

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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

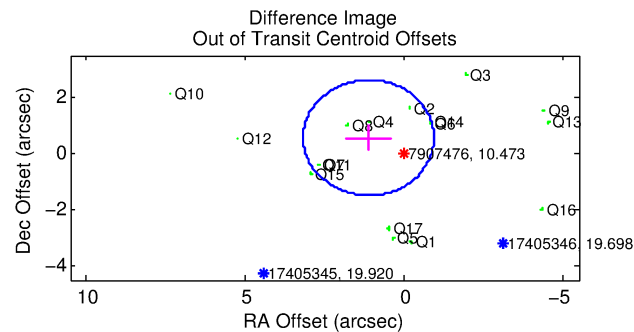
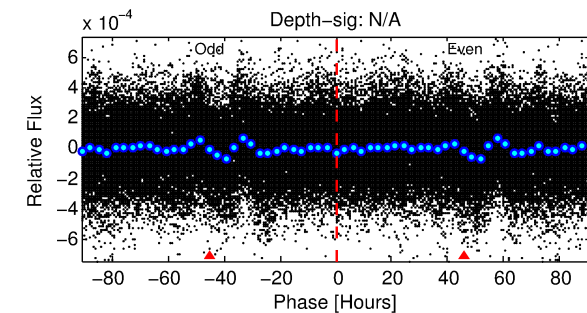
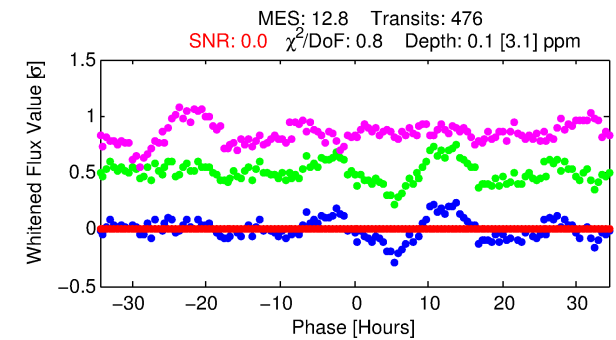
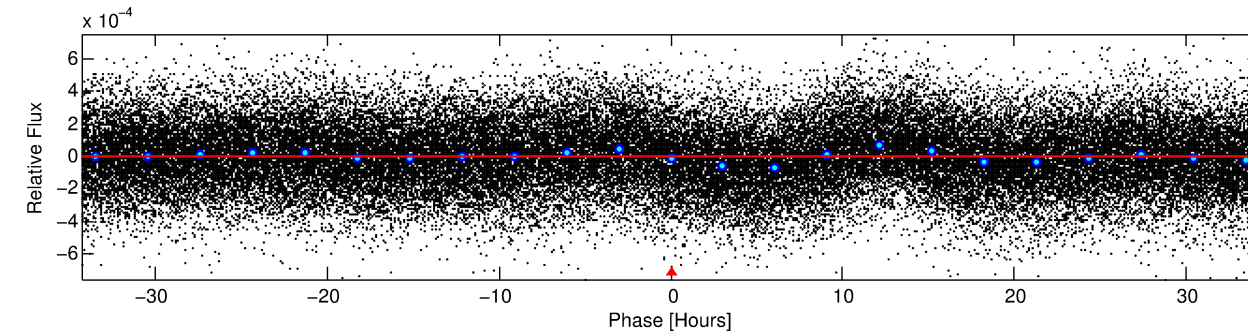
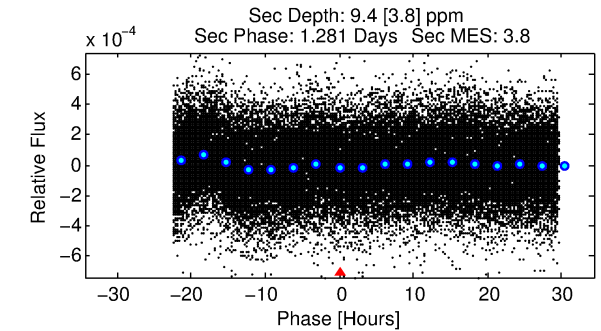
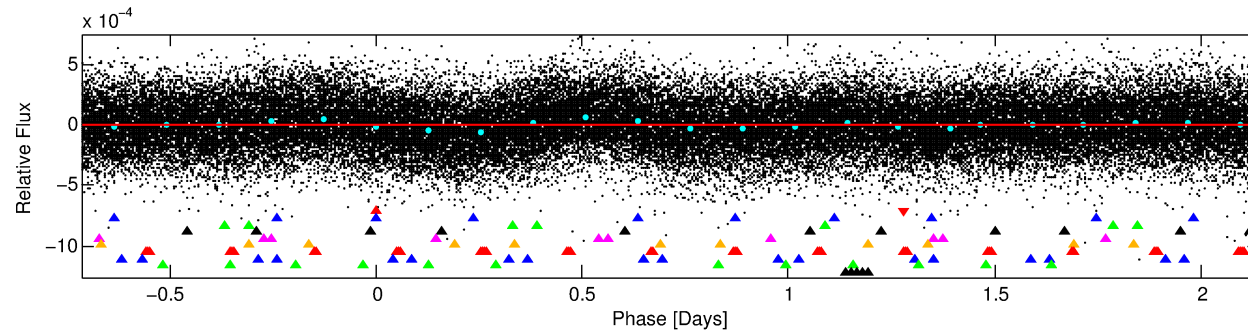
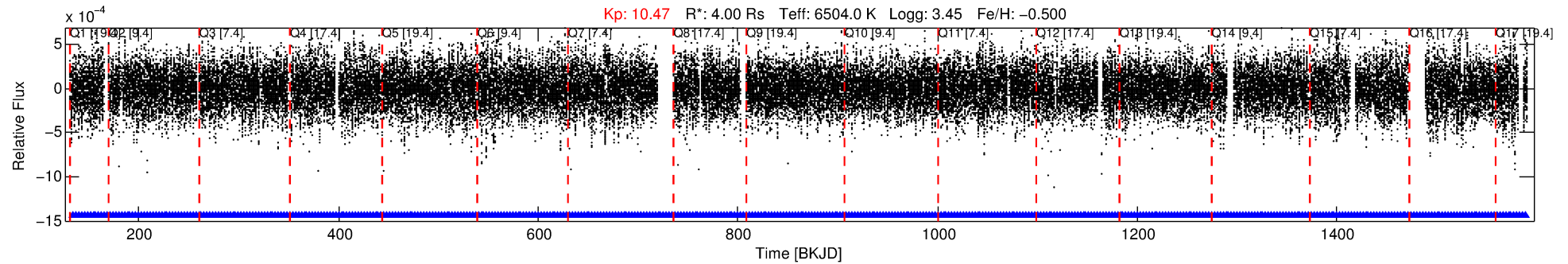
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-01

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 1 of 10 Period: 2.858 d



DV Fit Results:

Period = 2.85774 [0.00707] d
Epoch = 134.3151 [1.1257] BKJD
 $R_p/R^* = 0.0003$ [0.0049]
 $a/R^* = 1.22$ [2.77]
 $b = 0.81$ [3.02]
 $\text{Seff} = 11853.43$ [8447.21]
 $T_{\text{eq}} = 2661$ [474] K
 $R_p = 0.14$ [2.13] R_e
 $a = 0.0466$ [0.0202] AU
 $A_g = 535.60$ [15732.61] [0.03σ]
 $T_{\text{effp}} = 19790$ [145287] K [0.12σ]

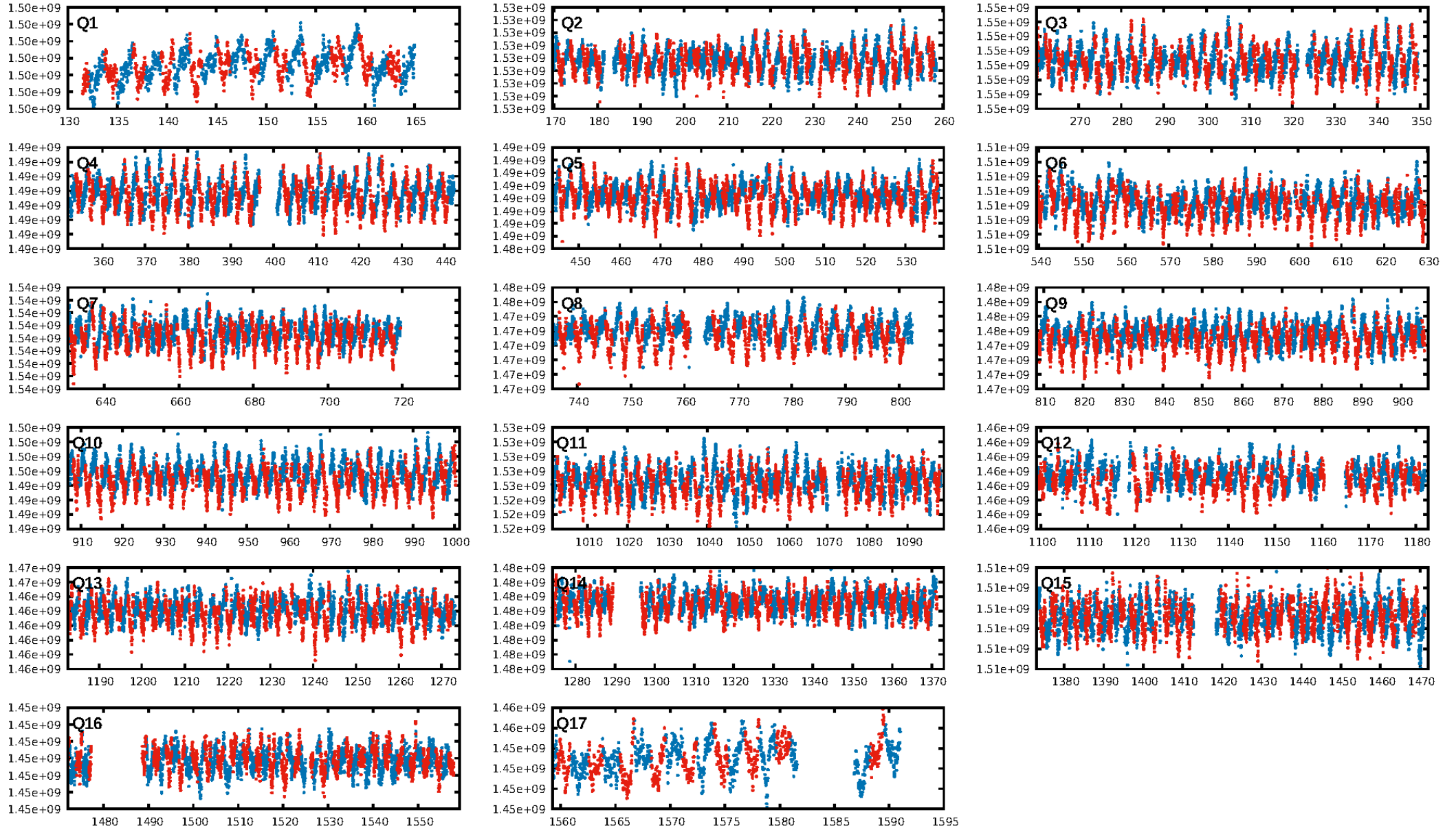
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [45.47σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [455/455]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.255 arcsec [1.83σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 2.158 arcsec [3.98σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 1.00 [17/17]

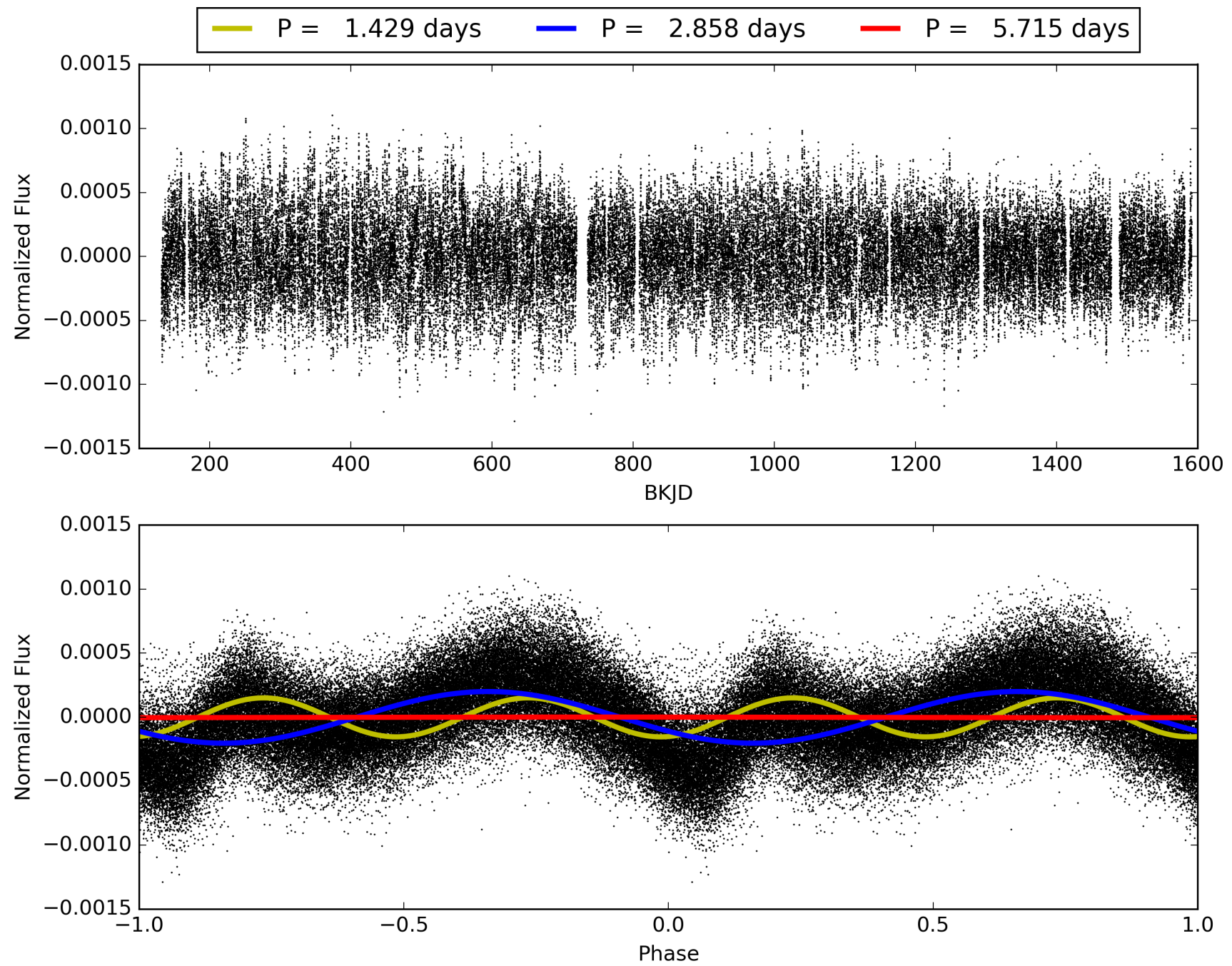
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:28:47 Z

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

TCE 007907476-01, PDC Light Curves

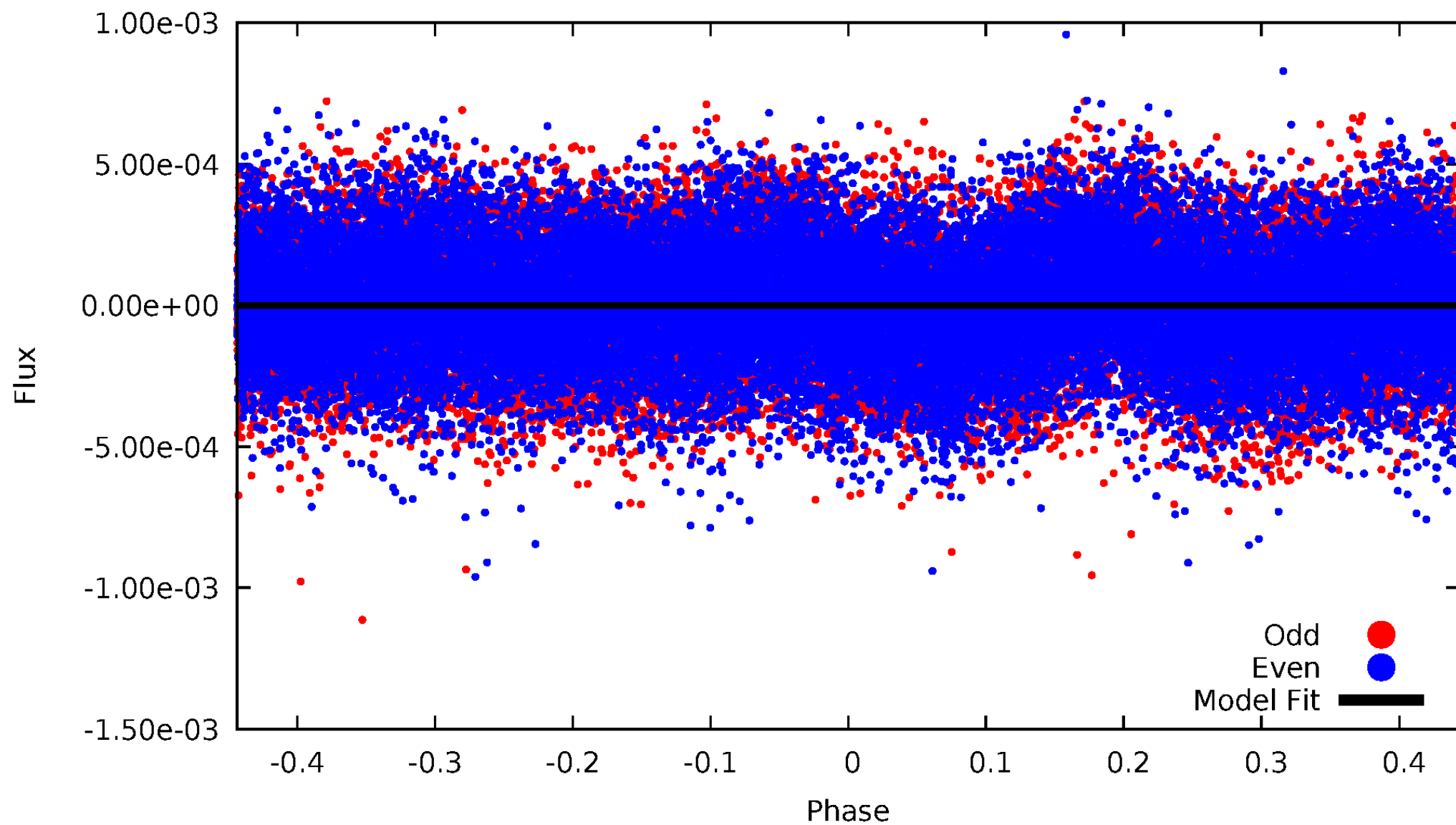


TCE 007907476-01



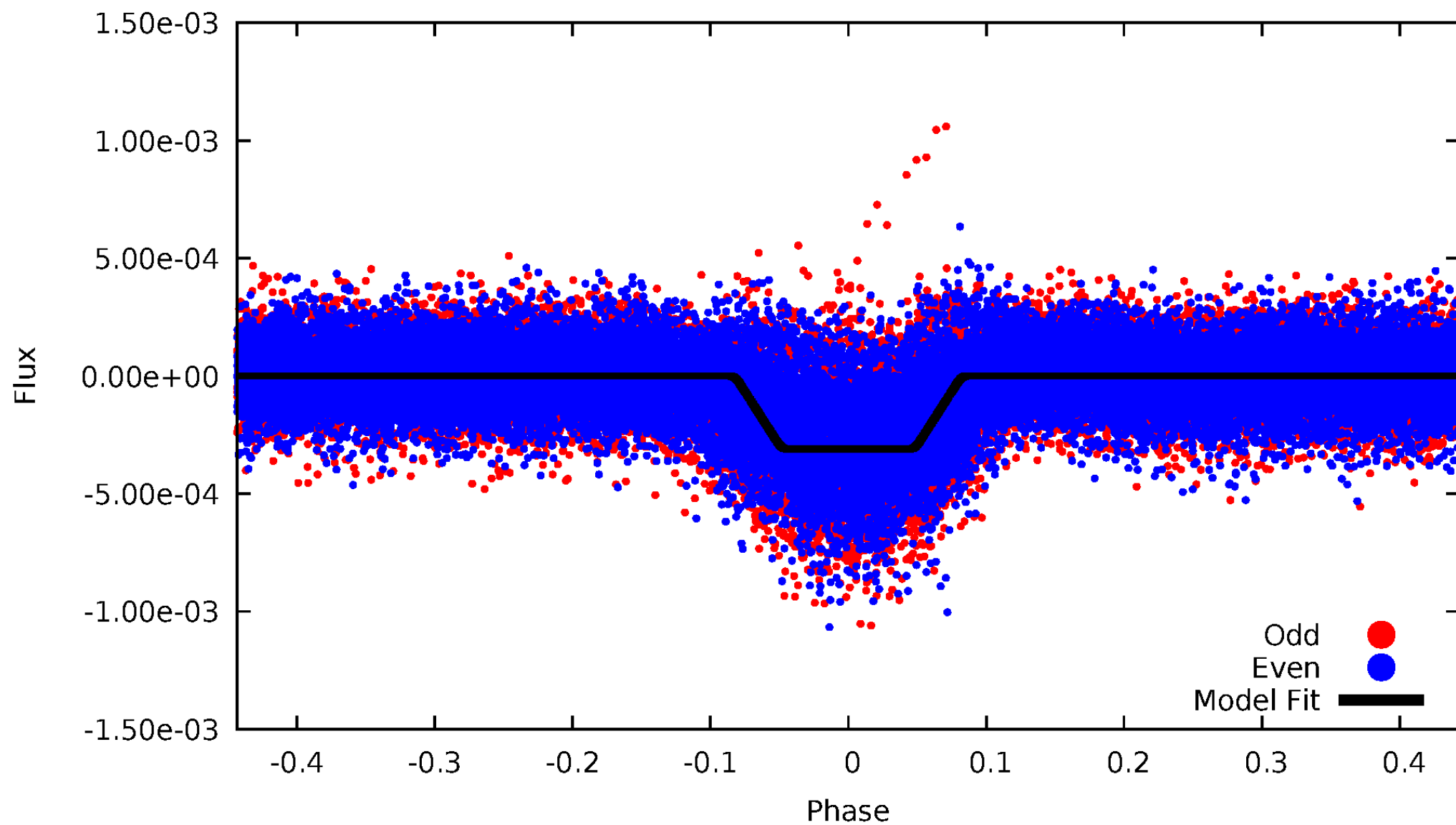
DV Odd/Even

TCE 007907476-01

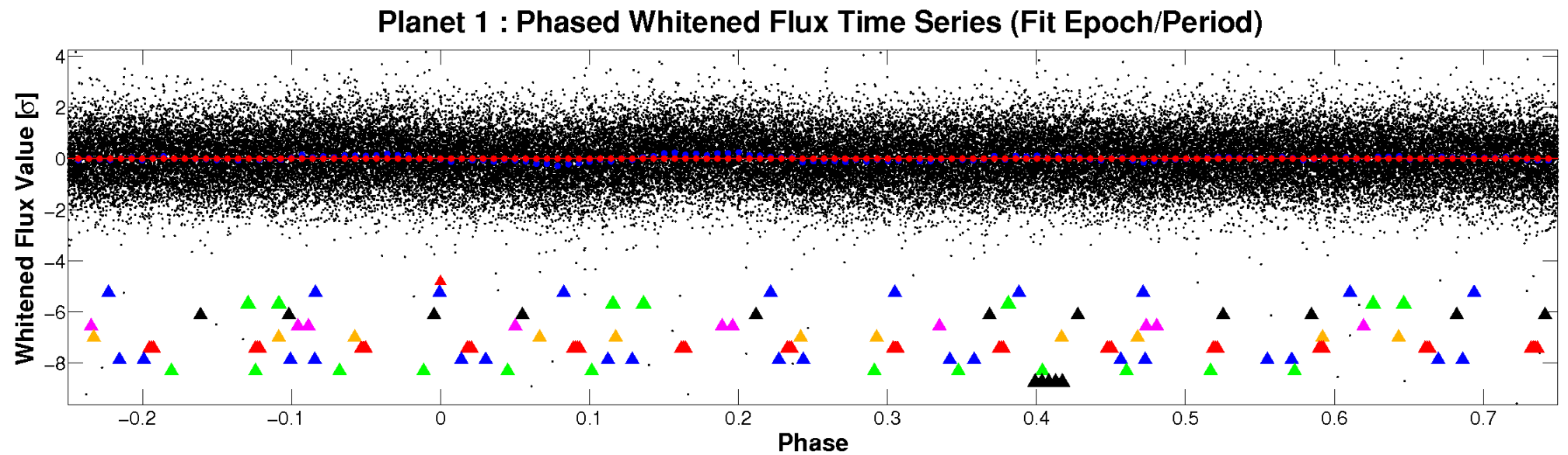
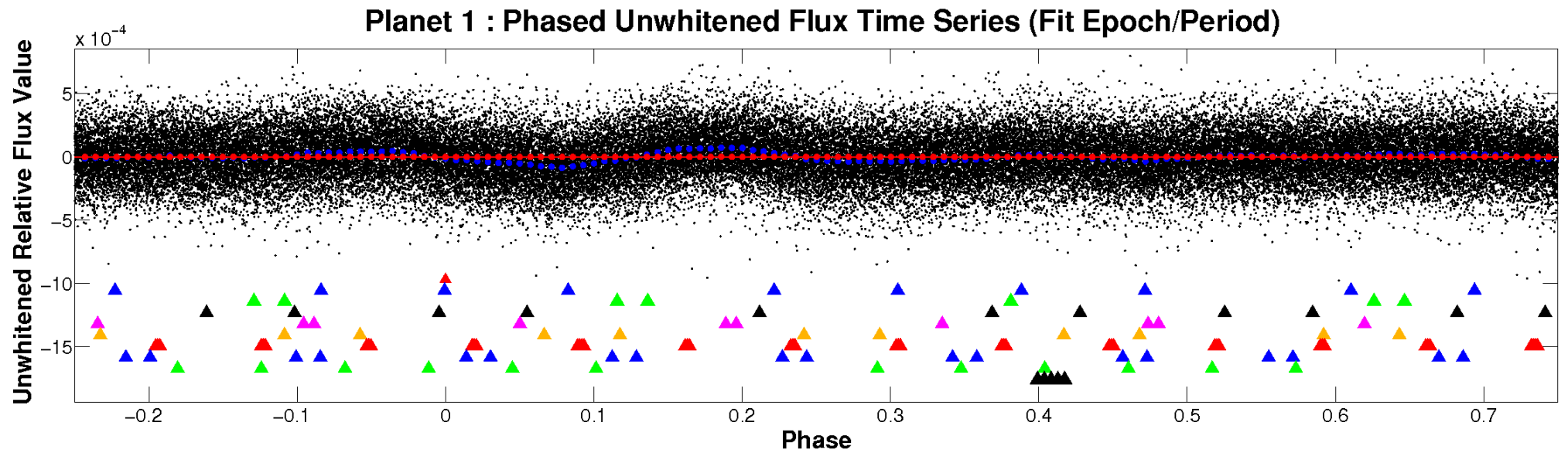


ALT Odd/Even

TCE 007907476-01

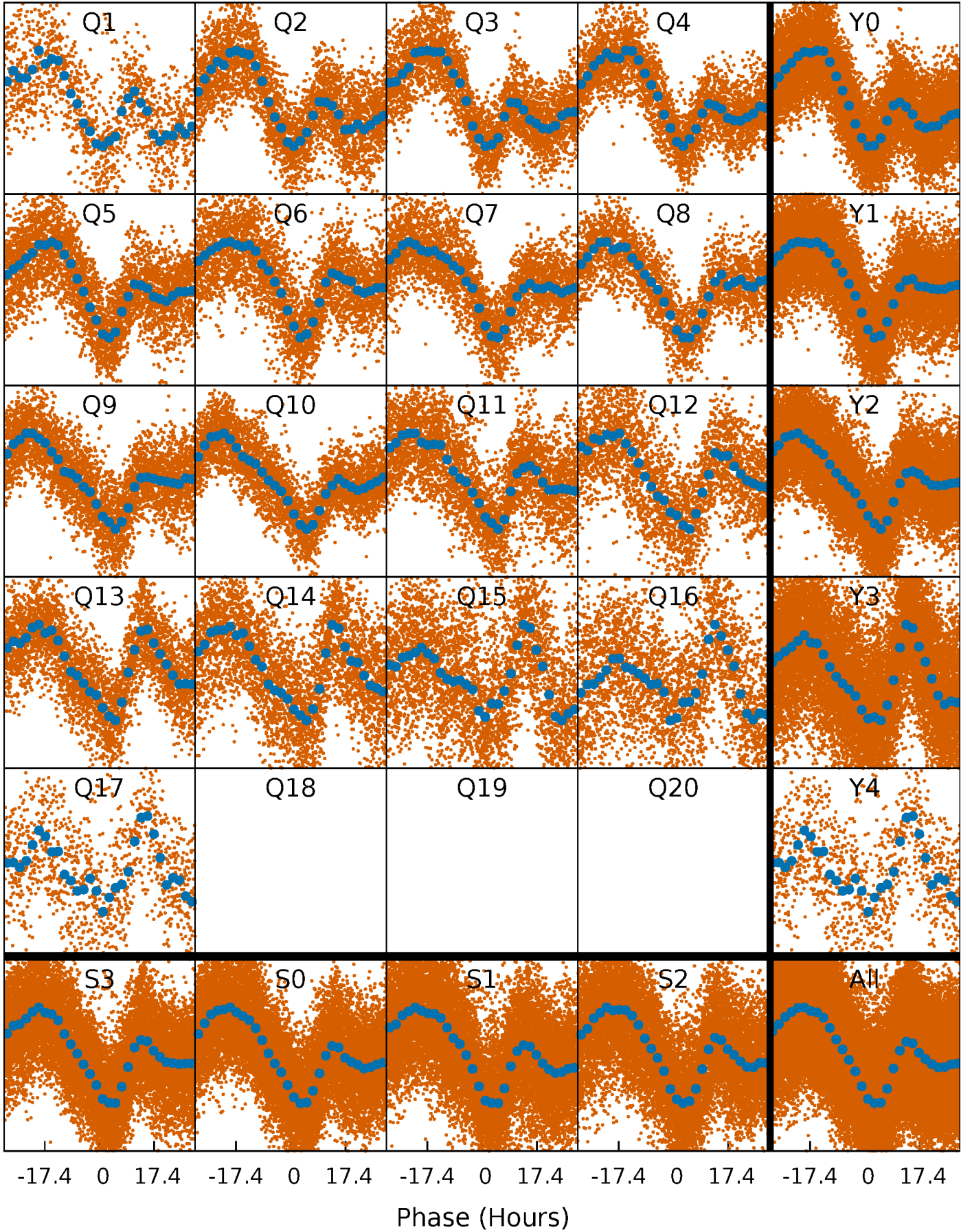


Non-Whitened Vs. Whitened Light Curve



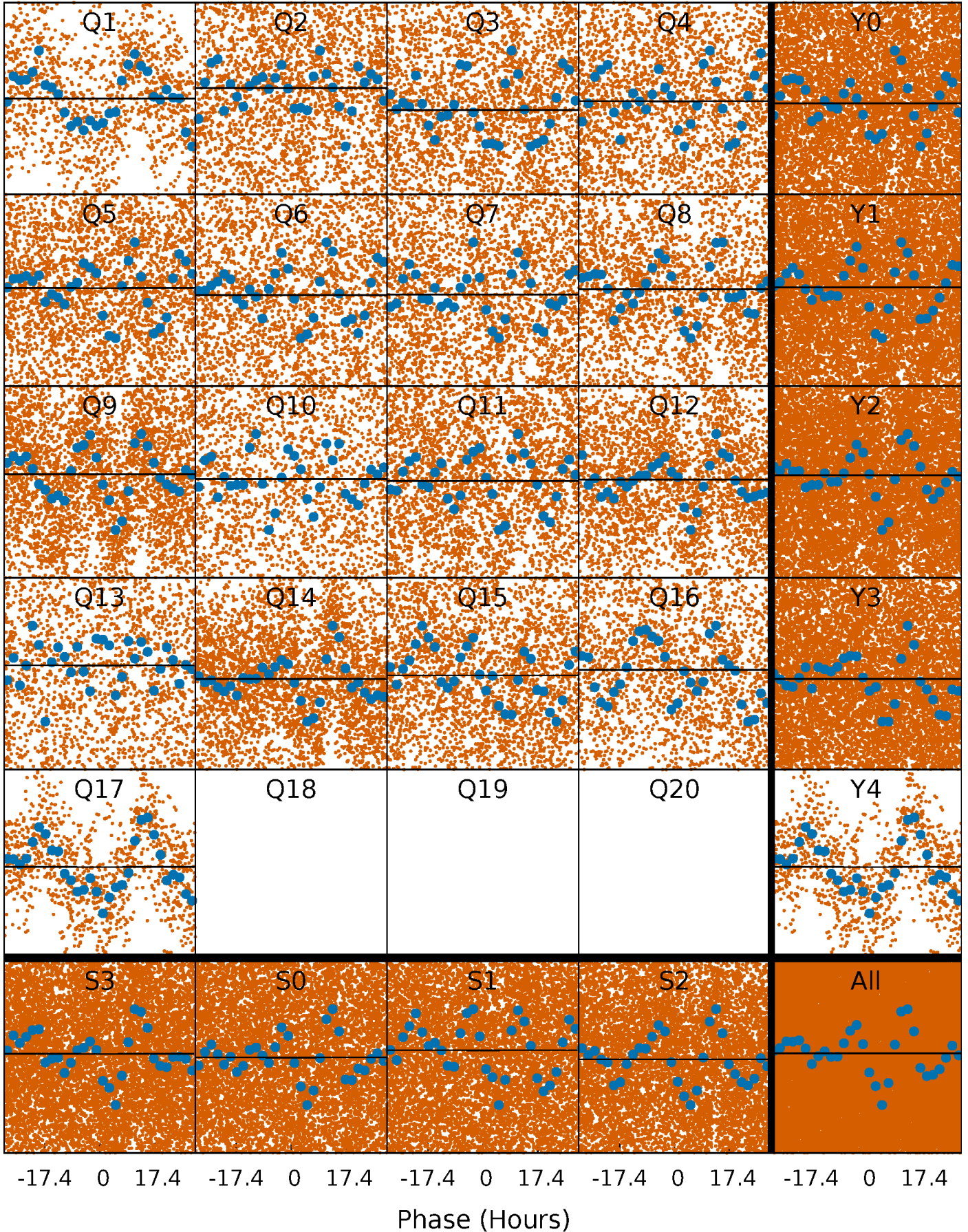
PDC Quarter-Phased Transit Curves

TCE 007907476-01 P= 2.857736 Days $T_0=134.315104$ (BKJD)



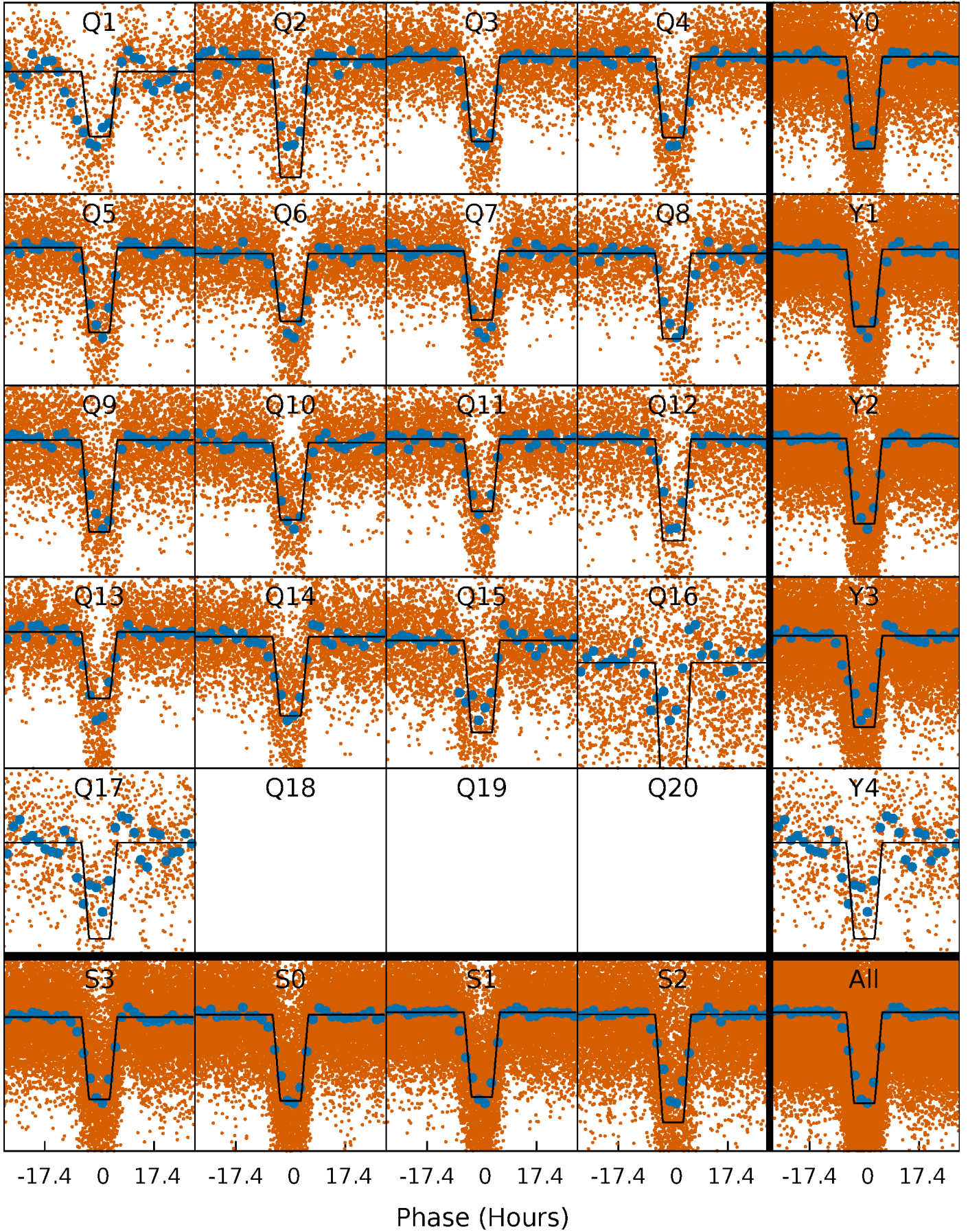
DV Quarter-Phased Transit Curves

TCE 007907476-01 P= 2.857736 Days $T_0=134.315104$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

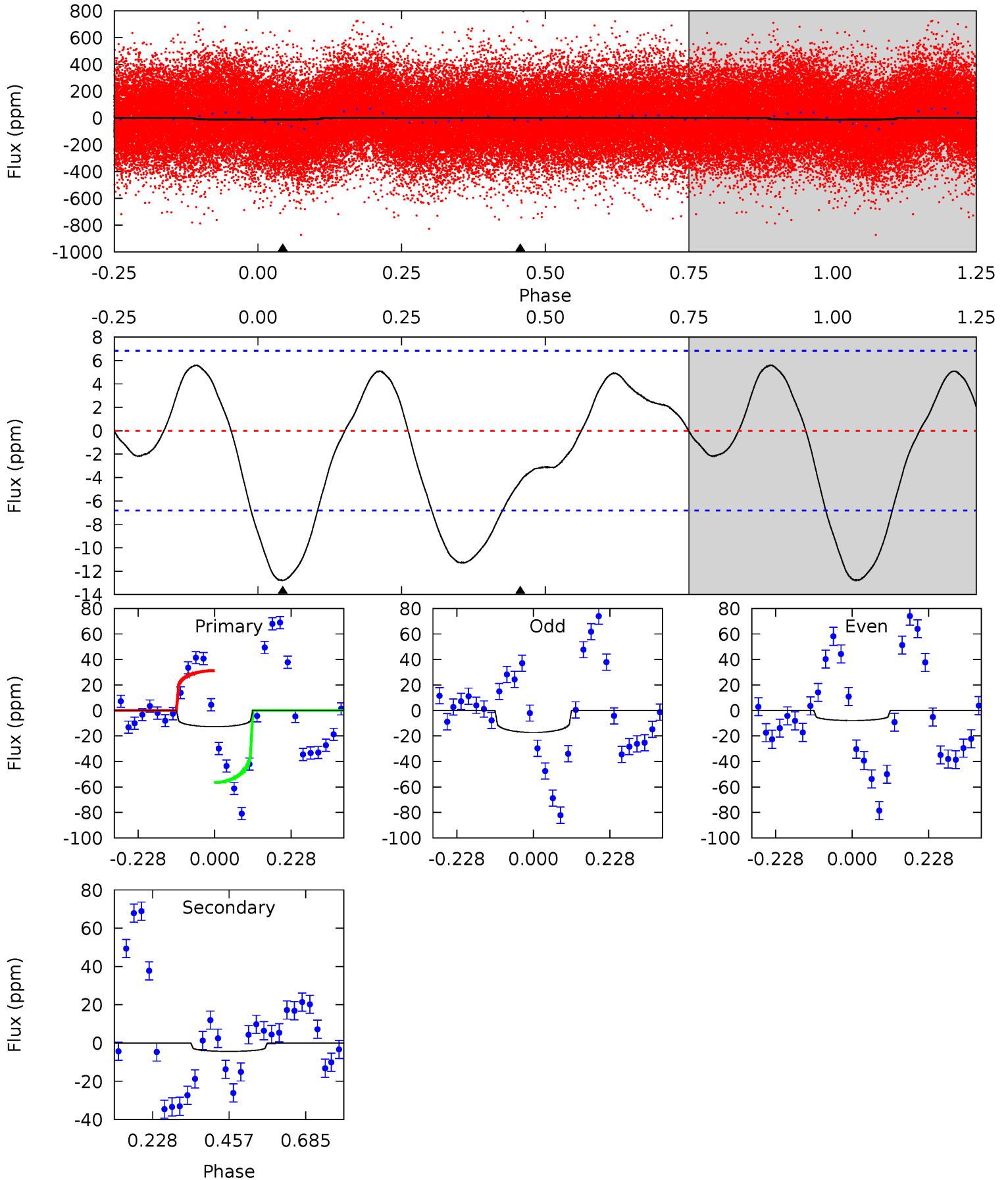
TCE 007907476-01 P= 2.858172 Days $T_0=131.531801$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-01, P = 2.857736 Days, E = 131.457368 Days

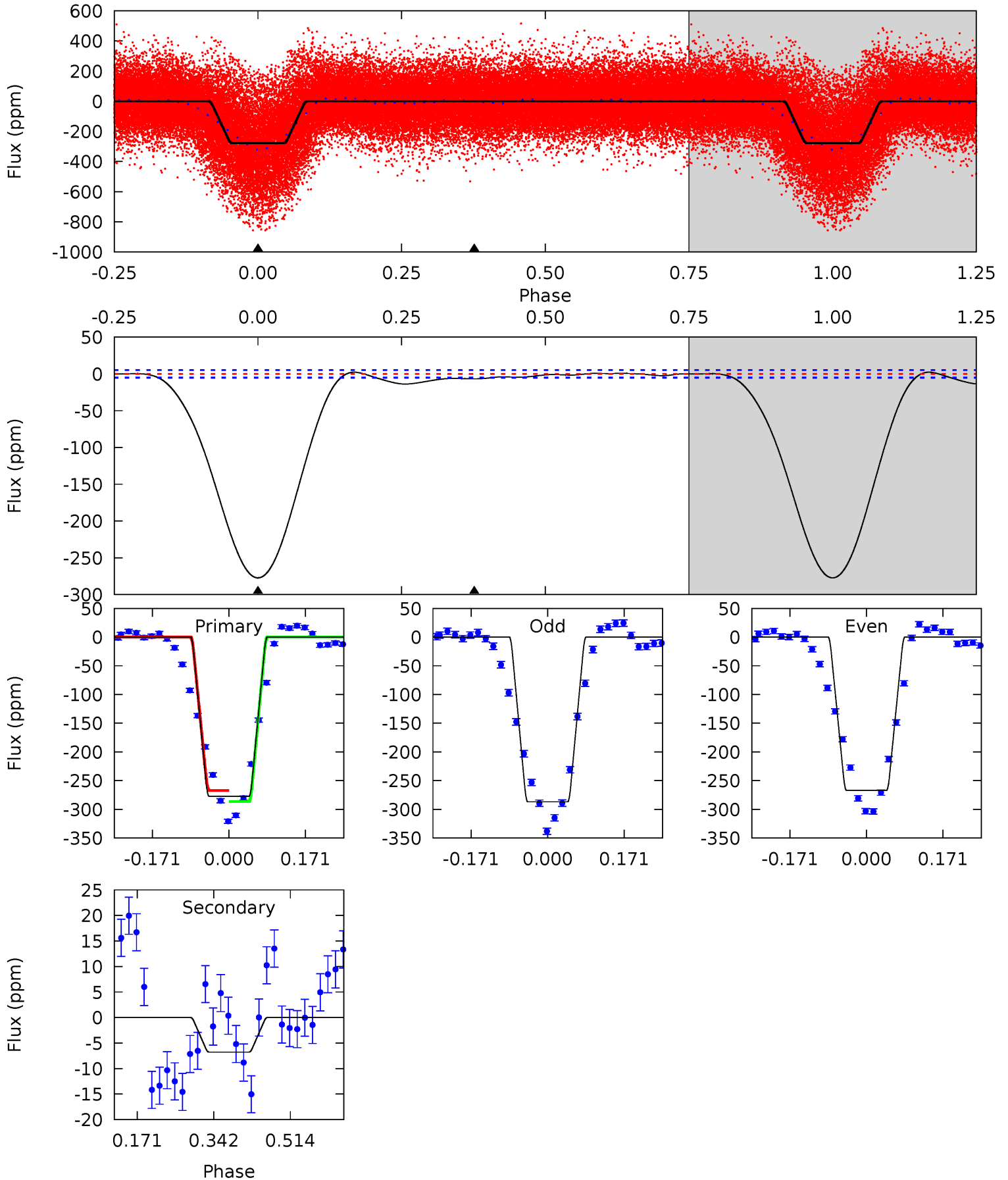
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.22	2.80	0	0	4.39	1.20	1.12	8.22	8.22	2.80	2.80	2.97	0.88	0.30	7.95



Alt Model-Shift Uniqueness Test

007907476-01, P = 2.858172 Days, E = 128.673629 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
241.2	5.90	0	0	4.45	1.37	1.19	241.2	241.2	5.90	5.90	8.61	0.96	0.01	8.32



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4 ± 2	$1.40^{+1.44}_{-1.04}$	3590^{+219}_{-409}	4828^{+5206}_{-1547}	$2.441^{+29.575}_{-1.920}$
Alt.	-7 ± 1	$6.68^{+2.54}_{-2.33}$	3568^{+250}_{-406}	-2972^{+5763}_{-342}	$0.175^{+0.222}_{-0.080}$

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 $A_{obs} \gg 1.0$

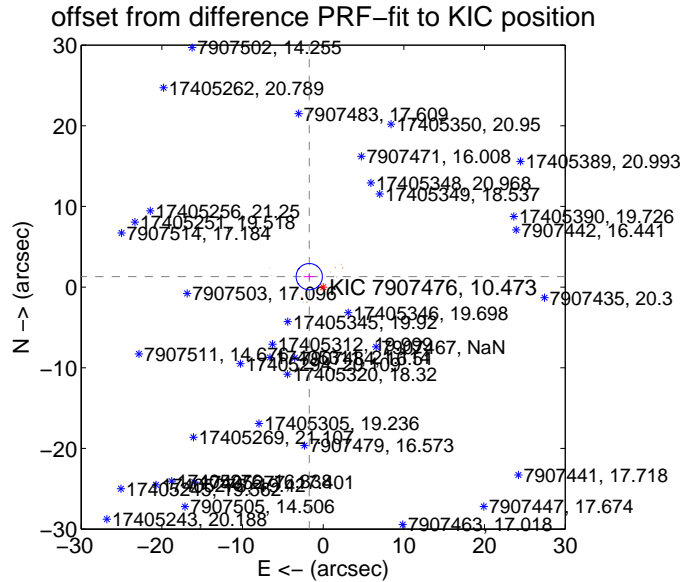
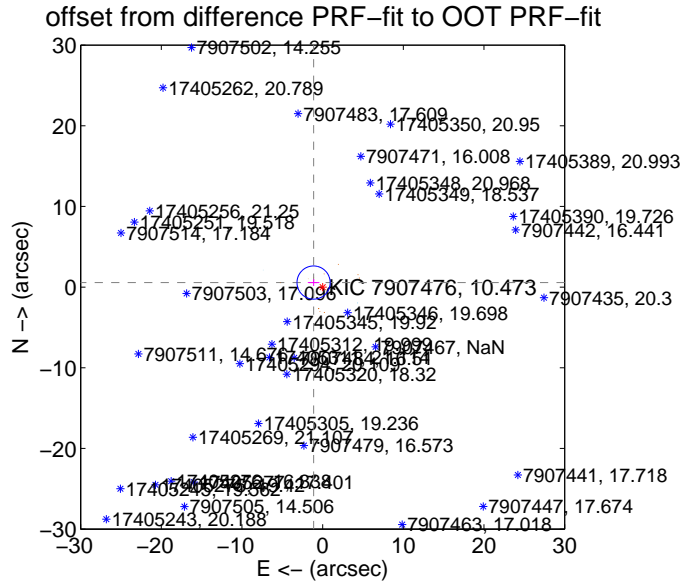
DV Centroid Data

Supplemental centroid analysis for 007907476-01. **Kepler magnitude: 10.47.** Transit SNR 0.03

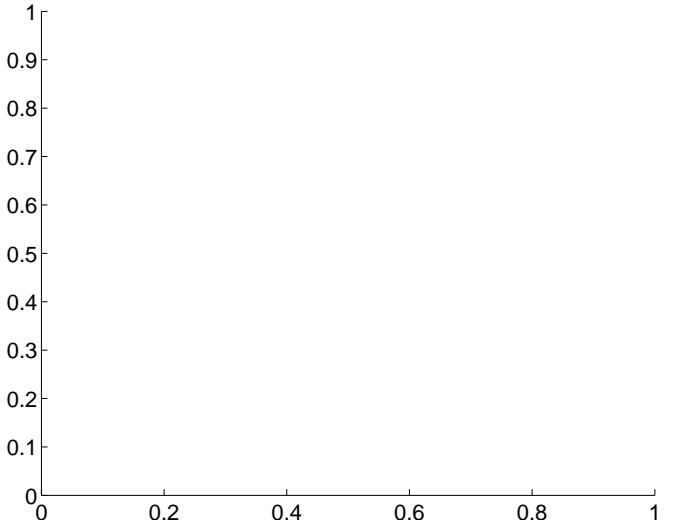
There are 6 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.55 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.255 ± 0.686	1.83	1.122 ± 0.717	0.564 ± 0.431
PRF-fit source offset from KIC position	2.158 ± 0.542	3.98	1.727 ± 0.688	1.294 ± 0.367
photometric centroid source offset	—	—	—	—

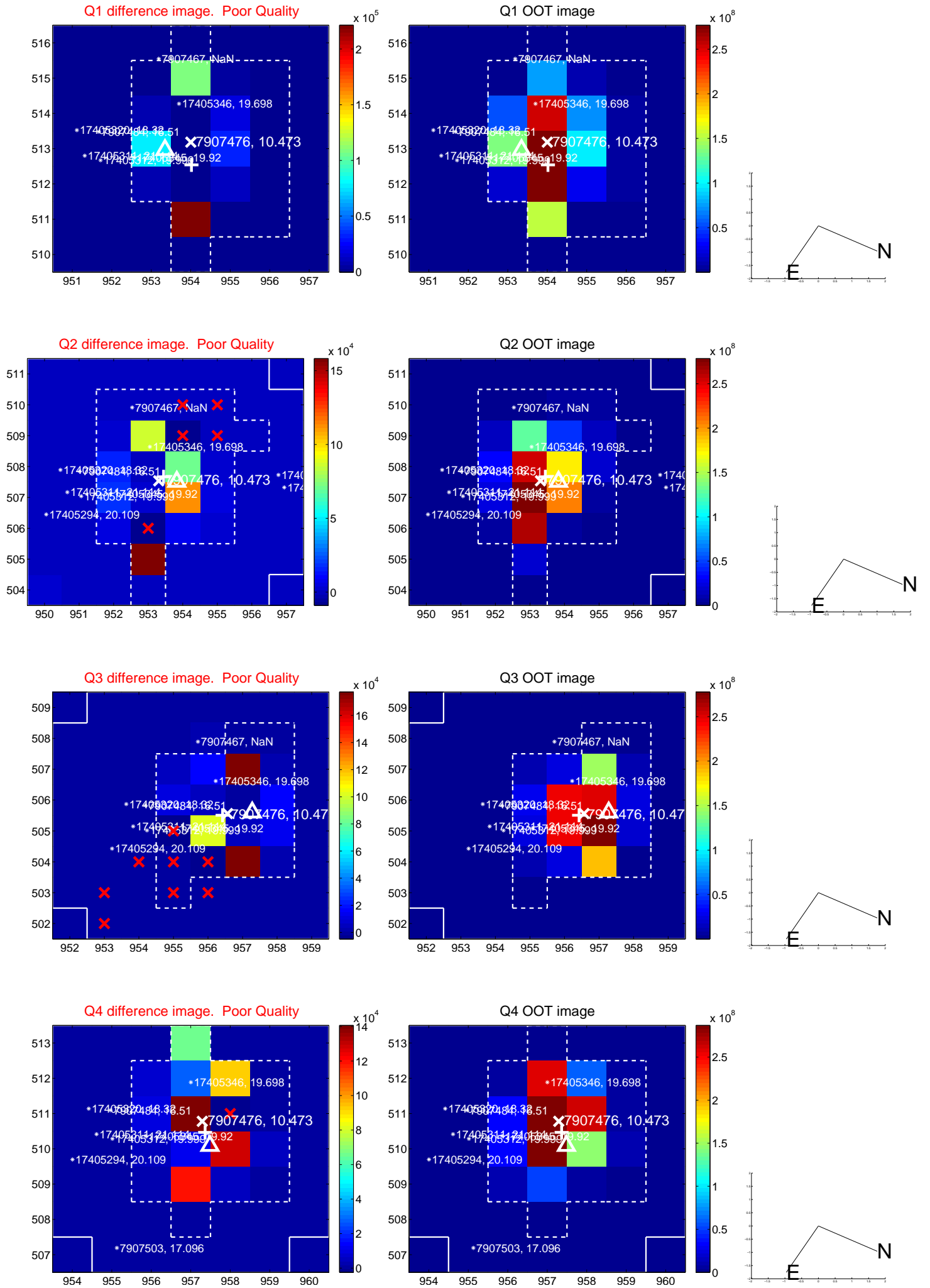


There are no photometric centroids

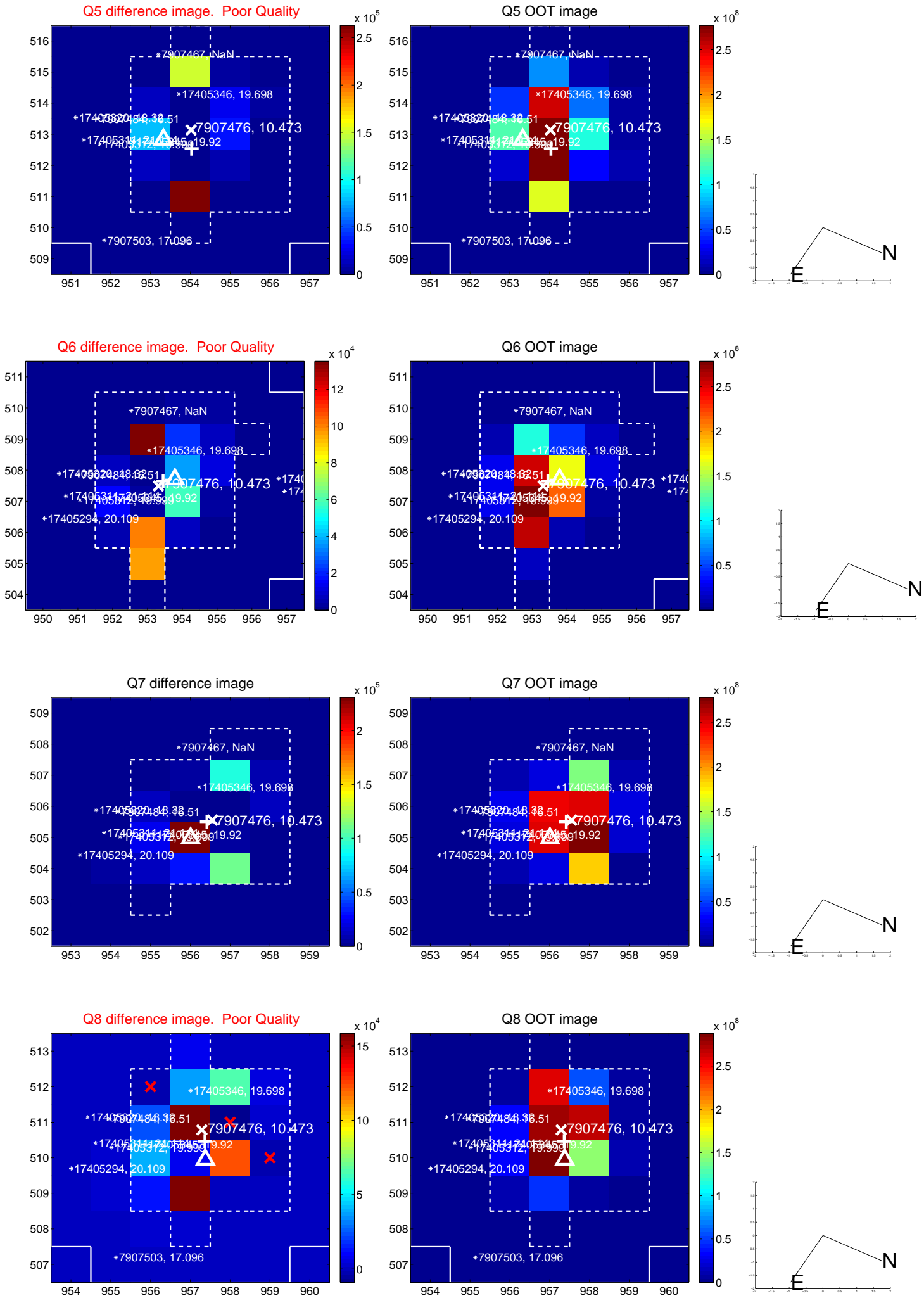


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

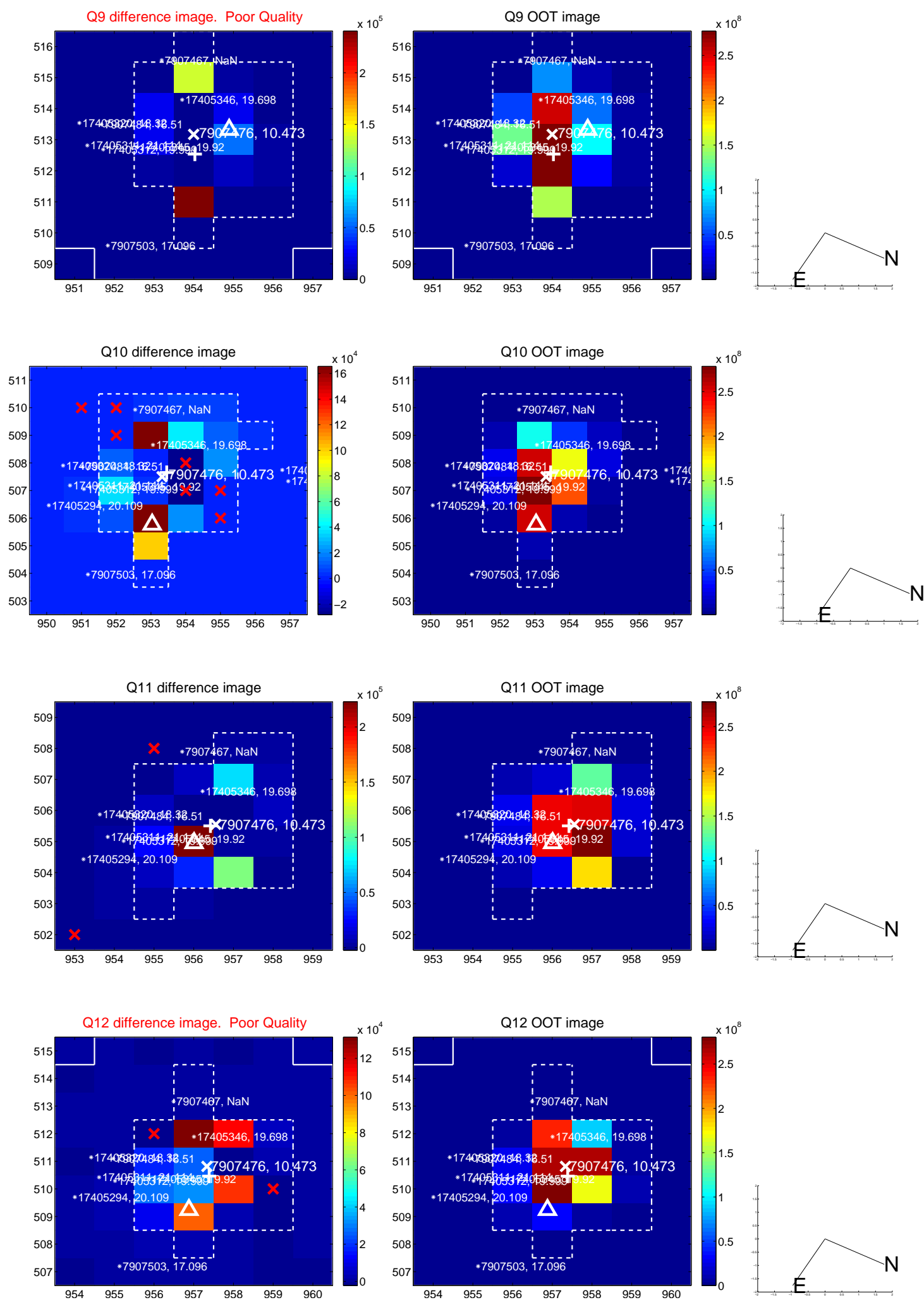
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



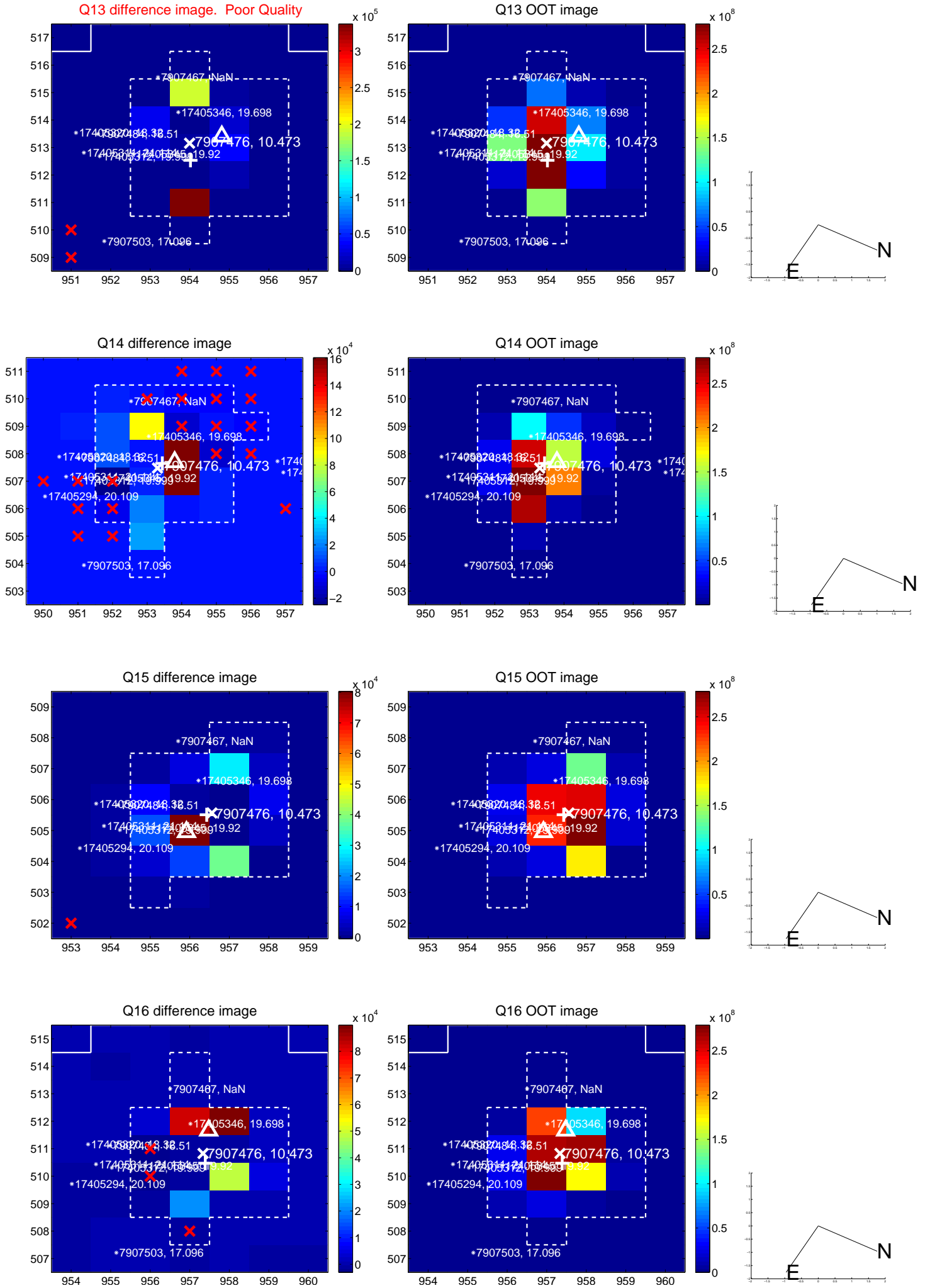
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



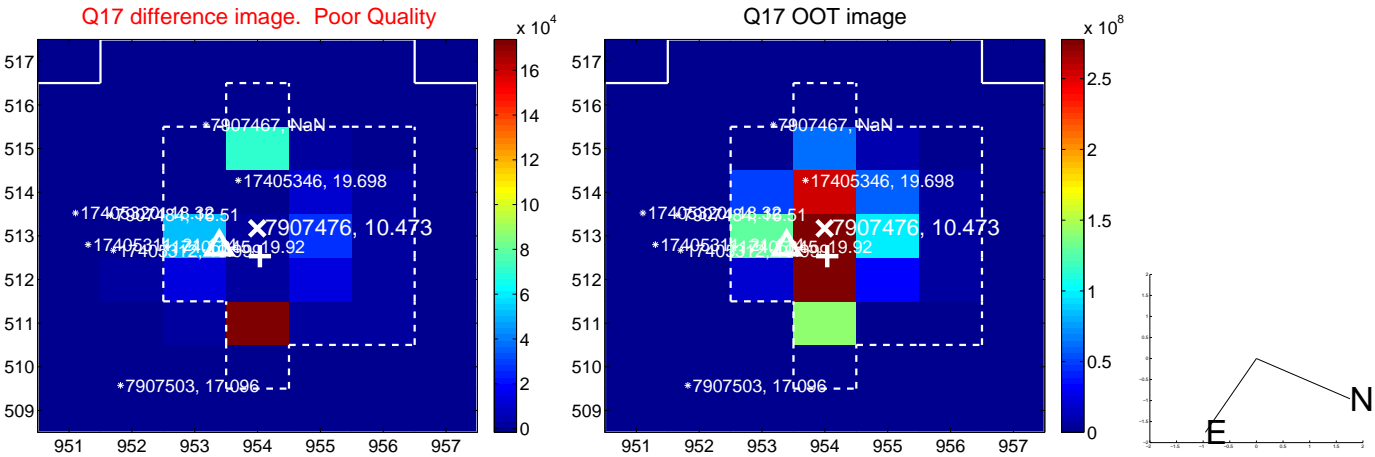
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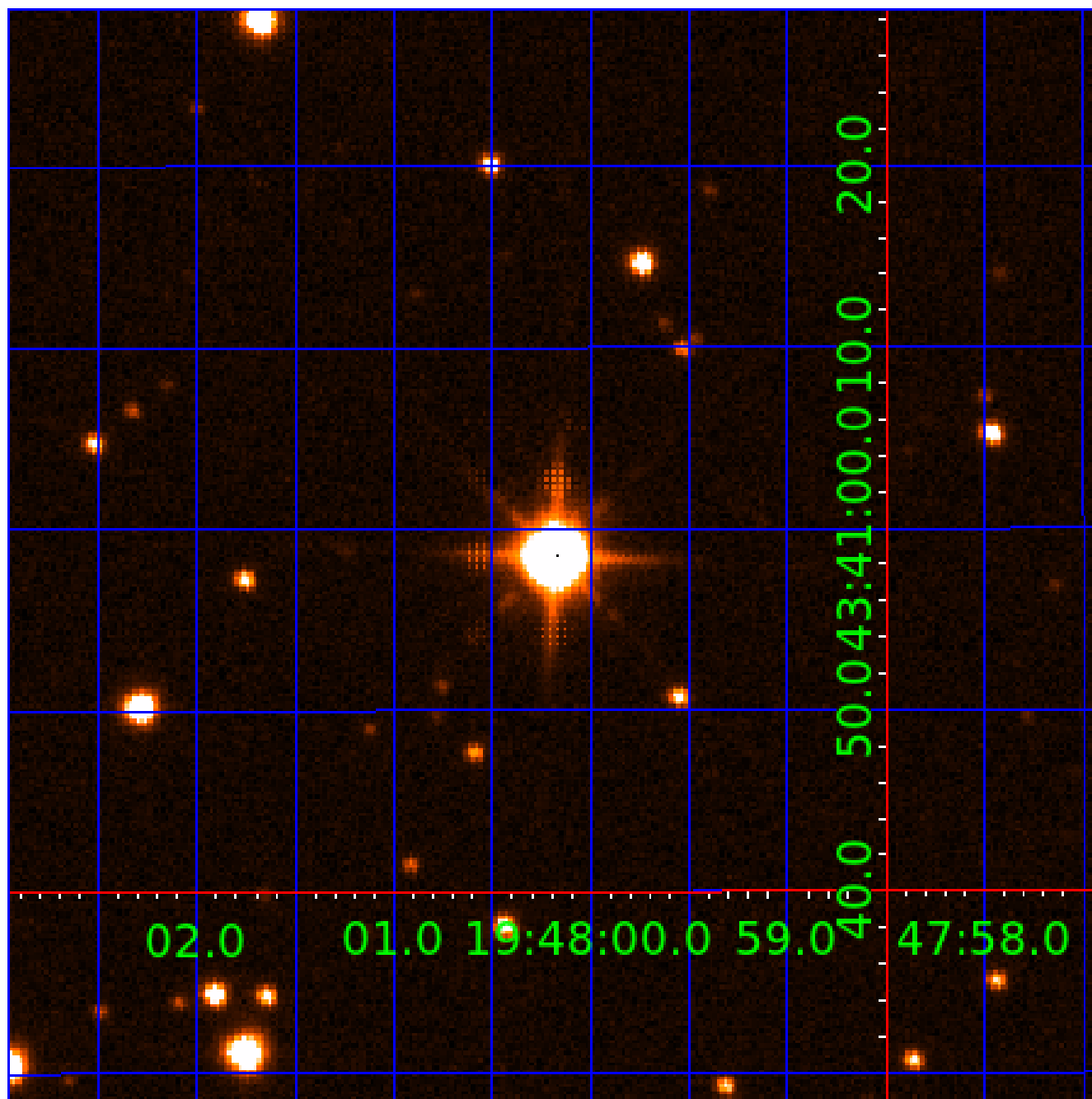
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



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})
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Robovetter Results

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007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

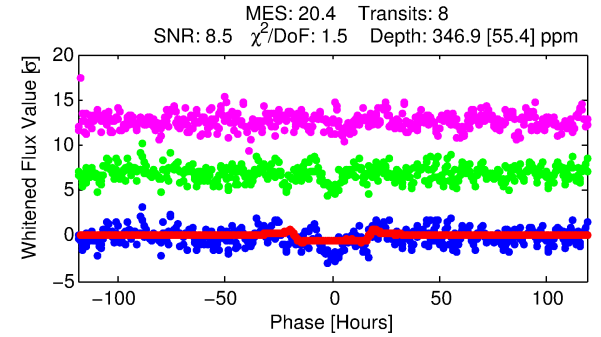
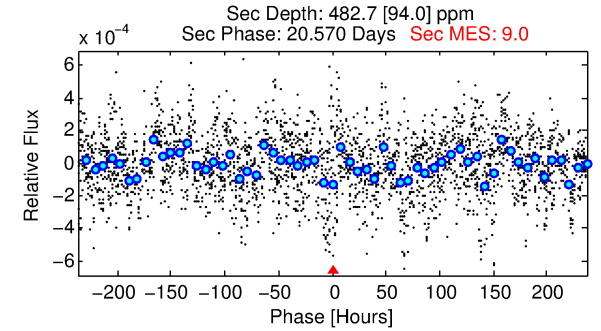
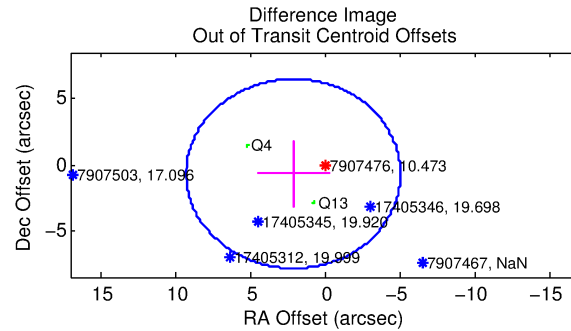
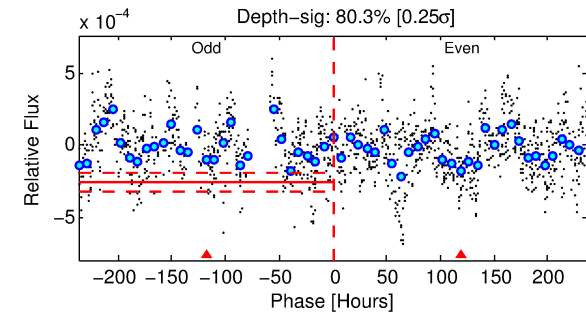
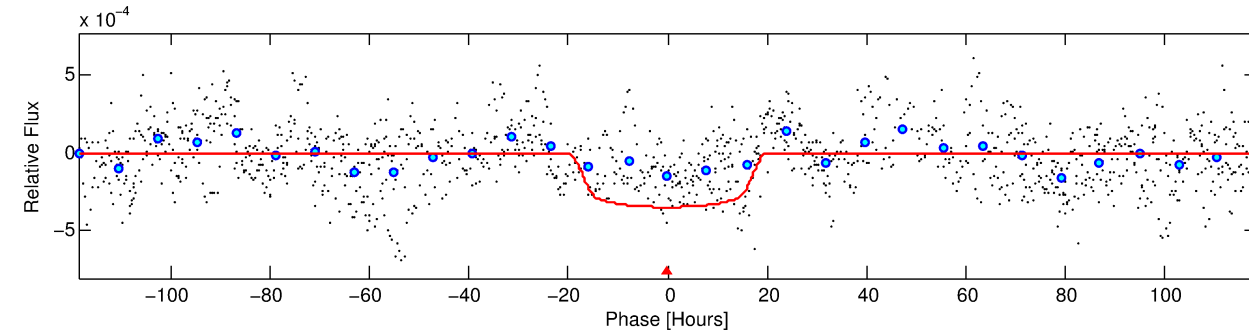
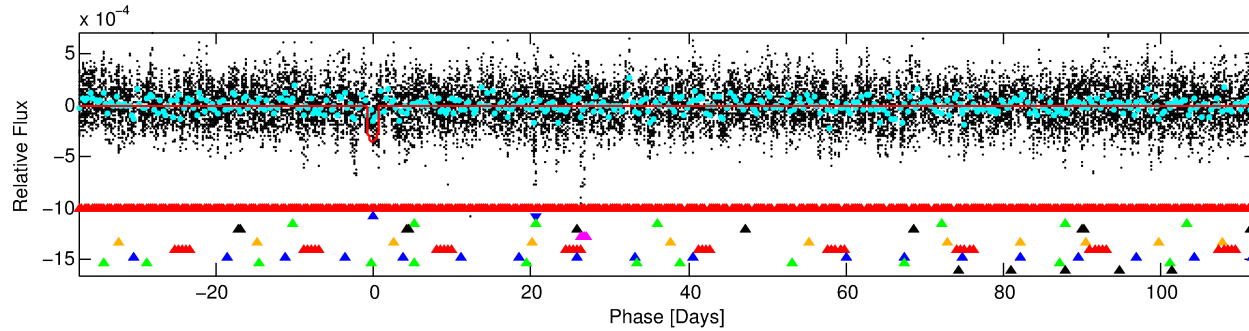
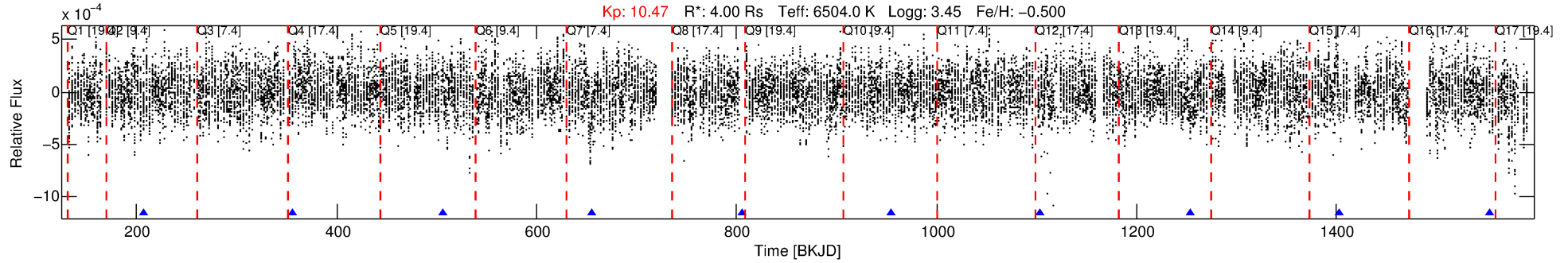
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-02

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 2 of 10 Period: 149.475 d



DV Fit Results:

Period = 149.47545 [0.00922] d
Epoch = 207.1063 [0.0544] BKJD
Rp/R* = 0.0204 [0.0018]
a/R* = 12.30 [2.26]
b = 0.93 [0.03]
Seff = 60.60 [43.18]
Teq = 711 [127] K
Rp = 8.93 [4.00] Re
a = 0.6511 [0.2821] AU
Ag = 1413.23 [1060.59] [1.33 σ]
Teffp = 6744 [488] K [11.96 σ]

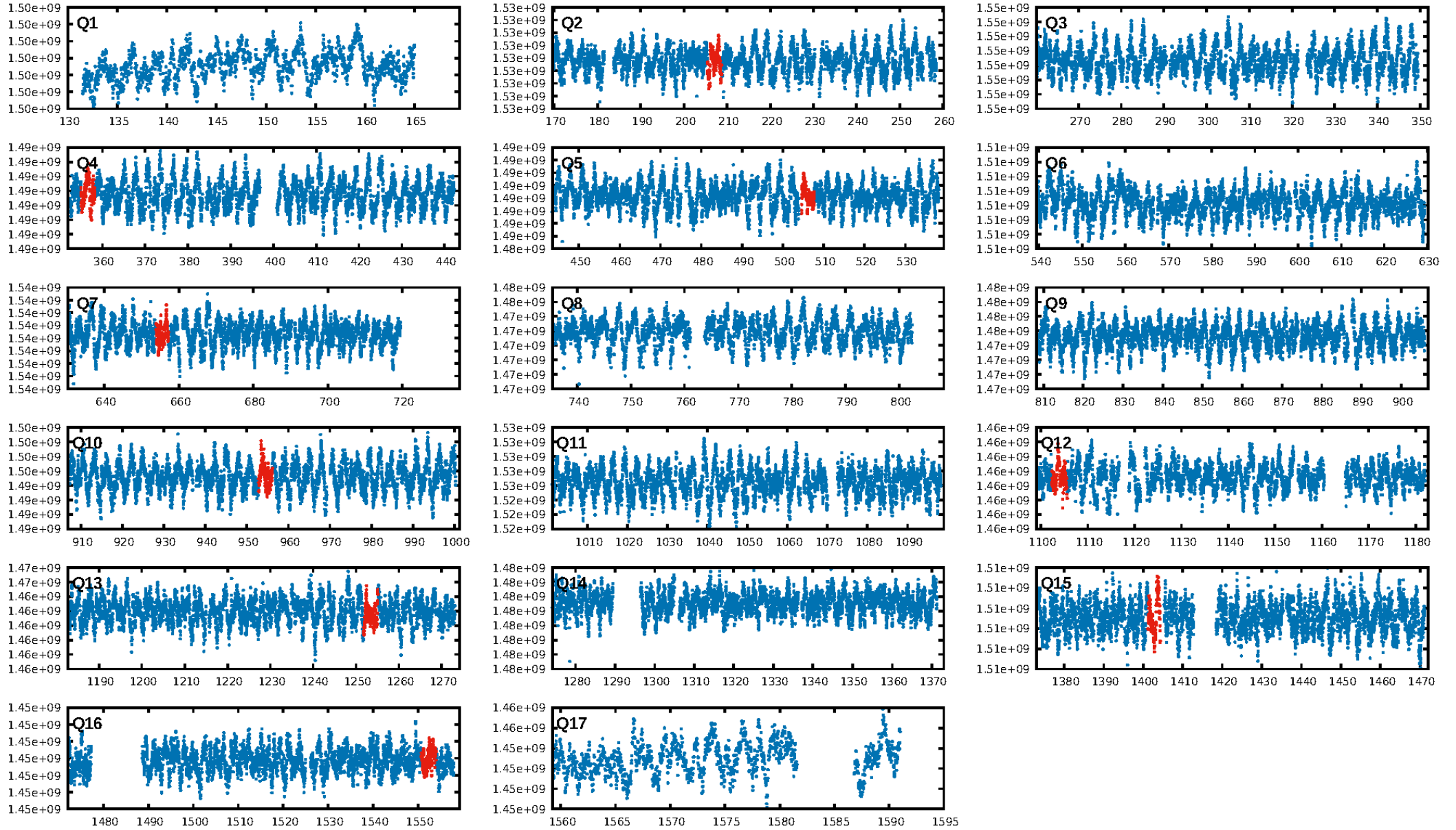
DV Diagnostic Results:

ShortPeriod-sig: 2.9% [0.04 σ]
LongPeriod-sig: 100.0% [34.07 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: -0.8292
Centroid-sig: 13.8%
Centroid-so: 0.692 arcsec [1.71 σ]
OotOffset-rm: 2.202 arcsec [0.92 σ]
KicOffset-rm: 3.733 arcsec [2.39 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/6]

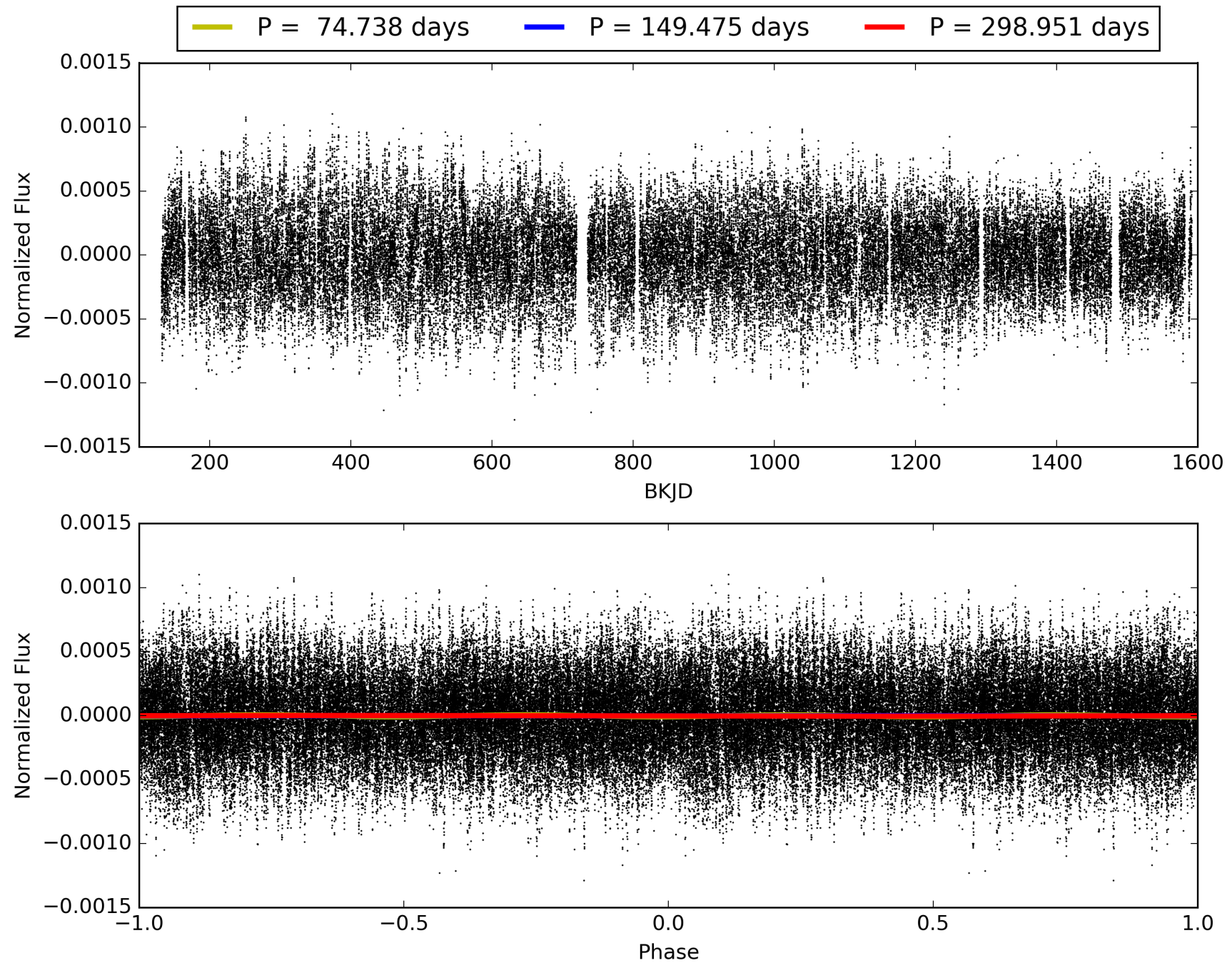
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:28:58 Z

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

TCE 007907476-02, PDC Light Curves

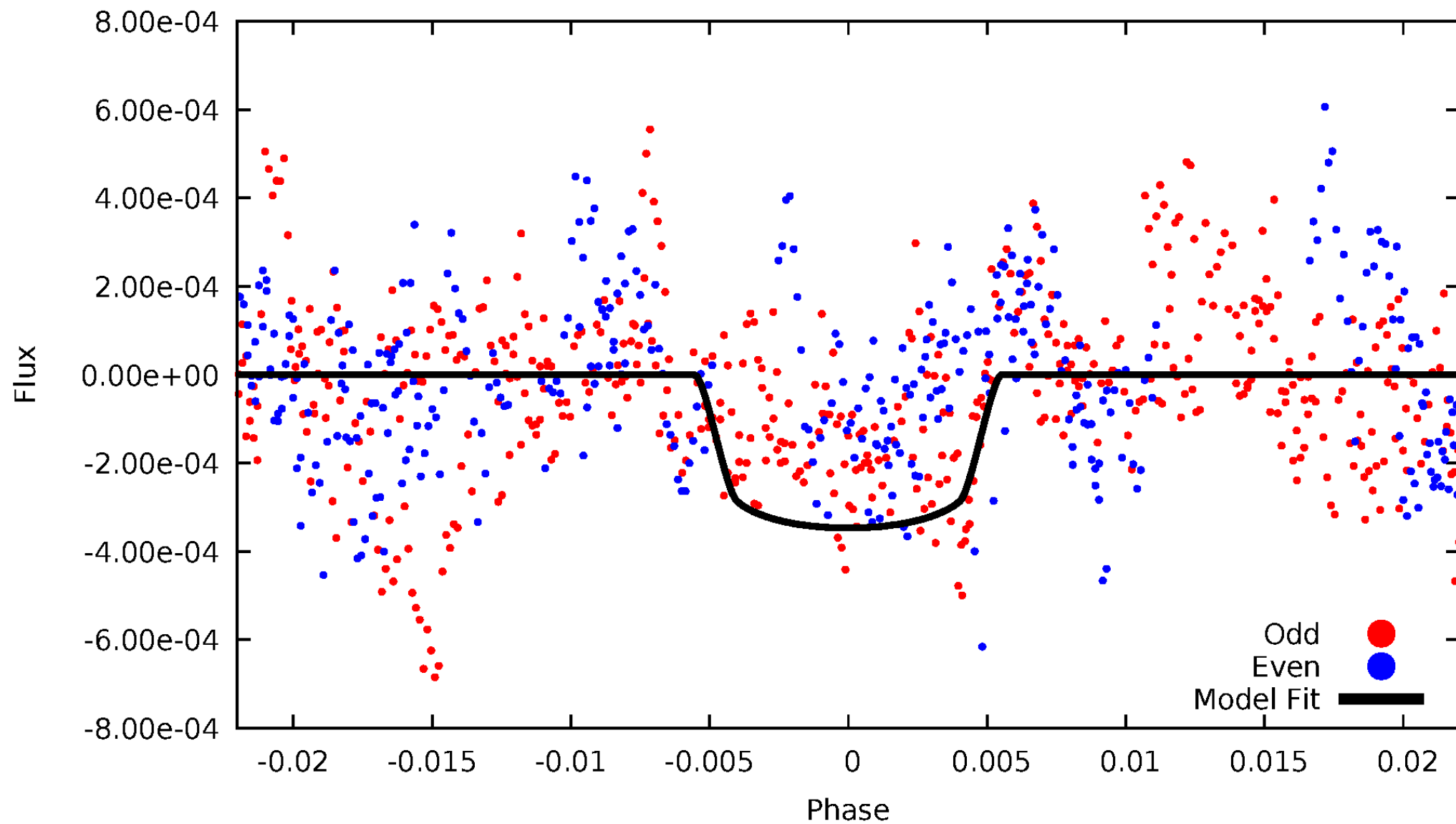


TCE 007907476-02



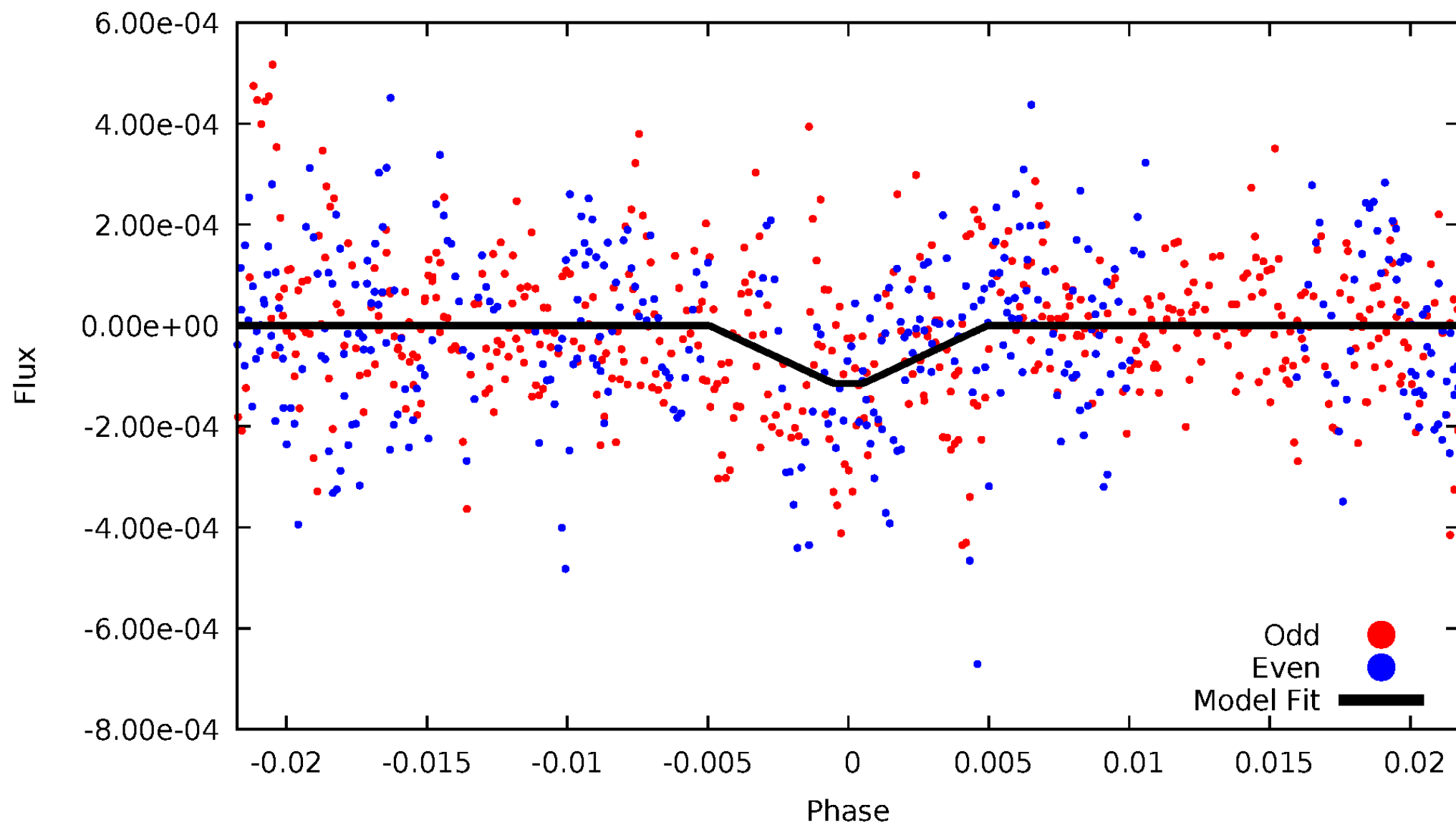
DV Odd/Even

TCE 007907476-02



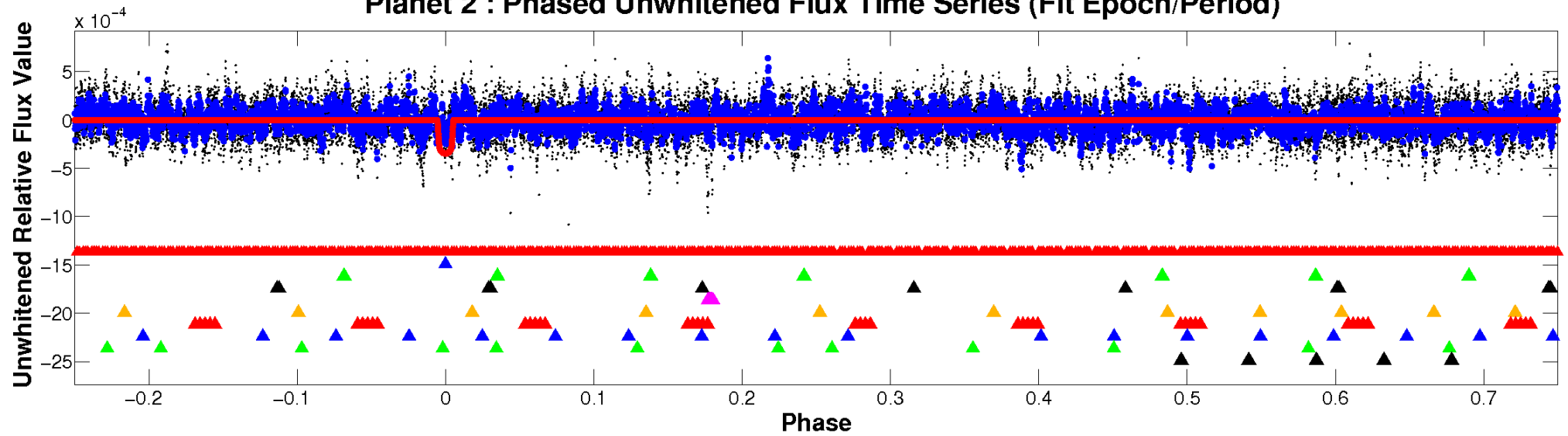
ALT Odd/Even

TCE 007907476-02

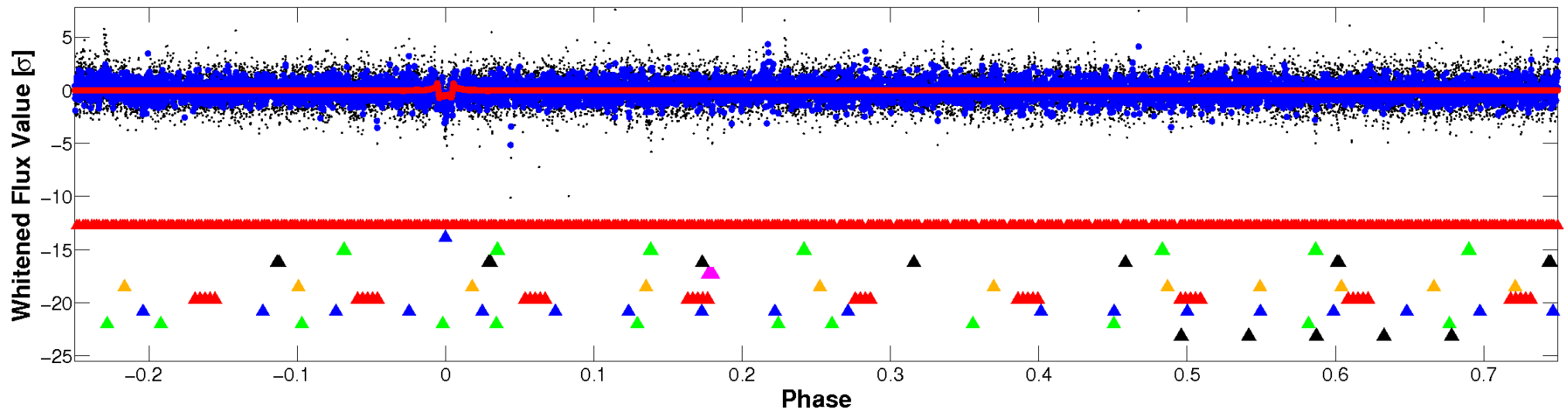


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)



Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



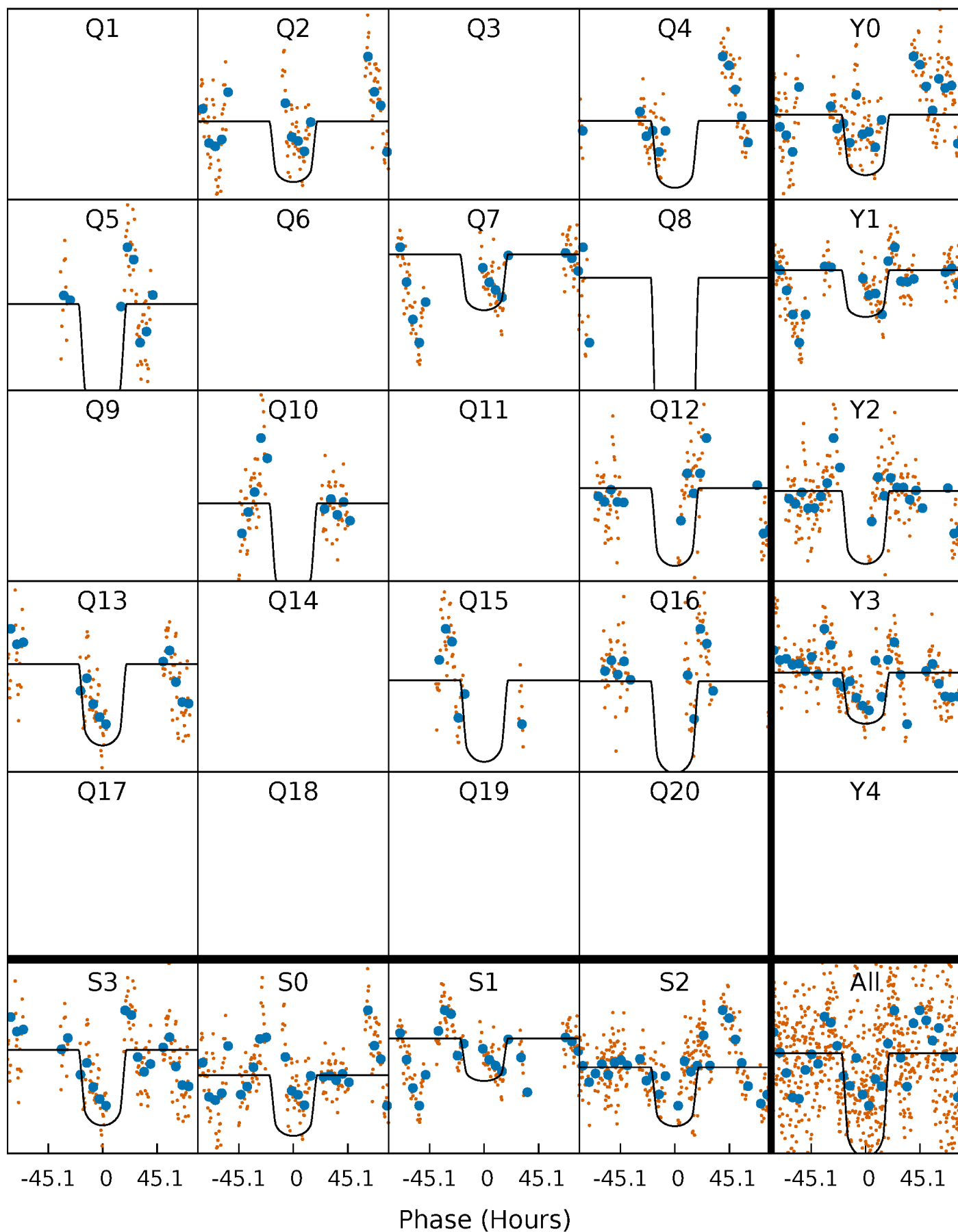
PDC Quarter-Phased Transit Curves

TCE 007907476-02 P=149.475447 Days $T_0=207.106315$ (BKJD)



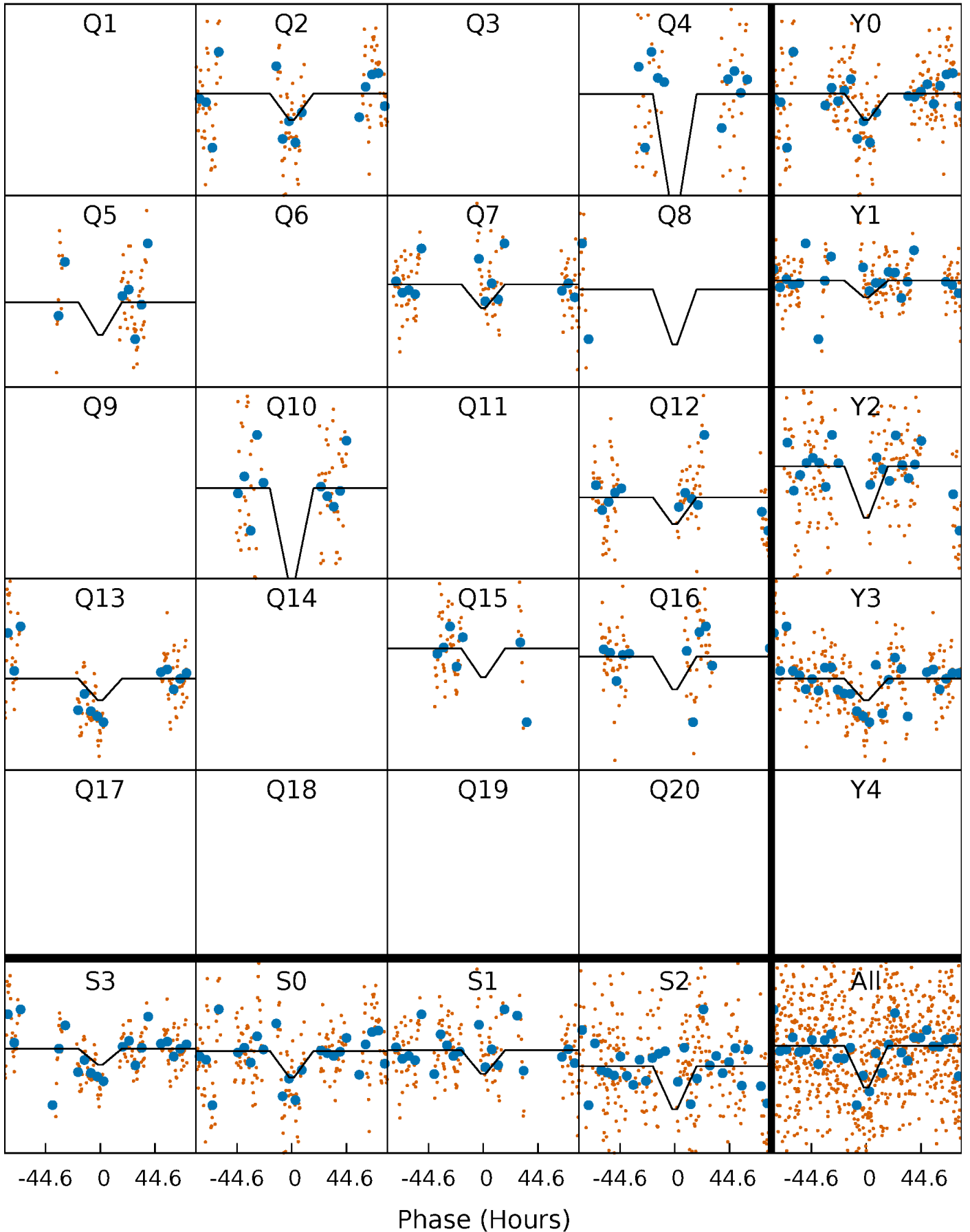
DV Quarter-Phased Transit Curves

TCE 007907476-02 P=149.475447 Days $T_0=207.106315$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

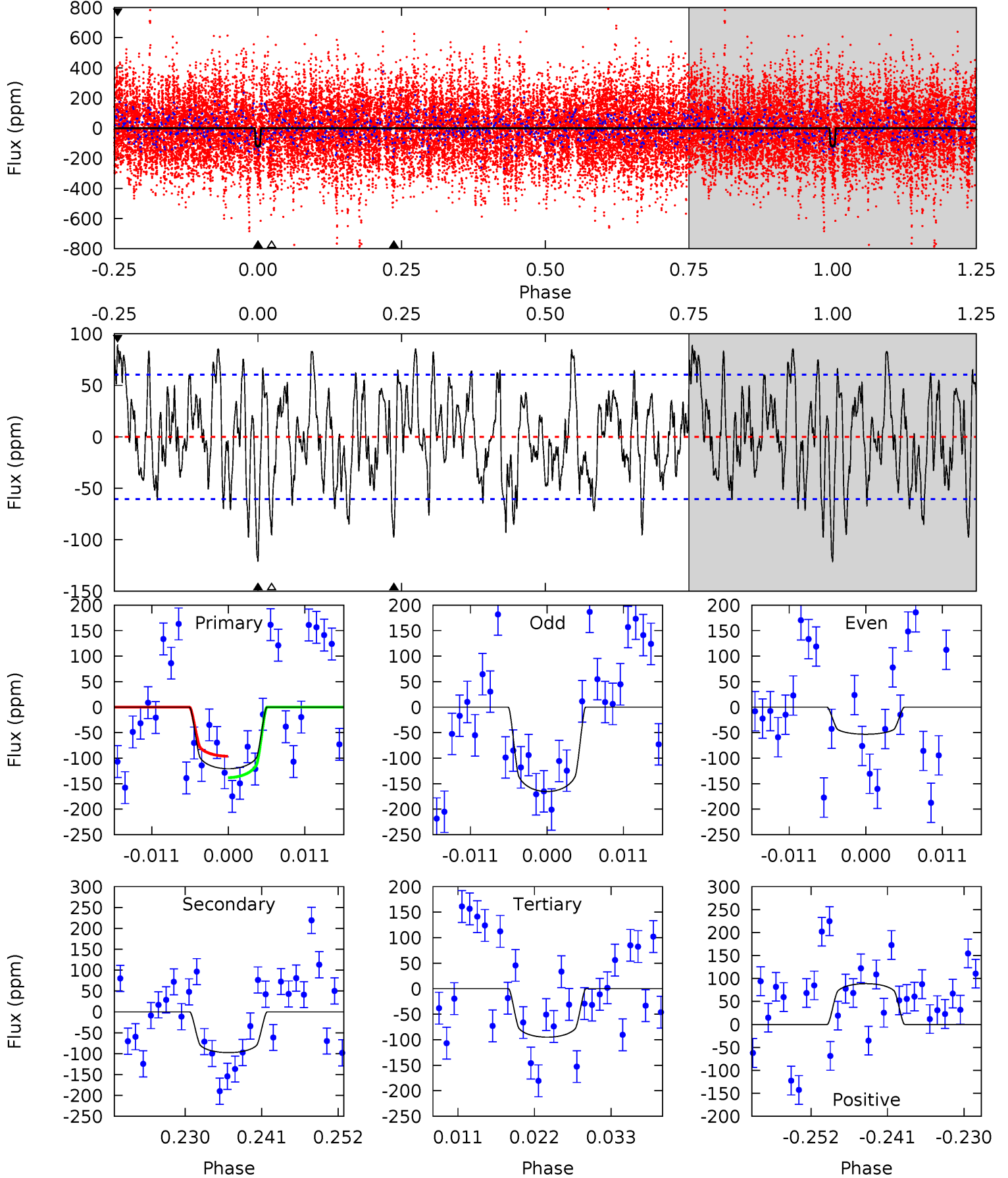
TCE 007907476-02 P=149.464680 Days $T_0=207.205159$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-02, $P = 149.475447$ Days, $E = 57.630868$ Days

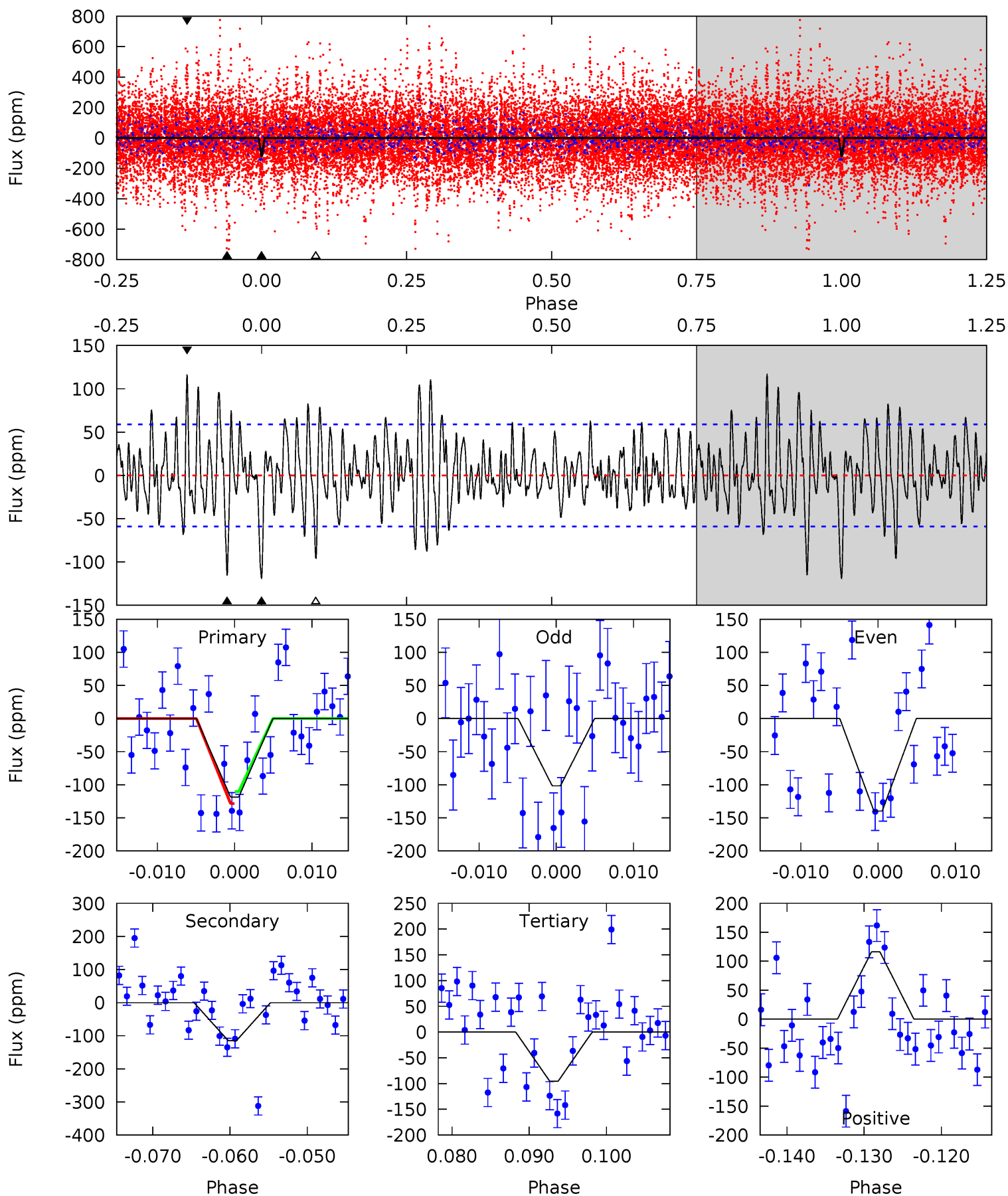
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	8.09	7.88	7.36	5.01	2.54	3.13	2.14	2.65	0.21	0.72	4.55	0.83	0.42	1.72



Alt Model-Shift Uniqueness Test

007907476-02, P = 149.464680 Days, E = 57.740479 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	9.79	8.16	9.93	5.03	2.58	2.71	1.95	0.18	1.63	-0.14	1.56	1.86	0.50	0.77



Stellar Parameters For KIC 007907476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-98 ± 12	$8.25^{+1.50}_{-1.94}$	960^{+61}_{-98}	4657^{+249}_{-219}	331^{+206}_{-93}
Alt.	-115 ± 12	$4.26^{+1.07}_{-1.16}$	961^{+65}_{-110}	6486^{+719}_{-545}	1459^{+1196}_{-521}

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 $A_{obs} \gg 1.0$

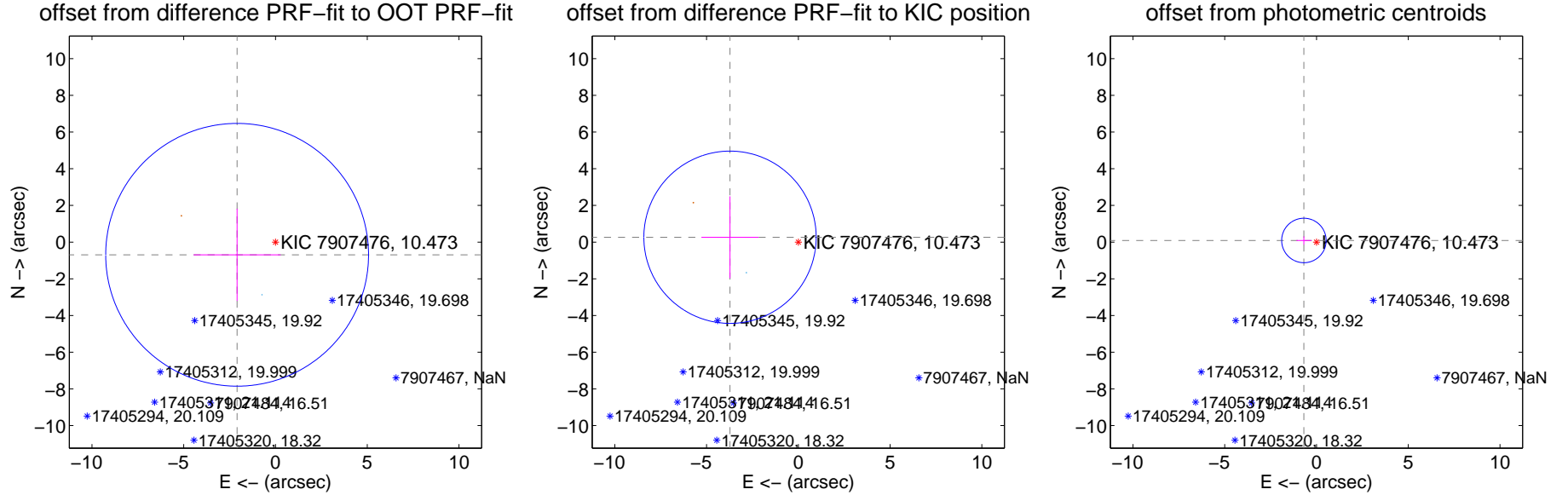
DV Centroid Data

Supplemental centroid analysis for 007907476-02. **Kepler magnitude: 10.47.** Transit SNR 8.53

There are 1 quarters with good PRF difference image offsets

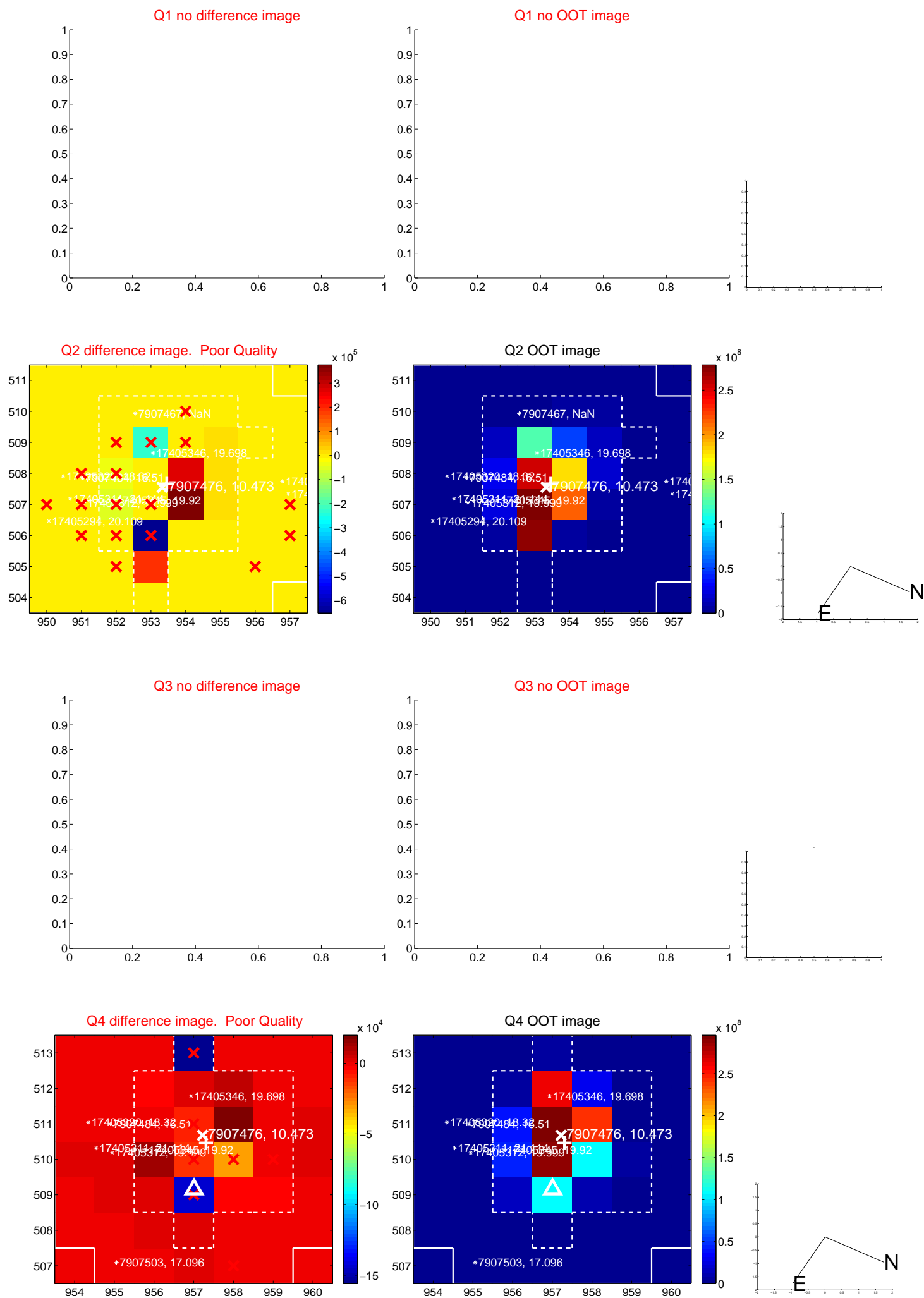
The OOT PRF centroid is offset from the target star catalog position by about 2.42 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.202 ± 2.387	0.92	2.091 ± 2.373	-0.691 ± 2.514
PRF-fit source offset from KIC position	3.733 ± 1.565	2.39	3.723 ± 1.561	0.265 ± 2.230
photometric centroid source offset	0.69 ± 0.40	1.71	0.69 ± 0.41	0.09 ± 0.22

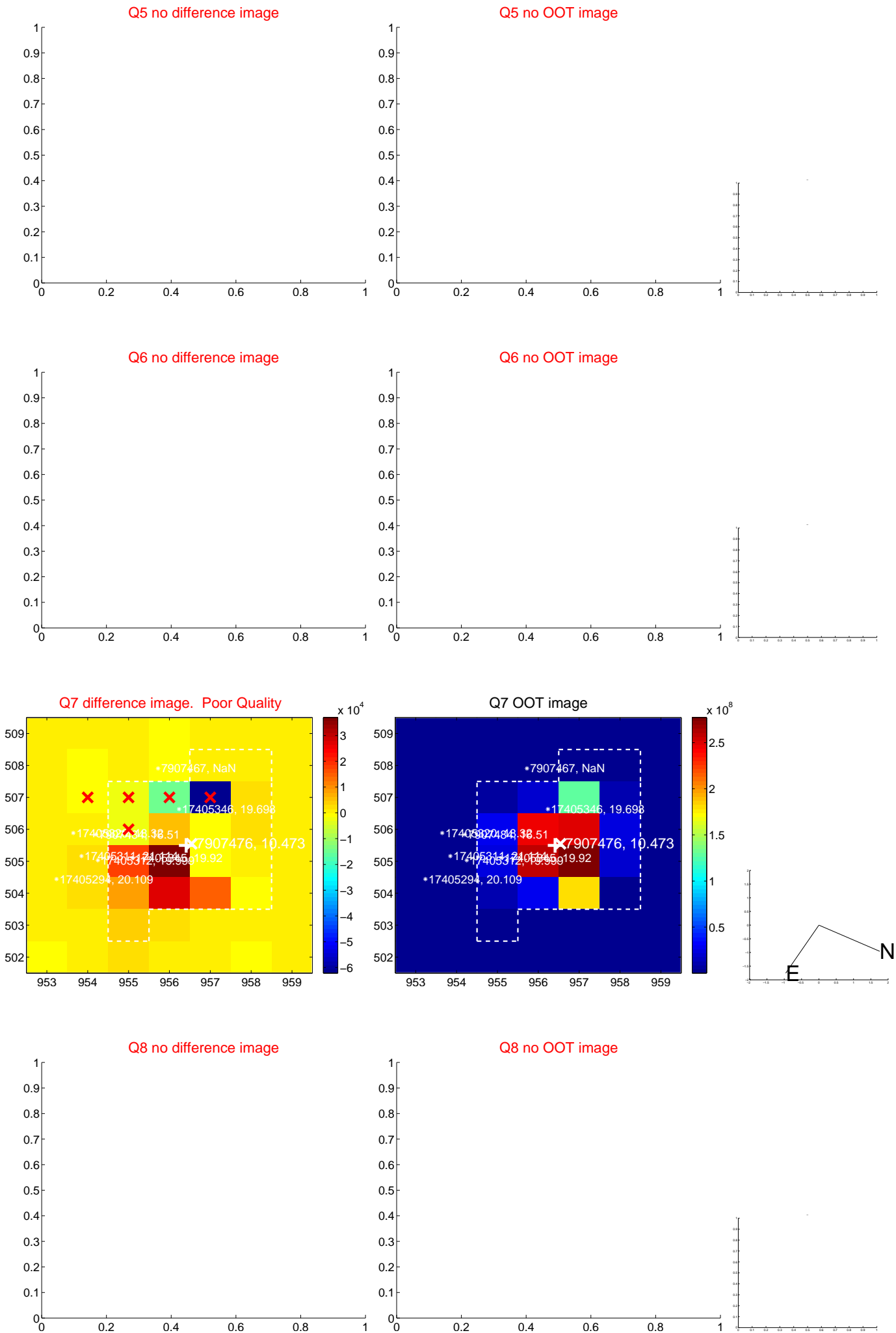


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

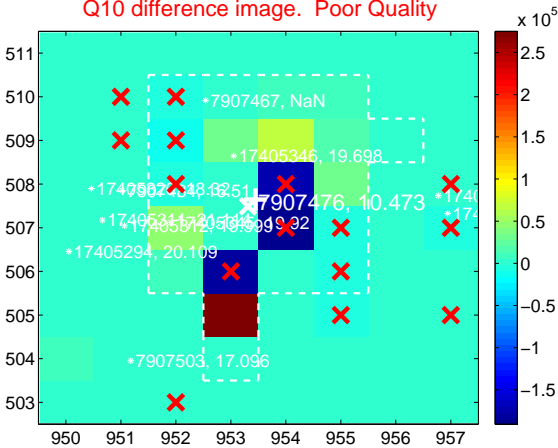
Q9 no difference image



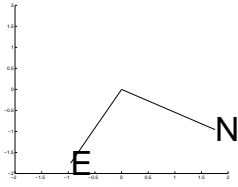
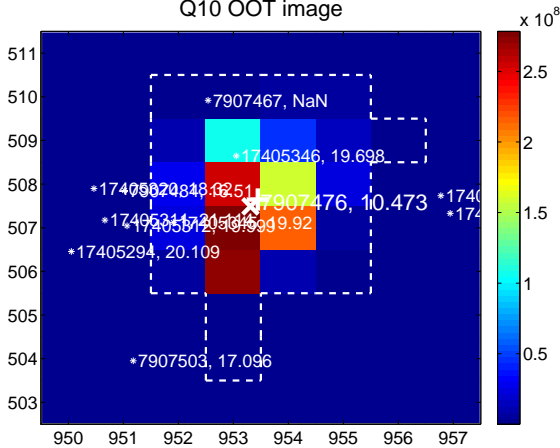
Q9 no OOT image



Q10 difference image. Poor Quality



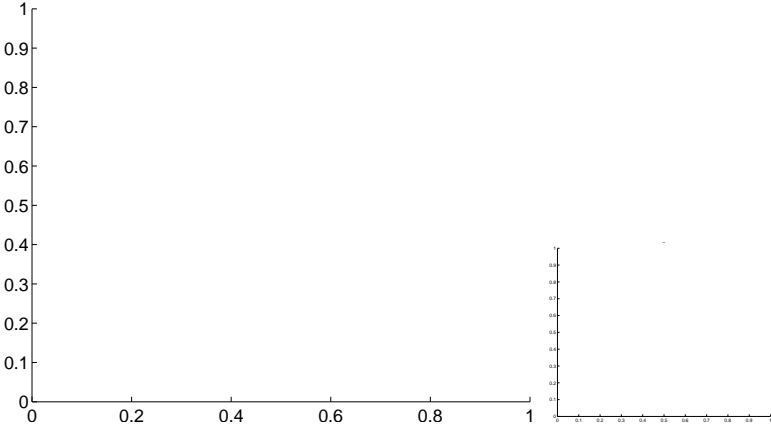
Q10 OOT image



Q11 no difference image



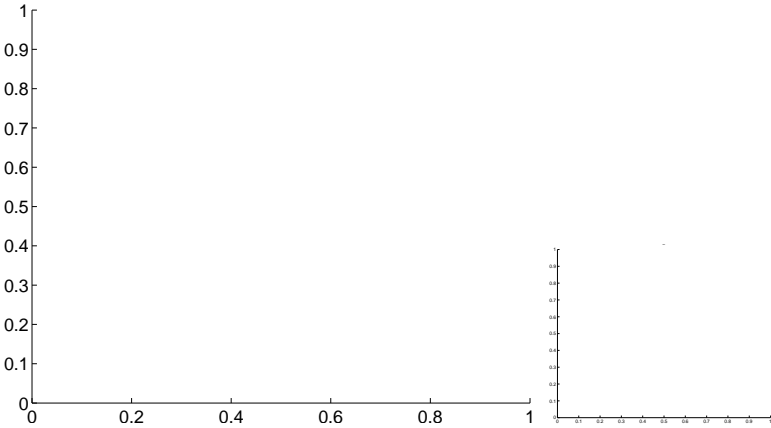
Q11 no OOT image



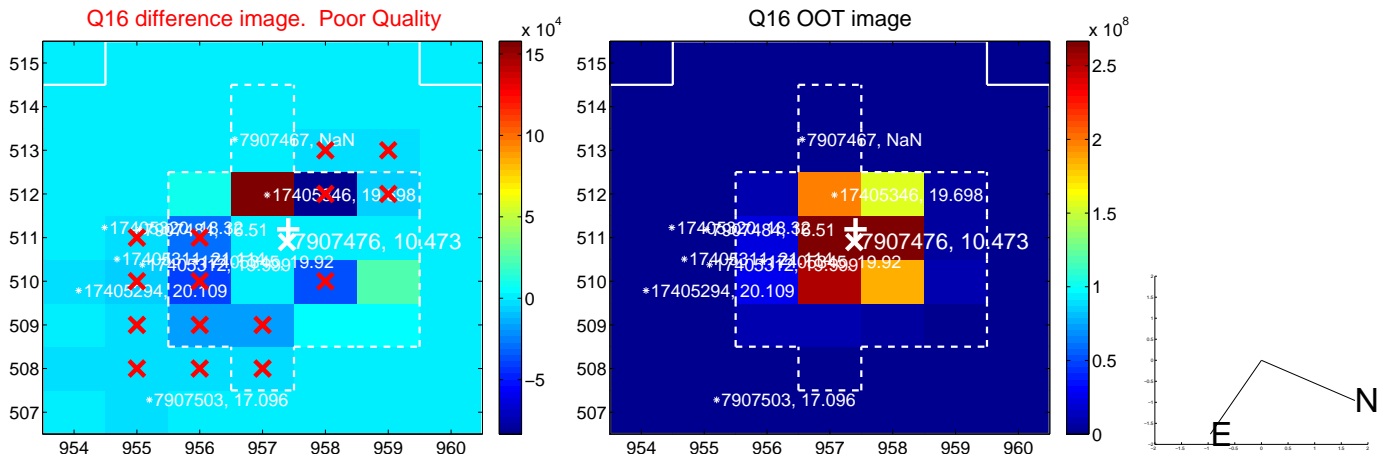
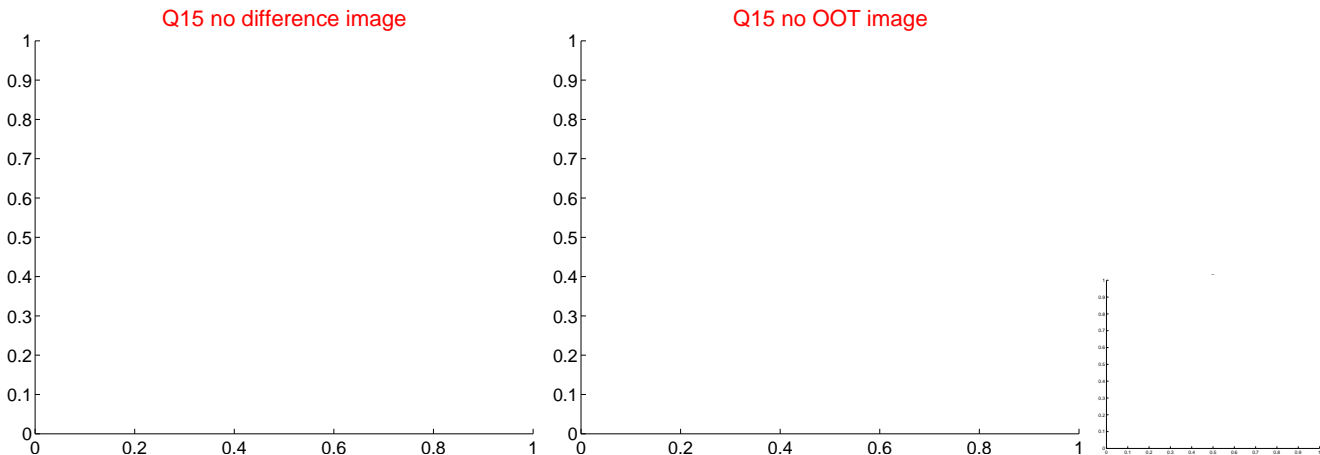
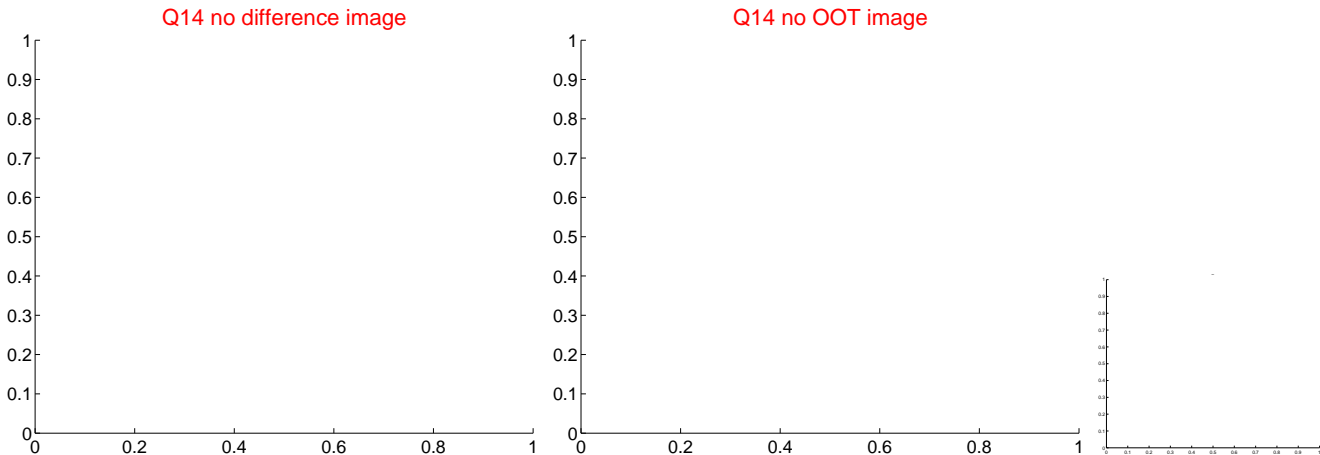
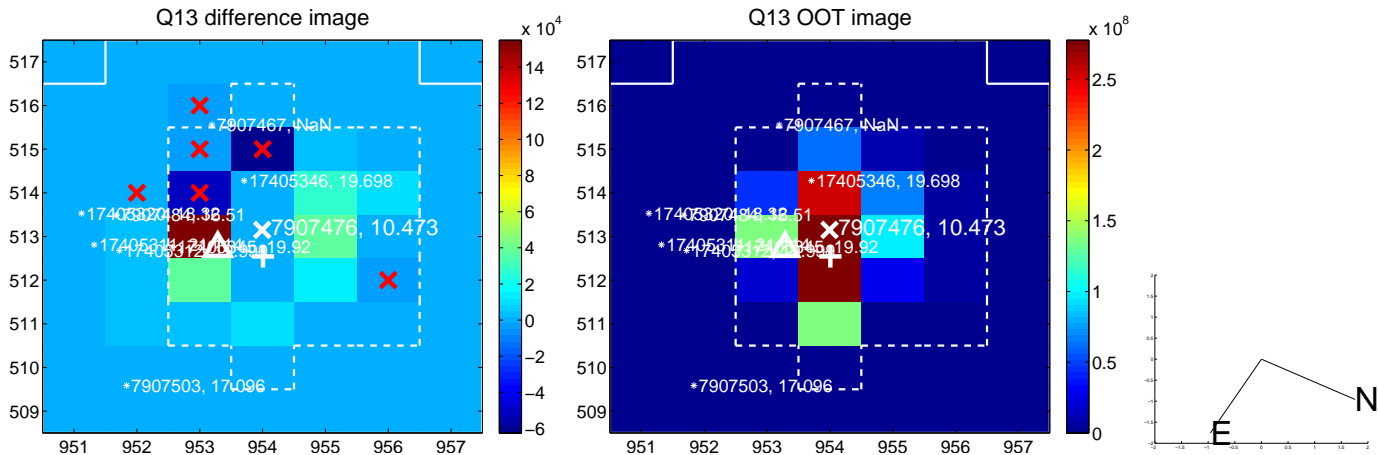
Q12 no difference image



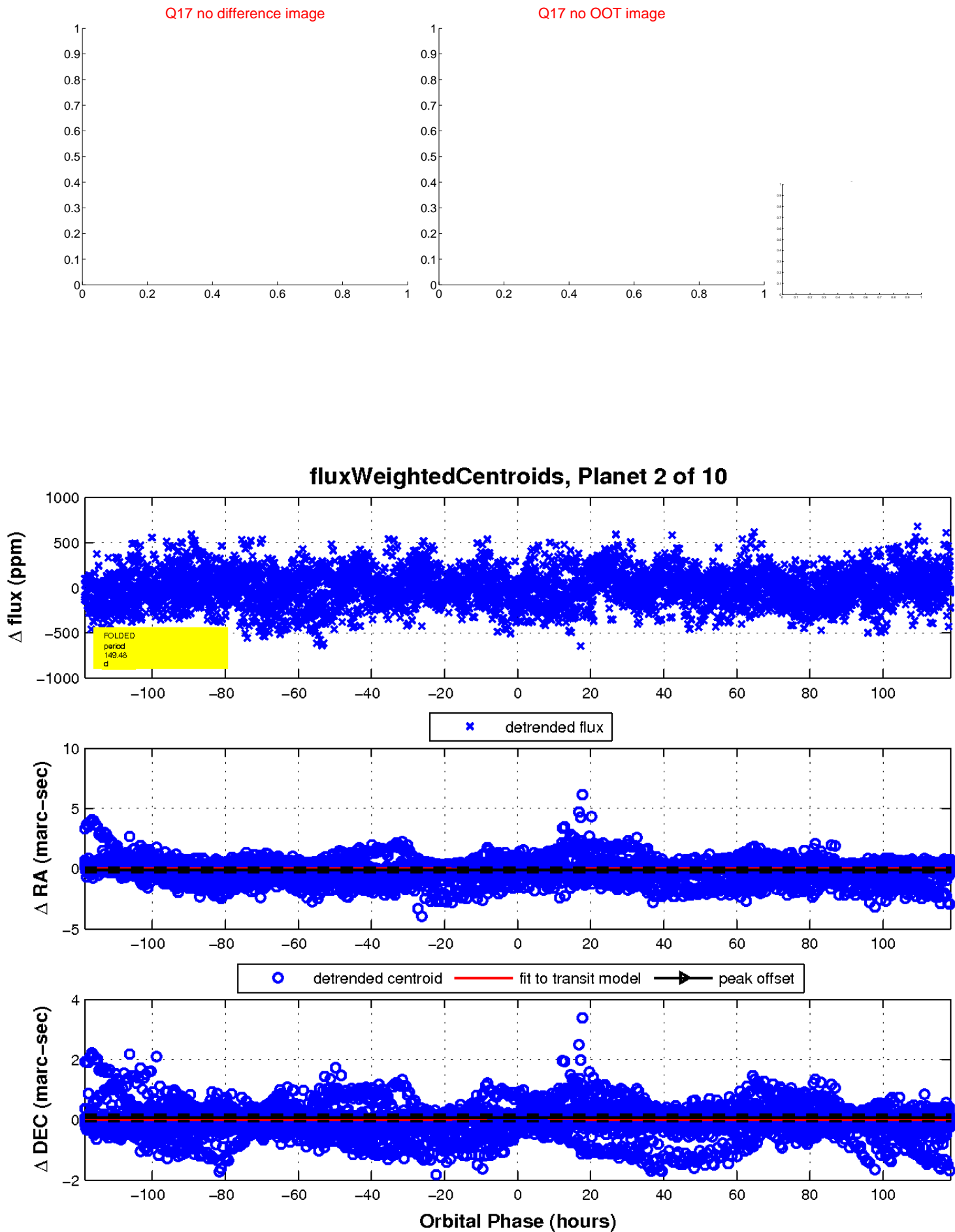
Q12 no OOT image



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

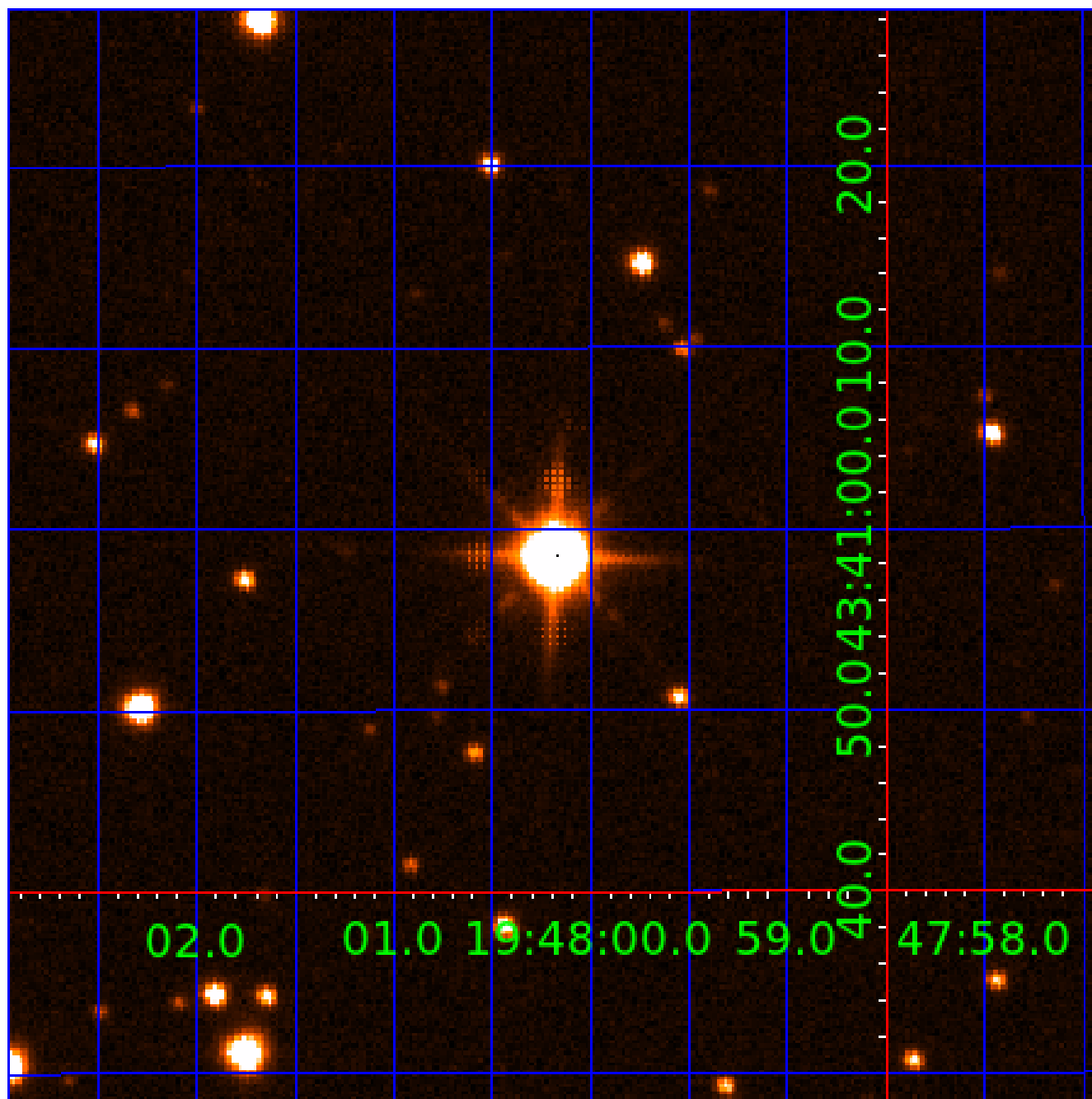


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

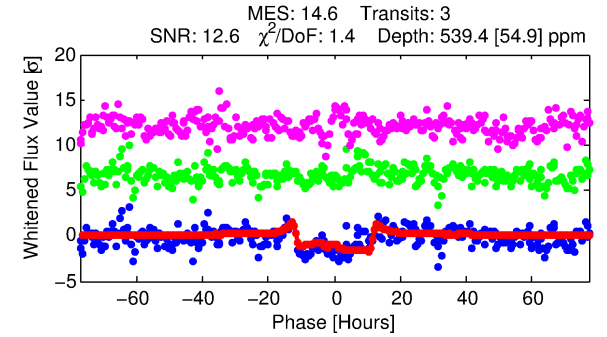
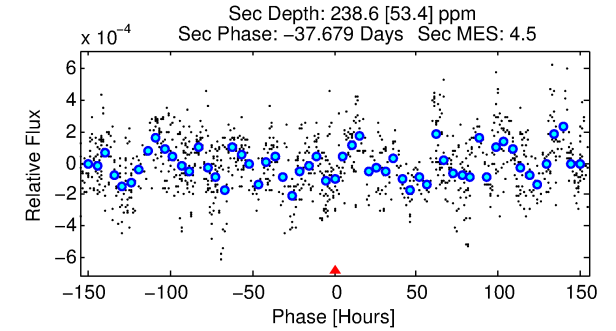
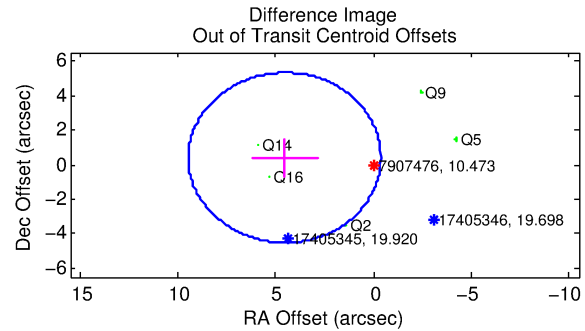
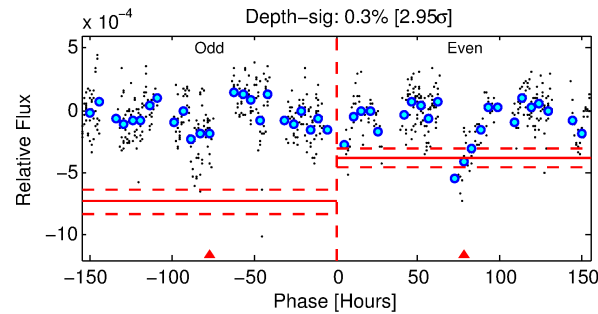
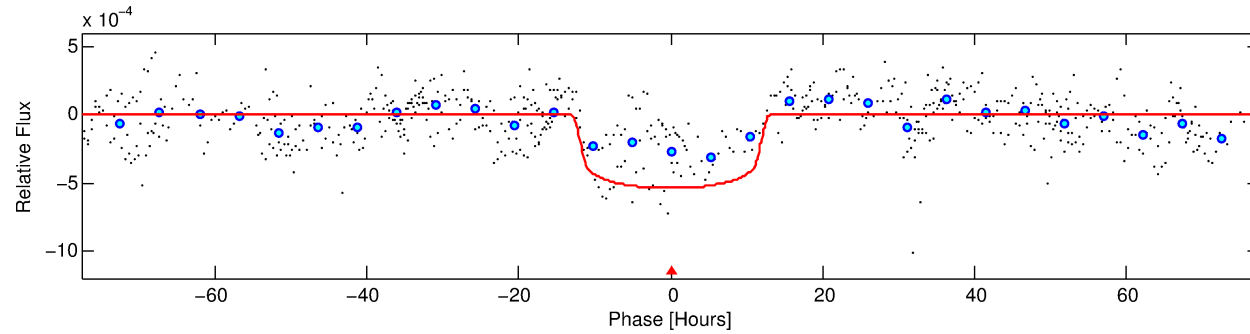
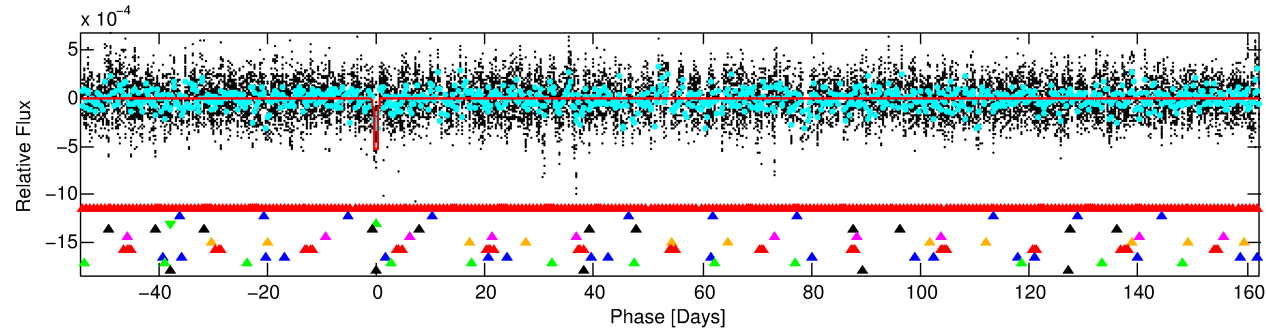
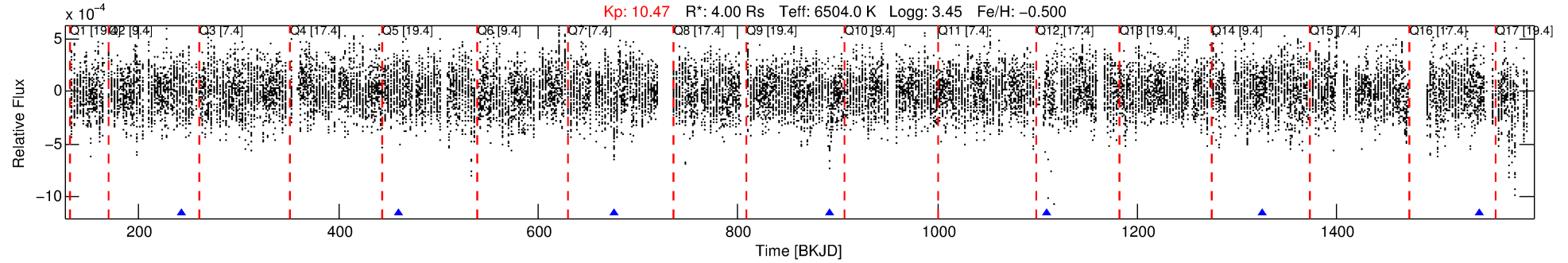
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-03

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 3 of 10 Period: 216.488 d



DV Fit Results:

Period = 216.48818 [0.00625] d
Epoch = 243.2398 [0.0246] BKJD
Rp/R* = 0.0239 [0.0016]
a/R* = 37.59 [8.16]
b = 0.84 [0.08]
Seff = 36.98 [26.35]
Teq = 629 [112] K
Rp = 10.44 [4.64] Re
a = 0.8335 [0.3612] AU
Ag = 836.50 [626.82] [1.33 σ]
Teffp = 5228 [375] K [11.76 σ]

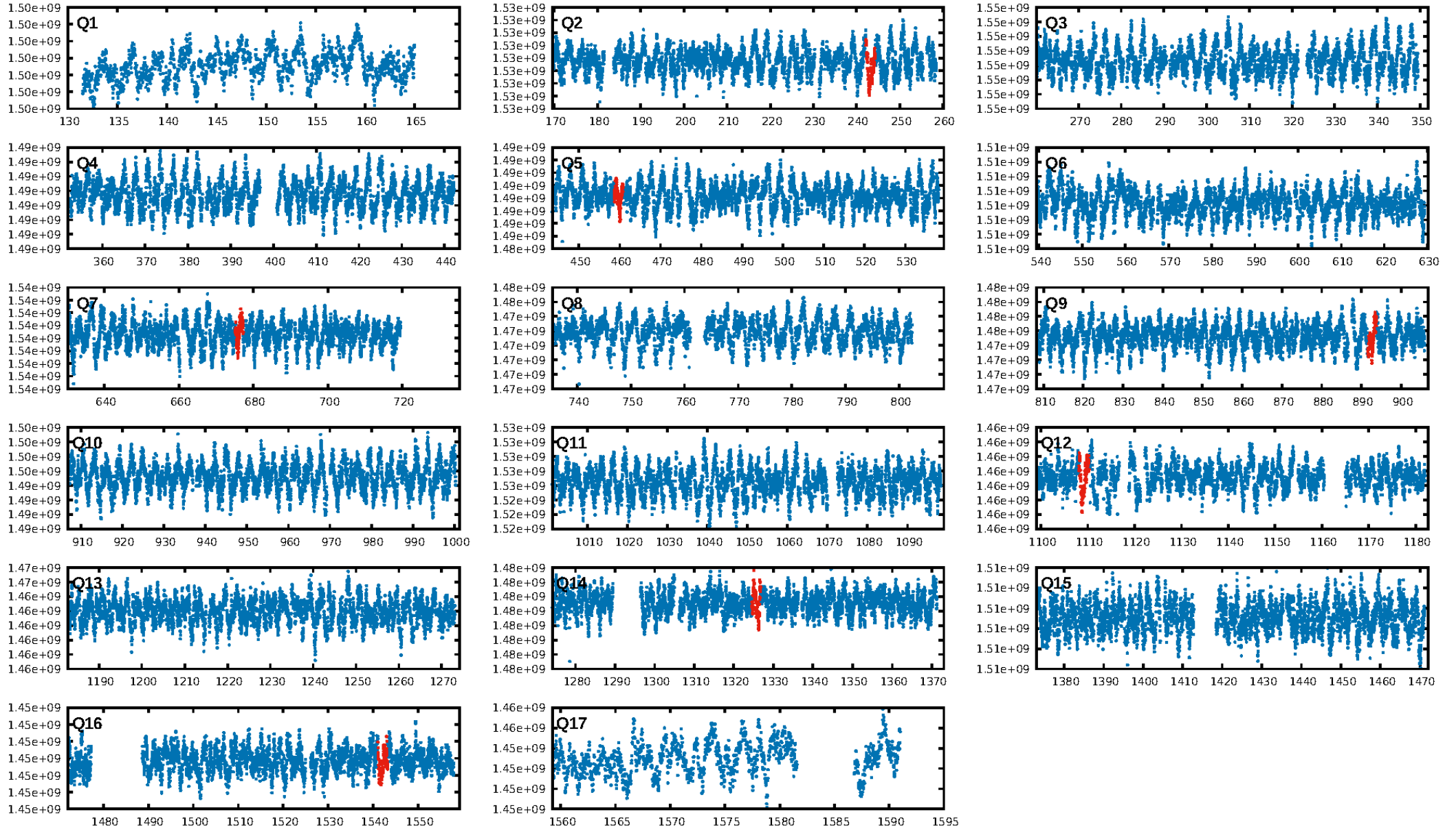
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [34.07 σ]
LongPeriod-sig: 100.0% [75.76 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3156
Centroid-sig: 10.2%
Centroid-so: 0.593 arcsec [2.43 σ]
OotOffset-rm: 4.564 arcsec [2.78 σ]
KicOffset-rm: 3.885 arcsec [3.41 σ]
OotOffset-st: 2/0/1/2 [5]
KicOffset-st: 2/0/1/2 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 0.00 [0/6]

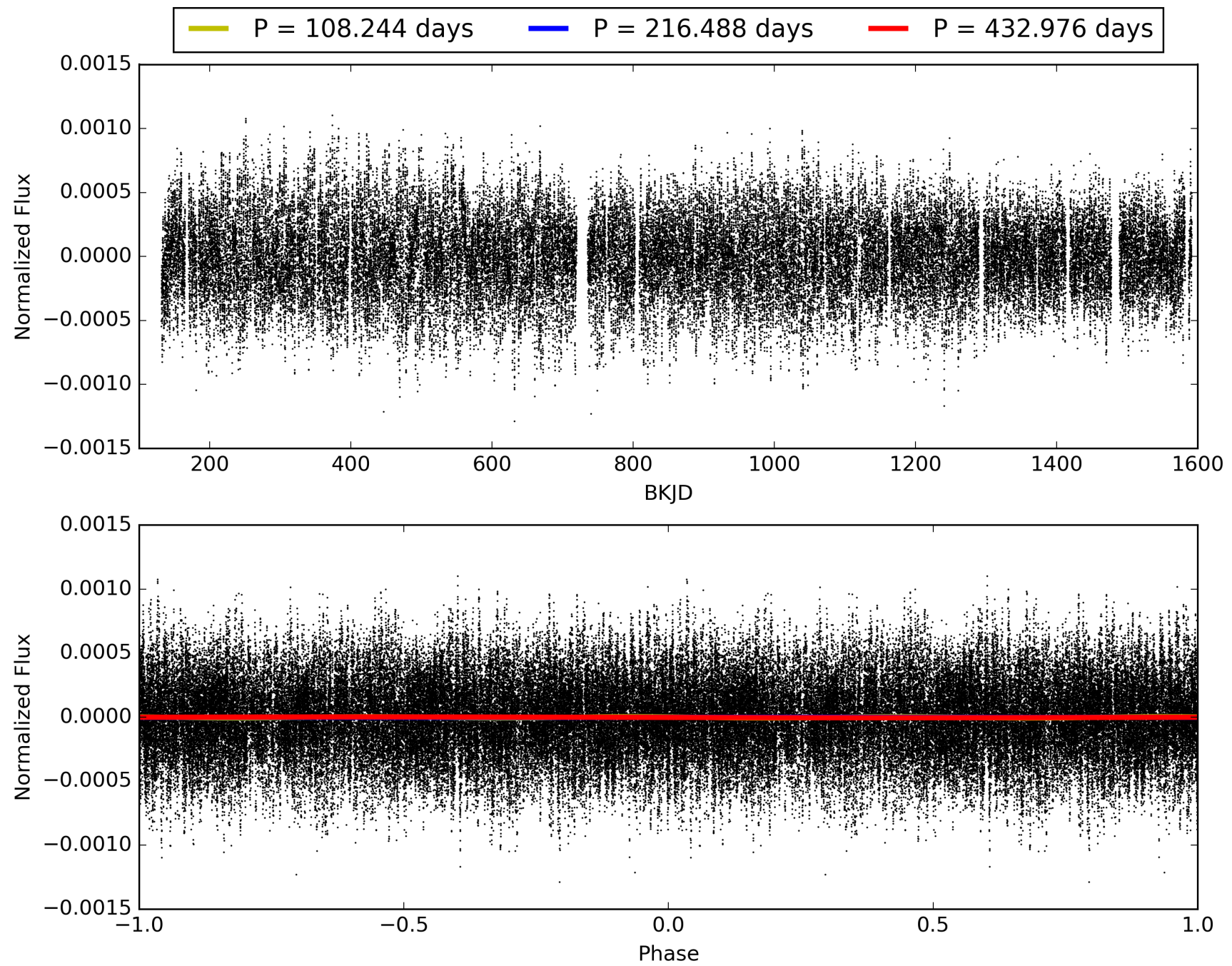
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:03 Z

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

TCE 007907476-03, PDC Light Curves

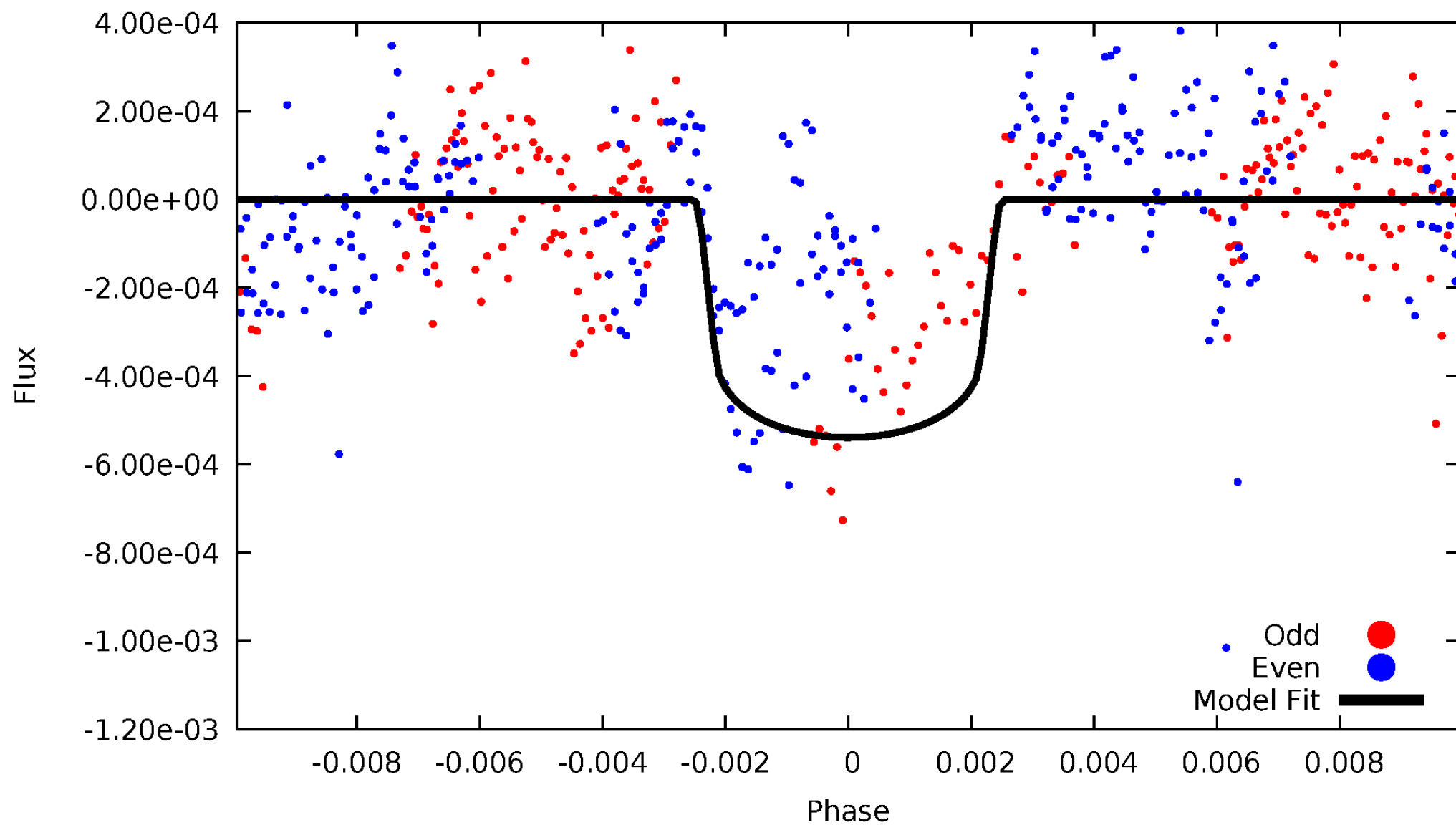


TCE 007907476-03



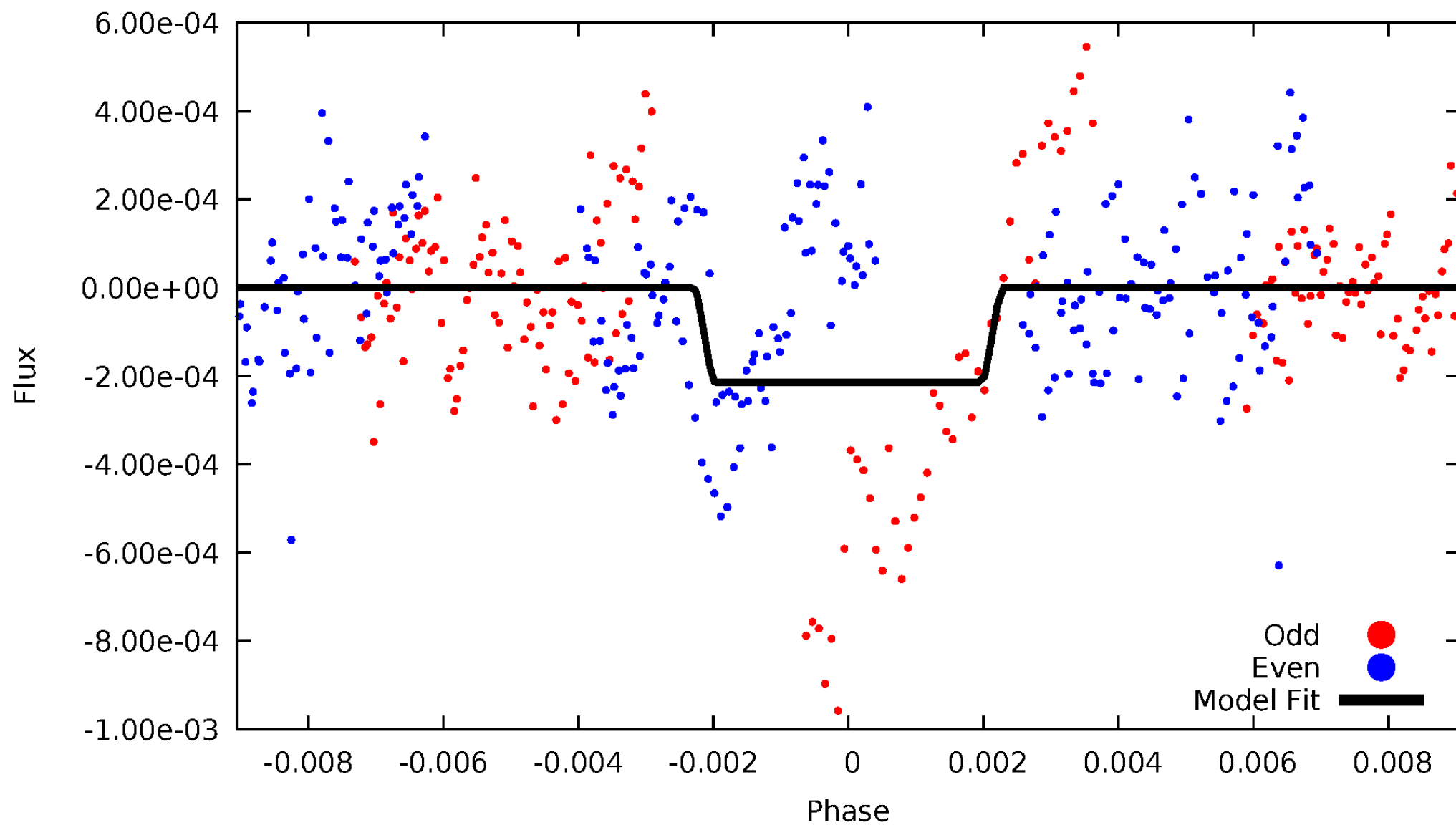
DV Odd/Even

TCE 007907476-03



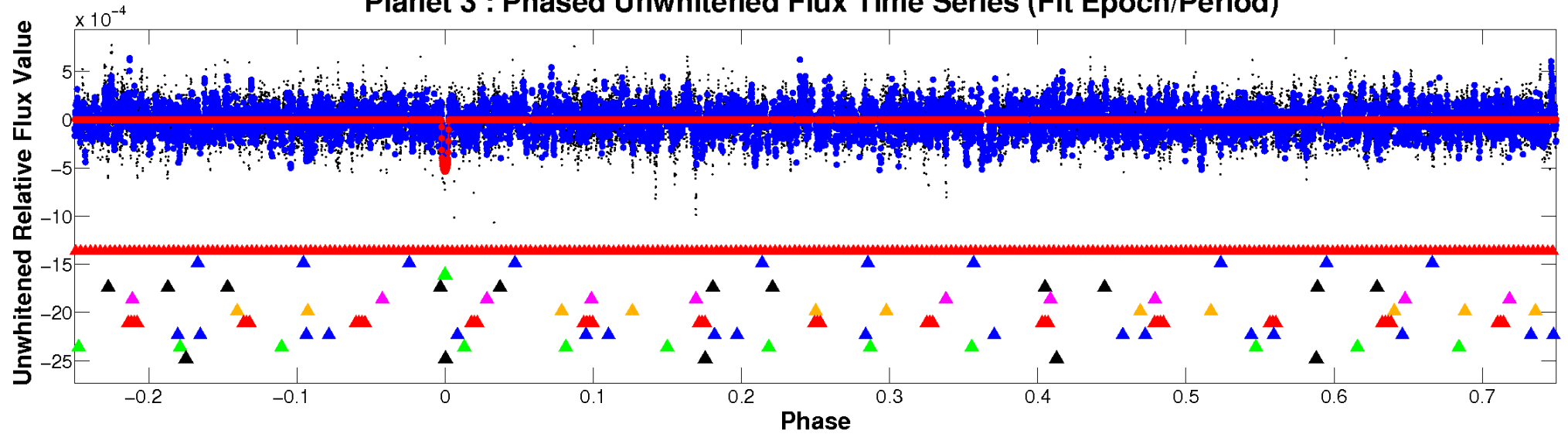
ALT Odd/Even

TCE 007907476-03

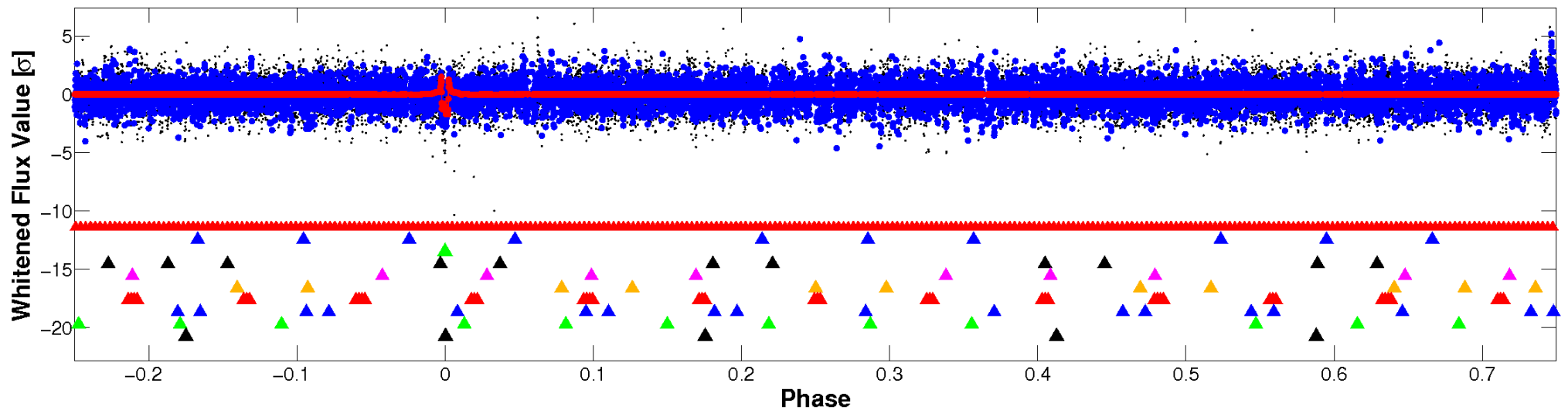


Non-Whitened Vs. Whitened Light Curve

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

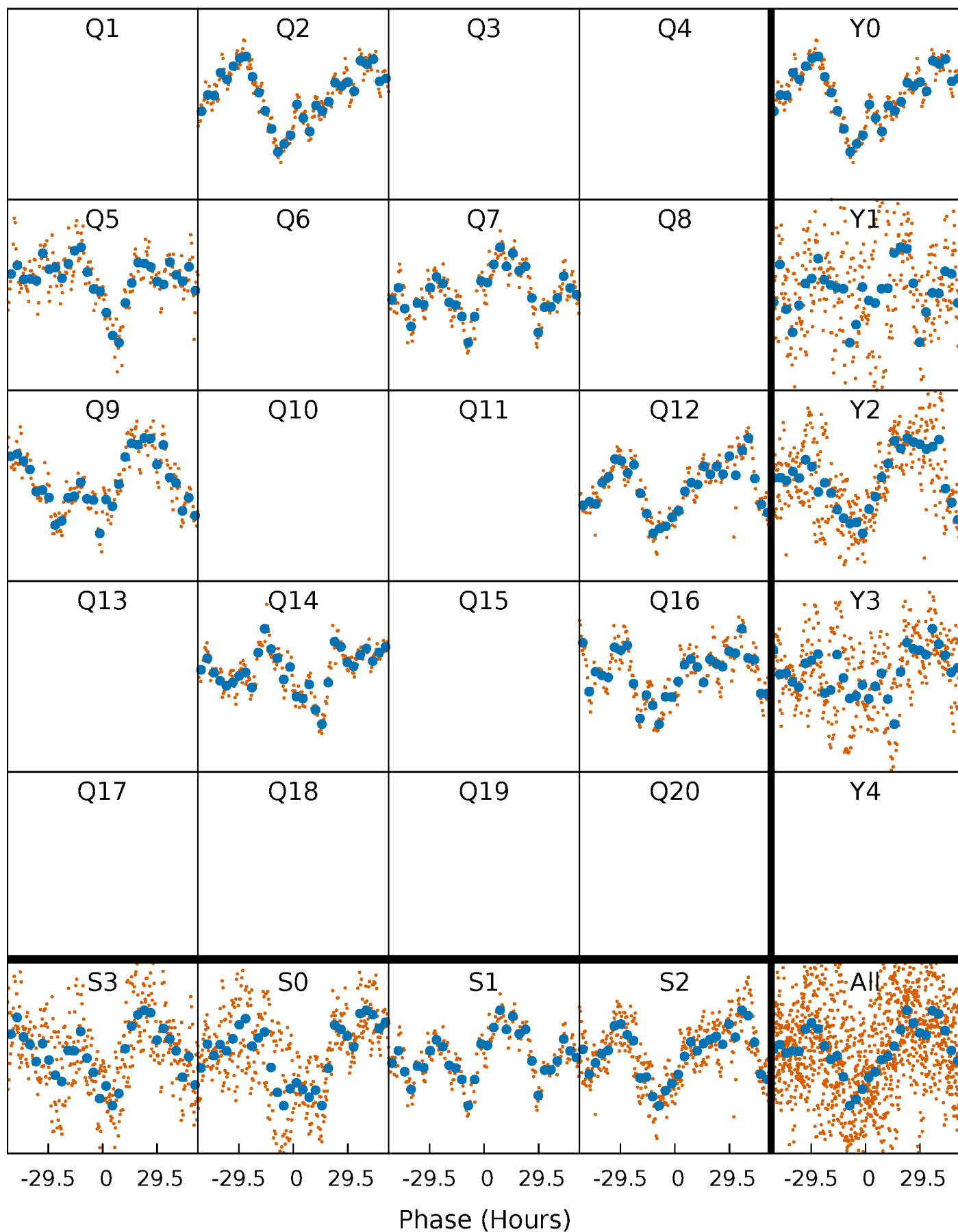


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



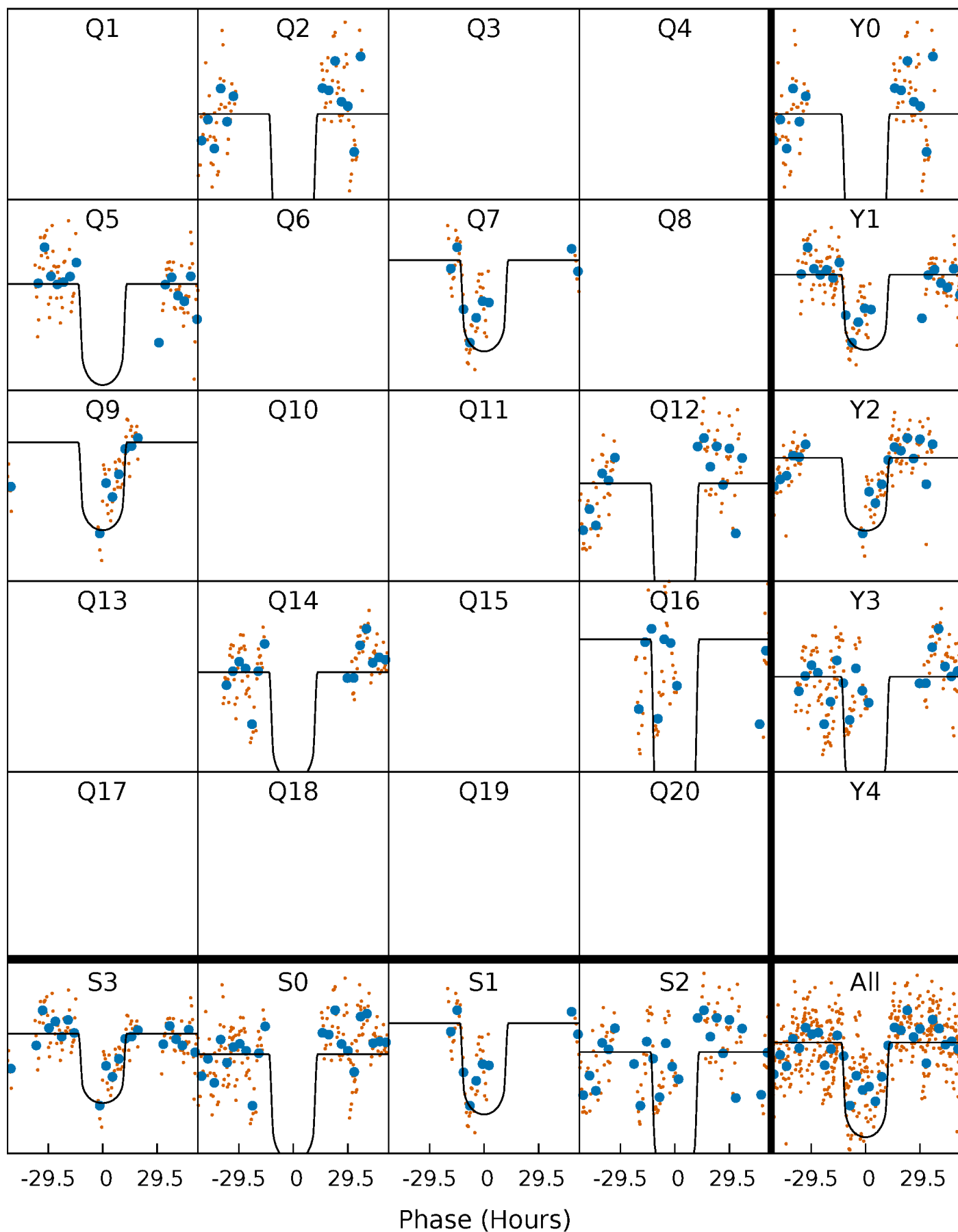
PDC Quarter-Phased Transit Curves

TCE 007907476-03 P=216.488183 Days $T_0=243.239842$ (BKJD)



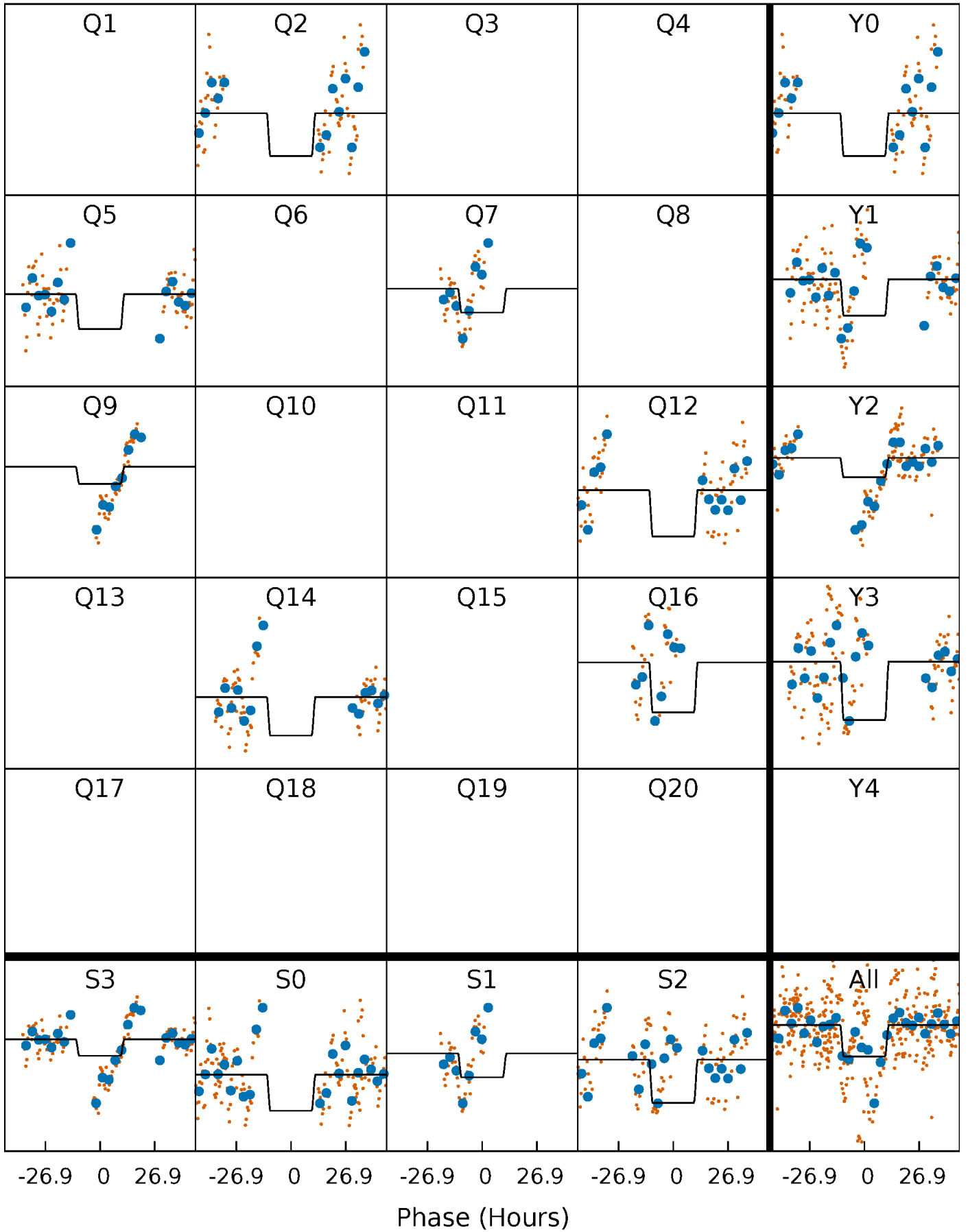
DV Quarter-Phased Transit Curves

TCE 007907476-03 $P=216.488183$ Days $T_0=243.239842$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

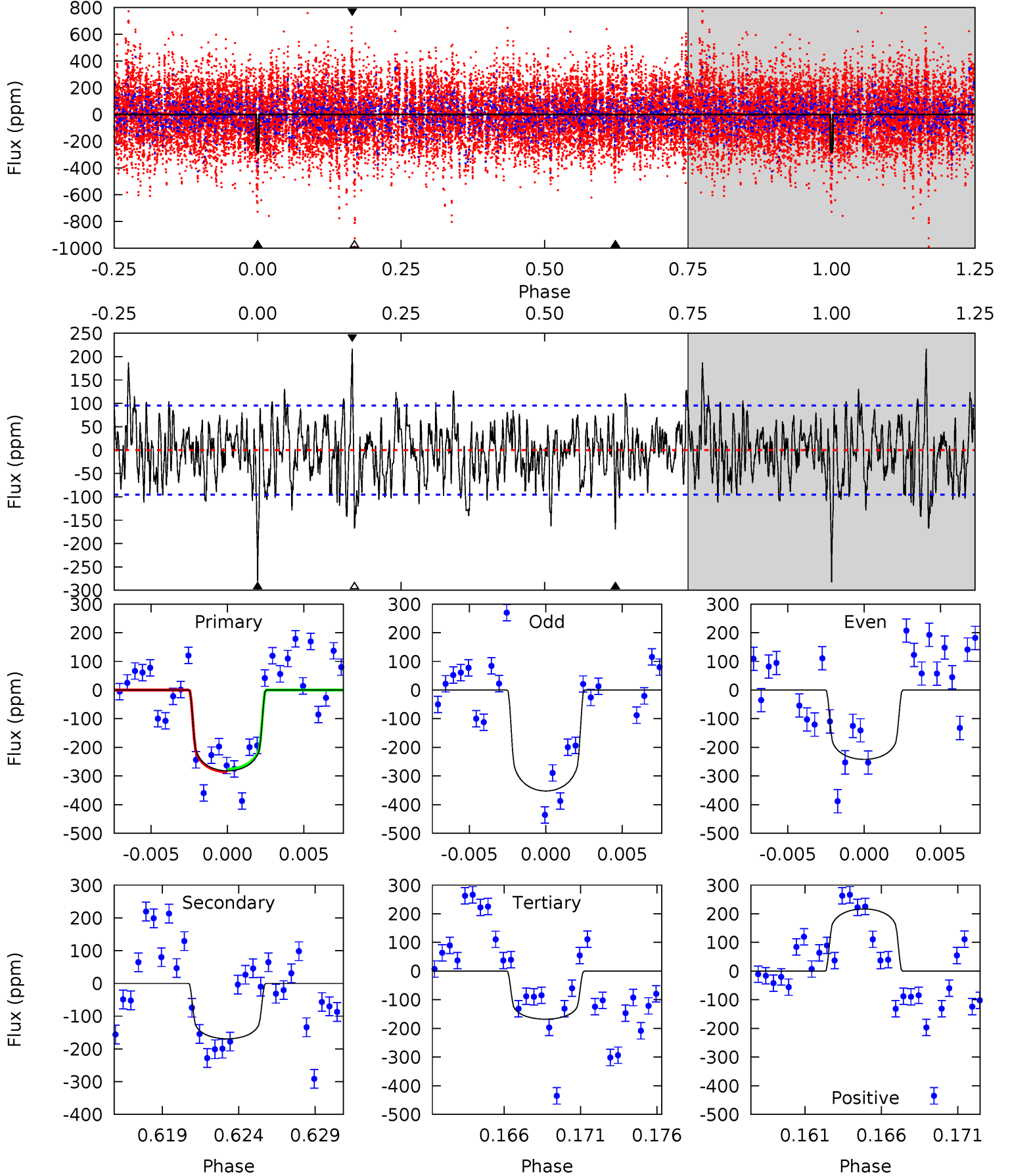
TCE 007907476-03 P=216.466323 Days $T_0=243.319128$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-03, P = 216.488183 Days, E = 26.751659 Days

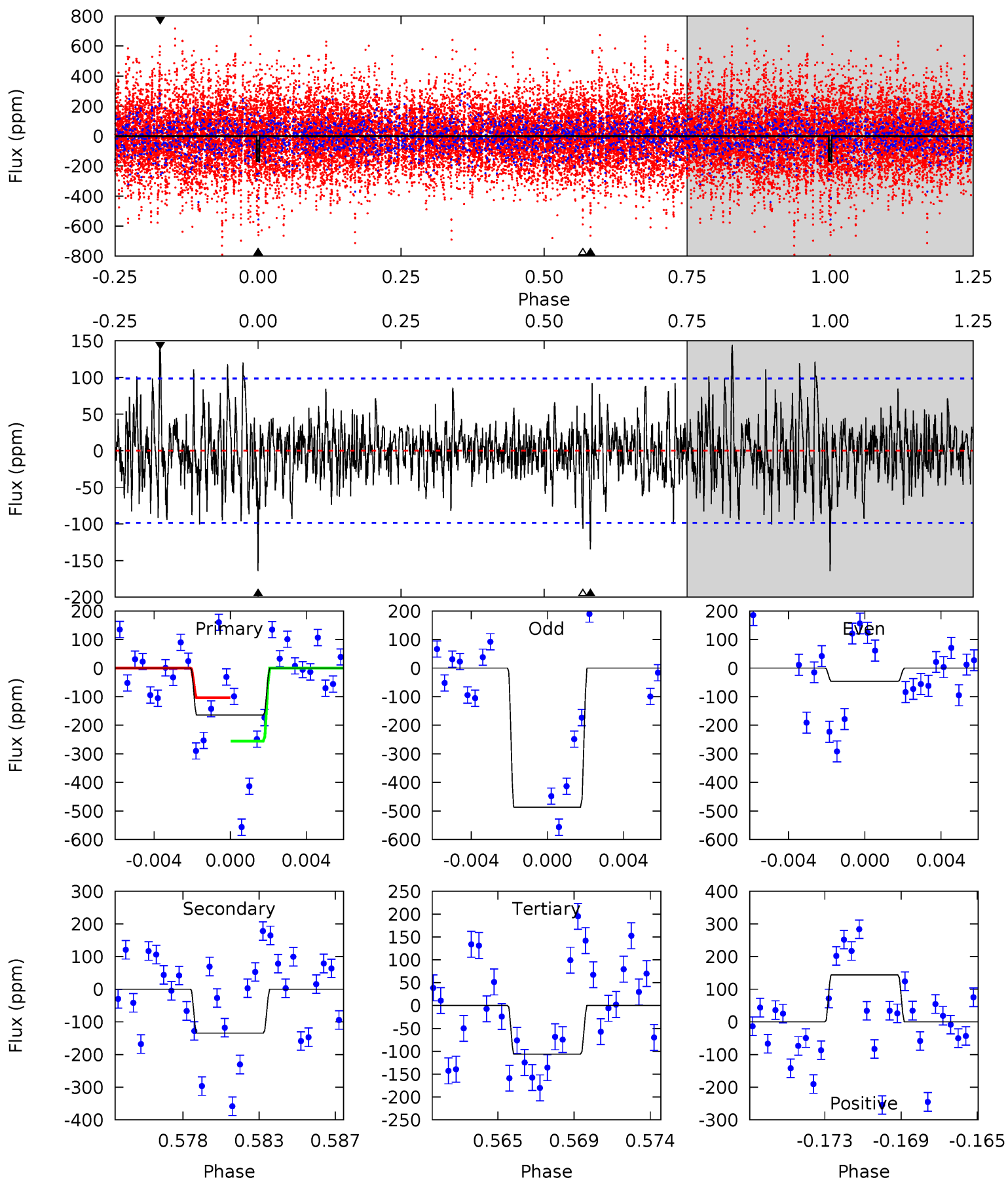
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	9.16	9.09	11.7	5.16	2.80	2.79	6.19	3.53	0.07	-2.58	2.89	0.77	0.43	0.26



Alt Model-Shift Uniqueness Test

007907476-03, P = 216.466323 Days, E = 26.852805 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.64	7.06	5.59	7.54	5.18	2.84	1.69	3.05	1.10	1.47	-0.48	11.6	3.64	0.47	3.94



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-169 ± 18	$9.70^{+1.61}_{-2.44}$	847^{+56}_{-92}	4888^{+226}_{-189}	693^{+399}_{-182}
Alt.	-134 ± 19	$5.91^{+1.09}_{-1.62}$	849^{+55}_{-102}	5760^{+448}_{-380}	1484^{+1053}_{-470}

