

KIC 003340807

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})
003340807-01	OBS	No	397.081016	357.875694	2097.6	13.304	16.4	6.3	0.82	5485	4.46	0.59
003340807-02	OBS	No	362.534036	154.949068	802.0	2.306	15.7	5.0	0.82	5485	2.75	0.66
003340807-03	OBS	No	514.563670	499.596219	1142.6	1.993	20.6	6.2	0.82	5485	2.87	0.41
003340807-04	OBS	No	516.949300	496.888053	1221.0	5.554	16.0	4.6	0.82	5485	2.90	0.41
003340807-05	OBS	No	516.696621	416.082373	652.4	3.500	15.5	-1.0	0.82	5485	2.08	0.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003340807-01	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
003340807-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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

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

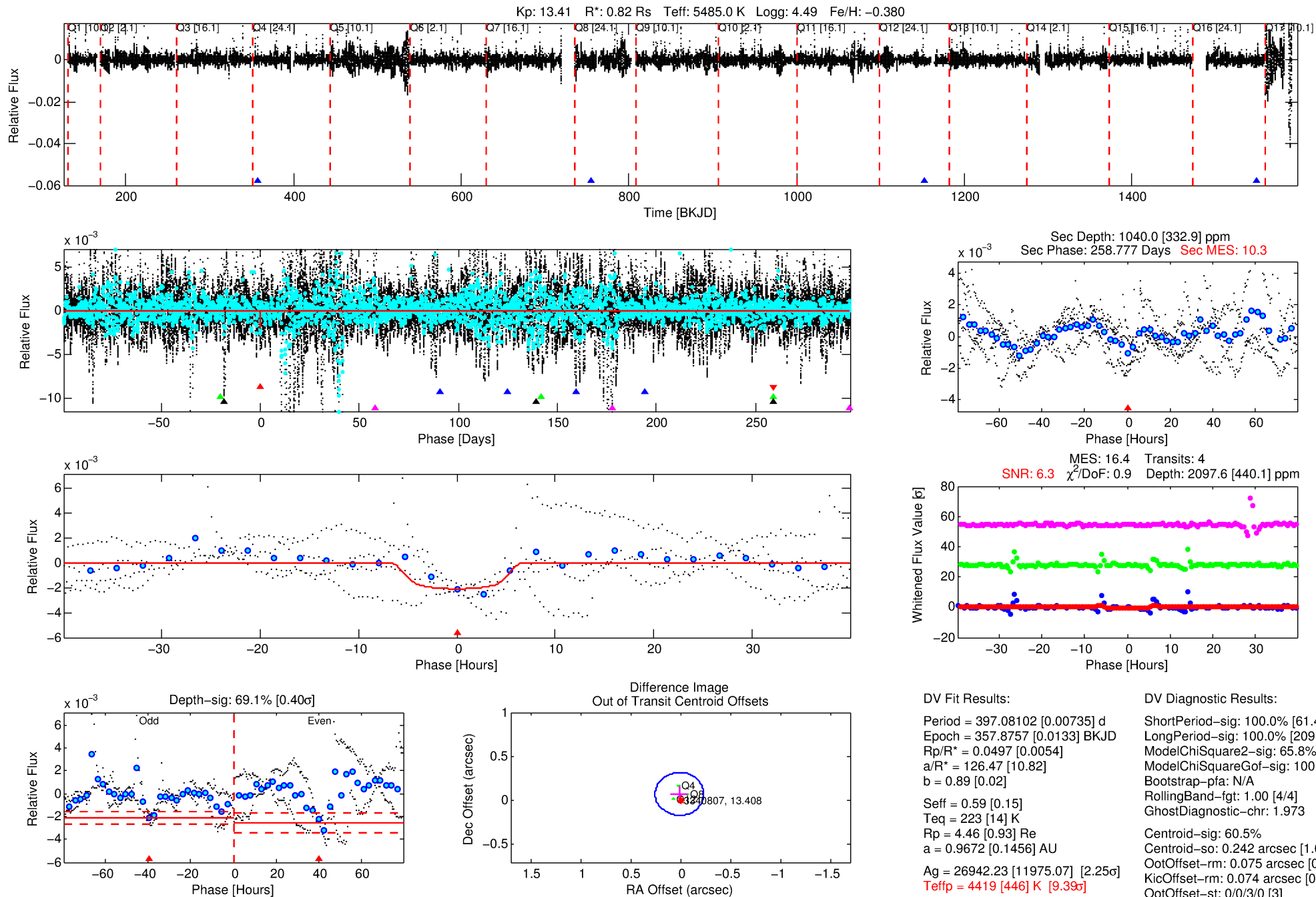
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003340807-01

No Significant Match Found

DV One-Page Summary

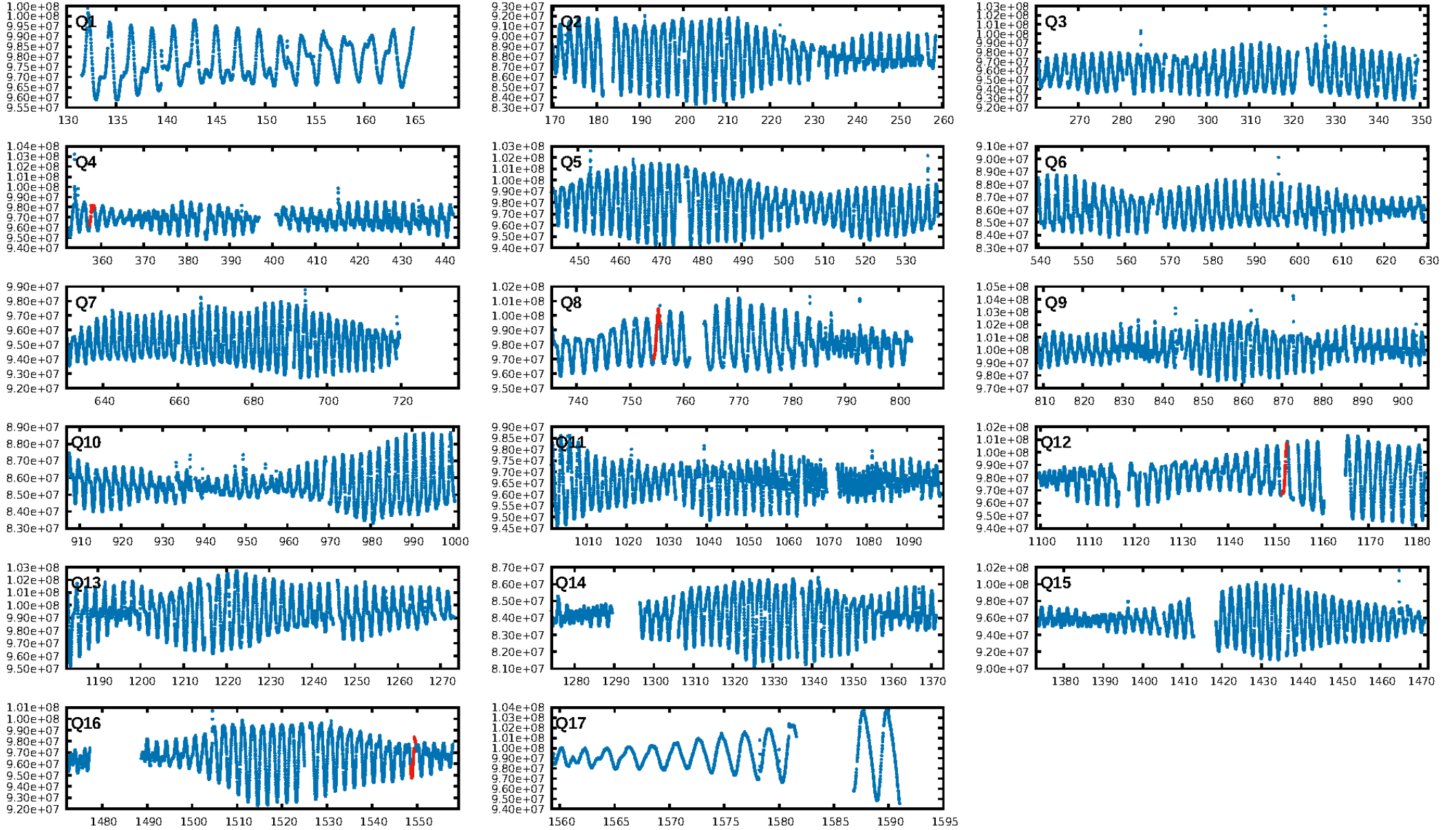
KIC: 3340807 Candidate: 1 of 5 Period: 397.081 d



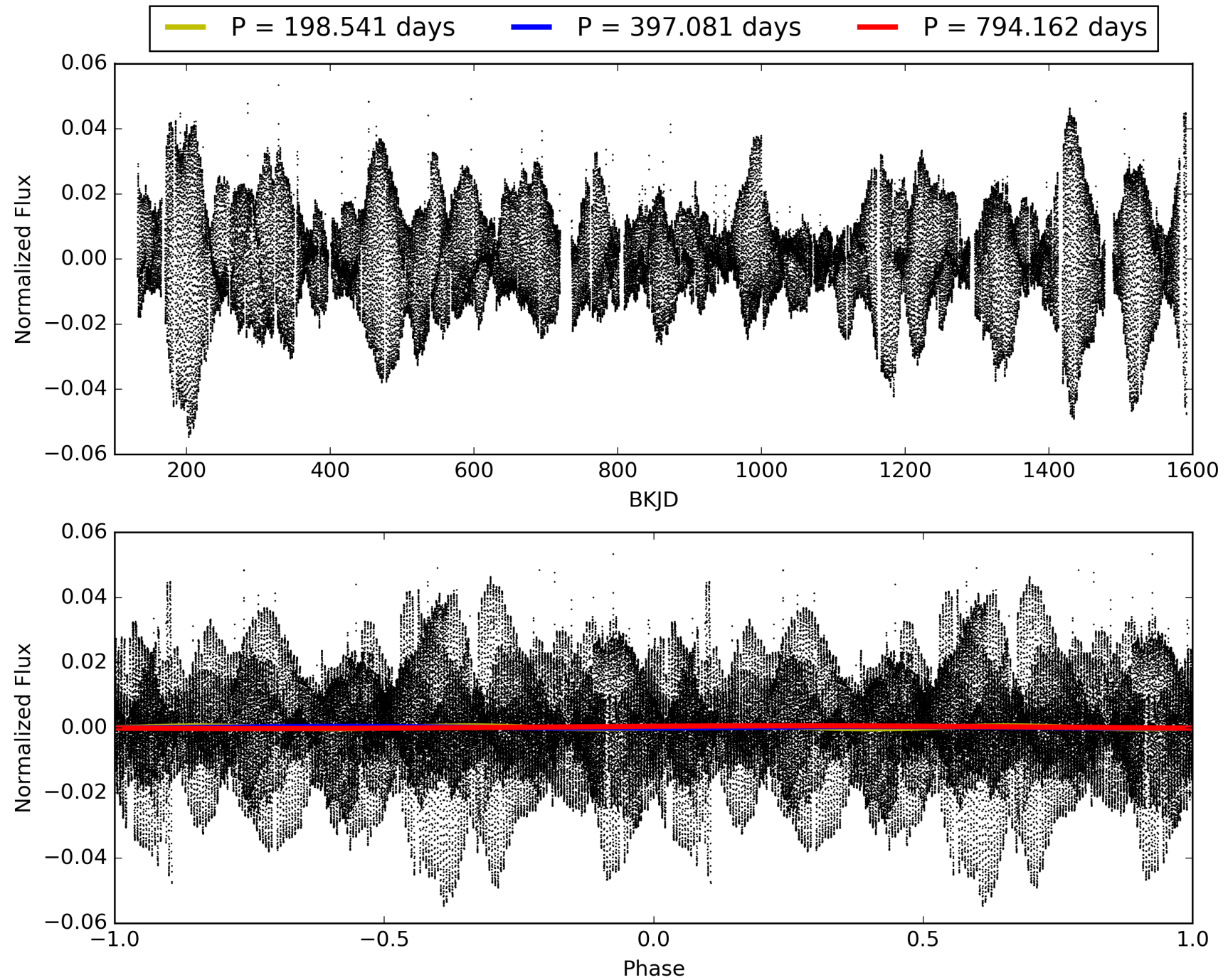
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:46:25 Z

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

TCE 003340807-01, PDC Light Curves

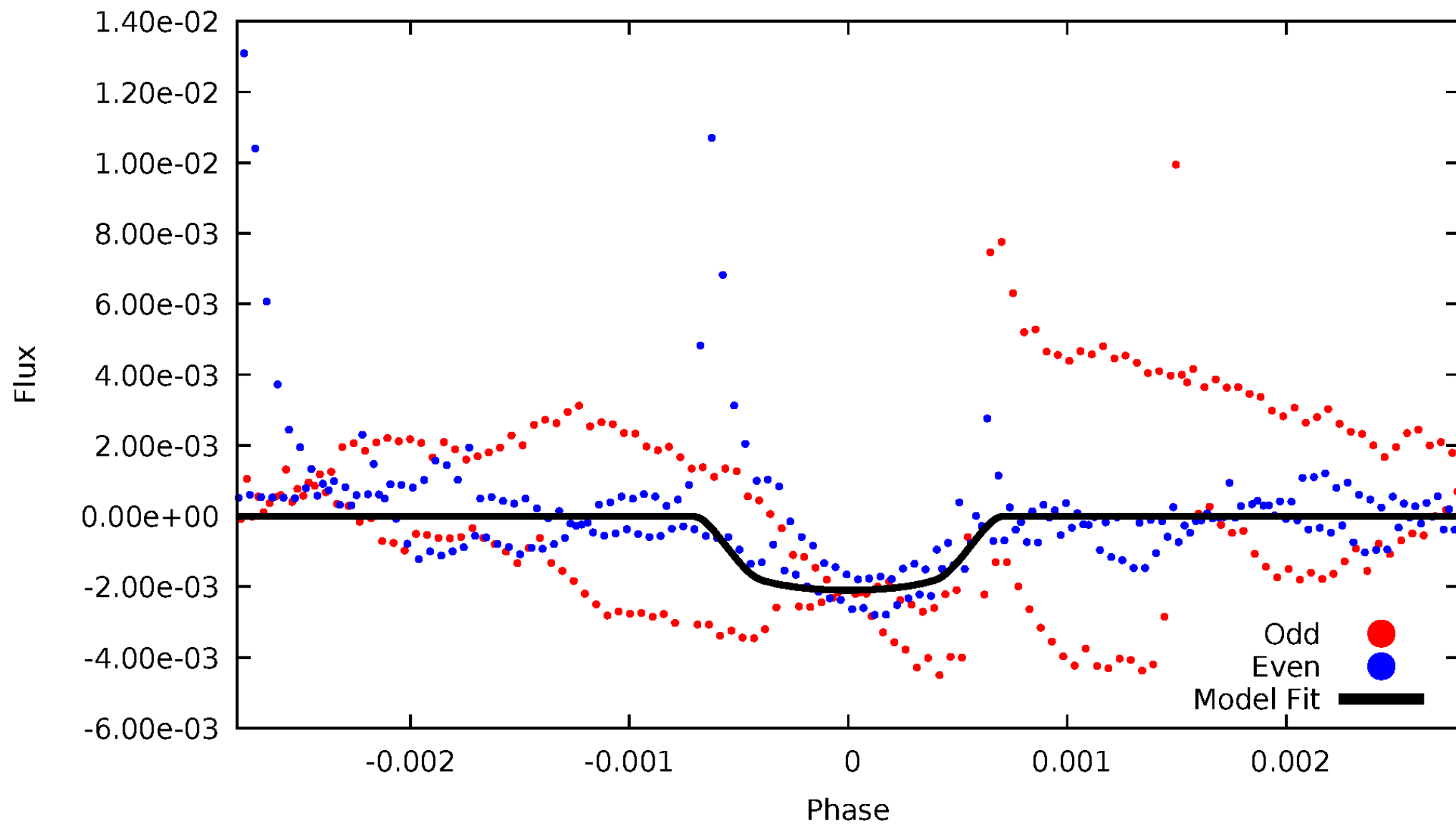


TCE 003340807-01



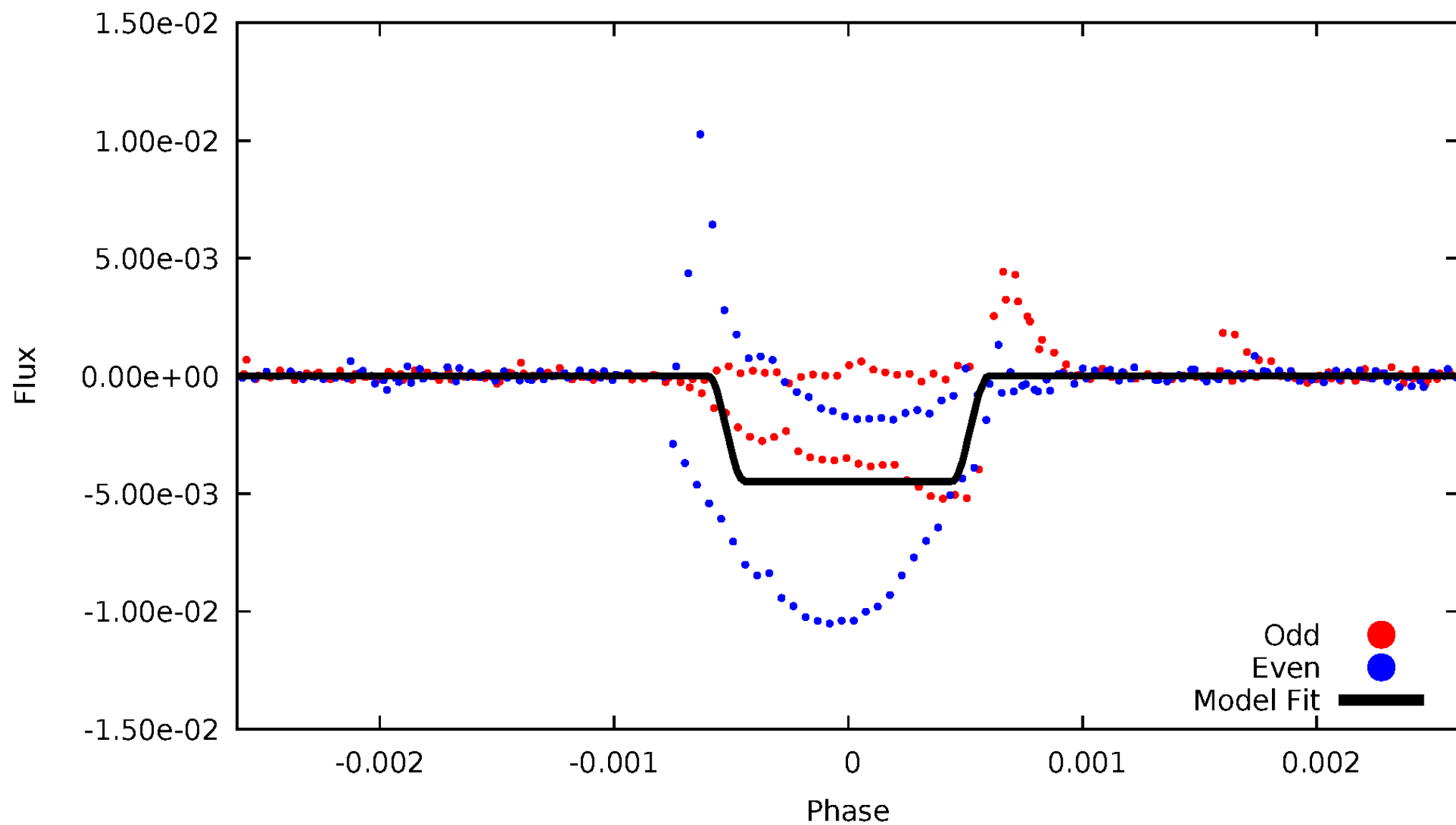
DV Odd/Even

TCE 003340807-01



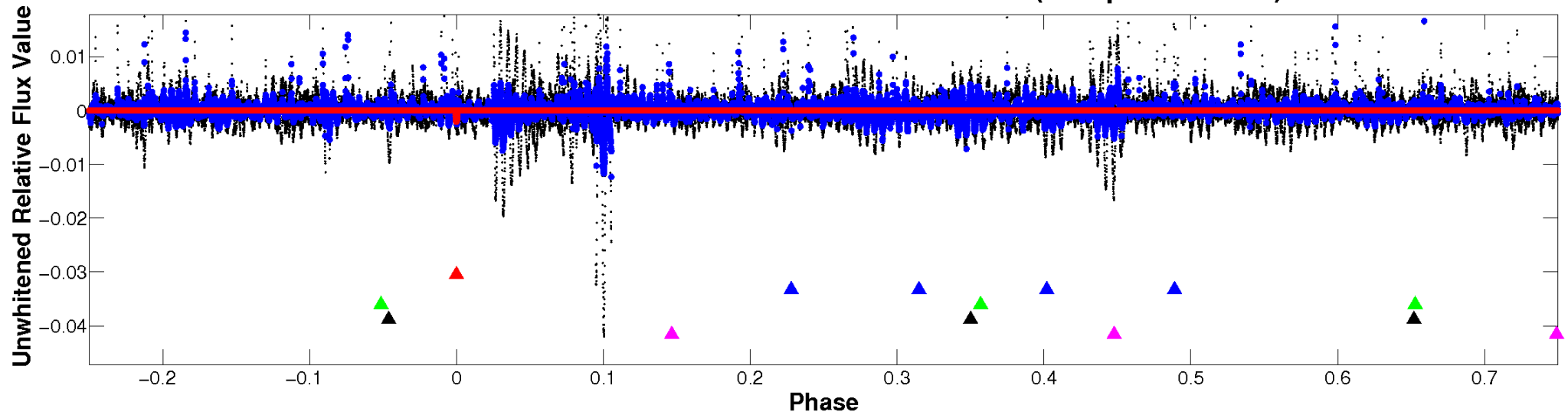
ALT Odd/Even

TCE 003340807-01

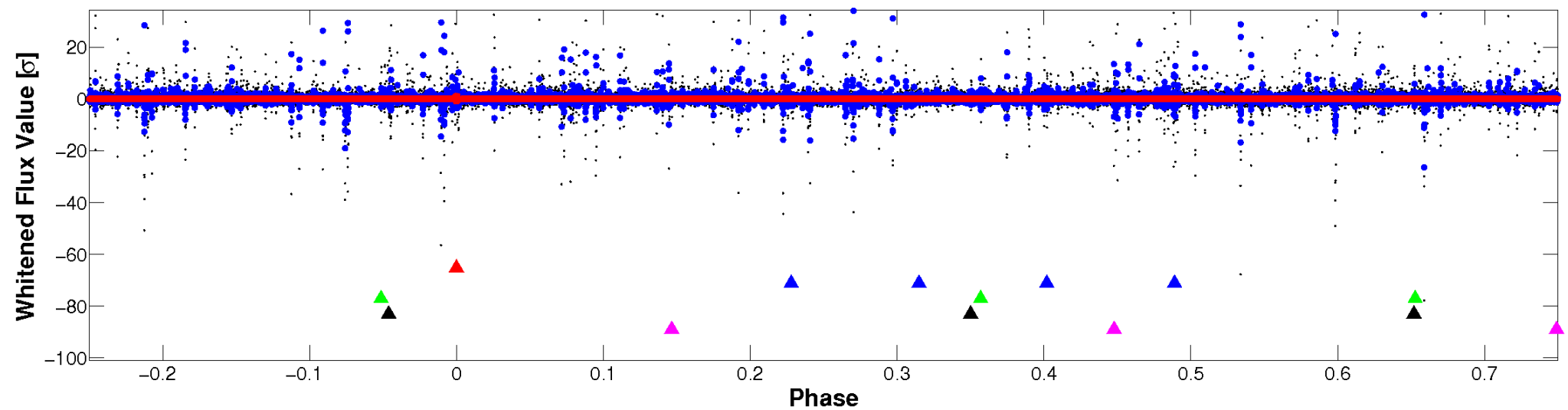


Non-Whitened Vs. Whitened Light Curve

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

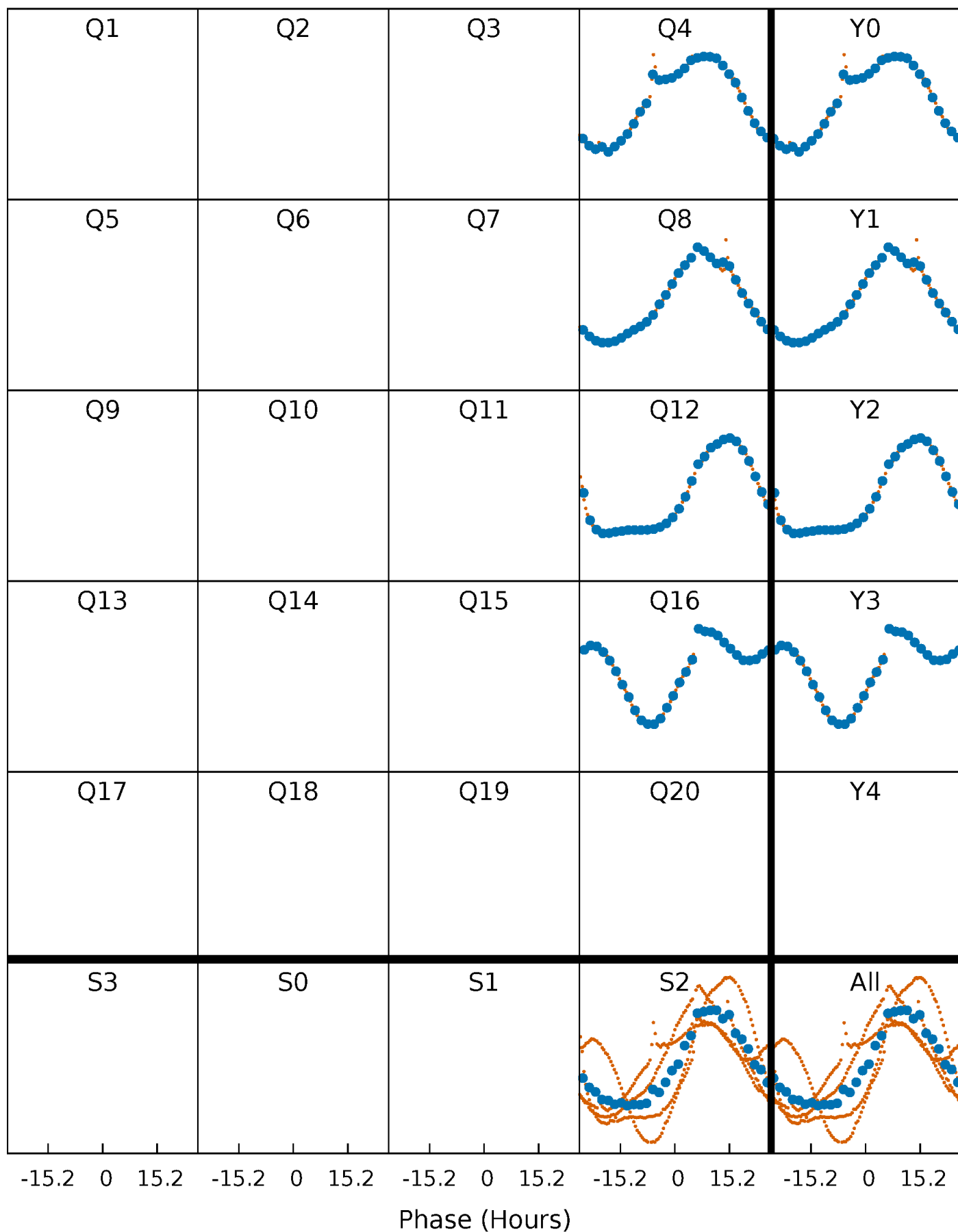


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



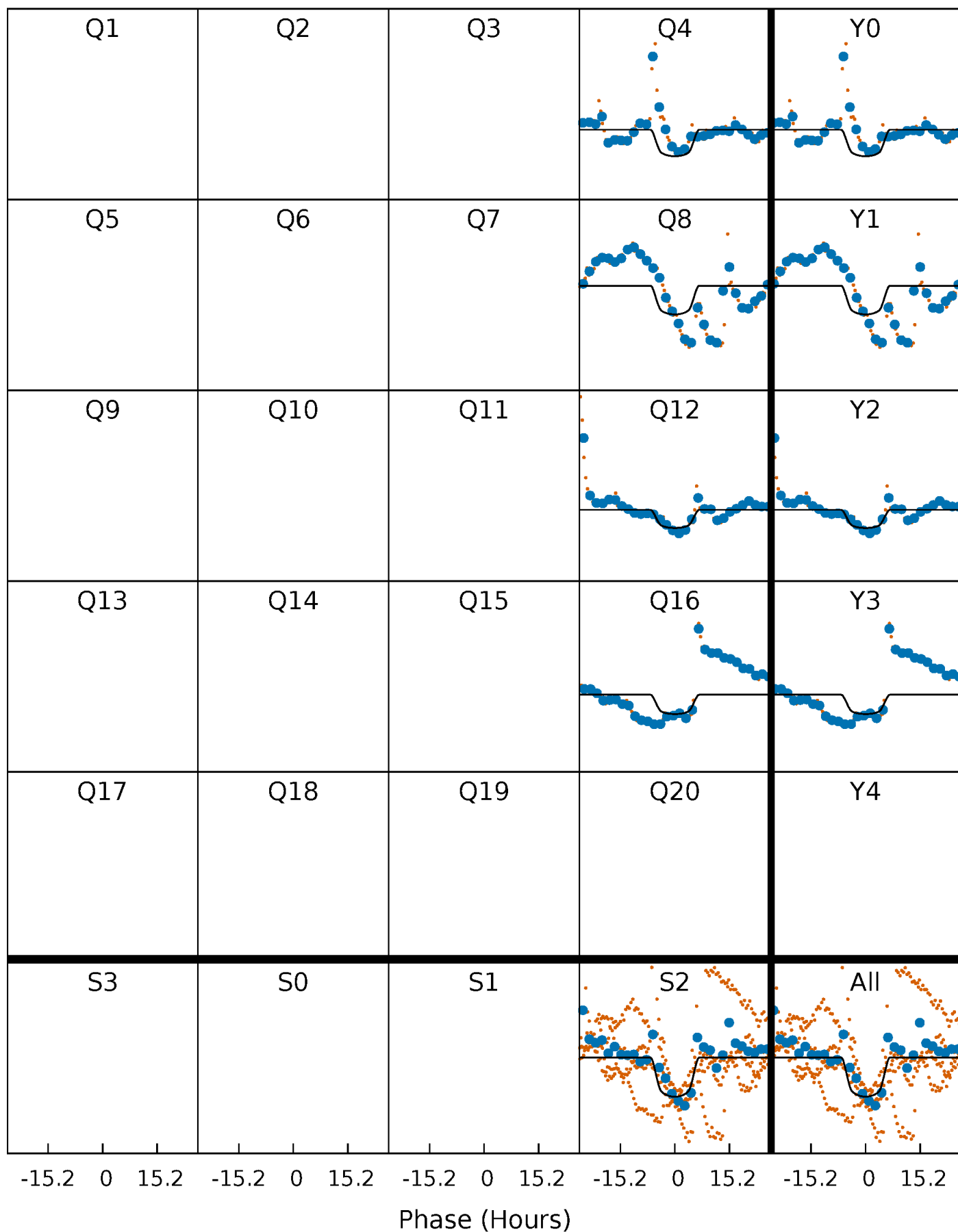
PDC Quarter-Phased Transit Curves

TCE 003340807-01 P=397.081016 Days $T_0=357.875694$ (BKJD)



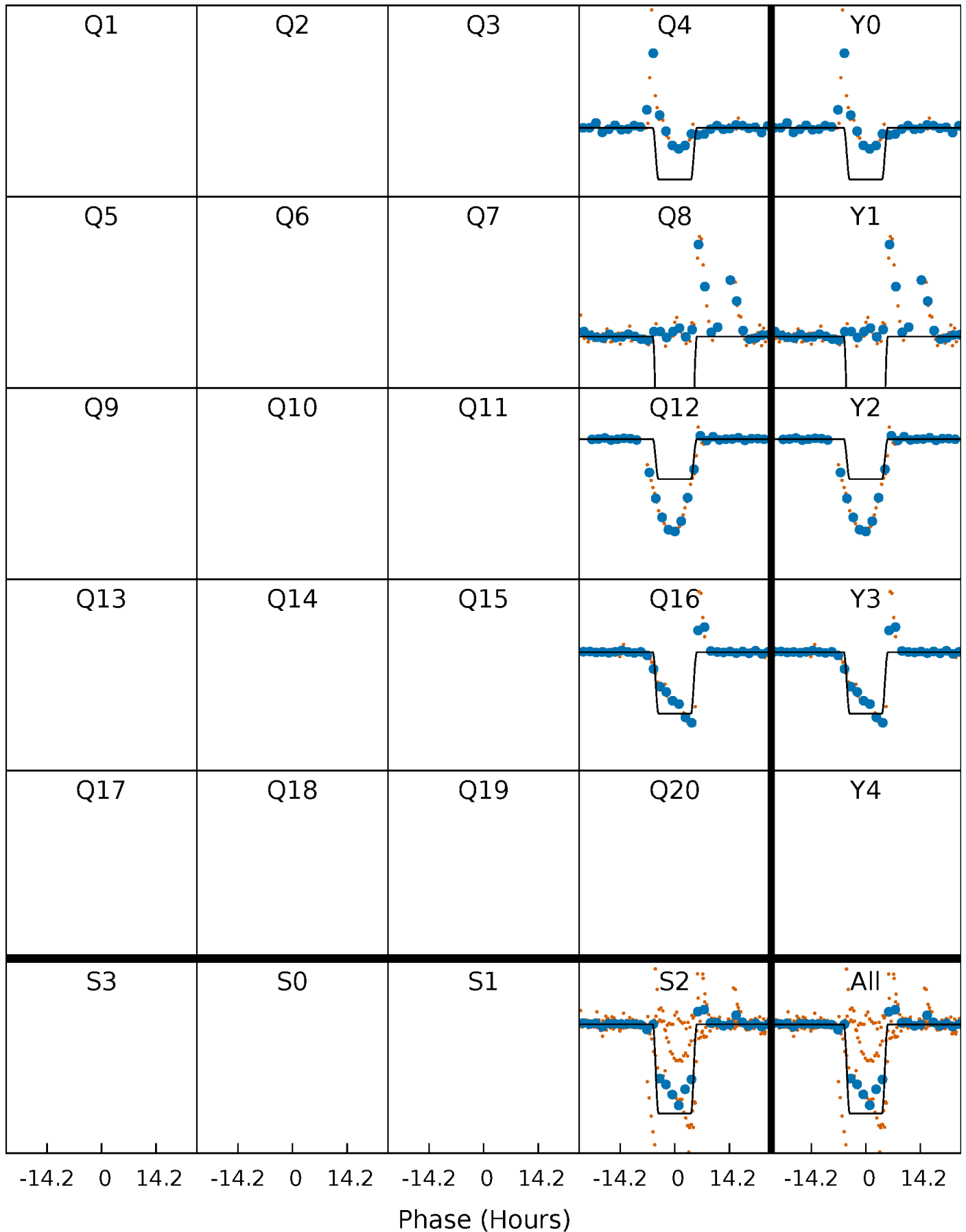
DV Quarter-Phased Transit Curves

TCE 003340807-01 P=397.081016 Days $T_0=357.875694$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

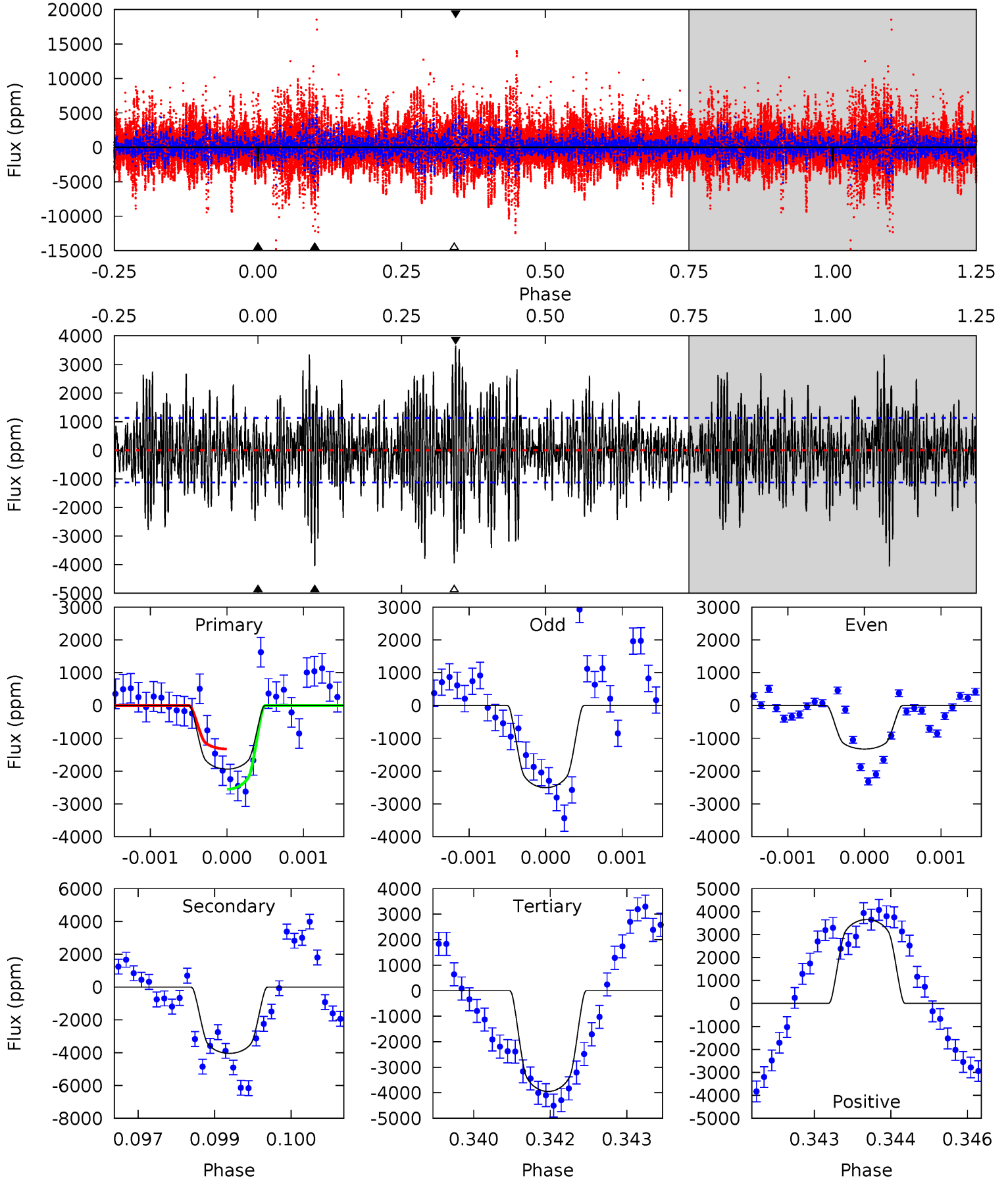
TCE 003340807-01 P=397.078560 Days $T_0=357.878323$ (BKJD)



DV Model-Shift Uniqueness Test

003340807-01, P = 397.081016 Days, E = 357.875694 Days

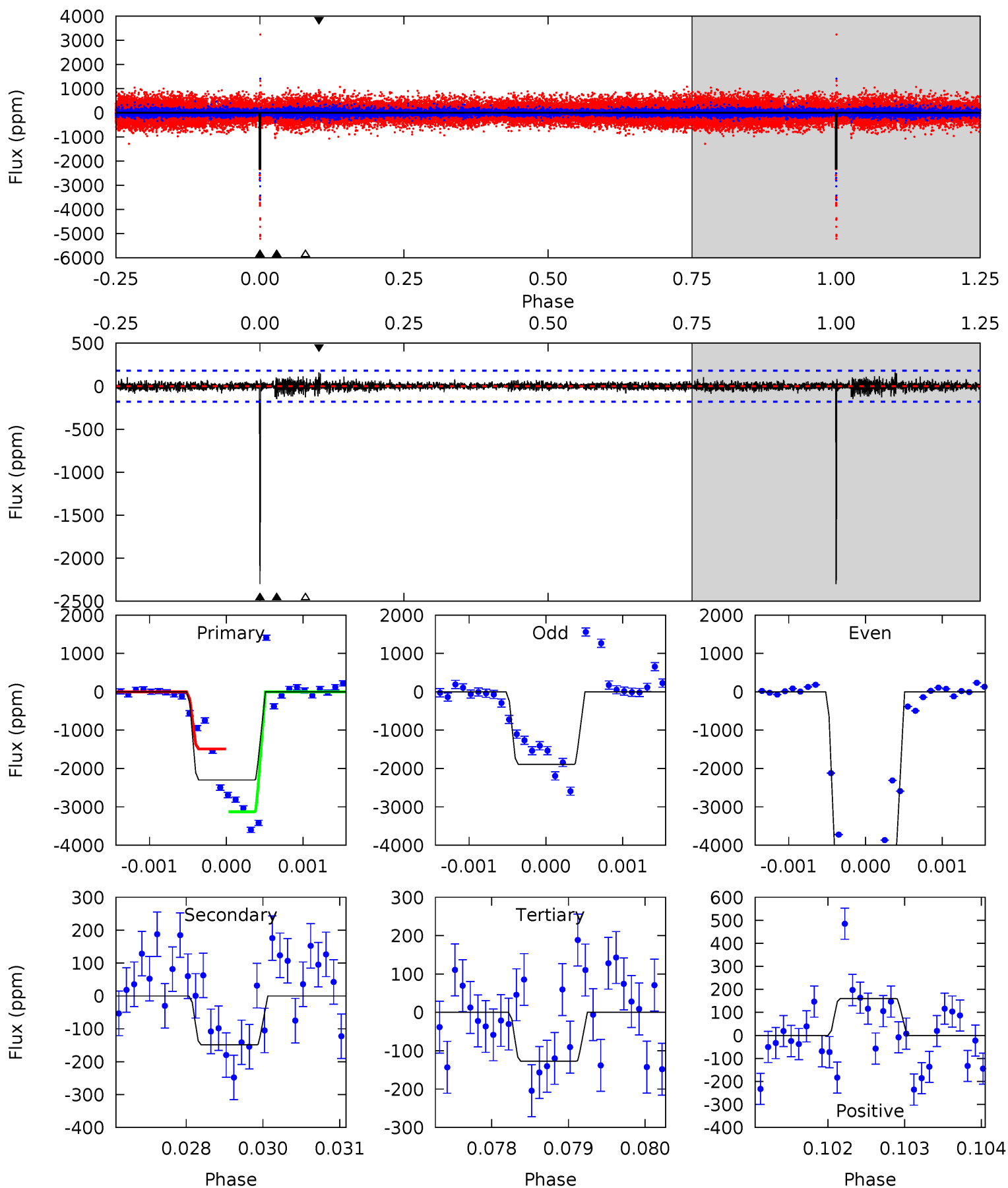
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	19.4	18.9	17.5	5.39	3.19	4.88	-9.60	-8.20	0.45	1.86	2.38	0.86	0.47	2.89



Alt Model-Shift Uniqueness Test

003340807-01, P = 397.078560 Days, E = 357.878323 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
69.3	4.48	3.83	4.82	5.42	3.24	0.70	65.5	64.5	0.65	-0.34	53.0	1.45	0.06	24.3



Stellar Parameters For KIC 003340807

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5485^{+164}_{-148}	$4.492^{+0.099}_{-0.121}$	$-0.380^{+0.350}_{-0.300}$	$0.822^{+0.146}_{-0.110}$	$0.765^{+0.114}_{-0.053}$	$1.941^{+0.836}_{-0.685}$
	+3%/-3%	+2%/-3%	+92%/-79%	+18%/-13%	+15%/-7%	+43%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003340807-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4043 ± 209	$4.47^{+0.70}_{-0.61}$	313^{+17}_{-15}	6208^{+477}_{-369}	106268^{+34244}_{-26628}
Alt.	-149 ± 33	$6.08^{+0.80}_{-0.73}$	313^{+17}_{-15}	2990^{+123}_{-127}	2030^{+758}_{-562}

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 $A_{obs} \gg 1.0$

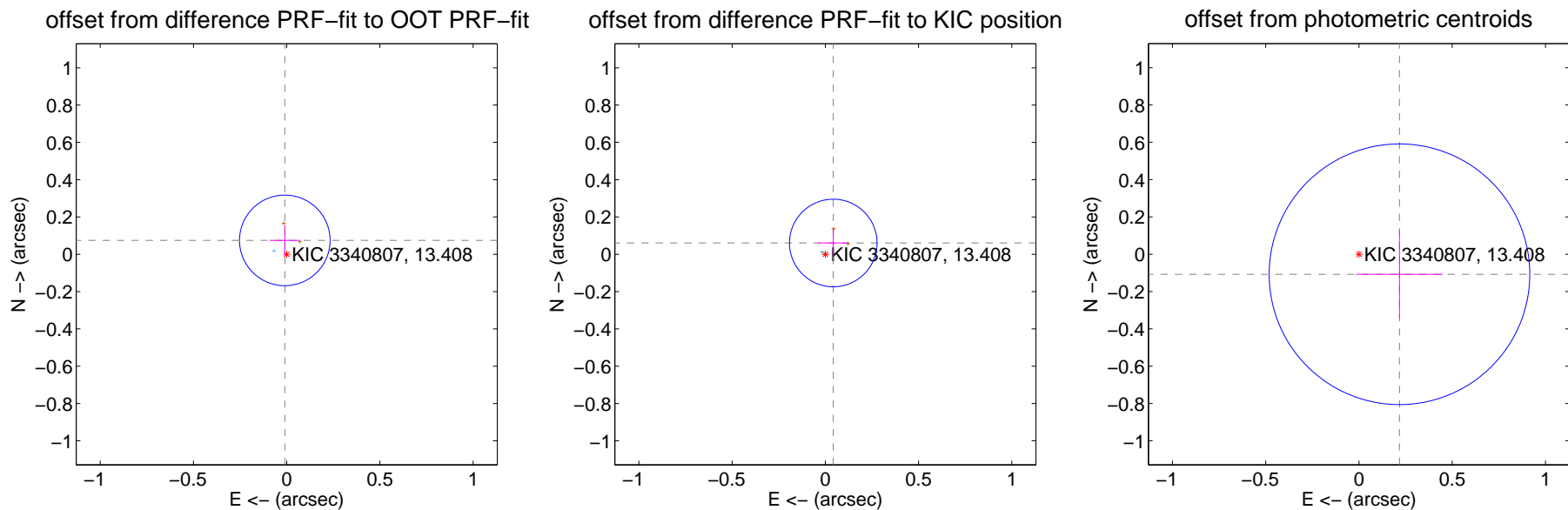
DV Centroid Data

Supplemental centroid analysis for 003340807-01. Kepler magnitude: 13.41. Transit SNR 6.29

