

KIC 008818096

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})
008818096-01	OBS	No	374.882489	132.153662	3243.7	41.417	8.9	10.6	0.73	5162	7.97	0.38
008818096-02	OBS	No	2.175893	132.394093	86.9	9.979	7.7	7.8	0.73	5162	0.82	368.53
008818096-03	OBS	No	474.249825	314.562840	743.1	1.299	13.6	2.2	0.73	5162	1.97	0.28
008818096-04	OBS	No	183.095055	314.377691	2301.8	8.289	12.5	6.7	0.73	5162	5.11	1.00
008818096-05	OBS	No	217.595573	331.699887	513.0	9.774	24.0	4.9	0.73	5162	1.76	0.79
008818096-06	OBS	No	223.717838	346.833765	752.1	11.969	9.6	5.2	0.73	5162	2.05	0.77
008818096-07	OBS	No	235.735171	315.143992	1738.0	12.000	14.3	-1.0	0.73	5162	2.96	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

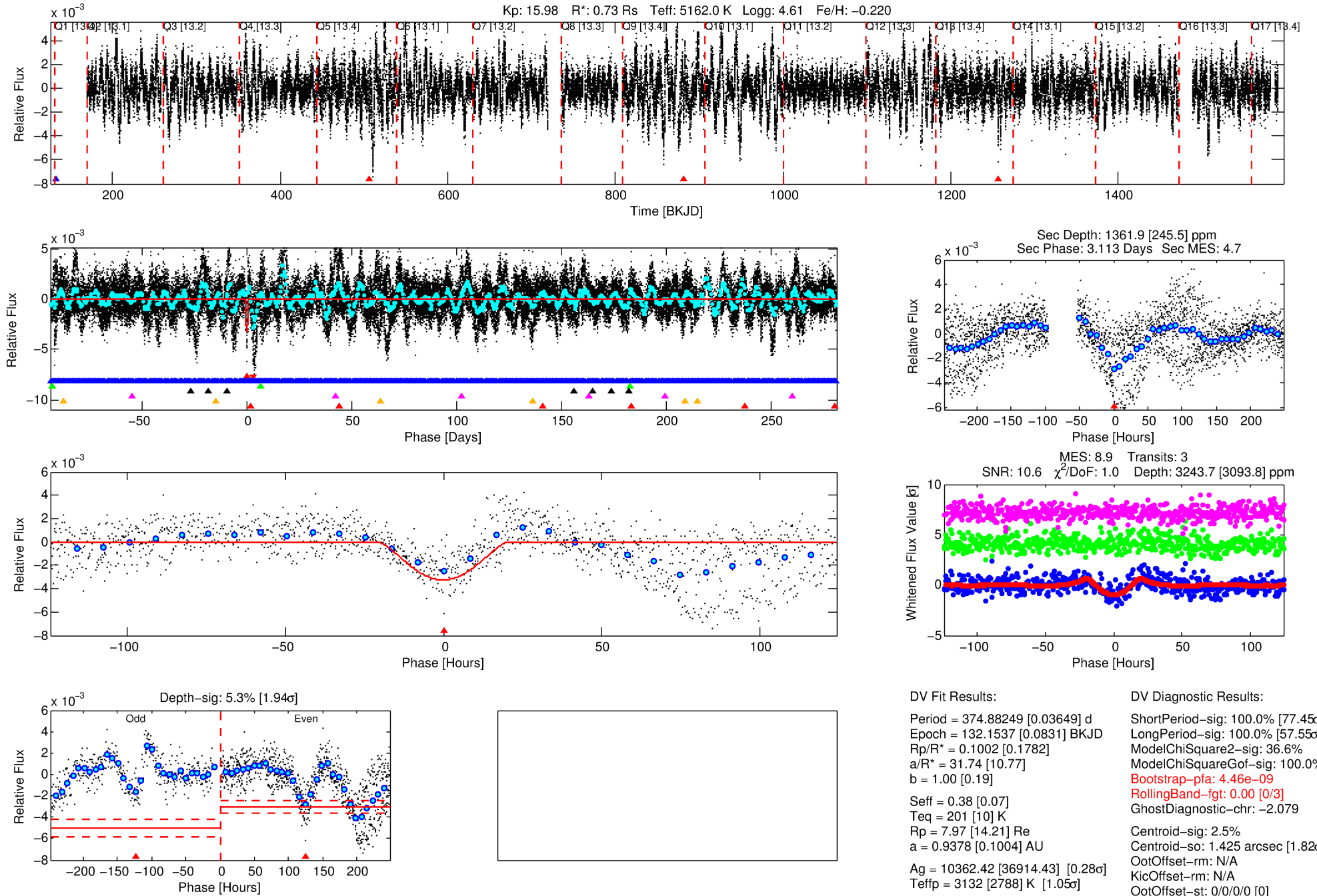
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818096-01

No Significant Match Found

DV One-Page Summary

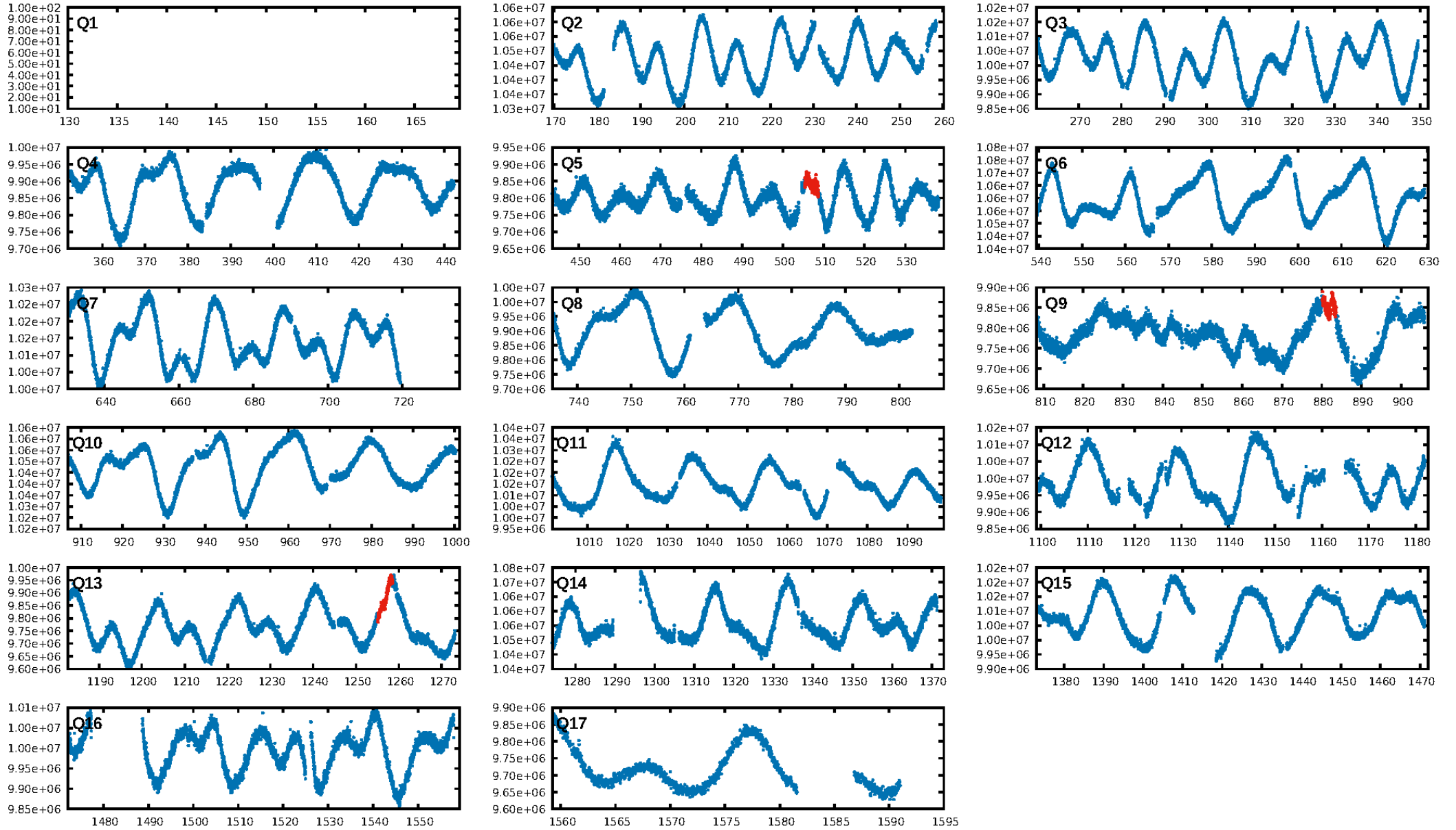
KIC: 8818096 Candidate: 1 of 7 Period: 374.882 d



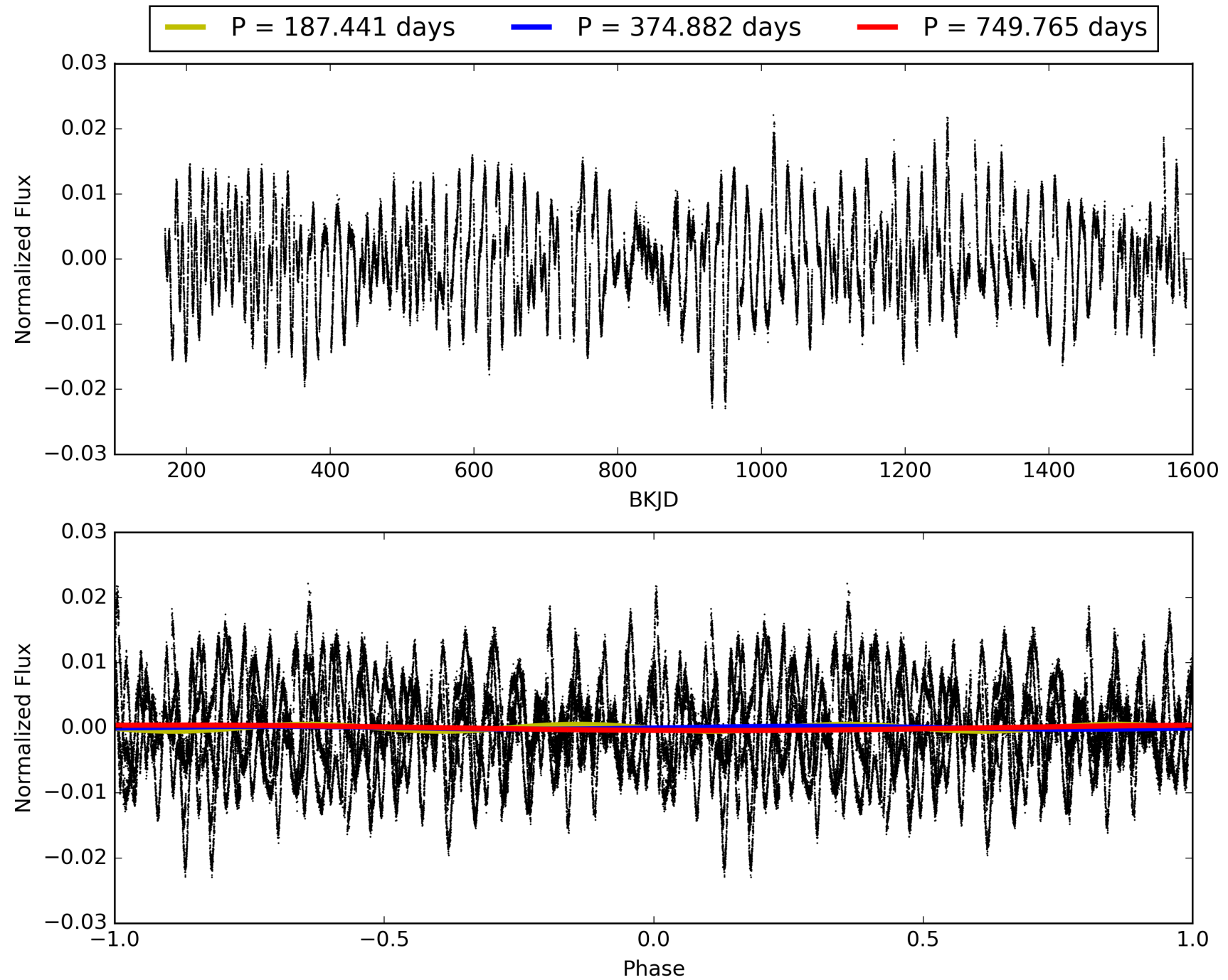
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:14:21 Z

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

TCE 008818096-01, PDC Light Curves

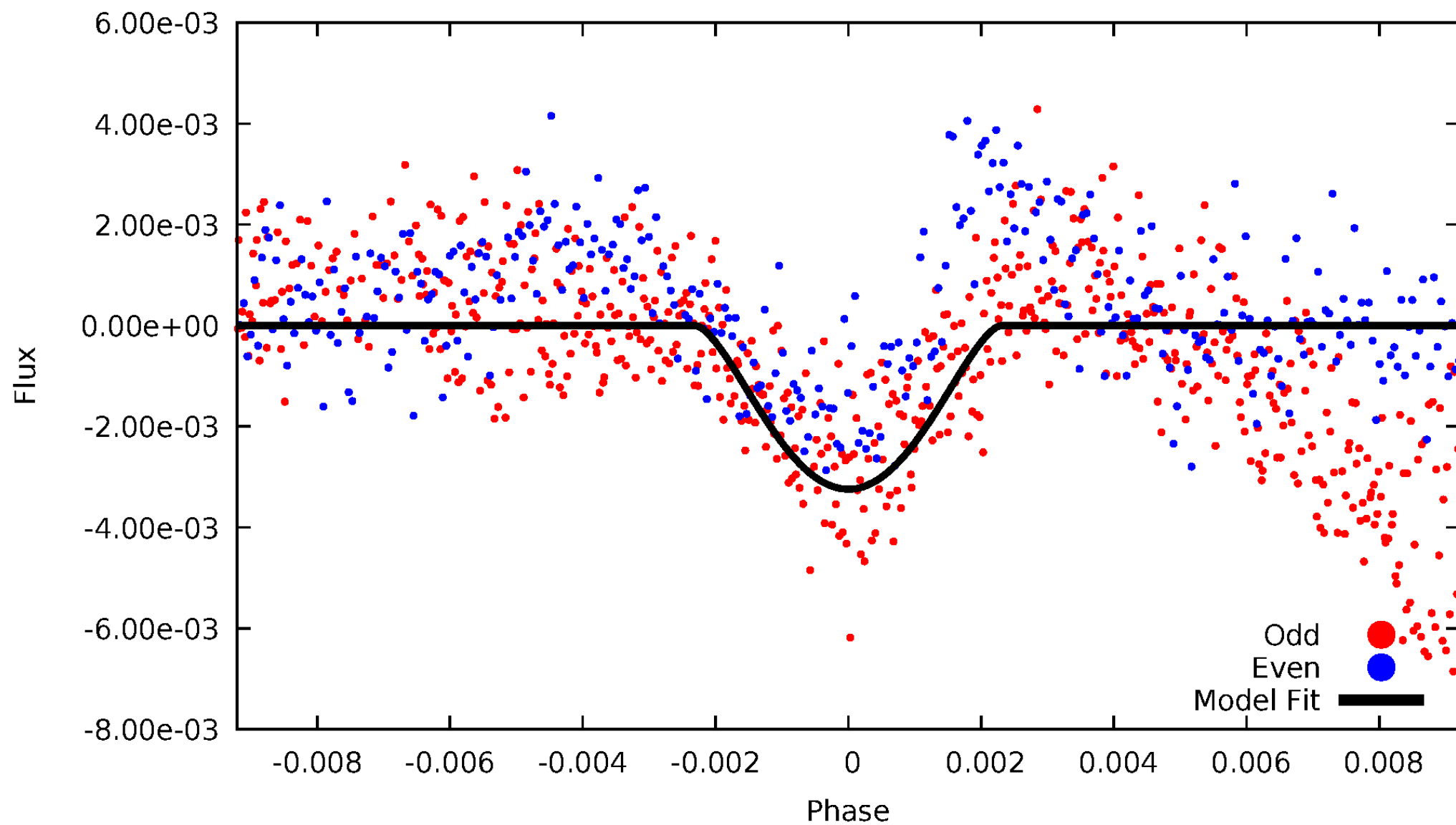


TCE 008818096-01



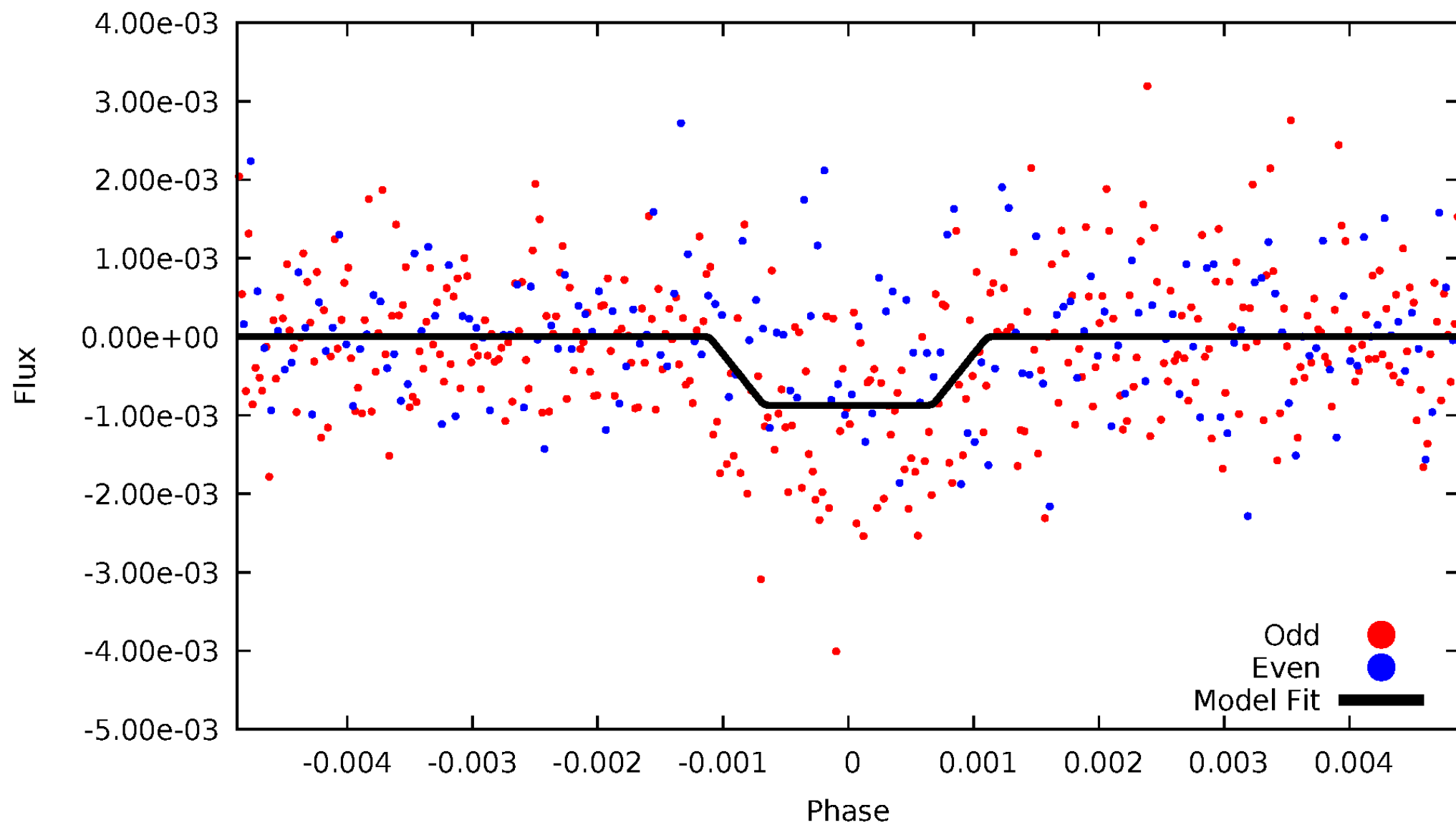
DV Odd/Even

TCE 008818096-01



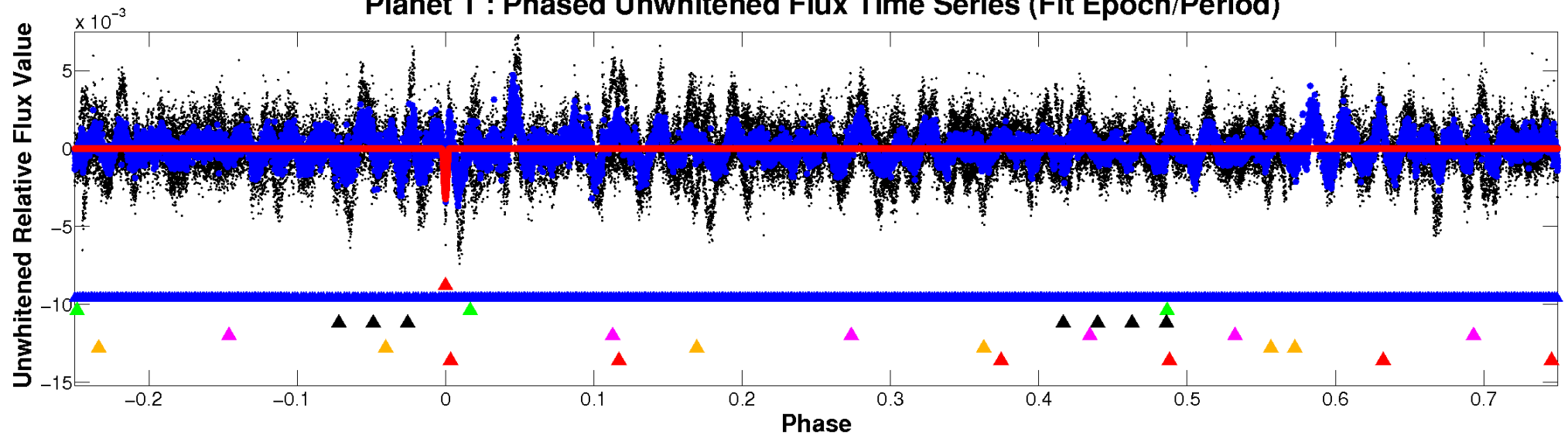
ALT Odd/Even

TCE 008818096-01

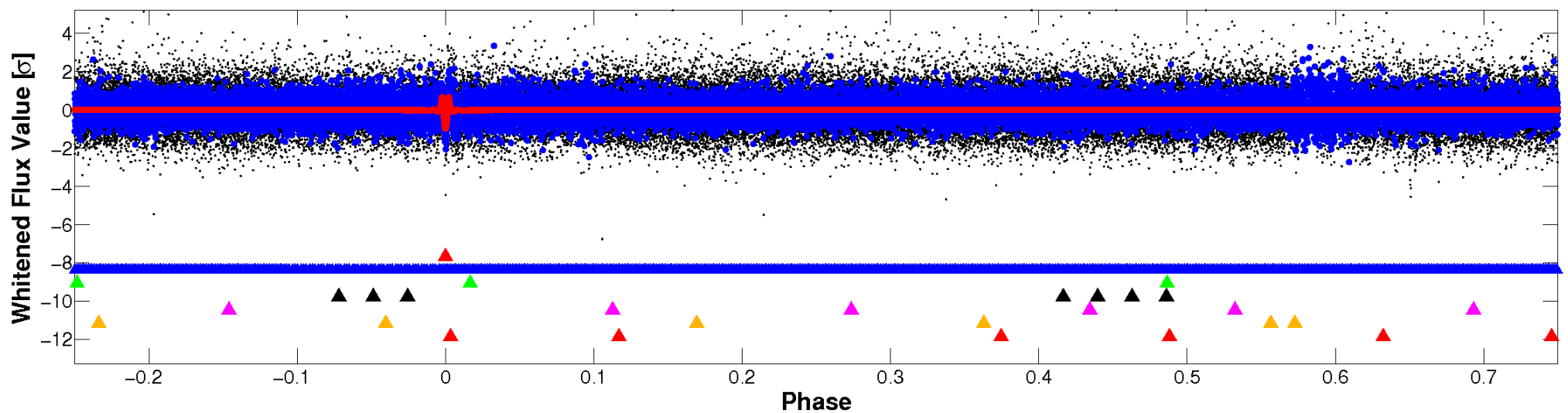


Non-Whitened Vs. Whitened Light Curve

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

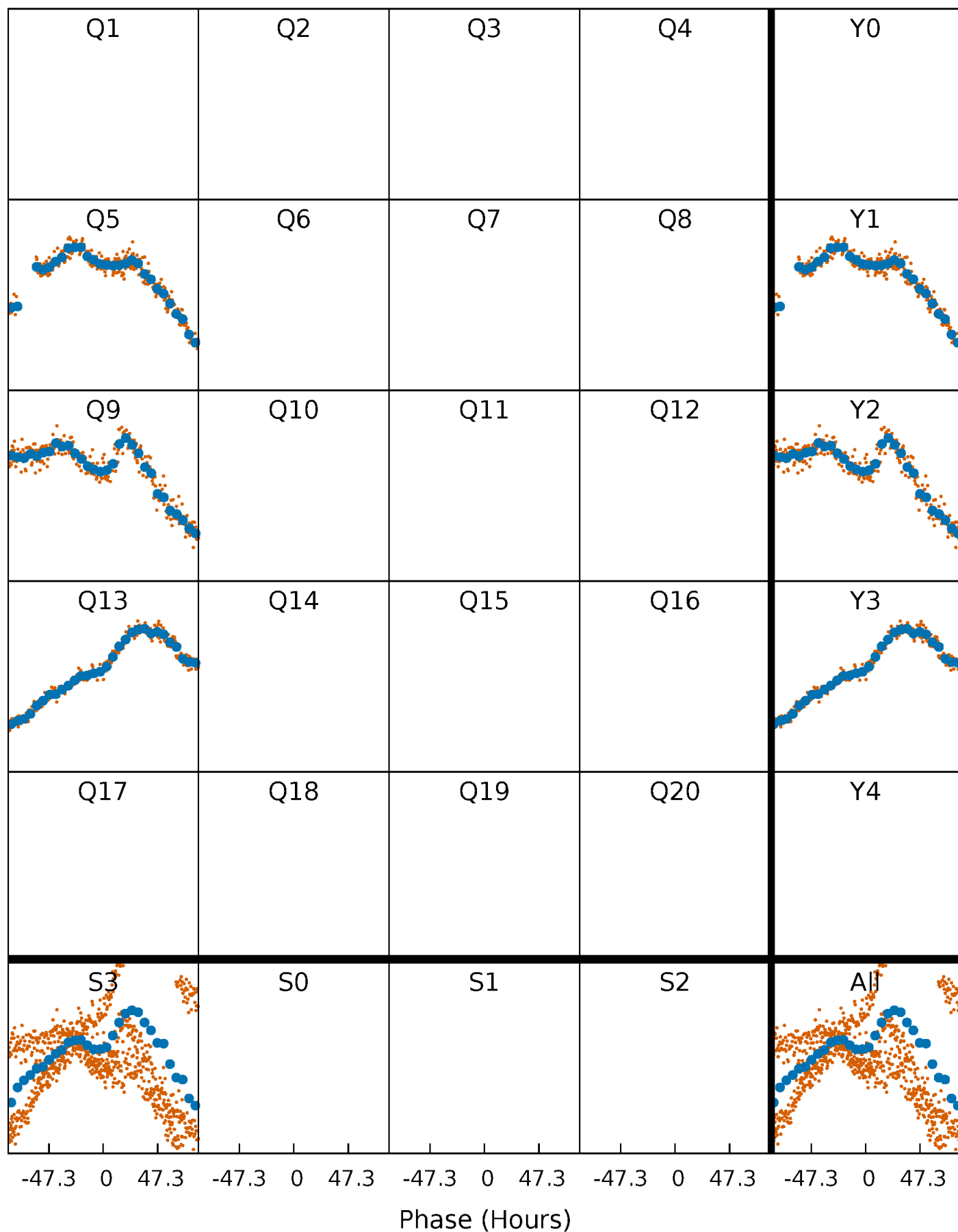


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



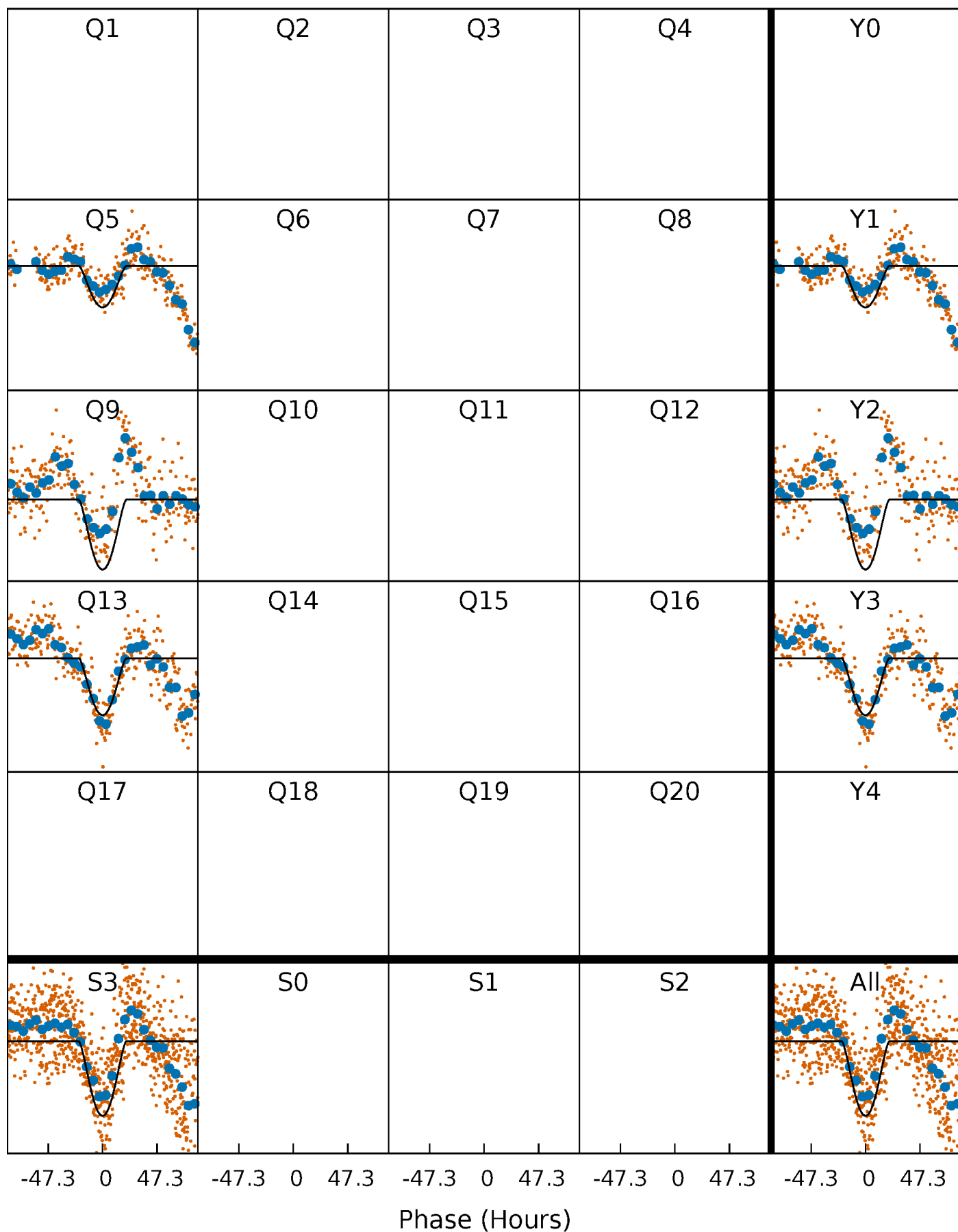
PDC Quarter-Phased Transit Curves

TCE 008818096-01 $P=374.882489$ Days $T_0=132.153662$ (BKJD)



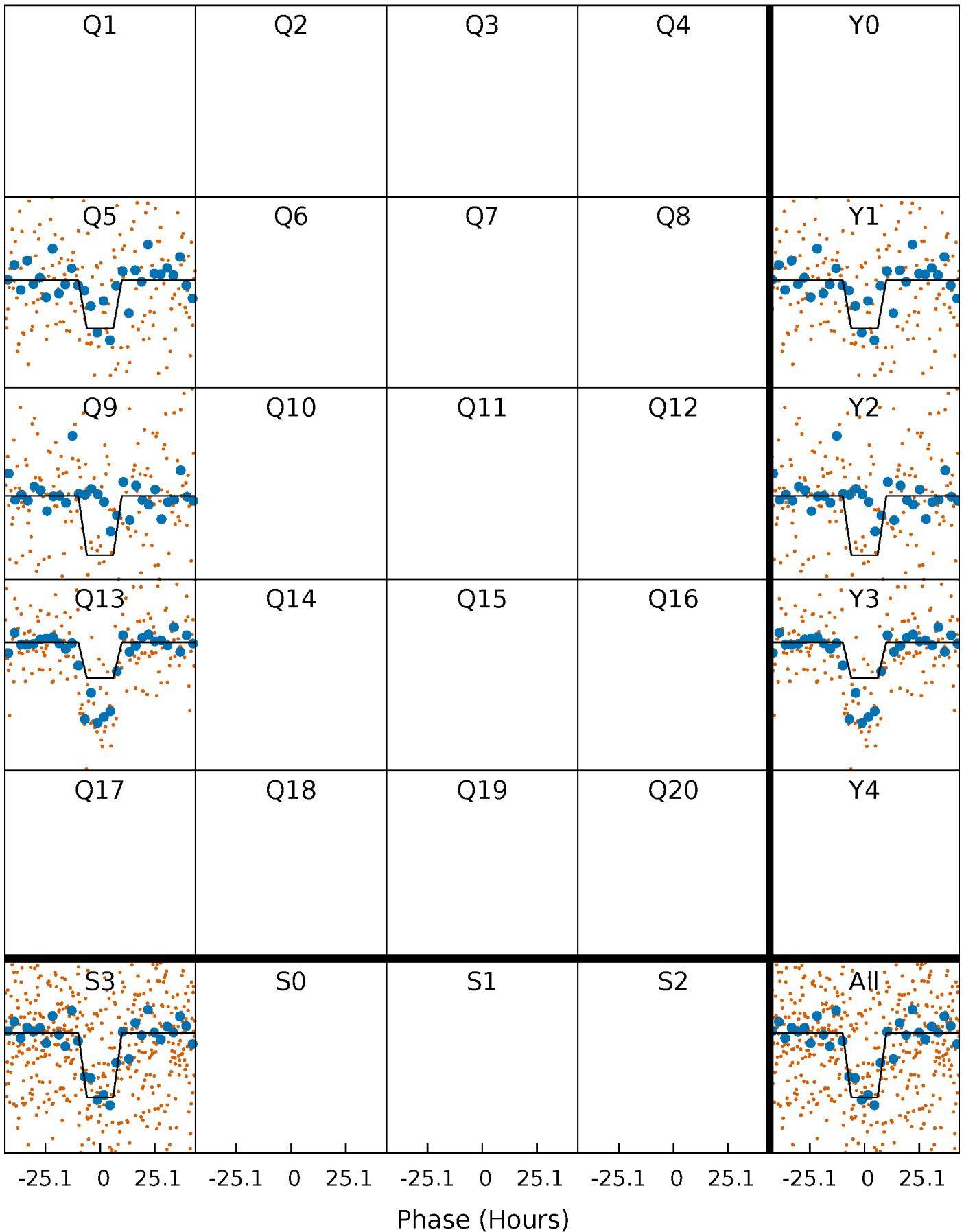
DV Quarter-Phased Transit Curves

TCE 008818096-01 $P=374.882489$ Days $T_0=132.153662$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

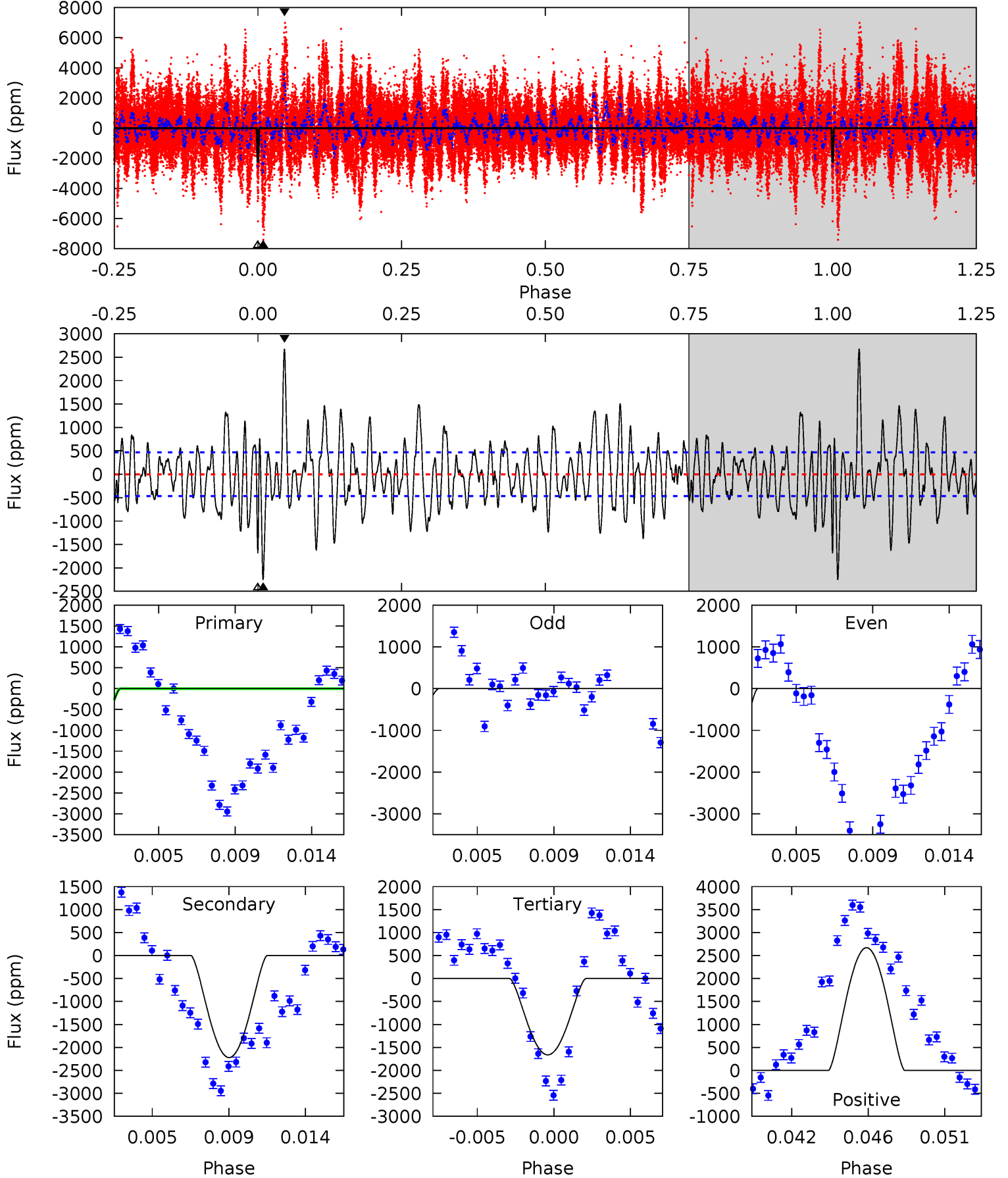
TCE 008818096-01 $P=374.819602$ Days $T_0=132.389259$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-01, P = 374.882489 Days, E = 132.153662 Days

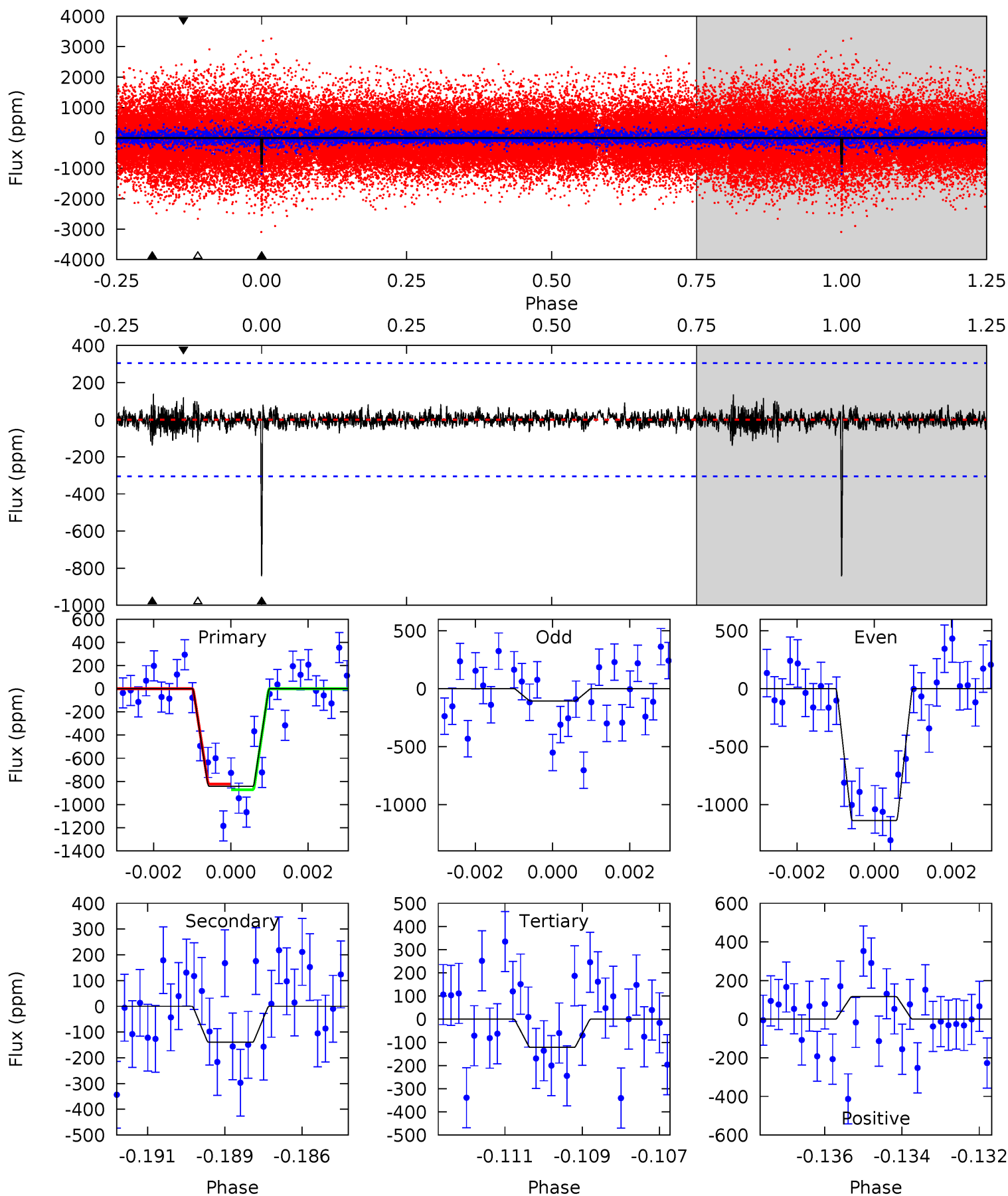
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.9	24.6	18.4	29.5	5.17	2.83	6.40	6.52	-4.62	6.18	-4.96	8.24	1.10	0.54	1.94



Alt Model-Shift Uniqueness Test

008818096-01, P = 374.819602 Days, E = 132.389259 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	2.43	2.12	2.03	5.30	3.05	0.43	12.5	12.6	0.31	0.40	8.63	1.31	0.14	0.41



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2221 ± 90	$13.05^{+11.48}_{-8.85}$	283^{+11}_{-10}	3333^{+1530}_{-549}	6455^{+51193}_{-4634}
Alt.	-140 ± 58	$9.58^{+11.78}_{-6.26}$	283^{+12}_{-10}	2456^{+897}_{-431}	686^{+5697}_{-557}

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

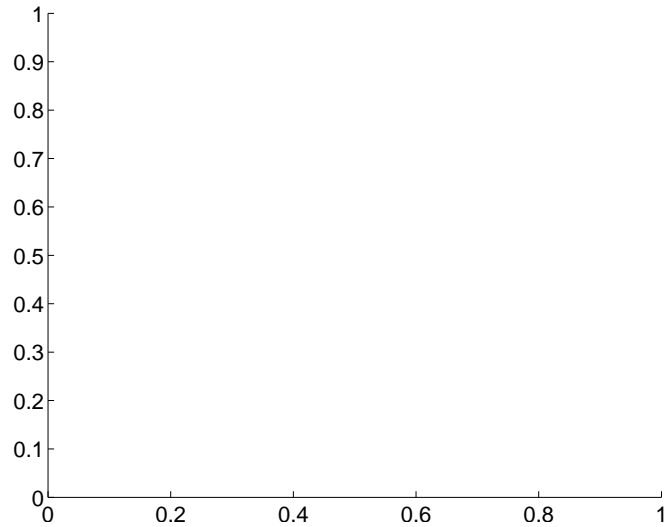
Supplemental centroid analysis for 008818096-01. Kepler magnitude: 15.98. Transit SNR 10.60

There are 0 quarters with good PRF difference image offsets

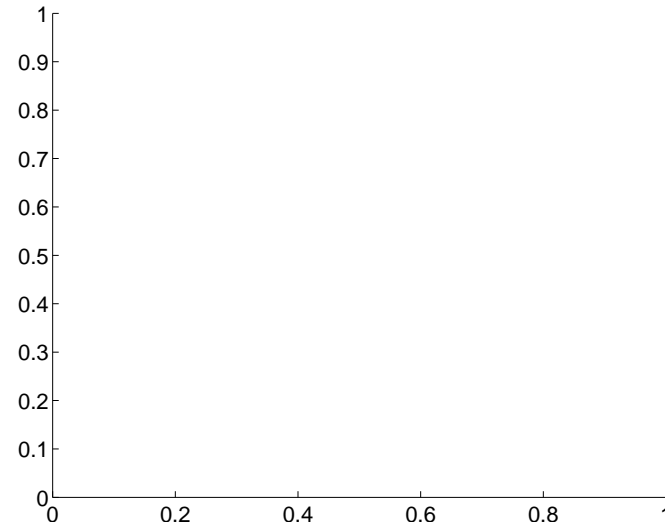
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.42 ± 0.78	1.82	0.24 ± 0.74	1.40 ± 0.78

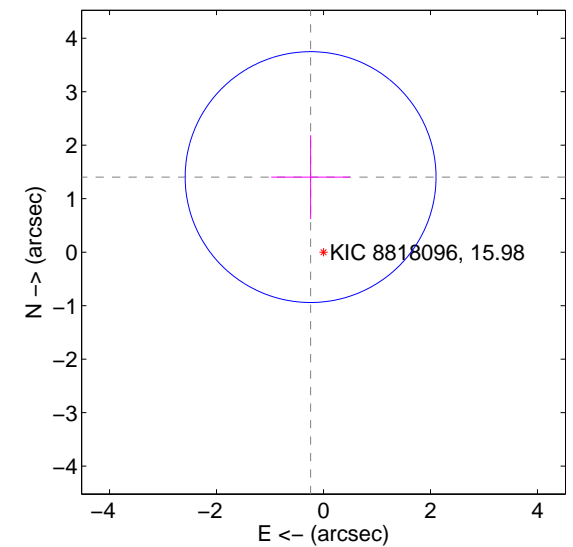
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.

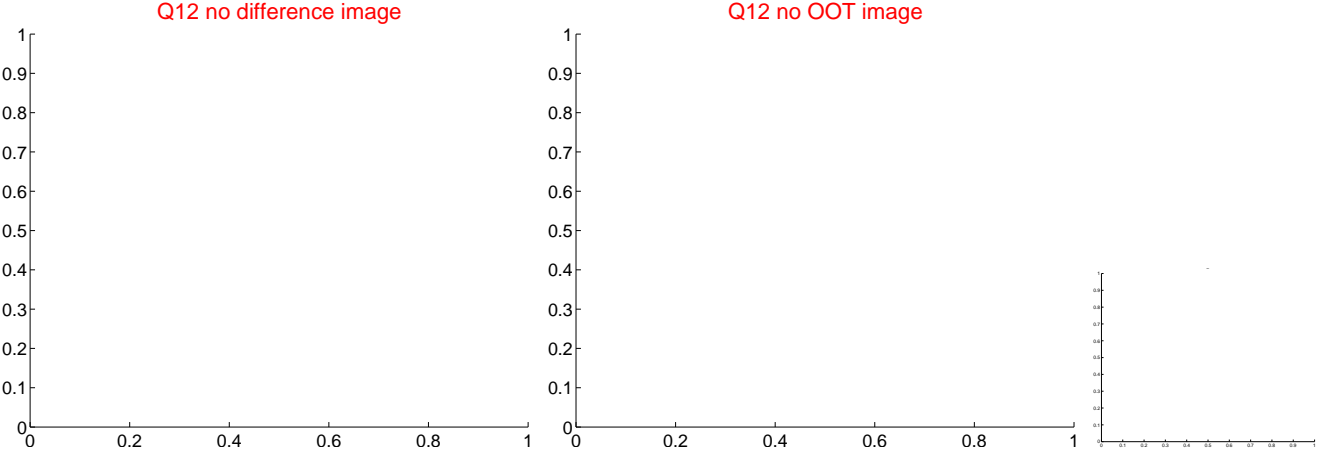
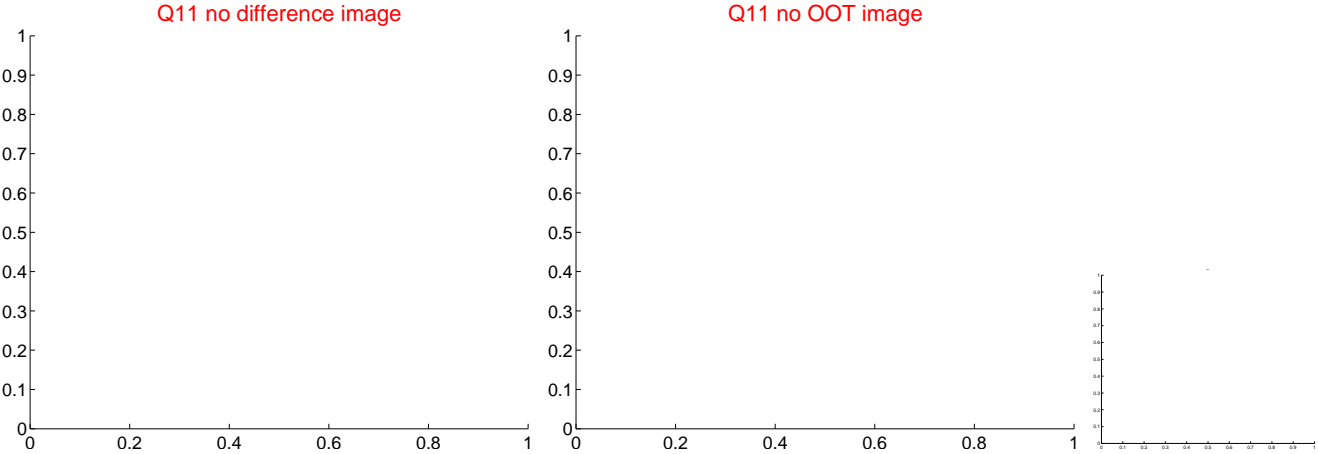
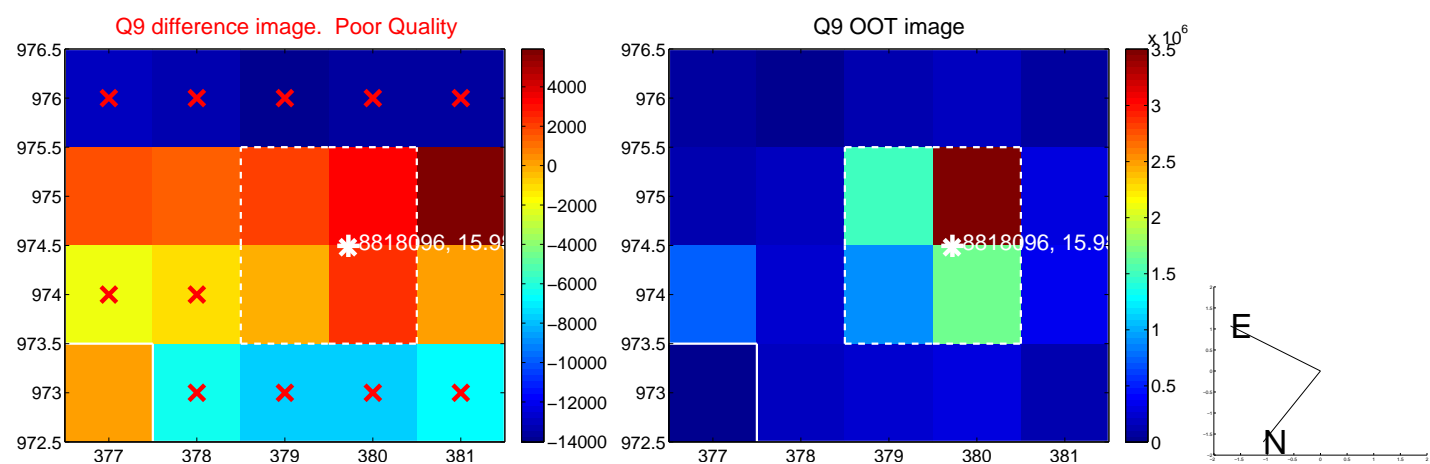
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



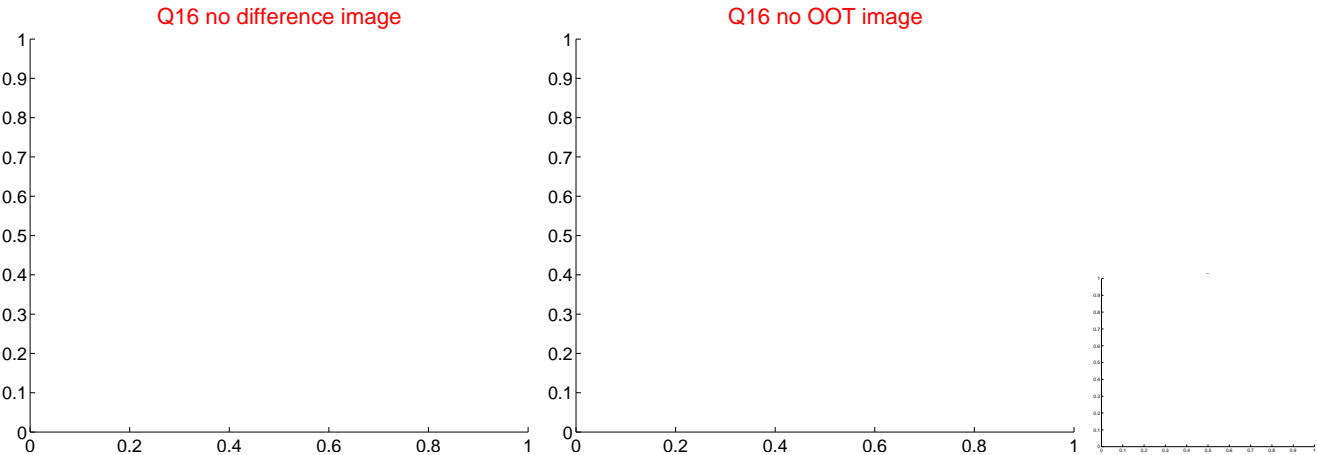
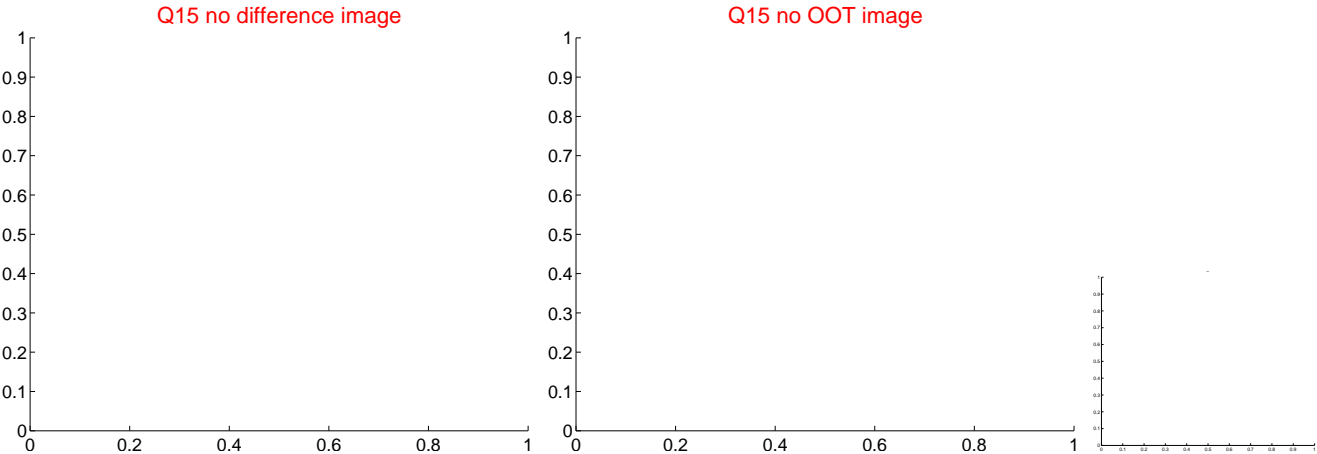
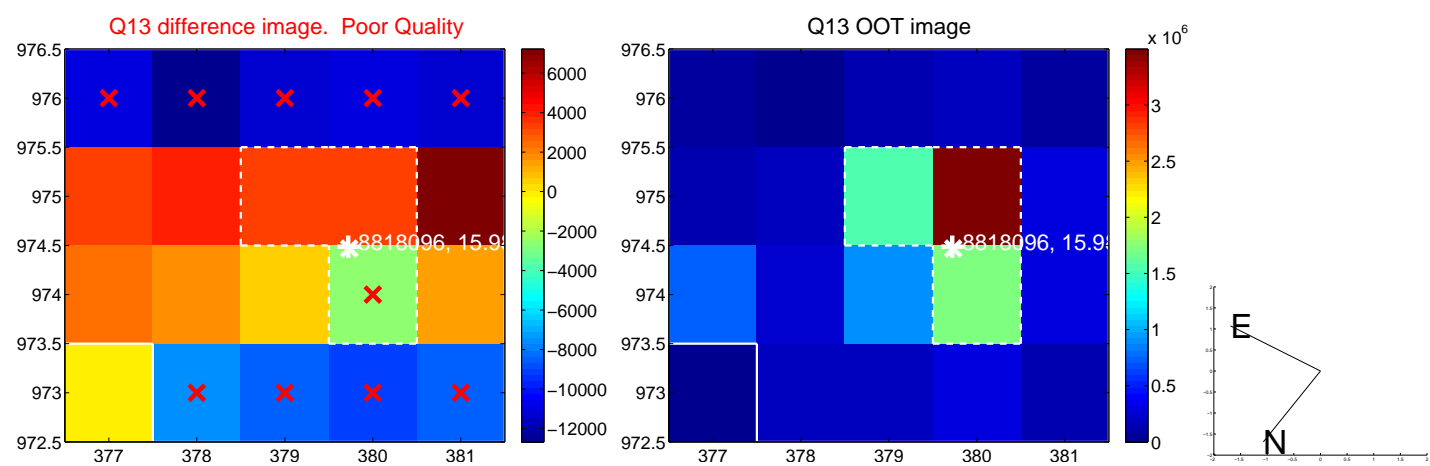
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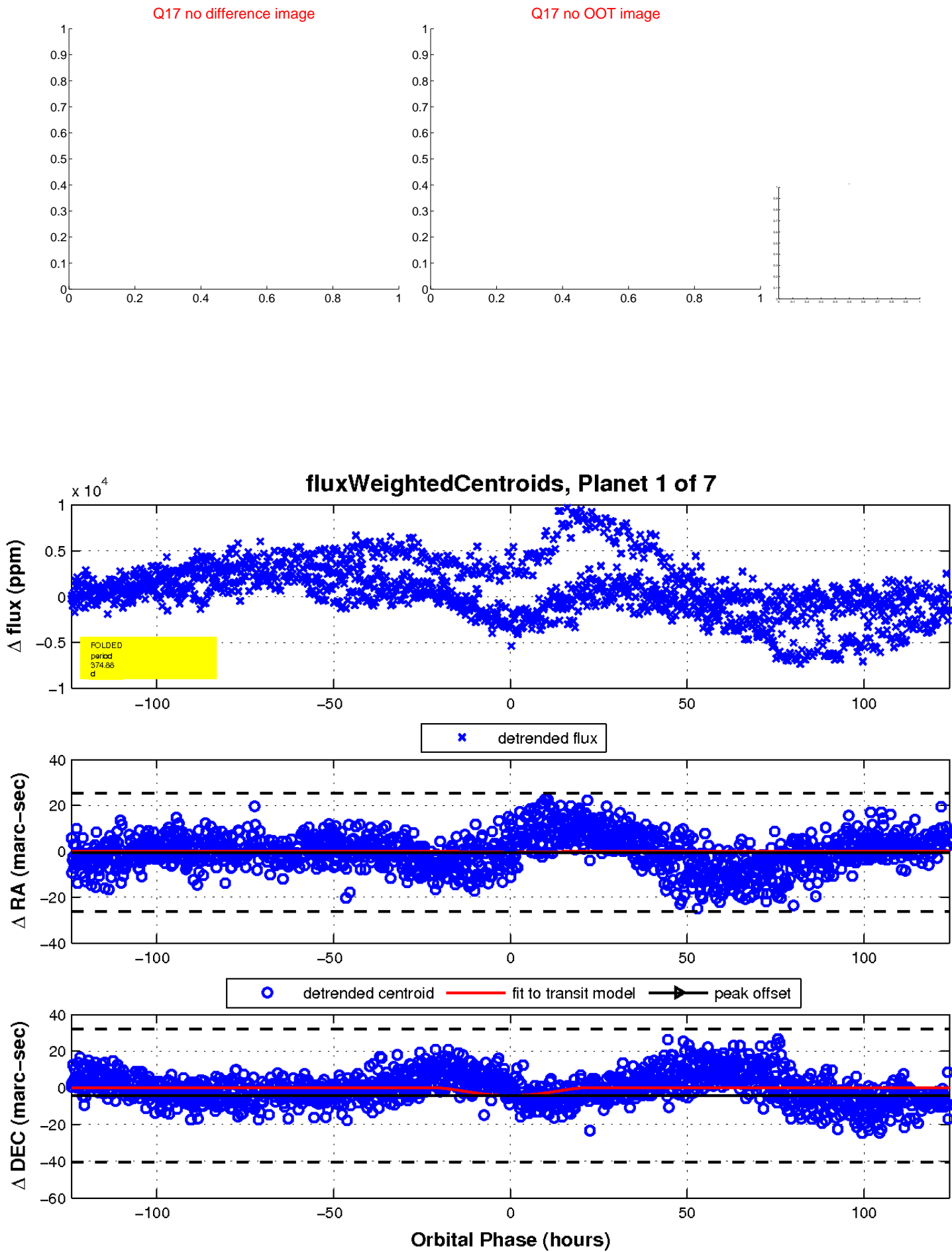
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

