

KIC 008935655

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})
008935655-01	OBS	No	386.153577	160.755792	1589.9	9.520	16.6	6.7	0.57	3694	2.34	0.07
008935655-02	OBS	No	286.275178	185.942018	2124.6	5.267	12.2	10.5	0.57	3694	2.77	0.11
008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
008935655-04	OBS	No	406.387478	464.010594	2357.0	21.791	10.4	9.2	0.57	3694	2.69	0.07
008935655-05	OBS	No	166.791179	261.530762	1121.6	3.687	12.5	6.2	0.57	3694	2.03	0.22
008935655-06	OBS	No	364.937563	361.649987	601.7	1.510	12.2	2.1	0.57	3694	1.66	0.08
008935655-07	OBS	No	109.690346	223.875799	598.0	3.000	10.9	-1.0	0.57	3694	1.33	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

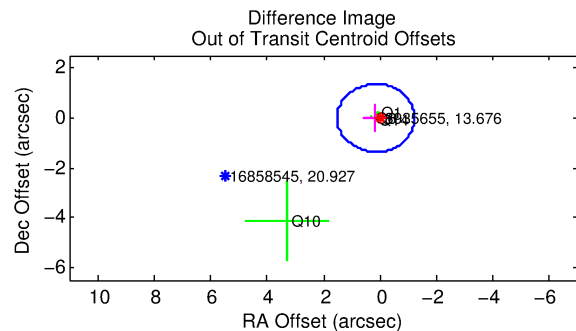
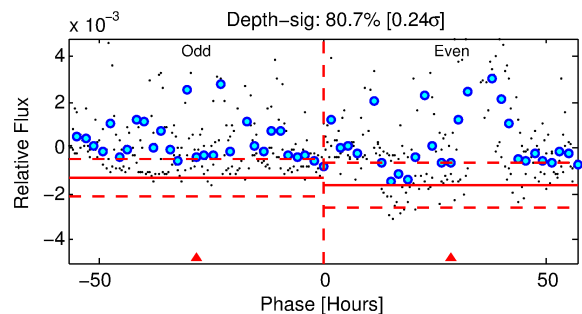
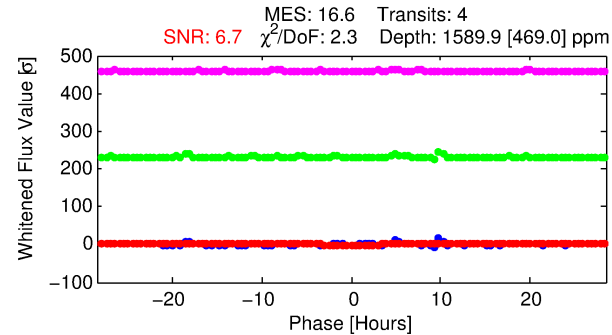
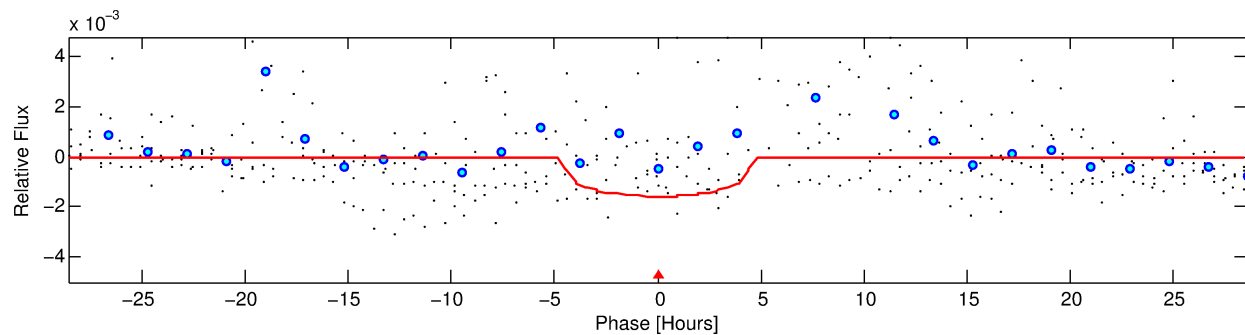
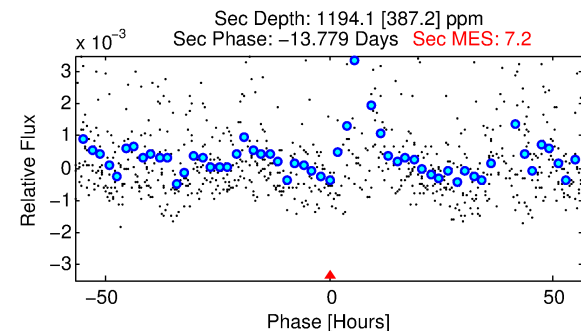
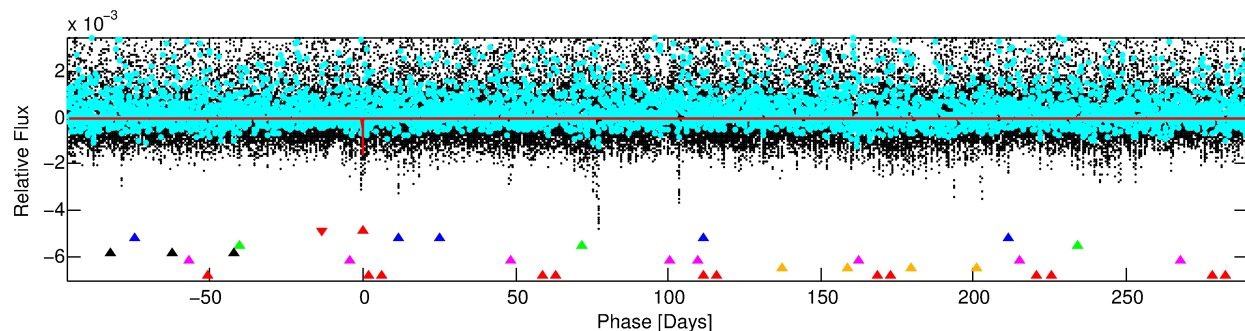
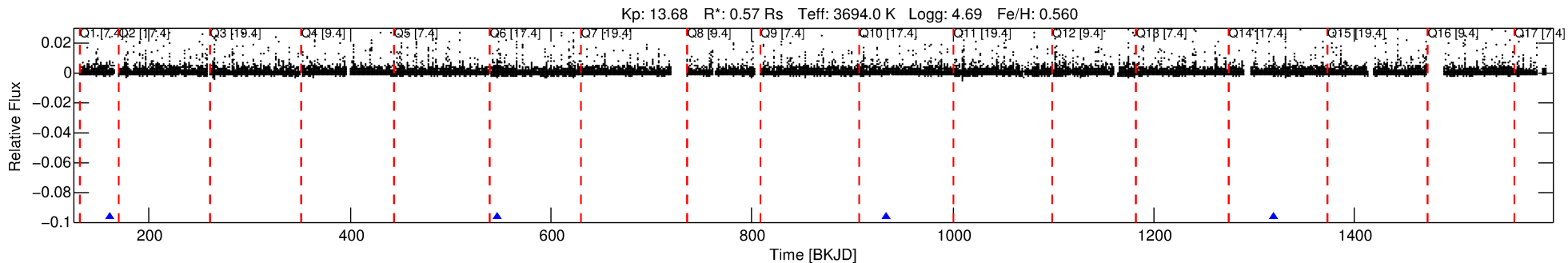
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-01

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 1 of 7 Period: 386.154 d



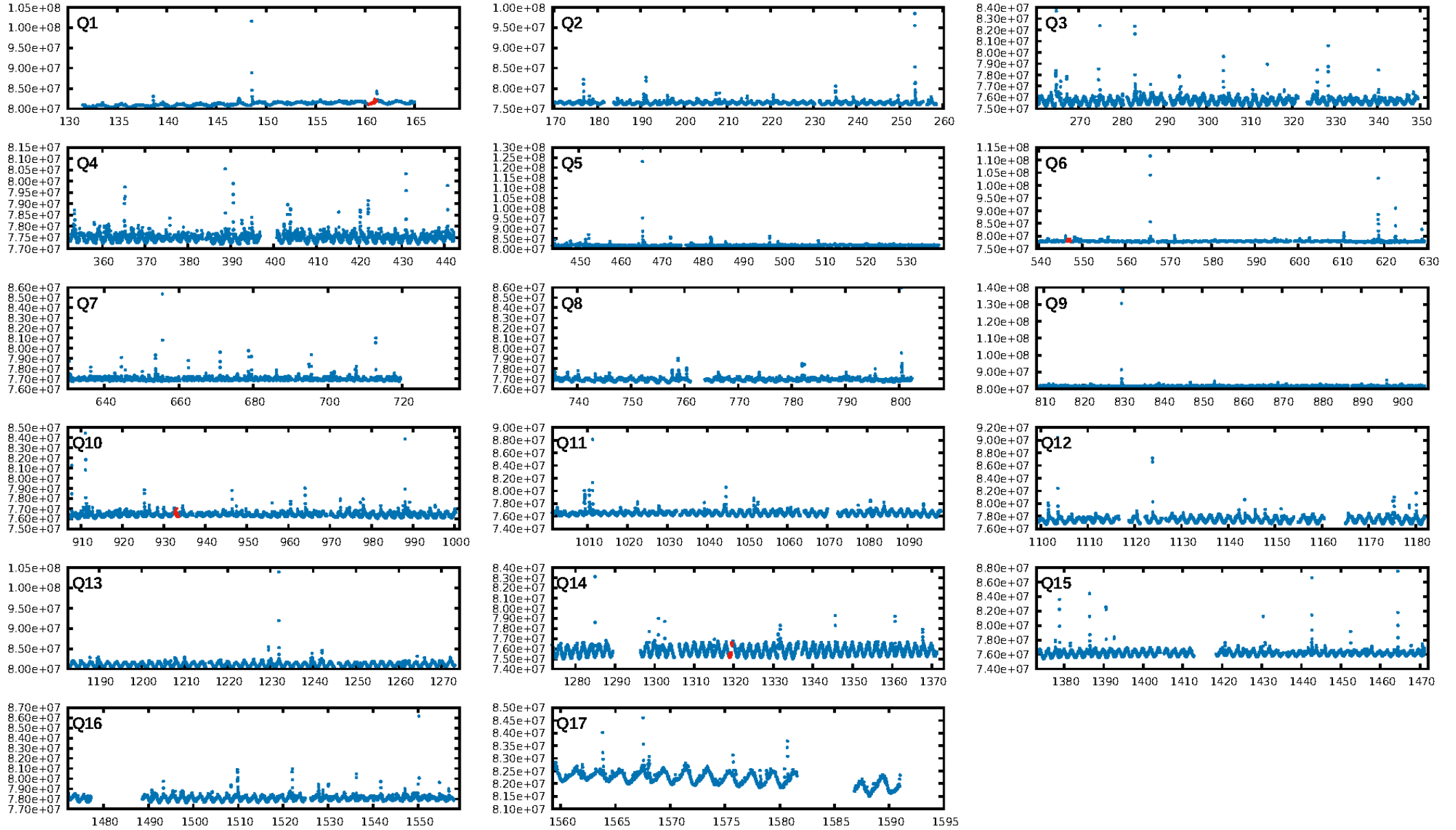
DV Fit Results:

Period = 386.15358 [0.00977] d
Epoch = 160.7558 [0.0182] BKJD
Rp/R* = 0.0378 [0.0388]
a/R* = 258.73 [865.34]
b = 0.62 [3.37]
Seff = 0.07 [0.02]
Teq = 132 [7] K
Rp = 2.34 [2.42] Re
a = 0.8592 [0.0957] AU
Ag = 88781.86 [184826.02] [0.48 σ]
Teffp = 3530 [1838] K [1.85 σ]

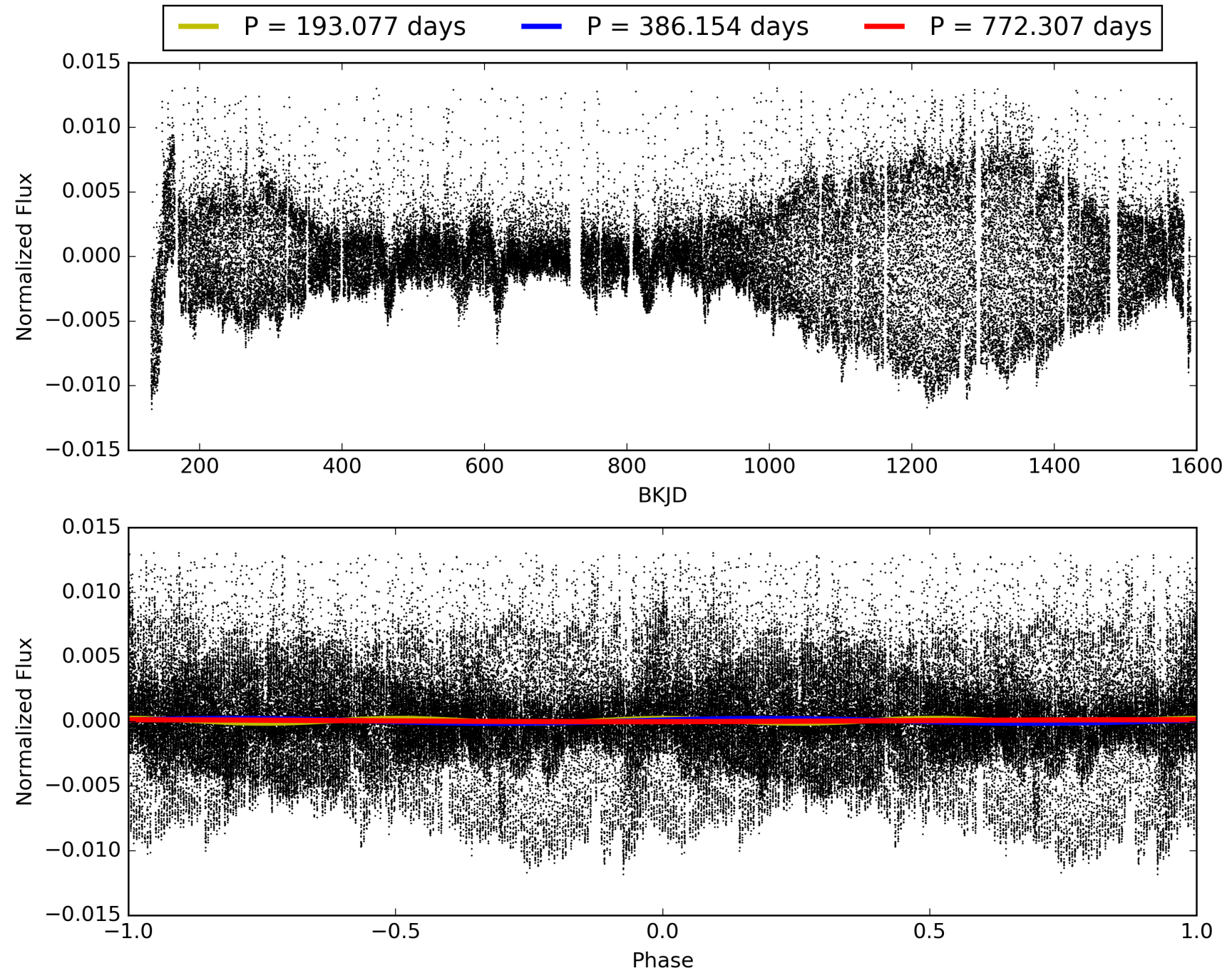
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [52.83 σ]
LongPeriod-sig: 100.0% [20.42 σ]
ModelChiSquare2-sig: 3.7%
ModelChiSquareGof-sig: 22.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.2914
Centroid-sig: 12.8%
Centroid-so: 0.305 arcsec [1.50 σ]
OotOffset-rm: 0.152 arcsec [0.33 σ]
KicOffset-rm: 0.226 arcsec [0.25 σ]
OotOffset-st: 3/0/0/1 [4]
KicOffset-st: 3/0/0/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 008935655-01, PDC Light Curves

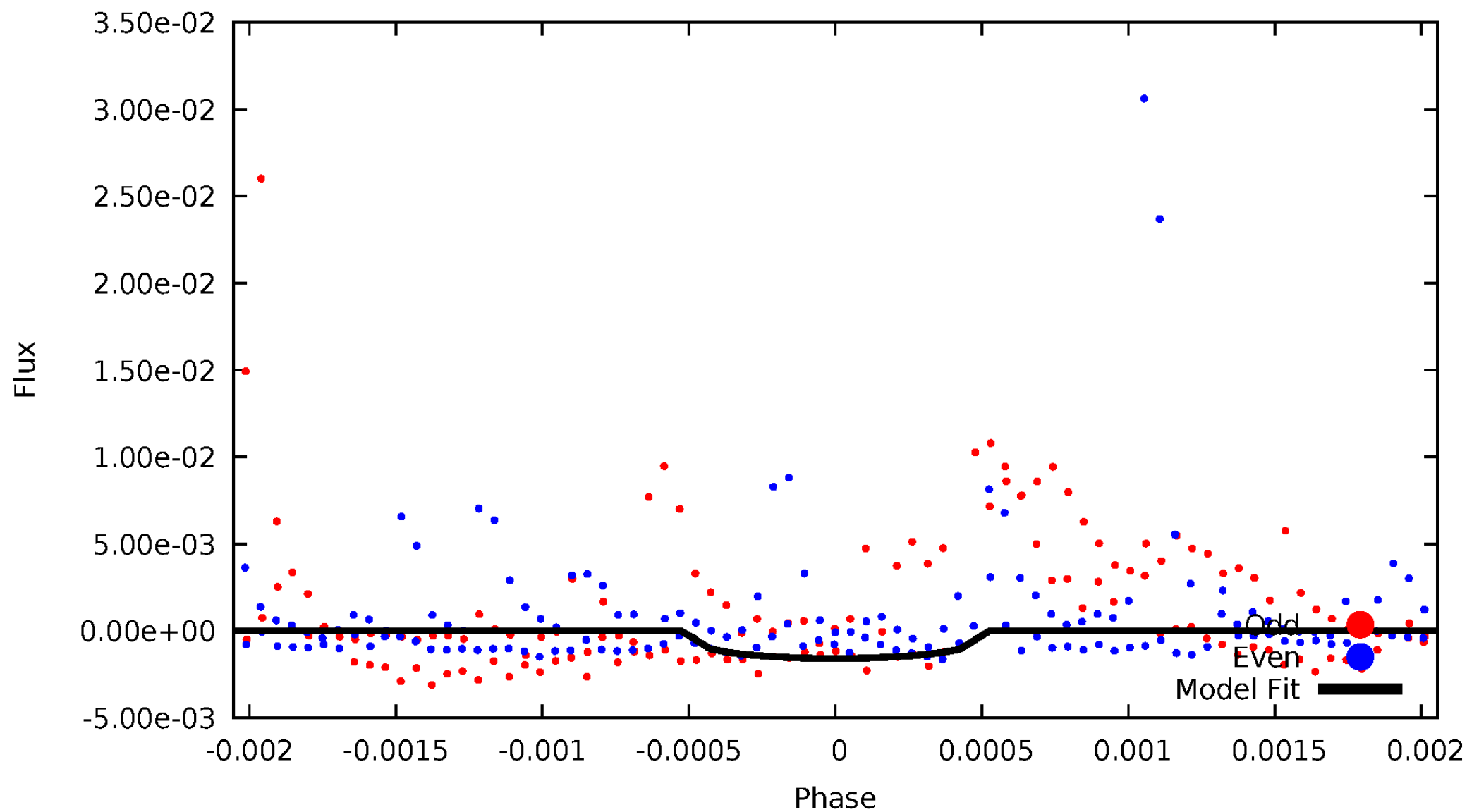


TCE 008935655-01



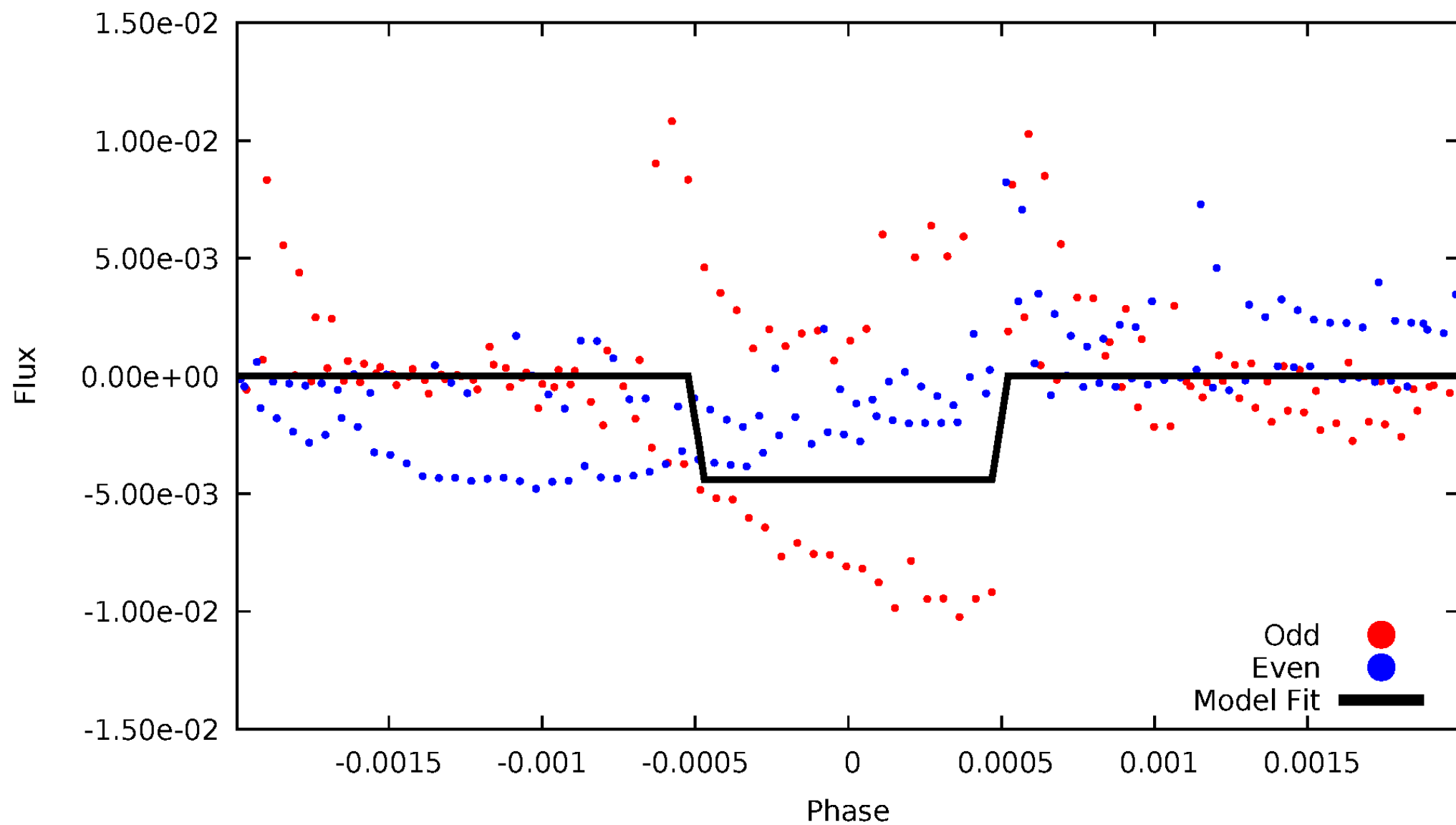
DV Odd/Even

TCE 008935655-01



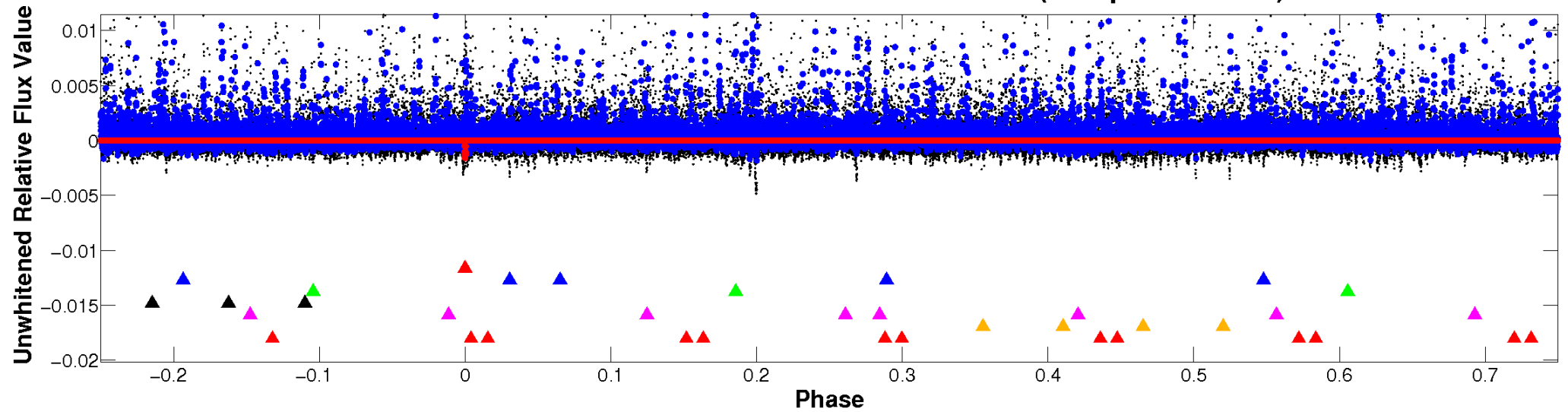
ALT Odd/Even

TCE 008935655-01

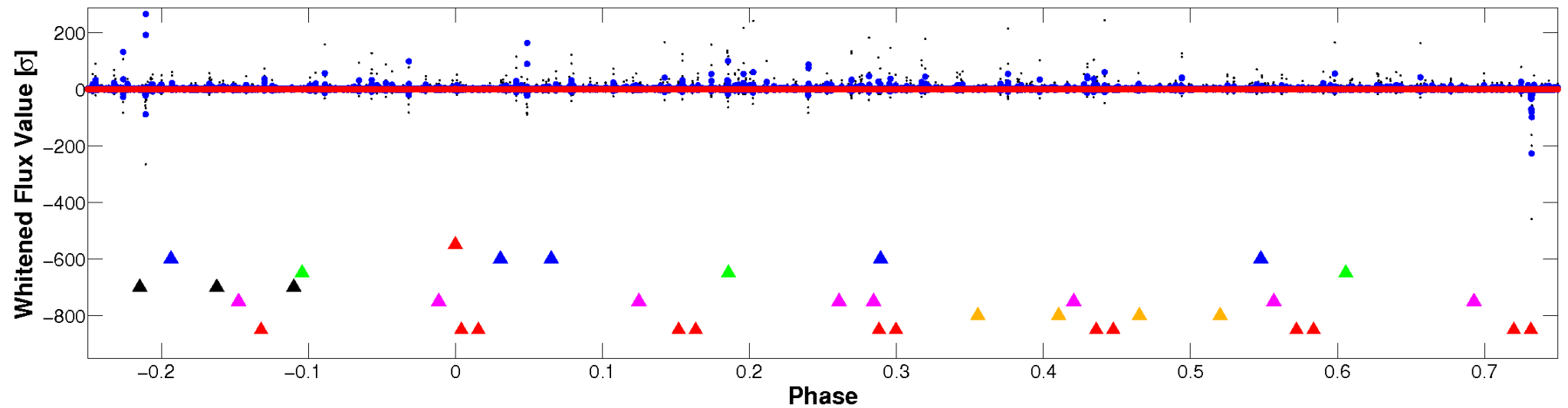


Non-Whitened Vs. Whitened Light Curve

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

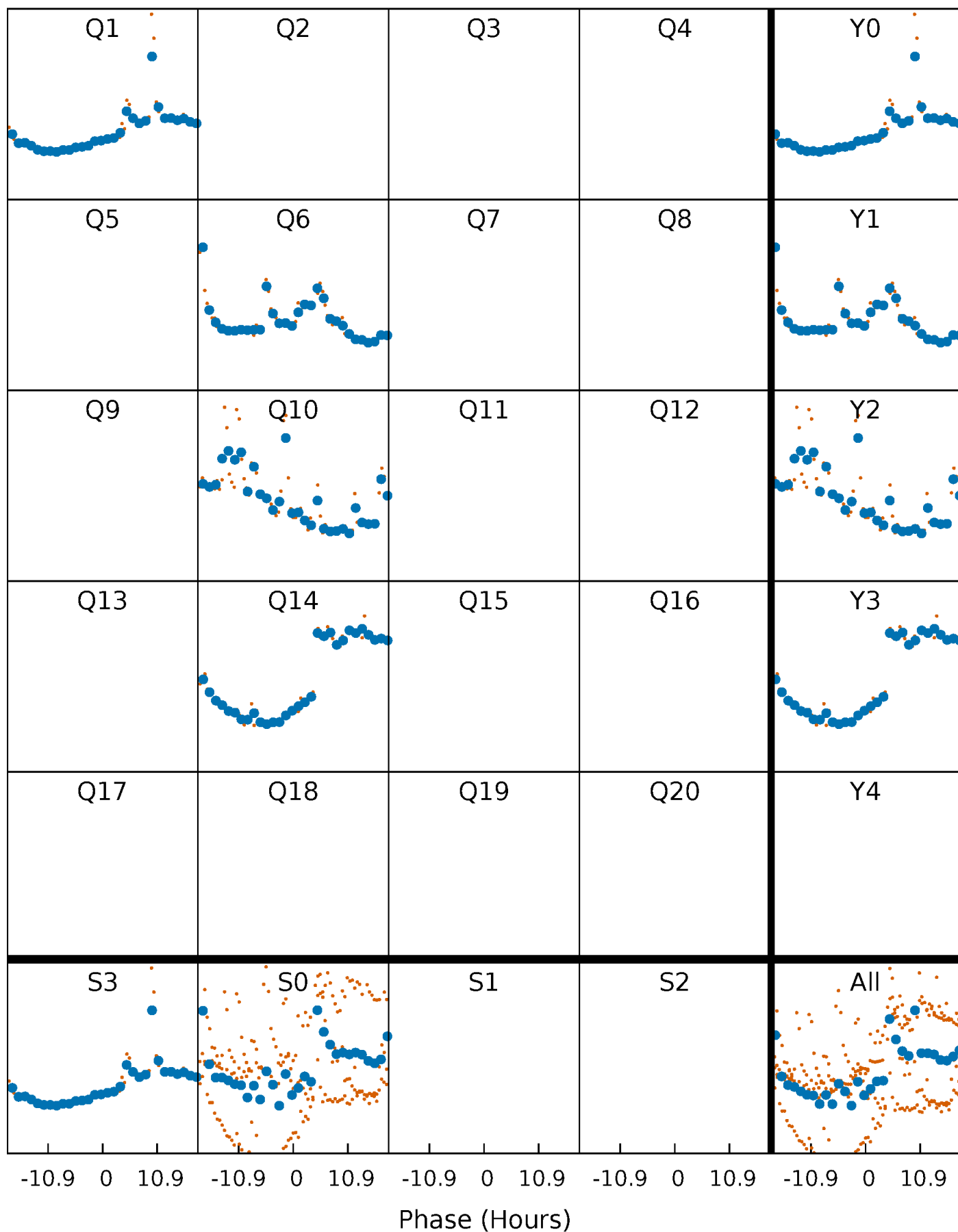


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



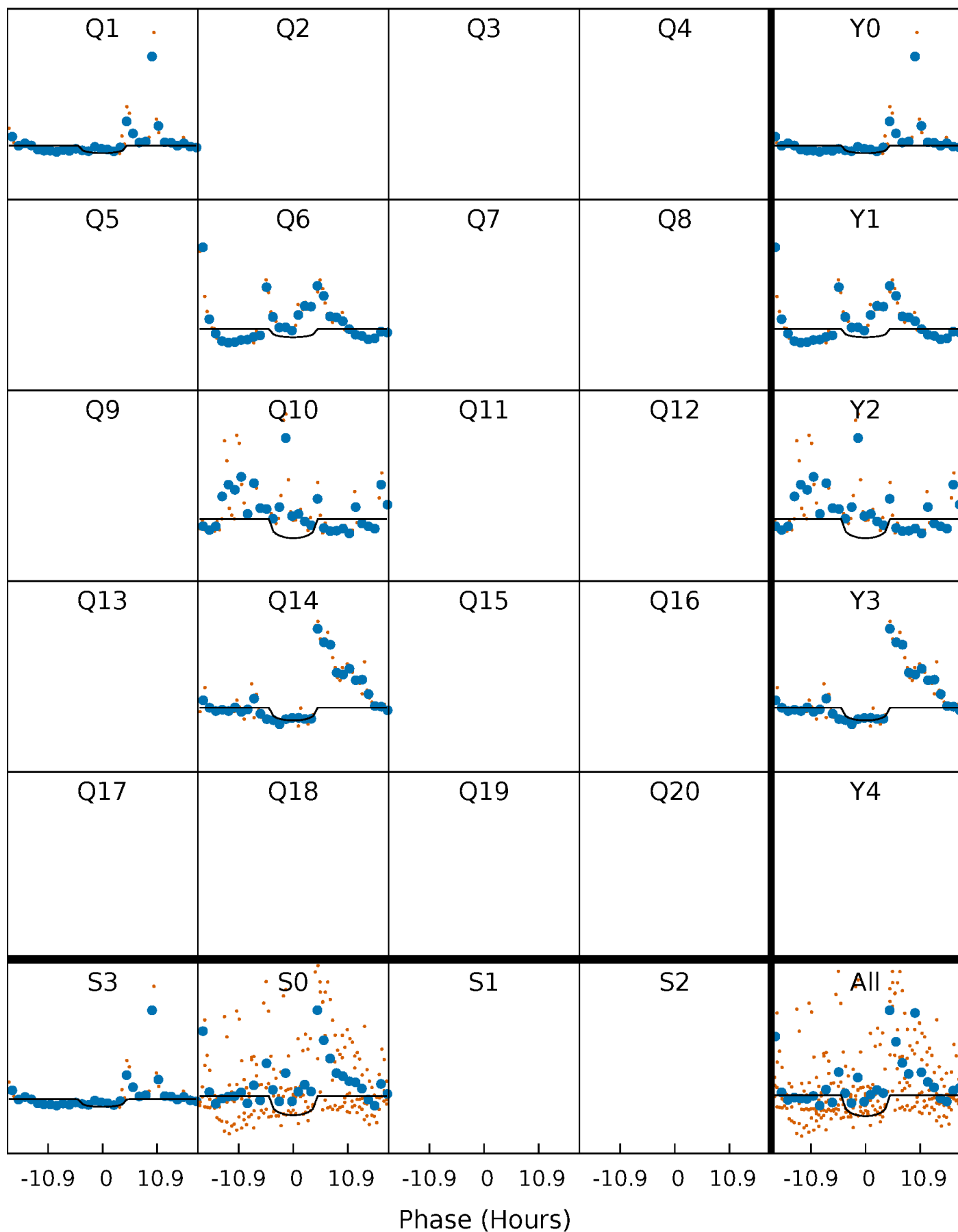
PDC Quarter-Phased Transit Curves

TCE 008935655-01 P=386.153577 Days $T_0=160.755792$ (BKJD)



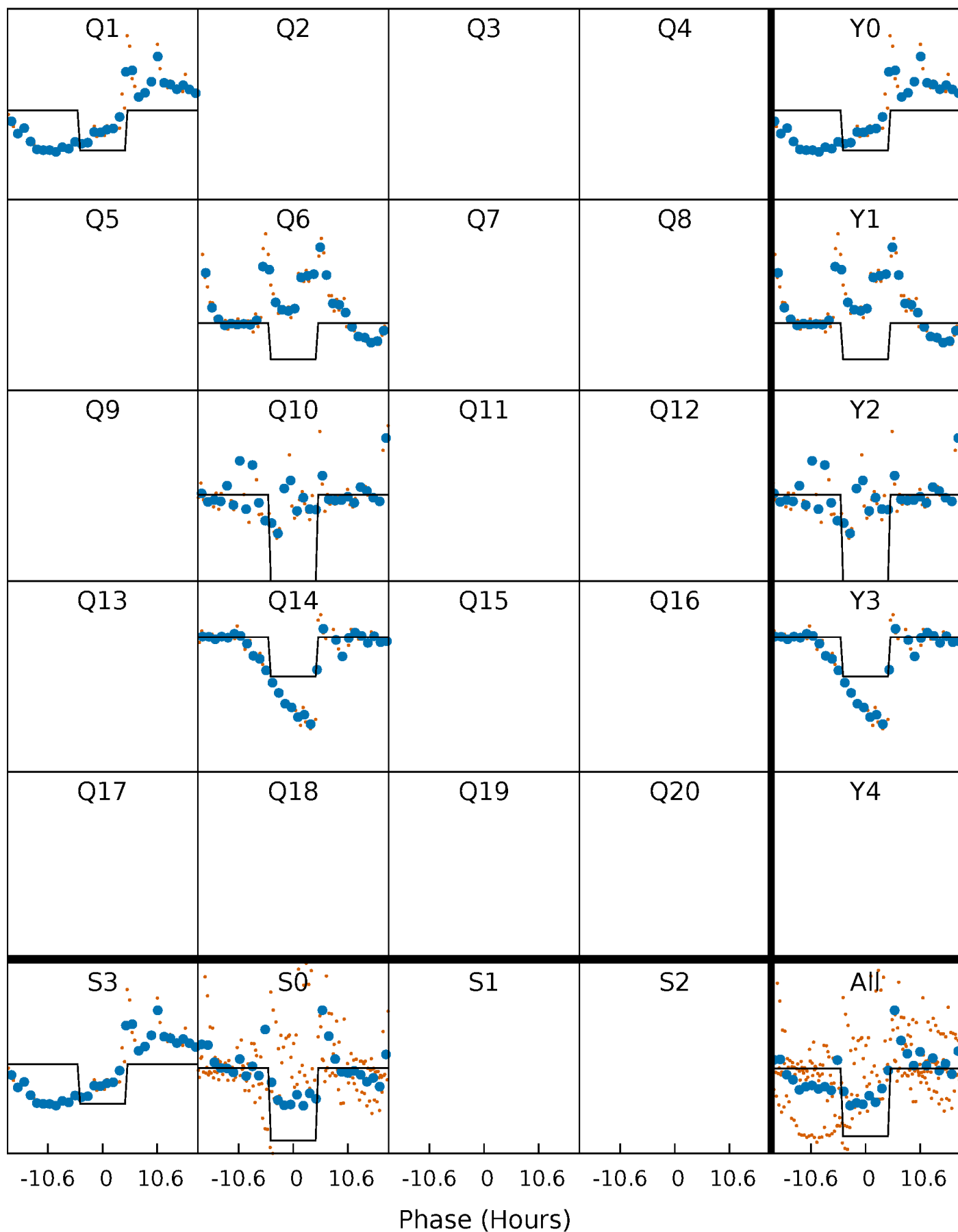
DV Quarter-Phased Transit Curves

TCE 008935655-01 P=386.153577 Days $T_0=160.755792$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

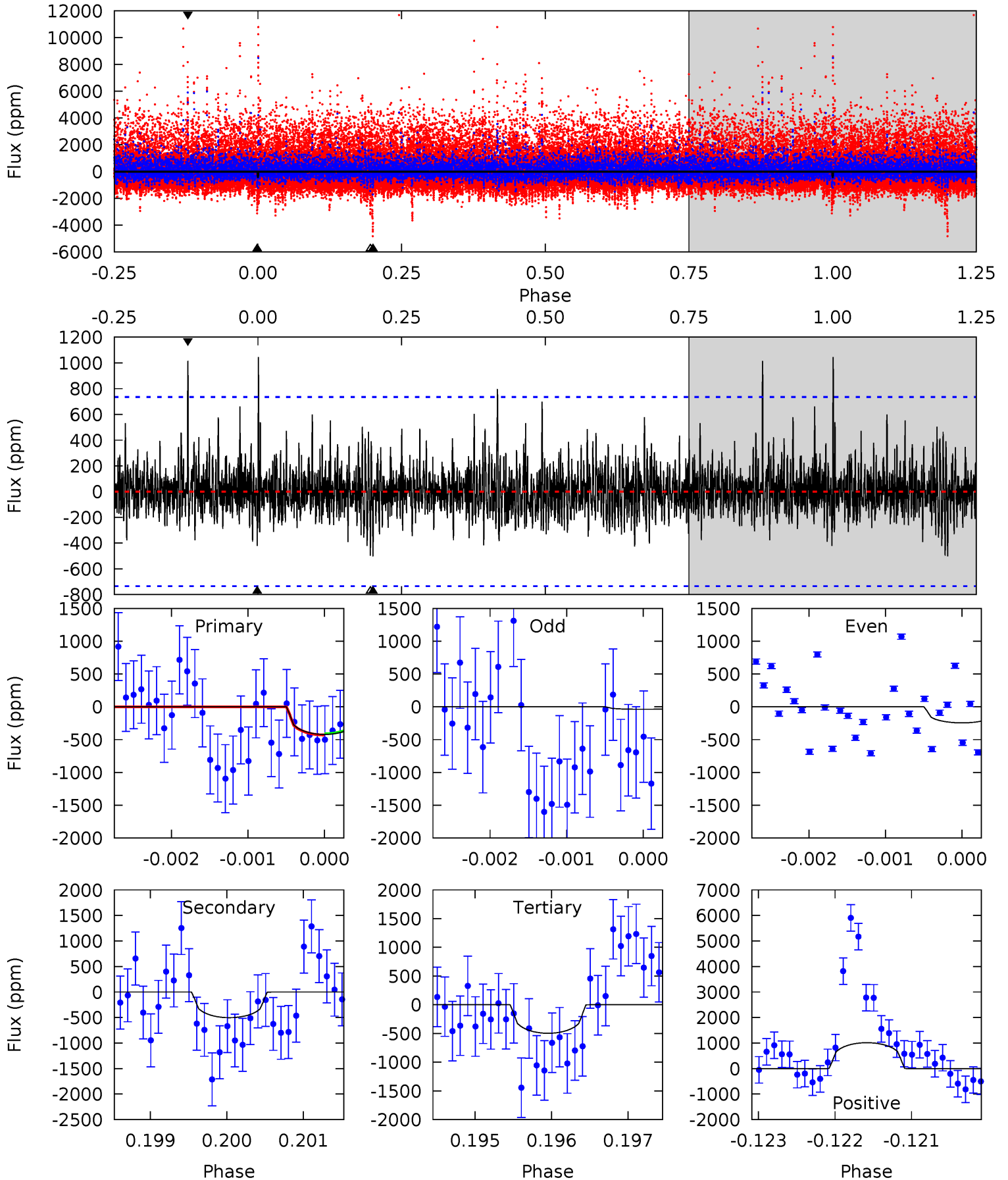
TCE 008935655-01 P=386.146606 Days $T_0=160.759493$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-01, P = 386.153577 Days, E = 160.755792 Days

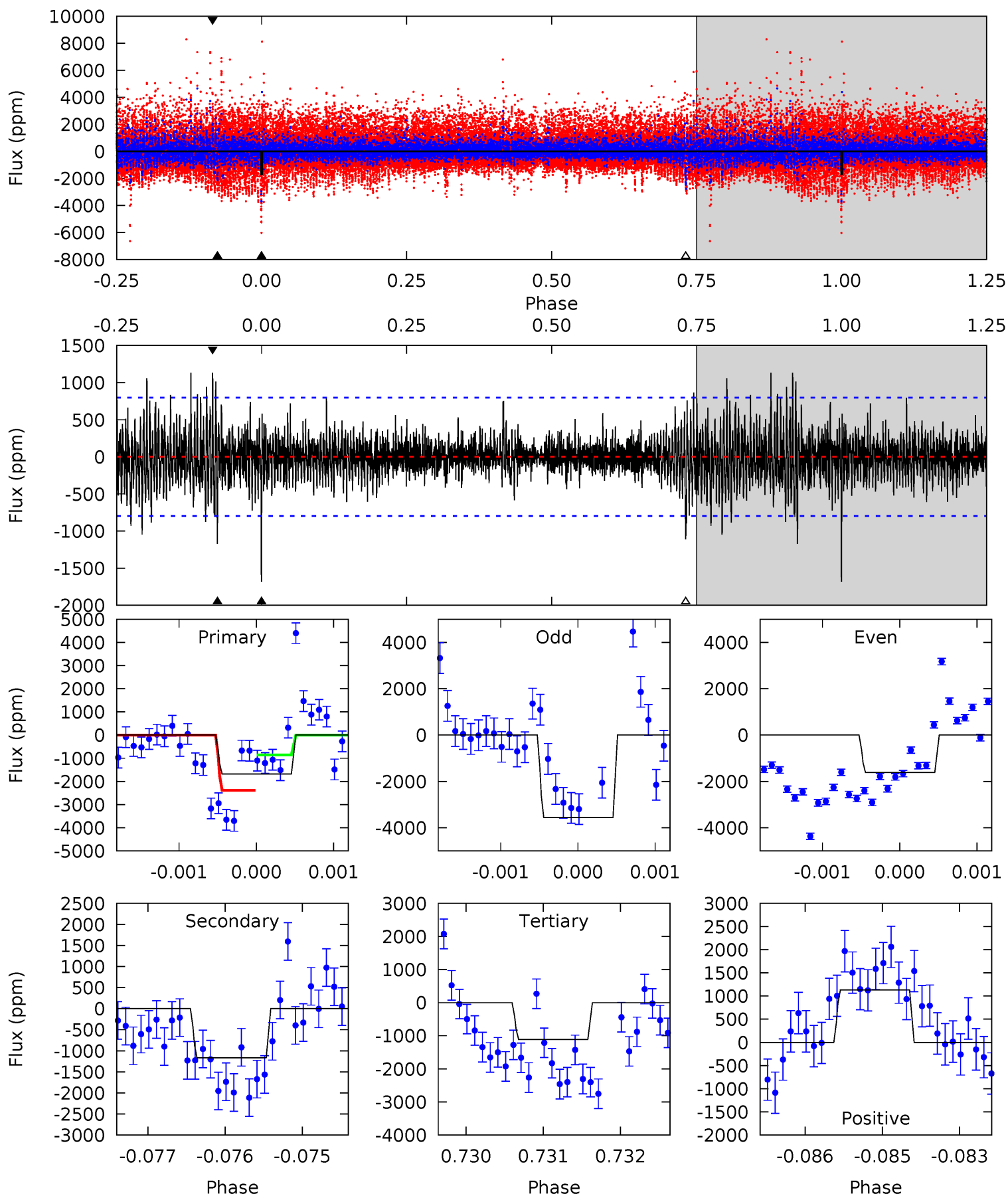
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.12	3.72	3.68	7.51	5.44	3.27	1.17	-0.56	-4.39	0.04	-3.79	0.30	0.93	0.68	0.07



Alt Model-Shift Uniqueness Test

008935655-01, $P = 386.146606$ Days, $E = 160.759493$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	8.00	7.61	7.75	5.45	3.29	1.50	3.89	3.75	0.39	0.25	7.45	1.32	0.40	0



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-503 ± 135	$2.93^{+2.03}_{-1.80}$	183^{+7}_{-8}	2948^{+1018}_{-413}	$25237^{+136168}_{-17074}$
Alt.	-1169 ± 146	$3.89^{+2.27}_{-1.88}$	182^{+7}_{-8}	3023^{+699}_{-350}	32173^{+88222}_{-19829}

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

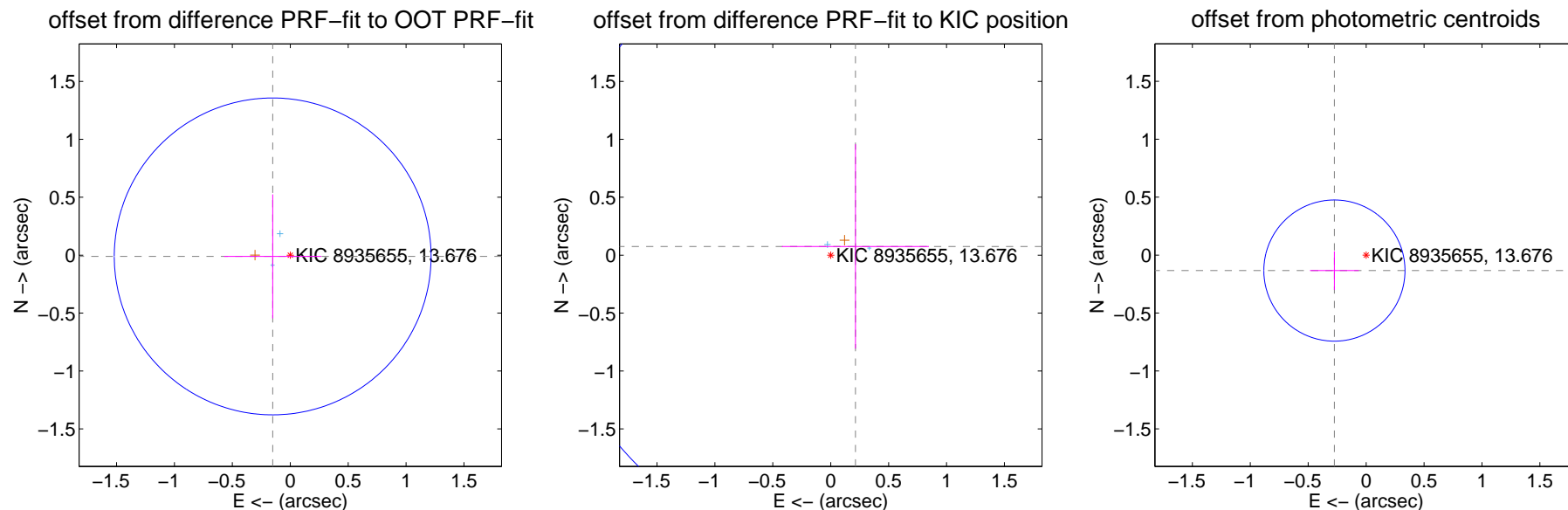
DV Centroid Data

Supplemental centroid analysis for 008935655-01. Kepler magnitude: 13.68. Transit SNR 6.66

There are 2 quarters with good PRF difference image offsets

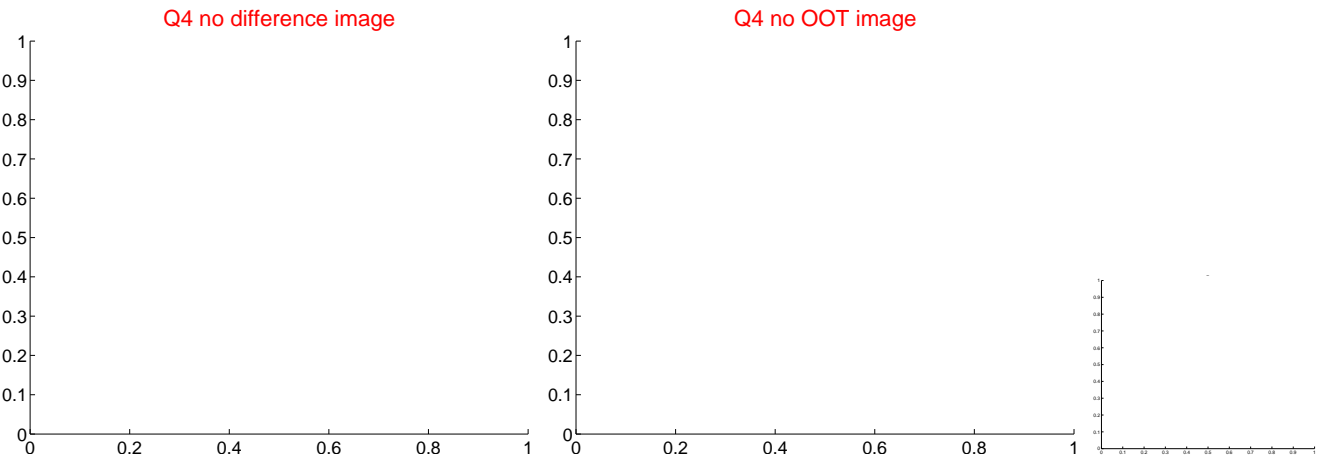
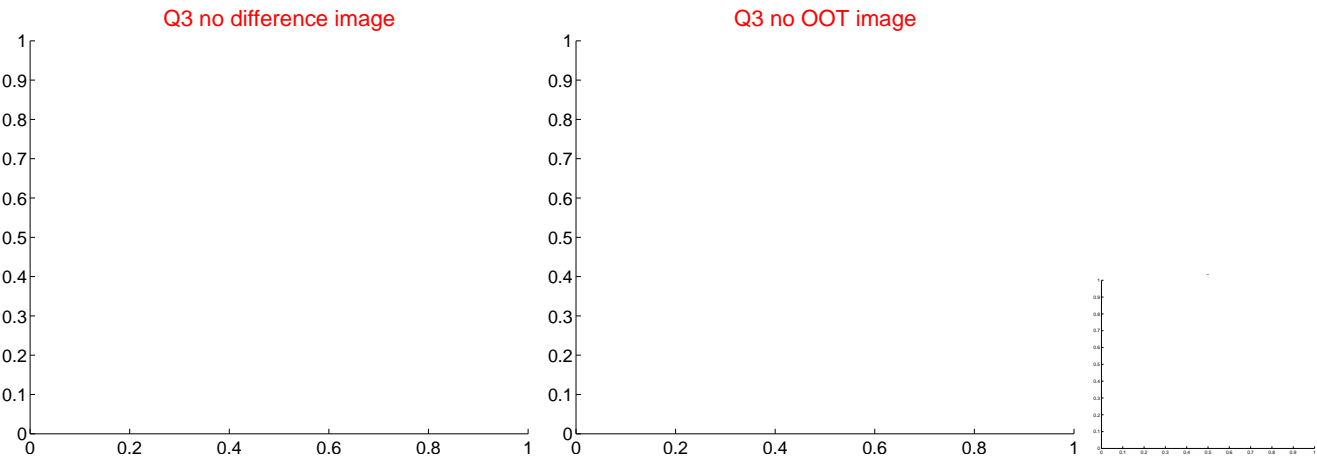
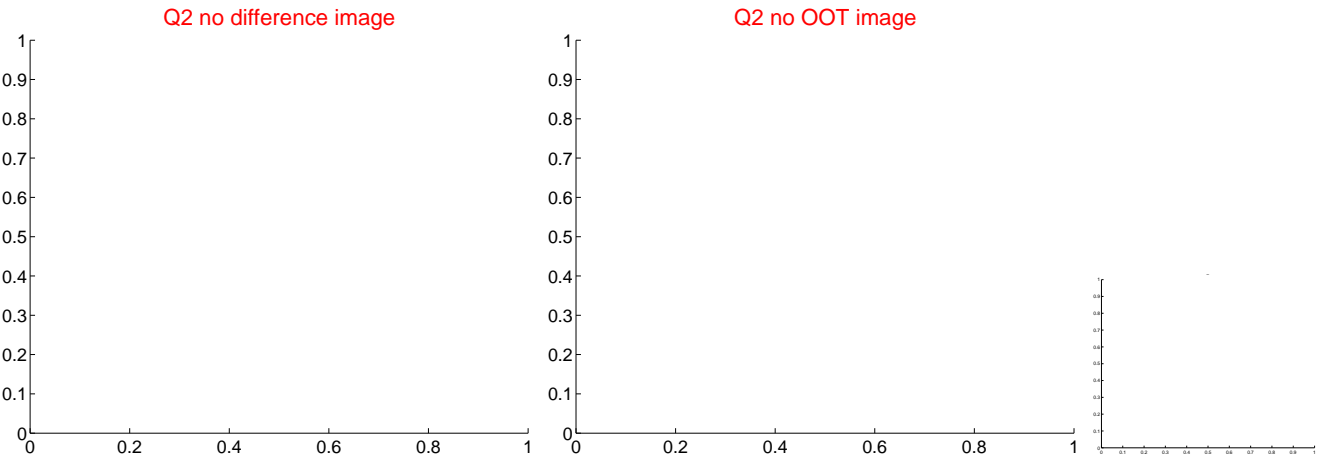
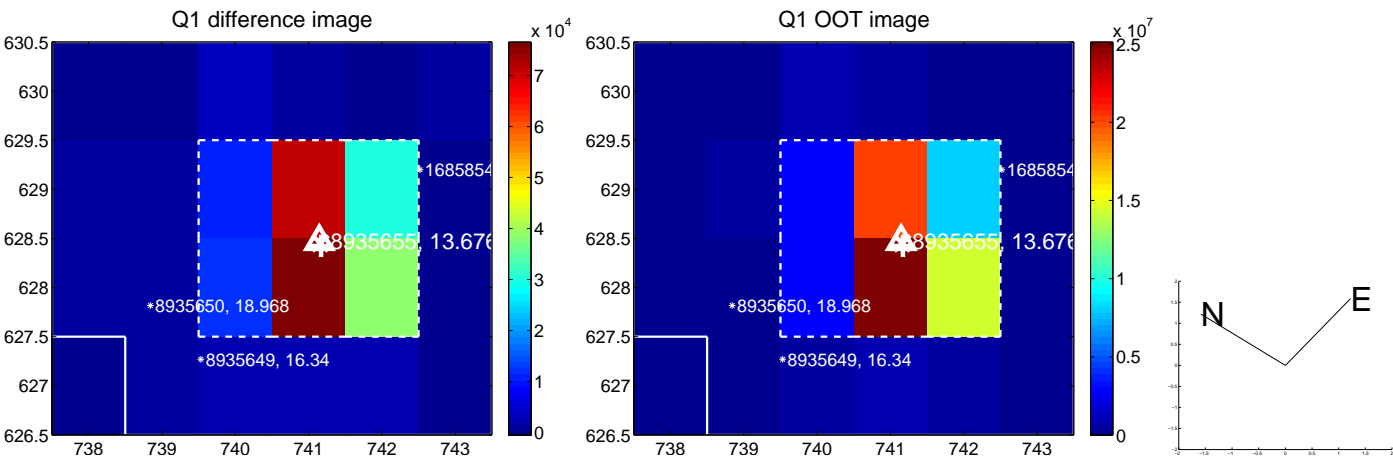
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.152 ± 0.456	0.33	0.152 ± 0.420	-0.011 ± 0.535
PRF-fit source offset from KIC position	0.226 ± 0.889	0.25	-0.213 ± 0.635	0.075 ± 0.883
photometric centroid source offset	0.30 ± 0.20	1.50	0.27 ± 0.21	-0.13 ± 0.17

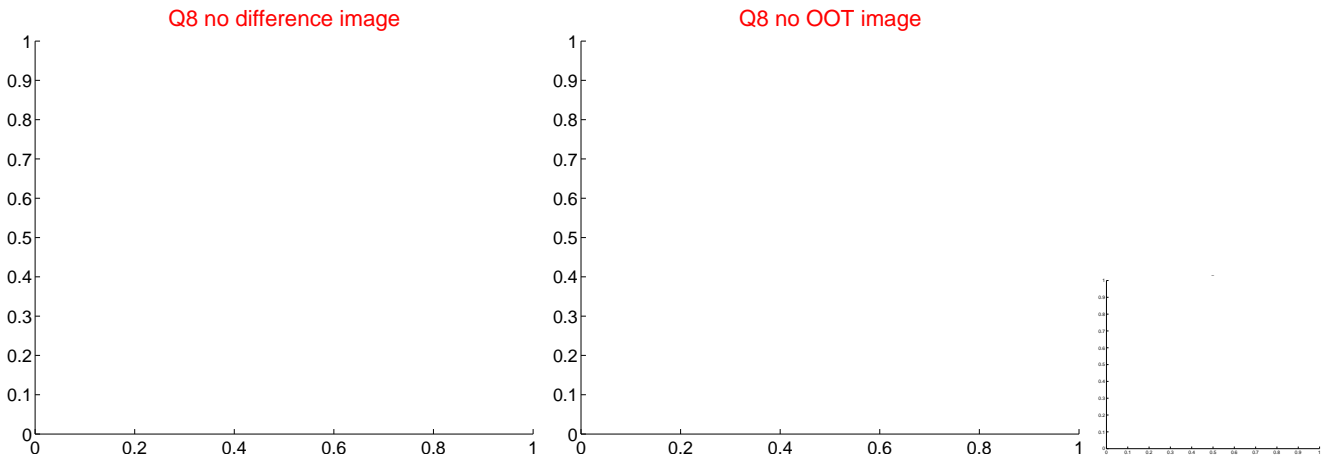
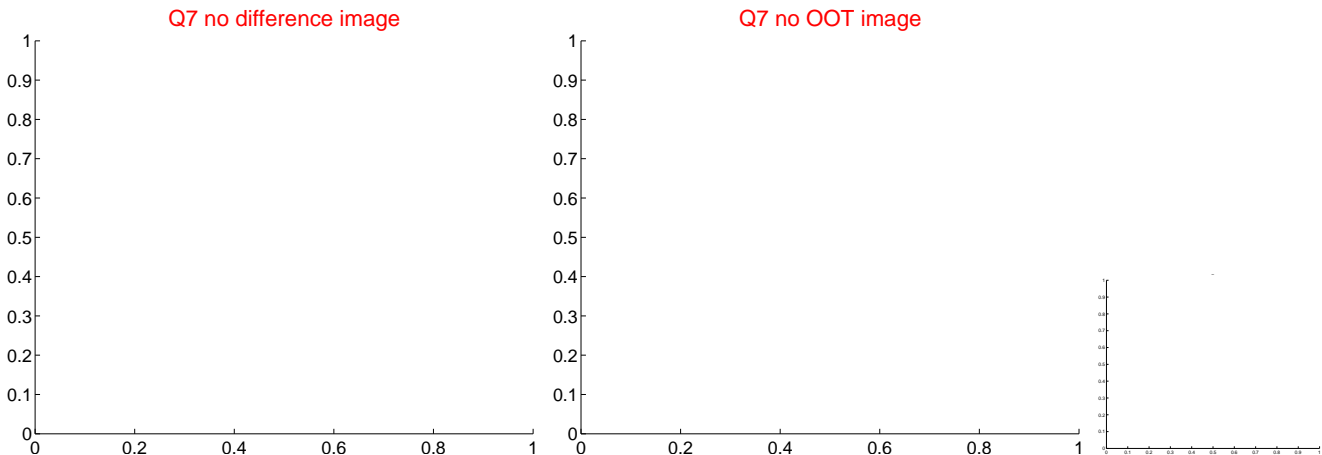
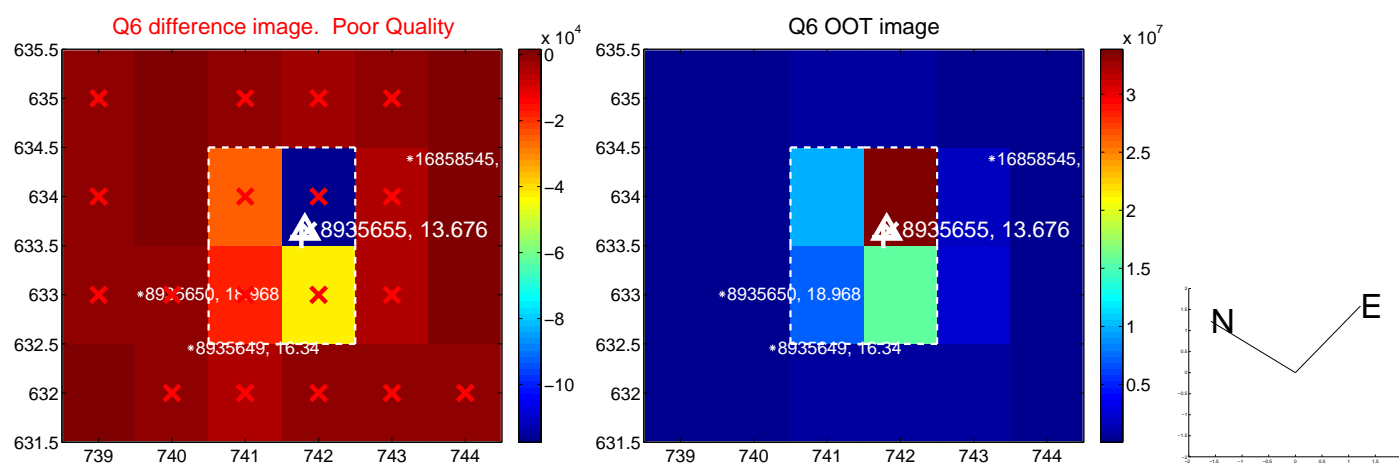
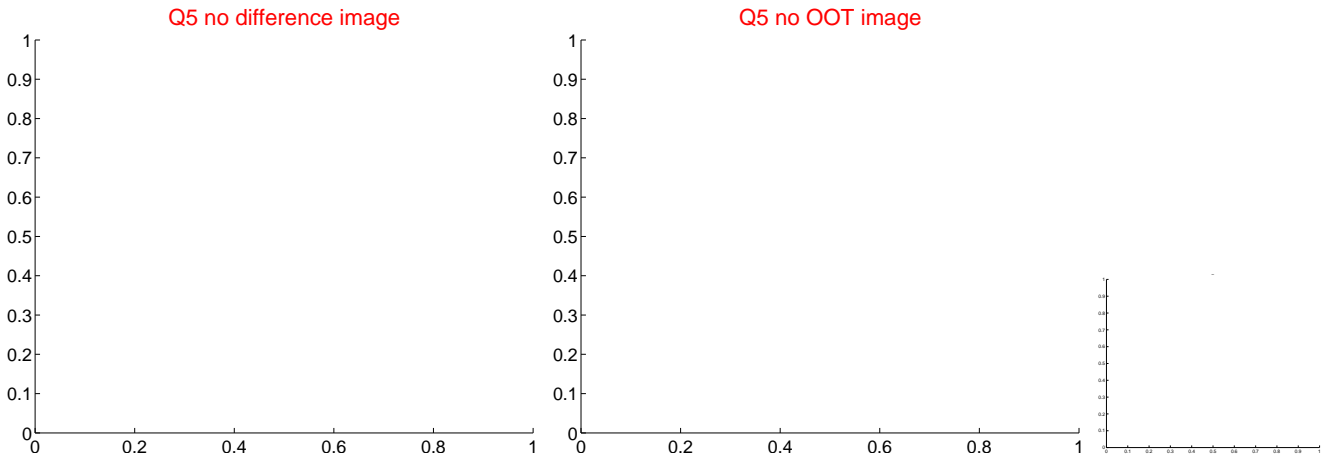


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

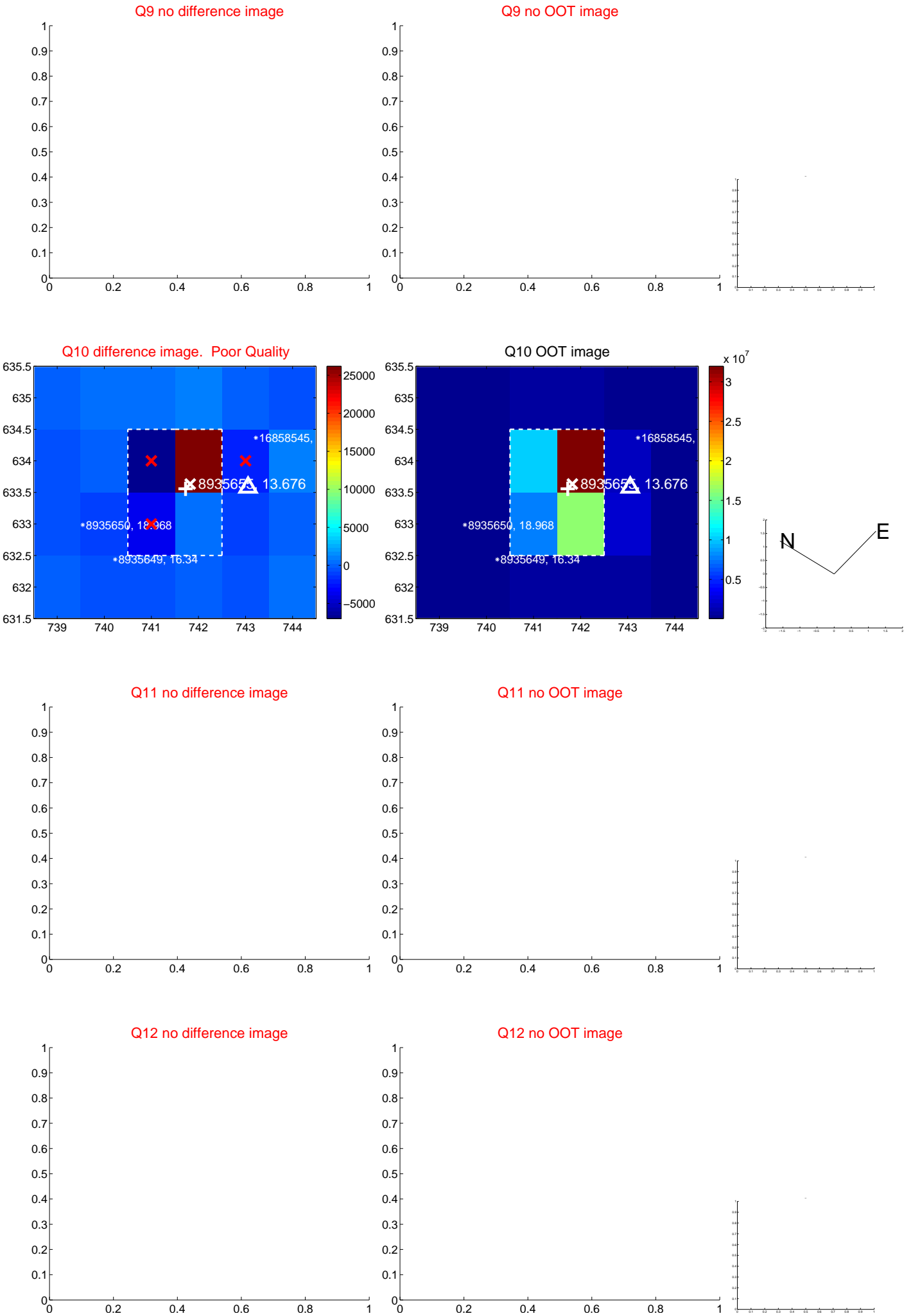
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