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 $A_{obs} \gg 1.0$

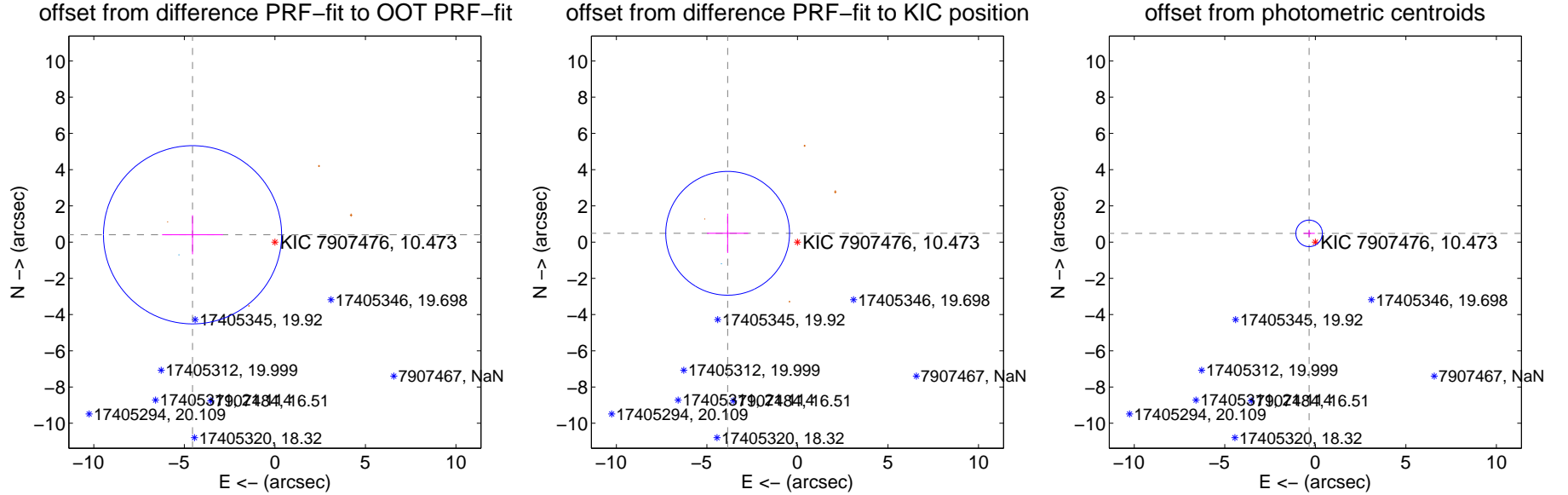
DV Centroid Data

Supplemental centroid analysis for 007907476-03. **Kepler magnitude: 10.47.** Transit SNR 12.57

There are 1 quarters with good PRF difference image offsets

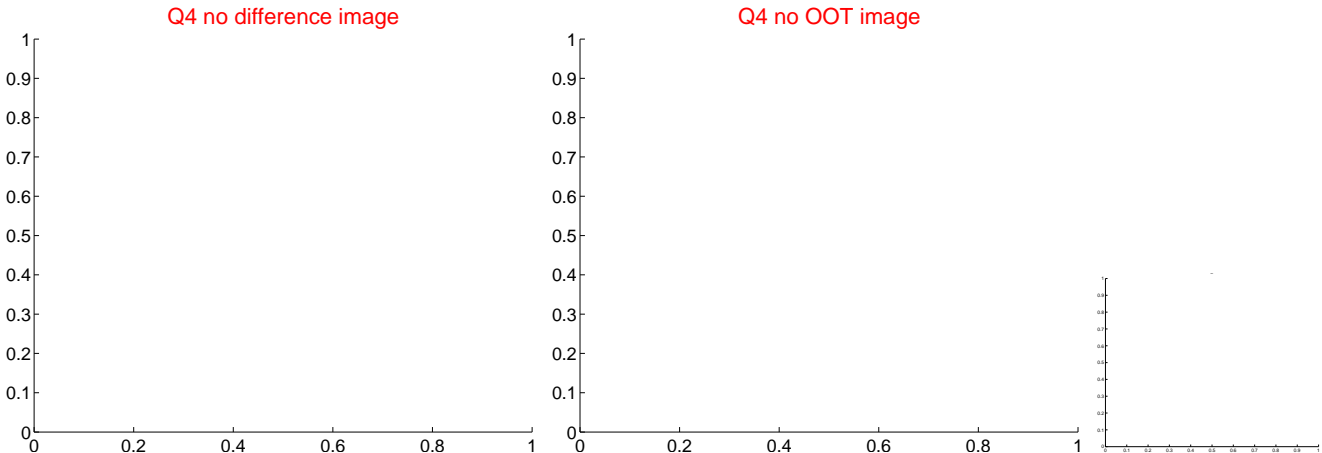
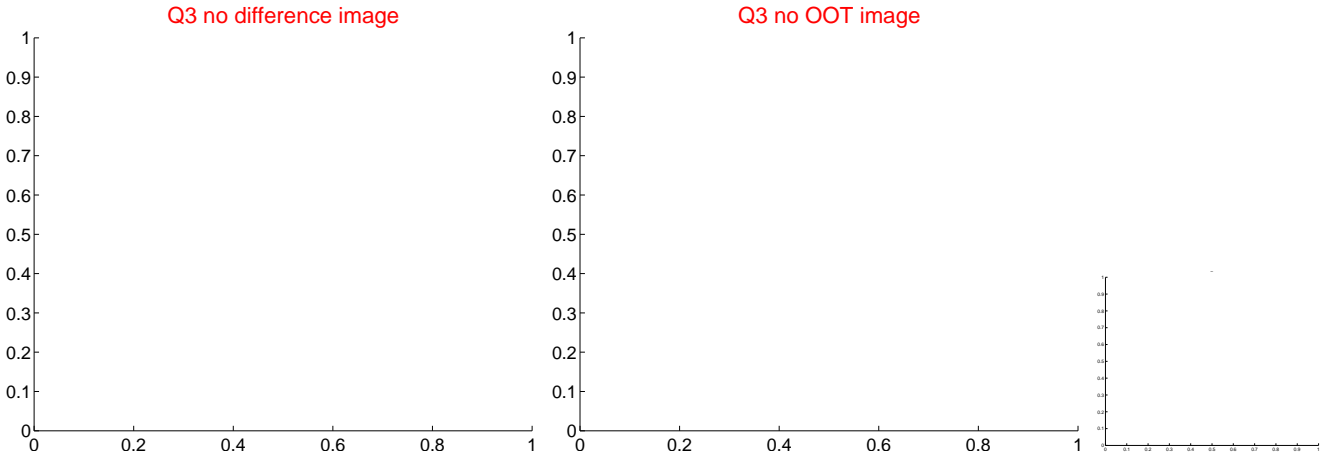
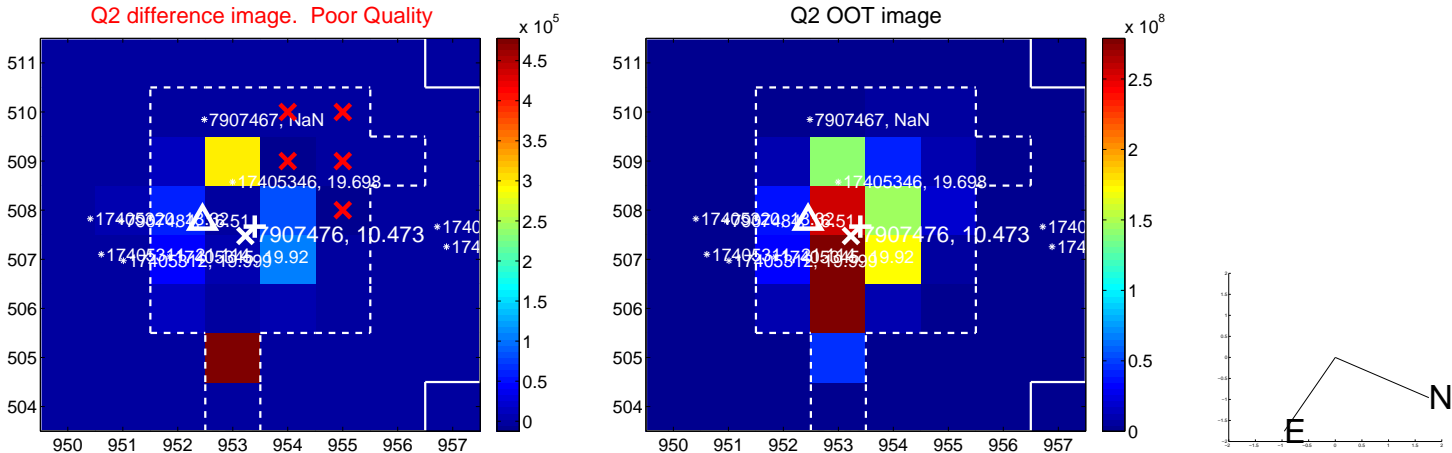
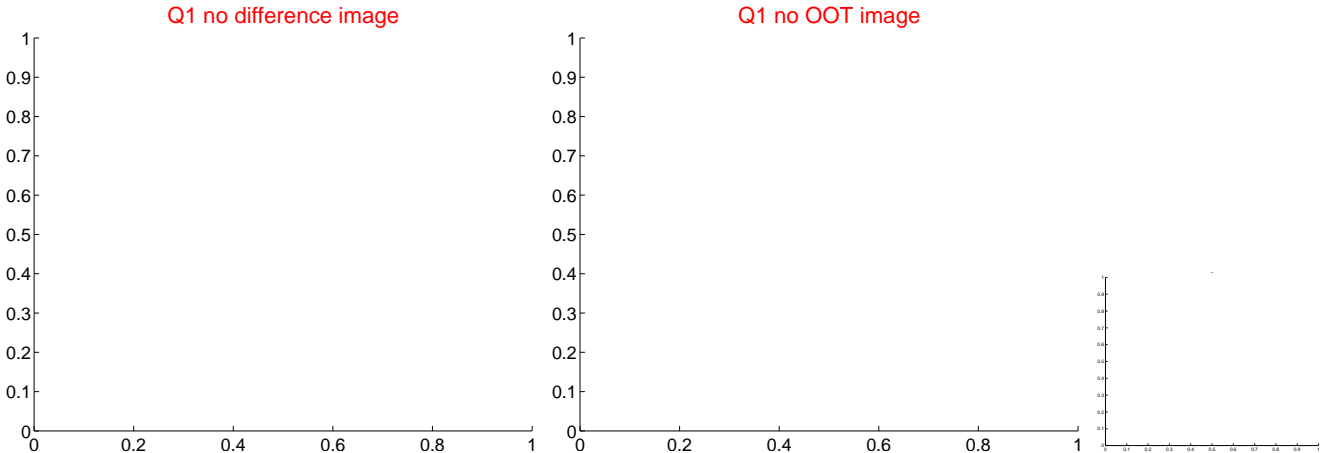
The direct PRF centroid is offset from the target star catalog position by about 1.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.564 ± 1.639	2.78	4.546 ± 1.682	0.405 ± 1.077
PRF-fit source offset from KIC position	3.885 ± 1.139	3.41	3.854 ± 1.140	0.486 ± 1.085
photometric centroid source offset	0.59 ± 0.24	2.43	0.34 ± 0.31	0.48 ± 0.20

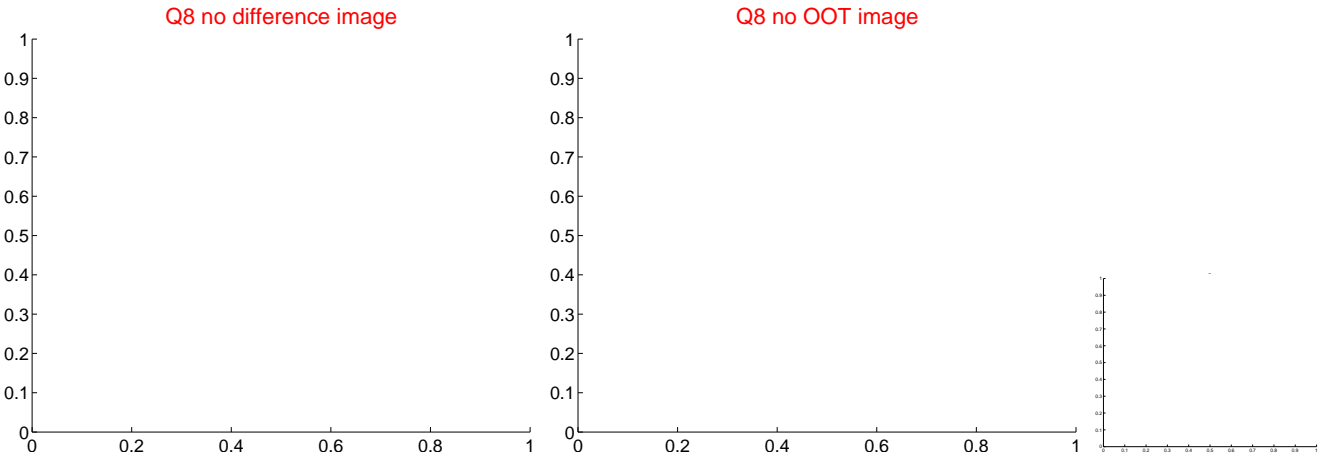
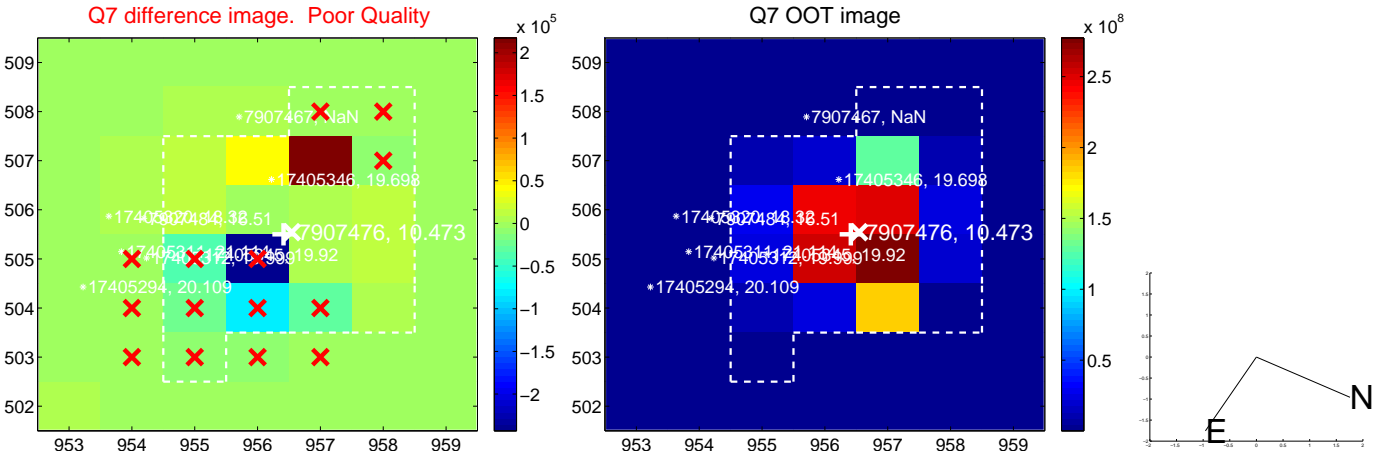
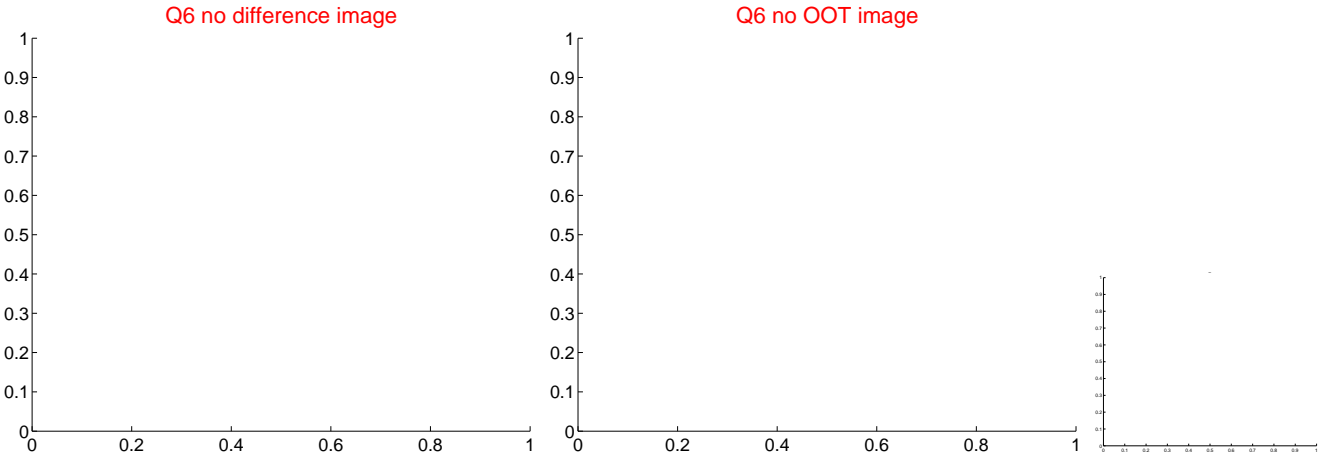
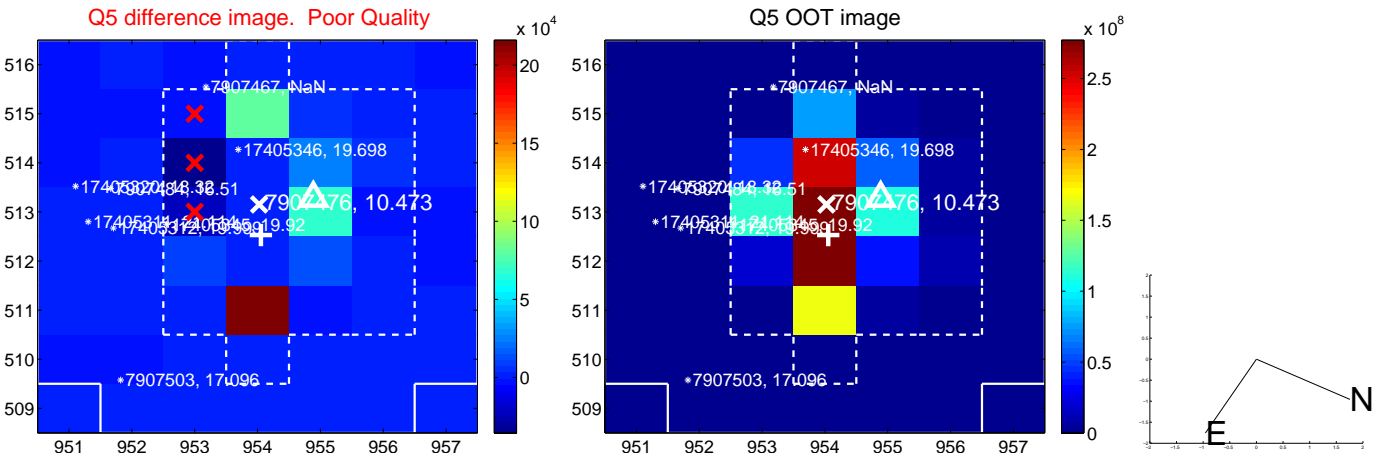


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

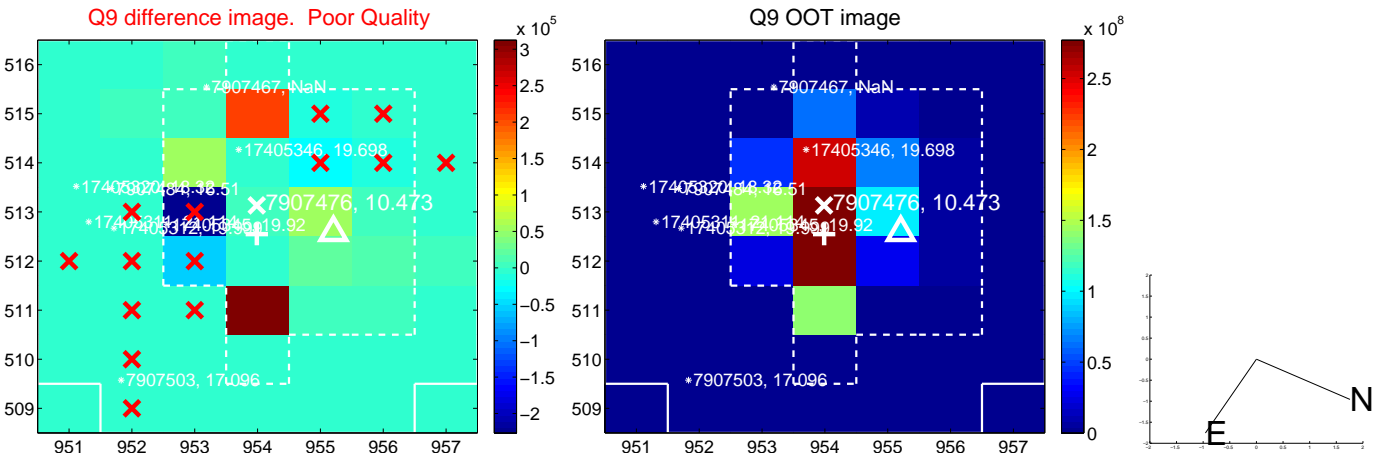
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

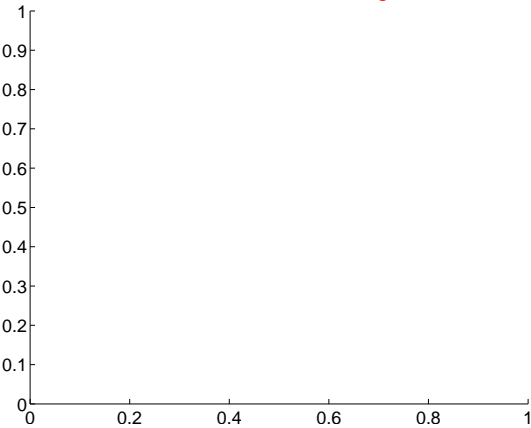


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

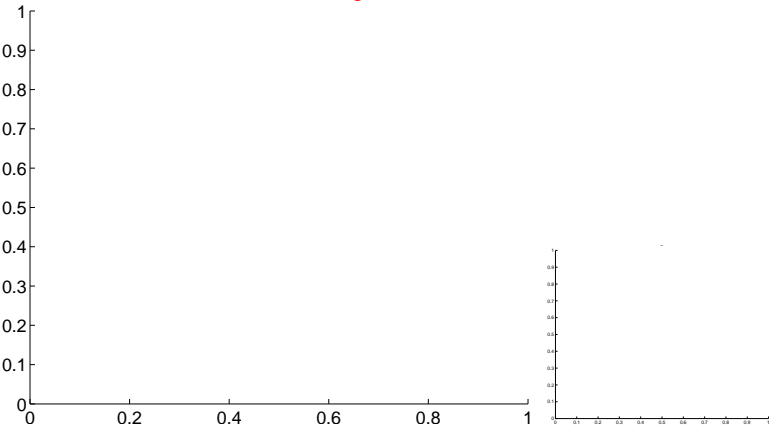


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

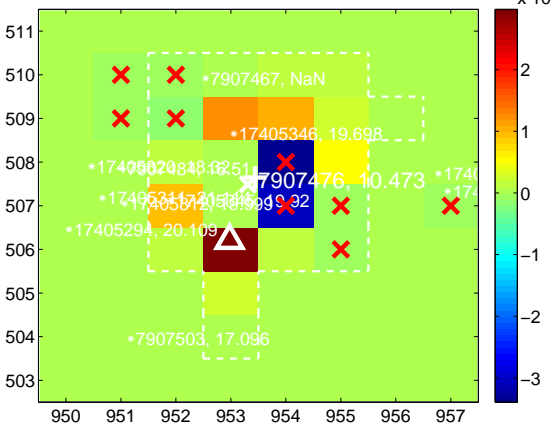
Q13 no difference image



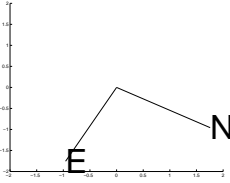
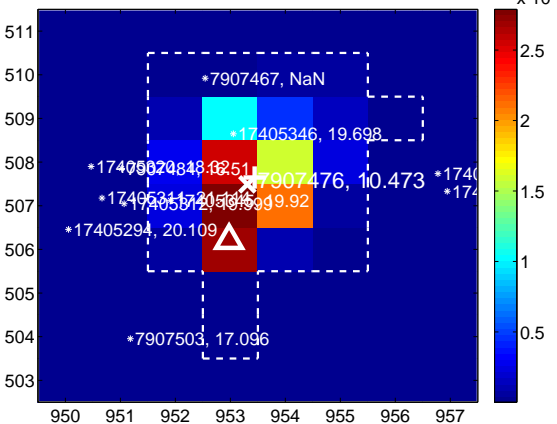
Q13 no OOT image



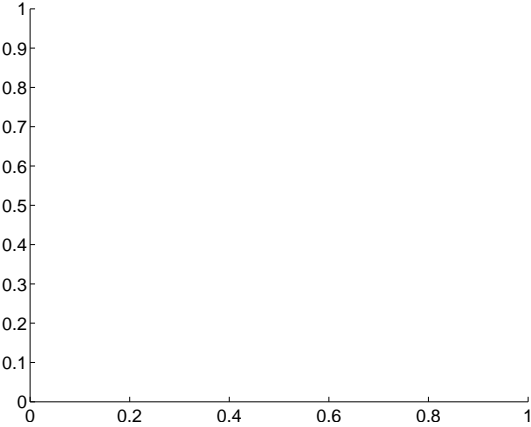
Q14 difference image. Poor Quality



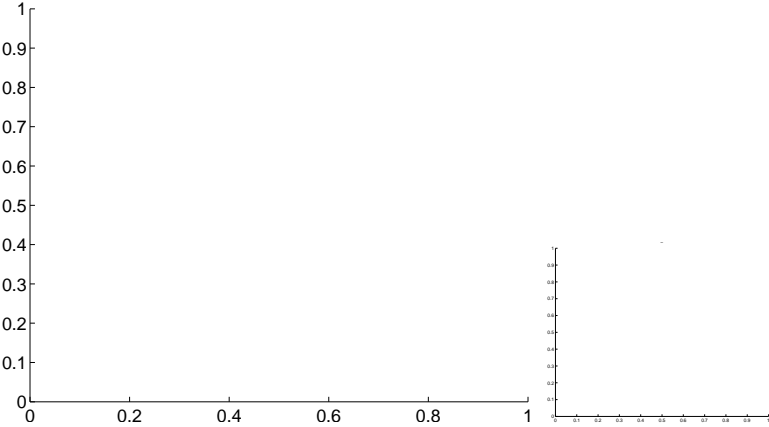
Q14 OOT image



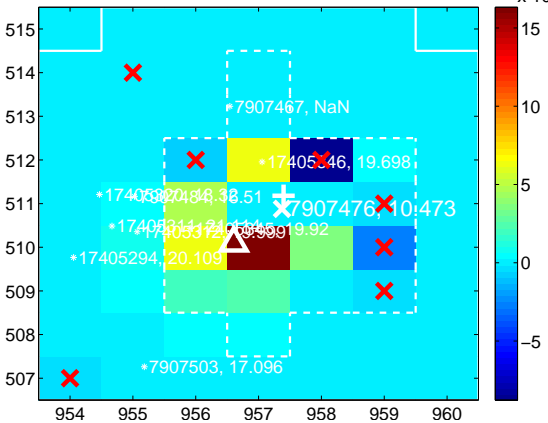
Q15 no difference image



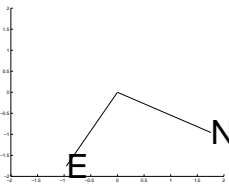
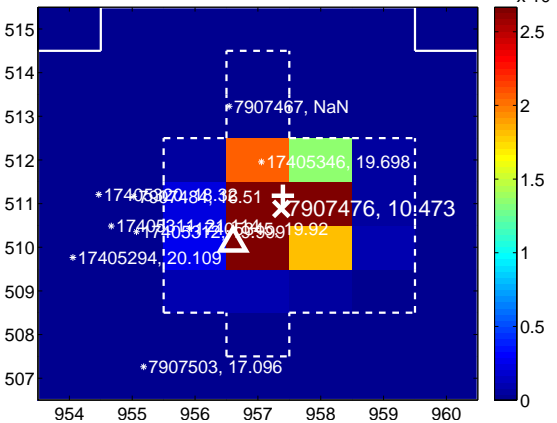
Q15 no OOT image



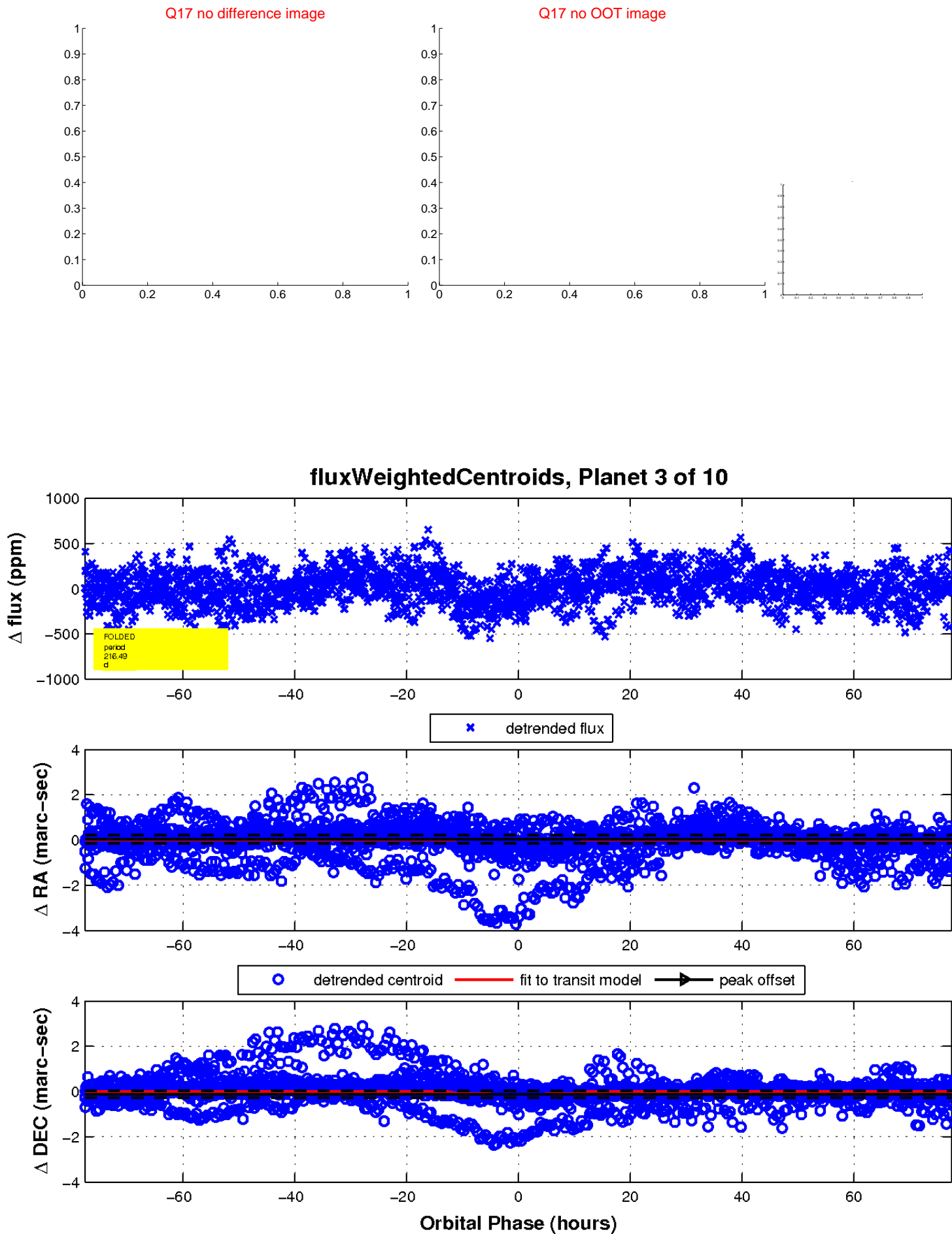
Q16 difference image



Q16 OOT image

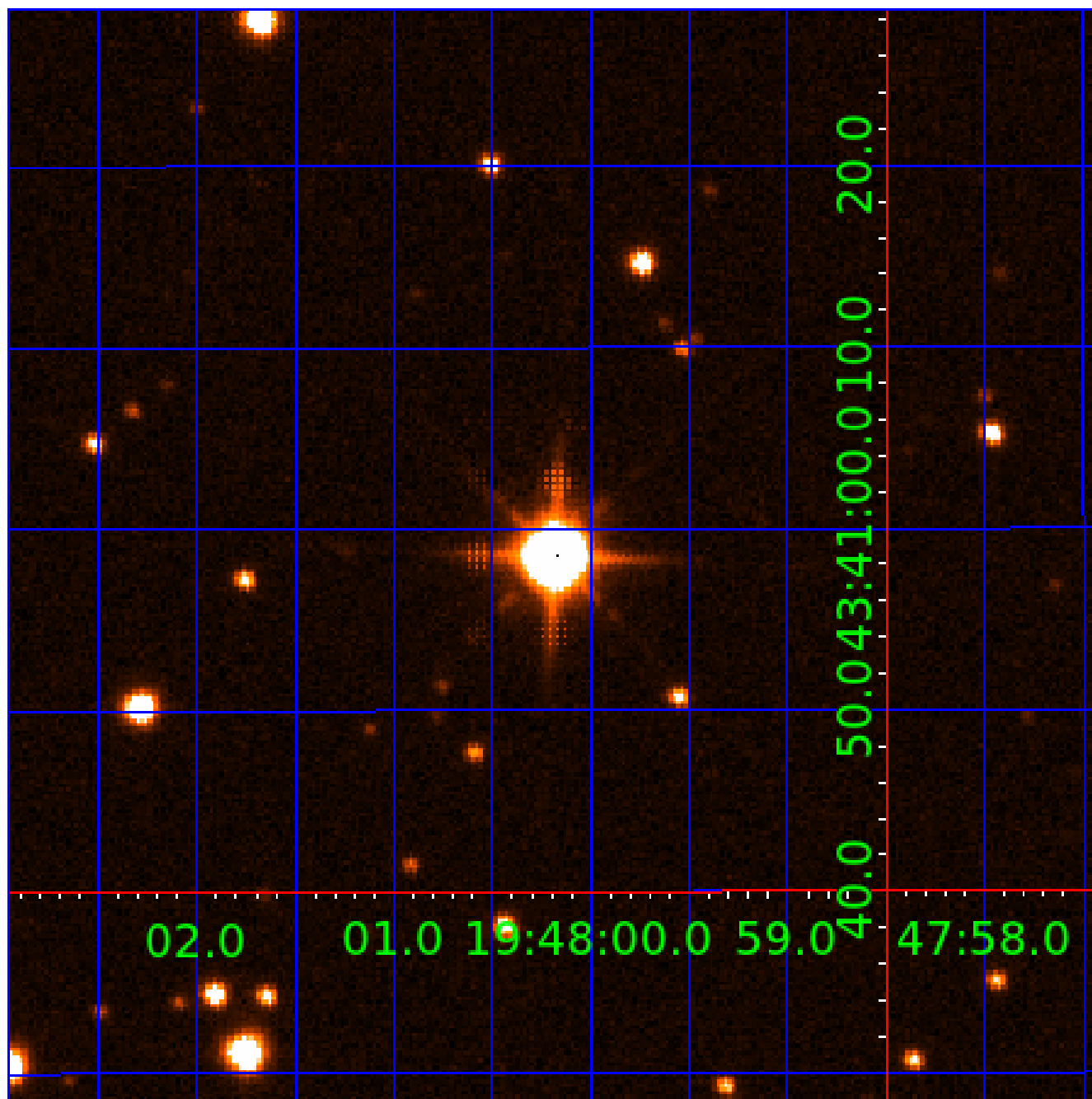


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

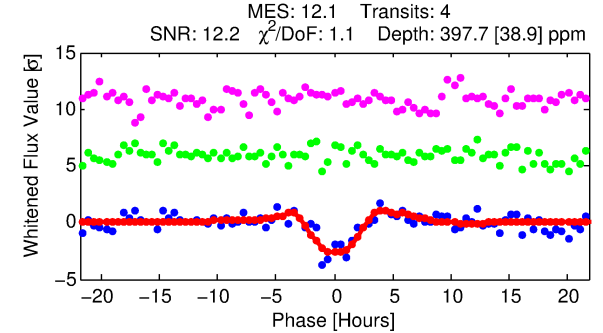
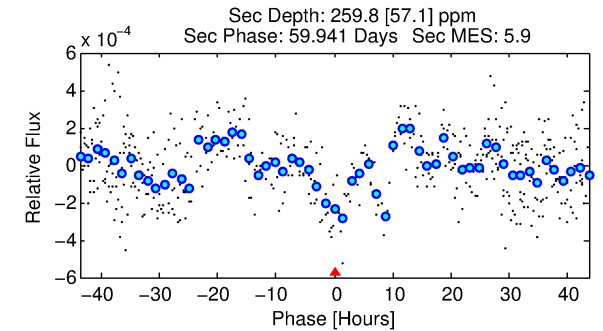
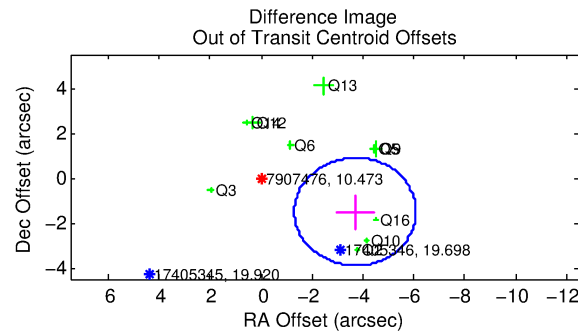
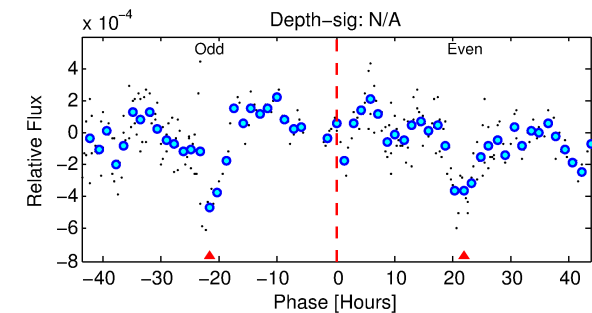
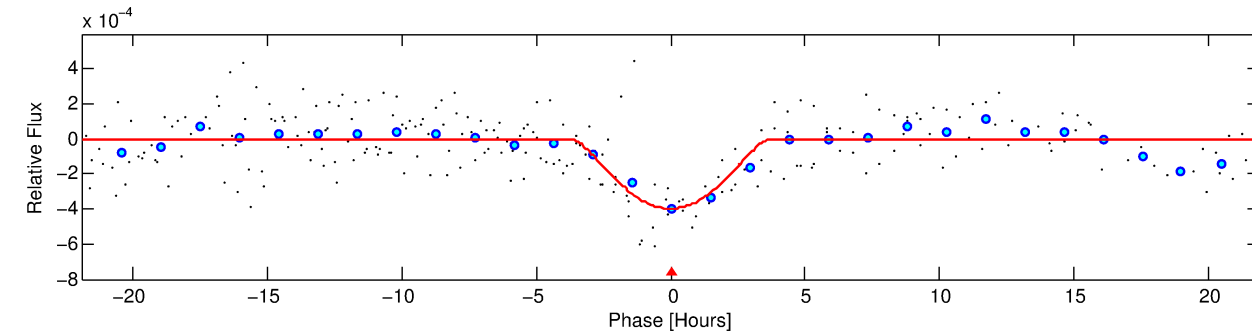
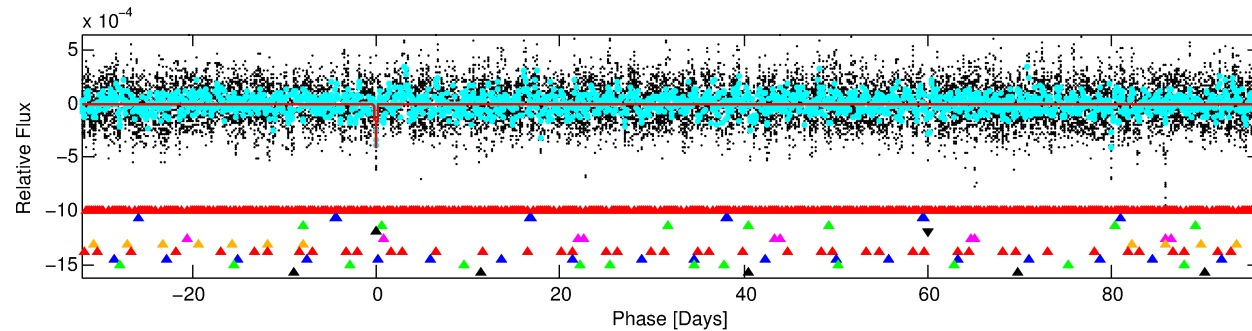
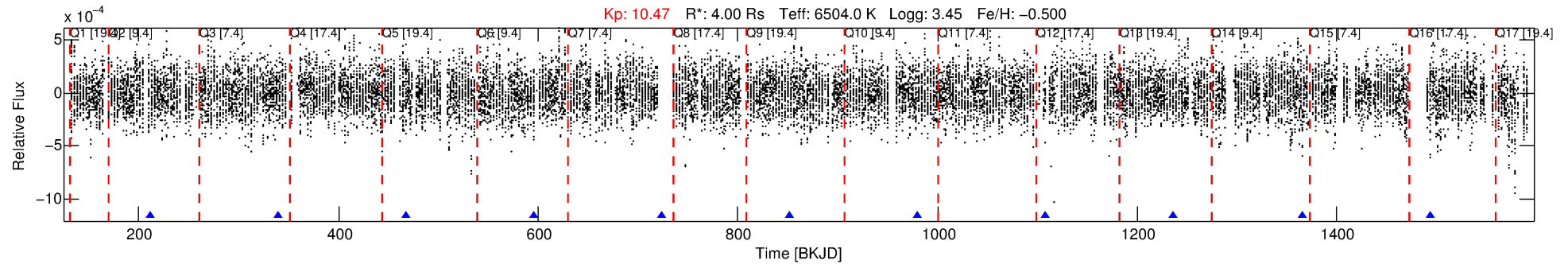
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-04

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 4 of 10 Period: 128.150 d



DV Fit Results:

Period = 128.15005 [0.00178] d
Epoch = 211.4617 [0.0132] BKJD
Rp/R* = 0.0325 [0.0540]
a/R* = 36.71 [17.87]
b = 1.00 [0.09]
Seff = 74.40 [53.02]
Teq = 749 [133] K
Rp = 14.20 [24.42] Re
a = 0.5876 [0.2546] AU
Ag = 244.71 [833.27] [0.29σ]
Teffp = 4580 [3817] K [1.00σ]

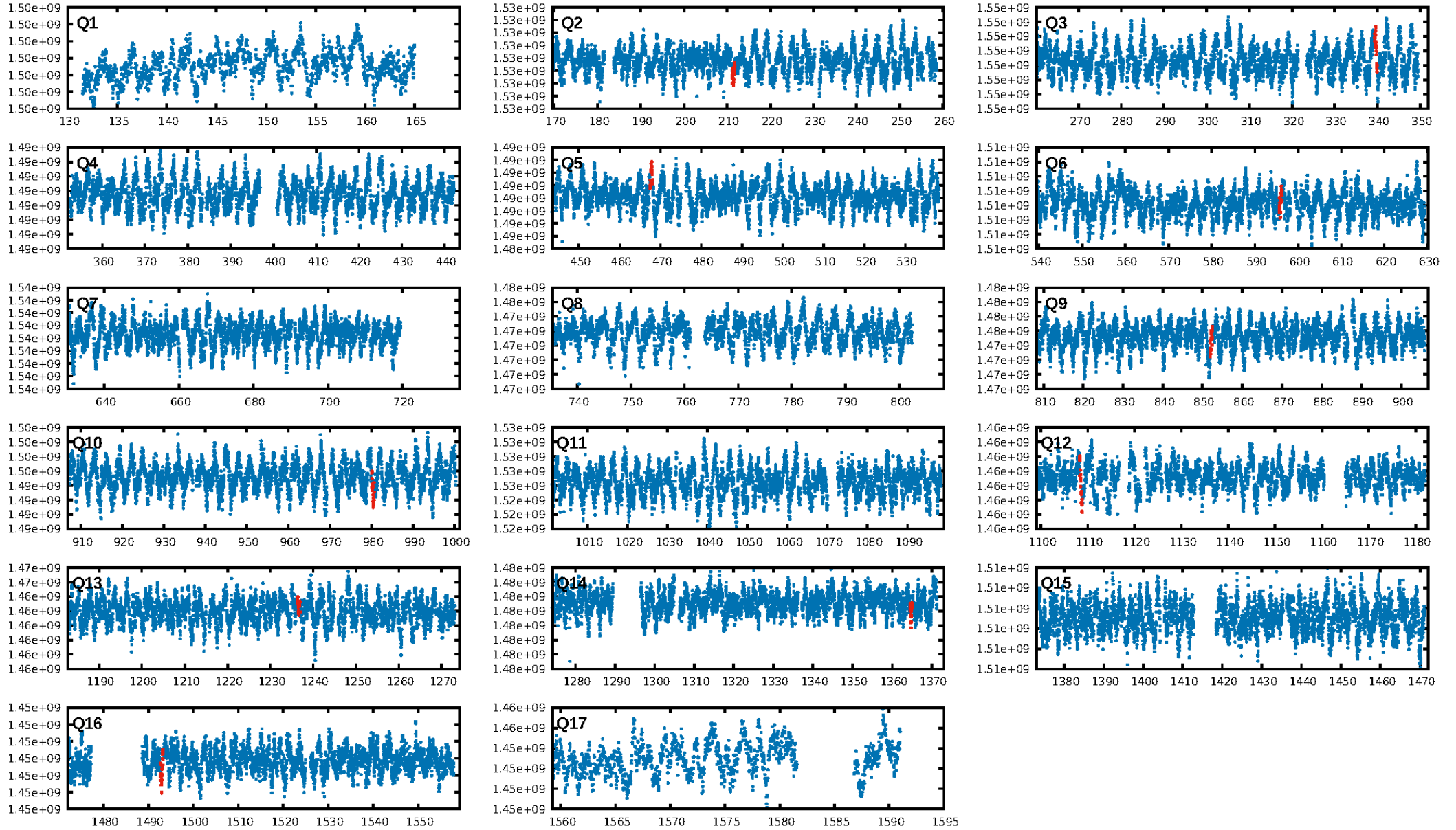
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [35.52σ]
LongPeriod-sig: 100.0% [8.39σ]
ModelChiSquare2-sig: 10.1%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.1064
Centroid-sig: 1.7%
Centroid-so: 1.487 arcsec [3.58σ]
OotOffset-rm: 3.998 arcsec [5.01σ]
KicOffset-rm: 3.675 arcsec [4.26σ]
OotOffset-st: 4/1/2/3 [10]
KicOffset-st: 4/1/2/3 [10]
DiffImageQuality-fgm: 0.20 [2/10]
DiffImageOverlap-fno: 0.30 [3/10]

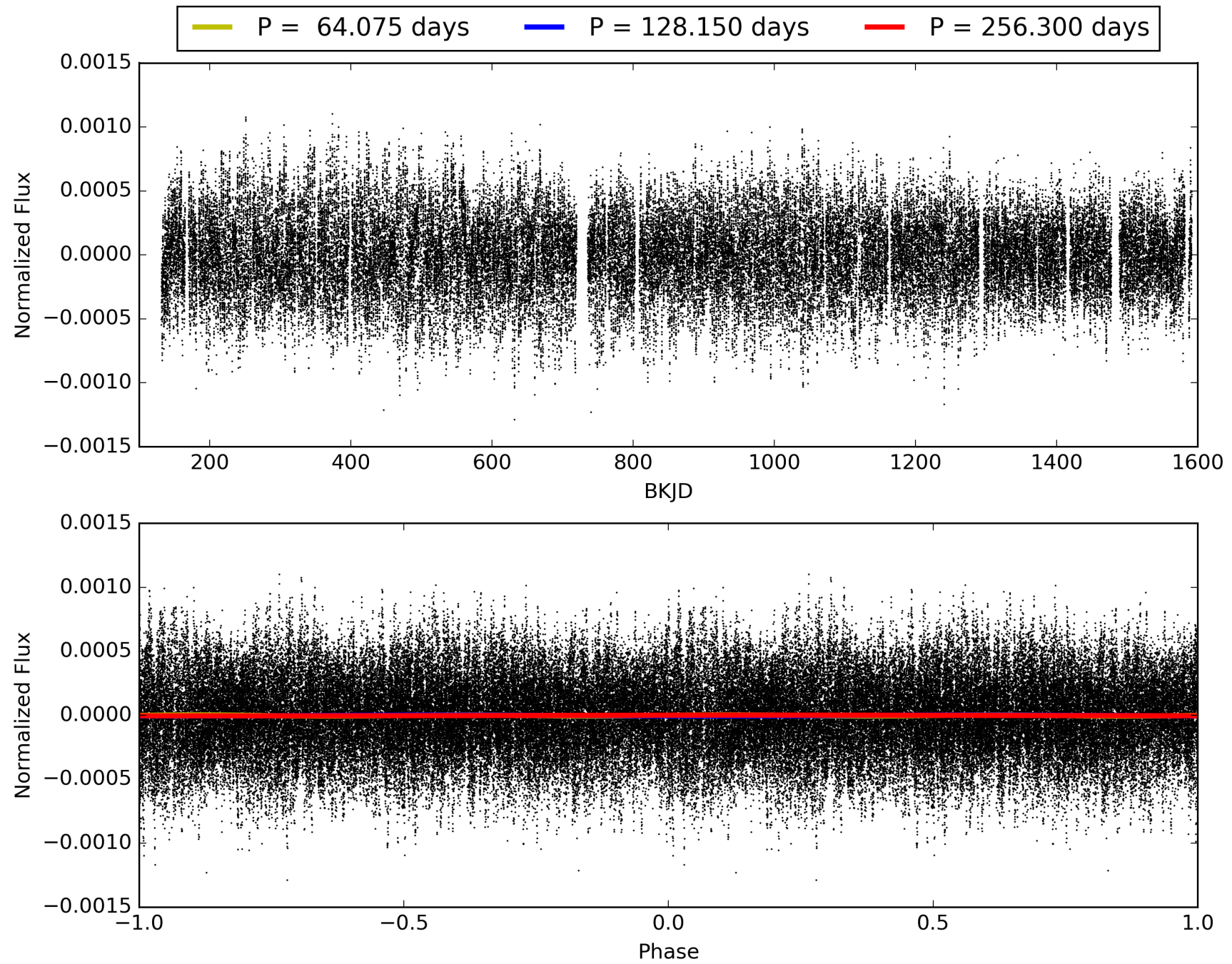
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:08 Z

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

TCE 007907476-04, PDC Light Curves

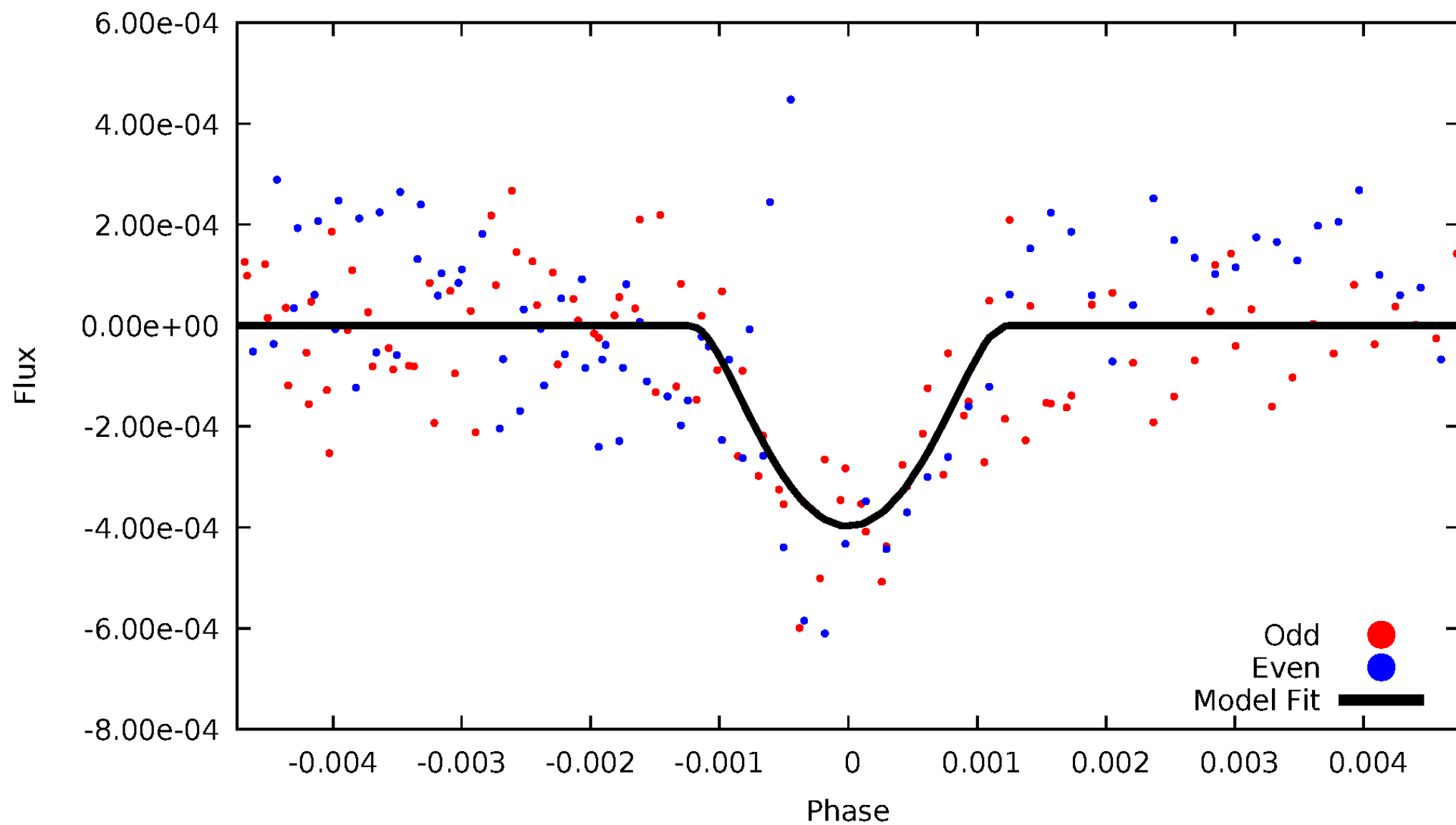


TCE 007907476-04



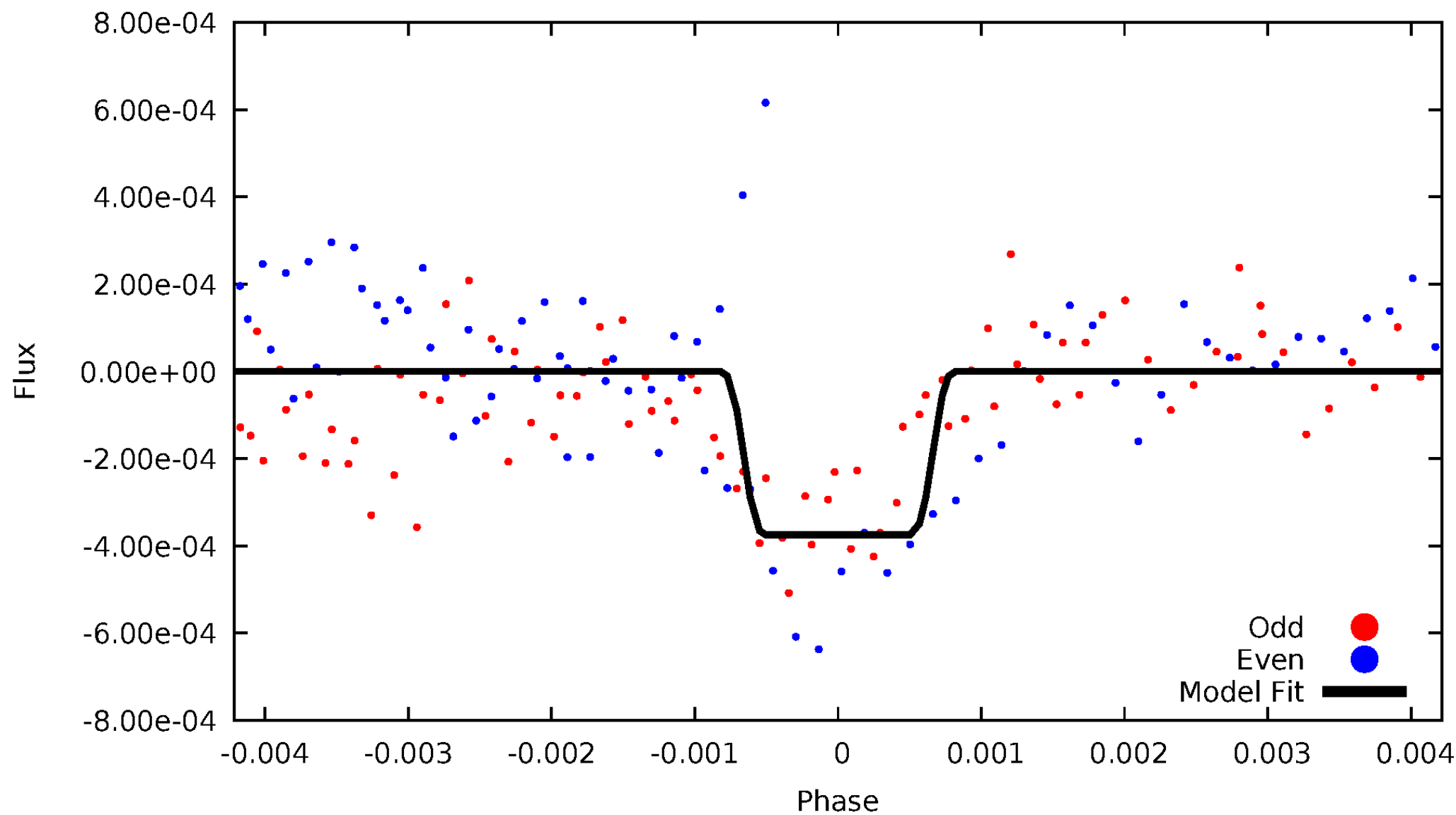
DV Odd/Even

TCE 007907476-04



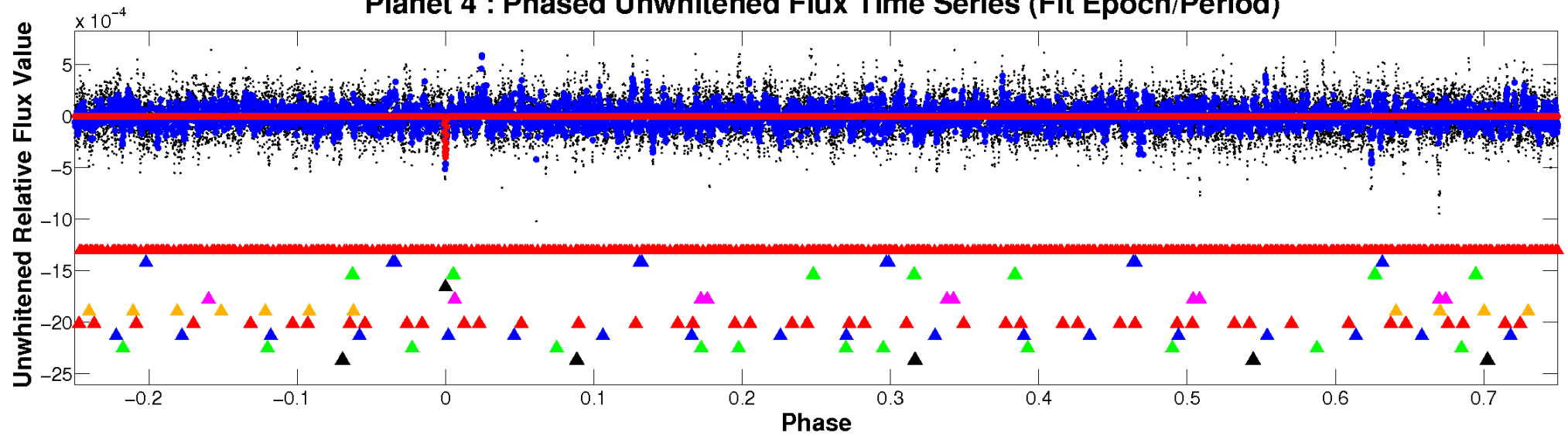
ALT Odd/Even

TCE 007907476-04

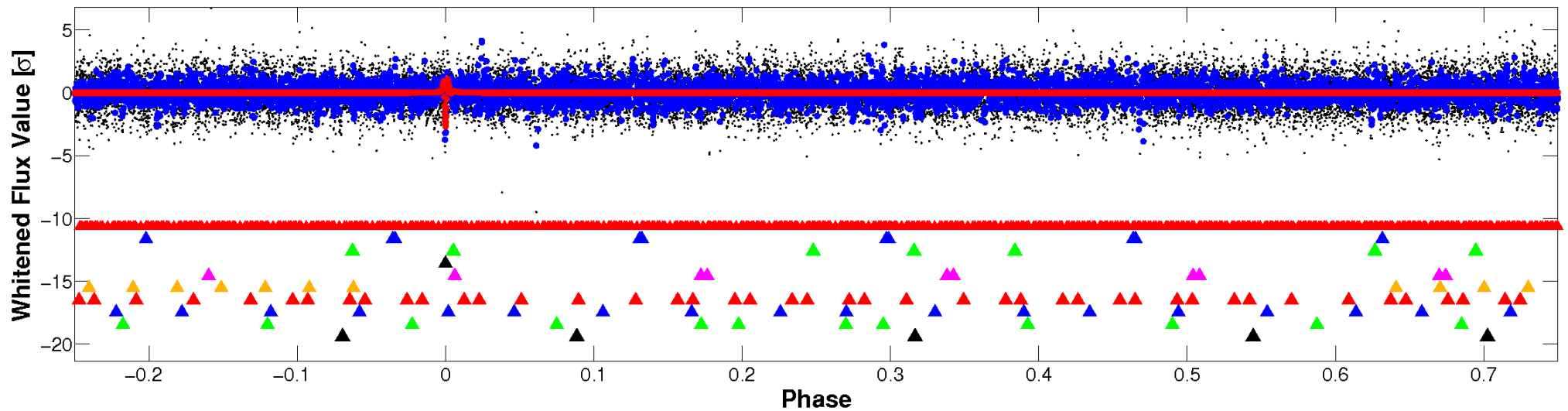


Non-Whitened Vs. Whitened Light Curve

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

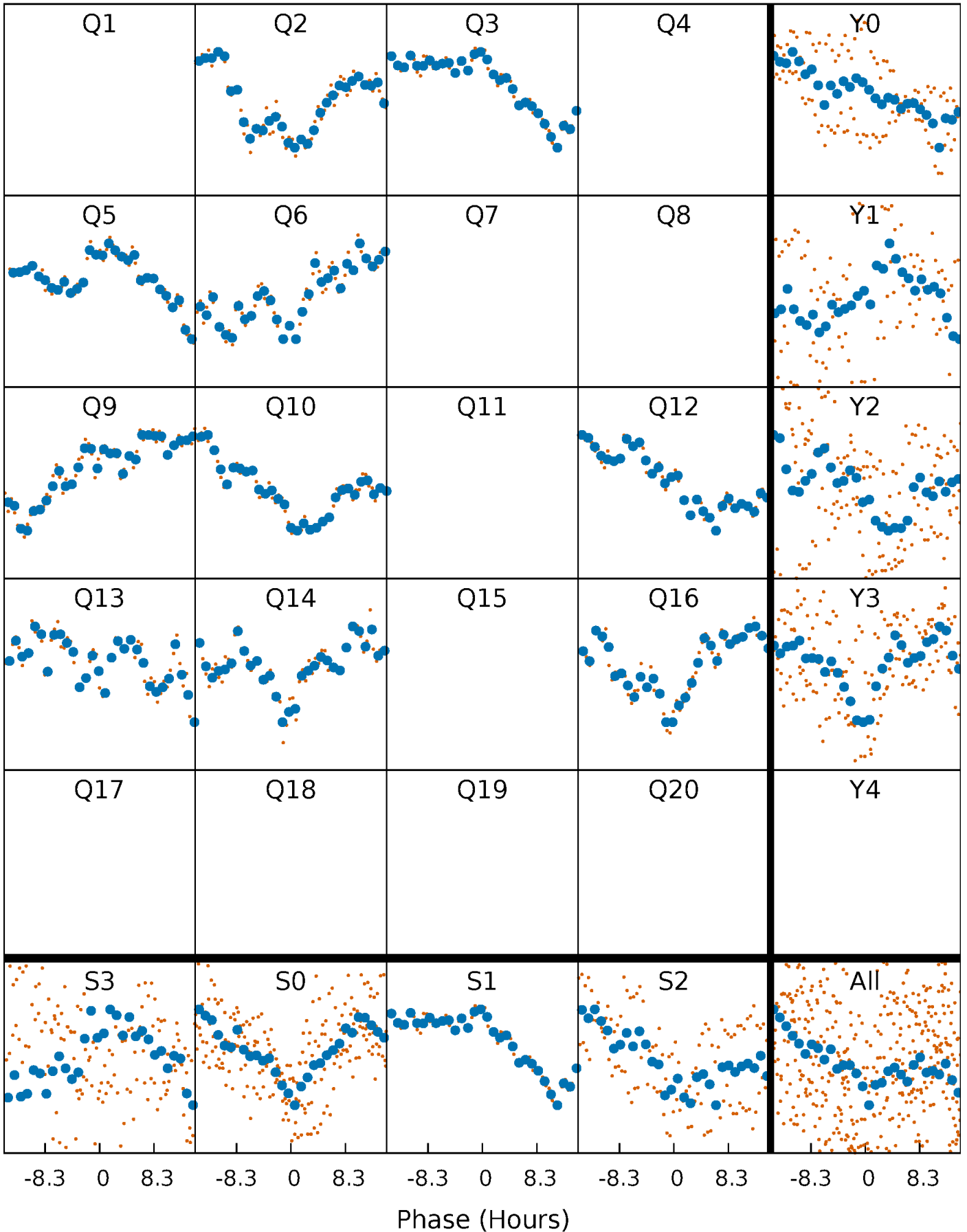


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



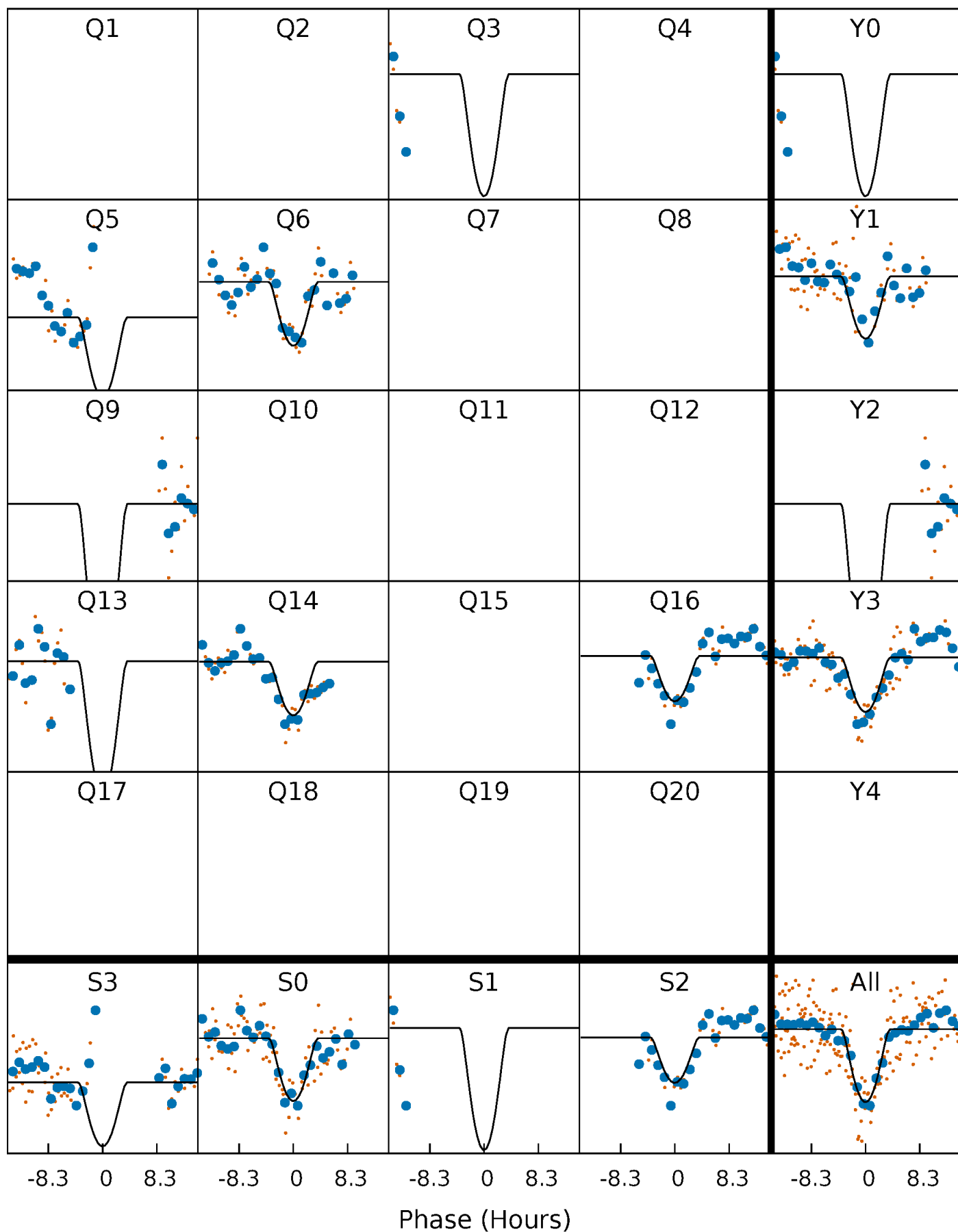
PDC Quarter-Phased Transit Curves

TCE 007907476-04 P=128.150052 Days $T_0=211.461692$ (BKJD)



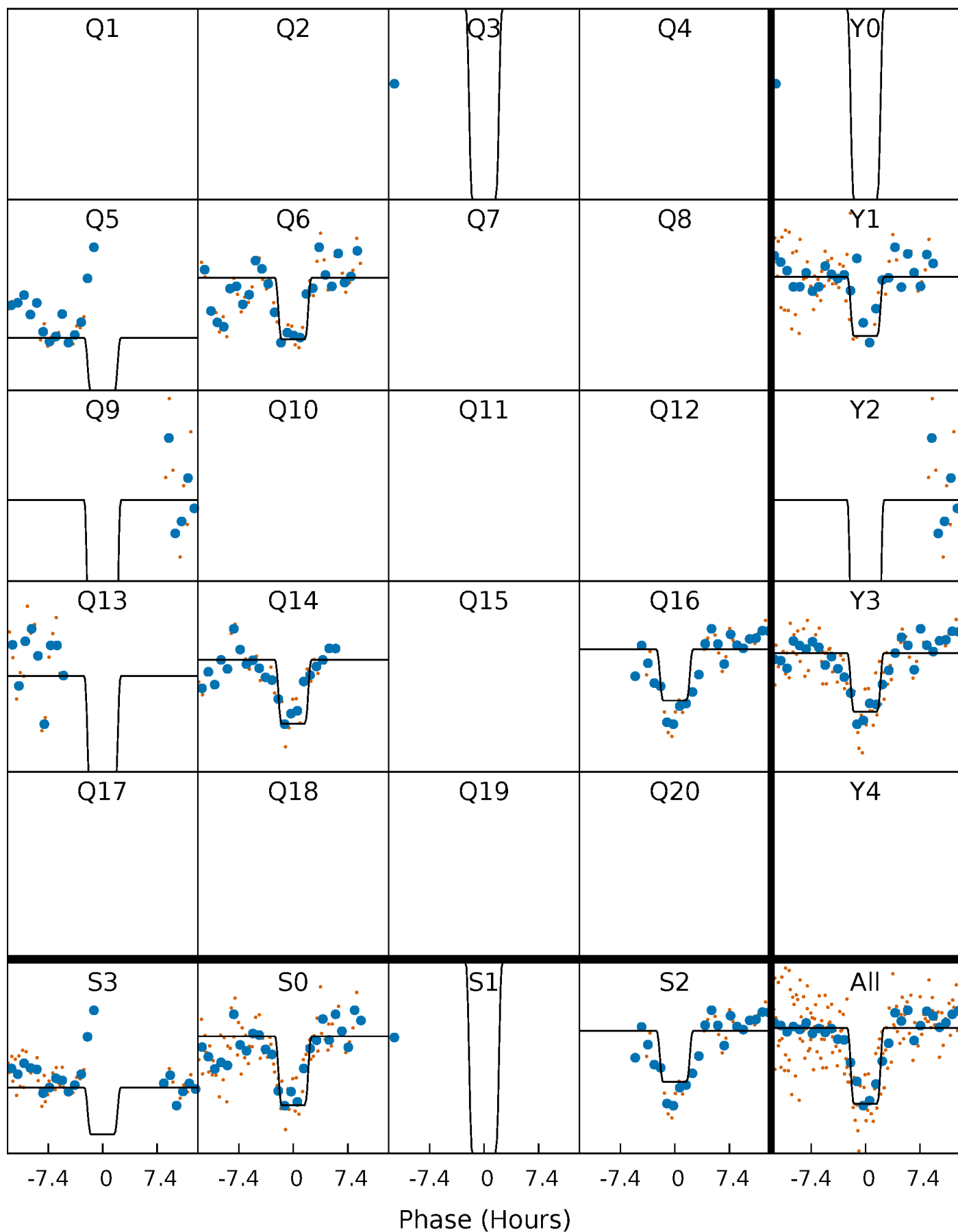
DV Quarter-Phased Transit Curves

TCE 007907476-04 P=128.150052 Days $T_0=211.461692$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

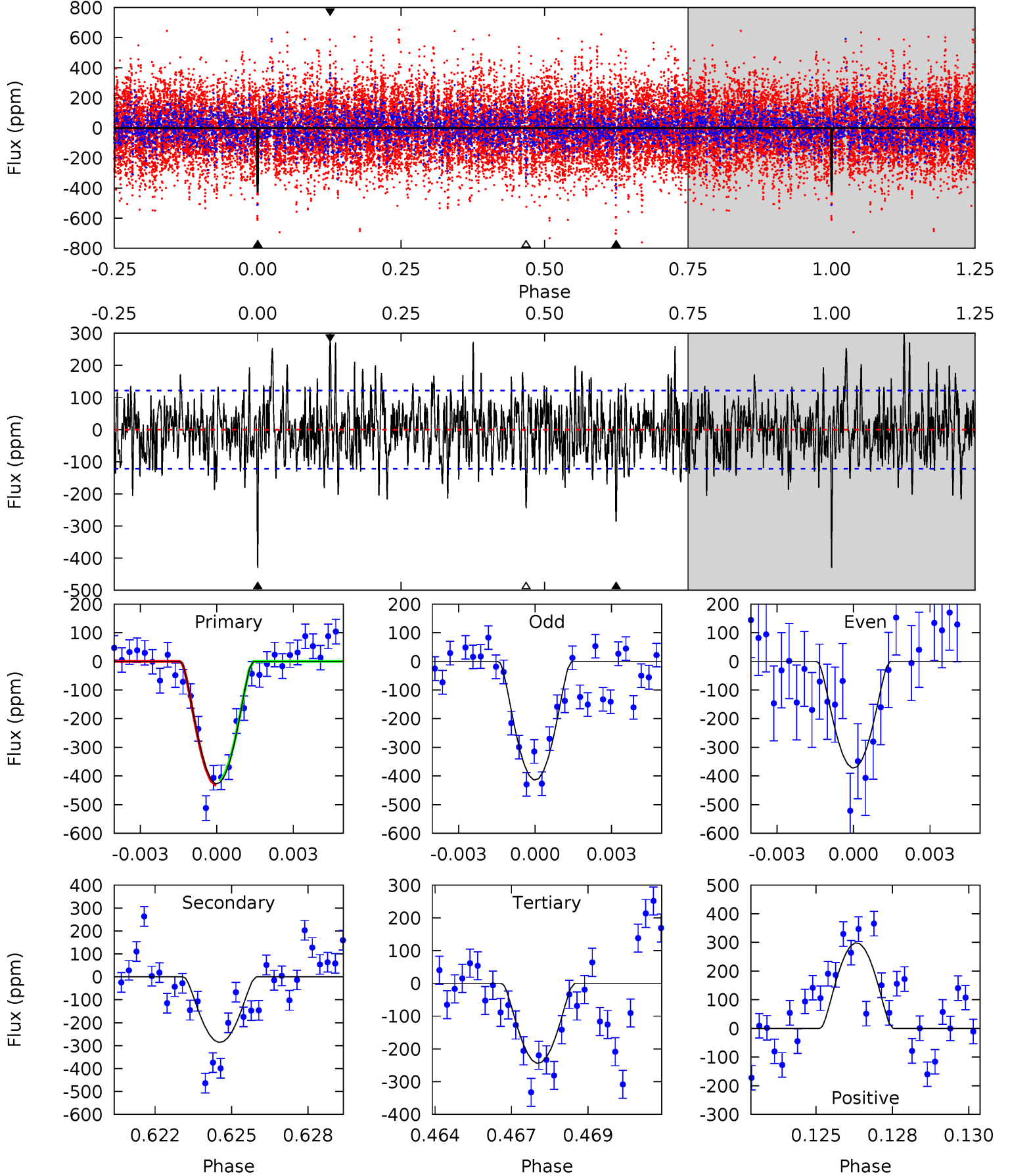
TCE 007907476-04 P=128.148340 Days $T_0=211.472684$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-04, P = 128.150052 Days, E = 83.311640 Days

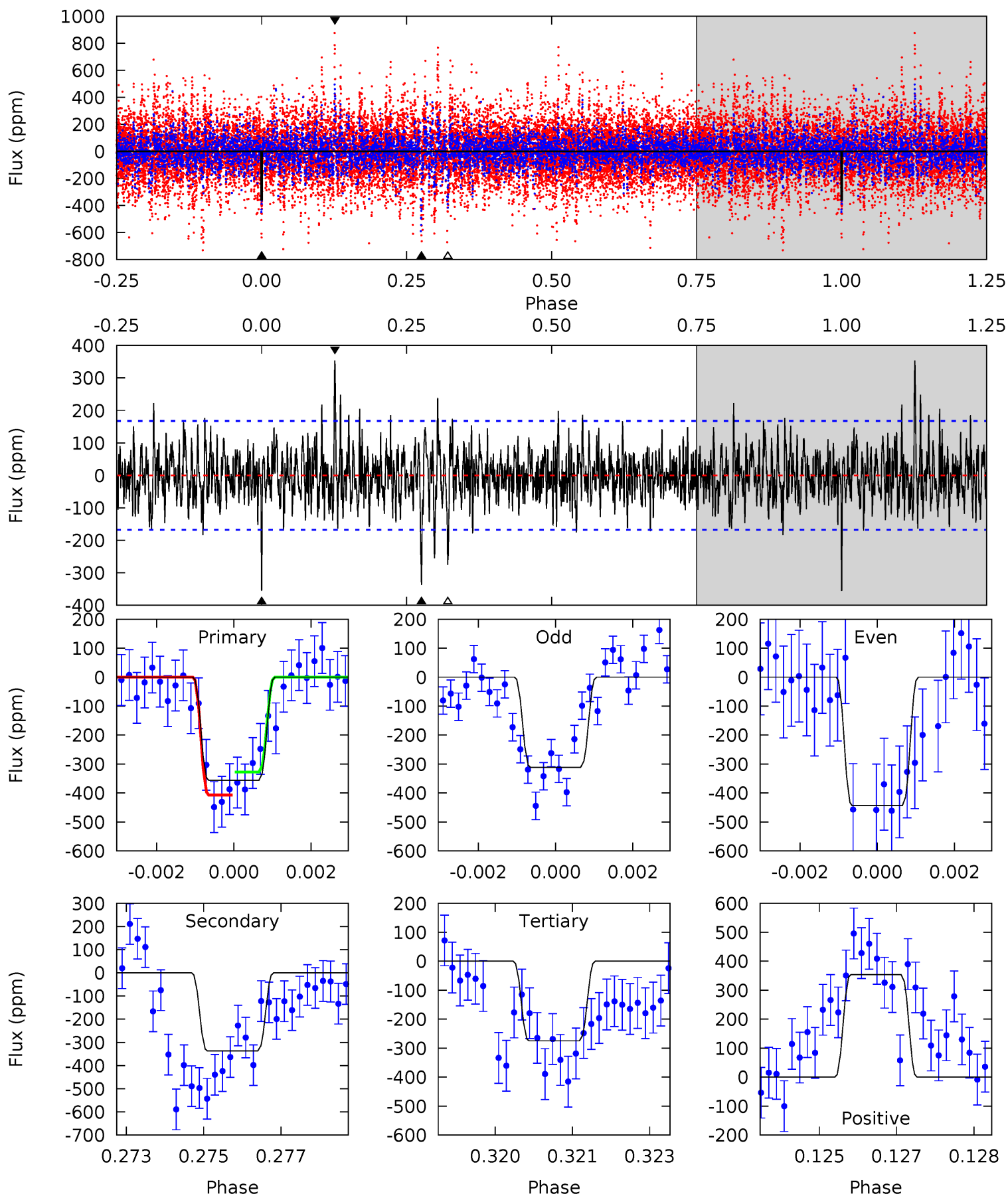
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	12.4	10.6	13.0	5.28	3.02	3.21	7.97	5.59	1.82	-0.55	0.90	0.59	0.41	0.33



Alt Model-Shift Uniqueness Test

007907476-04, P = 128.148340 Days, E = 83.324344 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	10.8	8.81	11.3	5.37	3.17	2.07	2.61	0.08	2.00	-0.53	2.01	0.36	0.50	1.25



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-286 ± 23	$18.88^{+19.46}_{-13.02}$	1010^{+63}_{-112}	4053^{+2876}_{-773}	149^{+1336}_{-113}
Alt.	-337 ± 31	$16.34^{+17.37}_{-10.72}$	1013^{+66}_{-117}	4438^{+2908}_{-915}	237^{+1793}_{-181}

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 $A_{obs} \gg 1.0$

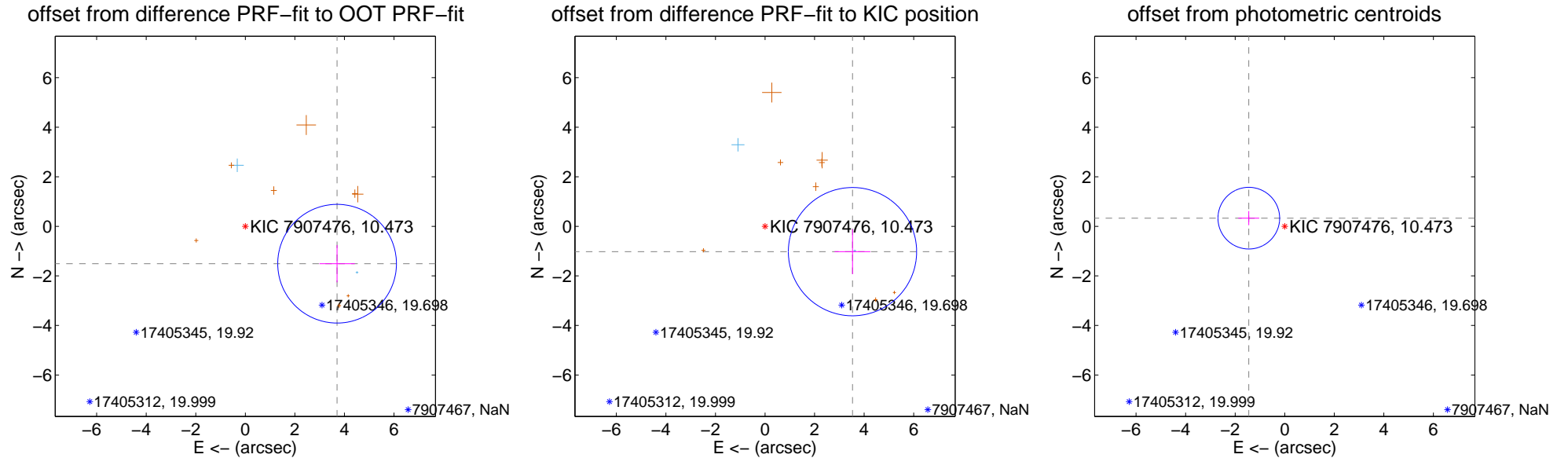
DV Centroid Data

Supplemental centroid analysis for 007907476-04. **Kepler magnitude: 10.47.** Transit SNR 12.22

There are 2 quarters with good PRF difference image offsets

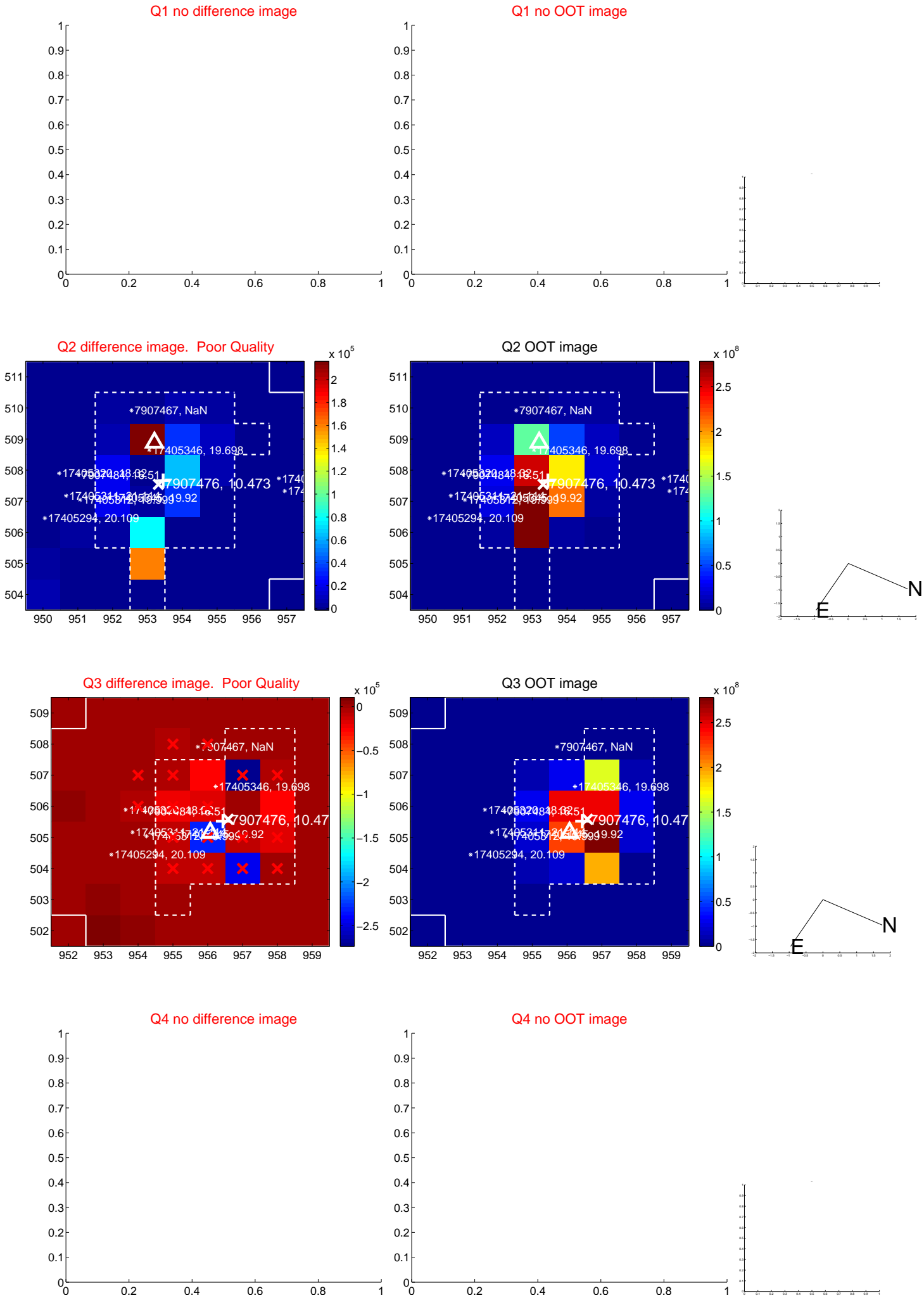
The direct PRF centroid is offset from the target star catalog position by about 1.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.998 ± 0.798	5.01	-3.703 ± 0.714	-1.508 ± 0.752
PRF-fit source offset from KIC position	3.675 ± 0.863	4.26	-3.530 ± 0.720	-1.022 ± 0.908
photometric centroid source offset	1.49 ± 0.41	3.58	1.45 ± 0.42	0.33 ± 0.29

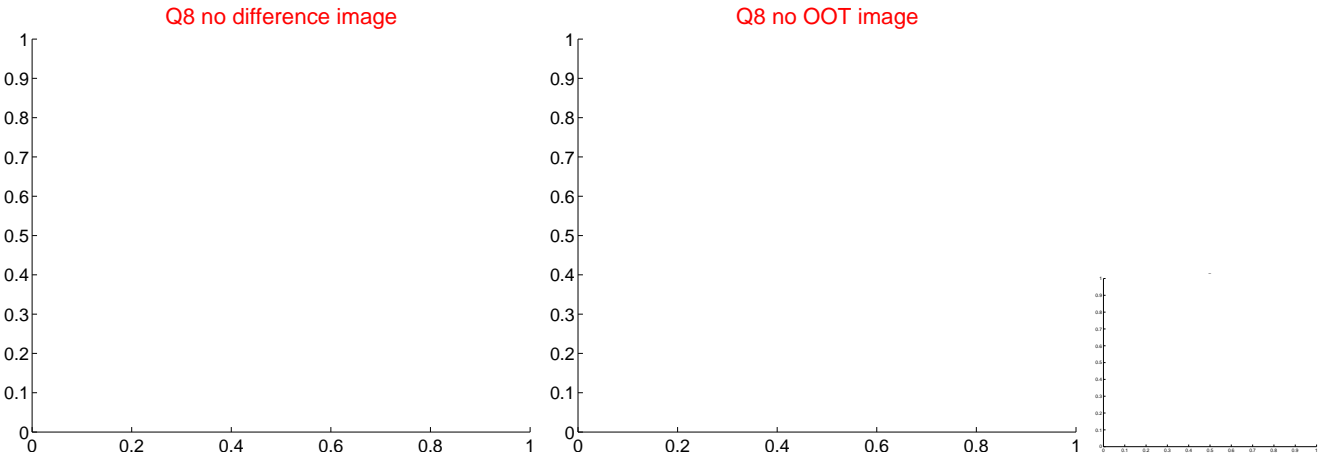
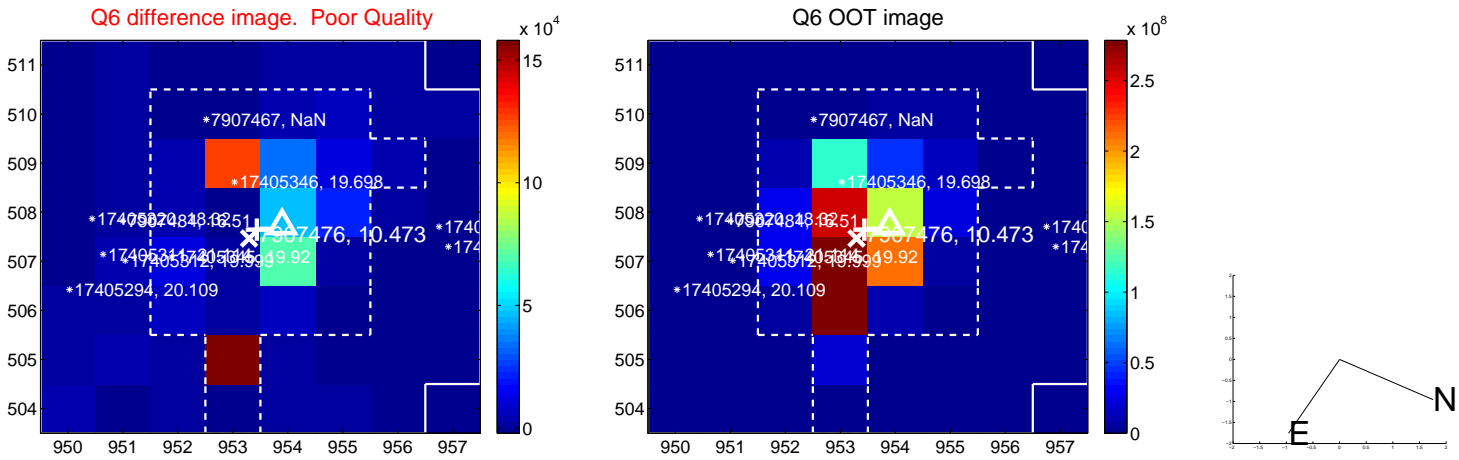
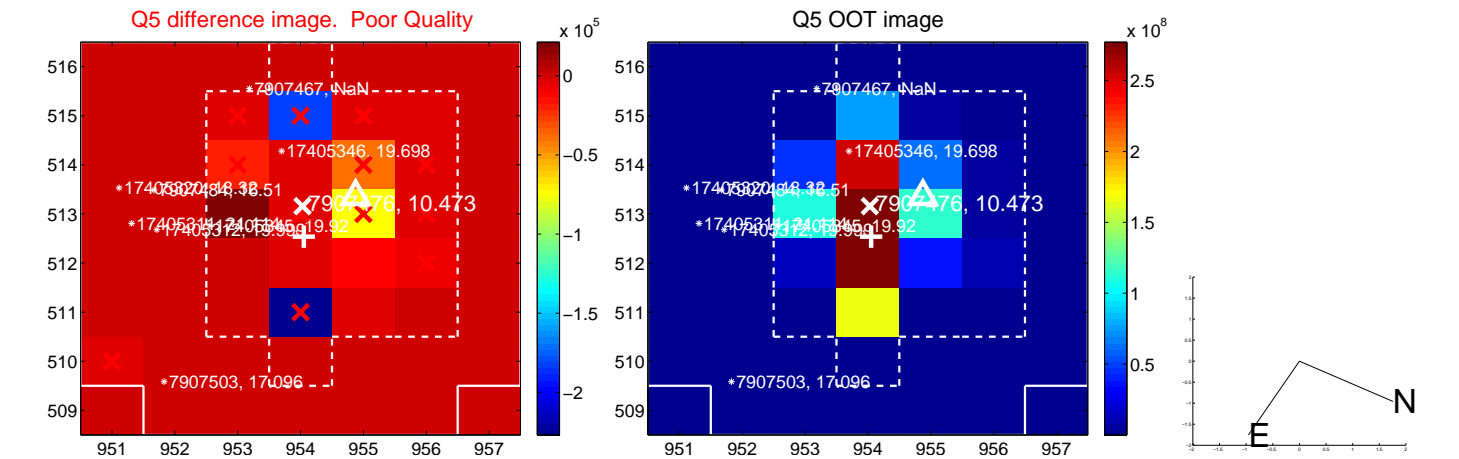


