

KIC 007134502

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})
007134502-01	OBS	No	2.317937	133.574430	28.7	10.317	11.6	13.1	1.43	6489	1.03	2653.60
007134502-02	OBS	No	274.137412	236.353722	266.7	13.522	20.7	10.0	1.43	6489	2.53	4.57
007134502-03	OBS	No	447.304251	563.261900	228.4	9.000	10.5	-1.0	1.43	6489	2.18	2.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007134502-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007134502-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007134502-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

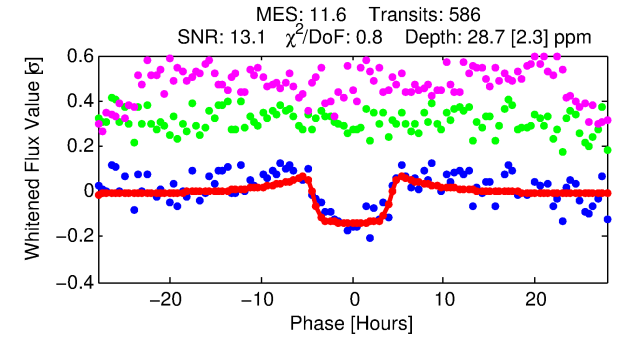
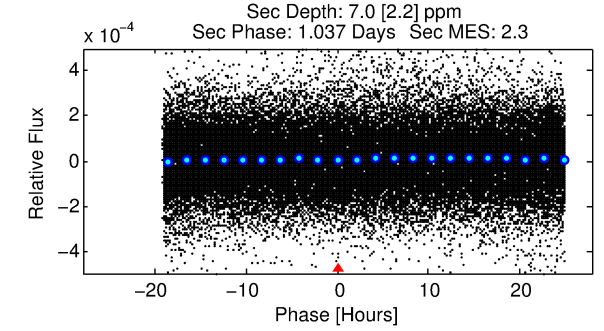
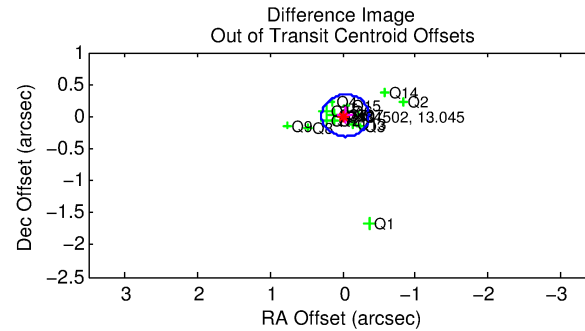
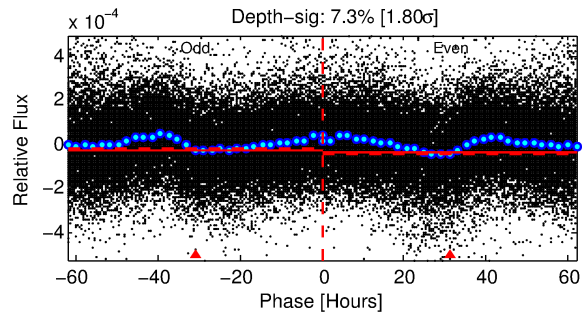
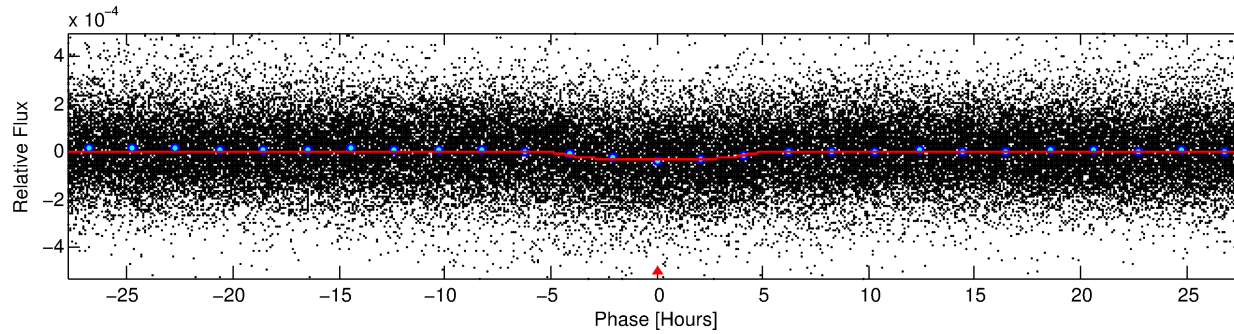
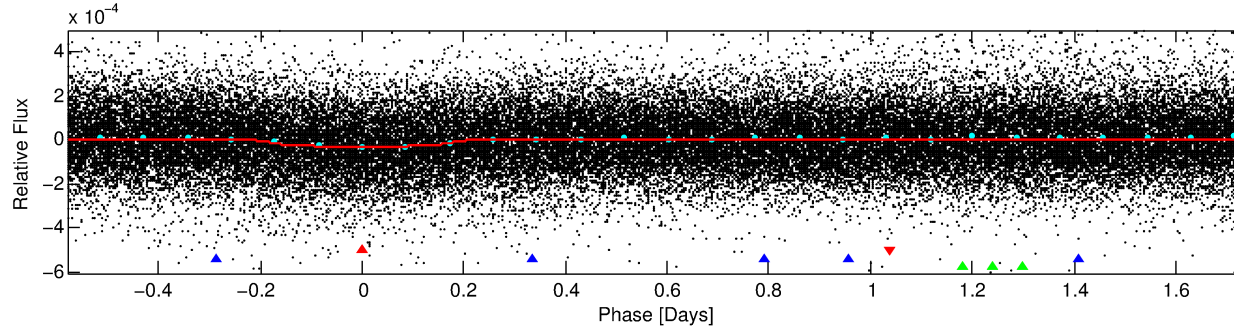
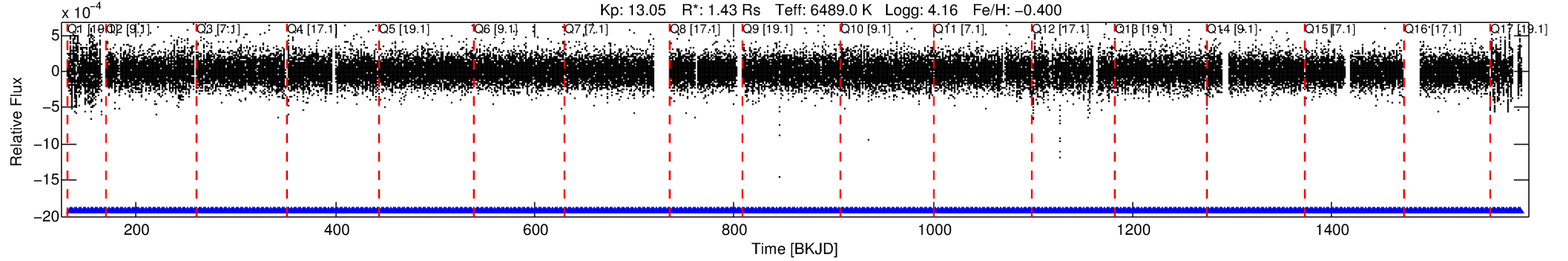
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007134502-01

