

KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
008479655-02	OBS	No	648.078134	149.744822	977.8	6.680	23.8	12.3	0.64	5277	2.06	0.18
008479655-03	OBS	No	477.564643	454.191951	684.9	2.018	15.6	8.8	0.64	5277	1.85	0.27
008479655-04	OBS	No	501.519123	277.736281	739.8	3.022	14.7	10.0	0.64	5277	1.81	0.25
008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
008479655-07	OBS	No	359.903186	289.707065	410.9	3.000	12.8	-1.0	0.64	5277	1.29	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008479655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

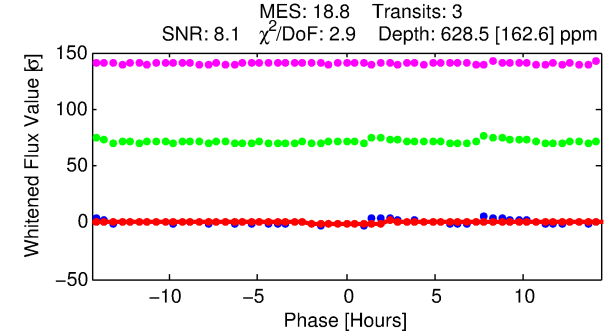
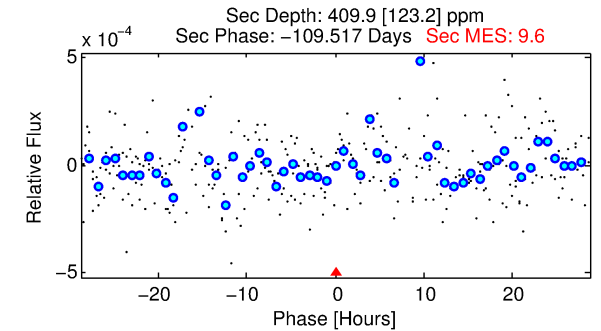
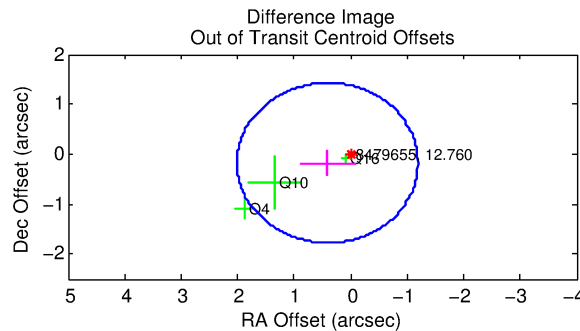
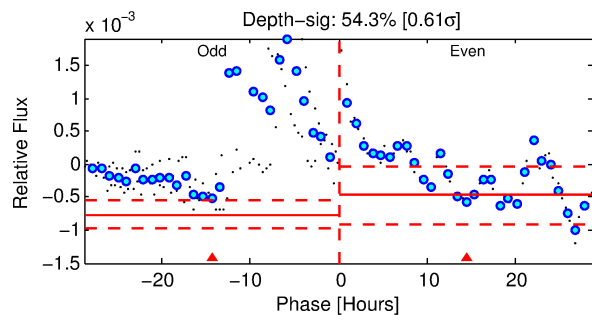
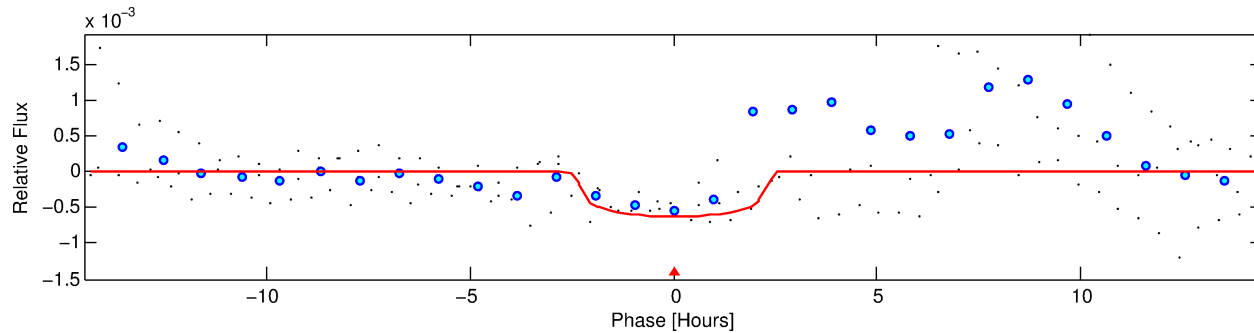
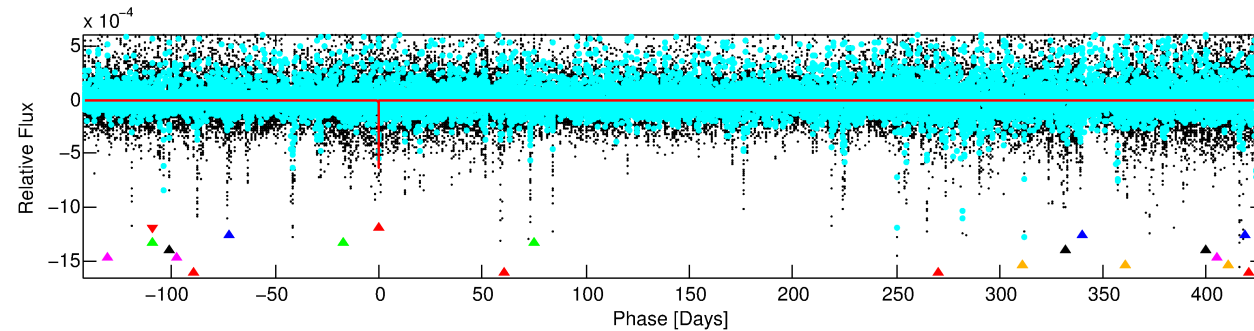
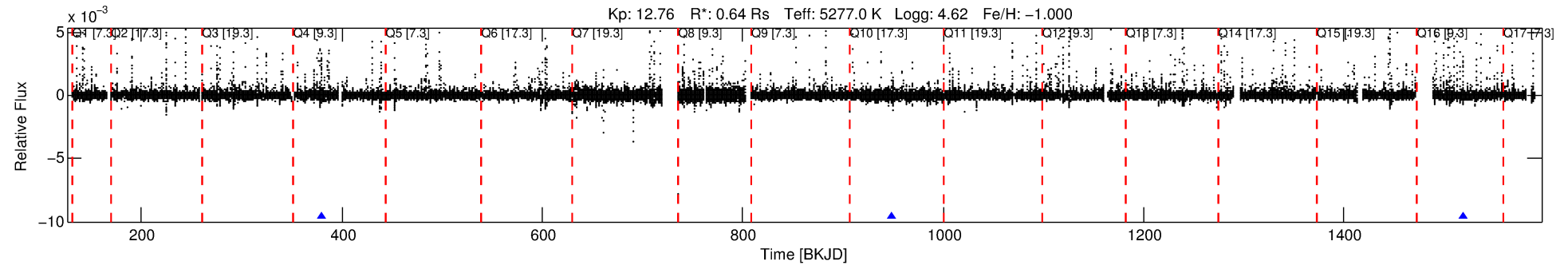
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-01

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 1 of 7 Period: 569.611 d



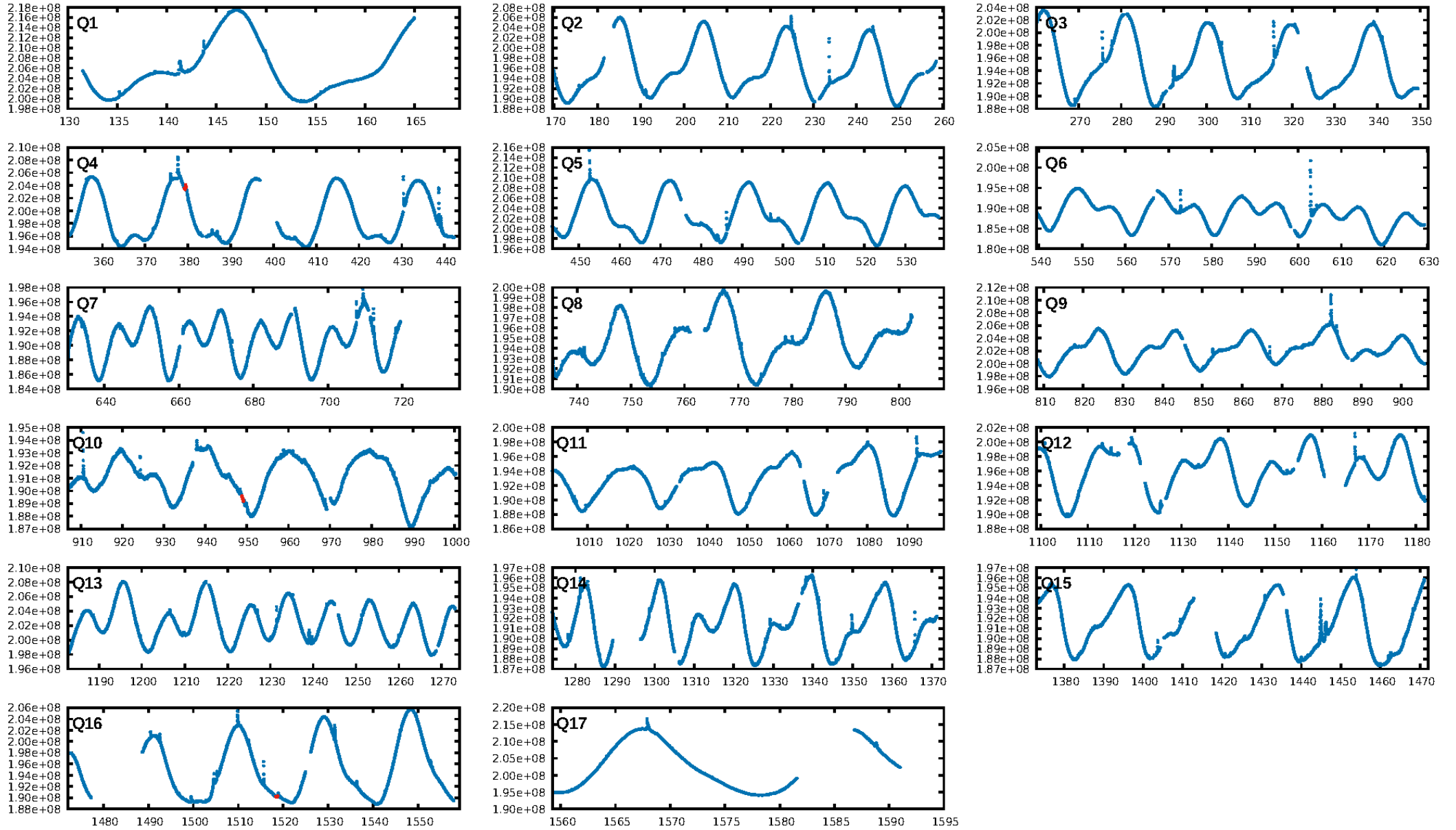
DV Fit Results:

Period = 569.61071 [0.01043] d
Epoch = 379.3643 [0.0158] BKJD
Rp/R* = 0.0247 [0.0156]
a/R* = 660.60 [1746.03]
b = 0.72 [1.80]
Seff = 0.21 [0.04]
Teq = 173 [7] K
Rp = 1.72 [1.10] Re
a = 1.1531 [0.0838] AU
Ag = 101139.05 [132436.03] [0.76σ]
Teffp = 4782 [1566] K [2.94σ]

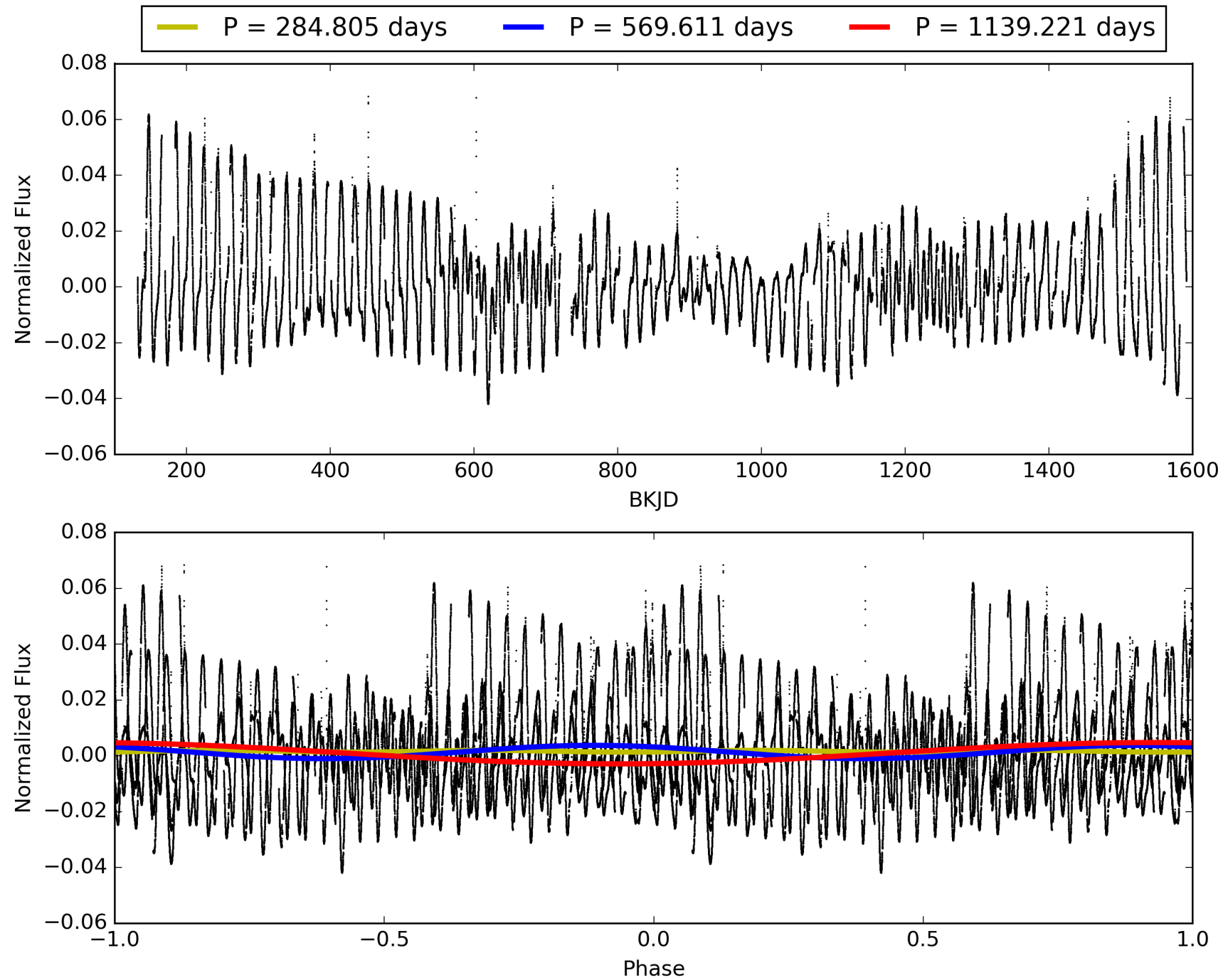
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [140.49σ]
LongPeriod-sig: 100.0% [98.80σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 38.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.6578
Centroid-sig: 0.7%
Centroid-so: 0.648 arcsec [1.55σ]
OotOffset-rm: 0.446 arcsec [0.84σ]
KicOffset-rm: 0.520 arcsec [1.04σ]
OotOffset-st: 1/0/2/0 [3]
KicOffset-st: 1/0/2/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008479655-01, PDC Light Curves

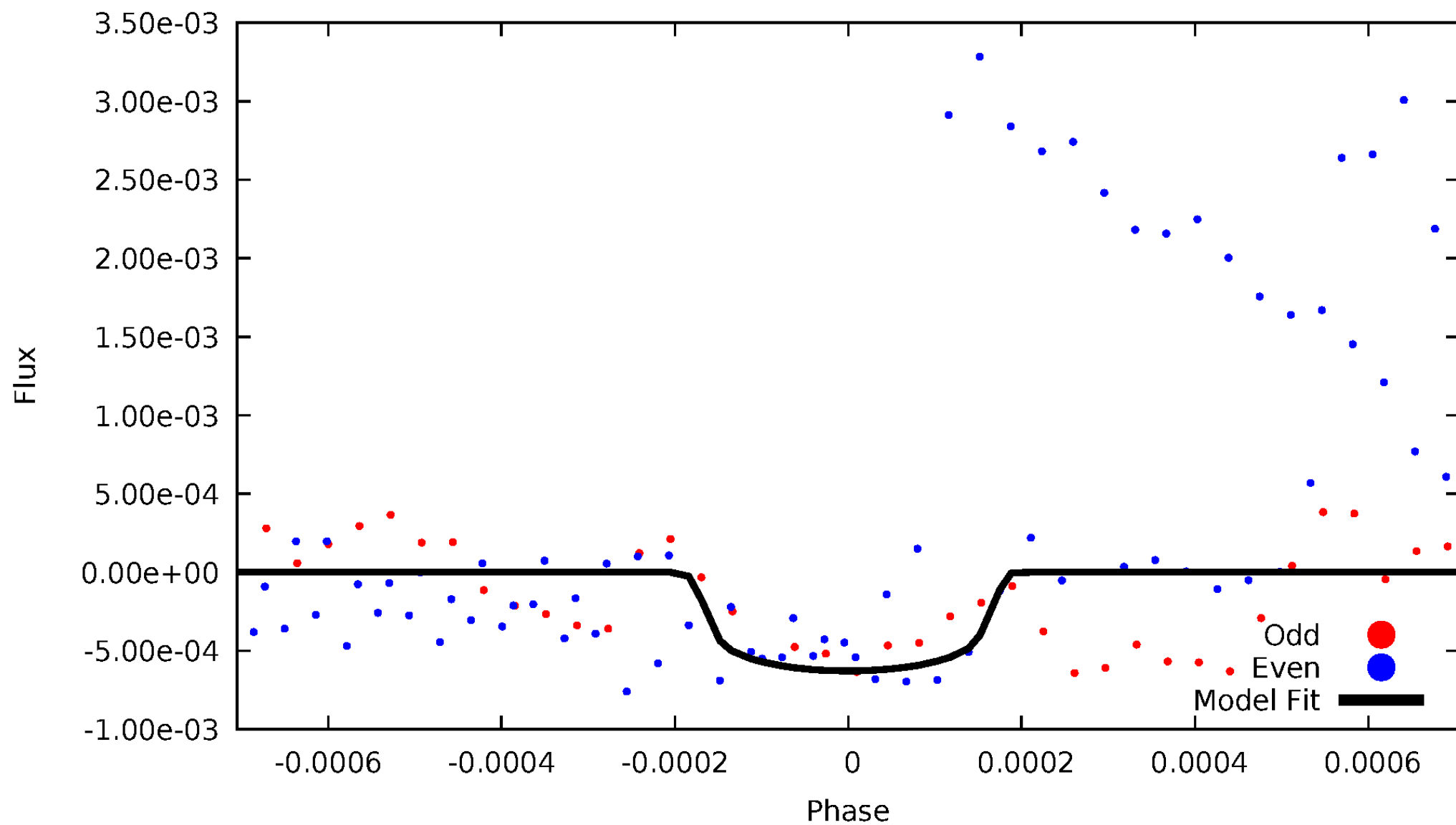


TCE 008479655-01



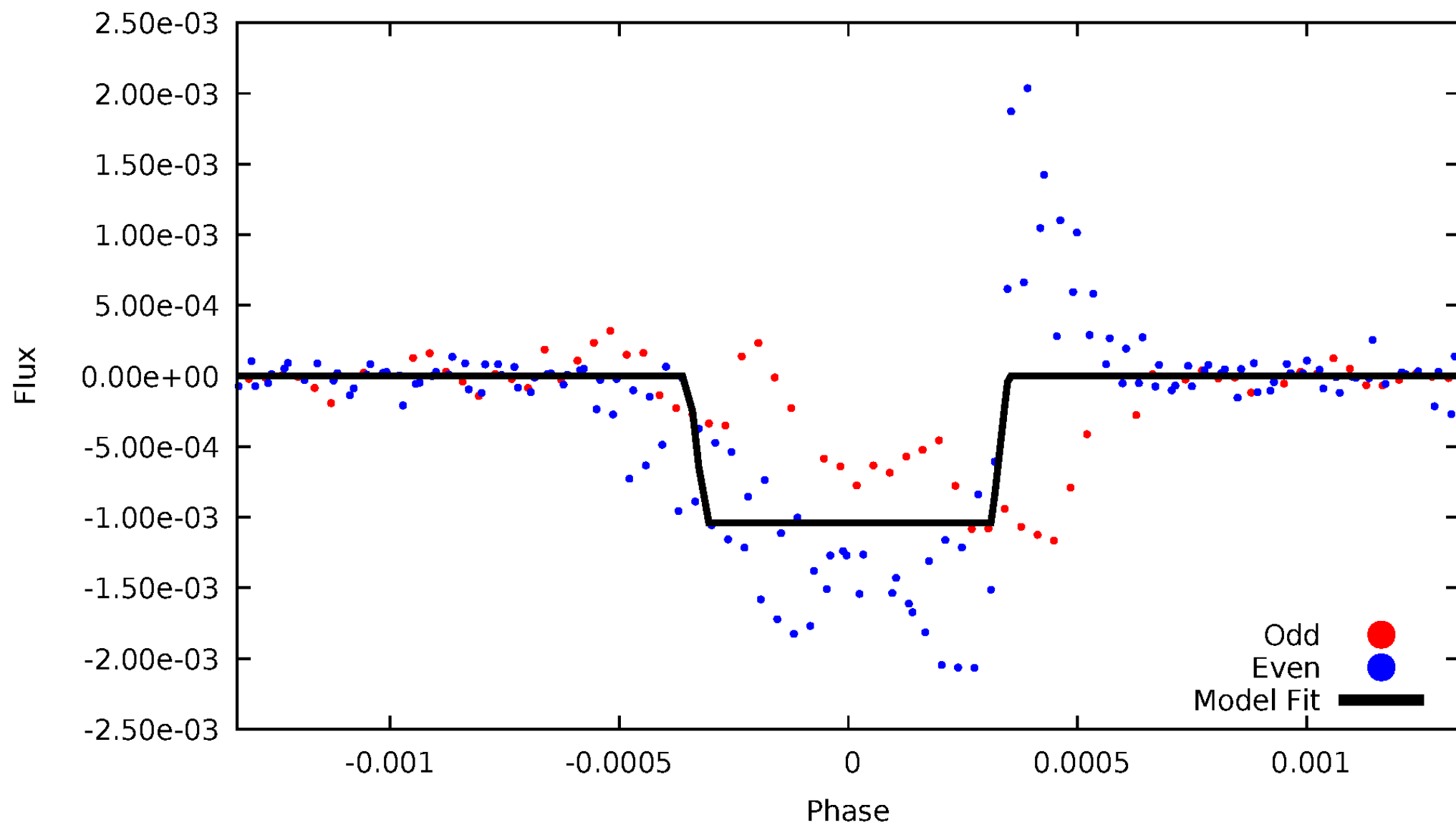
DV Odd/Even

TCE 008479655-01



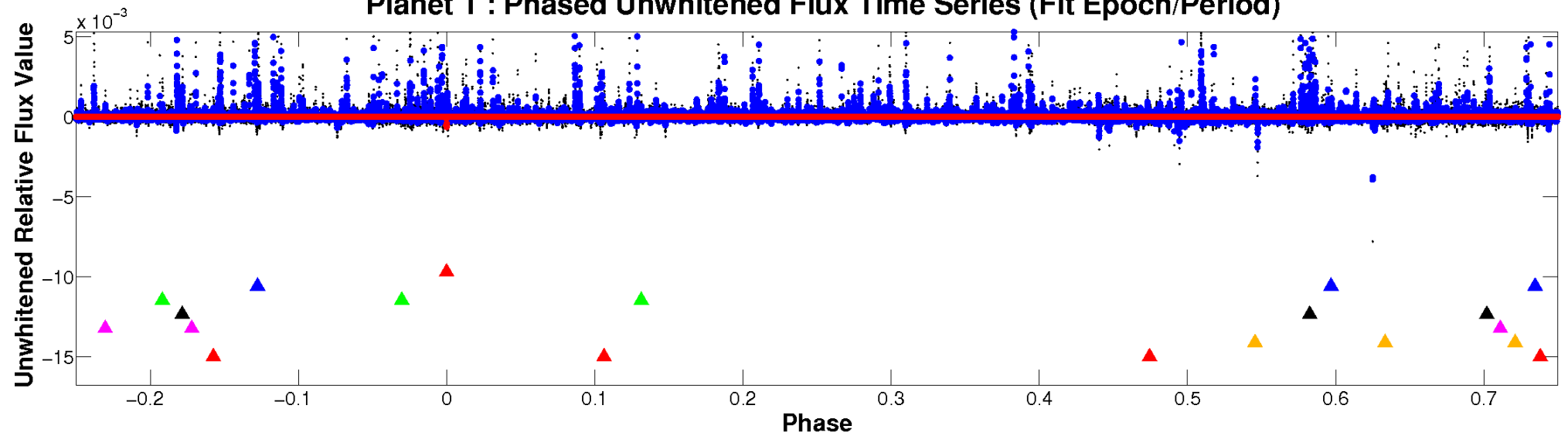
ALT Odd/Even

TCE 008479655-01

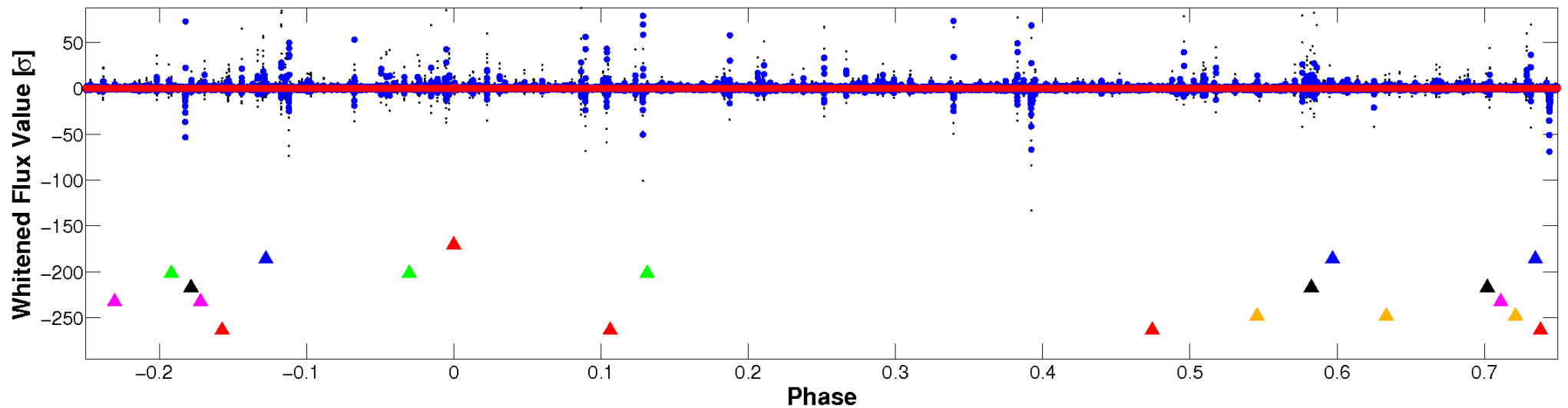


Non-Whitened Vs. Whitened Light Curve

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

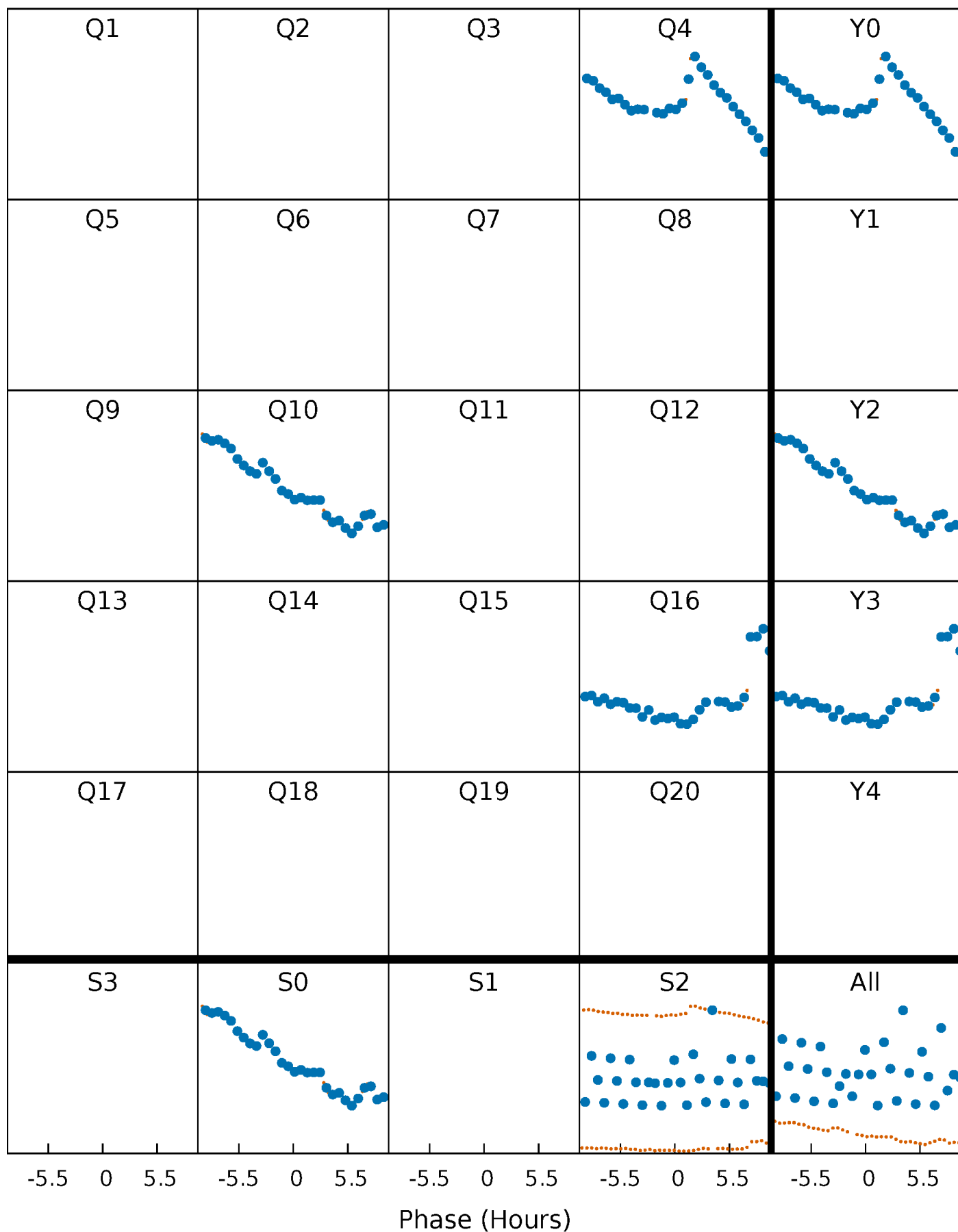


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



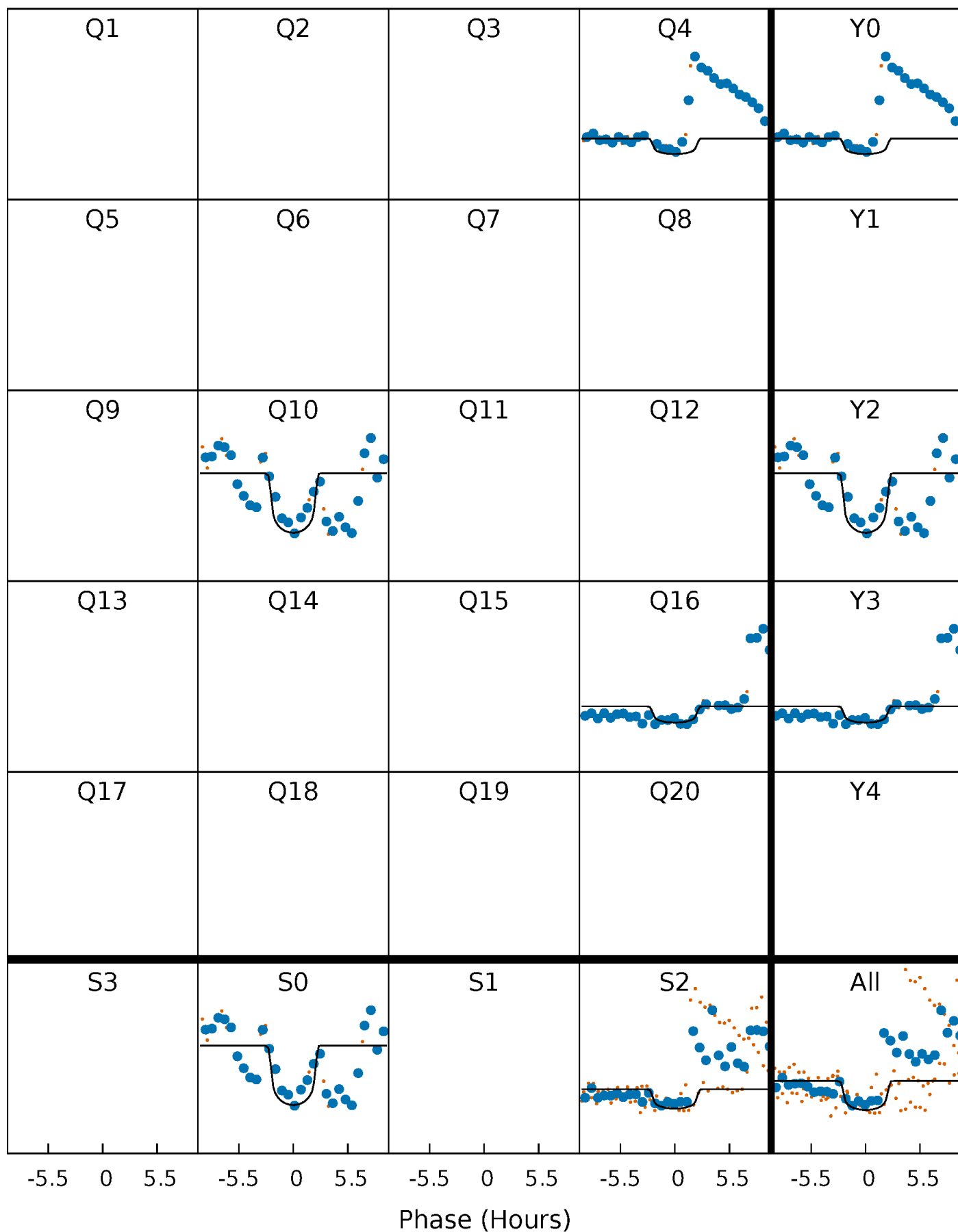
PDC Quarter-Phased Transit Curves

TCE 008479655-01 P=569.610709 Days $T_0=379.364349$ (BKJD)



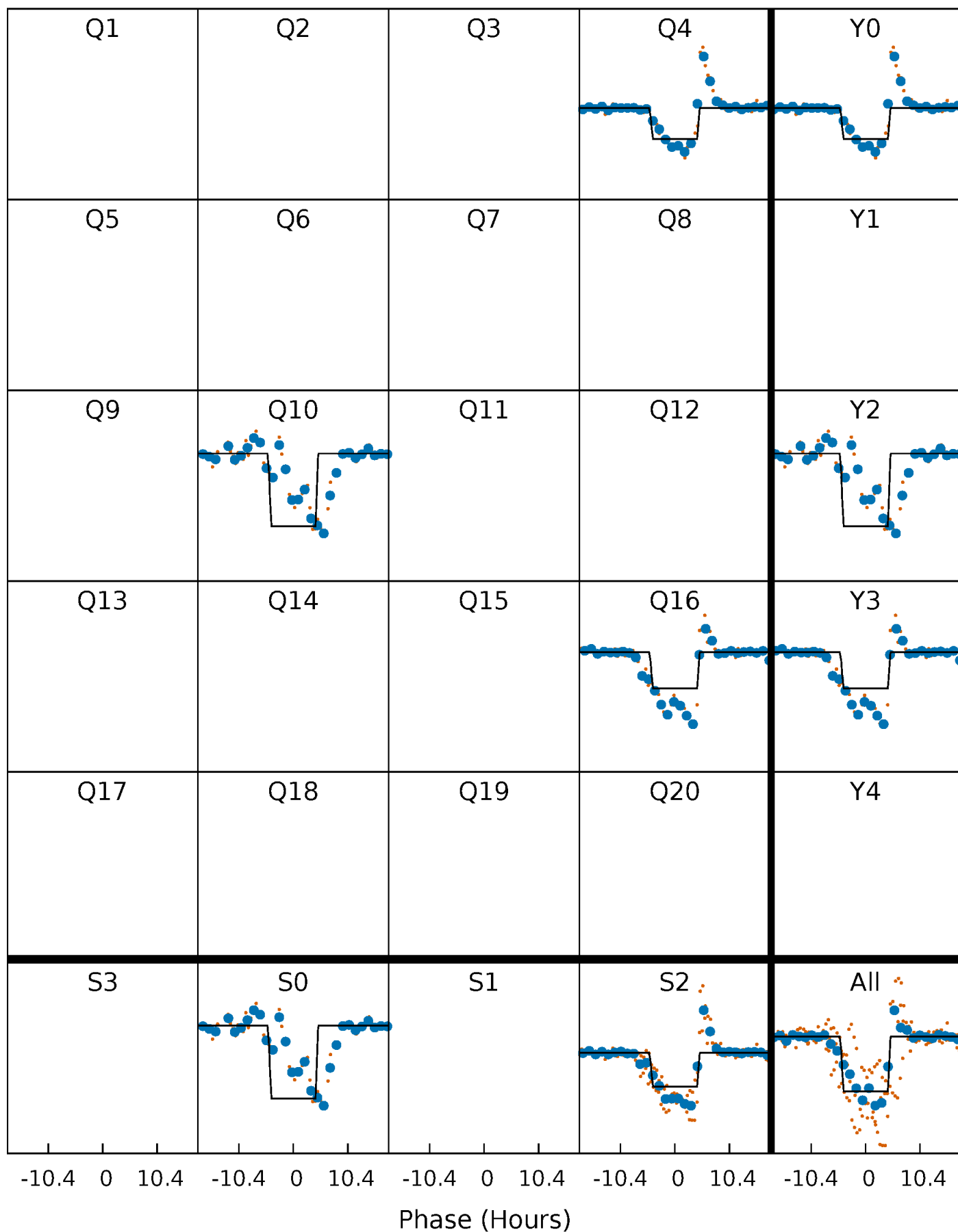
DV Quarter-Phased Transit Curves

TCE 008479655-01 P=569.610709 Days $T_0=379.364349$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

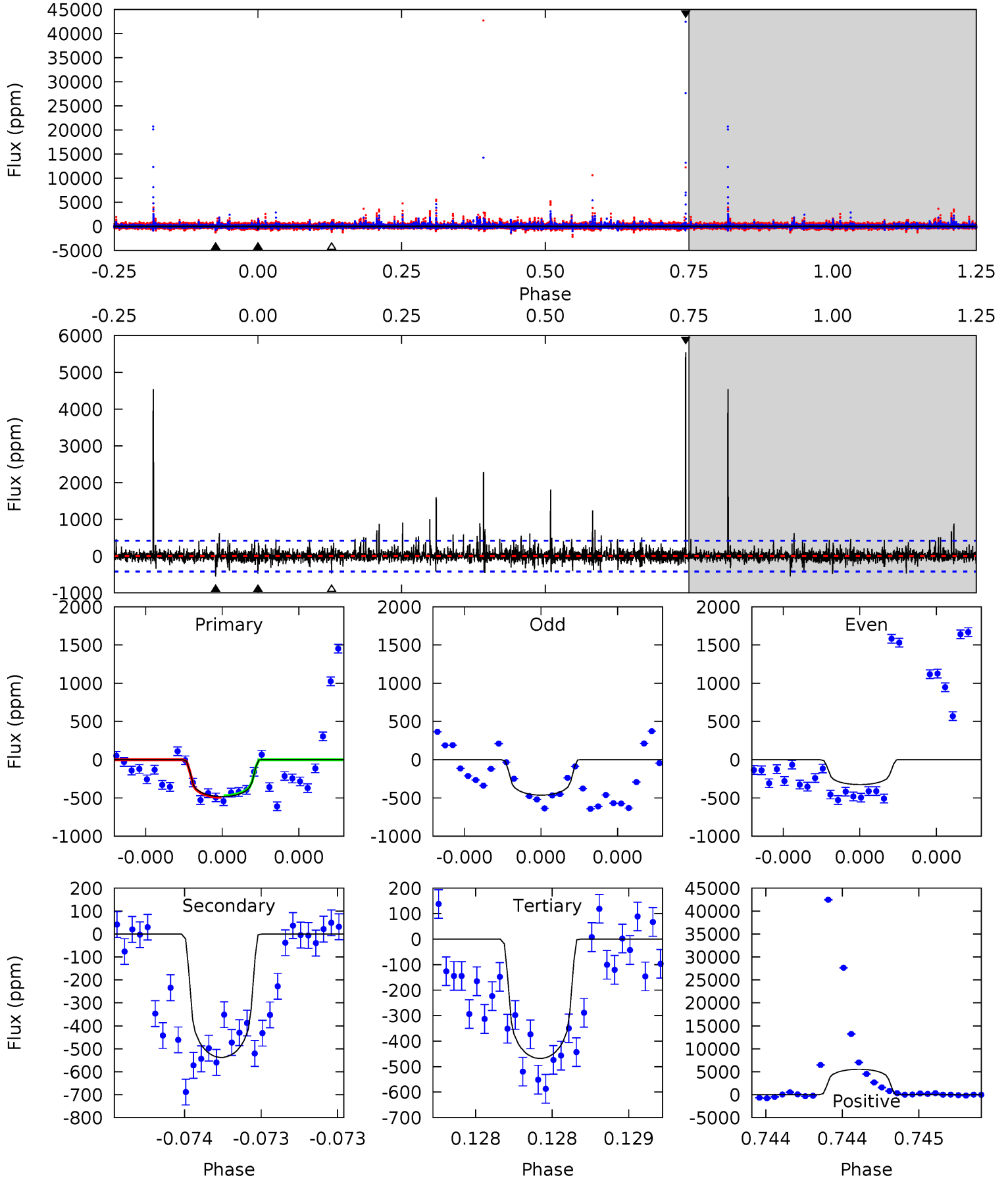
TCE 008479655-01 P=569.742142 Days $T_0=379.227953$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-01, P = 569.610709 Days, E = 379.364349 Days

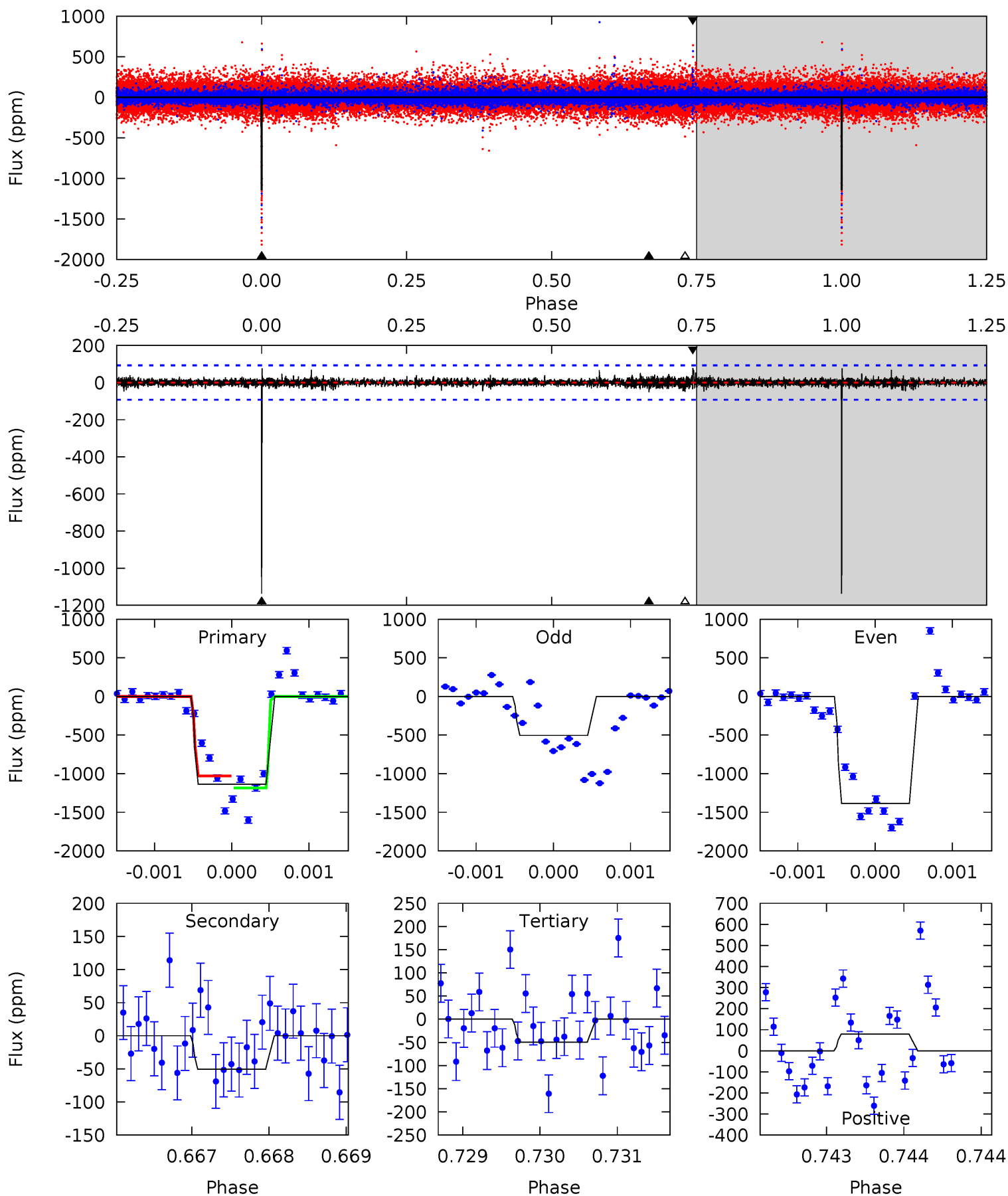
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.44	7.19	6.25	74.1	5.61	3.54	2.31	0.18	-67.6	0.93	-66.9	0.57	0.53	0.91	0.14



Alt Model-Shift Uniqueness Test

008479655-01, P = 569.742142 Days, E = 379.227953 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
67.7	3.02	2.95	4.71	5.52	3.39	0.59	64.8	63.0	0.08	-1.69	27.0	0.99	0.07	4.71



Stellar Parameters For KIC 008479655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-538 ± 75	$1.77^{+1.17}_{-0.89}$	242^{+8}_{-8}	5040^{+2095}_{-863}	$122102^{+371365}_{-75848}$
Alt.	-51 ± 17	$2.28^{+1.00}_{-1.01}$	241^{+9}_{-8}	3074^{+620}_{-354}	7067^{+15829}_{-4076}

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

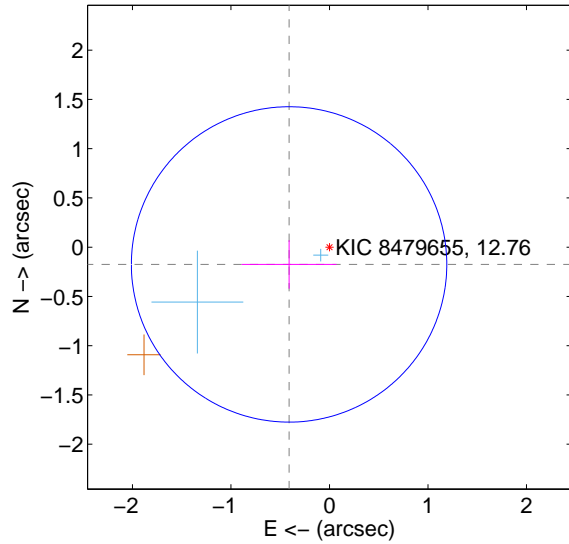
Supplemental centroid analysis for 008479655-01. Kepler magnitude: 12.76. Transit SNR 8.14

There are 2 quarters with good PRF difference image offsets

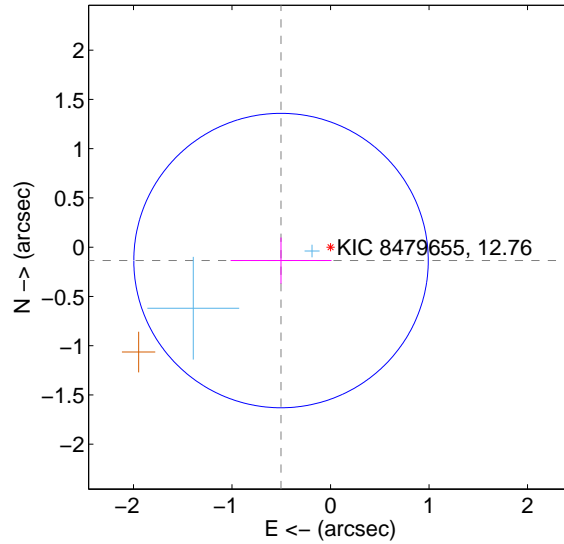
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.446 ± 0.534	0.84	0.410 ± 0.481	-0.175 ± 0.246
PRF-fit source offset from KIC position	0.520 ± 0.498	1.04	0.502 ± 0.512	-0.136 ± 0.235
photometric centroid source offset	0.65 ± 0.42	1.55	-0.08 ± 0.40	0.64 ± 0.42

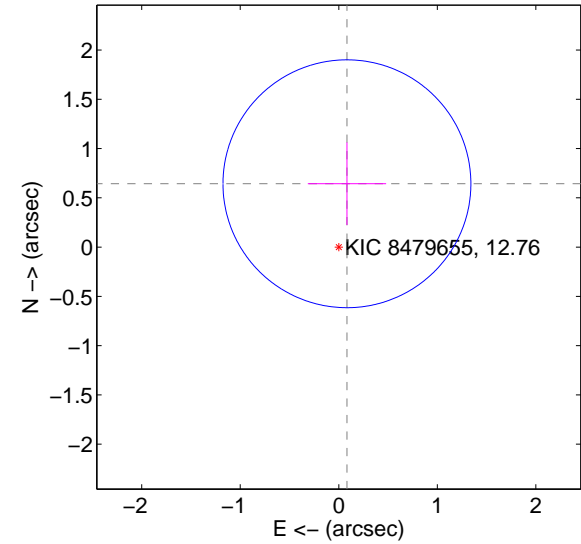
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

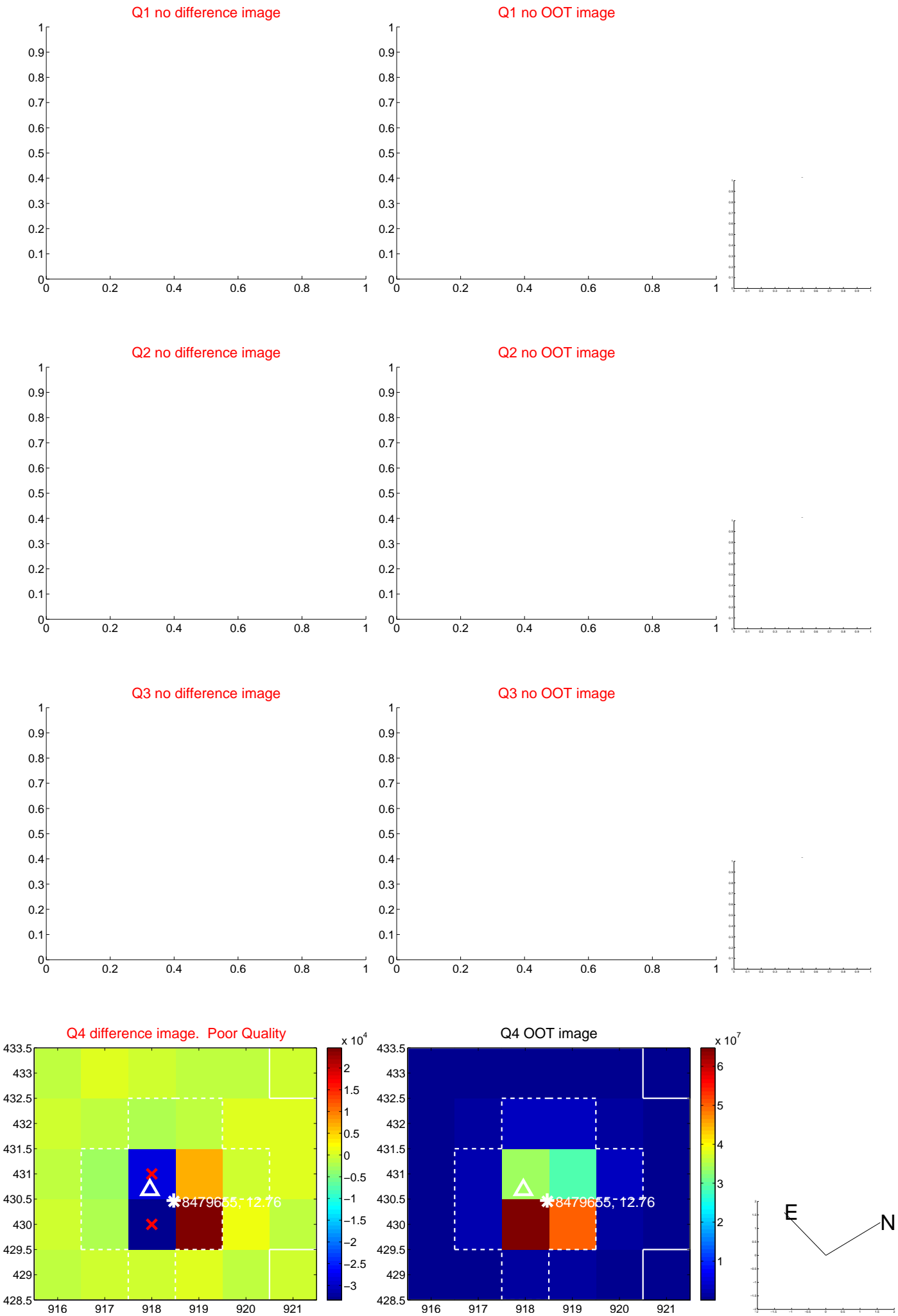


offset from photometric centroids

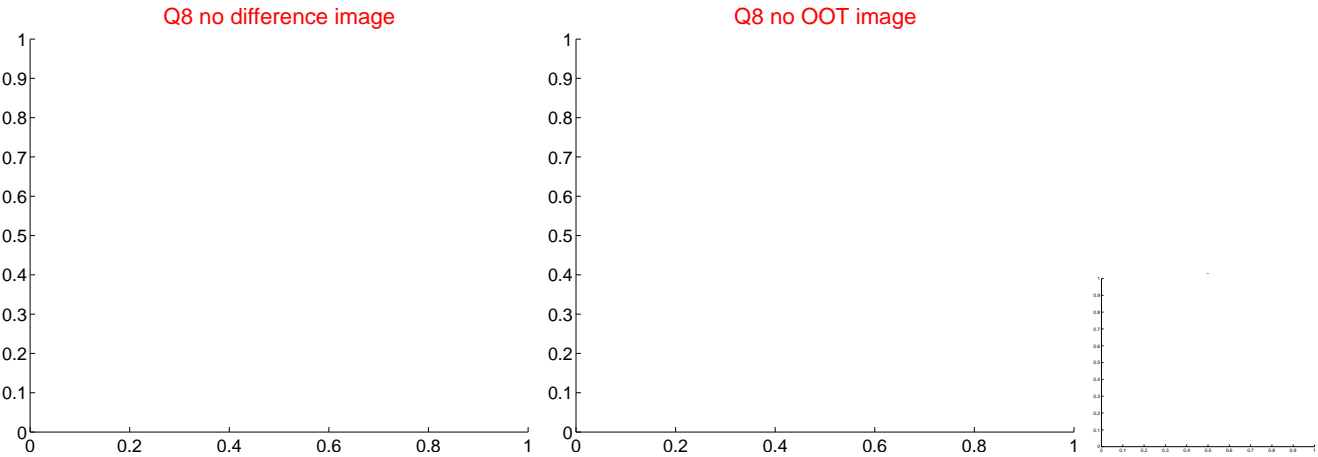
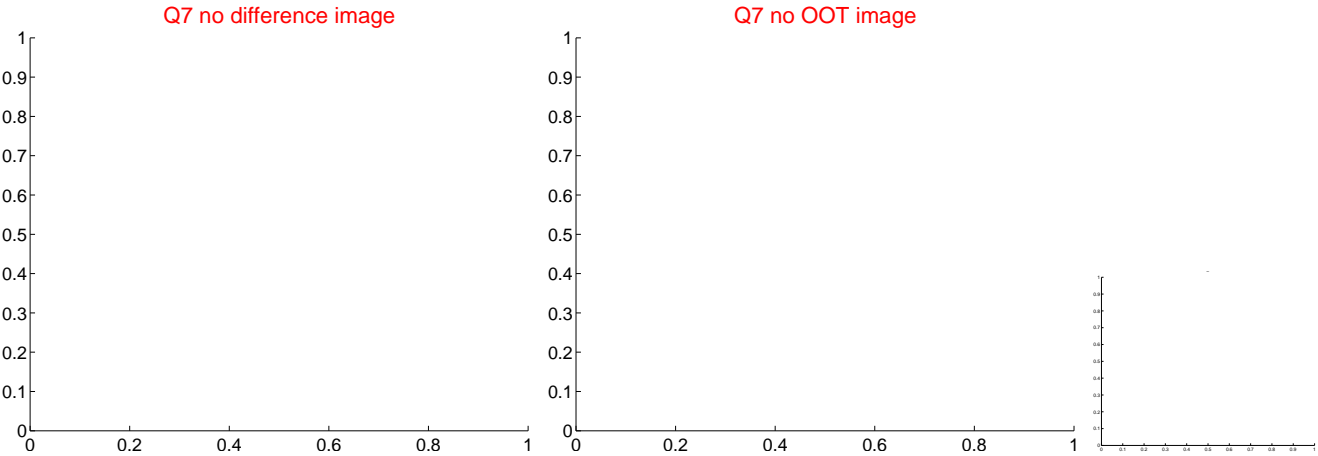
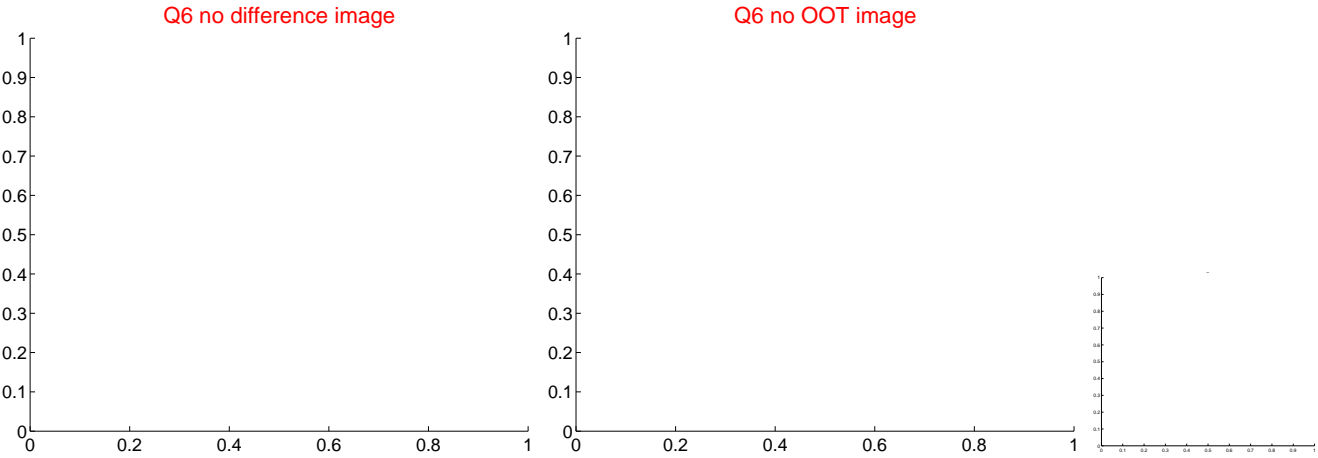
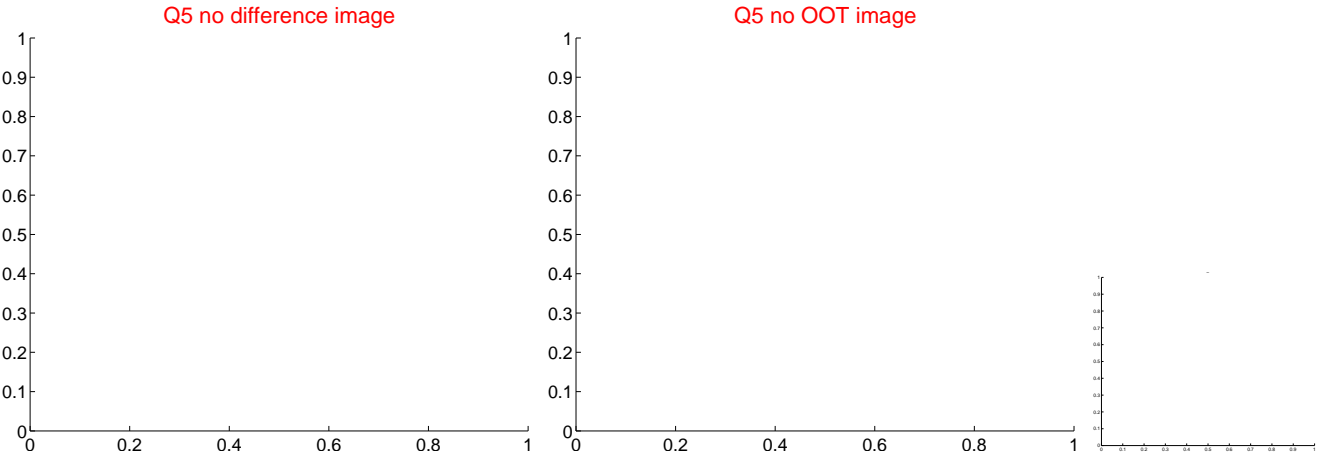


