

KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

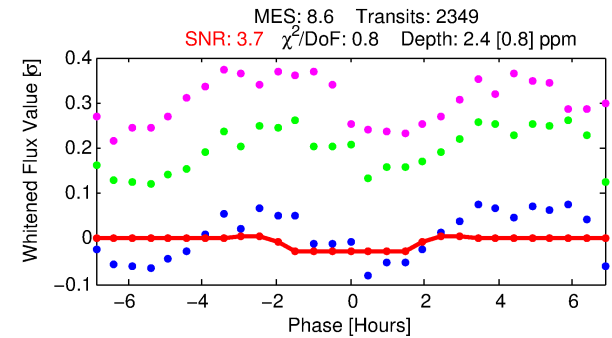
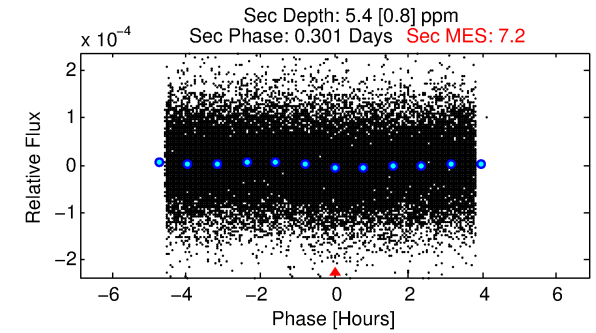
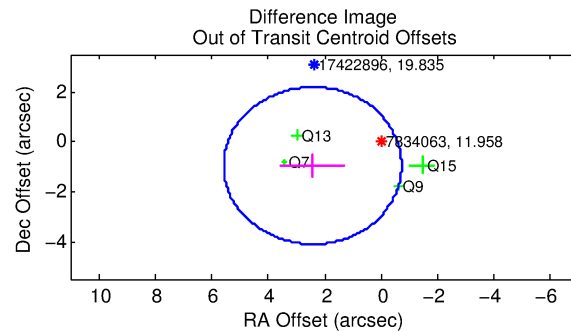
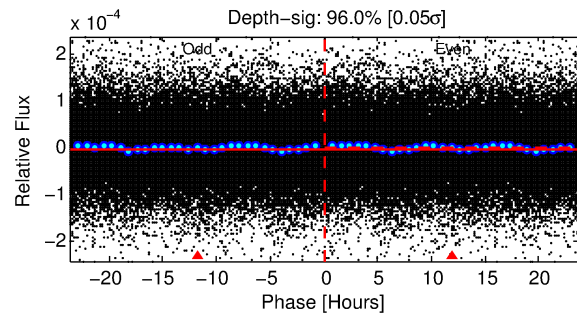
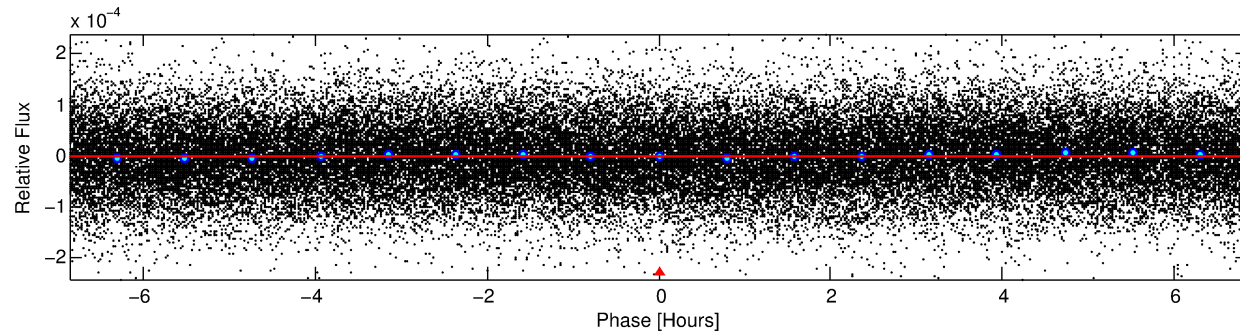
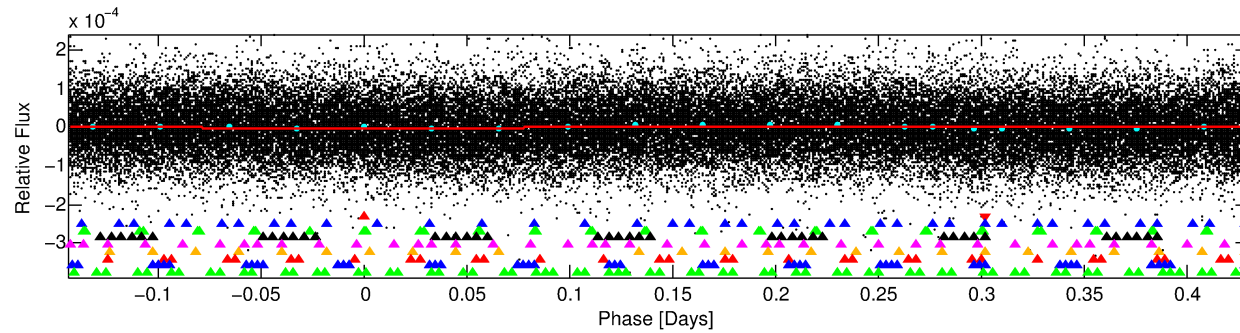
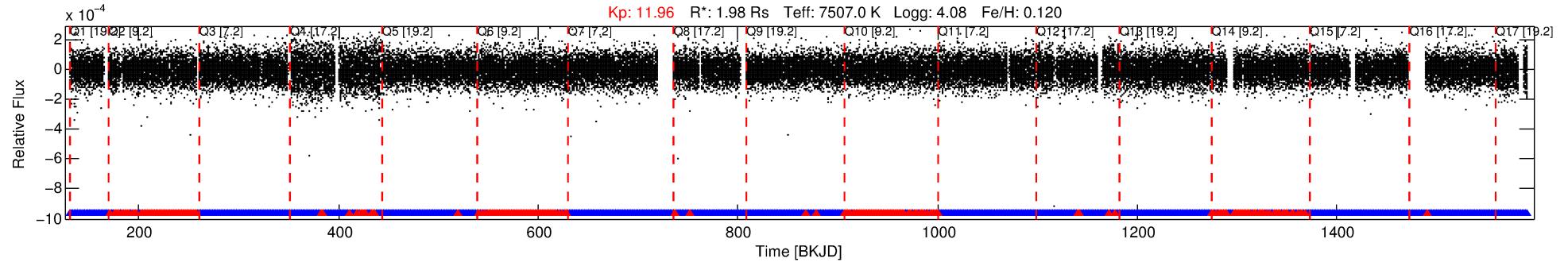
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-01

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 1 of 9 Period: 0.572 d



DV Fit Results:

Period = 0.57222 [0.00003] d
Epoch = 131.9271 [0.0101] BKJD
Rp/R* = 0.0015 [0.0015]
a/R* = 1.25 [2.78]
b = 0.34 [16.12]
Seff = 42383.42 [15862.02]
Teq = 3659 [342] K
Rp = 0.31 [0.33] Re
a = 0.0162 [0.0037] AU
Ag = 7.87 [16.19] [0.42 σ]
Teffp = 9474 [4831] K [1.20 σ]

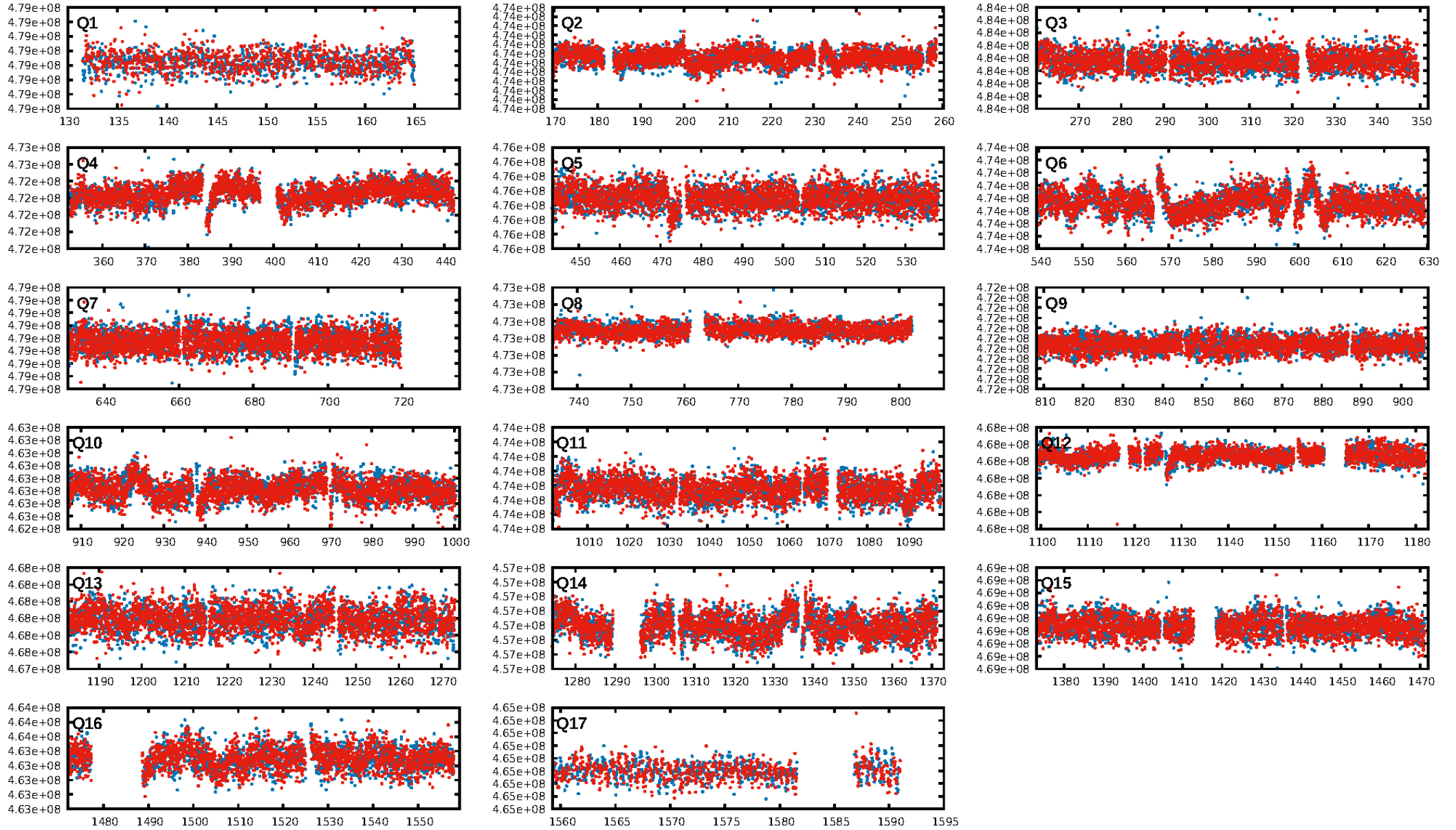
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [70.49 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.05e-08
RollingBand-fgt: 0.80 [1800/2245]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.608 arcsec [2.49 σ]
KicOffset-rm: 2.586 arcsec [2.49 σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

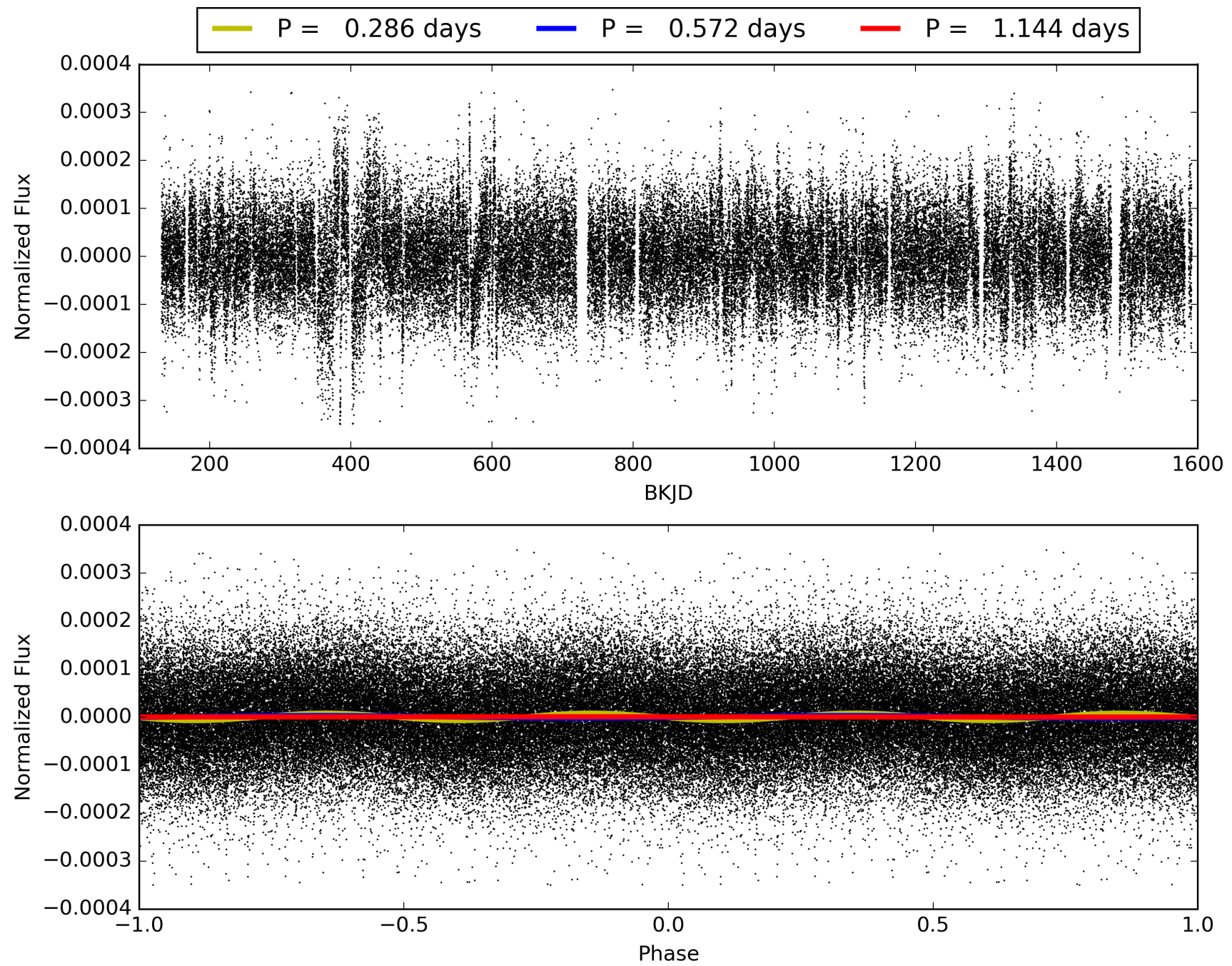
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:07 Z

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

TCE 007834063-01, PDC Light Curves

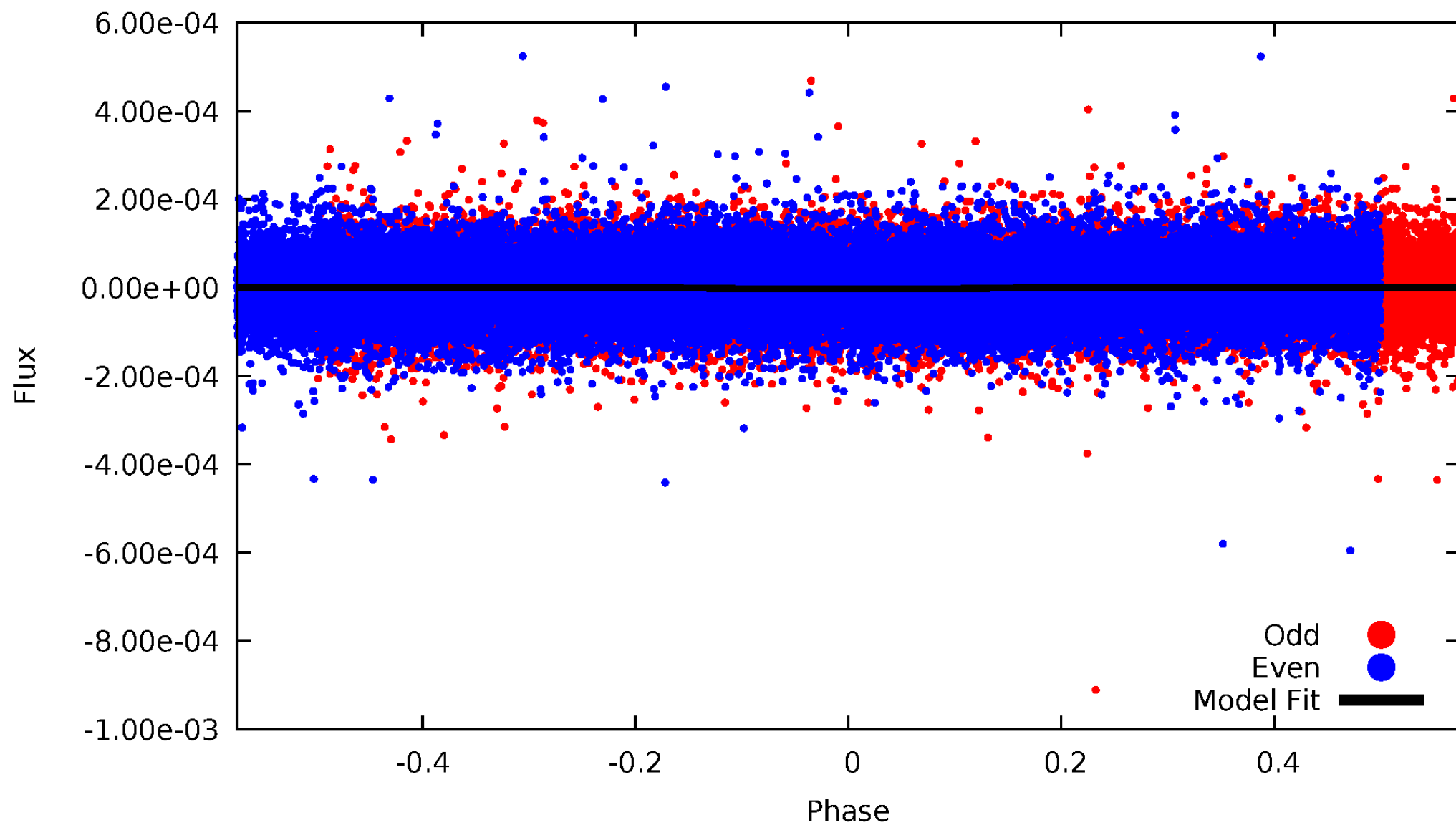


TCE 007834063-01



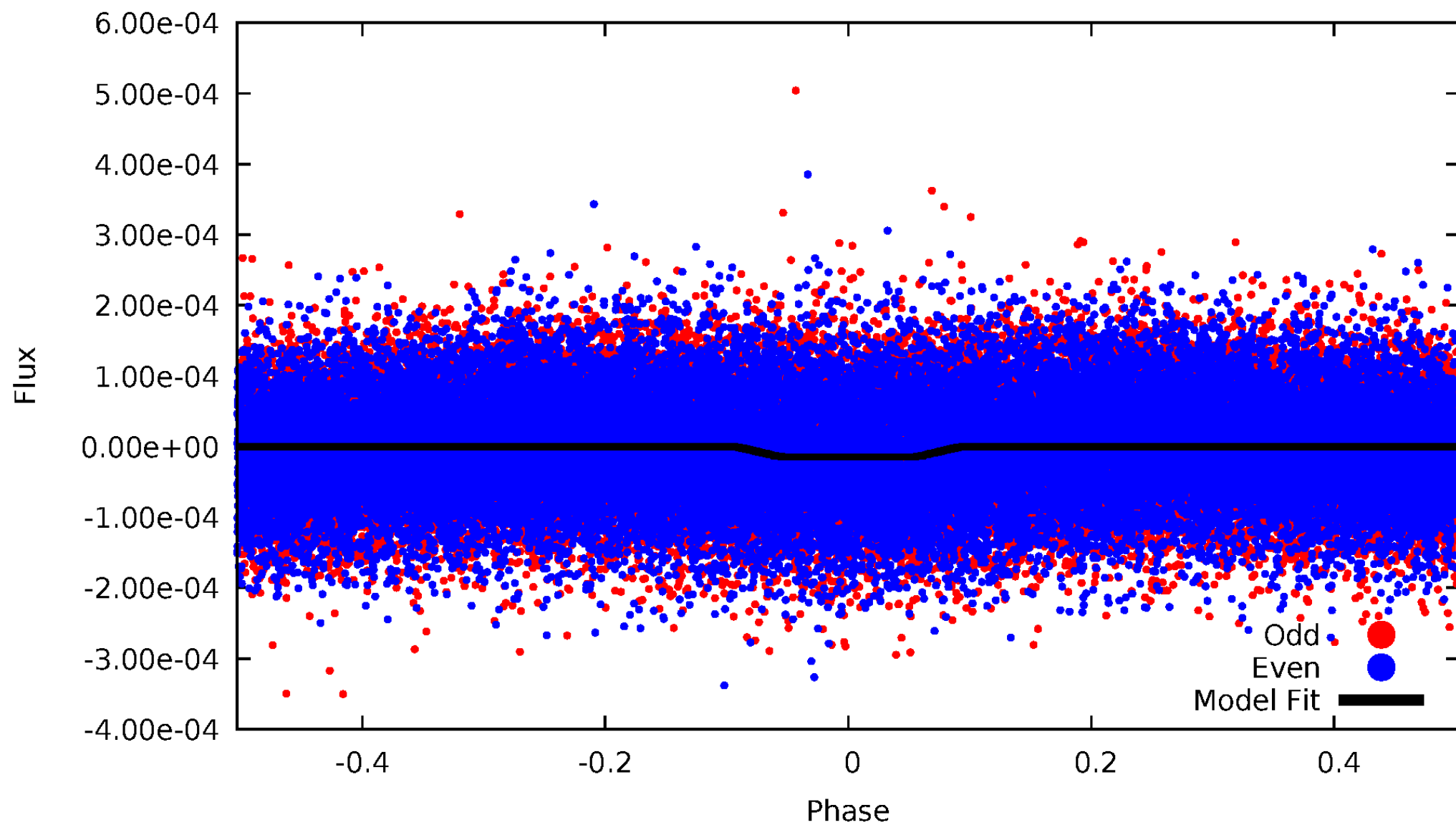
DV Odd/Even

TCE 007834063-01

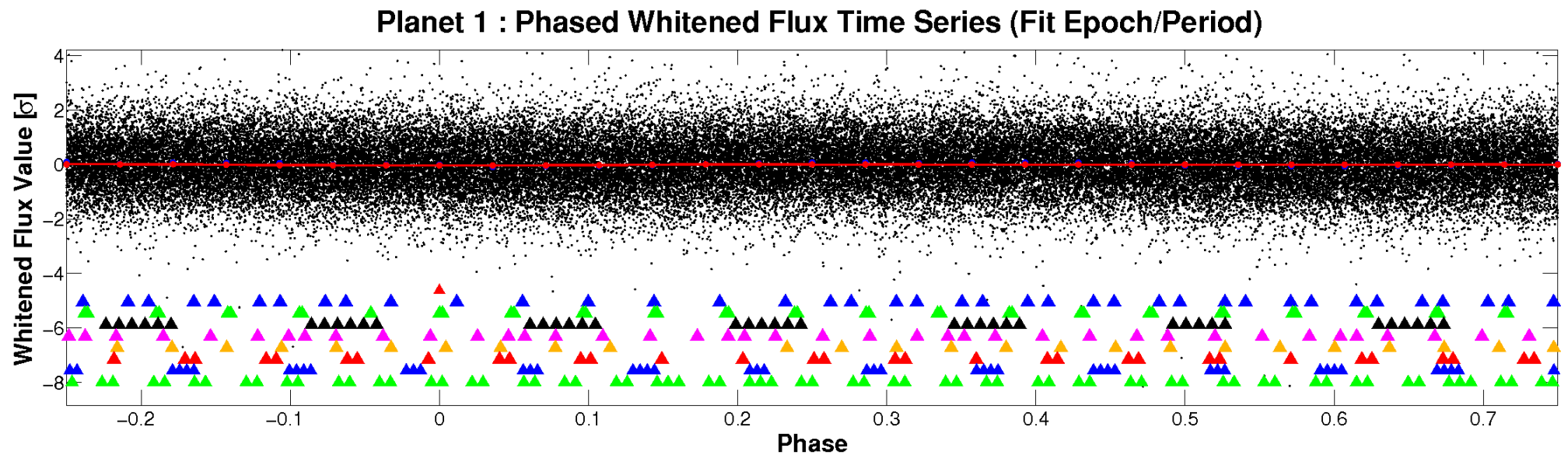
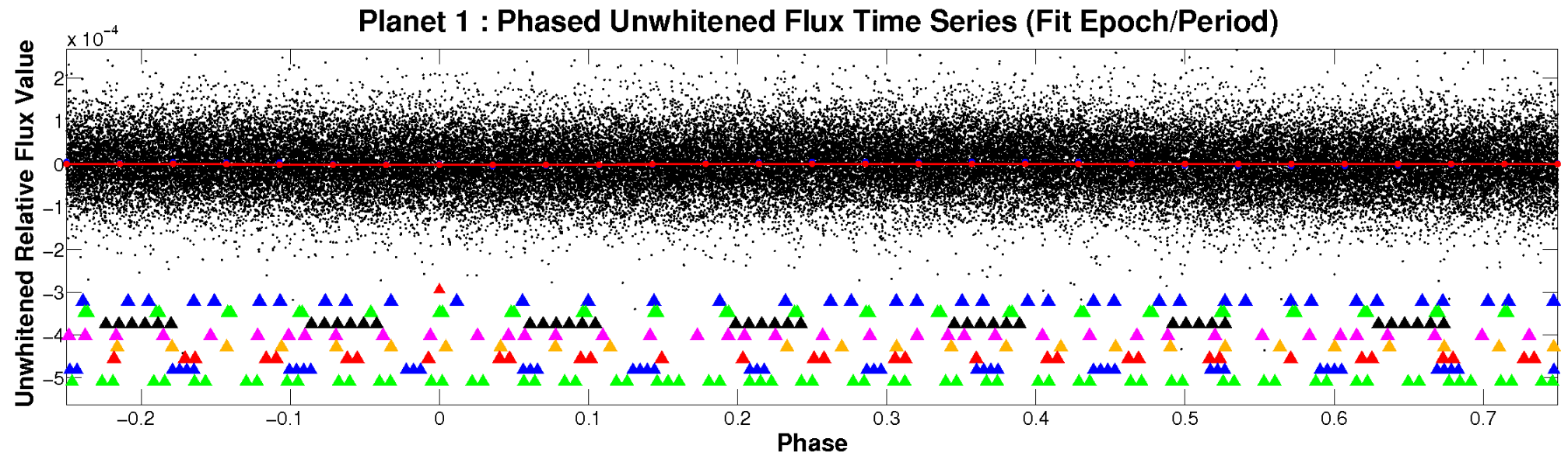


ALT Odd/Even

TCE 007834063-01

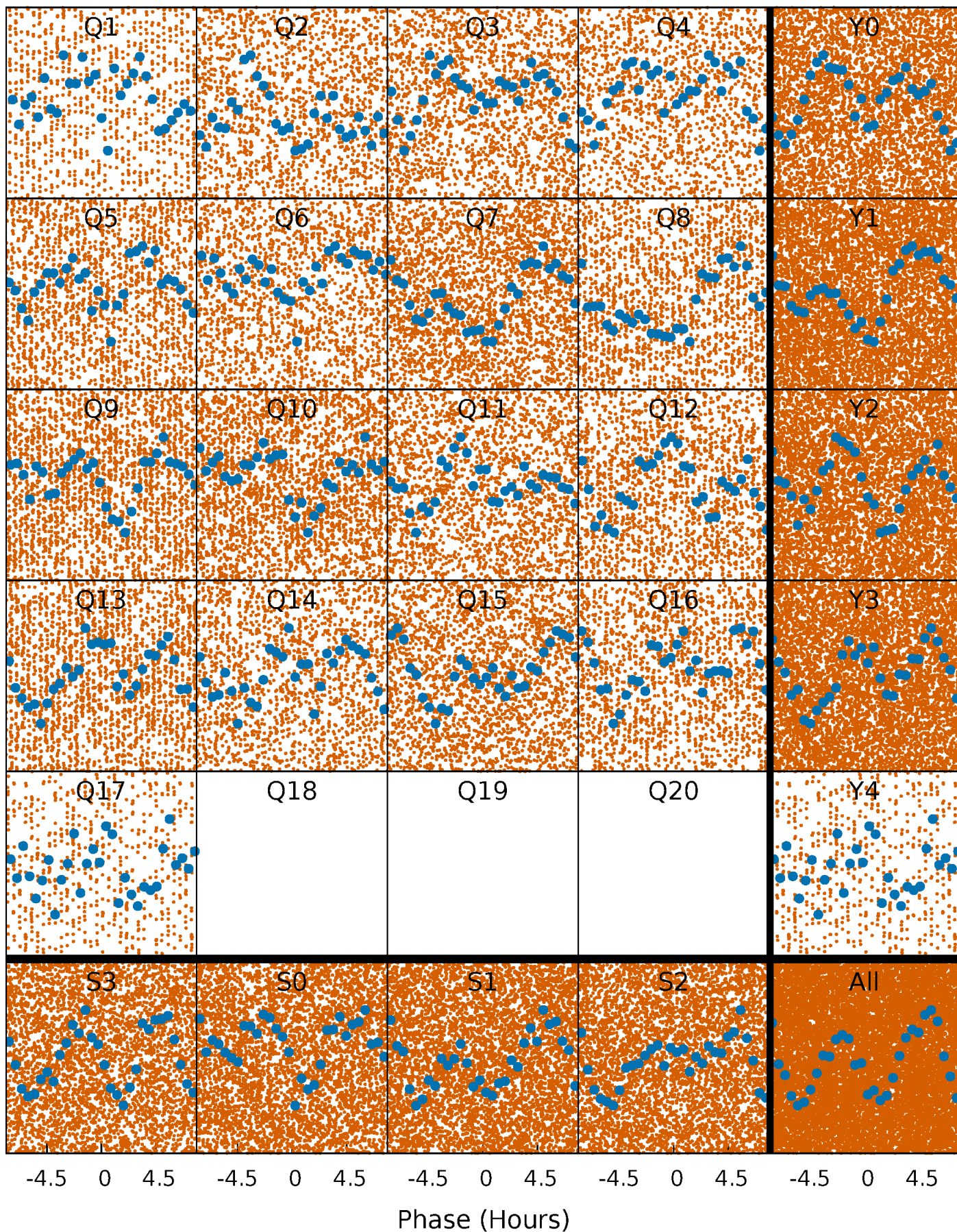


Non-Whitened Vs. Whitened Light Curve



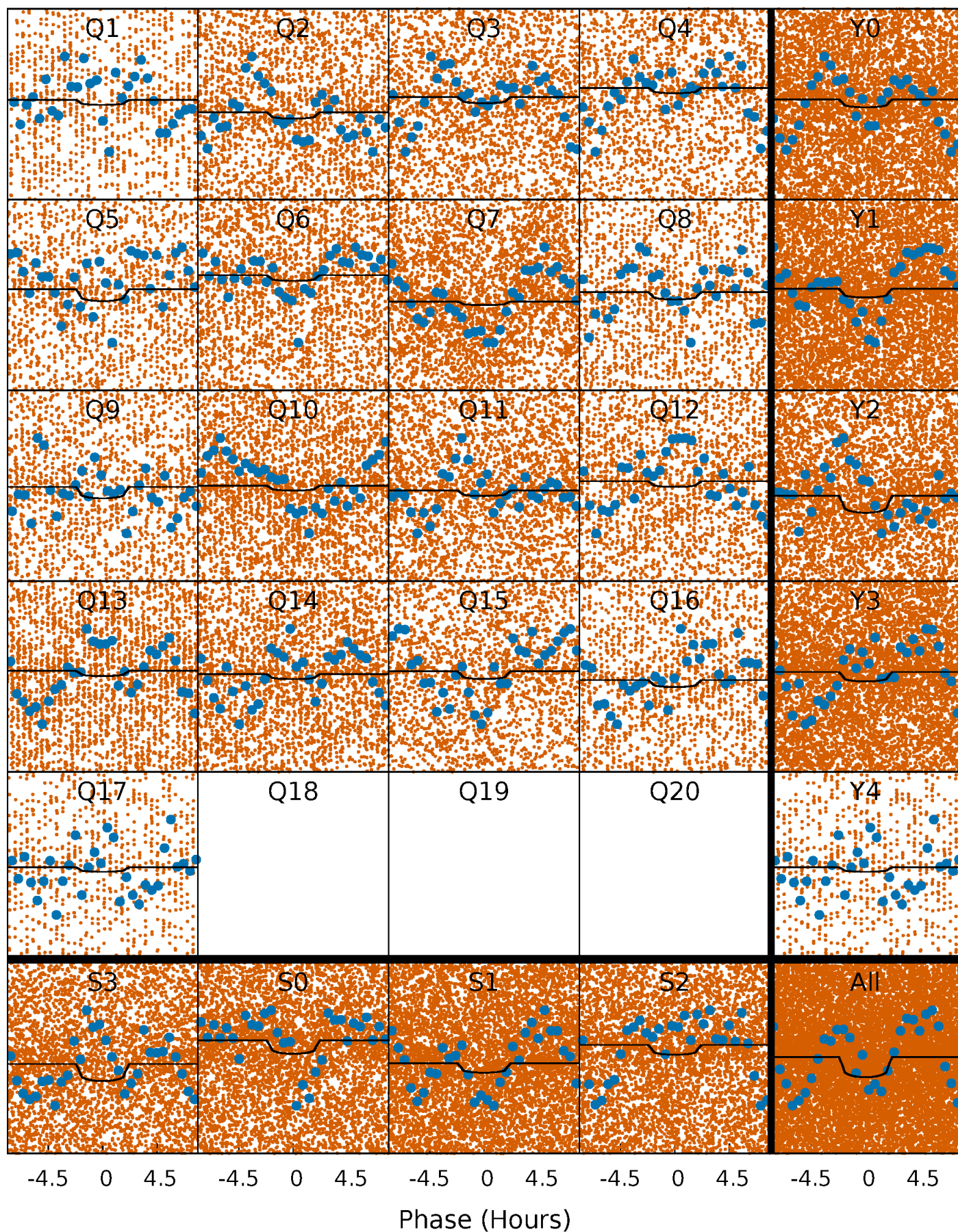
PDC Quarter-Phased Transit Curves

TCE 007834063-01 P= 0.572225 Days $T_0=131.927054$ (BKJD)



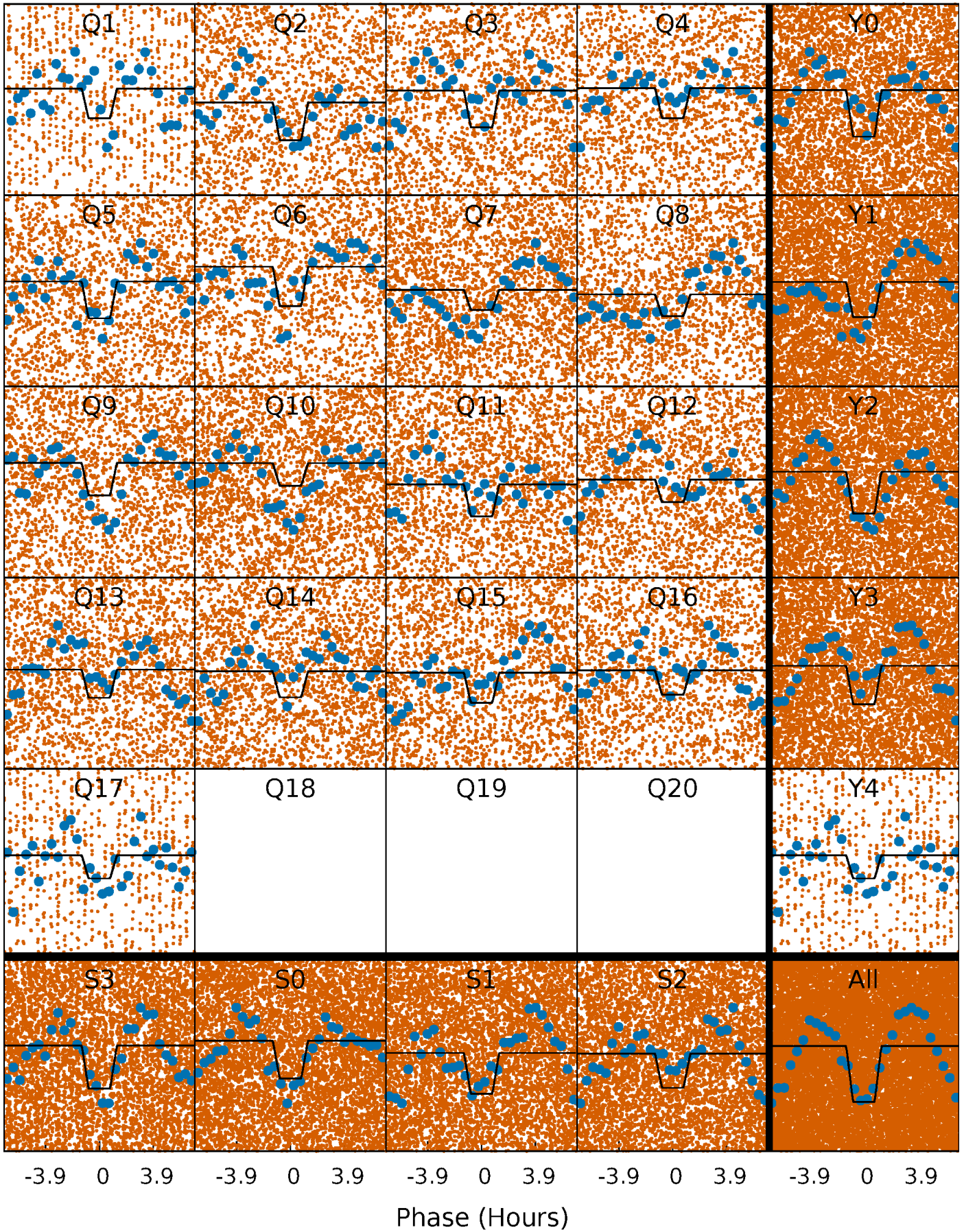
DV Quarter-Phased Transit Curves

TCE 007834063-01 P= 0.572225 Days $T_0=131.927054$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

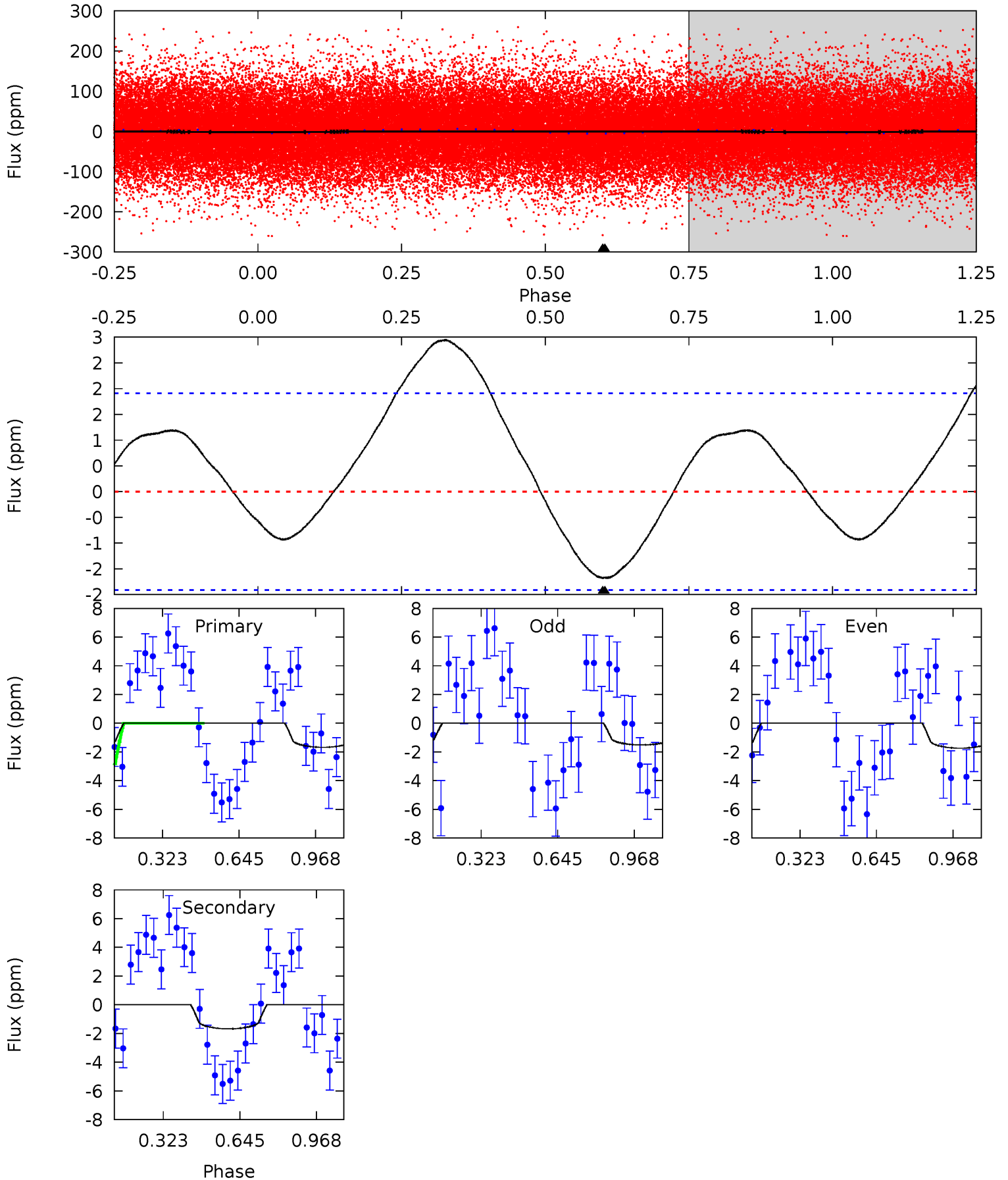
TCE 007834063-01 P= 0.572270 Days $T_0=131.923258$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-01, P = 0.572225 Days, E = 131.354829 Days

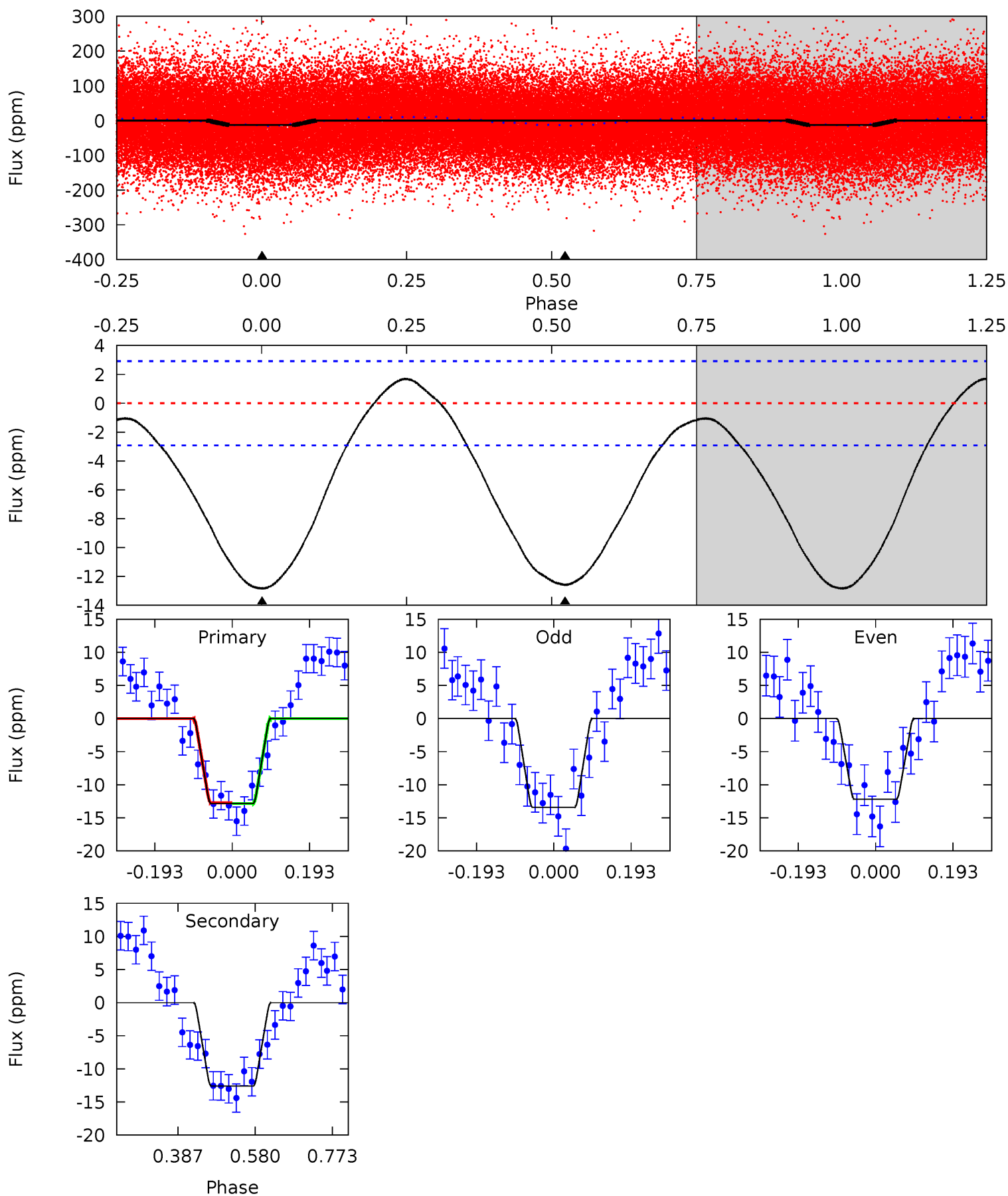
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.79	3.79	0	0	4.31	0.99	2.25	3.79	3.79	3.79	3.79	0.26	0.84	0.64	3.75



Alt Model-Shift Uniqueness Test

007834063-01, P = 0.572270 Days, E = 131.350988 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	19.1	0	0	4.42	1.30	1.83	19.4	19.4	19.1	19.1	0.94	0.98	0.12	0.09



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 0	$0.39^{+0.30}_{-0.24}$	5098^{+362}_{-347}	5863^{+5410}_{-1966}	$1.542^{+9.017}_{-1.089}$
Alt.	-13 ± 1	$0.81^{+0.36}_{-0.32}$	5091^{+387}_{-340}	6970^{+2633}_{-1285}	$2.708^{+4.602}_{-1.378}$

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 $A_{obs} \gg 1.0$

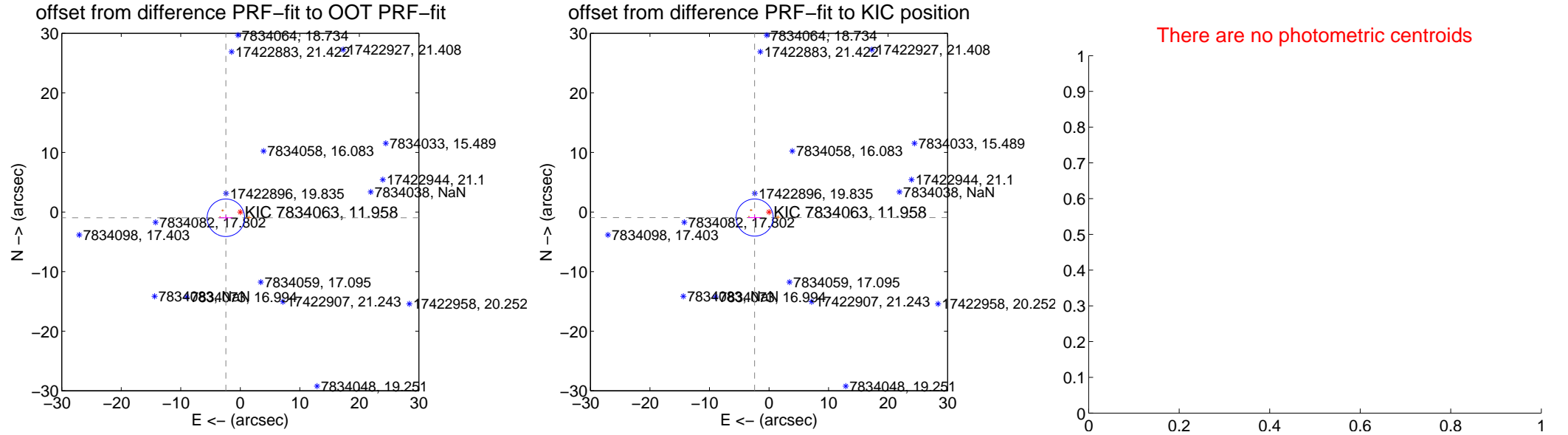
DV Centroid Data

Supplemental centroid analysis for 007834063-01. **Kepler magnitude: 11.96.** Transit SNR 3.69

There are 1 quarters with good PRF difference image offsets

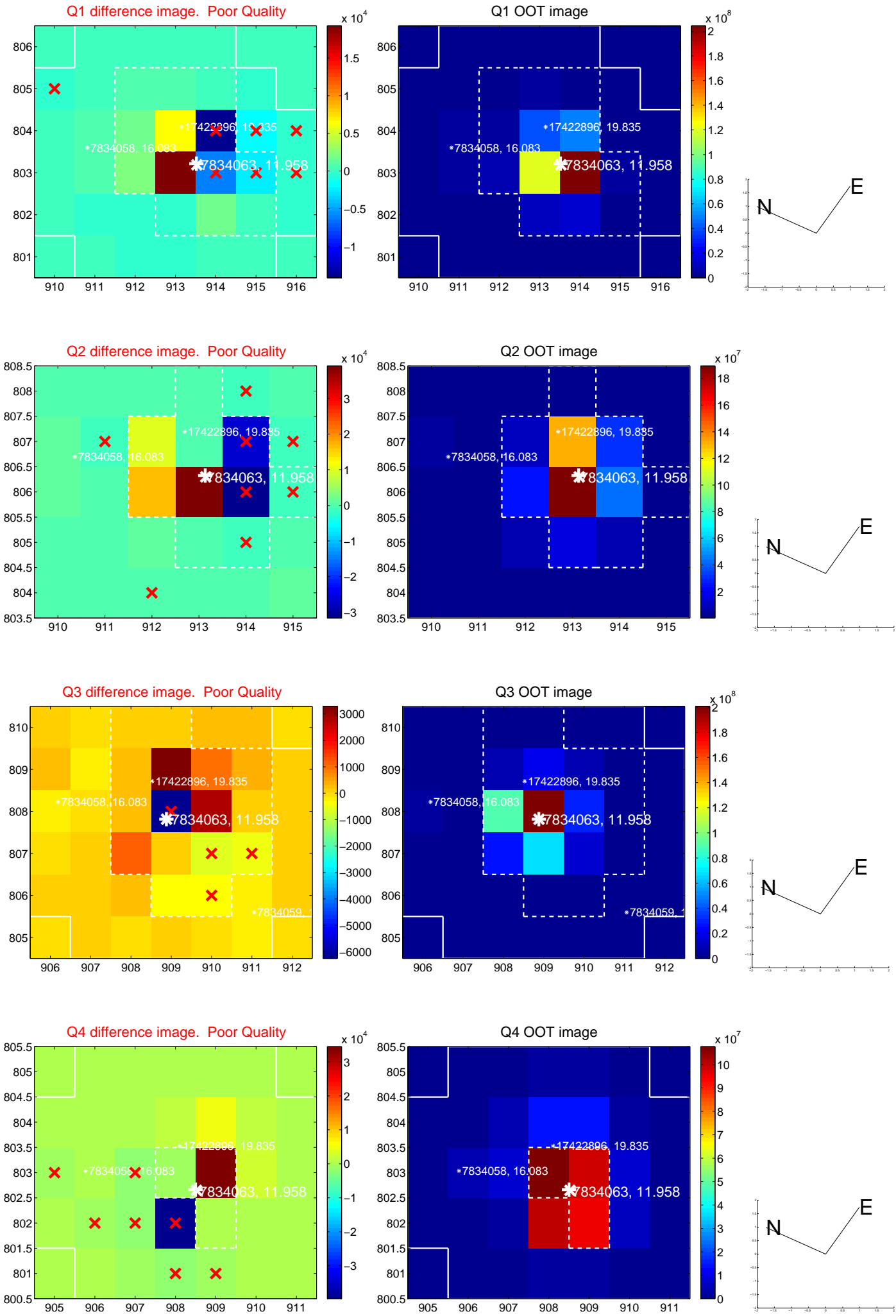
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.608 ± 1.049	2.49	2.425 ± 1.114	-0.960 ± 0.450
PRF-fit source offset from KIC position	2.586 ± 1.039	2.49	2.415 ± 1.099	-0.925 ± 0.458
photometric centroid source offset	—	—	—	—

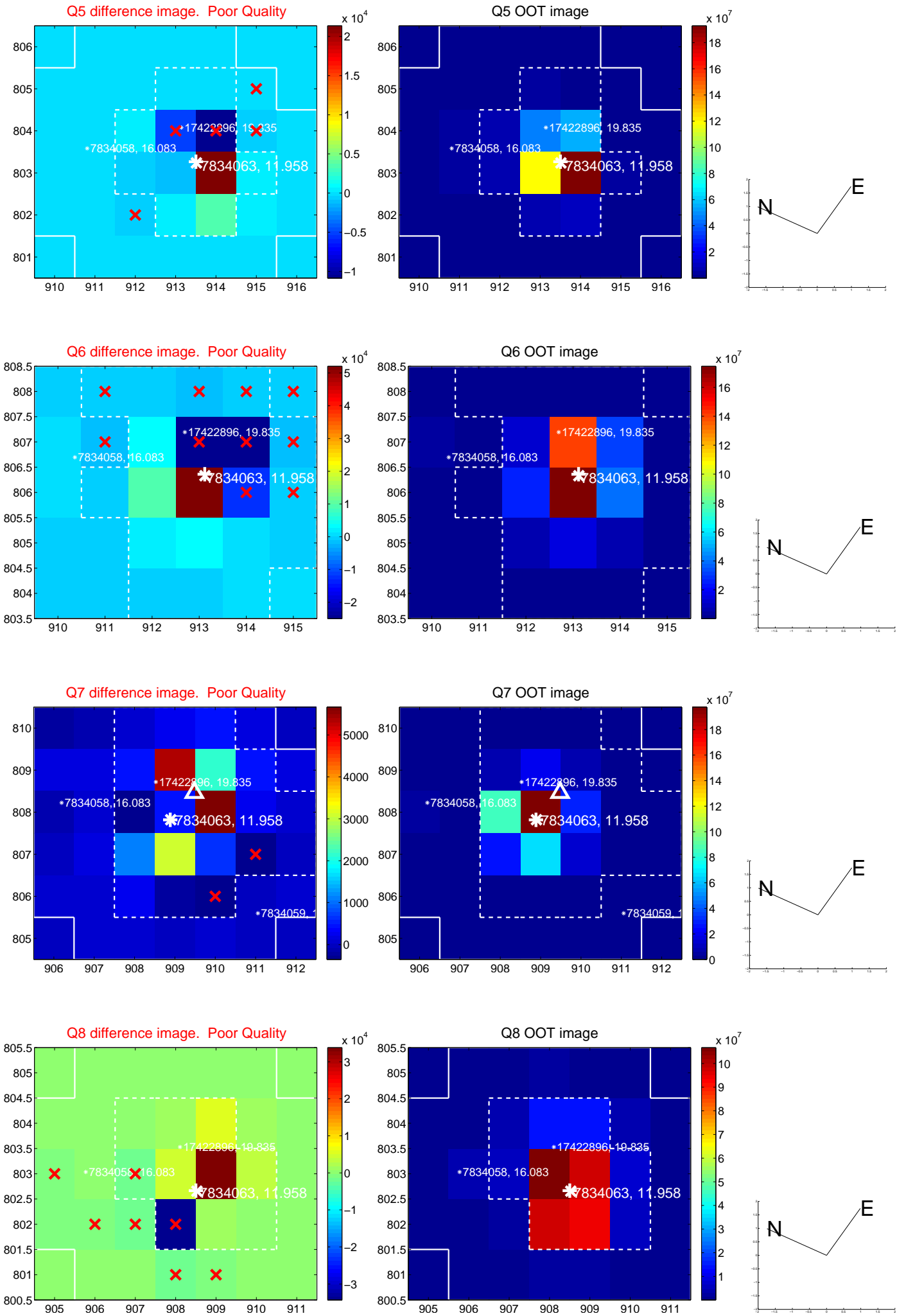


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

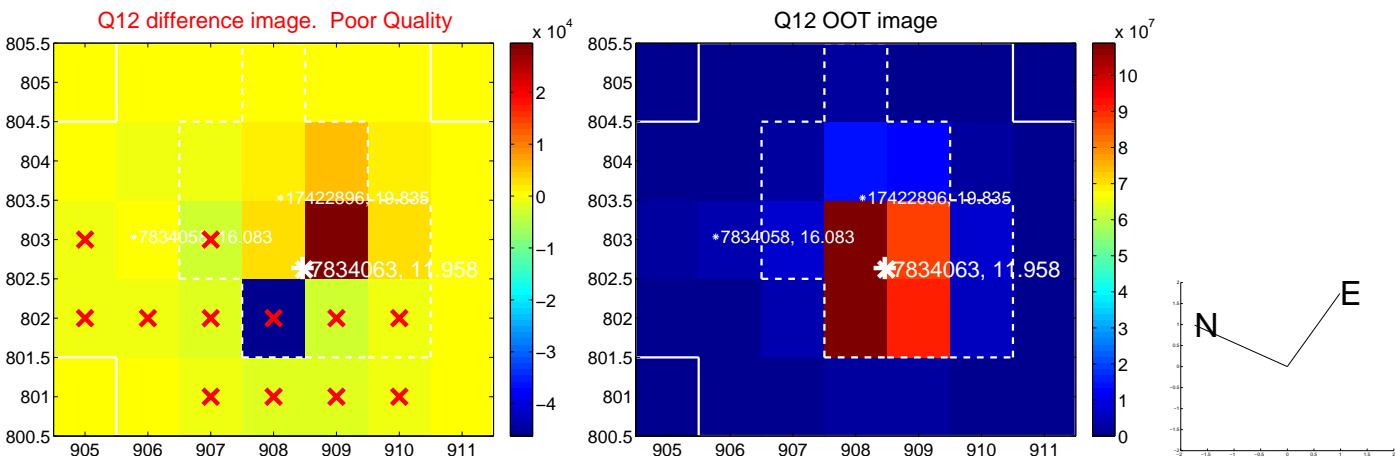
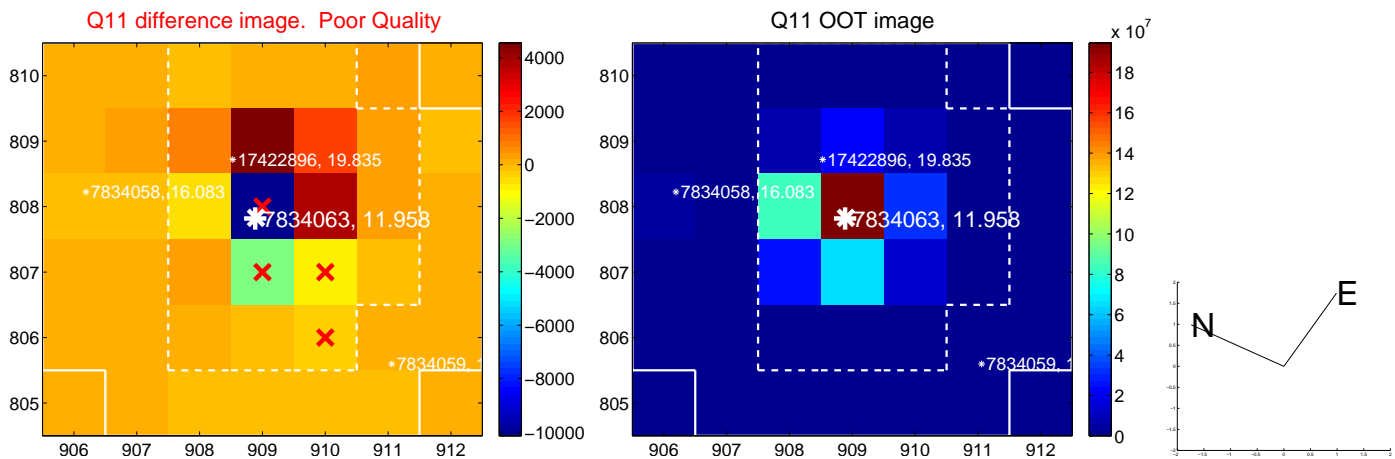
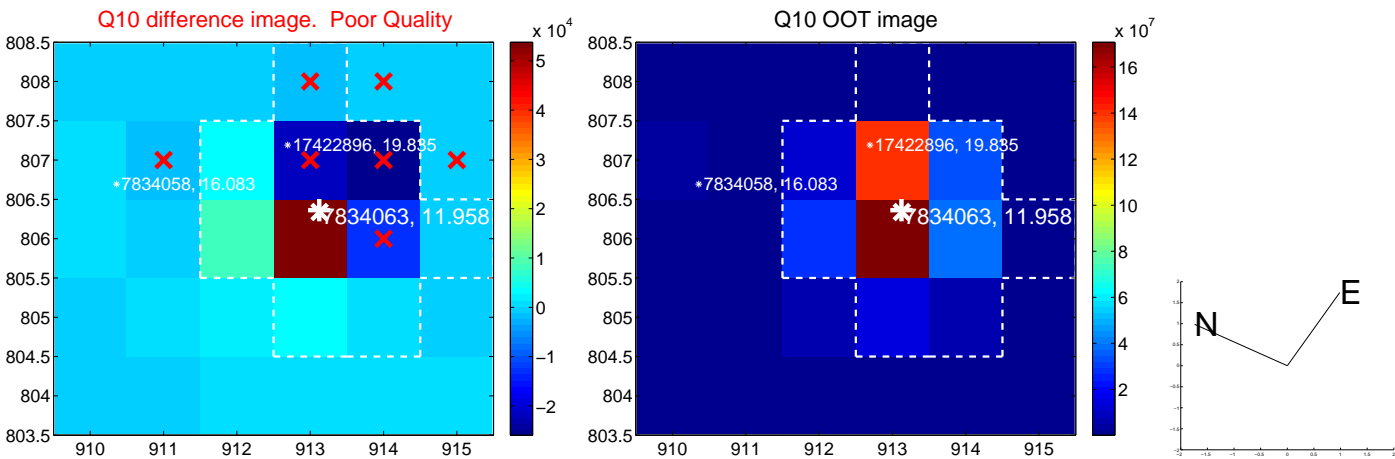
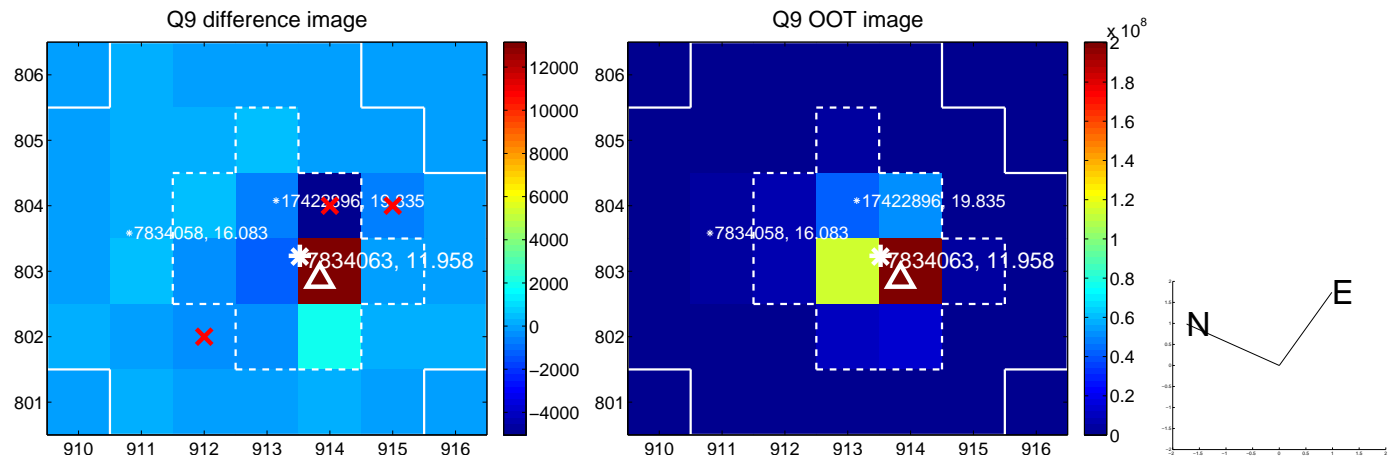
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



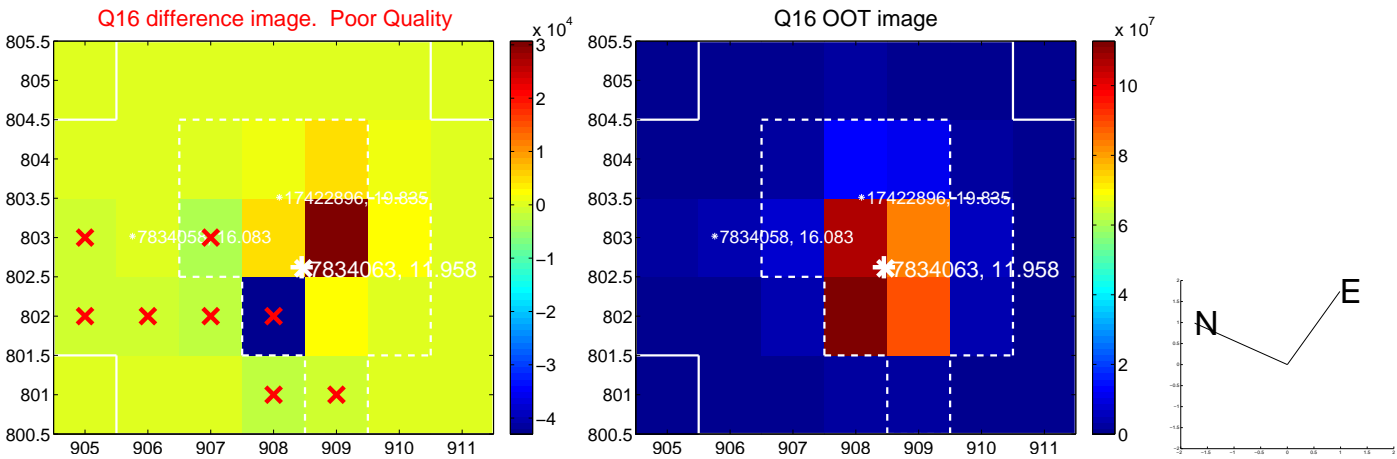
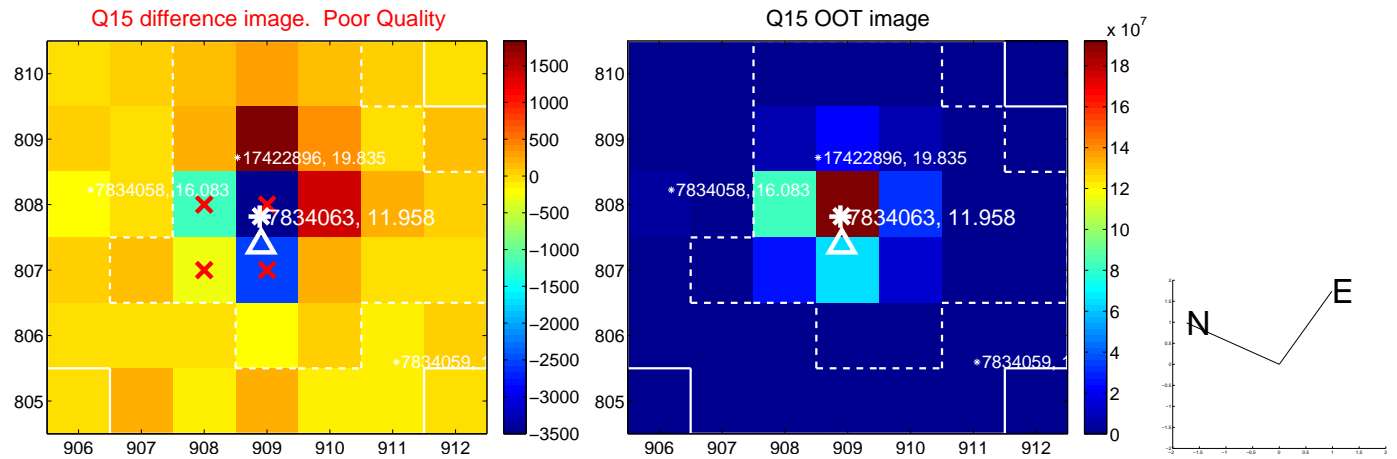
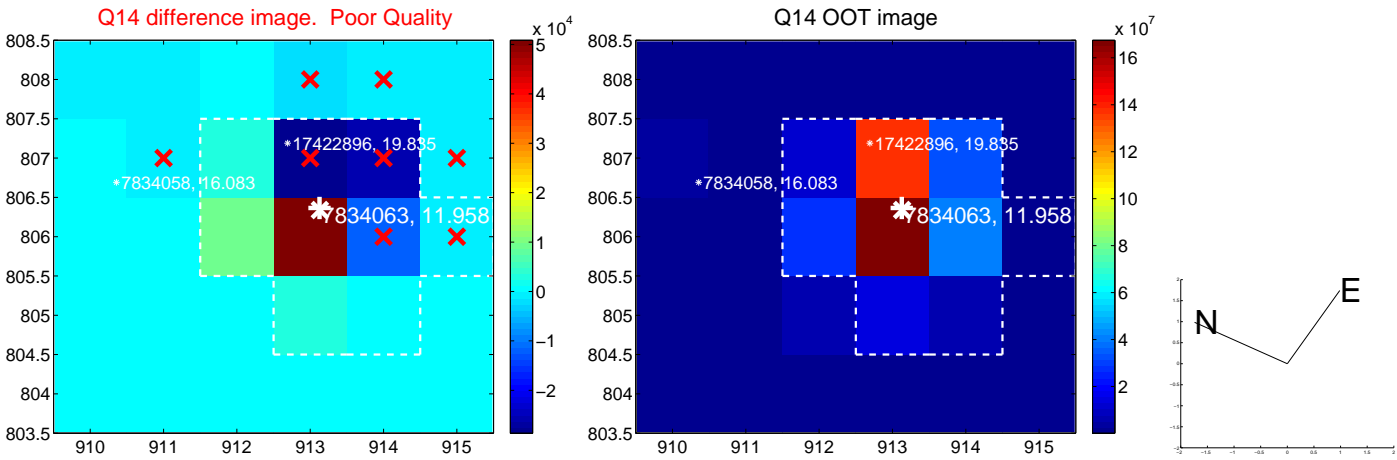
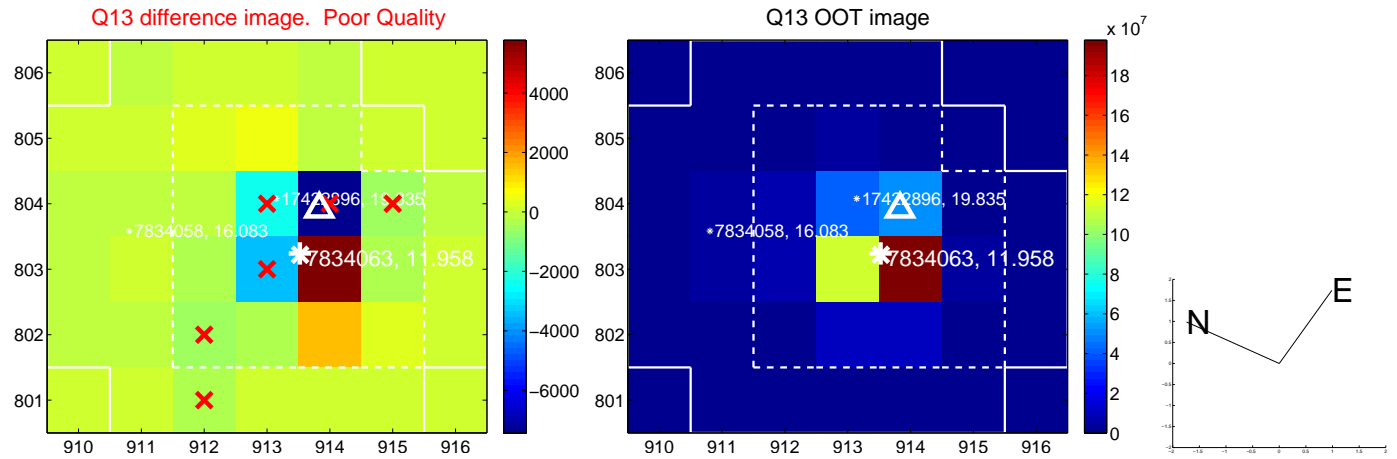
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



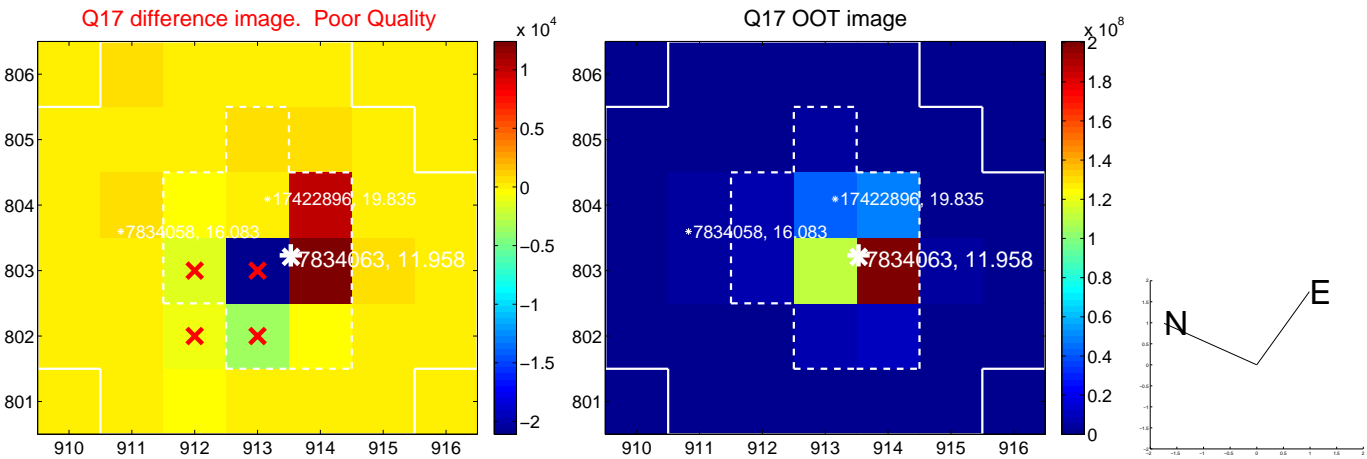
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



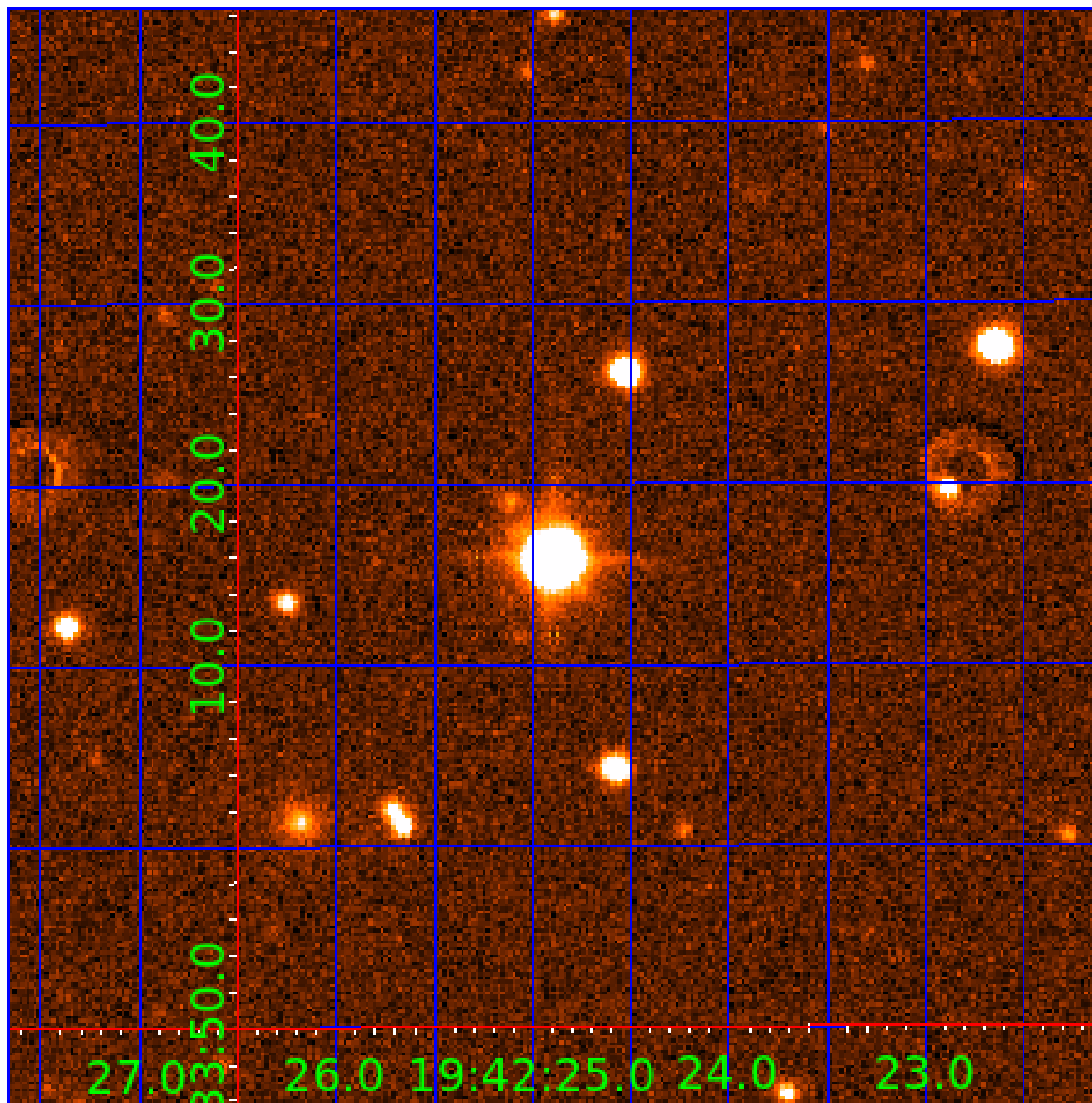
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

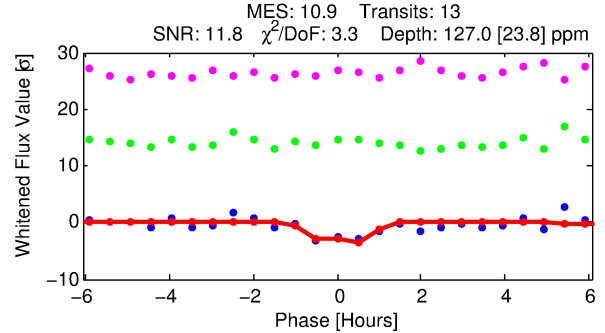
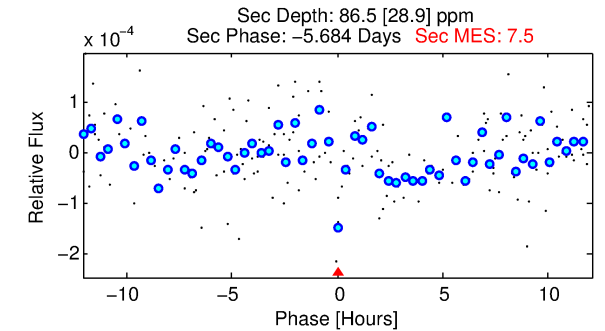
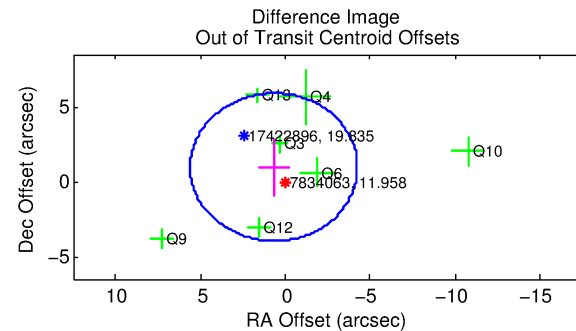
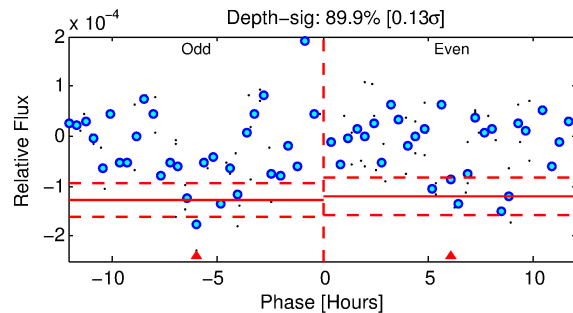
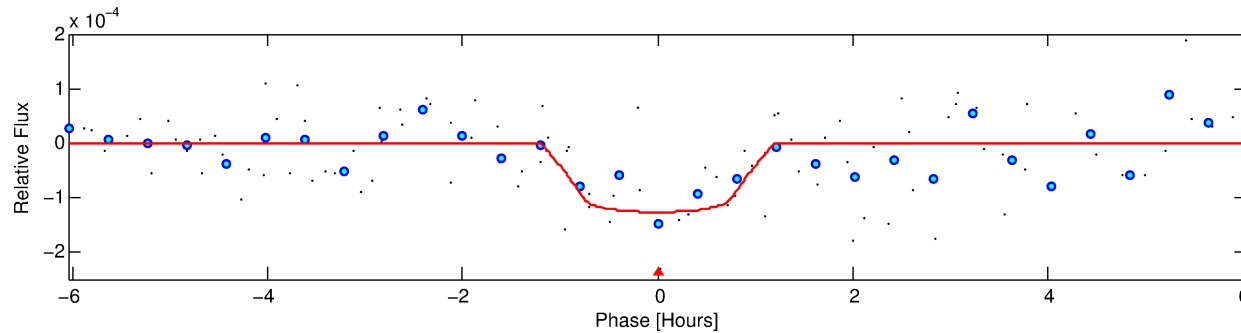
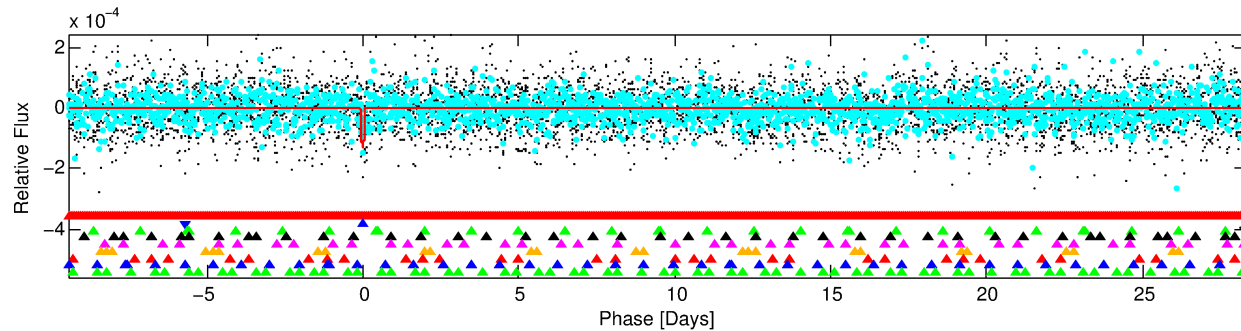
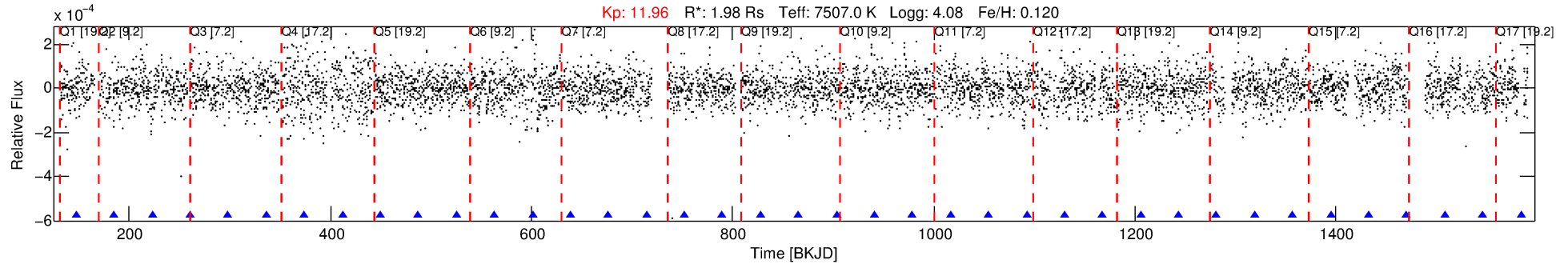
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-02

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 2 of 9 Period: 37.792 d



DV Fit Results:

Period = 37.79204 [0.00041] d
Epoch = 147.5272 [0.0077] BKJD
Rp/R* = 0.0116 [0.0065]
a/R* = 77.71 [271.94]
b = 0.85 [1.12]
Seff = 158.76 [59.42]
Teq = 905 [85] K
Rp = 2.51 [1.57] Re
a = 0.2645 [0.0605] AU
Ag = 528.43 [640.43] [0.82 σ]
Teffp = 6710 [1981] K [2.93 σ]