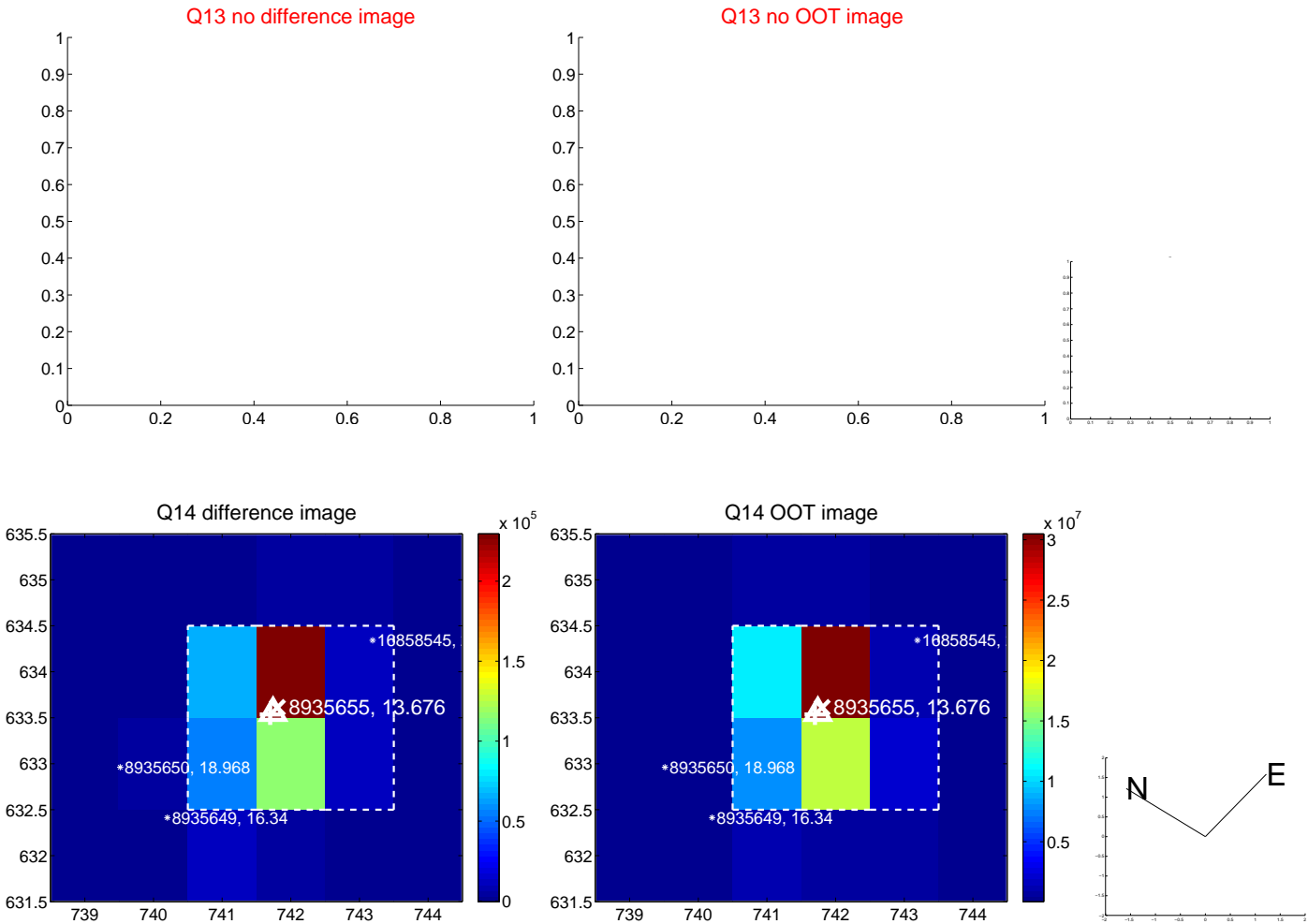
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



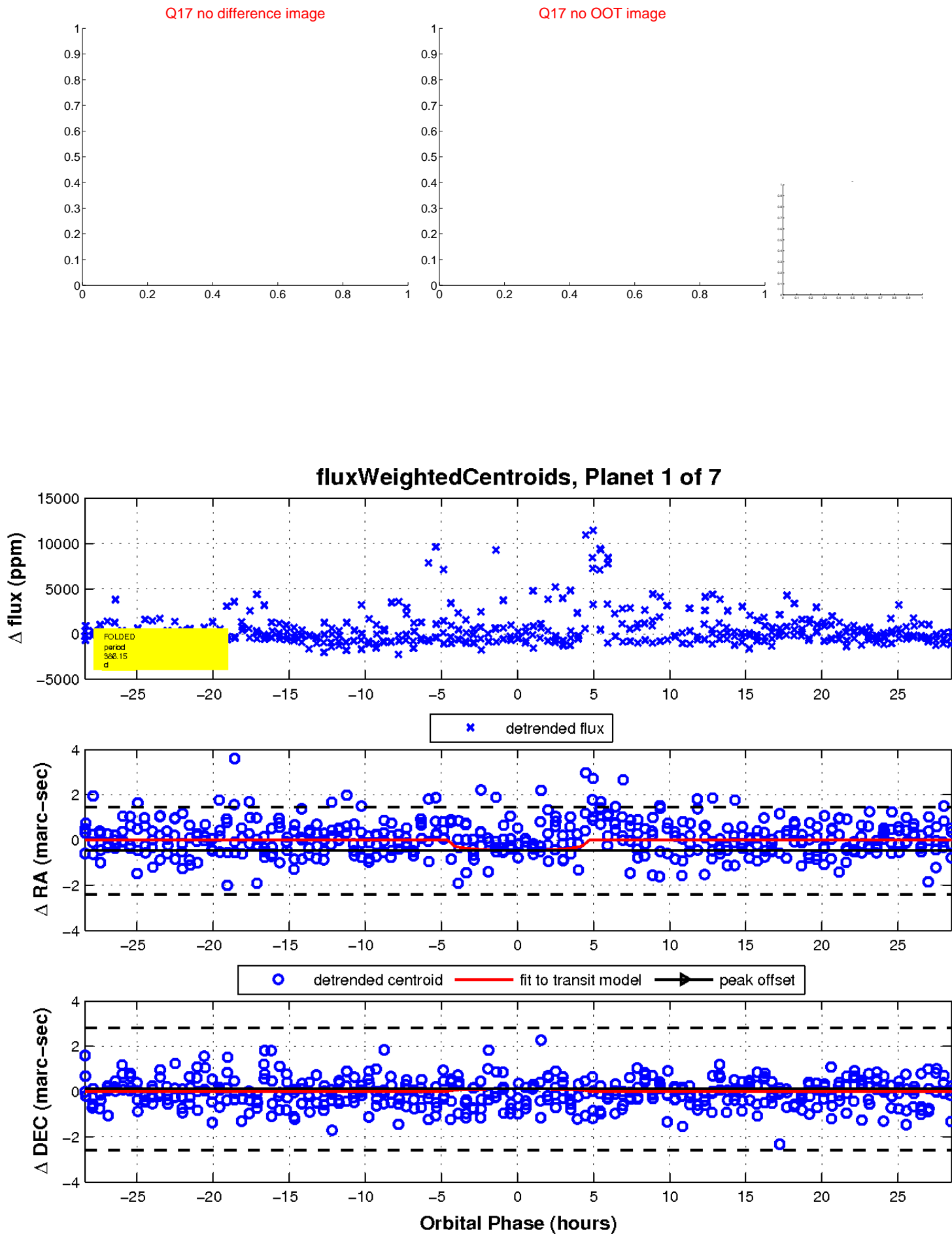
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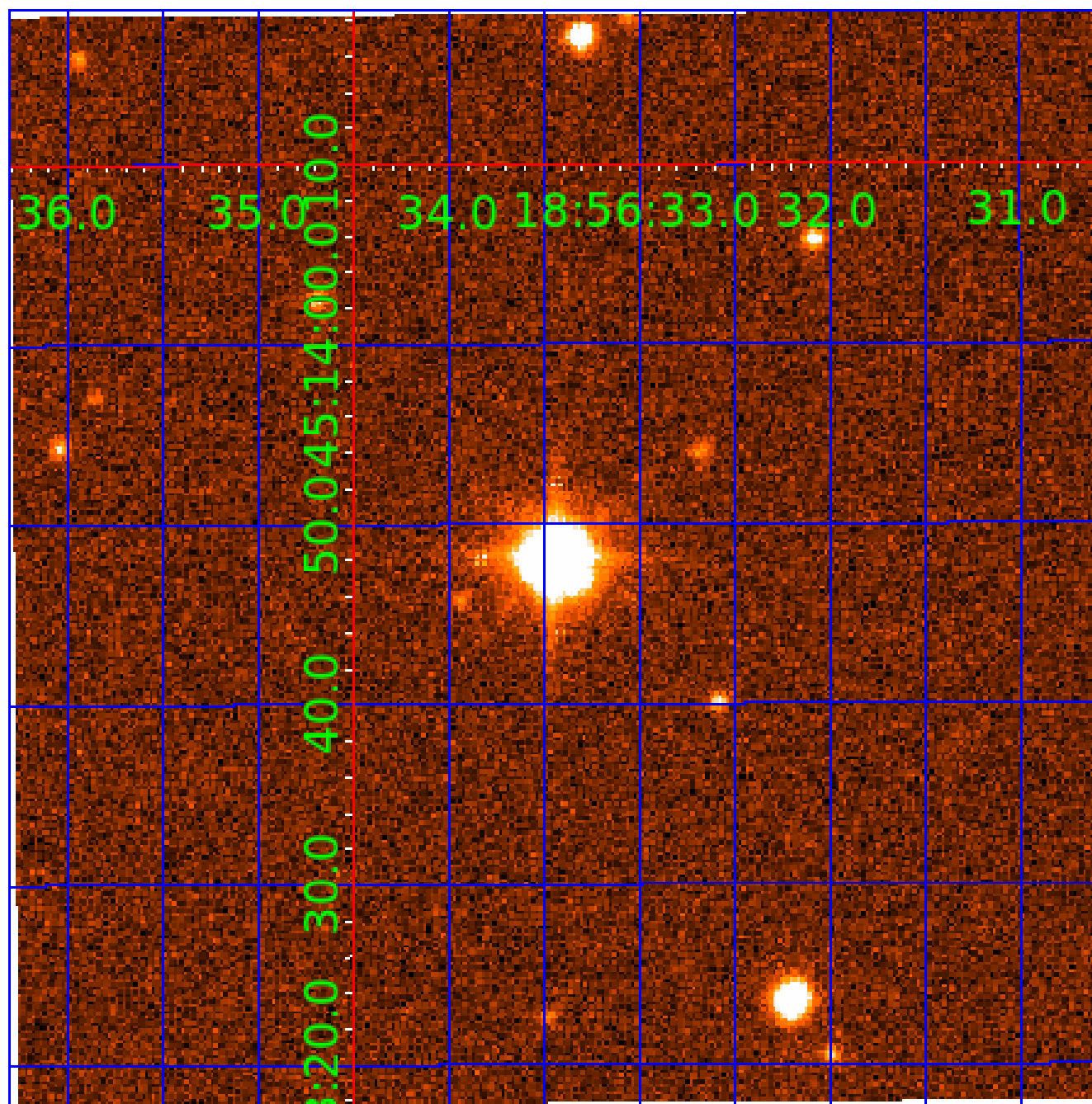


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008935655

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
008935655-04	OBS	No	406.387478	464.010594	2357.0	21.791	10.4	9.2	0.57	3694	2.69	0.07
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

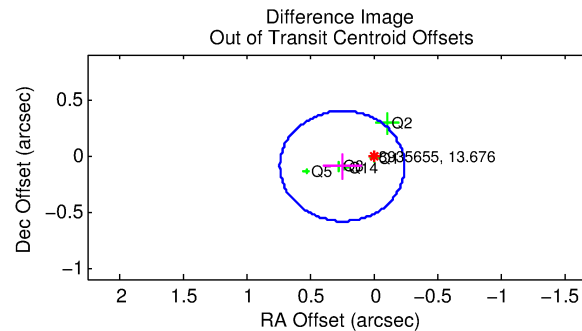
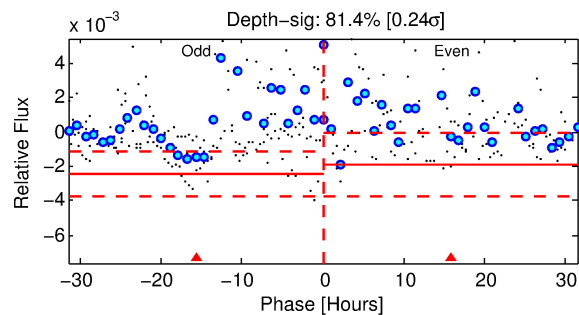
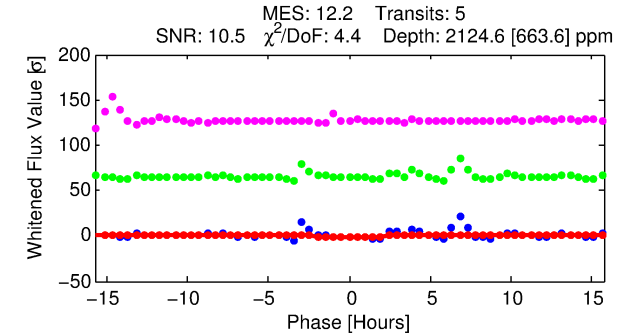
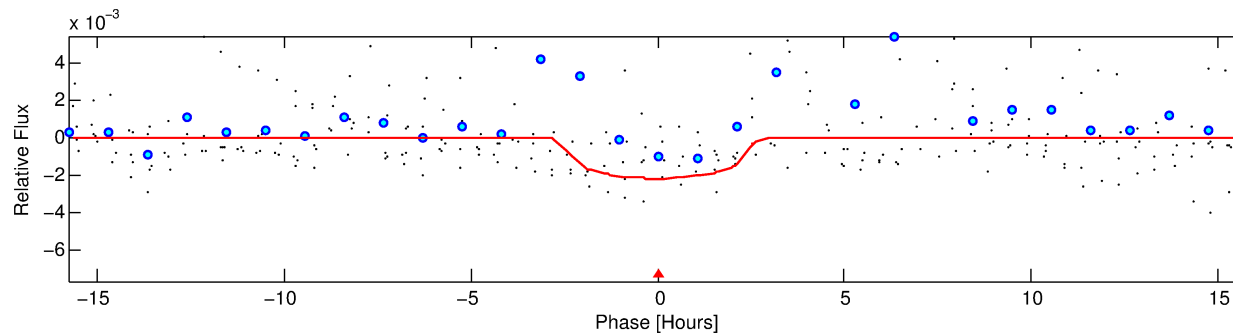
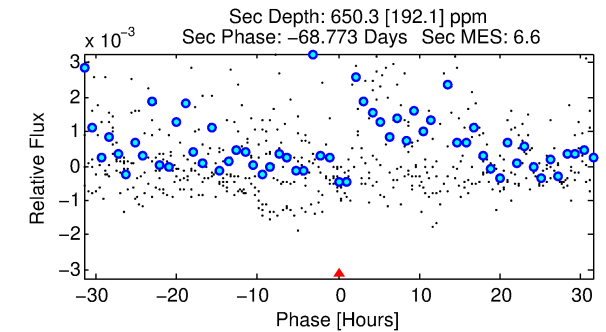
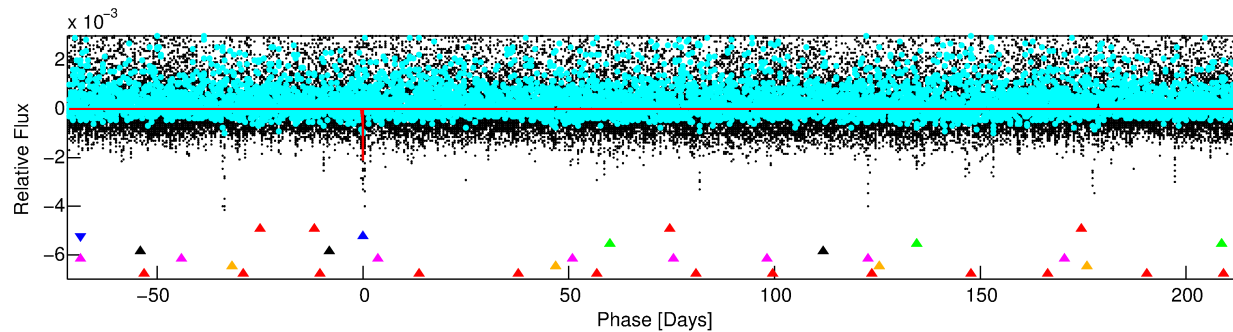
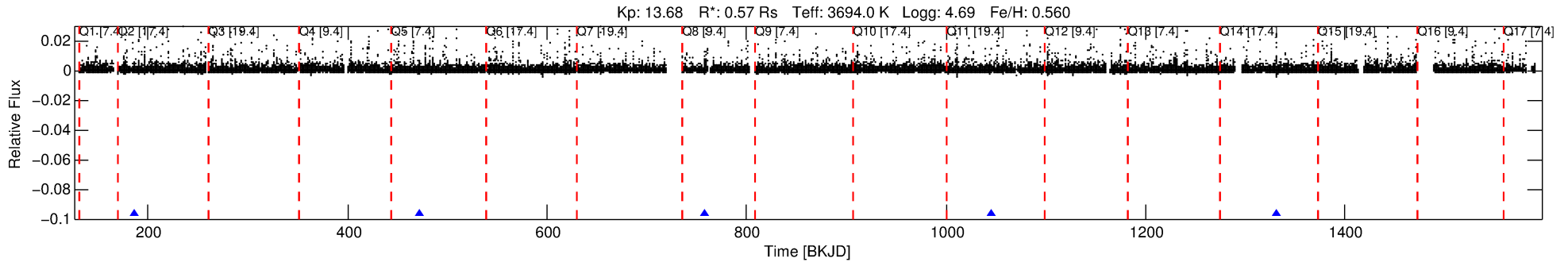
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-02

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 2 of 7 Period: 286.275 d



DV Fit Results:

Period = 286.27518 [0.00772] d
Epoch = 185.9420 [0.0201] BKJD
Rp/R* = 0.0449 [0.0519]
a/R* = 325.58 [1203.04]
b = 0.69 [2.87]
Seff = 0.11 [0.02]
Teq = 146 [8] K
Rp = 2.77 [3.23] Re
a = 0.7038 [0.0784] AU
Ag = 23012.83 [53752.22] [0.43σ]
Teffp = 2783 [1626] K [1.62σ]

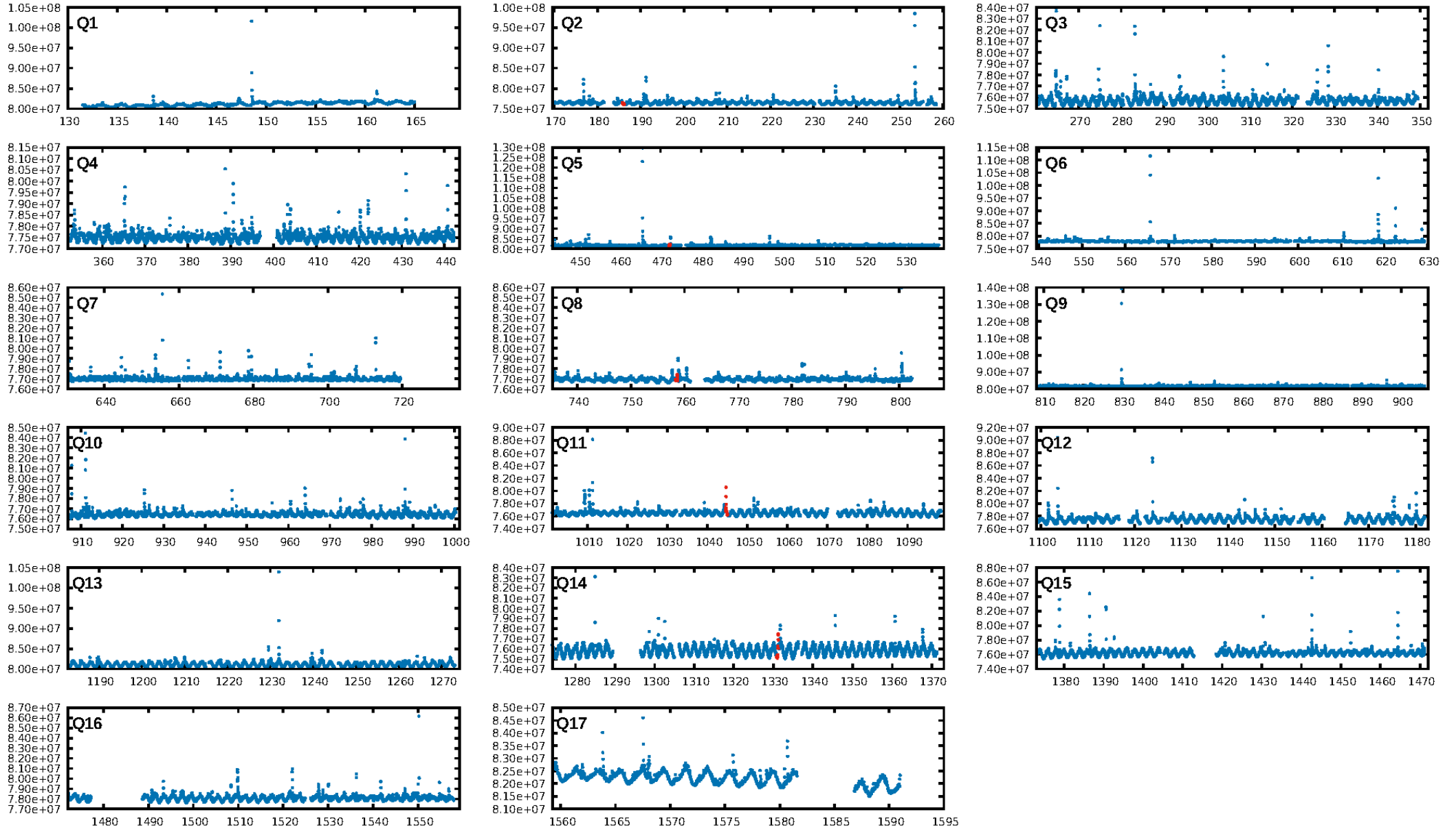
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [446.03σ]
LongPeriod-sig: 100.0% [344.54σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.777
Centroid-sig: 28.9%
Centroid-so: 0.216 arcsec [1.24σ]
OotOffset-rm: 0.262 arcsec [1.60σ]
KicOffset-rm: 0.107 arcsec [0.58σ]
OotOffset-st: 2/1/1/1 [5]
KicOffset-st: 2/1/1/1 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 1.00 [5/5]

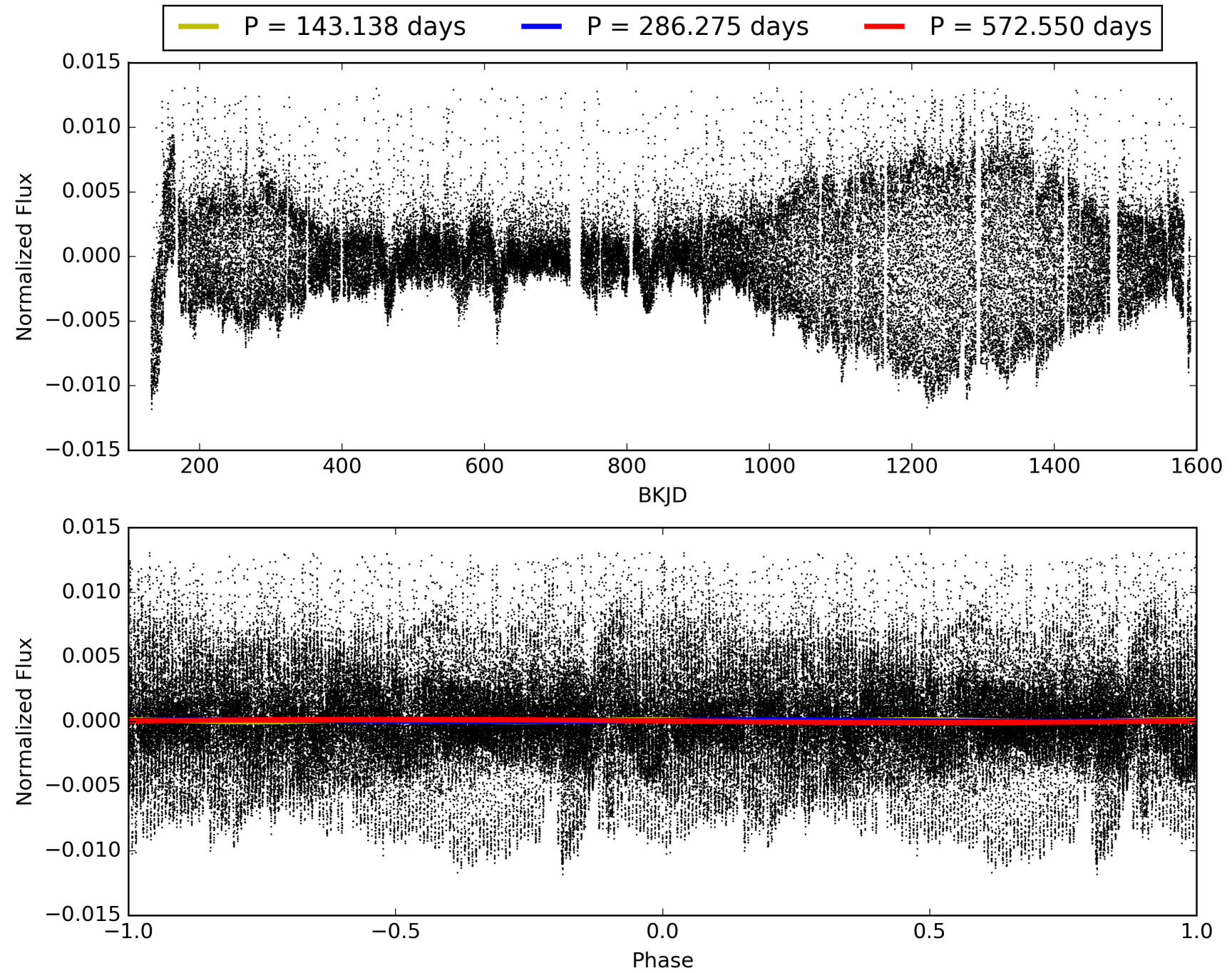
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:13:01 Z

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

TCE 008935655-02, PDC Light Curves

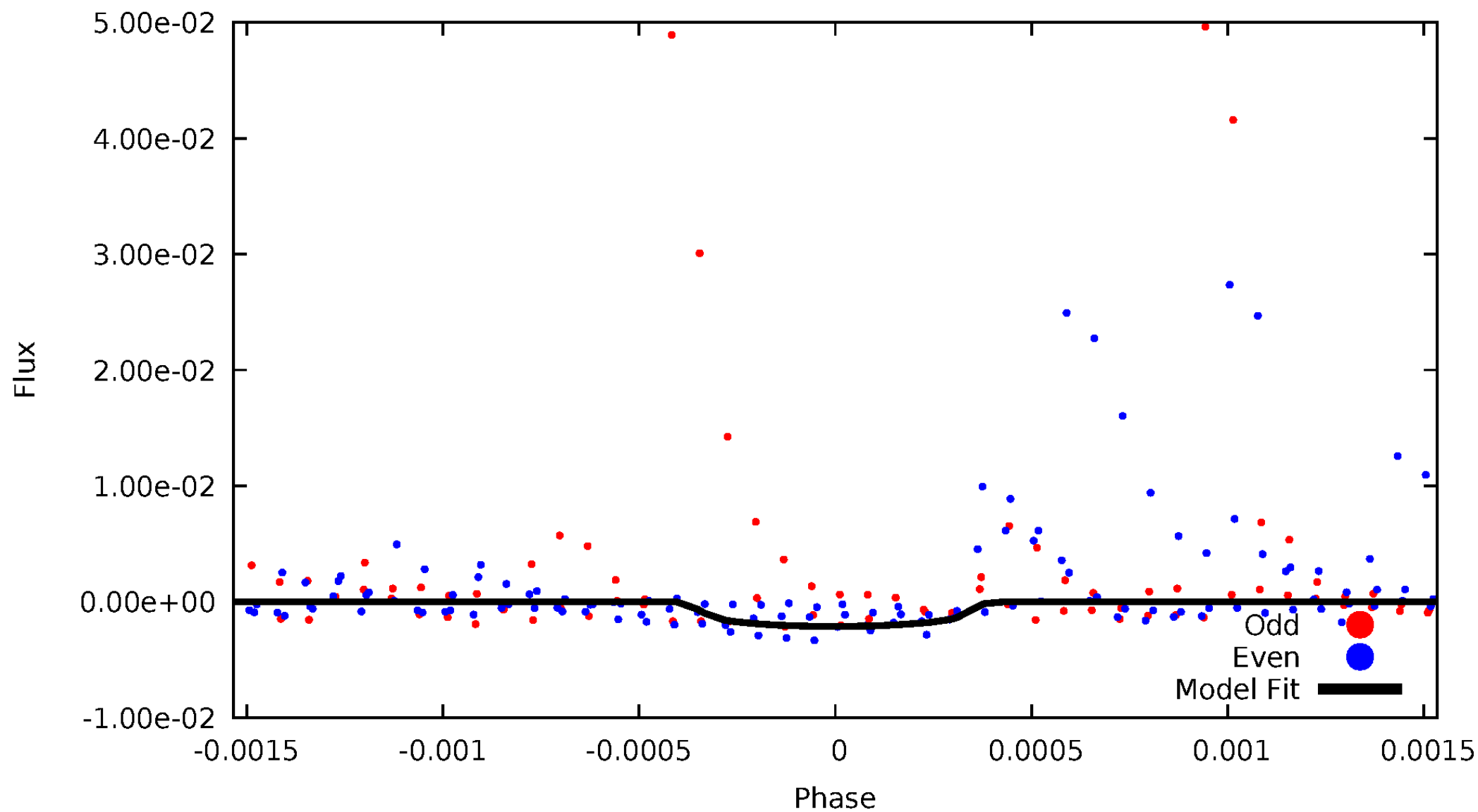


TCE 008935655-02



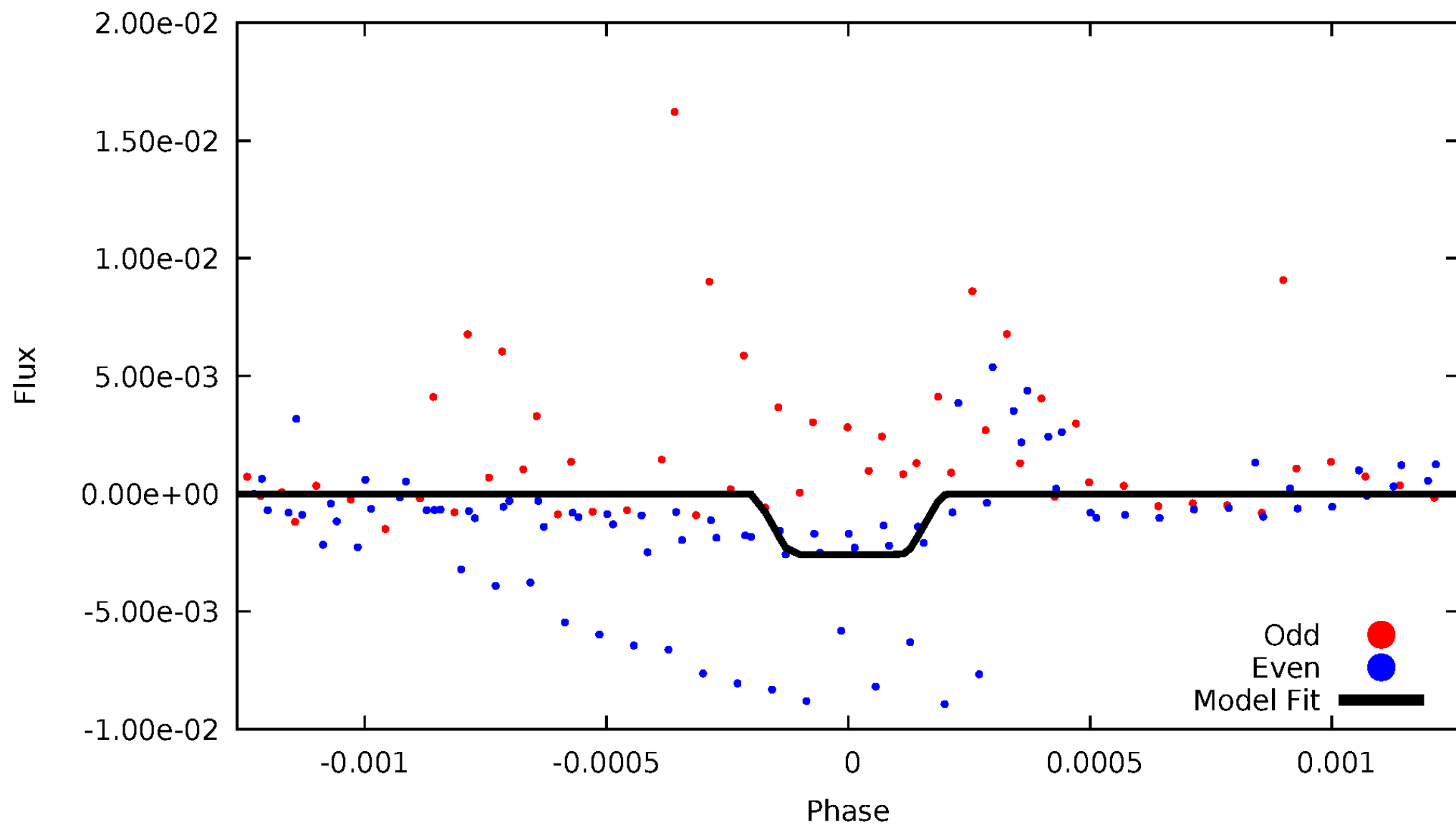
DV Odd/Even

TCE 008935655-02



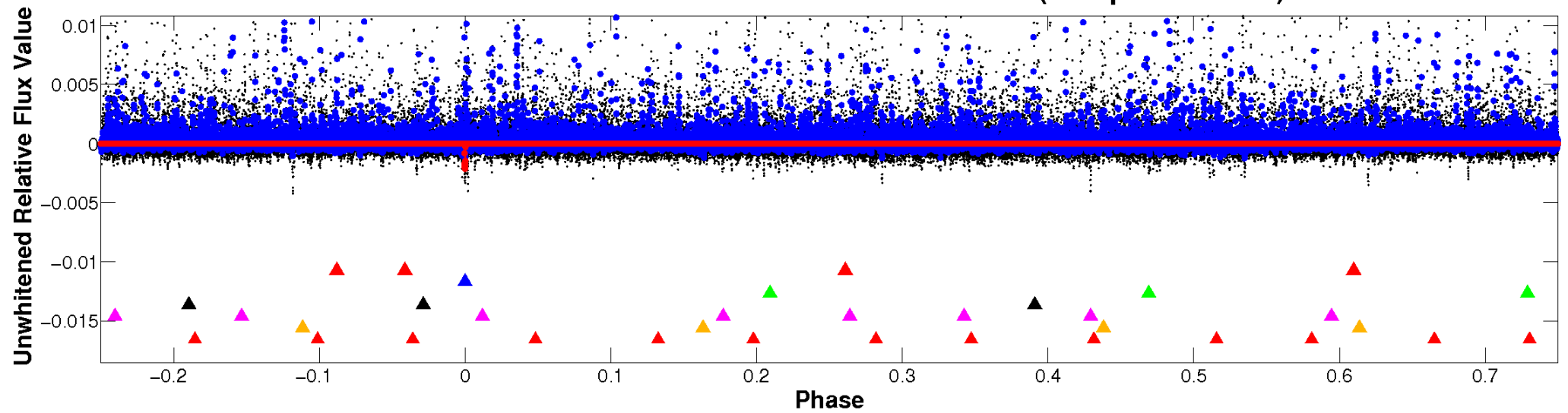
ALT Odd/Even

TCE 008935655-02

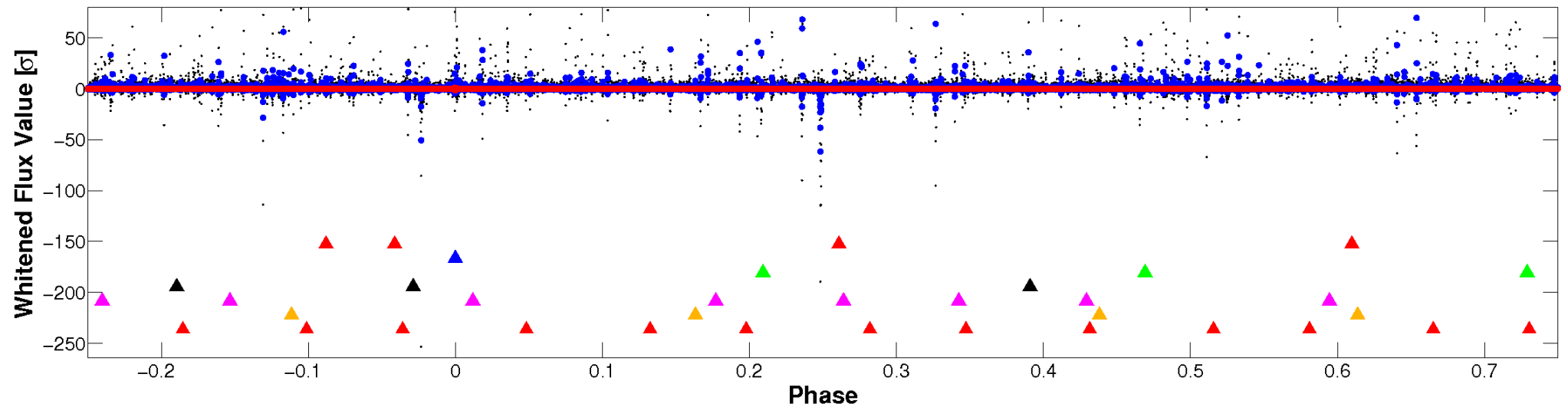


Non-Whitened Vs. Whitened Light Curve

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

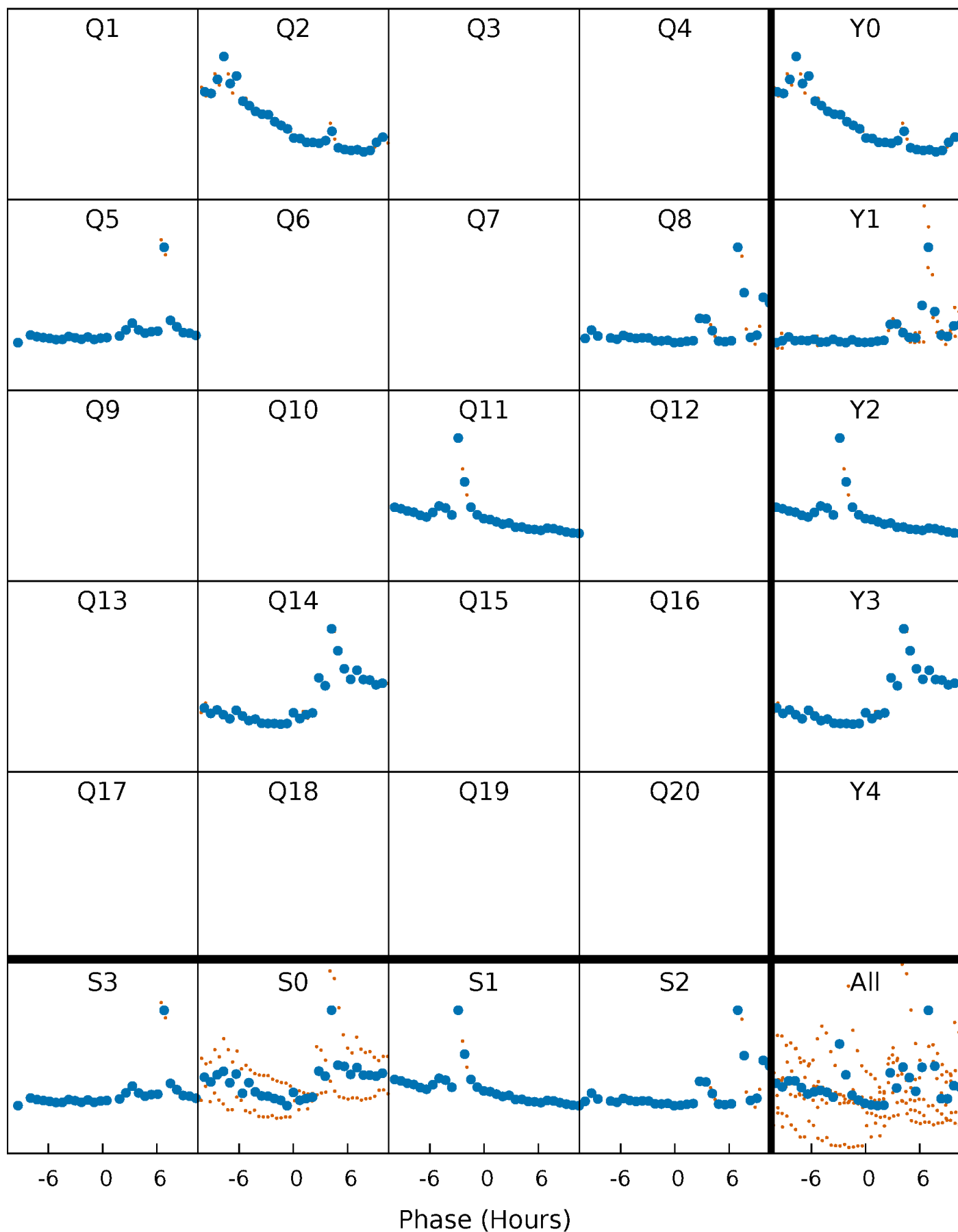


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



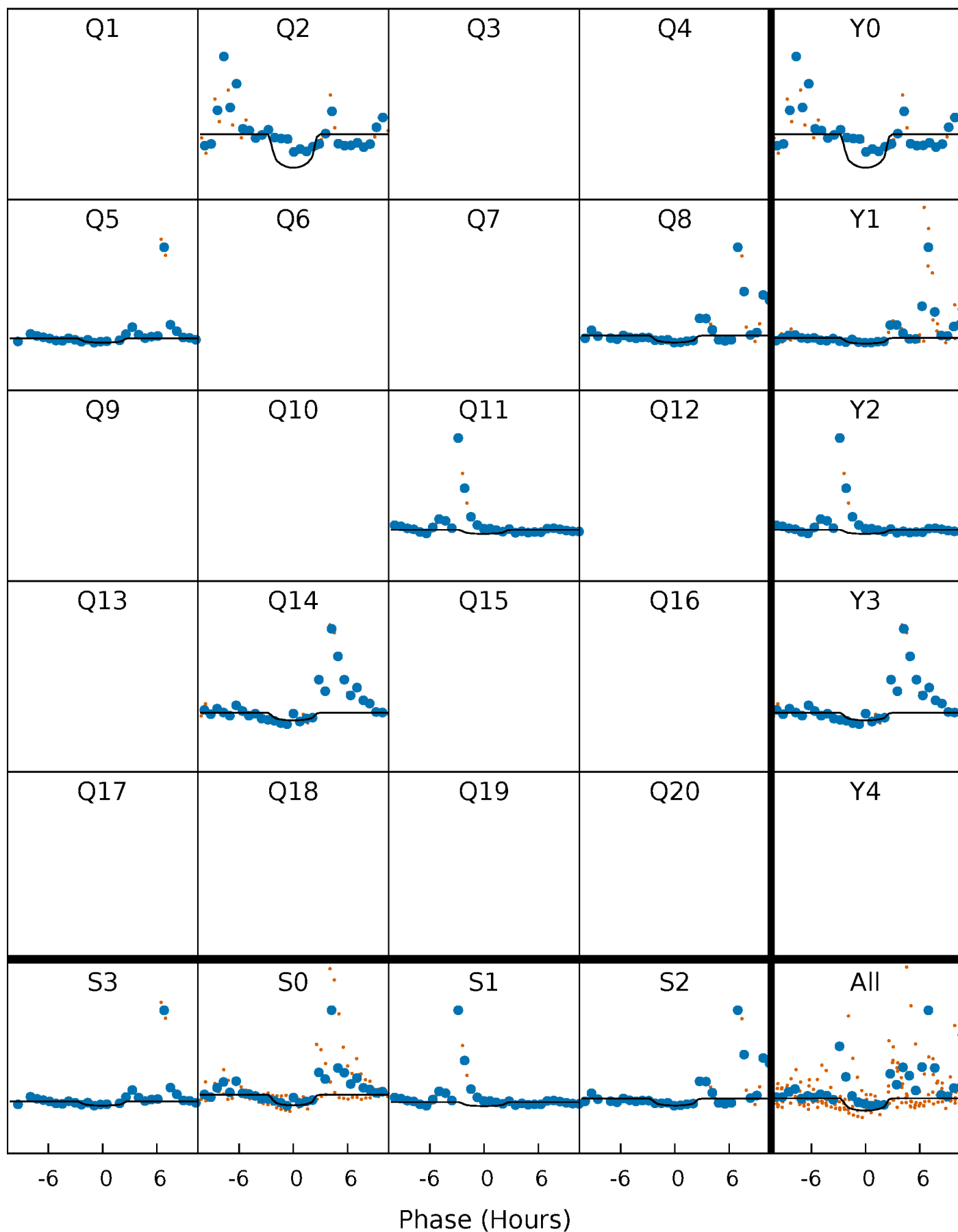
PDC Quarter-Phased Transit Curves

TCE 008935655-02 P=286.275178 Days $T_0=185.942018$ (BKJD)



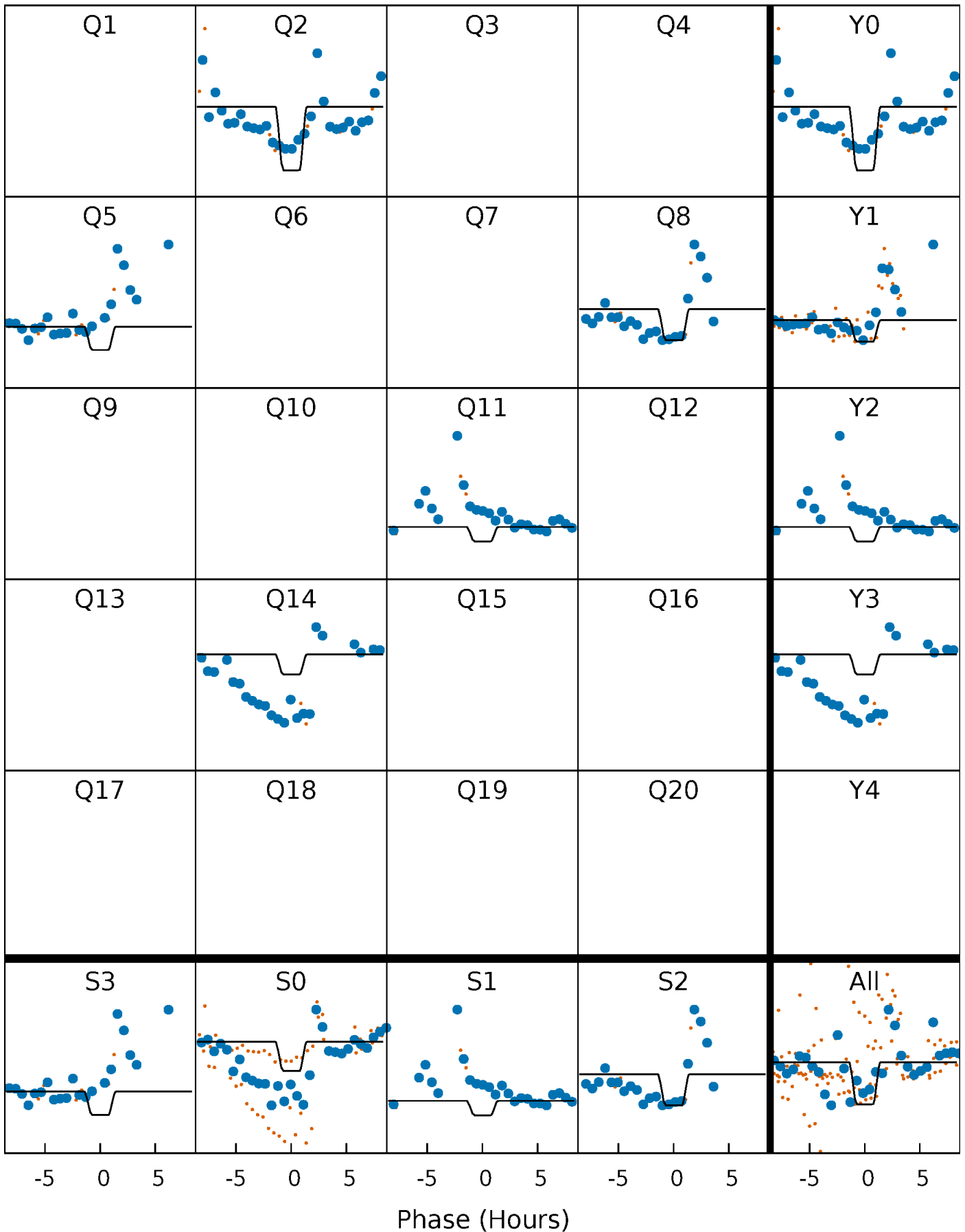
DV Quarter-Phased Transit Curves

TCE 008935655-02 P=286.275178 Days $T_0=185.942018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

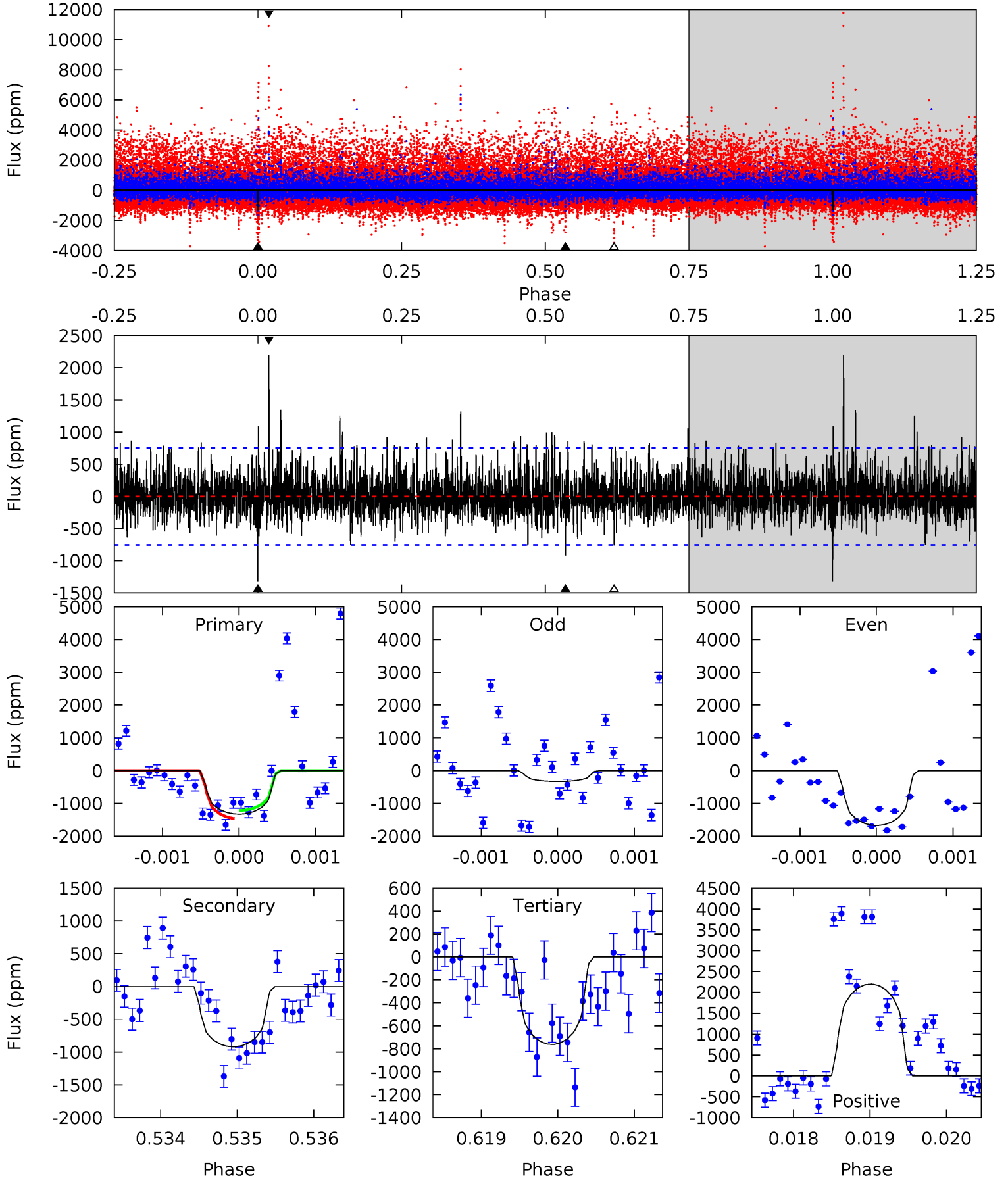
TCE 008935655-02 P=286.260553 Days $T_0=186.010082$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-02, P = 286.275178 Days, E = 185.942018 Days

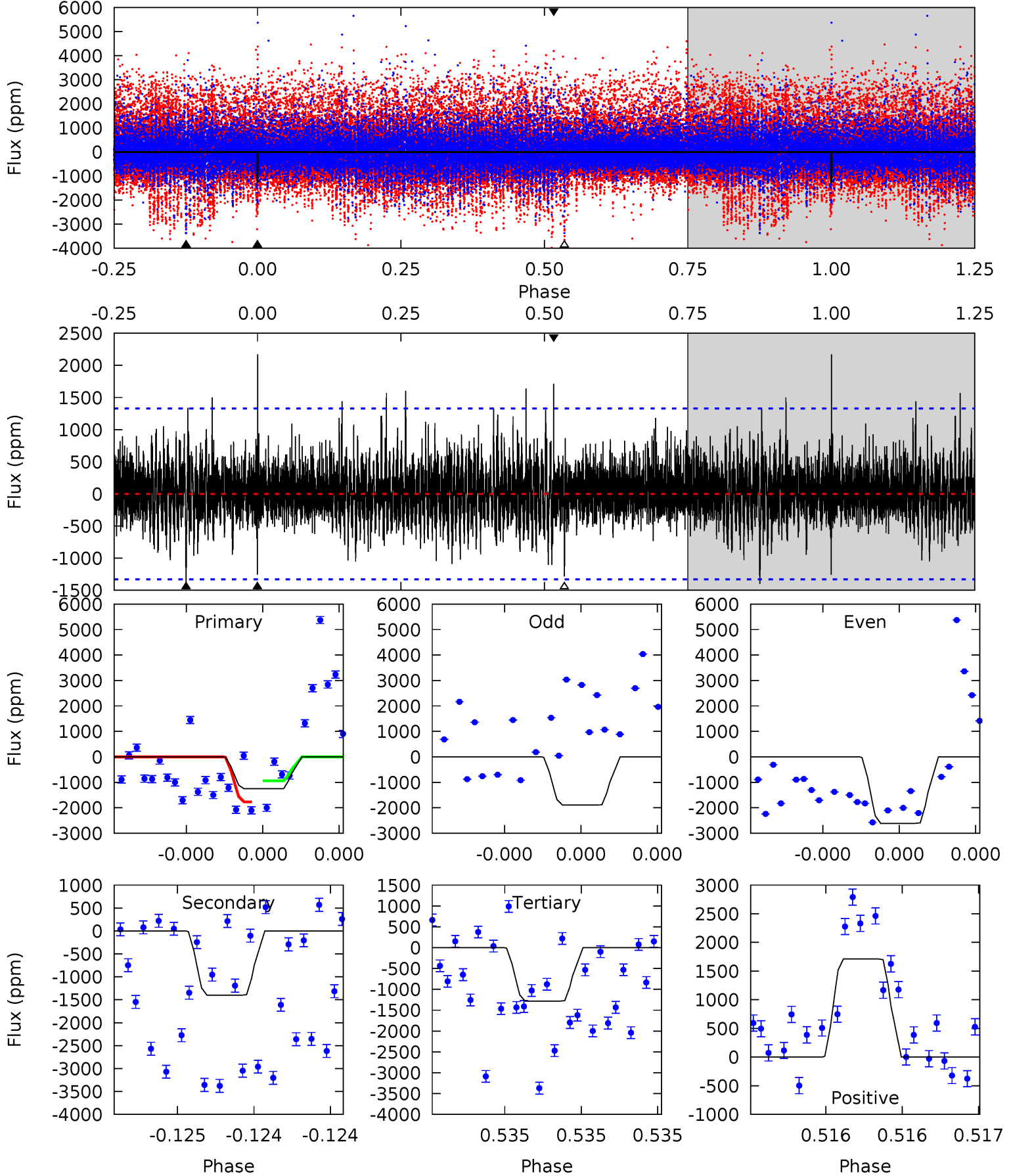
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.65	6.69	5.55	16.0	5.49	3.36	1.92	4.10	-6.35	1.14	-9.31	3.57	0.25	0.62	0.91



Alt Model-Shift Uniqueness Test

008935655-02, P = 286.260553 Days, E = 186.010082 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.28	5.90	5.41	7.22	5.61	3.53	1.34	-0.12	-1.94	0.50	-1.31	1.54	1.02	0.61	0



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-920 ± 137	$3.52^{+2.57}_{-2.24}$	201^{+8}_{-9}	2997^{+1182}_{-403}	$19951^{+130665}_{-13325}$
Alt.	-1401 ± 237	$3.46^{+2.95}_{-2.20}$	202^{+7}_{-9}	3224^{+1293}_{-507}	$32008^{+203675}_{-22512}$

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

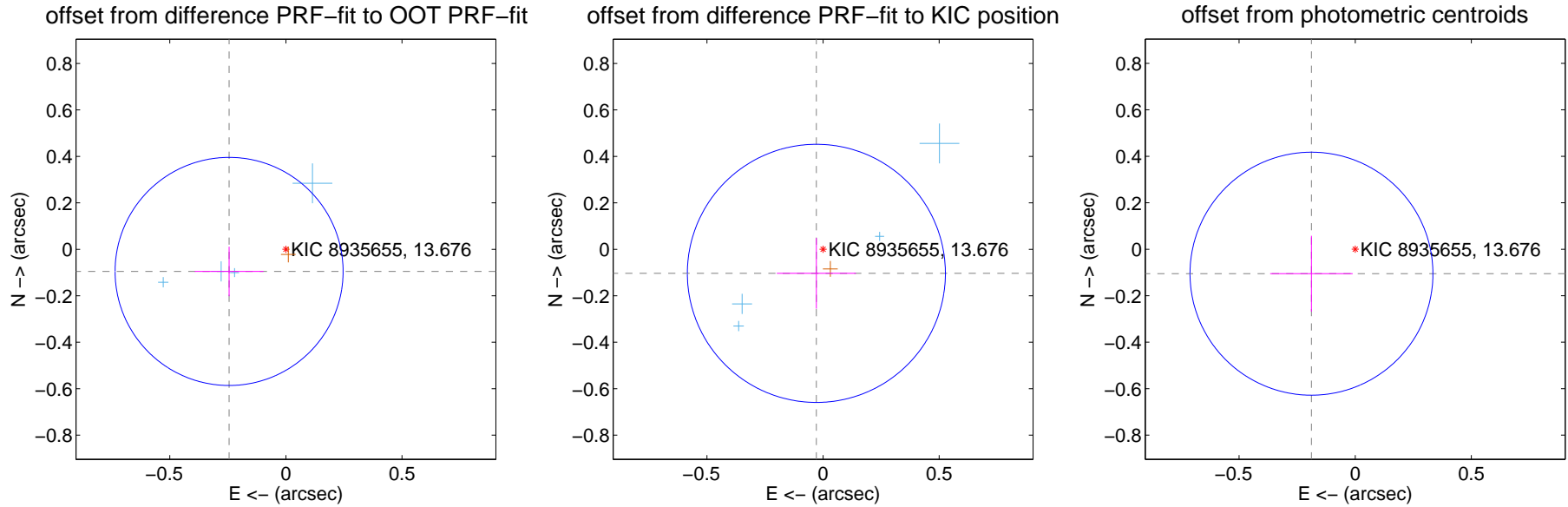
DV Centroid Data

Supplemental centroid analysis for 008935655-02. Kepler magnitude: 13.68. Transit SNR 10.55

There are 4 quarters with good PRF difference image offsets

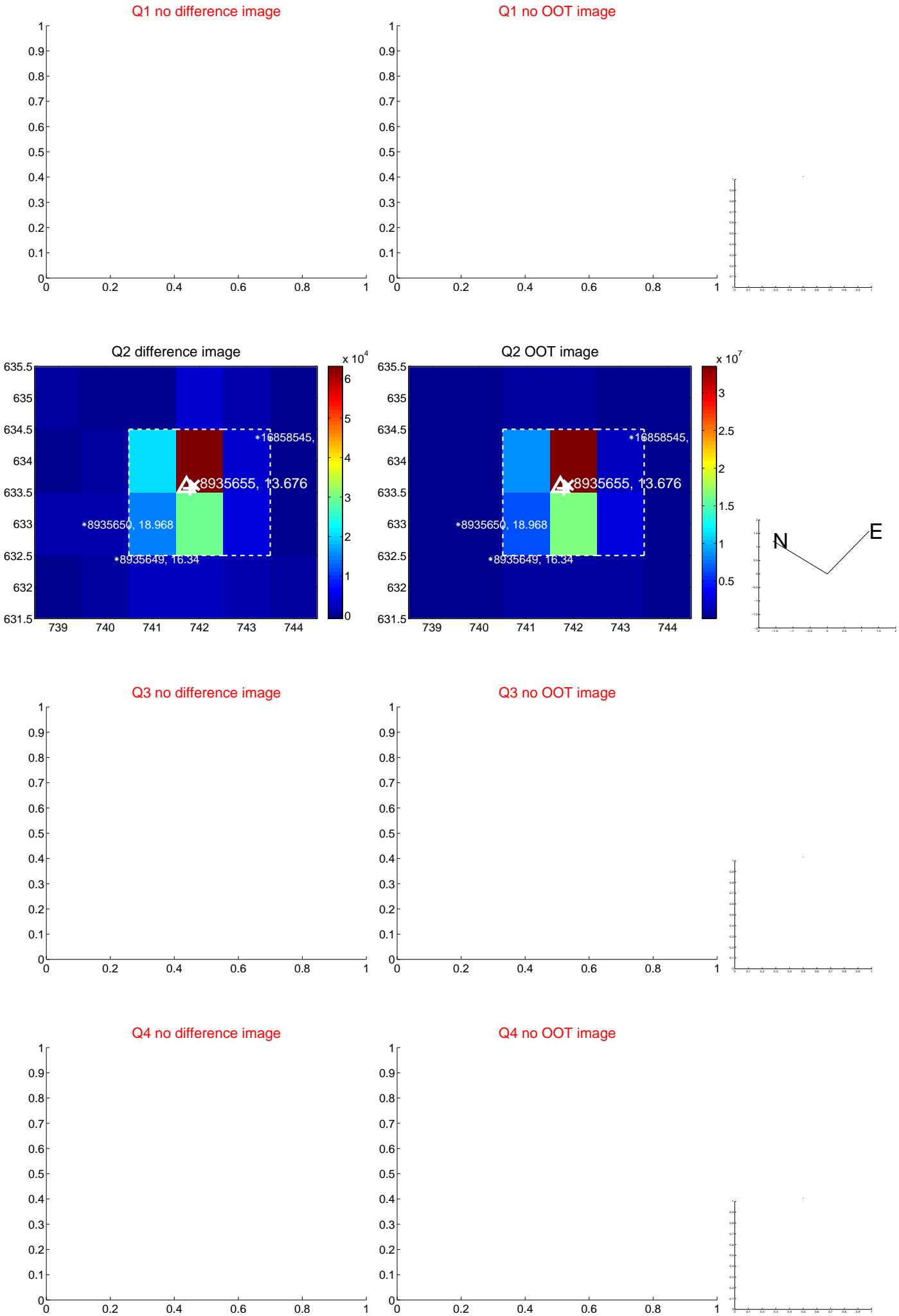
The direct PRF centroid is offset from the target star catalog position by about 0.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.262 ± 0.164	1.60	0.245 ± 0.148	-0.095 ± 0.107
PRF-fit source offset from KIC position	0.107 ± 0.185	0.58	0.029 ± 0.170	-0.104 ± 0.152
photometric centroid source offset	0.22 ± 0.17	1.24	0.19 ± 0.18	-0.11 ± 0.16

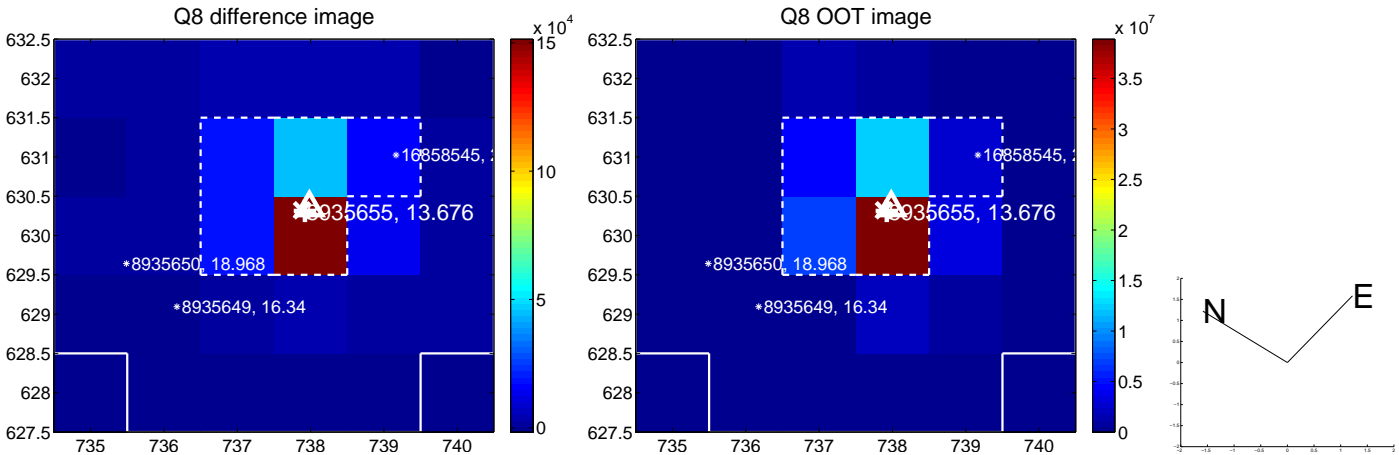
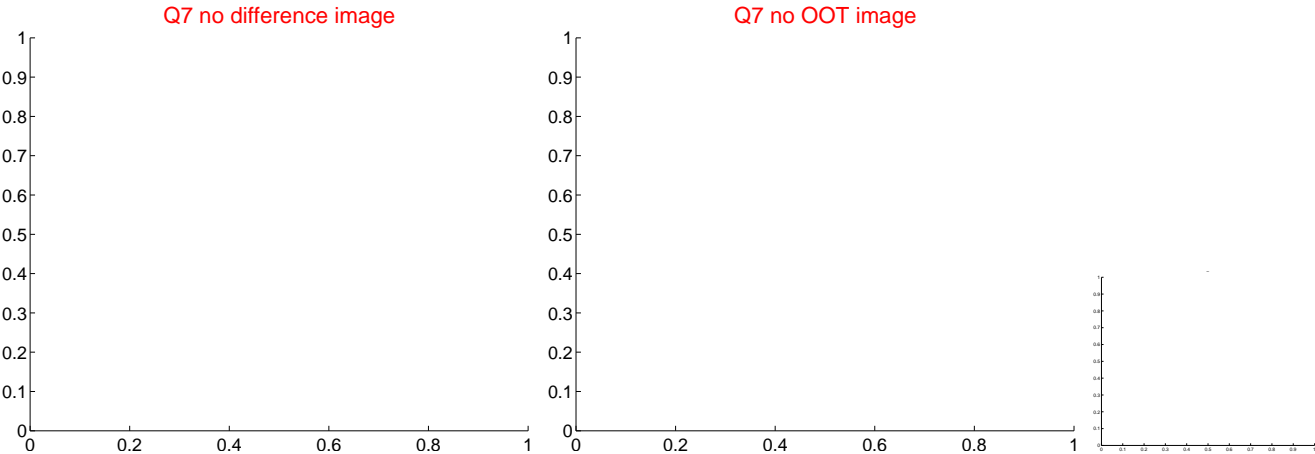
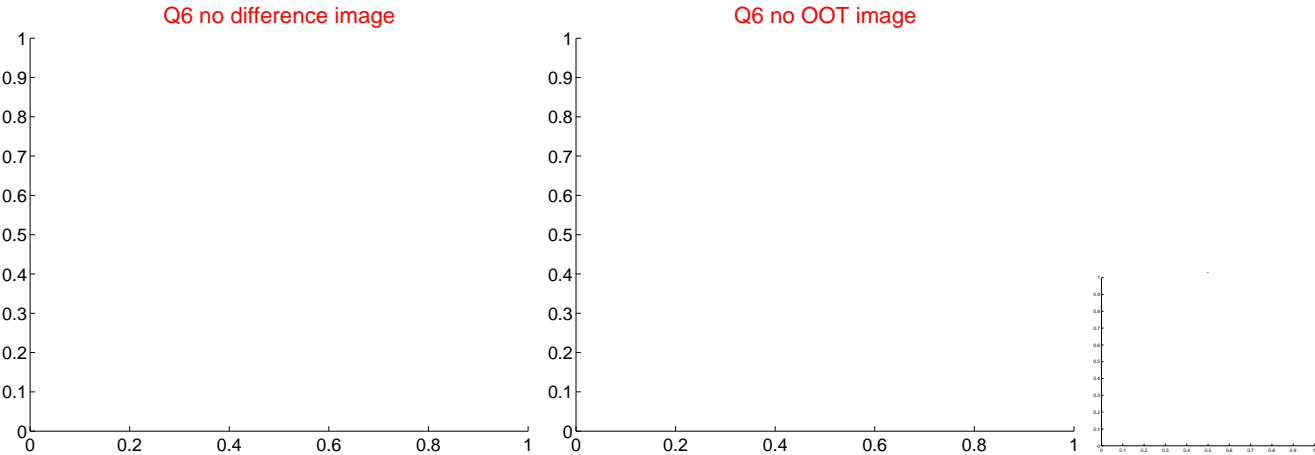
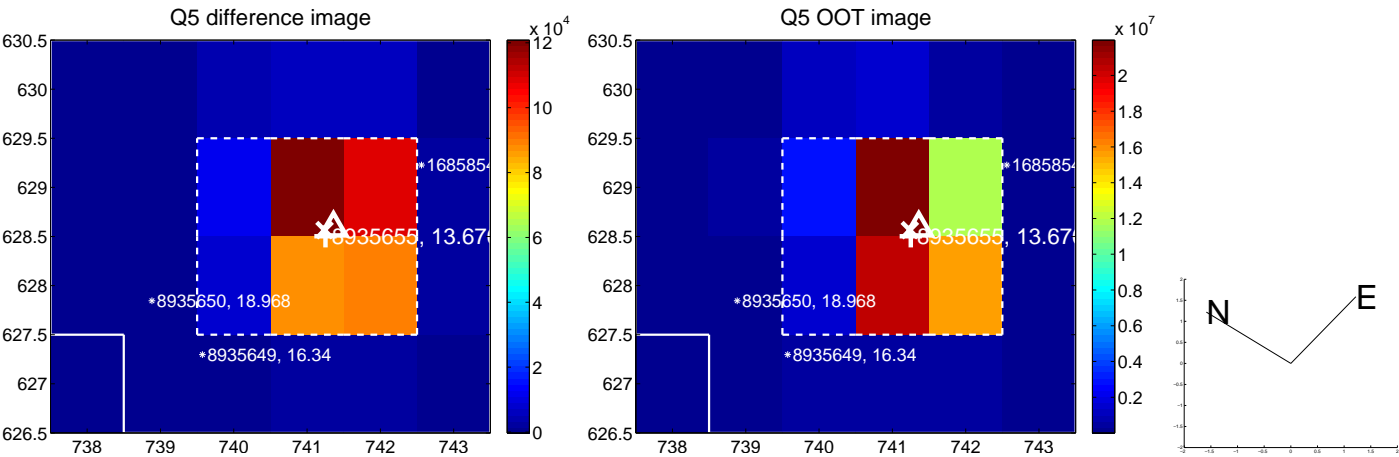