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

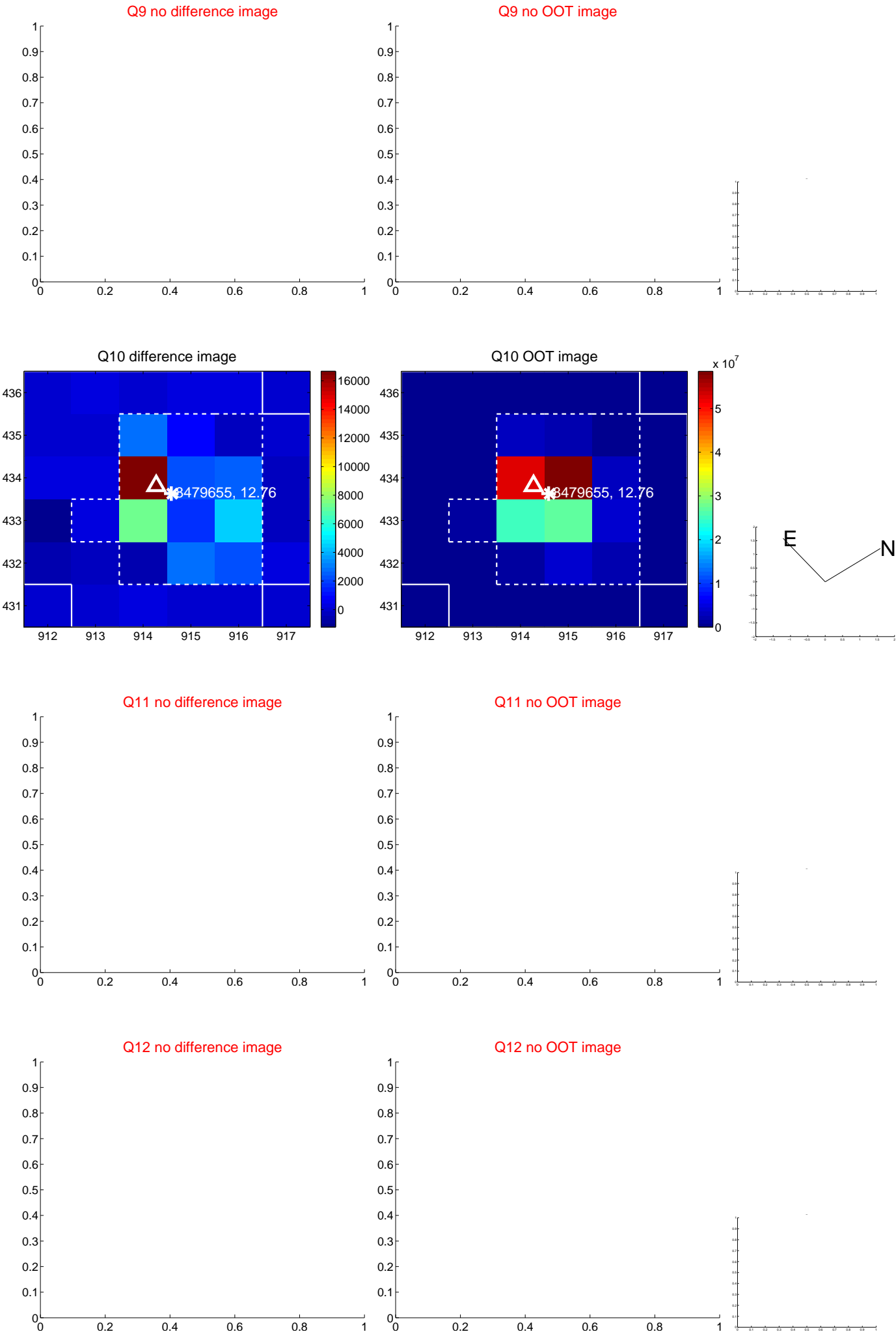
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



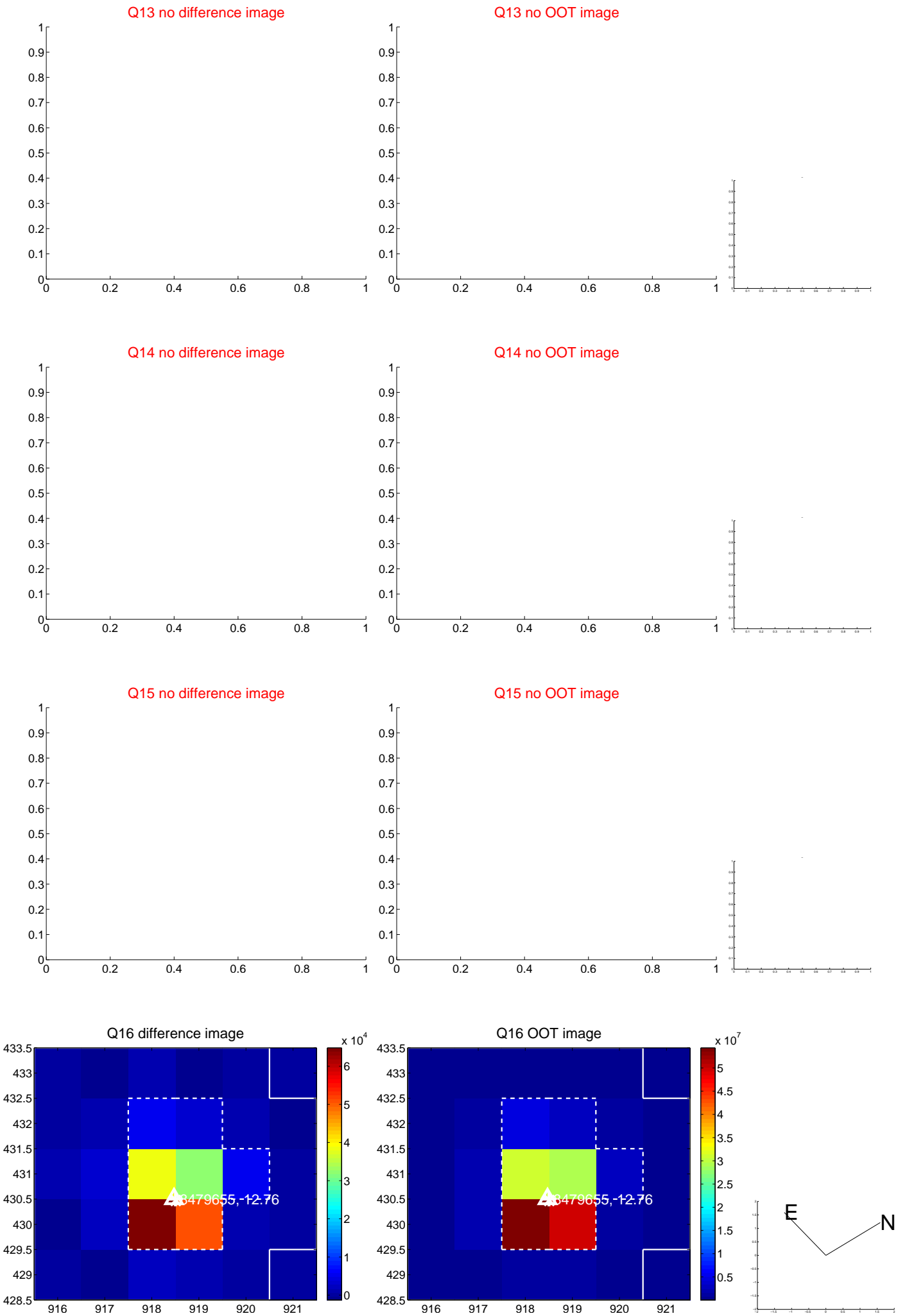
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



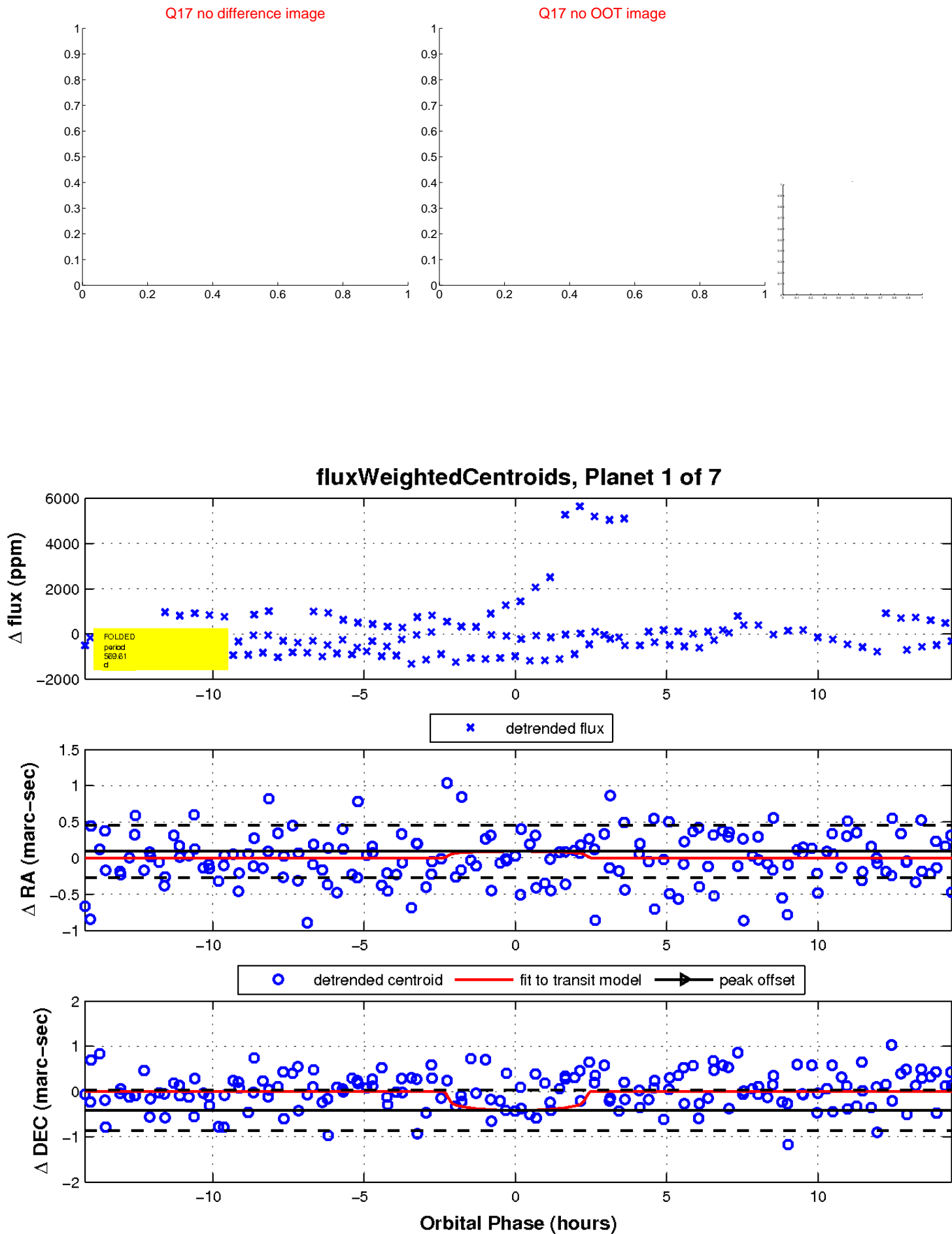
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



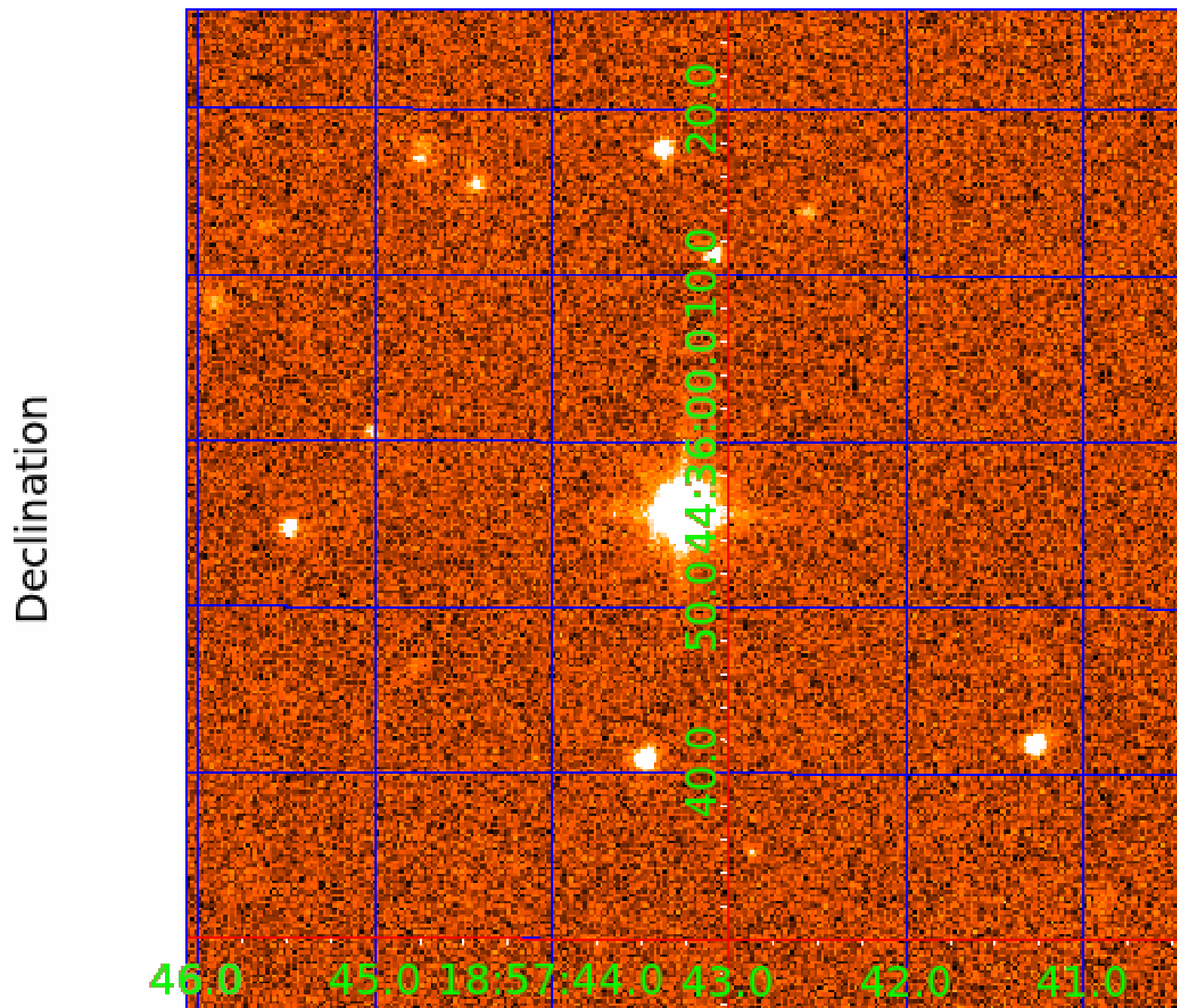
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
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008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

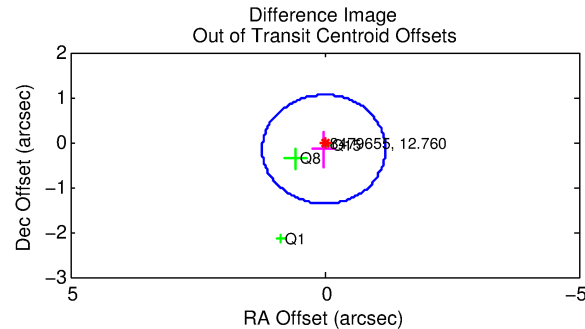
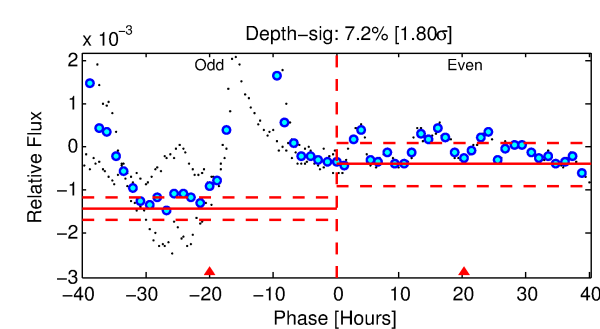
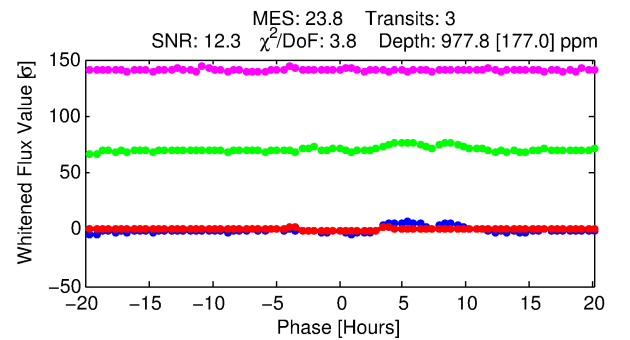
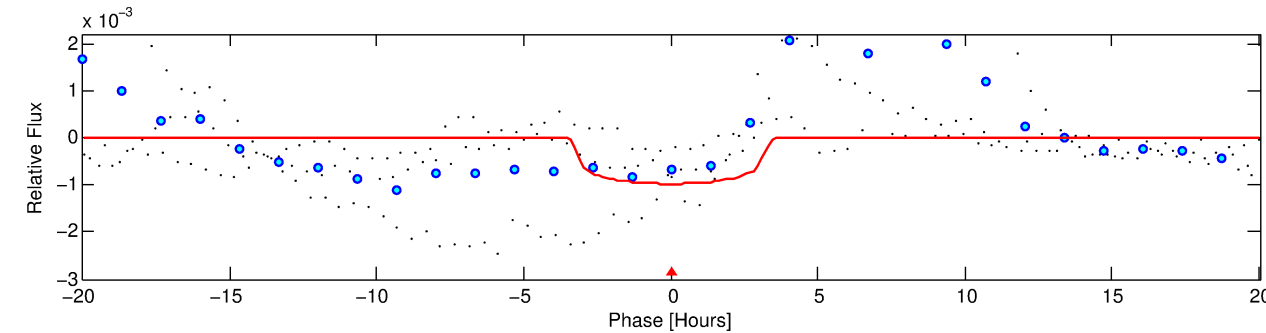
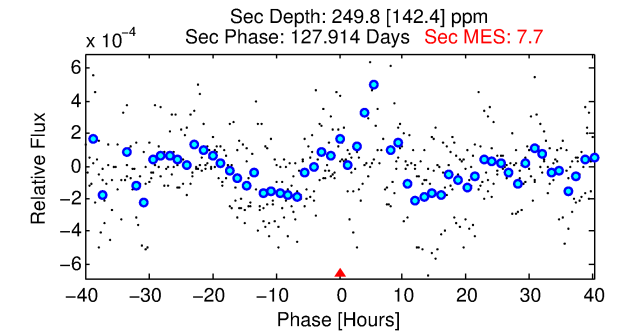
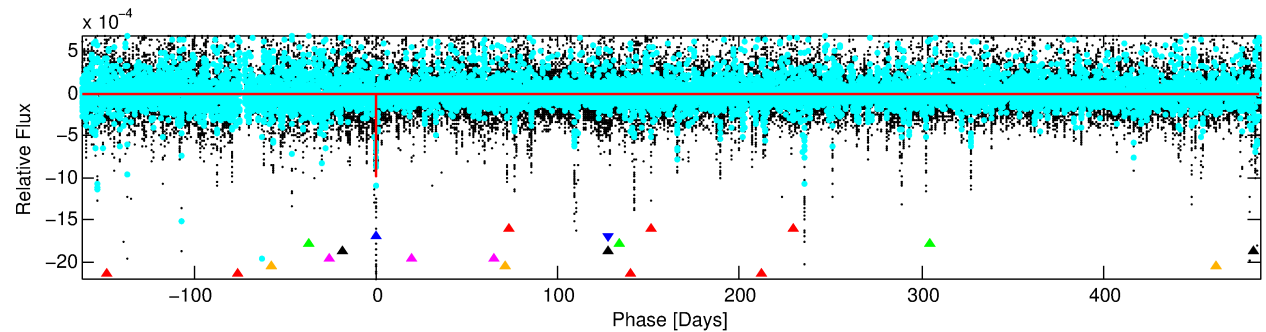
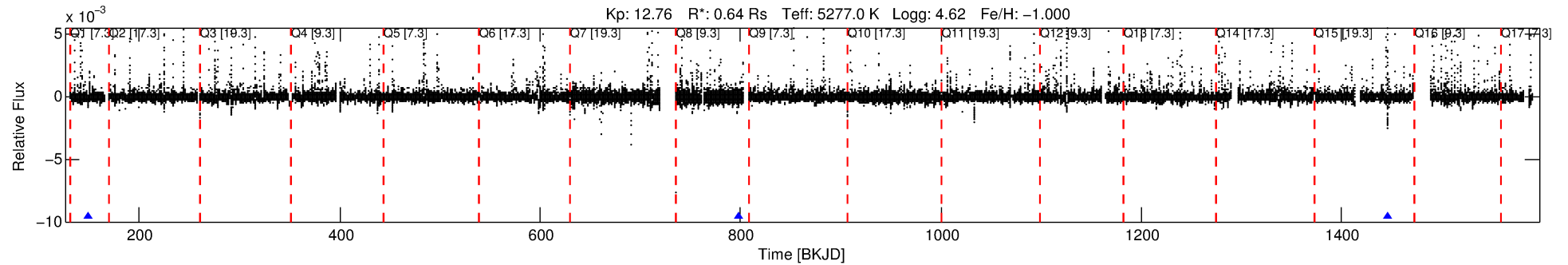
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-02

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 2 of 7 Period: 648.078 d



DV Fit Results:

Period = 648.07813 [0.00612] d
Epoch = 149.7448 [0.0067] BKJD
Rp/R* = 0.0294 [0.0164]
a/R* = 655.01 [1558.70]
b = 0.53 [3.27]
Seff = 0.18 [0.03]
Teq = 166 [7] K
Rp = 2.05 [1.16] Re
a = 1.2567 [0.0913] AU
Ag = 51396.12 [64650.98] [0.79 σ]
Teffp = 3868 [1217] K [3.04 σ]

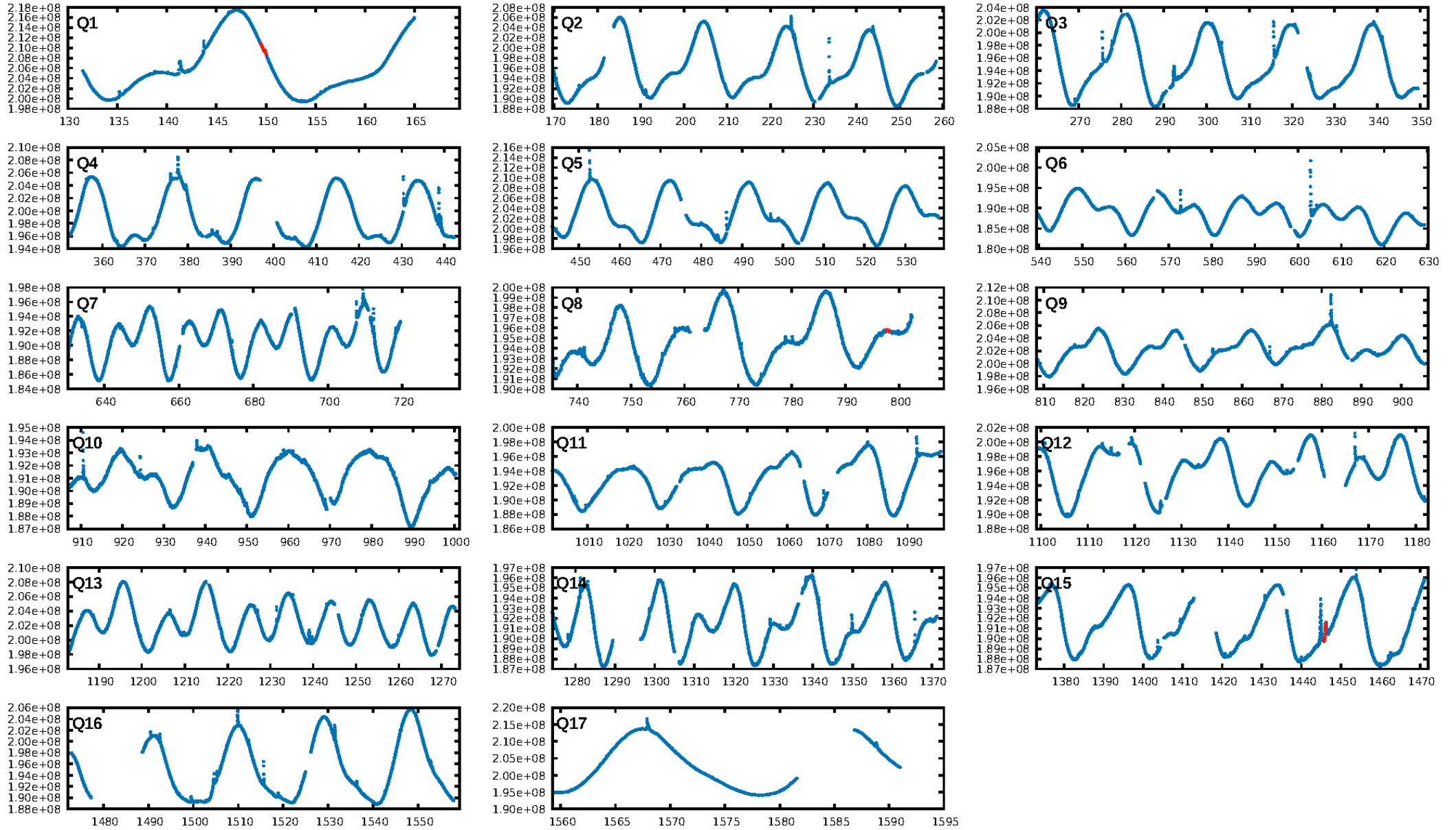
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [116.41 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -68.35
Centroid-sig: 0.7%
Centroid-so: 0.425 arcsec [1.87 σ]
OotOffset-rm: 0.158 arcsec [0.39 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 0.134 arcsec [0.32 σ]
KicOffset-st: 0/1/1/1 [3]
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DiffImageOverlap-fno: 1.00 [3/3]

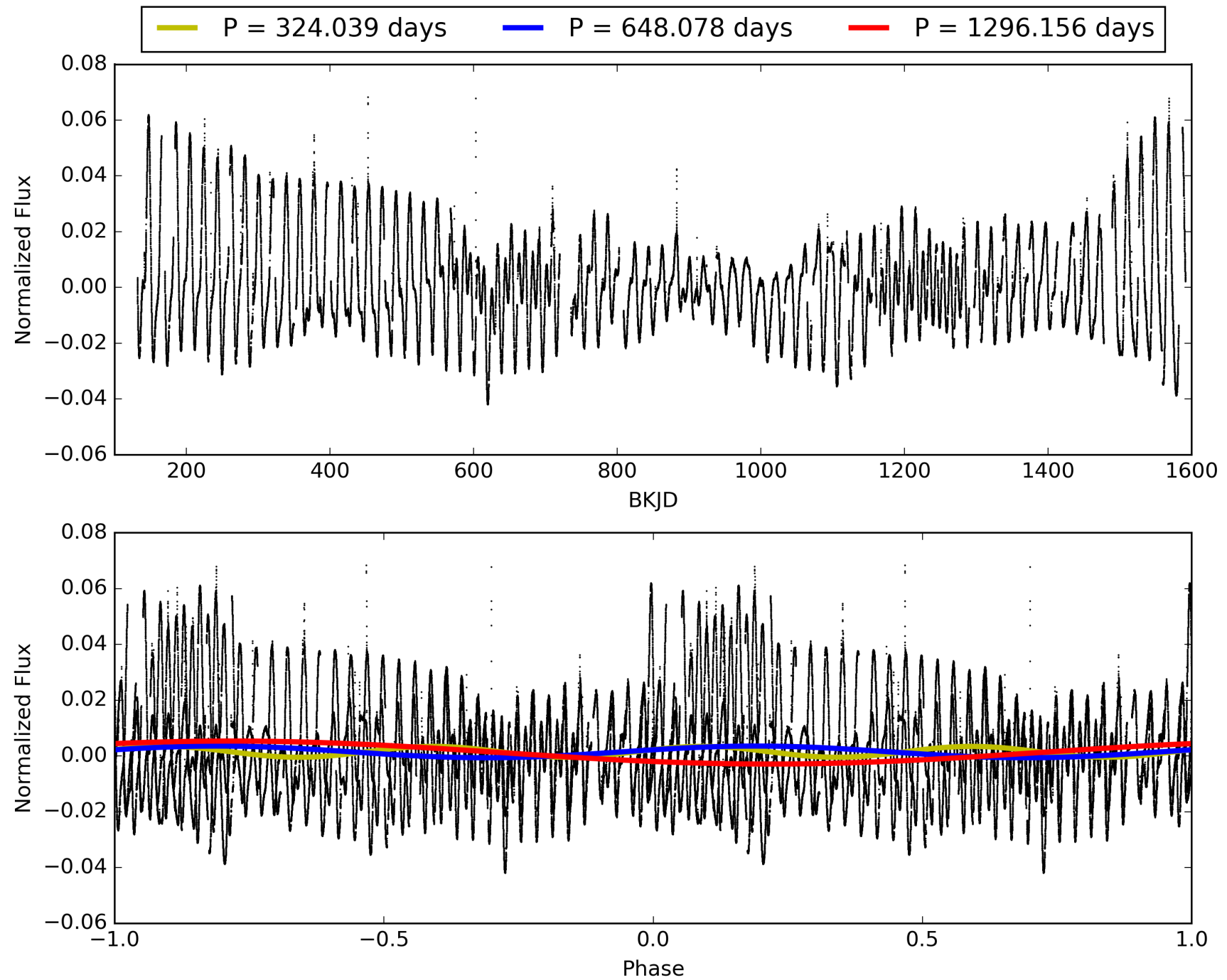
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:50:02 Z

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

TCE 008479655-02, PDC Light Curves

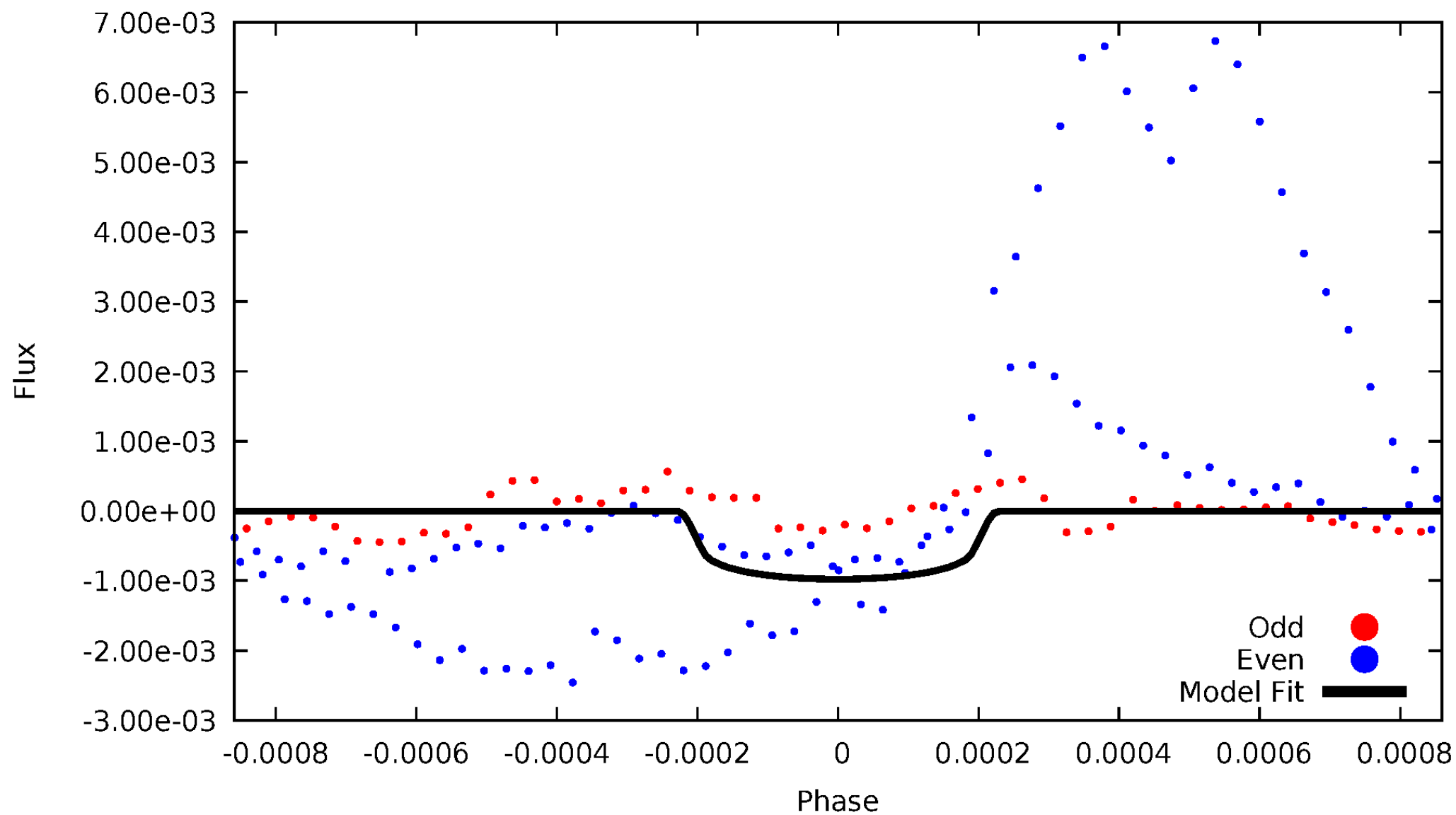


TCE 008479655-02



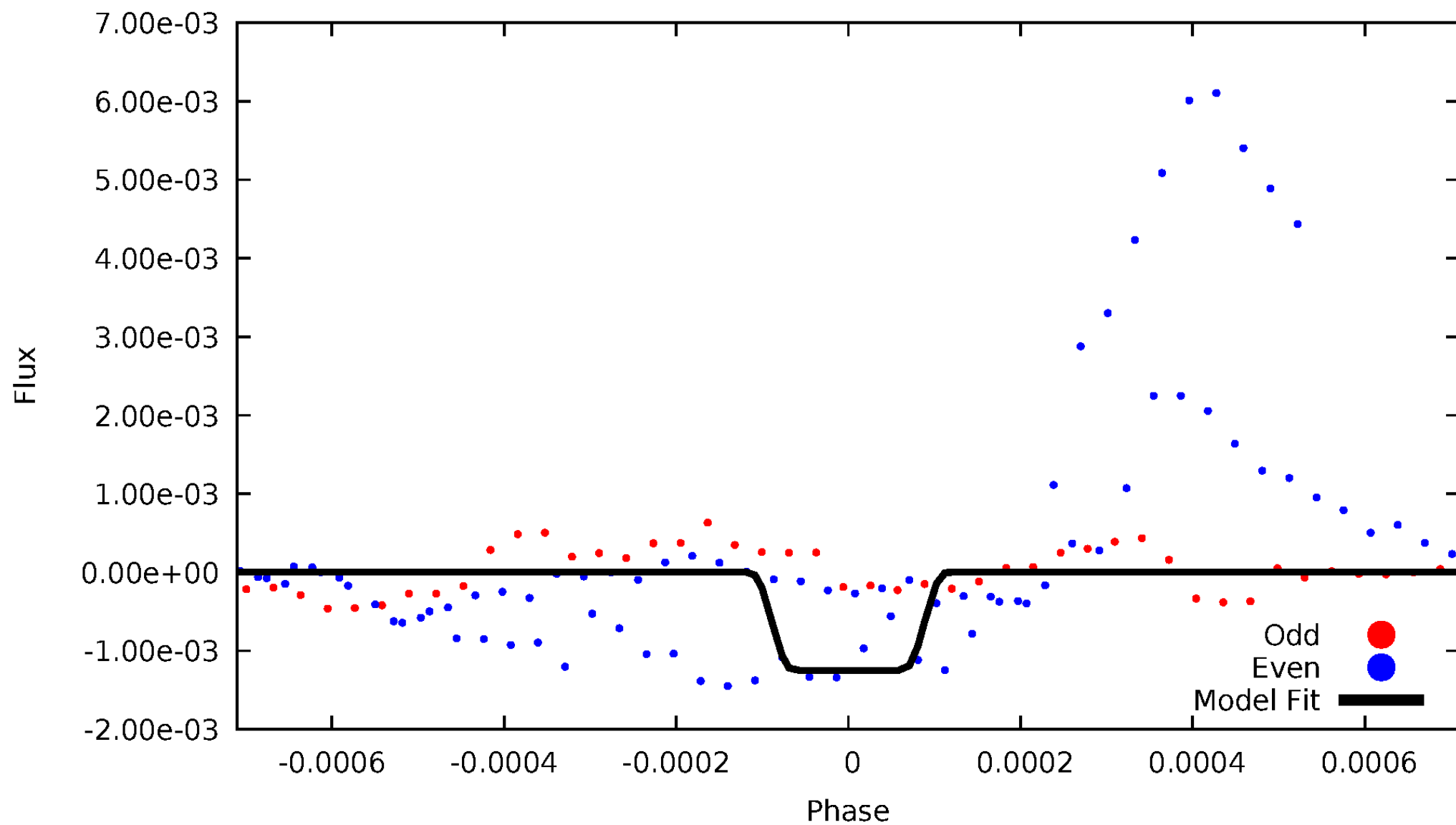
DV Odd/Even

TCE 008479655-02



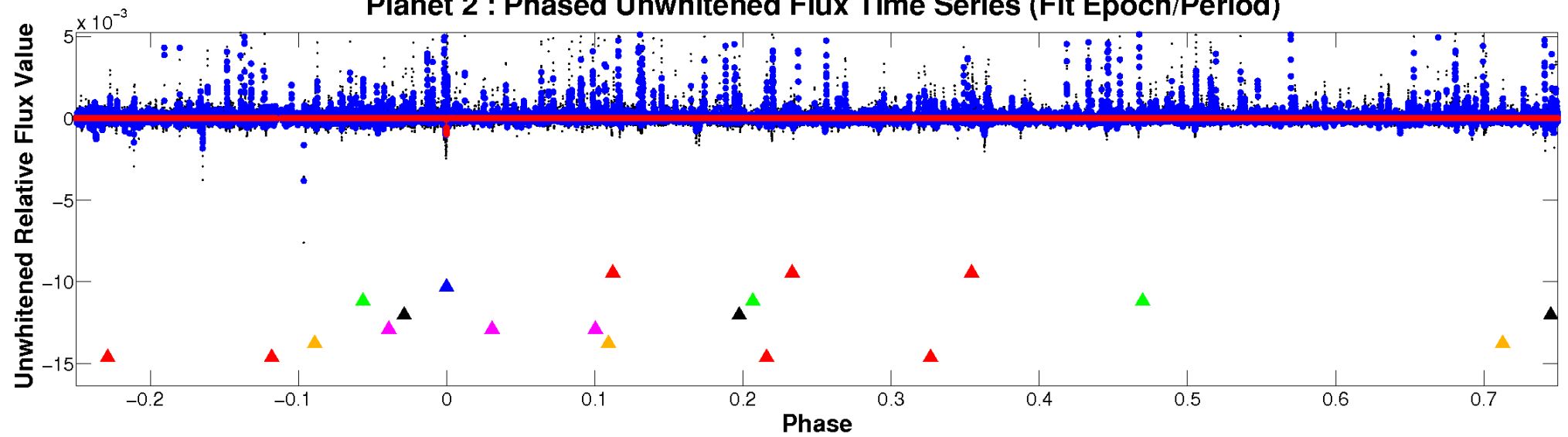
ALT Odd/Even

TCE 008479655-02

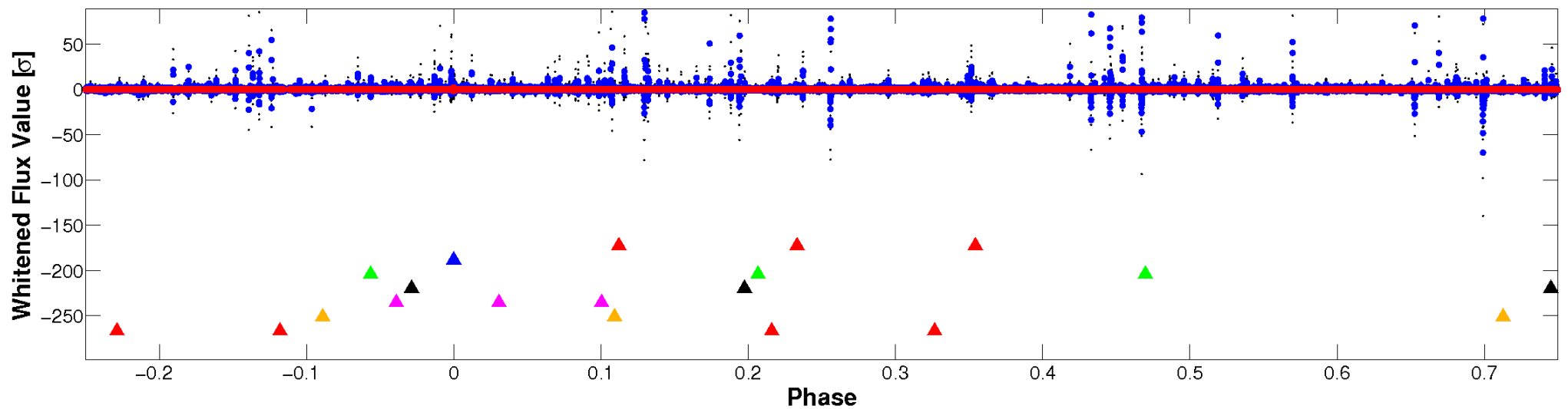


Non-Whitened Vs. Whitened Light Curve

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

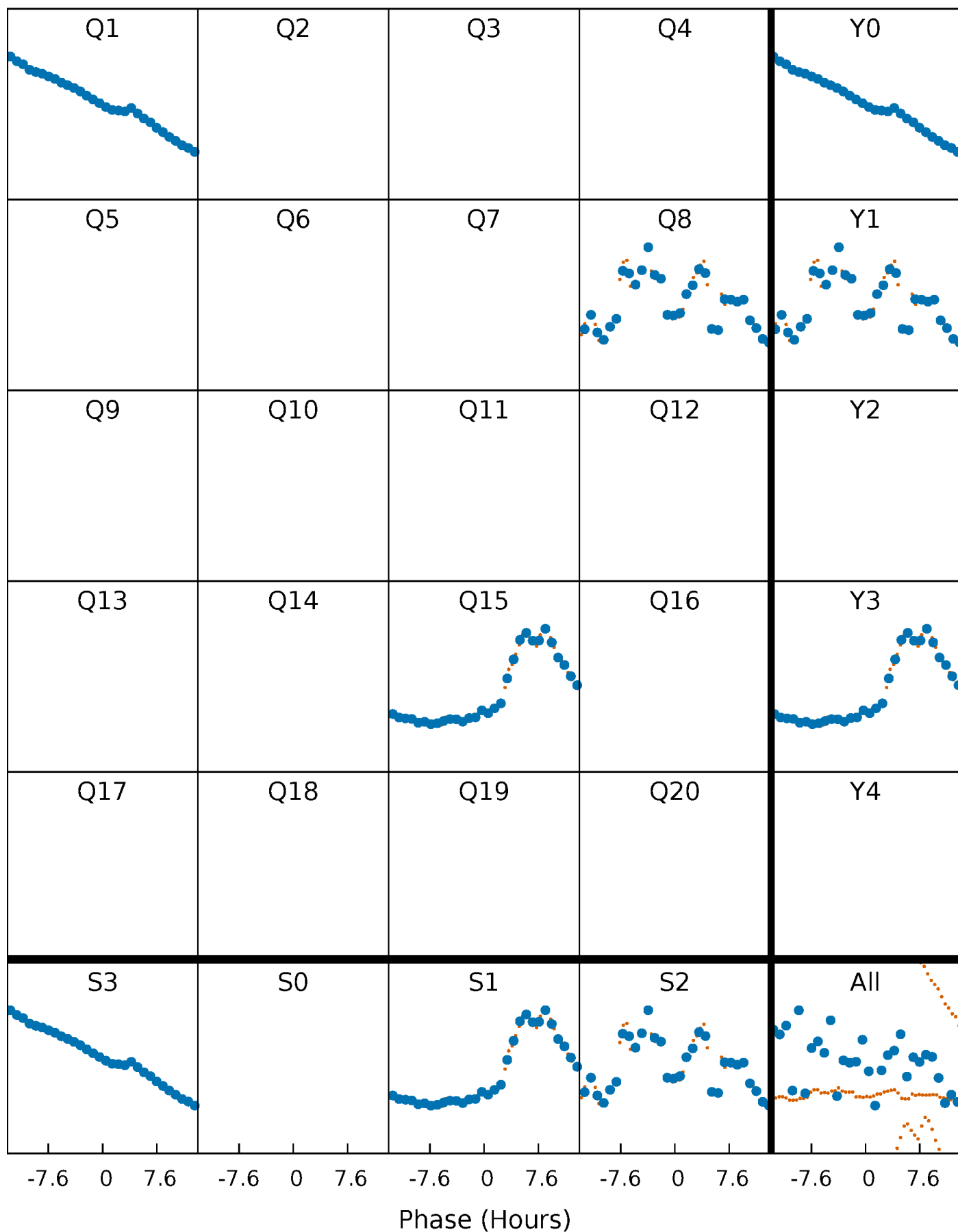


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



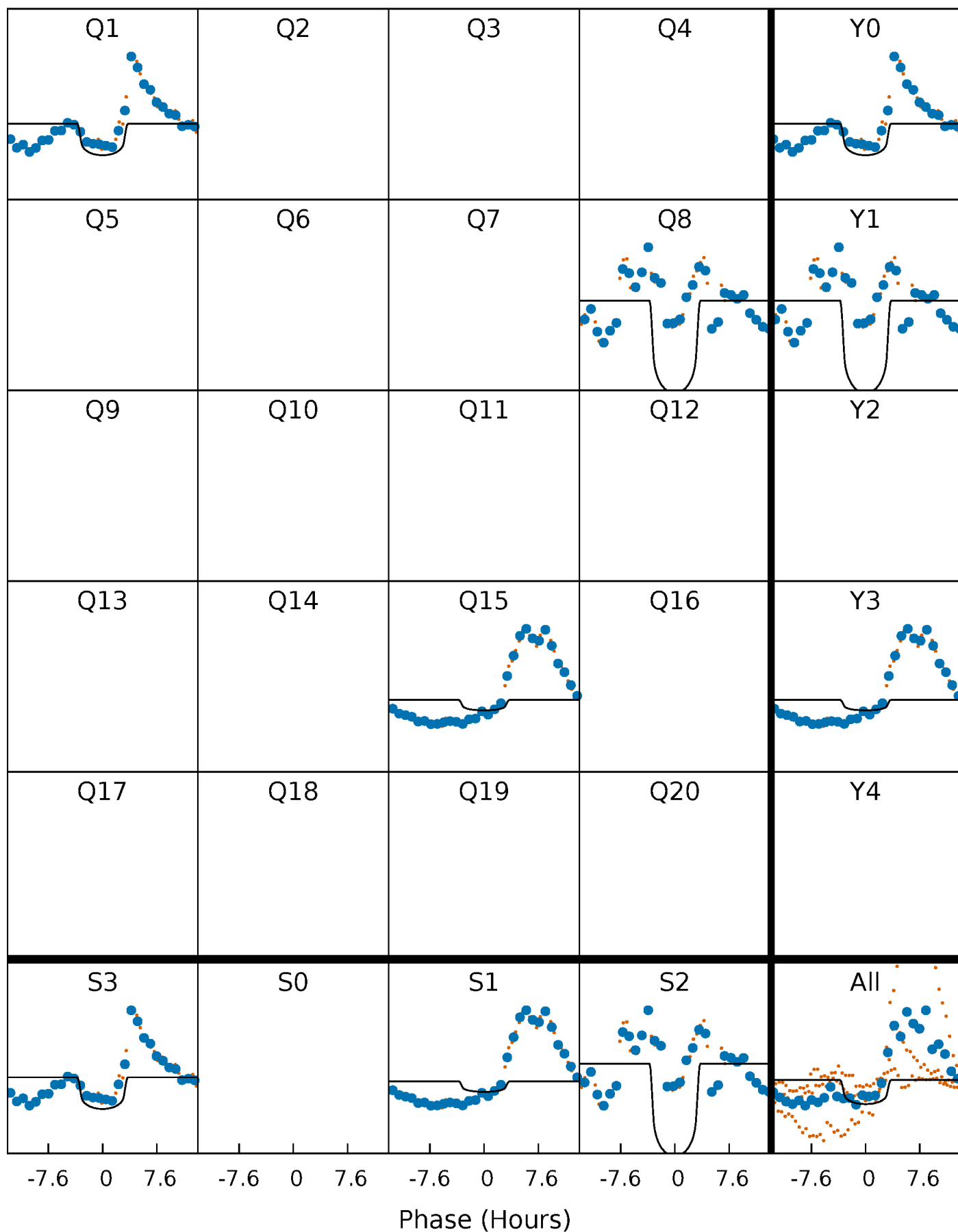
PDC Quarter-Phased Transit Curves

TCE 008479655-02 $P=648.078134$ Days $T_0=149.744822$ (BKJD)



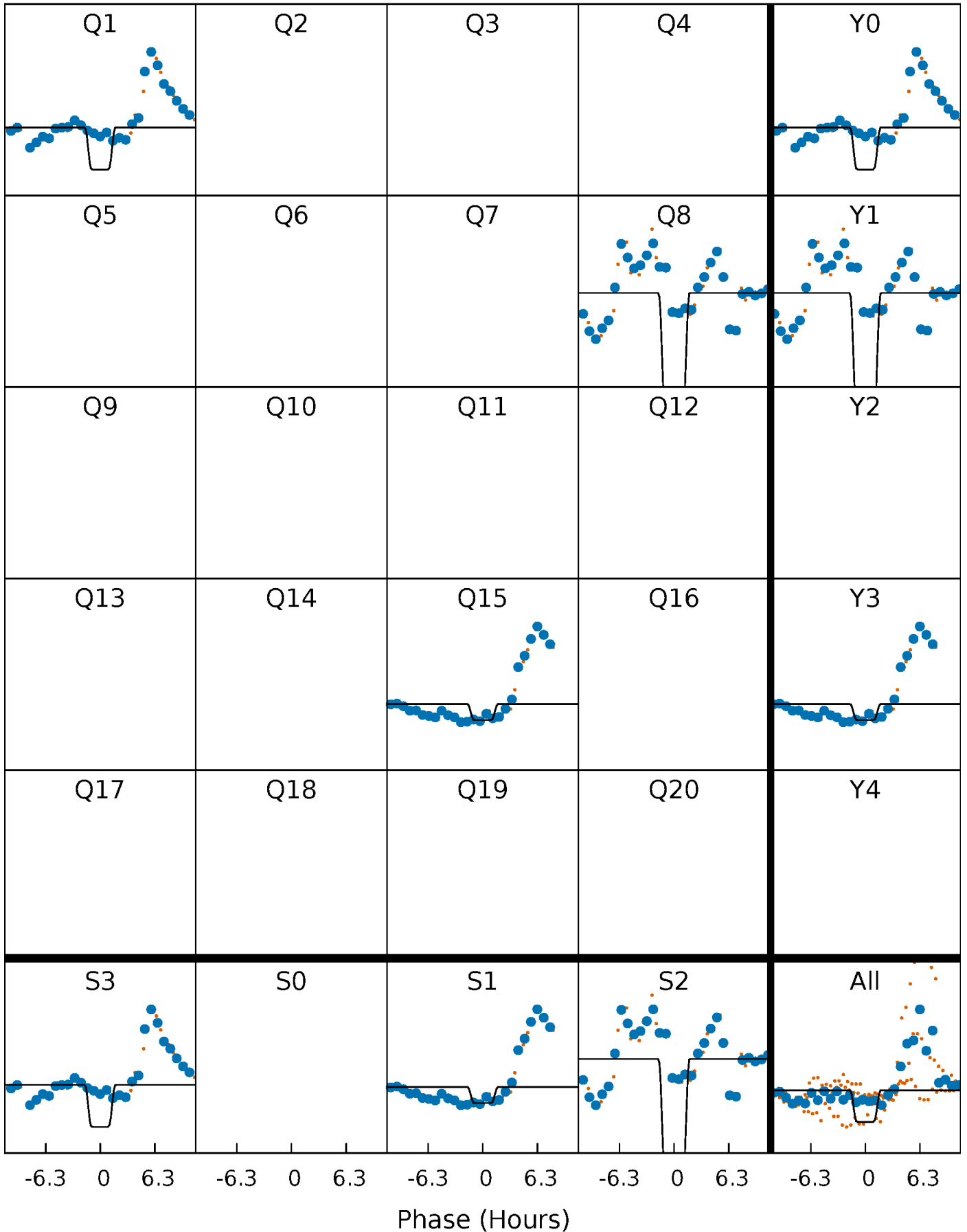
DV Quarter-Phased Transit Curves

TCE 008479655-02 P=648.078134 Days $T_0=149.744822$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

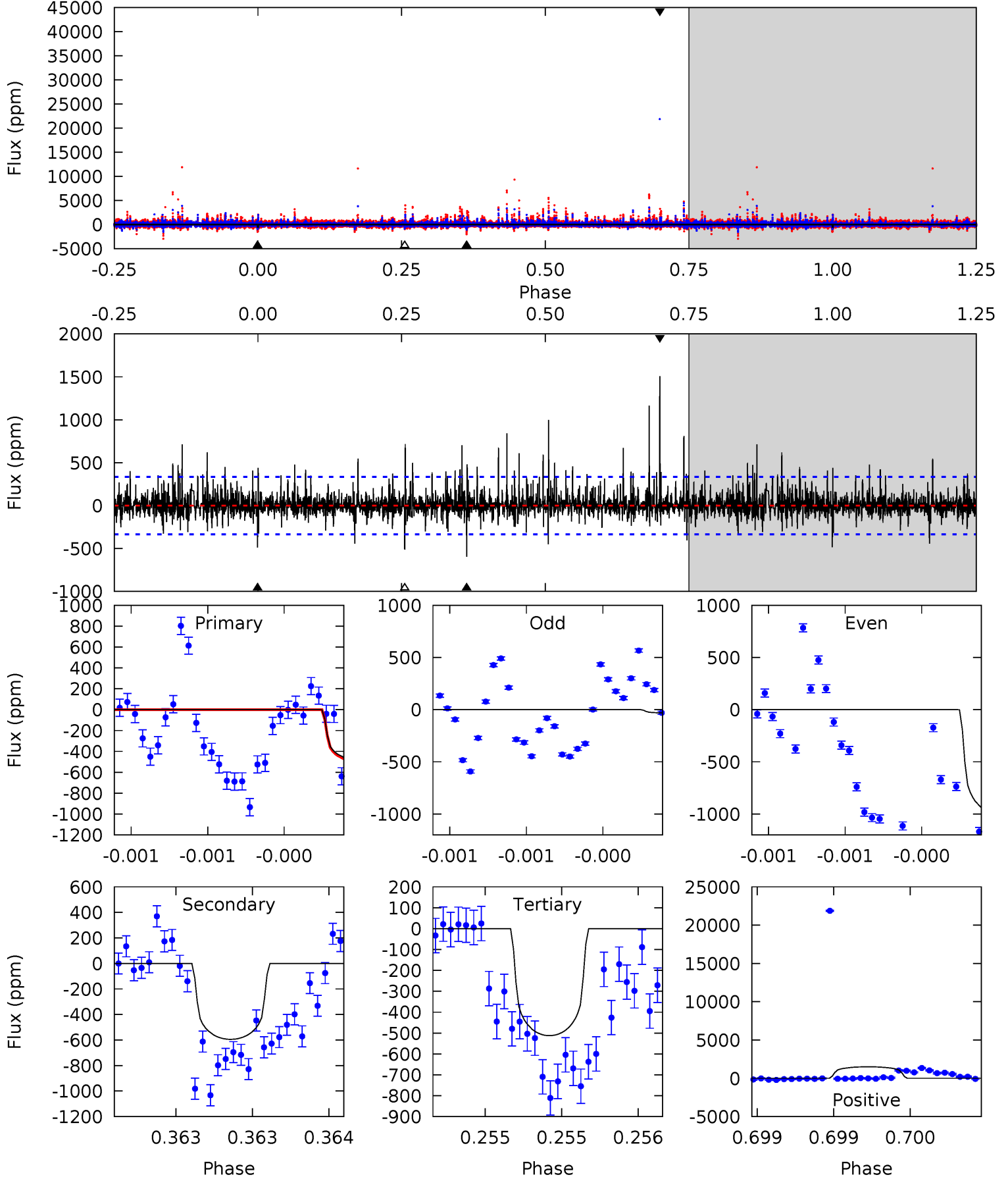
TCE 008479655-02 $P=648.098034$ Days $T_0=149.673690$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-02, P = 648.078134 Days, E = 149.744822 Days

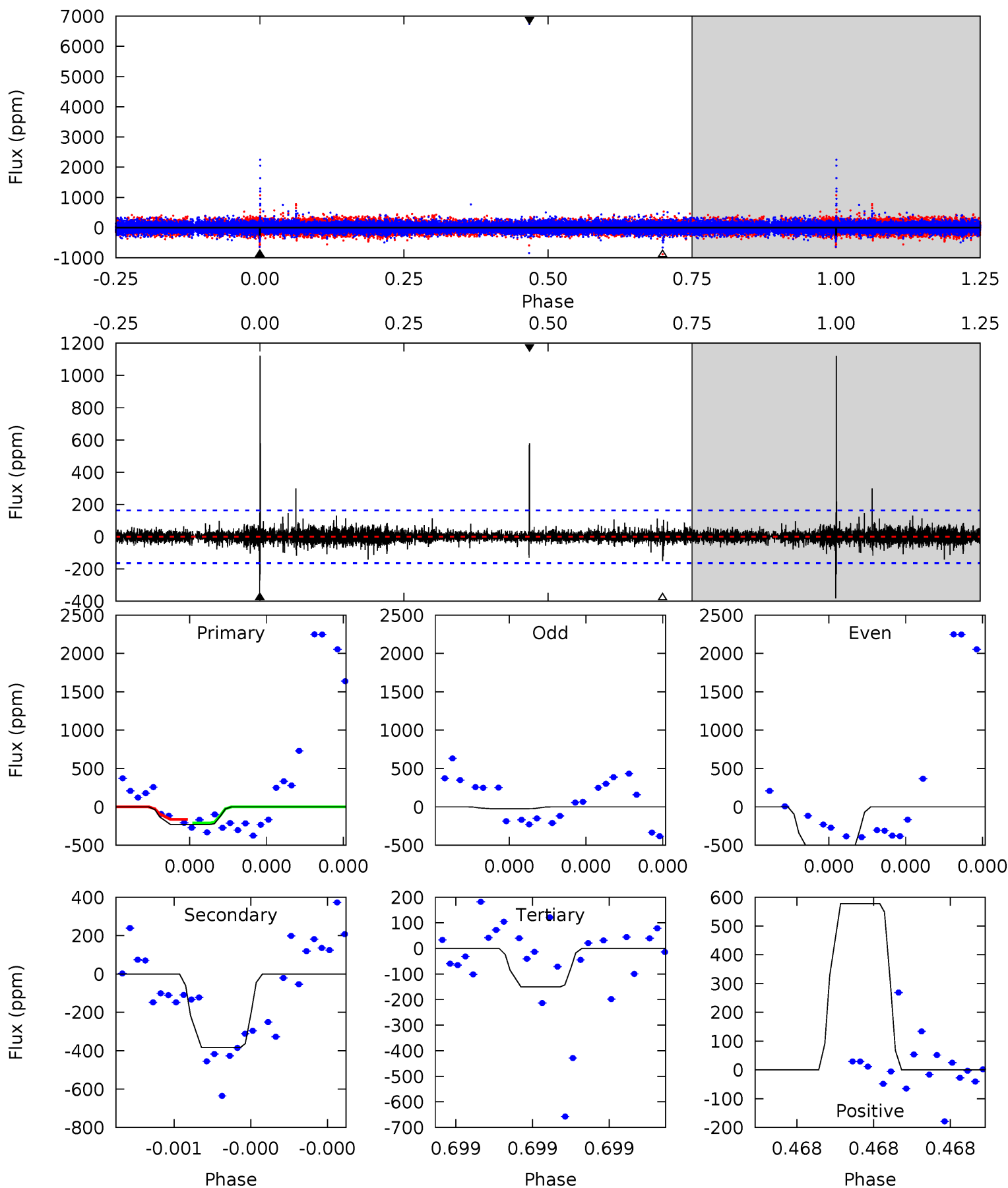
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.10	9.96	8.58	25.2	5.59	3.51	1.85	-0.49	-17.1	1.38	-15.2	3.79	1.10	0.72	0.19



Alt Model-Shift Uniqueness Test

008479655-02, P = 648.098034 Days, E = 149.673690 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.10	13.4	5.27	20.2	5.71	3.69	0.81	2.83	-12.2	8.13	-6.85	9.01	2.33	0.75	0.80



Stellar Parameters For KIC 008479655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-595 ± 60	$2.12^{+1.16}_{-1.17}$	231^{+8}_{-8}	4809^{+2131}_{-768}	$113549^{+432604}_{-66179}$
Alt.	-382 ± 29	$2.43^{+1.19}_{-1.11}$	231^{+8}_{-8}	4165^{+1193}_{-505}	$55509^{+135642}_{-29907}$

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

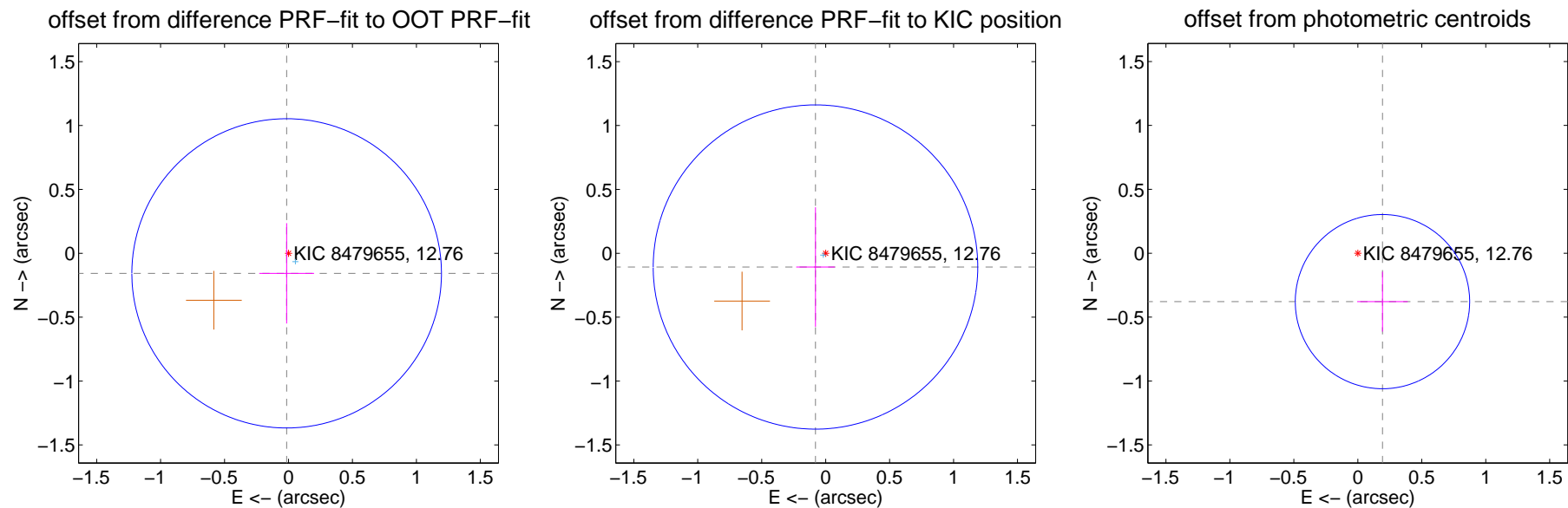
DV Centroid Data

Supplemental centroid analysis for 008479655-02. Kepler magnitude: 12.76. Transit SNR 12.35