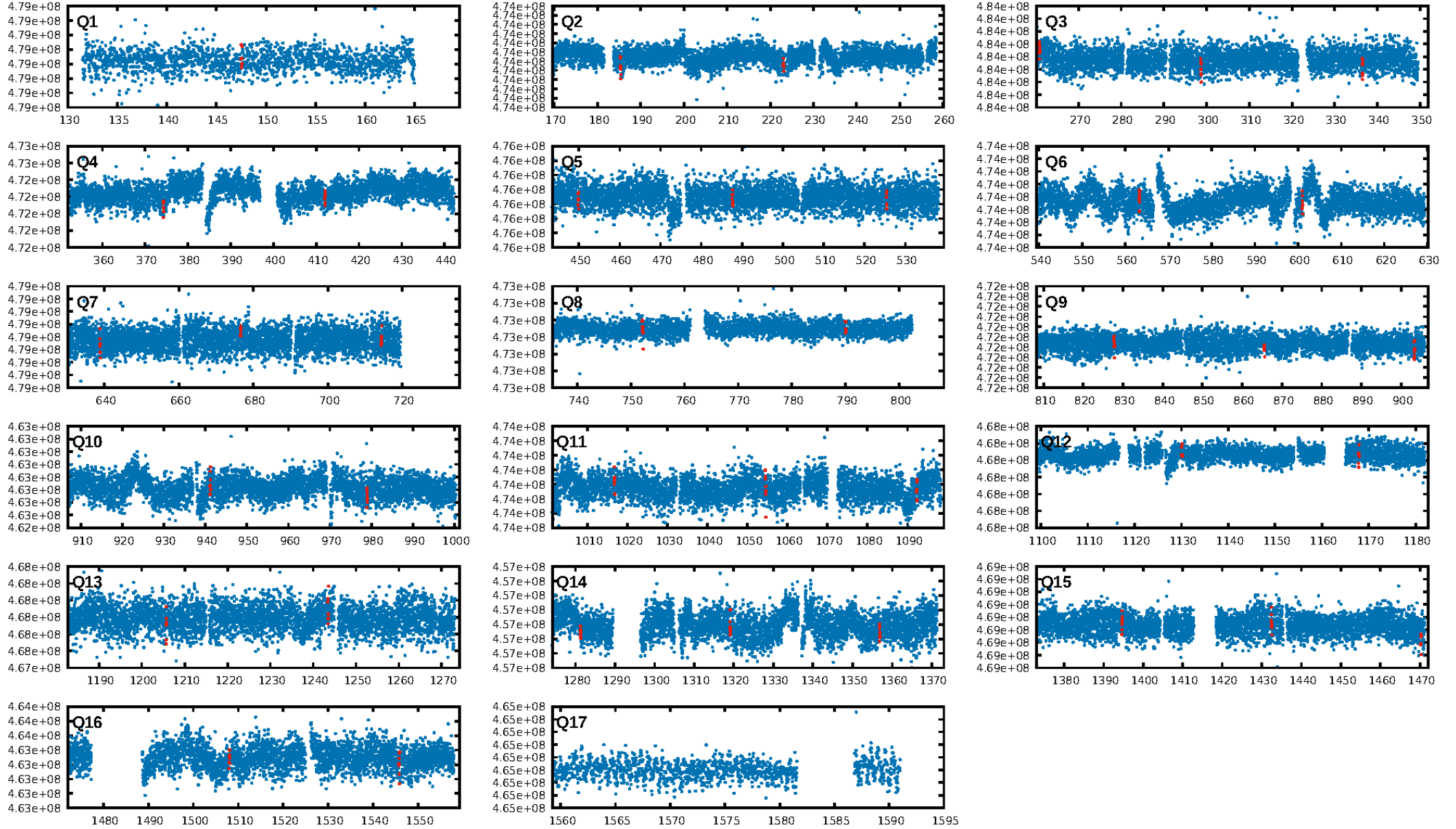
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [16.75 σ]
LongPeriod-sig: 100.0% [83.72 σ]
ModelChiSquare2-sig: 19.1%
ModelChiSquareGof-sig: 94.2%
Bootstrap-pfa: 2.14e-10
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 0.9201
Centroid-sig: 3.7%
Centroid-so: 0.831 arcsec [1.64 σ]
OotOffset-rm: 1.175 arcsec [0.71 σ]
KicOffset-rm: 1.221 arcsec [0.75 σ]
OotOffset-st: 2/1/2/2 [7]
KicOffset-st: 2/1/2/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.00 [0/16]

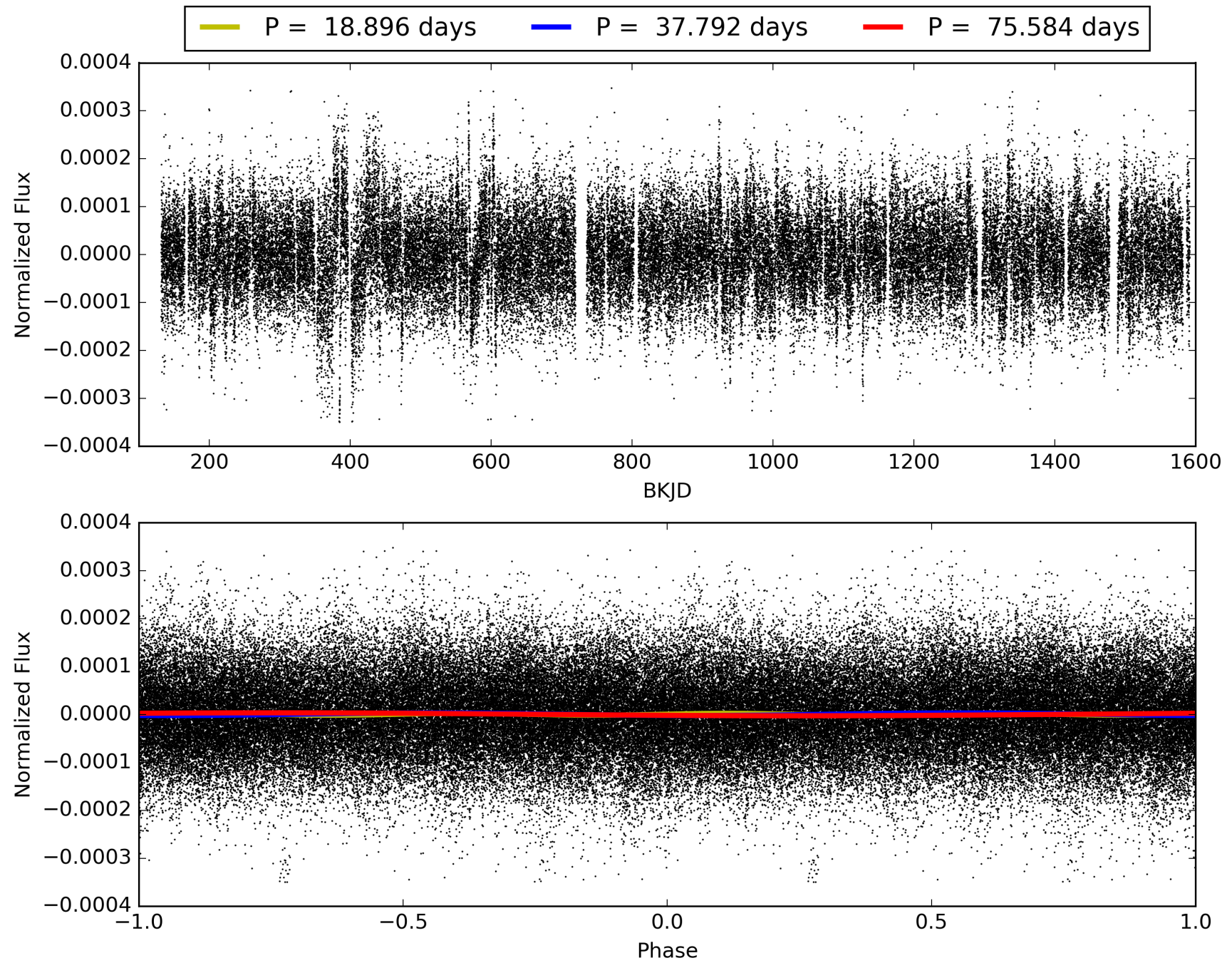
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:18 Z

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

TCE 007834063-02, PDC Light Curves

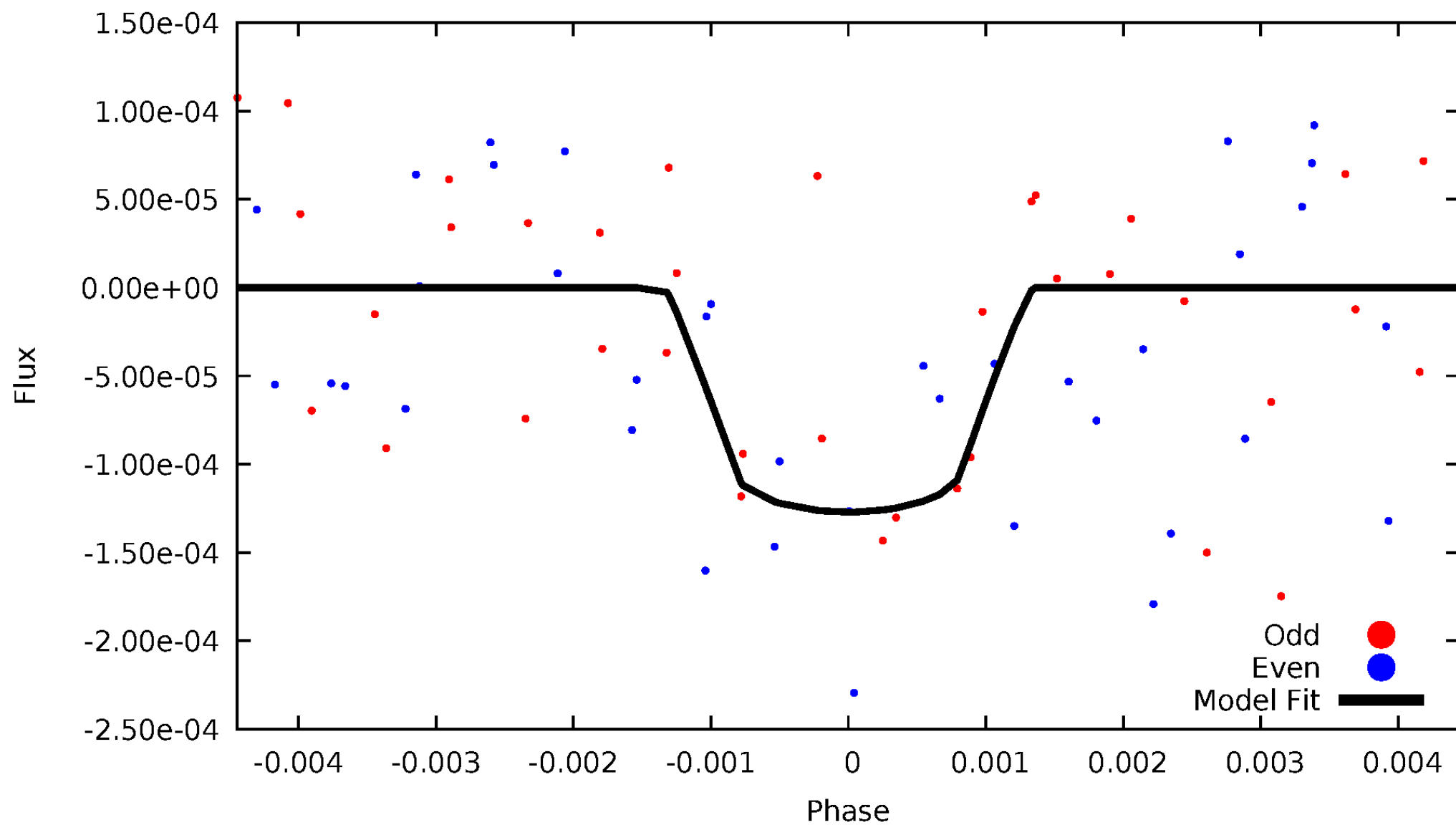


TCE 007834063-02



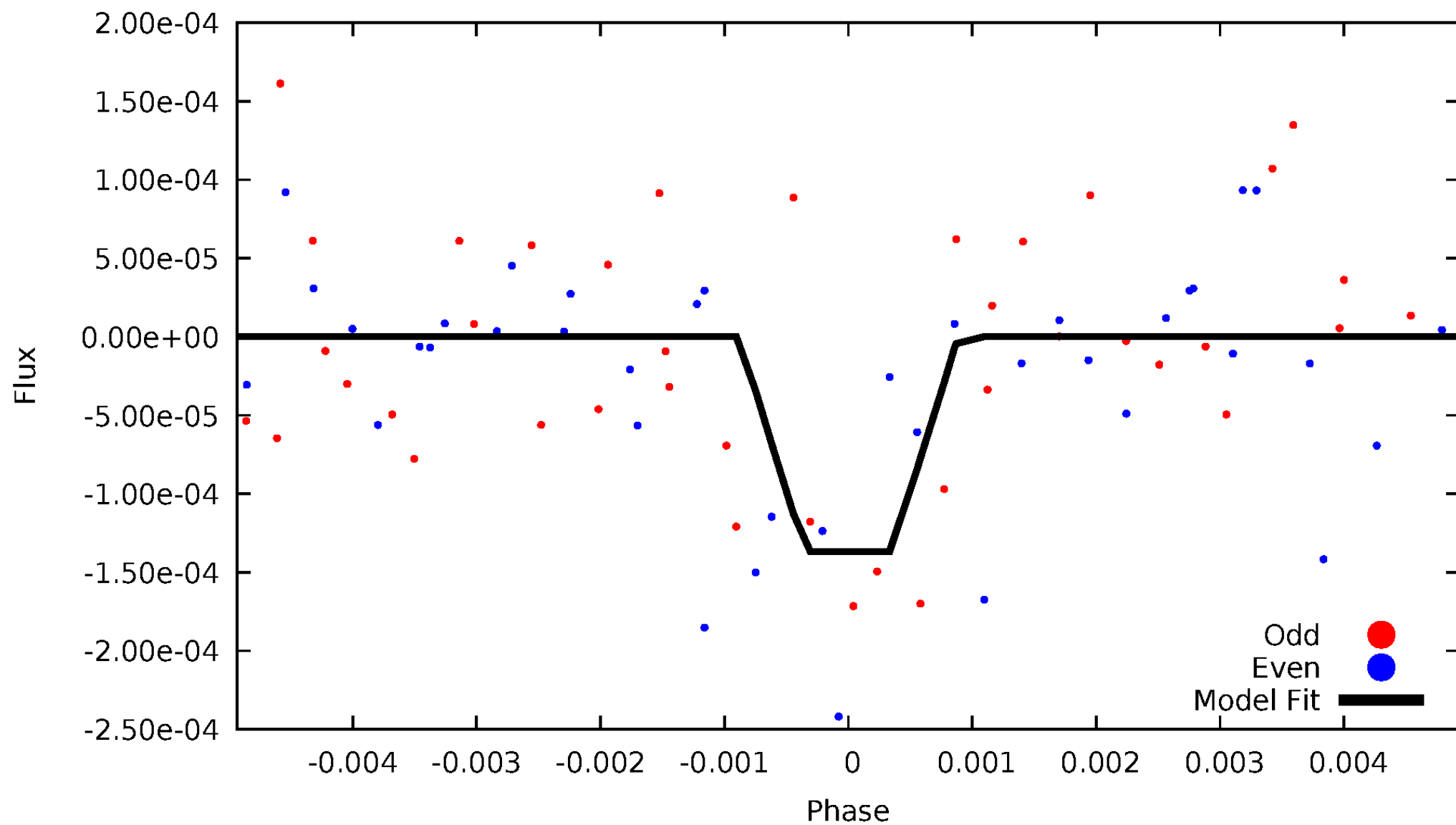
DV Odd/Even

TCE 007834063-02



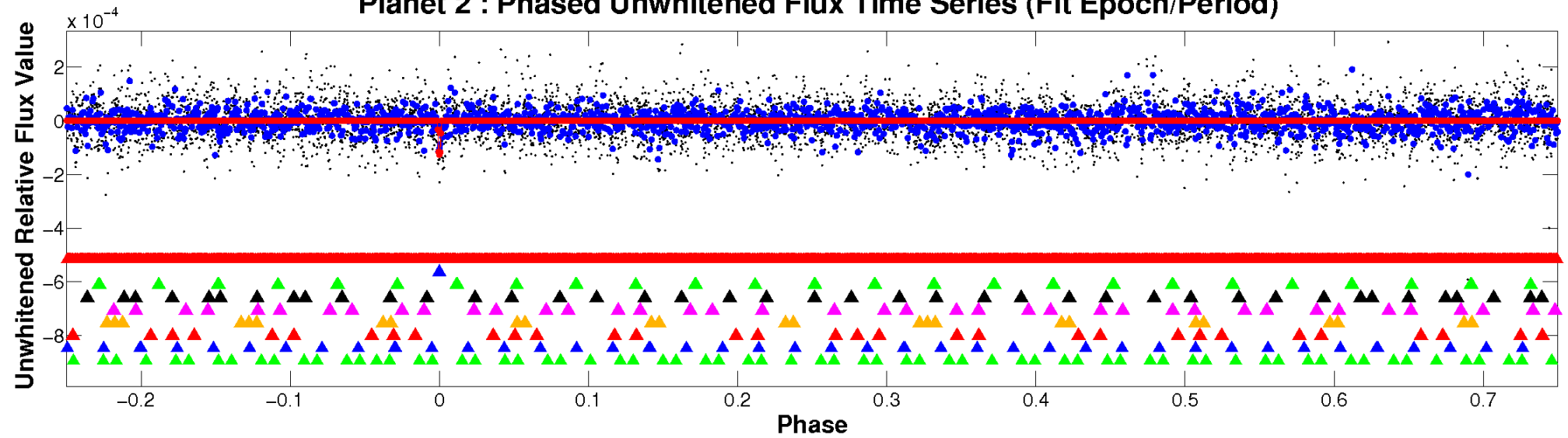
ALT Odd/Even

TCE 007834063-02

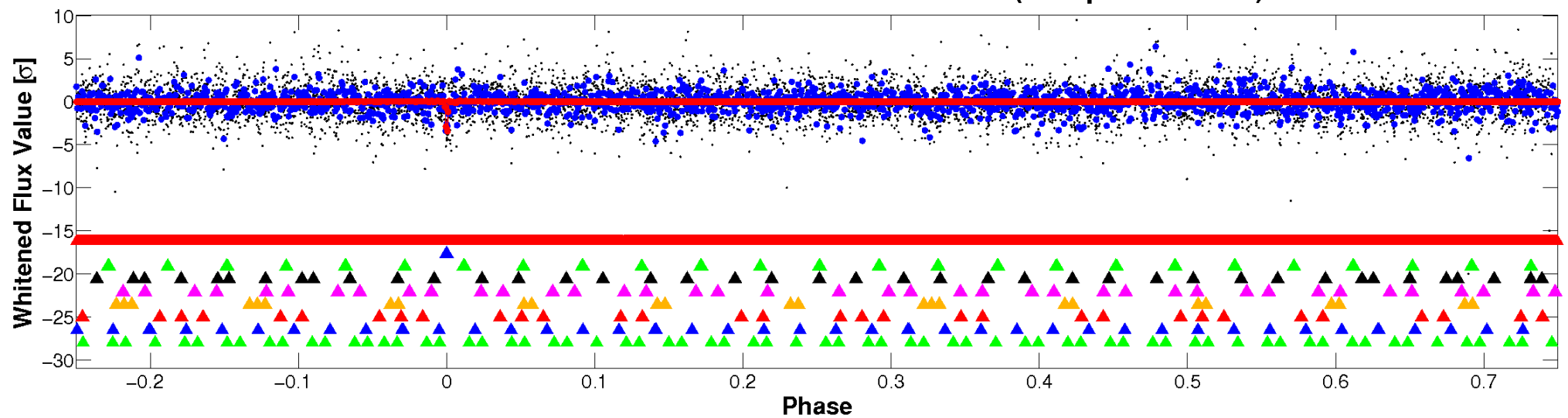


Non-Whitened Vs. Whitened Light Curve

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

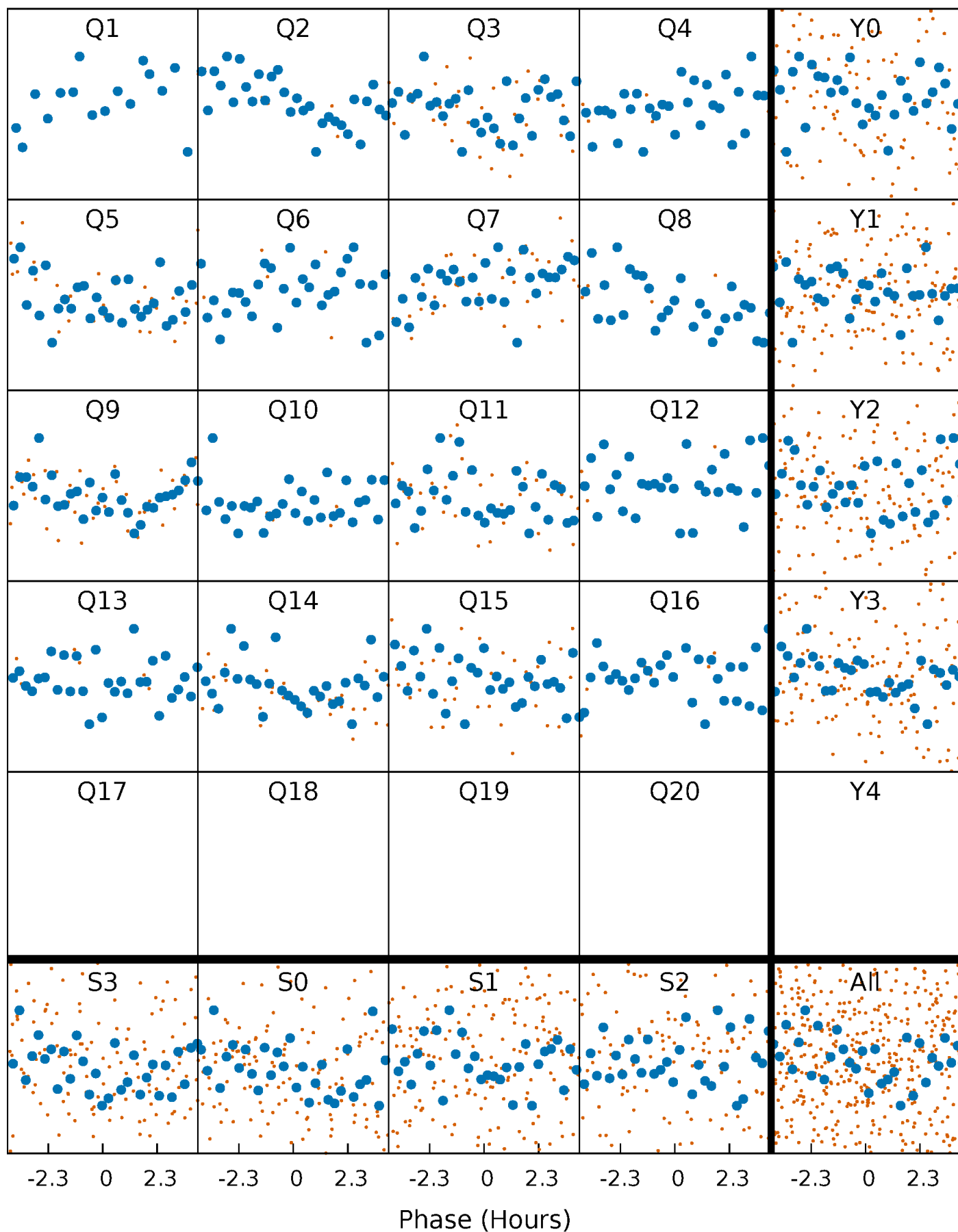


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



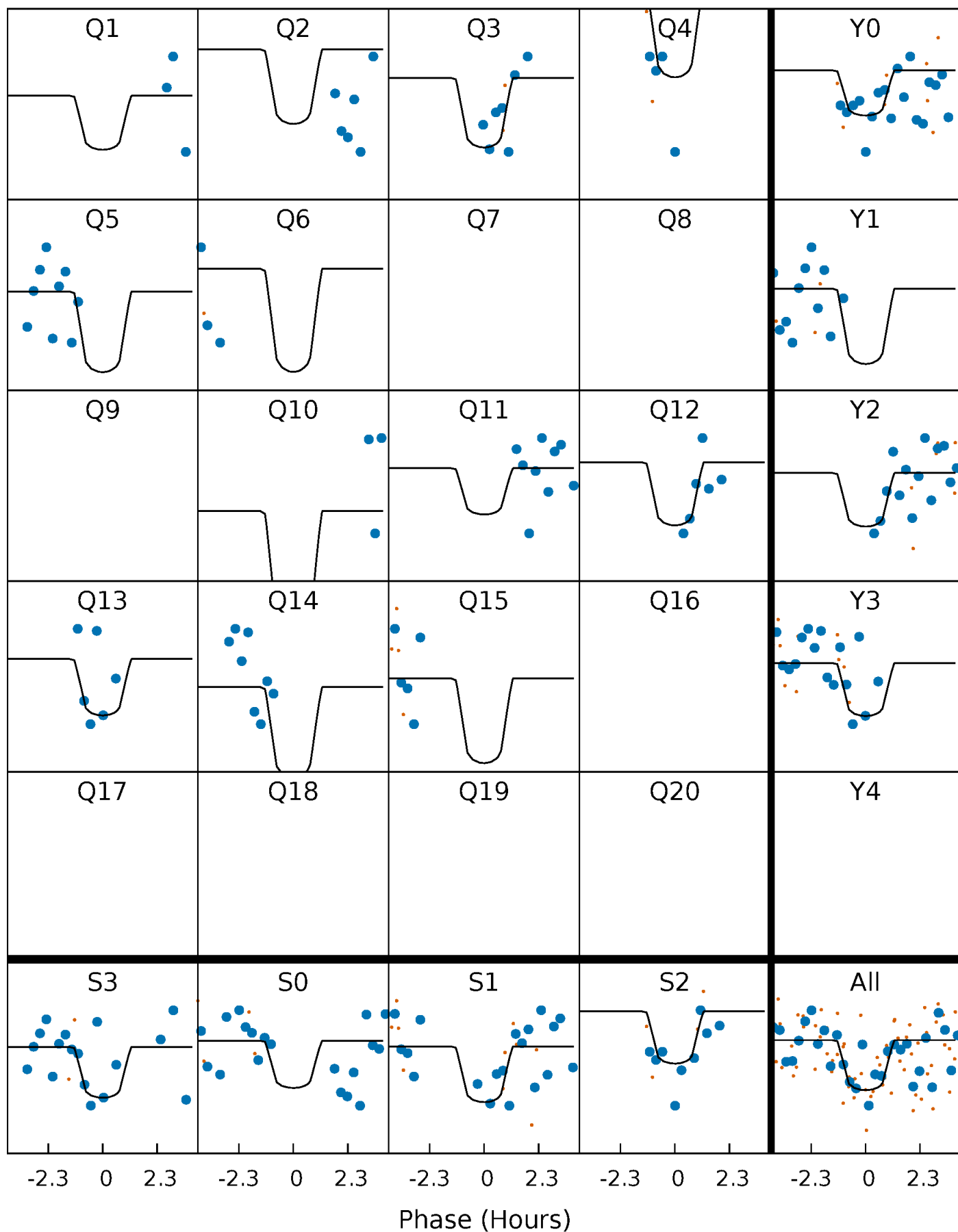
PDC Quarter-Phased Transit Curves

TCE 007834063-02 P= 37.792042 Days $T_0=147.527232$ (BKJD)



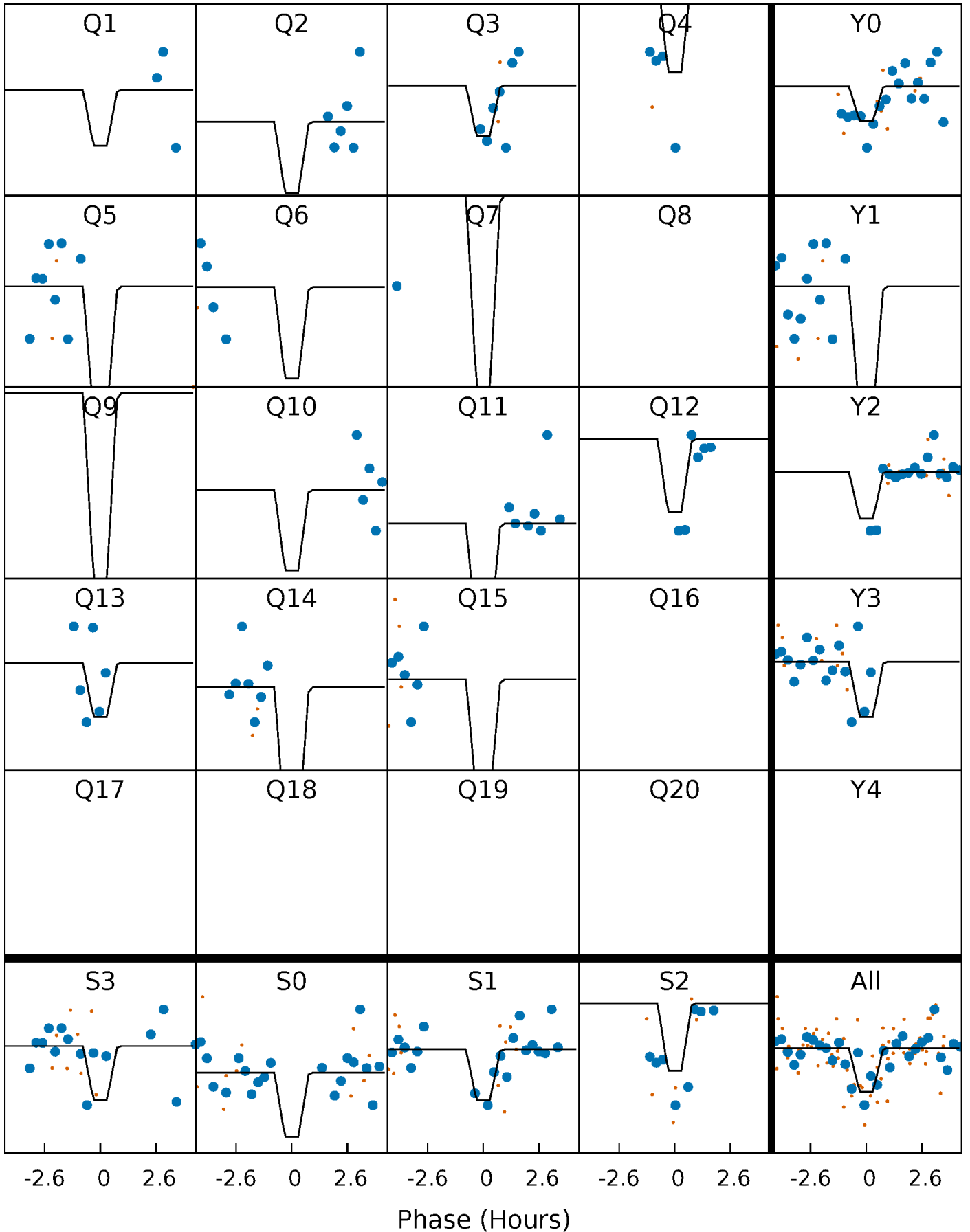
DV Quarter-Phased Transit Curves

TCE 007834063-02 P= 37.792042 Days $T_0=147.527232$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

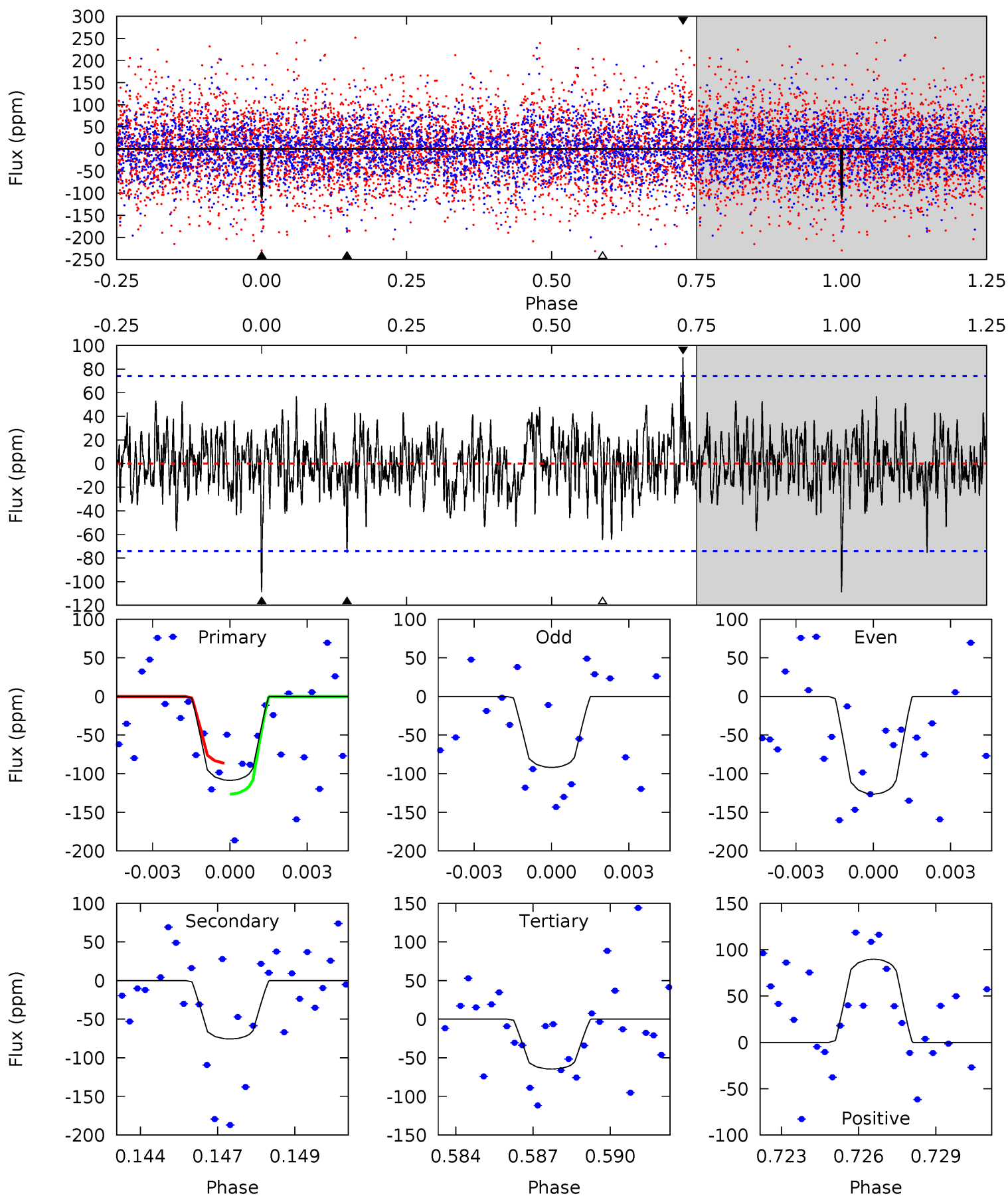
TCE 007834063-02 P= 37.792205 Days $T_0=147.530760$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-02, $P = 37.792042$ Days, $E = 109.735190$ Days

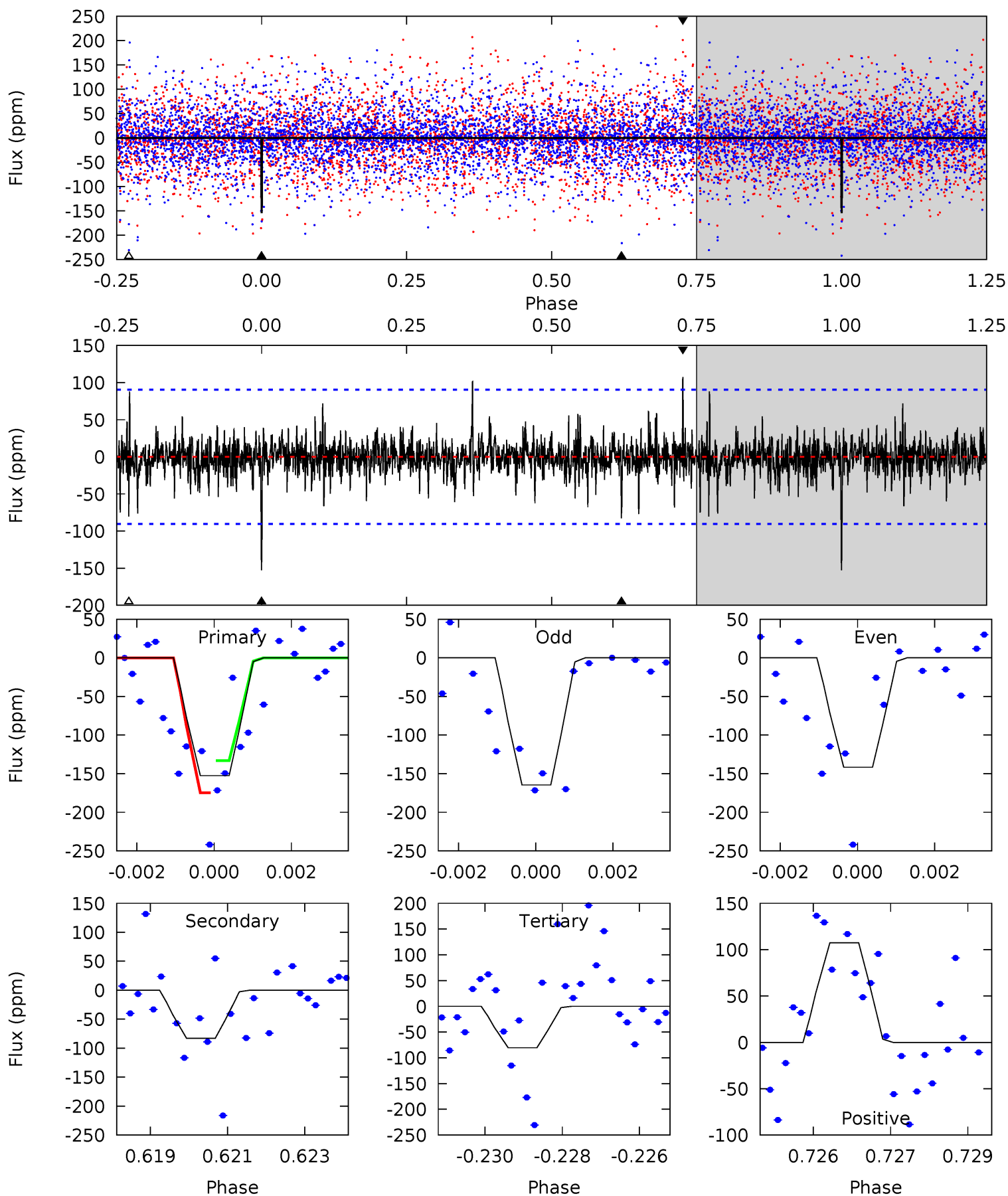
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.75	5.39	4.60	6.40	5.27	3.00	1.44	3.15	1.35	0.79	-1.01	1.23	0.98	0.45	1.43



Alt Model-Shift Uniqueness Test

007834063-02, P = 37.792205 Days, E = 109.738555 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.02	4.90	4.75	6.36	5.35	3.14	1.11	4.27	2.67	0.15	-1.45	0.67	0.98	0.41	1.11



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-76 ± 14	$2.66^{+1.33}_{-1.31}$	1265^{+92}_{-90}	6172^{+3064}_{-1060}	408^{+1070}_{-236}
Alt.	-83 ± 17	$2.54^{+1.51}_{-1.37}$	1257^{+98}_{-77}	6406^{+3937}_{-1274}	491^{+1763}_{-314}

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

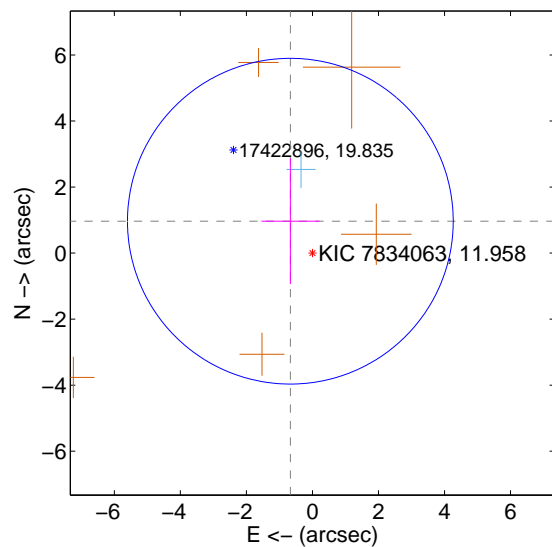
Supplemental centroid analysis for 007834063-02. **Kepler magnitude: 11.96.** Transit SNR 11.79

There are 1 quarters with good PRF difference image offsets

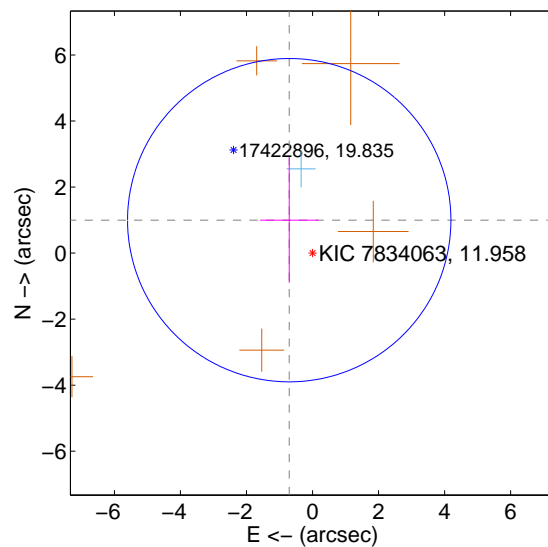
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.175 ± 1.644	0.71	0.669 ± 0.878	0.966 ± 1.905
PRF-fit source offset from KIC position	1.221 ± 1.632	0.75	0.705 ± 0.886	0.997 ± 1.899
photometric centroid source offset	0.83 ± 0.51	1.64	0.78 ± 0.50	-0.30 ± 0.56

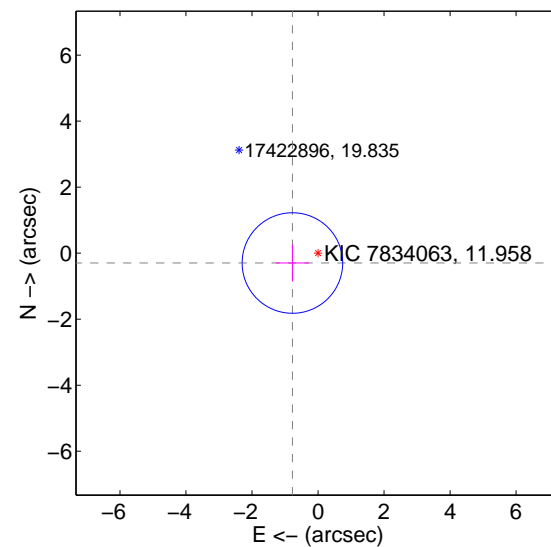
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

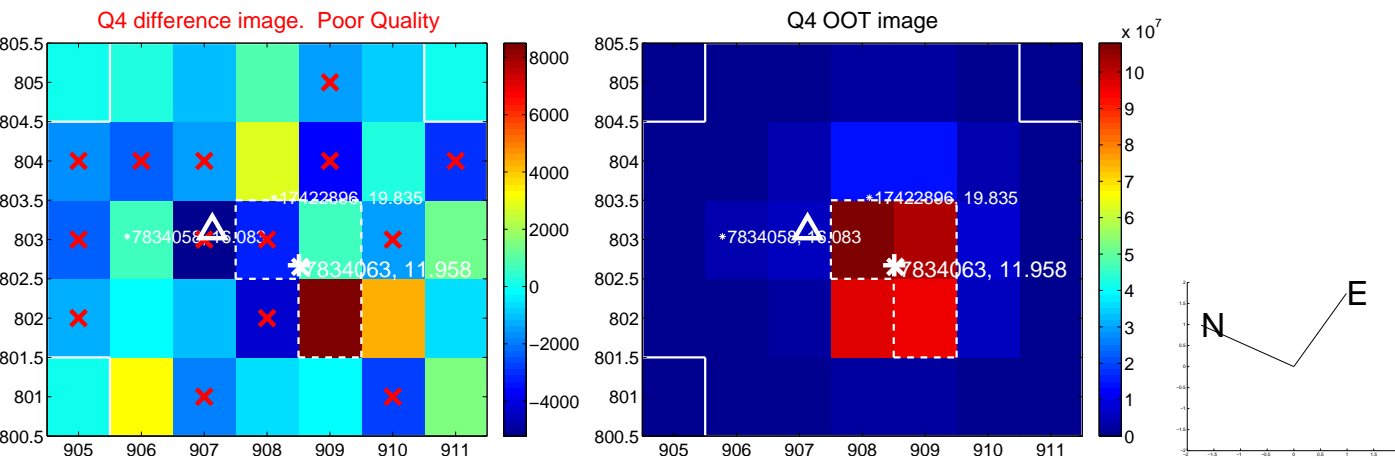
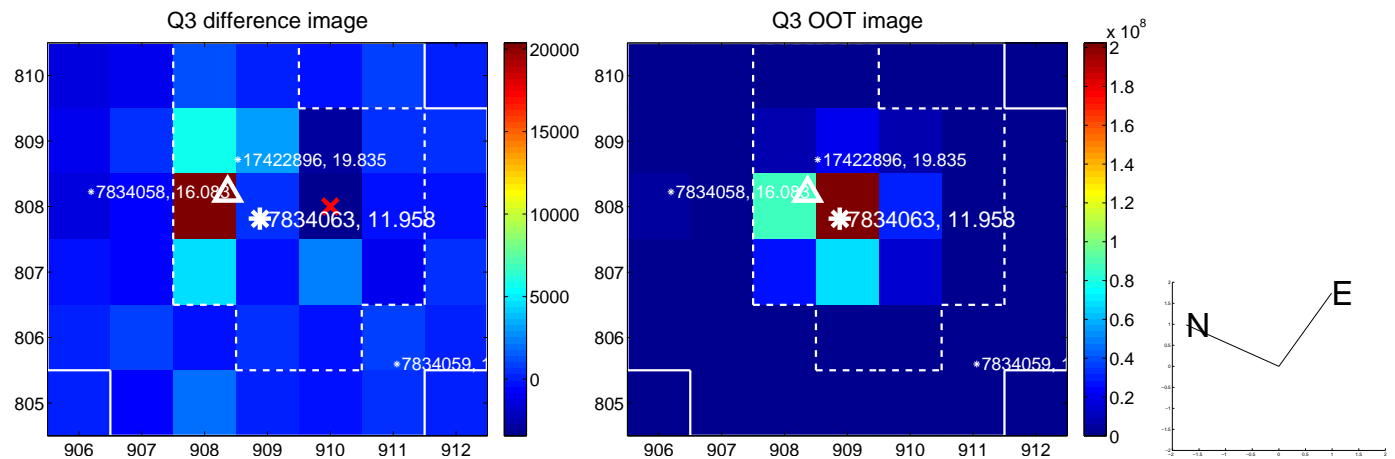
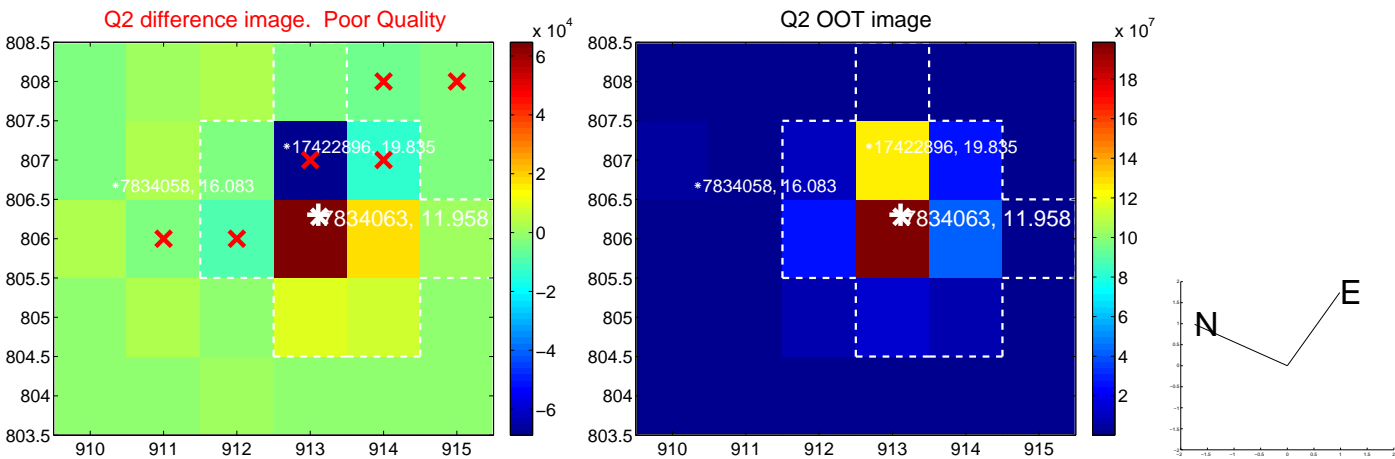
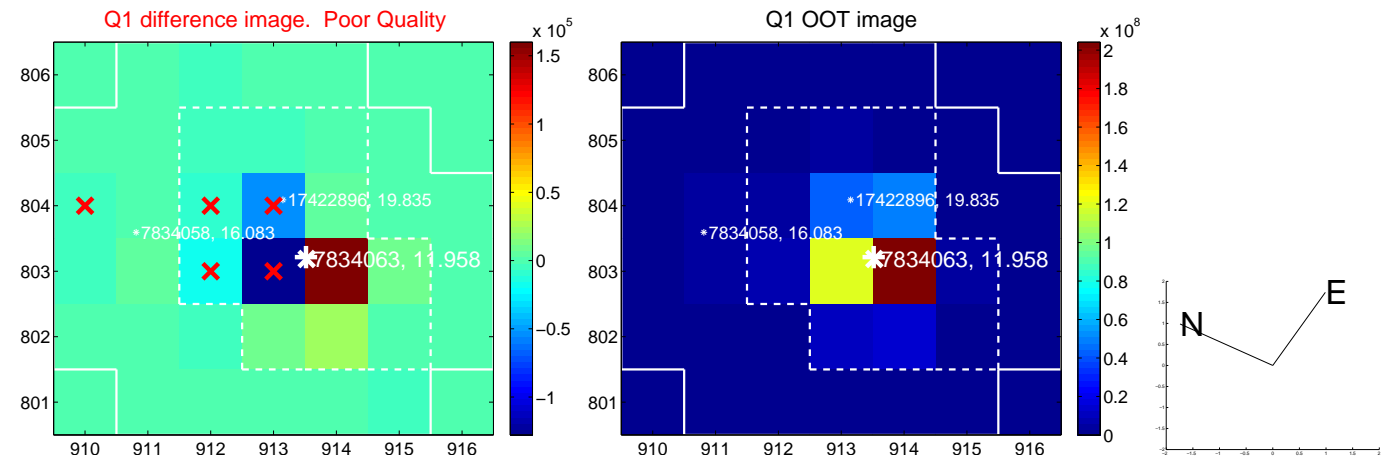


offset from photometric centroids

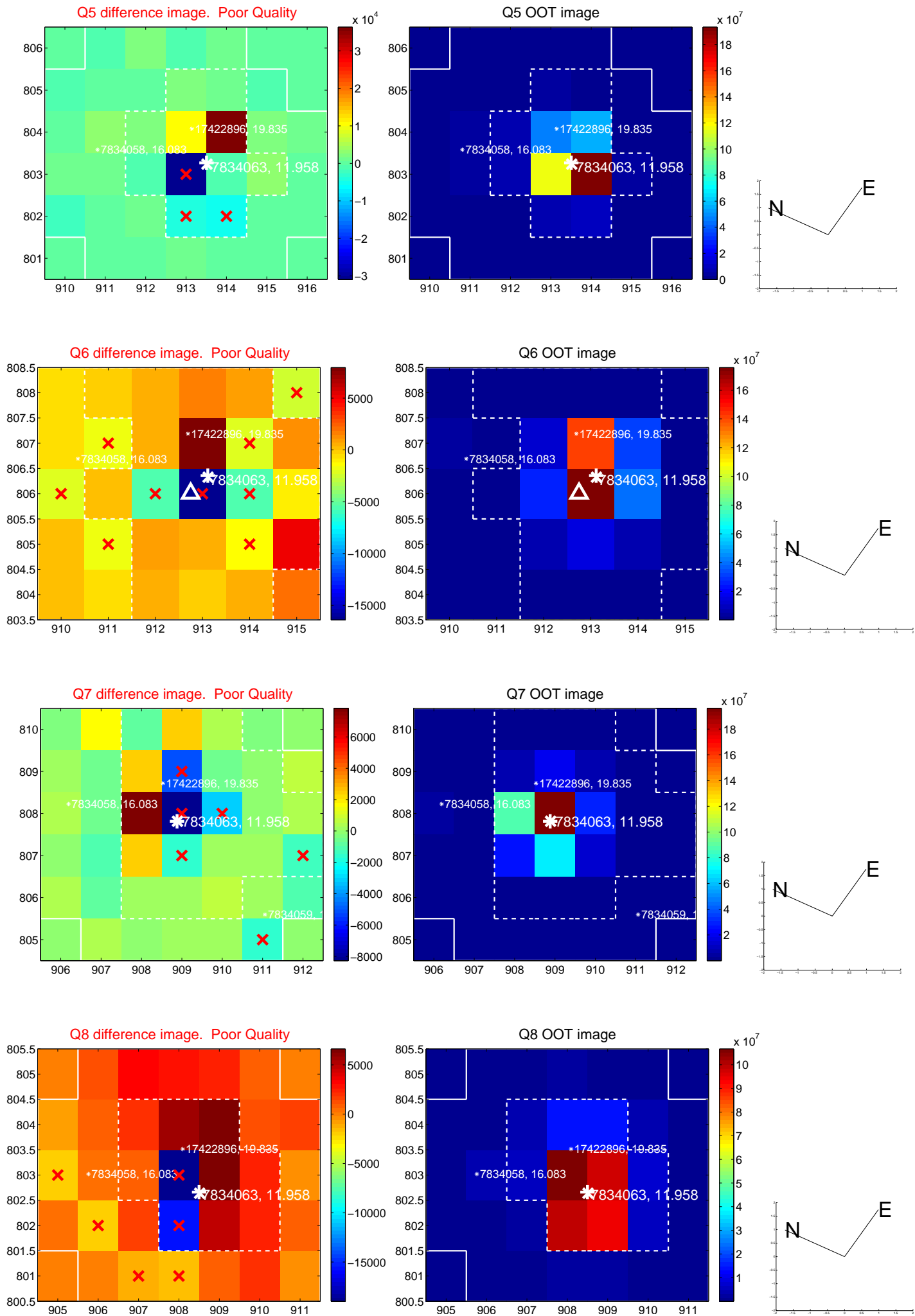


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

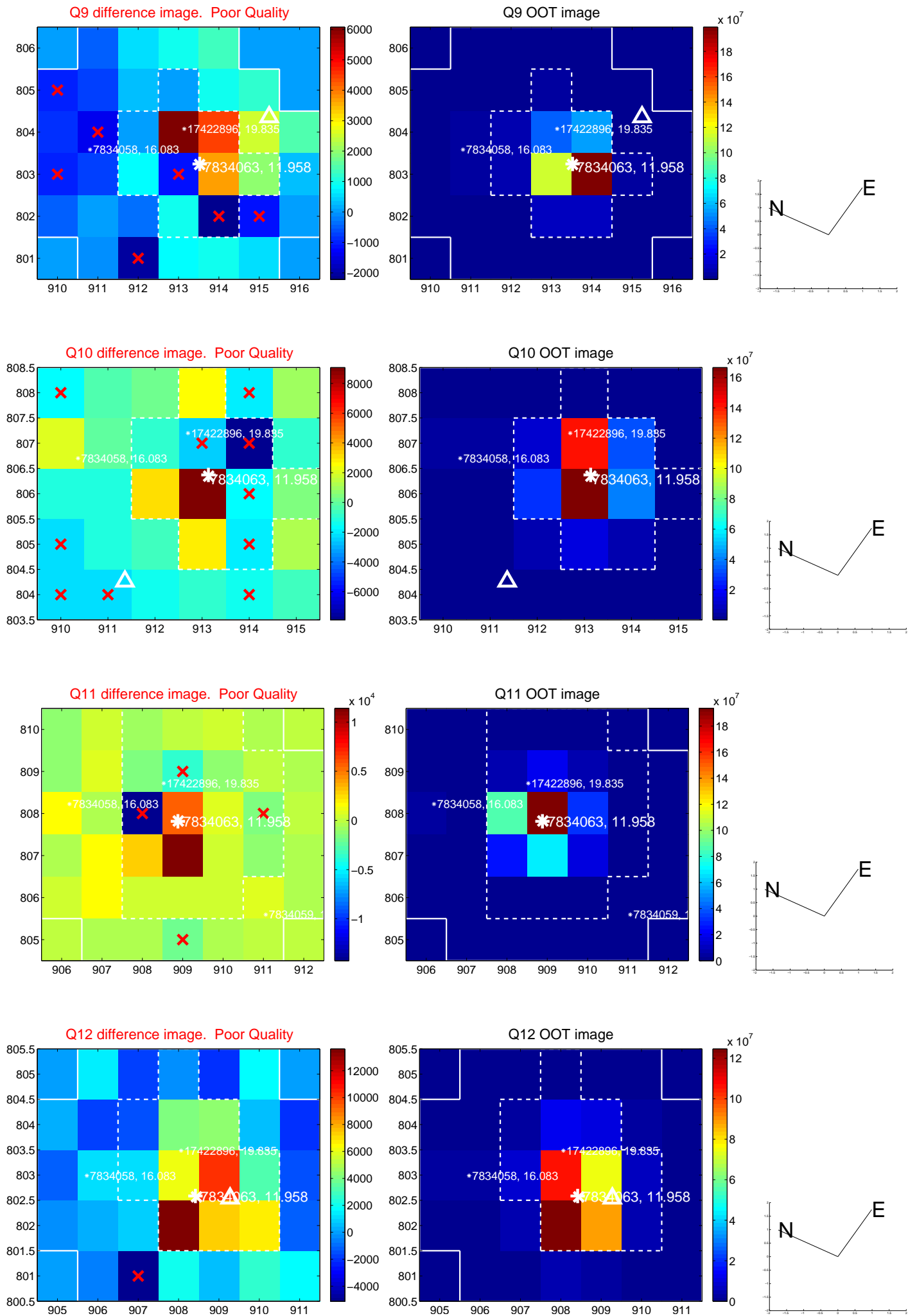
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



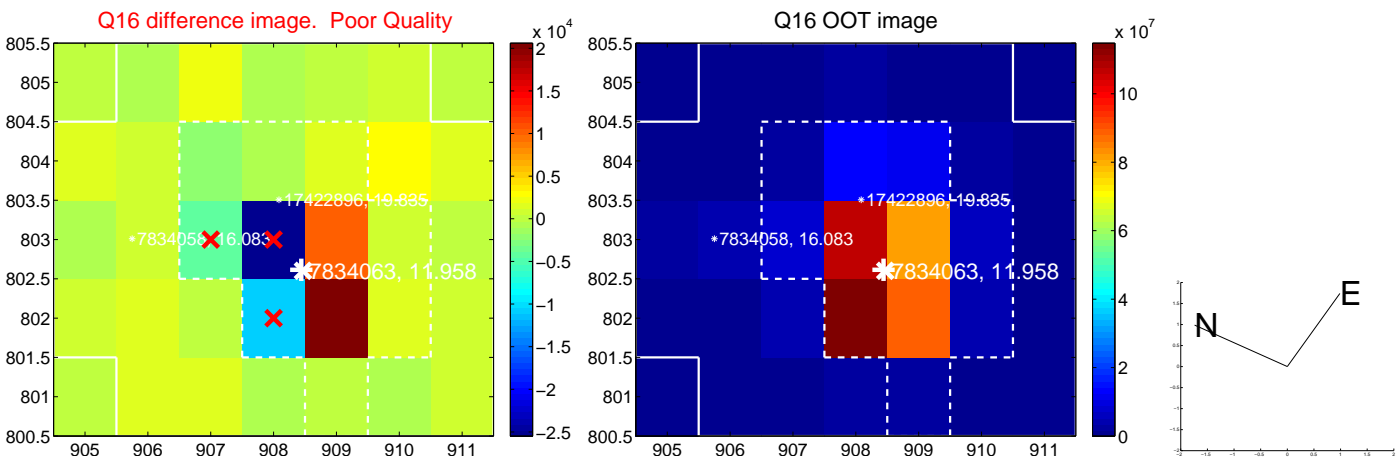
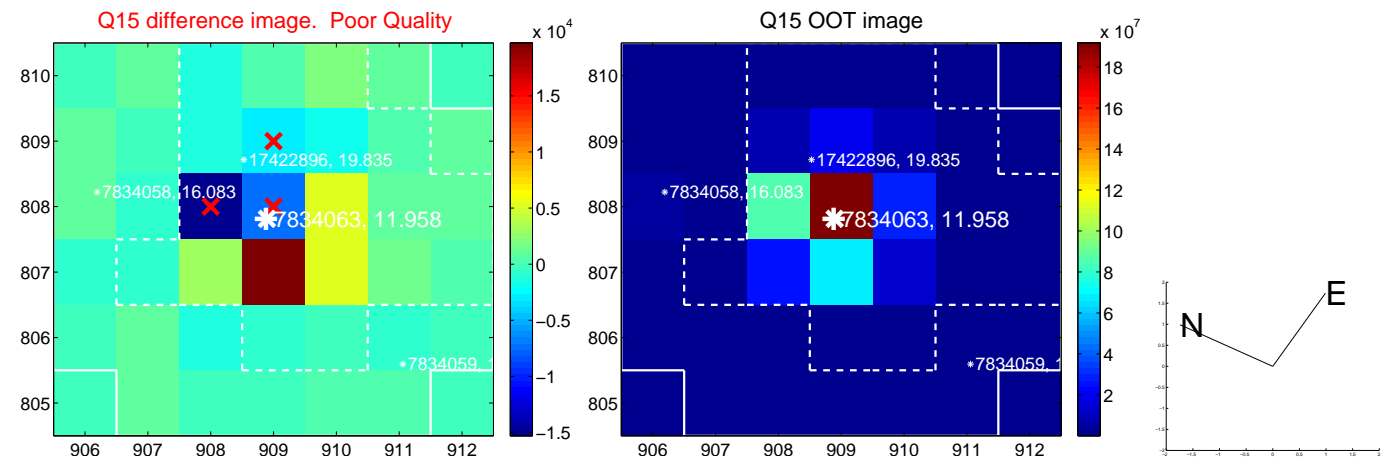
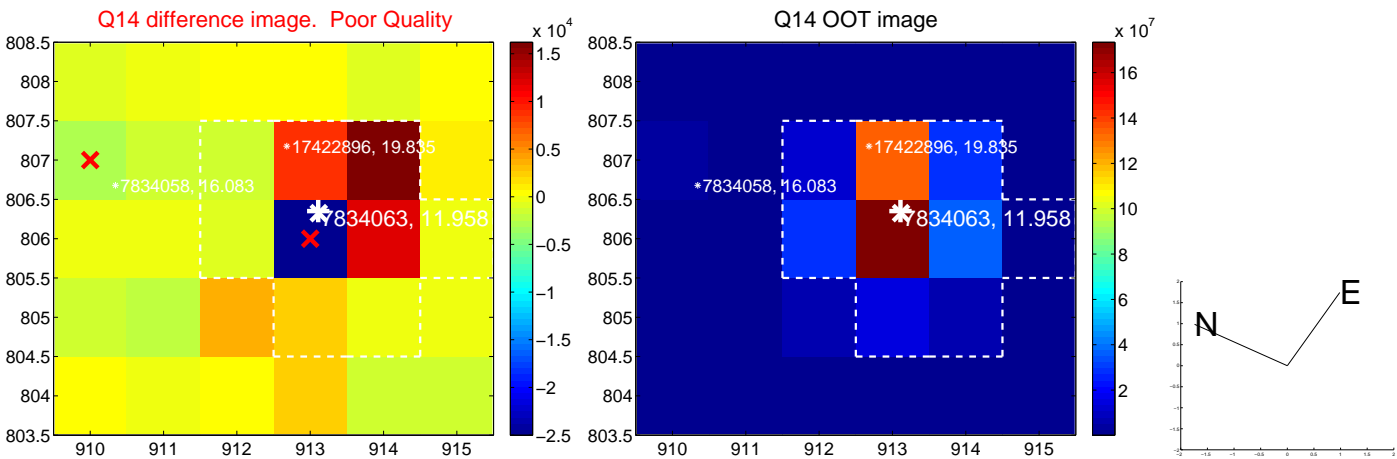
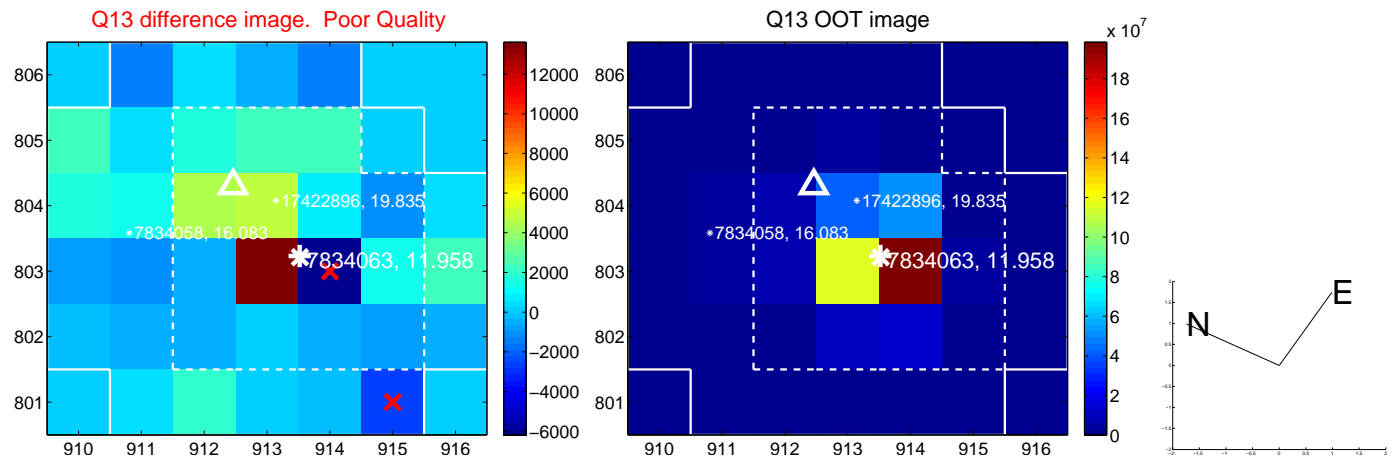
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



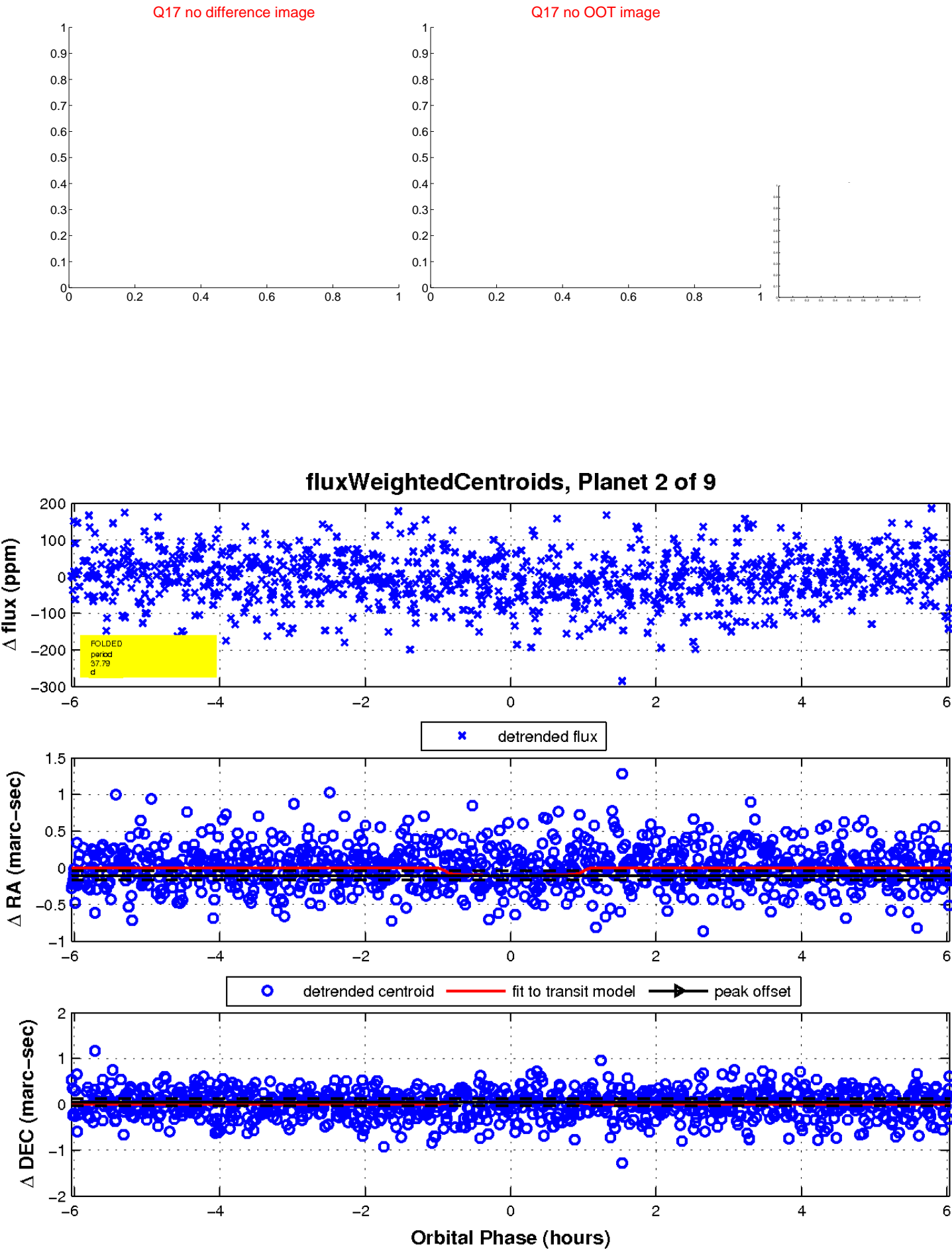
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

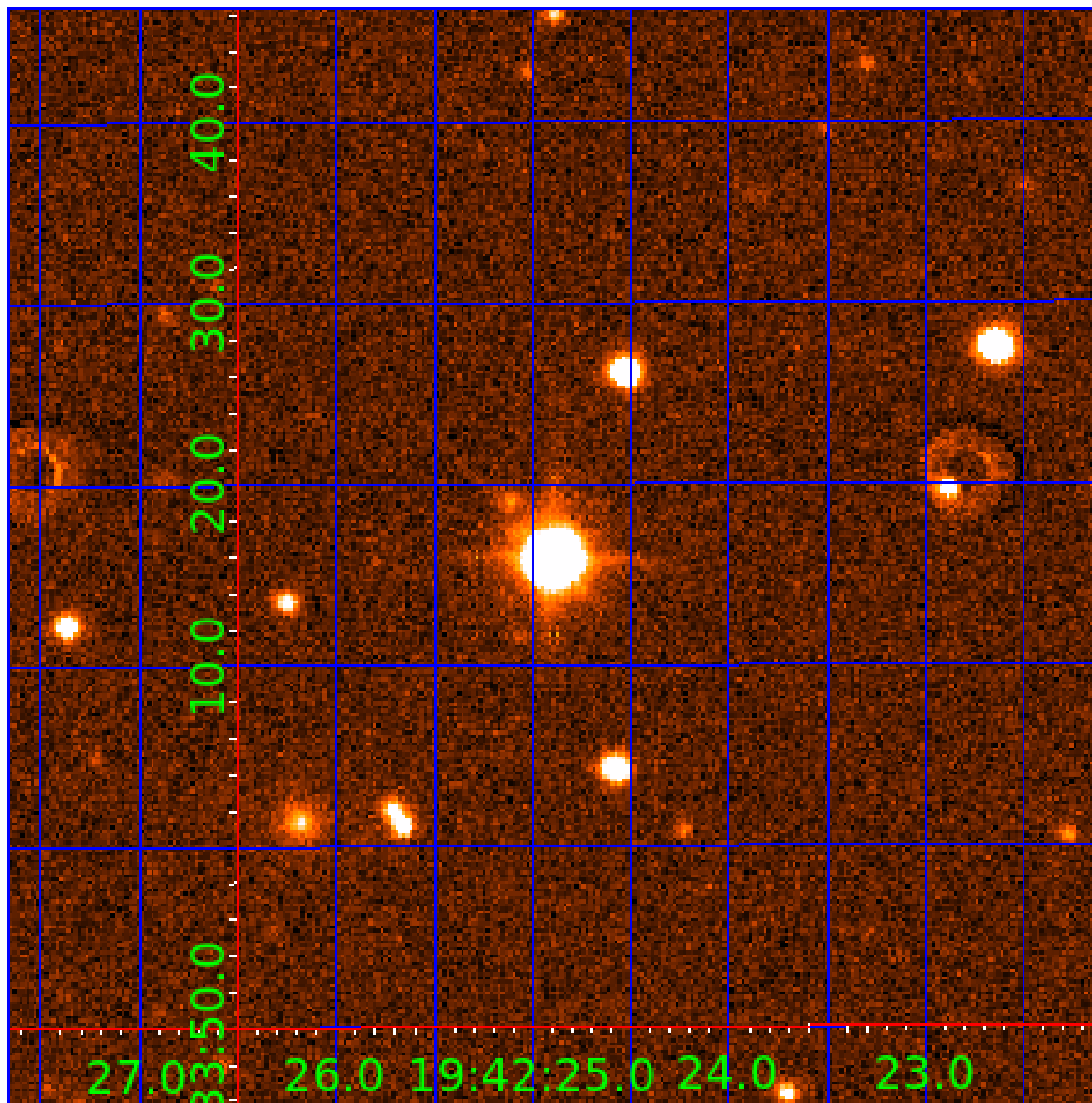


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

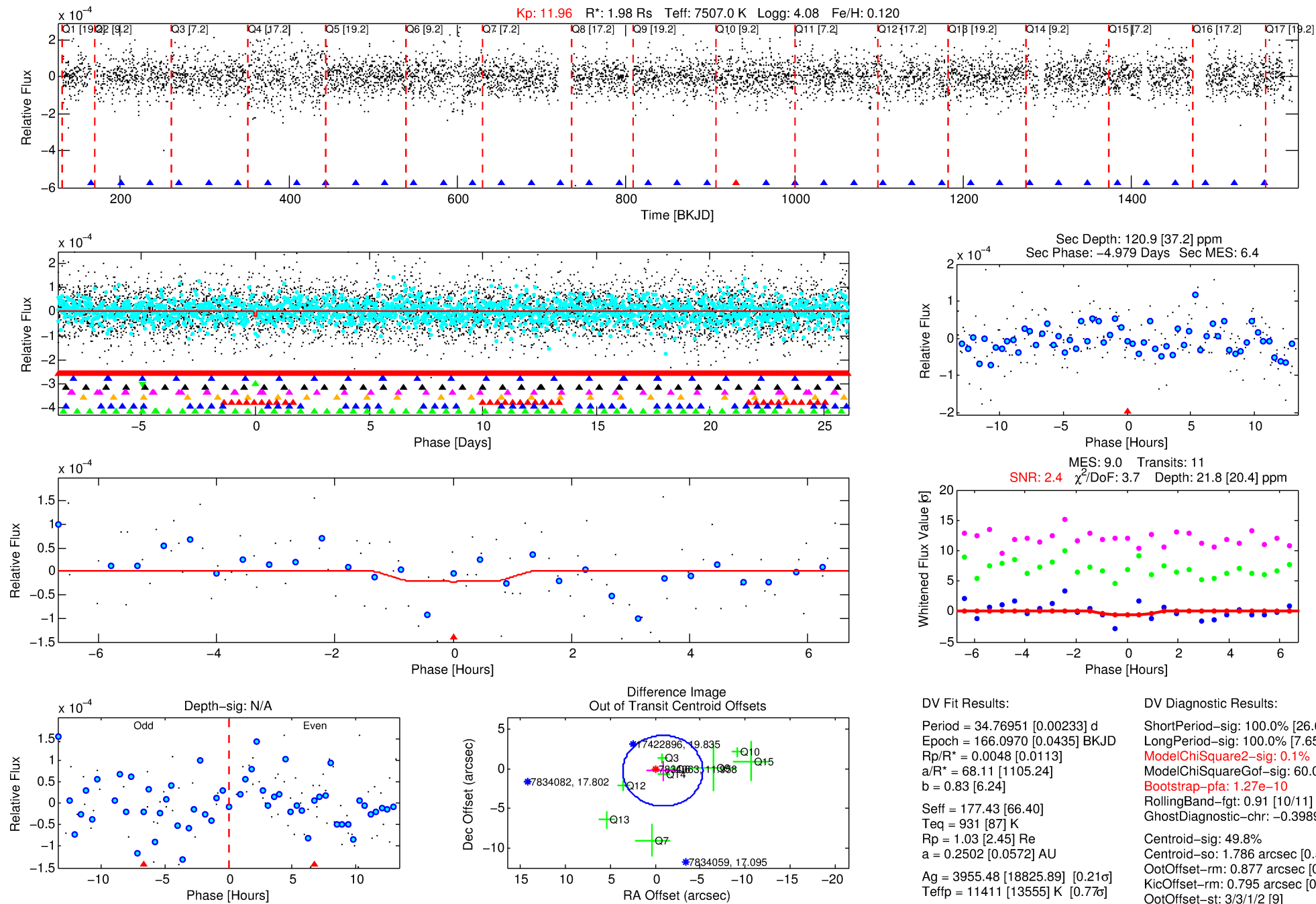
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-03

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 3 of 9 Period: 34.770 d



DV Fit Results:

Period = 34.76951 [0.00233] d
Epoch = 166.0970 [0.0435] BKJD
Rp/R* = 0.0048 [0.0113]
a/R* = 68.11 [1105.24]
b = 0.83 [6.24]
Seff = 177.43 [66.40]
Teff = 931 [87] K
Rp = 1.03 [2.45] Re
a = 0.2502 [0.0572] AU
Ag = 3955.48 [18825.89] [0.21] σ
Teffp = 11411 [13555] K [0.77] σ

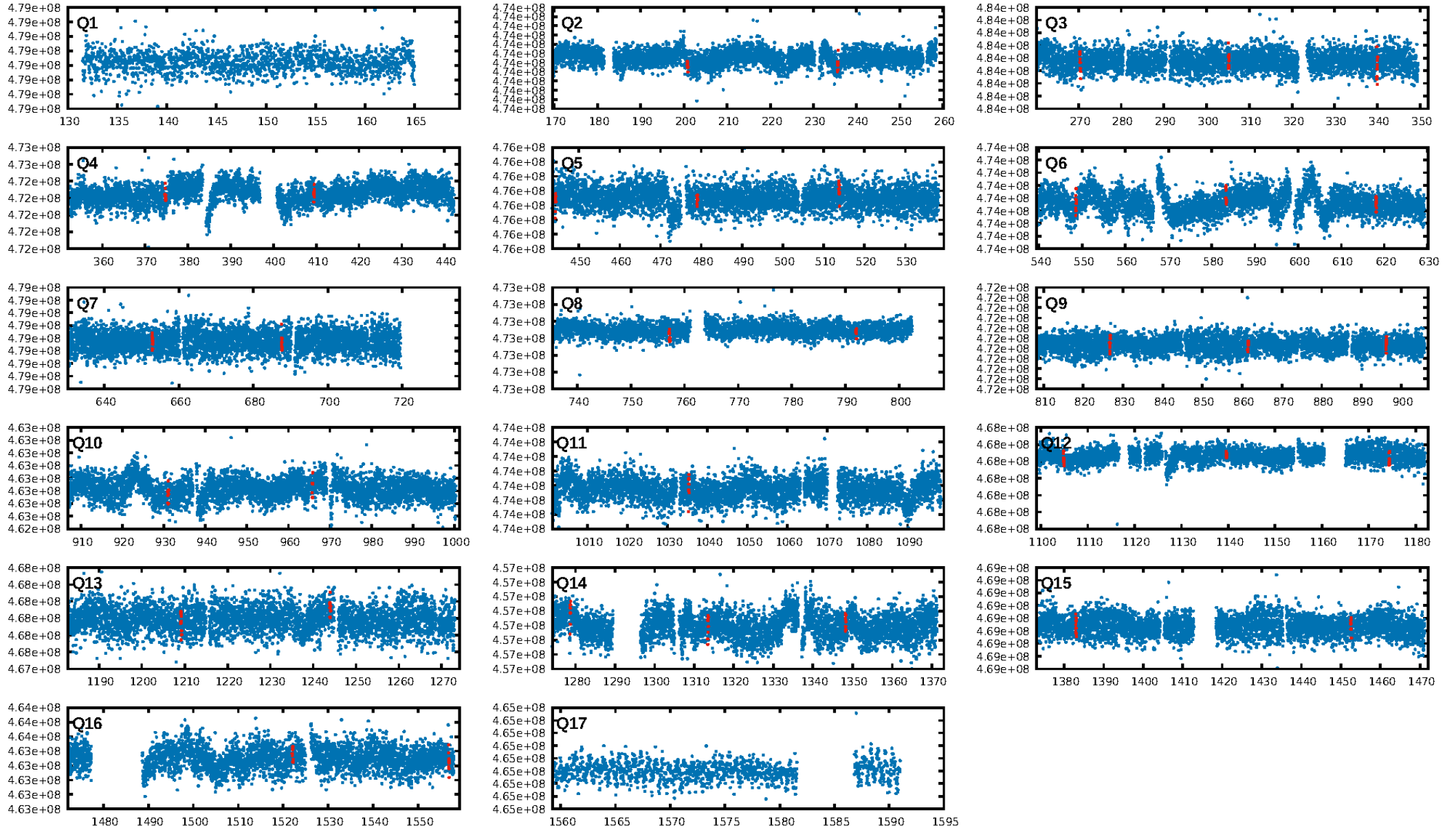
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [26.63] σ
LongPeriod-sig: 100.0% [7.65] σ
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 60.0%
Bootstrap-pfa: 1.27e-10
RollingBand-fgt: 0.91 [10/11]
GhostDiagnostic-chr: -0.3989
Centroid-sig: 49.8%
Centroid-so: 1.786 arcsec [0.55] σ
OotOffset-rm: 0.877 arcsec [0.59] σ
KicOffset-rm: 0.795 arcsec [0.48] σ
OotOffset-st: 3/3/1/2 [9]
KicOffset-st: 3/3/1/2 [9]
DiffImageQuality-fgm: 0.11 [1/9]
DiffImageOverlap-fno: 0.00 [0/15]

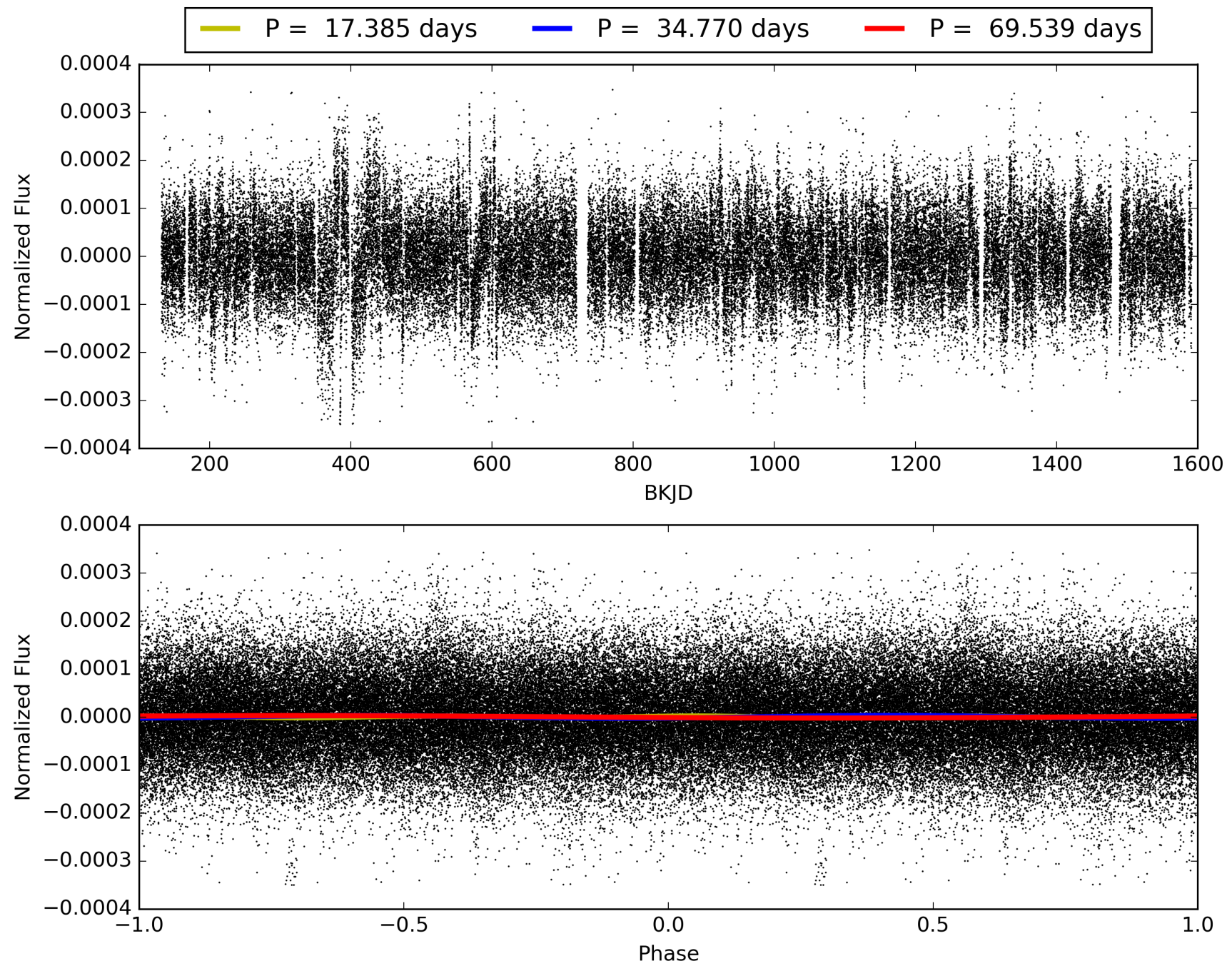
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:22 Z