No Significant Match Found

DV One-Page Summary

KIC: 7134502 Candidate: 1 of 3 Period: 2.318 d



DV Fit Results:

Period = 2.31794 [0.00003] d
Epoch = 133.5744 [0.0096] BKJD
Rp/R* = 0.0066 [0.0003]
a/R* = 1.06 [0.02]
b = 0.98 [0.01]
Seff = 2653.60 [927.14]
Teq = 1830 [160] K
Rp = 1.03 [0.23] Re
a = 0.0351 [0.0072] AU
Ag = 4.46 [2.08] [1.66 σ]
Teffp = 4112 [362] K [5.77 σ]

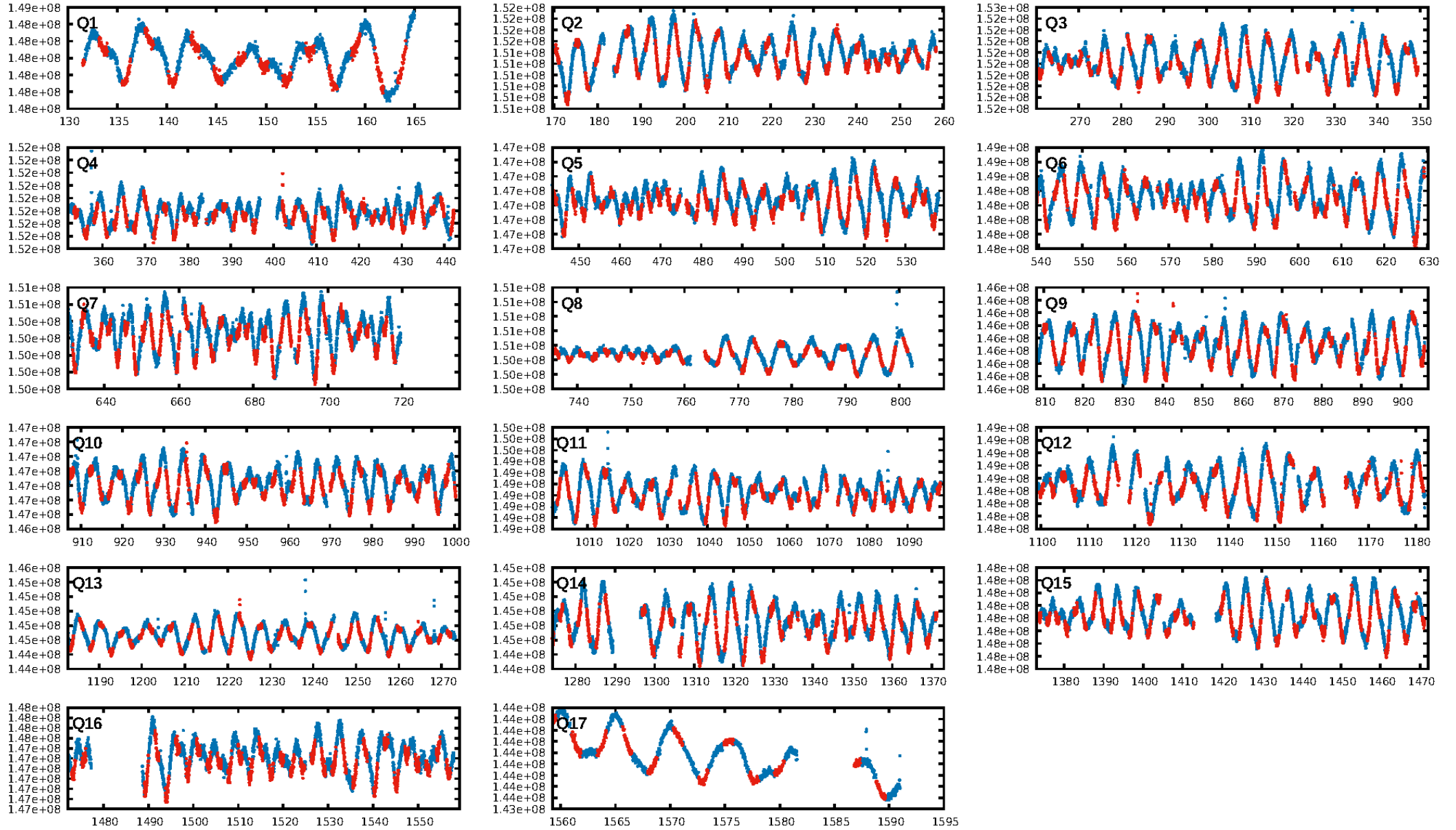
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [383.56 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.37e-21
RollingBand-fgt: 1.00 [560/560]
GhostDiagnostic-chr: 0.8472
Centroid-sig: 72.9%
Centroid-so: 0.329 arcsec [0.58 σ]
OotOffset-rm: 0.037 arcsec [0.34 σ]
KicOffset-rm: 0.106 arcsec [0.84 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