There are 1 quarters with good PRF difference image offsets

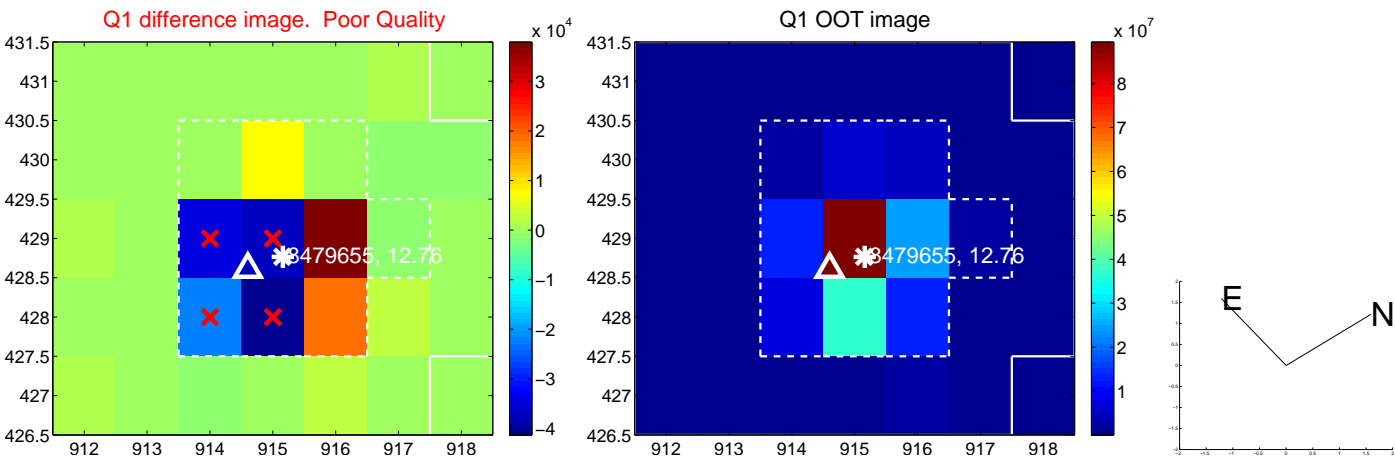
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.158 ± 0.403	0.39	0.014 ± 0.214	-0.157 ± 0.393
PRF-fit source offset from KIC position	0.134 ± 0.423	0.32	0.080 ± 0.151	-0.107 ± 0.468
photometric centroid source offset	0.43 ± 0.23	1.87	-0.19 ± 0.20	-0.38 ± 0.23

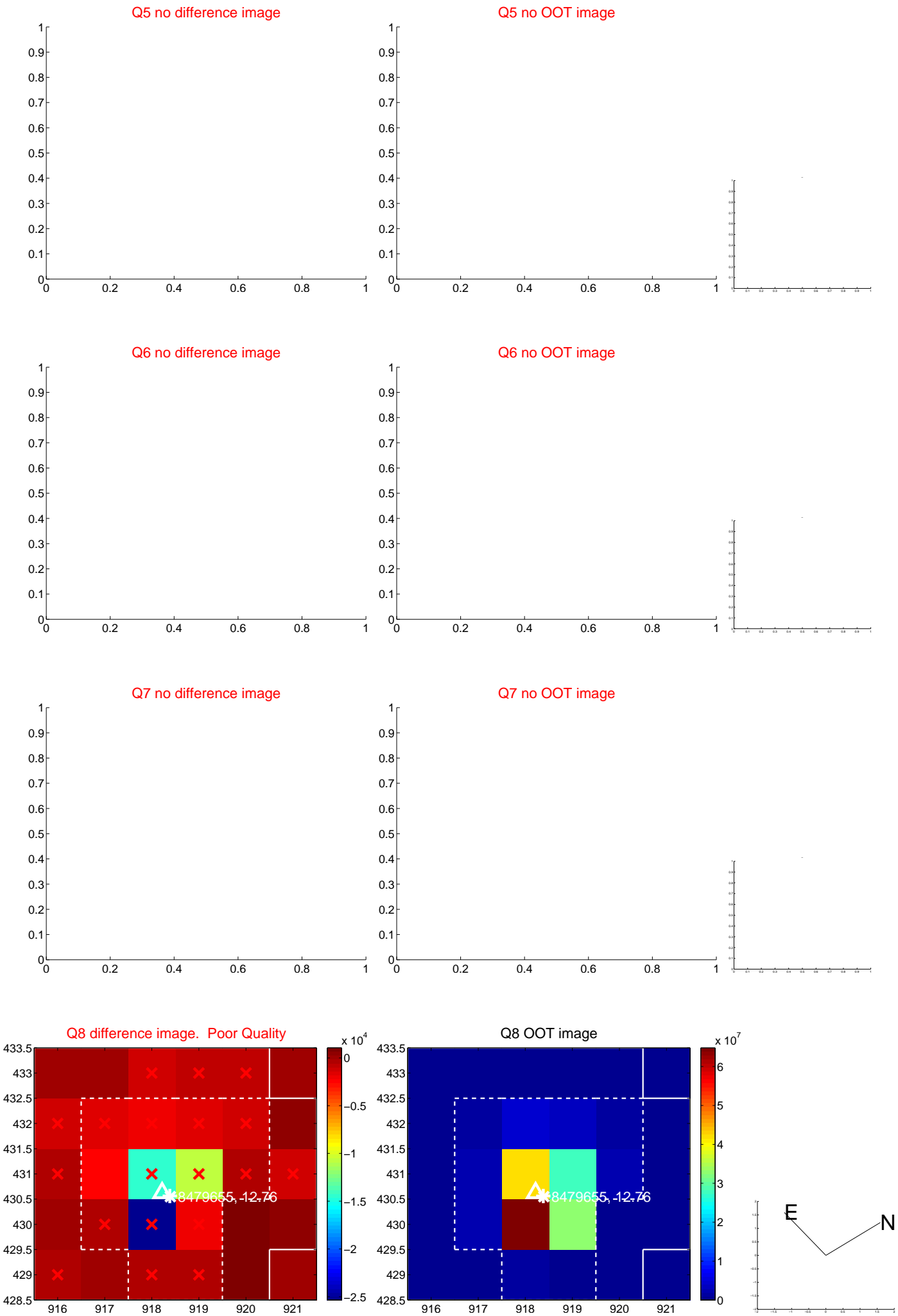


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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



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



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



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

Q13 no difference image



Q13 no OOT image



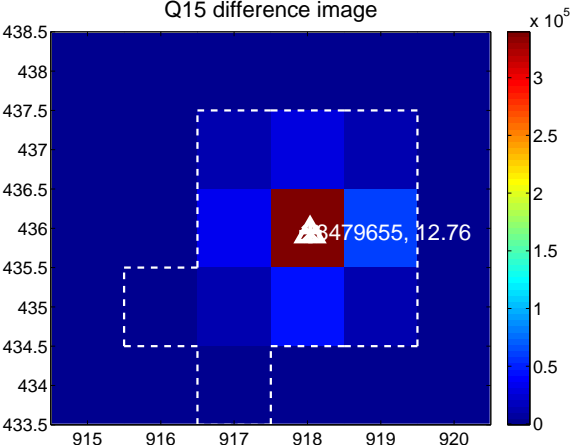
Q14 no difference image



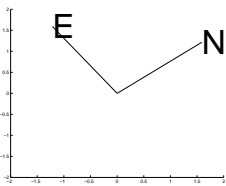
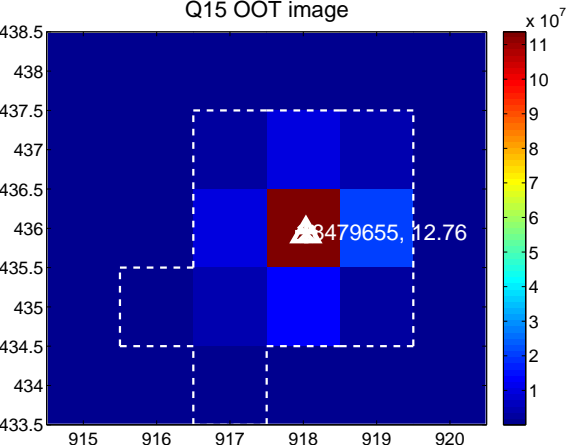
Q14 no OOT image



Q15 difference image



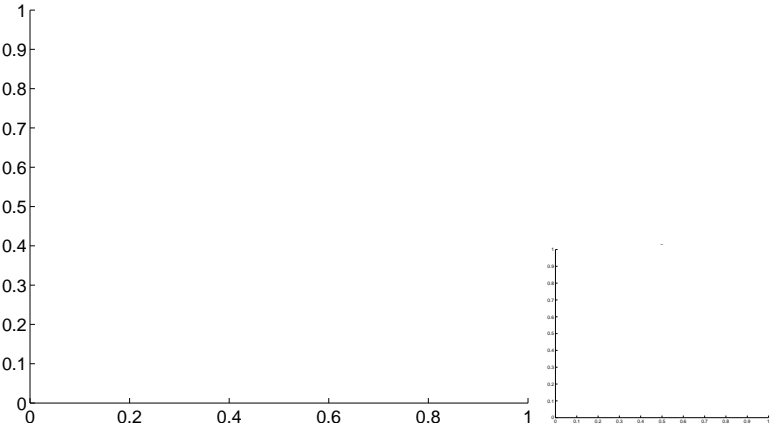
Q15 OOT image



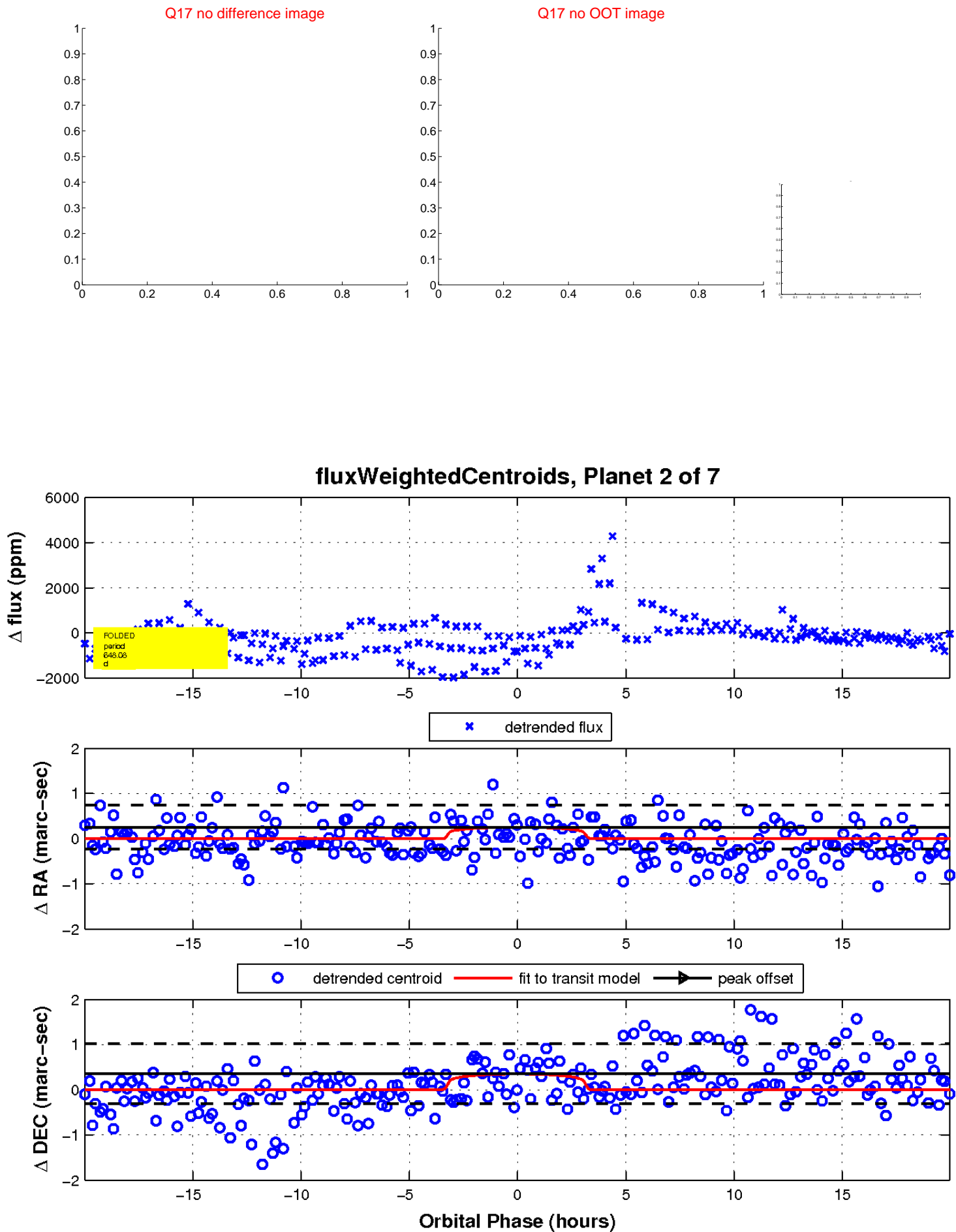
Q16 no difference image



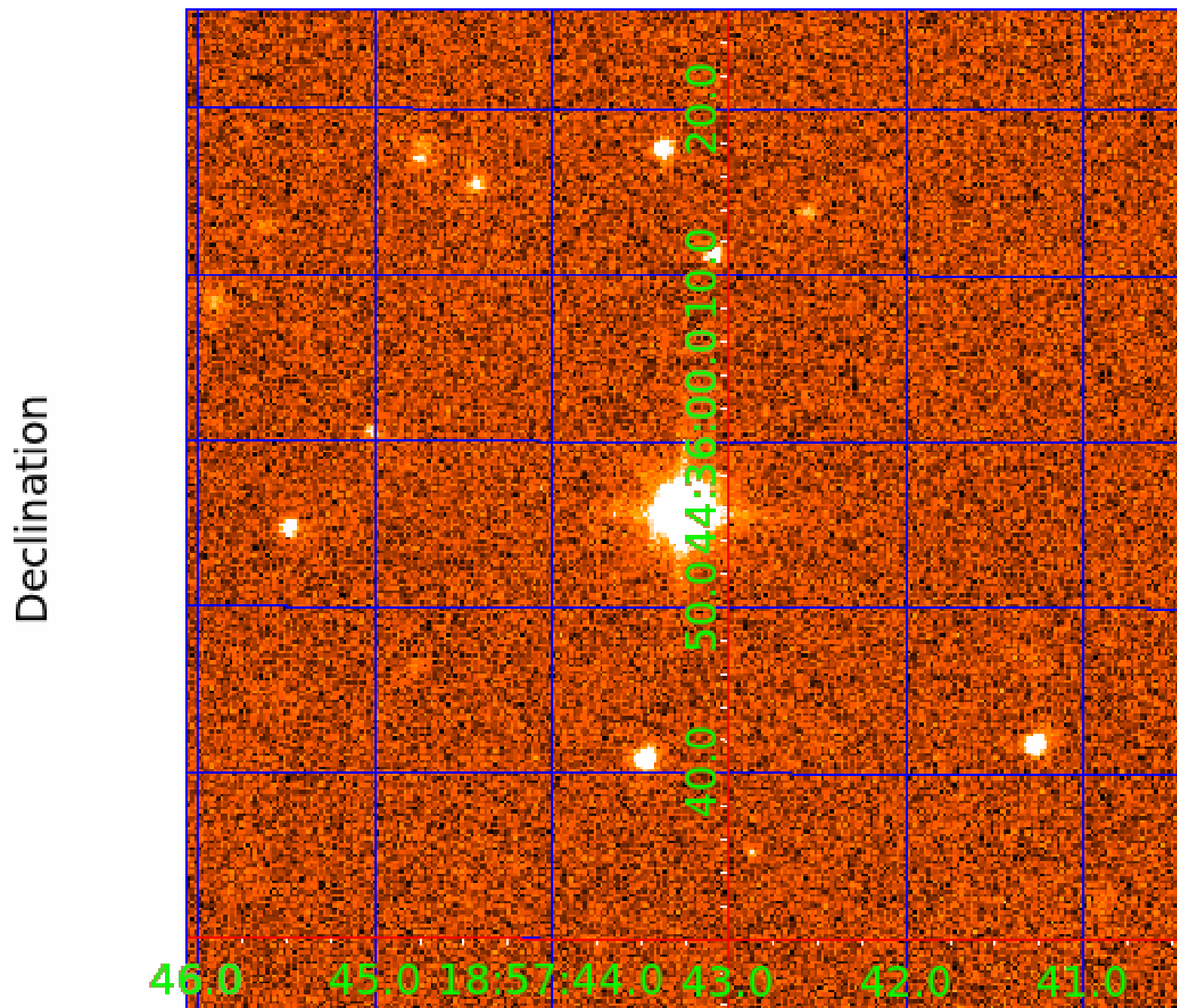
Q16 no OOT image



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



UKIRT Image



KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
008479655-02	OBS	No	648.078134	149.744822	977.8	6.680	23.8	12.3	0.64	5277	2.06	0.18
008479655-03	OBS	No	477.564643	454.191951	684.9	2.018	15.6	8.8	0.64	5277	1.85	0.27
008479655-04	OBS	No	501.519123	277.736281	739.8	3.022	14.7	10.0	0.64	5277	1.81	0.25
008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
008479655-07	OBS	No	359.903186	289.707065	410.9	3.000	12.8	-1.0	0.64	5277	1.29	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008479655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

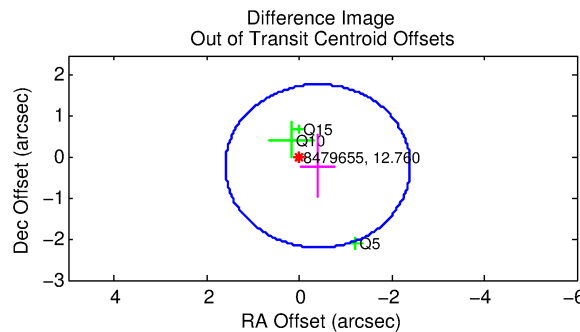
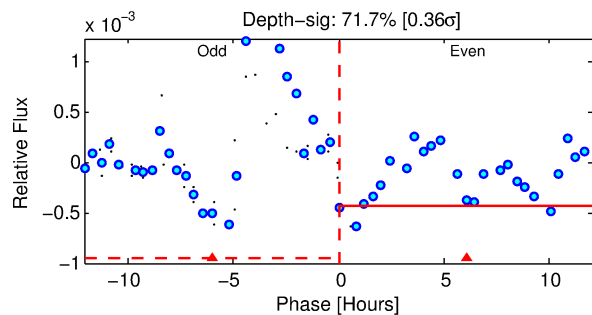
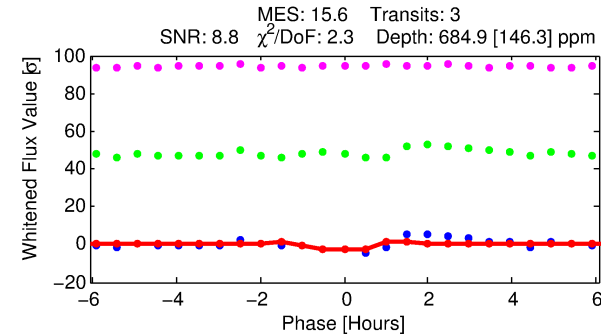
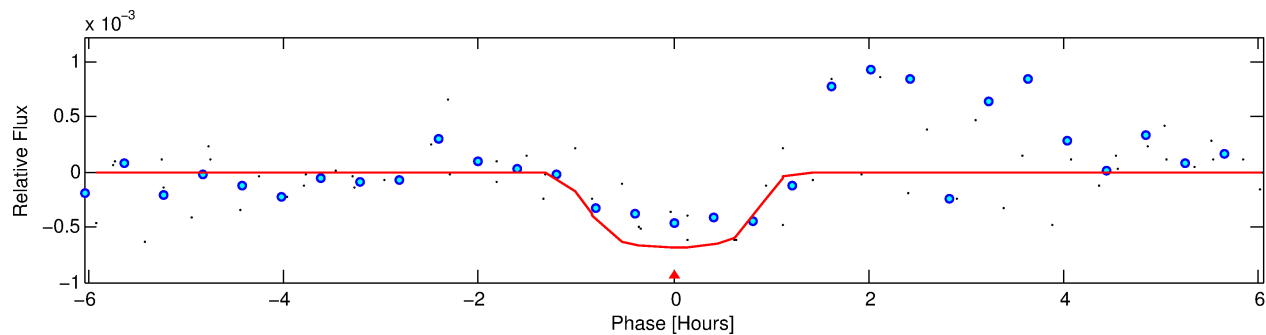
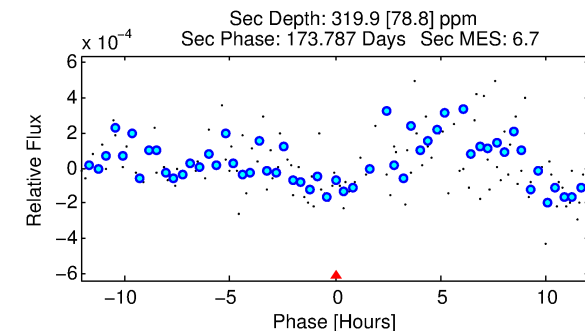
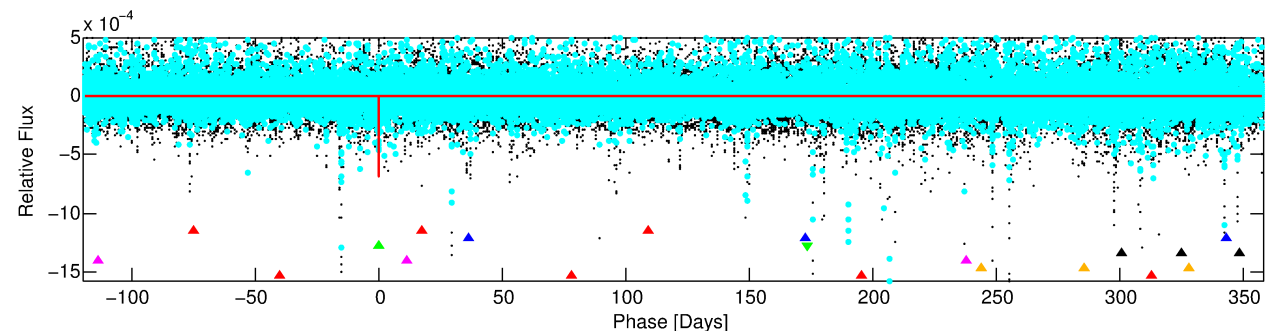
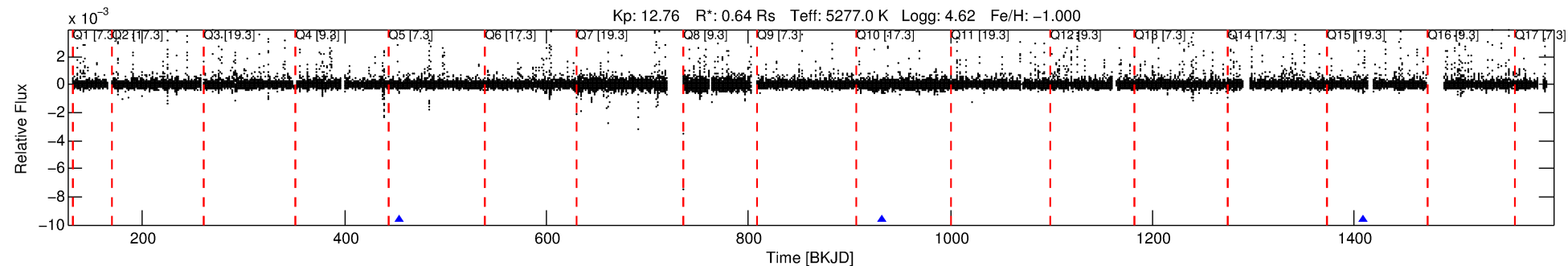
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-03

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 3 of 7 Period: 477.565 d



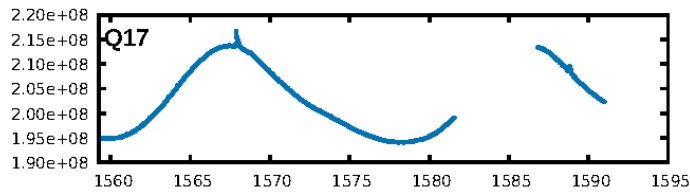
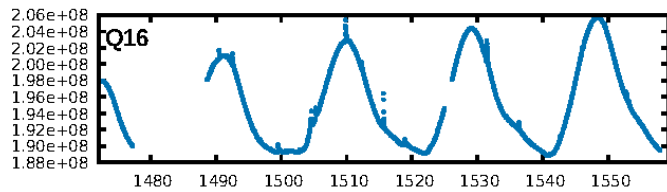
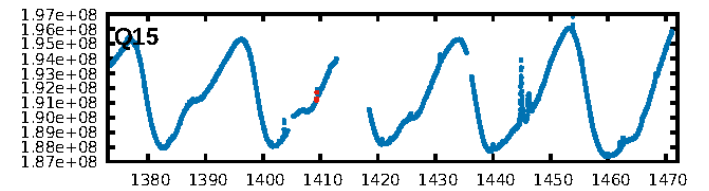
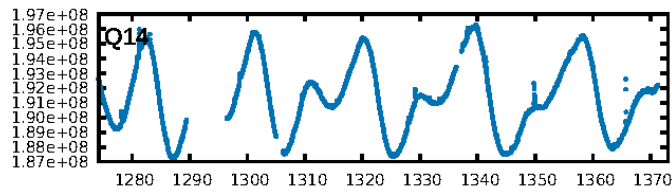
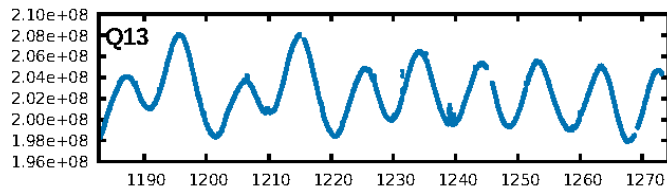
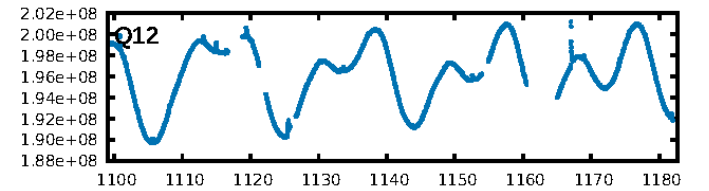
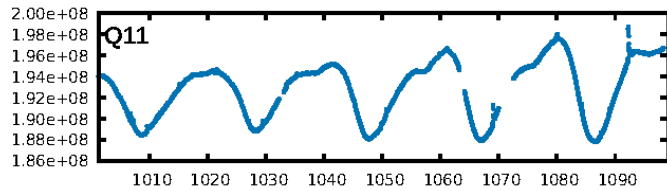
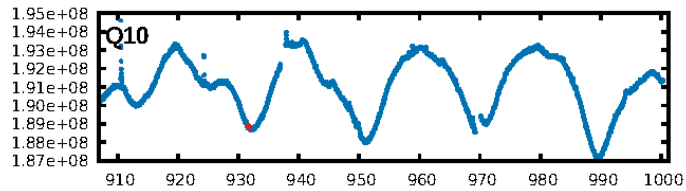
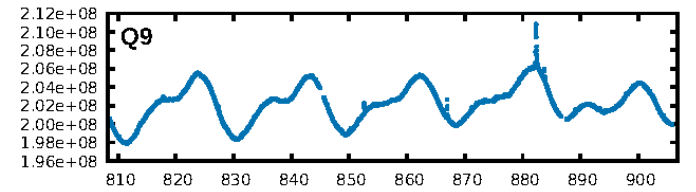
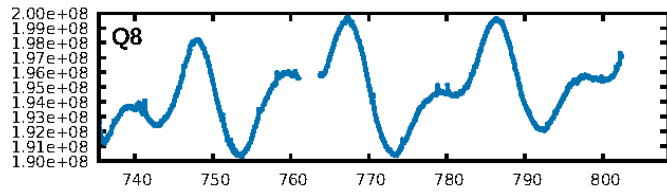
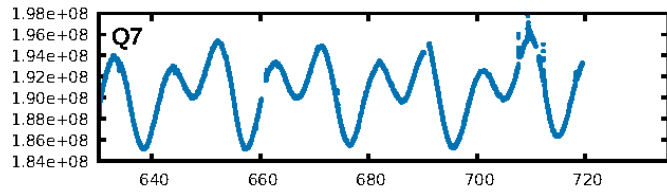
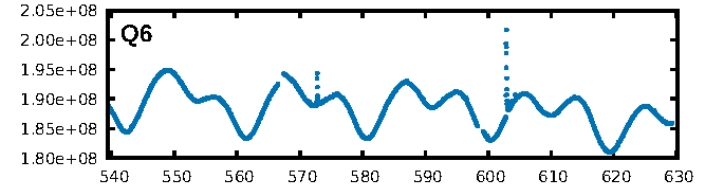
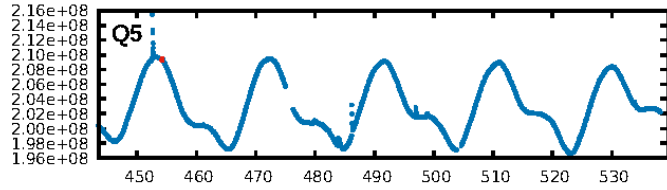
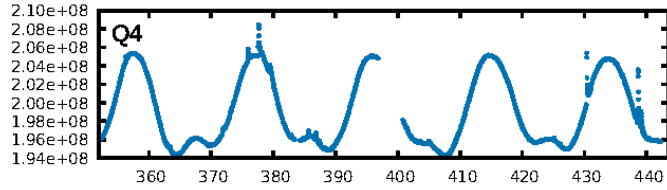
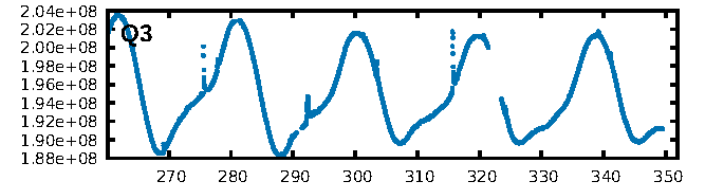
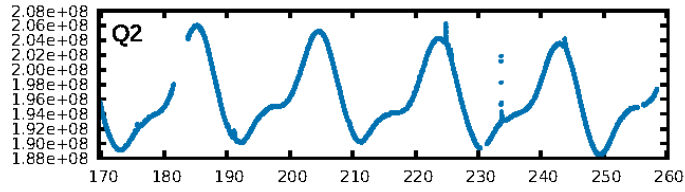
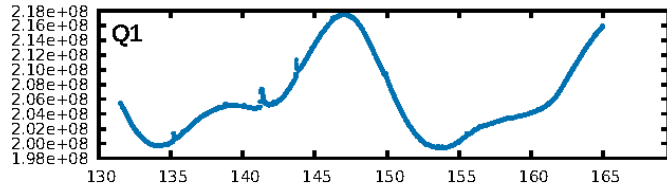
DV Fit Results:

Period = 477.56464 [0.00473] d
Epoch = 454.1920 [0.0060] BKJD
Rp/R* = 0.0265 [0.0620]
a/R* = 1199.10 [12673.73]
b = 0.78 [5.30]
Seff = 0.27 [0.04]
Teq = 184 [8] K
Rp = 1.85 [4.33] Re
a = 1.0253 [0.0745] AU
Ag = 54220.32 [254534.96] [0.21σ]
Teffp = 4339 [5093] K [0.82σ]

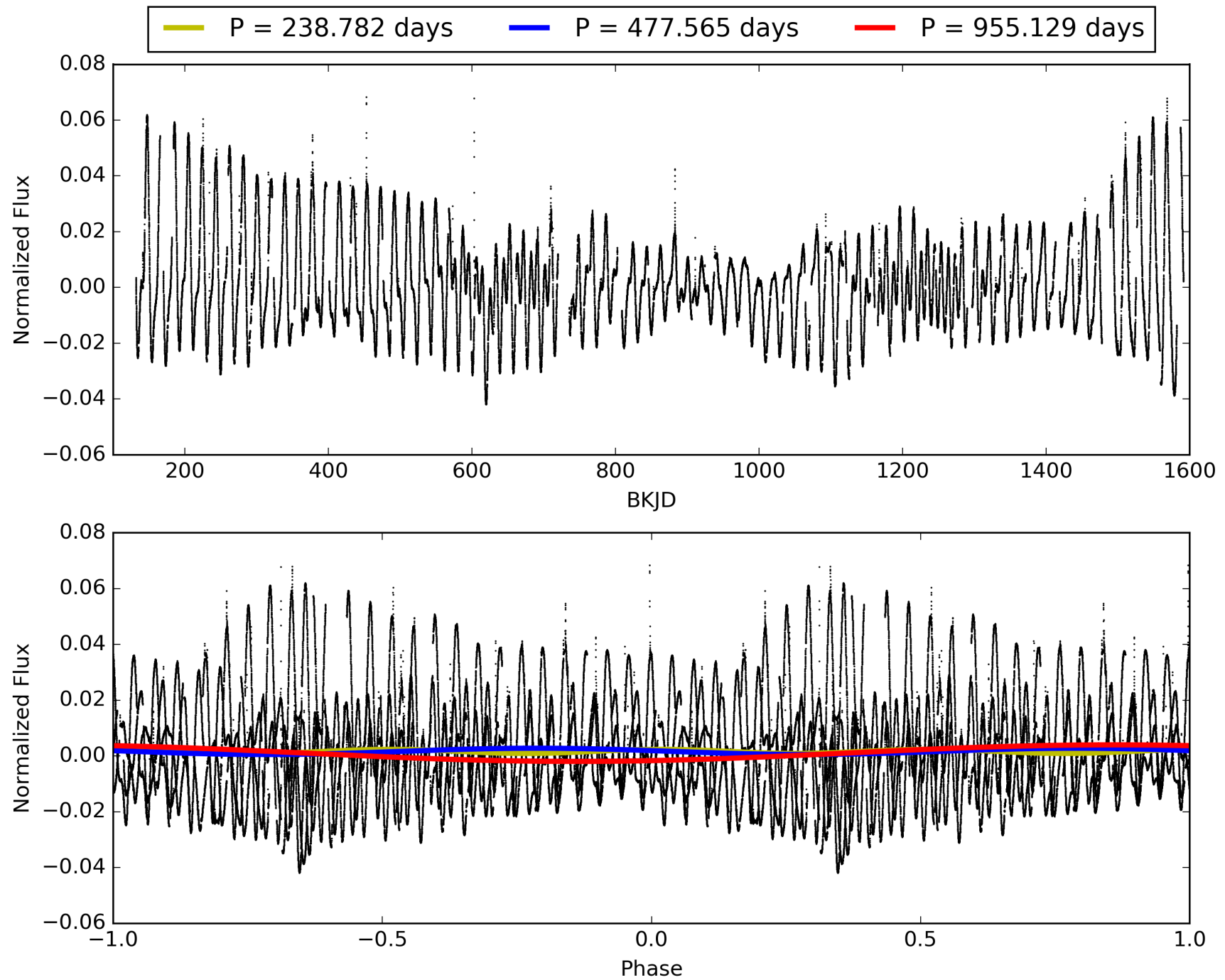
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [781.06σ]
LongPeriod-sig: 100.0% [158.23σ]
ModelChiSquare2-sig: 1.3%
ModelChiSquareGof-sig: 26.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.432
Centroid-sig: 43.4%
Centroid-so: 0.421 arcsec [0.72σ]
OotOffset-rm: 0.452 arcsec [0.68σ]
KicOffset-rm: 0.378 arcsec [0.60σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008479655-03, PDC Light Curves

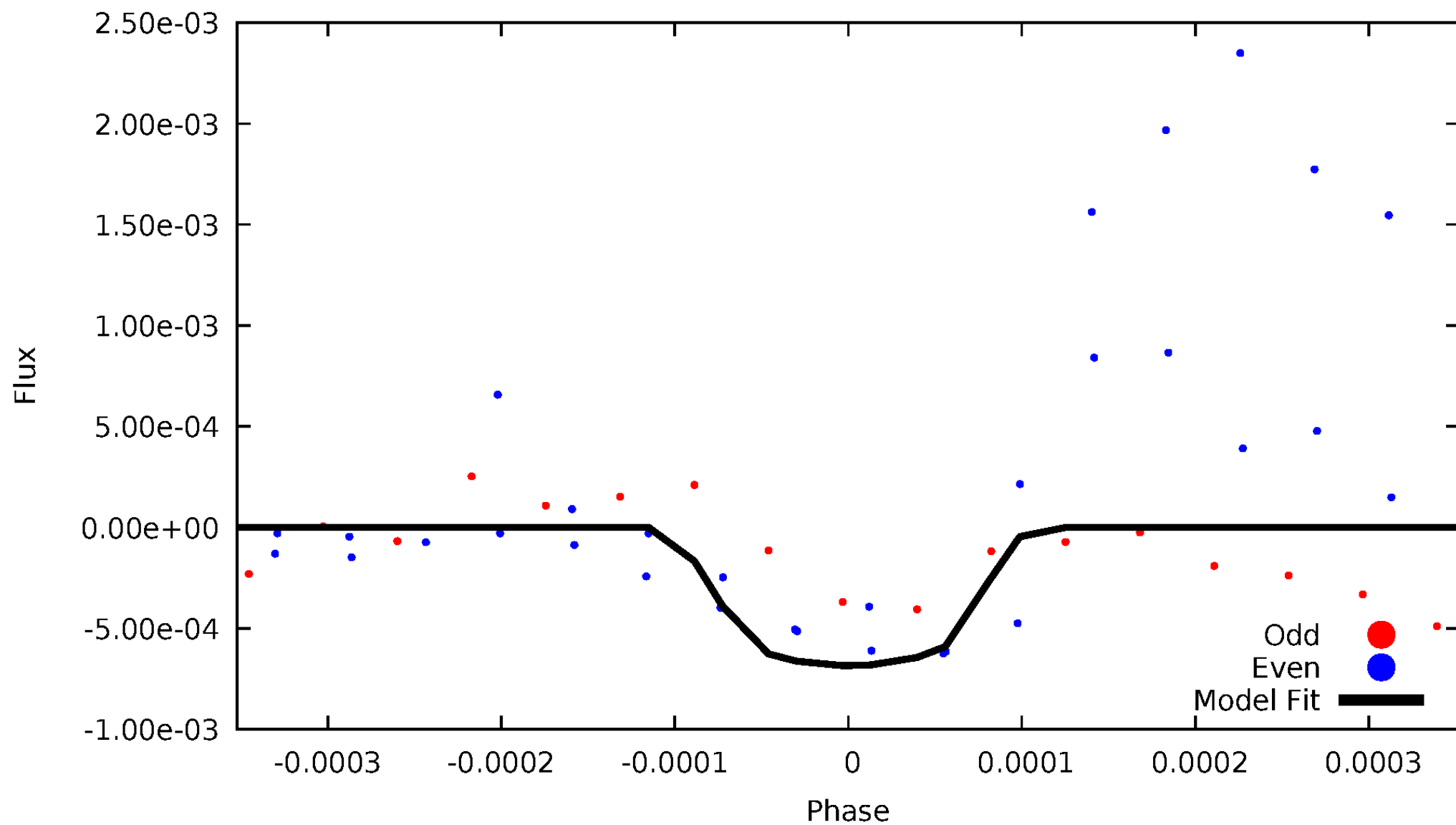


TCE 008479655-03



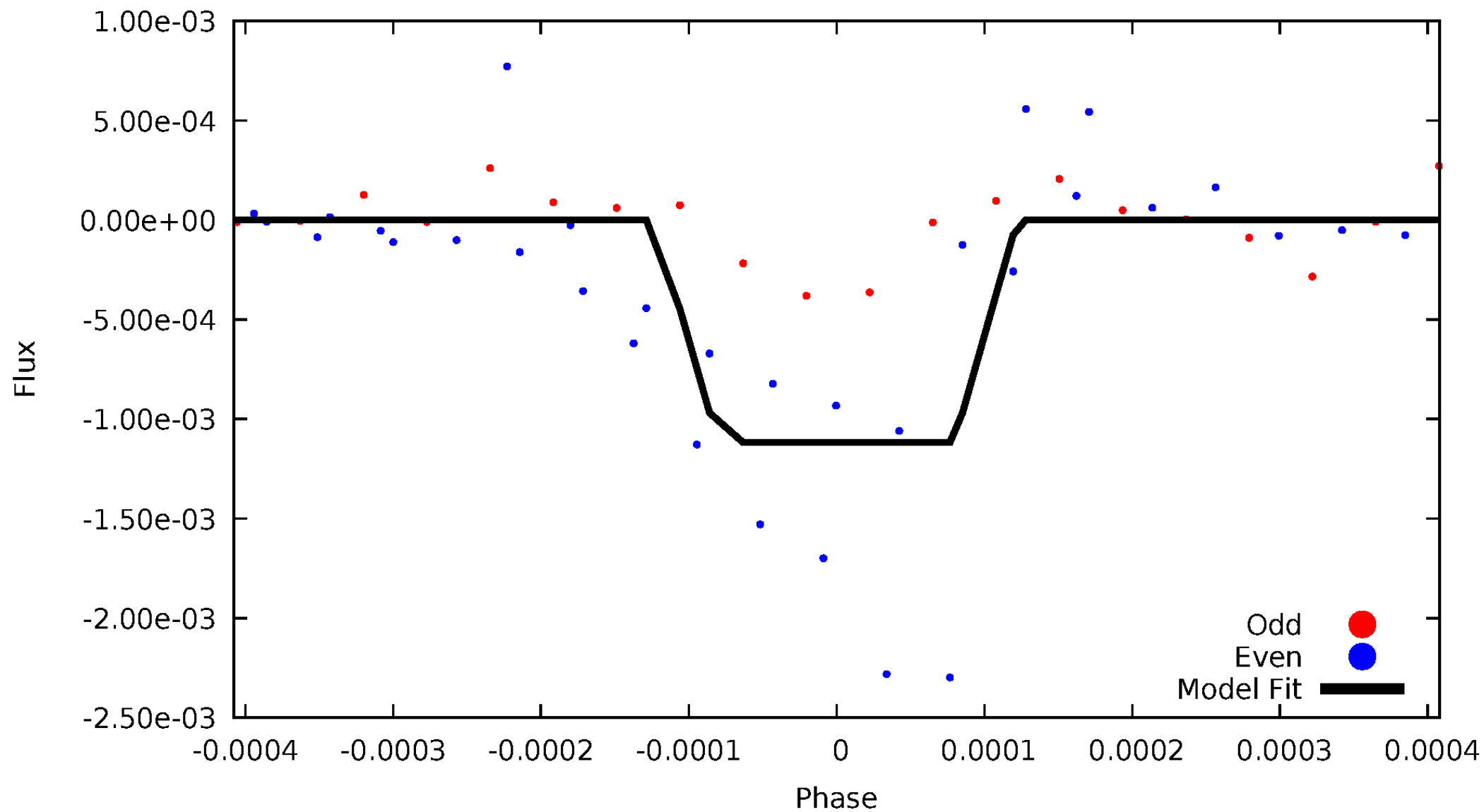
DV Odd/Even

TCE 008479655-03



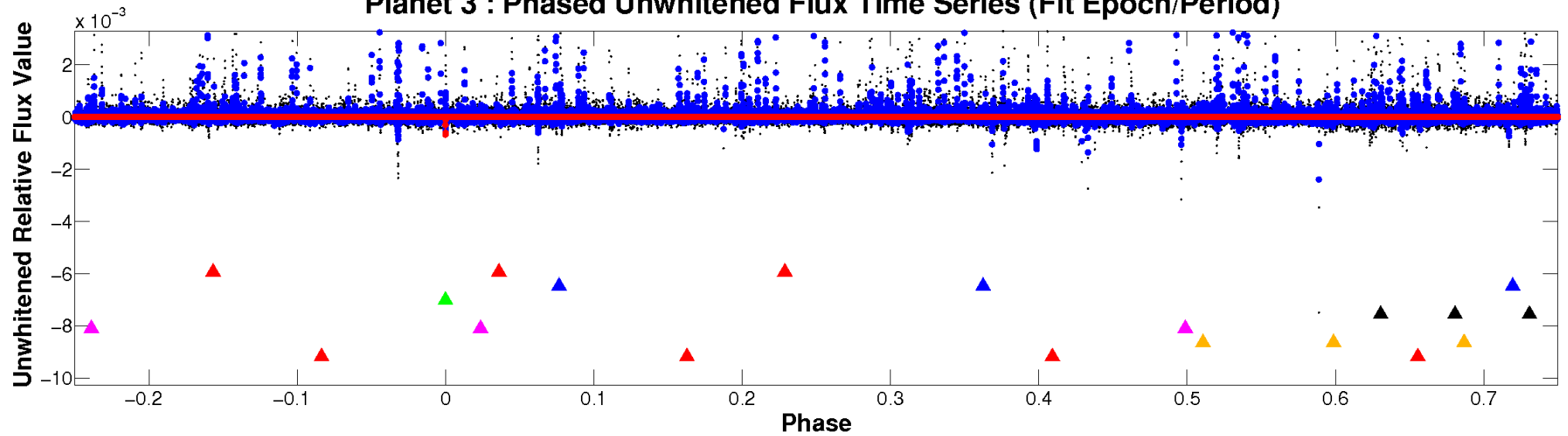
ALT Odd/Even

TCE 008479655-03

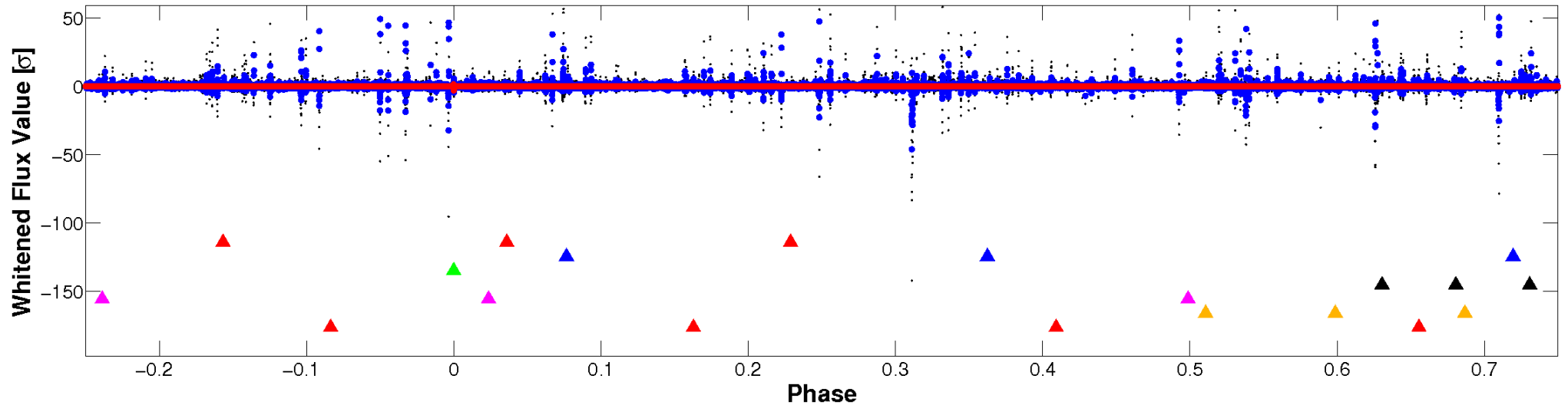


Non-Whitened Vs. Whitened Light Curve

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

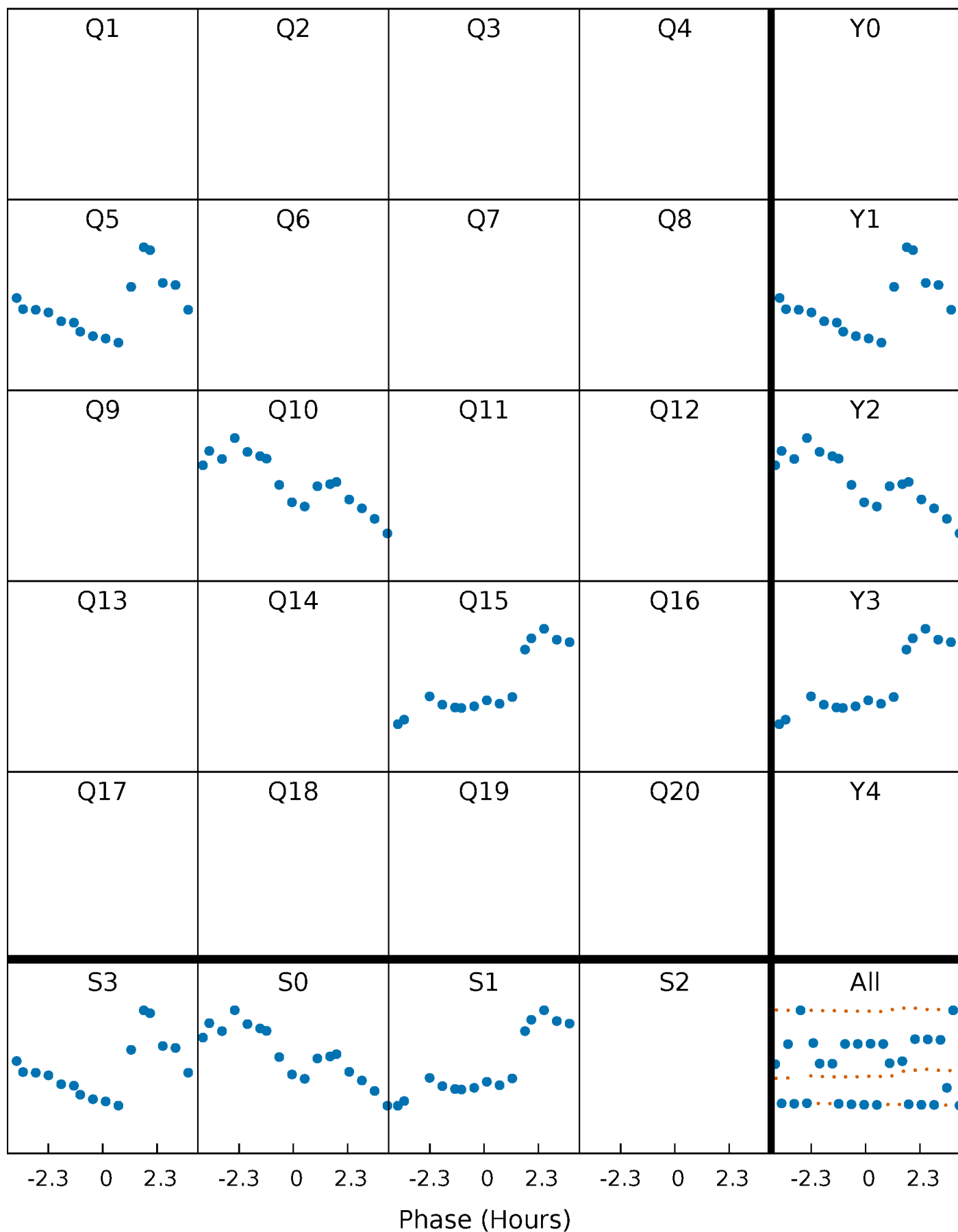


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



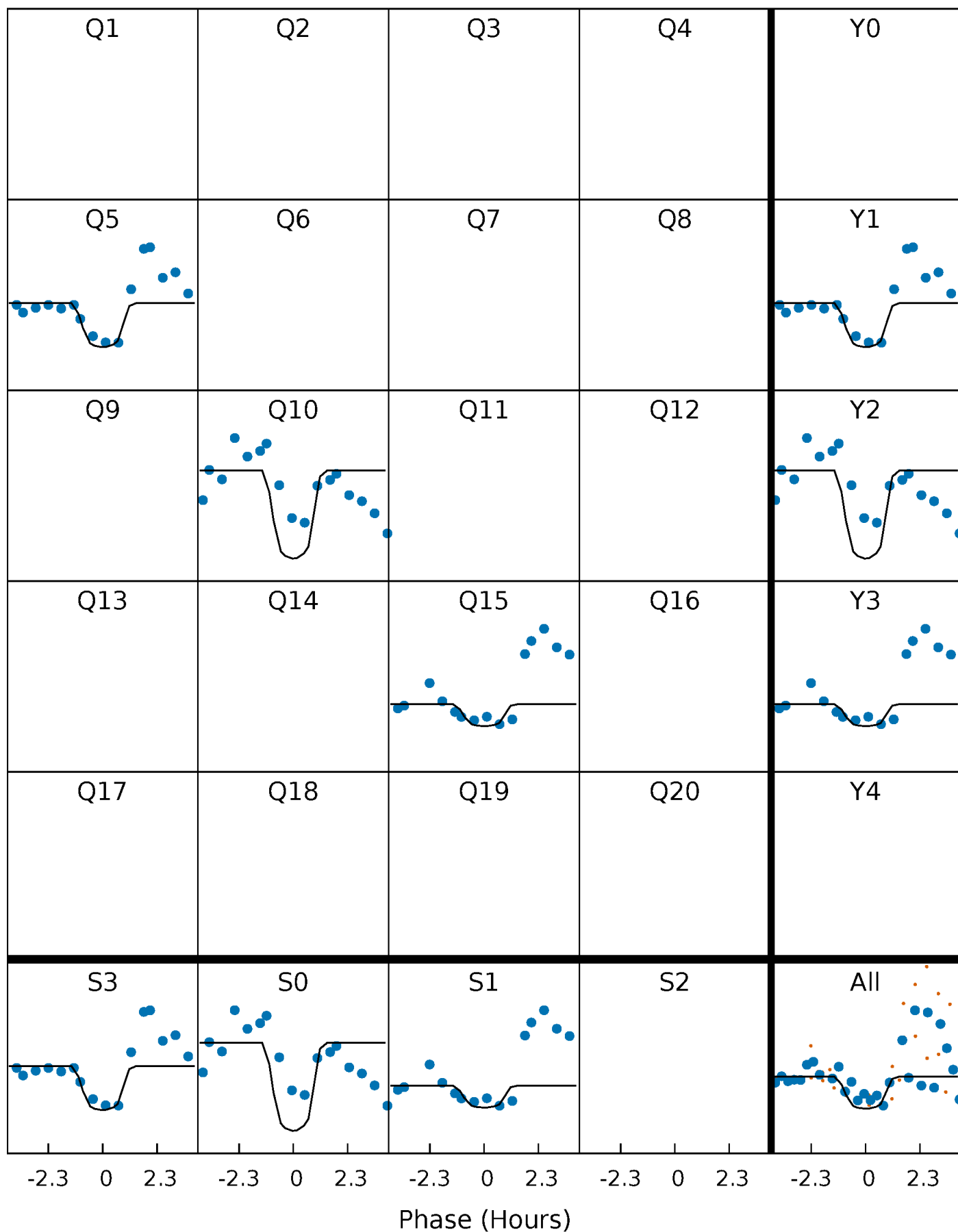
PDC Quarter-Phased Transit Curves

TCE 008479655-03 $P=477.564643$ Days $T_0=454.191951$ (BKJD)



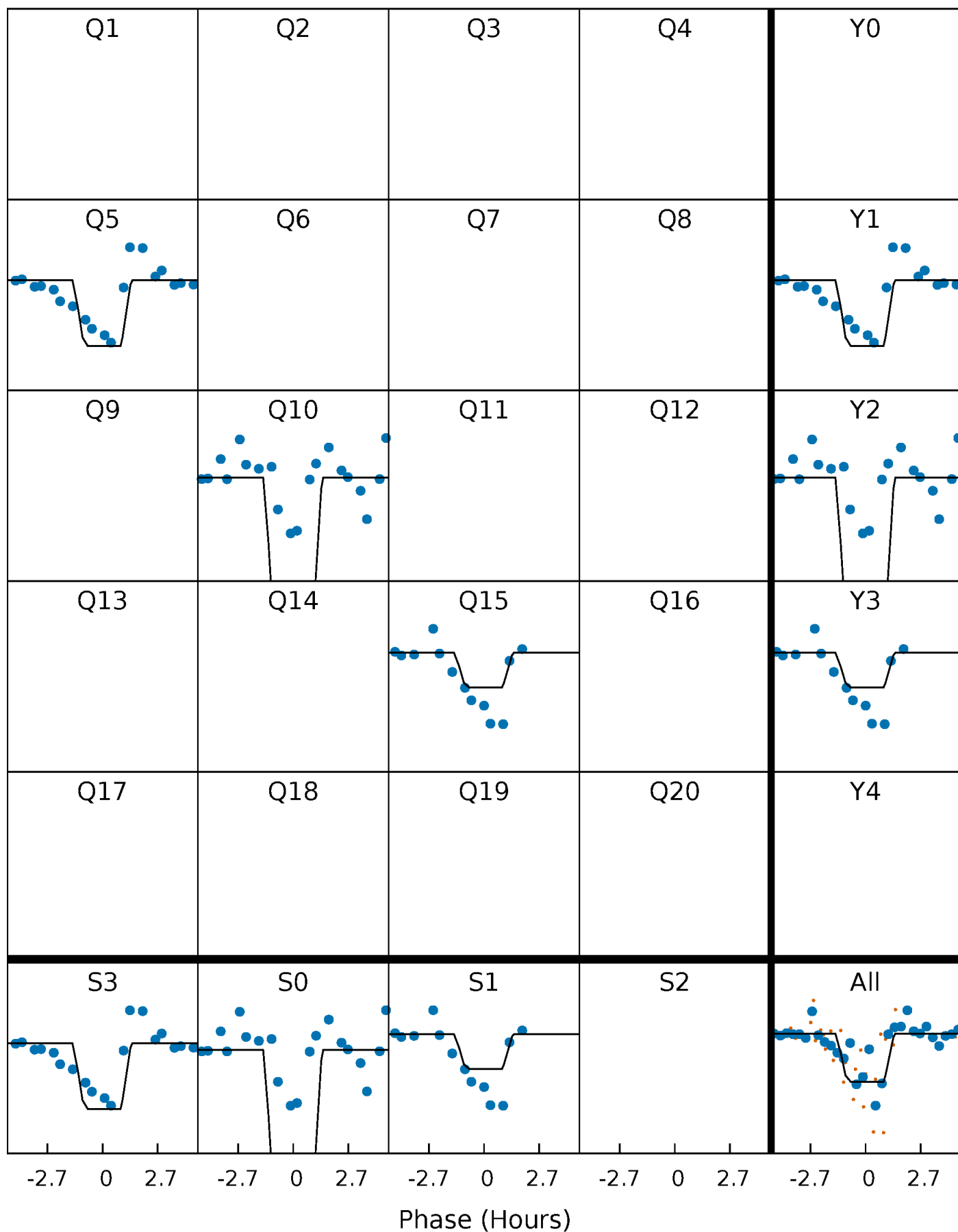
DV Quarter-Phased Transit Curves

TCE 008479655-03 P=477.564643 Days $T_0=454.191951$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

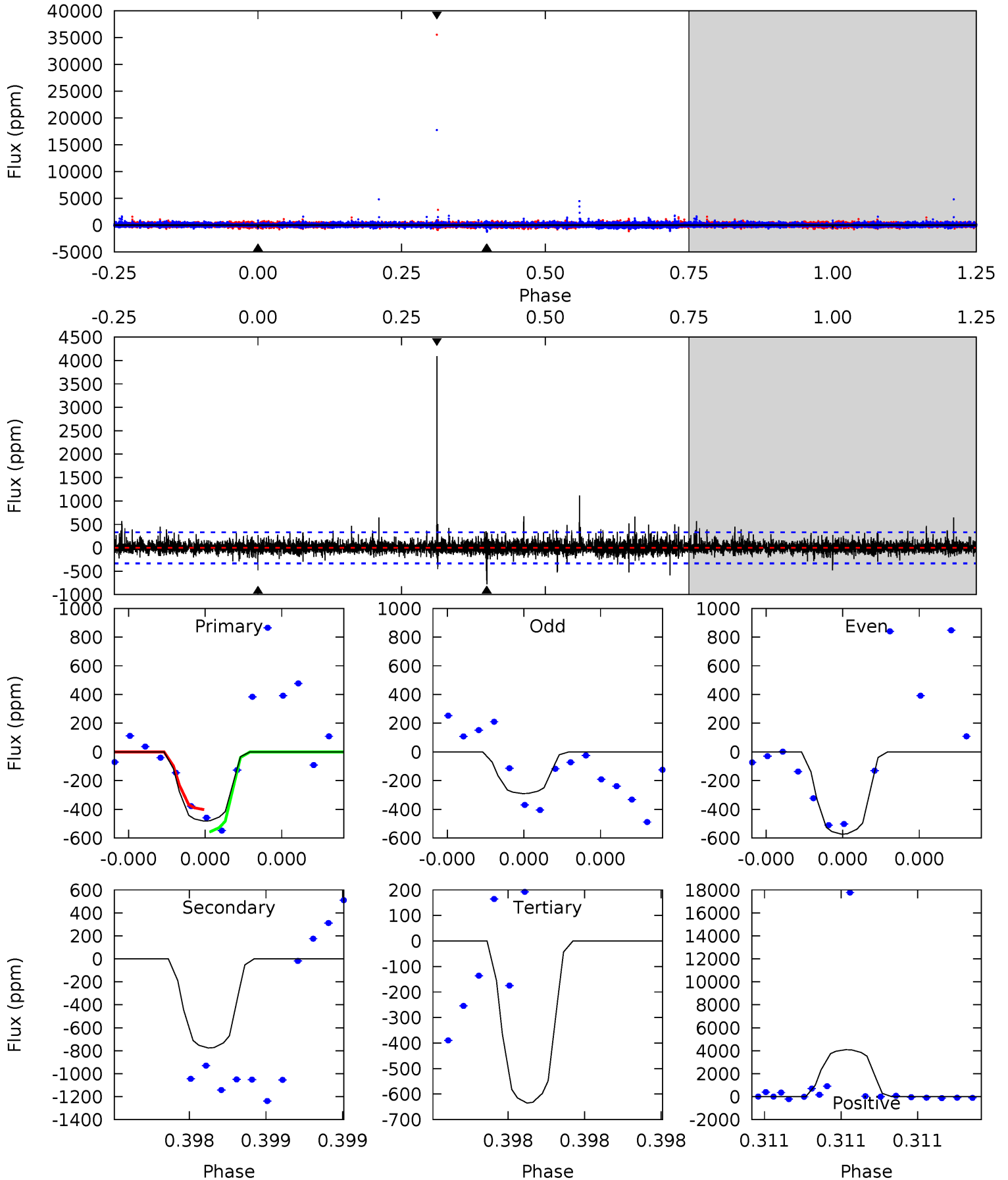
TCE 008479655-03 P=477.566353 Days $T_0=454.198525$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-03, P = 477.564643 Days, E = 454.191951 Days