There are 1 quarters with good PRF difference image offsets

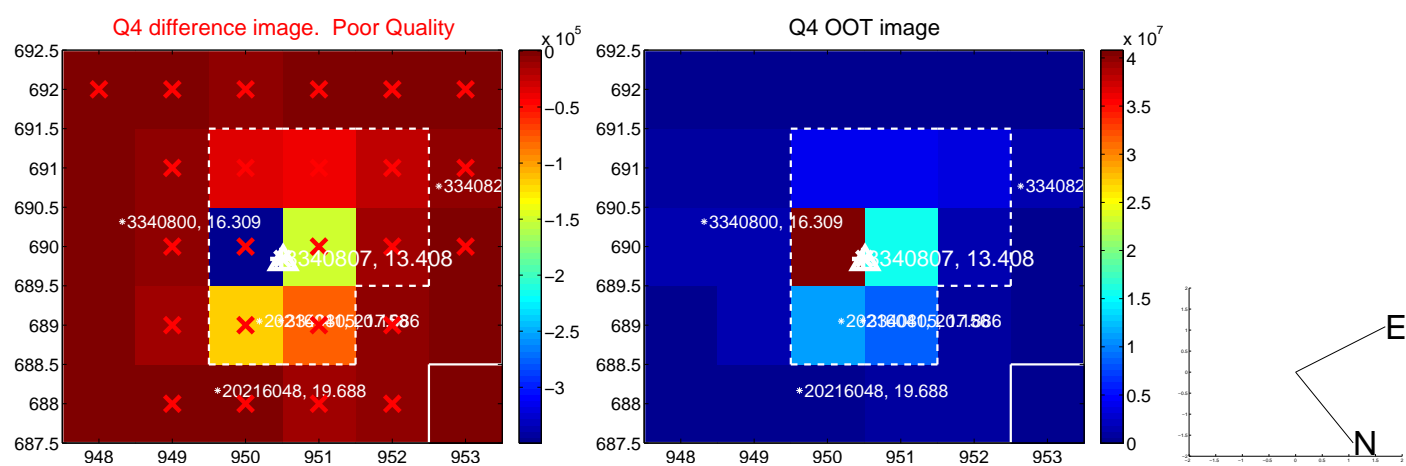
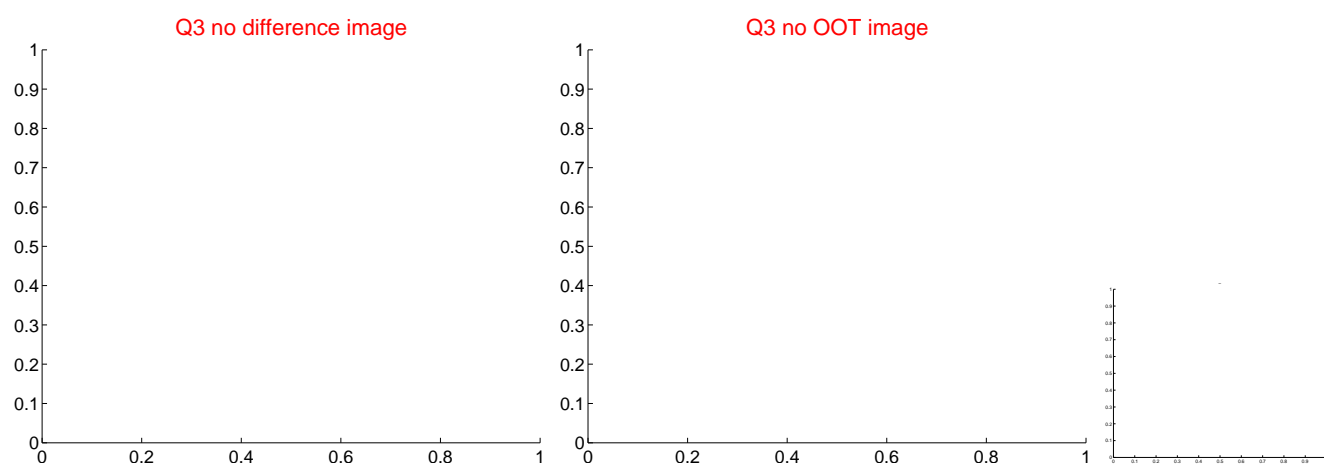
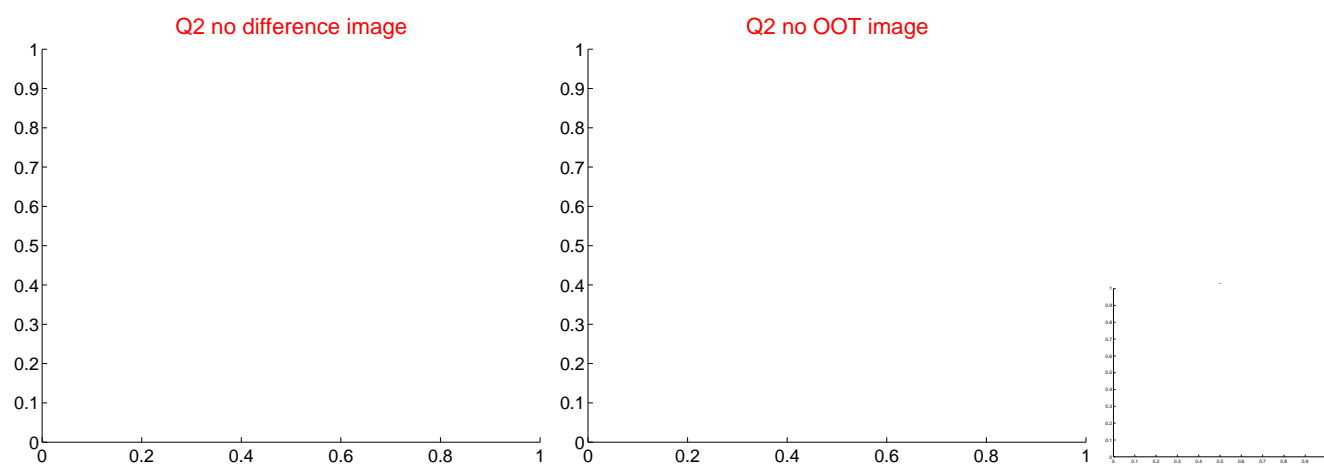
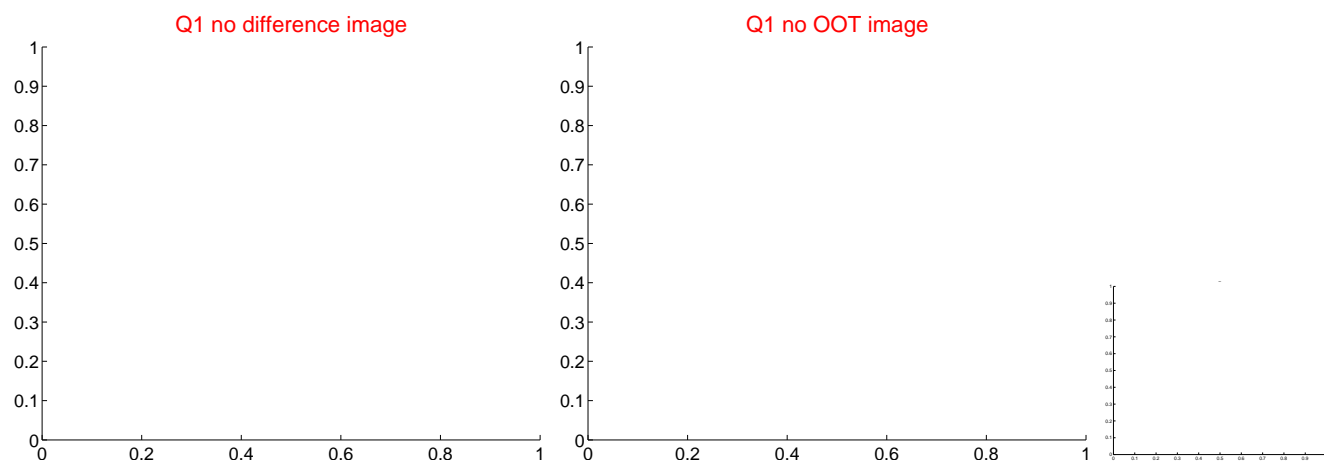
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.075 ± 0.081	0.93	0.010 ± 0.081	0.074 ± 0.081
PRF-fit source offset from KIC position	0.074 ± 0.078	0.94	-0.043 ± 0.081	0.061 ± 0.077
photometric centroid source offset	0.24 ± 0.23	1.04	-0.22 ± 0.23	-0.11 ± 0.23

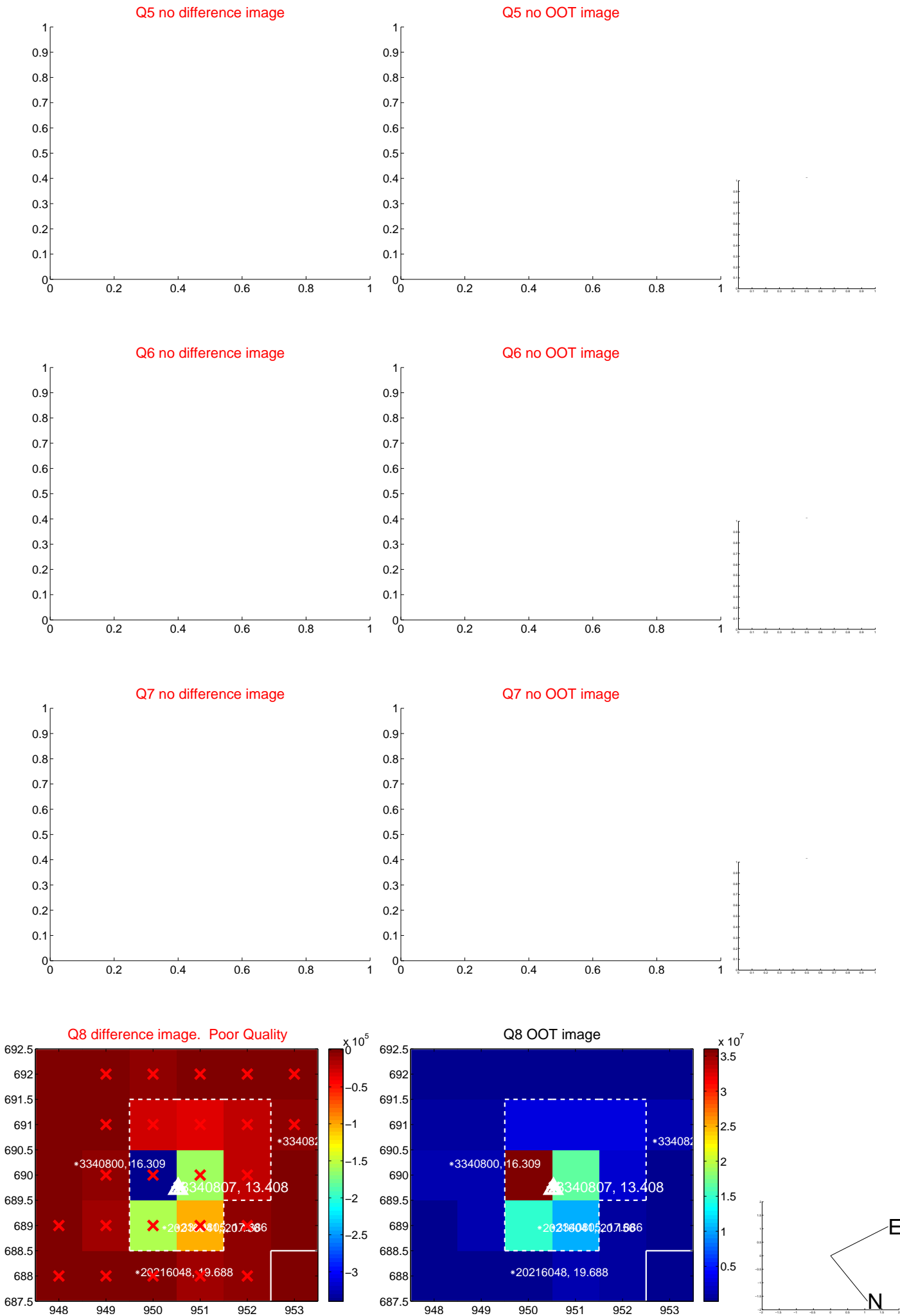


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

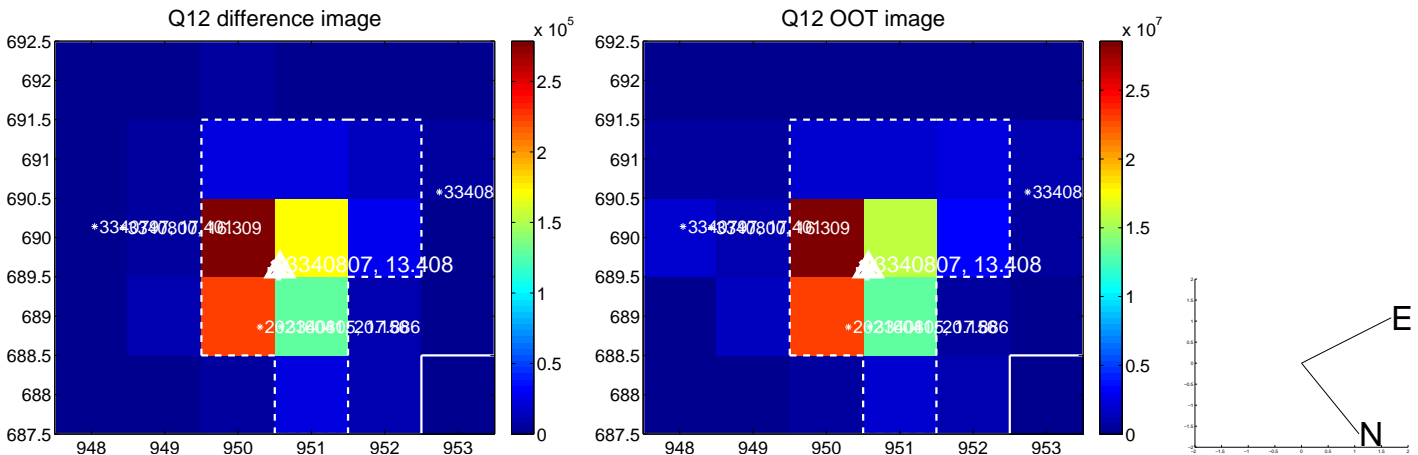
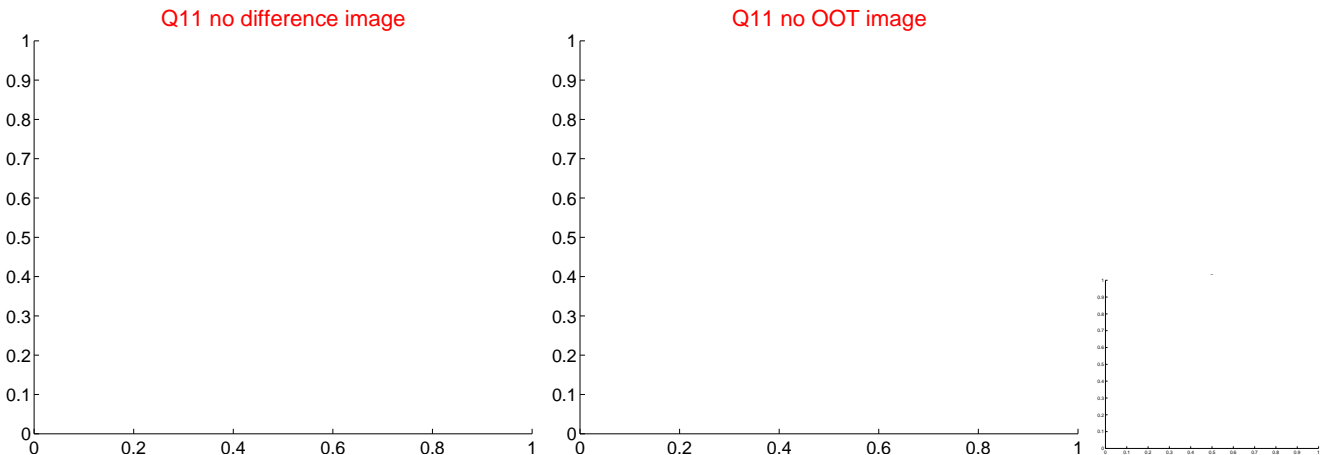
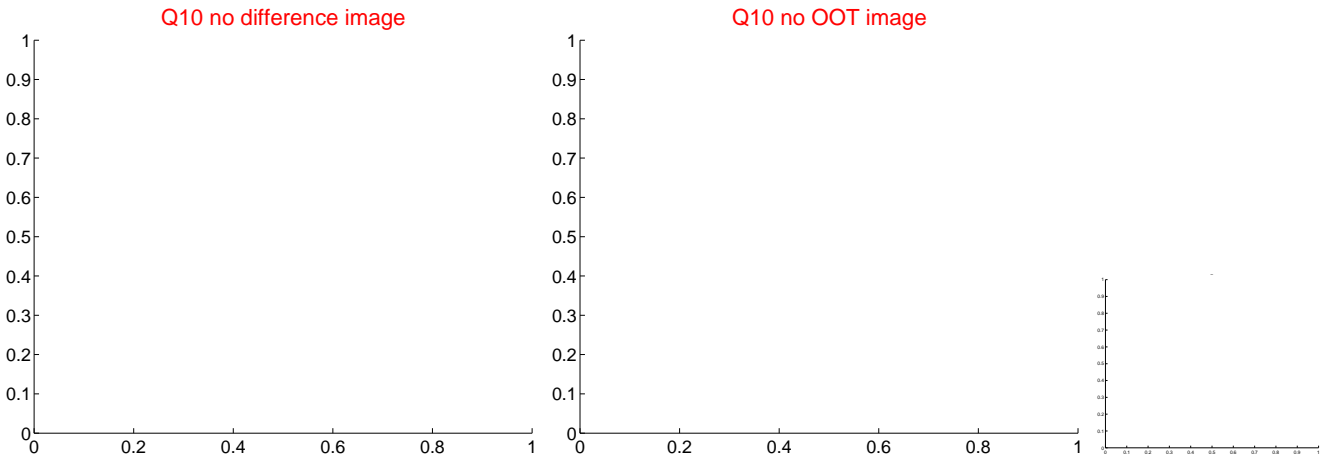
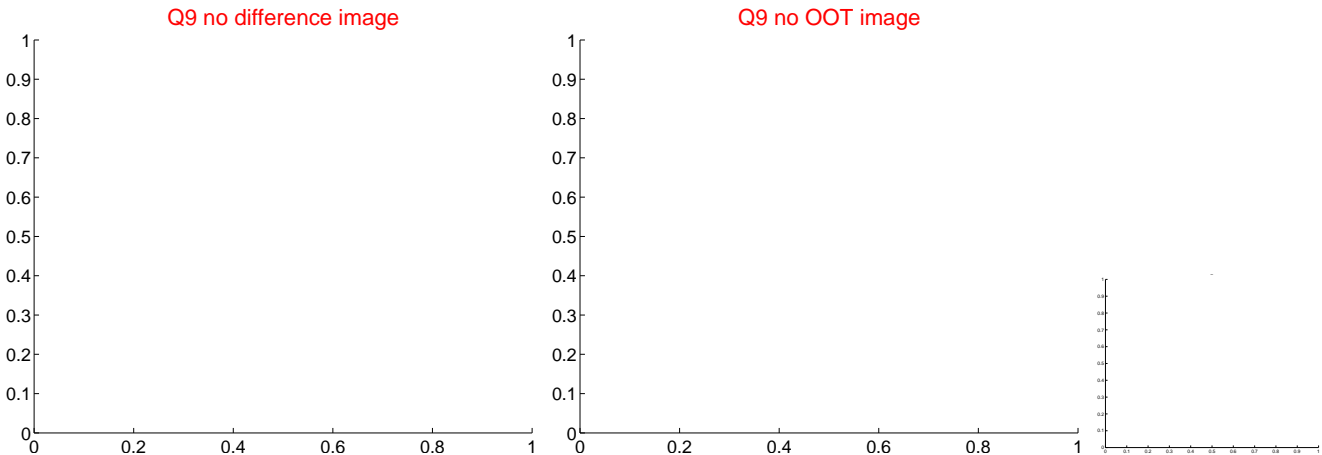
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



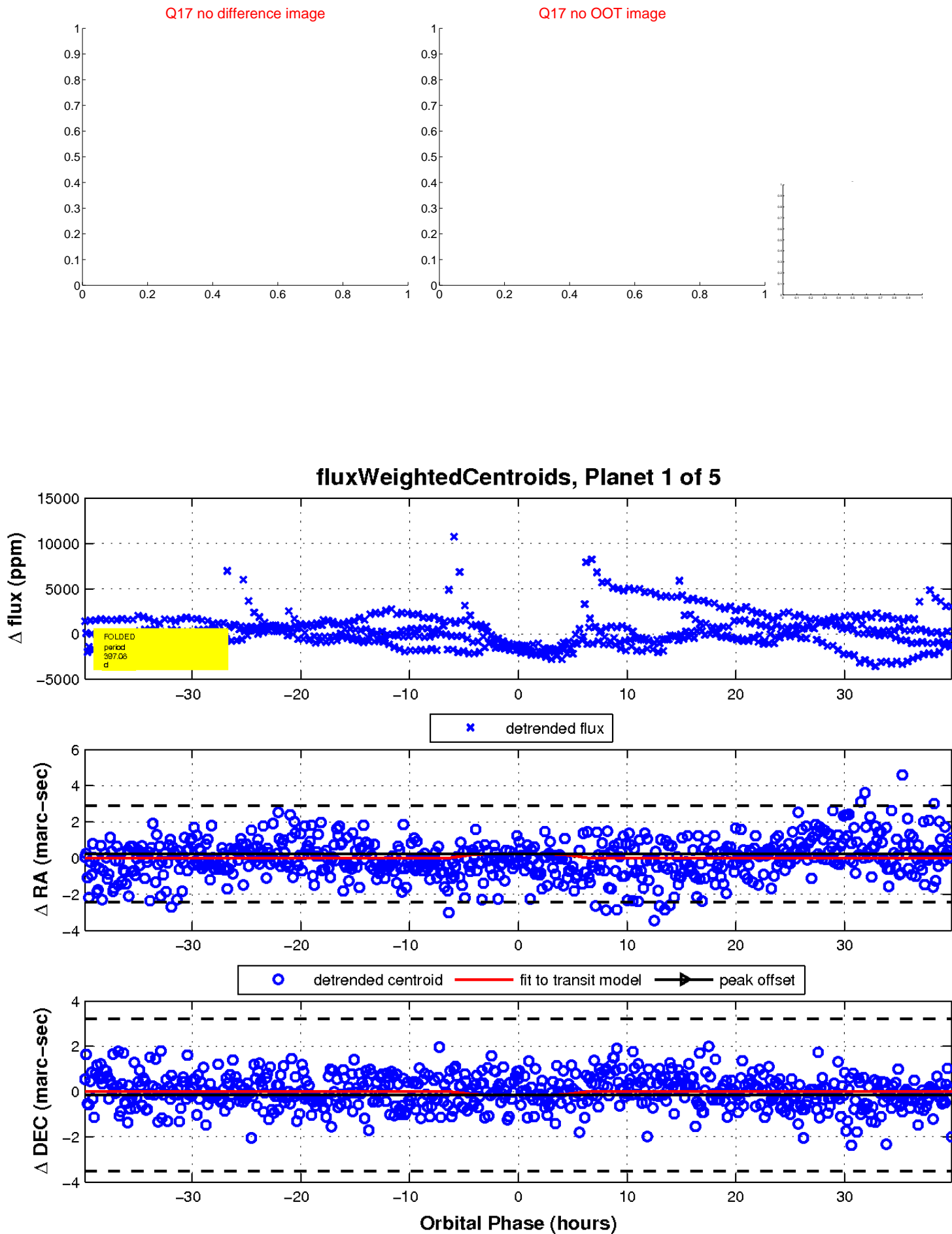
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



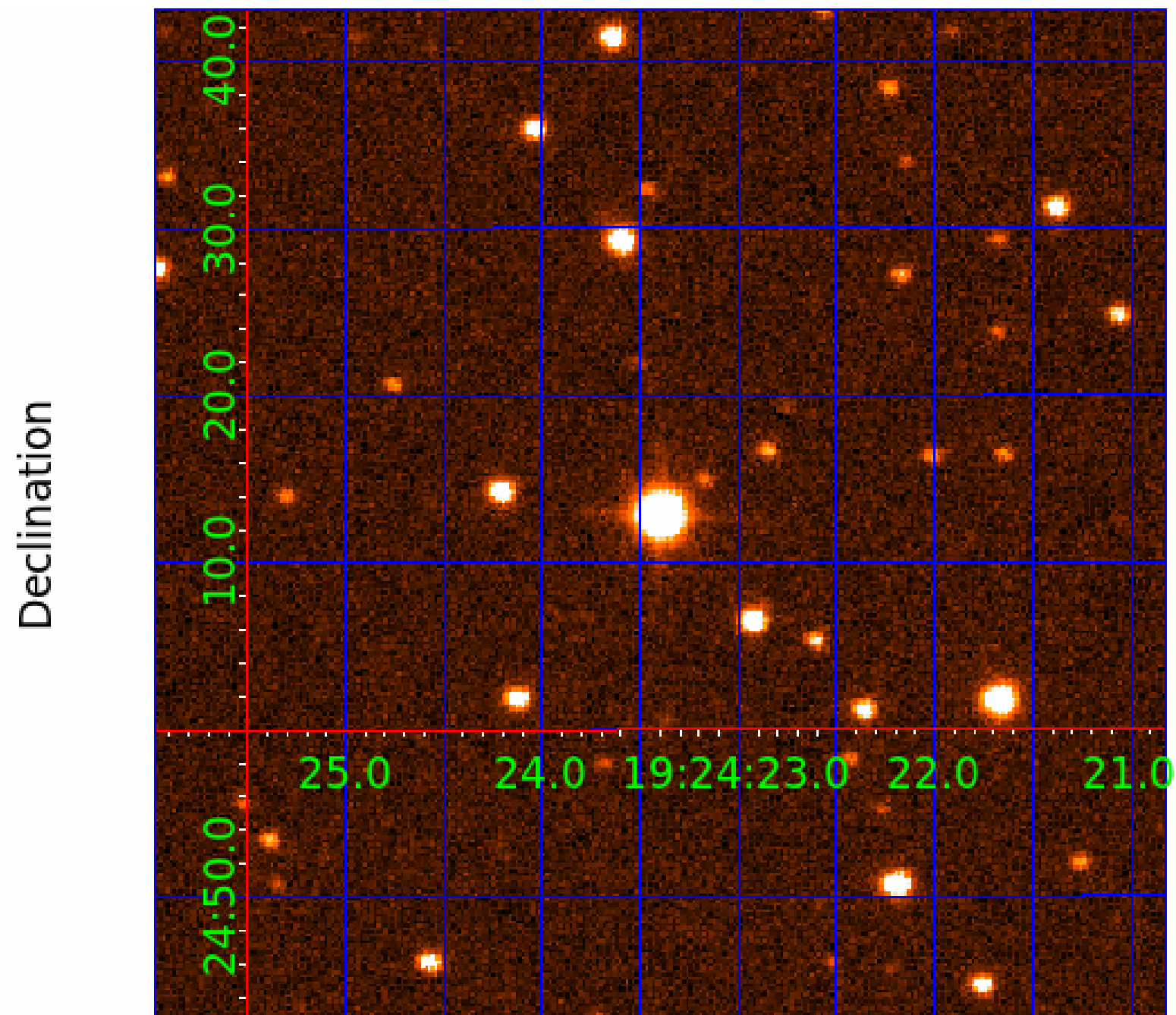
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UKIRT Image



KIC 003340807

Q1-17 DR25 TCE Parameters

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Robovetter Results

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003340807-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
003340807-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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

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

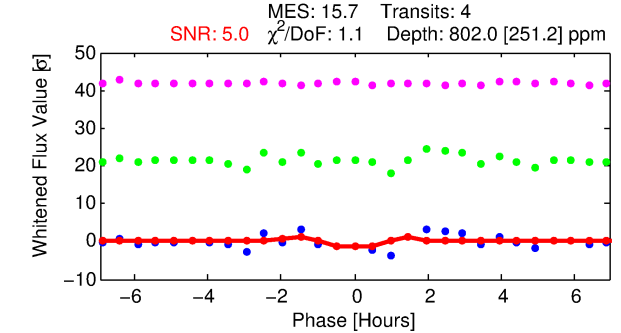
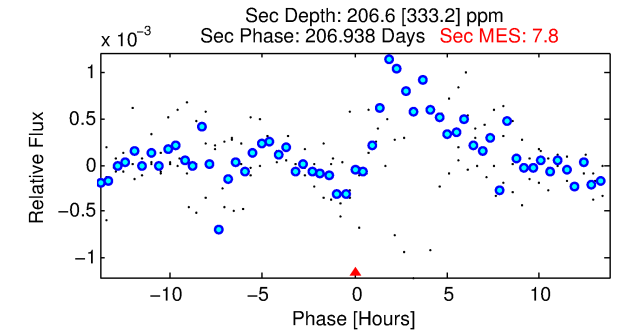
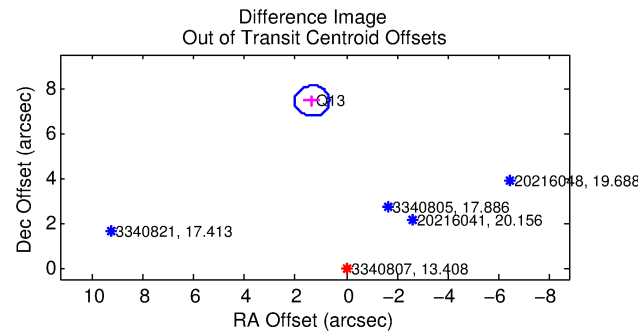
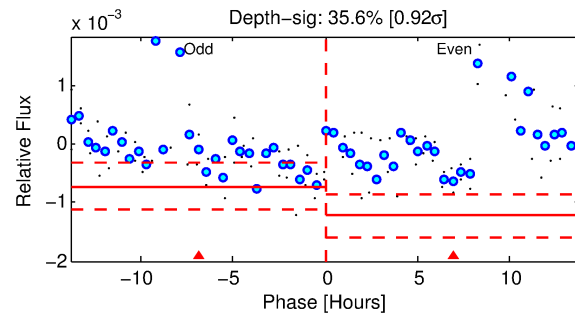
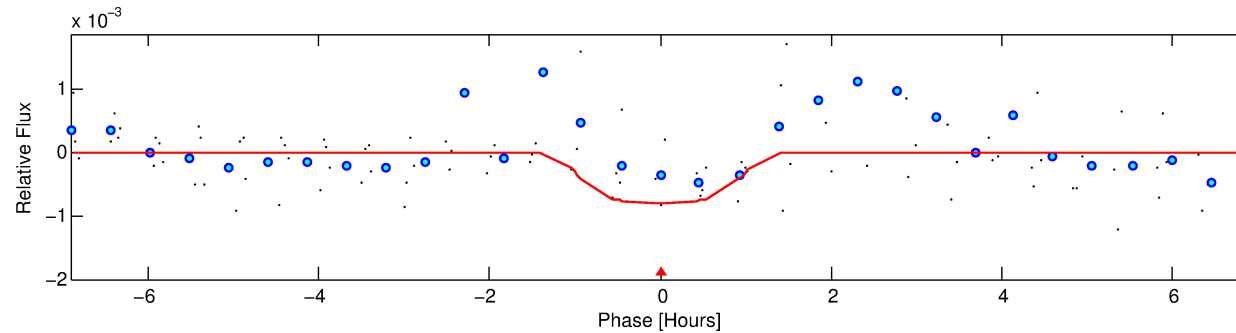
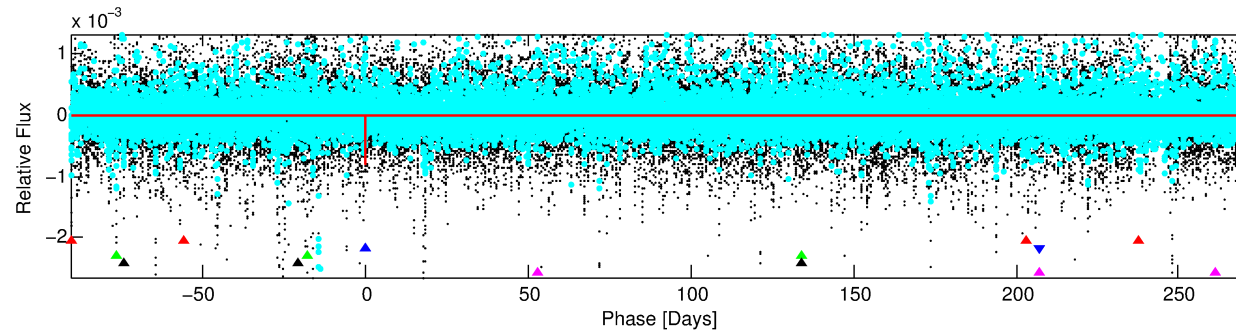
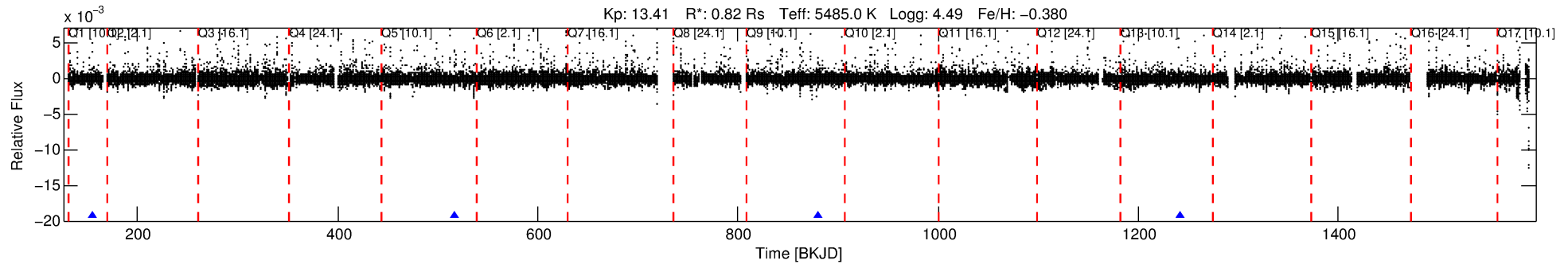
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003340807-02

No Significant Match Found

DV One-Page Summary

KIC: 3340807 Candidate: 2 of 5 Period: 362.534 d



DV Fit Results:

Period = 362.53404 [0.00337] d
Epoch = 154.9491 [0.0066] BKJD
Rp/R* = 0.0306 [0.1584]
a/R* = 629.72 [14760.96]
b = 0.89 [5.75]
Seff = 0.66 [0.17]
Teq = 230 [14] K
Rp = 2.75 [14.22] Re
a = 0.9103 [0.1370] AU
Ag = 12473.06 [130566.46] [0.10 σ]
Teffp = 3757 [9831] K [0.36 σ]

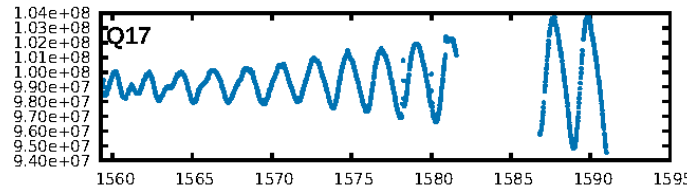
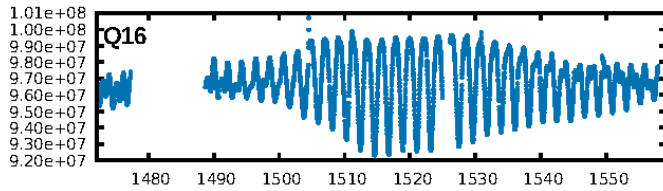
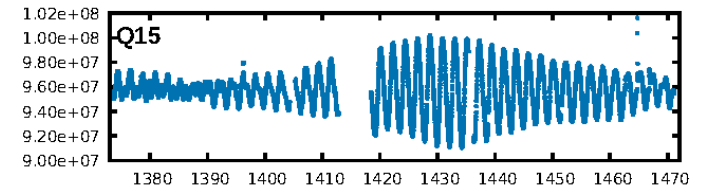
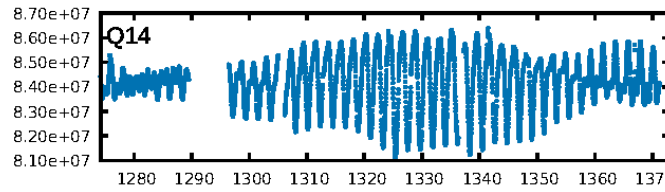
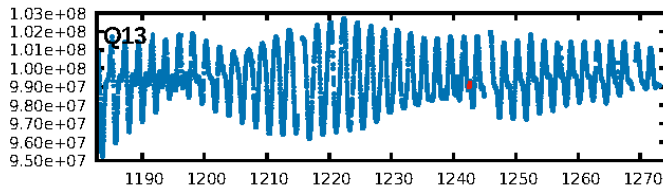
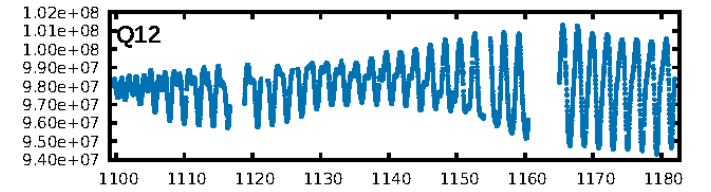
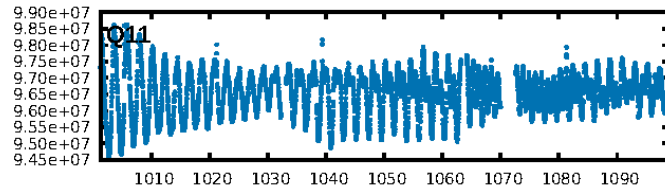
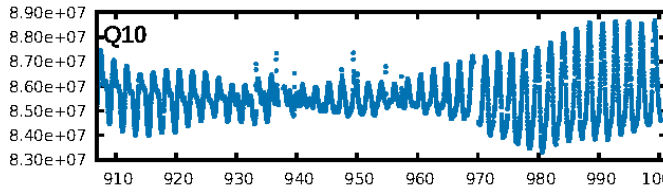
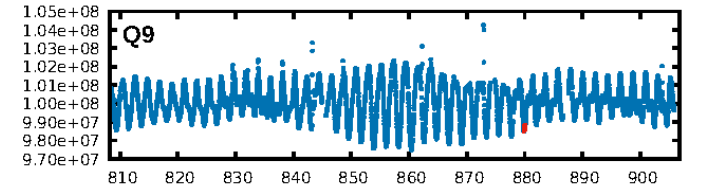
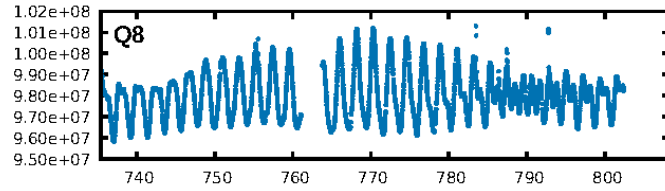
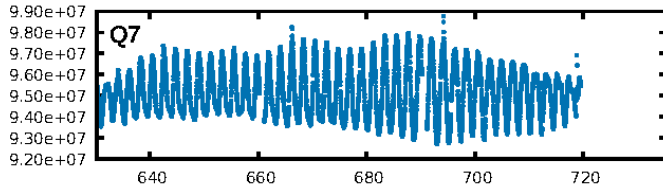
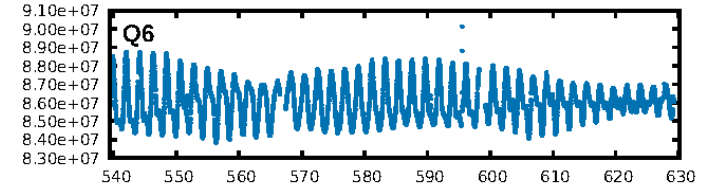
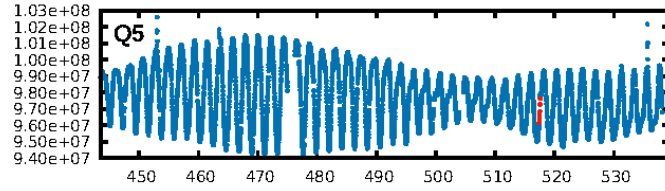
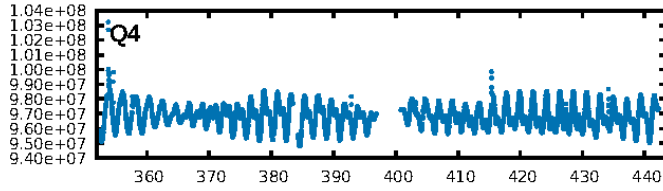
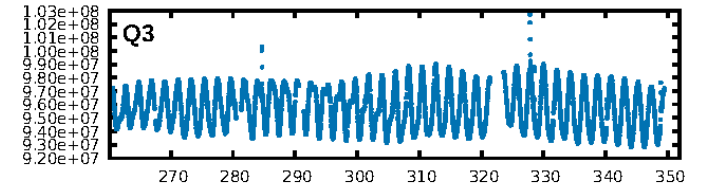
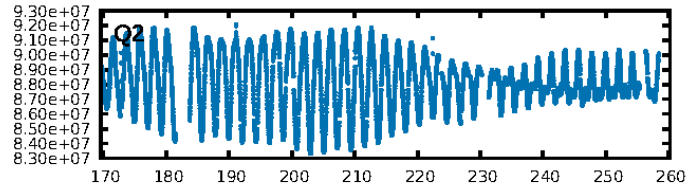
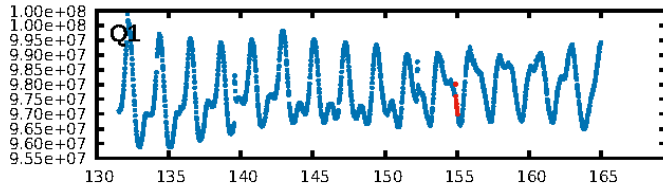
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [61.41 σ]
ModelChiSquare2-sig: 8.3%
ModelChiSquareGof-sig: 94.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.233
Centroid-sig: 15.6%
Centroid-so: 2.352 arcsec [1.03 σ]
OotOffset-rm: 7.552 arcsec [33.37 σ]
KicOffset-rm: 7.483 arcsec [33.08 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
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DiffImageOverlap-fno: 1.00 [4/4]

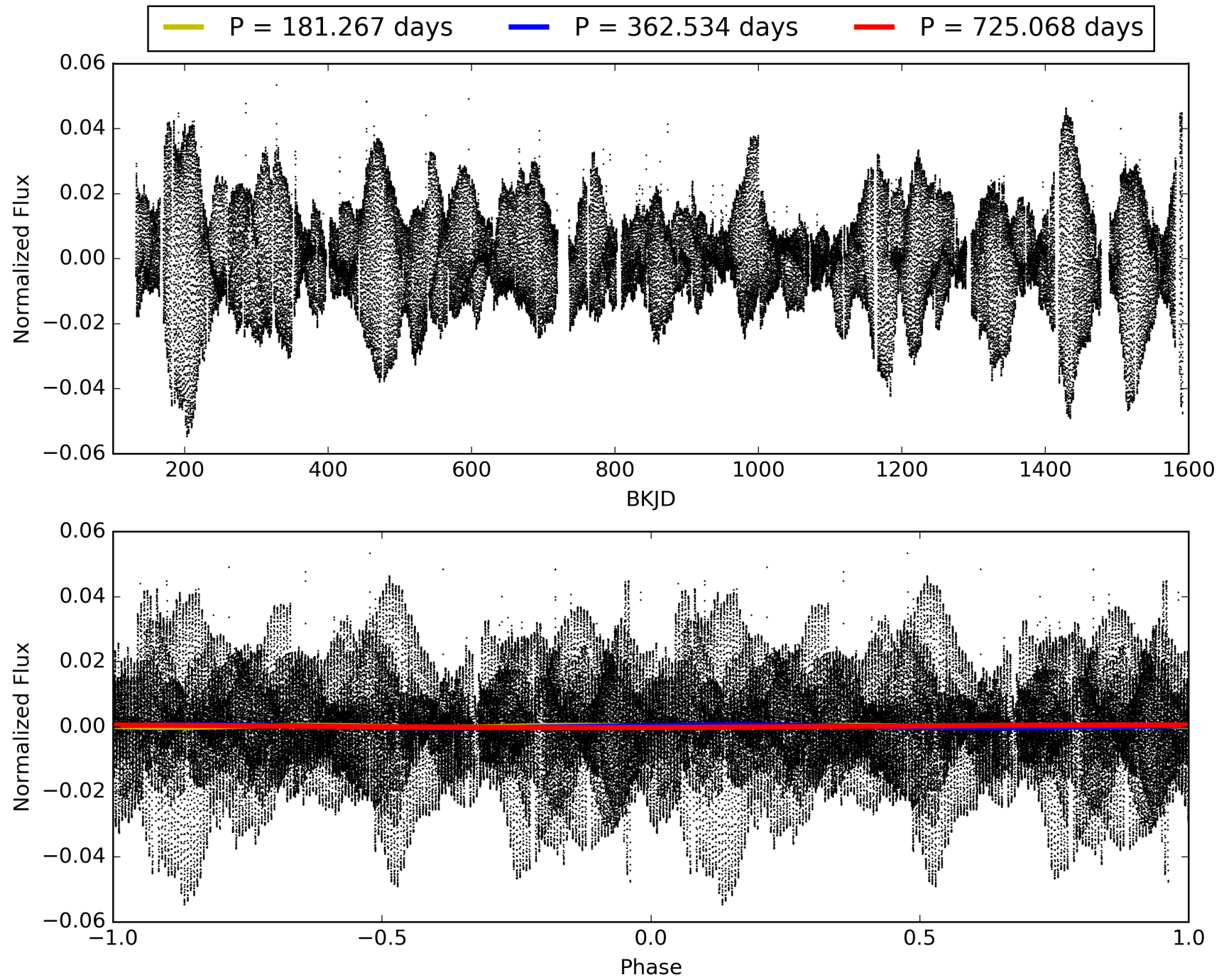
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003340807-02, PDC Light Curves