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

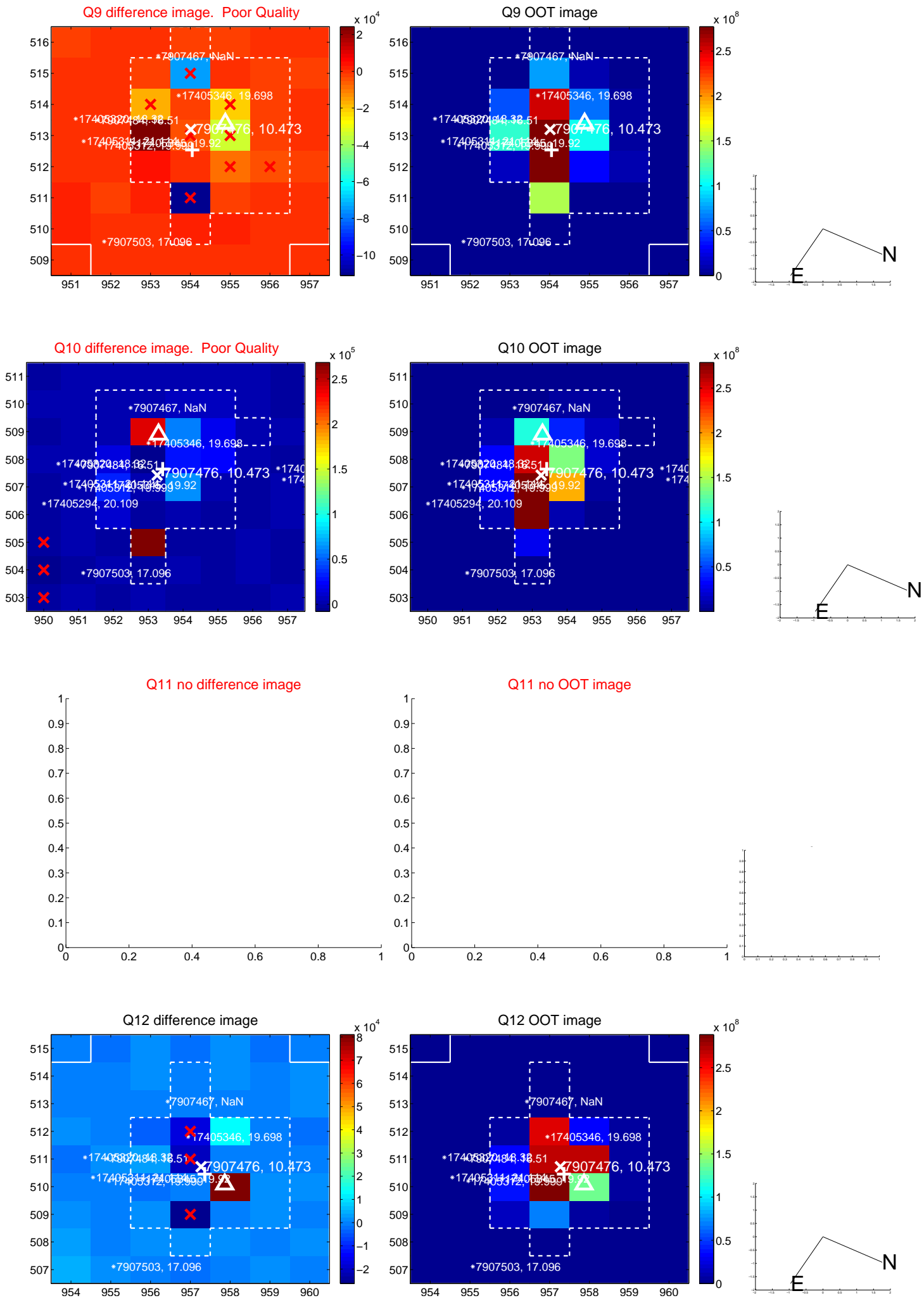
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



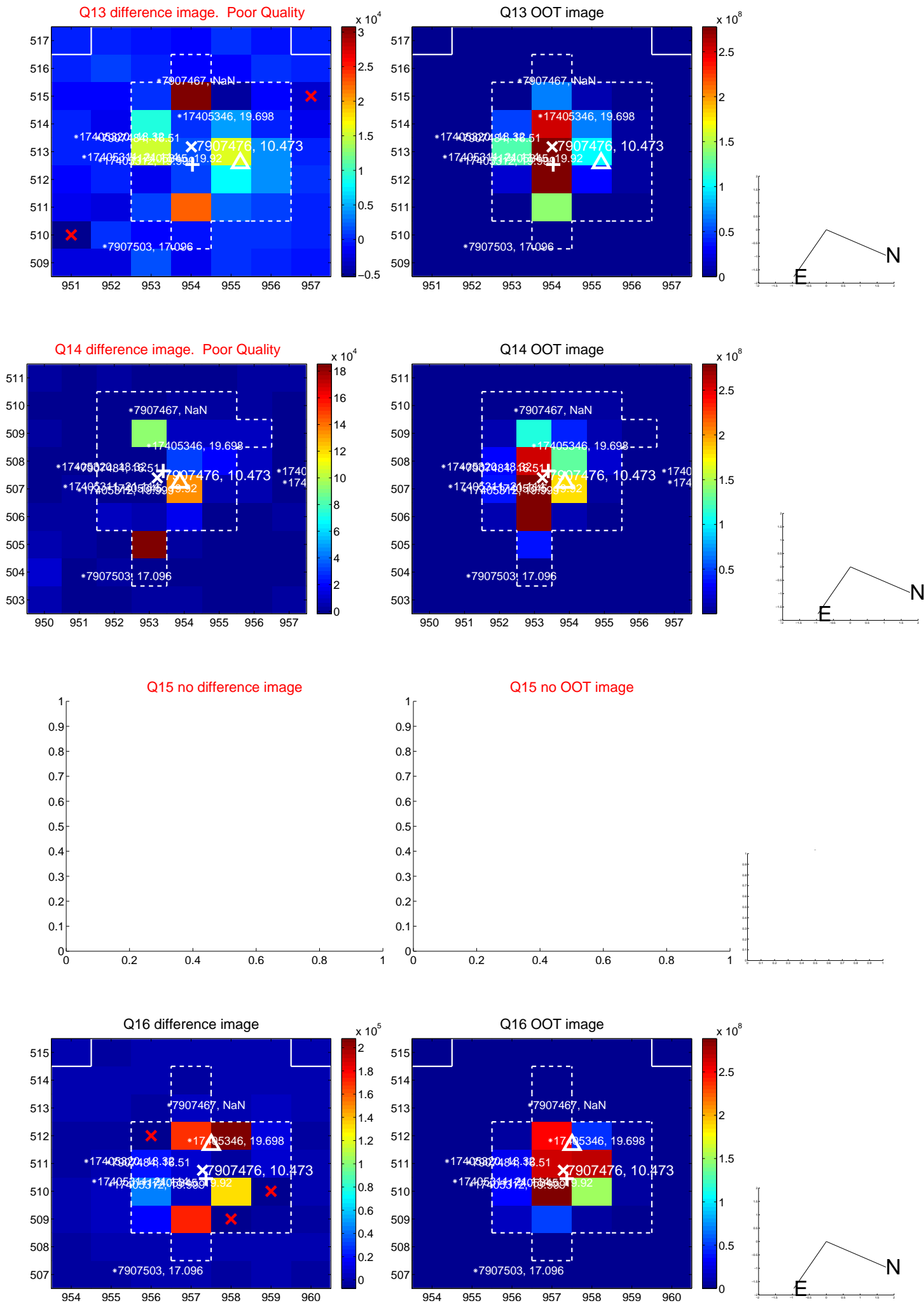
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



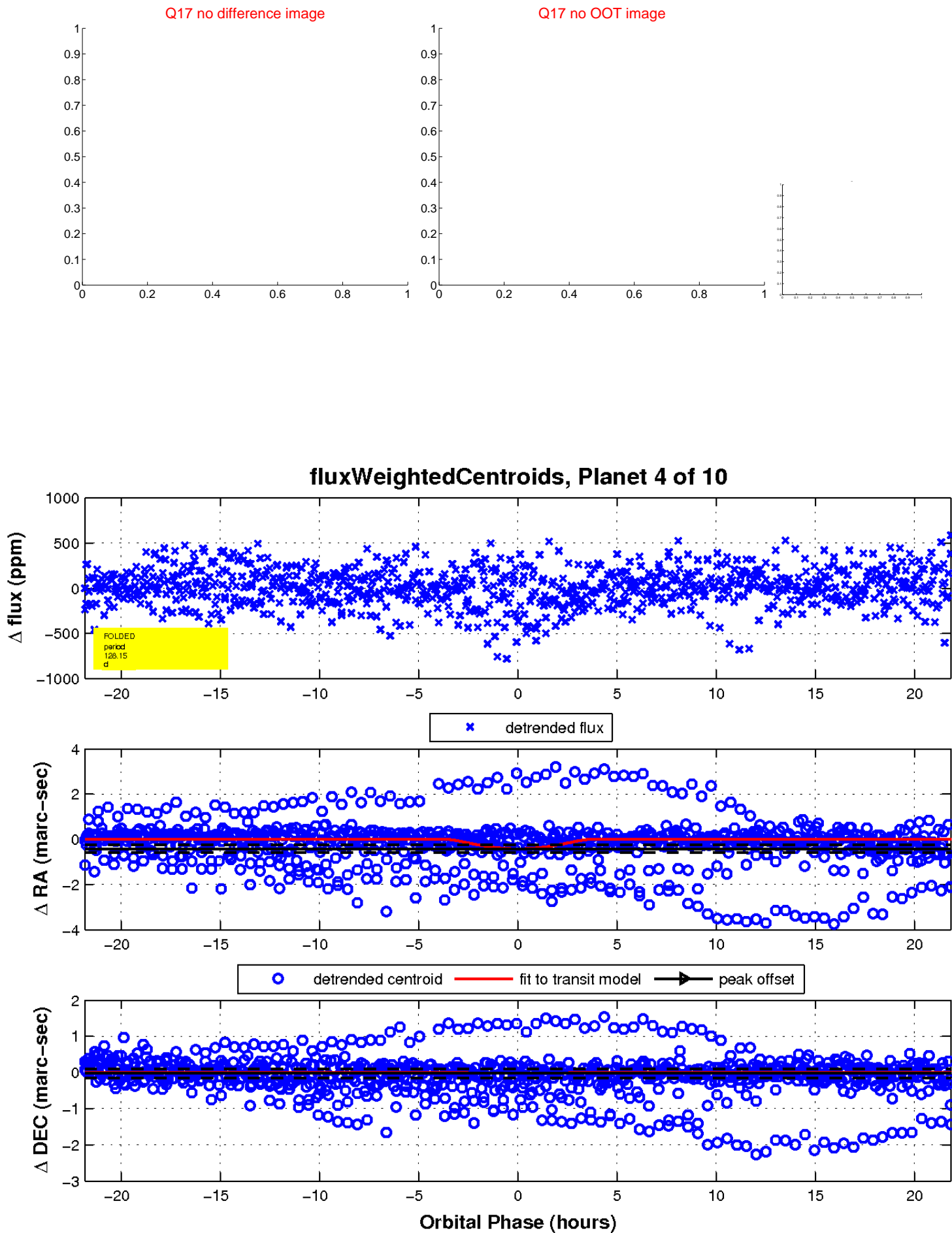
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

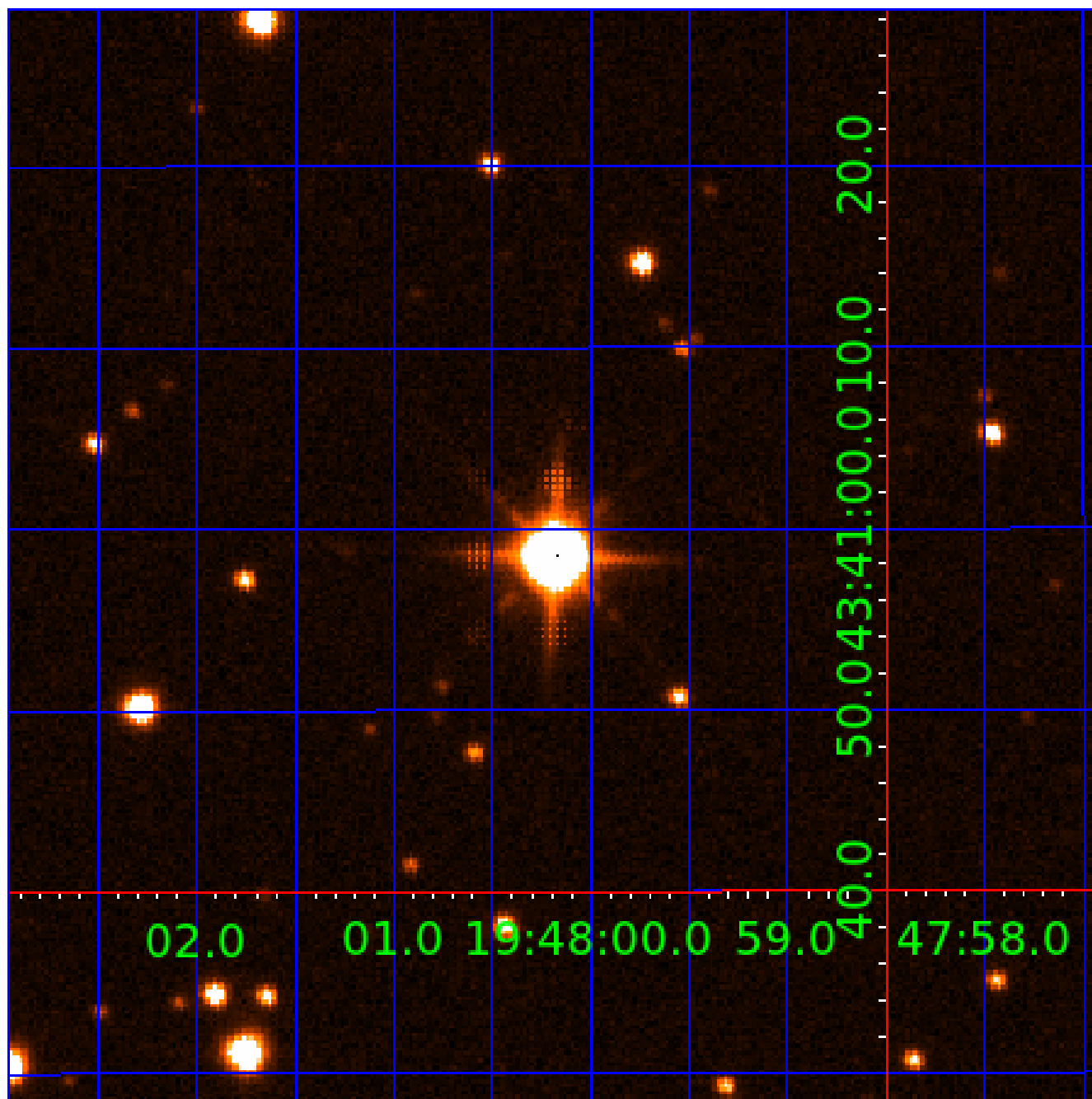


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

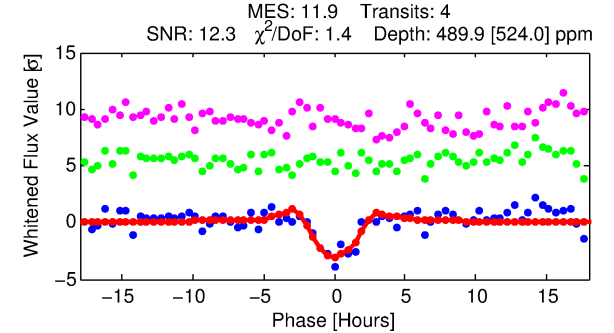
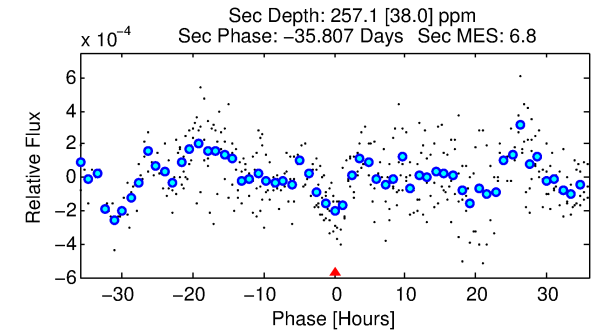
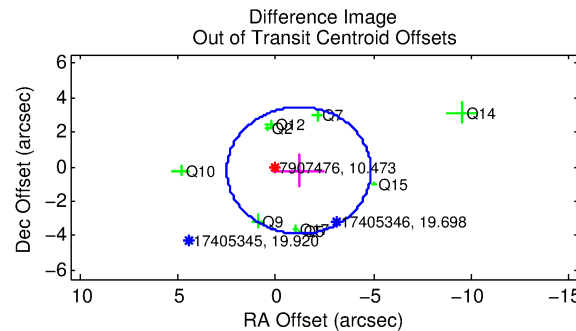
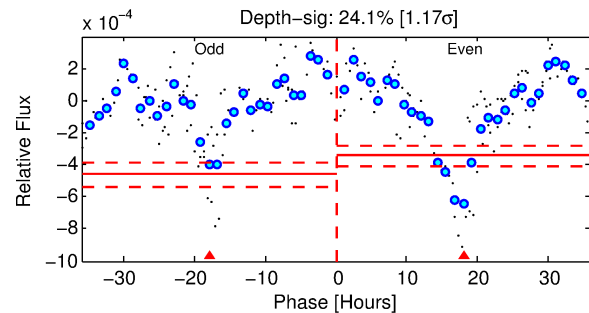
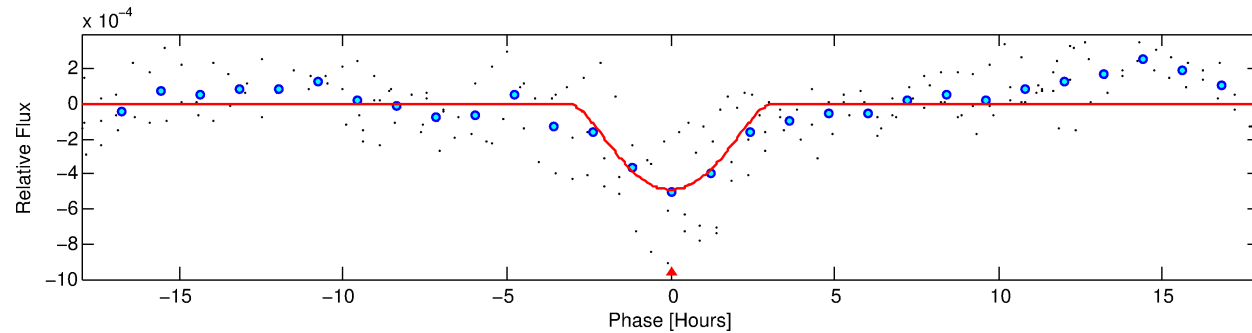
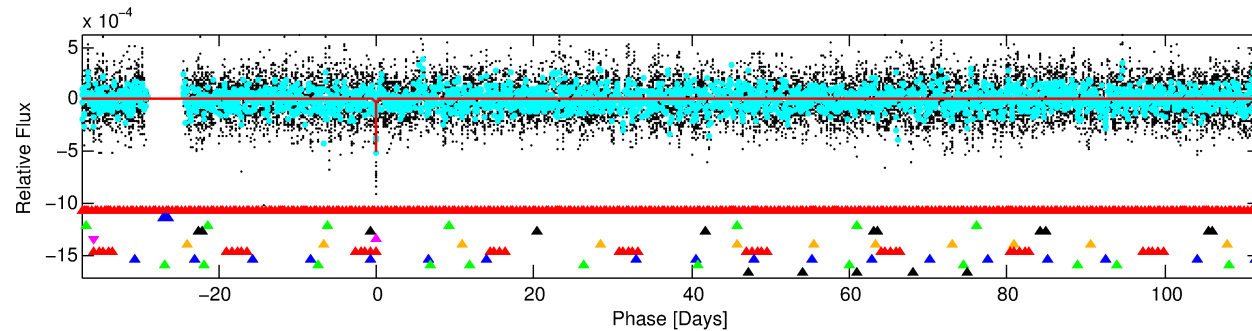
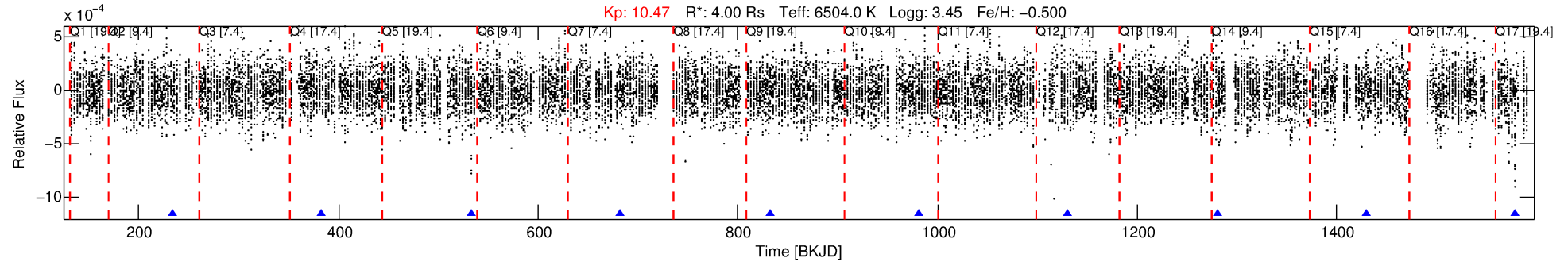
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-05

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 5 of 10 Period: 149.416 d



DV Fit Results:

Period = 149.41588 [0.00216] d
Epoch = 234.0826 [0.0142] BKJD
 R_p/R^* = 0.0390 [0.1086]
 a/R^* = 53.66 [38.22]
 b = 1.00 [0.13]
 S_{eff} = 60.63 [43.21]
 T_{eq} = 712 [127] K
 R_p = 17.03 [48.05] R_e
 a = 0.6510 [0.2821] AU
 A_g = 206.69 [1161.68] [0.18 σ]
 T_{effp} = 4171 [5816] K [0.59 σ]

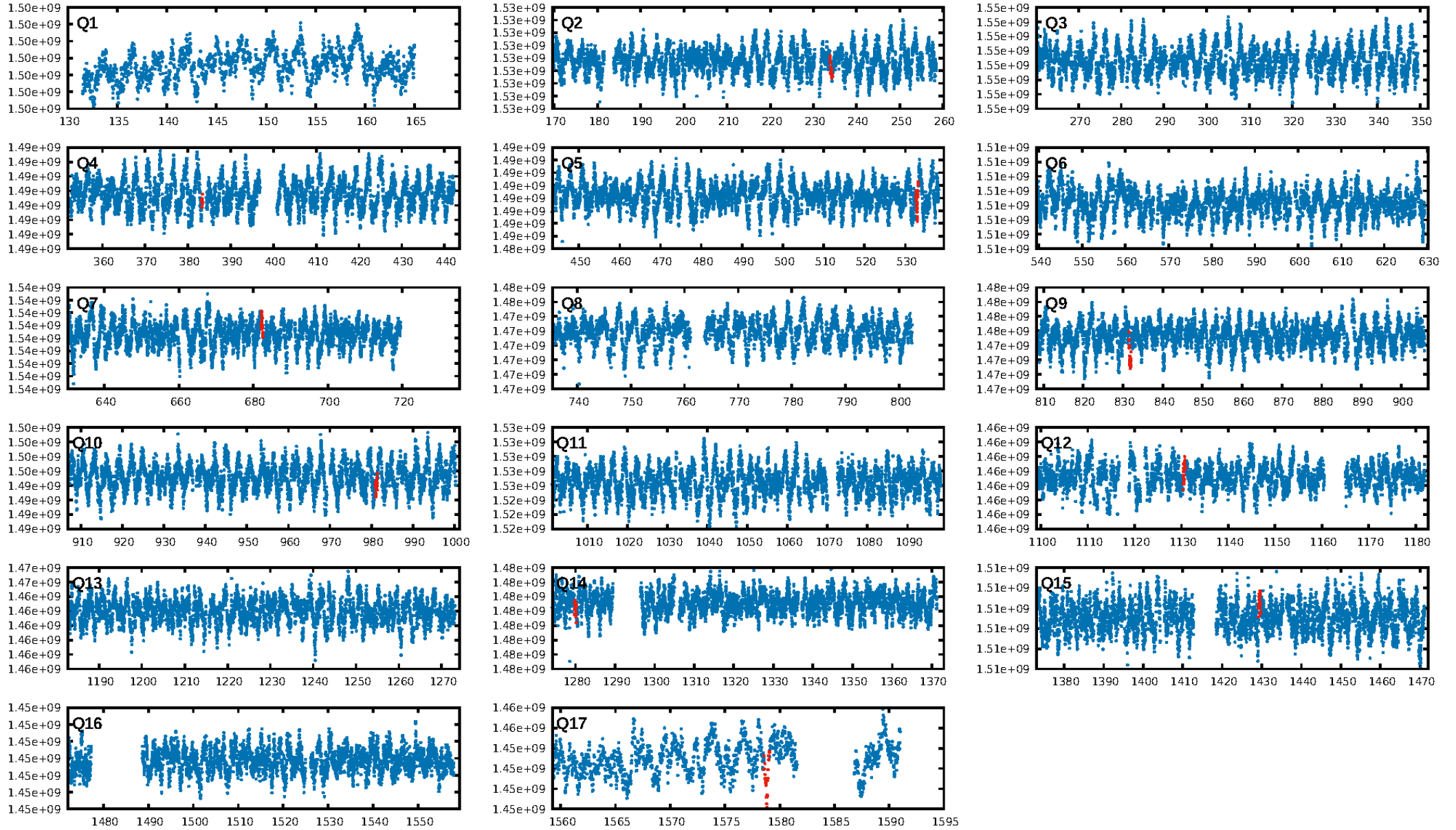
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [41.65 σ]
LongPeriod-sig: 2.9% [0.04 σ]
ModelChiSquare2-sig: 0.9%
ModelChiSquareGoF-sig: 39.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.263
Centroid-sig: 0.3%
Centroid-so: 0.884 arcsec [3.24 σ]
OotOffset-rm: 1.203 arcsec [0.98 σ]
KicOffset-rm: 0.675 arcsec [0.44 σ]
OotOffset-st: 3/2/1/3 [9]
KicOffset-st: 3/2/1/3 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 0.44 [4/9]

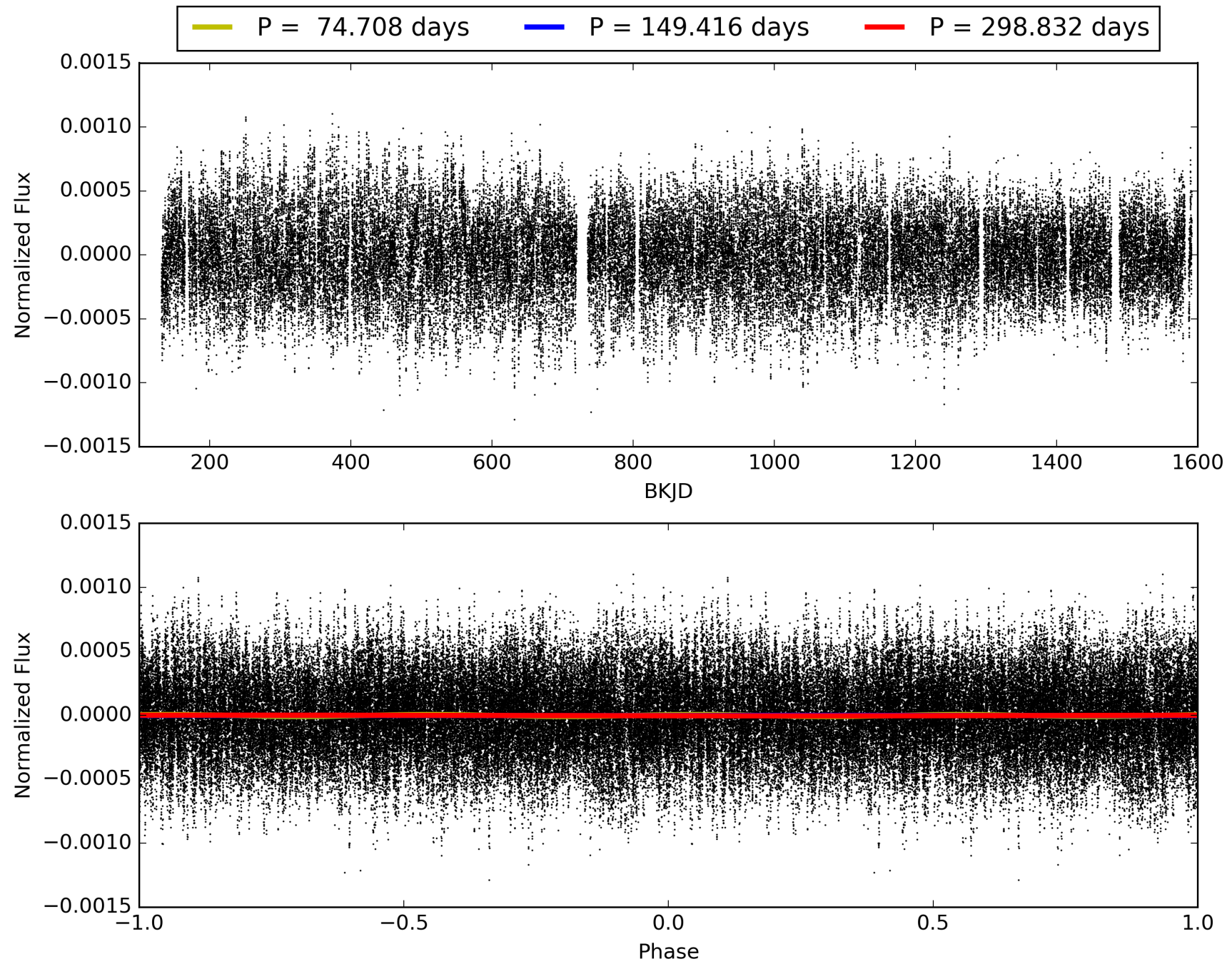
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:13 Z

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

TCE 007907476-05, PDC Light Curves

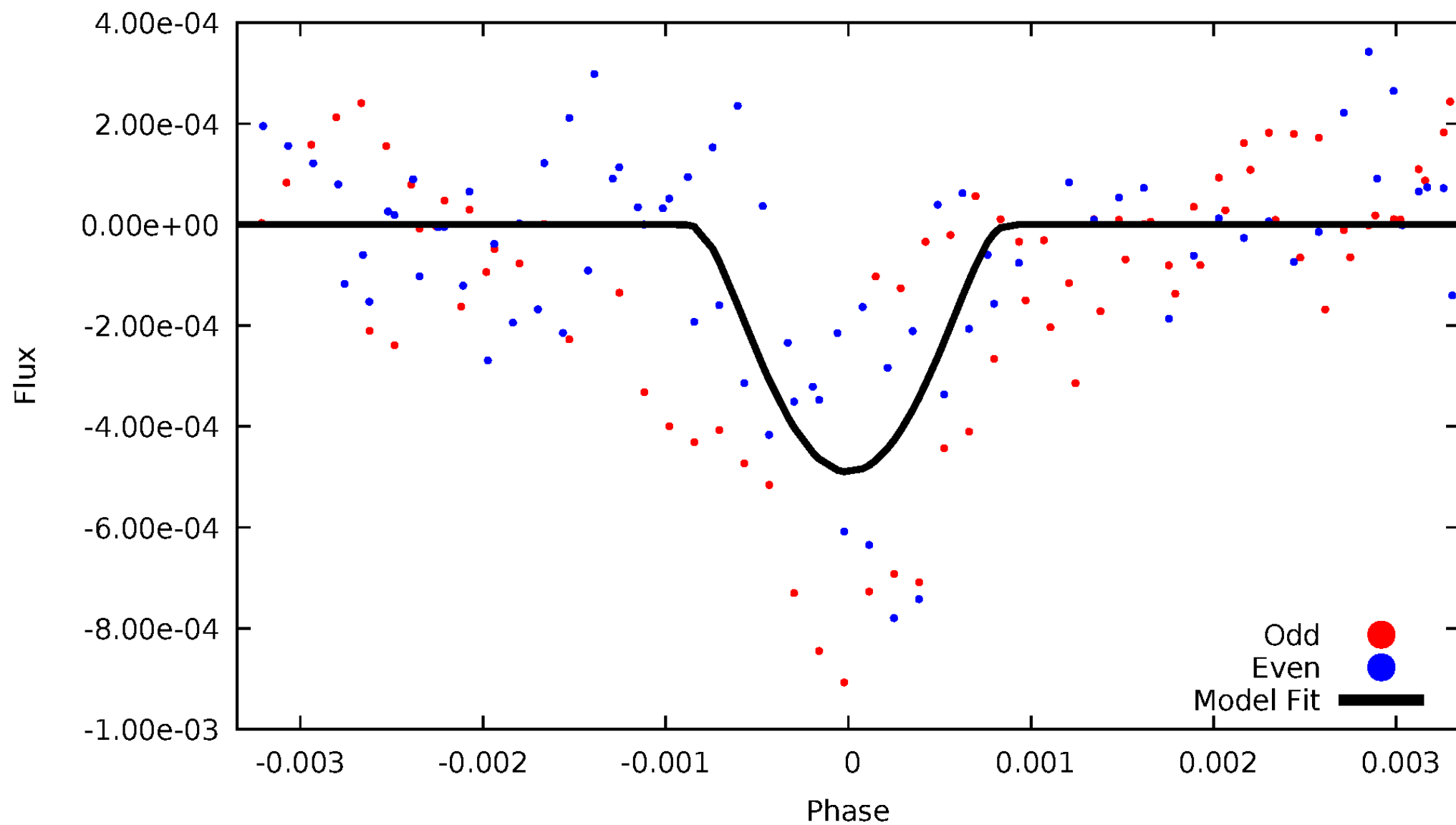


TCE 007907476-05



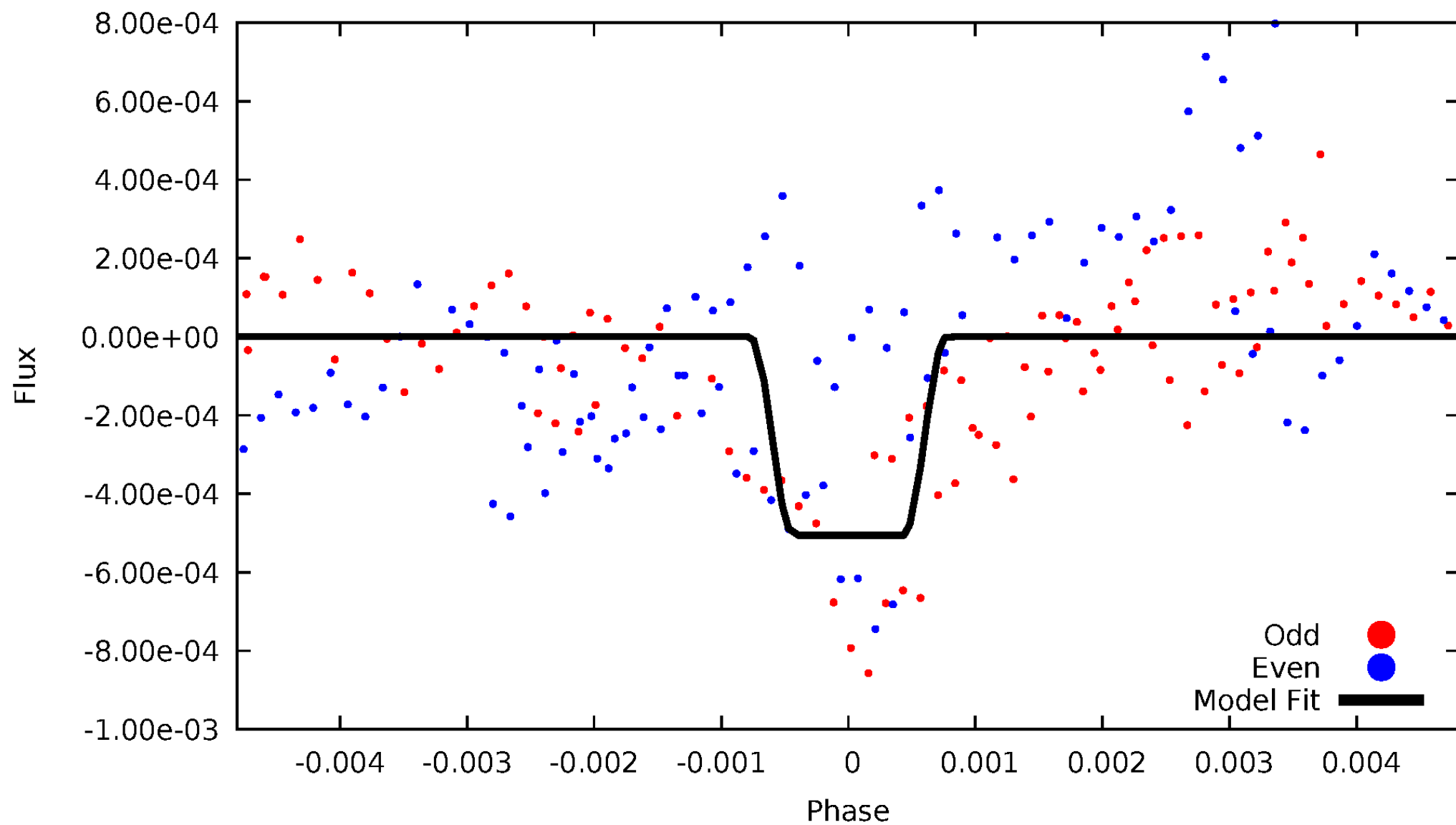
DV Odd/Even

TCE 007907476-05



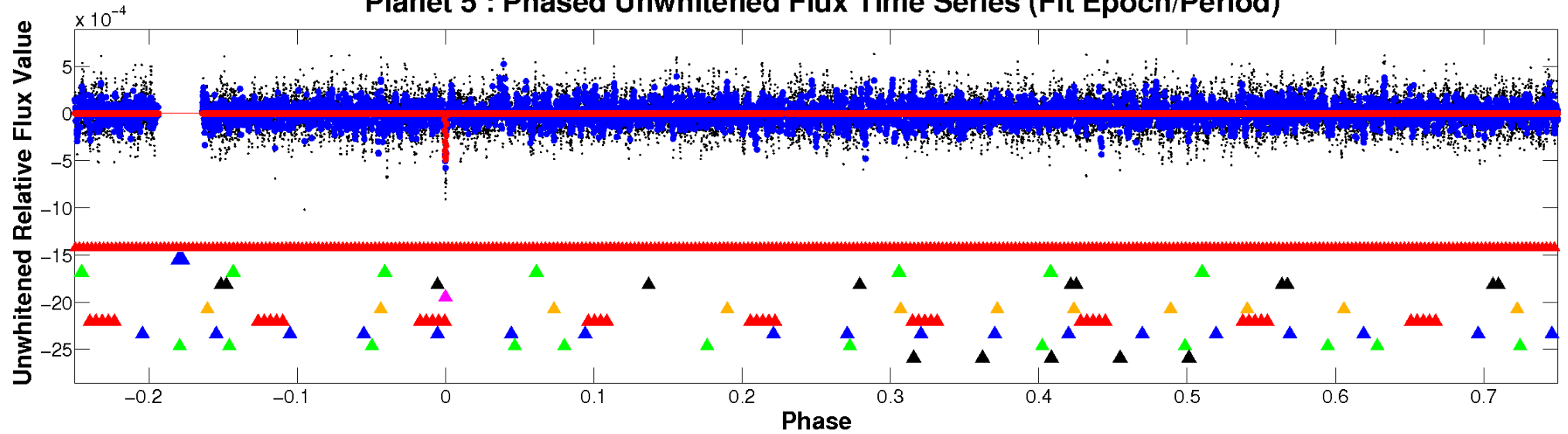
ALT Odd/Even

TCE 007907476-05

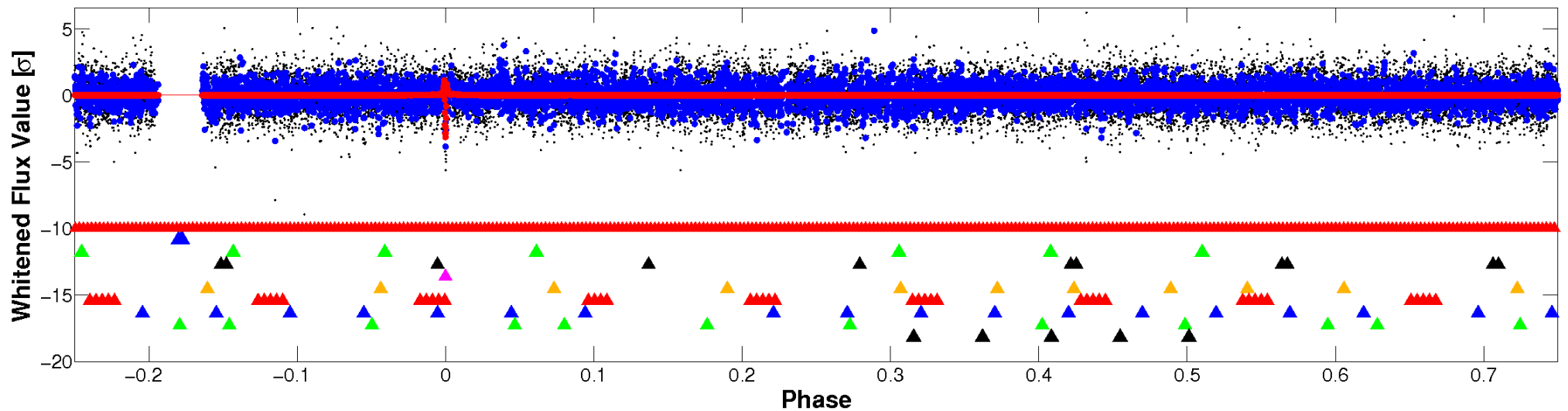


Non-Whitened Vs. Whitened Light Curve

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

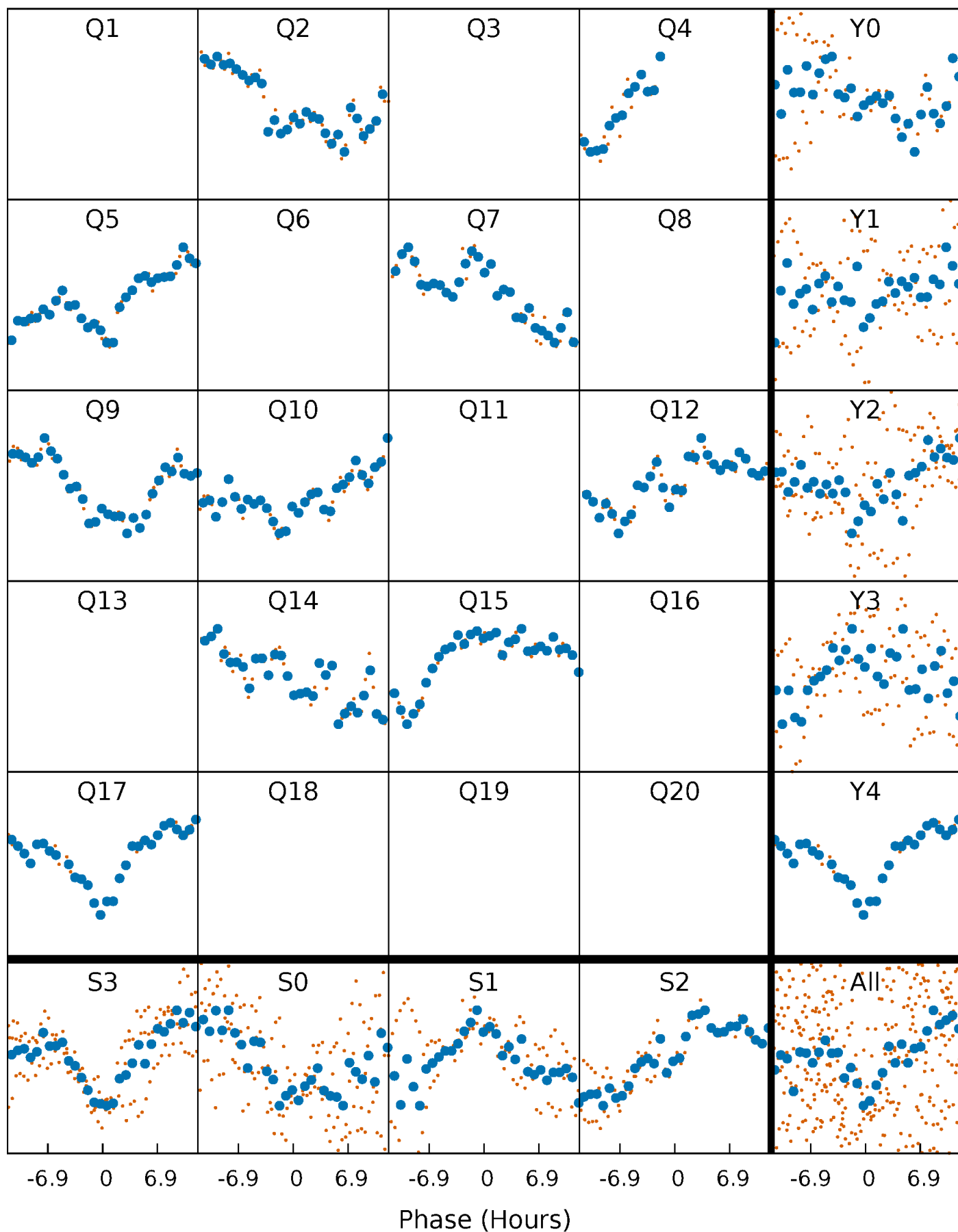


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



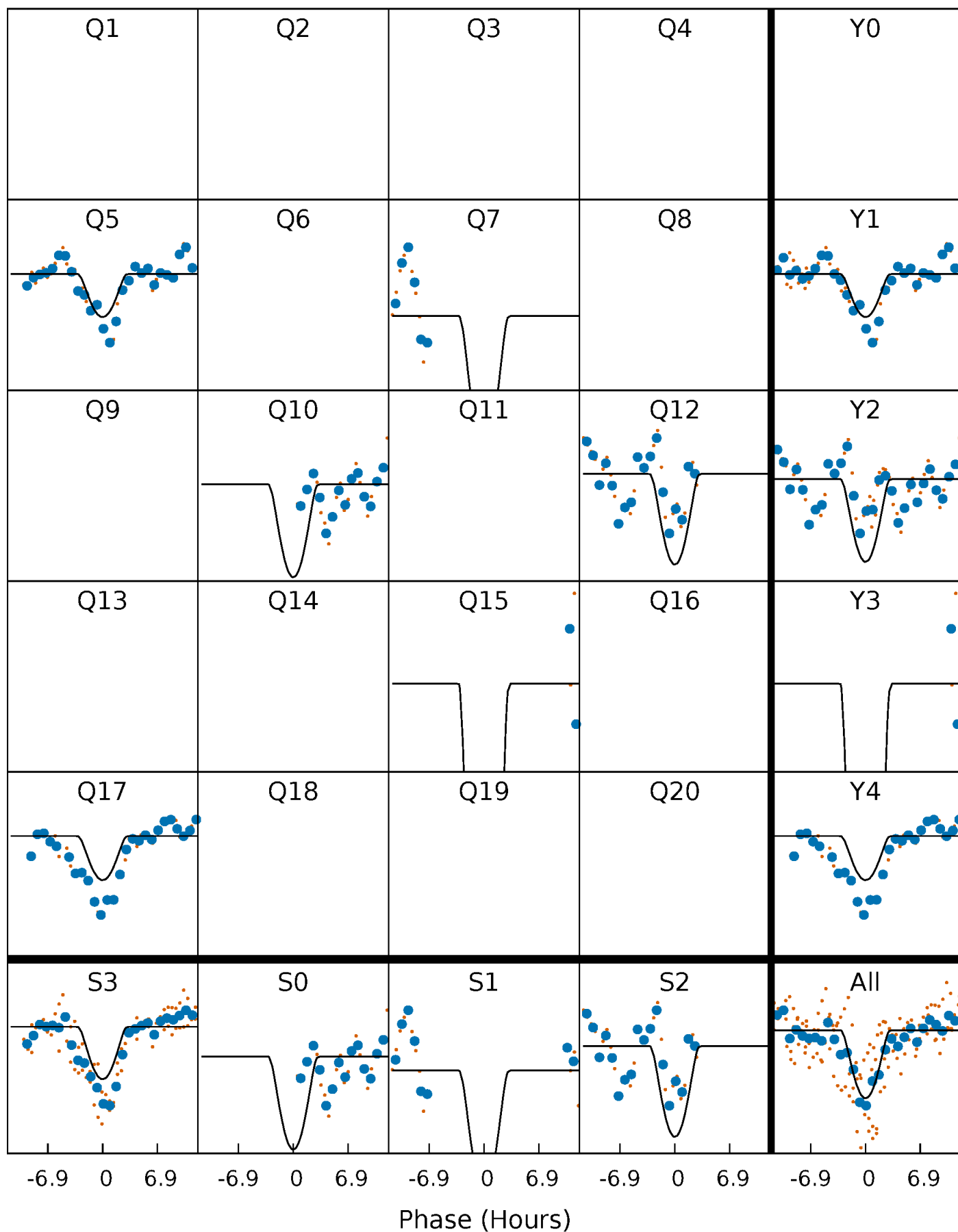
PDC Quarter-Phased Transit Curves

TCE 007907476-05 $P=149.415882$ Days $T_0=234.082564$ (BKJD)



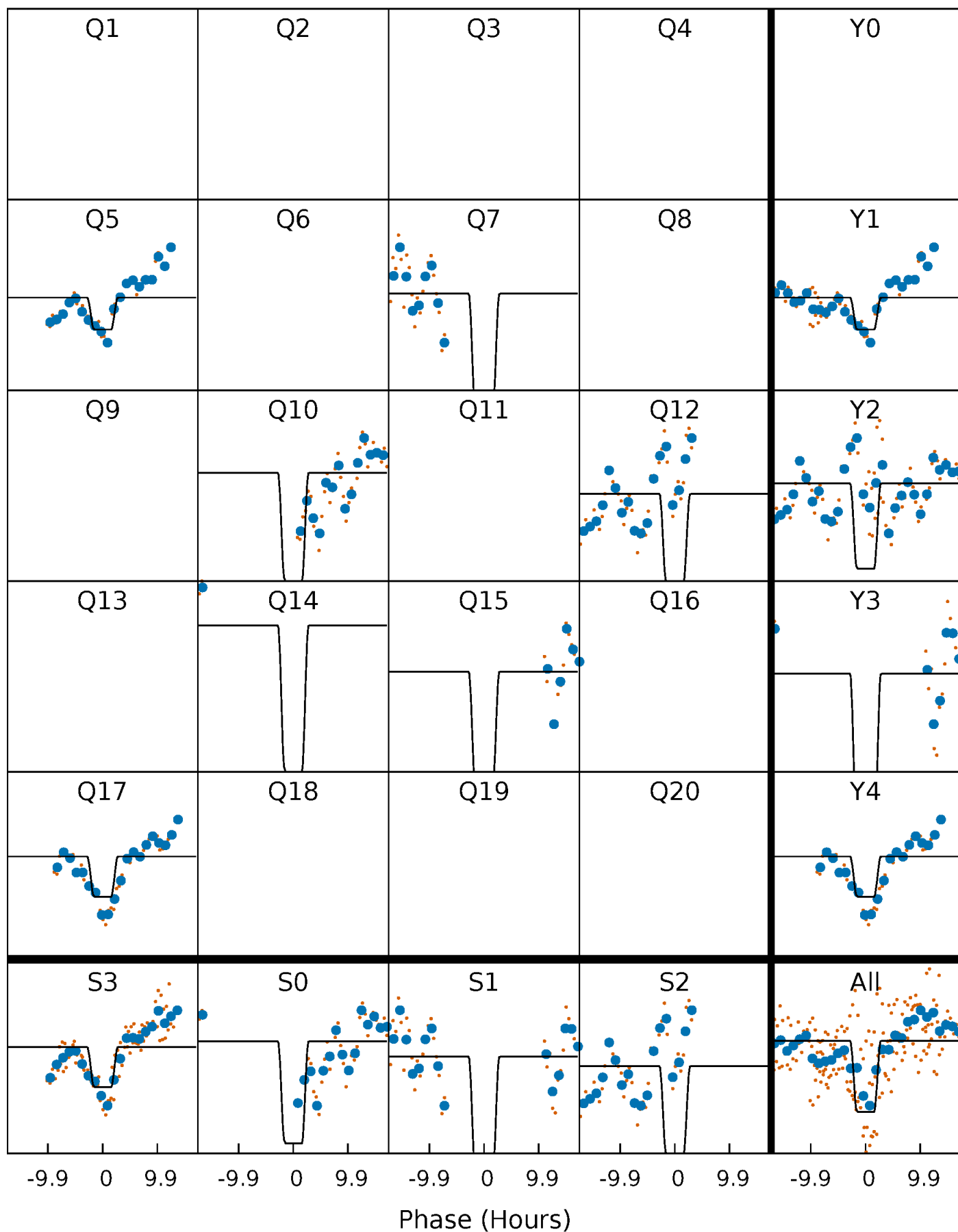
DV Quarter-Phased Transit Curves

TCE 007907476-05 $P=149.415882$ Days $T_0=234.082564$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

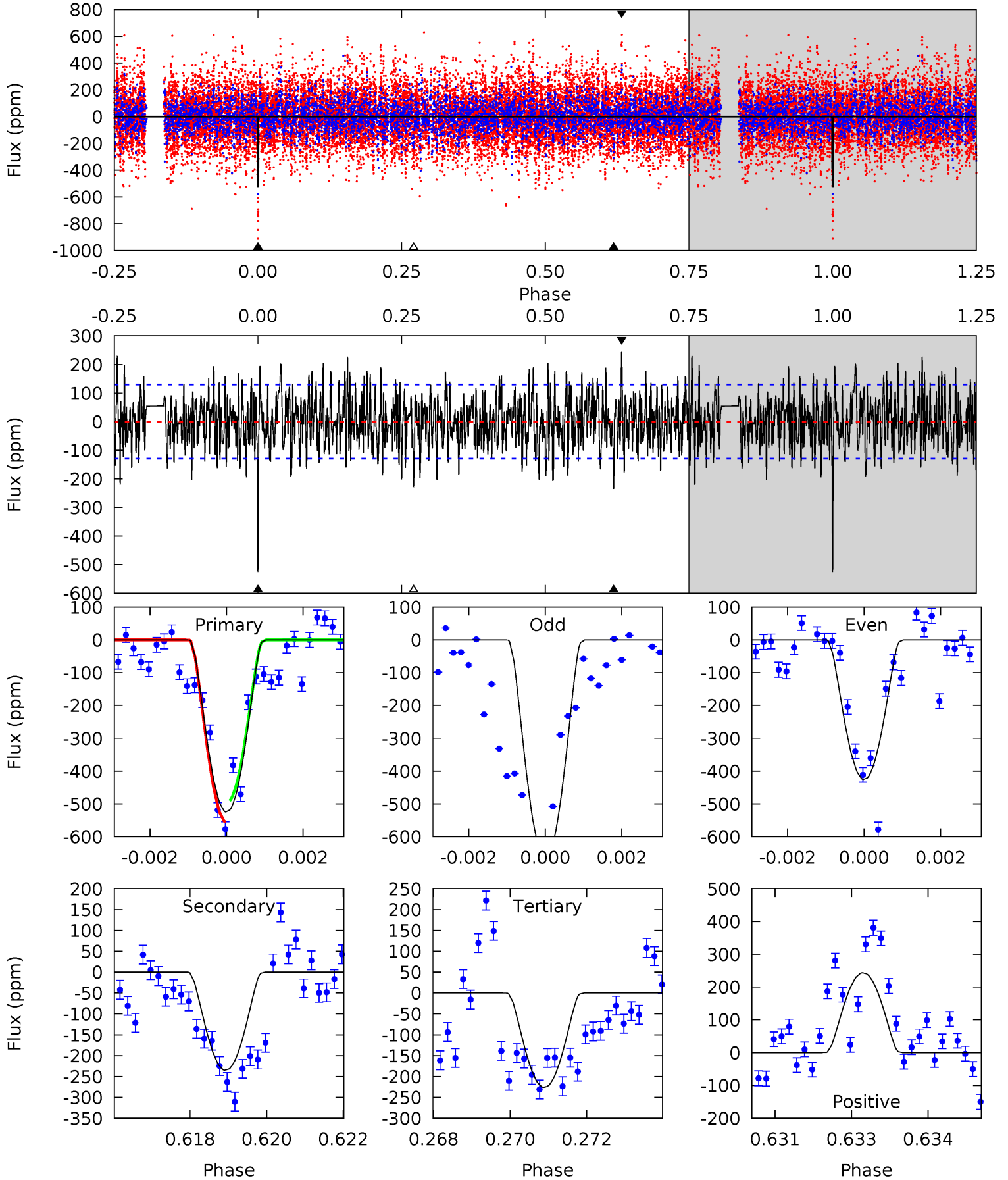
TCE 007907476-05 $P=149.411250$ Days $T_0=234.097348$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-05, $P = 149.415882$ Days, $E = 84.666682$ Days

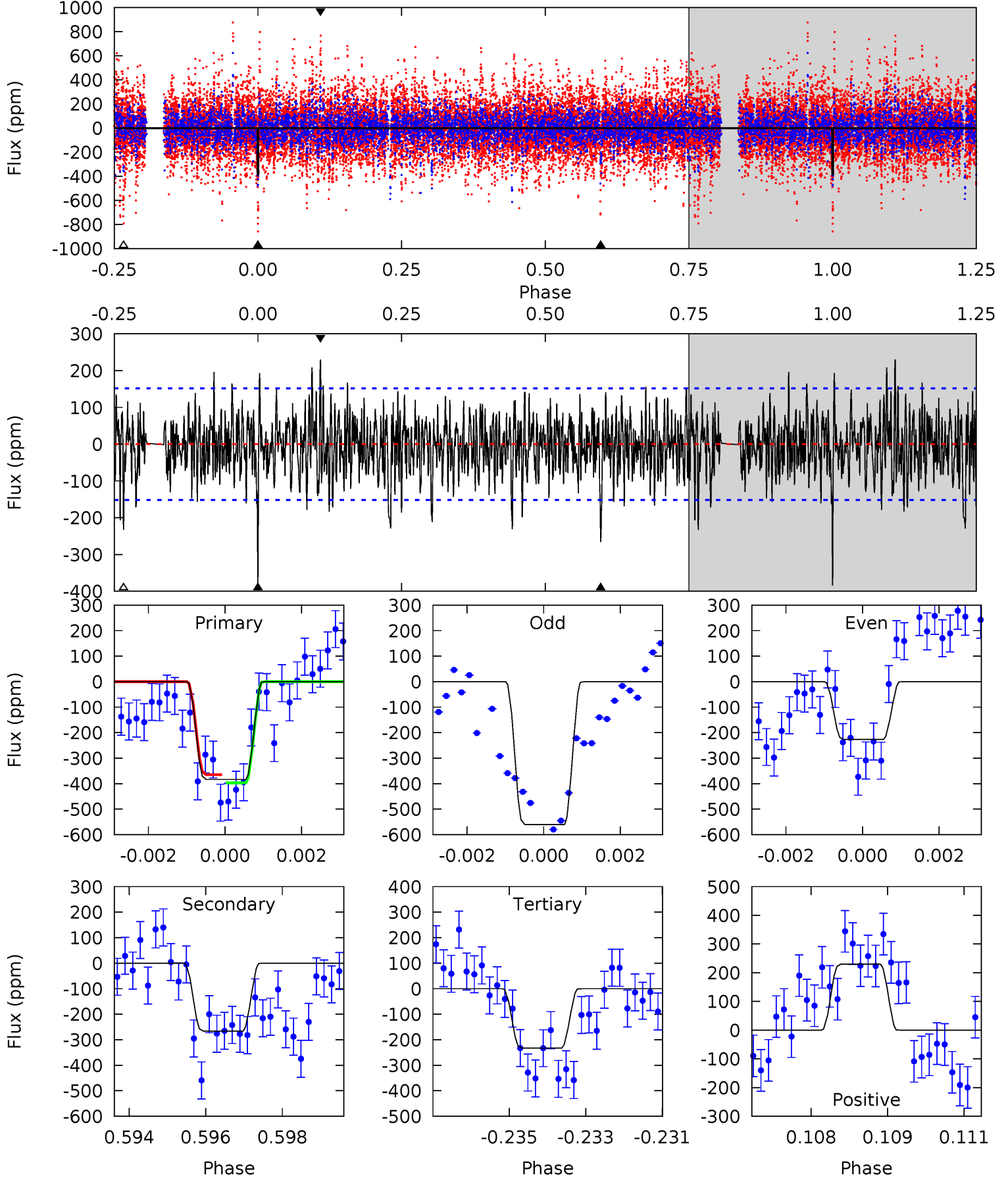
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	9.69	9.33	10.0	5.34	3.12	3.14	12.3	11.6	0.36	-0.35	4.97	1.08	0.32	1.34



Alt Model-Shift Uniqueness Test

007907476-05, P = 149.411250 Days, E = 84.686098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	9.42	8.23	8.13	5.37	3.16	2.23	5.35	5.44	1.19	1.29	5.93	0.85	0.37	0.55



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-235 ± 24	$33.92^{+39.05}_{-21.39}$	963^{+63}_{-113}	3254^{+1312}_{-581}	47^{+295}_{-36}
Alt.	-266 ± 28	$32.56^{+34.67}_{-23.25}$	962^{+62}_{-115}	3325^{+1913}_{-577}	55^{+612}_{-41}

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 $A_{obs} \gg 1.0$

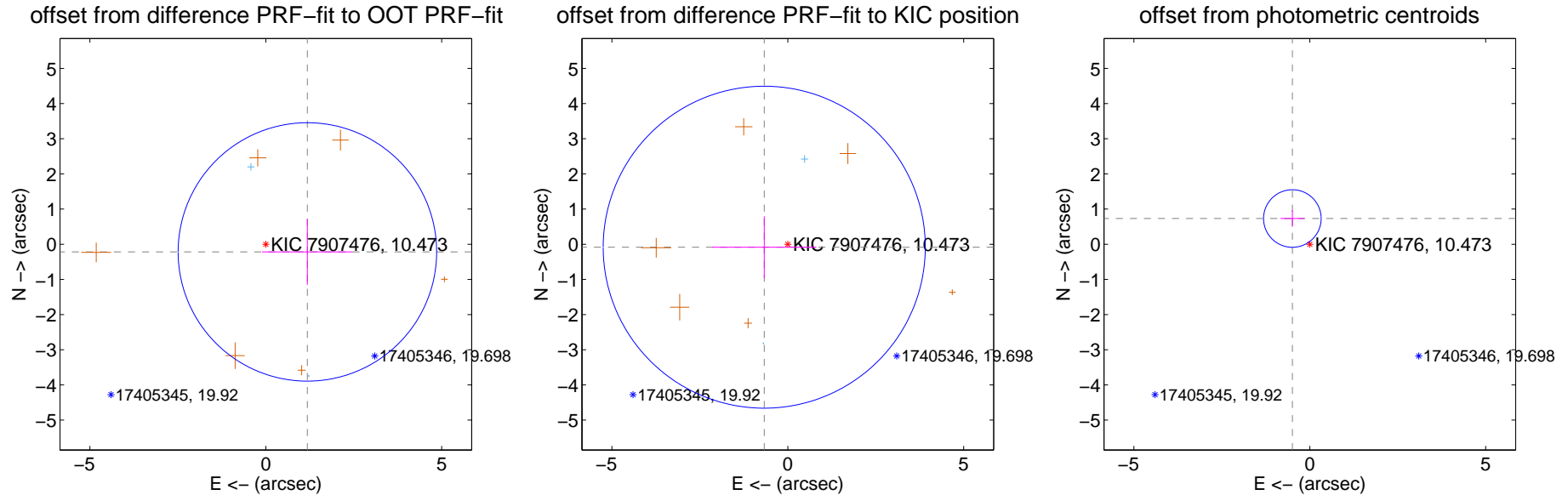
DV Centroid Data

Supplemental centroid analysis for 007907476-05. **Kepler magnitude: 10.47.** Transit SNR 12.33

There are 2 quarters with good PRF difference image offsets

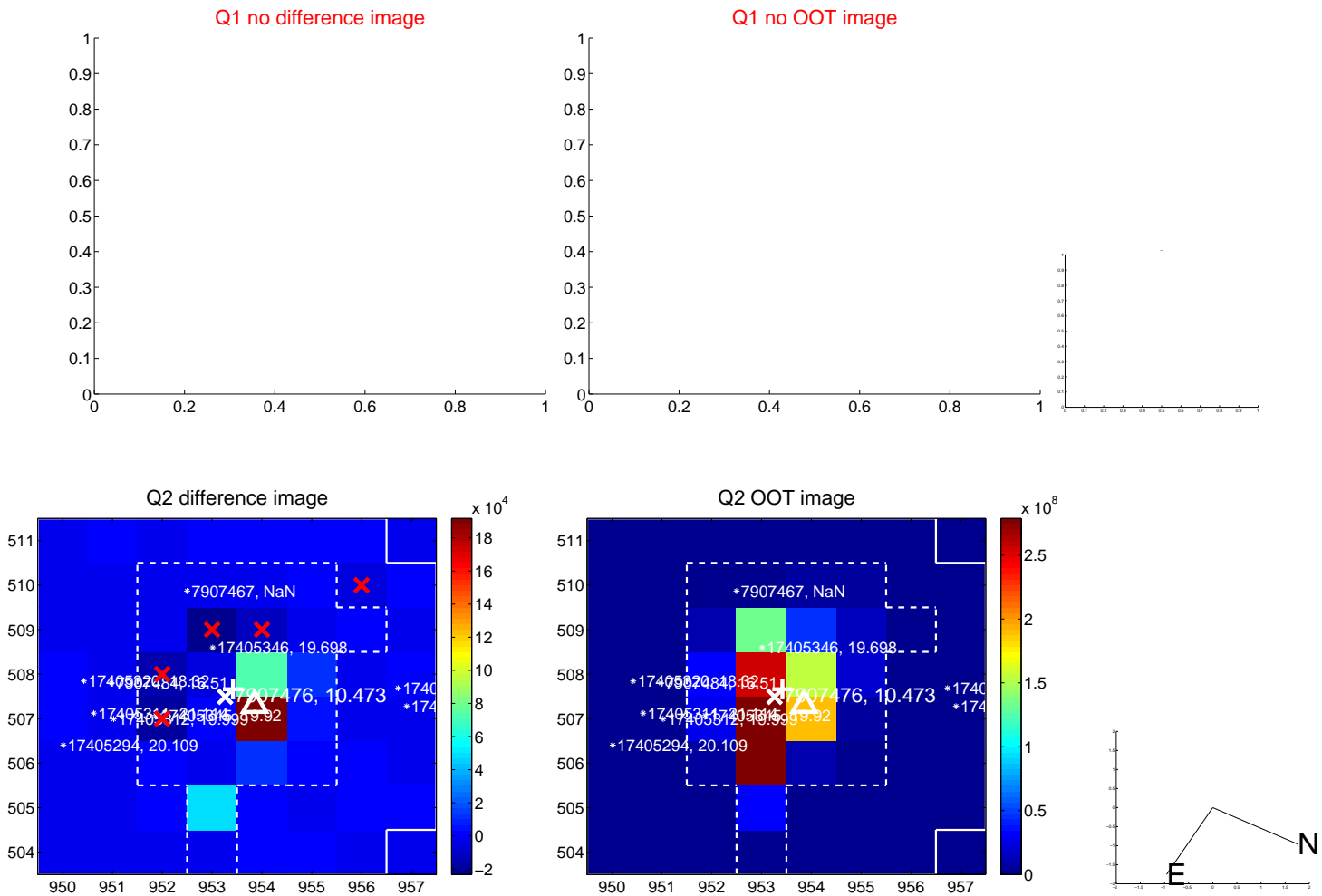
The OOT PRF centroid is offset from the target star catalog position by about 2.53 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.203 ± 1.225	0.98	-1.183 ± 1.285	-0.218 ± 0.936
PRF-fit source offset from KIC position	0.675 ± 1.526	0.44	0.670 ± 1.482	-0.084 ± 0.877
photometric centroid source offset	0.88 ± 0.27	3.24	0.50 ± 0.34	0.73 ± 0.24



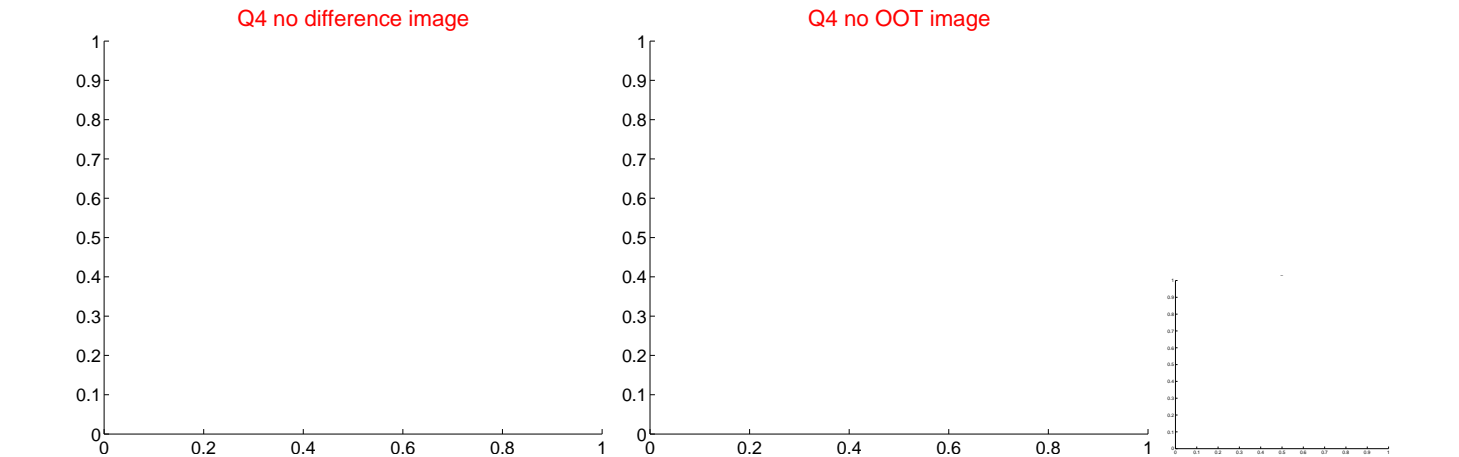
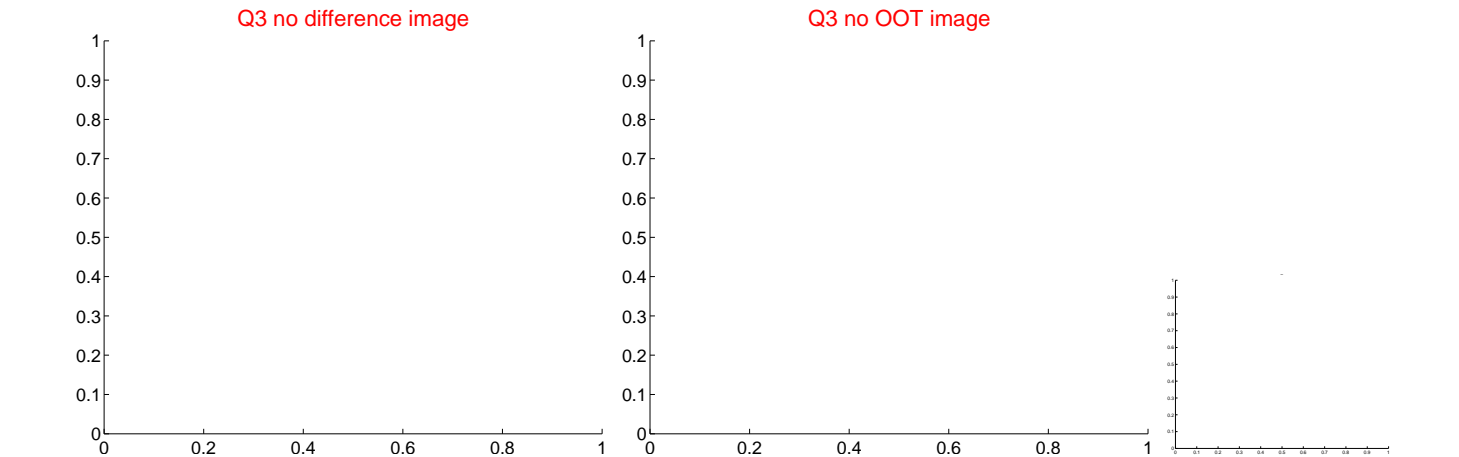
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

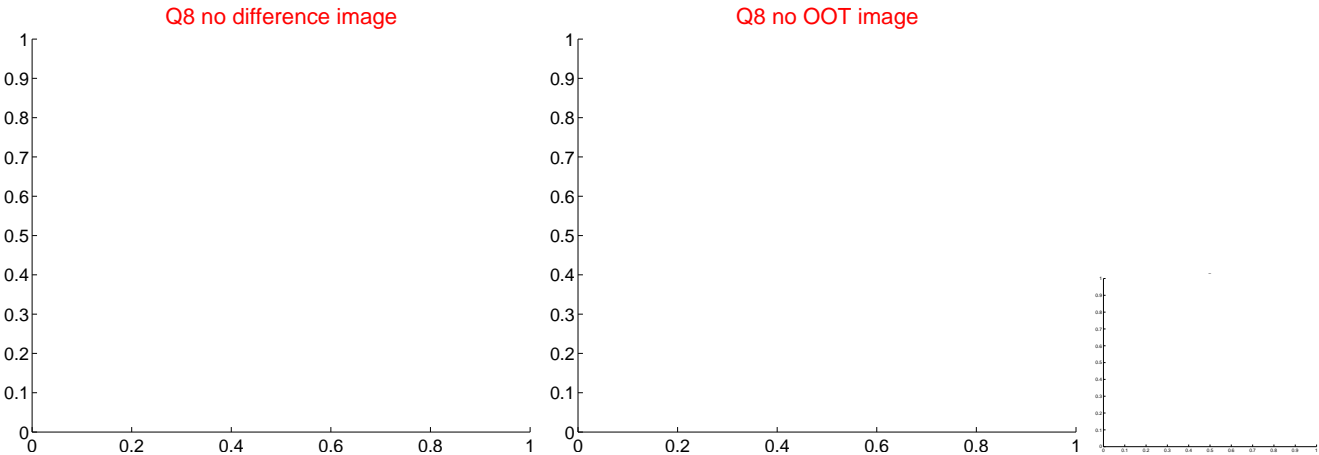
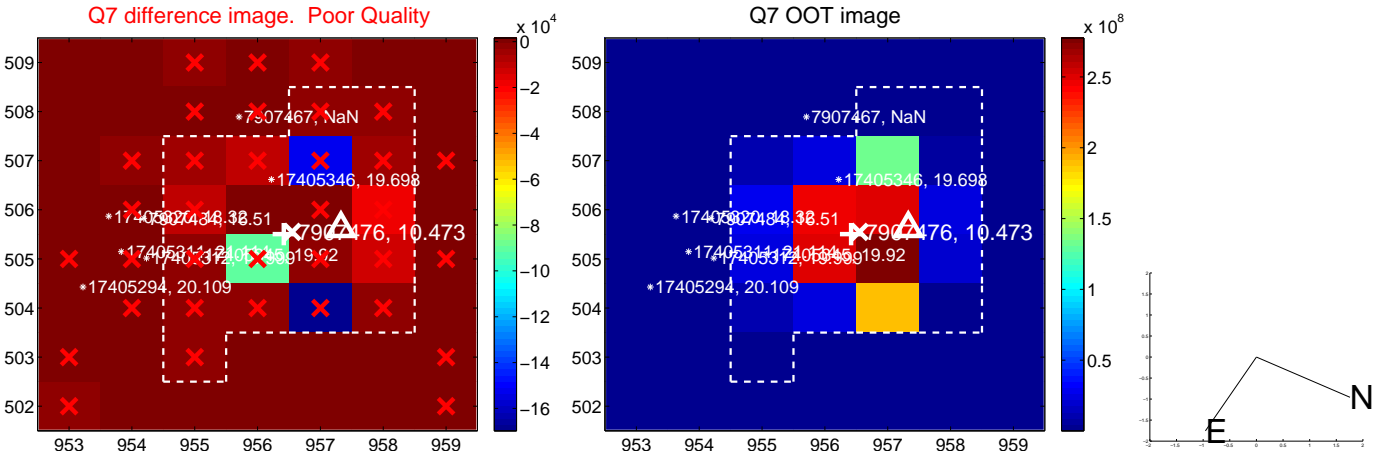
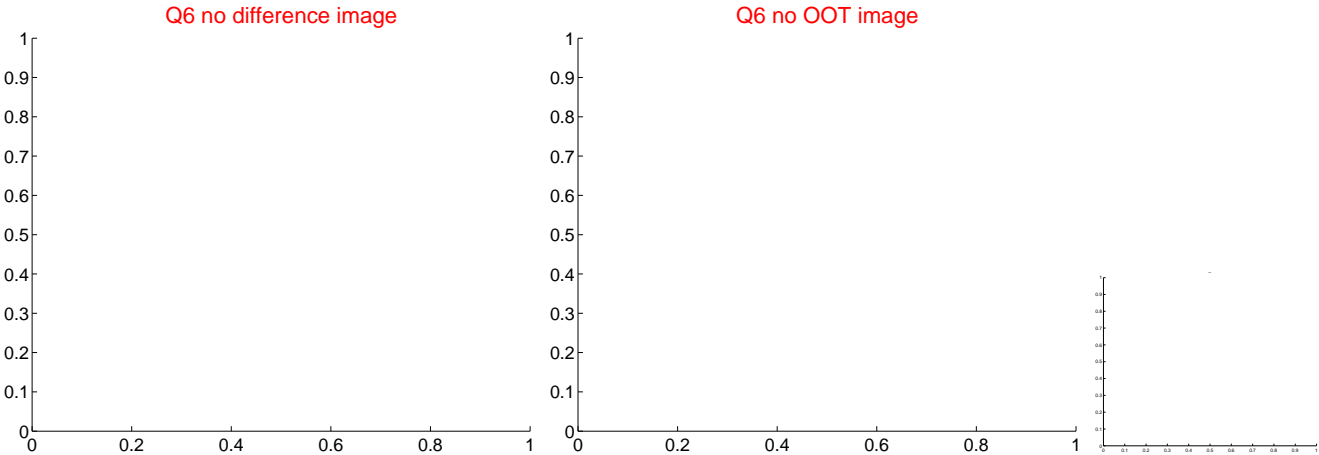
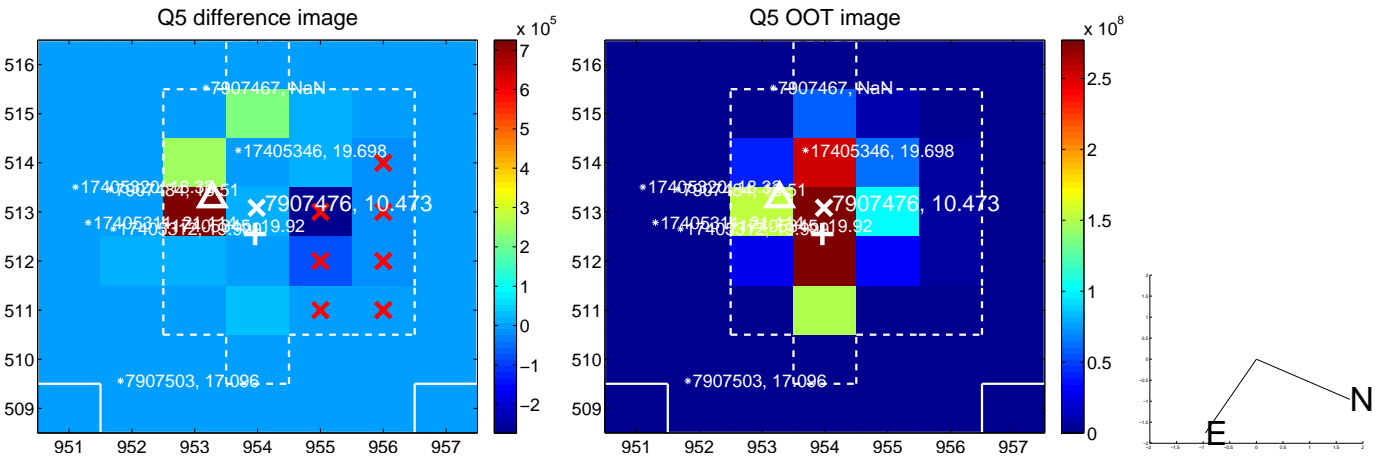


Q2 difference image

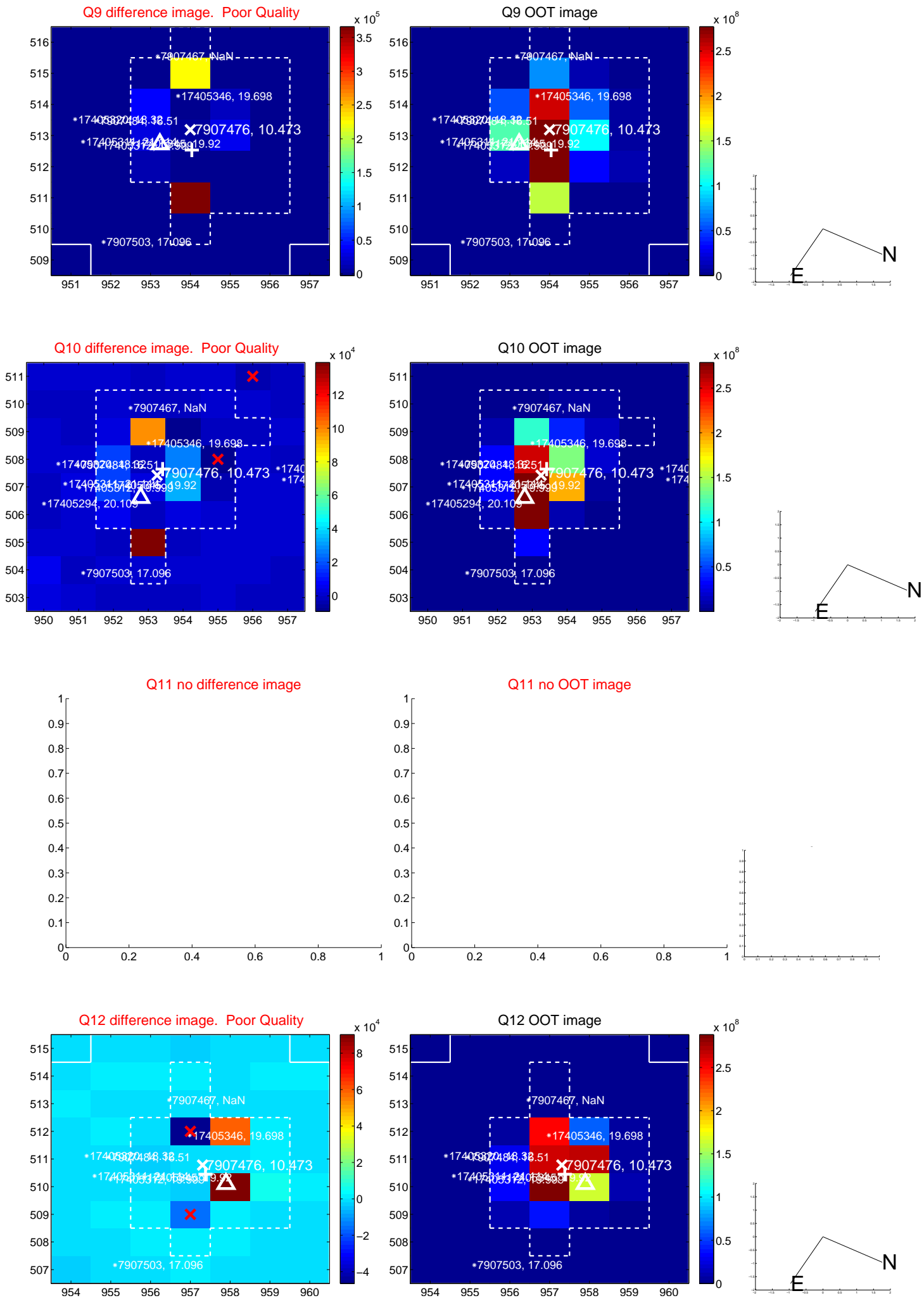
Q2 OOT image



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.