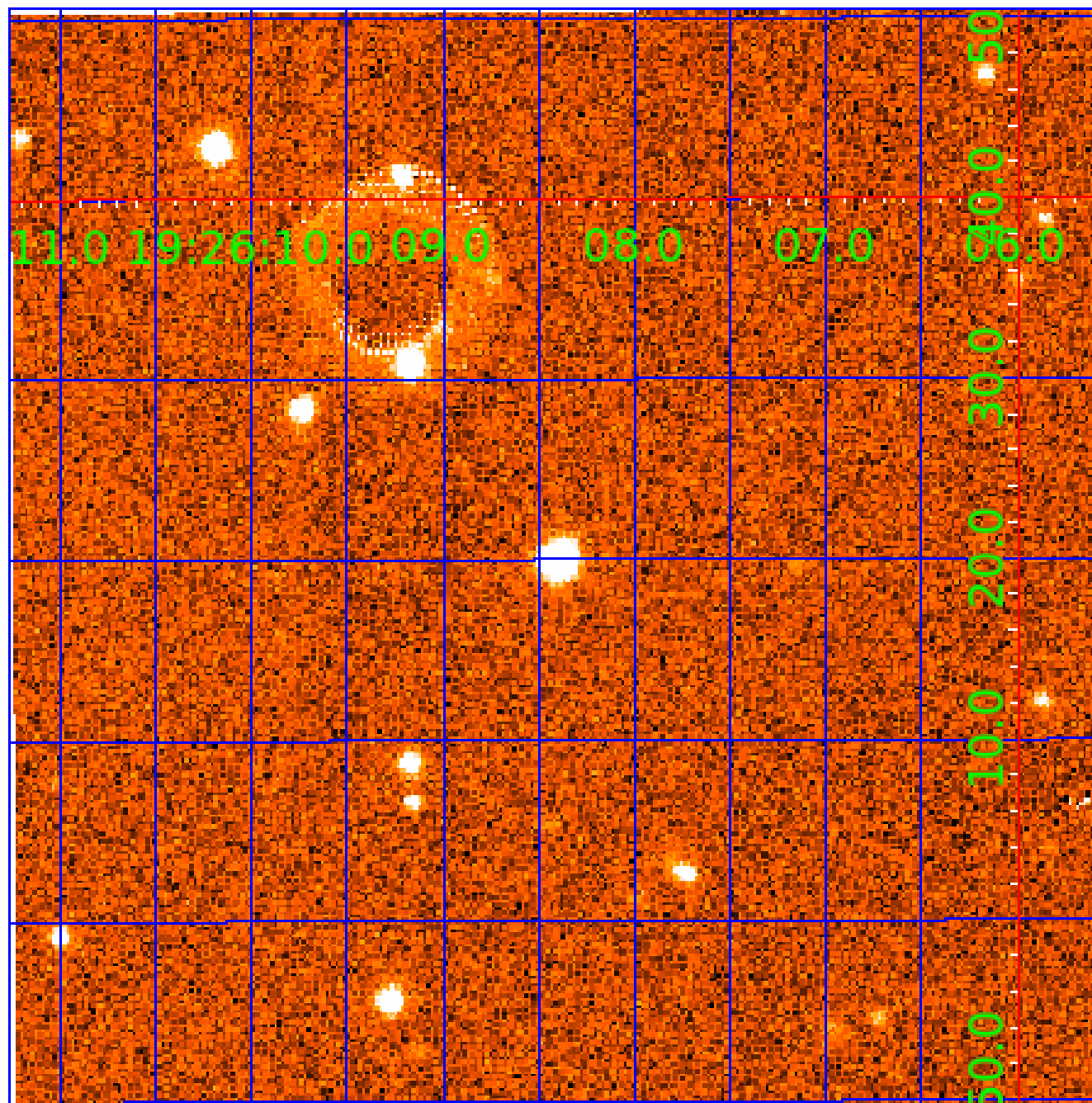


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

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

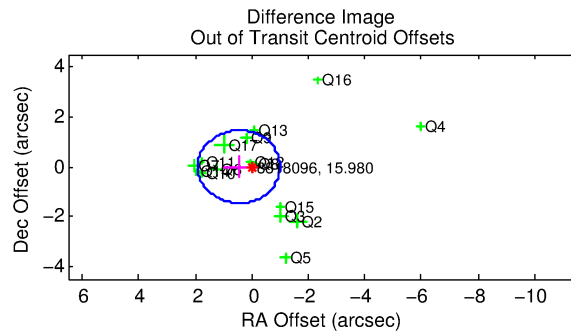
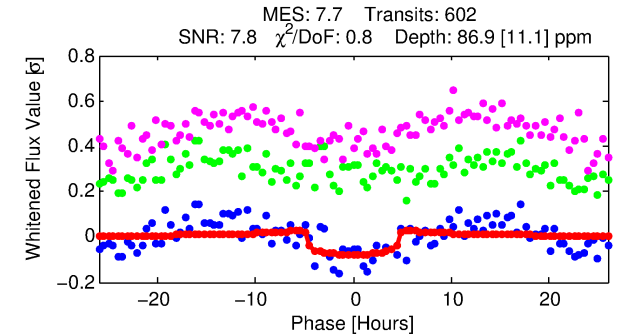
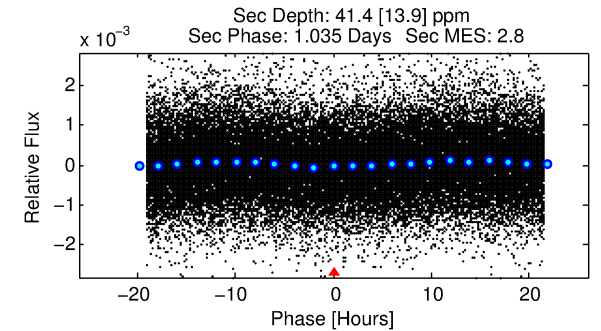
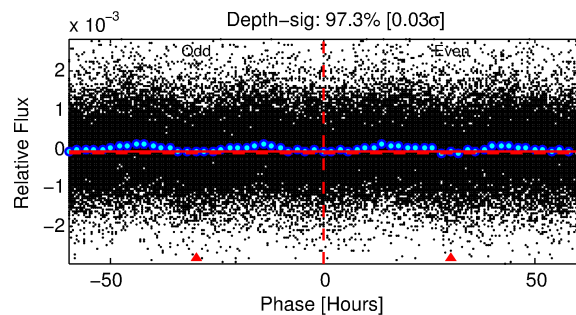
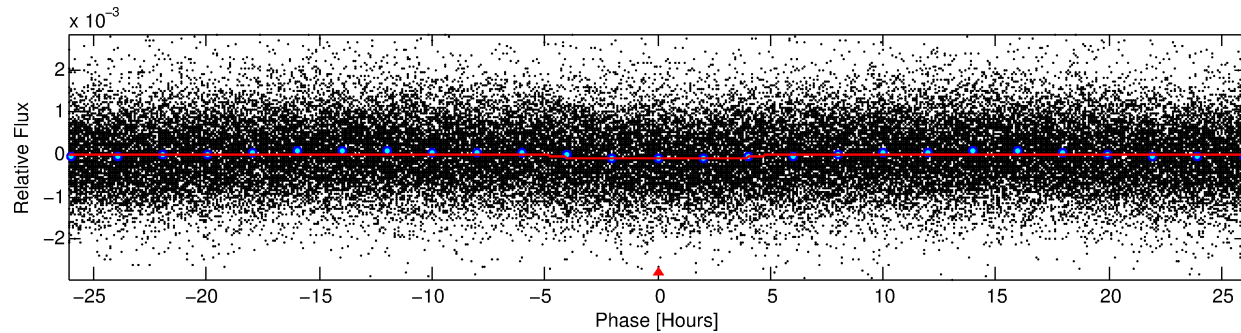
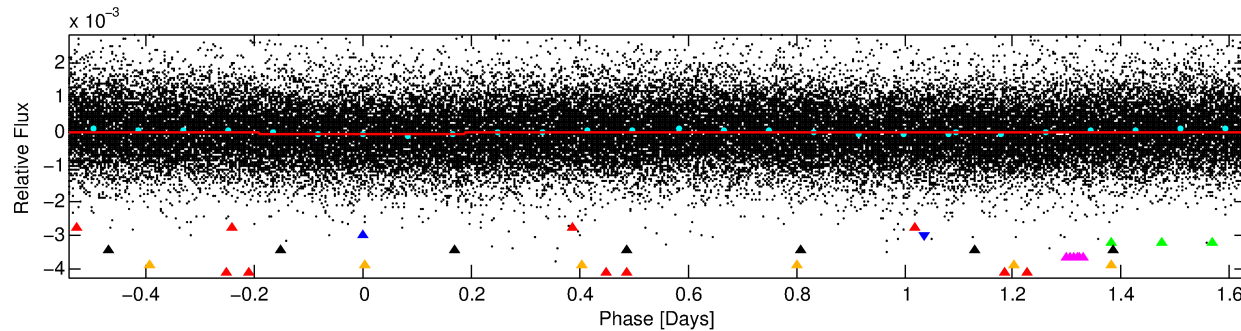
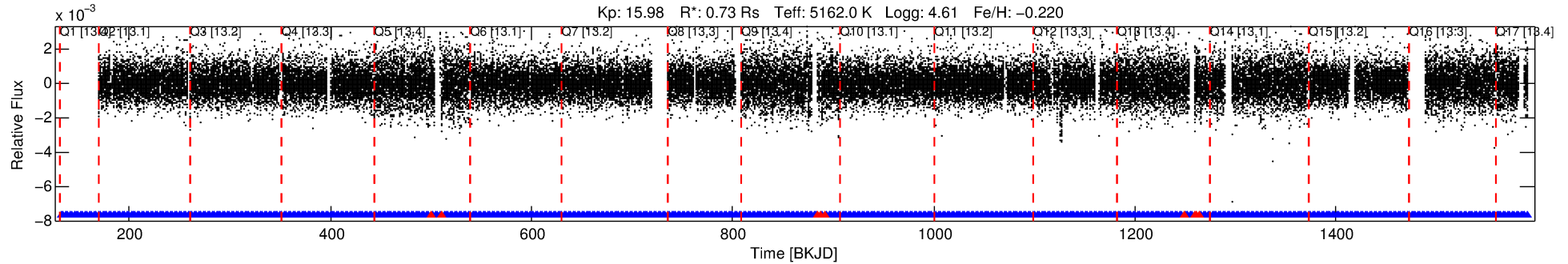
Ephemeris Match Information For 008818096-02

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	ΔRow	ΔCol	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008818096-02	8818096	008818193-01	8818193	2:1	90.2	22	-3	15.86	15.98	0.89	Col-Anomaly	1	4.04	4.07

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8818096 Candidate: 2 of 7 Period: 2.176 d



DV Fit Results:

Period = 2.17589 [0.00004] d
Epoch = 132.3941 [0.0108] BKJD
Rp/R* = 0.0103 [0.0029]
a/R* = 1.21 [0.46]
b = 0.90 [0.26]
Seff = 368.53 [70.18]
Teq = 1117 [53] K
Rp = 0.82 [0.26] Re
a = 0.0303 [0.0032] AU
Ag = 31.02 [21.08] [1.42σ]
Teff = 4076 [686] K [4.30σ]

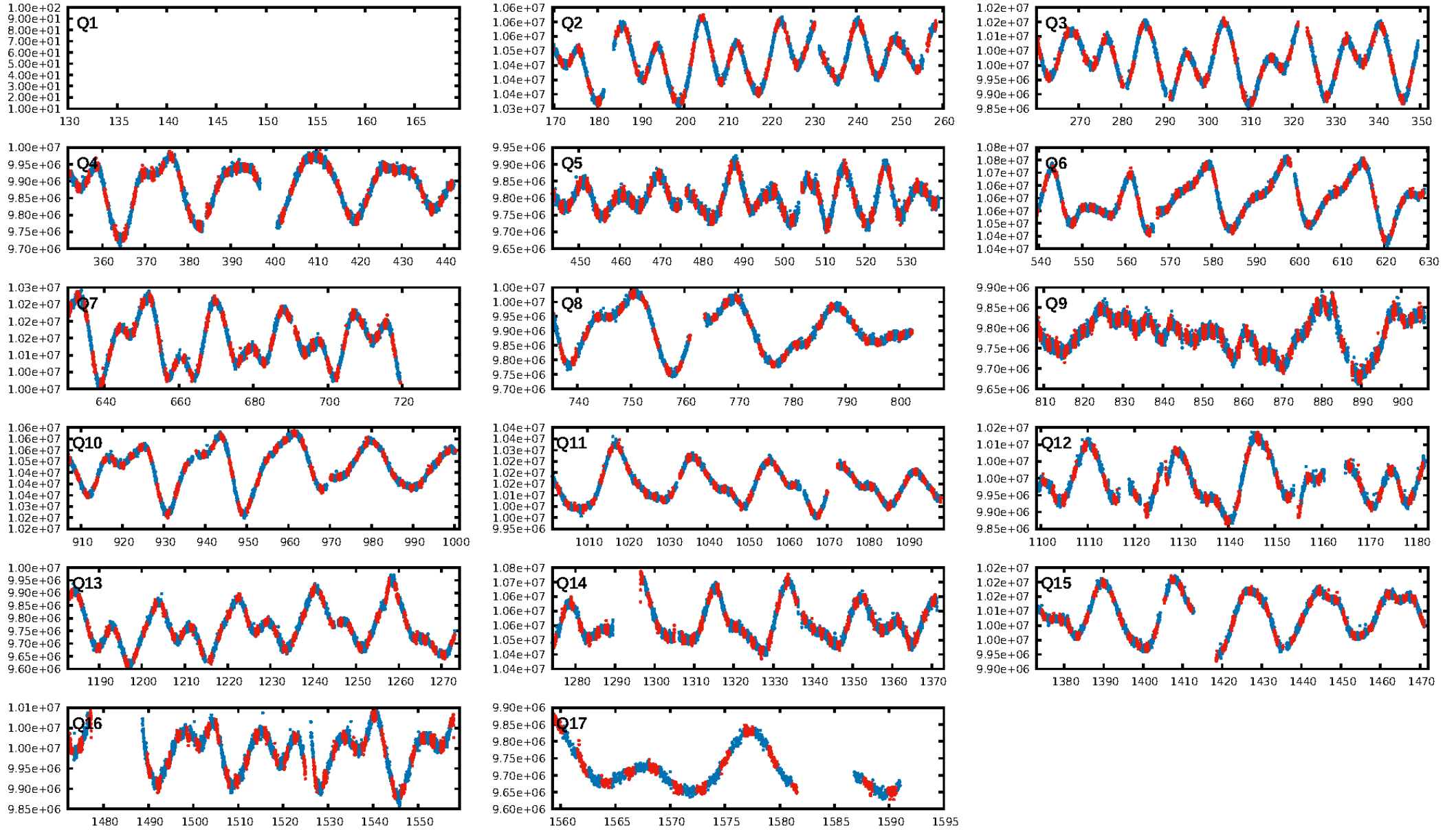
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [334.72σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.97e-11
RollingBand-fgt: 0.98 [580/589]
GhostDiagnostic-chr: 0.3793
Centroid-sig: 79.5%
Centroid-so: 0.365 arcsec [0.29σ]
OotOffset-rm: 0.462 arcsec [0.95σ]
KicOffset-rm: 0.539 arcsec [1.09σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.00 [0/16]
DiffImageOverlap-fno: 1.00 [16/16]

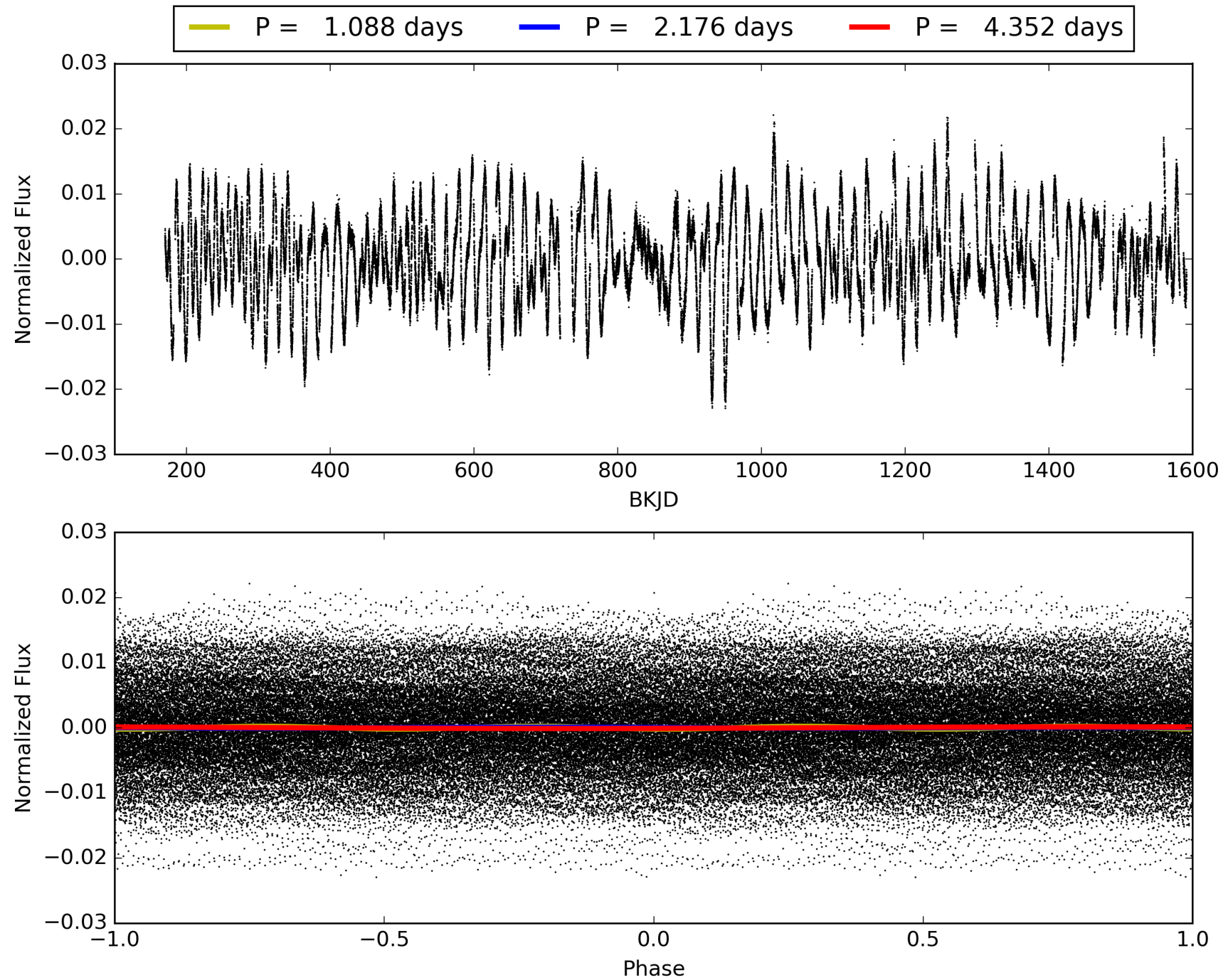
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:14:30 Z

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

TCE 008818096-02, PDC Light Curves

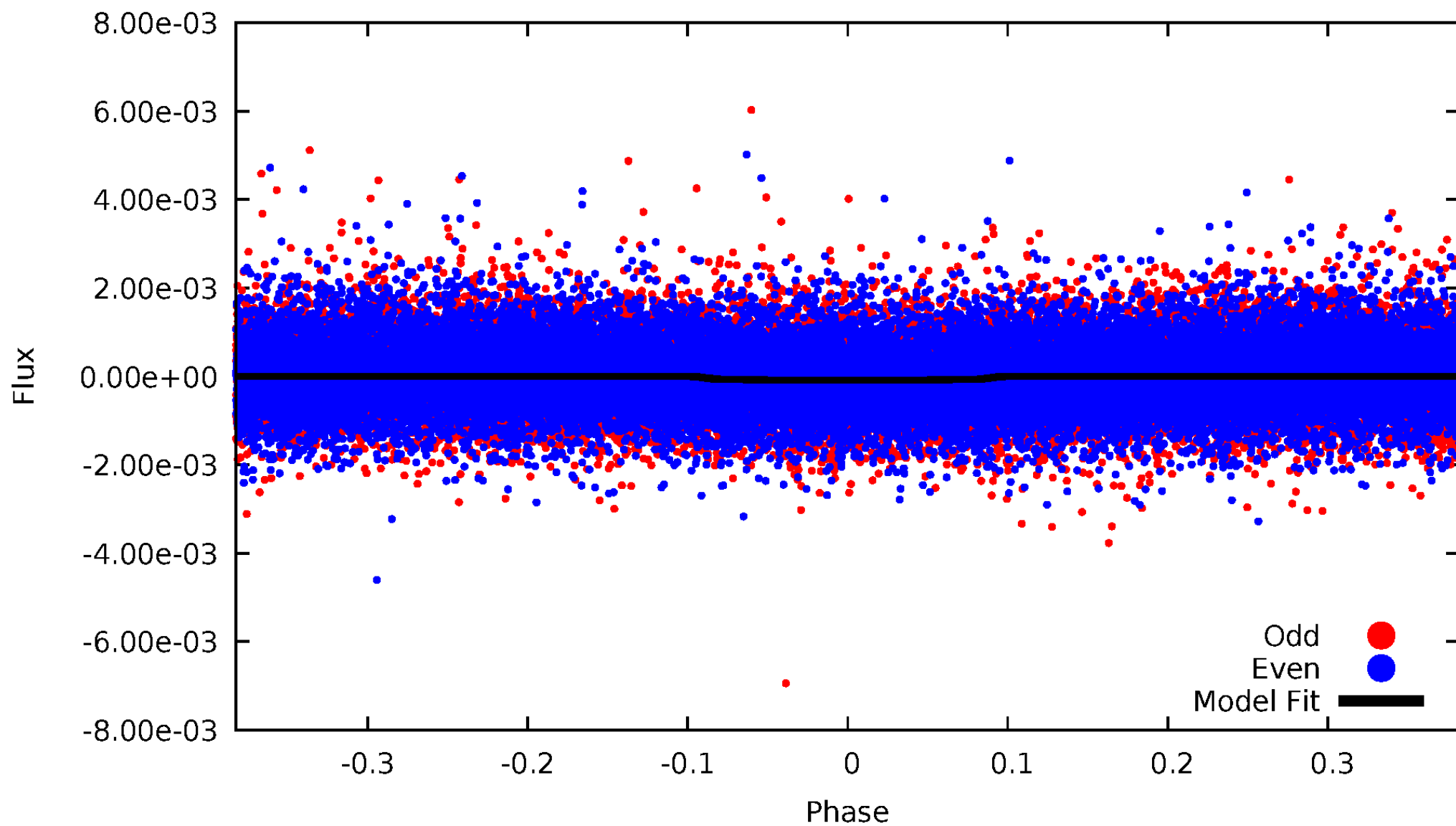


TCE 008818096-02



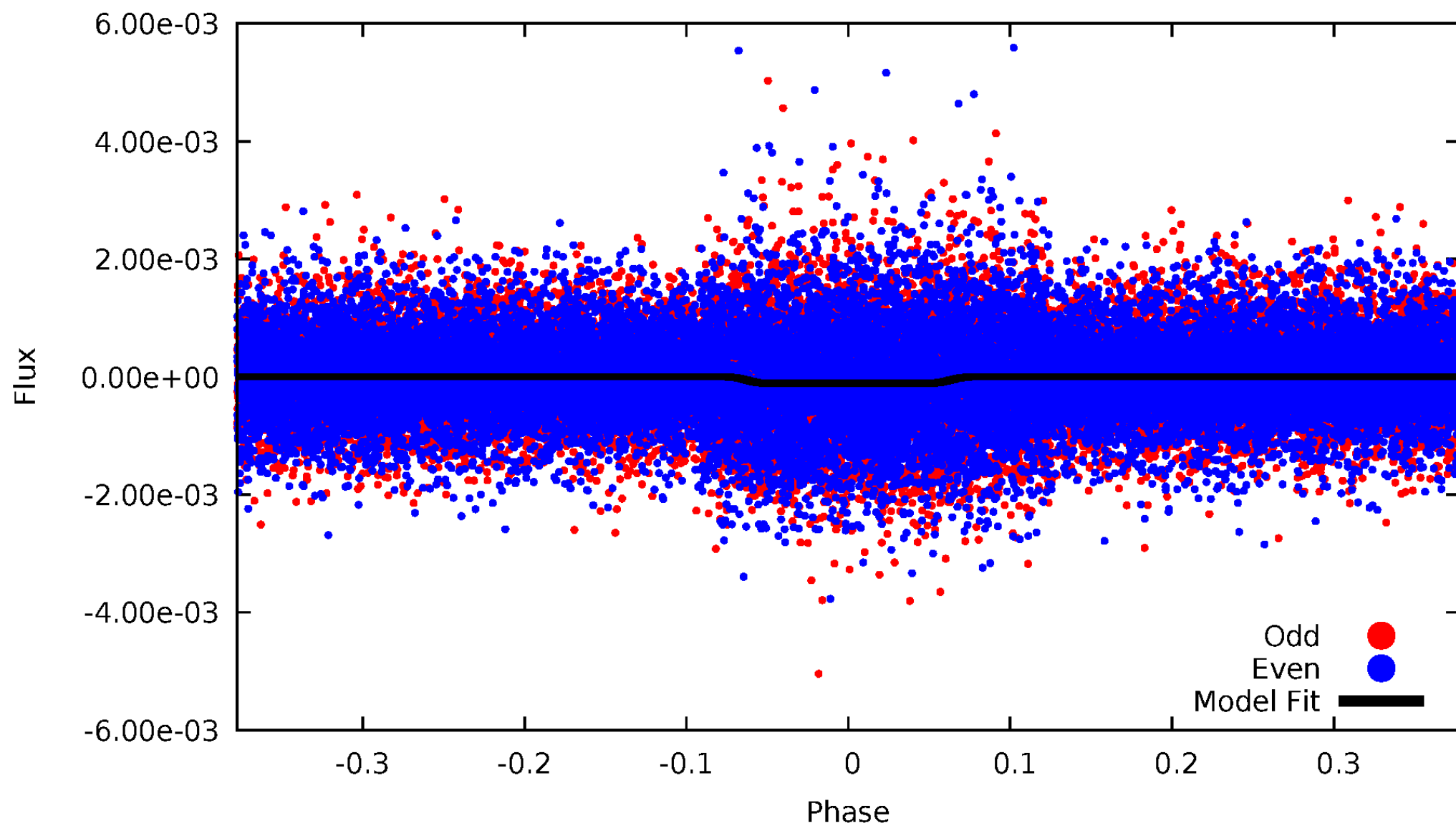
DV Odd/Even

TCE 008818096-02



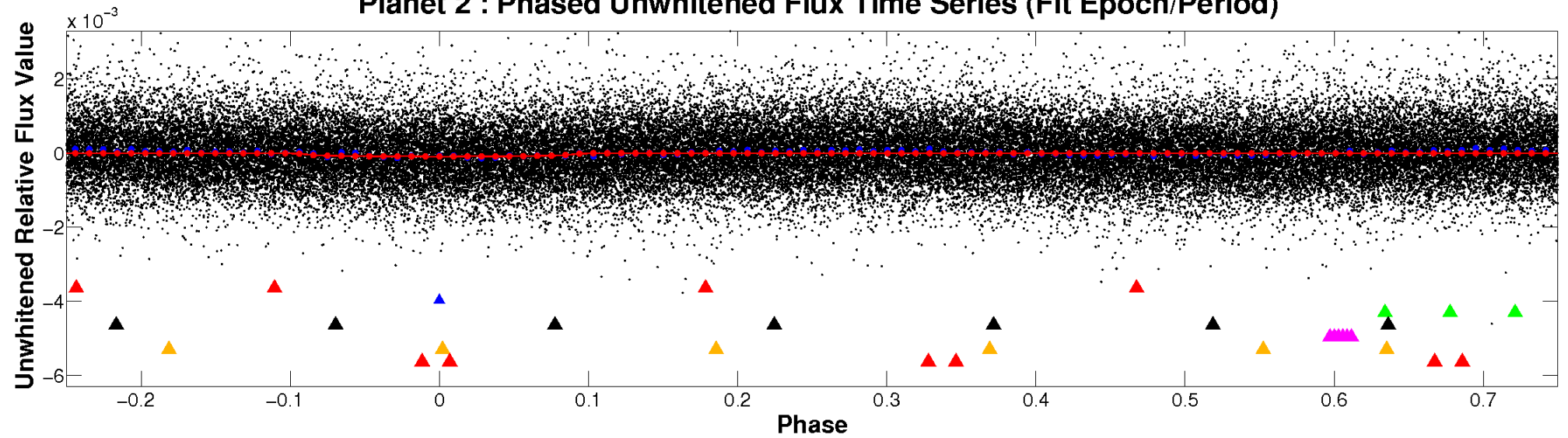
ALT Odd/Even

TCE 008818096-02

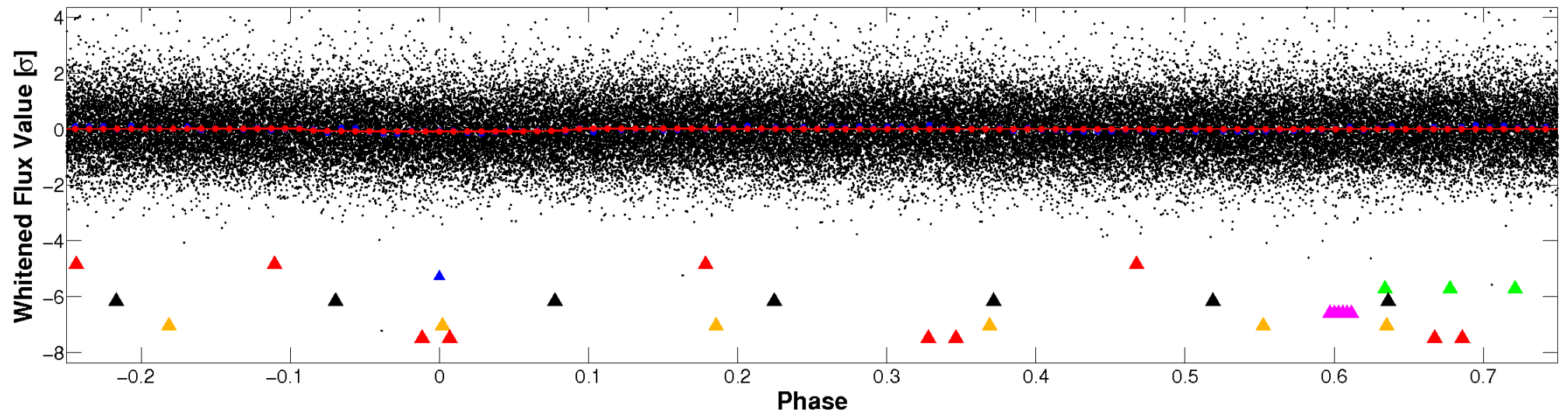


Non-Whitened Vs. Whitened Light Curve

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

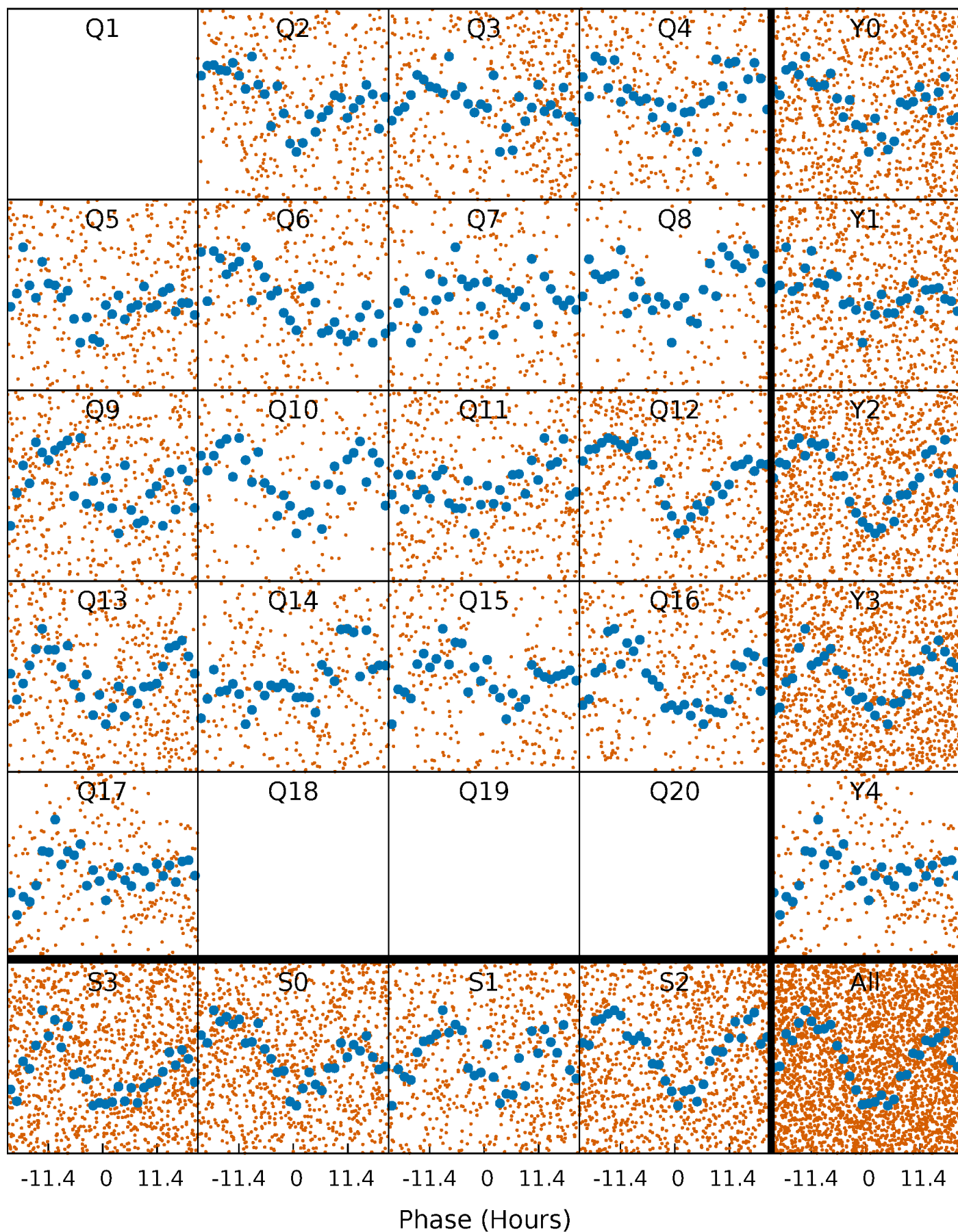


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



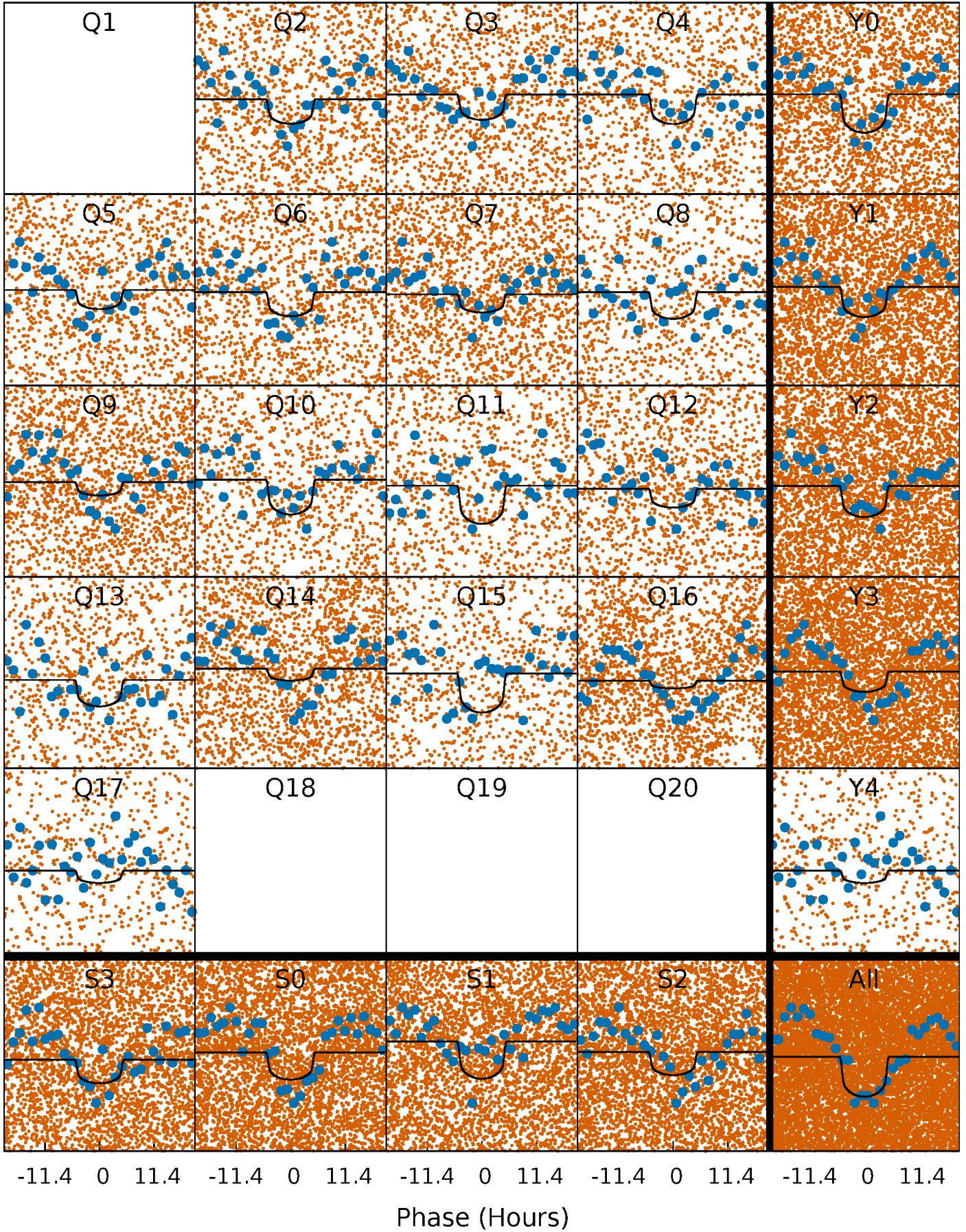
PDC Quarter-Phased Transit Curves

TCE 008818096-02 P= 2.175893 Days $T_0=132.394093$ (BKJD)



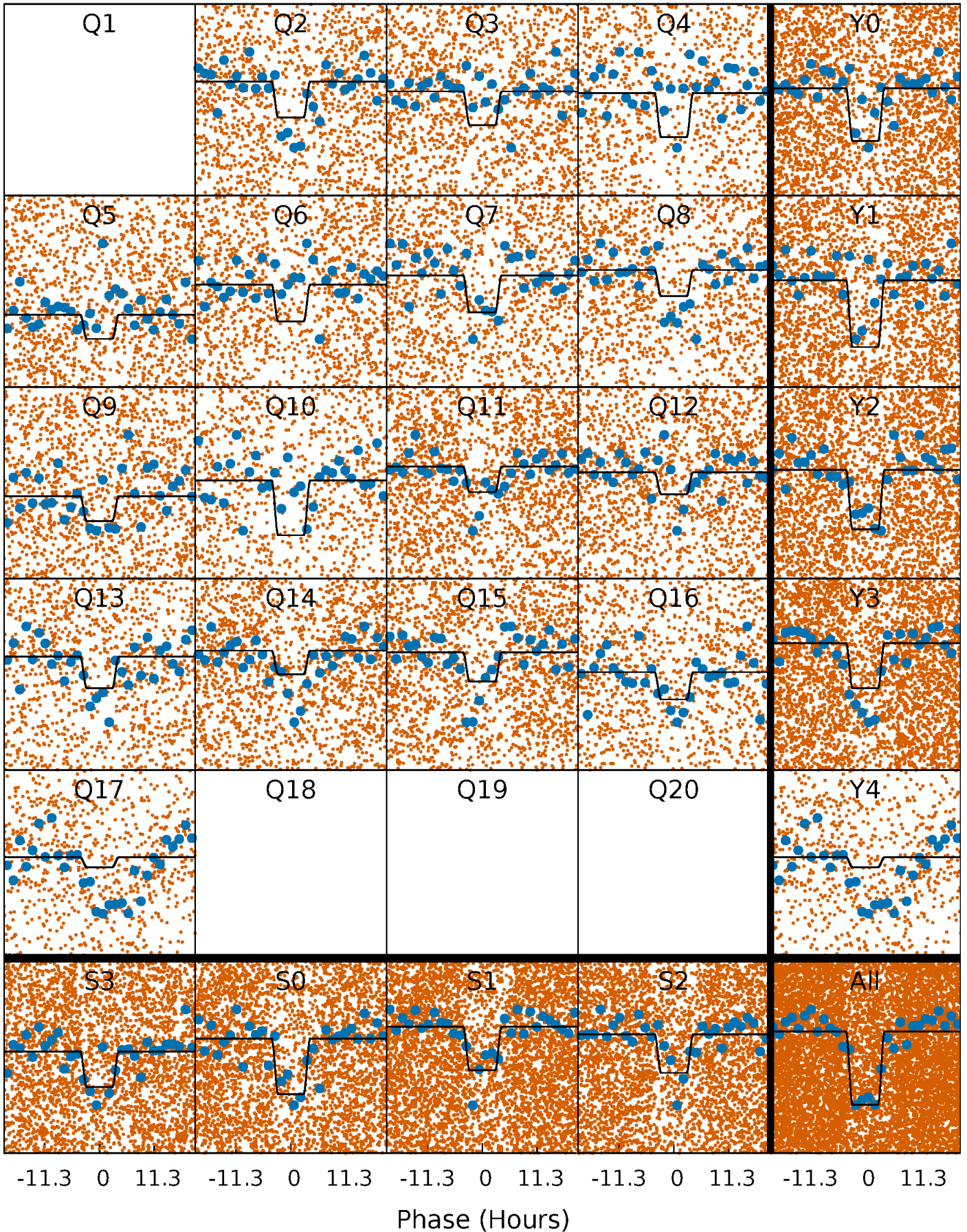
DV Quarter-Phased Transit Curves

TCE 008818096-02 P= 2.175893 Days $T_0=132.394093$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

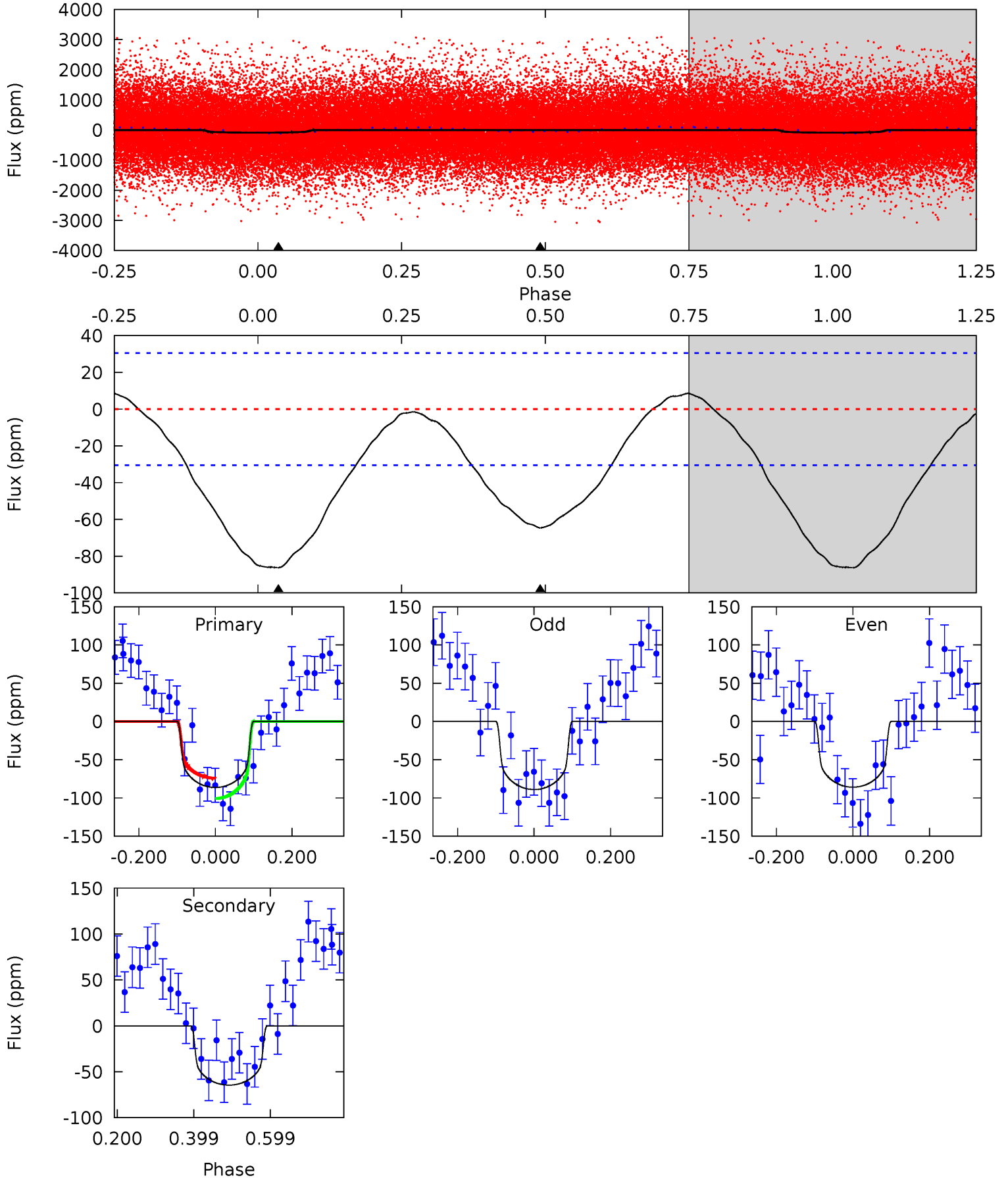
TCE 008818096-02 P= 2.175887 Days $T_0=132.394170$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-02, P = 2.175893 Days, E = 132.394093 Days

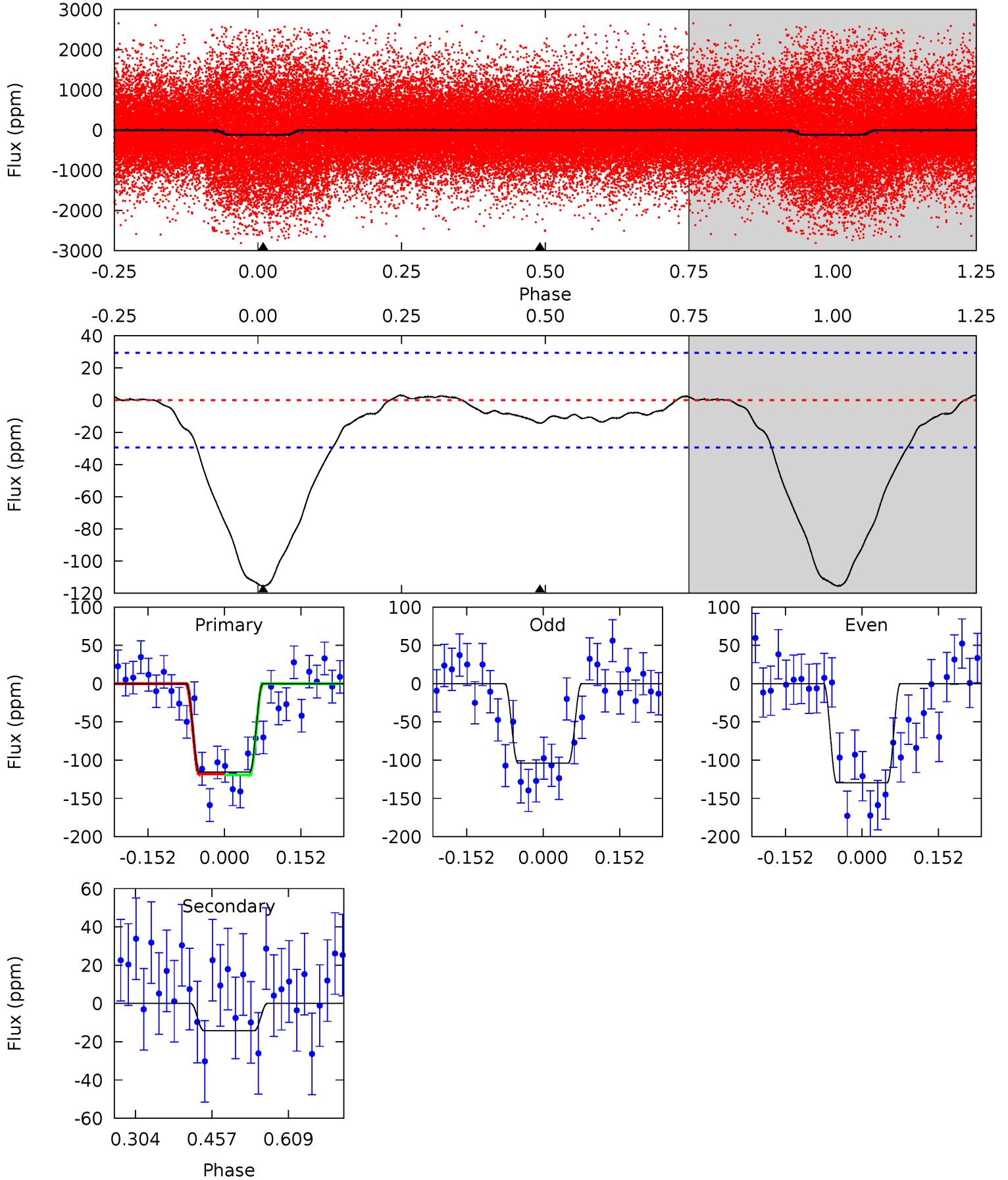
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	9.35	0	0	4.42	1.28	0.81	12.5	12.5	9.35	9.35	0.22	1.06	0.09	1.92



Alt Model-Shift Uniqueness Test

008818096-02, P = 2.175887 Days, E = 132.394170 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	2.17	0	0	4.48	1.43	0.70	17.6	17.6	2.17	2.17	1.98	0.88	0.03	0.09



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-65 ± 7	$0.83^{+0.25}_{-0.24}$	1578^{+59}_{-56}	4683^{+740}_{-490}	48^{+47}_{-21}
Alt.	-14 ± 7	$0.84^{+0.25}_{-0.25}$	1572^{+61}_{-51}	3499^{+507}_{-439}	$9.820^{+11.453}_{-5.727}$

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 $A_{obs} \gg 1.0$

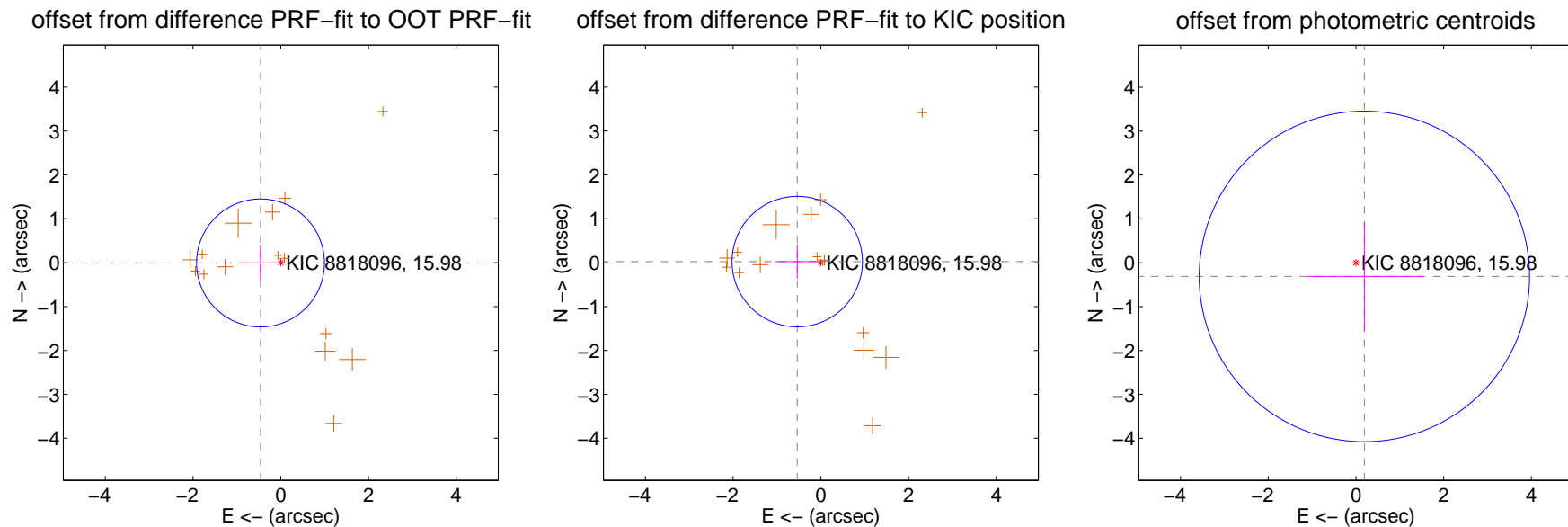
DV Centroid Data

Supplemental centroid analysis for 008818096-02. Kepler magnitude: 15.98. Transit SNR 7.77

There are 0 quarters with good PRF difference image offsets

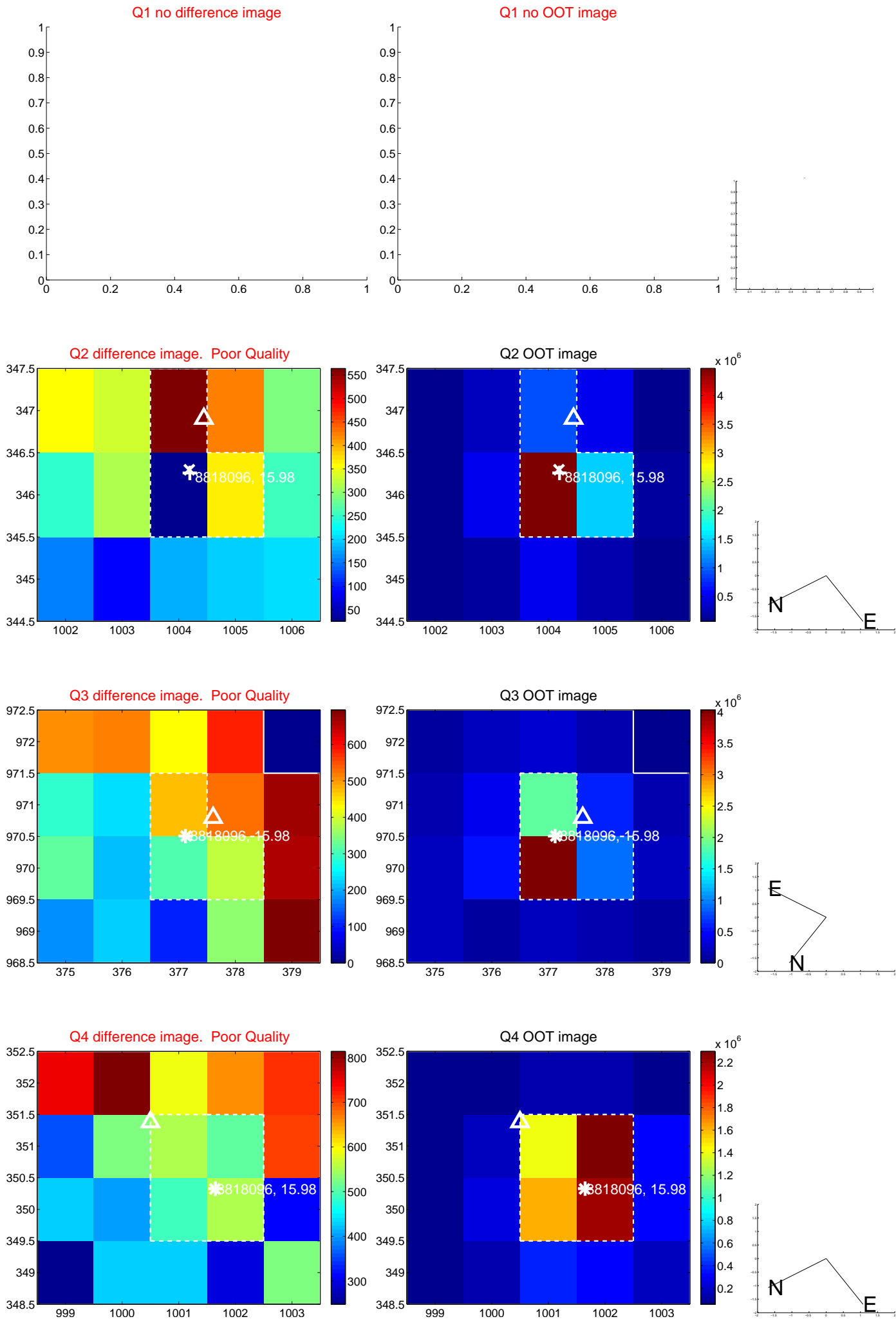
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.462 ± 0.486	0.95	0.462 ± 0.486	-0.006 ± 0.417
PRF-fit source offset from KIC position	0.539 ± 0.496	1.09	0.539 ± 0.498	0.025 ± 0.394
photometric centroid source offset	0.37 ± 1.26	0.29	-0.19 ± 1.32	-0.31 ± 1.23

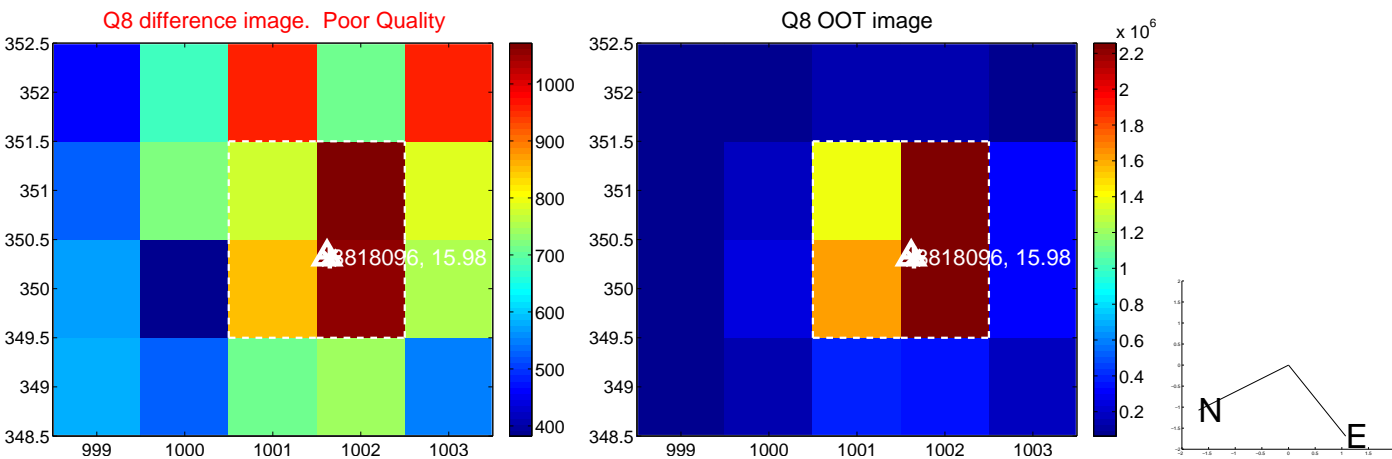
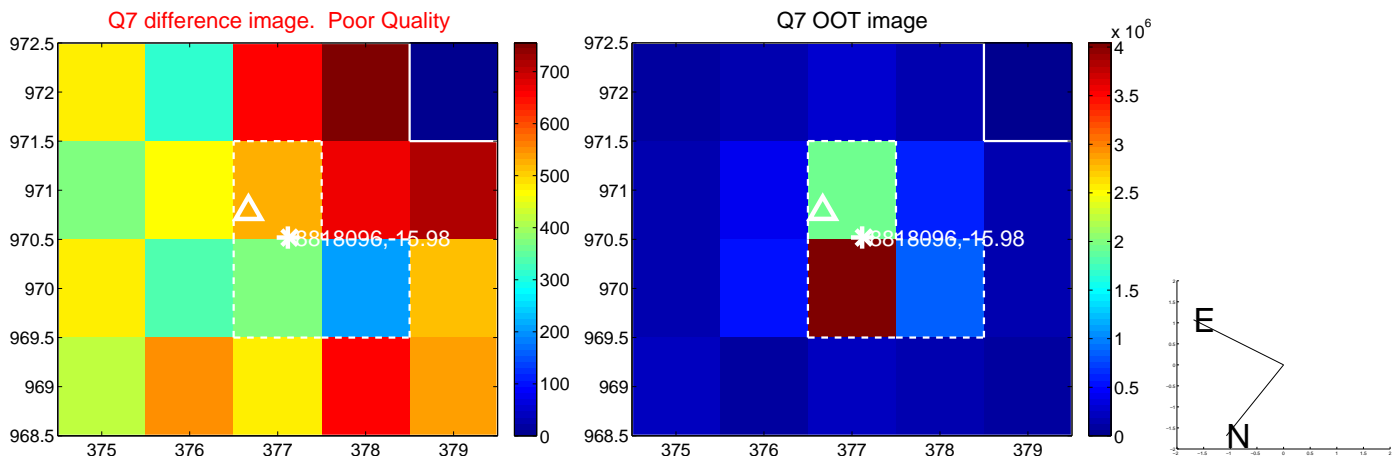
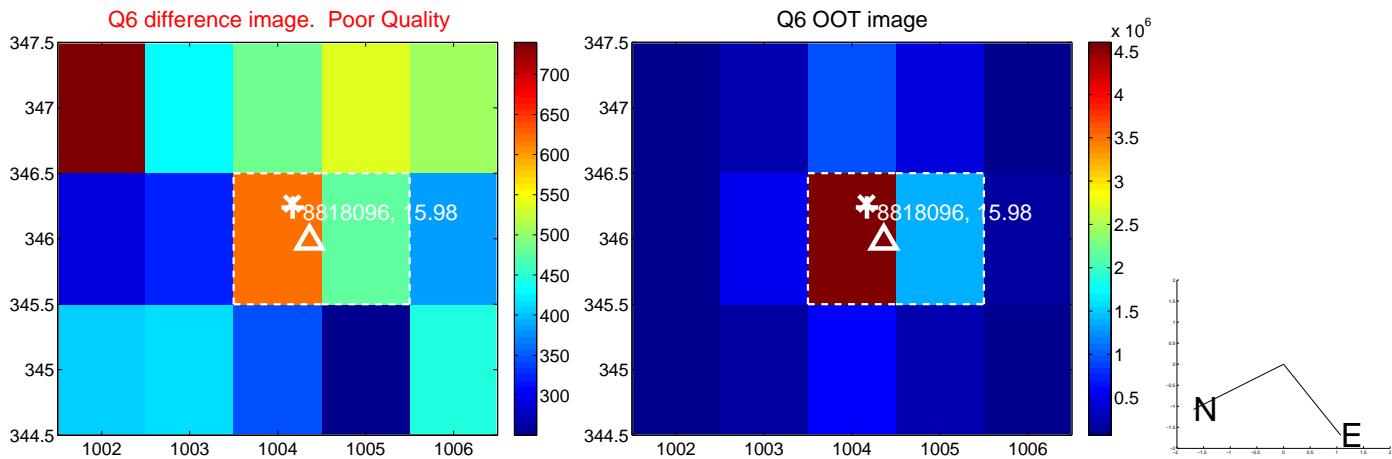
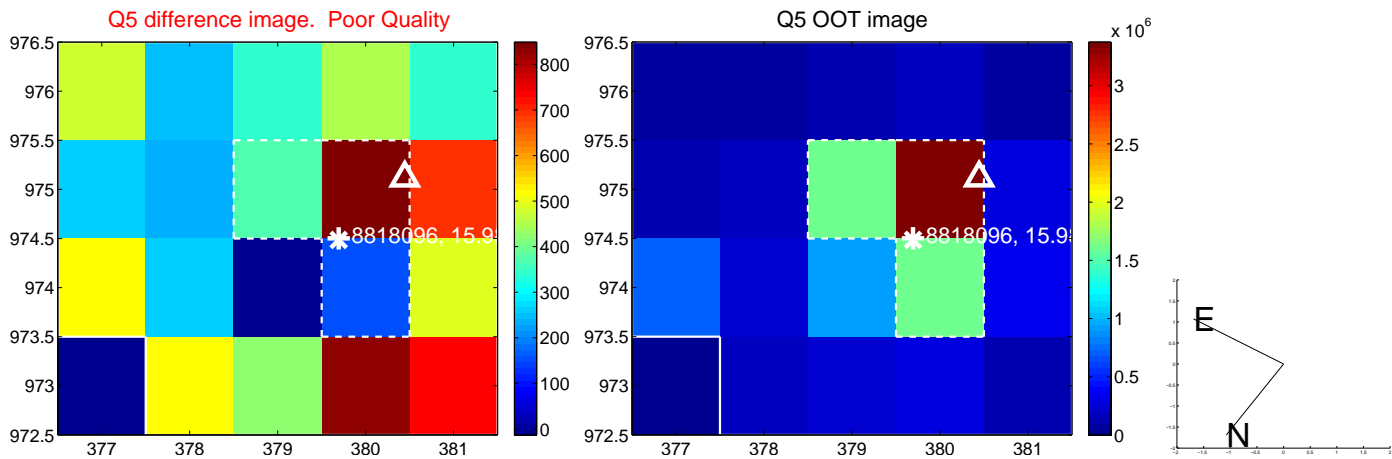