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

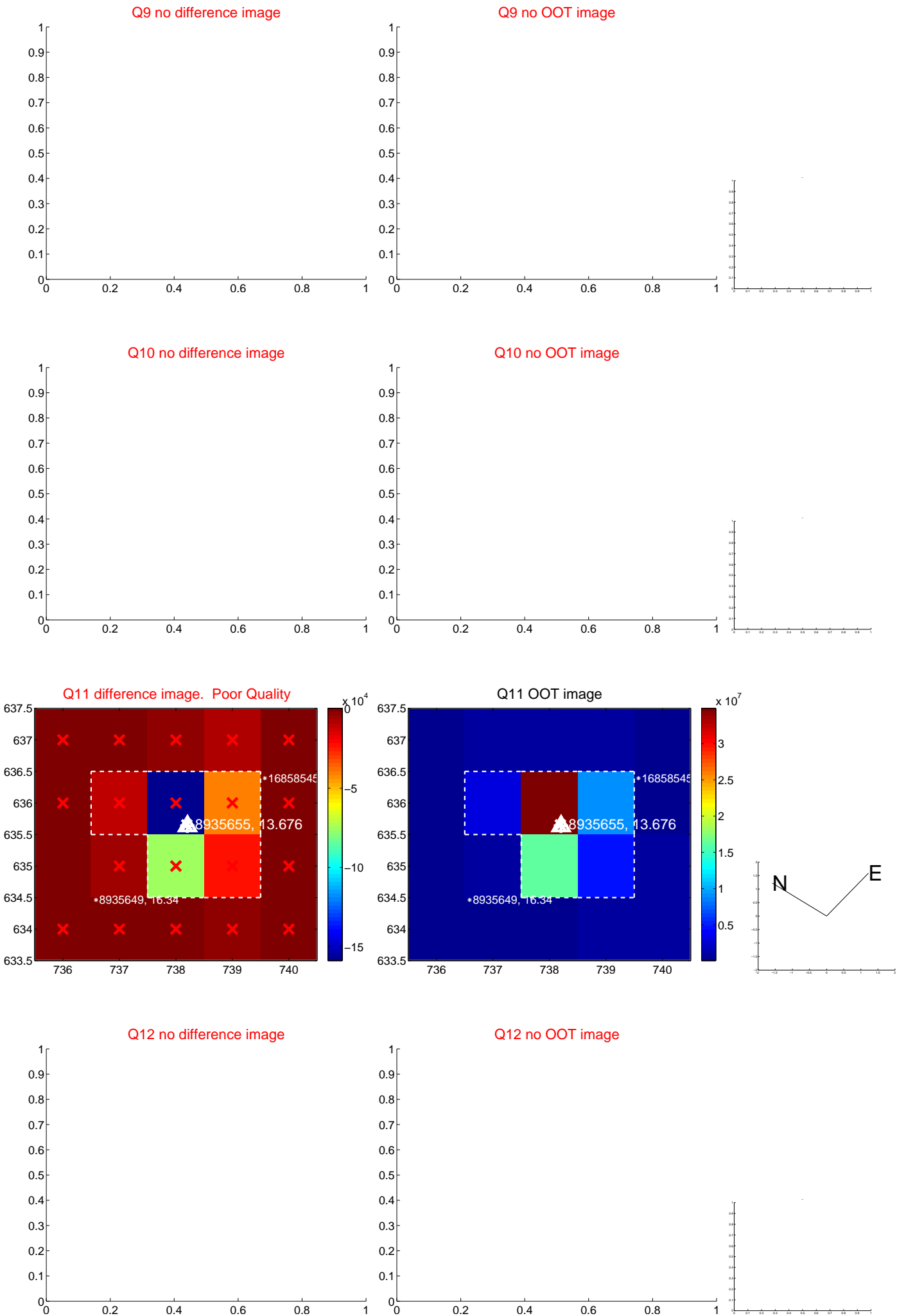
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

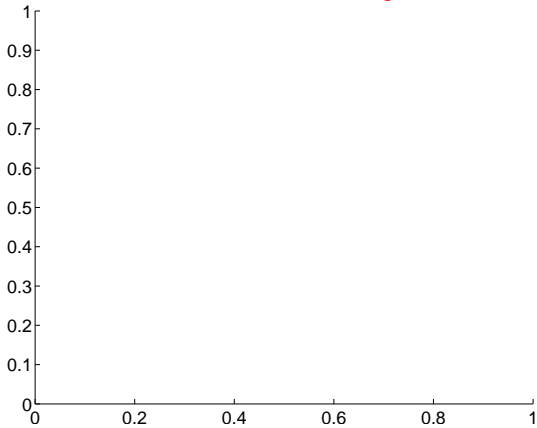


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

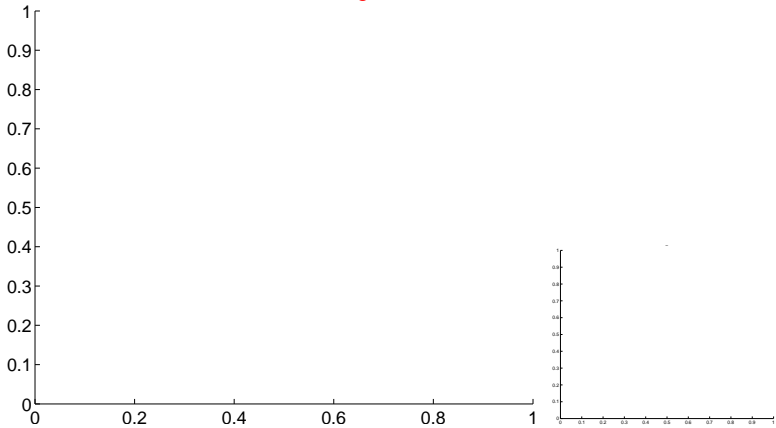


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

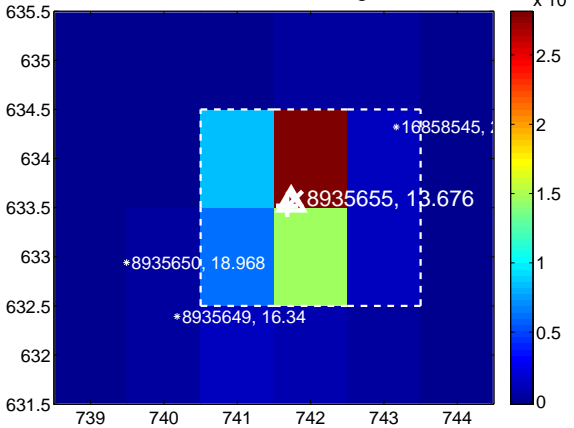
Q13 no difference image



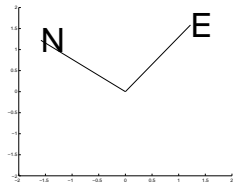
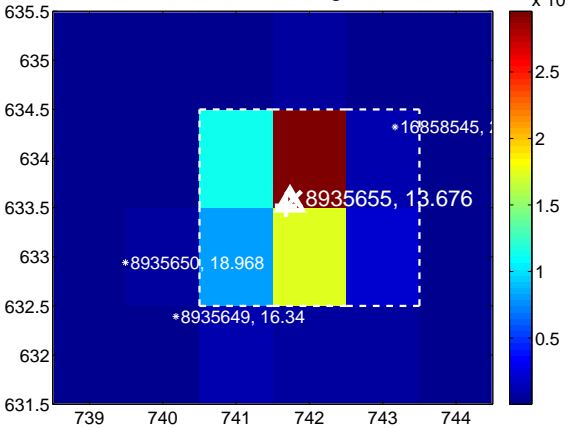
Q13 no OOT image



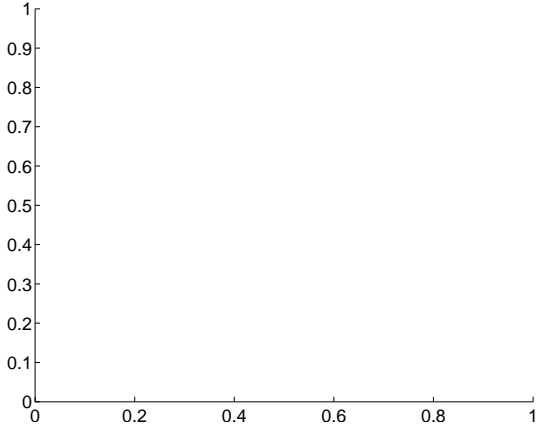
Q14 difference image



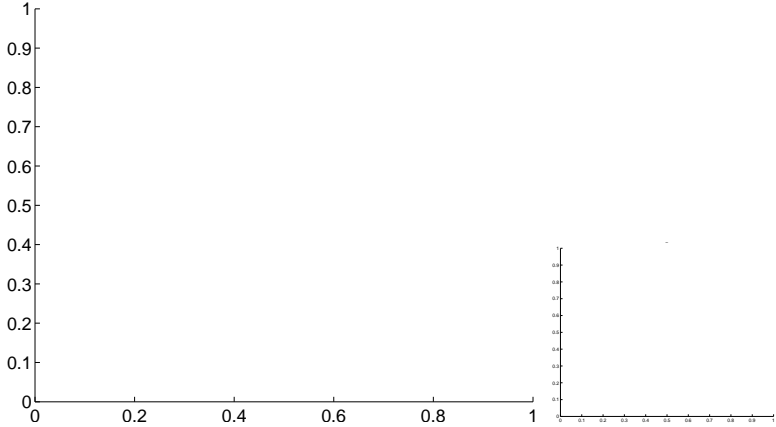
Q14 OOT image



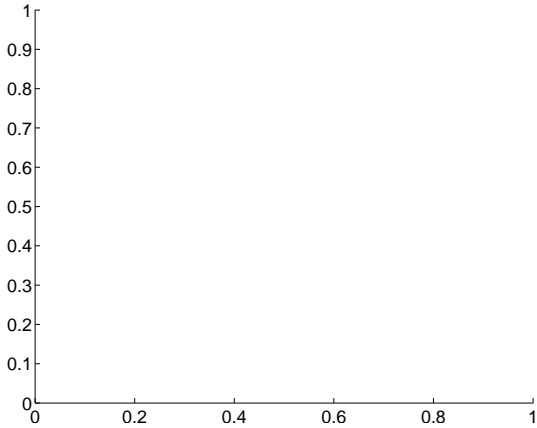
Q15 no difference image



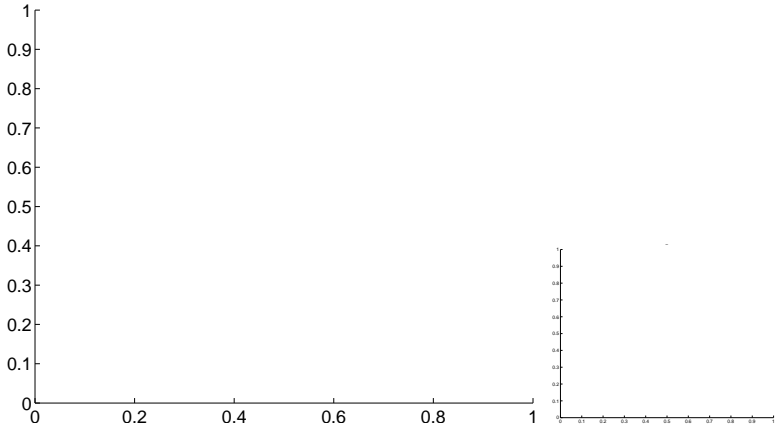
Q15 no OOT image



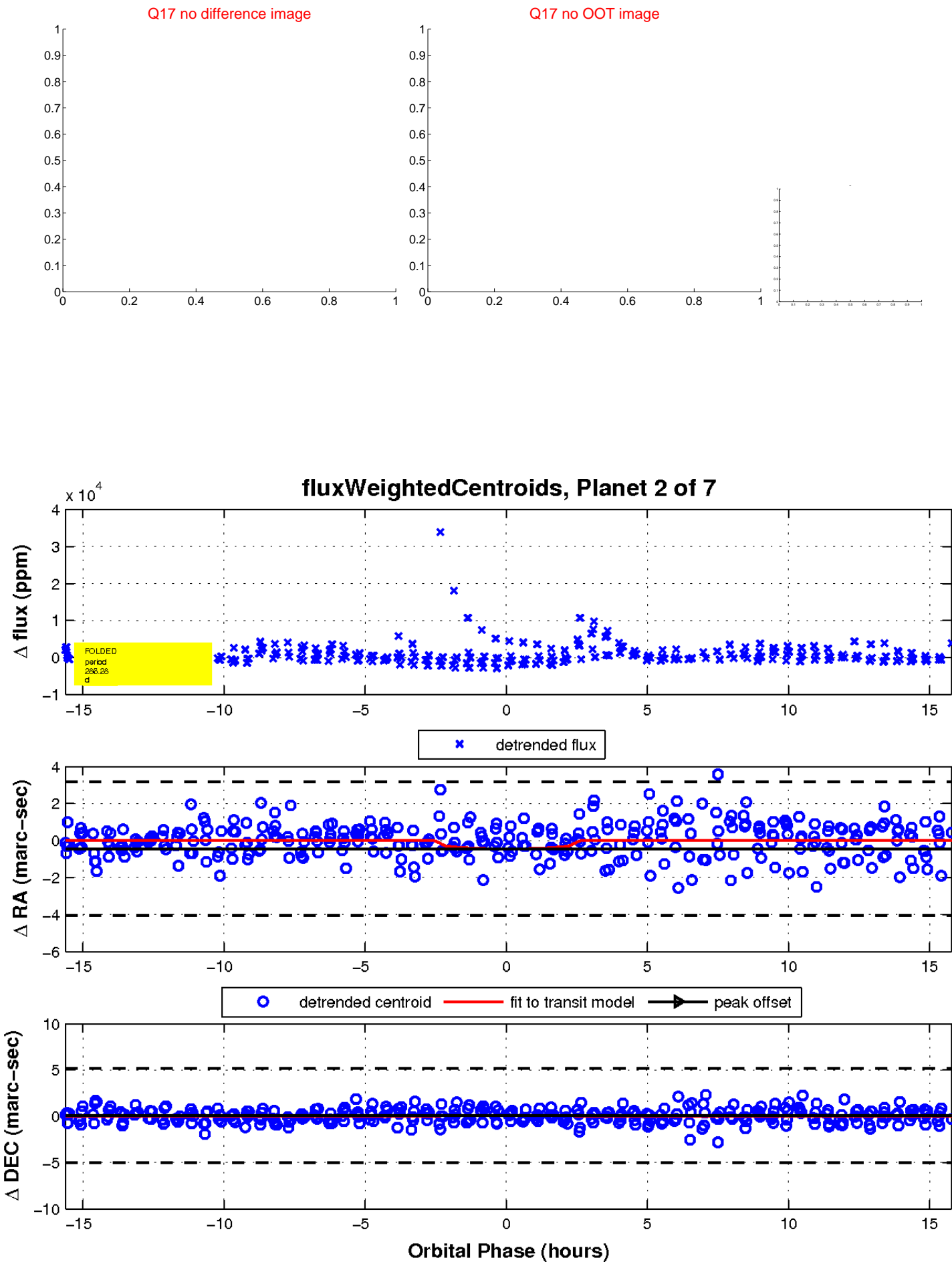
Q16 no difference image



Q16 no OOT image

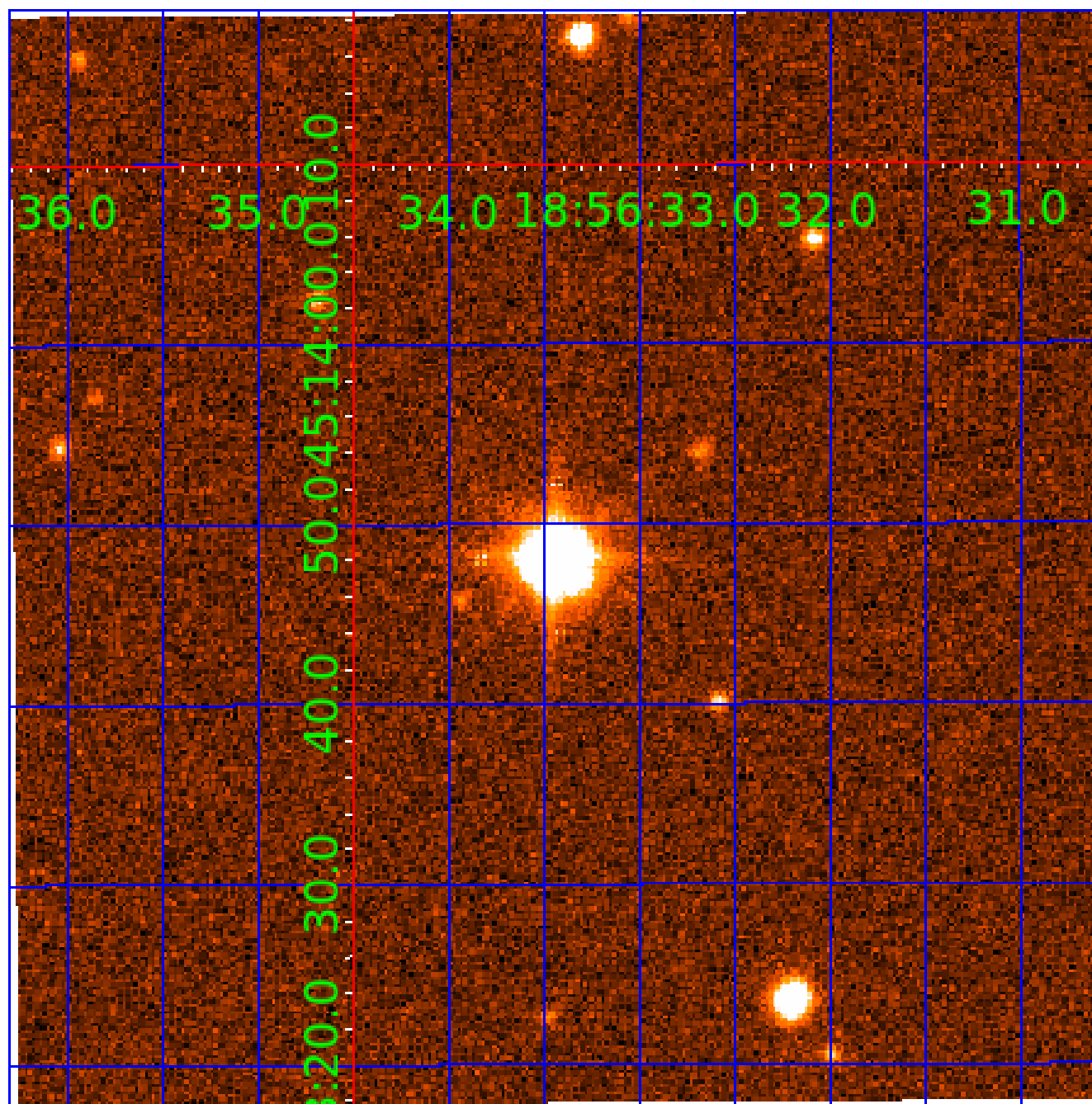


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008935655

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})
008935655-01	OBS	No	386.153577	160.755792	1589.9	9.520	16.6	6.7	0.57	3694	2.34	0.07
008935655-02	OBS	No	286.275178	185.942018	2124.6	5.267	12.2	10.5	0.57	3694	2.77	0.11
008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
008935655-04	OBS	No	406.387478	464.010594	2357.0	21.791	10.4	9.2	0.57	3694	2.69	0.07
008935655-05	OBS	No	166.791179	261.530762	1121.6	3.687	12.5	6.2	0.57	3694	2.03	0.22
008935655-06	OBS	No	364.937563	361.649987	601.7	1.510	12.2	2.1	0.57	3694	1.66	0.08
008935655-07	OBS	No	109.690346	223.875799	598.0	3.000	10.9	-1.0	0.57	3694	1.33	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

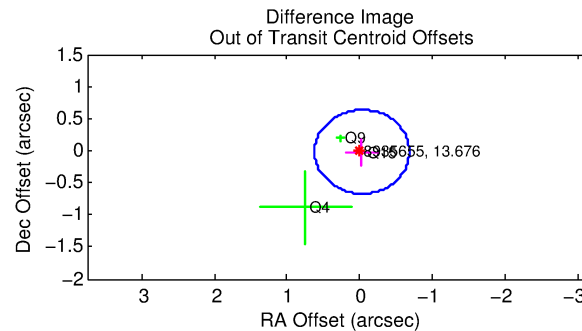
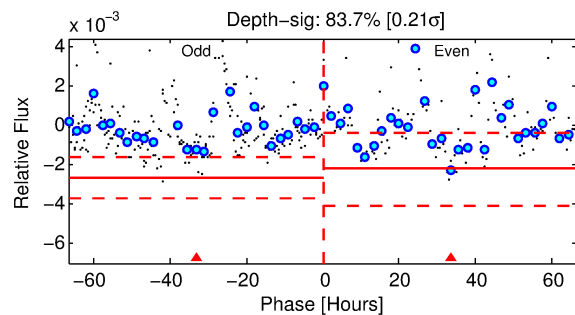
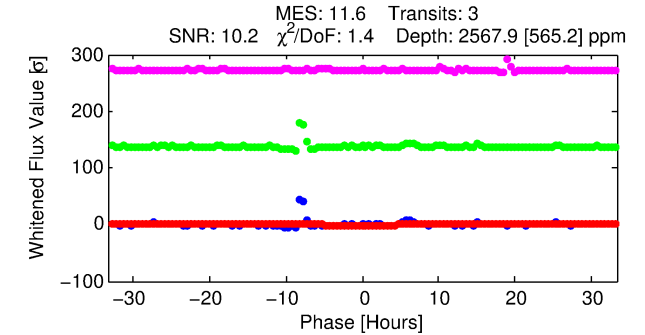
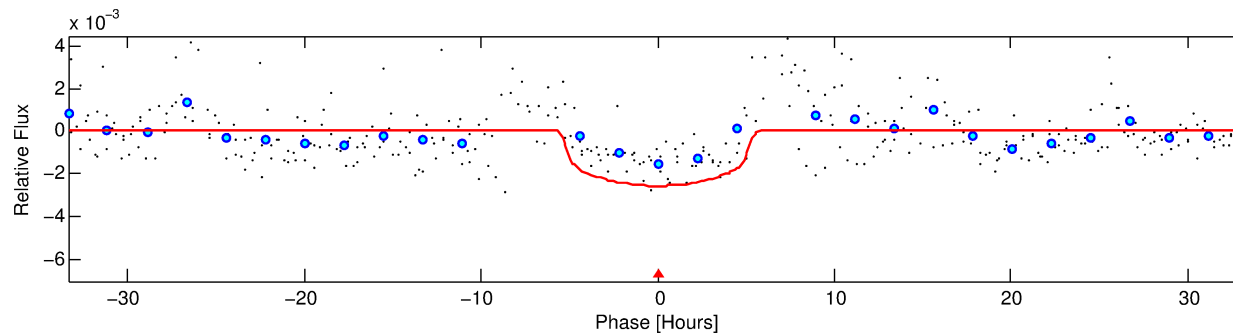
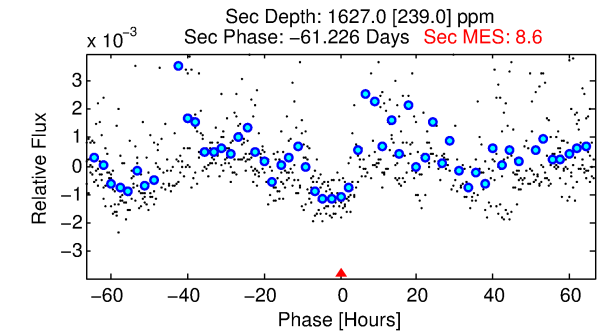
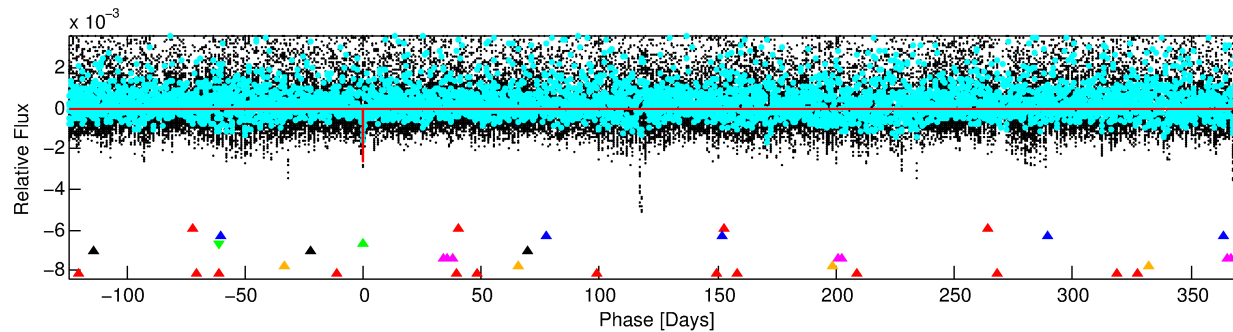
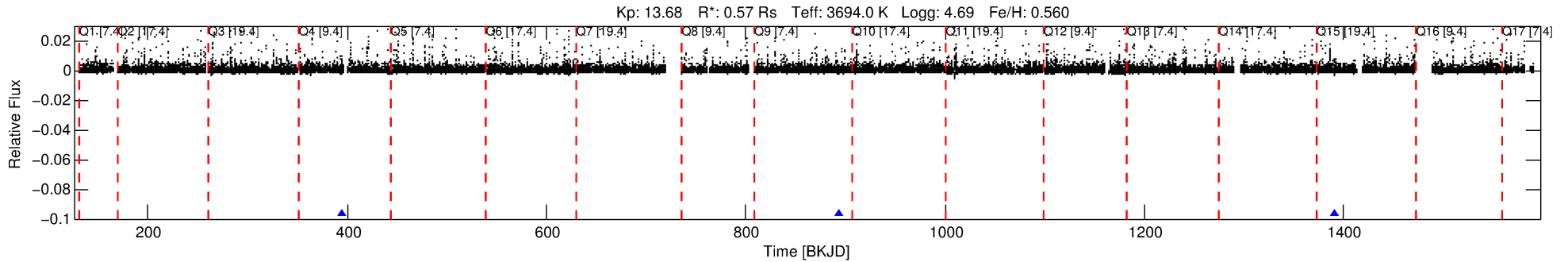
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-03

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 3 of 7 Period: 498.148 d



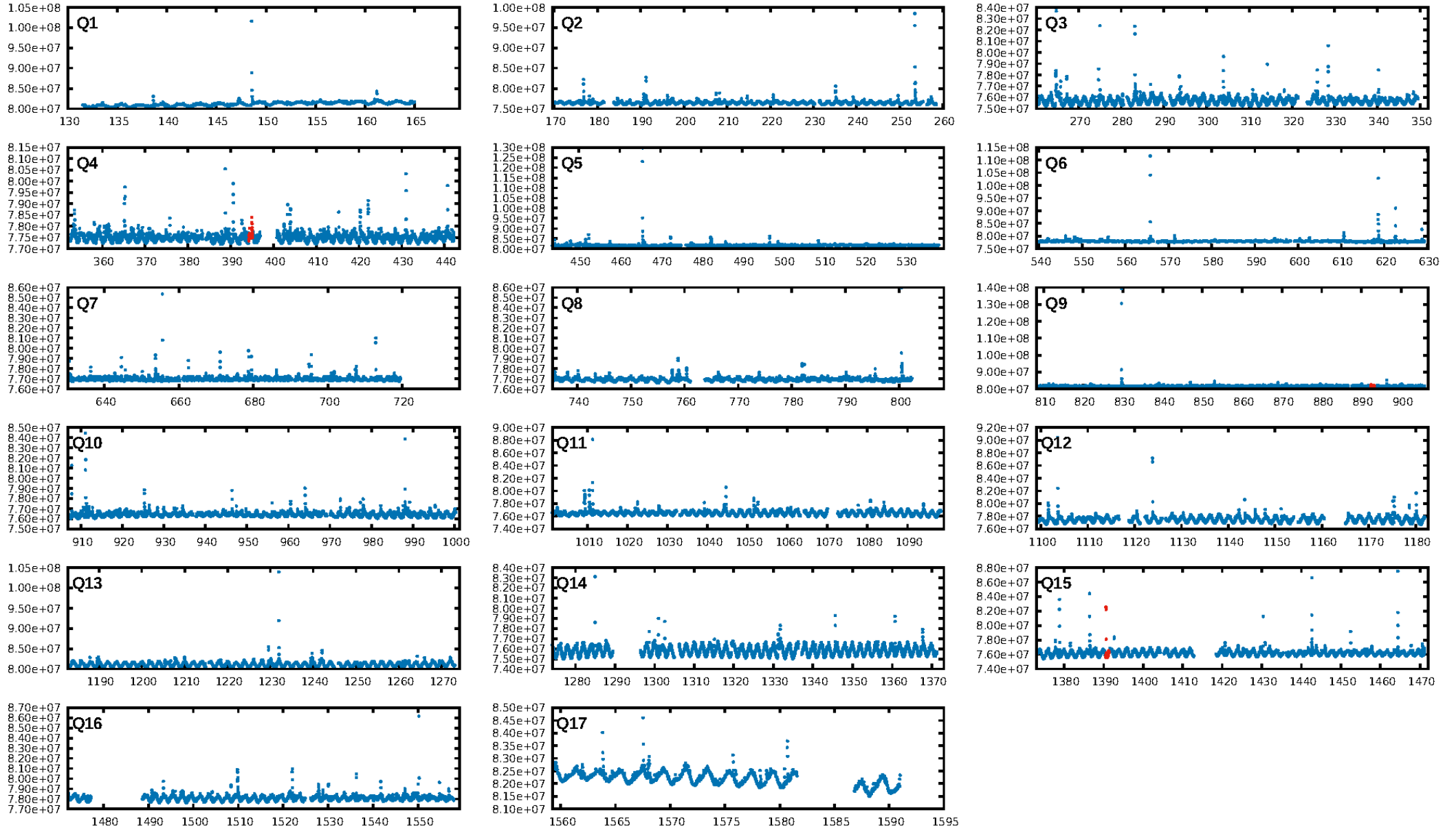
DV Fit Results:

Period = 498.14849 [0.01419] d
Epoch = 394.6538 [0.0198] BKJD
Rp/R* = 0.0463 [0.0241]
a/R* = 321.80 [506.09]
b = 0.46 [2.76]
Seff = 0.05 [0.01]
Teq = 122 [7] K
Rp = 2.86 [1.54] Re
a = 1.0182 [0.1135] AU
Ag = 113602.58 [120708.79] [0.94 σ]
Teffp = 3449 [917] K [3.63 σ]

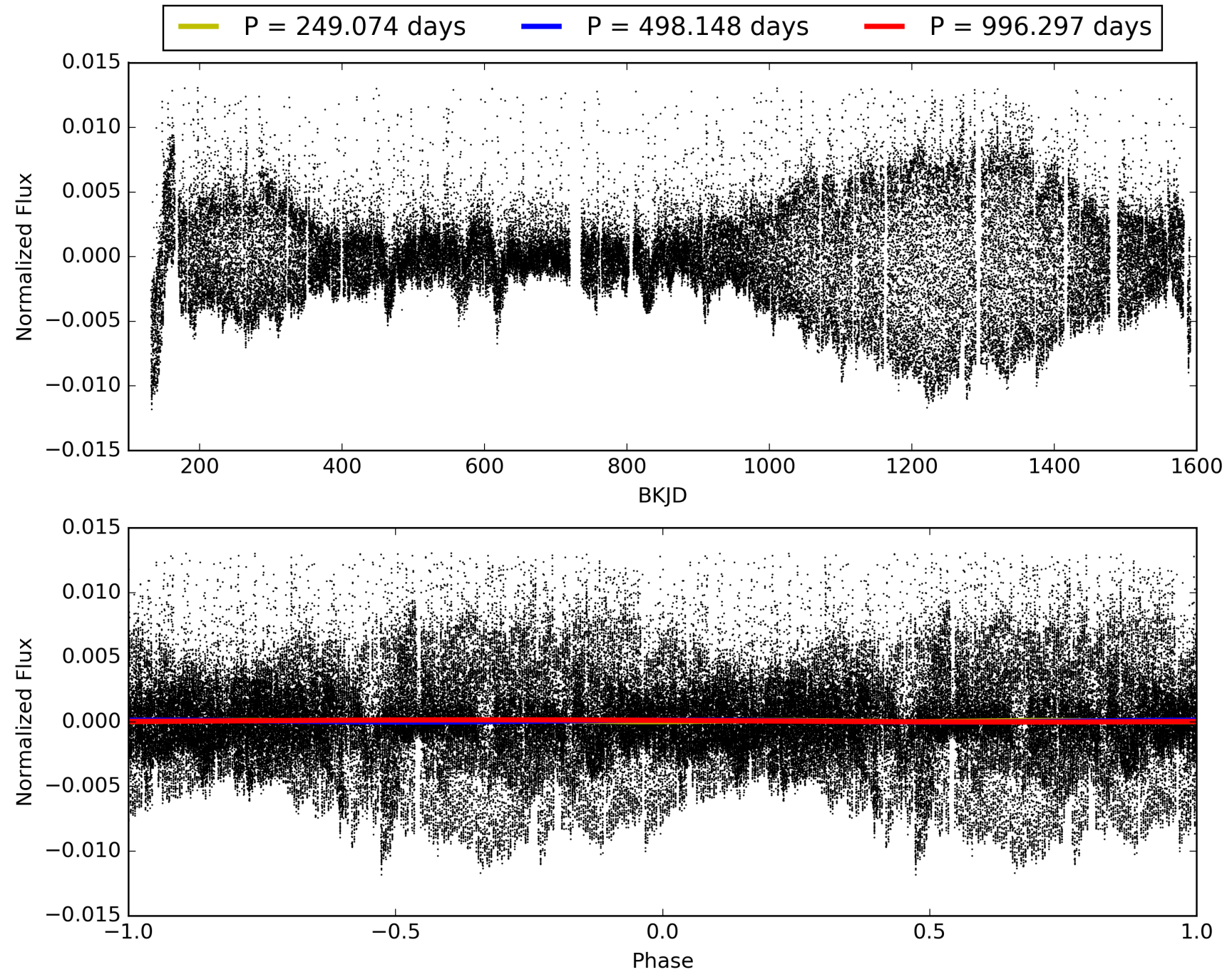
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [90.01 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.6%
ModelChiSquareGof-sig: 95.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.362
Centroid-sig: 77.3%
Centroid-so: 0.091 arcsec [0.71 σ]
OotOffset-rm: 0.036 arcsec [0.16 σ]
KicOffset-rm: 0.104 arcsec [0.47 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008935655-03, PDC Light Curves

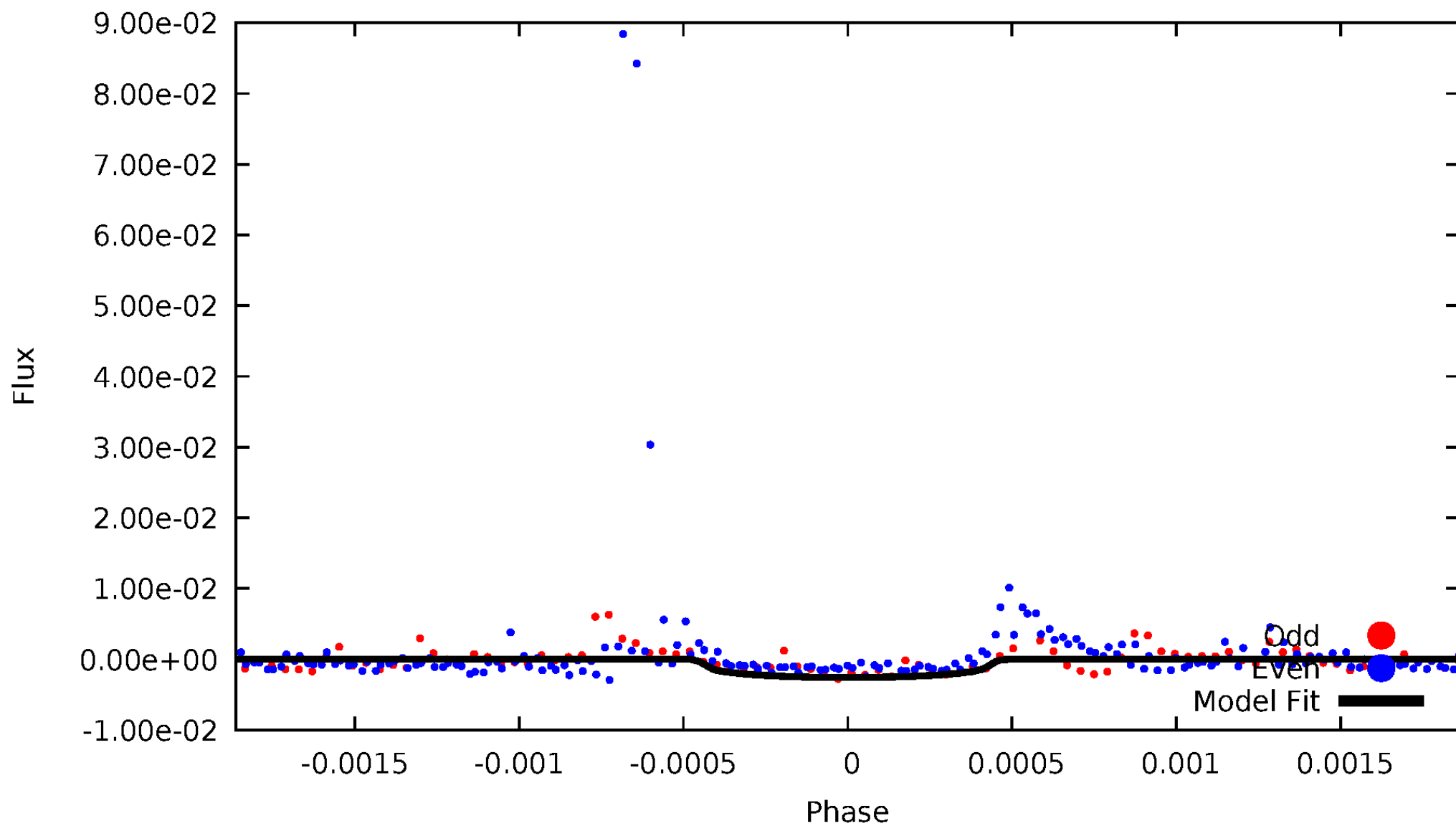


TCE 008935655-03



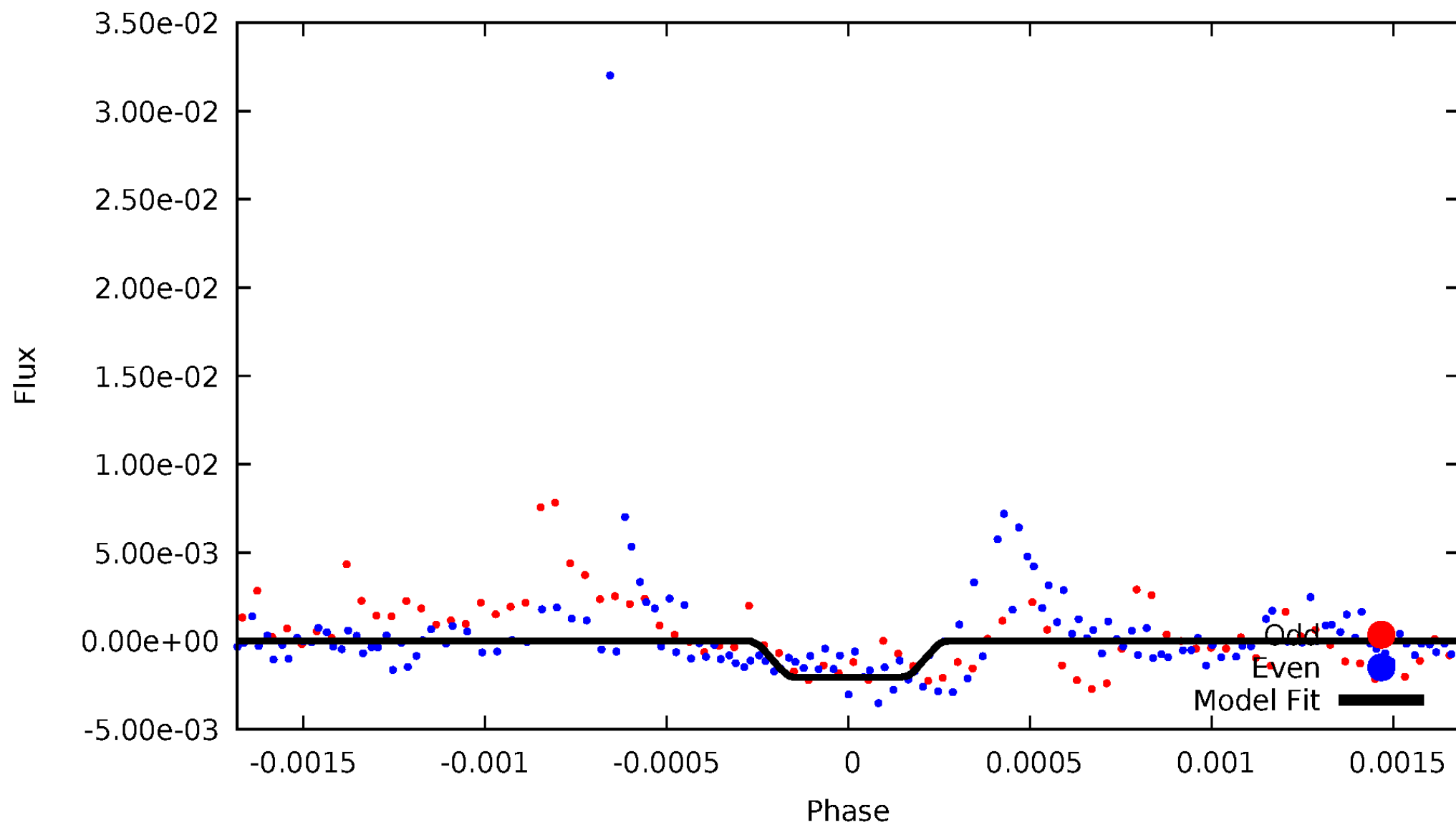
DV Odd/Even

TCE 008935655-03



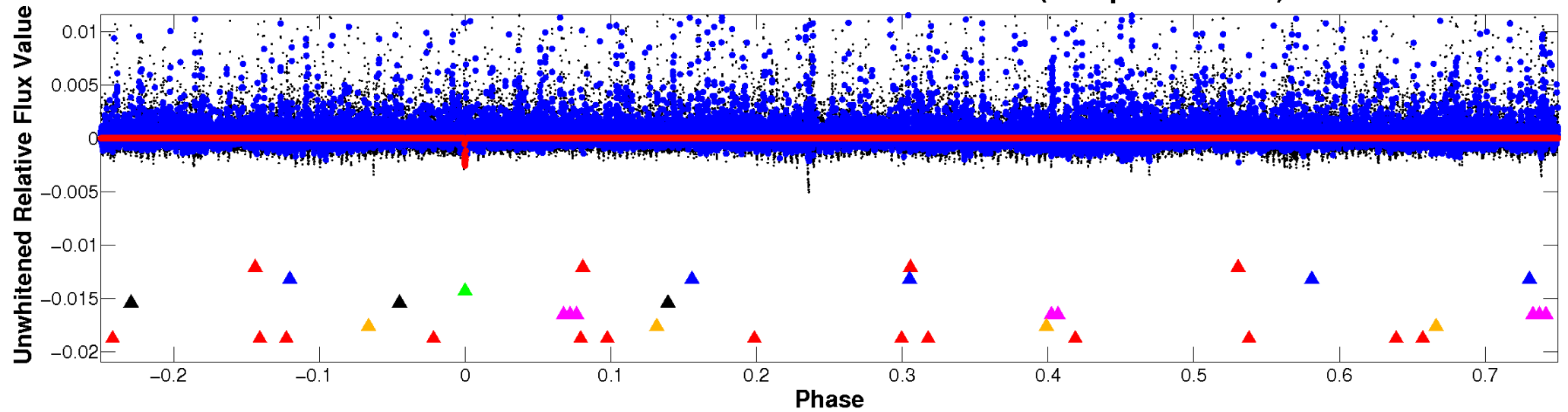
ALT Odd/Even

TCE 008935655-03

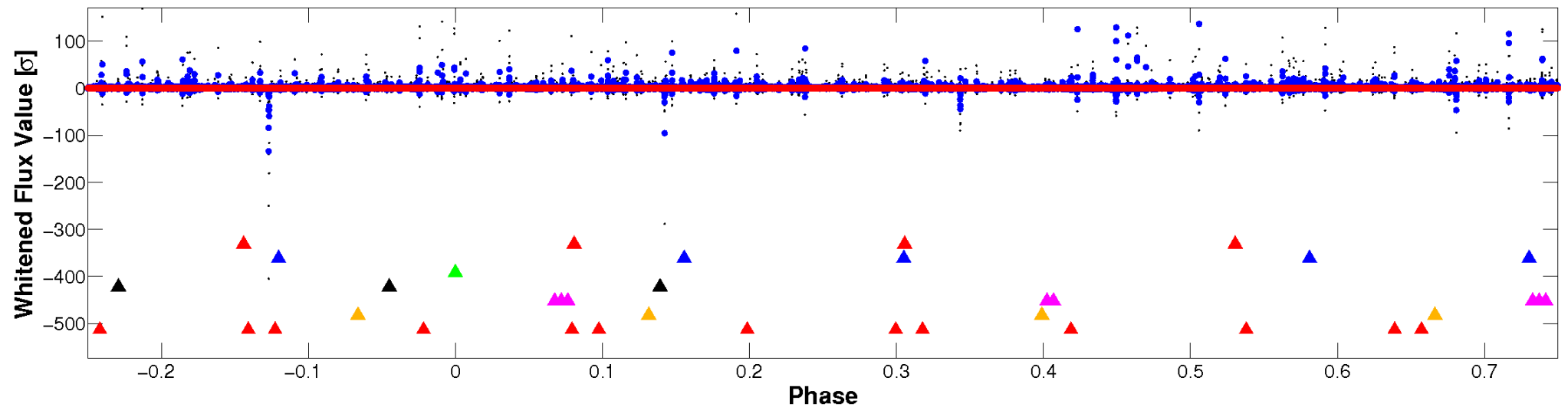


Non-Whitened Vs. Whitened Light Curve

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

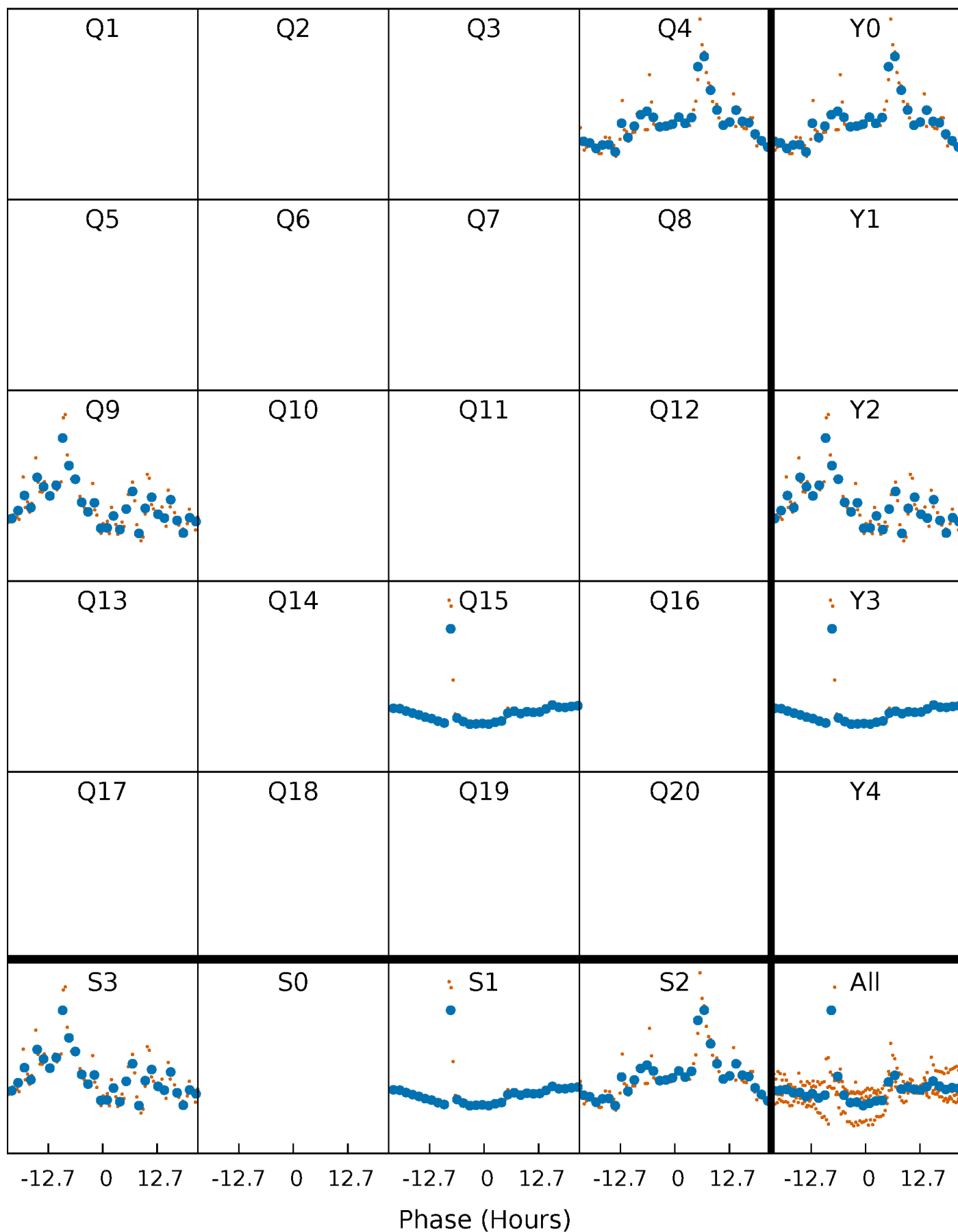


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



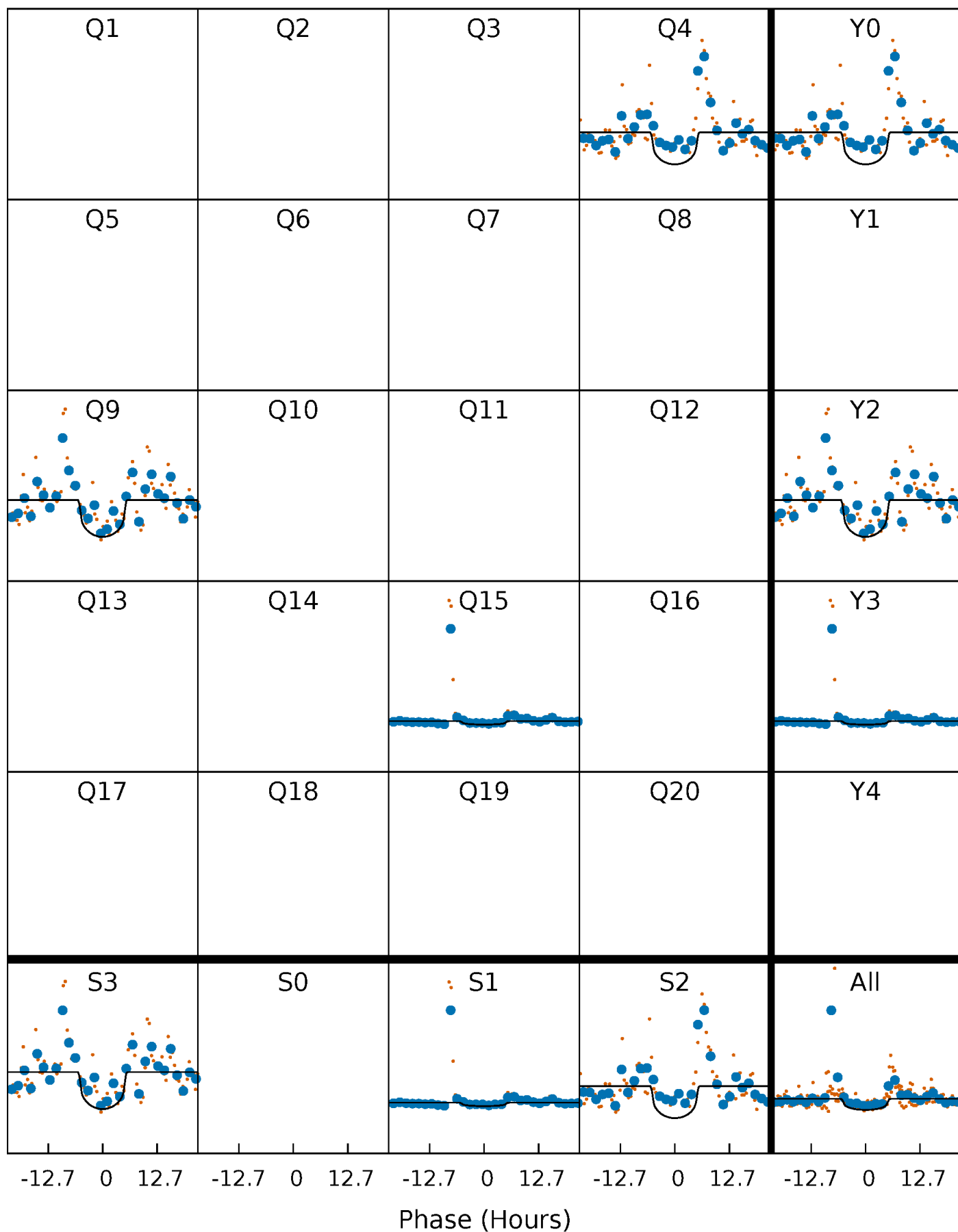
PDC Quarter-Phased Transit Curves

TCE 008935655-03 P=498.148488 Days $T_0=394.653818$ (BKJD)



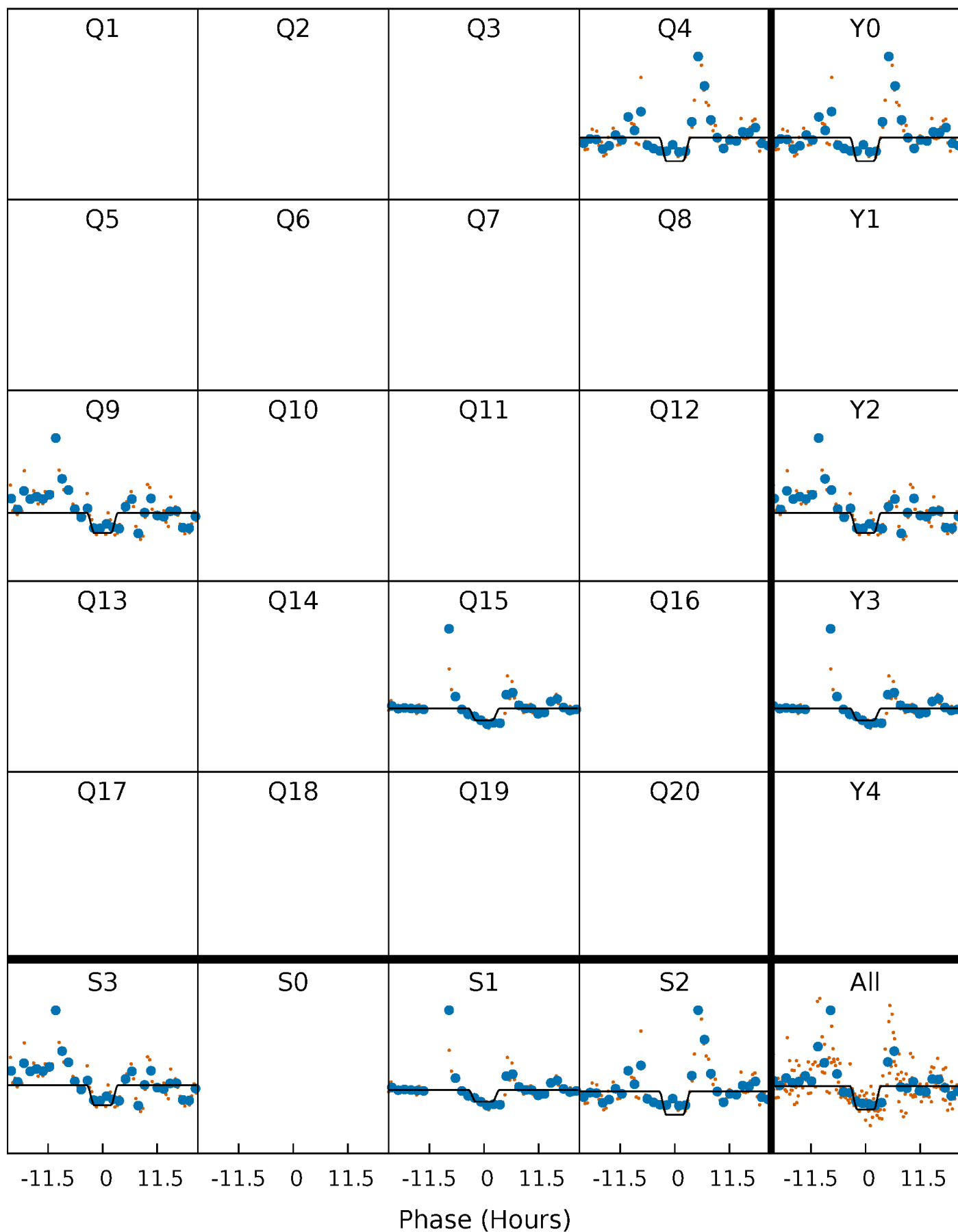
DV Quarter-Phased Transit Curves

TCE 008935655-03 $P=498.148488$ Days $T_0=394.653818$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

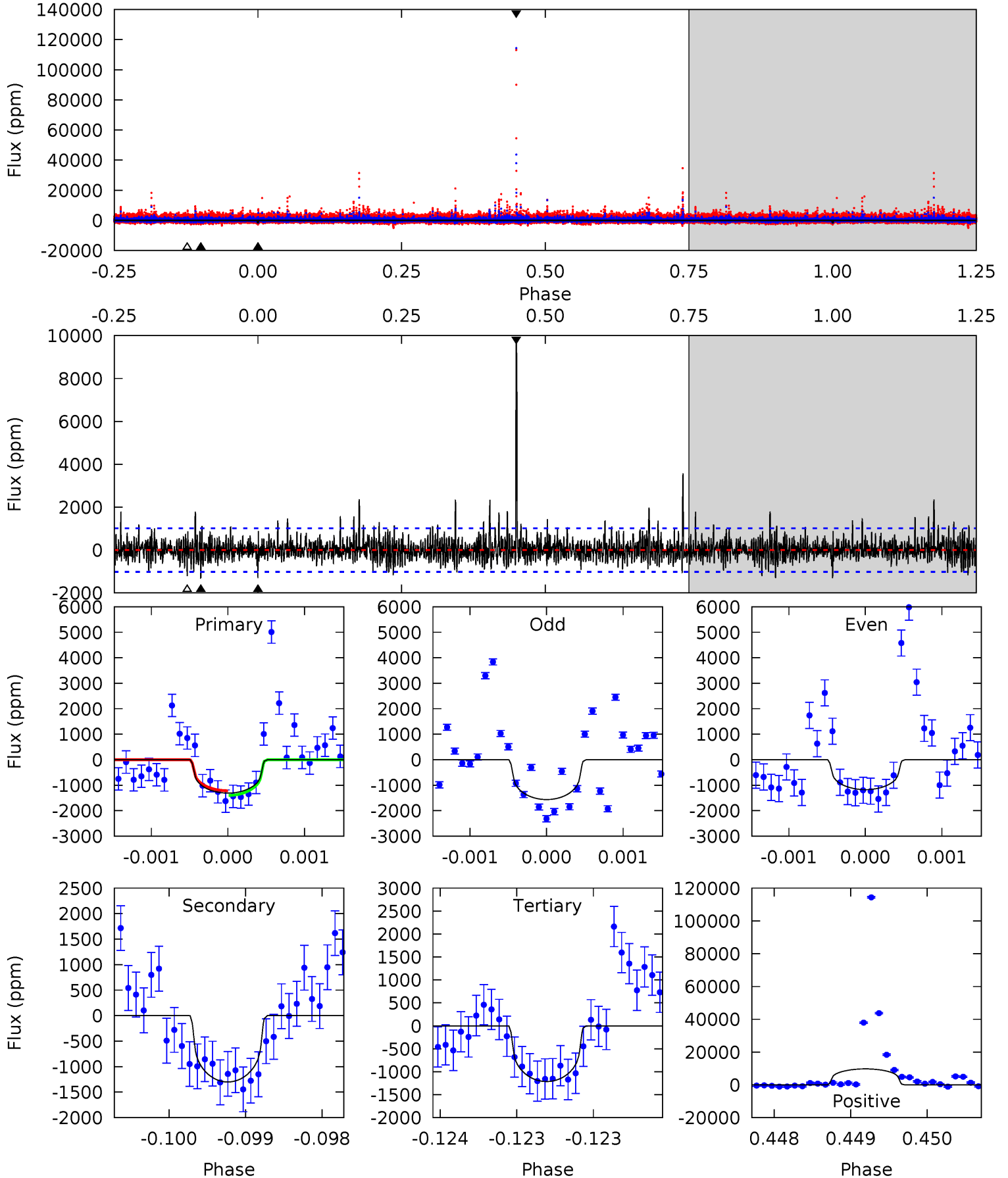
TCE 008935655-03 $P=498.136137$ Days $T_0=394.705694$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-03, P = 498.148488 Days, E = 394.653818 Days

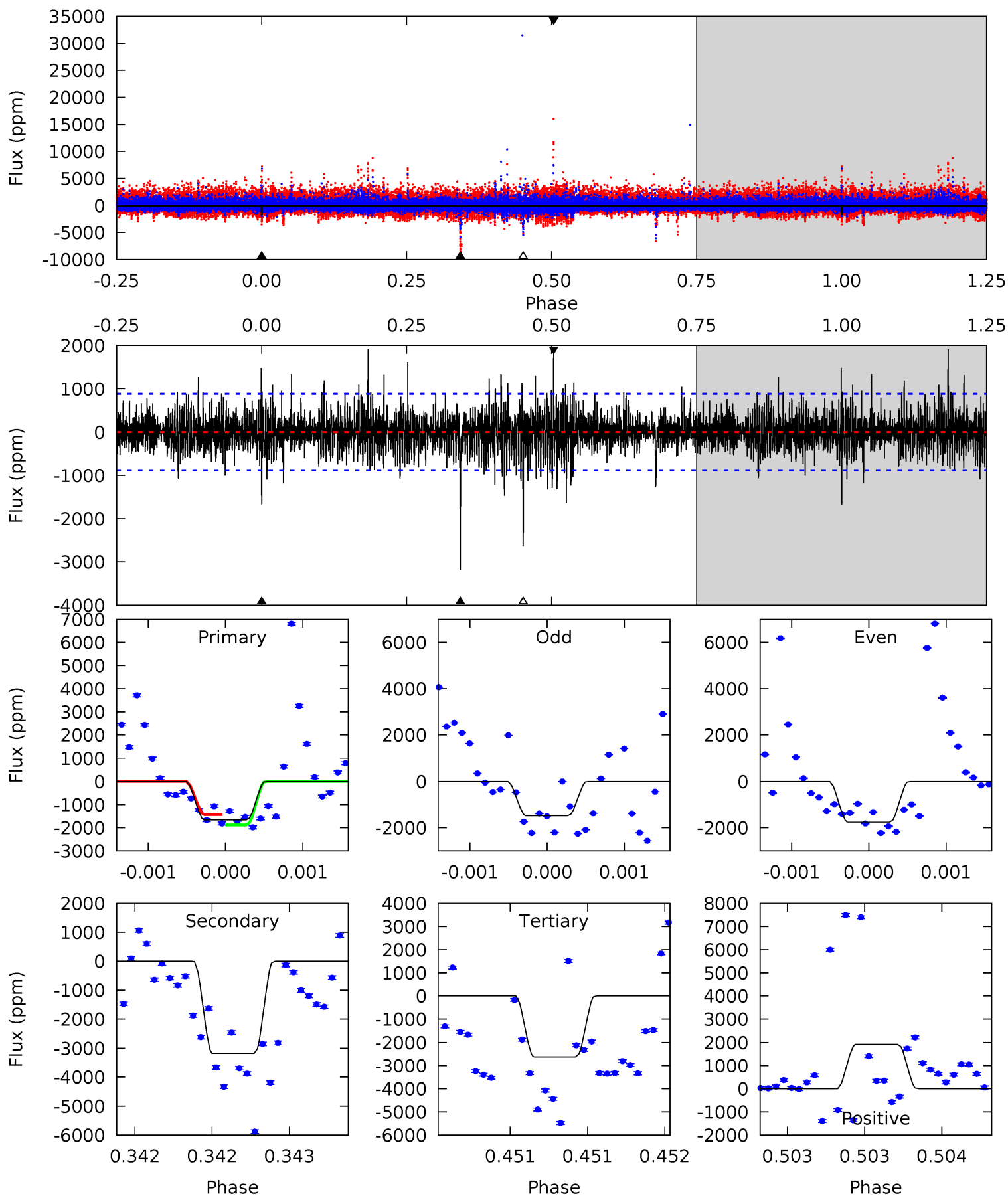
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.06	7.01	6.55	52.5	5.46	3.30	2.65	0.51	-45.5	0.47	-45.5	0.38	0.92	0.88	0.50



Alt Model-Shift Uniqueness Test

008935655-03, P = 498.136137 Days, E = 394.705694 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	20.1	16.6	12.1	5.56	3.46	2.15	-6.04	-1.58	3.52	7.98	0.70	1.12	0.38	1.46



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1300 ± 185	$2.76^{+1.55}_{-1.25}$	167^{+7}_{-7}	3395^{+845}_{-408}	$96584^{+245329}_{-55265}$
Alt.	-3181 ± 158	$2.74^{+1.40}_{-1.23}$	168^{+7}_{-8}	3957^{+1061}_{-541}	$240577^{+560876}_{-132430}$

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

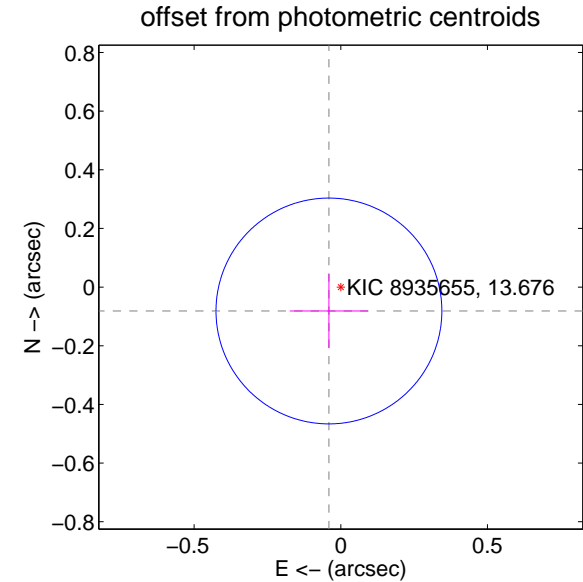
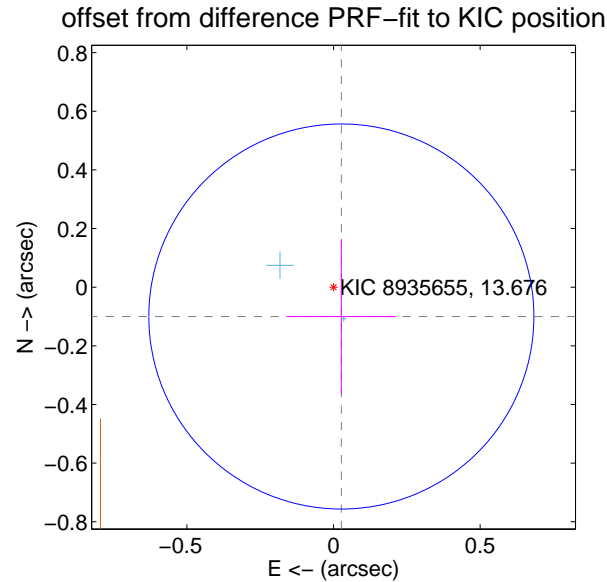
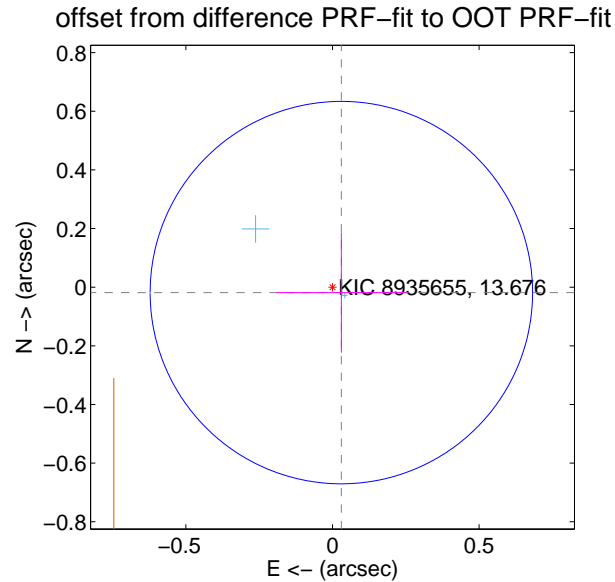
DV Centroid Data

Supplemental centroid analysis for 008935655-03. Kepler magnitude: 13.68. Transit SNR 10.15