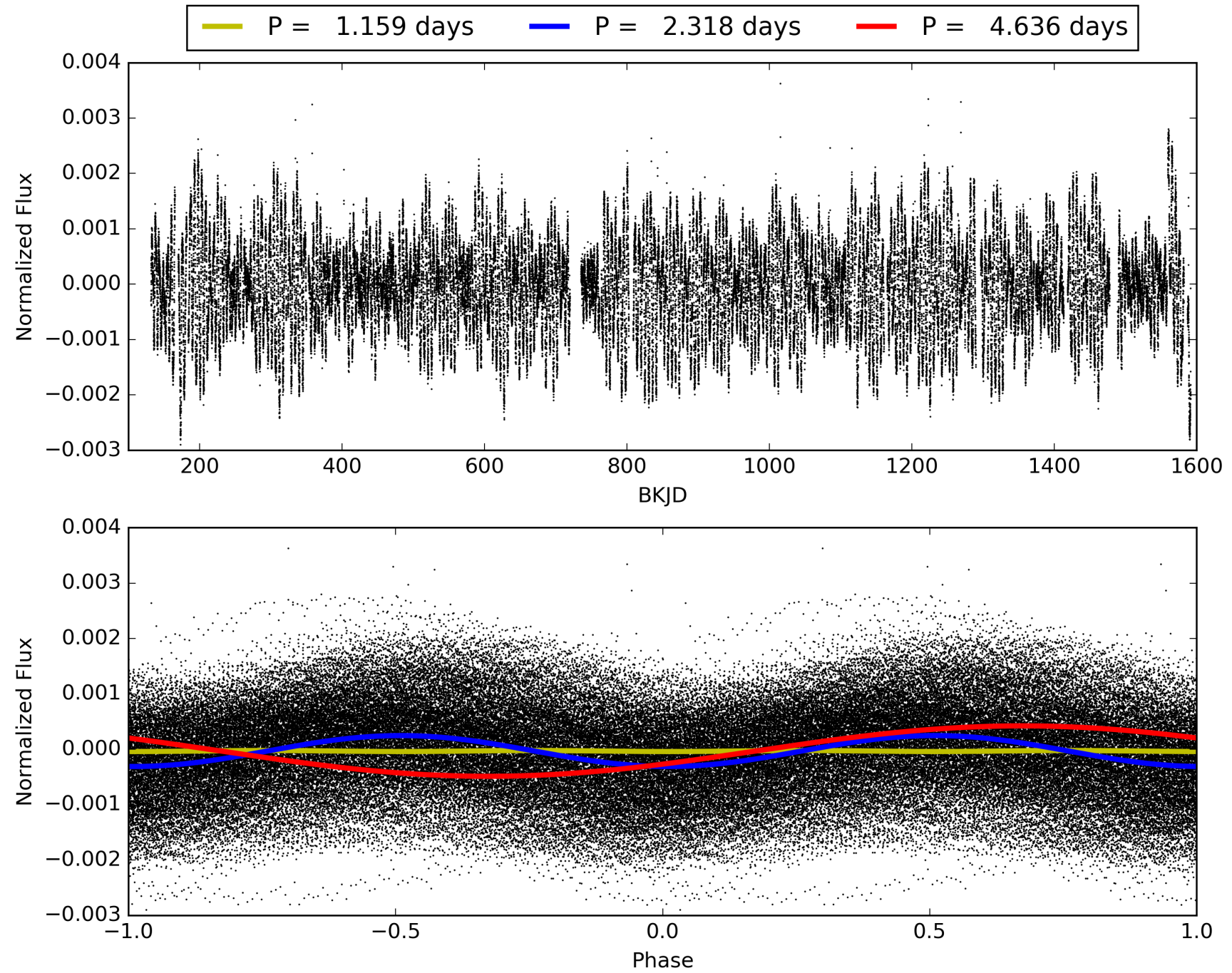
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:35:25 Z