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

TCE 007834063-03, PDC Light Curves

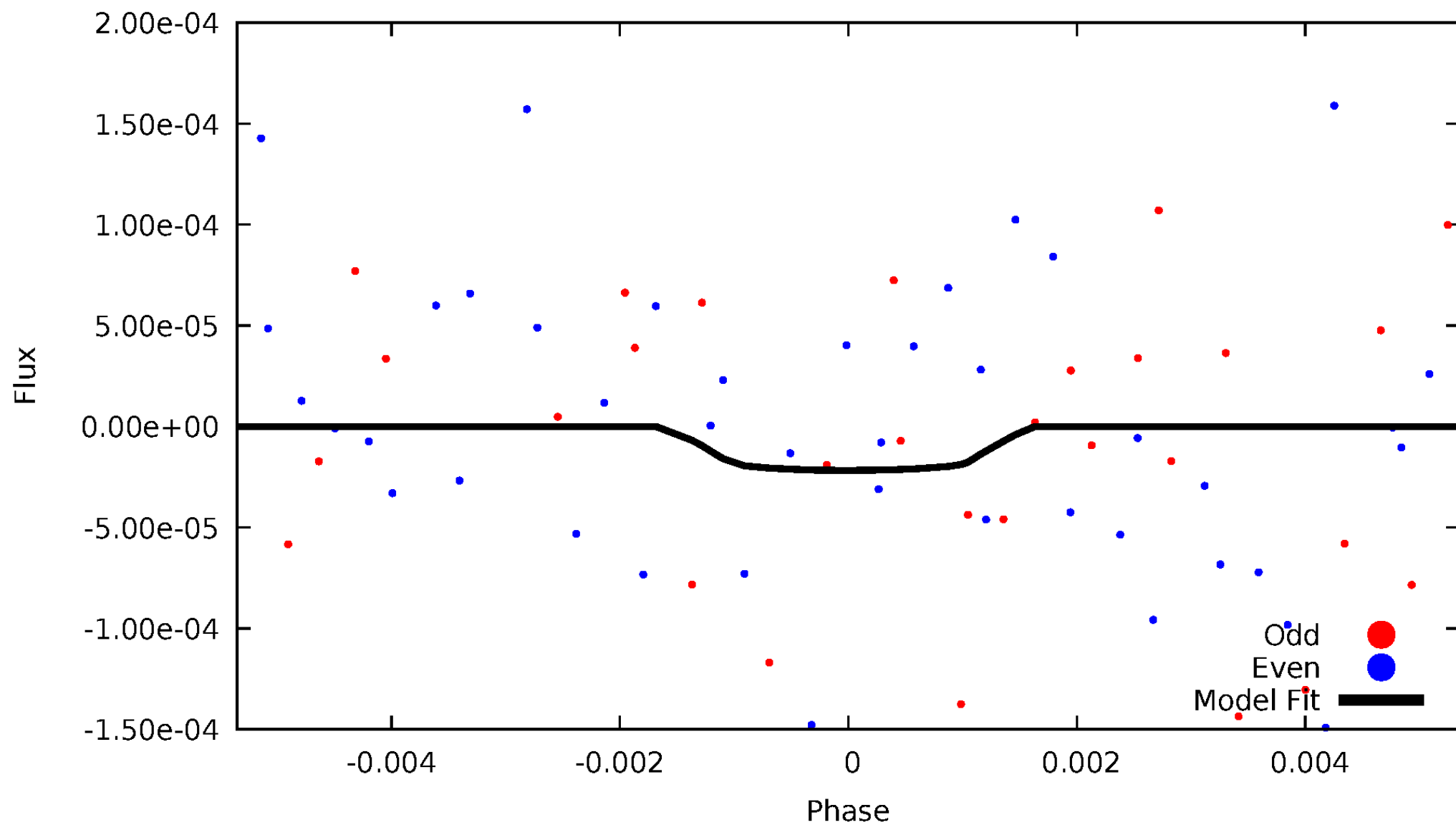


TCE 007834063-03



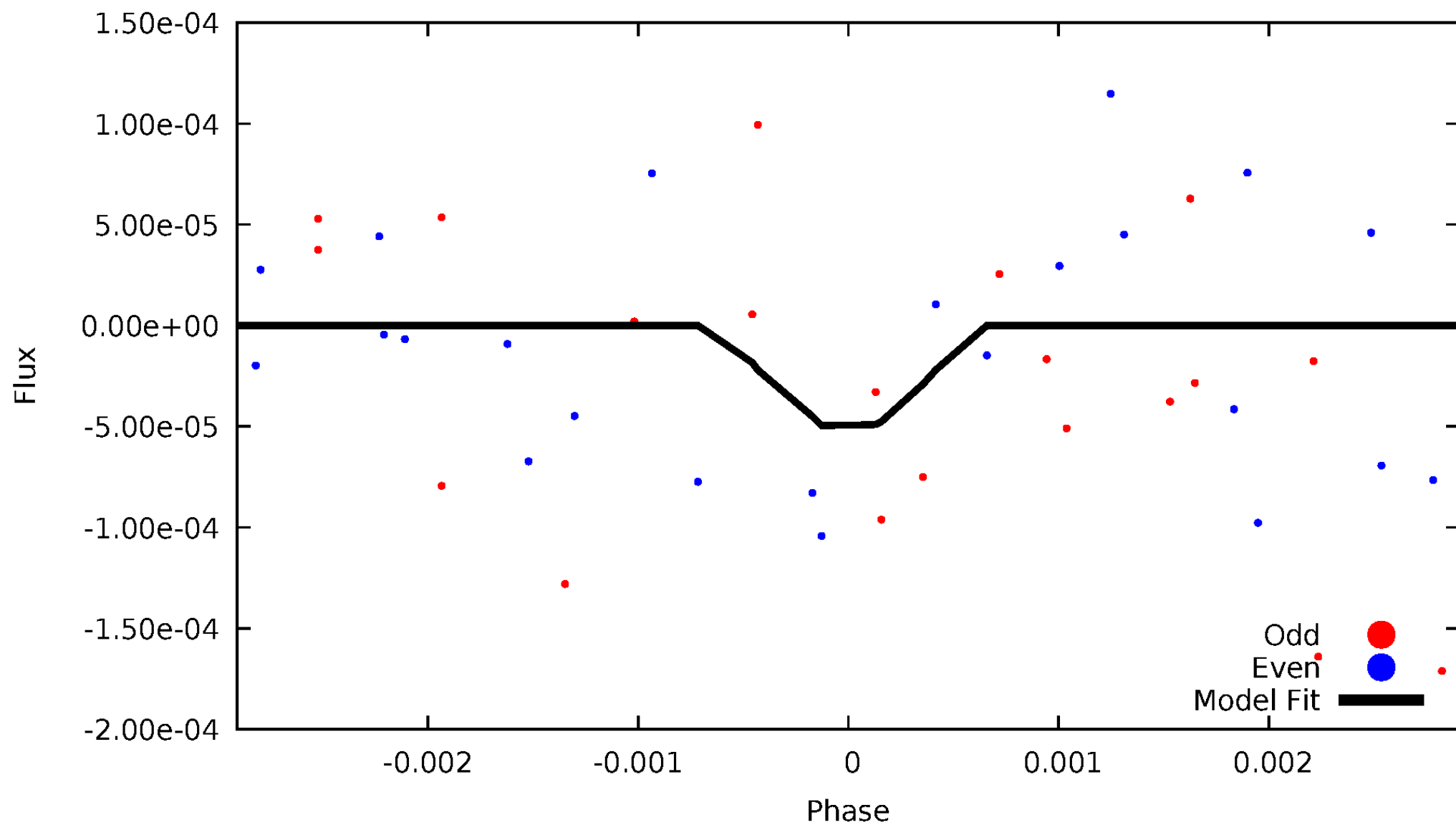
DV Odd/Even

TCE 007834063-03



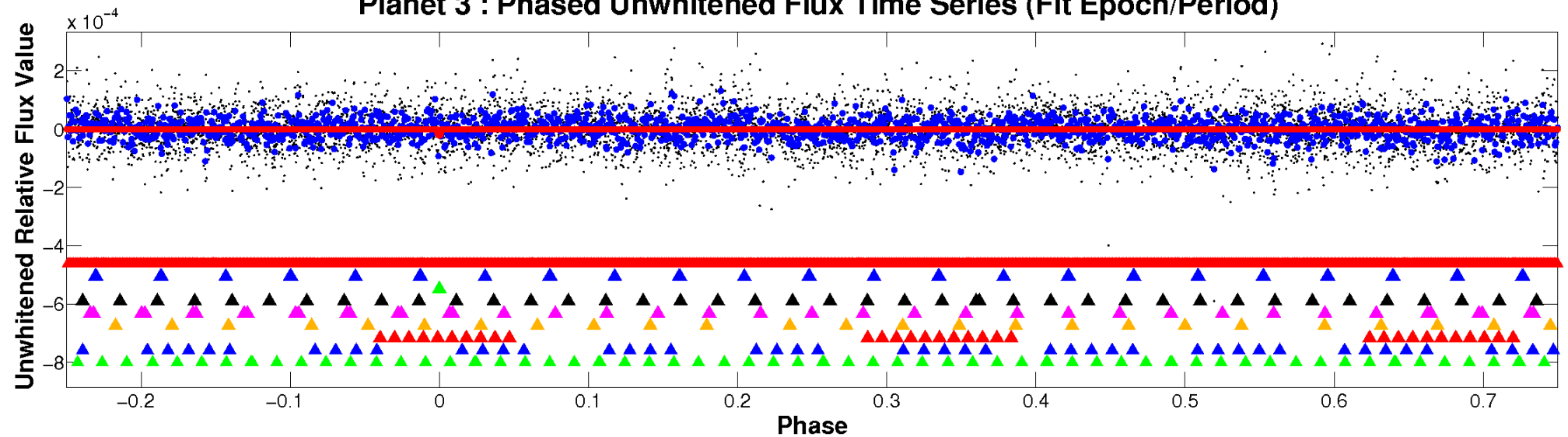
ALT Odd/Even

TCE 007834063-03

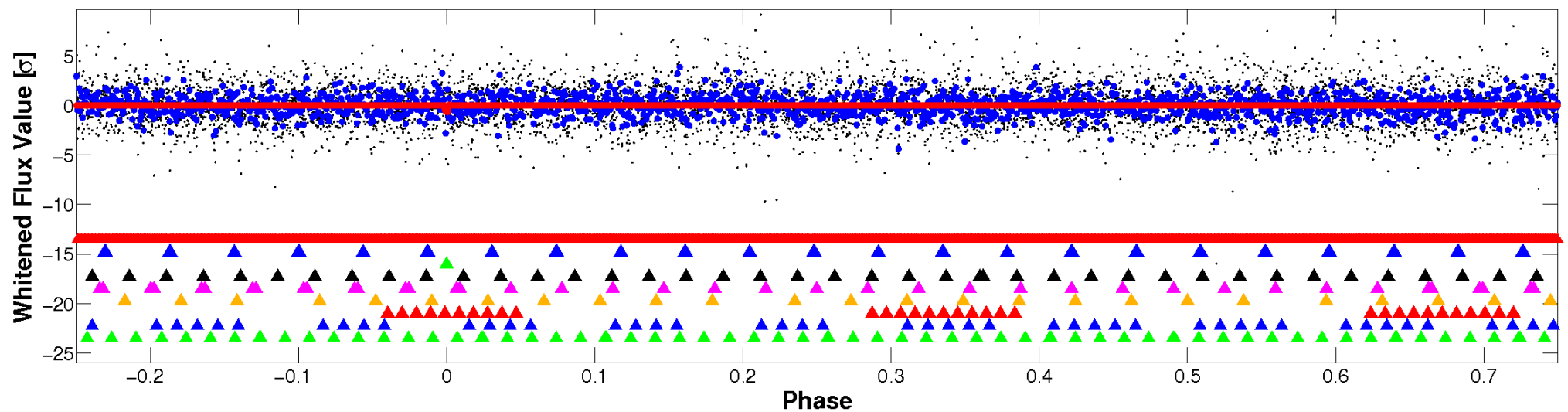


Non-Whitened Vs. Whitened Light Curve

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

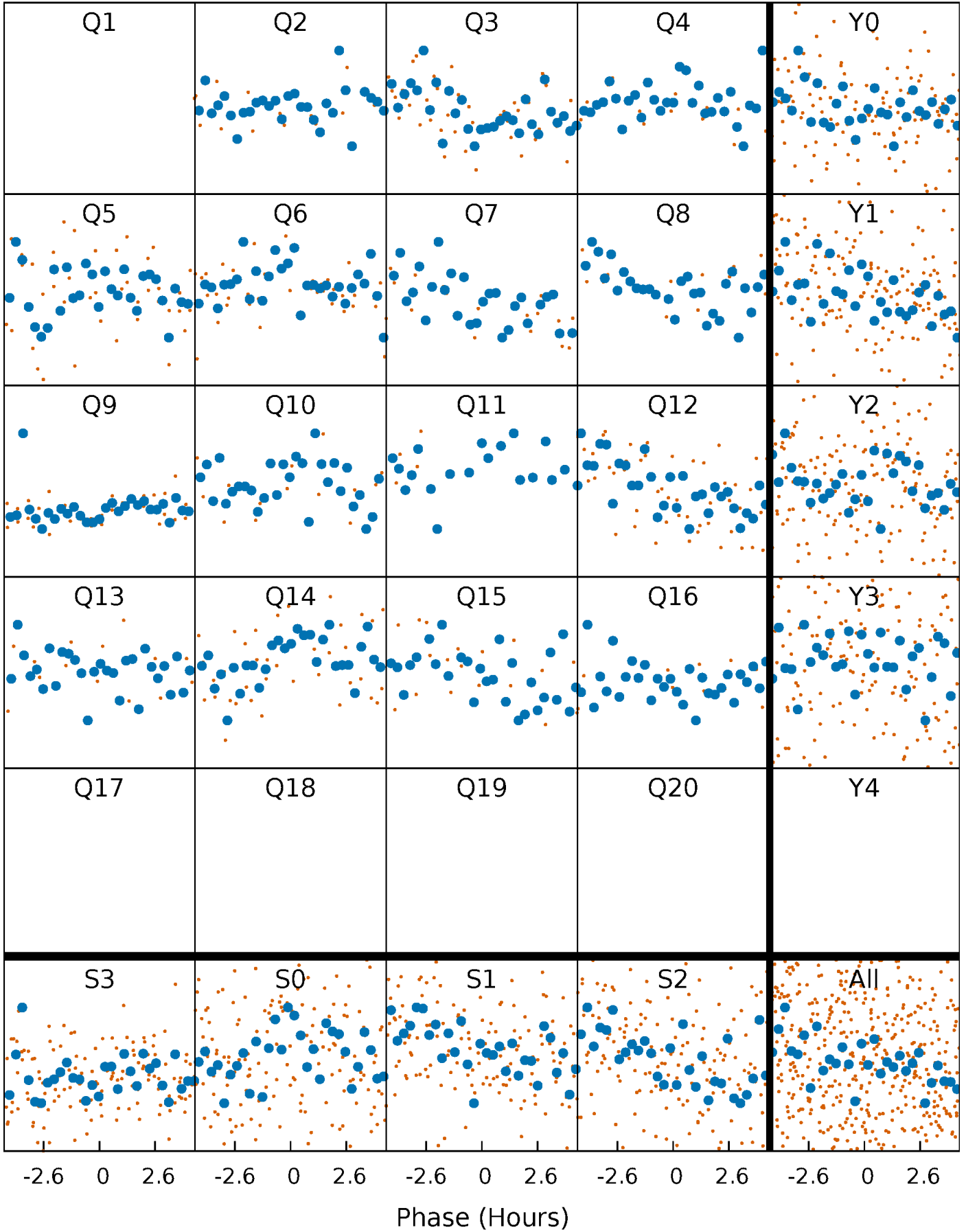


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



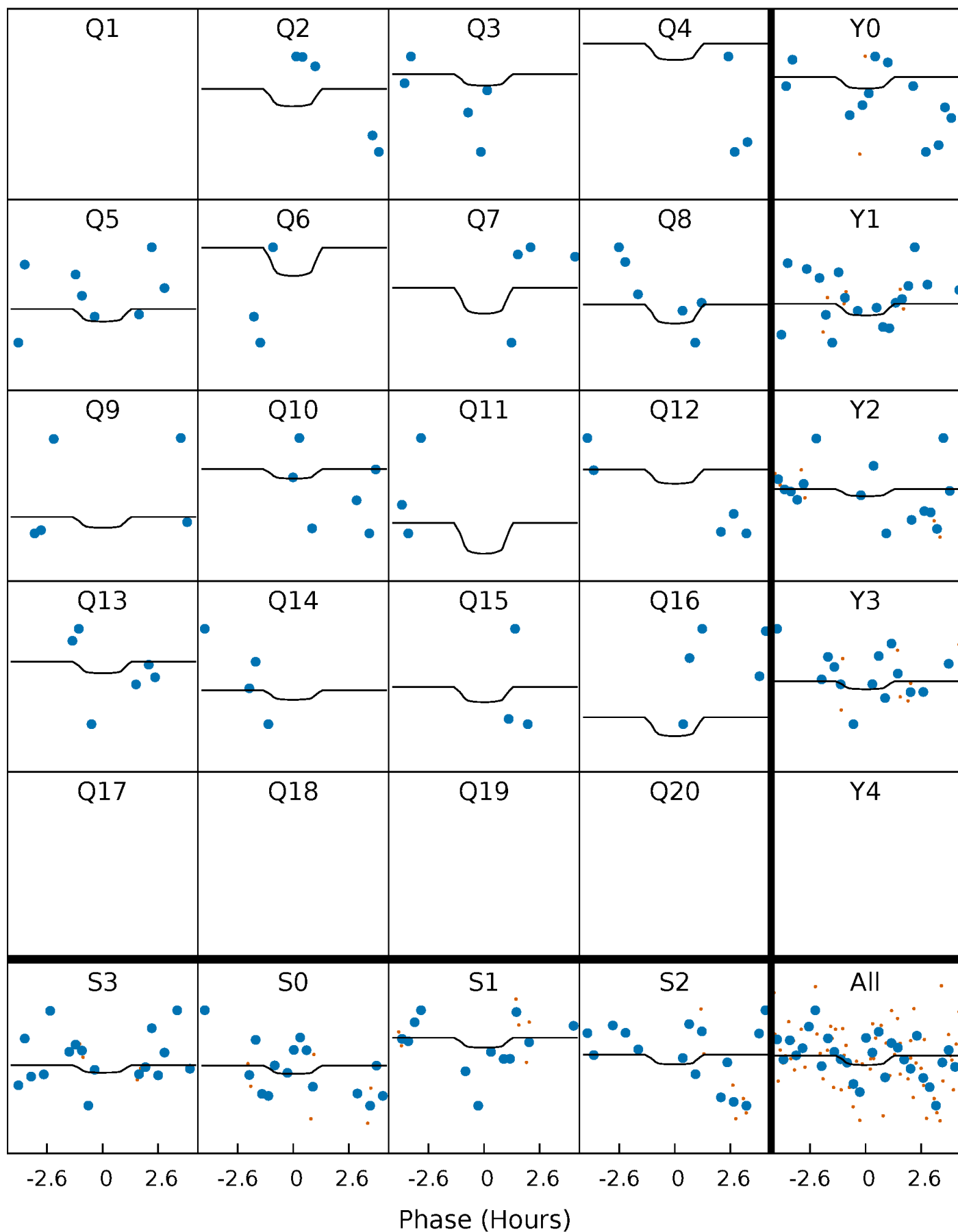
PDC Quarter-Phased Transit Curves

TCE 007834063-03 P= 34.769505 Days $T_0=166.096964$ (BKJD)



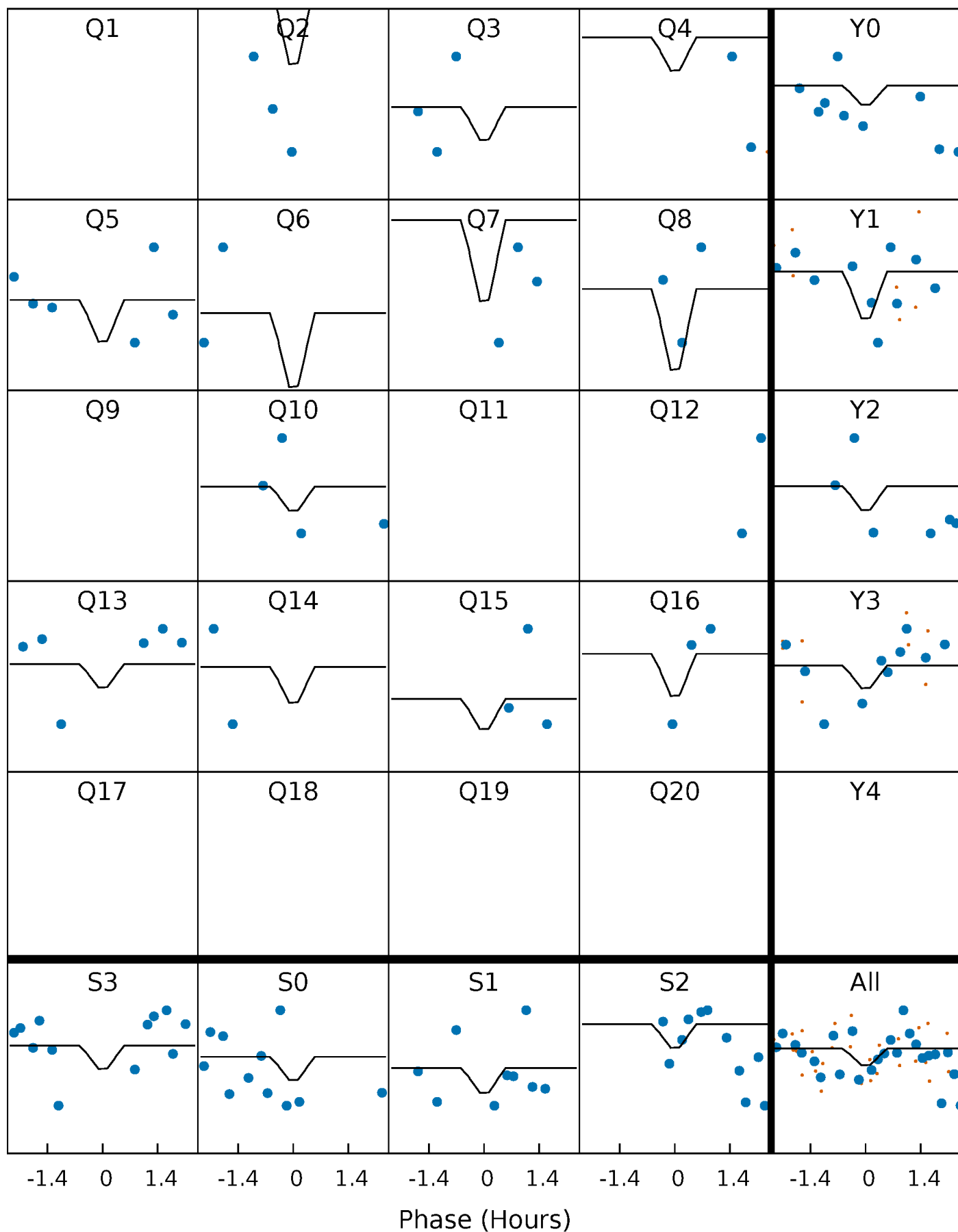
DV Quarter-Phased Transit Curves

TCE 007834063-03 P= 34.769505 Days $T_0=166.096964$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

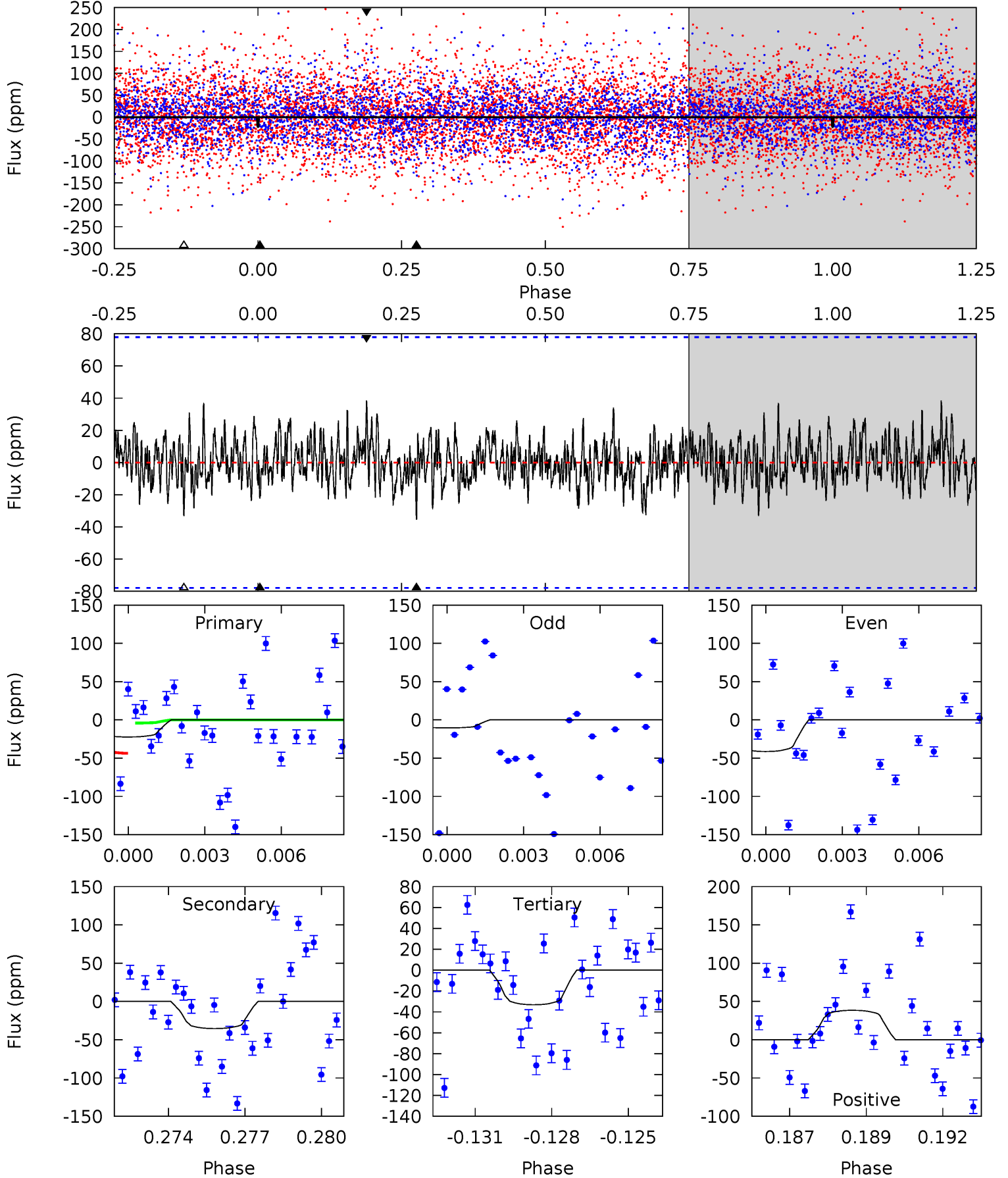
TCE 007834063-03 P= 34.768748 Days $T_0=166.142469$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-03, P = 34.769505 Days, E = 131.327459 Days

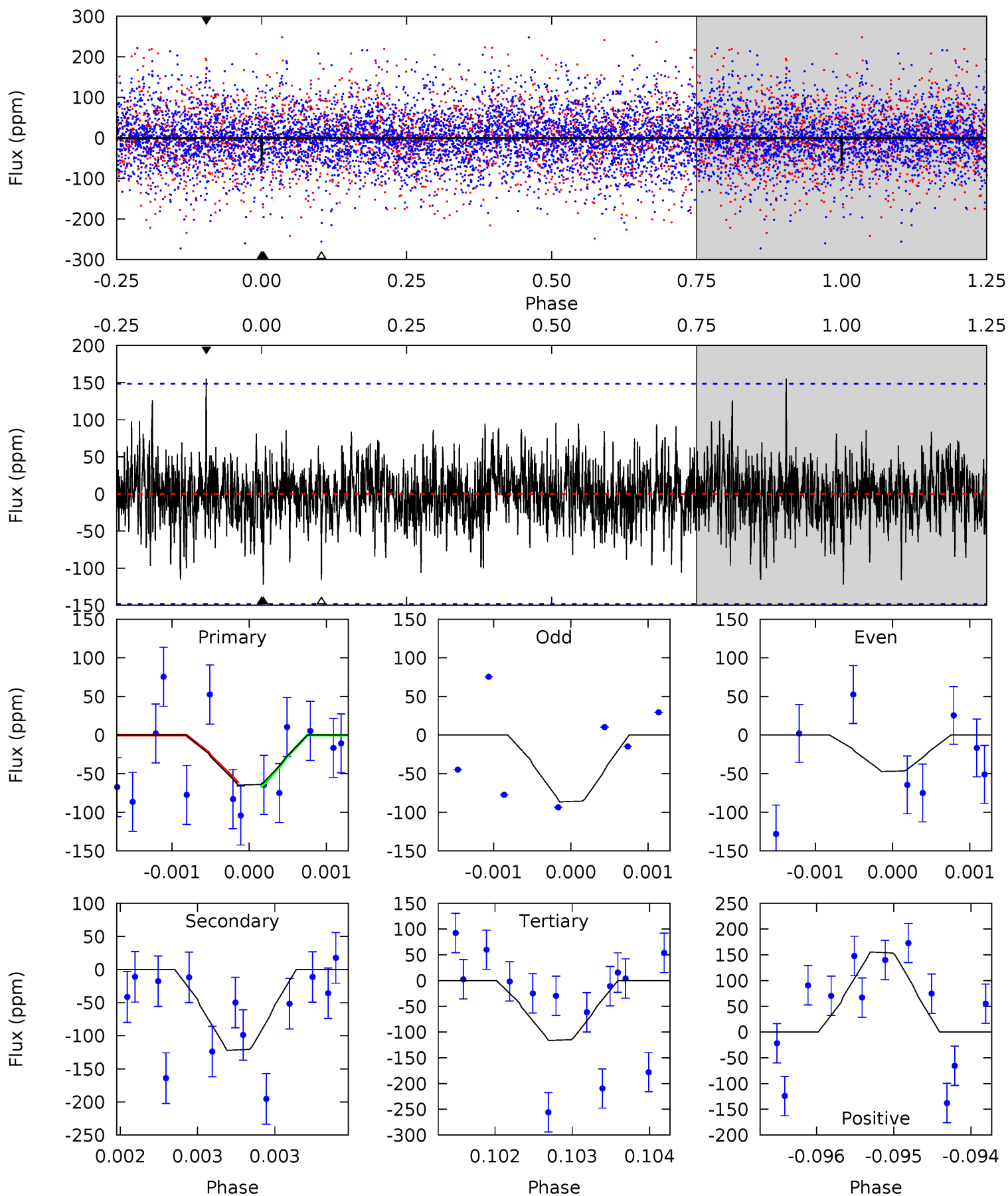
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.51	2.39	2.24	2.60	5.26	2.98	0.78	-0.73	-1.09	0.15	-0.21	1.04	0.76	0.52	1.31



Alt Model-Shift Uniqueness Test

007834063-03, P = 34.768748 Days, E = 131.373721 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.39	4.51	4.29	5.74	5.48	3.33	1.17	-1.90	-3.35	0.22	-1.23	0.70	1.08	0.56	0.09



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-35 ± 15	$1.91^{+2.11}_{-1.23}$	1302^{+100}_{-88}	5874^{+5893}_{-1652}	298^{+2229}_{-237}
Alt.	-122 ± 27	$2.36^{+2.22}_{-1.51}$	1302^{+97}_{-85}	7497^{+7776}_{-2151}	729^{+4786}_{-538}

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

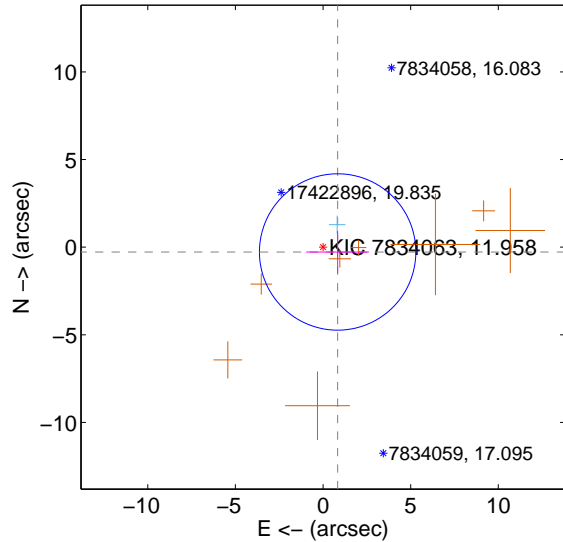
Supplemental centroid analysis for 007834063-03. **Kepler magnitude: 11.96.** Transit SNR 2.42

There are 1 quarters with good PRF difference image offsets

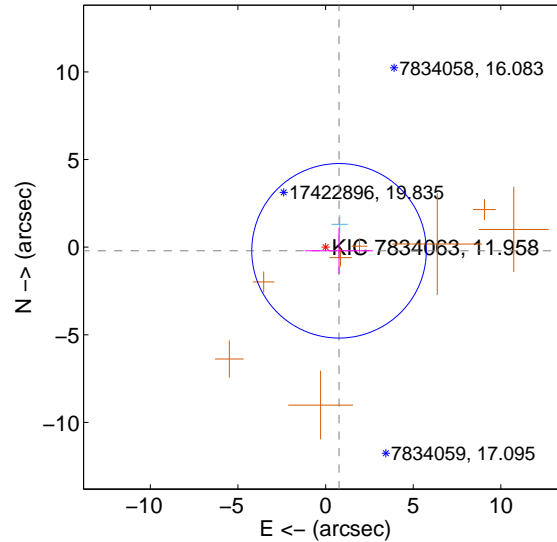
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.877 ± 1.487	0.59	-0.833 ± 1.795	-0.275 ± 1.206
PRF-fit source offset from KIC position	0.795 ± 1.660	0.48	-0.767 ± 1.945	-0.206 ± 1.321
photometric centroid source offset	1.79 ± 3.24	0.55	-0.11 ± 2.94	-1.78 ± 3.24

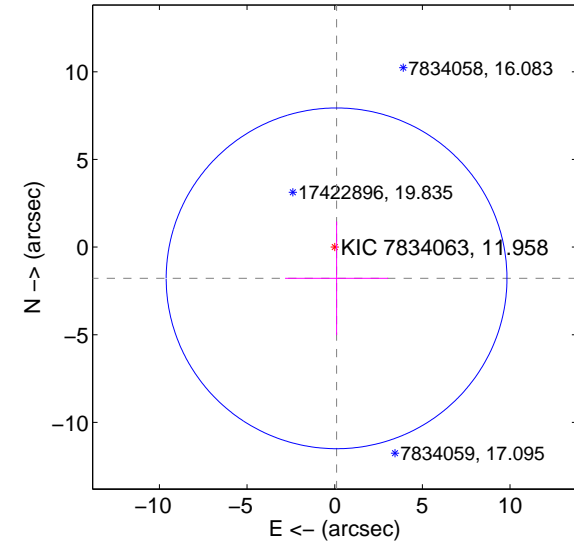
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

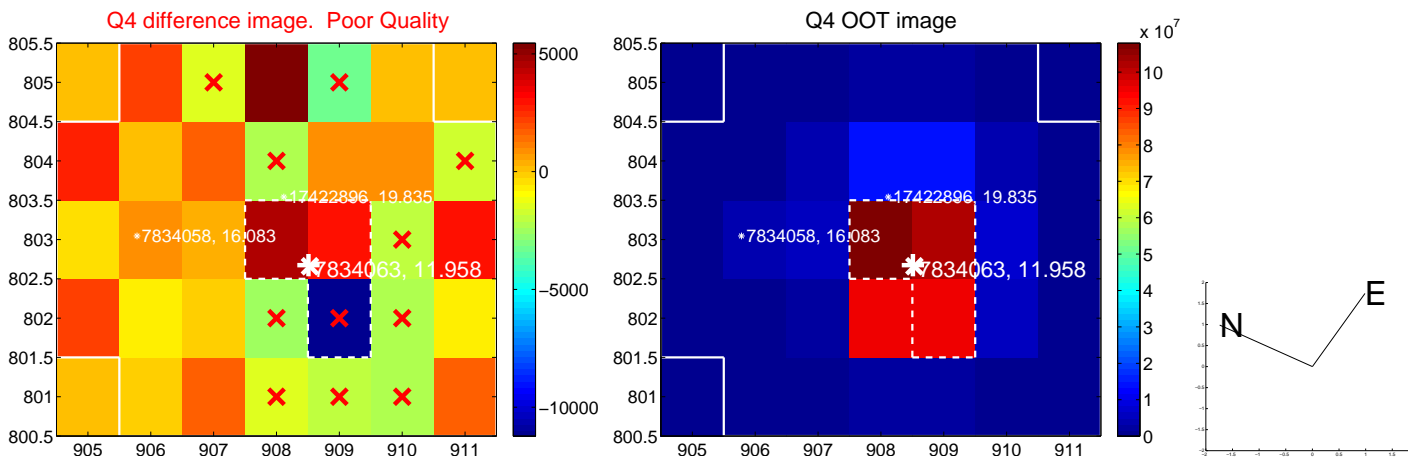
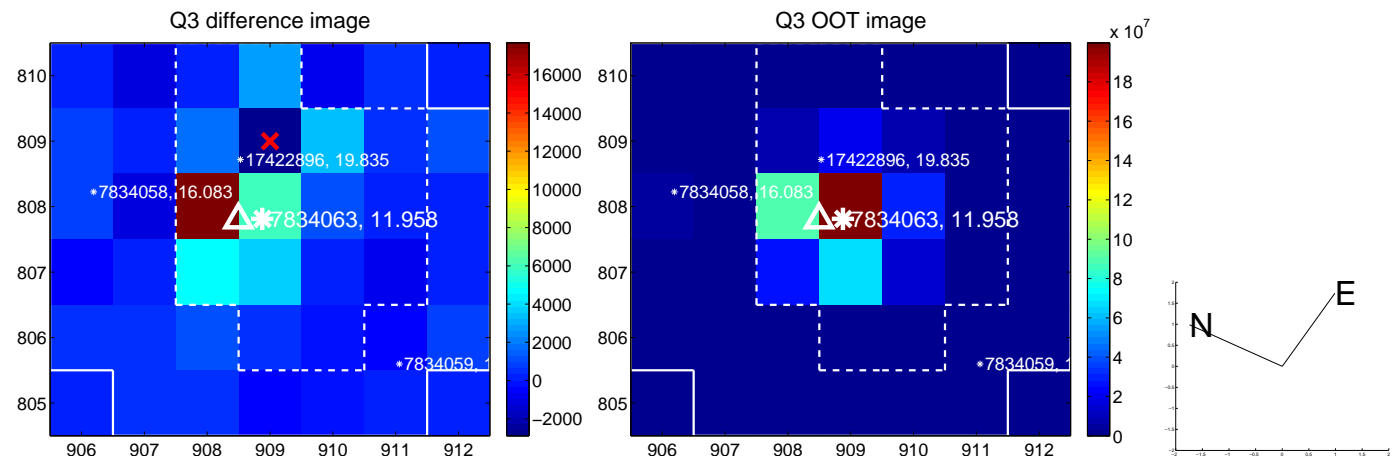
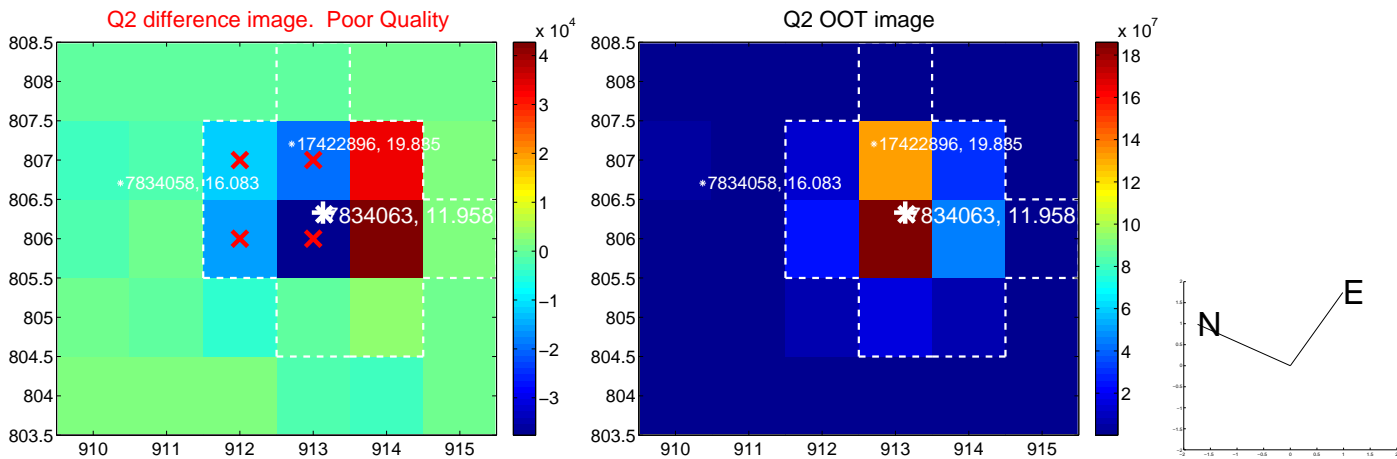
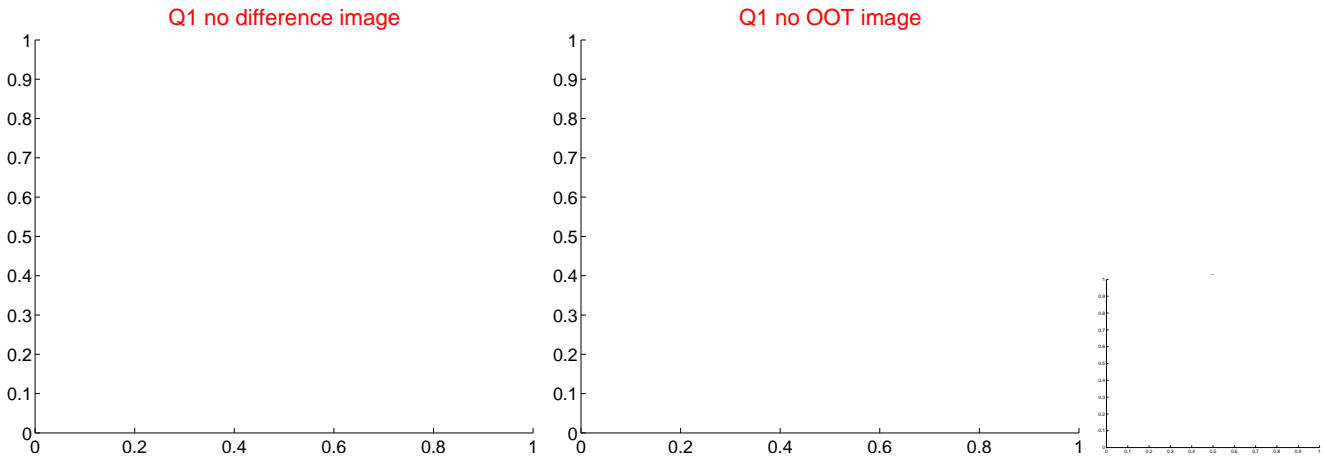


offset from photometric centroids

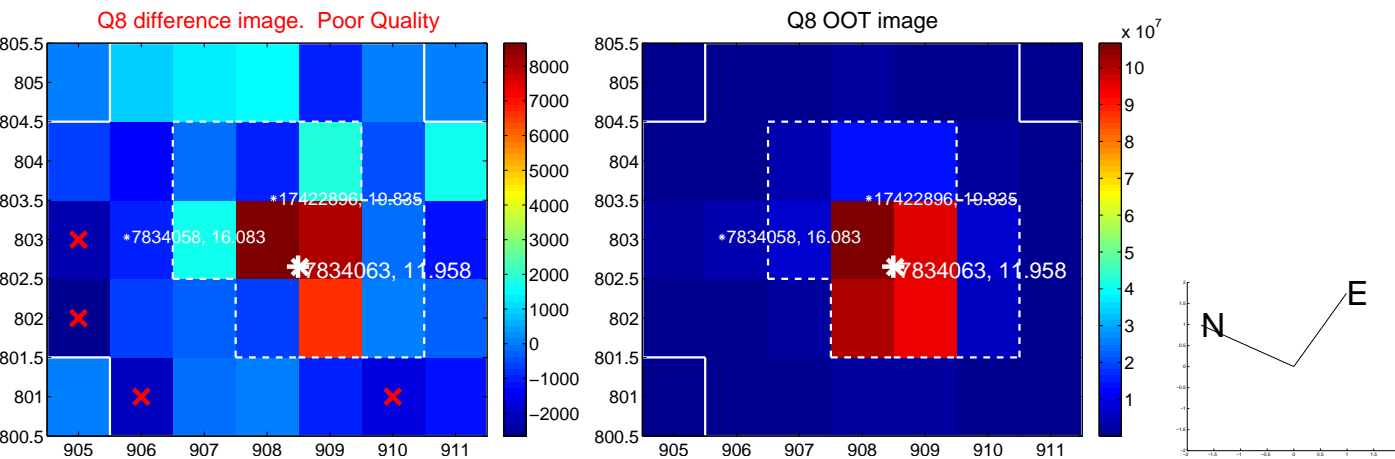
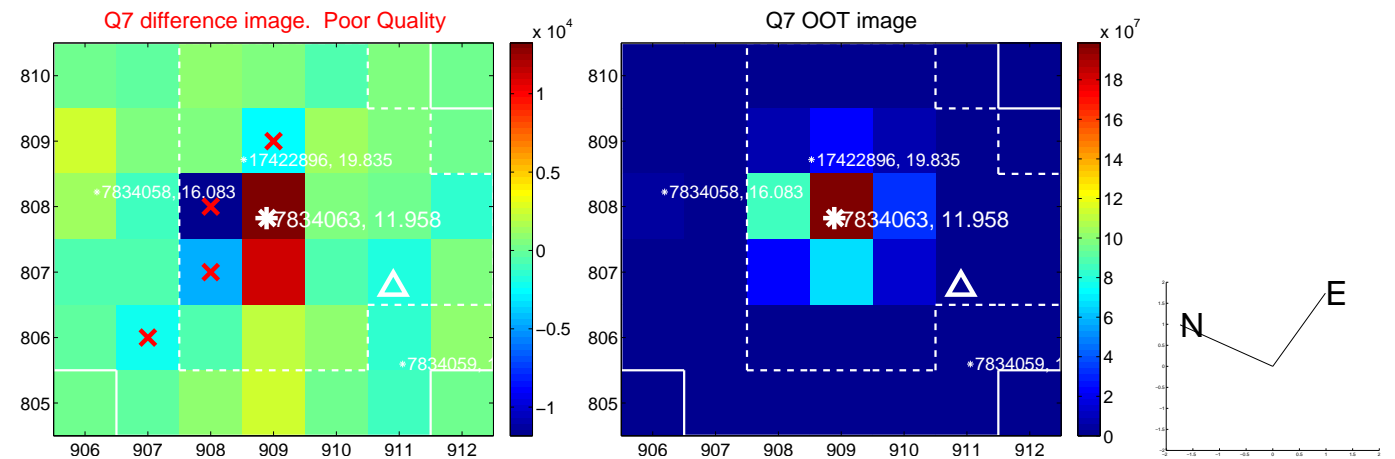
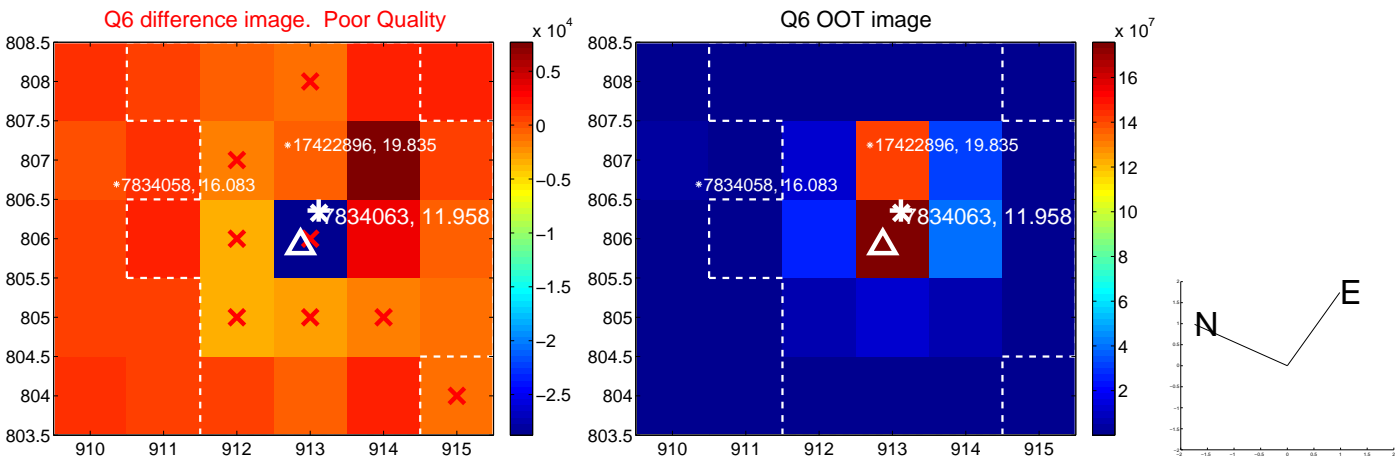
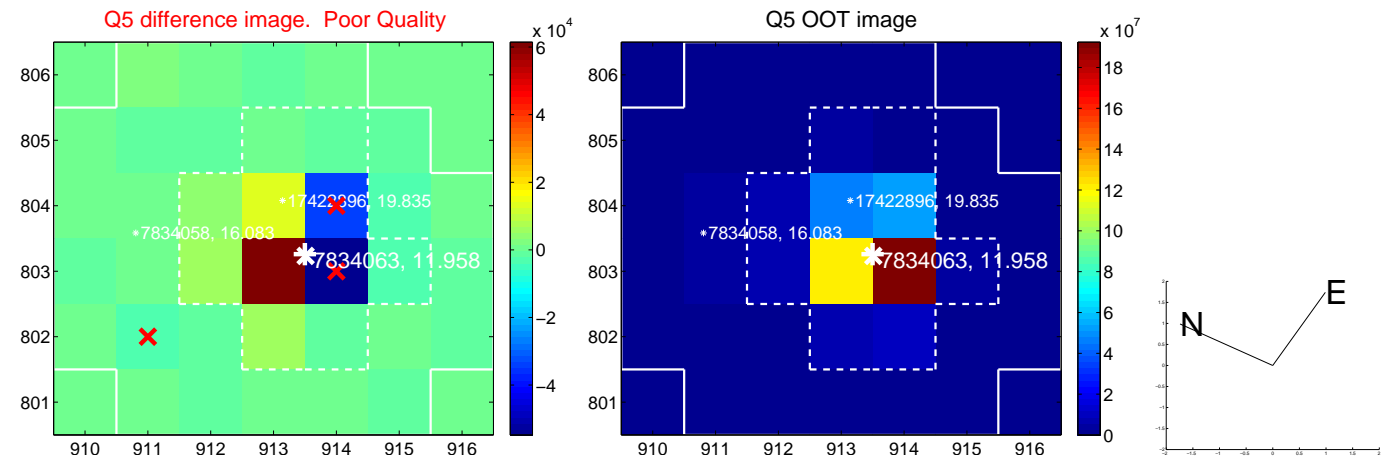


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

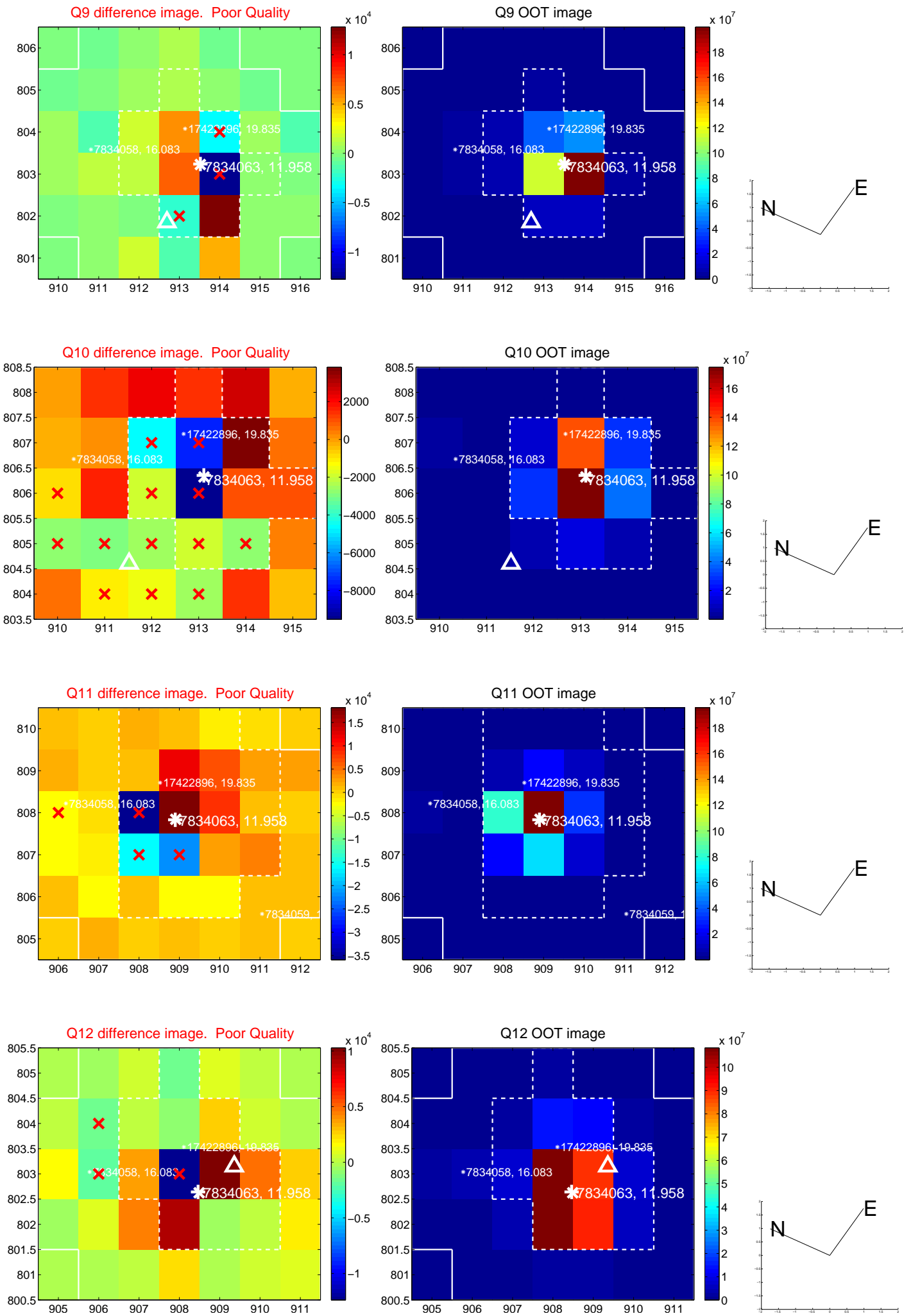
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



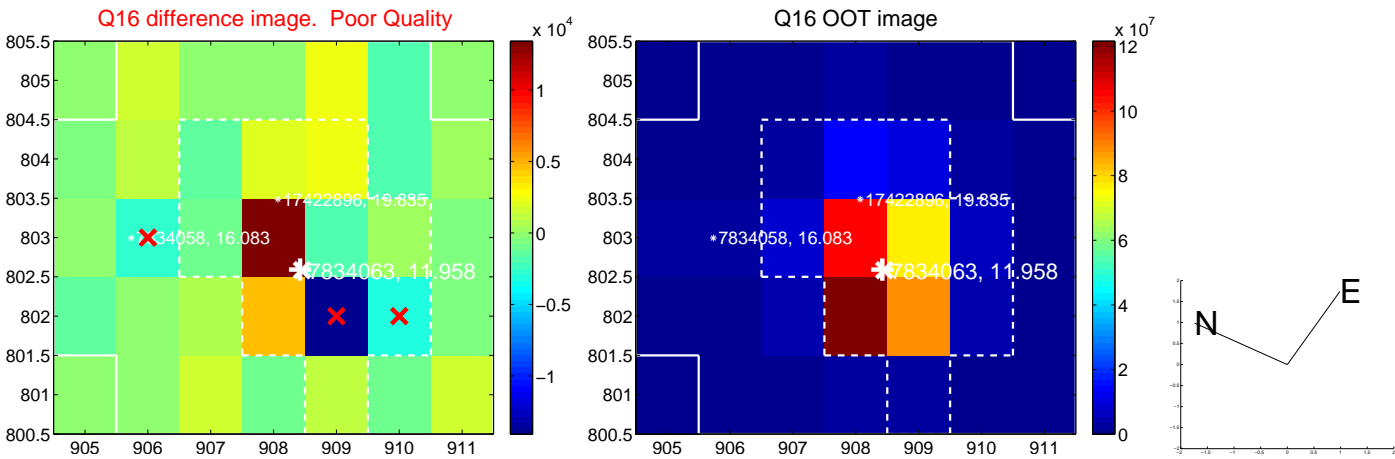
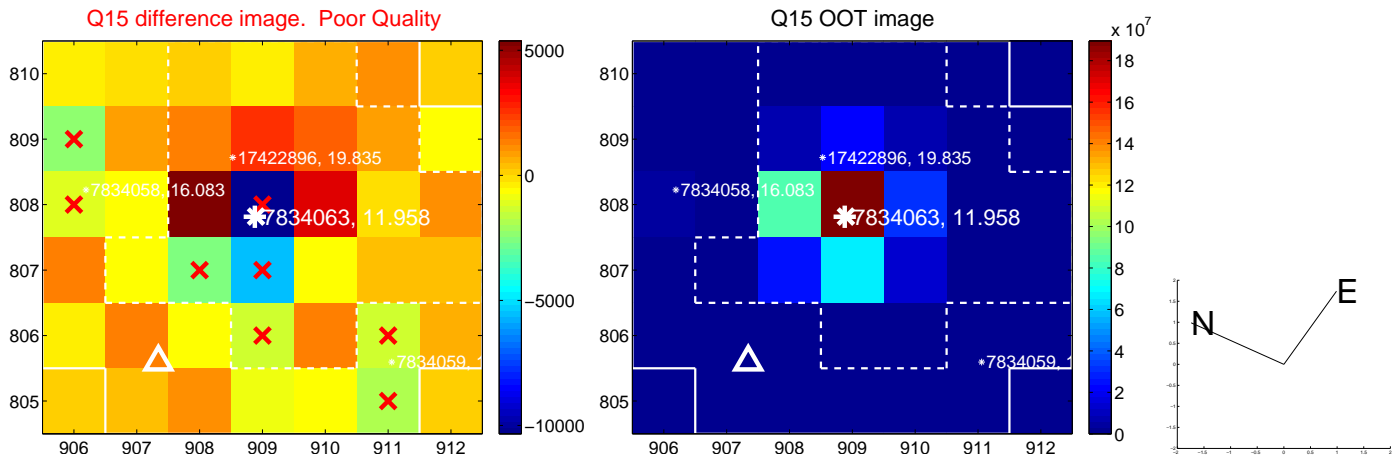
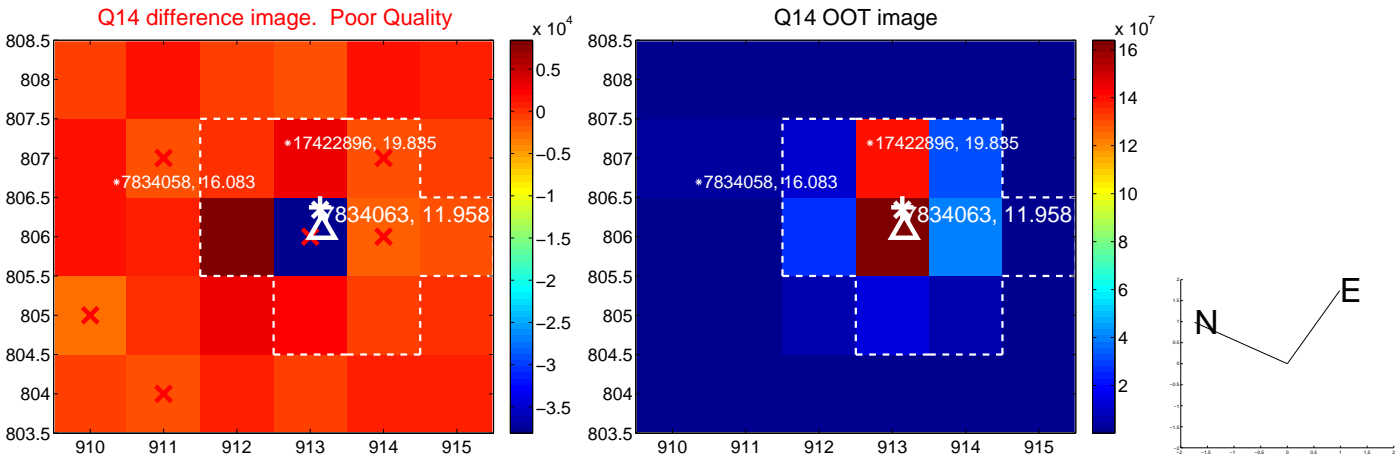
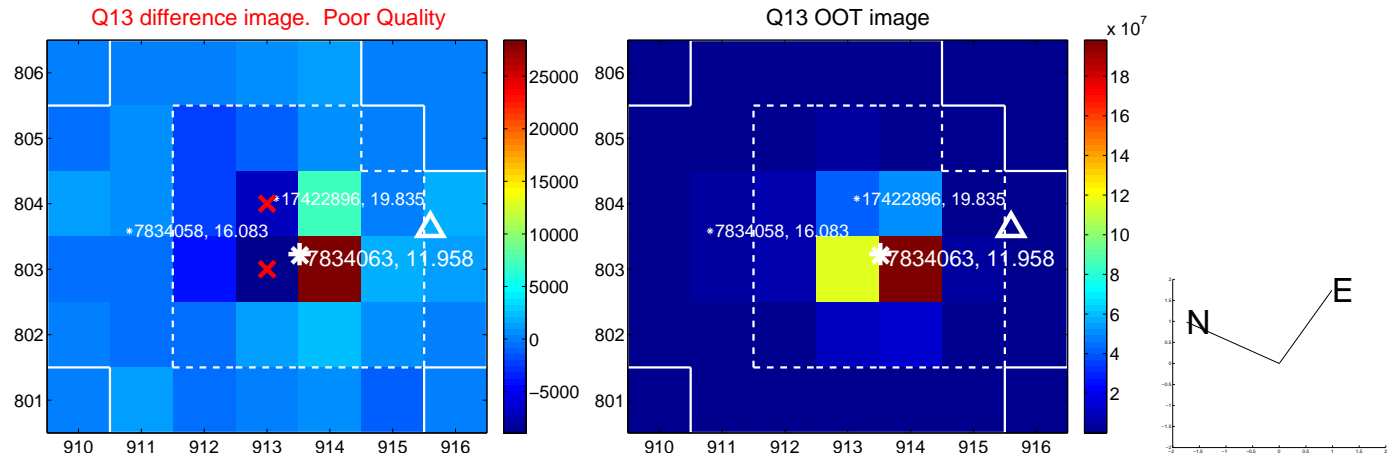
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



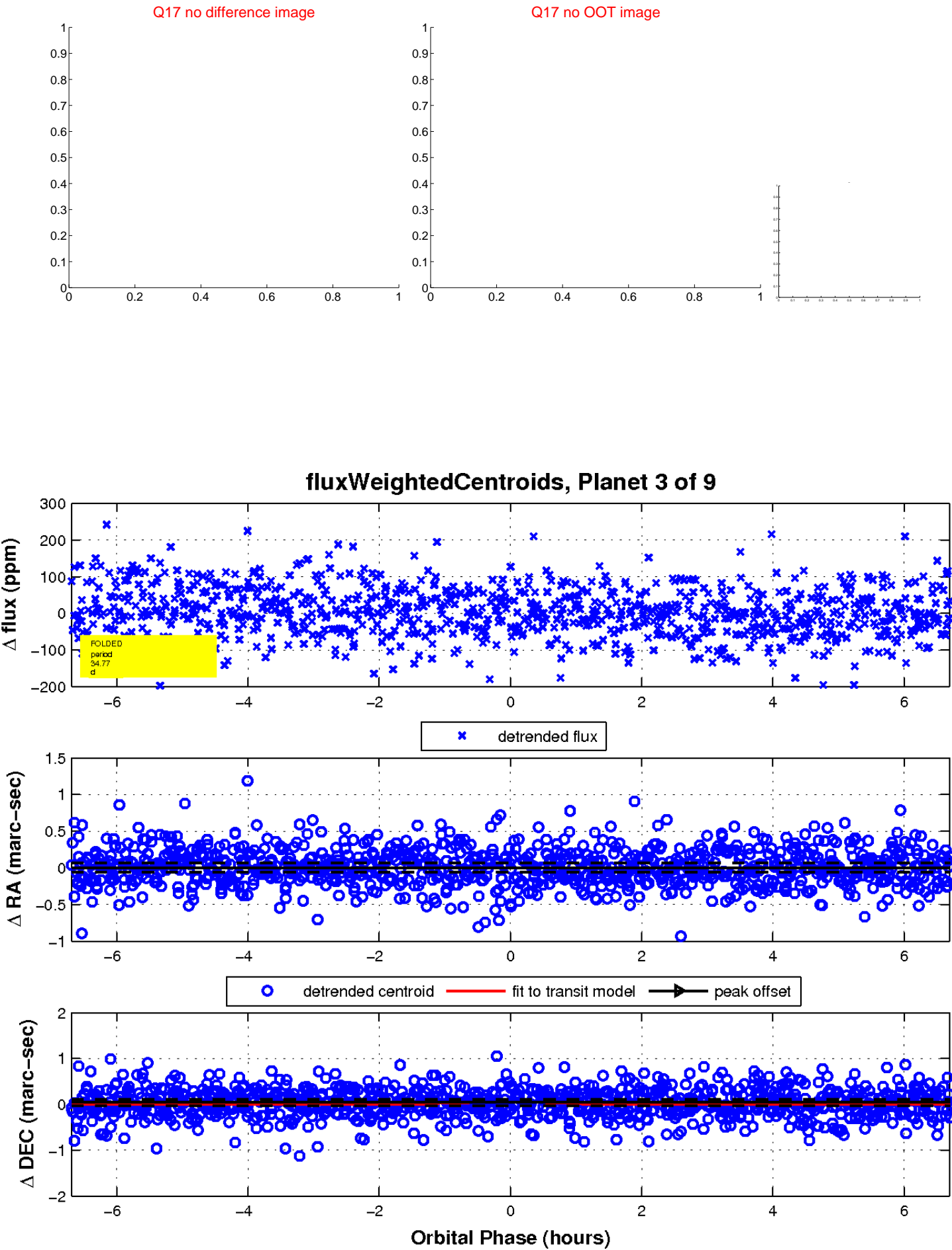
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

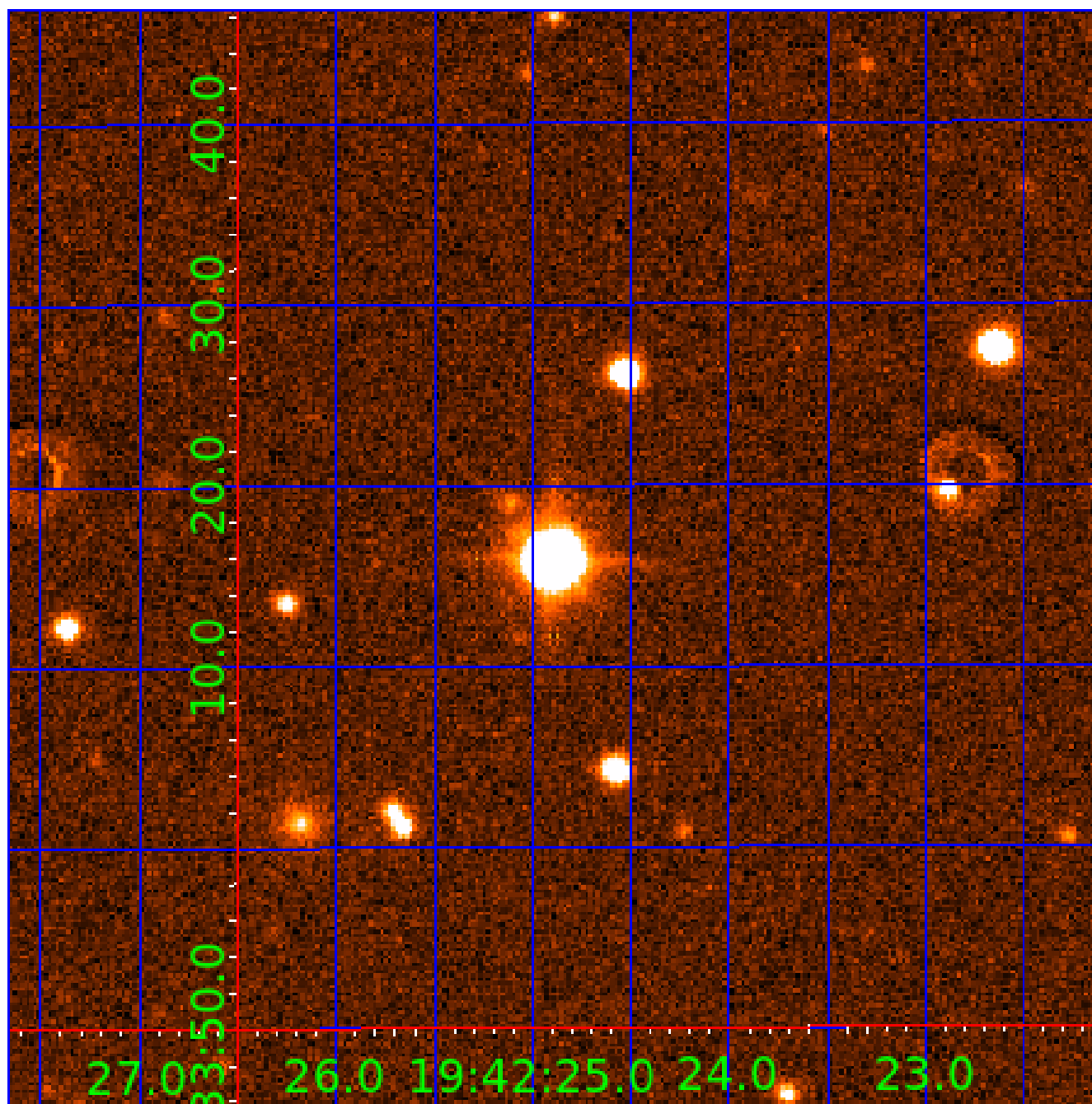


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

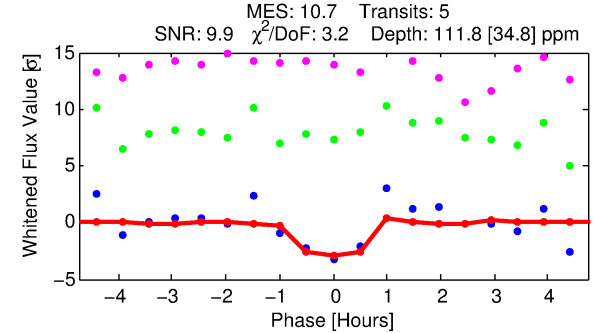
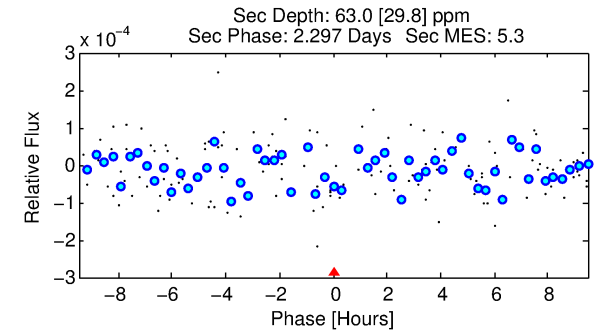
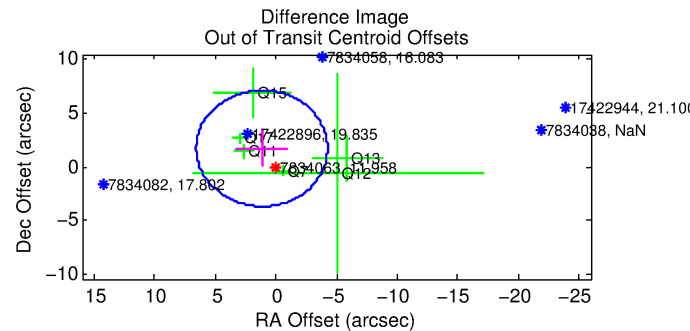
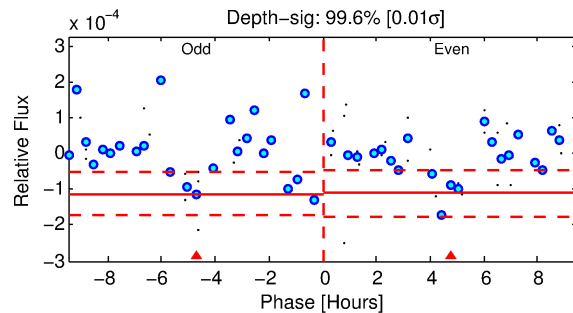
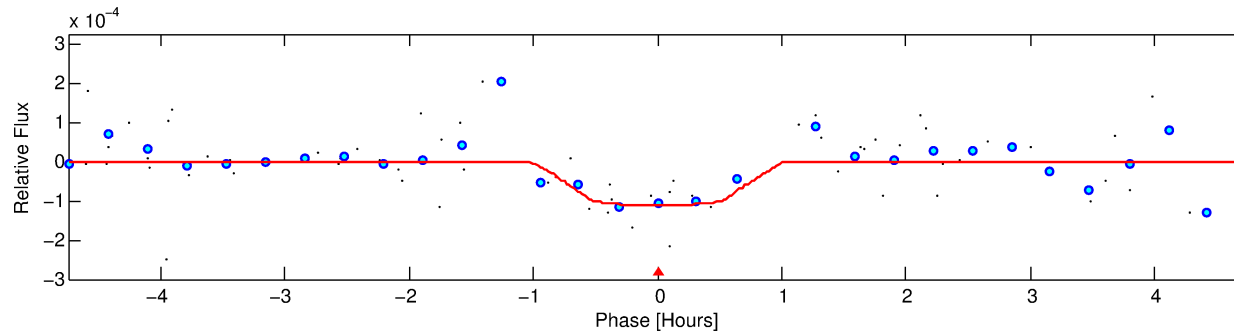
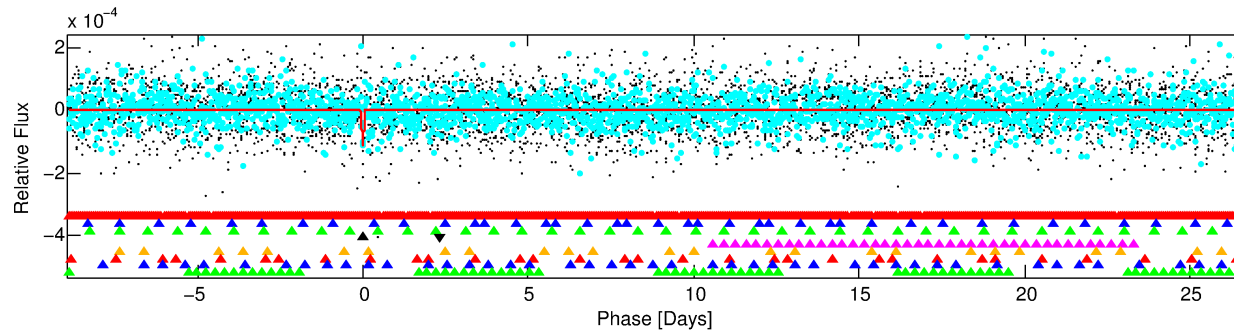
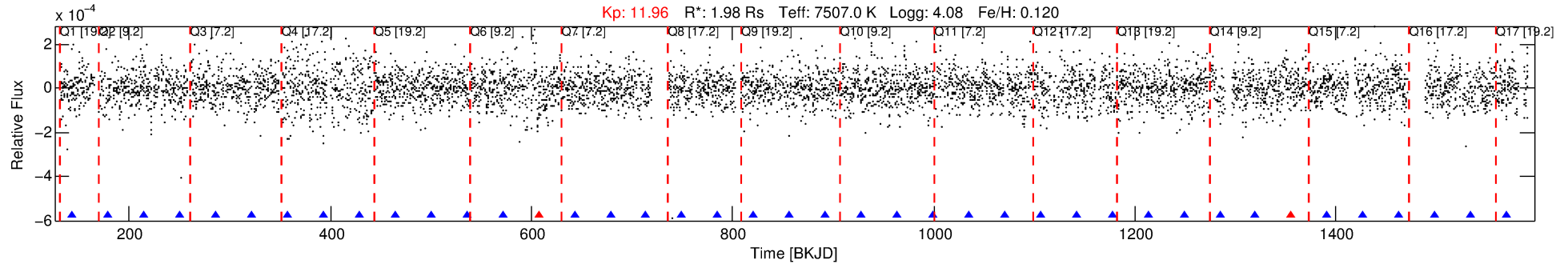
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-04

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 4 of 9 Period: 35.641 d



DV Fit Results:

Period = 35.64070 [0.00094] d
Epoch = 143.8408 [0.0279] BKJD
Rp/R* = 0.0099 [0.0684]
a/R* = 173.93 [7185.67]
b = 0.05 [849.41]
Seff = 171.67 [64.25]
Teq = 923 [86] K
Rp = 2.13 [14.75] Re
a = 0.2544 [0.0582] AU
Ag = 495.76 [6875.11] [0.07 σ]
Teffp = 6734 [23341] K [0.25 σ]

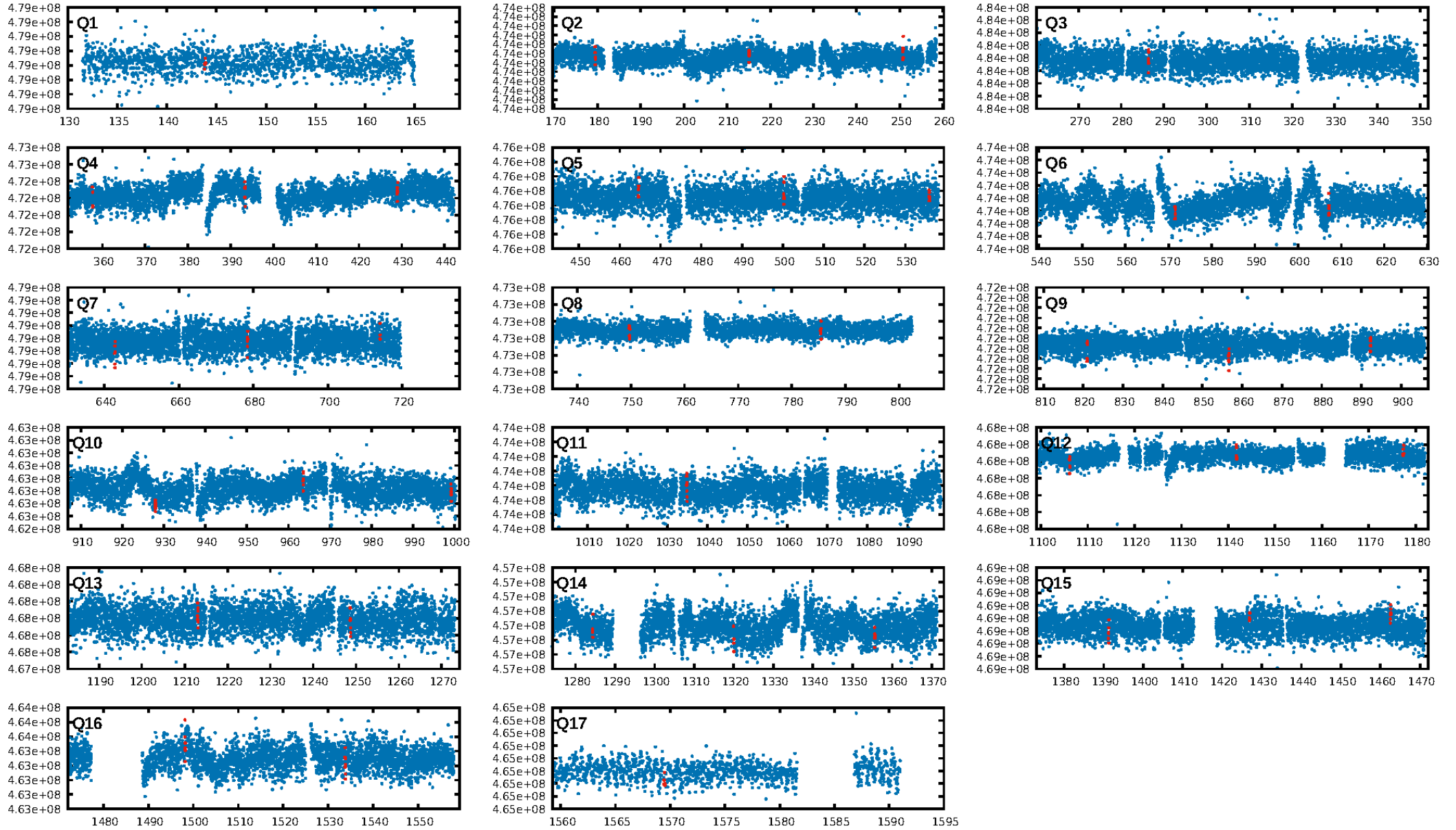
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.65 σ]
LongPeriod-sig: 99.9% [3.40 σ]
ModelChiSquare2-sig: 6.0%
ModelChiSquareGof-sig: 65.9%
Bootstrap-pfa: 3.37e-10
RollingBand-fgt: 0.60 [3/5]
GhostDiagnostic-chr: -1.506
Centroid-sig: 0.7%
Centroid-so: 1.080 arcsec [1.61 σ]
OotOffset-rm: 2.060 arcsec [1.14 σ]
KicOffset-rm: 2.078 arcsec [1.15 σ]
OotOffset-st: 0/3/1/2 [6]
KicOffset-st: 0/3/1/2 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 0.00 [0/17]

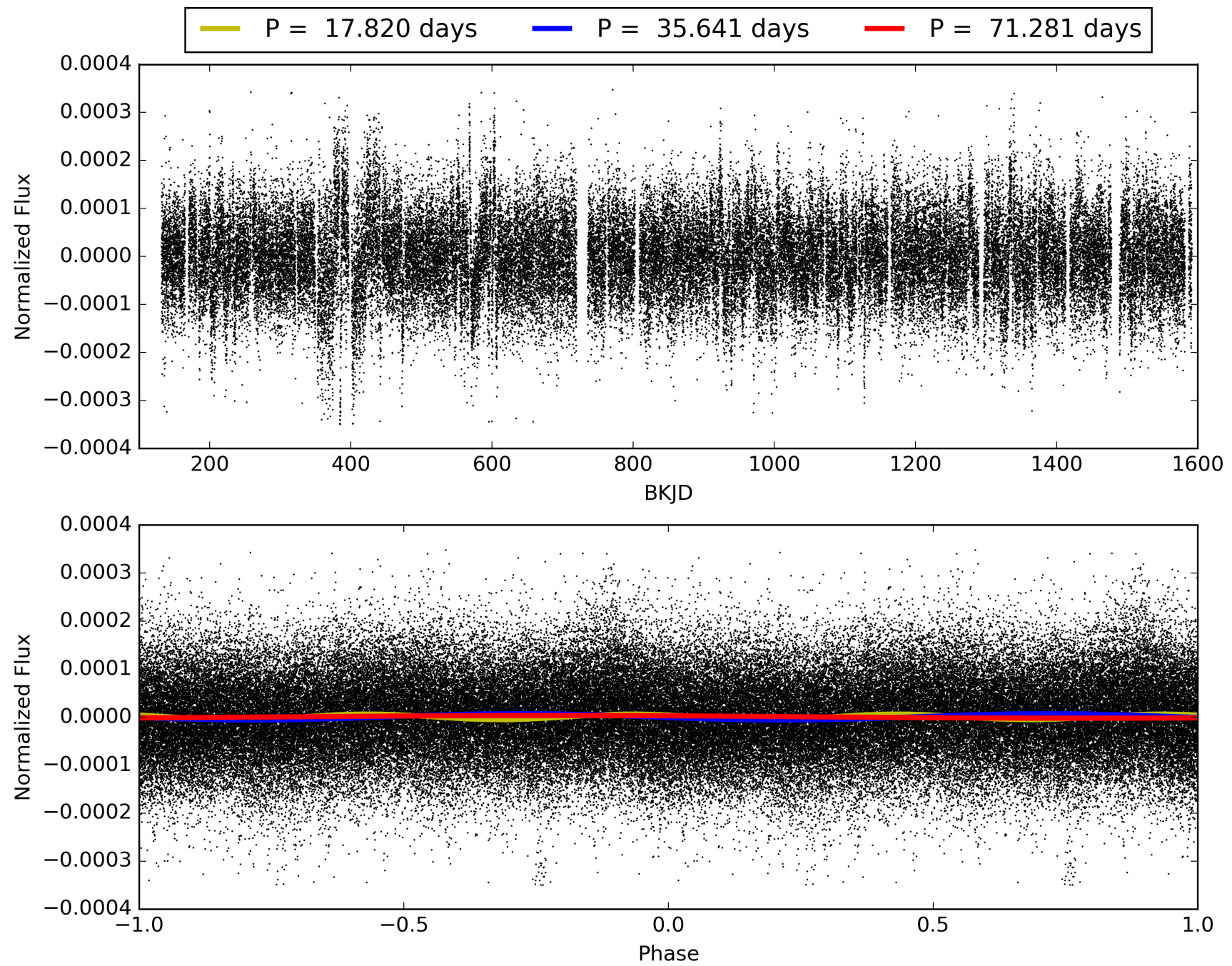
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:25 Z