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

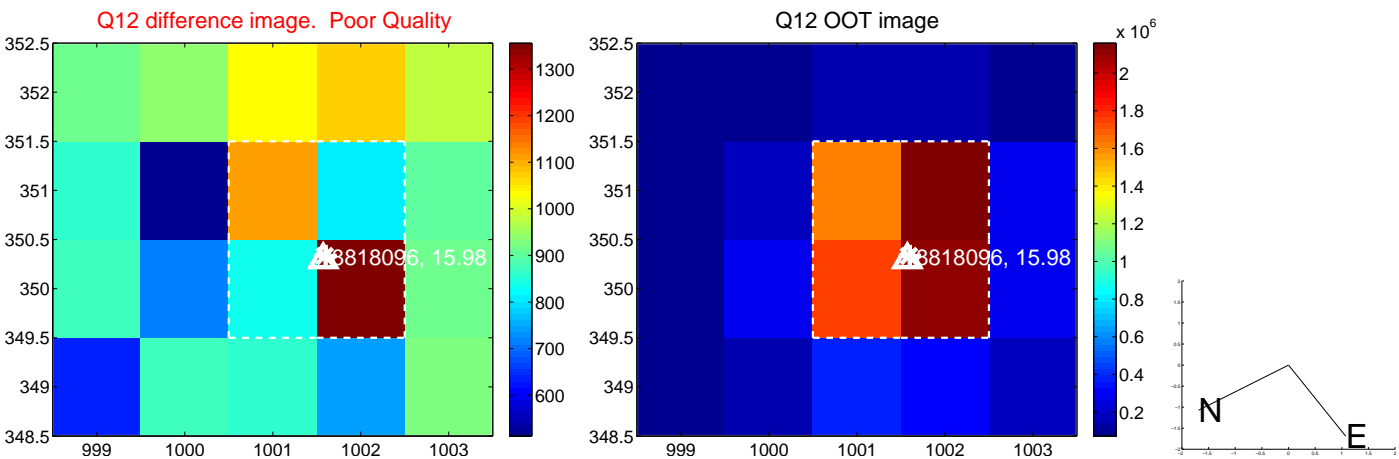
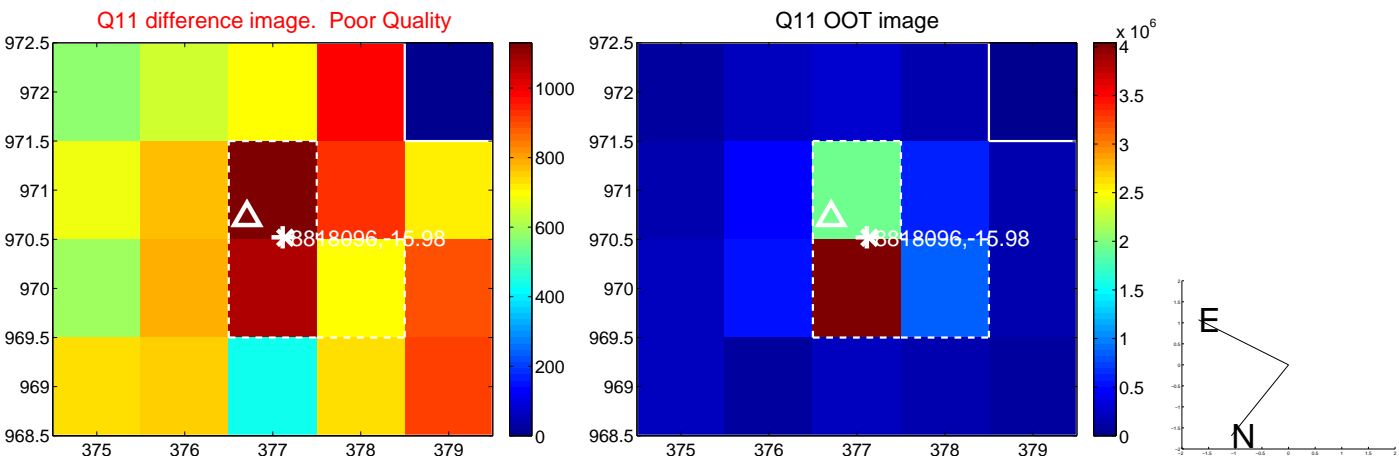
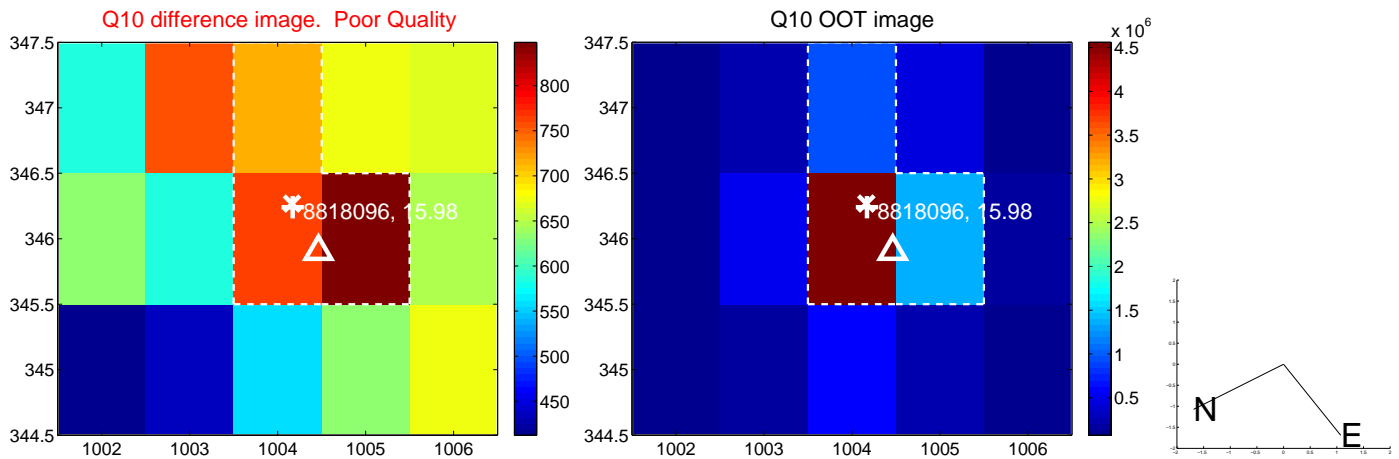
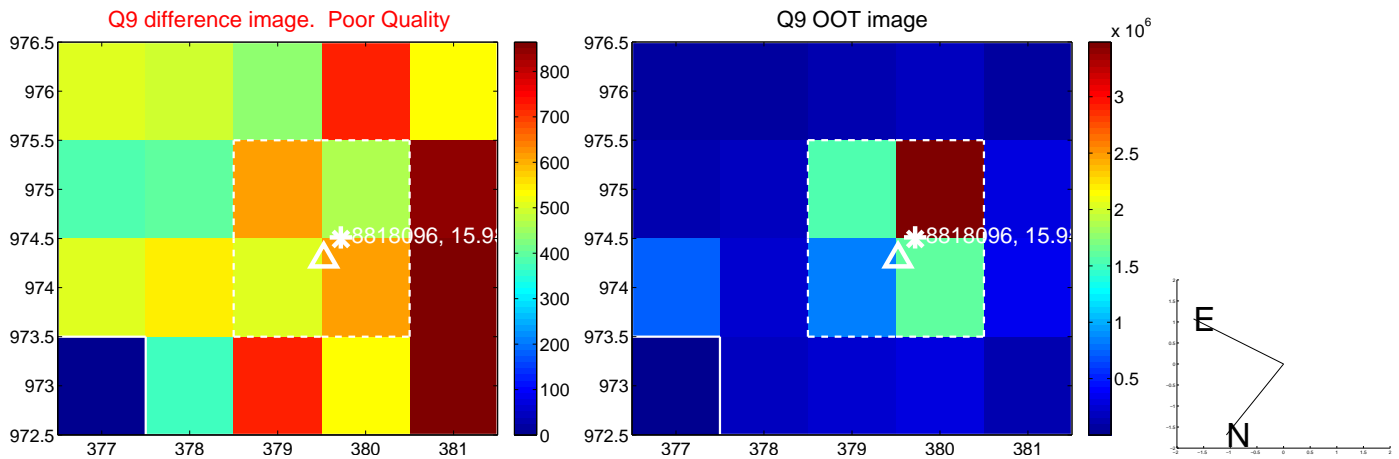
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



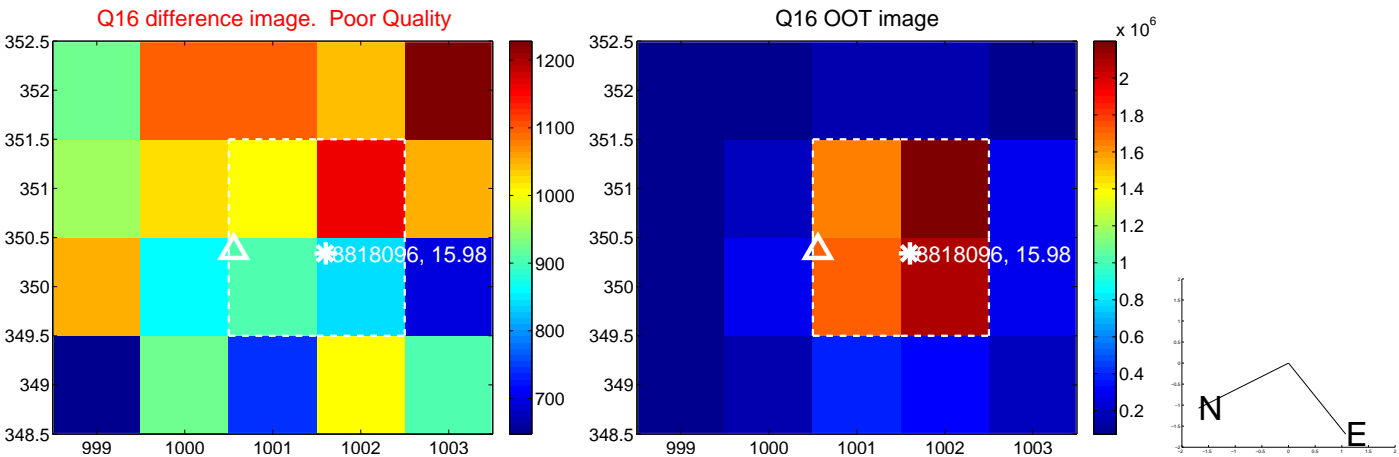
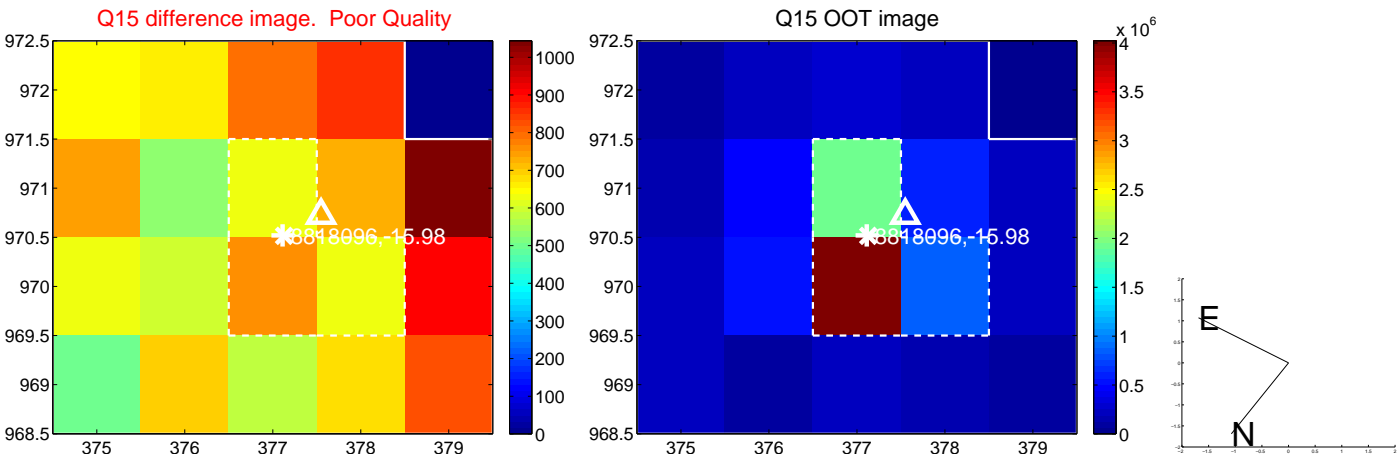
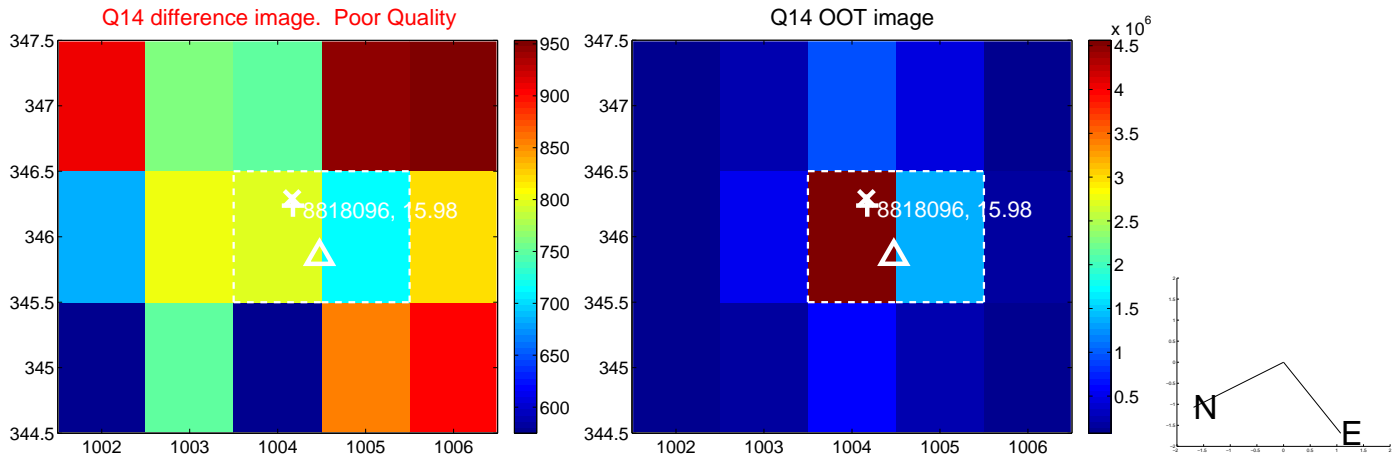
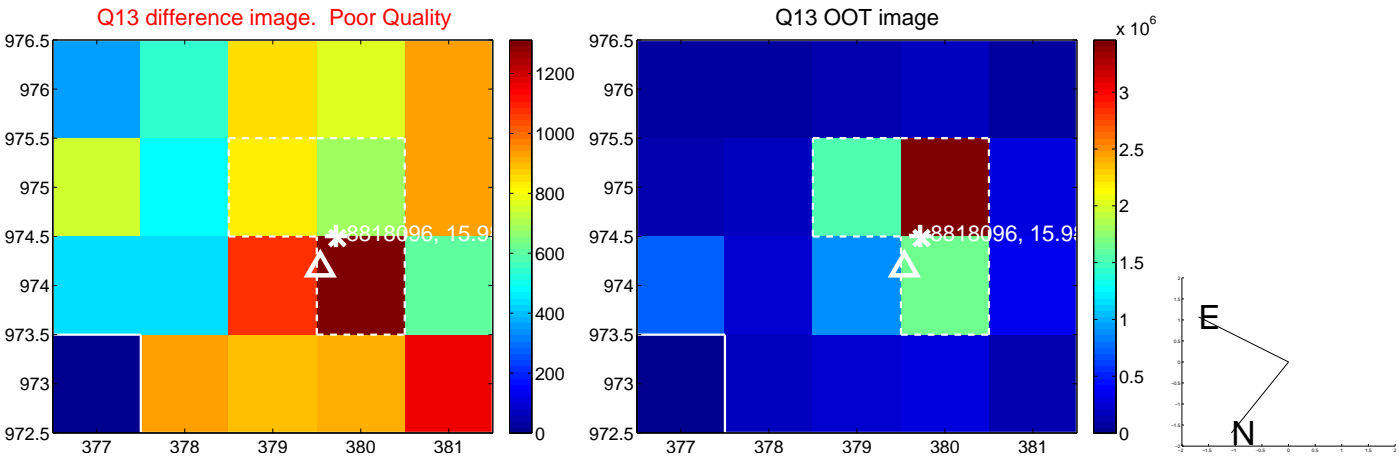
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



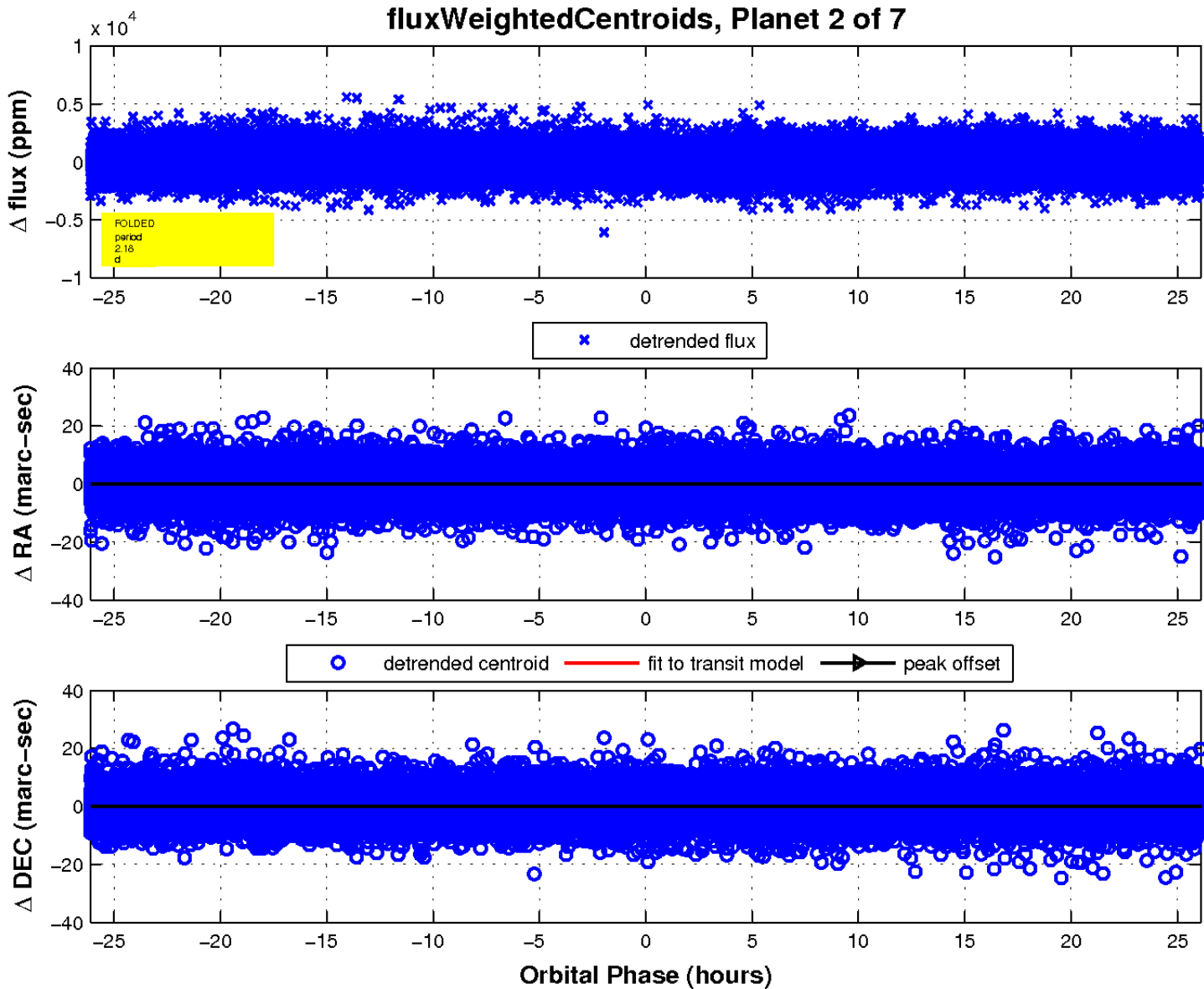
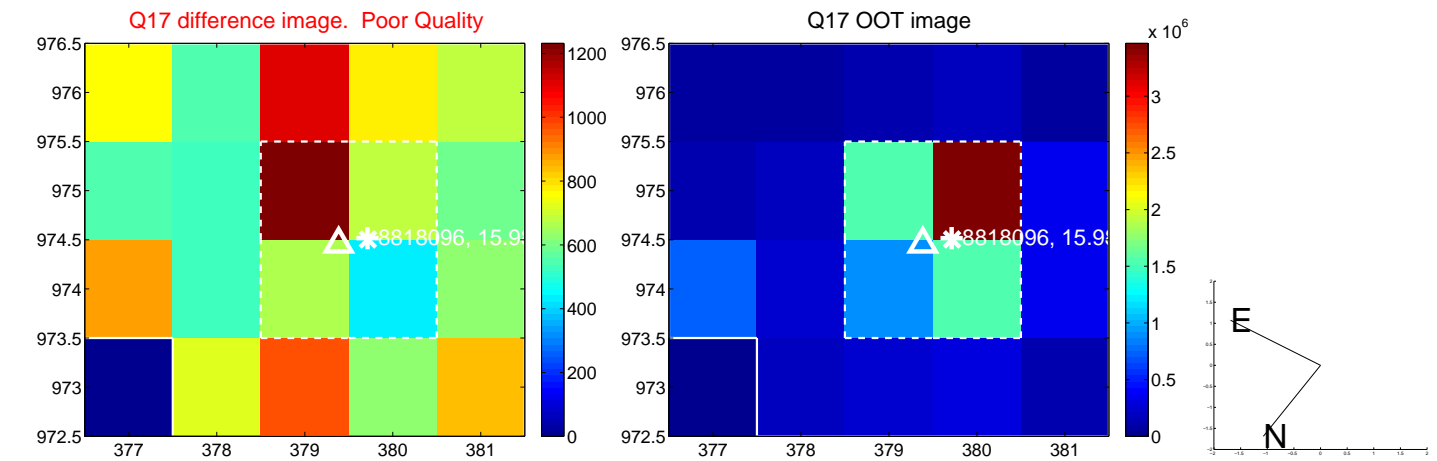
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

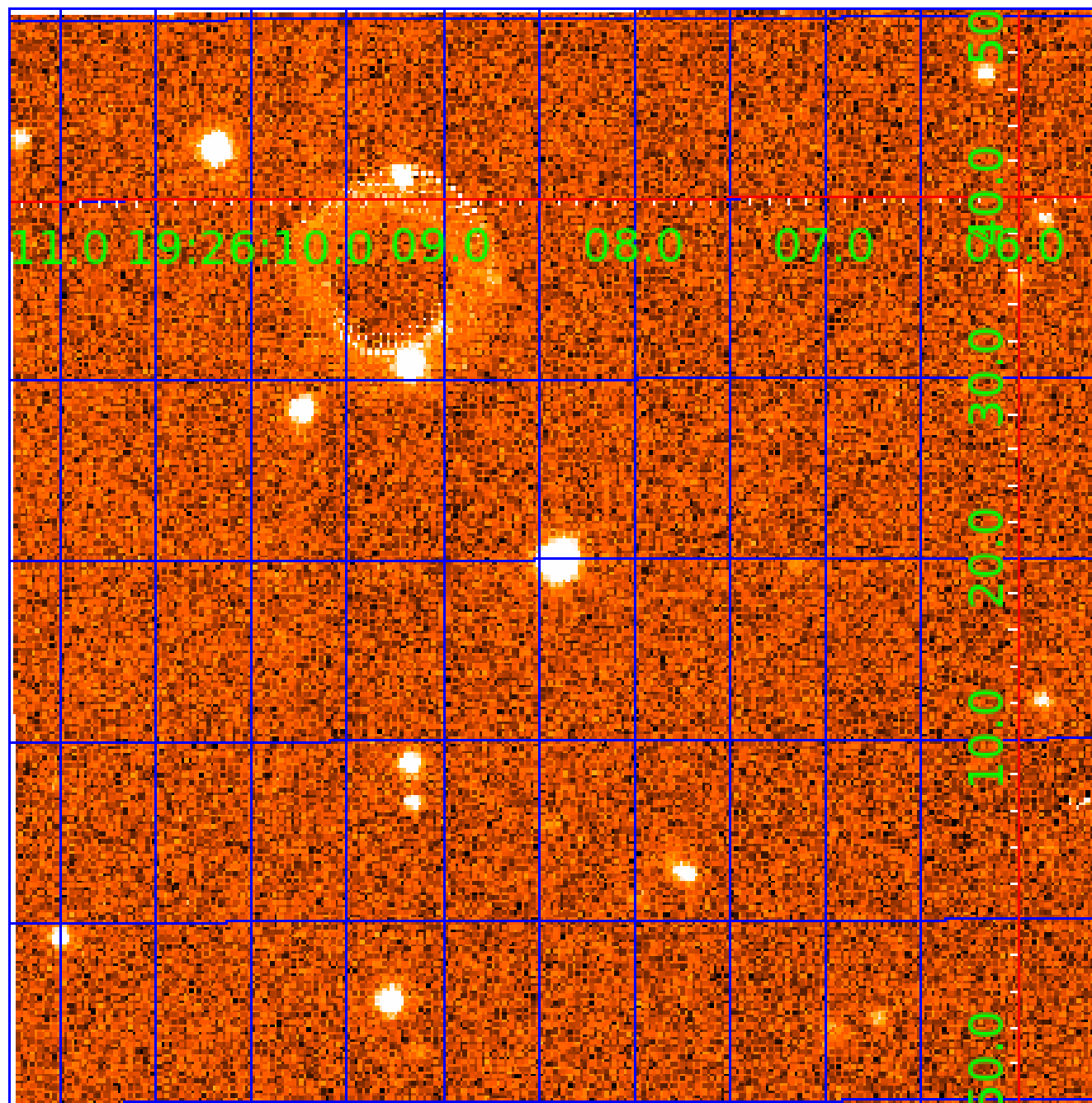


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008818096

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})
008818096-01	OBS	No	374.882489	132.153662	3243.7	41.417	8.9	10.6	0.73	5162	7.97	0.38
008818096-02	OBS	No	2.175893	132.394093	86.9	9.979	7.7	7.8	0.73	5162	0.82	368.53
008818096-03	OBS	No	474.249825	314.562840	743.1	1.299	13.6	2.2	0.73	5162	1.97	0.28
008818096-04	OBS	No	183.095055	314.377691	2301.8	8.289	12.5	6.7	0.73	5162	5.11	1.00
008818096-05	OBS	No	217.595573	331.699887	513.0	9.774	24.0	4.9	0.73	5162	1.76	0.79
008818096-06	OBS	No	223.717838	346.833765	752.1	11.969	9.6	5.2	0.73	5162	2.05	0.77
008818096-07	OBS	No	235.735171	315.143992	1738.0	12.000	14.3	-1.0	0.73	5162	2.96	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

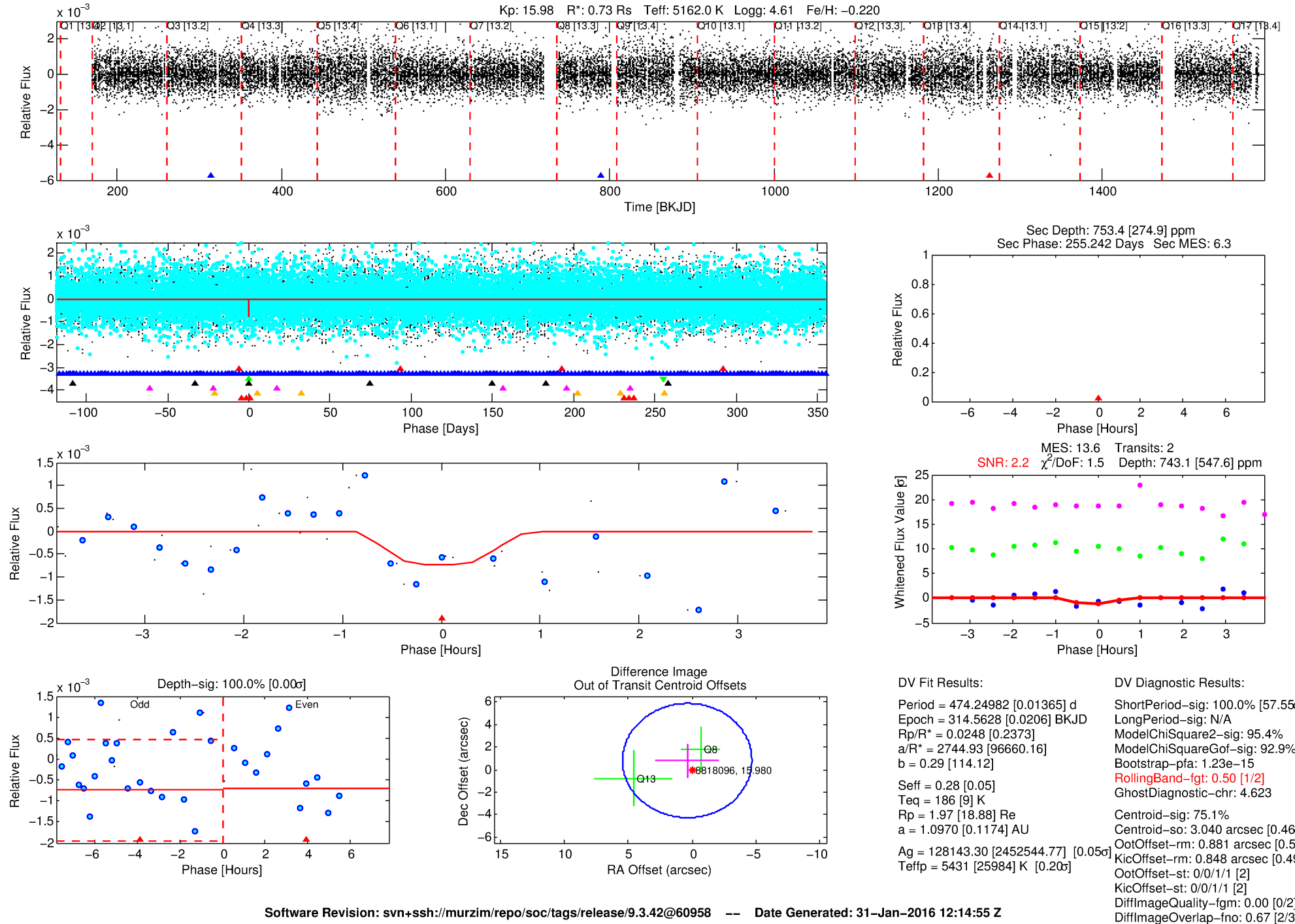
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818096-03

No Significant Match Found

DV One-Page Summary

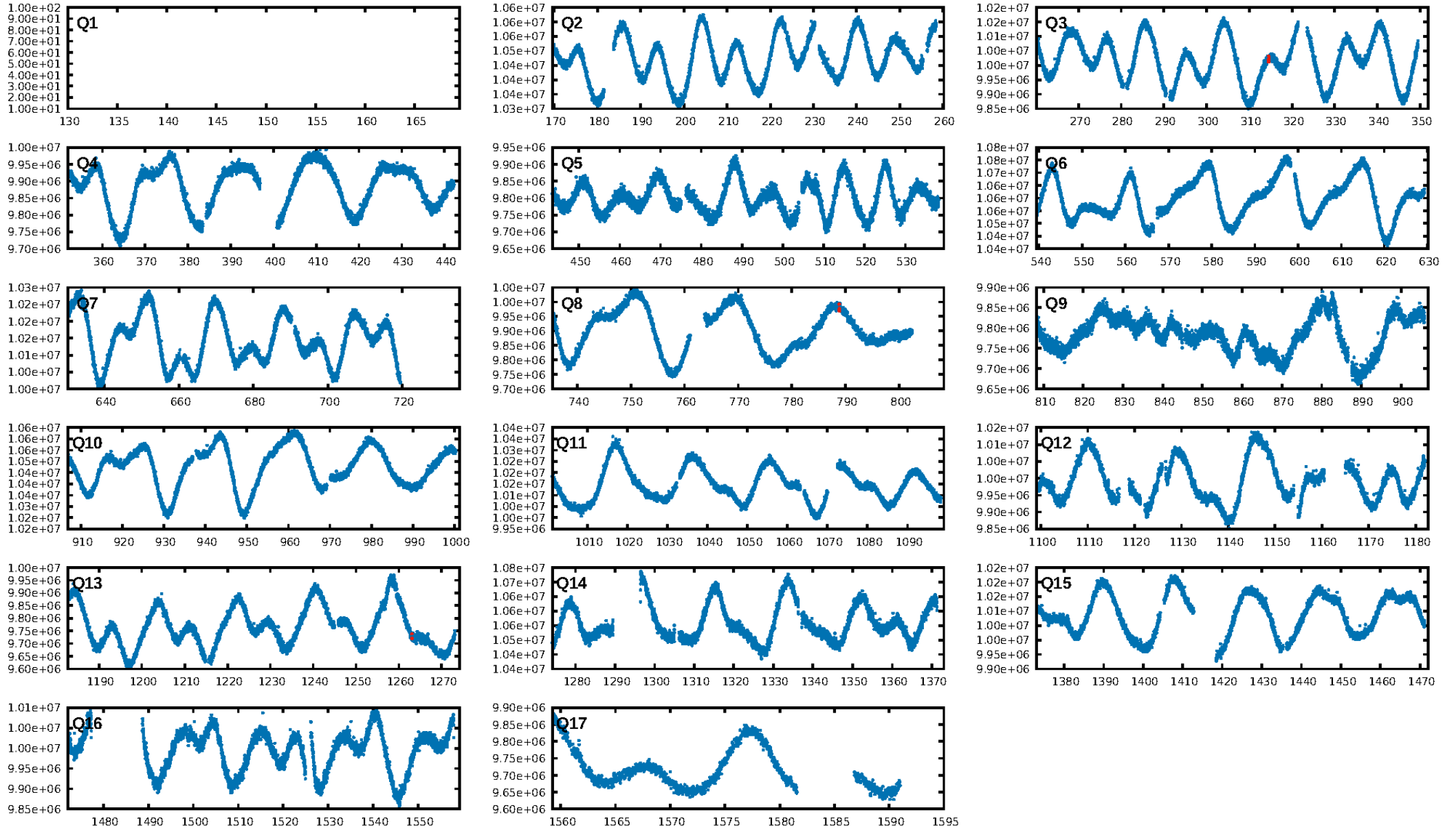
KIC: 8818096 Candidate: 3 of 7 Period: 474.250 d



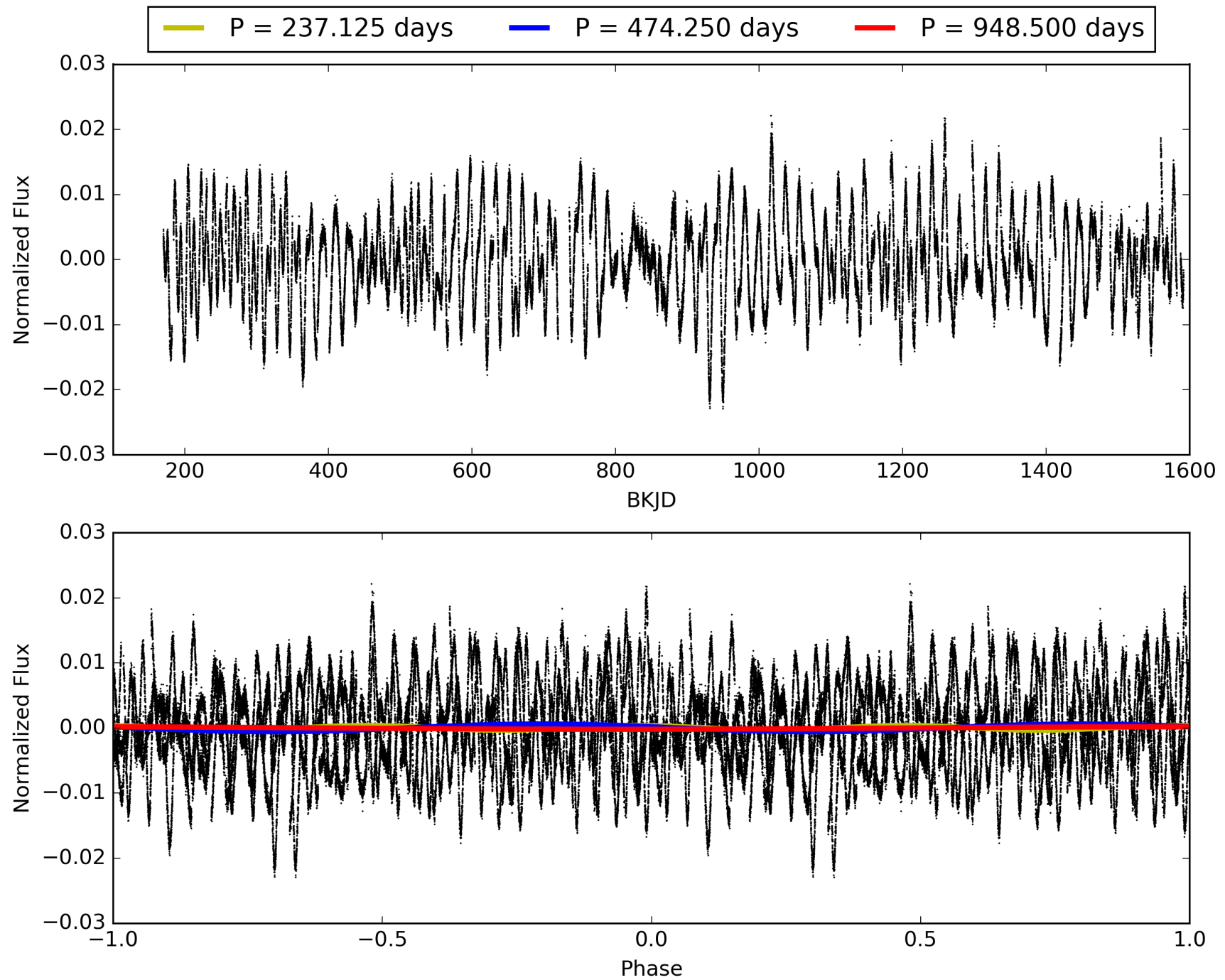
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:14:55 Z

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

TCE 008818096-03, PDC Light Curves

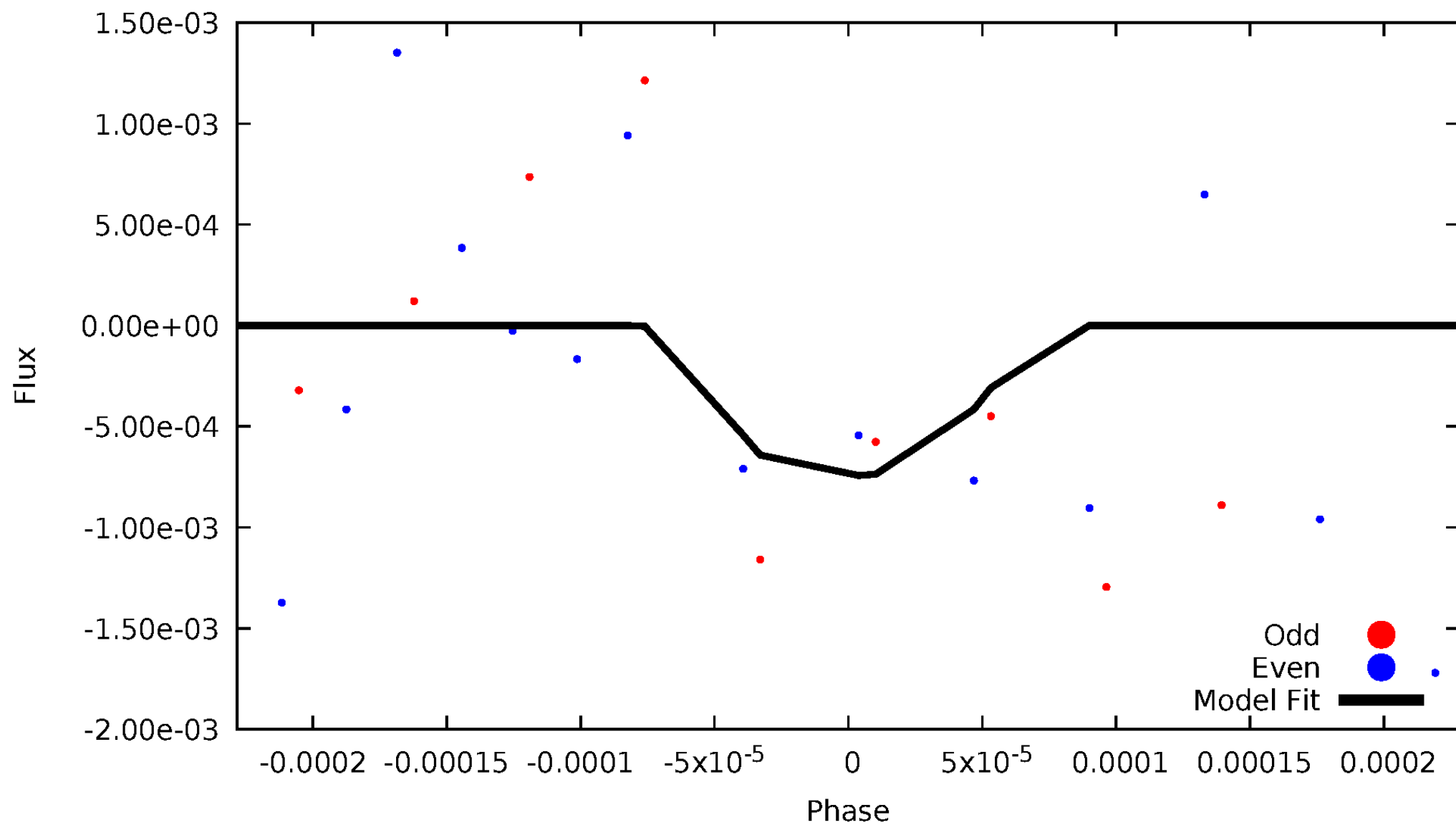


TCE 008818096-03



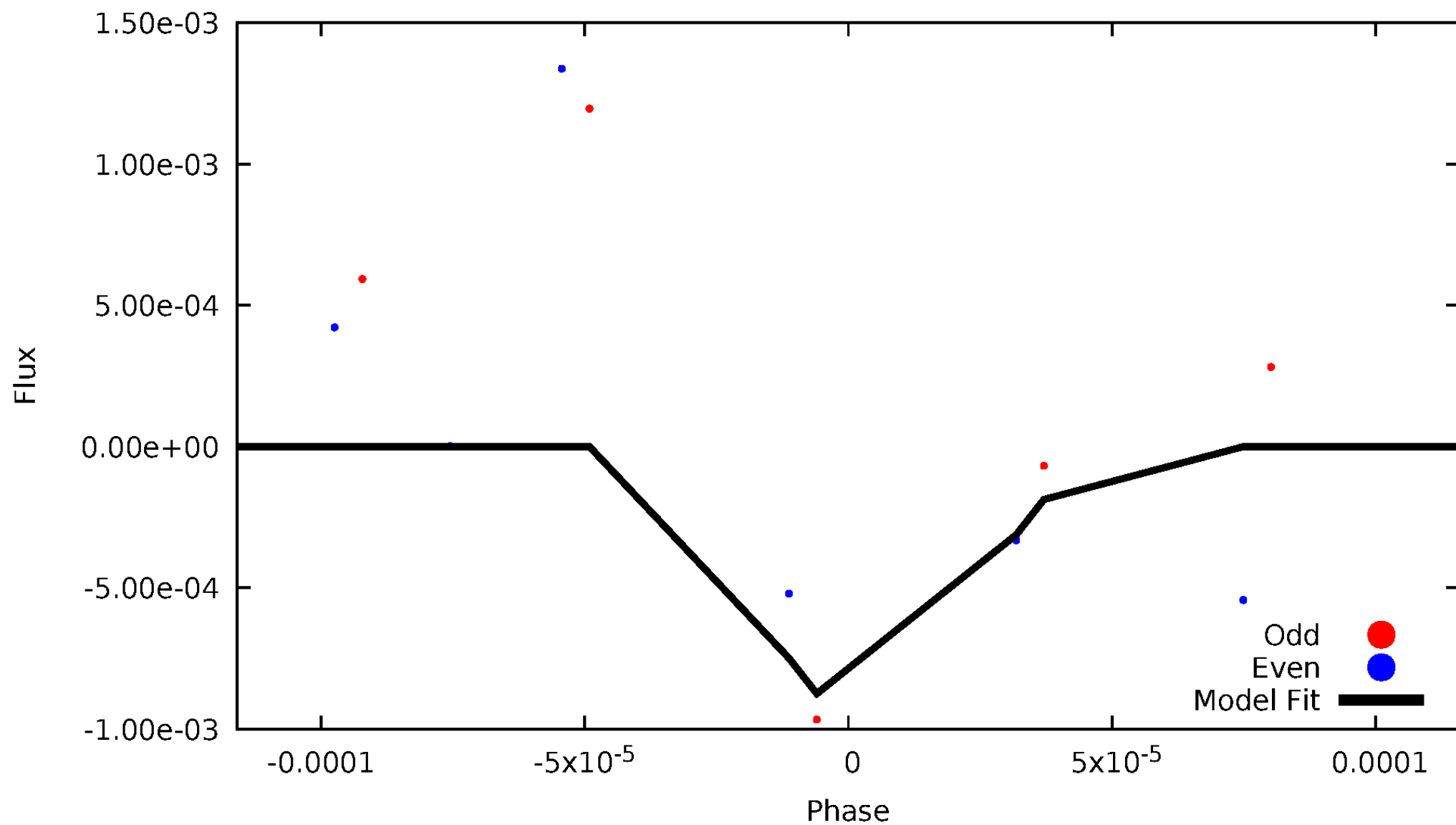
DV Odd/Even

TCE 008818096-03

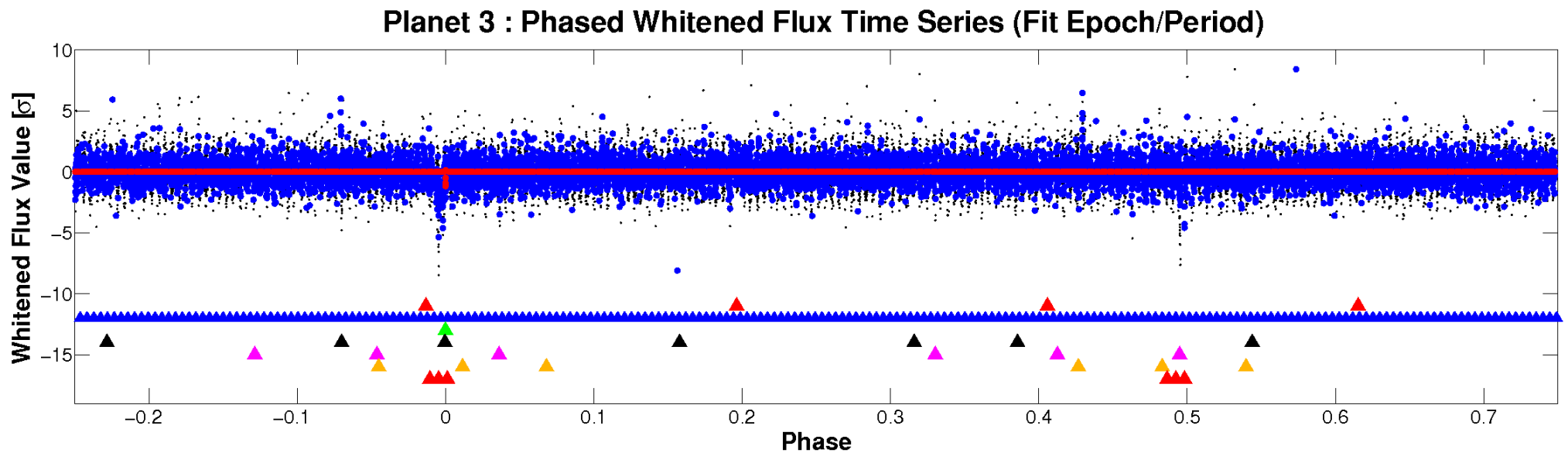
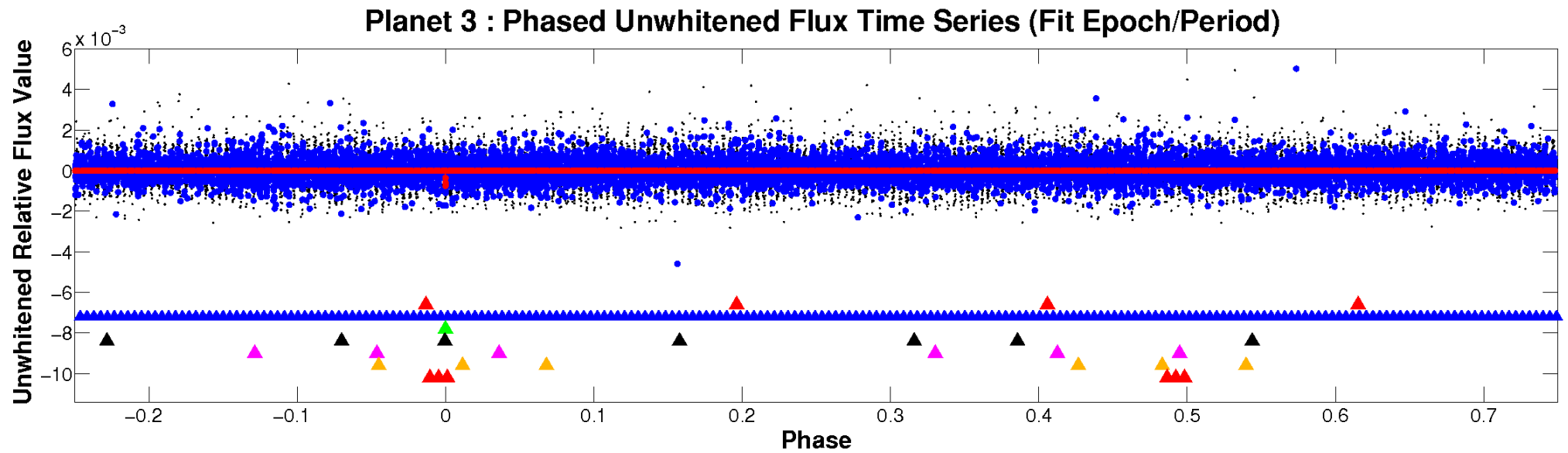


ALT Odd/Even

TCE 008818096-03

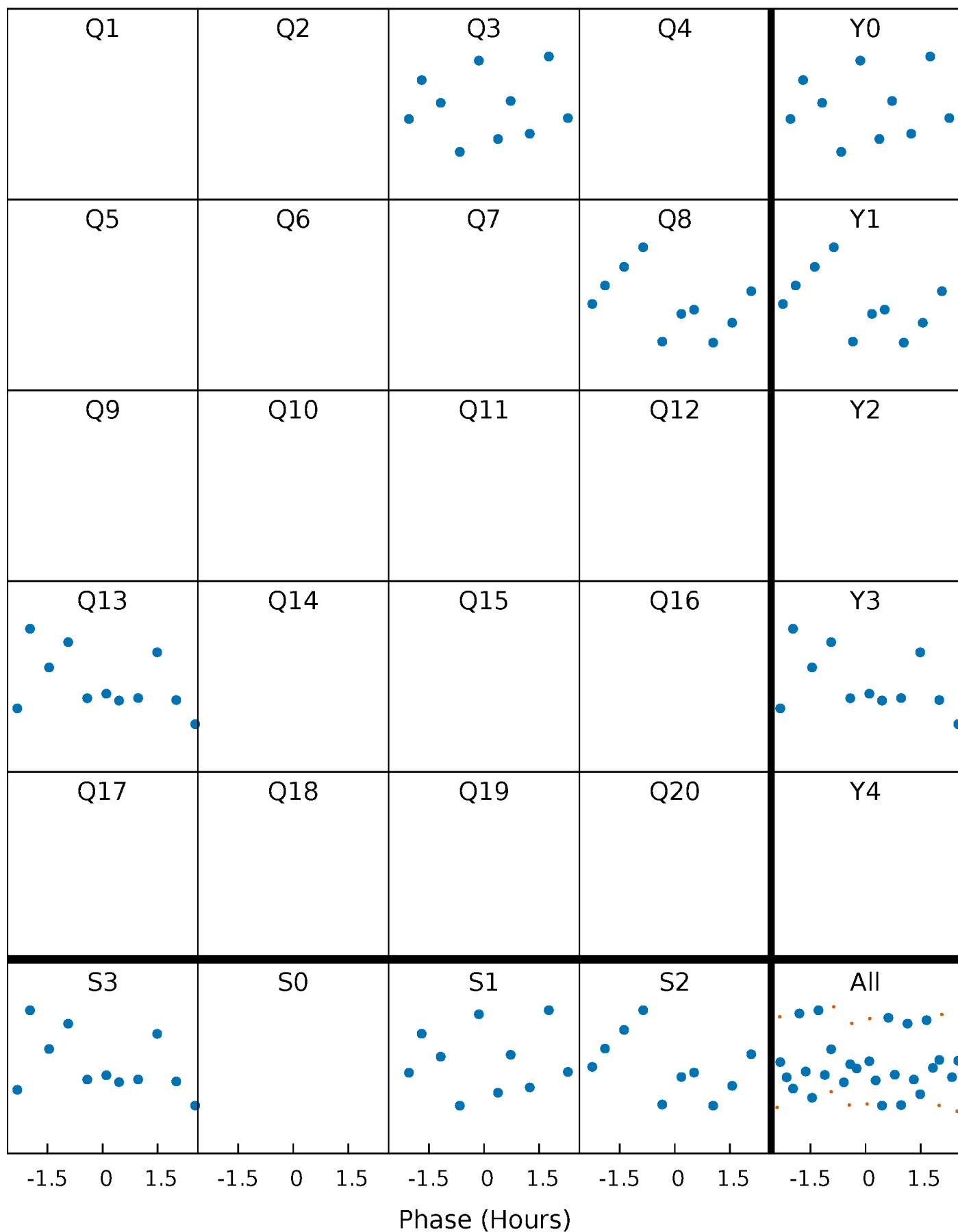


Non-Whitened Vs. Whitened Light Curve



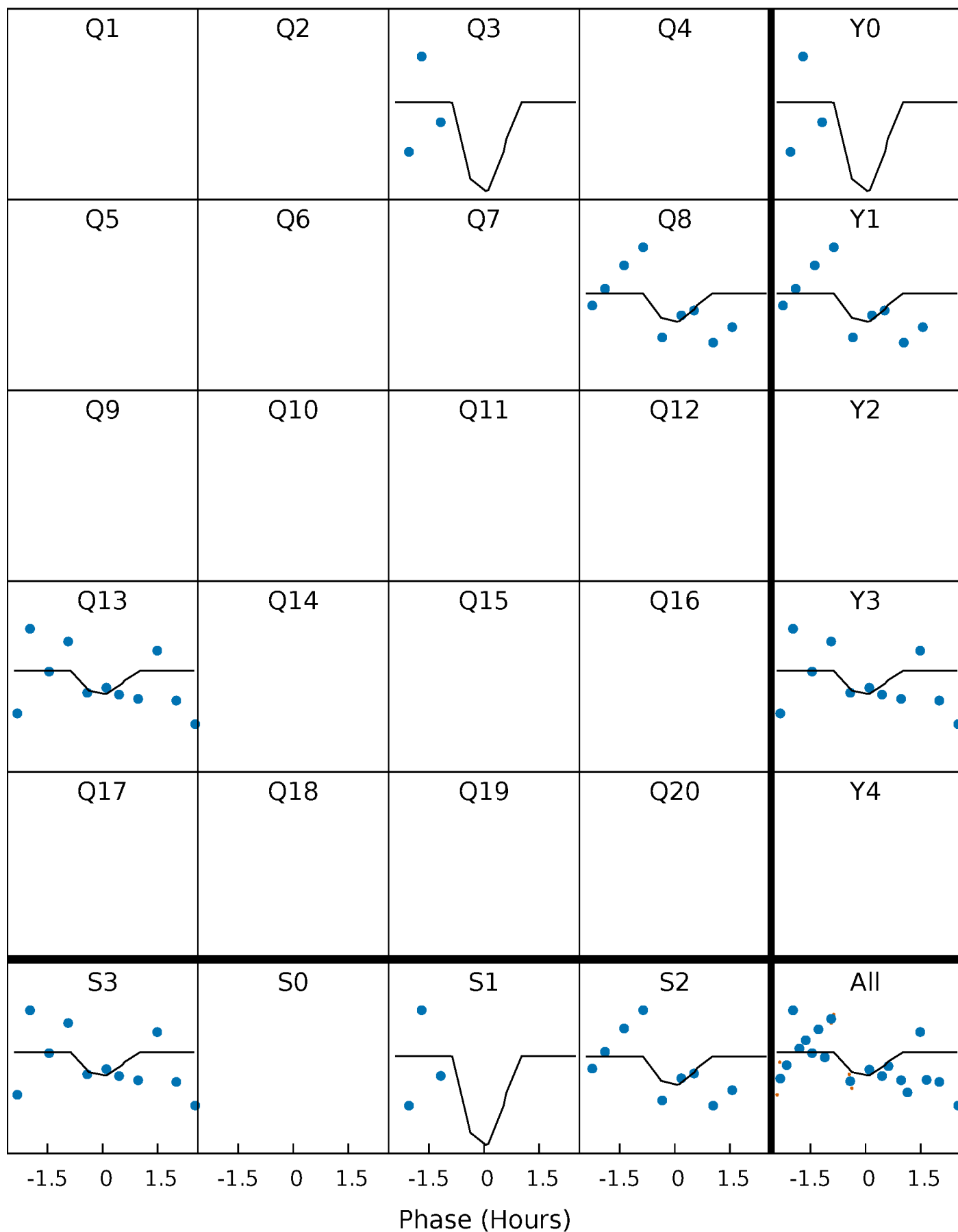
PDC Quarter-Phased Transit Curves

TCE 008818096-03 P=474.249825 Days $T_0=314.562840$ (BKJD)



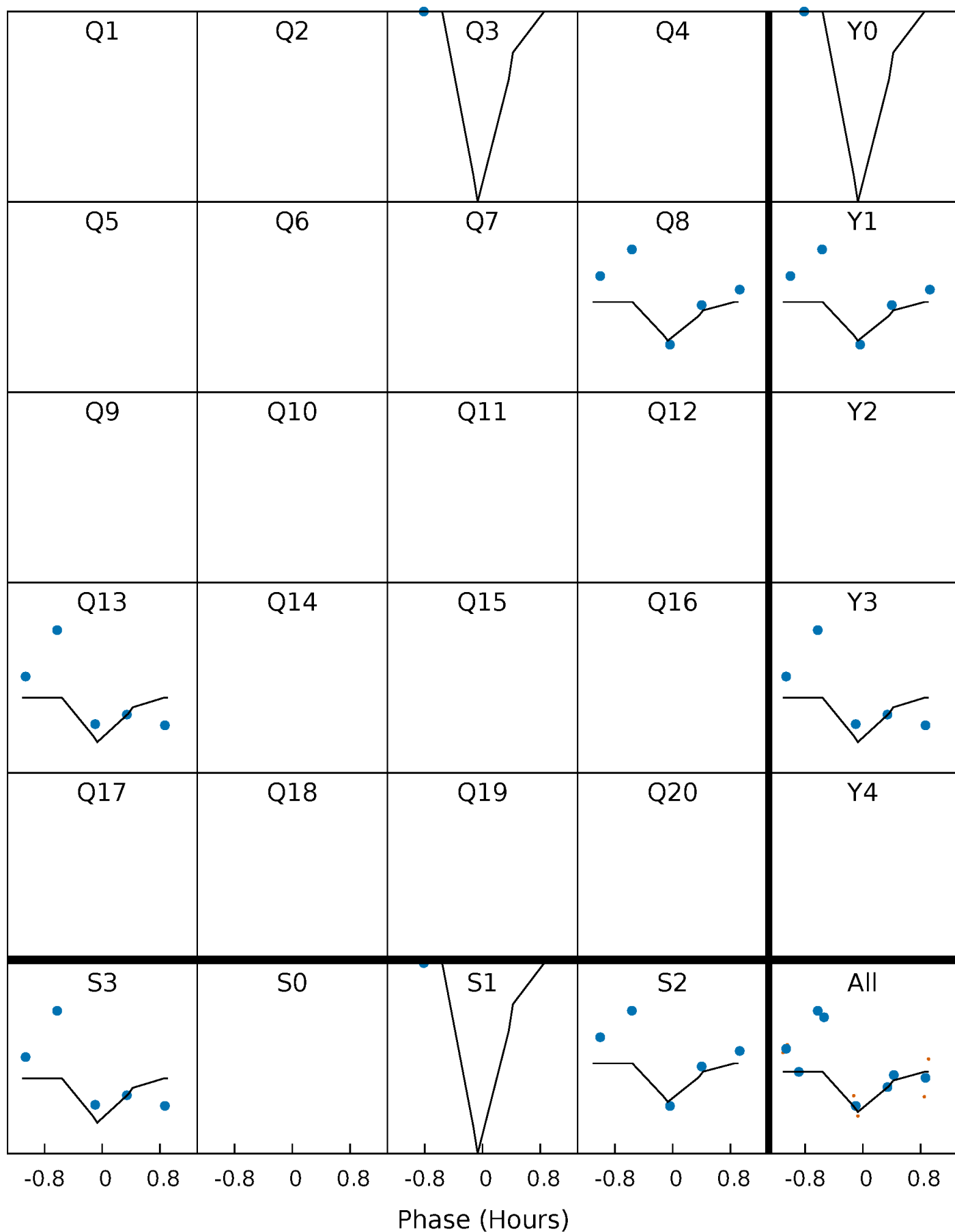
DV Quarter-Phased Transit Curves

TCE 008818096-03 $P=474.249825$ Days $T_0=314.562840$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

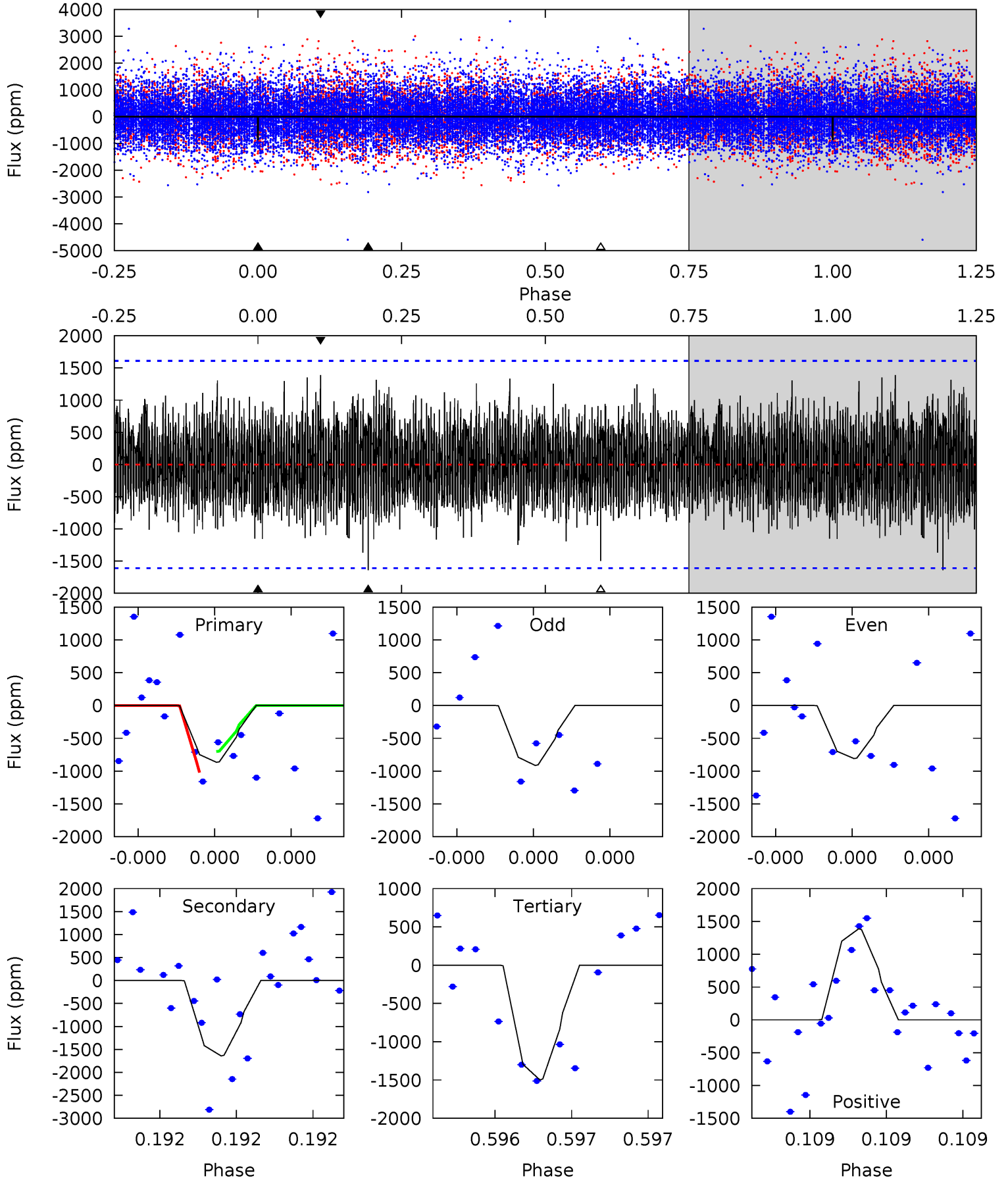
TCE 008818096-03 P=474.249305 Days $T_0=314.550596$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-03, P = 474.249825 Days, E = 314.562840 Days

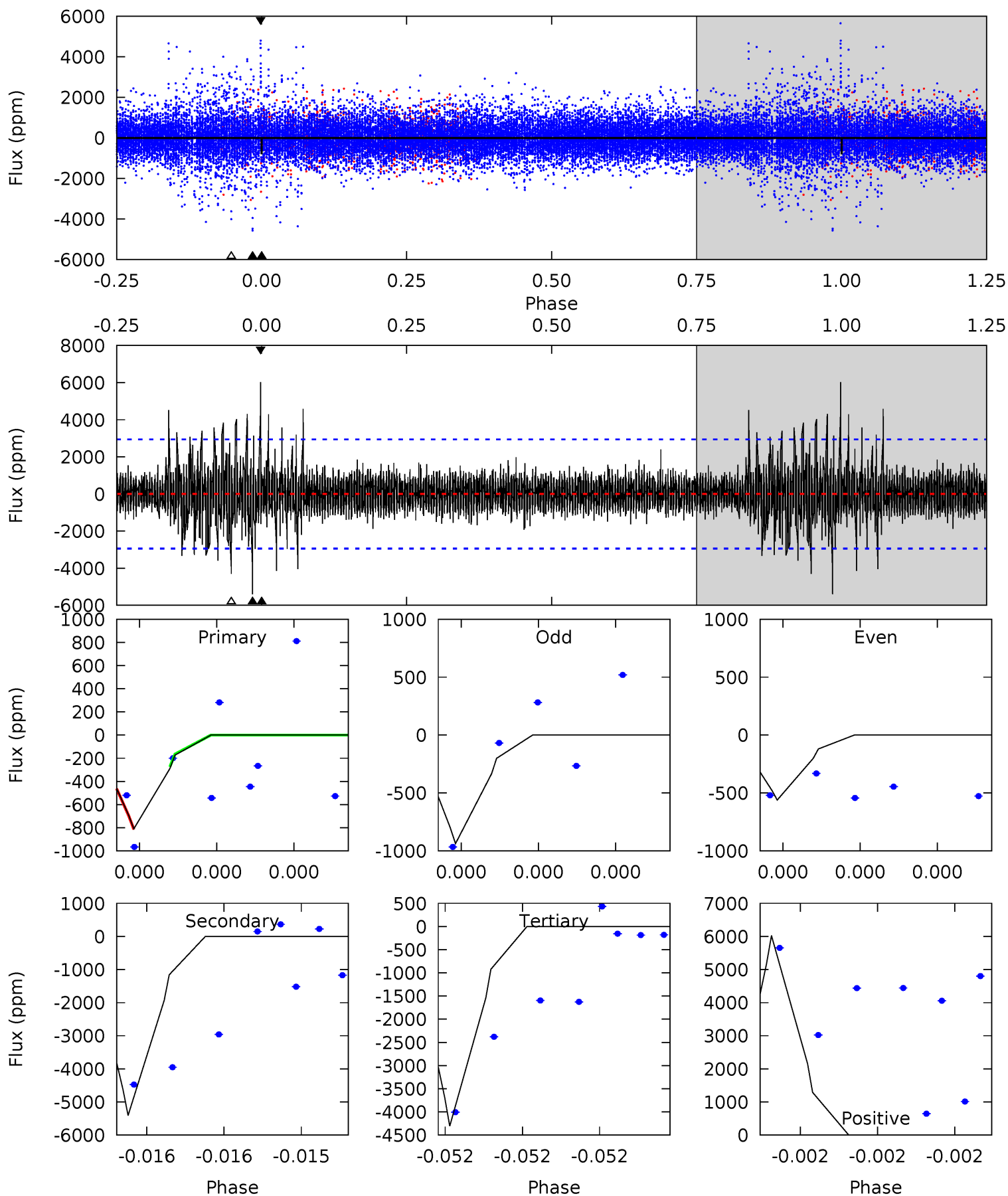
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.10	5.88	5.37	4.97	5.76	3.77	1.21	-2.27	-1.87	0.51	0.91	0.20	1.00	0.46	0.55