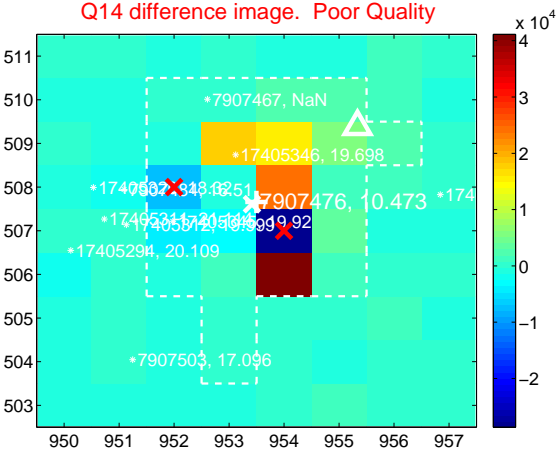
Q13 no difference image



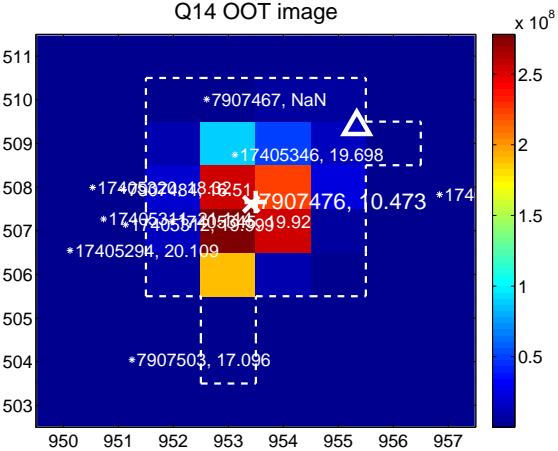
Q13 no OOT image



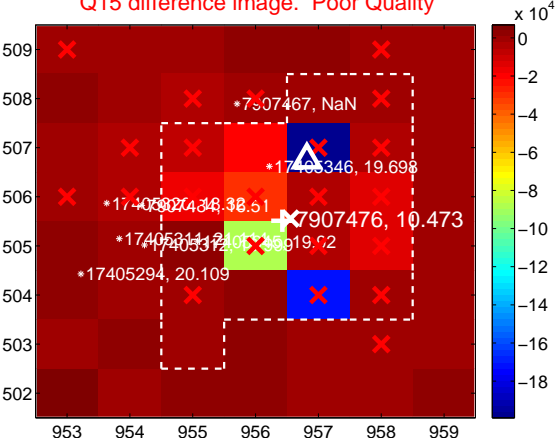
Q14 difference image. Poor Quality



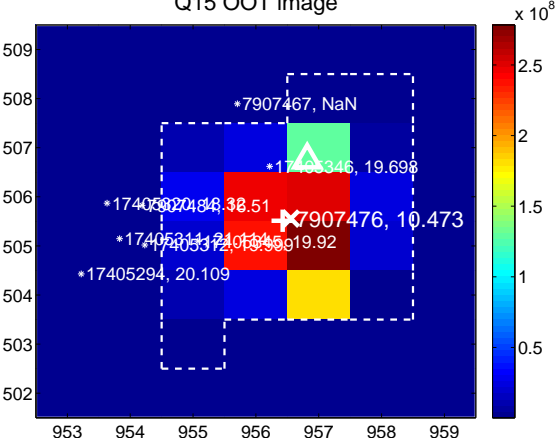
Q14 OOT image



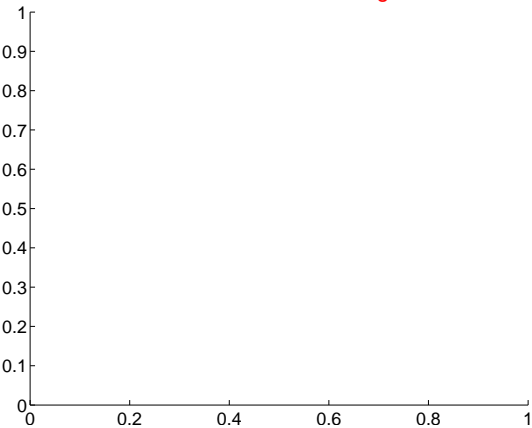
Q15 difference image. Poor Quality



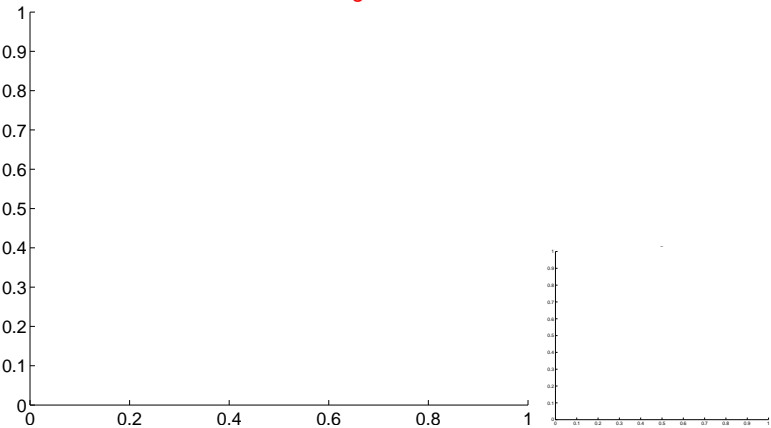
Q15 OOT image



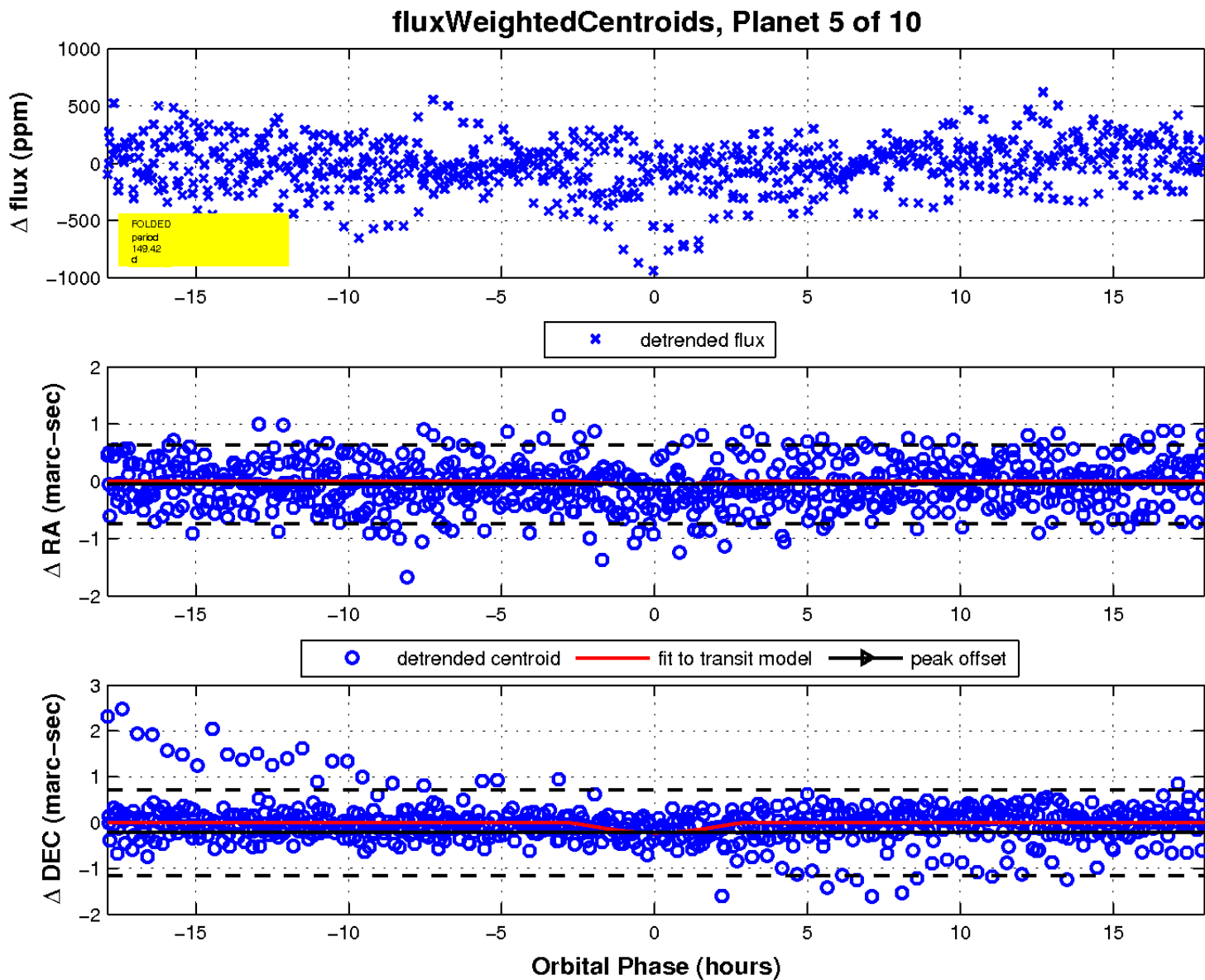
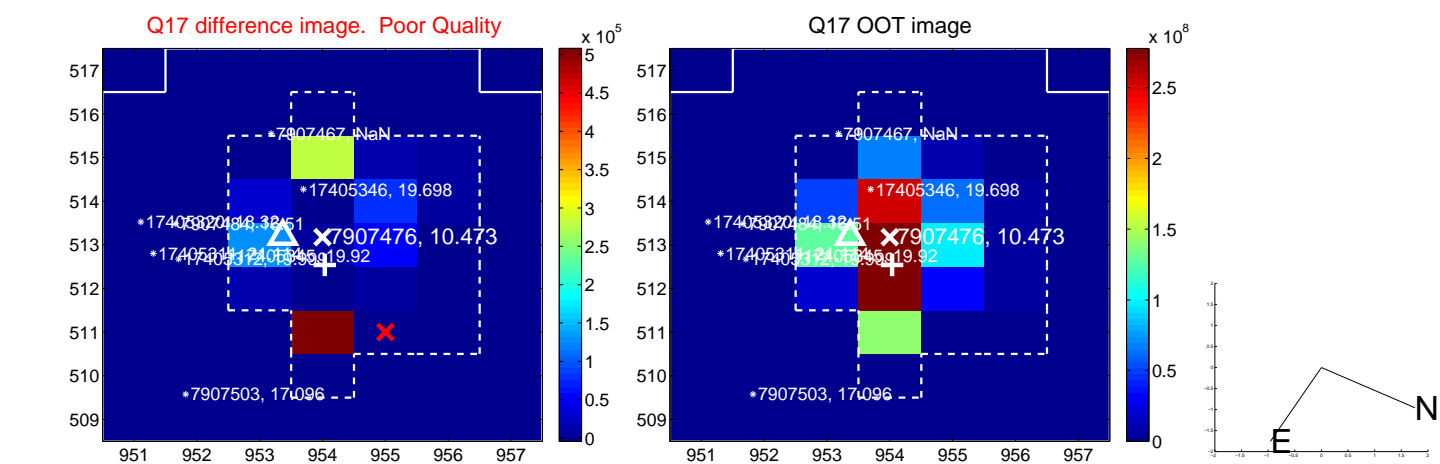
Q16 no difference image



Q16 no OOT image

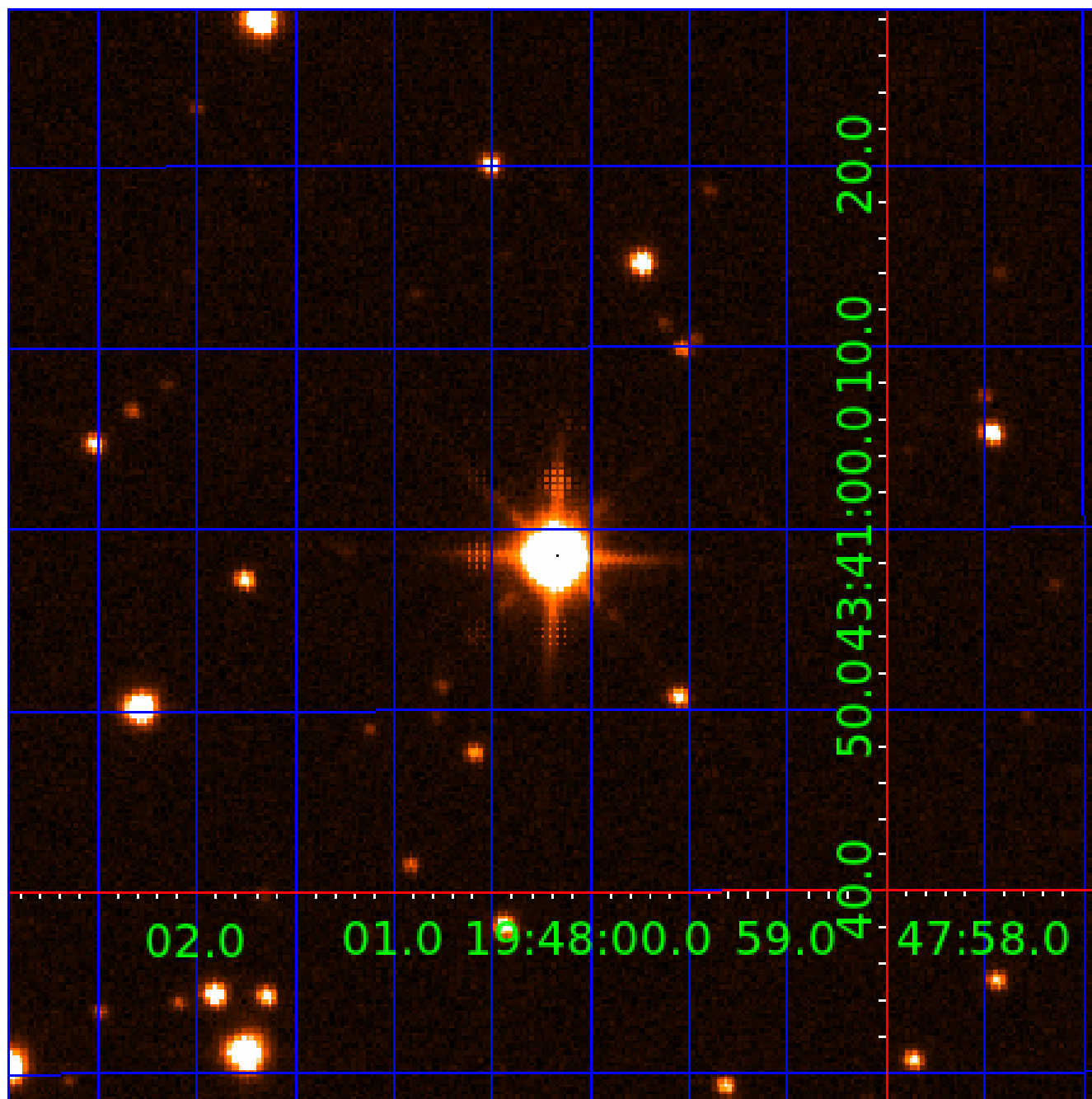


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

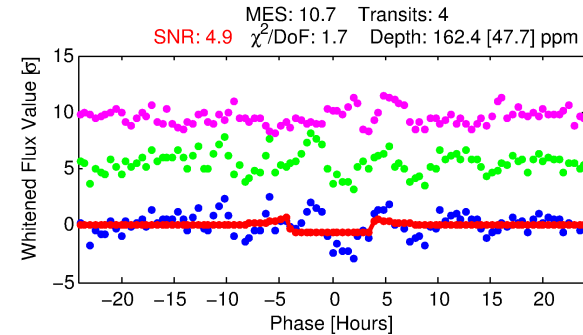
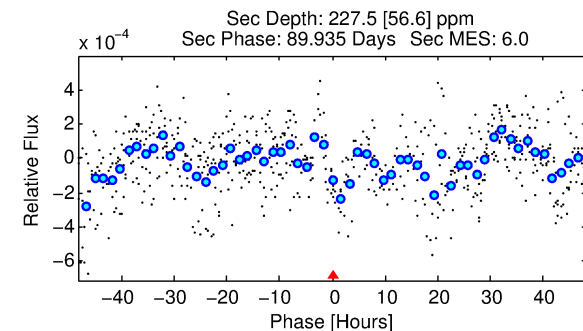
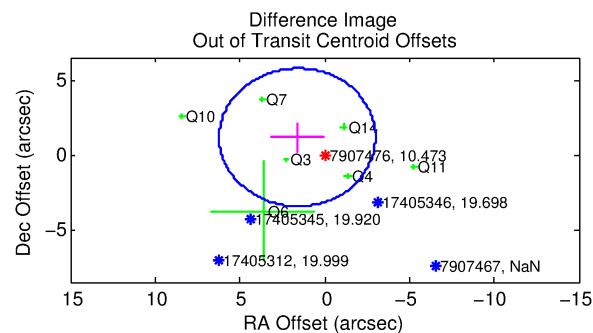
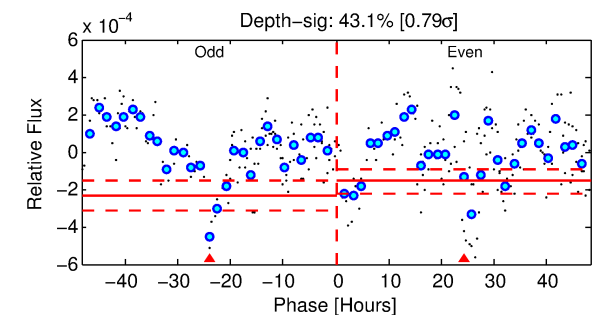
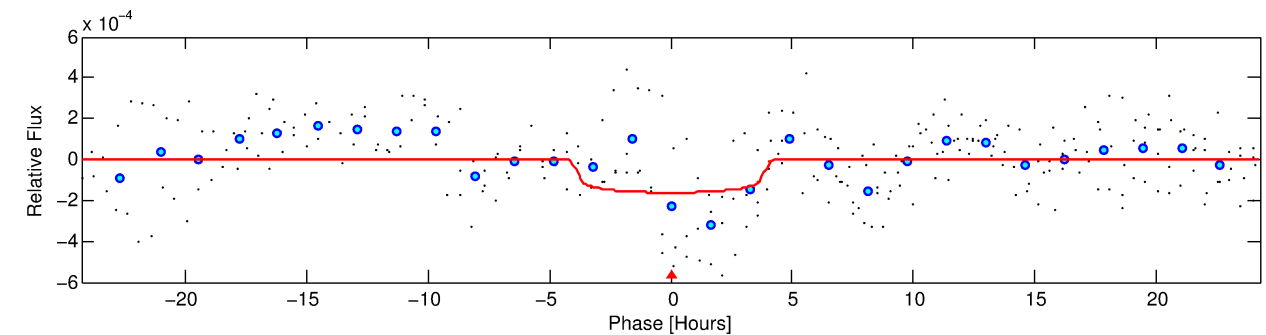
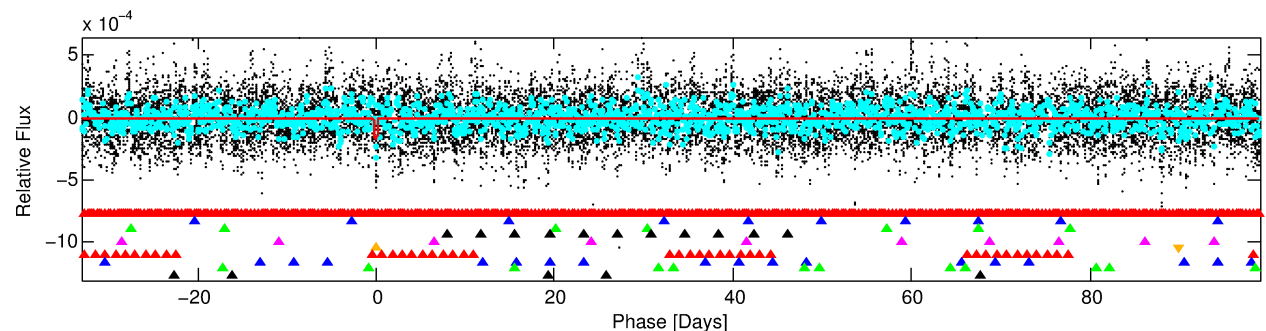
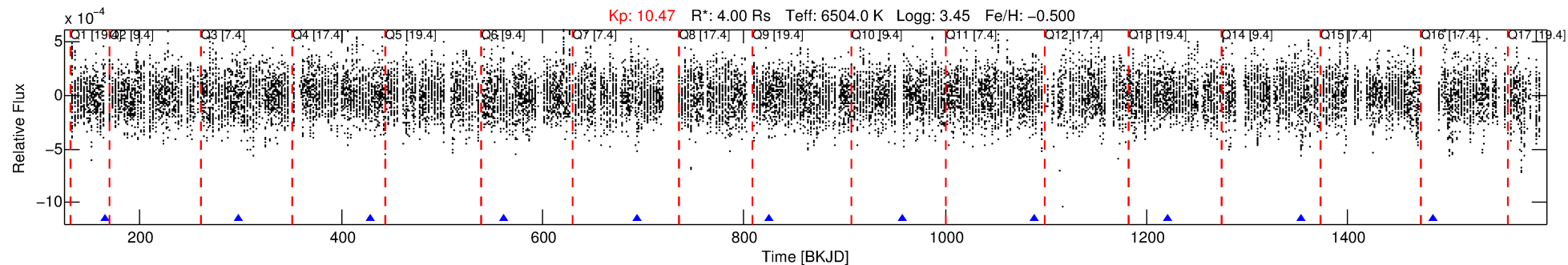
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-06

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 6 of 10 Period: 131.956 d



DV Fit Results:

Period = 131.95644 [0.00370] d
Epoch = 165.4398 [0.0229] BKJD
Rp/R* = 0.0130 [0.0066]
a/R* = 75.81 [203.51]
b = 0.81 [1.14]
Seff = 71.55 [50.99]
Teq = 742 [132] K
Rp = 5.66 [3.82] Re
a = 0.5992 [0.2596] AU
Ag = 1404.01 [1780.93] [0.79 σ]
Teffp = 7019 [1865] K [3.36 σ]

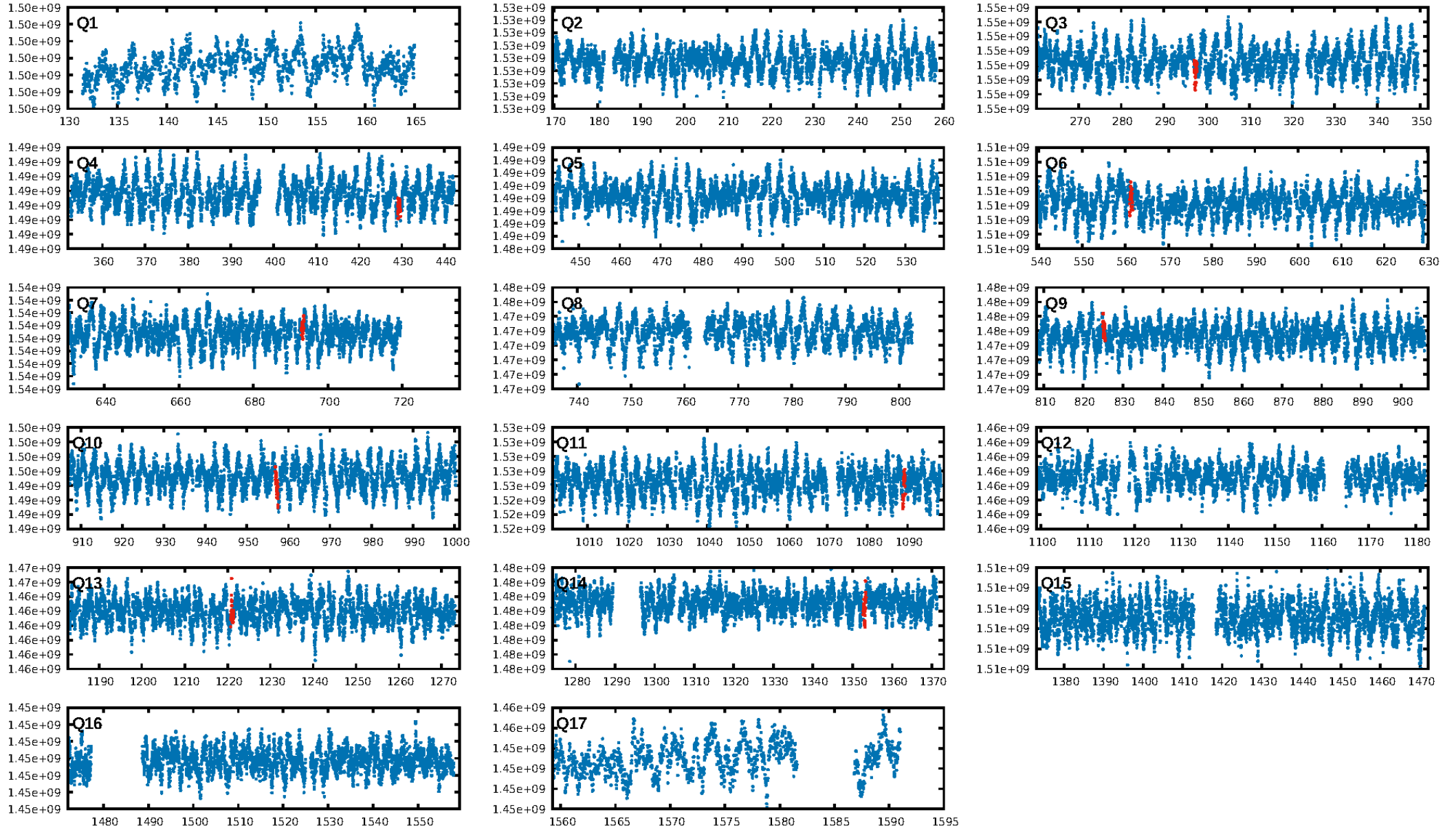
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.39 σ]
LongPeriod-sig: 100.0% [41.65 σ]
ModelChiSquare2-sig: 2.9%
ModelChiSquareGof-sig: 3.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 5.25
Centroid-sig: 22.3%
Centroid-so: 0.907 arcsec [1.48 σ]
OotOffset-rm: 1.981 arcsec [1.29 σ]
KicOffset-rm: 1.863 arcsec [1.19 σ]
OotOffset-st: 3/3/1/0 [7]
KicOffset-st: 3/3/1/0 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.38 [3/8]

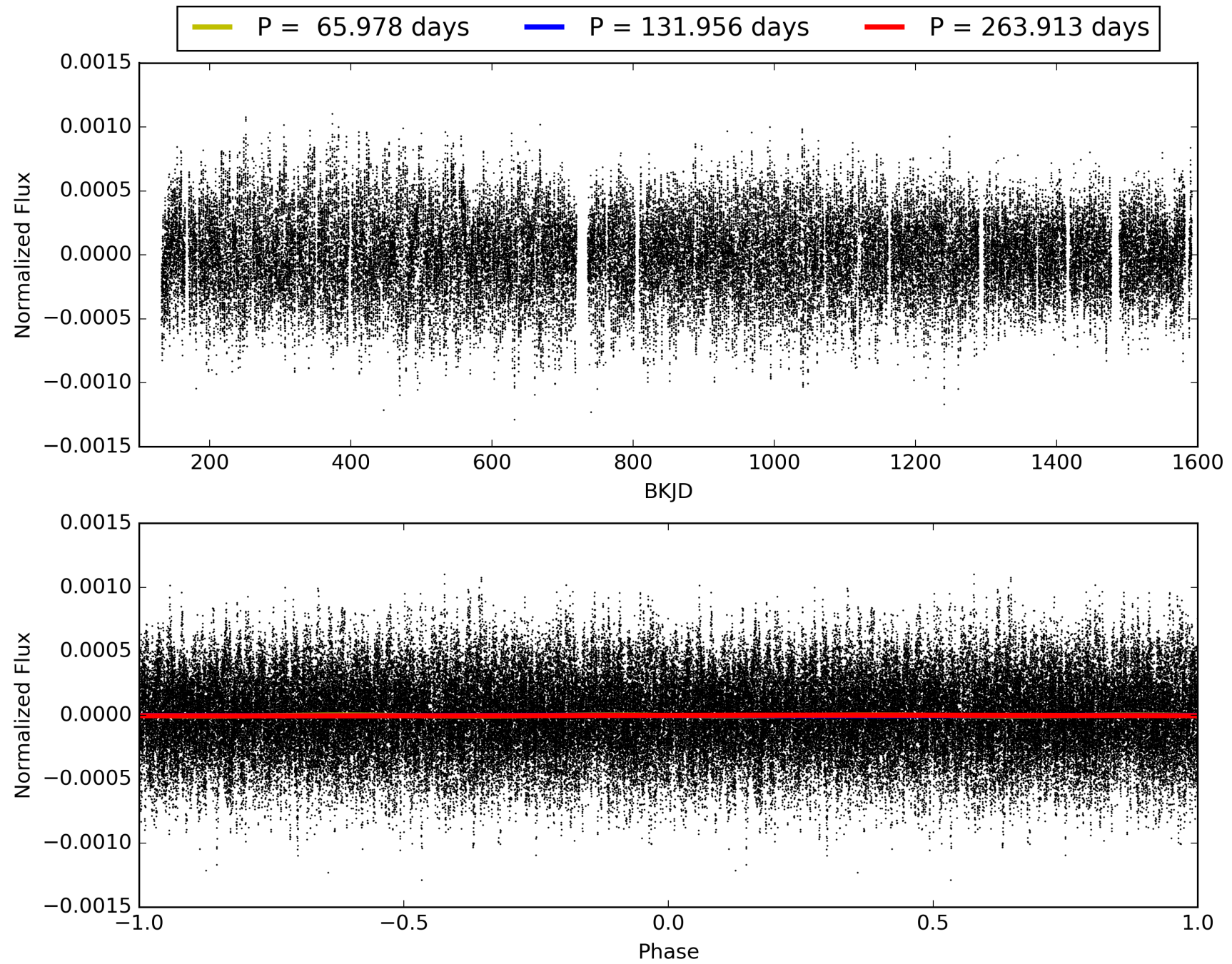
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:17 Z

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

TCE 007907476-06, PDC Light Curves

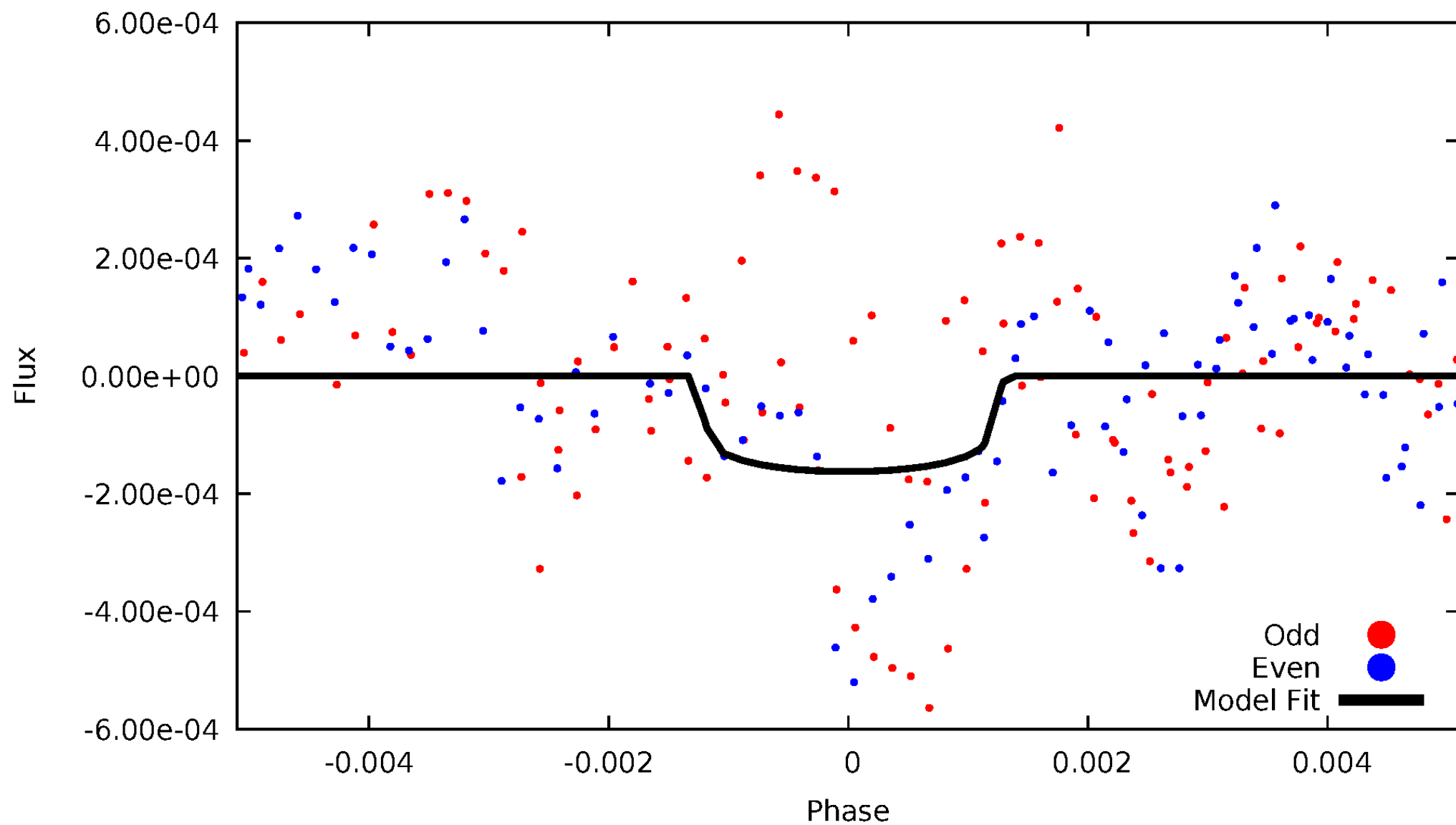


TCE 007907476-06



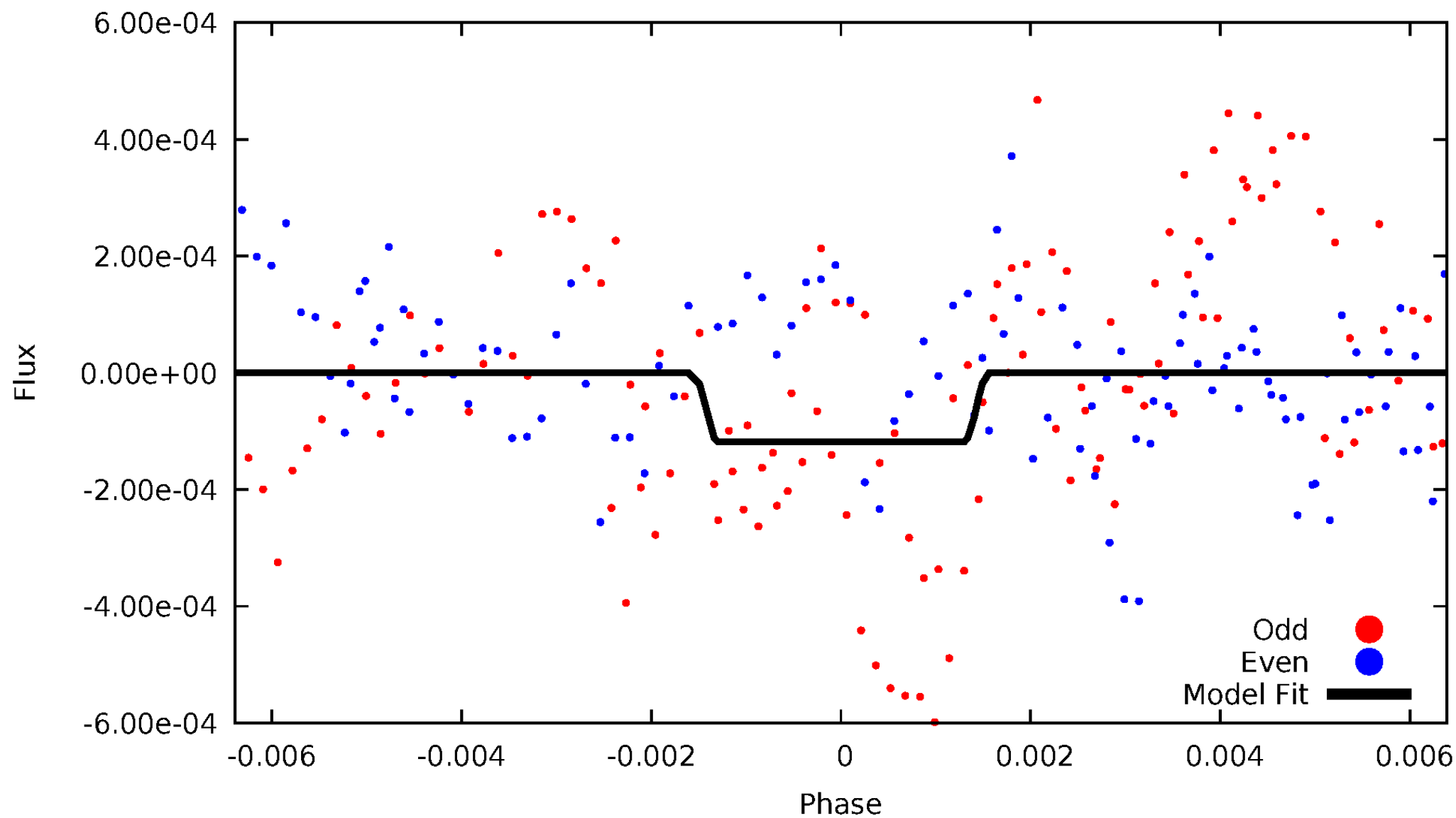
DV Odd/Even

TCE 007907476-06



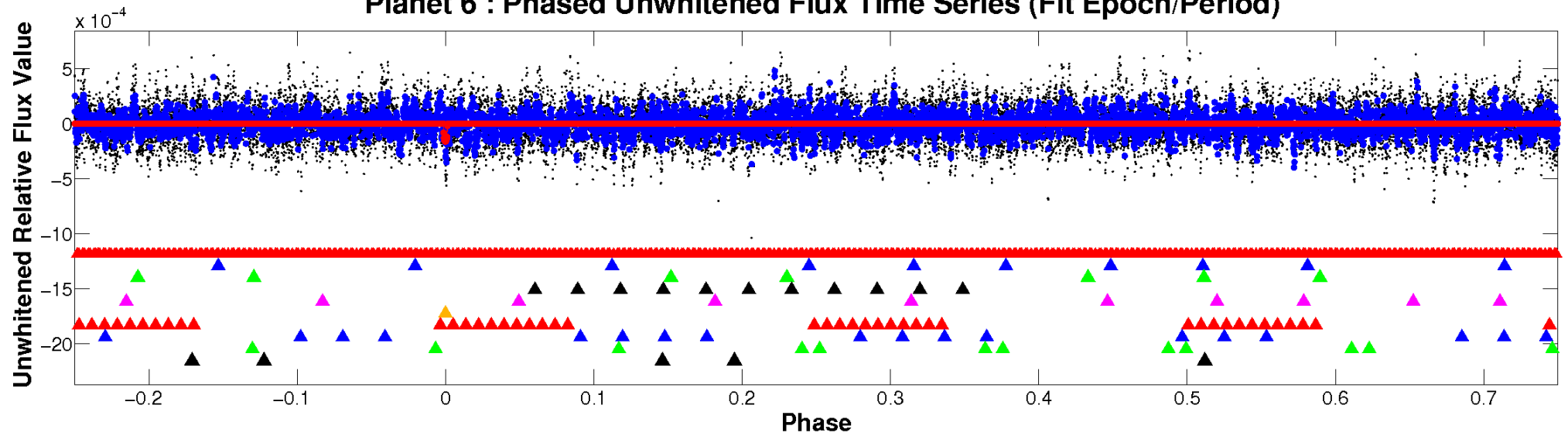
ALT Odd/Even

TCE 007907476-06

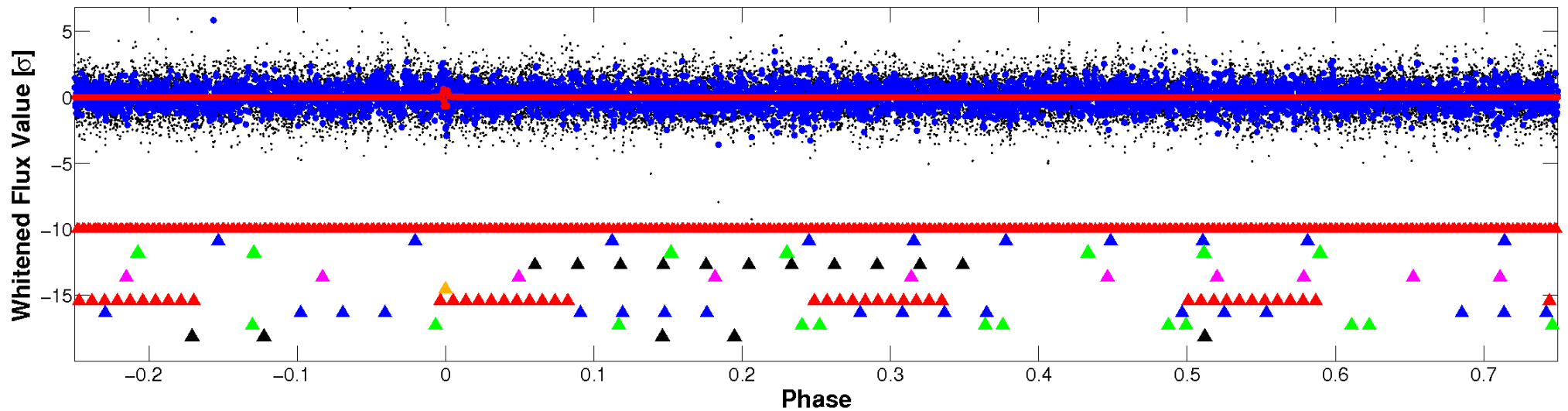


Non-Whitened Vs. Whitened Light Curve

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

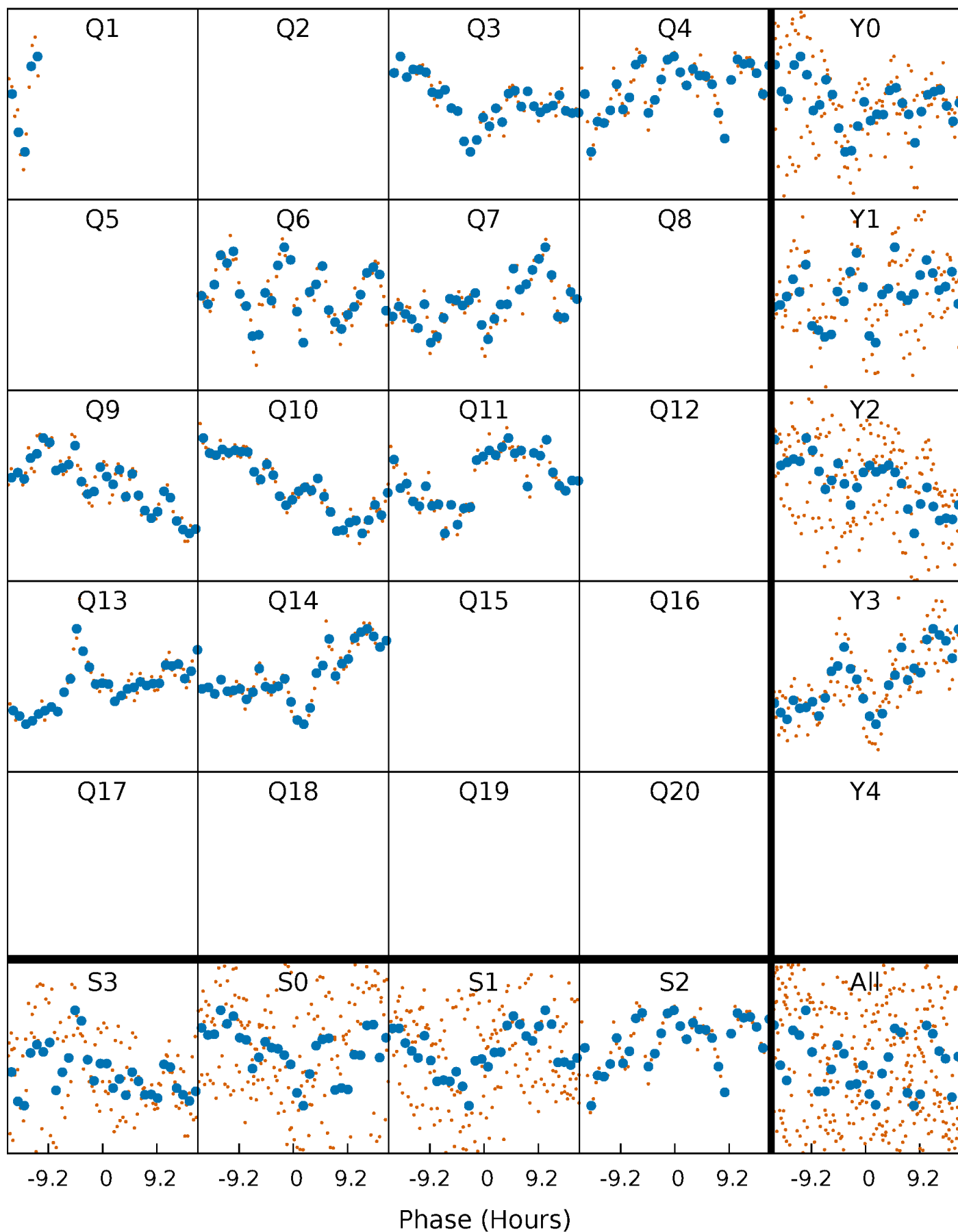


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



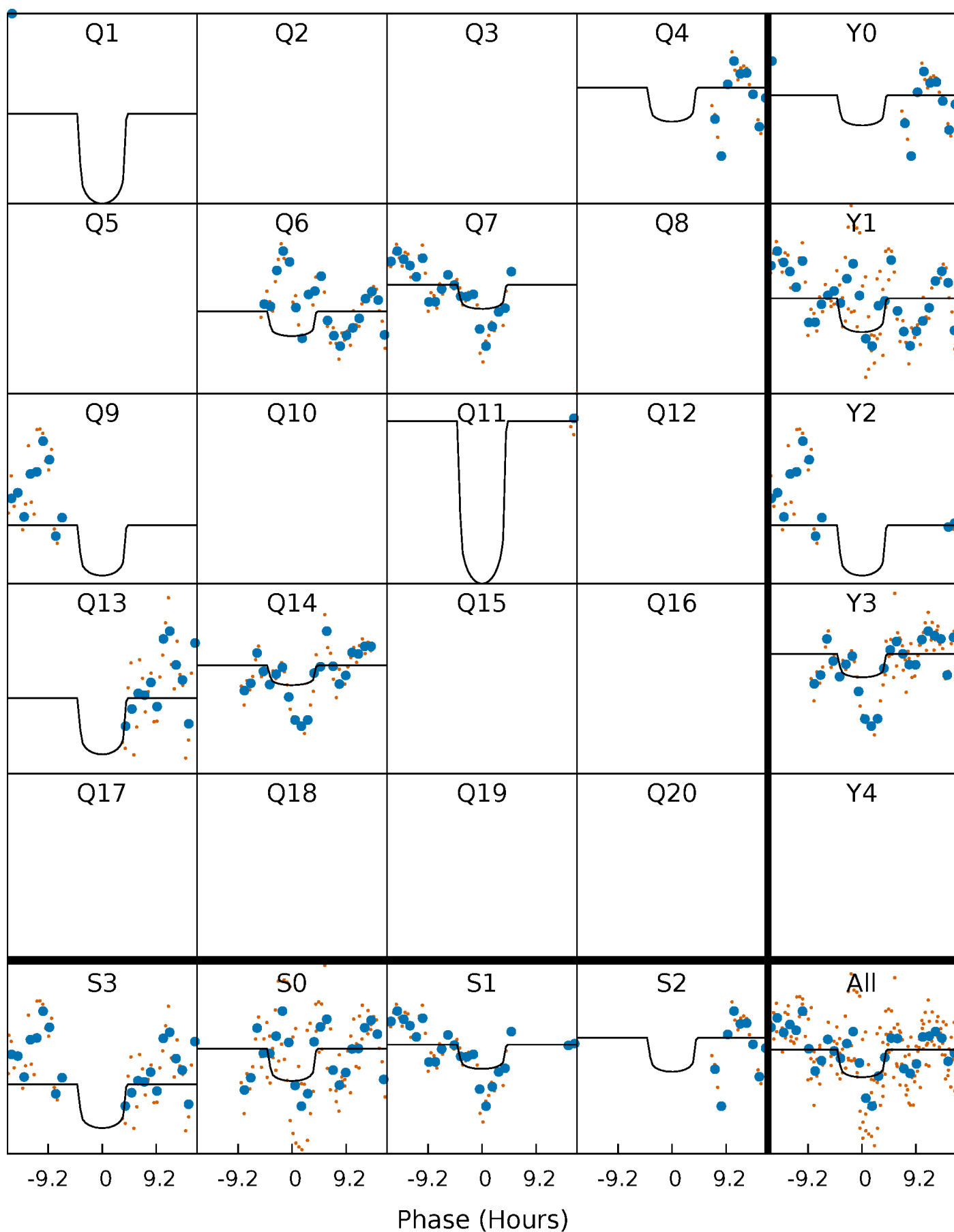
PDC Quarter-Phased Transit Curves

TCE 007907476-06 P=131.956442 Days $T_0=165.439846$ (BKJD)



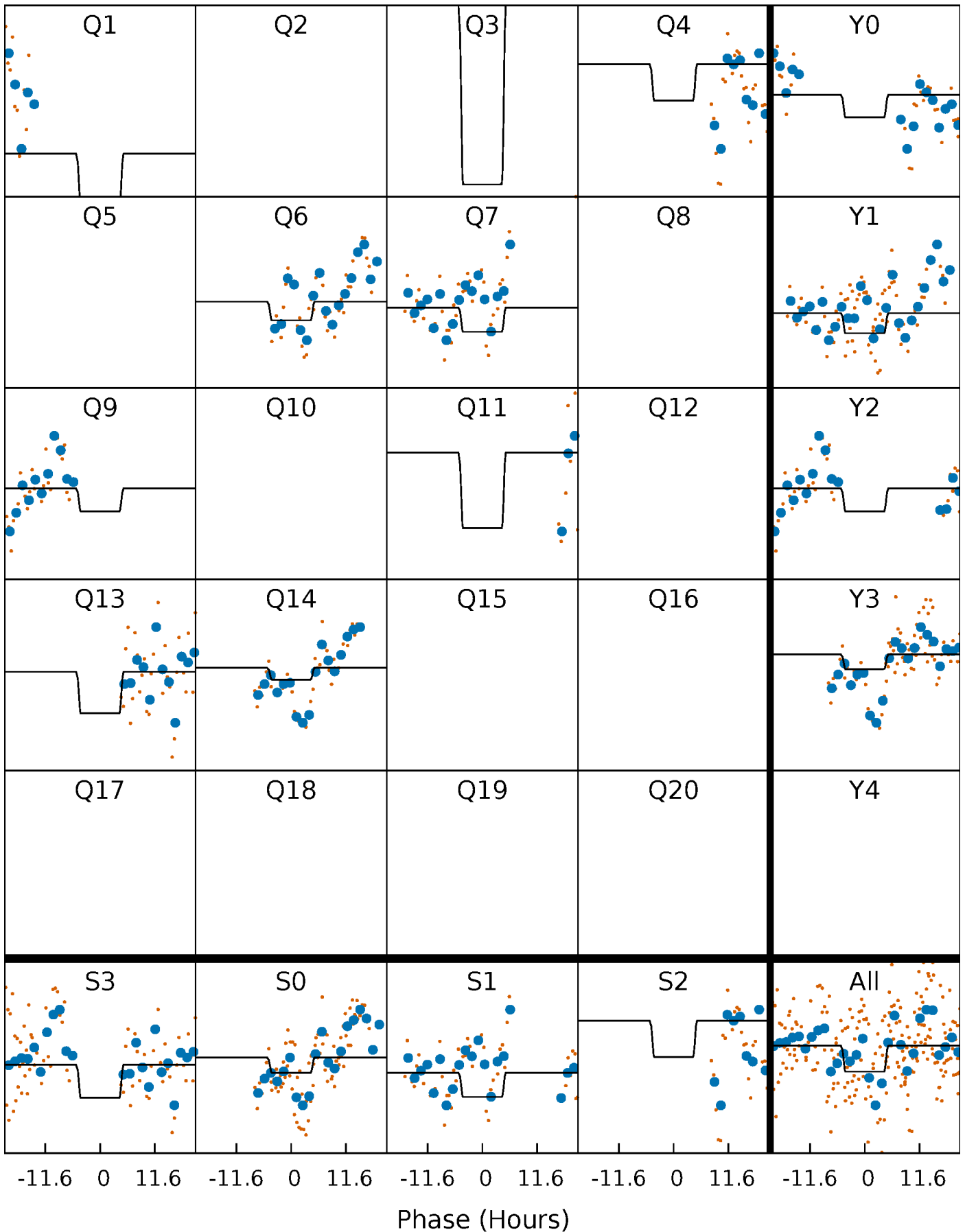
DV Quarter-Phased Transit Curves

TCE 007907476-06 P=131.956442 Days $T_0=165.439846$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

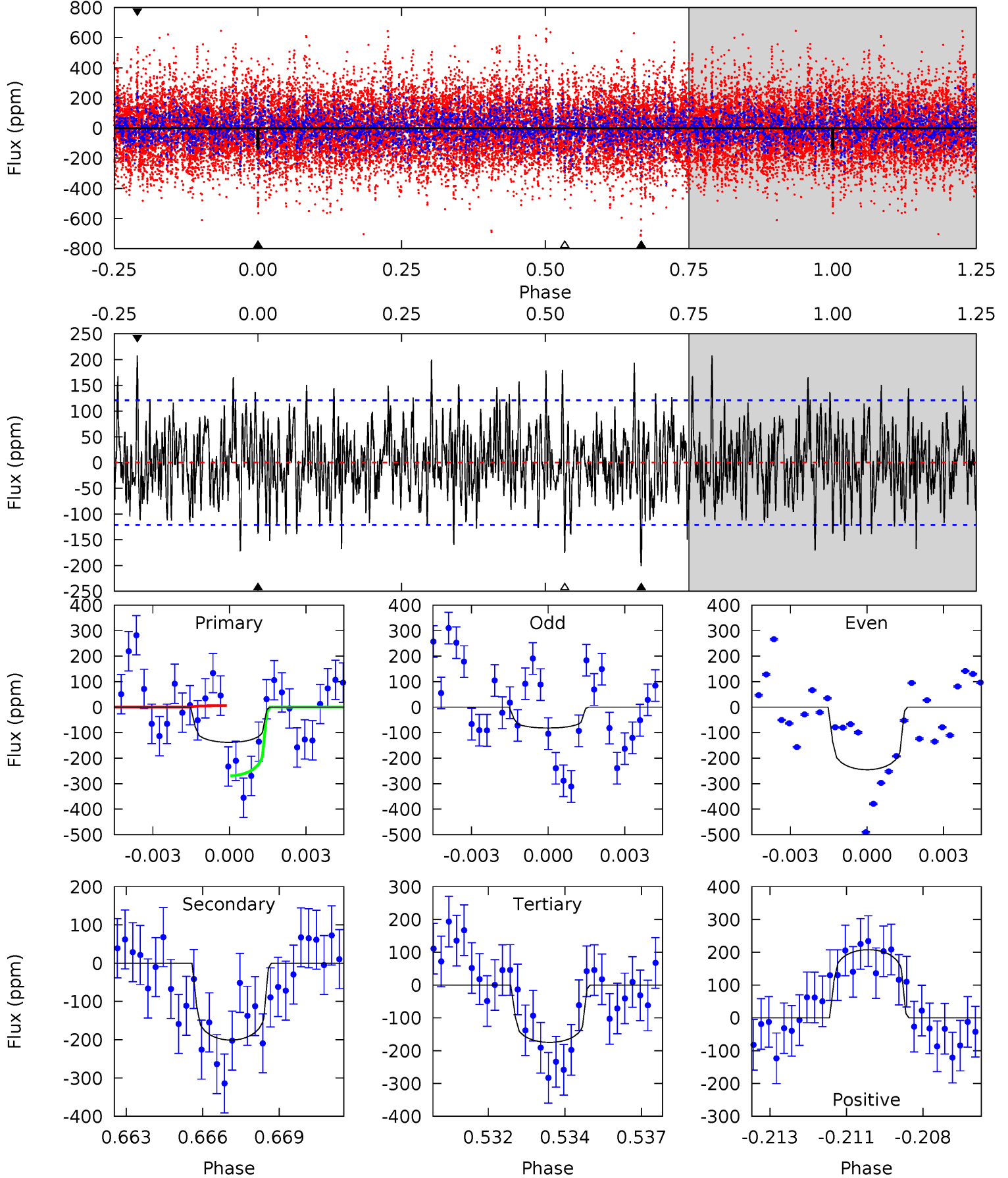
TCE 007907476-06 P=131.957716 Days $T_0=165.387320$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-06, P = 131.956442 Days, E = 33.483404 Days

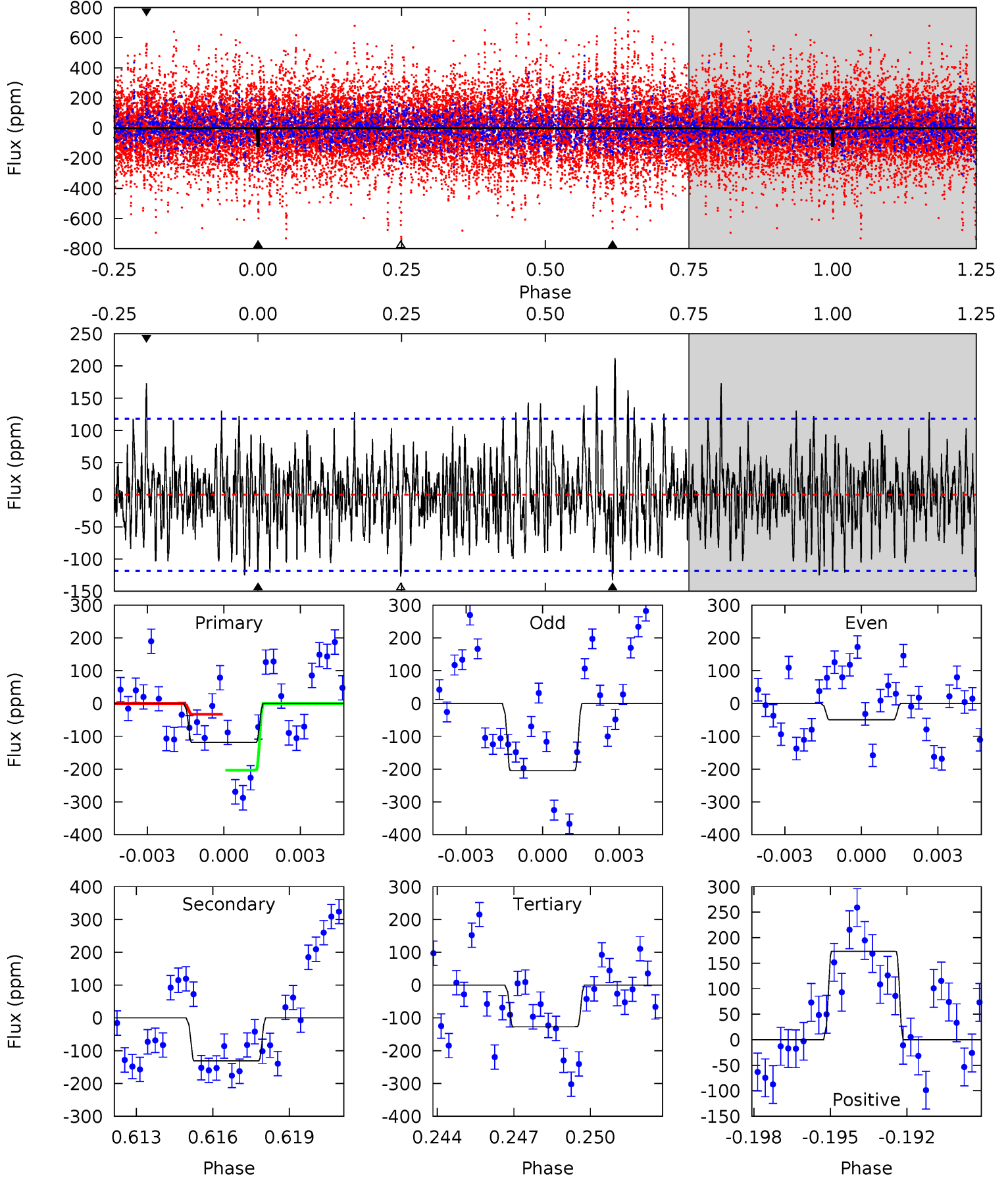
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.03	8.77	7.62	9.07	5.28	3.01	2.53	-1.60	-3.04	1.15	-0.30	3.45	0.68	0.51	5.72



Alt Model-Shift Uniqueness Test

007907476-06, P = 131.957716 Days, E = 33.429604 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.27	5.84	5.65	7.69	5.25	2.96	2.06	-0.38	-2.42	0.19	-1.85	3.34	1.18	0.62	3.77



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-201 ± 23	$4.98^{+2.98}_{-2.46}$	998^{+65}_{-113}	6788^{+3357}_{-1299}	1558^{+4572}_{-933}
Alt.	-132 ± 23	$4.32^{+2.81}_{-2.24}$	1006^{+62}_{-107}	6599^{+3540}_{-1366}	1353^{+3813}_{-860}

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

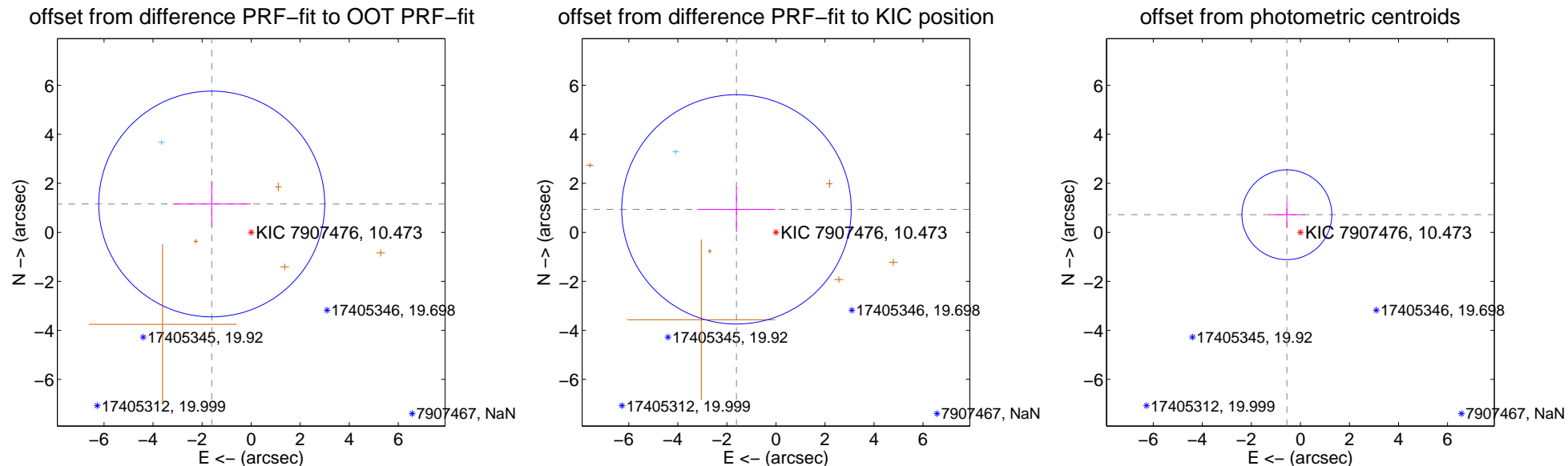
DV Centroid Data

Supplemental centroid analysis for 007907476-06. **Kepler magnitude: 10.47.** Transit SNR 4.86

There are 1 quarters with good PRF difference image offsets

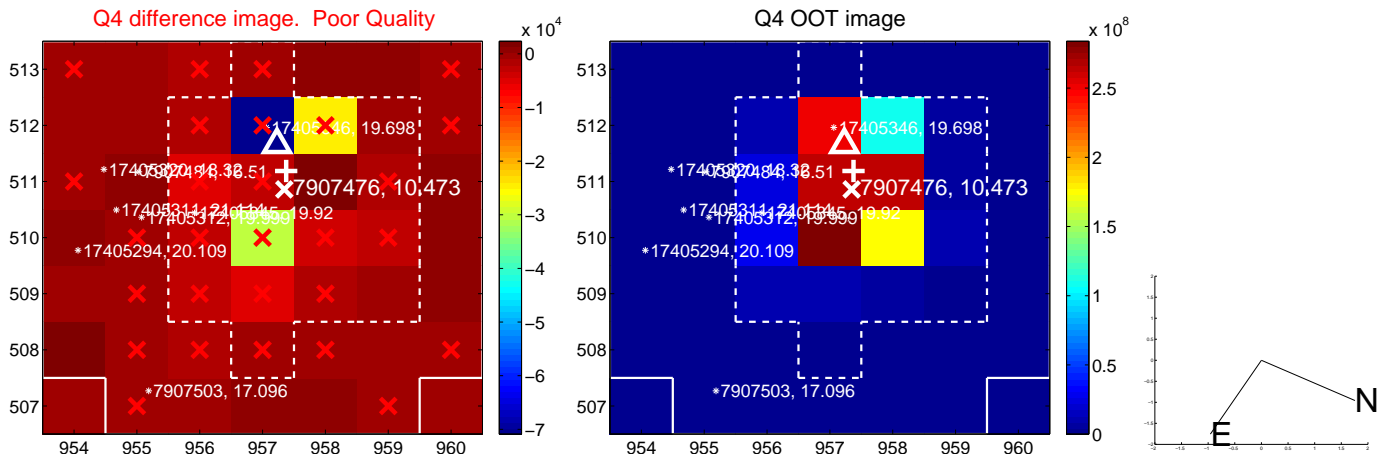
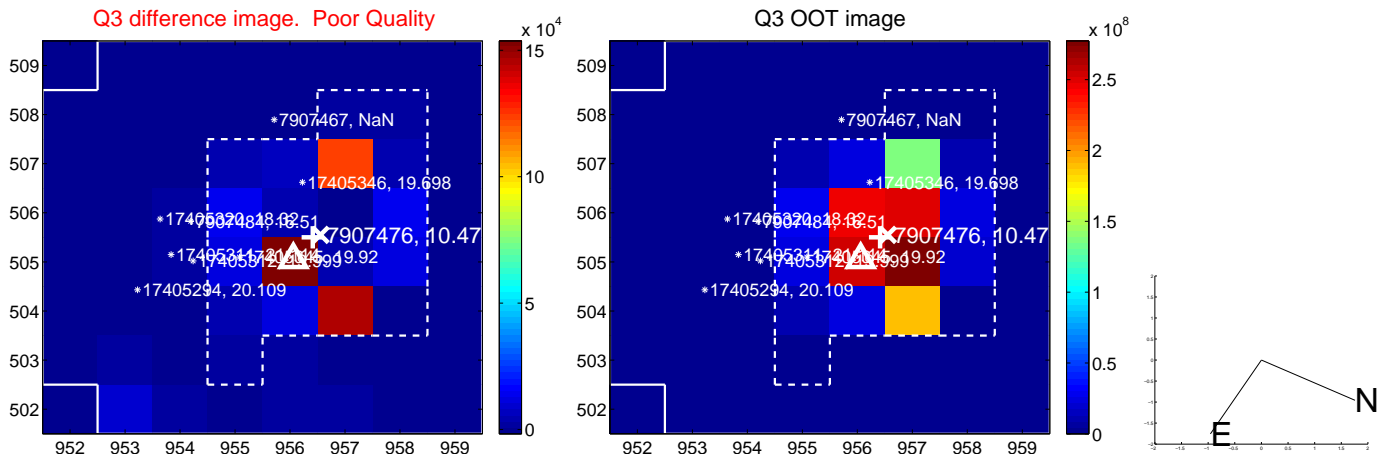
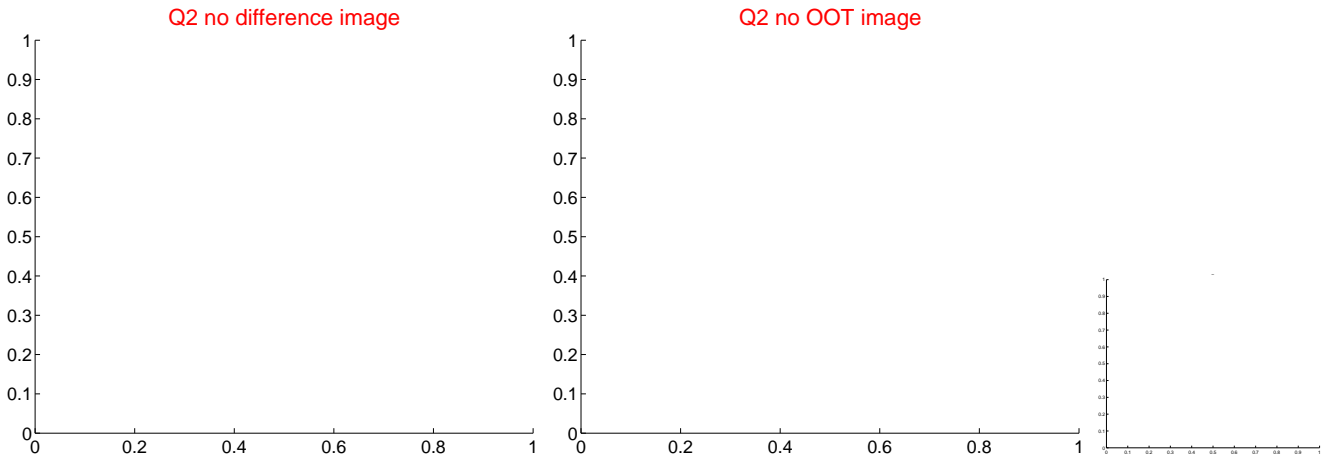
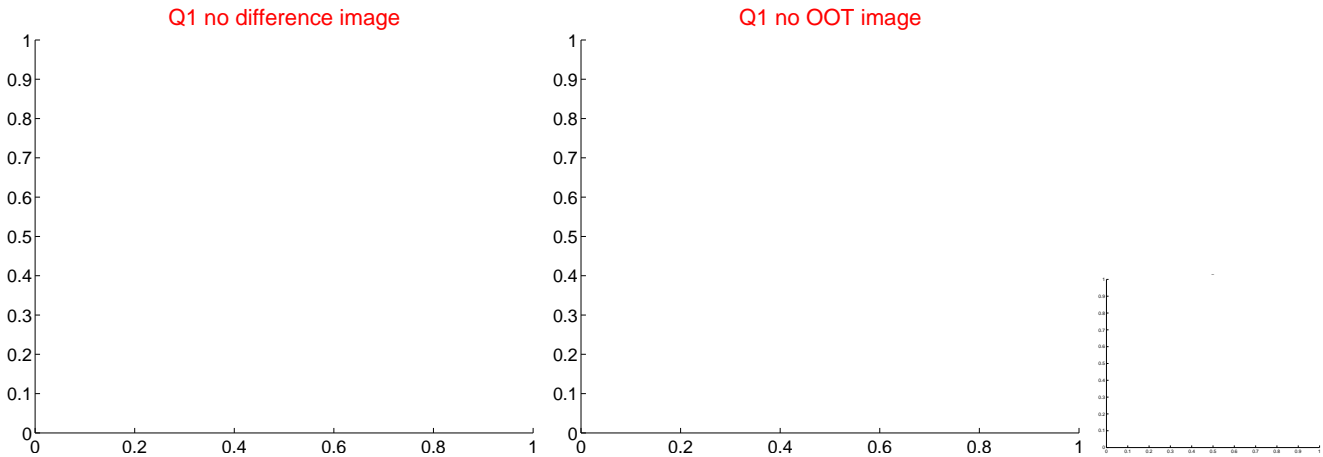
The direct PRF centroid is offset from the target star catalog position by about 1.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.981 ± 1.536	1.29	1.608 ± 1.590	1.157 ± 0.944
PRF-fit source offset from KIC position	1.863 ± 1.560	1.19	1.610 ± 1.585	0.937 ± 0.932
photometric centroid source offset	0.91 ± 0.61	1.48	0.55 ± 0.74	0.72 ± 0.52



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.

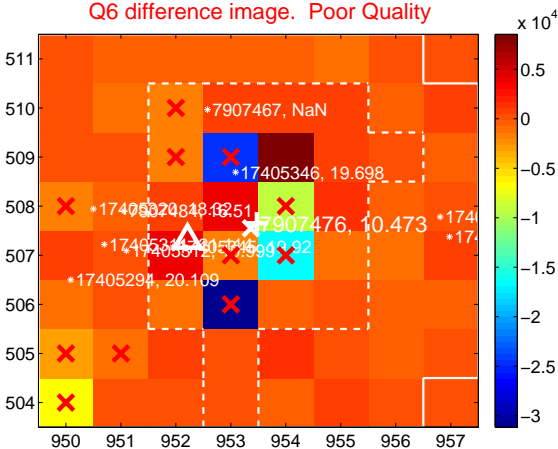
Q5 no difference image



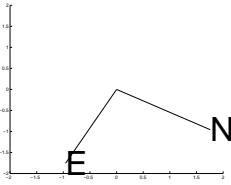
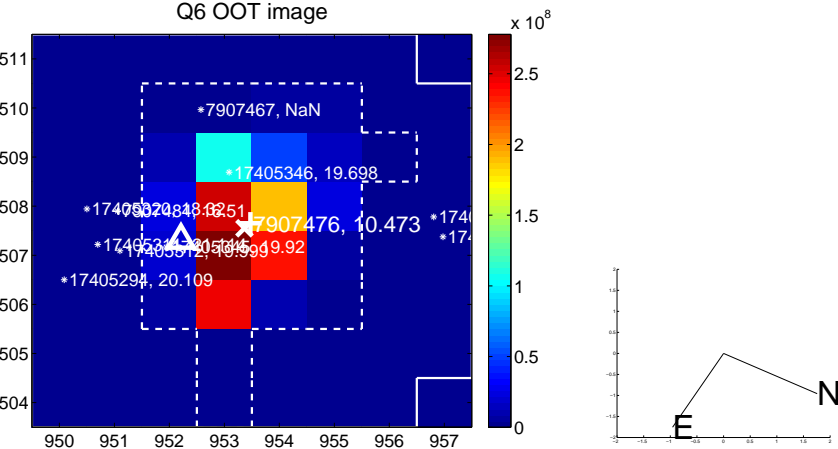
Q5 no OOT image



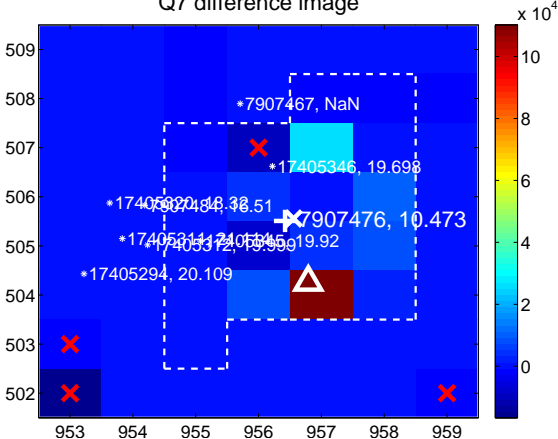
Q6 difference image. Poor Quality



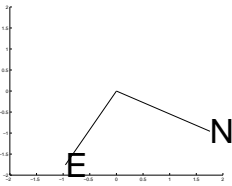
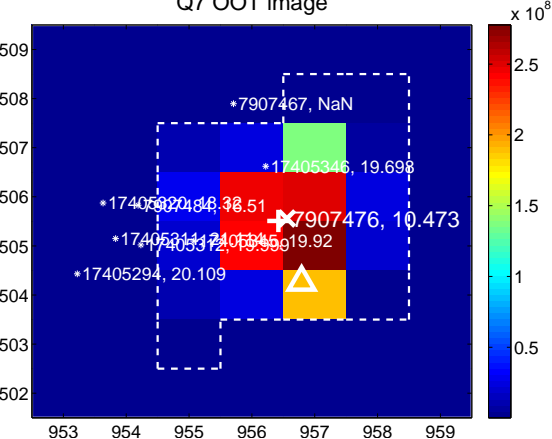
Q6 OOT image



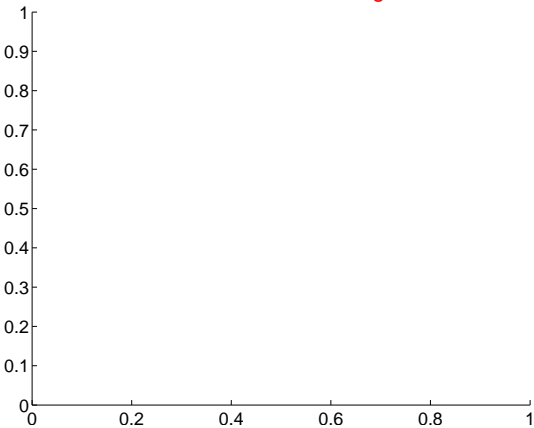
Q7 difference image



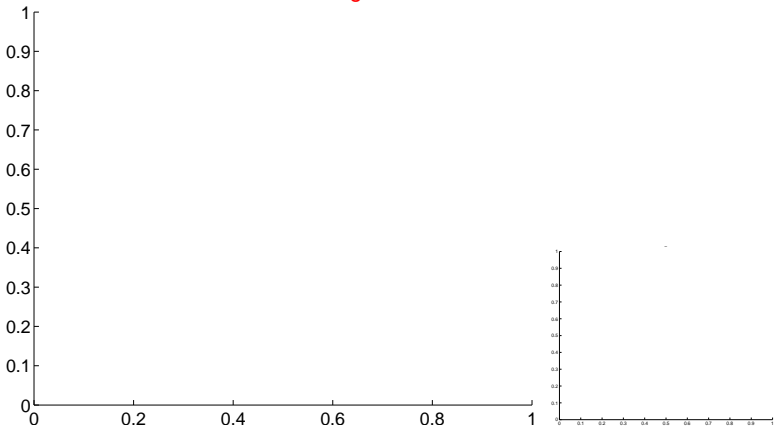
Q7 OOT image



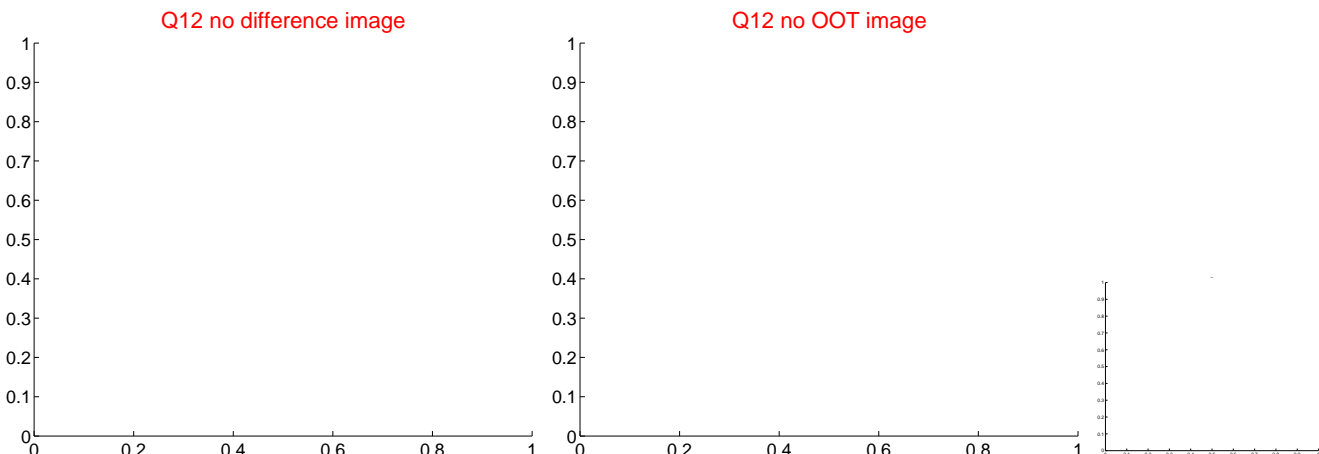
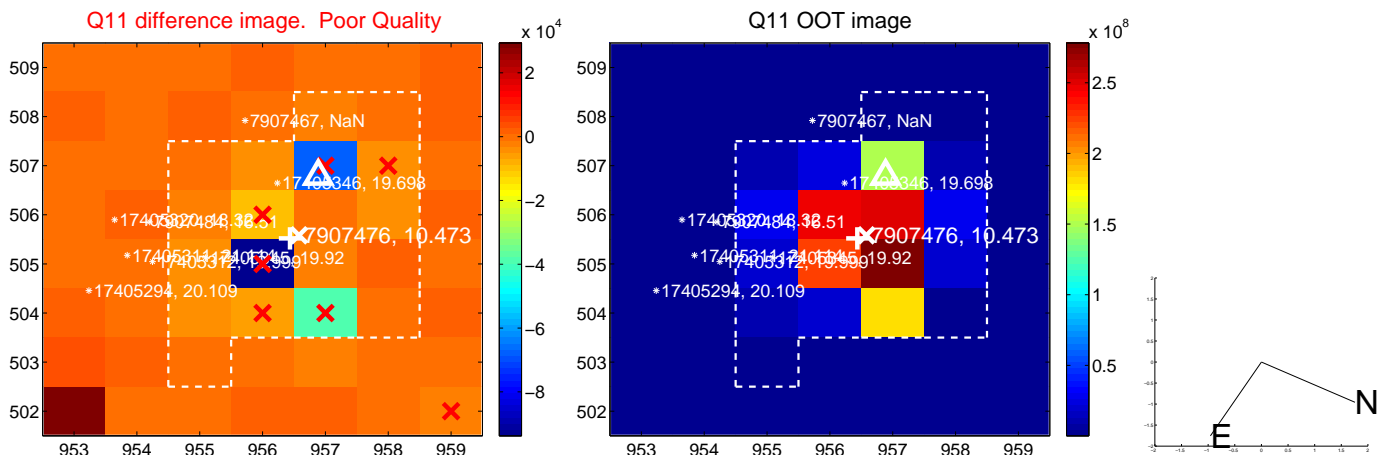
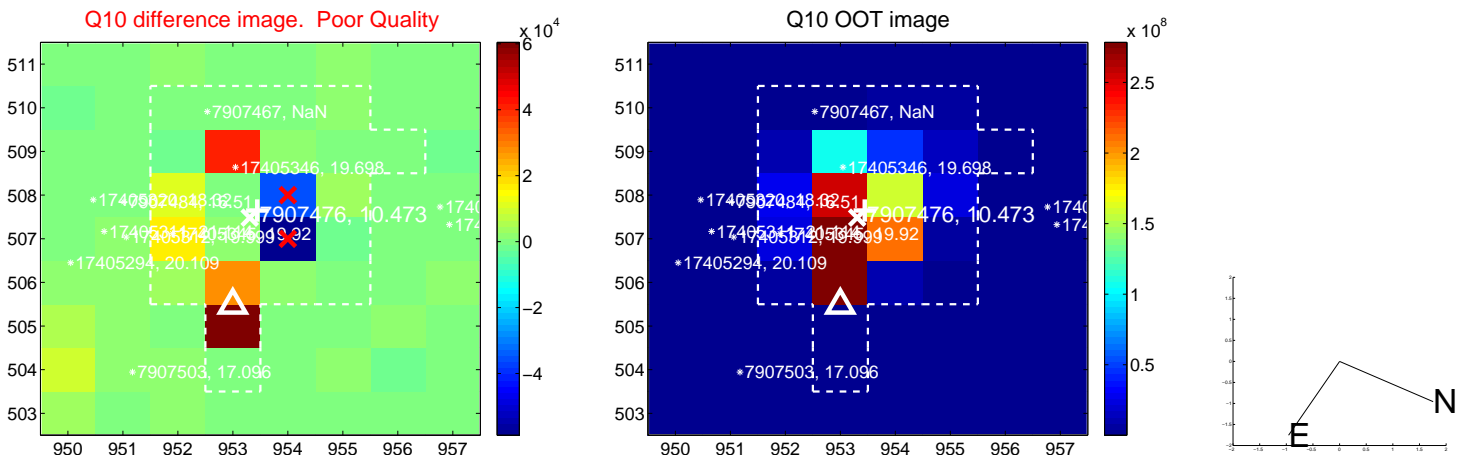
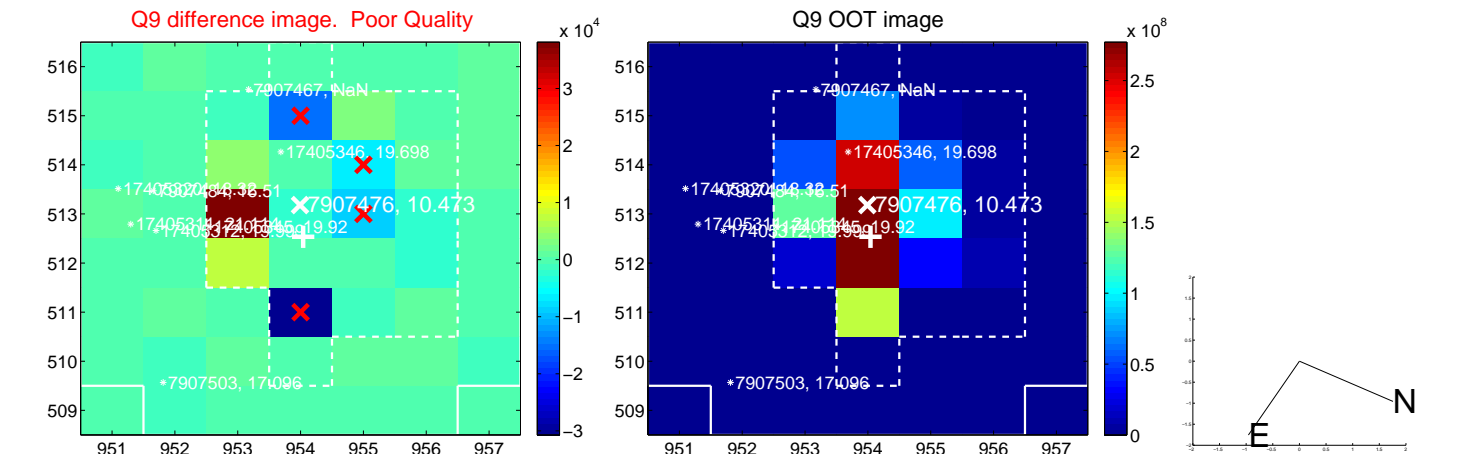
Q8 no difference image



Q8 no OOT image

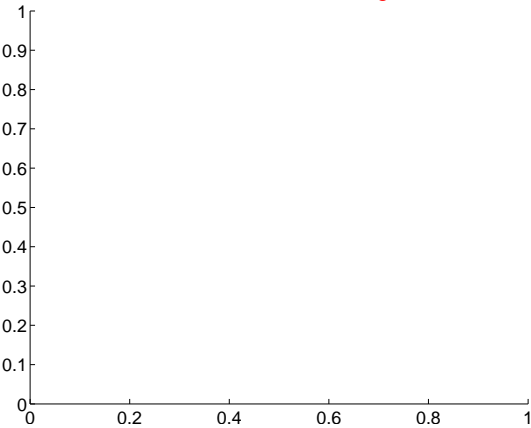


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

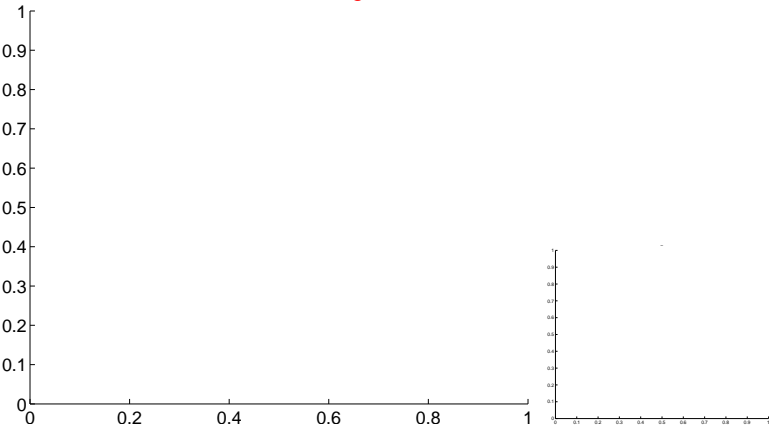


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

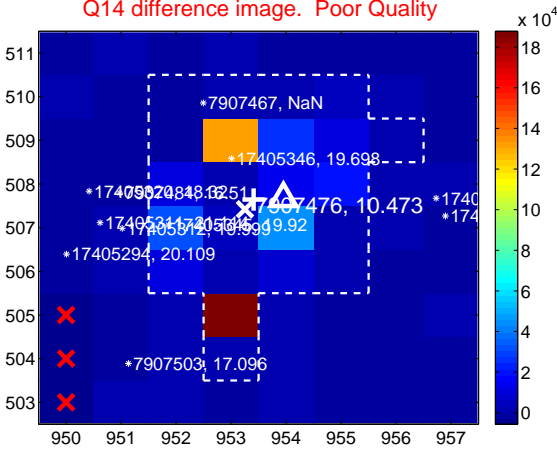
Q13 no difference image



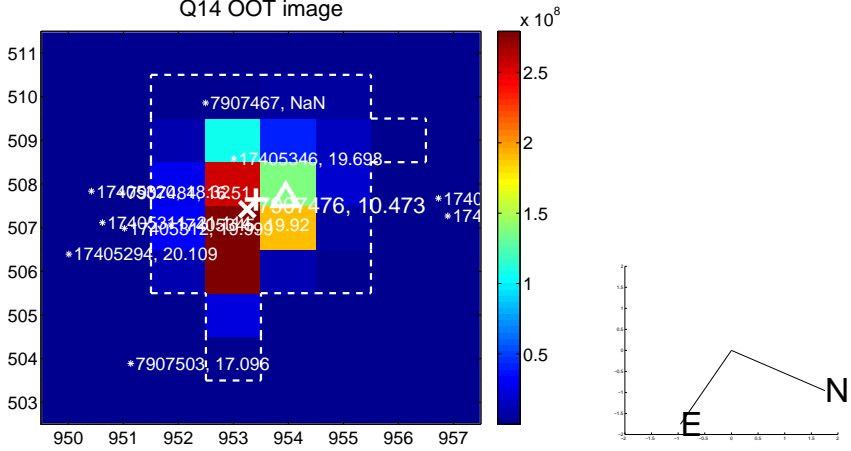
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



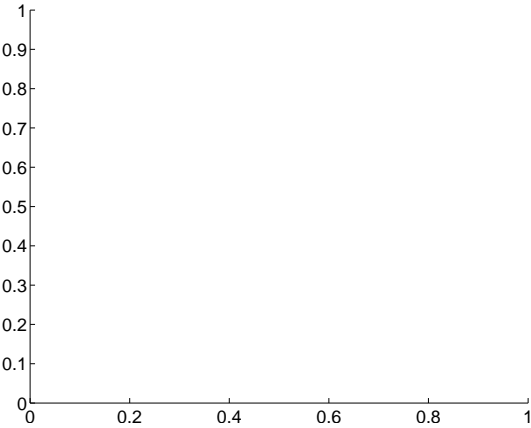
Q15 no difference image



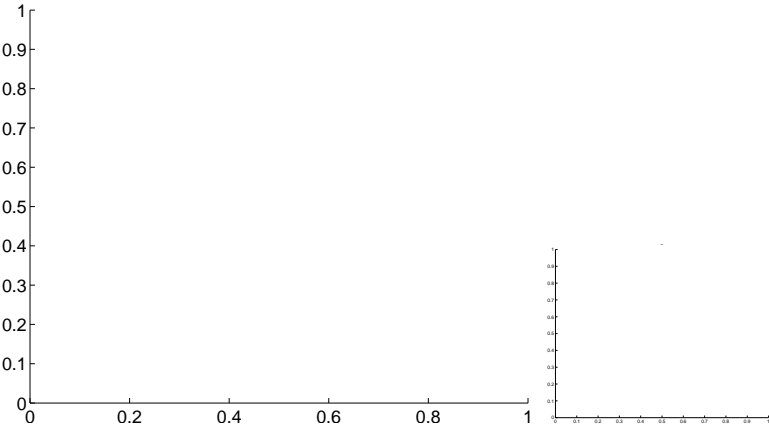
Q15 no OOT image



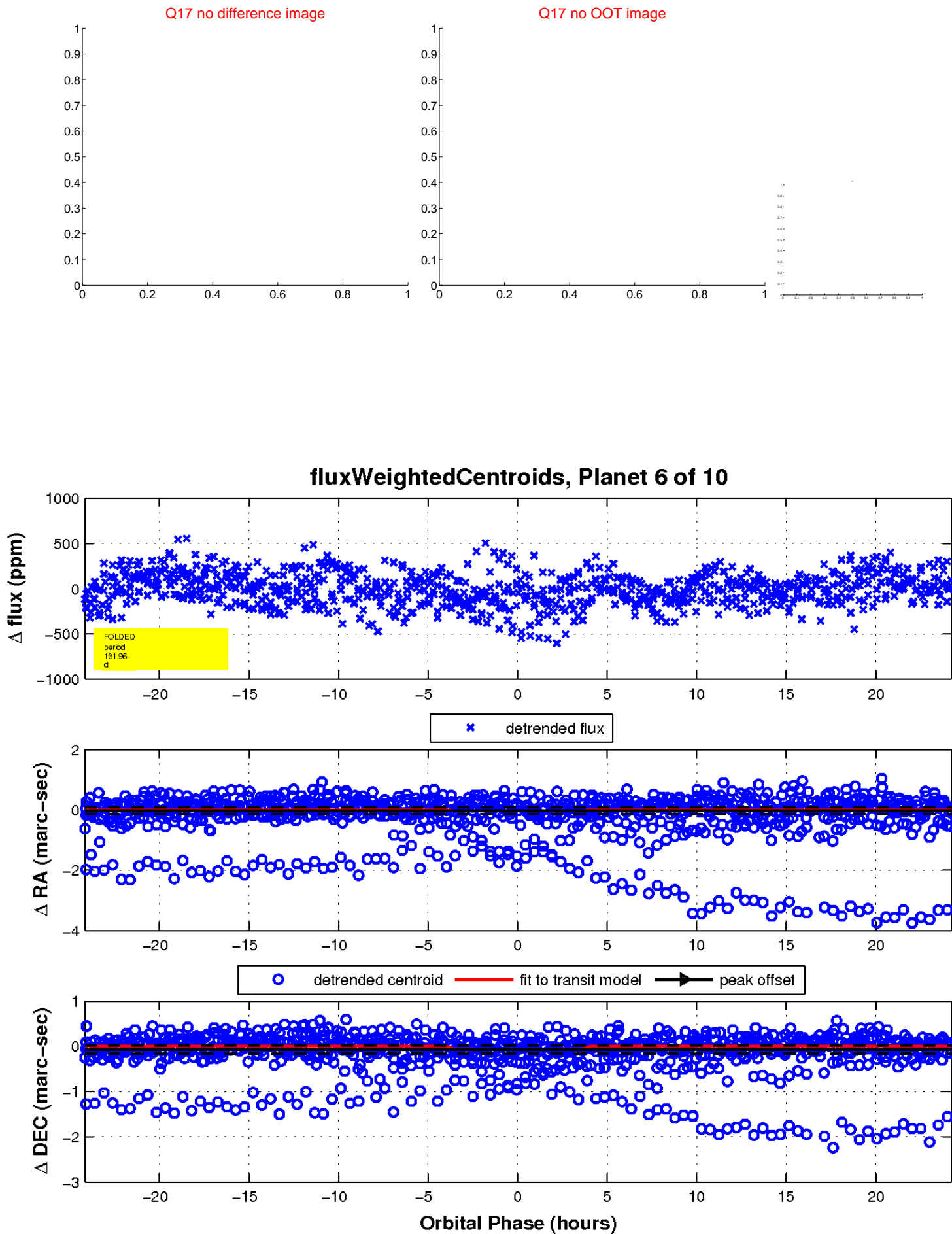
Q16 no difference image



Q16 no OOT image

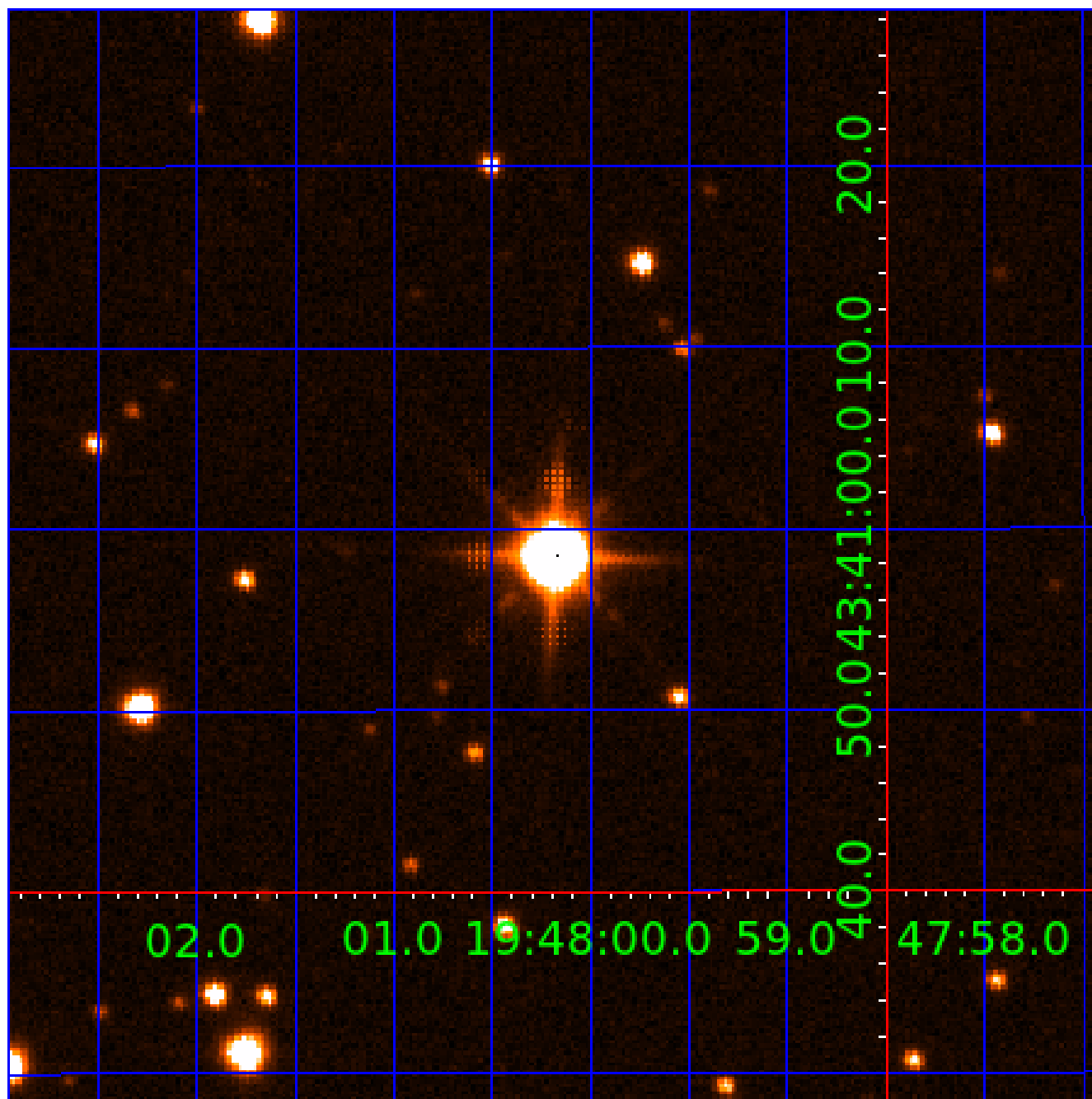


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

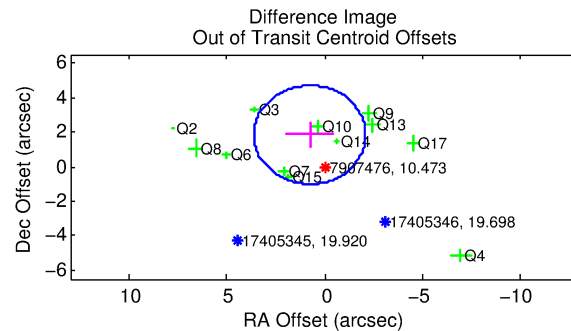
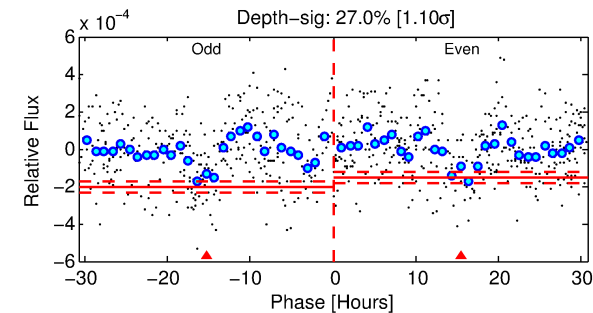
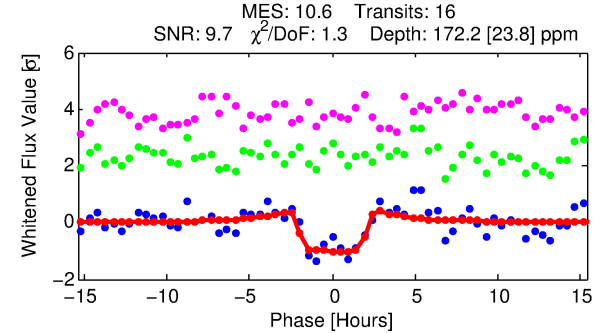
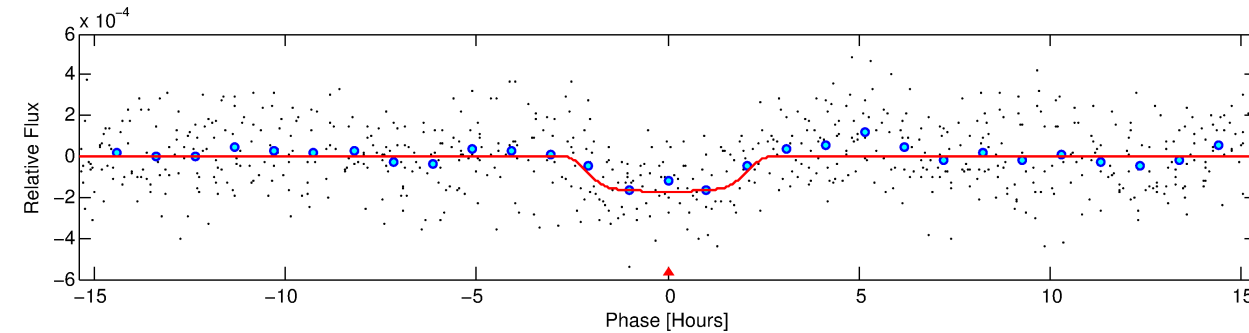
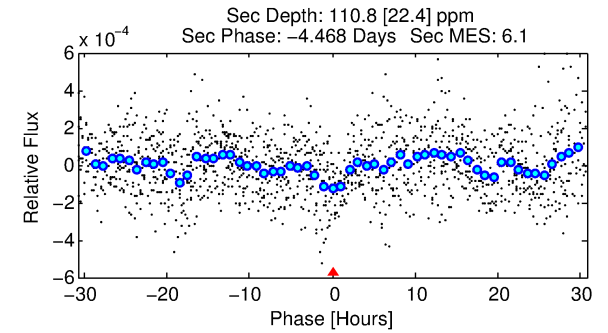
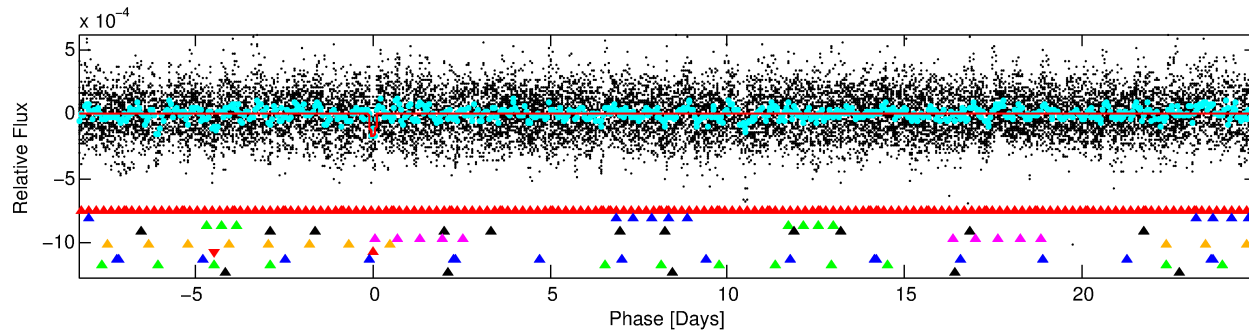
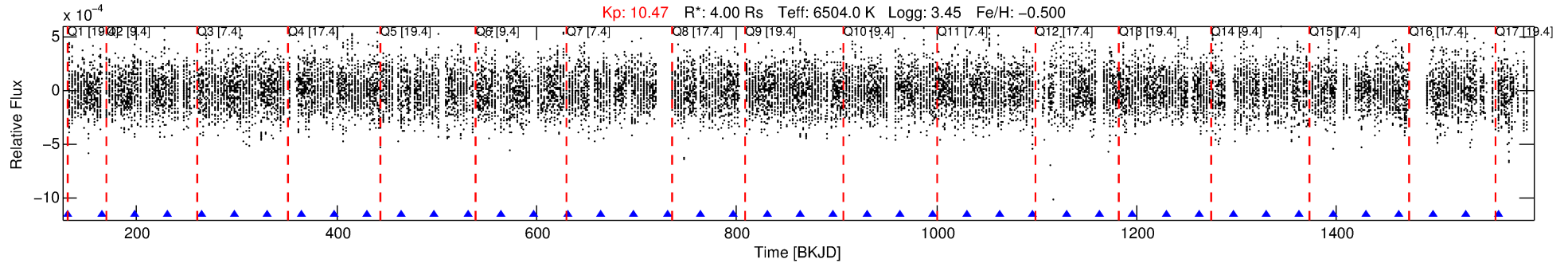
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-07

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 7 of 10 Period: 33.273 d



DV Fit Results:

Period = 33.27250 [0.00042] d
Epoch = 131.7119 [0.0101] BKJD
 R_p/R^* = 0.0152 [0.0014]
 a/R^* = 15.57 [4.81]
 b = 0.97 [0.02]
 Seff = 449.19 [320.10]
 T_{eq} = 1174 [209] K
 R_p = 6.66 [2.99] R_e
 a = 0.2392 [0.1036] AU
 A_g = 78.61 [59.34] [1.31σ]
 T_{effp} = 5404 [406] K [9.26σ]