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

TCE 007834063-04, PDC Light Curves

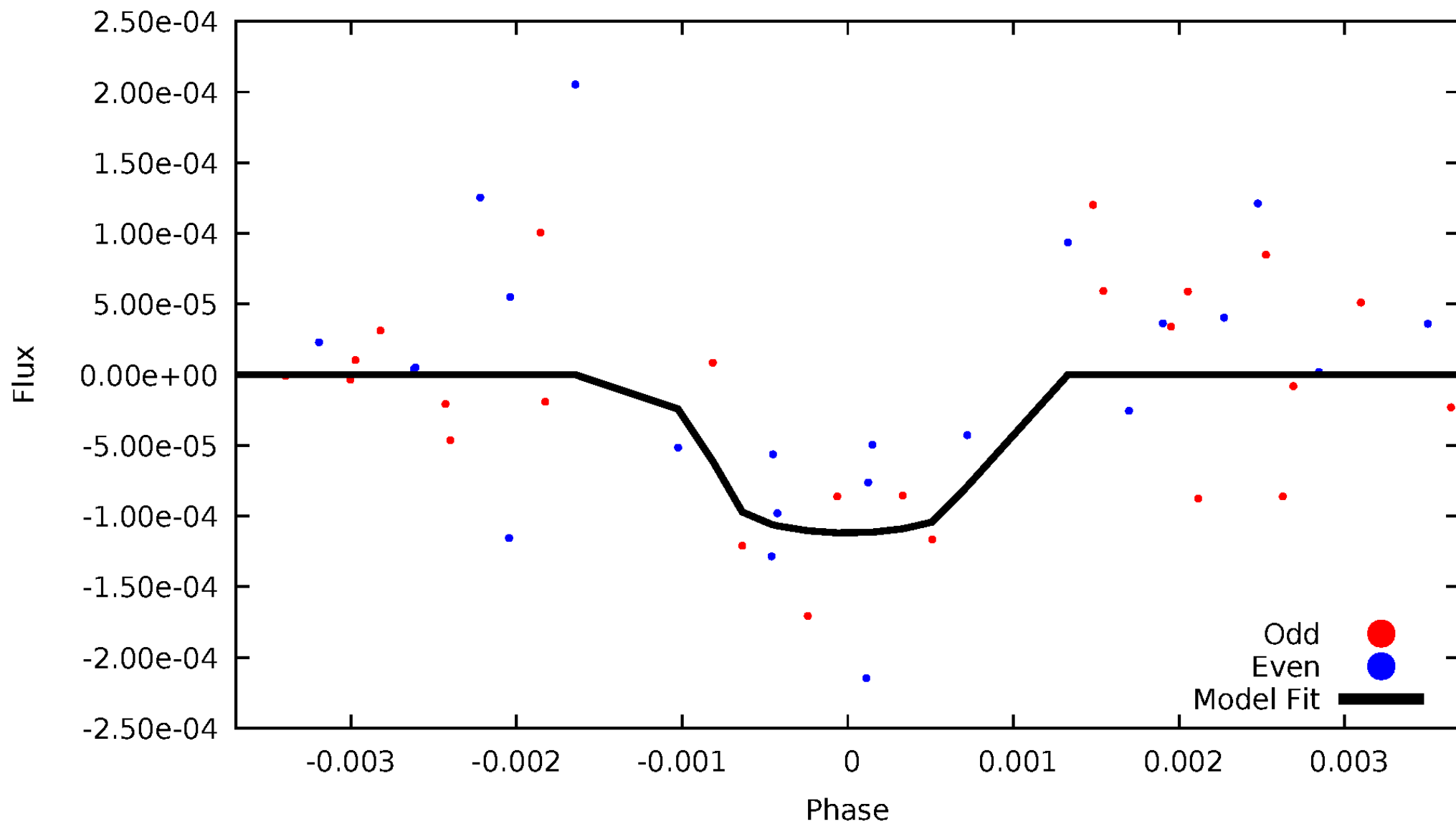


TCE 007834063-04



DV Odd/Even

TCE 007834063-04

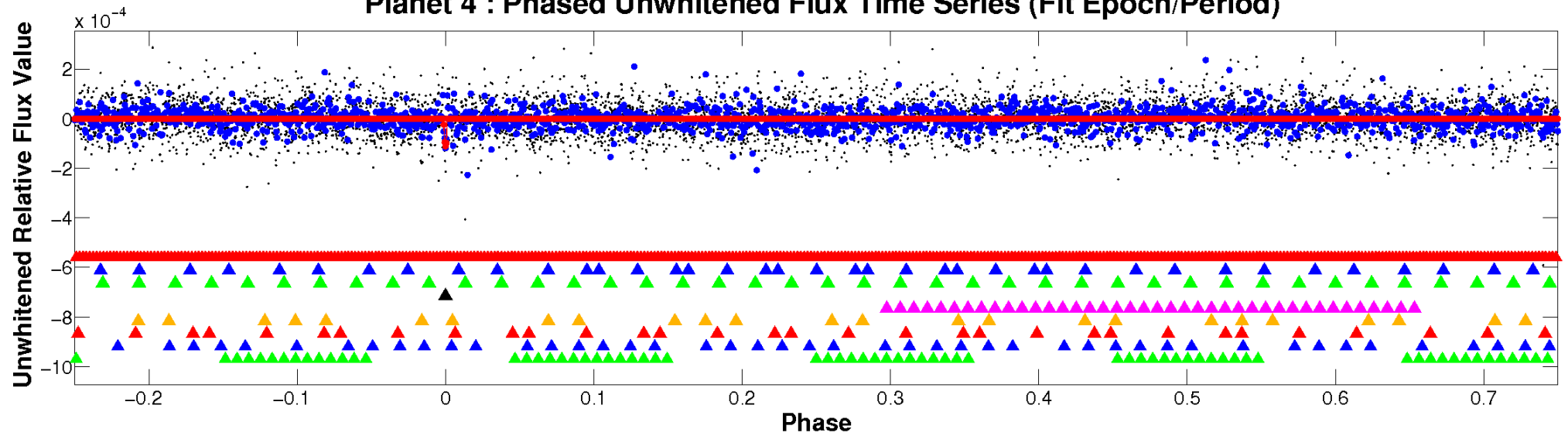


ALT Odd/Even

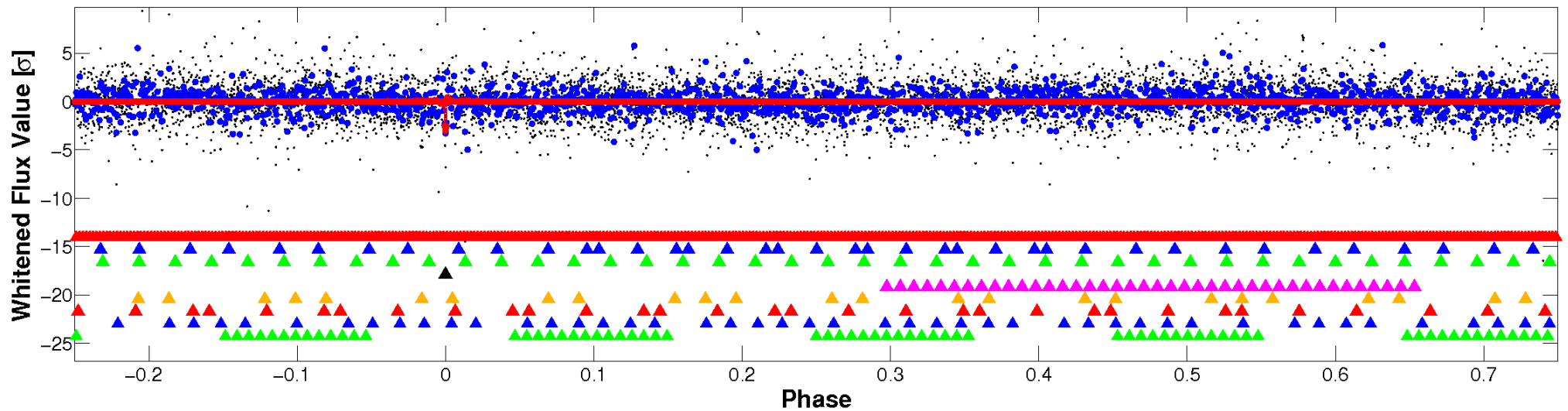
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

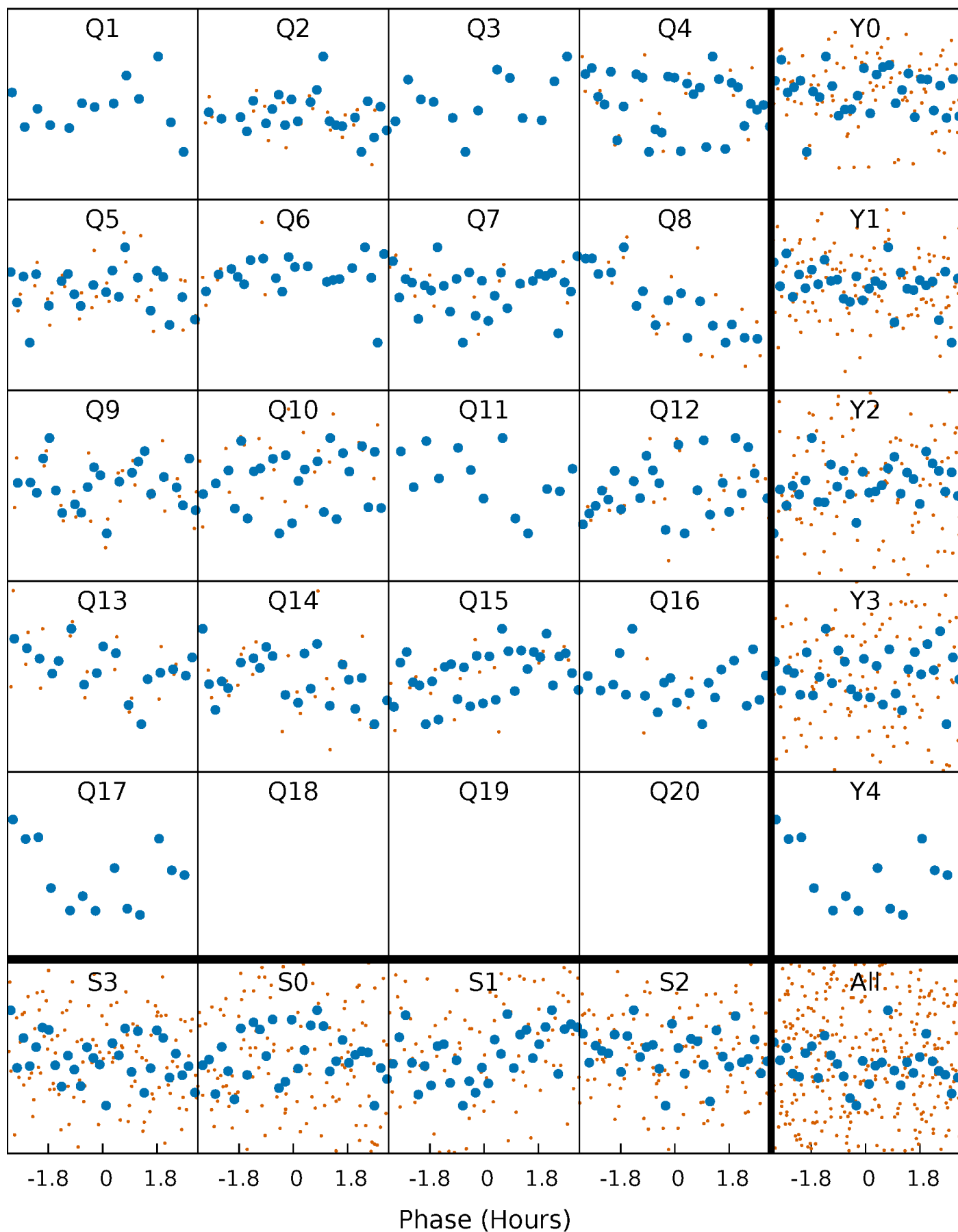


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



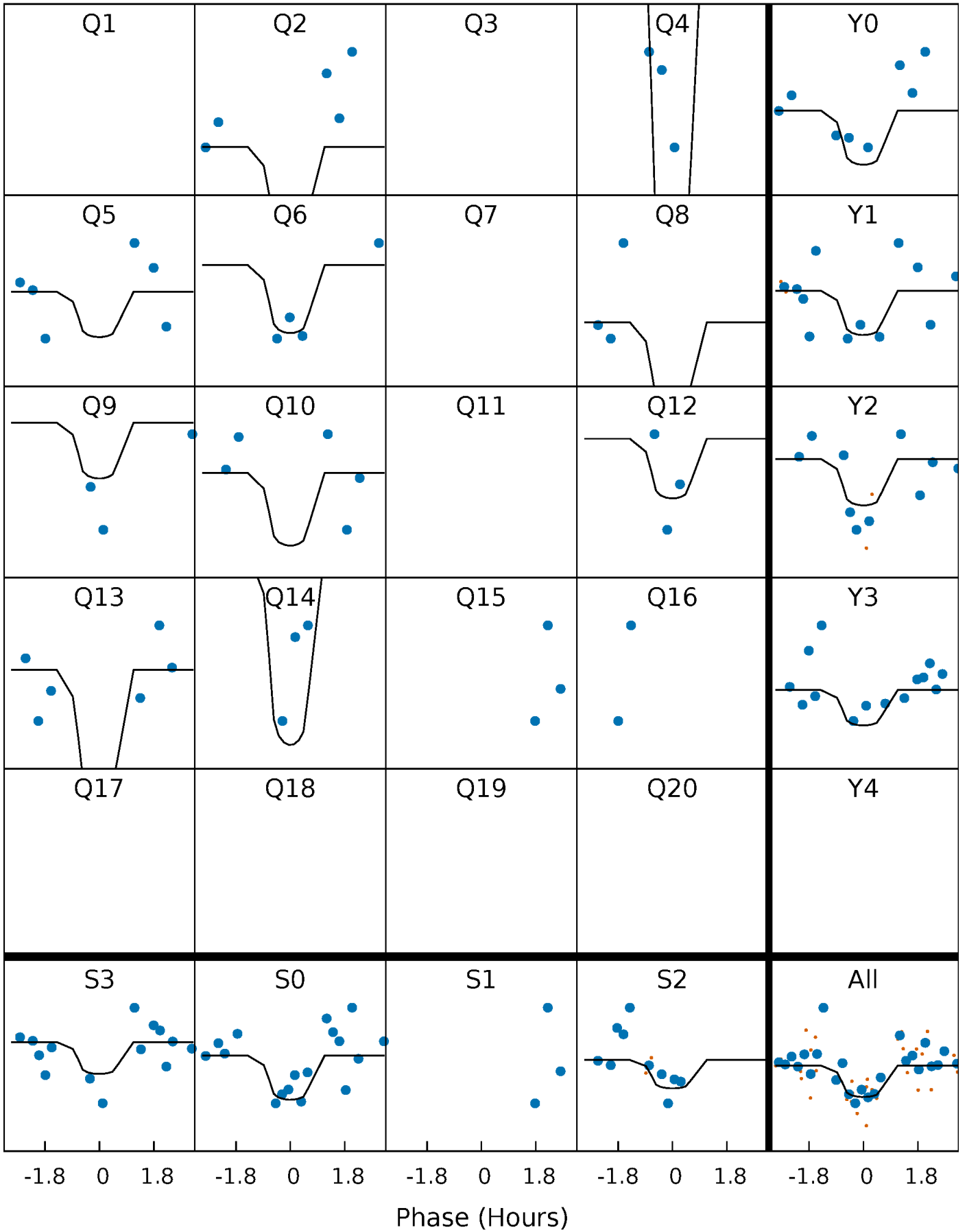
PDC Quarter-Phased Transit Curves

TCE 007834063-04 P= 35.640699 Days $T_0=143.840829$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007834063-04 P= 35.640699 Days $T_0=143.840829$ (BKJD)

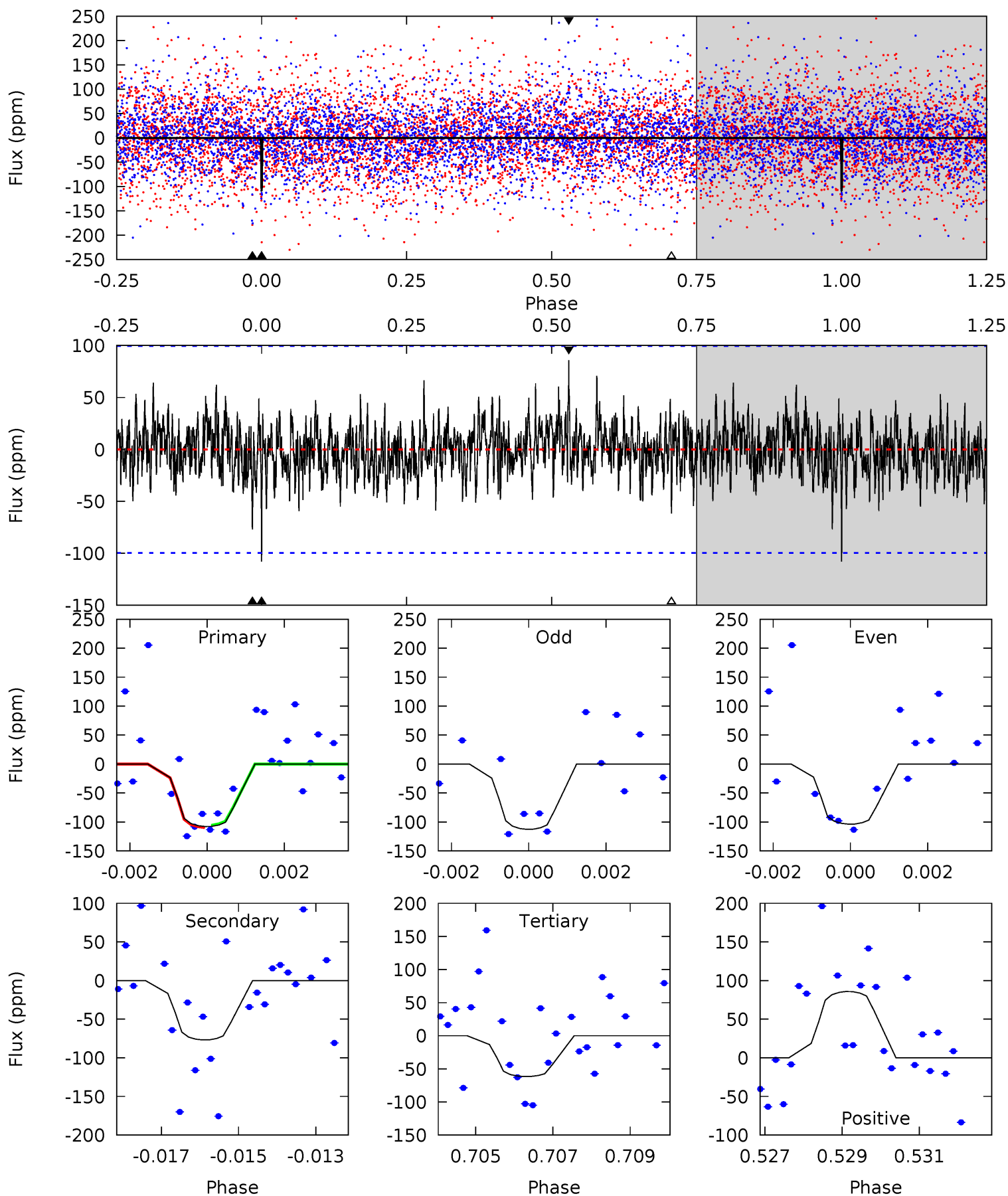


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007834063-04, P = 35.640699 Days, E = 108.200130 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.75	4.10	3.28	4.58	5.31	3.07	1.10	2.47	1.17	0.82	-0.48	0.24	0.99	0.44	0.11



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-77 ± 19	$10.95^{+11.55}_{-7.83}$	1289^{+98}_{-89}	3494^{+2131}_{-679}	22^{+252}_{-17}
Alt.	N/A	N/A	N/A	N/A	N/A

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

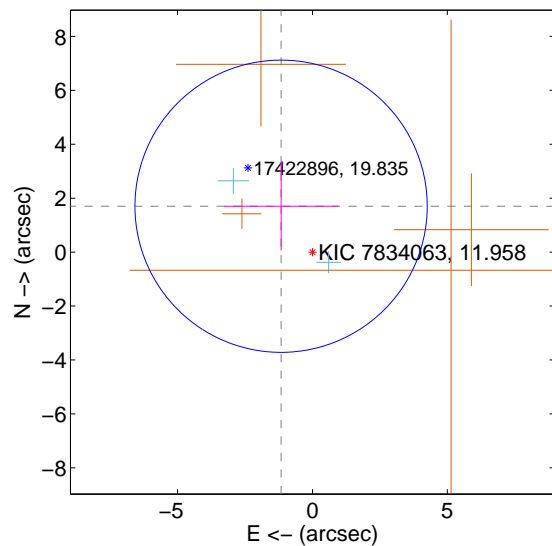
Supplemental centroid analysis for 007834063-04. **Kepler magnitude: 11.96.** Transit SNR 9.86

There are 2 quarters with good PRF difference image offsets

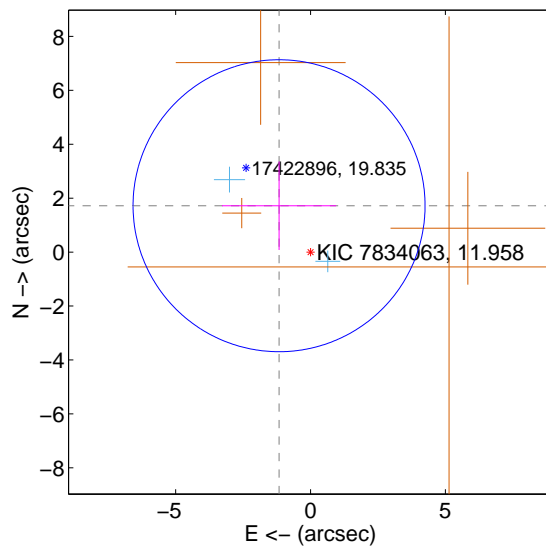
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.060 ± 1.806	1.14	1.163 ± 2.118	1.701 ± 1.640
PRF-fit source offset from KIC position	2.078 ± 1.805	1.15	1.167 ± 2.118	1.720 ± 1.640
photometric centroid source offset	1.08 ± 0.67	1.61	0.45 ± 0.63	-0.98 ± 0.68

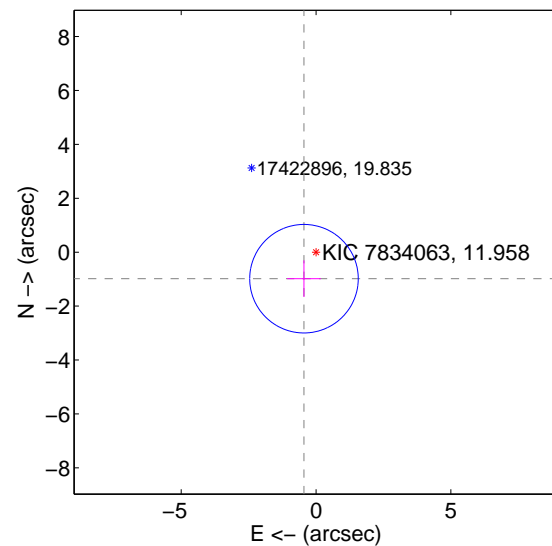
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

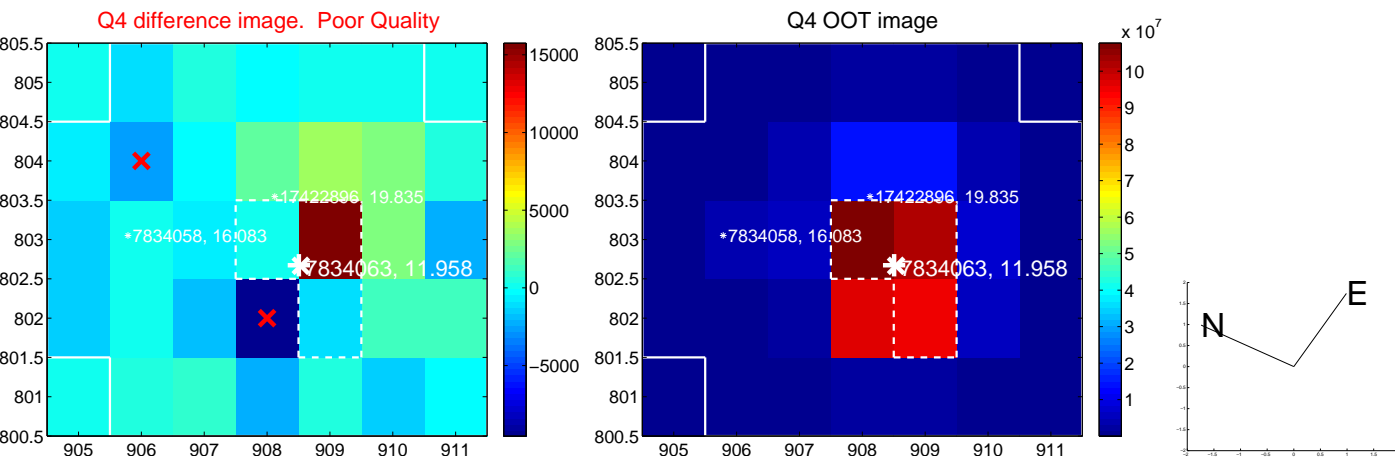
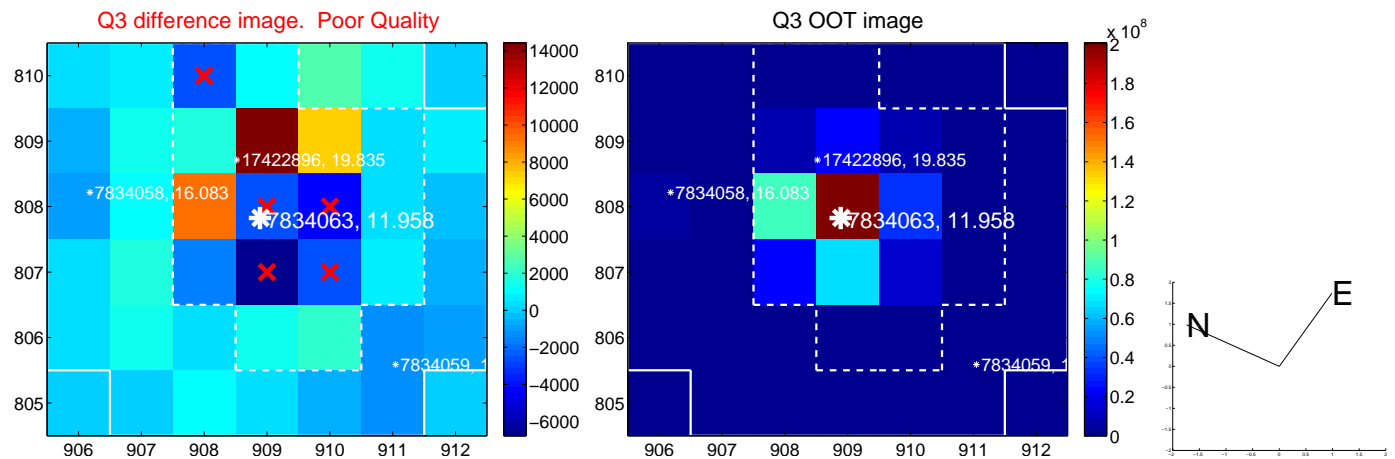
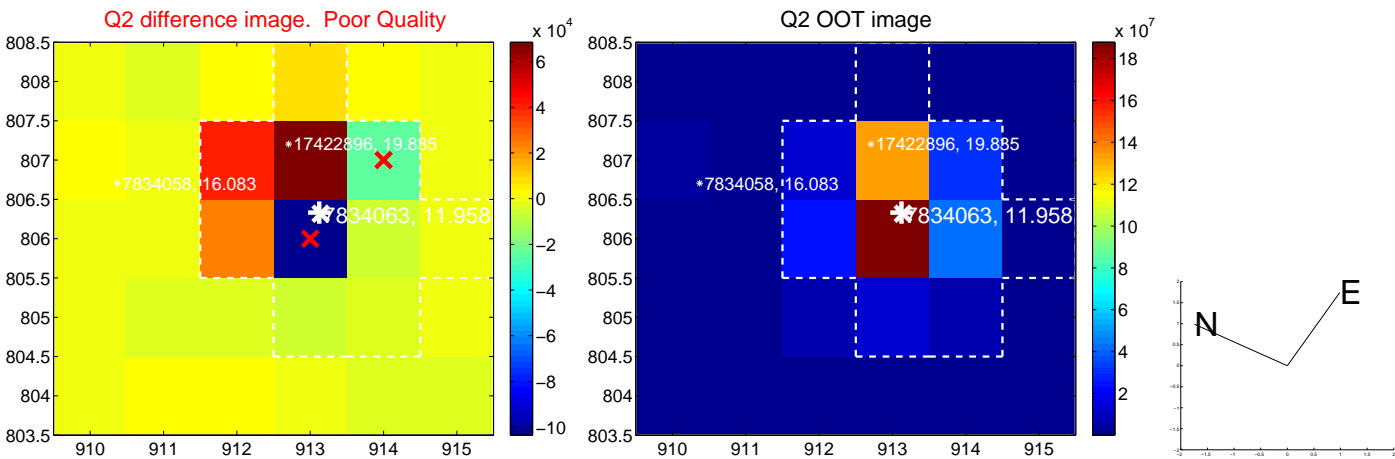
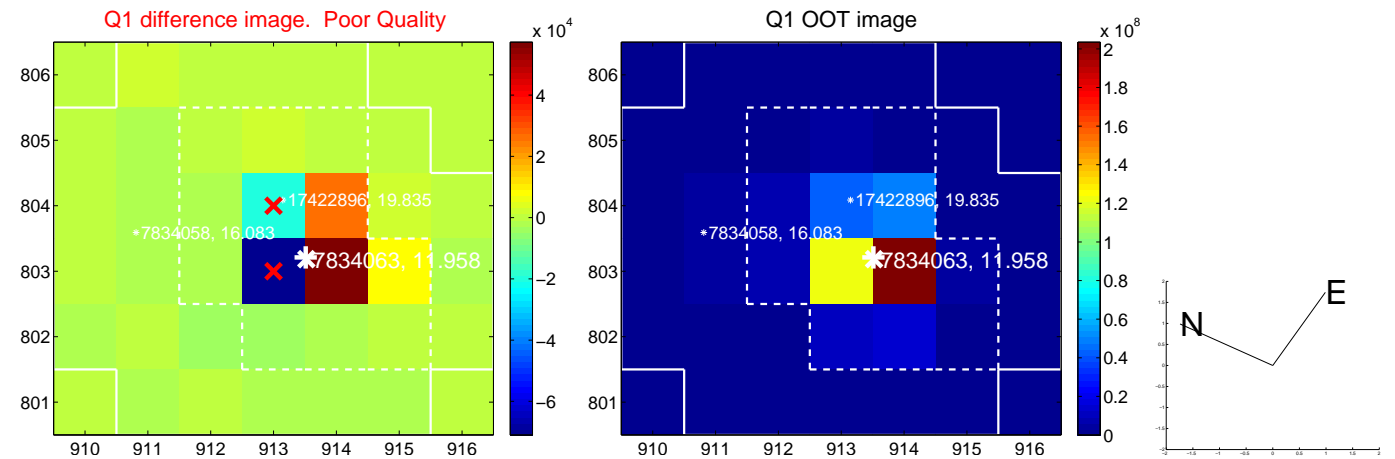


offset from photometric centroids

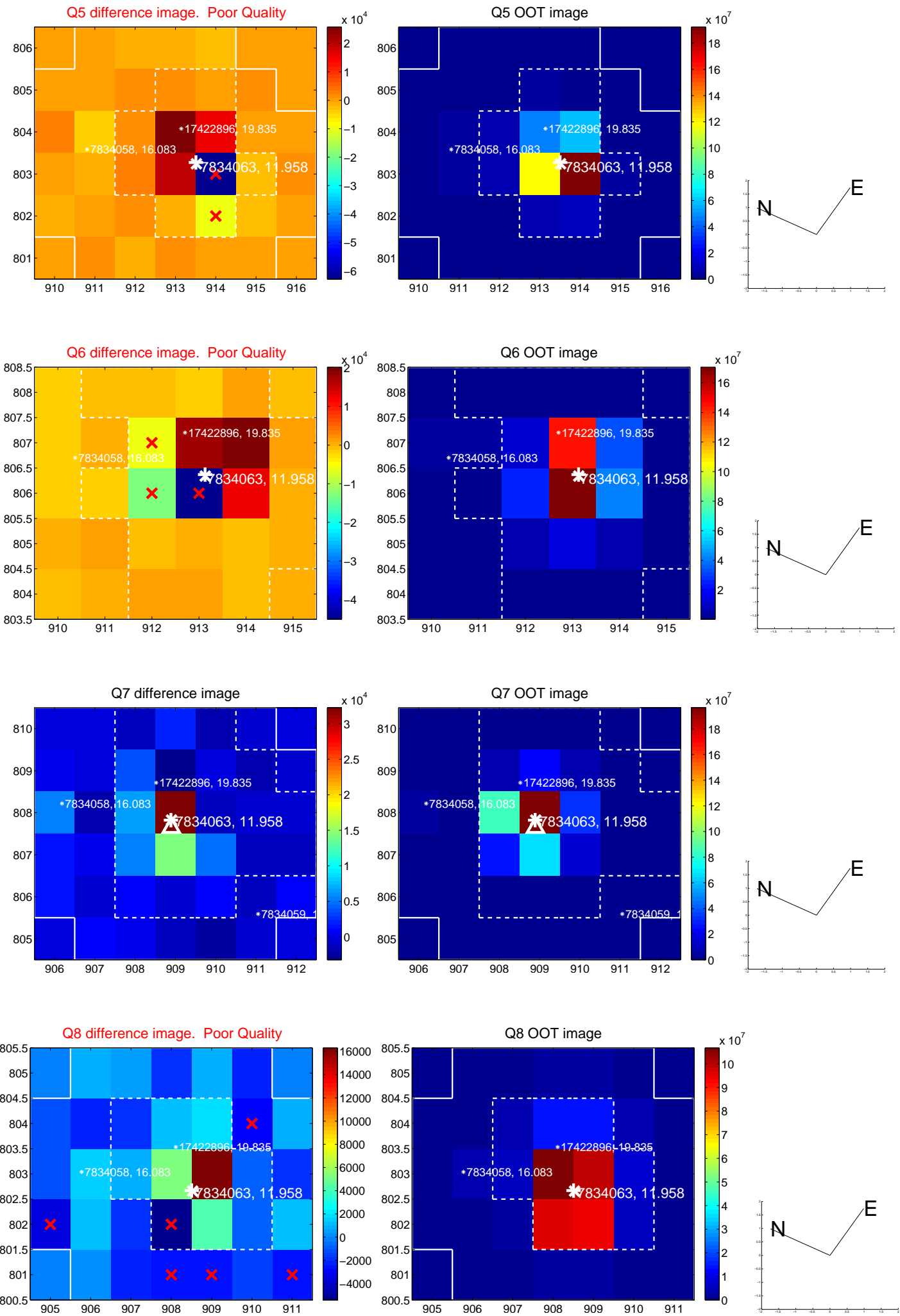


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

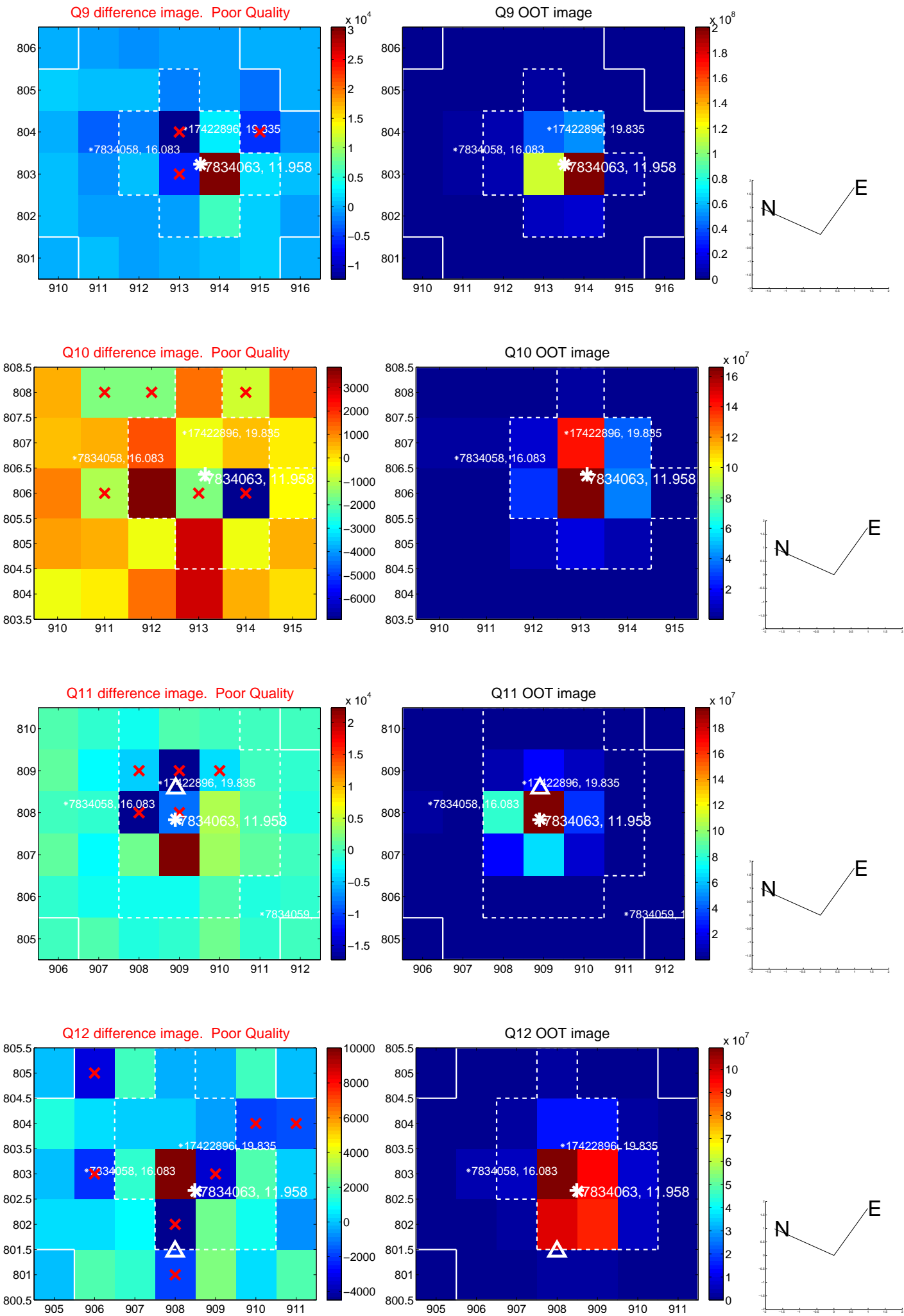
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



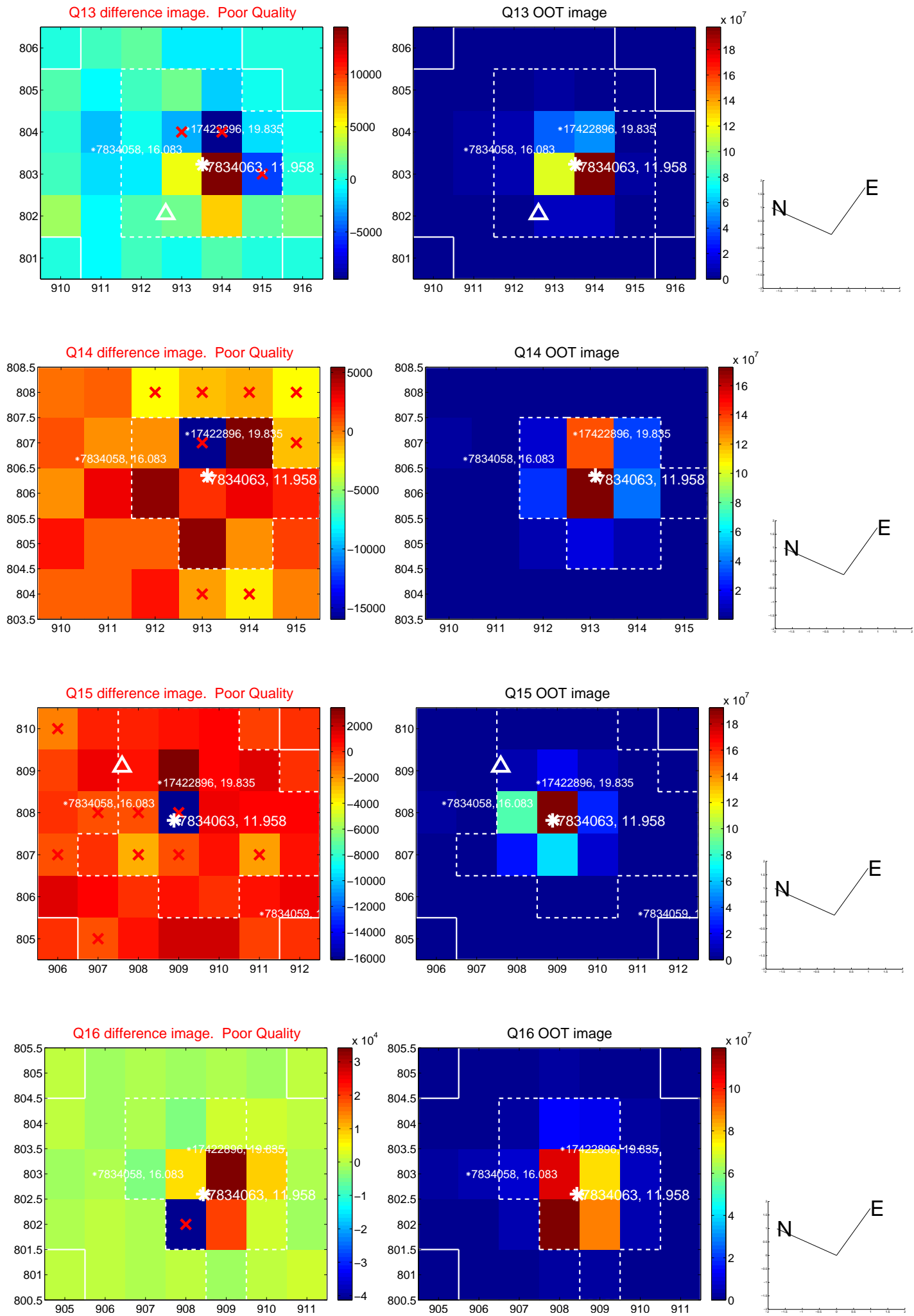
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



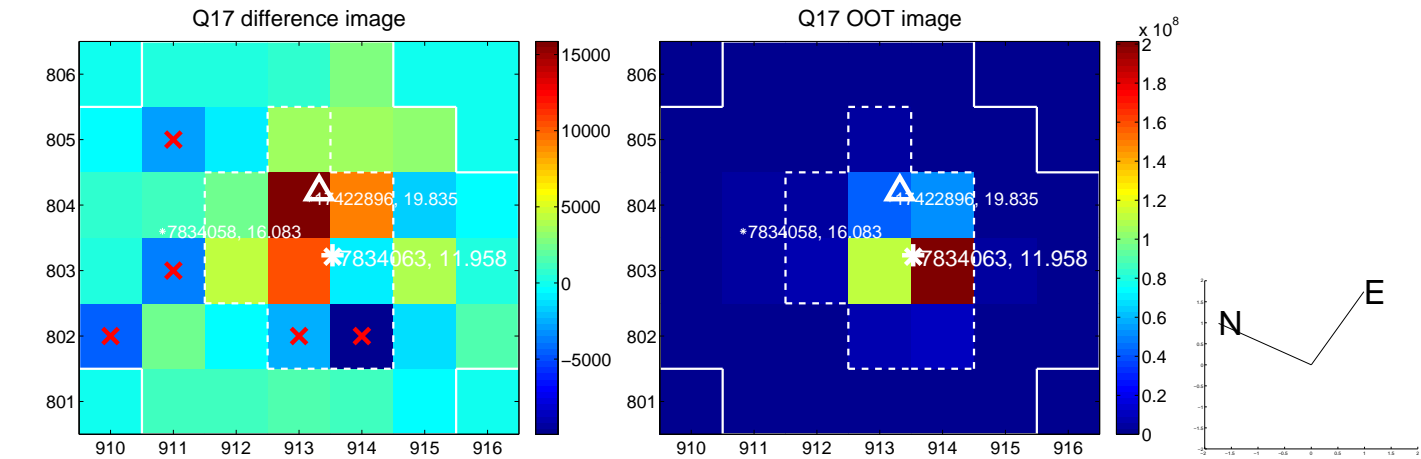
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



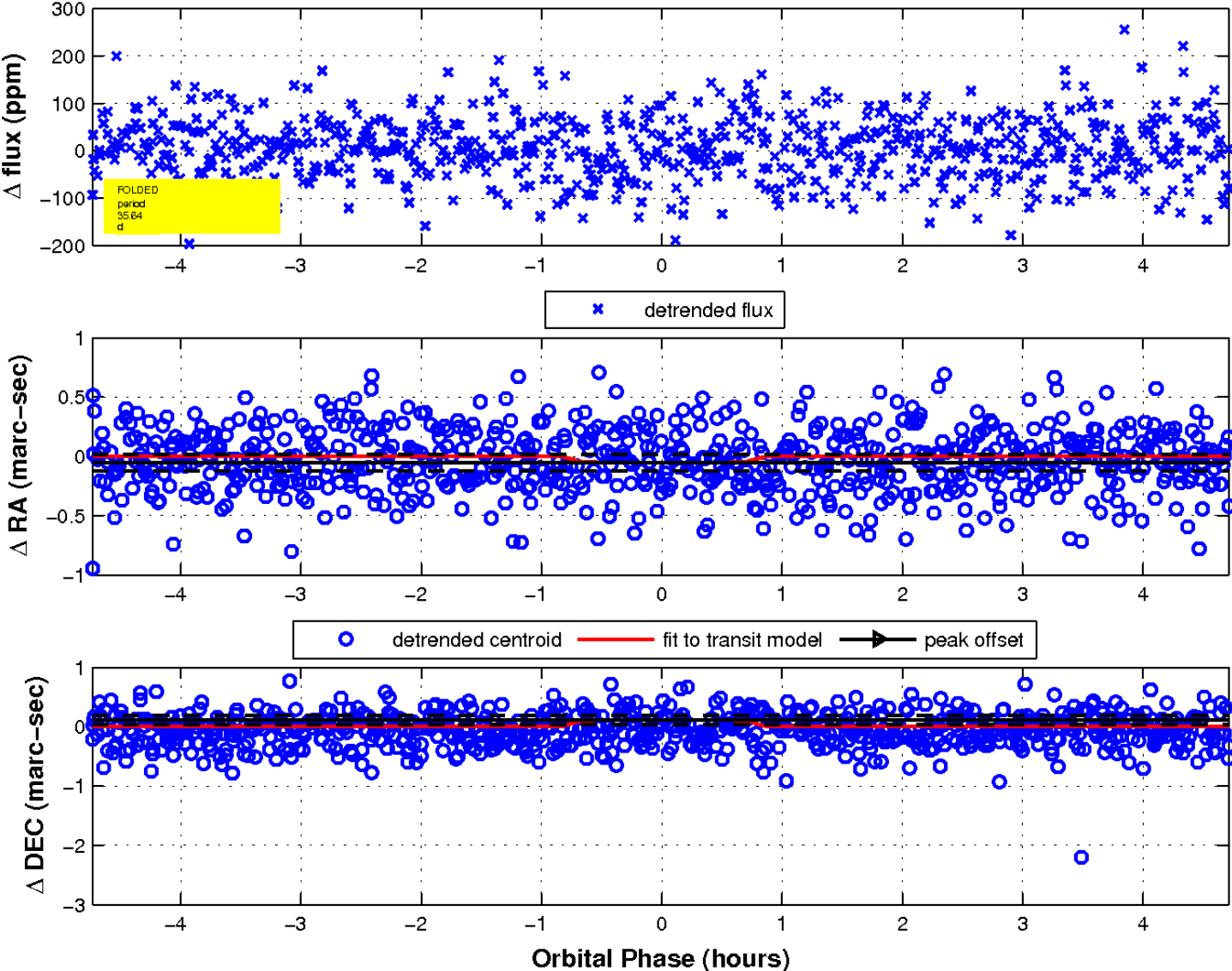
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

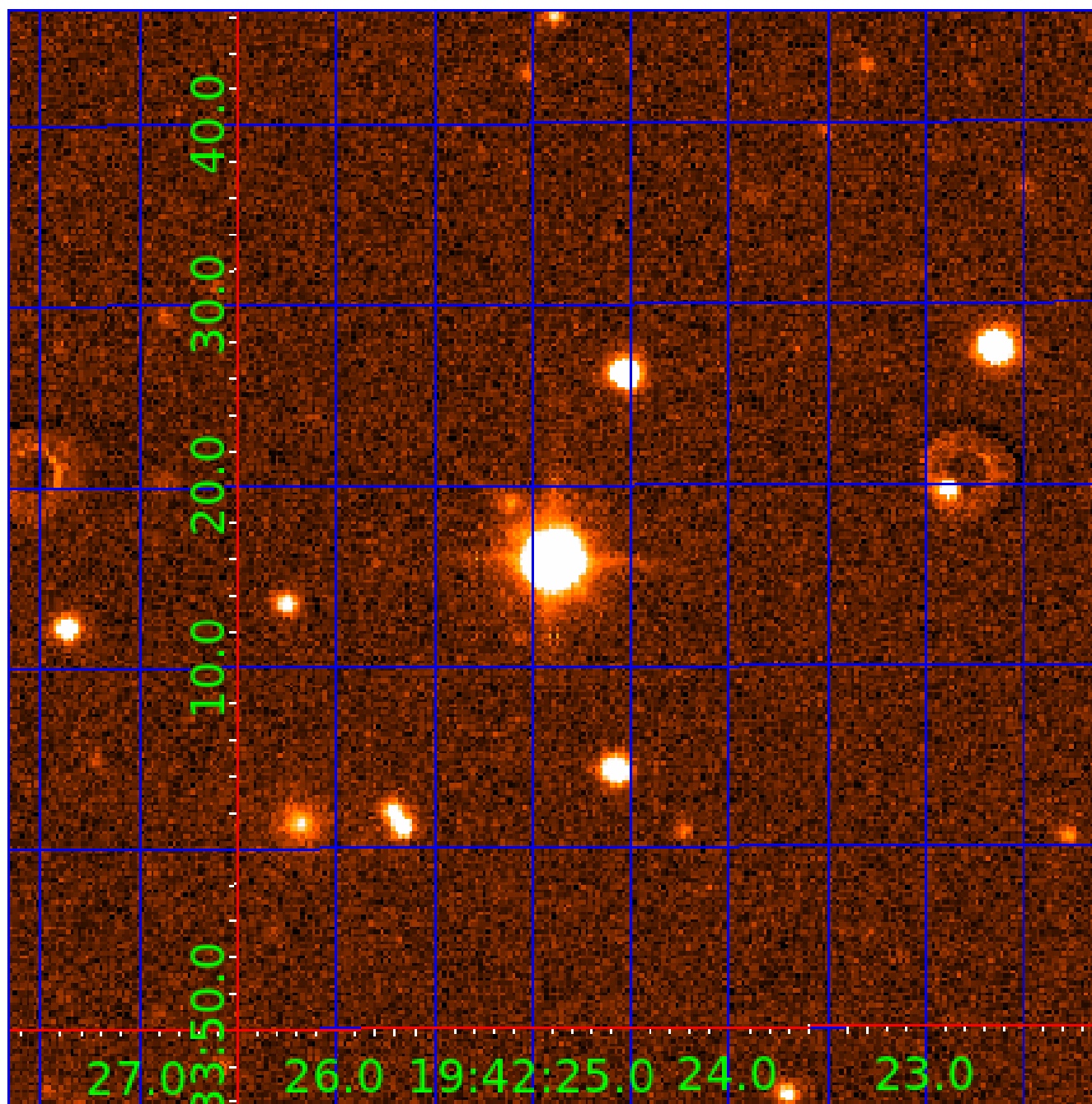


fluxWeightedCentroids, Planet 4 of 9



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

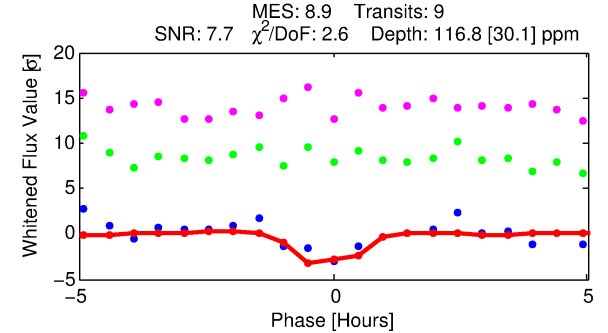
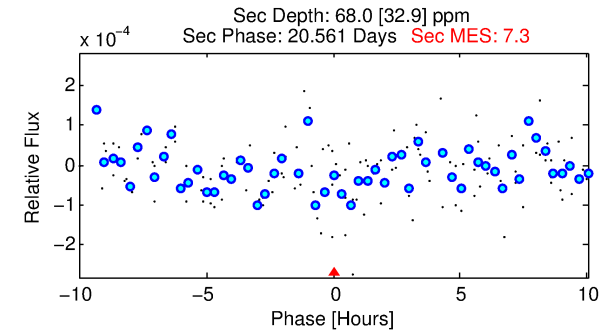
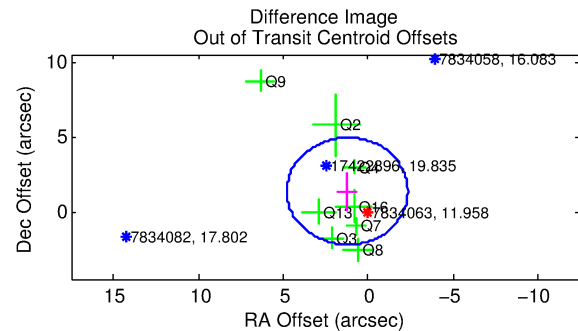
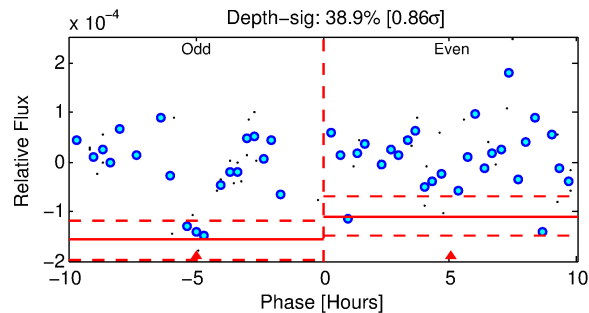
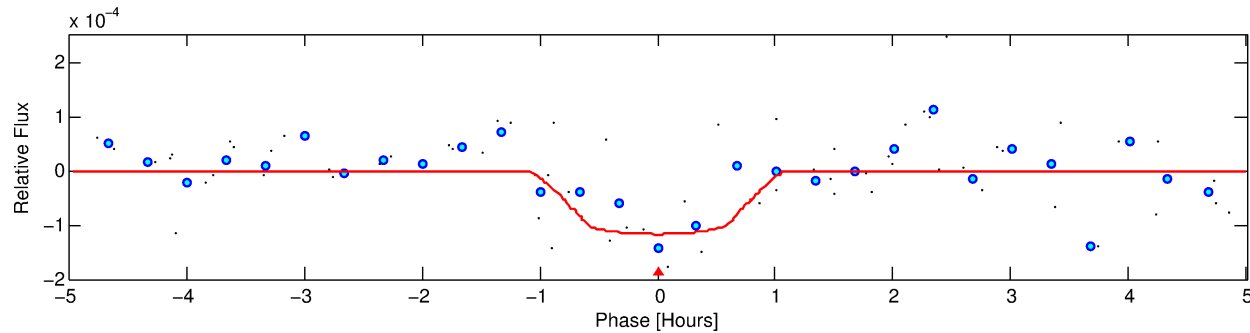
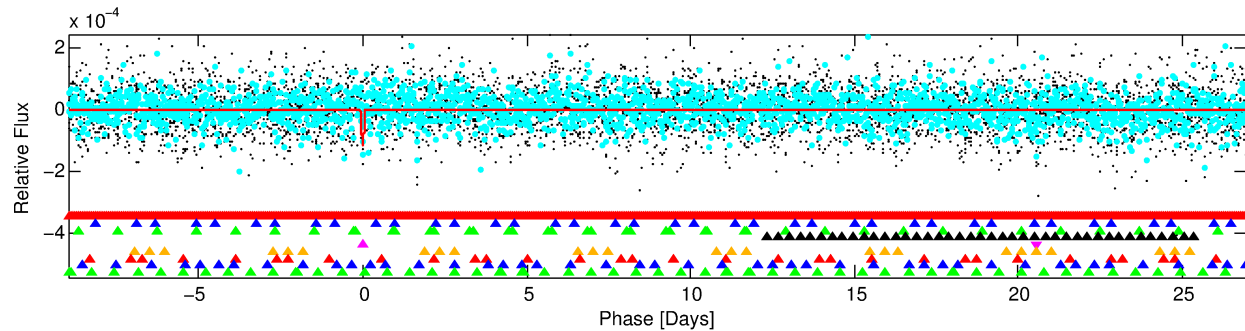
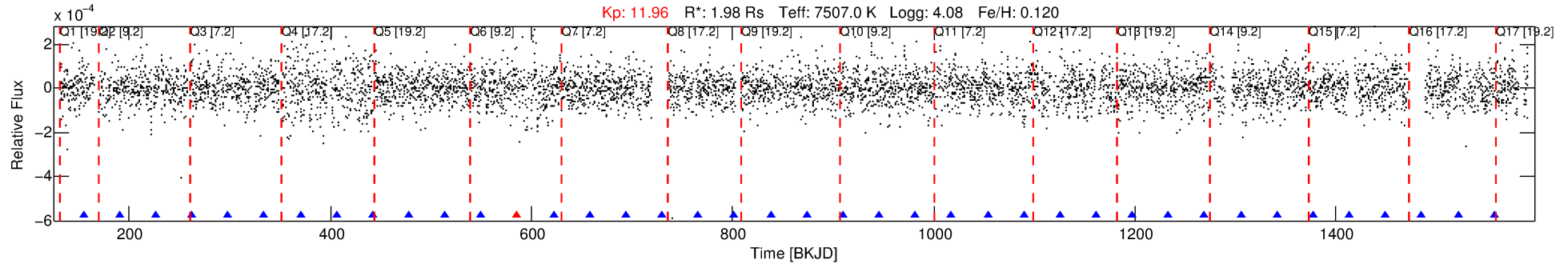
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-05

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 5 of 9 Period: 35.966 d



DV Fit Results:

Period = 35.96581 [0.00042] d
Epoch = 154.4452 [0.0111] BKJD
Rp/R* = 0.0101 [0.0222]
a/R* = 166.06 [2228.61]
b = 0.06 [215.49]
Seff = 169.60 [63.47]
Teq = 920 [86] K
Rp = 2.17 [4.83] Re
a = 0.2559 [0.0585] AU
Ag = 518.66 [2304.60] [0.22 σ]
Teffp = 6790 [7528] K [0.78 σ]

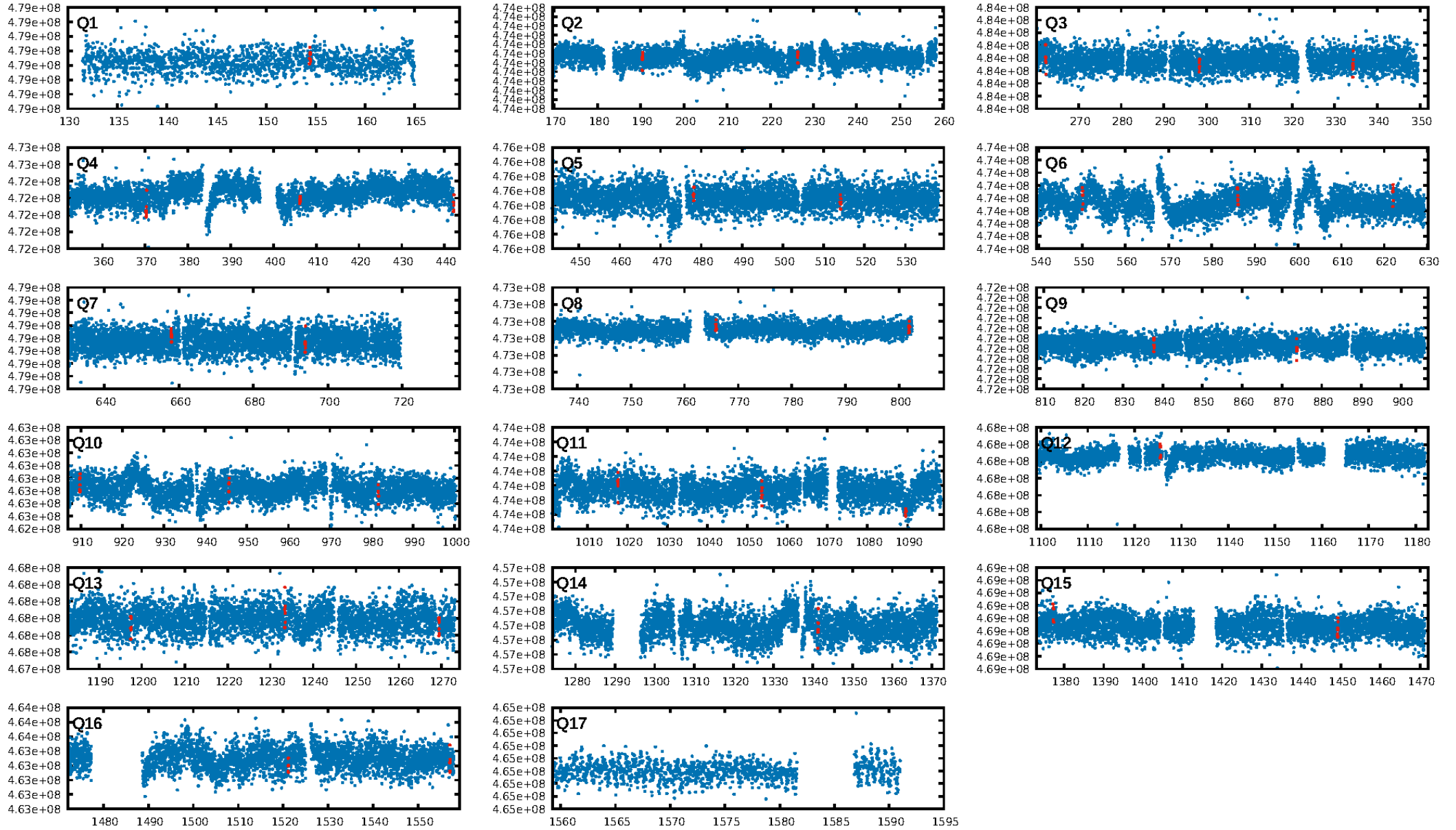
DV Diagnostic Results:

ShortPeriod-sig: 99.9% [3.40 σ]
LongPeriod-sig: 100.0% [16.75 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 96.0%
Bootstrap-pfa: 3.32e-08
RollingBand-fgt: 0.89 [8/9]
GhostDiagnostic-chr: -0.004403
Centroid-sig: 37.8%
Centroid-so: 0.555 arcsec [0.84 σ]
OotOffset-rm: 1.825 arcsec [1.53 σ]
OotOffset-st: 1/2/3/2 [8]
KicOffset-rm: 1.882 arcsec [1.41 σ]
KicOffset-st: 1/2/3/2 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 0.00 [0/16]

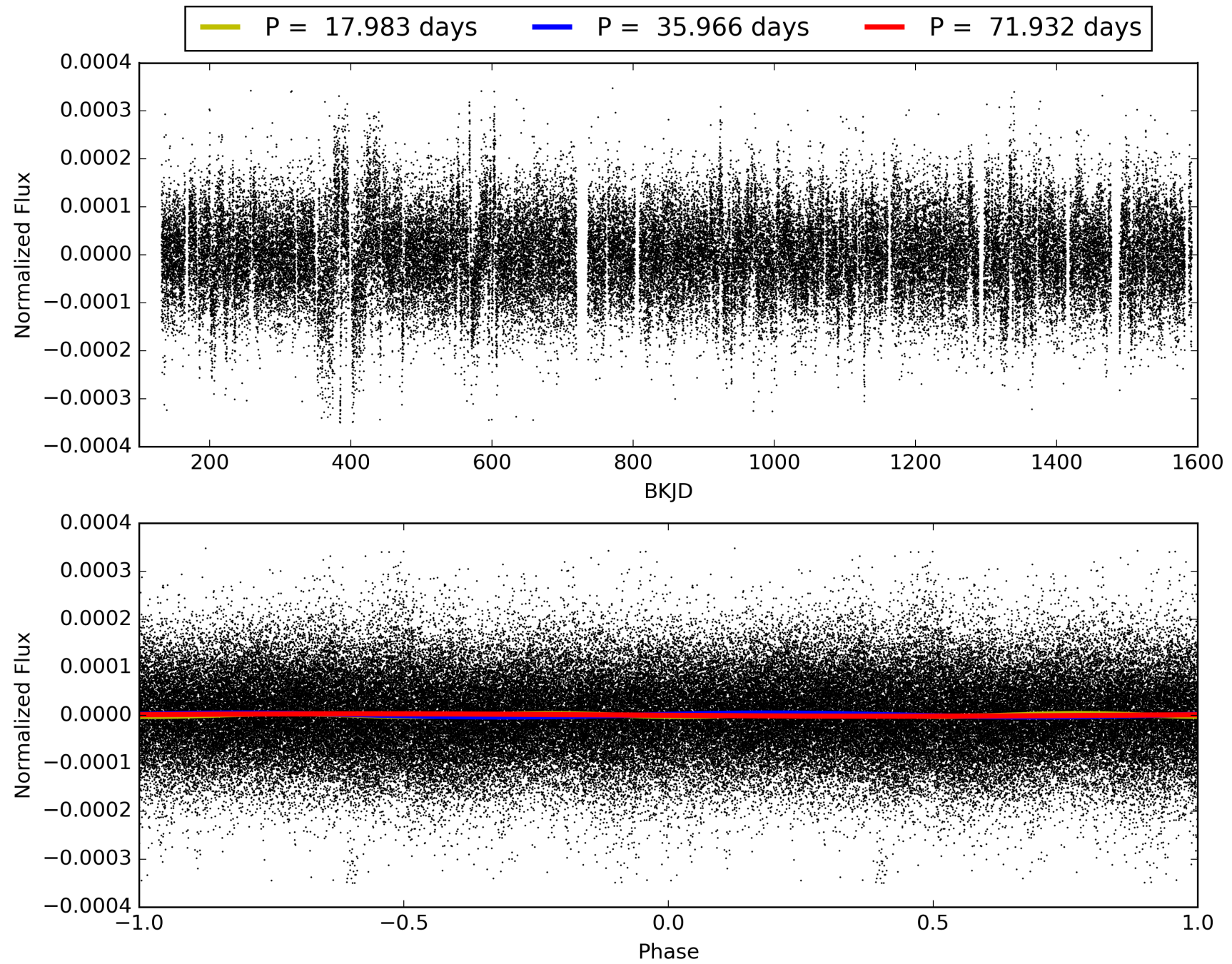
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:28 Z

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

TCE 007834063-05, PDC Light Curves

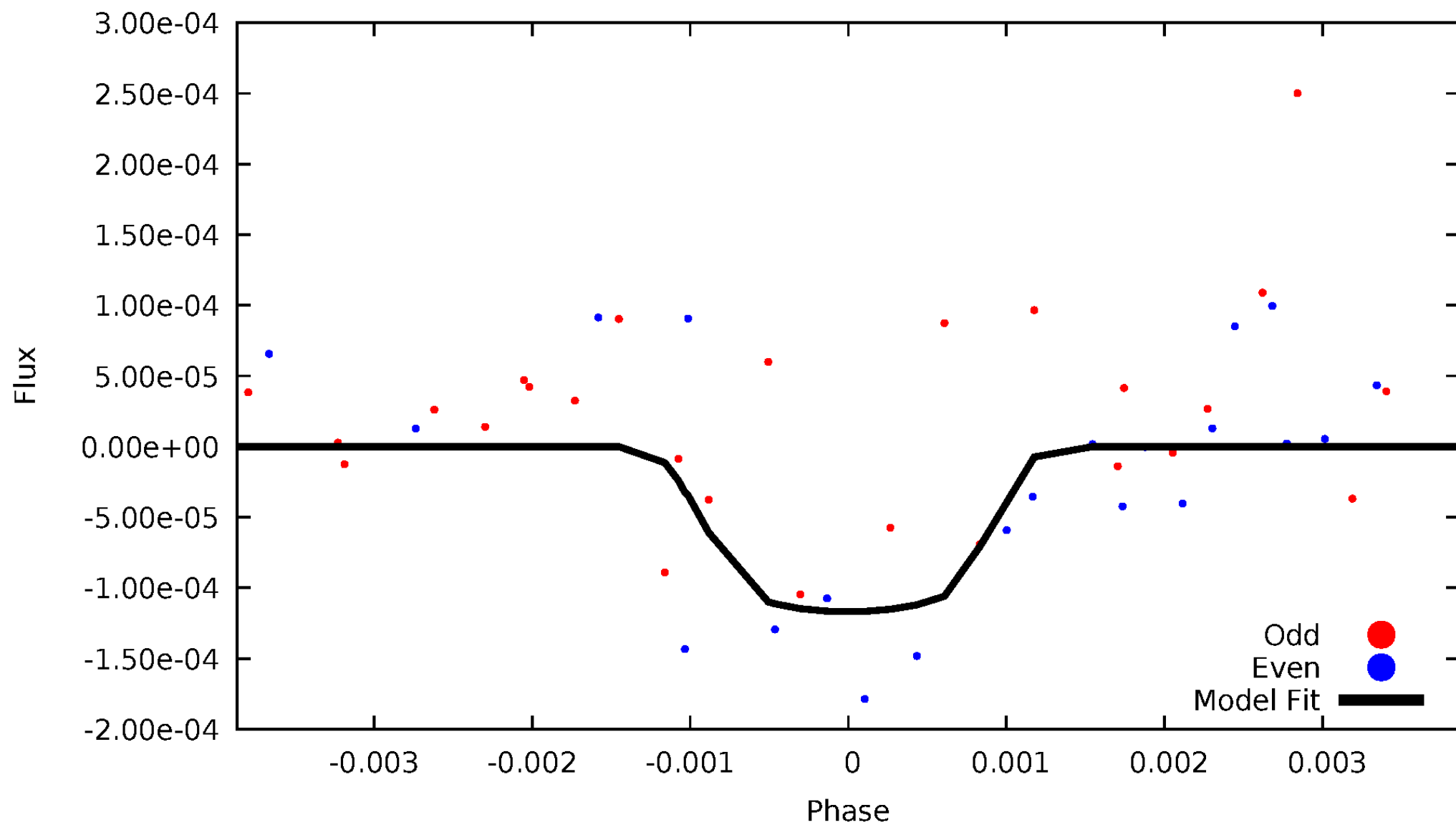


TCE 007834063-05



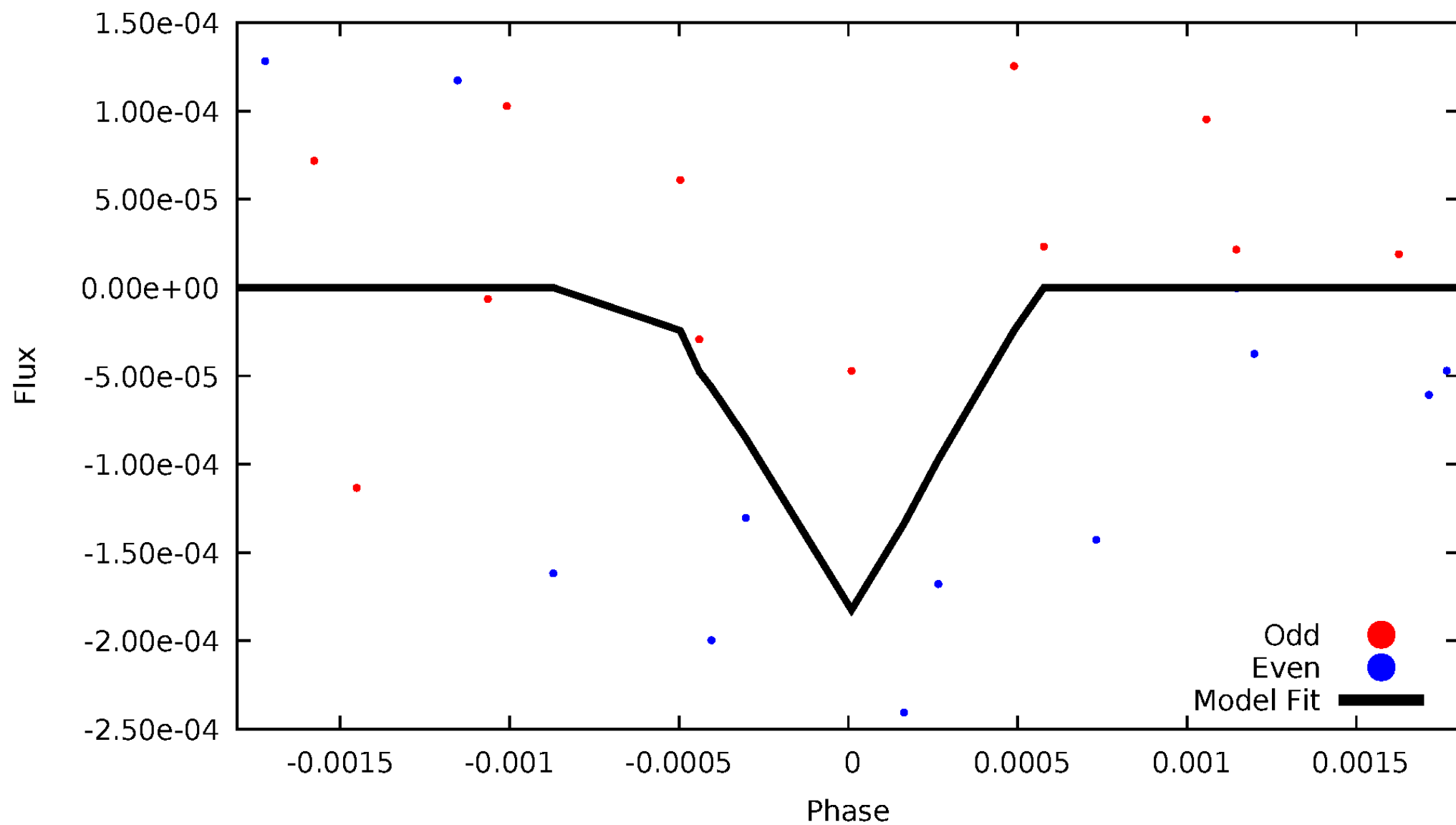
DV Odd/Even

TCE 007834063-05



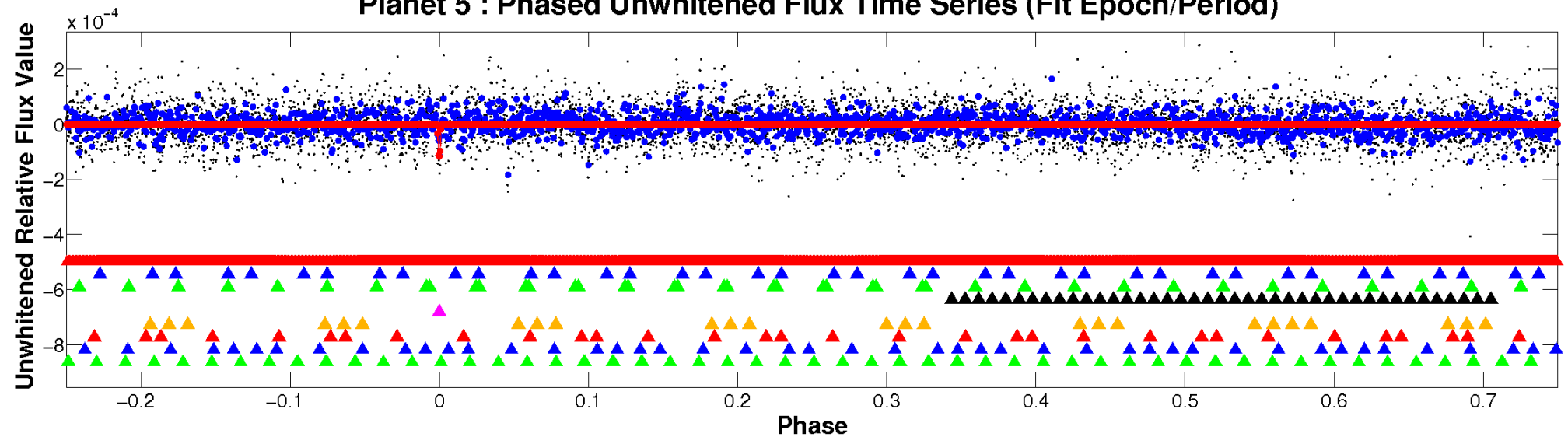
ALT Odd/Even

TCE 007834063-05

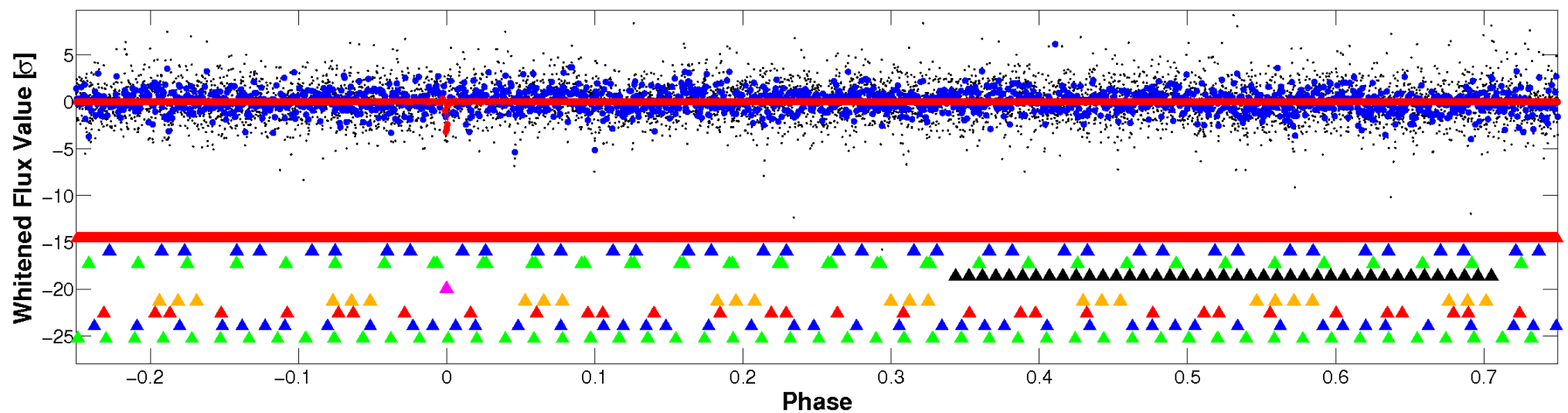


Non-Whitened Vs. Whitened Light Curve

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

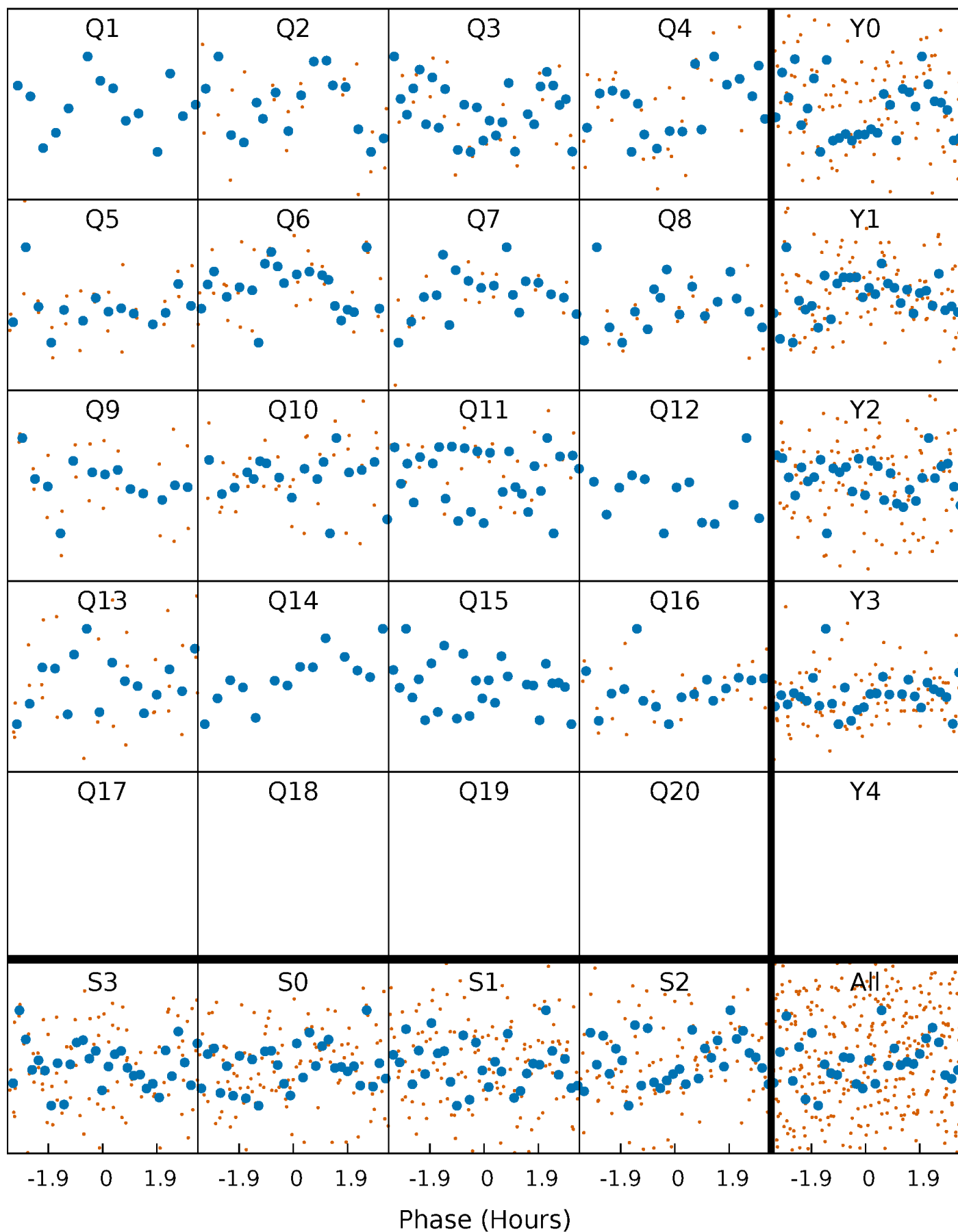


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



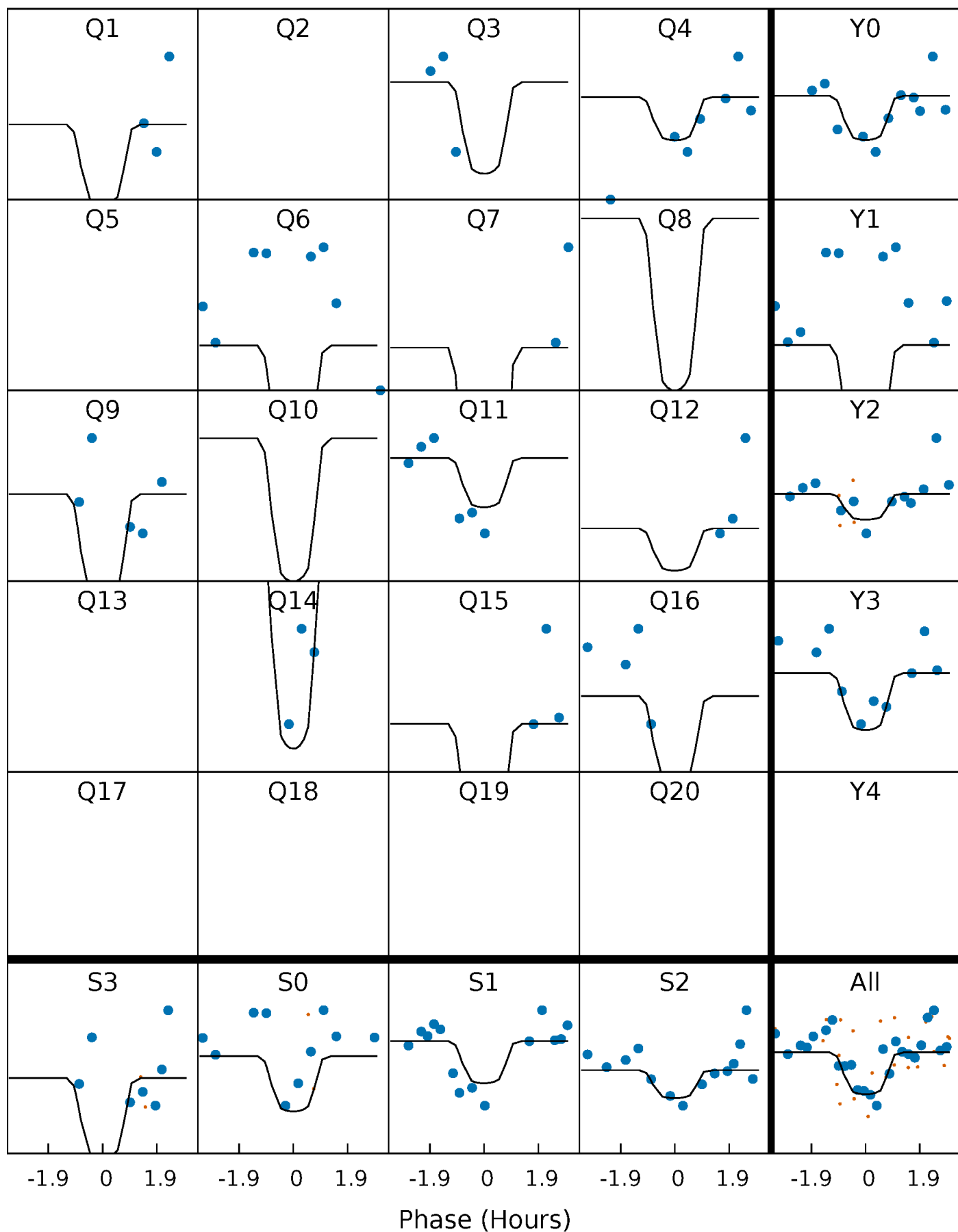
PDC Quarter-Phased Transit Curves

TCE 007834063-05 P= 35.965811 Days $T_0=154.445244$ (BKJD)