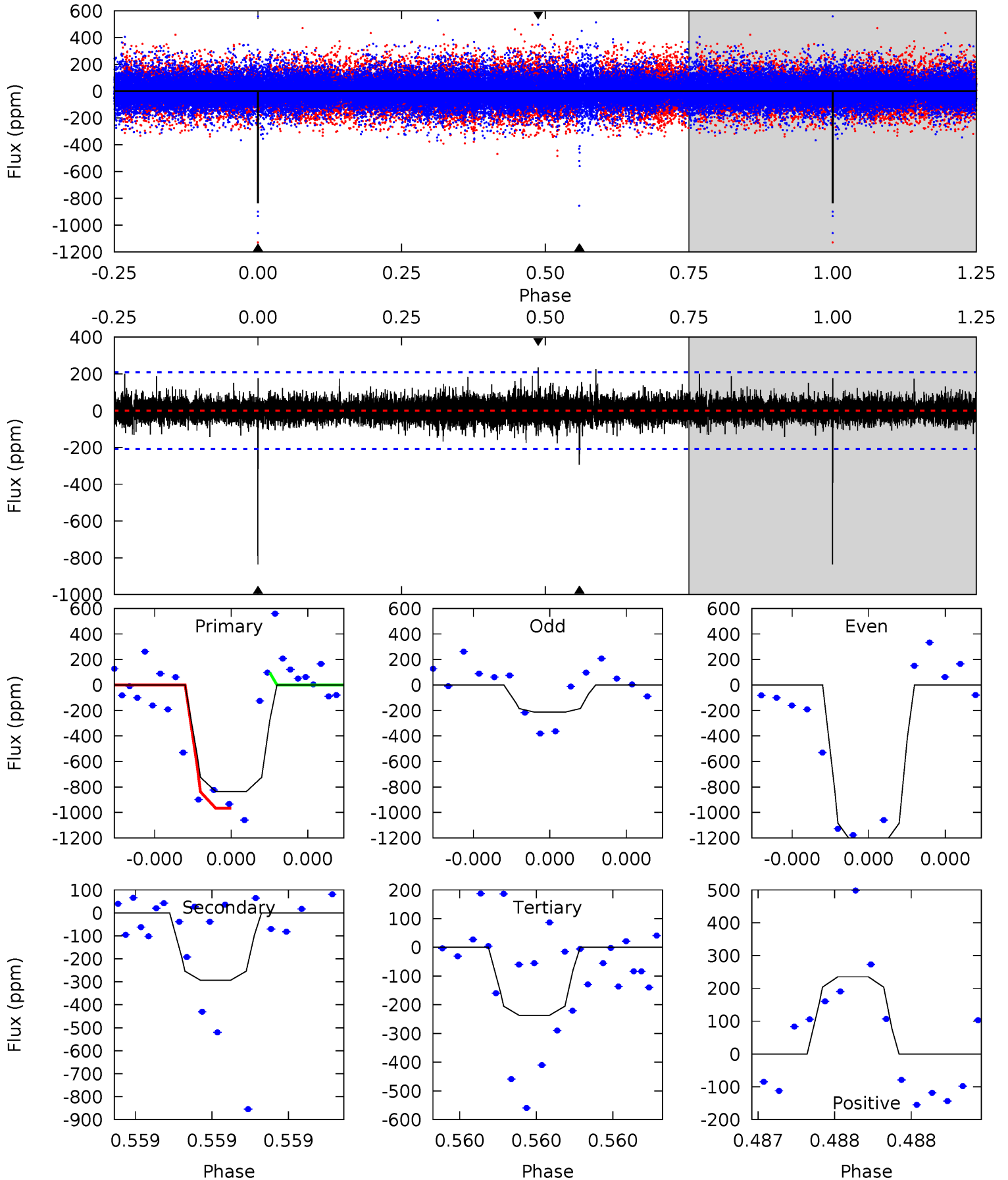
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.32	13.4	11.0	70.5	5.72	3.70	1.62	-2.64	-62.2	2.44	-57.1	1.14	0.85	0.84	1.38



Alt Model-Shift Uniqueness Test

008479655-03, P = 477.566353 Days, E = 454.198525 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	8.01	6.47	6.43	5.72	3.70	0.94	16.4	16.4	1.54	1.58	18.6	1.25	0.22	8.37



Stellar Parameters For KIC 008479655

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-777 ± 58	$3.67^{+3.61}_{-2.52}$	256^{+10}_{-8}	4073^{+2693}_{-801}	$33629^{+298949}_{-24981}$
Alt.	-293 ± 37	$3.72^{+3.47}_{-2.37}$	256^{+9}_{-9}	3472^{+1562}_{-634}	12576^{+81769}_{-9378}

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

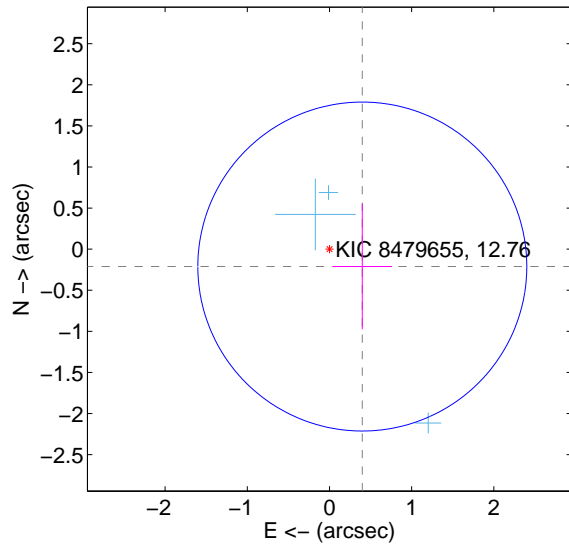
Supplemental centroid analysis for 008479655-03. Kepler magnitude: 12.76. Transit SNR 8.75

There are 3 quarters with good PRF difference image offsets

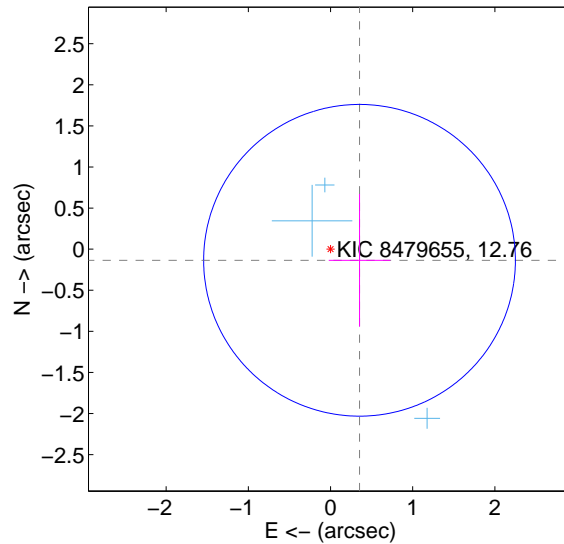
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.452 ± 0.667	0.68	-0.399 ± 0.362	-0.211 ± 0.763
PRF-fit source offset from KIC position	0.378 ± 0.632	0.60	-0.353 ± 0.374	-0.135 ± 0.807
photometric centroid source offset	0.42 ± 0.58	0.72	-0.38 ± 0.57	0.17 ± 0.62

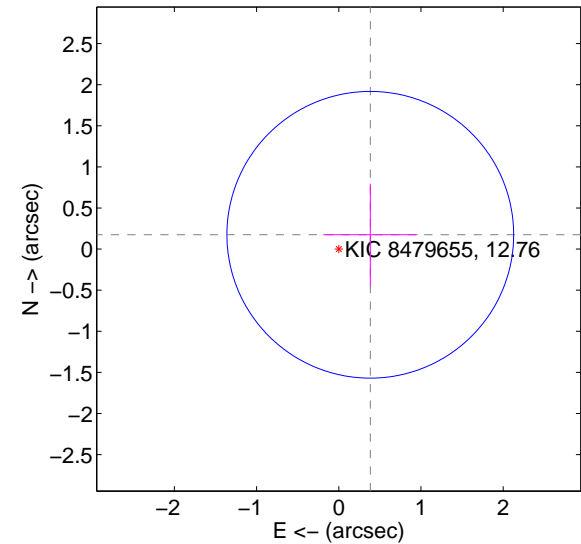
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

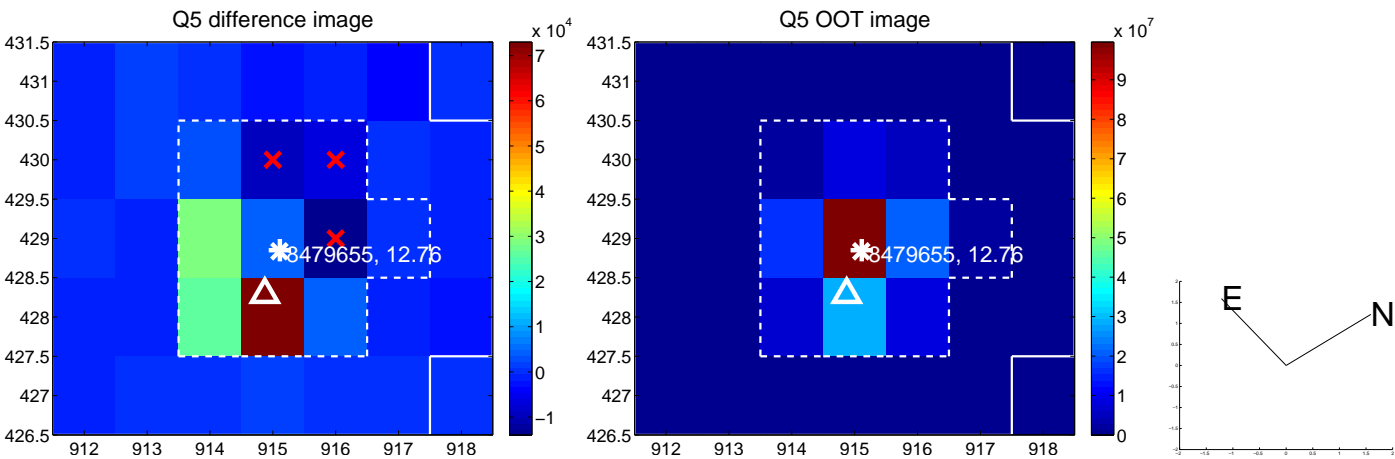


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

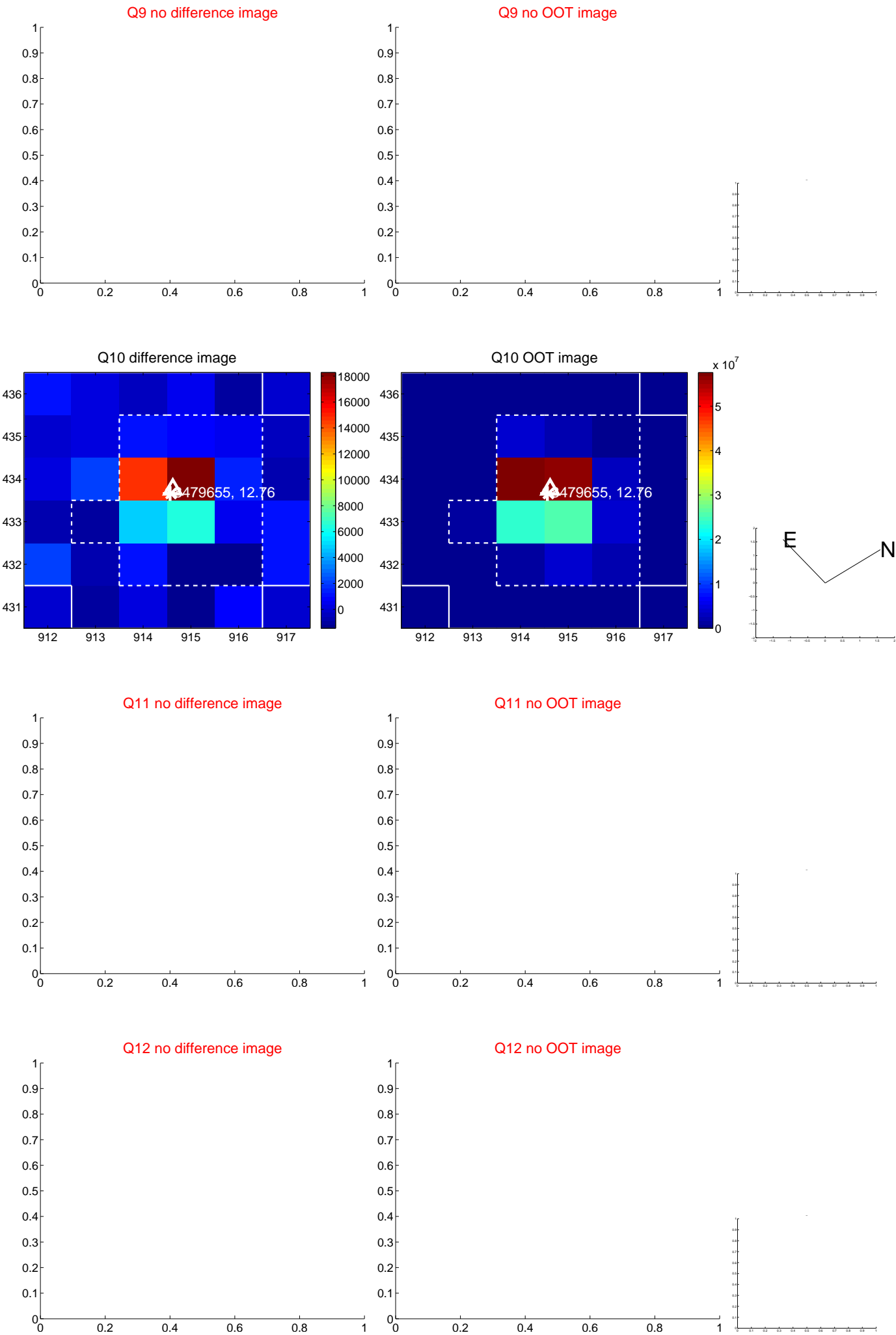
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



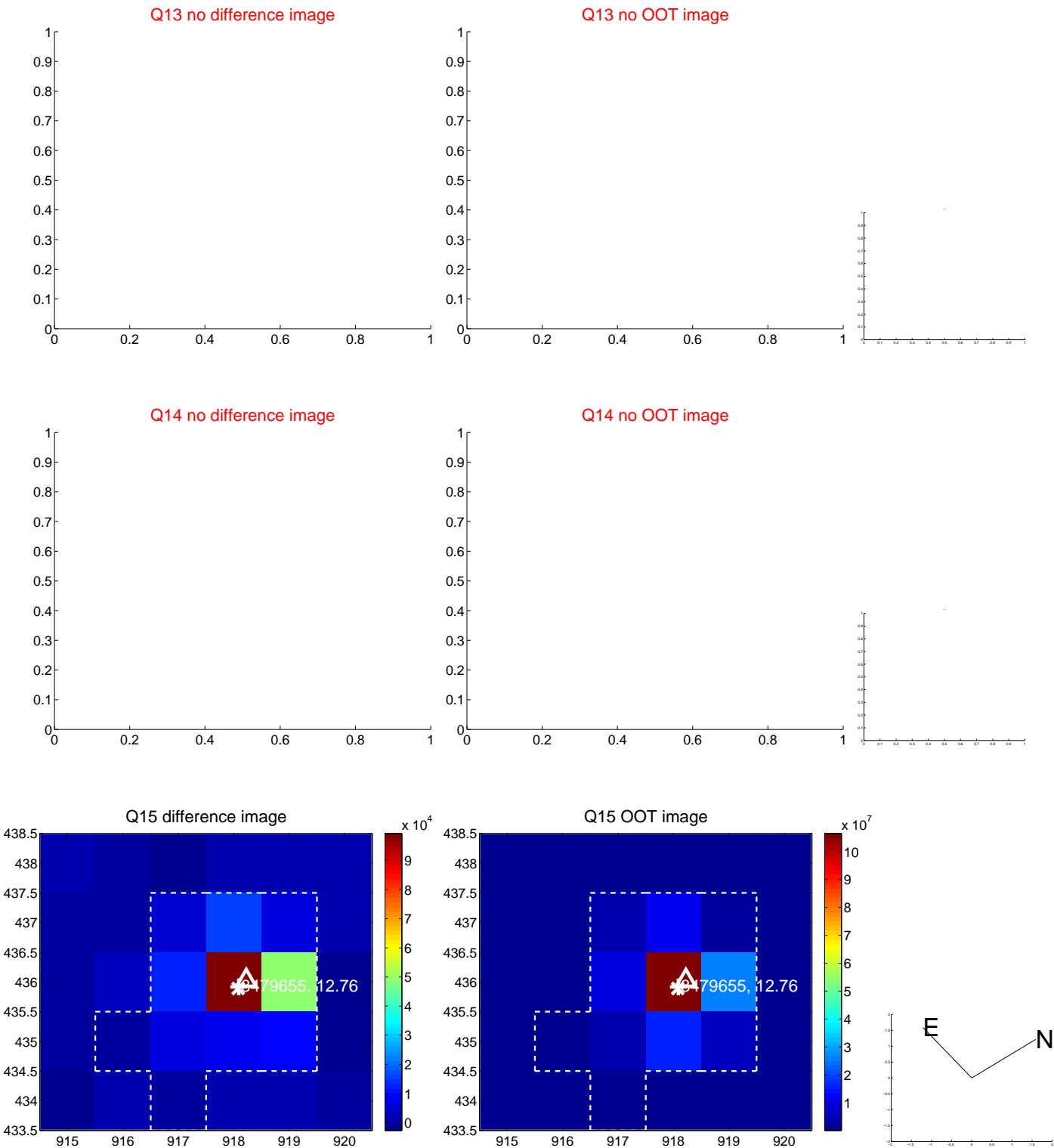
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



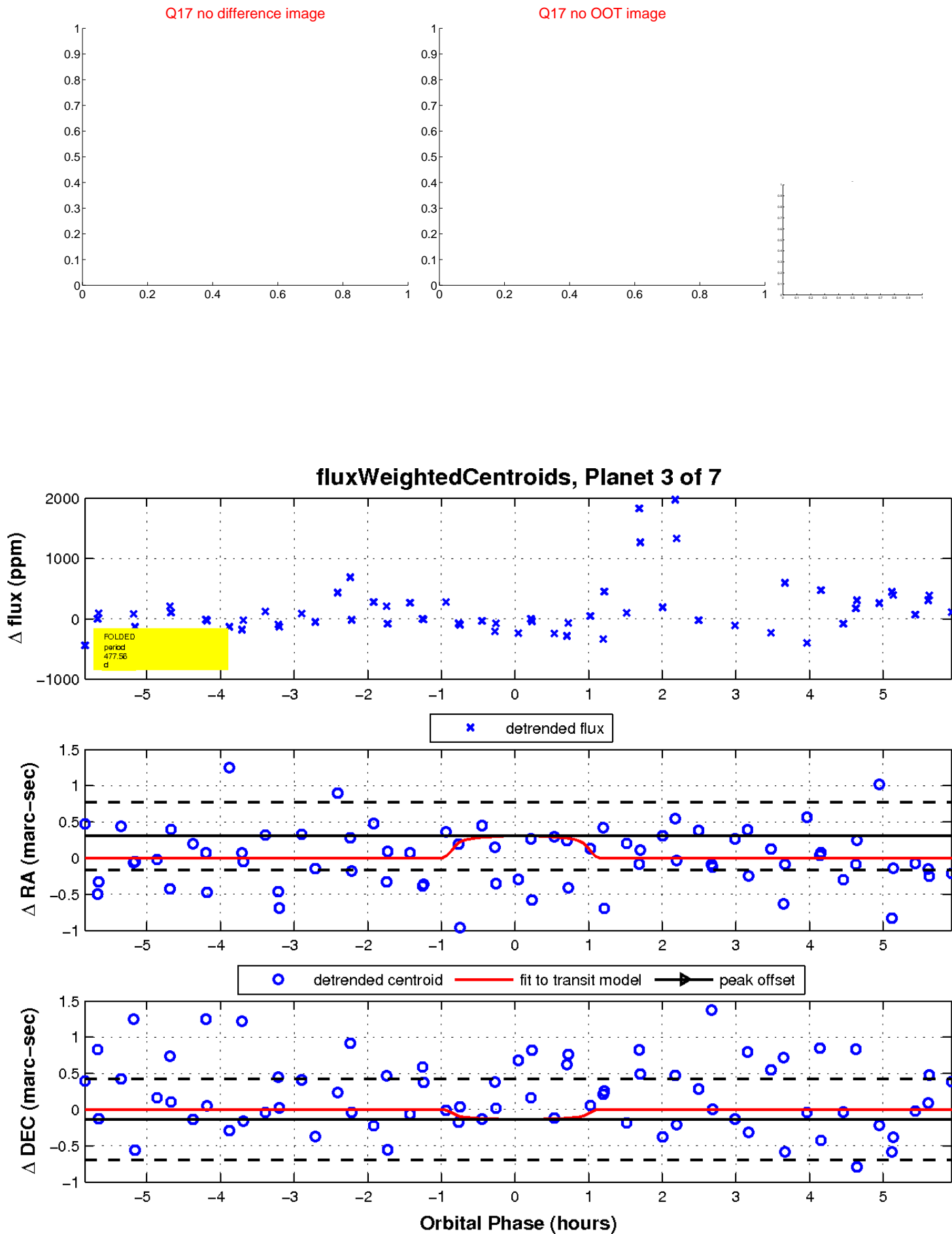
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

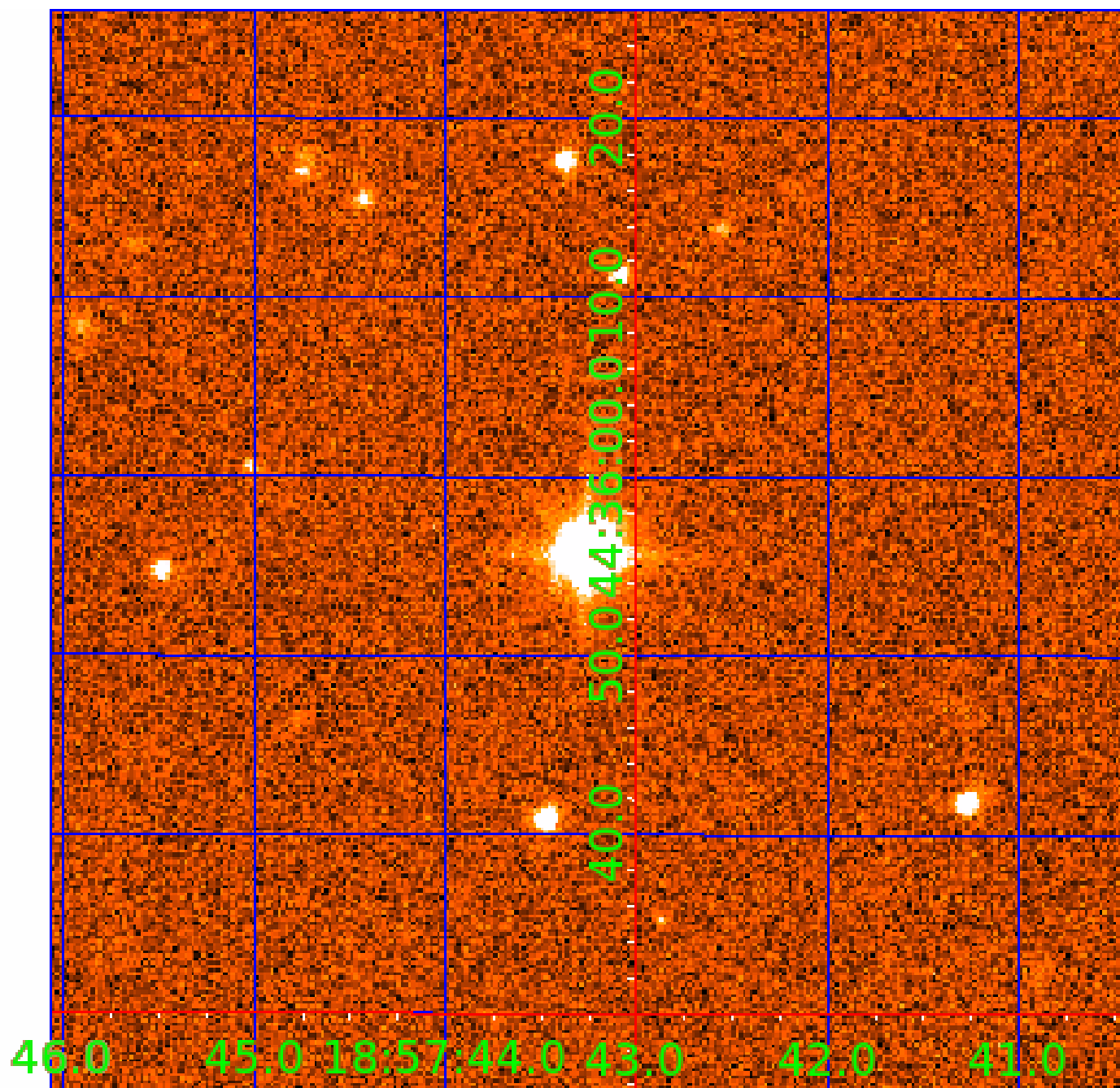


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
008479655-02	OBS	No	648.078134	149.744822	977.8	6.680	23.8	12.3	0.64	5277	2.06	0.18
008479655-03	OBS	No	477.564643	454.191951	684.9	2.018	15.6	8.8	0.64	5277	1.85	0.27
008479655-04	OBS	No	501.519123	277.736281	739.8	3.022	14.7	10.0	0.64	5277	1.81	0.25
008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
008479655-07	OBS	No	359.903186	289.707065	410.9	3.000	12.8	-1.0	0.64	5277	1.29	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008479655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

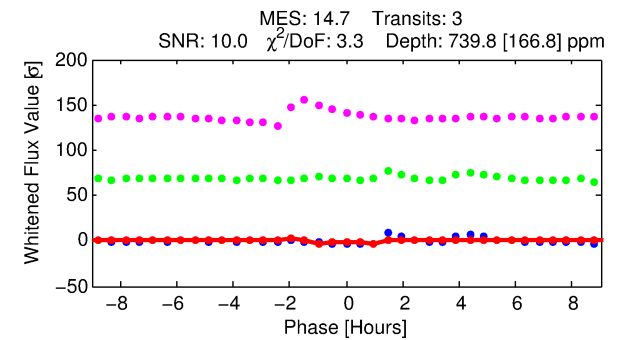
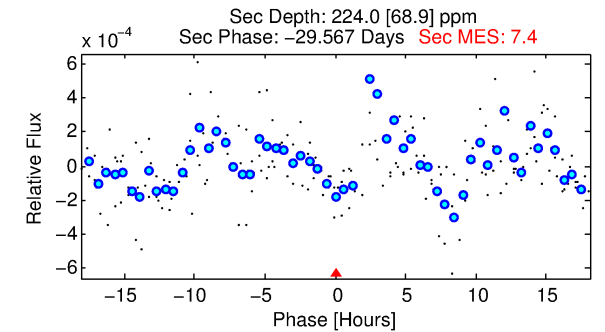
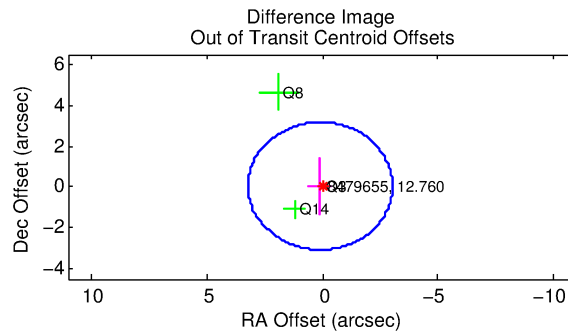
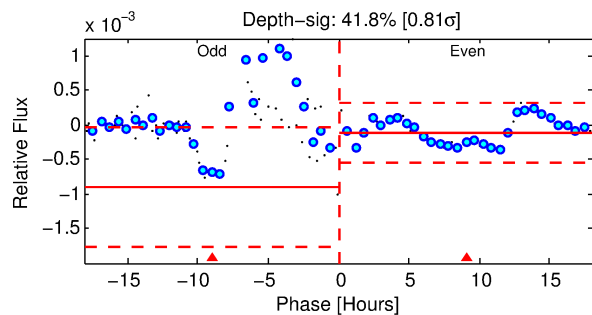
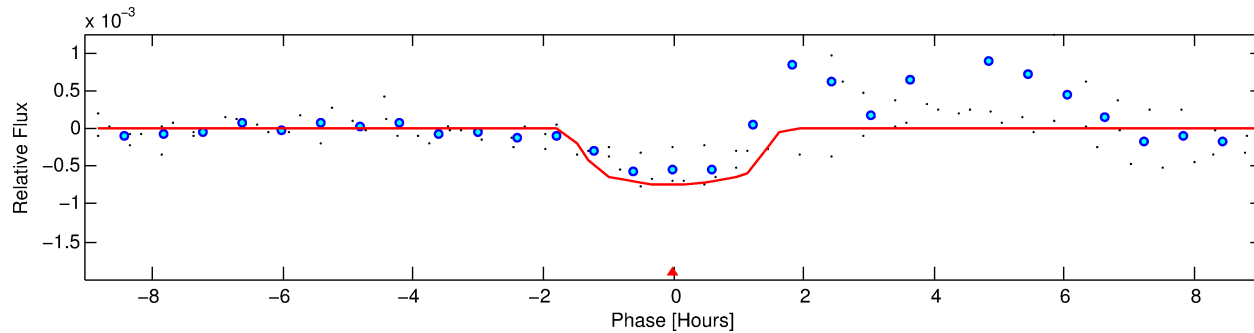
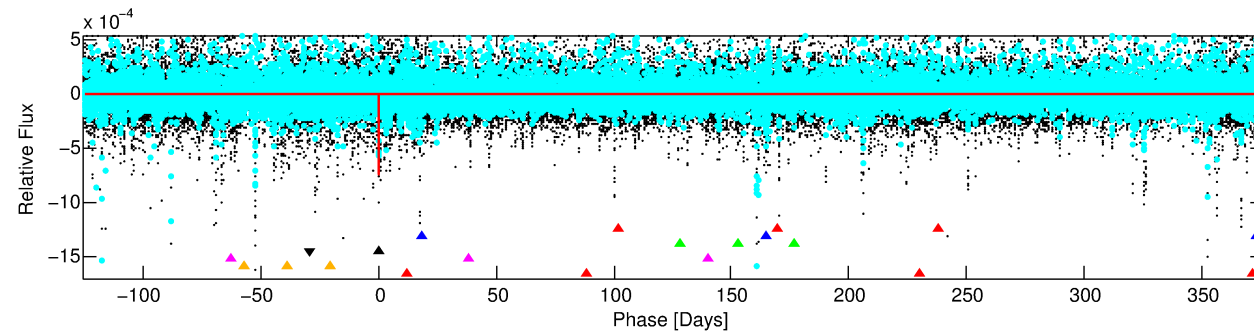
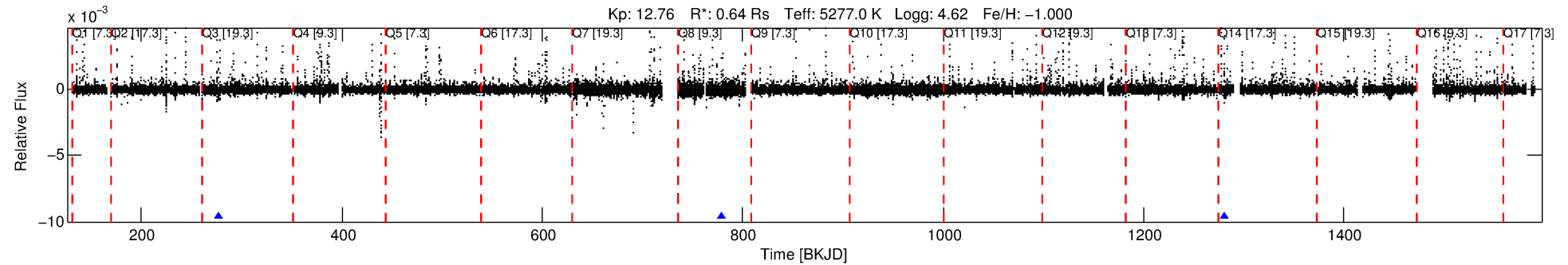
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-04

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 4 of 7 Period: 501.519 d



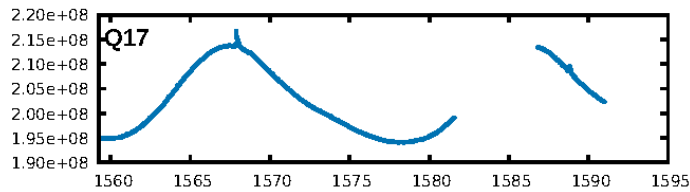
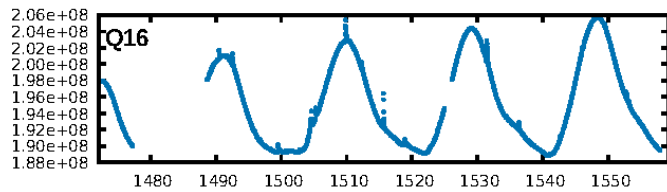
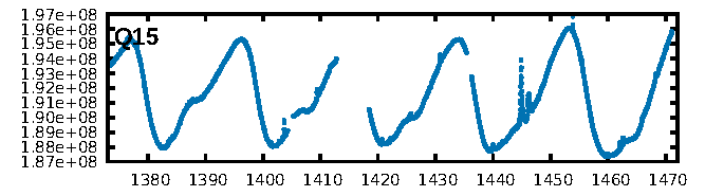
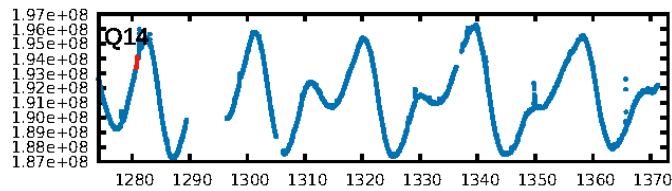
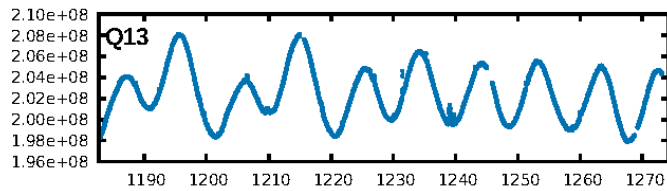
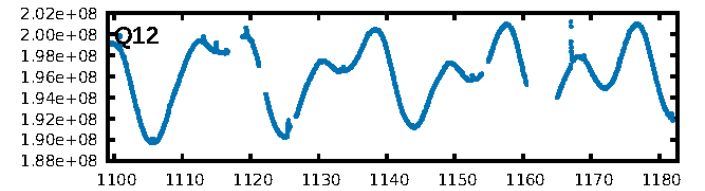
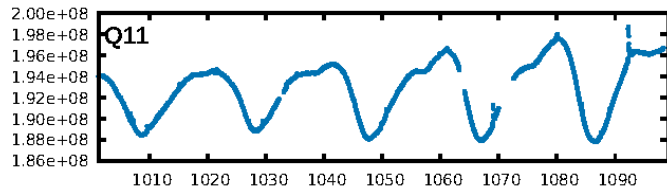
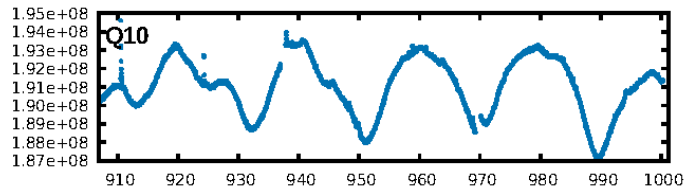
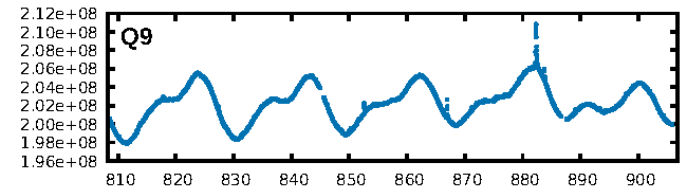
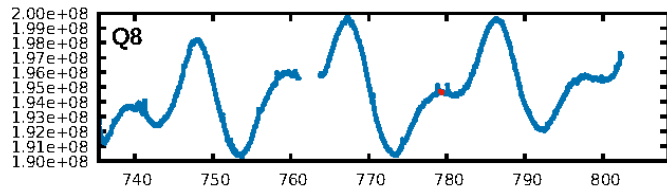
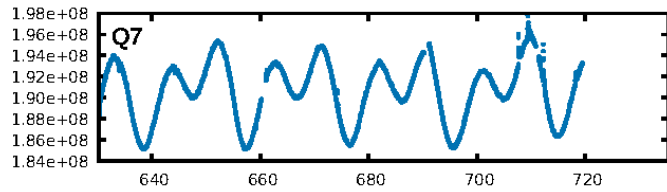
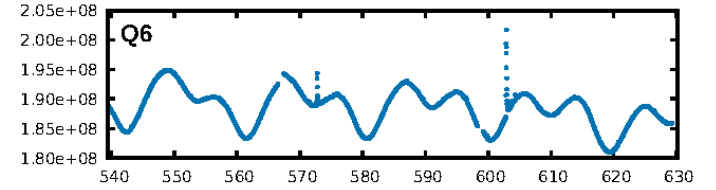
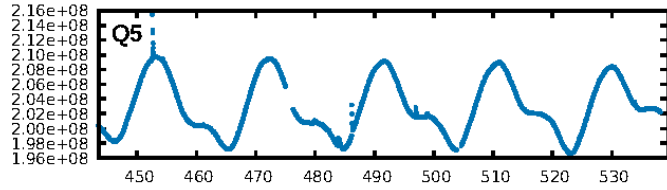
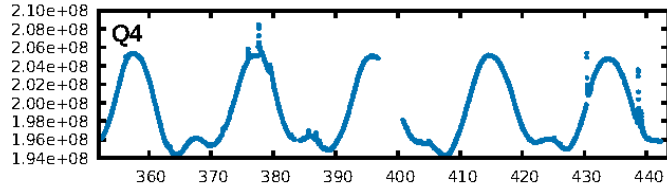
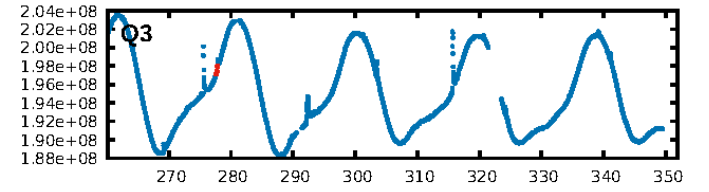
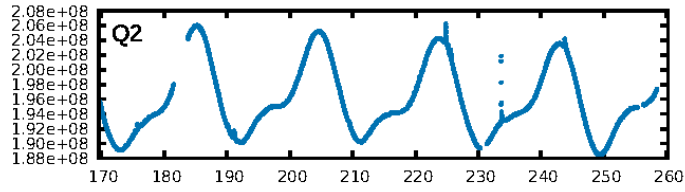
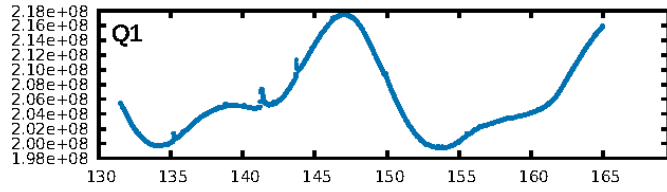
DV Fit Results:

Period = 501.51912 [0.00523] d
Epoch = 277.7363 [0.0078] BKJD
Rp/R* = 0.0259 [0.1763]
a/R* = 1071.63 [32845.74]
b = 0.58 [35.17]
Seff = 0.25 [0.04]
Teq = 181 [7] K
Rp = 1.81 [12.32] Re
a = 1.0593 [0.0770] AU
Ag = 42399.15 [578404.69] [0.07 σ]
Teffp = 4015 [13692] K [0.28 σ]

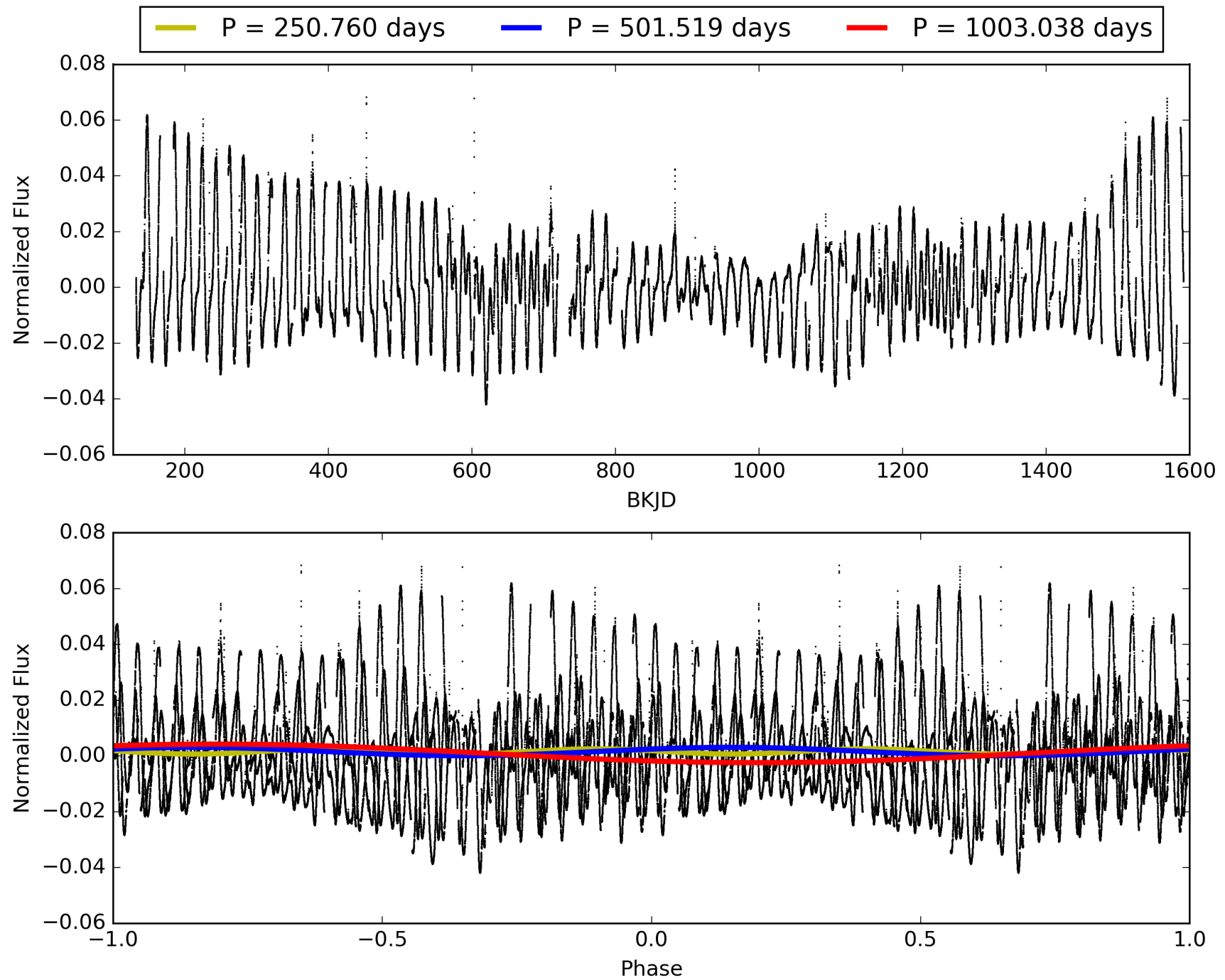
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [158.23 σ]
LongPeriod-sig: 100.0% [56.59 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 9.946
Centroid-sig: 89.5%
Centroid-so: 0.151 arcsec [0.36 σ]
OotOffset-rm: 0.109 arcsec [0.10 σ]
KicOffset-rm: 0.166 arcsec [0.16 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008479655-04, PDC Light Curves

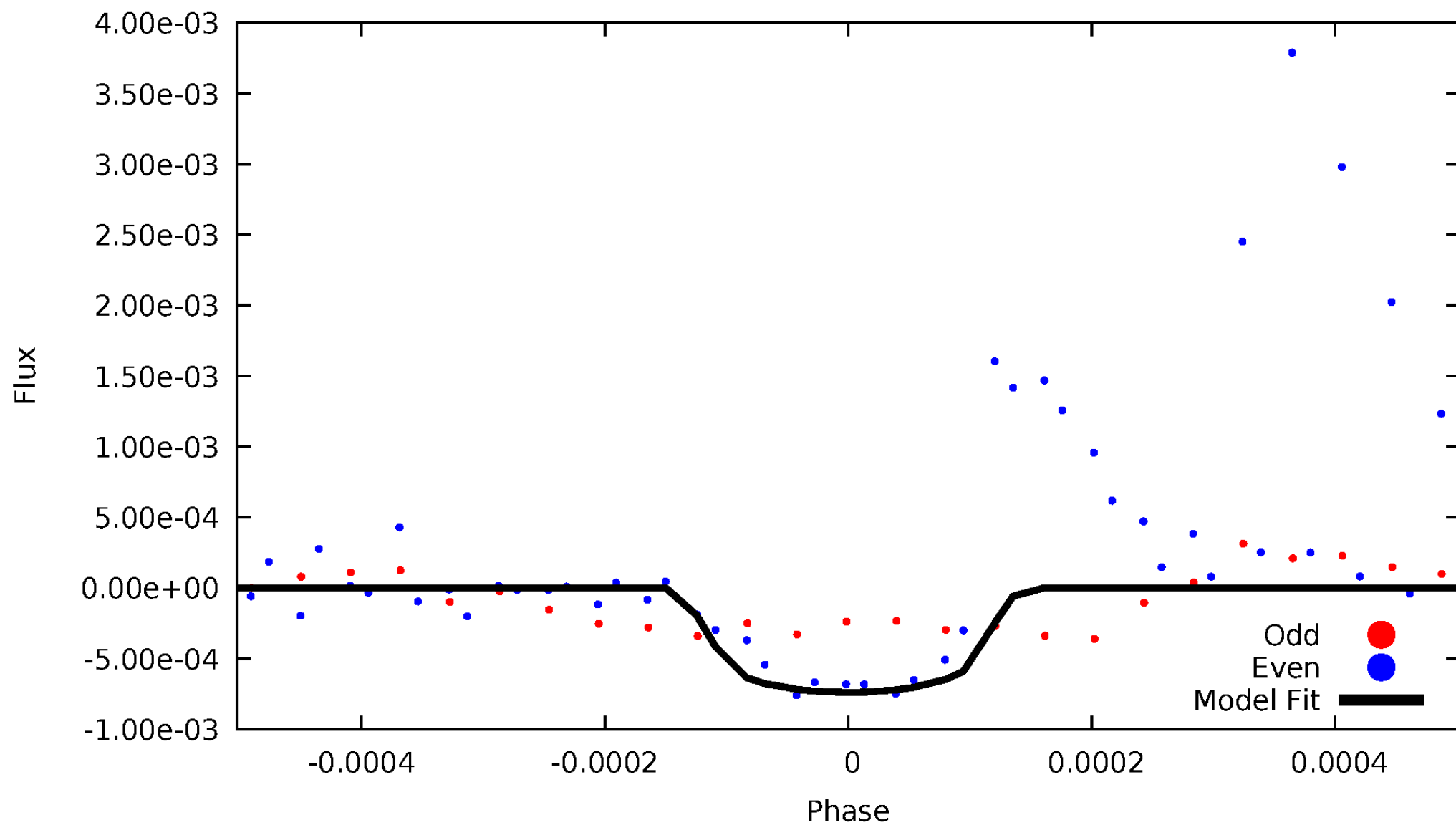


TCE 008479655-04



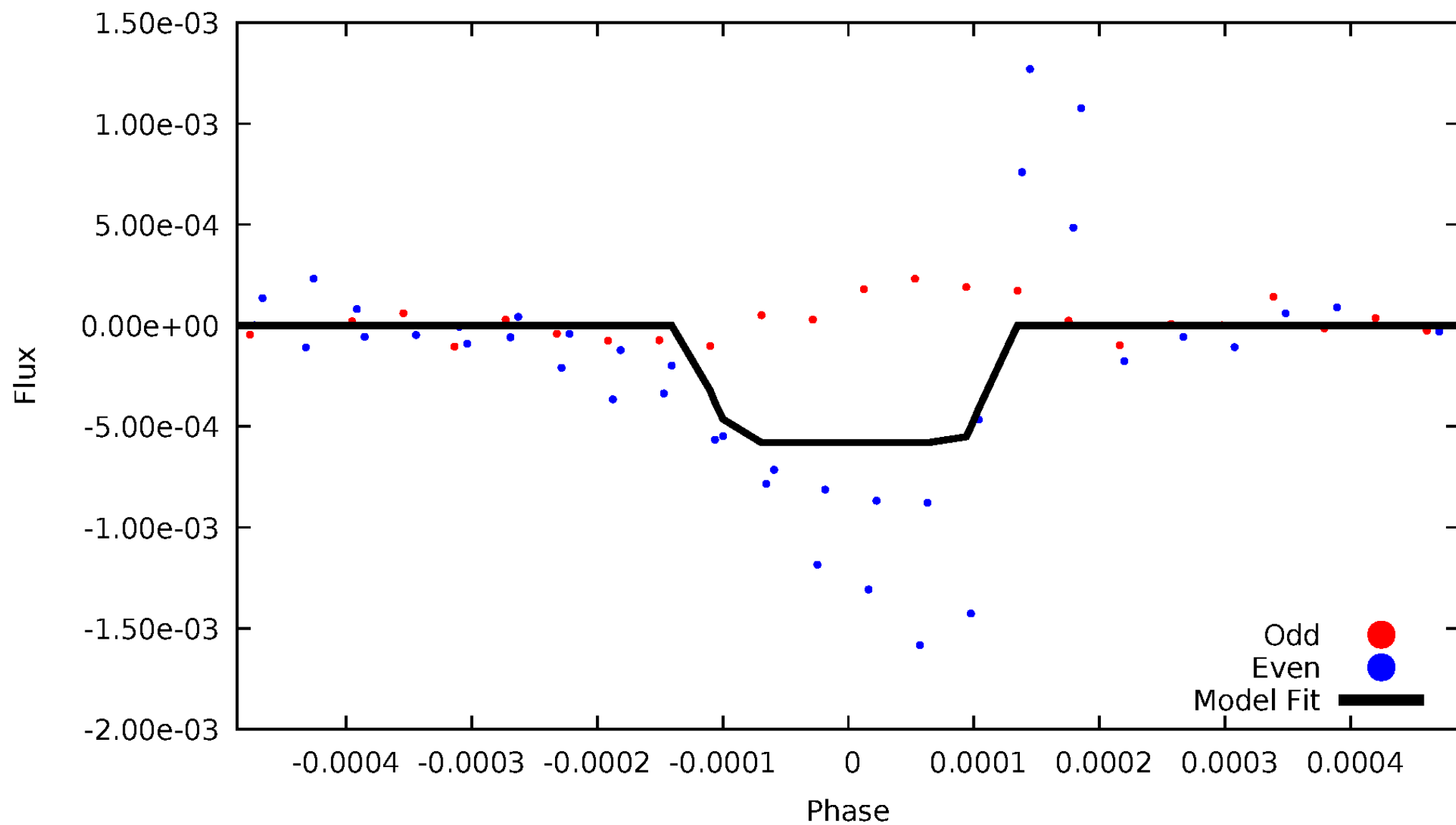
DV Odd/Even

TCE 008479655-04



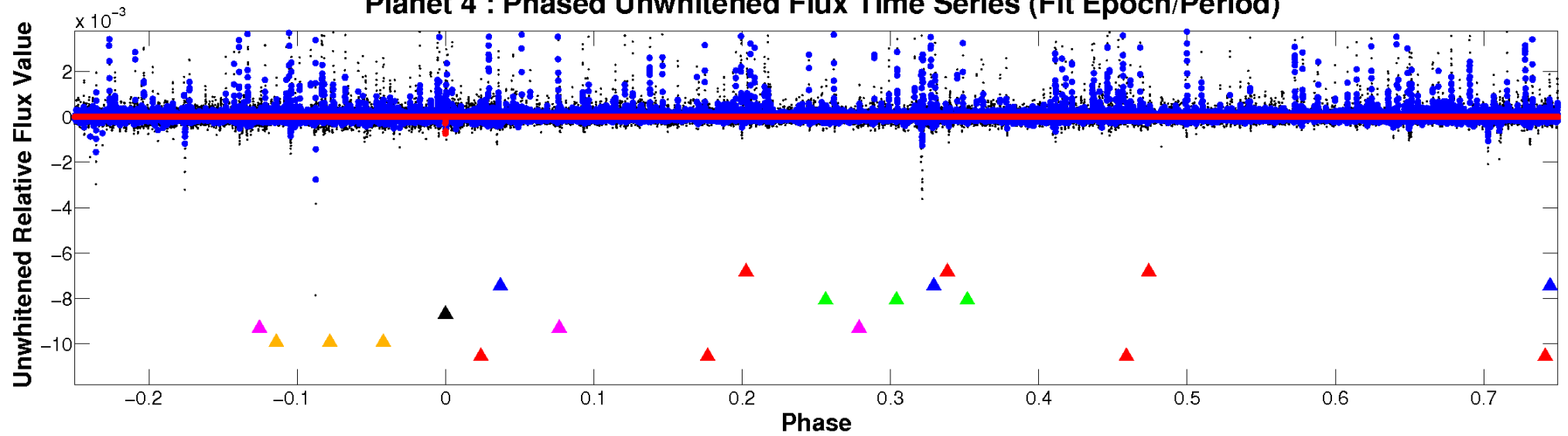
ALT Odd/Even

TCE 008479655-04

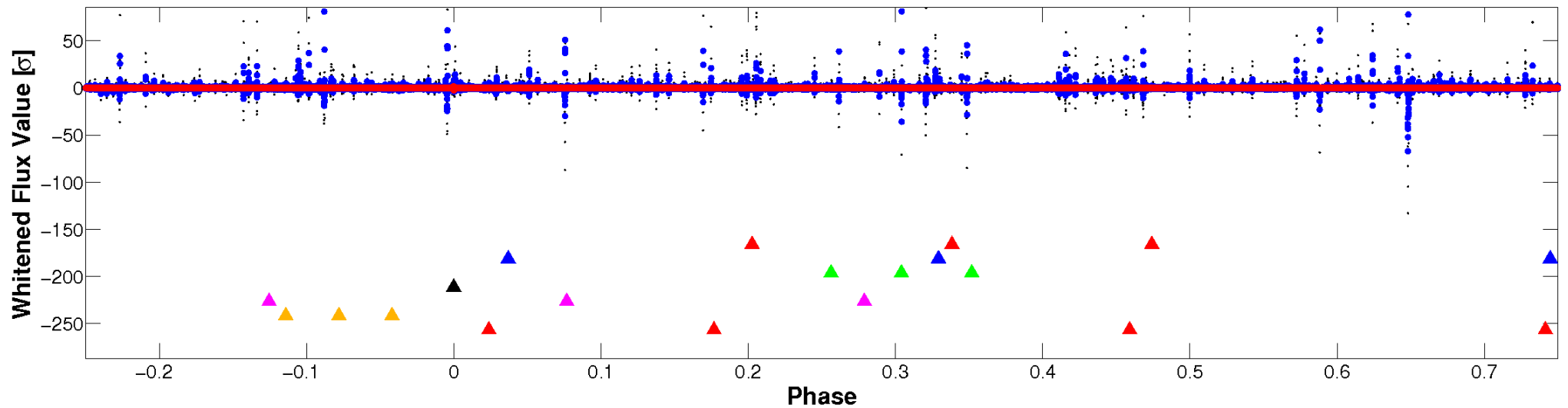


Non-Whitened Vs. Whitened Light Curve

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

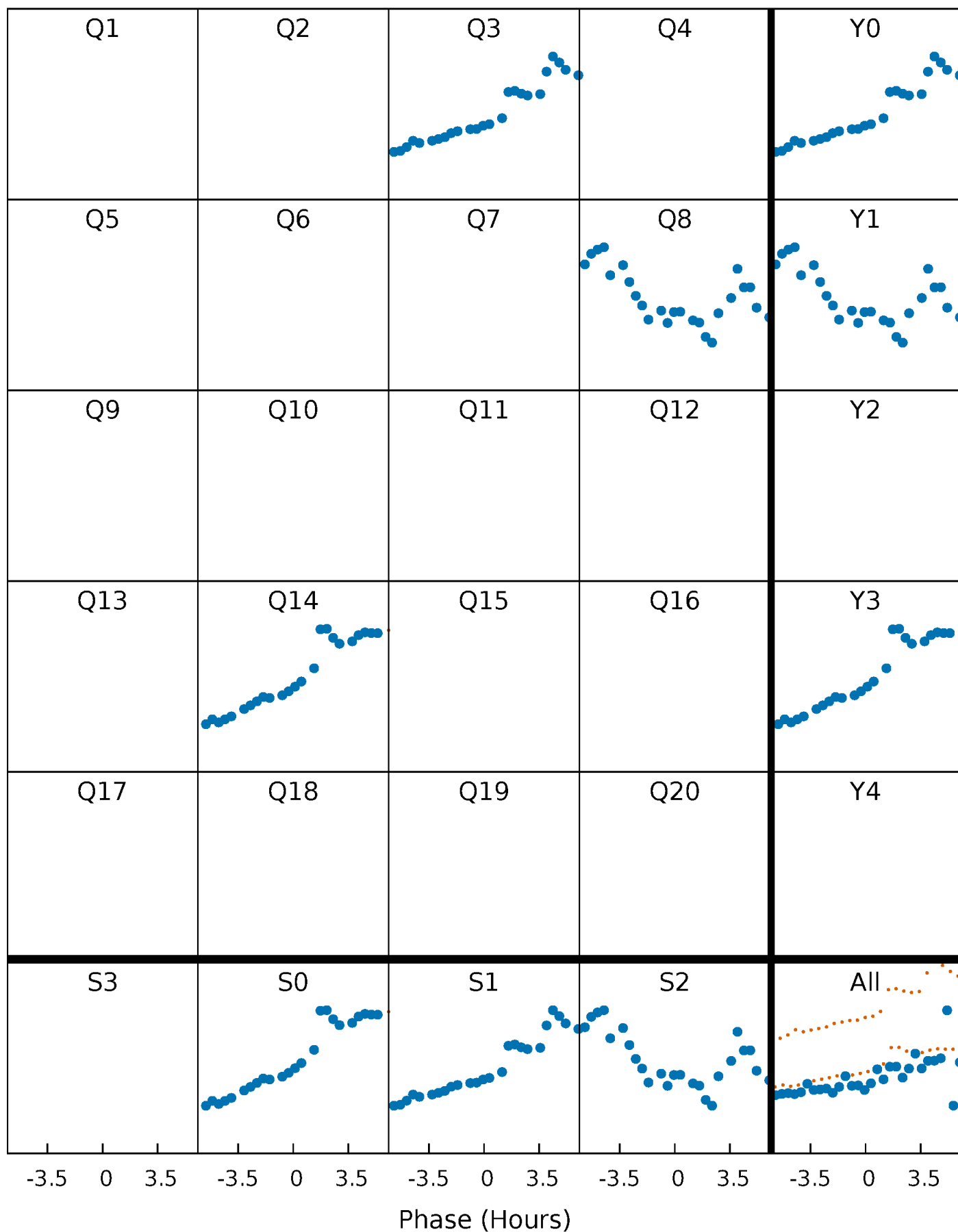


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



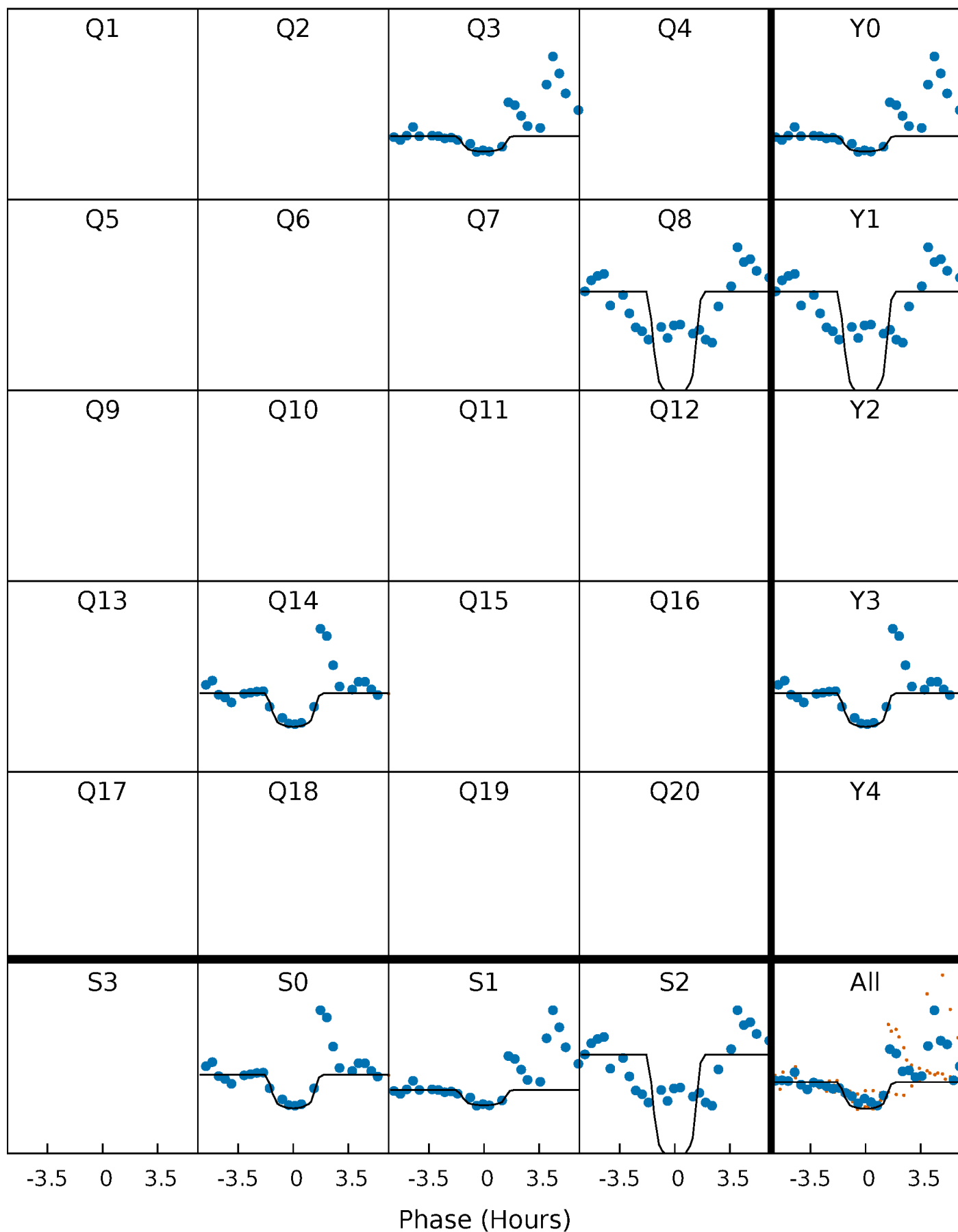
PDC Quarter-Phased Transit Curves

TCE 008479655-04 P=501.519123 Days $T_0=277.736281$ (BKJD)



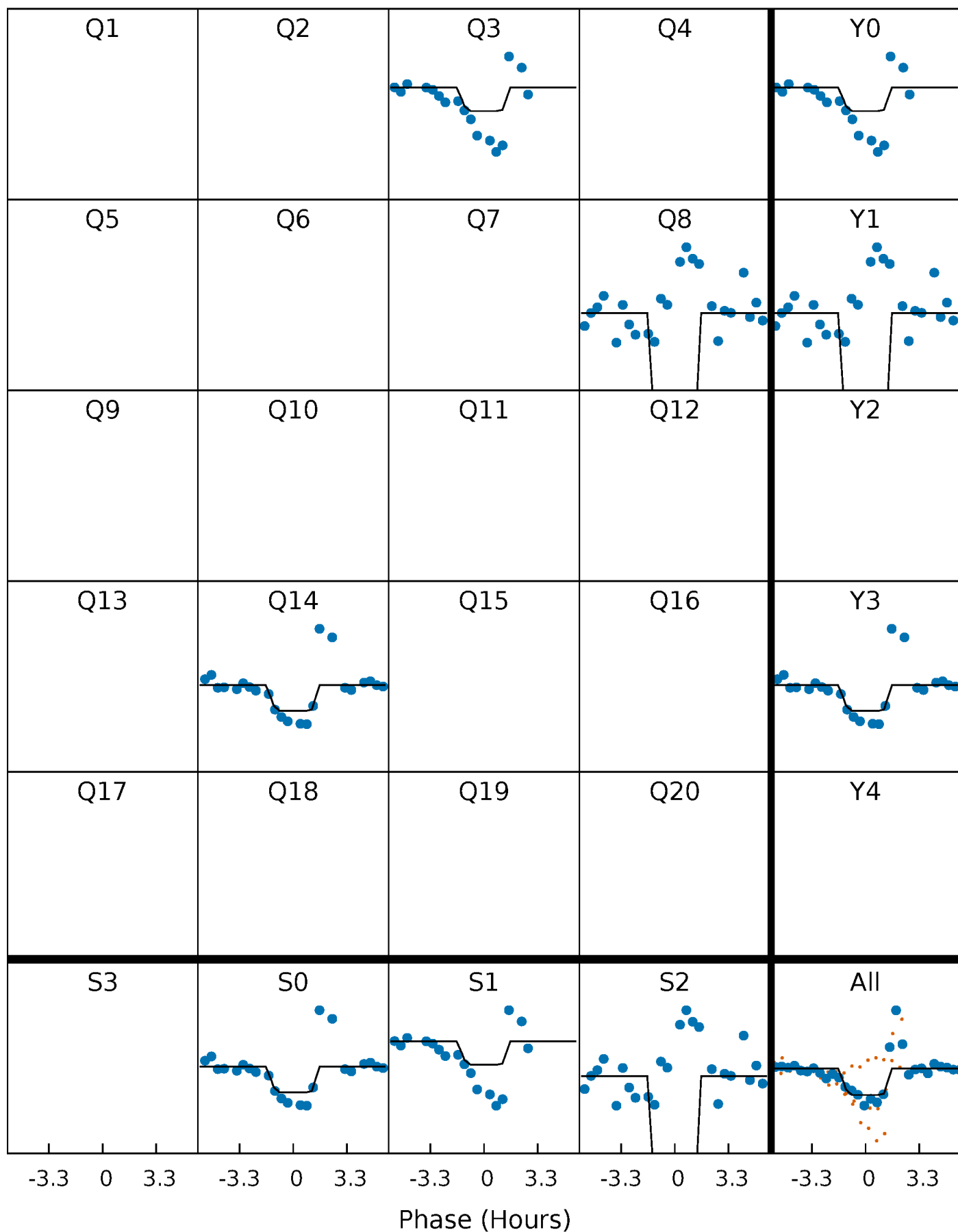
DV Quarter-Phased Transit Curves

TCE 008479655-04 P=501.519123 Days $T_0=277.736281$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