Alt Model-Shift Uniqueness Test

008818096-03, P = 474.249305 Days, E = 314.550596 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.62	10.8	8.61	12.0	5.88	3.94	1.08	-6.99	-10.4	2.20	-1.23	0.38	1.00	0.53	0.00



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1642 ± 279	$13.57^{+15.33}_{-9.62}$	262^{+11}_{-10}	3111^{+1591}_{-548}	5804^{+62116}_{-4501}
Alt.	-5409 ± 500	$13.98^{+15.09}_{-9.40}$	261^{+11}_{-10}	3714^{+2016}_{-738}	$18362^{+145902}_{-14228}$

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

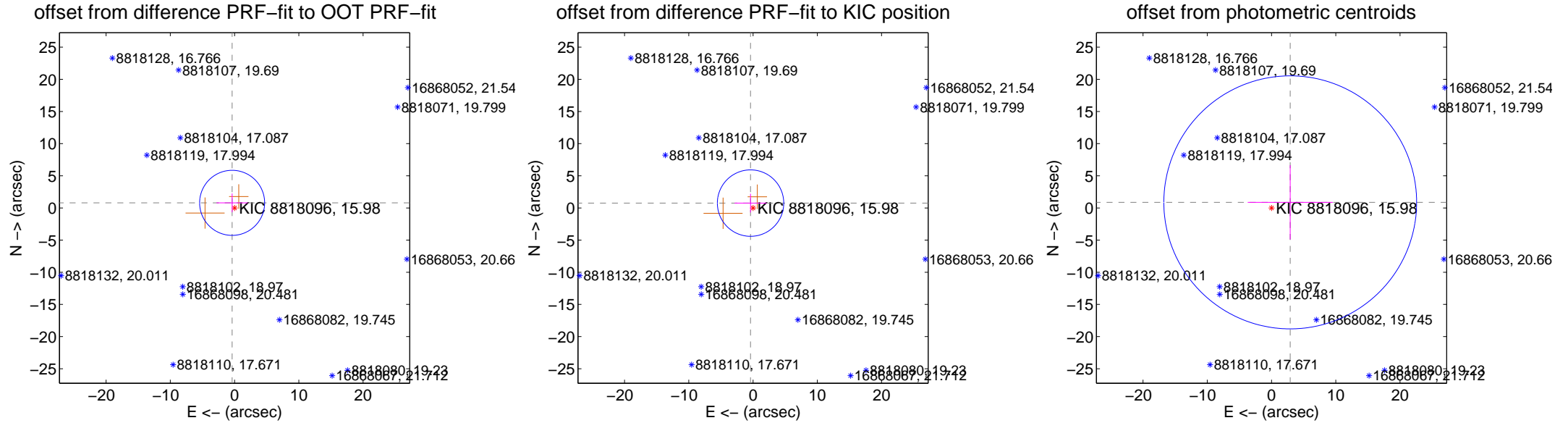
DV Centroid Data

Supplemental centroid analysis for 008818096-03. Kepler magnitude: 15.98. Transit SNR 2.20

There are 0 quarters with good PRF difference image offsets

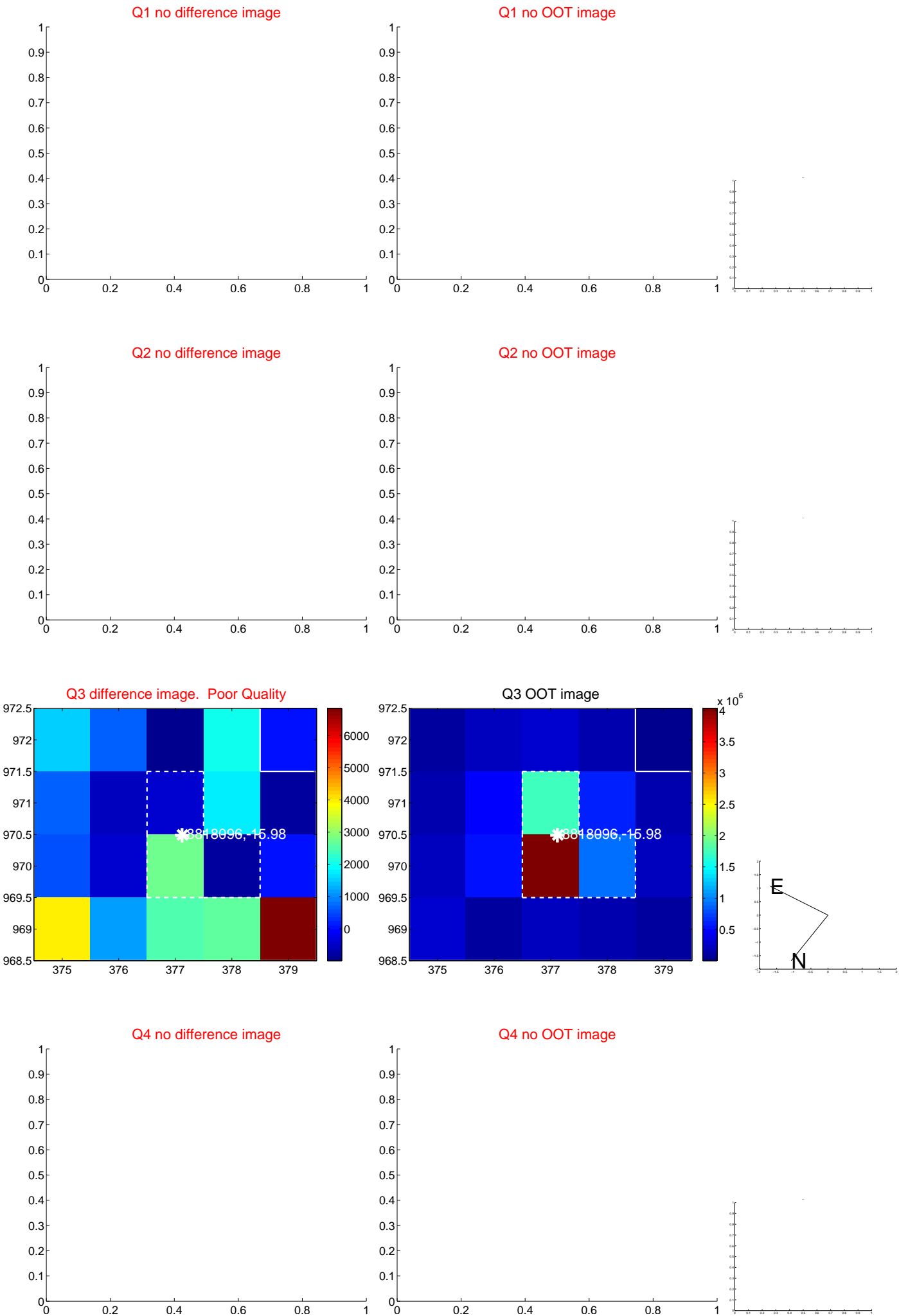
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.881 ± 1.687	0.52	0.382 ± 2.442	0.794 ± 1.457
PRF-fit source offset from KIC position	0.848 ± 1.722	0.49	0.388 ± 2.483	0.754 ± 1.455
photometric centroid source offset	3.04 ± 6.56	0.46	-2.91 ± 6.62	0.87 ± 5.78

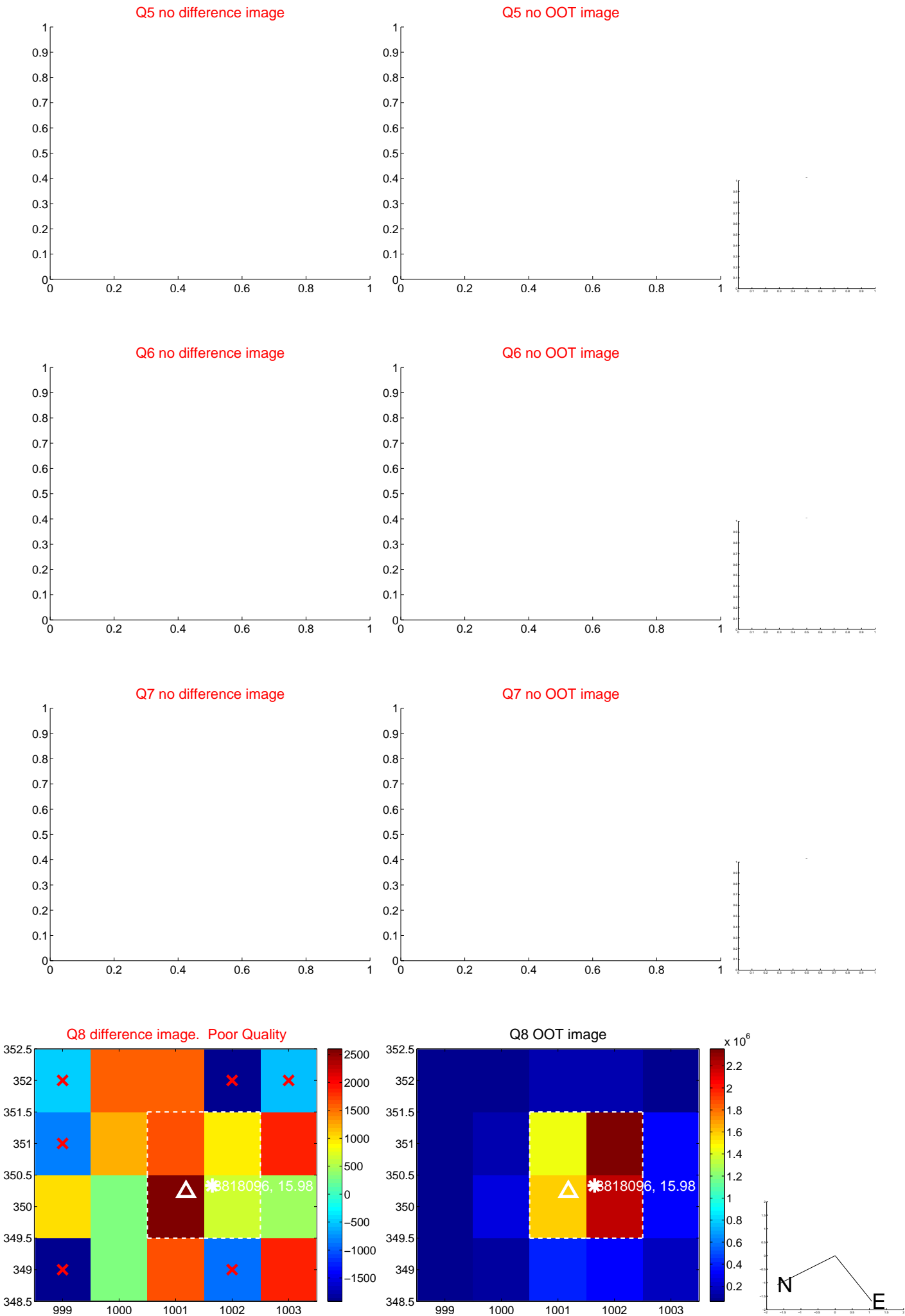


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



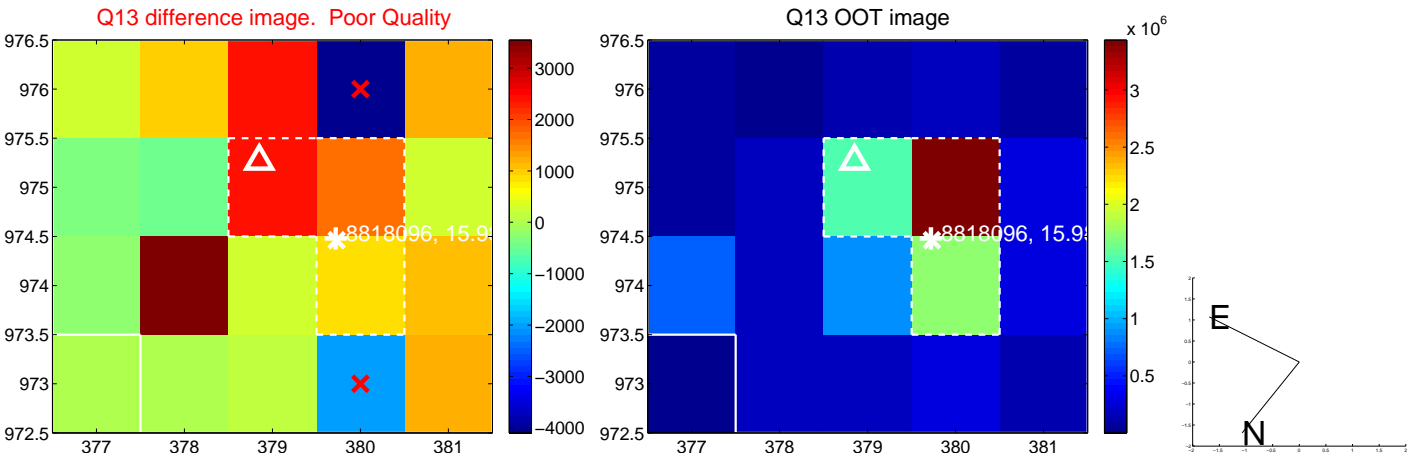
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



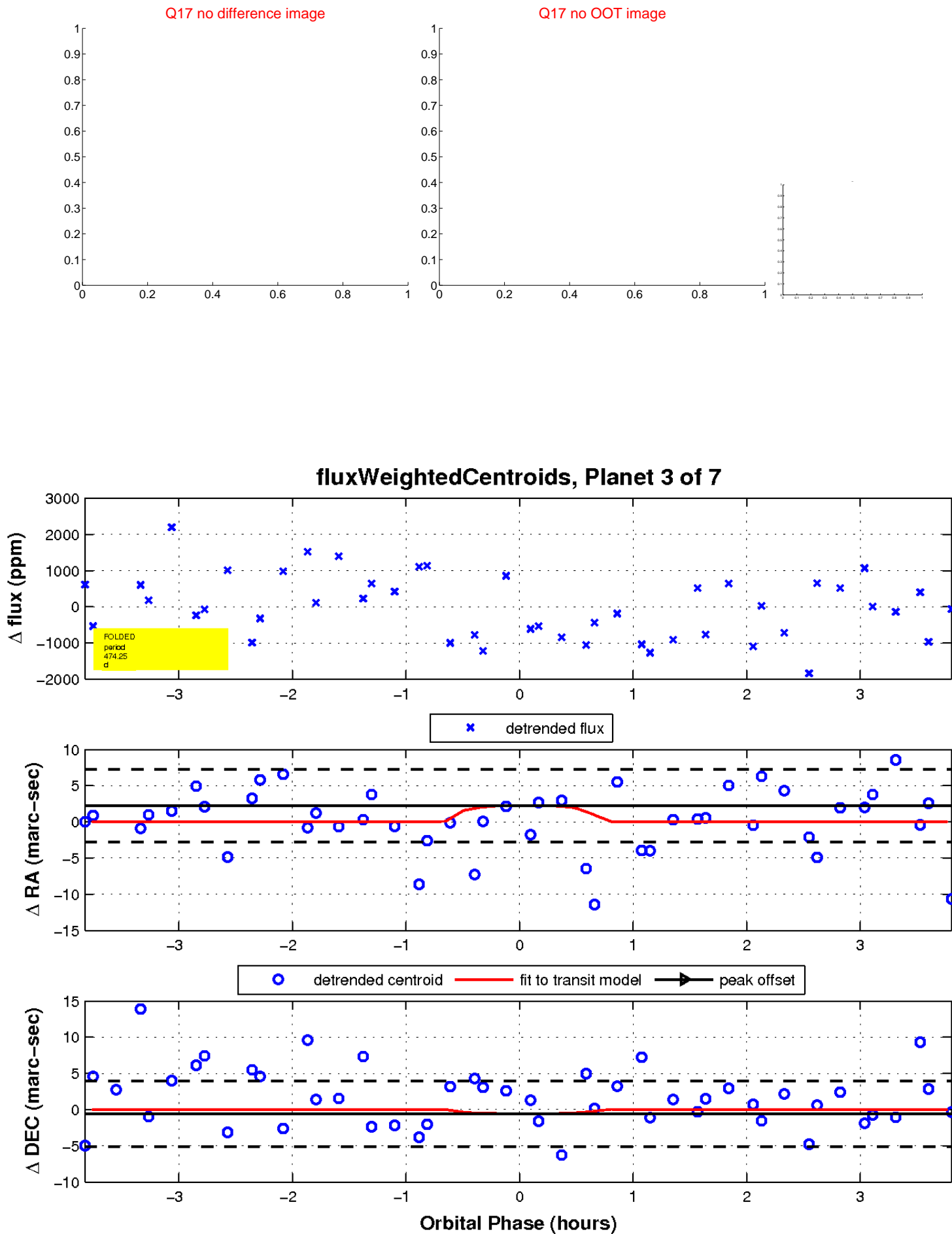
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

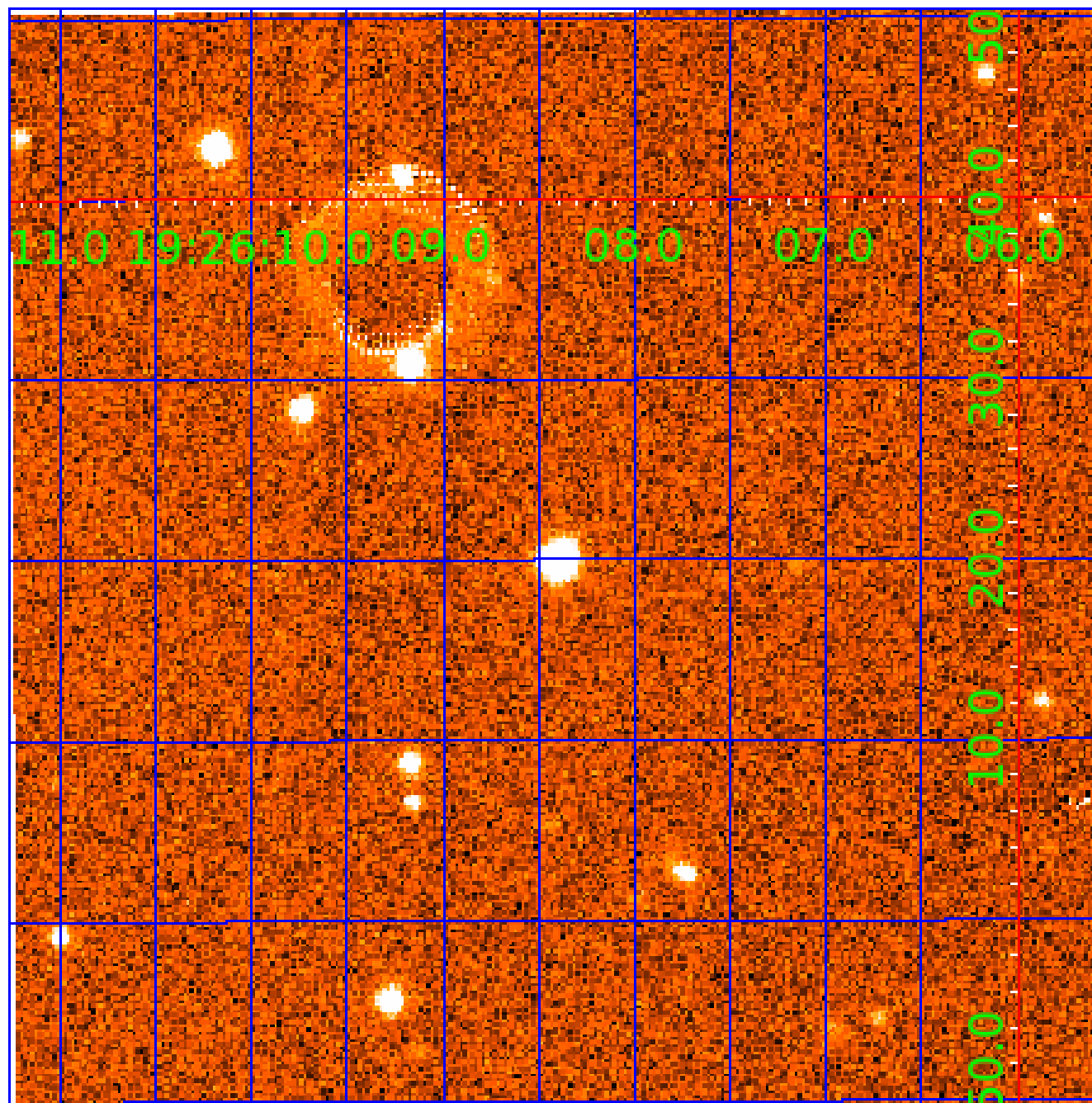


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008818096

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})
008818096-01	OBS	No	374.882489	132.153662	3243.7	41.417	8.9	10.6	0.73	5162	7.97	0.38
008818096-02	OBS	No	2.175893	132.394093	86.9	9.979	7.7	7.8	0.73	5162	0.82	368.53
008818096-03	OBS	No	474.249825	314.562840	743.1	1.299	13.6	2.2	0.73	5162	1.97	0.28
008818096-04	OBS	No	183.095055	314.377691	2301.8	8.289	12.5	6.7	0.73	5162	5.11	1.00
008818096-05	OBS	No	217.595573	331.699887	513.0	9.774	24.0	4.9	0.73	5162	1.76	0.79
008818096-06	OBS	No	223.717838	346.833765	752.1	11.969	9.6	5.2	0.73	5162	2.05	0.77
008818096-07	OBS	No	235.735171	315.143992	1738.0	12.000	14.3	-1.0	0.73	5162	2.96	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

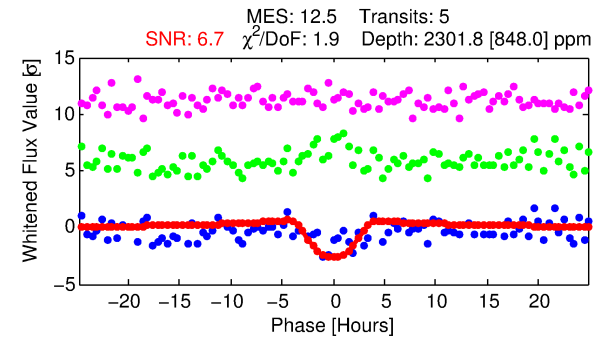
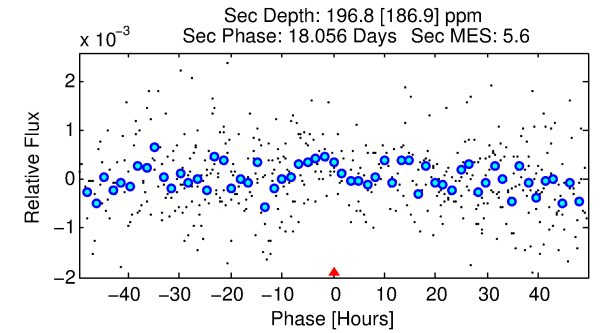
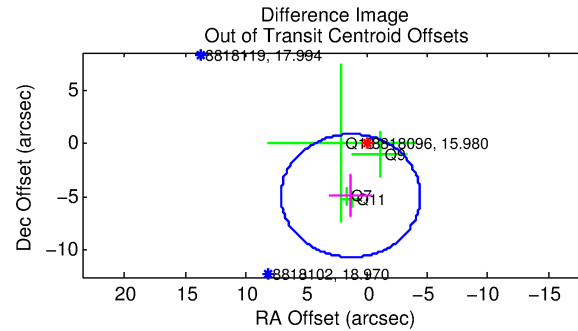
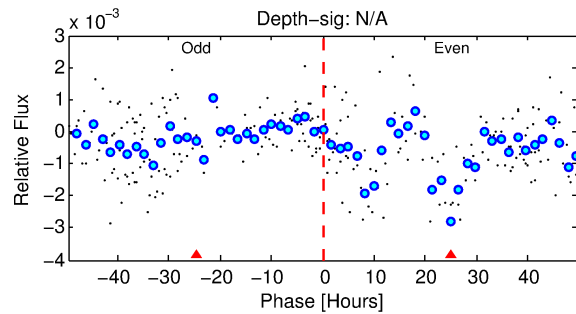
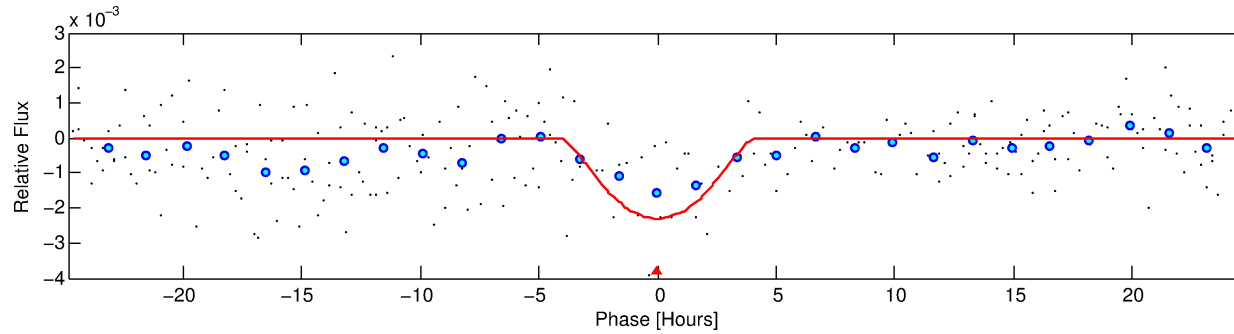
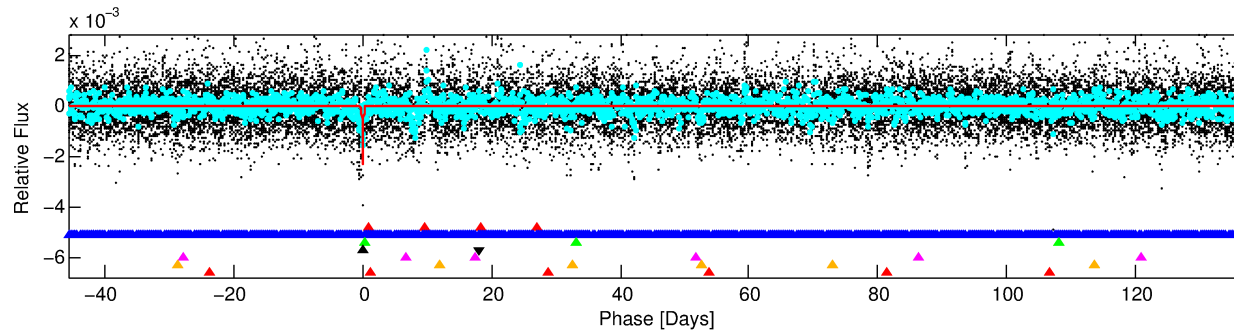
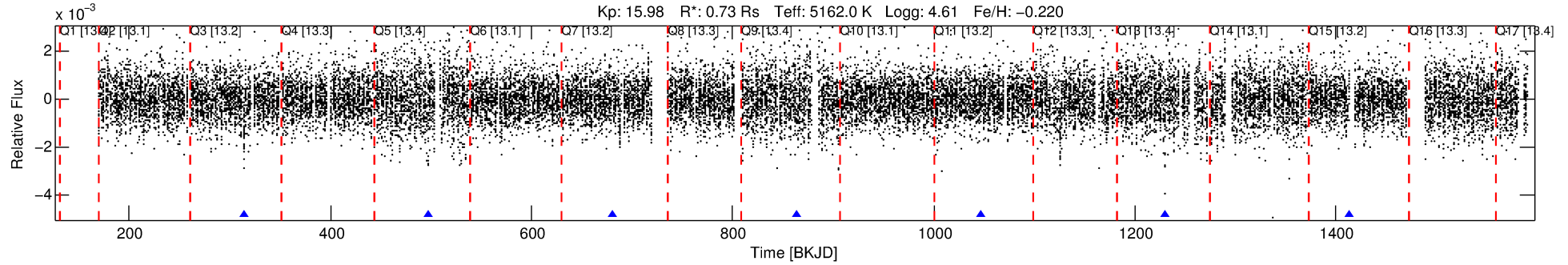
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818096-04

No Significant Match Found

DV One-Page Summary

KIC: 8818096 Candidate: 4 of 7 Period: 183.095 d



DV Fit Results:

Period = 183.09505 [0.05865] d
Epoch = 314.3777 [0.2958] BKJD
Rp/R* = 0.0642 [0.1729]
a/R* = 76.16 [97.24]
b = 0.96 [0.36]
Seff = 1.00 [0.19]
Teq = 255 [12] K
Rp = 5.10 [13.77] Re
a = 0.5816 [0.0622] AU
Ag = 1405.23 [7693.46] [0.18σ]
Teffp = 2413 [3303] K [0.65σ]

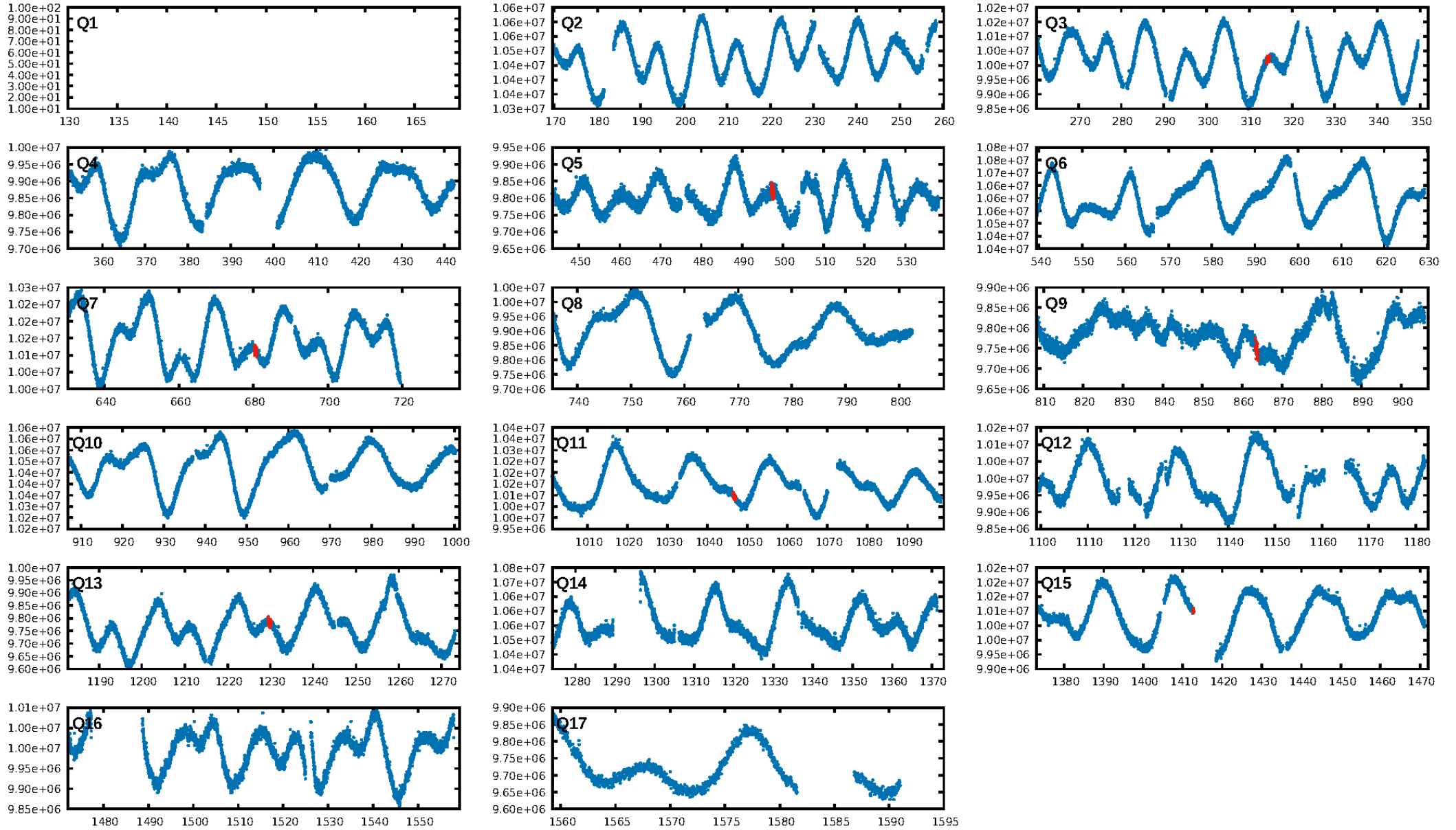
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [334.72σ]
LongPeriod-sig: 100.0% [64.61σ]
ModelChiSquare2-sig: 26.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 5.03e-16
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 3.278
Centroid-sig: 34.6%
Centroid-so: 0.741 arcsec [0.94σ]
OotOffset-rm: 5.086 arcsec [2.65σ]
KicOffset-rm: 5.067 arcsec [2.65σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/6]

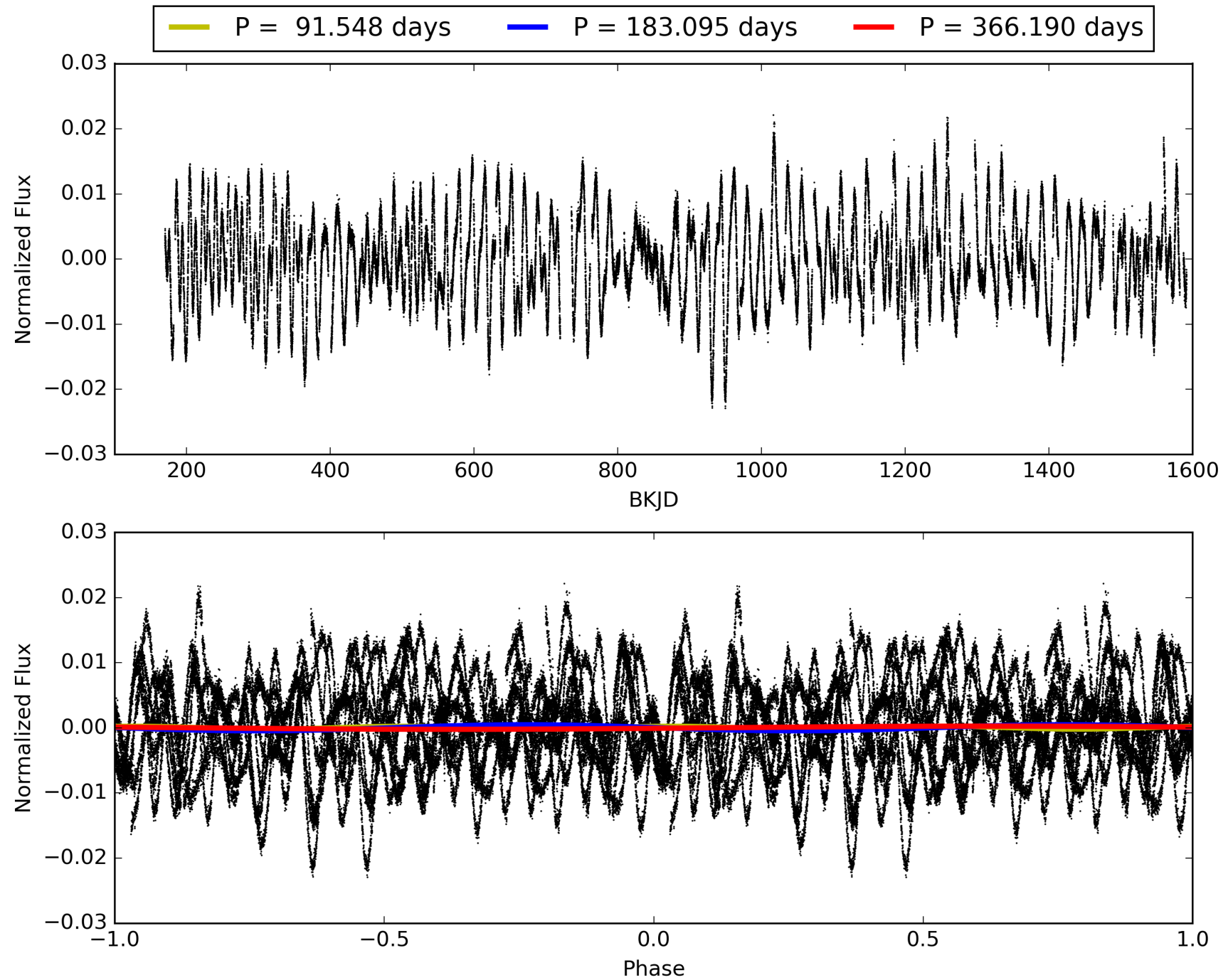
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:15:01 Z

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

TCE 008818096-04, PDC Light Curves

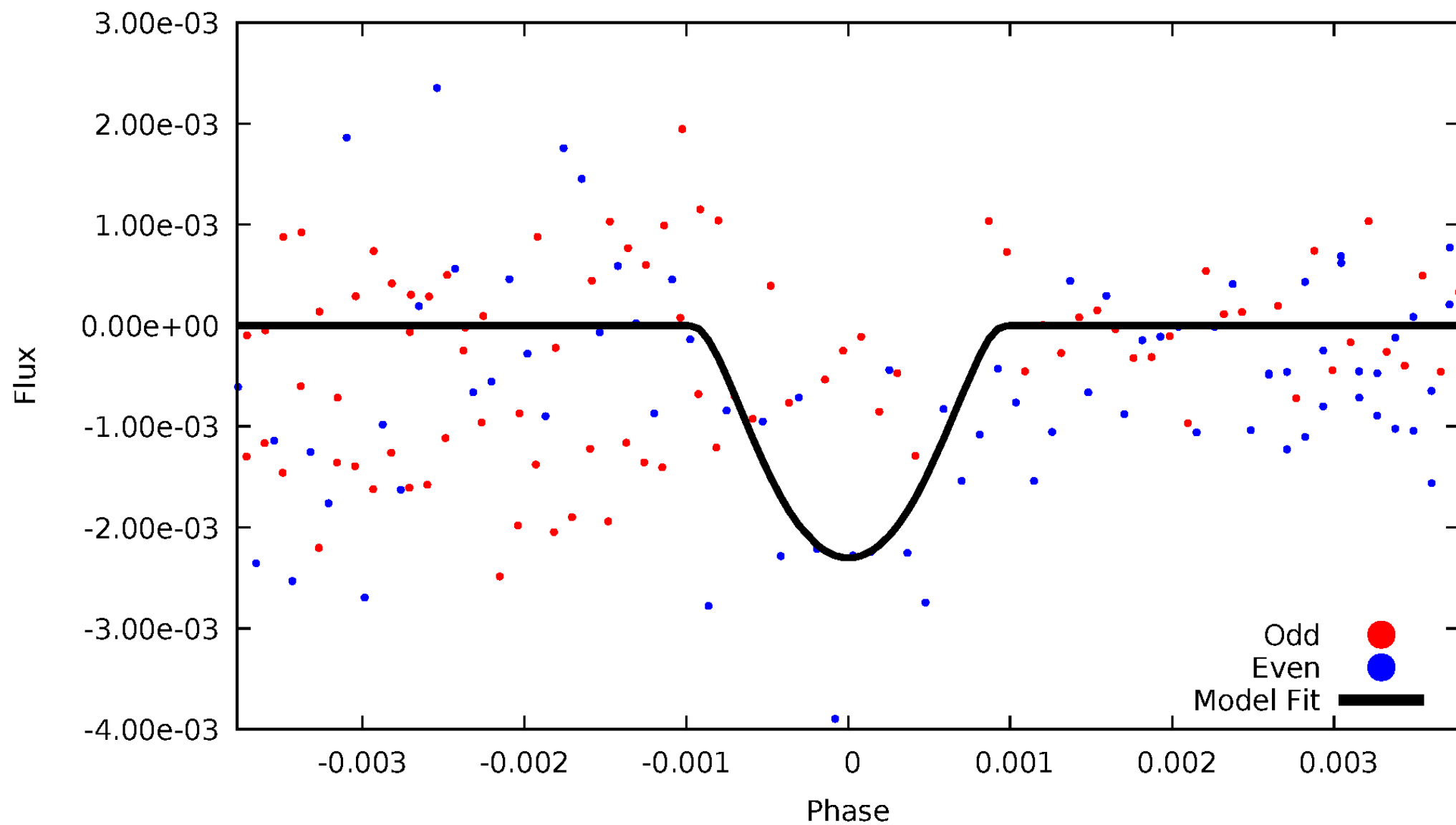


TCE 008818096-04



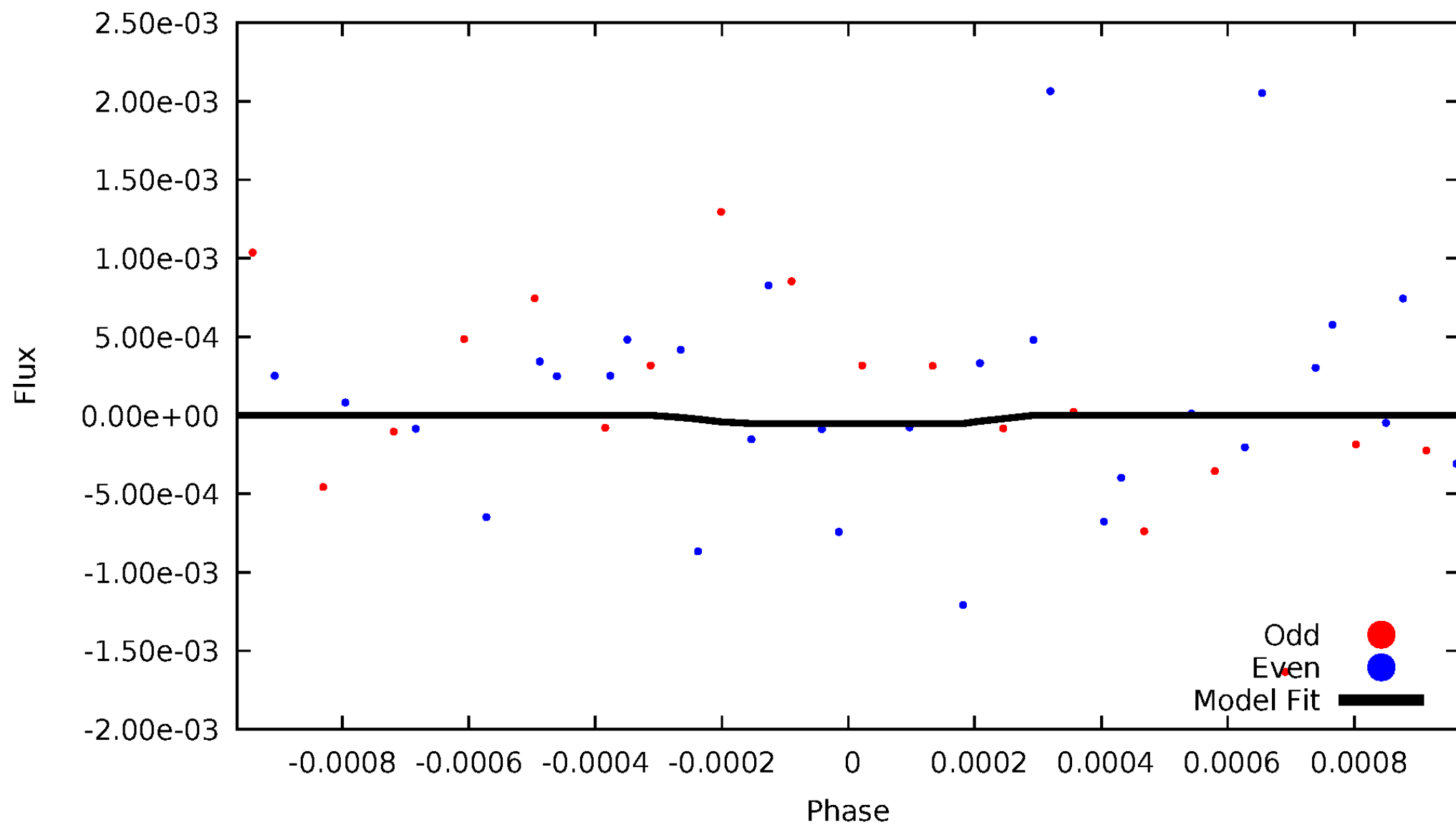
DV Odd/Even

TCE 008818096-04



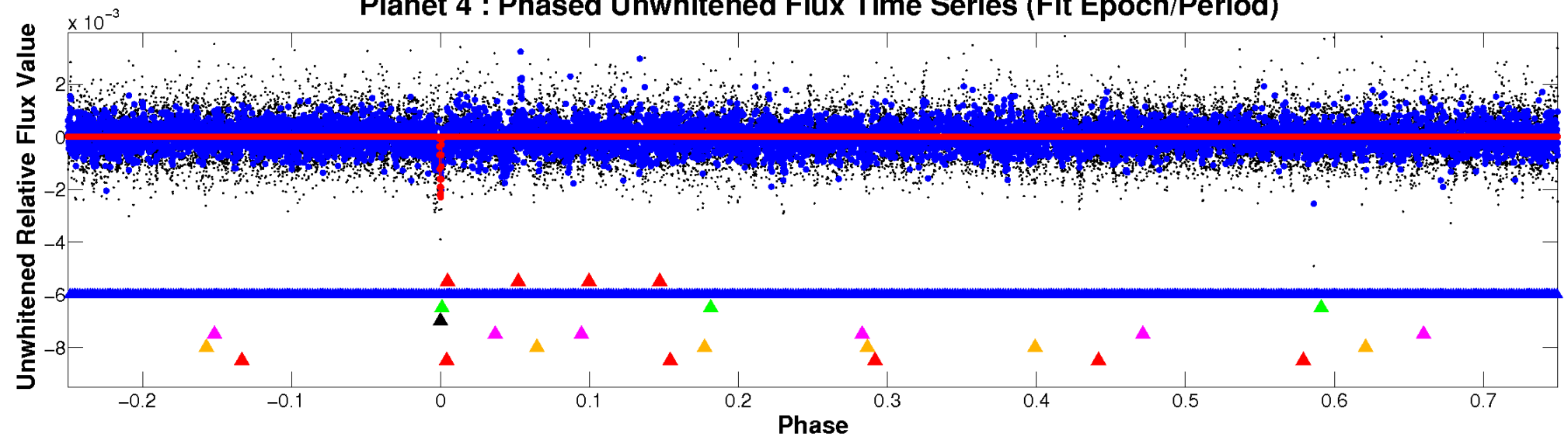
ALT Odd/Even

TCE 008818096-04

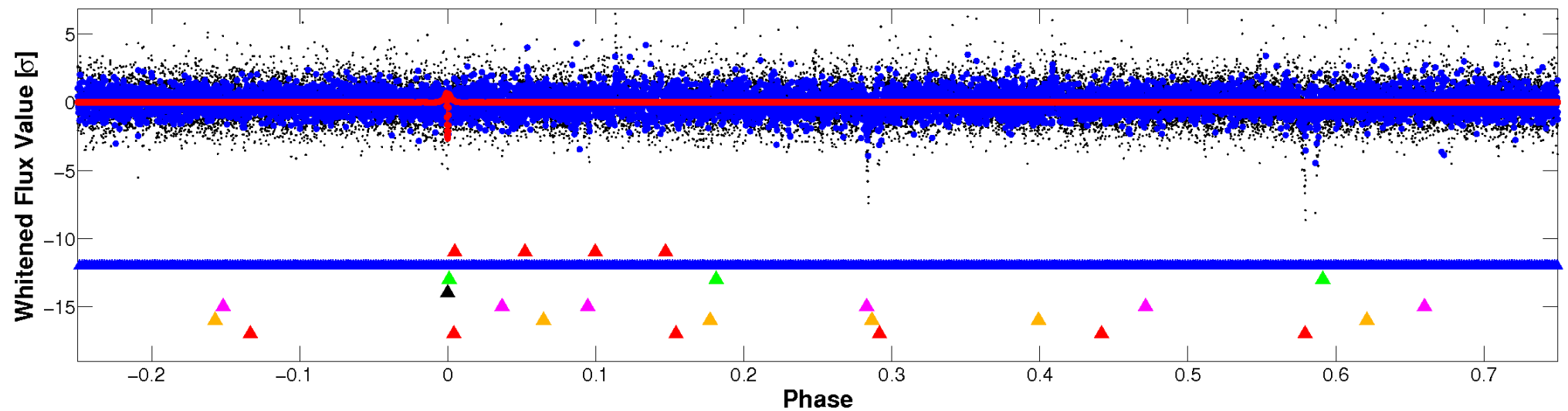


Non-Whitened Vs. Whitened Light Curve

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

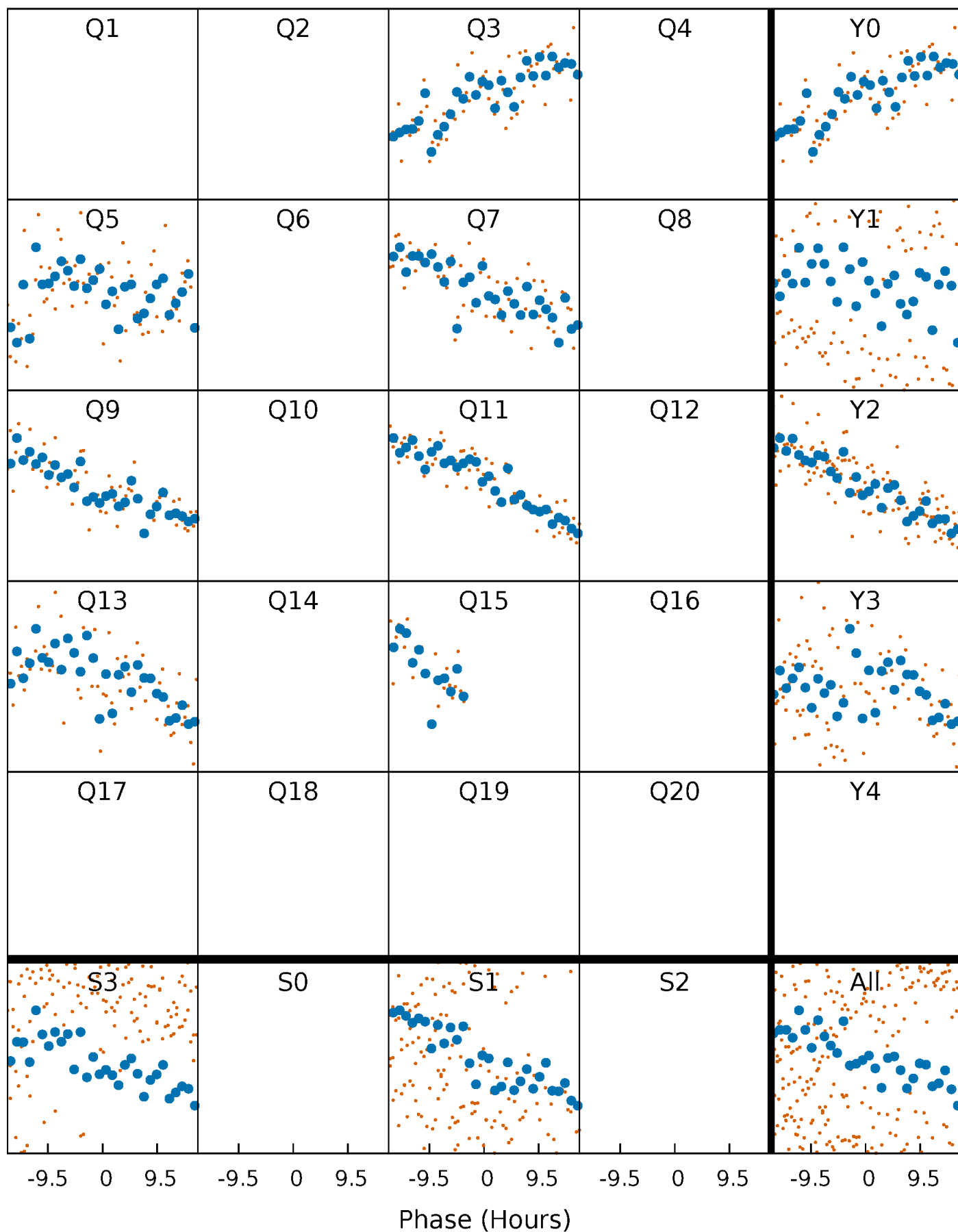


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



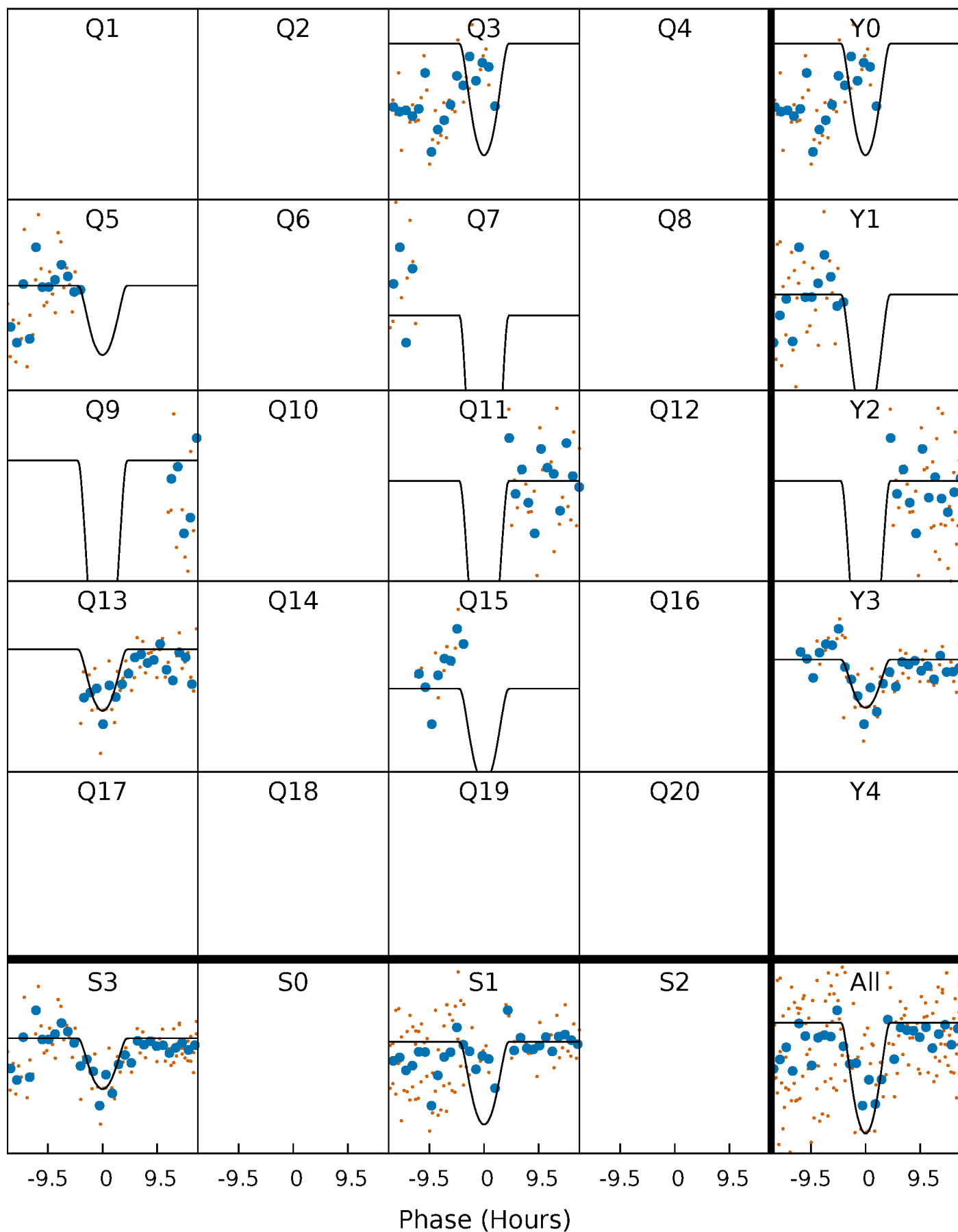
PDC Quarter-Phased Transit Curves

TCE 008818096-04 P=183.095055 Days $T_0=314.377691$ (BKJD)



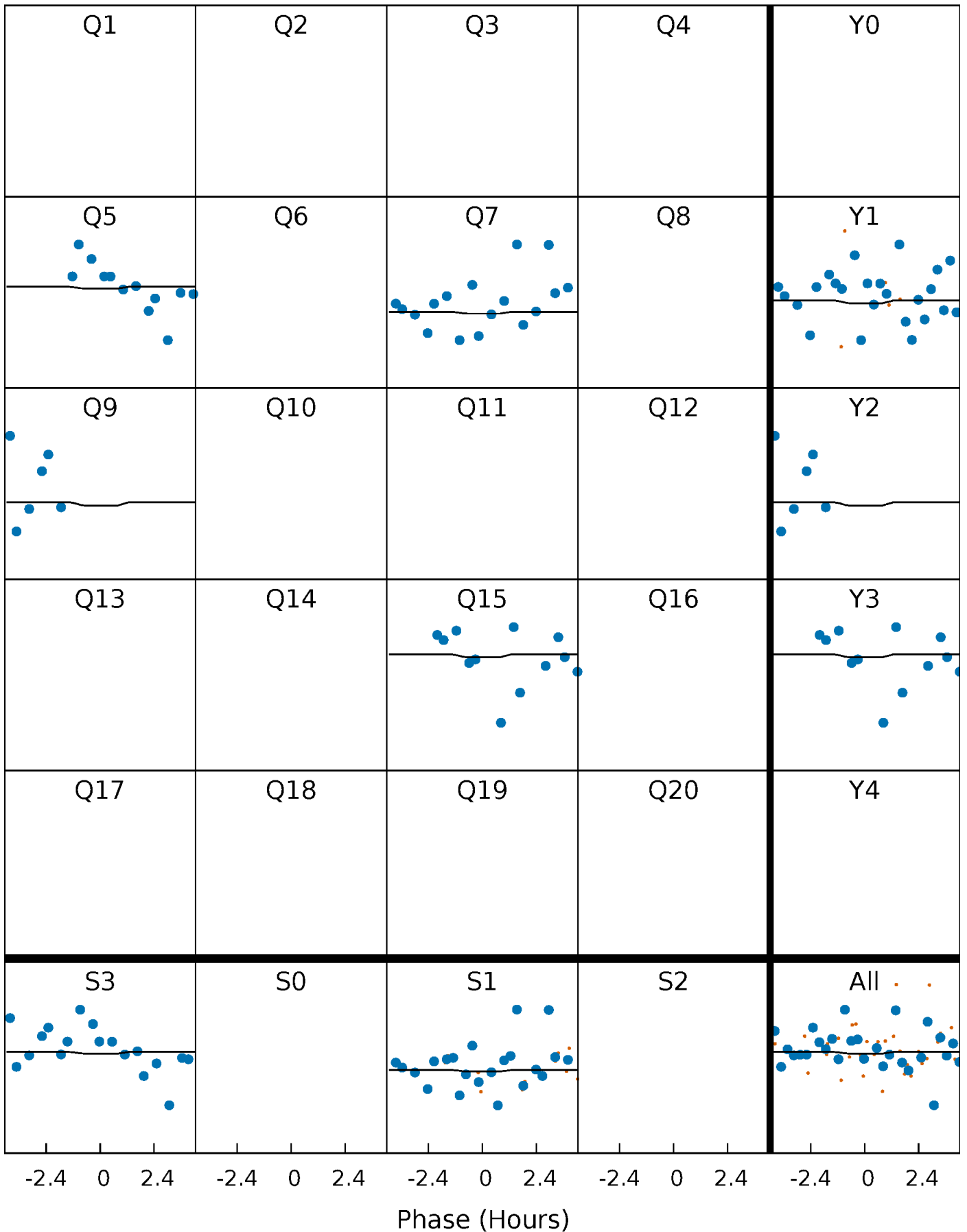
DV Quarter-Phased Transit Curves

TCE 008818096-04 P=183.095055 Days $T_0=314.377691$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

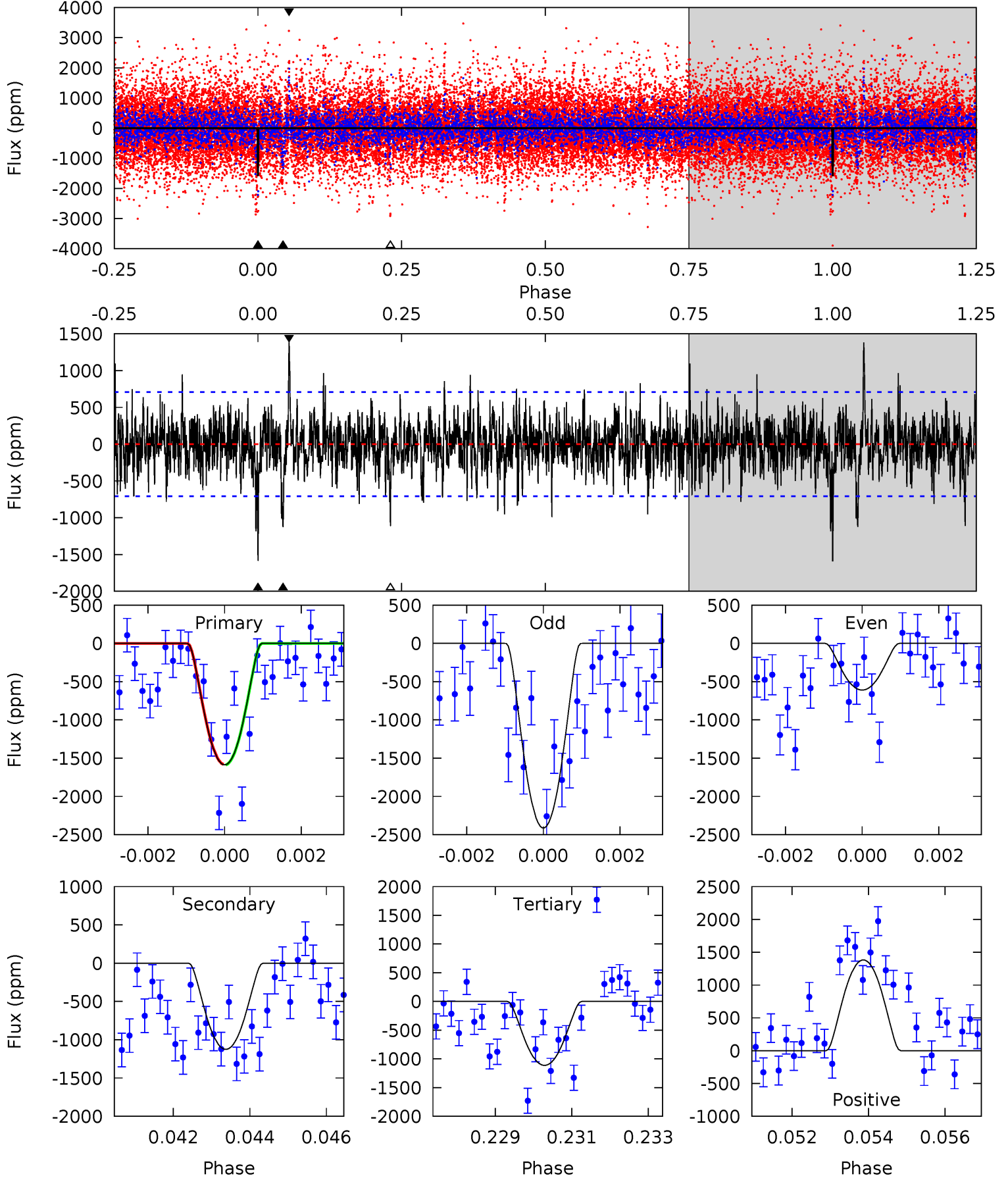
TCE 008818096-04 P=183.214110 Days $T_0=313.258417$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-04, P = 183.095055 Days, E = 131.282636 Days