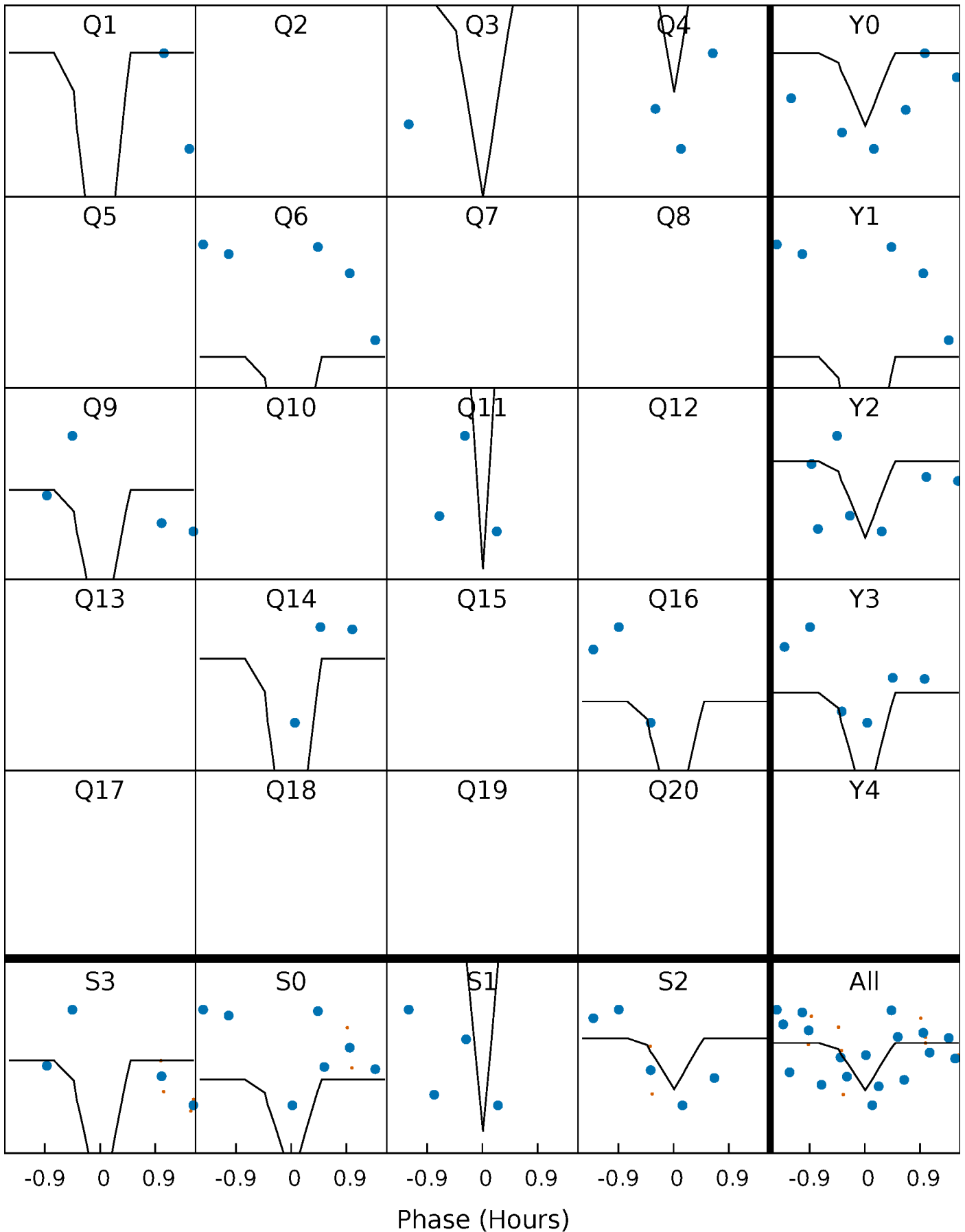
DV Quarter-Phased Transit Curves

TCE 007834063-05 P= 35.965811 Days $T_0=154.445244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

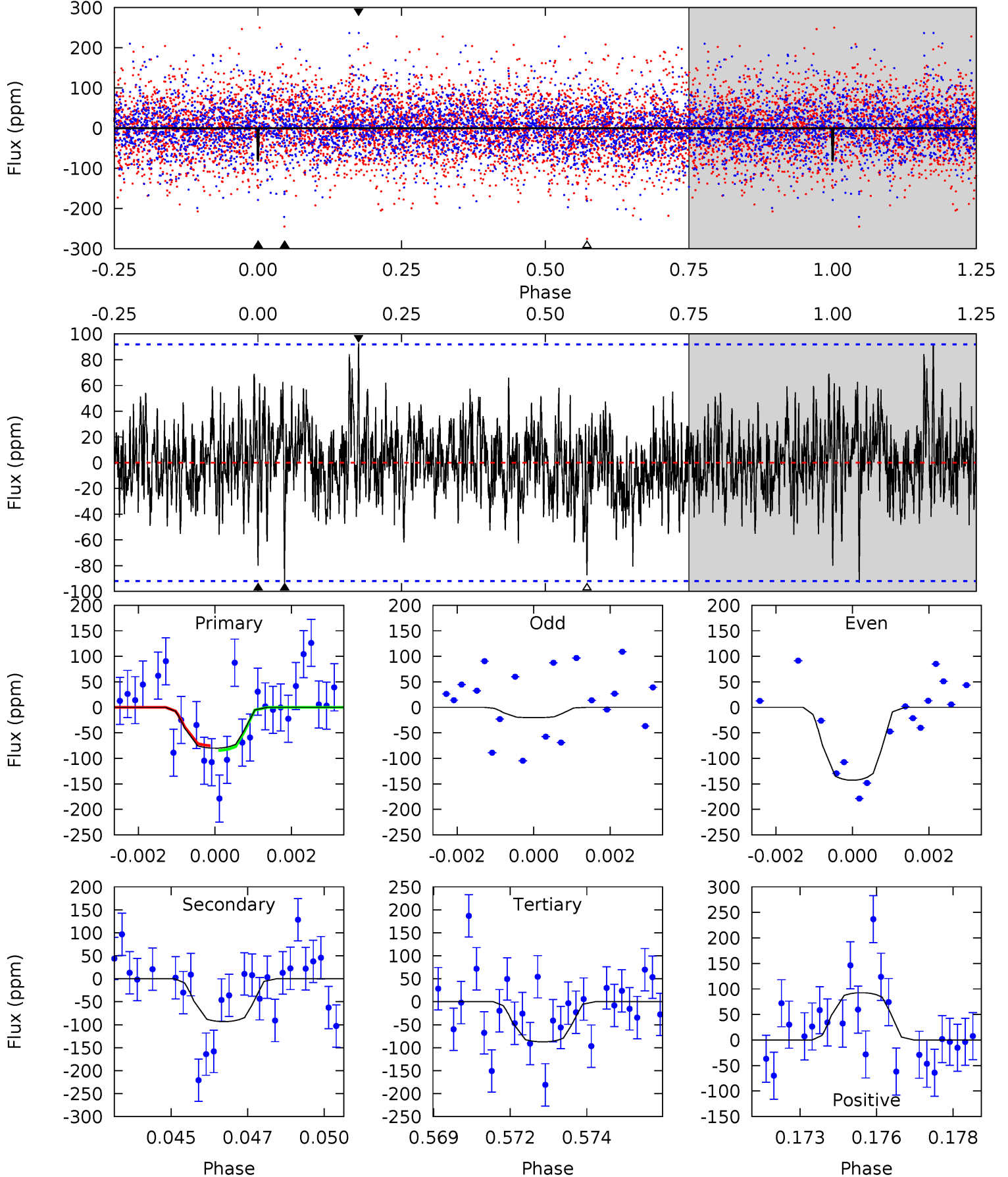
TCE 007834063-05 P= 35.965035 Days $T_0=154.459589$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-05, P = 35.965811 Days, E = 118.479433 Days

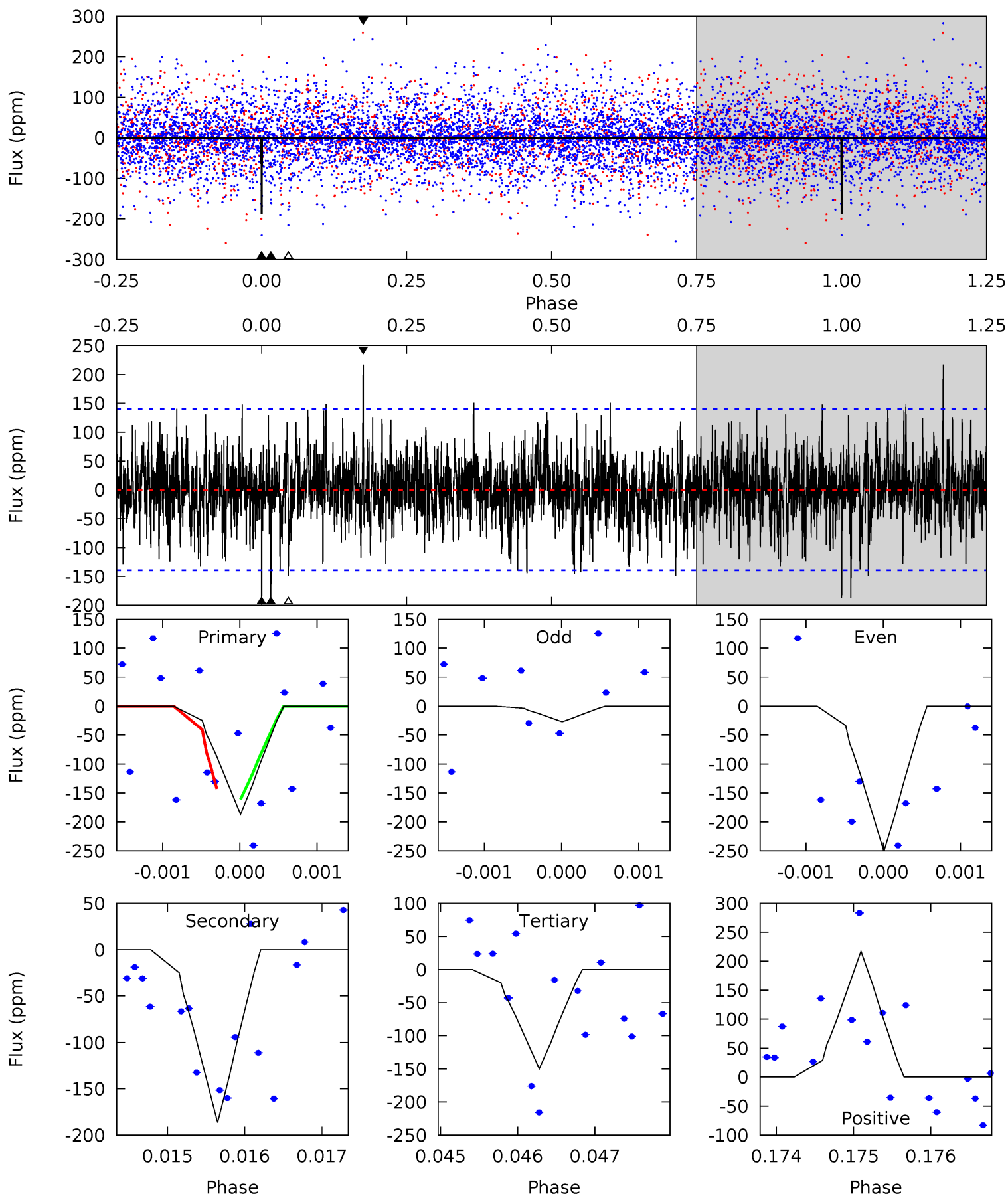
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.61	5.37	5.04	5.34	5.31	3.06	1.35	-0.43	-0.73	0.33	0.03	3.52	0.53	0.50	0.28



Alt Model-Shift Uniqueness Test

007834063-05, P = 35.965035 Days, E = 118.494554 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.29	7.28	5.85	8.48	5.45	3.29	1.69	1.44	-1.19	1.43	-1.20	4.08	1.00	0.54	0.34



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-93 ± 17	$4.26^{+3.98}_{-2.89}$	1287^{+93}_{-79}	5221^{+4918}_{-1157}	183^{+1594}_{-134}
Alt.	-187 ± 26	$4.85^{+4.12}_{-3.15}$	1284^{+93}_{-87}	5740^{+5159}_{-1319}	283^{+2054}_{-203}

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 $A_{obs} \gg 1.0$

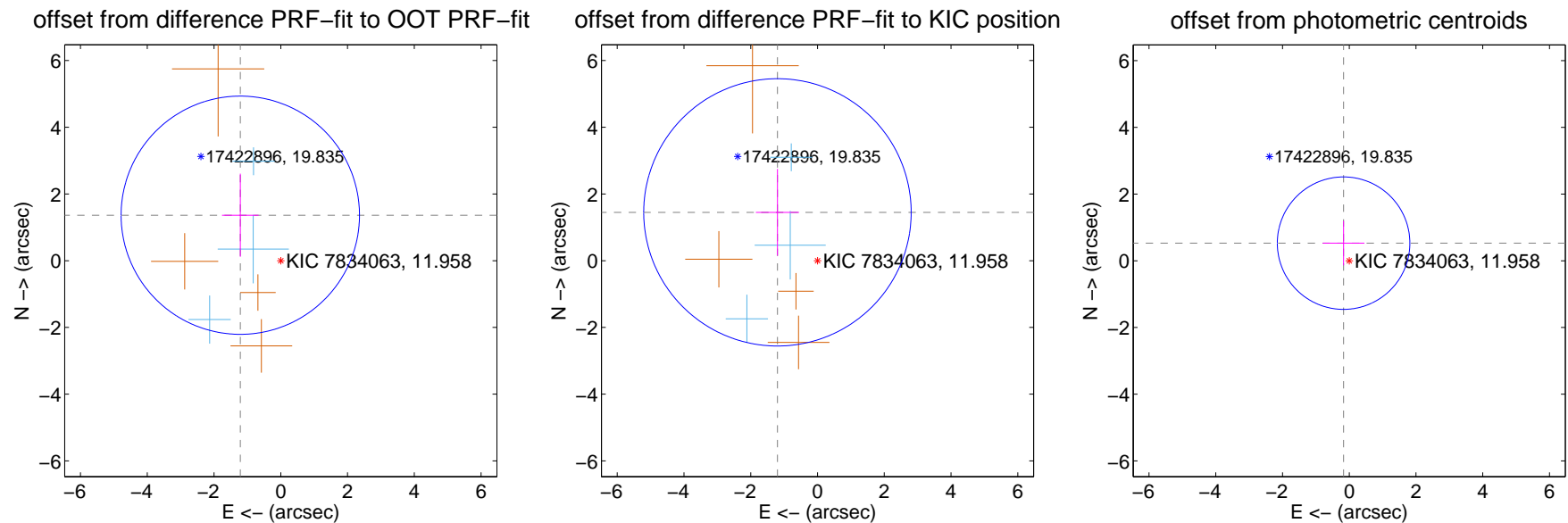
DV Centroid Data

Supplemental centroid analysis for 007834063-05. **Kepler magnitude: 11.96.** Transit SNR 7.69

There are 3 quarters with good PRF difference image offsets

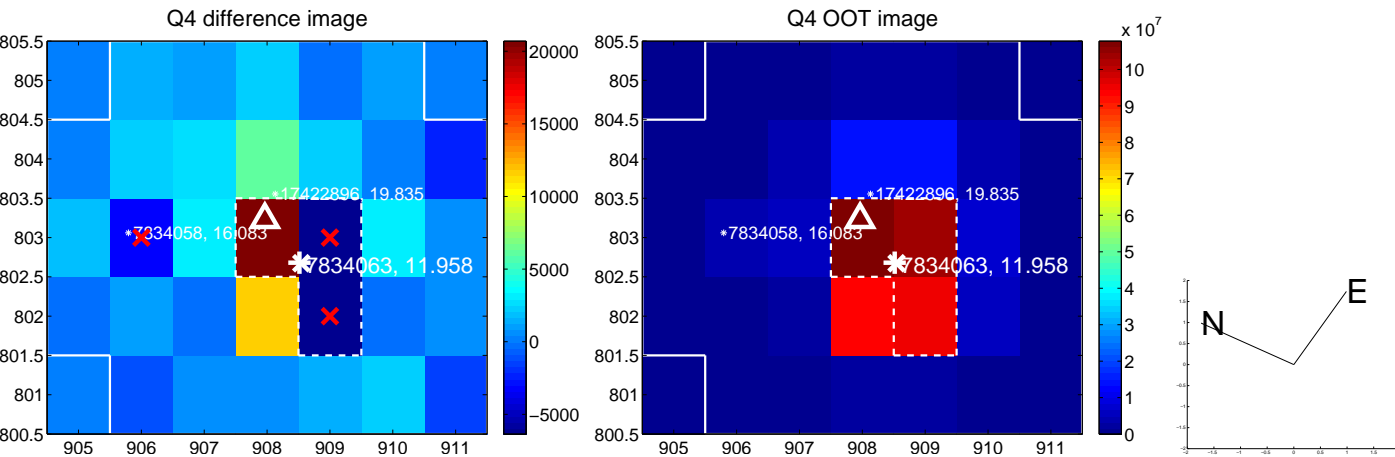
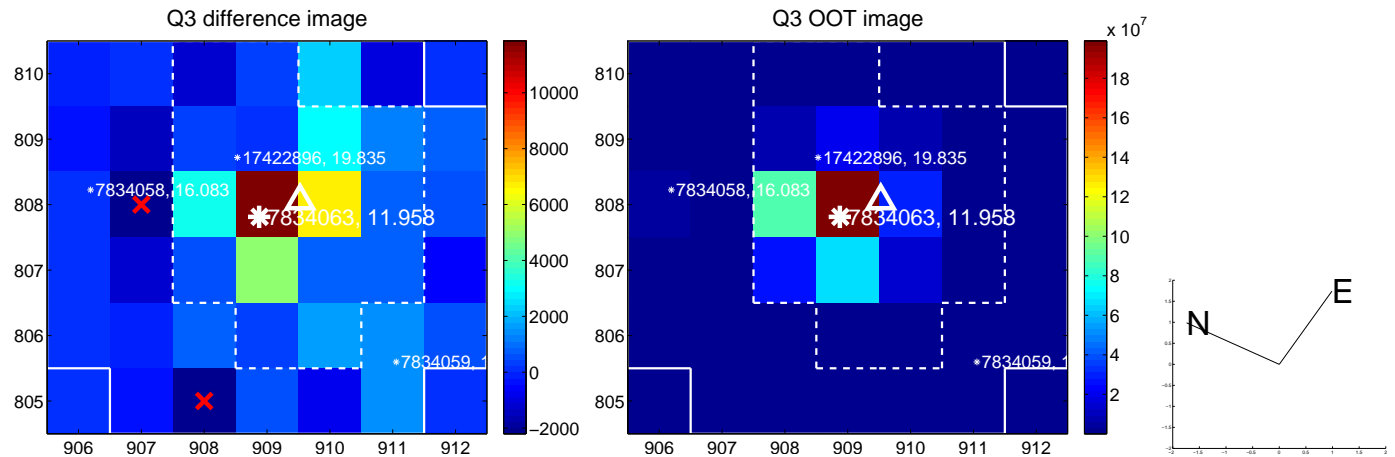
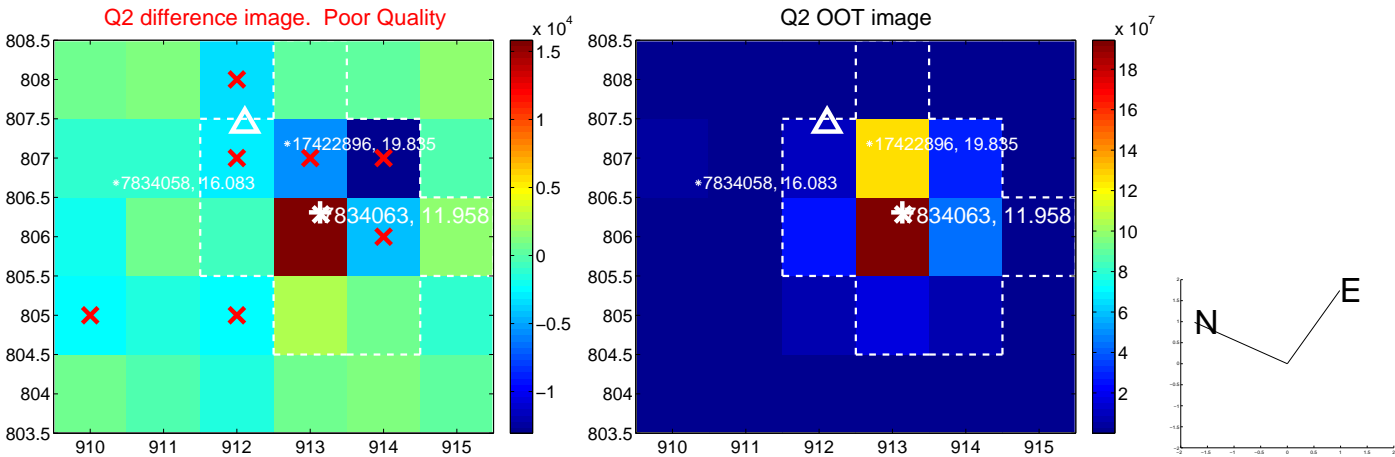
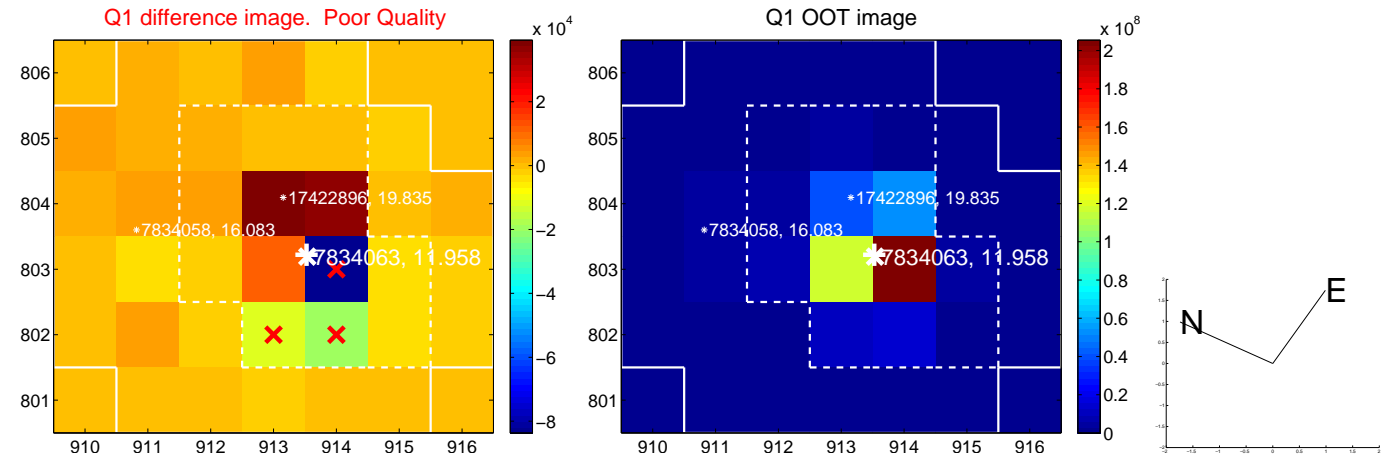
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.825 ± 1.190	1.53	1.213 ± 0.548	1.363 ± 1.245
PRF-fit source offset from KIC position	1.882 ± 1.335	1.41	1.200 ± 0.646	1.449 ± 1.302
photometric centroid source offset	0.56 ± 0.66	0.84	0.17 ± 0.62	0.53 ± 0.67

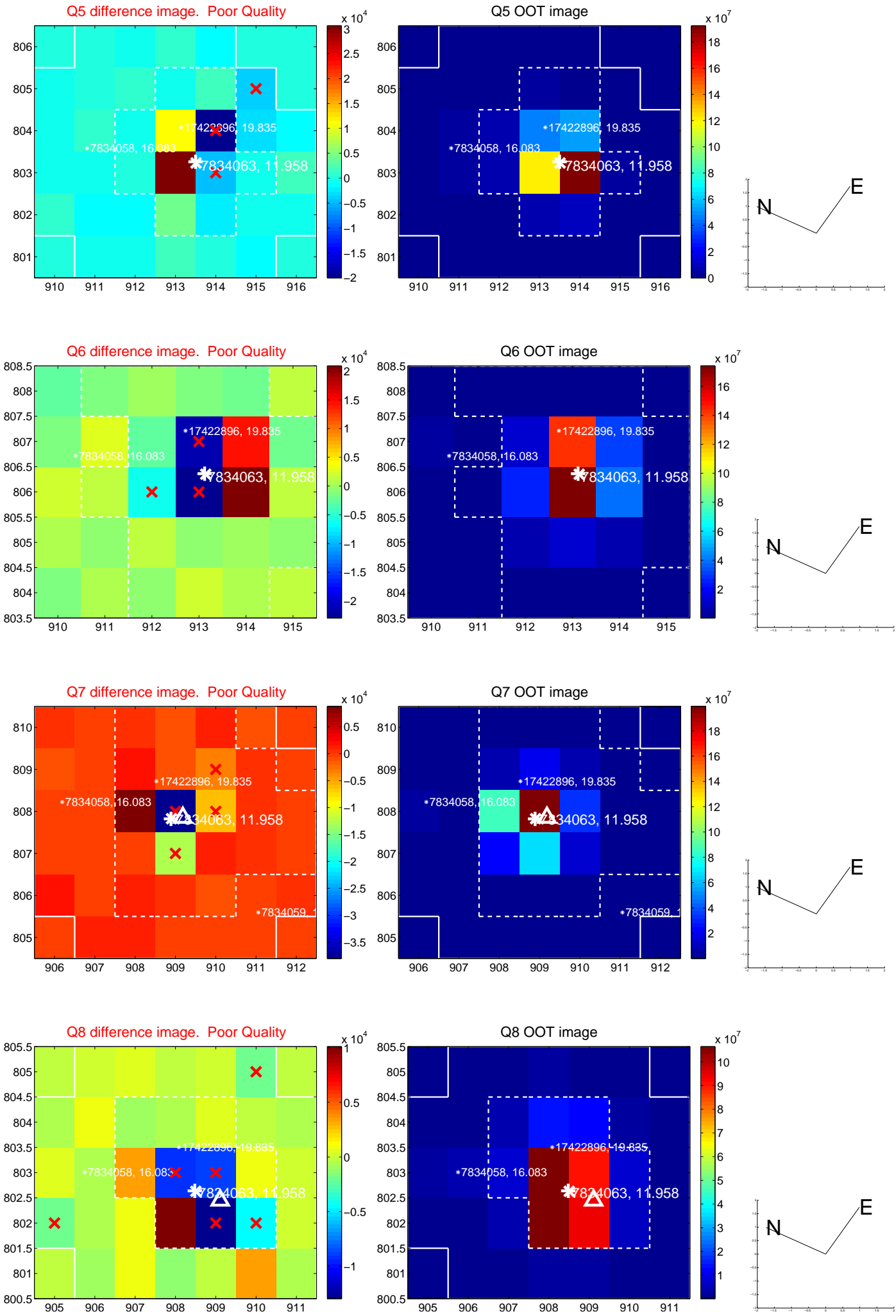


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

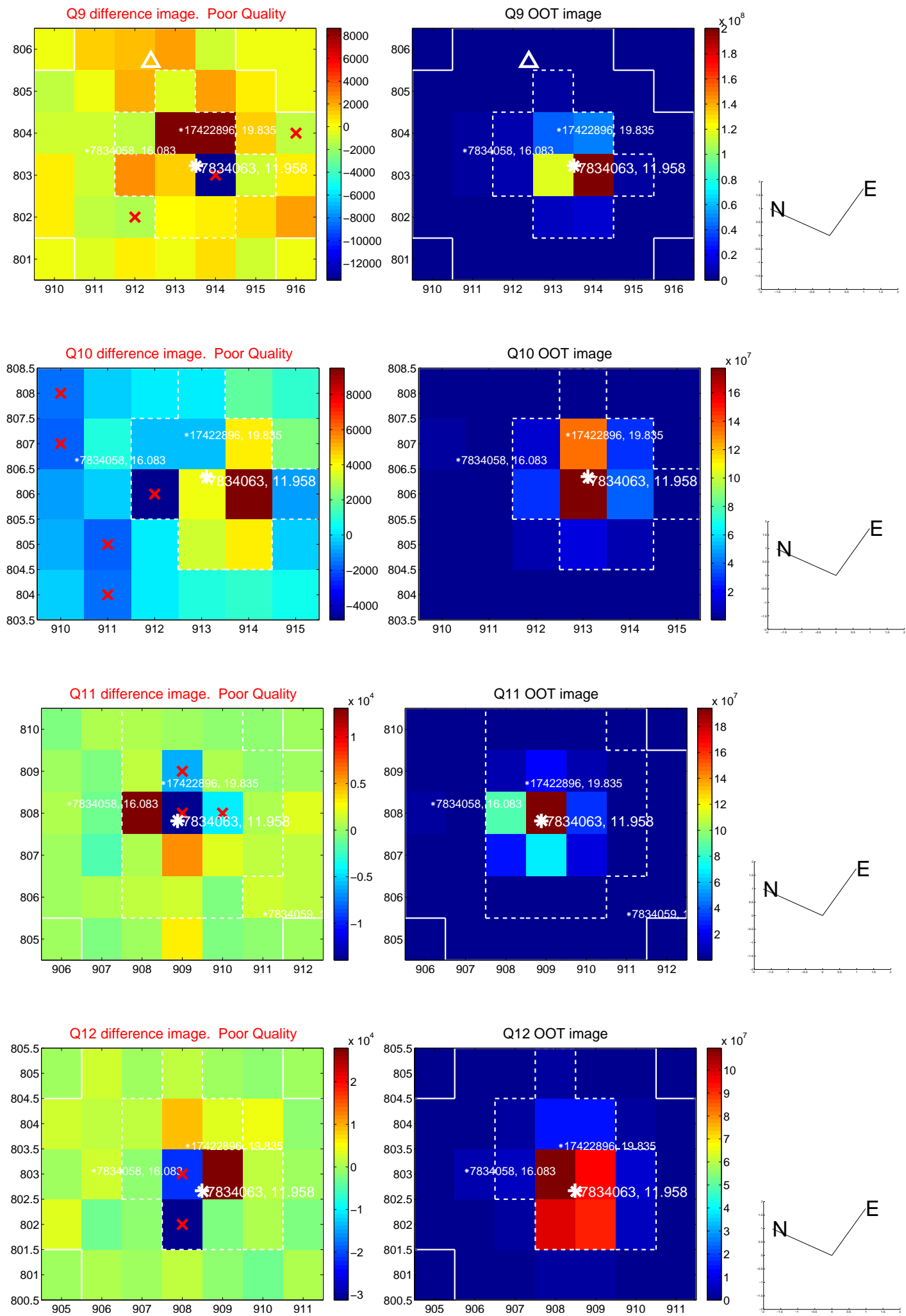
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



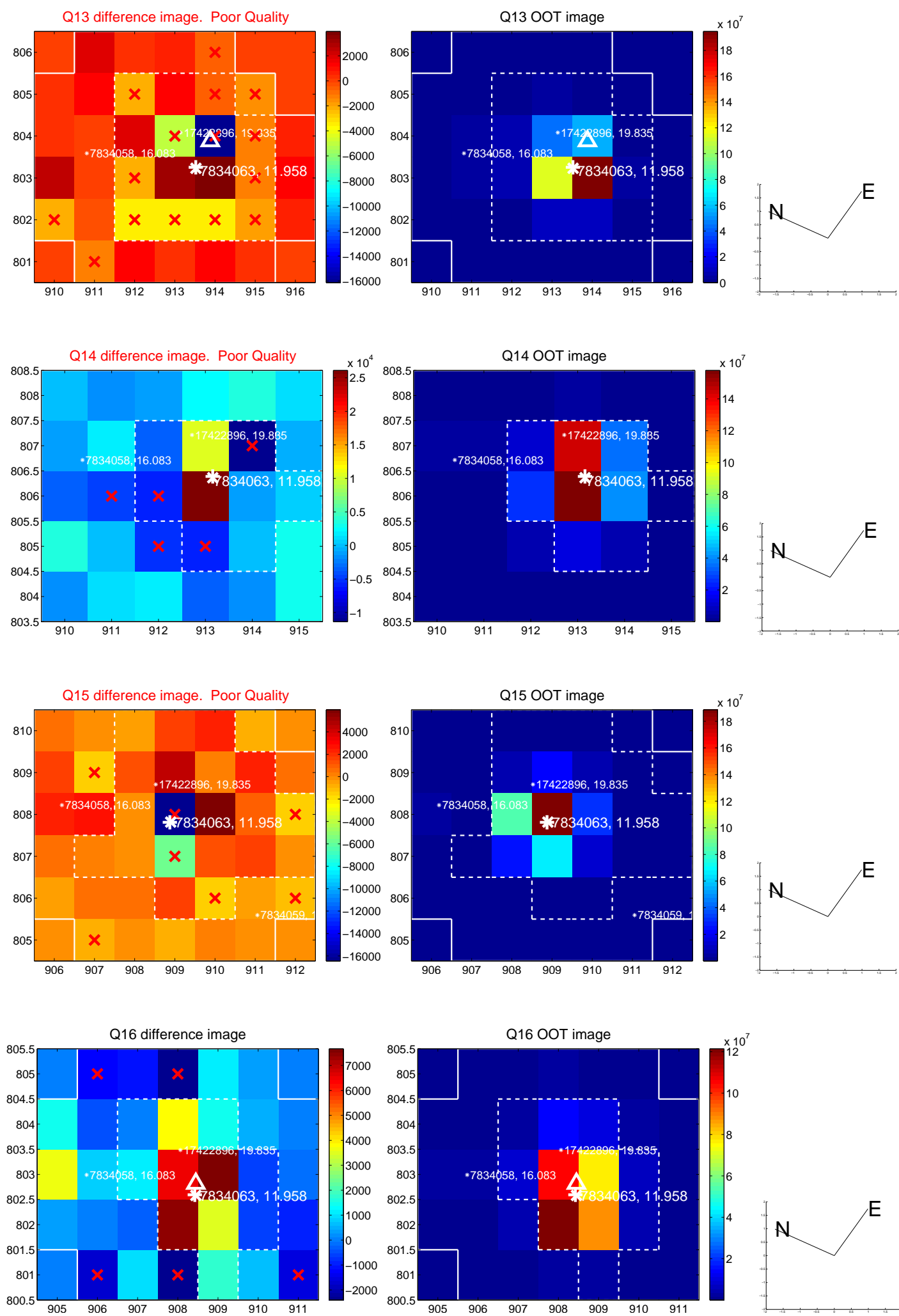
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



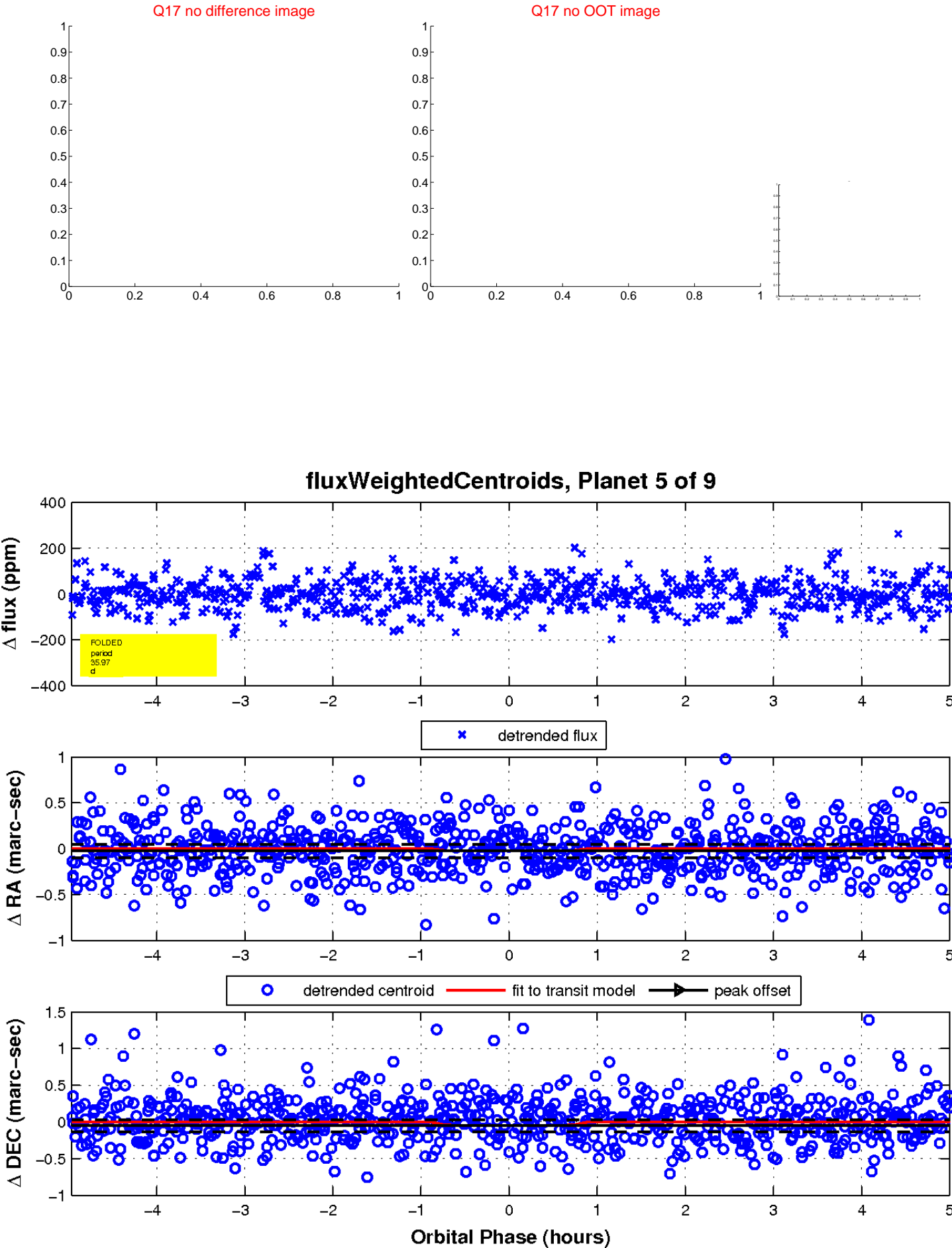
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

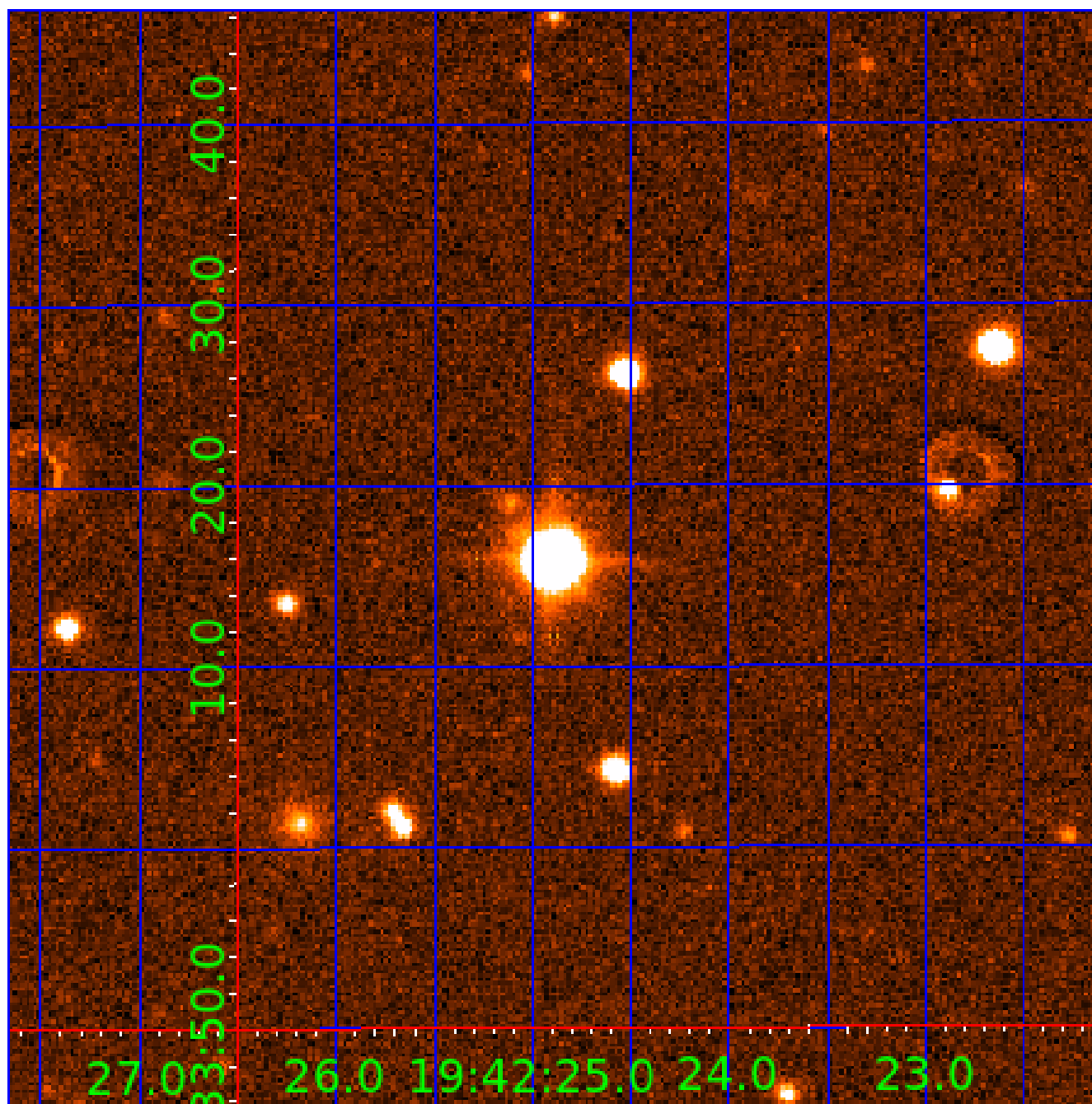


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

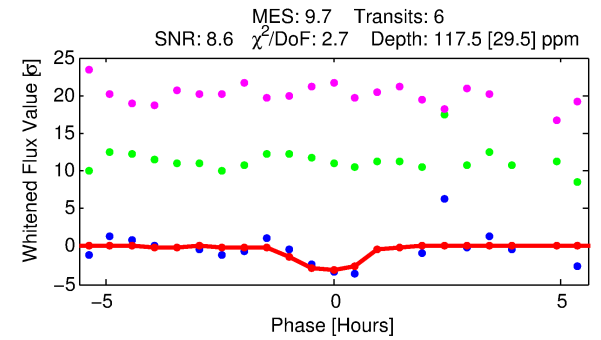
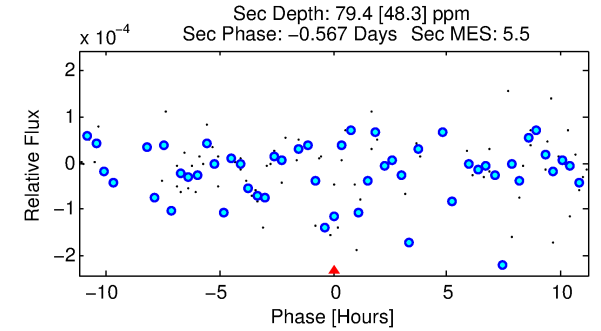
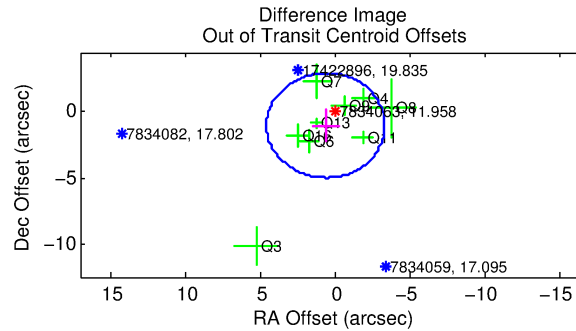
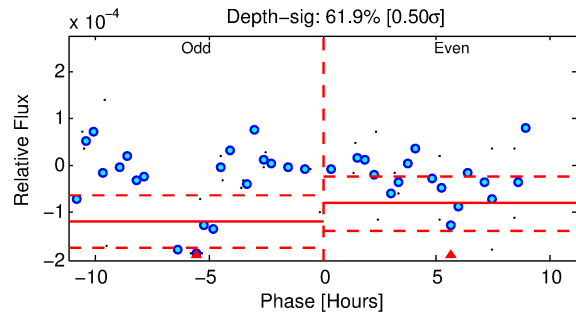
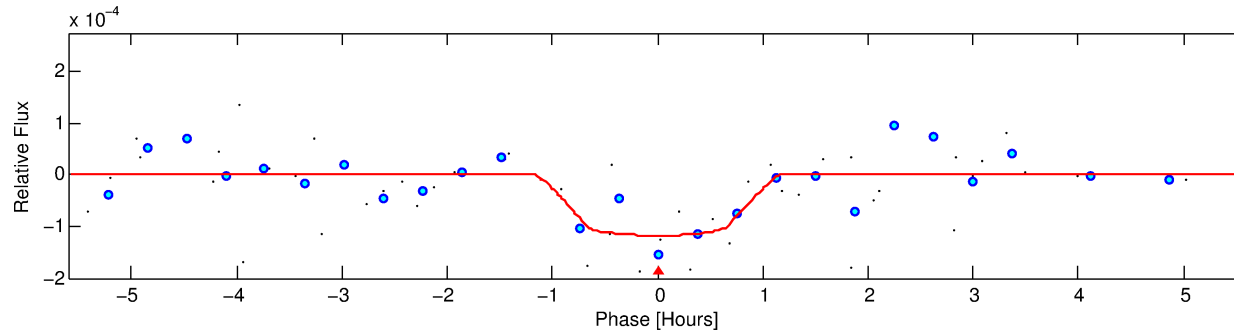
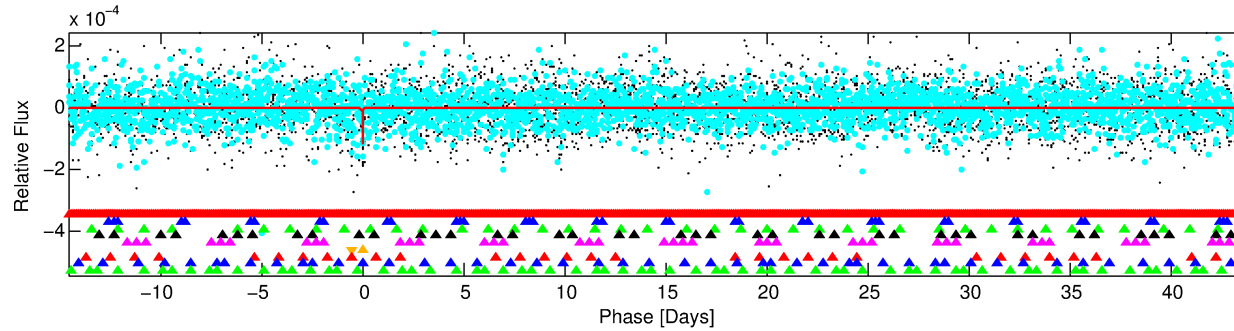
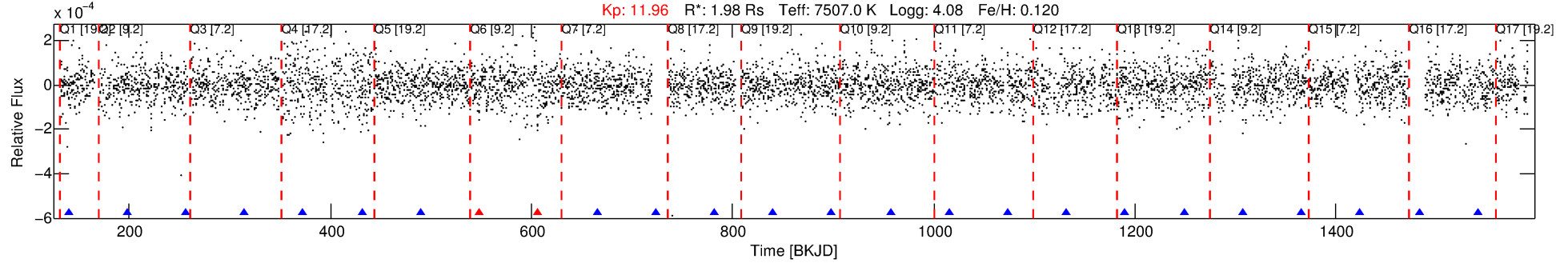
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-06

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 6 of 9 Period: 58.388 d



DV Fit Results:

Period = 58.38792 [0.00294] d
Epoch = 139.4994 [0.0186] BKJD
Rp/R* = 0.0110 [0.0299]
a/R* = 142.83 [2538.16]
b = 0.82 [7.35]
Seff = 88.89 [33.27]
Teq = 783 [73] K
Rp = 2.38 [6.48] Re
a = 0.3535 [0.0809] AU
Ag = 966.29 [5282.57] [0.18 σ]
Teffp = 6749 [9213] K [0.65 σ]

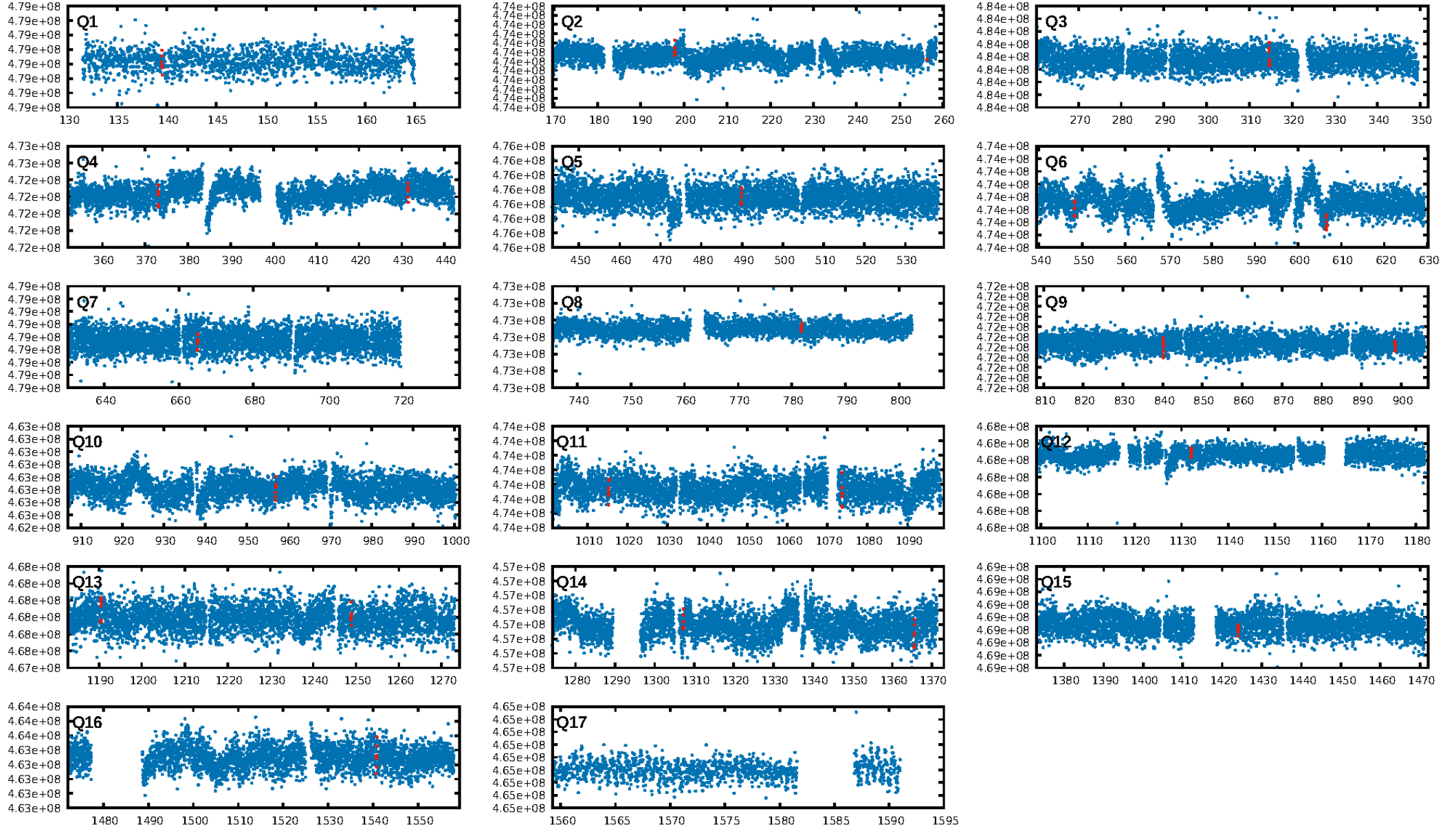
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [120.71 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 80.1%
Bootstrap-pfa: 2.34e-09
RollingBand-fgt: 0.67 [4/6]
GhostDiagnostic-chr: 1.84
Centroid-sig: 5.3%
Centroid-so: 1.067 arcsec [1.43 σ]
OotOffset-rm: 1.188 arcsec [0.90 σ]
KicOffset-rm: 1.156 arcsec [0.93 σ]
OotOffset-st: 1/3/3/2 [9]
KicOffset-st: 1/3/3/2 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 0.00 [0/16]

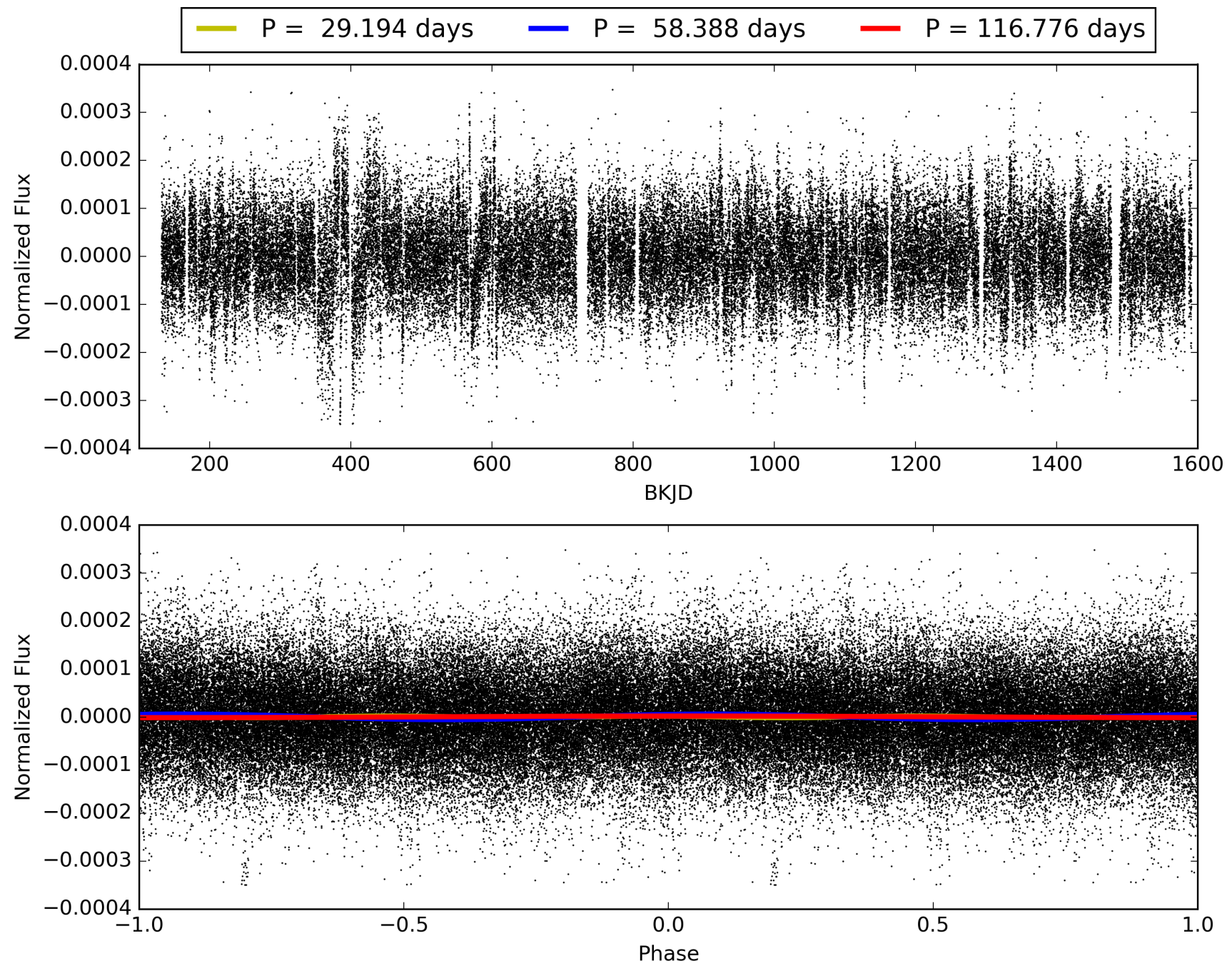
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:32 Z

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

TCE 007834063-06, PDC Light Curves

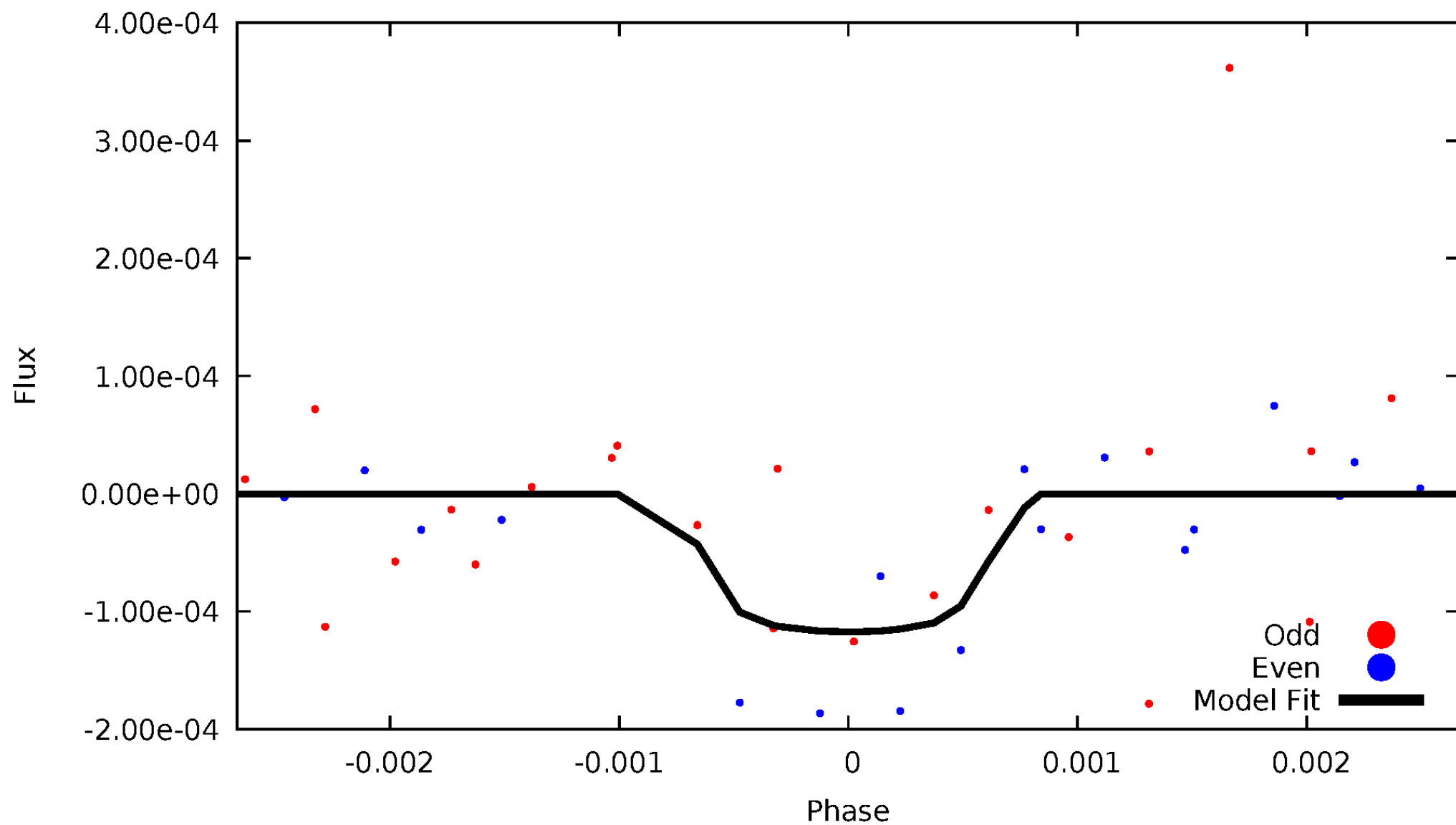


TCE 007834063-06



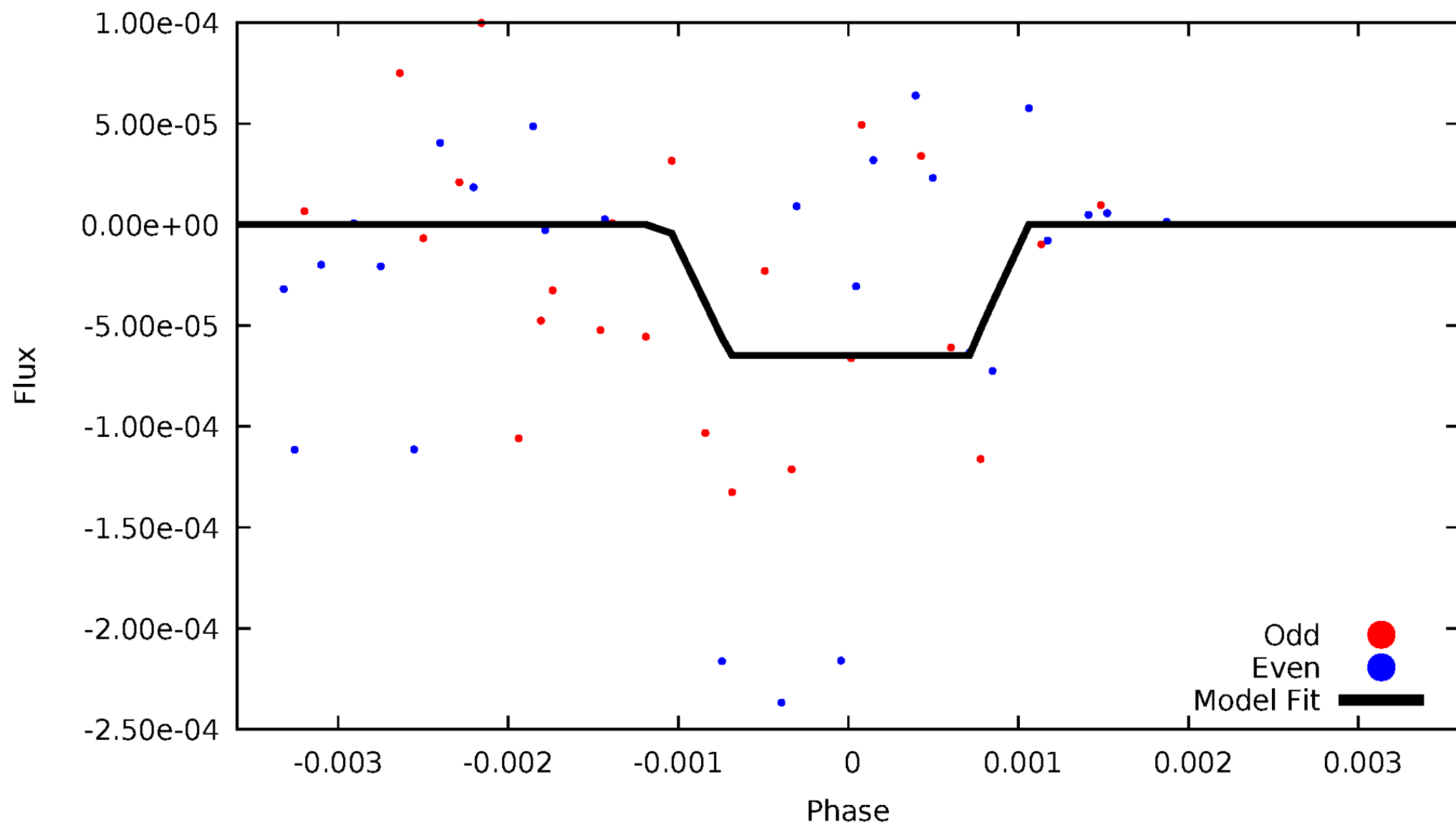
DV Odd/Even

TCE 007834063-06



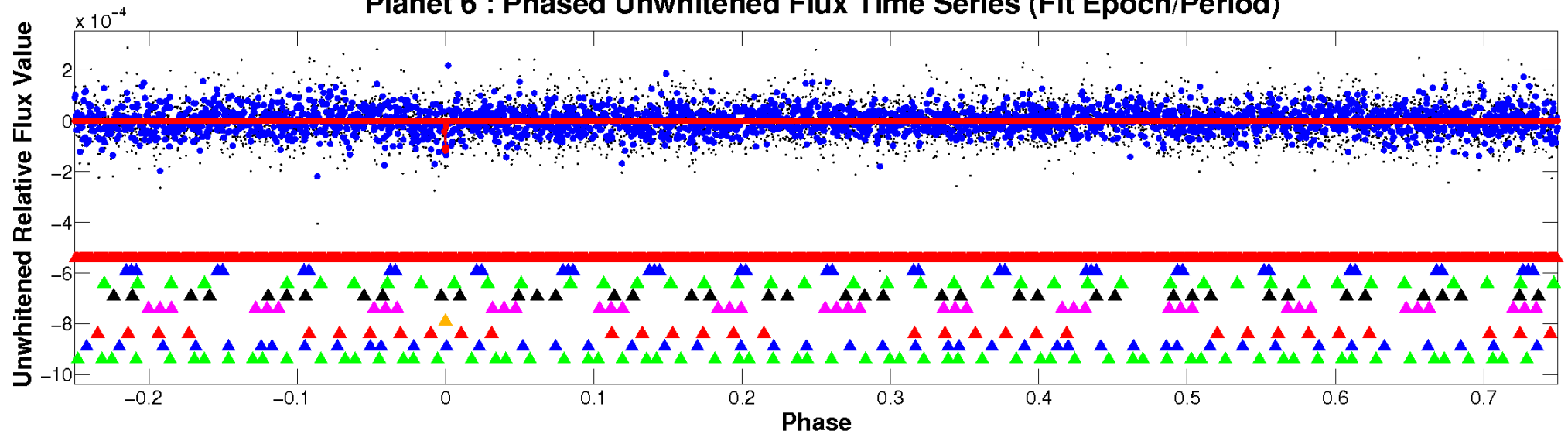
ALT Odd/Even

TCE 007834063-06

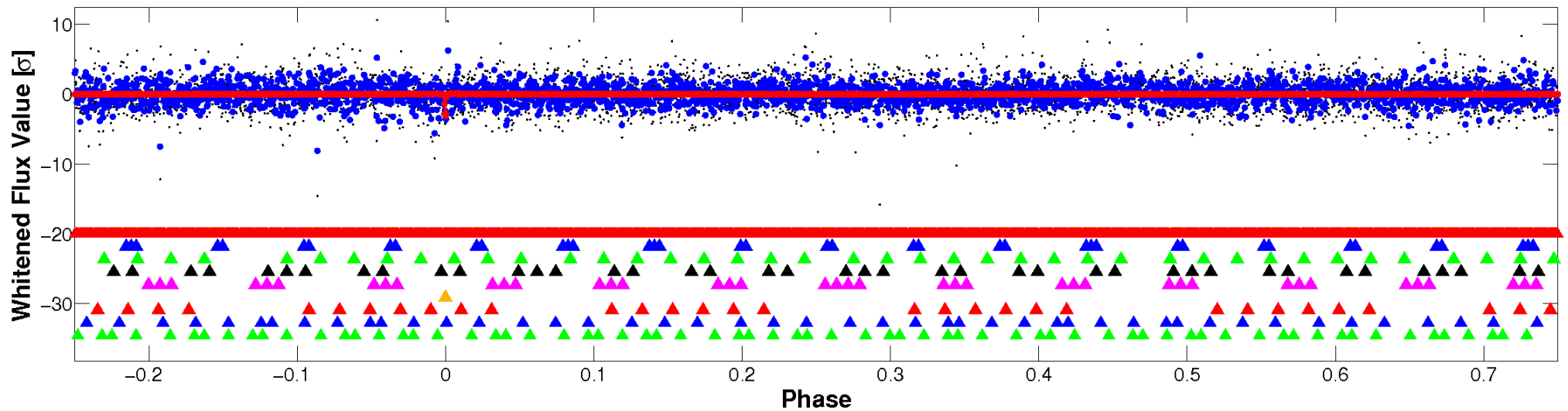


Non-Whitened Vs. Whitened Light Curve

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

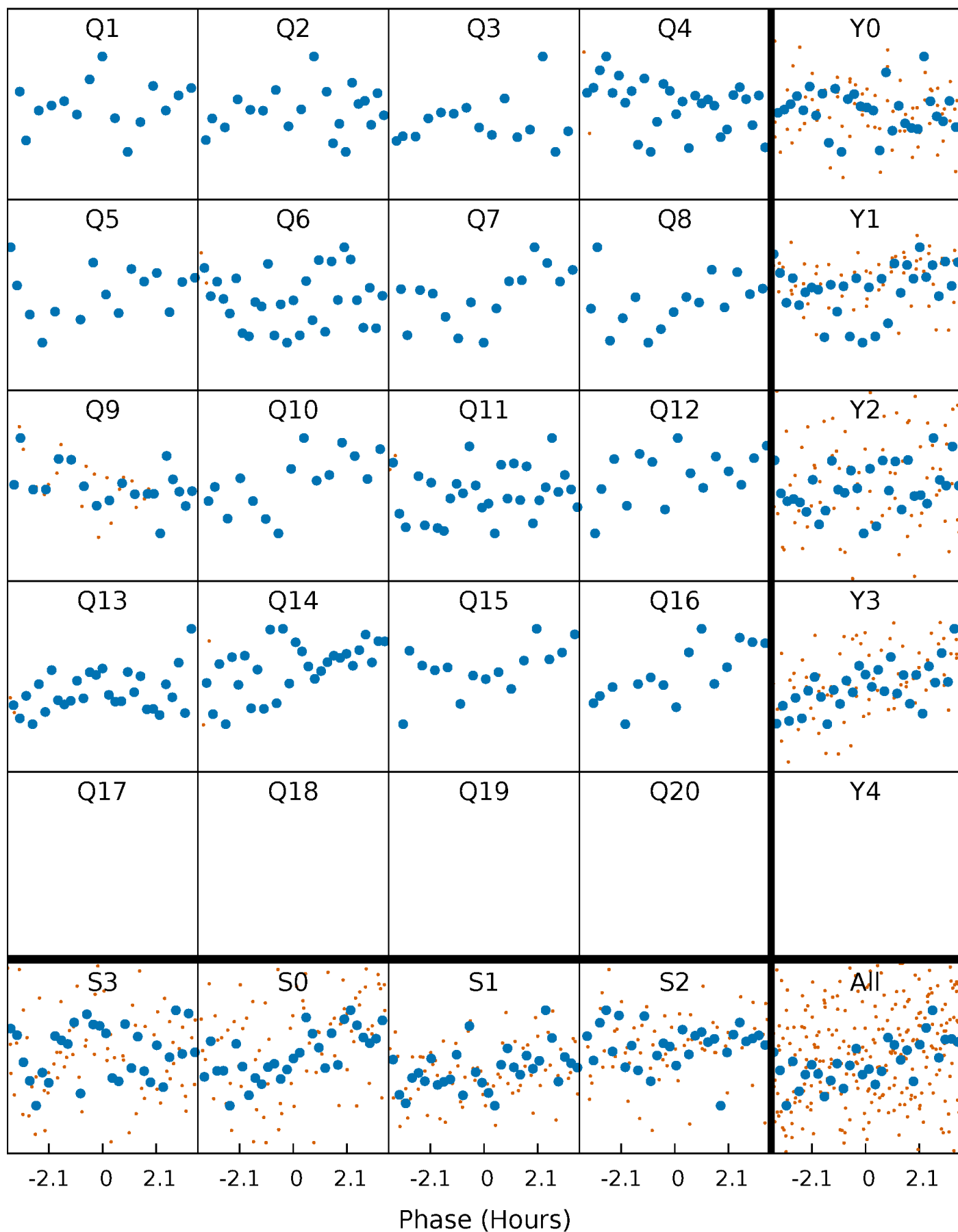


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



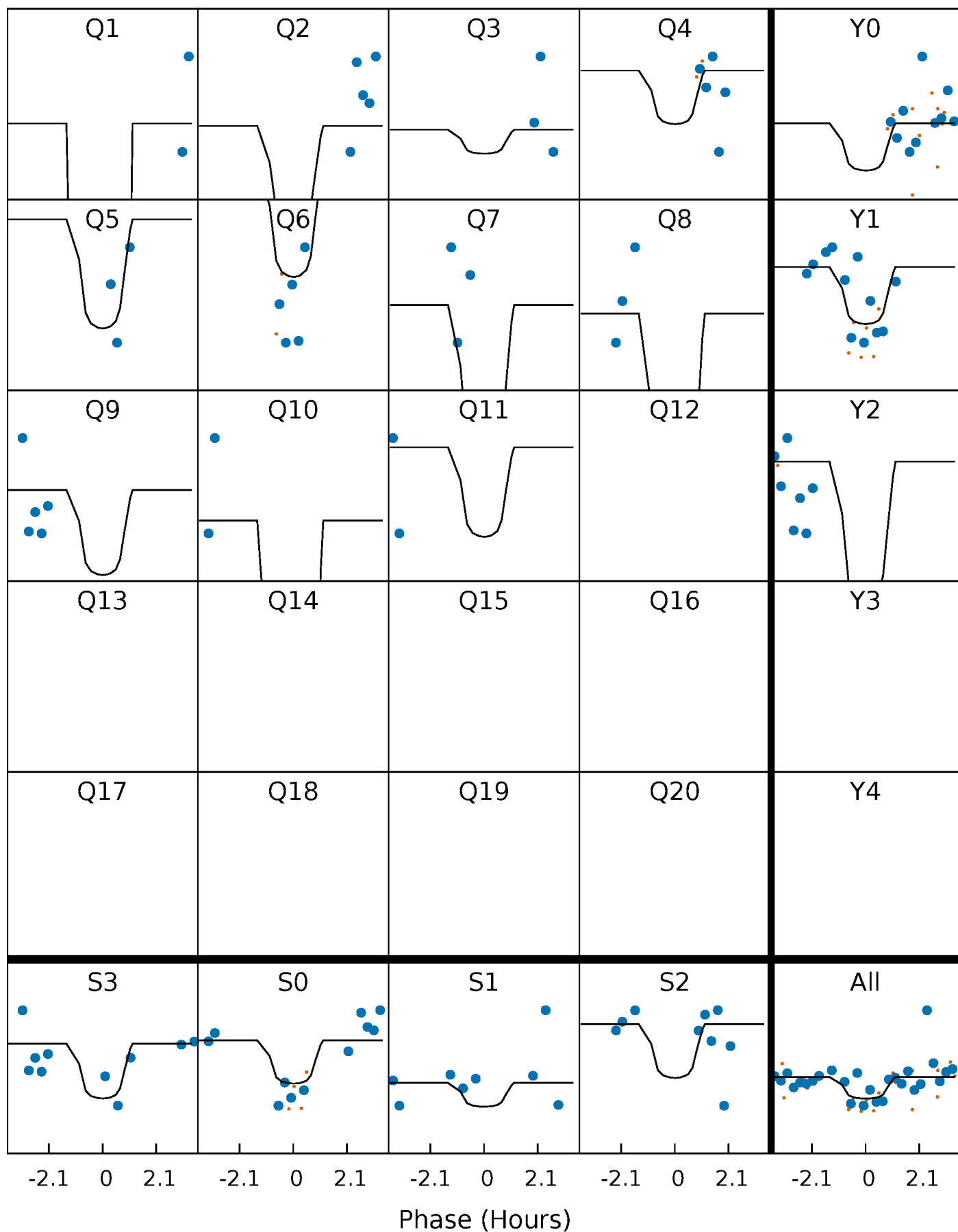
PDC Quarter-Phased Transit Curves

TCE 007834063-06 P= 58.387917 Days $T_0=139.499381$ (BKJD)



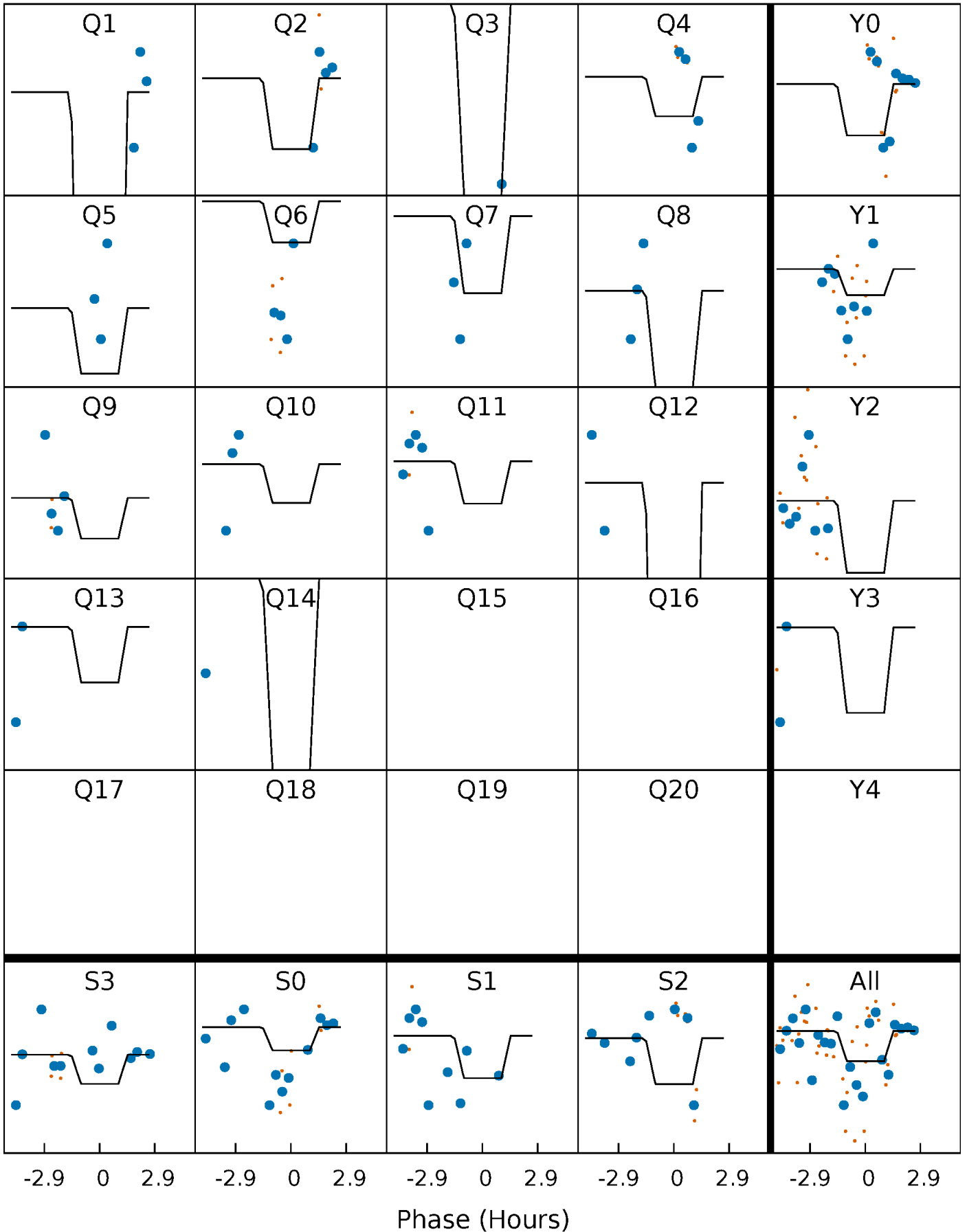
DV Quarter-Phased Transit Curves

TCE 007834063-06 P= 58.387917 Days $T_0=139.499381$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

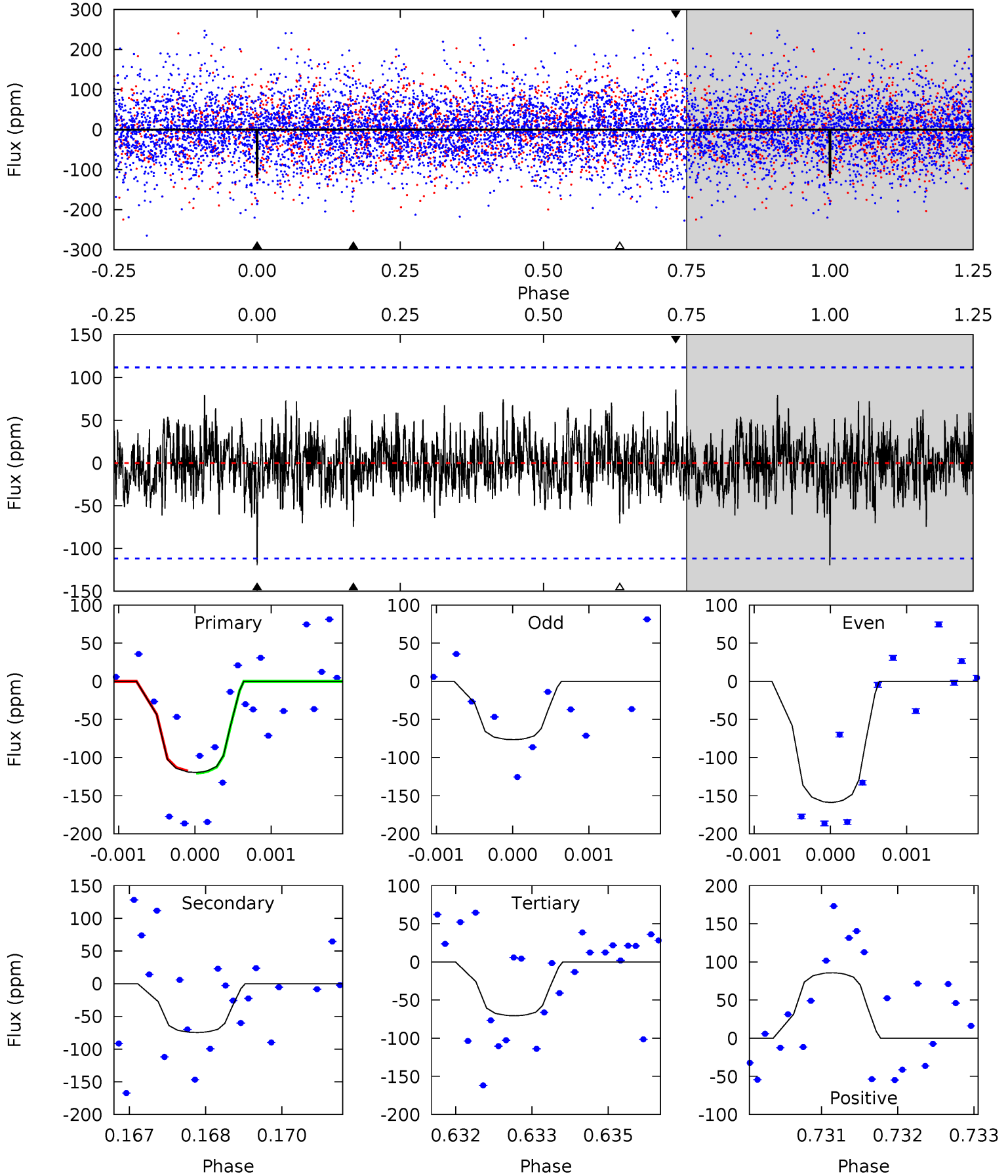
TCE 007834063-06 P= 58.382796 Days $T_0=139.556115$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-06, P = 58.387917 Days, E = 81.111464 Days