There are 2 quarters with good PRF difference image offsets

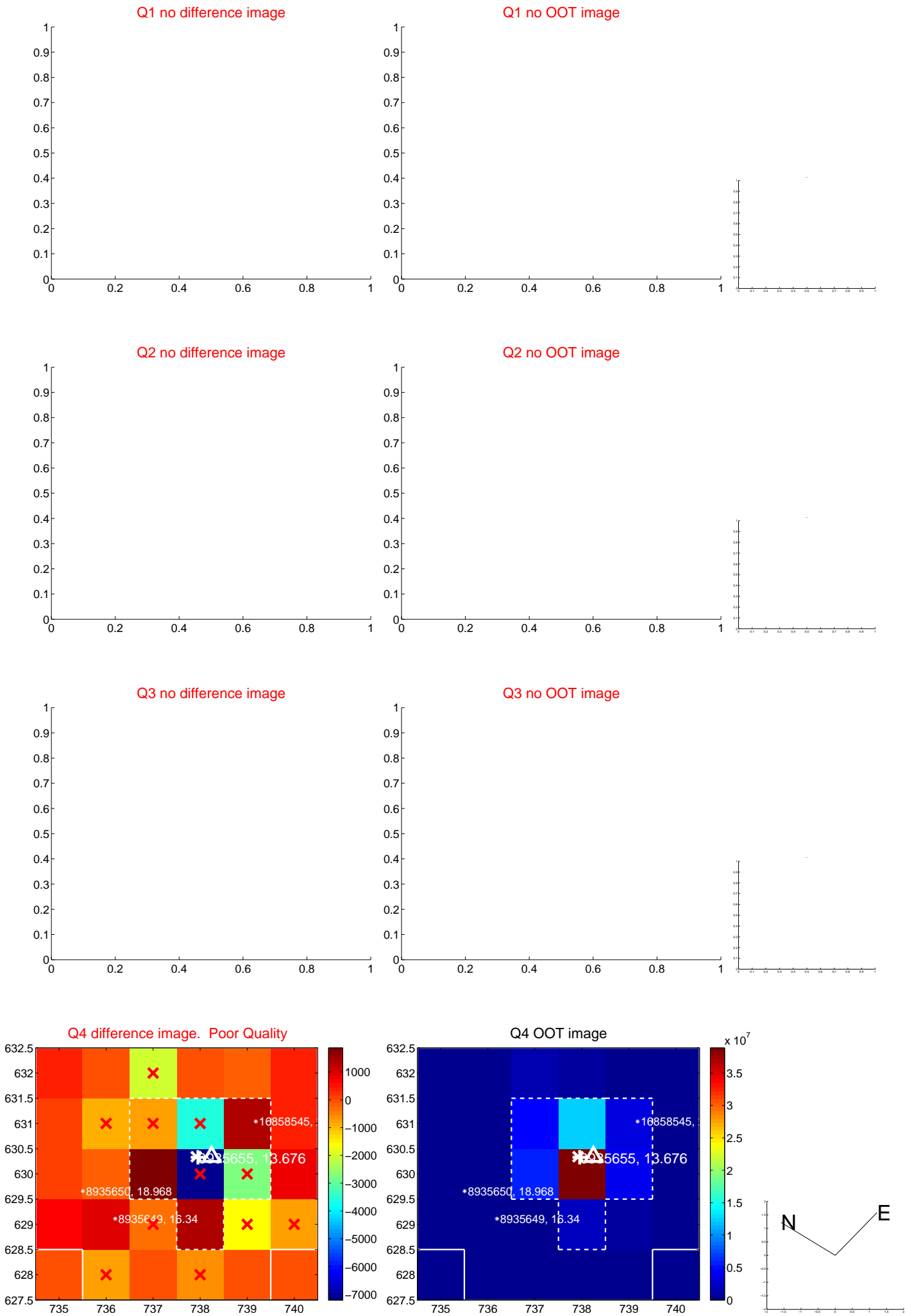
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.036 ± 0.217	0.16	-0.030 ± 0.222	-0.019 ± 0.205
PRF-fit source offset from KIC position	0.104 ± 0.219	0.47	-0.027 ± 0.187	-0.100 ± 0.264
photometric centroid source offset	0.09 ± 0.13	0.71	0.04 ± 0.13	-0.08 ± 0.13



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

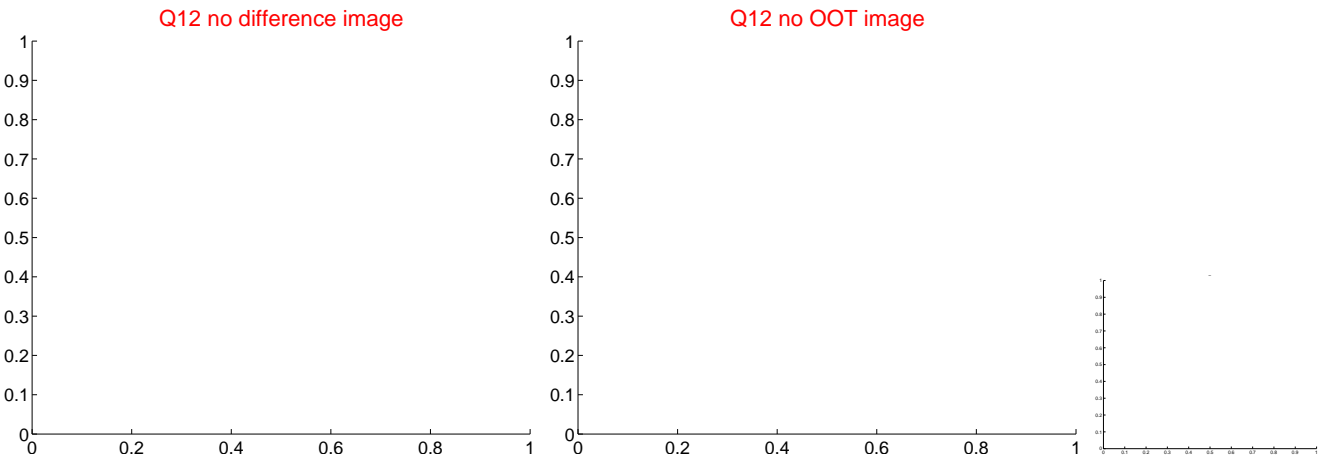
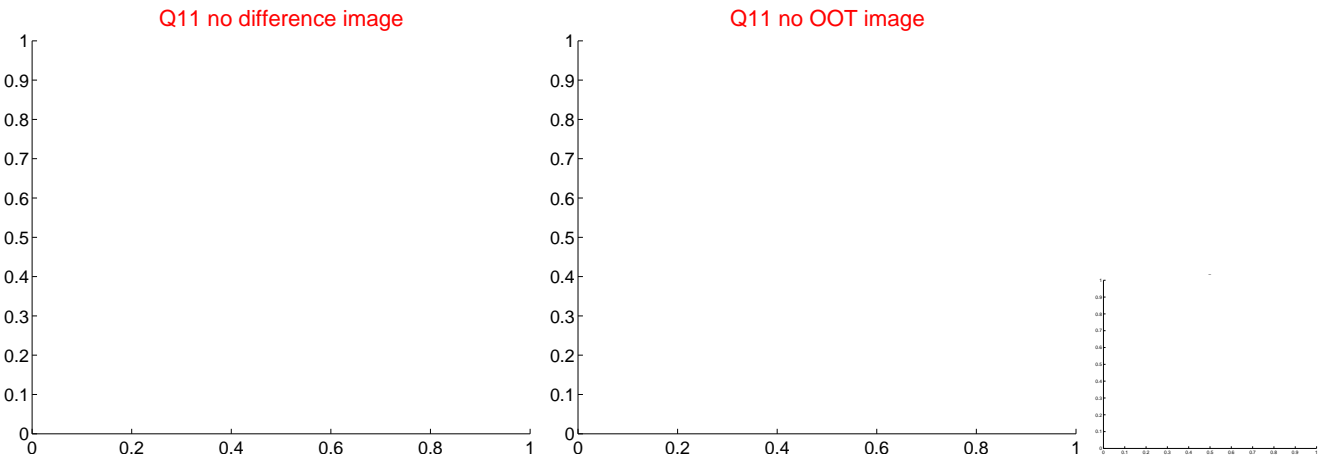
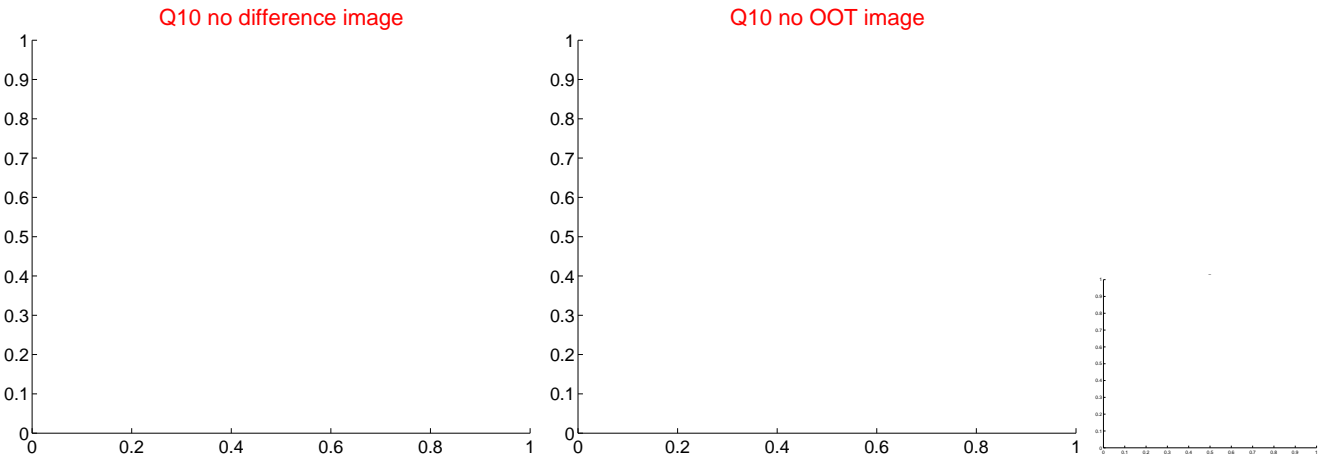
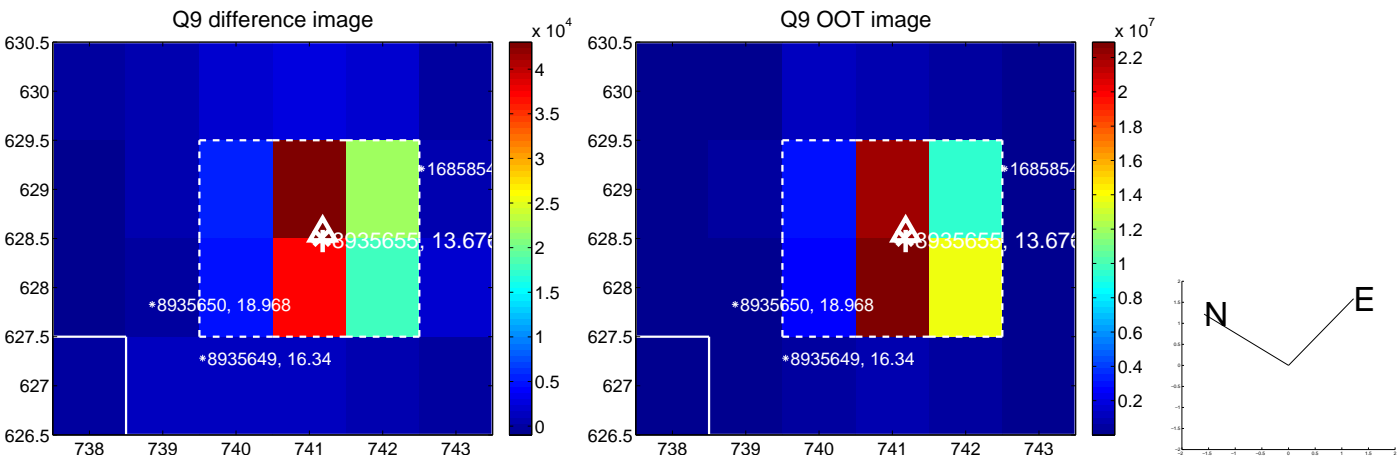
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



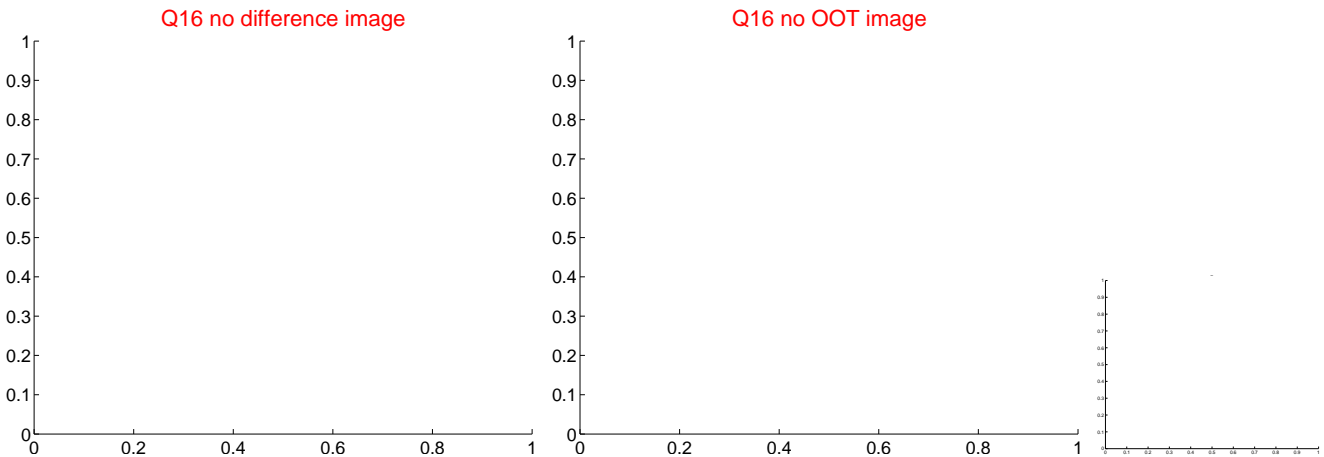
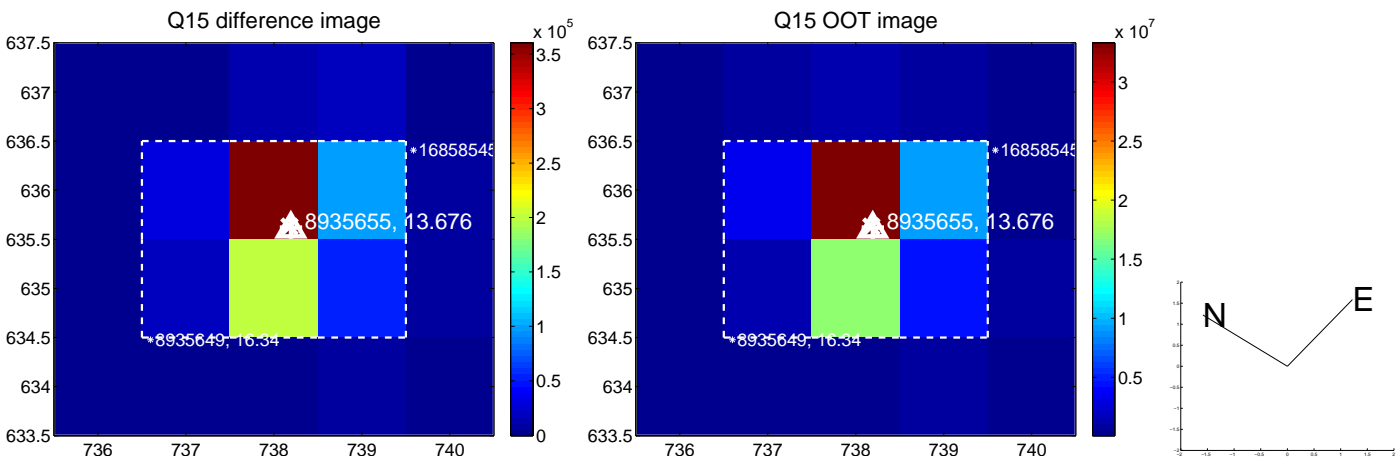
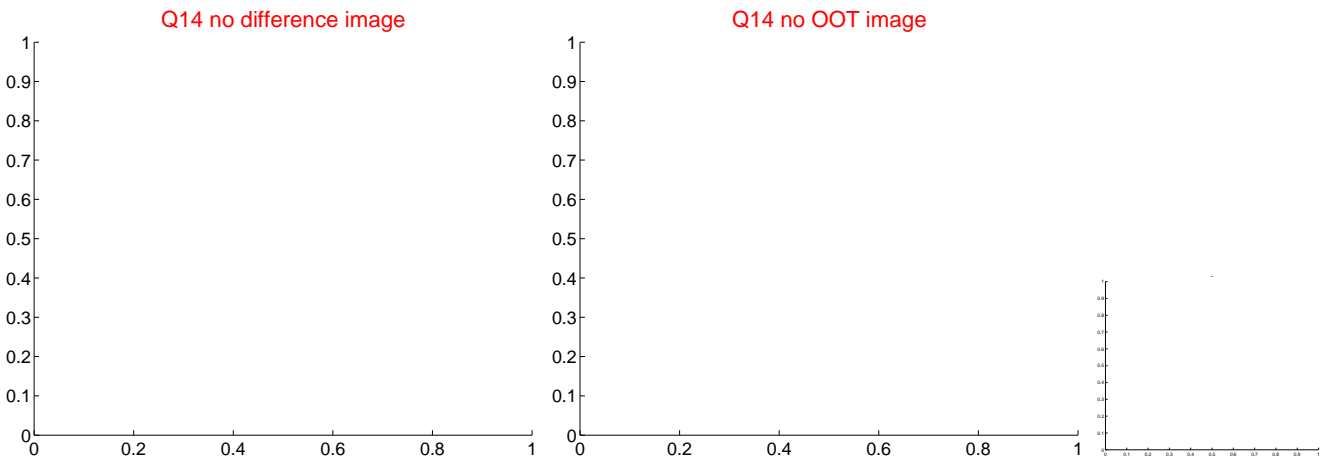
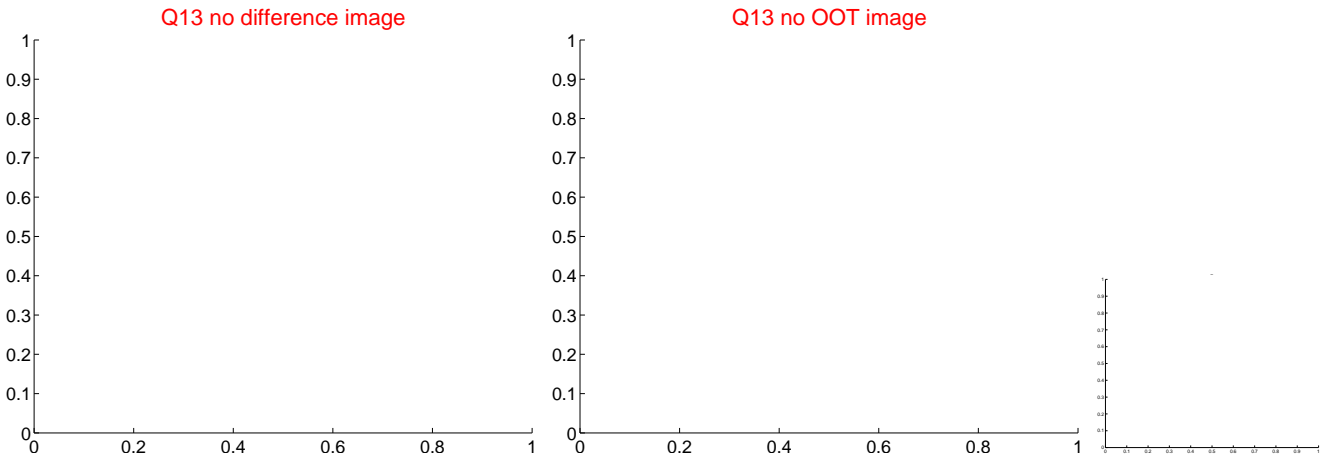
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



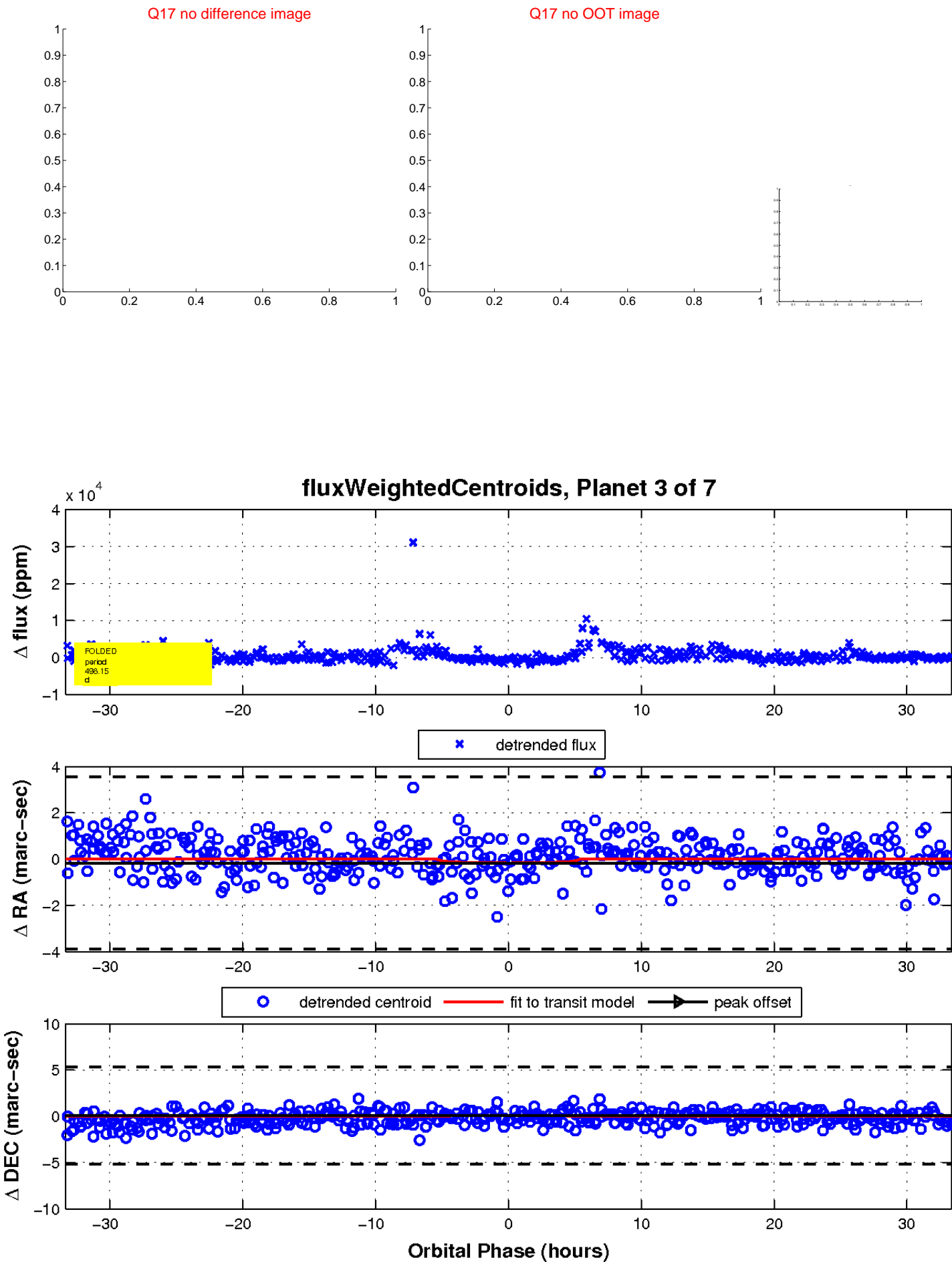
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

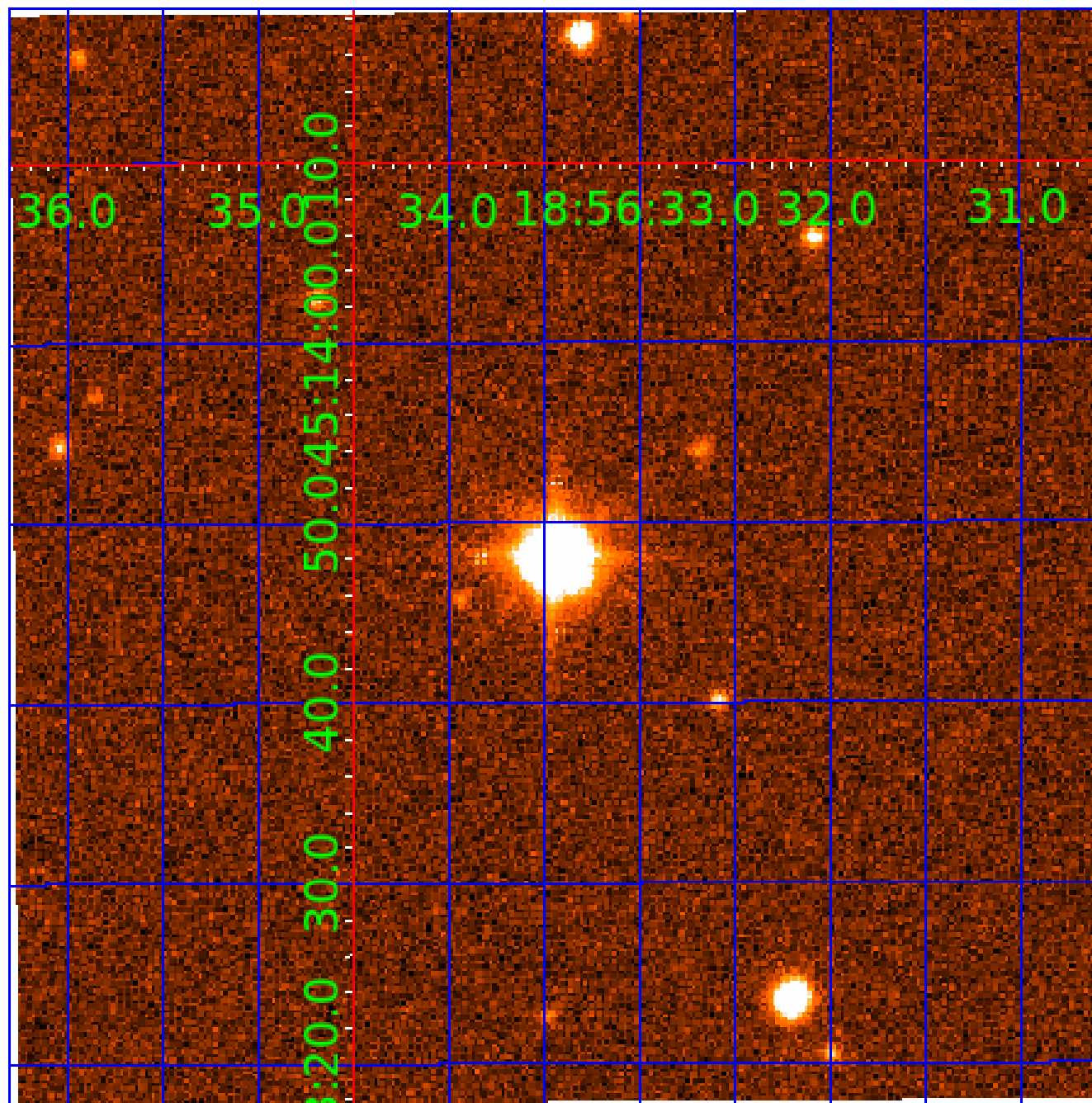


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008935655

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})
008935655-01	OBS	No	386.153577	160.755792	1589.9	9.520	16.6	6.7	0.57	3694	2.34	0.07
008935655-02	OBS	No	286.275178	185.942018	2124.6	5.267	12.2	10.5	0.57	3694	2.77	0.11
008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
008935655-04	OBS	No	406.387478	464.010594	2357.0	21.791	10.4	9.2	0.57	3694	2.69	0.07
008935655-05	OBS	No	166.791179	261.530762	1121.6	3.687	12.5	6.2	0.57	3694	2.03	0.22
008935655-06	OBS	No	364.937563	361.649987	601.7	1.510	12.2	2.1	0.57	3694	1.66	0.08
008935655-07	OBS	No	109.690346	223.875799	598.0	3.000	10.9	-1.0	0.57	3694	1.33	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

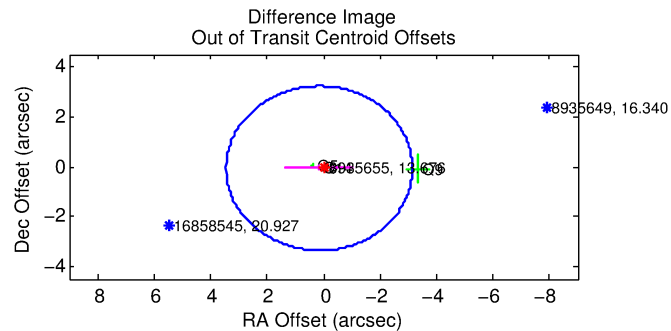
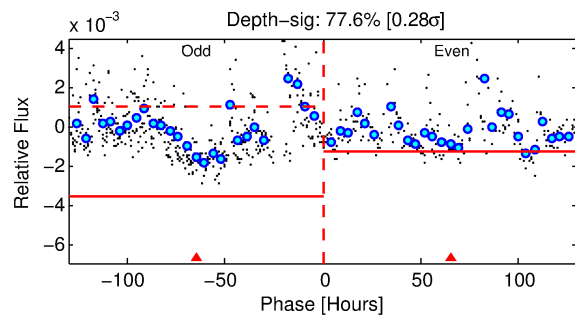
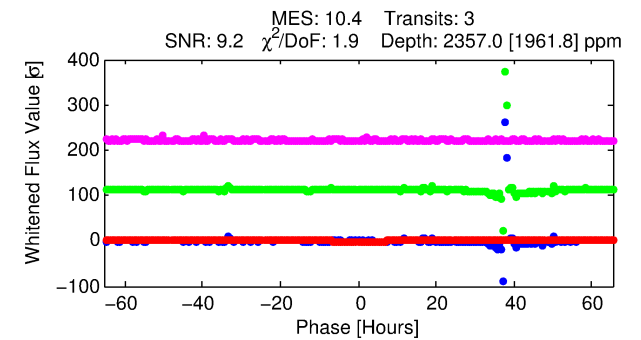
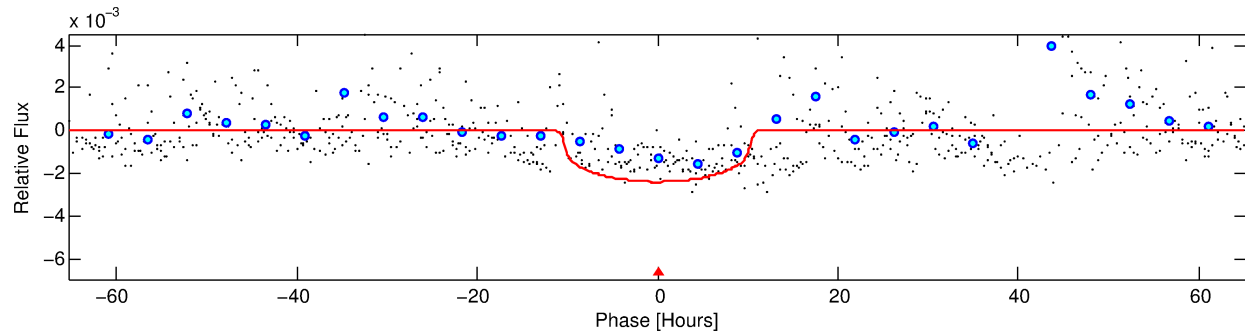
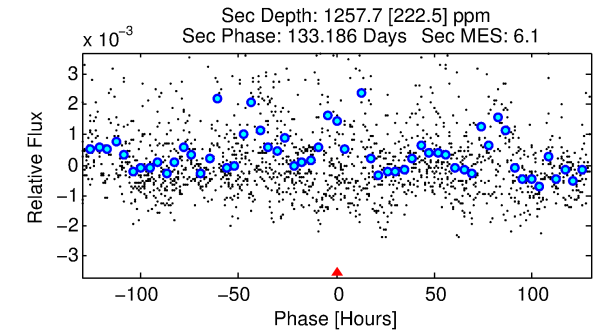
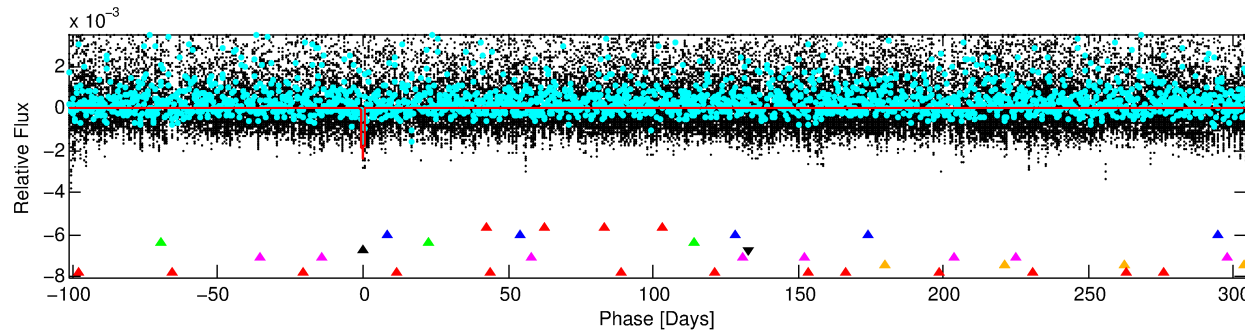
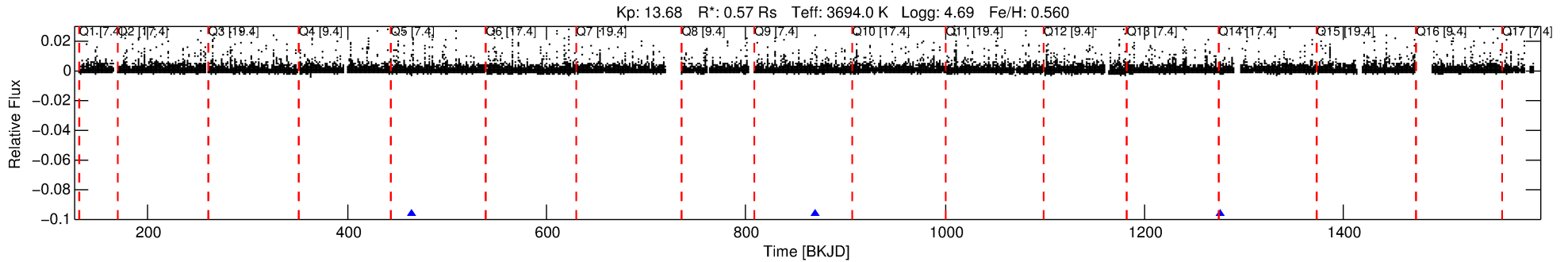
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-04

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 4 of 7 Period: 406.387 d



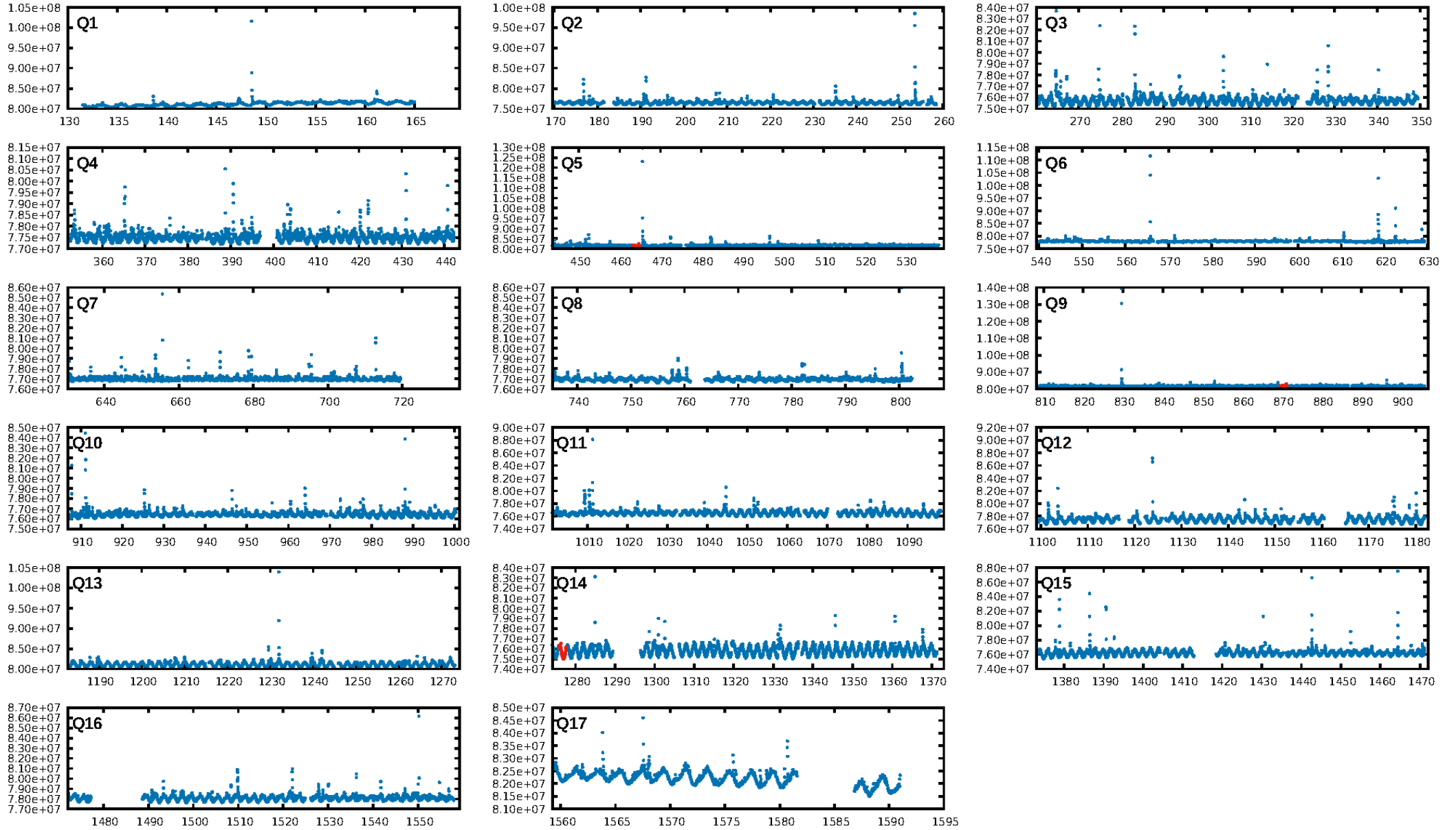
DV Fit Results:

Period = 406.38748 [0.08147] d
Epoch = 464.0106 [0.1057] BKJD
Rp/R* = 0.0435 [0.0499]
a/R* = 140.74 [463.02]
b = 0.34 [8.75]
Seff = 0.07 [0.01]
Teq = 130 [7] K
Rp = 2.69 [3.11] Re
a = 0.8889 [0.0991] AU
Ag = 75717.13 [174689.11] [0.43 σ]
Teffp = 3335 [1924] K [1.67 σ]

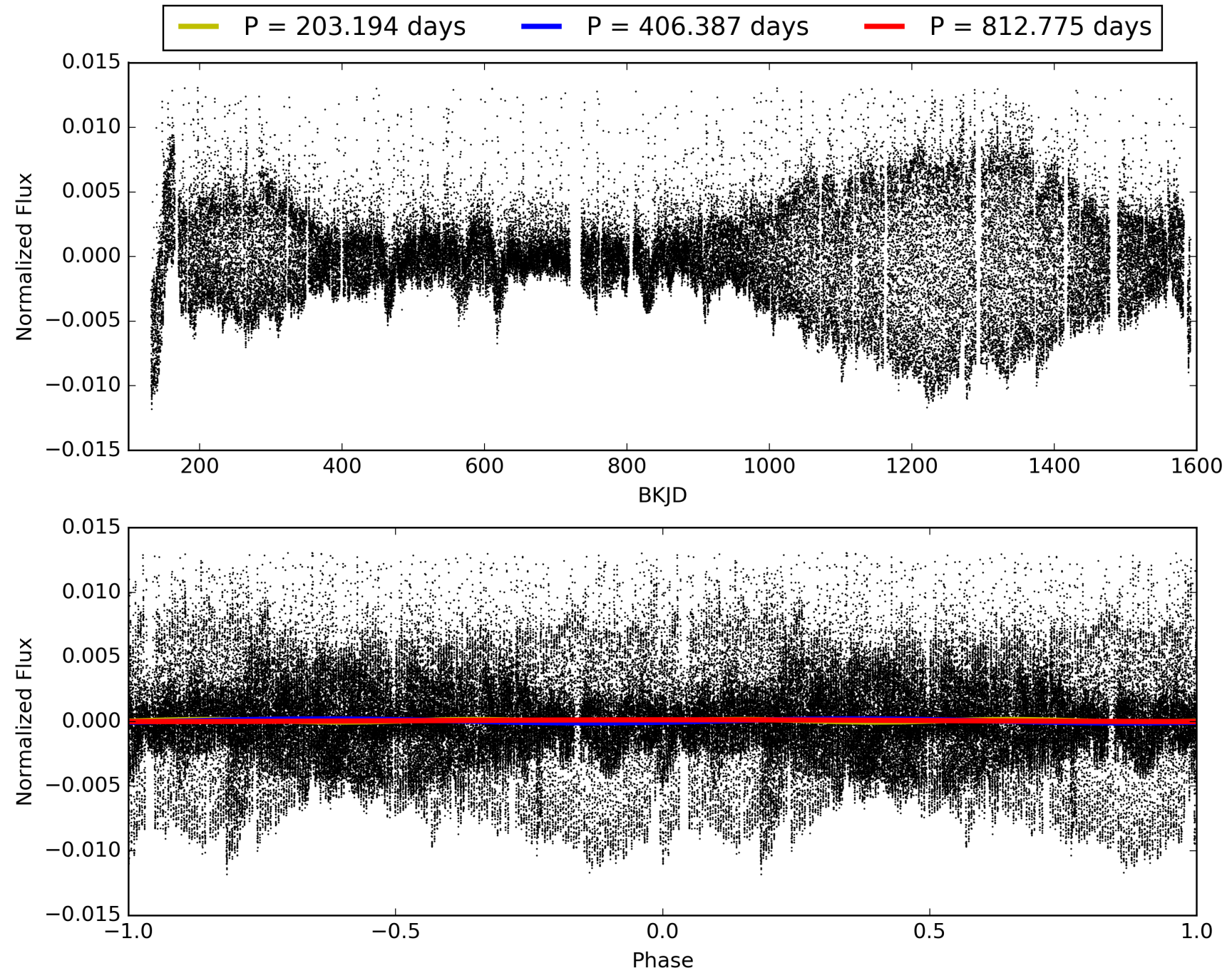
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [20.42 σ]
LongPeriod-sig: 100.0% [90.01 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 12.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.6014
Centroid-sig: 53.9%
Centroid-so: 0.127 arcsec [0.95 σ]
OotOffset-rm: 0.165 arcsec [0.15 σ]
KicOffset-rm: 0.256 arcsec [0.32 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008935655-04, PDC Light Curves

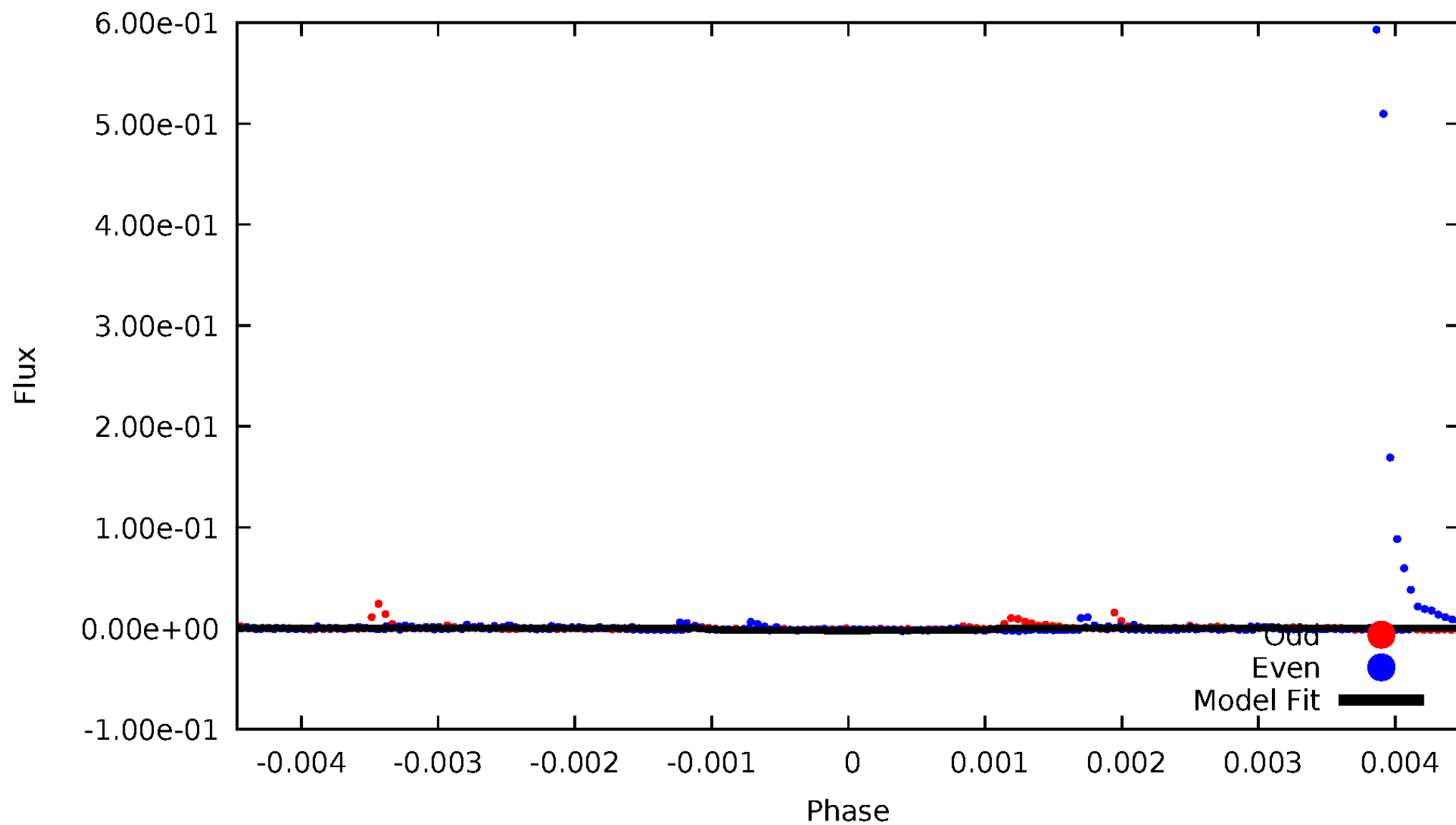


TCE 008935655-04



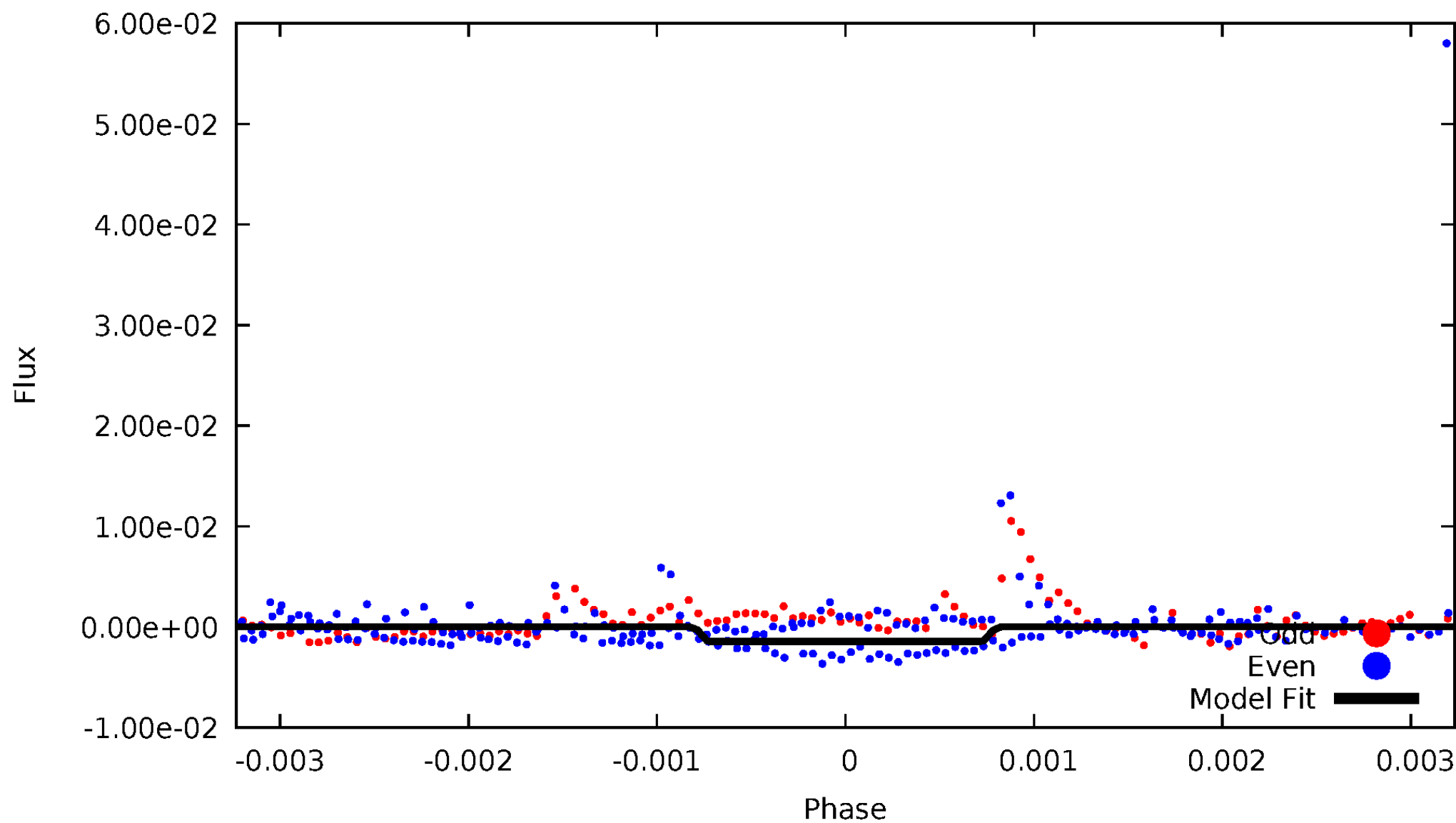
DV Odd/Even

TCE 008935655-04



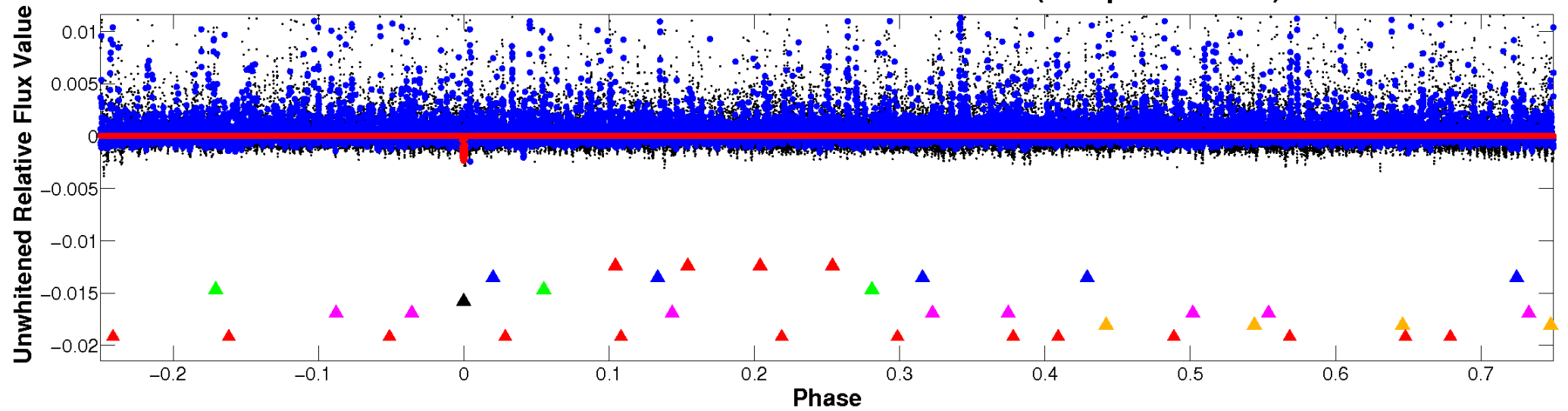
ALT Odd/Even

TCE 008935655-04

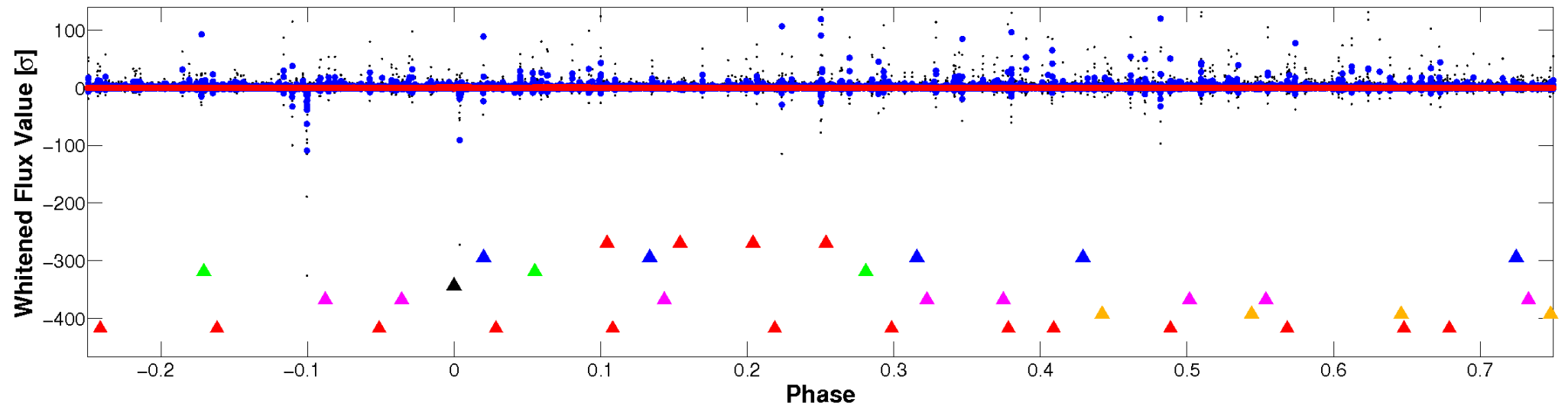


Non-Whitened Vs. Whitened Light Curve

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

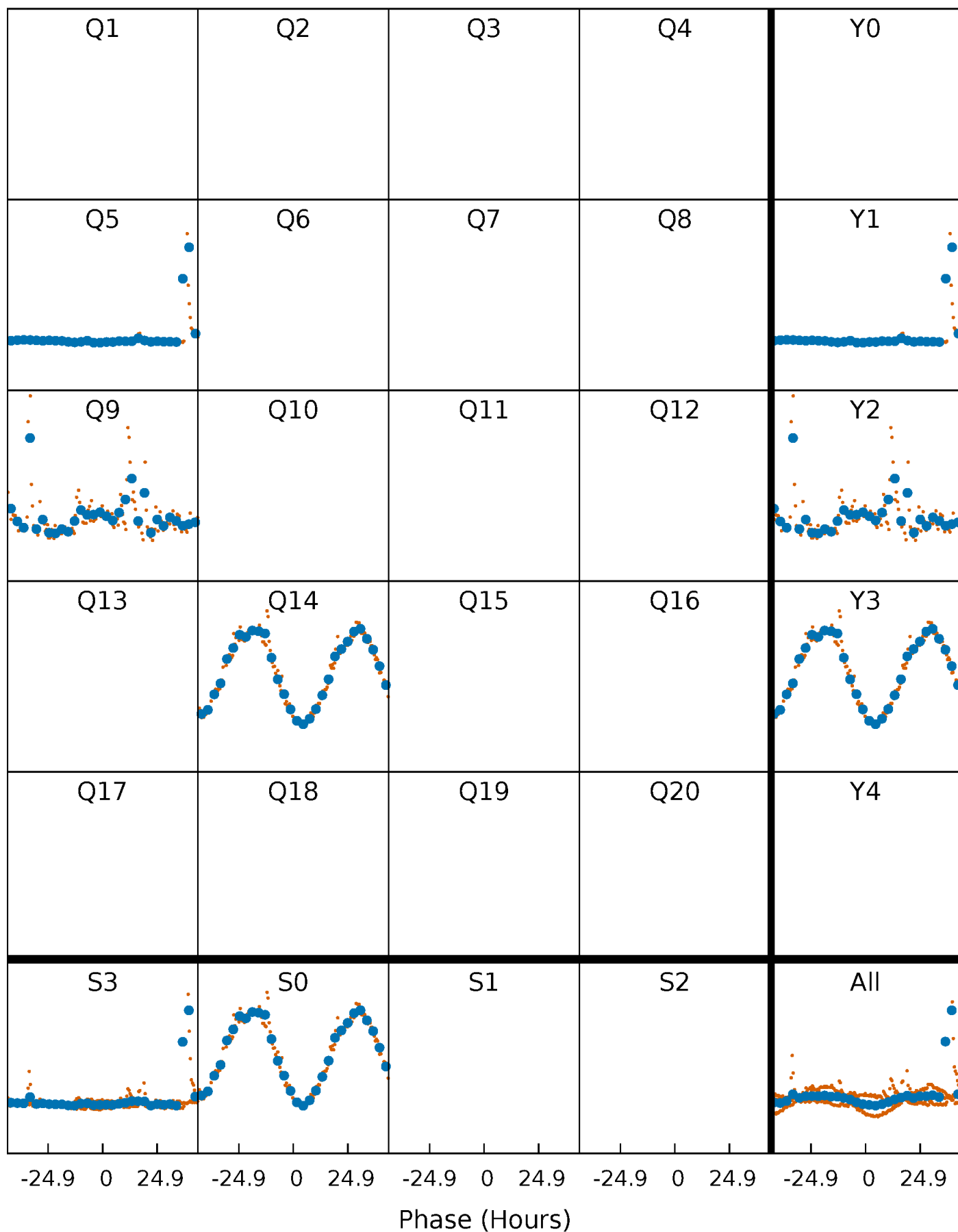


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



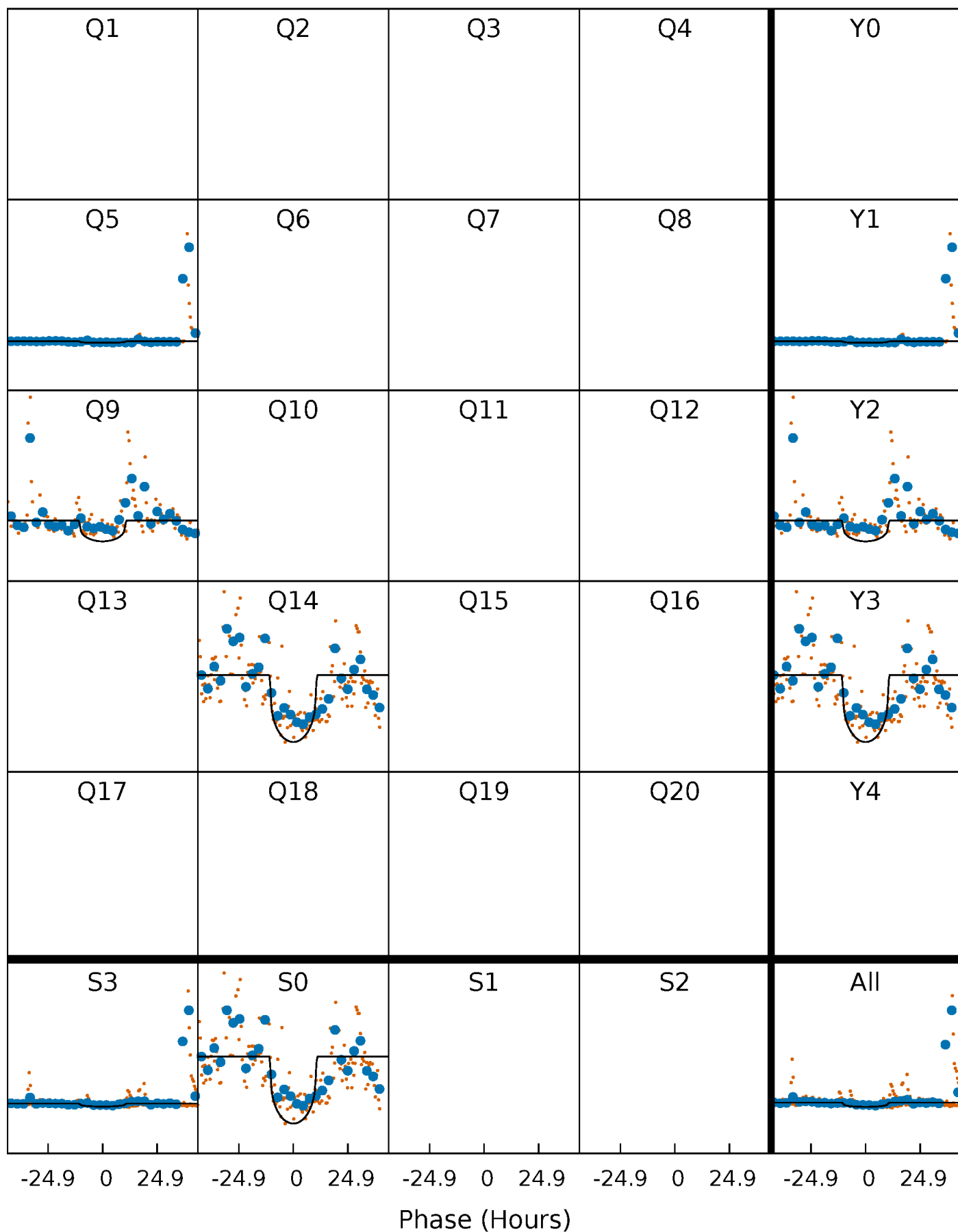
PDC Quarter-Phased Transit Curves

TCE 008935655-04 P=406.387478 Days $T_0=464.010594$ (BKJD)



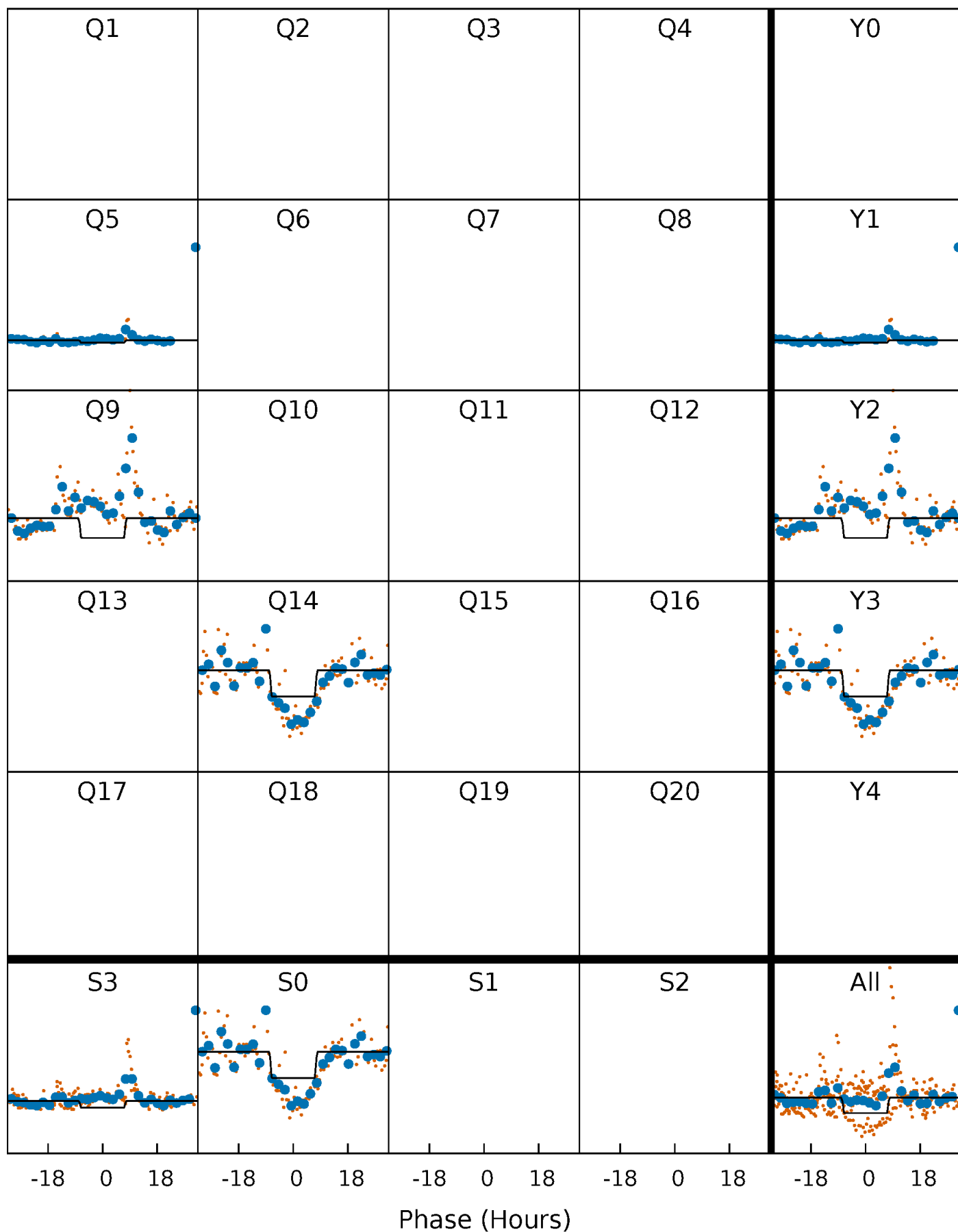
DV Quarter-Phased Transit Curves

TCE 008935655-04 $P=406.387478$ Days $T_0=464.010594$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

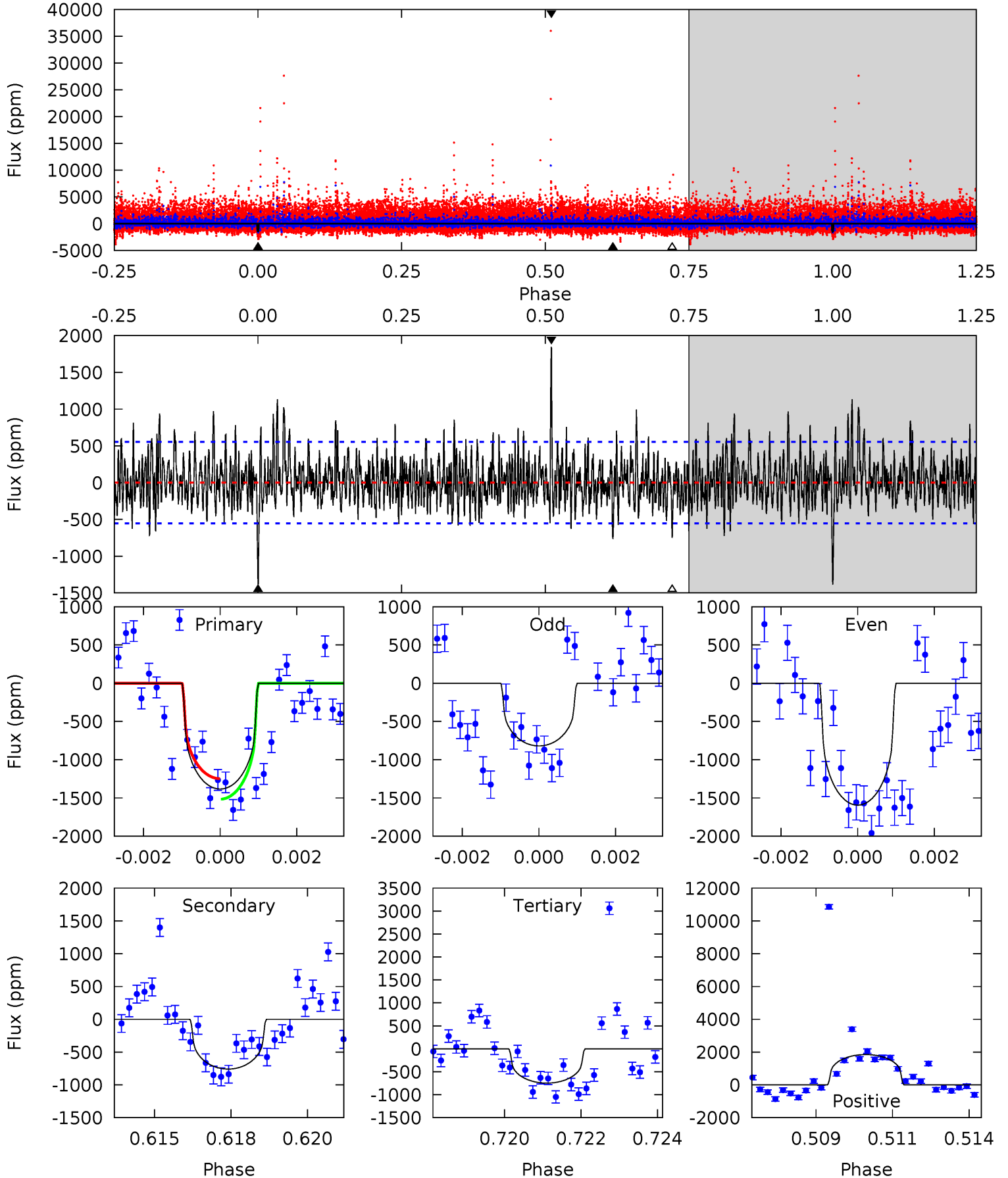
TCE 008935655-04 $P=406.157872$ Days $T_0=464.366815$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-04, P = 406.387478 Days, E = 57.623116 Days