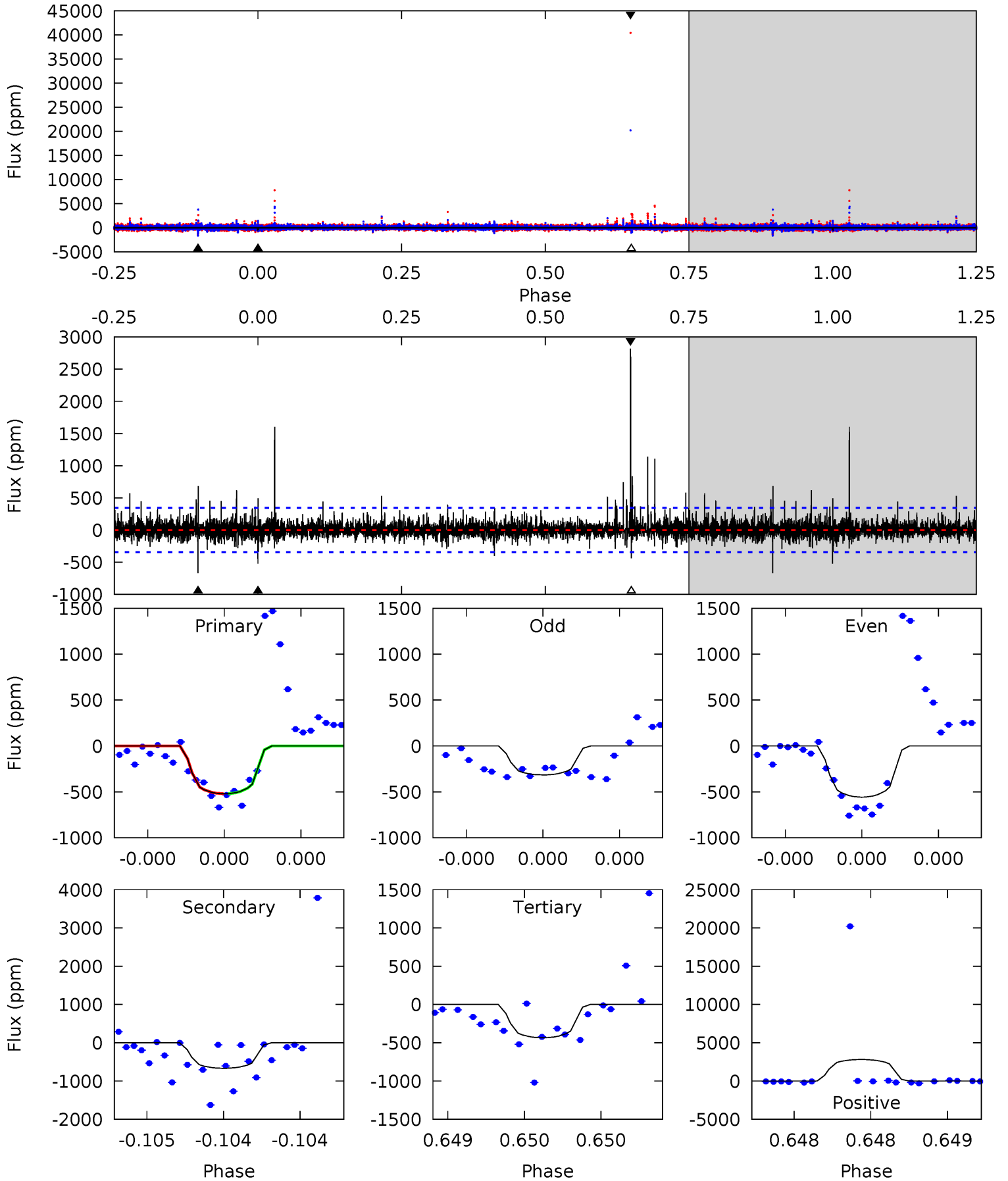
TCE 008479655-04 P=501.521297 Days $T_0=277.727210$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-04, P = 501.519123 Days, E = 277.736281 Days

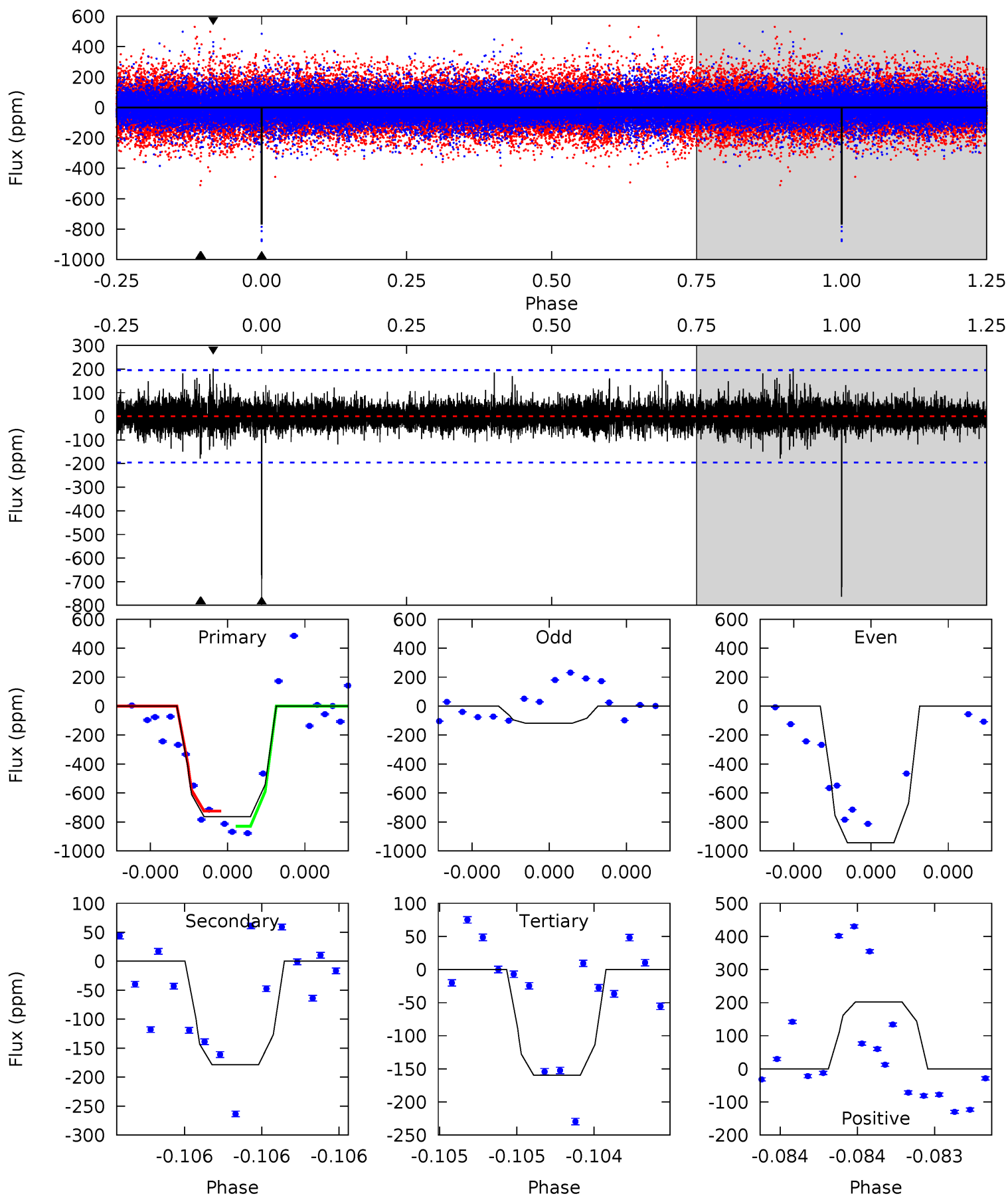
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.58	11.0	7.15	46.4	5.69	3.65	1.61	1.43	-37.8	3.82	-35.4	0.76	0.91	0.81	0.00



Alt Model-Shift Uniqueness Test

008479655-04, P = 501.521297 Days, E = 277.727210 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	5.23	4.67	5.91	5.72	3.70	0.88	17.6	16.4	0.55	-0.69	11.9	0.81	0.21	1.41



Stellar Parameters For KIC 008479655

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-666 ± 61	$9.16^{+10.23}_{-6.32}$	252^{+9}_{-9}	3015^{+1373}_{-545}	5040^{+46714}_{-3915}
Alt.	-179 ± 34	$9.06^{+9.01}_{-6.16}$	252^{+9}_{-8}	2518^{+940}_{-373}	1321^{+11598}_{-995}

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

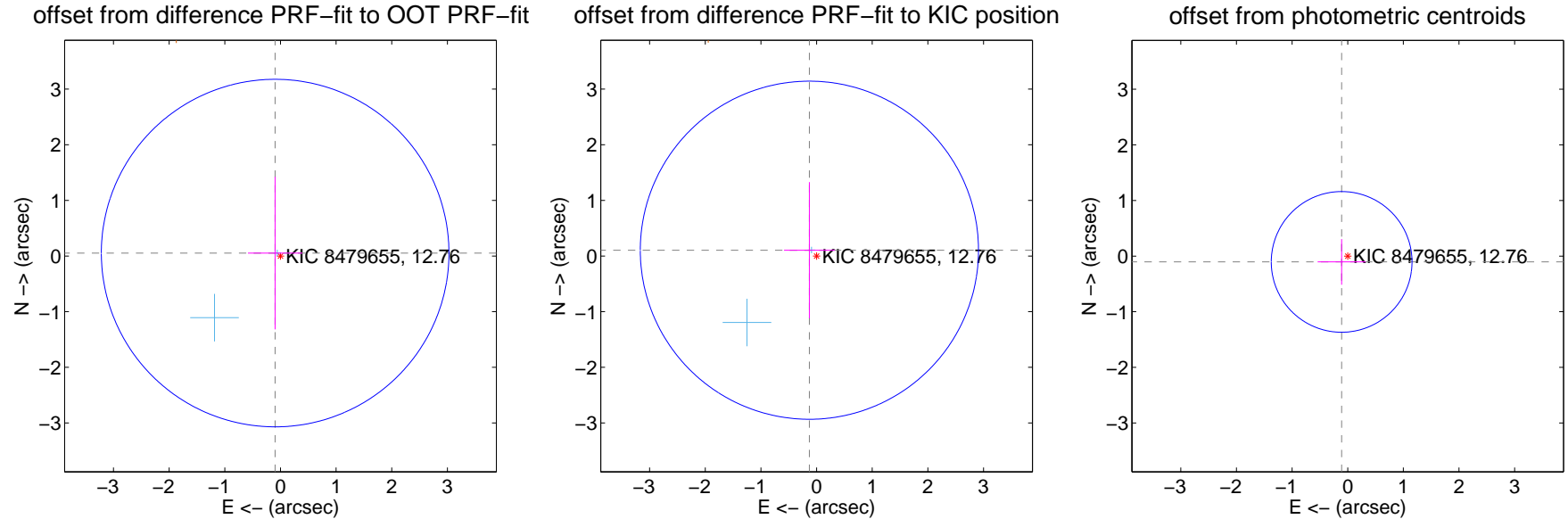
DV Centroid Data

Supplemental centroid analysis for 008479655-04. Kepler magnitude: 12.76. Transit SNR 10.00

There are 2 quarters with good PRF difference image offsets

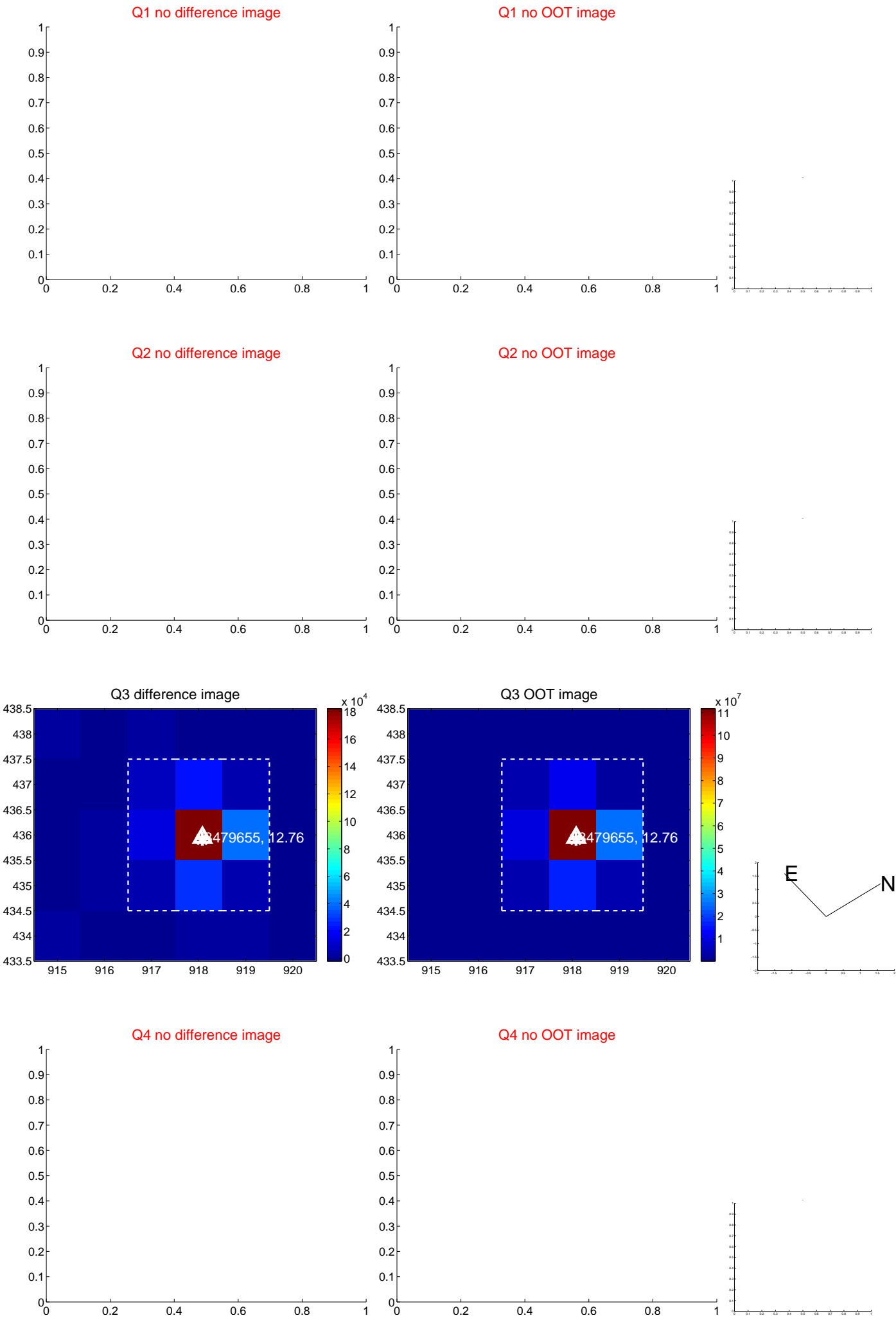
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.109 ± 1.041	0.10	0.096 ± 0.490	0.053 ± 1.372
PRF-fit source offset from KIC position	0.166 ± 1.013	0.16	0.129 ± 0.456	0.104 ± 1.223
photometric centroid source offset	0.15 ± 0.42	0.36	0.11 ± 0.43	-0.10 ± 0.41

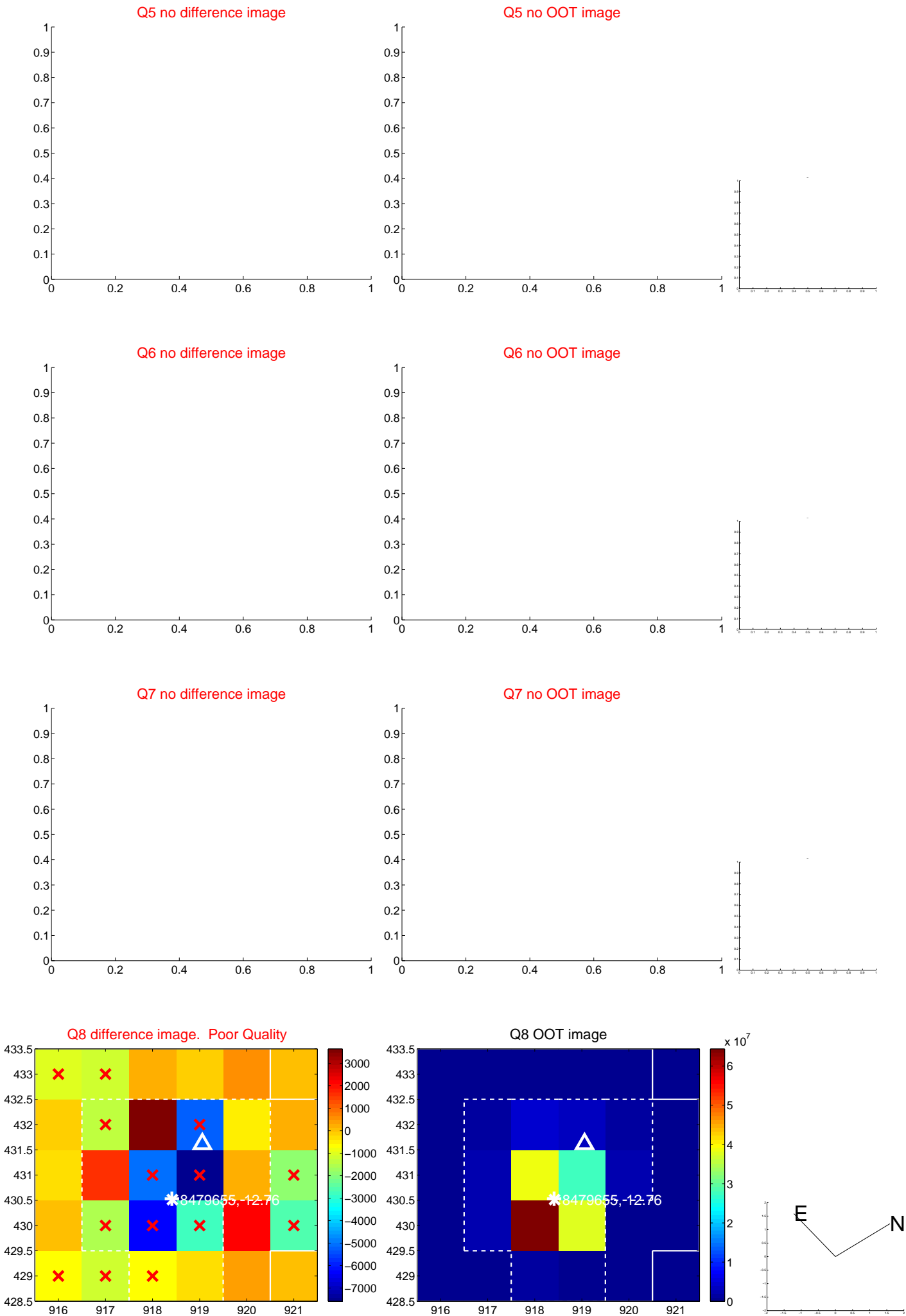


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



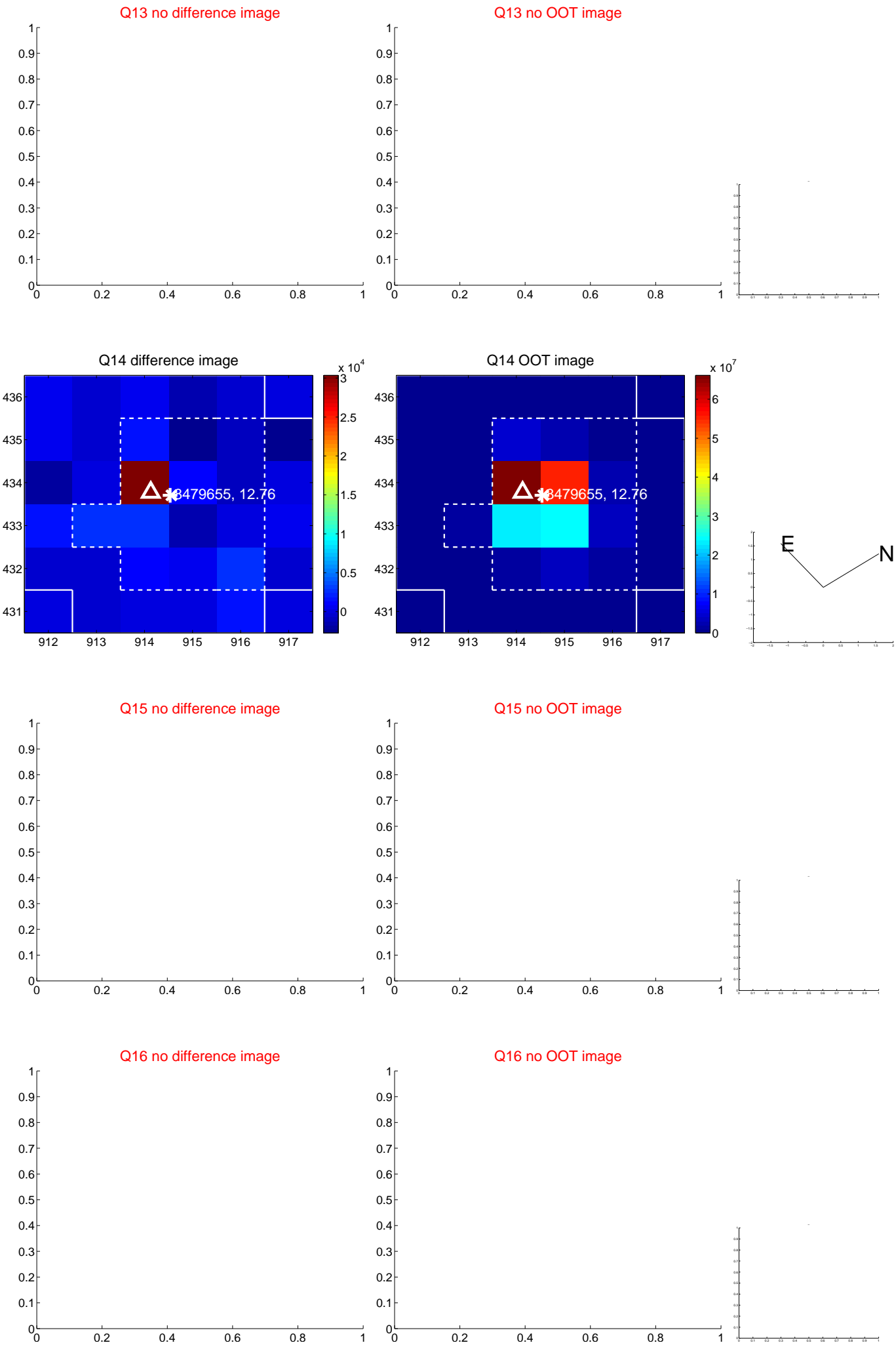
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



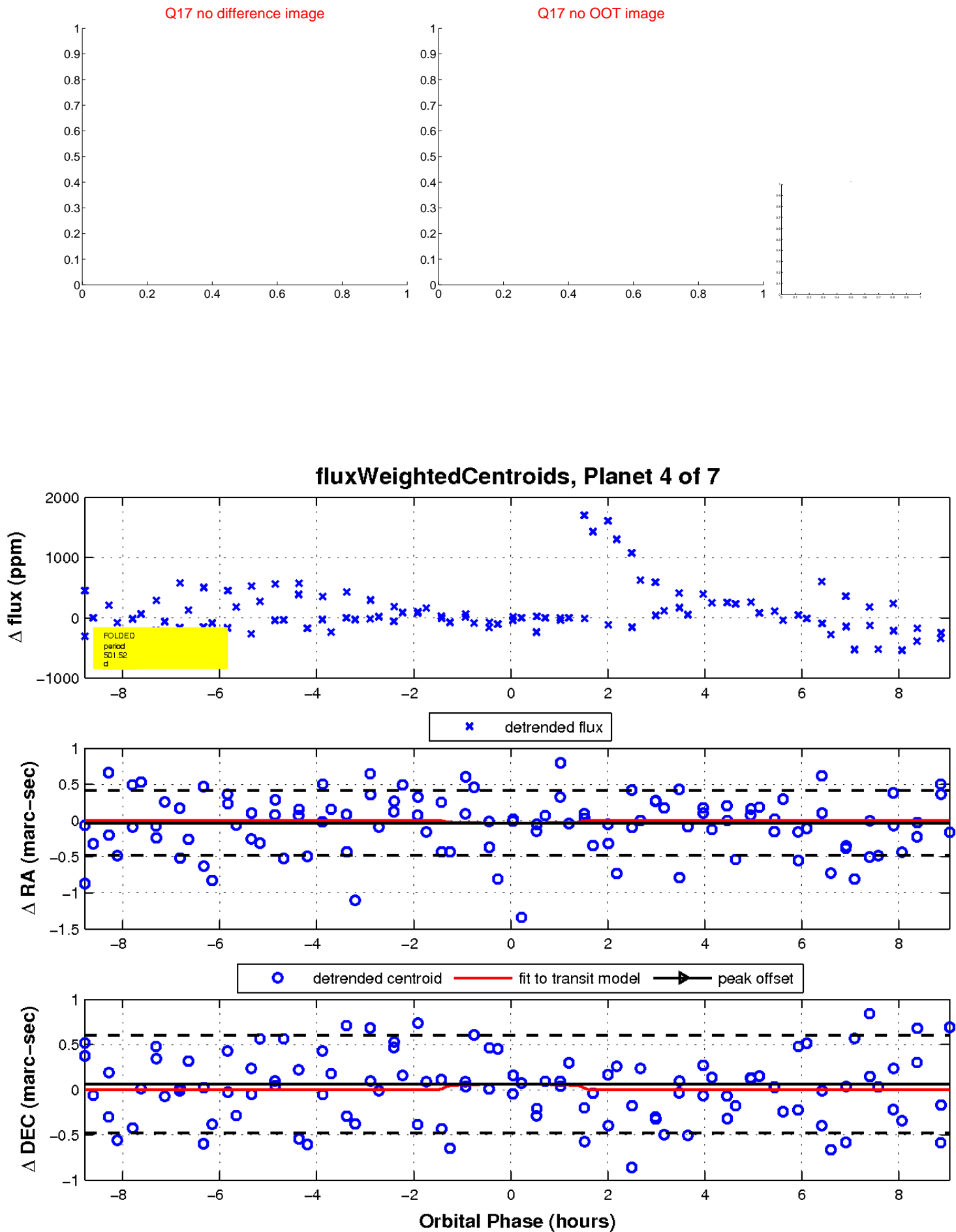
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



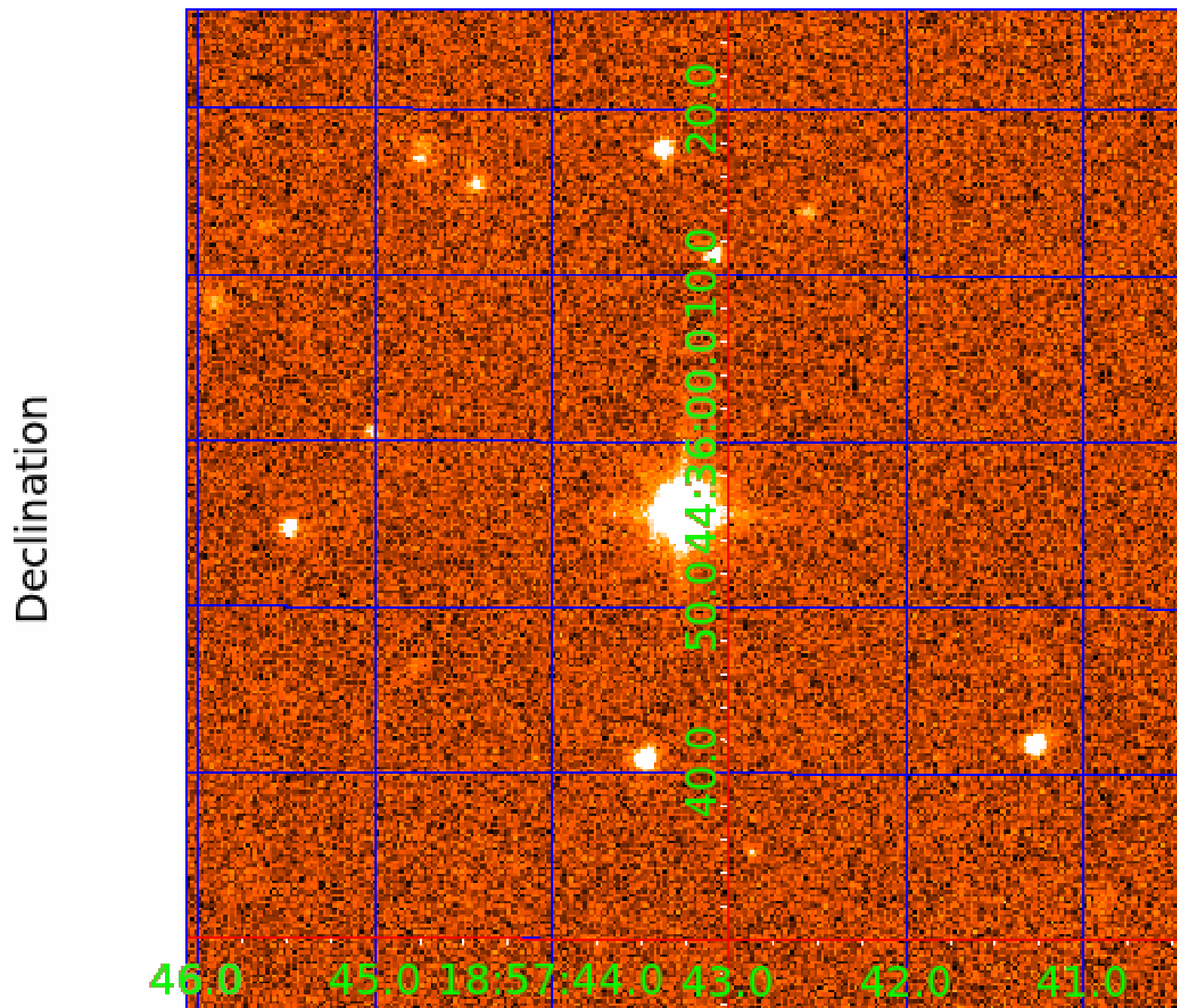
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
008479655-02	OBS	No	648.078134	149.744822	977.8	6.680	23.8	12.3	0.64	5277	2.06	0.18
008479655-03	OBS	No	477.564643	454.191951	684.9	2.018	15.6	8.8	0.64	5277	1.85	0.27
008479655-04	OBS	No	501.519123	277.736281	739.8	3.022	14.7	10.0	0.64	5277	1.81	0.25
008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
008479655-07	OBS	No	359.903186	289.707065	410.9	3.000	12.8	-1.0	0.64	5277	1.29	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008479655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

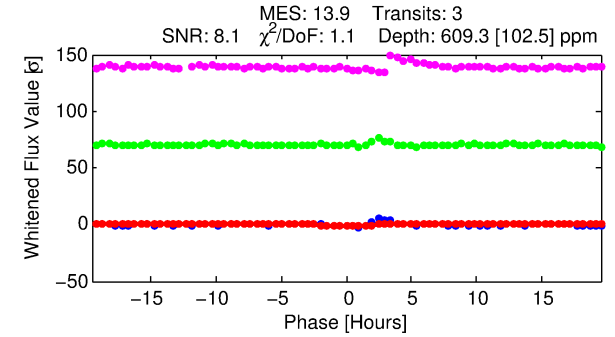
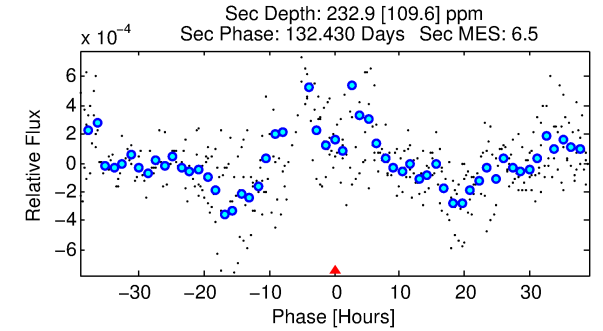
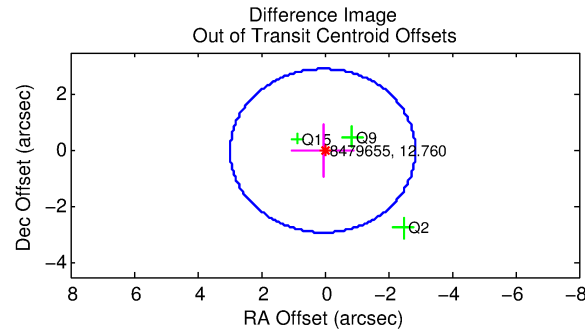
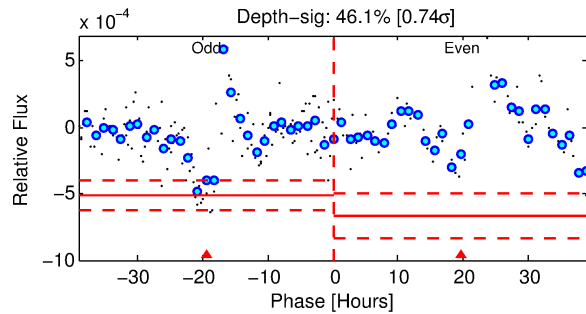
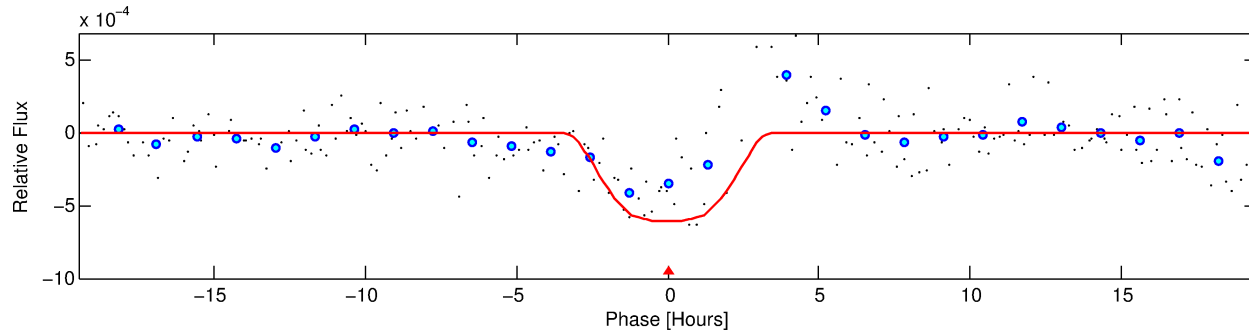
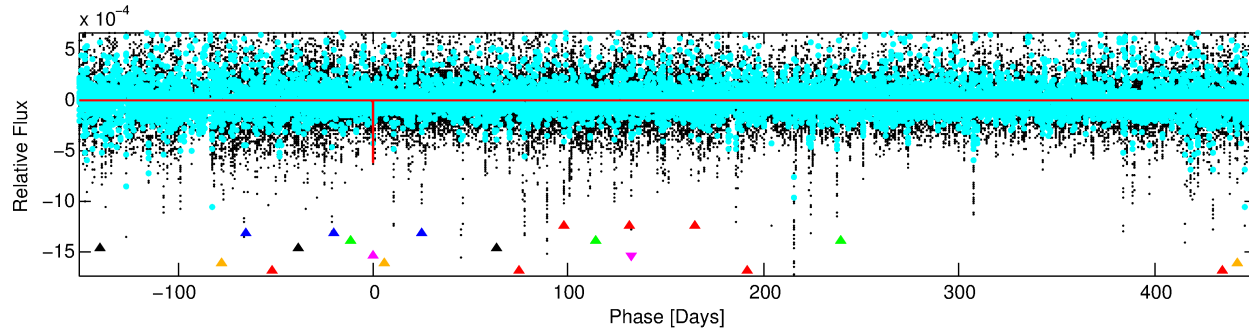
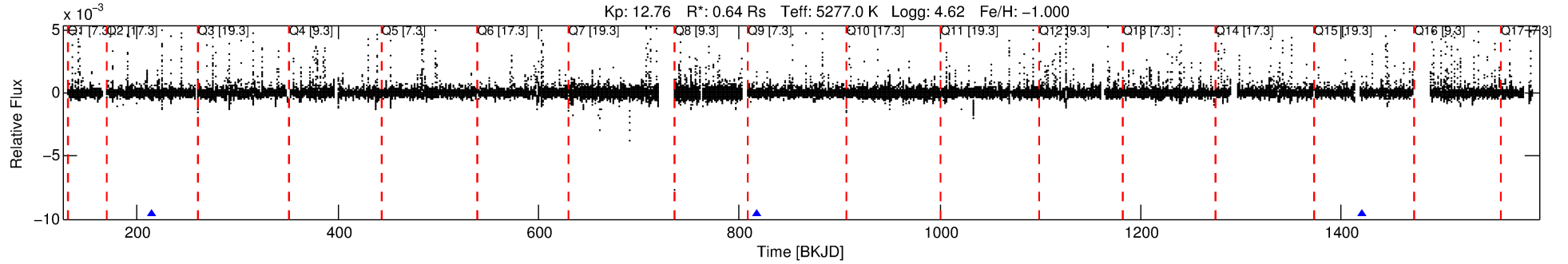
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-05

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 5 of 7 Period: 602.898 d



DV Fit Results:

Period = 602.89773 [0.00861] d
Epoch = 214.8425 [0.0112] BKJD
Rp/R* = 0.0298 [0.0030]
a/R* = 256.51 [40.11]
b = 0.96 [0.01]
Seff = 0.20 [0.03]
Teq = 170 [7] K
Rp = 2.08 [0.27] Re
a = 1.1976 [0.0870] AU
Ag = 42534.07 [22326.19] [1.91 σ]
Teffp = 3779 [497] K [7.26 σ]

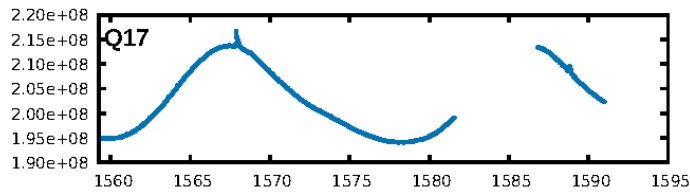
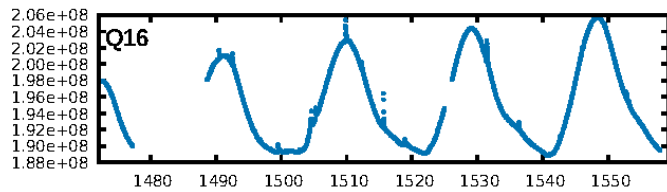
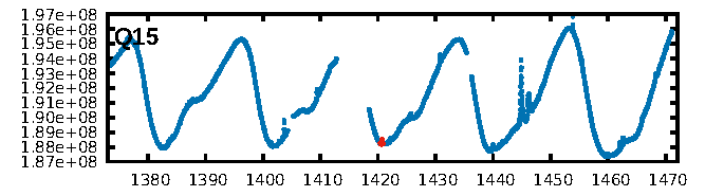
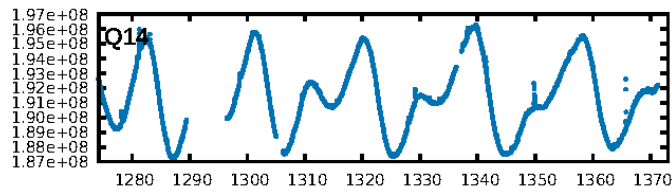
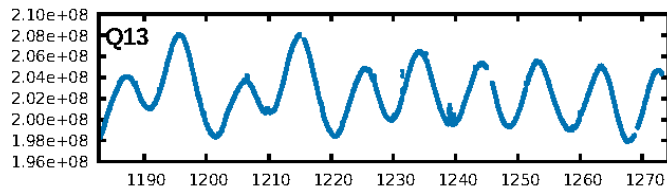
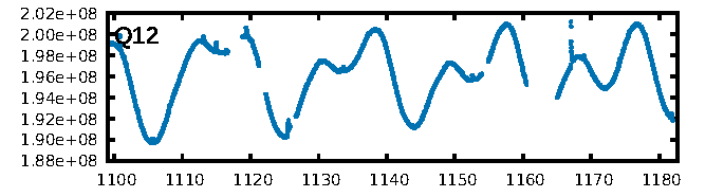
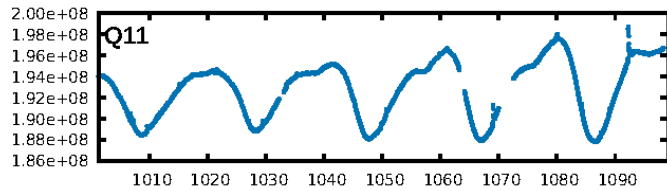
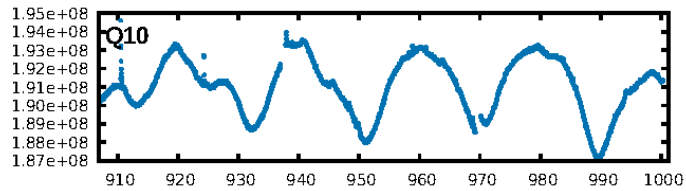
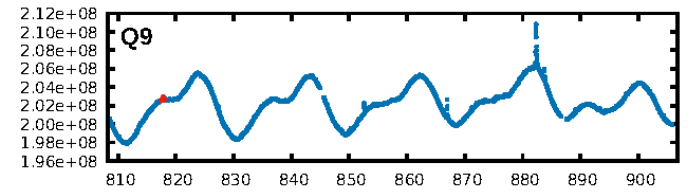
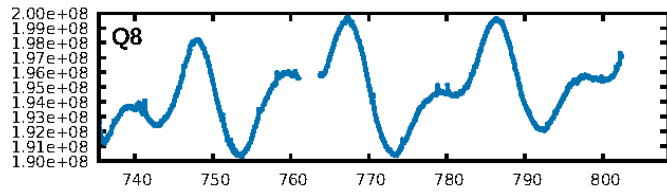
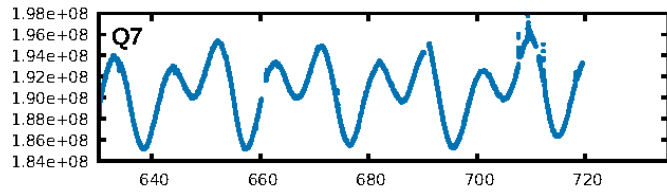
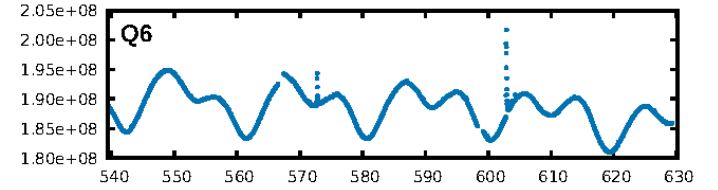
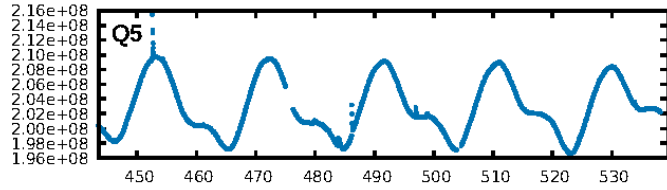
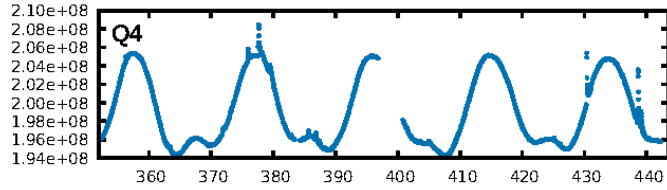
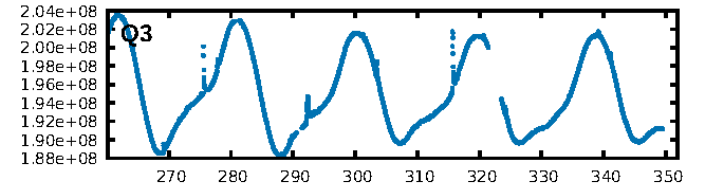
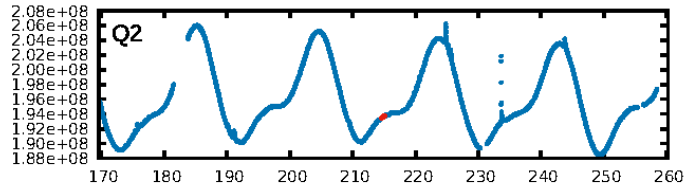
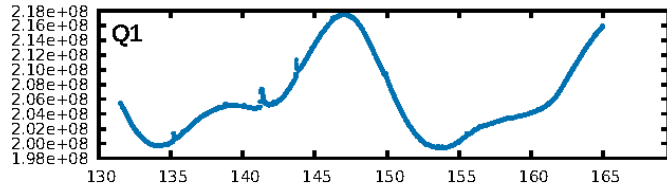
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [98.80 σ]
LongPeriod-sig: 100.0% [116.41 σ]
ModelChiSquare2-sig: 47.6%
ModelChiSquareGof-sig: 79.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.2032
Centroid-sig: 22.2%
Centroid-so: 0.441 arcsec [0.95 σ]
OotOffset-rm: 0.059 arcsec [0.06 σ]
KicOffset-rm: 0.136 arcsec [0.14 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

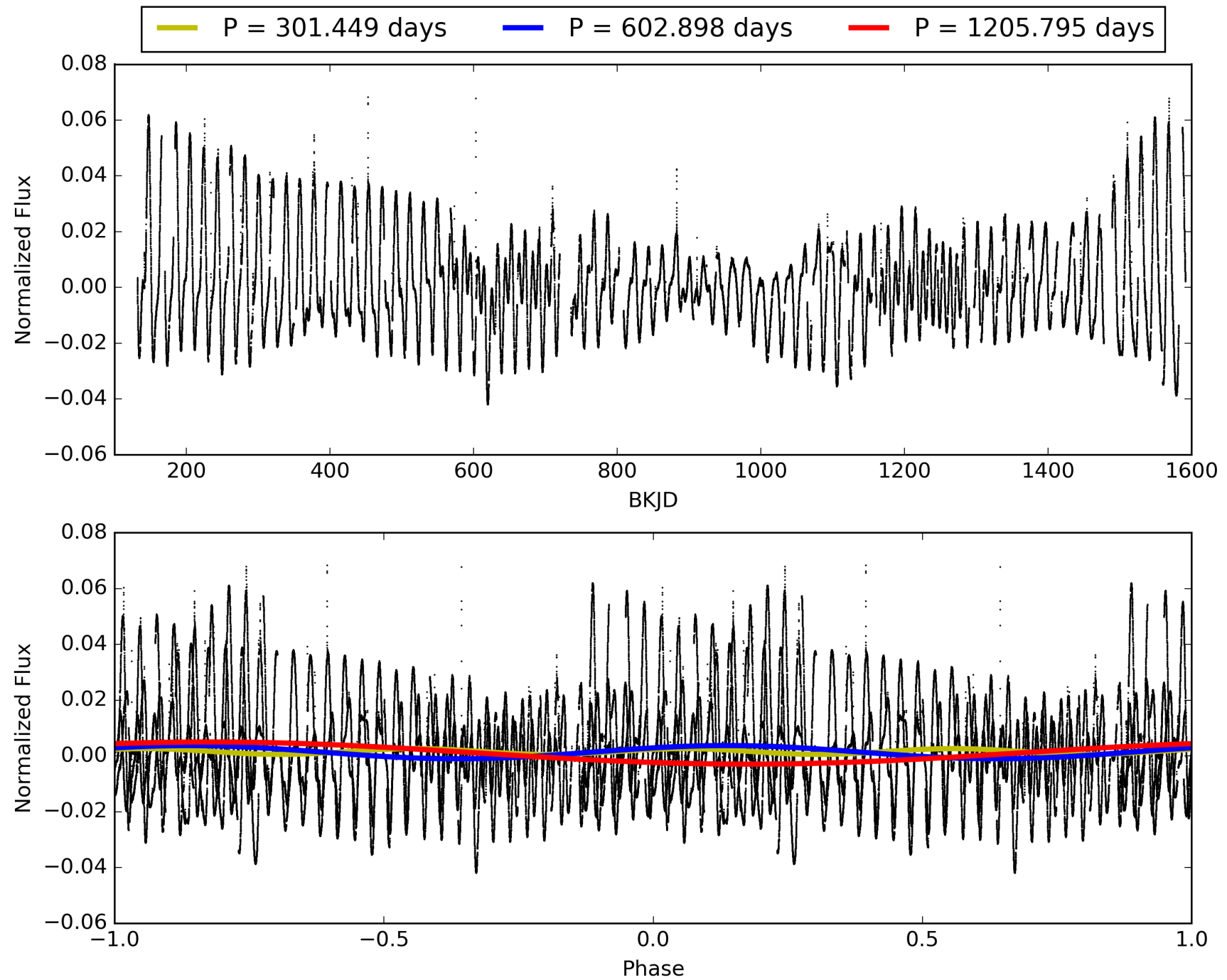
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:51:08 Z

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

TCE 008479655-05, PDC Light Curves

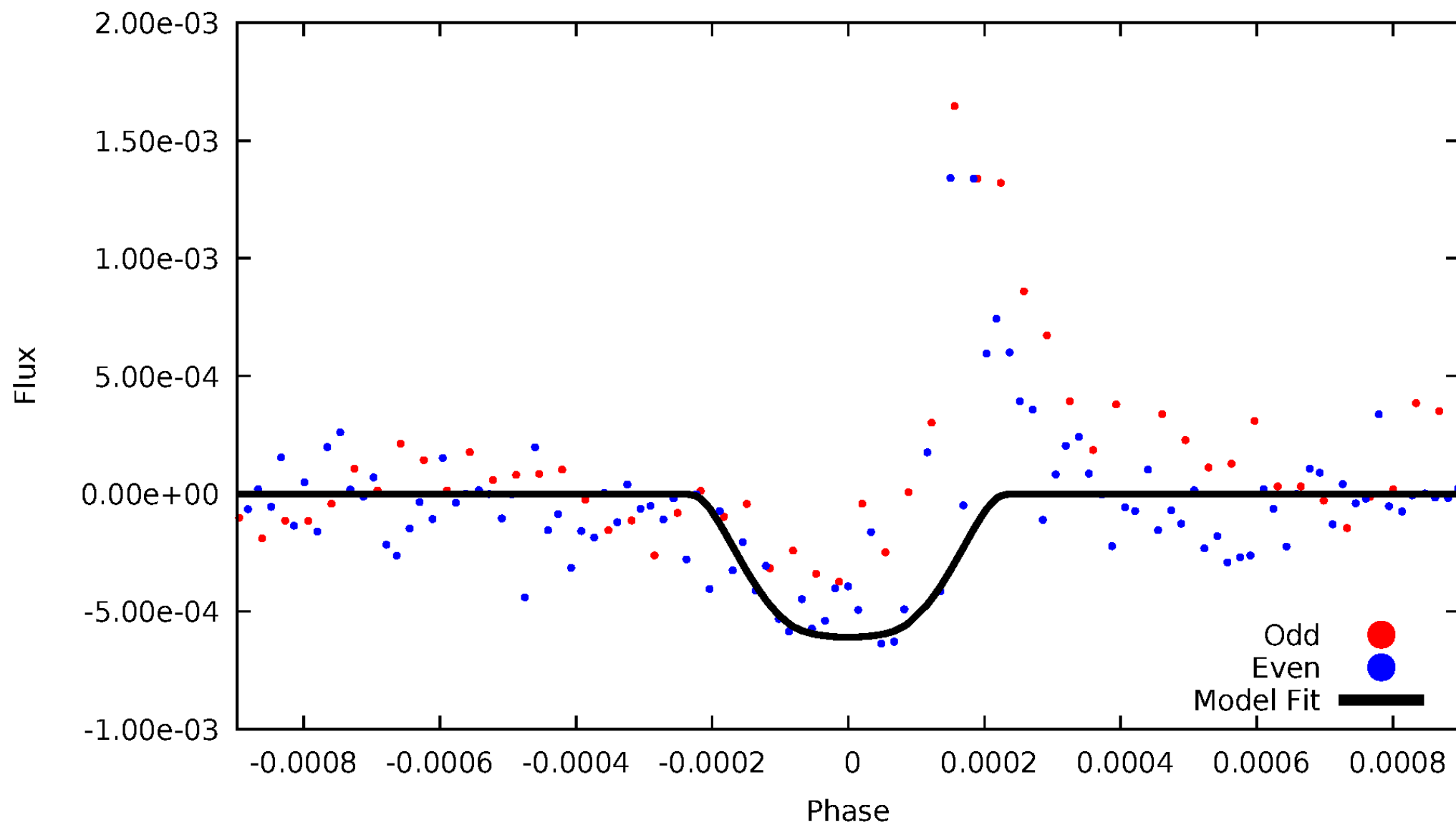


TCE 008479655-05



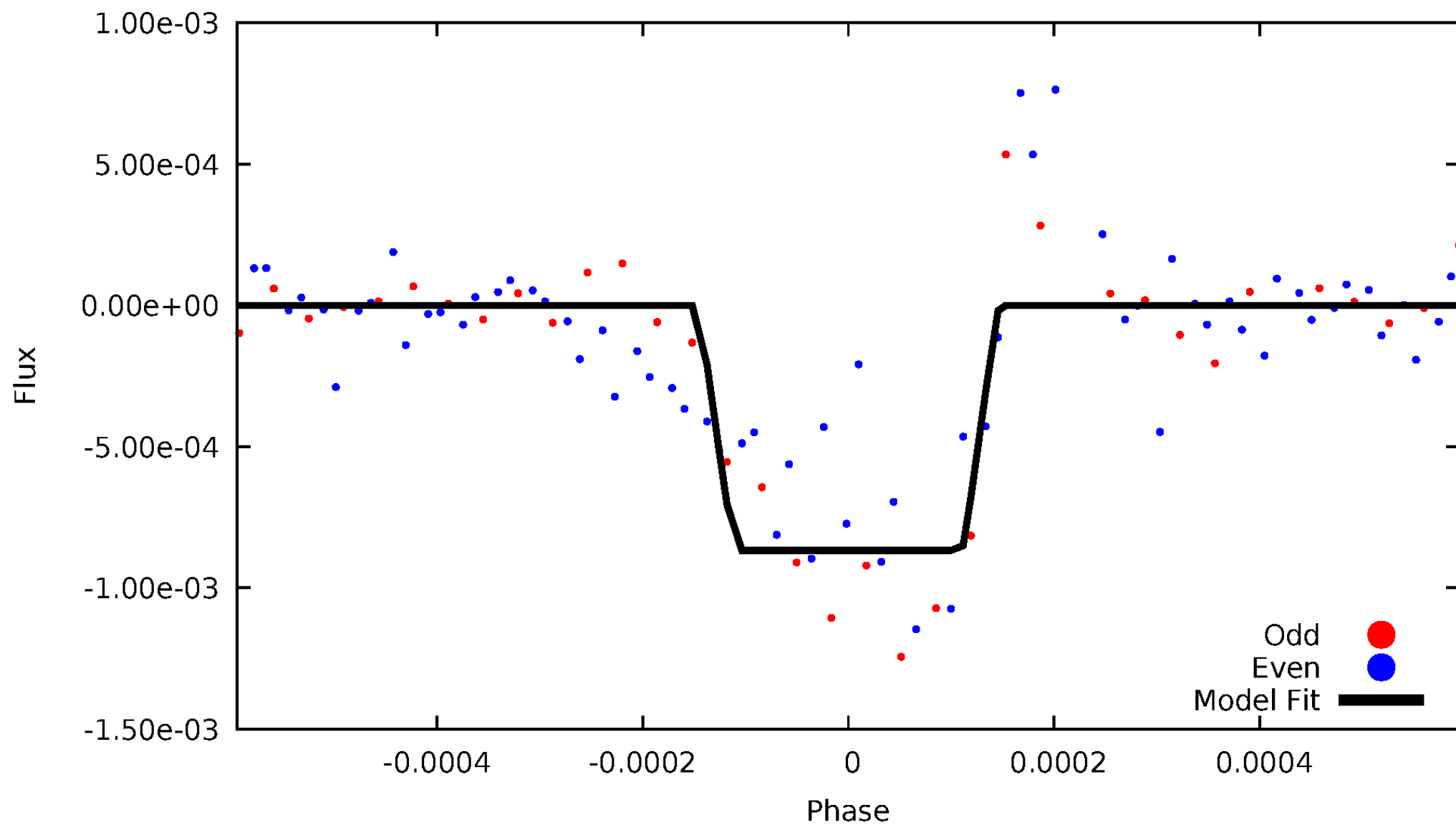
DV Odd/Even

TCE 008479655-05



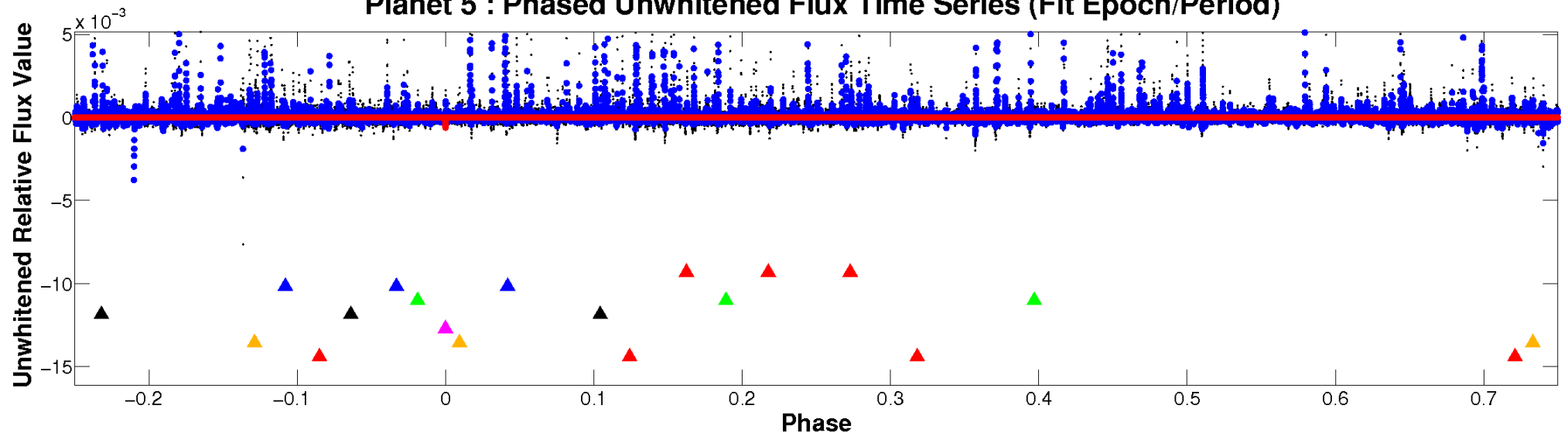
ALT Odd/Even

TCE 008479655-05

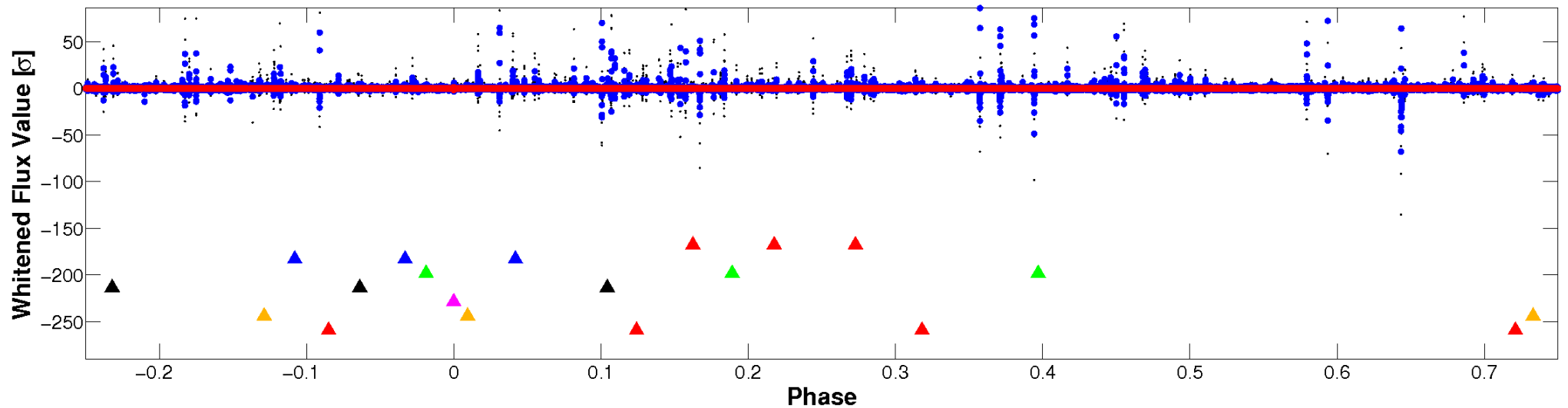


Non-Whitened Vs. Whitened Light Curve

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

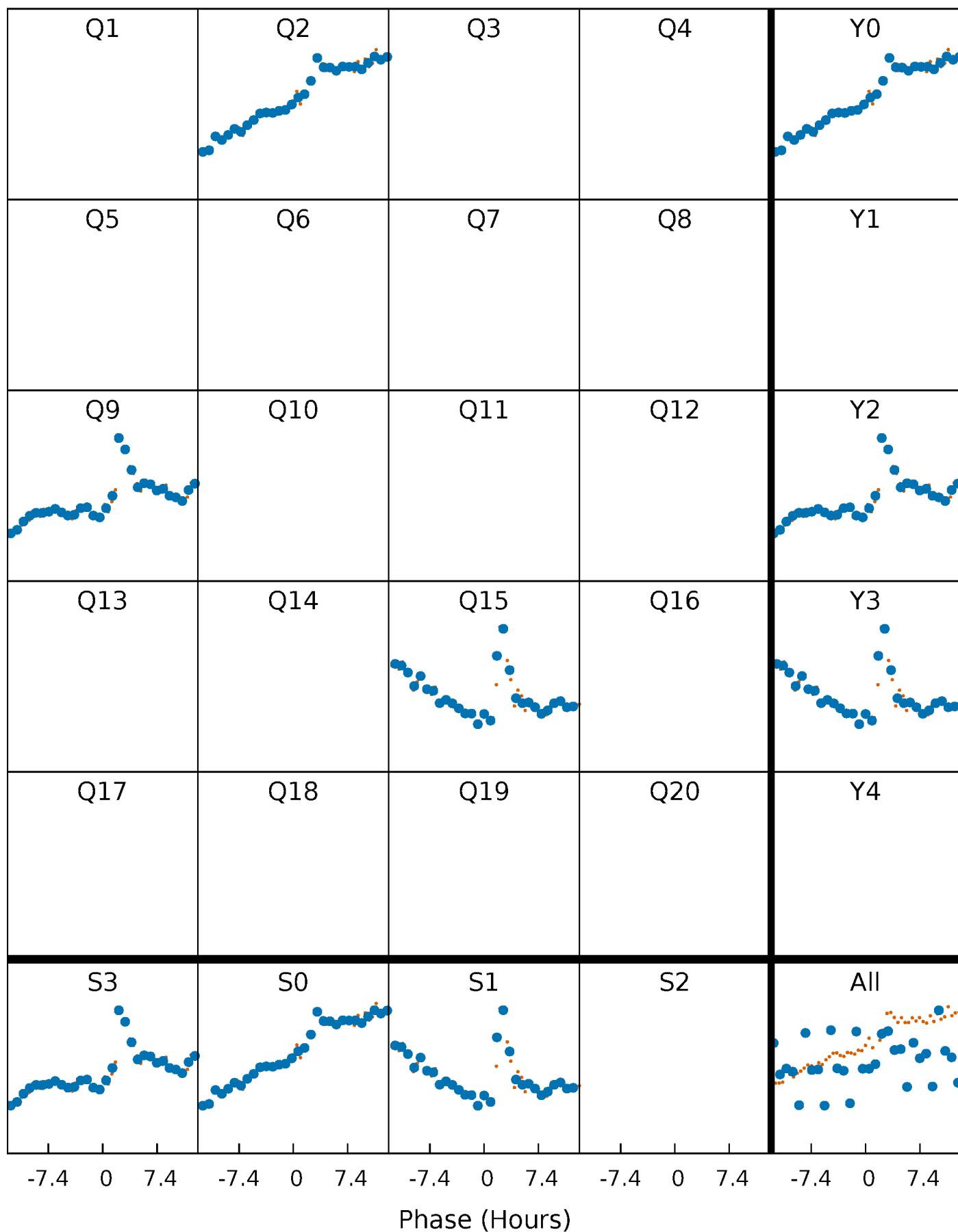


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



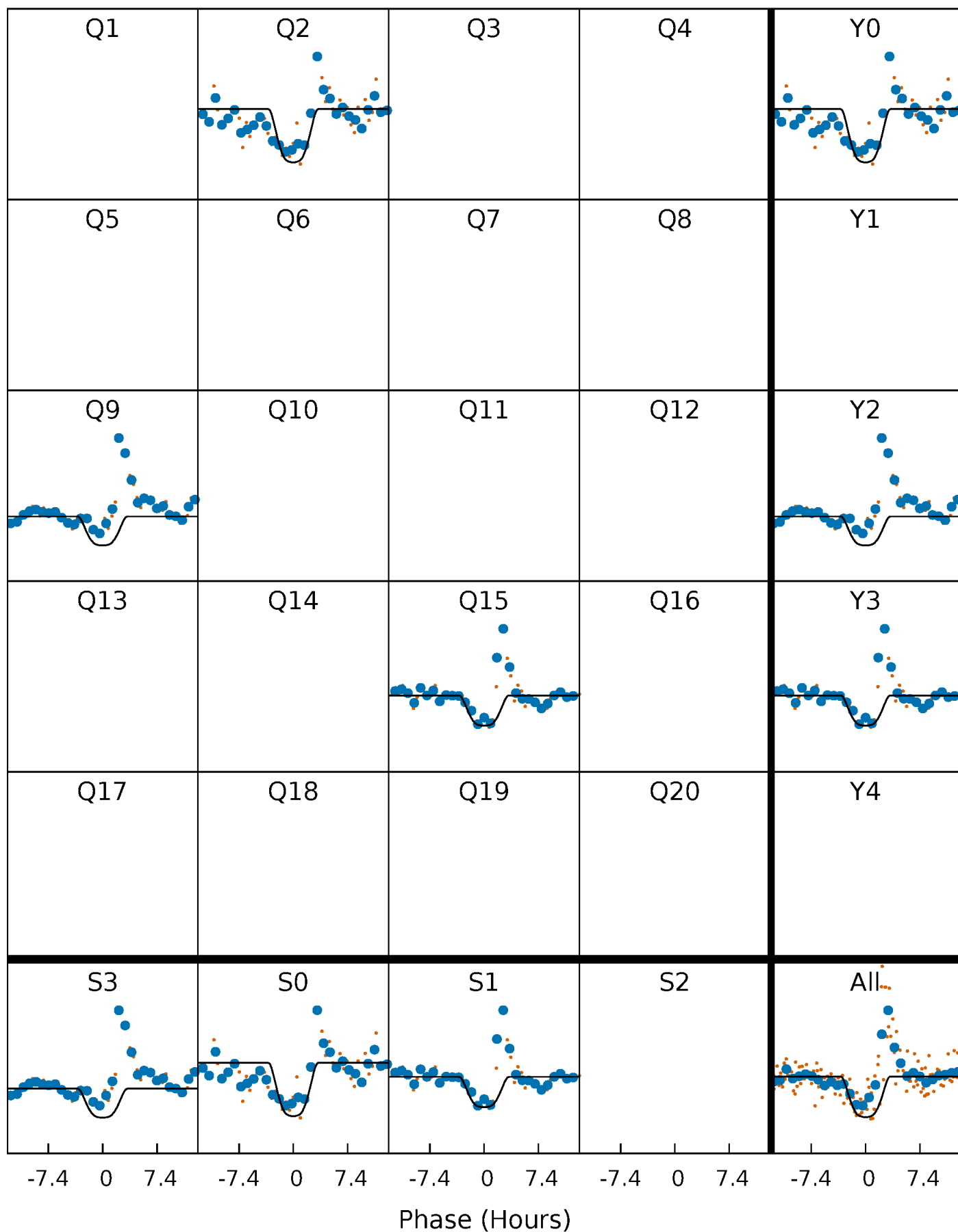
PDC Quarter-Phased Transit Curves

TCE 008479655-05 $P=602.897729$ Days $T_0=214.842547$ (BKJD)