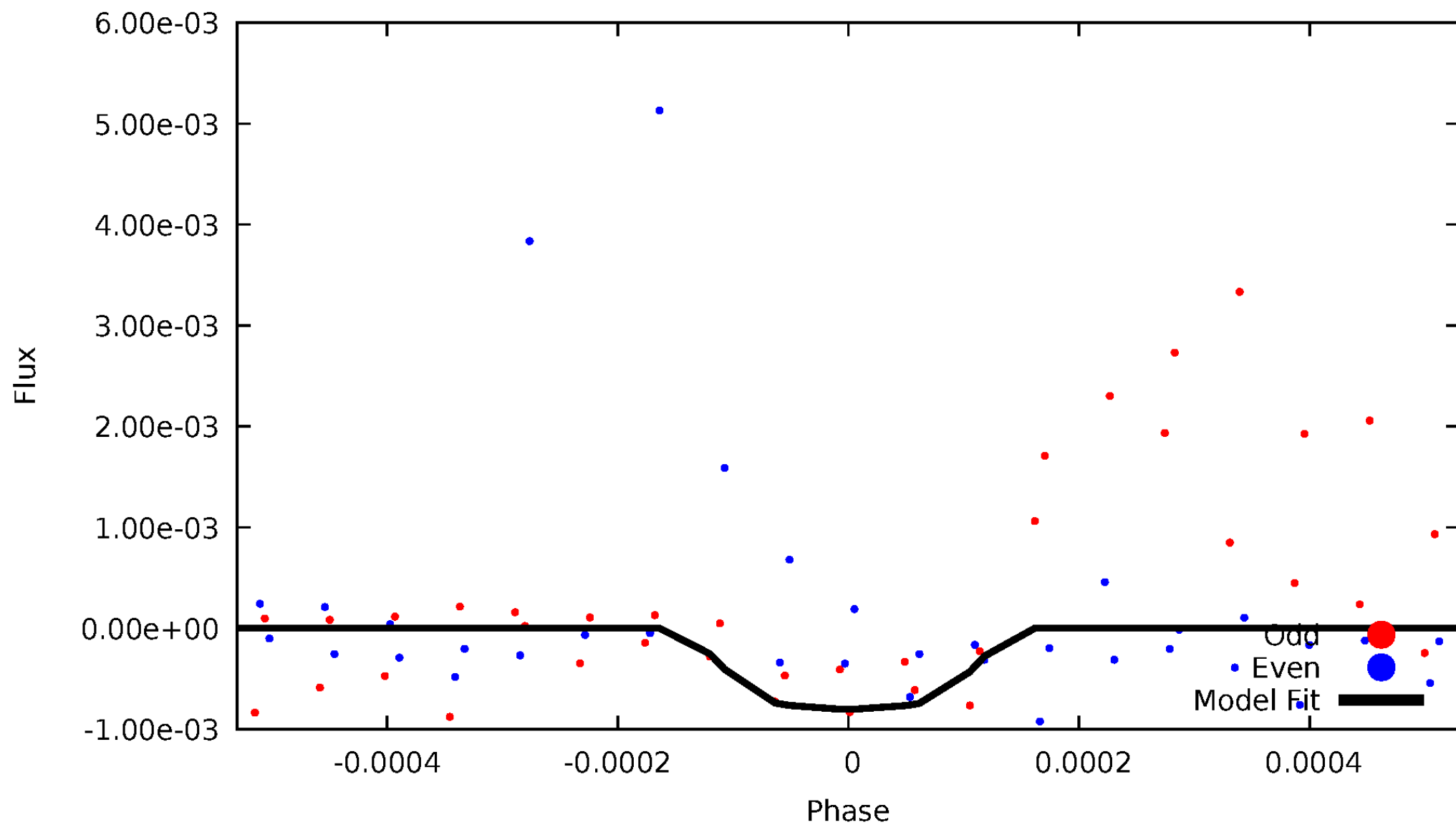


TCE 003340807-02



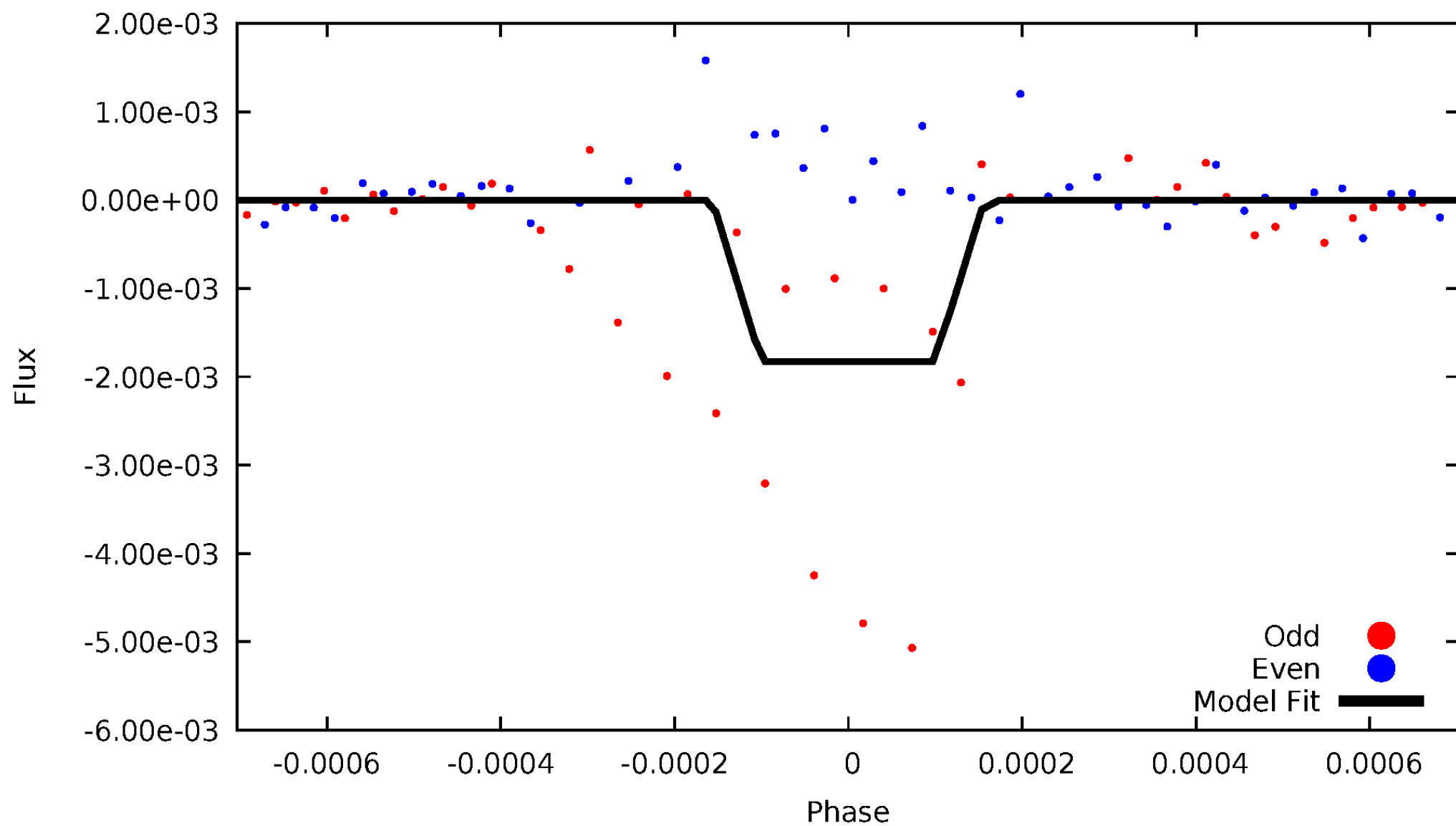
DV Odd/Even

TCE 003340807-02



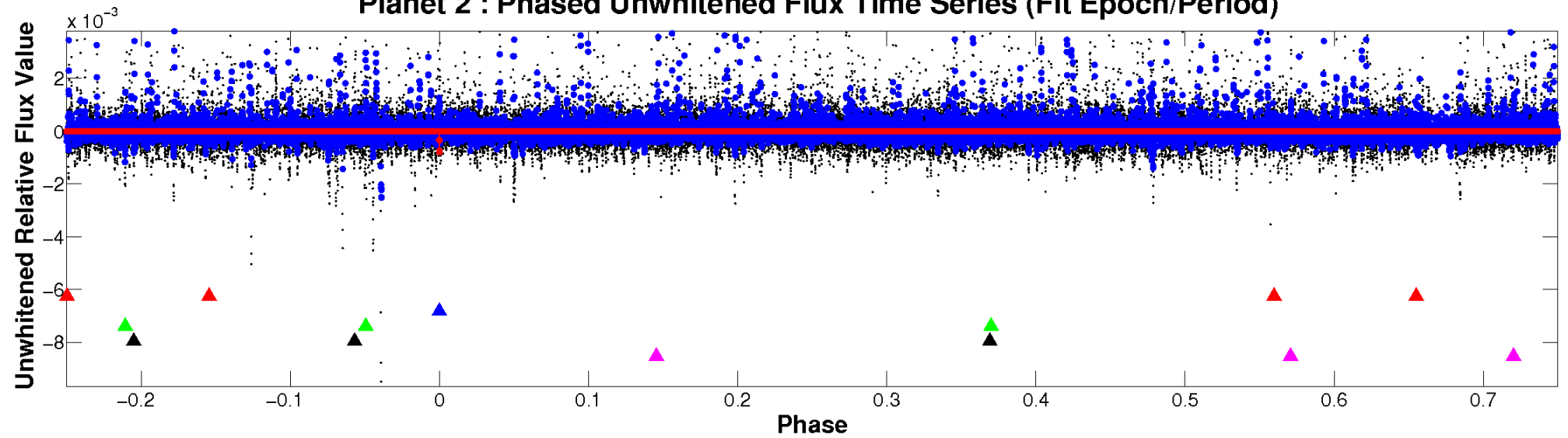
ALT Odd/Even

TCE 003340807-02

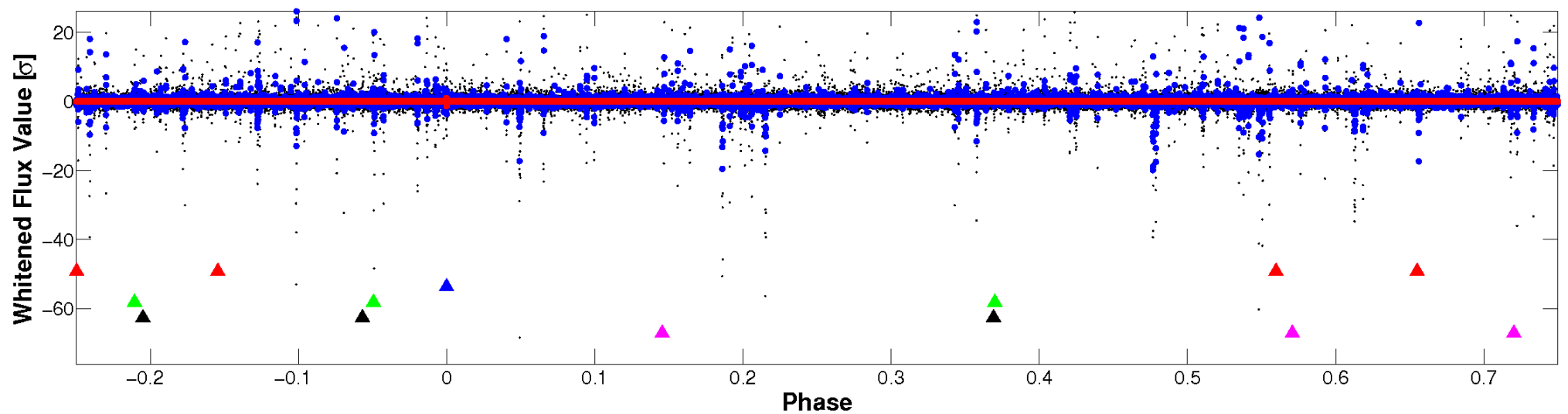


Non-Whitened Vs. Whitened Light Curve

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

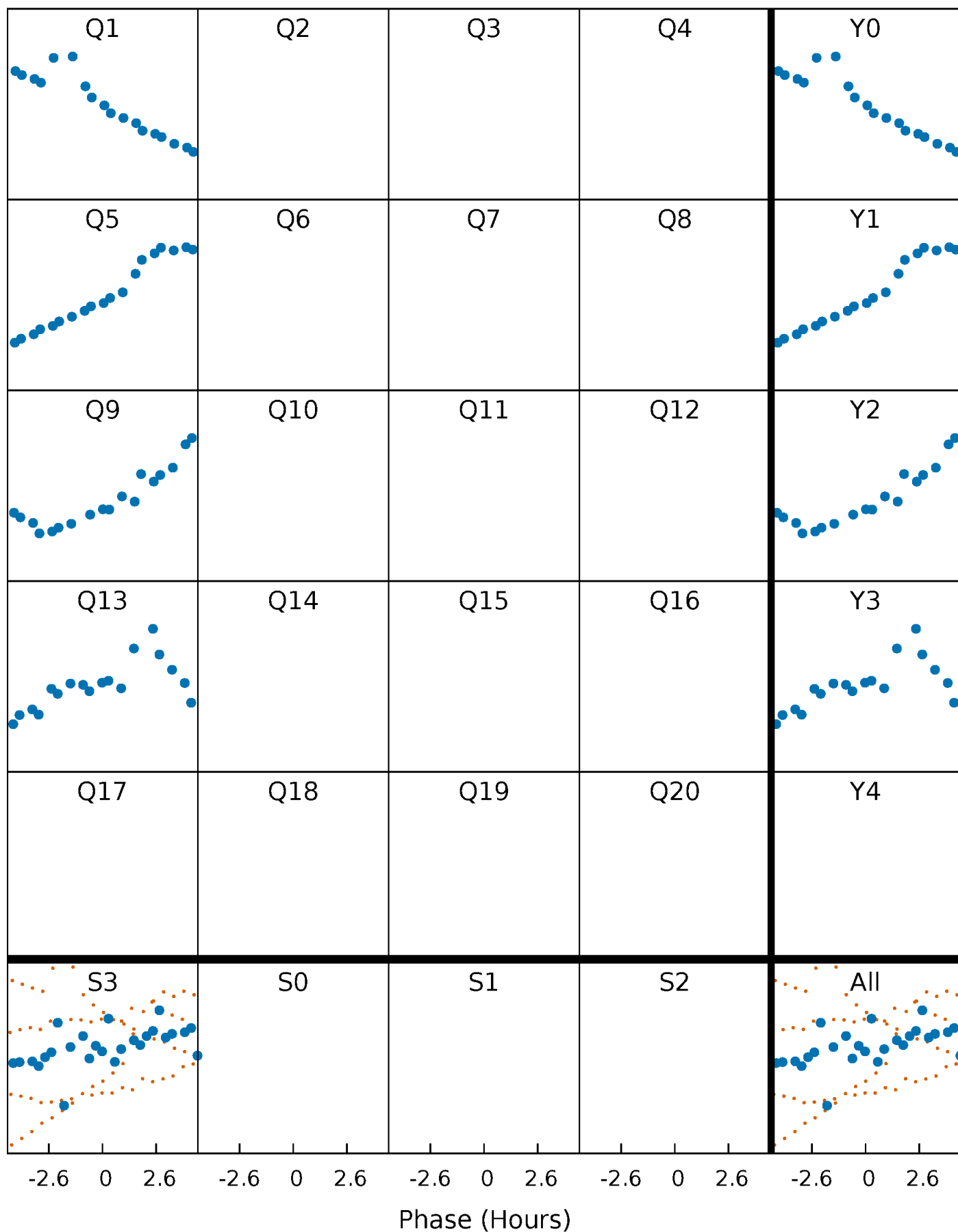


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



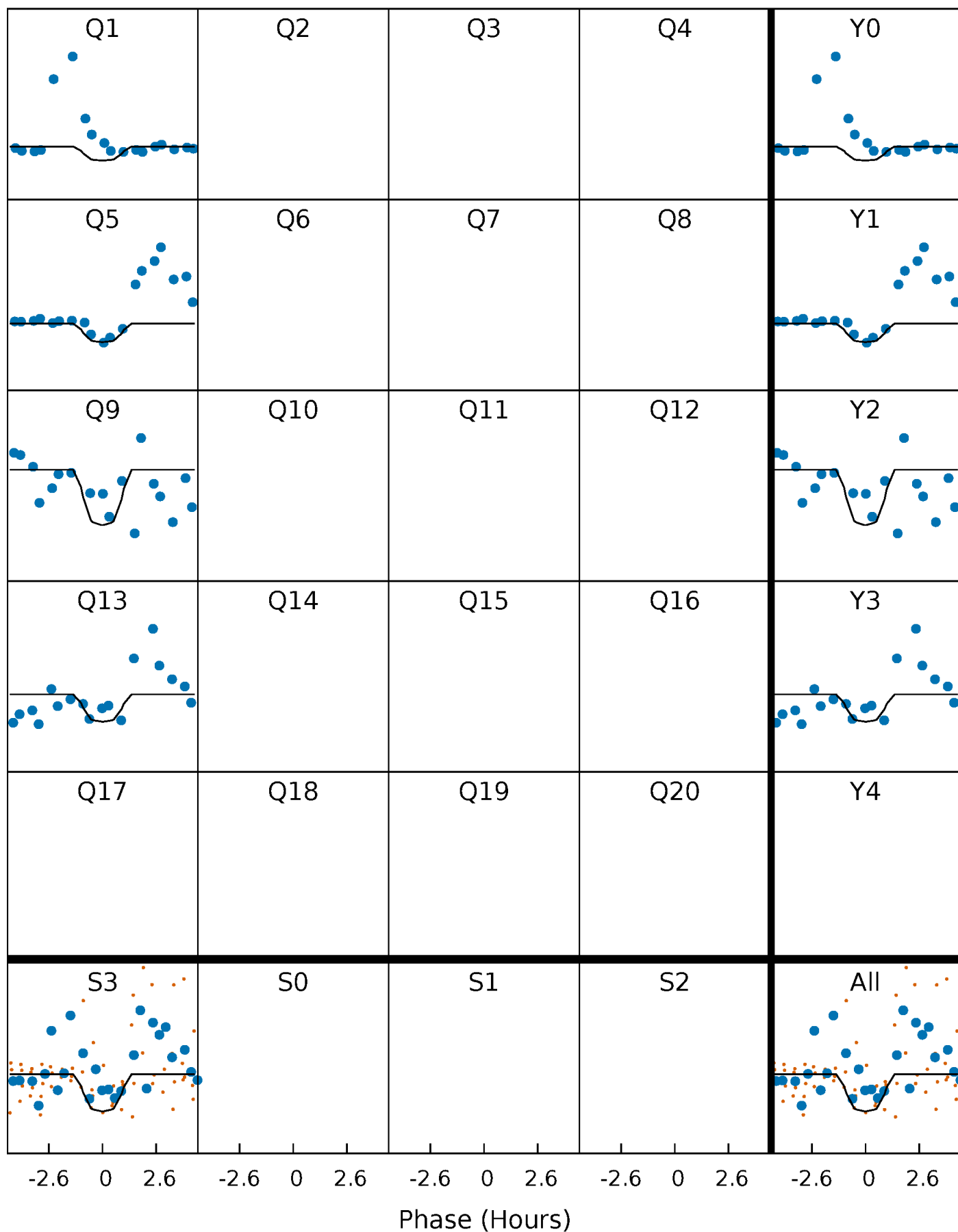
PDC Quarter-Phased Transit Curves

TCE 003340807-02 $P=362.534037$ Days $T_0=154.949068$ (BKJD)



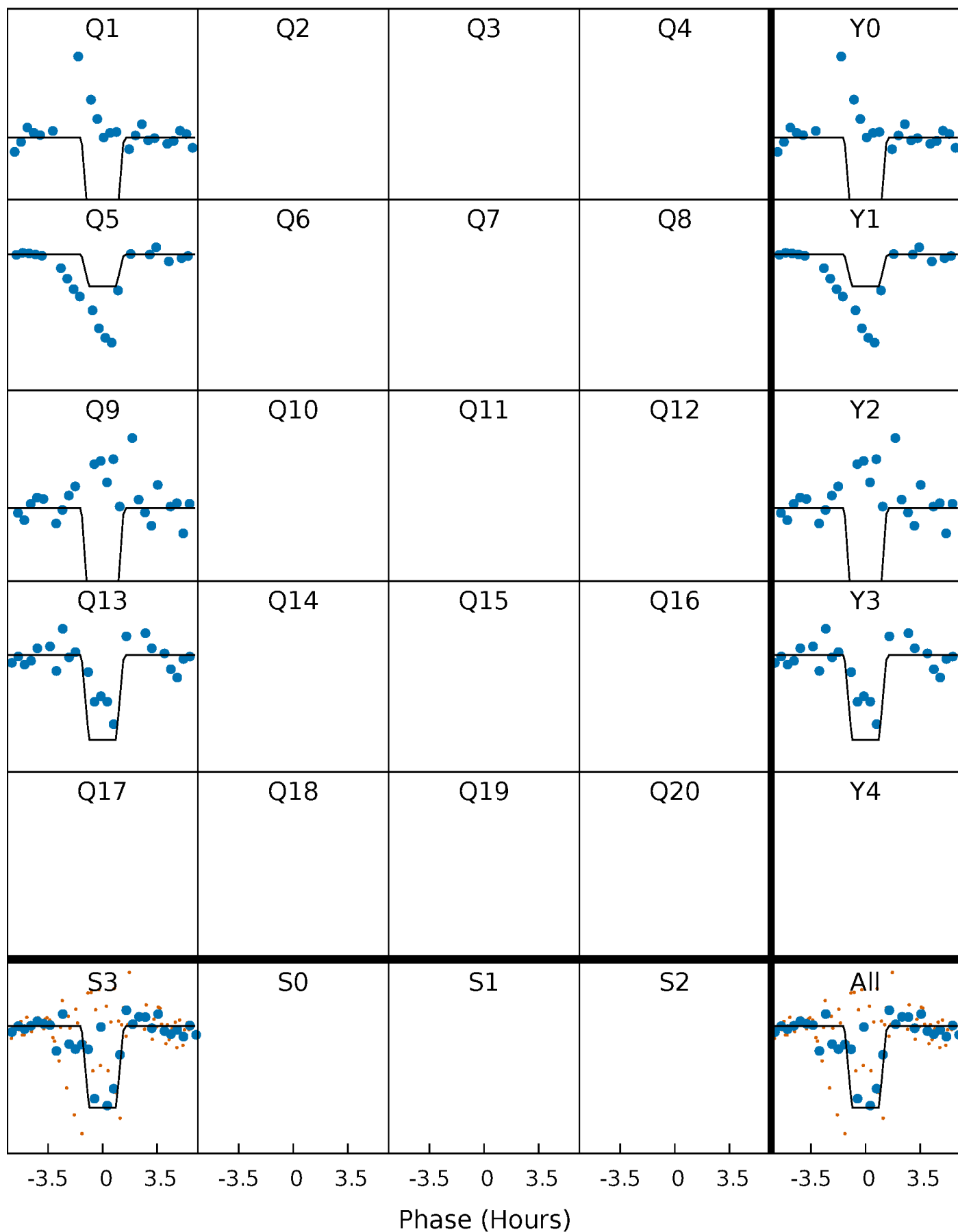
DV Quarter-Phased Transit Curves

TCE 003340807-02 $P=362.534037$ Days $T_0=154.949068$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

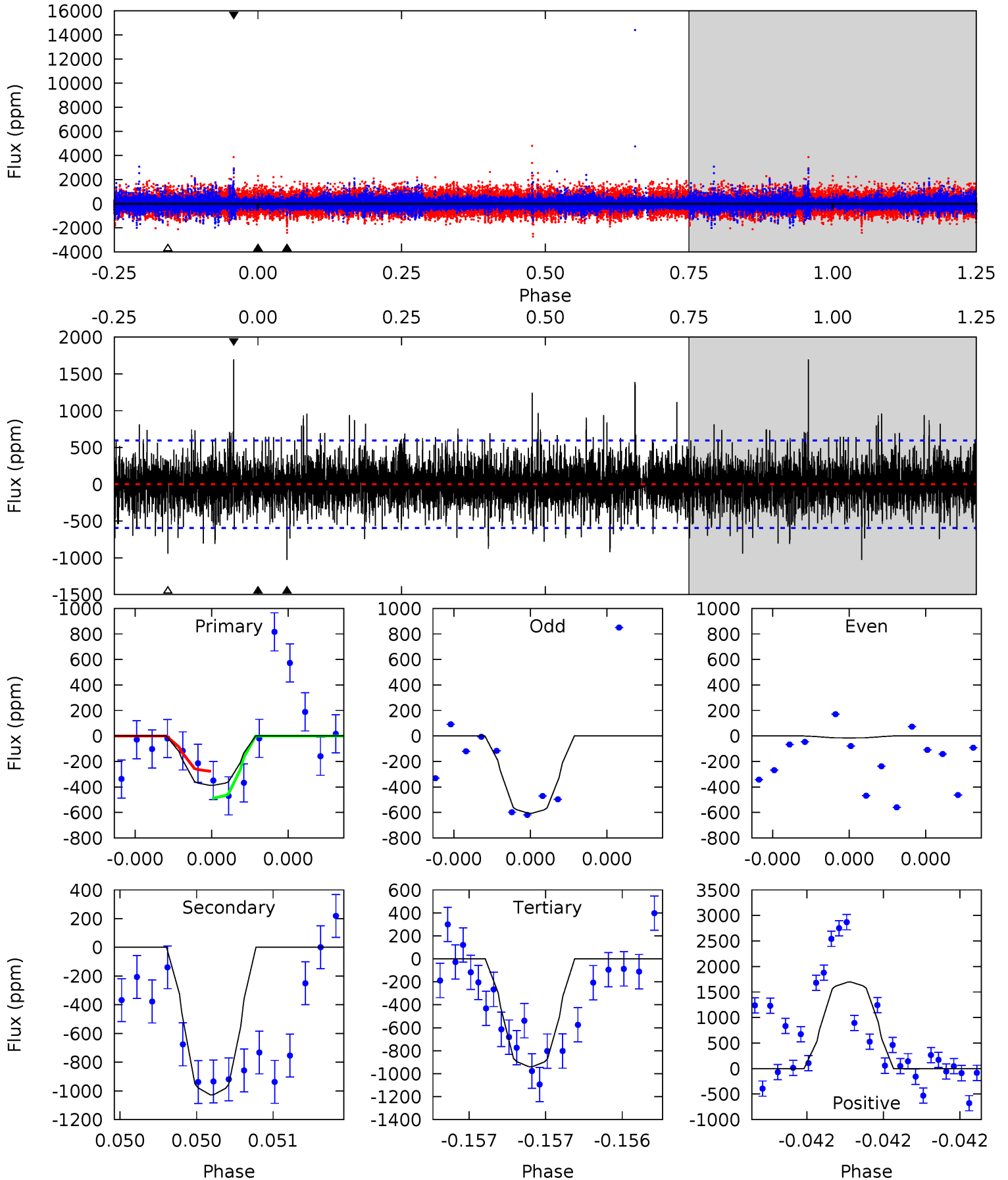
TCE 003340807-02 P=362.528186 Days $T_0=154.969682$ (BKJD)



DV Model-Shift Uniqueness Test

003340807-02, P = 362.534037 Days, E = 154.949068 Days

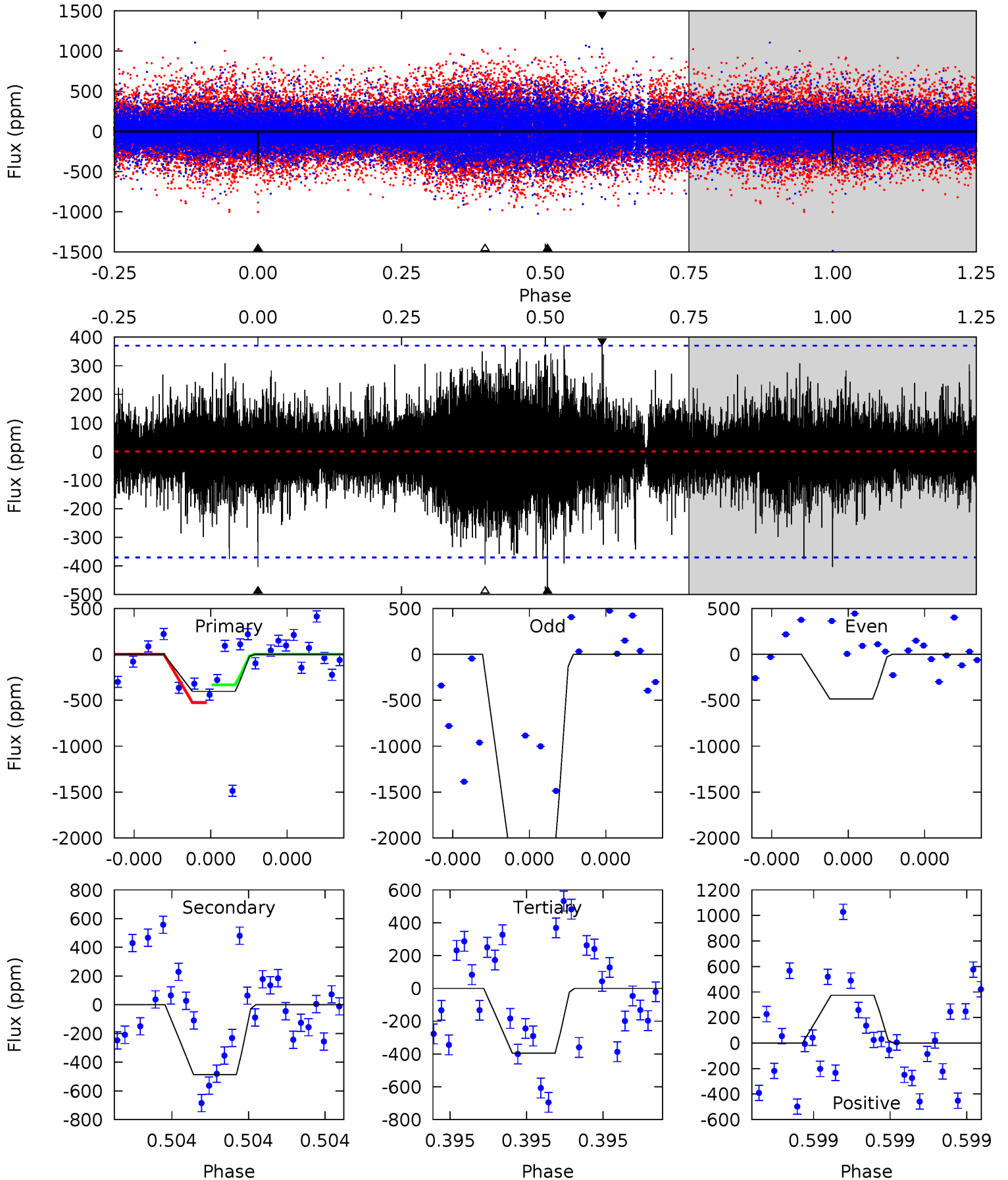
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.69	9.80	8.97	16.2	5.67	3.63	2.06	-5.27	-12.5	0.84	-6.37	2.53	0.59	0.62	1.00



Alt Model-Shift Uniqueness Test

003340807-02, P = 362.528186 Days, E = 154.969682 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.17	7.44	6.04	5.73	5.66	3.61	1.33	0.13	0.44	1.40	1.71	15.7	2.82	0.43	1.36



Stellar Parameters For KIC 003340807

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5485^{+164}_{-148}	$4.492^{+0.099}_{-0.121}$	$-0.380^{+0.350}_{-0.300}$	$0.822^{+0.146}_{-0.110}$	$0.765^{+0.114}_{-0.053}$	$1.941^{+0.836}_{-0.685}$
	+3%/-3%	+2%/-3%	+92%/-79%	+18%/-13%	+15%/-7%	+43%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003340807-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1028 ± 105	$11.07^{+10.99}_{-7.48}$	323^{+17}_{-15}	3336^{+1665}_{-577}	3918^{+31883}_{-2943}
Alt.	-487 ± 65	$11.00^{+11.27}_{-7.17}$	323^{+18}_{-14}	3006^{+1268}_{-519}	1900^{+14965}_{-1453}

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 $A_{obs} \gg 1.0$

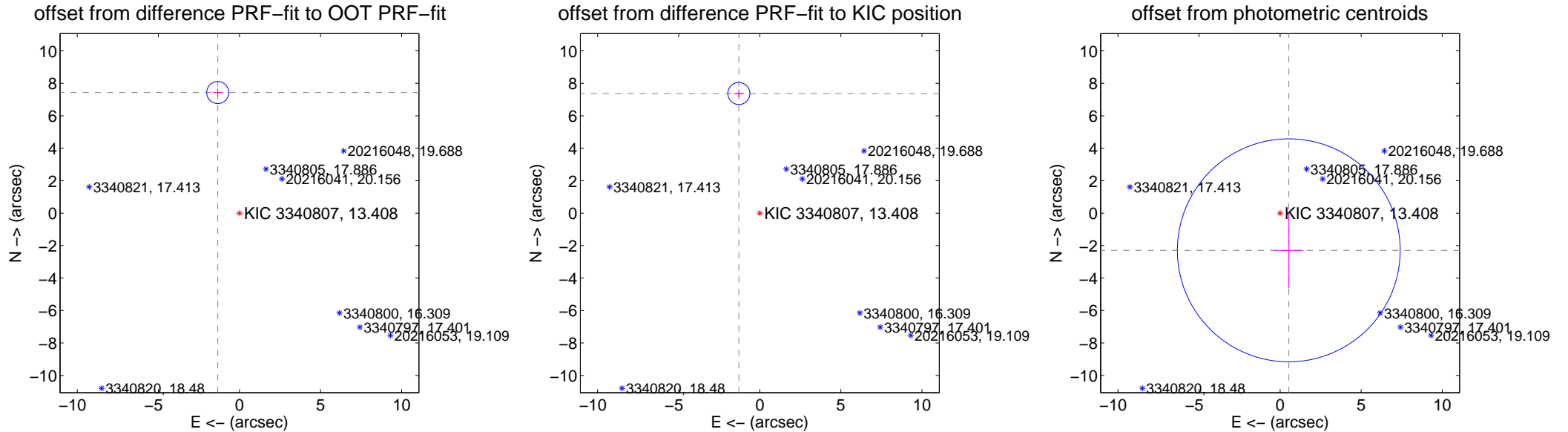
DV Centroid Data

Supplemental centroid analysis for 003340807-02. Kepler magnitude: 13.41. Transit SNR 4.97

There are 0 quarters with good PRF difference image offsets

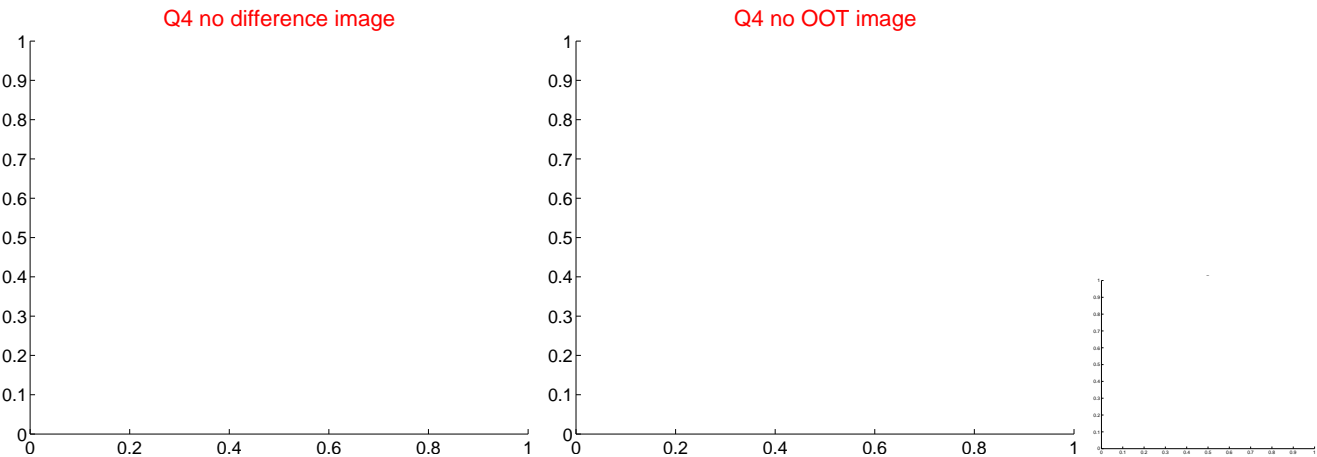
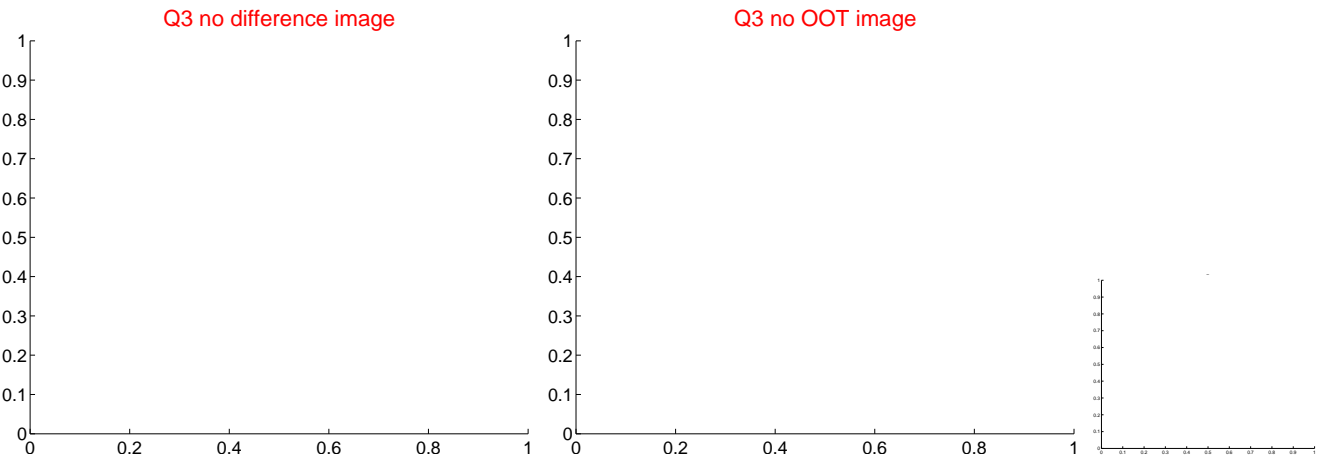
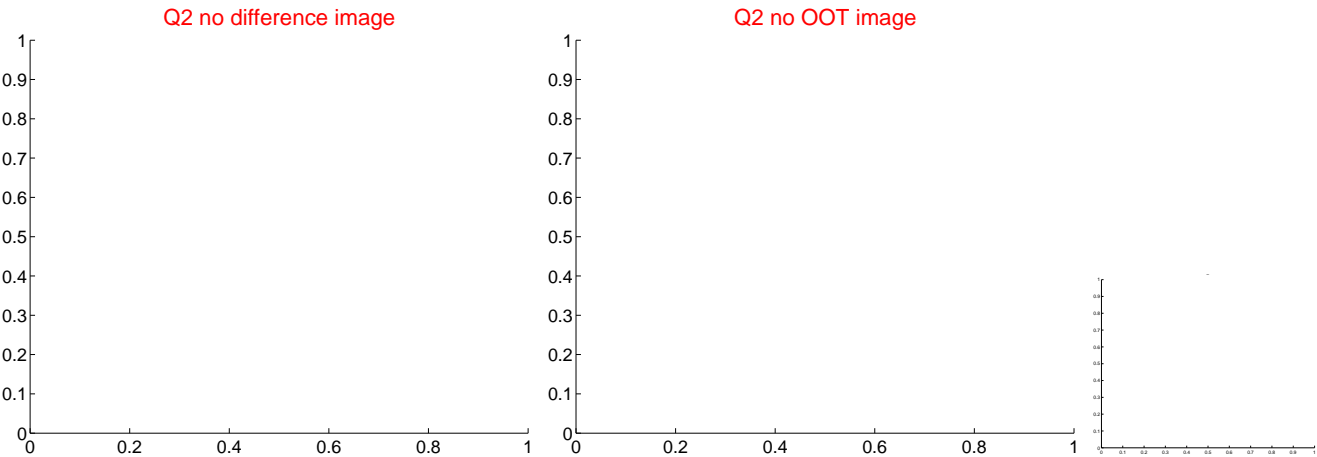
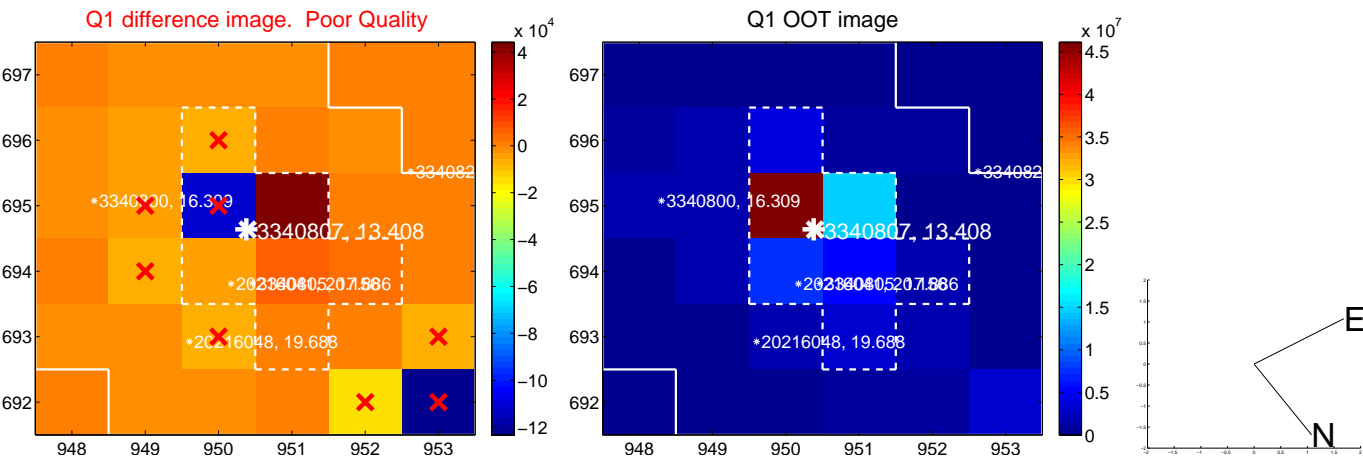
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.552 \pm 0.226	33.37	1.340 \pm 0.289	7.432 \pm 0.224
PRF-fit source offset from KIC position	7.483 \pm 0.226	33.08	1.290 \pm 0.289	7.371 \pm 0.224
photometric centroid source offset	2.35 \pm 2.29	1.03	-0.53 \pm 0.90	-2.29 \pm 2.34

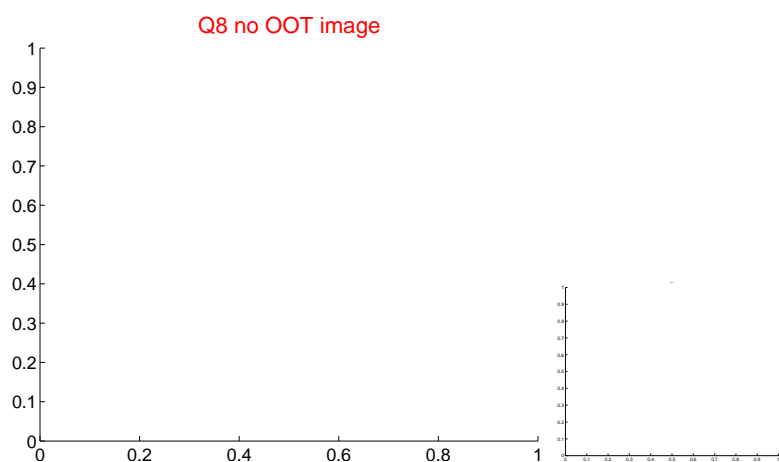
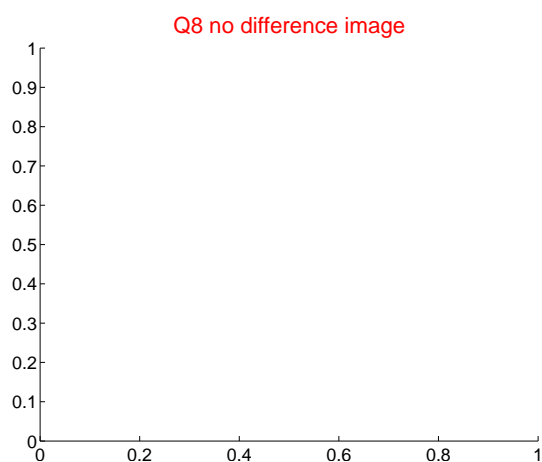
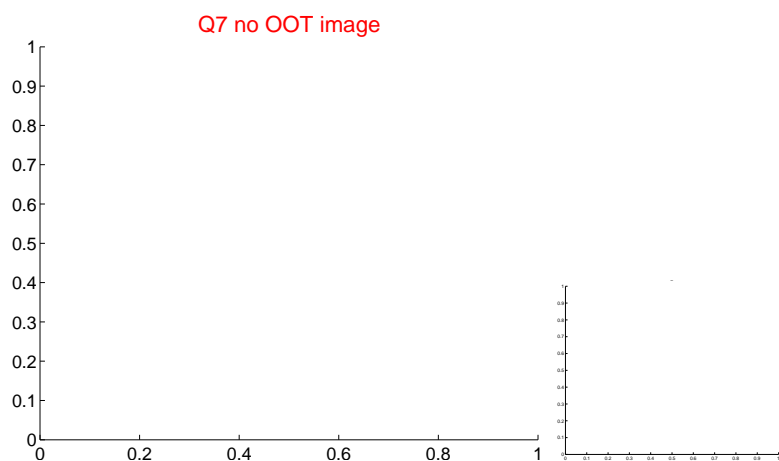
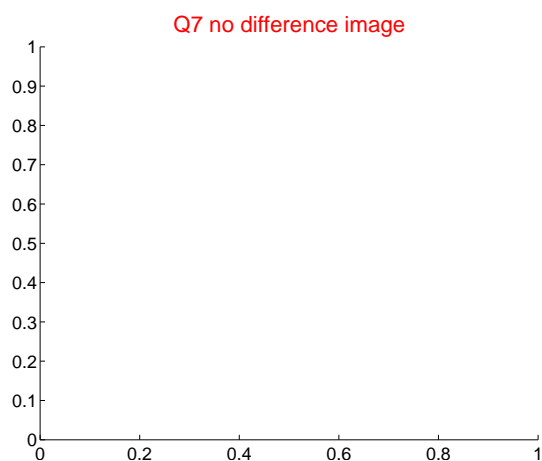
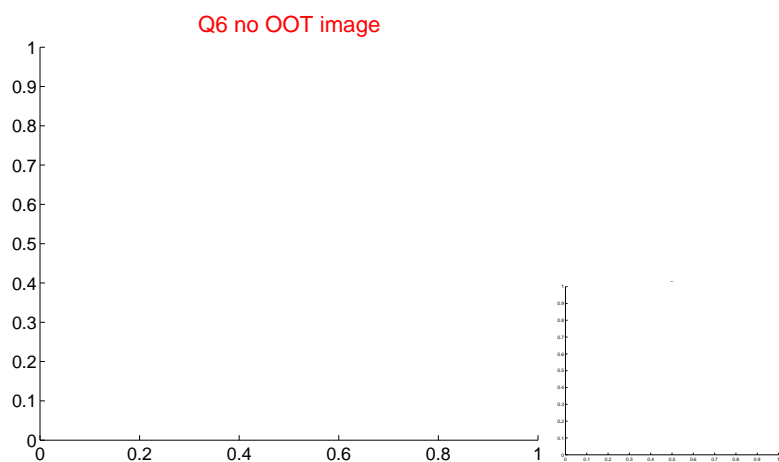
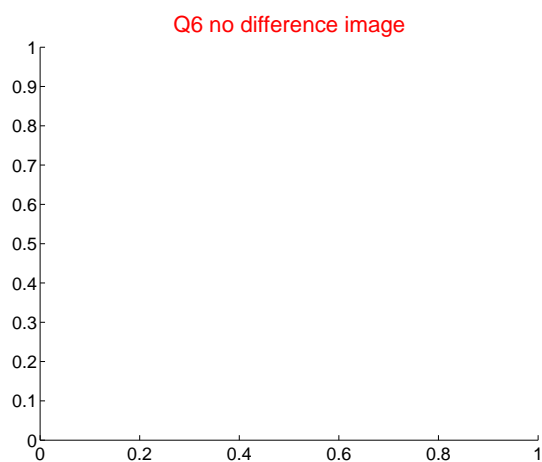
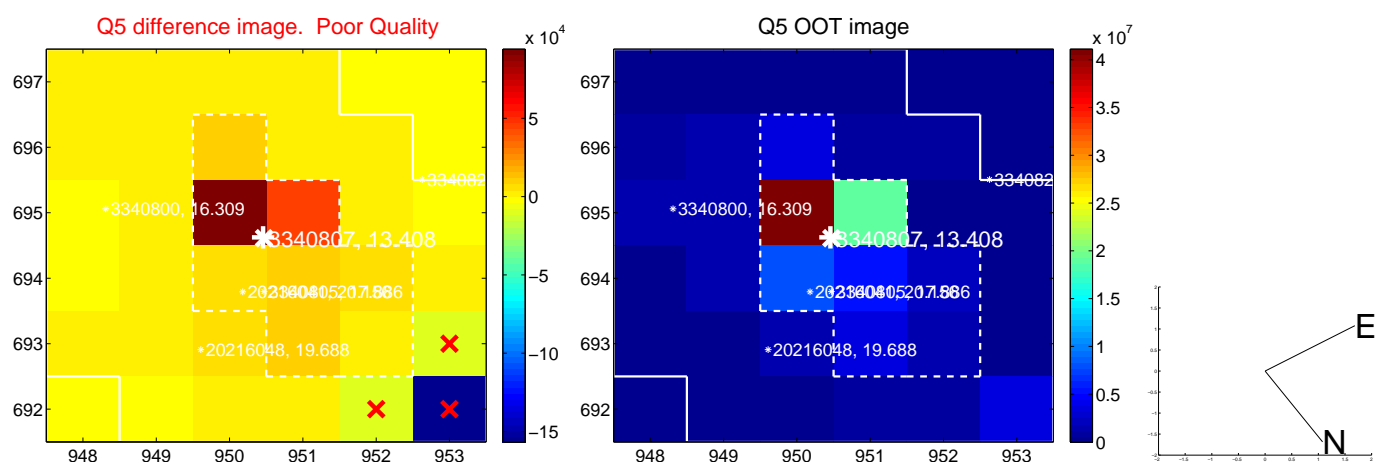


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

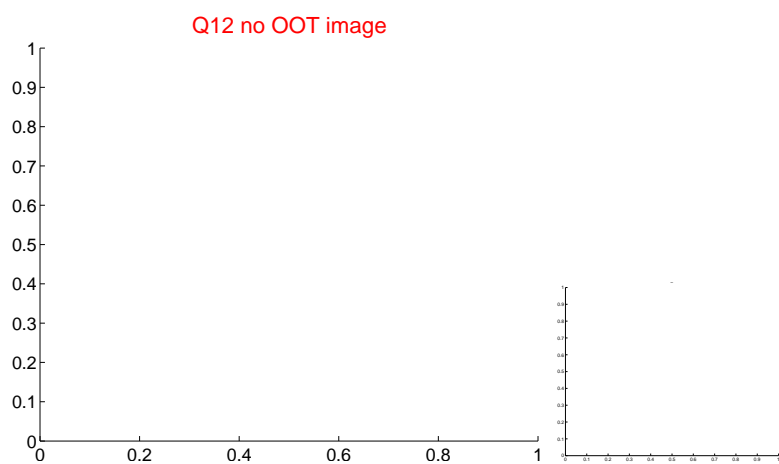
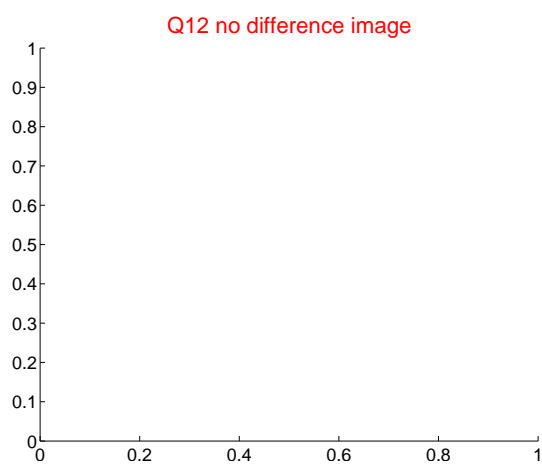
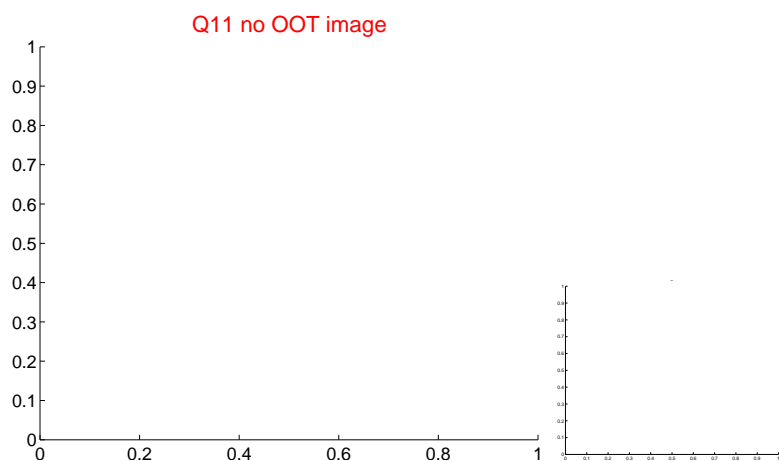
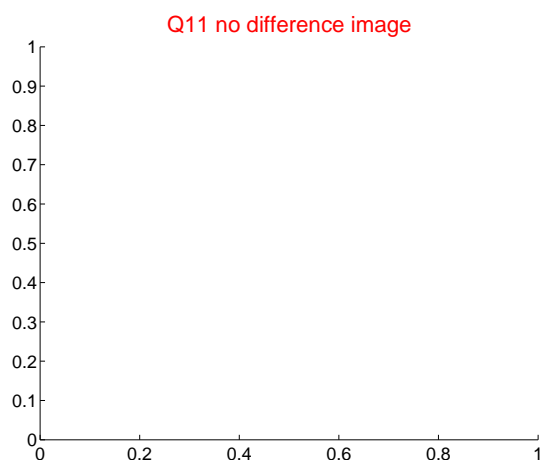
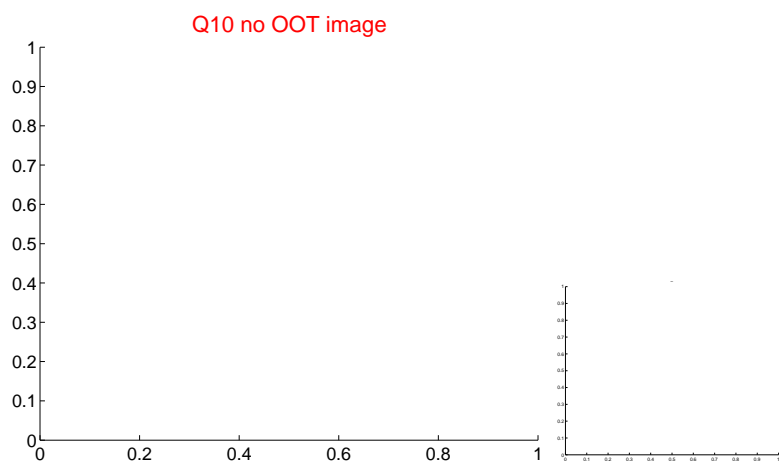
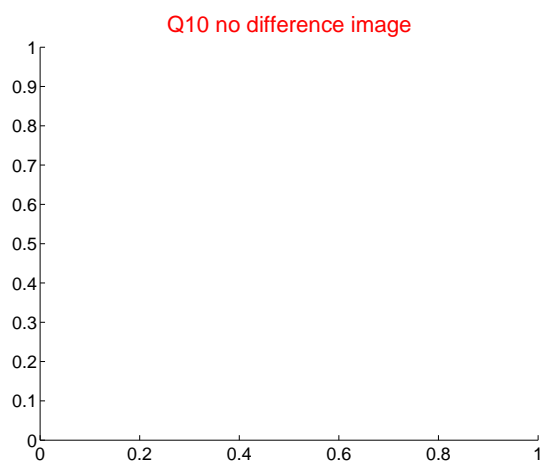
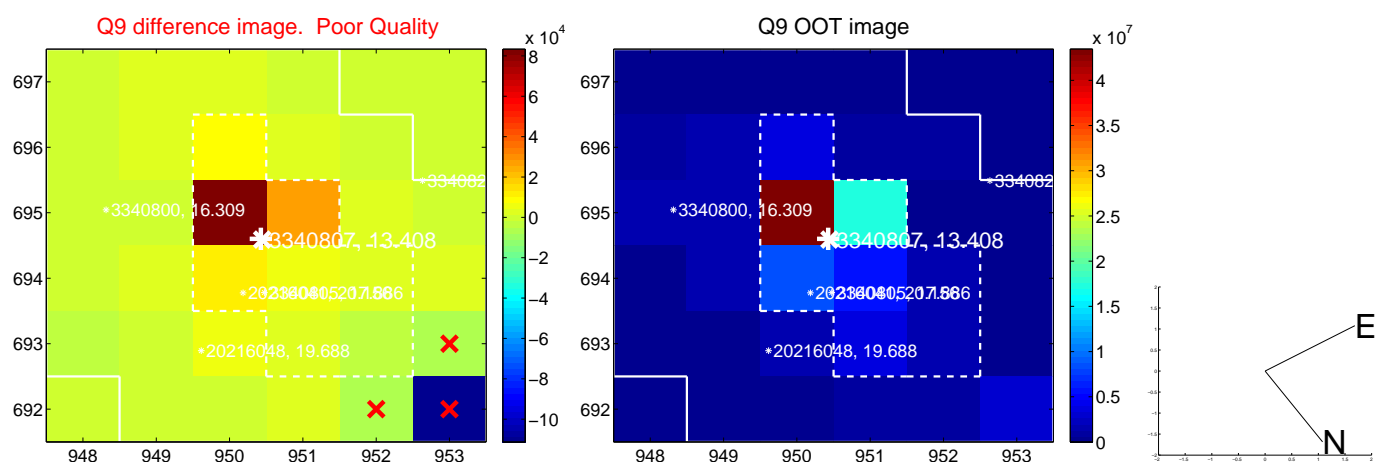
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