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

TCE 007134502-01, PDC Light Curves

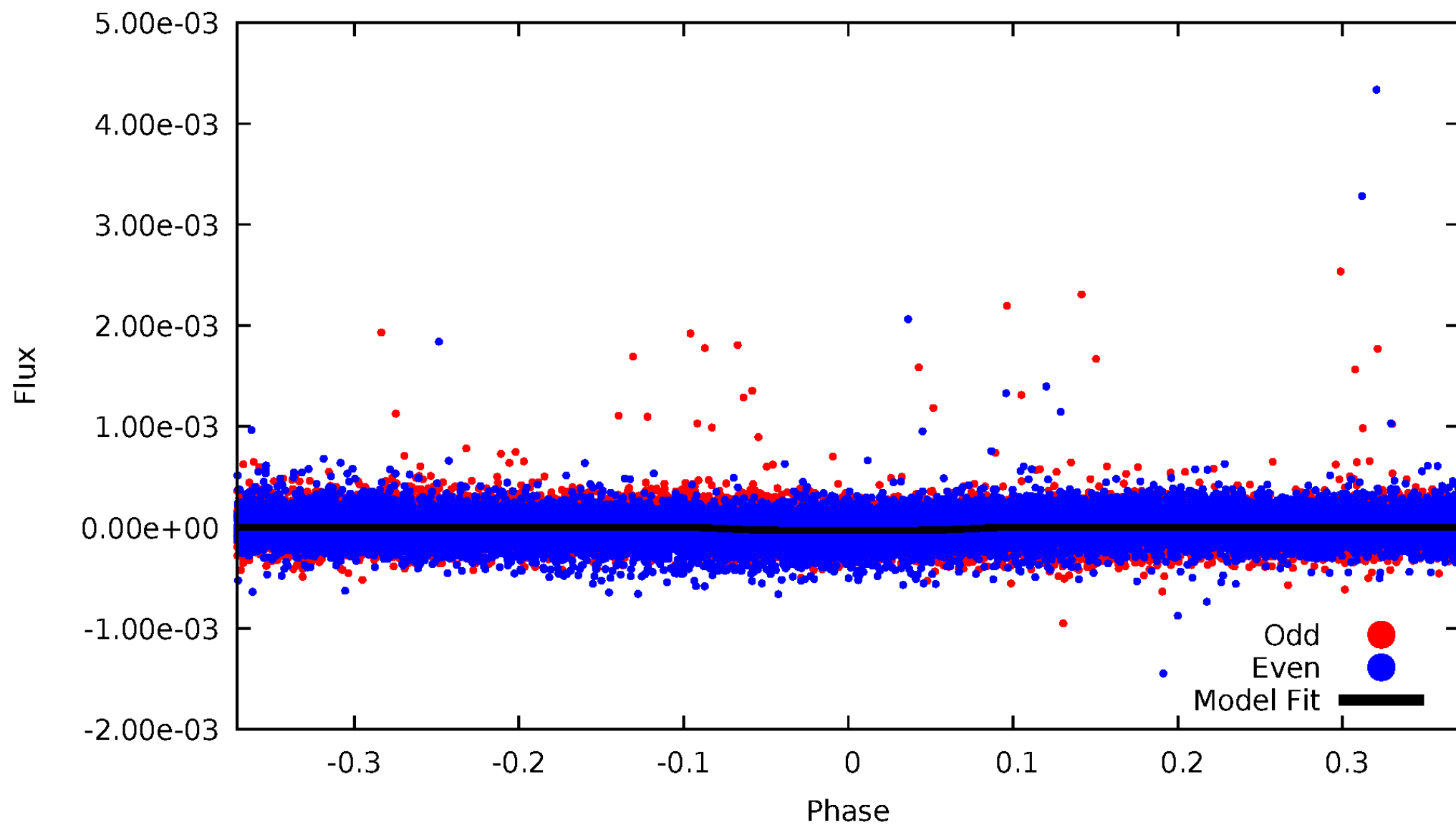


TCE 007134502-01



