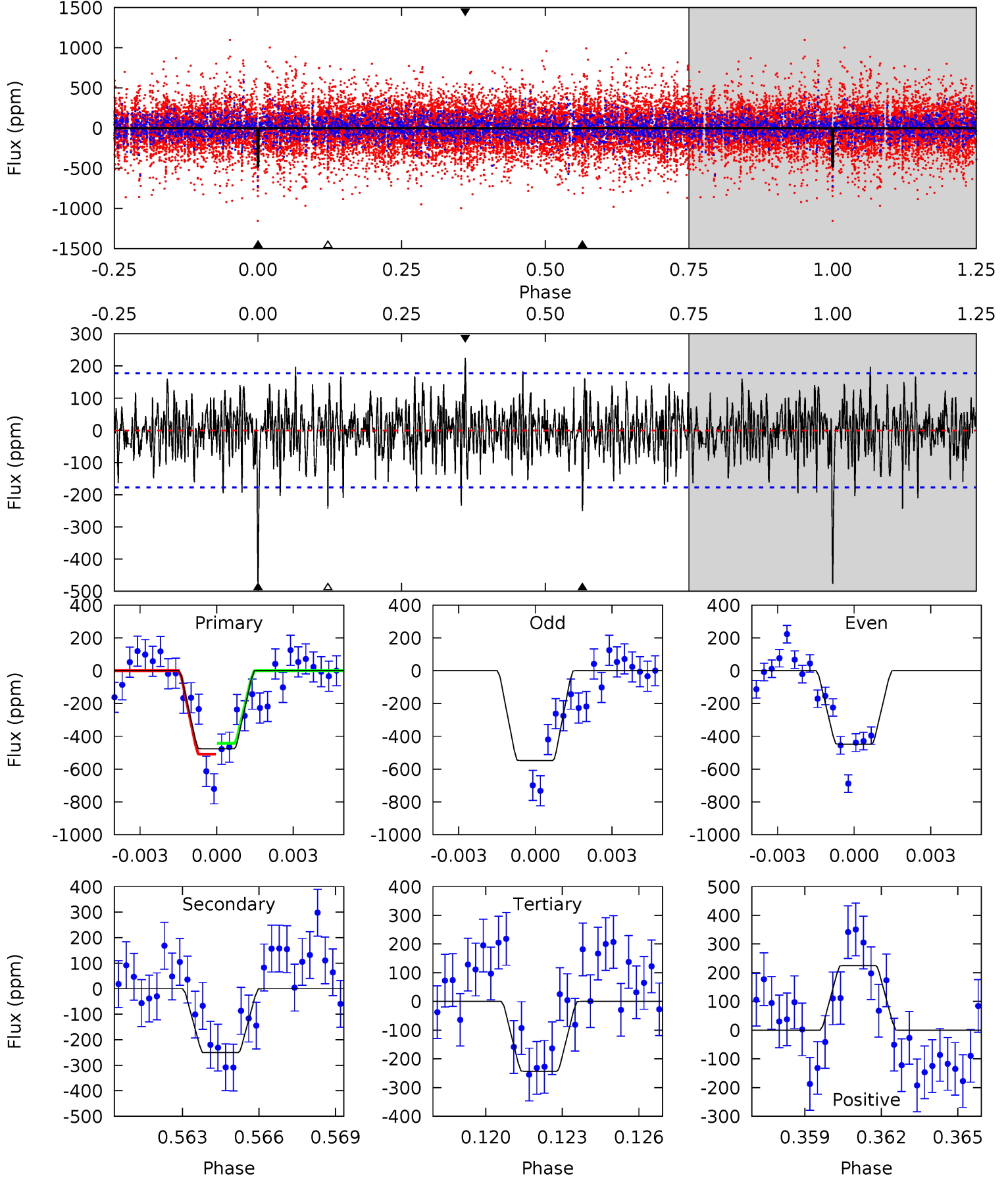
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010918691-09, P = 147.798413 Days, E = 141.781228 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	7.40	7.18	6.63	5.24	2.95	1.85	6.89	7.43	0.22	0.77	1.35	0.96	0.32	1.00