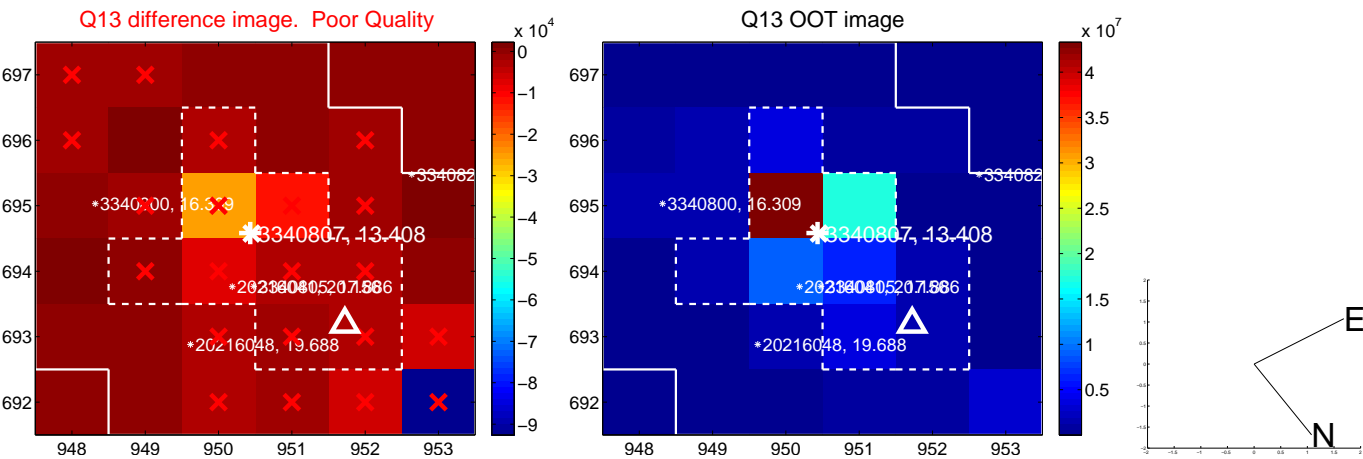
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



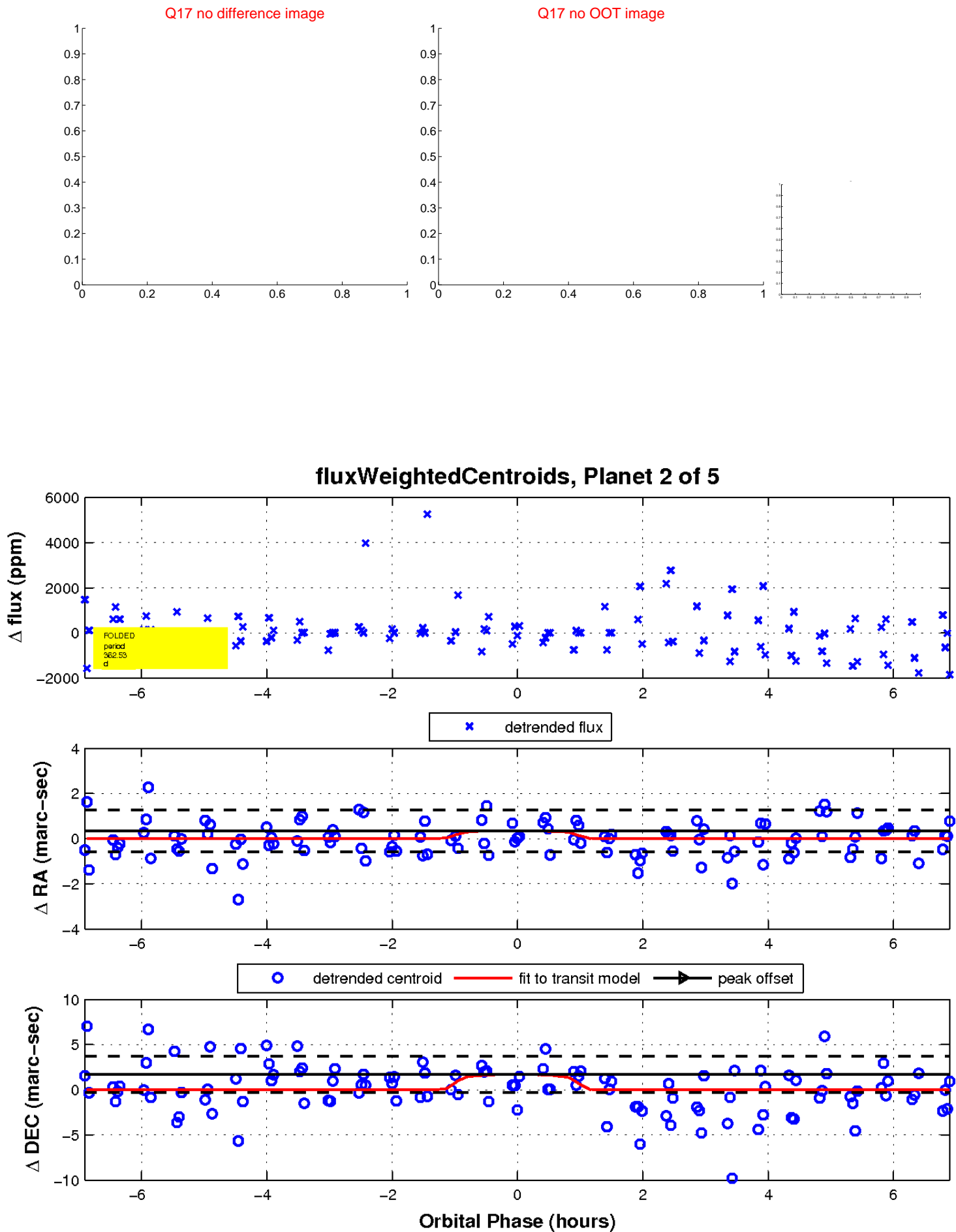
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



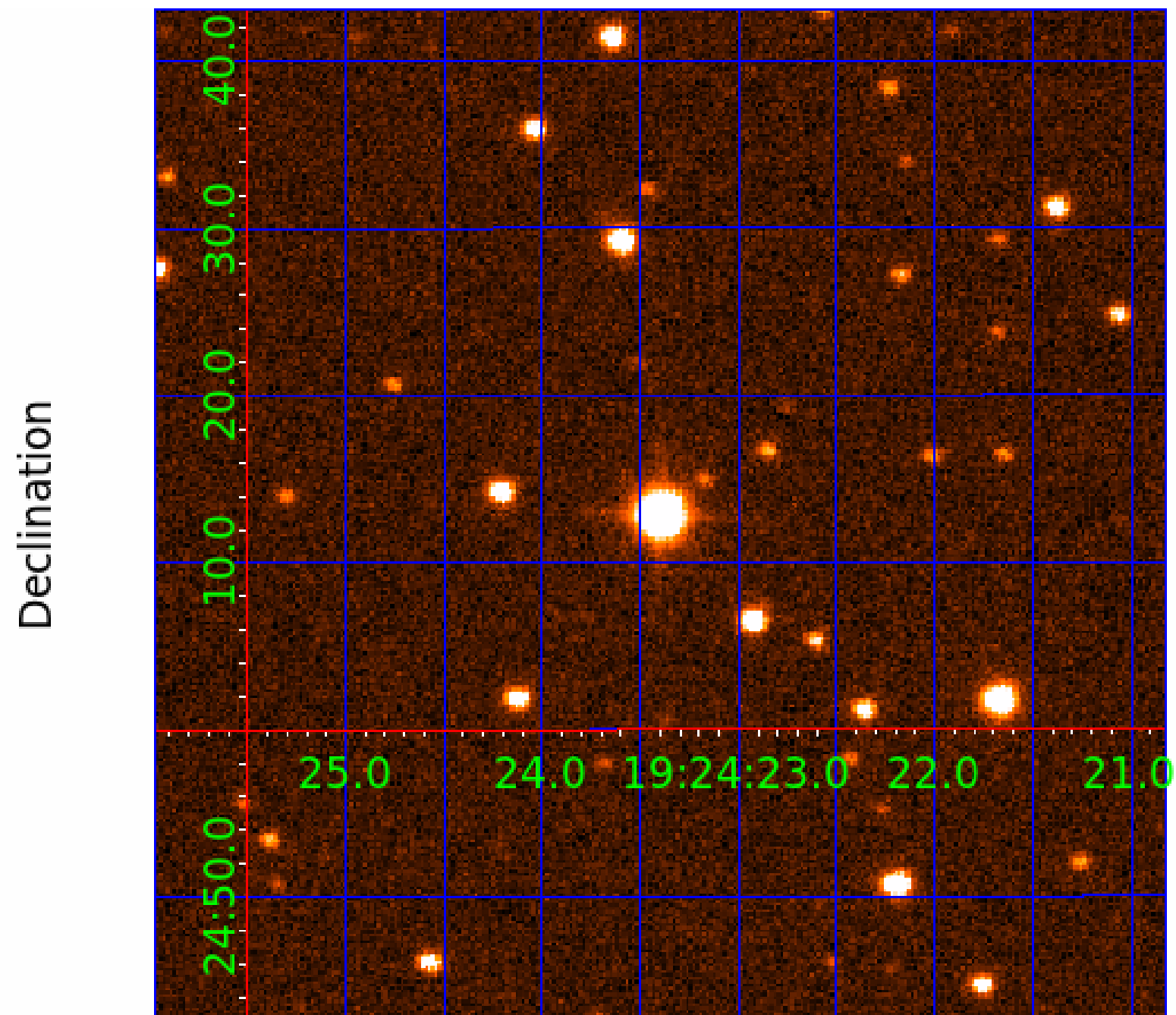
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003340807

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})
003340807-01	OBS	No	397.081016	357.875694	2097.6	13.304	16.4	6.3	0.82	5485	4.46	0.59
003340807-02	OBS	No	362.534036	154.949068	802.0	2.306	15.7	5.0	0.82	5485	2.75	0.66
003340807-03	OBS	No	514.563670	499.596219	1142.6	1.993	20.6	6.2	0.82	5485	2.87	0.41
003340807-04	OBS	No	516.949300	496.888053	1221.0	5.554	16.0	4.6	0.82	5485	2.90	0.41
003340807-05	OBS	No	516.696621	416.082373	652.4	3.500	15.5	-1.0	0.82	5485	2.08	0.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003340807-01	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
003340807-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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

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

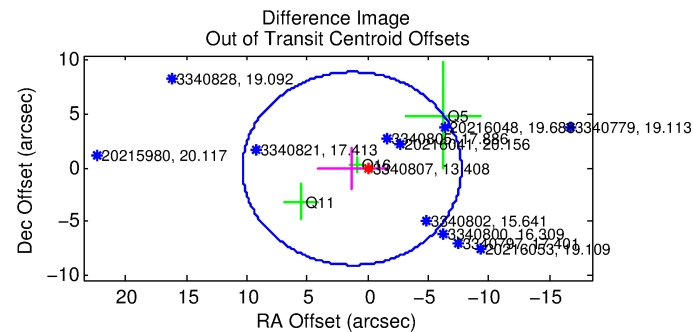
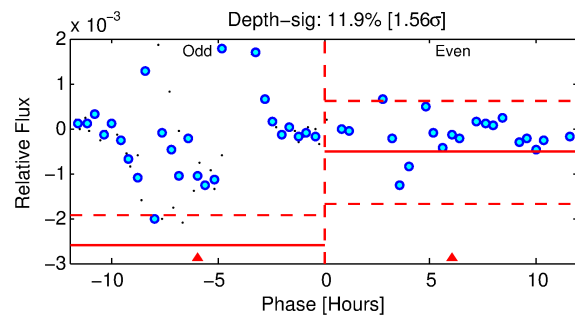
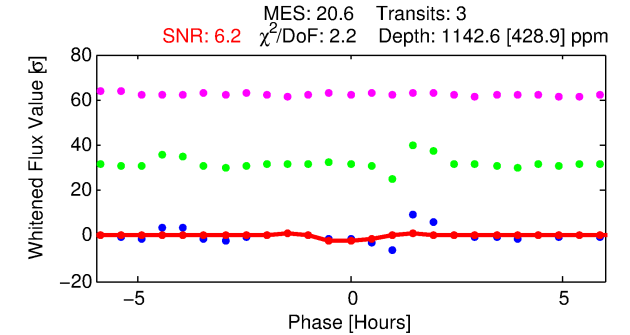
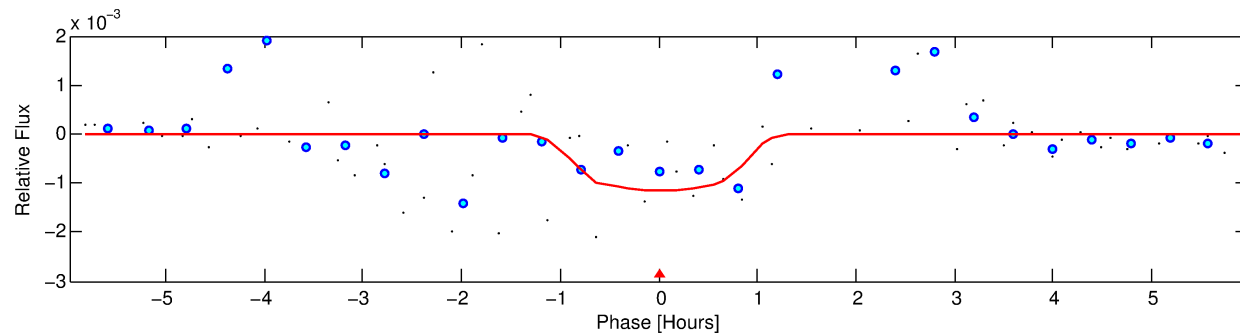
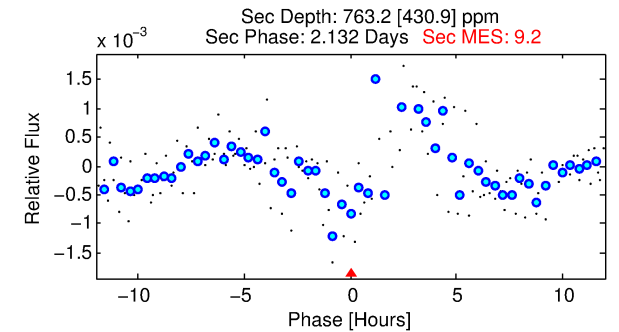
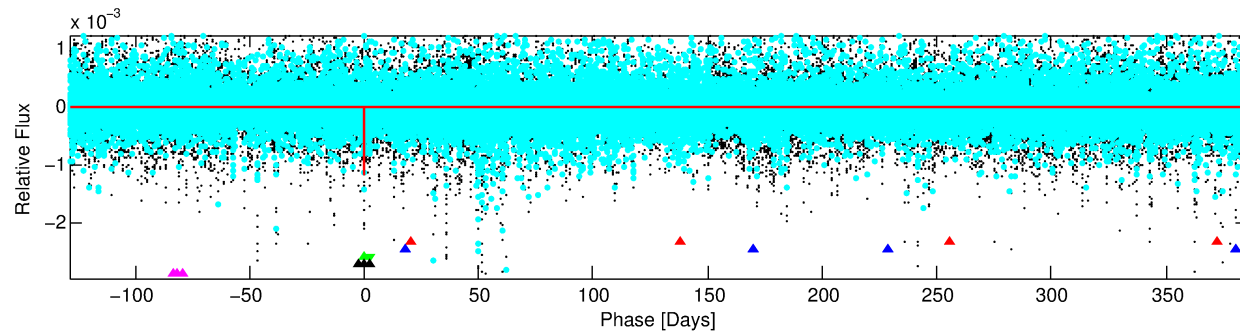
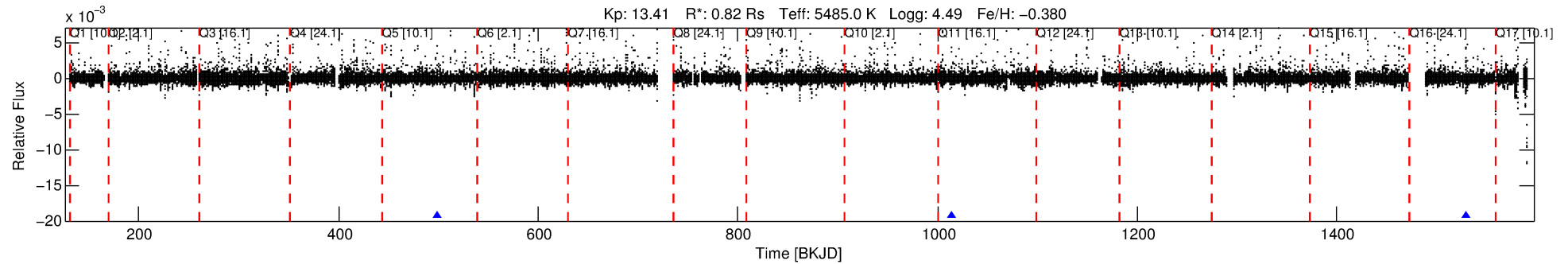
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003340807-03

No Significant Match Found

DV One-Page Summary

KIC: 3340807 Candidate: 3 of 5 Period: 514.564 d



DV Fit Results:

Period = 514.56367 [0.00687] d
Epoch = 499.5962 [0.0140] BKJD
Rp/R* = 0.0320 [0.3148]
a/R* = 1711.17 [70519.02]
b = 0.56 [51.68]
Seff = 0.41 [0.10]
Teq = 205 [13] K
Rp = 2.87 [28.24] Re
a = 1.1497 [0.1730] AU
Ag = 67241.34 [1322409.03] [0.05 σ]
Teffp = 5094 [25045] K [0.20 σ]

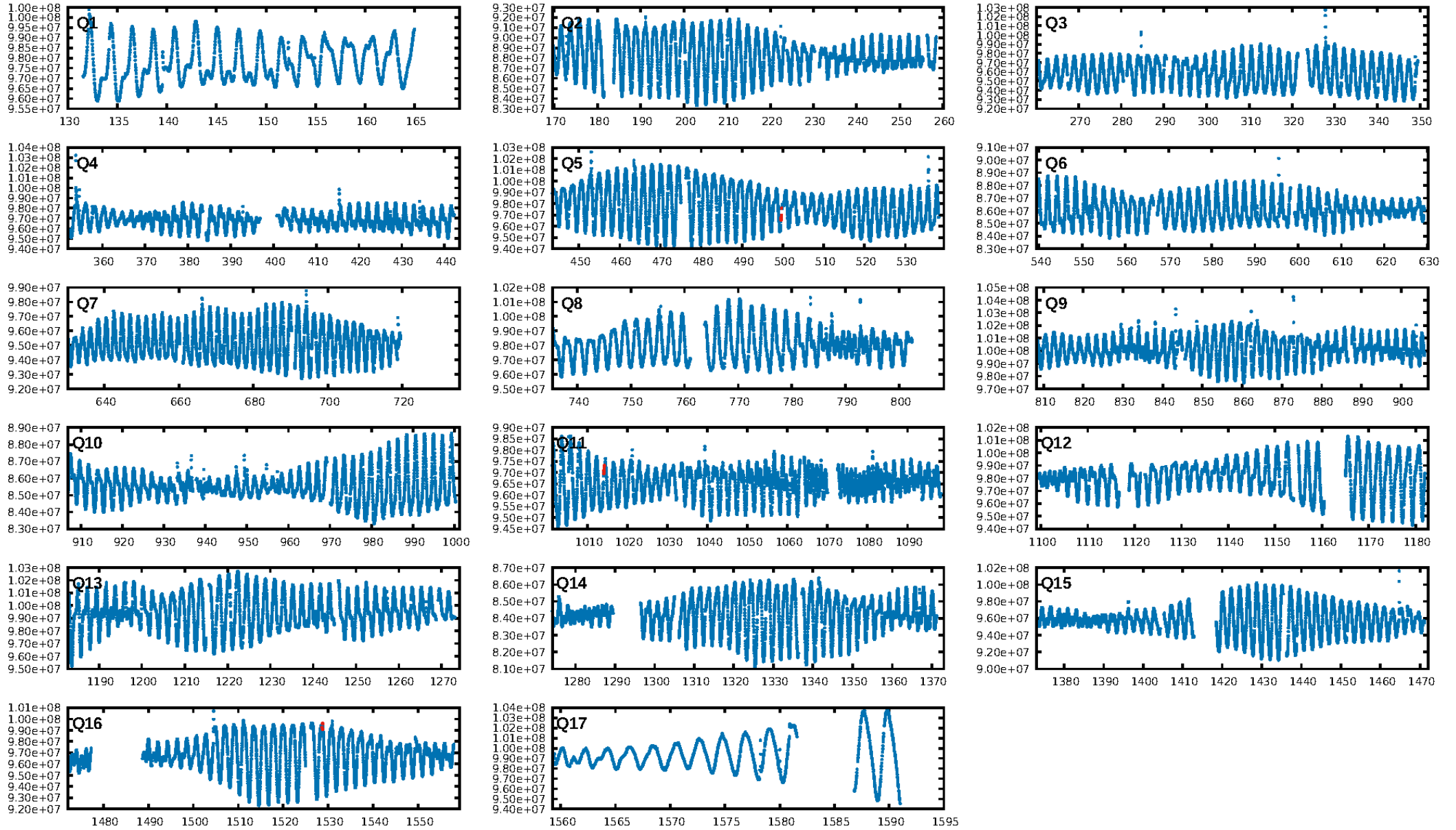
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [209.60 σ]
LongPeriod-sig: 100.0% [12.71 σ]
ModelChiSquare2-sig: 4.4%
ModelChiSquareGof-sig: 32.6%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7378
Centroid-sig: 81.3%
Centroid-so: 0.170 arcsec [0.19 σ]
OotOffset-rm: 1.314 arcsec [0.44 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 1.252 arcsec [0.59 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.67 [2/3]

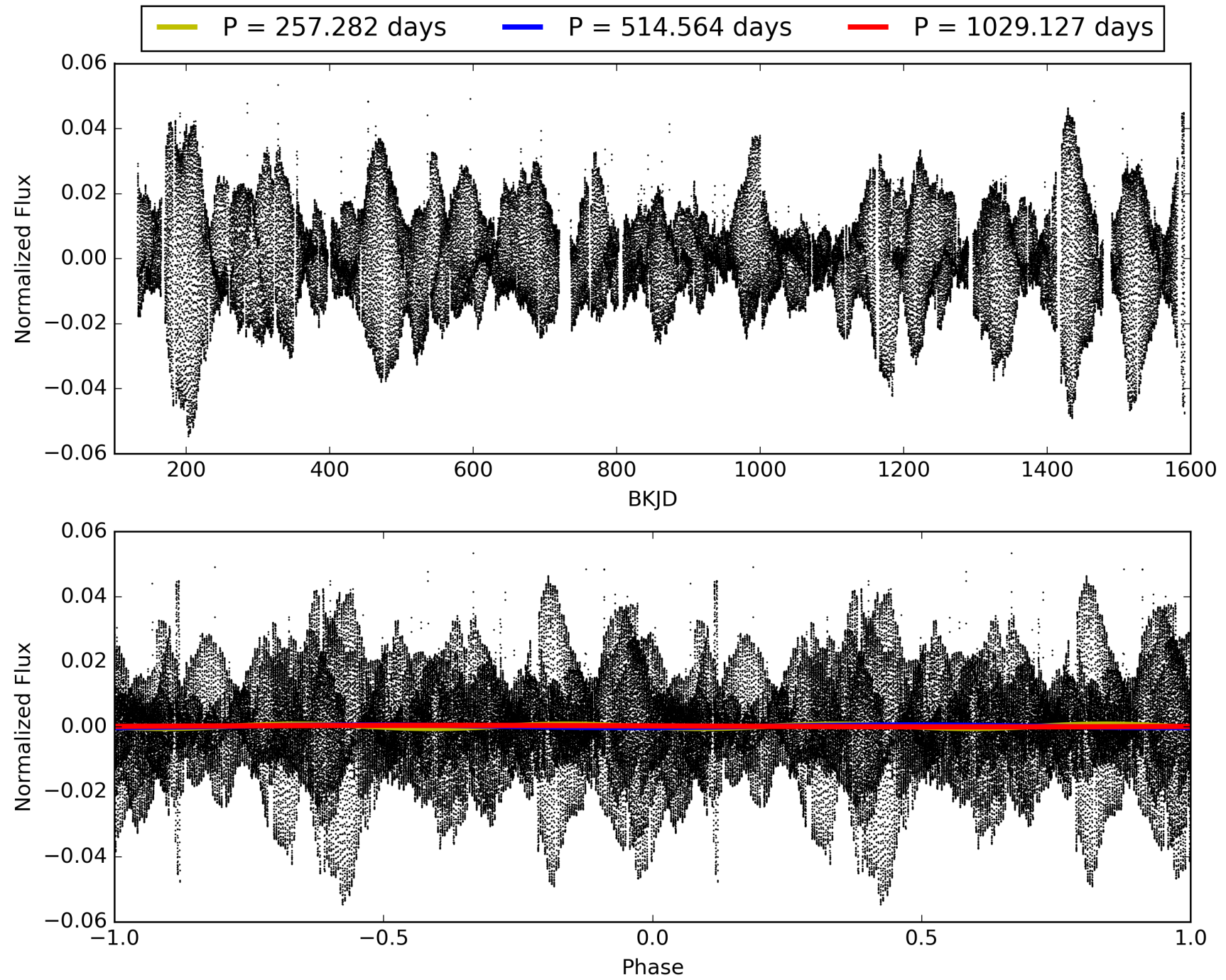
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:47:17 Z

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

TCE 003340807-03, PDC Light Curves

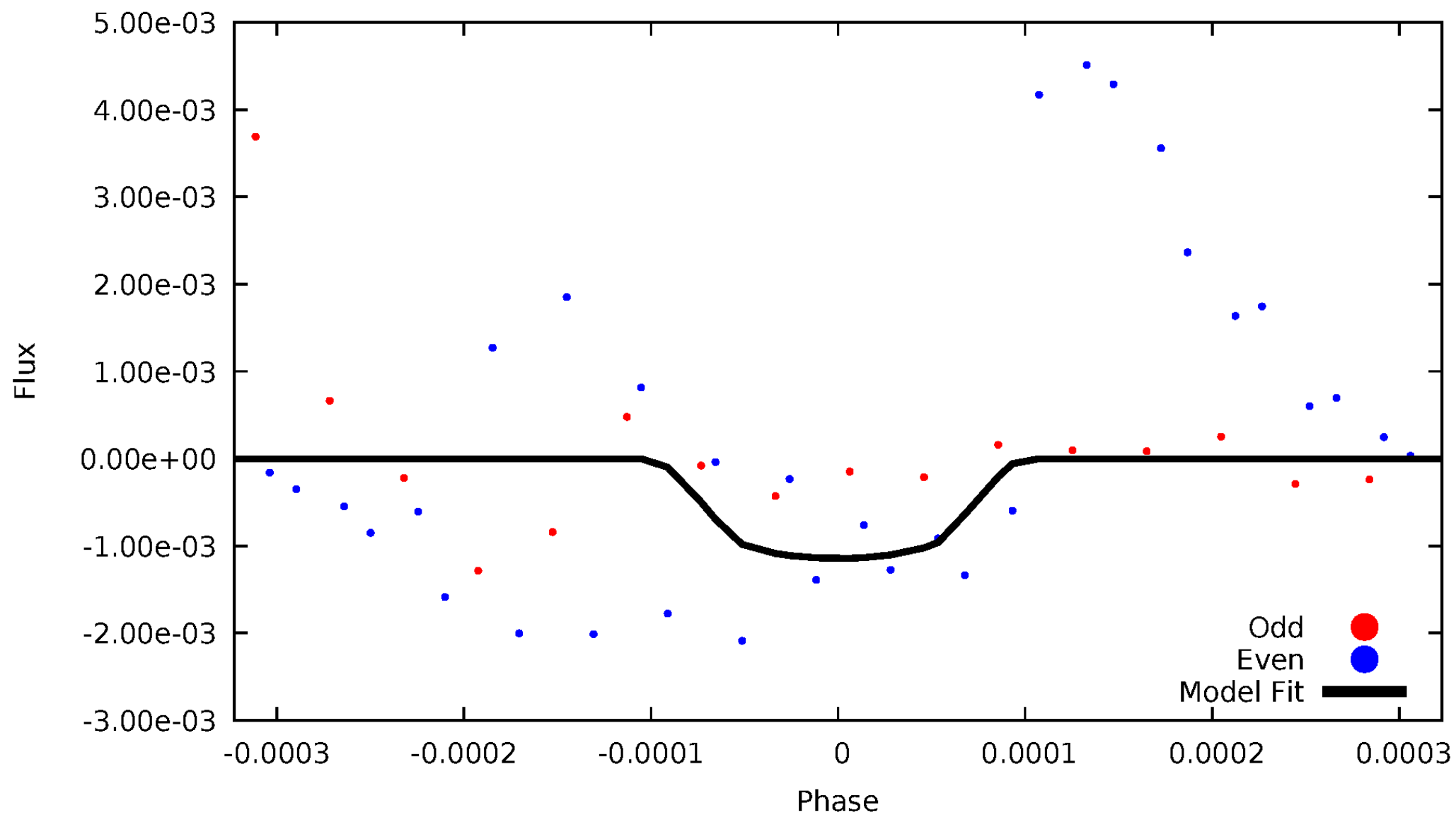


TCE 003340807-03



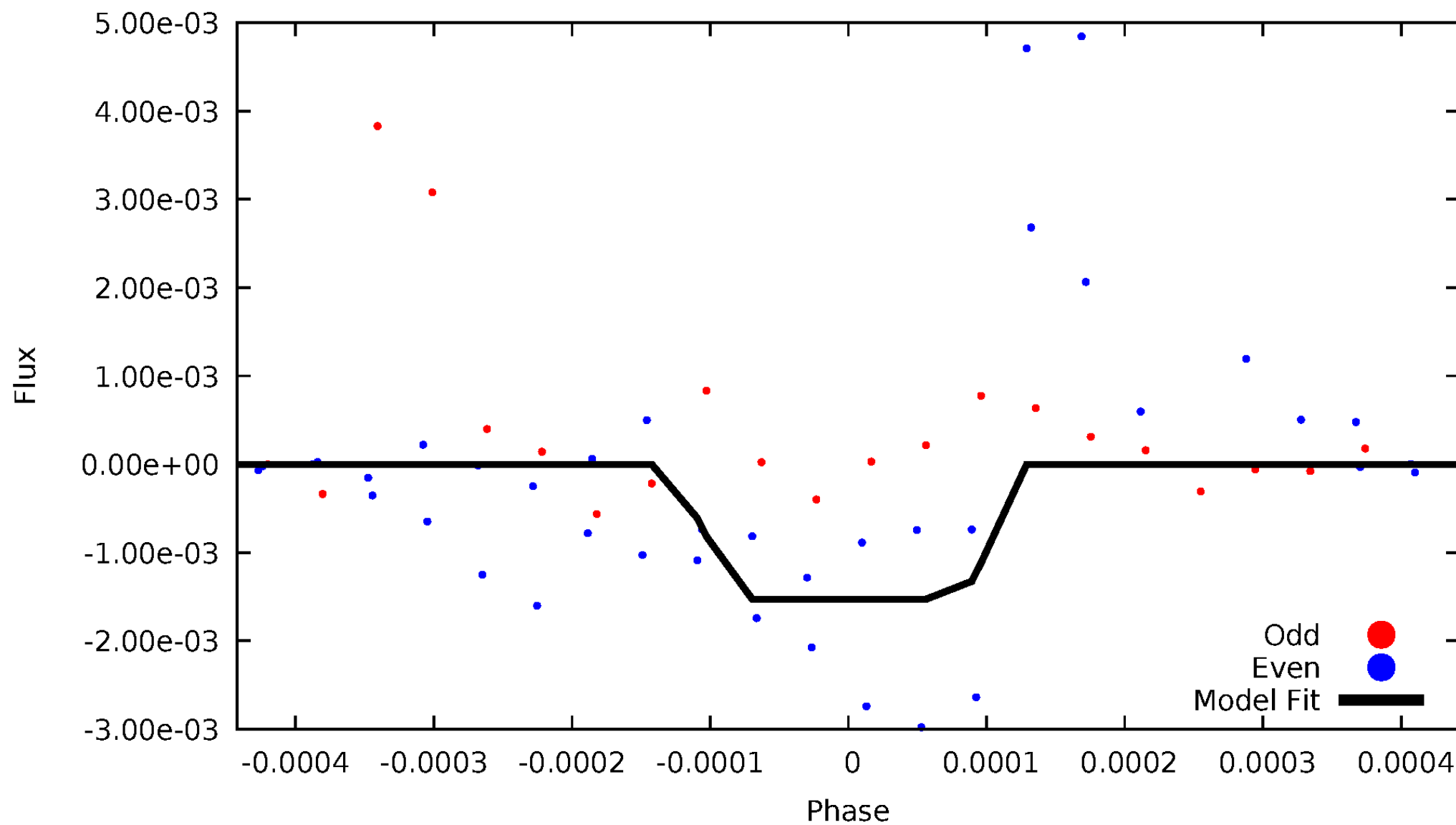
DV Odd/Even

TCE 003340807-03



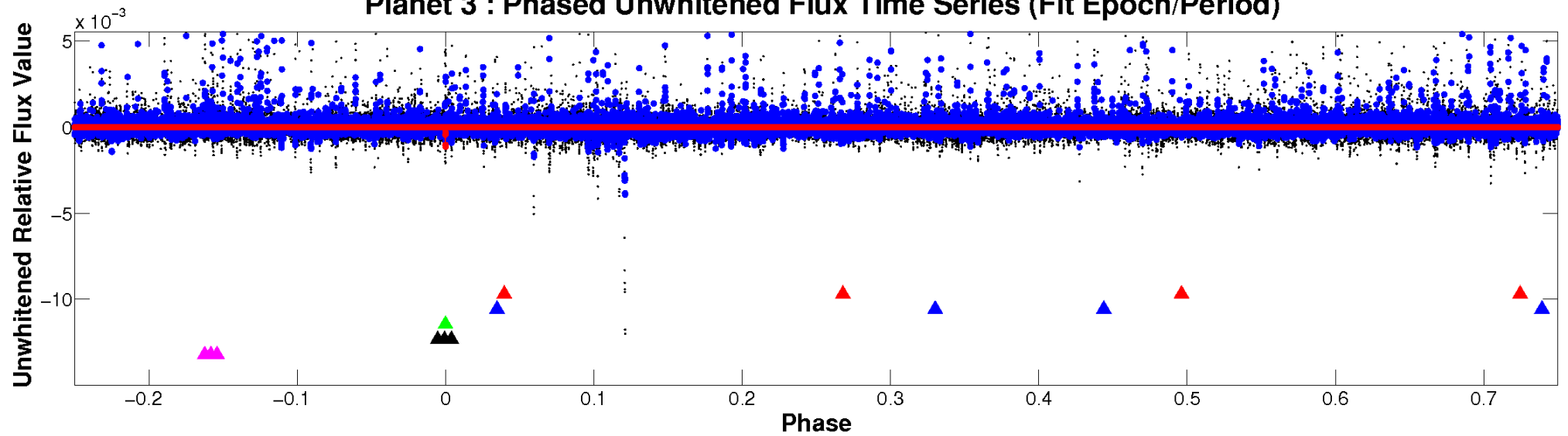
ALT Odd/Even

TCE 003340807-03

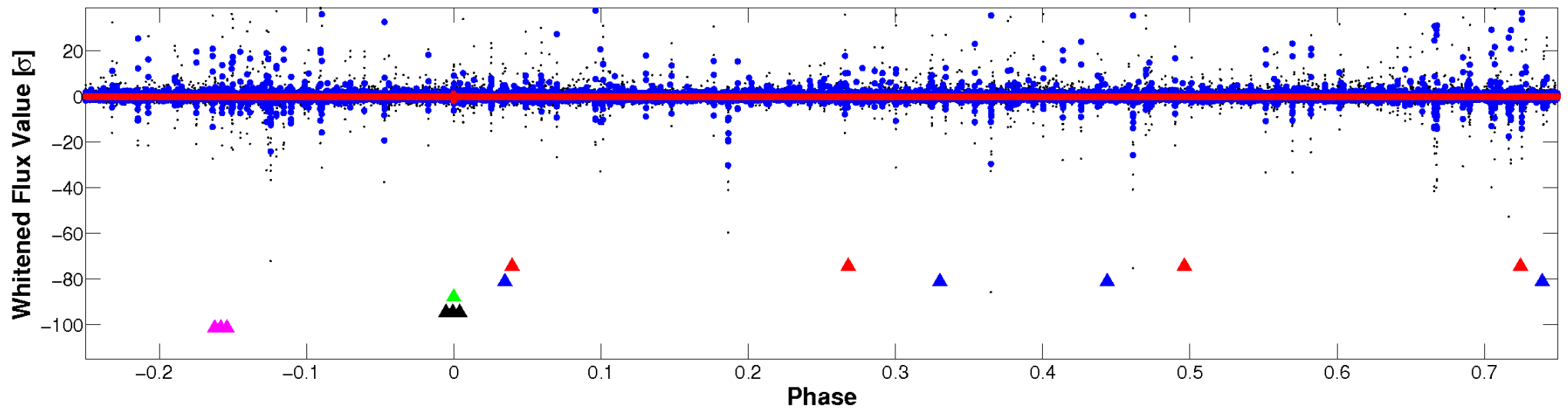


Non-Whitened Vs. Whitened Light Curve

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

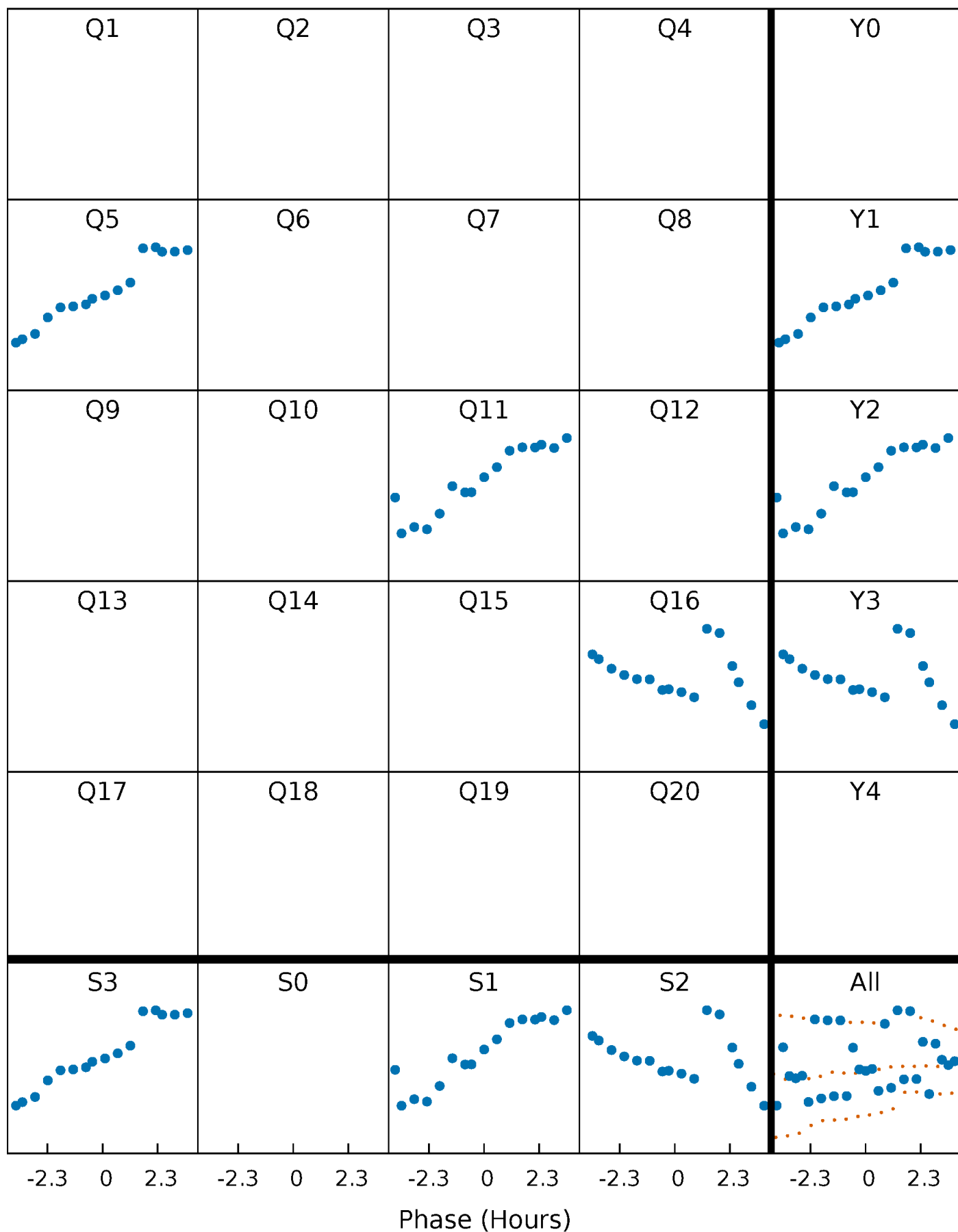


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



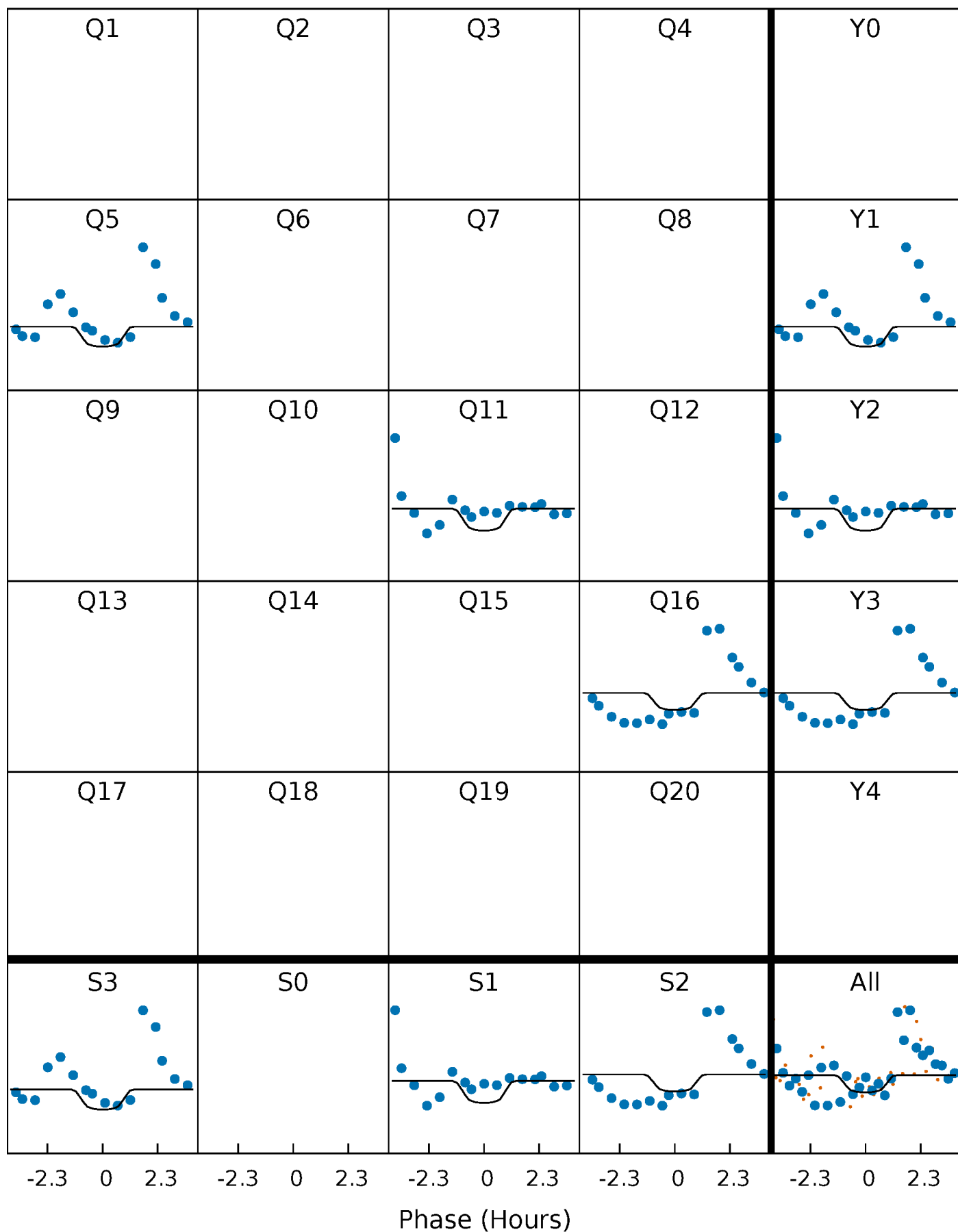
PDC Quarter-Phased Transit Curves

TCE 003340807-03 $P=514.563669$ Days $T_0=499.596219$ (BKJD)



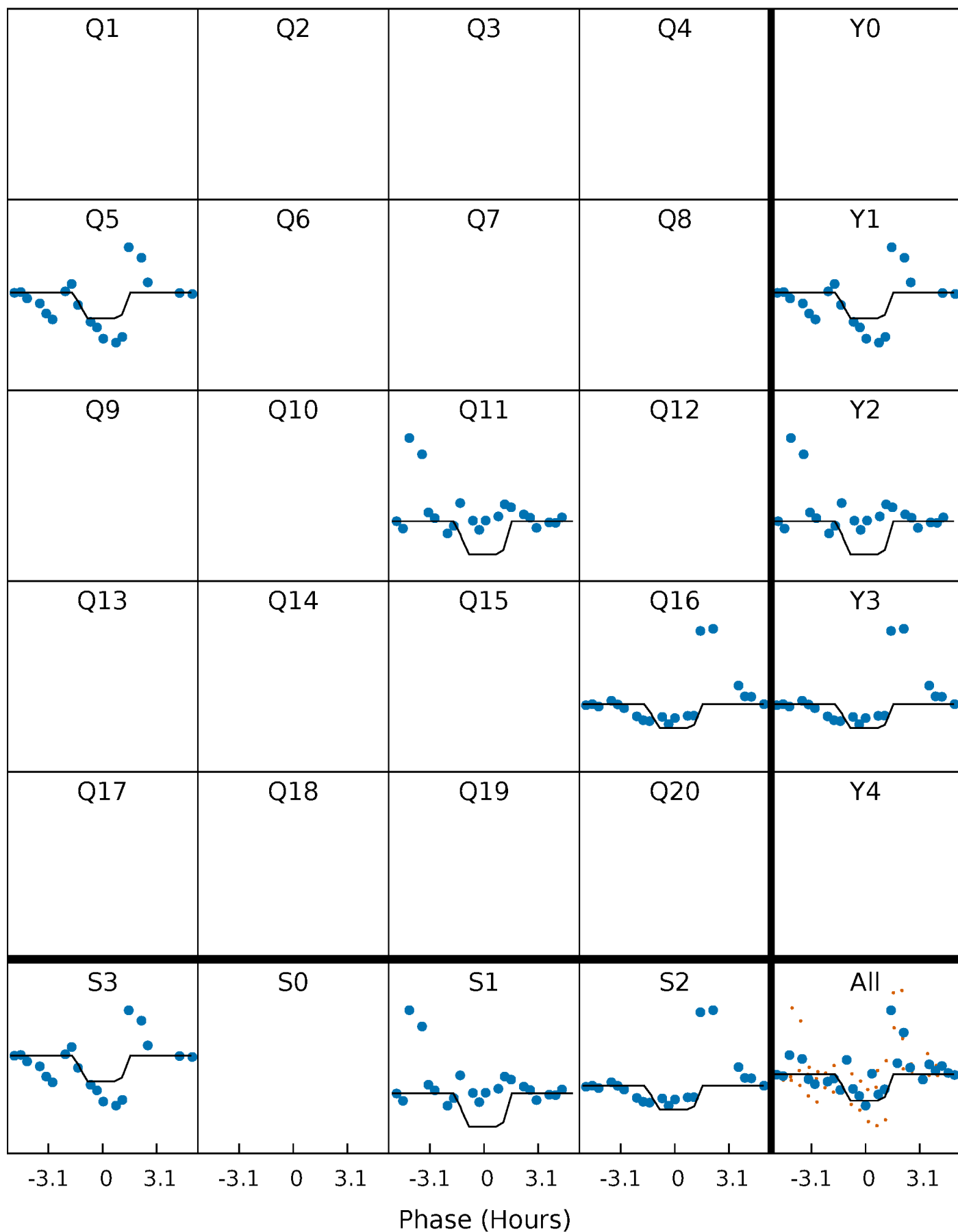
DV Quarter-Phased Transit Curves

TCE 003340807-03 $P=514.563669$ Days $T_0=499.596219$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