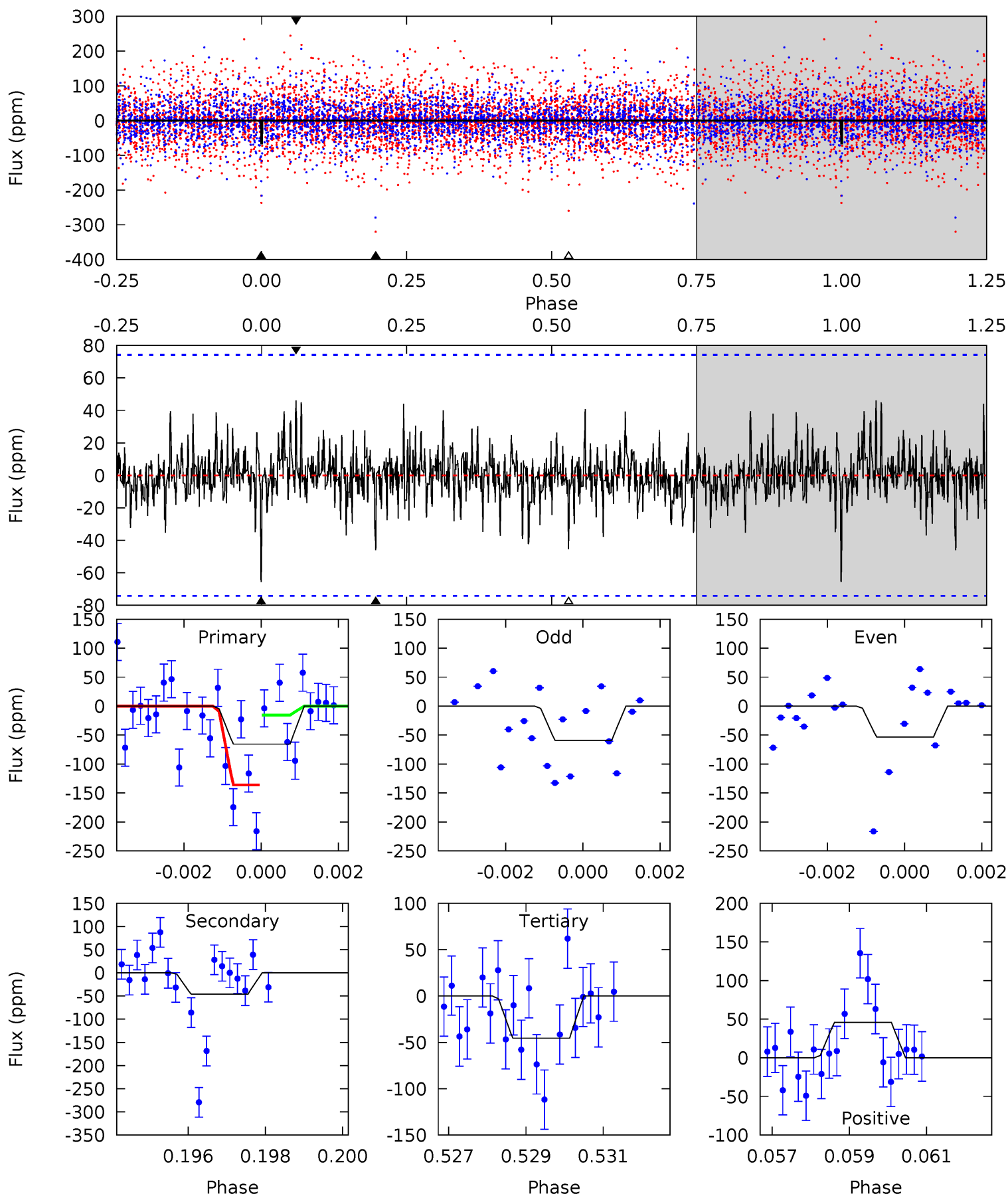
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.78	3.61	3.41	4.15	5.40	3.21	1.17	2.37	1.63	0.19	-0.54	1.98	0.91	0.42	0.06



Alt Model-Shift Uniqueness Test

007834063-06, P = 58.382796 Days, E = 81.173319 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.72	3.30	3.27	3.31	5.34	3.11	0.88	1.45	1.41	0.04	-0.01	0.20	1.95	0.41	4.24



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-75 ± 21	$5.47^{+5.10}_{-3.65}$	1096^{+83}_{-72}	4437^{+3151}_{-897}	164^{+1246}_{-121}
Alt.	-46 ± 14	$5.14^{+5.20}_{-3.58}$	1092^{+80}_{-76}	4203^{+2912}_{-901}	119^{+1195}_{-91}

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

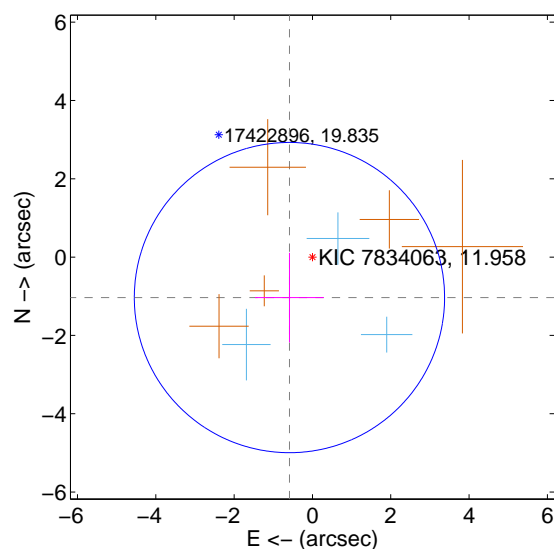
Supplemental centroid analysis for 007834063-06. **Kepler magnitude: 11.96.** Transit SNR 8.62

There are 3 quarters with good PRF difference image offsets

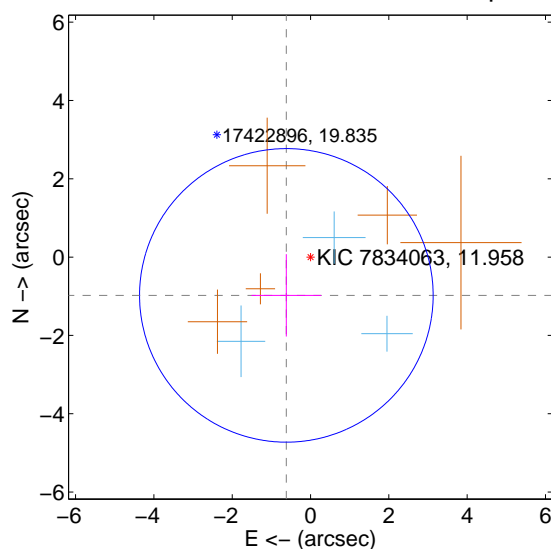
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.188 ± 1.320	0.90	0.587 ± 0.879	-1.033 ± 1.143
PRF-fit source offset from KIC position	1.156 ± 1.249	0.93	0.617 ± 0.891	-0.978 ± 1.051
photometric centroid source offset	1.07 ± 0.75	1.43	-0.83 ± 0.71	-0.67 ± 0.80

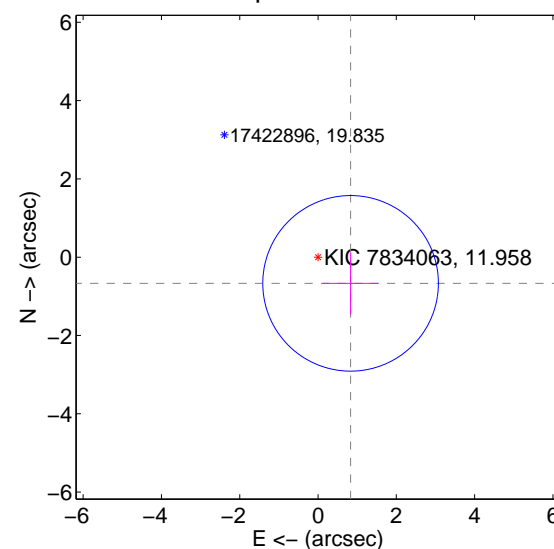
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

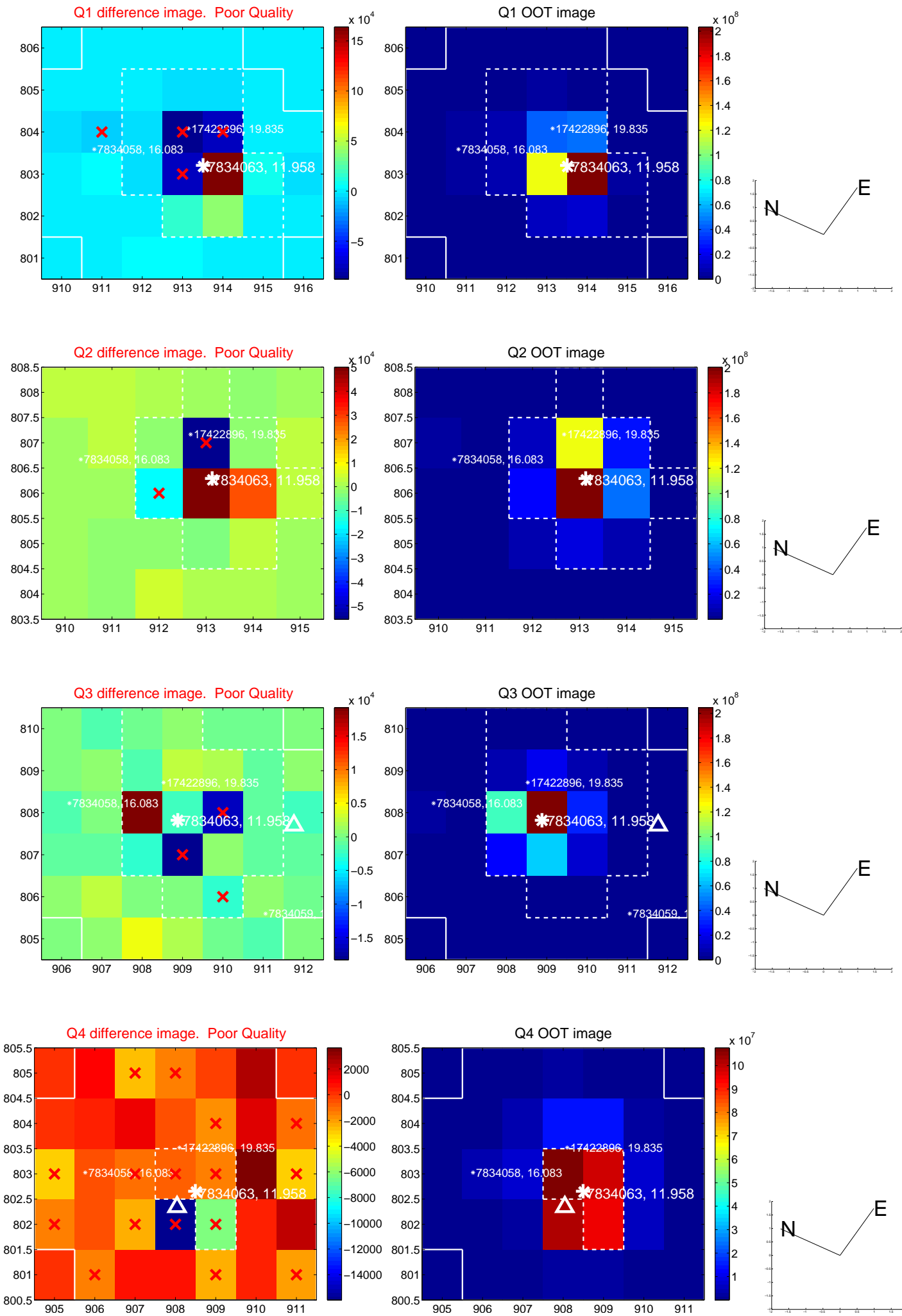


offset from photometric centroids

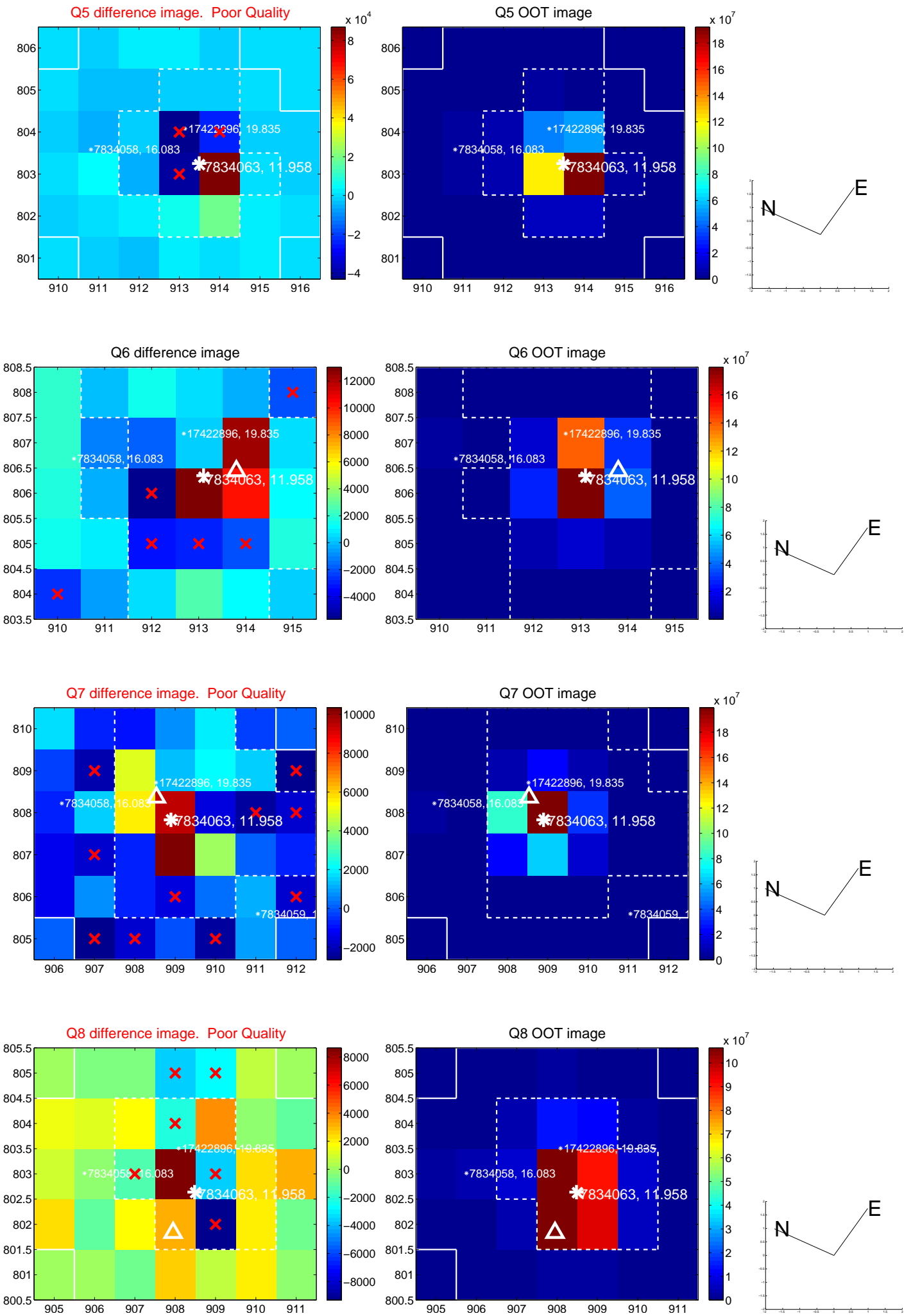


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

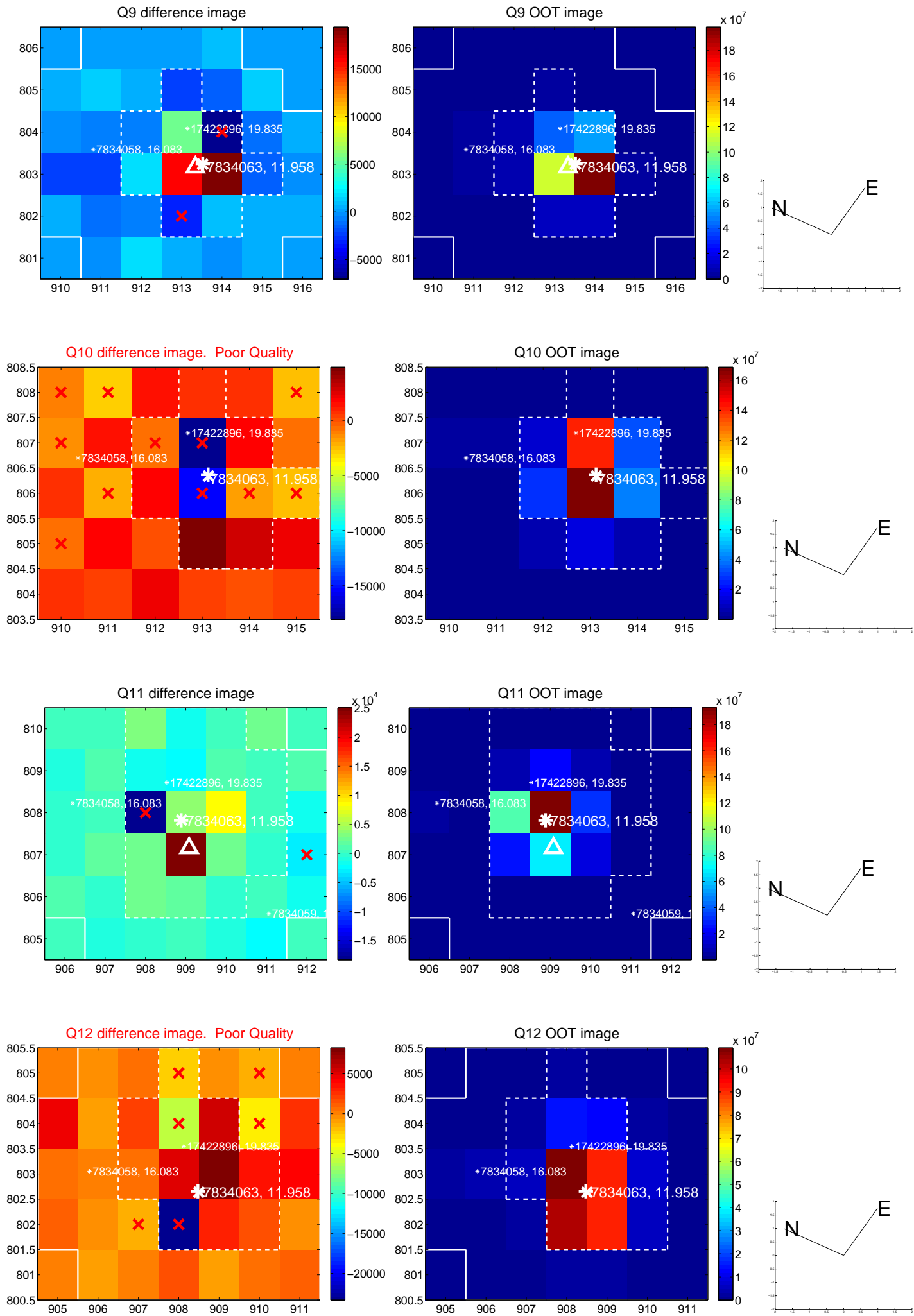
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



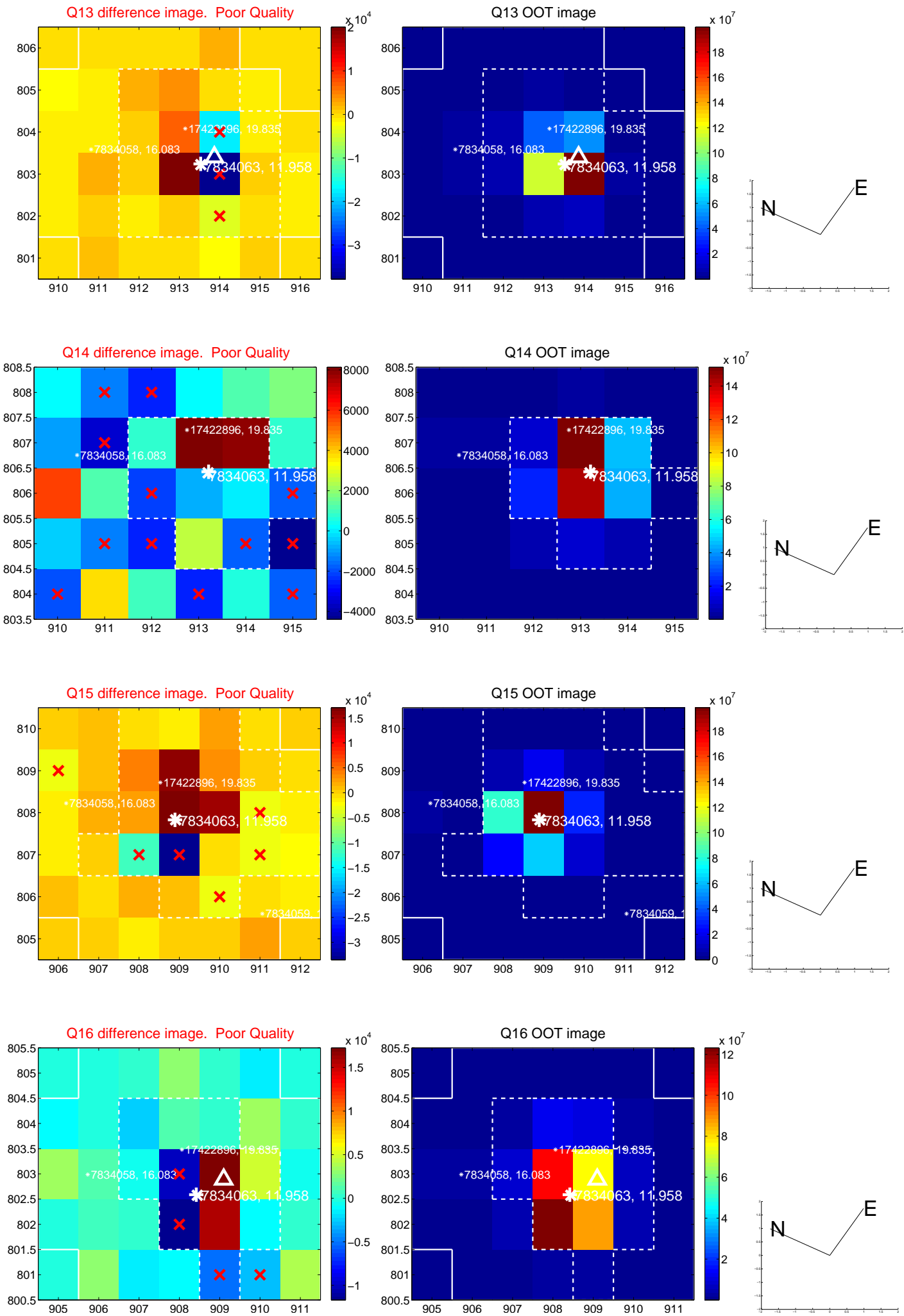
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



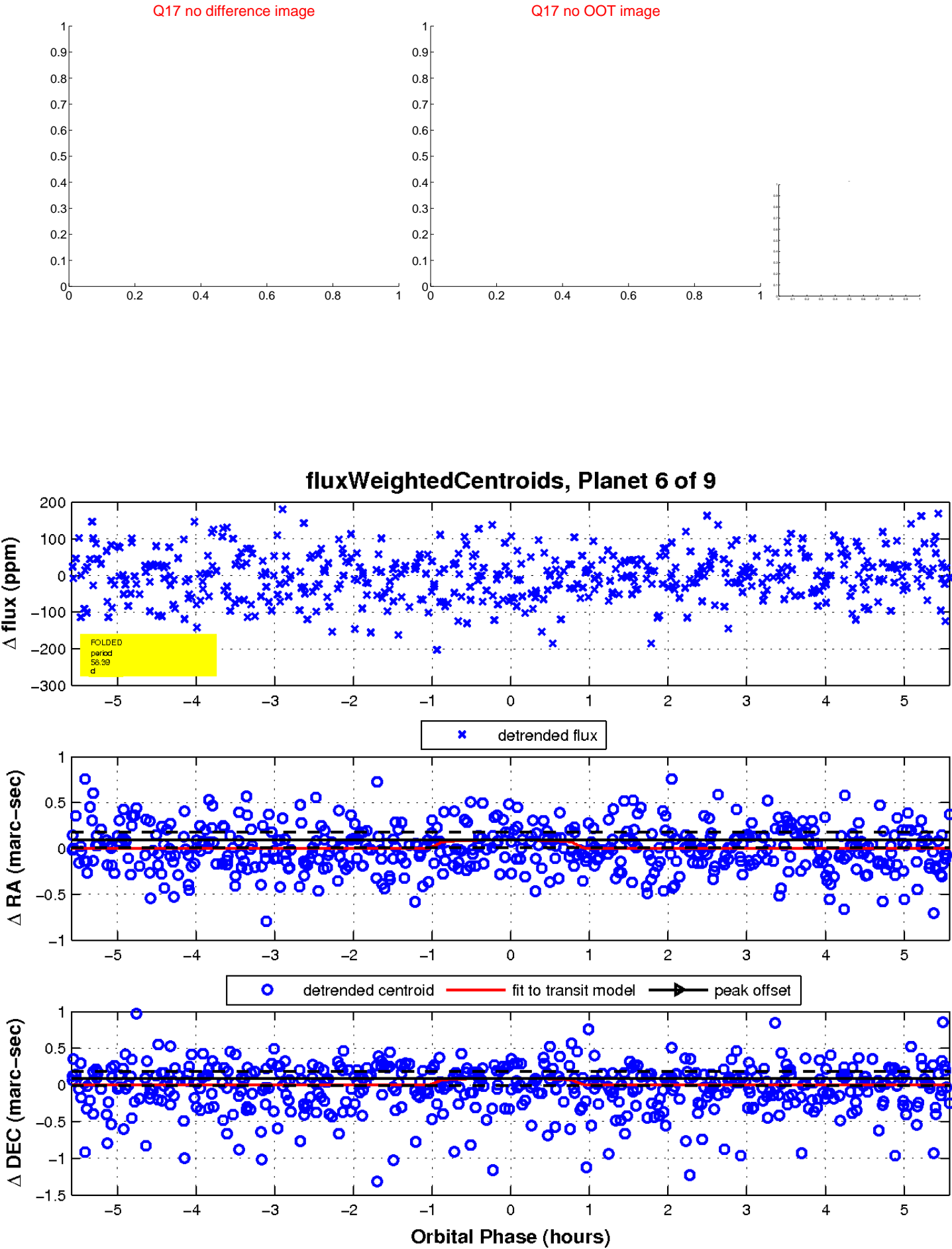
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

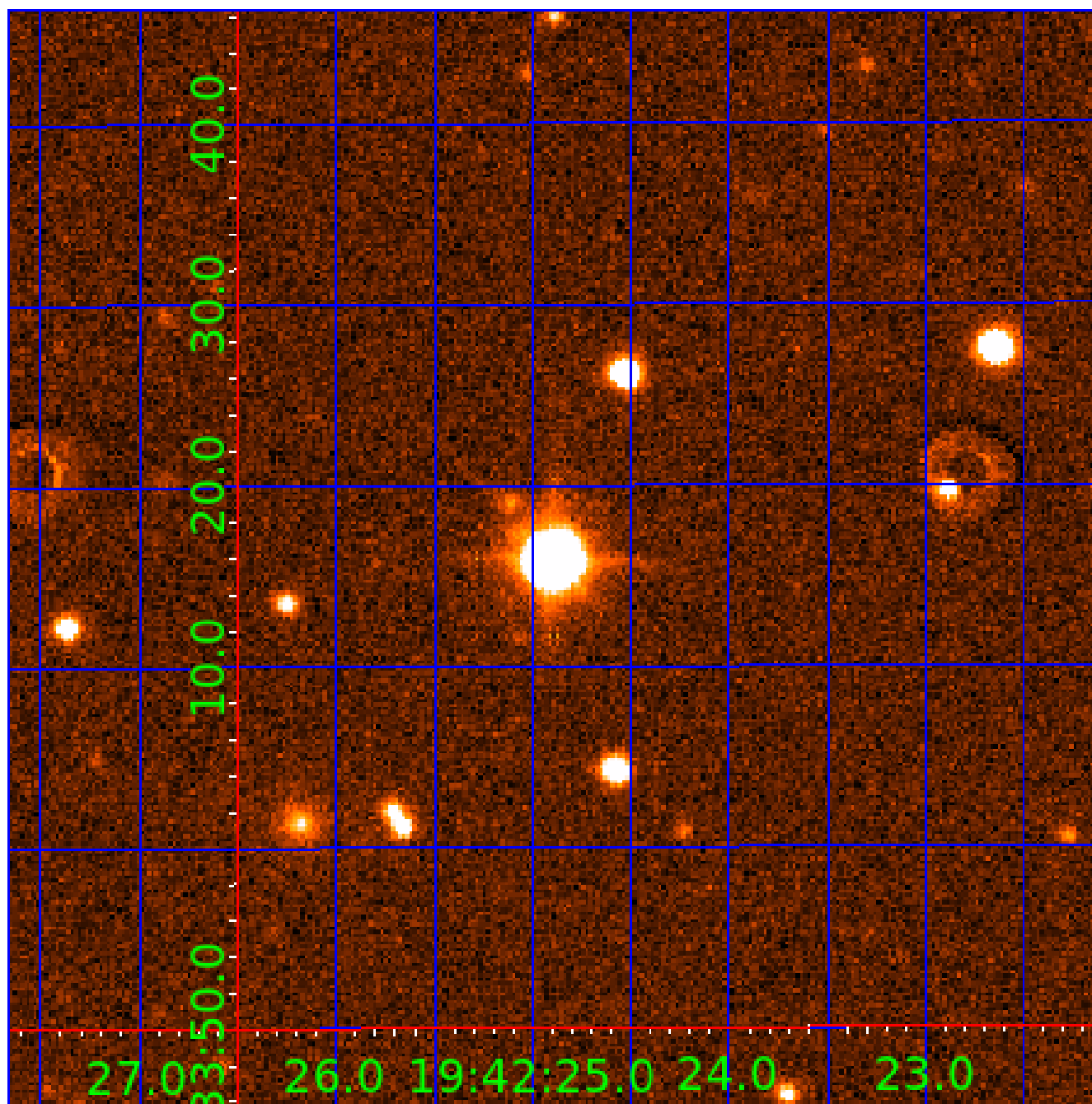


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

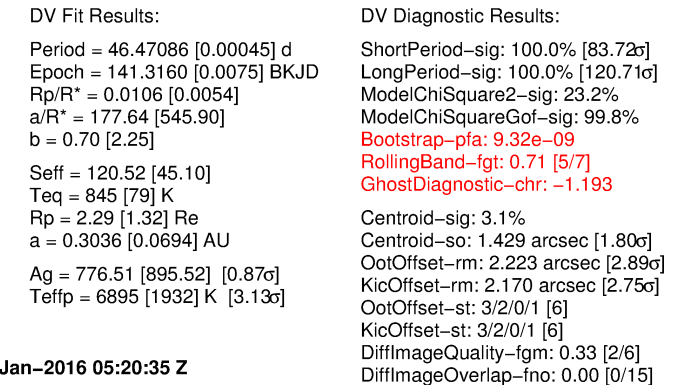
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

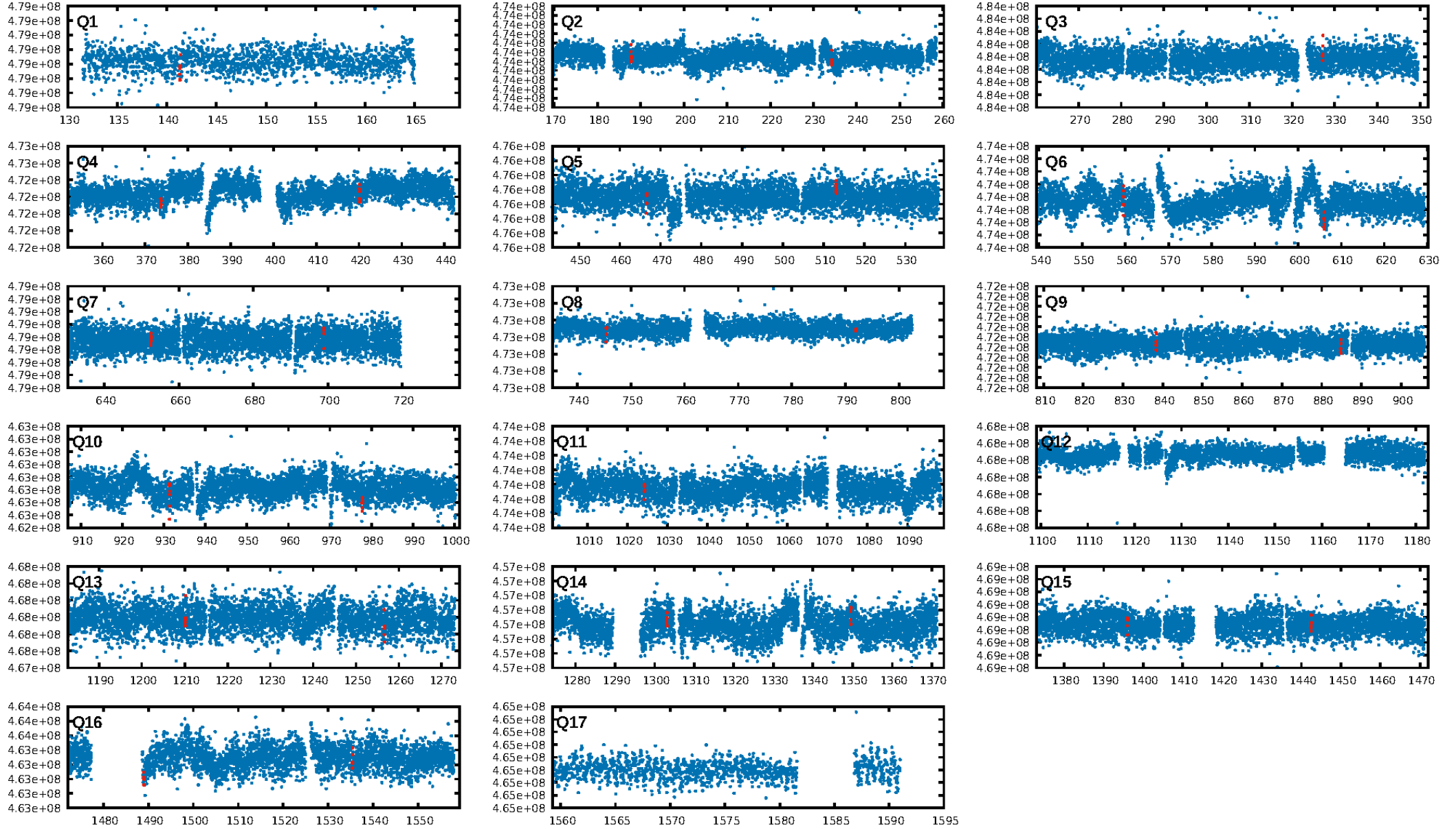
Ephemeris Match Information For 007834063-07

No Significant Match Found

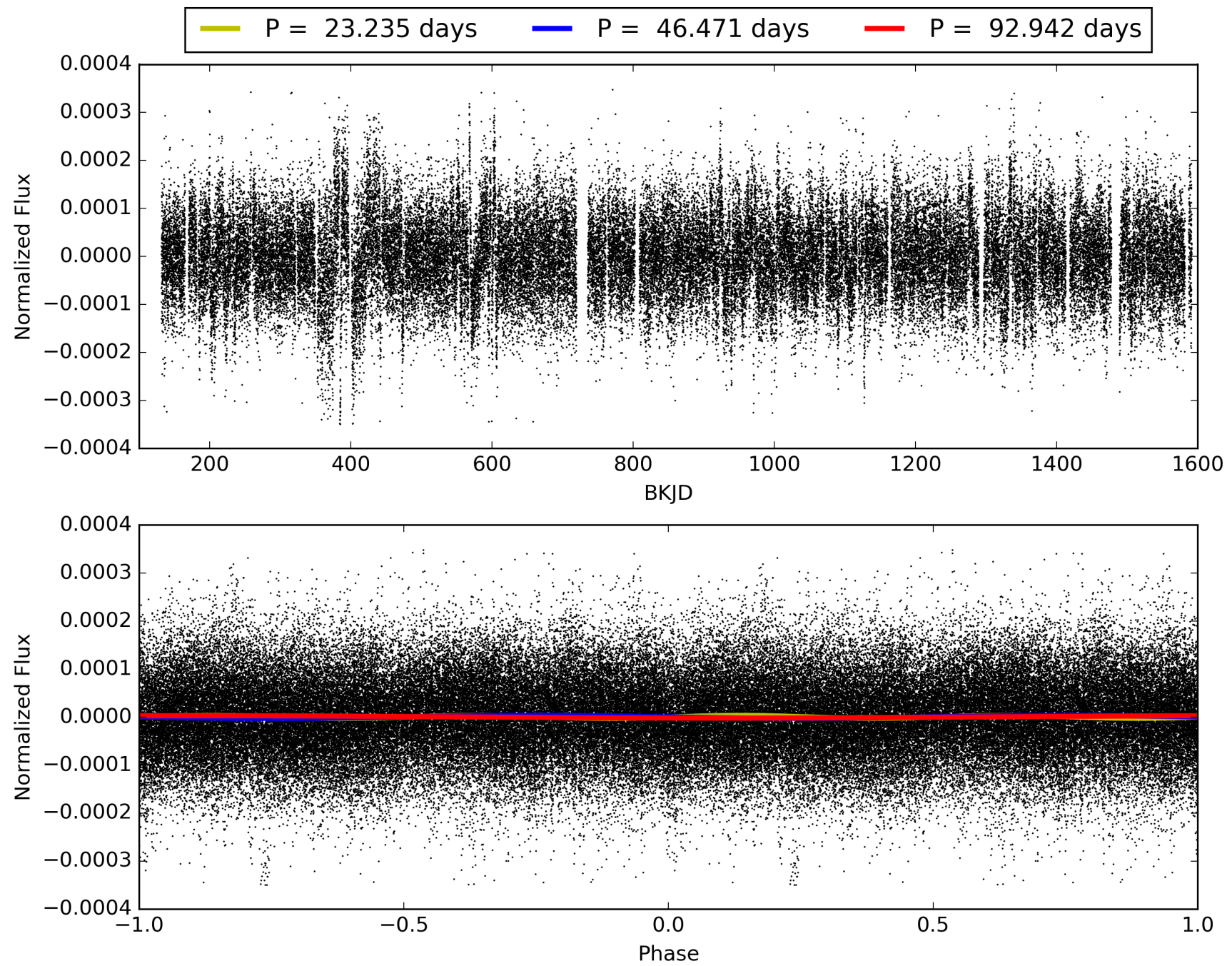
KIC: 7834063 Candidate: 7 of 9 Period: 46.471 d



TCE 007834063-07, PDC Light Curves

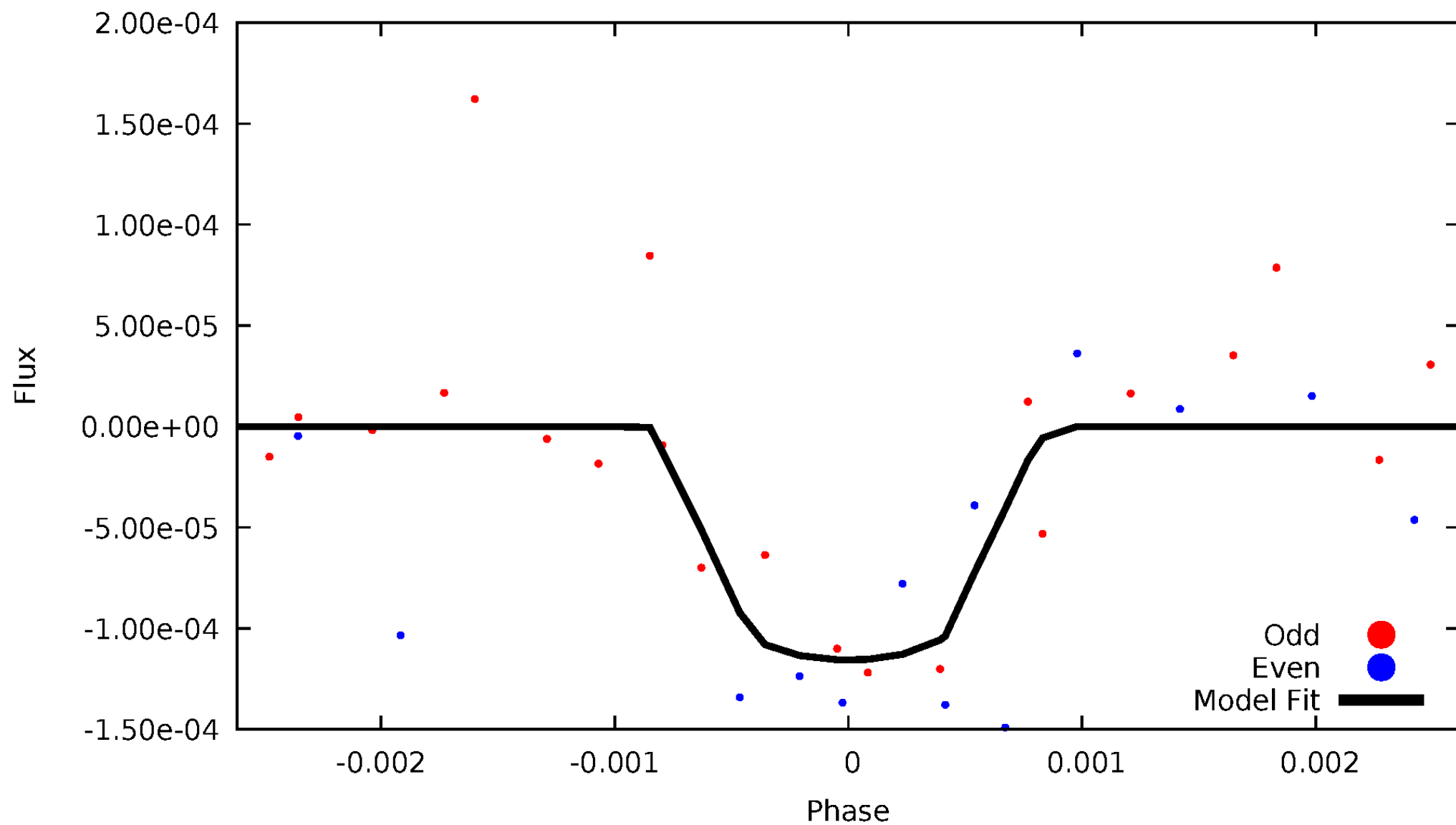


TCE 007834063-07



DV Odd/Even

TCE 007834063-07

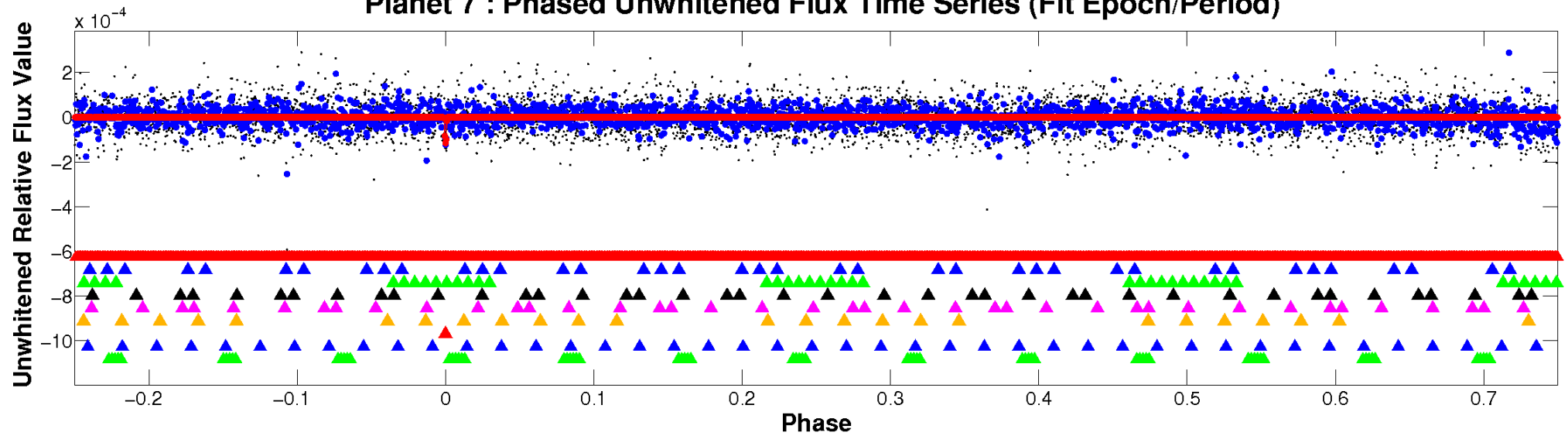


ALT Odd/Even

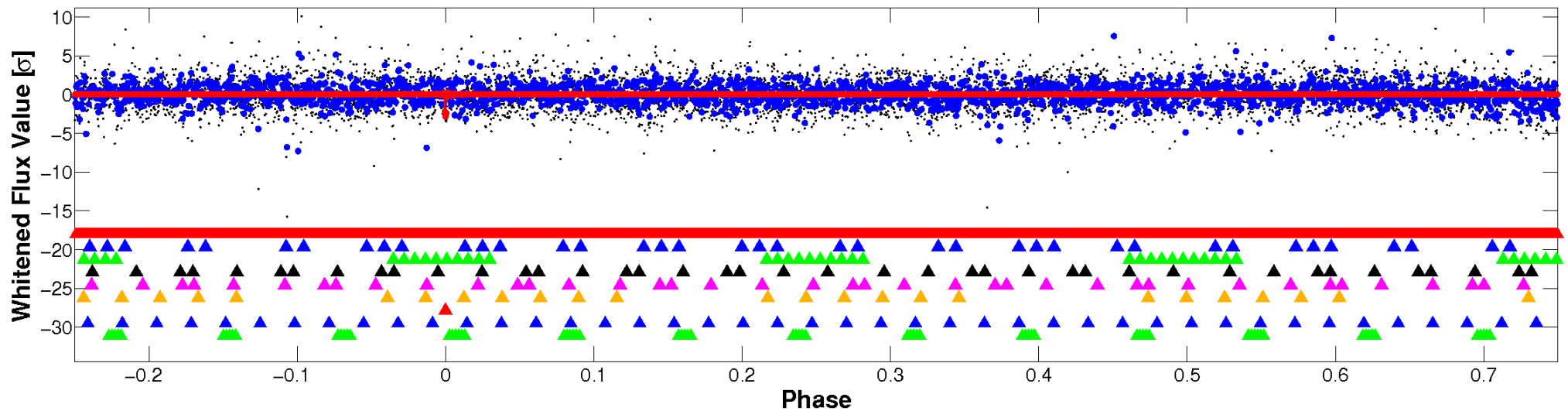
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

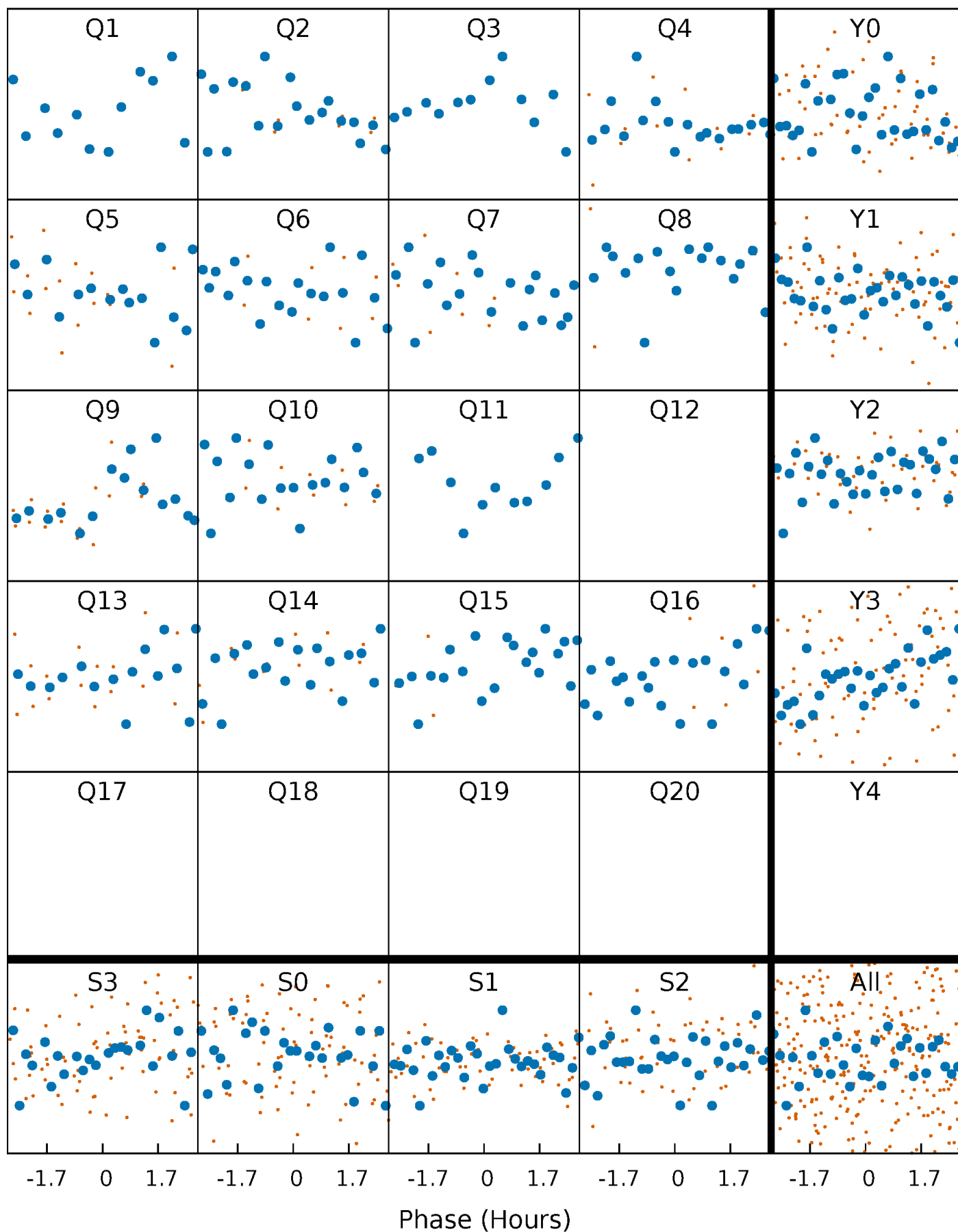


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



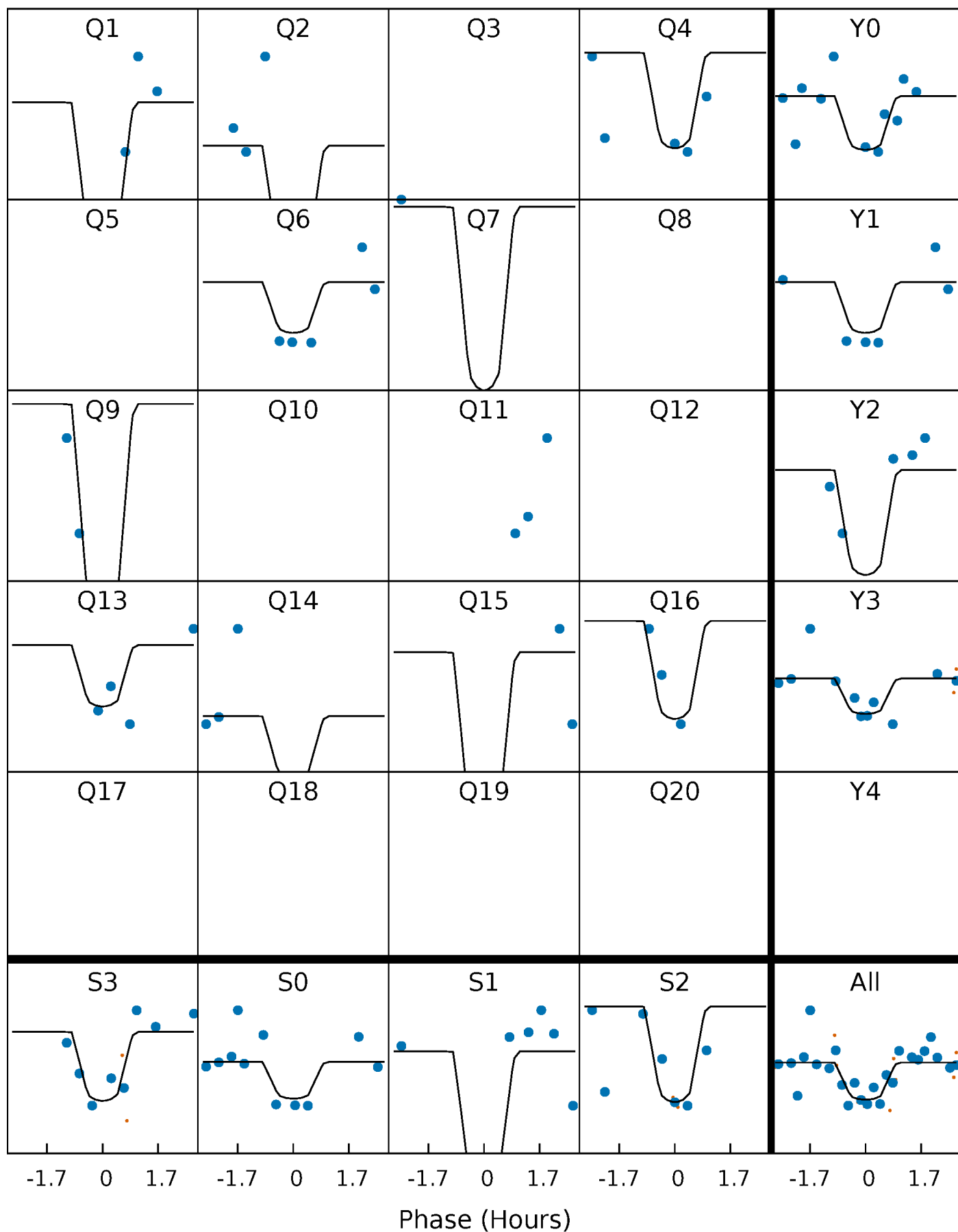
PDC Quarter-Phased Transit Curves

TCE 007834063-07 $P = 46.470858$ Days $T_0 = 141.315955$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007834063-07 P= 46.470858 Days $T_0=141.315955$ (BKJD)

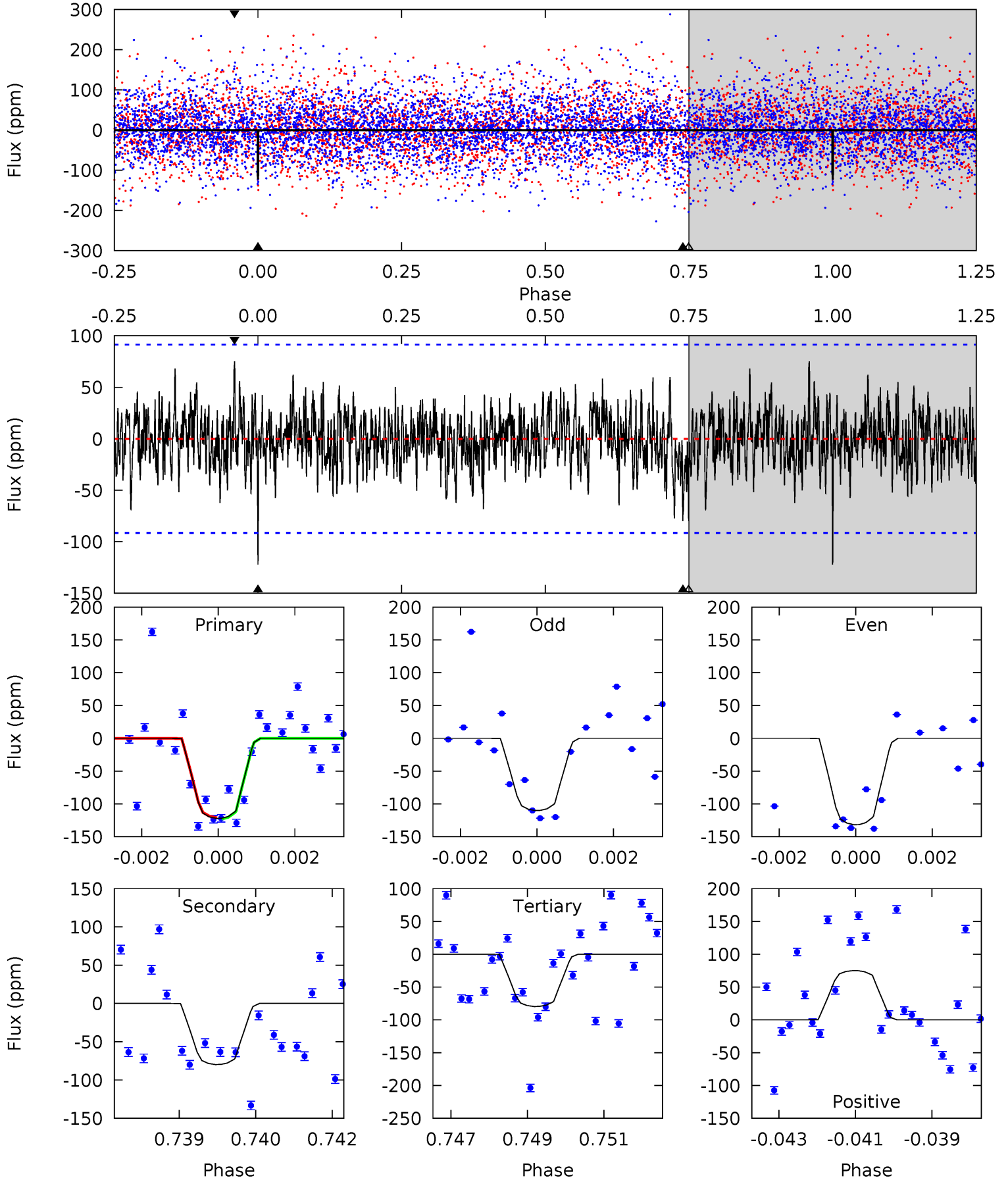


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007834063-07, P = 46.470858 Days, E = 94.845097 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.15	4.67	4.66	4.39	5.35	3.13	1.32	2.49	2.75	0.01	0.28	0.65	1.01	0.38	0.06



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-80 ± 17	$2.28^{+1.25}_{-1.08}$	1180^{+87}_{-80}	6737^{+3332}_{-1325}	727^{+1996}_{-426}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

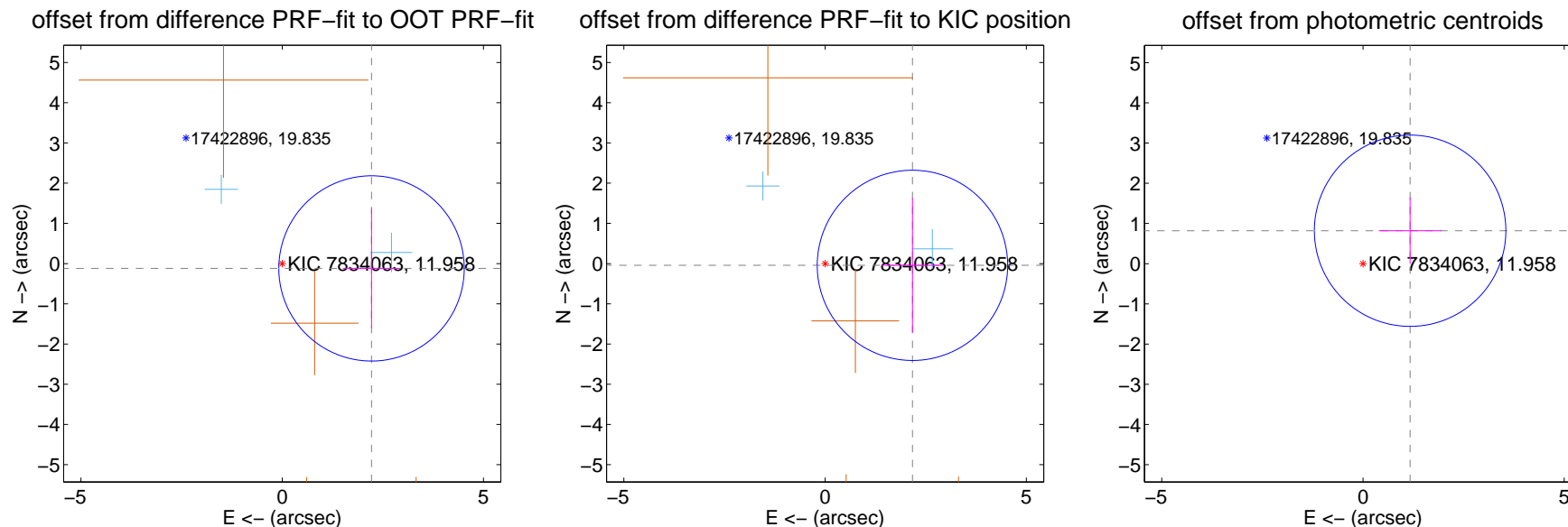
DV Centroid Data

Supplemental centroid analysis for 007834063-07. **Kepler magnitude: 11.96.** Transit SNR 8.37

There are 2 quarters with good PRF difference image offsets

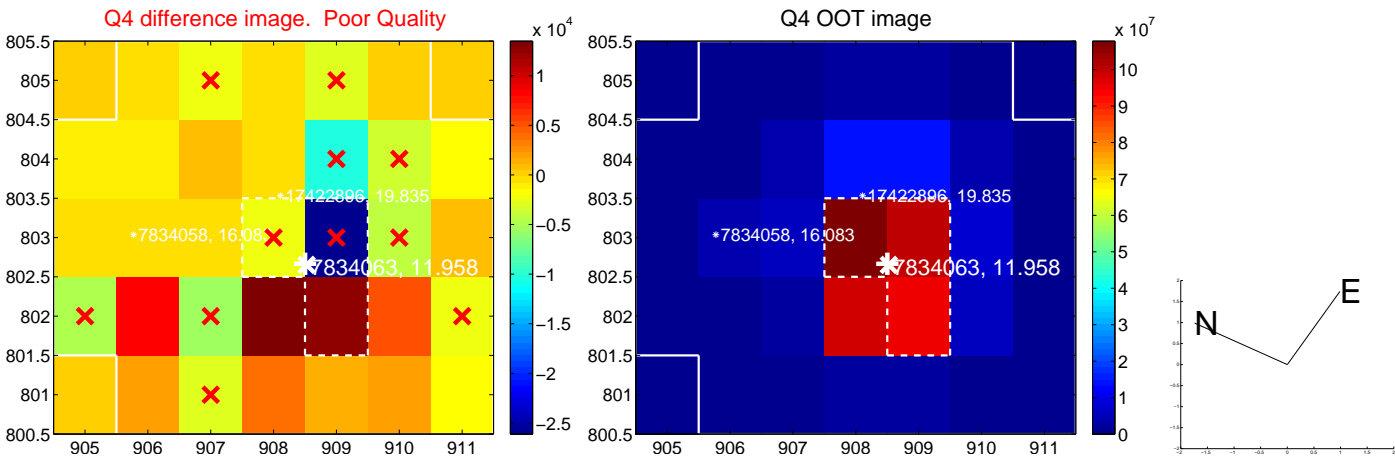
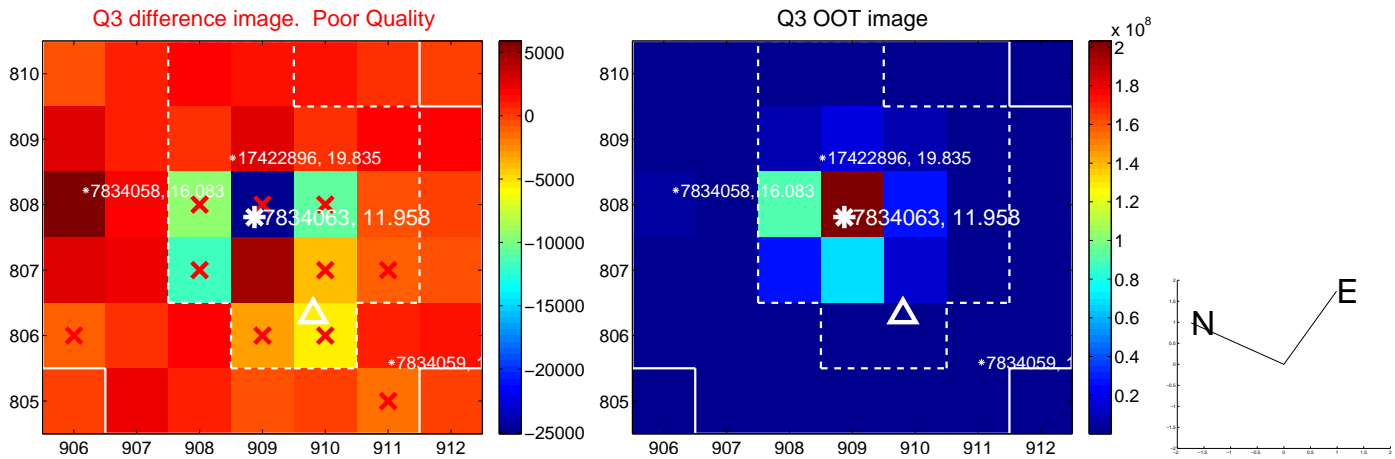
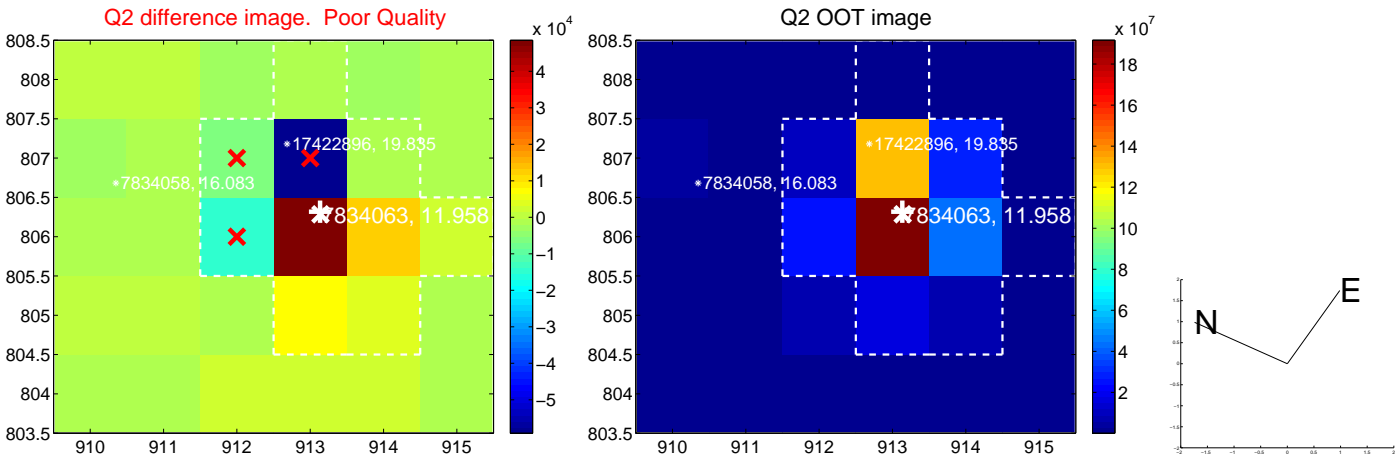
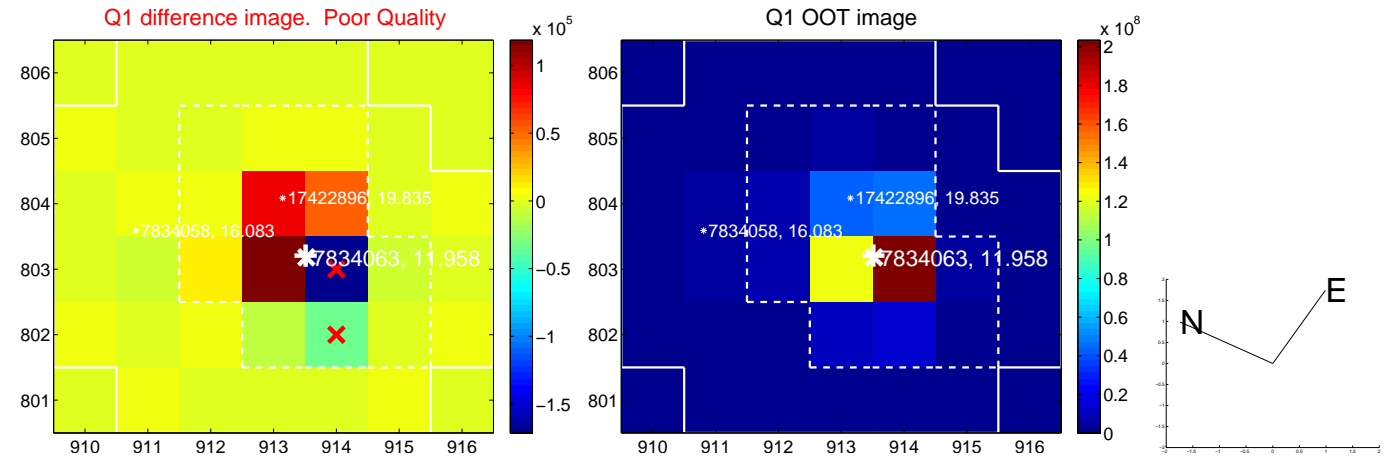
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.223 ± 0.768	2.89	-2.219 ± 0.713	-0.120 ± 1.482
PRF-fit source offset from KIC position	2.170 ± 0.789	2.75	-2.170 ± 0.767	-0.044 ± 1.676
photometric centroid source offset	1.43 ± 0.79	1.80	-1.17 ± 0.78	0.82 ± 0.82

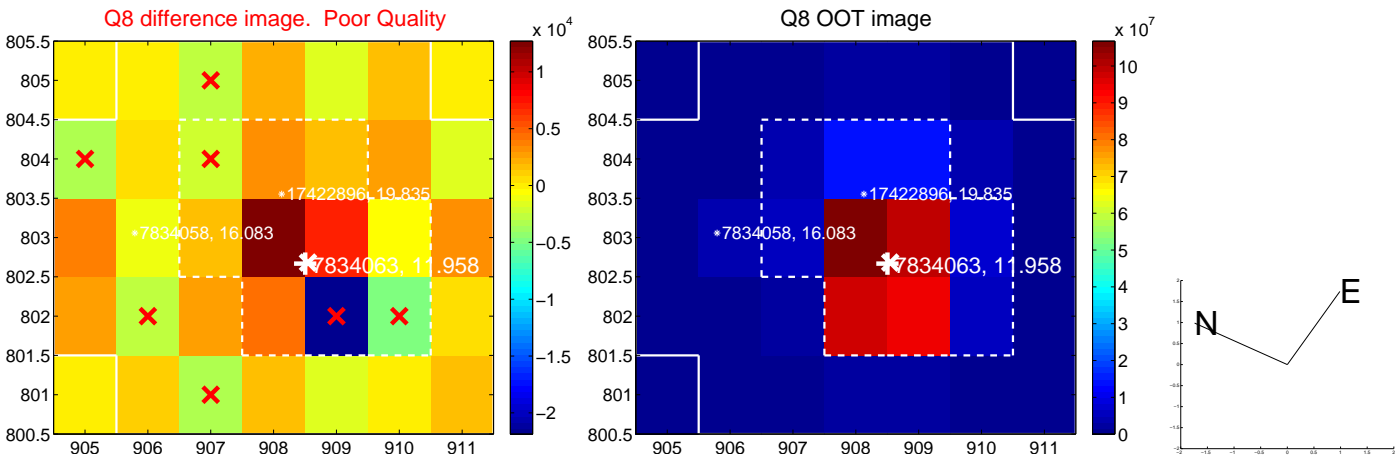
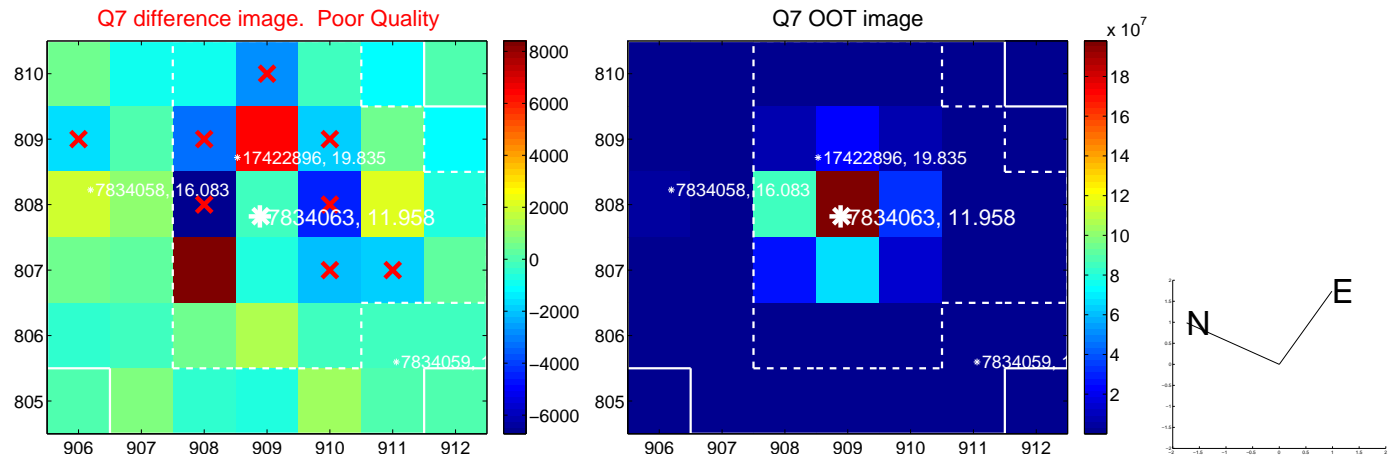
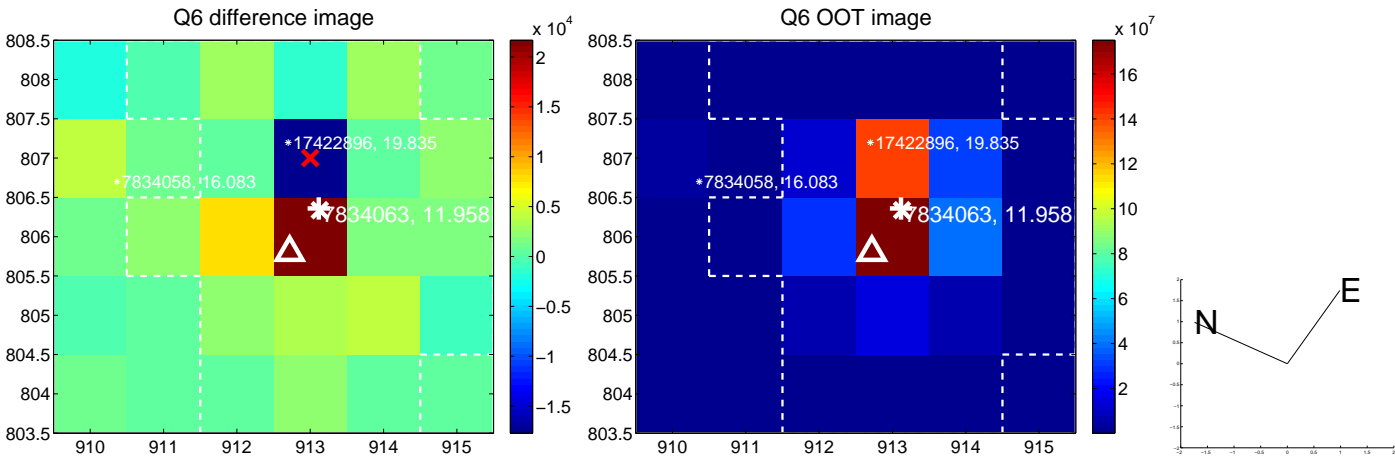
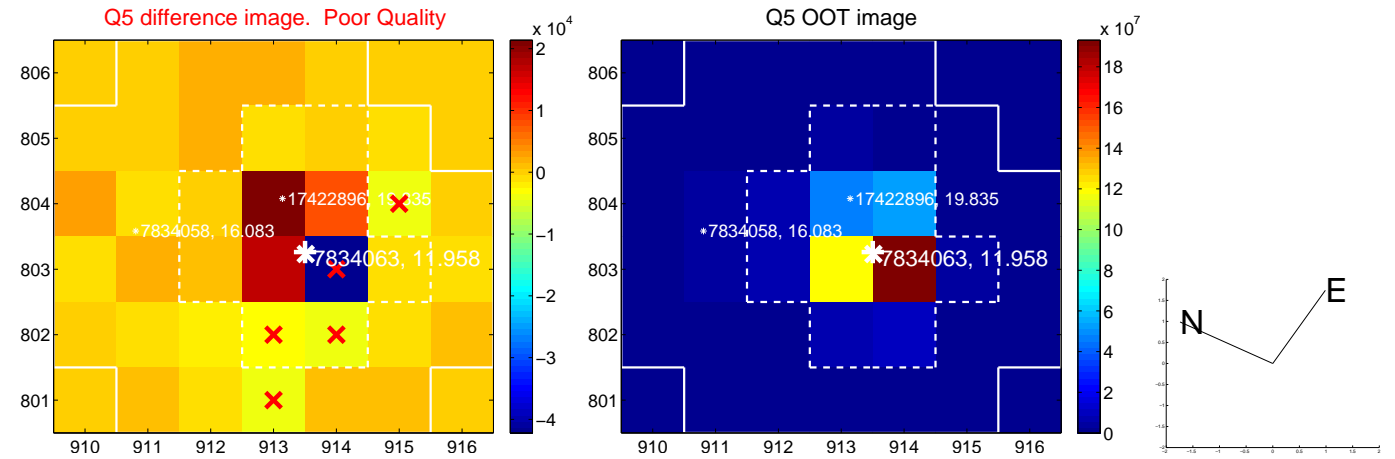


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

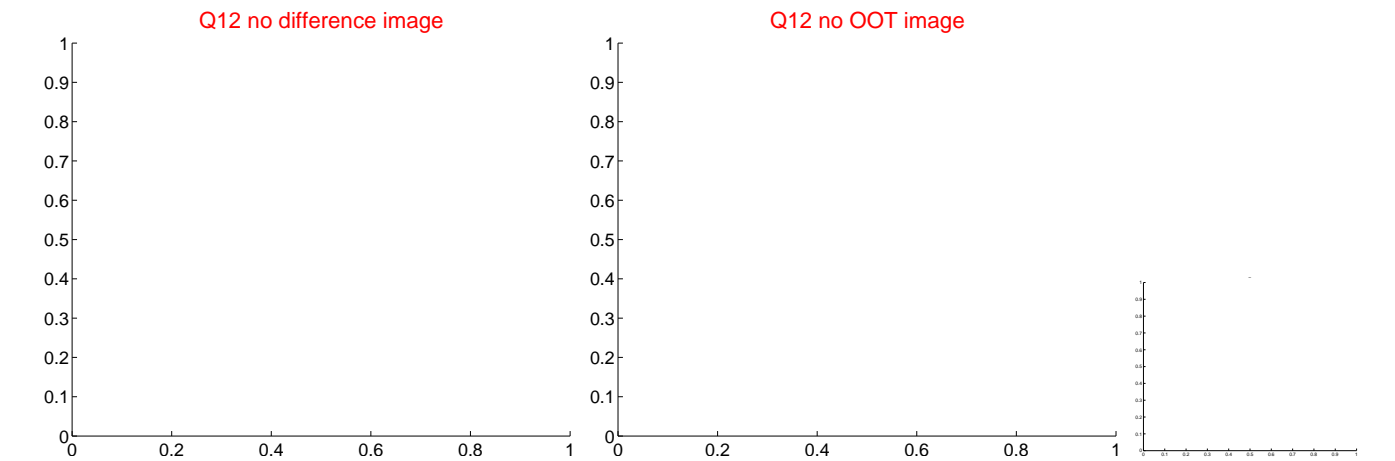
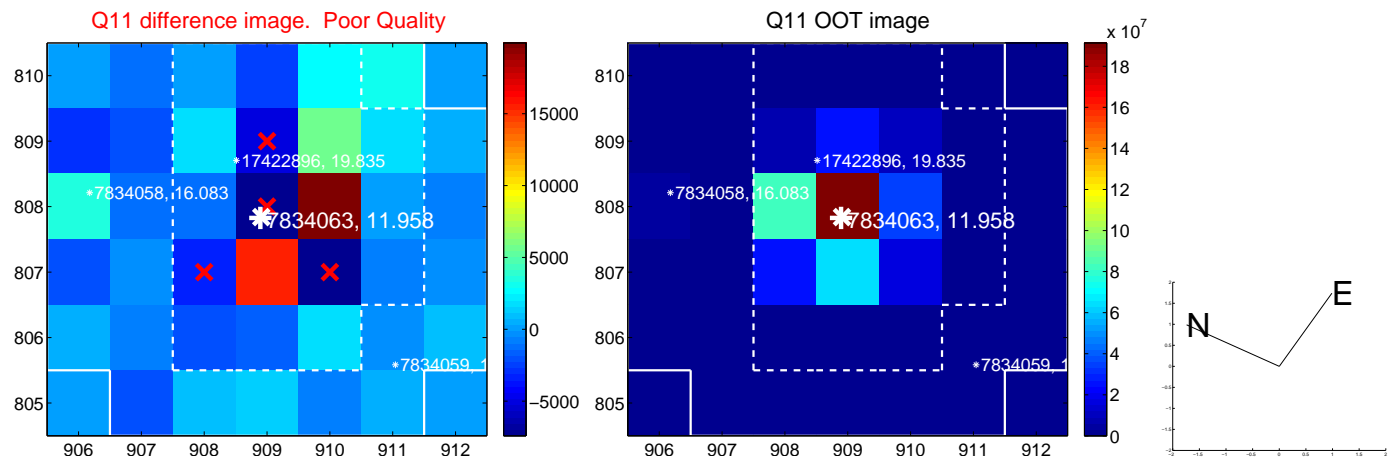
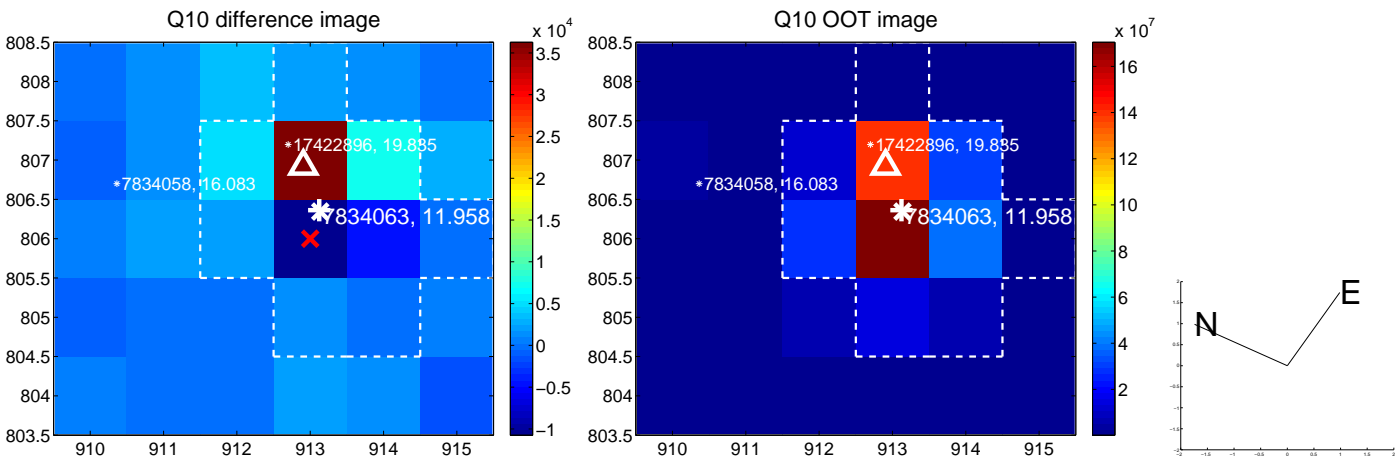
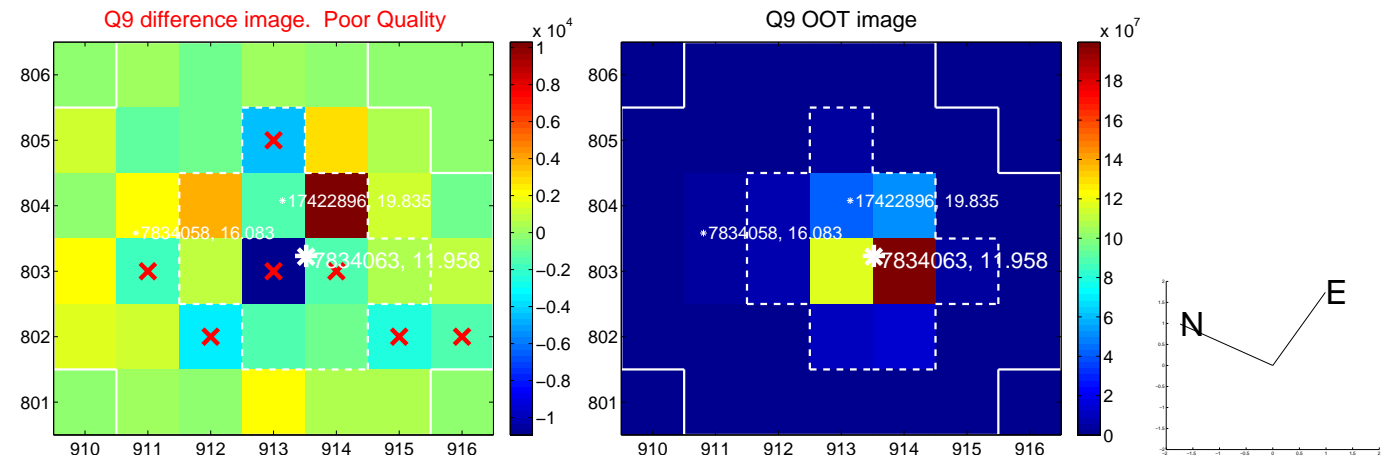
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