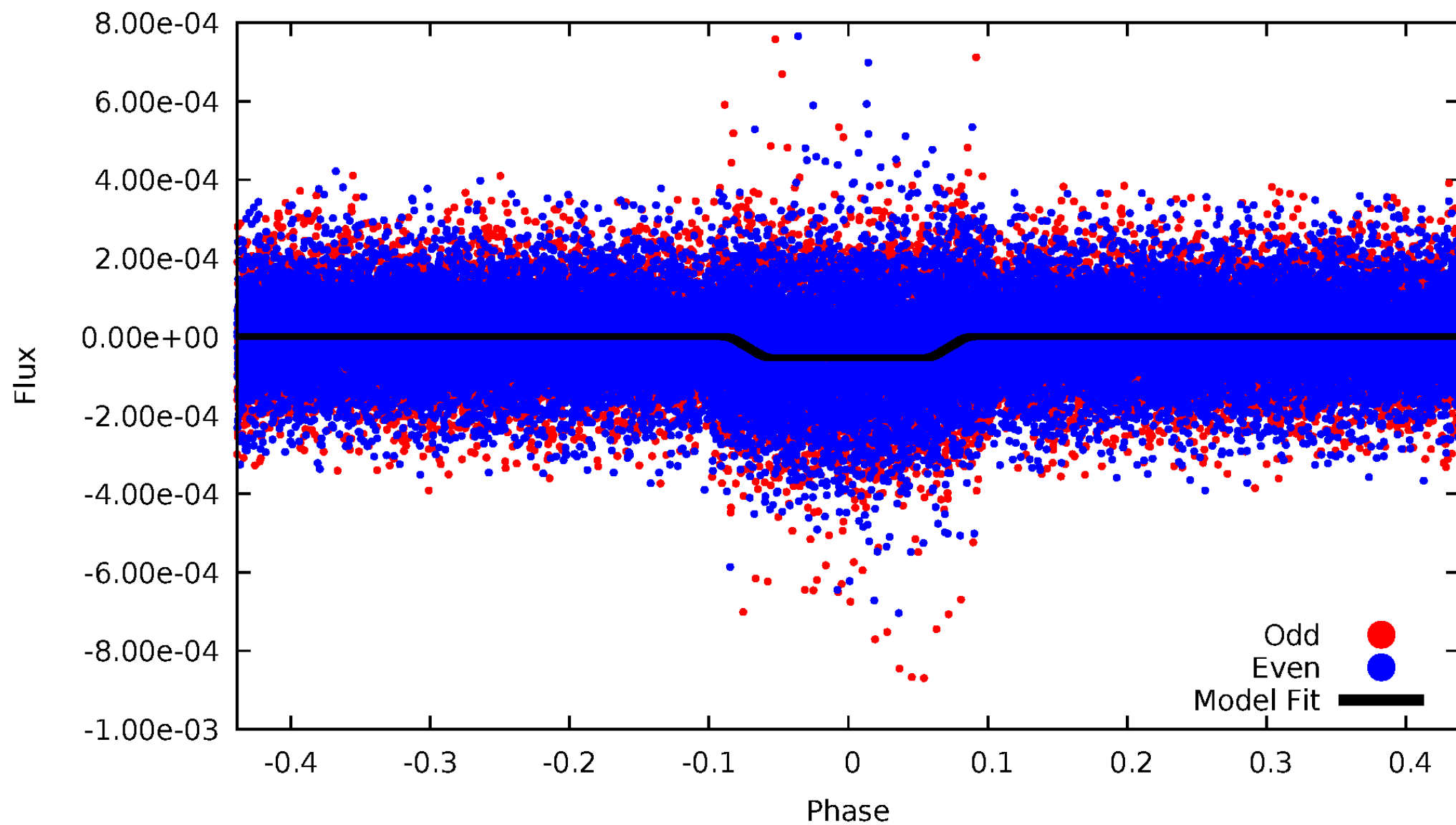
DV Odd/Even

TCE 007134502-01



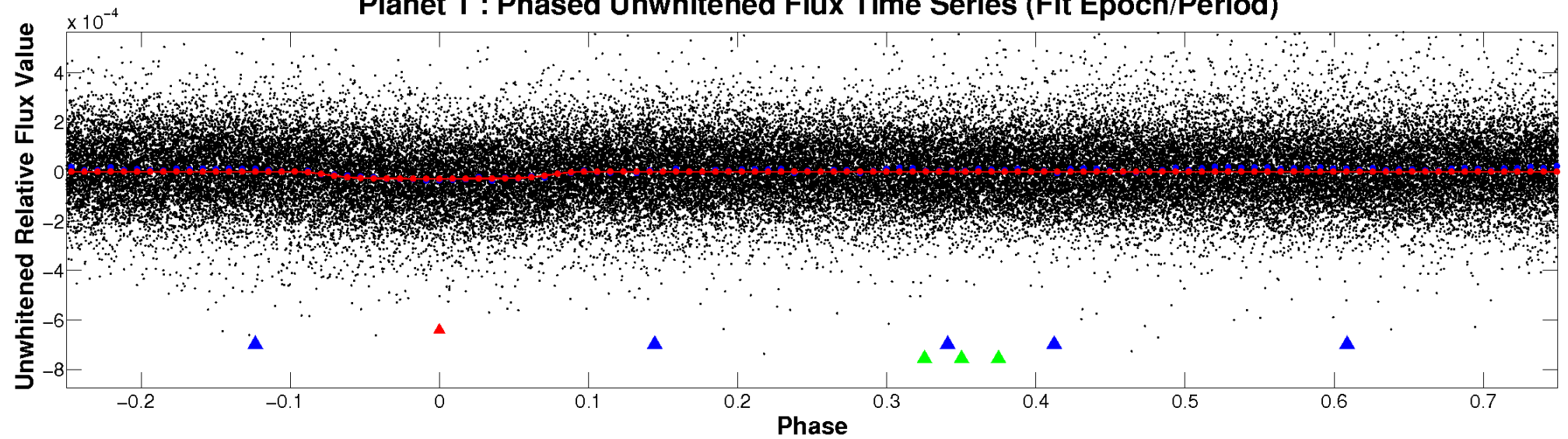
ALT Odd/Even

TCE 007134502-01

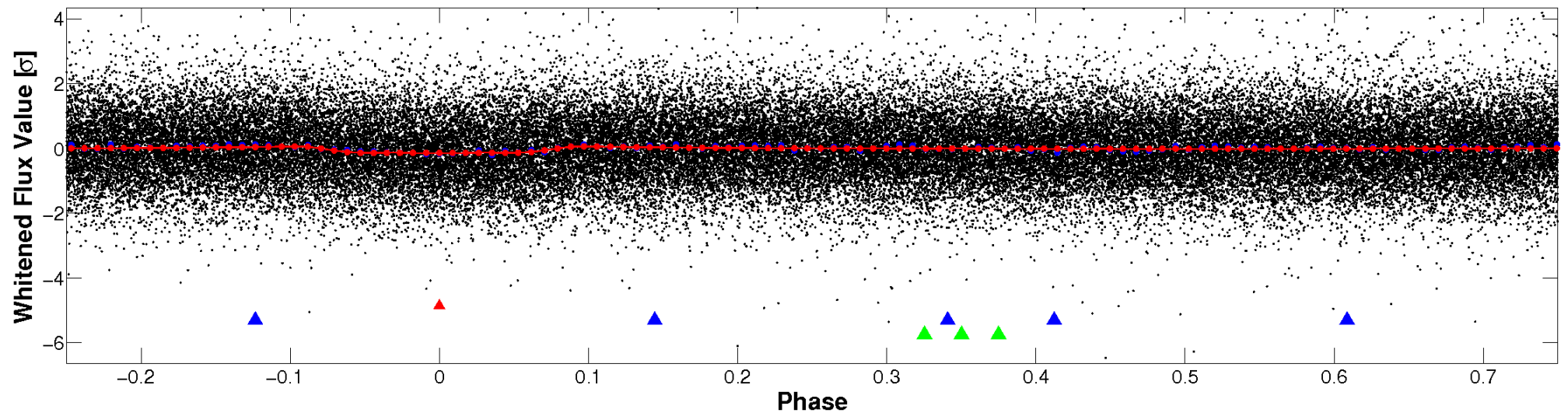