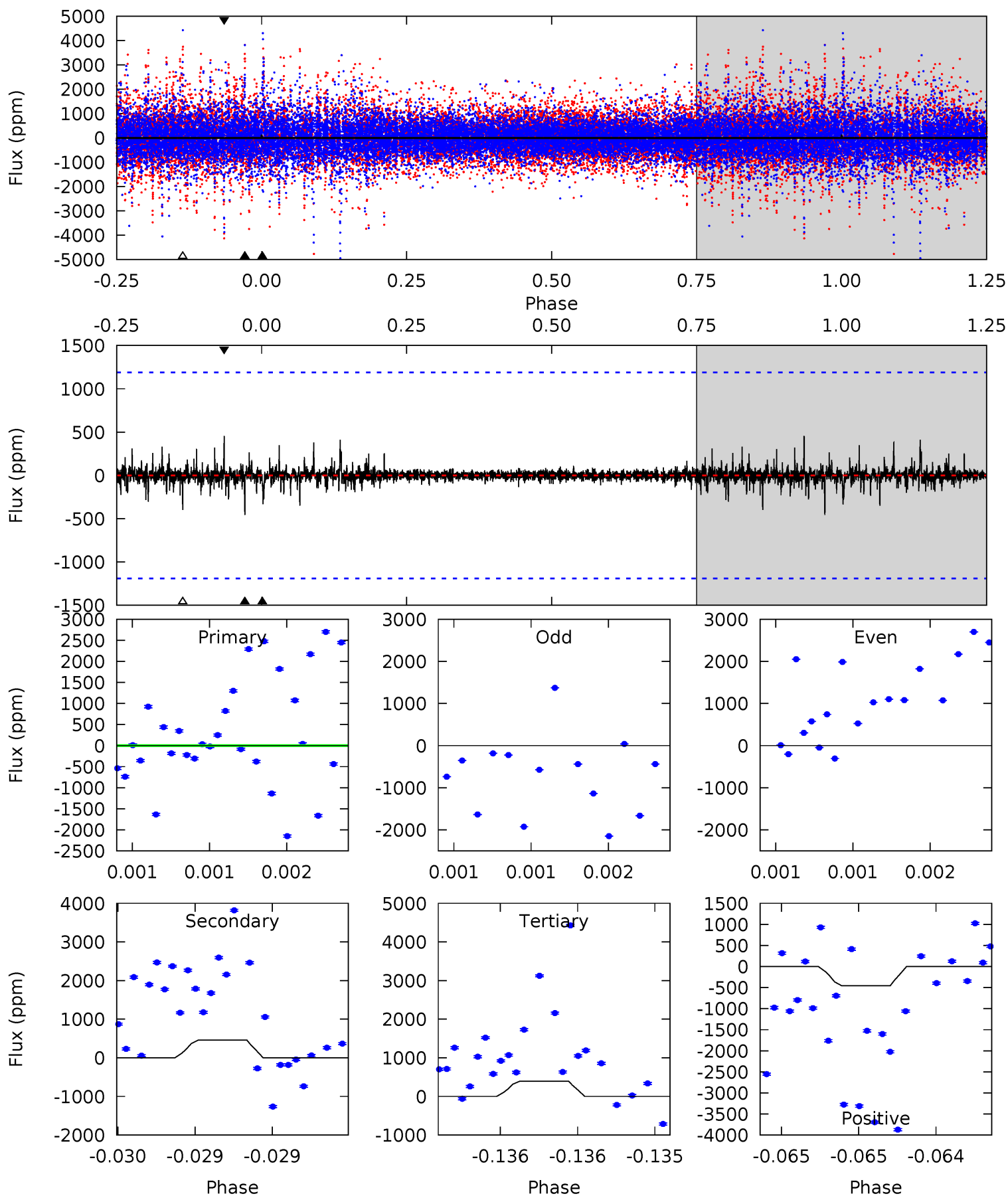
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	8.46	8.36	10.4	5.33	3.09	2.01	3.57	1.54	0.10	-1.93	6.79	1.50	0.47	0.03



Alt Model-Shift Uniqueness Test

008818096-04, P = 183.214110 Days, E = 130.044307 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.44	2.14	1.85	2.13	5.56	3.46	0.26	-1.41	-1.69	0.29	0.01	0.97	-1.41	0.50	0.35



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1125 ± 133	$11.44^{+10.89}_{-7.97}$	359^{+14}_{-13}	3112^{+1489}_{-508}	1572^{+16472}_{-1156}
Alt.	-458 ± 214	$9.59^{+11.66}_{-6.50}$	359^{+14}_{-14}	2826^{+1197}_{-541}	794^{+7210}_{-648}

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

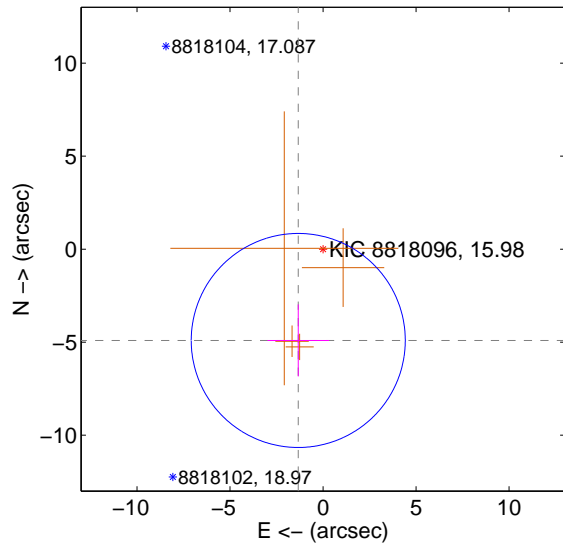
Supplemental centroid analysis for 008818096-04. Kepler magnitude: 15.98. Transit SNR 6.74

There are 0 quarters with good PRF difference image offsets

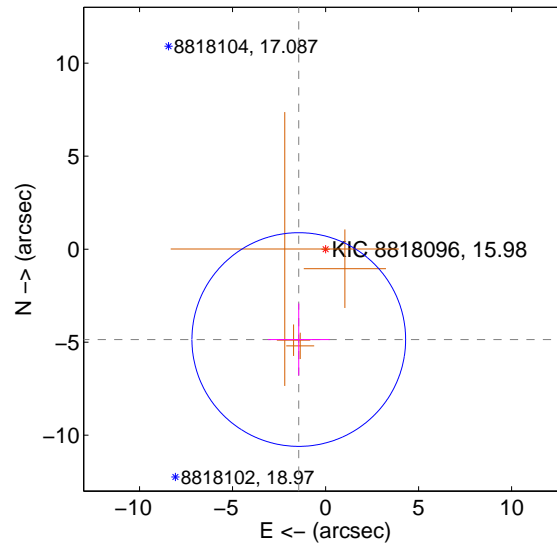
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.086 ± 1.918	2.65	1.332 ± 1.656	-4.908 ± 1.936
PRF-fit source offset from KIC position	5.067 ± 1.914	2.65	1.441 ± 1.656	-4.858 ± 1.936
photometric centroid source offset	0.74 ± 0.79	0.94	-0.50 ± 0.86	0.55 ± 0.72

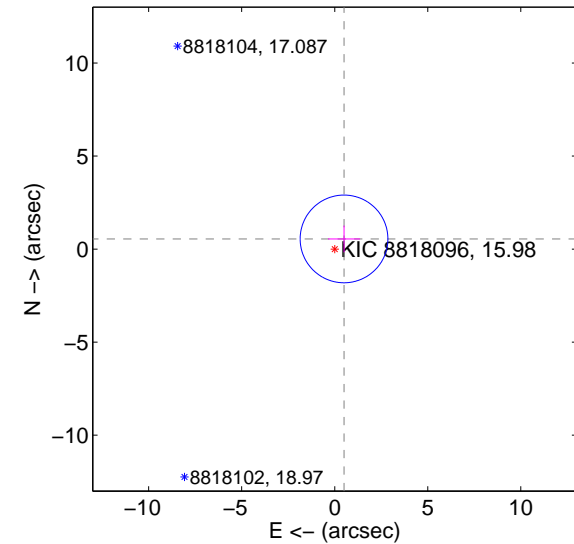
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

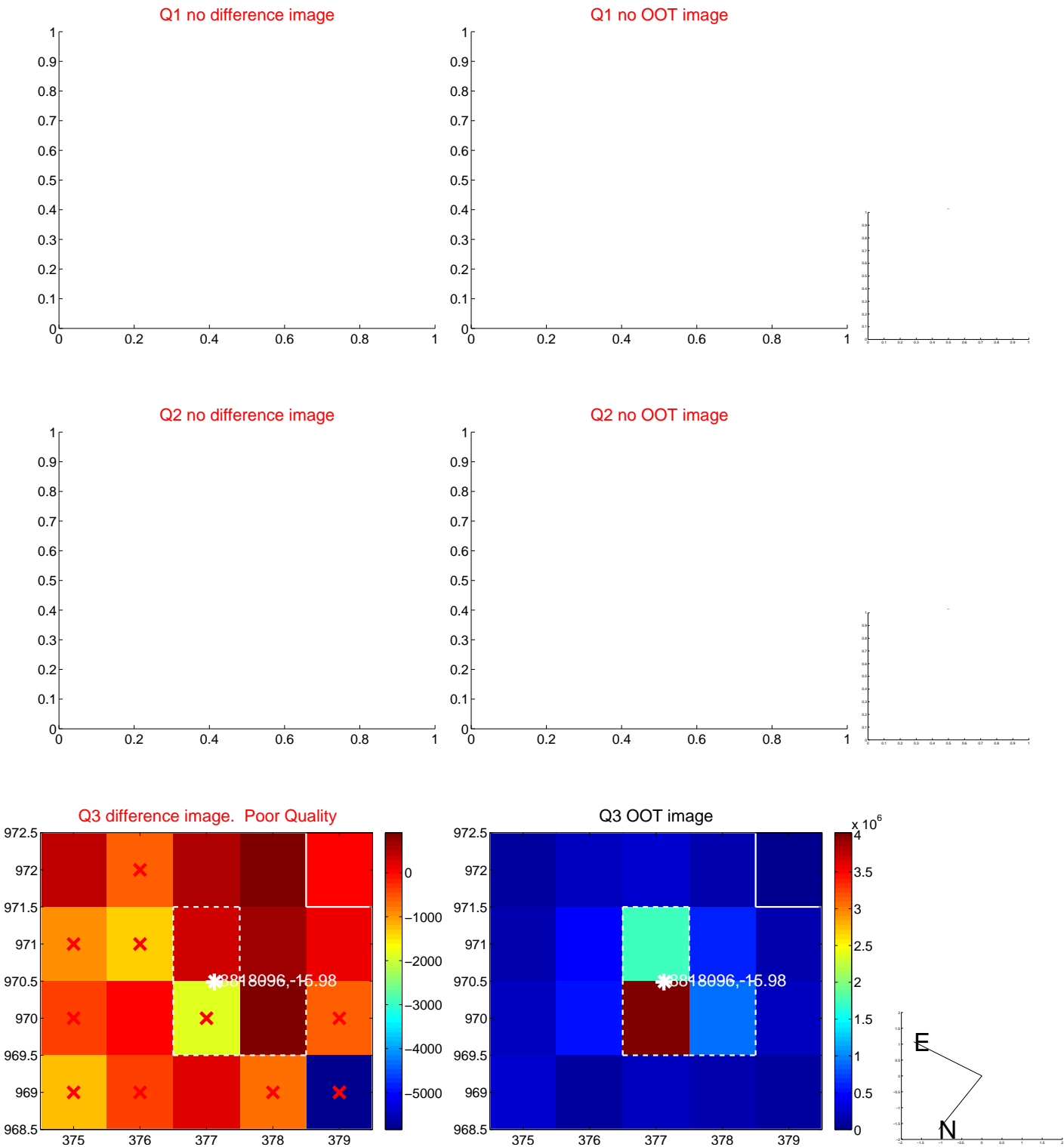


offset from photometric centroids

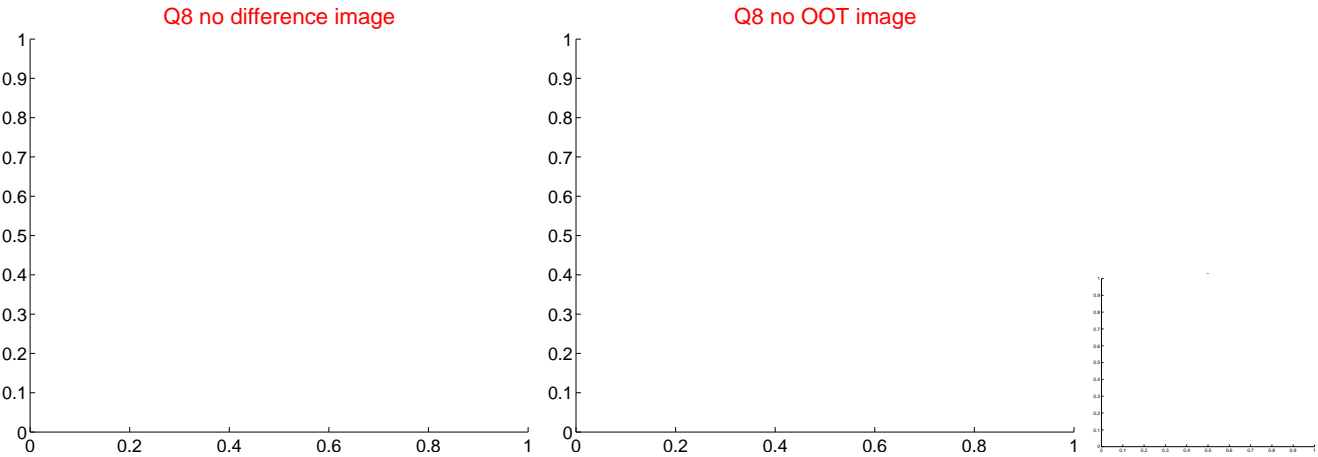
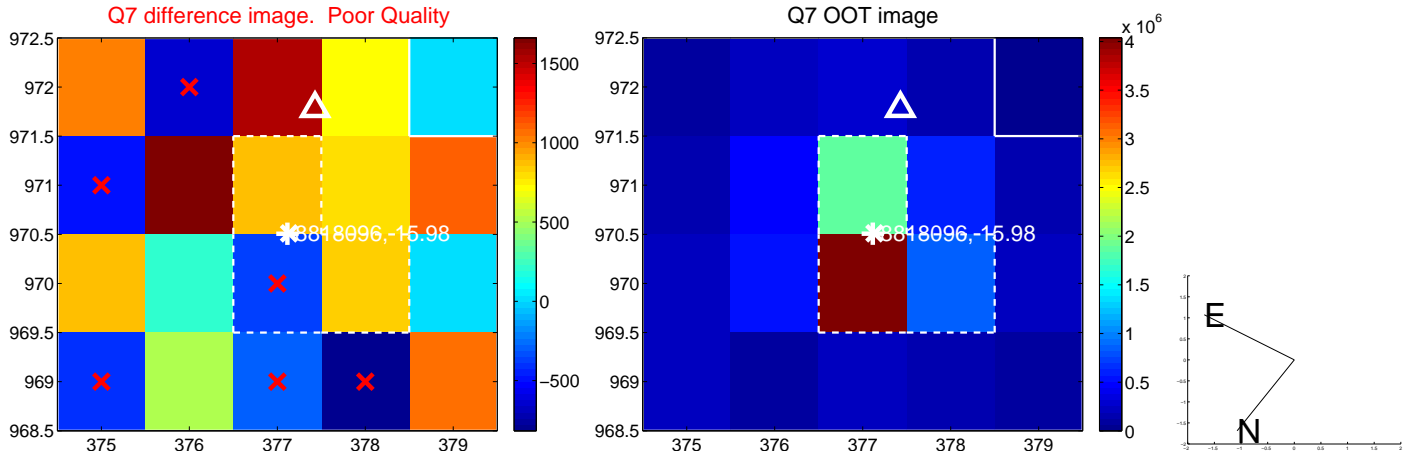
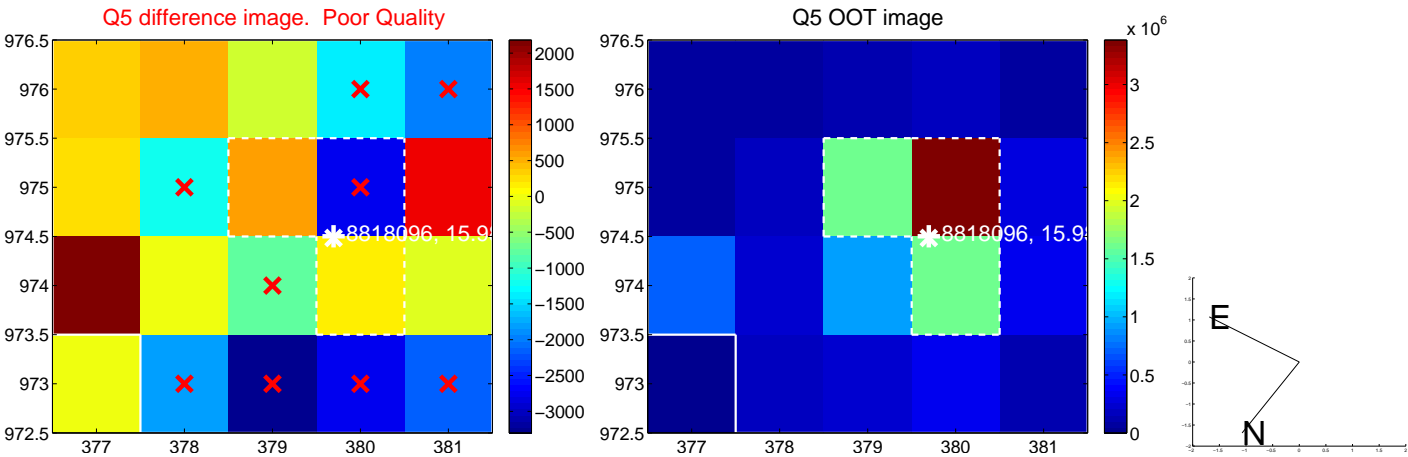


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

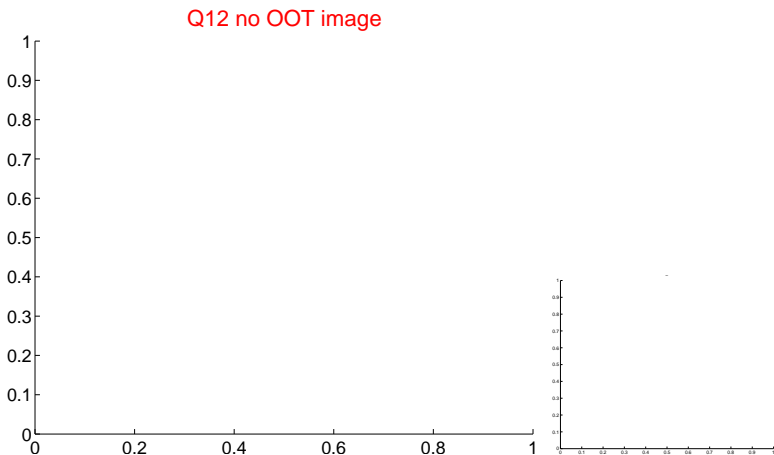
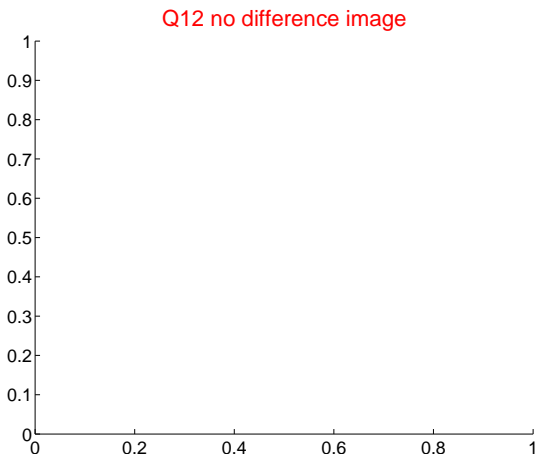
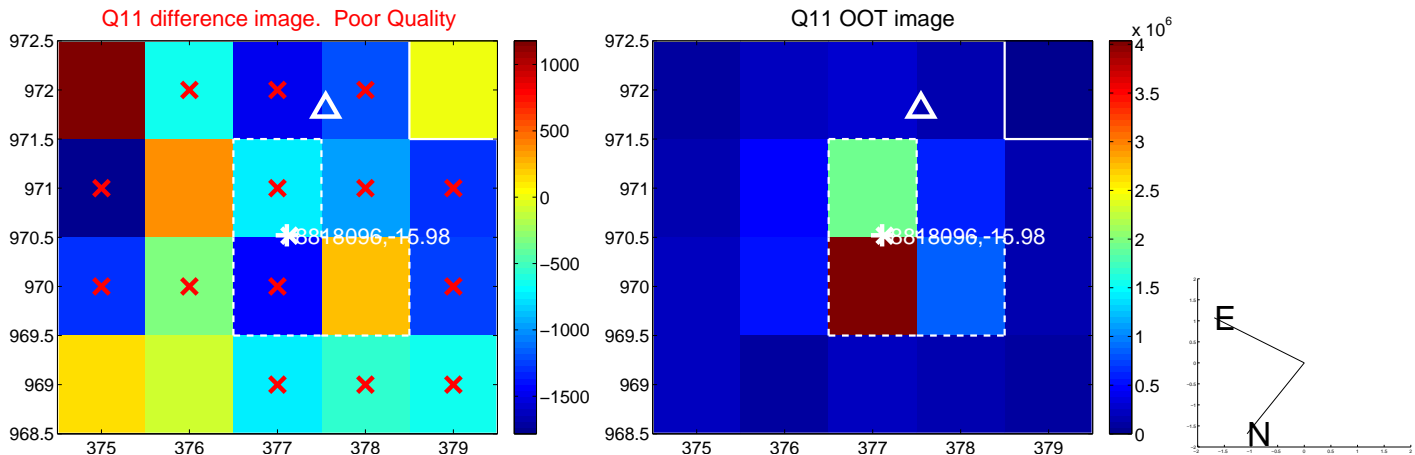
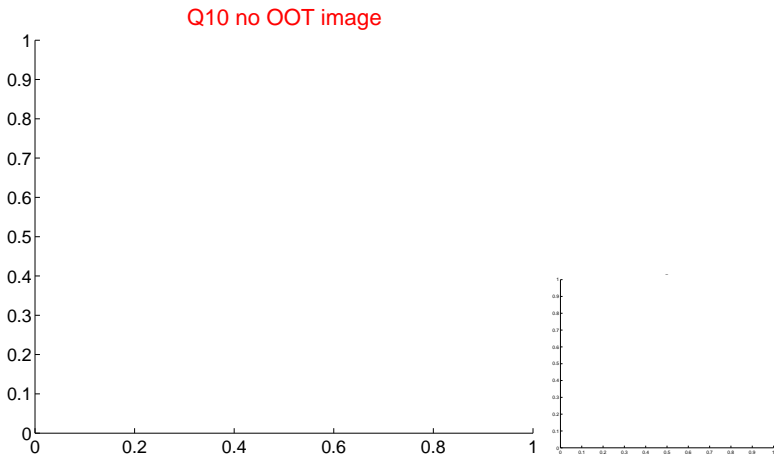
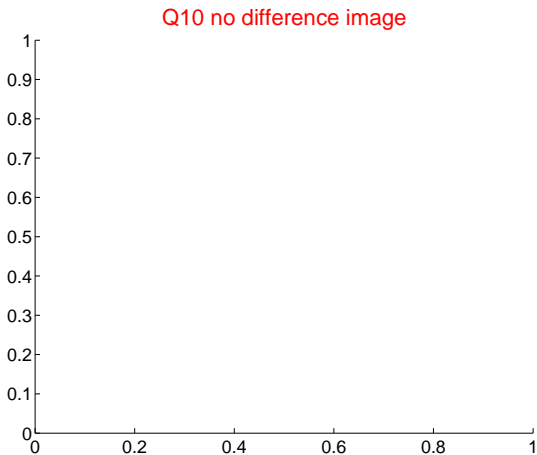
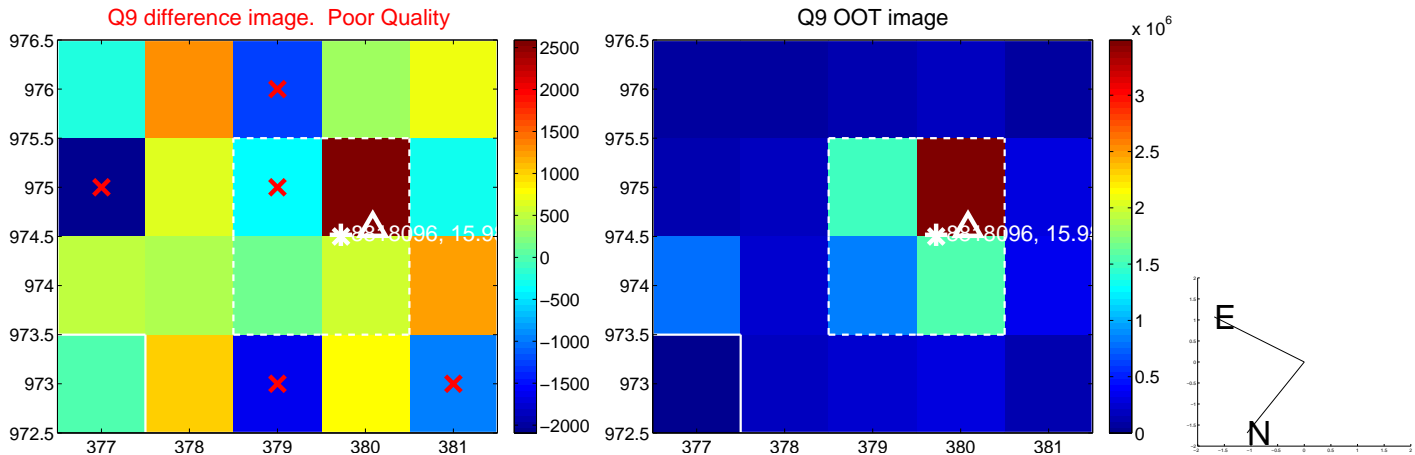
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



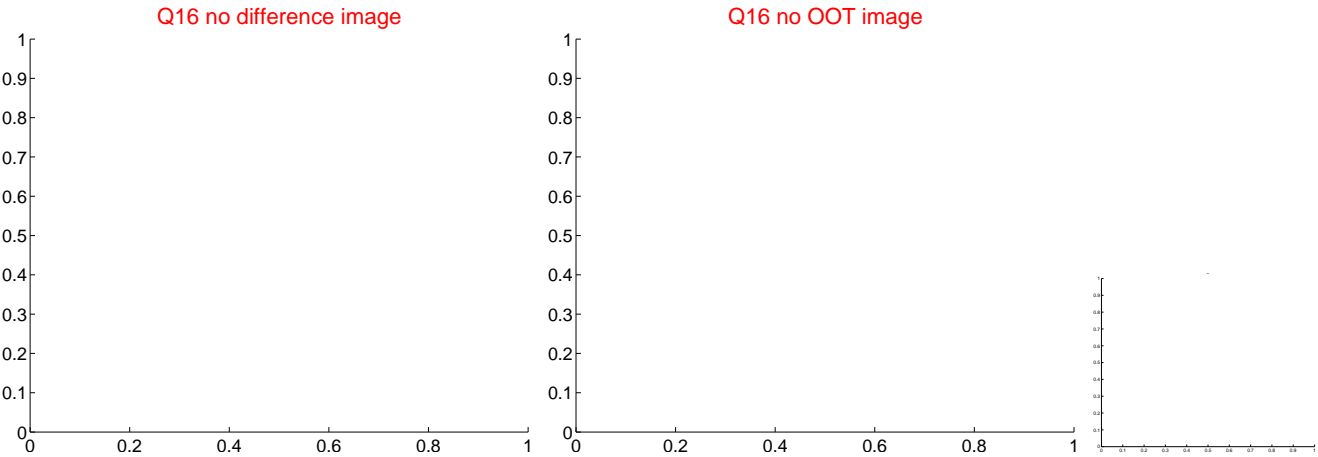
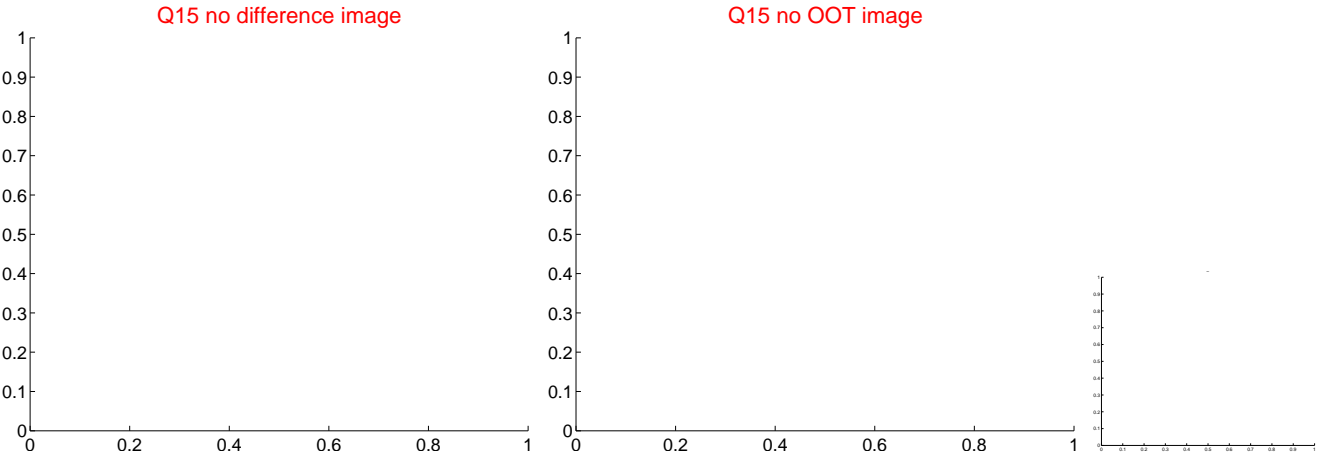
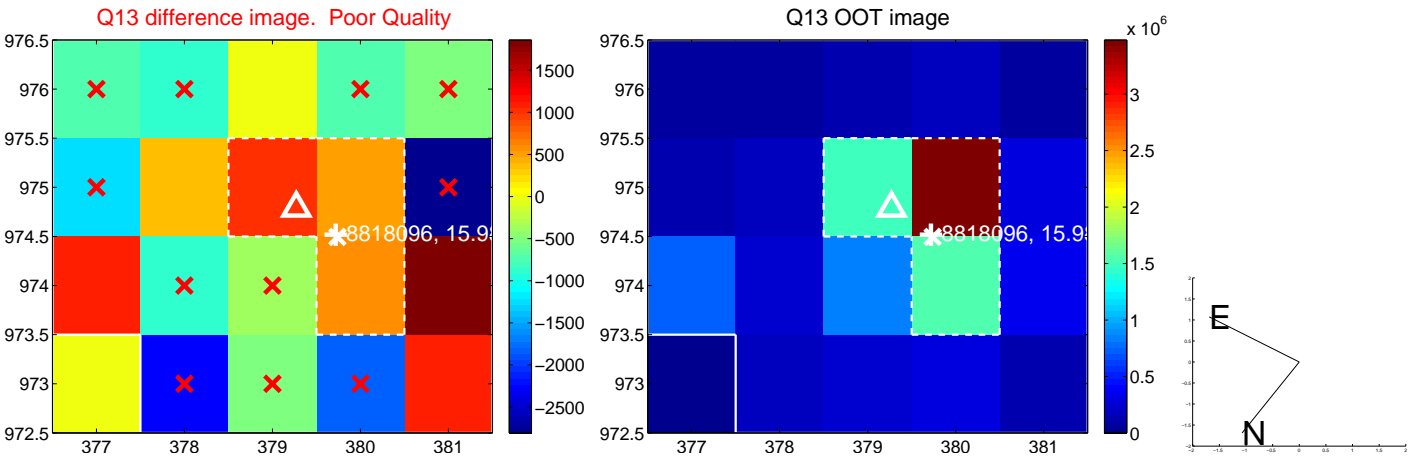
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



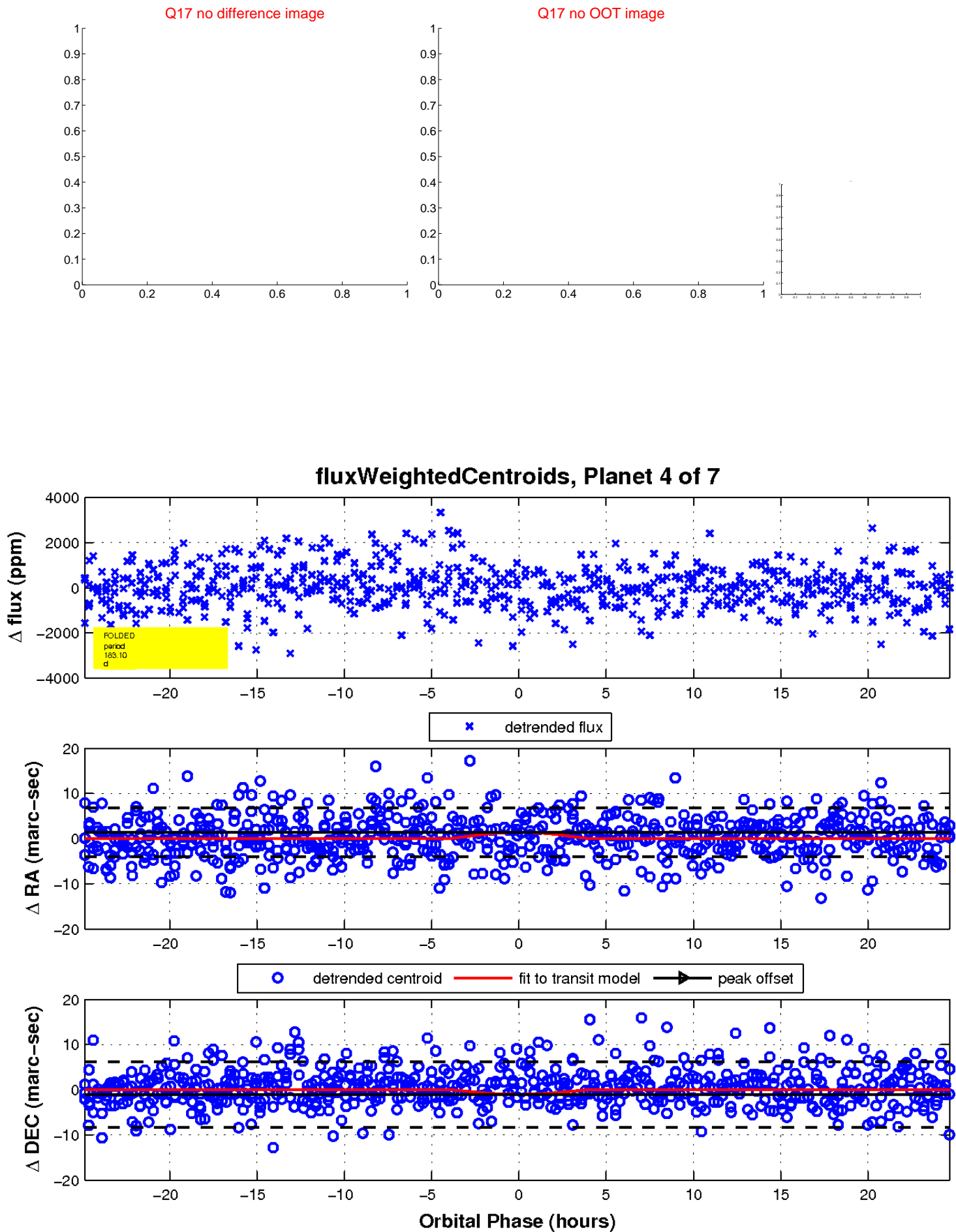
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

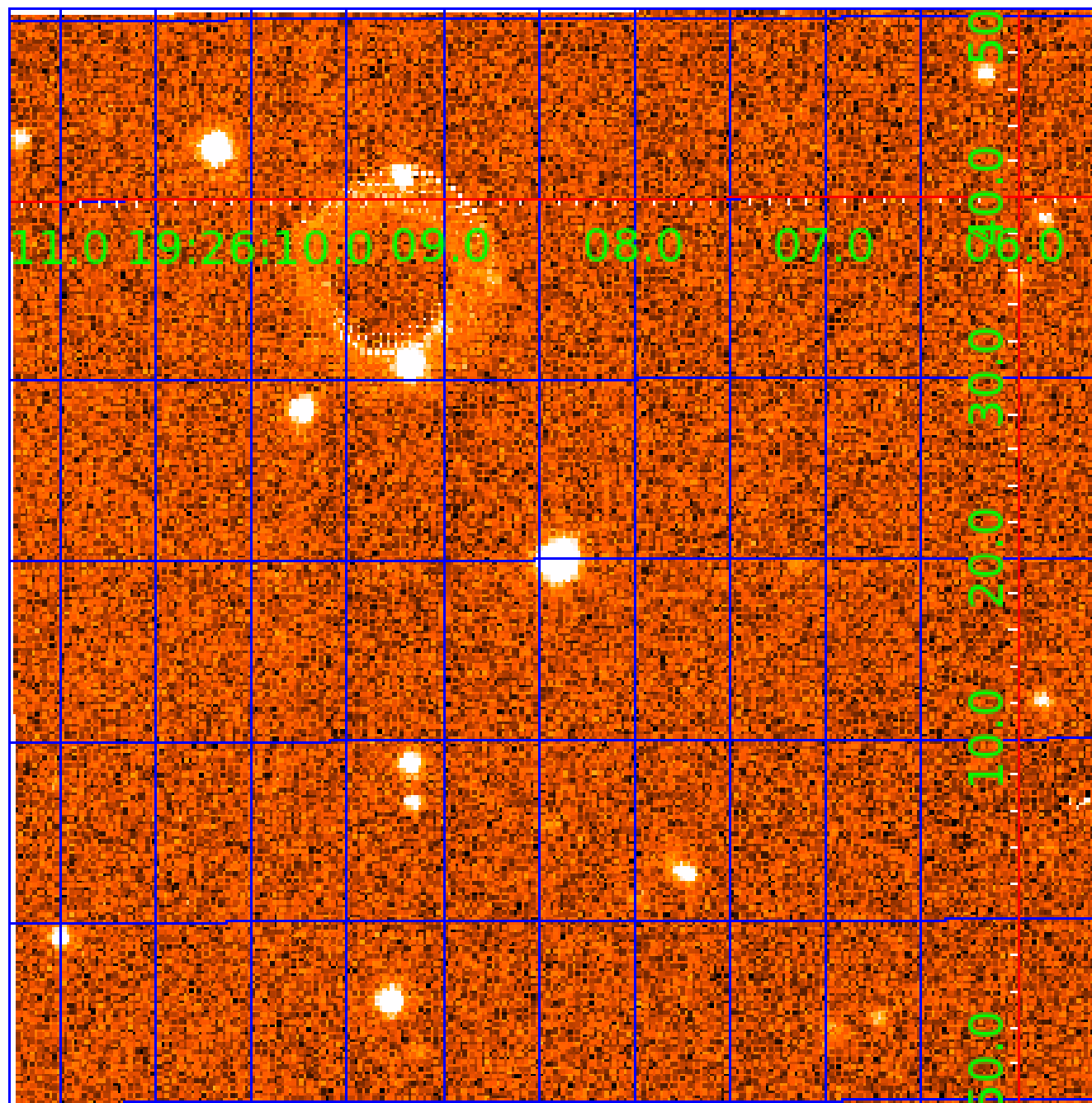


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008818096

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})
008818096-01	OBS	No	374.882489	132.153662	3243.7	41.417	8.9	10.6	0.73	5162	7.97	0.38
008818096-02	OBS	No	2.175893	132.394093	86.9	9.979	7.7	7.8	0.73	5162	0.82	368.53
008818096-03	OBS	No	474.249825	314.562840	743.1	1.299	13.6	2.2	0.73	5162	1.97	0.28
008818096-04	OBS	No	183.095055	314.377691	2301.8	8.289	12.5	6.7	0.73	5162	5.11	1.00
008818096-05	OBS	No	217.595573	331.699887	513.0	9.774	24.0	4.9	0.73	5162	1.76	0.79
008818096-06	OBS	No	223.717838	346.833765	752.1	11.969	9.6	5.2	0.73	5162	2.05	0.77
008818096-07	OBS	No	235.735171	315.143992	1738.0	12.000	14.3	-1.0	0.73	5162	2.96	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

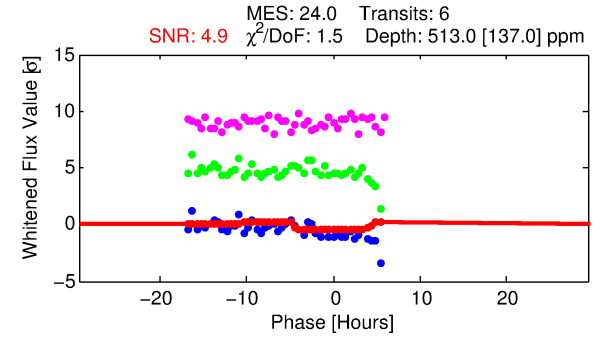
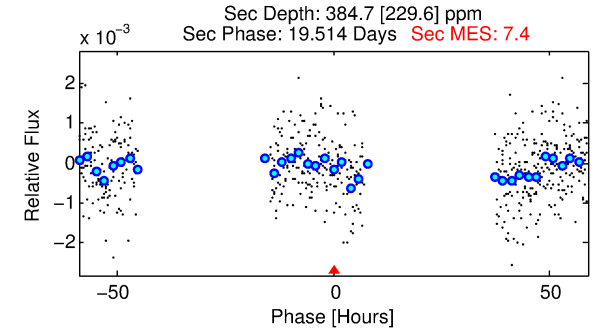
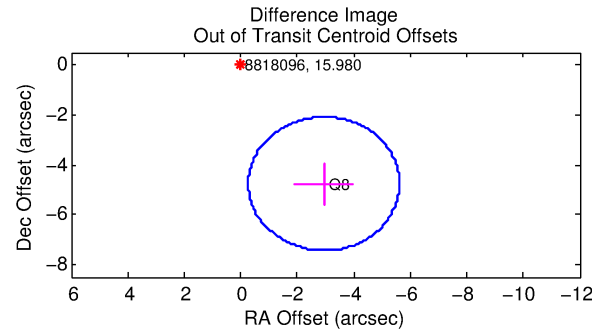
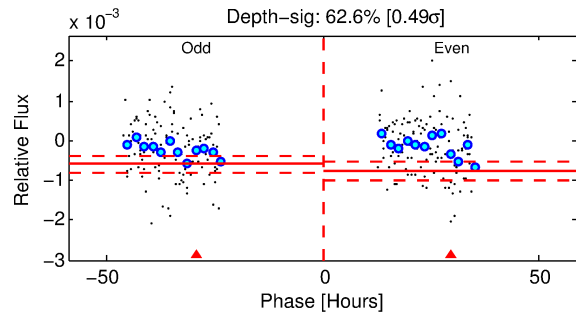
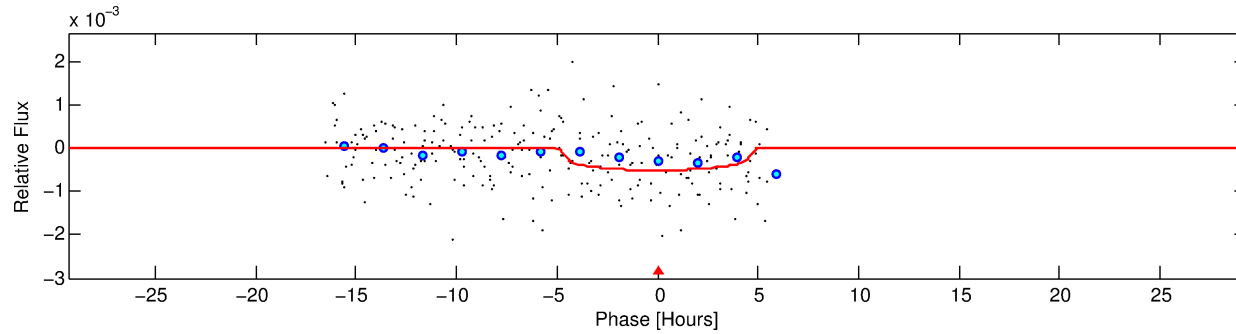
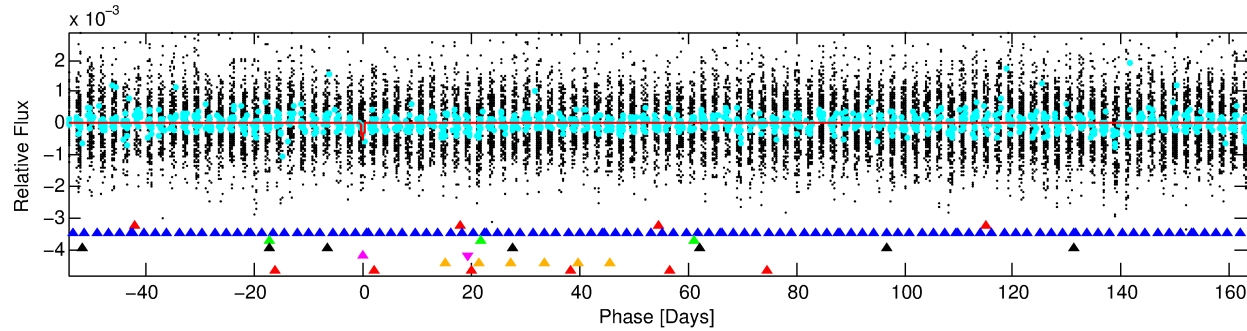
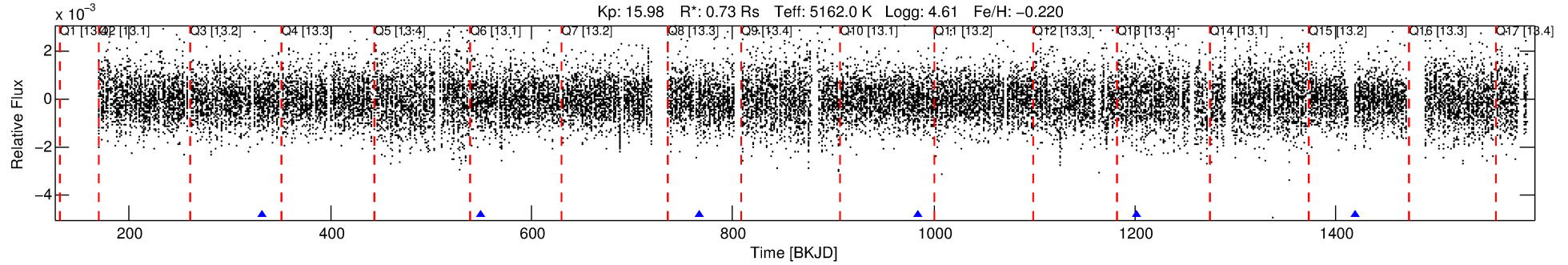
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818096-05

No Significant Match Found

DV One-Page Summary

KIC: 8818096 Candidate: 5 of 7 Period: 217.596 d



DV Fit Results:

Period = 217.59557 [0.00936] d
Epoch = 331.6999 [0.0314] BKJD
Rp/R* = 0.0221 [0.0242]
a/R* = 126.92 [515.21]
b = 0.70 [3.02]
Seff = 0.79 [0.15]
Teq = 241 [11] K
Rp = 1.76 [1.94] Re
a = 0.6526 [0.0698] AU
Ag = 29117.86 [66186.10] [0.44 σ]
Teffp = 4861 [2760] K [1.67 σ]

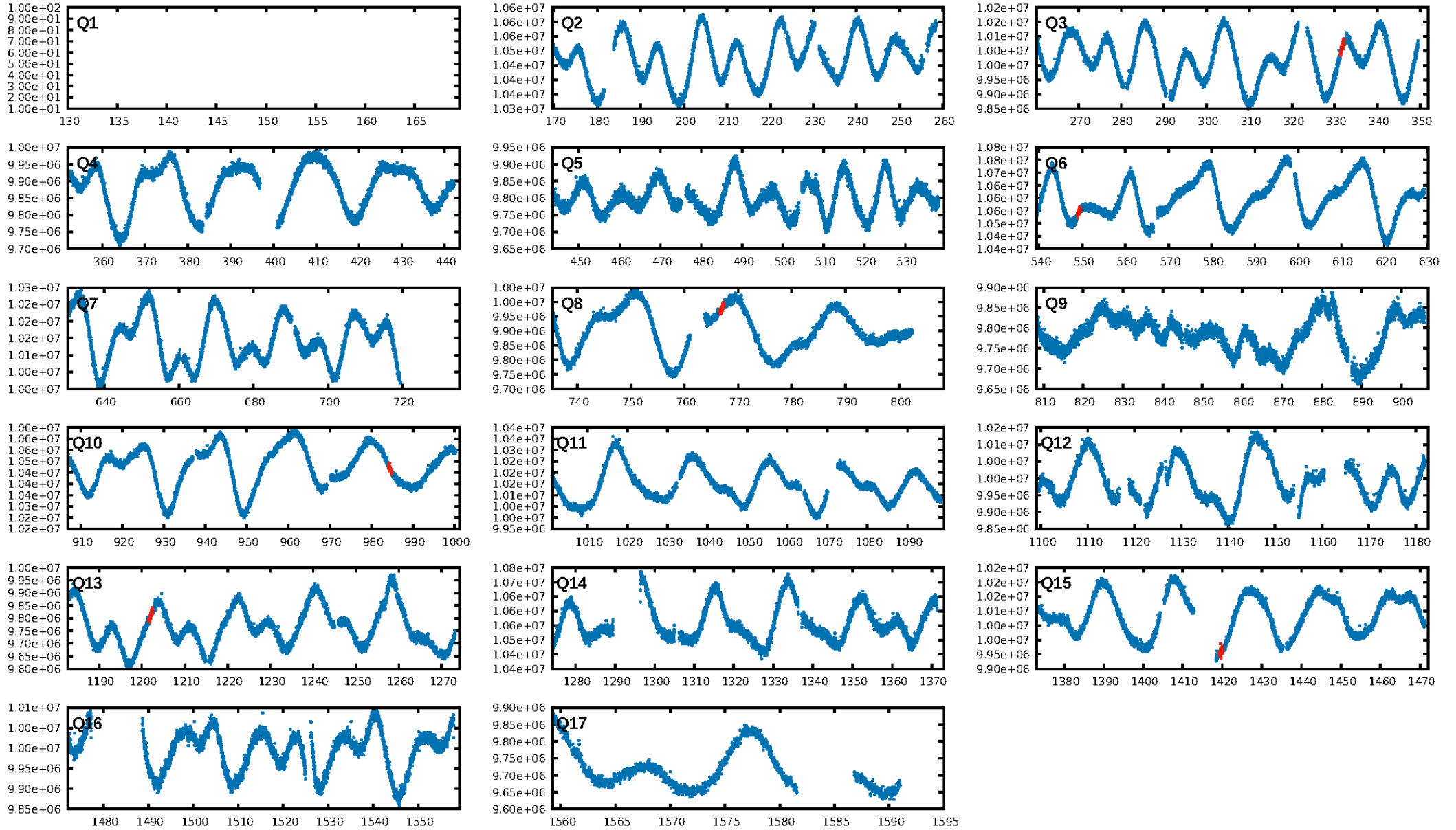
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [64.61 σ]
LongPeriod-sig: 100.0% [9.51 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 37.6%
Bootstrap-pfa: 5.30e-44
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.2004
Centroid-sig: 69.7%
Centroid-so: 1.385 arcsec [0.62 σ]
OotOffset-rm: 5.601 arcsec [6.28 σ]
KicOffset-rm: 5.638 arcsec [6.33 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/5]

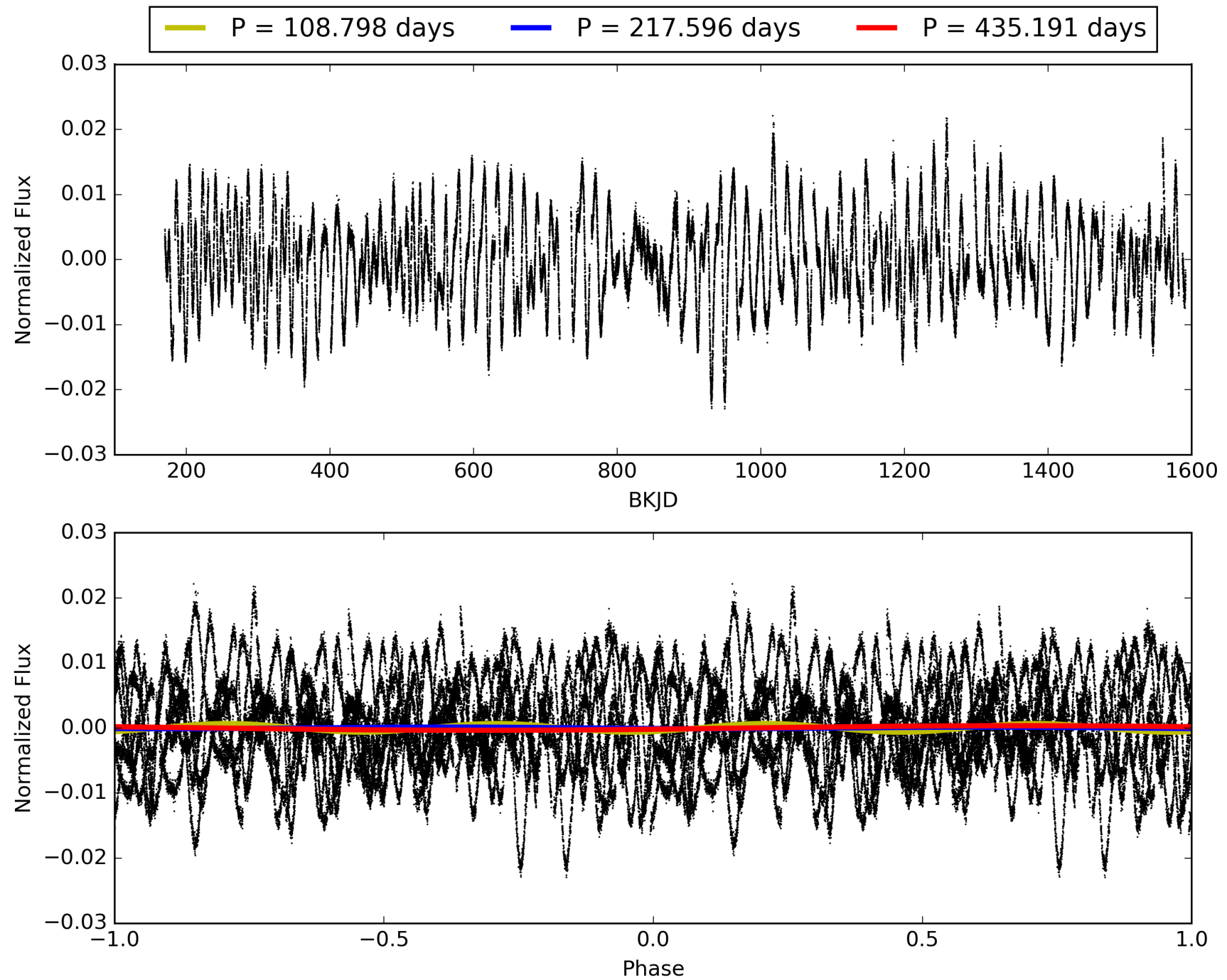
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:15:06 Z

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

TCE 008818096-05, PDC Light Curves

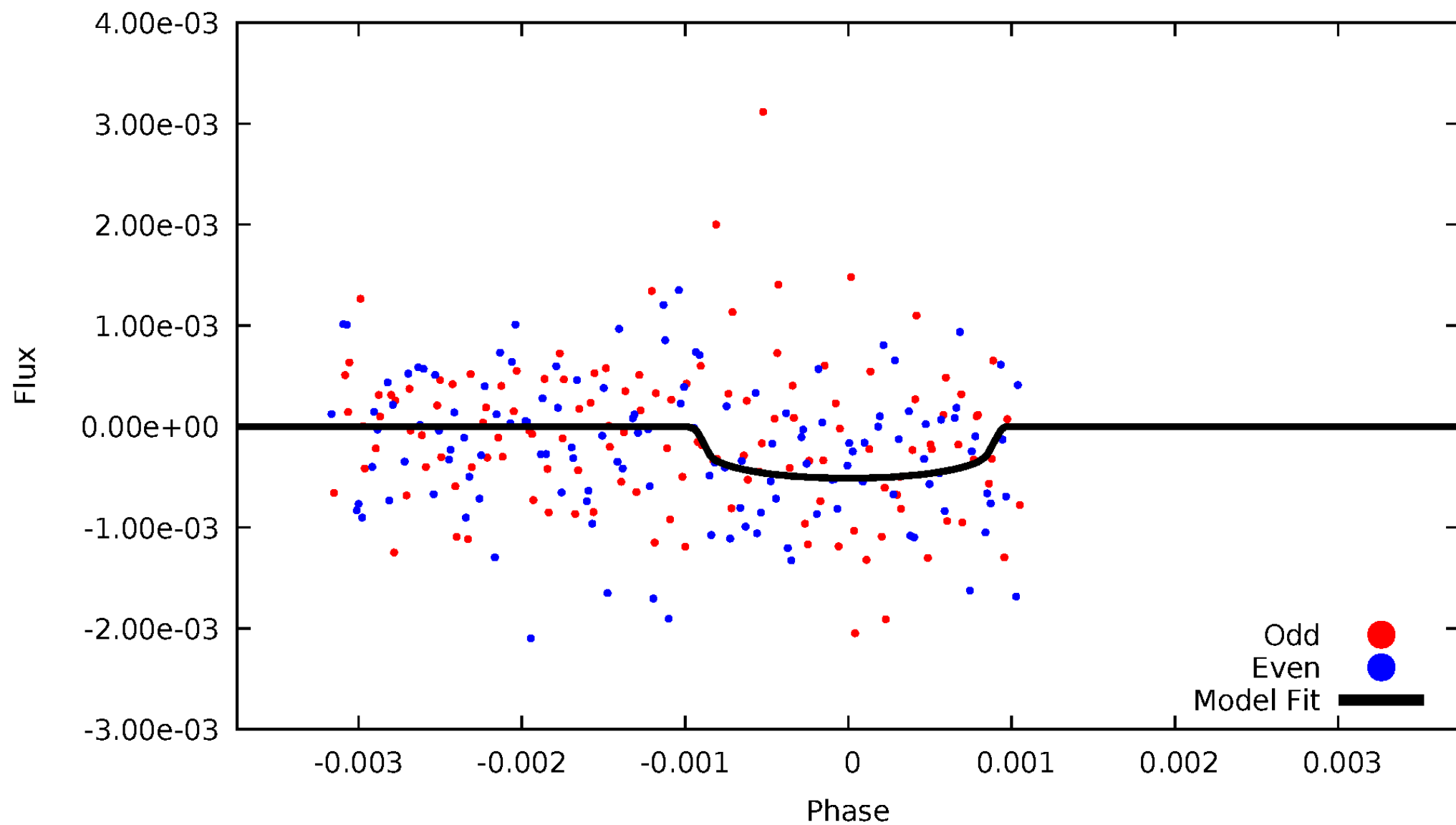


TCE 008818096-05



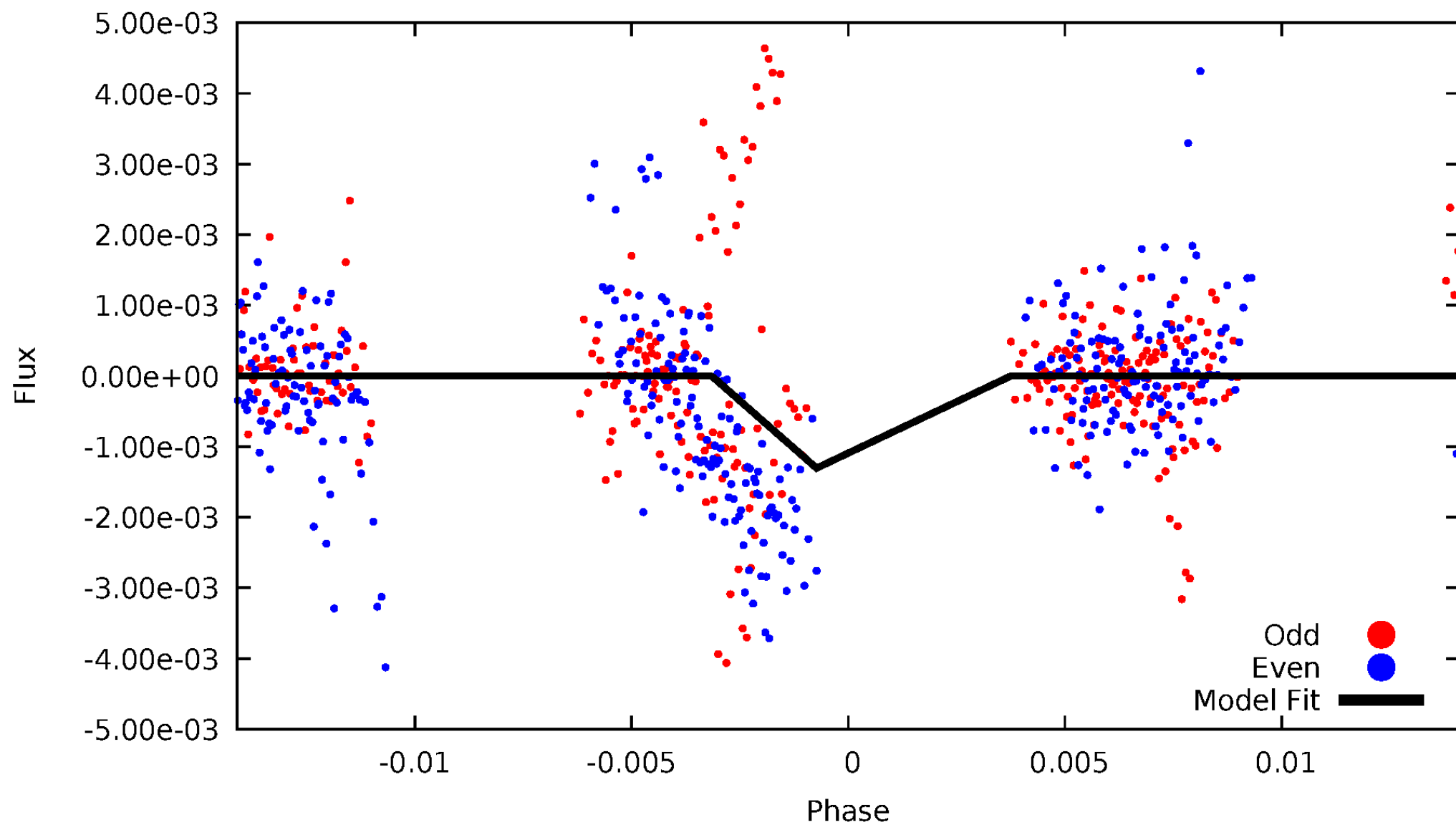
DV Odd/Even

TCE 008818096-05



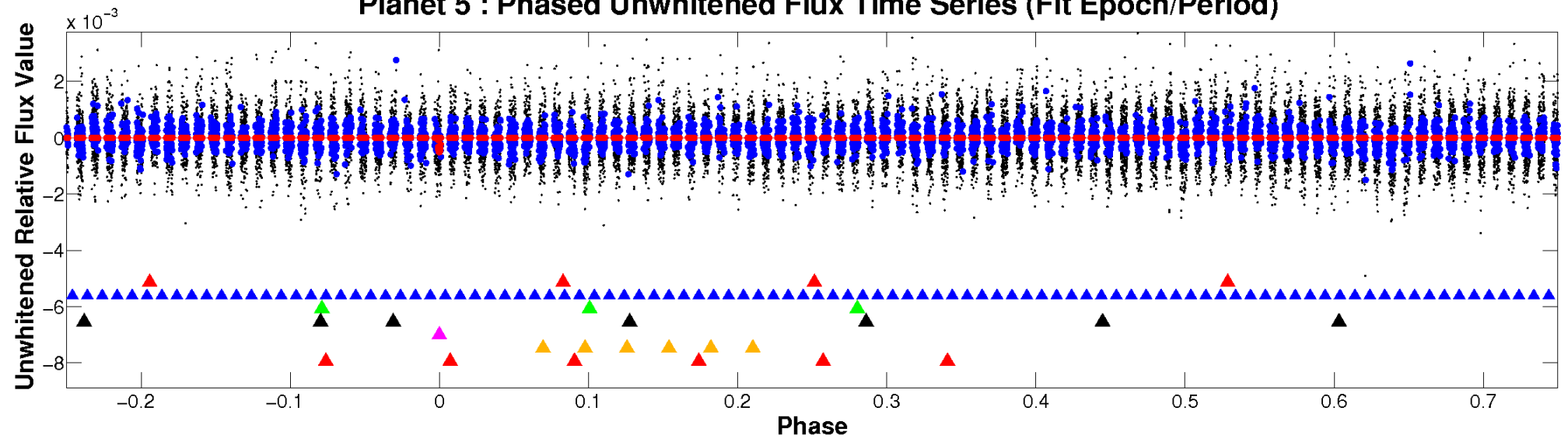
ALT Odd/Even

TCE 008818096-05

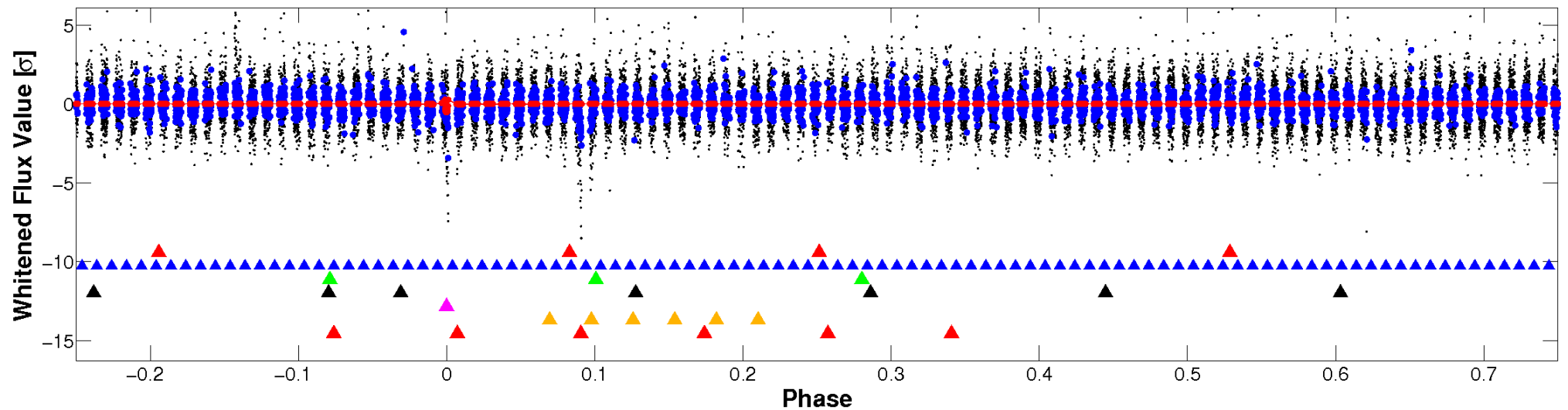


Non-Whitened Vs. Whitened Light Curve

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

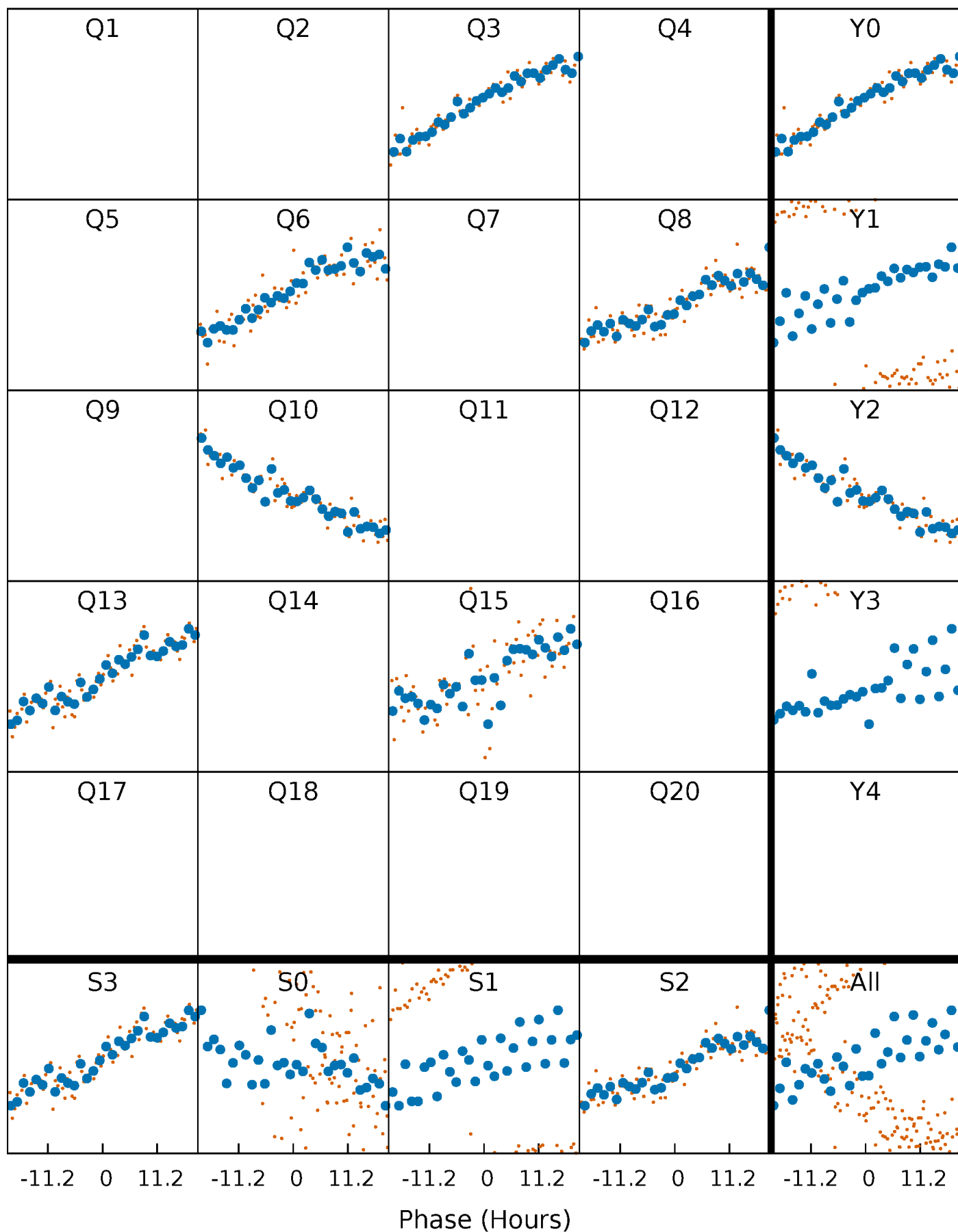


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



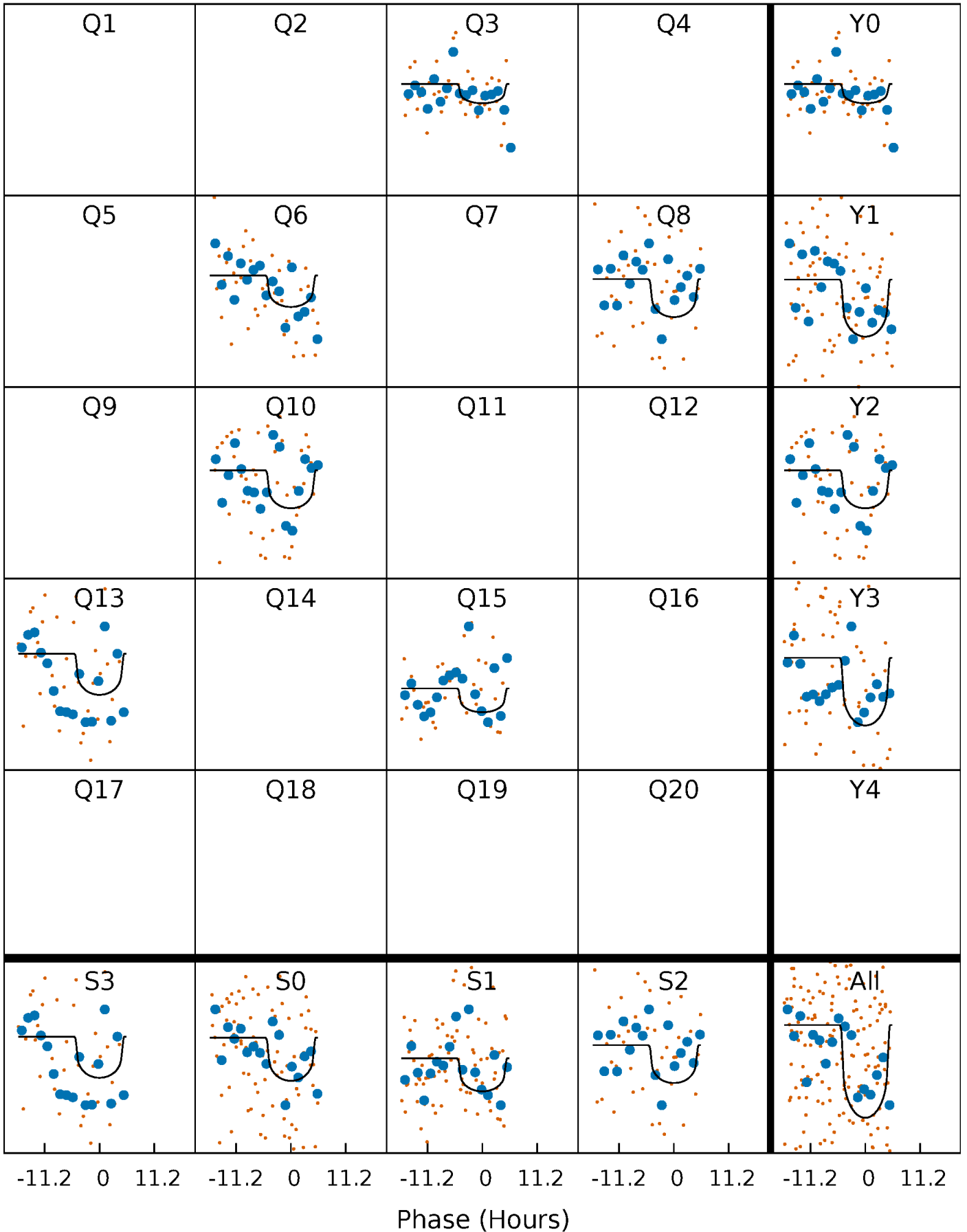
PDC Quarter-Phased Transit Curves

TCE 008818096-05 $P=217.595573$ Days $T_0=331.699887$ (BKJD)