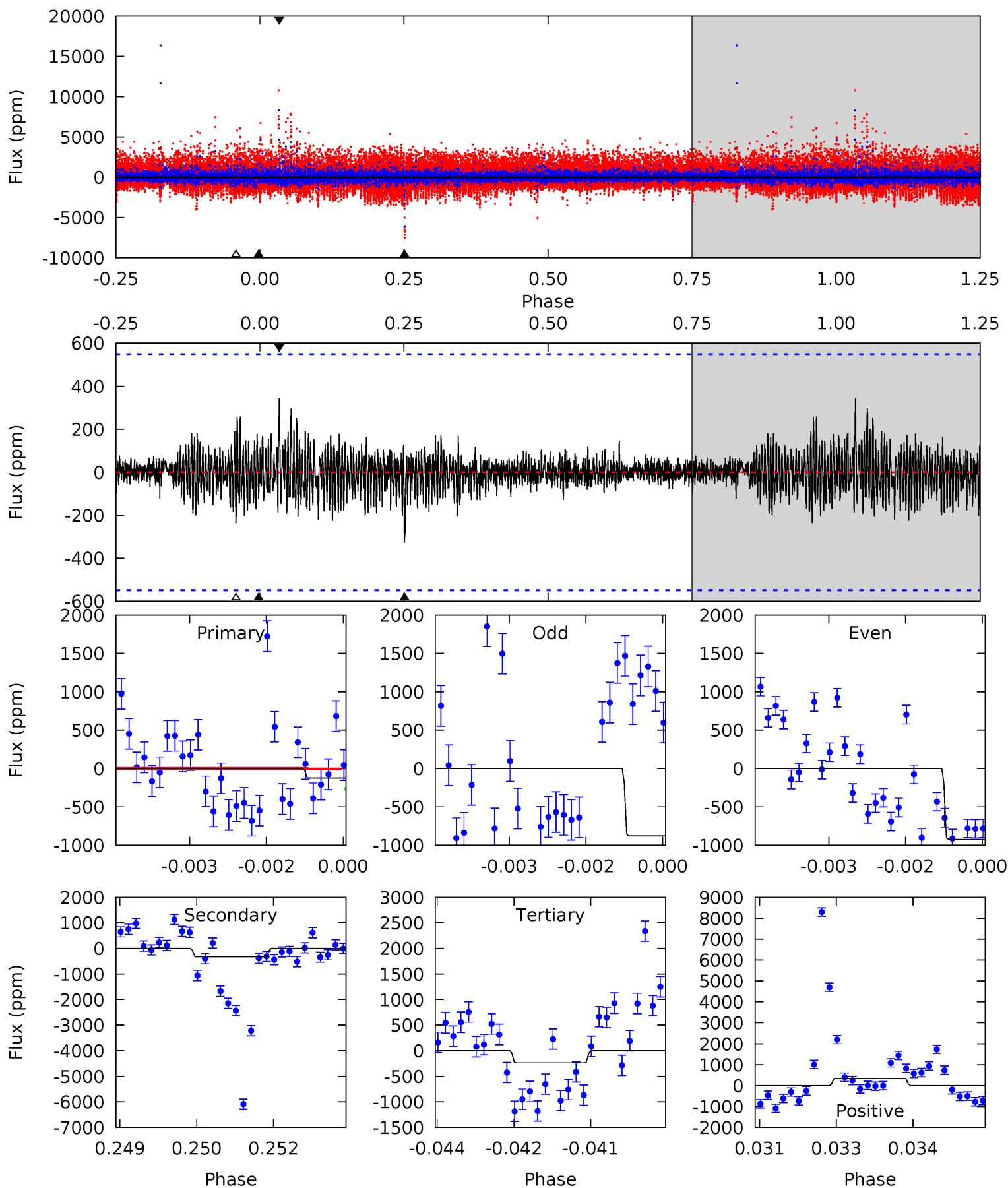
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	7.25	7.14	17.6	5.30	3.05	2.62	6.07	-4.44	0.11	-10.4	1.17	0.97	0.57	1.29



Alt Model-Shift Uniqueness Test

008935655-04, $P = 406.157872$ Days, $E = 58.208943$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.21	3.20	2.31	3.35	5.37	3.16	0.63	-1.10	-2.14	0.89	-0.15	0.19	-0.75	0.51	1.28



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-759 ± 105	$3.47^{+2.78}_{-2.30}$	180^{+6}_{-8}	2948^{+1158}_{-418}	$27736^{+199128}_{-19404}$
Alt.	-328 ± 102	$3.03^{+2.77}_{-2.02}$	180^{+7}_{-8}	2714^{+1021}_{-422}	$15032^{+111981}_{-11247}$

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

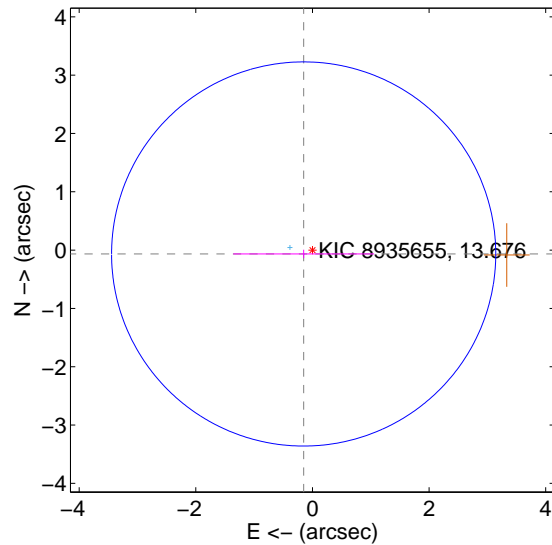
Supplemental centroid analysis for 008935655-04. Kepler magnitude: 13.68. Transit SNR 9.17

There are 2 quarters with good PRF difference image offsets

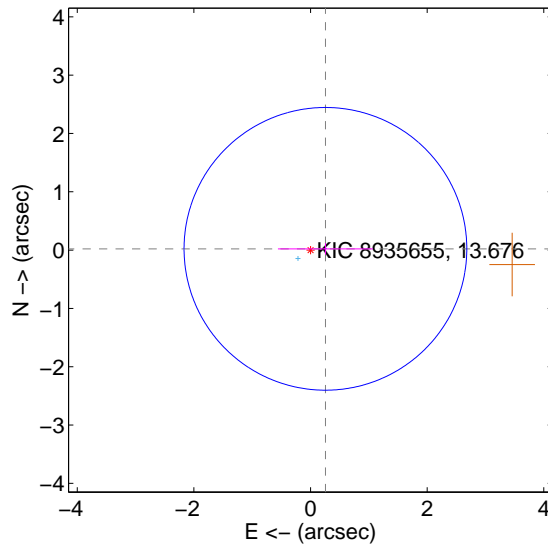
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.165 ± 1.098	0.15	0.151 ± 1.209	-0.066 ± 0.073
PRF-fit source offset from KIC position	0.256 ± 0.808	0.32	-0.256 ± 0.814	0.022 ± 0.097
photometric centroid source offset	0.13 ± 0.13	0.95	0.09 ± 0.15	-0.09 ± 0.12

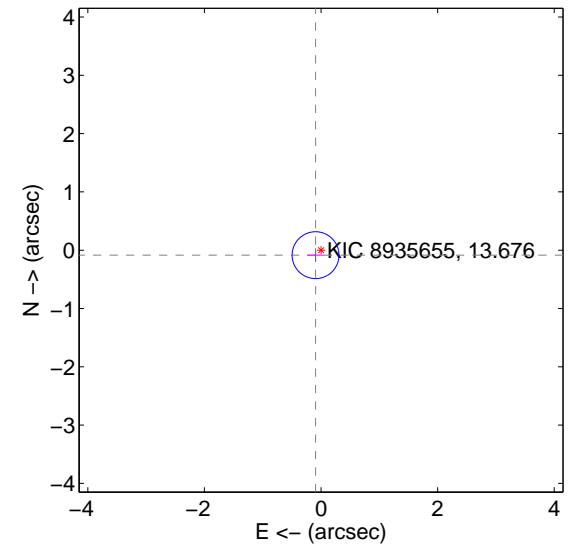
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

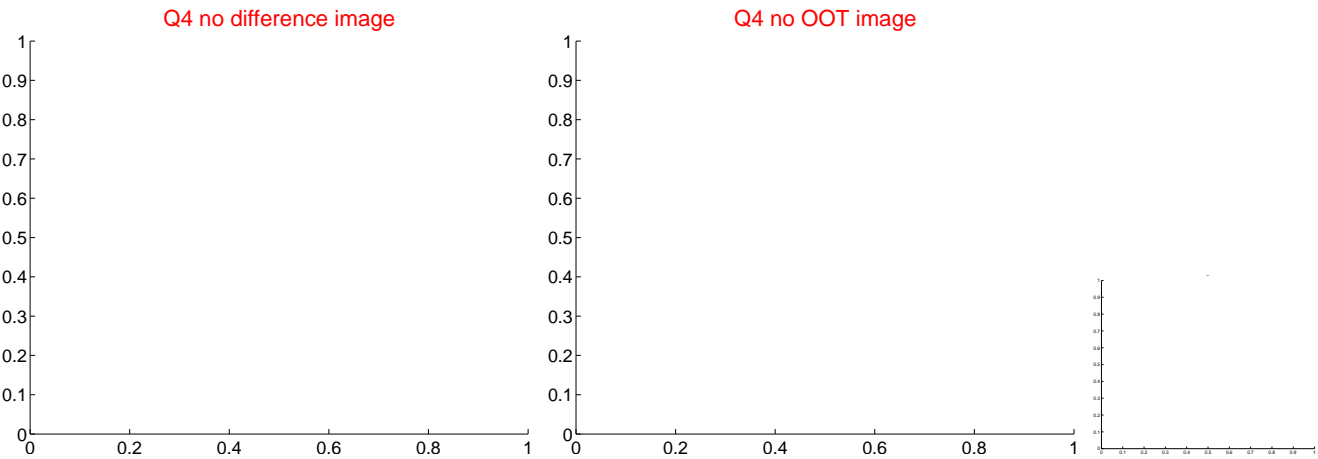
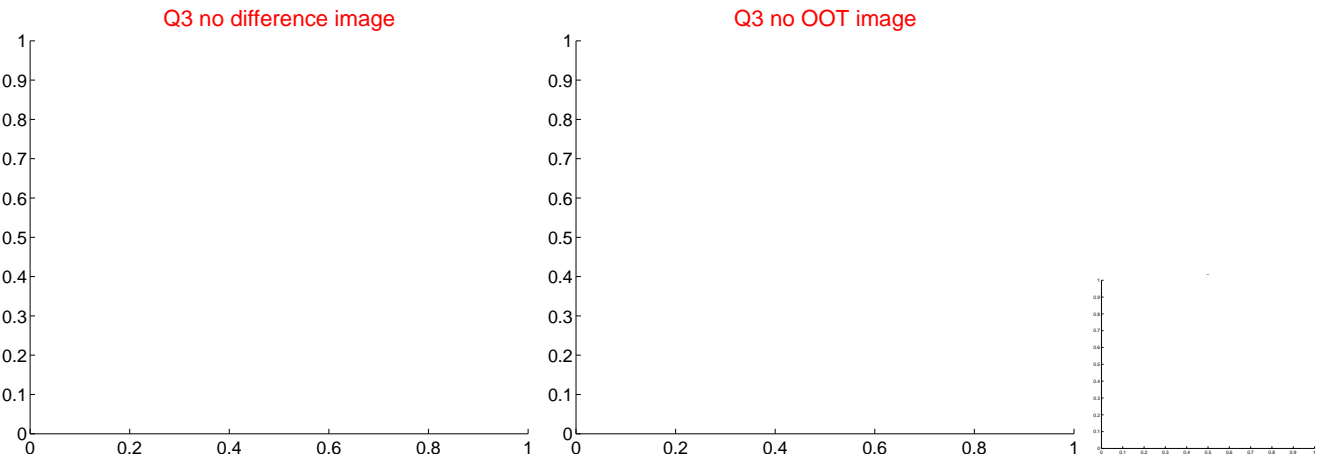
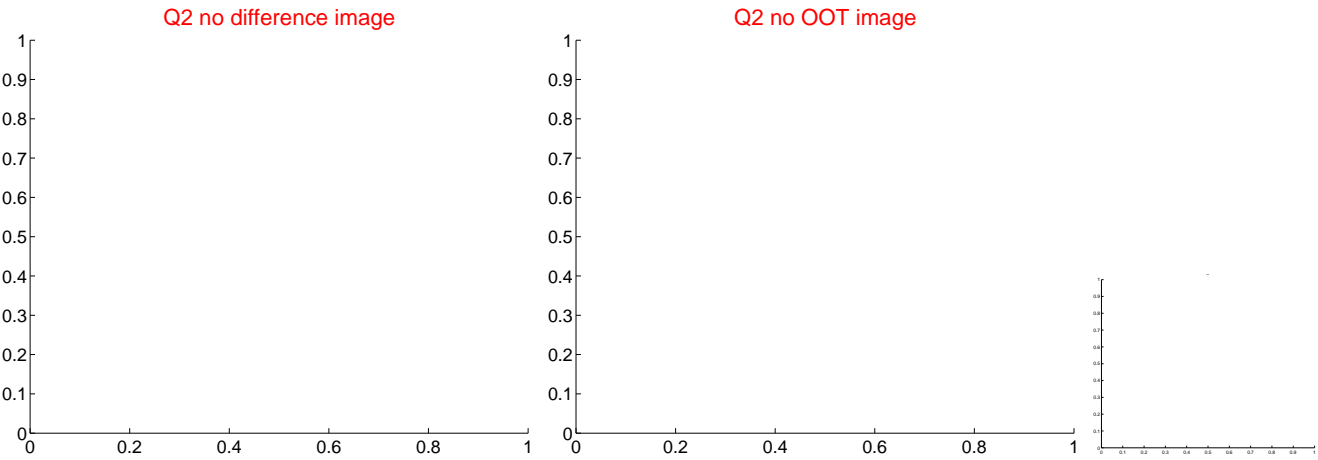
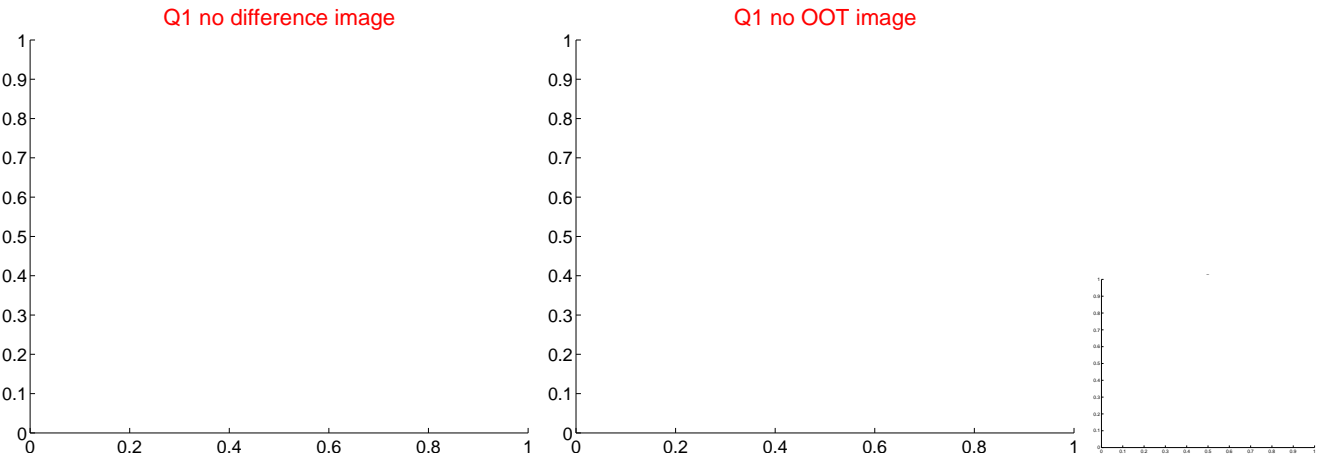


offset from photometric centroids

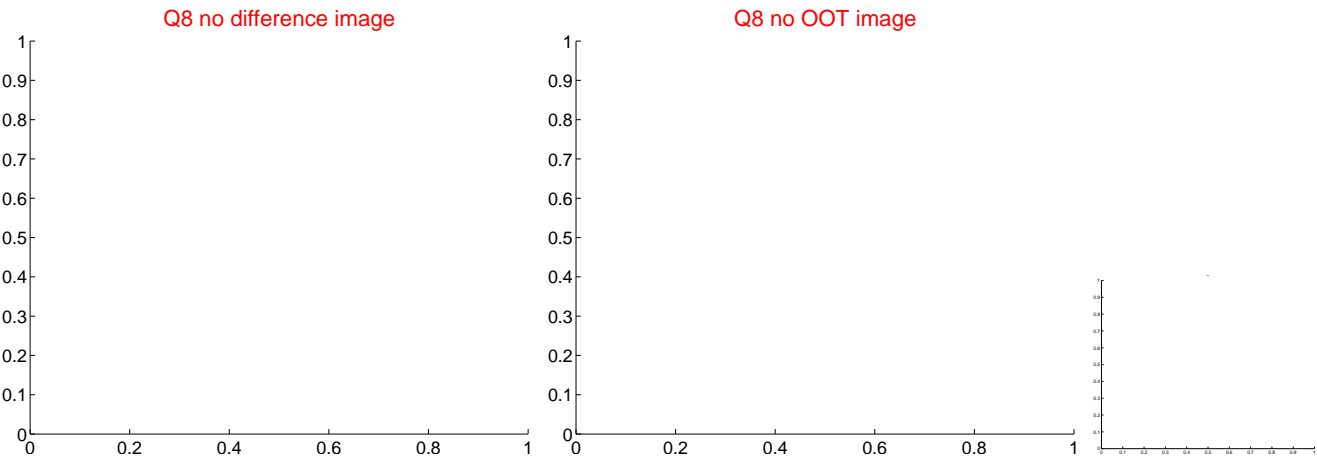
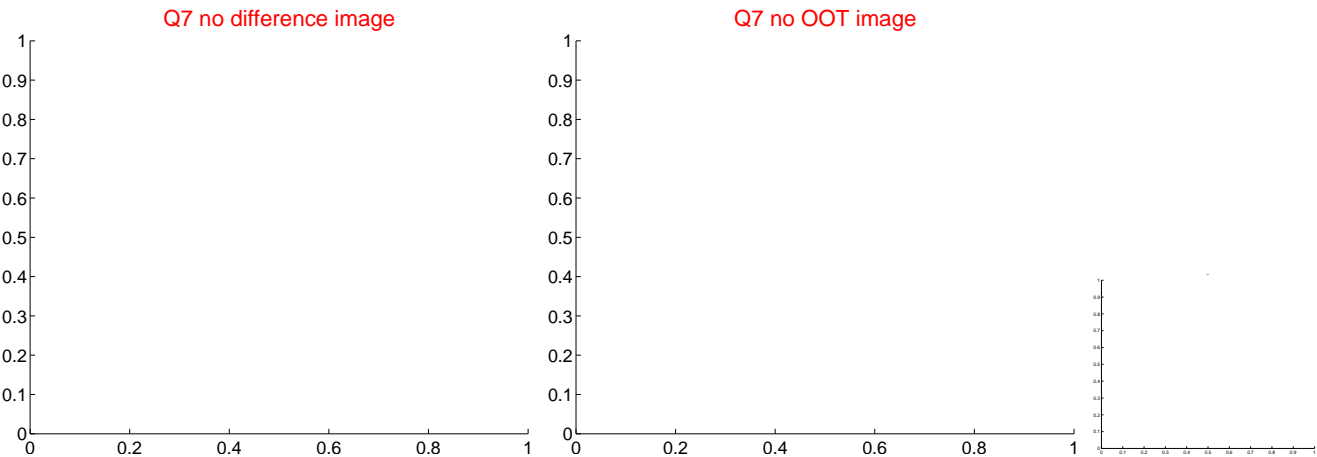
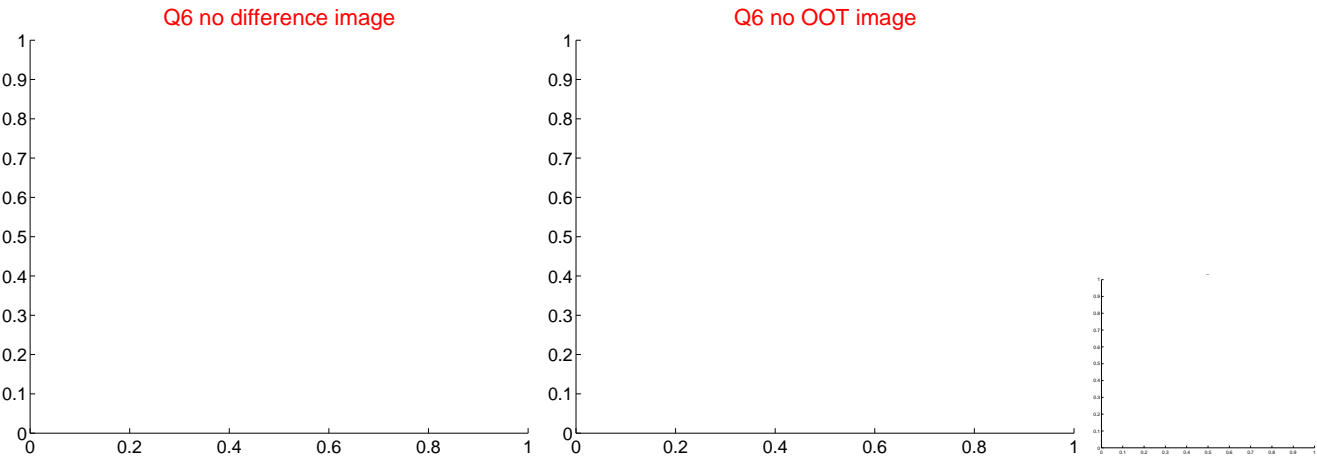
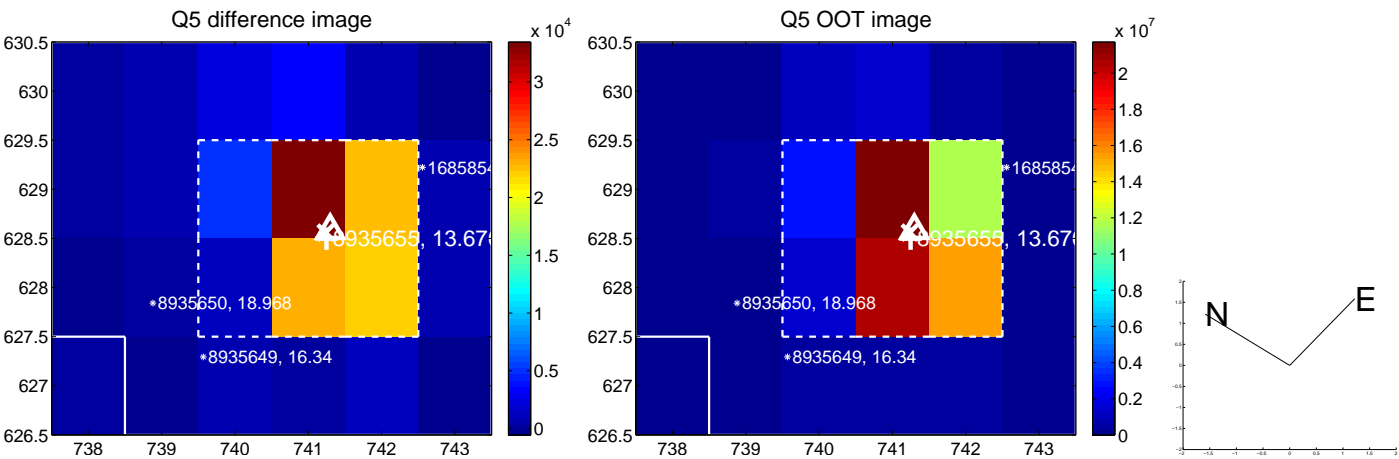


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

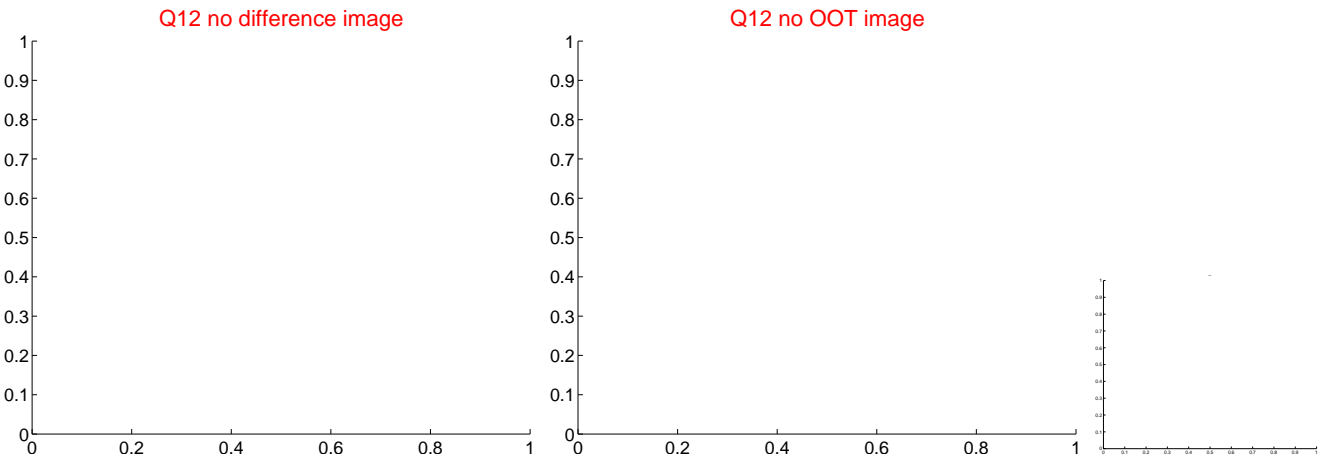
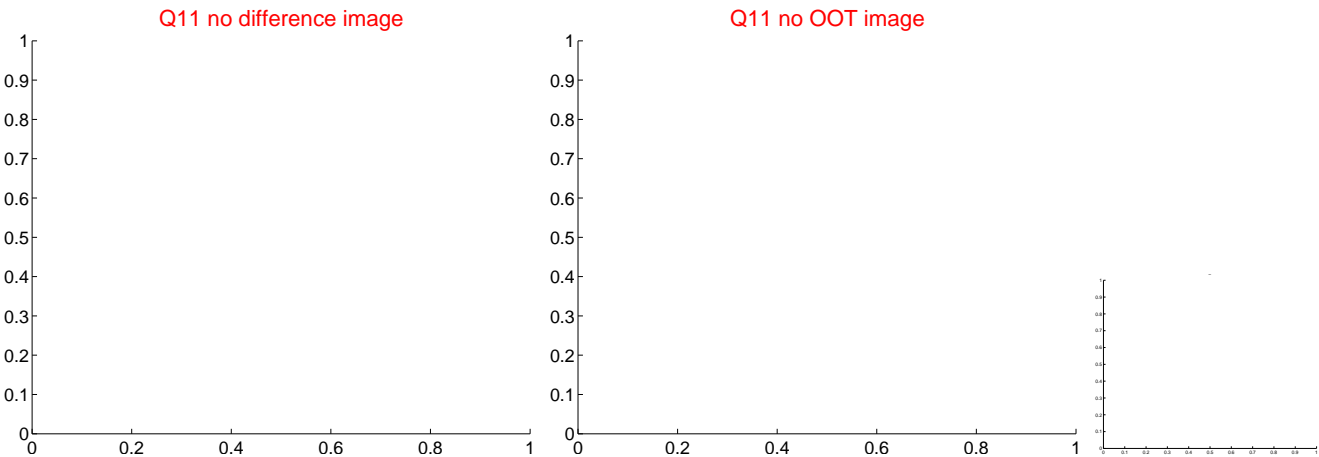
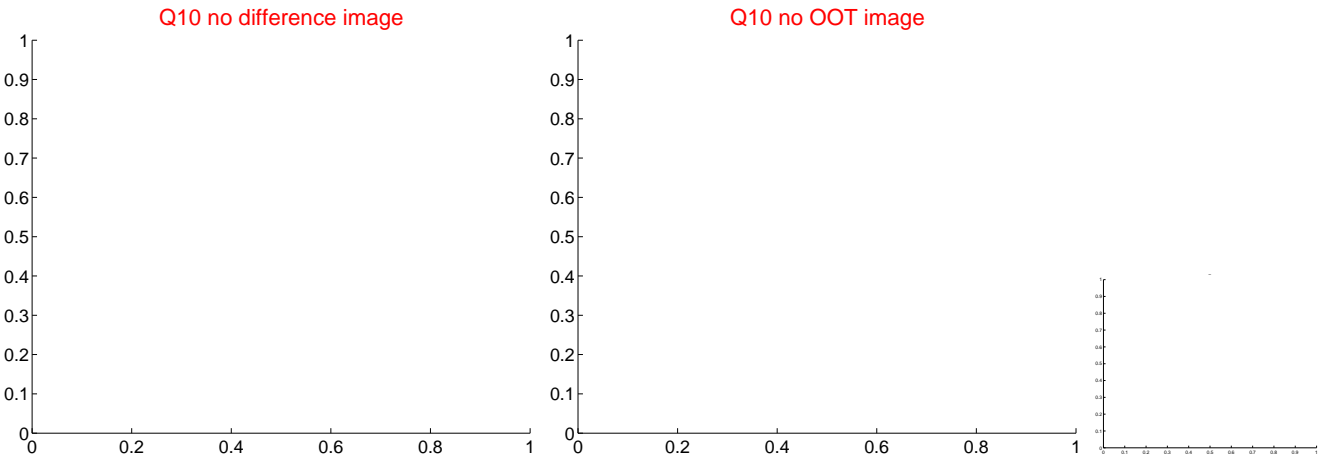
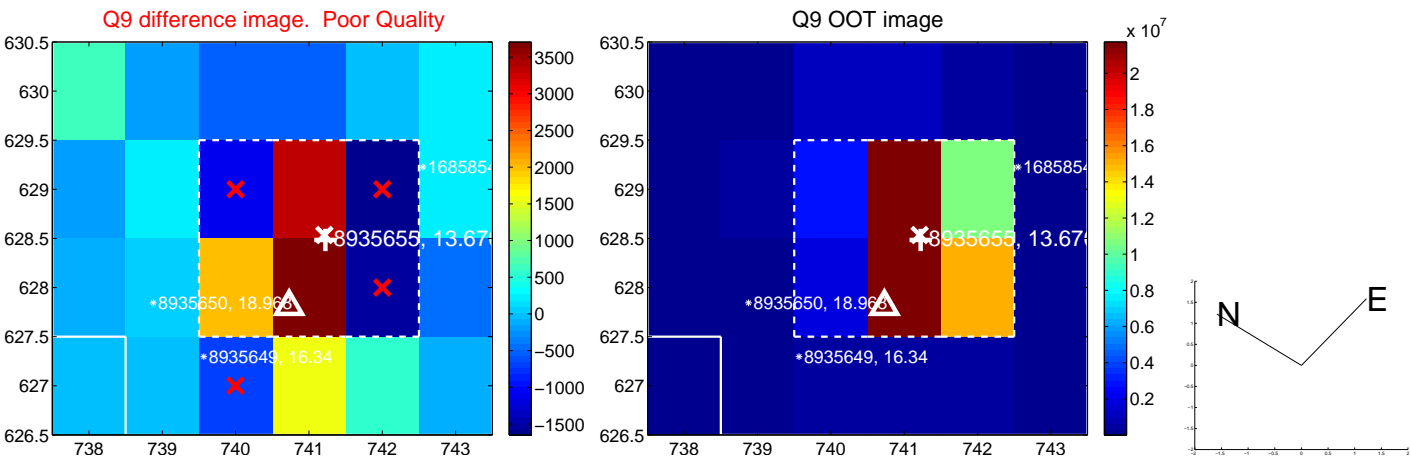
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

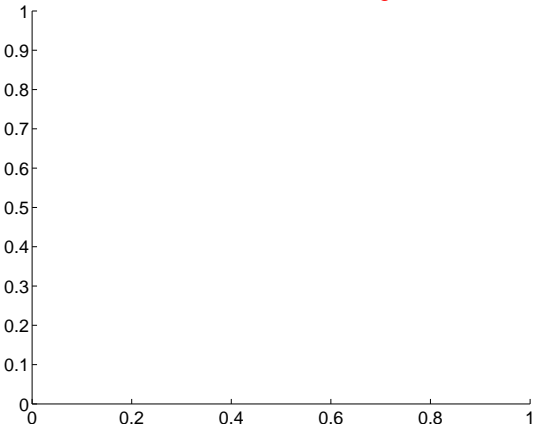


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

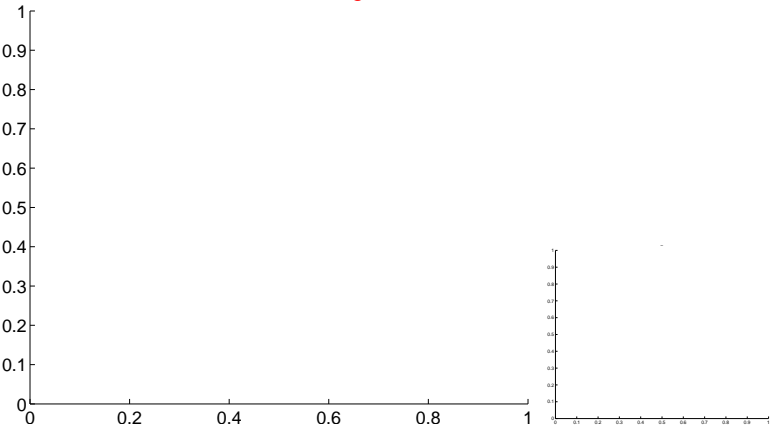


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

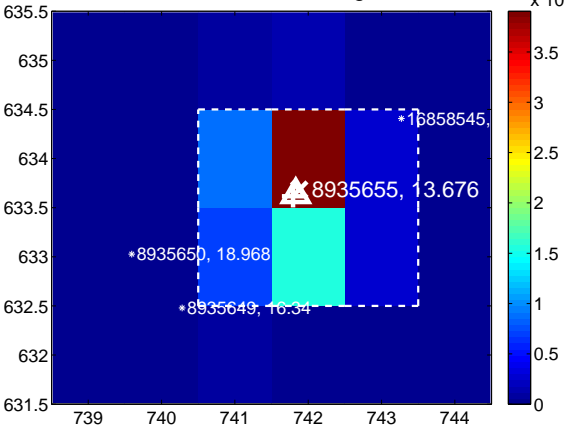
Q13 no difference image



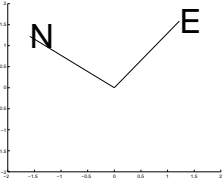
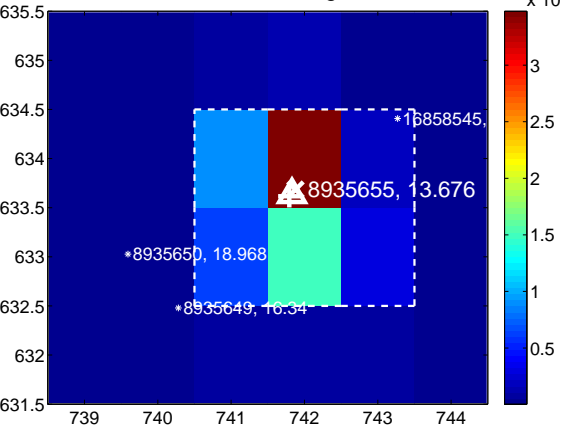
Q13 no OOT image



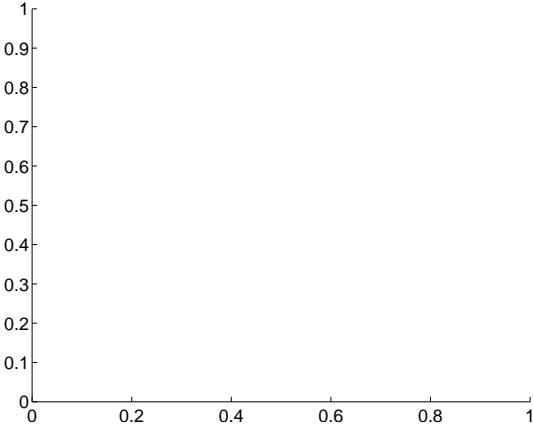
Q14 difference image



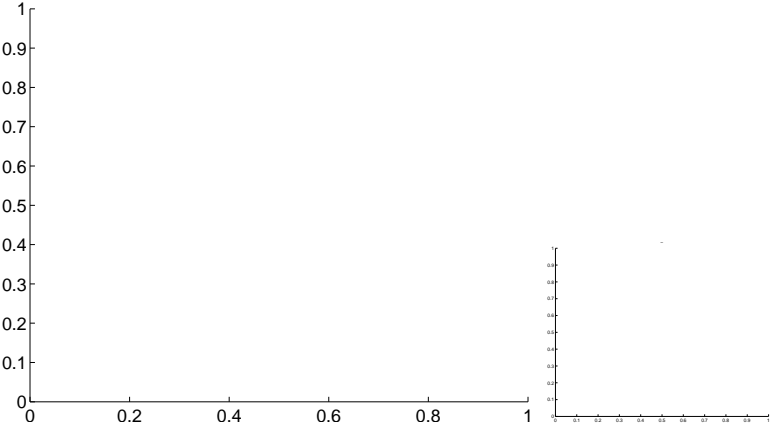
Q14 OOT image



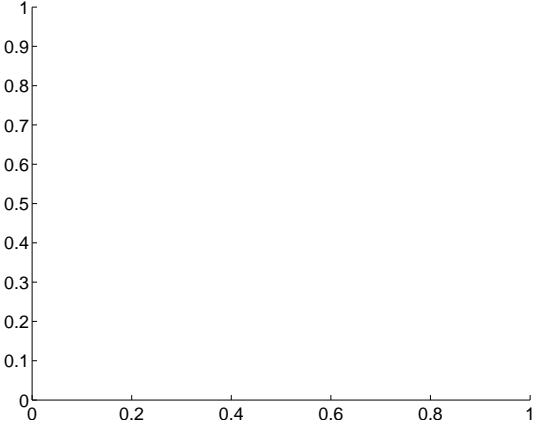
Q15 no difference image



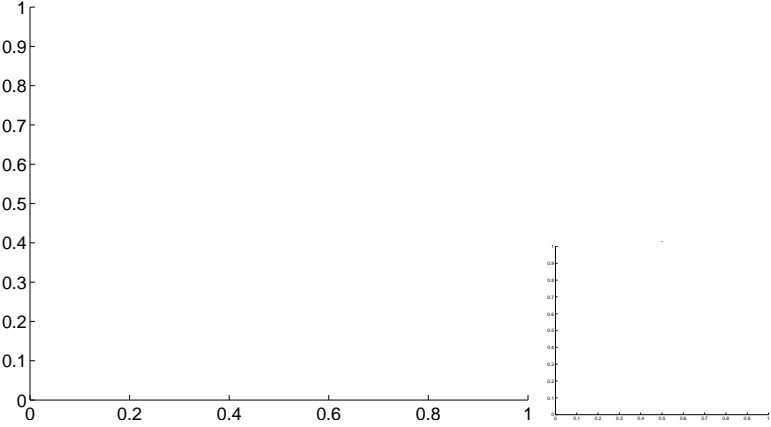
Q15 no OOT image



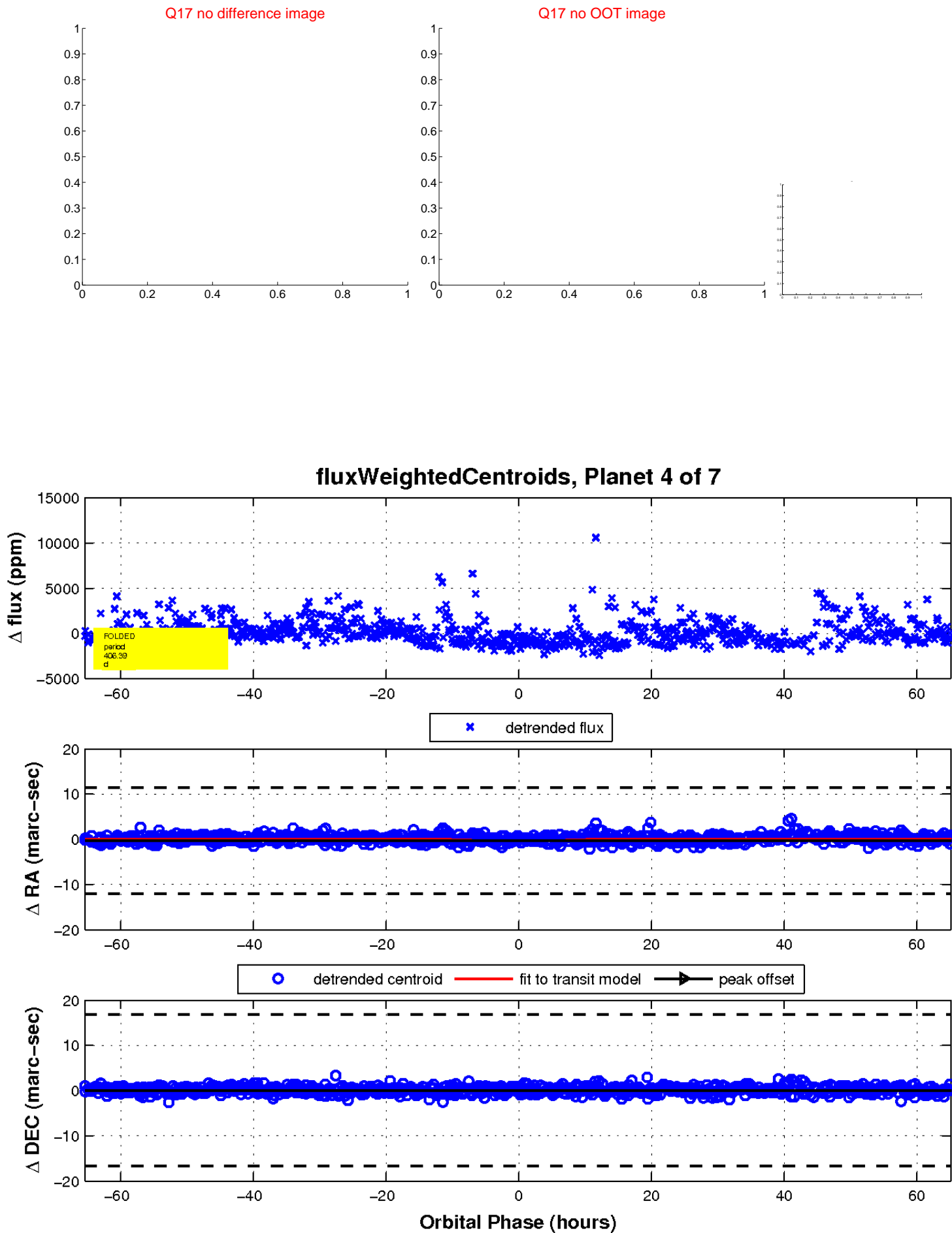
Q16 no difference image



Q16 no OOT image

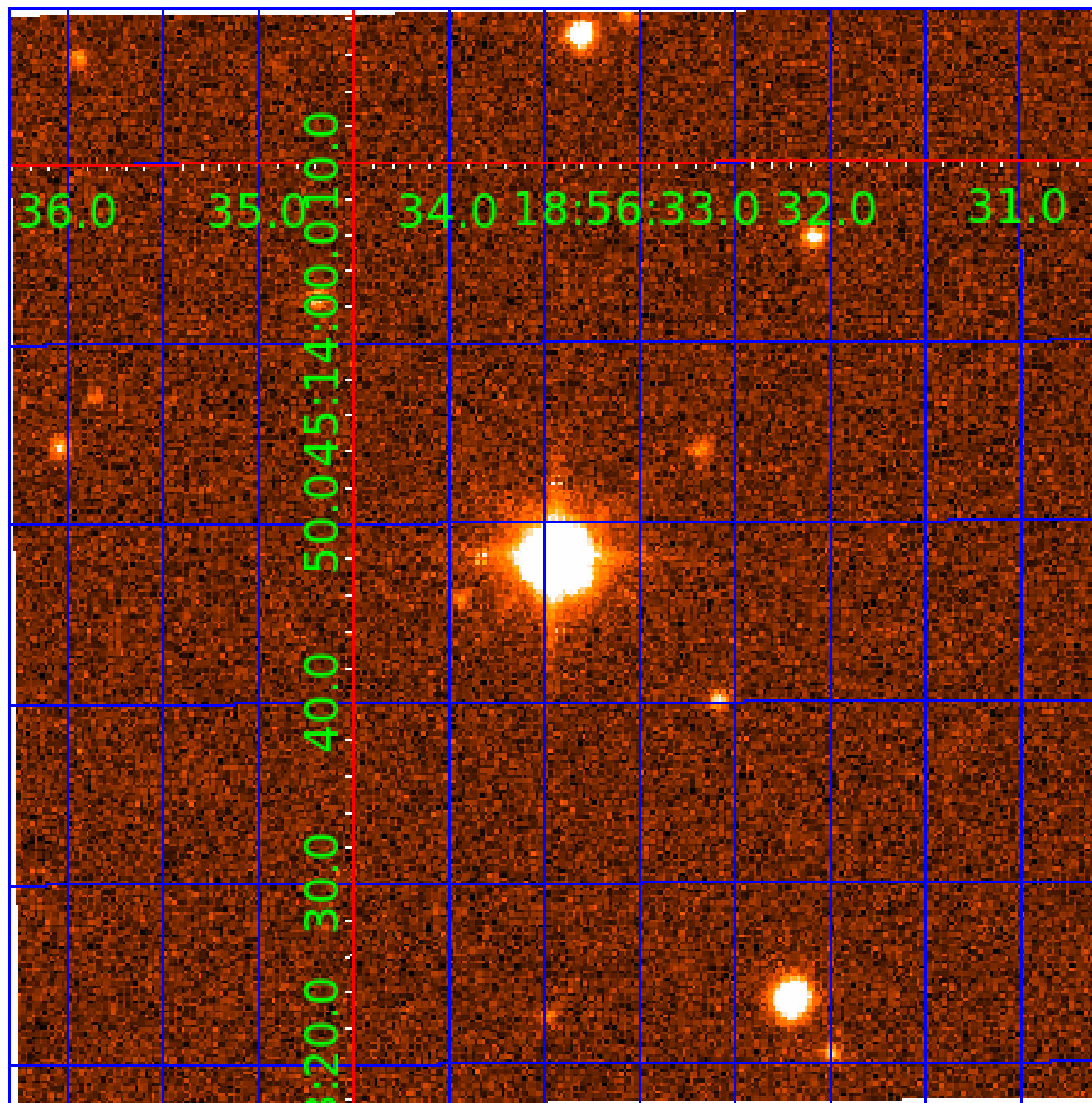


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008935655

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})
008935655-01	OBS	No	386.153577	160.755792	1589.9	9.520	16.6	6.7	0.57	3694	2.34	0.07
008935655-02	OBS	No	286.275178	185.942018	2124.6	5.267	12.2	10.5	0.57	3694	2.77	0.11
008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
008935655-04	OBS	No	406.387478	464.010594	2357.0	21.791	10.4	9.2	0.57	3694	2.69	0.07
008935655-05	OBS	No	166.791179	261.530762	1121.6	3.687	12.5	6.2	0.57	3694	2.03	0.22
008935655-06	OBS	No	364.937563	361.649987	601.7	1.510	12.2	2.1	0.57	3694	1.66	0.08
008935655-07	OBS	No	109.690346	223.875799	598.0	3.000	10.9	-1.0	0.57	3694	1.33	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

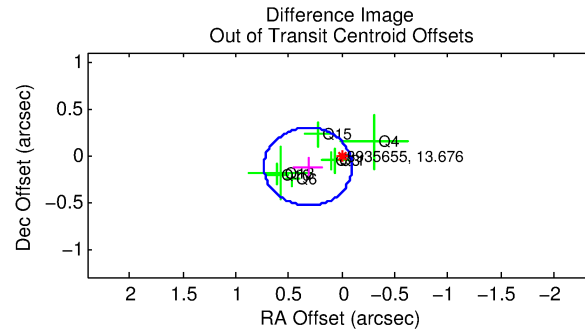
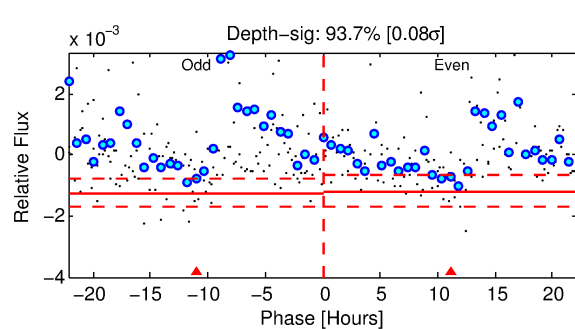
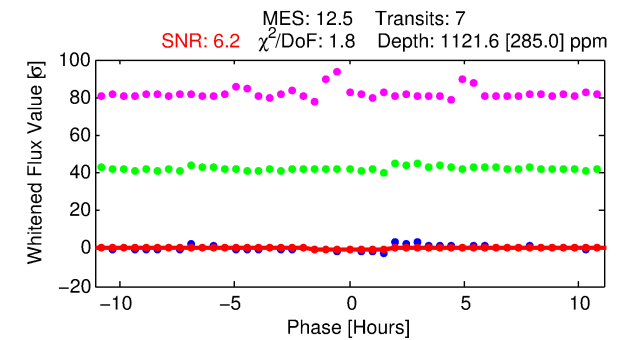
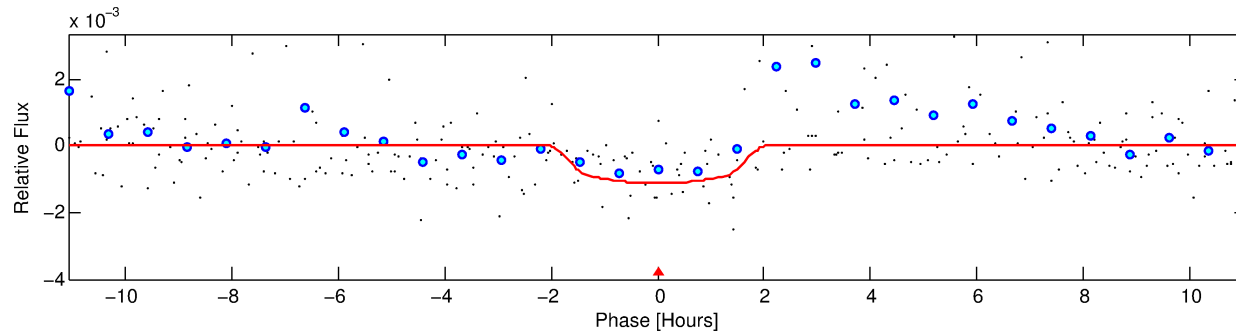
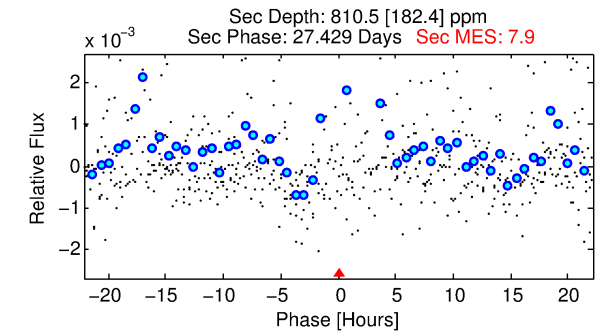
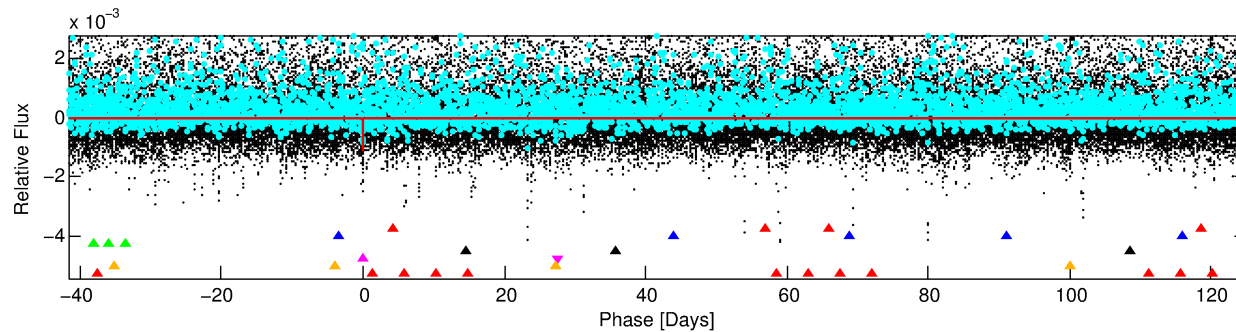
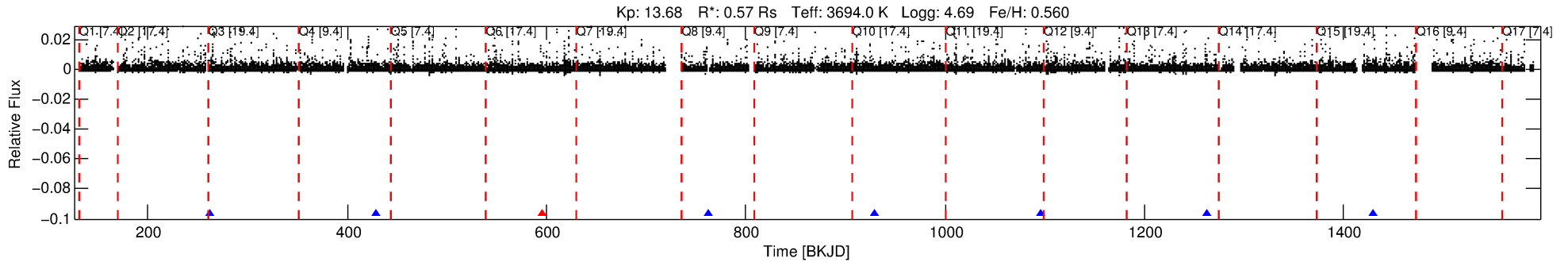
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-05

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 5 of 7 Period: 166.791 d



DV Fit Results:

Period = 166.79118 [0.00324] d
Epoch = 261.5308 [0.0146] BKJD
Rp/R* = 0.0329 [0.0450]
a/R* = 259.58 [1174.15]
b = 0.71 [3.24]
Seff = 0.22 [0.05]
Teq = 175 [10] K
Rp = 2.03 [2.80] Re
a = 0.4909 [0.0547] AU
Ag = 26021.26 [71571.35] [0.36σ]
Teffp = 3436 [2363] K [1.38σ]

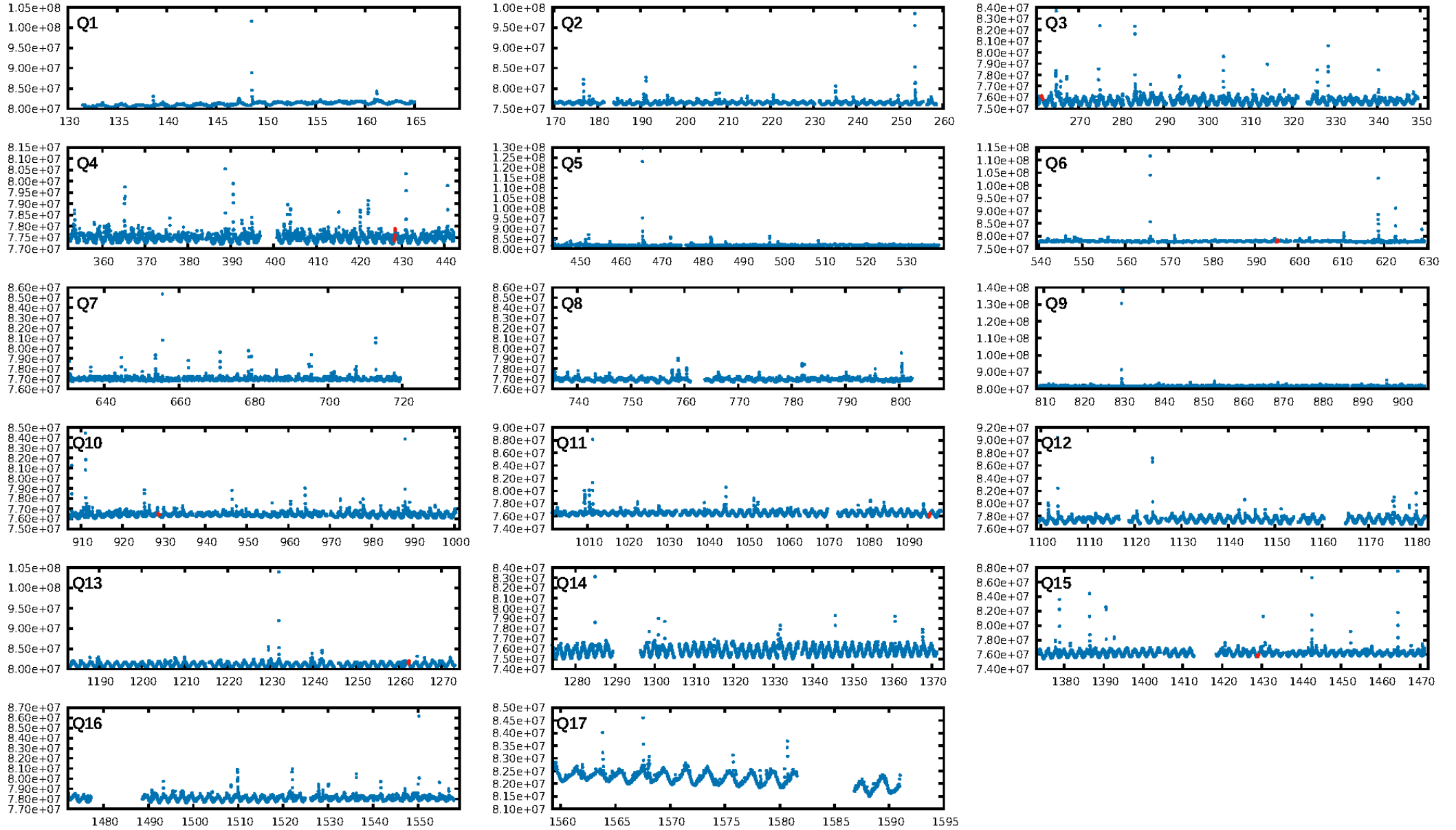
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [288.32σ]
LongPeriod-sig: 100.0% [446.03σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 29.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.86 [6/7]
GhostDiagnostic-chr: -0.3536
Centroid-sig: 22.7%
Centroid-so: 0.349 arcsec [1.22σ]
OotOffset-rm: 0.340 arcsec [2.45σ]
KicOffset-rm: 0.126 arcsec [1.11σ]
OotOffset-st: 2/3/1/1 [7]
KicOffset-st: 2/3/1/1 [7]
DiffImageQuality-fgm: 0.86 [6/7]
DiffImageOverlap-fno: 1.00 [7/7]

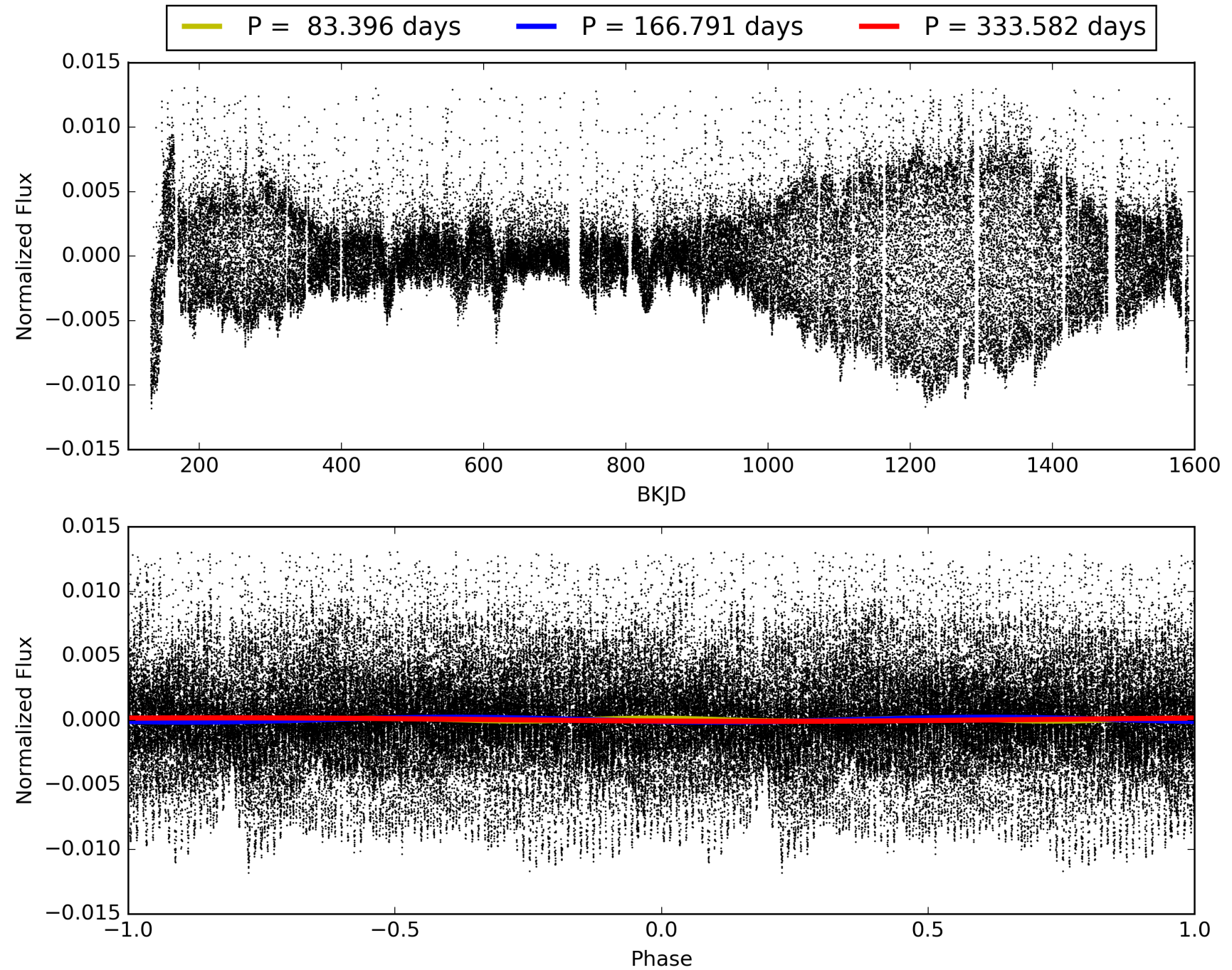
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:13:28 Z