Non-Whitened Vs. Whitened Light Curve

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

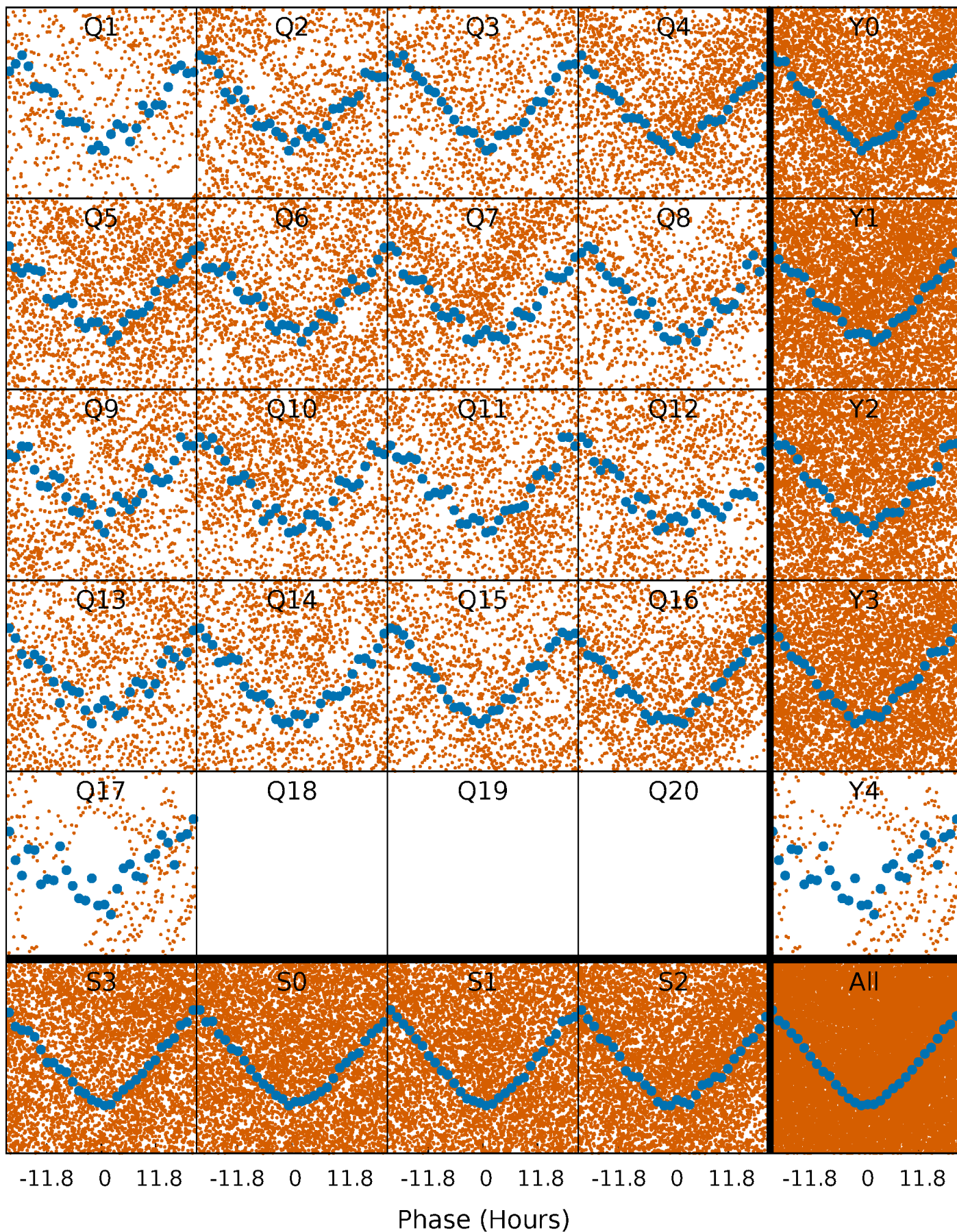