Stellar Parameters For KIC 010918691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+187}_{-207}	$4.287^{+0.185}_{-0.185}$	$-0.120^{+0.300}_{-0.300}$	$1.176^{+0.348}_{-0.261}$	$0.976^{+0.147}_{-0.110}$	$0.846^{+0.789}_{-0.405}$
	+3%/-3%	+4%/-4%	+250%/-250%	+30%/-22%	+15%/-11%	+93%/-48%
Source	KIC0	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 010918691-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$9.07^{+9.78}_{-6.56}$	537^{+49}_{-39}	4101^{+21034}_{-28091}	$1649^{+387941}_{-358769}$
Alt.	-251 ± 34	$10.31^{+9.85}_{-7.20}$	538^{+46}_{-38}	3214^{+1654}_{-517}	381^{+3727}_{-277}

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 $A_{obs} \gg 1.0$

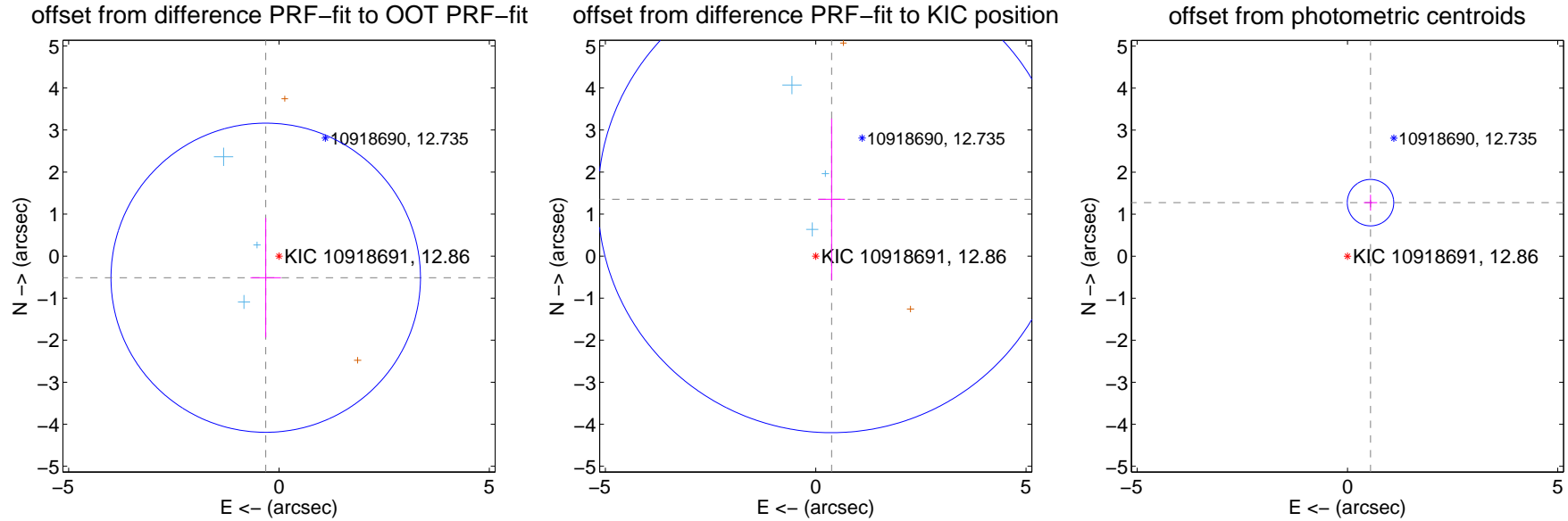
DV Centroid Data

Supplemental centroid analysis for 010918691-09. Kepler magnitude: 12.86. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

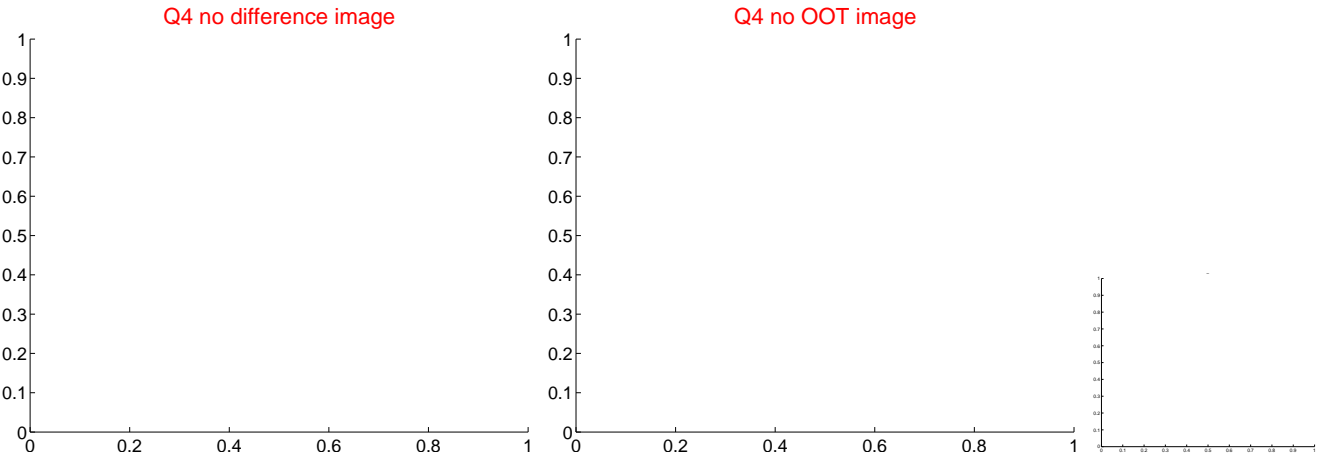
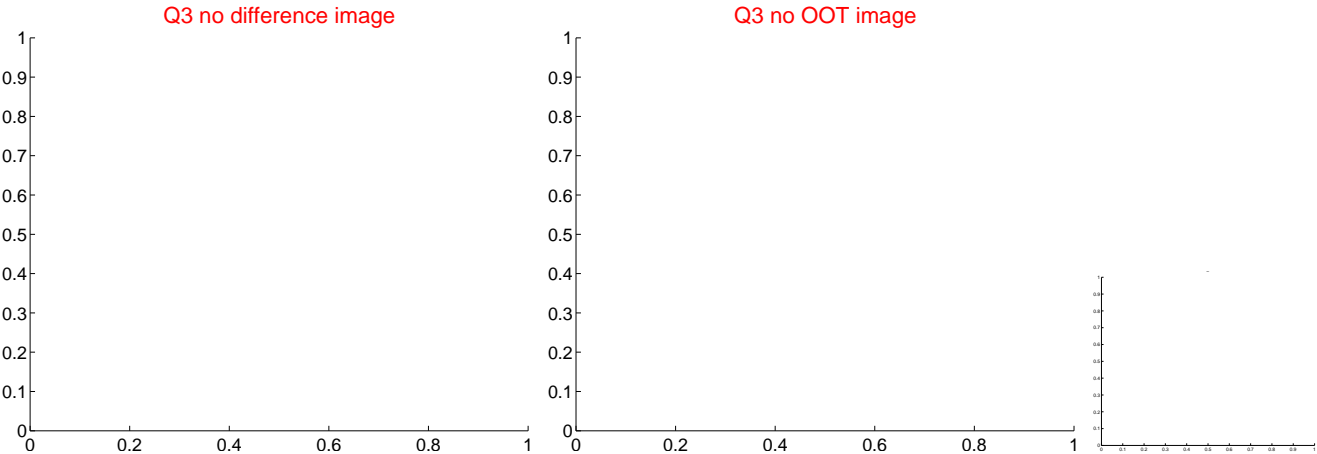
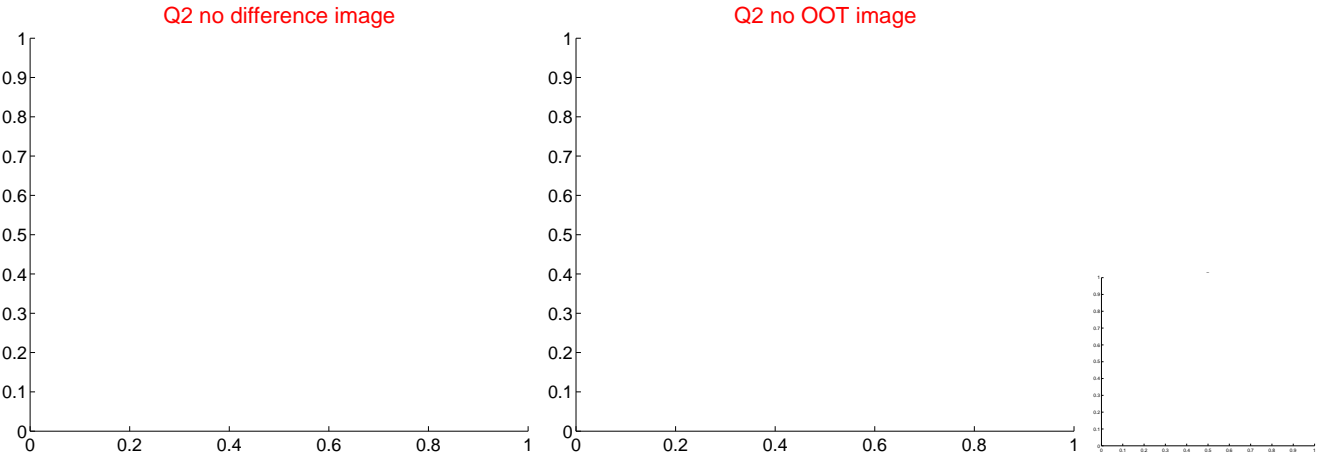
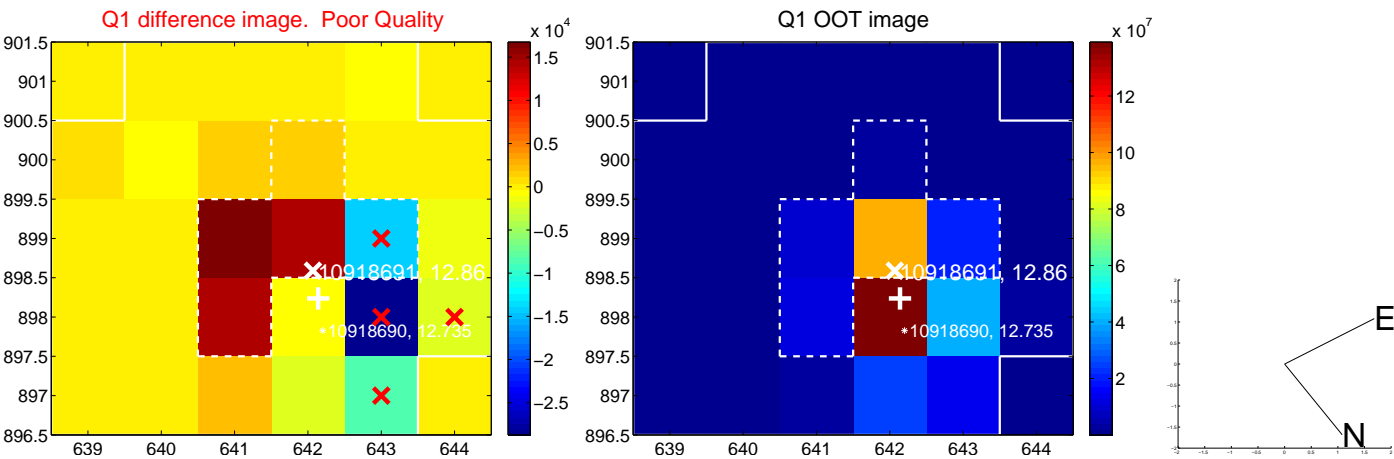
The direct PRF centroid is offset from the target star