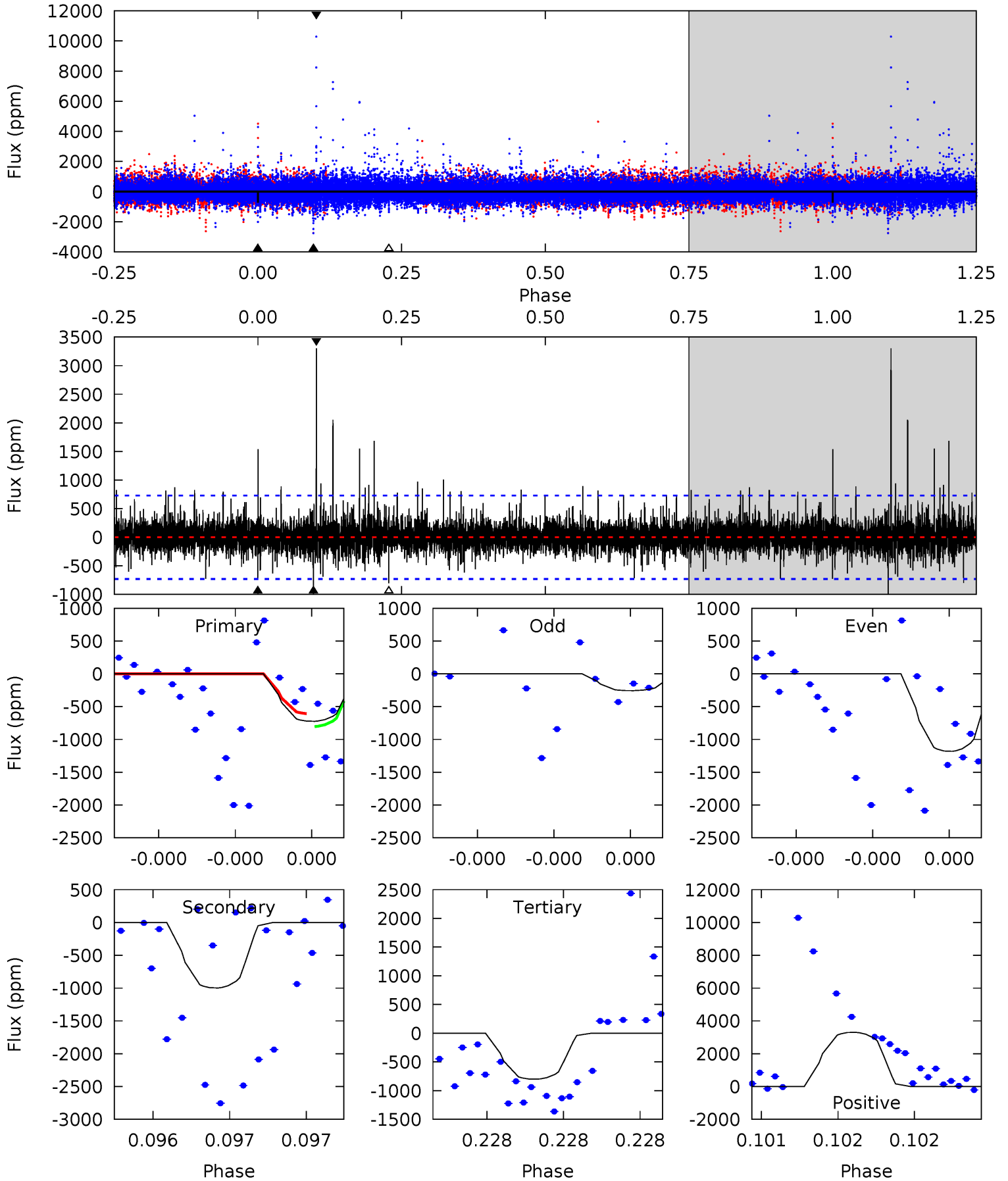
TCE 003340807-03 P=514.557908 Days $T_0=499.596651$ (BKJD)



DV Model-Shift Uniqueness Test

003340807-03, P = 514.563669 Days, E = 499.596219 Days

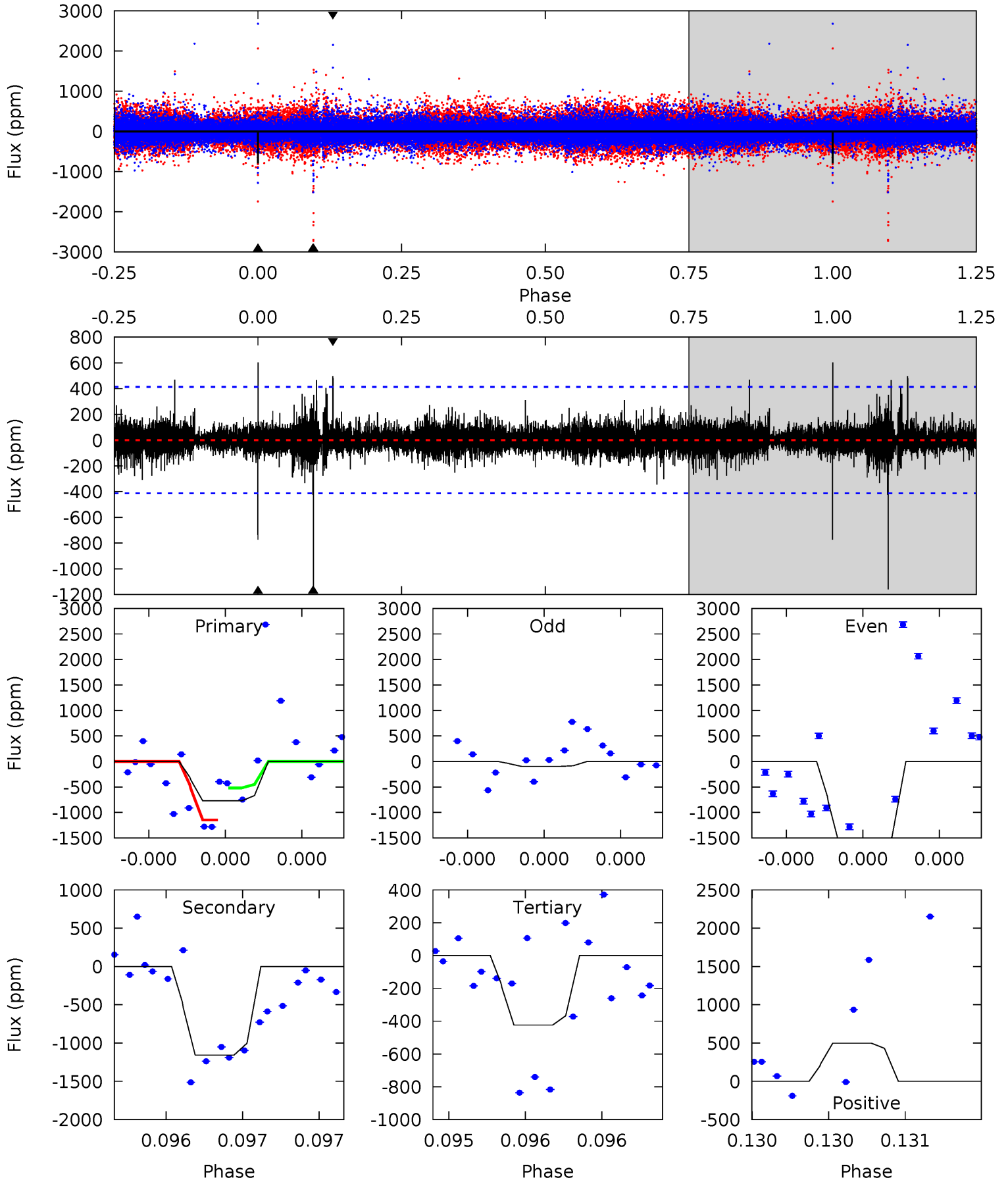
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.71	7.87	6.32	26.1	5.76	3.77	1.34	-0.61	-20.4	1.56	-18.2	2.19	1.46	0.77	0.76



Alt Model-Shift Uniqueness Test

003340807-03, P = 514.557908 Days, E = 499.596651 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	16.0	5.85	6.87	5.70	3.68	0.85	4.81	3.79	10.1	9.12	12.2	1.11	0.34	4.10



Stellar Parameters For KIC 003340807

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5485^{+164}_{-148}	$4.492^{+0.099}_{-0.121}$	$-0.380^{+0.350}_{-0.300}$	$0.822^{+0.146}_{-0.110}$	$0.765^{+0.114}_{-0.053}$	$1.941^{+0.836}_{-0.685}$
	+3%/-3%	+2%/-3%	+92%/-79%	+18%/-13%	+15%/-7%	+43%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003340807-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-998 ± 127	$19.72^{+23.20}_{-13.45}$	287^{+15}_{-13}	2822^{+1237}_{-495}	1902^{+16368}_{-1500}
Alt.	-1158 ± 72	$22.97^{+22.35}_{-15.87}$	288^{+15}_{-14}	2779^{+1213}_{-444}	1615^{+15230}_{-1198}

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 $A_{obs} \gg 1.0$

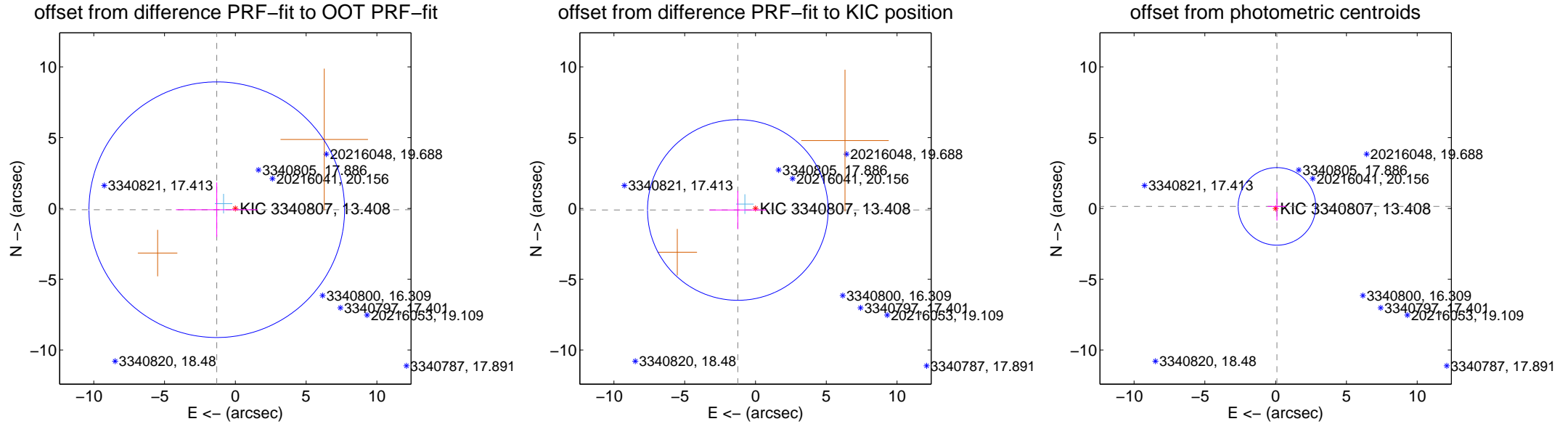
DV Centroid Data

Supplemental centroid analysis for 003340807-03. Kepler magnitude: 13.41. Transit SNR 6.15

There are 1 quarters with good PRF difference image offsets

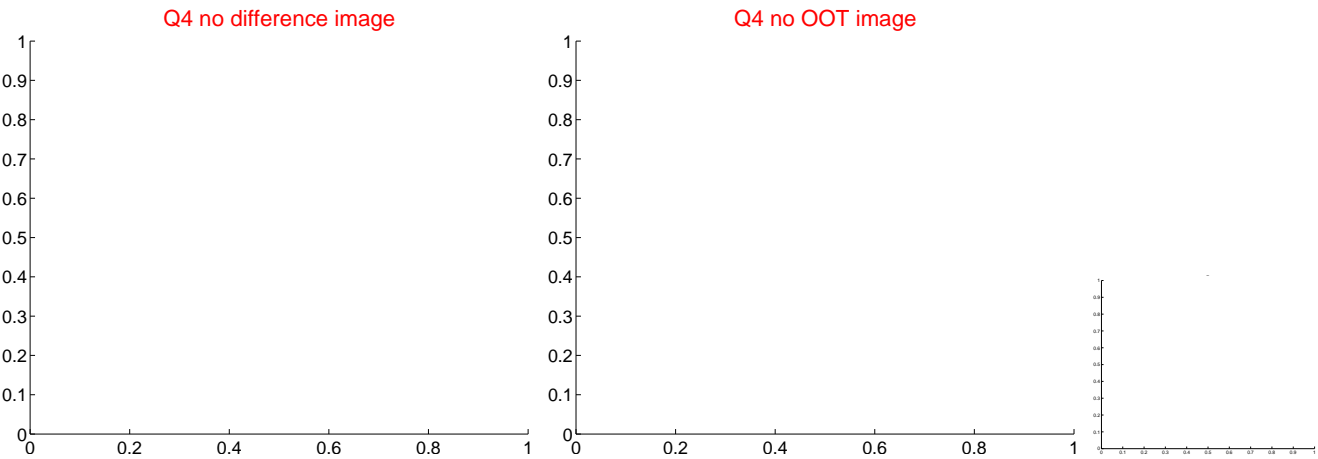
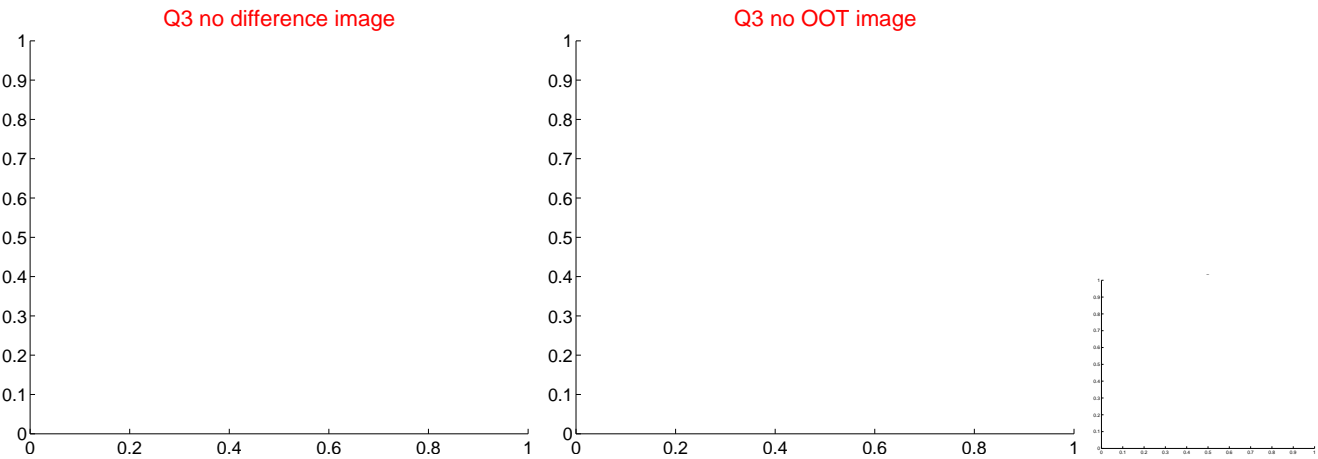
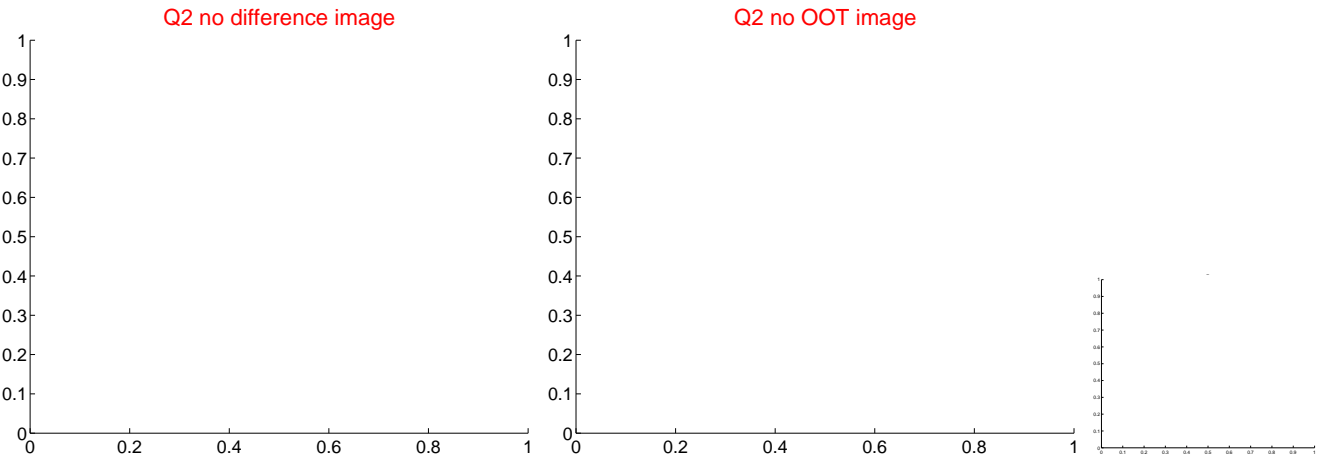
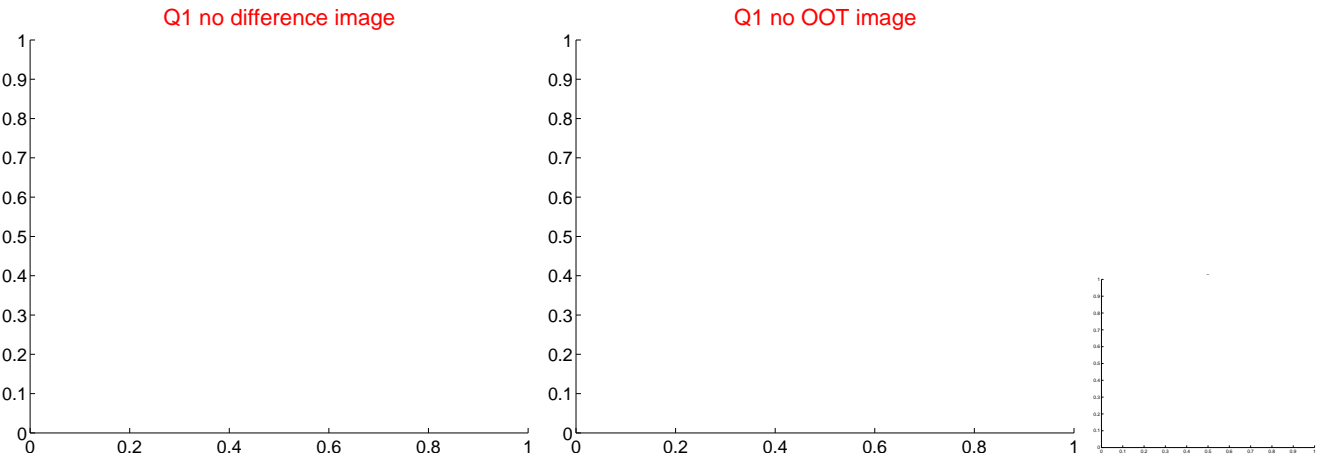
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.314 ± 3.009	0.44	1.311 ± 2.886	-0.089 ± 1.924
PRF-fit source offset from KIC position	1.252 ± 2.126	0.59	1.247 ± 2.017	-0.109 ± 1.354
photometric centroid source offset	0.17 ± 0.91	0.19	-0.09 ± 0.65	0.14 ± 1.00

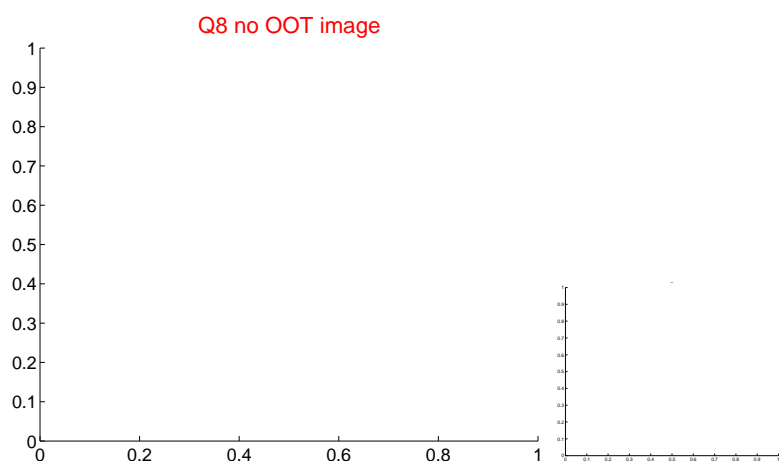
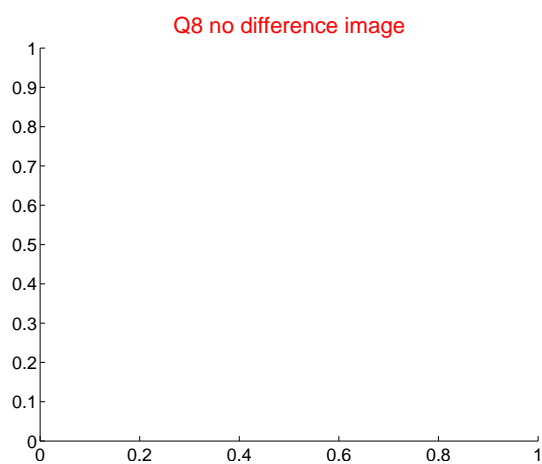
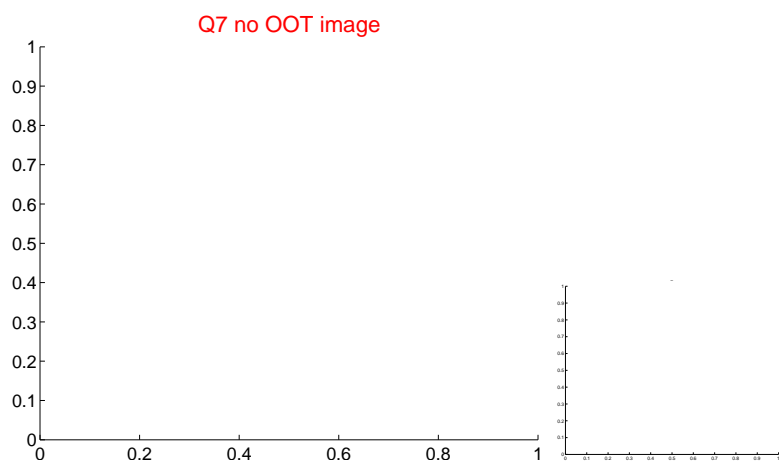
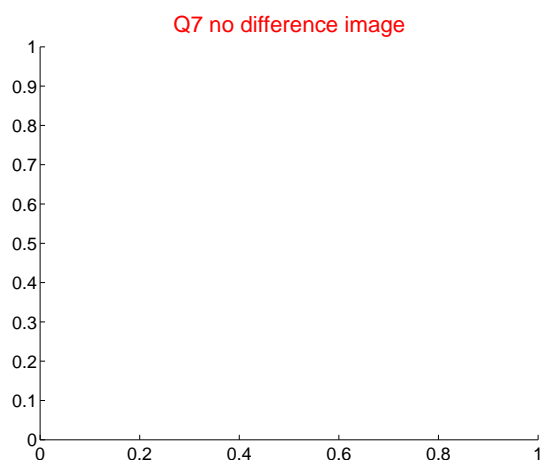
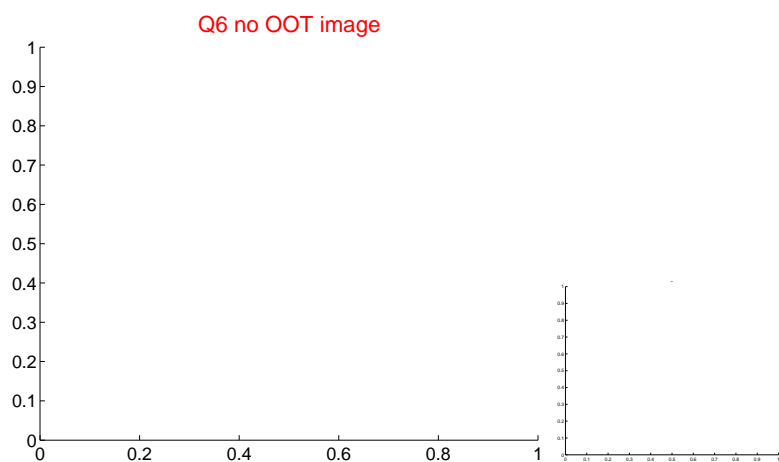
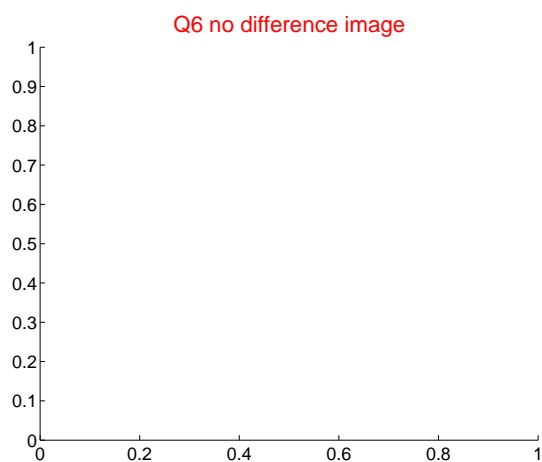
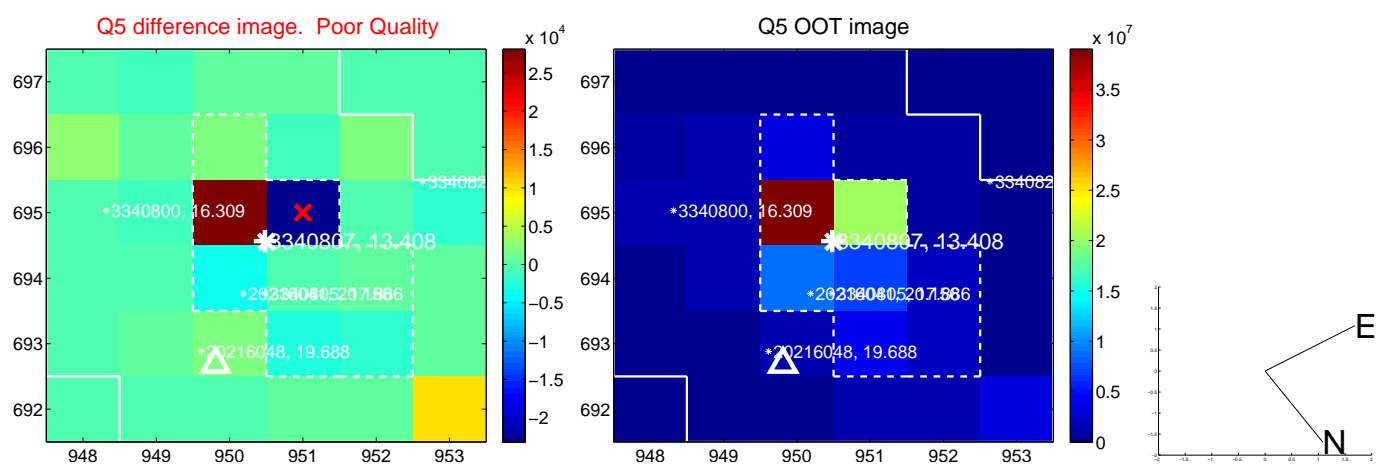


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

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



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



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

Q9 no difference image



Q9 no OOT image



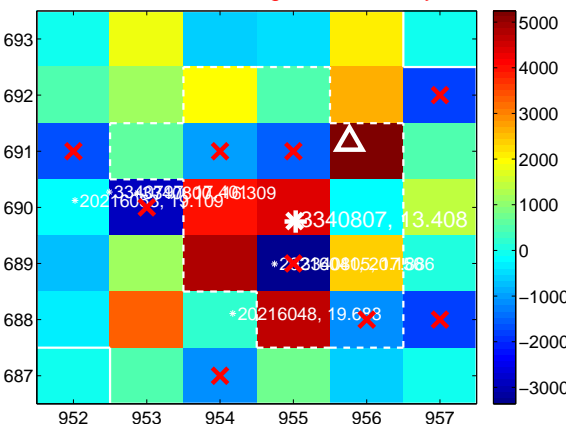
Q10 no difference image



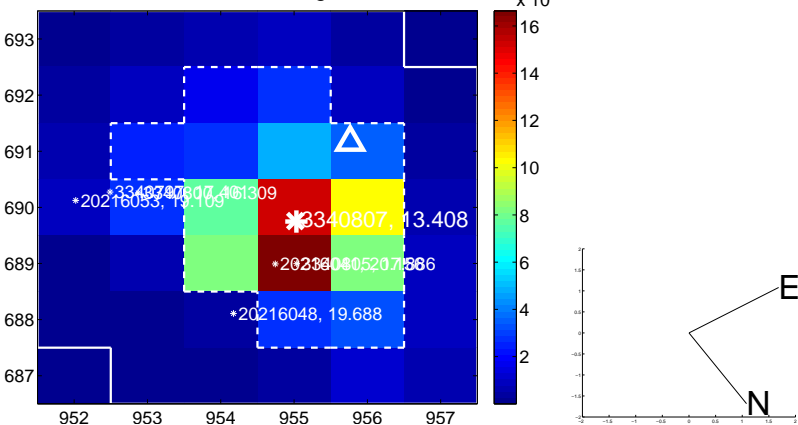
Q10 no OOT image



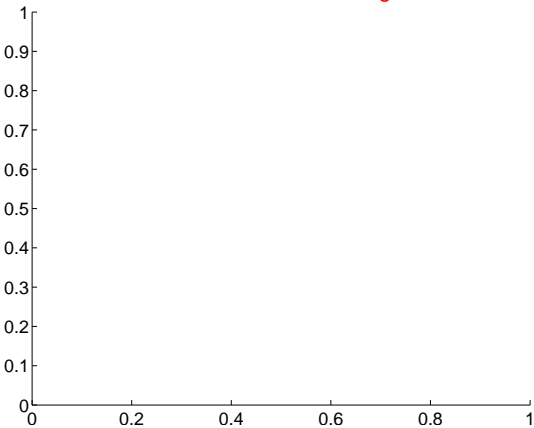
Q11 difference image. Poor Quality



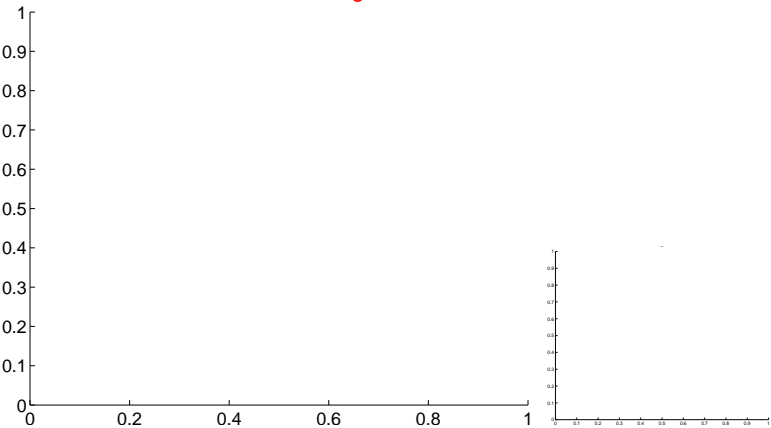
Q11 OOT image



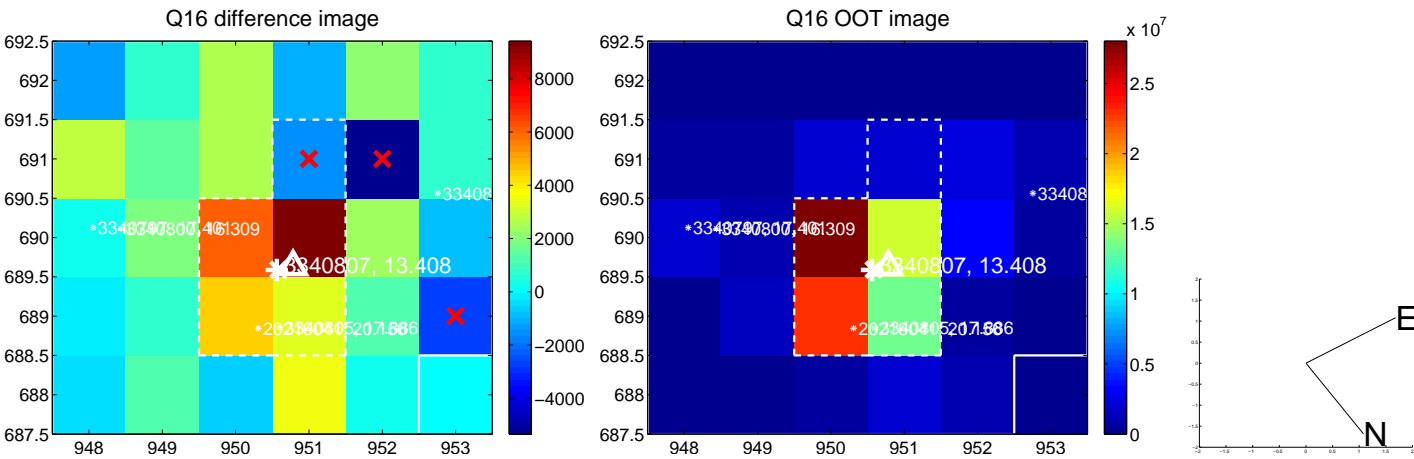
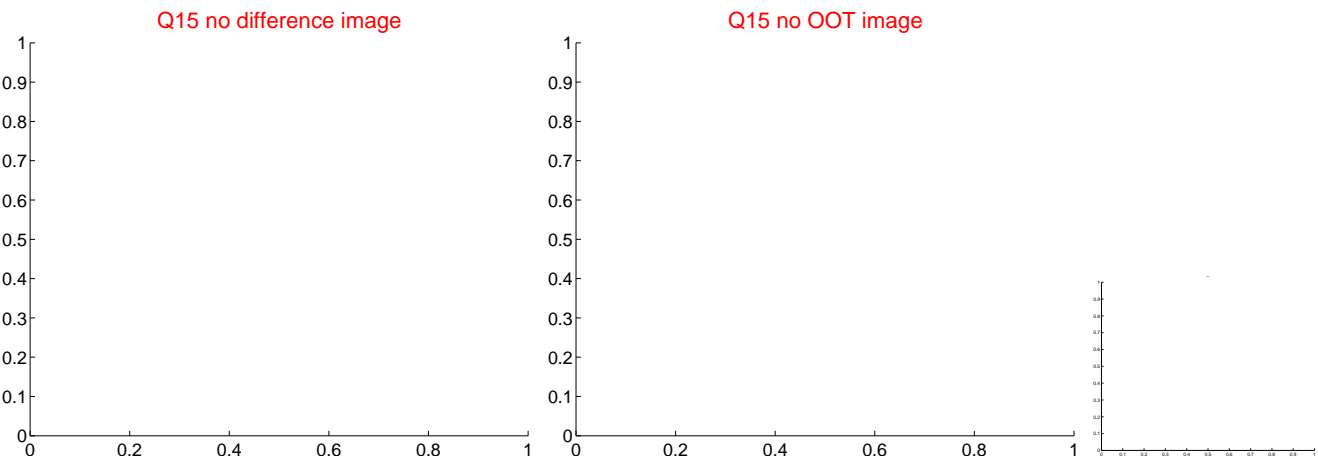
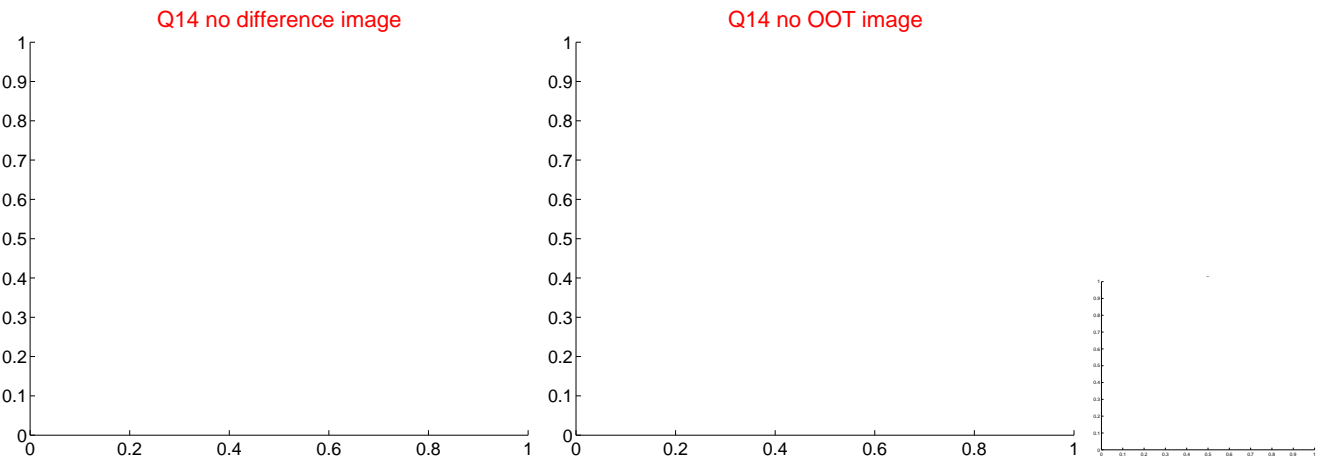
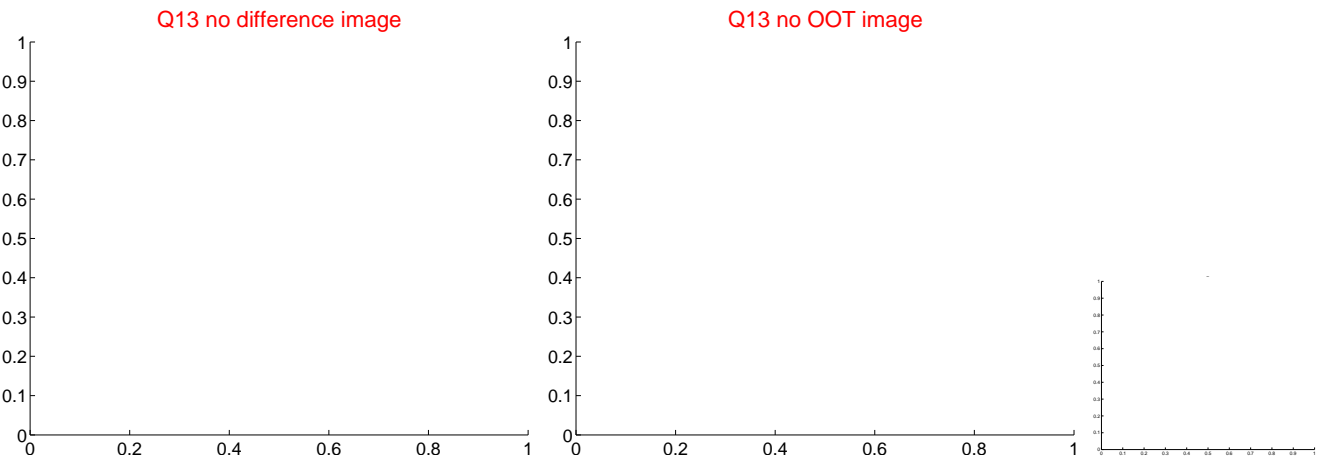
Q12 no difference image



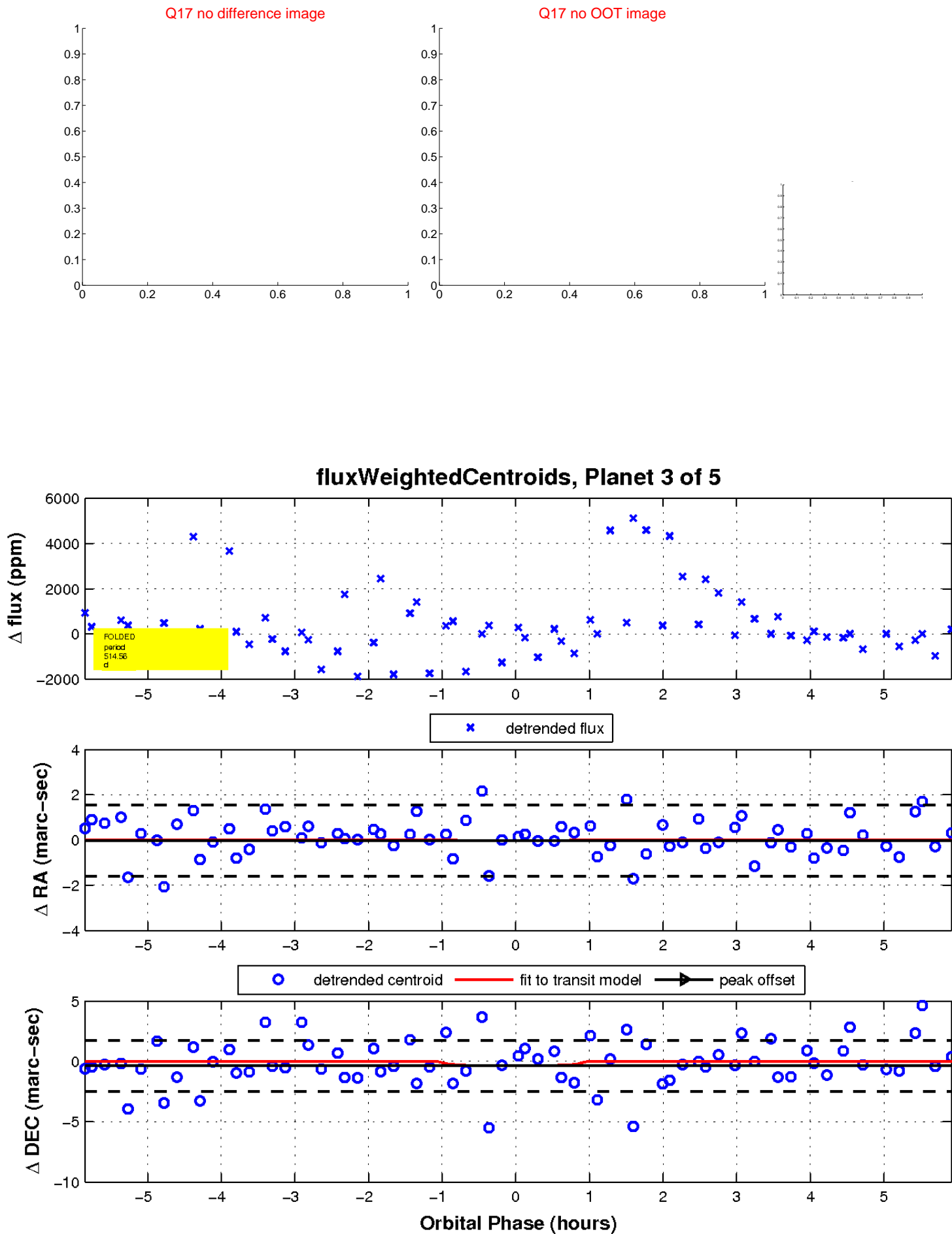
Q12 no OOT image



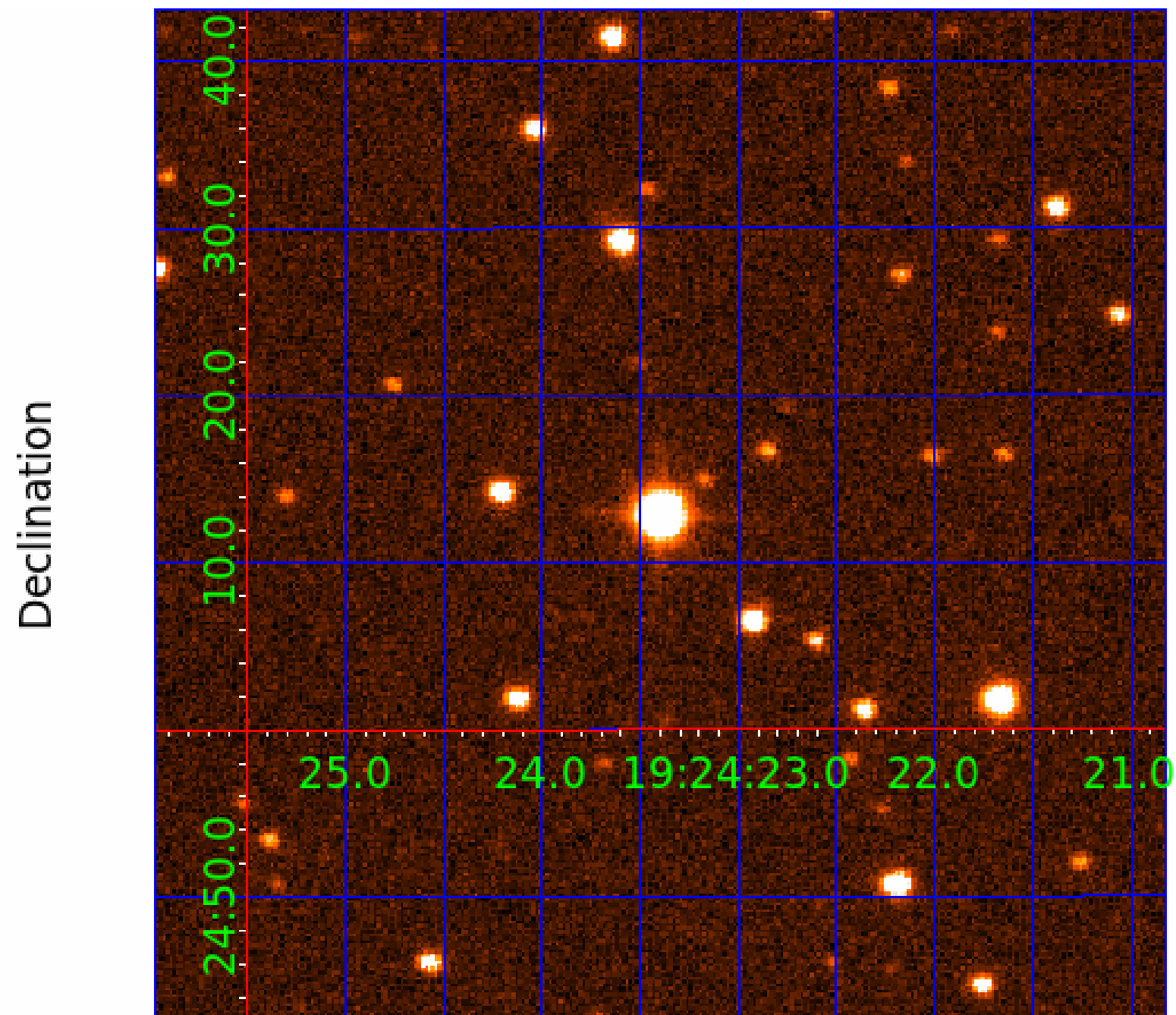
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image



KIC 003340807

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})
003340807-01	OBS	No	397.081016	357.875694	2097.6	13.304	16.4	6.3	0.82	5485	4.46	0.59
003340807-02	OBS	No	362.534036	154.949068	802.0	2.306	15.7	5.0	0.82	5485	2.75	0.66
003340807-03	OBS	No	514.563670	499.596219	1142.6	1.993	20.6	6.2	0.82	5485	2.87	0.41
003340807-04	OBS	No	516.949300	496.888053	1221.0	5.554	16.0	4.6	0.82	5485	2.90	0.41
003340807-05	OBS	No	516.696621	416.082373	652.4	3.500	15.5	-1.0	0.82	5485	2.08	0.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003340807-01	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
003340807-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS