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

TCE 008935655-05, PDC Light Curves

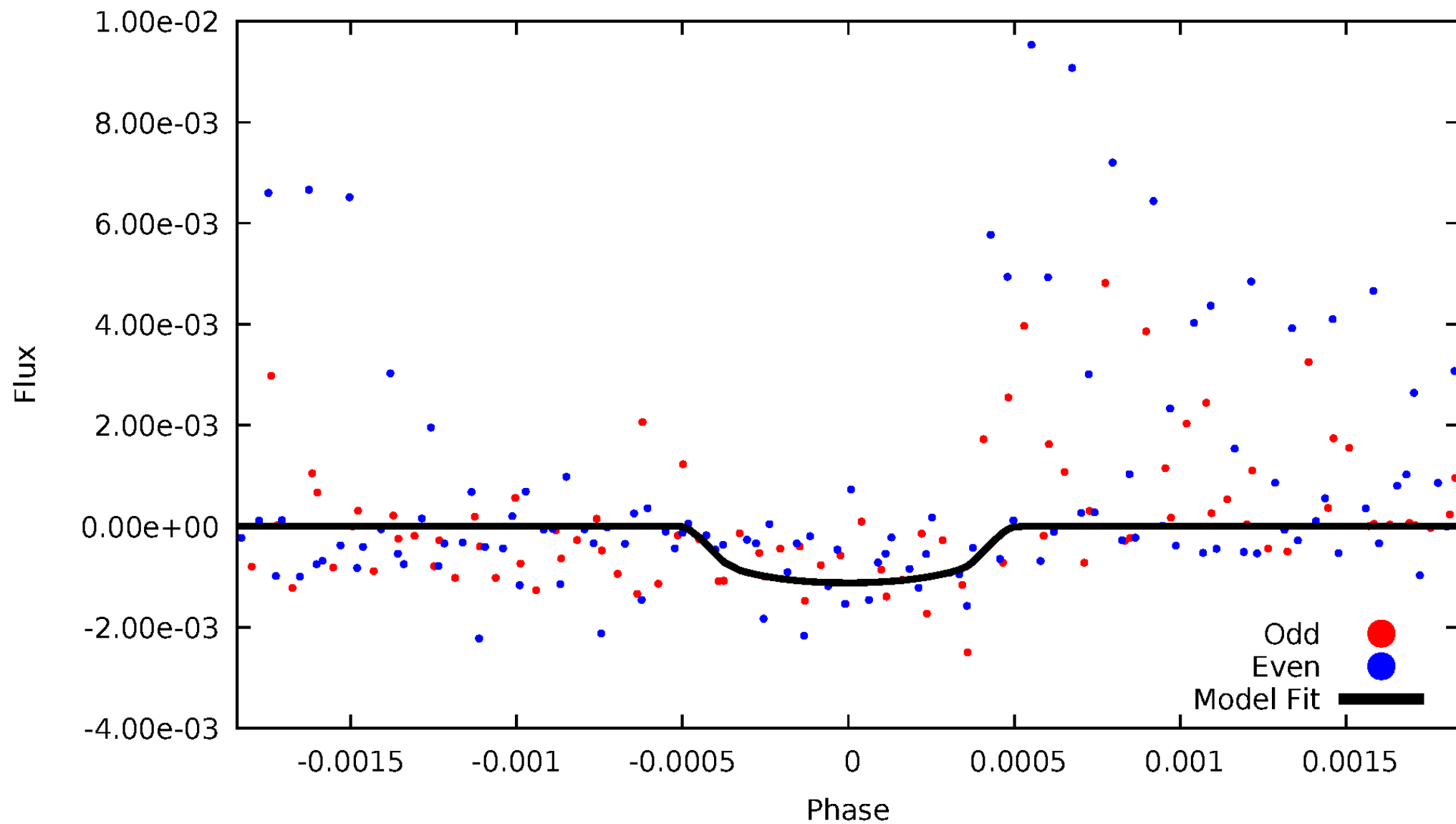


TCE 008935655-05



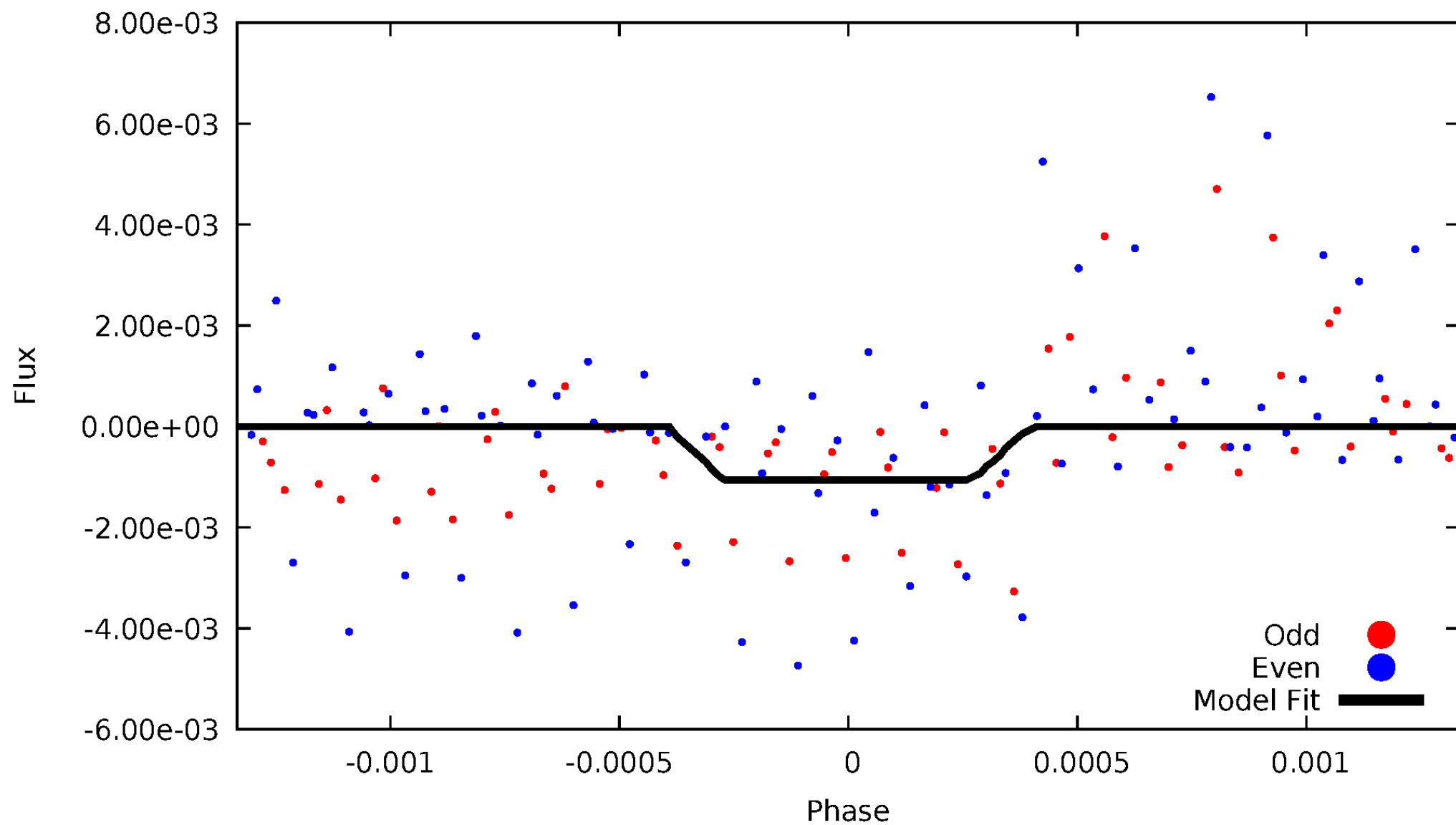
DV Odd/Even

TCE 008935655-05



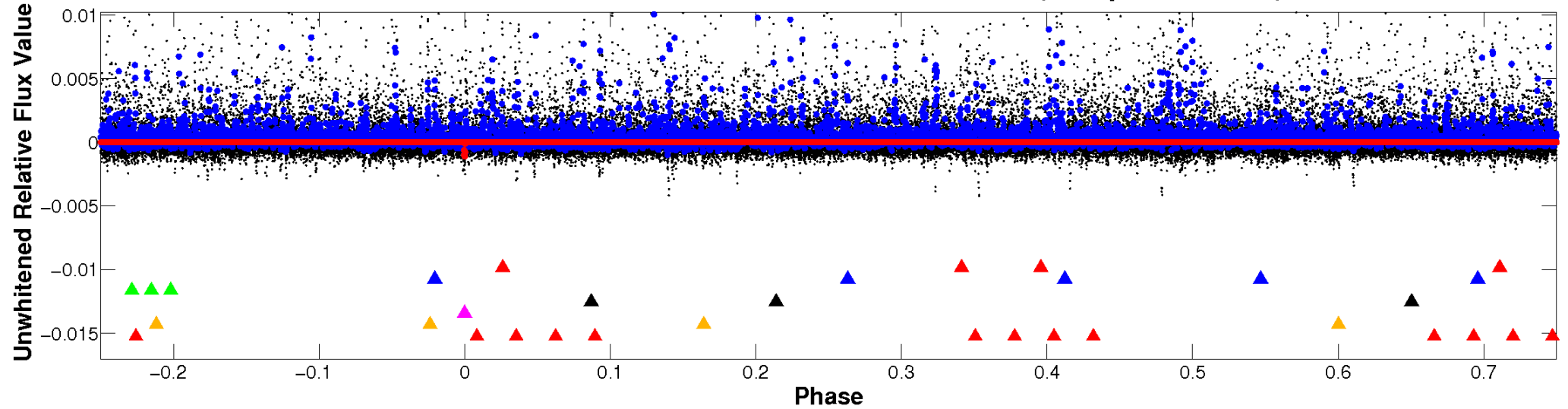
ALT Odd/Even

TCE 008935655-05

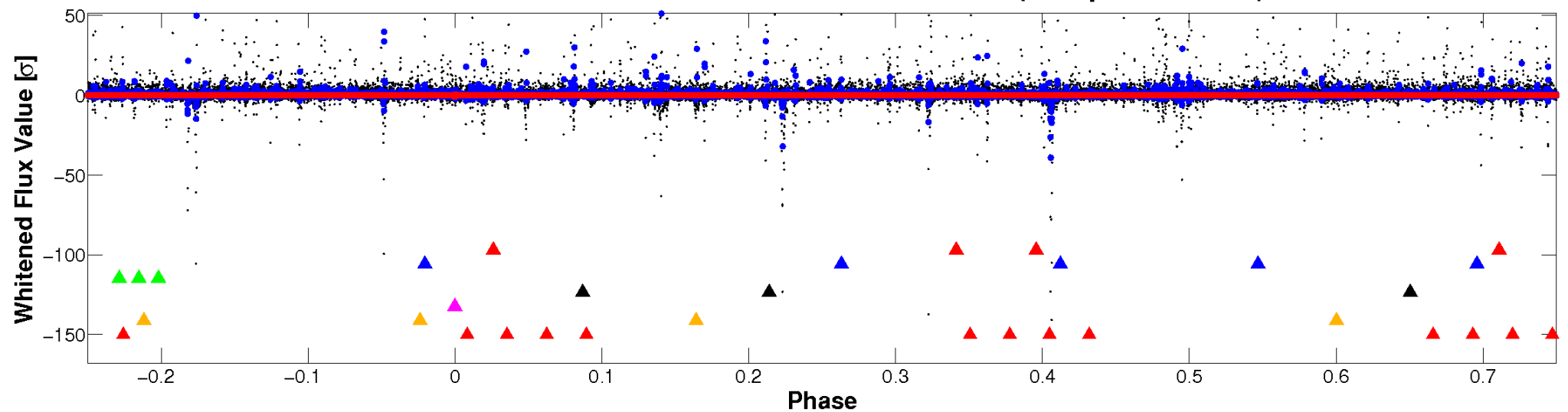


Non-Whitened Vs. Whitened Light Curve

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

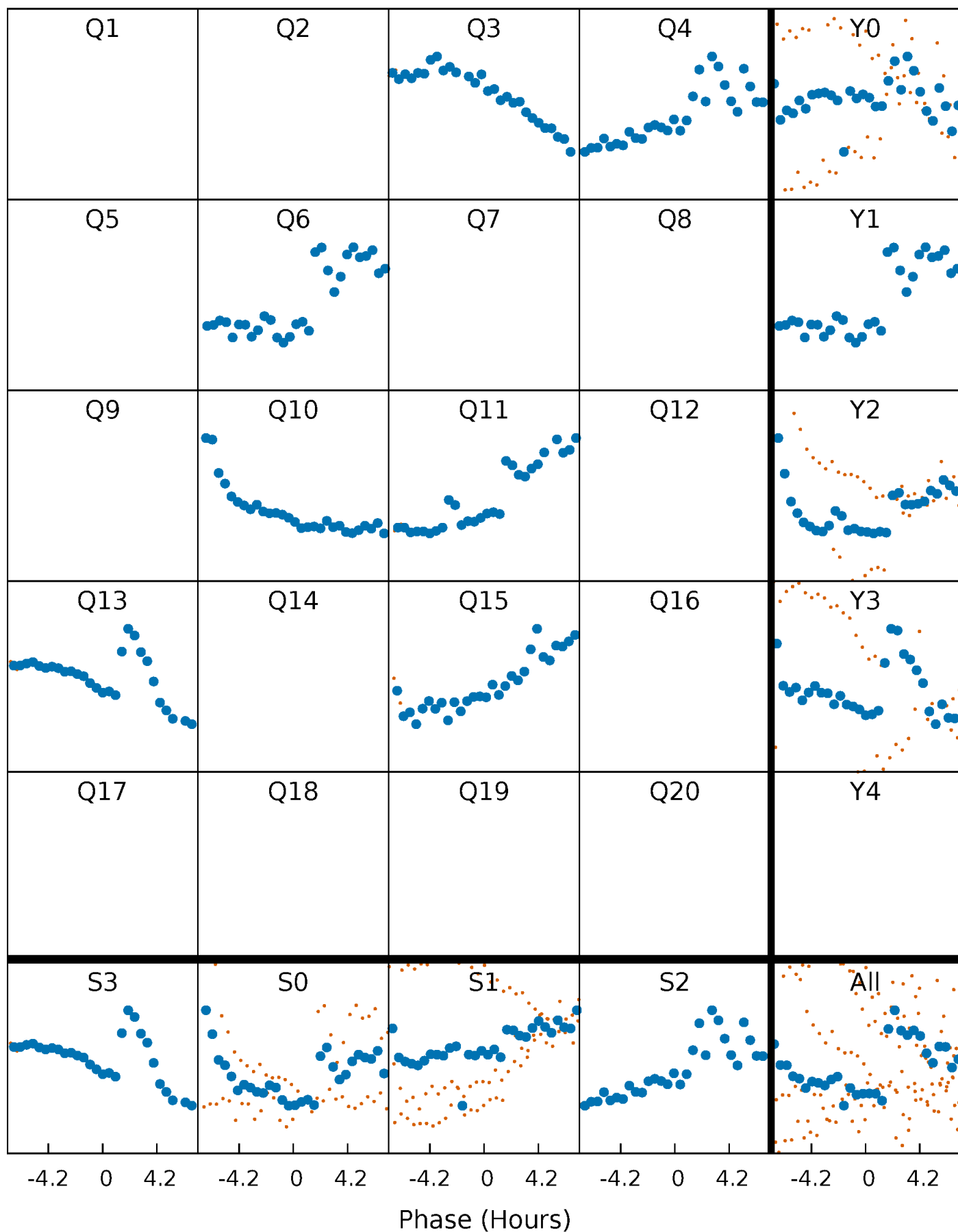


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



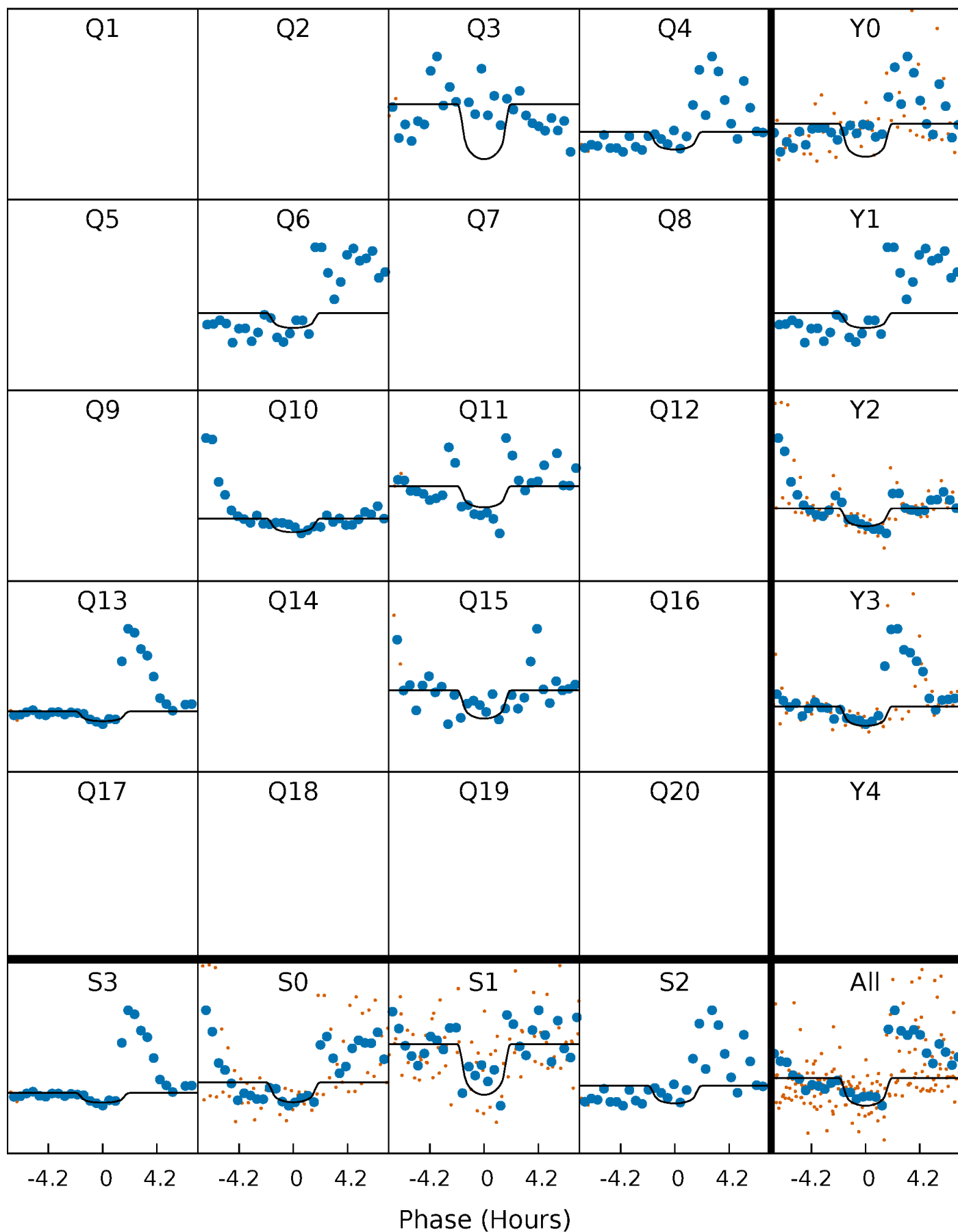
PDC Quarter-Phased Transit Curves

TCE 008935655-05 $P=166.791179$ Days $T_0=261.530762$ (BKJD)



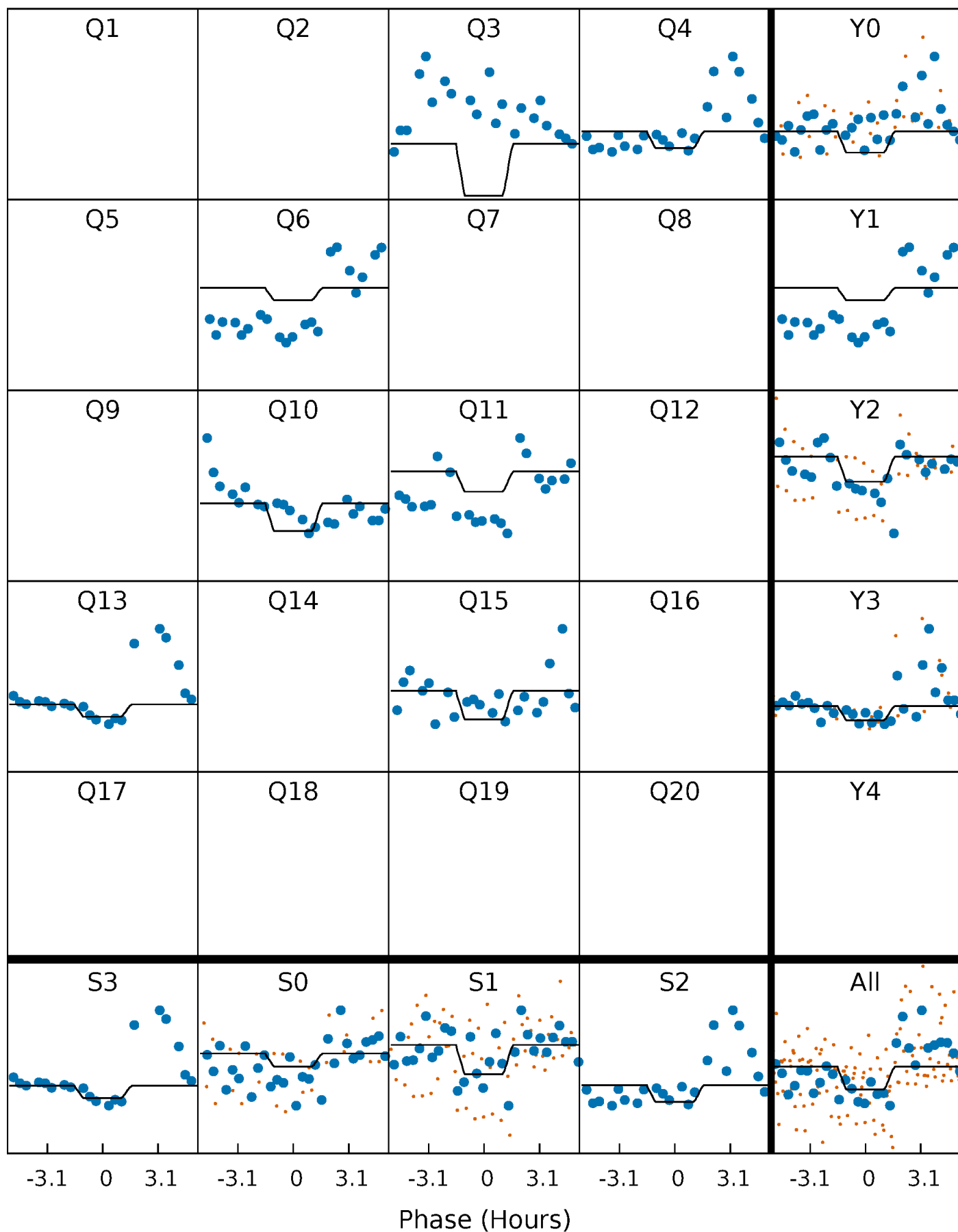
DV Quarter-Phased Transit Curves

TCE 008935655-05 $P=166.791179$ Days $T_0=261.530762$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

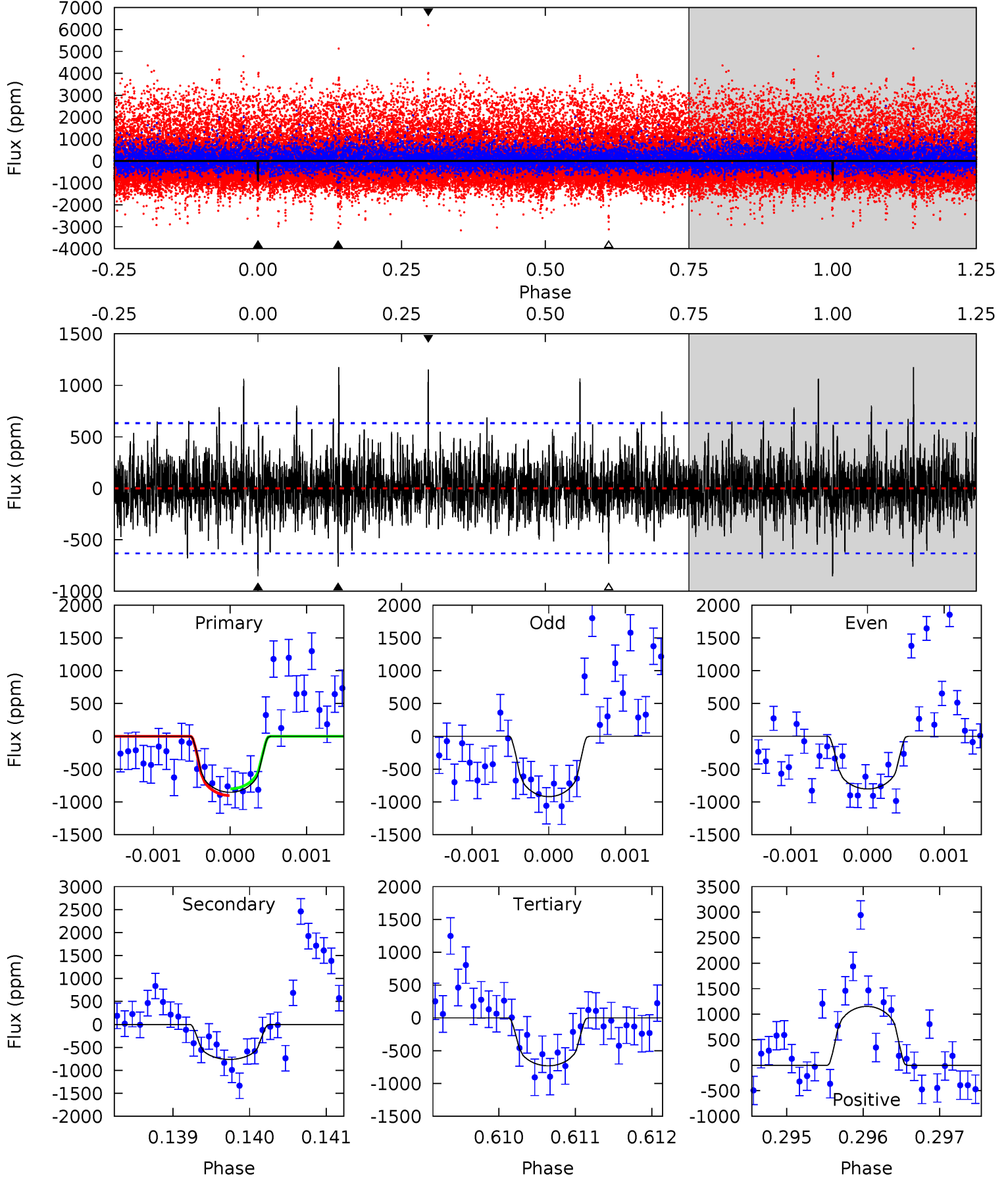
TCE 008935655-05 $P=166.792339$ Days $T_0=261.524620$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-05, $P = 166.791179$ Days, $E = 94.739583$ Days

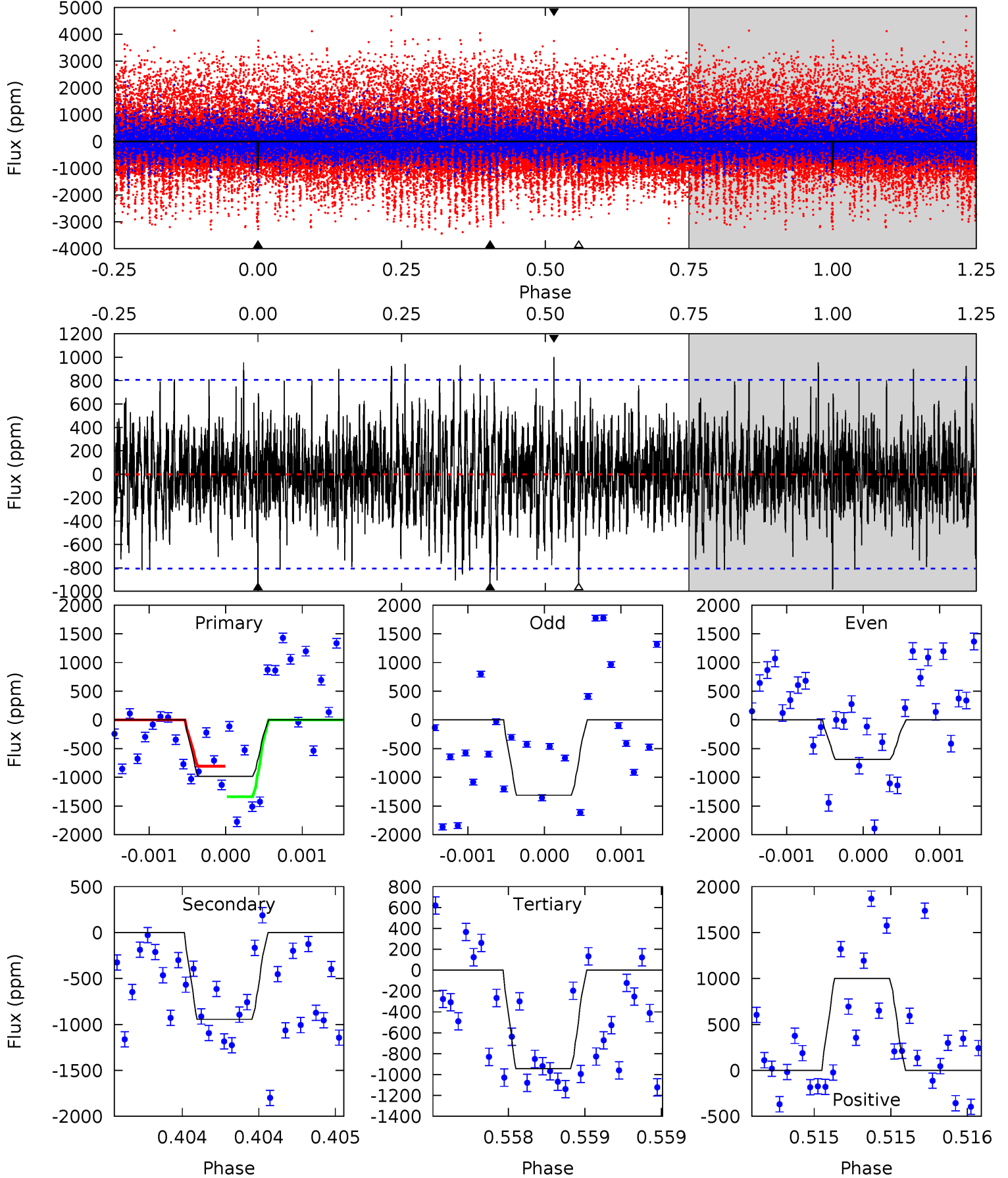
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.36	6.57	6.30	9.94	5.45	3.29	1.74	1.06	-2.58	0.27	-3.37	0.48	1.06	0.58	0.45



Alt Model-Shift Uniqueness Test

008935655-05, P = 166.792339 Days, E = 94.732281 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.72	6.45	6.43	6.84	5.51	3.38	1.81	0.29	-0.12	0.01	-0.39	2.09	1.98	0.50	1.85



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-762±116	$2.78^{+2.34}_{-1.86}$	242^{+9}_{-11}	3143^{+1337}_{-487}	$13024^{+104225}_{-9411}$
Alt.	-944±146	$2.72^{+2.47}_{-1.77}$	242^{+10}_{-10}	3259^{+1443}_{-540}	$16969^{+117892}_{-12282}$

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 $A_{obs} \gg 1.0$

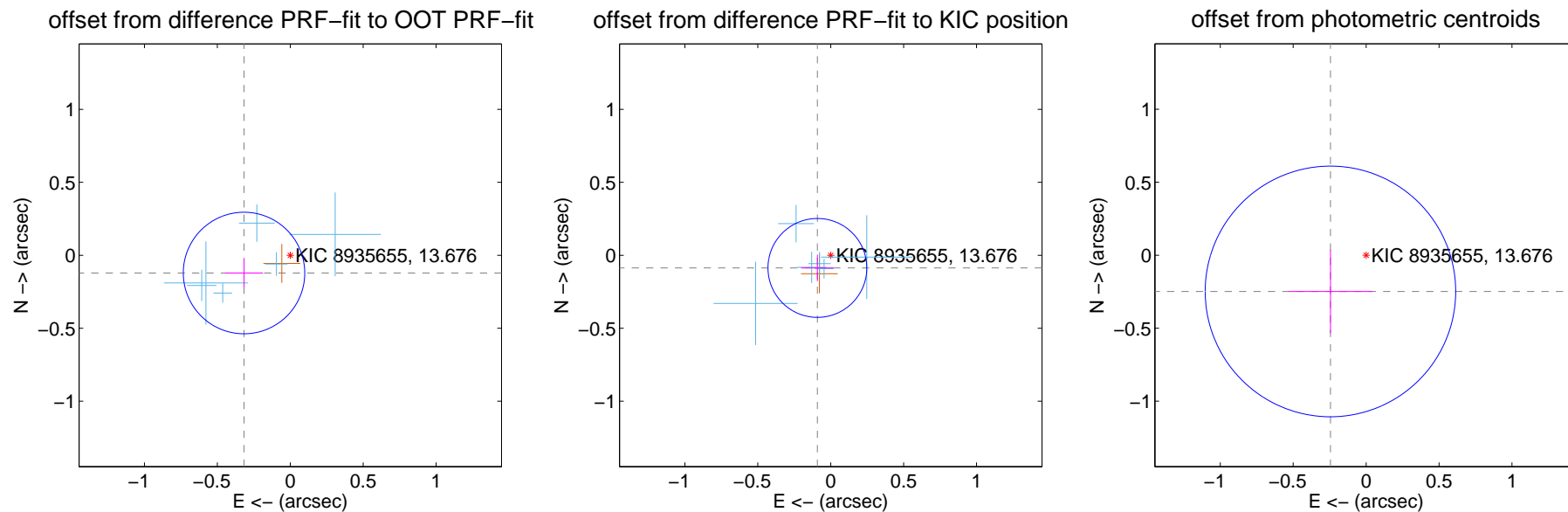
DV Centroid Data

Supplemental centroid analysis for 008935655-05. Kepler magnitude: 13.68. Transit SNR 6.17

There are 6 quarters with good PRF difference image offsets

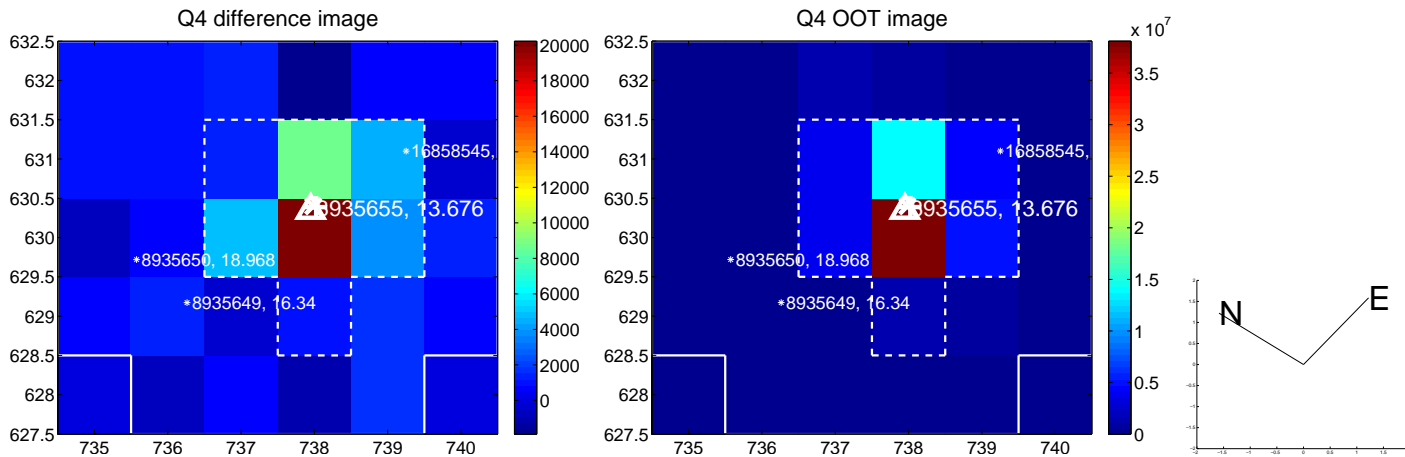
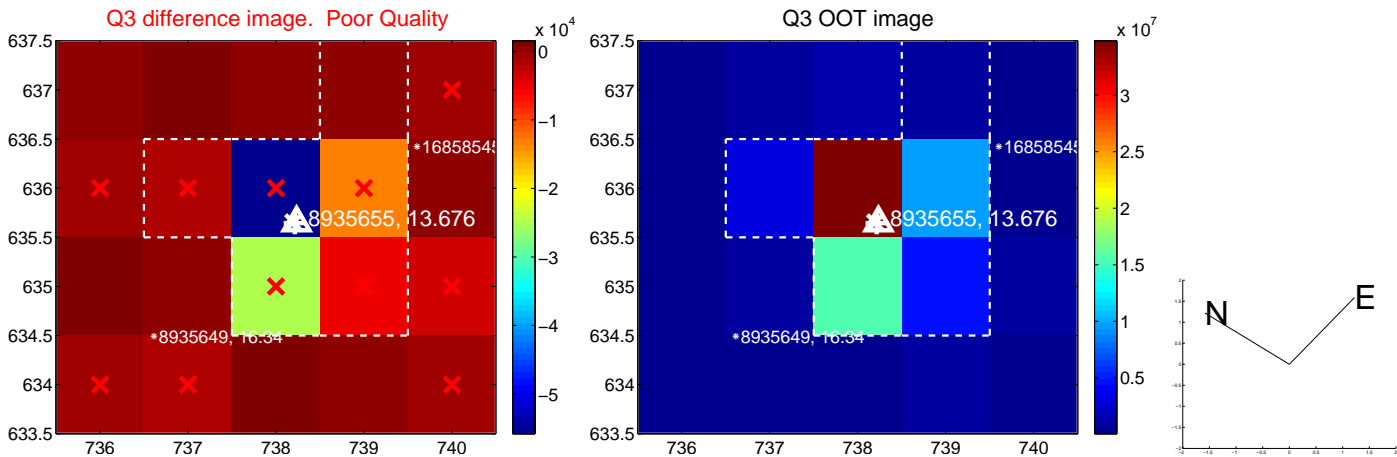
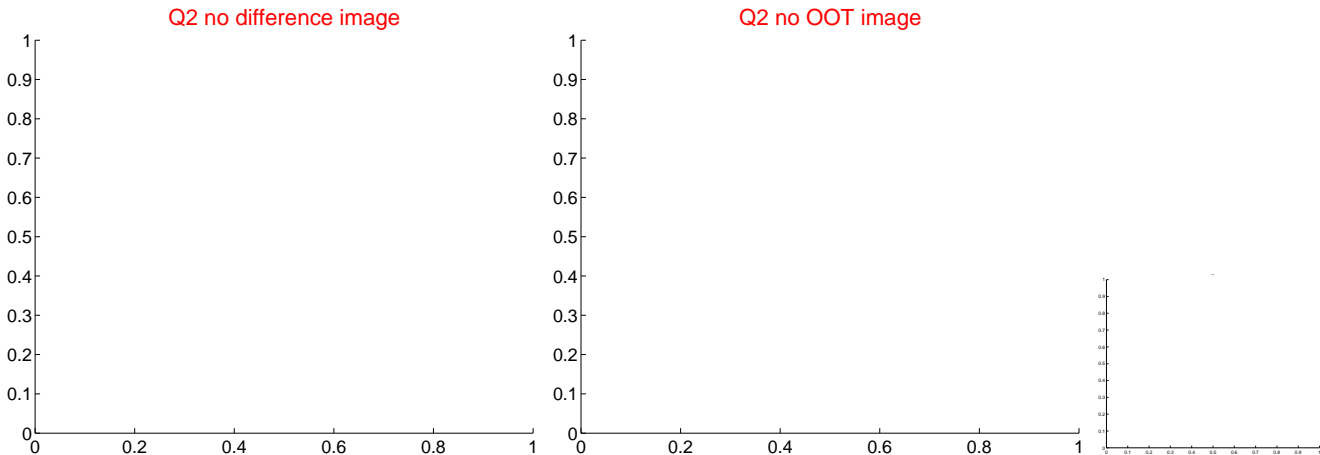
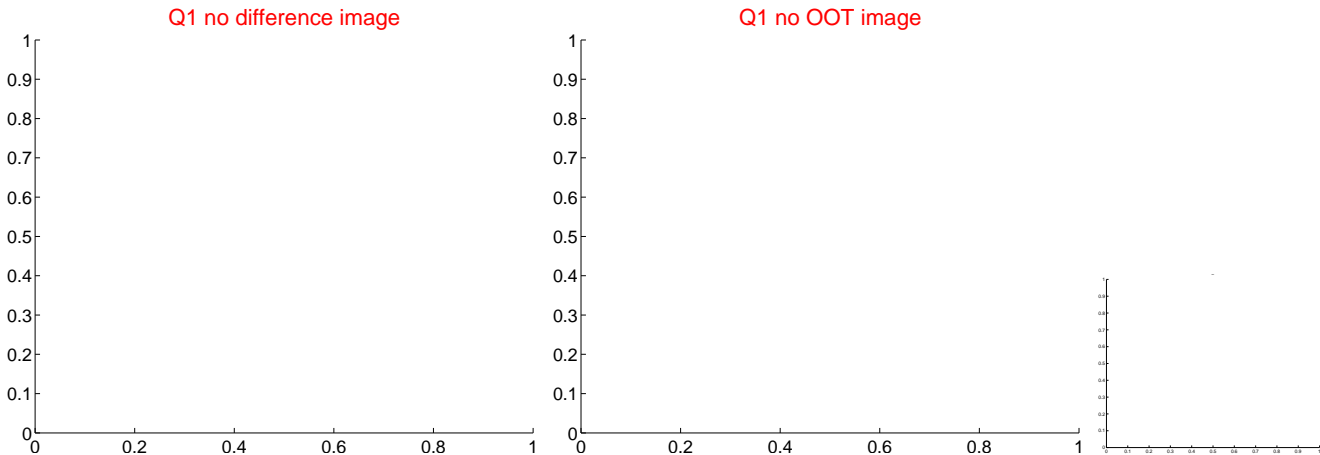
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.340 ± 0.139	2.45	0.317 ± 0.129	-0.122 ± 0.097
PRF-fit source offset from KIC position	0.126 ± 0.113	1.11	0.091 ± 0.112	-0.087 ± 0.091
photometric centroid source offset	0.35 ± 0.29	1.22	0.24 ± 0.29	-0.25 ± 0.29

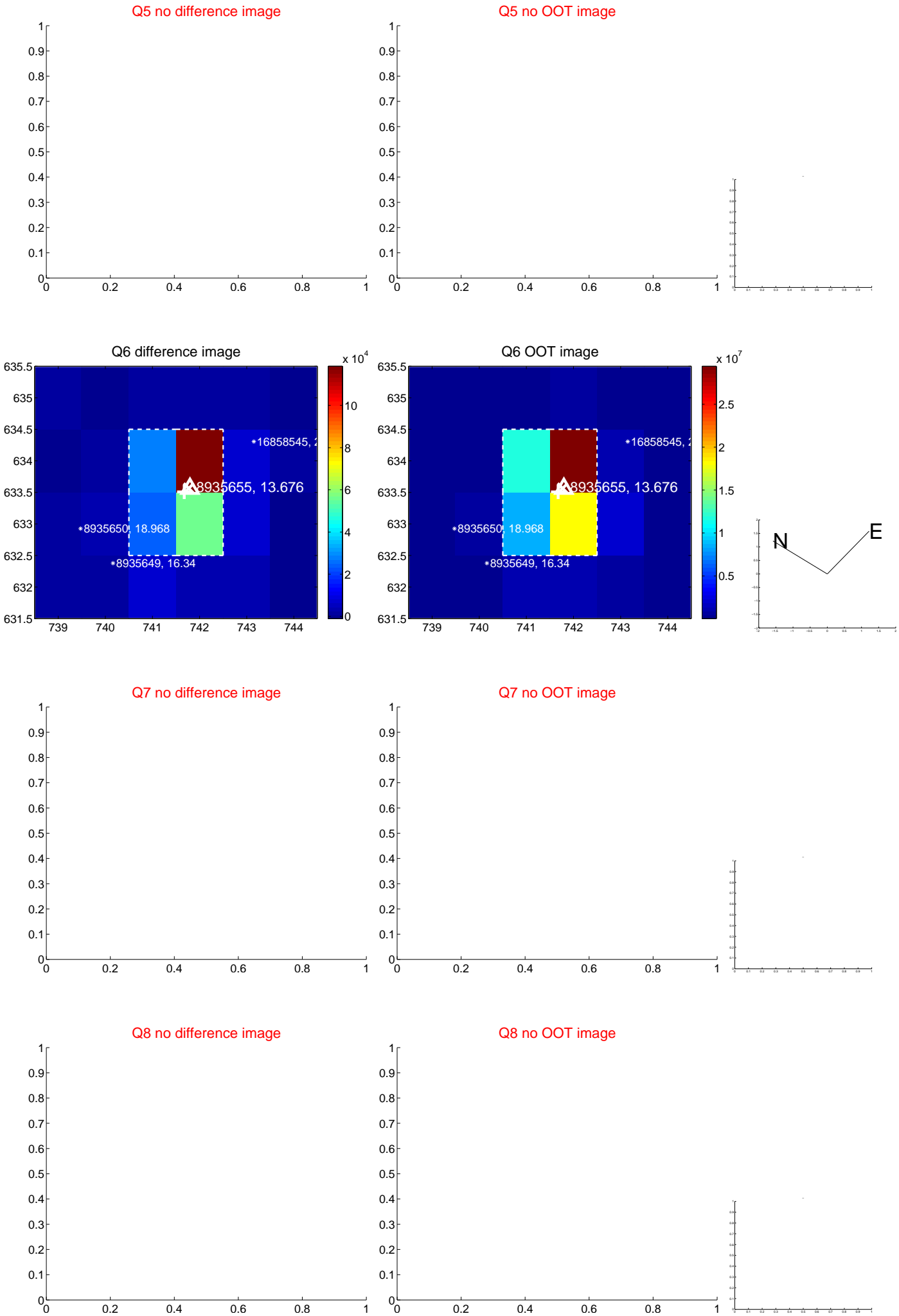


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

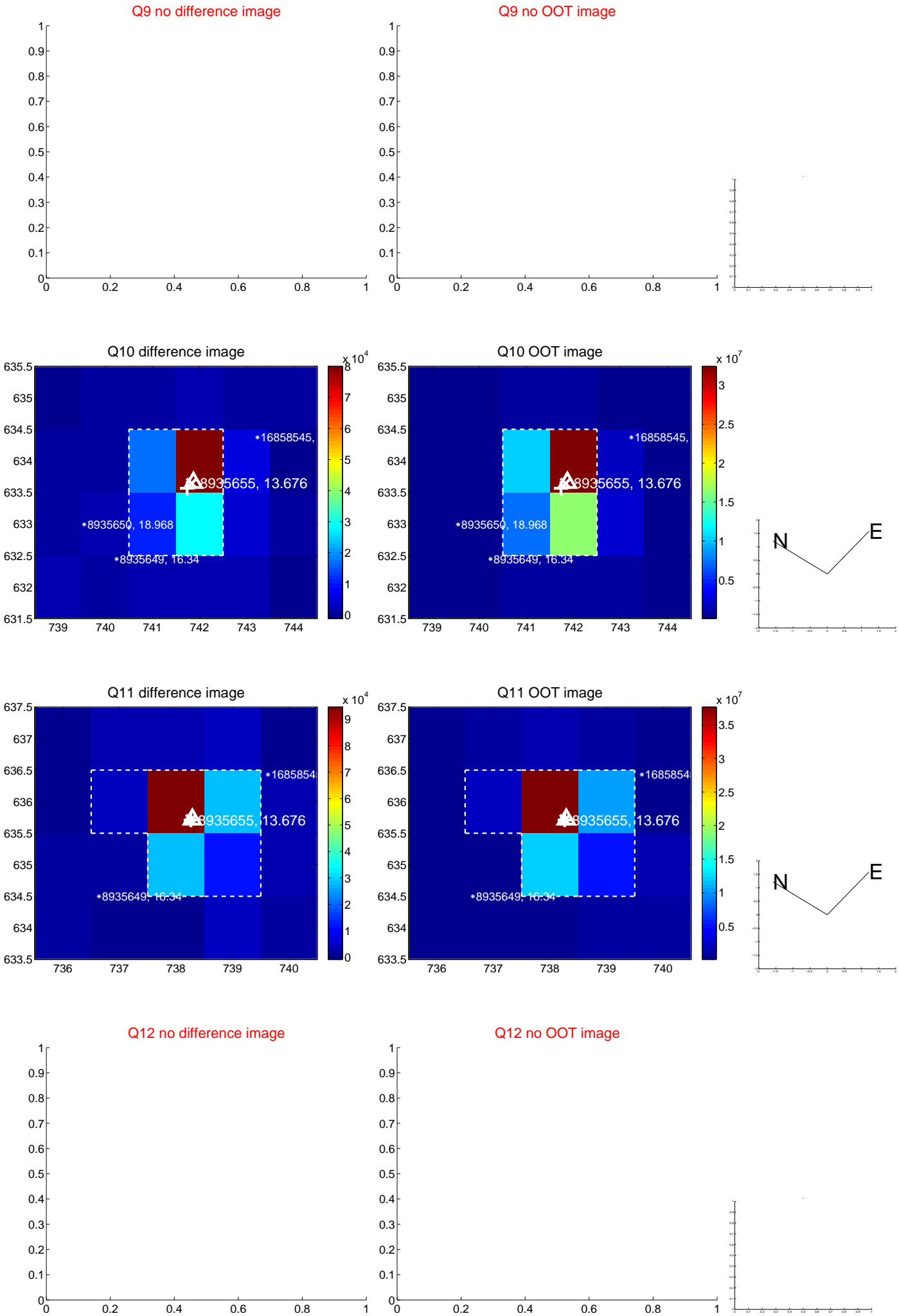
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



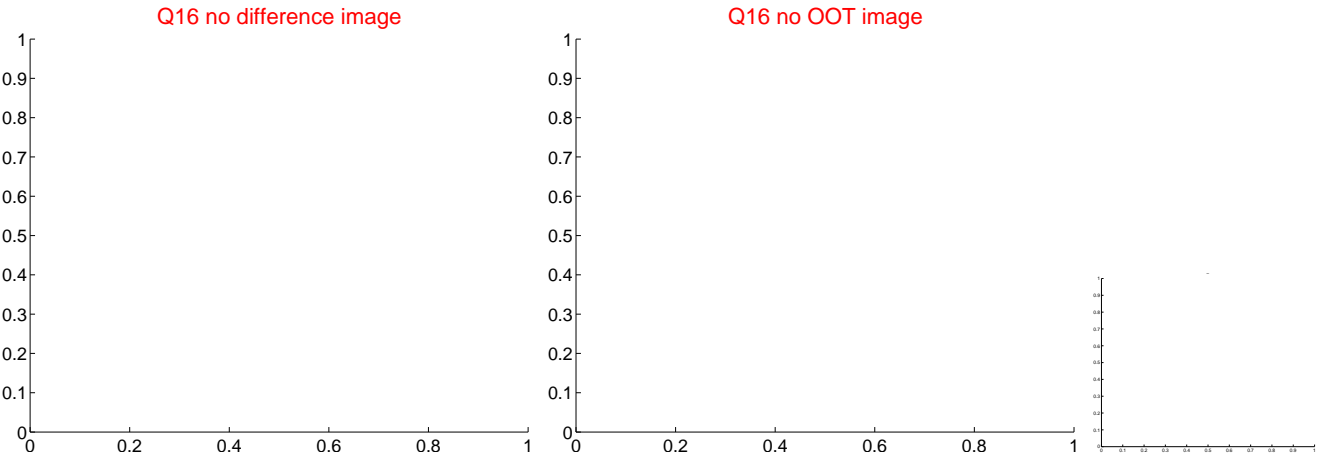
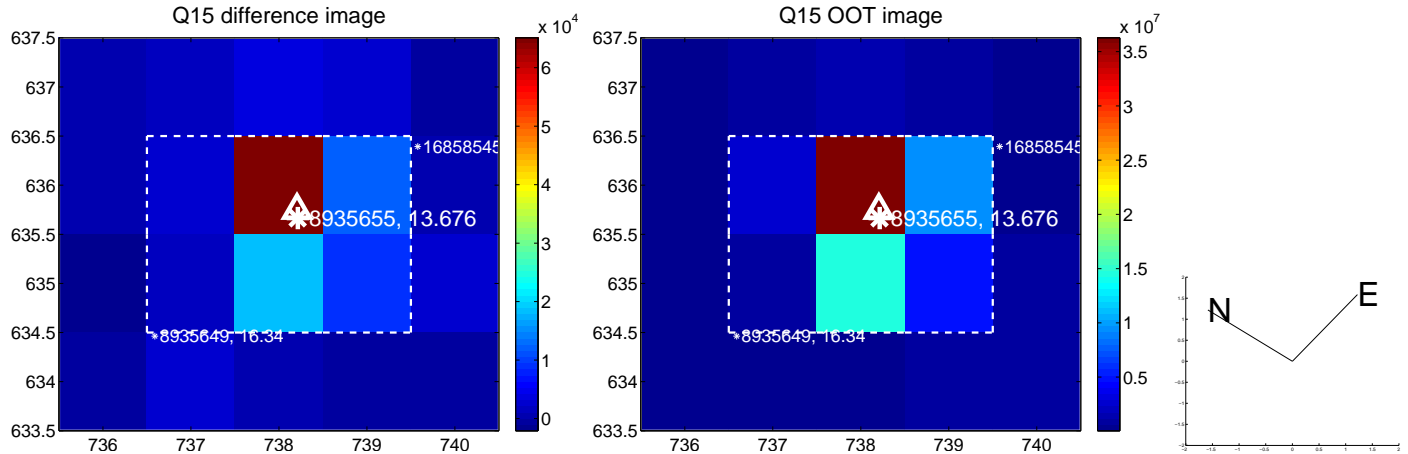
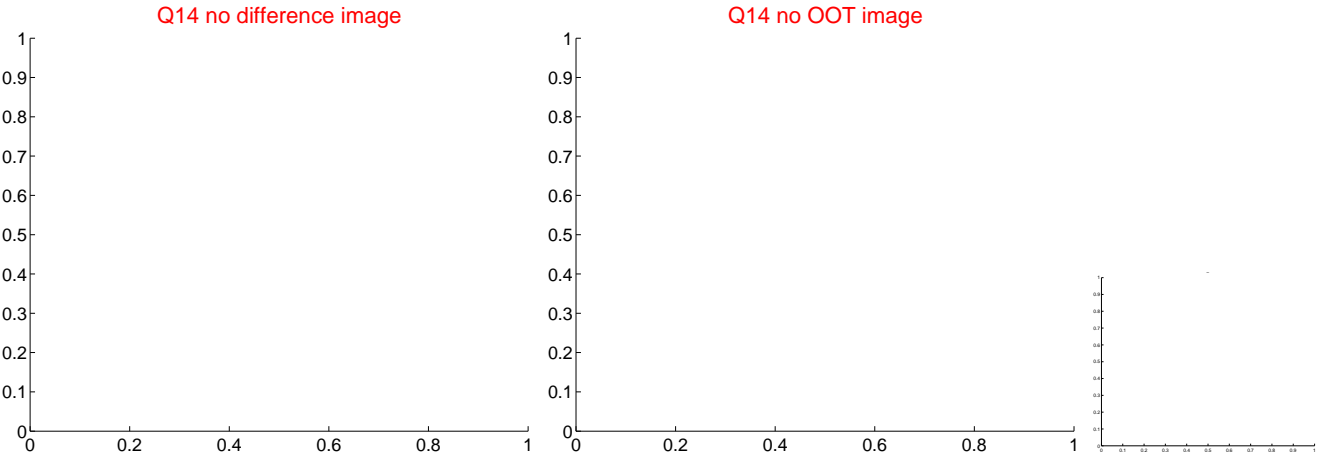
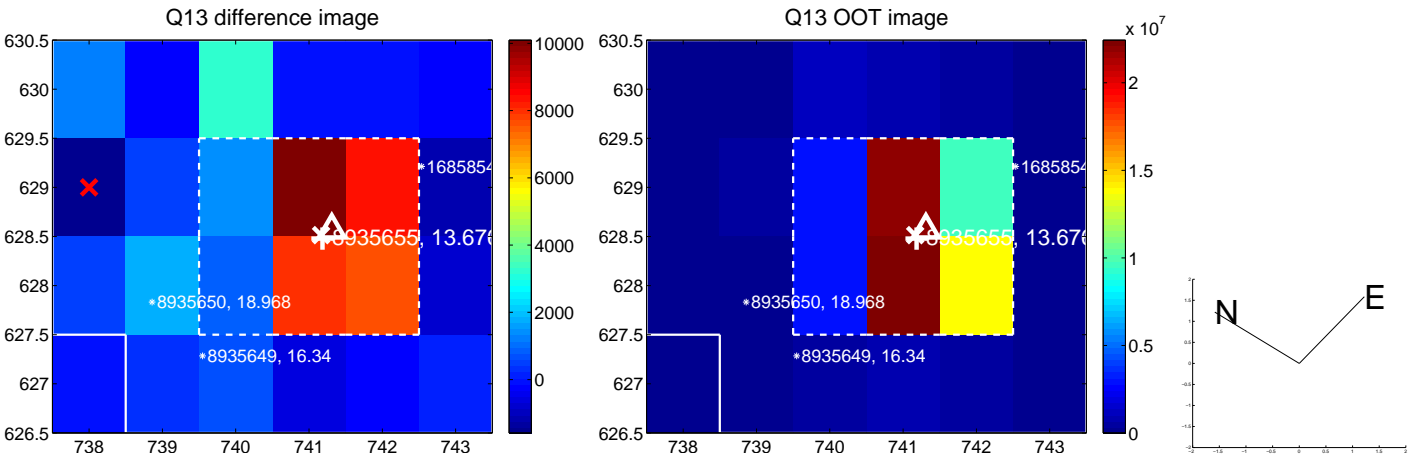
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



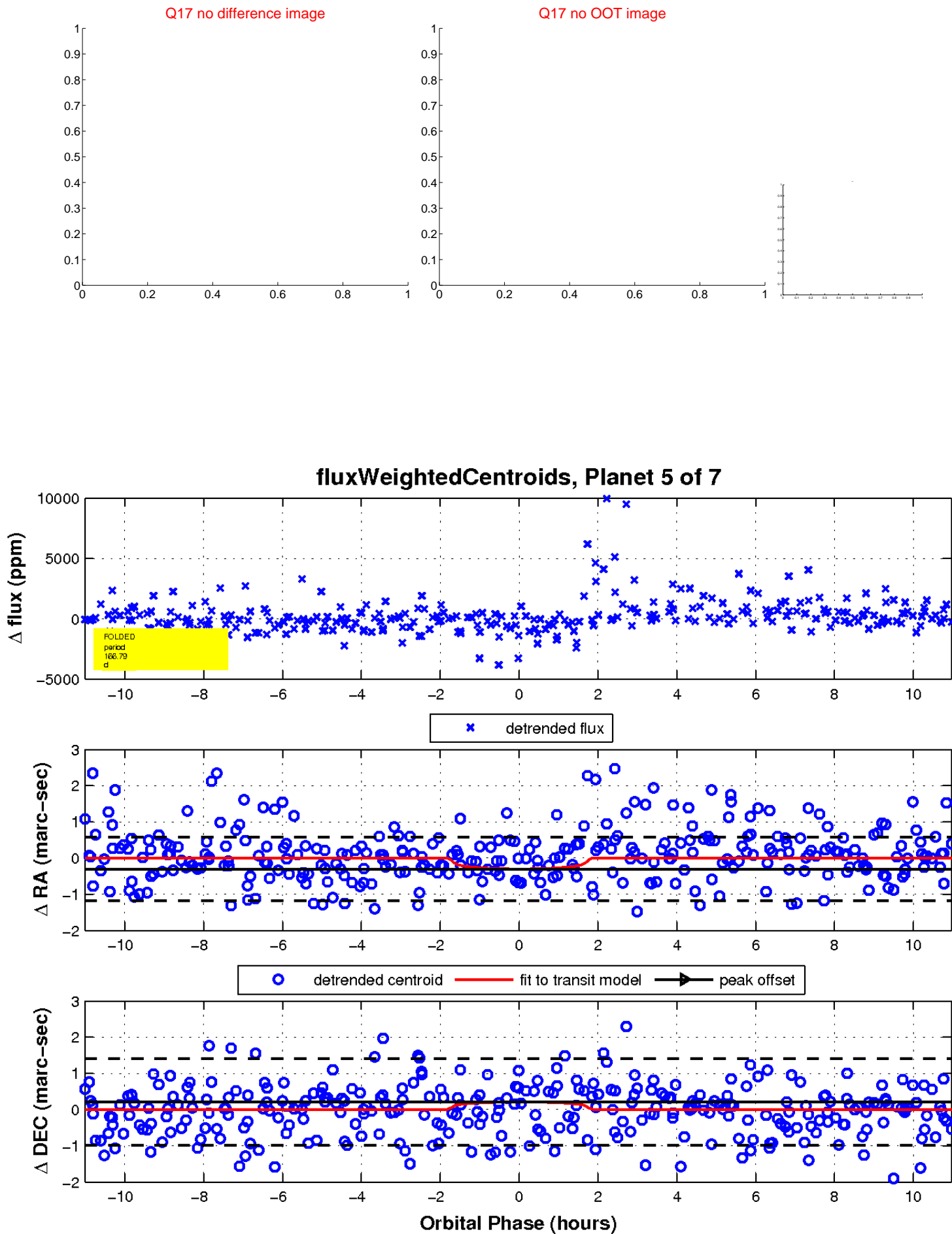
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

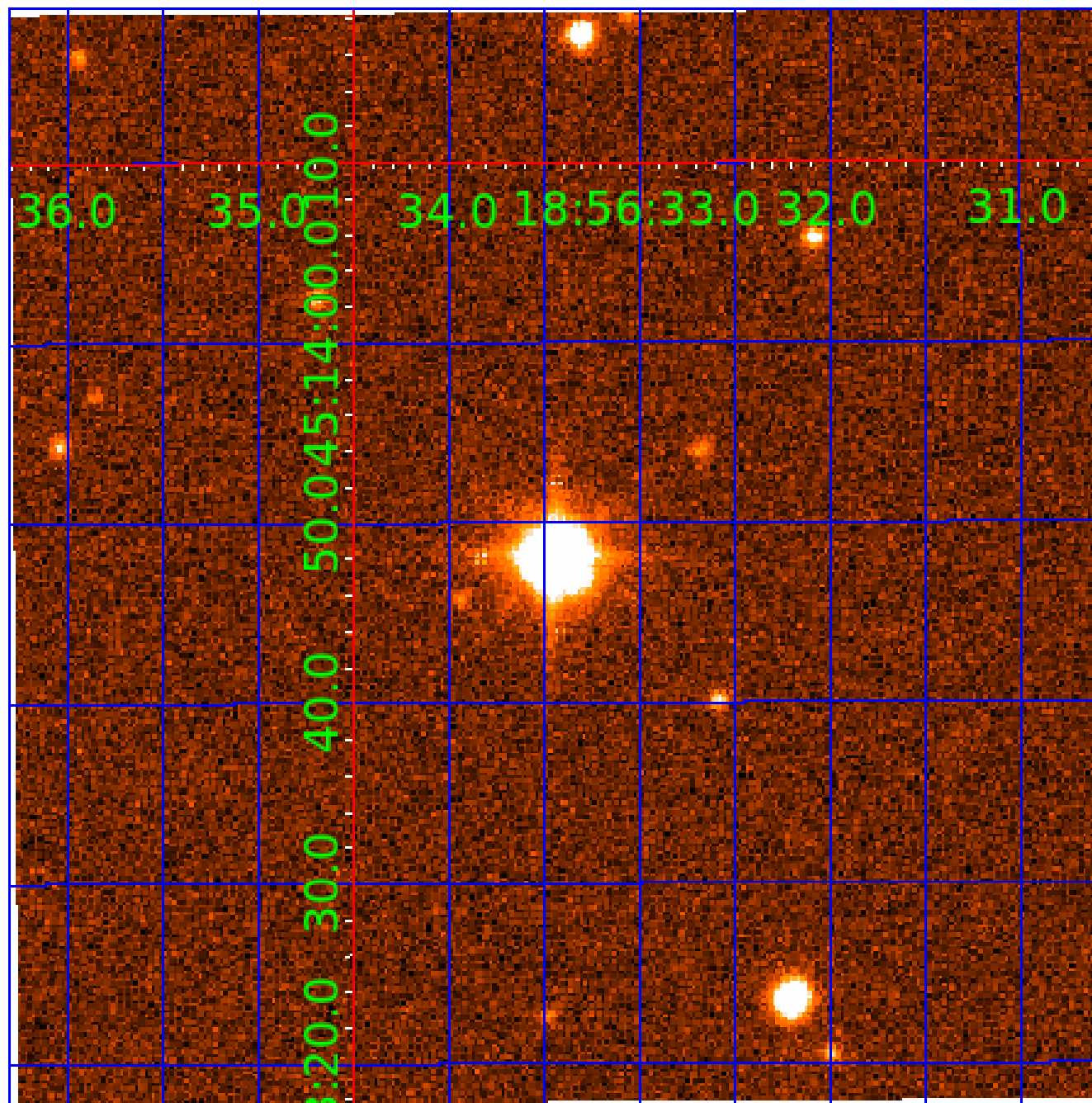


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008935655

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})
008935655-01	OBS	No	386.153577	160.755792	1589.9	9.520	16.6	6.7	0.57	3694	2.34	0.07
008935655-02	OBS	No	286.275178	185.942018	2124.6	5.267	12.2	10.5	0.57	3694	2.77	0.11
008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
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008935655-05	OBS	No	166.791179	261.530762	1121.6	3.687	12.5	6.2	0.57	3694	2.03	0.22
008935655-06	OBS	No	364.937563	361.649987	601.7	1.510	12.2	2.1	0.57	3694	1.66	0.08
008935655-07	OBS	No	109.690346	223.875799	598.0	3.000	10.9	-1.0	0.57	3694	1.33	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

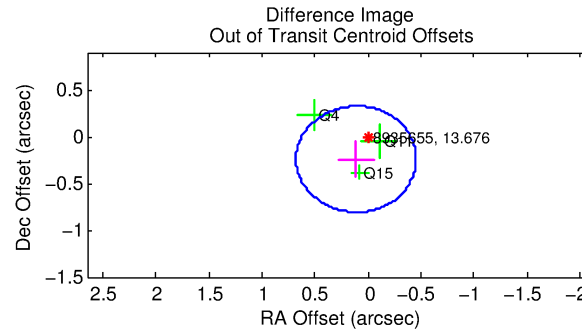
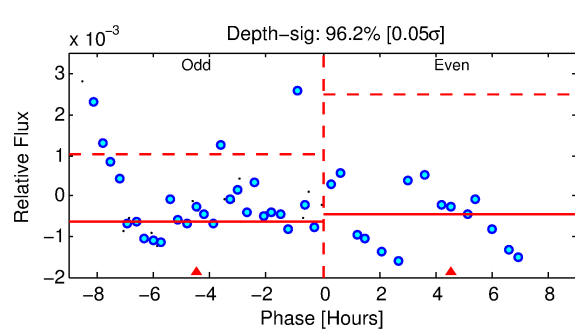
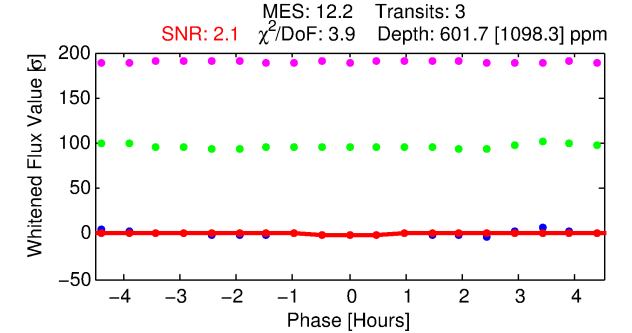
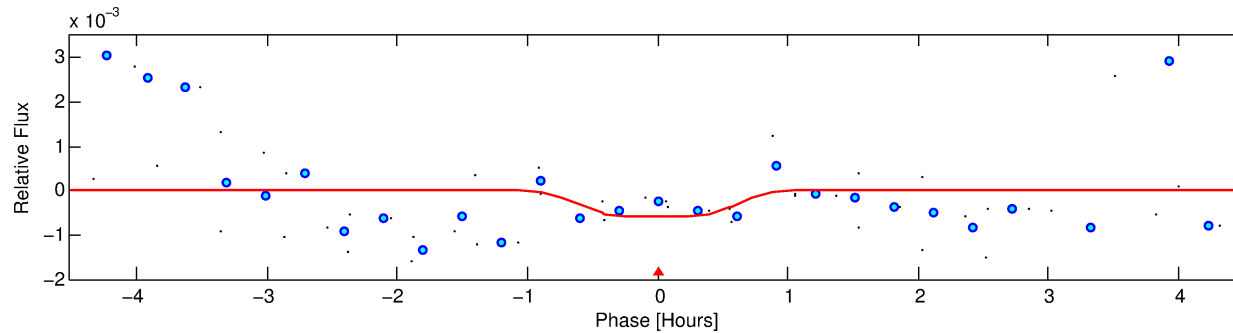
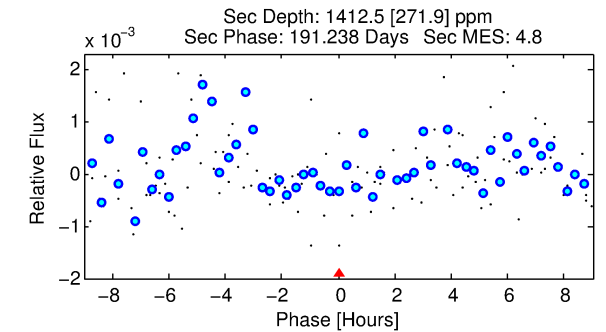
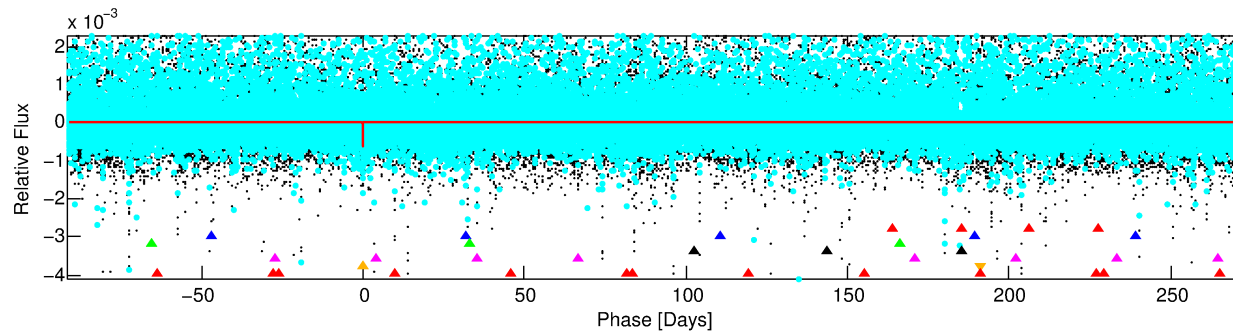
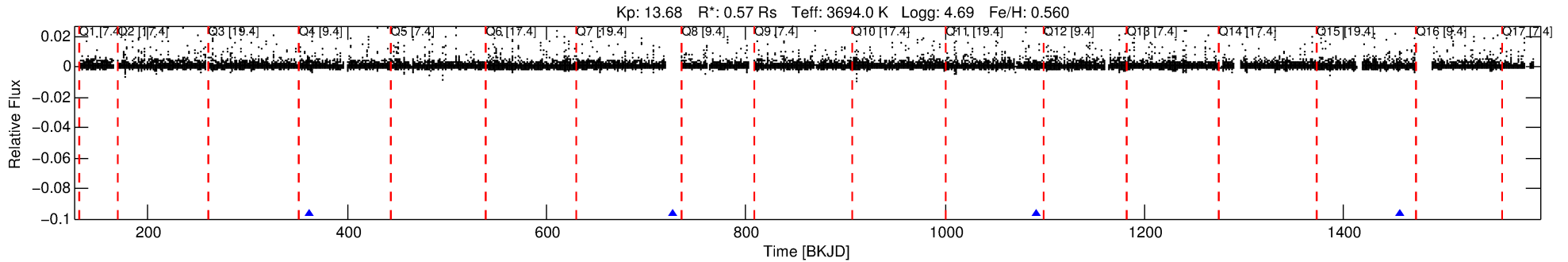
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-06

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 6 of 7 Period: 364.938 d



DV Fit Results:

Period = 364.93756 [0.01975] d
Epoch = 361.6500 [0.0404] BKJD
Rp/R* = 0.0268 [0.2846]
a/R* = 1006.91 [37361.45]
b = 0.87 [10.78]
Seff = 0.08 [0.02]
Teq = 135 [7] K
Rp = 1.66 [17.58] Re
a = 0.8274 [0.0922] AU
Ag = 193548.81 [4104303.58] [0.05σ]
Teffp = 4371 [23172] K [0.18σ]

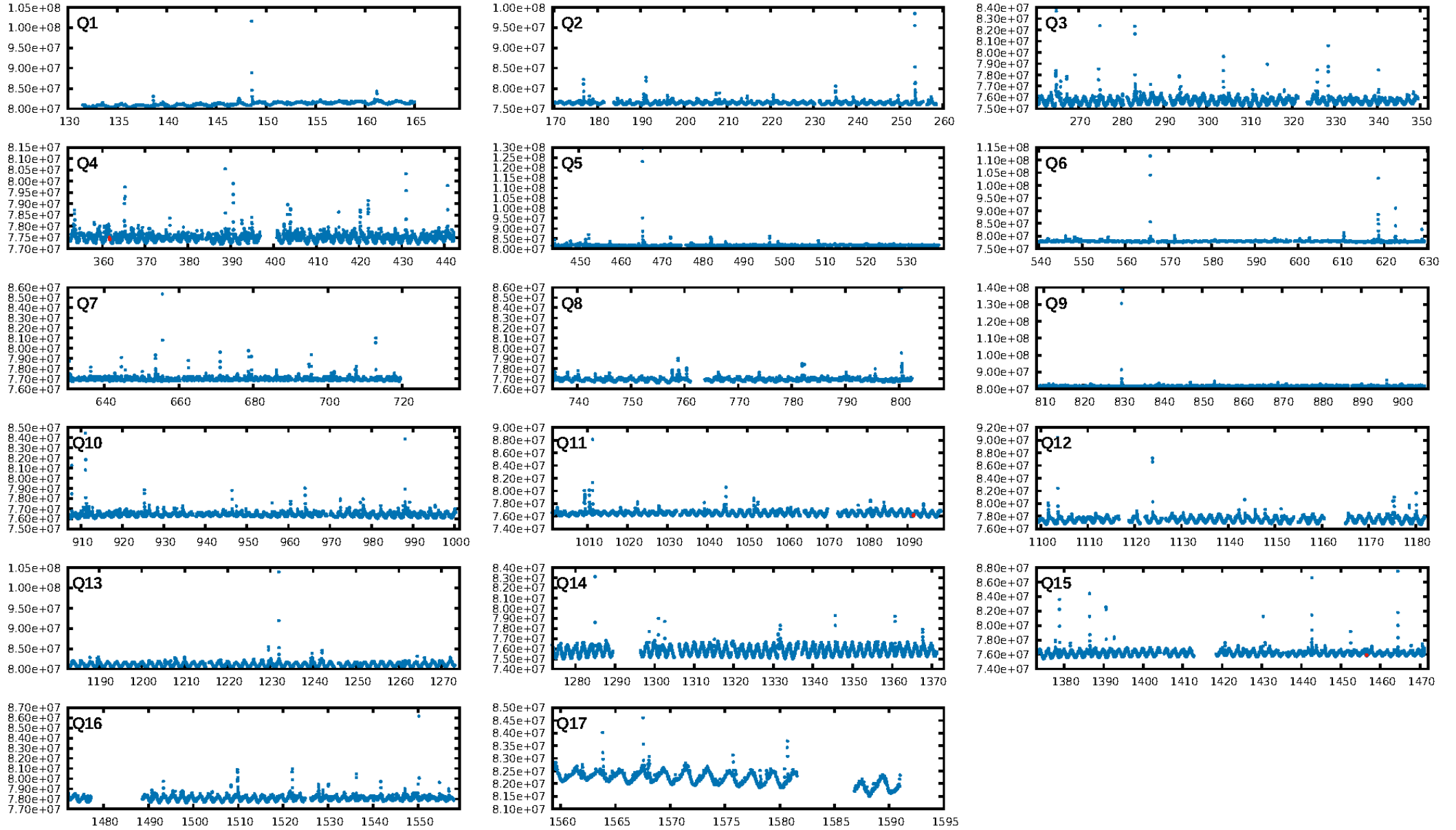
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [344.54σ]
LongPeriod-sig: 100.0% [52.83σ]
ModelChiSquare2-sig: 66.1%
ModelChiSquareGof-sig: 87.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.9388
Centroid-sig: 62.2%
Centroid-so: 0.864 arcsec [0.72σ]
OotOffset-rm: 0.266 arcsec [1.41σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-rm: 0.273 arcsec [1.60σ]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