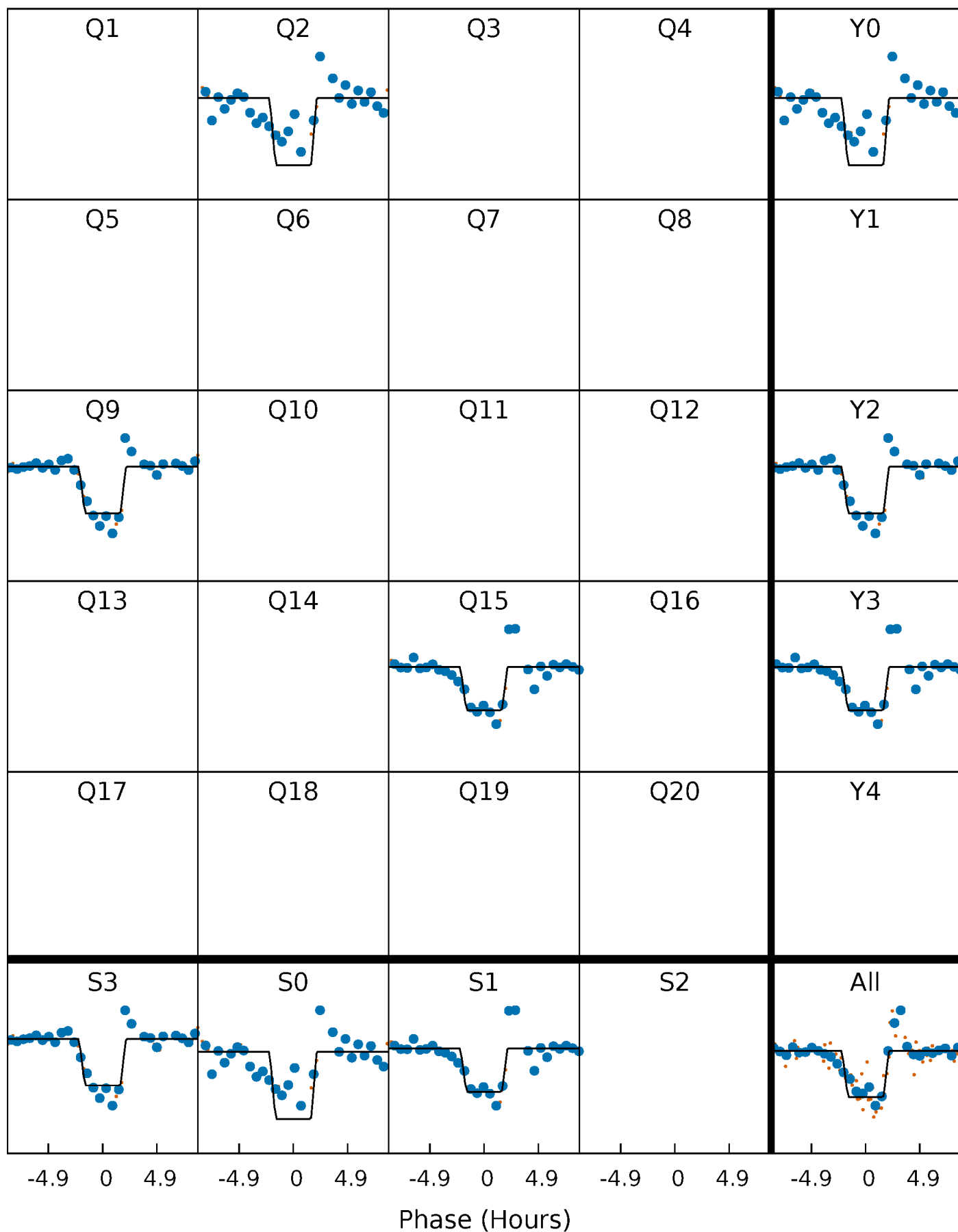
DV Quarter-Phased Transit Curves

TCE 008479655-05 $P=602.897729$ Days $T_0=214.842547$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

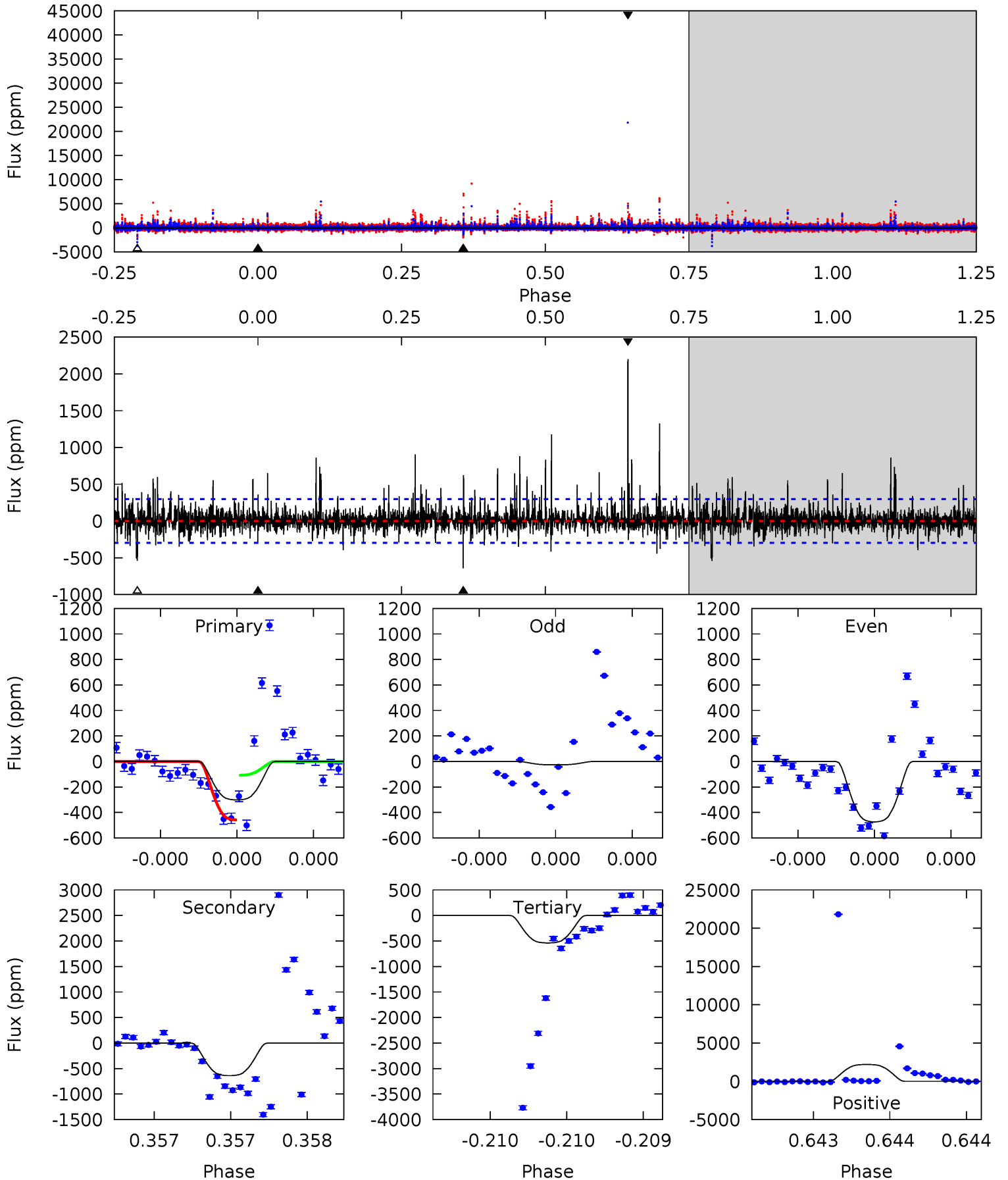
TCE 008479655-05 P=602.885377 Days $T_0=214.856661$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-05, P = 602.897729 Days, E = 214.842547 Days

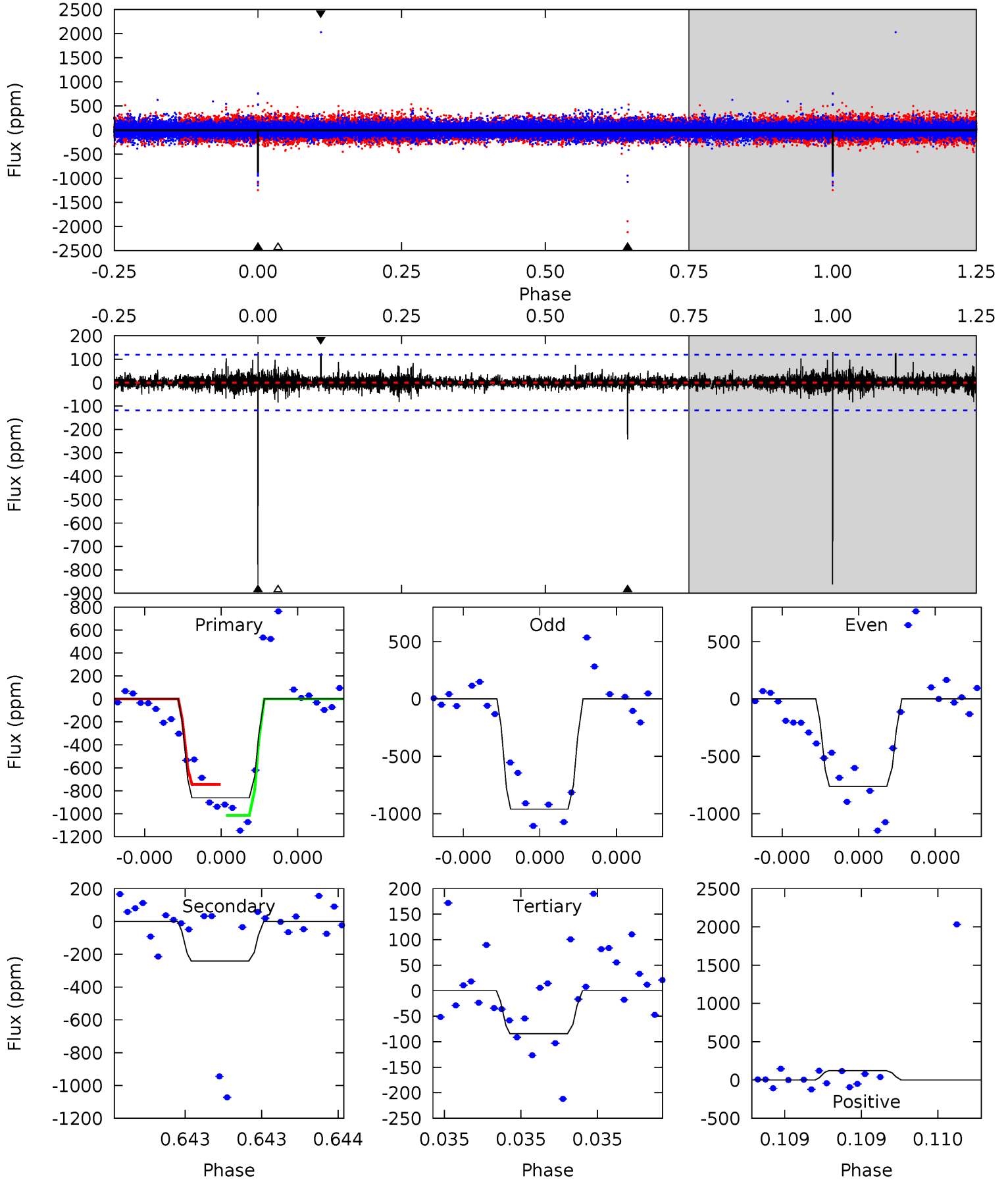
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.66	12.0	10.1	41.3	5.58	3.49	2.27	-4.46	-35.7	1.87	-29.3	1.76	0.90	0.78	3.32



Alt Model-Shift Uniqueness Test

008479655-05, P = 602.885377 Days, E = 214.856661 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.2	11.6	4.03	5.87	5.68	3.64	0.68	37.1	35.3	7.54	5.70	4.08	0.88	0.13	6.43



Stellar Parameters For KIC 008479655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-639 ± 53	$2.09^{+0.21}_{-0.23}$	237^{+9}_{-8}	4926^{+268}_{-245}	118459^{+30706}_{-23146}
Alt.	-242 ± 21	$2.06^{+0.23}_{-0.24}$	237^{+8}_{-8}	4087^{+196}_{-189}	45535^{+12369}_{-9570}

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

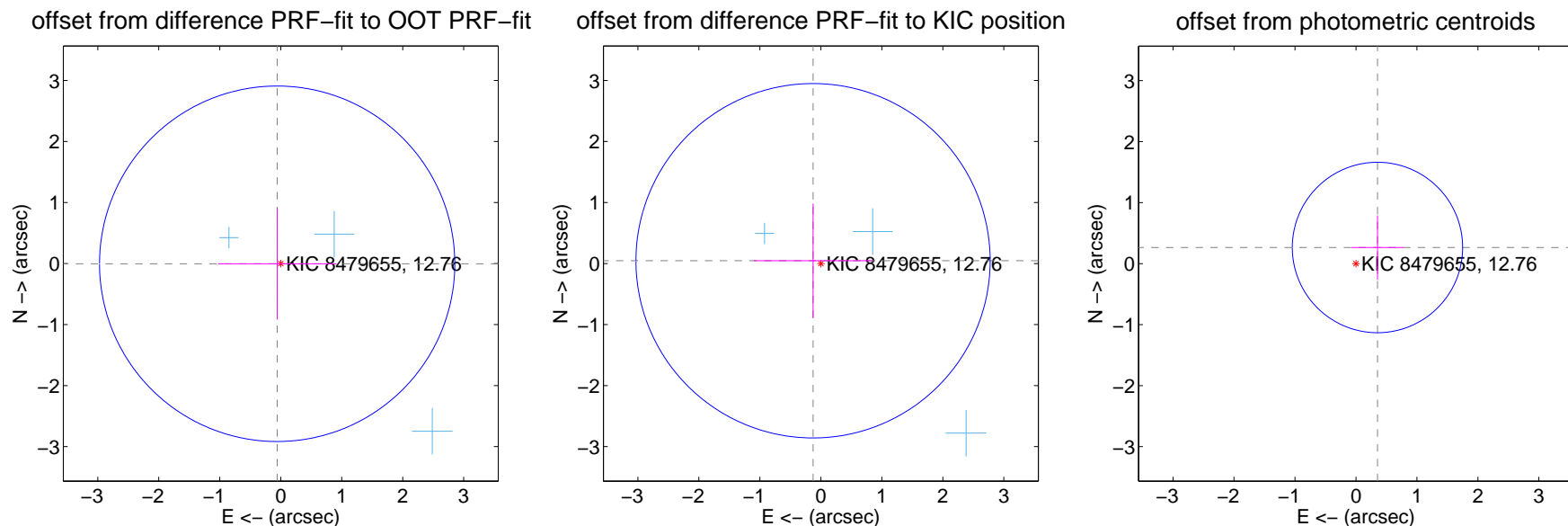
DV Centroid Data

Supplemental centroid analysis for 008479655-05. Kepler magnitude: 12.76. Transit SNR 8.10

There are 3 quarters with good PRF difference image offsets

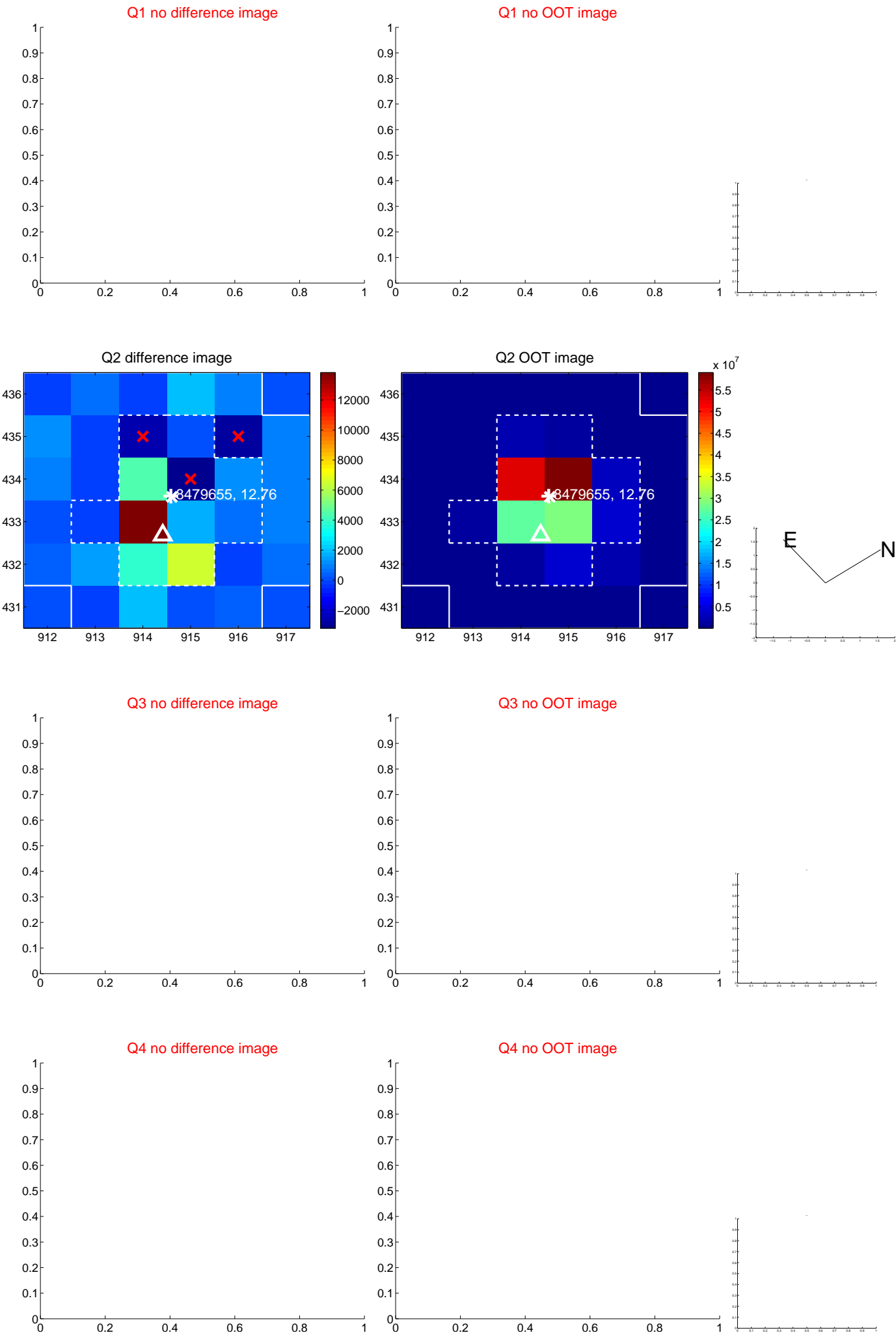
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.059 ± 0.971	0.06	0.059 ± 0.971	-0.004 ± 0.914
PRF-fit source offset from KIC position	0.136 ± 0.968	0.14	0.128 ± 0.972	0.046 ± 0.938
photometric centroid source offset	0.44 ± 0.47	0.95	-0.35 ± 0.43	0.26 ± 0.53



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.

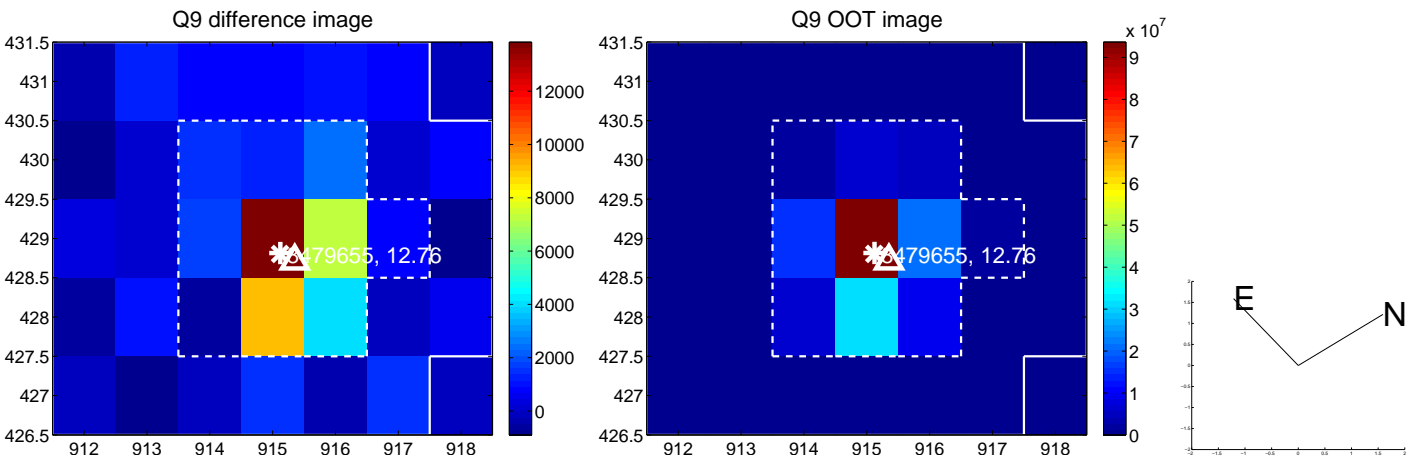
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

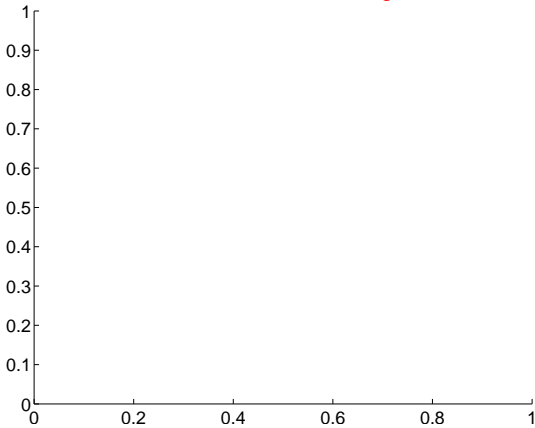


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

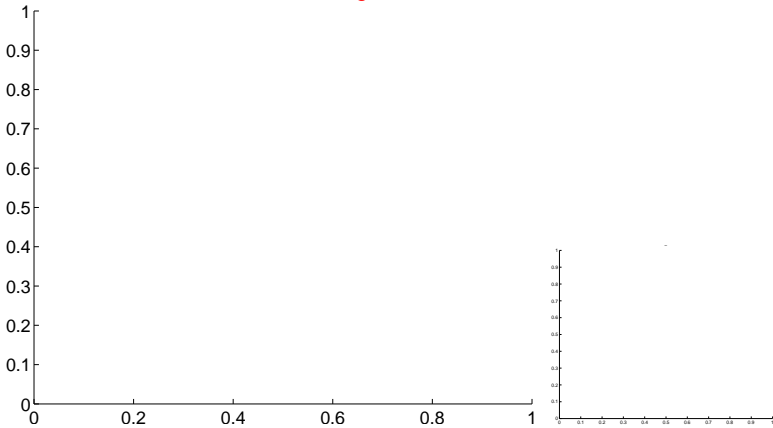


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

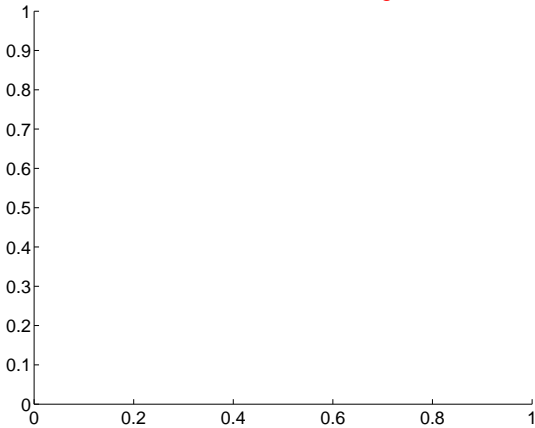
Q13 no difference image



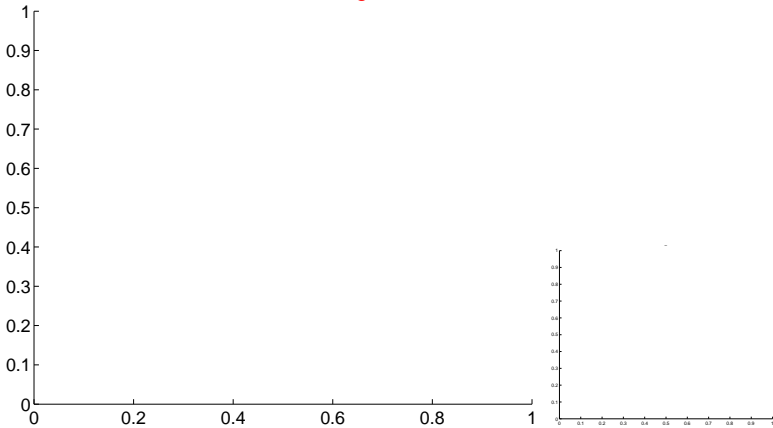
Q13 no OOT image



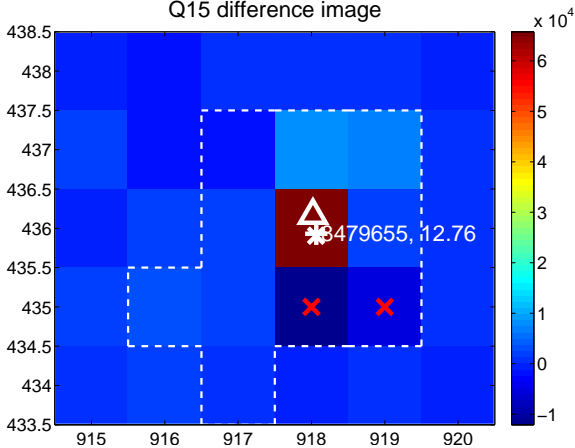
Q14 no difference image



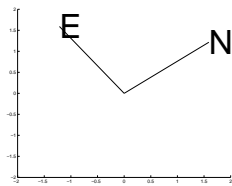
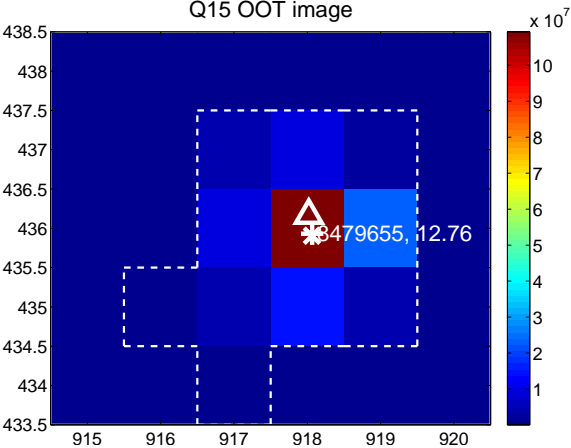
Q14 no OOT image



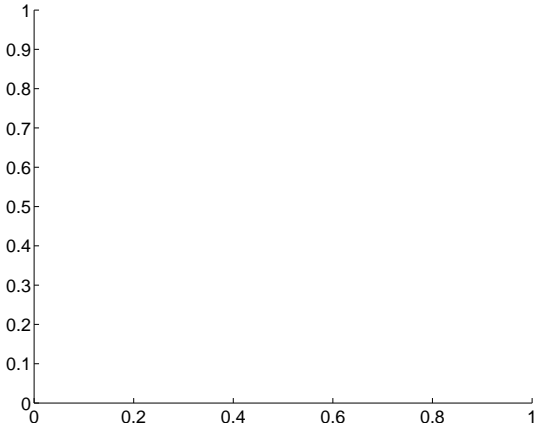
Q15 difference image



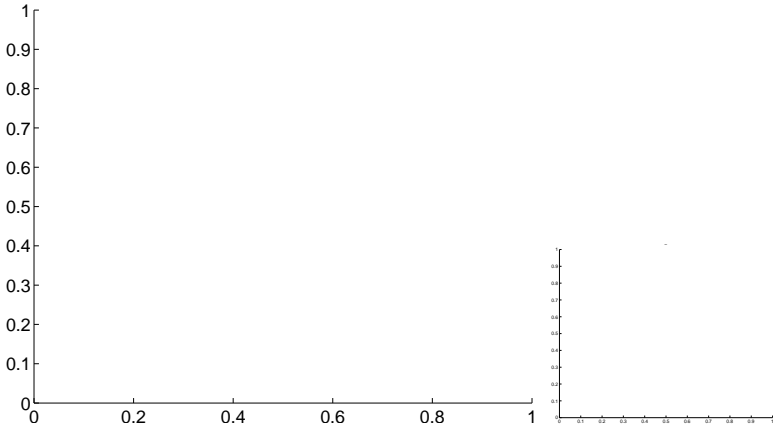
Q15 OOT image



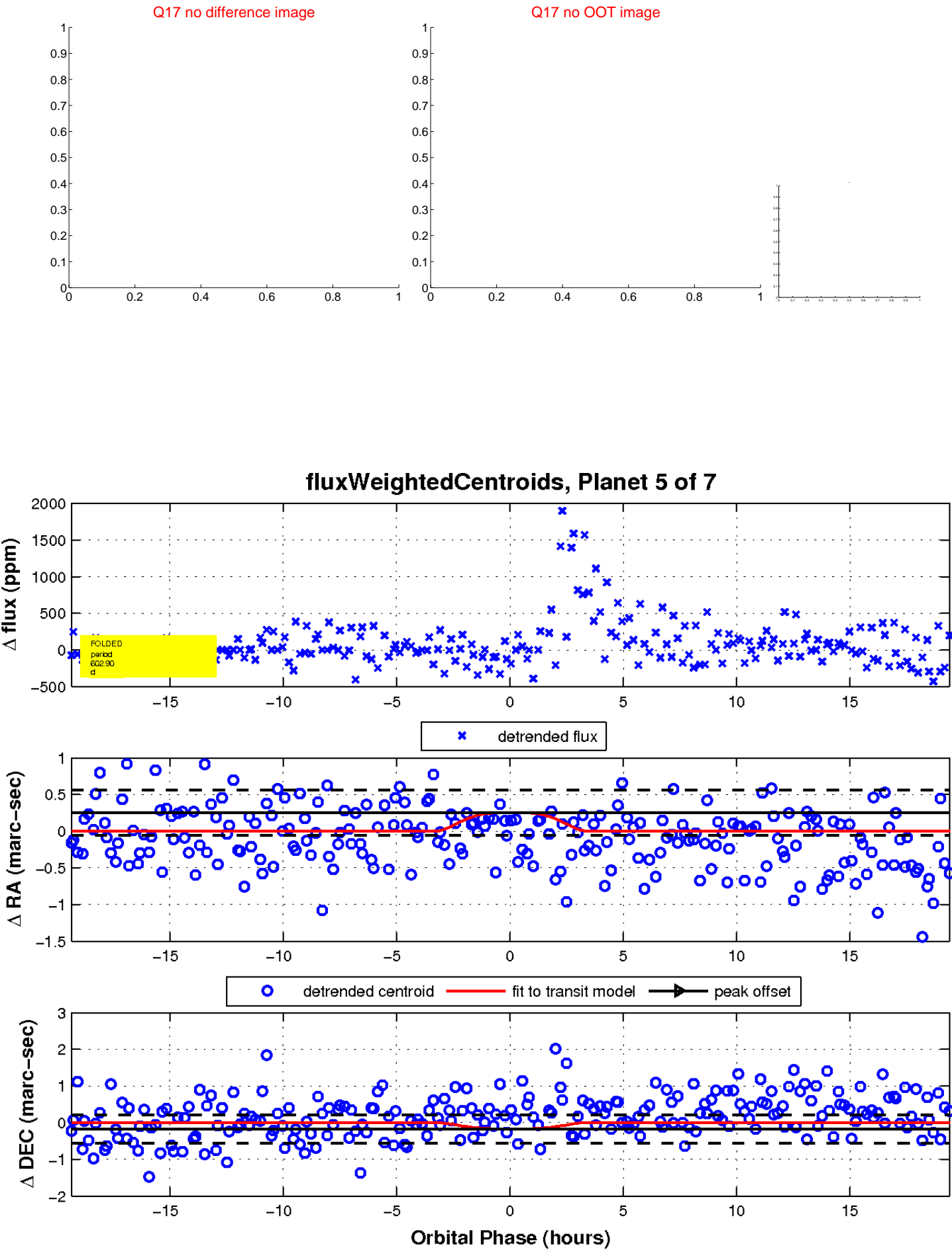
Q16 no difference image



Q16 no OOT image

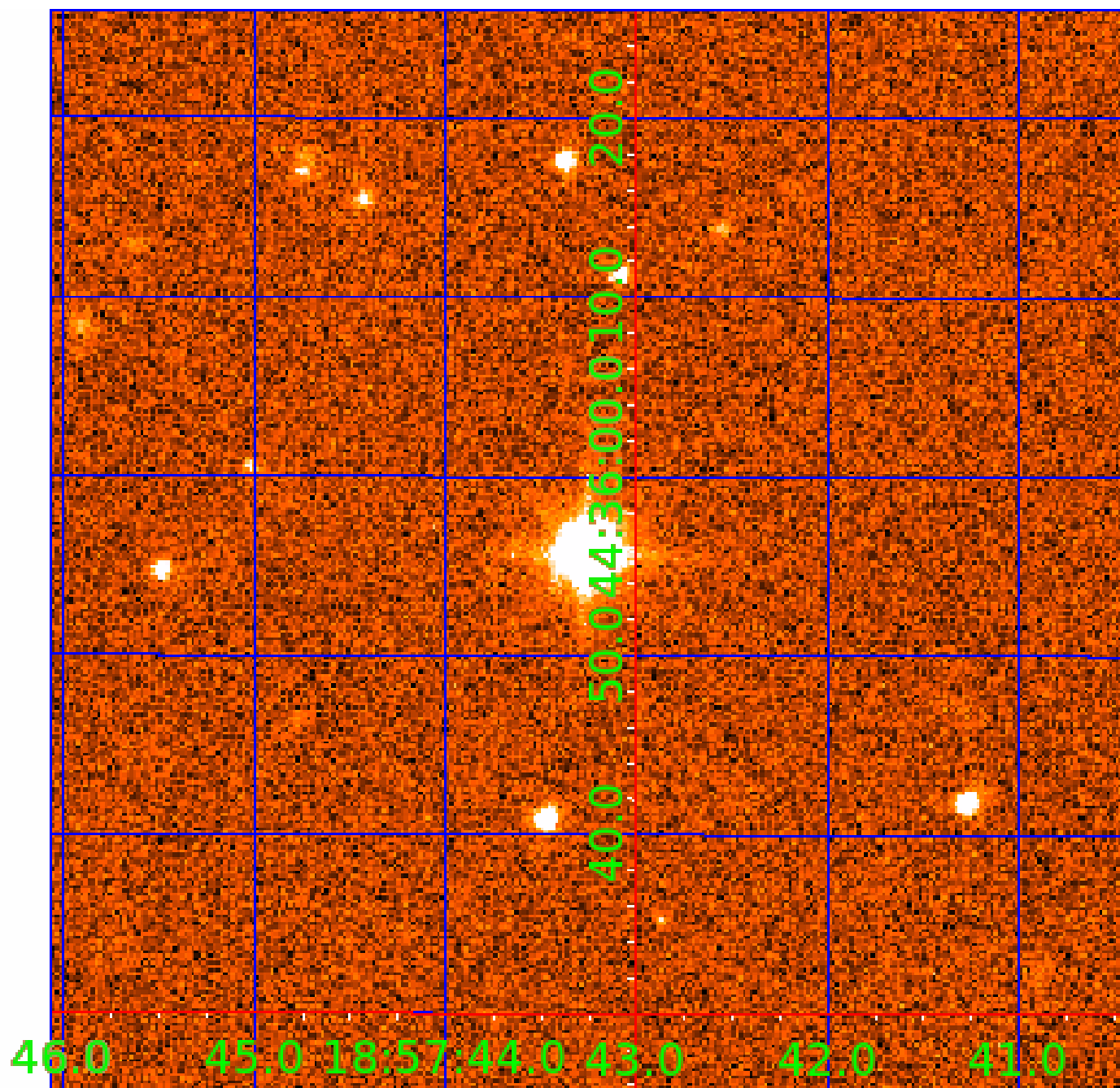


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
008479655-02	OBS	No	648.078134	149.744822	977.8	6.680	23.8	12.3	0.64	5277	2.06	0.18
008479655-03	OBS	No	477.564643	454.191951	684.9	2.018	15.6	8.8	0.64	5277	1.85	0.27
008479655-04	OBS	No	501.519123	277.736281	739.8	3.022	14.7	10.0	0.64	5277	1.81	0.25
008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
008479655-07	OBS	No	359.903186	289.707065	410.9	3.000	12.8	-1.0	0.64	5277	1.29	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008479655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

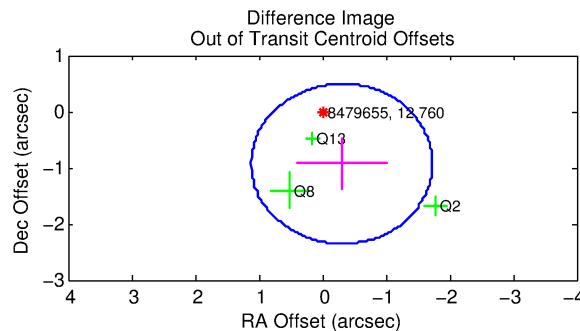
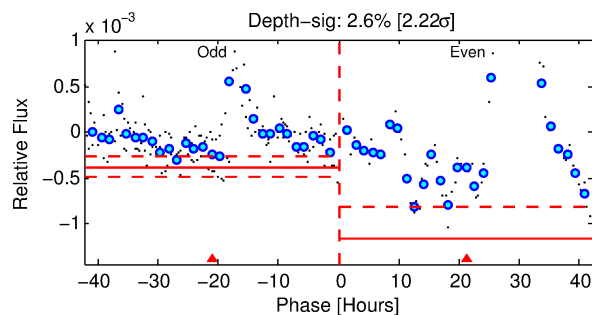
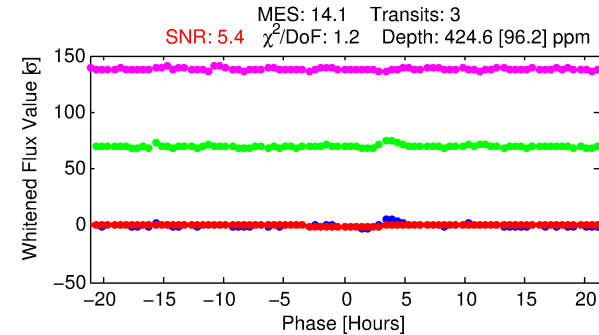
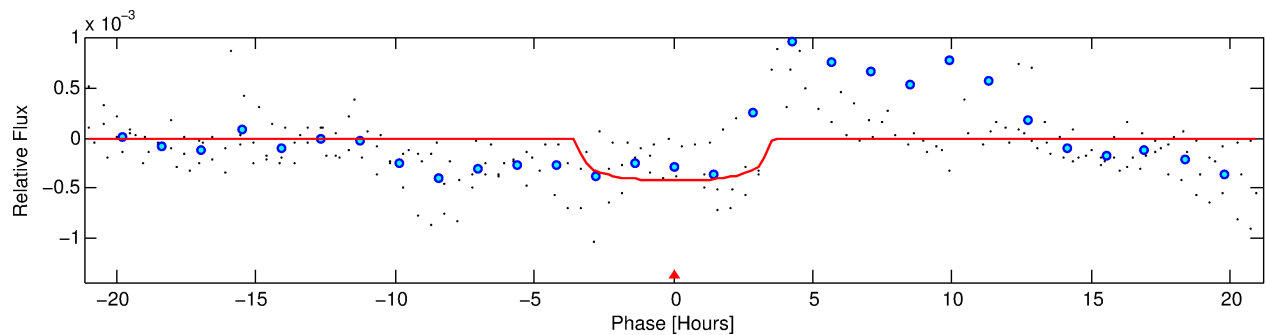
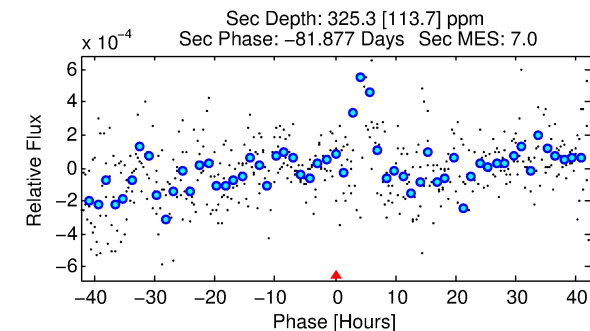
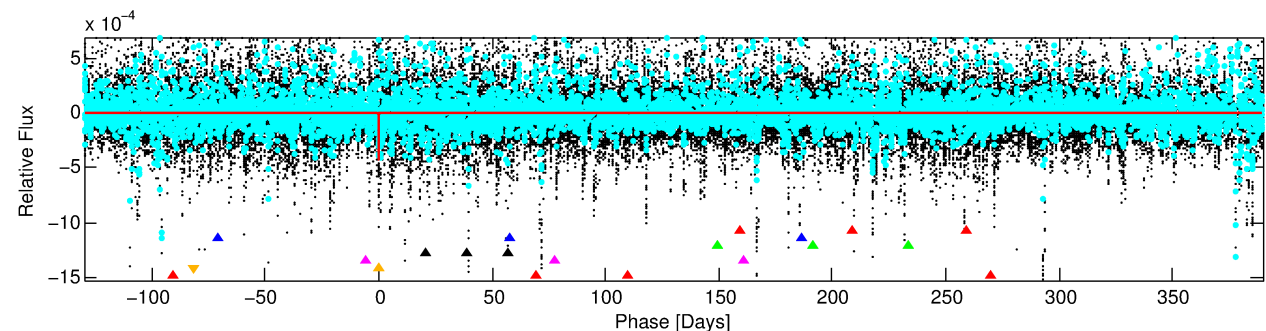
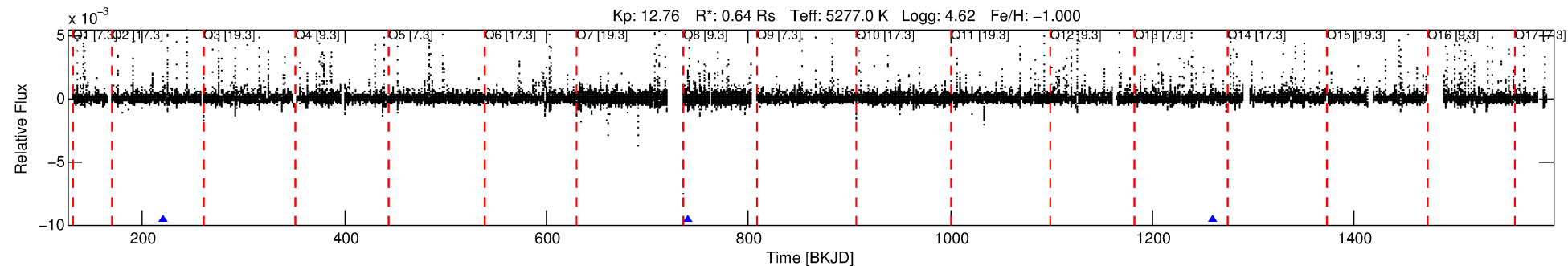
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-06

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 6 of 7 Period: 519.609 d



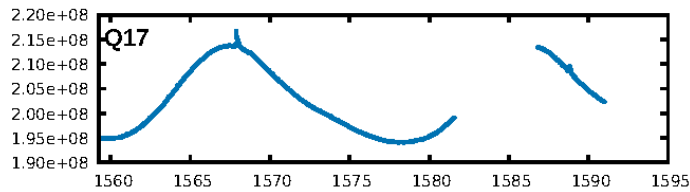
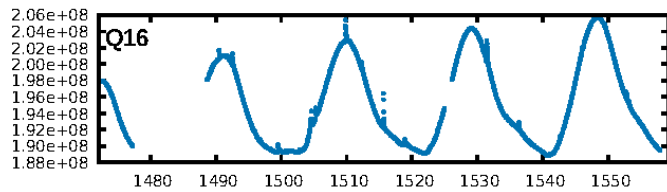
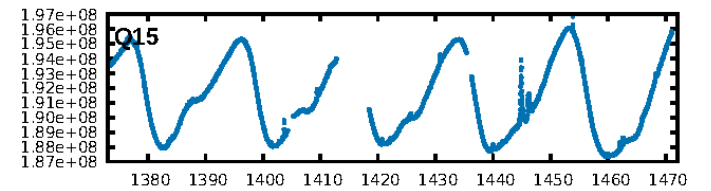
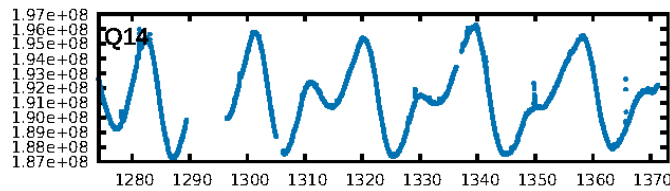
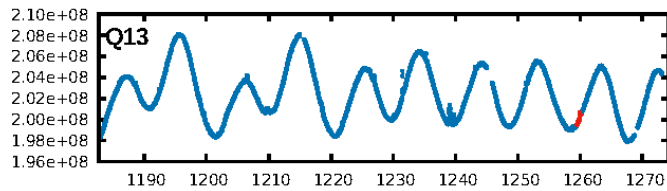
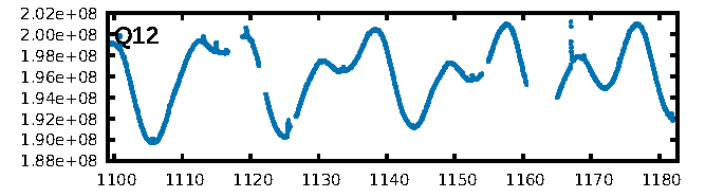
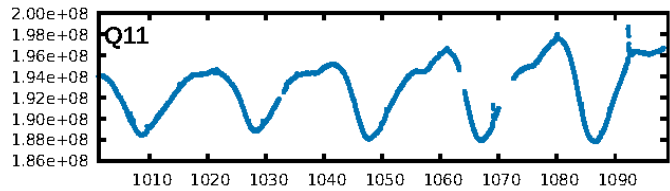
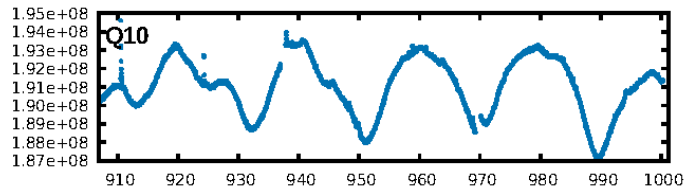
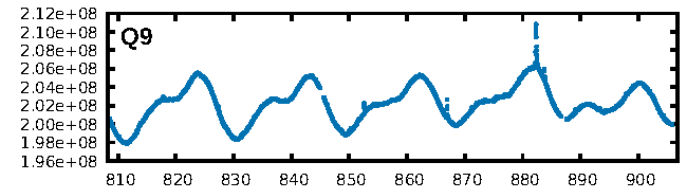
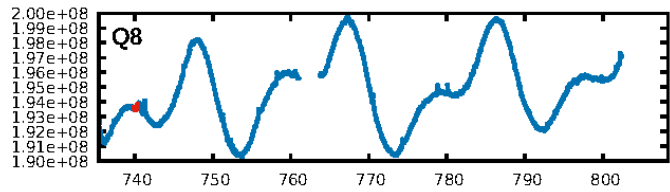
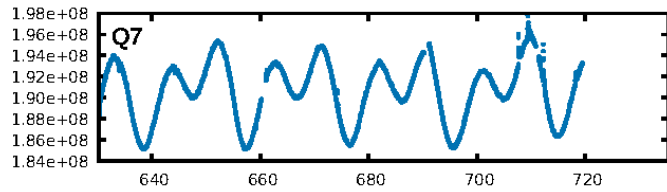
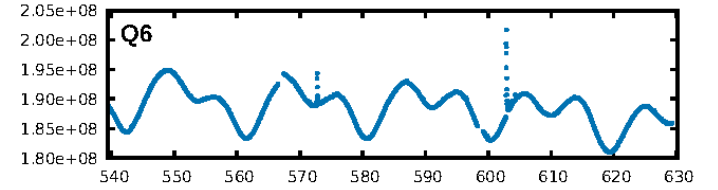
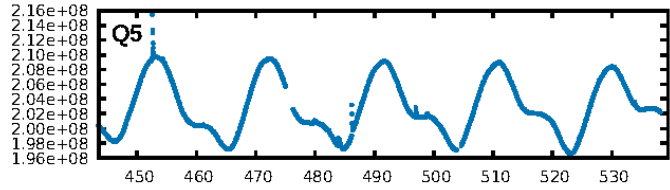
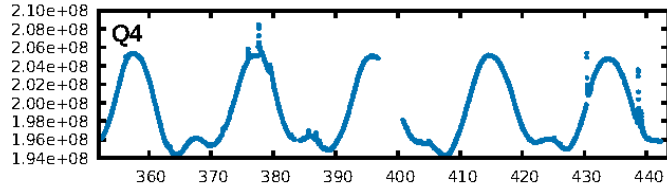
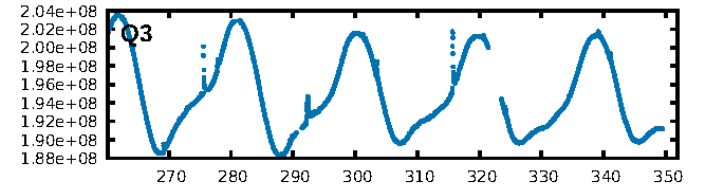
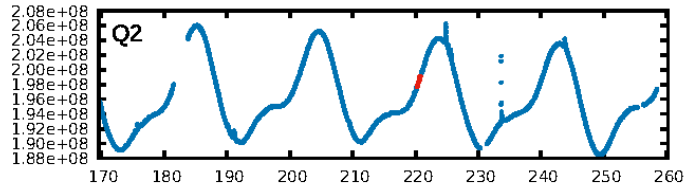
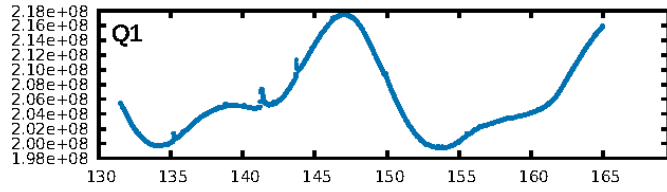
DV Fit Results:

Period = 519.60928 [0.00730] d
Epoch = 220.5306 [0.0093] BKJD
Rp/R* = 0.0207 [0.0087]
a/R* = 374.07 [647.24]
b = 0.77 [0.90]
Seff = 0.24 [0.04]
Teq = 179 [7] K
Rp = 1.45 [0.61] Re
a = 1.0846 [0.0788] AU
Ag = 100753.68 [92024.94] [1.09σ]
Teffp = 4926 [1126] K [4.22σ]

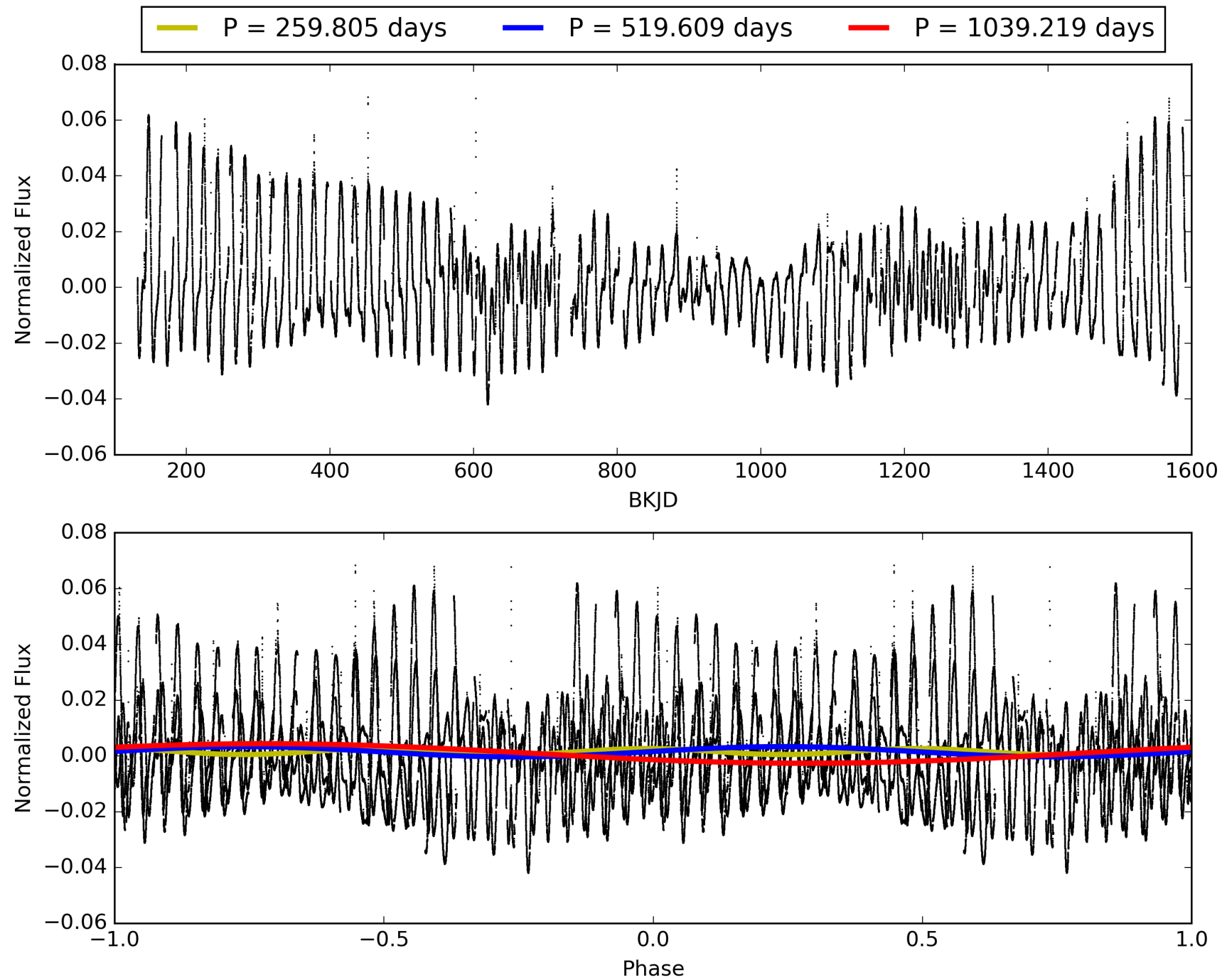
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [56.59σ]
LongPeriod-sig: 100.0% [140.49σ]
ModelChiSquare2-sig: 26.3%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.5931
Centroid-sig: 67.8%
Centroid-so: 0.347 arcsec [0.70σ]
OotOffset-rm: 0.980 arcsec [2.07σ]
KicOffset-rm: 0.966 arcsec [2.00σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008479655-06, PDC Light Curves