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

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

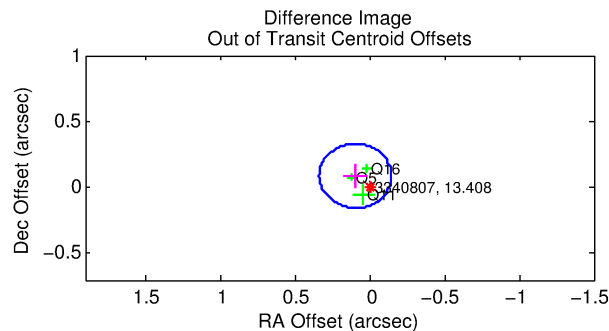
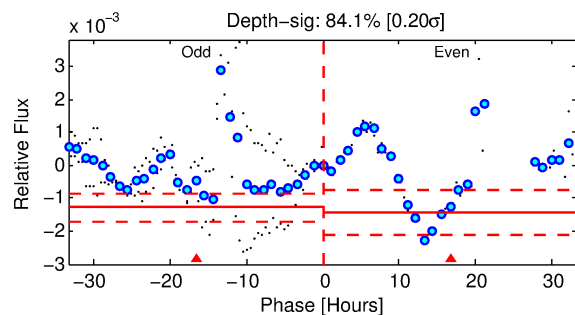
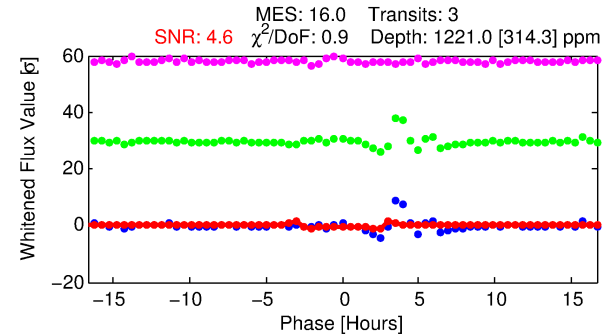
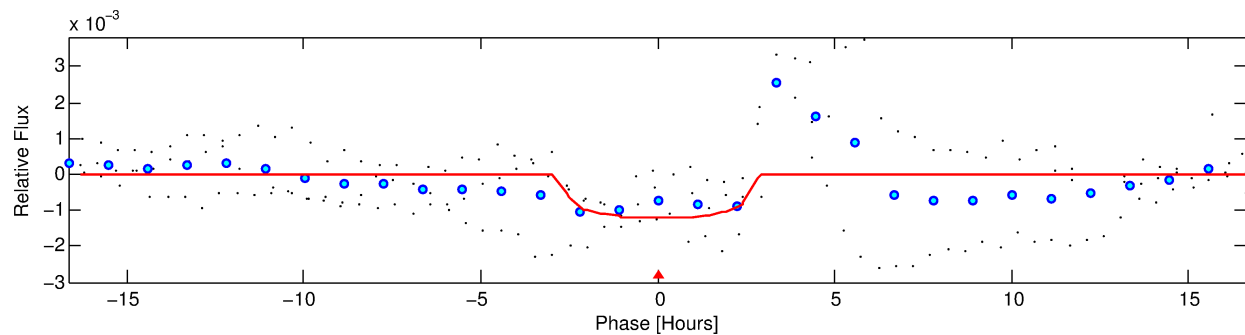
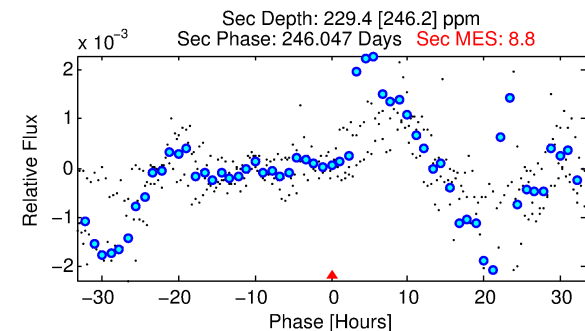
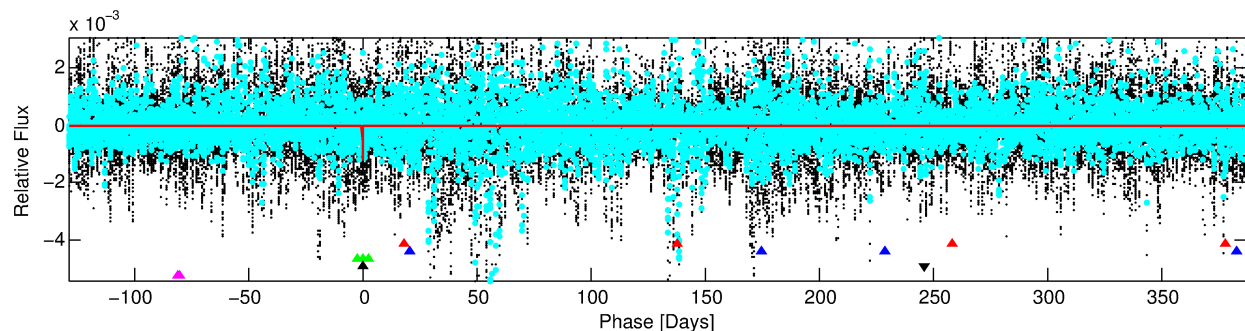
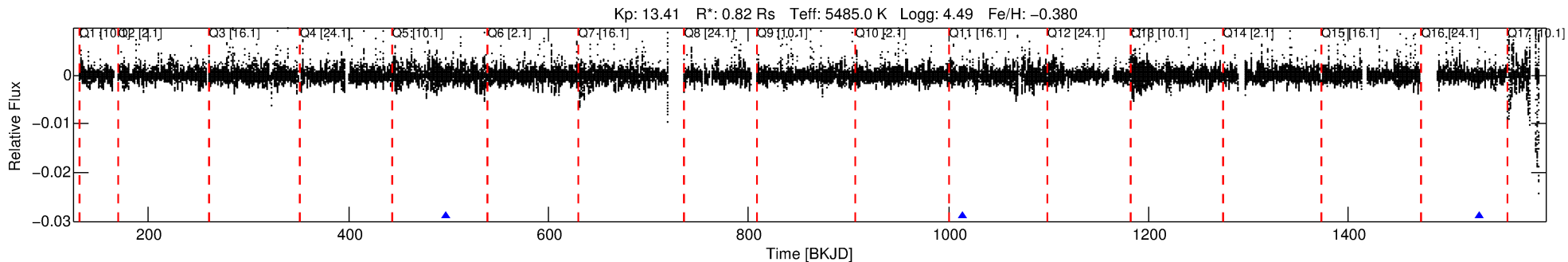
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003340807-04

No Significant Match Found

DV One-Page Summary

KIC: 3340807 Candidate: 4 of 5 Period: 516.949 d



DV Fit Results:

Period = 516.94930 [0.00505] d
Epoch = 496.8881 [0.0068] BKJD
Rp/R* = 0.0323 [0.0253]
a/R* = 668.44 [2072.29]
b = 0.43 [6.00]
Seff = 0.41 [0.10]
Teq = 204 [13] K
Rp = 2.90 [2.33] Re
a = 1.1532 [0.1735] AU
Ag = 19939.94 [38088.48] [0.52σ]
Teffp = 3753 [1784] K [1.99σ]

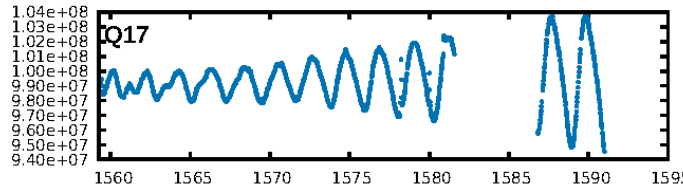
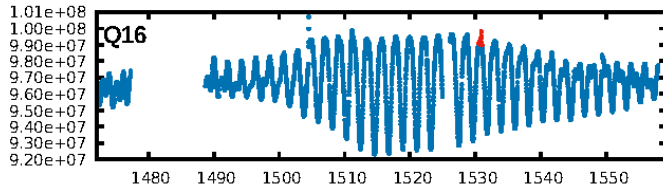
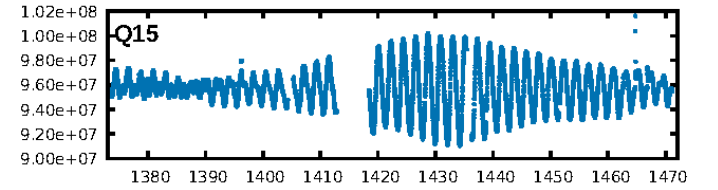
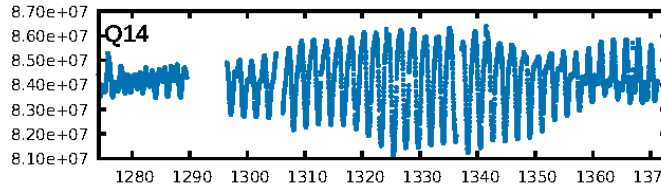
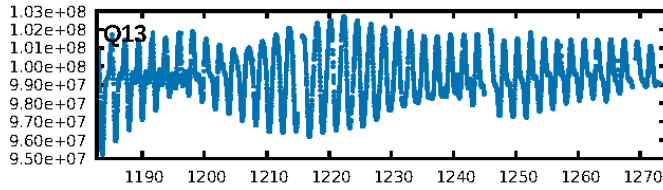
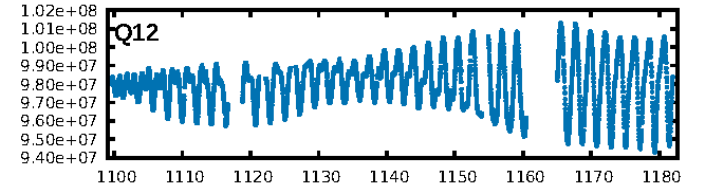
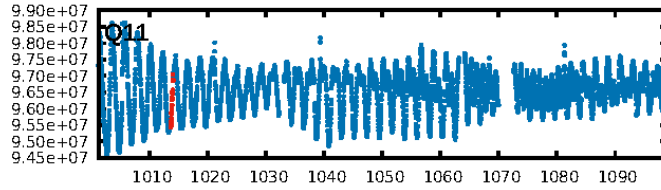
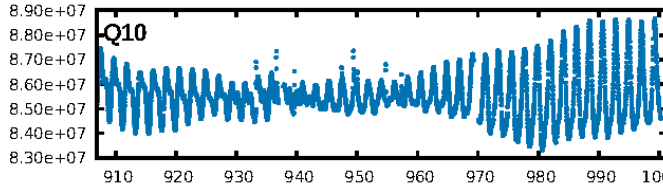
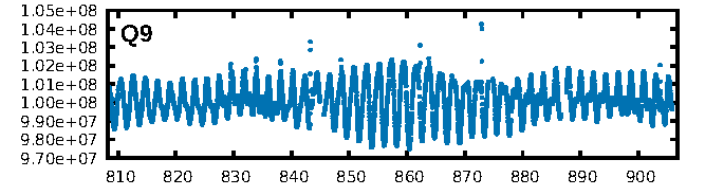
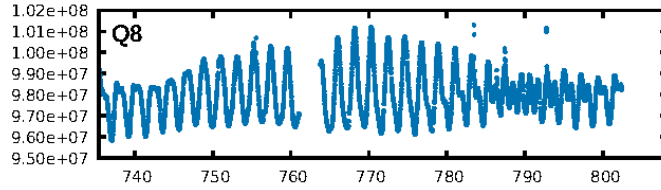
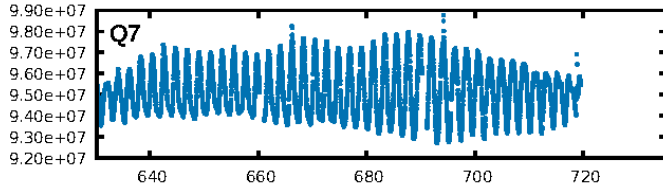
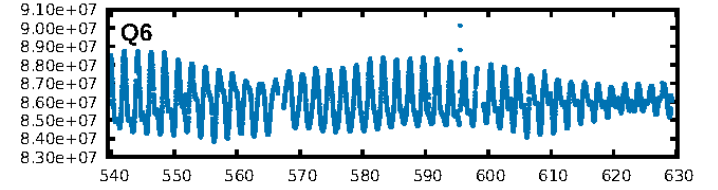
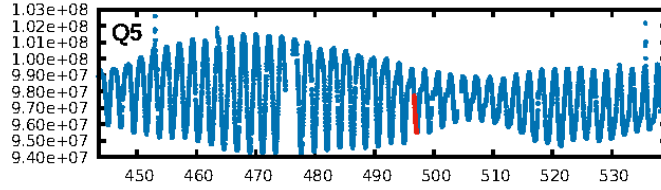
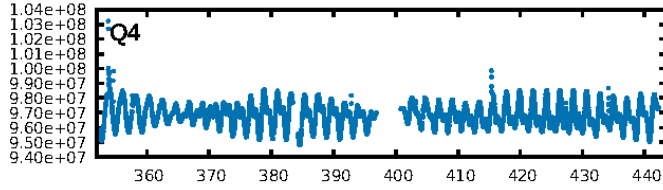
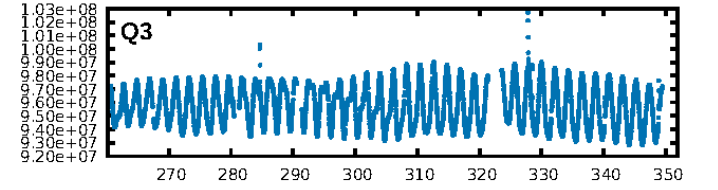
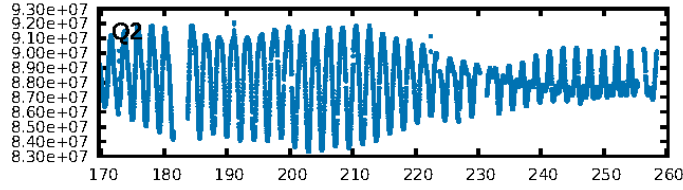
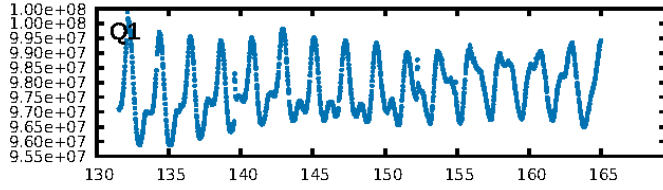
DV Diagnostic Results:

ShortPeriod-sig: 64.4% [0.92σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.8%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.3843
Centroid-sig: 37.6%
Centroid-so: 0.605 arcsec [1.05σ]
OotOffset-rm: 0.130 arcsec [1.60σ]
KicOffset-rm: 0.059 arcsec [0.73σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.67 [2/3]

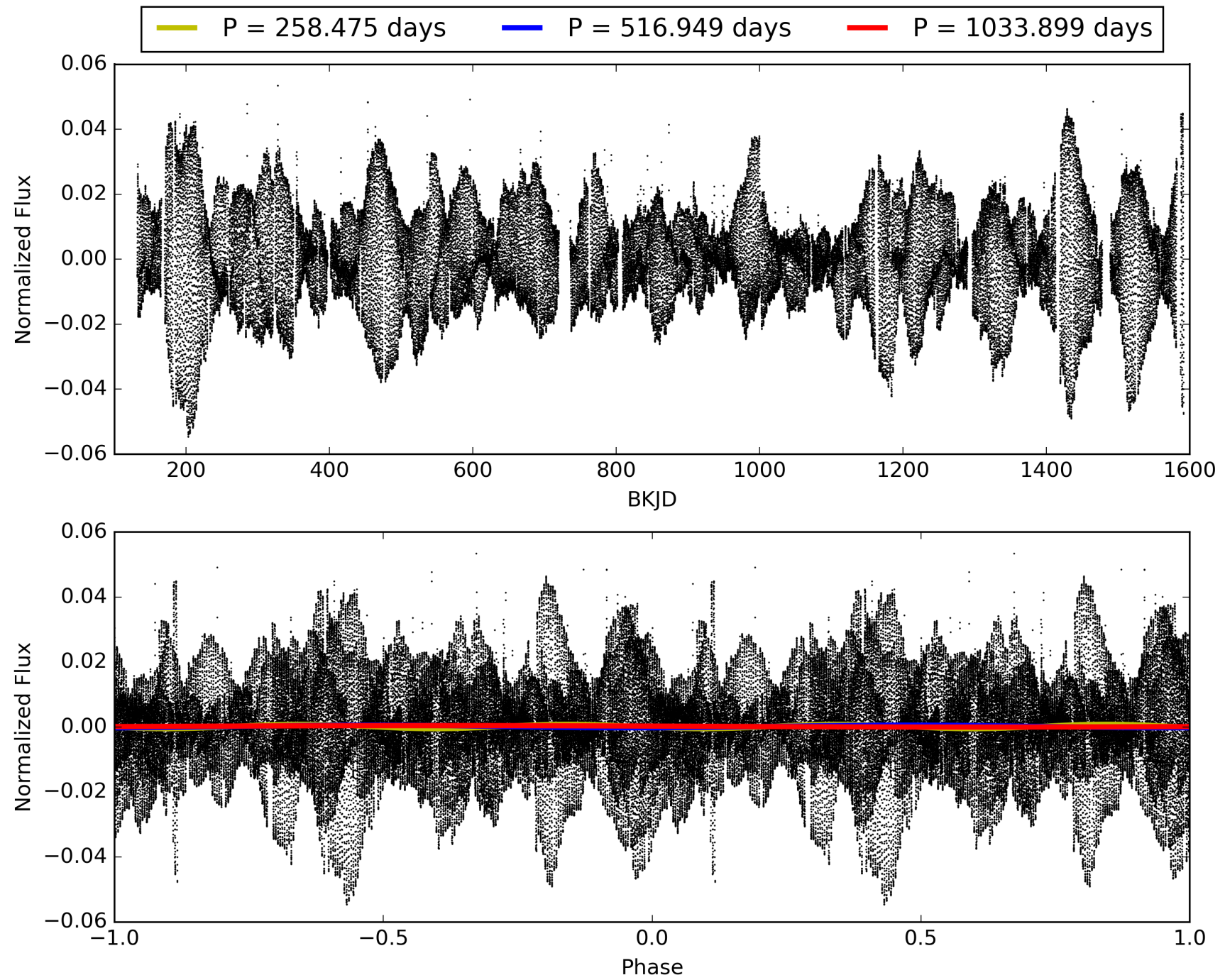
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:47:32 Z

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

TCE 003340807-04, PDC Light Curves

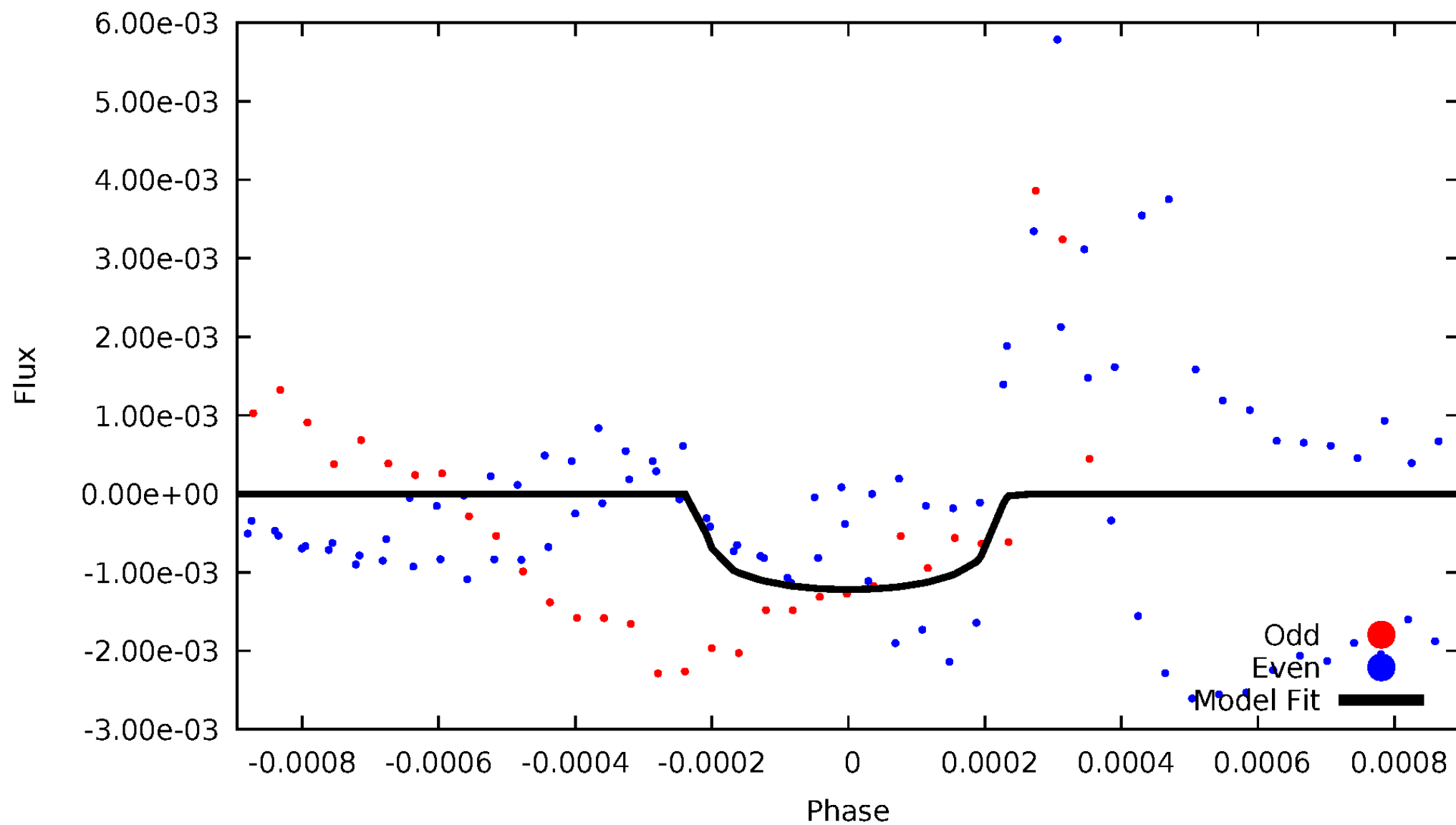


TCE 003340807-04



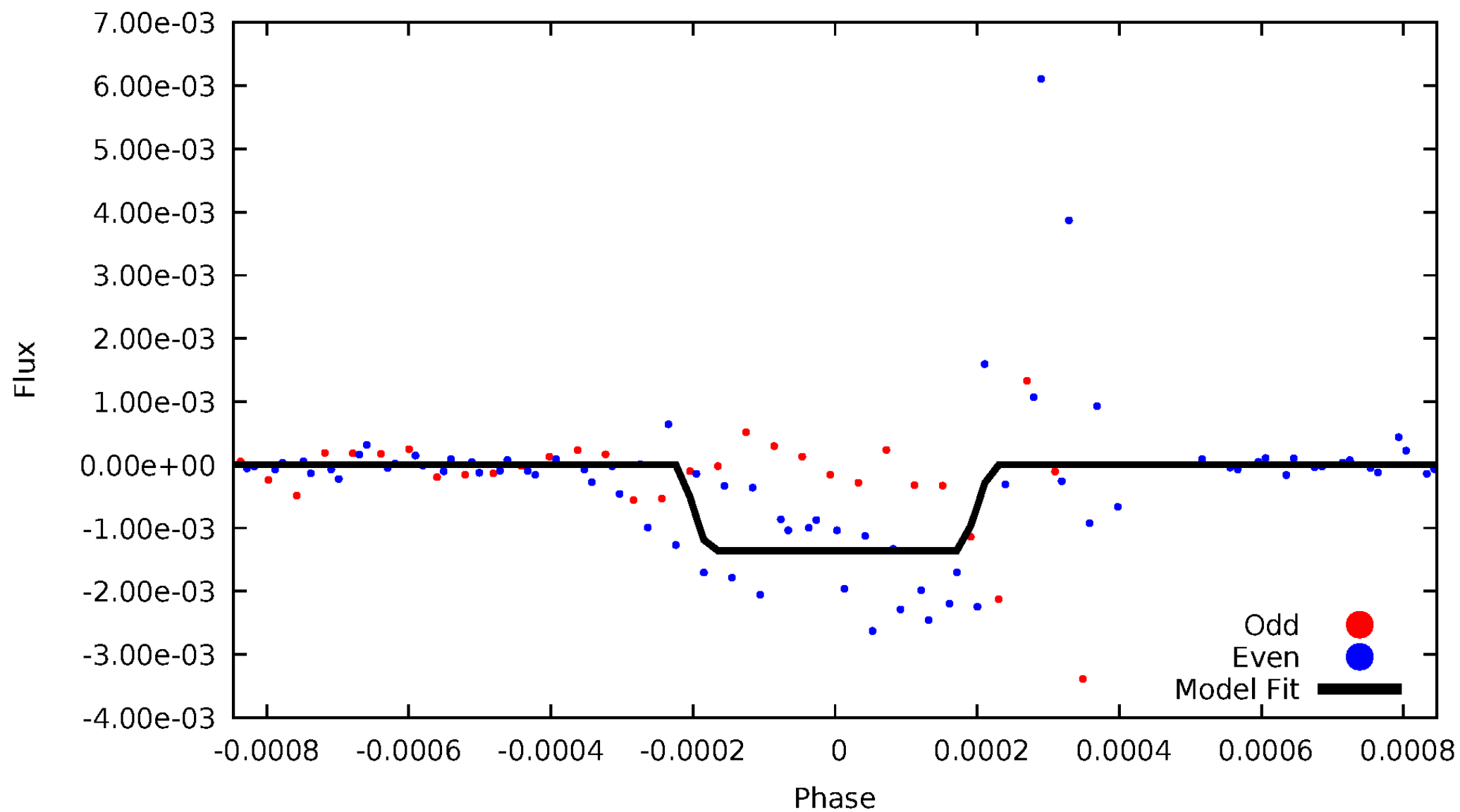
DV Odd/Even

TCE 003340807-04



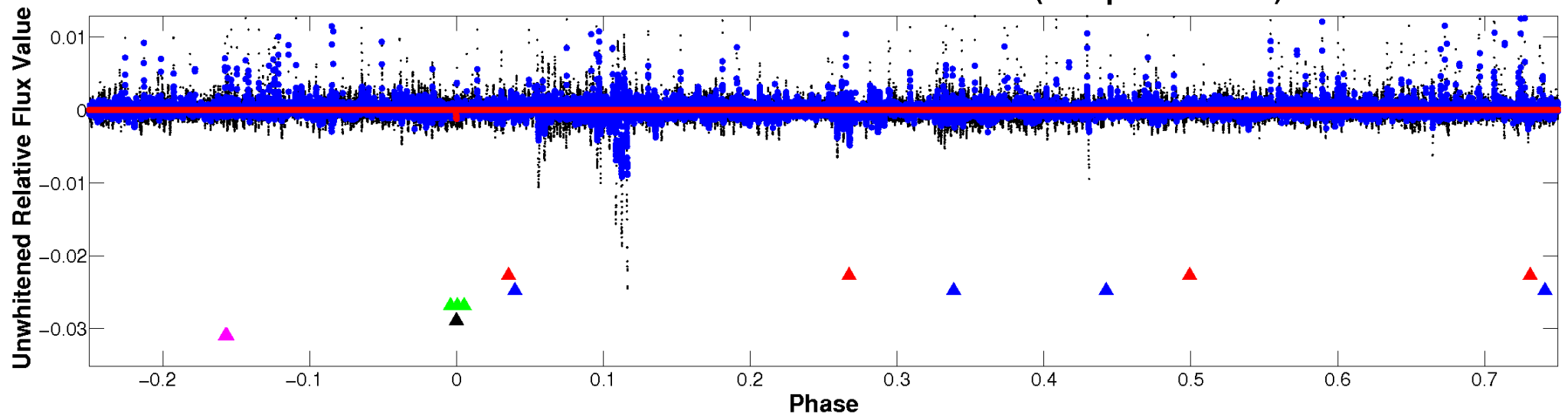
ALT Odd/Even

TCE 003340807-04

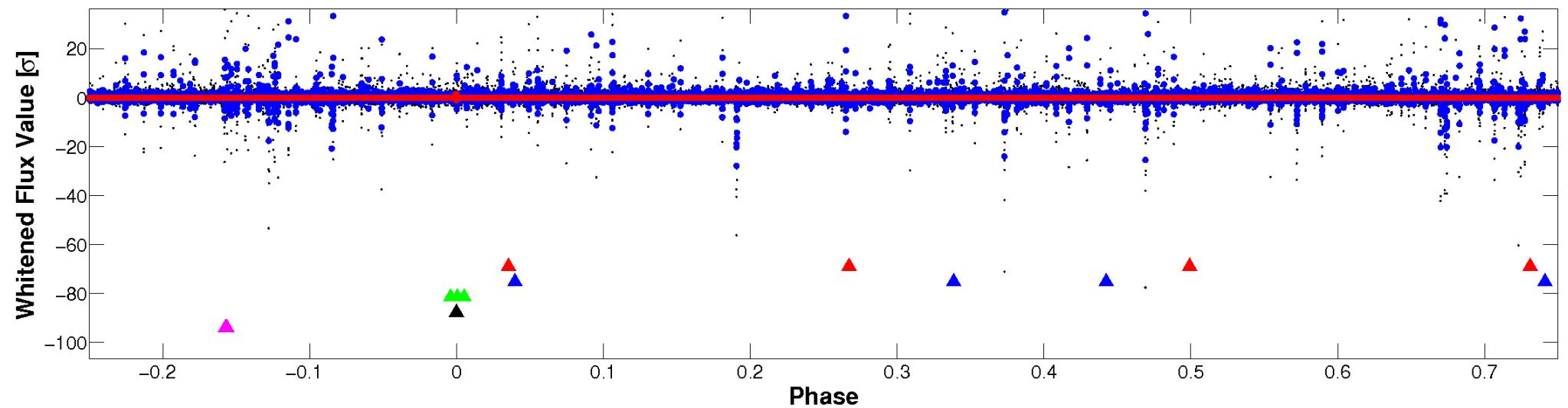


Non-Whitened Vs. Whitened Light Curve

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

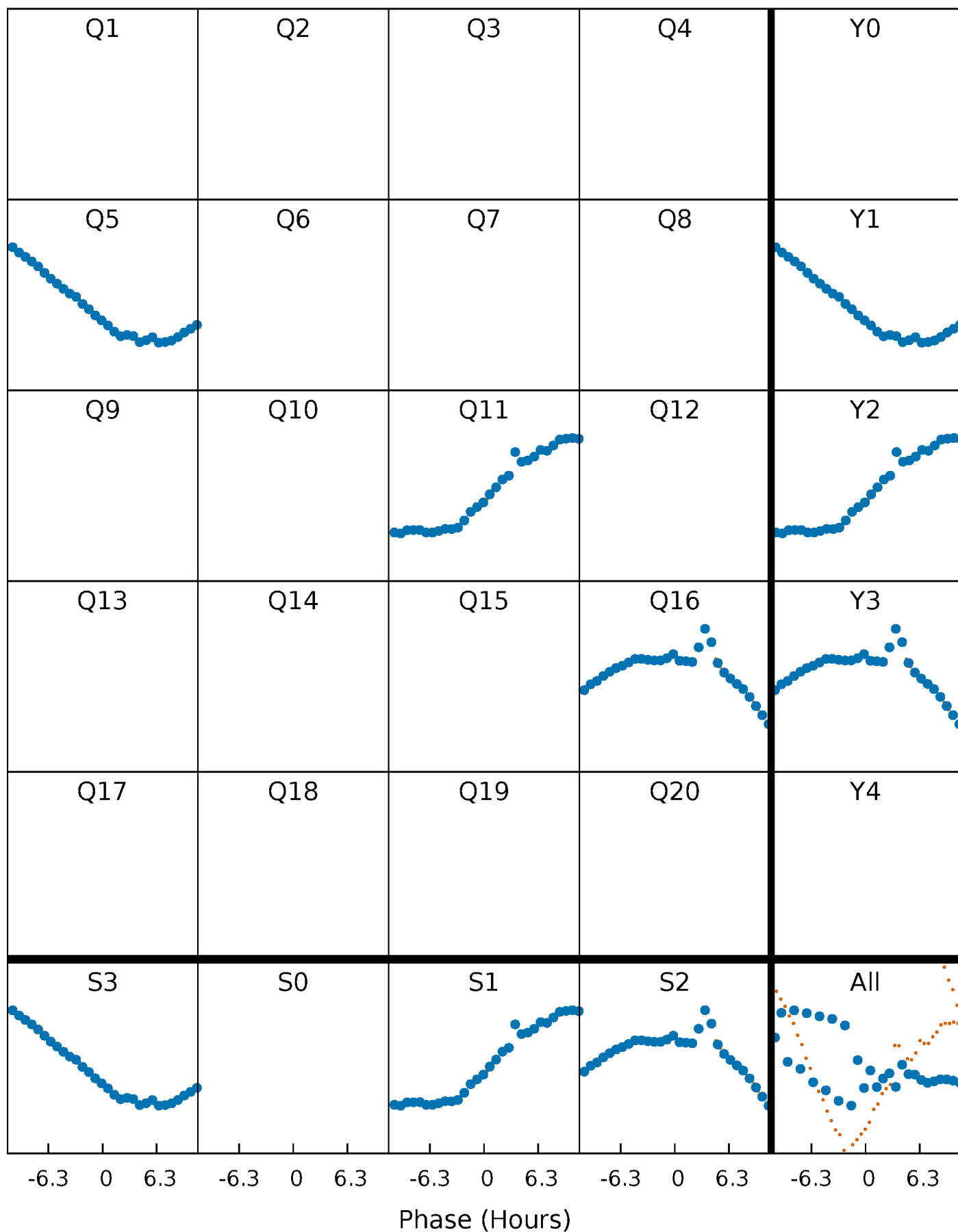


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



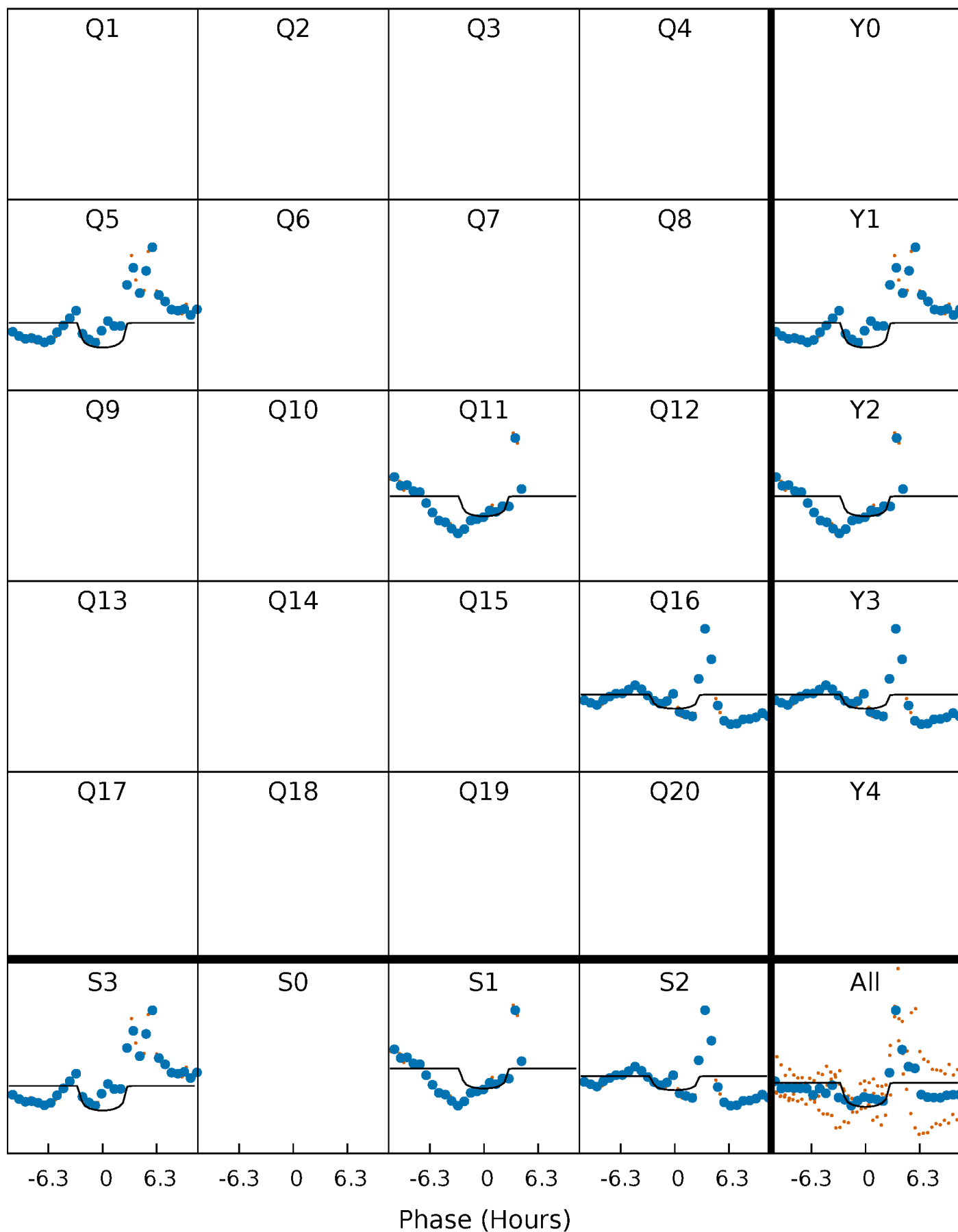
PDC Quarter-Phased Transit Curves

TCE 003340807-04 $P=516.949300$ Days $T_0=496.888053$ (BKJD)



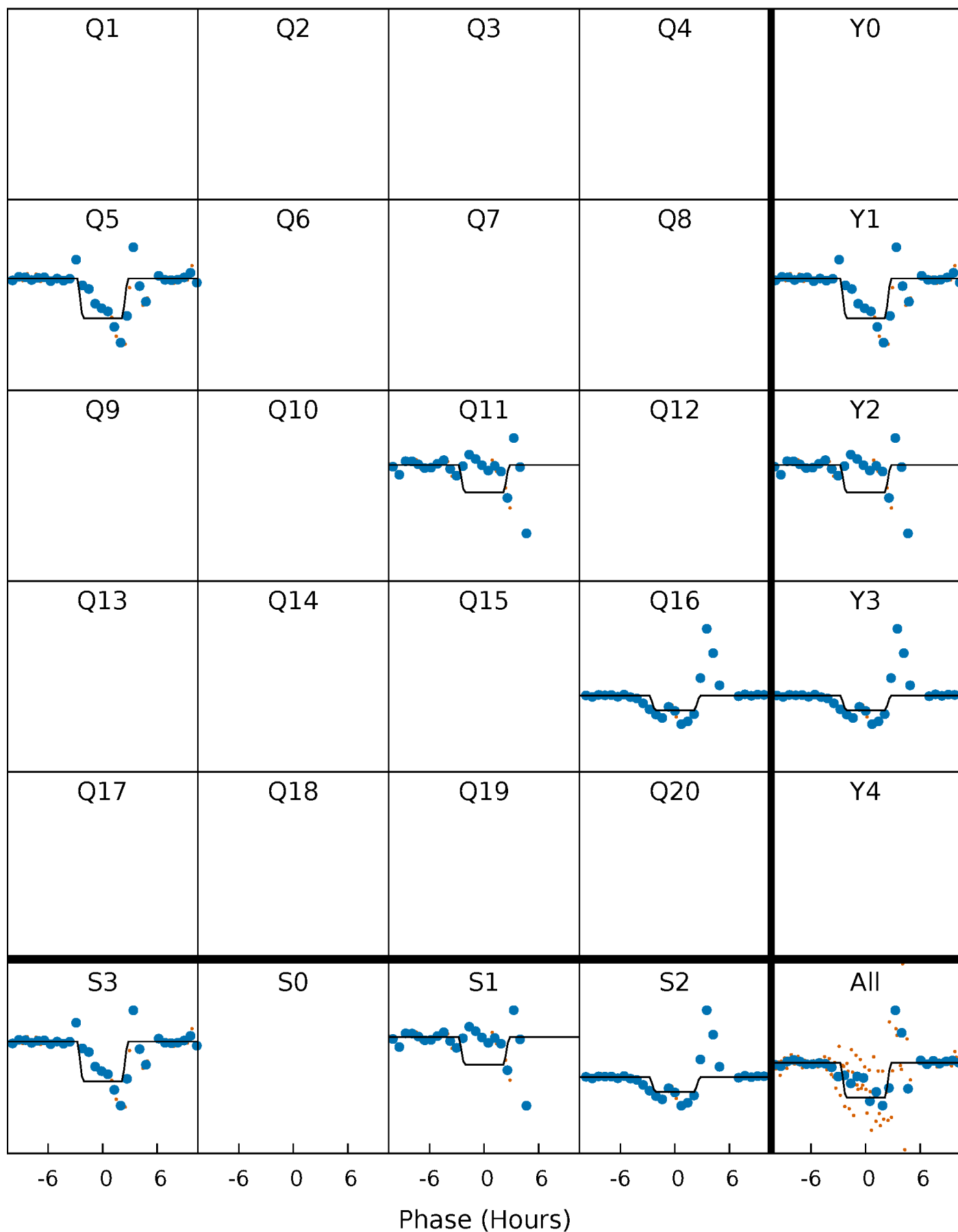
DV Quarter-Phased Transit Curves

TCE 003340807-04 $P=516.949300$ Days $T_0=496.888053$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

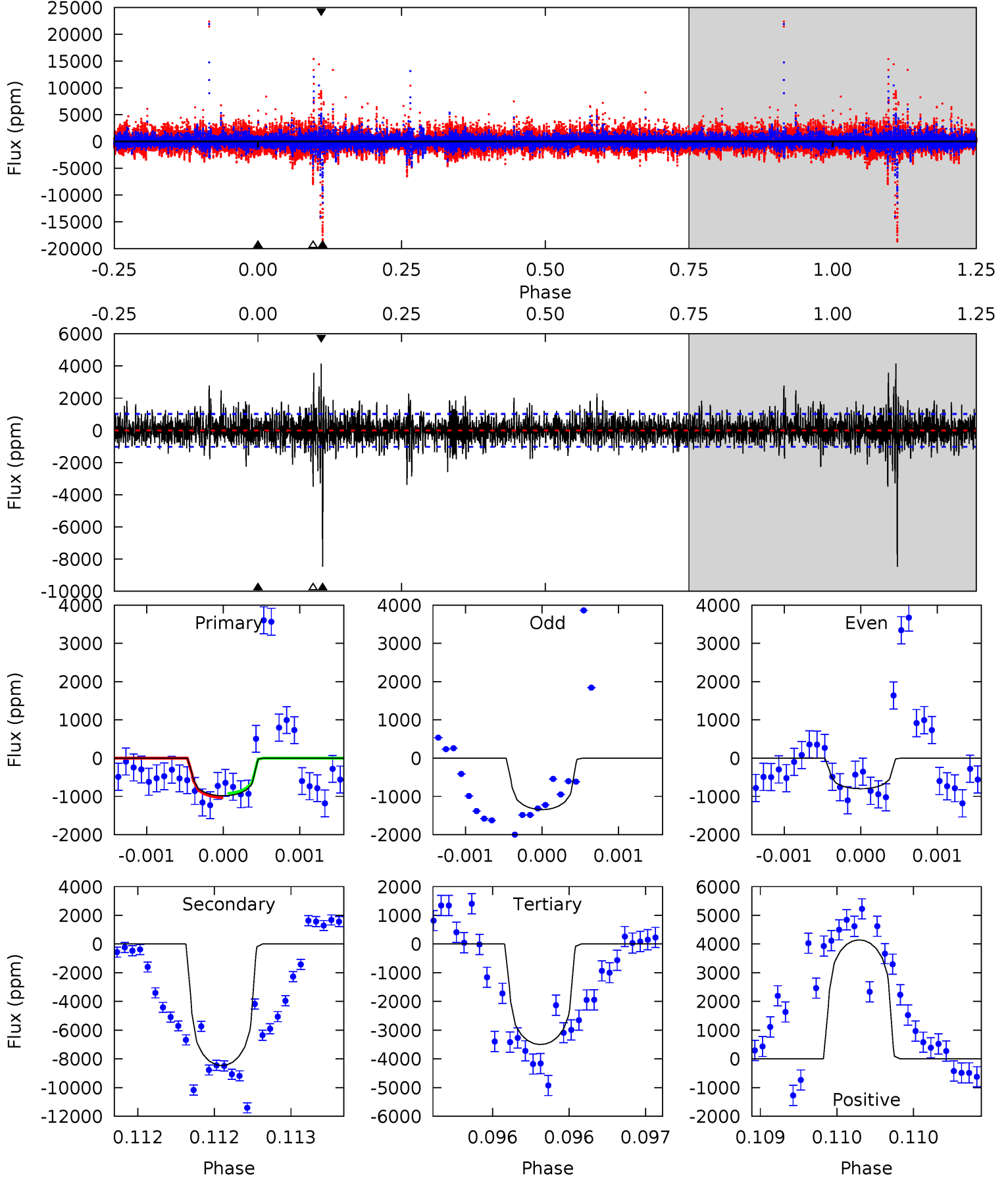
TCE 003340807-04 $P=516.955446$ Days $T_0=496.884196$ (BKJD)



DV Model-Shift Uniqueness Test

003340807-04, P = 516.949300 Days, E = 496.888053 Days

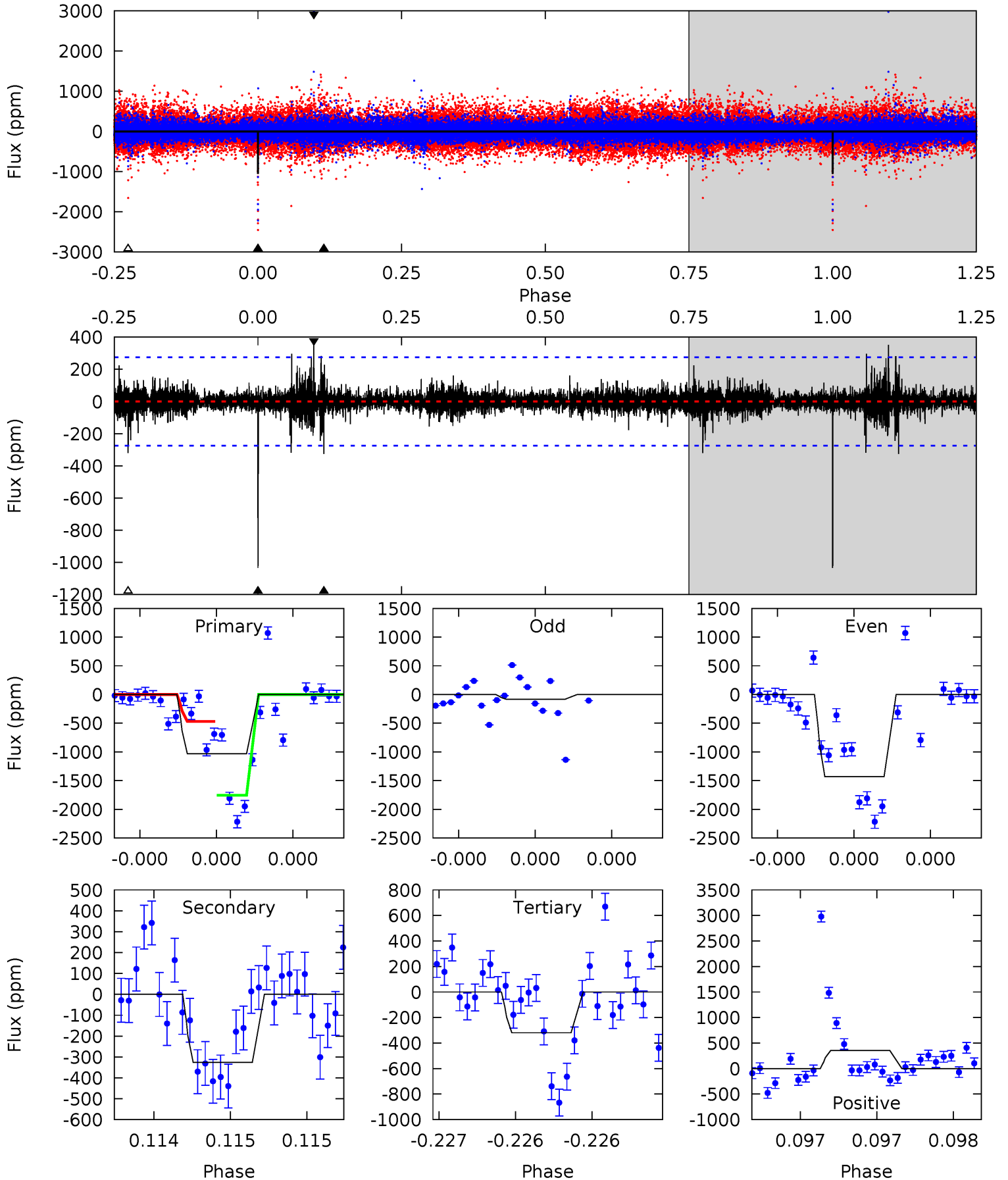
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.36	46.2	19.1	22.6	5.57	3.47	3.33	-13.7	-17.2	27.1	23.6	1.18	0.85	0.33	0.30



Alt Model-Shift Uniqueness Test

003340807-04, P = 516.955446 Days, E = 496.884196 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.1	6.64	6.52	7.17	5.60	3.52	0.81	14.5	13.9	0.12	-0.53	14.4	0.87	0.25	12.9



Stellar Parameters For KIC 003340807

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5485^{+164}_{-148}	$4.492^{+0.099}_{-0.121}$	$-0.380^{+0.350}_{-0.300}$	$0.822^{+0.146}_{-0.110}$	$0.765^{+0.114}_{-0.053}$	$1.941^{+0.836}_{-0.685}$
	+3%/-3%	+2%/-3%	+92%/-79%	+18%/-13%	+15%/-7%	+43%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003340807-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8464 ± 183	$3.23^{+2.14}_{-1.83}$	287^{+15}_{-13}	9528^{+10556}_{-2702}	$627710^{+2535678}_{-410838}$
Alt.	-326 ± 49	$3.43^{+2.26}_{-2.05}$	286^{+16}_{-14}	4051^{+1822}_{-611}	20286^{+97960}_{-13088}