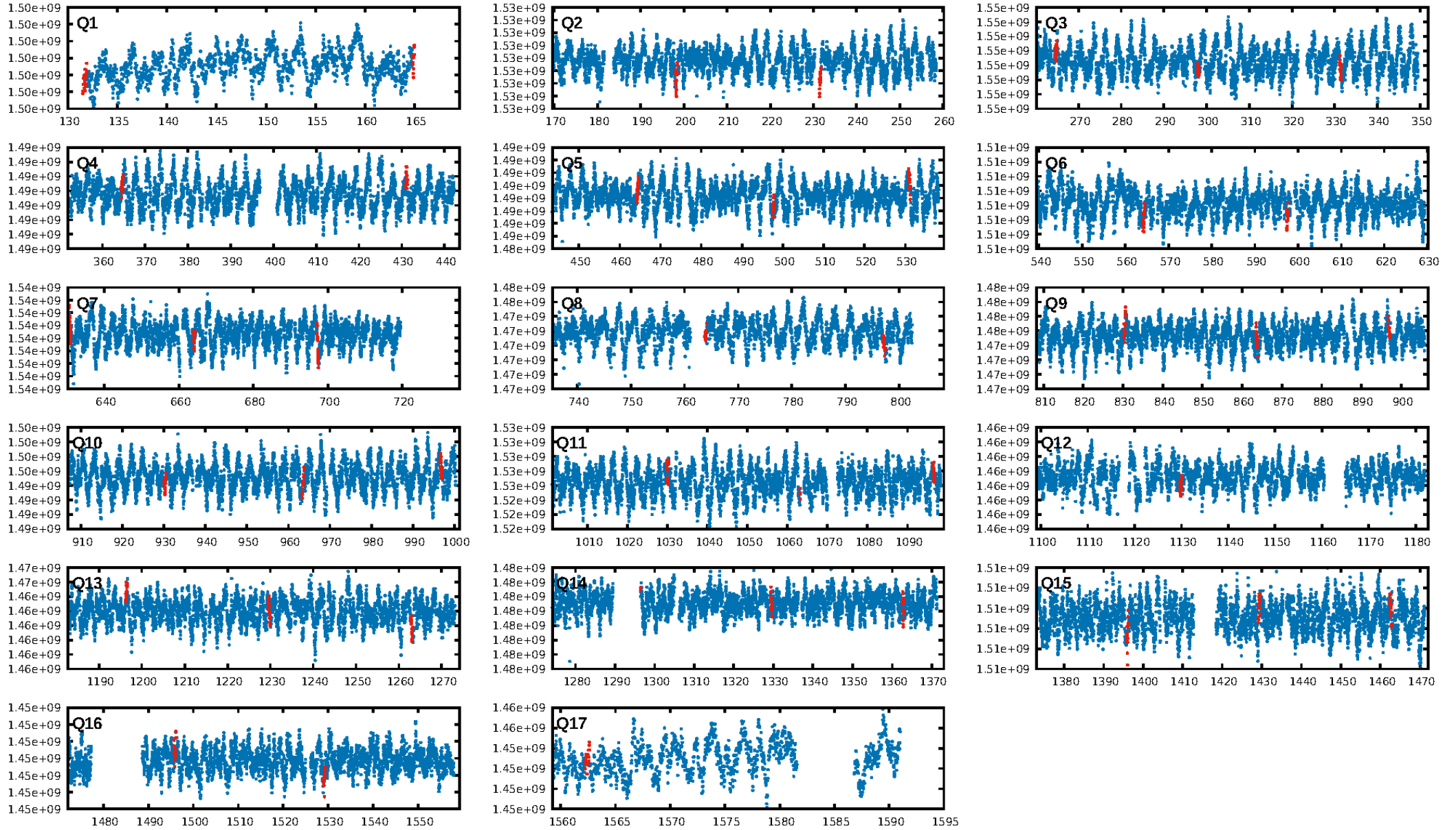
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [45.47σ]
LongPeriod-sig: 100.0% [153.77σ]
ModelChiSquare2-sig: 15.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 0.3641
Centroid-sig: 11.8%
Centroid-so: 0.483 arcsec [1.78σ]
OotOffset-rm: 1.994 arcsec [2.10σ]
KicOffset-rm: 2.009 arcsec [2.59σ]
OotOffset-st: 4/3/2/3 [12]
KicOffset-st: 4/3/2/3 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 0.64 [9/14]

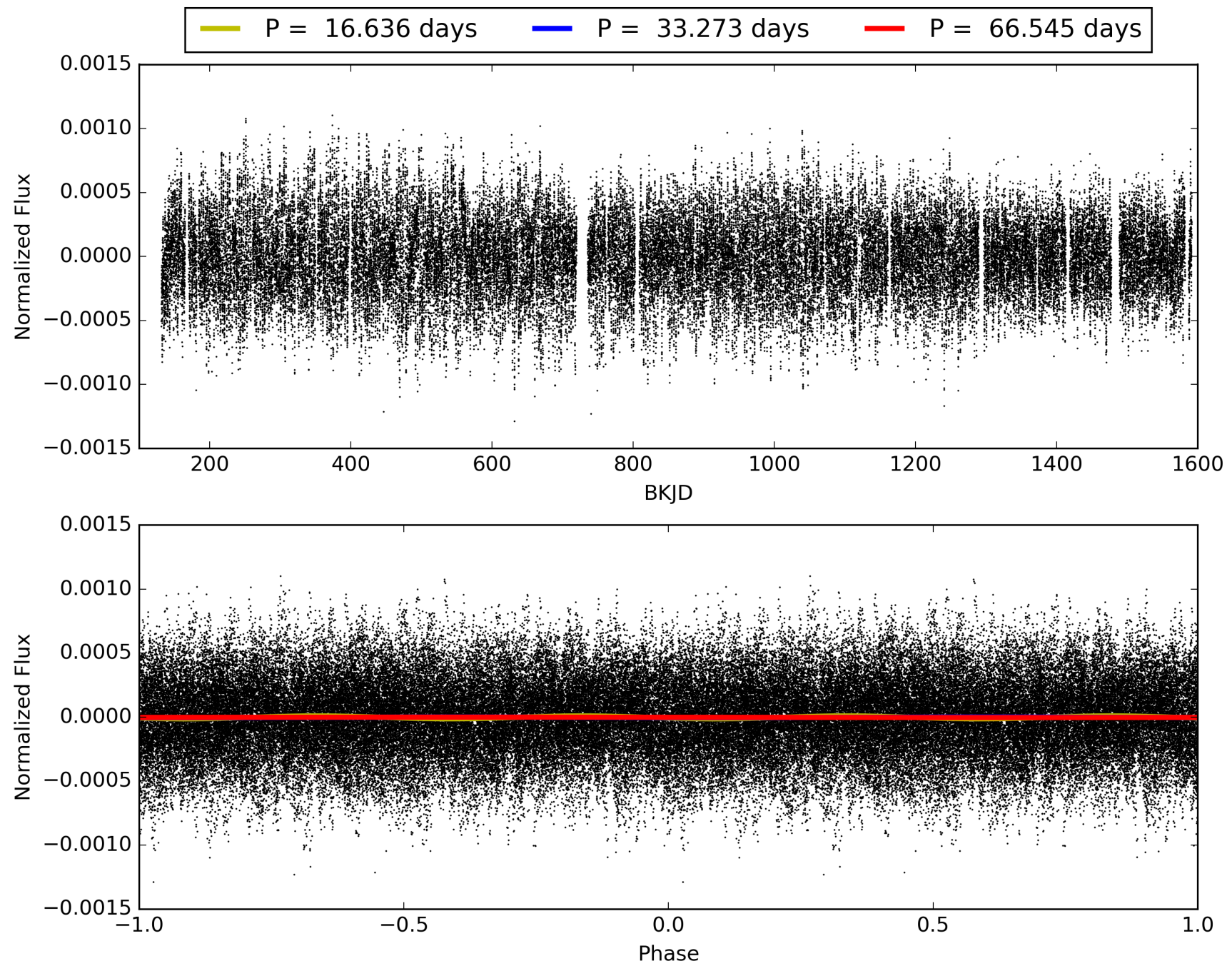
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:21 Z

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

TCE 007907476-07, PDC Light Curves

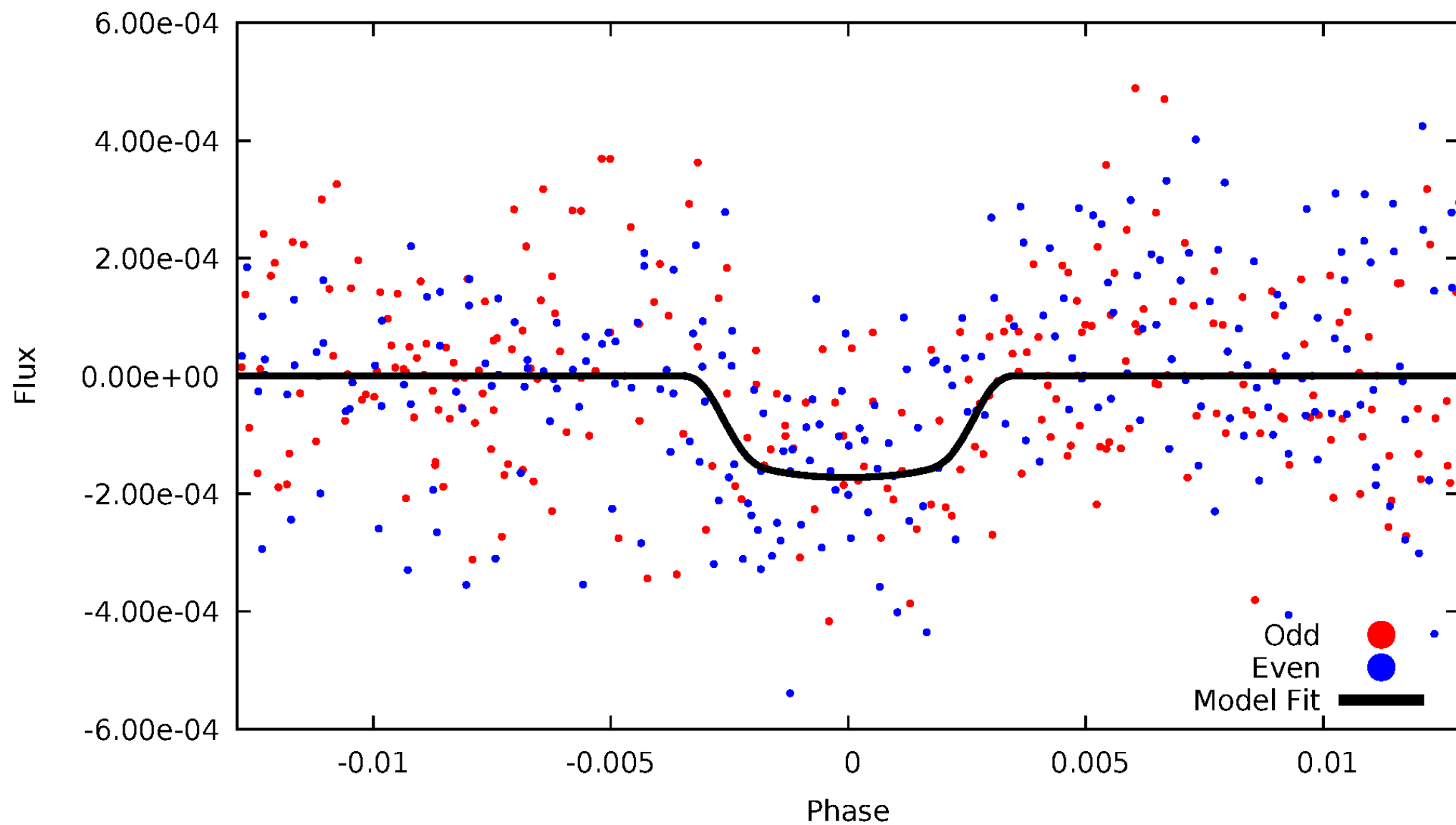


TCE 007907476-07



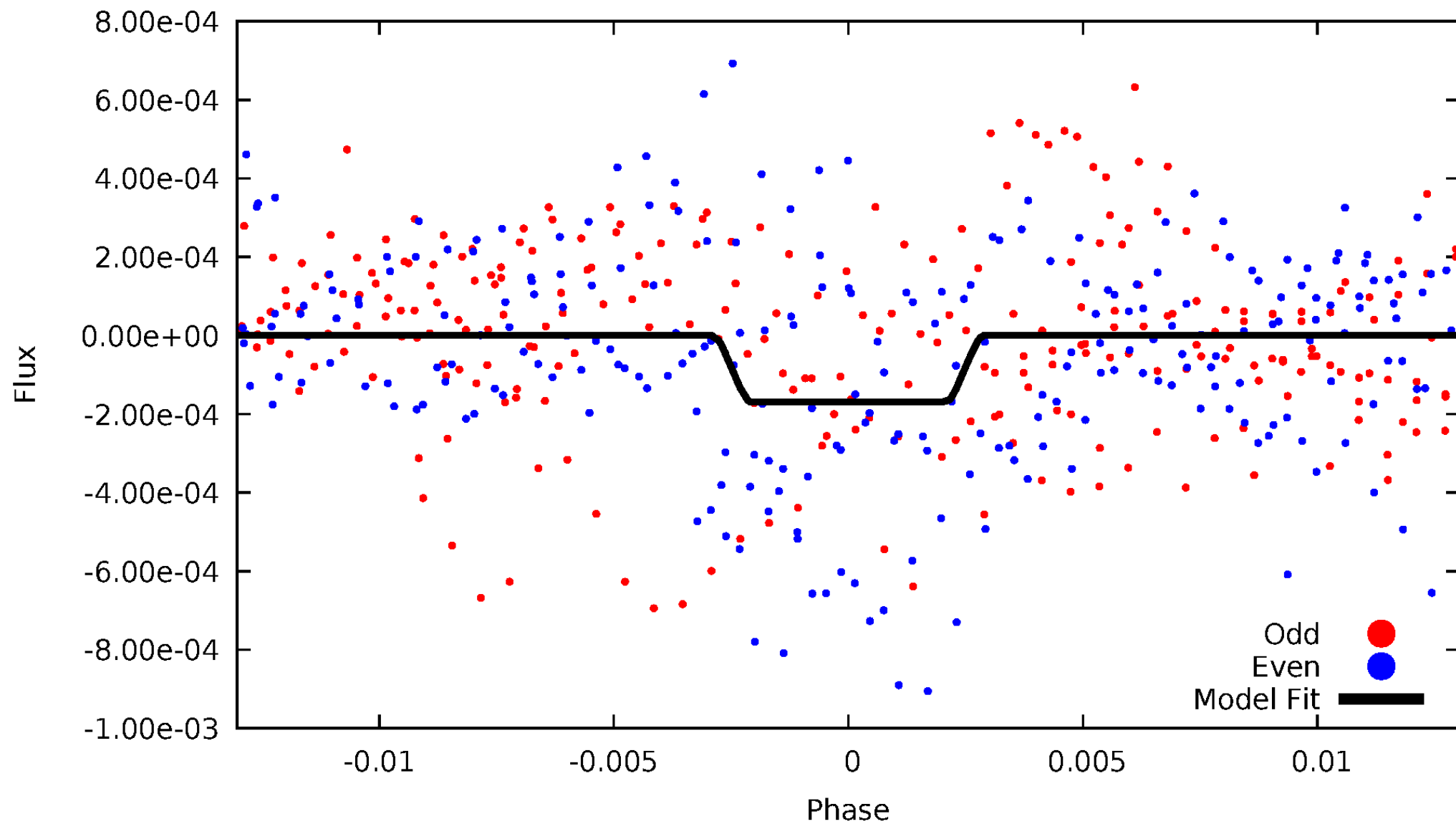
DV Odd/Even

TCE 007907476-07



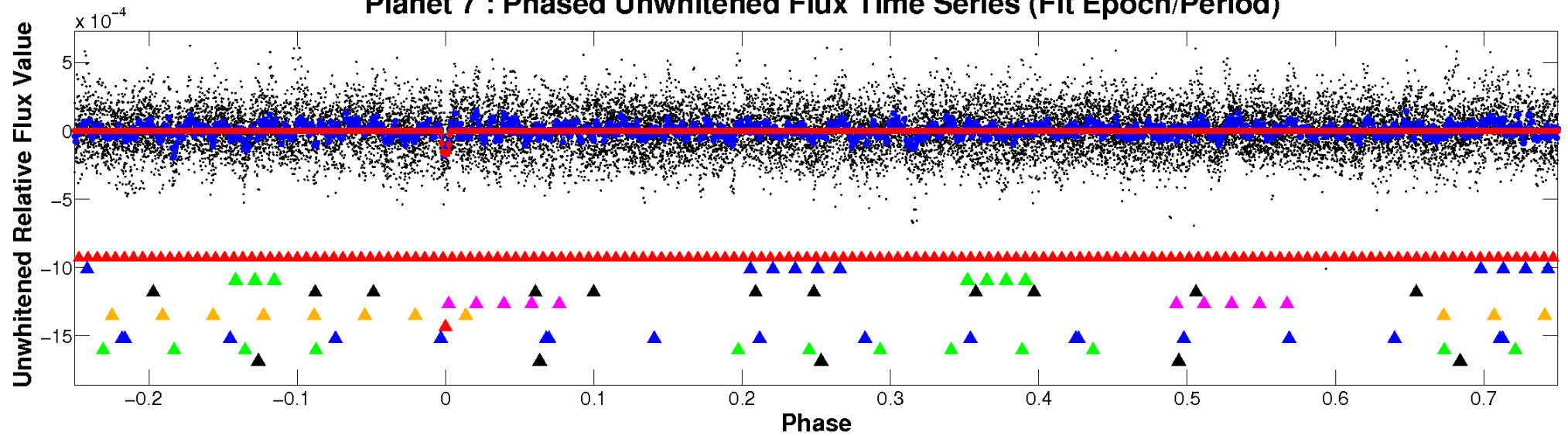
ALT Odd/Even

TCE 007907476-07

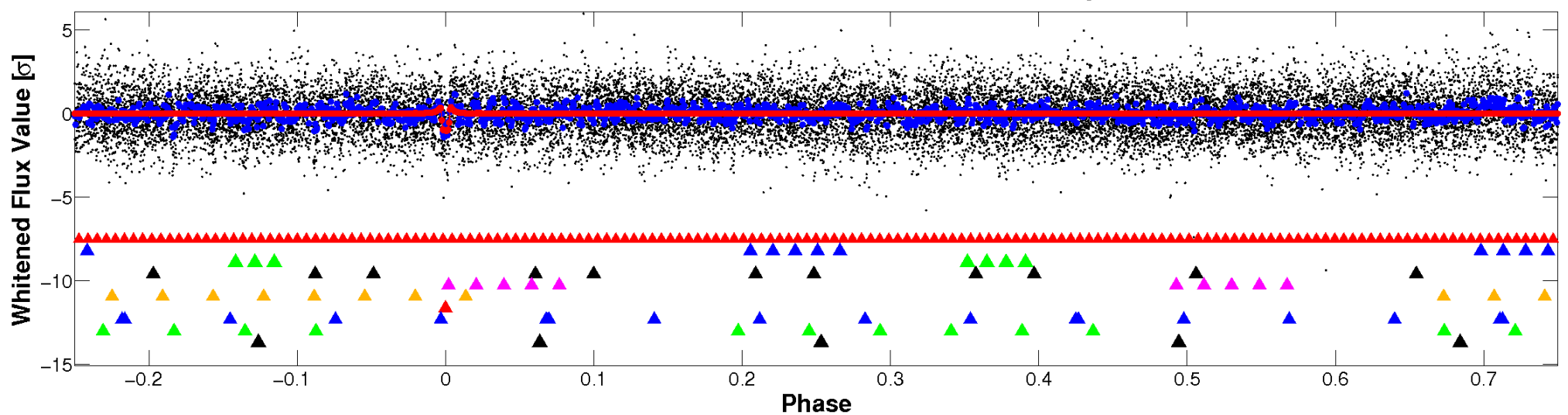


Non-Whitened Vs. Whitened Light Curve

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

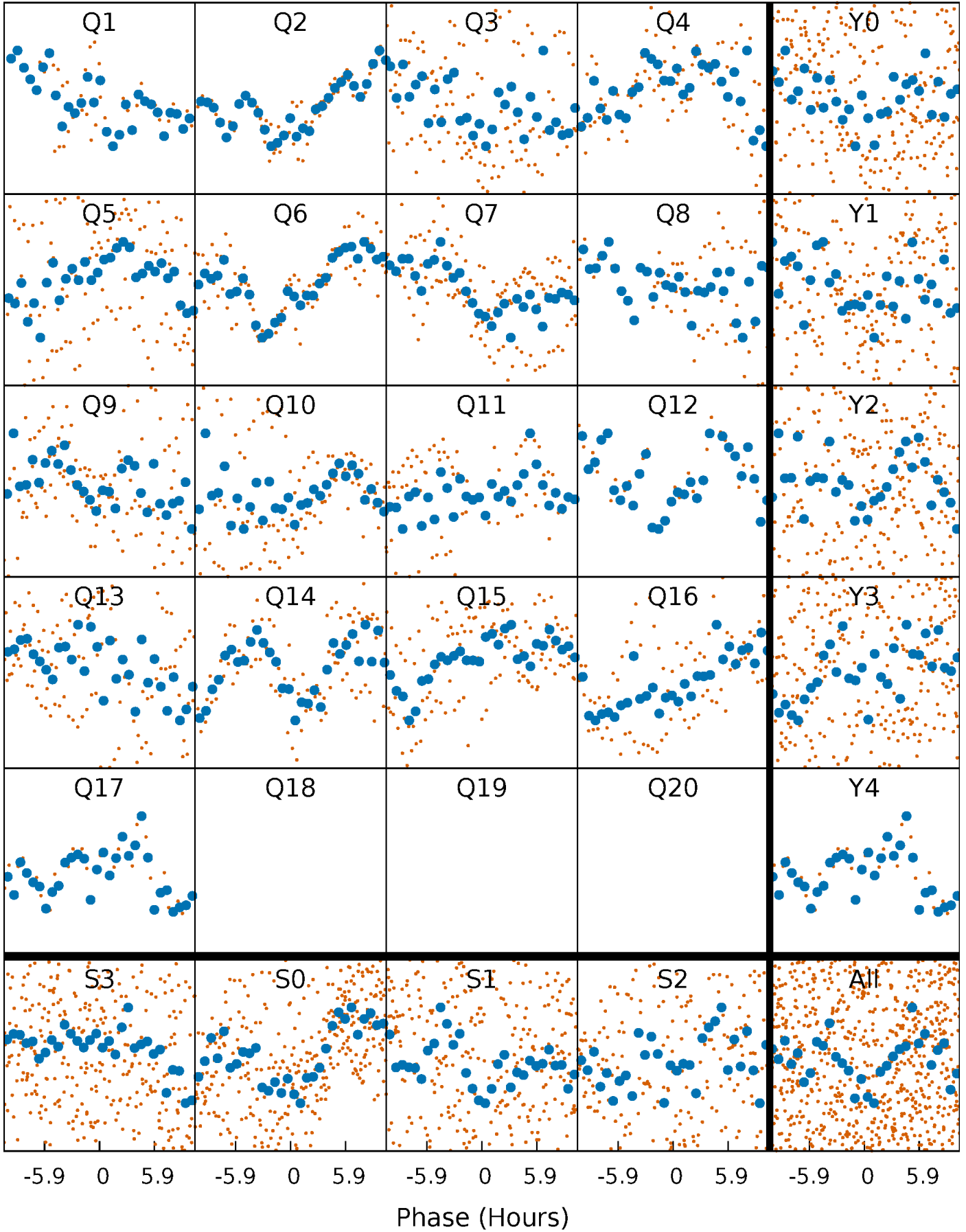


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



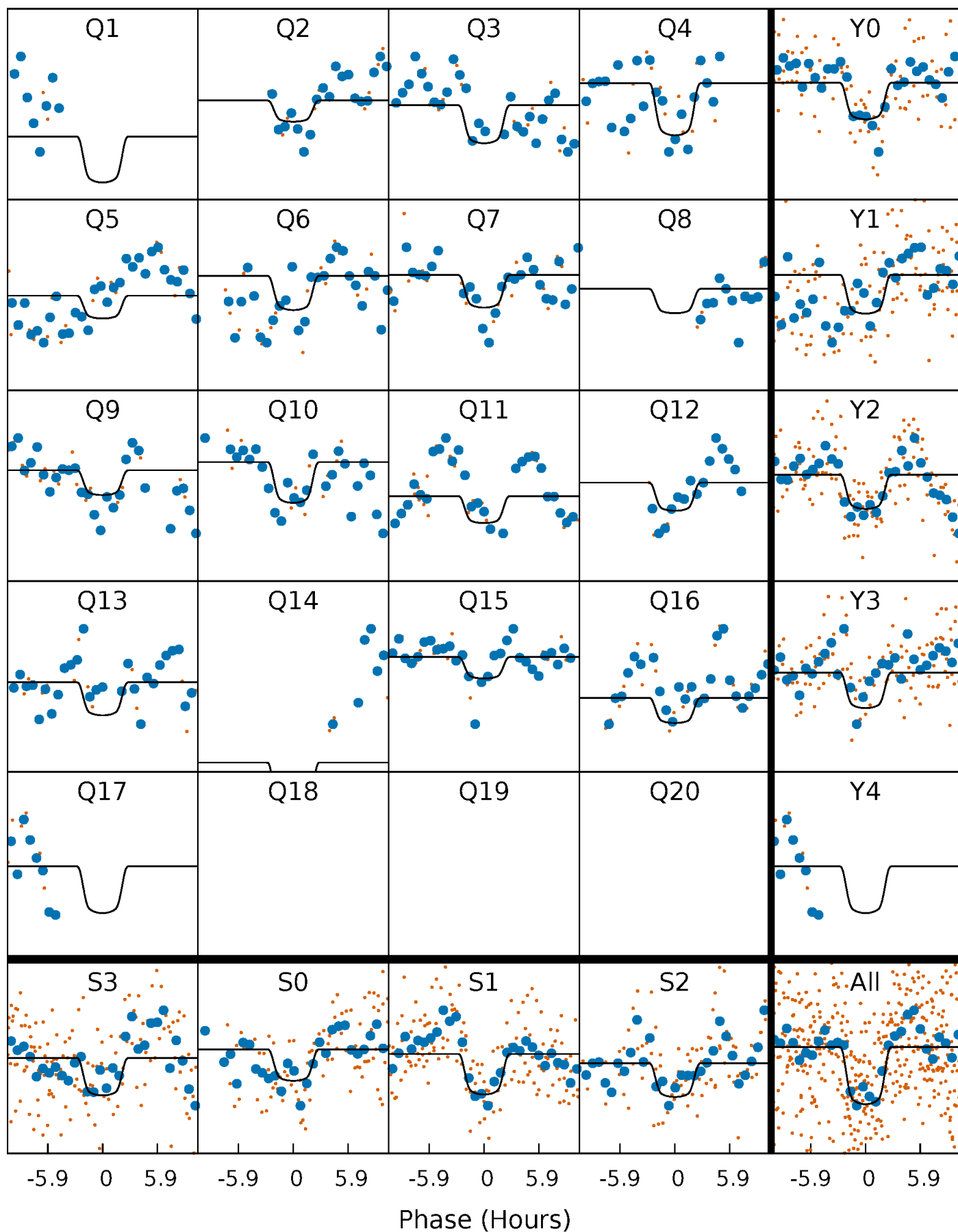
PDC Quarter-Phased Transit Curves

TCE 007907476-07 P= 33.272501 Days $T_0=131.711948$ (BKJD)



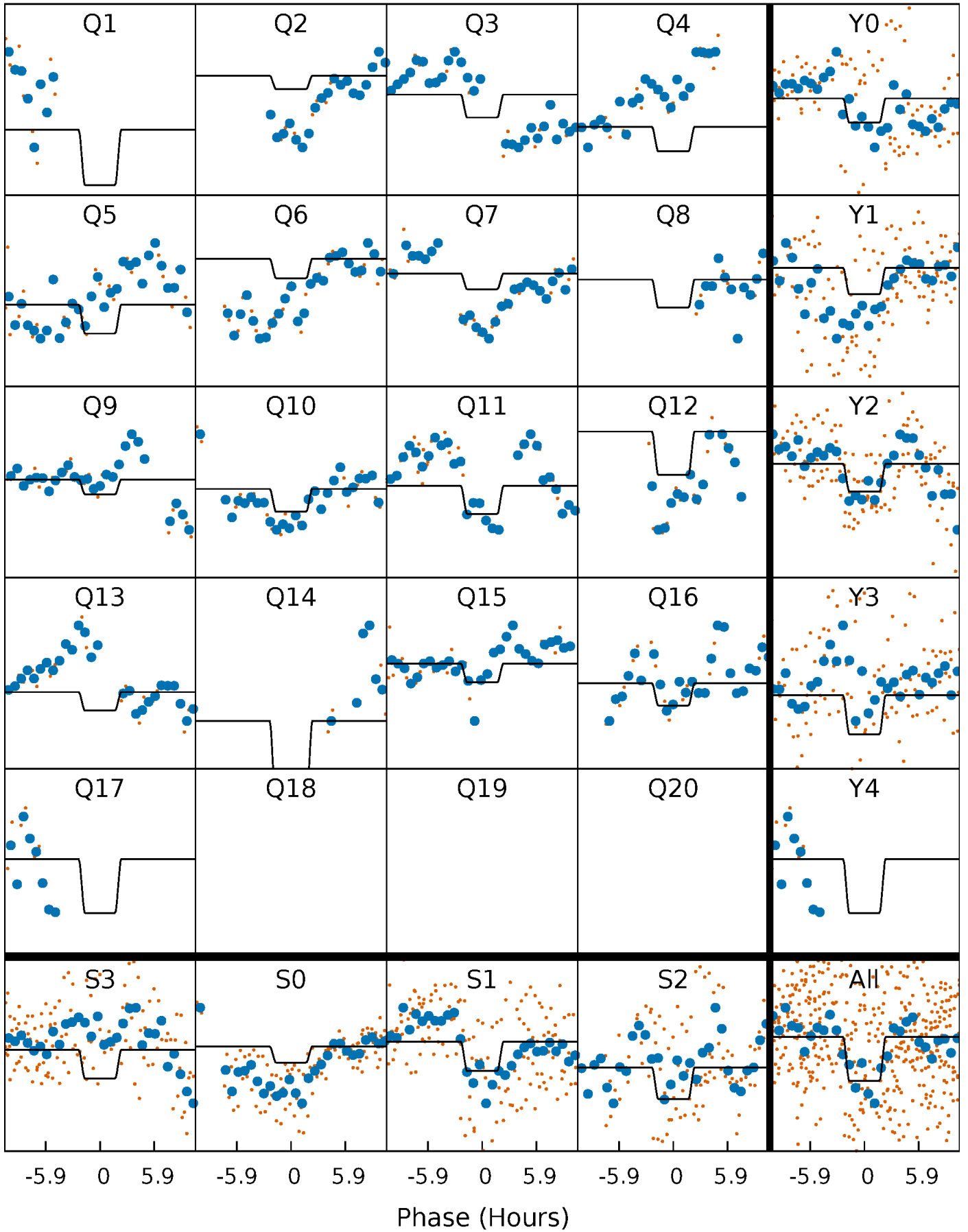
DV Quarter-Phased Transit Curves

TCE 007907476-07 $P = 33.272501$ Days $T_0 = 131.711948$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

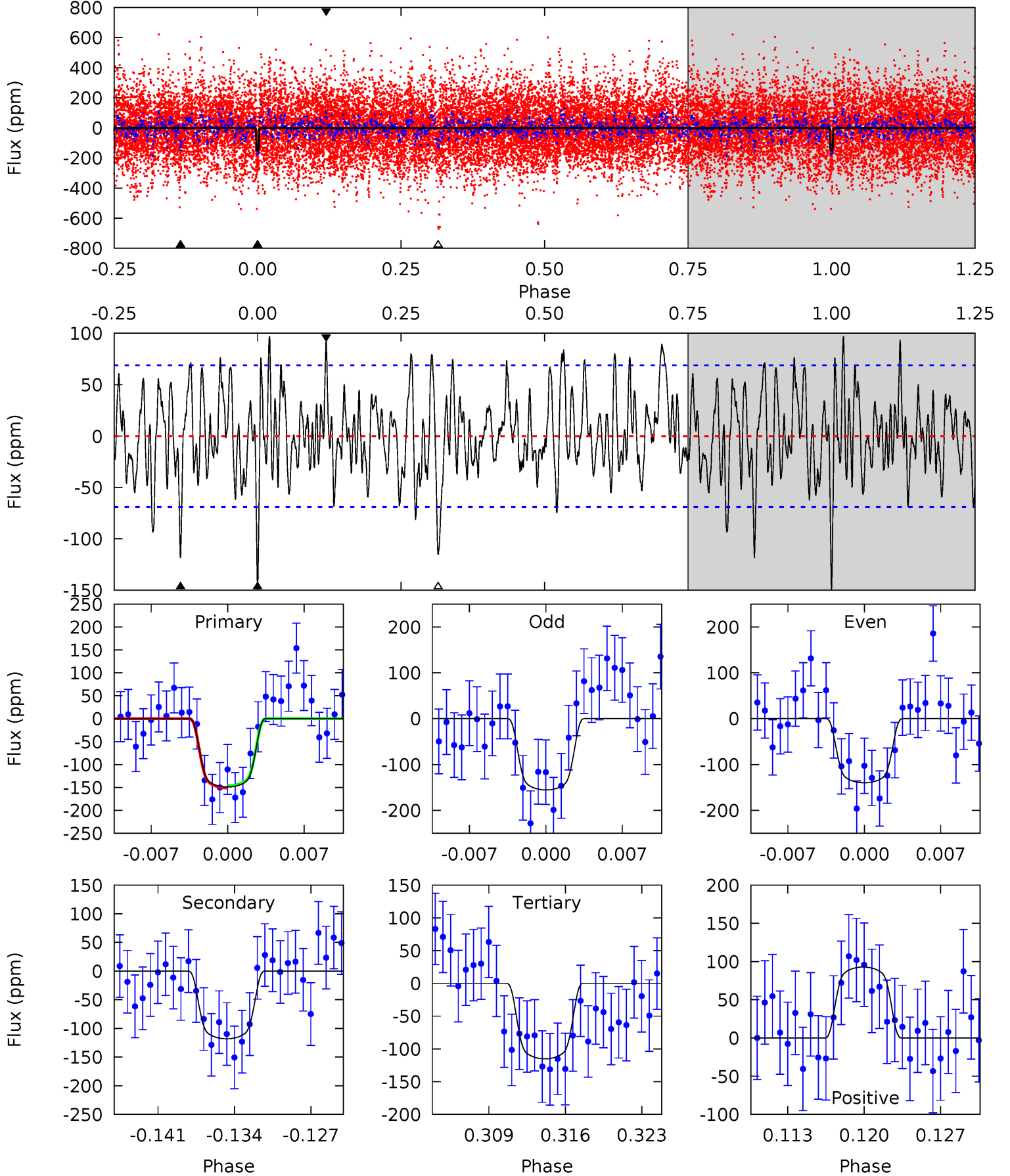
TCE 007907476-07 $P = 33.272410$ Days $T_0 = 131.710551$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-07, P = 33.272501 Days, E = 131.711948 Days

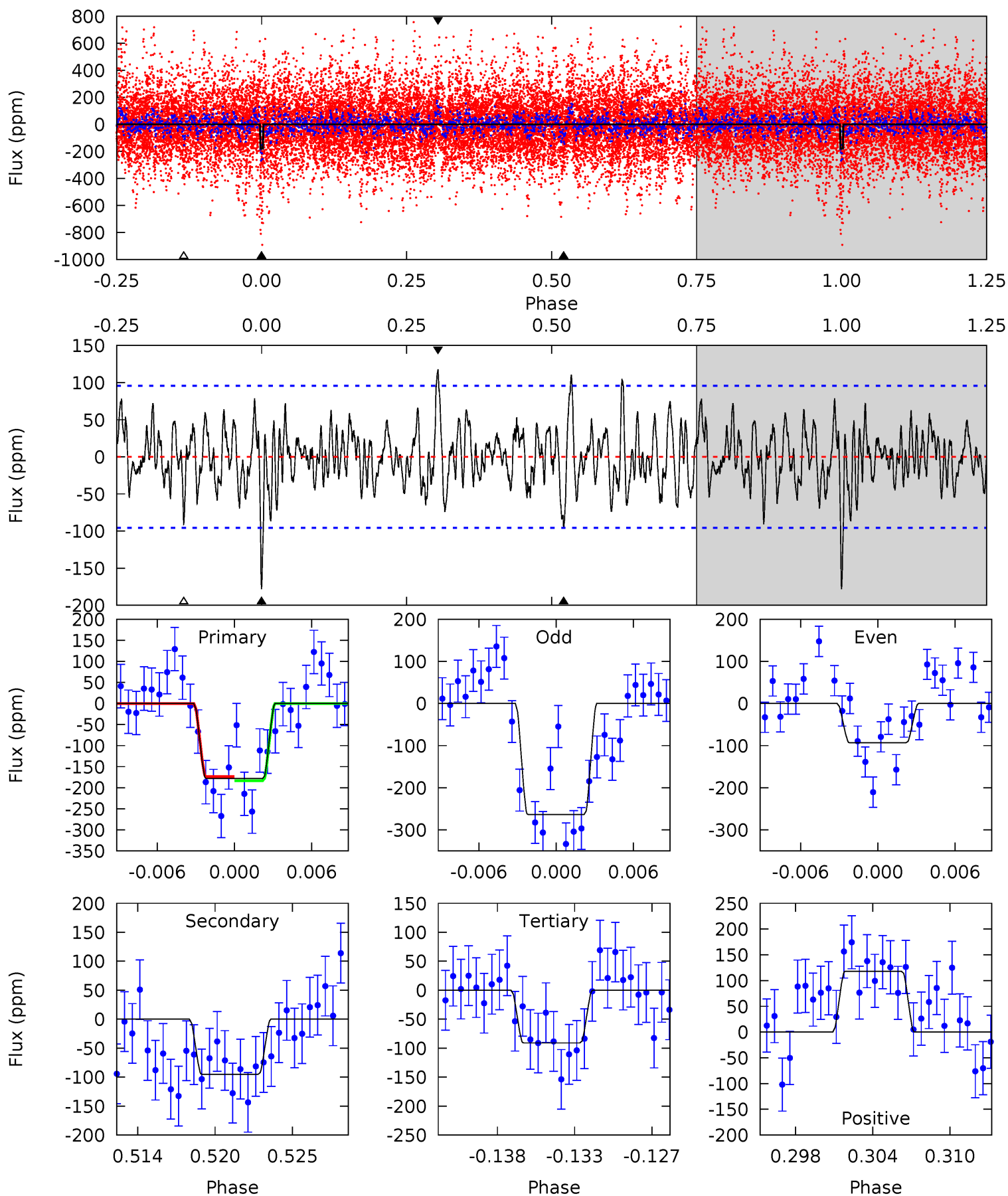
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	8.74	8.52	6.87	5.09	2.70	2.57	2.50	4.16	0.21	1.87	0.58	1.13	0.39	0.18



Alt Model-Shift Uniqueness Test

007907476-07, $P = 33.272410$ Days, $E = 131.710551$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.57	5.11	4.88	6.33	5.14	2.77	1.81	4.68	3.23	0.23	-1.22	4.53	1.19	0.40	0.26



Stellar Parameters For KIC 007907476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-118 ± 14	$6.18^{+1.16}_{-1.48}$	1593^{+97}_{-184}	5491^{+358}_{-278}	97^{+64}_{-28}
Alt.	-95 ± 19	$5.23^{+1.05}_{-1.37}$	1589^{+99}_{-205}	5620^{+433}_{-382}	109^{+82}_{-35}

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

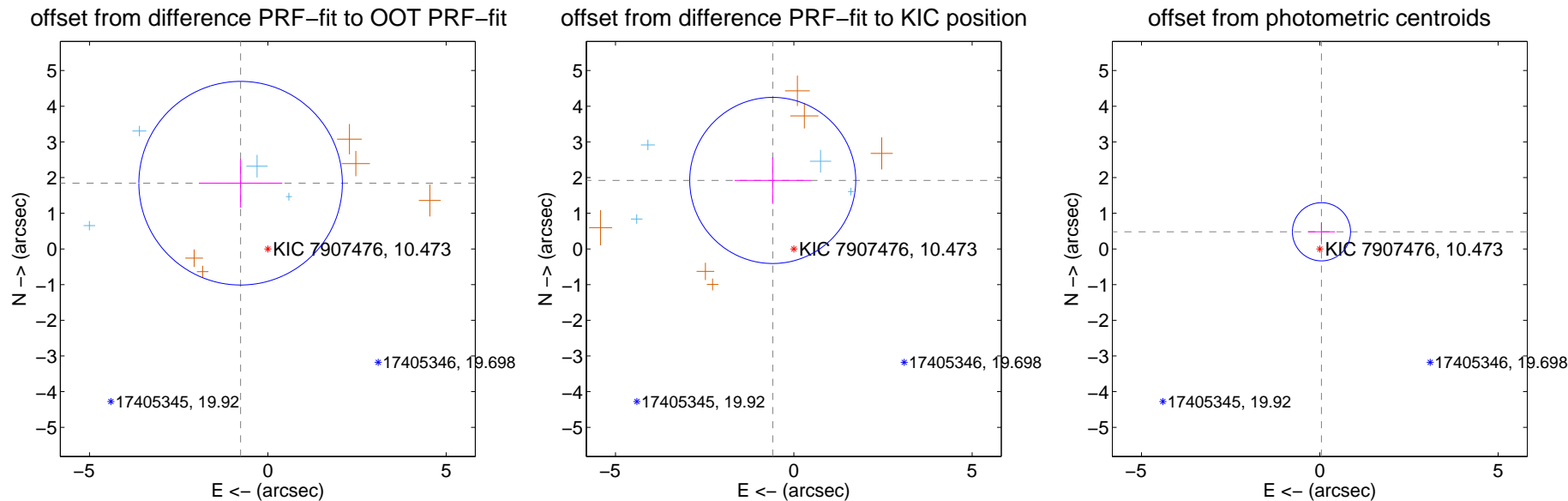
DV Centroid Data

Supplemental centroid analysis for 007907476-07. **Kepler magnitude: 10.47.** Transit SNR 9.65

There are 4 quarters with good PRF difference image offsets

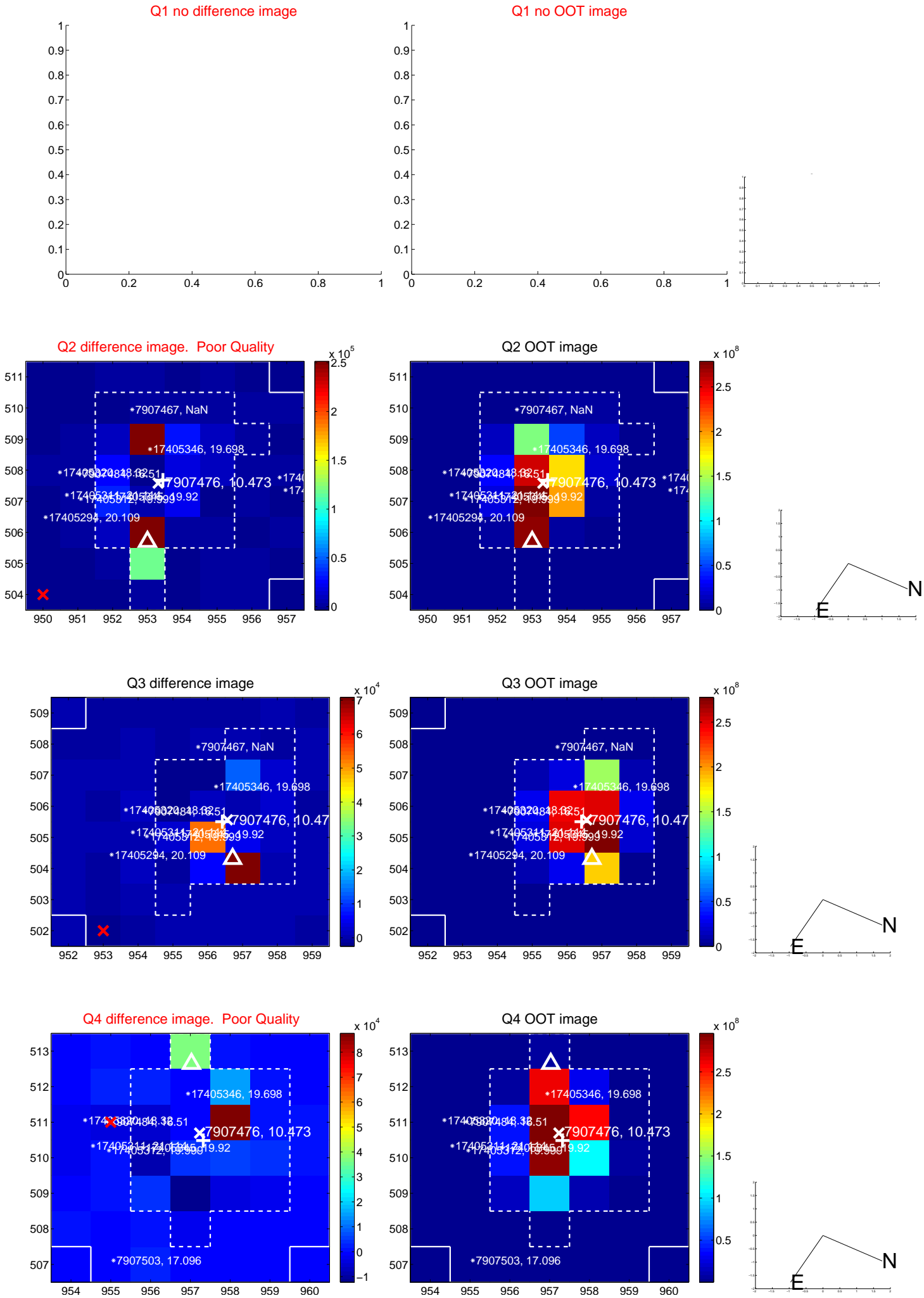
The OOT PRF centroid is offset from the target star catalog position by about 2.46 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.994 ± 0.951	2.10	0.763 ± 1.171	1.842 ± 0.686
PRF-fit source offset from KIC position	2.009 ± 0.776	2.59	0.591 ± 1.069	1.920 ± 0.656
photometric centroid source offset	0.48 ± 0.27	1.78	-0.05 ± 0.38	0.48 ± 0.27

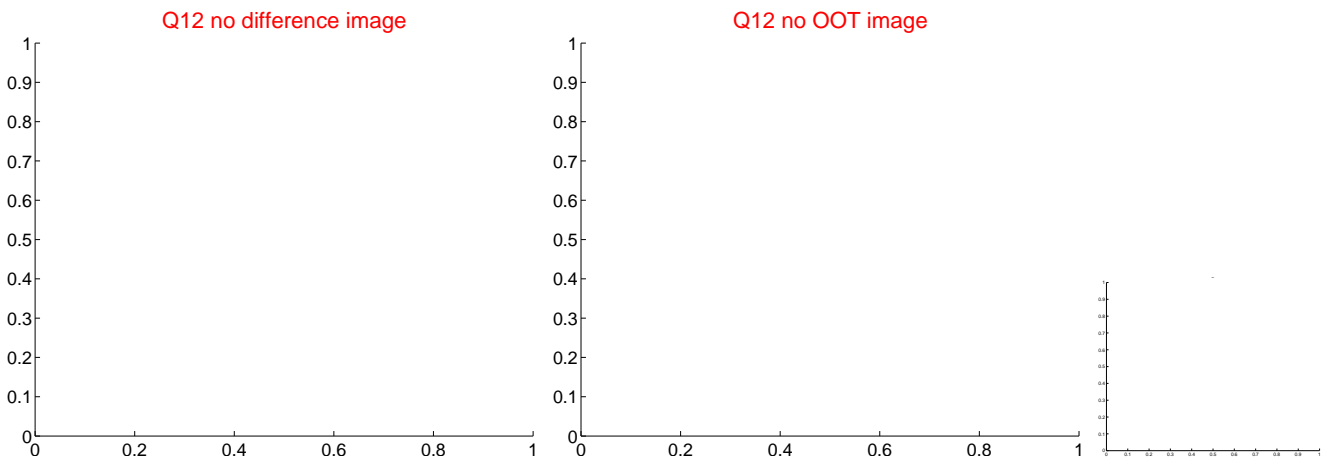
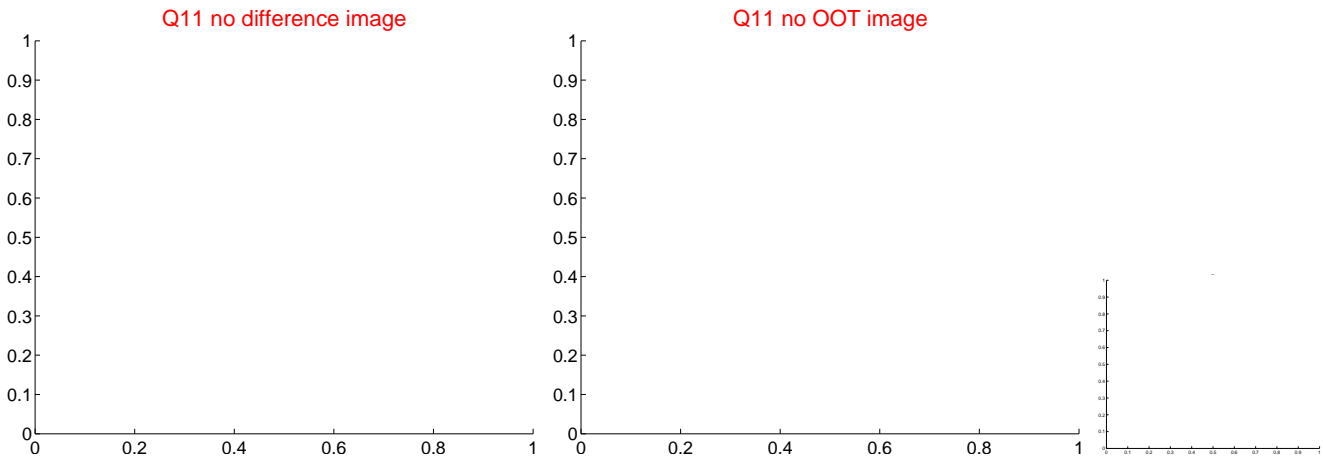
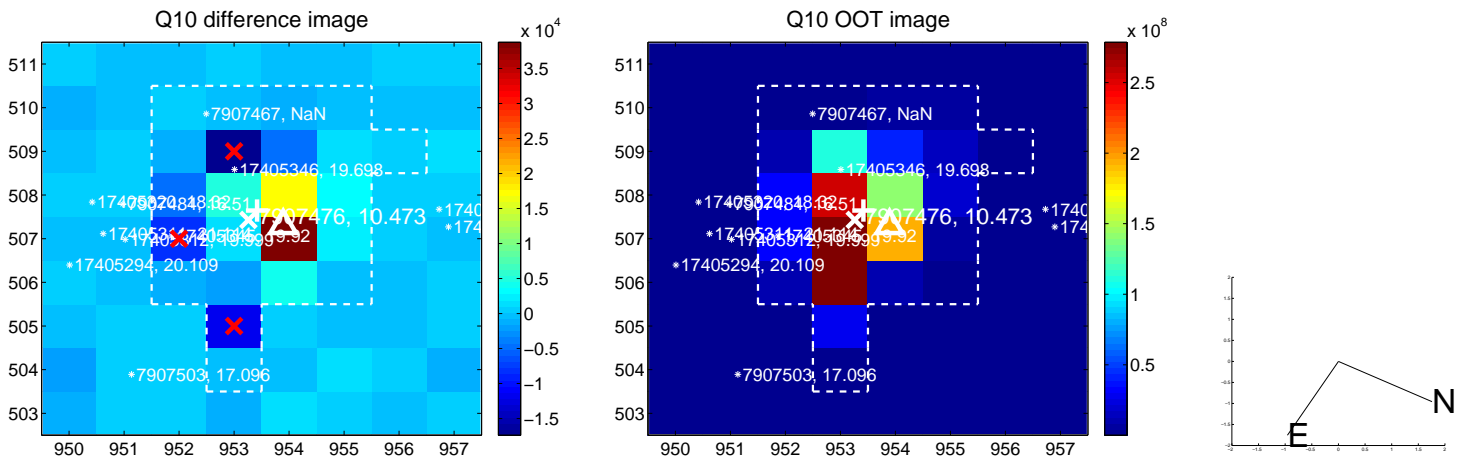
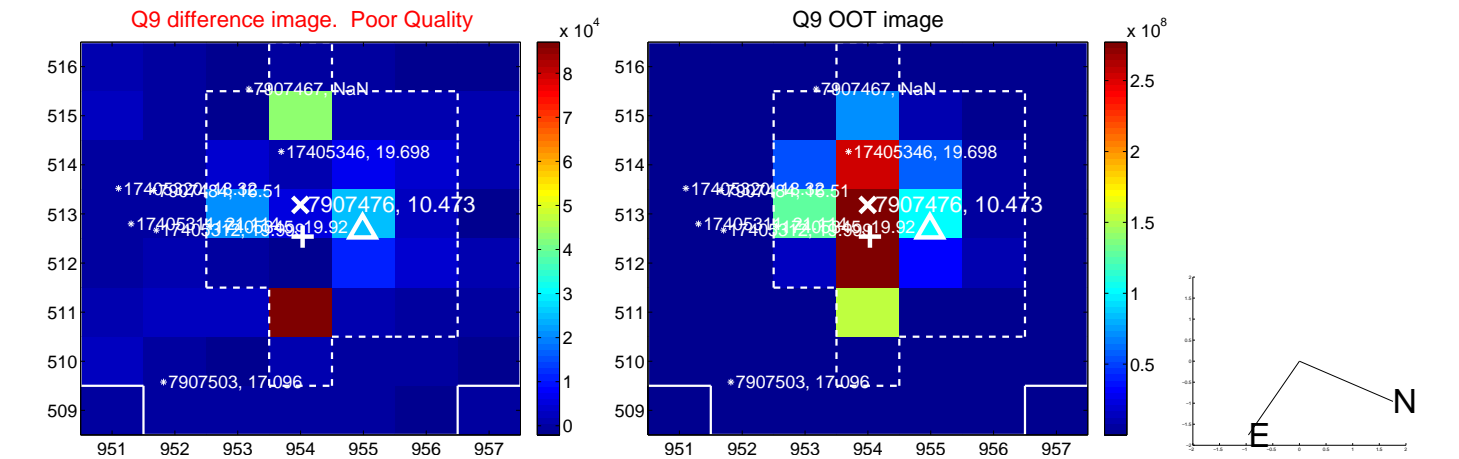


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

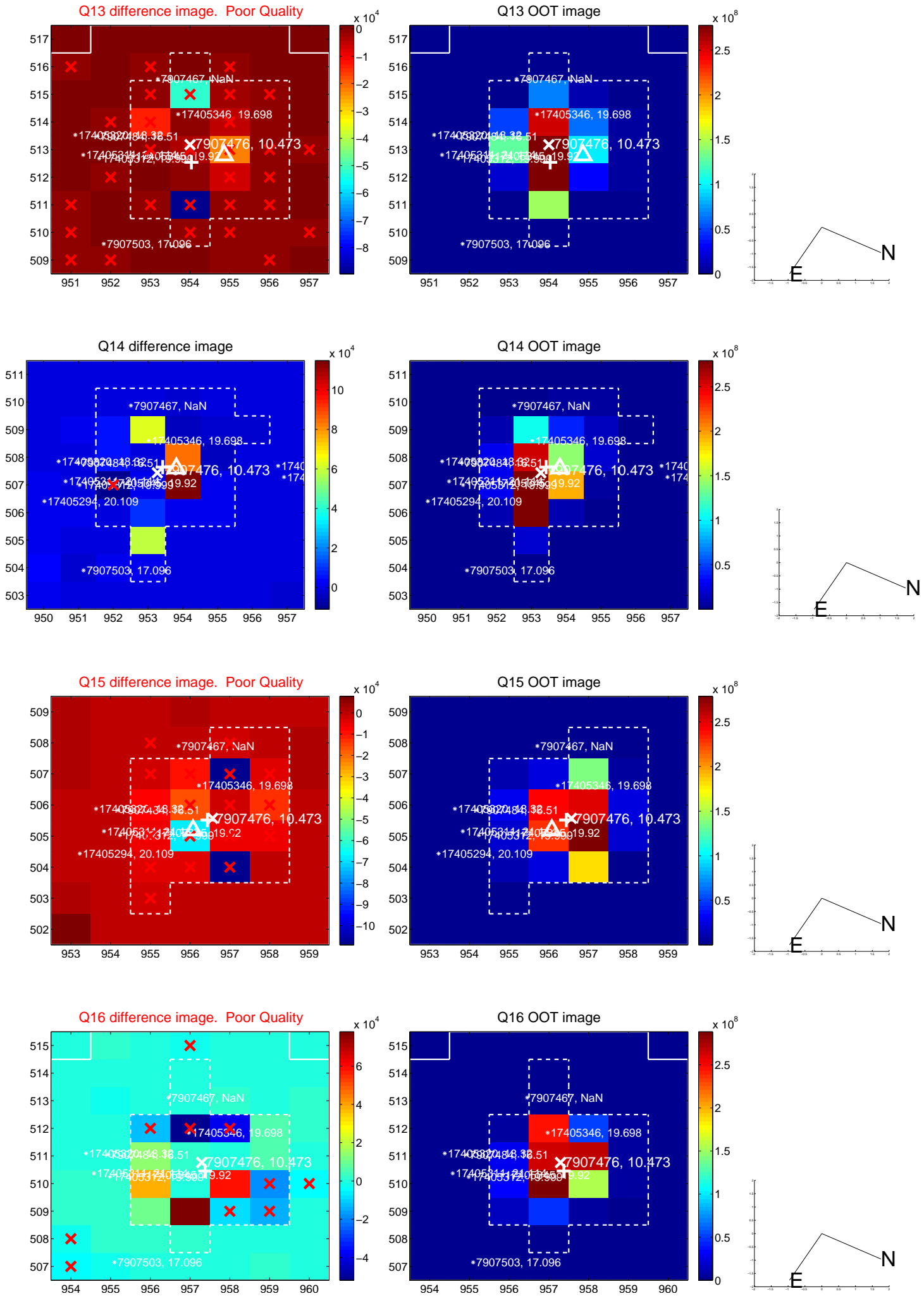
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



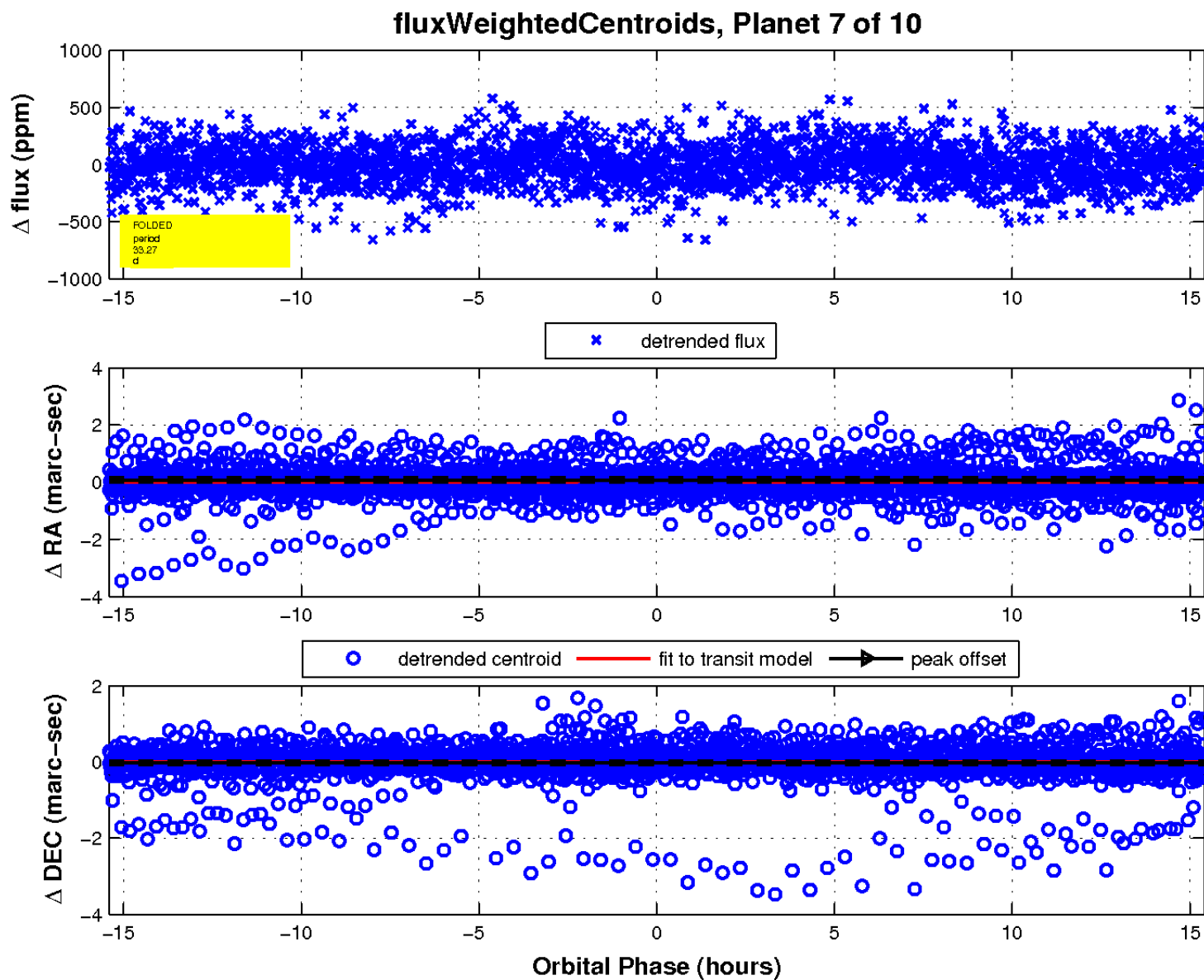
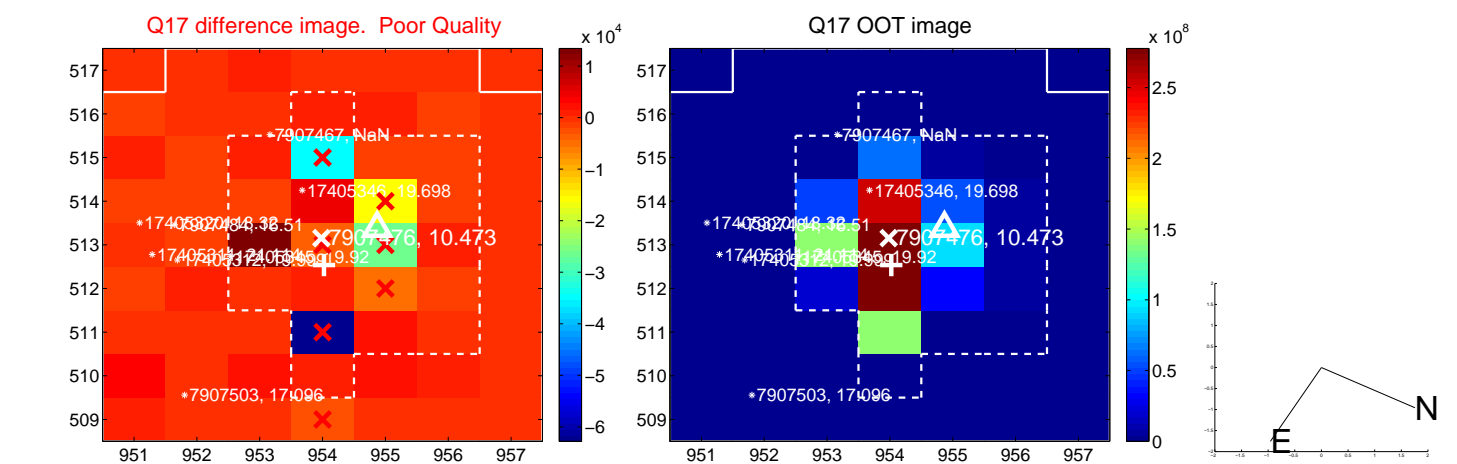
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

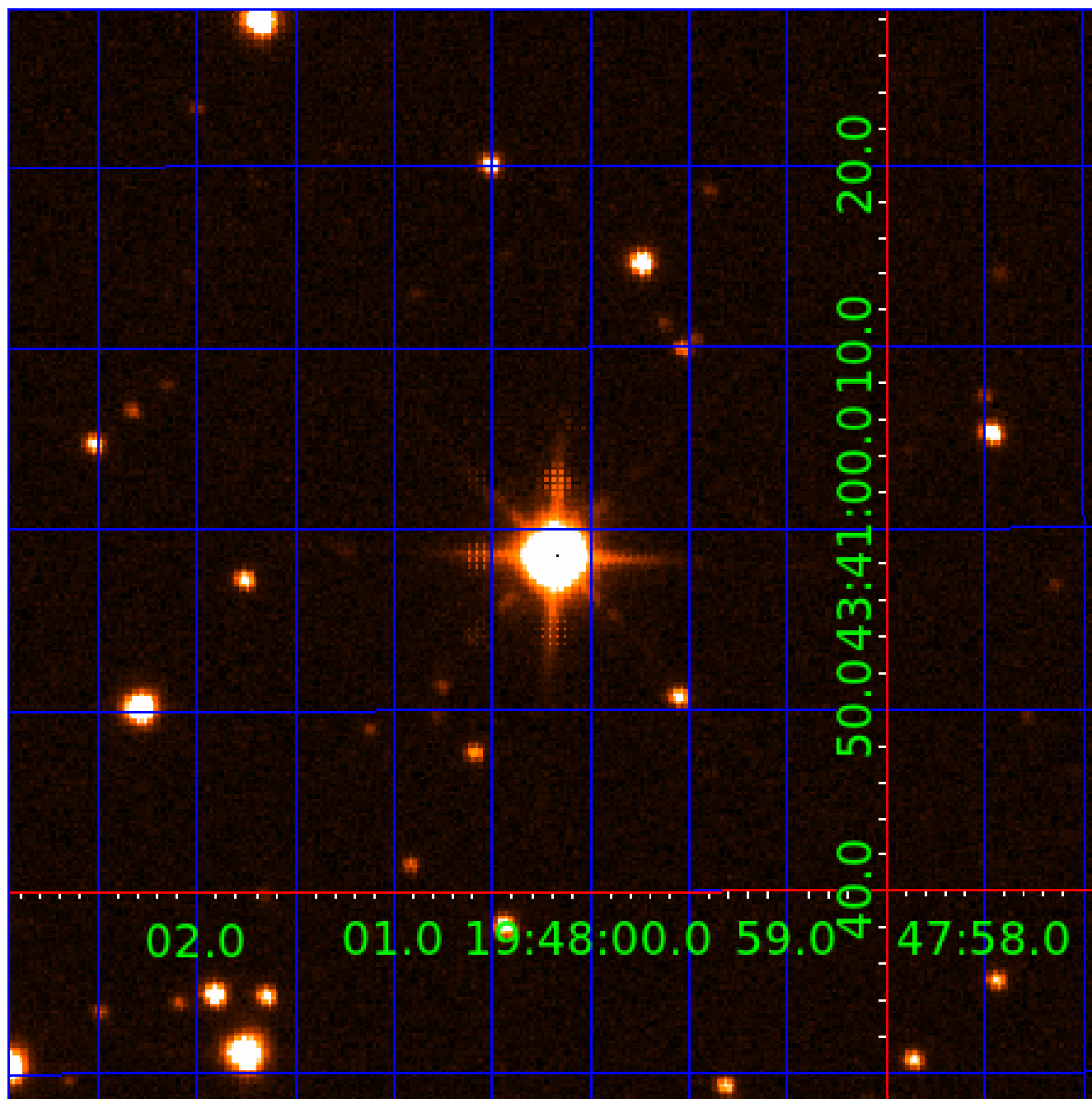


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT— MOD_POS_ALT—CENT_SATURATED

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

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

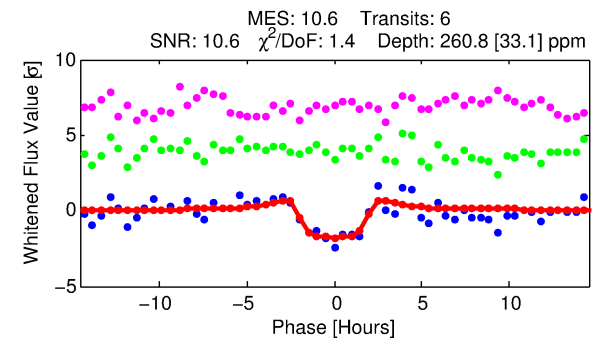
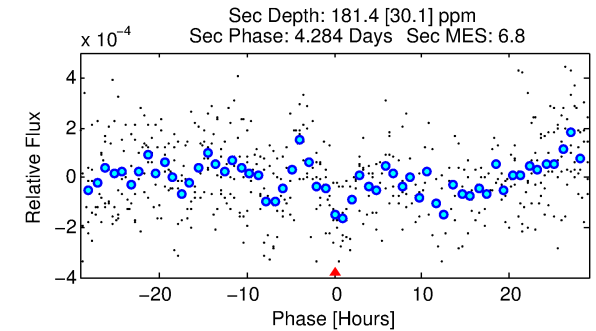
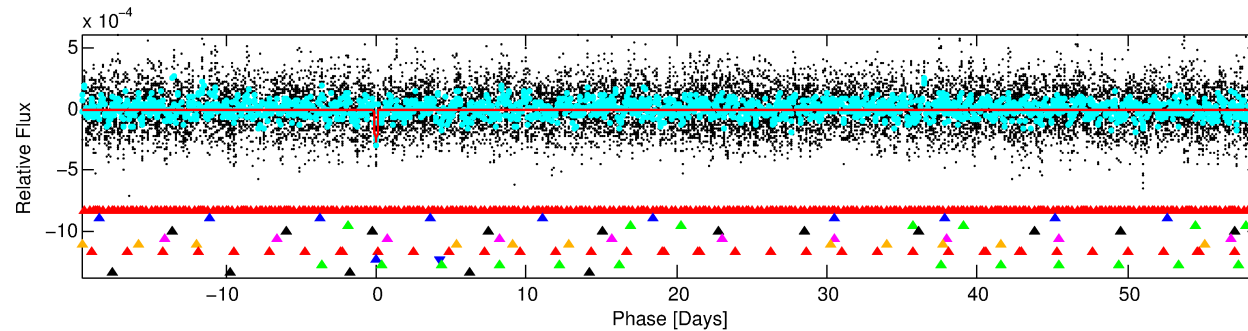
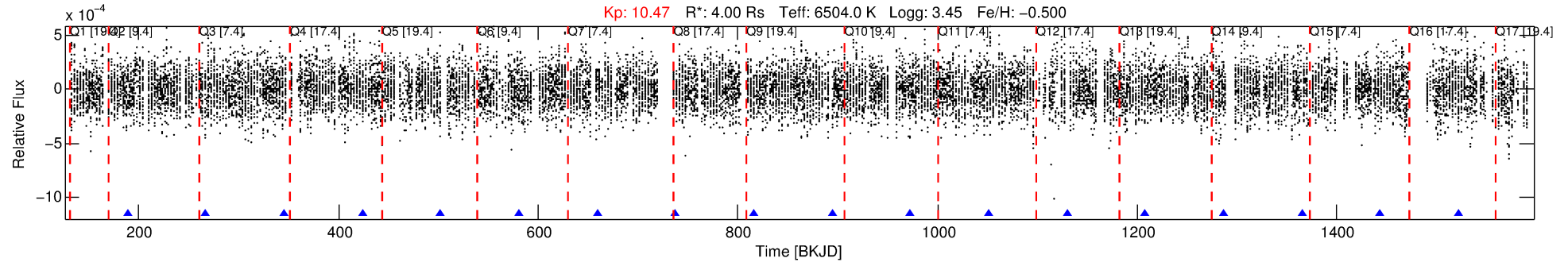
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-08

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 8 of 10 Period: 78.424 d

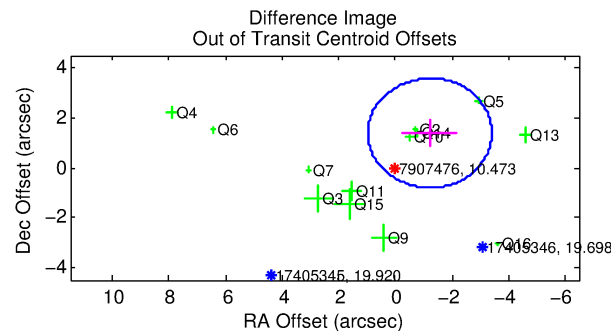
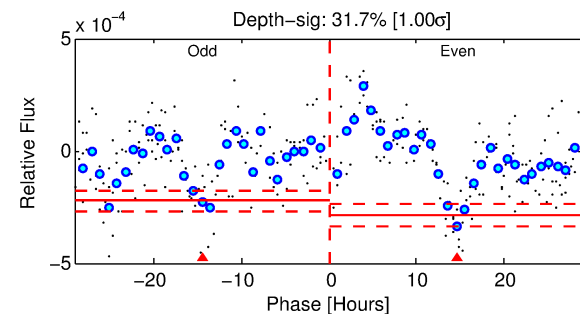
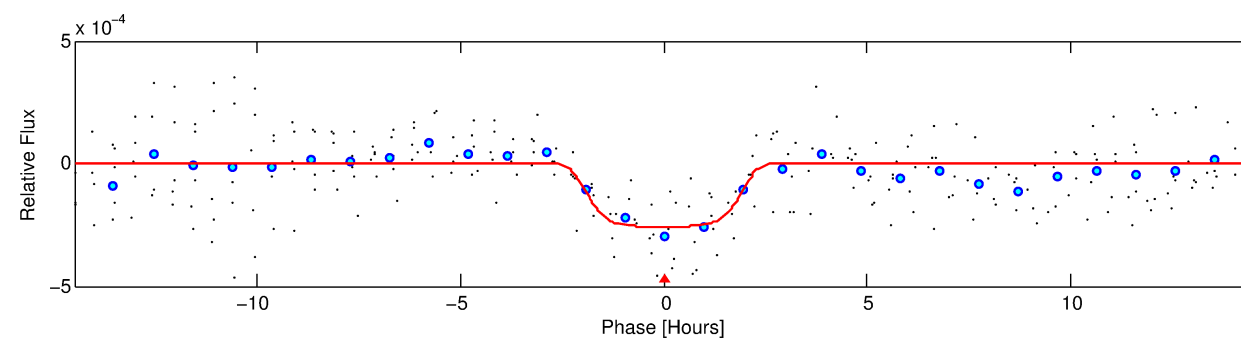


DV Fit Results:

Period = 78.42378 [0.00084] d
Epoch = 188.6989 [0.0084] BKJD
 R_p/R^* = 0.0186 [0.0015]
 a/R^* = 41.62 [9.90]
 b = 0.96 [0.02]
 Seff = 143.20 [102.05]
 T_{eq} = 882 [157] K
 R_p = 8.14 [3.64] R_e
 a = 0.4236 [0.1835] AU
 A_g = 270.08 [199.83] [1.35σ]
 T_{eff} = 5529 [361] K [11.82σ]

DV Diagnostic Results:

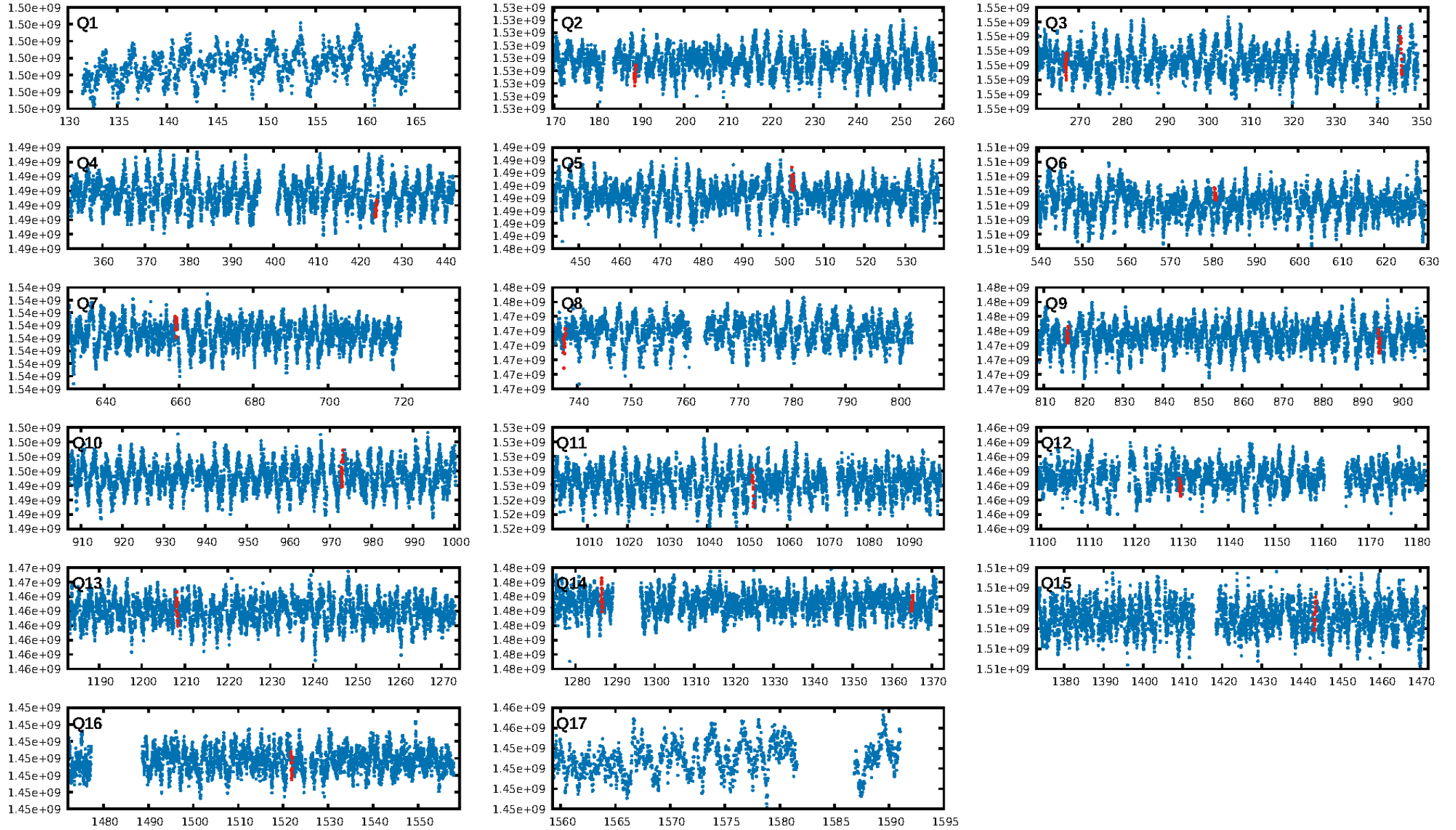
ShortPeriod-sig: 100.0% [153.77σ]
LongPeriod-sig: 100.0% [138.93σ]
ModelChiSquare2-sig: 32.1%
ModelChiSquareGof-sig: 88.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.9075
Centroid-sig: 38.4%
Centroid-so: 0.795 arcsec [2.29σ]
OotOffset-rm: 1.844 arcsec [2.52σ]
OotOffset-st: 4/4/2/3 [13]
KicOffset-rm: 2.075 arcsec [3.30σ]
KicOffset-st: 4/4/2/3 [13]
DiffImageQuality-fgm: 0.23 [3/13]
DiffImageOverlap-fno: 0.36 [5/14]



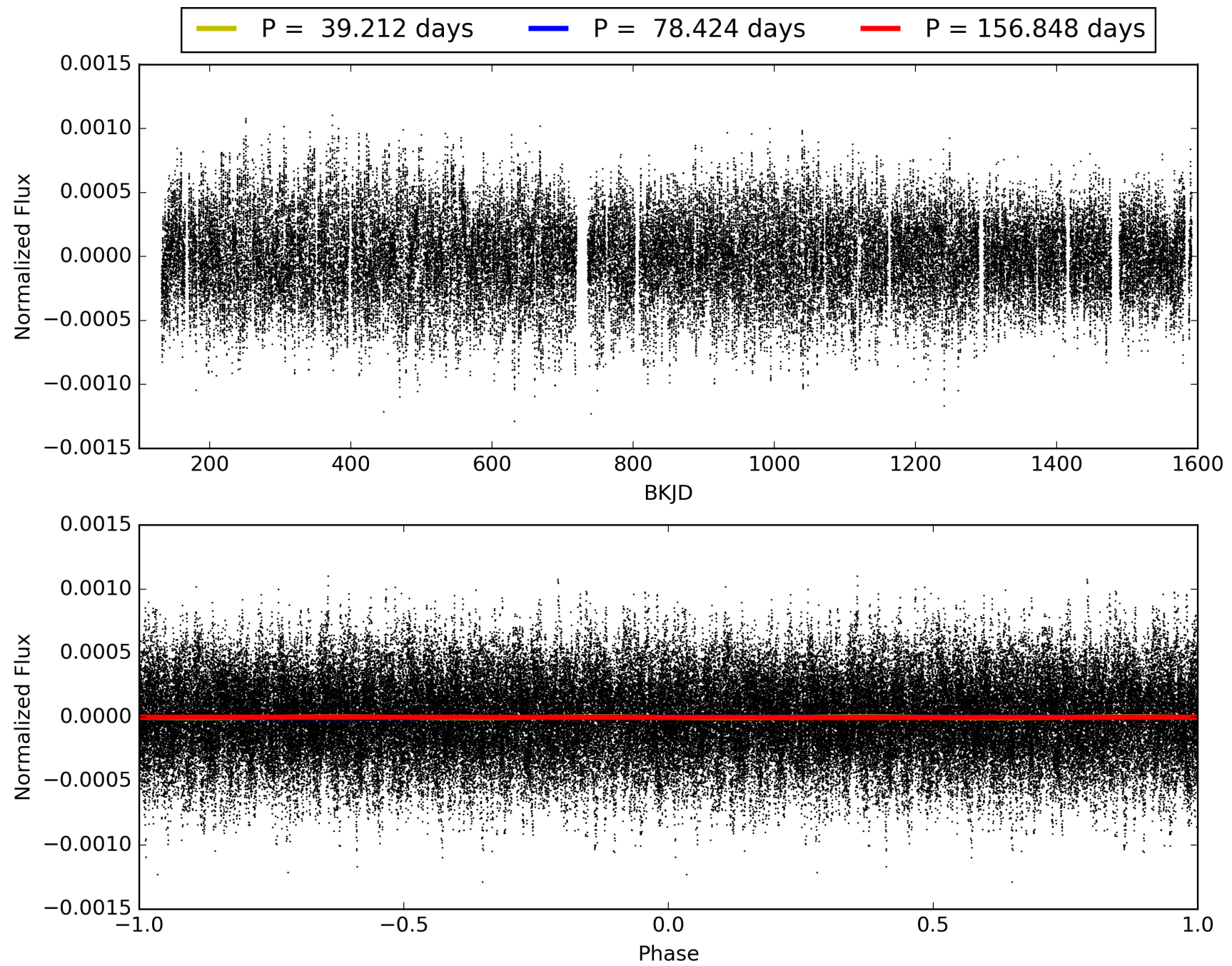
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:25 Z

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

TCE 007907476-08, PDC Light Curves

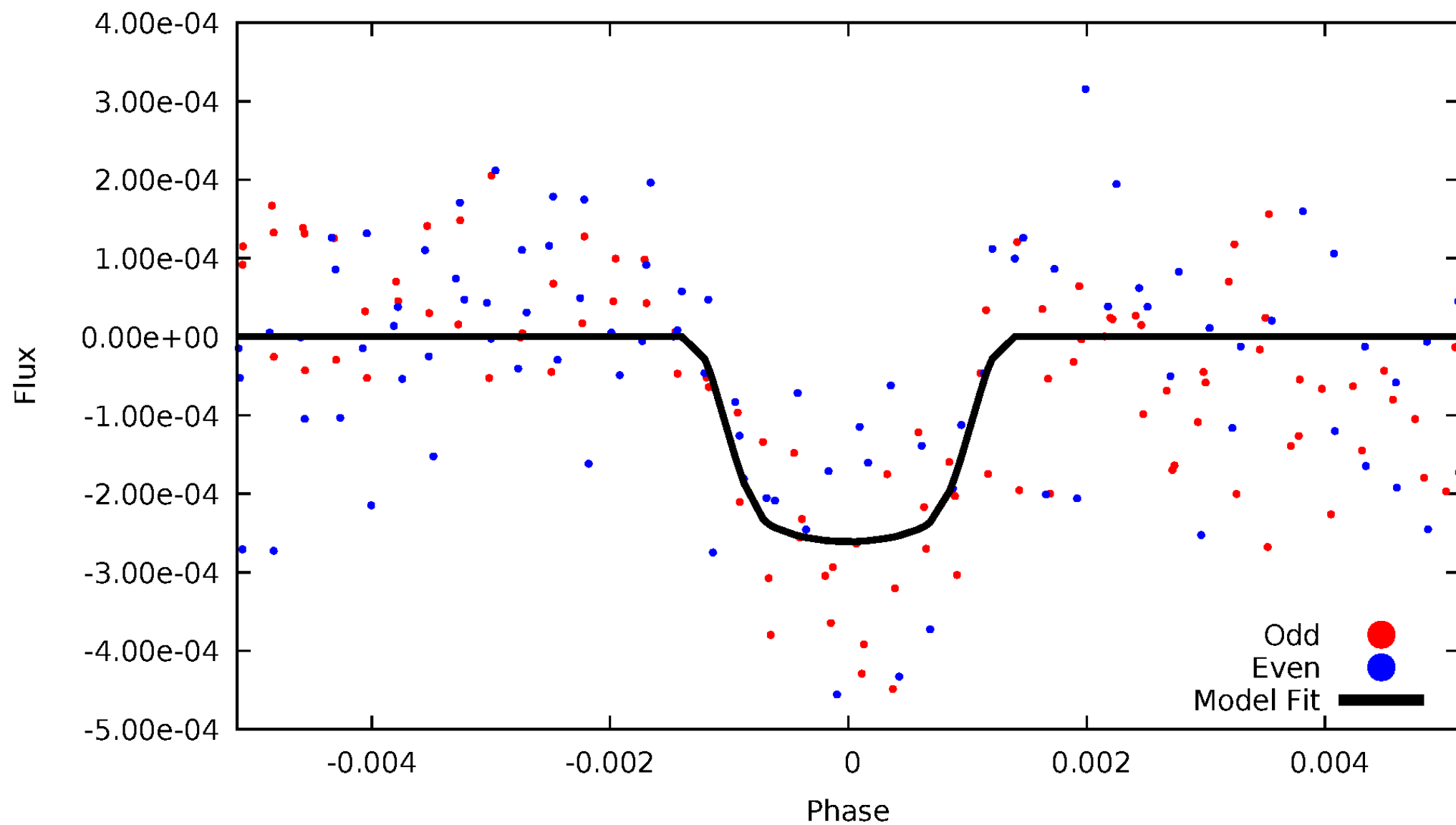


TCE 007907476-08



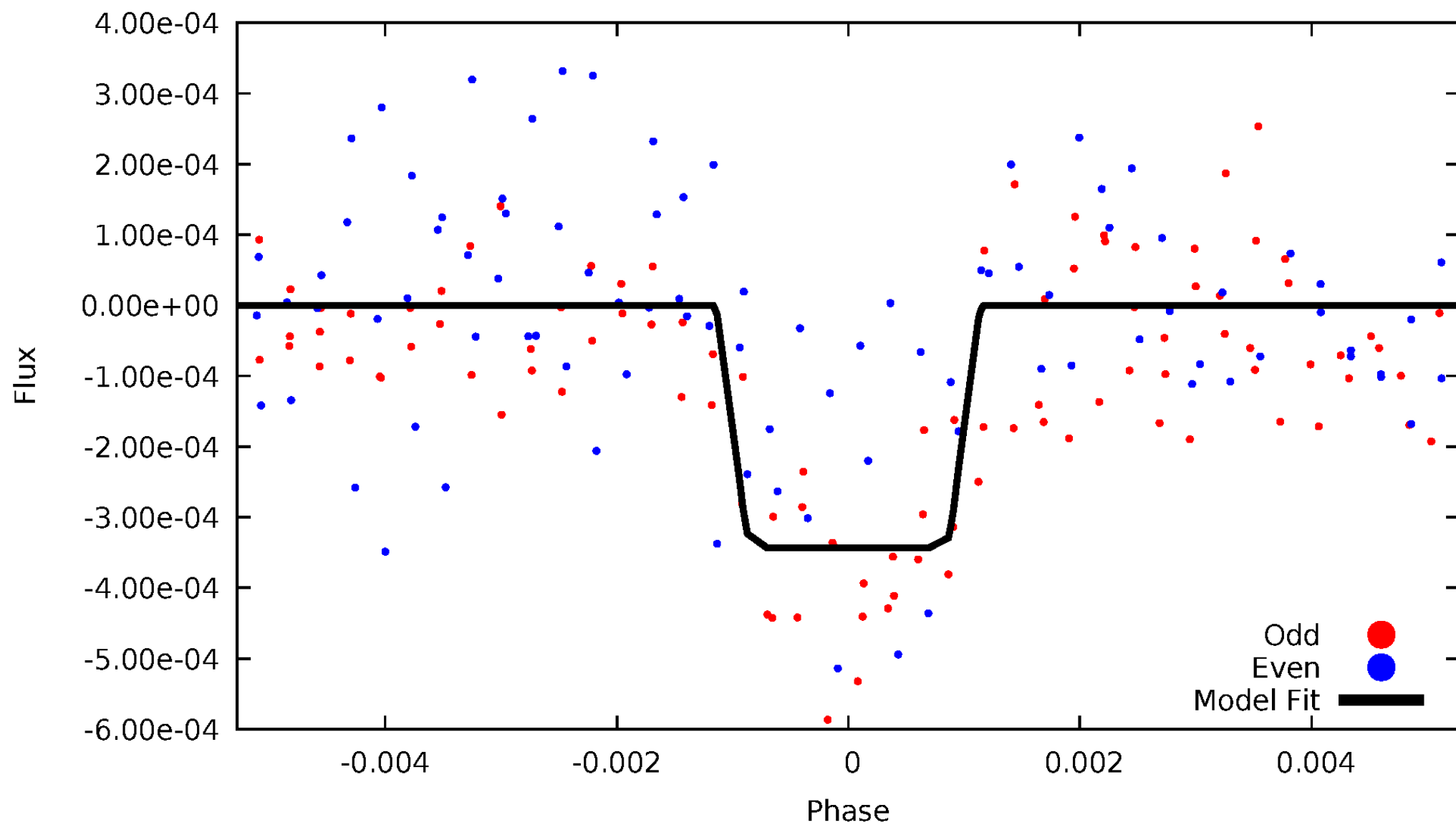
DV Odd/Even

TCE 007907476-08



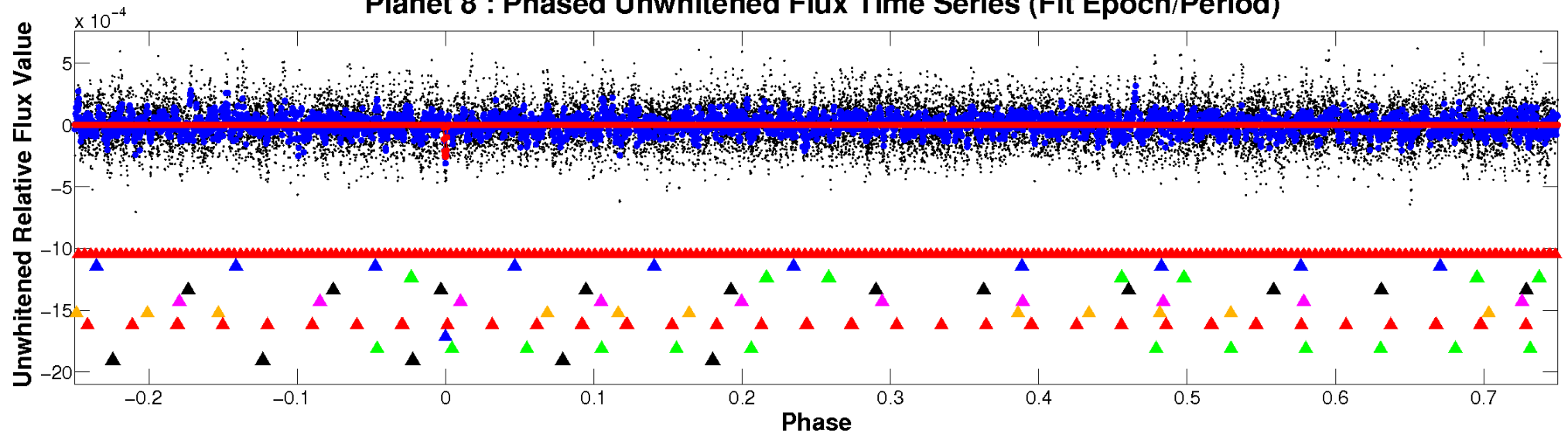
ALT Odd/Even

TCE 007907476-08

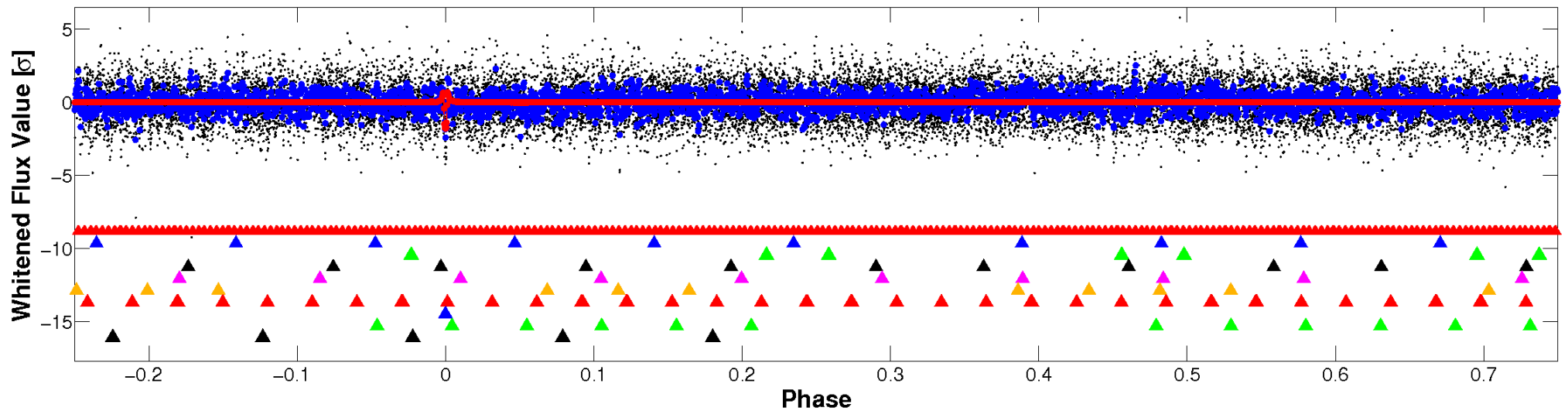


Non-Whitened Vs. Whitened Light Curve

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

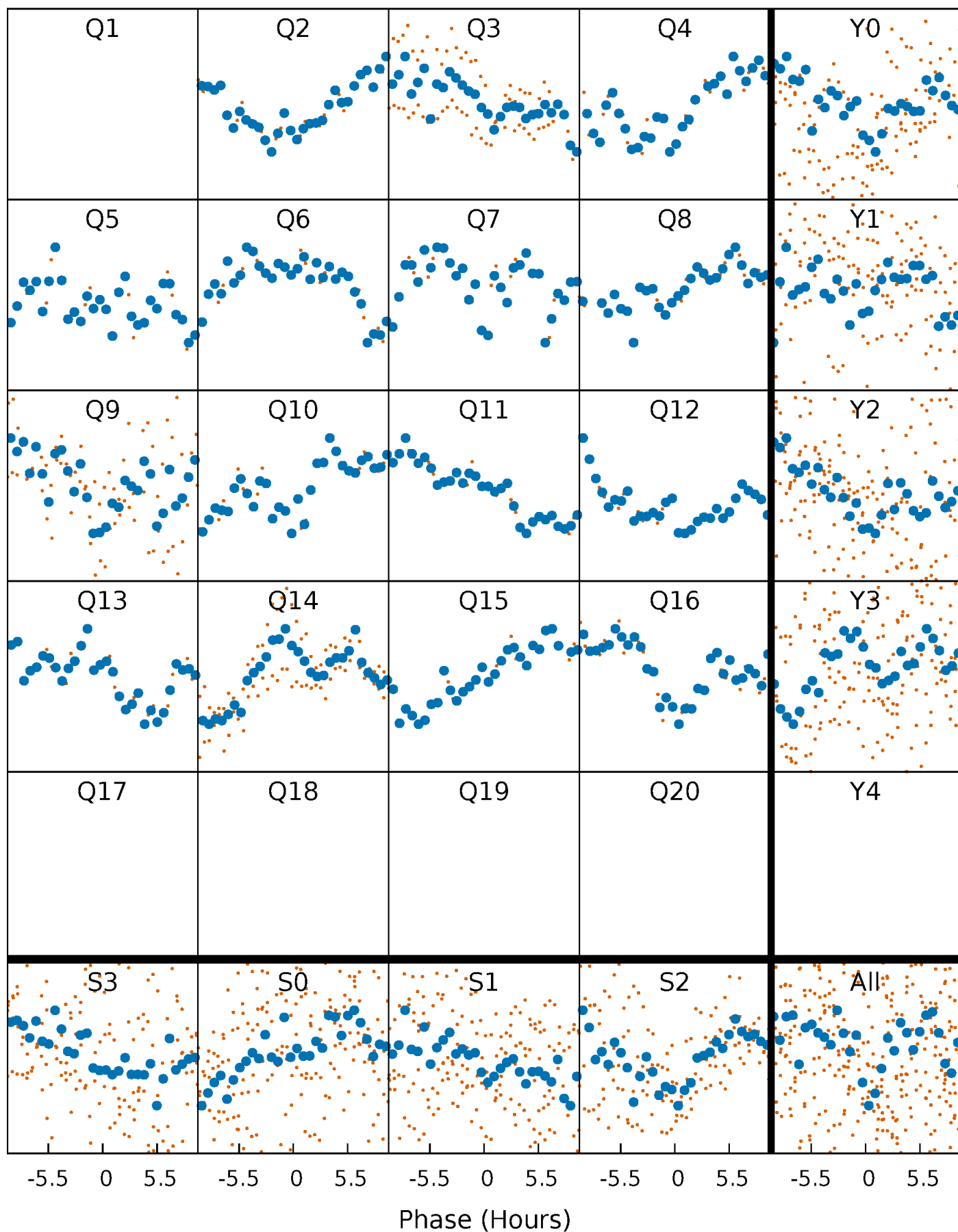


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



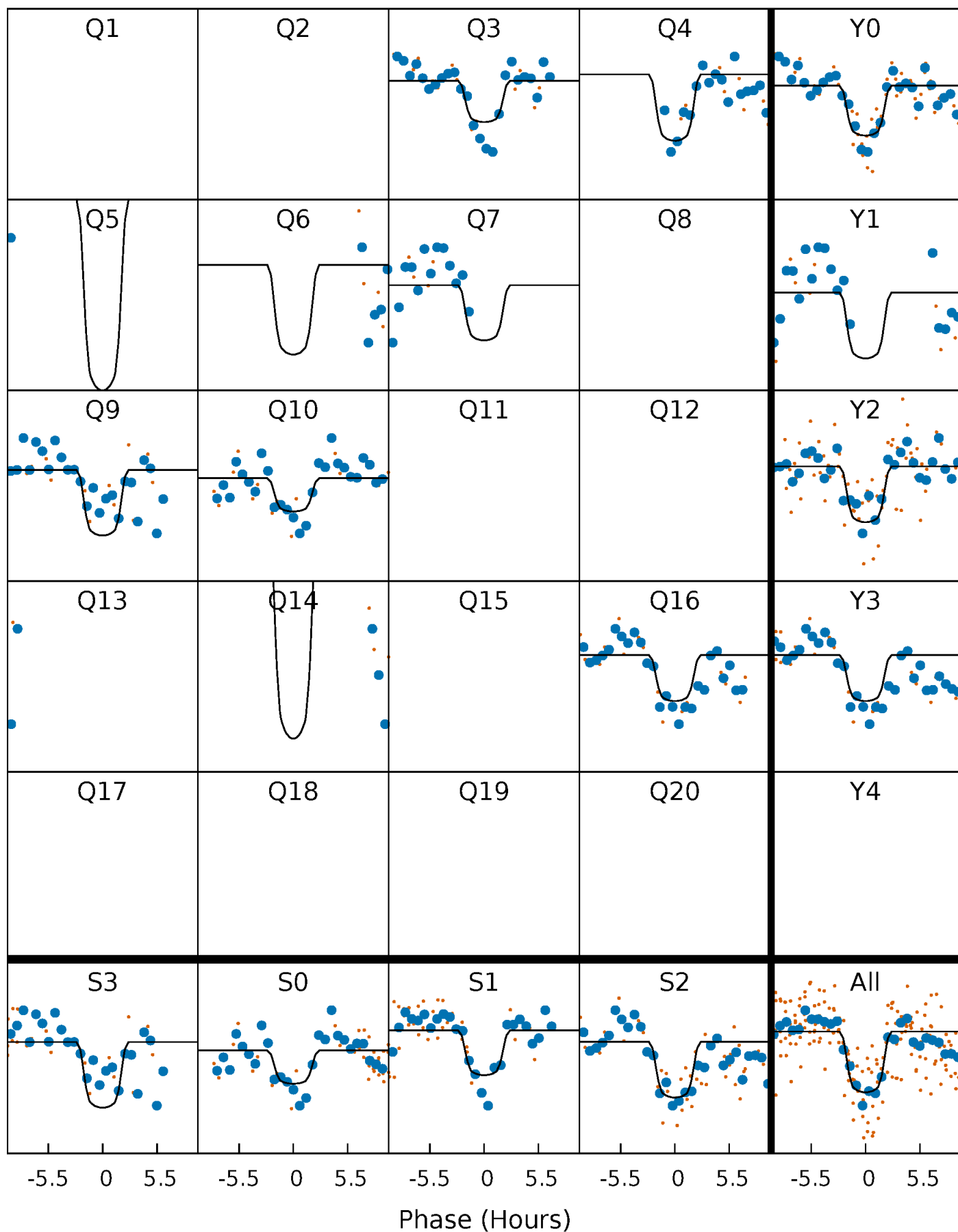
PDC Quarter-Phased Transit Curves

TCE 007907476-08 $P = 78.423775$ Days $T_0 = 188.698861$ (BKJD)