catalog position by about 1.86 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.603 ± 1.226	0.49	0.315 ± 0.361	-0.514 ± 1.421
PRF-fit source offset from KIC position	1.405 ± 1.851	0.76	-0.377 ± 0.316	1.353 ± 1.920
photometric centroid source offset	1.39 ± 0.18	7.53	-0.55 ± 0.16	1.27 ± 0.19

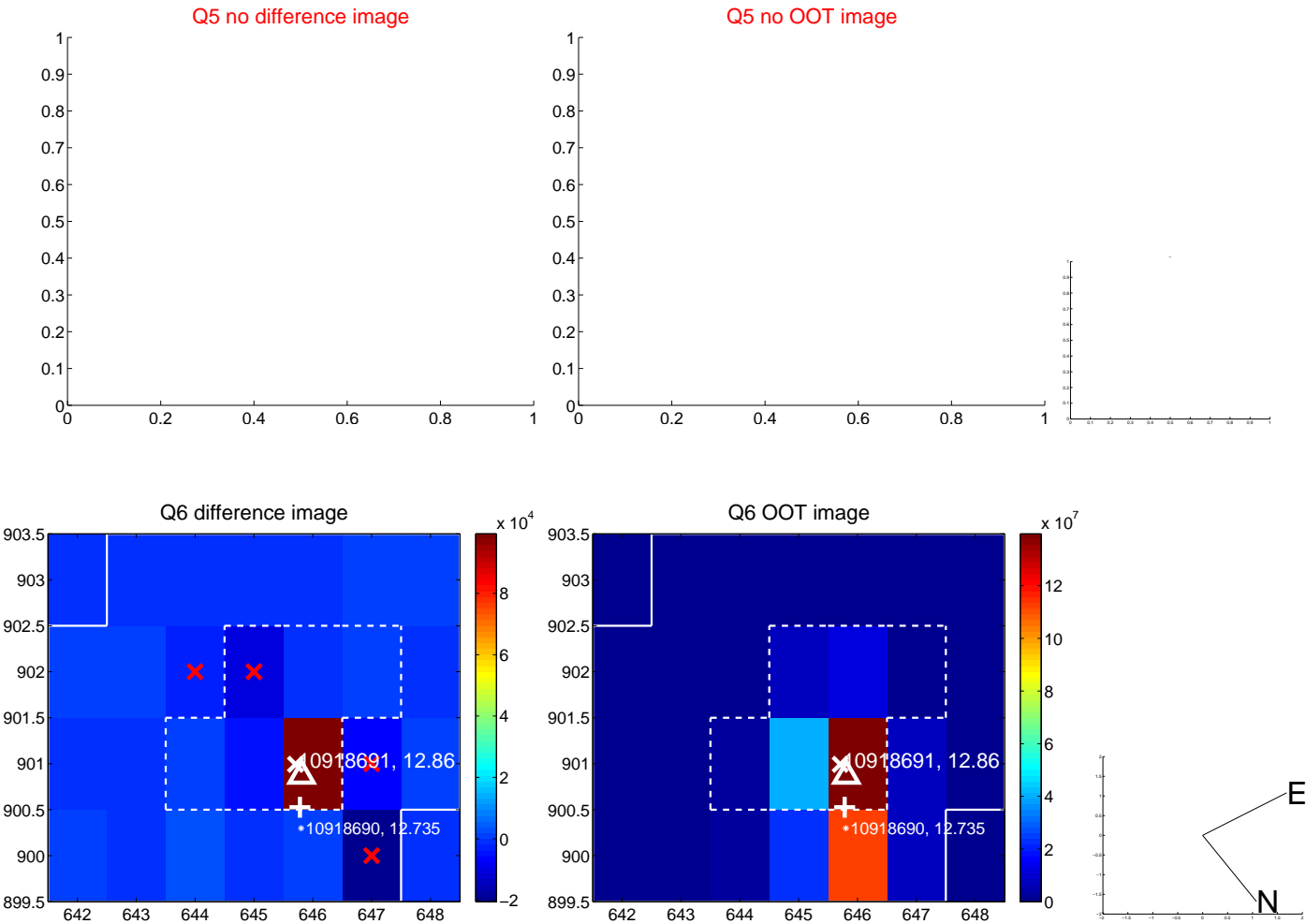


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

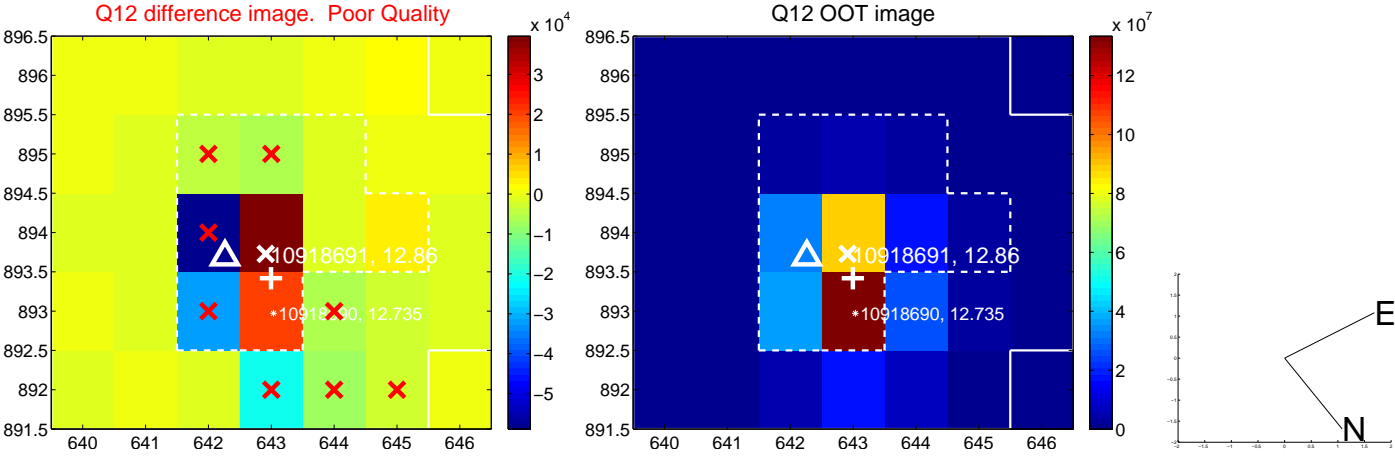
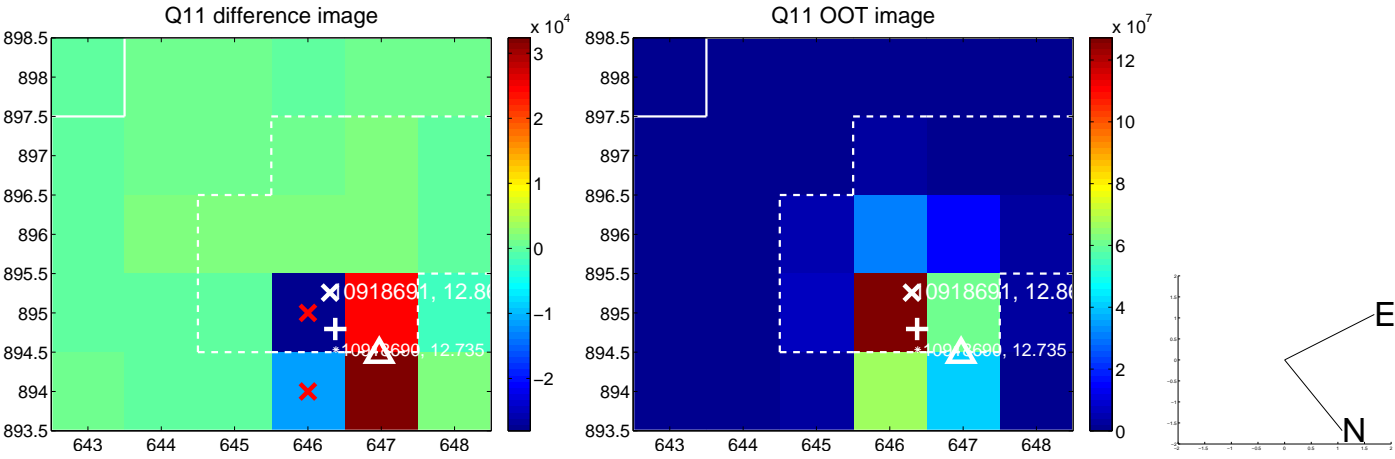
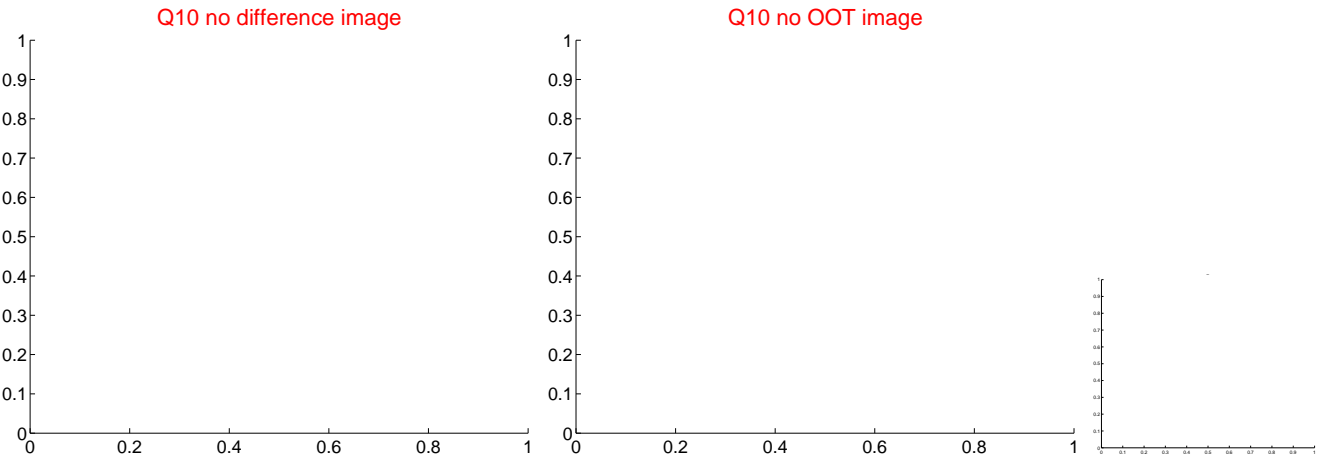
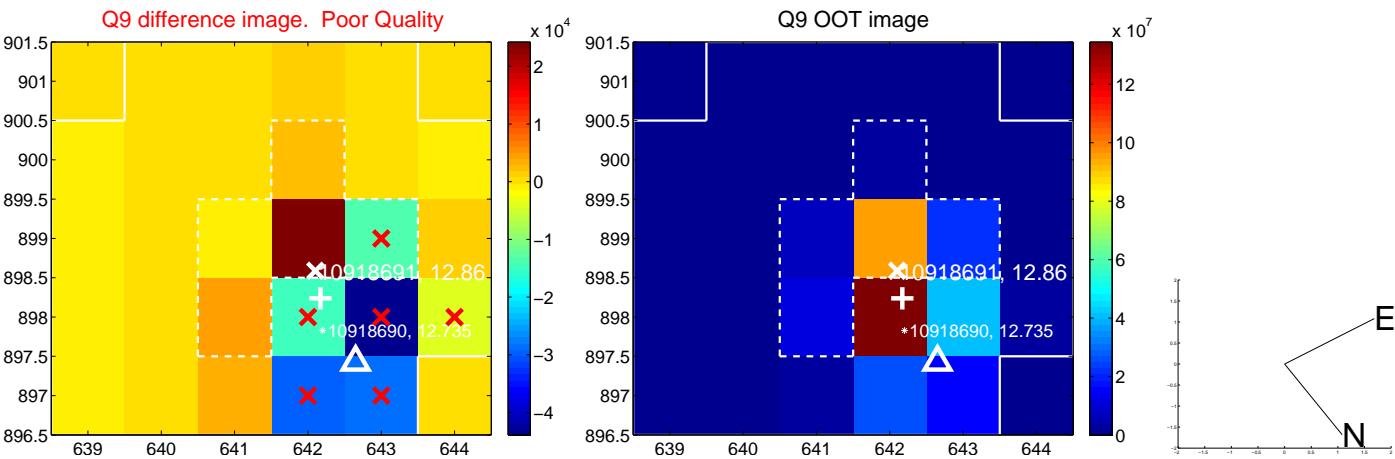