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

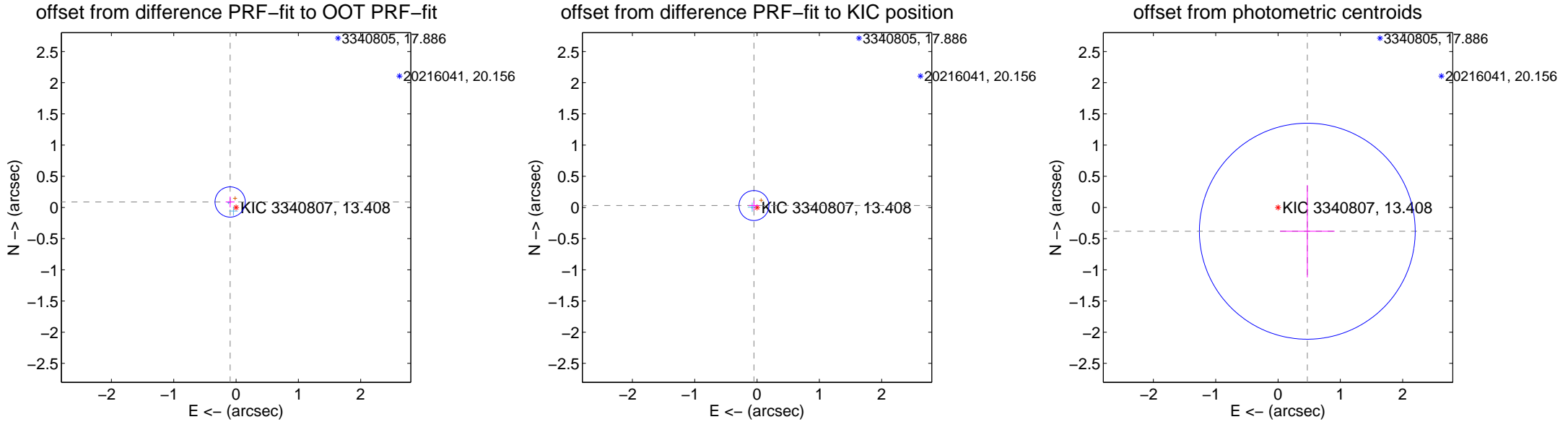
DV Centroid Data

Supplemental centroid analysis for 003340807-04. Kepler magnitude: 13.41. Transit SNR 4.64

There are 2 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.130 ± 0.081	1.60	0.095 ± 0.071	0.088 ± 0.087
PRF-fit source offset from KIC position	0.059 ± 0.080	0.73	0.050 ± 0.081	0.031 ± 0.078
photometric centroid source offset	0.60 ± 0.58	1.05	-0.47 ± 0.44	-0.38 ± 0.74

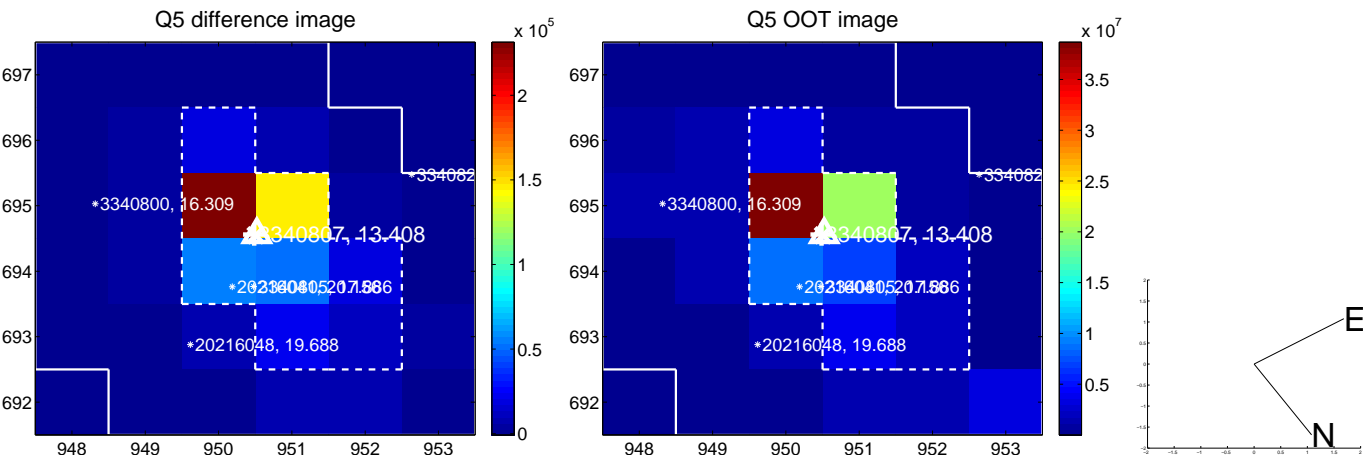


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

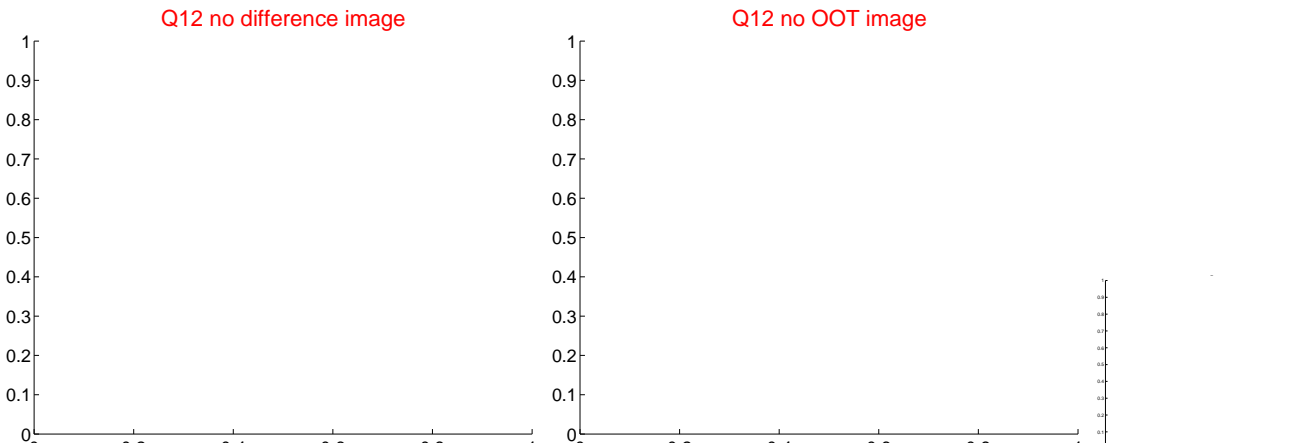
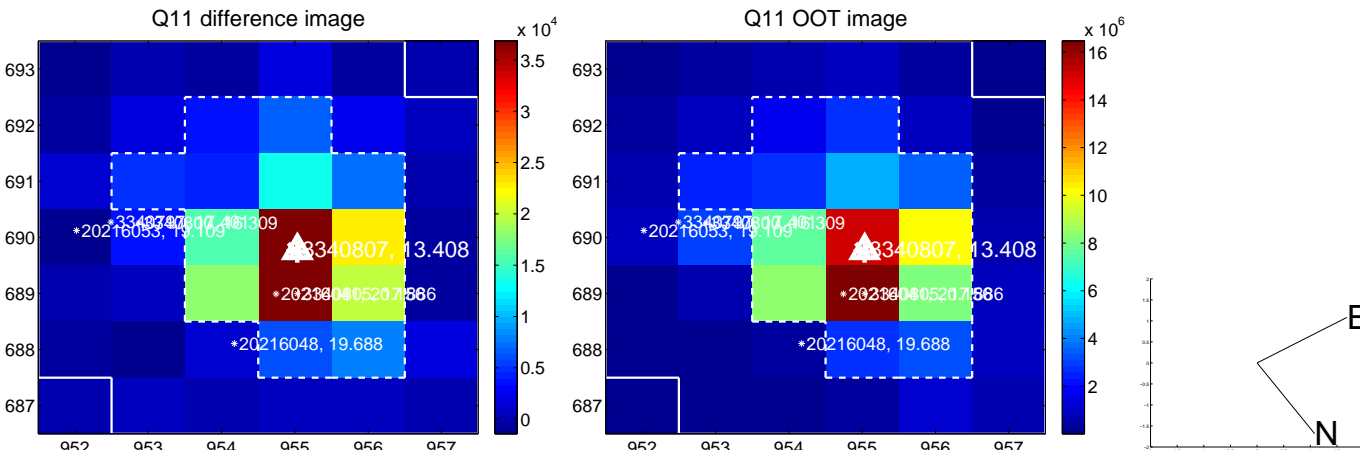
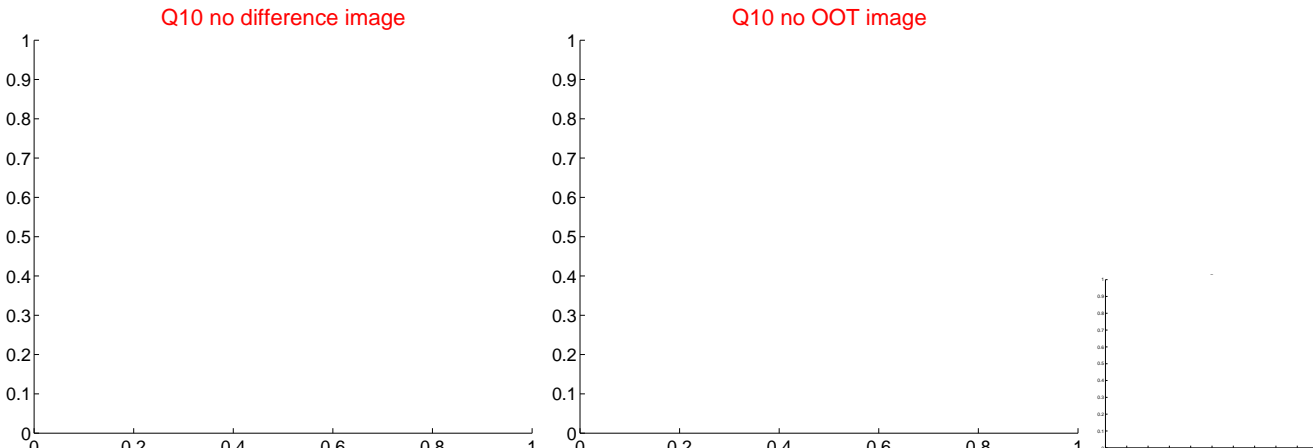
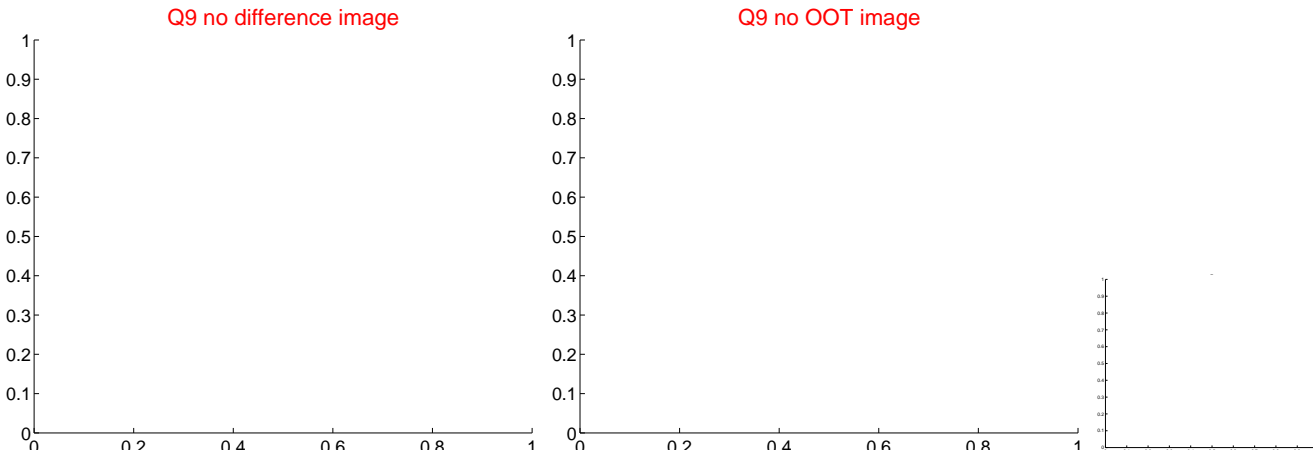
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



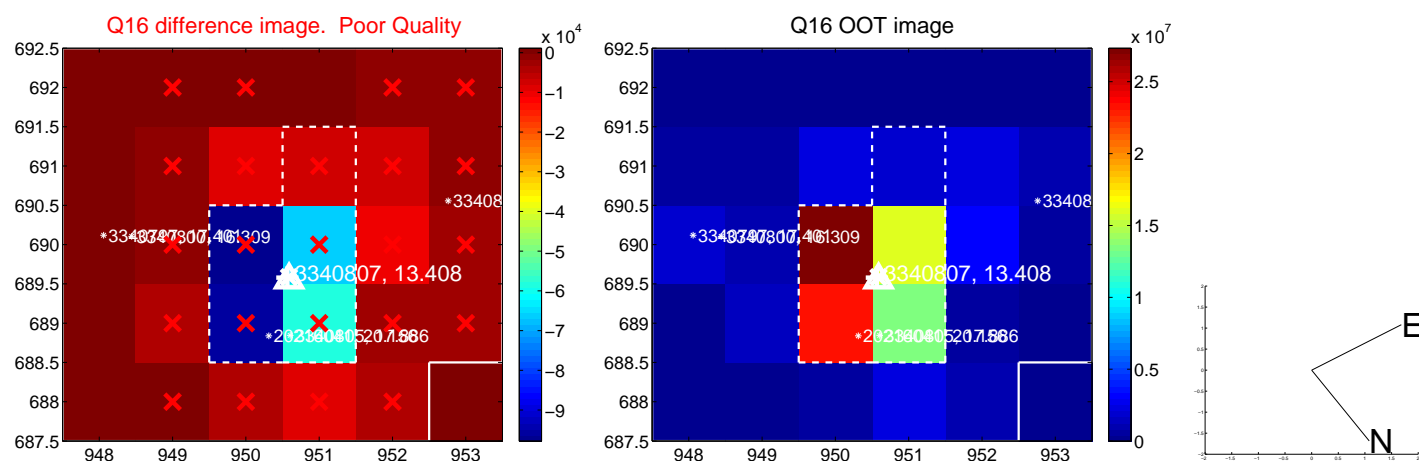
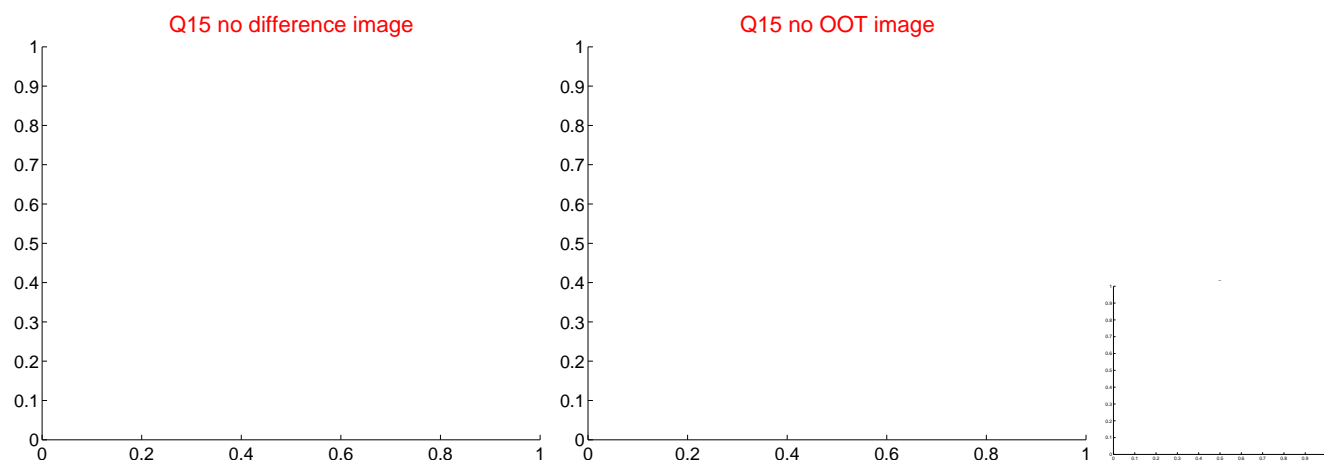
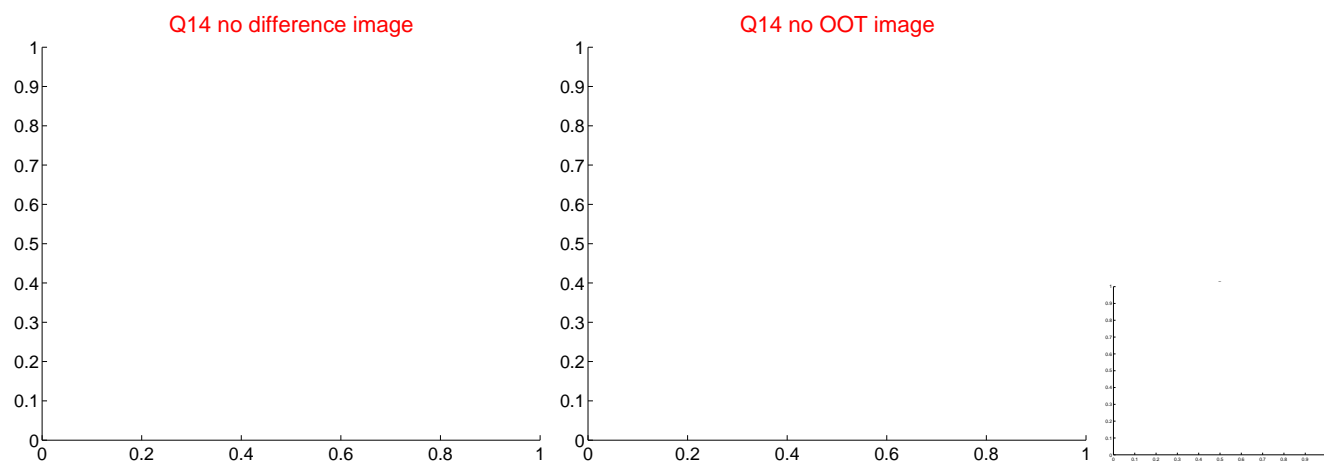
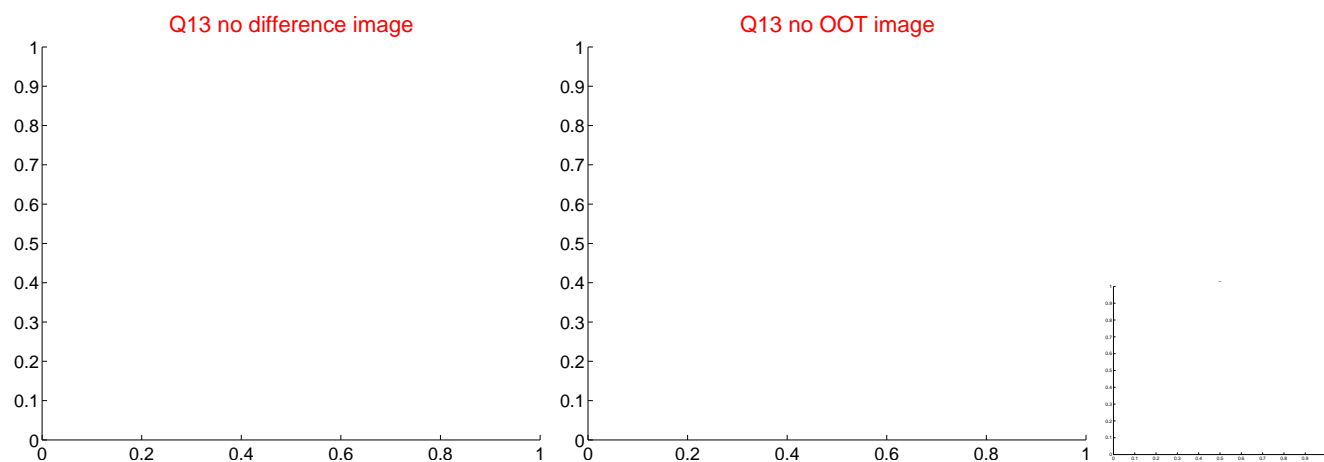
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



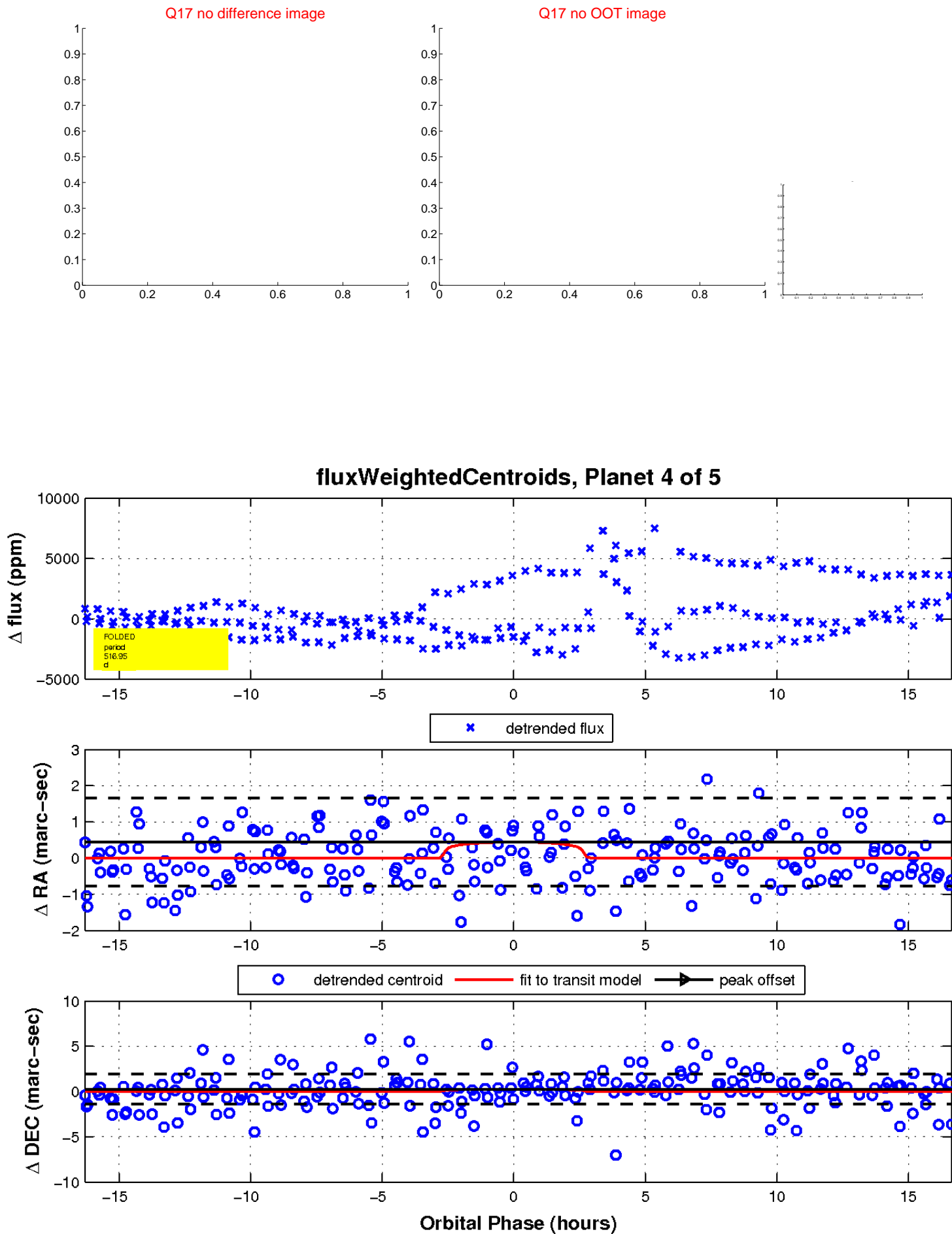
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



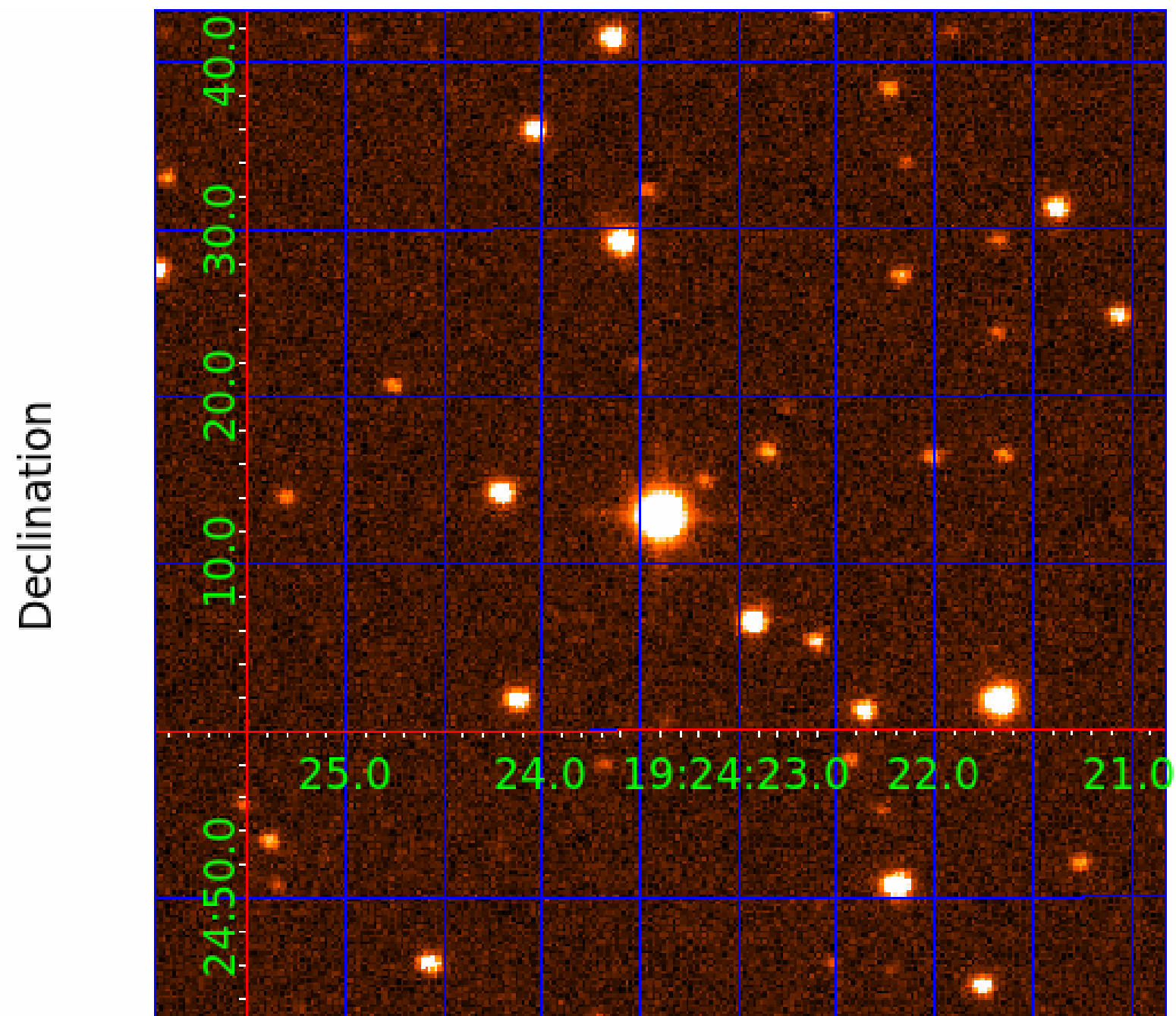
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image



KIC 003340807

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})
003340807-01	OBS	No	397.081016	357.875694	2097.6	13.304	16.4	6.3	0.82	5485	4.46	0.59
003340807-02	OBS	No	362.534036	154.949068	802.0	2.306	15.7	5.0	0.82	5485	2.75	0.66
003340807-03	OBS	No	514.563670	499.596219	1142.6	1.993	20.6	6.2	0.82	5485	2.87	0.41
003340807-04	OBS	No	516.949300	496.888053	1221.0	5.554	16.0	4.6	0.82	5485	2.90	0.41
003340807-05	OBS	No	516.696621	416.082373	652.4	3.500	15.5	-1.0	0.82	5485	2.08	0.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003340807-01	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_DIFFS
003340807-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
003340807-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

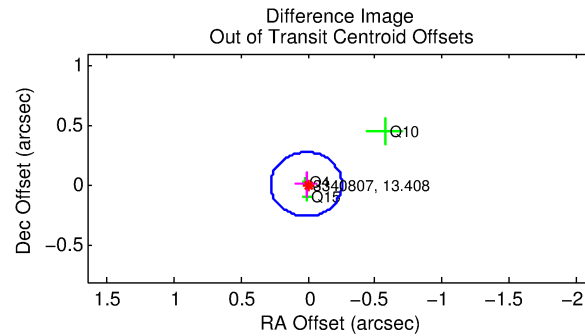
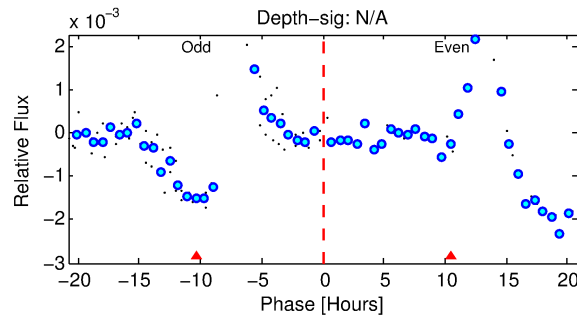
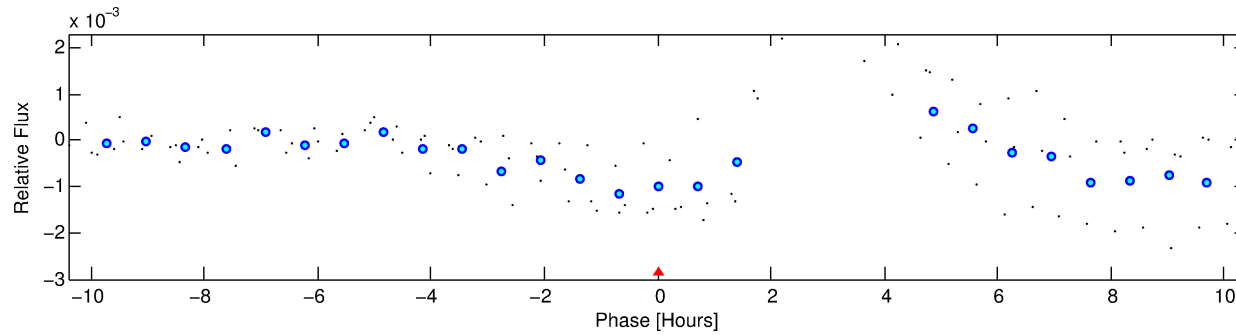
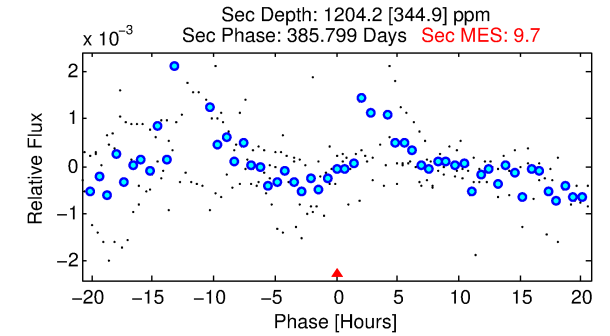
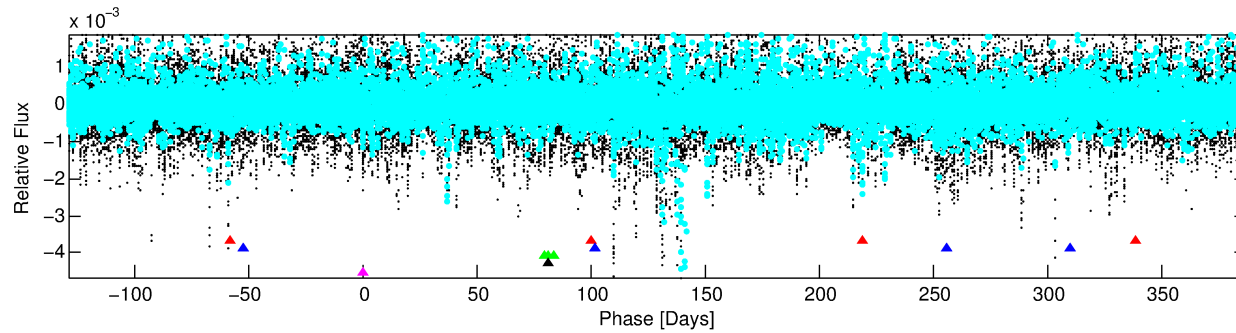
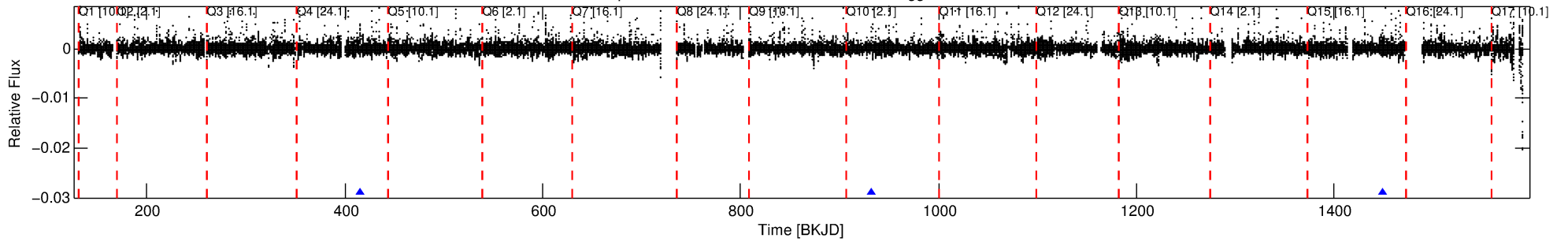
Ephemeris Match Information For 003340807-05

No Significant Match Found

DV One-Page Summary

KIC: 3340807 Candidate: 5 of 5 Period: 516.697 d

Kp: 13.41 R*: 0.82 Rs Teff: 5485.0 K Logg: 4.49 Fe/H: -0.380



TPS TCE Results:

Period = 516.69662 d
Epoch = 416.0824 BKJD

DV fit results are unavailable

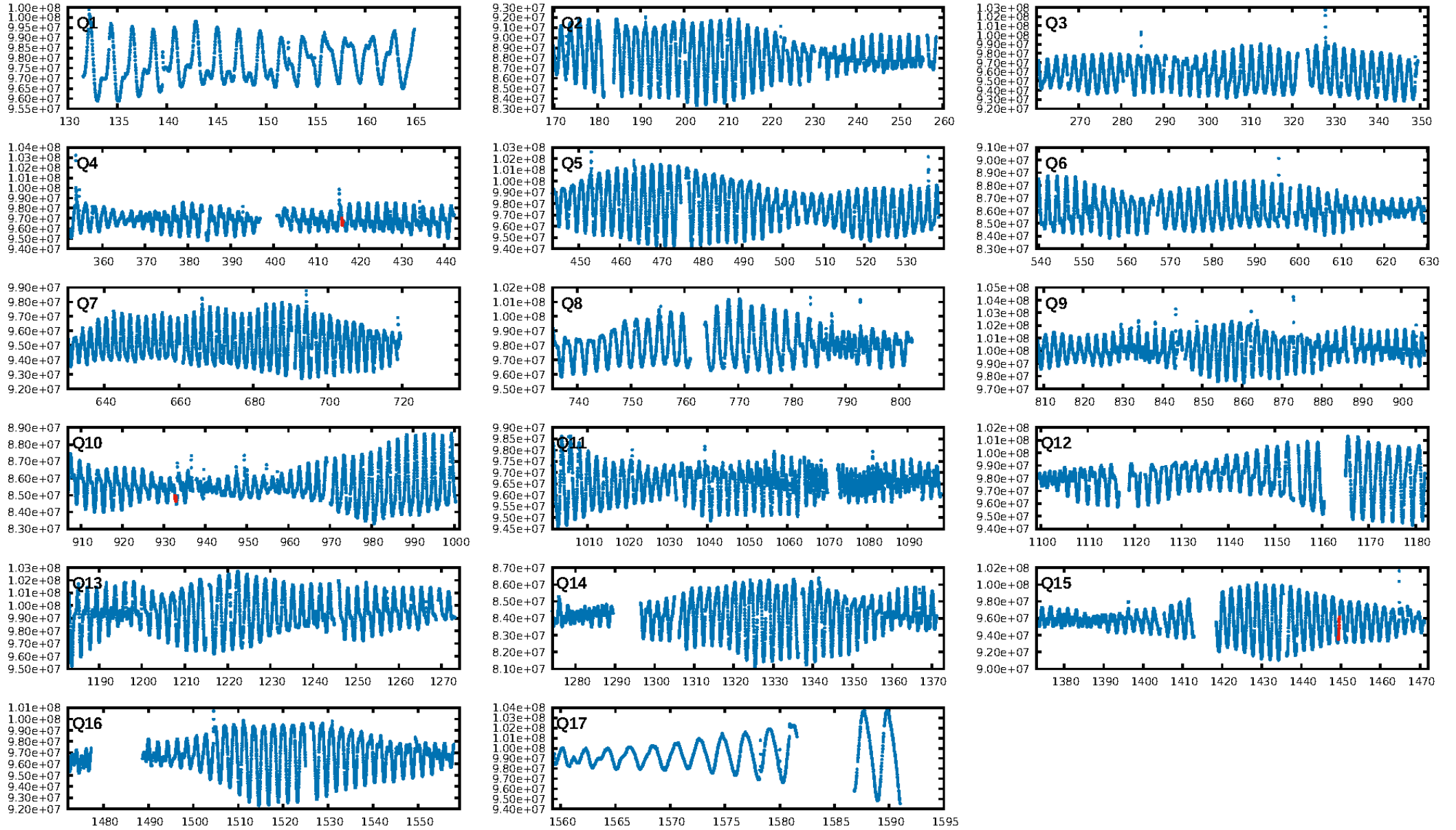
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [12.71 σ]
LongPeriod-sig: 64.4% [0.92 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.334
Centroid-sig: 35.2%
Centroid-so: 0.103 arcsec [0.27 σ]
OotOffset-rm: 0.018 arcsec [0.21 σ]
KicOffset-rm: 0.075 arcsec [0.26 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

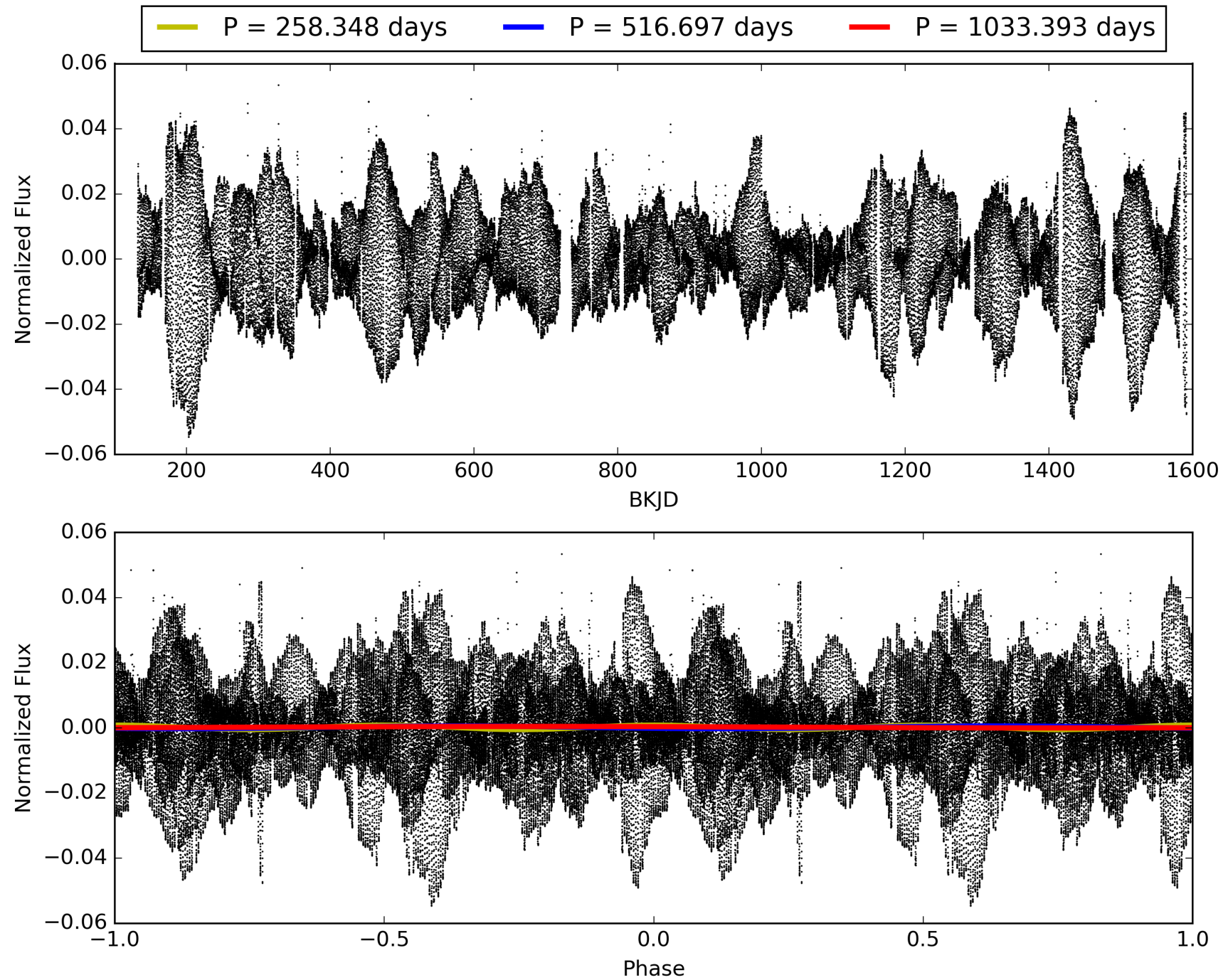
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:47:52 Z

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

TCE 003340807-05, PDC Light Curves

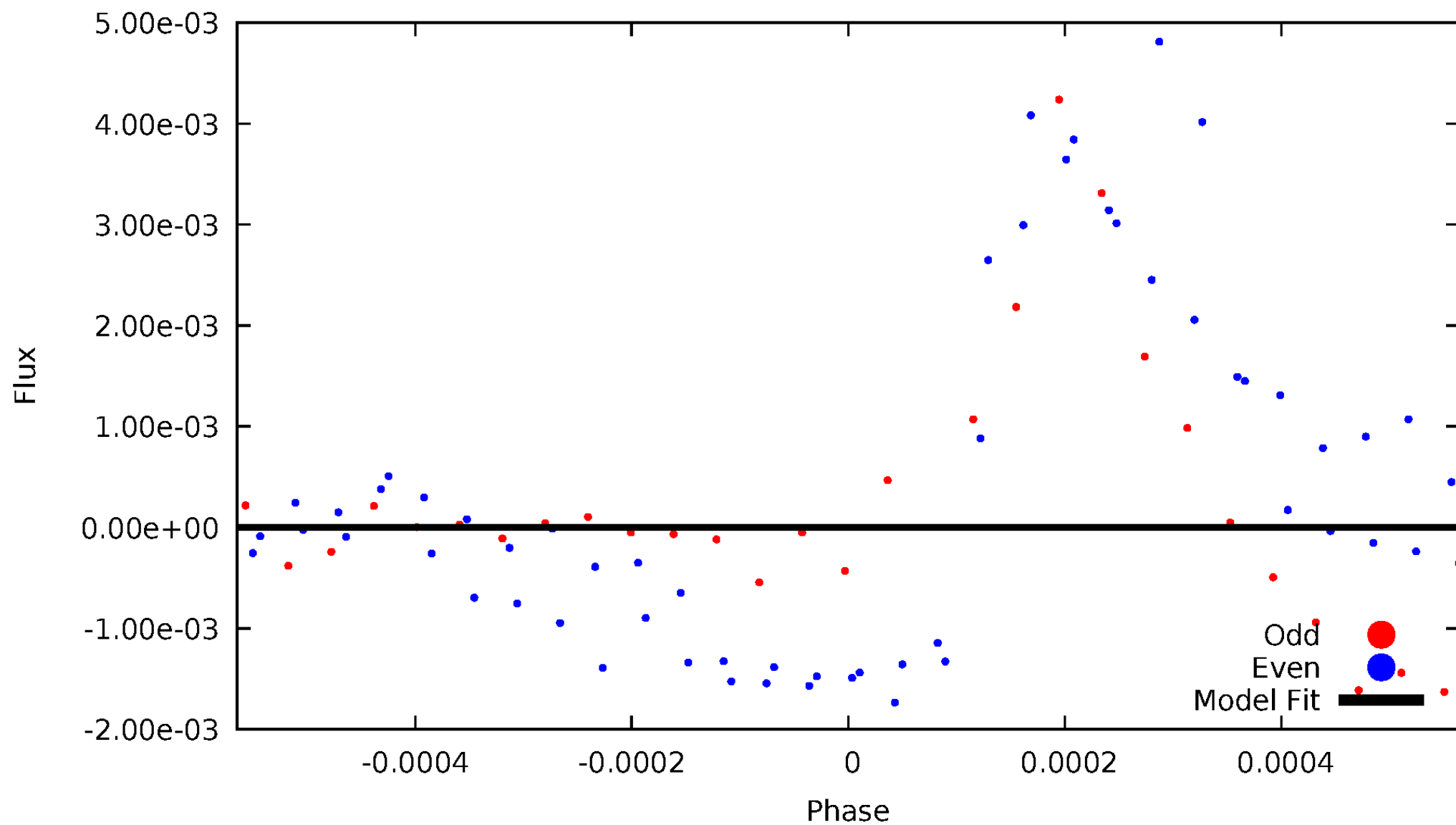


TCE 003340807-05



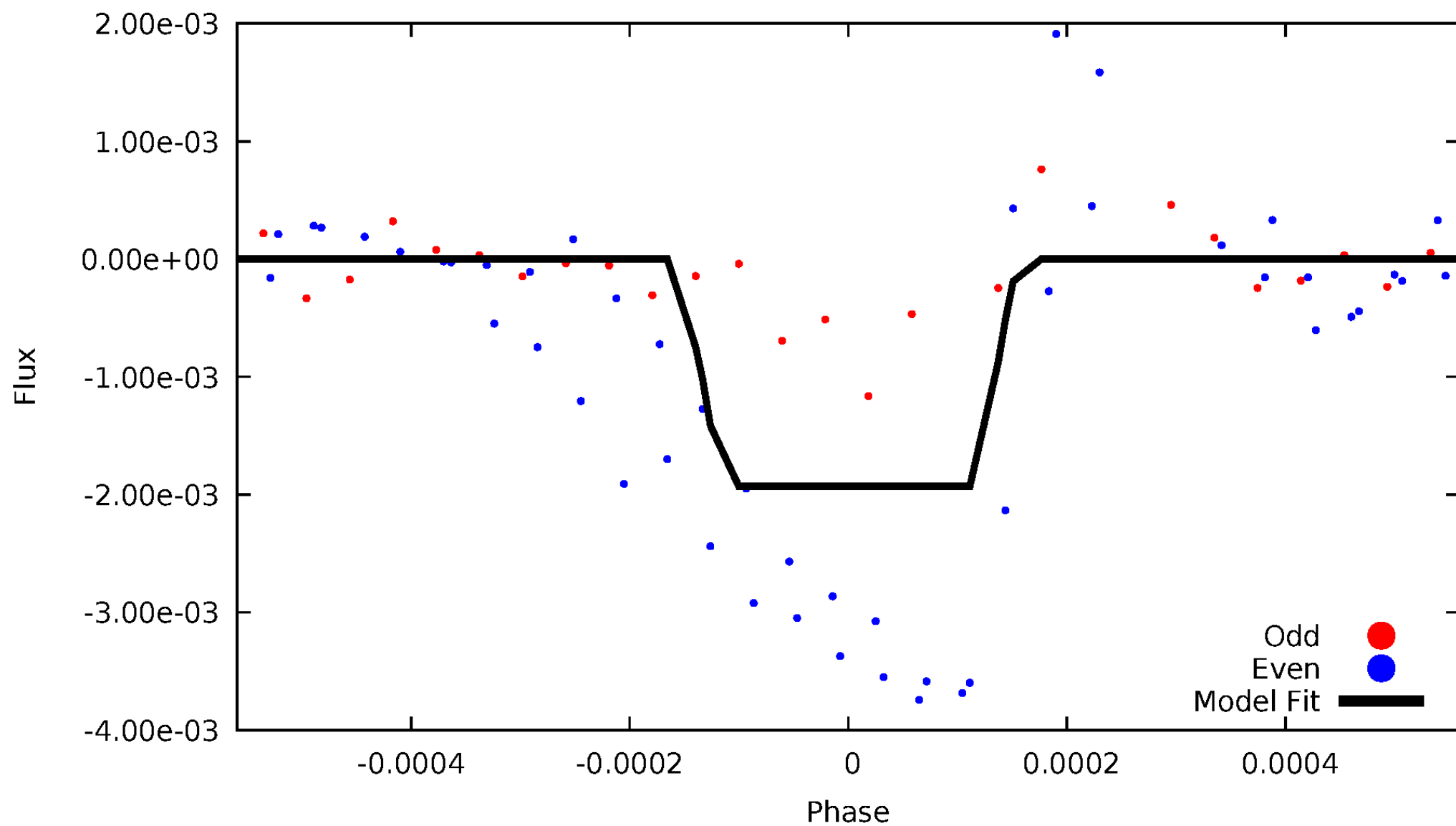
DV Odd/Even

TCE 003340807-05

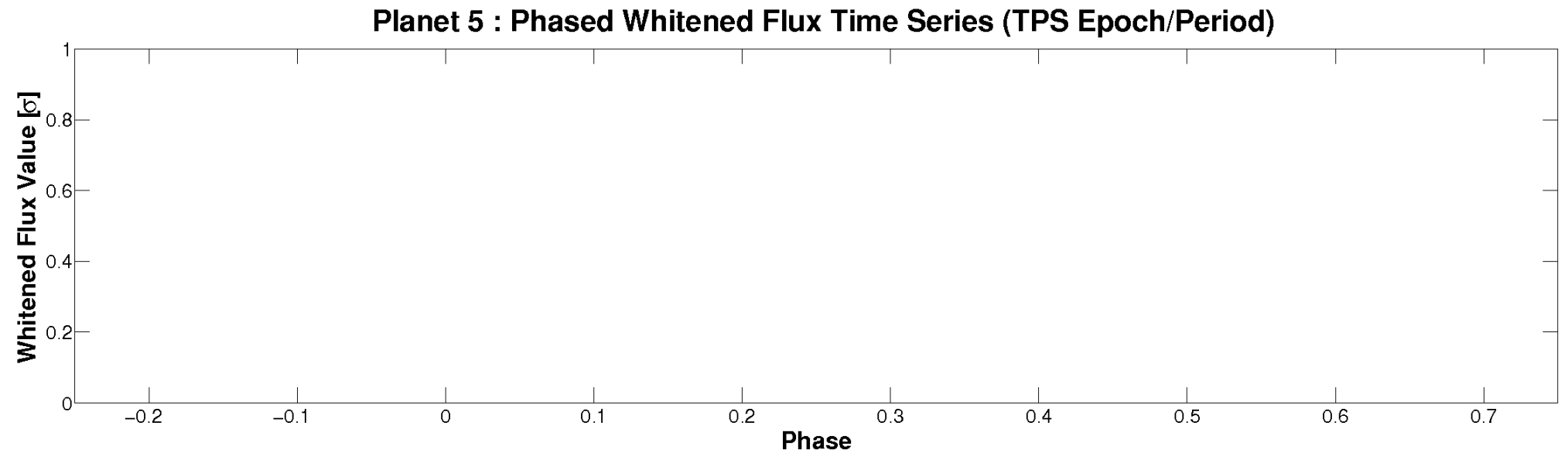
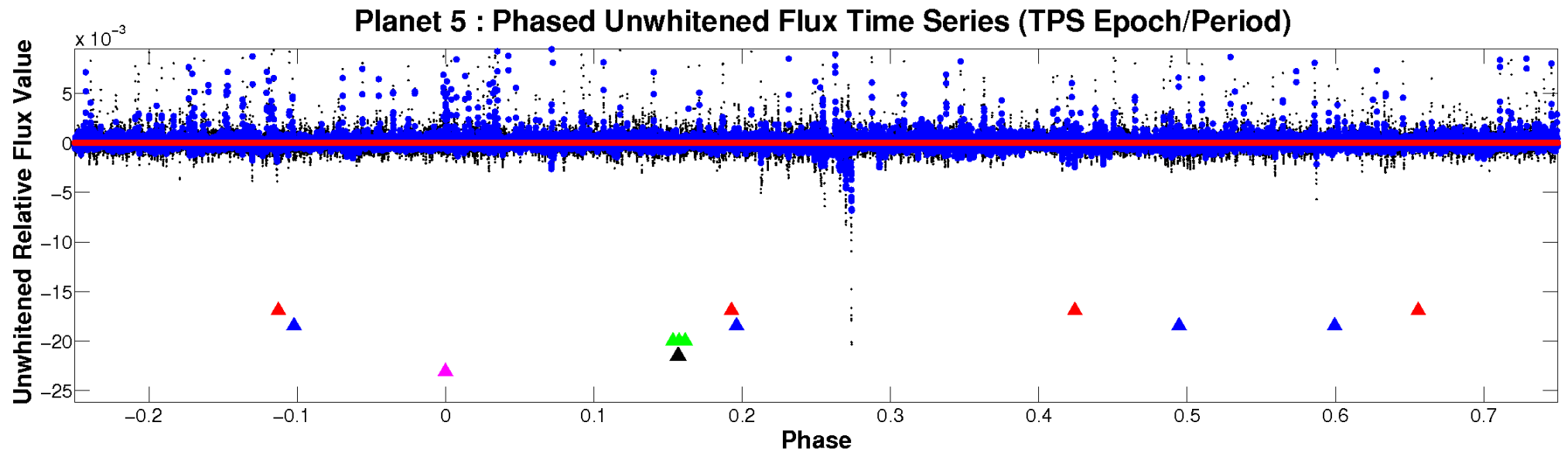