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



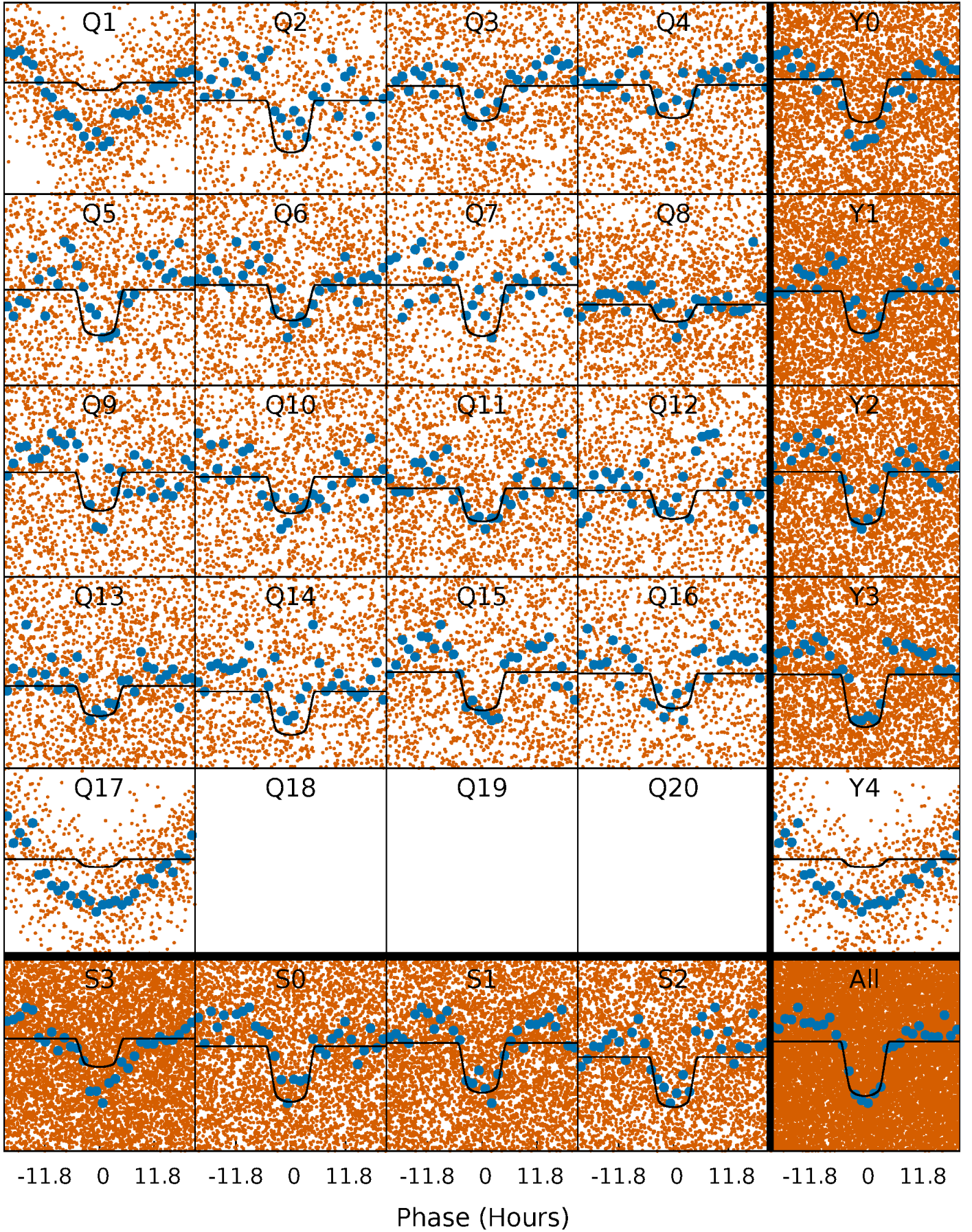
PDC Quarter-Phased Transit Curves

TCE 007134502-01 P= 2.317937 Days $T_0=133.574430$ (BKJD)