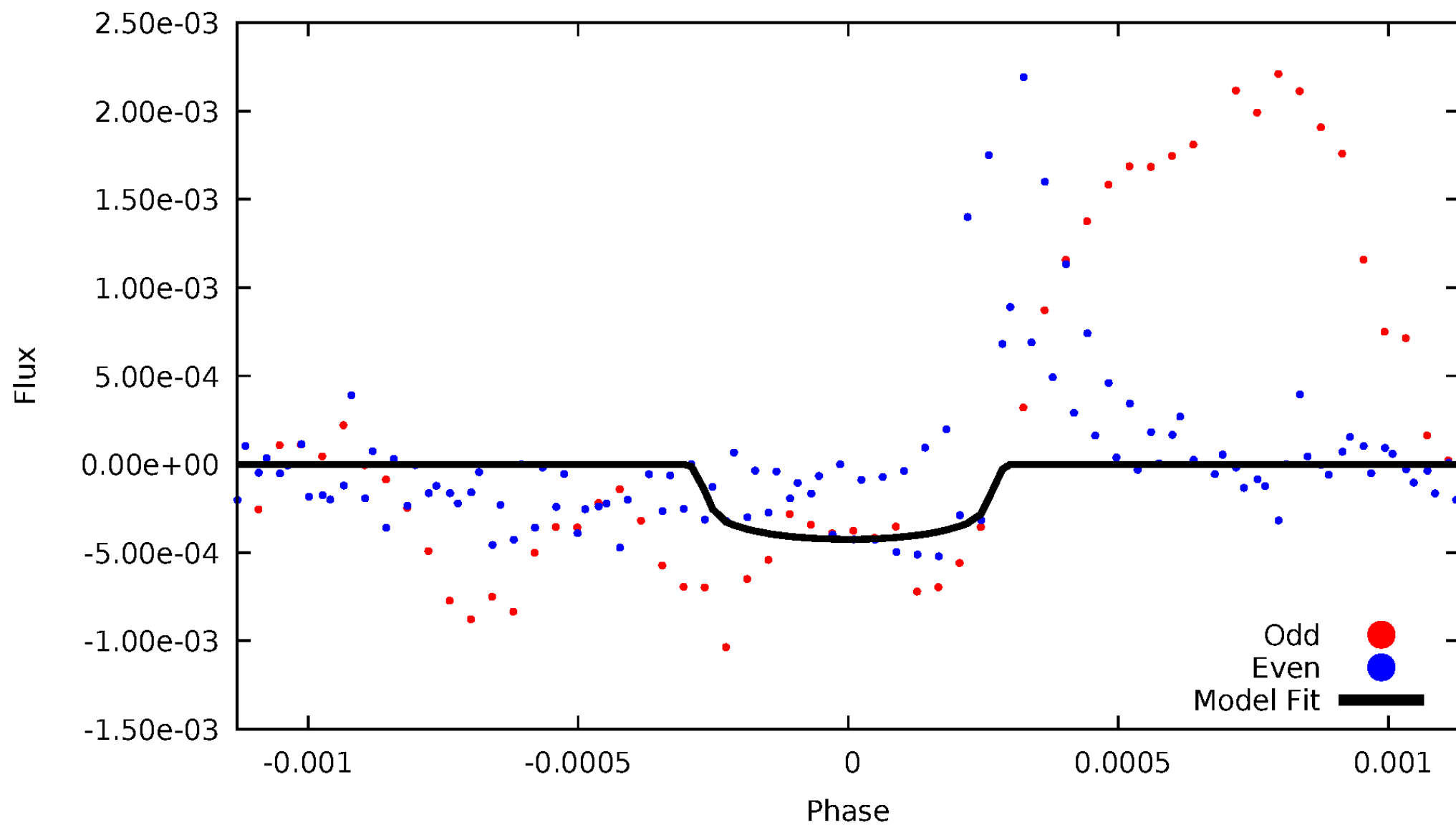


TCE 008479655-06



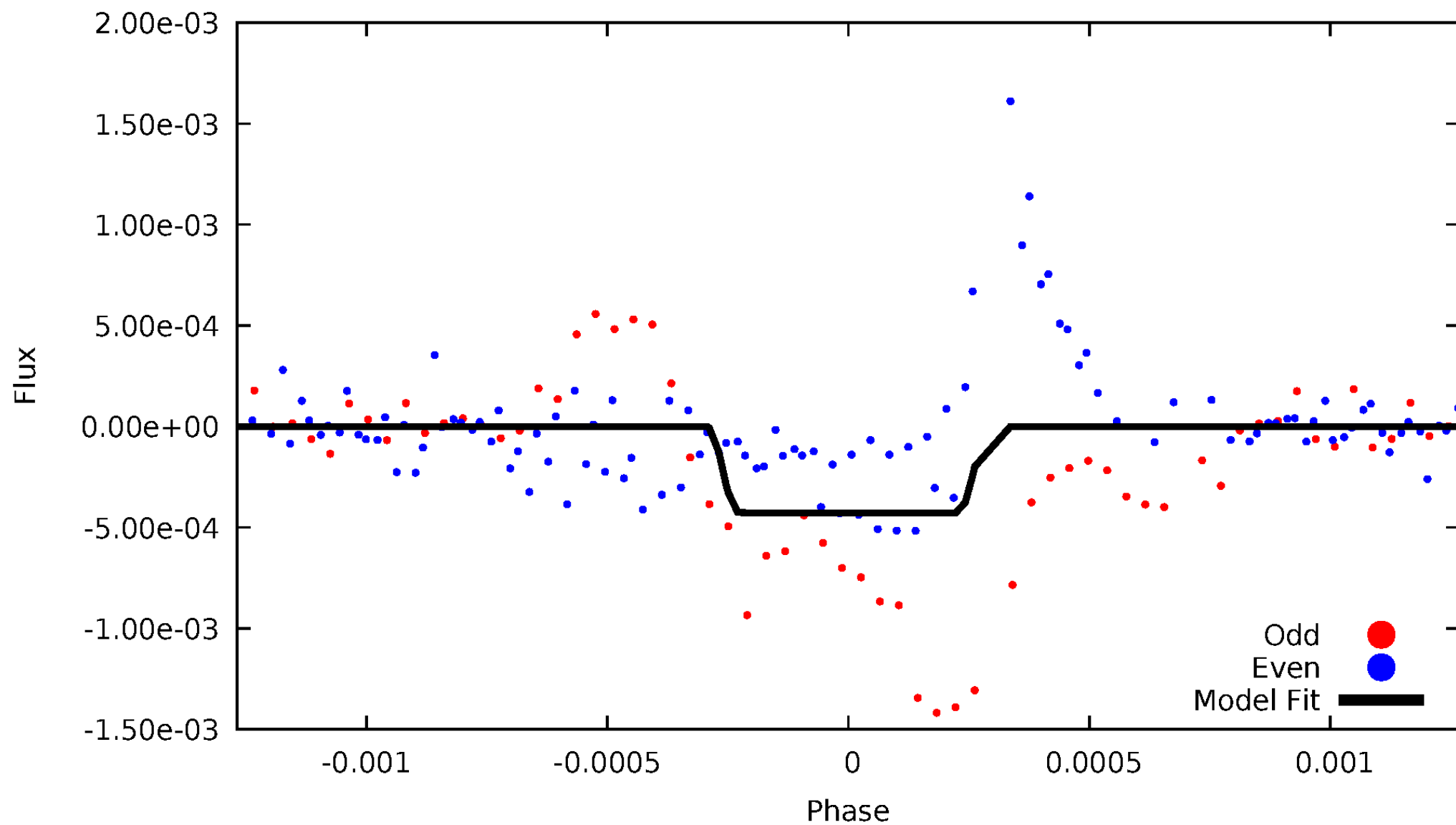
DV Odd/Even

TCE 008479655-06



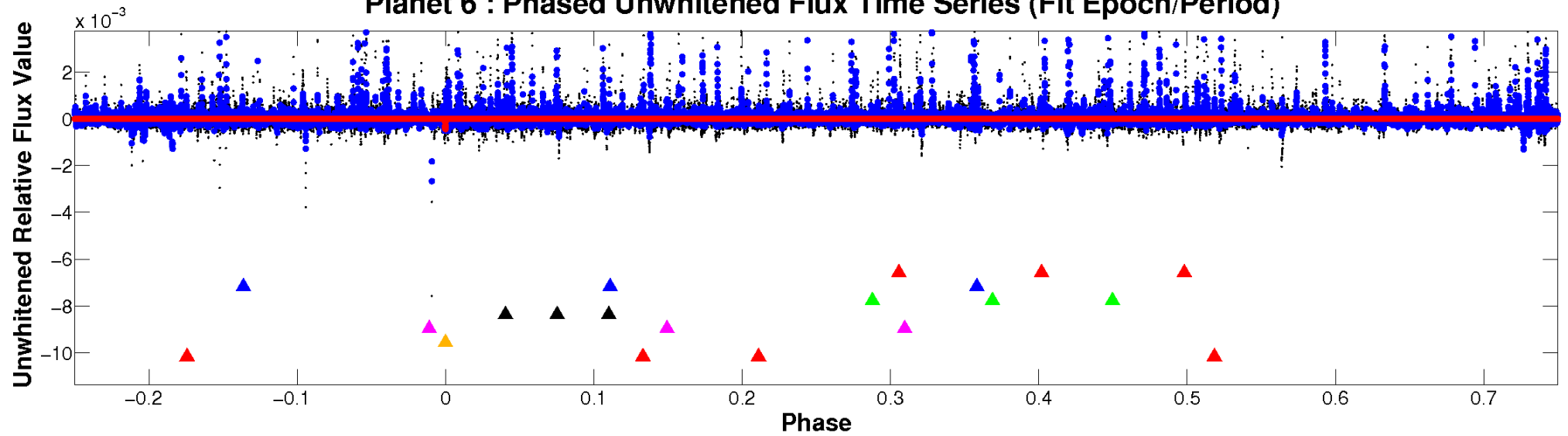
ALT Odd/Even

TCE 008479655-06

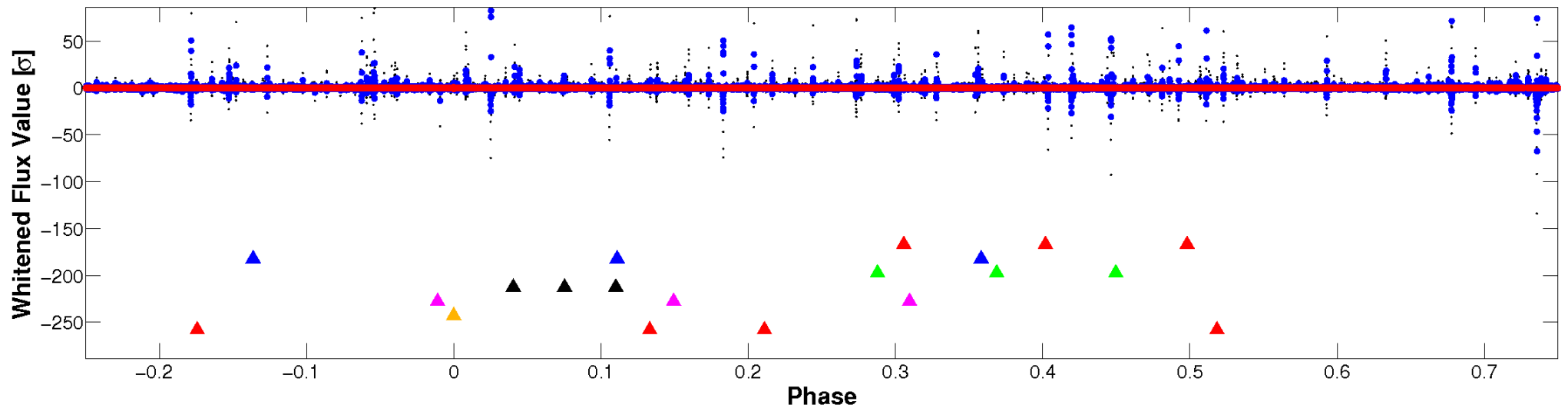


Non-Whitened Vs. Whitened Light Curve

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

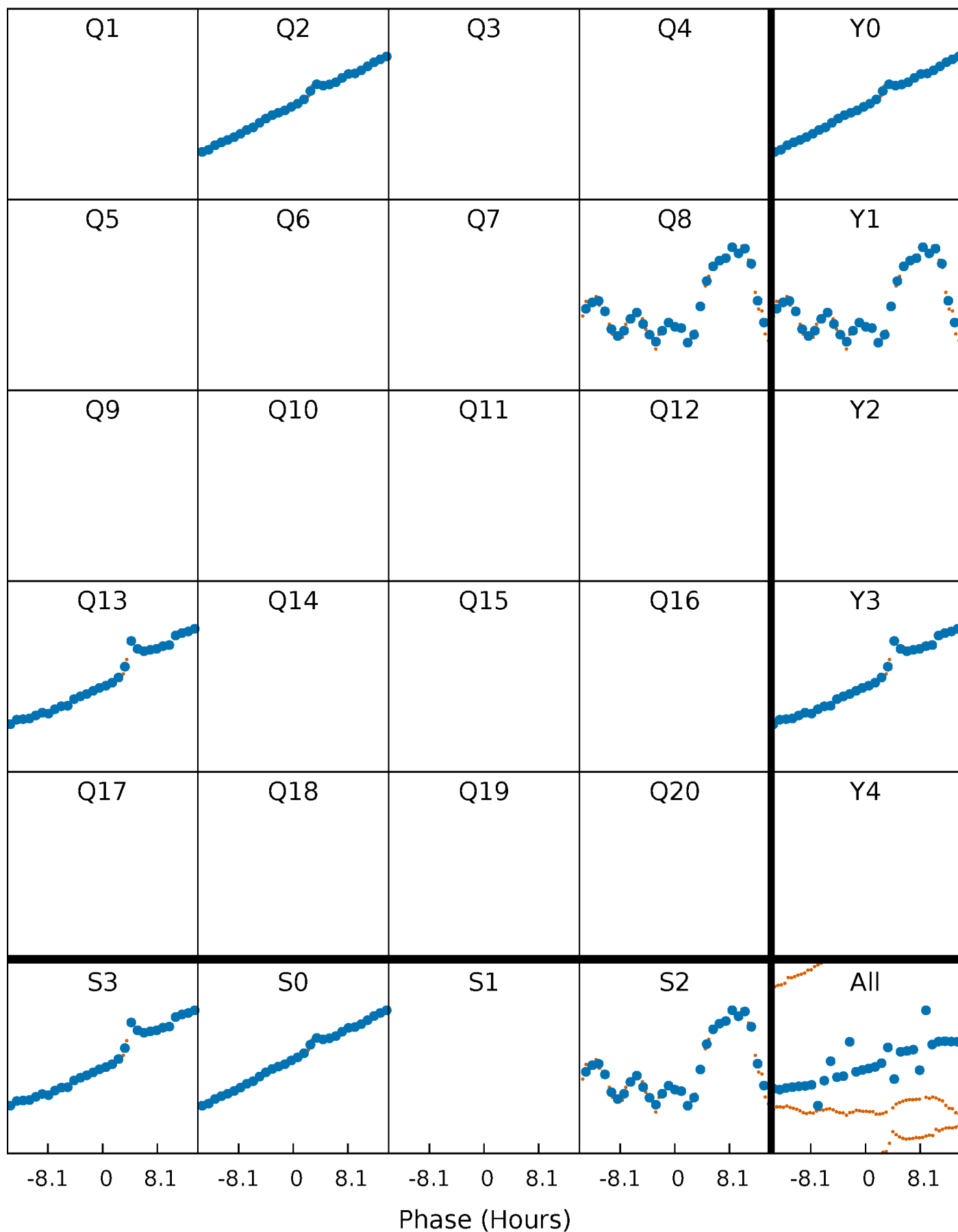


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



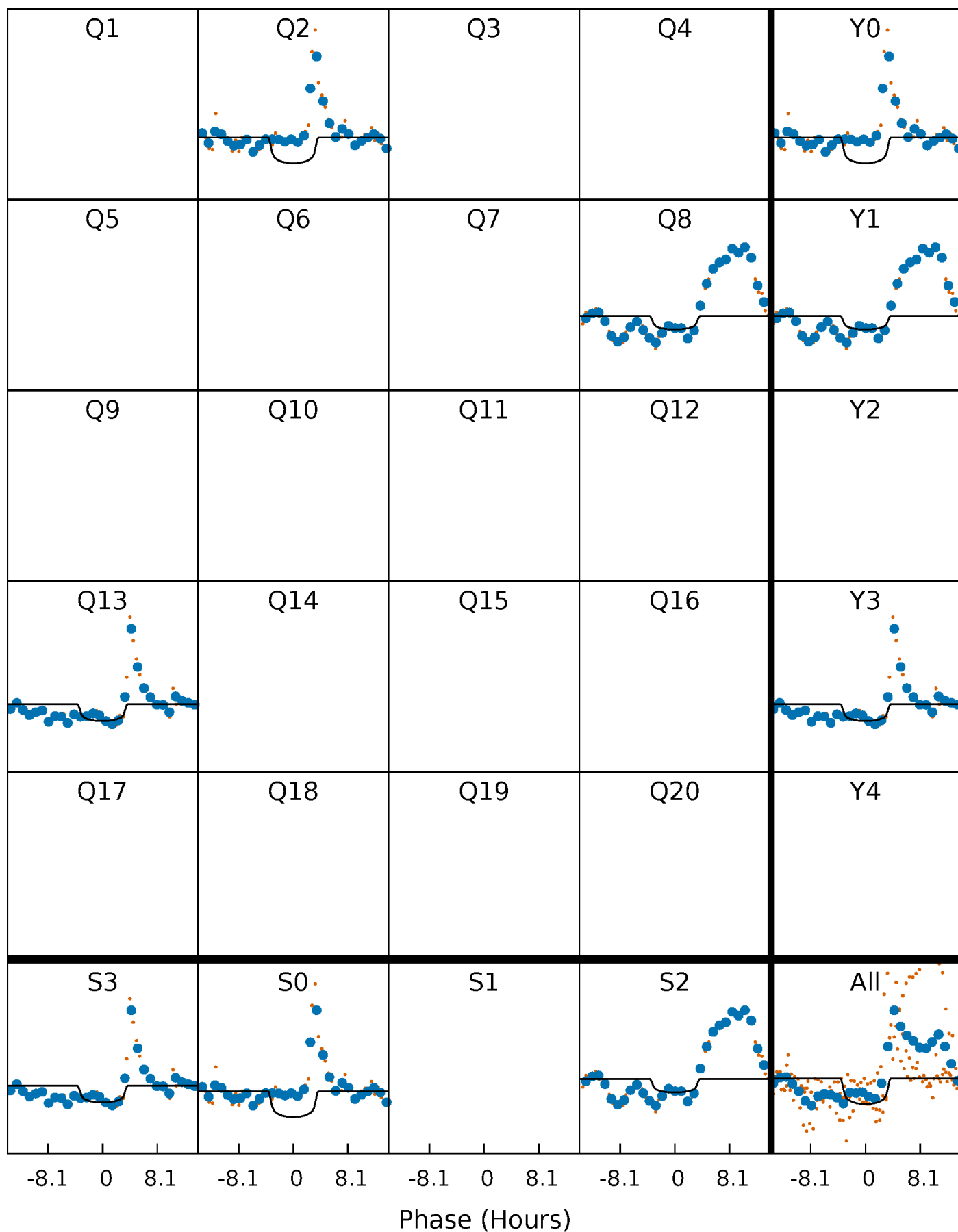
PDC Quarter-Phased Transit Curves

TCE 008479655-06 P=519.609281 Days $T_0=220.530601$ (BKJD)



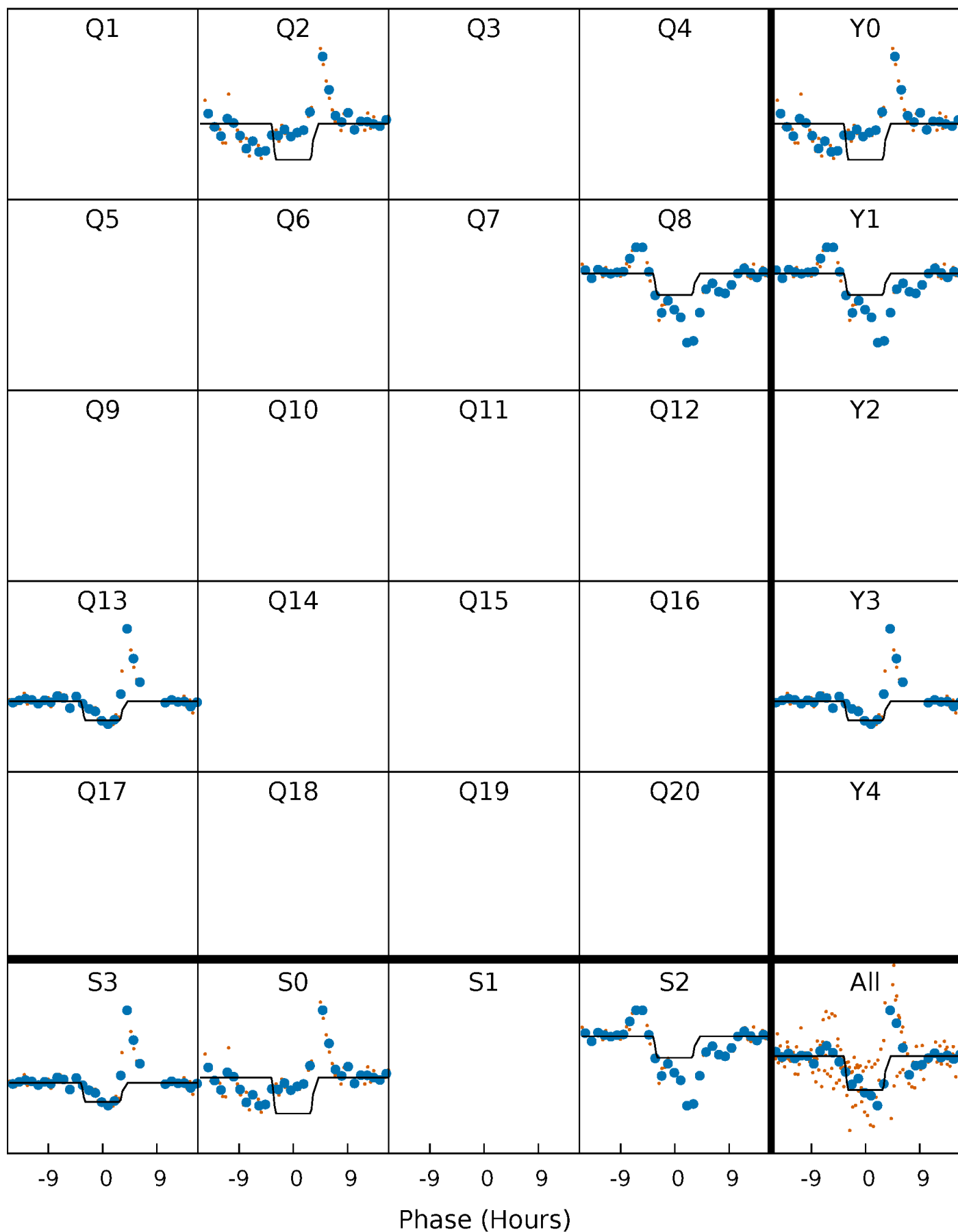
DV Quarter-Phased Transit Curves

TCE 008479655-06 P=519.609281 Days $T_0=220.530601$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

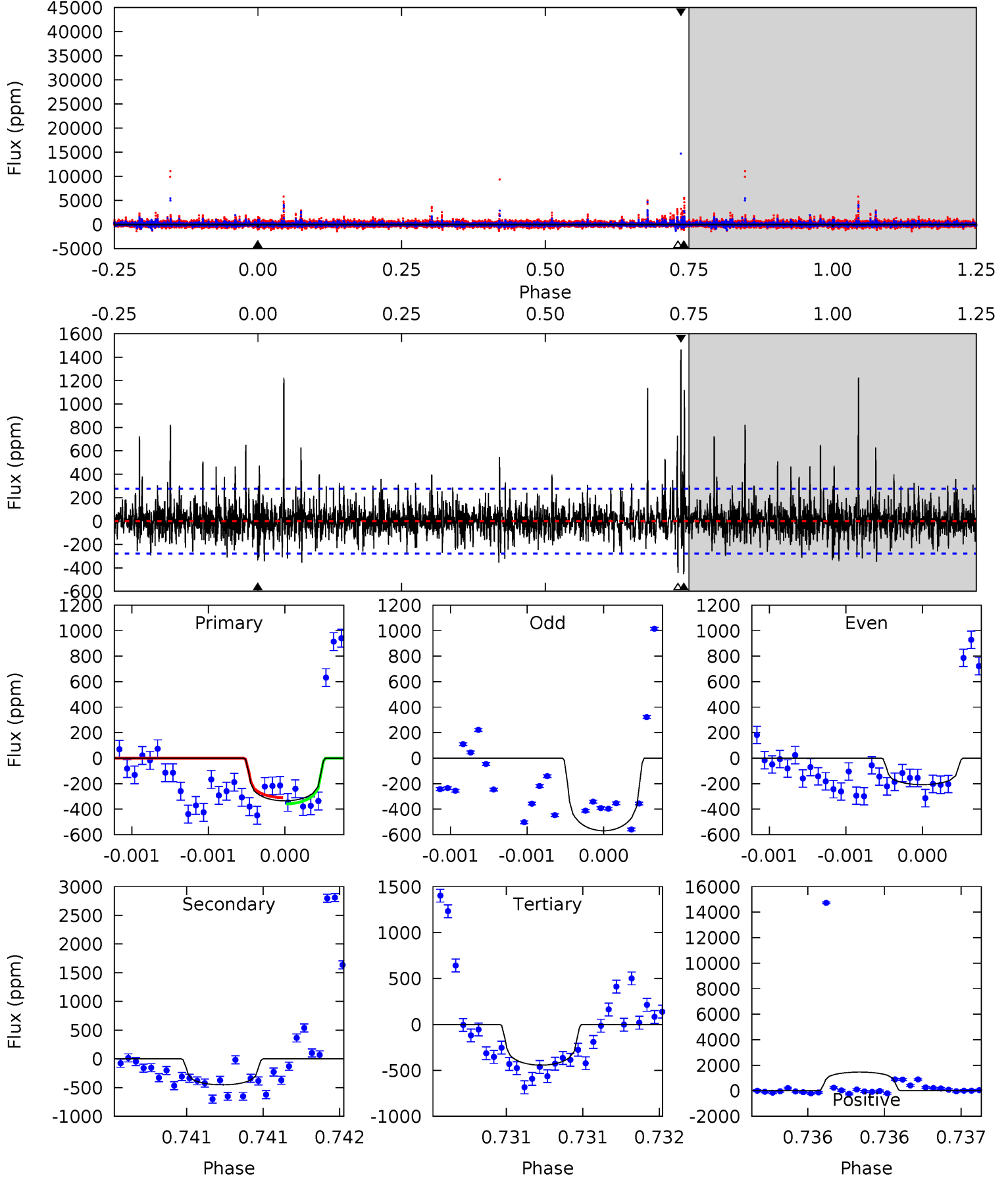
TCE 008479655-06 P=519.632242 Days $T_0=220.498957$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-06, P = 519.609281 Days, E = 220.530601 Days

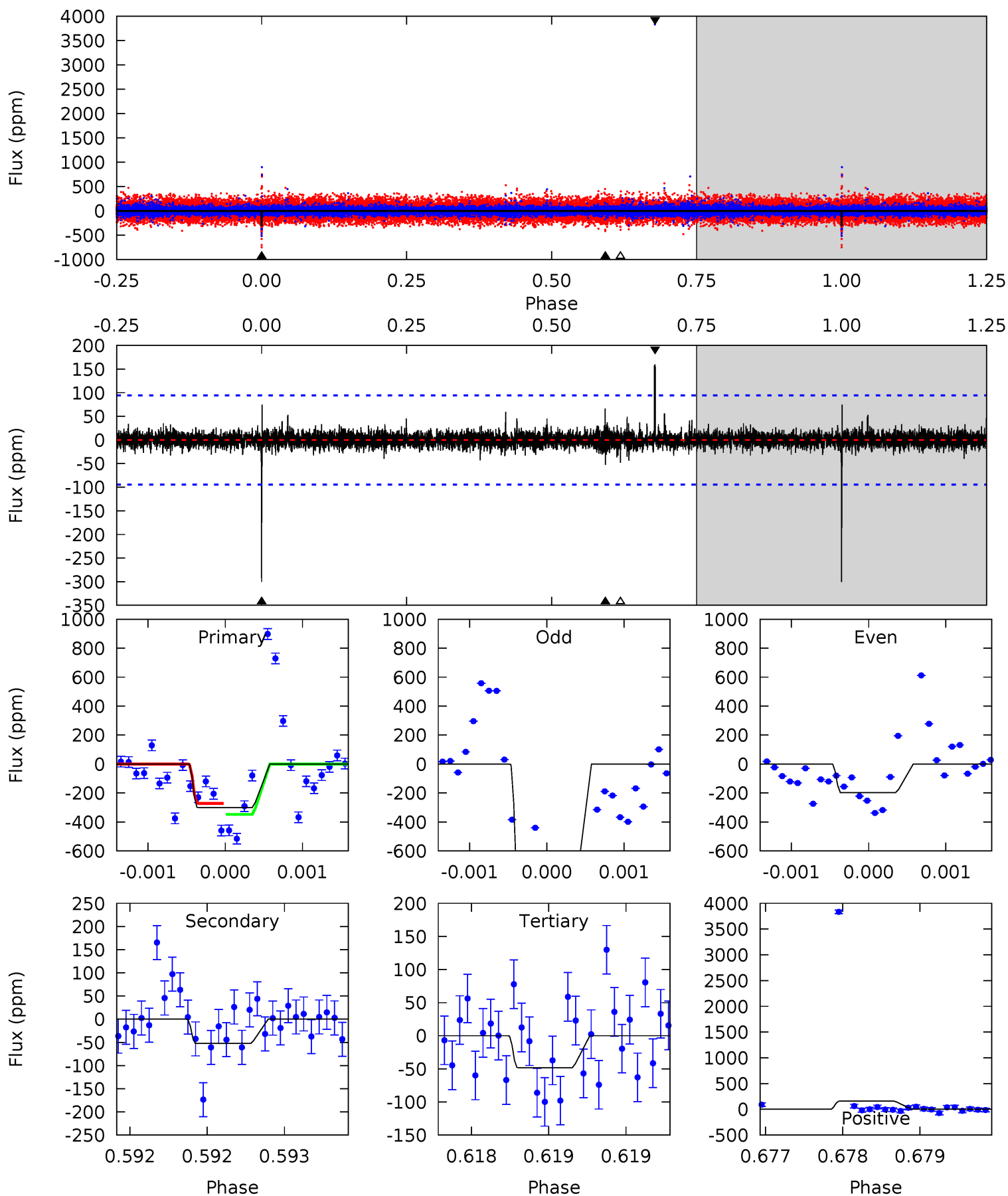
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.70	9.05	8.87	29.3	5.55	3.45	2.28	-2.17	-22.6	0.18	-20.3	1.46	0.68	0.76	0.48



Alt Model-Shift Uniqueness Test

008479655-06, P = 519.632242 Days, E = 220.498957 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	3.07	2.82	9.32	5.53	3.42	0.56	14.8	8.30	0.25	-6.25	21.3	1.44	0.35	2.15



Stellar Parameters For KIC 008479655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-452 ± 50	$1.46^{+0.55}_{-0.52}$	249^{+9}_{-8}	5325^{+1348}_{-713}	$140626^{+207529}_{-68787}$
Alt.	-52 ± 17	$1.46^{+0.58}_{-0.58}$	249^{+8}_{-8}	3529^{+693}_{-406}	15825^{+28835}_{-8536}

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

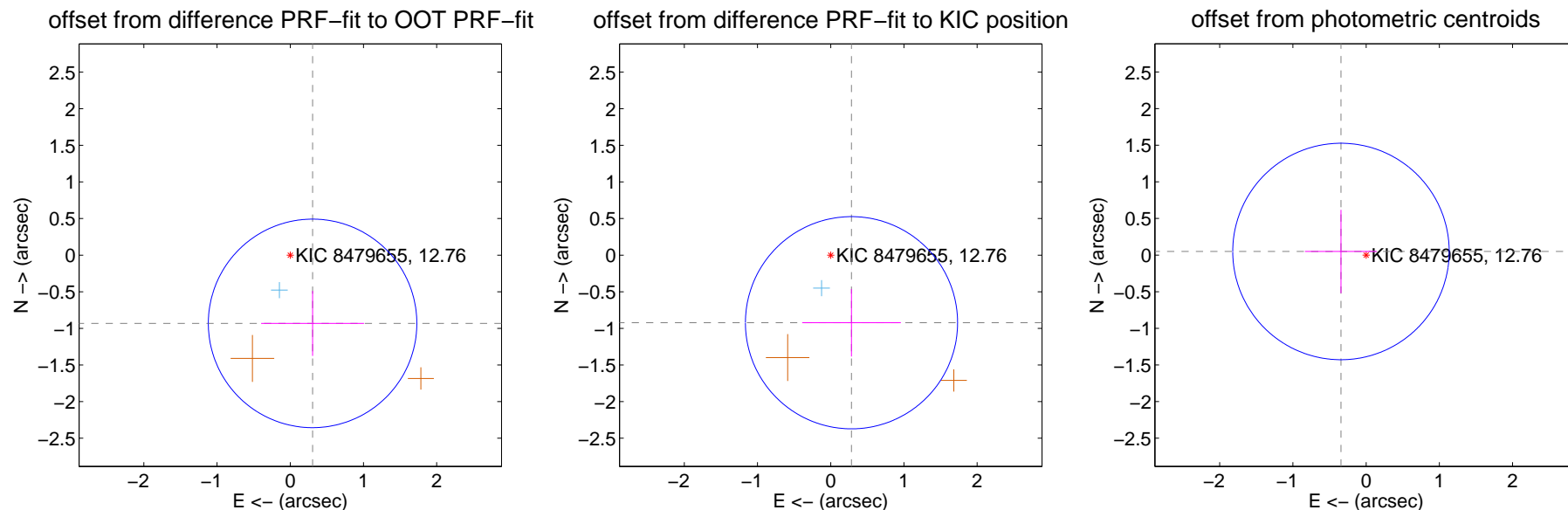
DV Centroid Data

Supplemental centroid analysis for 008479655-06. Kepler magnitude: 12.76. Transit SNR 5.37

There are 1 quarters with good PRF difference image offsets

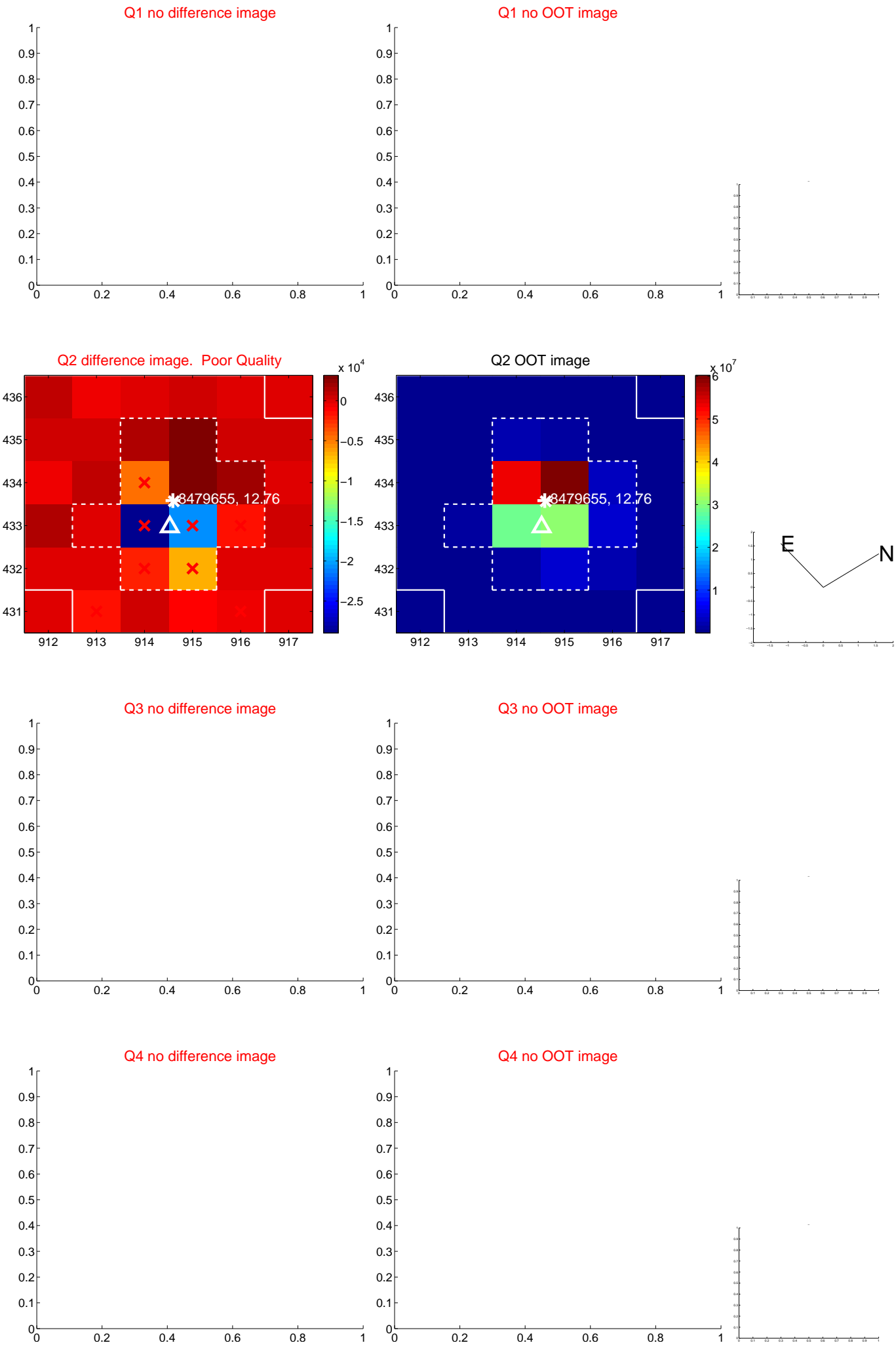
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.980 ± 0.475	2.07	-0.305 ± 0.703	-0.932 ± 0.443
PRF-fit source offset from KIC position	0.966 ± 0.483	2.00	-0.284 ± 0.674	-0.923 ± 0.461
photometric centroid source offset	0.35 ± 0.49	0.70	0.34 ± 0.49	0.05 ± 0.57

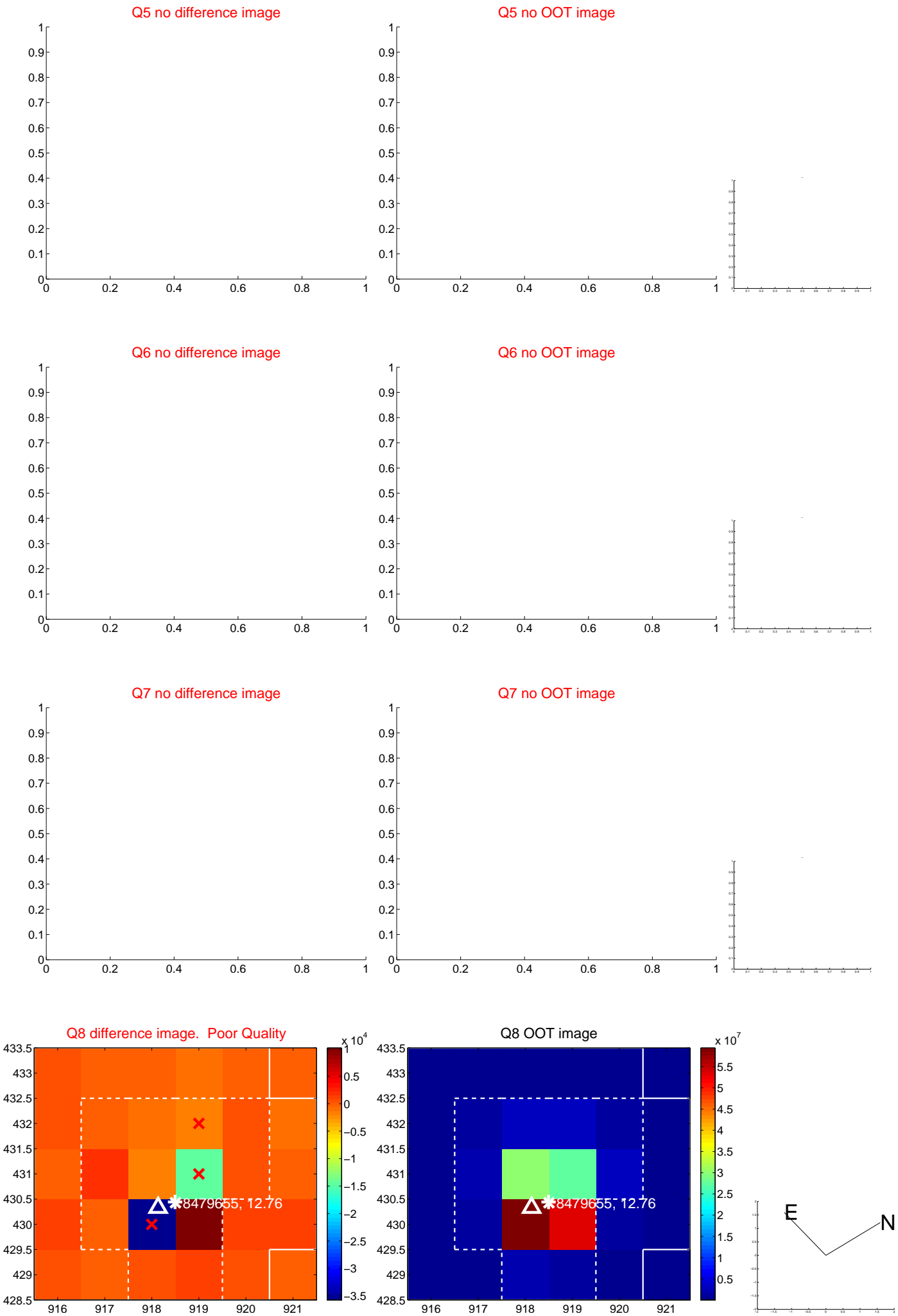


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



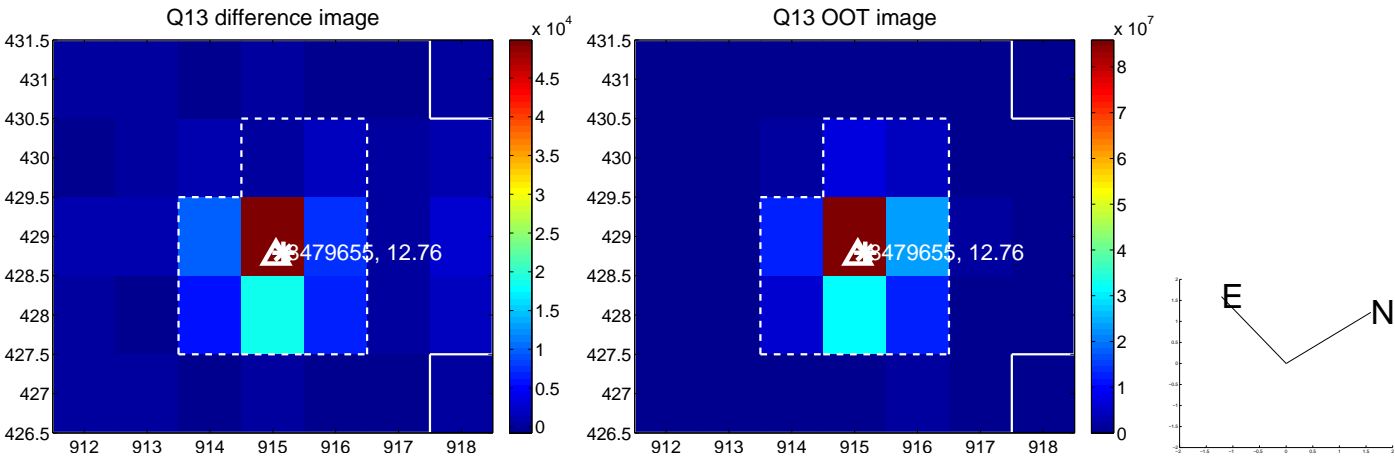
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



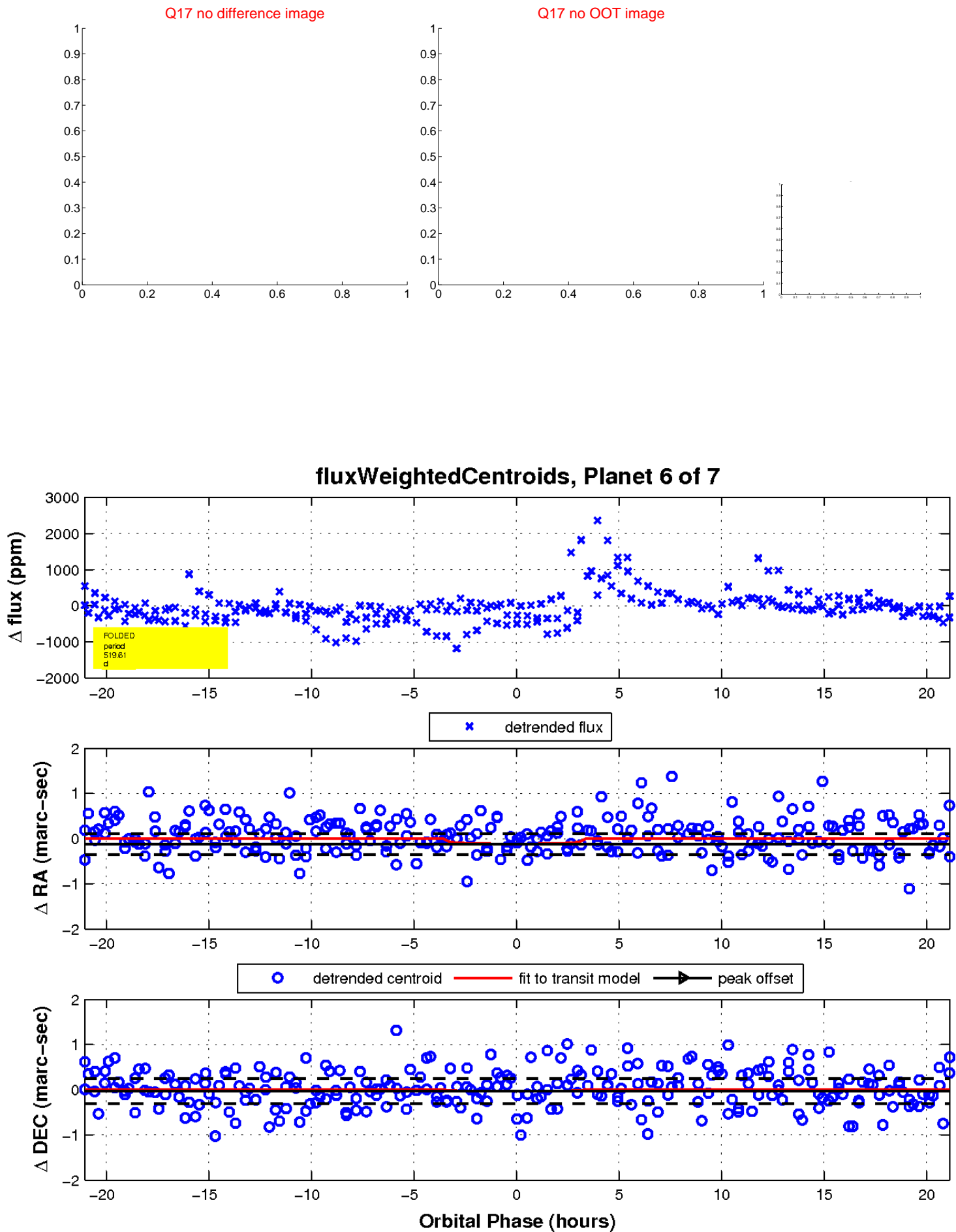
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



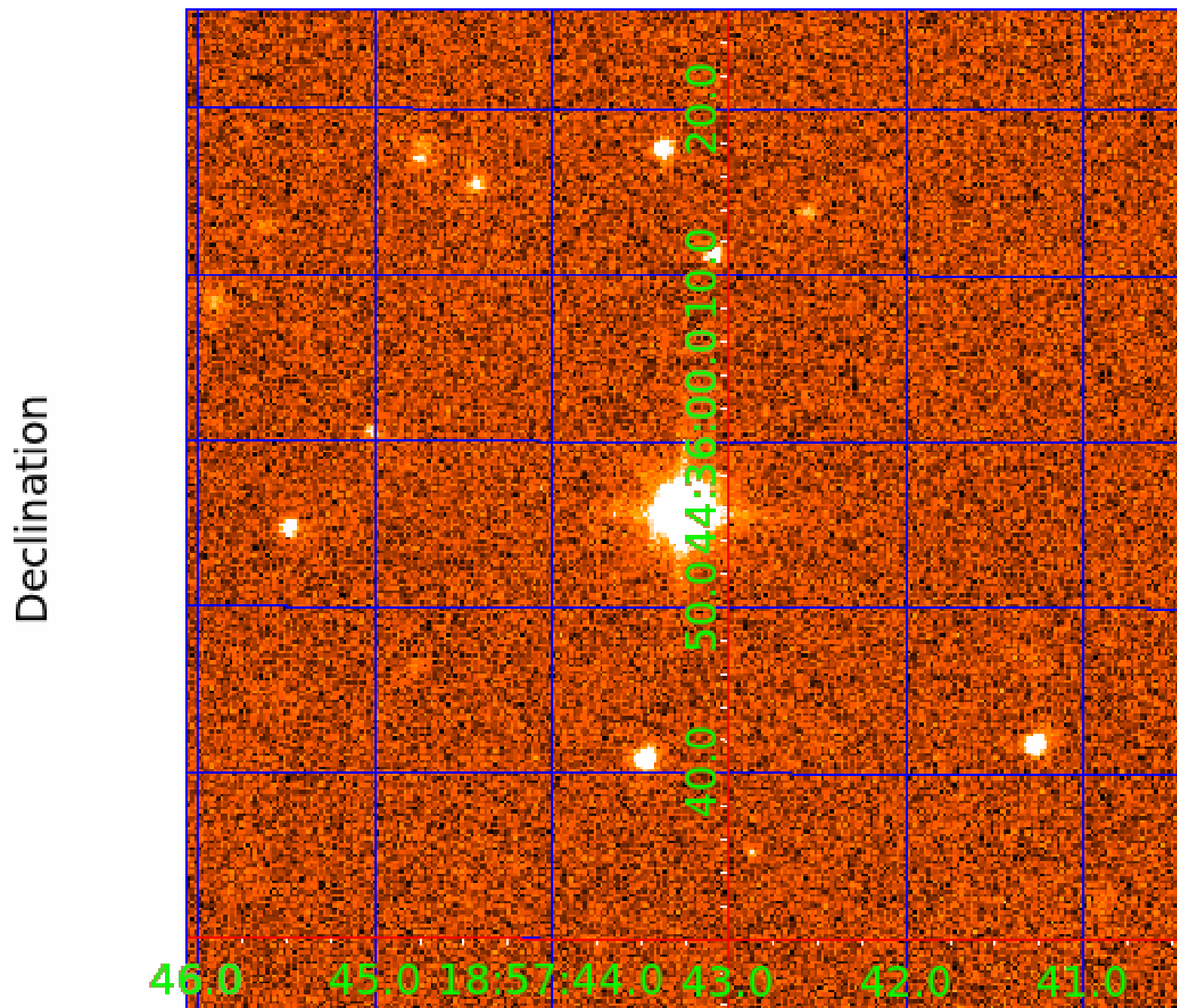
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008479655

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})
008479655-01	OBS	No	569.610709	379.364349	628.5	4.819	18.8	8.1	0.64	5277	1.72	0.21
008479655-02	OBS	No	648.078134	149.744822	977.8	6.680	23.8	12.3	0.64	5277	2.06	0.18
008479655-03	OBS	No	477.564643	454.191951	684.9	2.018	15.6	8.8	0.64	5277	1.85	0.27
008479655-04	OBS	No	501.519123	277.736281	739.8	3.022	14.7	10.0	0.64	5277	1.81	0.25
008479655-05	OBS	No	602.897729	214.842547	609.3	6.492	13.9	8.1	0.64	5277	2.08	0.20
008479655-06	OBS	No	519.609281	220.530601	424.6	7.052	14.1	5.4	0.64	5277	1.45	0.24
008479655-07	OBS	No	359.903186	289.707065	410.9	3.000	12.8	-1.0	0.64	5277	1.29	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008479655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS
008479655-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—HALO_GHOST
008479655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008479655-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

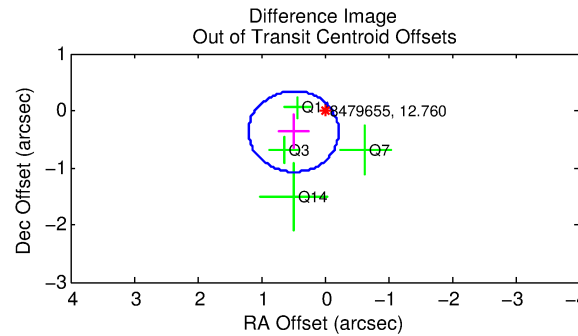
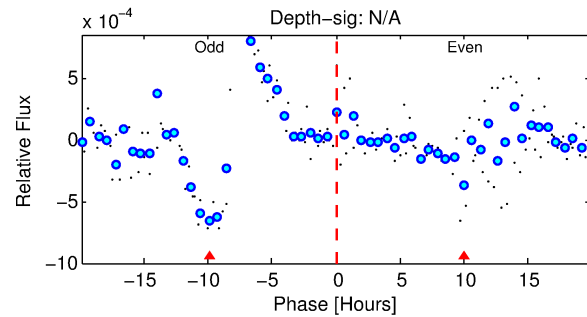
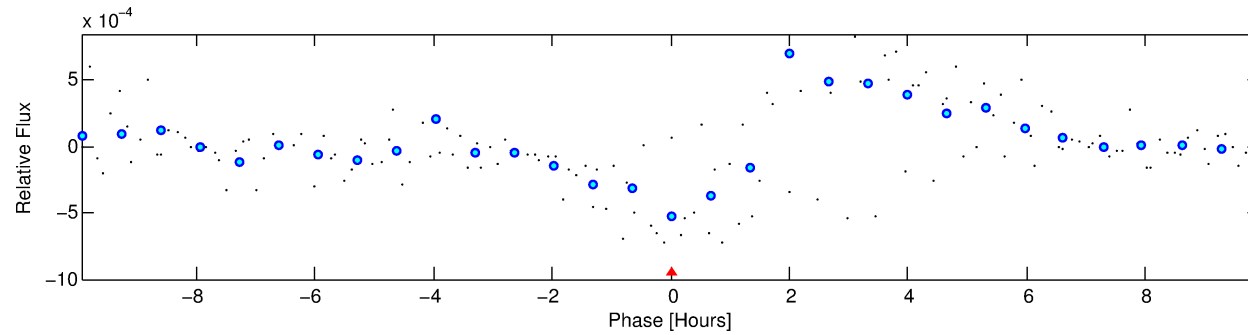
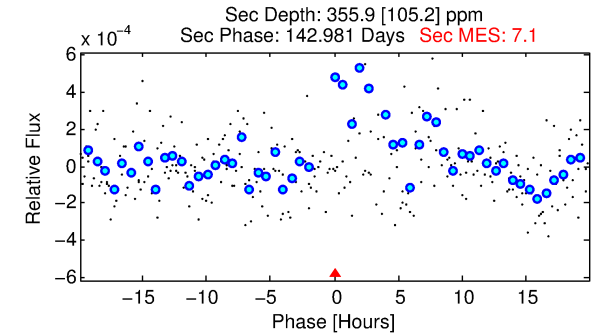
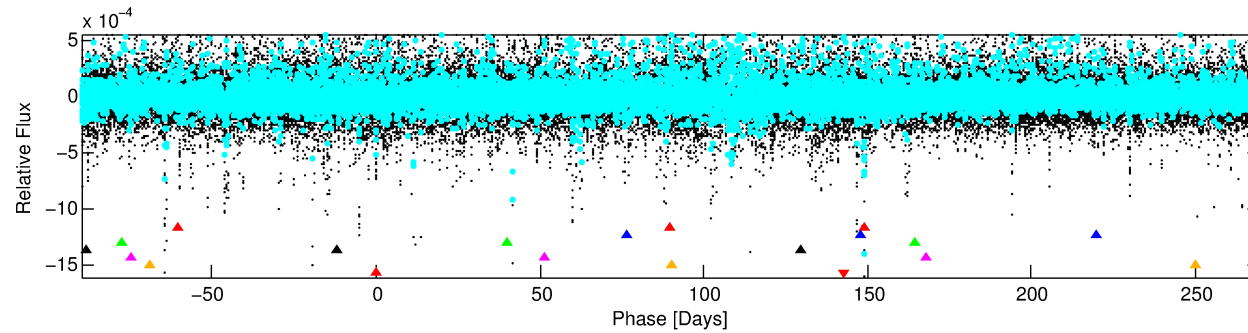
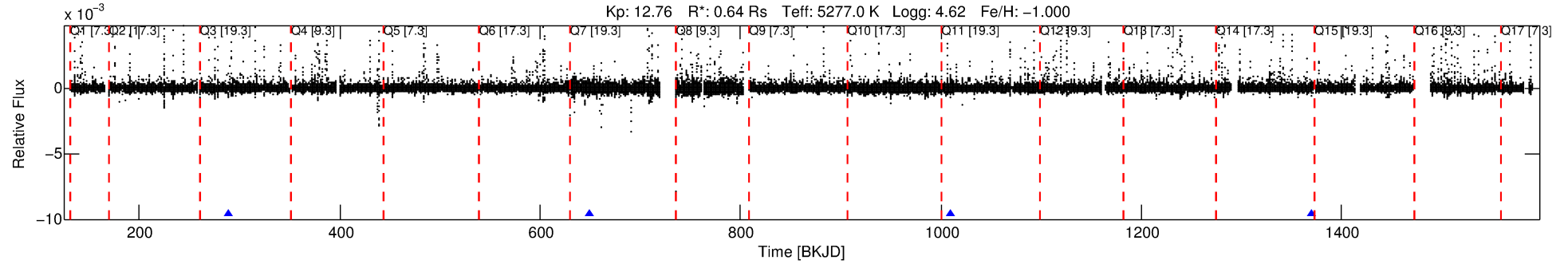
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008479655-07

No Significant Match Found

DV One-Page Summary

KIC: 8479655 Candidate: 7 of 7 Period: 359.903 d



TPS TCE Results:

Period = 359.90319 d
Epoch = 289.7071 BKJD

DV fit results are unavailable

DV Diagnostic Results:

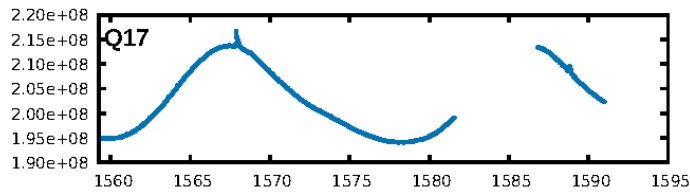
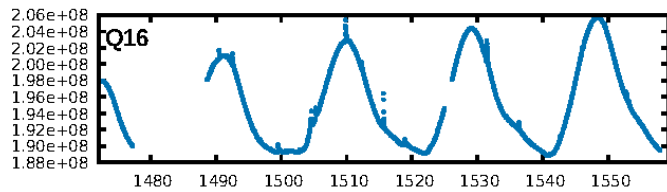
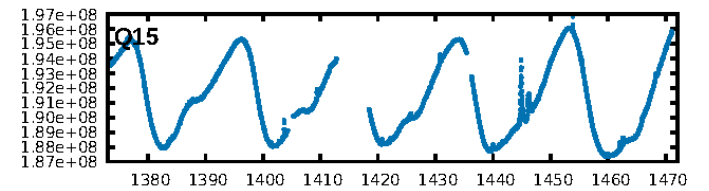
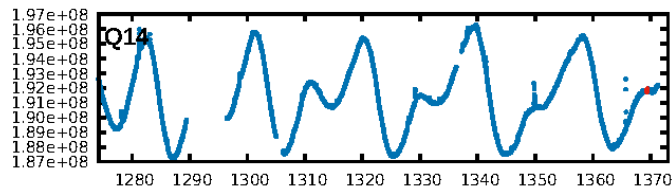
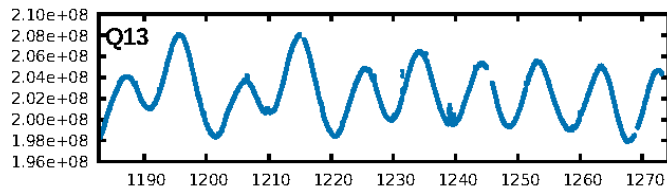
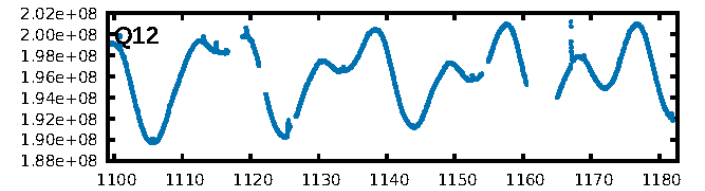
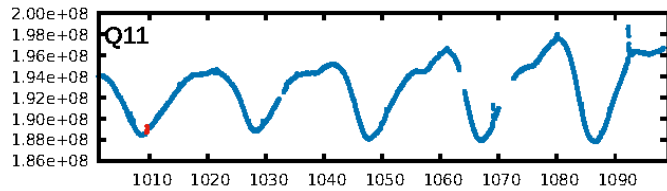
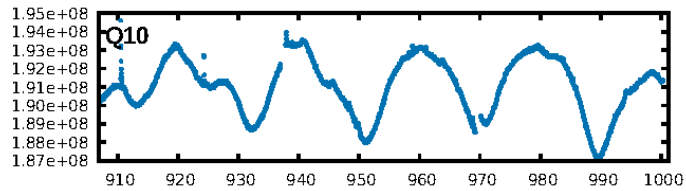
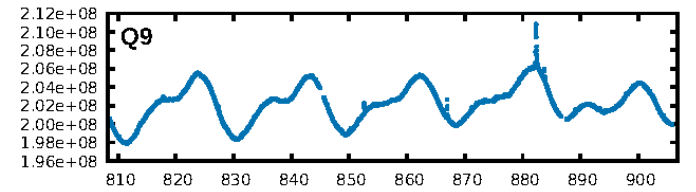
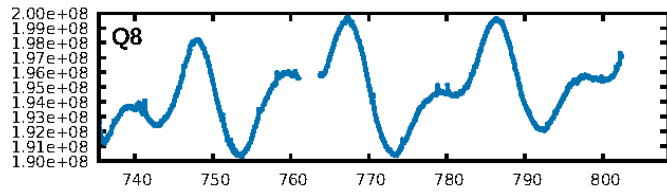
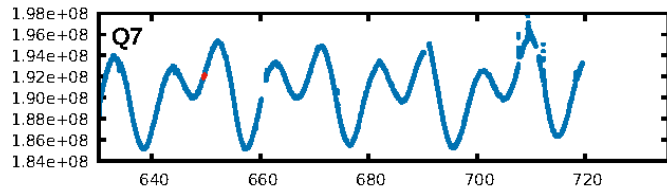
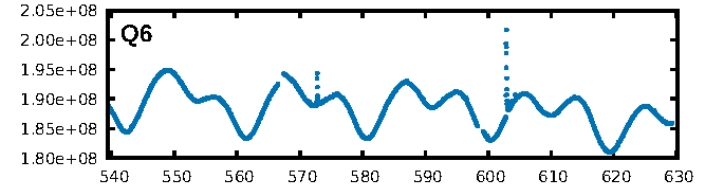
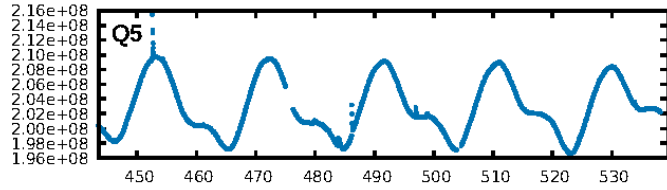
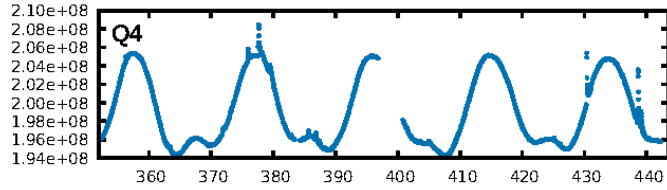
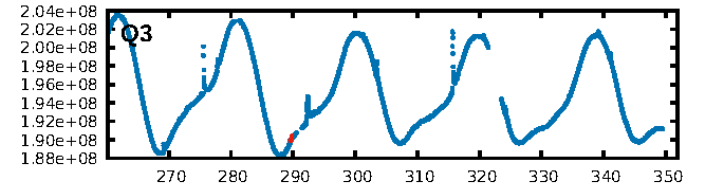
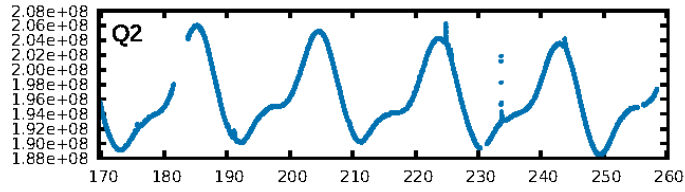
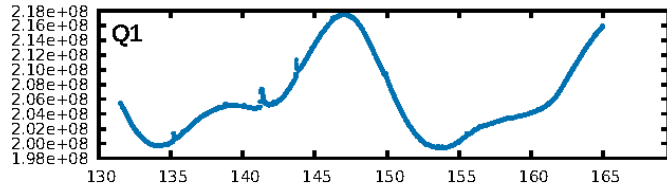
ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [781.06σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.6096