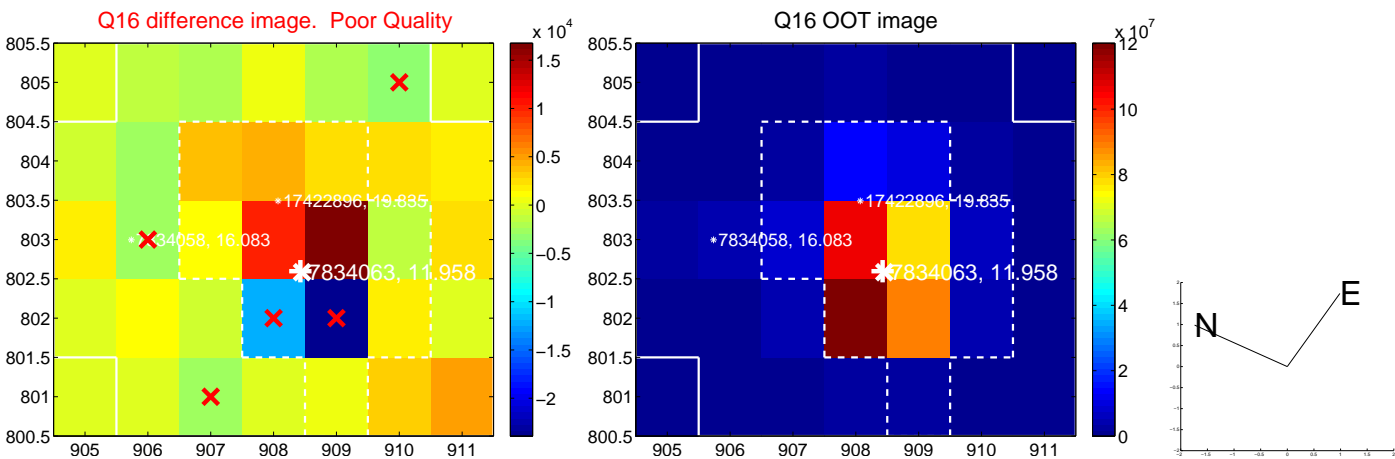
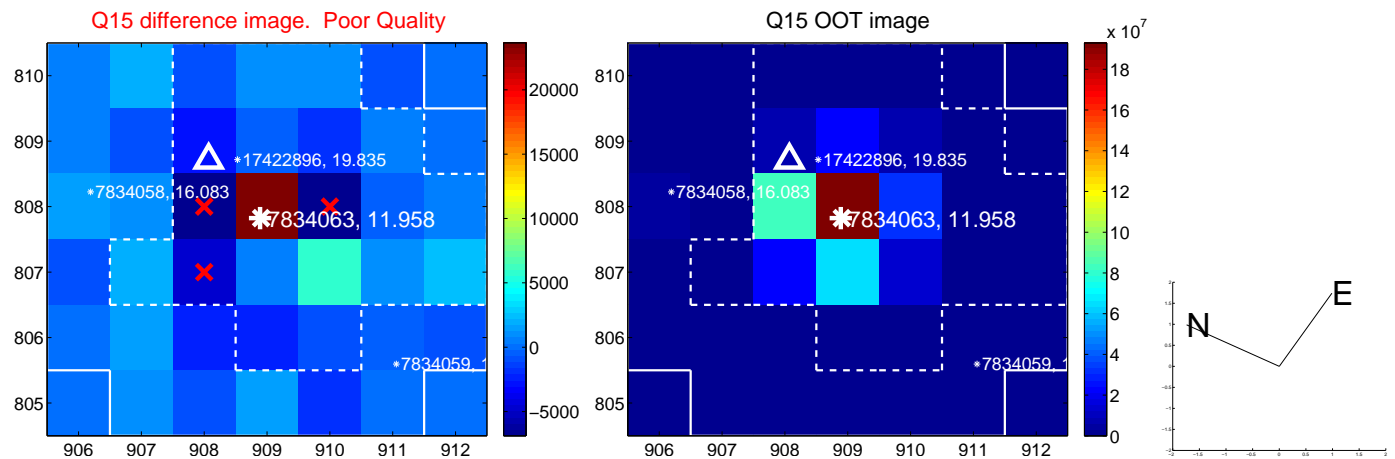
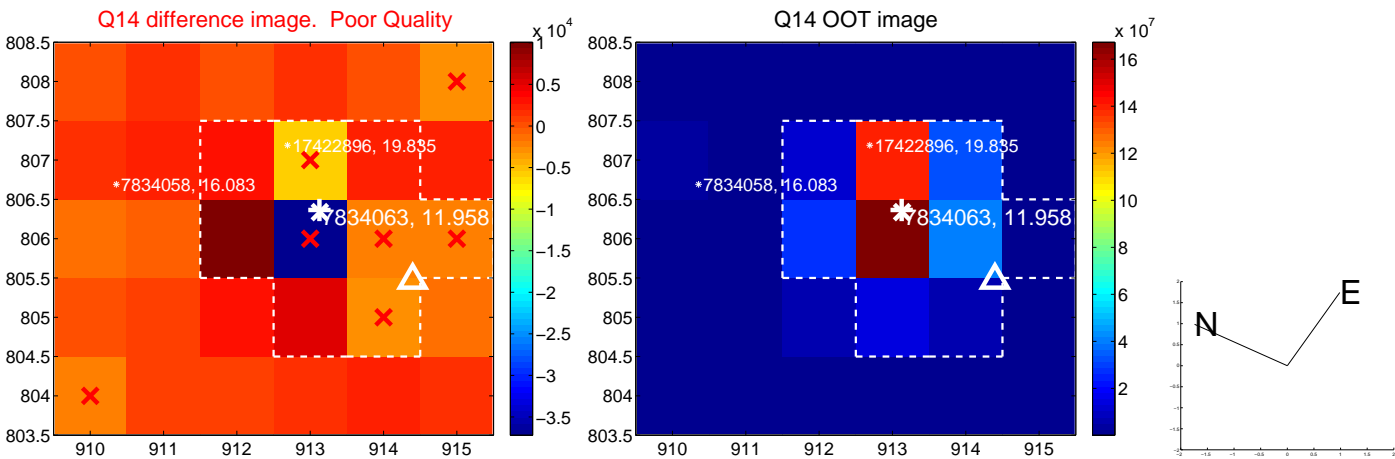
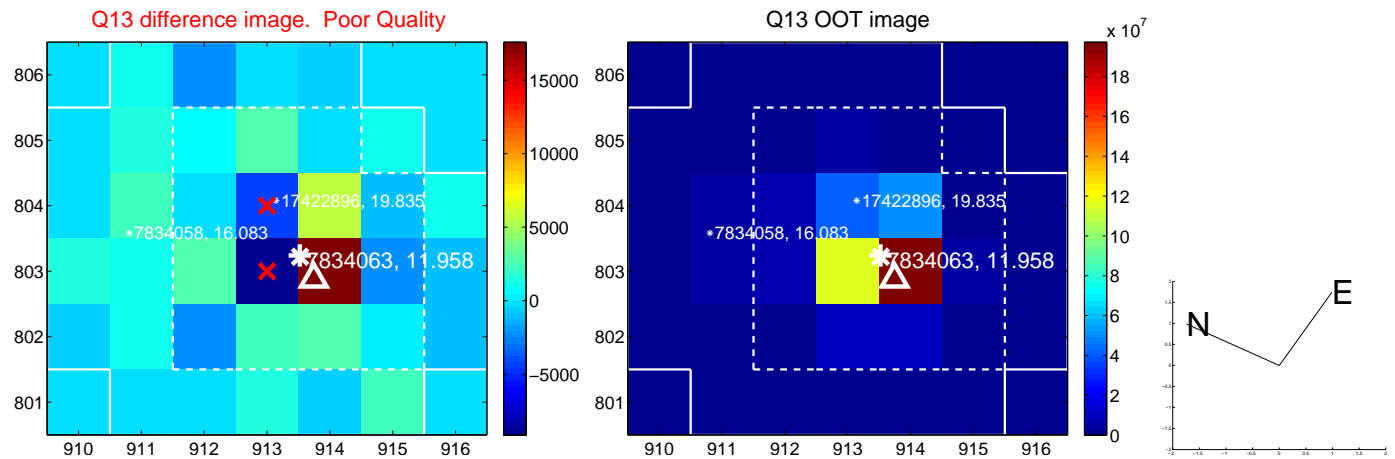
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



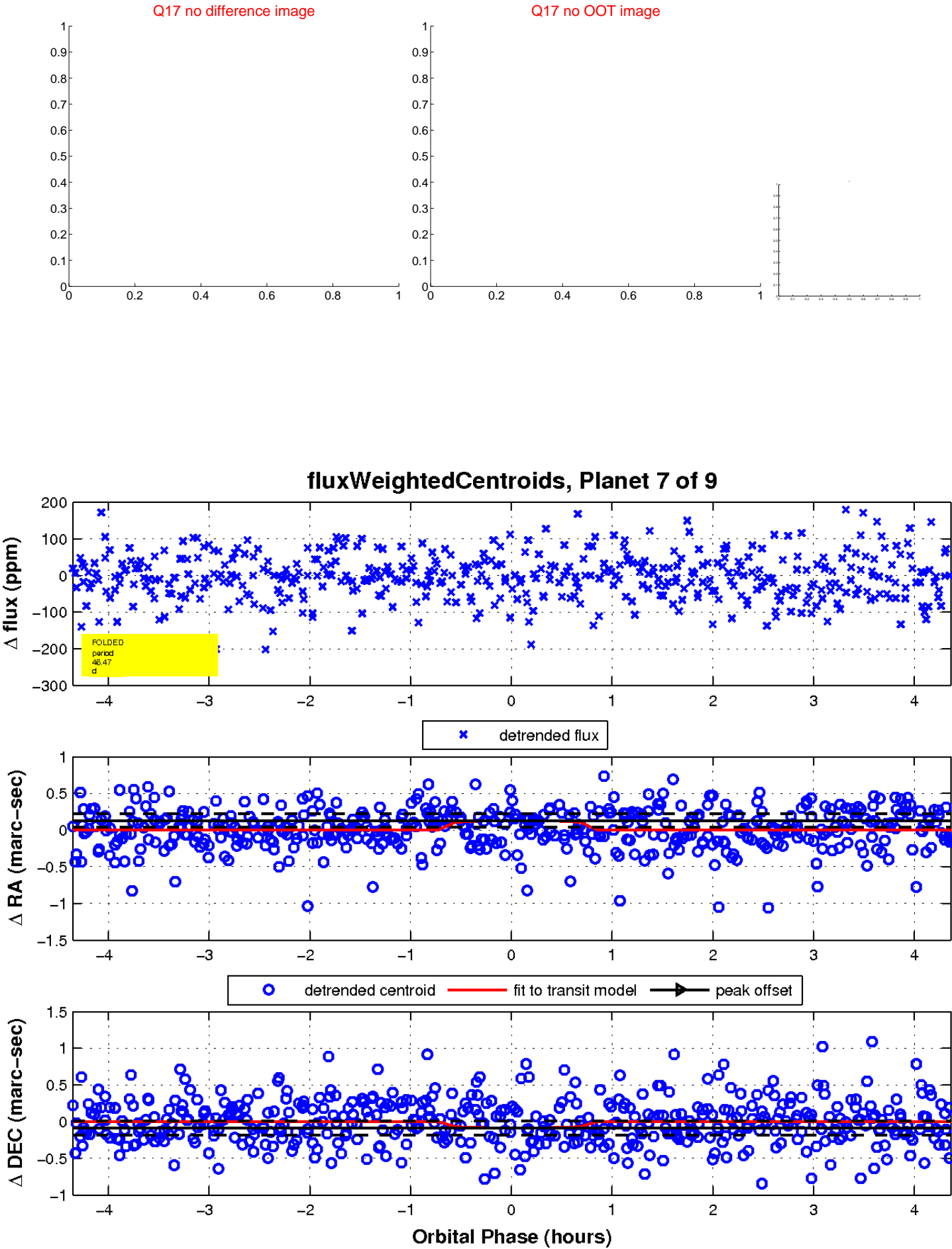
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

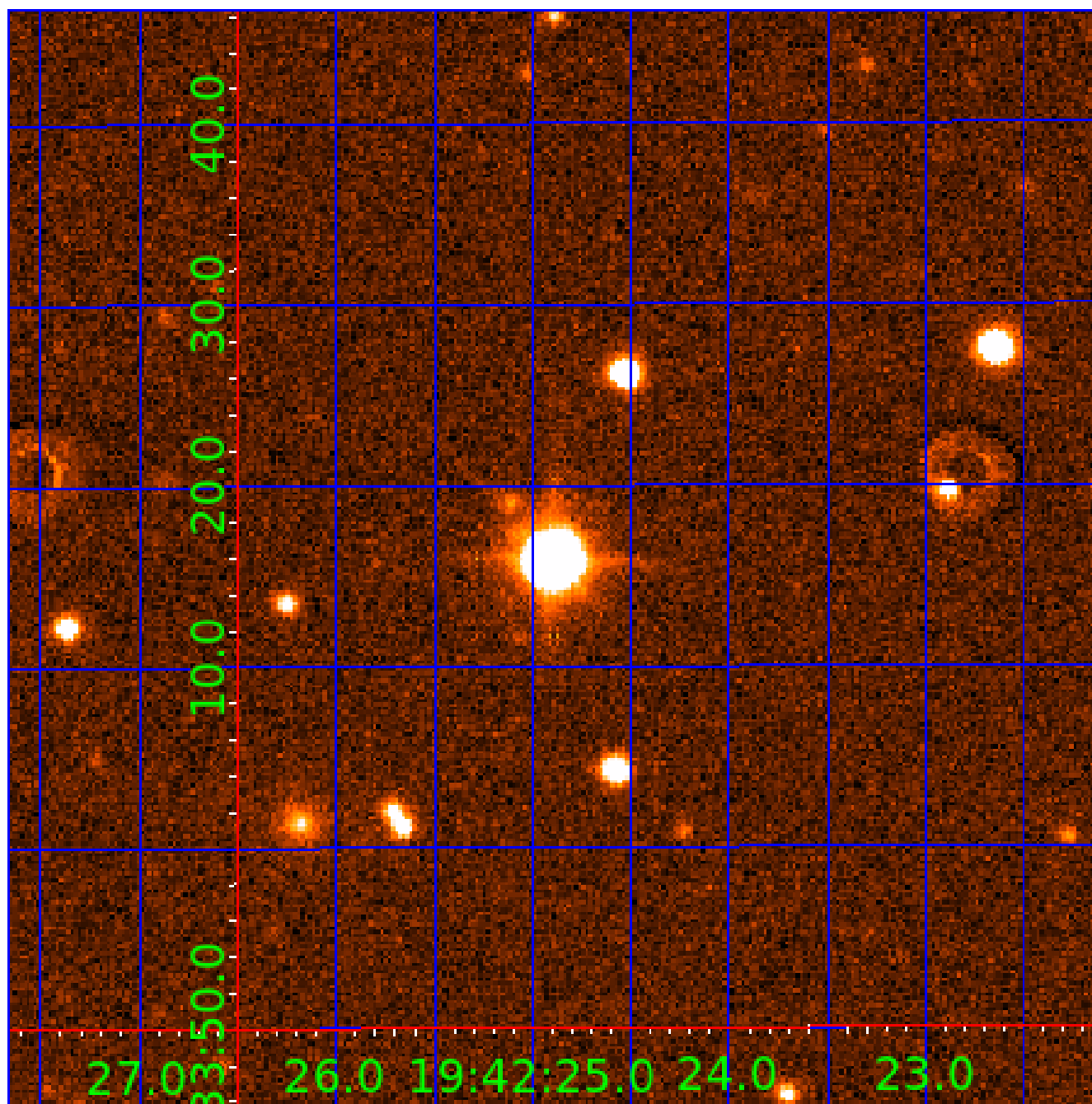


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

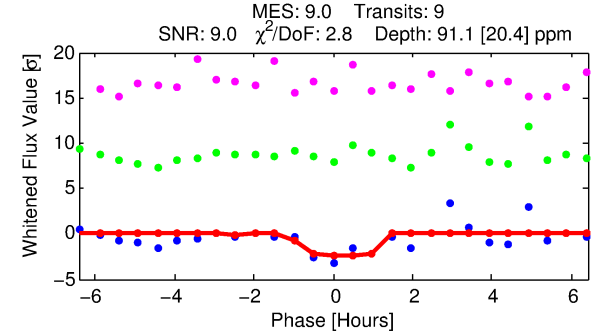
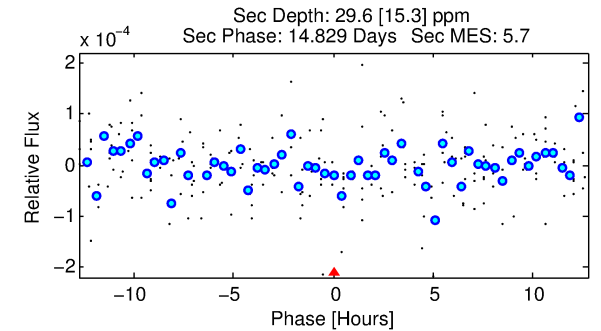
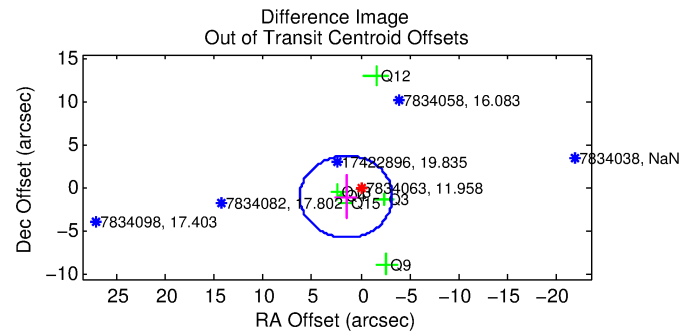
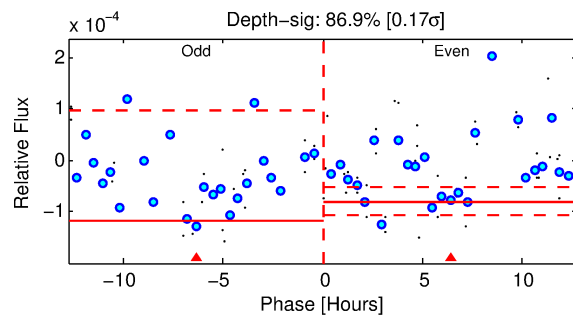
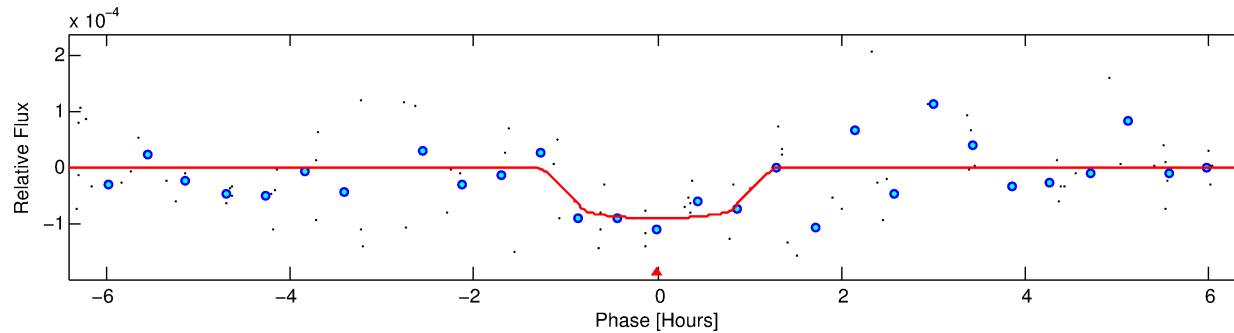
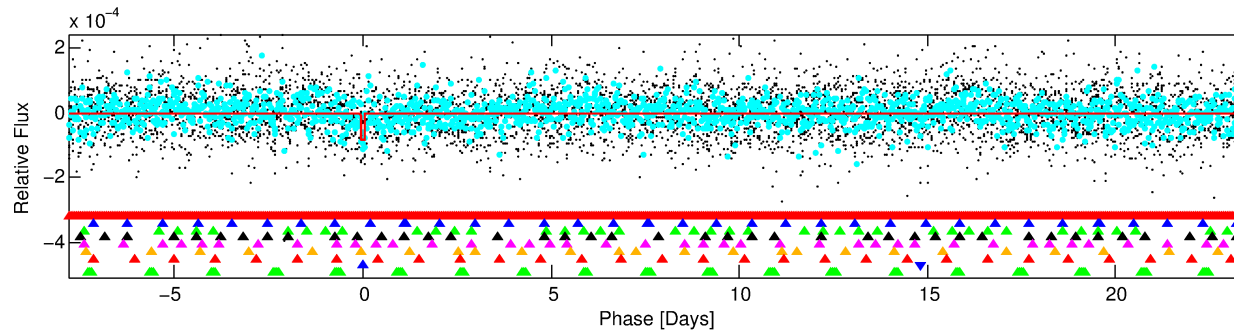
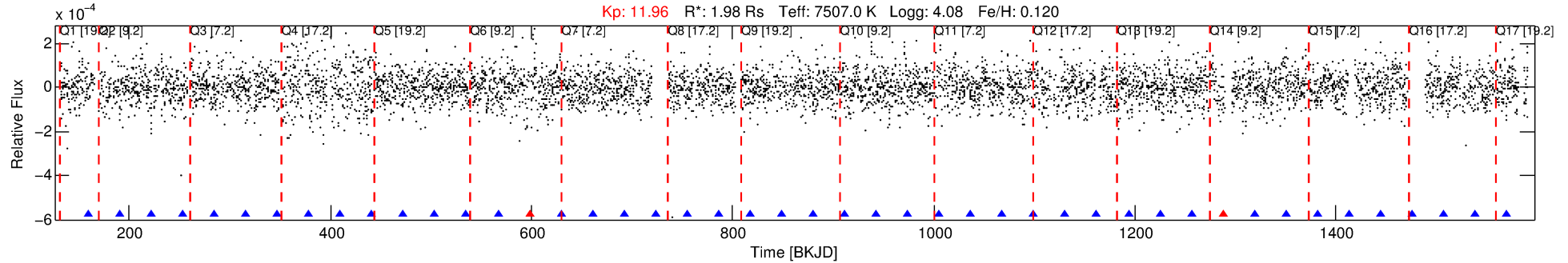
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-08

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 8 of 9 Period: 31.341 d



DV Fit Results:

Period = 31.34051 [0.00070] d
 Epoch = 159.2914 [0.0136] BKJD
 Rp/R* = 0.0097 [0.0084]
 a/R* = 67.60 [374.37]
 b = 0.81 [2.39]
 Seff = 203.77 [76.26]
 Teq = 963 [90] K
 Rp = 2.09 [1.91] Re
 a = 0.2335 [0.0534] AU
 Ag = 204.14 [377.11] [0.54 σ]
 Teffp = 5630 [2572] K [1.81 σ]

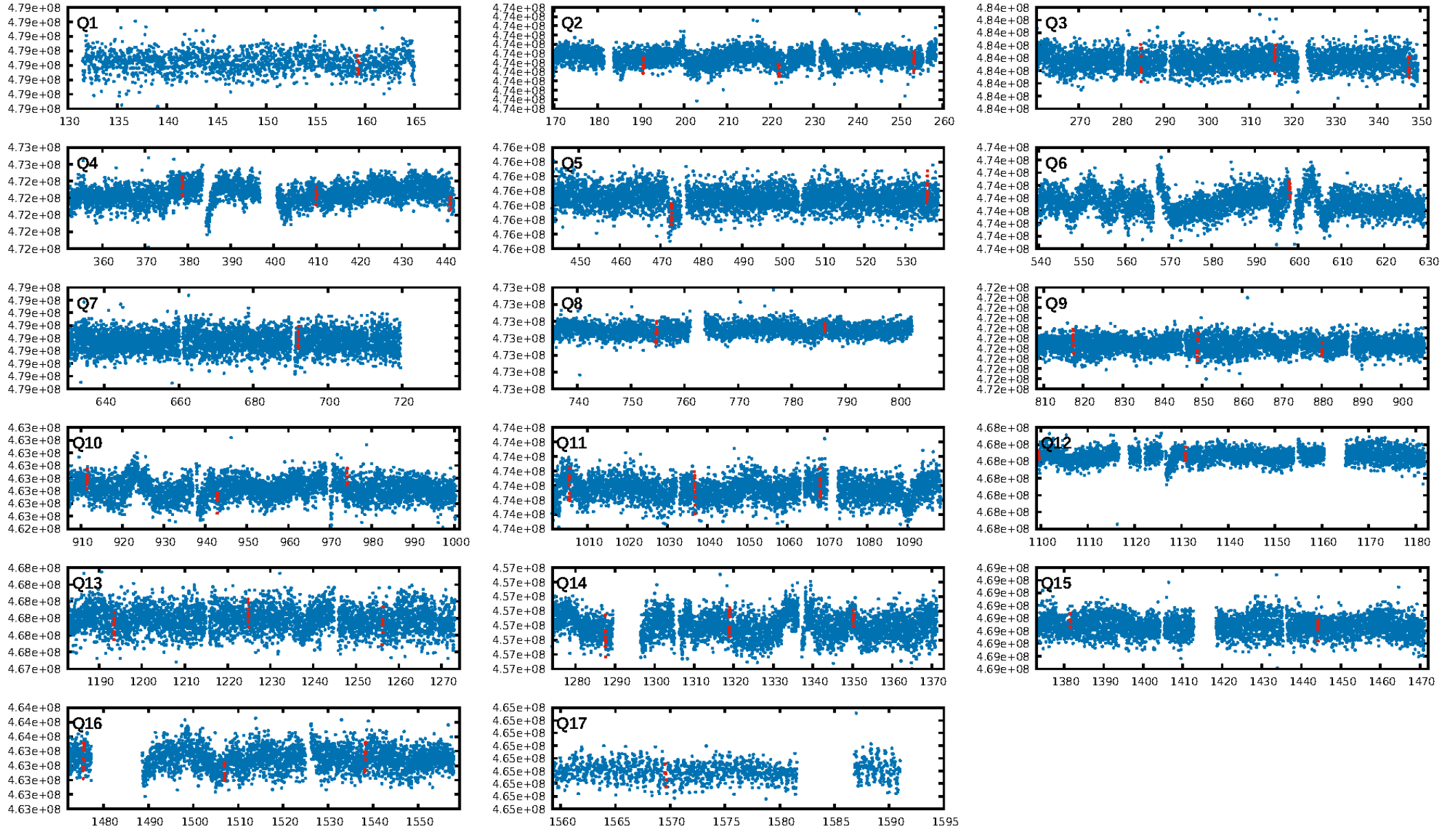
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [37.80 σ]
 LongPeriod-sig: 100.0% [26.63 σ]
 ModelChiSquare2-sig: 17.3%
 ModelChiSquareGof-sig: 100.0%
 Bootstrap-pfa: 1.54e-08
 RollingBand-fgt: 0.75 [6/8]
 GhostDiagnostic-chr: -1.226
 Centroid-sig: 98.6%
 Centroid-so: 0.041 arcsec [0.06 σ]
 OotOffset-rm: 1.802 arcsec [1.14 σ]
 OotOffset-st: 0/2/2/2 [6]
 KicOffset-rm: 1.793 arcsec [1.18 σ]
 KicOffset-st: 0/2/2/2 [6]
 DiffImageQuality-fgm: 0.33 [2/6]
 DiffImageOverlap-fno: 0.00 [0/16]

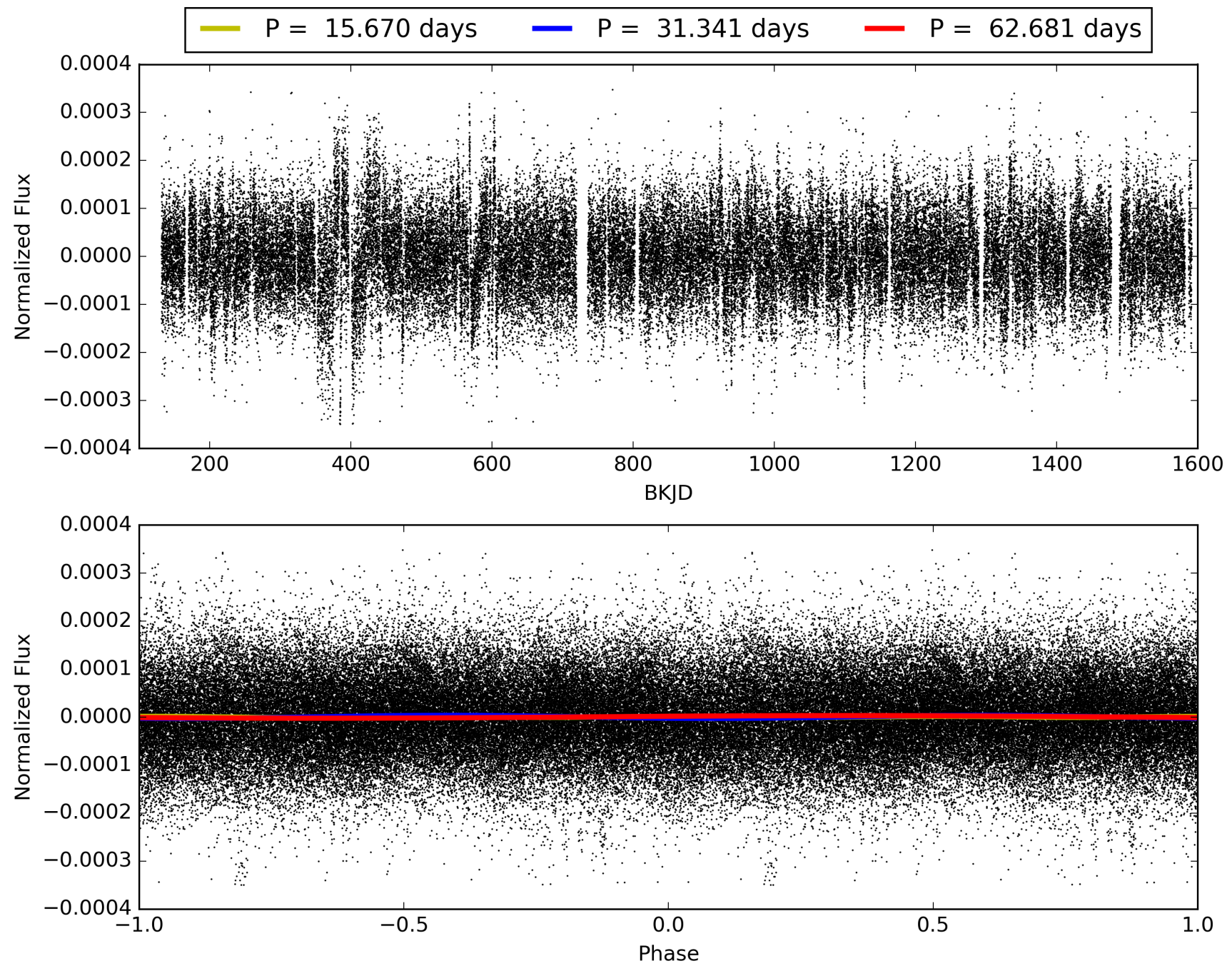
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:39 Z

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

TCE 007834063-08, PDC Light Curves

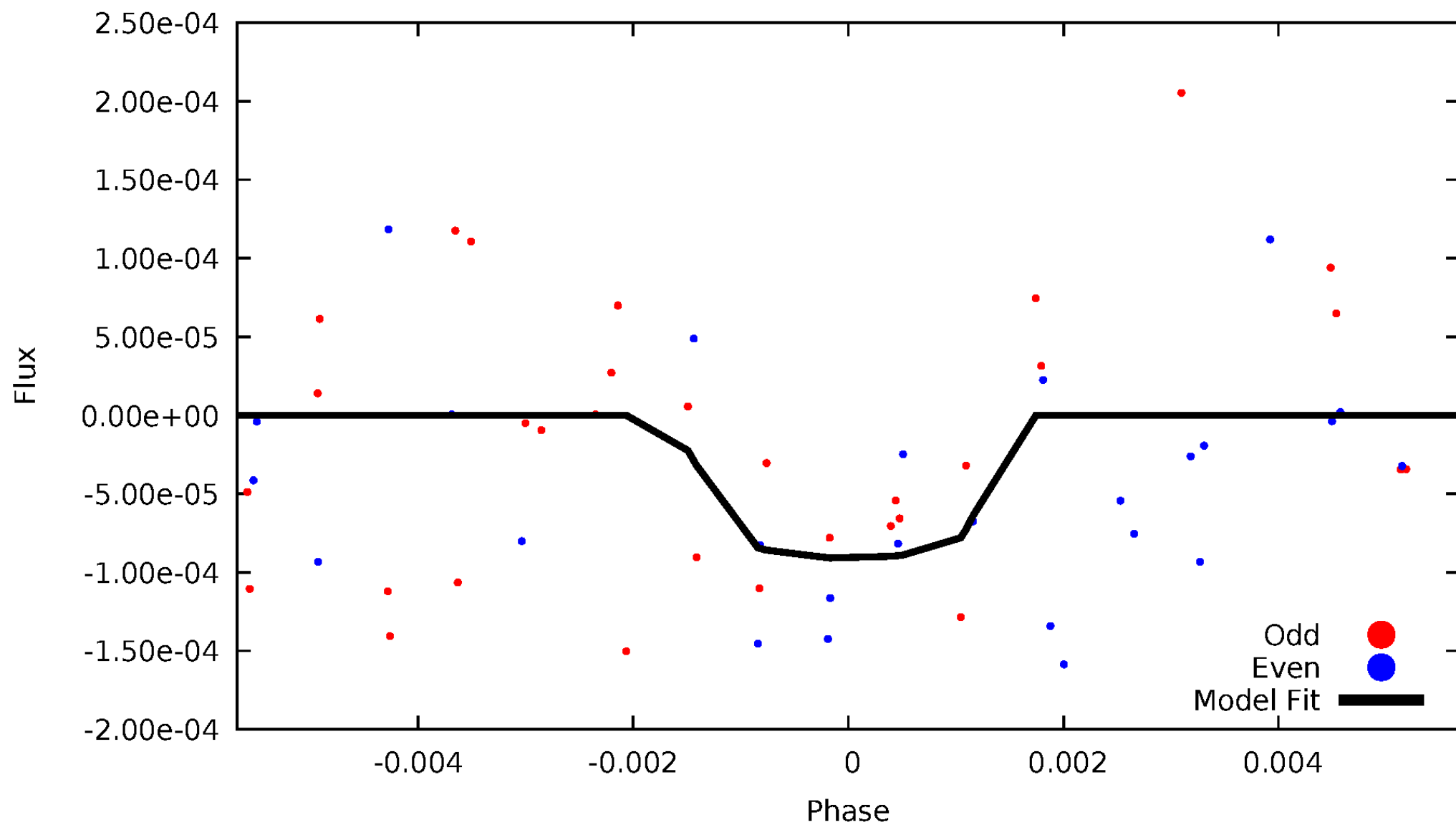


TCE 007834063-08



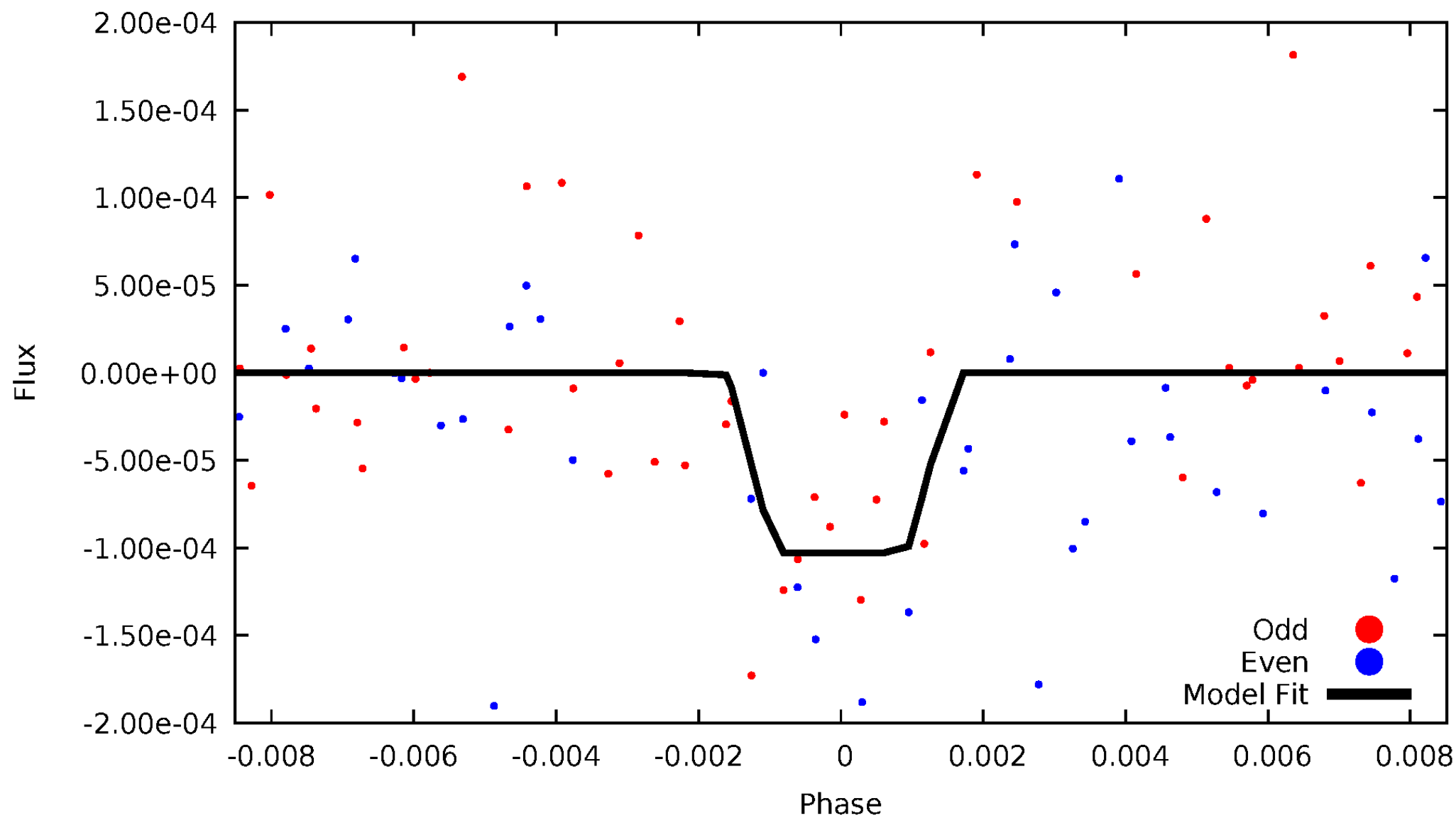
DV Odd/Even

TCE 007834063-08



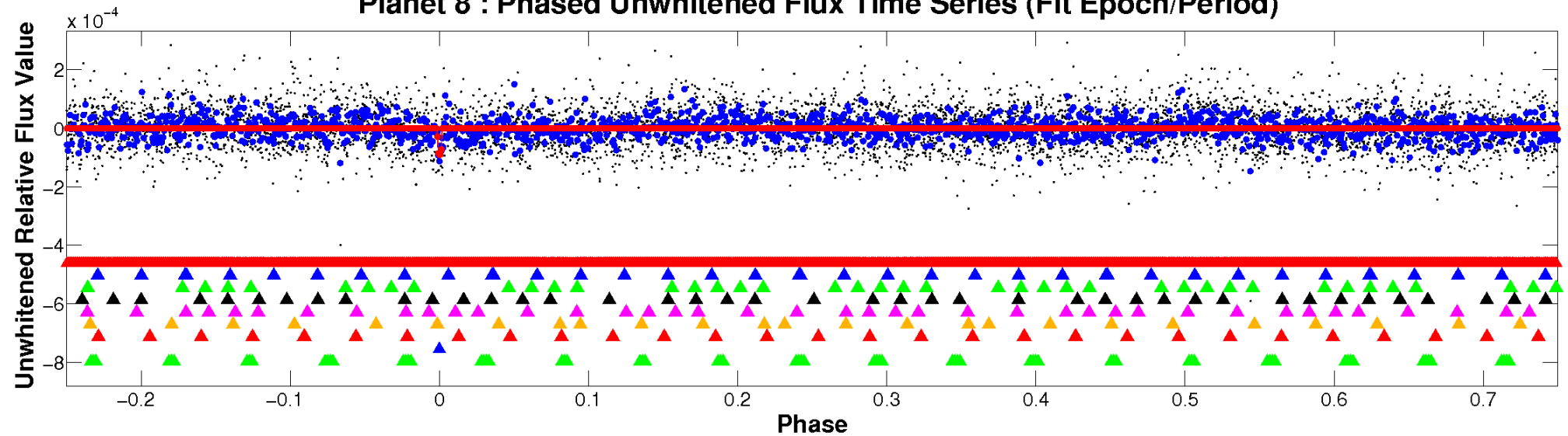
ALT Odd/Even

TCE 007834063-08

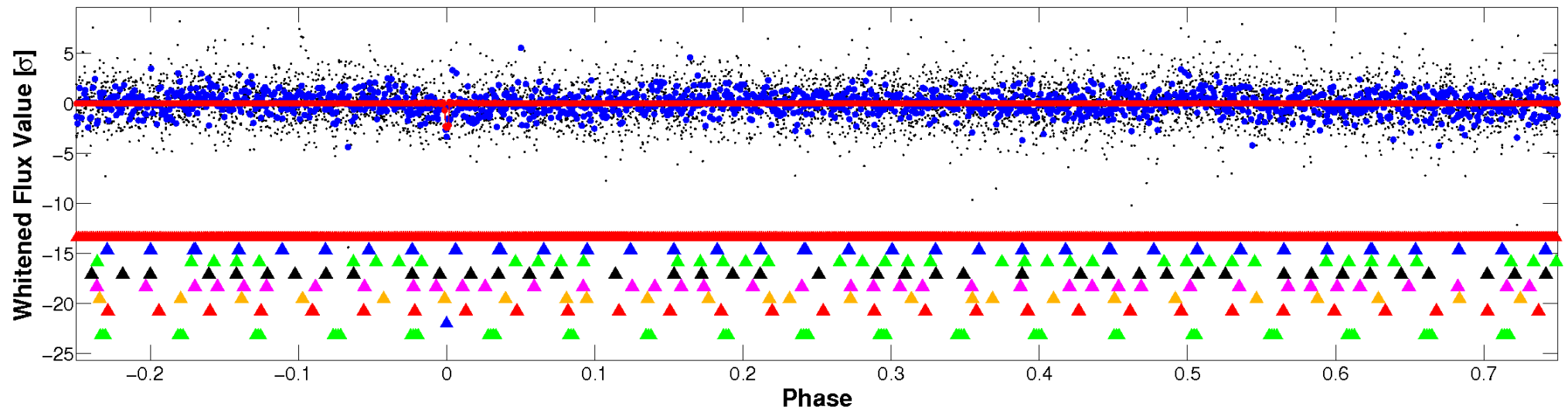


Non-Whitened Vs. Whitened Light Curve

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

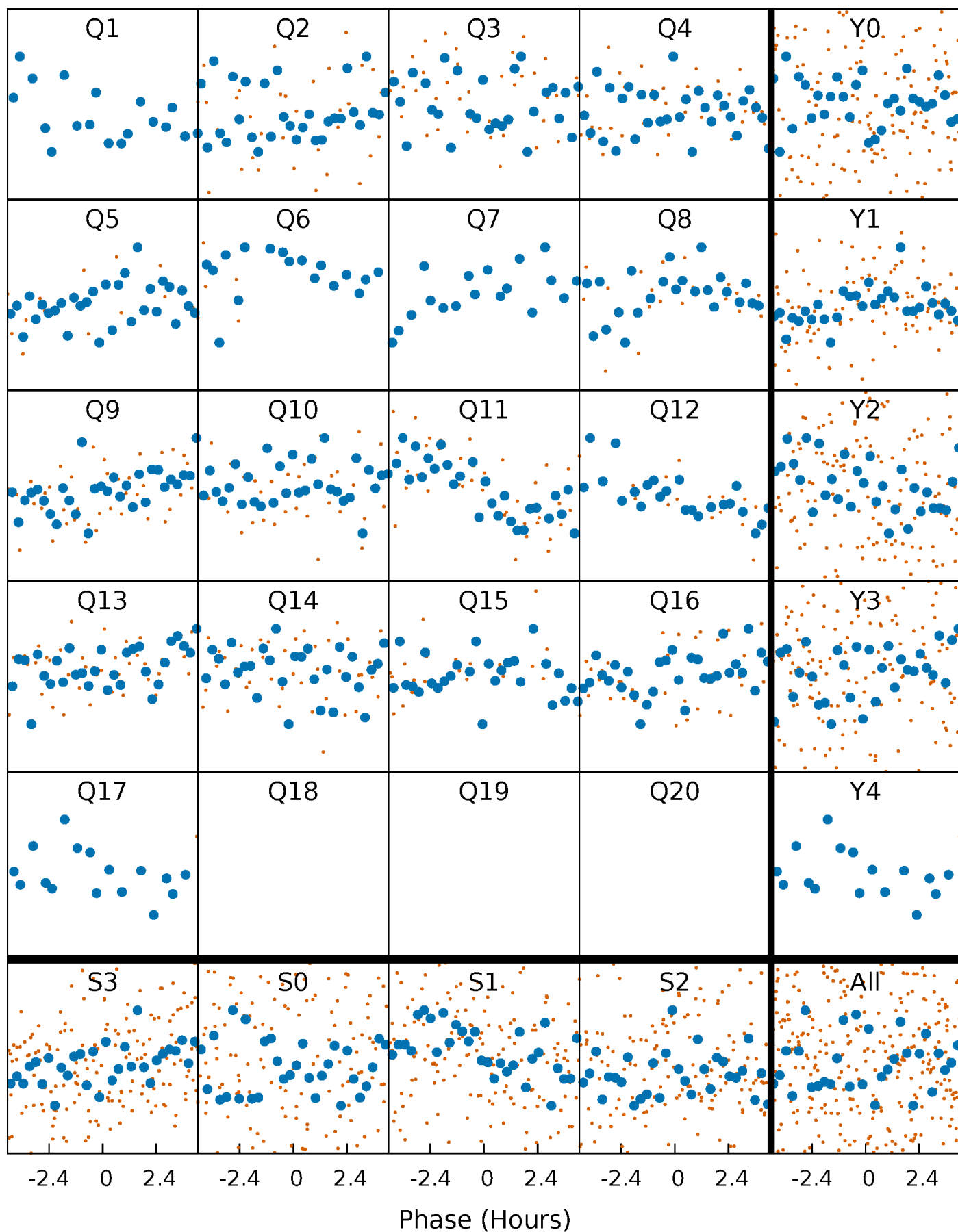


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



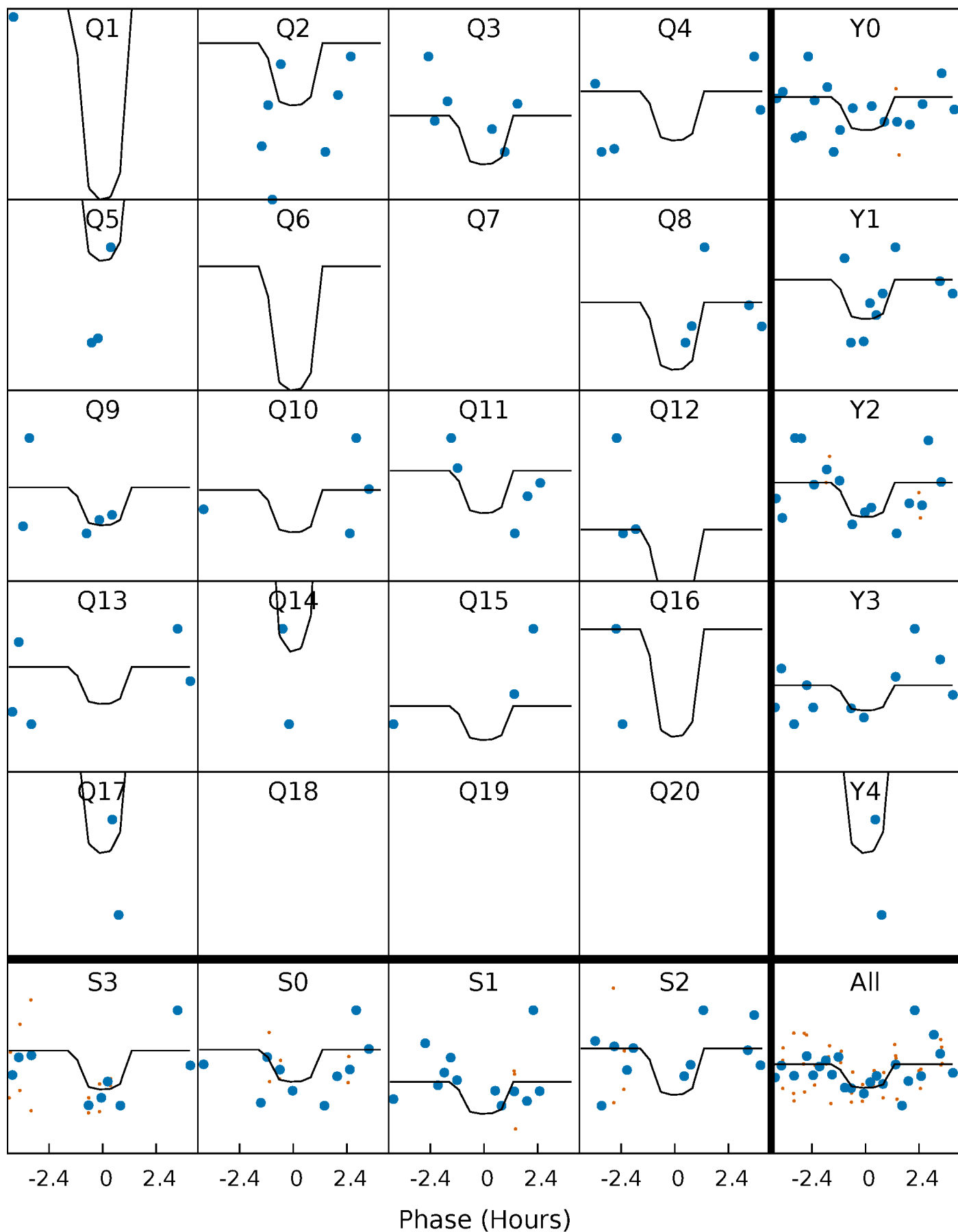
PDC Quarter-Phased Transit Curves

TCE 007834063-08 $P = 31.340509$ Days $T_0 = 159.291414$ (BKJD)



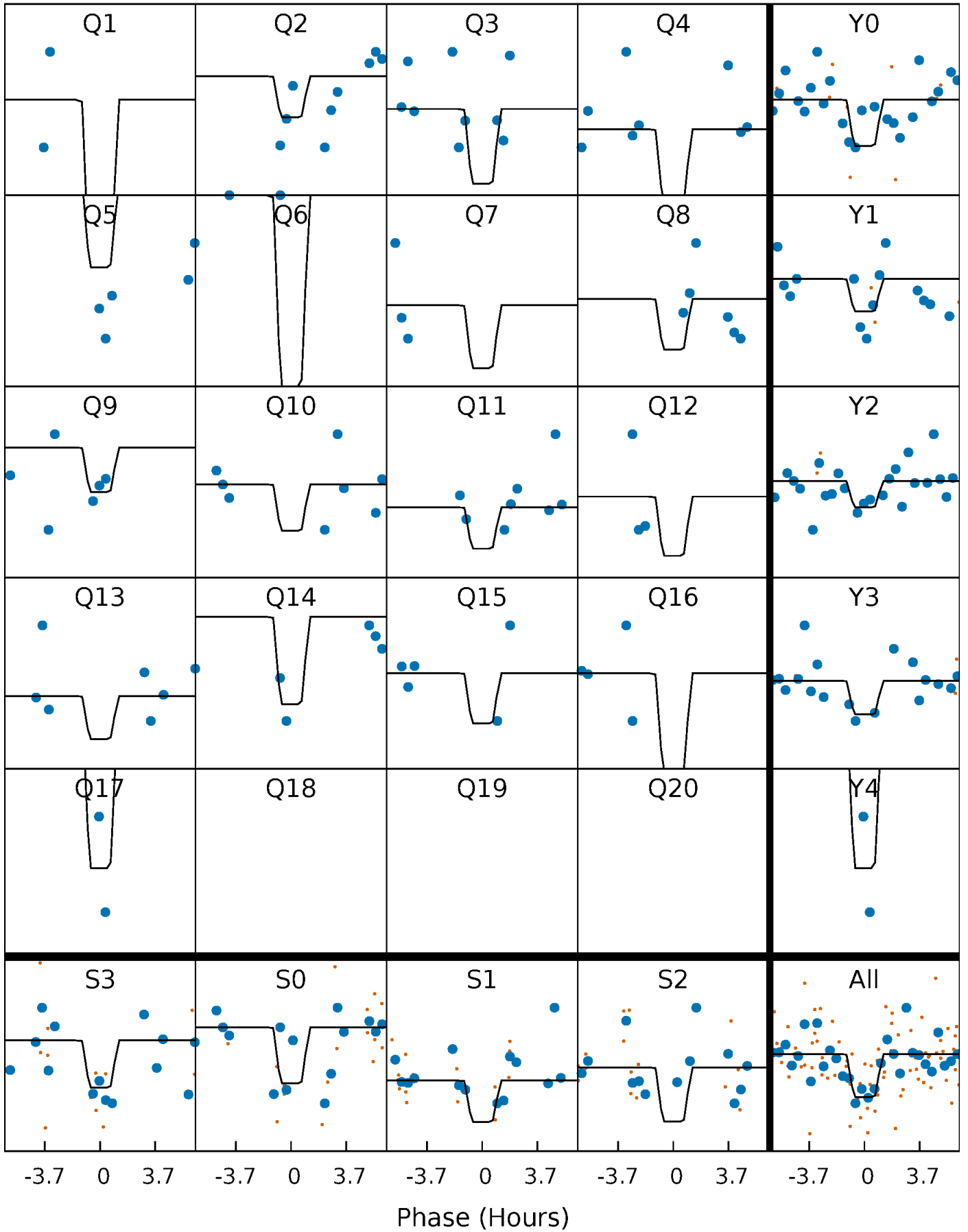
DV Quarter-Phased Transit Curves

TCE 007834063-08 P= 31.340509 Days $T_0=159.291414$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

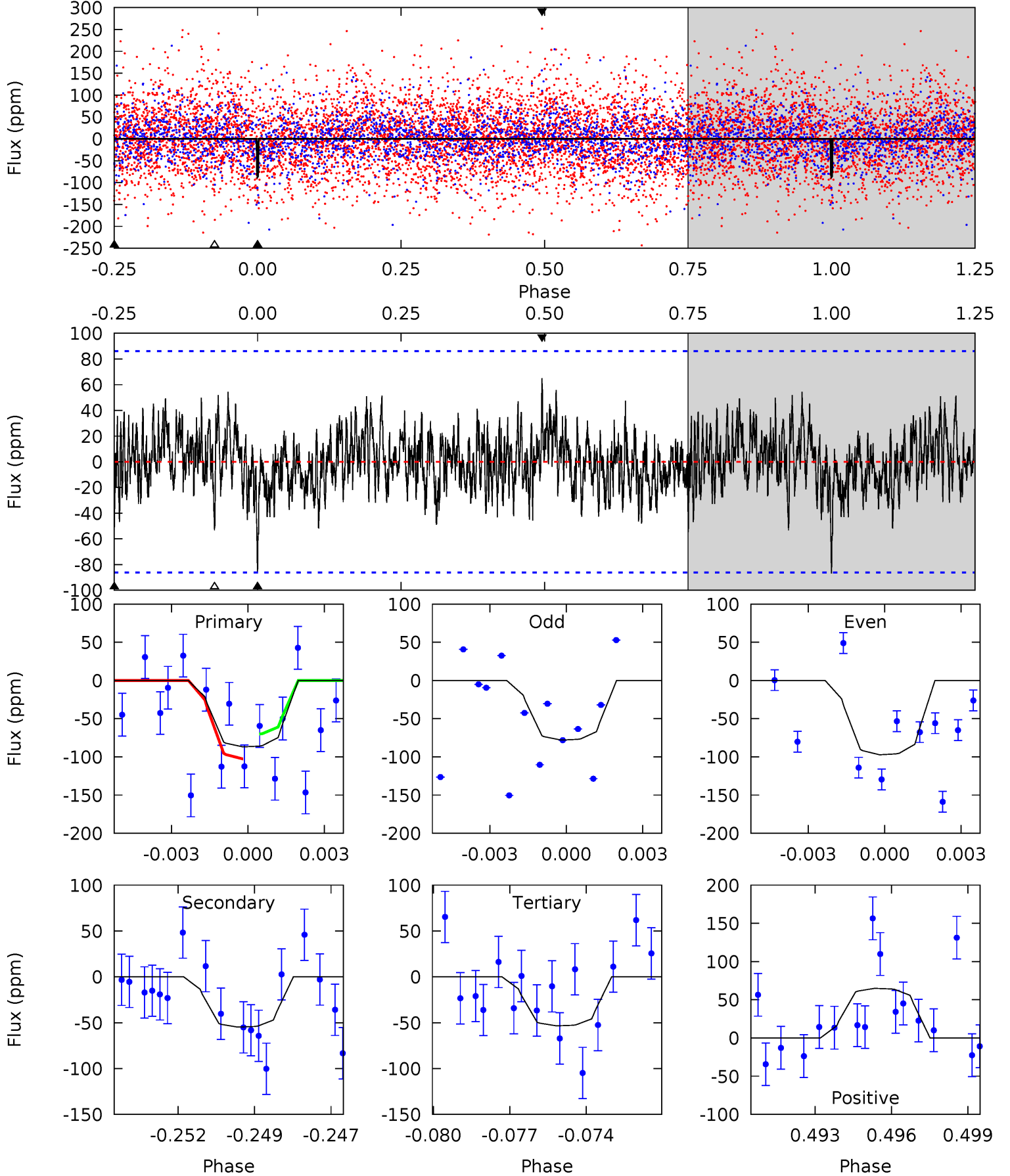
TCE 007834063-08 P= 31.341631 Days $T_0=159.264926$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-08, P = 31.340509 Days, E = 127.950905 Days

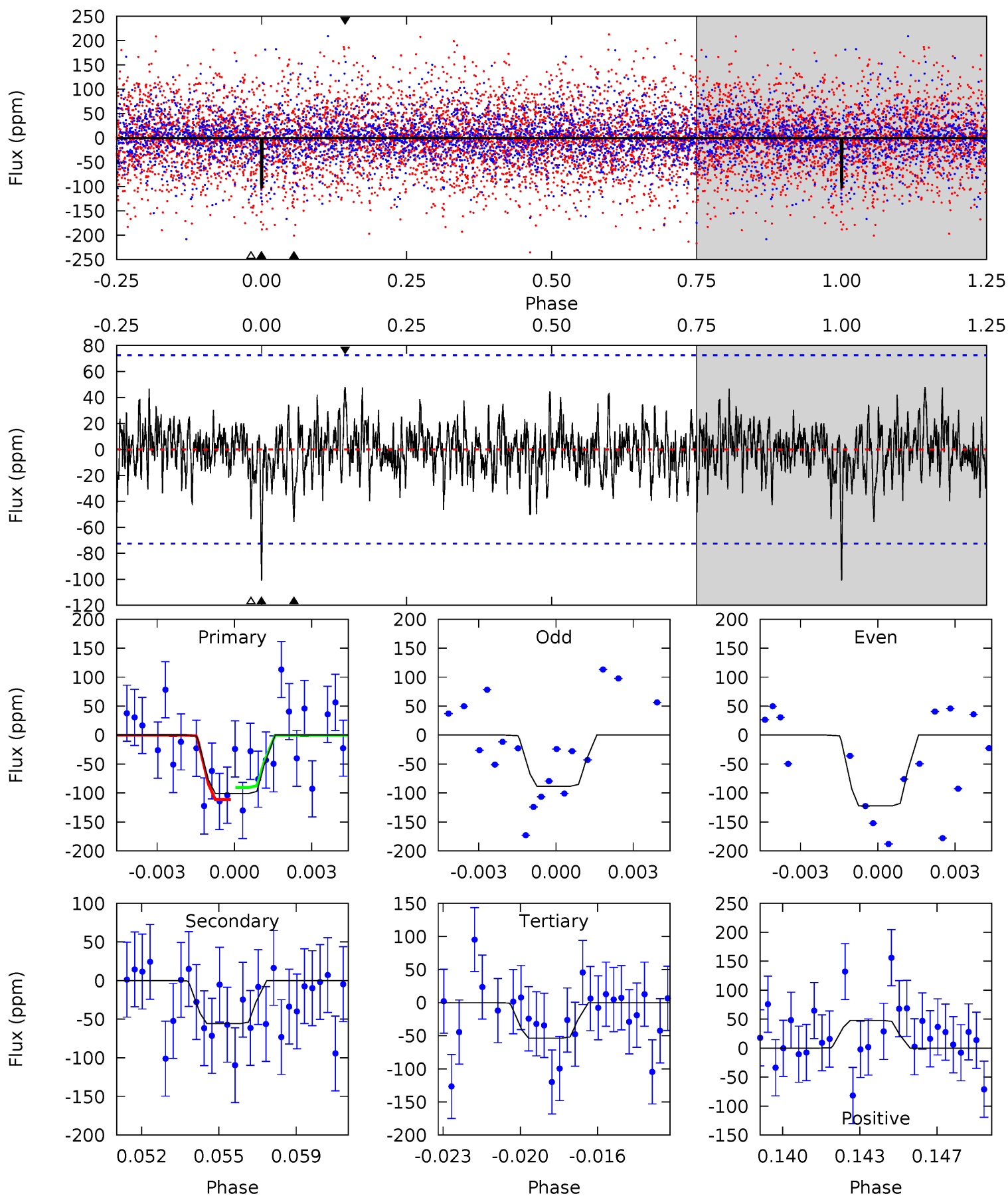
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.32	3.36	3.27	3.98	5.28	3.01	1.15	2.05	1.35	0.09	-0.62	0.61	0.96	0.43	0.99



Alt Model-Shift Uniqueness Test

007834063-08, P = 31.341631 Days, E = 127.923295 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.29	4.03	3.87	3.46	5.24	2.94	1.11	3.42	3.83	0.16	0.57	1.21	1.01	0.32	0.75



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-55 ± 16	$2.33^{+1.71}_{-1.39}$	1353^{+97}_{-93}	6032^{+4523}_{-1317}	286^{+1410}_{-200}
Alt.	-56 ± 14	$2.48^{+1.67}_{-1.52}$	1341^{+96}_{-86}	5892^{+4110}_{-1255}	265^{+1465}_{-179}

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 $A_{obs} \gg 1.0$

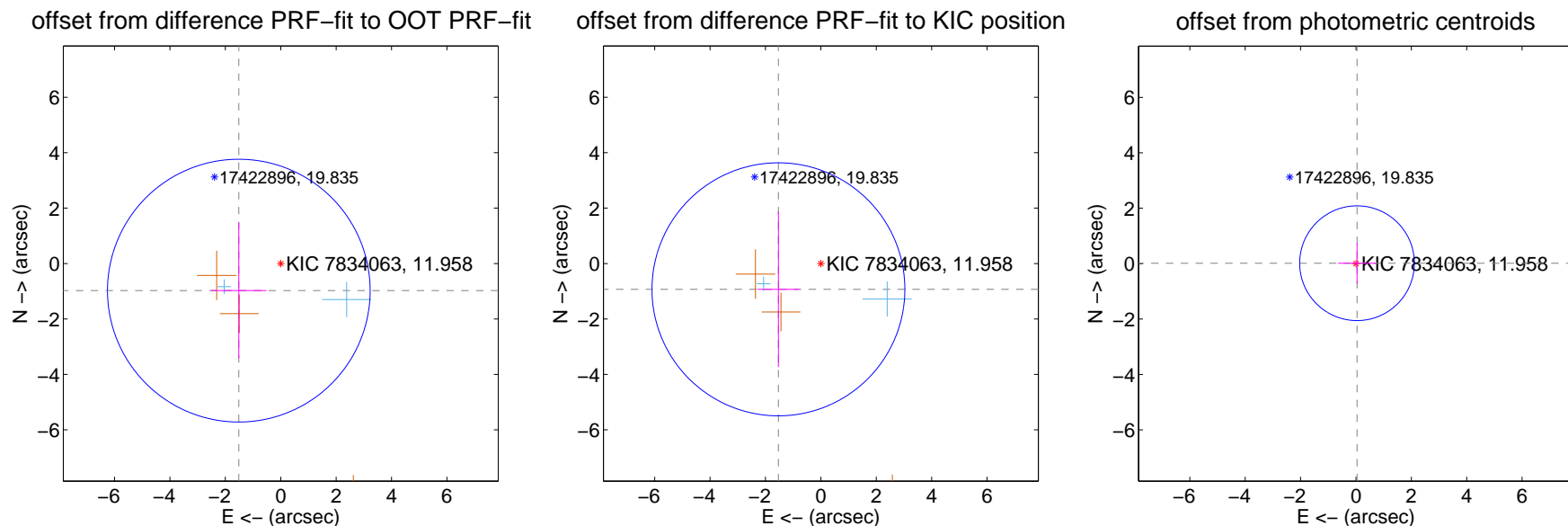
DV Centroid Data

Supplemental centroid analysis for 007834063-08. **Kepler magnitude: 11.96.** Transit SNR 9.02

There are 2 quarters with good PRF difference image offsets

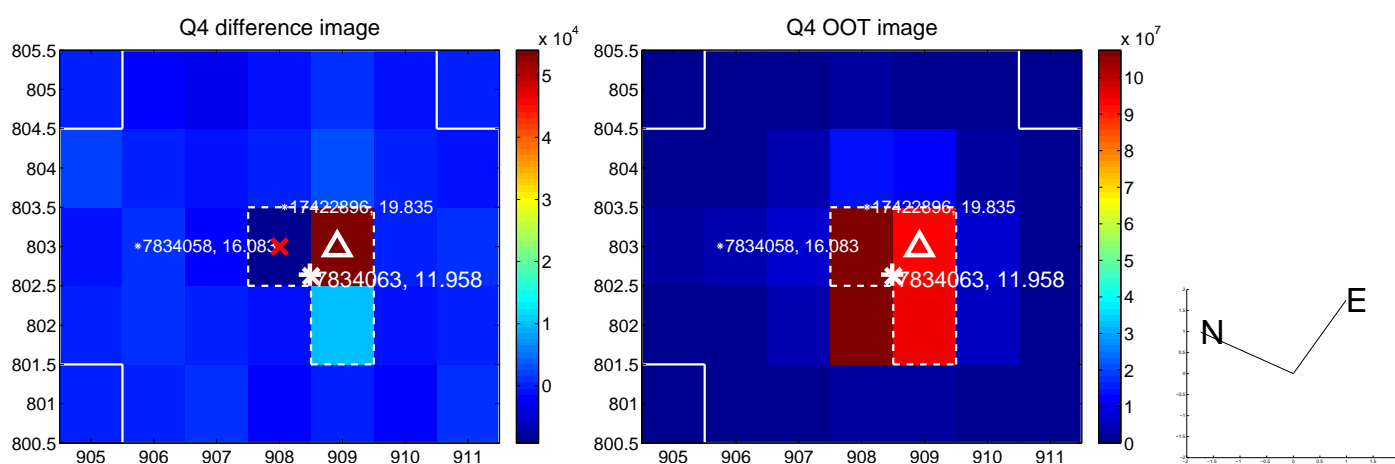
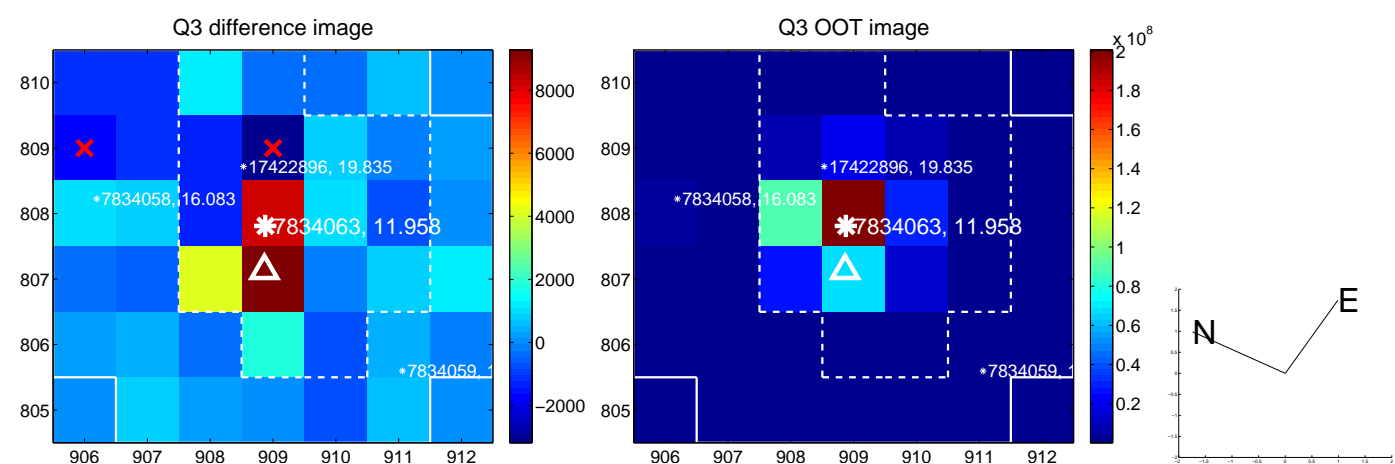
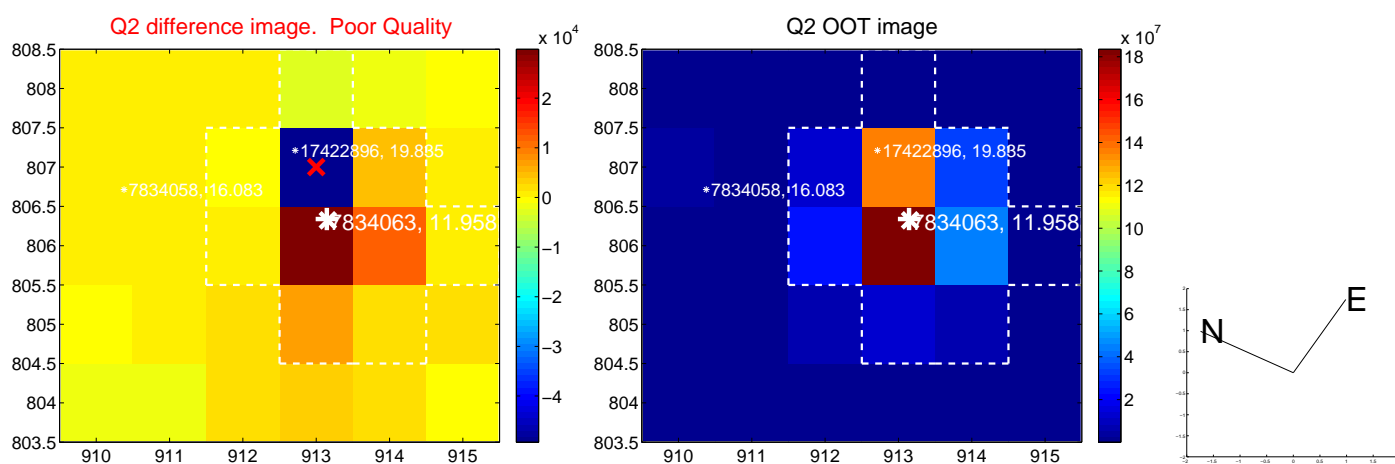
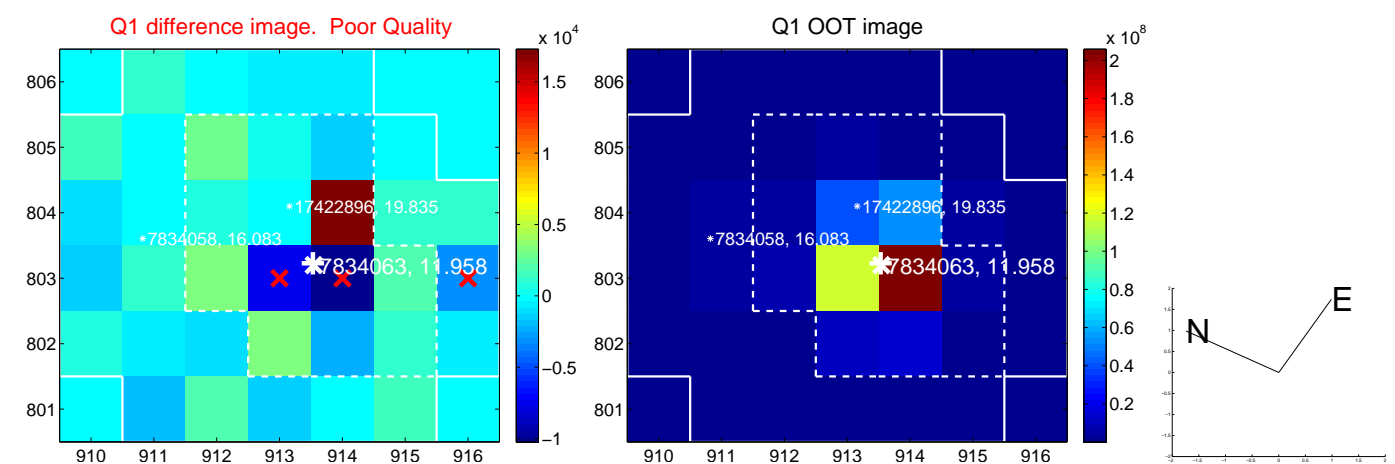
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.802 ± 1.581	1.14	1.514 ± 1.001	-0.977 ± 2.442
PRF-fit source offset from KIC position	1.793 ± 1.522	1.18	1.533 ± 0.755	-0.930 ± 2.807
photometric centroid source offset	0.04 ± 0.69	0.06	-0.04 ± 0.68	0.01 ± 0.73

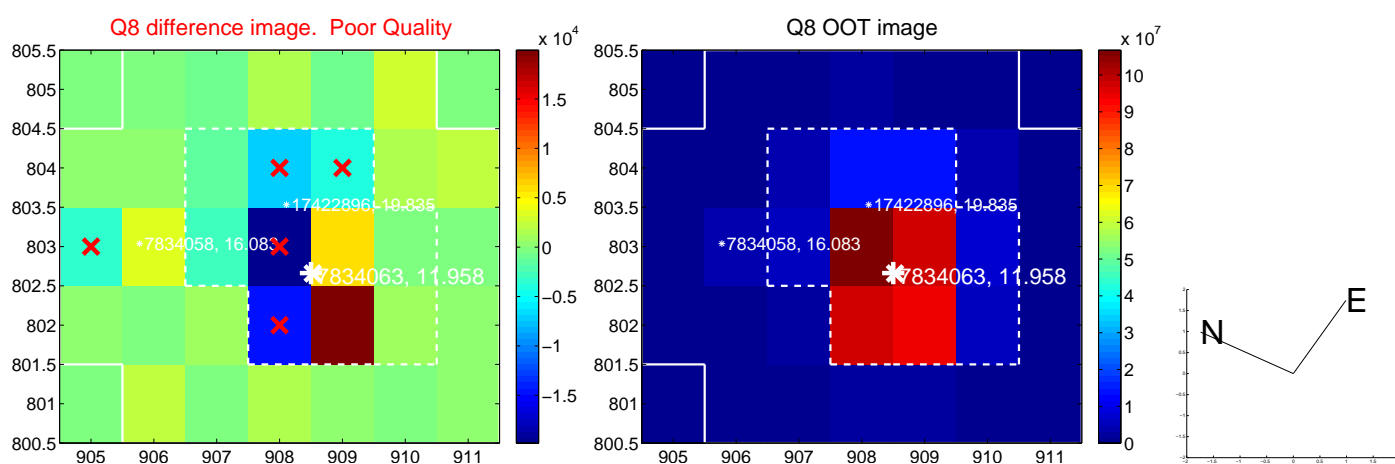
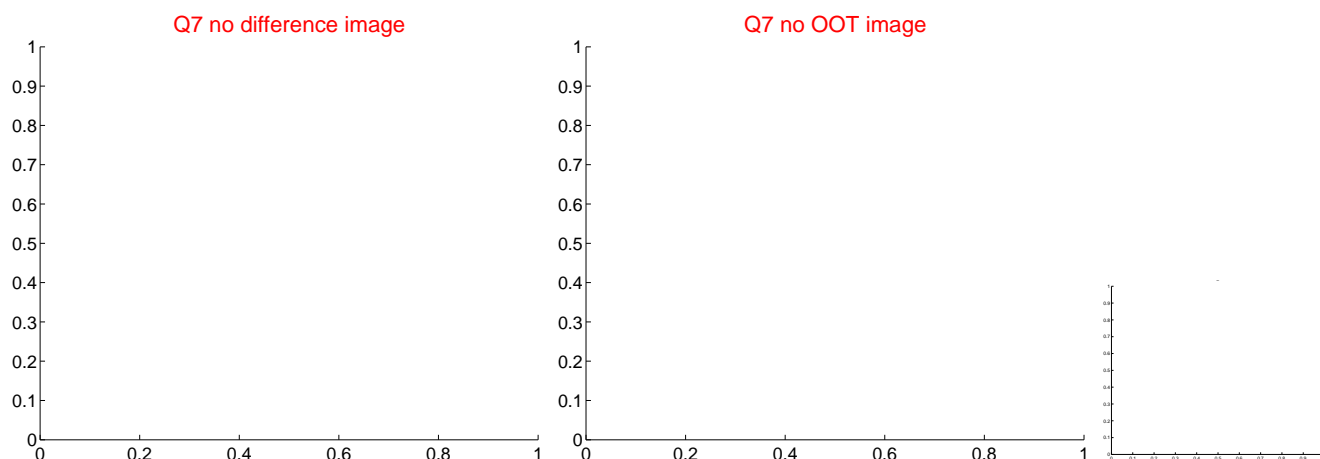
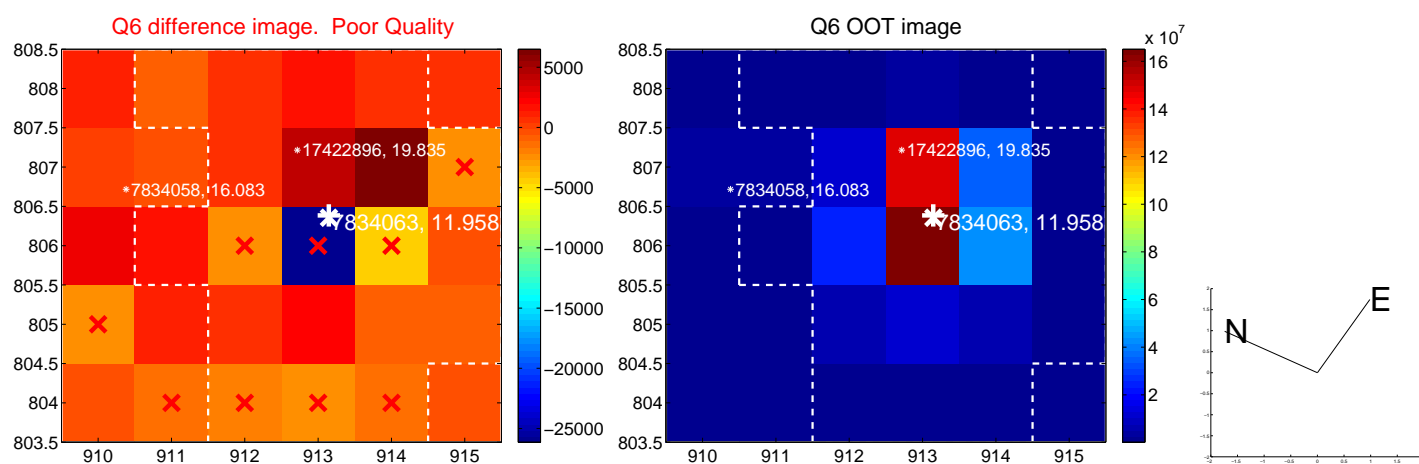
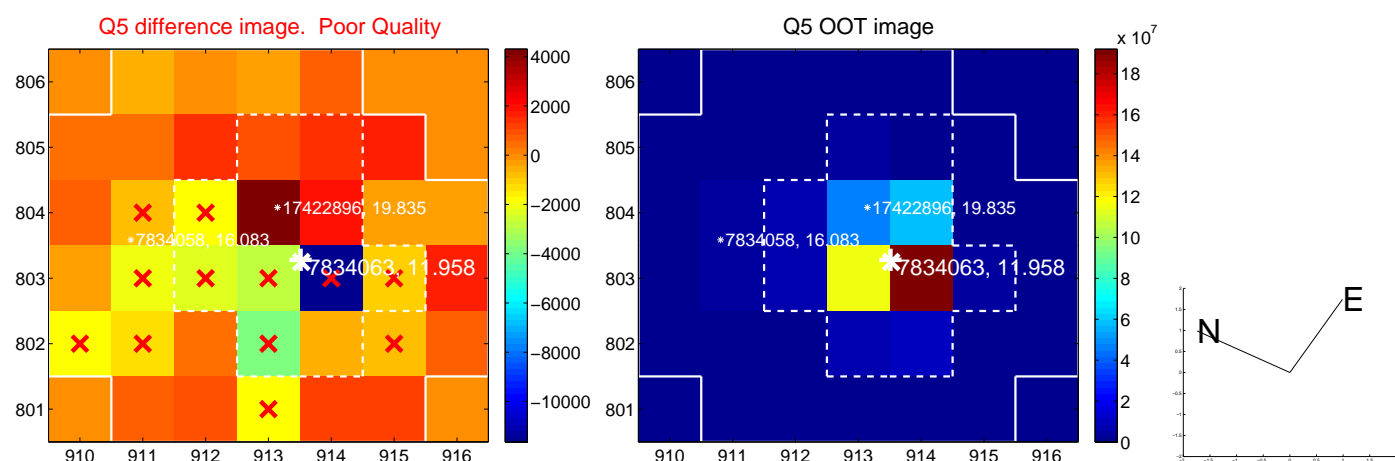


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

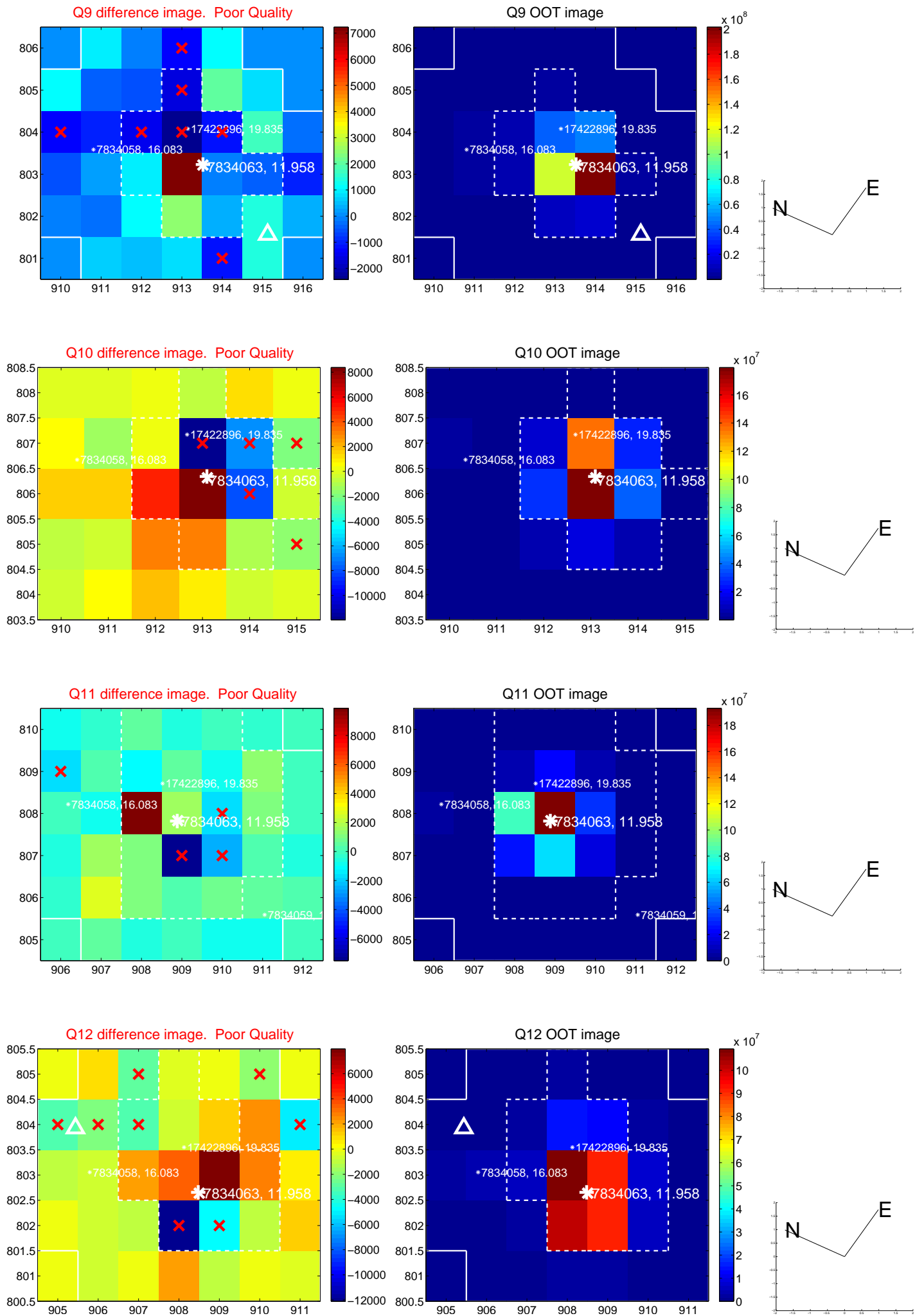
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