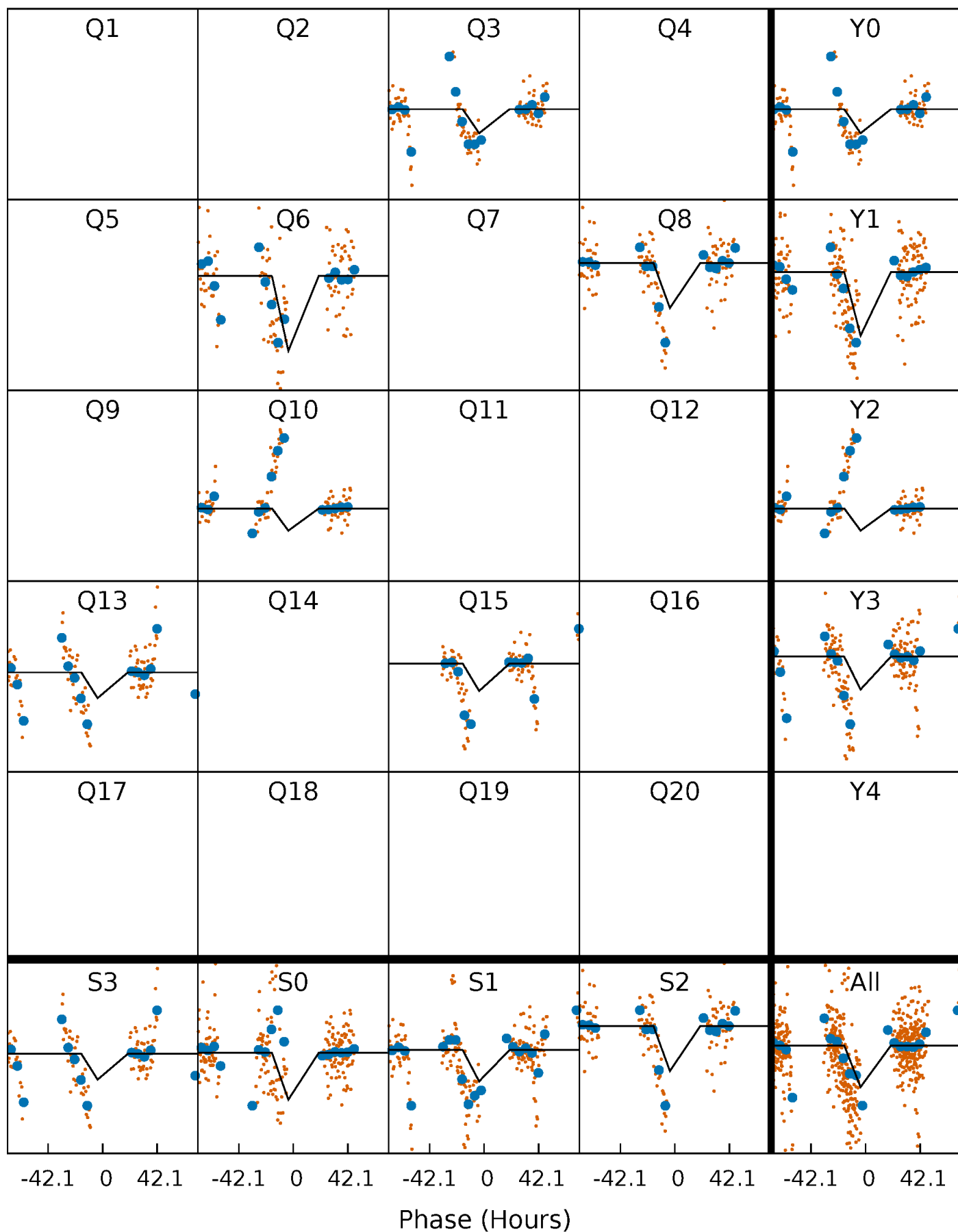
DV Quarter-Phased Transit Curves

TCE 008818096-05 $P=217.595573$ Days $T_0=331.699887$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

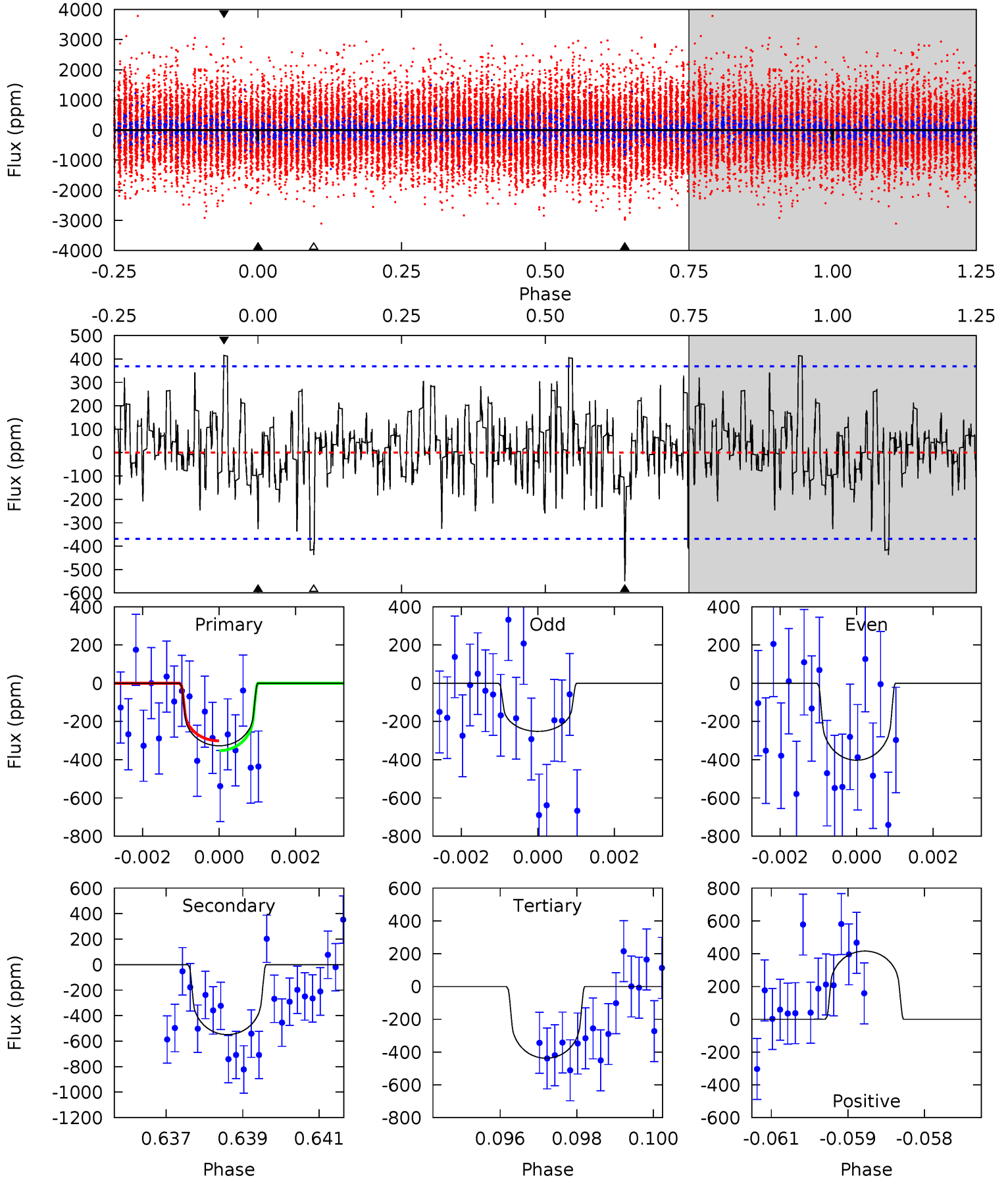
TCE 008818096-05 P=217.651470 Days $T_0=332.083385$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-05, P = 217.595573 Days, E = 114.104314 Days

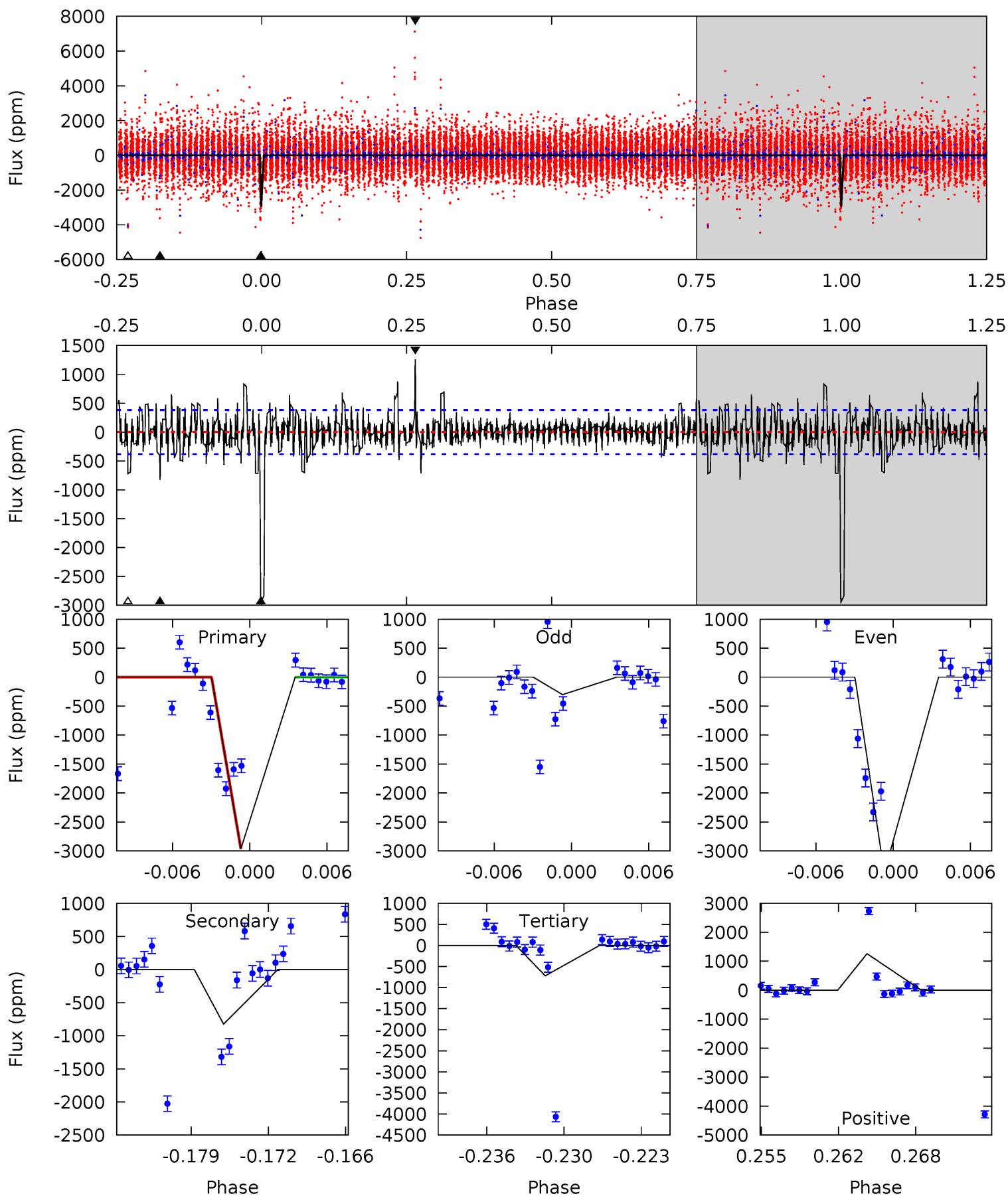
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.74	7.94	6.33	6.02	5.33	3.10	1.73	-1.60	-1.28	1.61	1.92	1.09	0.90	0.43	0.37



Alt Model-Shift Uniqueness Test

008818096-05, P = 217.651470 Days, E = 114.431915 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.7	11.1	9.65	16.8	5.11	2.73	2.04	30.0	22.8	1.41	-5.80	20.6	0	0.30	0



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-549 ± 69	$2.17^{+1.62}_{-1.34}$	339^{+13}_{-12}	4839^{+3147}_{-931}	$26896^{+160334}_{-18508}$
Alt.	-826 ± 75	$3.19^{+2.03}_{-1.72}$	339^{+14}_{-12}	4490^{+1950}_{-719}	18806^{+67507}_{-11728}

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

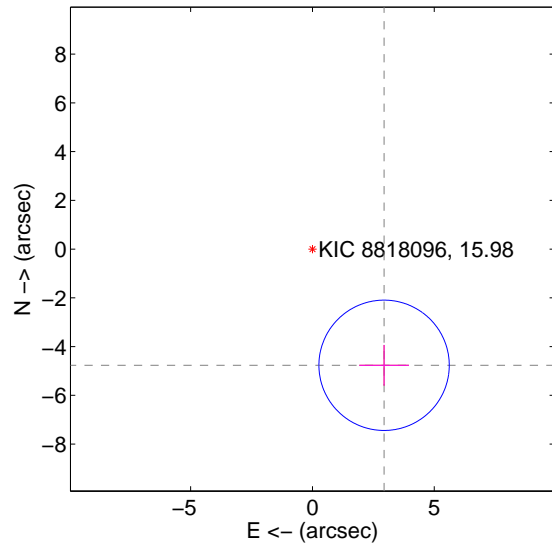
Supplemental centroid analysis for 008818096-05. Kepler magnitude: 15.98. Transit SNR 4.86

There are 0 quarters with good PRF difference image offsets

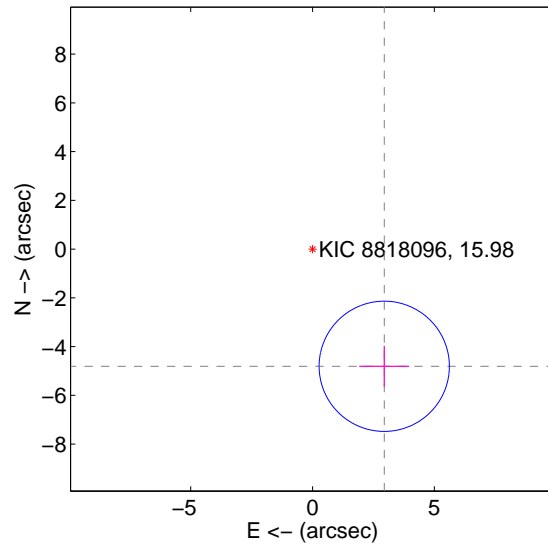
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.601 ± 0.891	6.28	-2.940 ± 1.021	-4.768 ± 0.837
PRF-fit source offset from KIC position	5.638 ± 0.891	6.33	-2.943 ± 1.021	-4.809 ± 0.837
photometric centroid source offset	1.38 ± 2.24	0.62	1.15 ± 2.34	0.76 ± 1.99

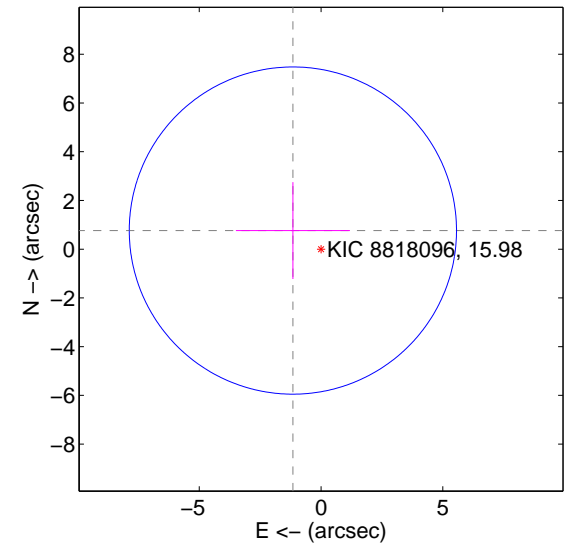
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

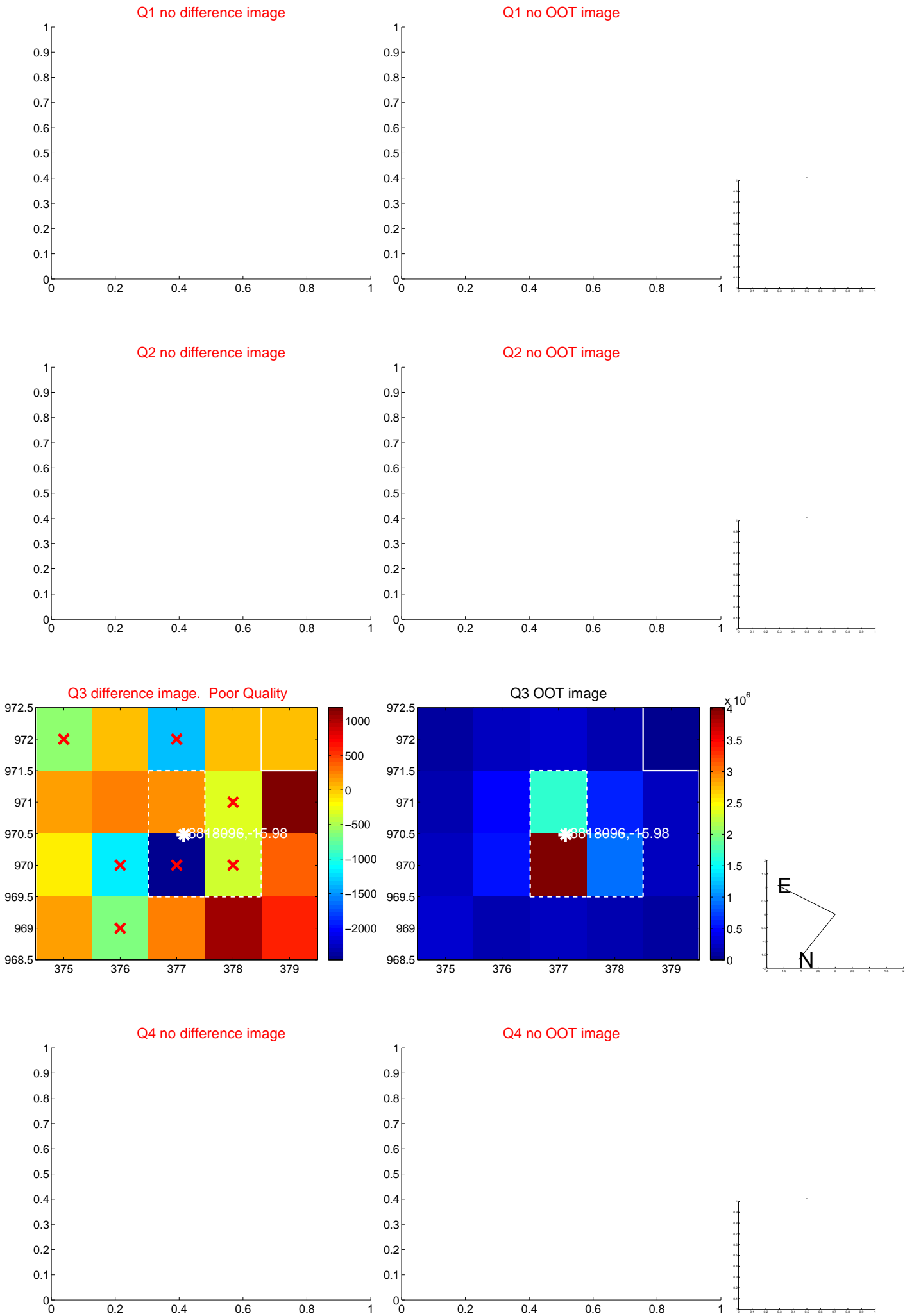


offset from photometric centroids

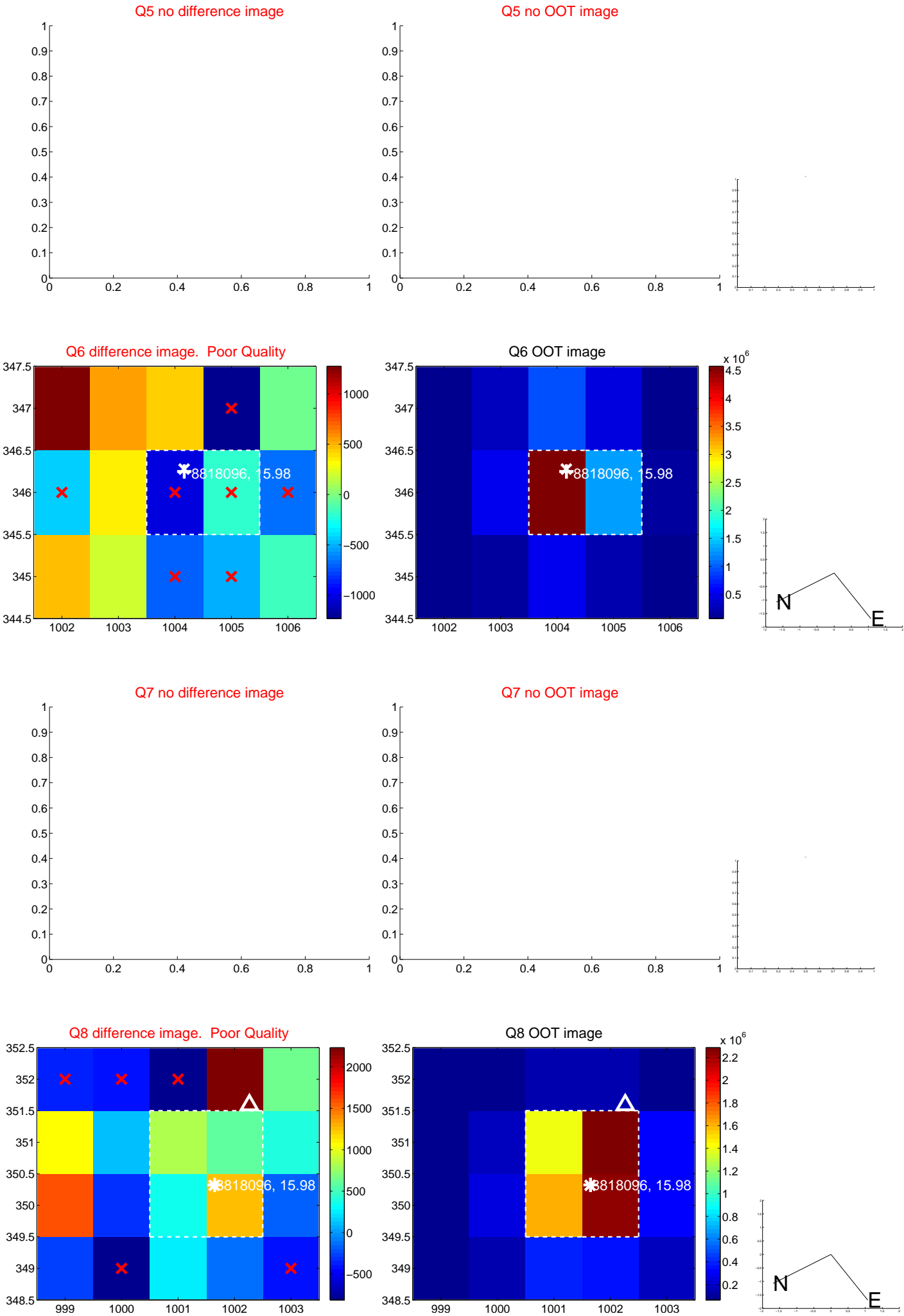


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

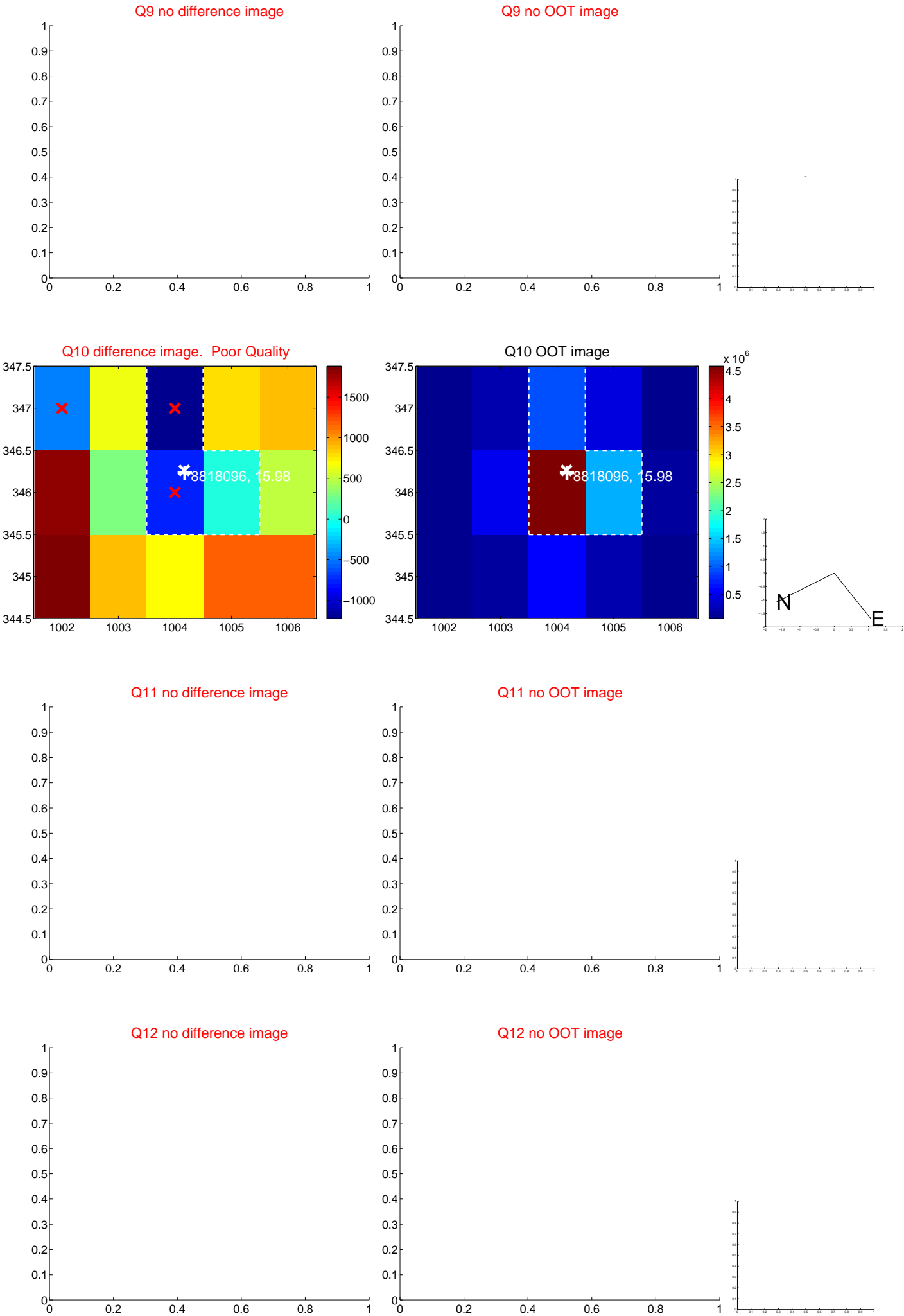
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



Q10 difference image. Poor Quality

Q10 OOT image

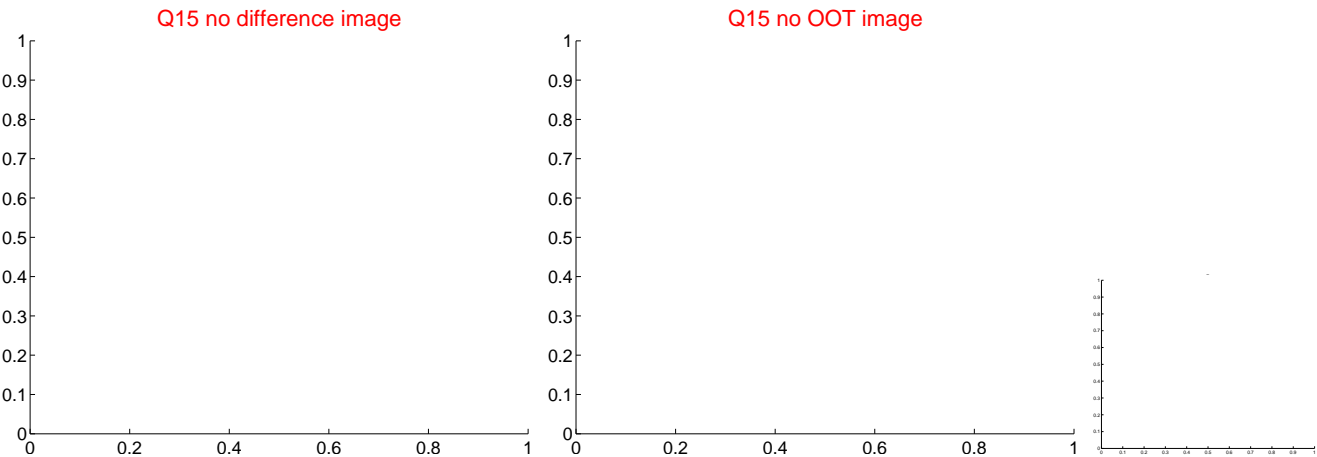
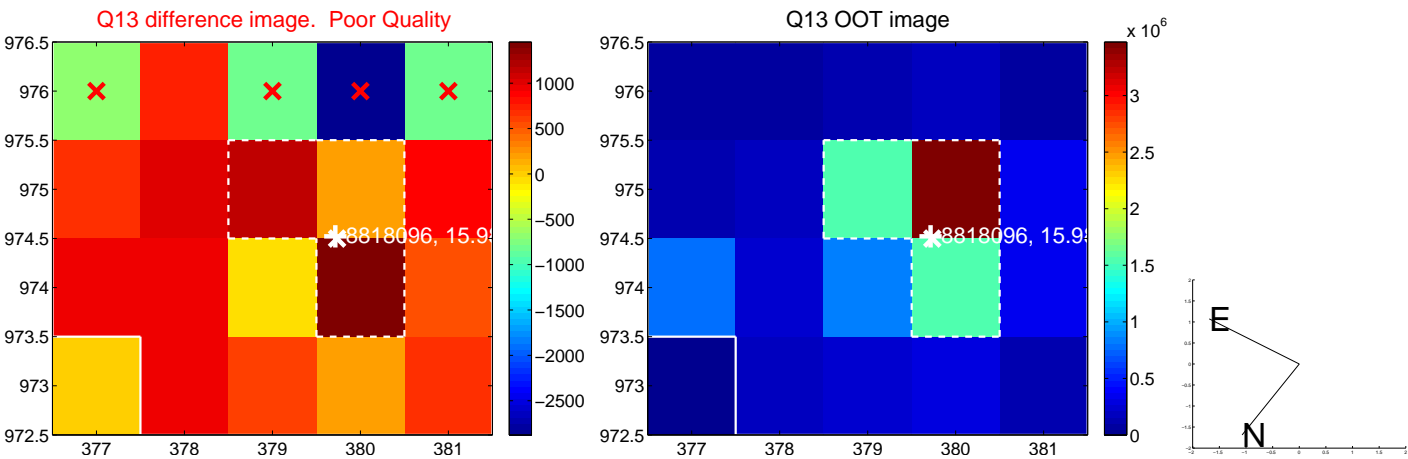
Q11 no difference image

Q11 no OOT image

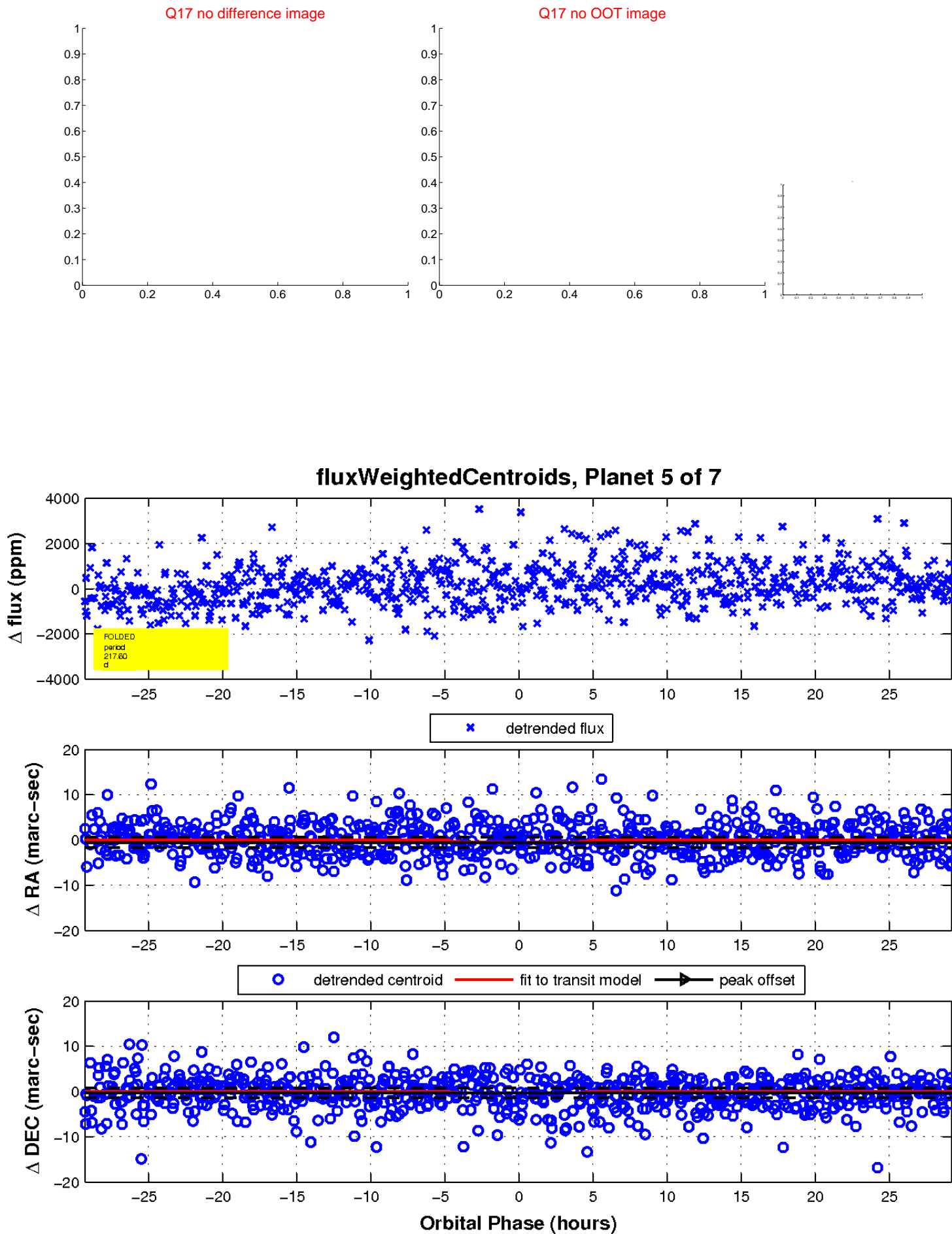
Q12 no difference image

Q12 no OOT image

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

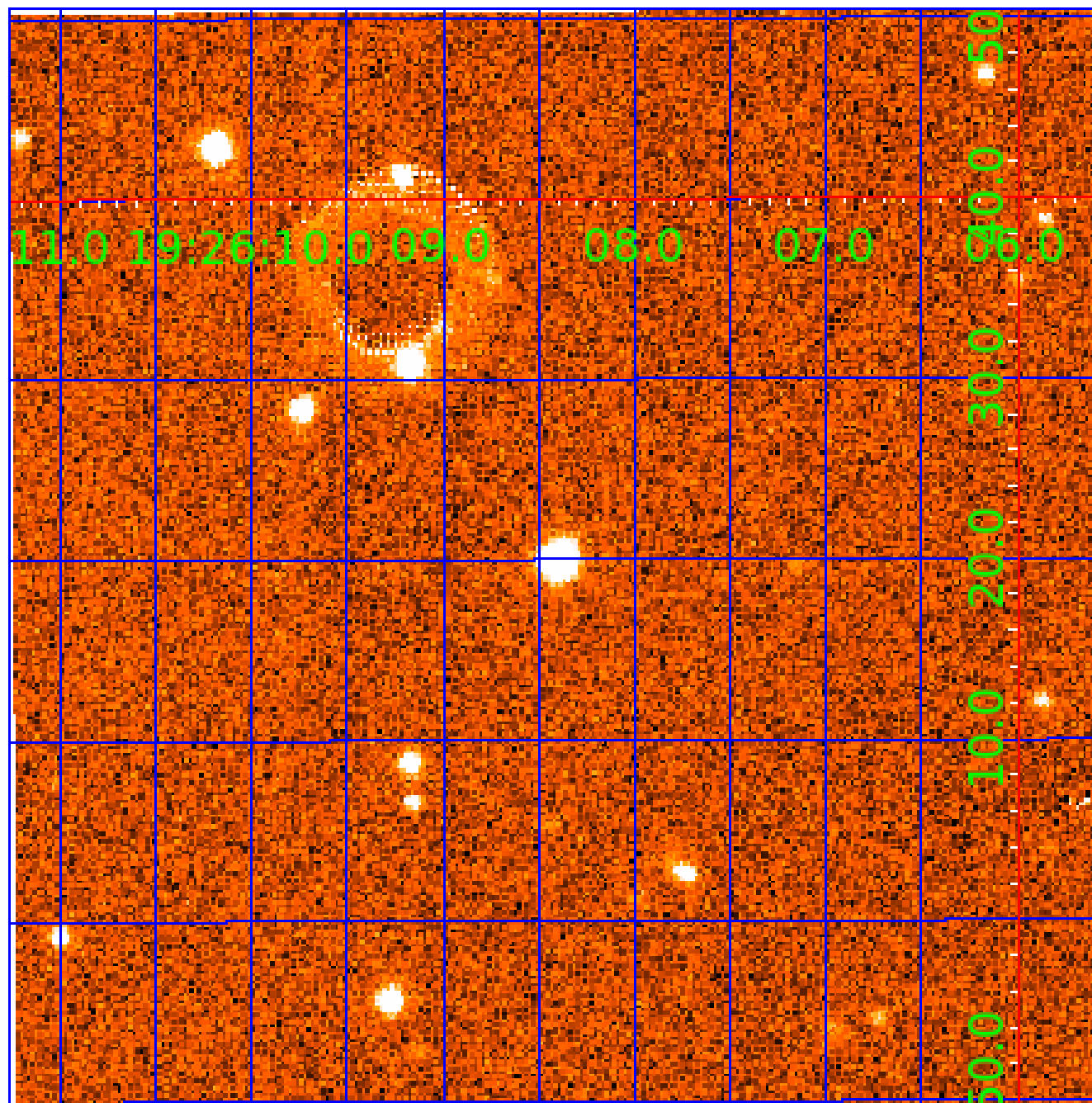


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008818096

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})
008818096-01	OBS	No	374.882489	132.153662	3243.7	41.417	8.9	10.6	0.73	5162	7.97	0.38
008818096-02	OBS	No	2.175893	132.394093	86.9	9.979	7.7	7.8	0.73	5162	0.82	368.53
008818096-03	OBS	No	474.249825	314.562840	743.1	1.299	13.6	2.2	0.73	5162	1.97	0.28
008818096-04	OBS	No	183.095055	314.377691	2301.8	8.289	12.5	6.7	0.73	5162	5.11	1.00
008818096-05	OBS	No	217.595573	331.699887	513.0	9.774	24.0	4.9	0.73	5162	1.76	0.79
008818096-06	OBS	No	223.717838	346.833765	752.1	11.969	9.6	5.2	0.73	5162	2.05	0.77
008818096-07	OBS	No	235.735171	315.143992	1738.0	12.000	14.3	-1.0	0.73	5162	2.96	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

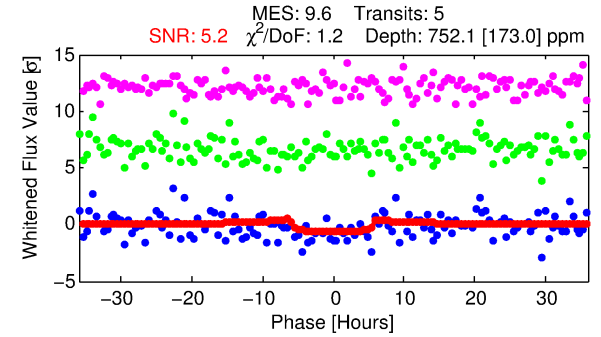
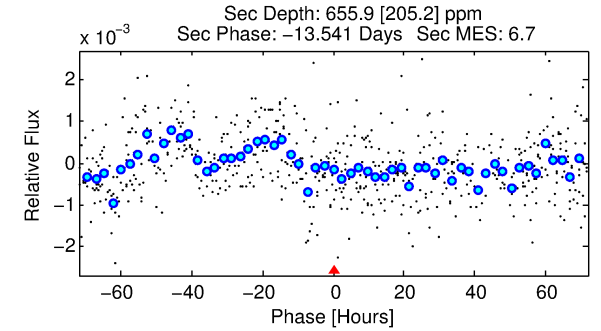
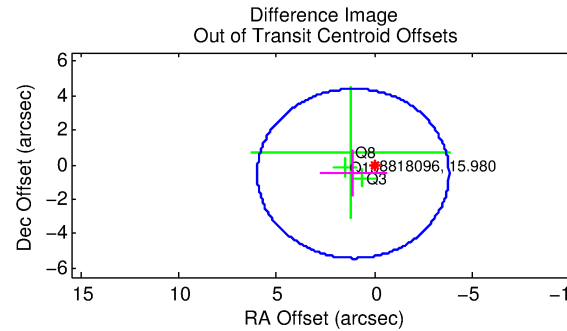
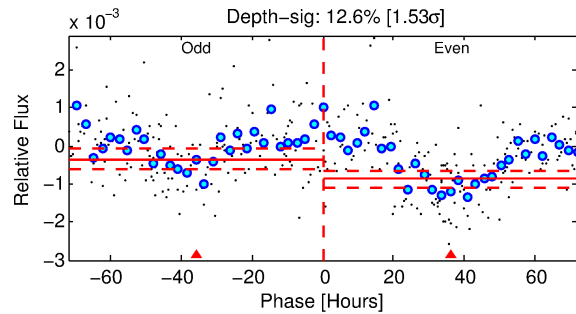
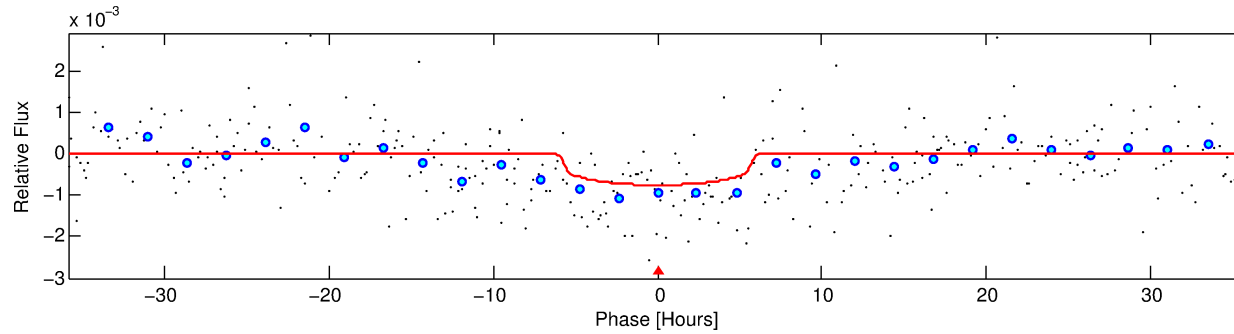
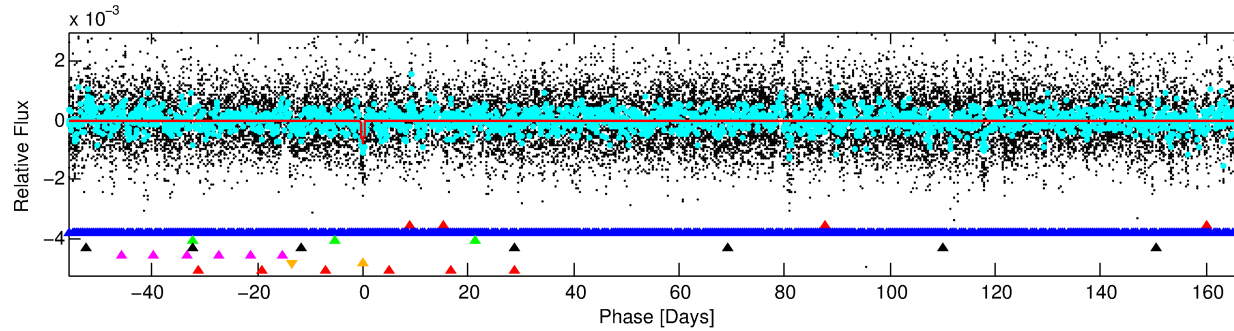
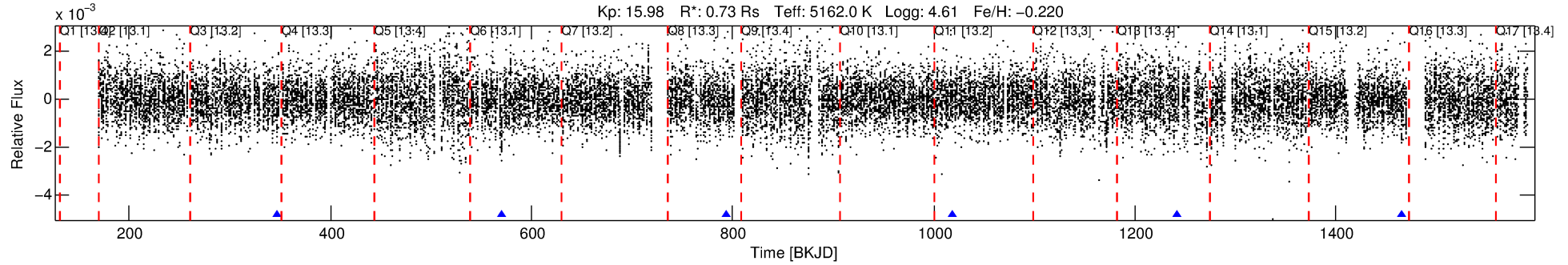
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818096-06

No Significant Match Found

DV One-Page Summary

KIC: 8818096 Candidate: 6 of 7 Period: 223.718 d



DV Fit Results:

Period = 223.71784 [0.00926] d
Epoch = 346.8338 [0.0225] BKJD
Rp/R* = 0.0258 [0.0296]
a/R* = 122.27 [511.41]
b = 0.56 [5.12]
Seff = 0.77 [0.15]
Teq = 238 [11] K
Rp = 2.05 [2.37] Re
a = 0.6647 [0.0711] AU
Ag = 37920.16 [88212.43] [0.43 σ]
Teffp = 5145 [2990] K [1.64 σ]

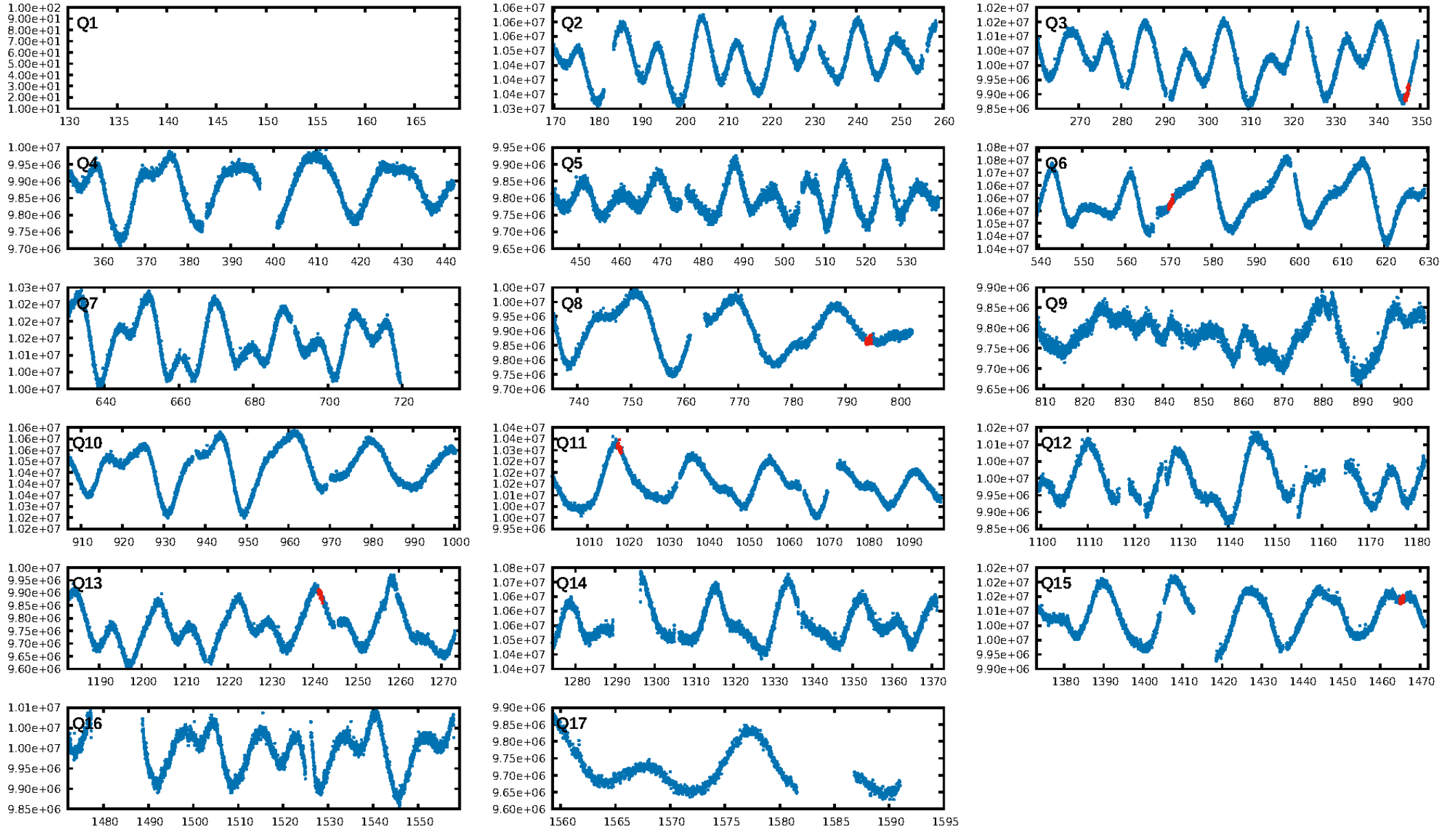
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.51 σ]
LongPeriod-sig: 100.0% [17.02 σ]
ModelChiSquare2-sig: 45.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.28e-11
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.4951
Centroid-sig: 0.3%
Centroid-so: 3.410 arcsec [2.31 σ]
OotOffset-rm: 1.201 arcsec [0.73 σ]
KicOffset-rm: 1.209 arcsec [0.73 σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/5]

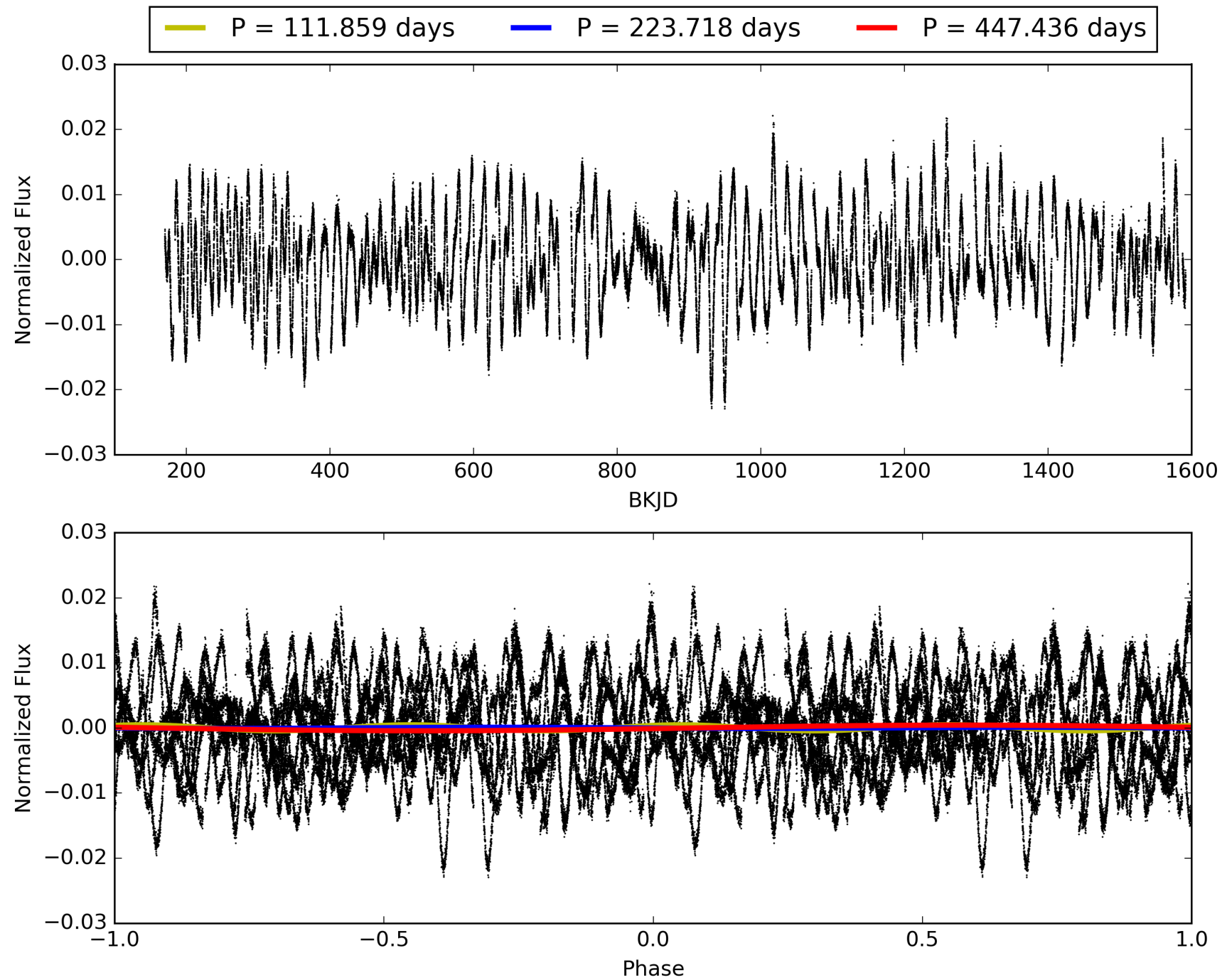
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:15:11 Z

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TCE 008818096-06, PDC Light Curves