Centroid-sig: 93.5%
Centroid-so: 0.090 arcsec [0.25σ]
OotOffset-rm: 0.610 arcsec [2.58σ]
KicOffset-rm: 0.624 arcsec [2.72σ]
OotOffset-st: 1/3/0/0 [4]
KicOffset-st: 1/3/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

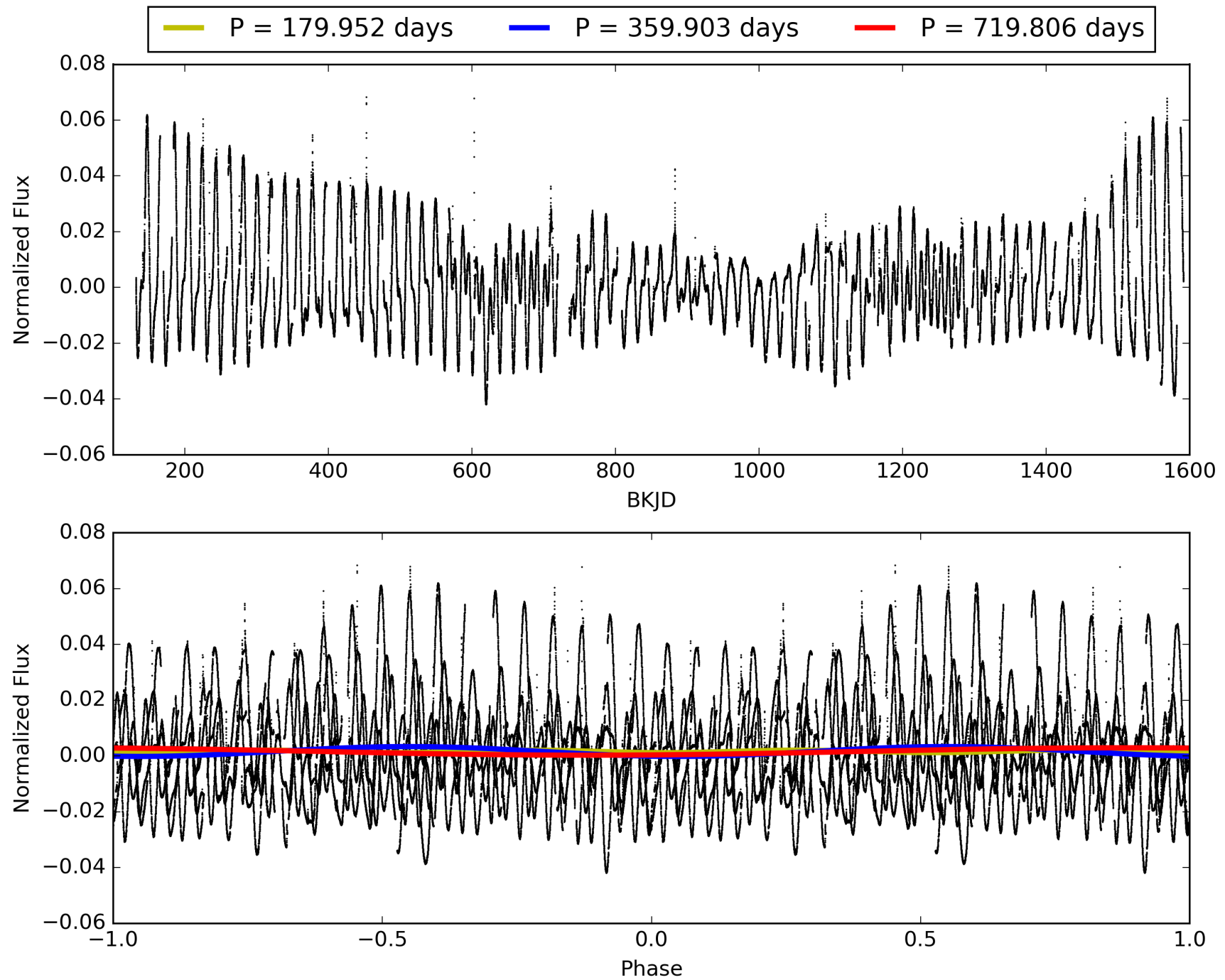
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:51:36 Z

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

TCE 008479655-07, PDC Light Curves

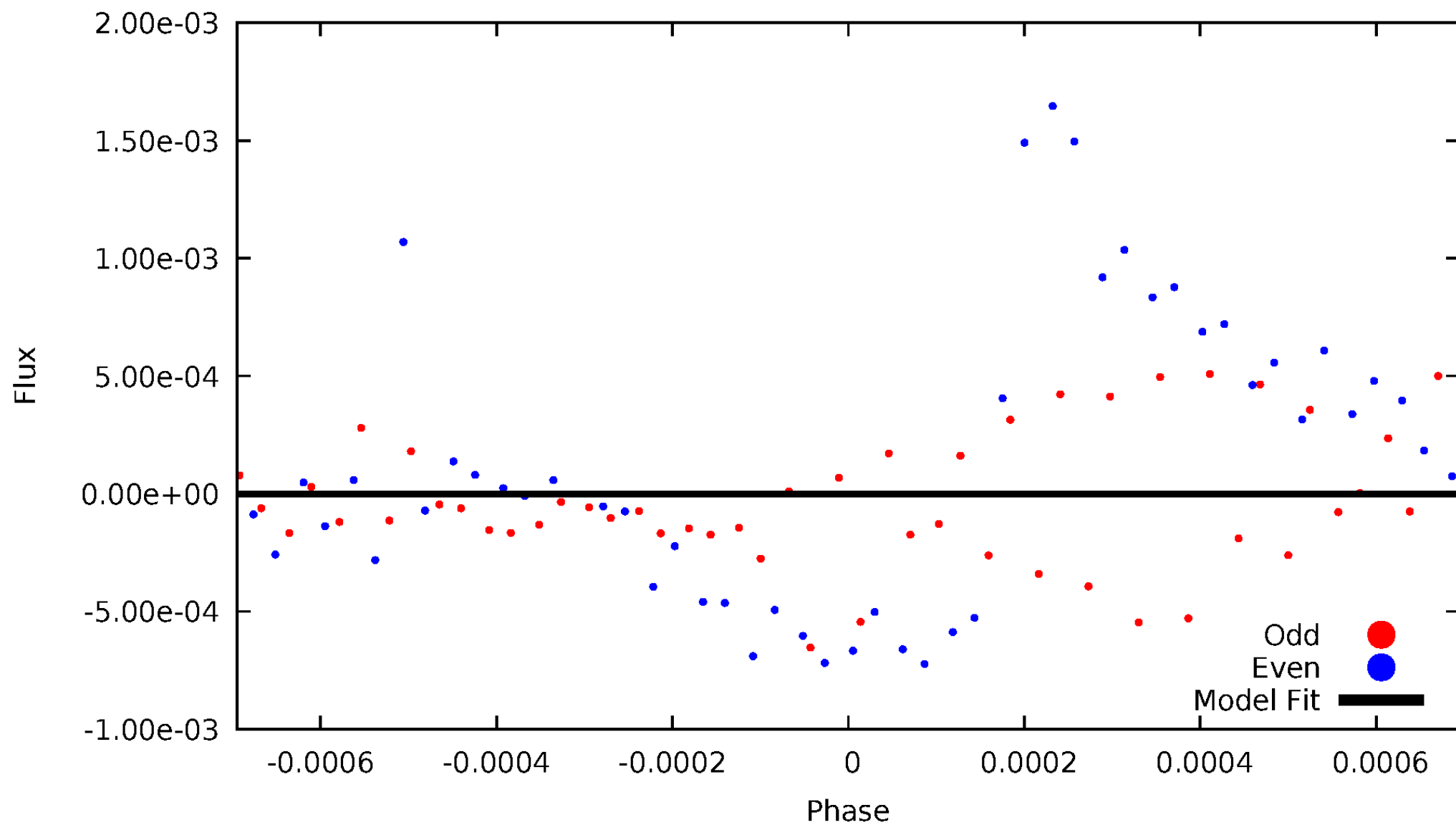


TCE 008479655-07



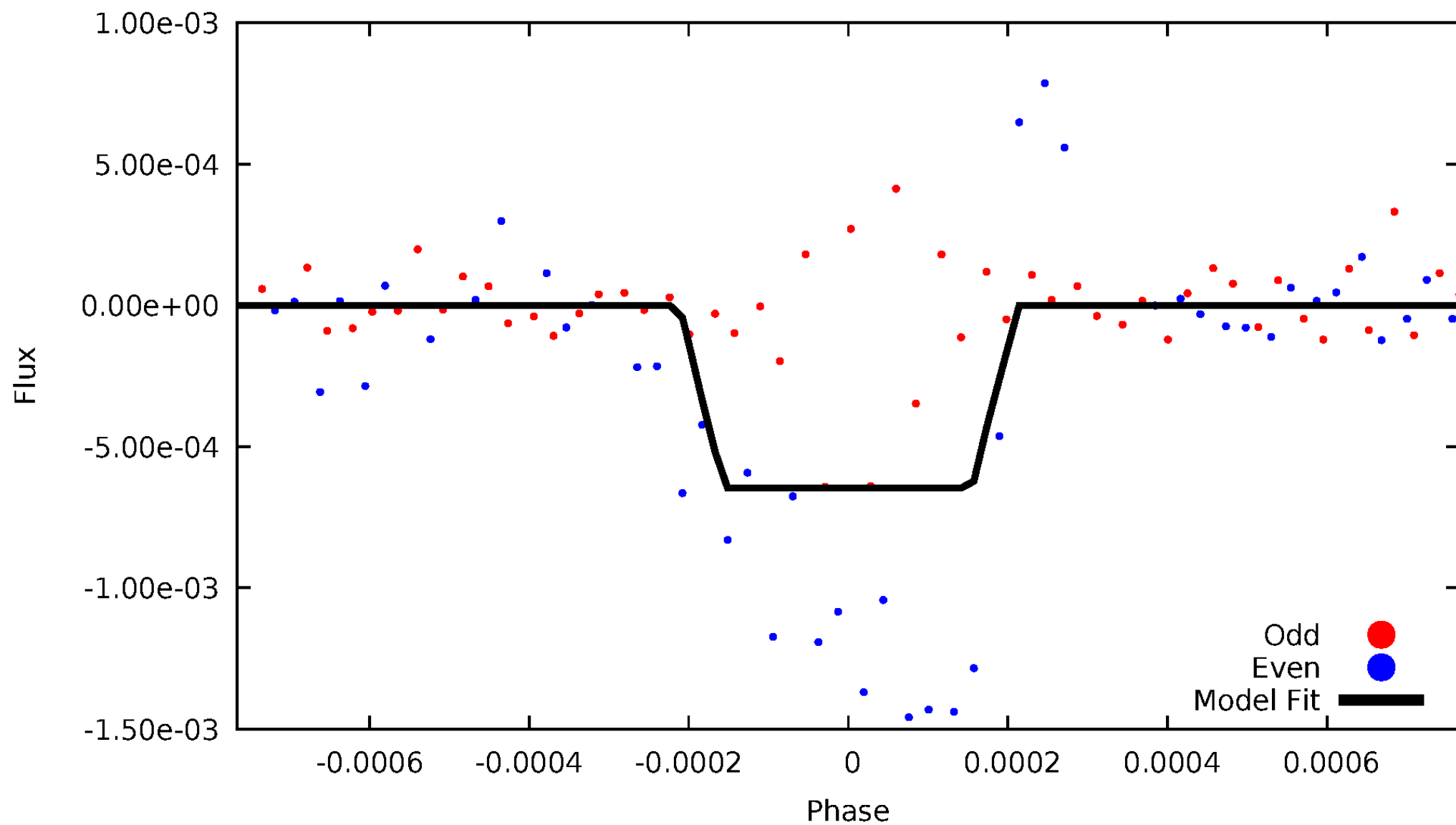
DV Odd/Even

TCE 008479655-07



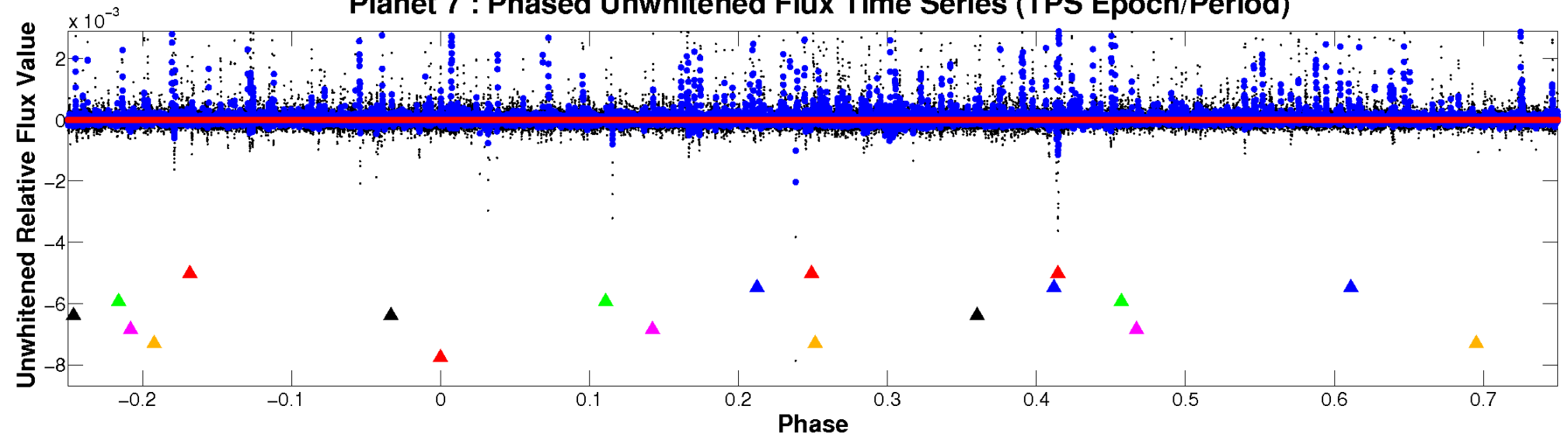
ALT Odd/Even

TCE 008479655-07



Non-Whitened Vs. Whitened Light Curve

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

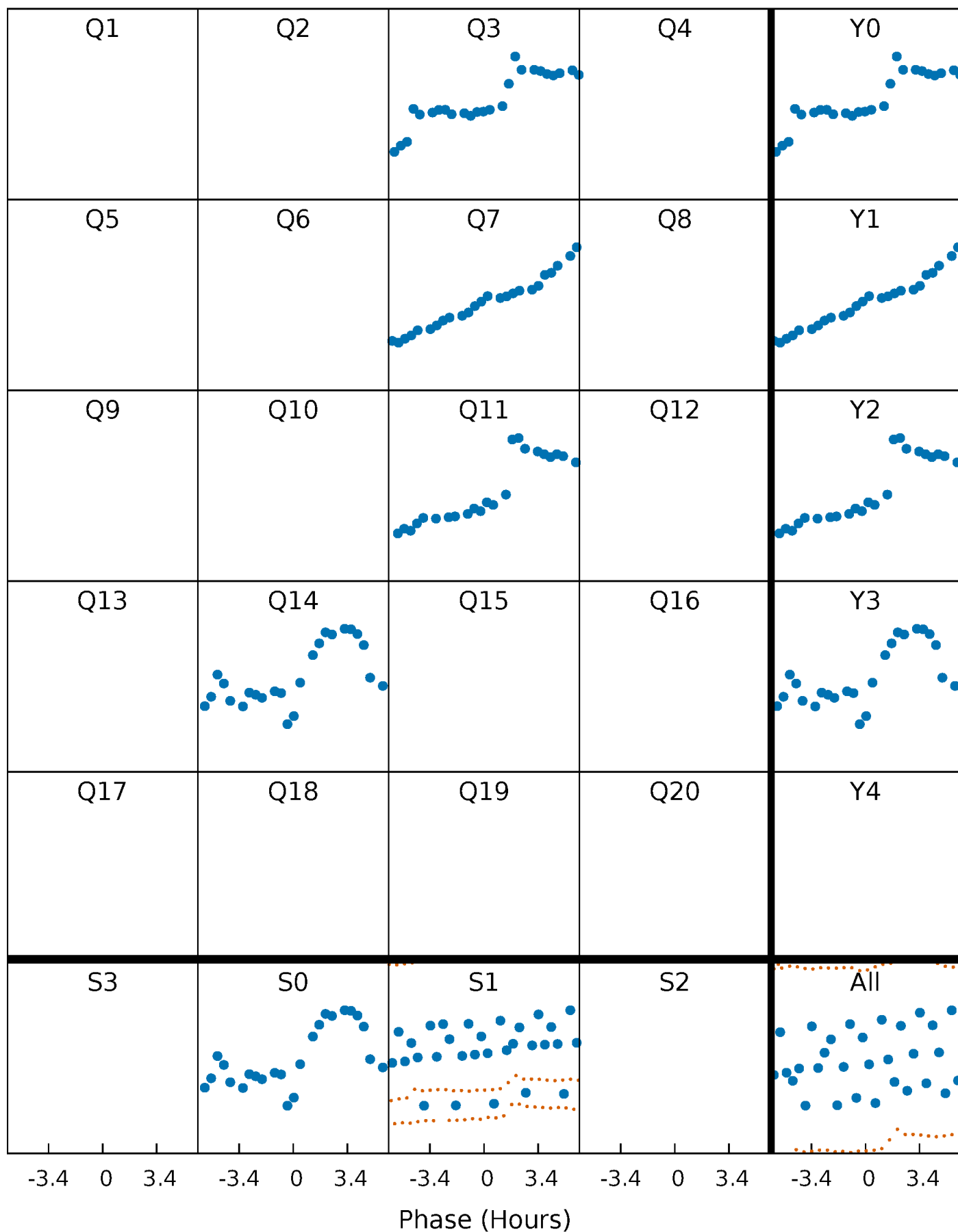


Planet 7 : Phased Whitened Flux Time Series (TPS Epoch/Period)



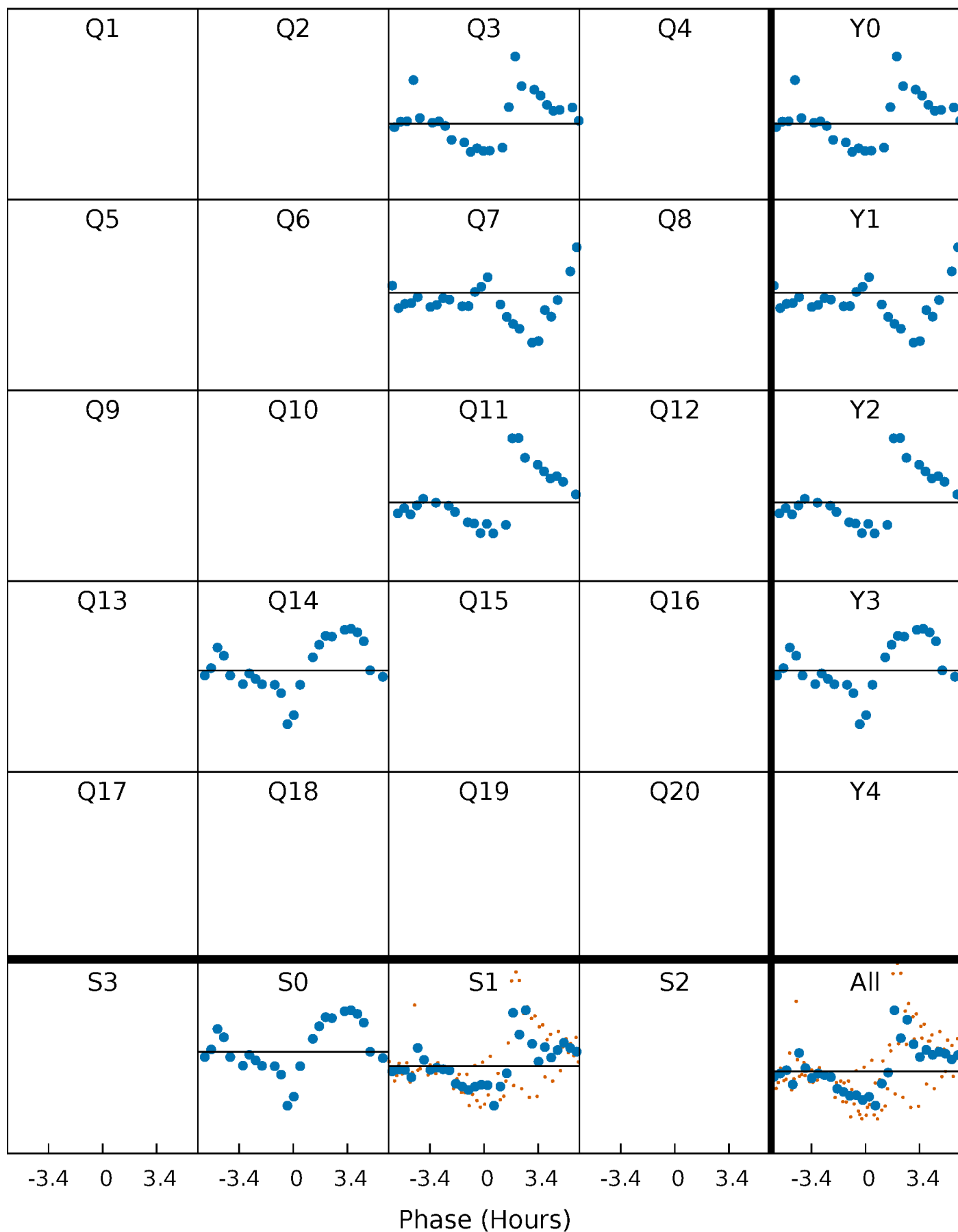
PDC Quarter-Phased Transit Curves

TCE 008479655-07 $P=359.903186$ Days $T_0=289.707065$ (BKJD)



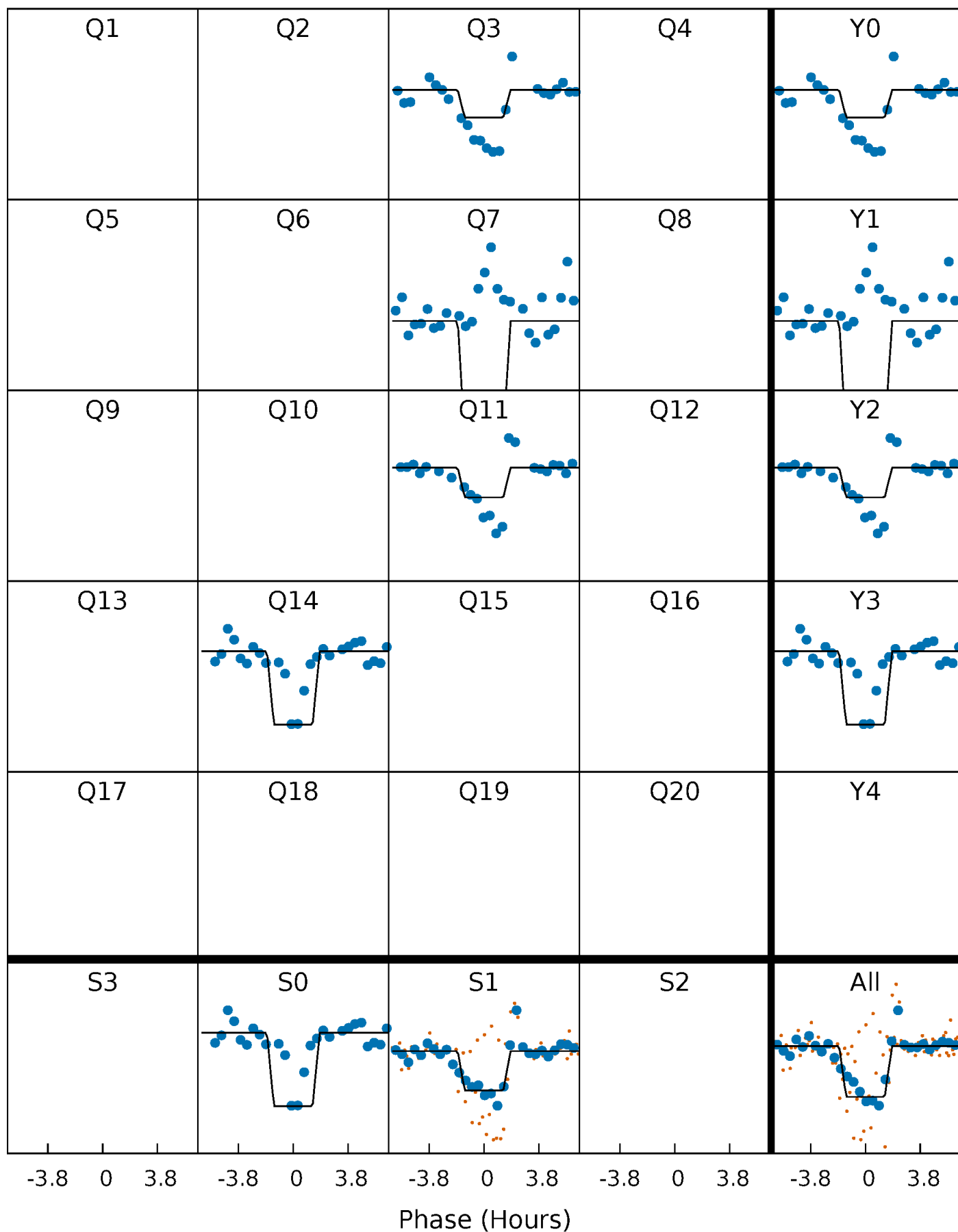
DV Quarter-Phased Transit Curves

TCE 008479655-07 P=359.903186 Days $T_0=289.707065$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

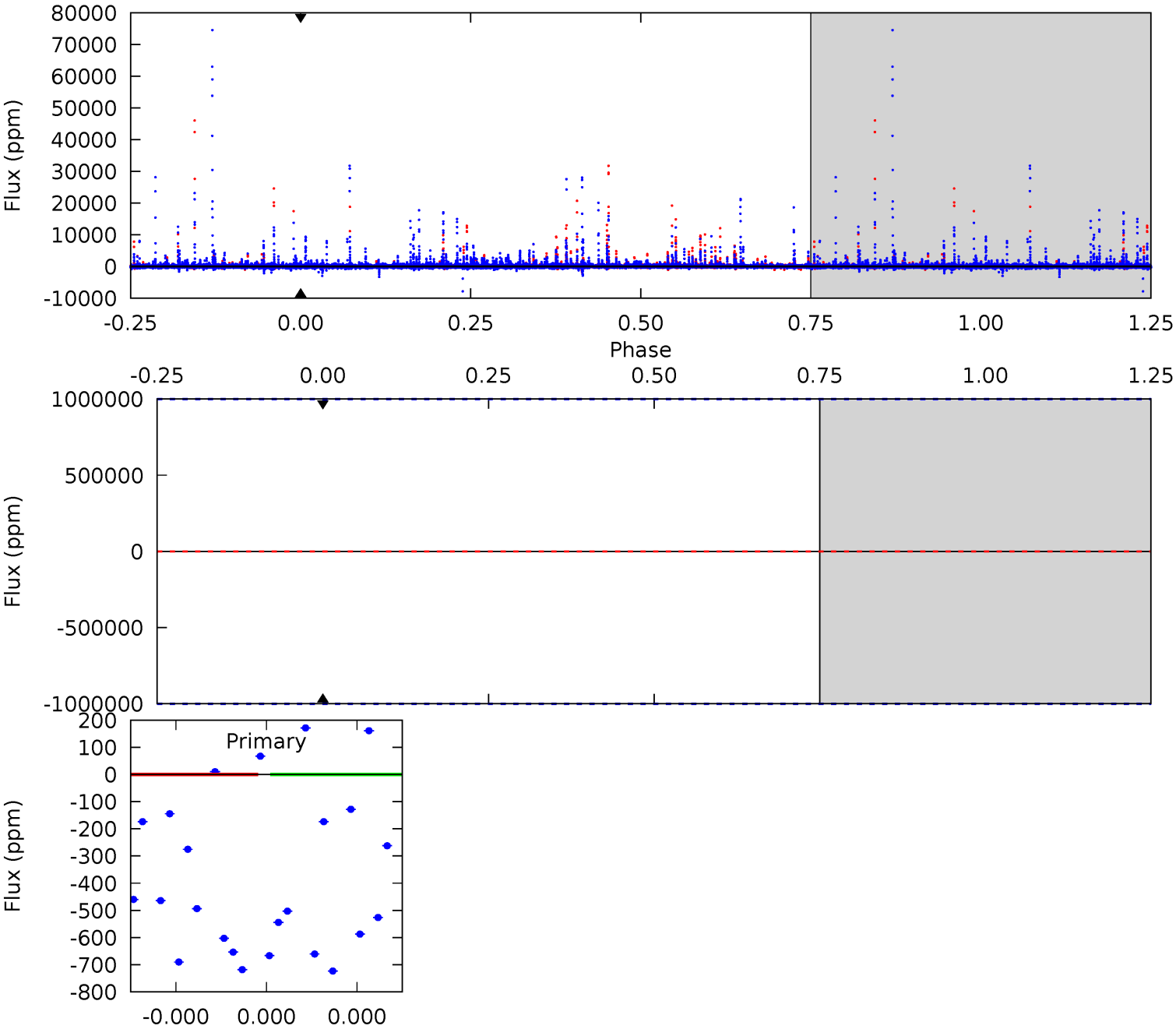
TCE 008479655-07 P=359.903186 Days $T_0=289.702031$ (BKJD)



DV Model-Shift Uniqueness Test

008479655-07, P = 359.903186 Days, E = 289.707065 Days

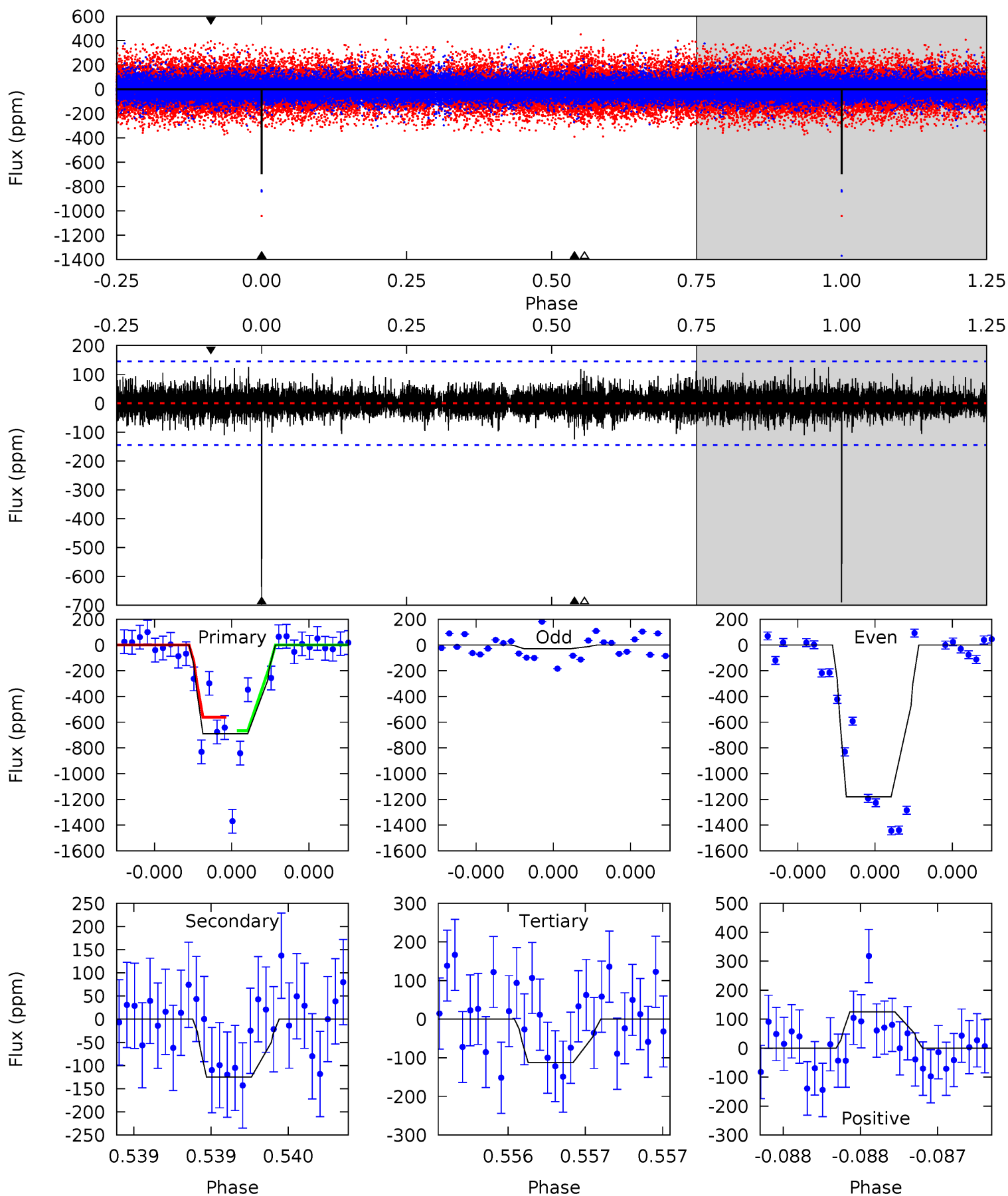
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008479655-07, P = 359.903186 Days, E = 289.702031 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	4.82	4.34	4.85	5.61	3.54	0.96	22.3	21.8	0.48	-0.02	30.6	0.89	0.15	0



Stellar Parameters For KIC 008479655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5277^{+157}_{-141}	$4.625^{+0.066}_{-0.044}$	$-1.000^{+0.300}_{-0.300}$	$0.640^{+0.050}_{-0.050}$	$0.628^{+0.060}_{-0.023}$	$3.384^{+0.901}_{-0.550}$
	+3%/-3%	+1%/-1%	+30%/-30%	+8%/-8%	+10%/-4%	+27%/-16%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008479655-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$4.90^{+5.73}_{-3.34}$	282^{+10}_{-10}	4204^{+14217}_{-20982}	$24039^{+3226303}_{-2668308}$
Alt.	-125 ± 26	$5.50^{+5.63}_{-3.70}$	282^{+9}_{-10}	2742^{+1091}_{-445}	1657^{+13887}_{-1254}

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

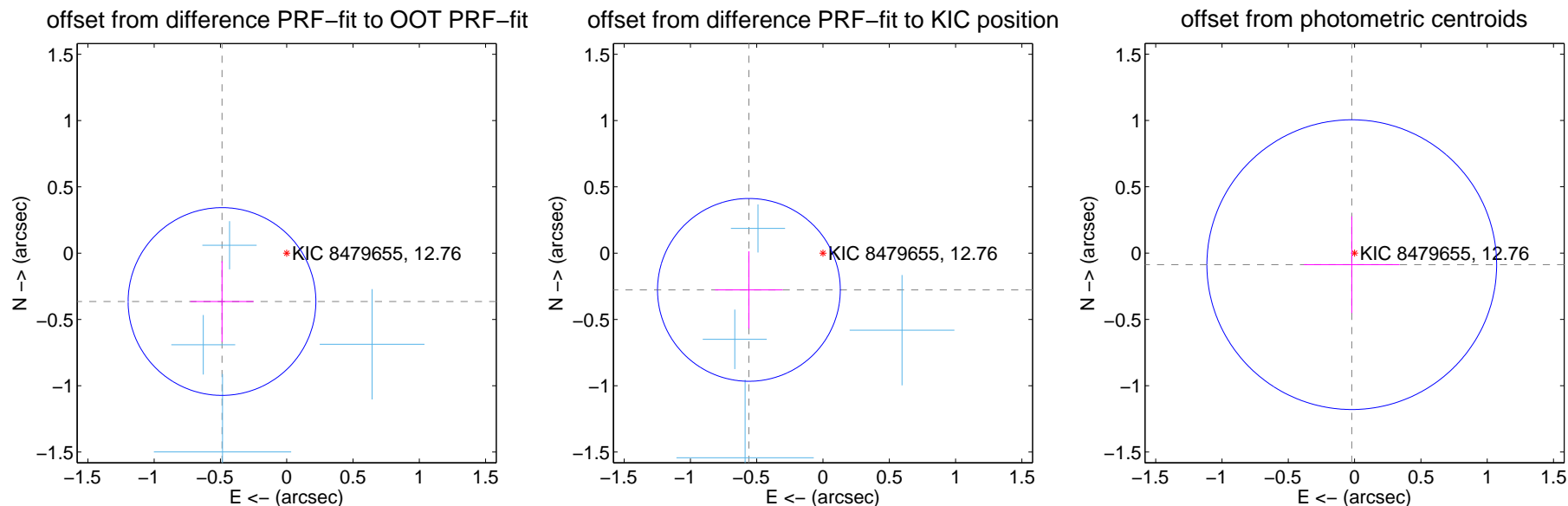
DV Centroid Data

Supplemental centroid analysis for 008479655-07. Kepler magnitude: 12.76. Transit SNR -1.00

There are 4 quarters with good PRF difference image offsets

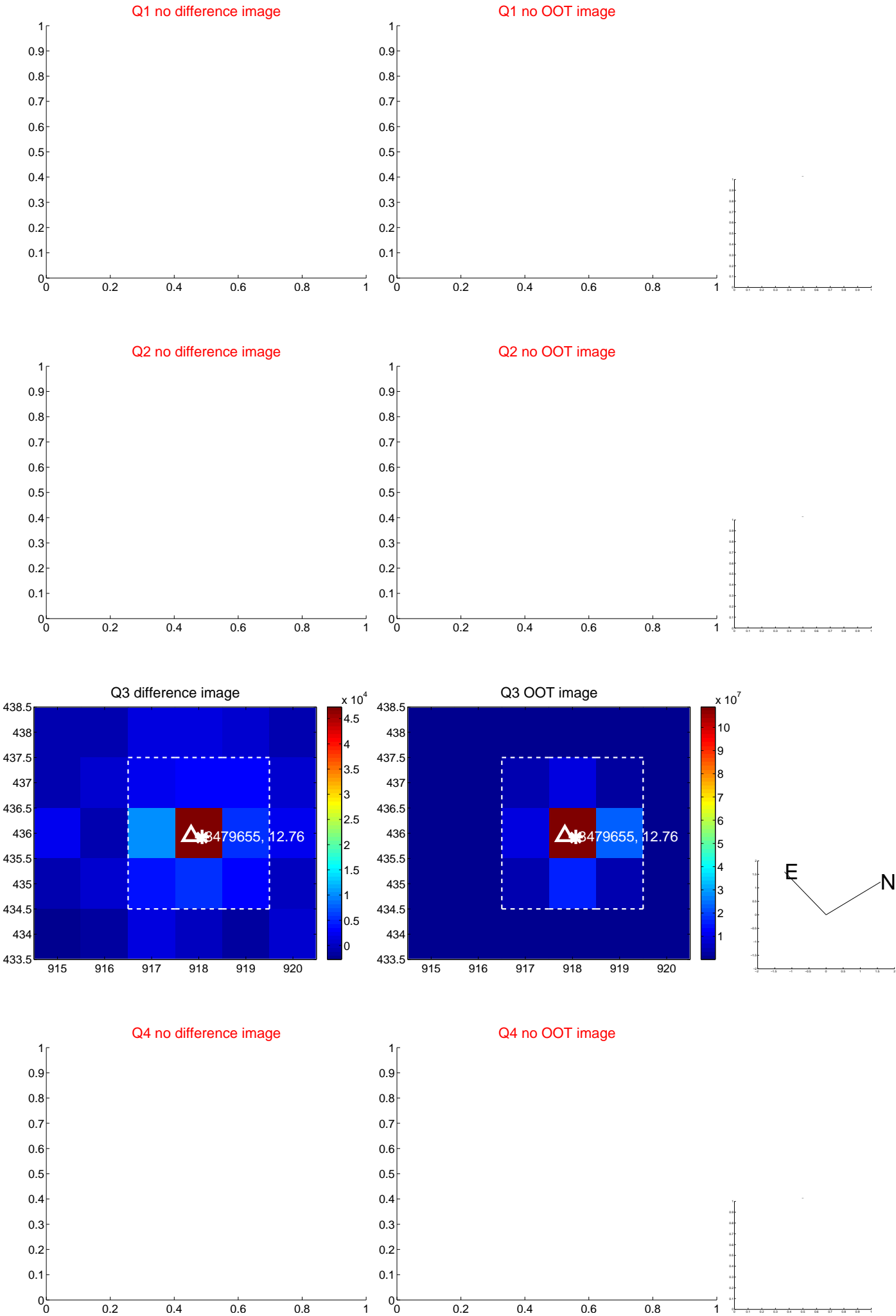
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.610 ± 0.236	2.58	0.488 ± 0.238	-0.365 ± 0.305
PRF-fit source offset from KIC position	0.624 ± 0.230	2.72	0.559 ± 0.255	-0.277 ± 0.291
photometric centroid source offset	0.09 ± 0.36	0.25	0.02 ± 0.36	-0.09 ± 0.36

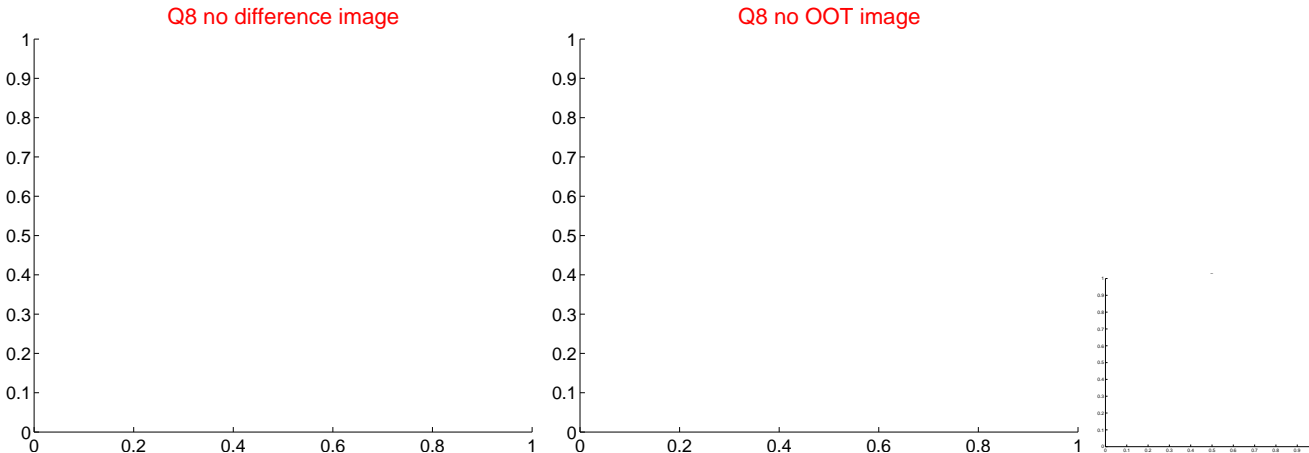
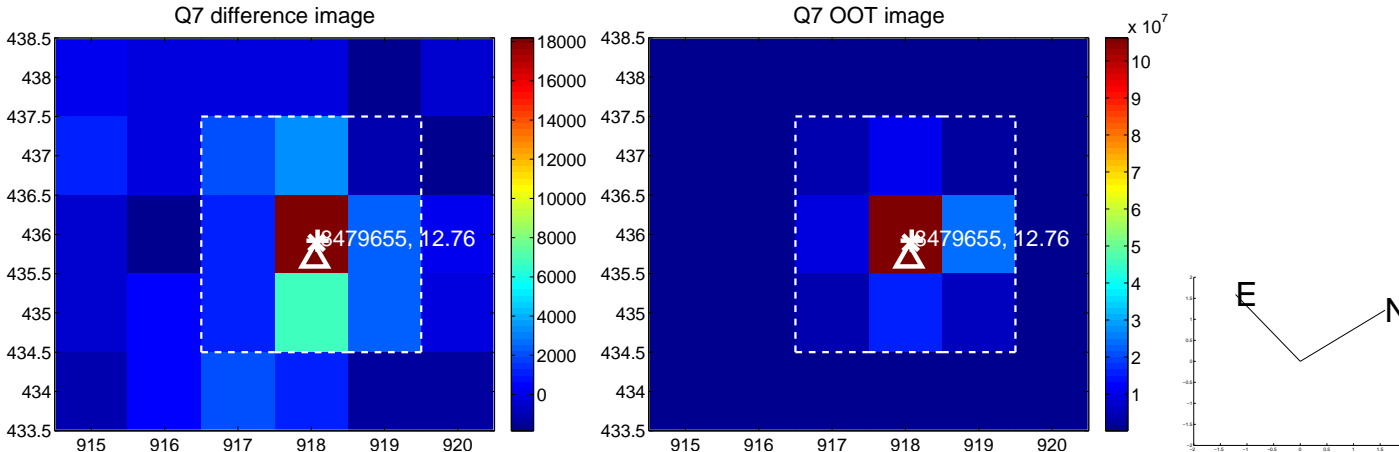
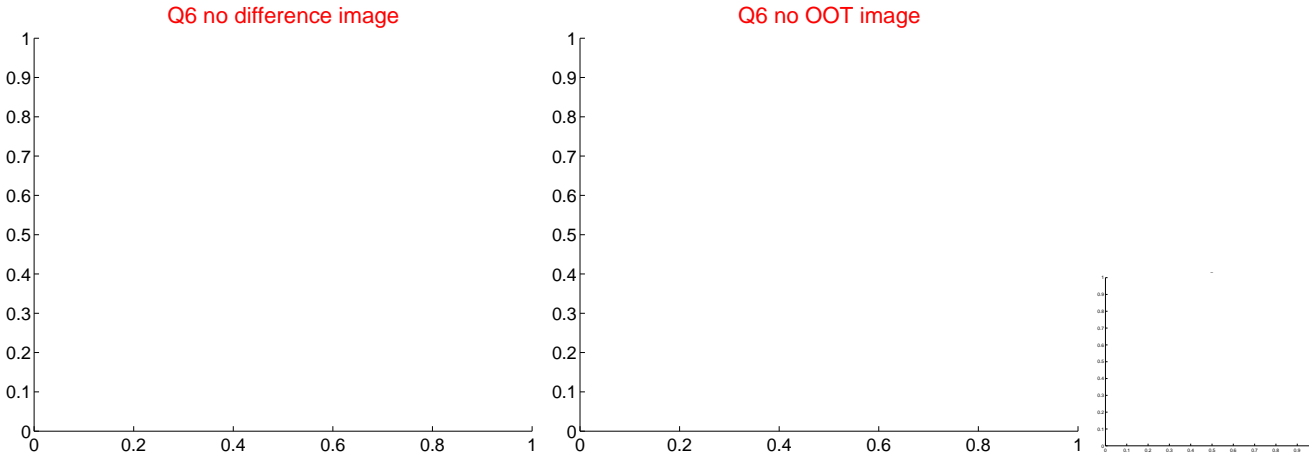
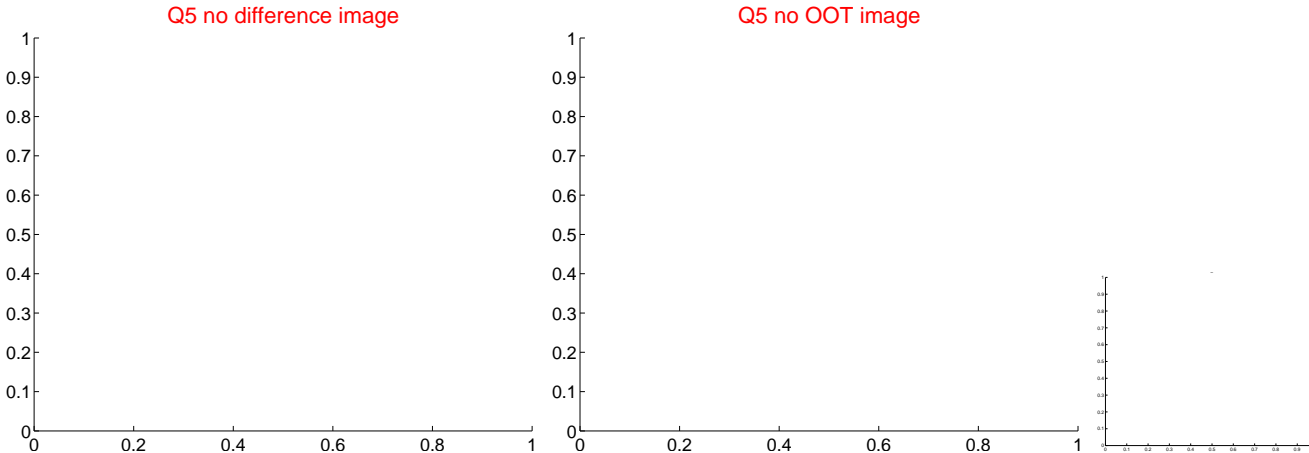


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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

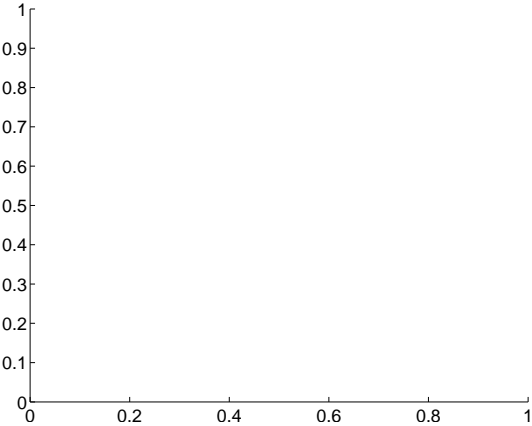


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value

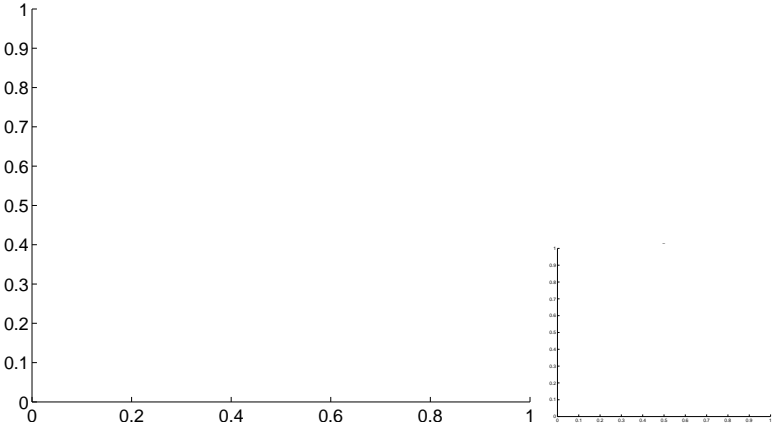


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

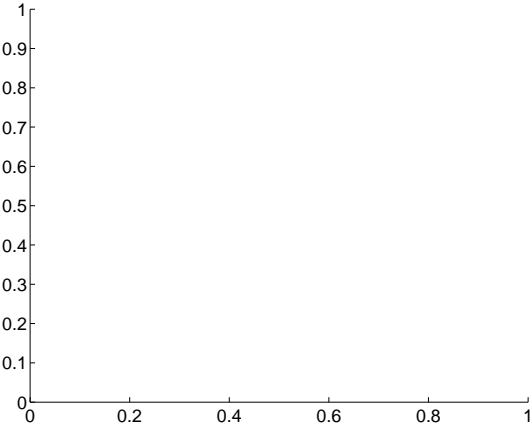
Q9 no difference image



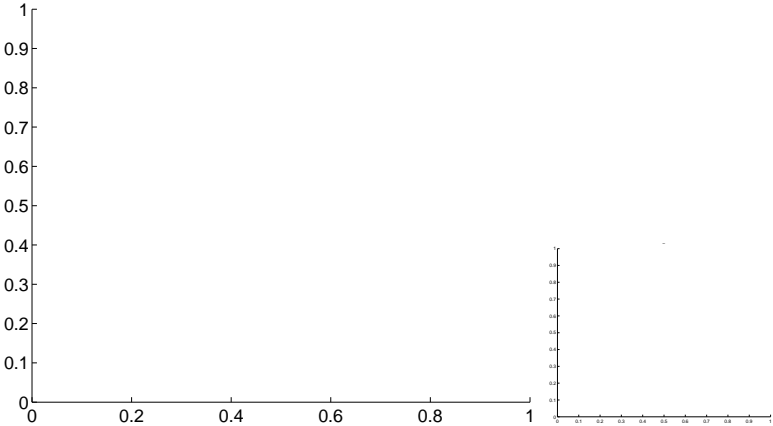
Q9 no OOT image



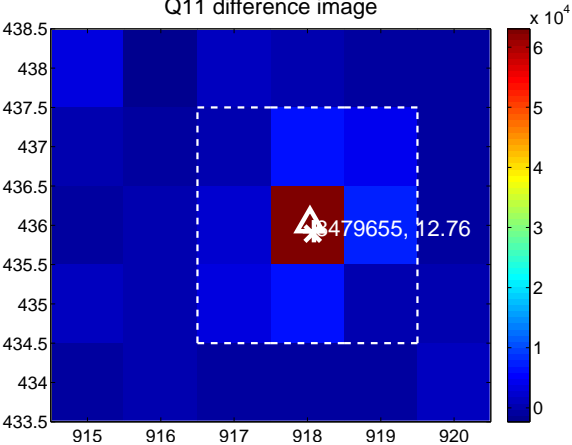
Q10 no difference image



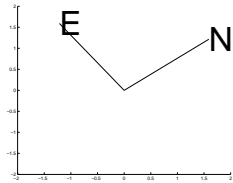
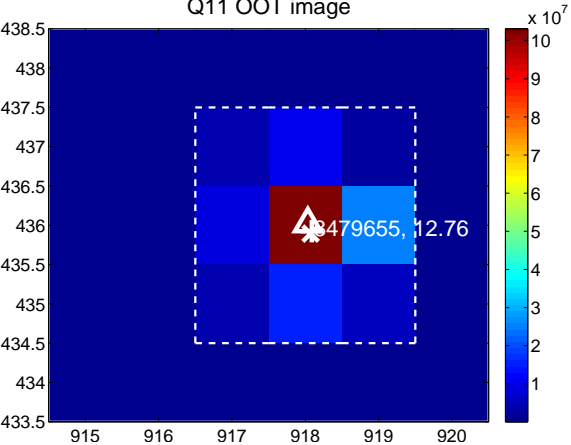
Q10 no OOT image



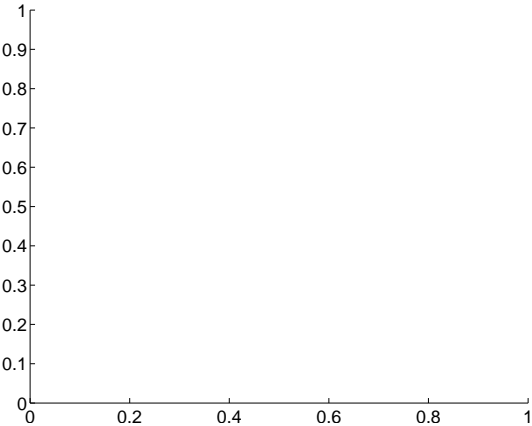
Q11 difference image



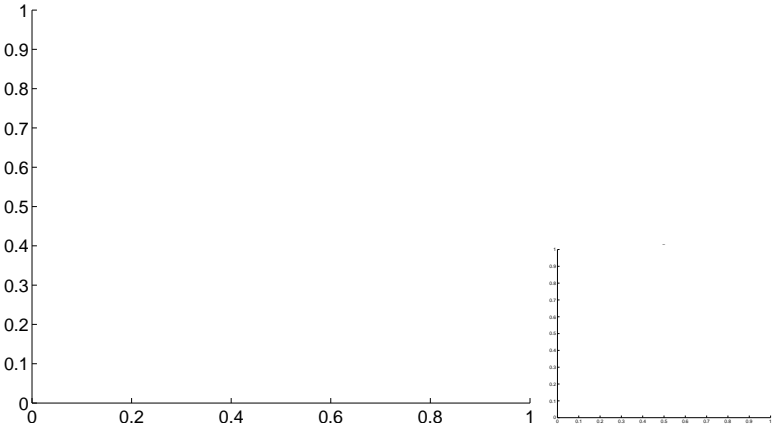
Q11 OOT image



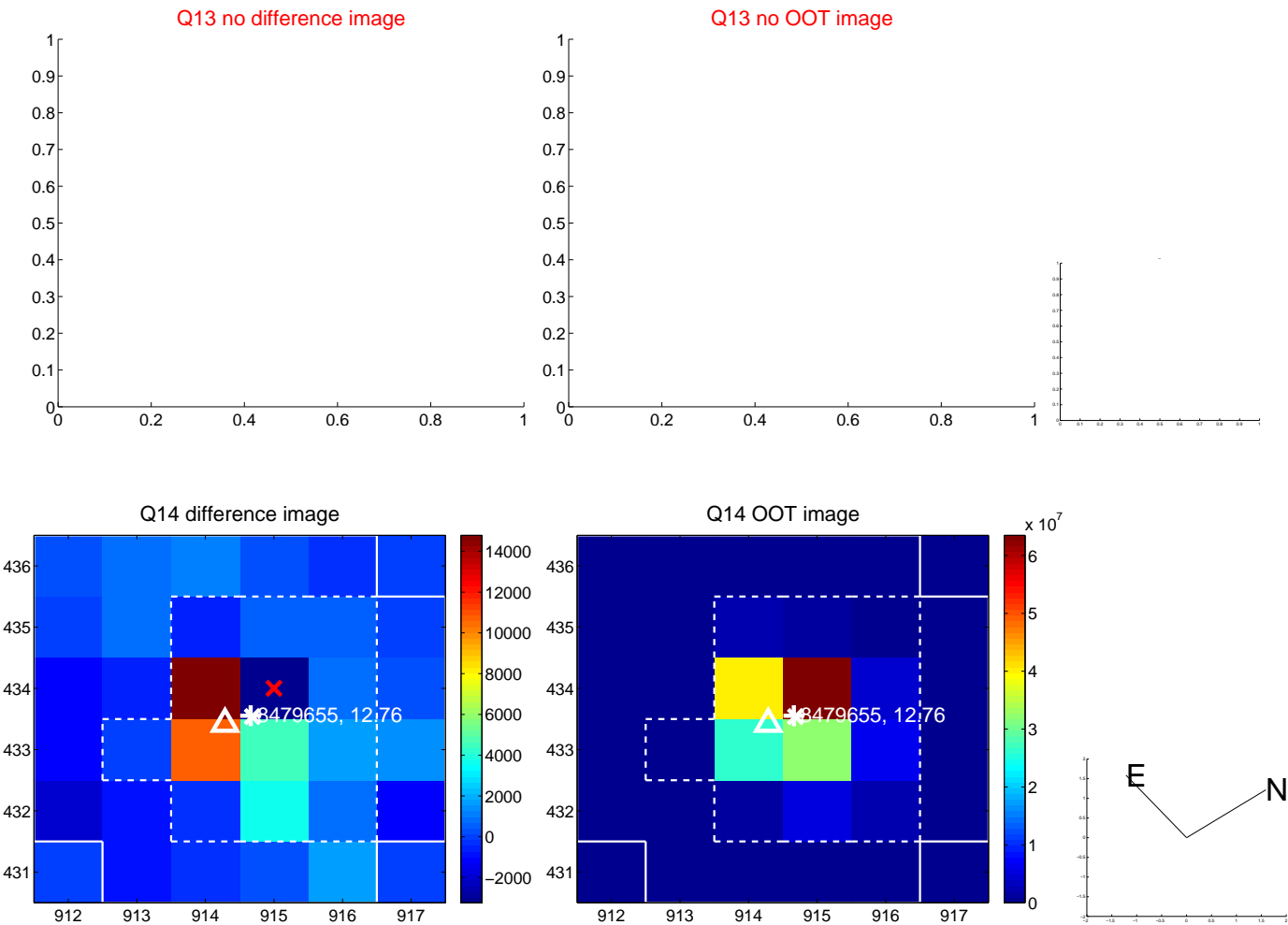
Q12 no difference image



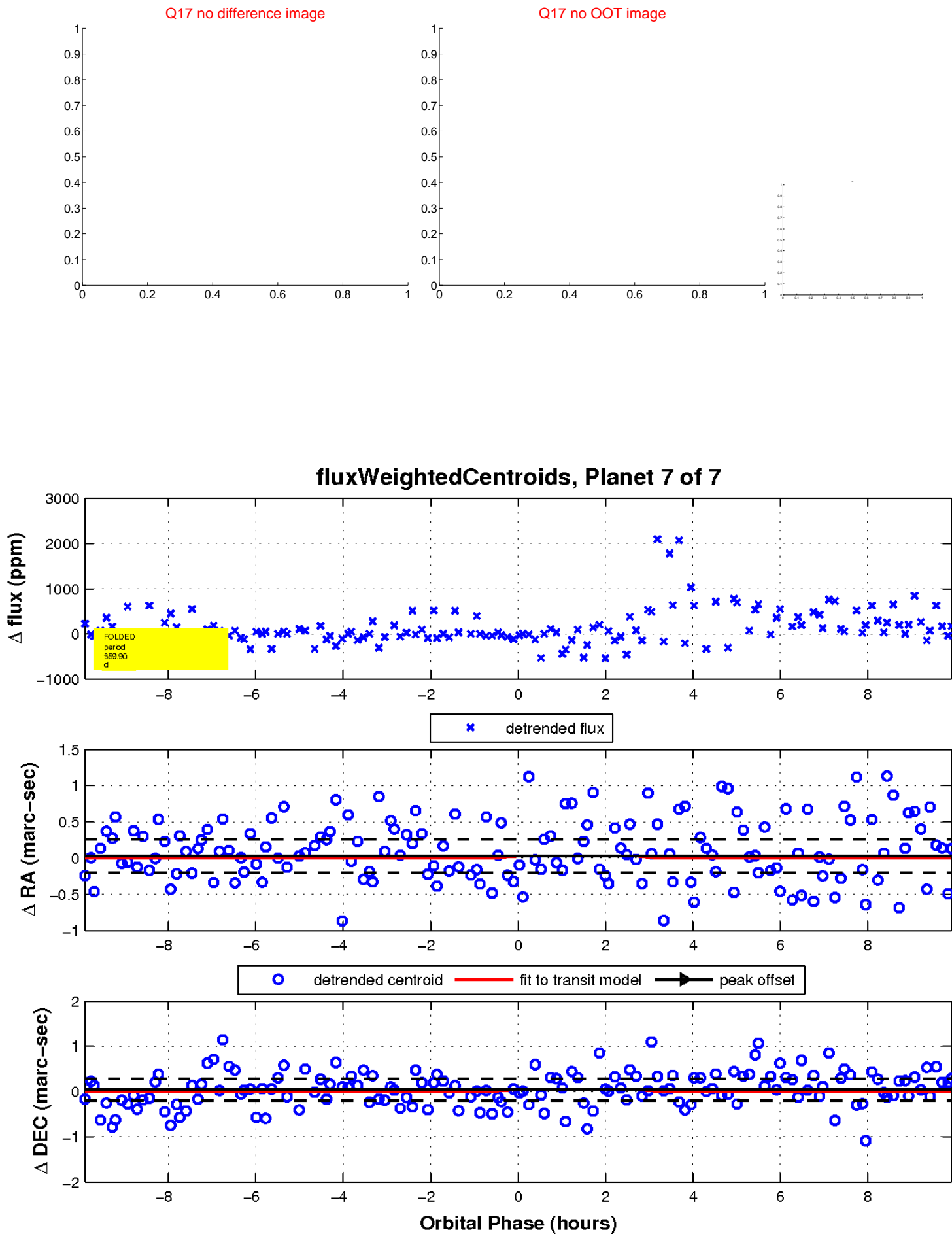
Q12 no OOT image



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



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



UKIRT Image