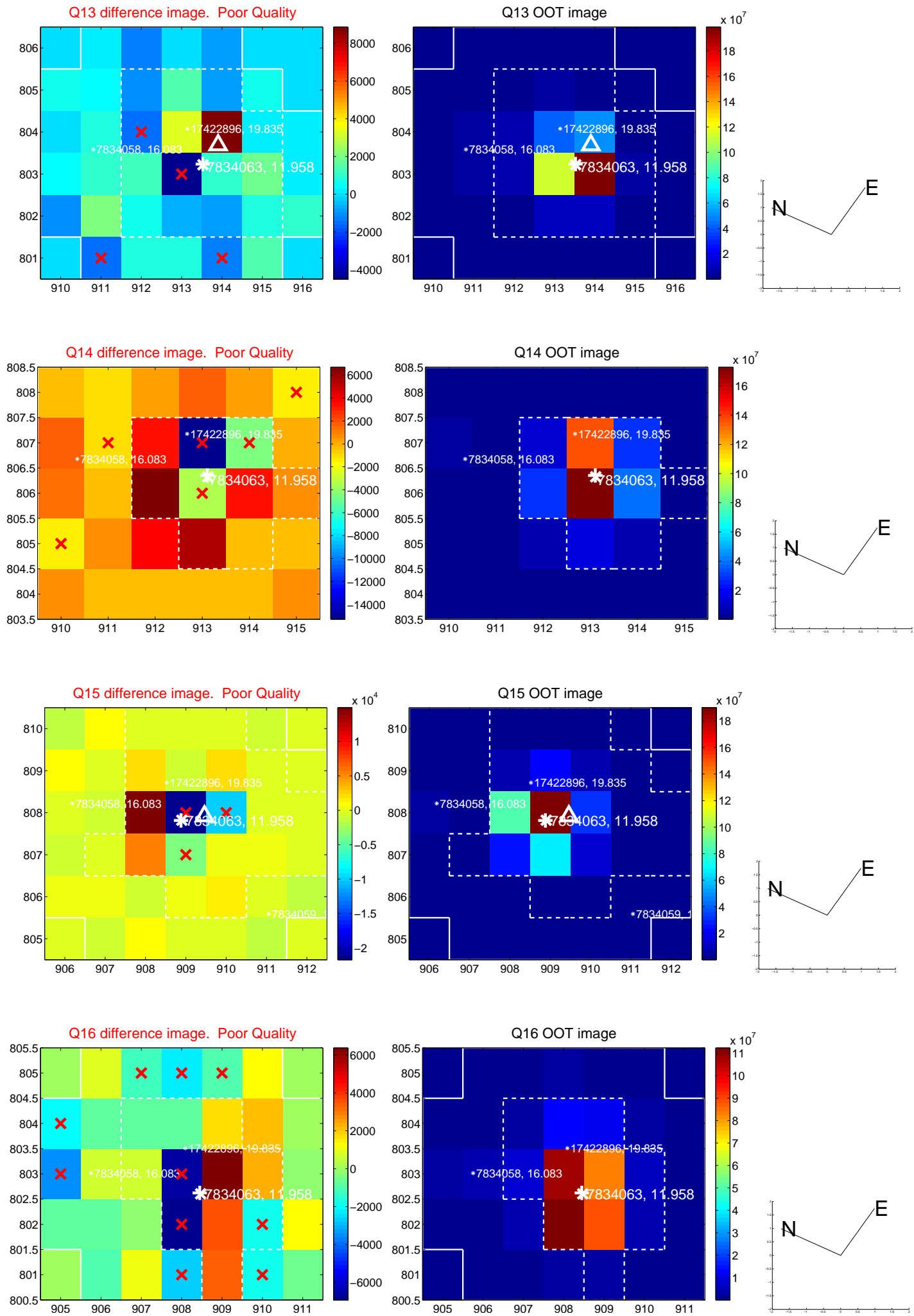
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



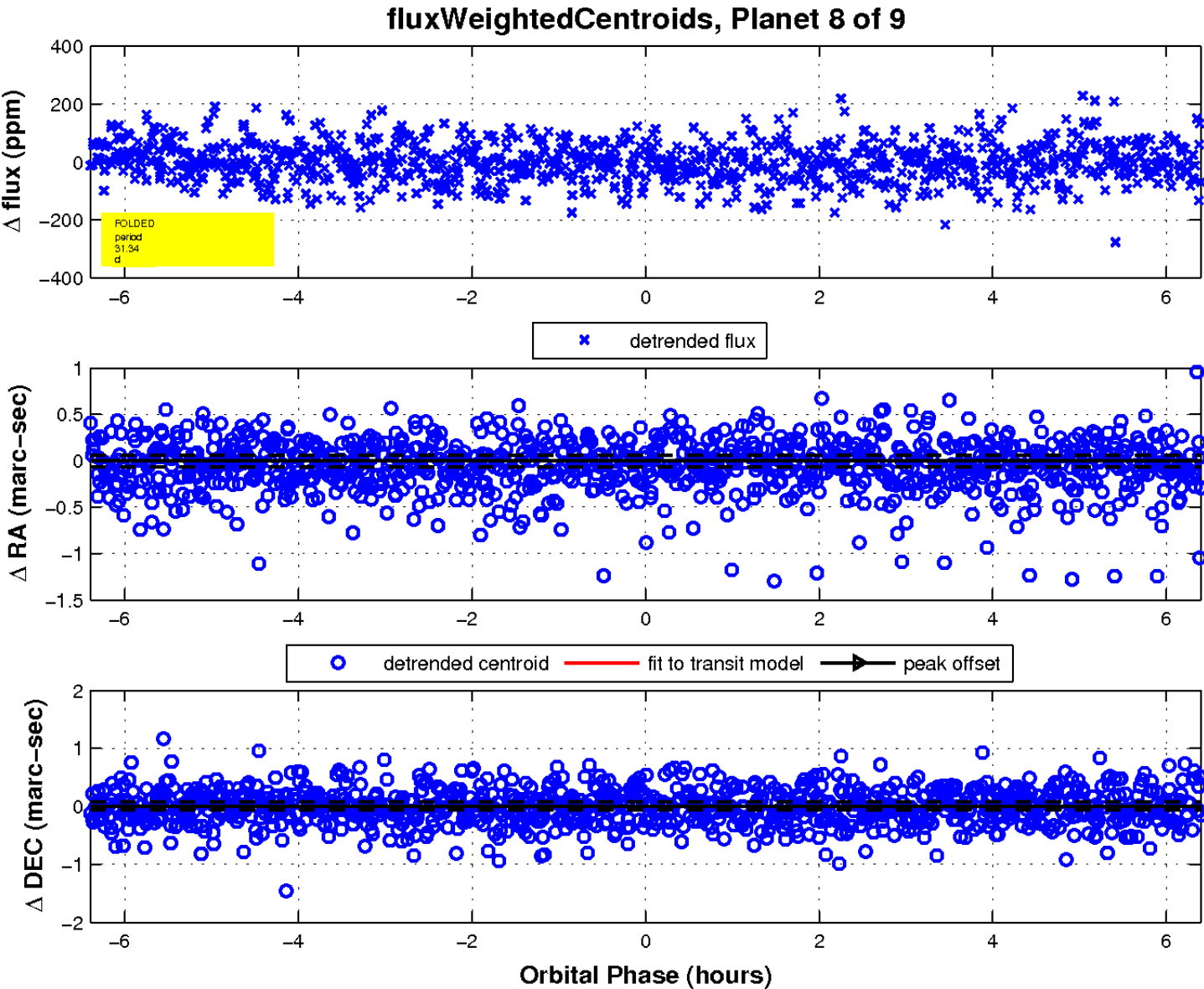
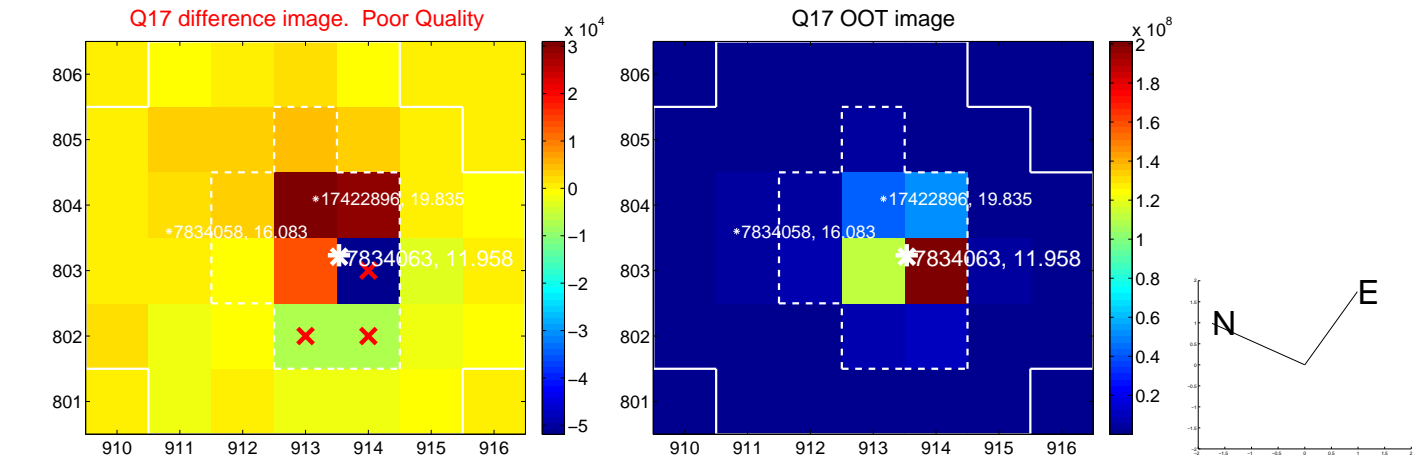
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

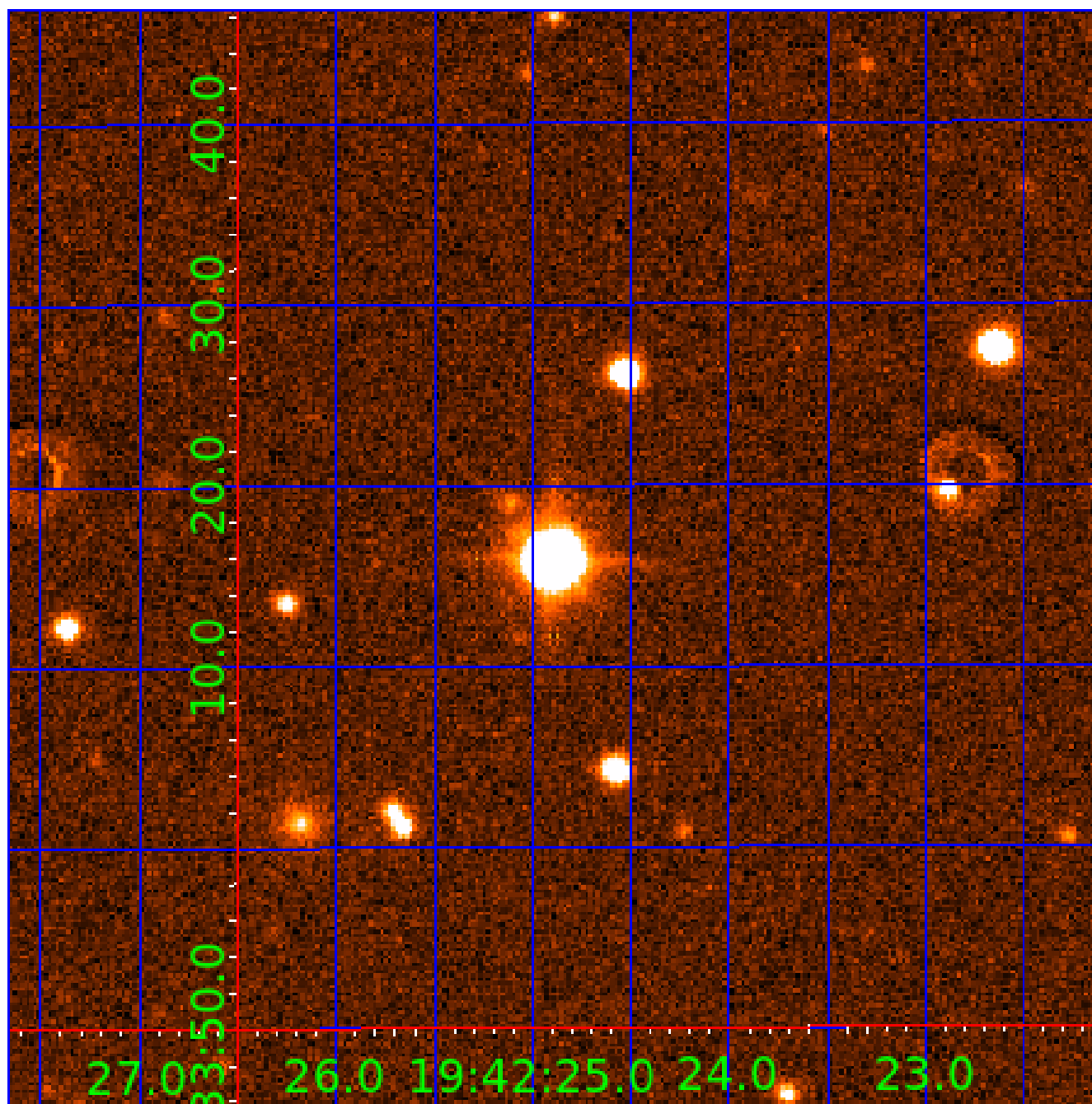


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007834063

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})
007834063-01	OBS	No	0.572225	131.927054	2.4	3.943	8.6	3.7	1.98	7507	0.31	42383.42
007834063-02	OBS	No	37.792042	147.527232	127.0	2.016	10.9	11.8	1.98	7507	2.51	158.76
007834063-03	OBS	No	34.769505	166.096964	21.8	2.232	9.0	2.4	1.98	7507	1.03	177.43
007834063-04	OBS	No	35.640699	143.840829	111.8	1.579	10.7	9.9	1.98	7507	2.13	171.67
007834063-05	OBS	No	35.965811	154.445244	116.8	1.668	8.9	7.7	1.98	7507	2.17	169.60
007834063-06	OBS	No	58.387917	139.499381	117.5	1.867	9.7	8.6	1.98	7507	2.38	88.89
007834063-07	OBS	No	46.470858	141.315955	115.8	1.458	9.2	8.4	1.98	7507	2.29	120.52
007834063-08	OBS	No	31.340509	159.291414	91.1	2.138	9.0	9.0	1.98	7507	2.09	203.77
007834063-09	OBS	No	21.440669	145.511158	53.4	5.910	9.2	9.9	1.98	7507	1.63	338.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007834063-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—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_FEW_MEAS
007834063-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007834063-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
007834063-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007834063-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007834063-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007834063-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

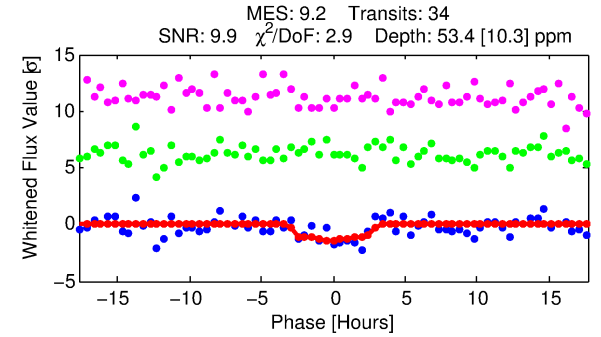
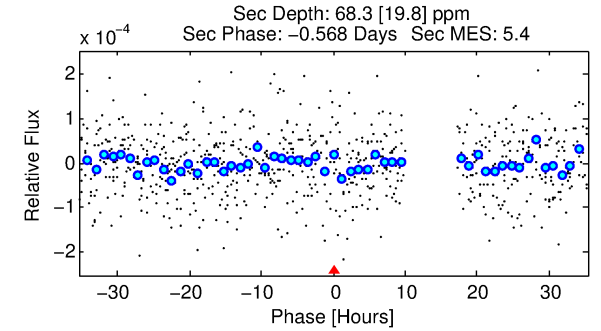
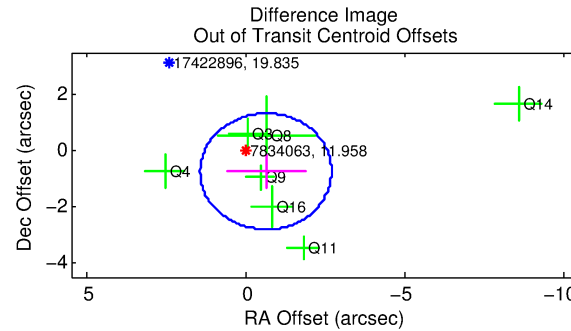
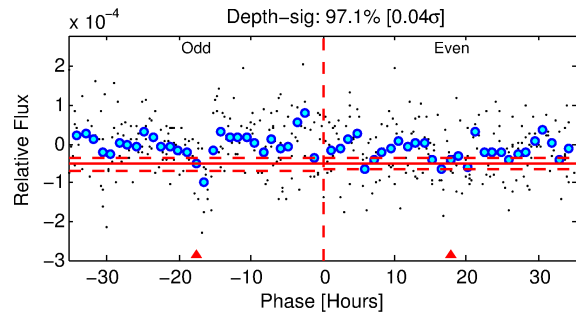
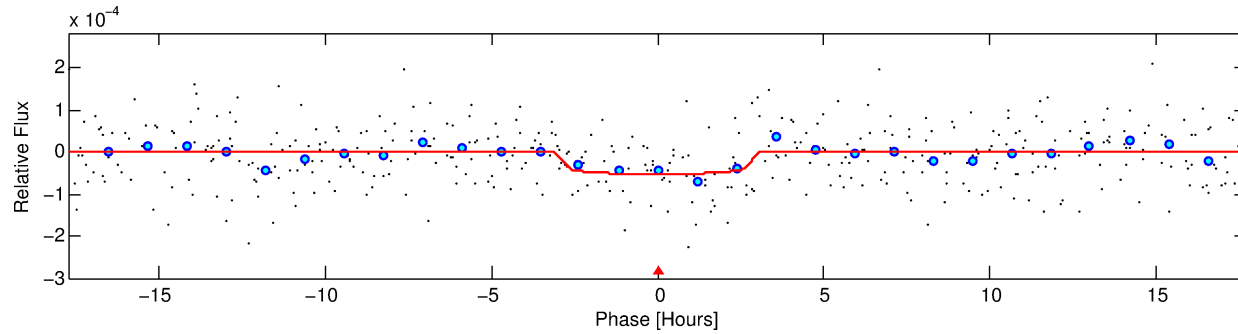
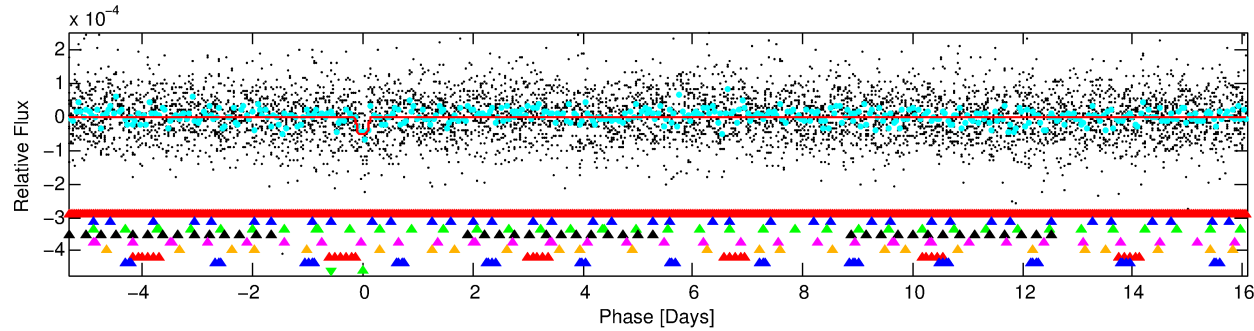
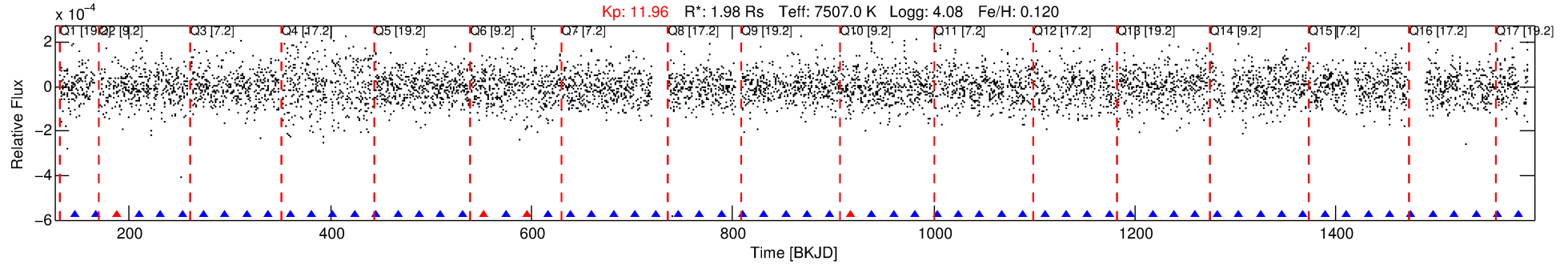
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007834063-09

No Significant Match Found

DV One-Page Summary

KIC: 7834063 Candidate: 9 of 9 Period: 21.441 d



DV Fit Results:

Period = 21.44067 [0.00048] d
Epoch = 145.5112 [0.0171] BKJD
Rp/R* = 0.0076 [0.0055]
a/R* = 14.38 [67.80]
b = 0.86 [1.40]
Seff = 338.04 [126.51]
Teq = 1093 [102] K
Rp = 1.63 [1.27] Re
a = 0.1813 [0.0415] AU
Ag = 463.15 [701.03] [0.66 σ]
Teffp = 7842 [2919] K [2.31 σ]

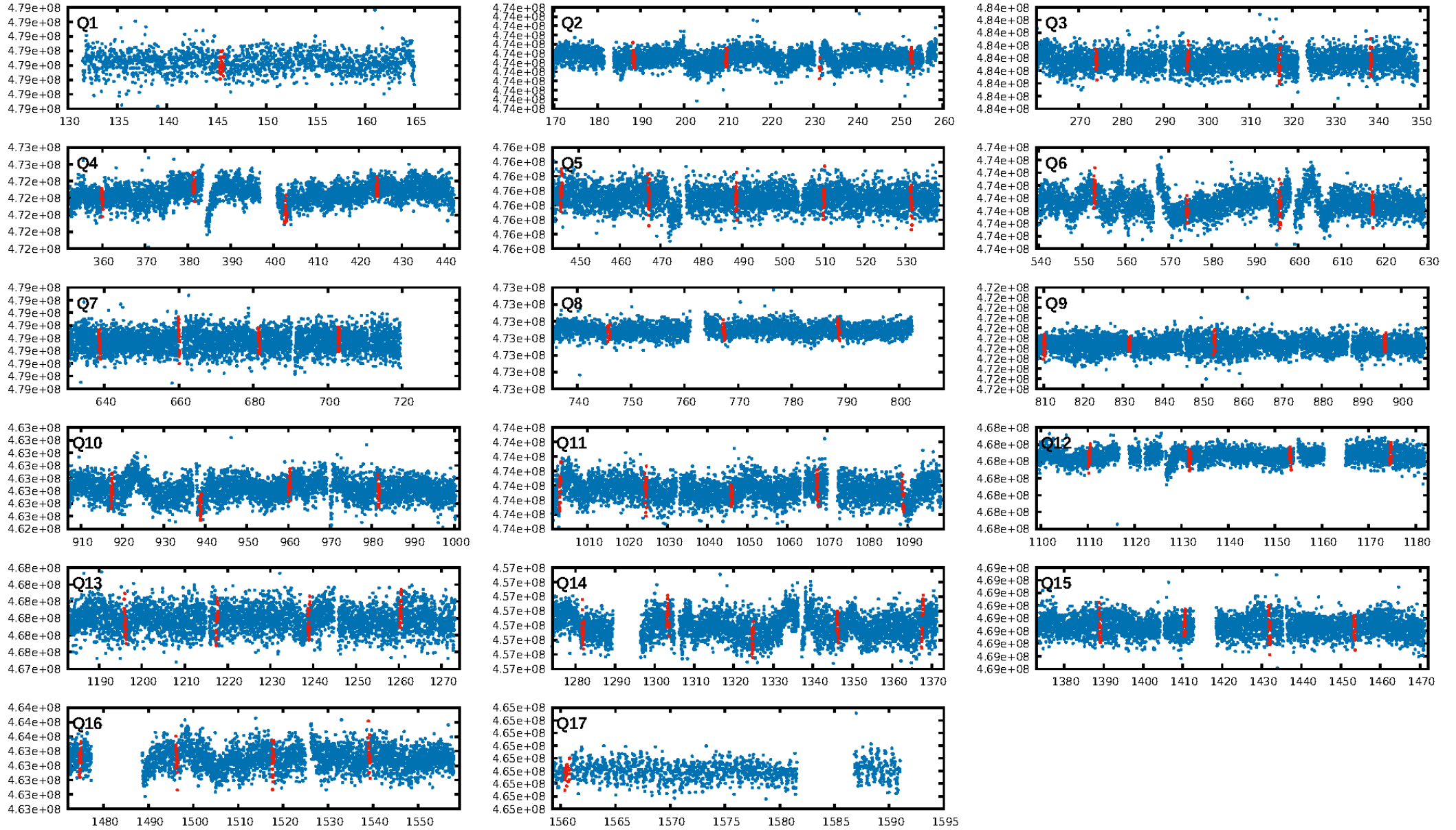
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [70.49 σ]
LongPeriod-sig: 100.0% [37.80 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.44e-11
RollingBand-fgt: 0.88 [28/32]
GhostDiagnostic-chr: -1.99
Centroid-sig: 0.0%
Centroid-so: 1.436 arcsec [2.14 σ]
OotOffset-rm: 0.969 arcsec [1.41 σ]
KicOffset-rm: 0.898 arcsec [1.13 σ]
OotOffset-st: 1/2/3/1 [7]
KicOffset-st: 1/2/3/1 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 0.00 [0/16]

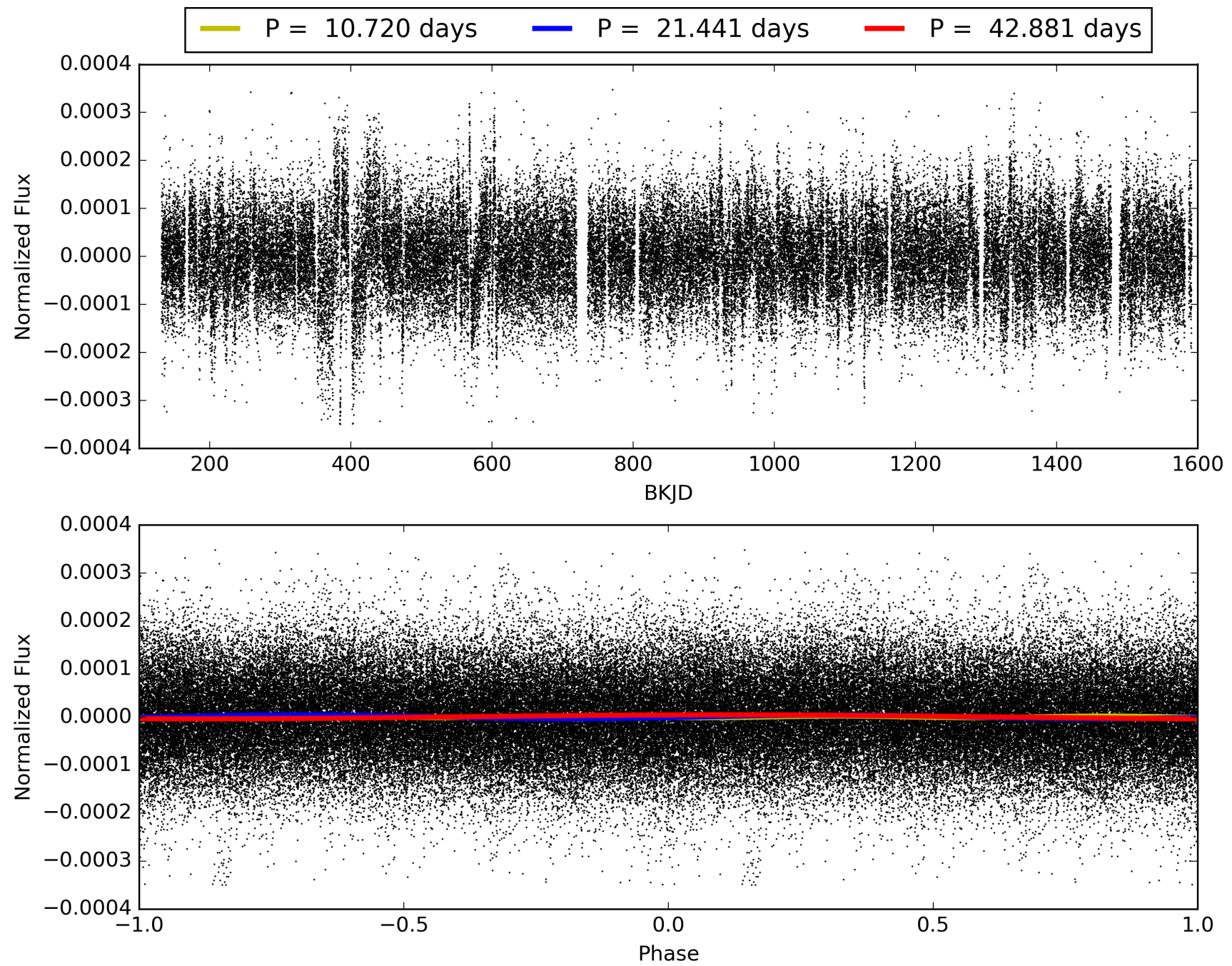
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:20:42 Z

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

TCE 007834063-09, PDC Light Curves

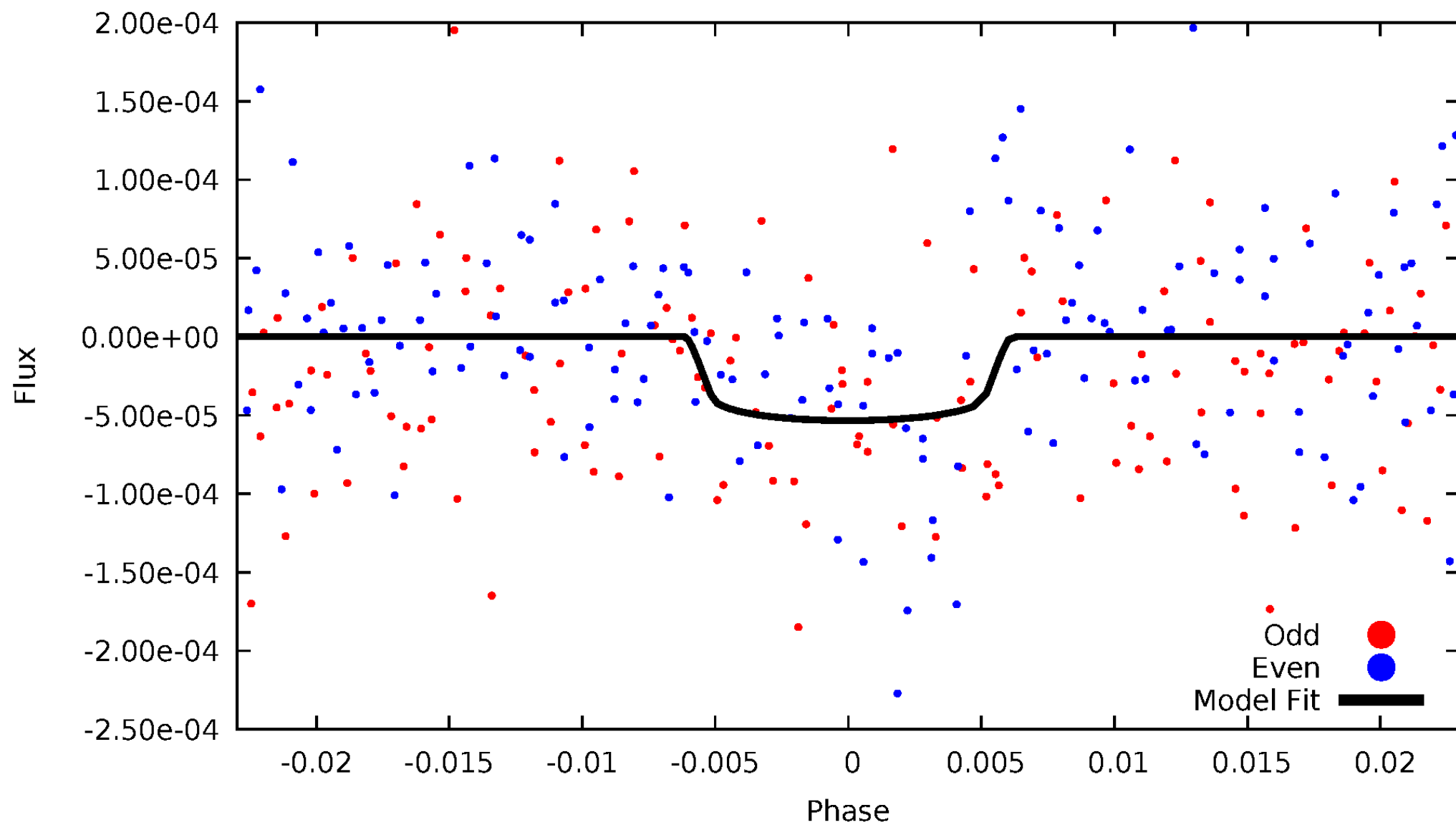


TCE 007834063-09



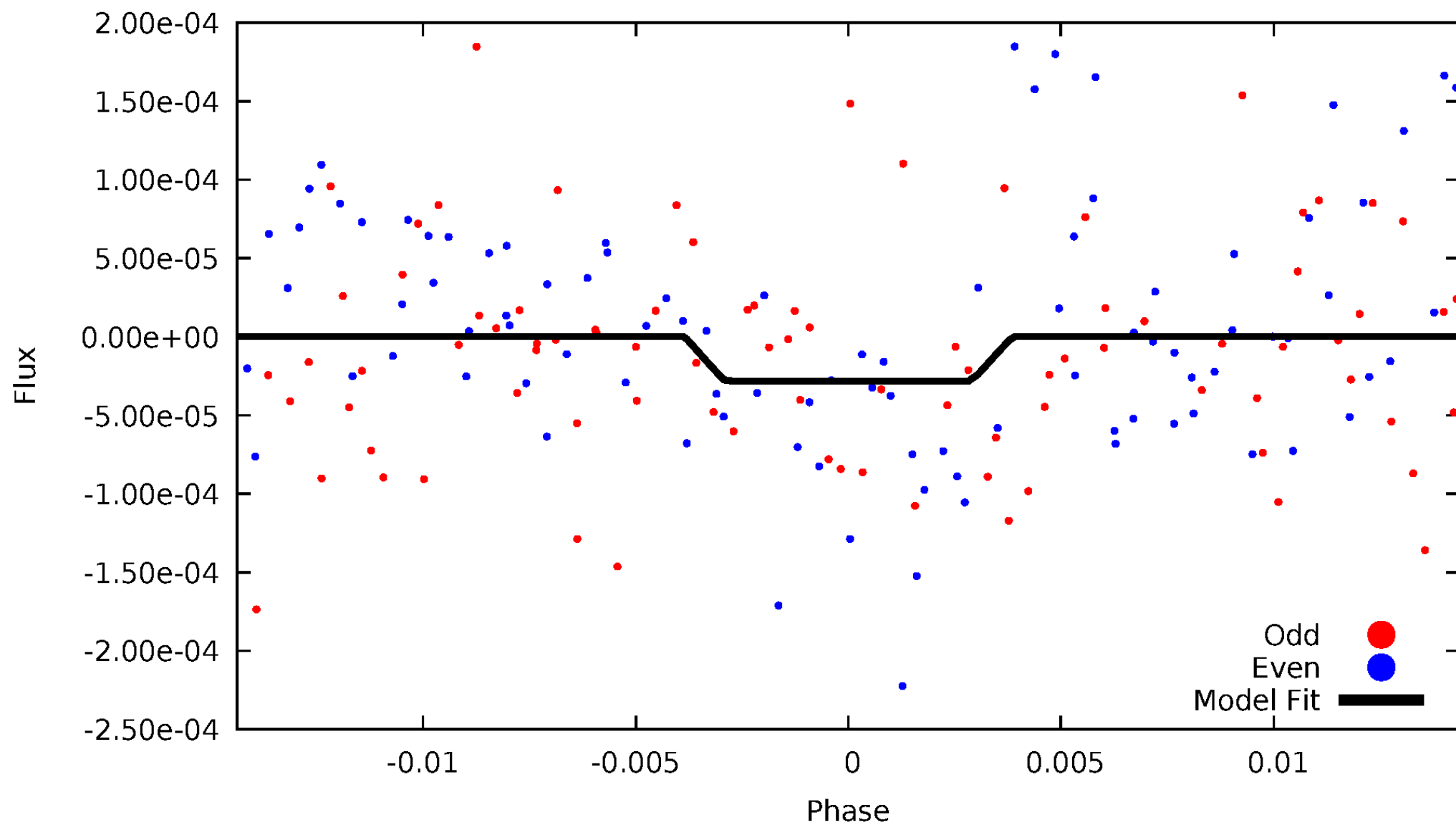
DV Odd/Even

TCE 007834063-09



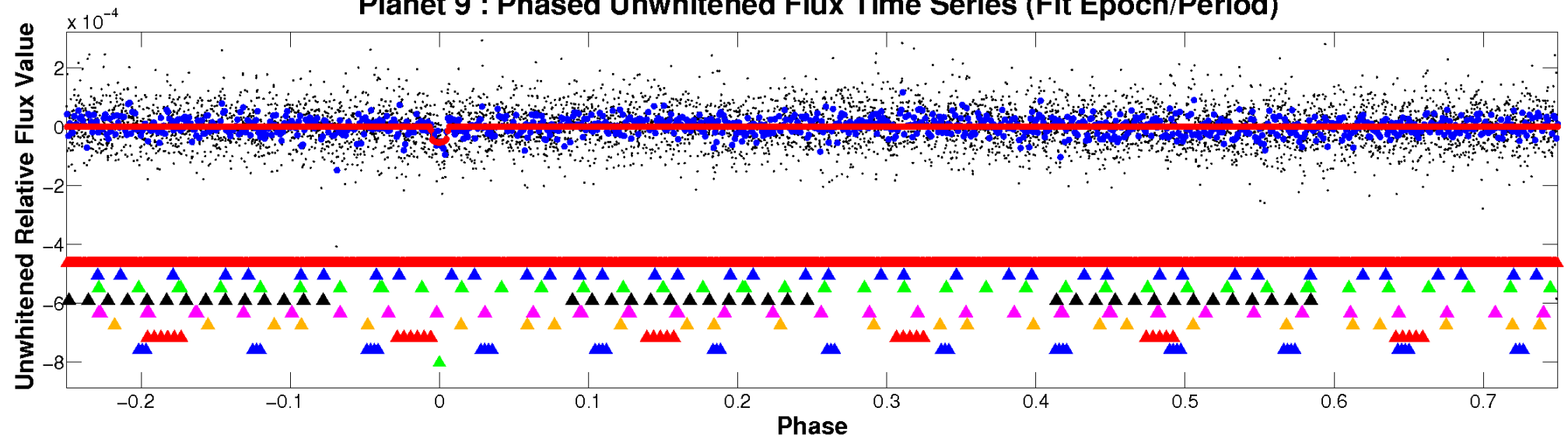
ALT Odd/Even

TCE 007834063-09

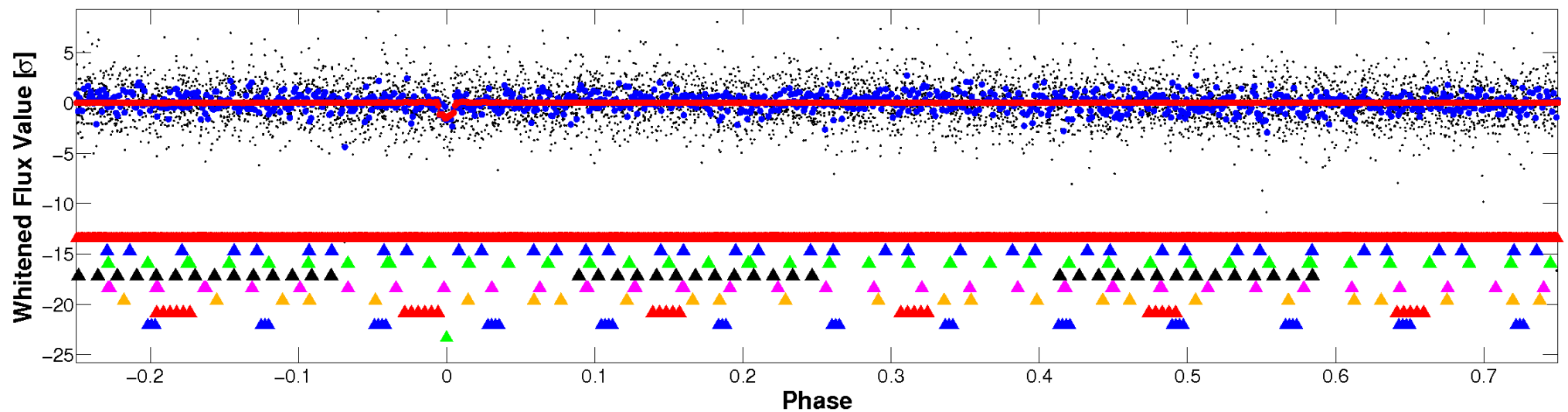


Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

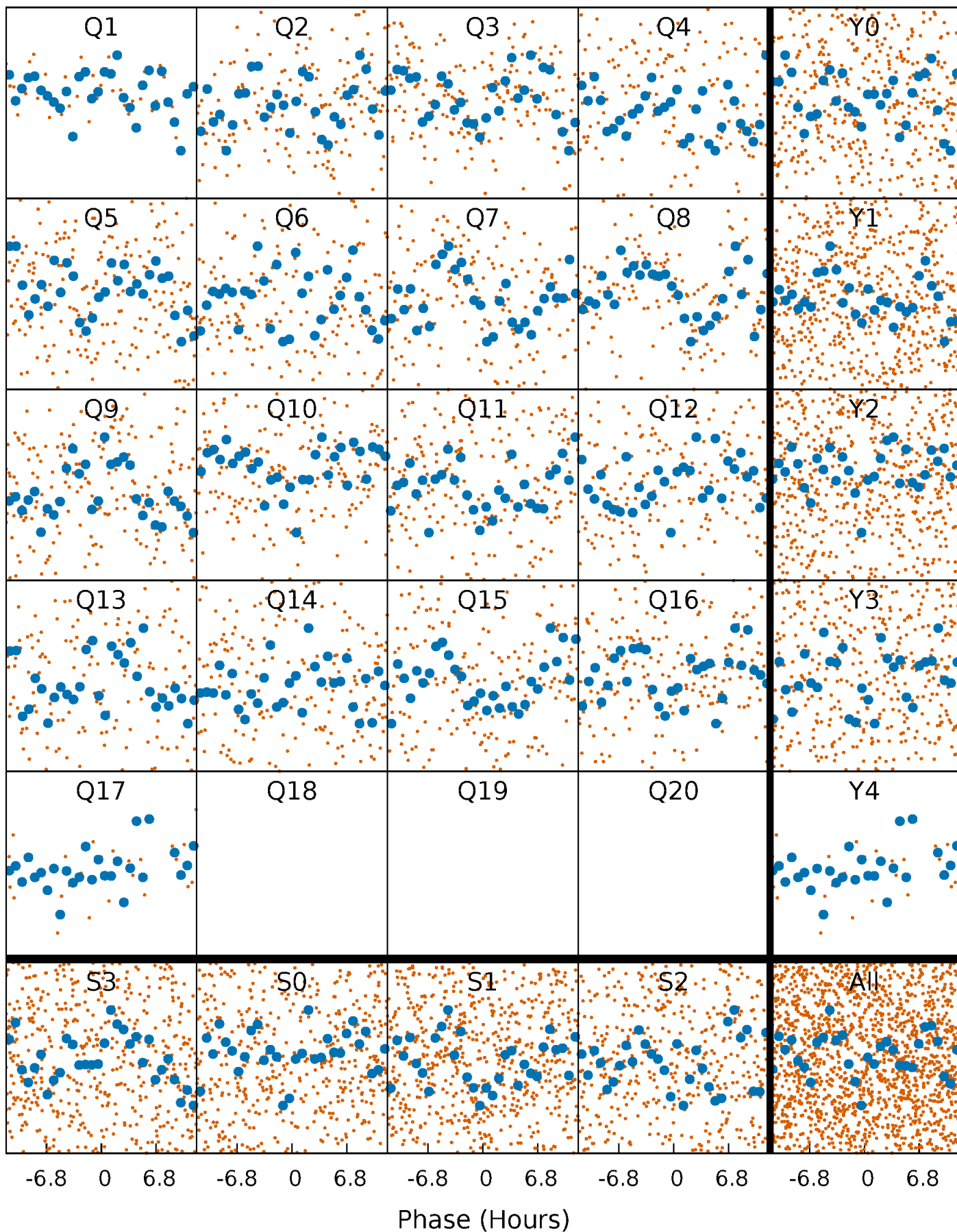


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



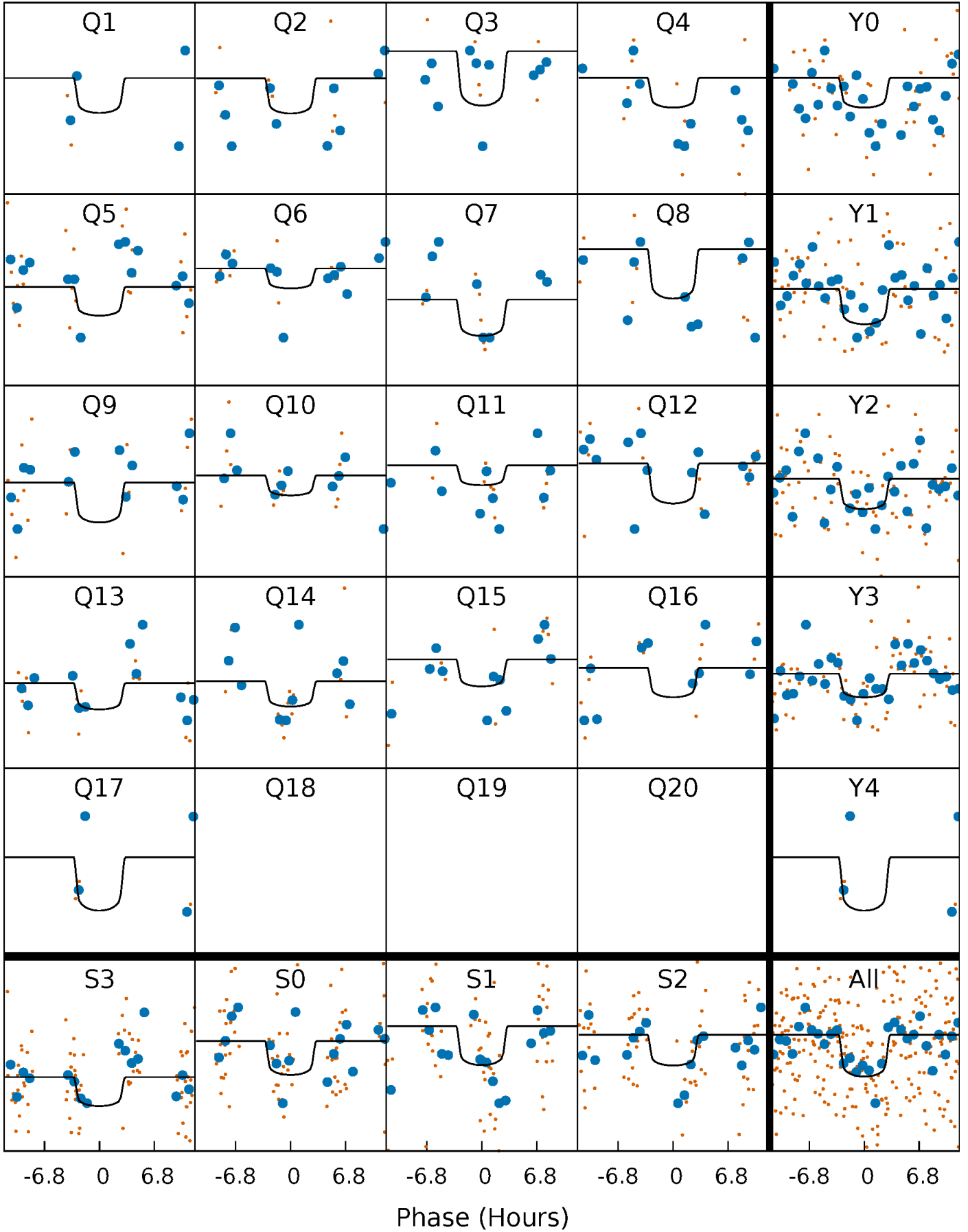
PDC Quarter-Phased Transit Curves

TCE 007834063-09 P= 21.440669 Days $T_0=145.511158$ (BKJD)



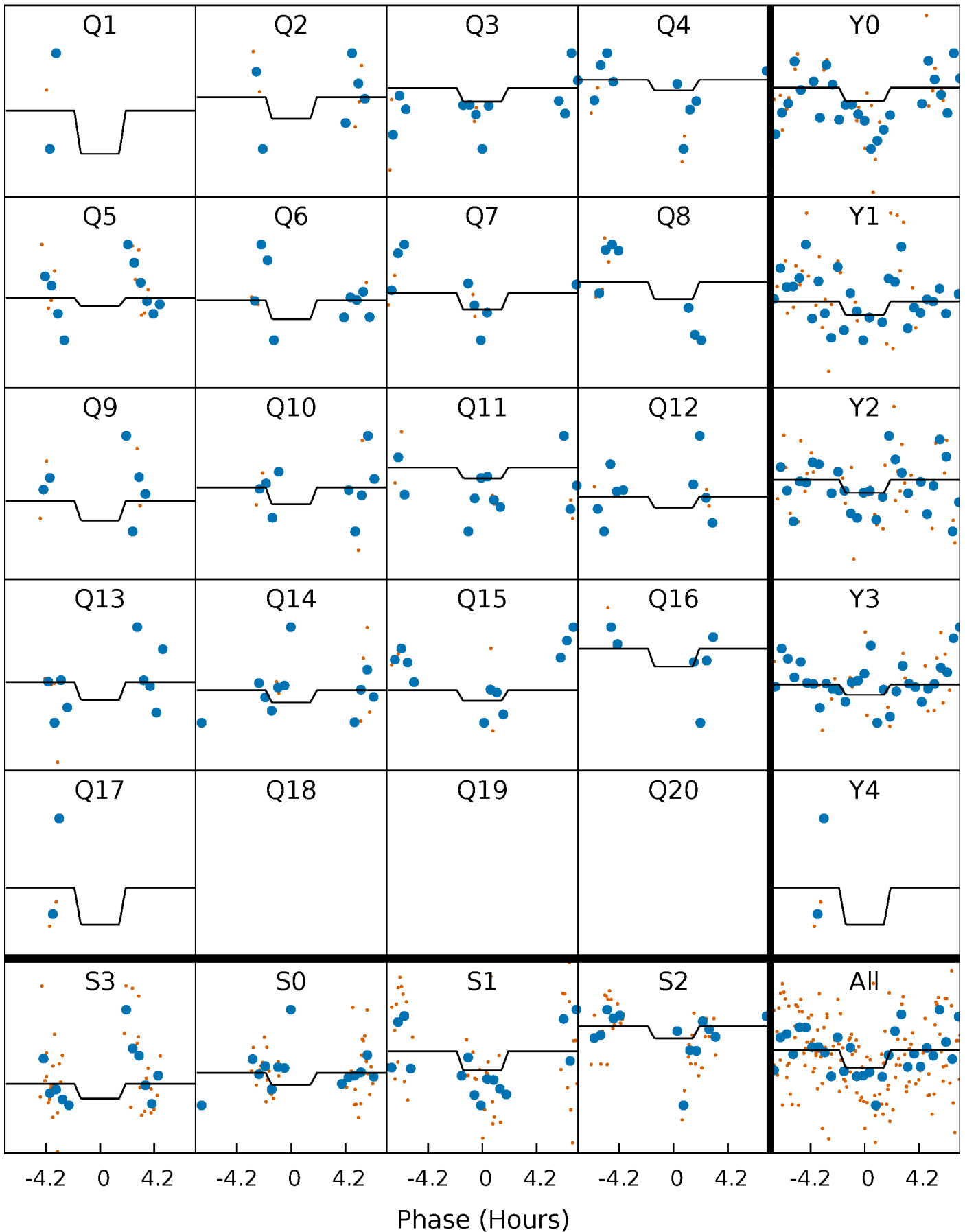
DV Quarter-Phased Transit Curves

TCE 007834063-09 P= 21.440669 Days $T_0=145.511158$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

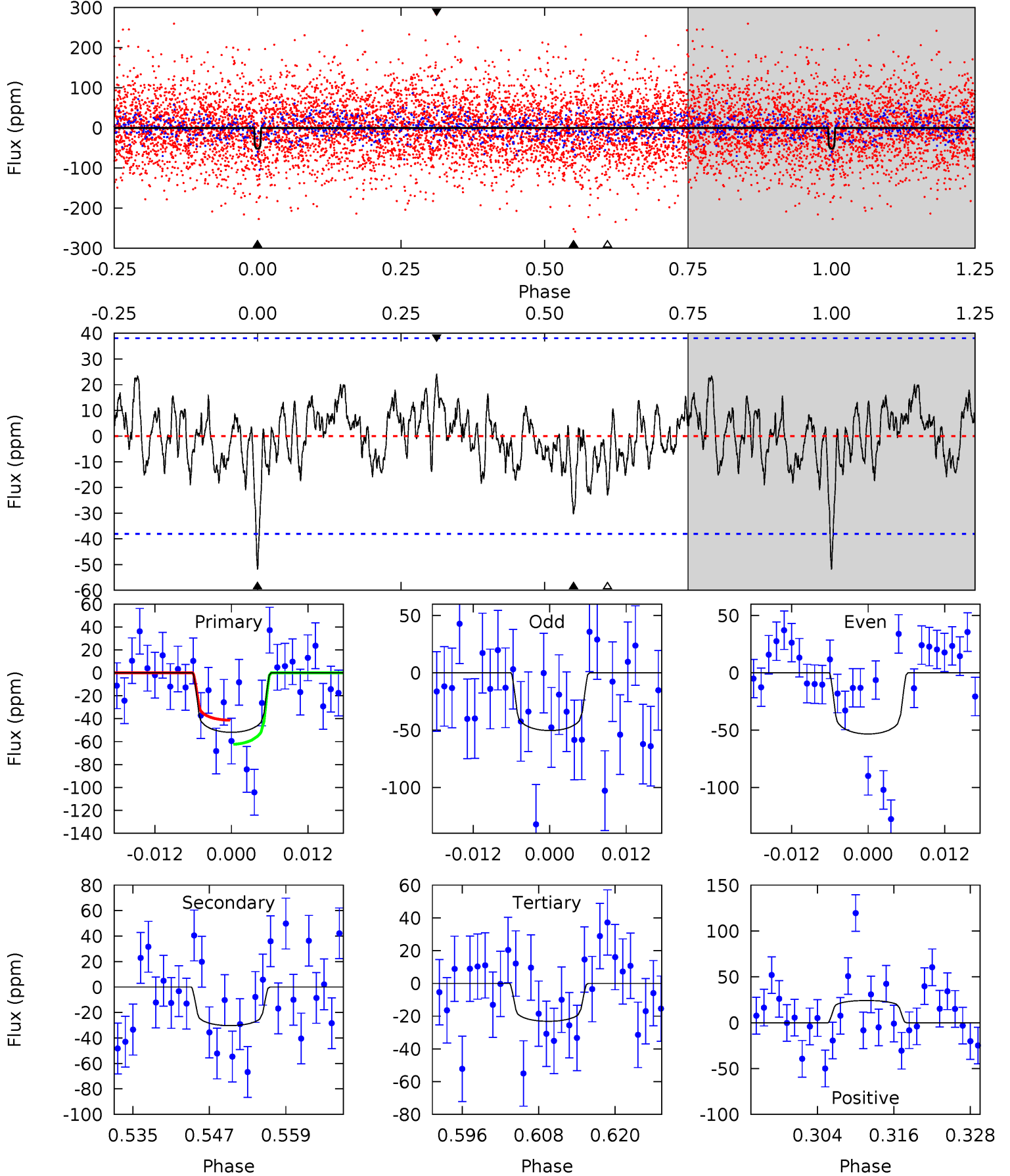
TCE 007834063-09 P= 21.441150 Days $T_0=145.518631$ (BKJD)



DV Model-Shift Uniqueness Test

007834063-09, P = 21.440669 Days, E = 124.070489 Days

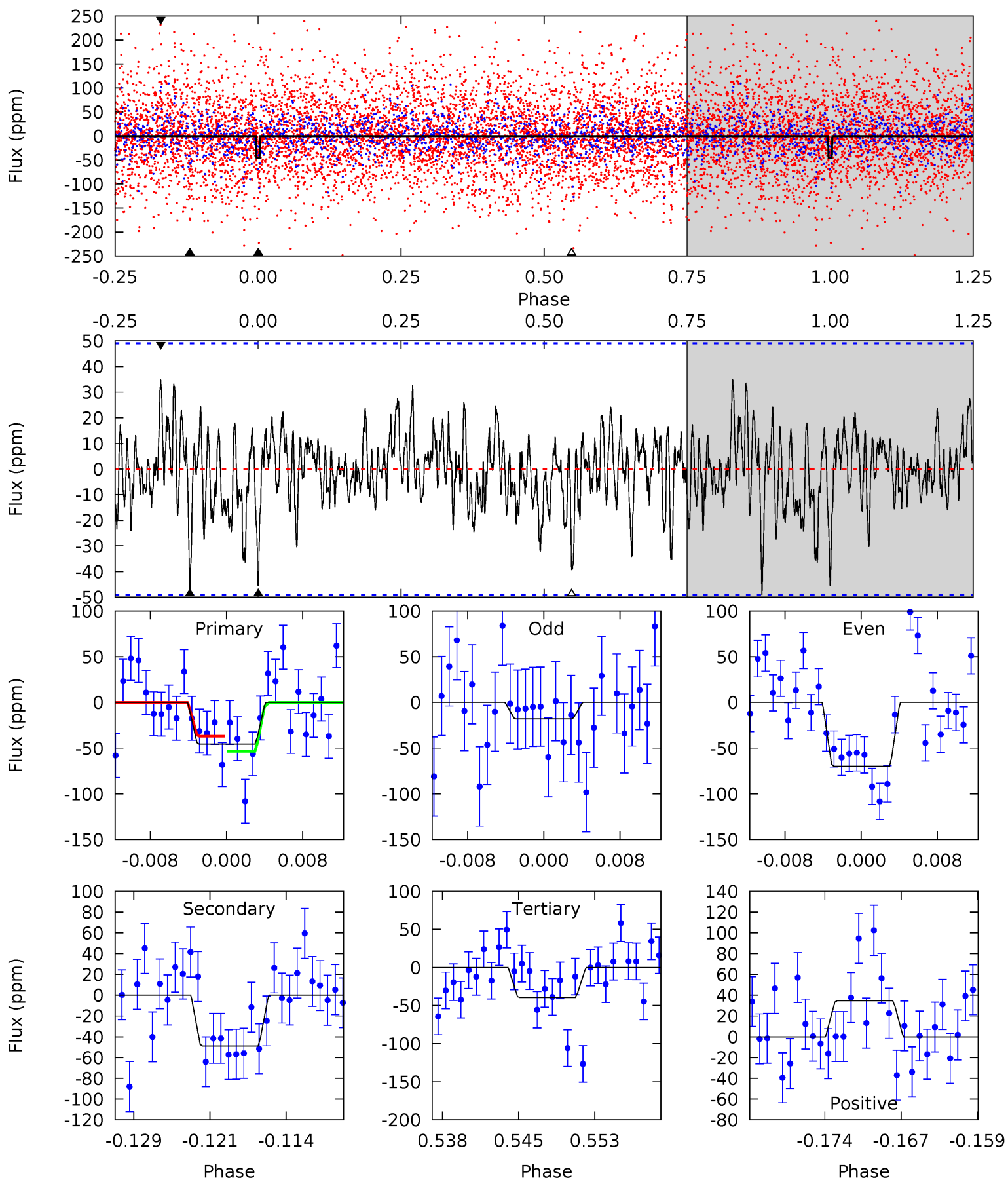
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.80	3.97	3.03	3.17	4.99	2.51	1.18	3.77	3.63	0.94	0.80	0.20	0.95	0.32	1.39



Alt Model-Shift Uniqueness Test

007834063-09, P = 21.441150 Days, E = 124.077481 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.72	5.08	4.08	3.58	5.08	2.67	1.26	0.64	1.14	0.99	1.50	2.67	0.95	0.41	0.86



Stellar Parameters For KIC 007834063

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7507^{+210}_{-341}	$4.084^{+0.144}_{-0.176}$	$0.120^{+0.150}_{-0.400}$	$1.976^{+0.547}_{-0.398}$	$1.726^{+0.195}_{-0.293}$	$0.315^{+0.235}_{-0.157}$
	+3%/-5%	+4%/-4%	+125%/-333%	+28%/-20%	+11%/-17%	+75%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007834063-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-30 ± 8	$1.71^{+1.21}_{-0.95}$	1538^{+105}_{-110}	6120^{+3691}_{-1317}	180^{+709}_{-118}
Alt.	-49 ± 10	$1.42^{+1.15}_{-0.90}$	1532^{+109}_{-103}	7907^{+8754}_{-2244}	442^{+2637}_{-306}

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

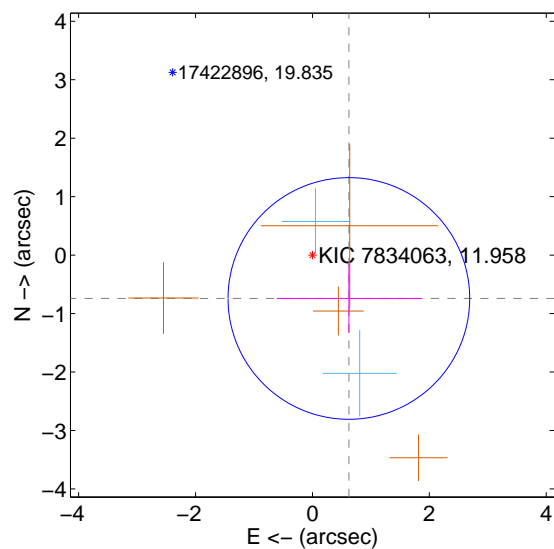
Supplemental centroid analysis for 007834063-09. **Kepler magnitude: 11.96.** Transit SNR 9.87

There are 2 quarters with good PRF difference image offsets

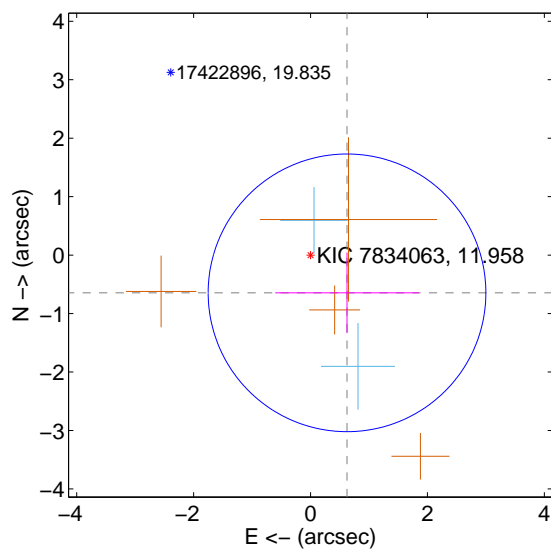
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.969 ± 0.689	1.41	-0.623 ± 1.235	-0.742 ± 0.588
PRF-fit source offset from KIC position	0.898 ± 0.792	1.13	-0.624 ± 1.229	-0.645 ± 0.689
photometric centroid source offset	1.44 ± 0.67	2.14	-0.35 ± 0.62	-1.39 ± 0.67

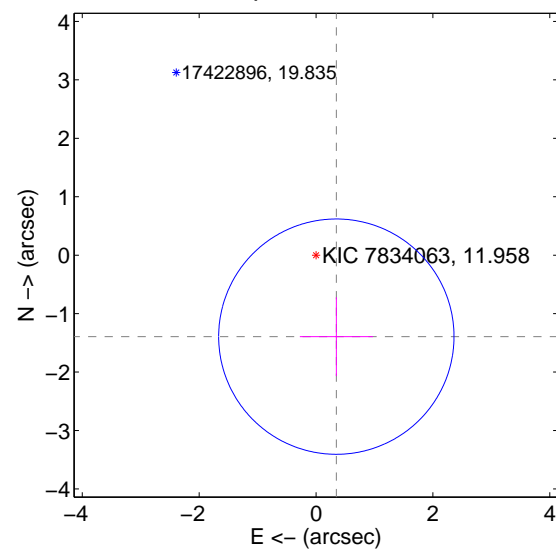
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

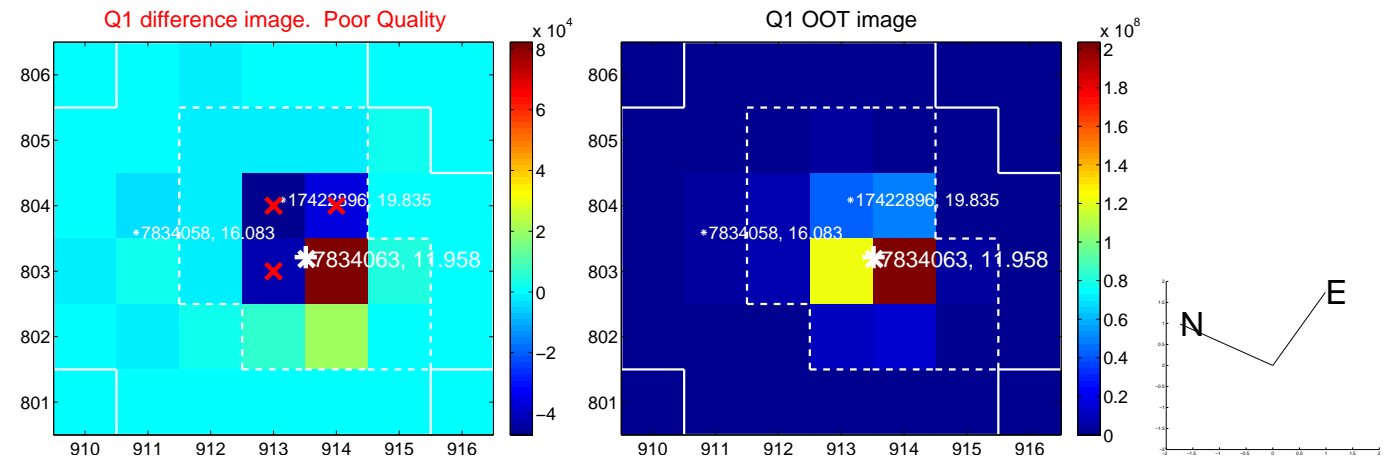


offset from photometric centroids

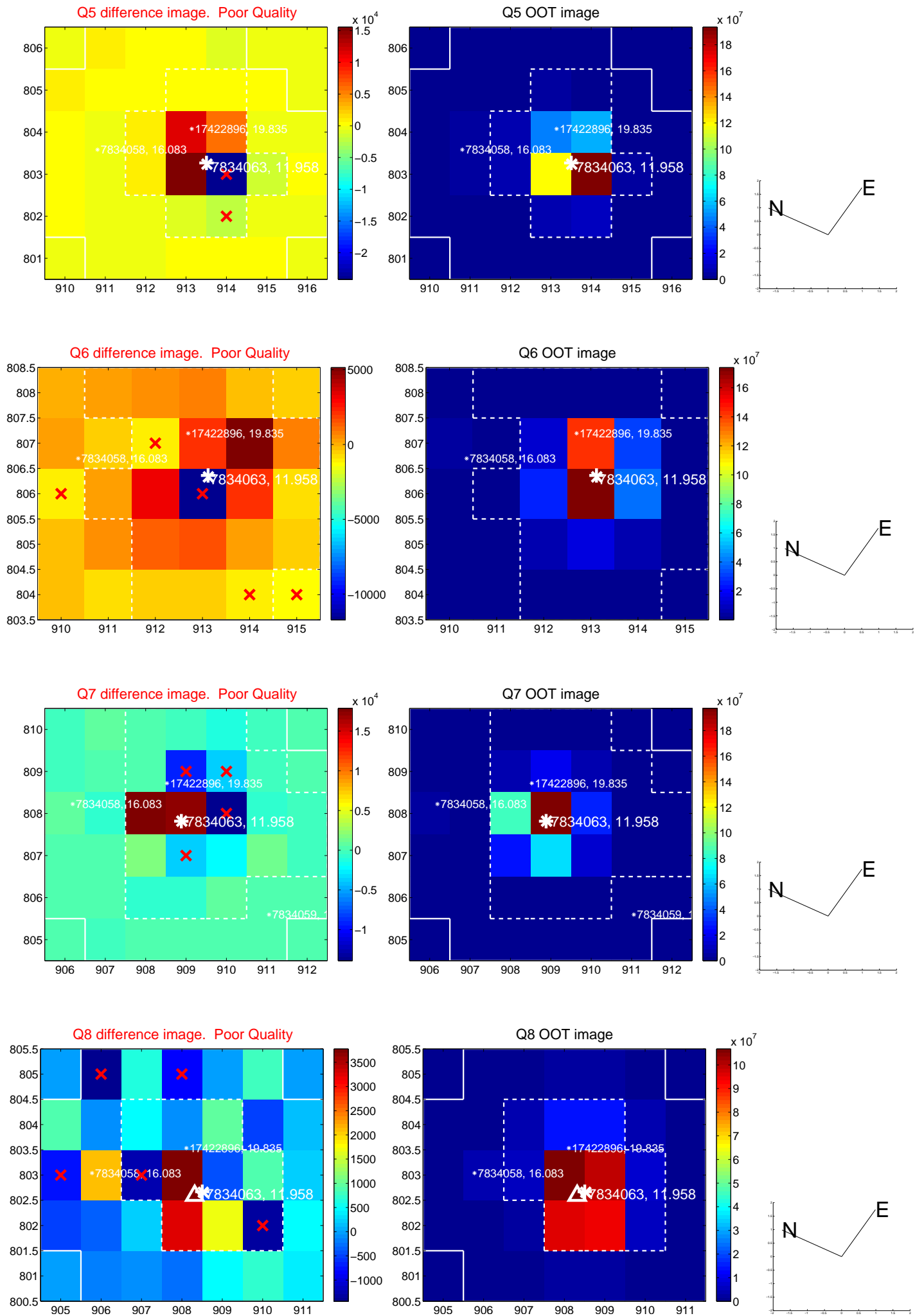


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

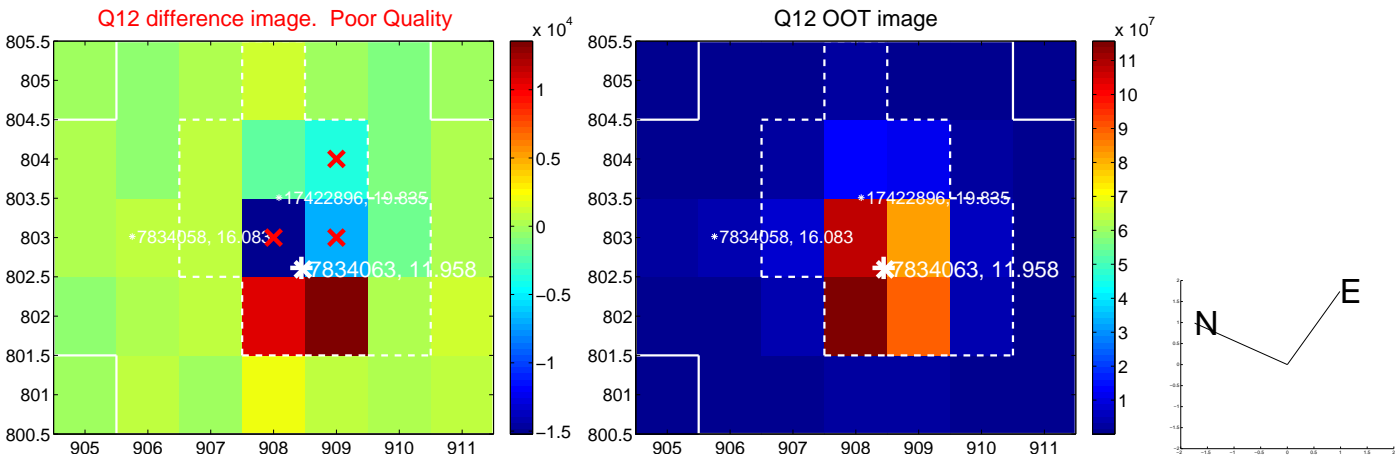
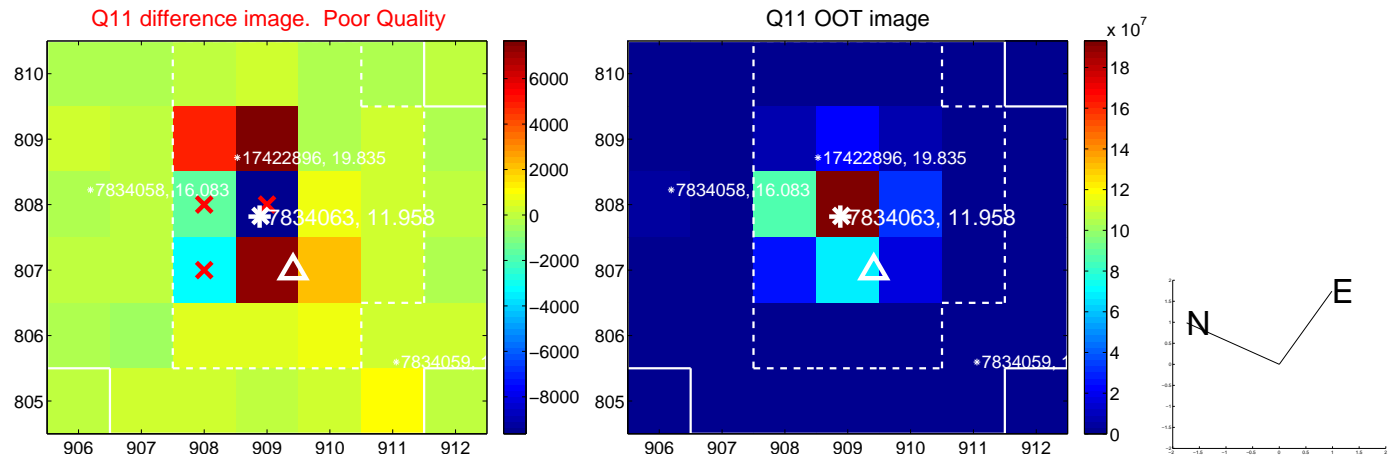
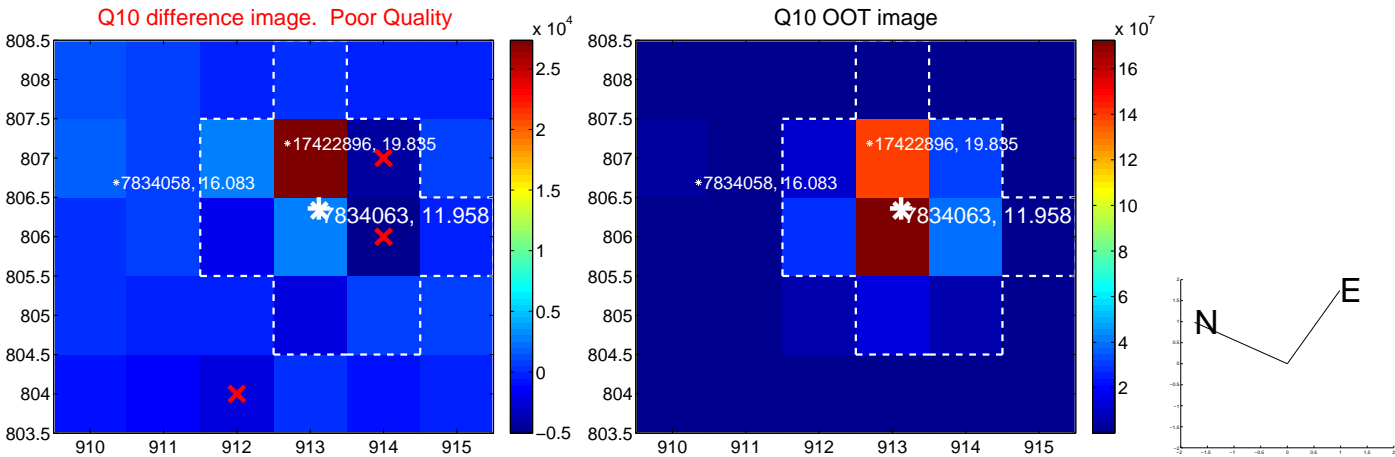
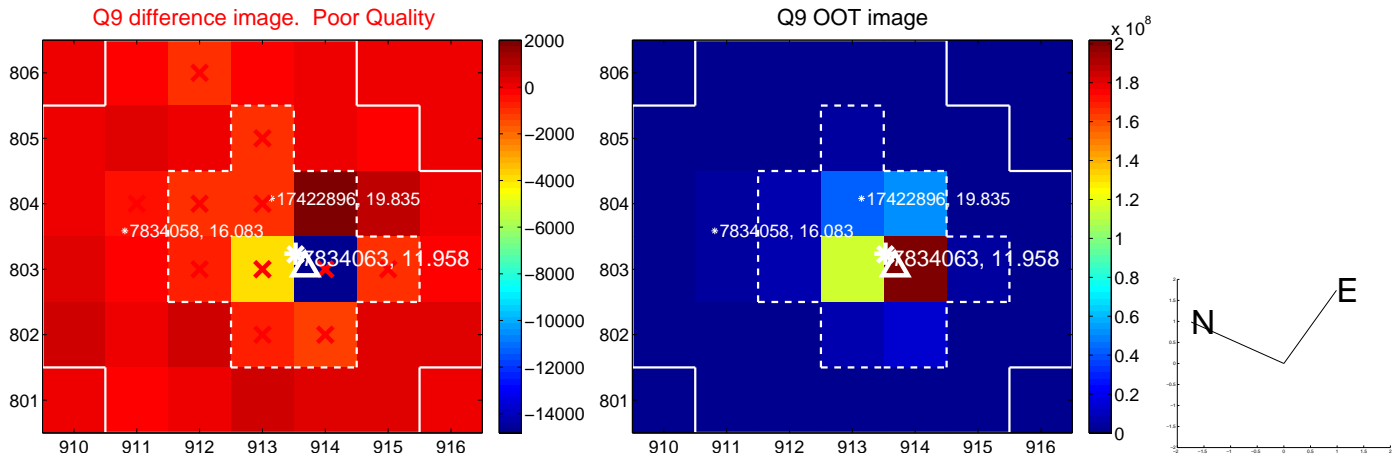
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



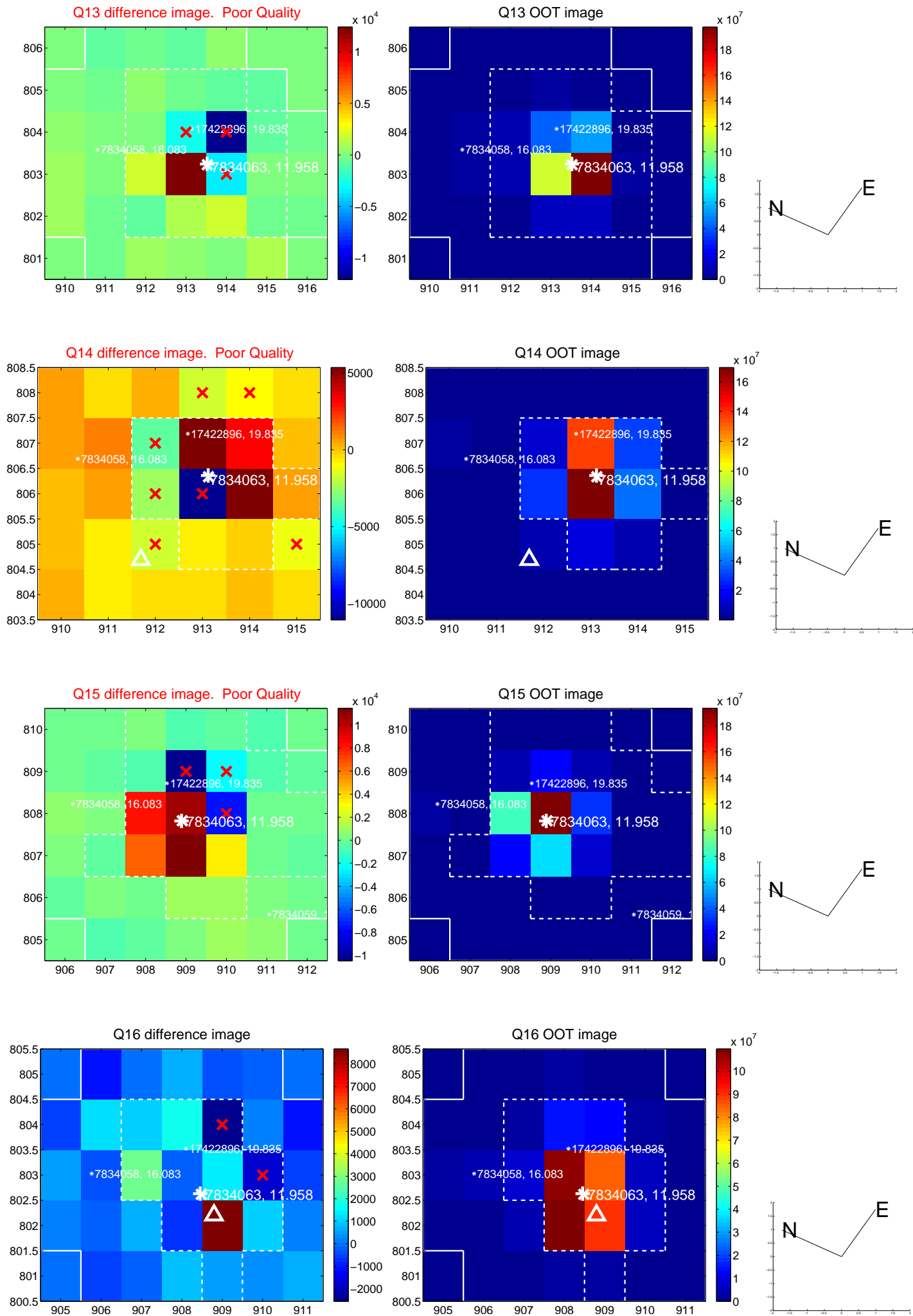
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



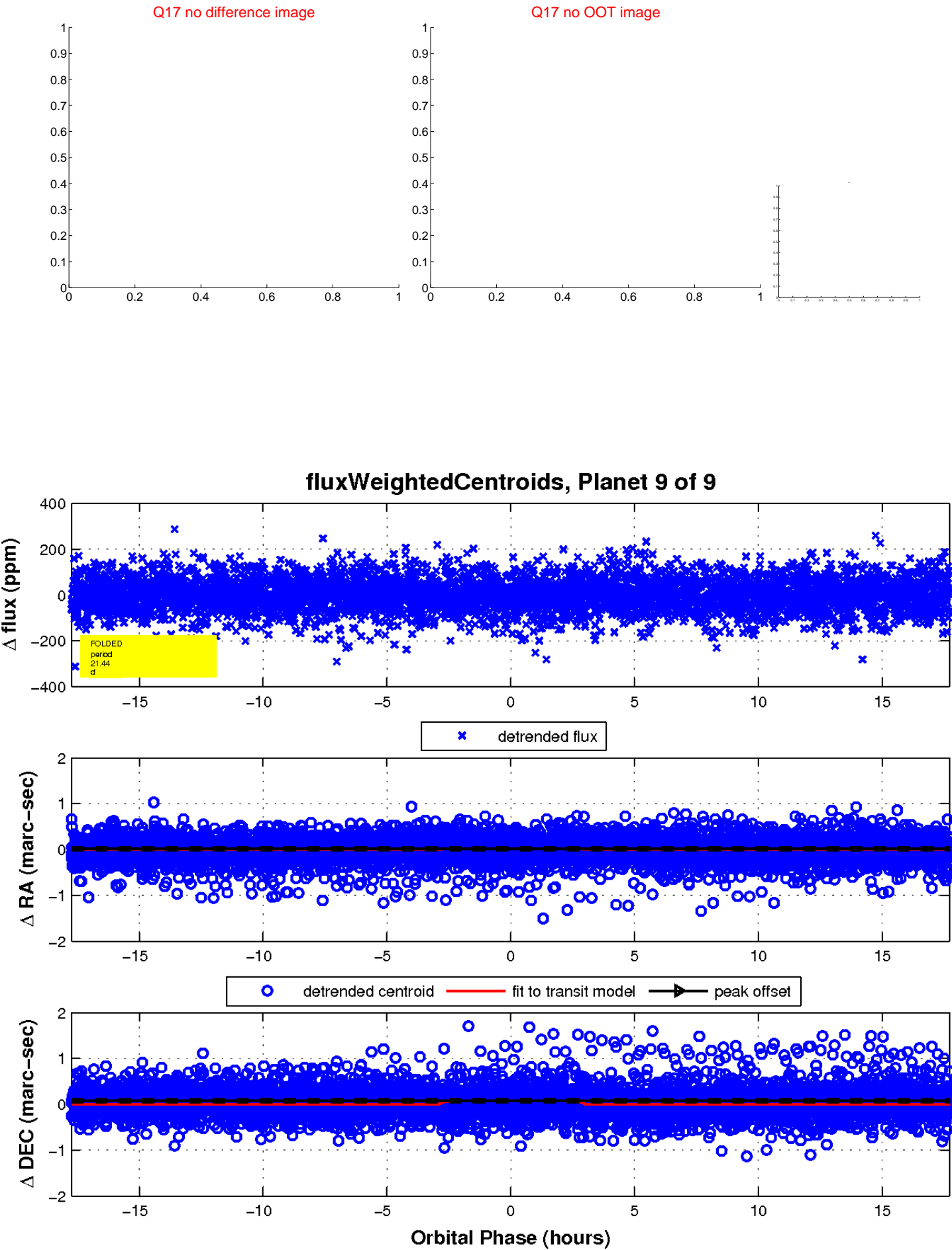
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