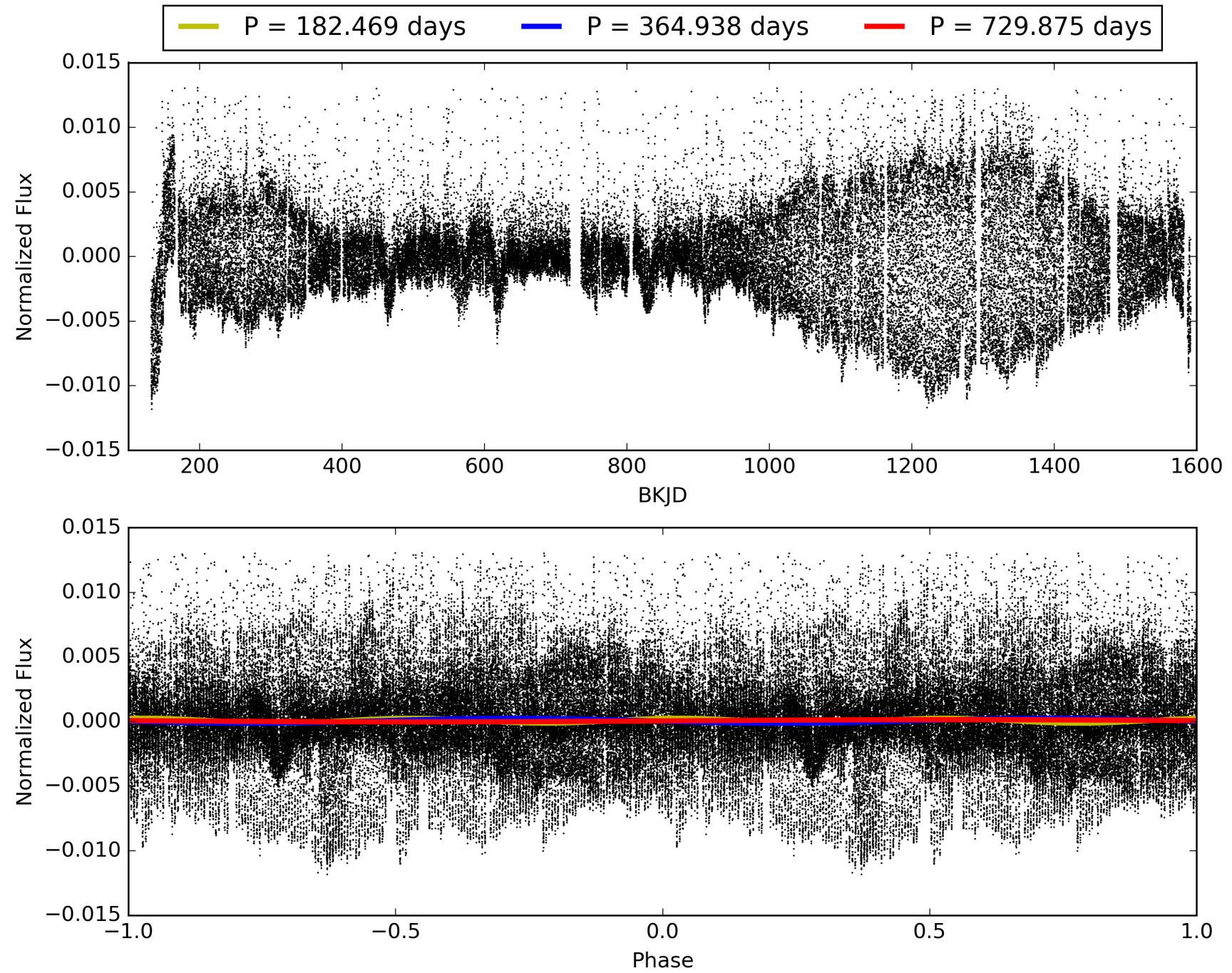
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:13:57 Z

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

TCE 008935655-06, PDC Light Curves

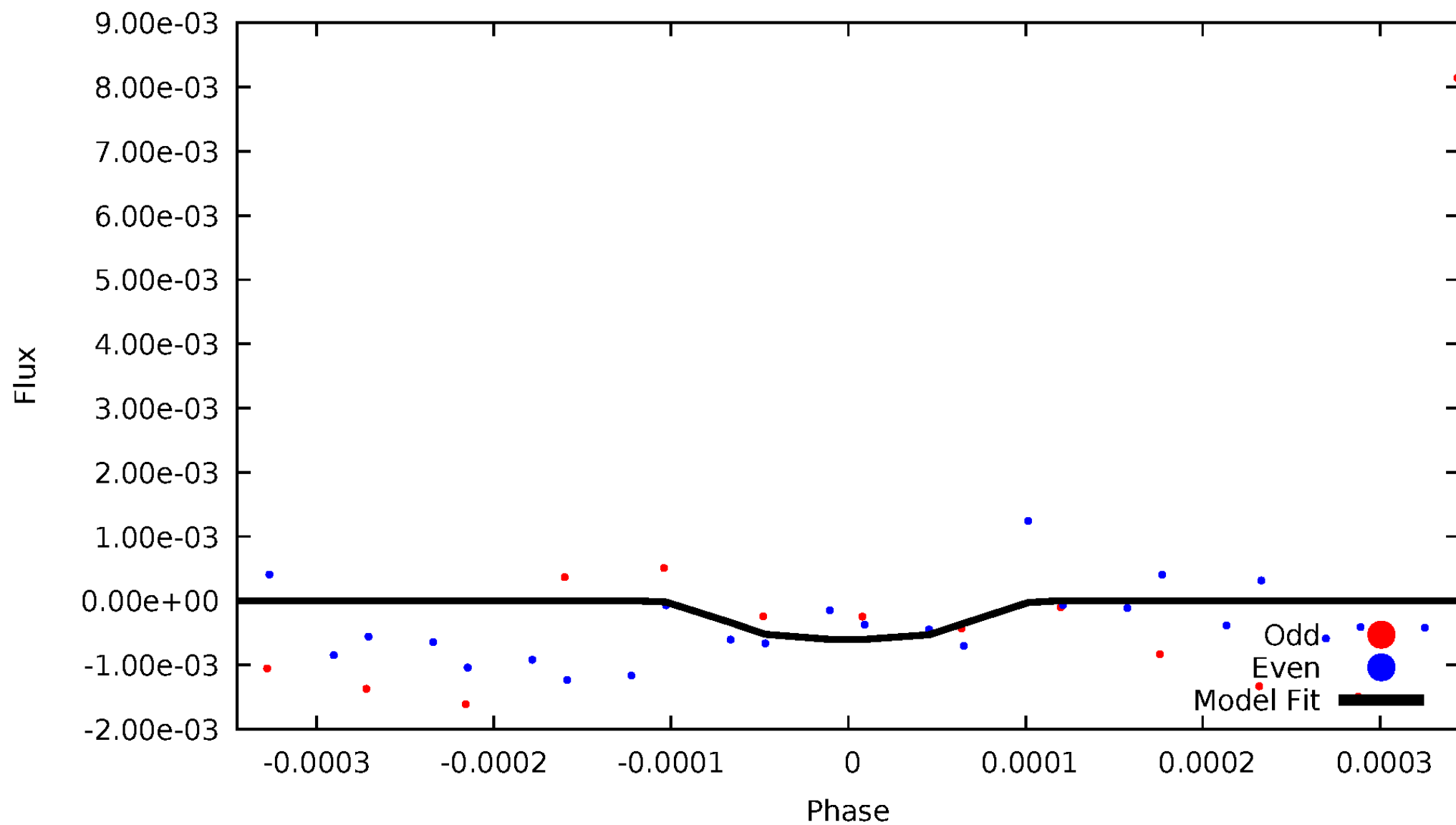


TCE 008935655-06



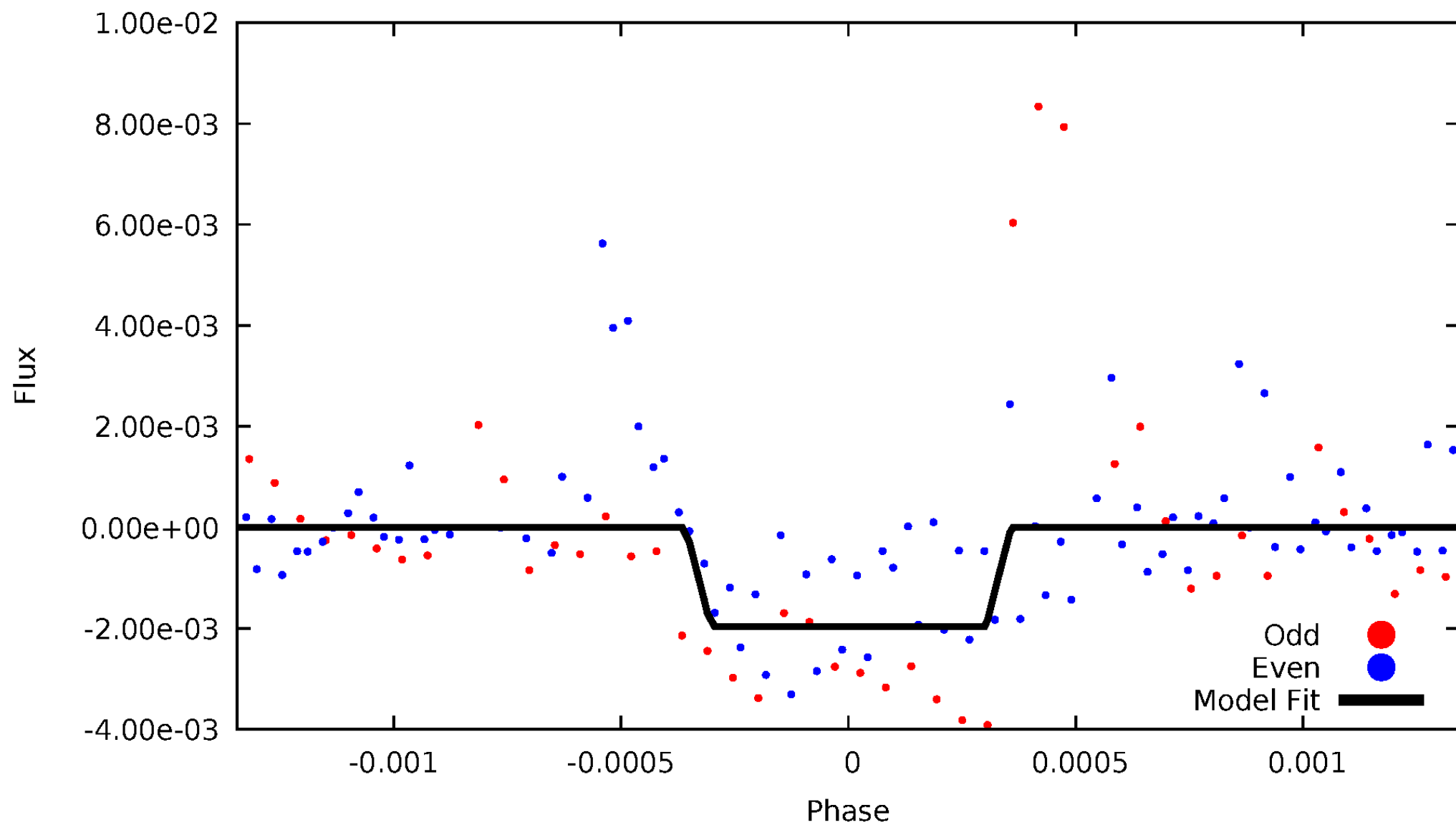
DV Odd/Even

TCE 008935655-06



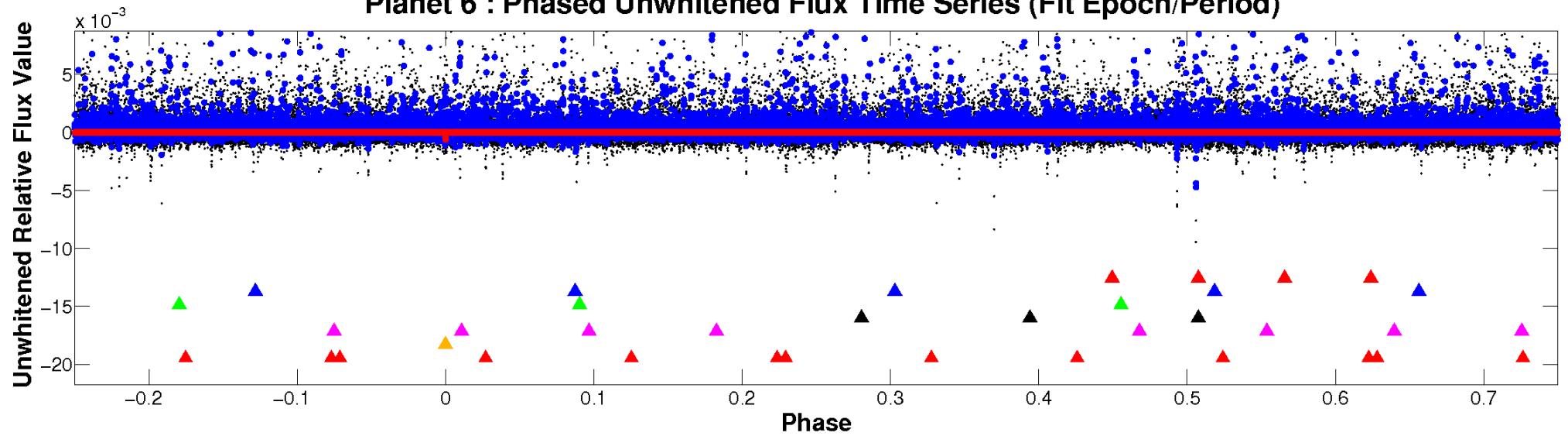
ALT Odd/Even

TCE 008935655-06

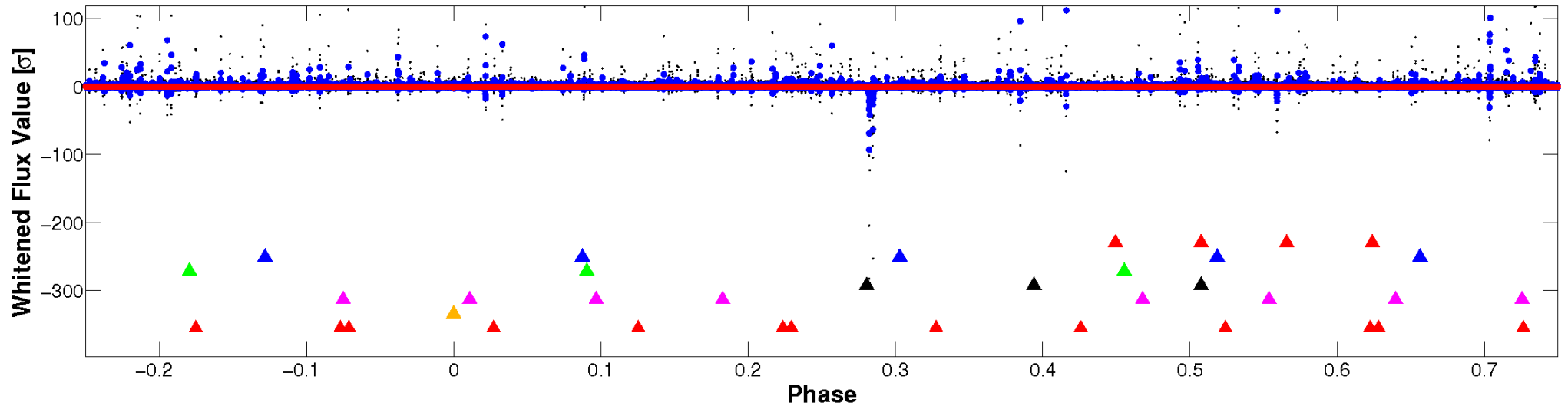


Non-Whitened Vs. Whitened Light Curve

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

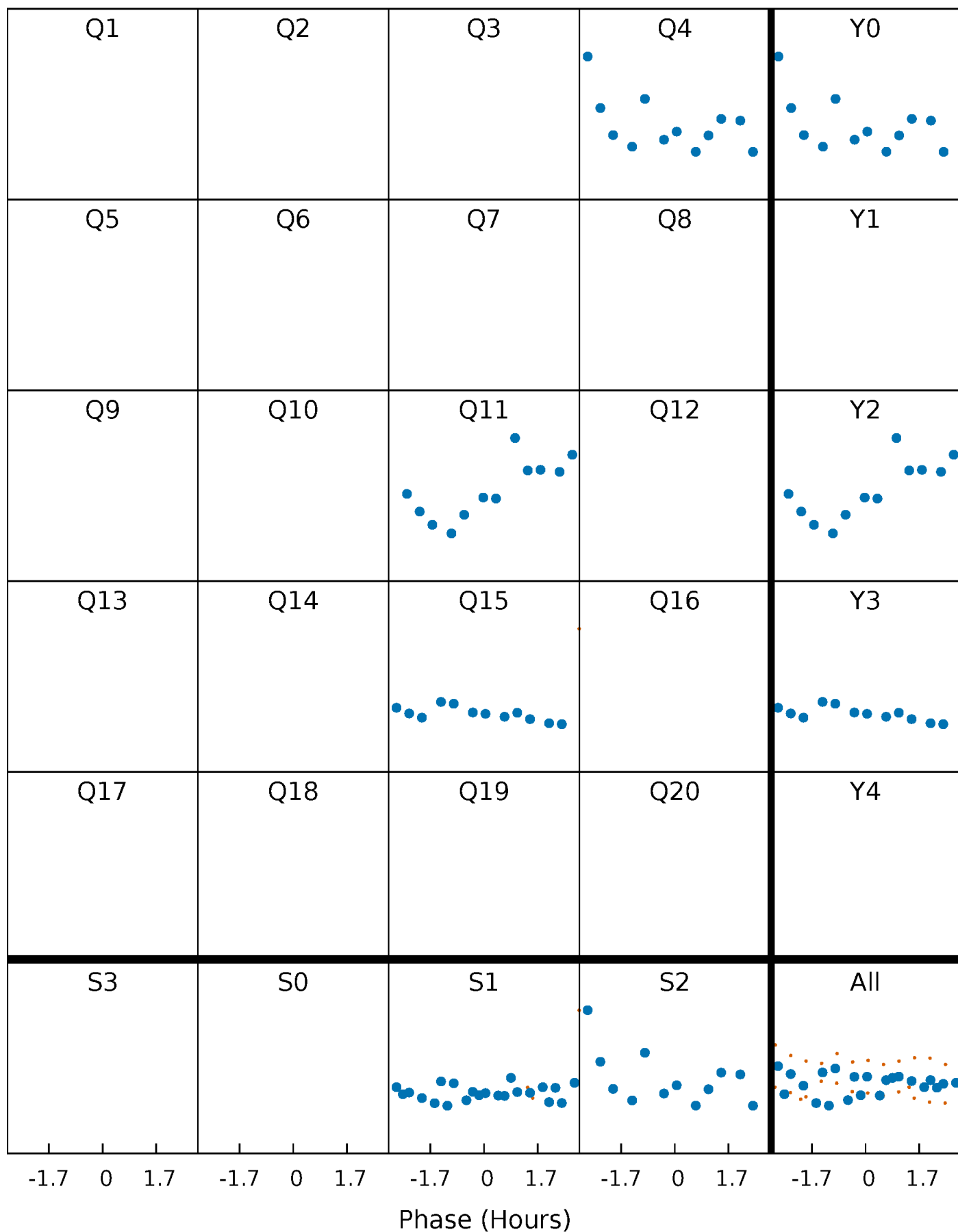


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



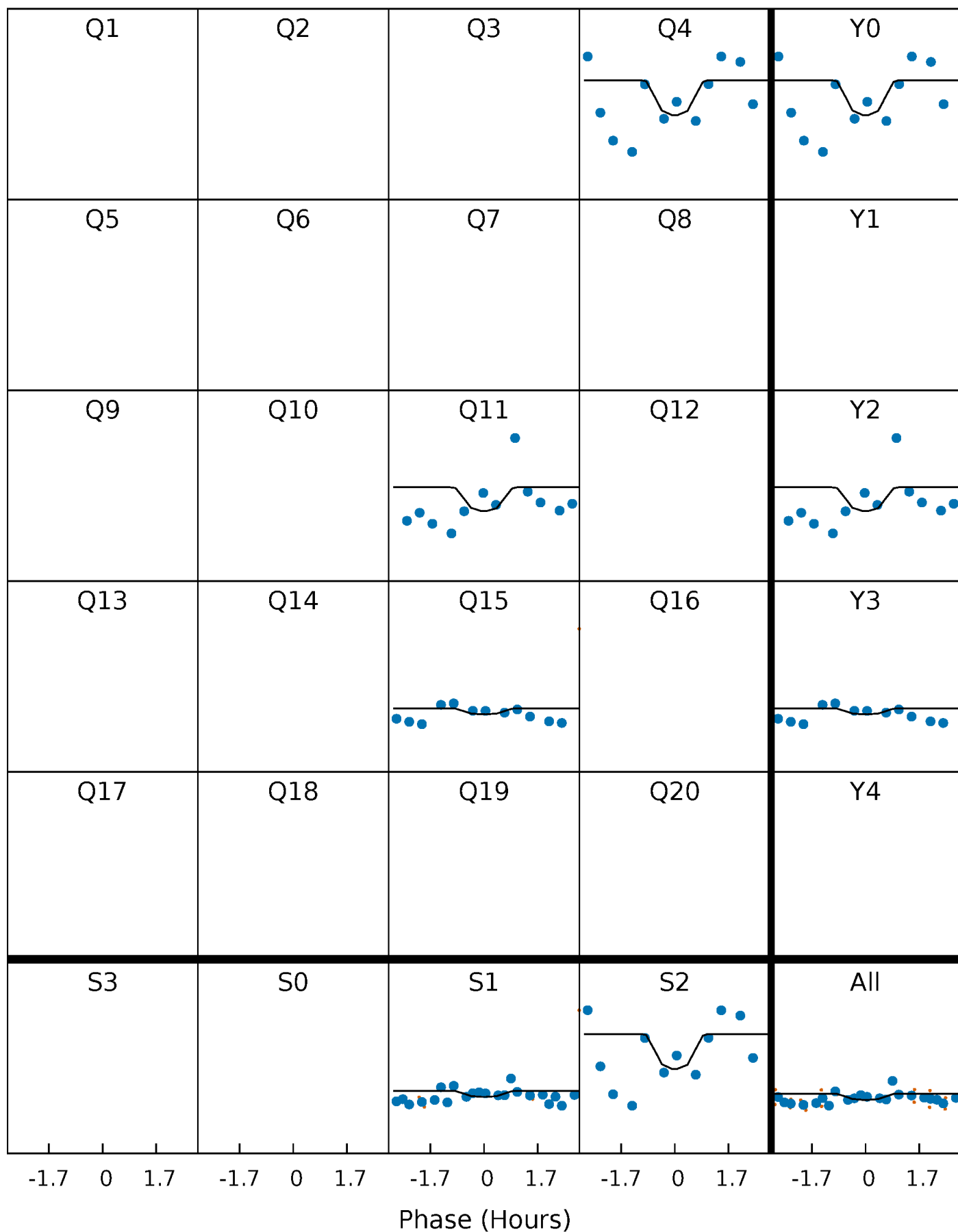
PDC Quarter-Phased Transit Curves

TCE 008935655-06 P=364.937563 Days $T_0=361.649987$ (BKJD)



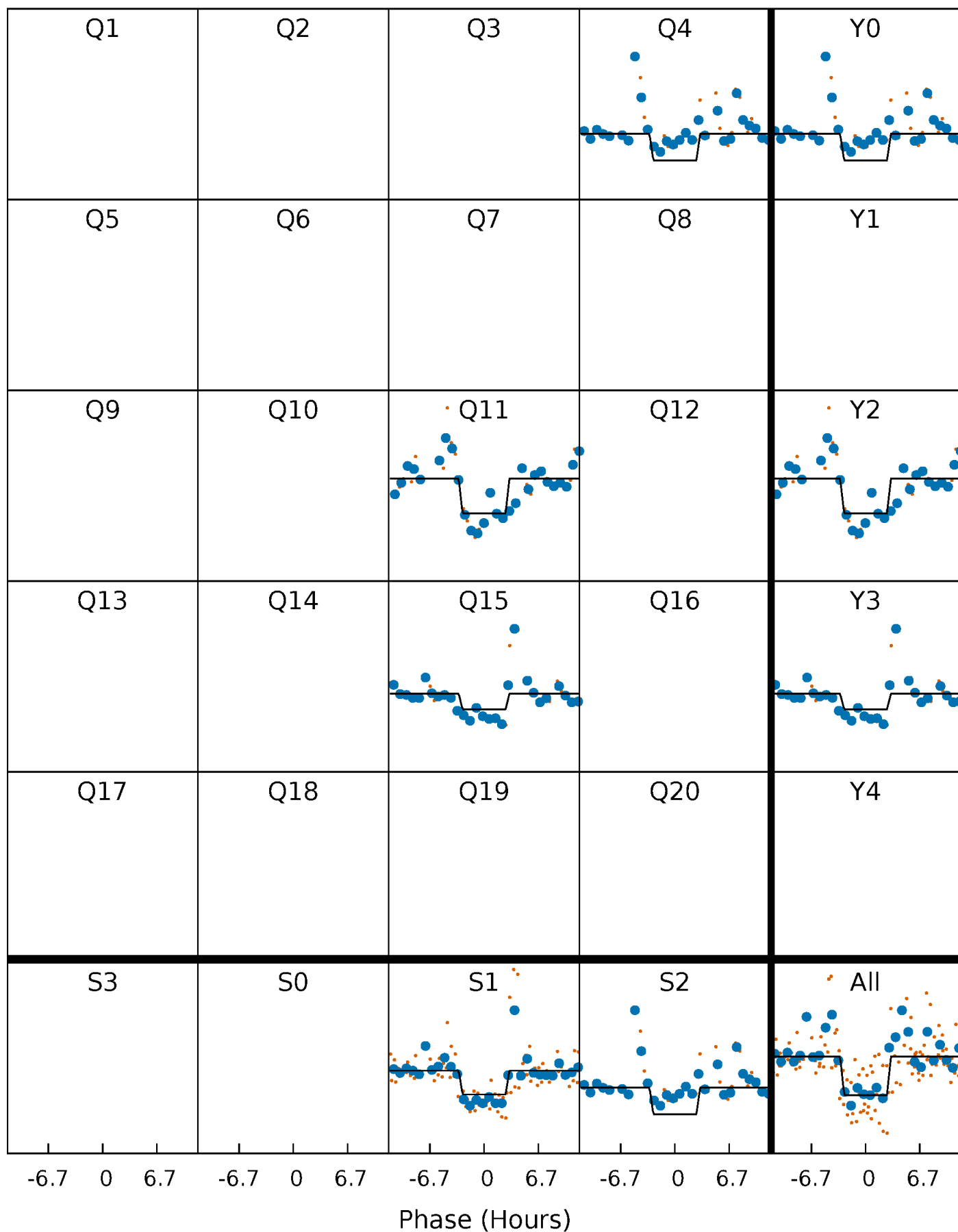
DV Quarter-Phased Transit Curves

TCE 008935655-06 P=364.937563 Days $T_0=361.649987$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

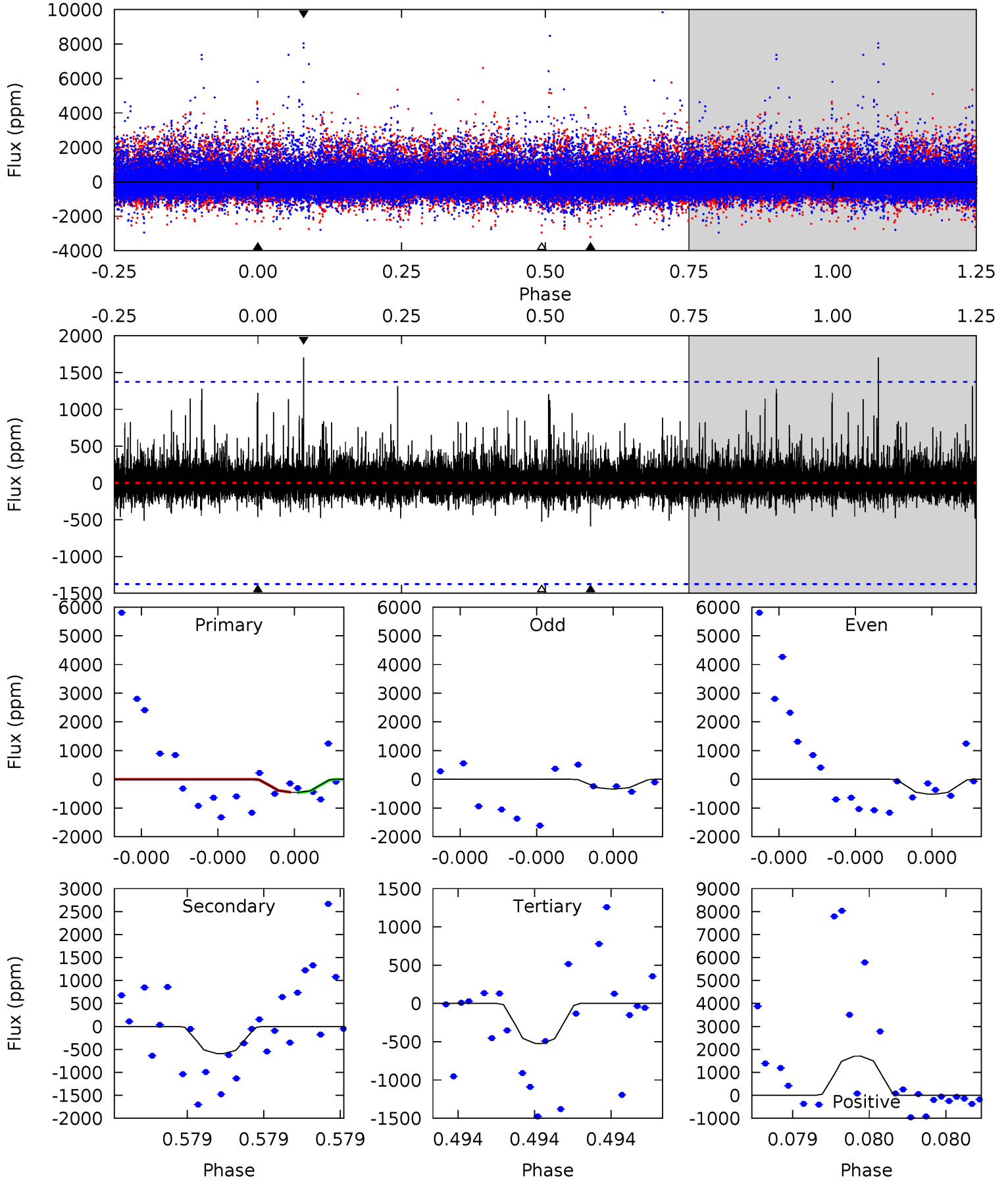
TCE 008935655-06 P=364.929759 Days $T_0=361.666721$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-06, P = 364.937563 Days, E = 361.649987 Days

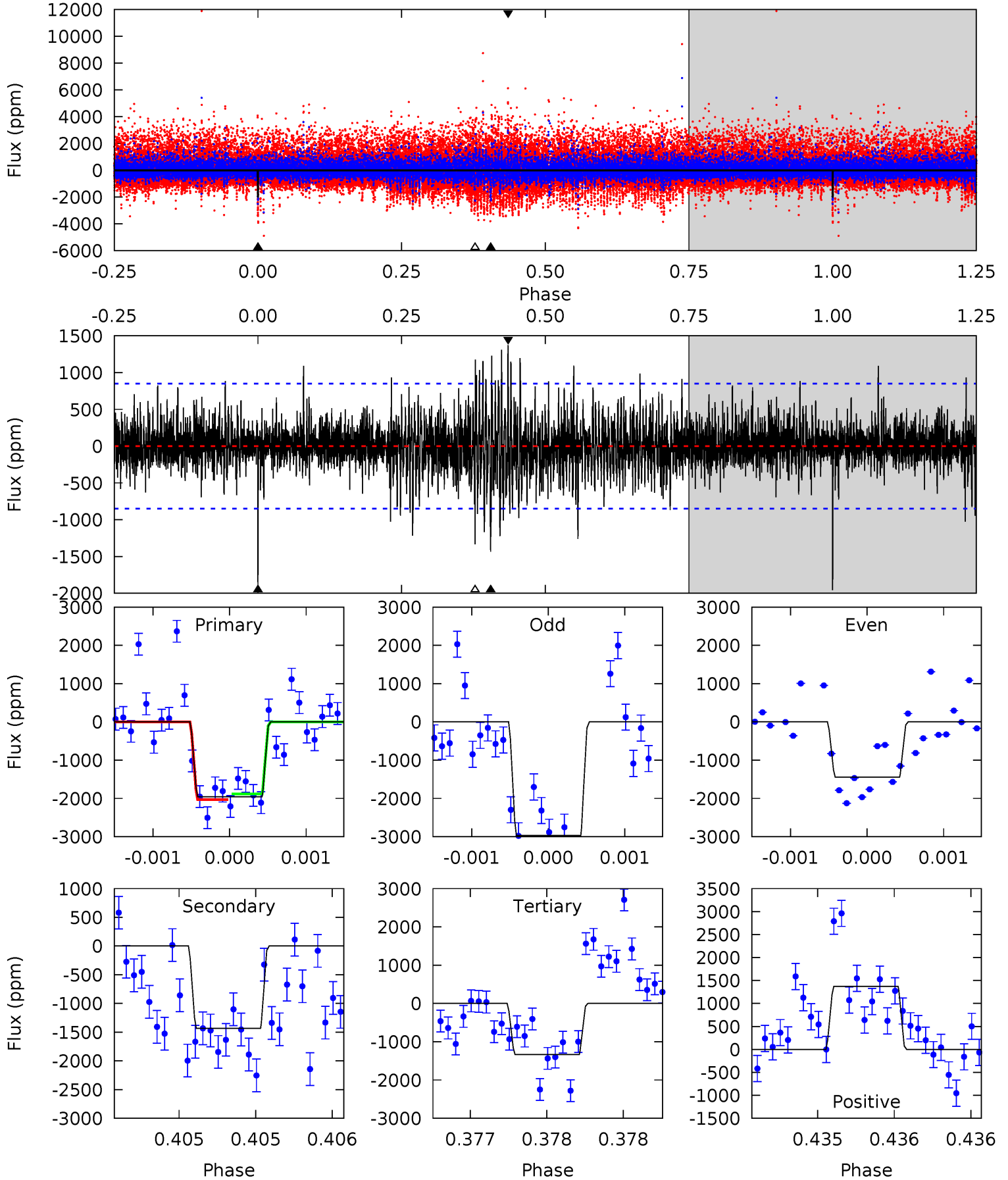
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.91	2.46	2.18	7.09	5.71	3.69	0.66	-0.27	-5.18	0.28	-4.63	0.13	1.17	0.74	0.04



Alt Model-Shift Uniqueness Test

008935655-06, P = 364.929759 Days, E = 361.666721 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	9.30	8.65	8.90	5.51	3.39	1.83	4.06	3.80	0.65	0.40	3.94	0.85	0.41	0.49



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-592 ± 241	$12.41^{+13.08}_{-8.21}$	186^{+7}_{-9}	2081^{+608}_{-293}	1367^{+11048}_{-1064}
Alt.	-1432 ± 154	$12.88^{+13.39}_{-8.91}$	186^{+7}_{-9}	2295^{+834}_{-323}	3275^{+32625}_{-2515}

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

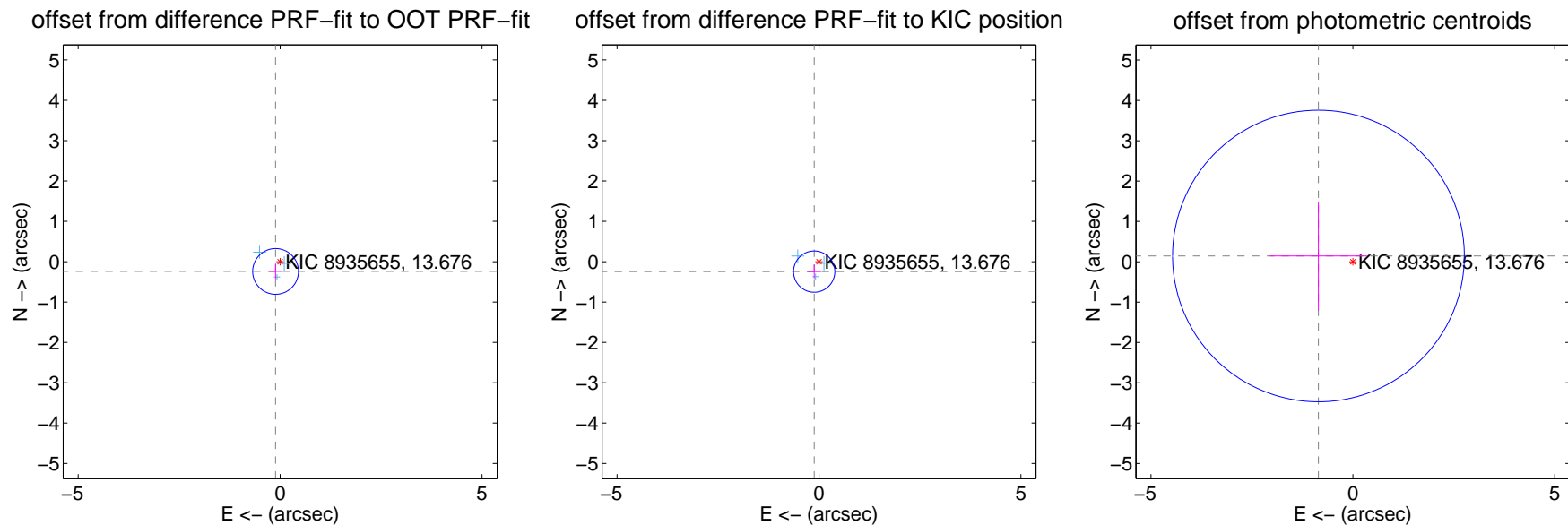
DV Centroid Data

Supplemental centroid analysis for 008935655-06. Kepler magnitude: 13.68. Transit SNR 2.06

There are 3 quarters with good PRF difference image offsets

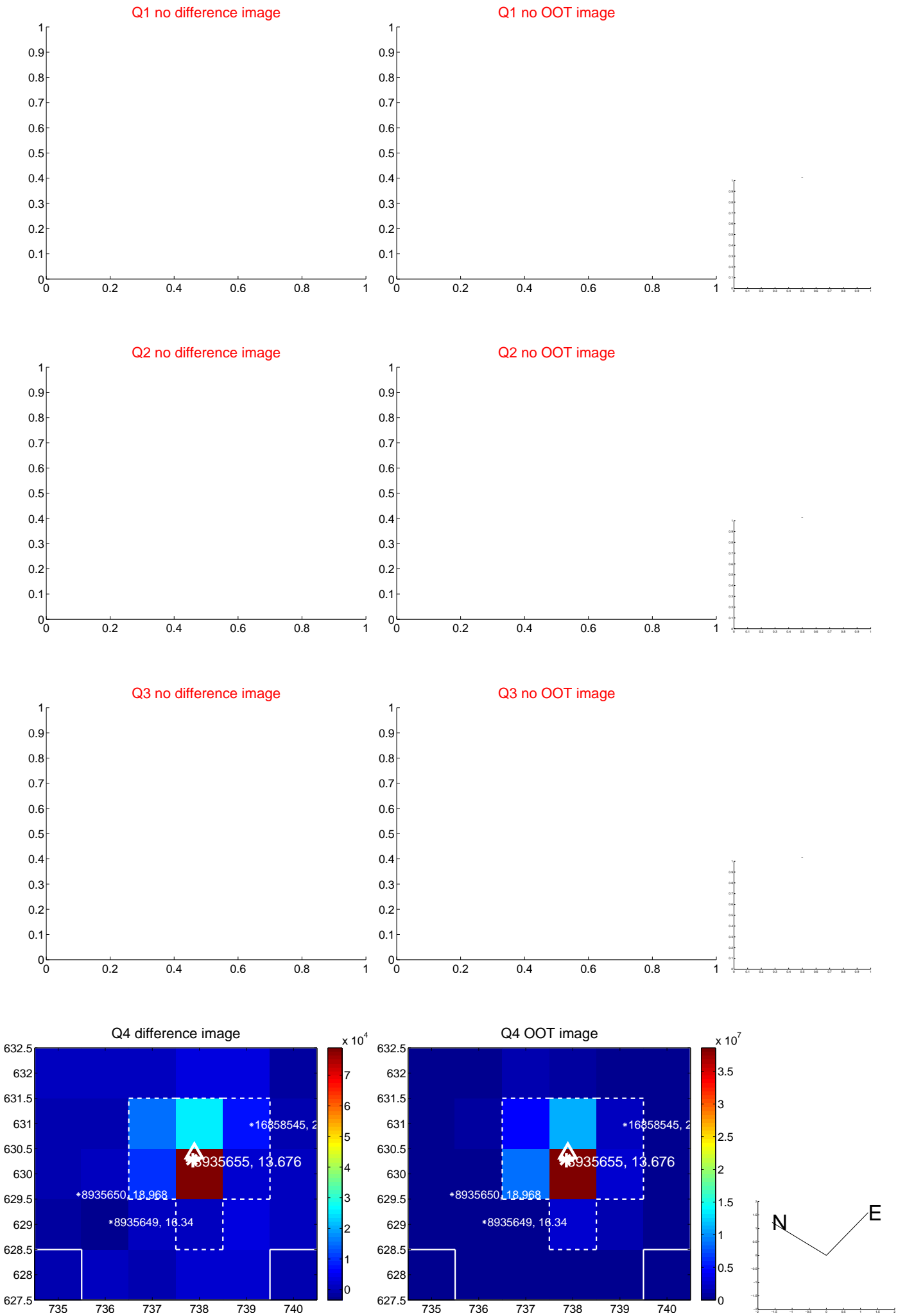
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.266 ± 0.189	1.41	0.112 ± 0.167	-0.241 ± 0.193
PRF-fit source offset from KIC position	0.273 ± 0.170	1.60	0.119 ± 0.170	-0.246 ± 0.171
photometric centroid source offset	0.86 ± 1.20	0.72	0.85 ± 1.20	0.14 ± 1.35



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

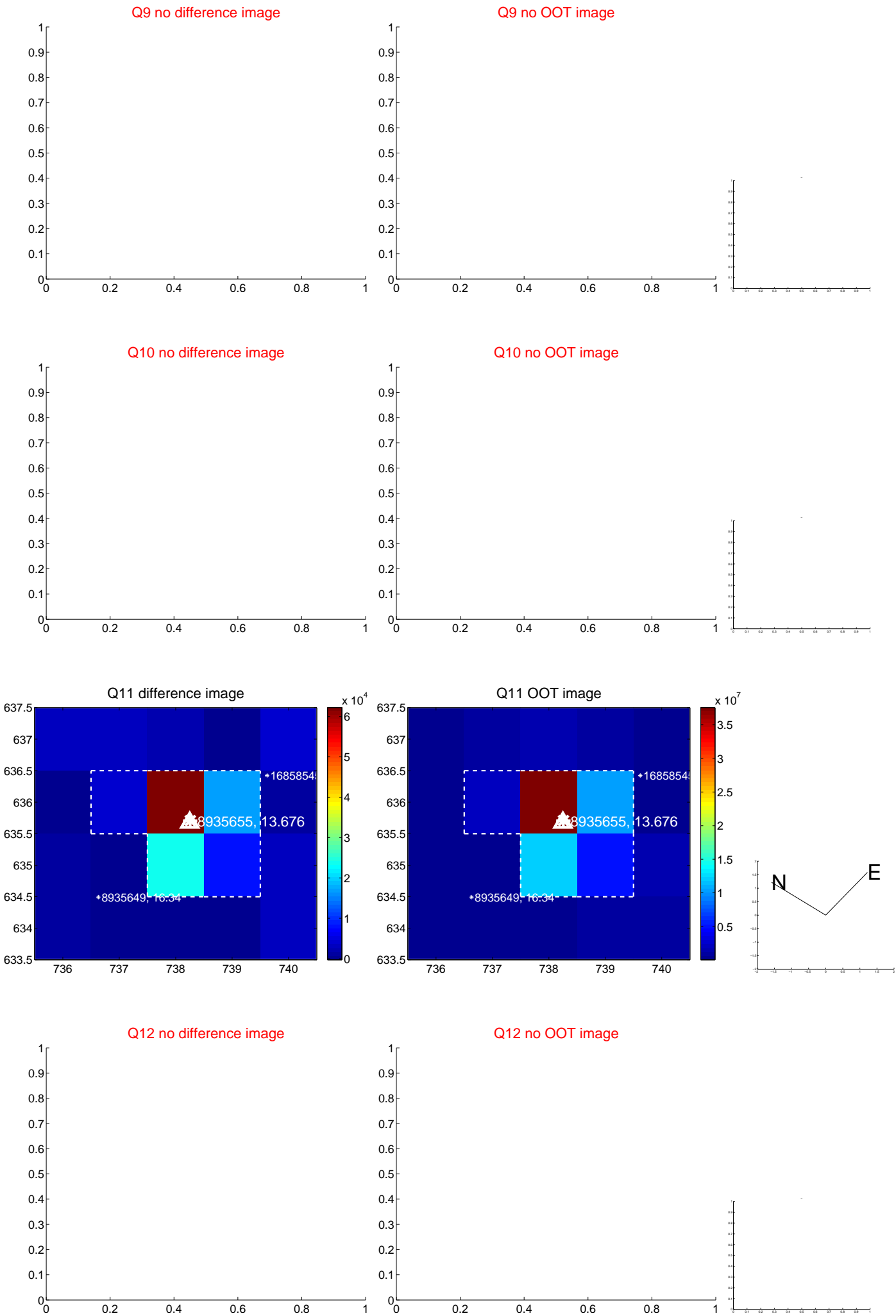
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



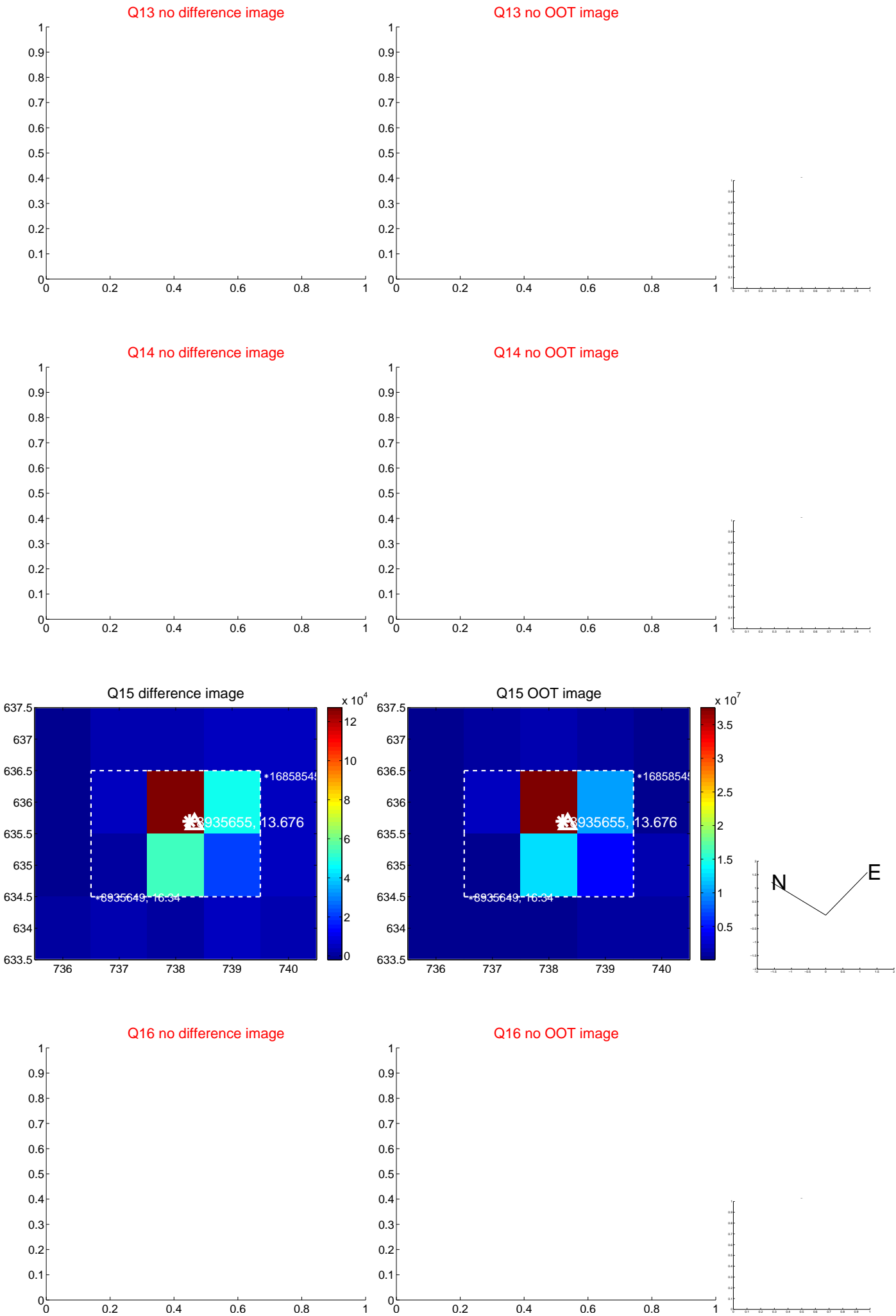
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



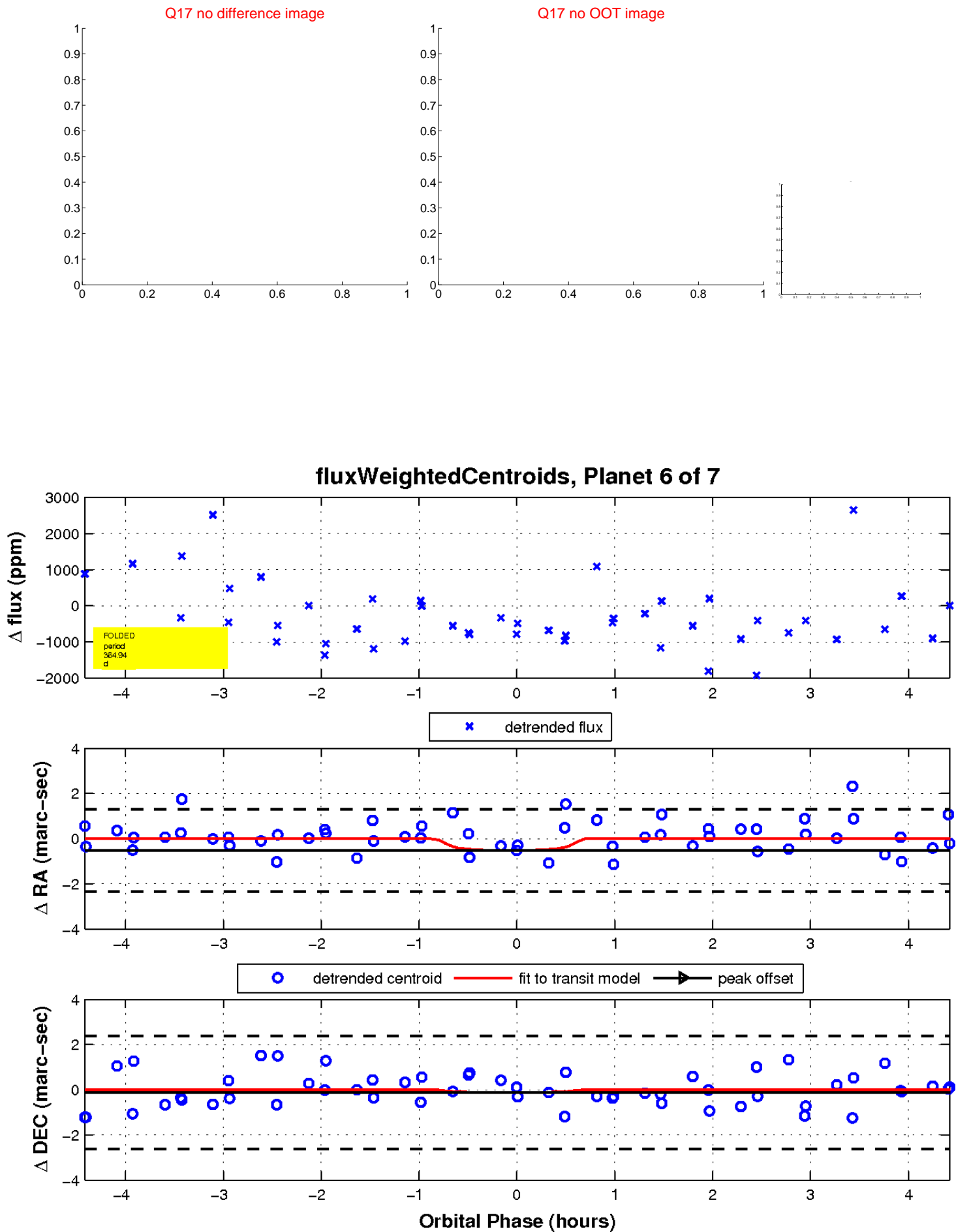
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

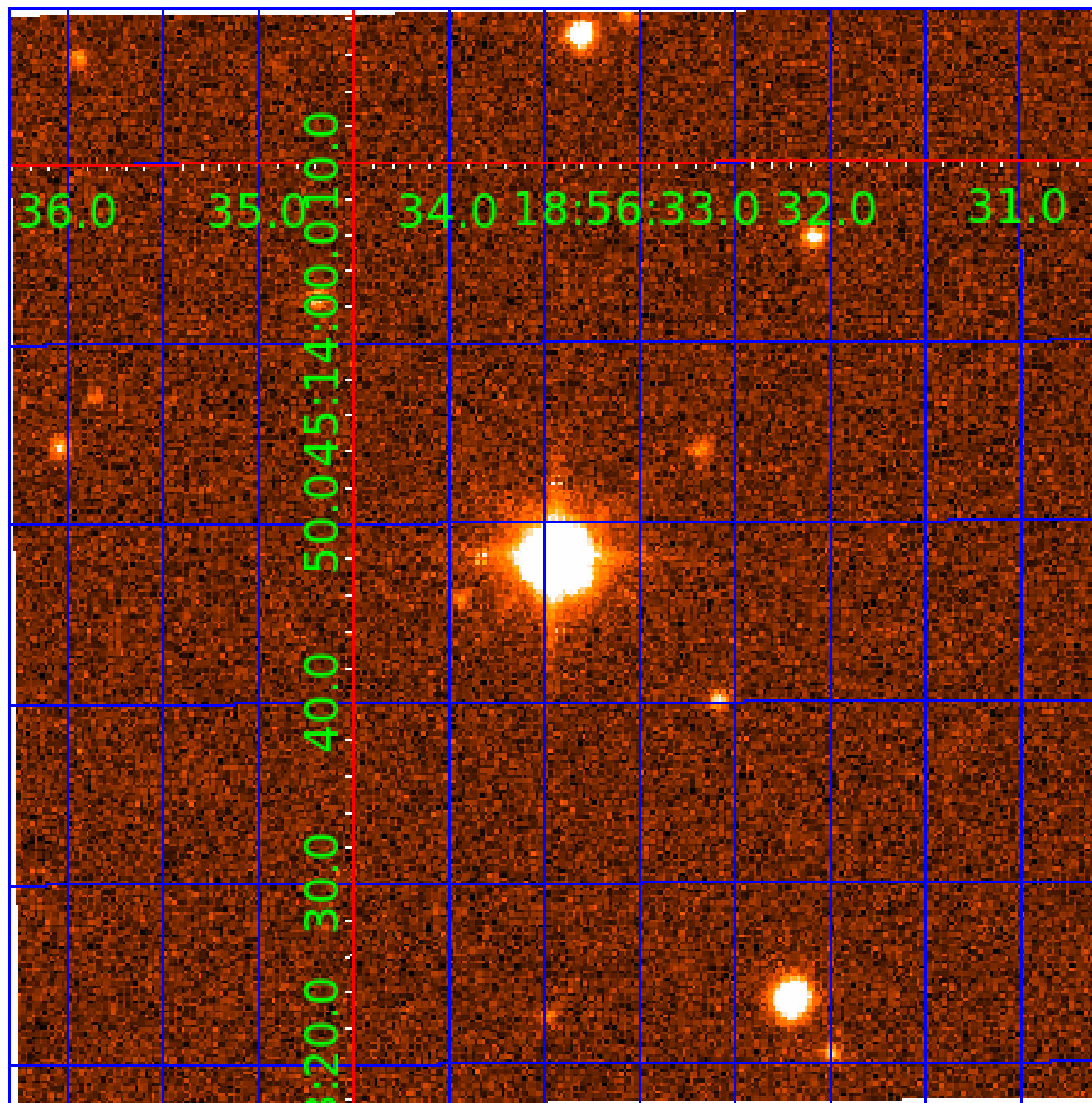


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008935655

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})
008935655-01	OBS	No	386.153577	160.755792	1589.9	9.520	16.6	6.7	0.57	3694	2.34	0.07
008935655-02	OBS	No	286.275178	185.942018	2124.6	5.267	12.2	10.5	0.57	3694	2.77	0.11
008935655-03	OBS	No	498.148488	394.653818	2567.9	11.128	11.6	10.2	0.57	3694	2.86	0.05
008935655-04	OBS	No	406.387478	464.010594	2357.0	21.791	10.4	9.2	0.57	3694	2.69	0.07
008935655-05	OBS	No	166.791179	261.530762	1121.6	3.687	12.5	6.2	0.57	3694	2.03	0.22
008935655-06	OBS	No	364.937563	361.649987	601.7	1.510	12.2	2.1	0.57	3694	1.66	0.08
008935655-07	OBS	No	109.690346	223.875799	598.0	3.000	10.9	-1.0	0.57	3694	1.33	0.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935655-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008935655-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008935655-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008935655-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
008935655-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008935655-07	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

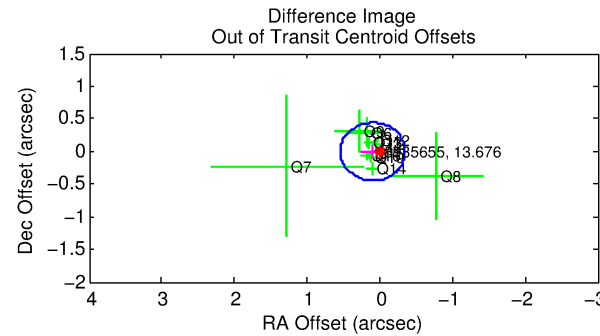
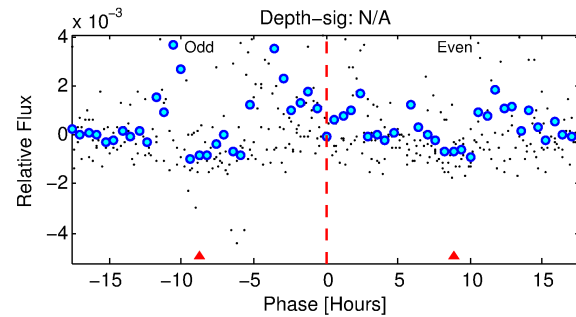
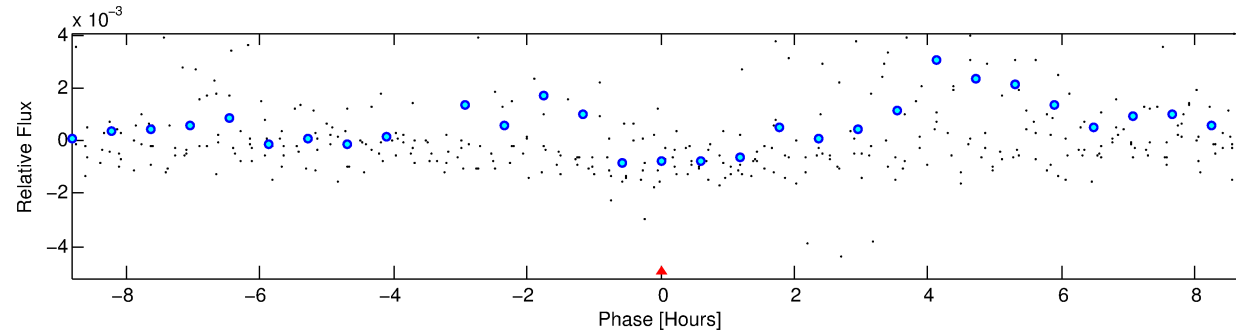
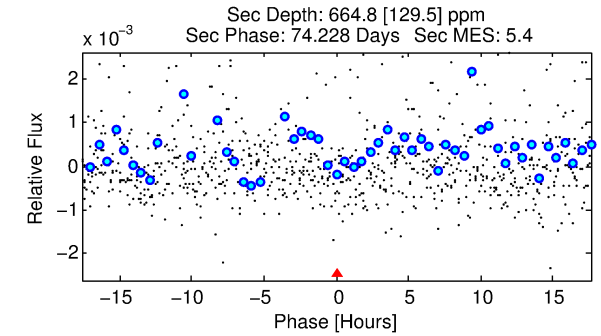
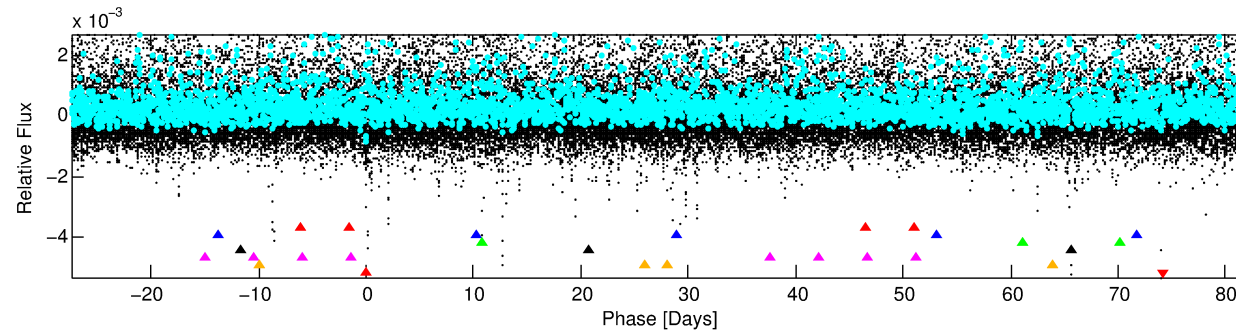
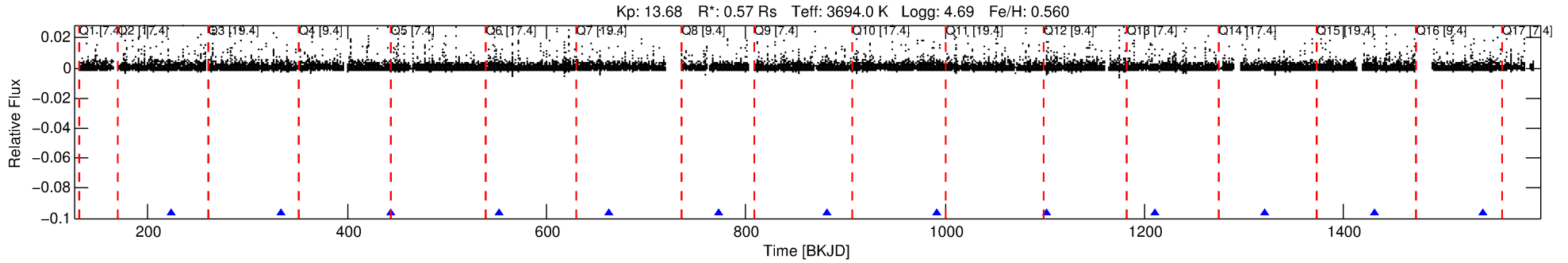
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935655-07

No Significant Match Found

DV One-Page Summary

KIC: 8935655 Candidate: 7 of 7 Period: 109.690 d



TPS TCE Results:

Period = 109.69035 d
Epoch = 223.8758 BKJD

DV fit results are unavailable

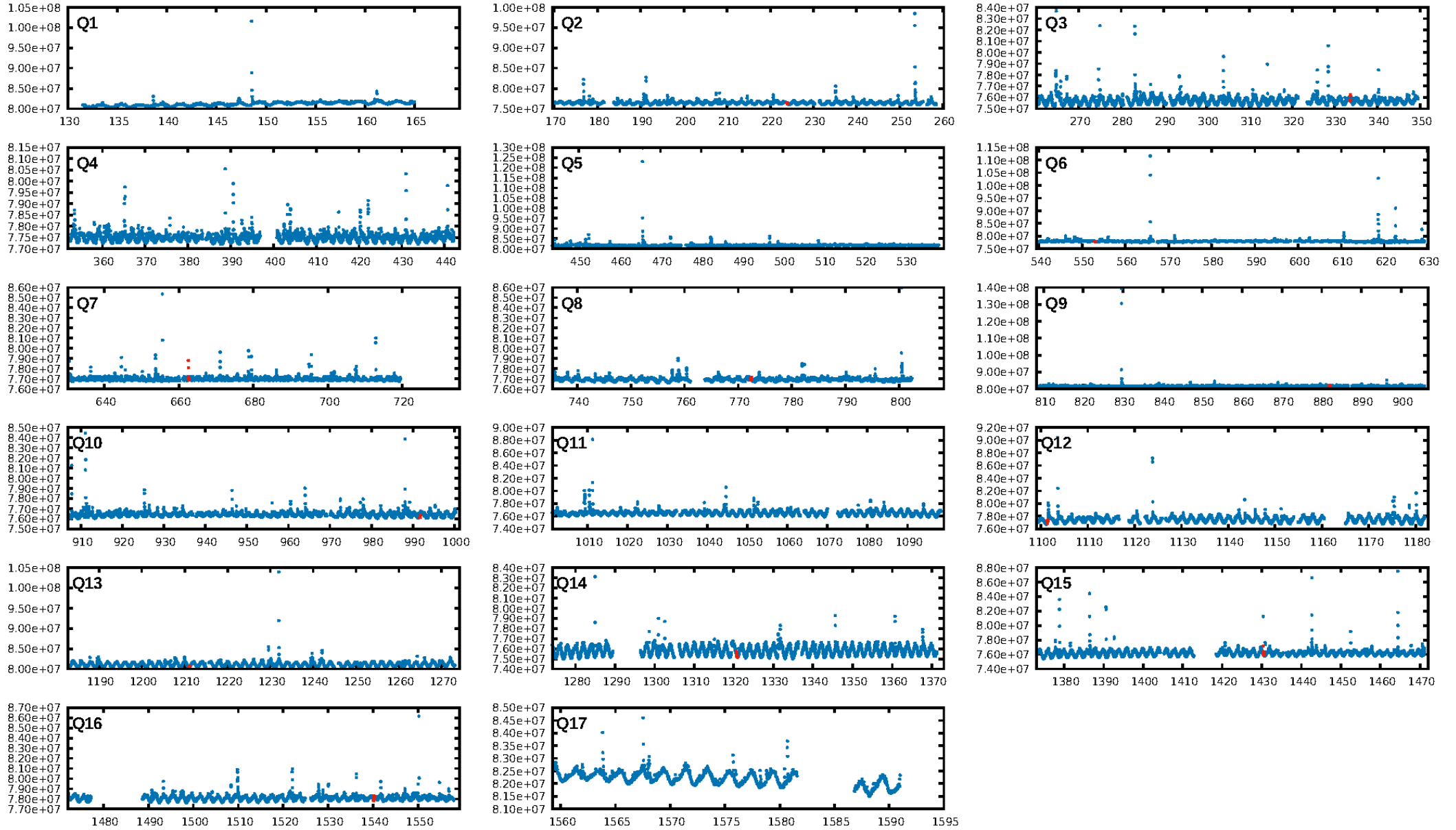
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [288.32σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 2.395
Centroid-sig: 44.2%
Centroid-so: 0.266 arcsec [1.20σ]
OotOffset-rm: 0.101 arcsec [0.68σ]
KicOffset-rm: 0.103 arcsec [0.67σ]
OotOffset-st: 3/3/3/2 [11]
KicOffset-st: 3/3/3/2 [11]
DiffImageQuality-fgm: 0.82 [9/11]
DiffImageOverlap-fno: 1.00 [11/11]

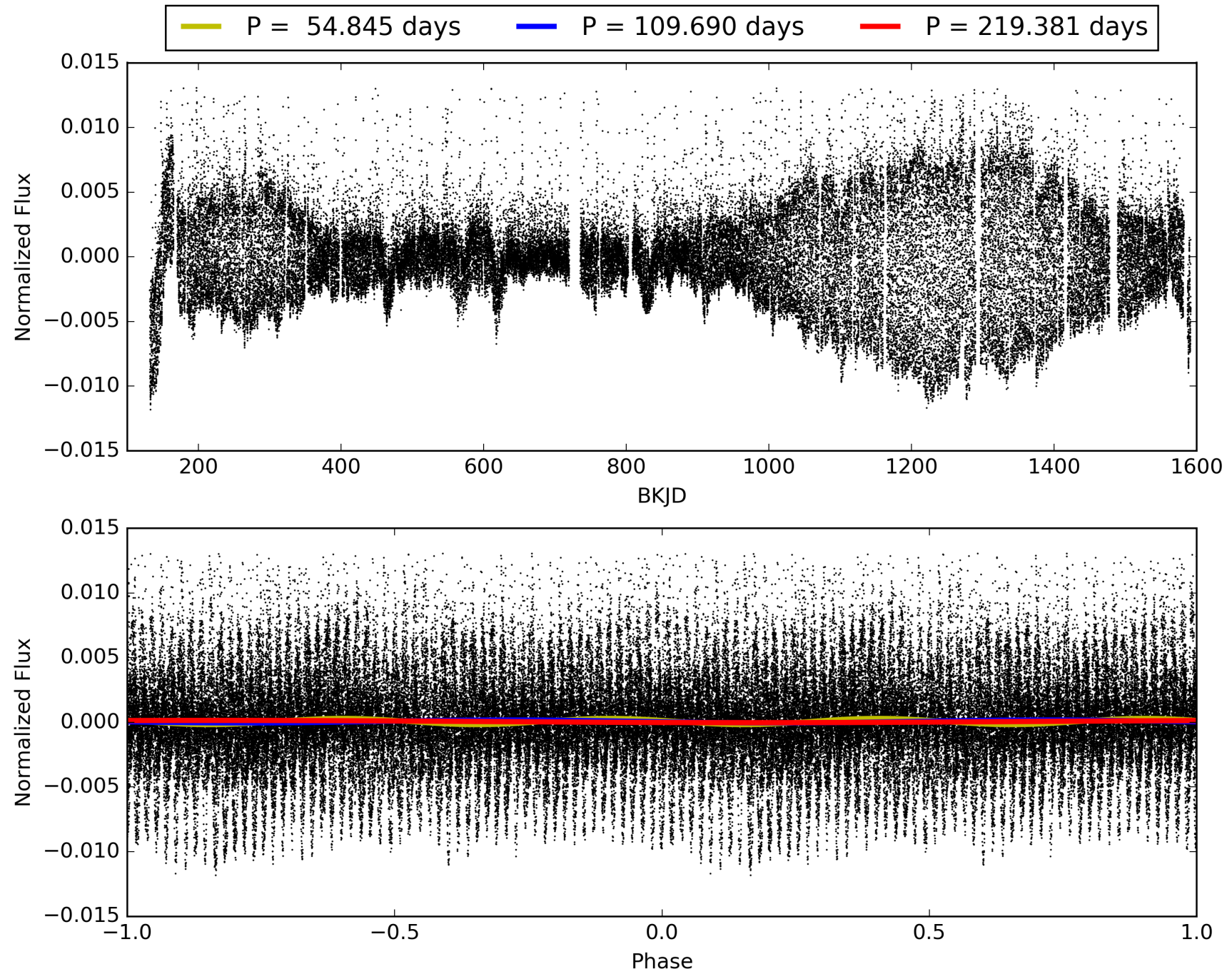
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:14:06 Z