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



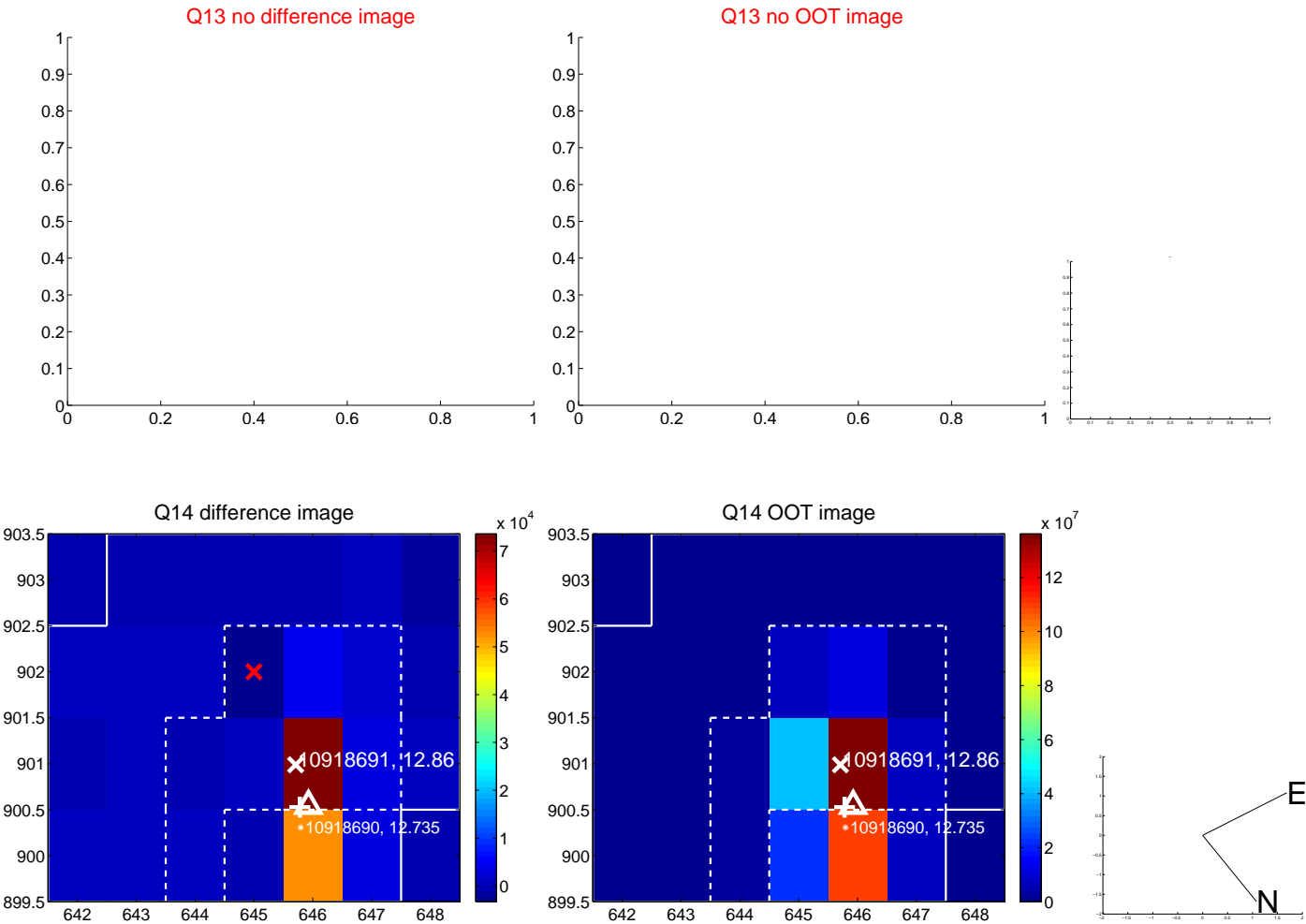
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



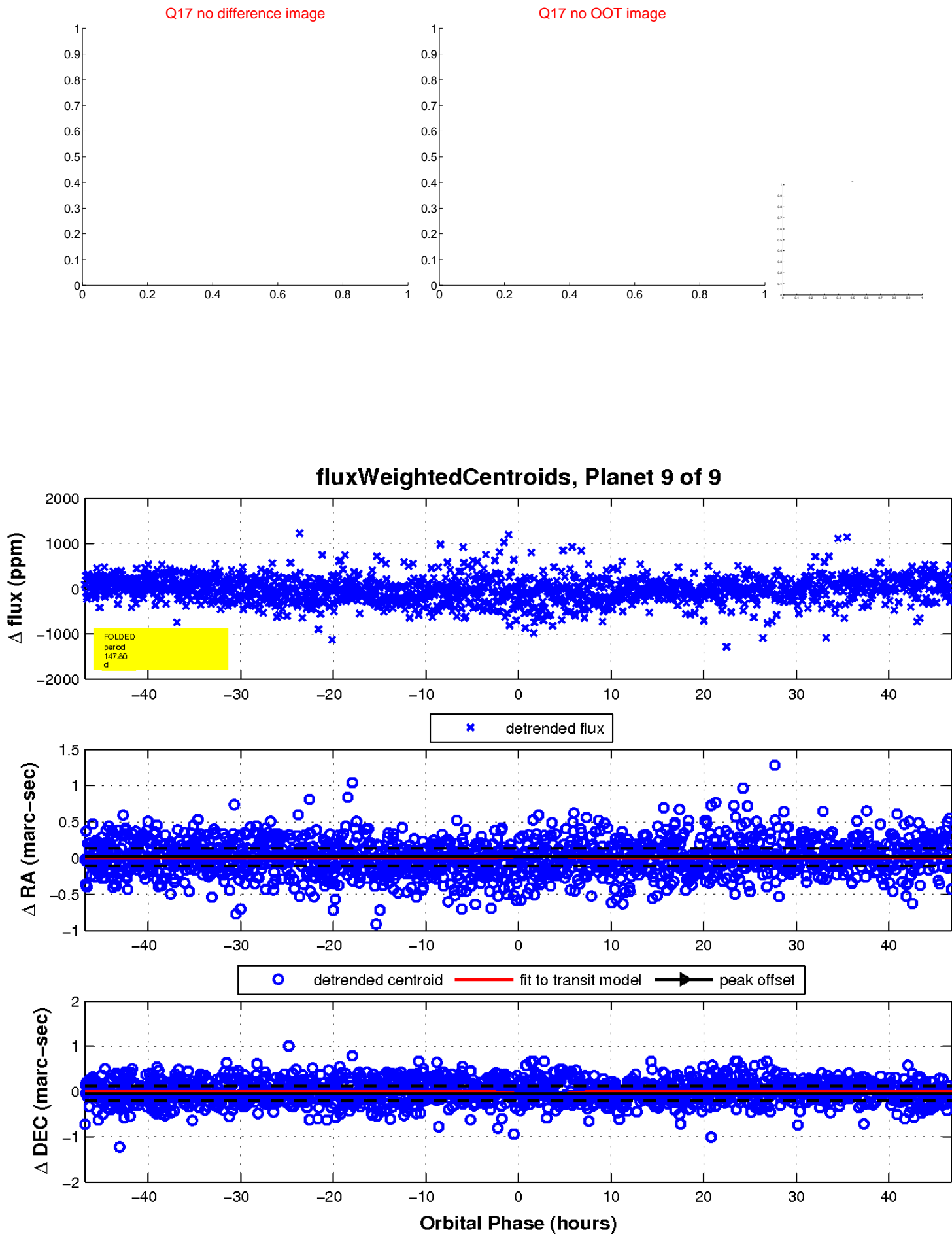
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