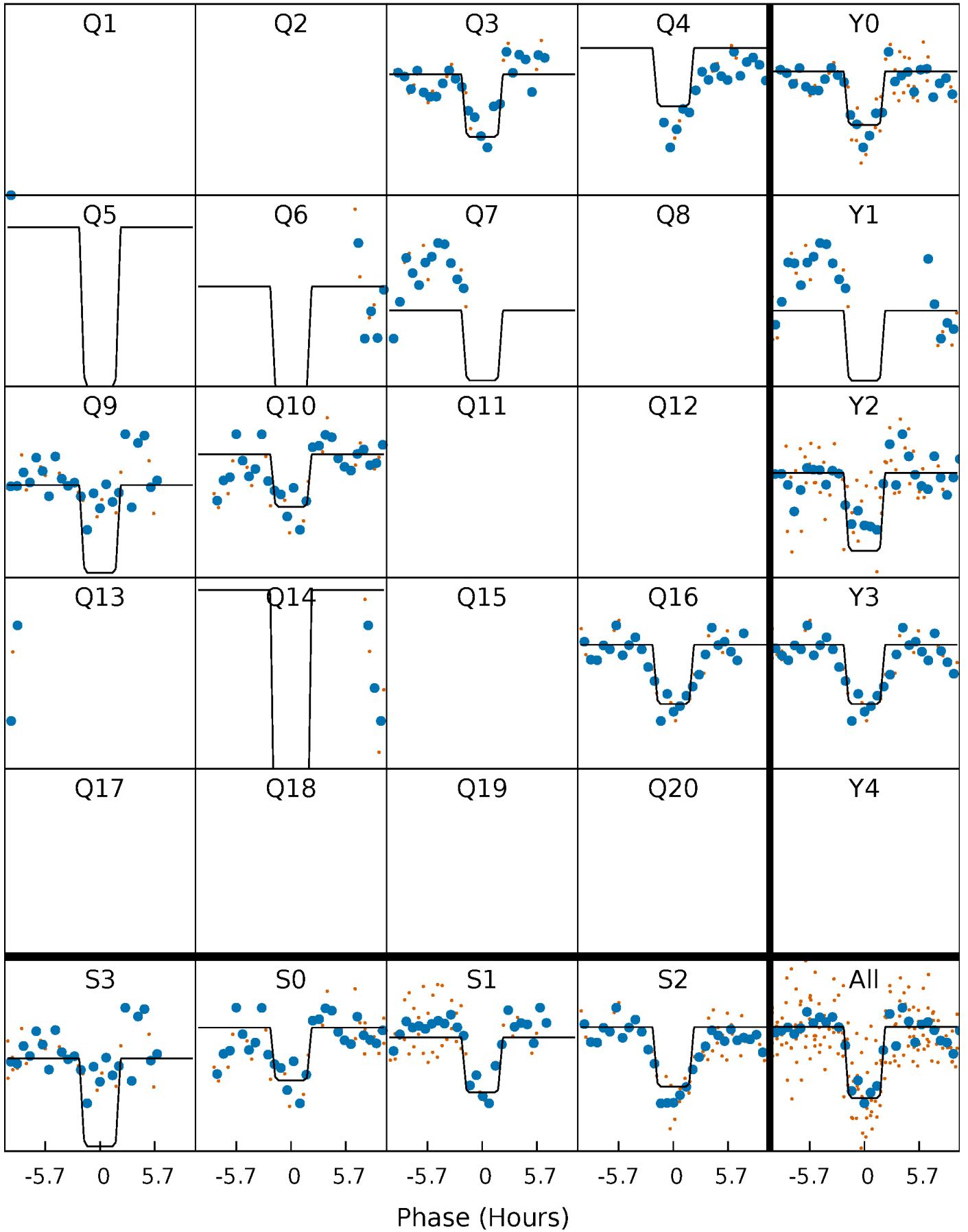
DV Quarter-Phased Transit Curves

TCE 007907476-08 P= 78.423775 Days $T_0=188.698861$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

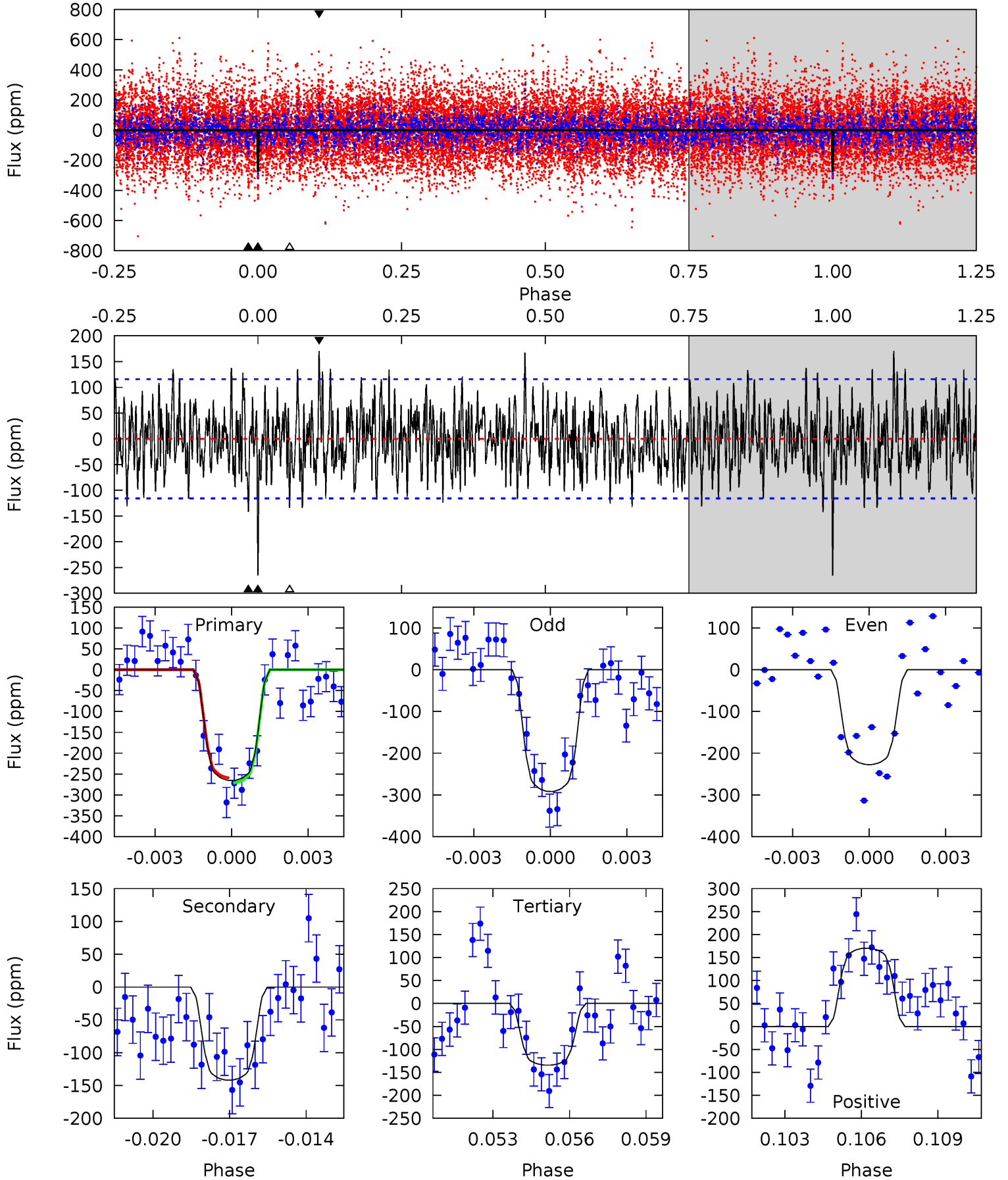
TCE 007907476-08 P= 78.423906 Days $T_0=188.697191$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-08, P = 78.423775 Days, E = 110.275086 Days

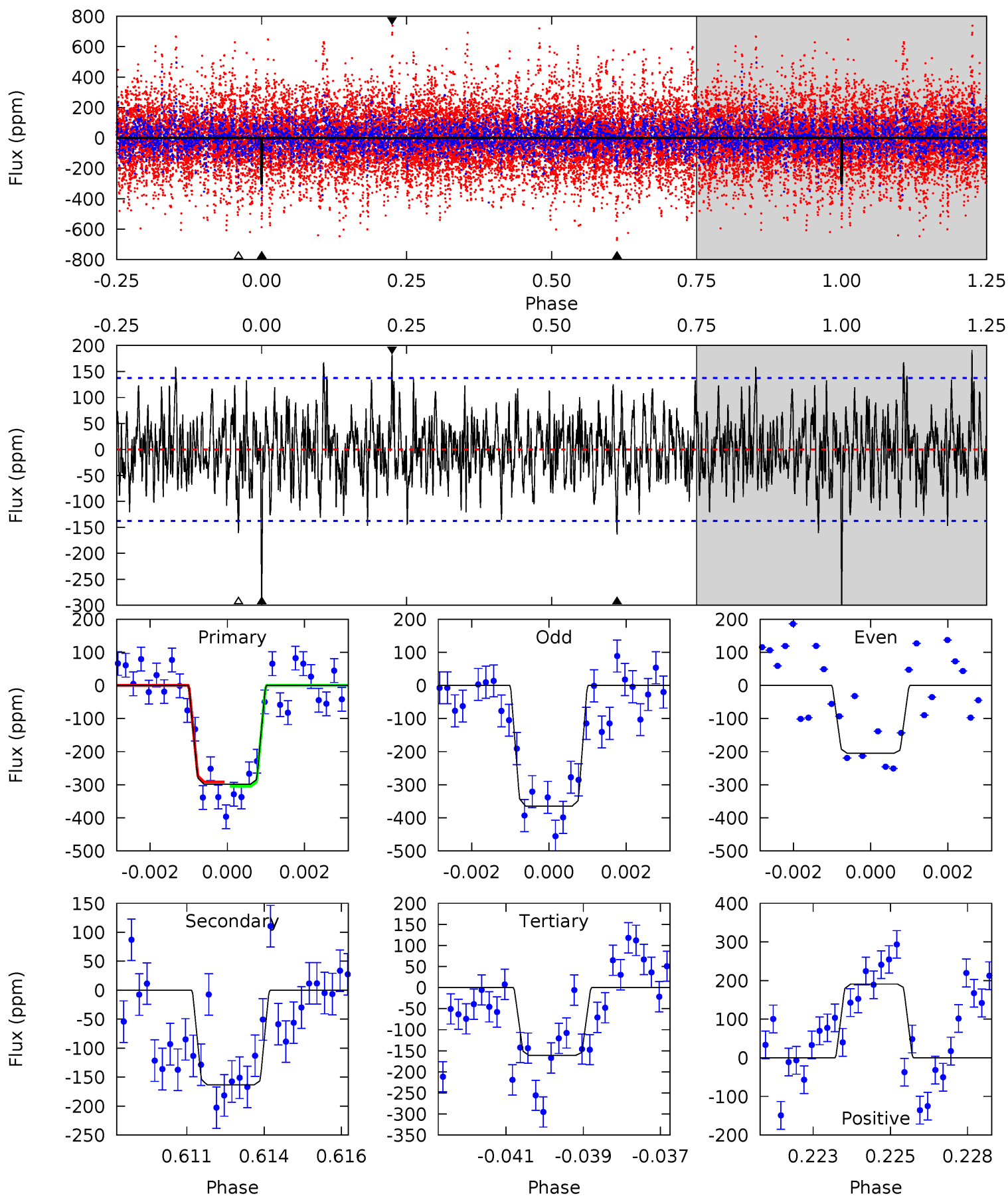
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	6.45	6.11	7.75	5.27	2.99	2.26	5.96	4.32	0.34	-1.29	1.46	0.97	0.39	0.27



Alt Model-Shift Uniqueness Test

007907476-08, P = 78.423906 Days, E = 110.273285 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	6.30	6.21	7.36	5.30	3.05	1.93	5.28	4.13	0.10	-1.06	3.01	0.79	0.39	0.25



Stellar Parameters For KIC 007907476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-142 ± 22	$7.52^{+1.29}_{-1.74}$	1189^{+77}_{-132}	5233^{+316}_{-294}	248^{+159}_{-74}
Alt.	-164 ± 26	$7.46^{+1.39}_{-1.93}$	1191^{+78}_{-146}	5408^{+316}_{-304}	285^{+209}_{-85}

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 $A_{obs} \gg 1.0$

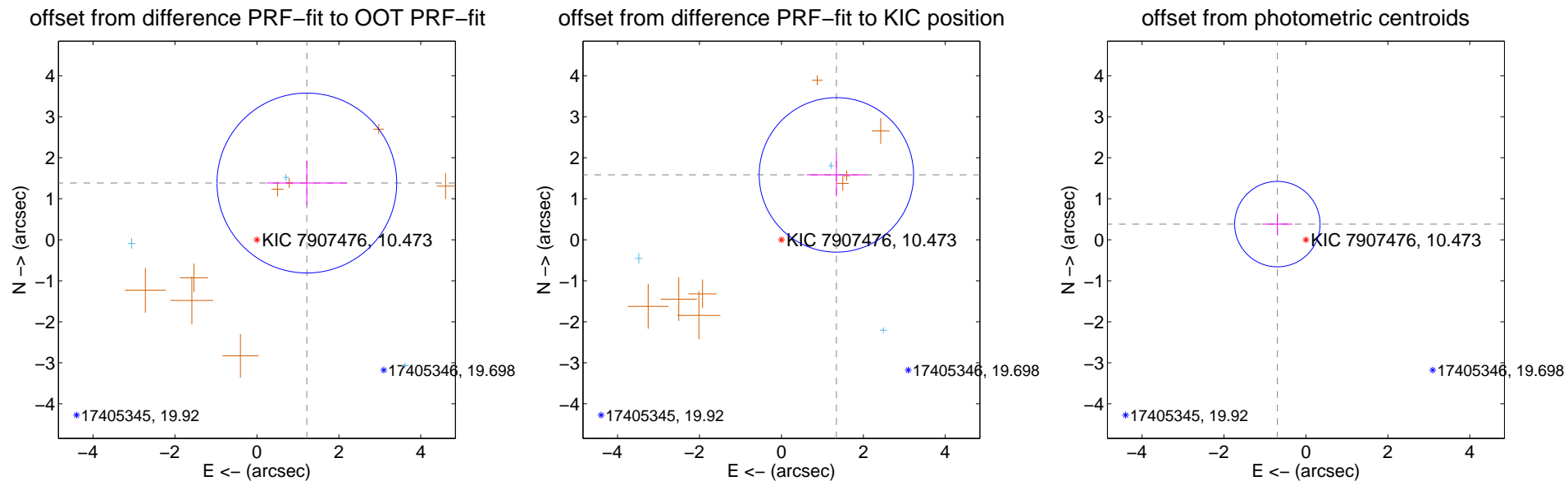
DV Centroid Data

Supplemental centroid analysis for 007907476-08. **Kepler magnitude: 10.47.** Transit SNR 10.55

There are 3 quarters with good PRF difference image offsets

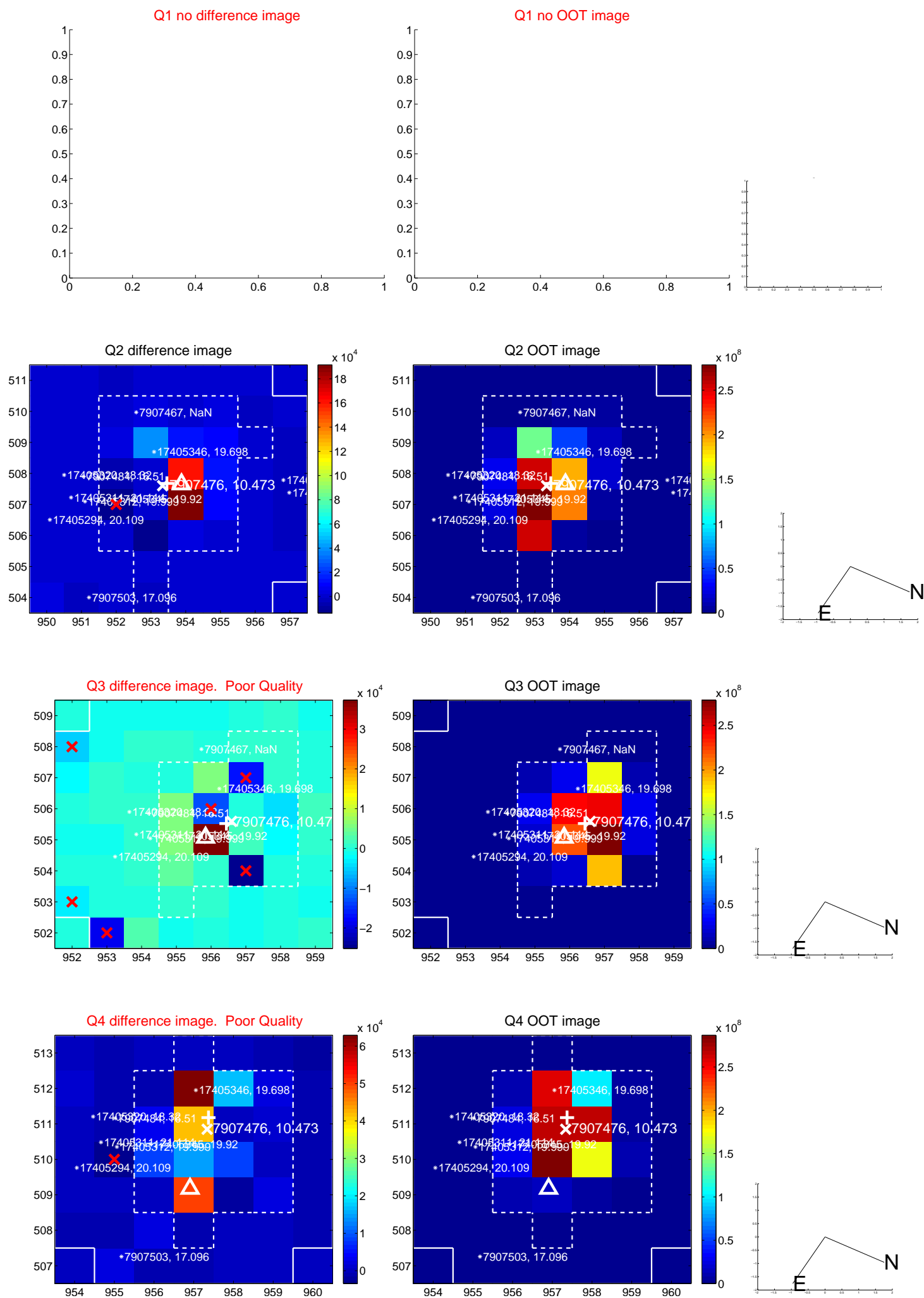
The direct PRF centroid is offset from the target star catalog position by about 1.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.844 ± 0.731	2.52	-1.219 ± 0.979	1.384 ± 0.544
PRF-fit source offset from KIC position	2.075 ± 0.628	3.30	-1.342 ± 0.723	1.582 ± 0.522
photometric centroid source offset	0.79 ± 0.35	2.29	0.70 ± 0.37	0.38 ± 0.27

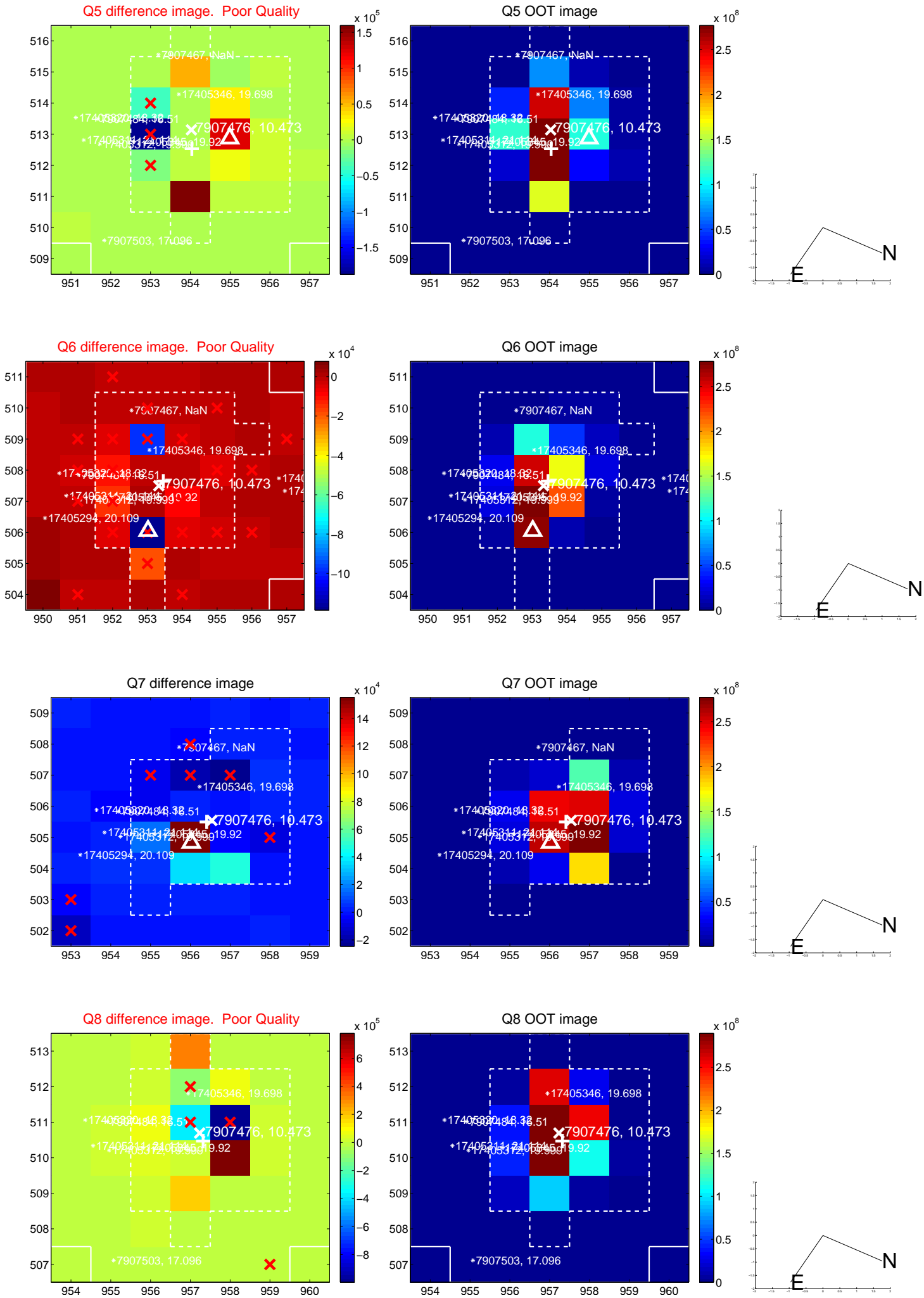


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

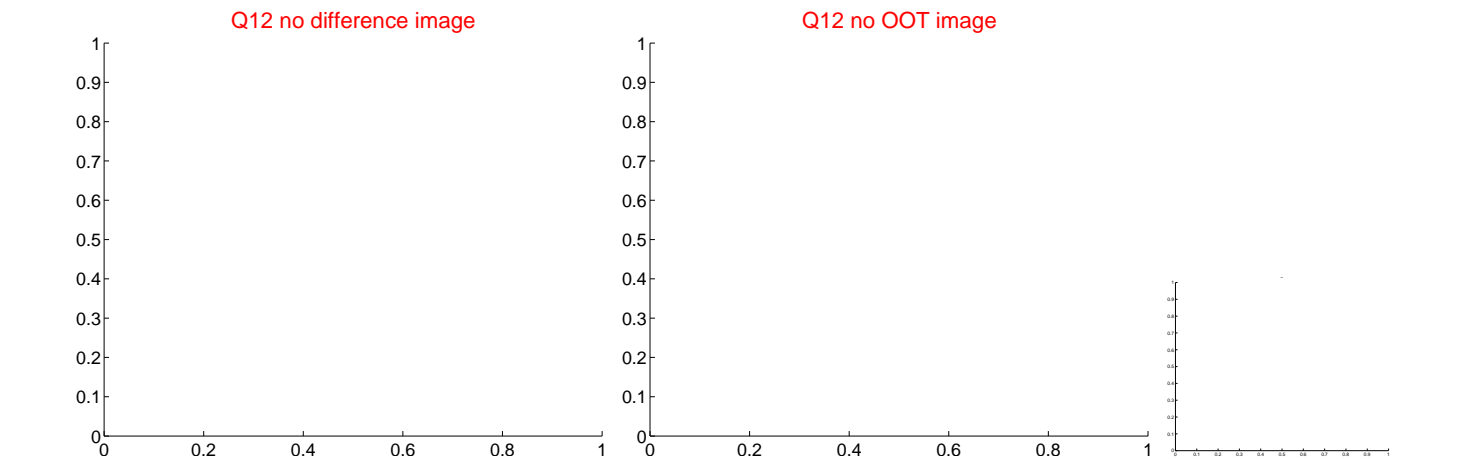
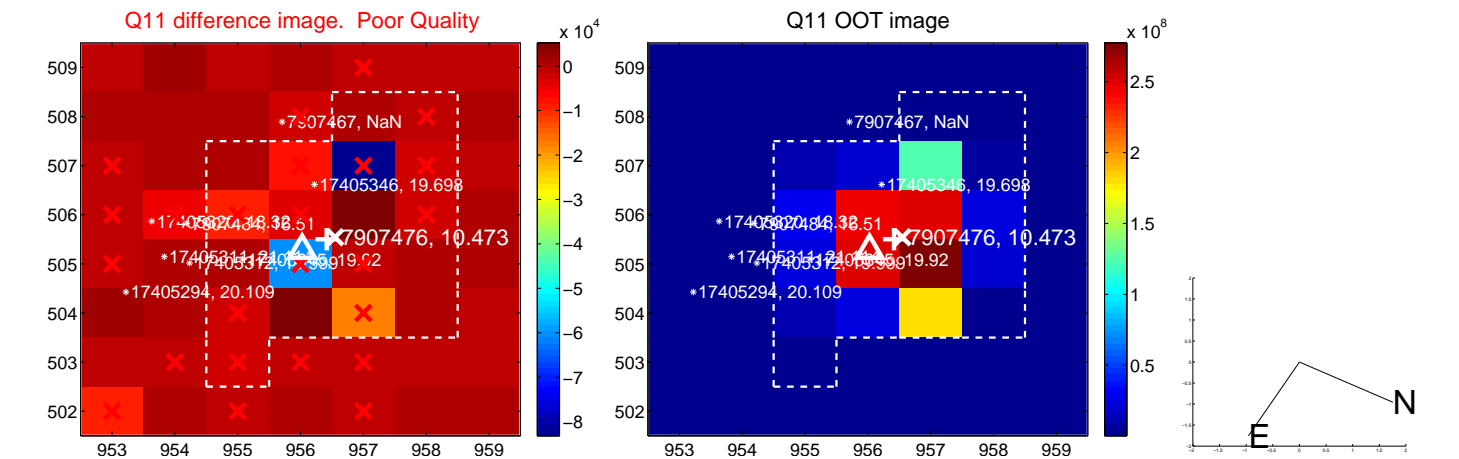
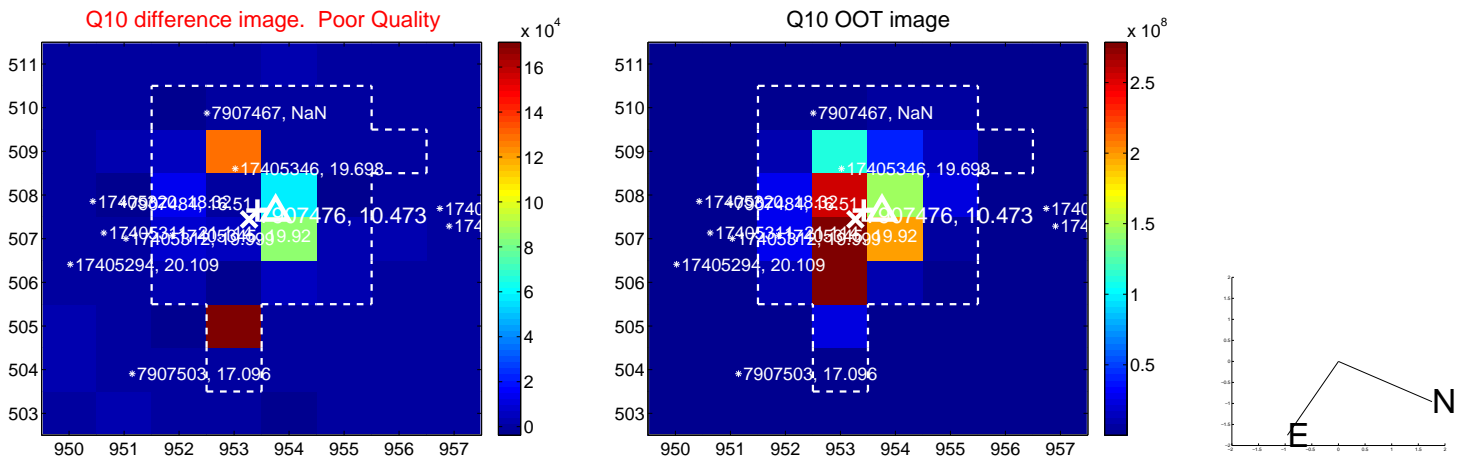
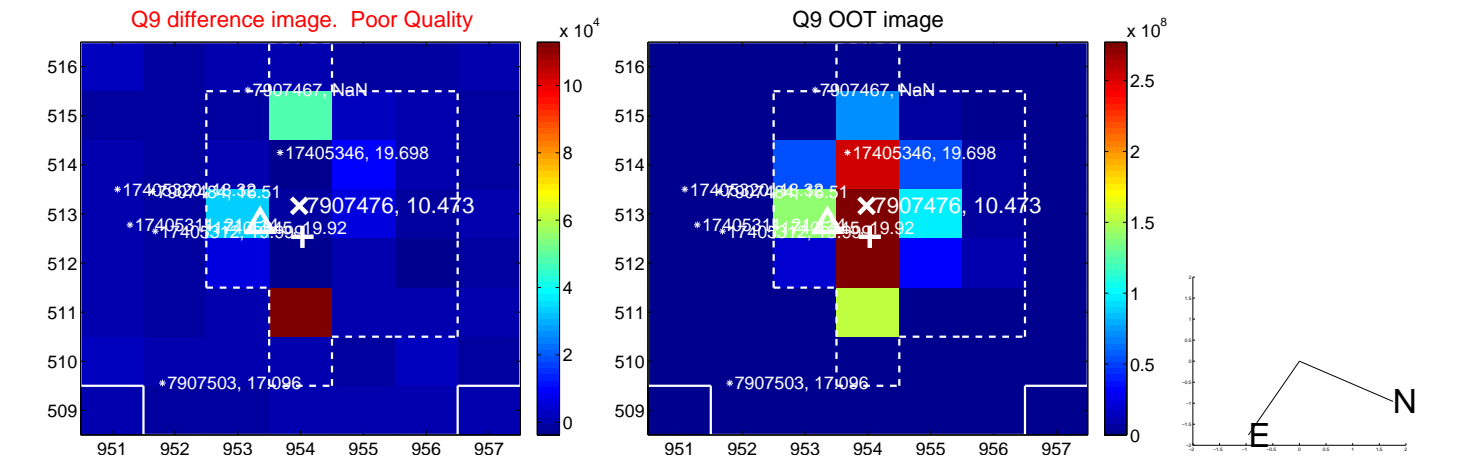
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



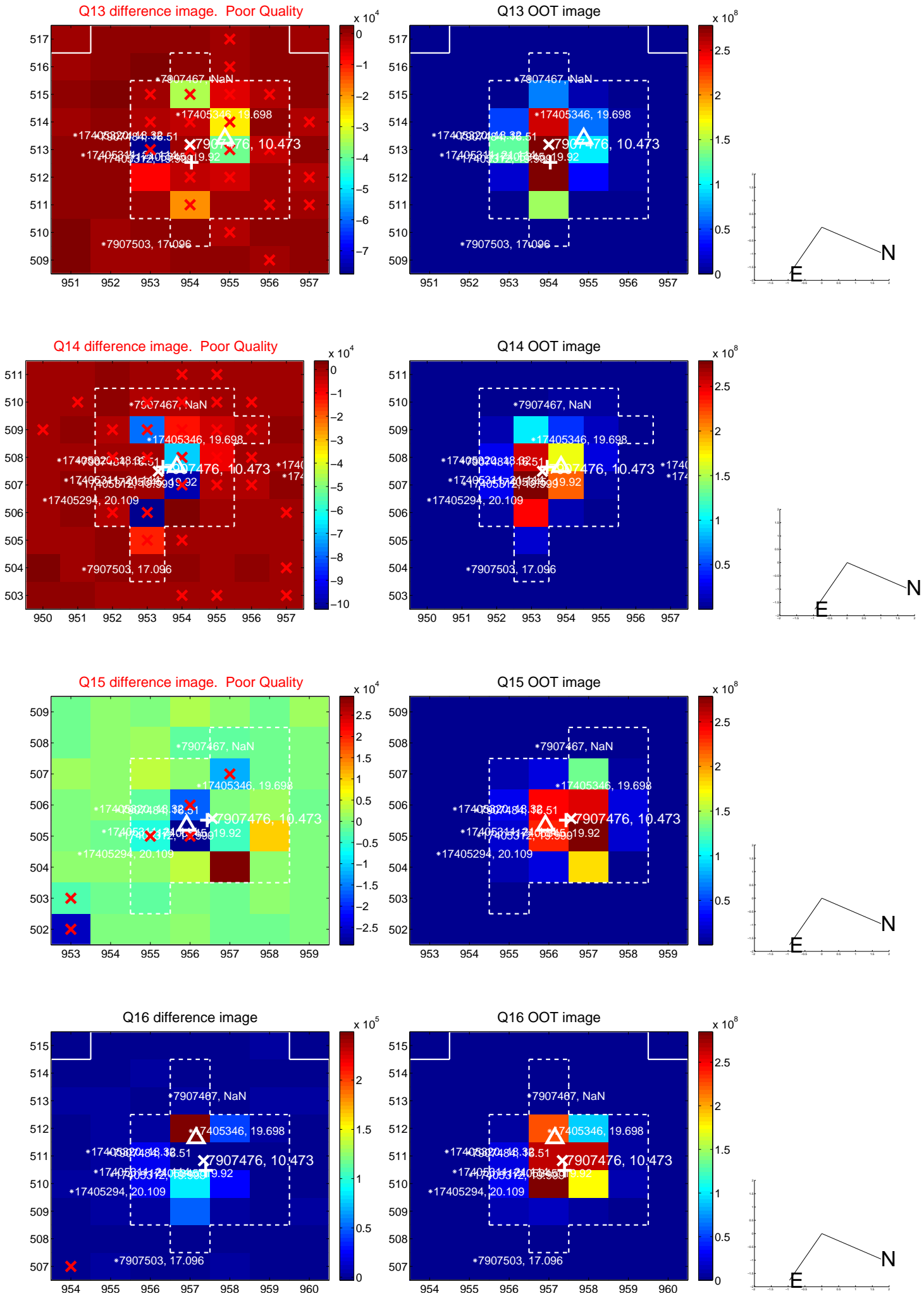
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



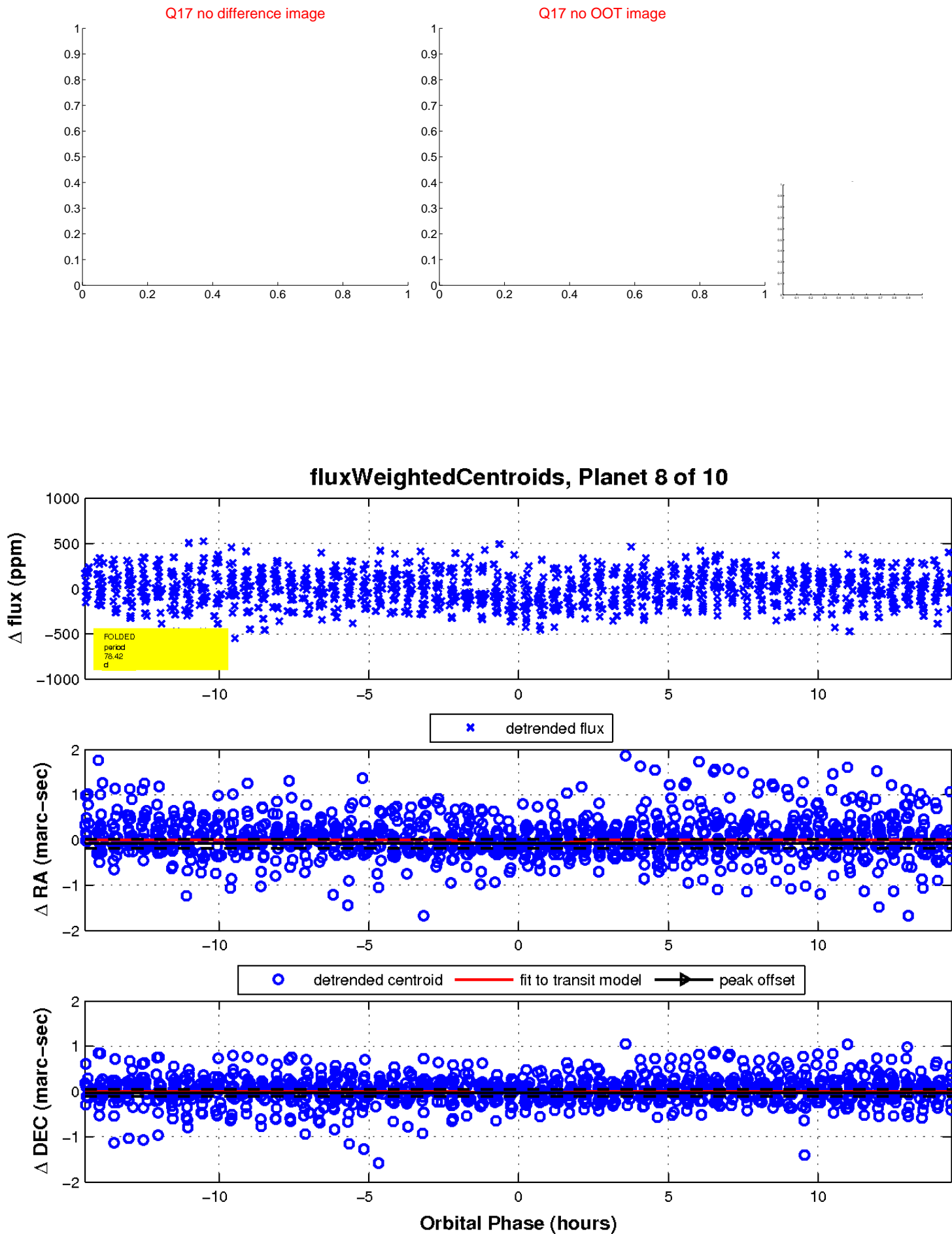
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

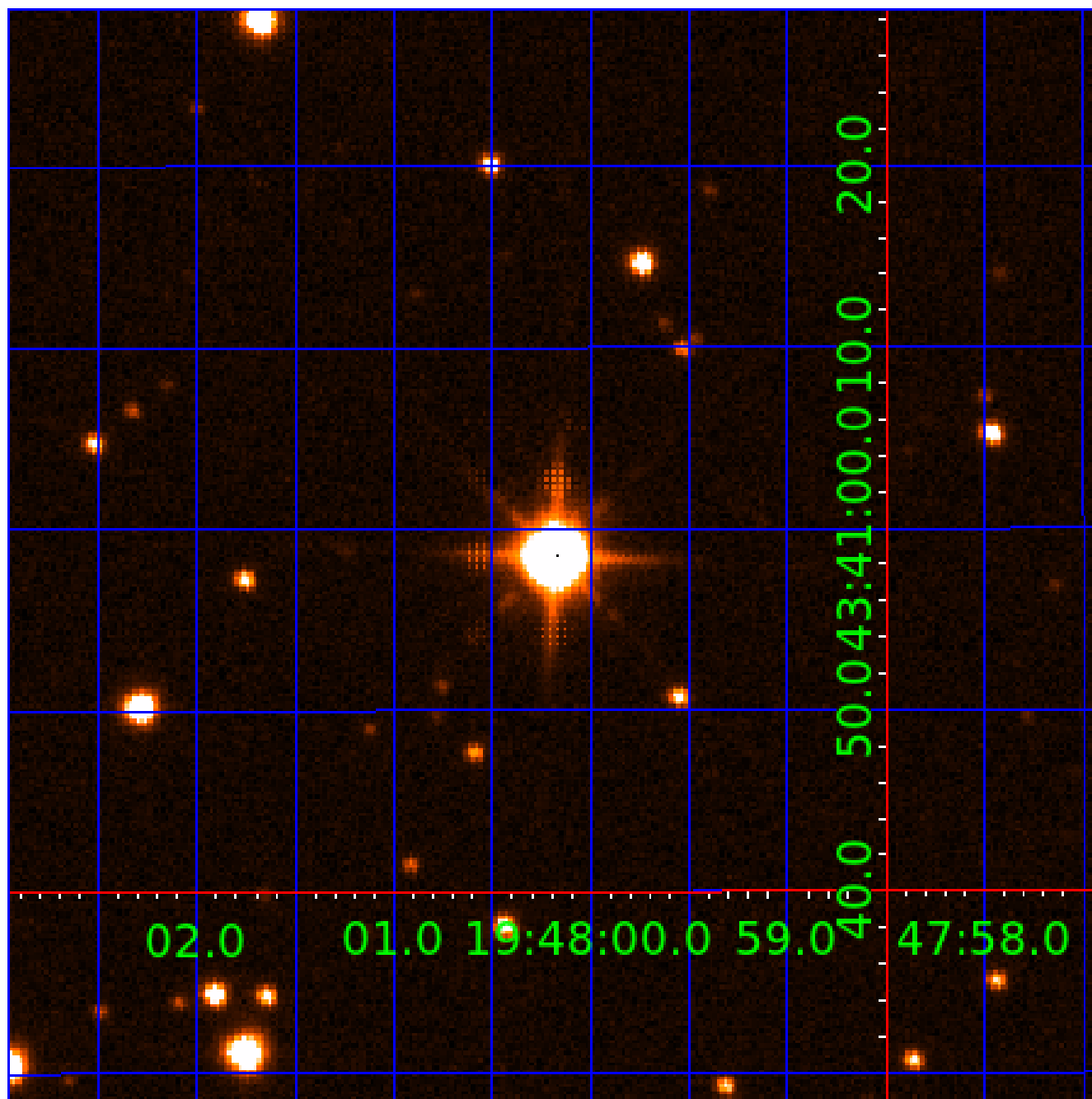


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

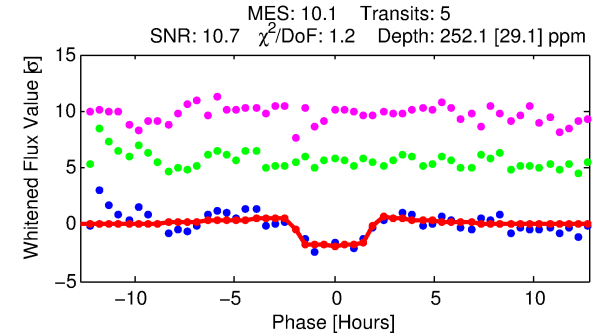
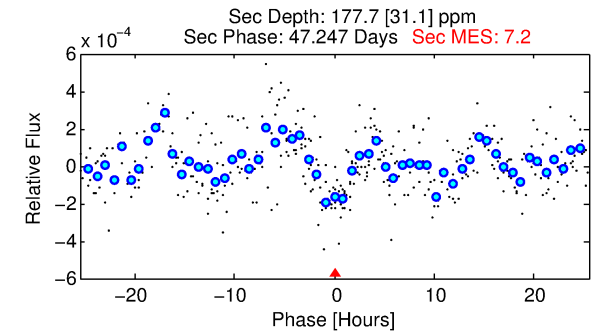
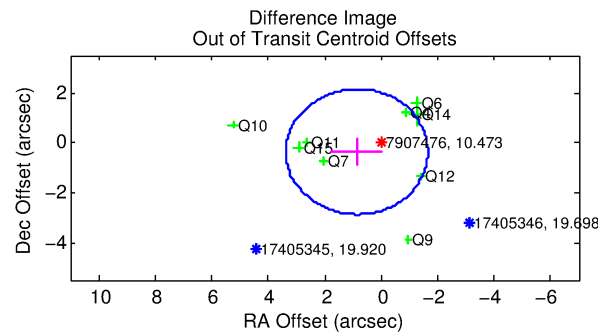
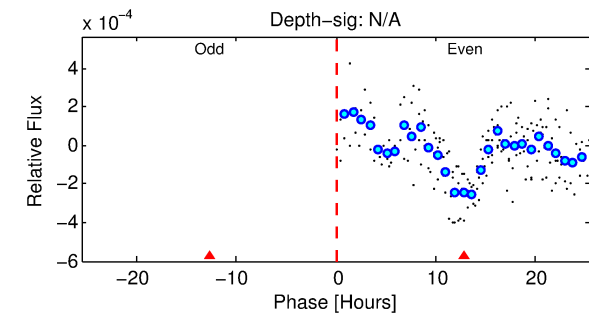
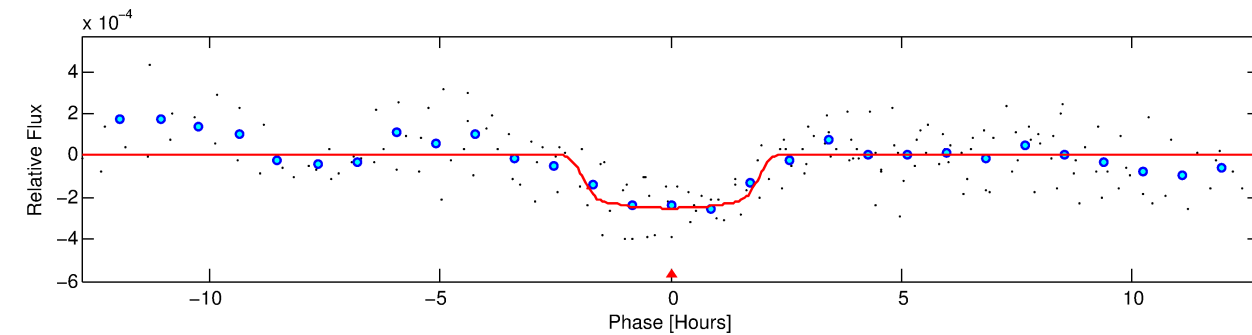
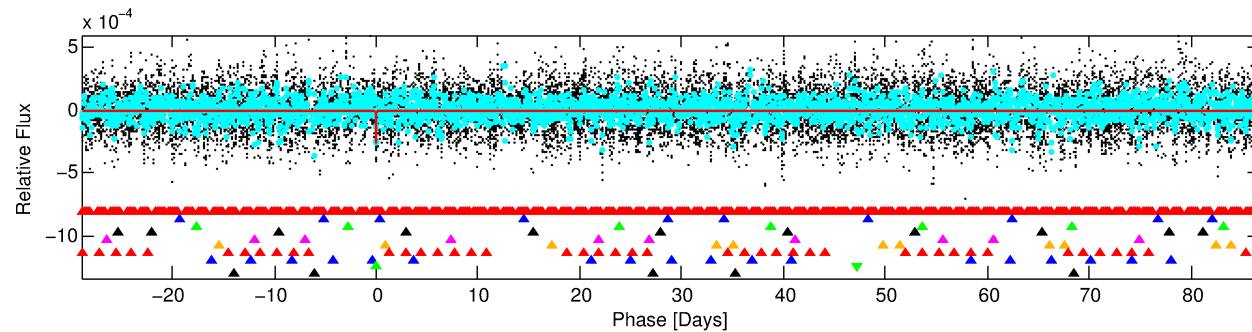
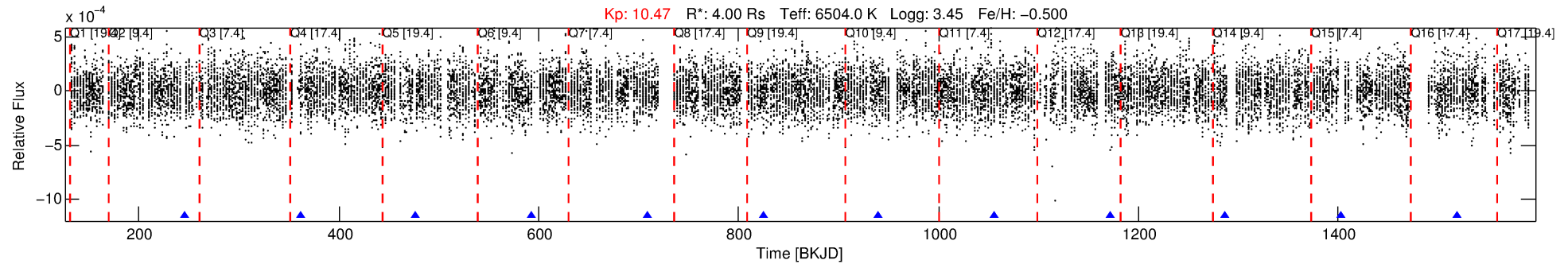
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-09

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 9 of 10 Period: 115.658 d



DV Fit Results:

Period = 115.65767 [0.00129] d
Epoch = 246.0570 [0.0072] BKJD
Rp/R* = 0.0171 [0.0060]
a/R* = 94.18 [189.19]
b = 0.91 [0.38]
Seff = 85.30 [60.79]
Teq = 775 [138] K
Rp = 7.48 [4.20] Re
a = 0.5488 [0.2378] AU
Ag = 526.35 [529.78] [0.99σ]
Teffp = 5739 [1048] K [4.70σ]

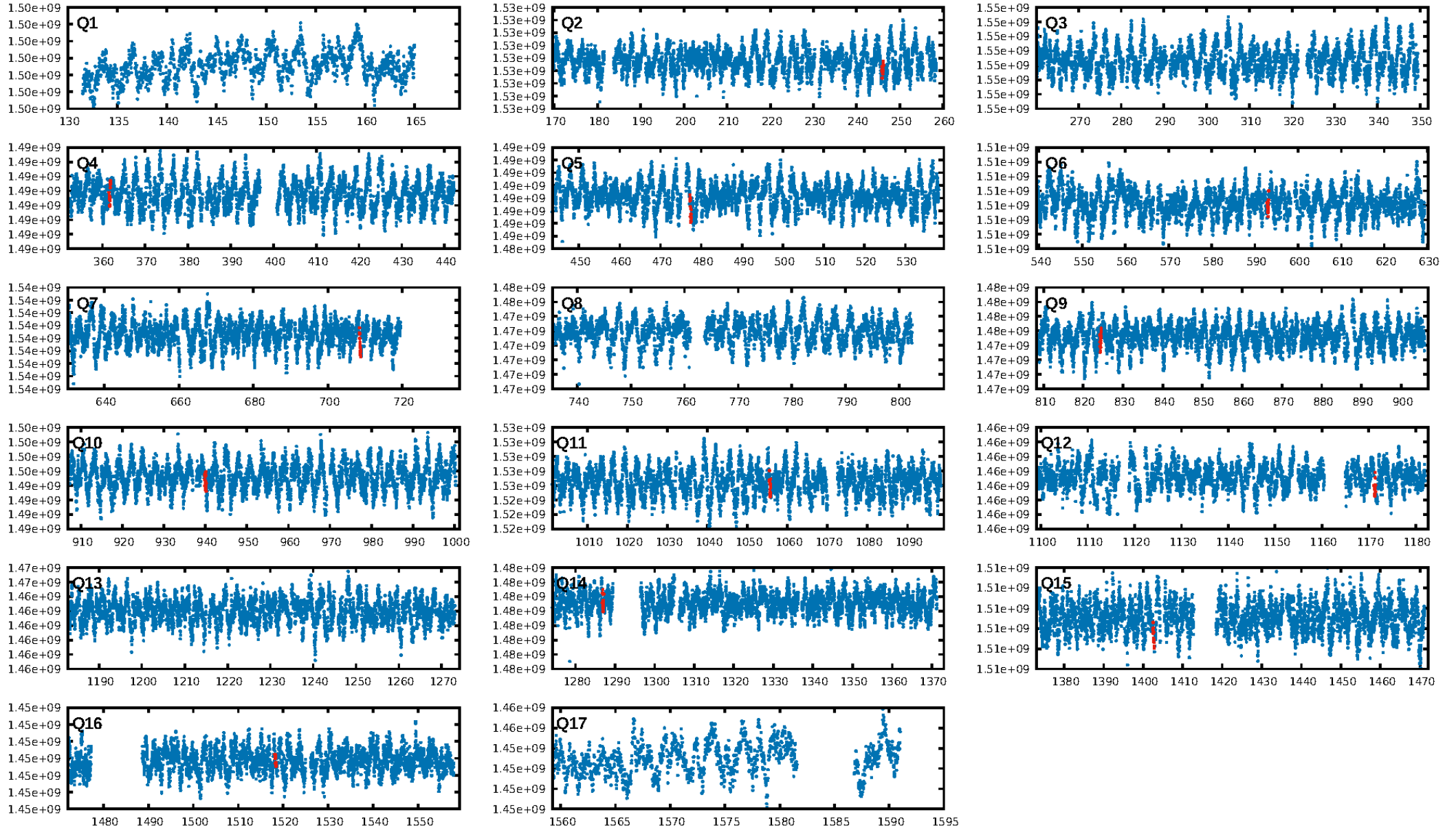
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [138.93σ]
LongPeriod-sig: 100.0% [35.52σ]
ModelChiSquare2-sig: 8.1%
ModelChiSquareGof-sig: 96.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.3387
Centroid-sig: 19.4%
Centroid-so: 1.063 arcsec [2.24σ]
OotOffset-rm: 0.935 arcsec [1.12σ]
OotOffset-st: 3/3/2/1 [9]
KicOffset-rm: 1.441 arcsec [1.67σ]
KicOffset-st: 3/3/2/1 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 0.50 [5/10]

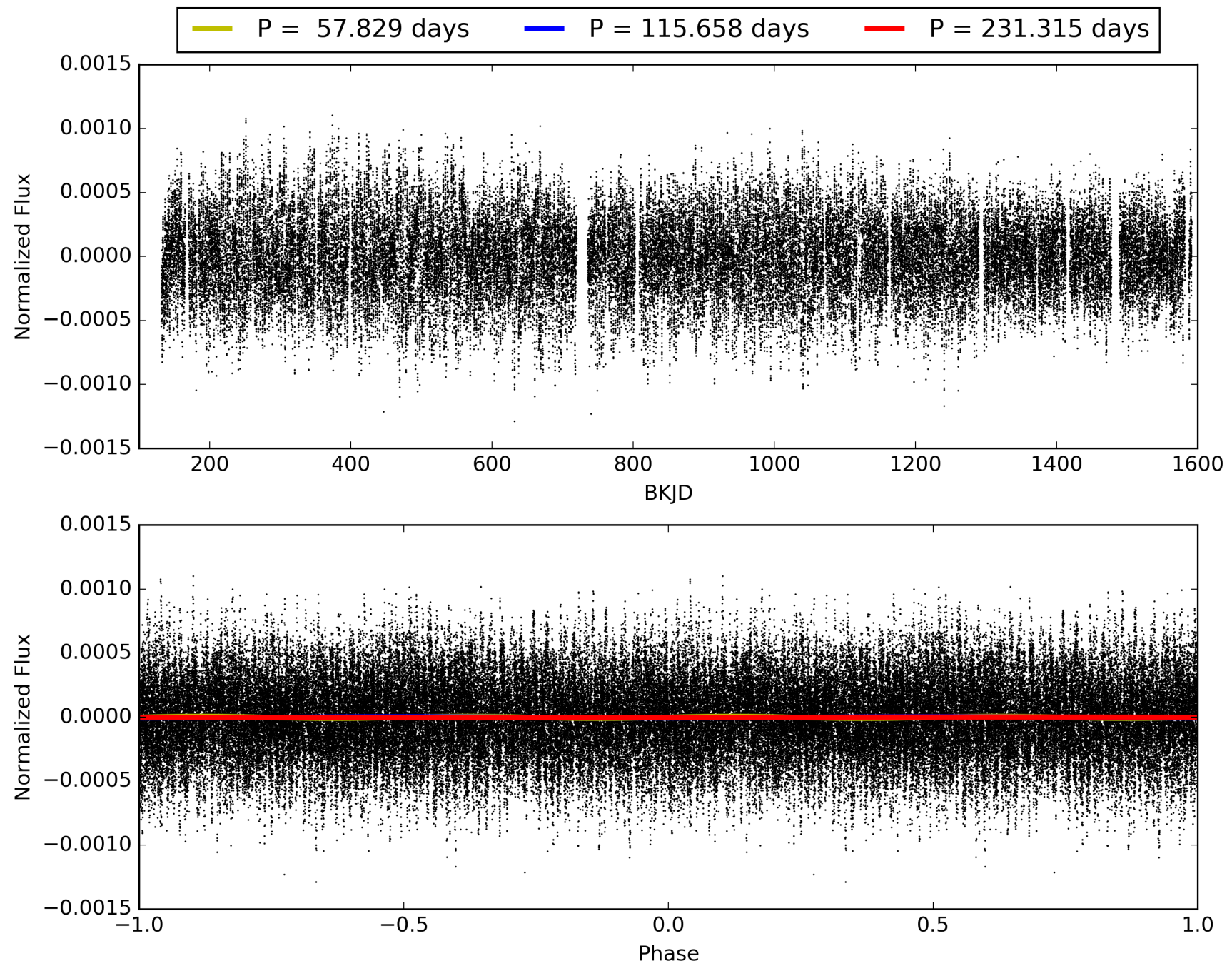
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:30 Z

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

TCE 007907476-09, PDC Light Curves

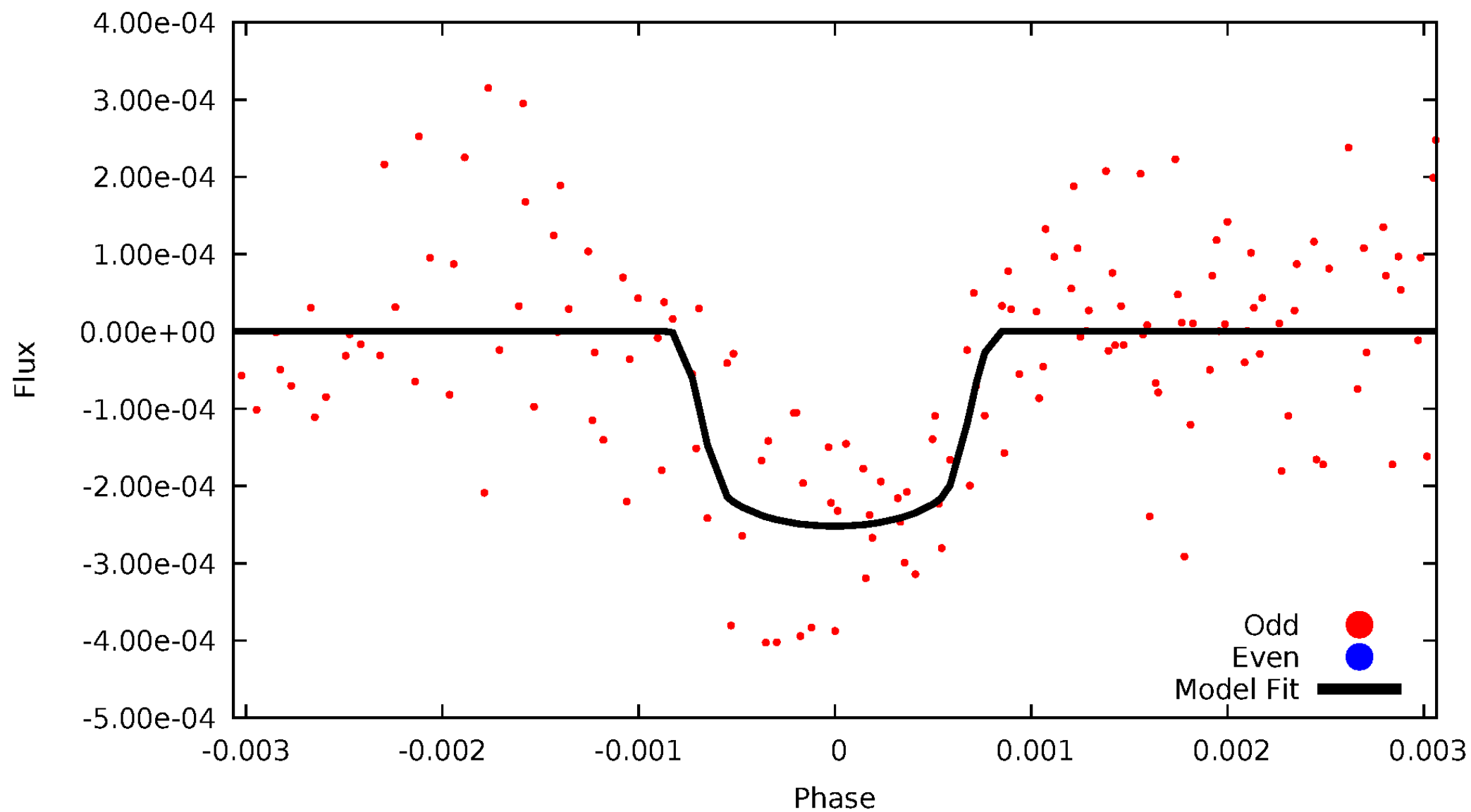


TCE 007907476-09



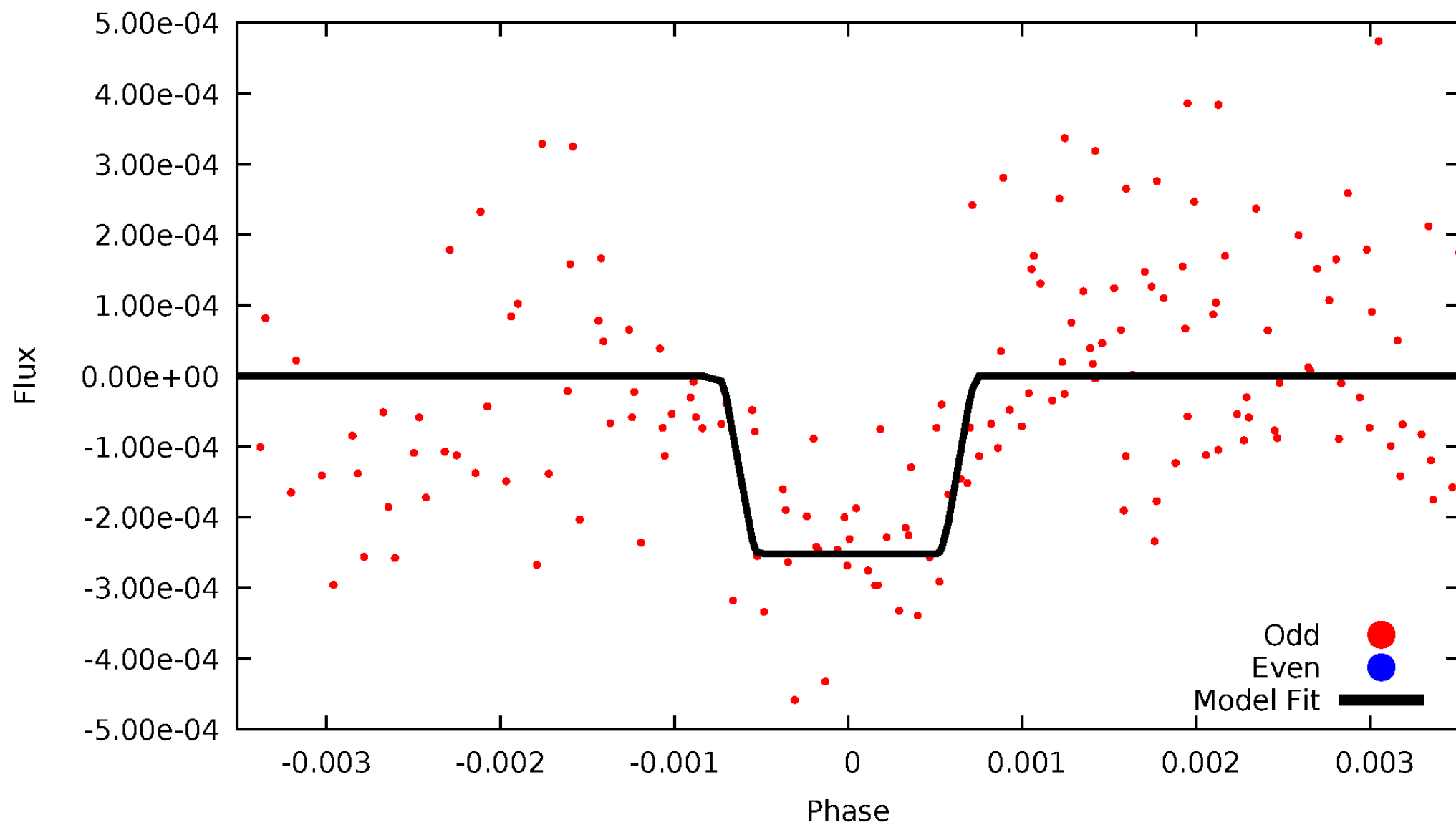
DV Odd/Even

TCE 007907476-09

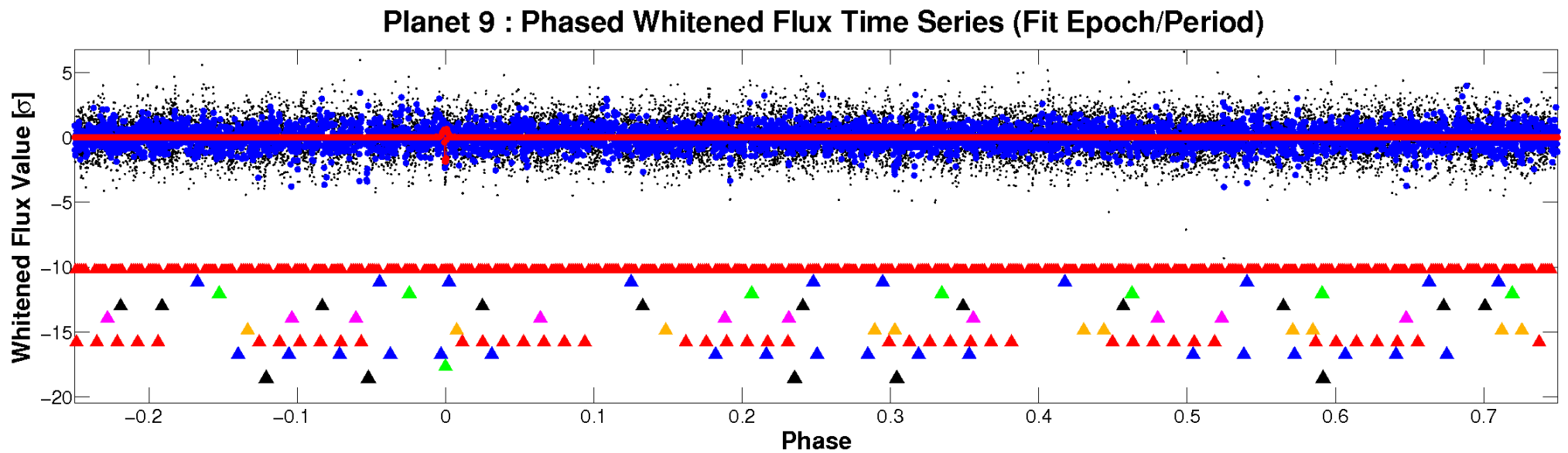
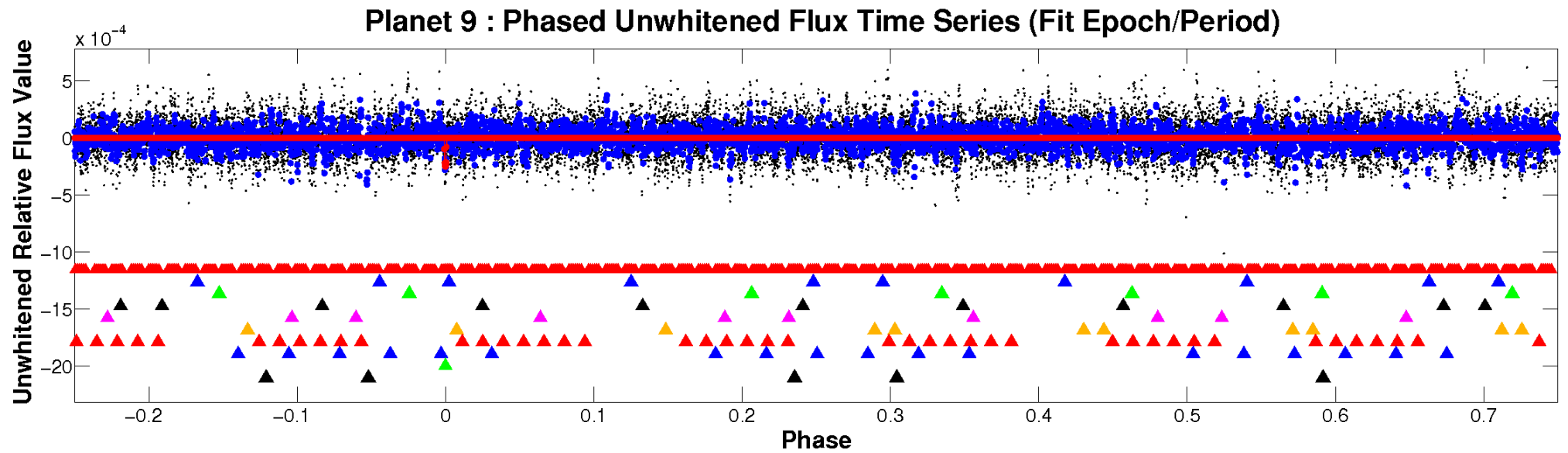


ALT Odd/Even

TCE 007907476-09

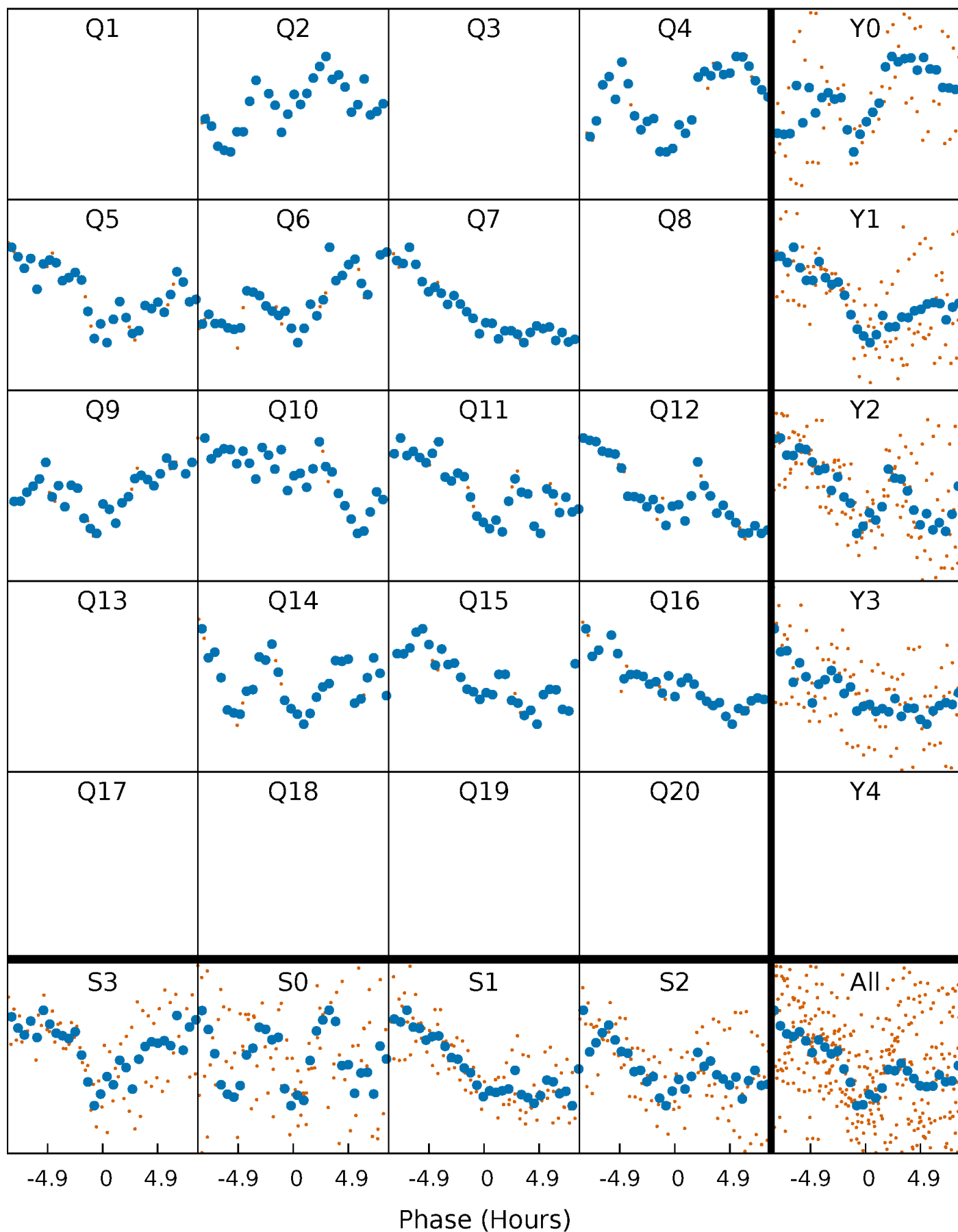


Non-Whitened Vs. Whitened Light Curve



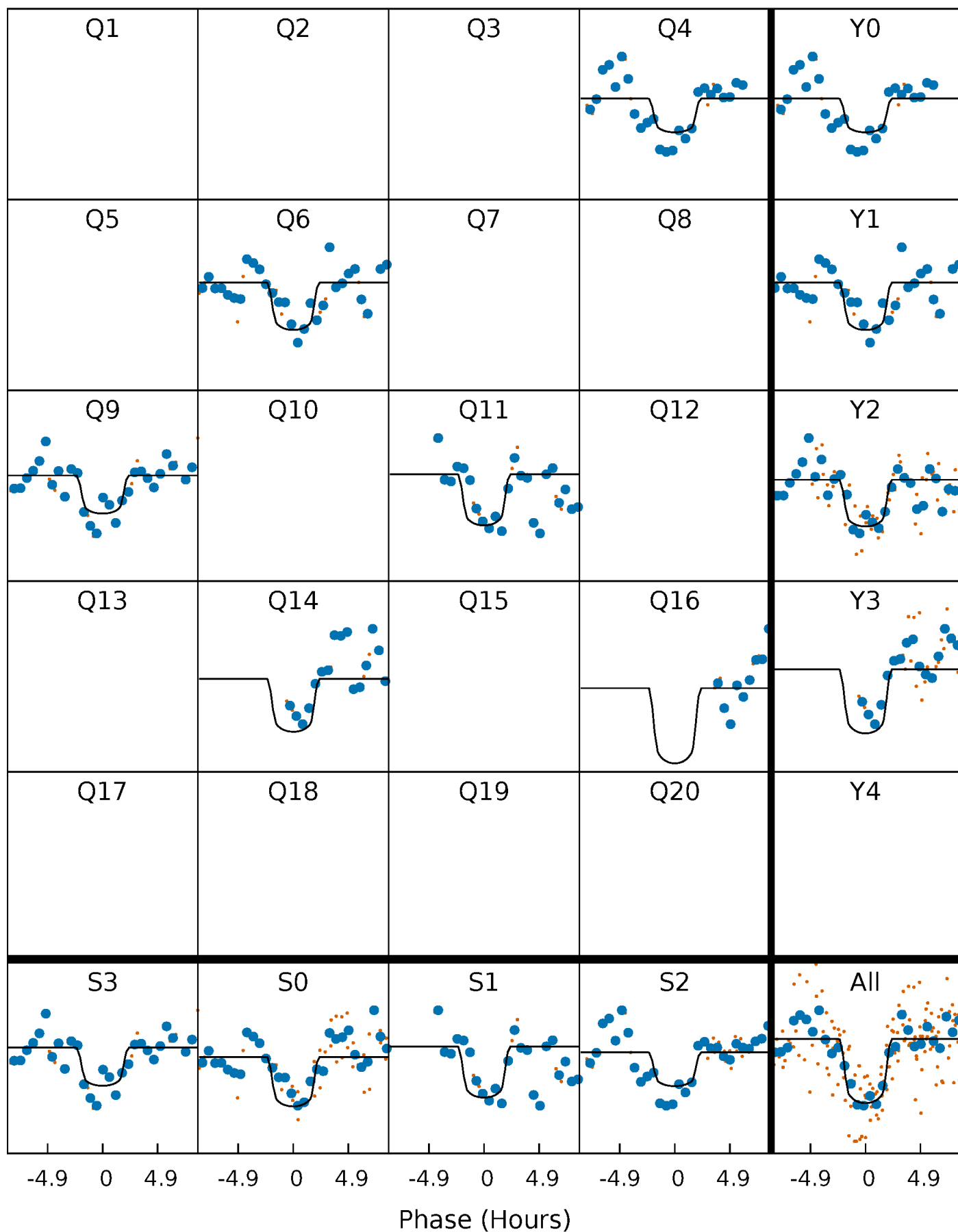
PDC Quarter-Phased Transit Curves

TCE 007907476-09 P=115.657674 Days $T_0=246.056982$ (BKJD)



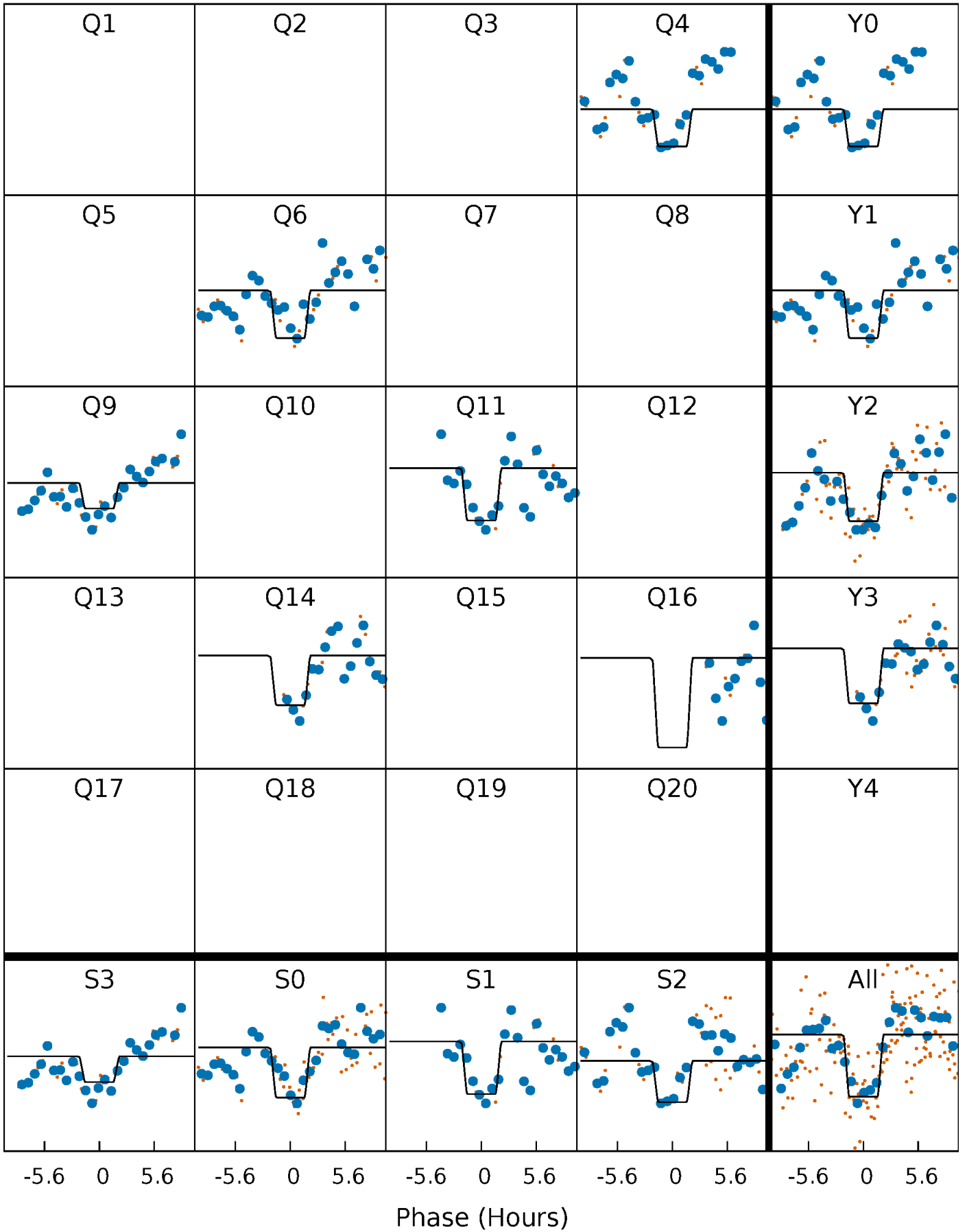
DV Quarter-Phased Transit Curves

TCE 007907476-09 P=115.657674 Days $T_0=246.056982$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

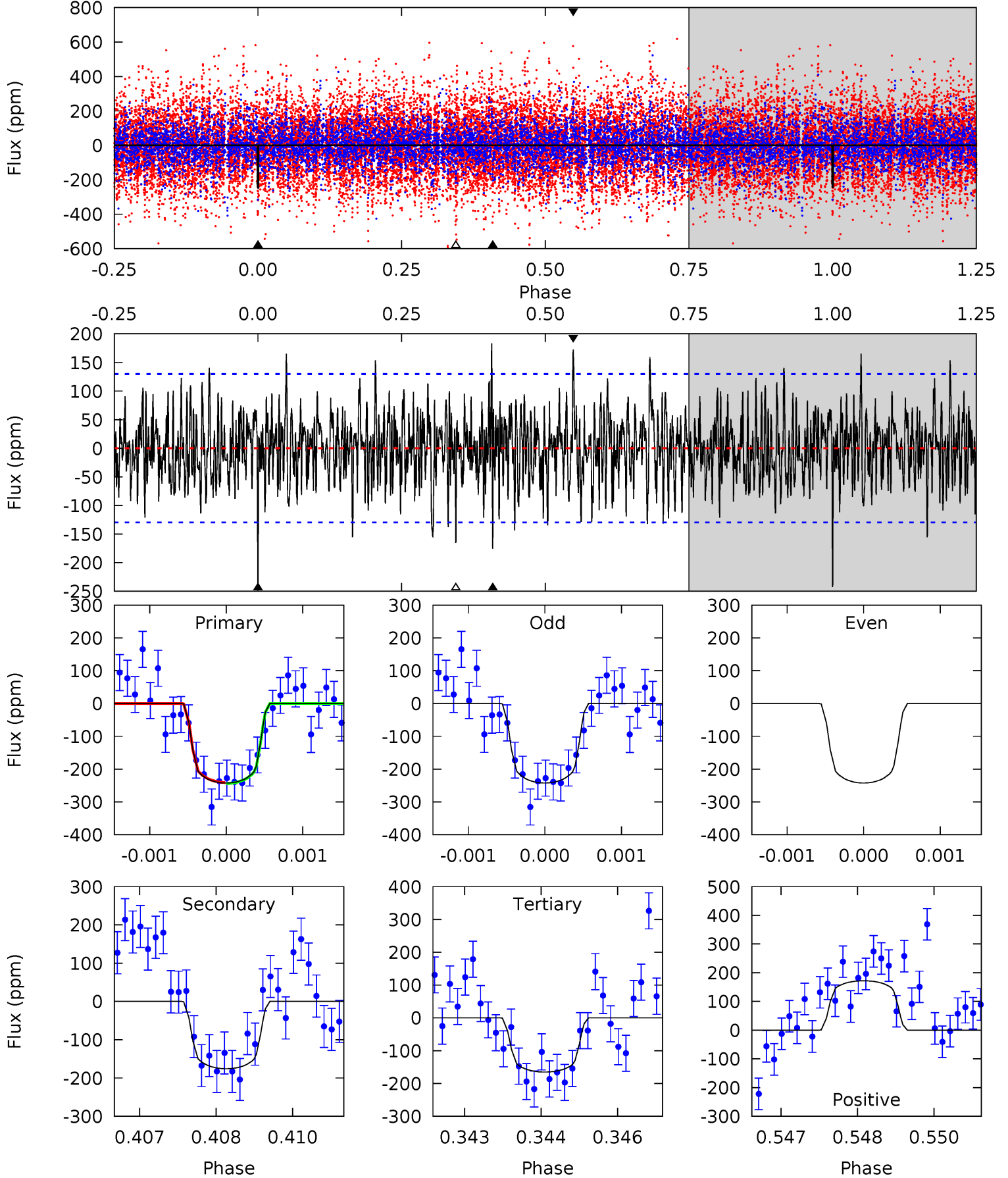
TCE 007907476-09 $P=115.658193$ Days $T_0=246.055793$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-09, P = 115.657674 Days, E = 130.399308 Days

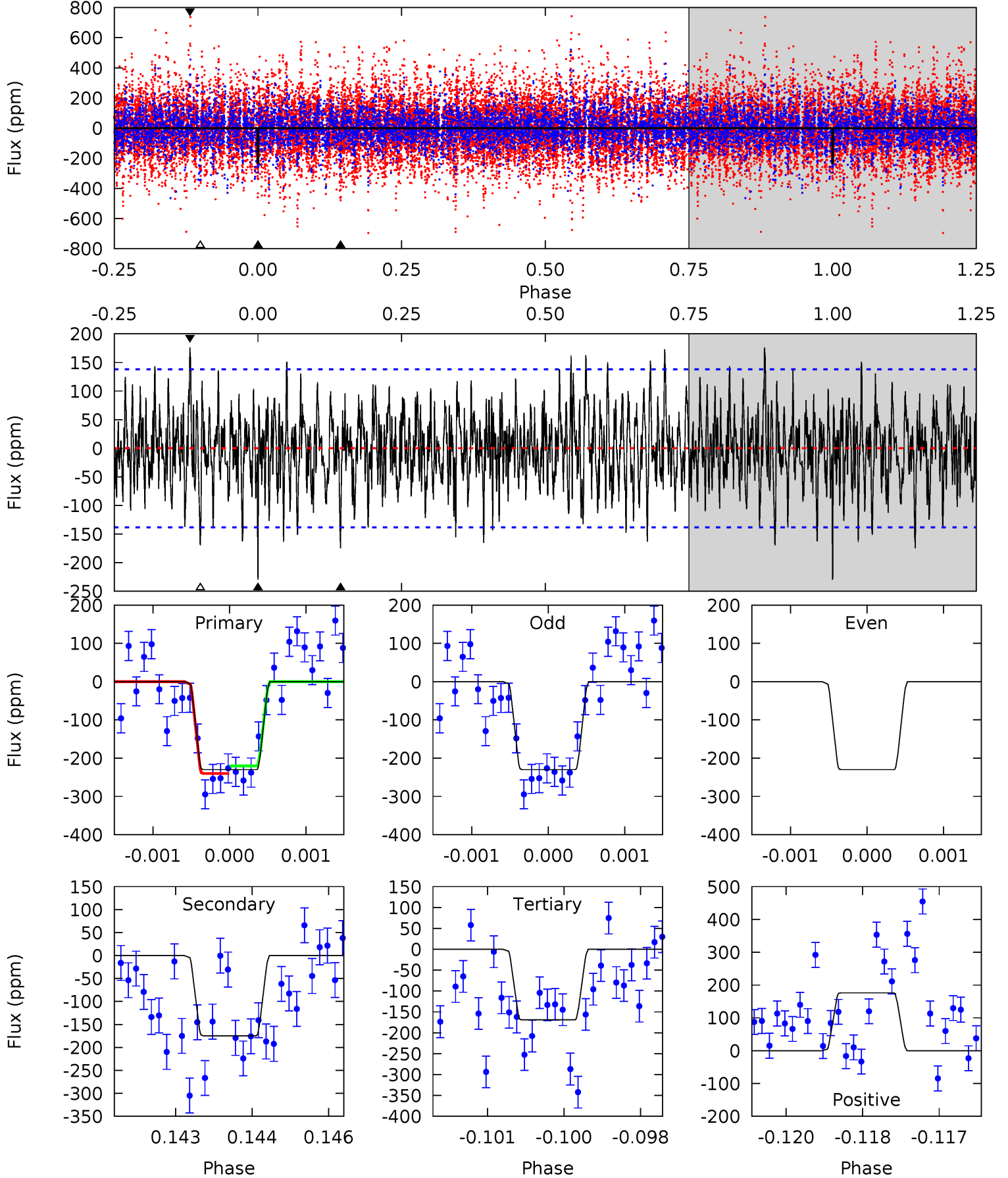
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	7.30	6.86	7.14	5.38	3.18	2.10	3.21	2.92	0.44	0.16	0	1.19	0.43	0.06



Alt Model-Shift Uniqueness Test

007907476-09, P = 115.658193 Days, E = 130.397600 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.97	6.81	6.60	6.87	5.39	3.19	2.07	2.37	2.09	0.22	-0.06	0	1.01	0.43	0.38



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-176 ± 24	$6.69^{+2.66}_{-2.54}$	1048^{+61}_{-116}	5683^{+1471}_{-704}	618^{+952}_{-299}
Alt.	-175 ± 26	$6.06^{+2.92}_{-2.41}$	1051^{+63}_{-115}	5913^{+1754}_{-848}	767^{+1283}_{-421}