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

TCE 008935655-07, PDC Light Curves

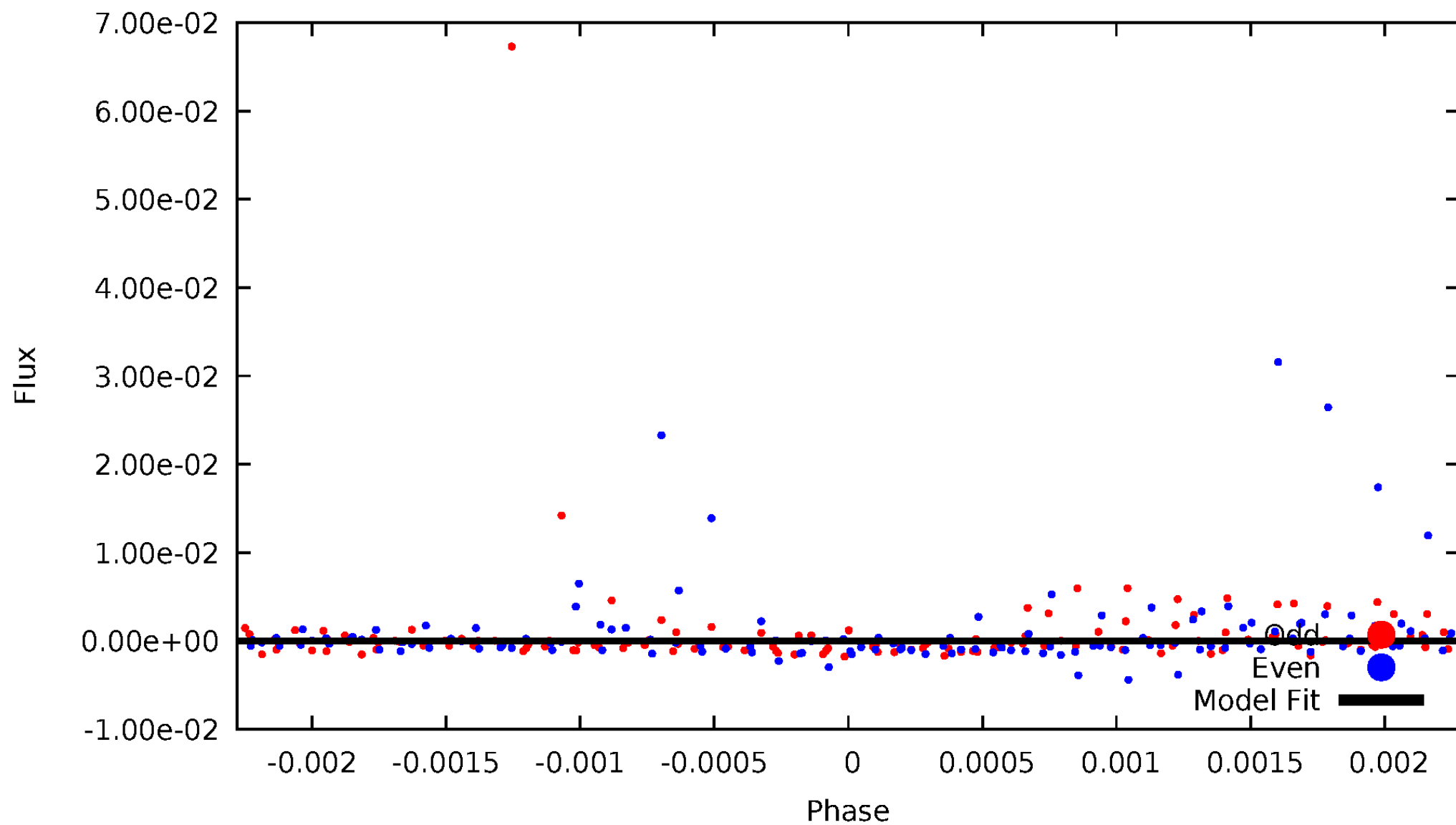


TCE 008935655-07



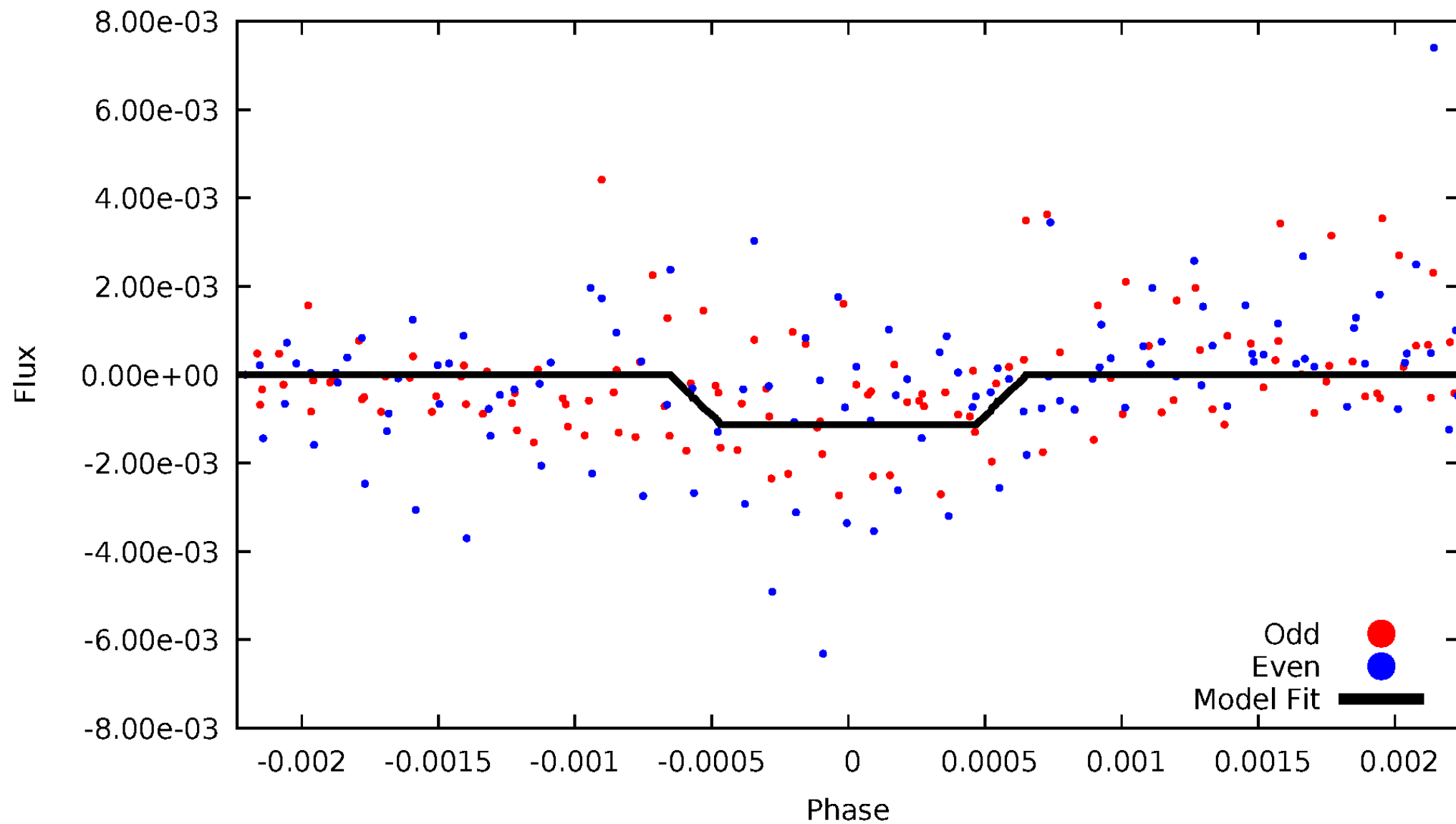
DV Odd/Even

TCE 008935655-07

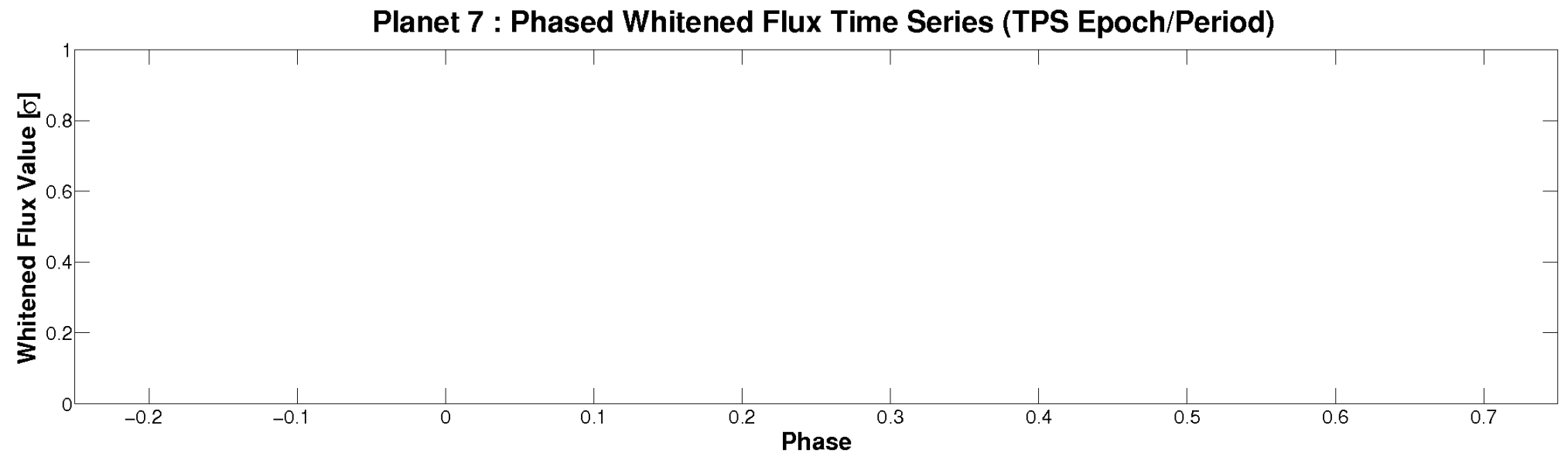
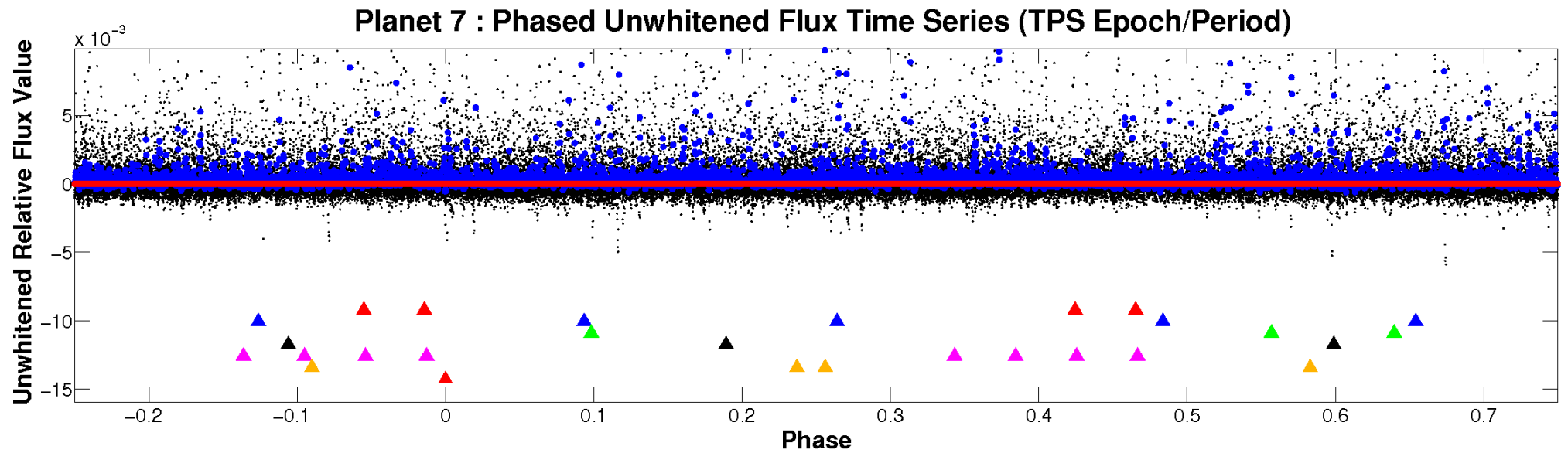


ALT Odd/Even

TCE 008935655-07

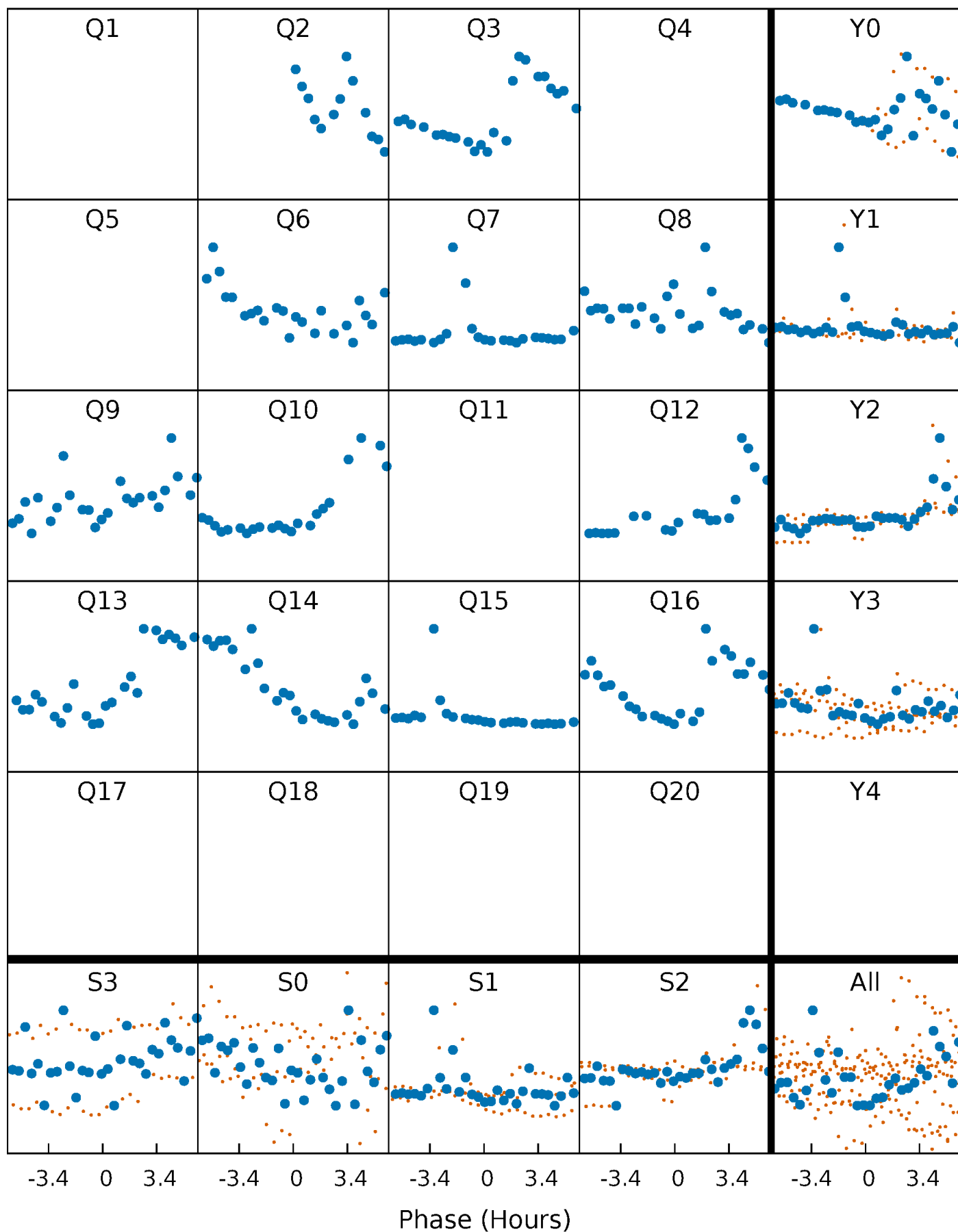


Non-Whitened Vs. Whitened Light Curve



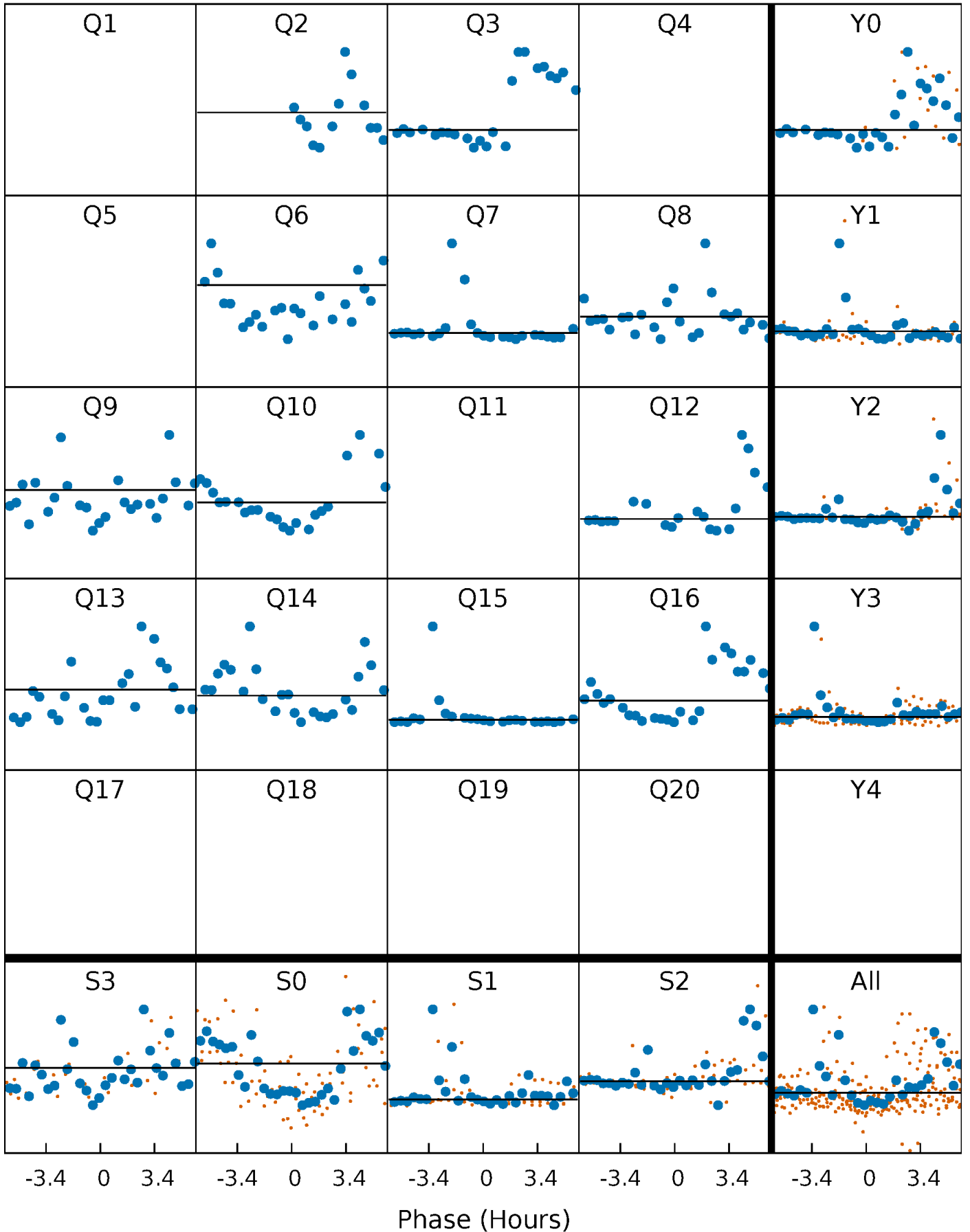
PDC Quarter-Phased Transit Curves

TCE 008935655-07 P=109.690346 Days $T_0=223.875799$ (BKJD)



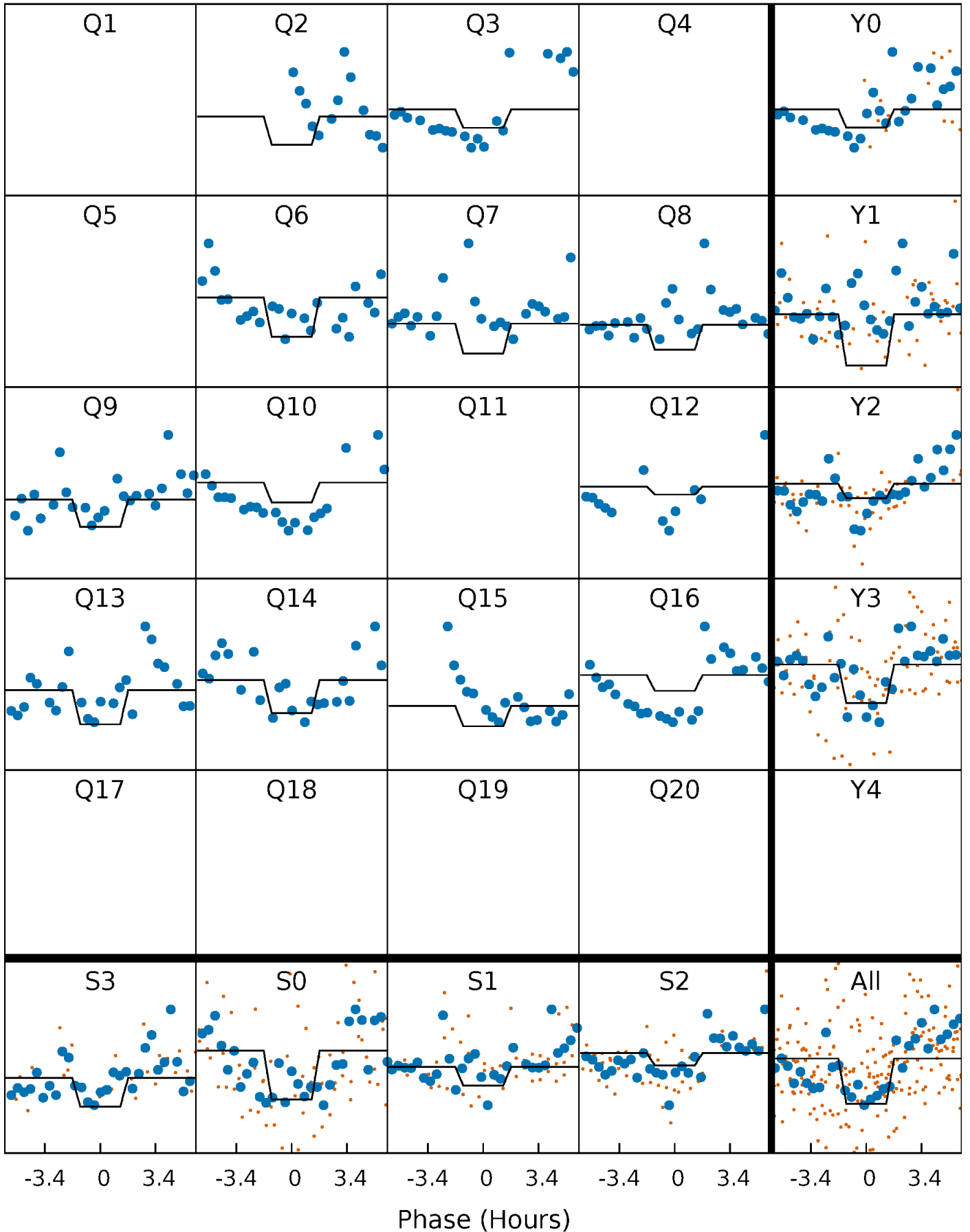
DV Quarter-Phased Transit Curves

TCE 008935655-07 $P=109.690346$ Days $T_0=223.875799$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

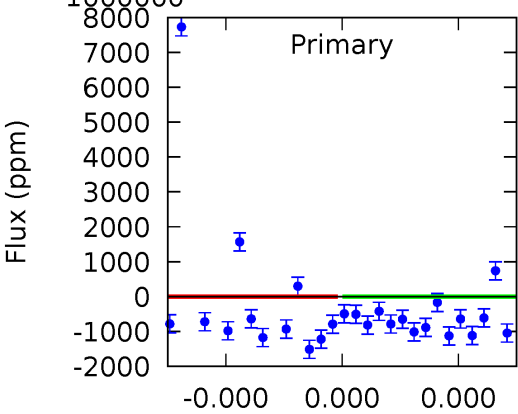
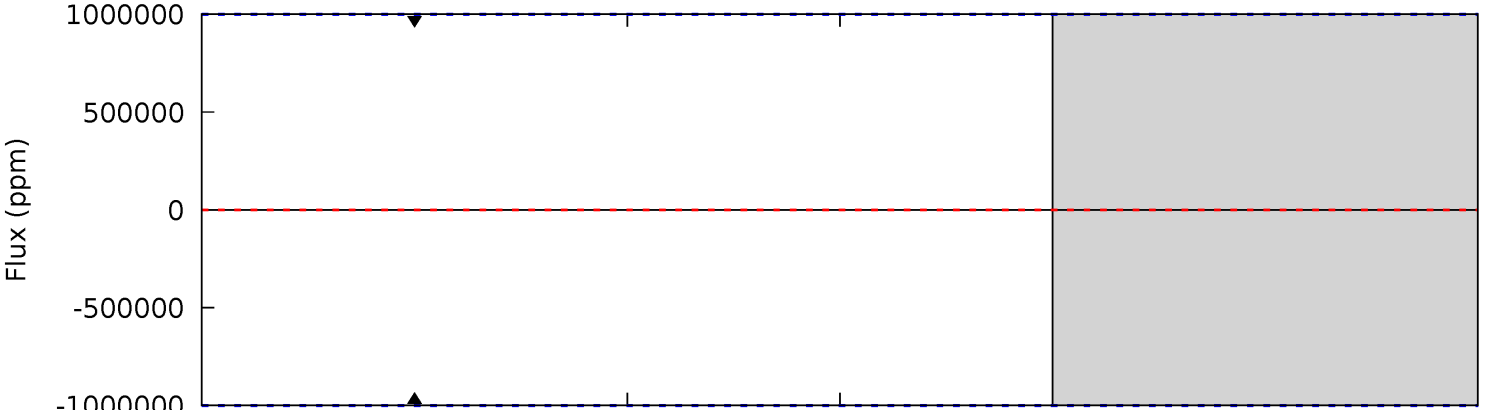
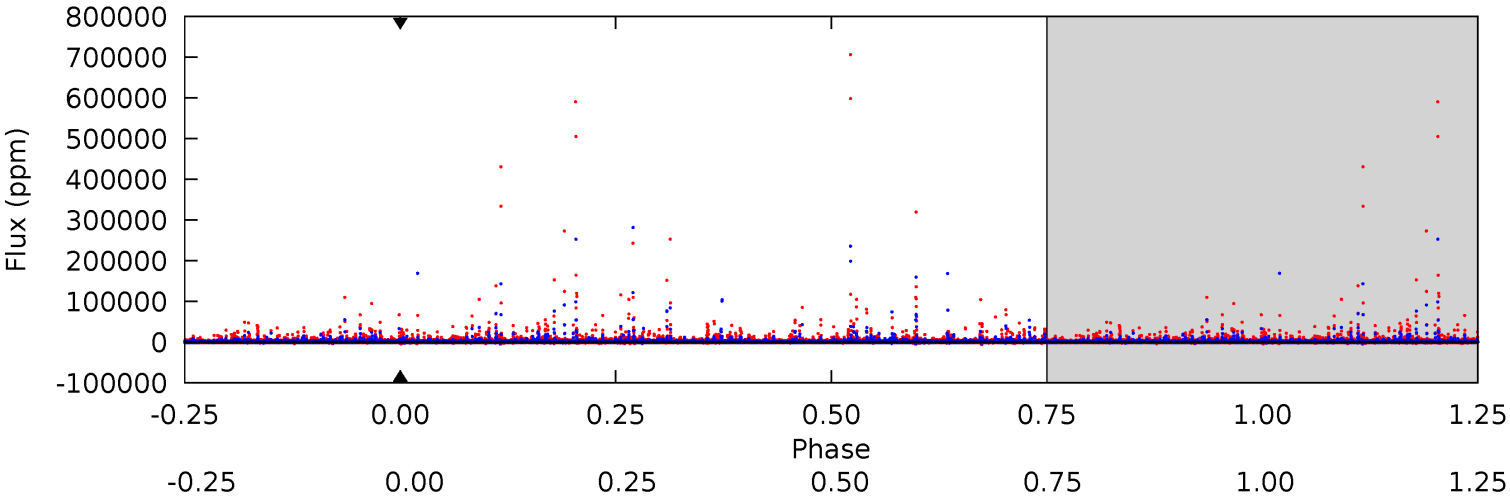
TCE 008935655-07 P=109.690346 Days $T_0=223.877908$ (BKJD)



DV Model-Shift Uniqueness Test

008935655-07, P = 109.690346 Days, E = 114.185453 Days

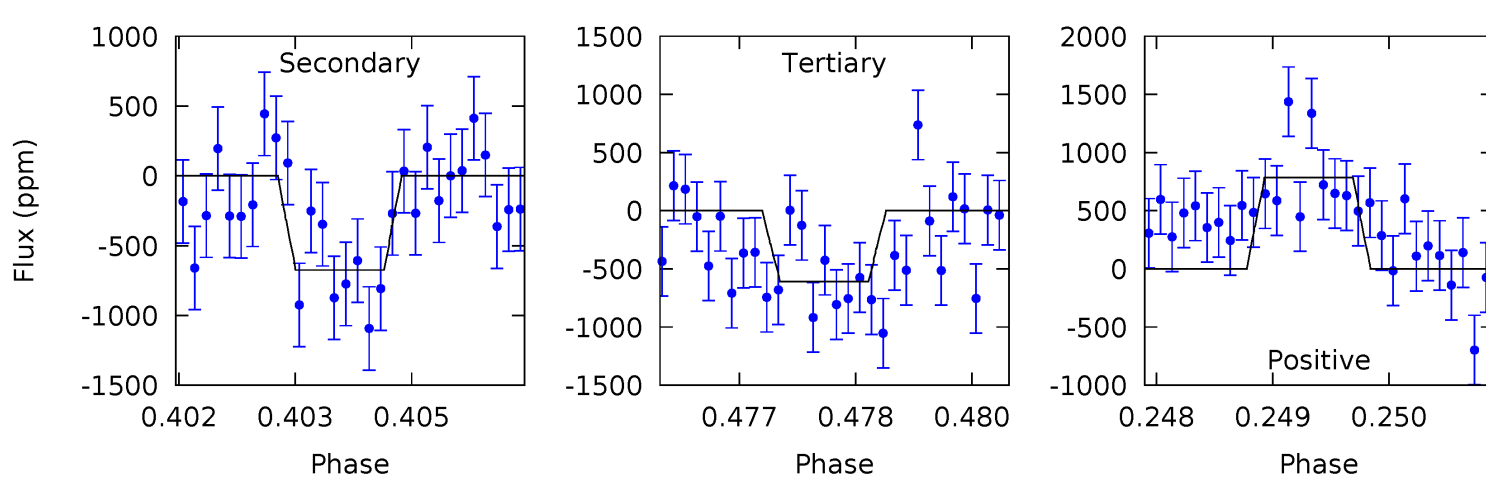
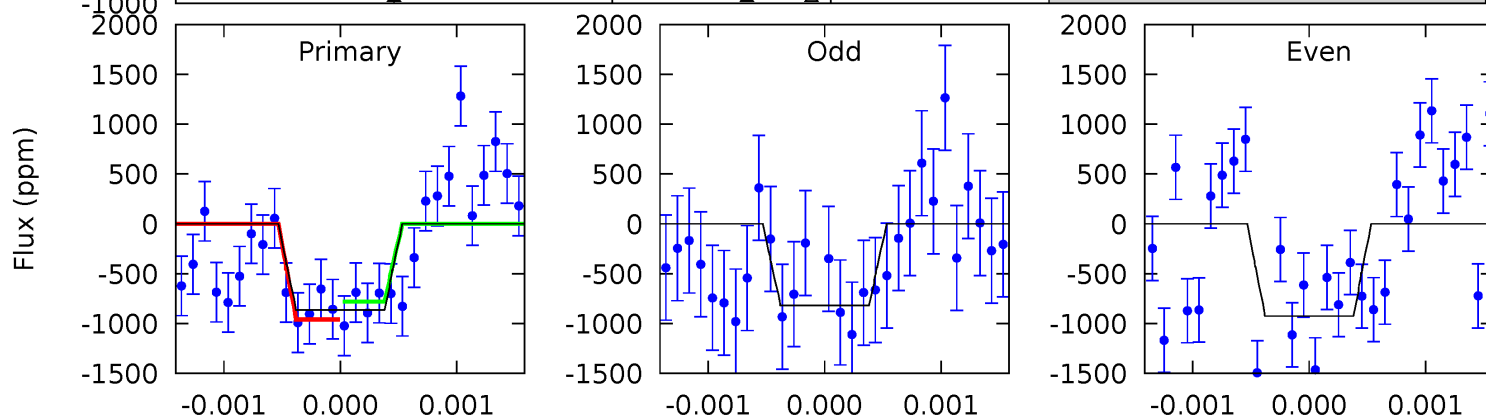
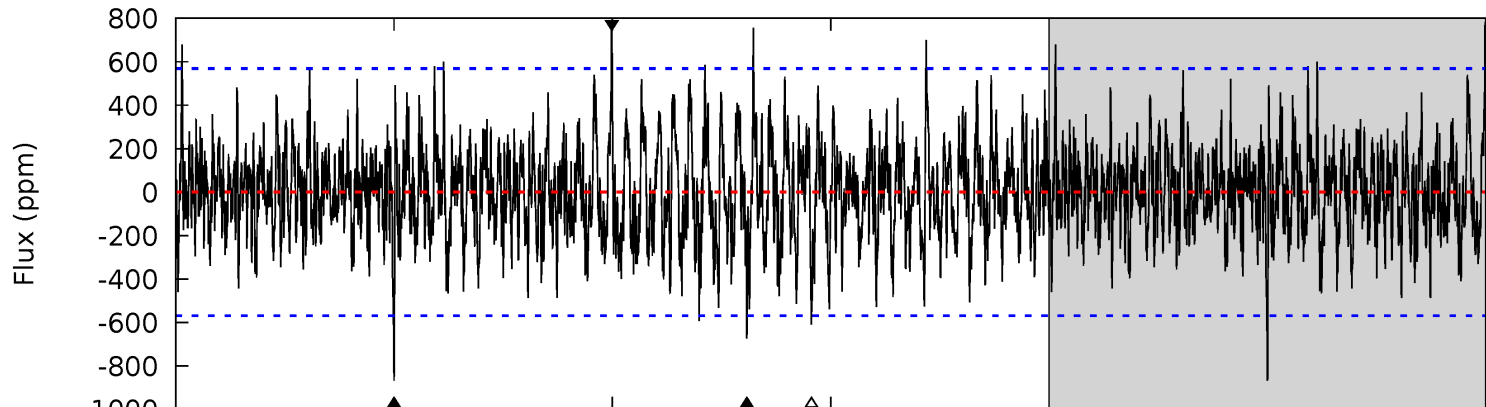
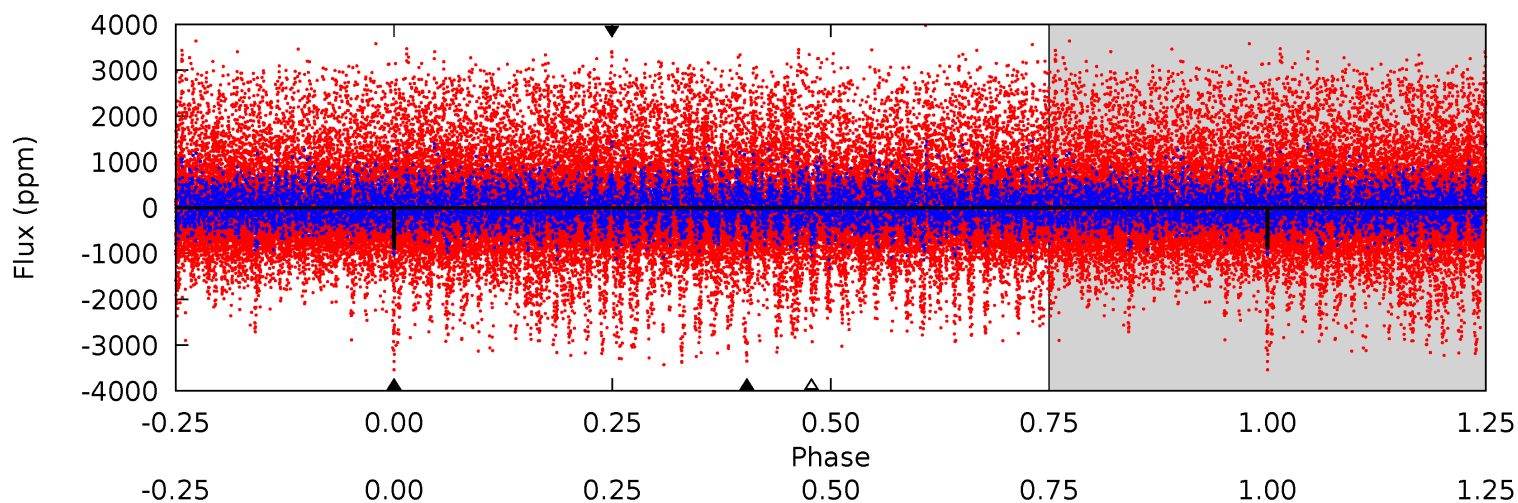
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008935655-07, P = 109.690346 Days, E = 114.187562 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.25	6.43	5.81	7.47	5.41	3.23	1.91	2.45	0.79	0.62	-1.04	0.49	1.63	0.47	0.84



Stellar Parameters For KIC 008935655

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3694^{+117}_{-147}	$4.686^{+0.075}_{-0.020}$	$0.560^{+0.050}_{-0.300}$	$0.566^{+0.032}_{-0.081}$	$0.567^{+0.036}_{-0.067}$	$4.400^{+1.720}_{-0.431}$
	+3%/-4%	+2%/-0%	+9%/-54%	+6%/-14%	+6%/-12%	+39%/-10%
Source	KIC0	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008935655-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$4.63^{+4.85}_{-3.16}$	279^{+10}_{-13}	-2475^{+10104}_{-4975}	$-1368.016^{+588285.268}_{-523428.045}$
Alt.	-675 ± 105	$4.95^{+4.53}_{-3.24}$	278^{+11}_{-13}	2637^{+905}_{-380}	1992^{+14458}_{-1433}

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

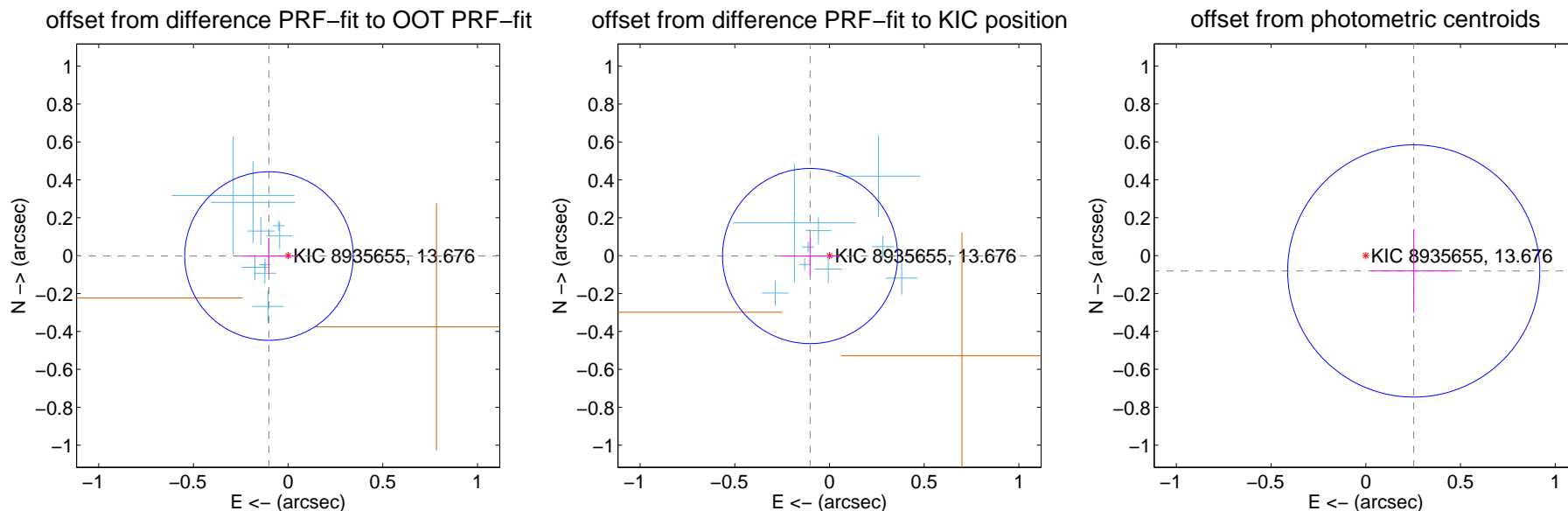
DV Centroid Data

Supplemental centroid analysis for 008935655-07. Kepler magnitude: 13.68. Transit SNR -1.00

There are 9 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

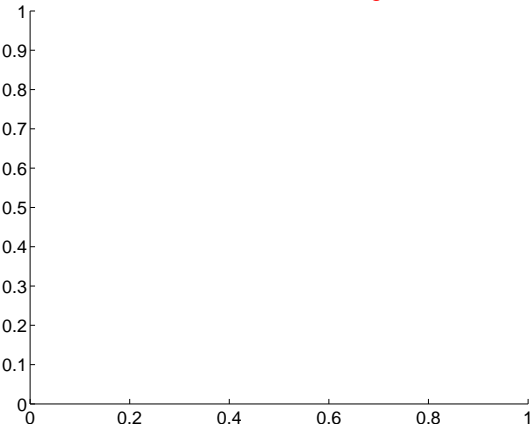
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.101 ± 0.148	0.68	0.101 ± 0.148	-0.002 ± 0.095
PRF-fit source offset from KIC position	0.103 ± 0.154	0.67	0.103 ± 0.154	-0.002 ± 0.101
photometric centroid source offset	0.27 ± 0.22	1.20	-0.25 ± 0.22	-0.08 ± 0.22



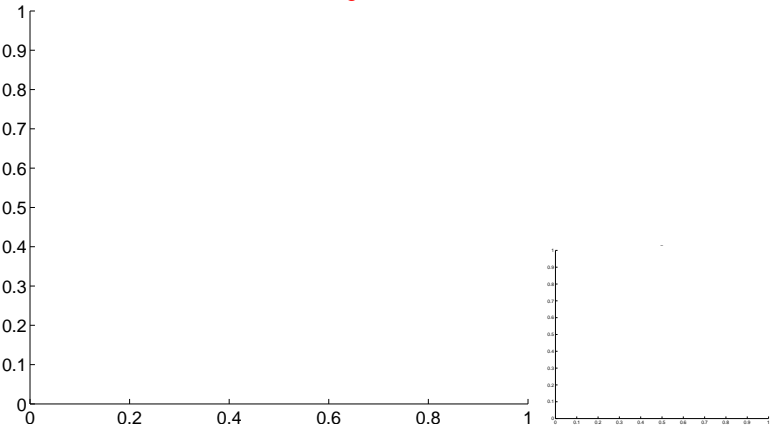
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

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

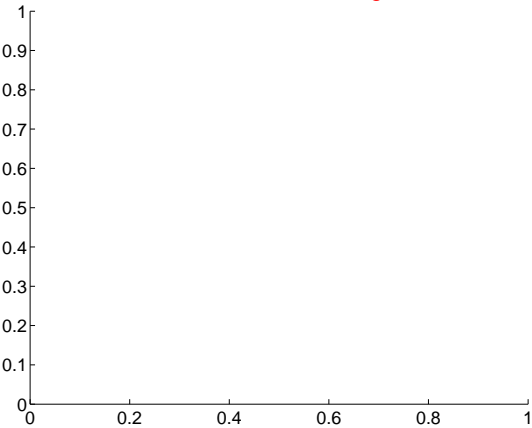
Q1 no difference image



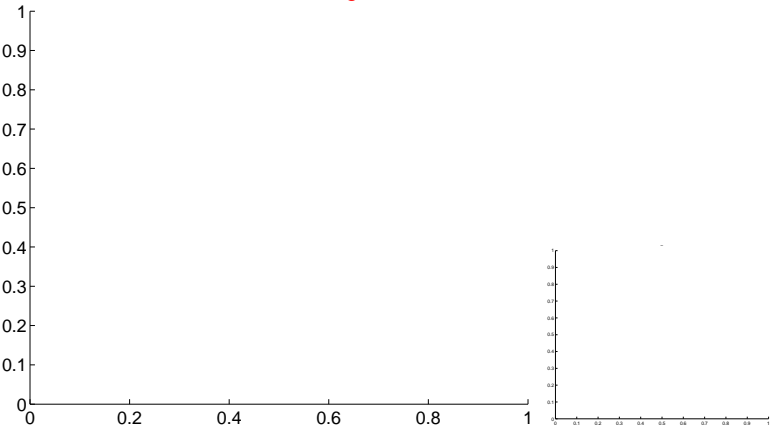
Q1 no OOT image



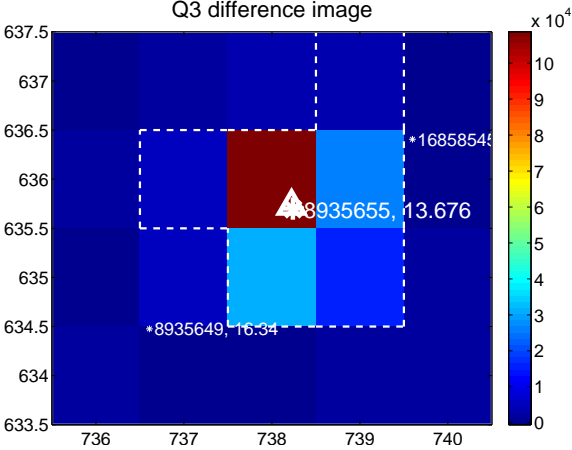
Q2 no difference image



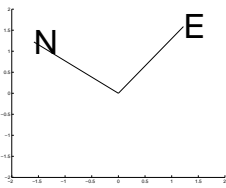
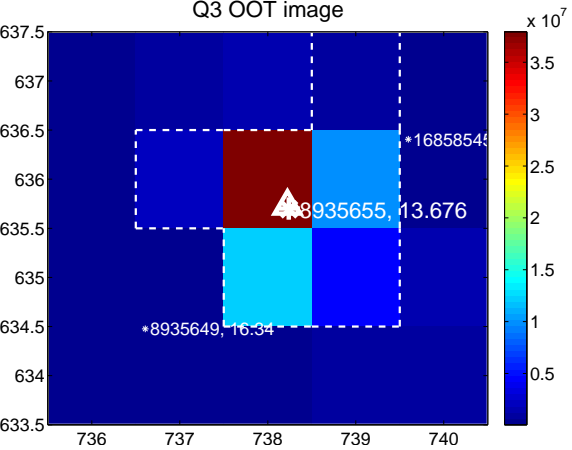
Q2 no OOT image



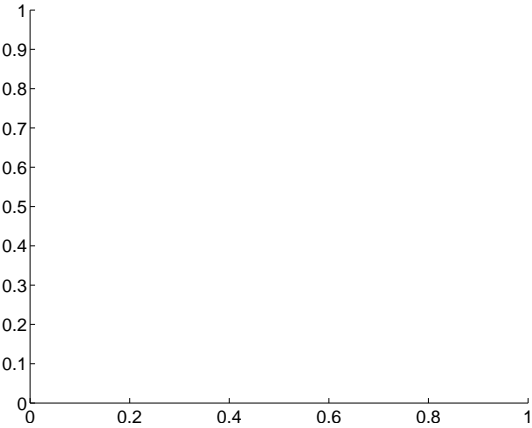
Q3 difference image



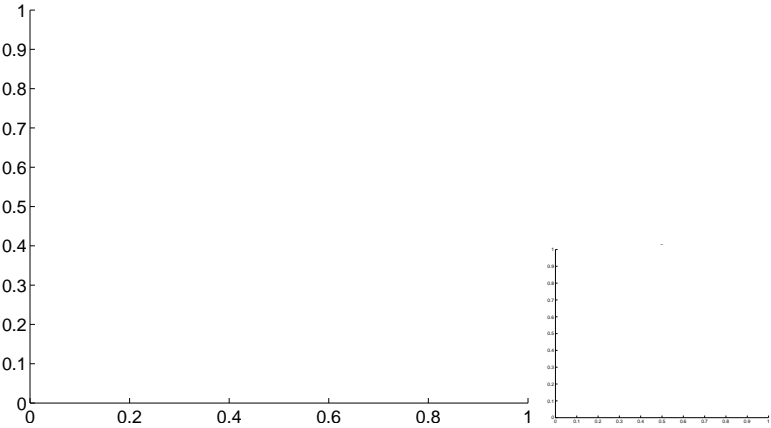
Q3 OOT image



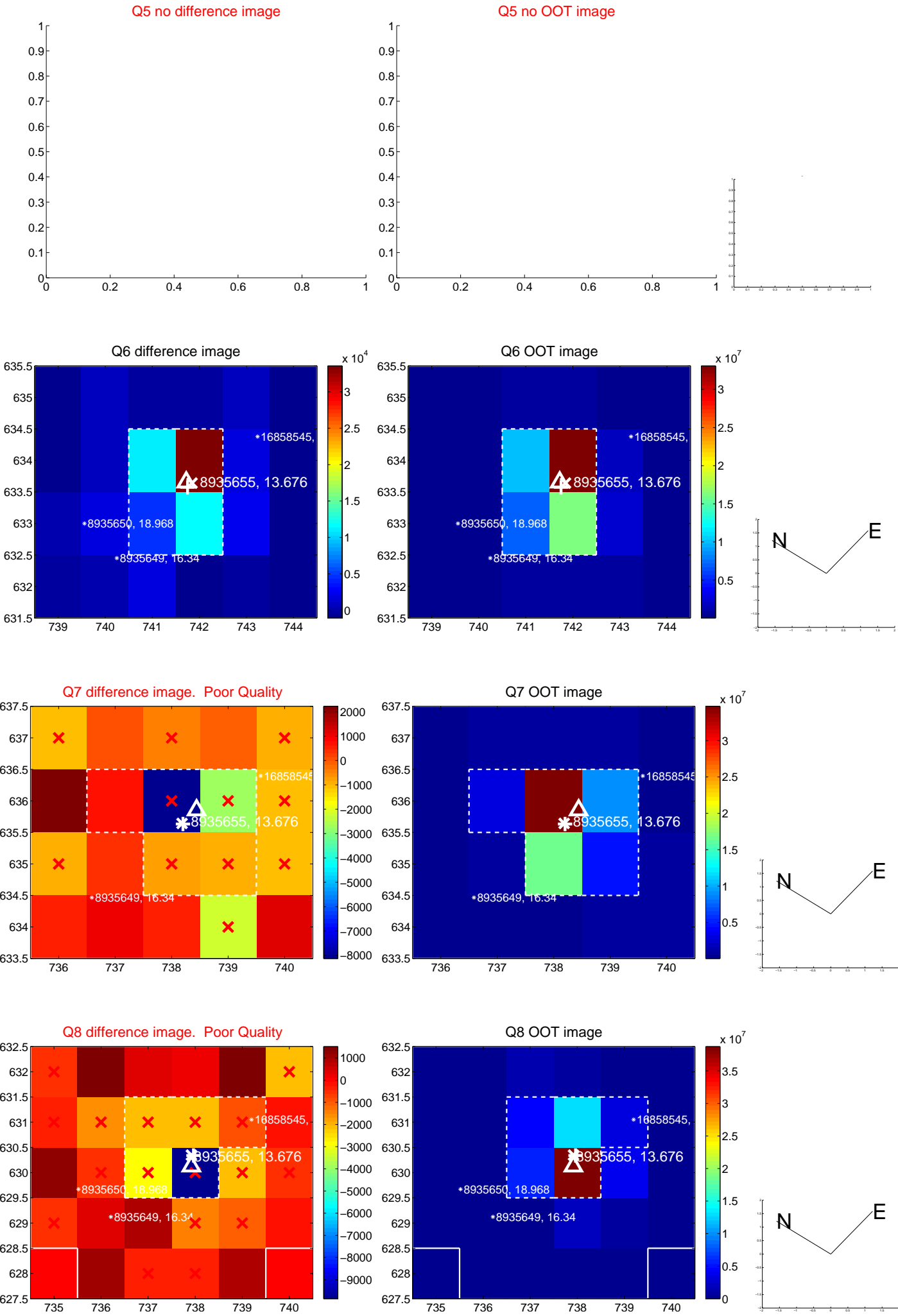
Q4 no difference image



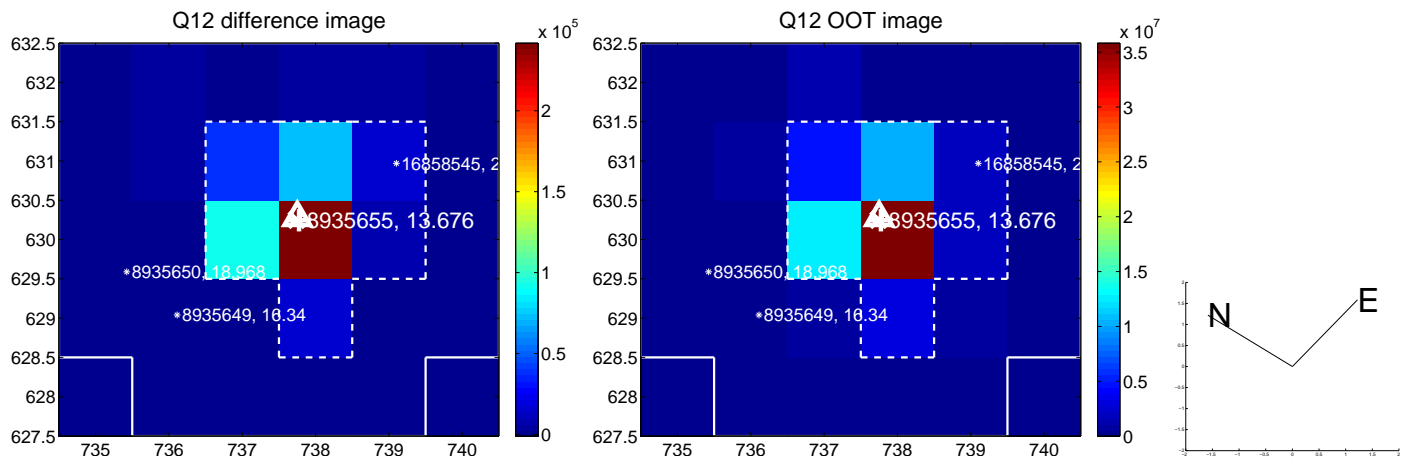
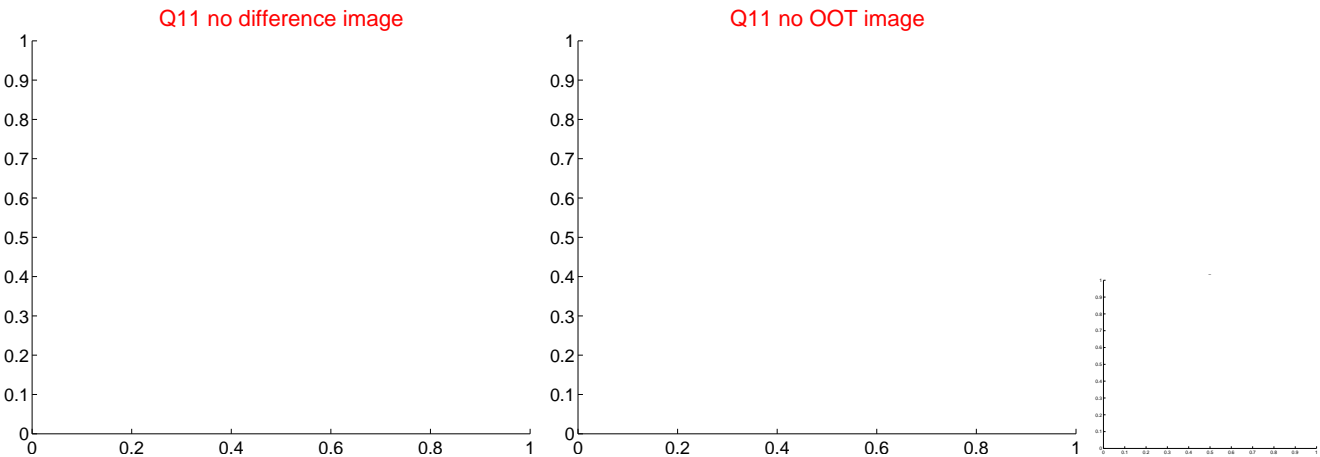
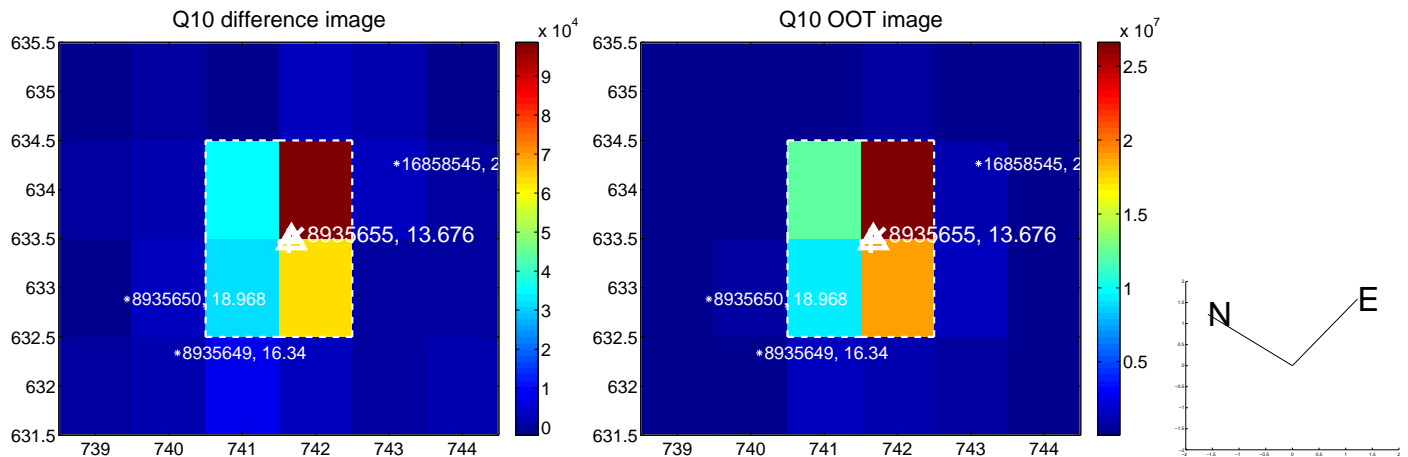
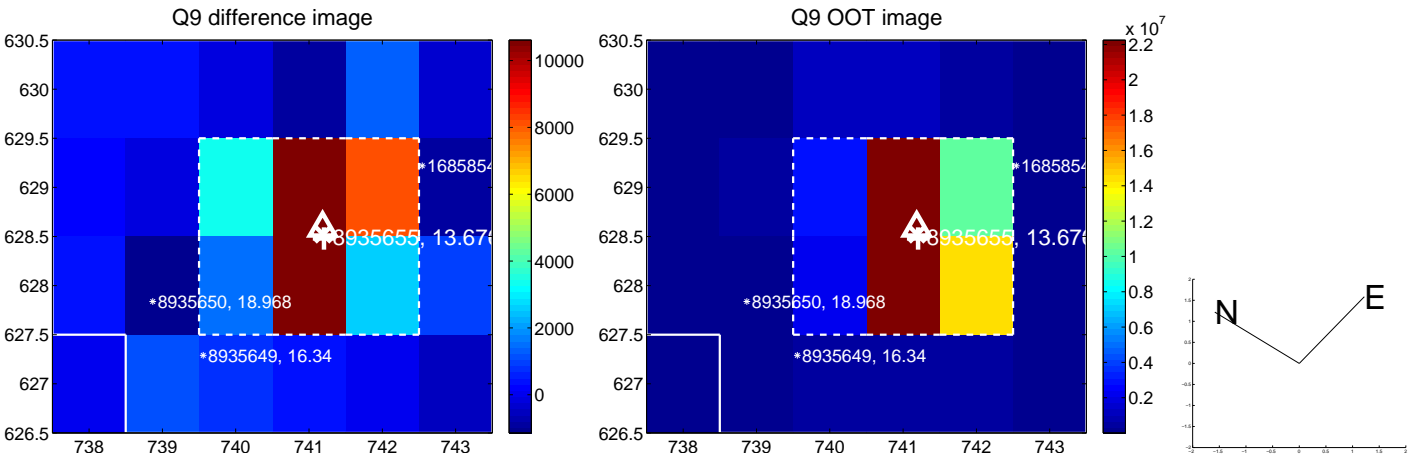
Q4 no OOT image



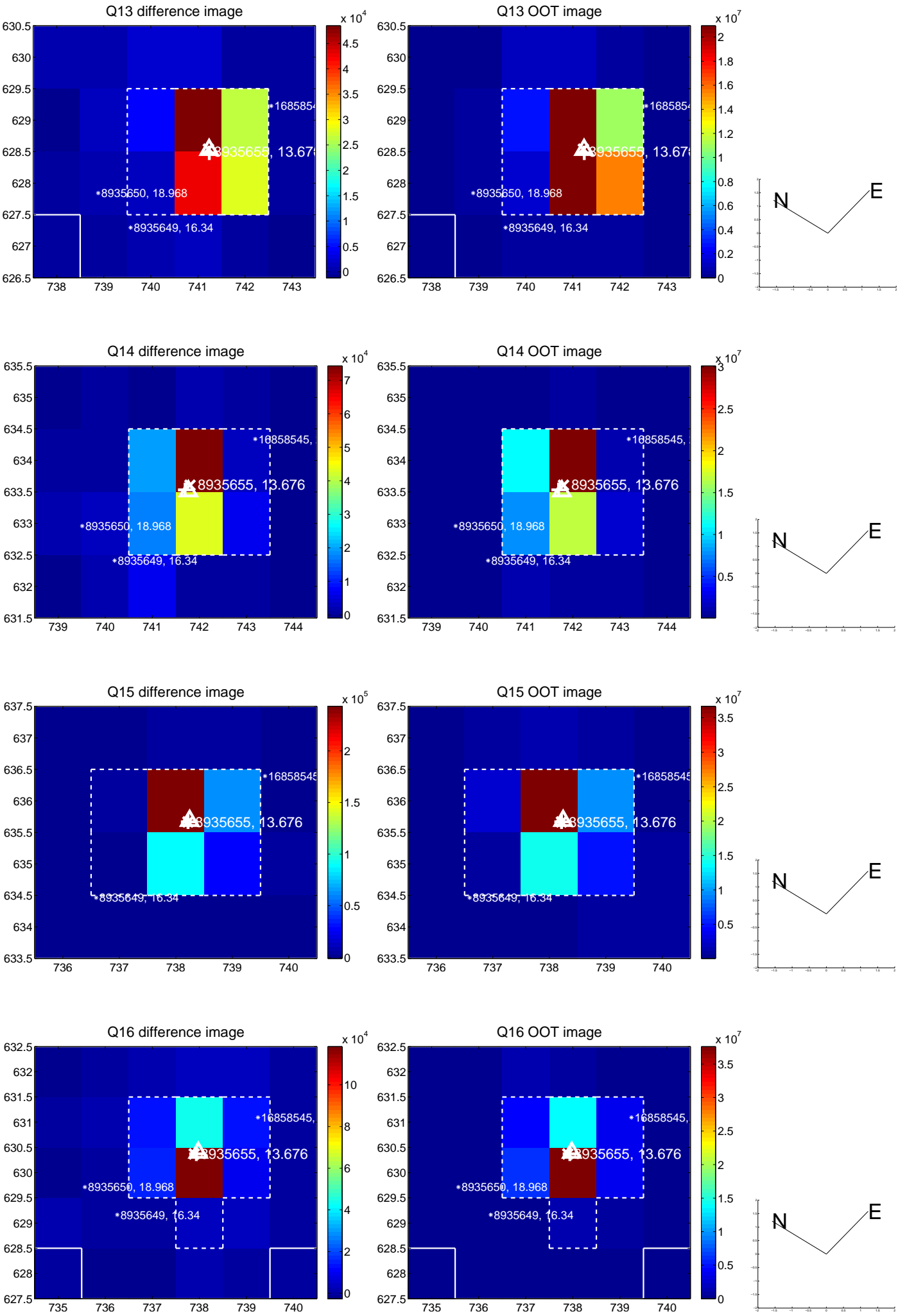
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



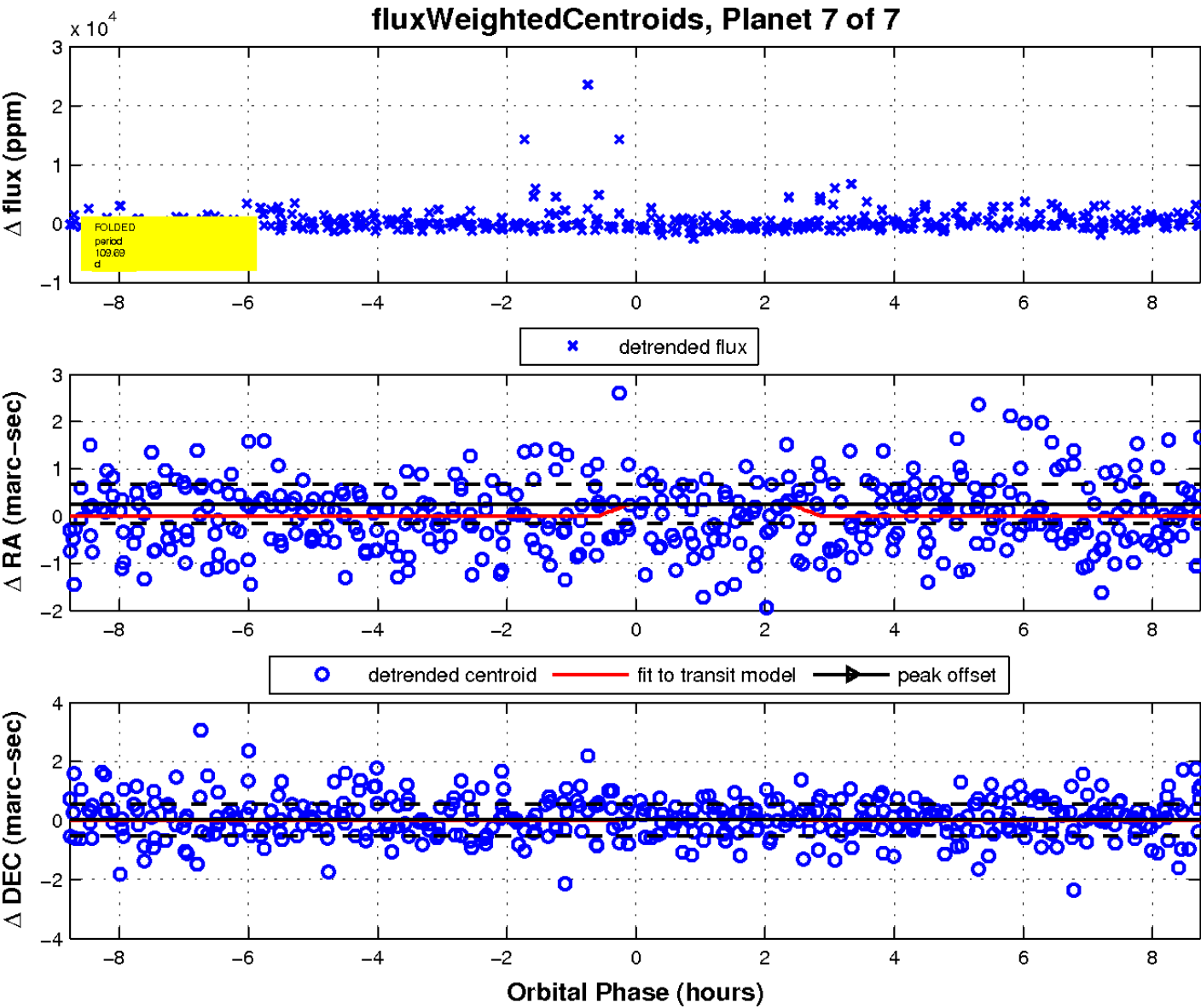
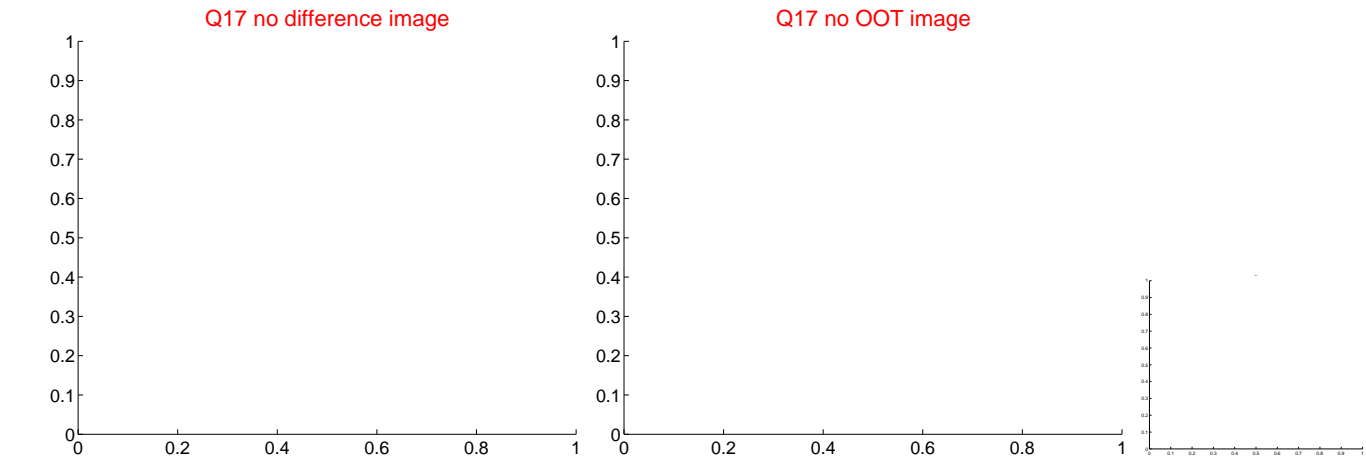
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