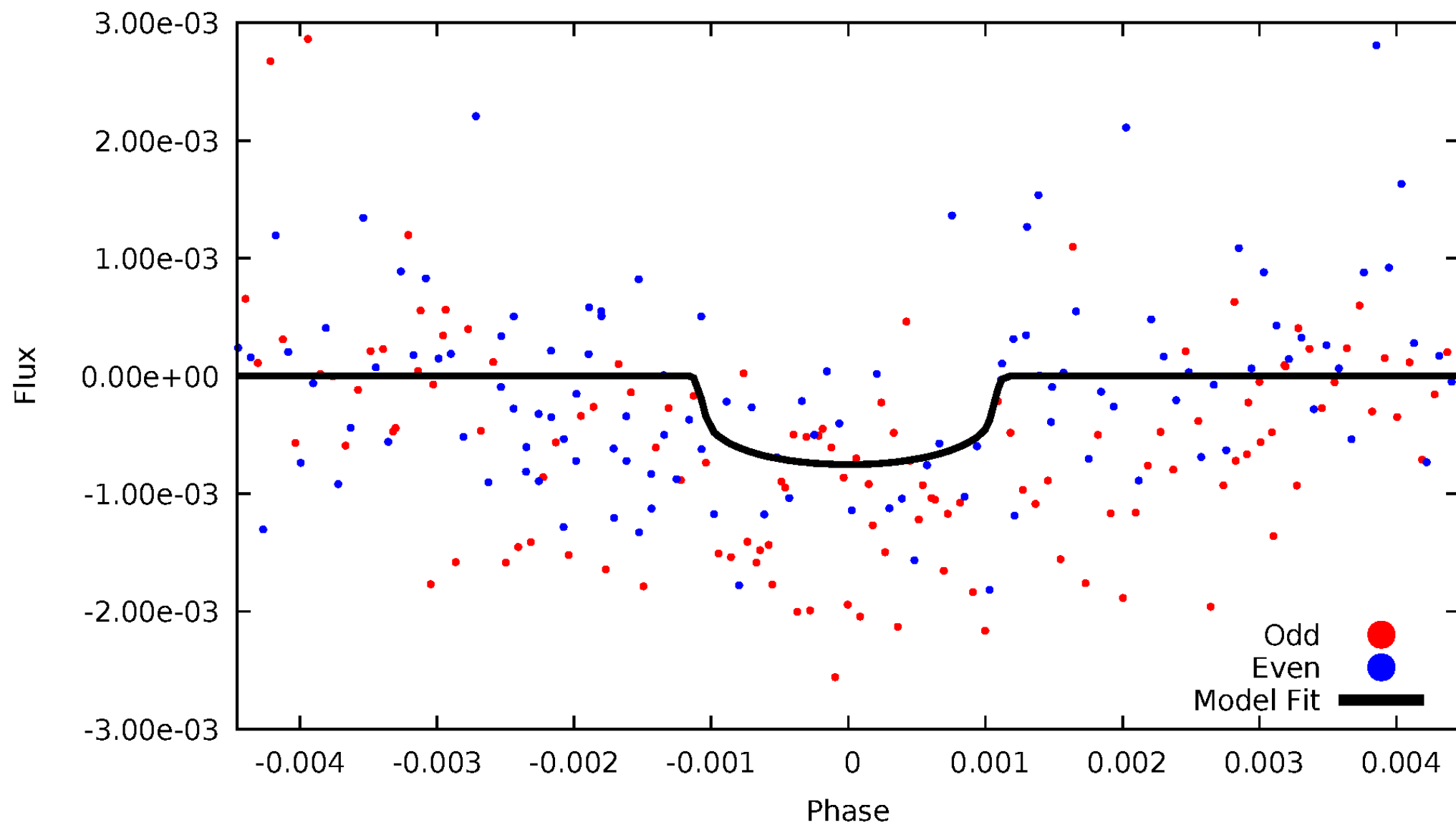


TCE 008818096-06



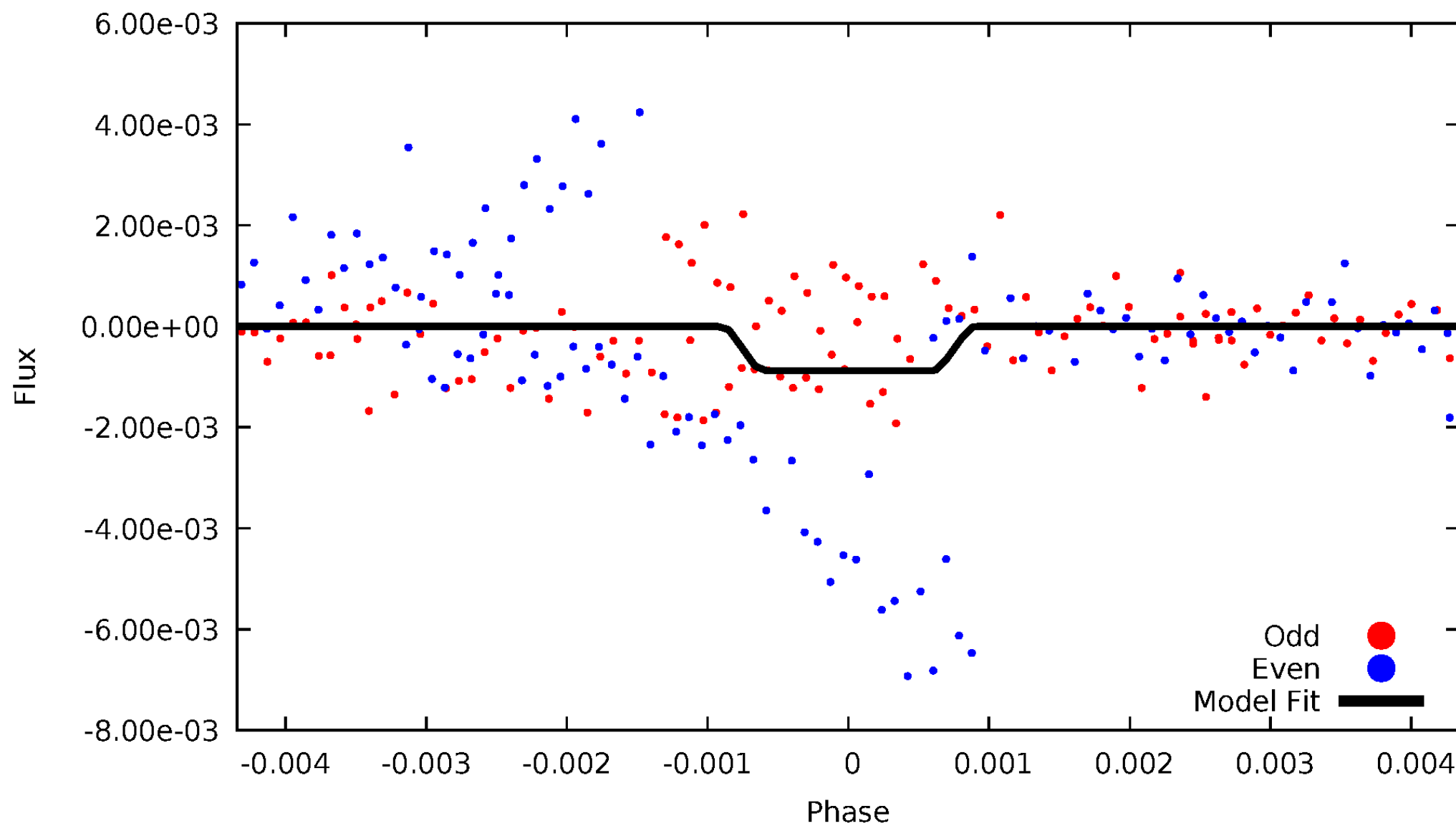
DV Odd/Even

TCE 008818096-06



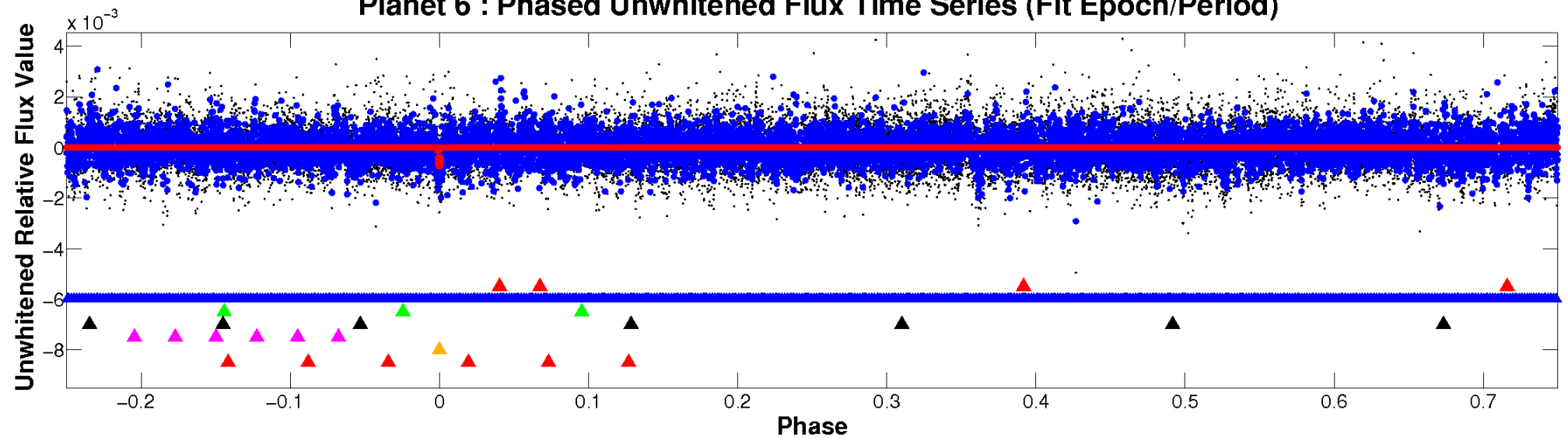
ALT Odd/Even

TCE 008818096-06

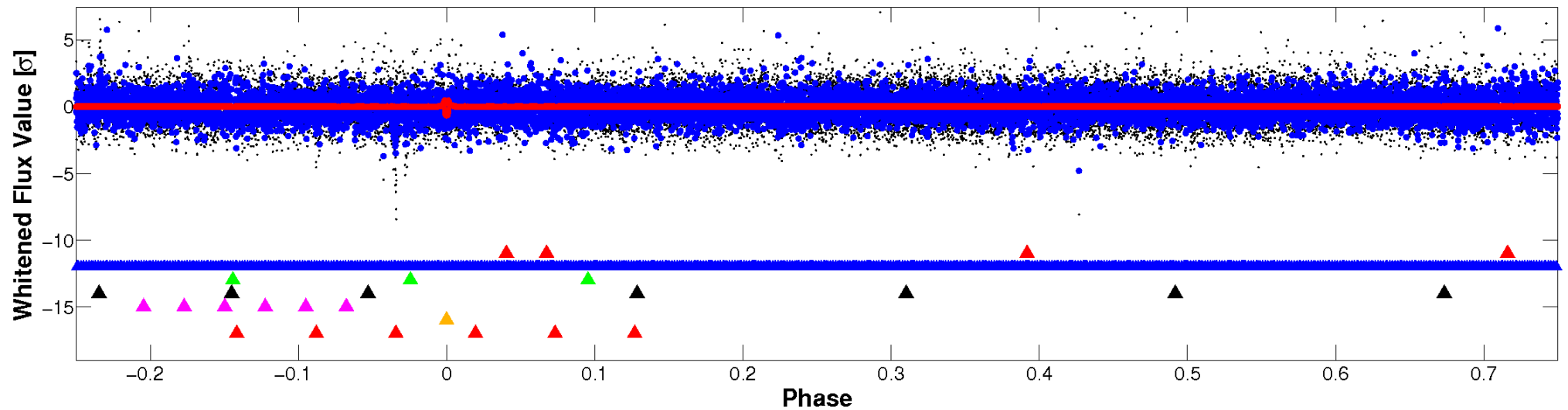


Non-Whitened Vs. Whitened Light Curve

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

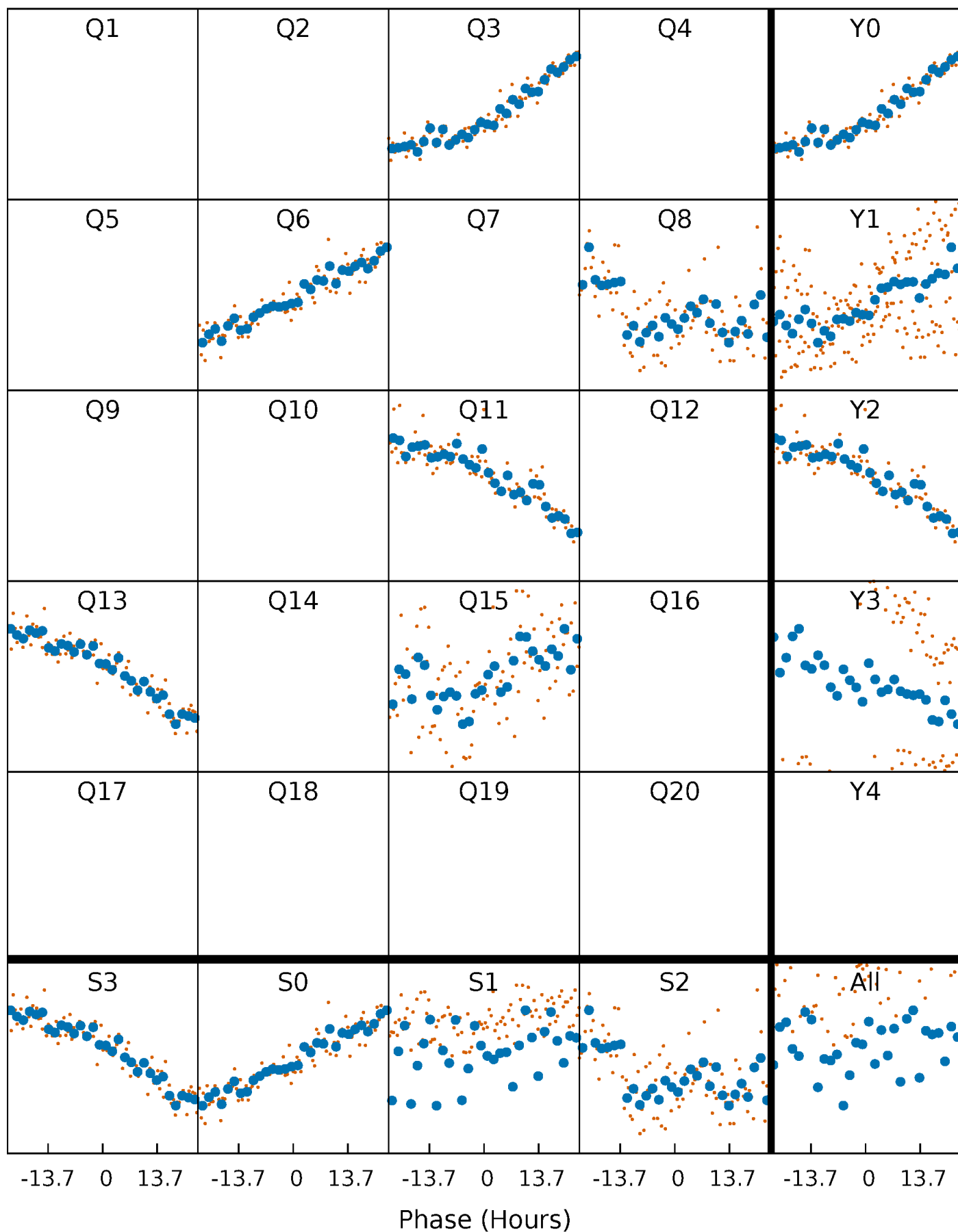


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



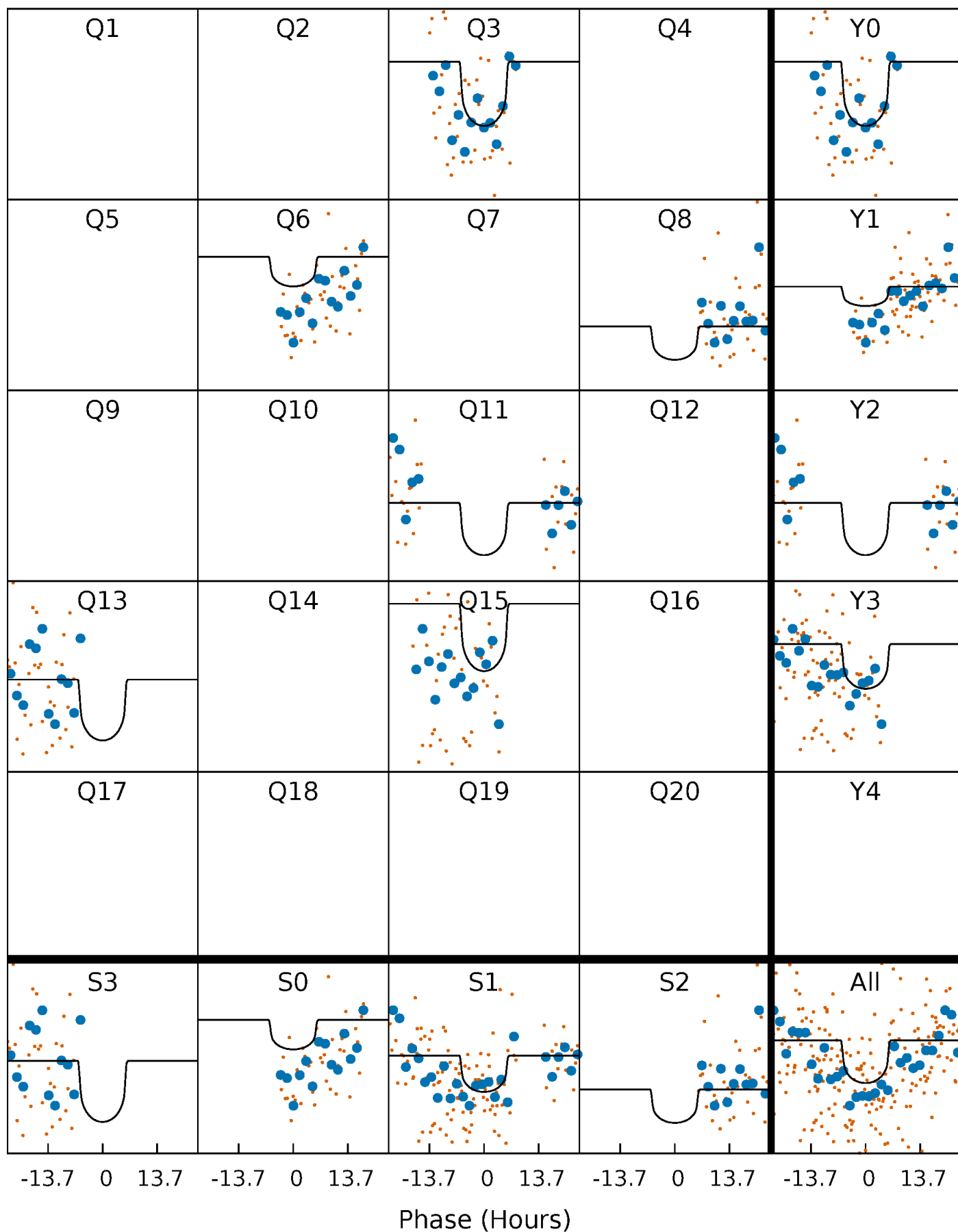
PDC Quarter-Phased Transit Curves

TCE 008818096-06 $P=223.717838$ Days $T_0=346.833765$ (BKJD)



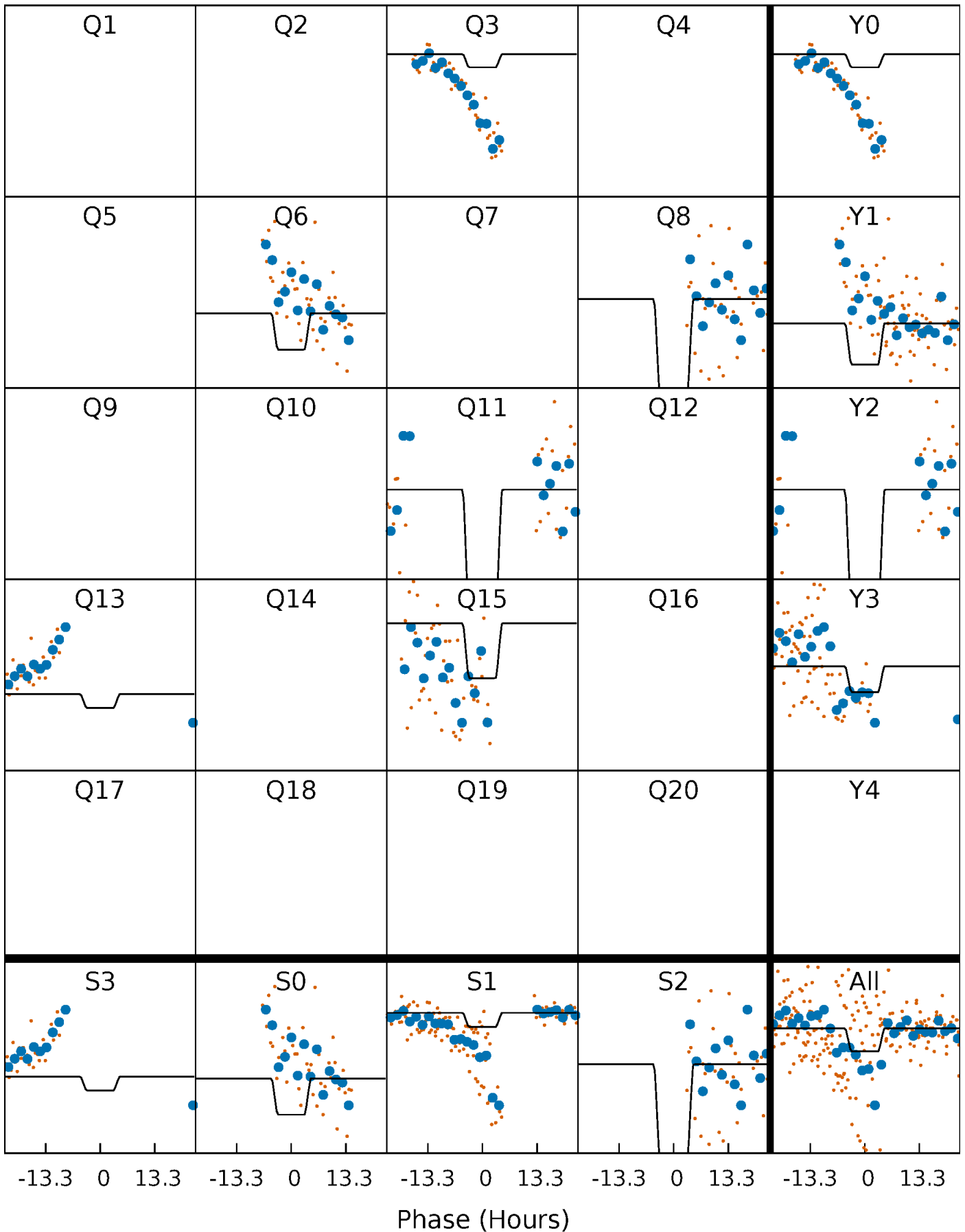
DV Quarter-Phased Transit Curves

TCE 008818096-06 P=223.717838 Days $T_0=346.833765$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

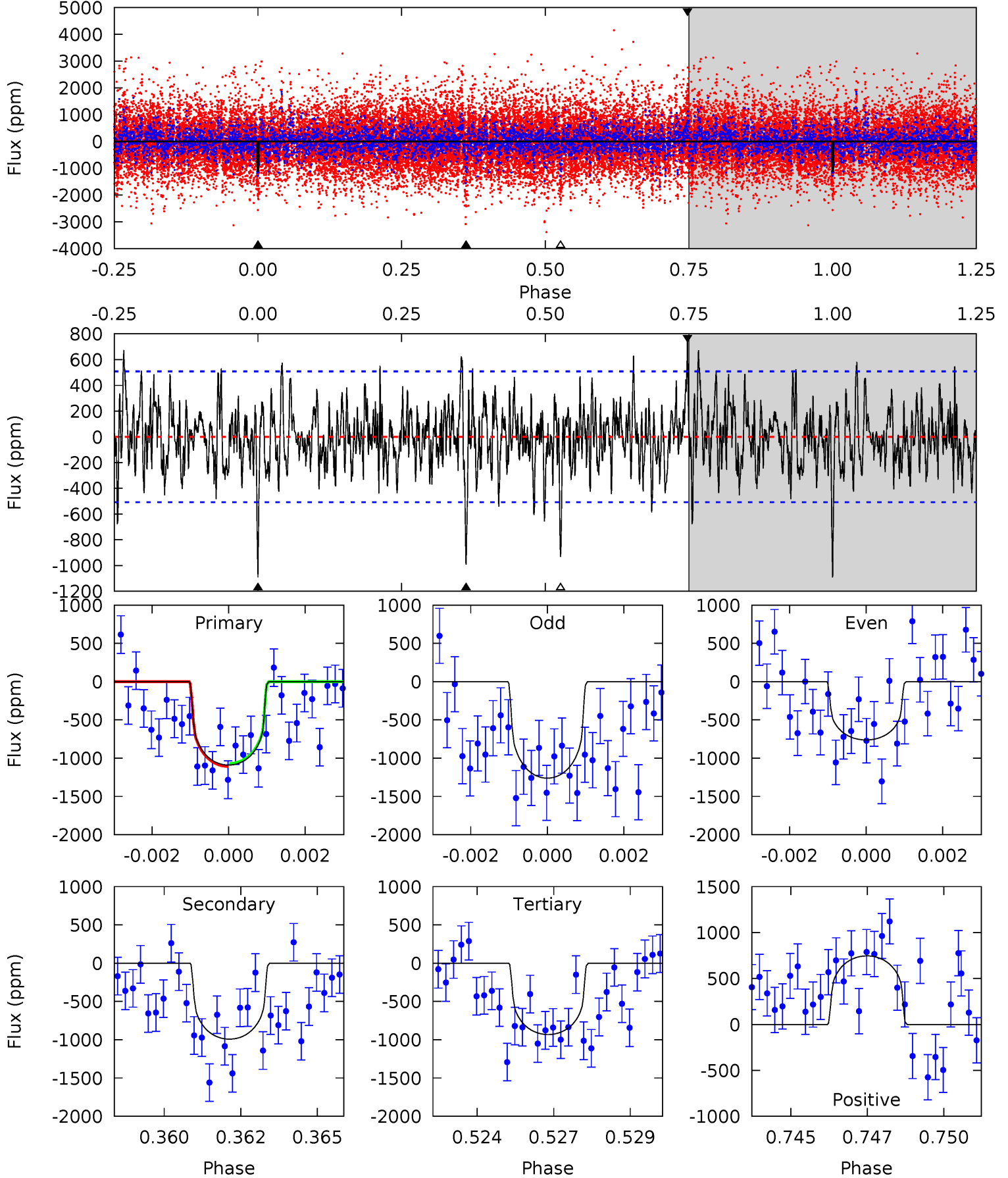
TCE 008818096-06 P=223.706615 Days $T_0=346.970164$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-06, P = 223.717838 Days, E = 123.115927 Days

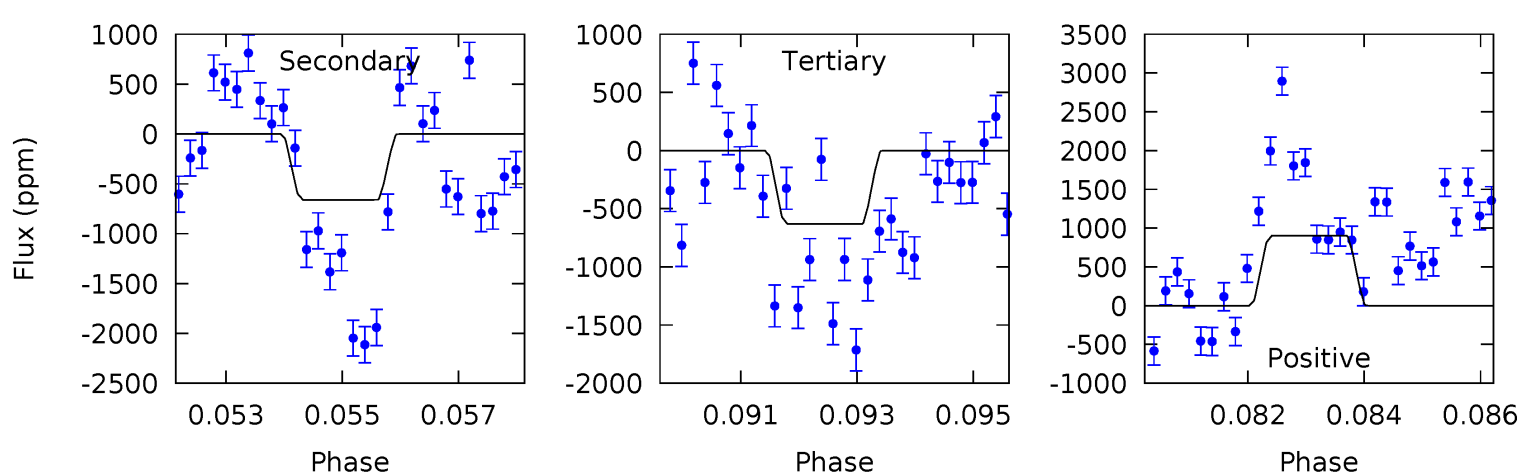
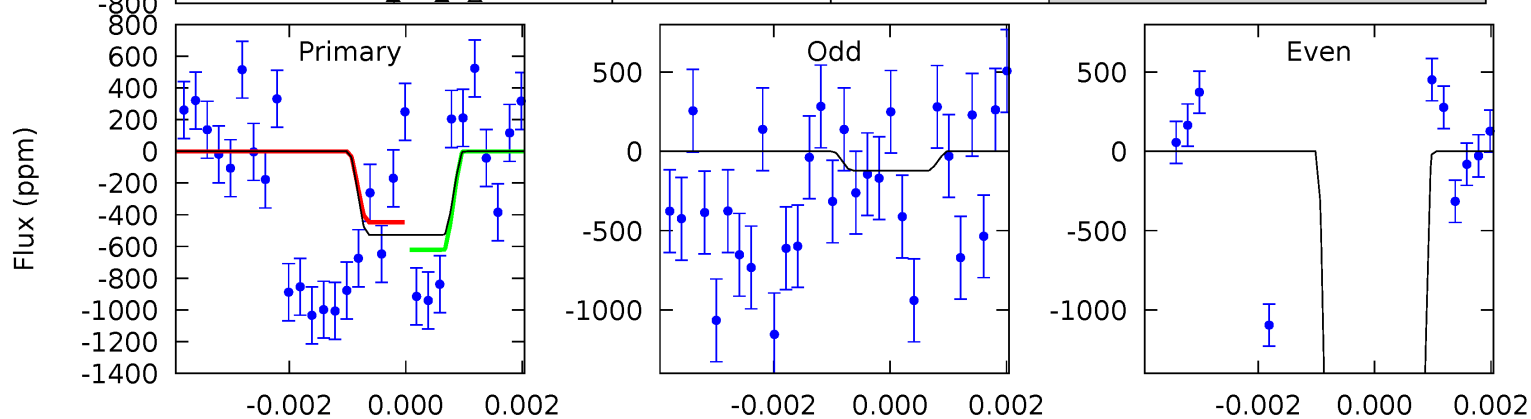
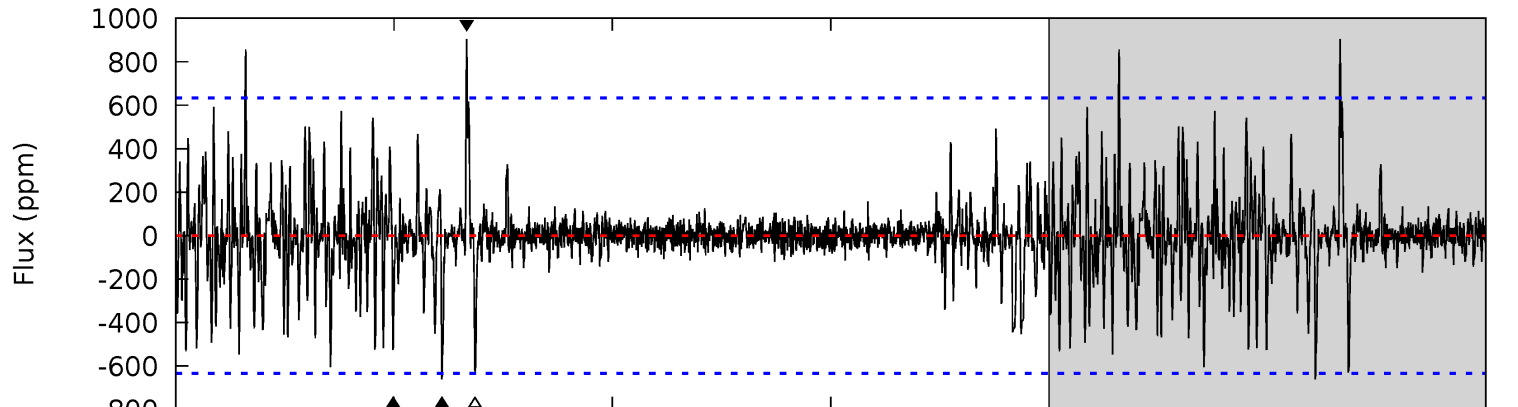
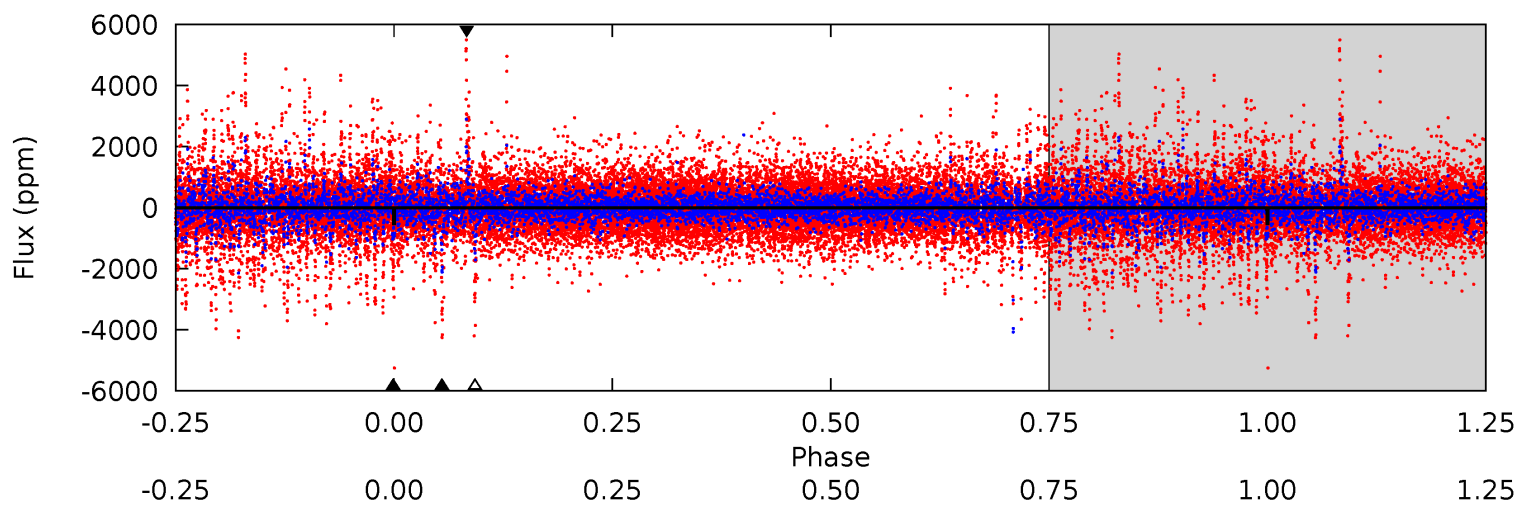
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	10.4	9.73	7.78	5.31	3.05	2.15	1.65	3.59	0.63	2.57	2.54	1.26	0.41	0.20



Alt Model-Shift Uniqueness Test

008818096-06, P = 223.706615 Days, E = 123.263549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.44	5.58	5.32	7.62	5.34	3.12	1.09	-0.88	-3.18	0.25	-2.05	18.1	2.45	0.58	0.74



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-992 ± 96	$2.67^{+2.16}_{-1.76}$	336^{+14}_{-13}	5037^{+3730}_{-1023}	$33400^{+251689}_{-23284}$
Alt.	-661 ± 119	$2.86^{+2.12}_{-1.69}$	337^{+13}_{-13}	4513^{+2347}_{-825}	$19156^{+100338}_{-12703}$

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 $A_{obs} \gg 1.0$

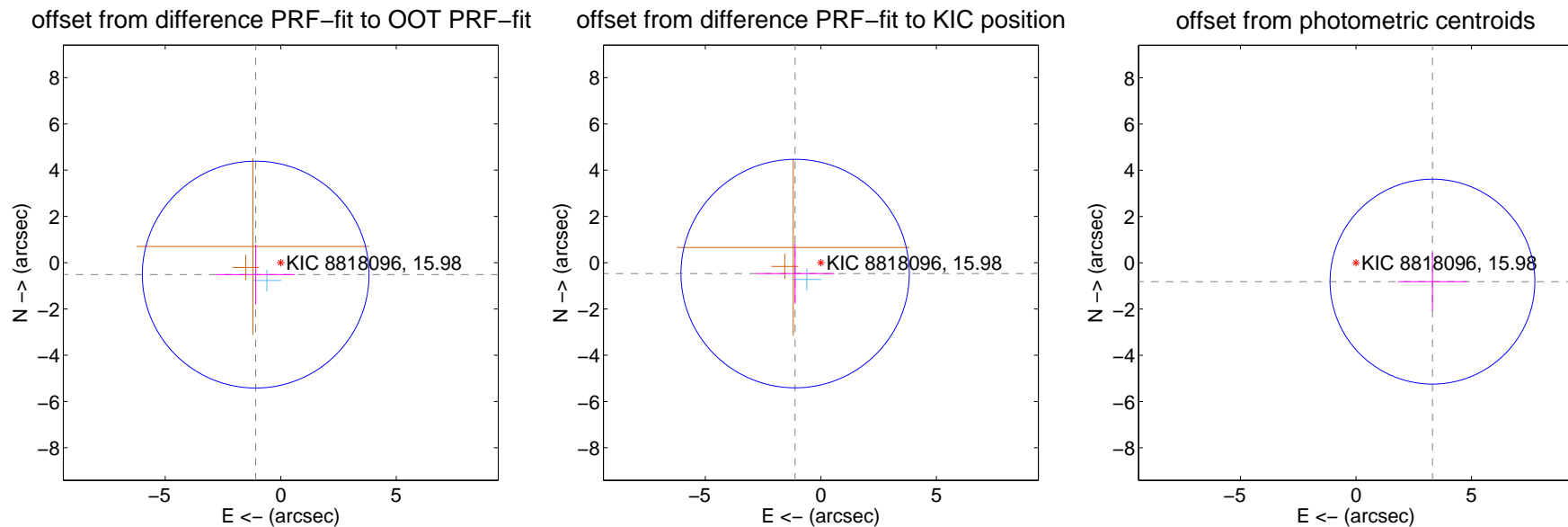
DV Centroid Data

Supplemental centroid analysis for 008818096-06. Kepler magnitude: 15.98. Transit SNR 5.20

There are 1 quarters with good PRF difference image offsets

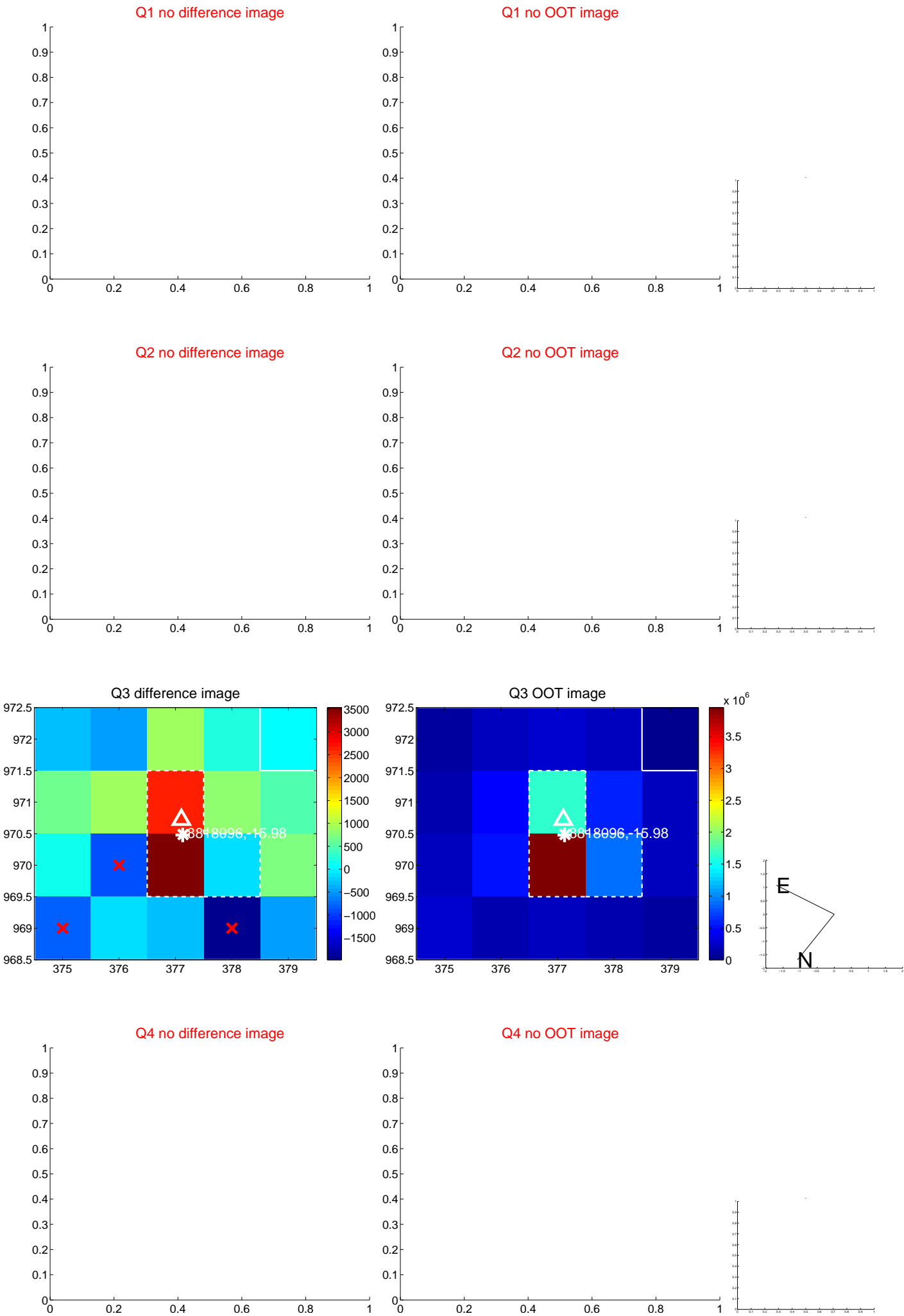
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.201 ± 1.635	0.73	1.085 ± 1.701	-0.515 ± 1.299
PRF-fit source offset from KIC position	1.209 ± 1.646	0.73	1.114 ± 1.701	-0.471 ± 1.299
photometric centroid source offset	3.41 ± 1.48	2.31	-3.31 ± 1.49	-0.82 ± 1.26

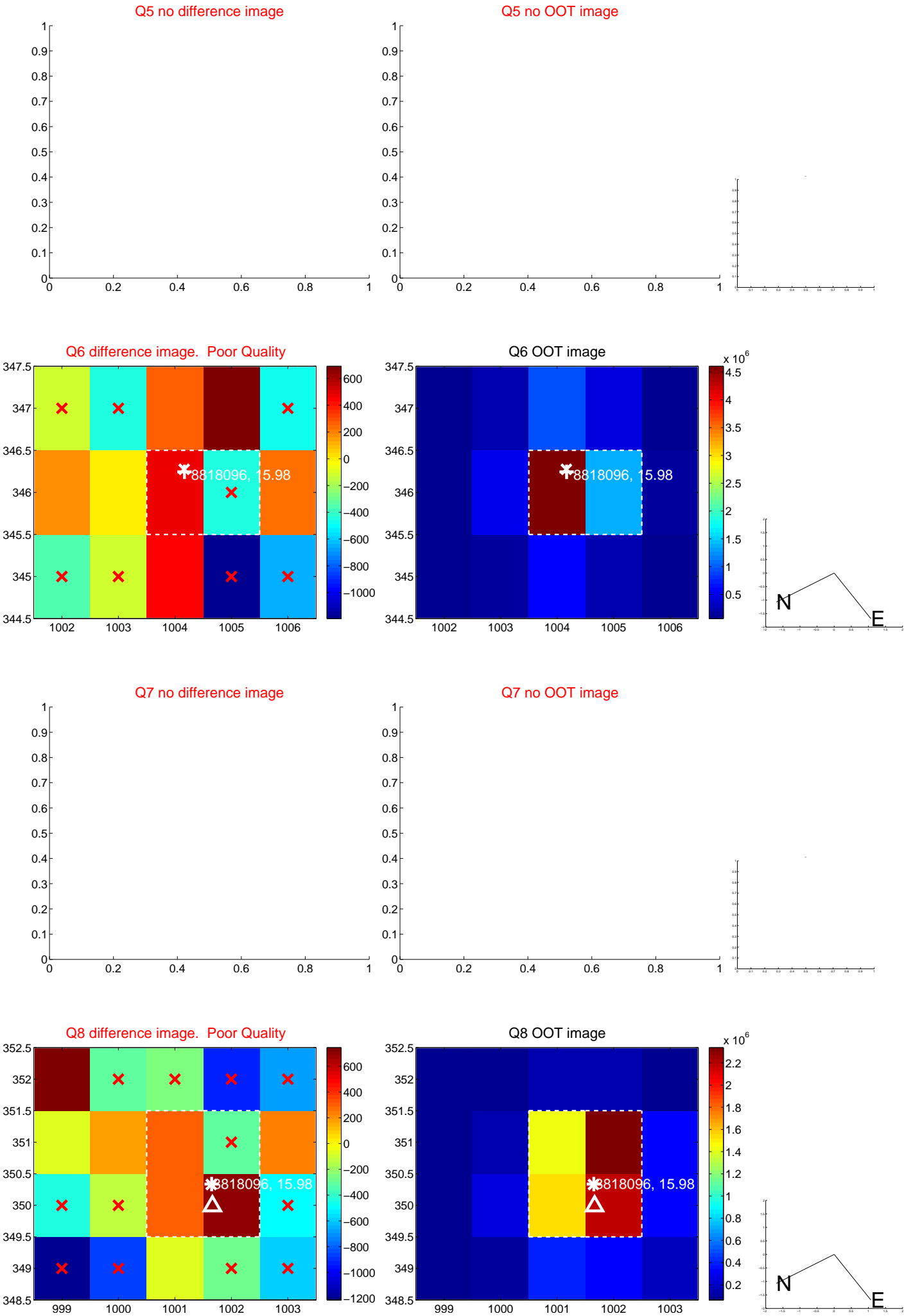


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

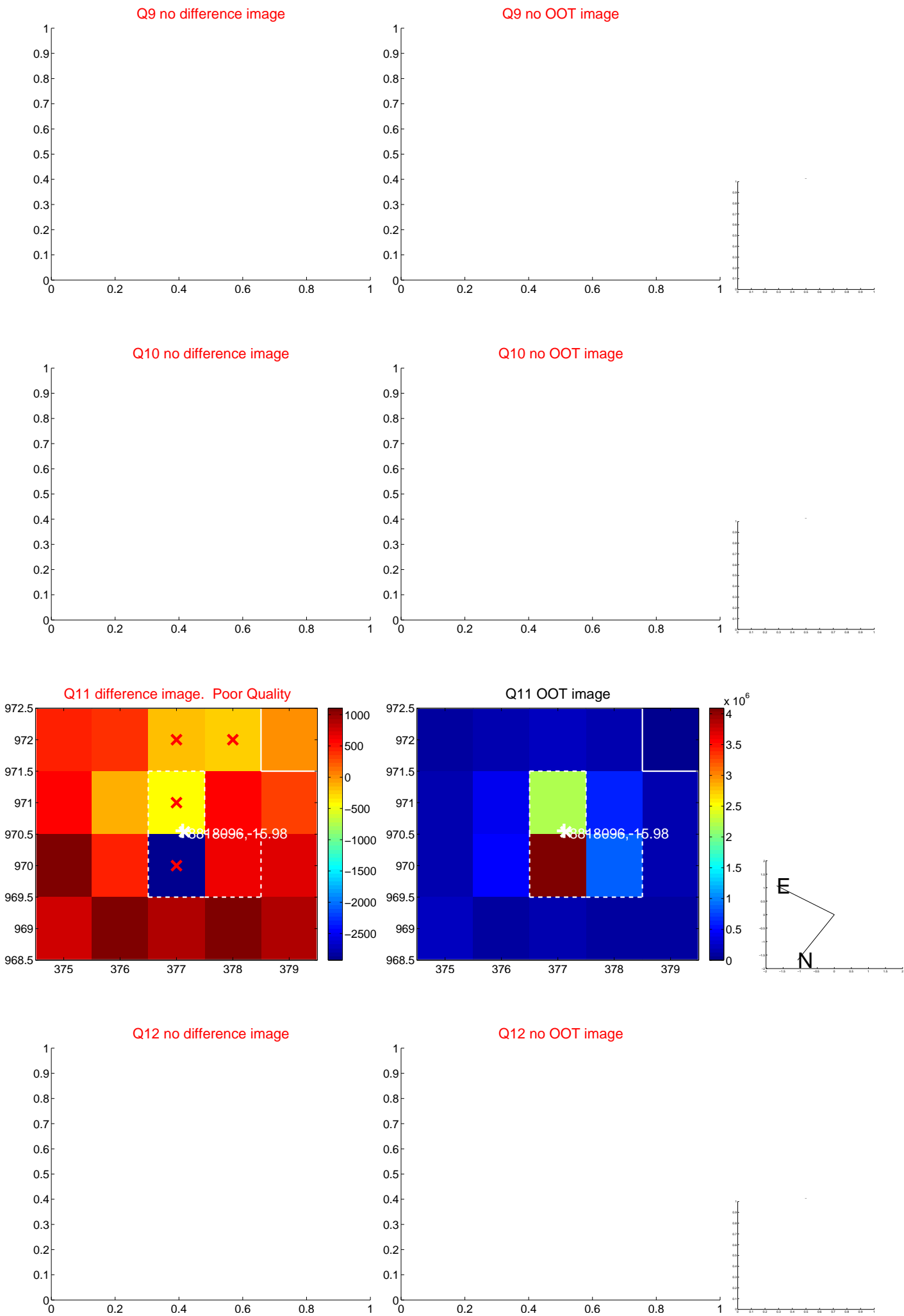
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



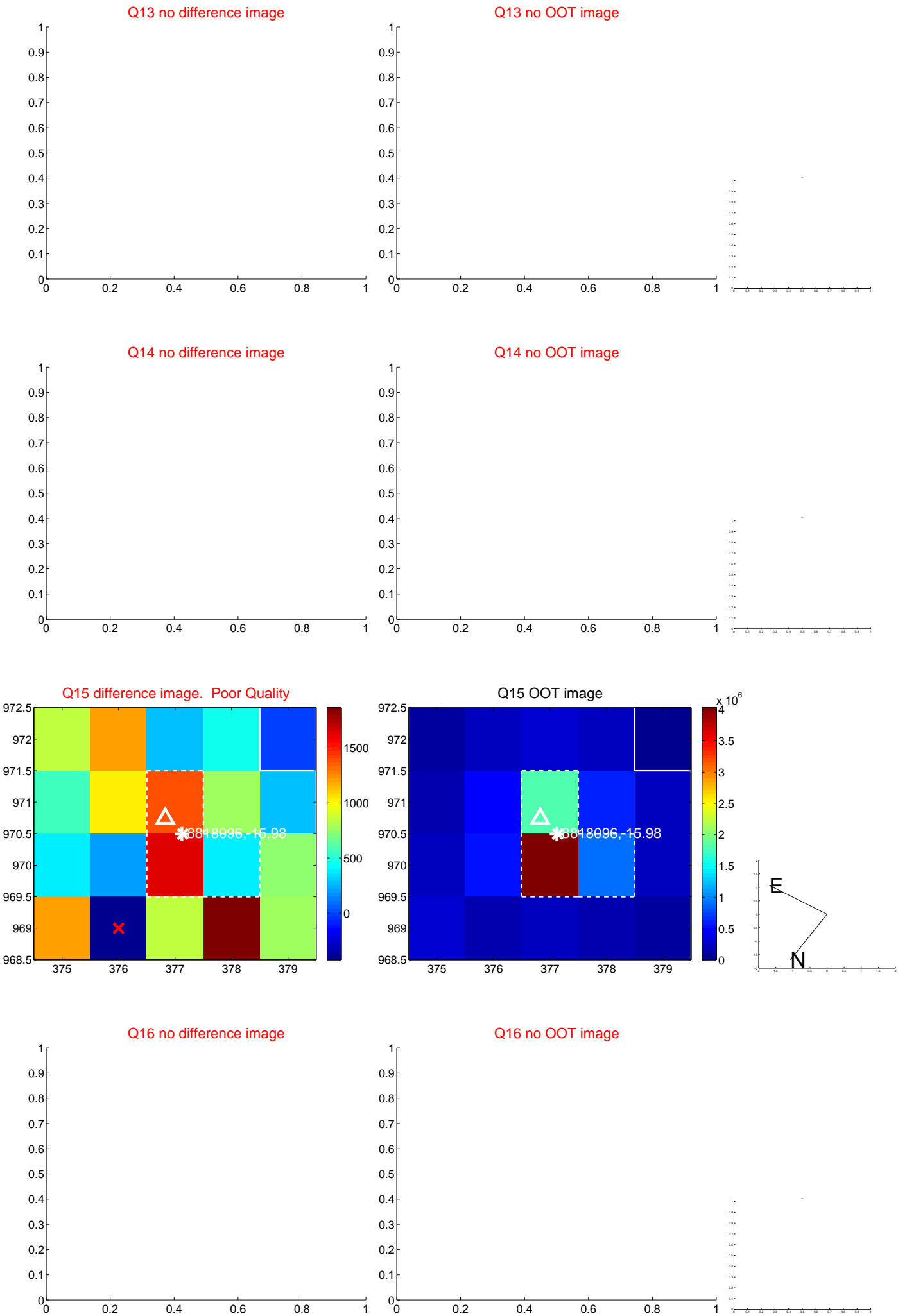
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



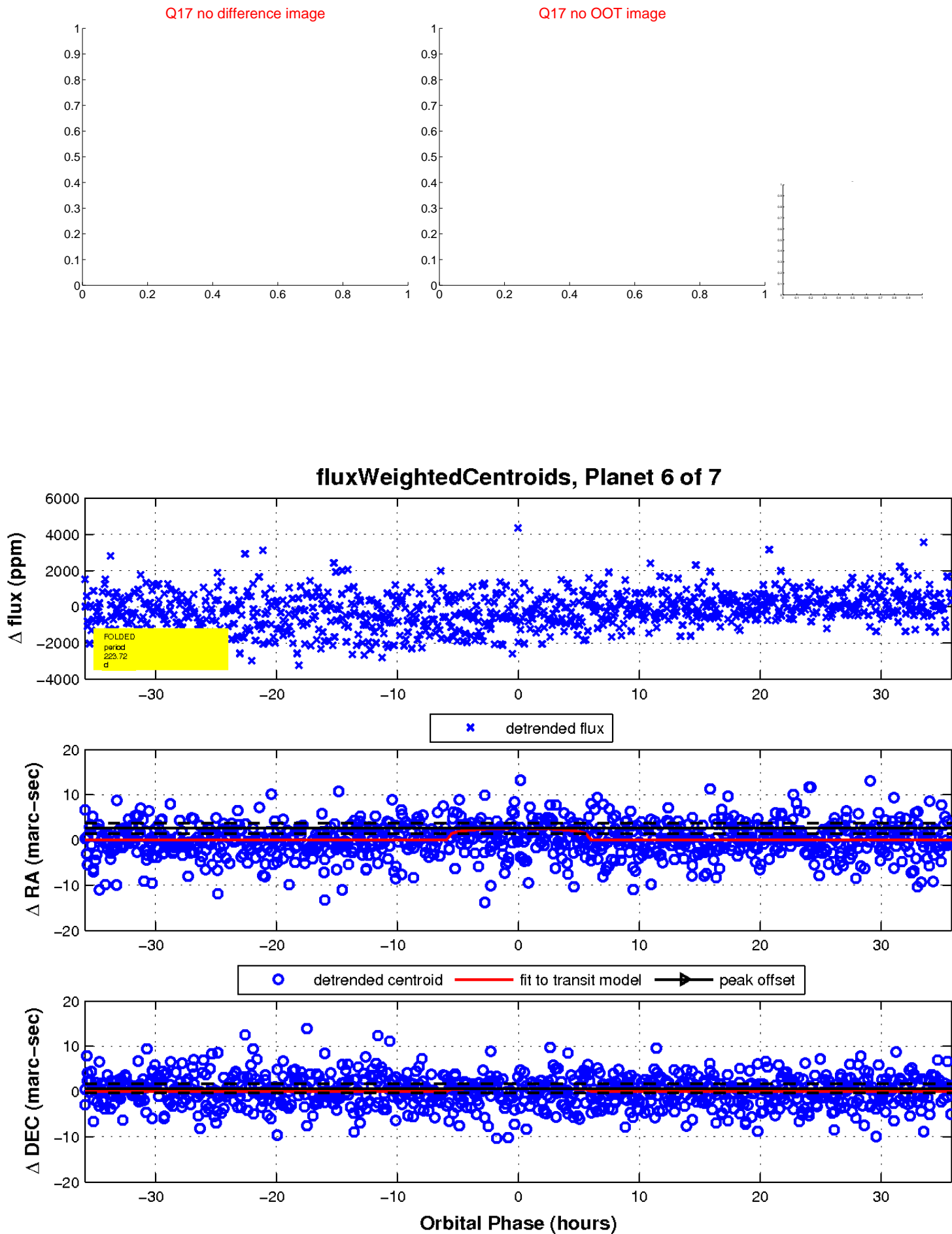
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

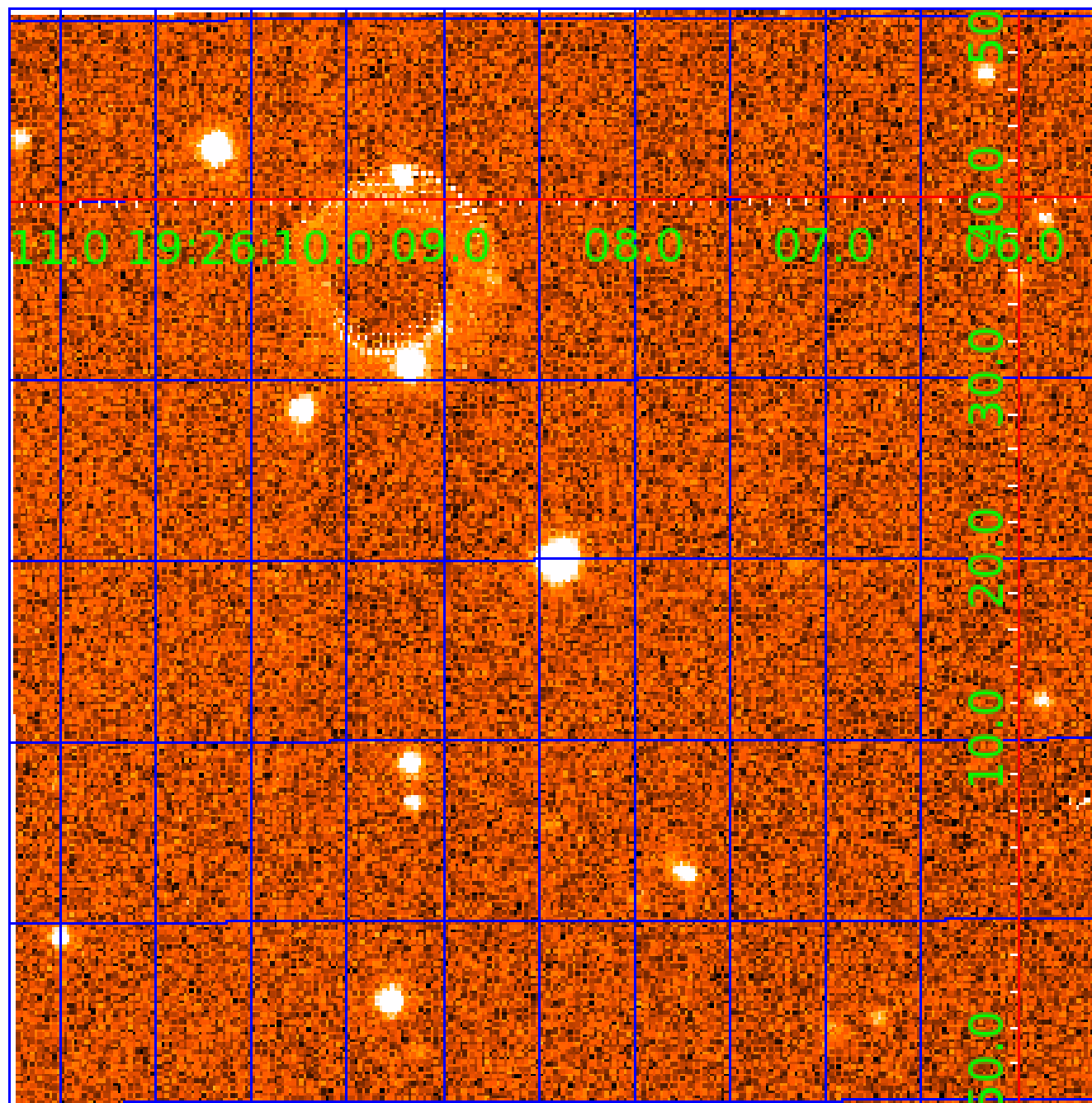


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008818096

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})
008818096-01	OBS	No	374.882489	132.153662	3243.7	41.417	8.9	10.6	0.73	5162	7.97	0.38
008818096-02	OBS	No	2.175893	132.394093	86.9	9.979	7.7	7.8	0.73	5162	0.82	368.53
008818096-03	OBS	No	474.249825	314.562840	743.1	1.299	13.6	2.2	0.73	5162	1.97	0.28
008818096-04	OBS	No	183.095055	314.377691	2301.8	8.289	12.5	6.7	0.73	5162	5.11	1.00
008818096-05	OBS	No	217.595573	331.699887	513.0	9.774	24.0	4.9	0.73	5162	1.76	0.79
008818096-06	OBS	No	223.717838	346.833765	752.1	11.969	9.6	5.2	0.73	5162	2.05	0.77
008818096-07	OBS	No	235.735171	315.143992	1738.0	12.000	14.3	-1.0	0.73	5162	2.96	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008818096-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-02	OBS	FP	0.00	1	0	0	1	LPP_DV—EPHEM_MATCH
008818096-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008818096-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
008818096-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008818096-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

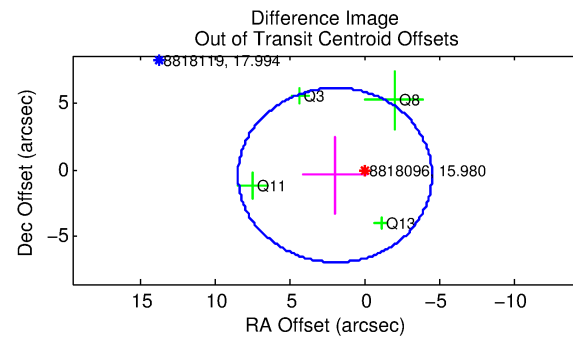
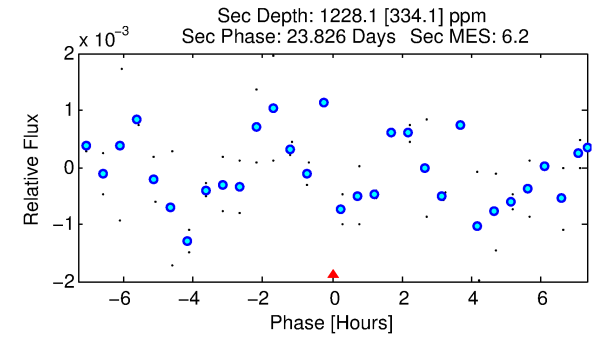
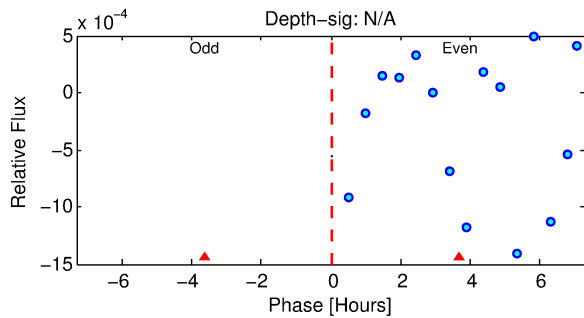
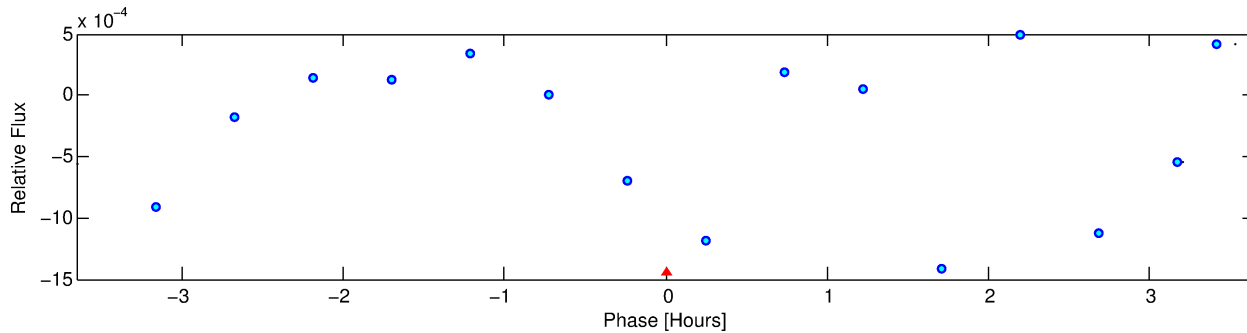
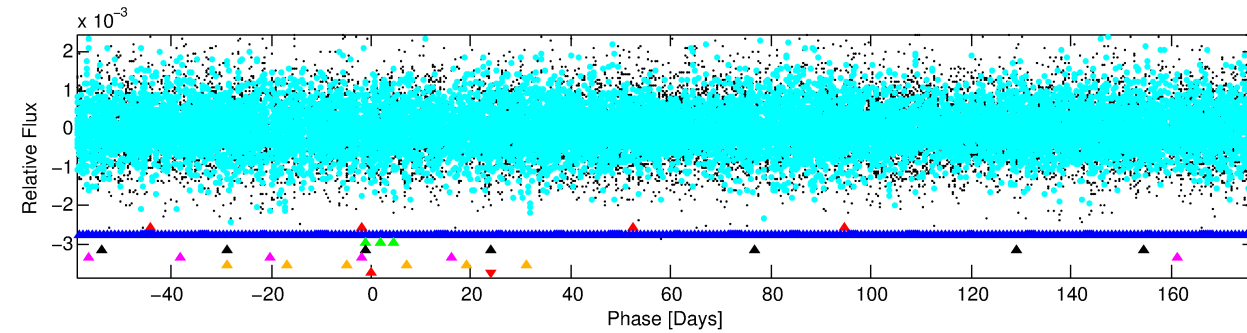
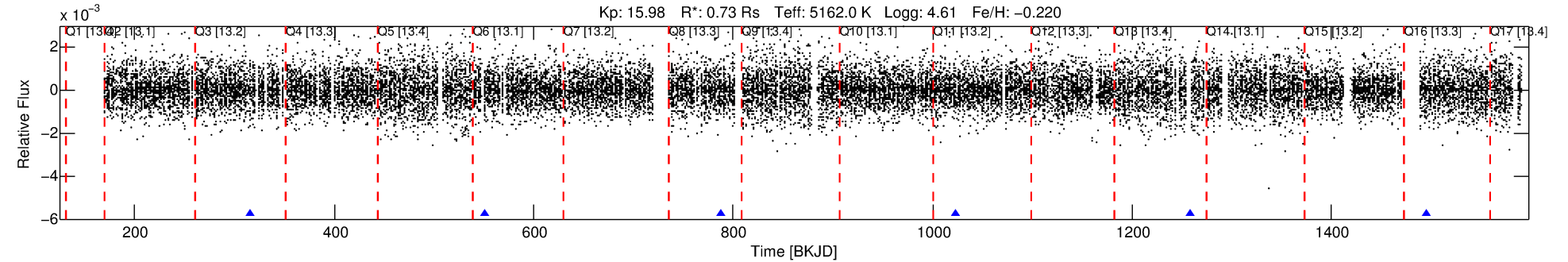
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008818096-07

No Significant Match Found

DV One-Page Summary

KIC: 8818096 Candidate: 7 of 7 Period: 235.735 d



TPS TCE Results:

Period = 235.73517 d
Epoch = 315.1440 BKJD

DV fit results are unavailable

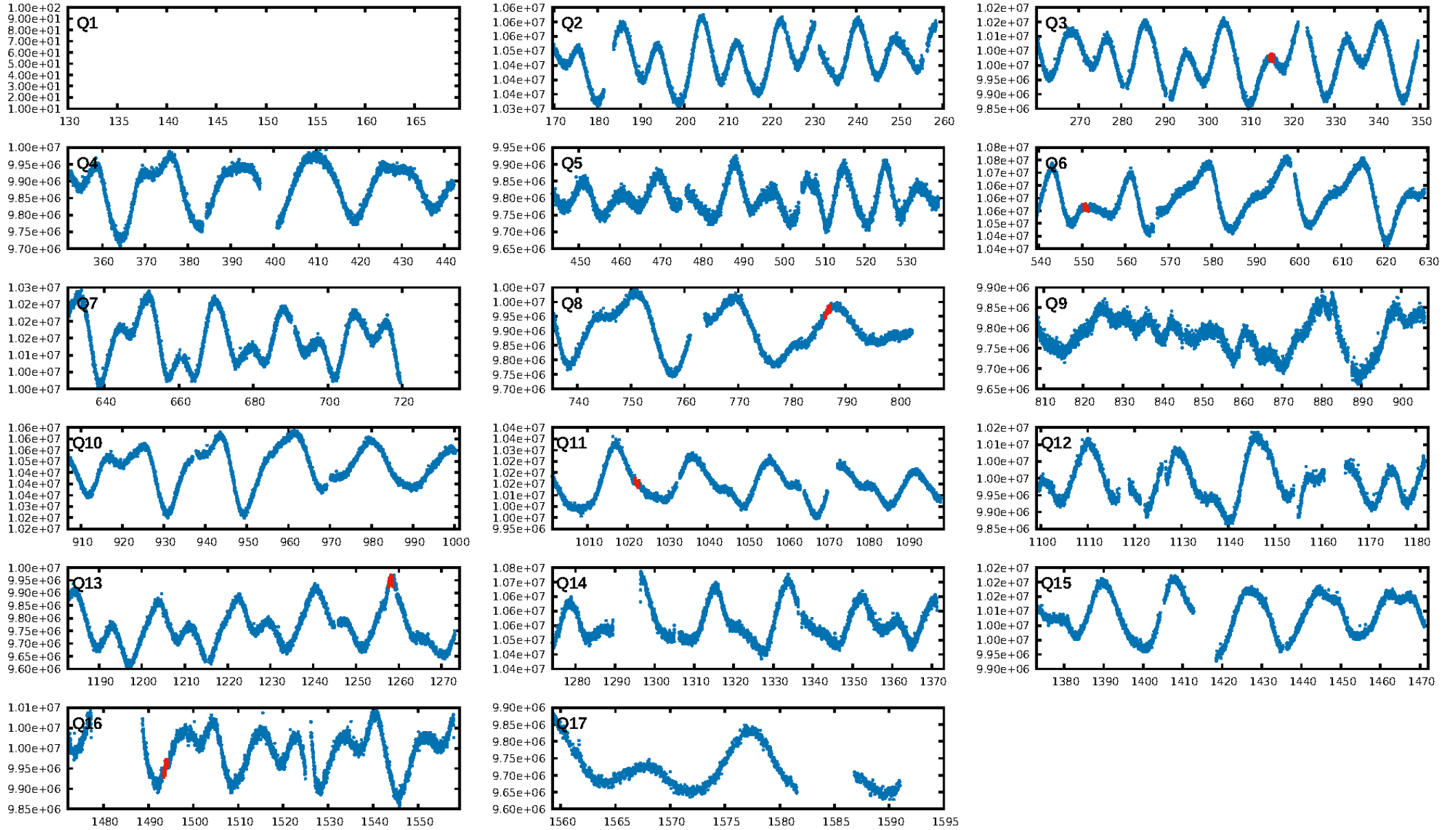
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [17.02σ]
LongPeriod-sig: 100.0% [77.45σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.66e-23
RollingBand-fgt: 1.00 [1/1]
GhostDiagnostic-chr: -0.8383
Centroid-sig: 1.1%
Centroid-so: 23.110 arcsec [1.81σ]
OotOffset-rm: 1.978 arcsec [0.91σ]
KicOffset-rm: 2.036 arcsec [0.94σ]
OotOffset-st: 0/2/1/1 [4]
KicOffset-st: 0/2/1/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.67 [4/6]

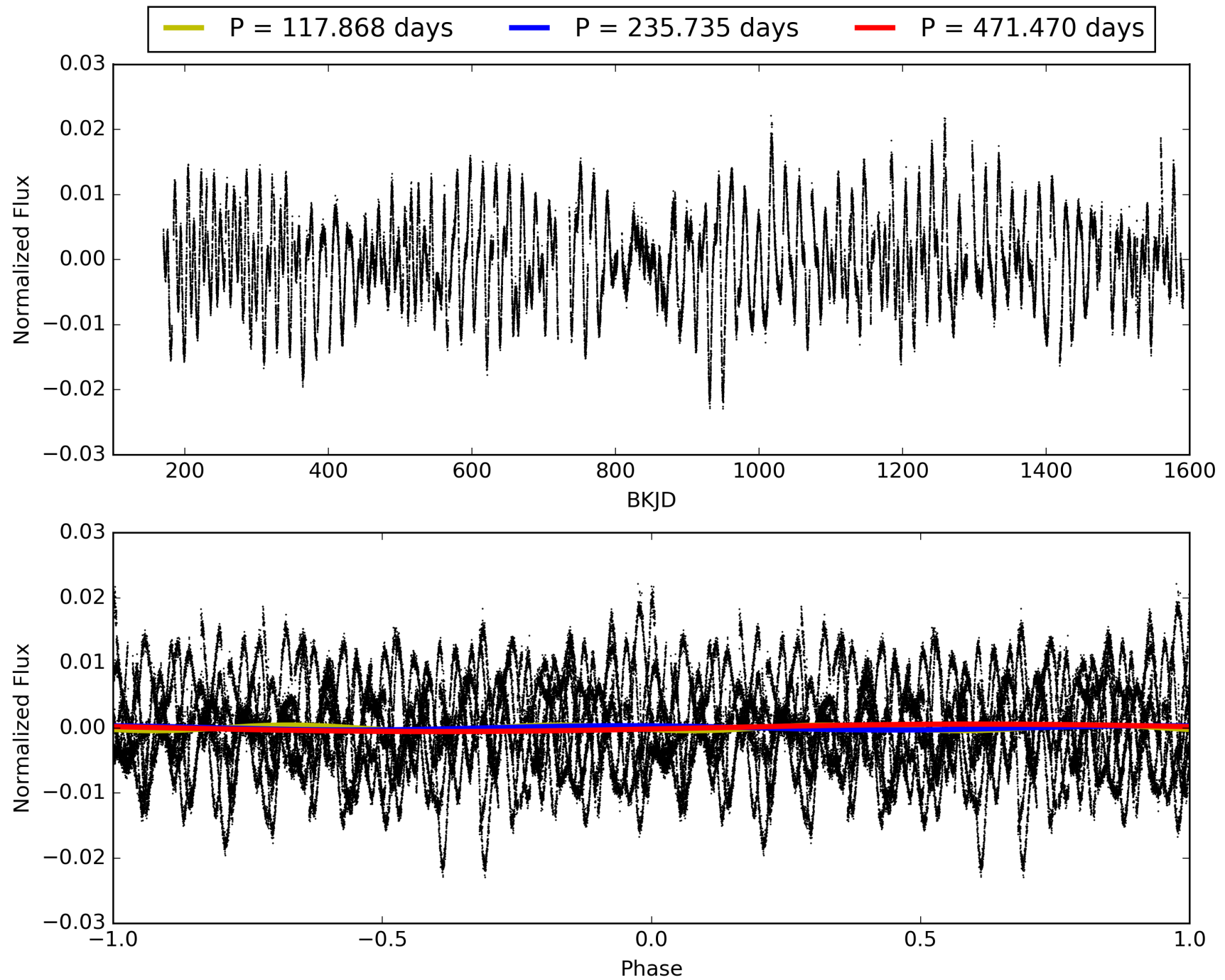
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:15:23 Z

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

TCE 008818096-07, PDC Light Curves

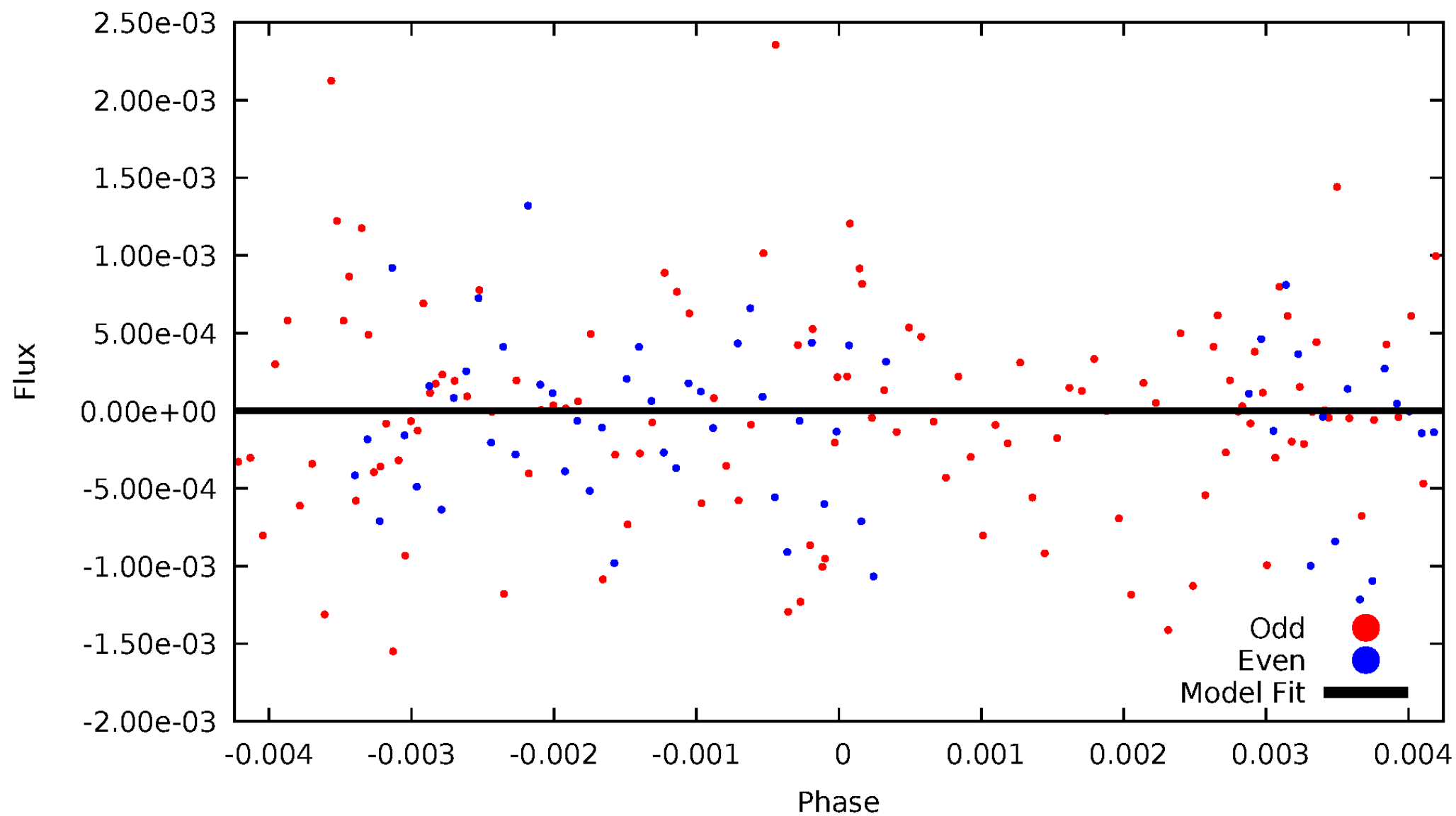


TCE 008818096-07



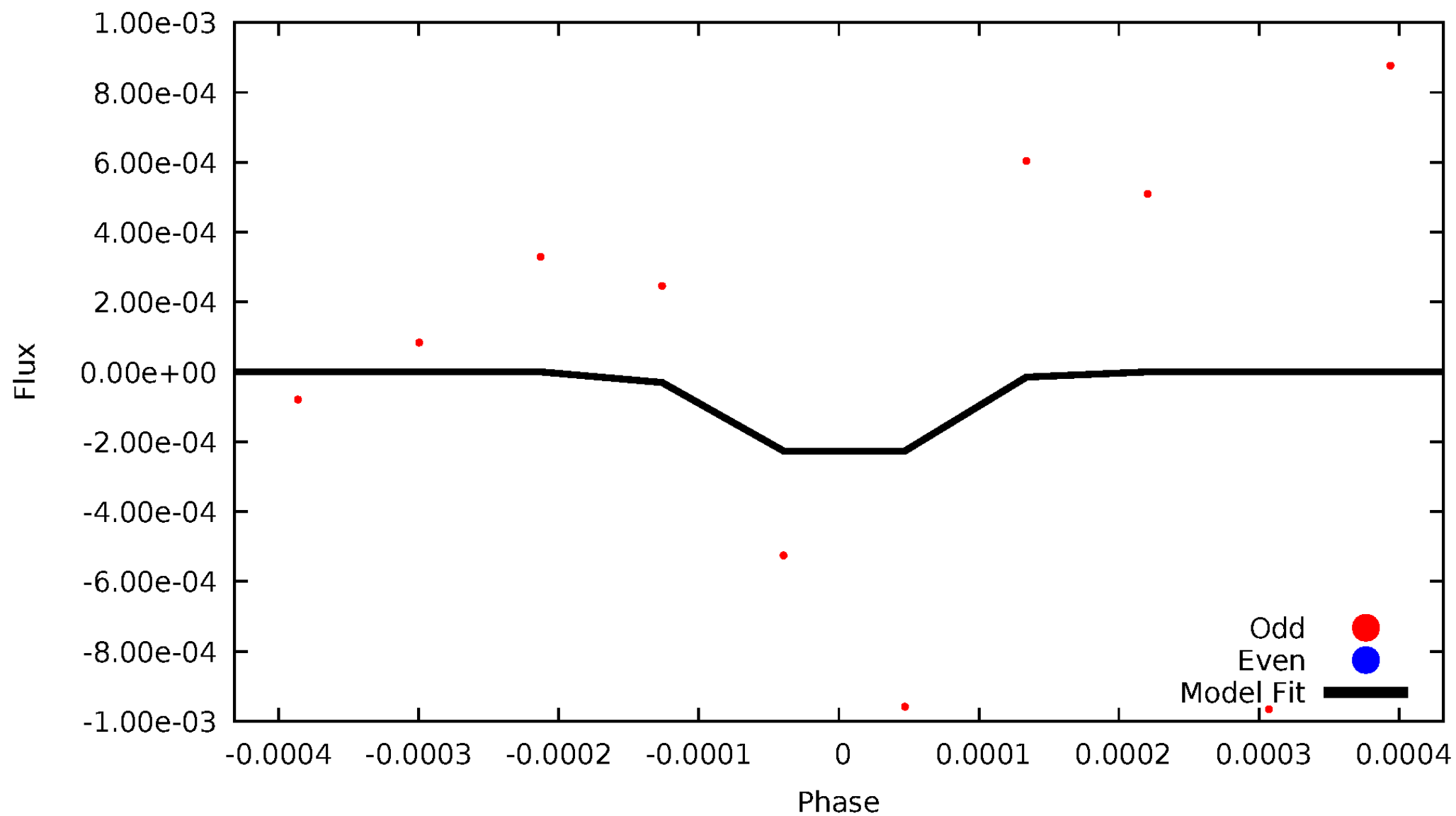
DV Odd/Even

TCE 008818096-07



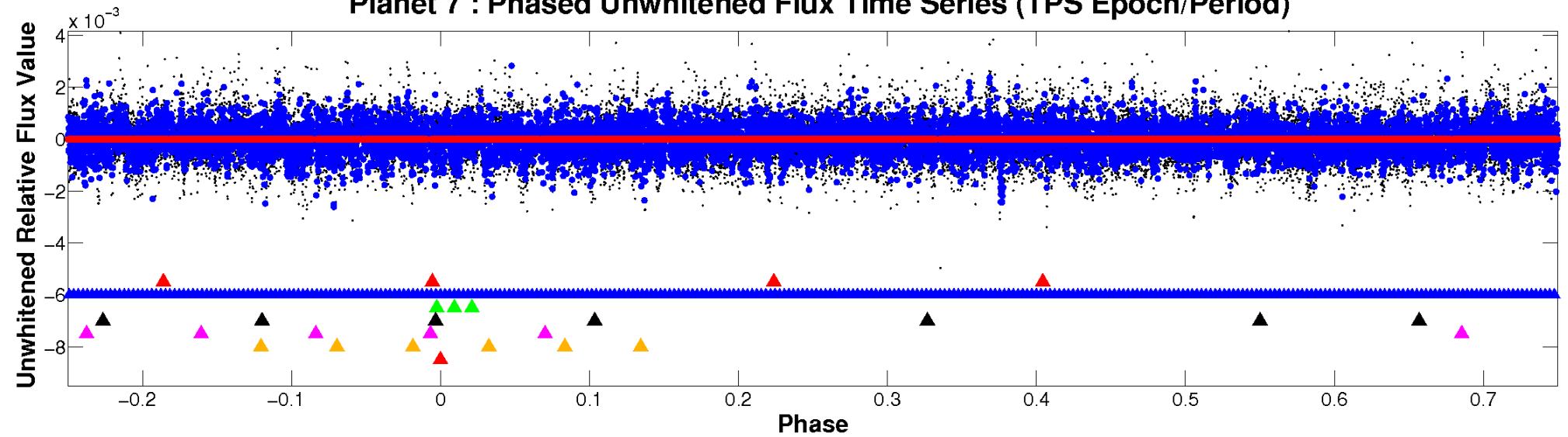
ALT Odd/Even

TCE 008818096-07

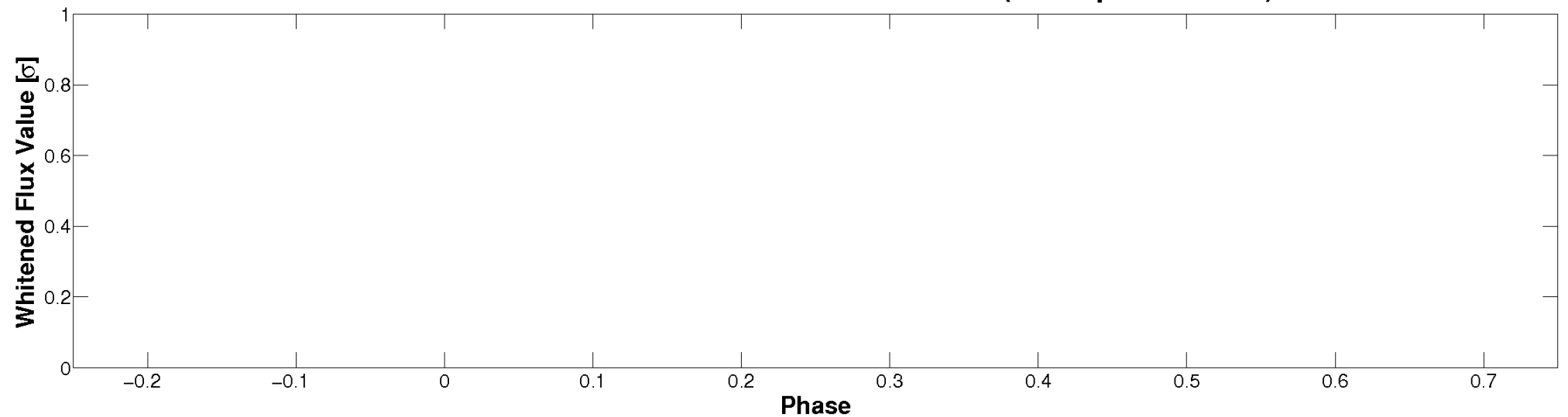


Non-Whitened Vs. Whitened Light Curve

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

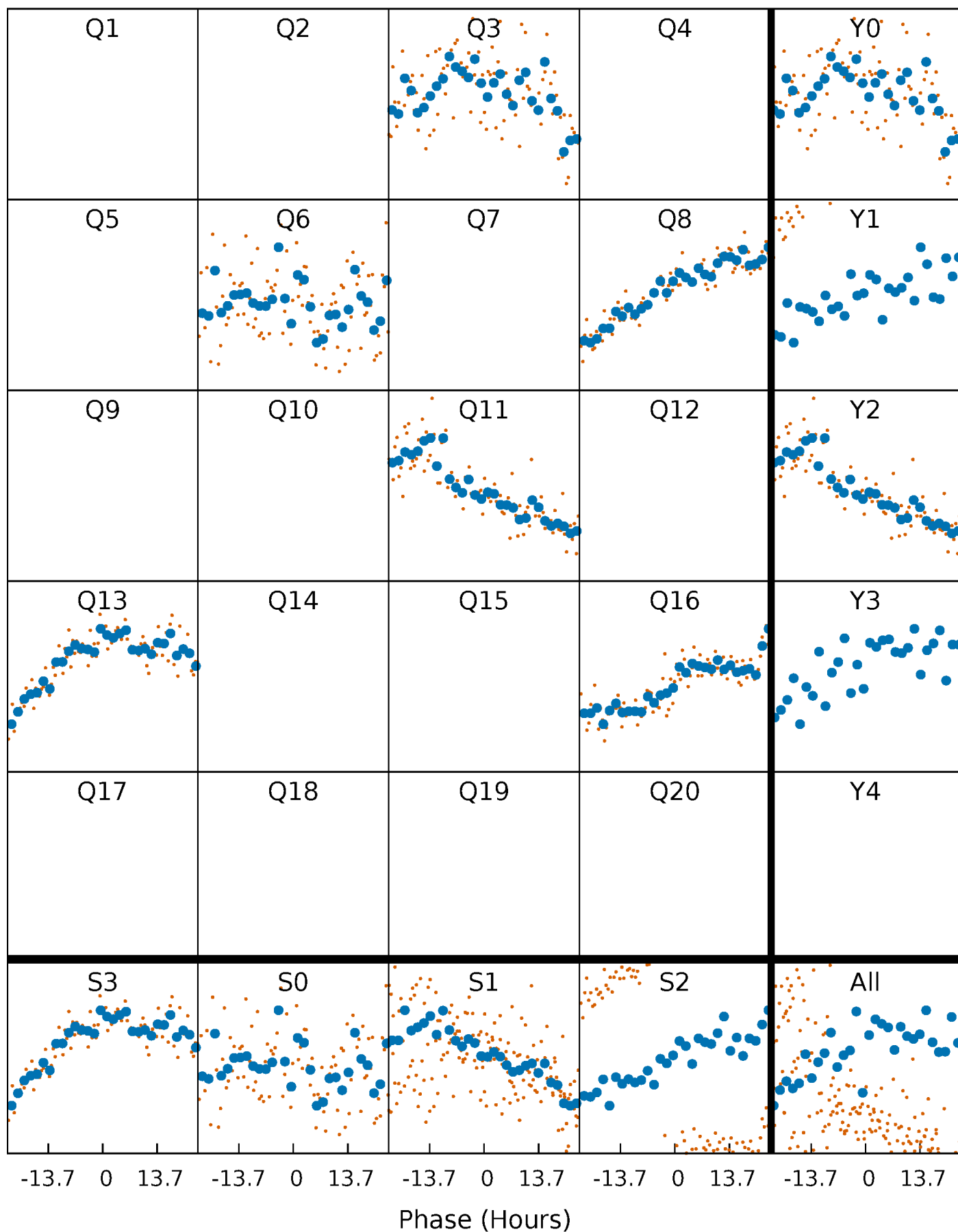


Planet 7 : Phased Whitened Flux Time Series (TPS Epoch/Period)



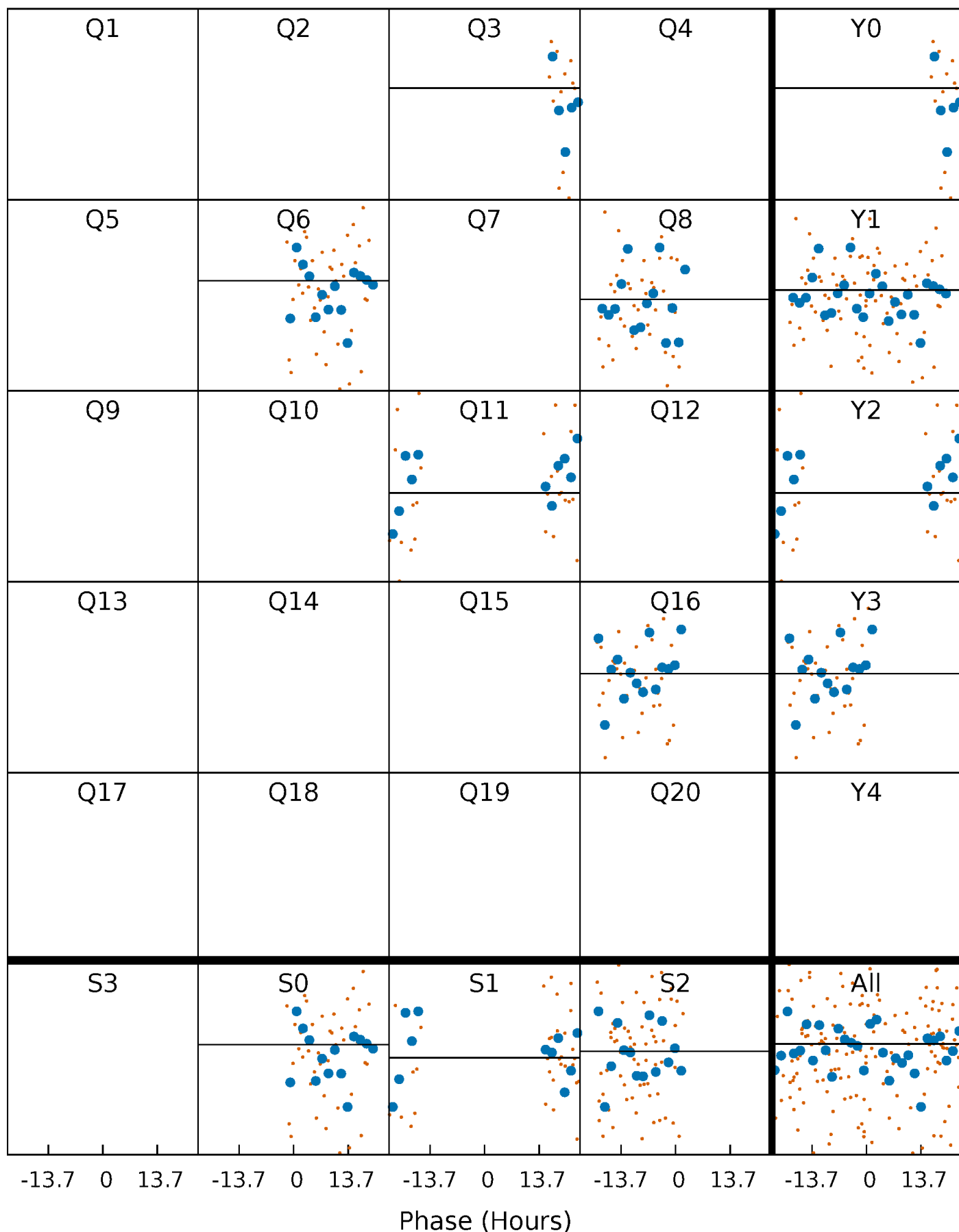
PDC Quarter-Phased Transit Curves

TCE 008818096-07 $P=235.735171$ Days $T_0=315.143992$ (BKJD)



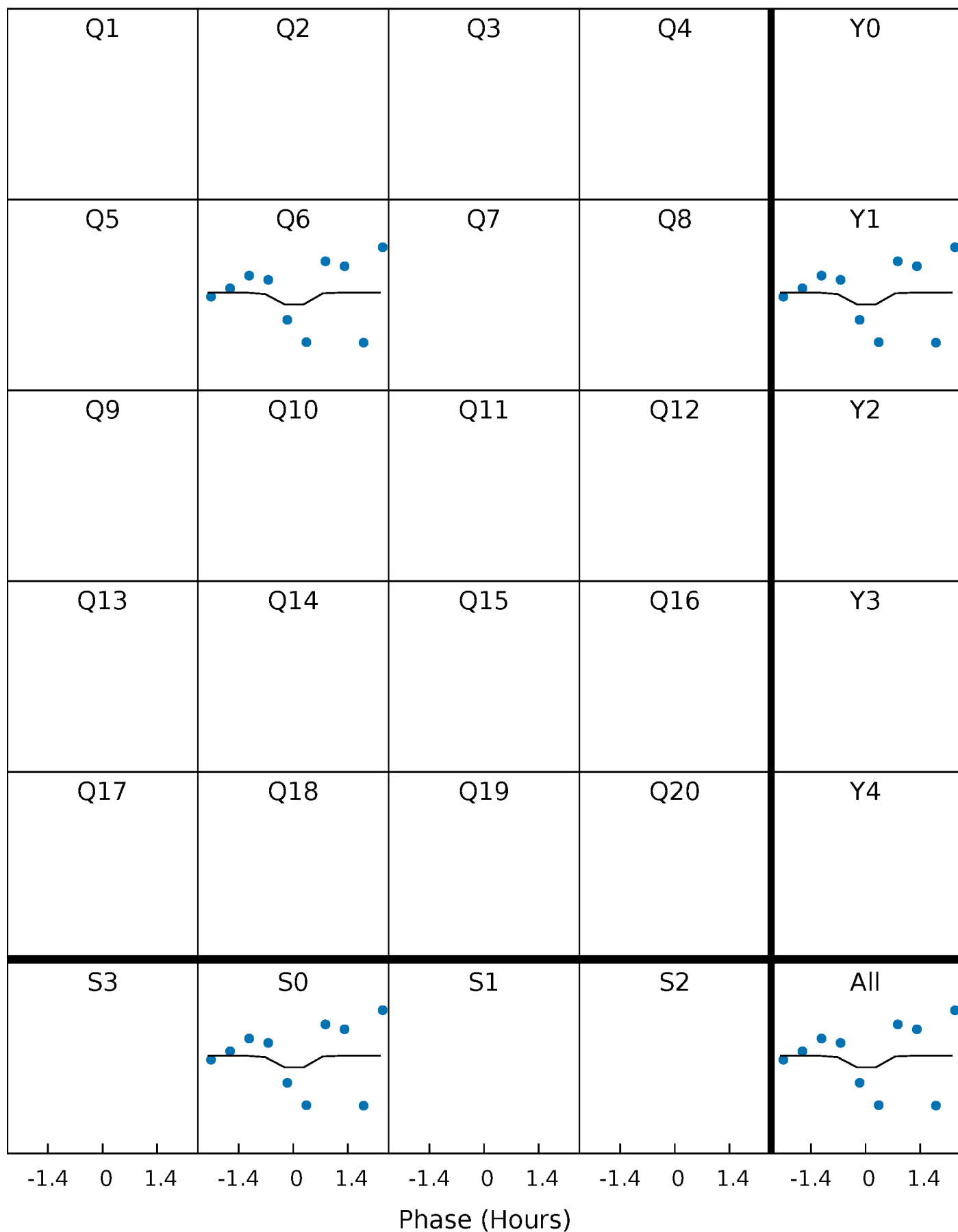
DV Quarter-Phased Transit Curves

TCE 008818096-07 P=235.735171 Days $T_0=315.143992$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

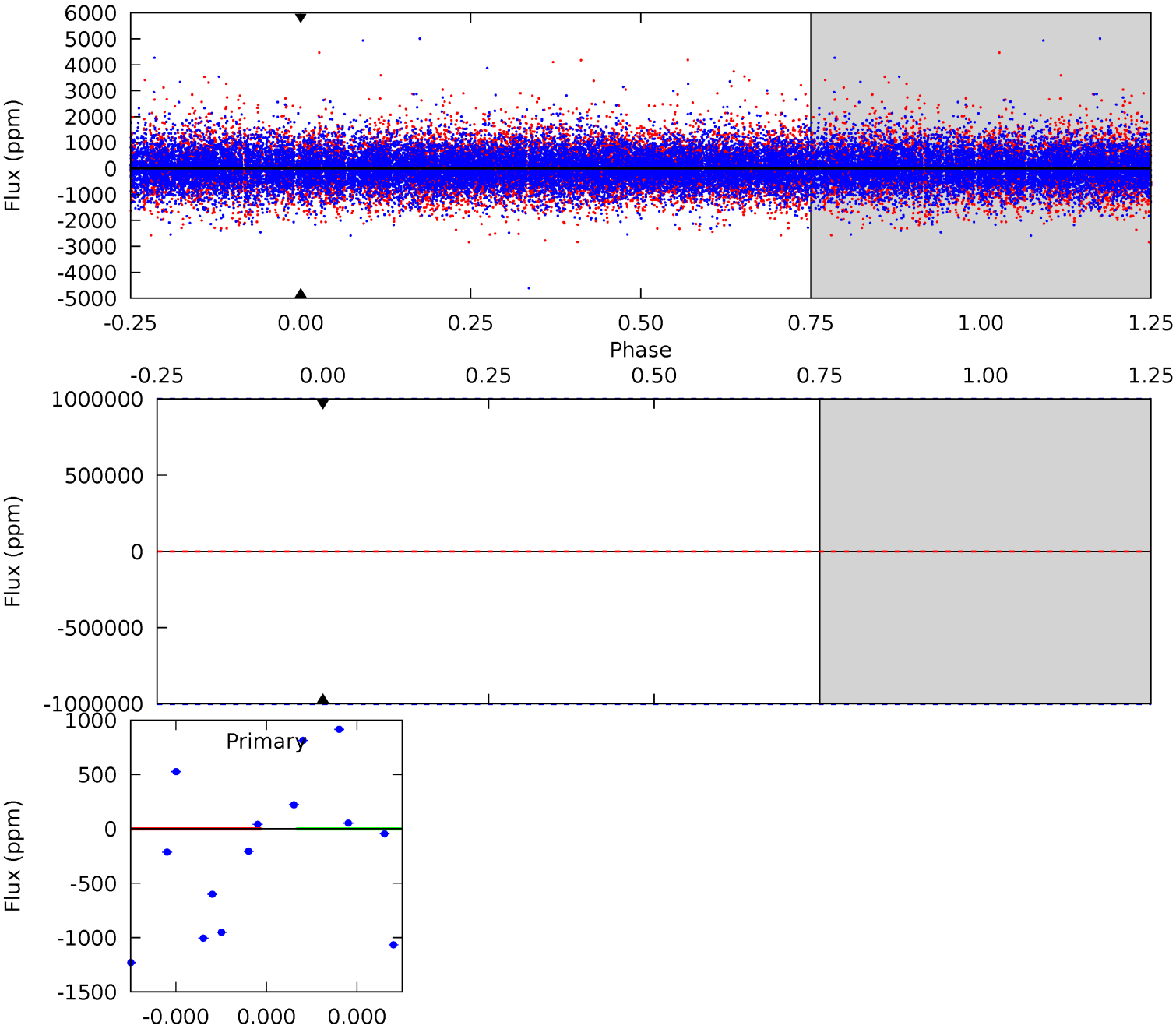
TCE 008818096-07 P=235.735171 Days $T_0=315.616683$ (BKJD)



DV Model-Shift Uniqueness Test

008818096-07, P = 235.735171 Days, E = 79.408821 Days

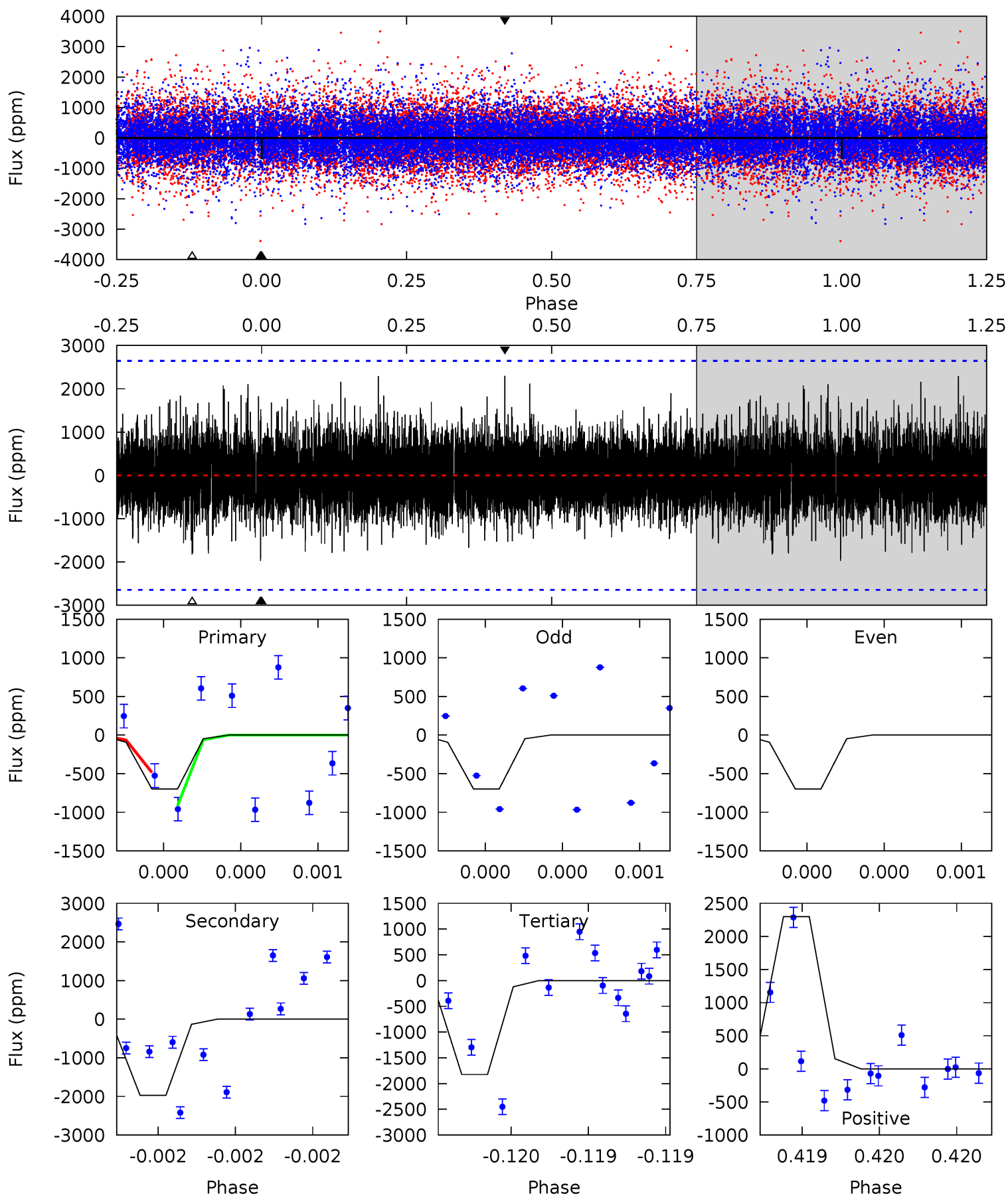
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008818096-07, P = 235.735171 Days, E = 79.881512 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.50	4.24	3.92	4.94	5.69	3.65	0.96	-2.42	-3.44	0.32	-0.70	0	1.00	0.54	0.00



Stellar Parameters For KIC 008818096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5162^{+153}_{-153}	$4.606^{+0.036}_{-0.078}$	$-0.220^{+0.300}_{-0.300}$	$0.729^{+0.097}_{-0.065}$	$0.787^{+0.082}_{-0.082}$	$2.855^{+0.498}_{-0.737}$
	+3%/-3%	+1%/-2%	+136%/-136%	+13%/-9%	+10%/-10%	+17%/-26%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008818096-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$6.67^{+6.33}_{-4.65}$	331^{+14}_{-12}	3541^{+12683}_{-16313}	$5409^{+1397885}_{-716004}$
Alt.	-1975 ± 465	$6.11^{+6.67}_{-4.26}$	330^{+13}_{-12}	4199^{+2958}_{-935}	$14258^{+132776}_{-11066}$

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

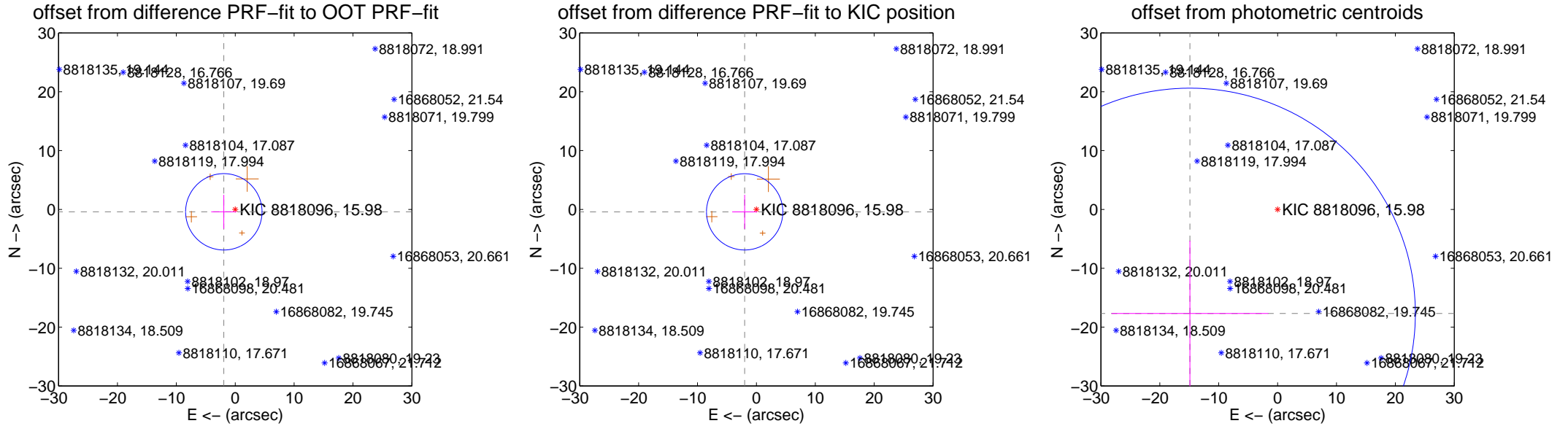
DV Centroid Data

Supplemental centroid analysis for 008818096-07. Kepler magnitude: 15.98. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

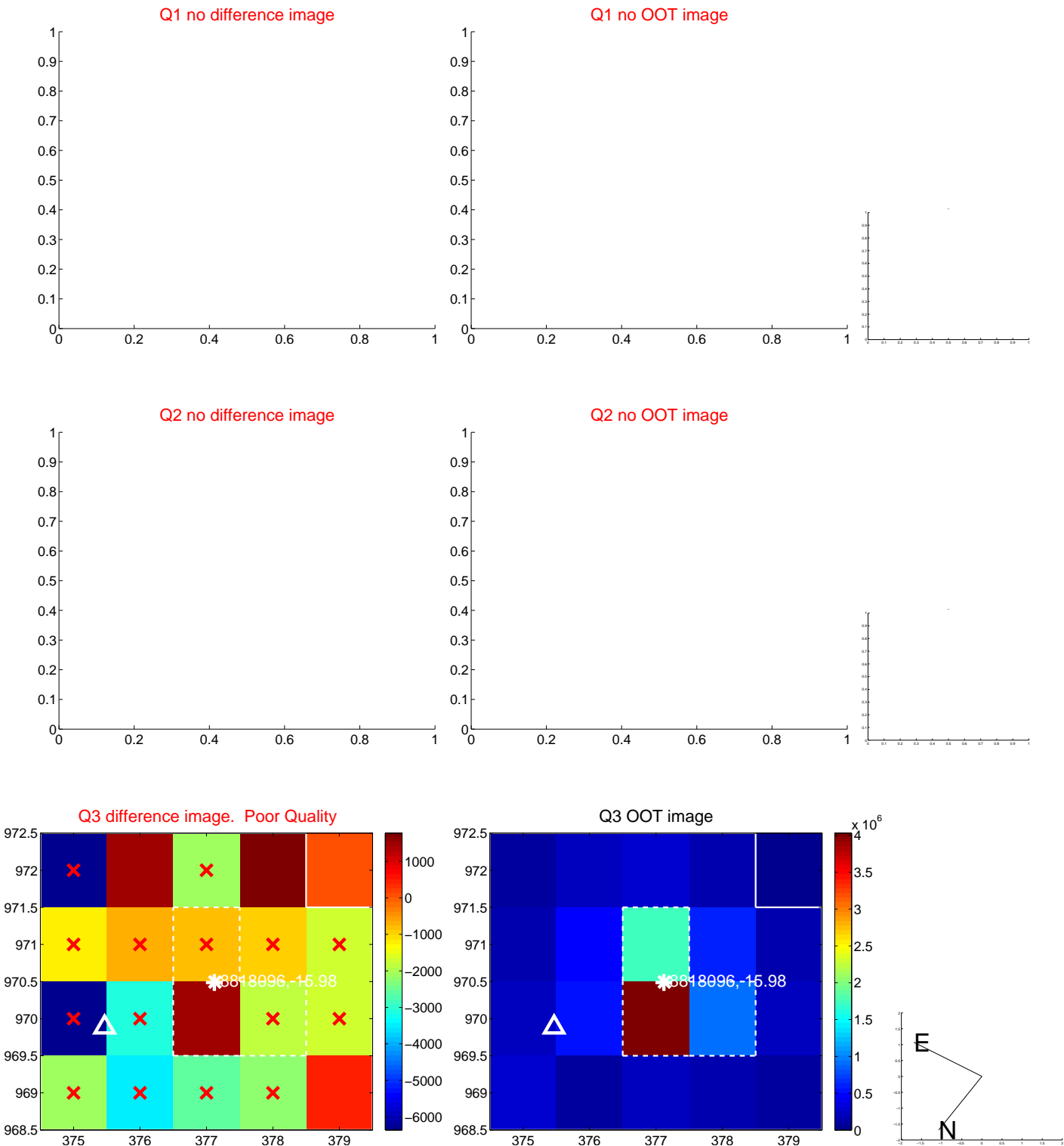
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.978 ± 2.163	0.91	1.936 ± 2.126	-0.406 ± 2.879
PRF-fit source offset from KIC position	2.036 ± 2.160	0.94	1.994 ± 2.123	-0.412 ± 2.900
photometric centroid source offset	23.11 ± 12.76	1.81	14.89 ± 13.31	-17.68 ± 12.36

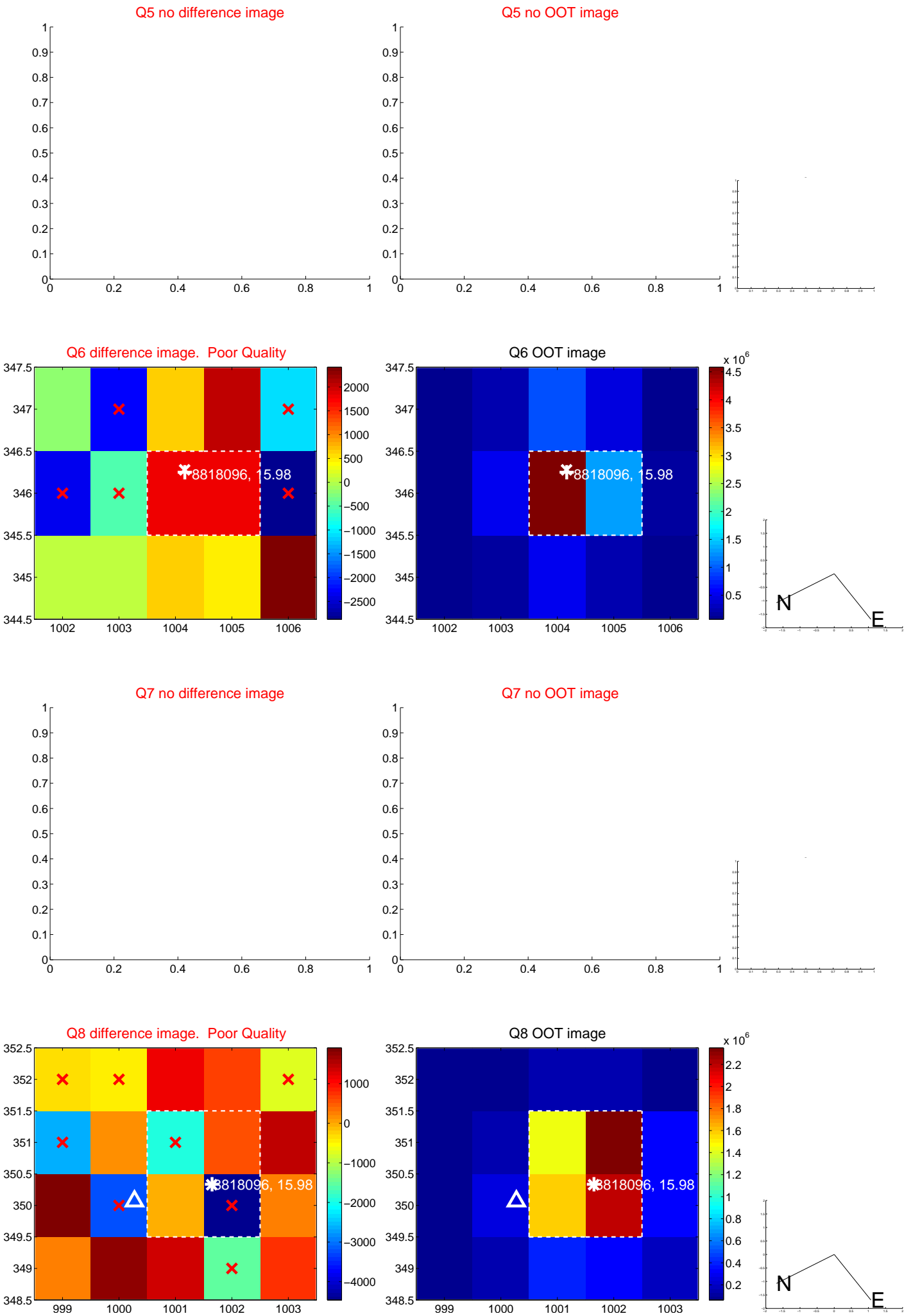


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

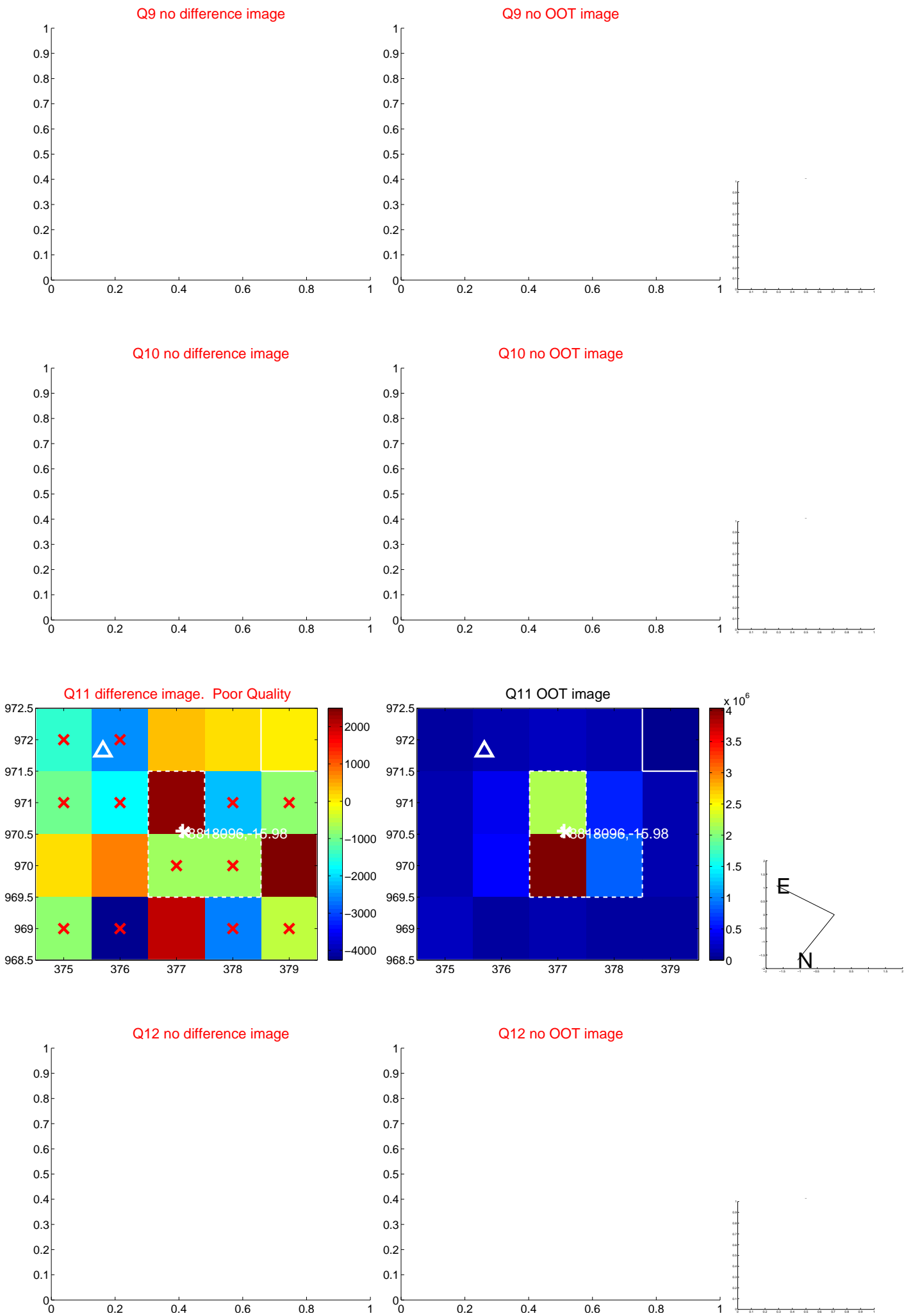
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



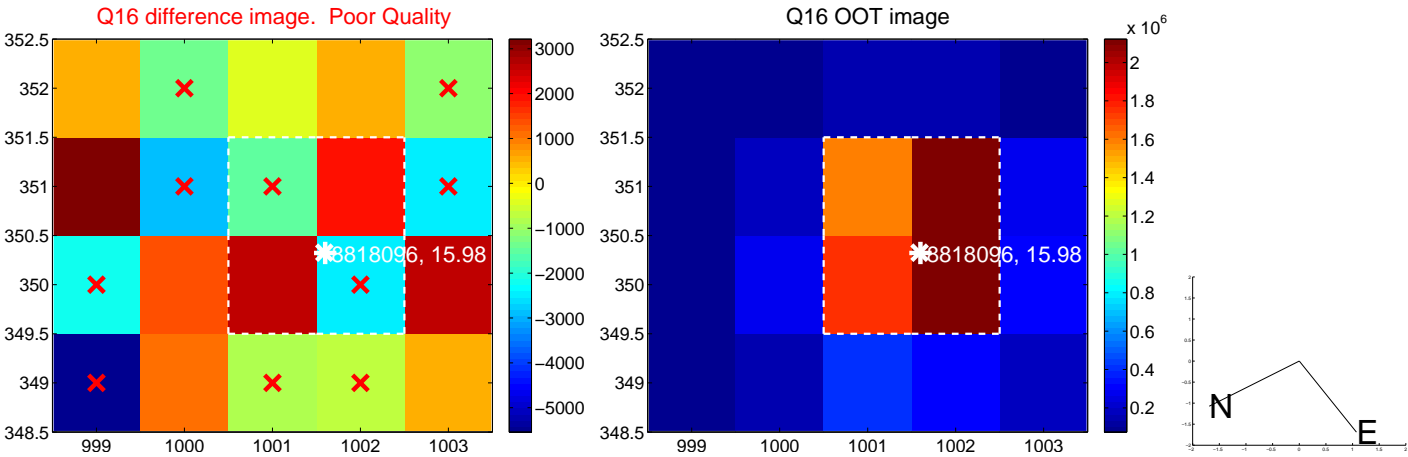
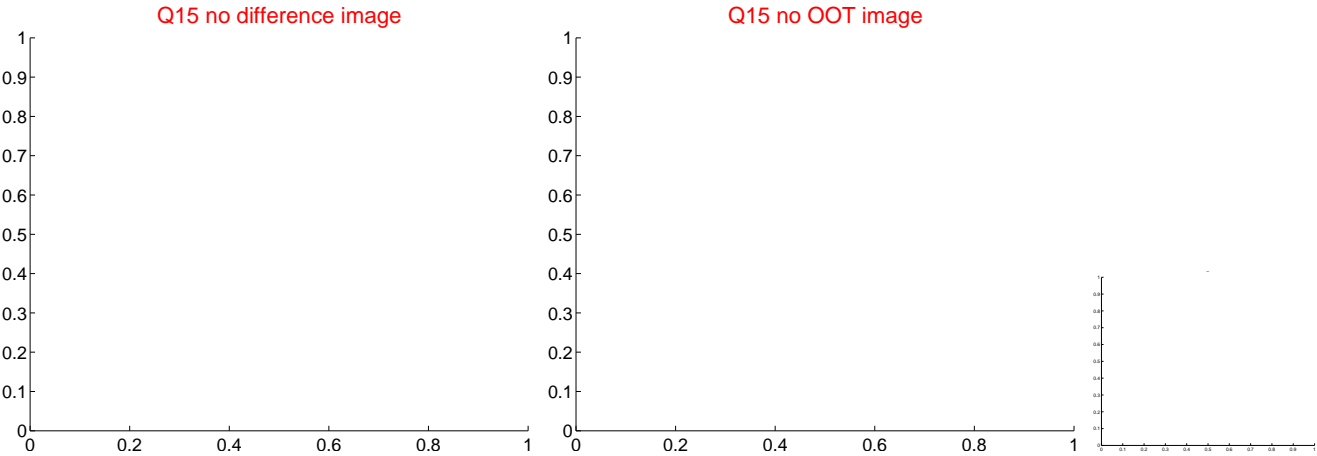
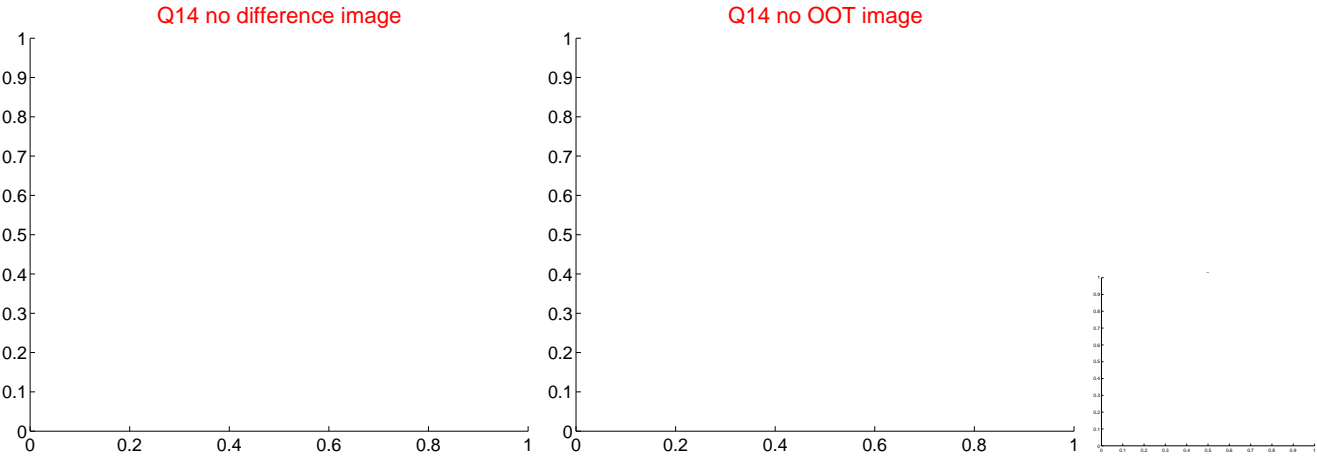
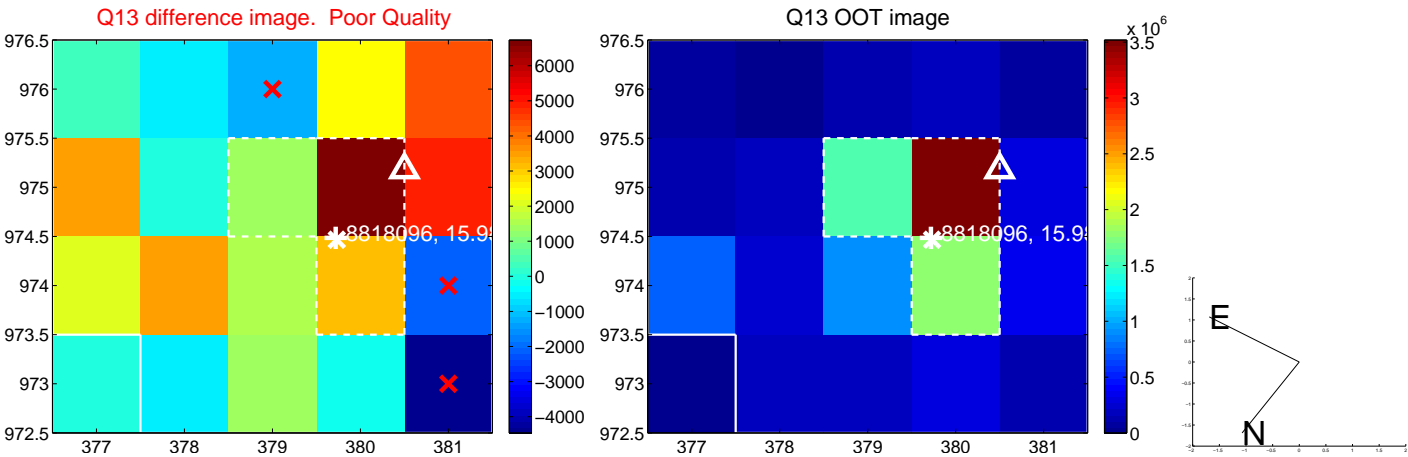
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



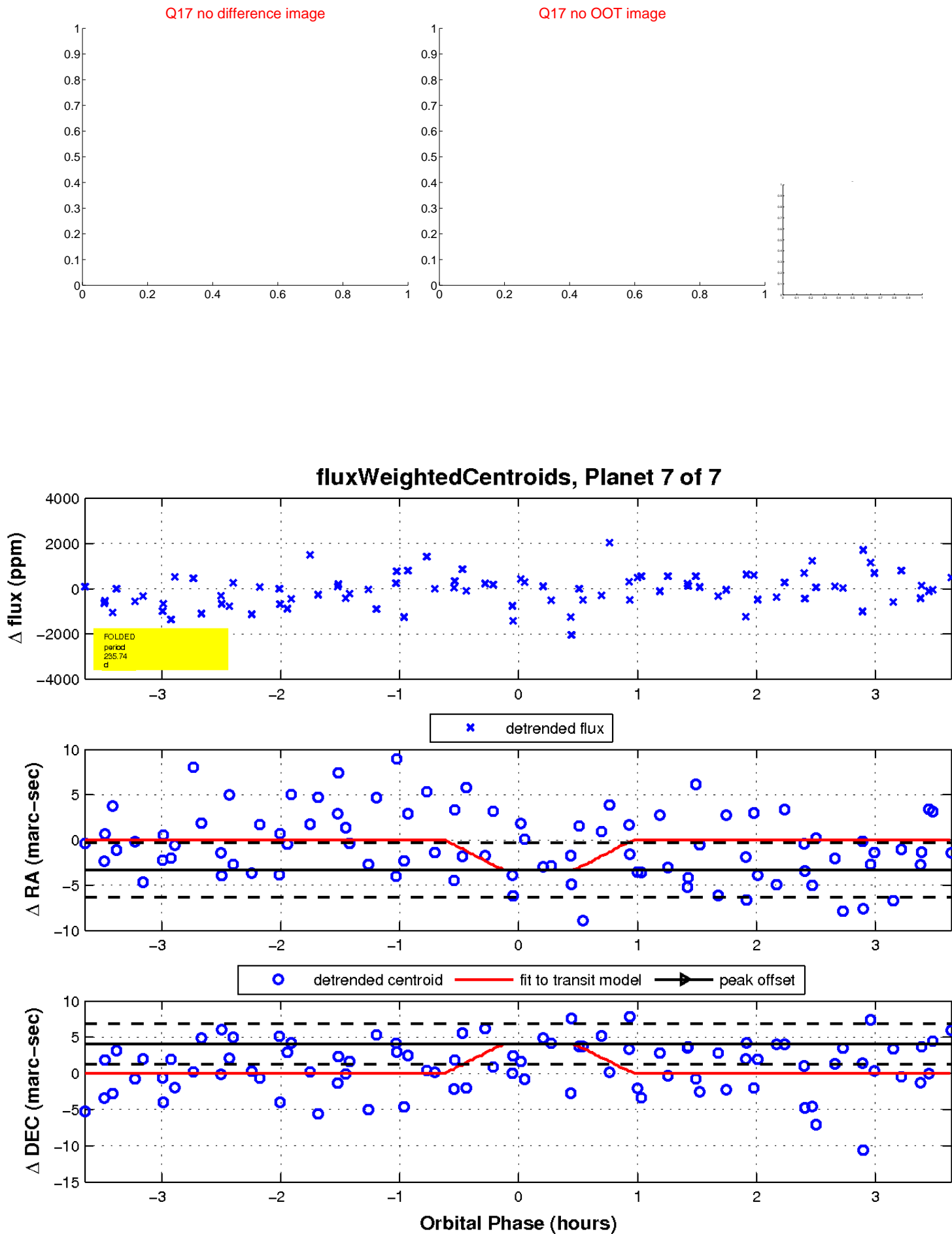
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