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 $A_{obs} \gg 1.0$

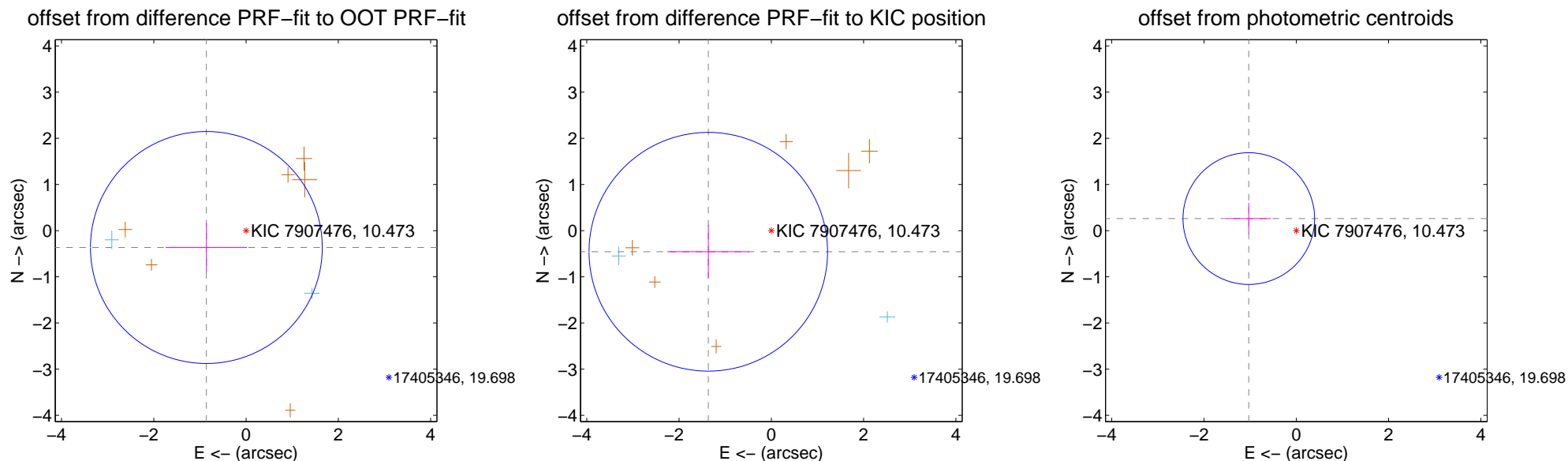
DV Centroid Data

Supplemental centroid analysis for 007907476-09. **Kepler magnitude: 10.47.** Transit SNR 10.72

There are 2 quarters with good PRF difference image offsets

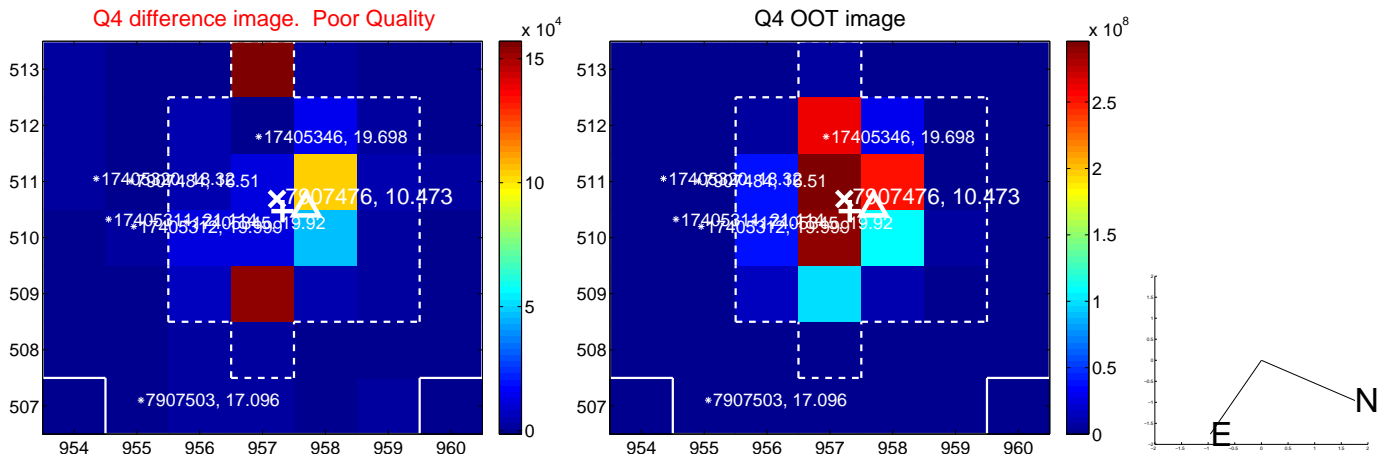
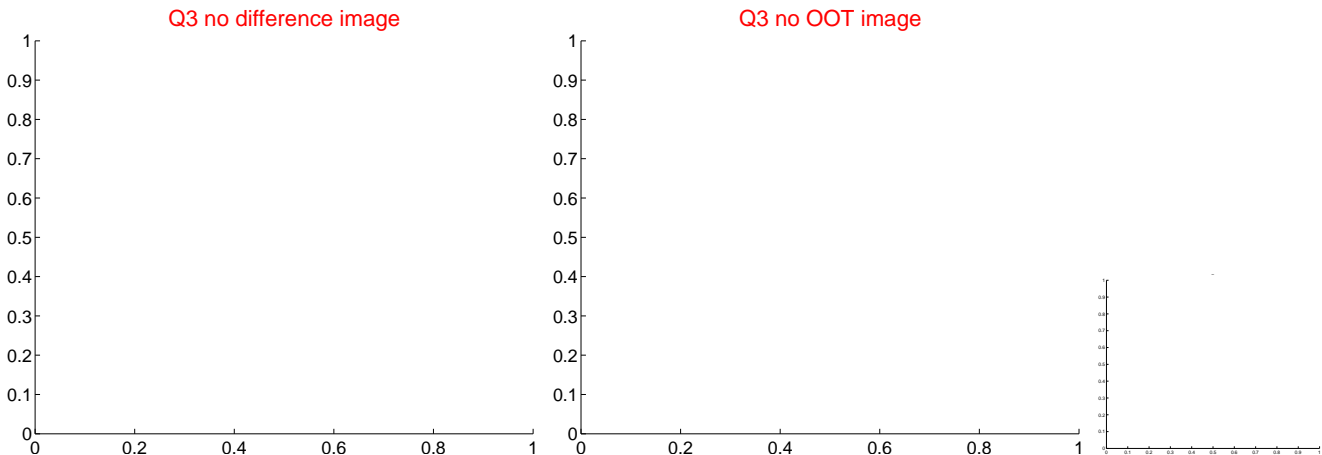
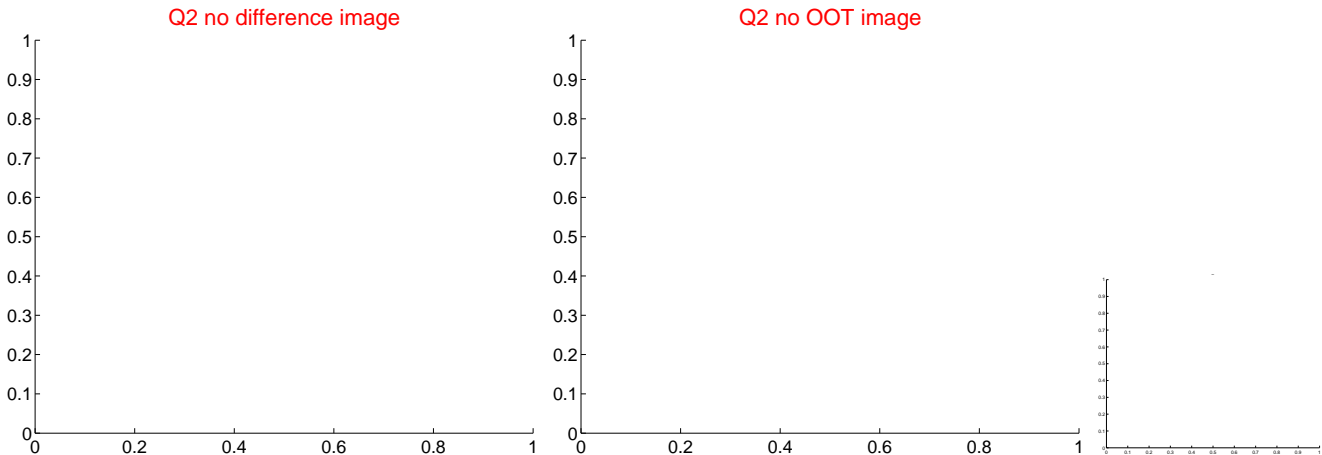
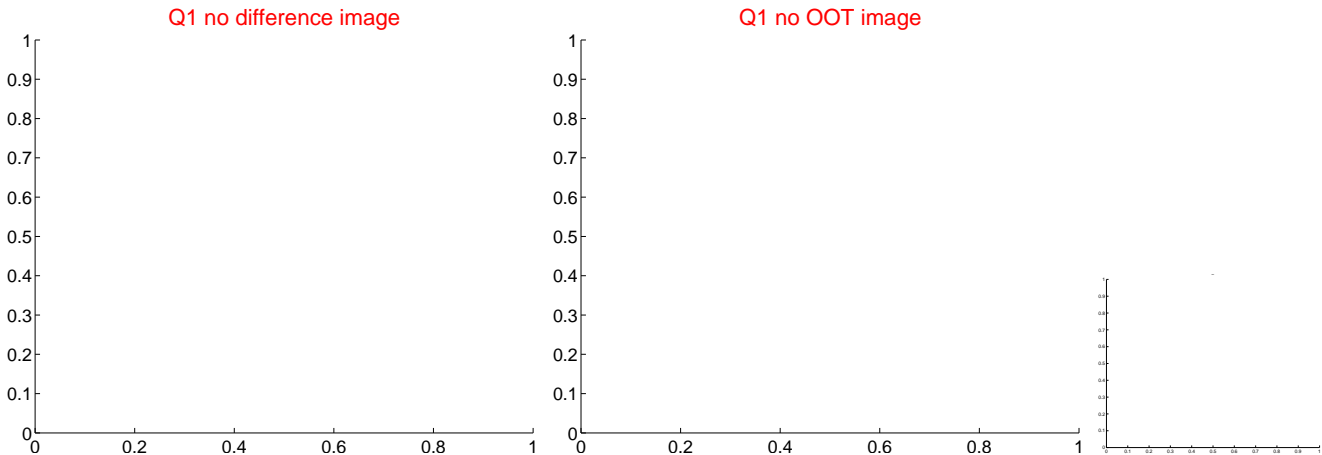
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.935 ± 0.837	1.12	0.861 ± 0.881	-0.365 ± 0.538
PRF-fit source offset from KIC position	1.441 ± 0.862	1.67	1.366 ± 0.888	-0.458 ± 0.573
photometric centroid source offset	1.06 ± 0.48	2.24	1.03 ± 0.48	0.26 ± 0.34

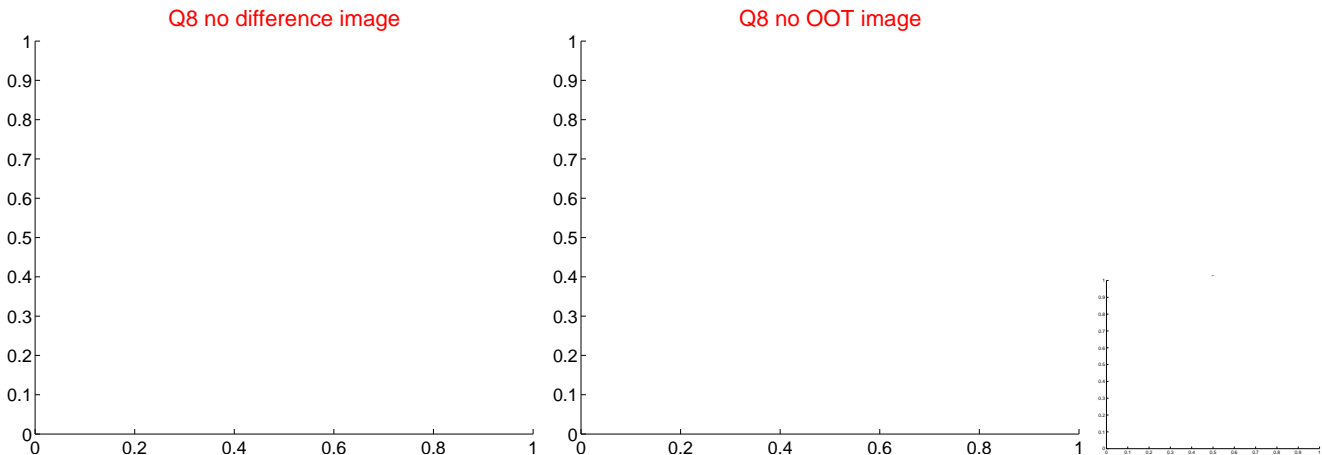
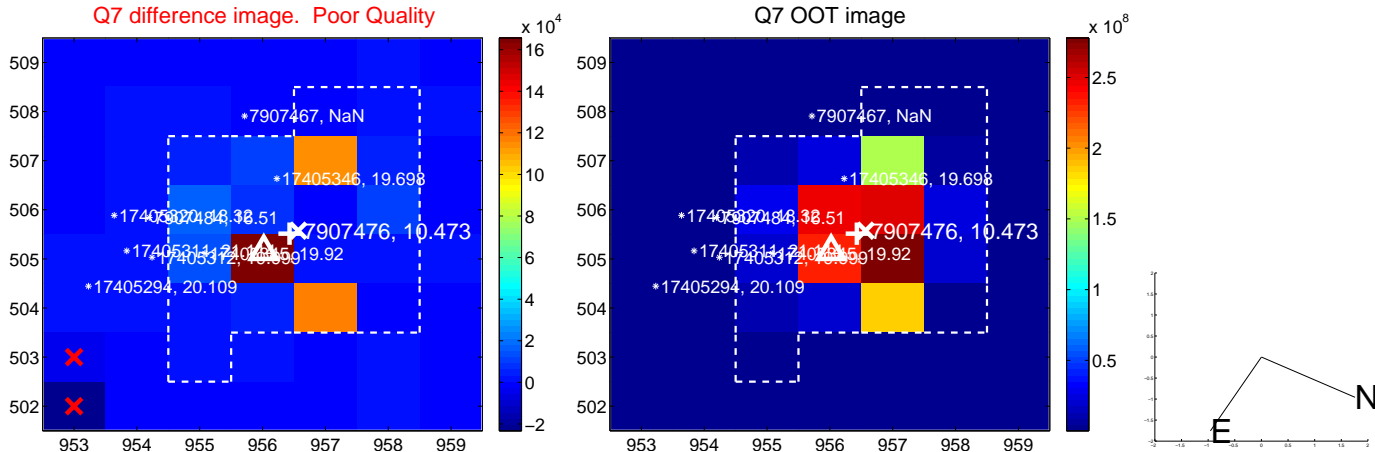
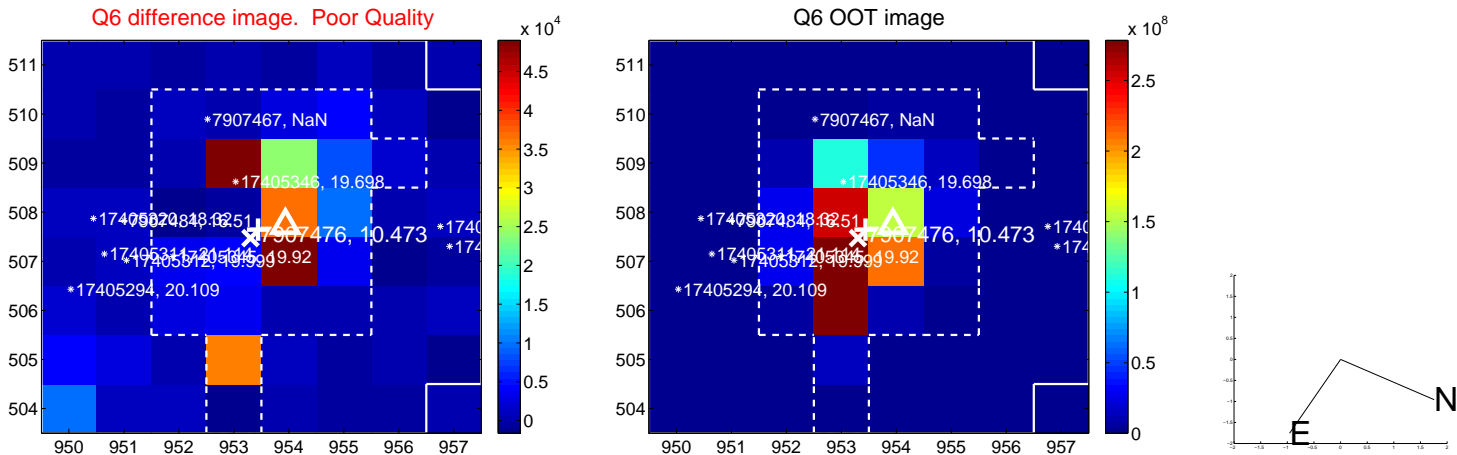
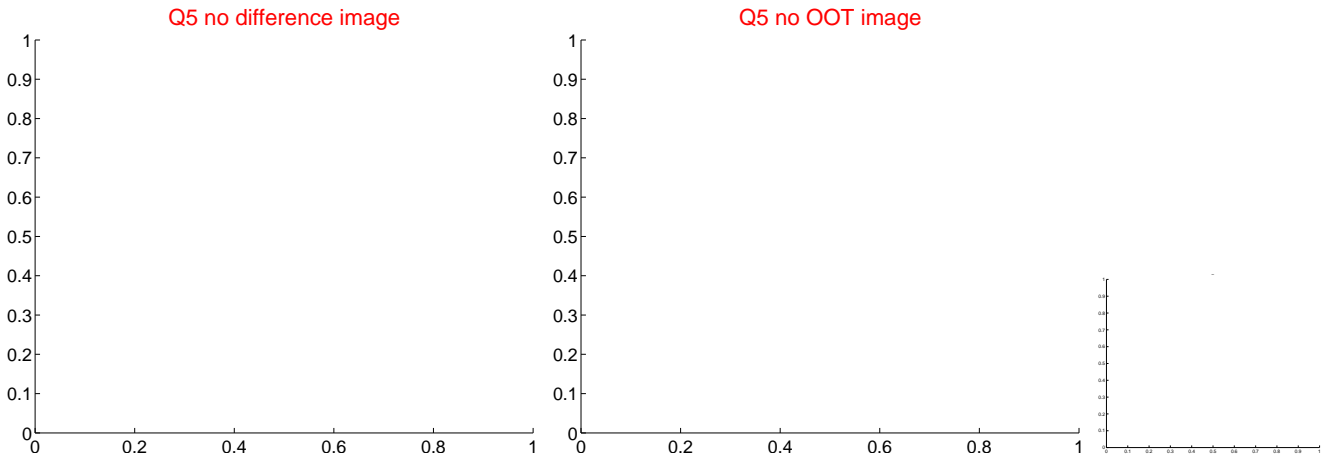


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

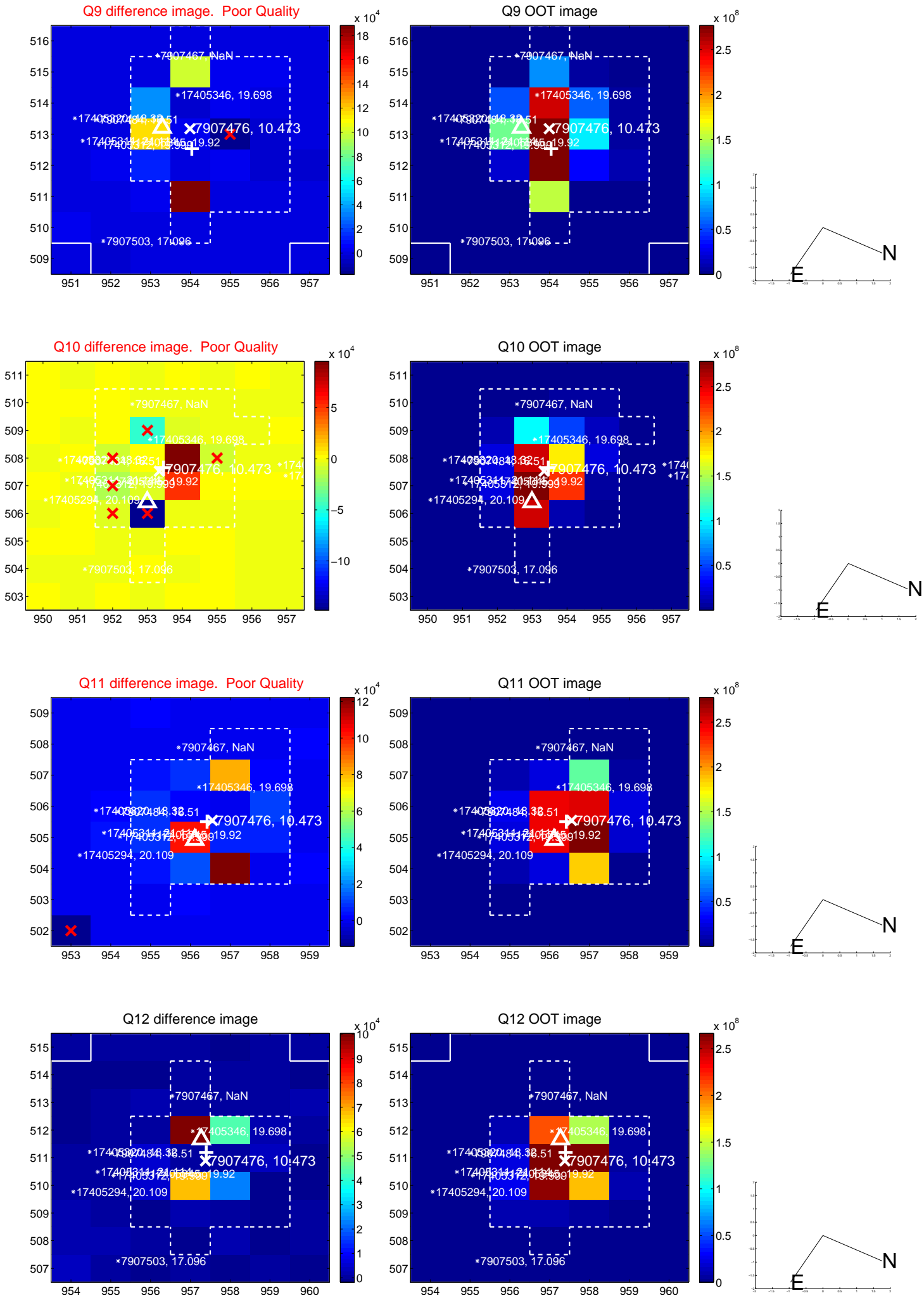
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



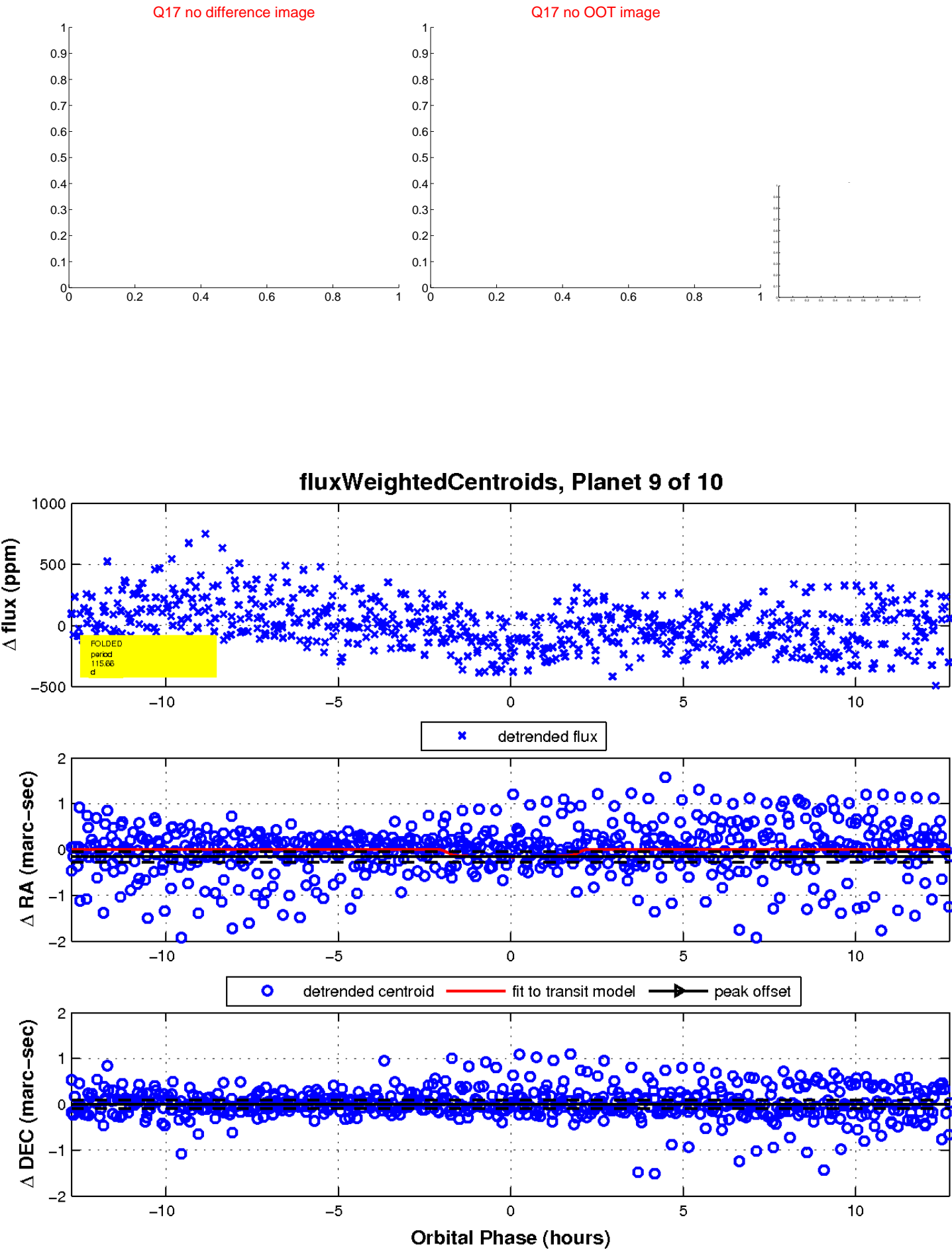
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

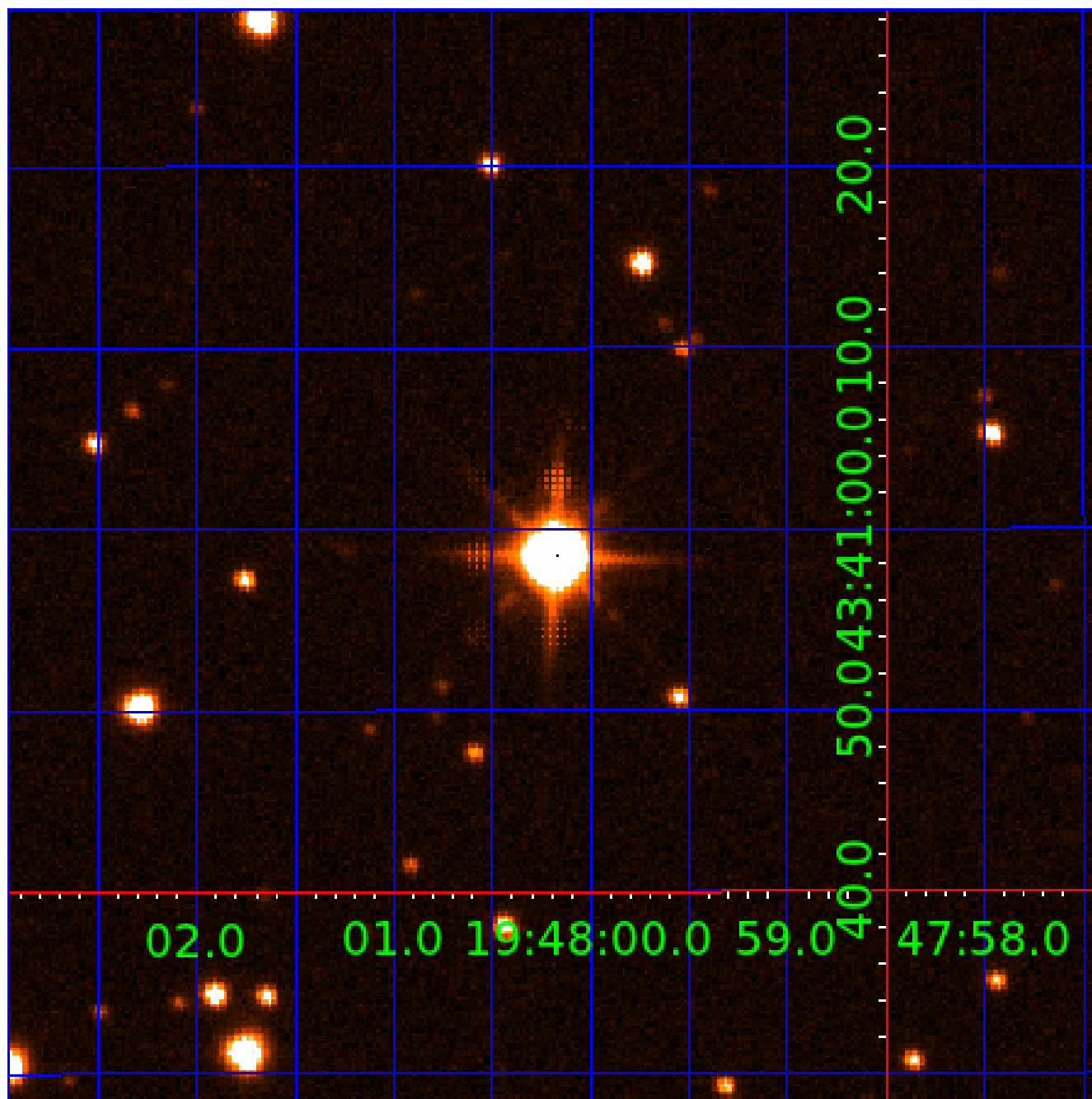


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
007907476-01	OBS	No	2.857736	134.315104	0.1	15.211	12.8	0.0	4.00	6504	0.14	11853.43
007907476-02	OBS	No	149.475447	207.106315	346.9	39.503	20.4	8.5	4.00	6504	8.93	60.60
007907476-03	OBS	No	216.488183	243.239842	539.4	25.839	14.6	12.6	4.00	6504	10.44	36.98
007907476-04	OBS	No	128.150052	211.461692	397.7	7.292	12.1	12.2	4.00	6504	14.20	74.40
007907476-05	OBS	No	149.415882	234.082564	489.9	5.998	11.9	12.3	4.00	6504	17.03	60.63
007907476-06	OBS	No	131.956442	165.439846	162.4	8.078	10.7	4.9	4.00	6504	5.66	71.55
007907476-07	OBS	No	33.272501	131.711948	172.2	5.136	10.6	9.7	4.00	6504	6.66	449.19
007907476-08	OBS	No	78.423775	188.698862	260.8	4.825	10.6	10.6	4.00	6504	8.14	143.20
007907476-09	OBS	No	115.657674	246.056982	252.1	4.253	10.1	10.7	4.00	6504	7.48	85.31
007907476-10	OBS	No	305.764701	281.252514	222.2	11.494	10.2	6.6	4.00	6504	6.92	23.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007907476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007907476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007907476-04	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED—HALO_GHOST
007907476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_SATURATED
007907476-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007907476-09	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007907476-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

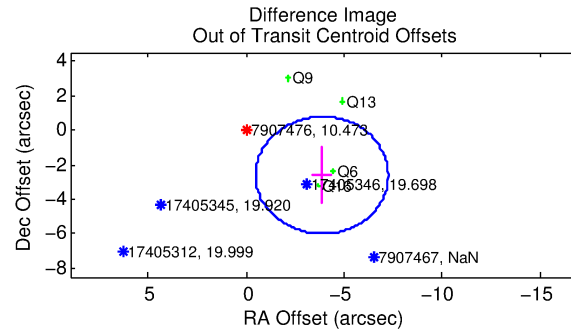
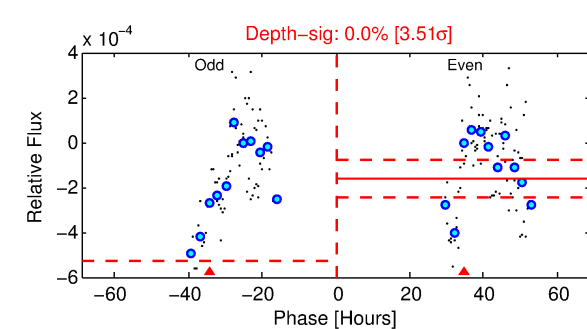
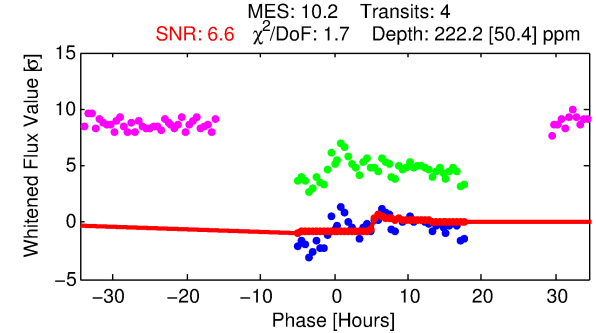
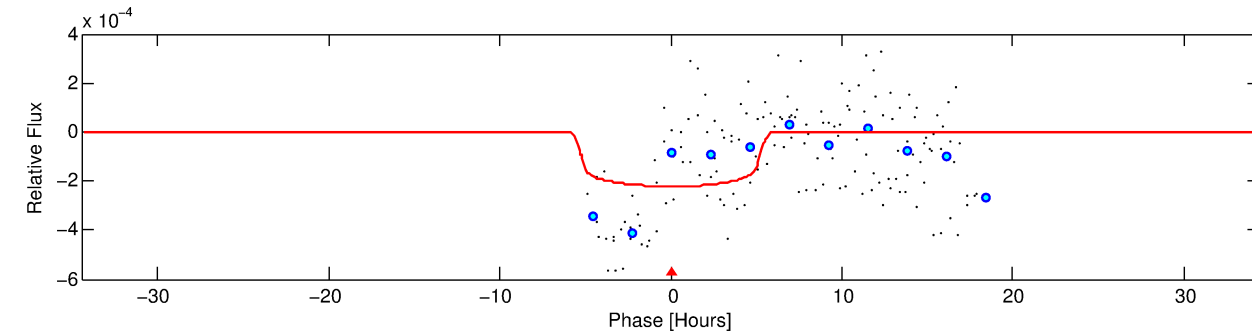
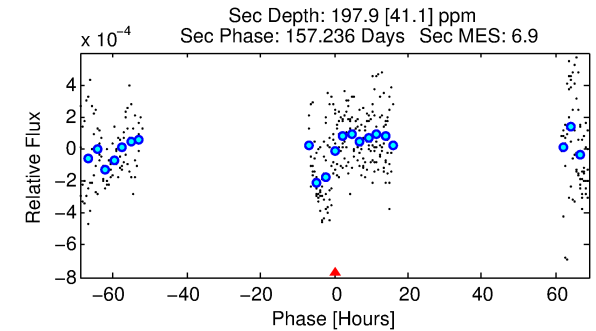
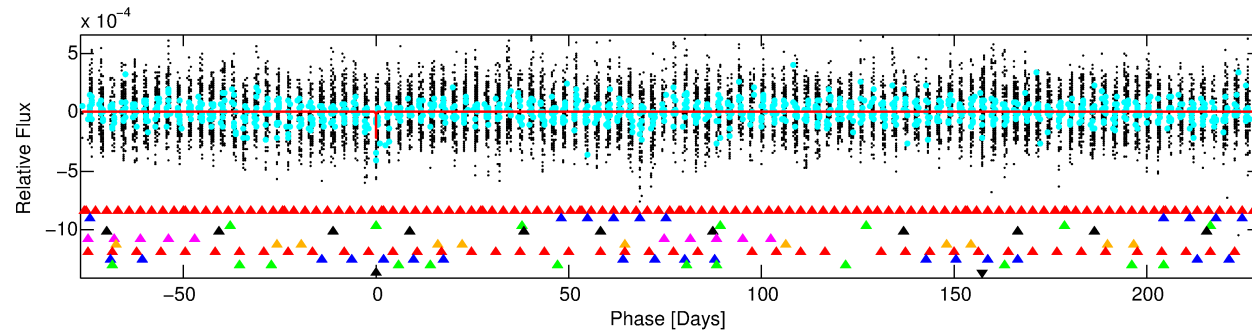
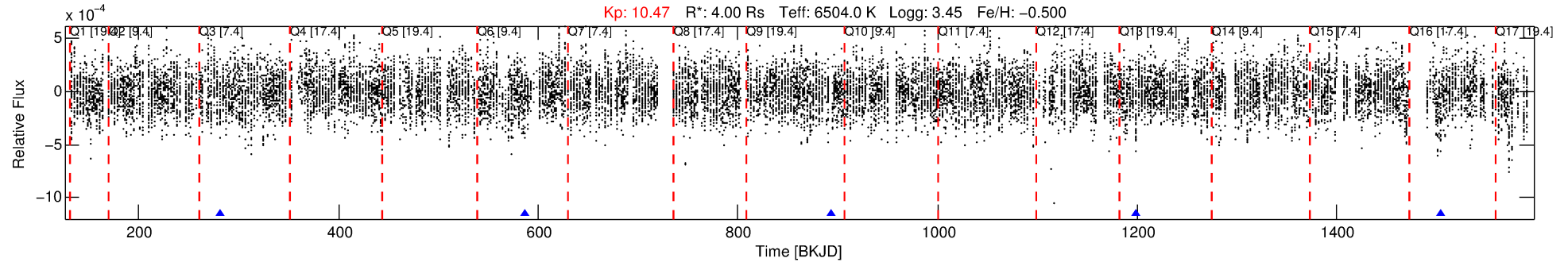
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007907476-10

No Significant Match Found

DV One-Page Summary

KIC: 7907476 Candidate: 10 of 10 Period: 305.765 d



DV Fit Results:

Period = 305.76470 [0.00845] d
Epoch = 281.2525 [0.0506] BKJD
Rp/R* = 0.0158 [0.0031]
a/R* = 98.29 [91.40]
b = 0.89 [0.18]
Seff = 23.34 [16.63]
Teq = 560 [100] K
Rp = 6.92 [3.34] Re
a = 1.0493 [0.4547] AU
Ag = 2500.63 [2081.44] [1.20σ]
Teffp = 6128 [708] K [7.79σ]

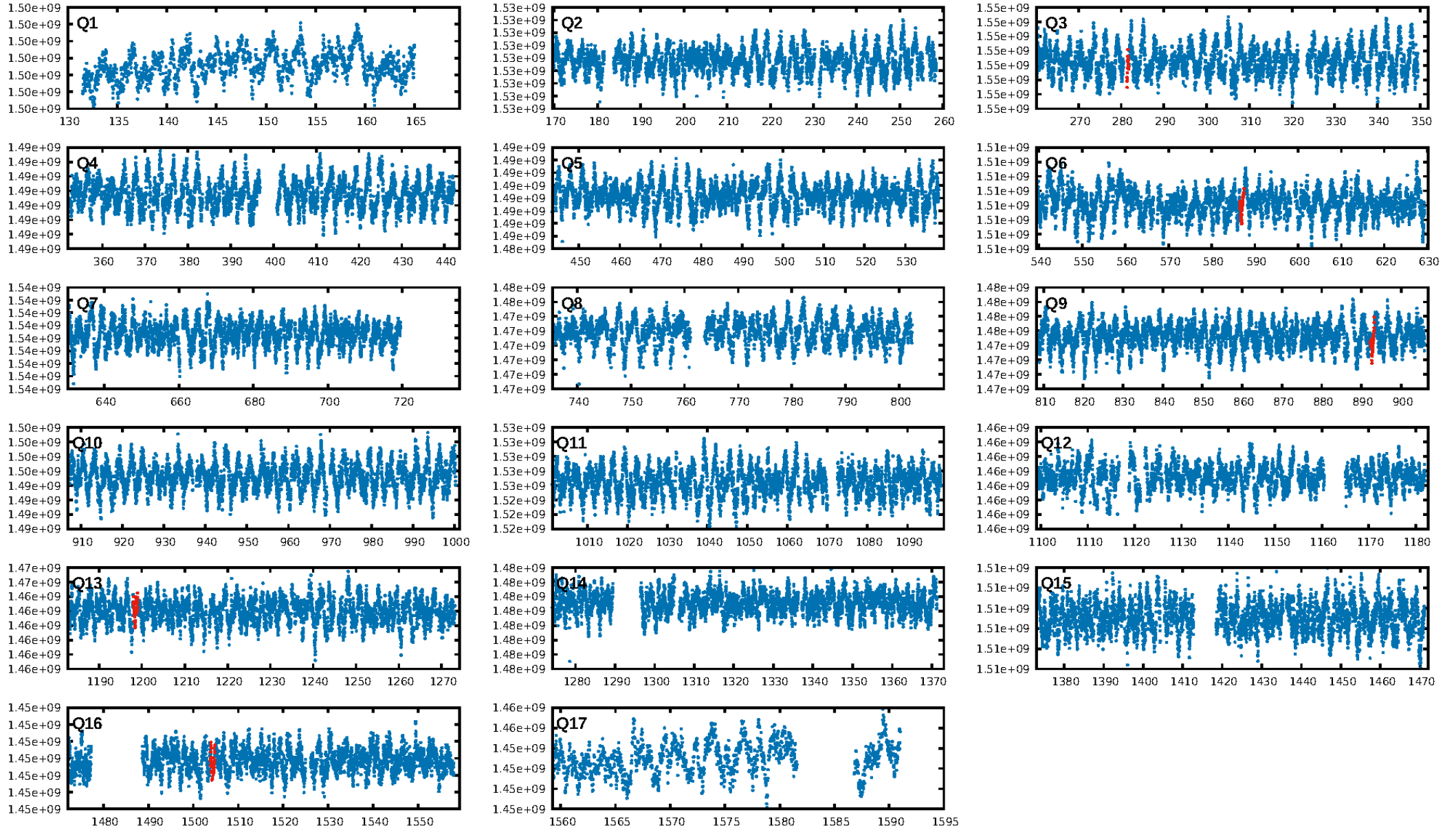
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [75.76σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 48.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 9.856
Centroid-sig: 38.0%
Centroid-so: 0.410 arcsec [0.50σ]
OotOffset-rm: 4.666 arcsec [4.13σ]
KicOffset-rm: 3.619 arcsec [2.31σ]
OotOffset-st: 1/0/1/2 [4]
KicOffset-st: 1/0/1/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.25 [1/4]

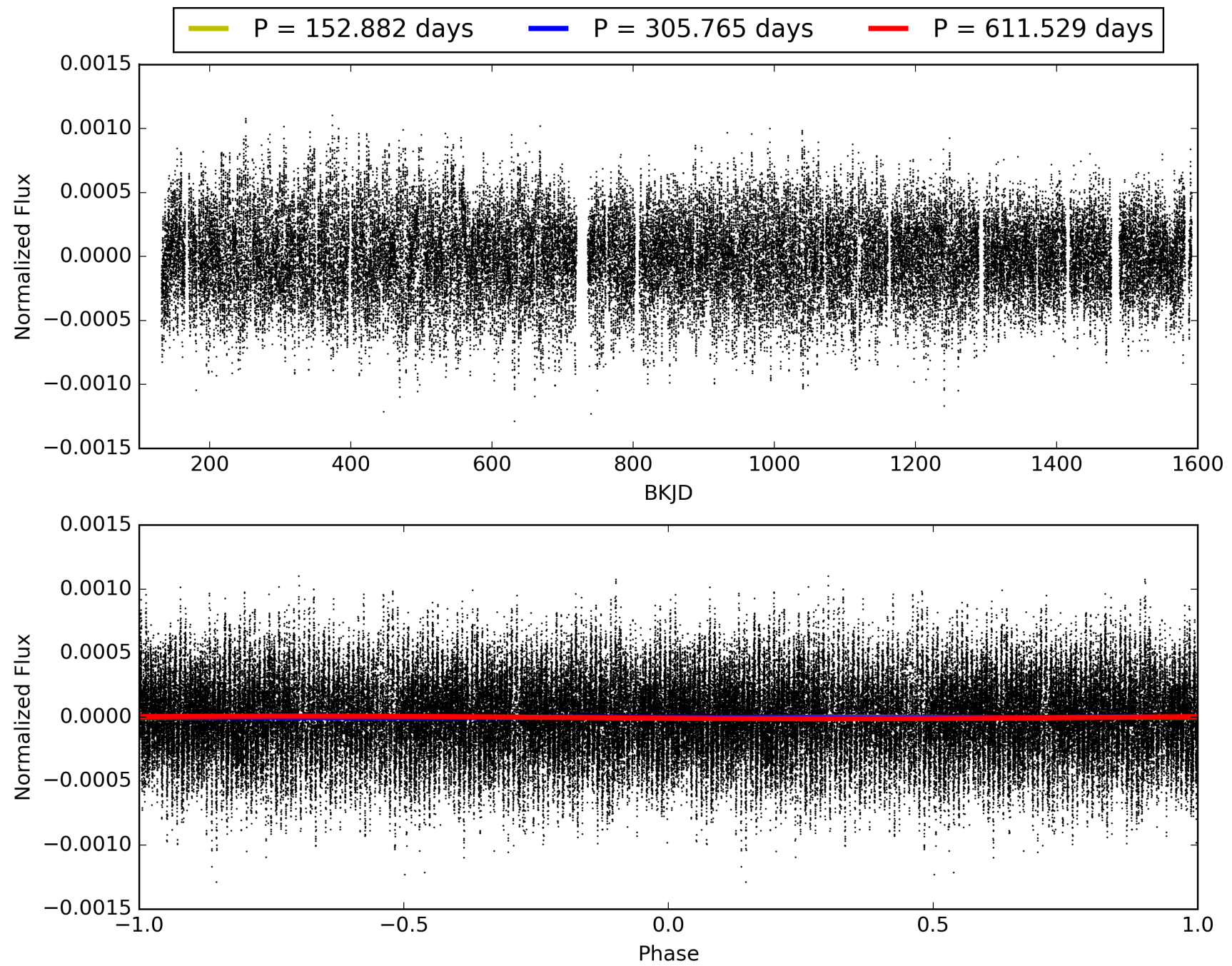
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:29:35 Z

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

TCE 007907476-10, PDC Light Curves

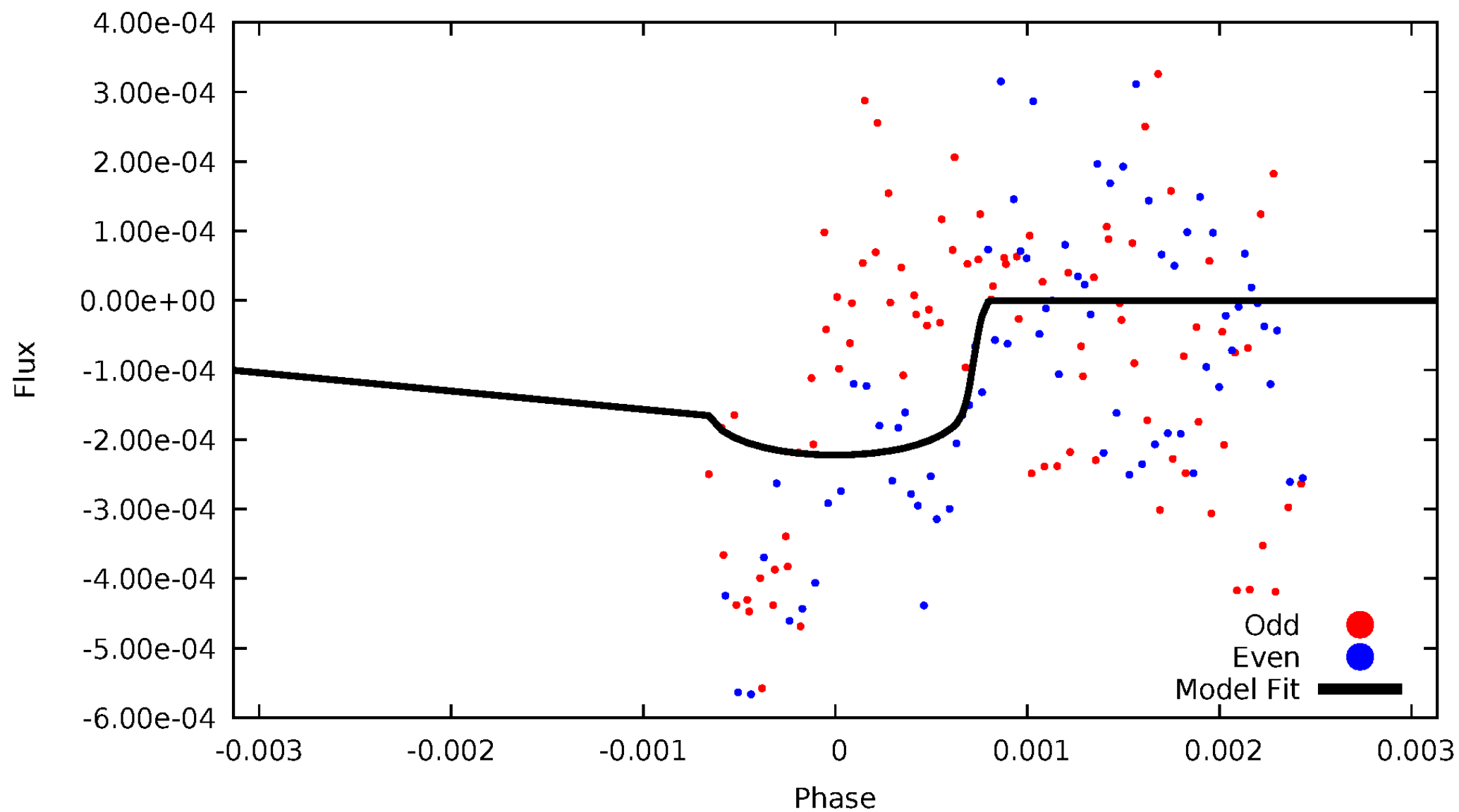


TCE 007907476-10



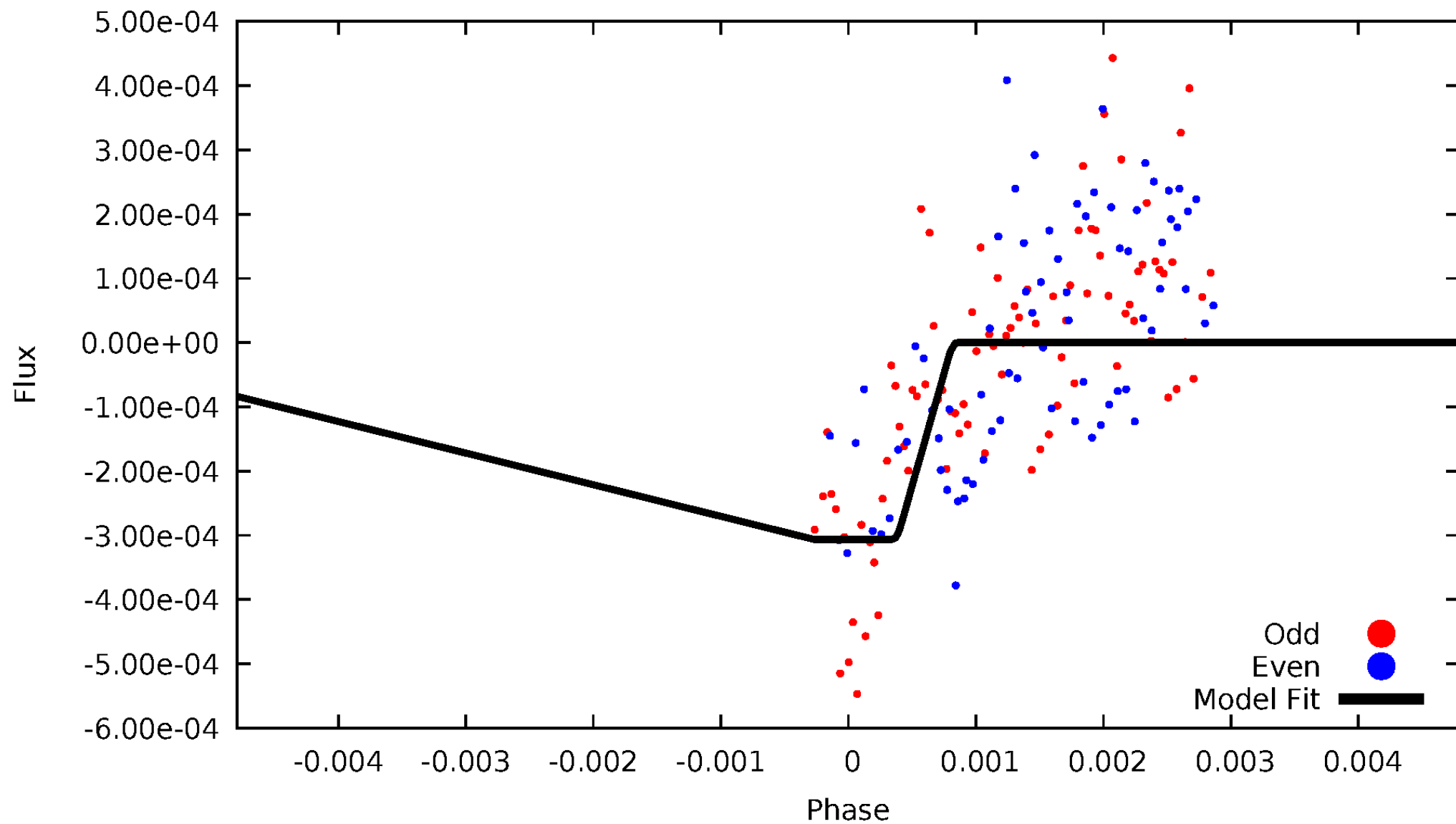
DV Odd/Even

TCE 007907476-10



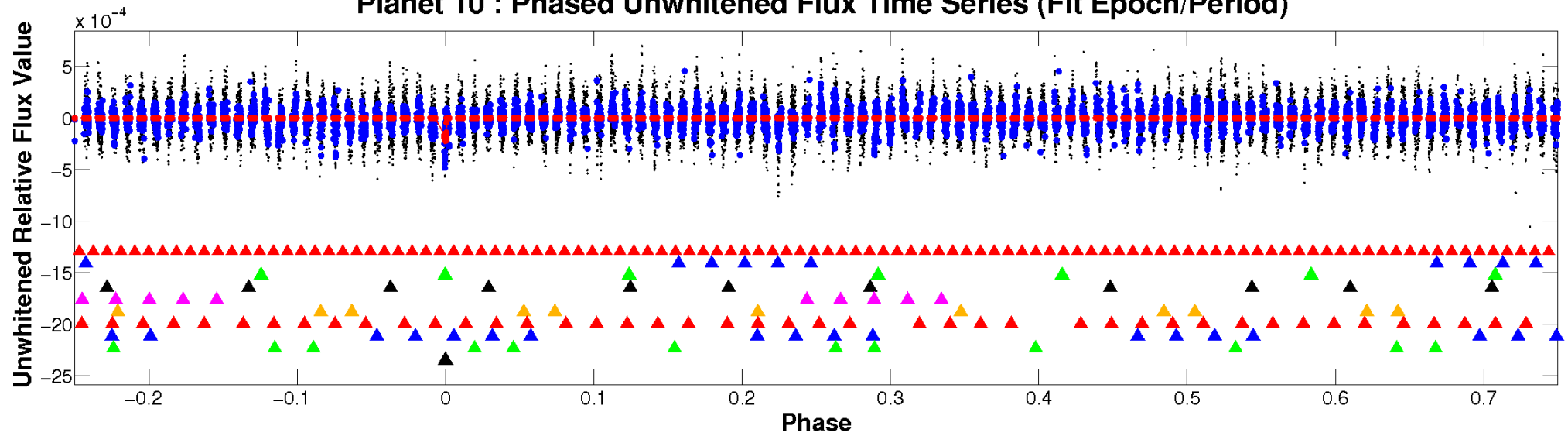
ALT Odd/Even

TCE 007907476-10

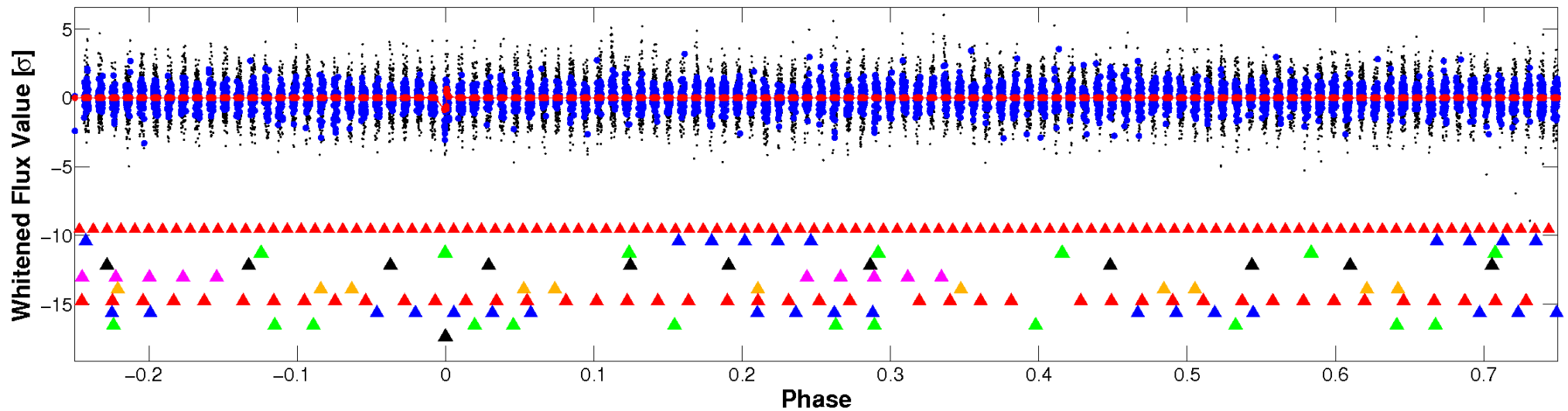


Non-Whitened Vs. Whitened Light Curve

Planet 10 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

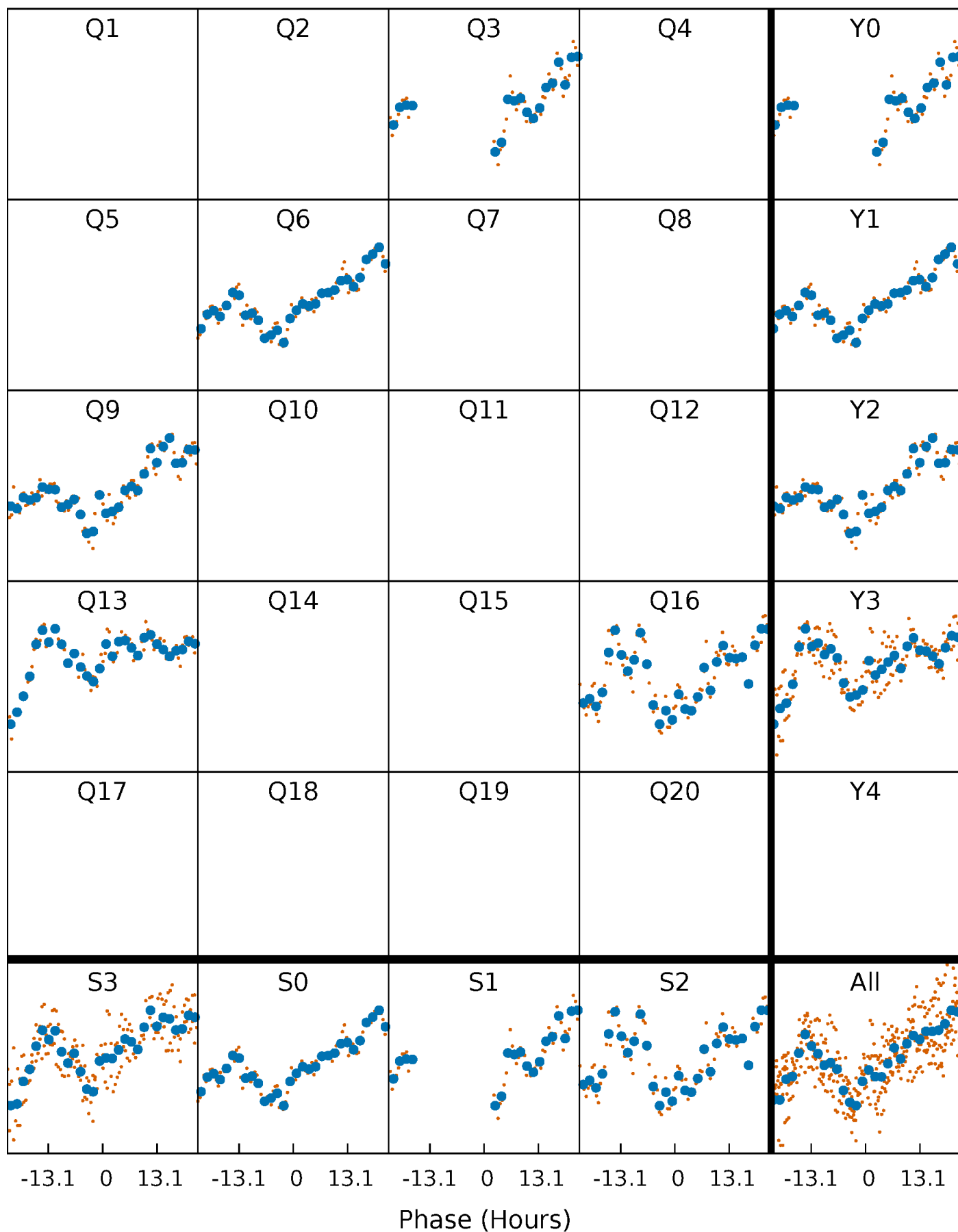


Planet 10 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007907476-10 P=305.764701 Days $T_0=281.252514$ (BKJD)



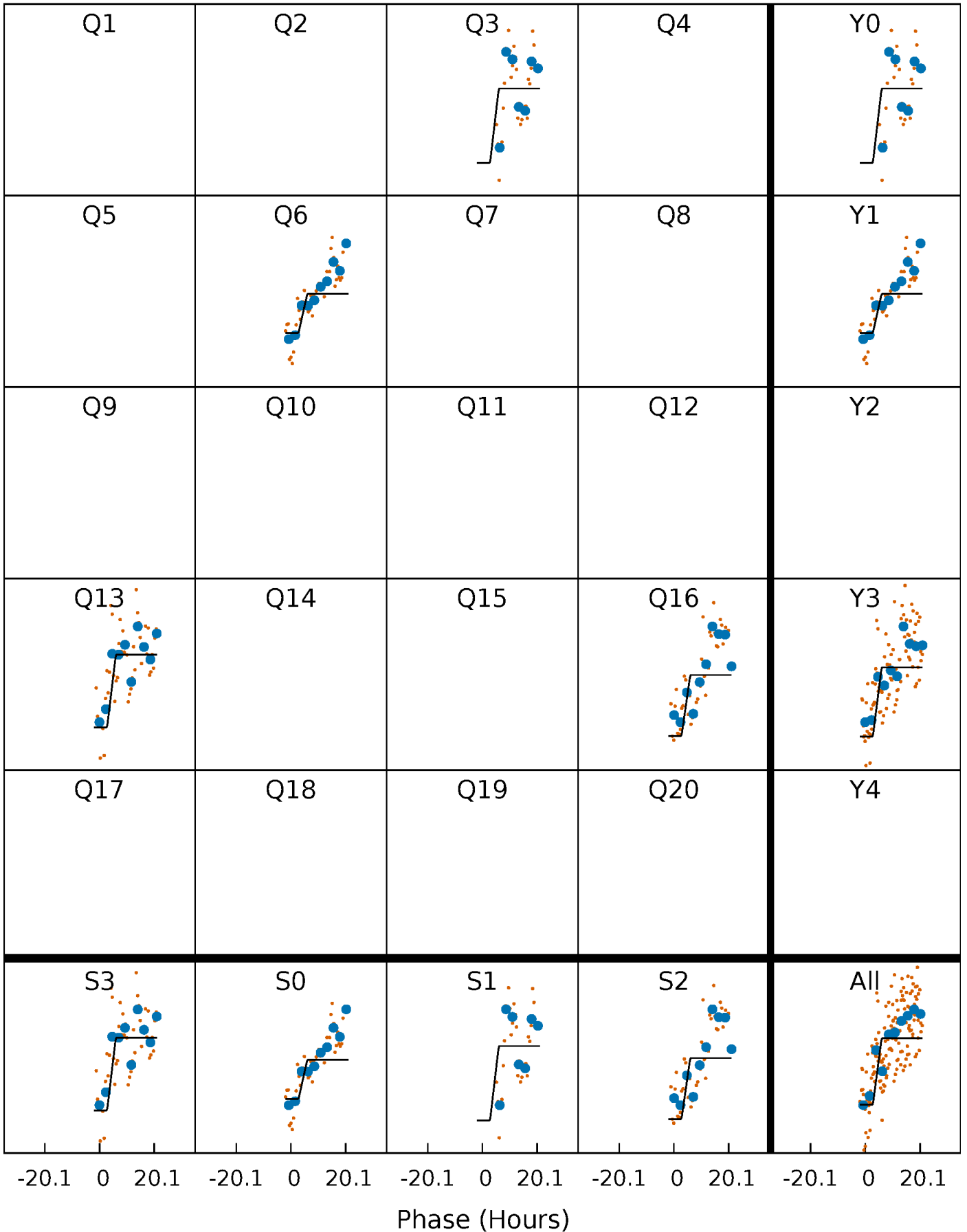
DV Quarter-Phased Transit Curves

TCE 007907476-10 P=305.764701 Days $T_0=281.252514$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

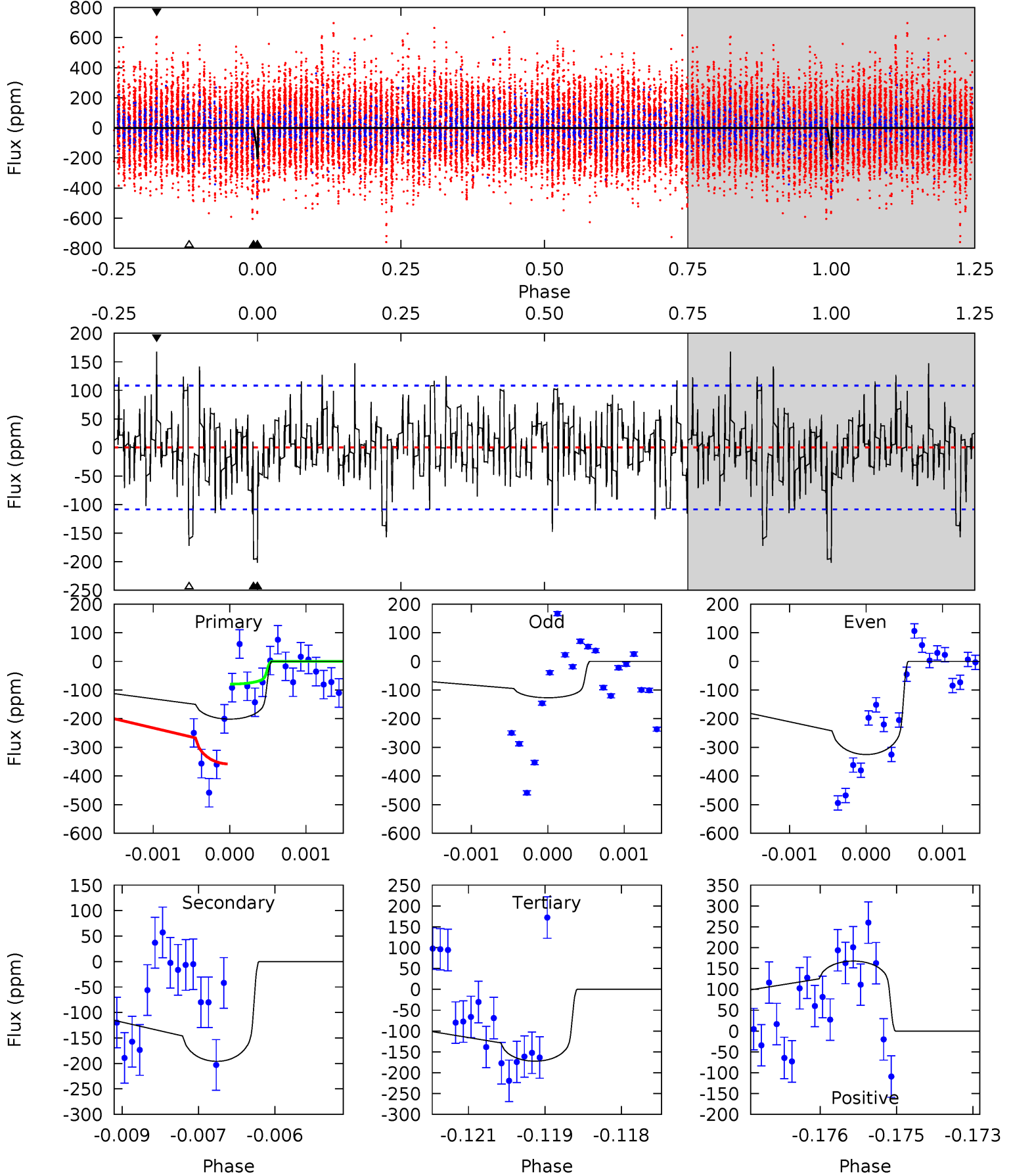
TCE 007907476-10 P=305.760981 Days $T_0=281.136080$ (BKJD)



DV Model-Shift Uniqueness Test

007907476-10, P = 305.764701 Days, E = 281.252514 Days

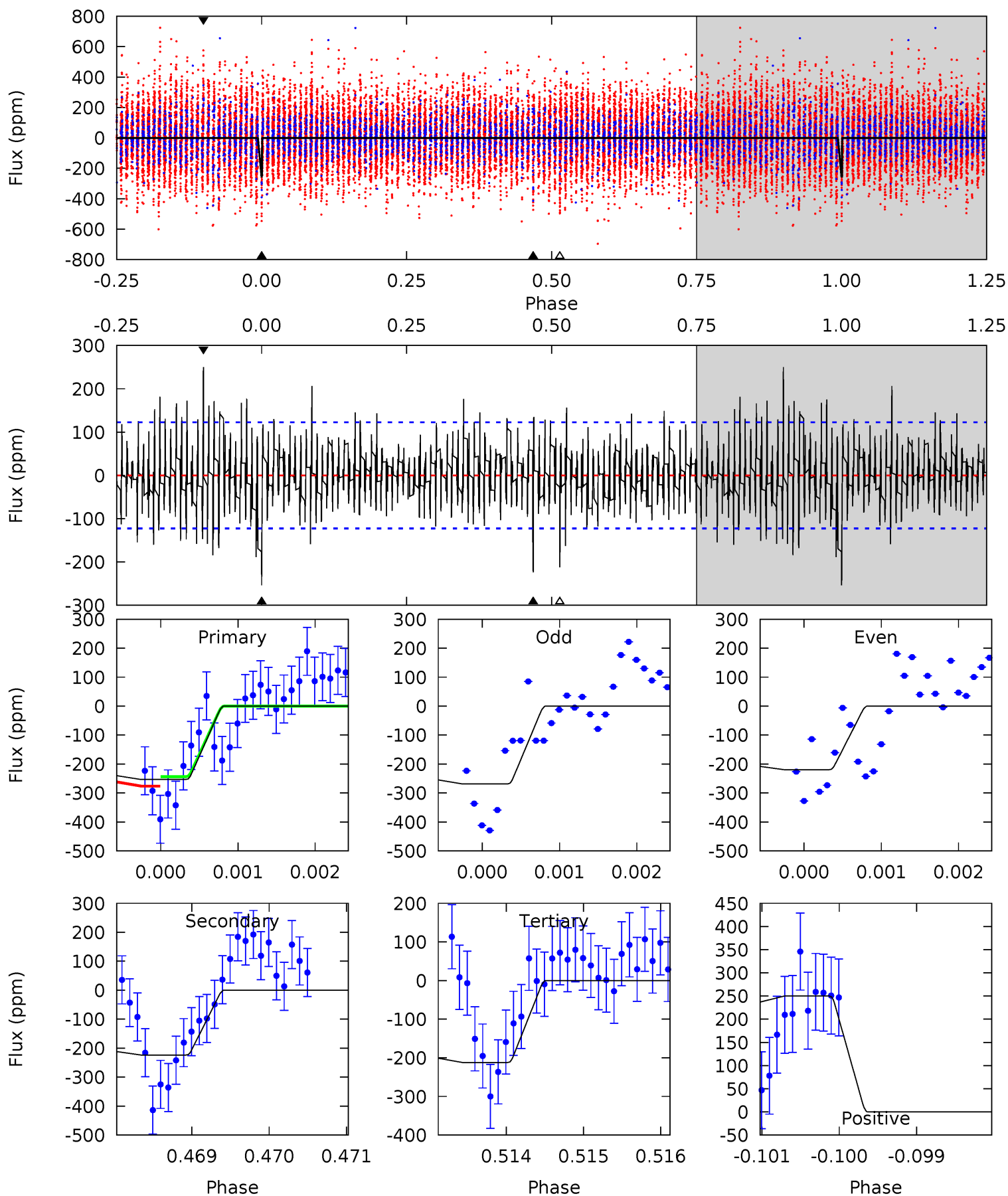
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	9.73	8.56	8.33	5.38	3.18	2.32	1.45	1.67	1.17	1.39	4.85	0.98	0.45	6.77



Alt Model-Shift Uniqueness Test

007907476-10, P = 305.760981 Days, E = 281.136080 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	9.93	9.43	11.1	5.44	3.28	2.63	1.83	0.15	0.50	-1.17	1.07	1.48	0.50	0.53



Stellar Parameters For KIC 007907476

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6504^{+161}_{-194}	$3.450^{+0.416}_{-0.073}$	$-0.500^{+0.400}_{-0.300}$	$4.003^{+0.586}_{-1.759}$	$1.648^{+0.160}_{-0.479}$	$0.036^{+0.125}_{-0.011}$
	+2%/-3%	+12%/-2%	+80%/-60%	+15%/-44%	+10%/-29%	+347%/-32%
Source	PHO1	FLK73	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 007907476-10 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-196 ± 20	$6.23^{+1.86}_{-1.83}$	756^{+48}_{-84}	6077^{+766}_{-539}	3001^{+2824}_{-1186}
Alt.	-224 ± 23	$6.89^{+1.84}_{-1.83}$	758^{+49}_{-80}	5994^{+681}_{-507}	2805^{+2229}_{-1073}

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

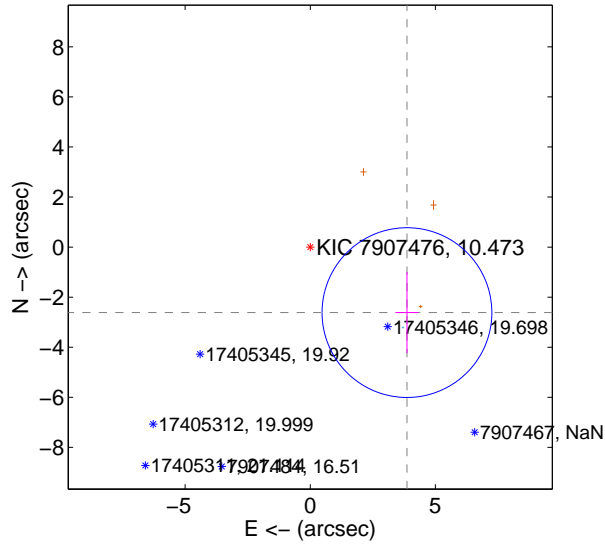
Supplemental centroid analysis for 007907476-10. **Kepler magnitude: 10.47.** Transit SNR 6.62

There are 1 quarters with good PRF difference image offsets

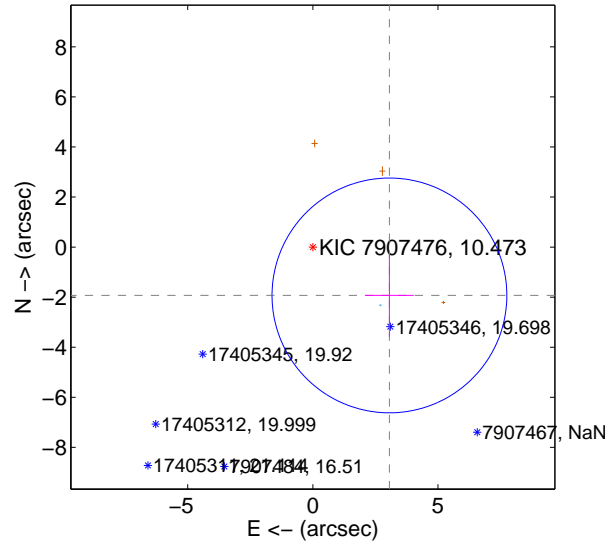
The direct PRF centroid is offset from the target star catalog position by about 1.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.666 ± 1.130	4.13	-3.863 ± 0.455	-2.617 ± 1.620
PRF-fit source offset from KIC position	3.619 ± 1.563	2.31	-3.060 ± 0.971	-1.931 ± 1.644
photometric centroid source offset	0.41 ± 0.82	0.50	0.37 ± 0.87	-0.18 ± 0.62

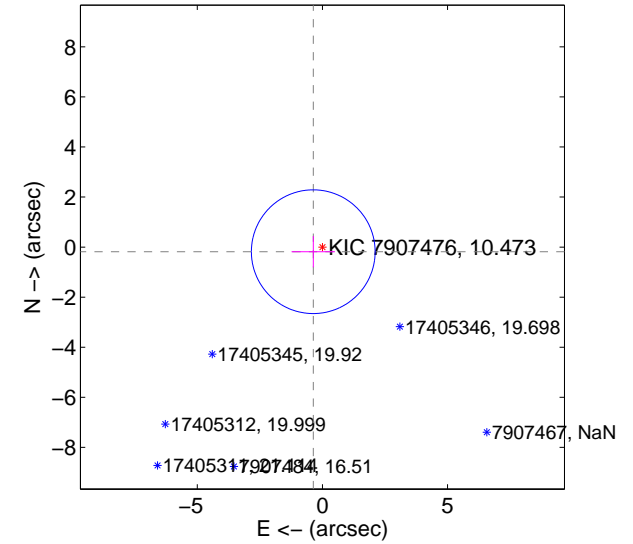
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

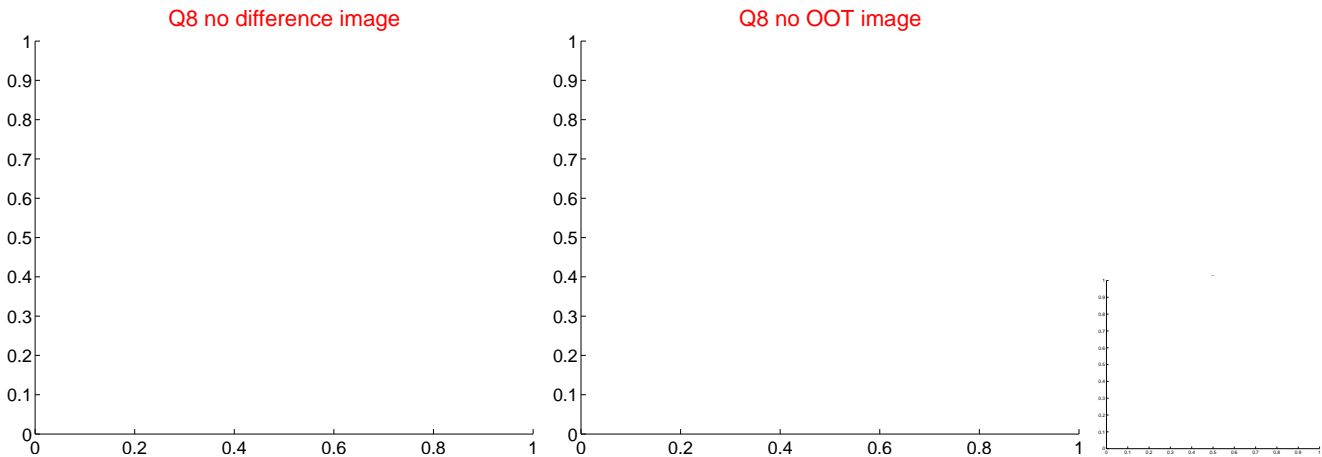
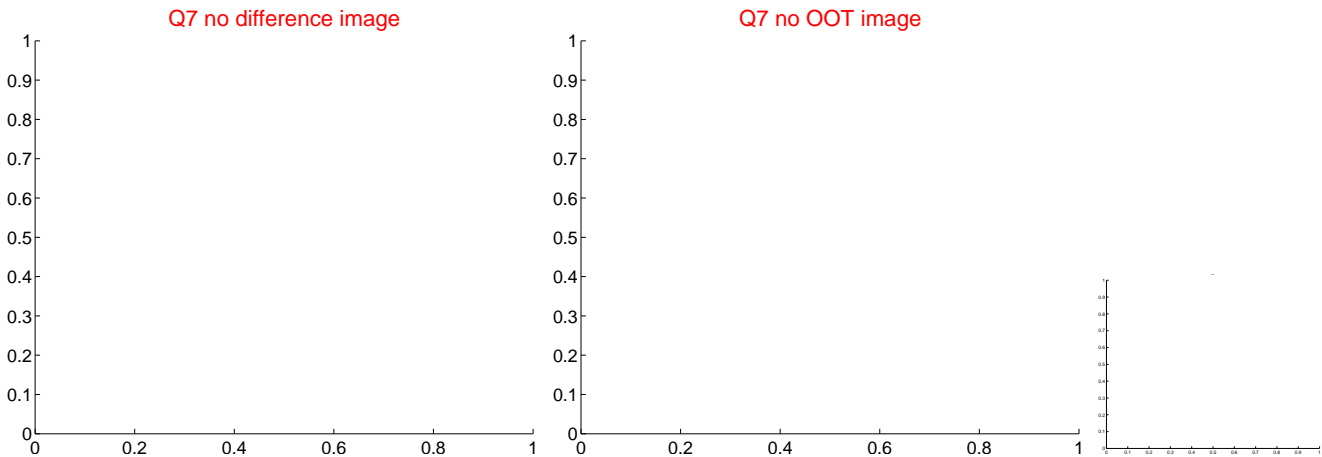
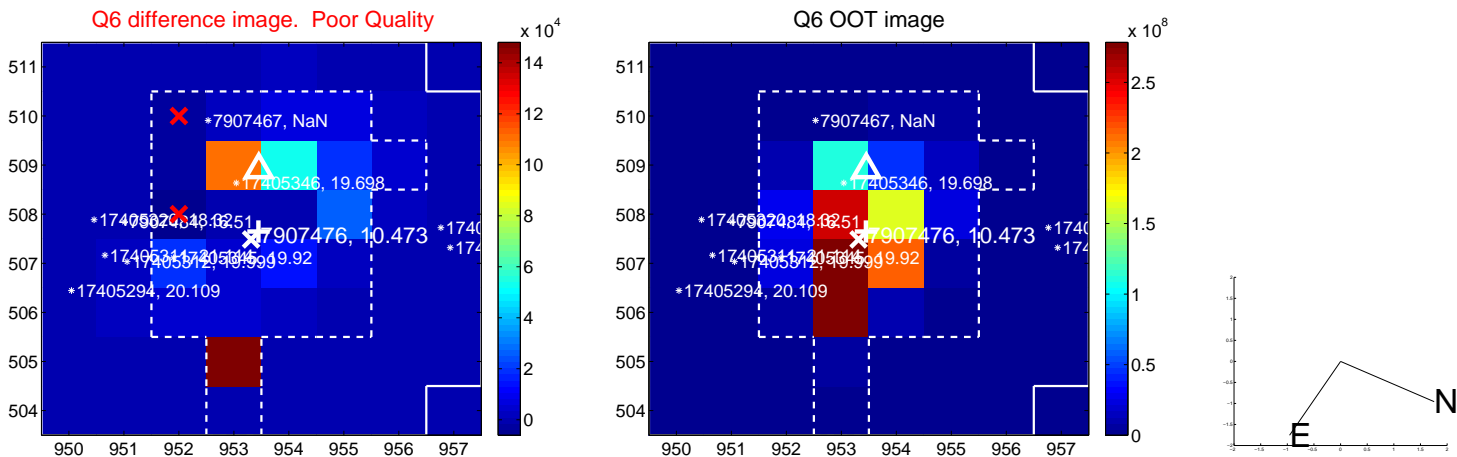
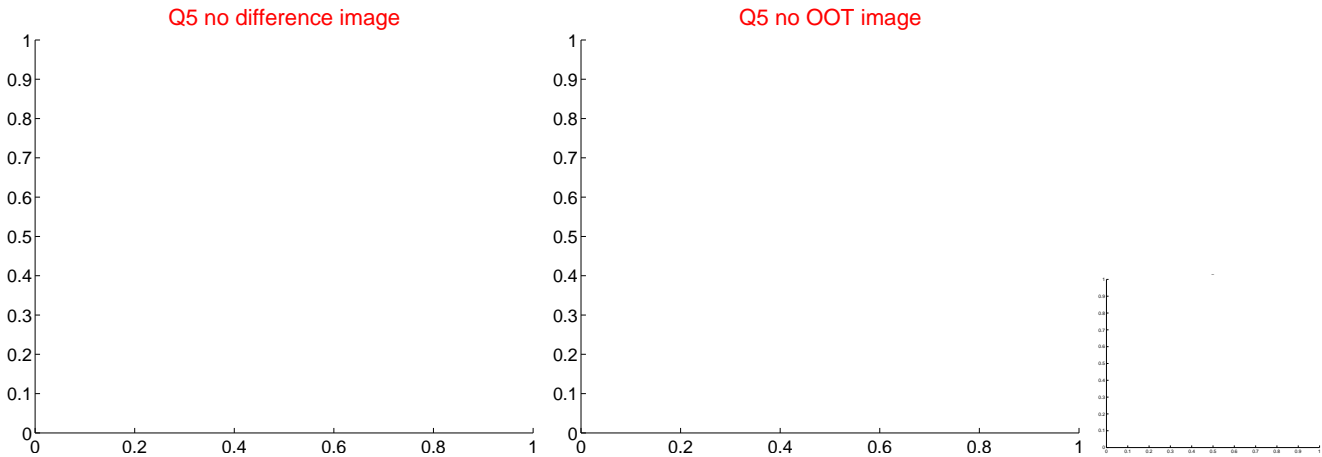


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

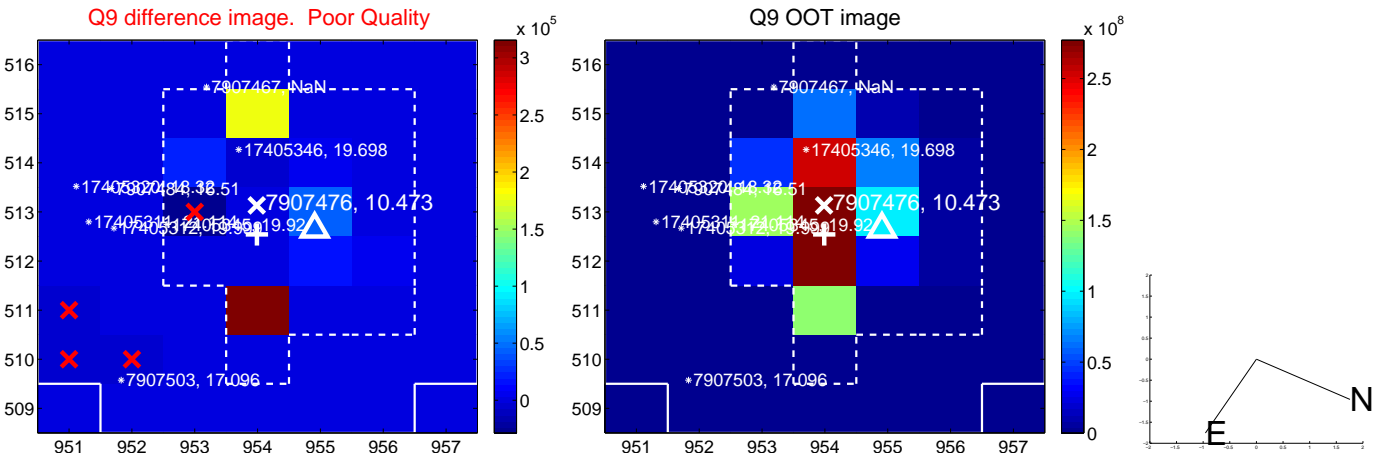
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



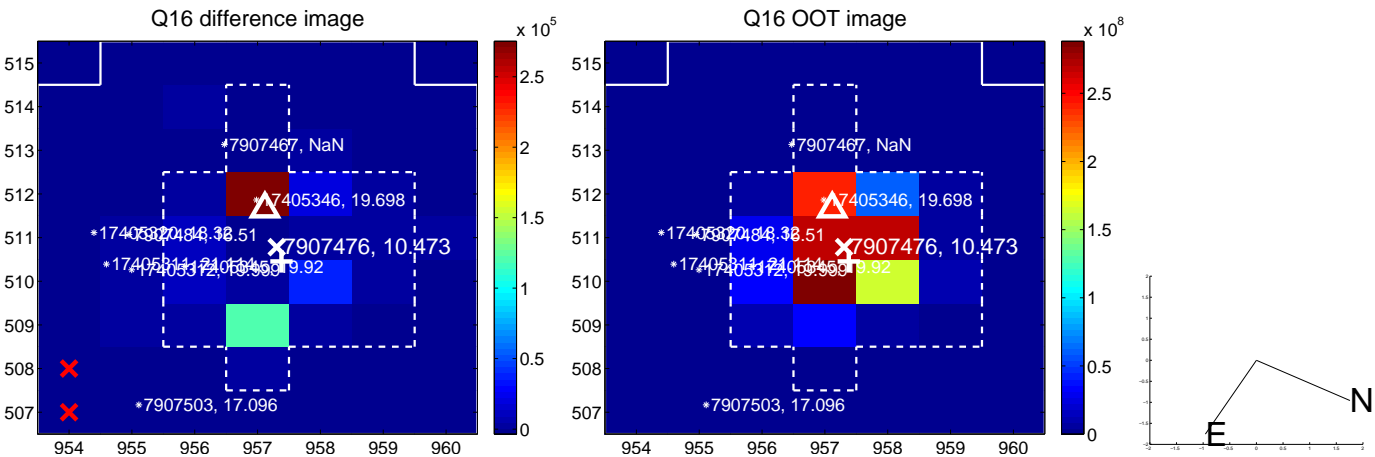
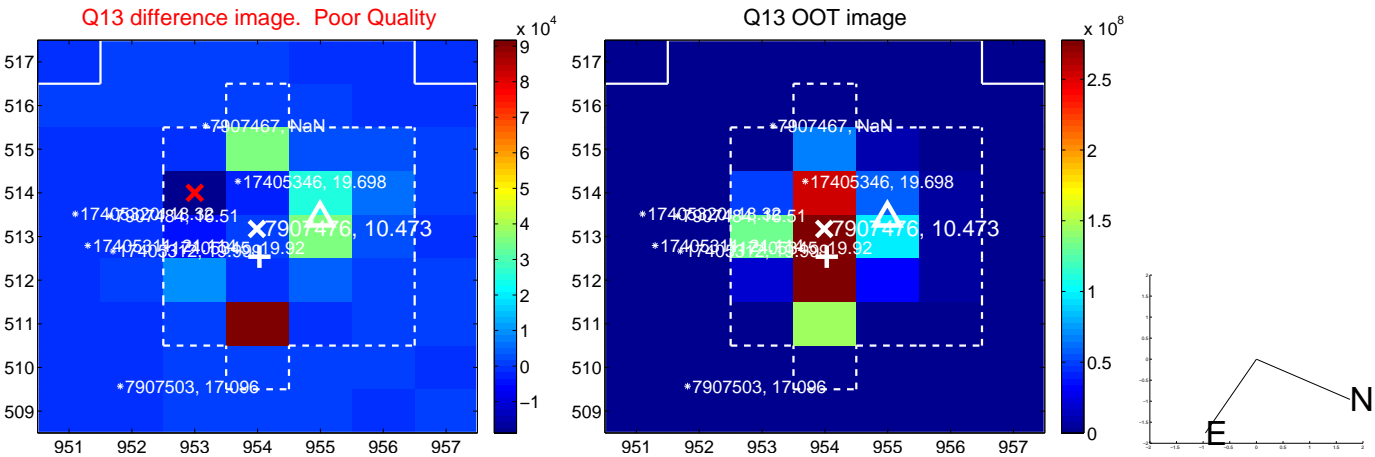
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



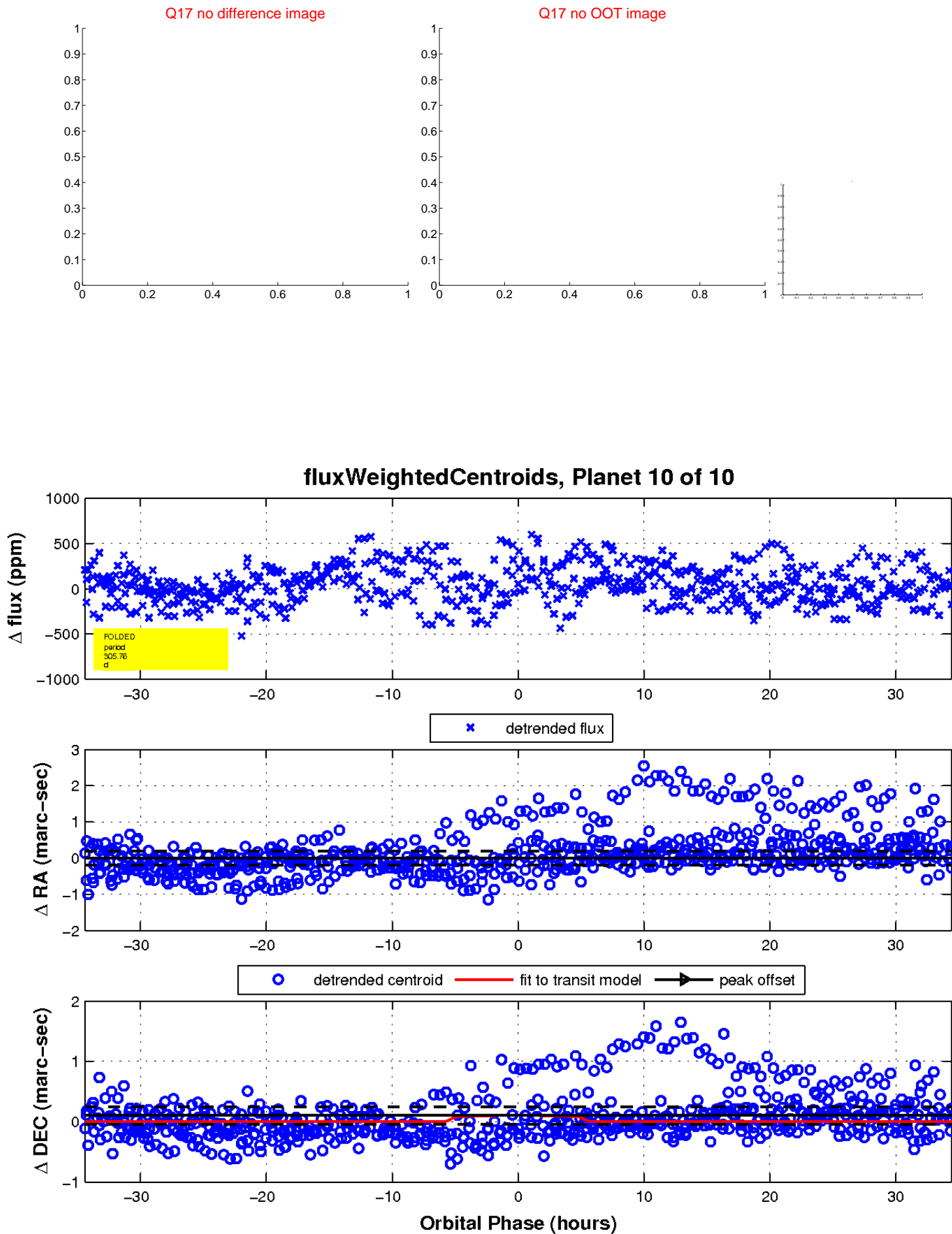
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