ALT Odd/Even

TCE 003340807-05

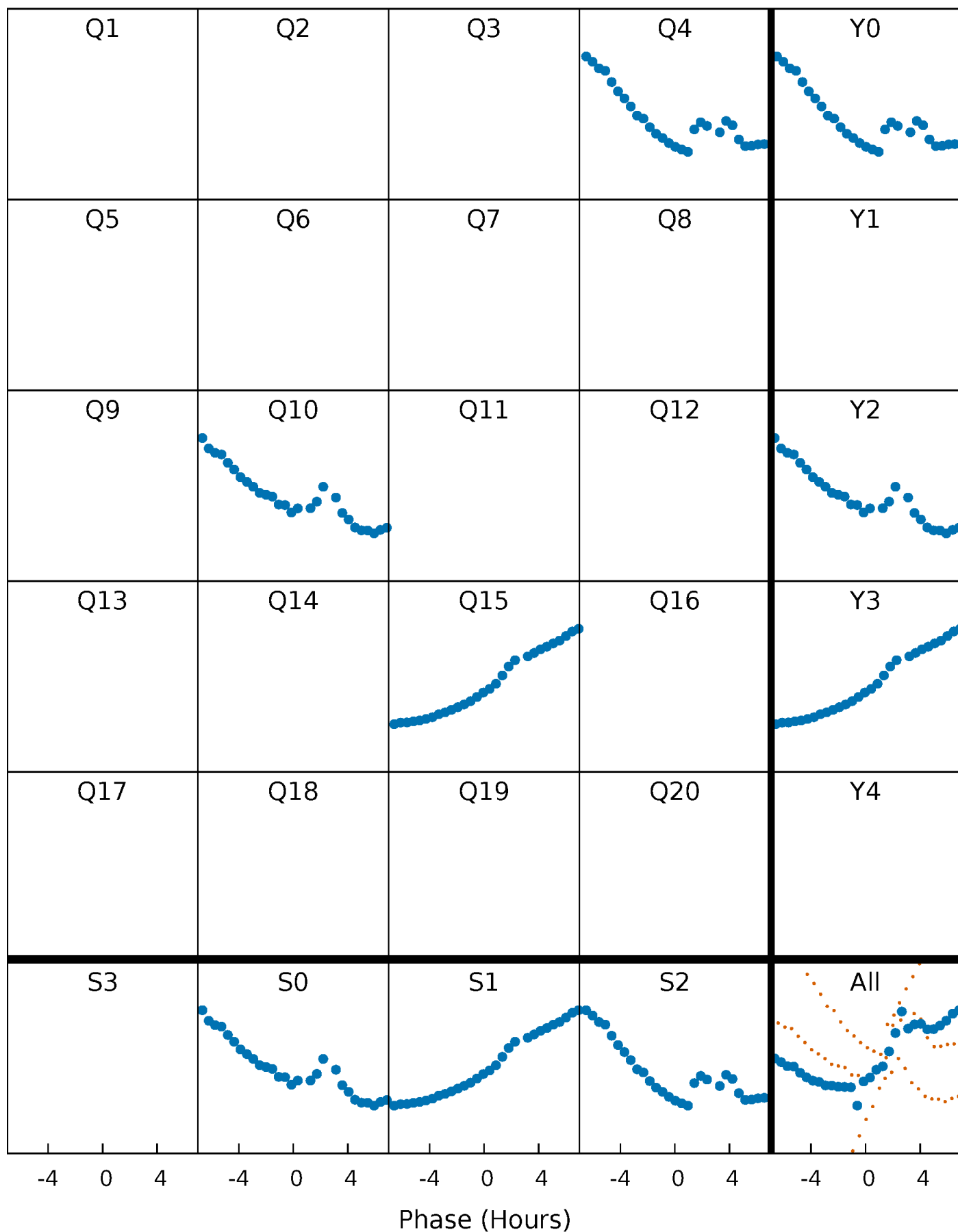


Non-Whitened Vs. Whitened Light Curve



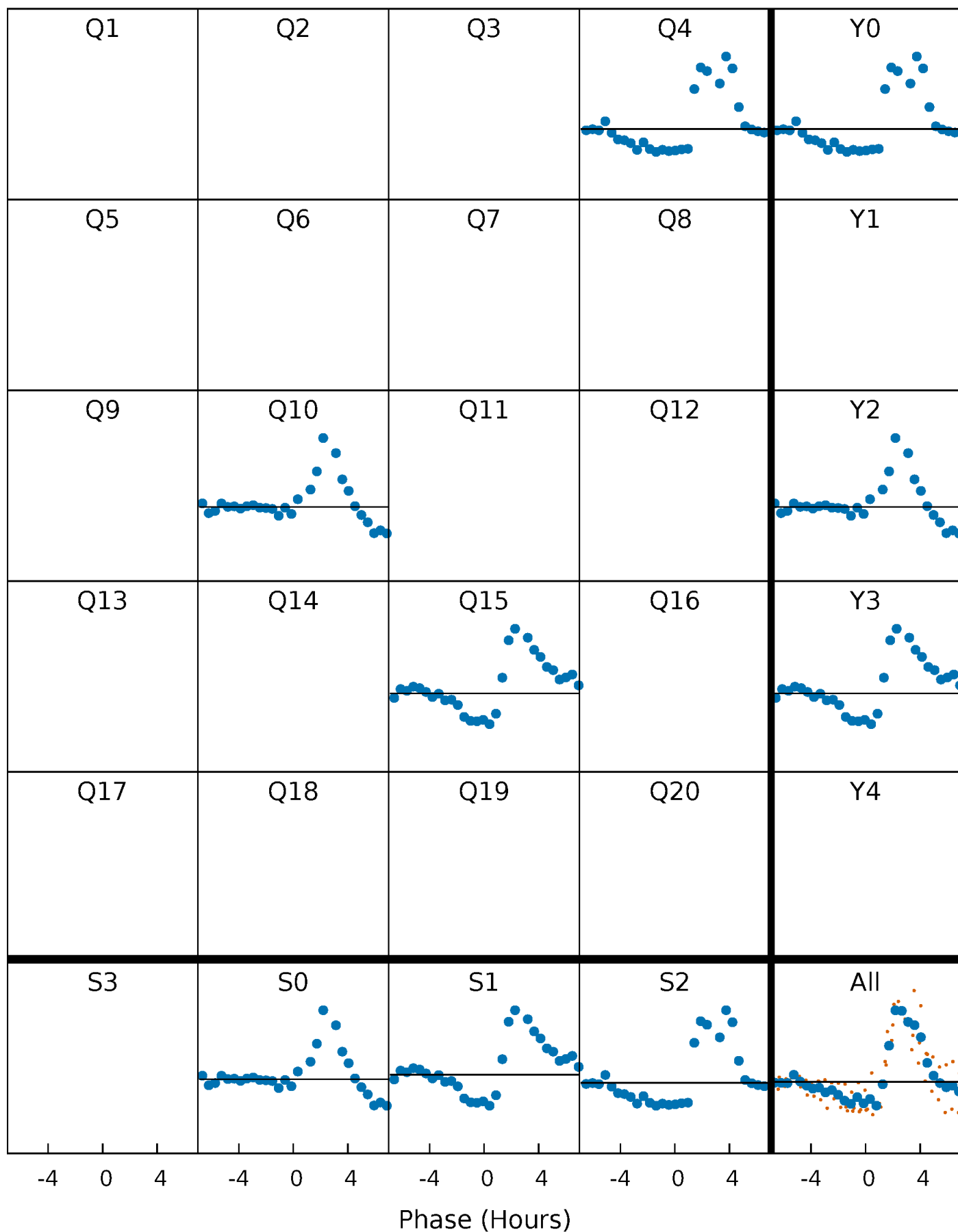
PDC Quarter-Phased Transit Curves

TCE 003340807-05 $P=516.696620$ Days $T_0=416.082373$ (BKJD)



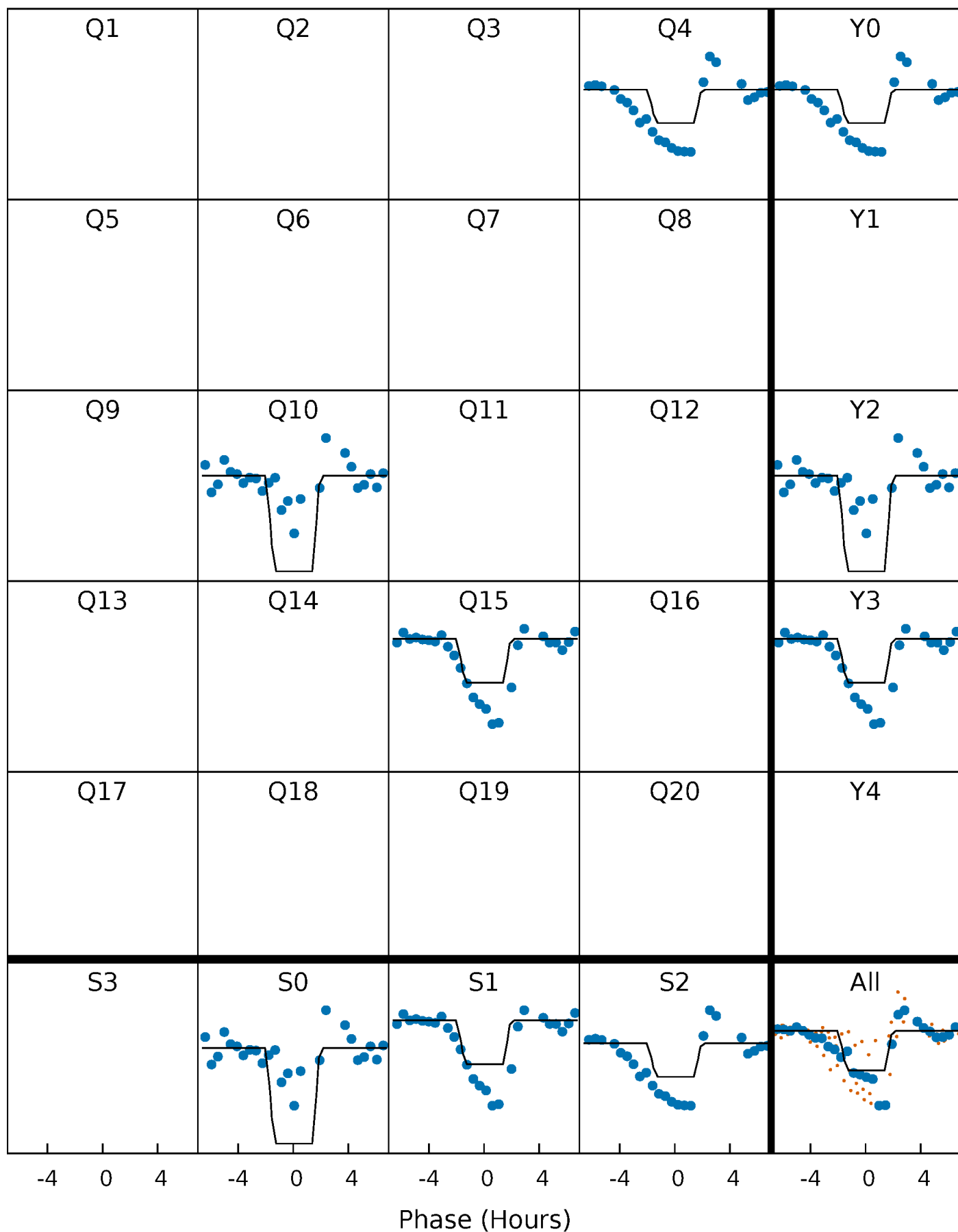
DV Quarter-Phased Transit Curves

TCE 003340807-05 $P=516.696620$ Days $T_0=416.082373$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

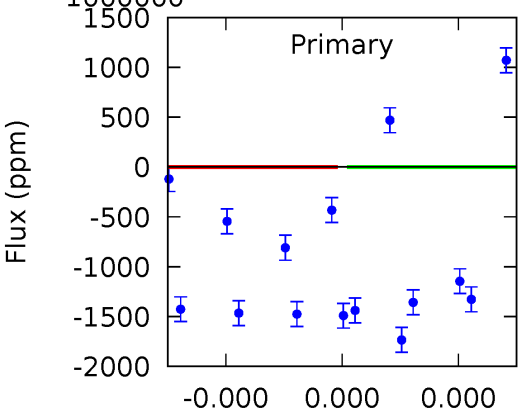
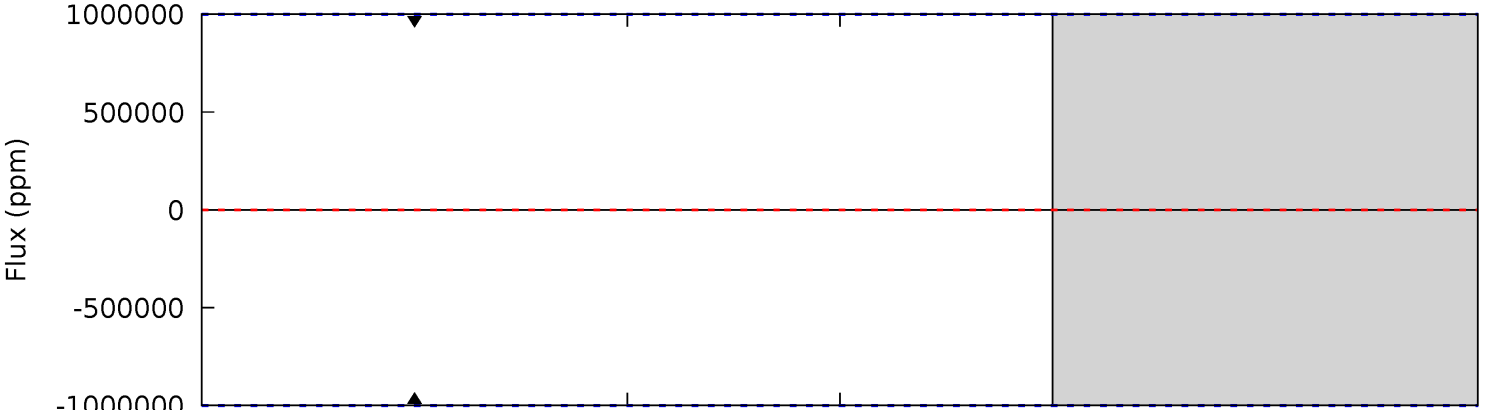
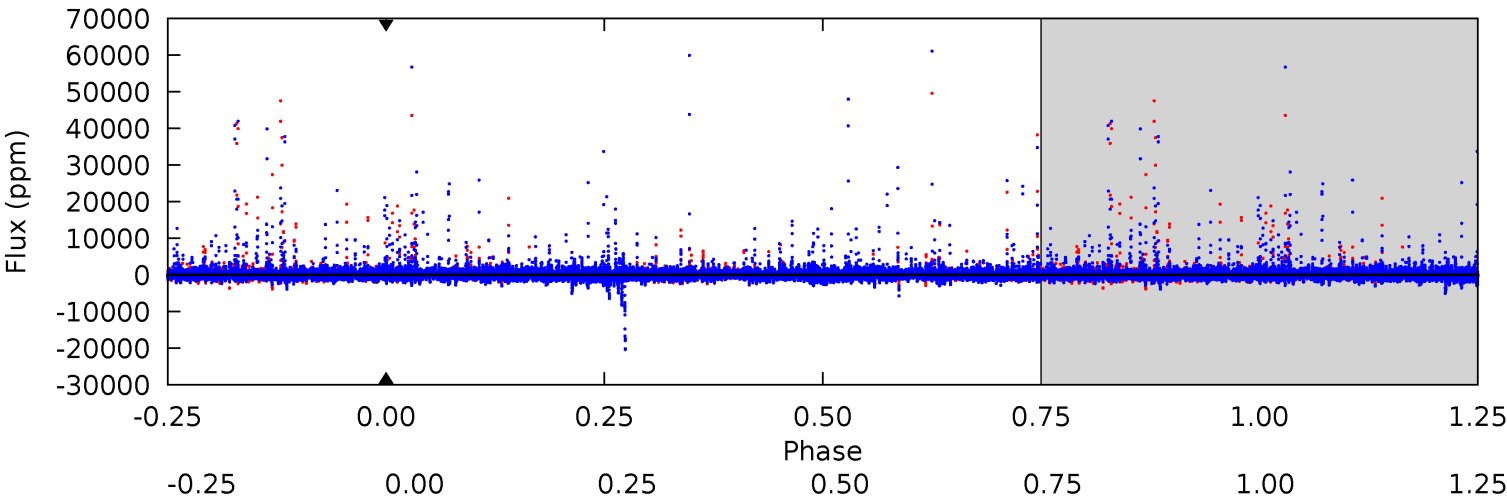
TCE 003340807-05 $P=516.696620$ Days $T_0=416.071190$ (BKJD)



DV Model-Shift Uniqueness Test

003340807-05, P = 516.696620 Days, E = 416.082373 Days

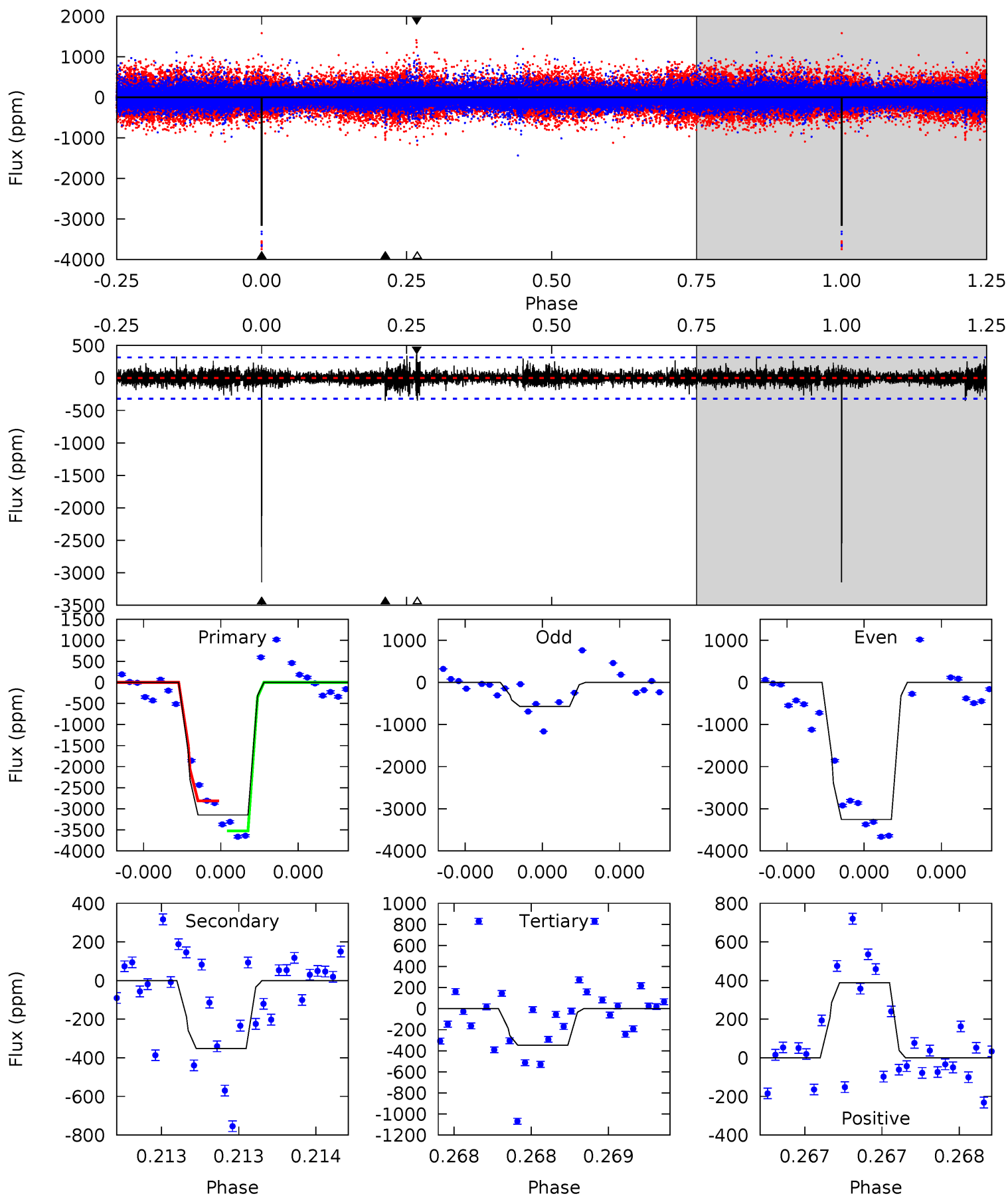
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

003340807-05, P = 516.696620 Days, E = 416.071190 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.9	6.25	6.18	6.91	5.65	3.60	0.94	49.7	49.0	0.07	-0.66	23.0	0.77	0.11	6.39



Stellar Parameters For KIC 003340807

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5485^{+164}_{-148}	$4.492^{+0.099}_{-0.121}$	$-0.380^{+0.350}_{-0.300}$	$0.822^{+0.146}_{-0.110}$	$0.765^{+0.114}_{-0.053}$	$1.941^{+0.836}_{-0.685}$
	+3%/-3%	+2%/-3%	+92%/-79%	+18%/-13%	+15%/-7%	+43%/-35%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 003340807-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$7.39^{+7.15}_{-5.22}$	287^{+15}_{-13}	-3849^{+22186}_{-11341}	$-15900.658^{+2825175.140}_{-1945501.334}$
Alt.	-352 ± 56	$7.61^{+7.30}_{-4.95}$	286^{+16}_{-13}	3182^{+1447}_{-541}	4306^{+32857}_{-3127}

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 $A_{obs} \gg 1.0$

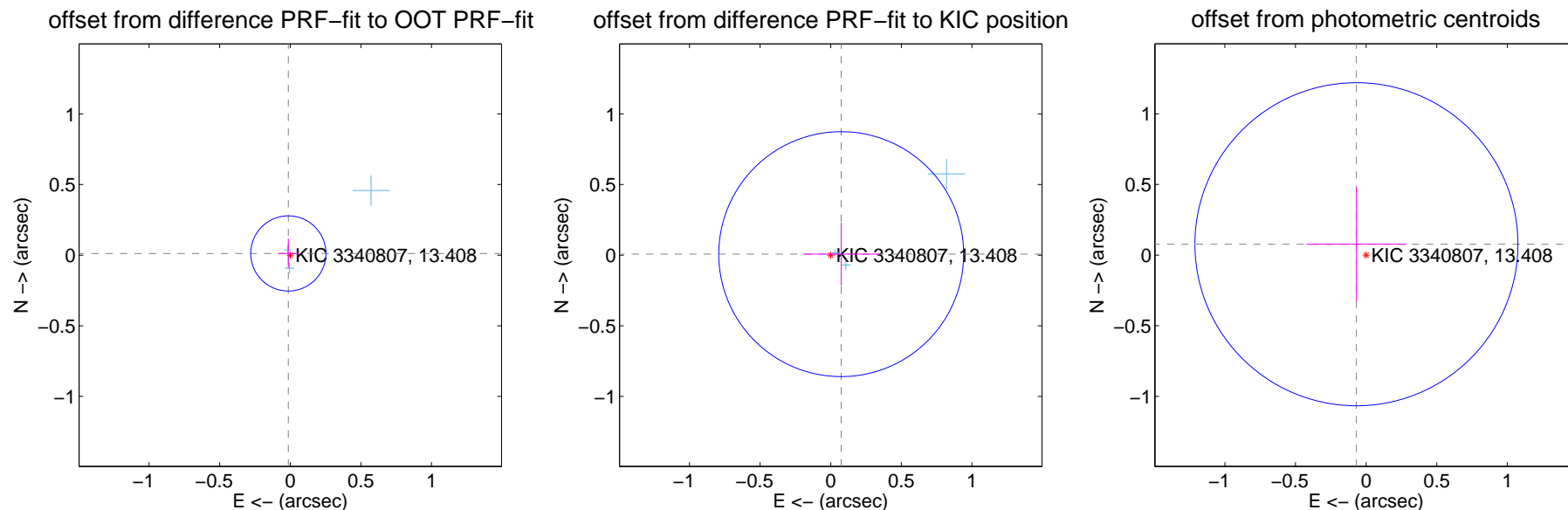
DV Centroid Data

Supplemental centroid analysis for 003340807-05. Kepler magnitude: 13.41. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

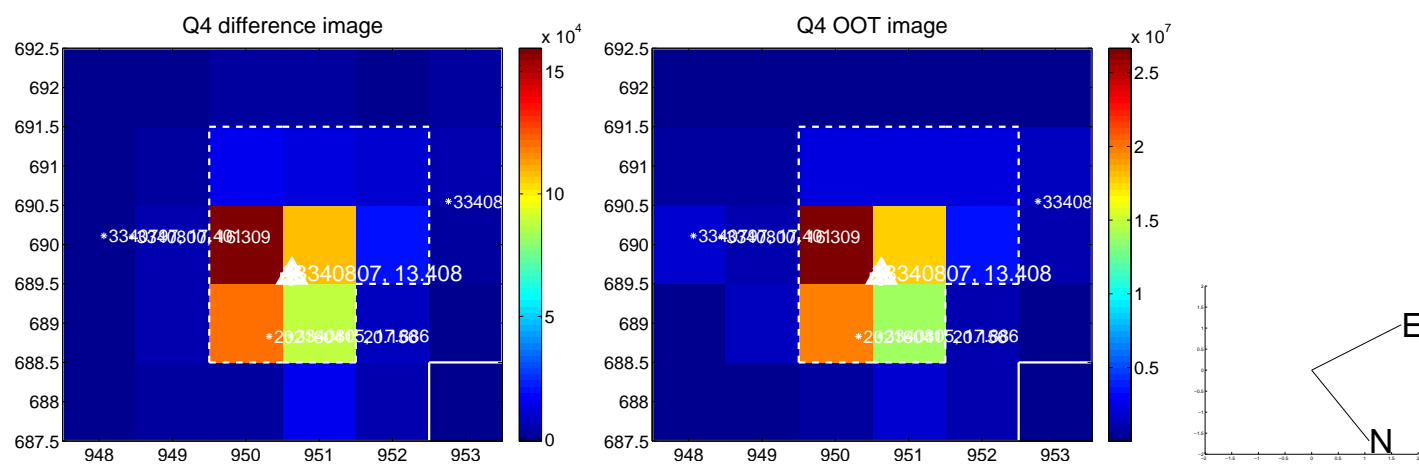
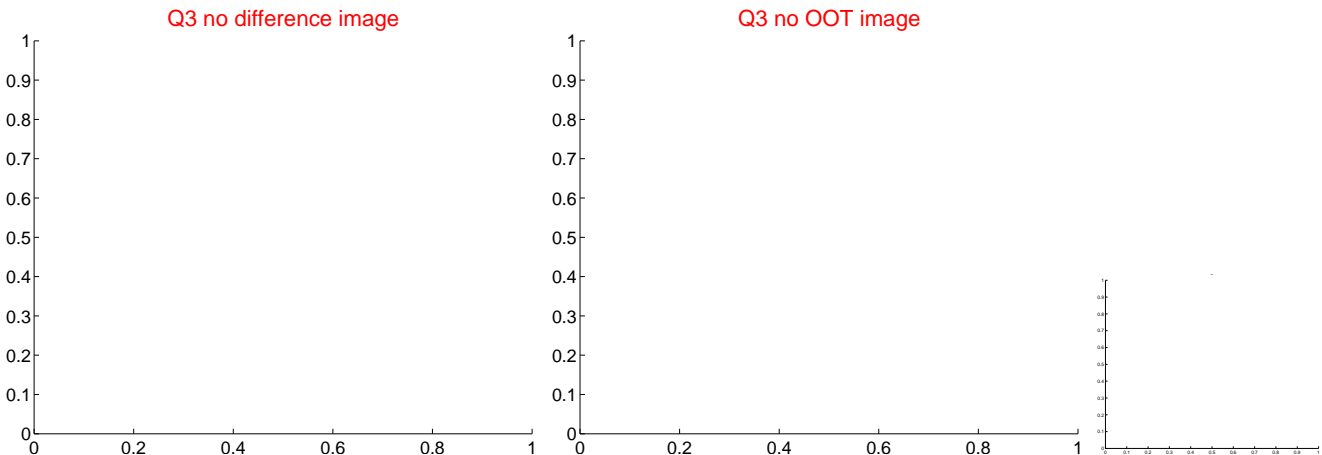
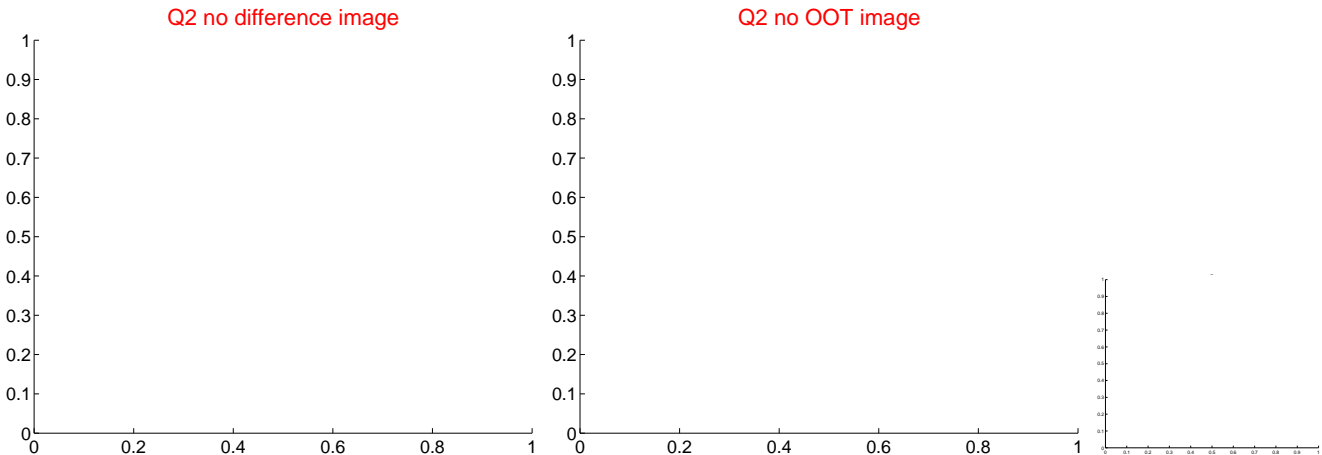
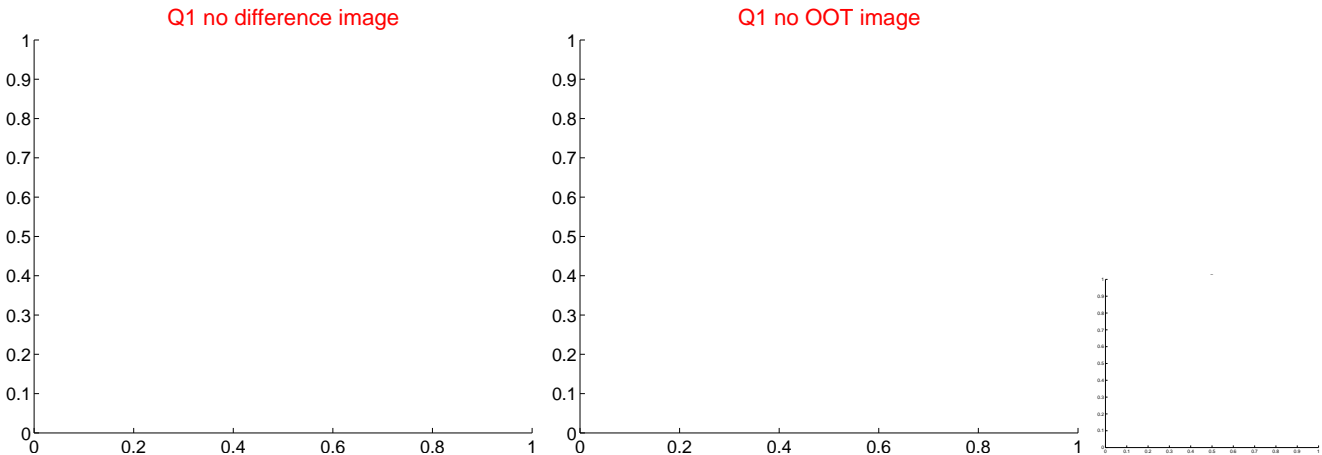
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.018 ± 0.089	0.21	0.014 ± 0.074	0.012 ± 0.105
PRF-fit source offset from KIC position	0.075 ± 0.289	0.26	-0.074 ± 0.270	0.007 ± 0.224
photometric centroid source offset	0.10 ± 0.38	0.27	0.07 ± 0.35	0.08 ± 0.40



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.

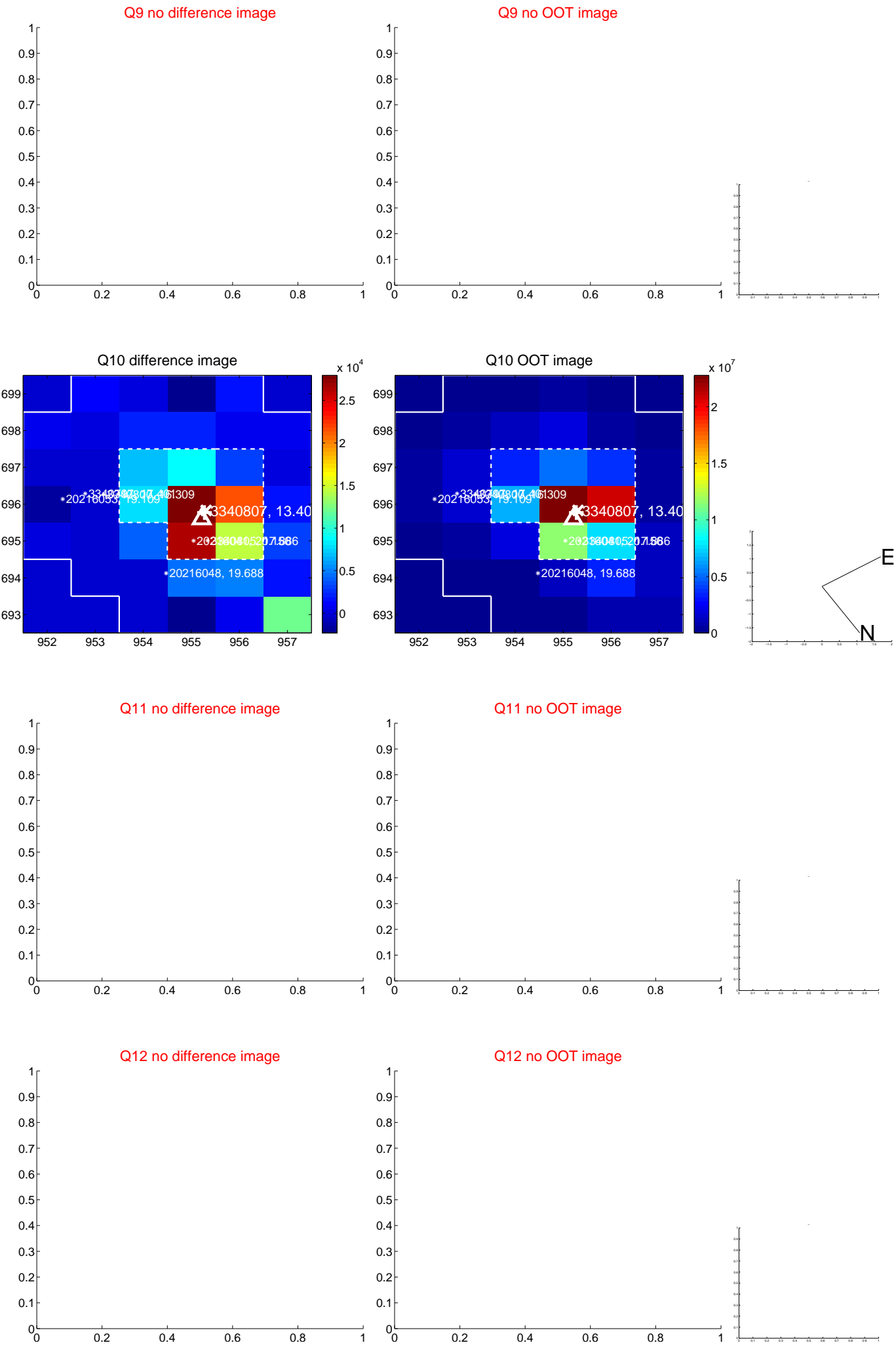
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



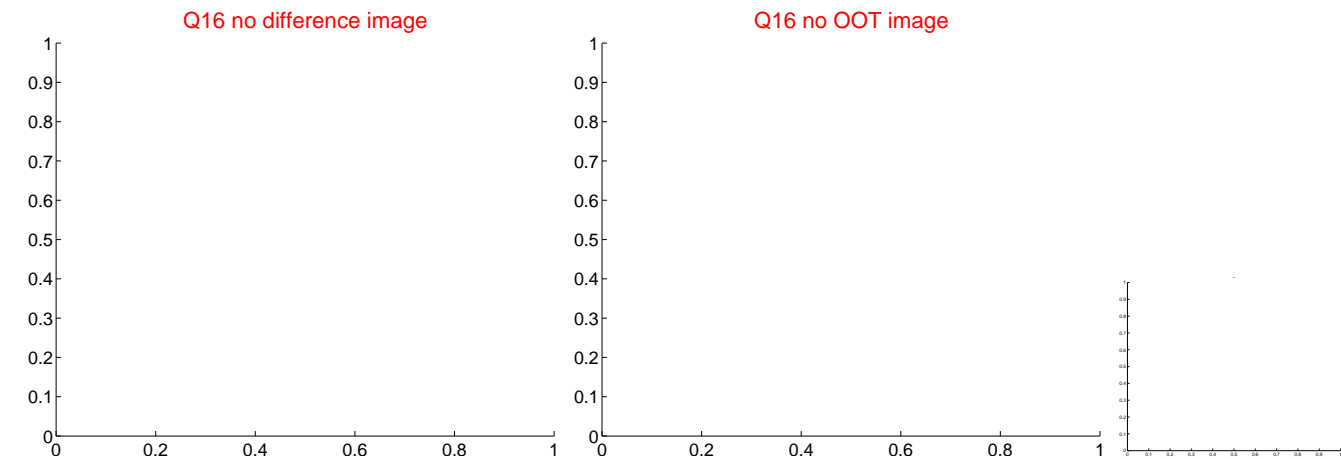
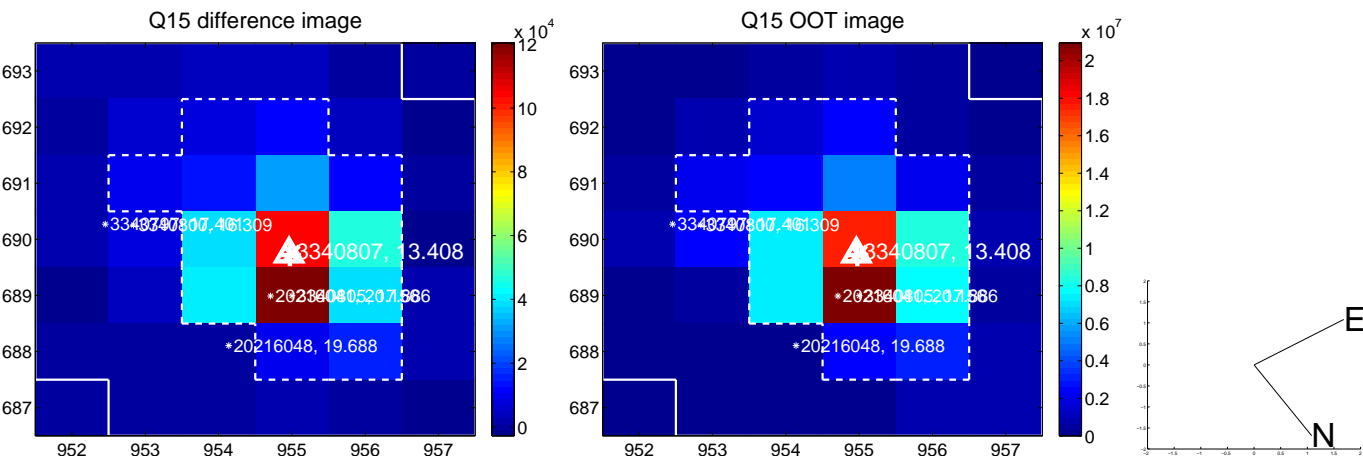
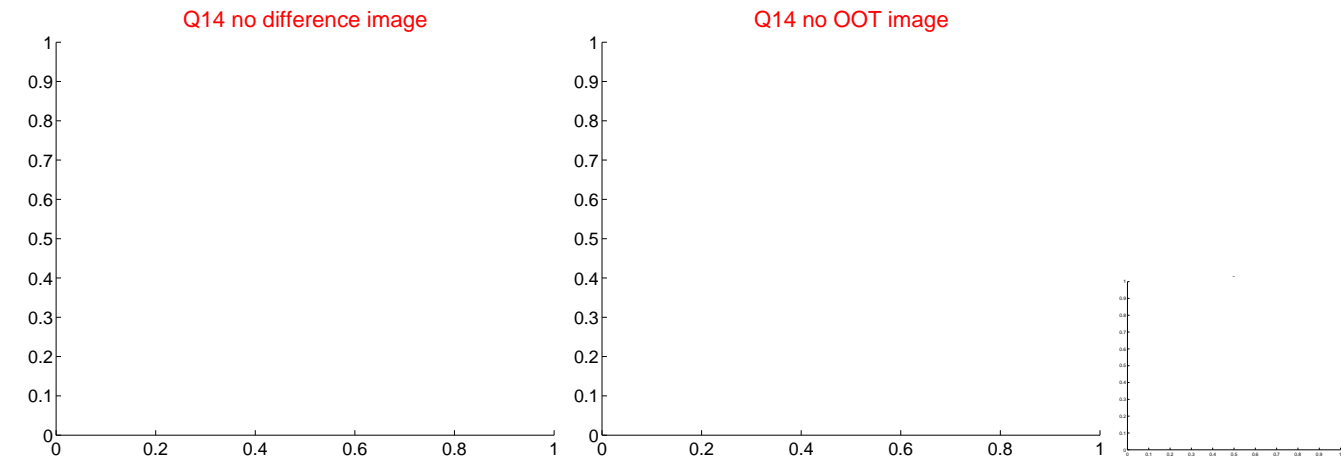
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



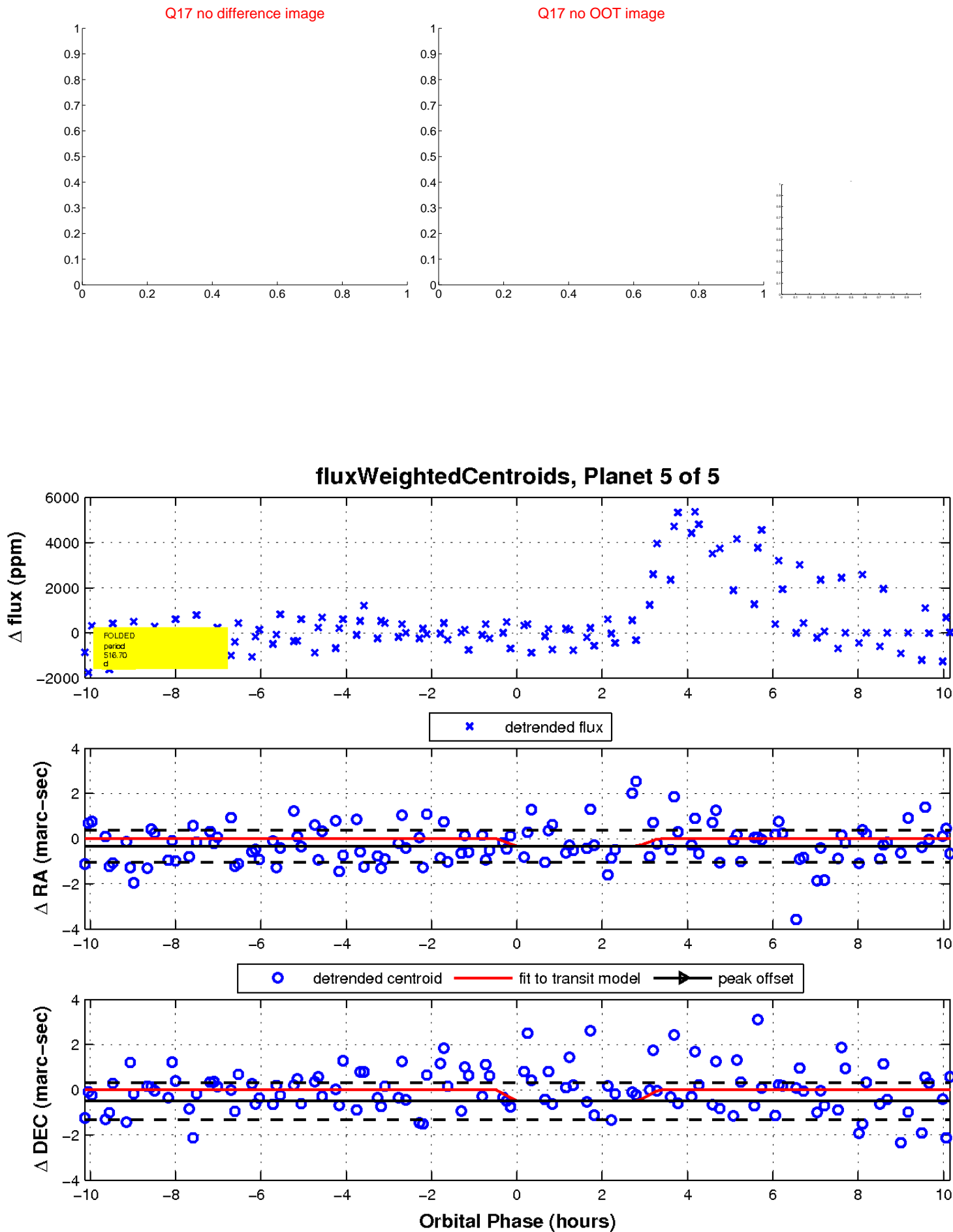
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