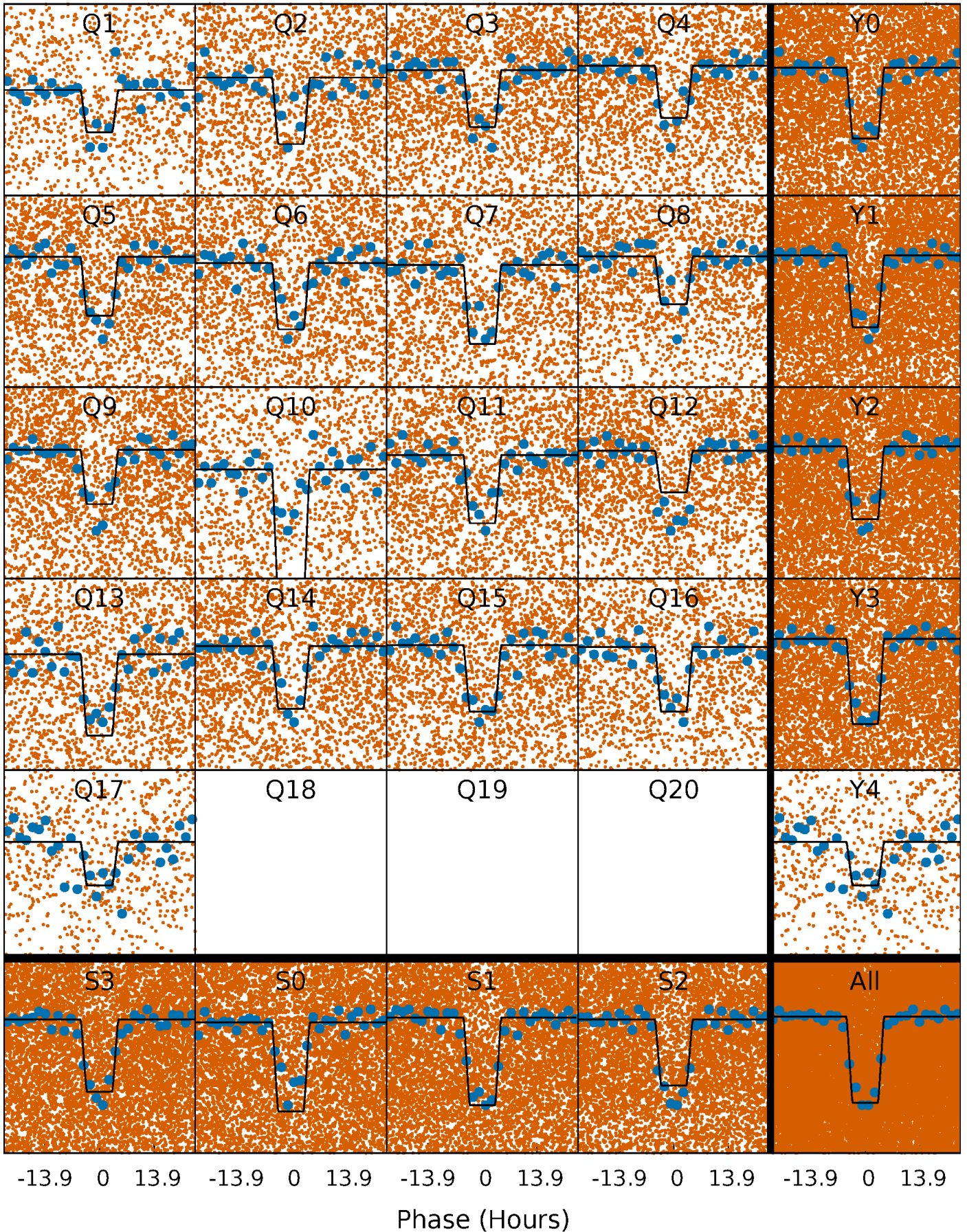
DV Quarter-Phased Transit Curves

TCE 007134502-01 $P = 2.317937$ Days $T_0 = 133.574430$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

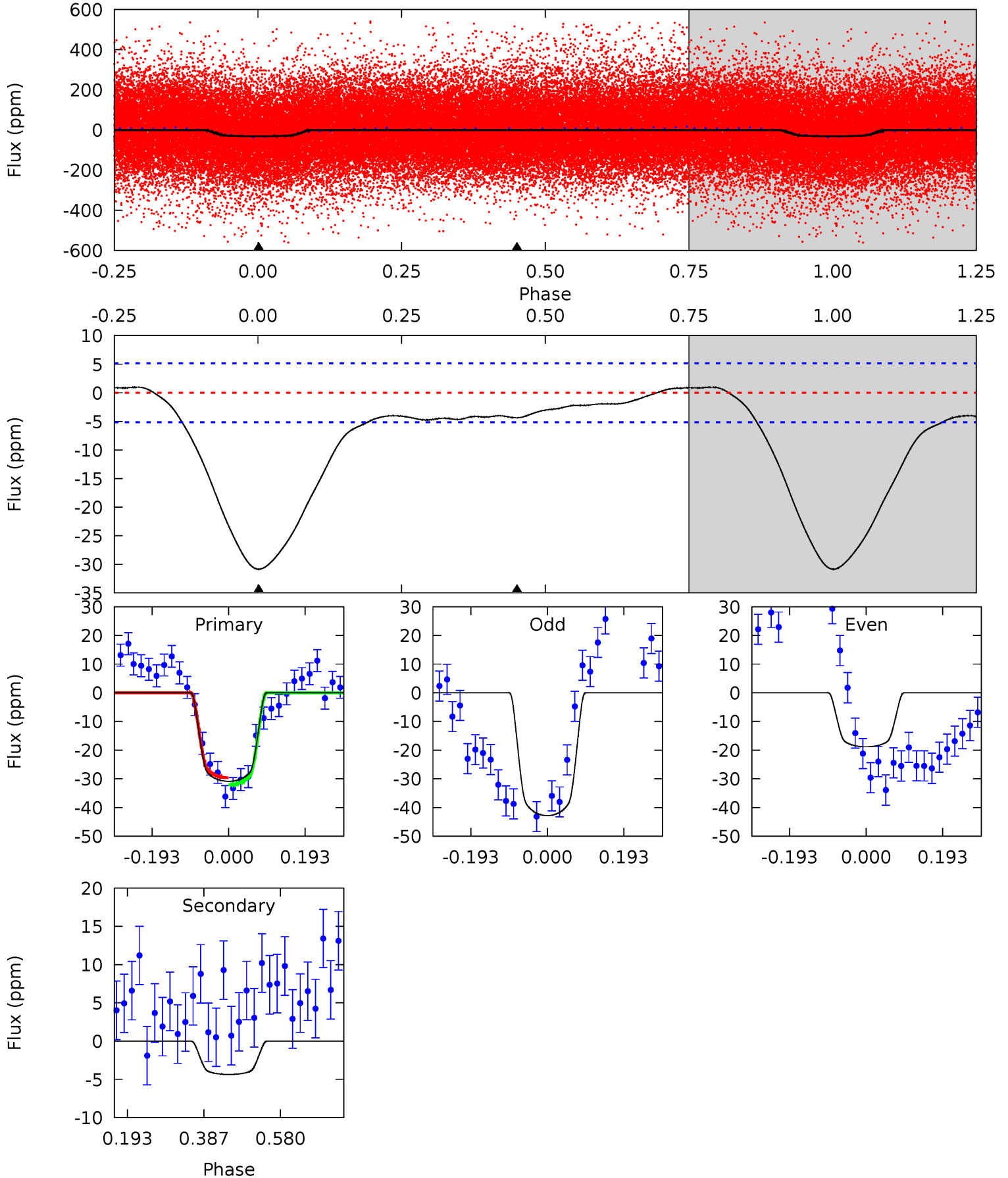
TCE 007134502-01 P= 2.317939 Days $T_0=133.568474$ (BKJD)



DV Model-Shift Uniqueness Test

007134502-01, P = 2.317937 Days, E = 131.256493 Days

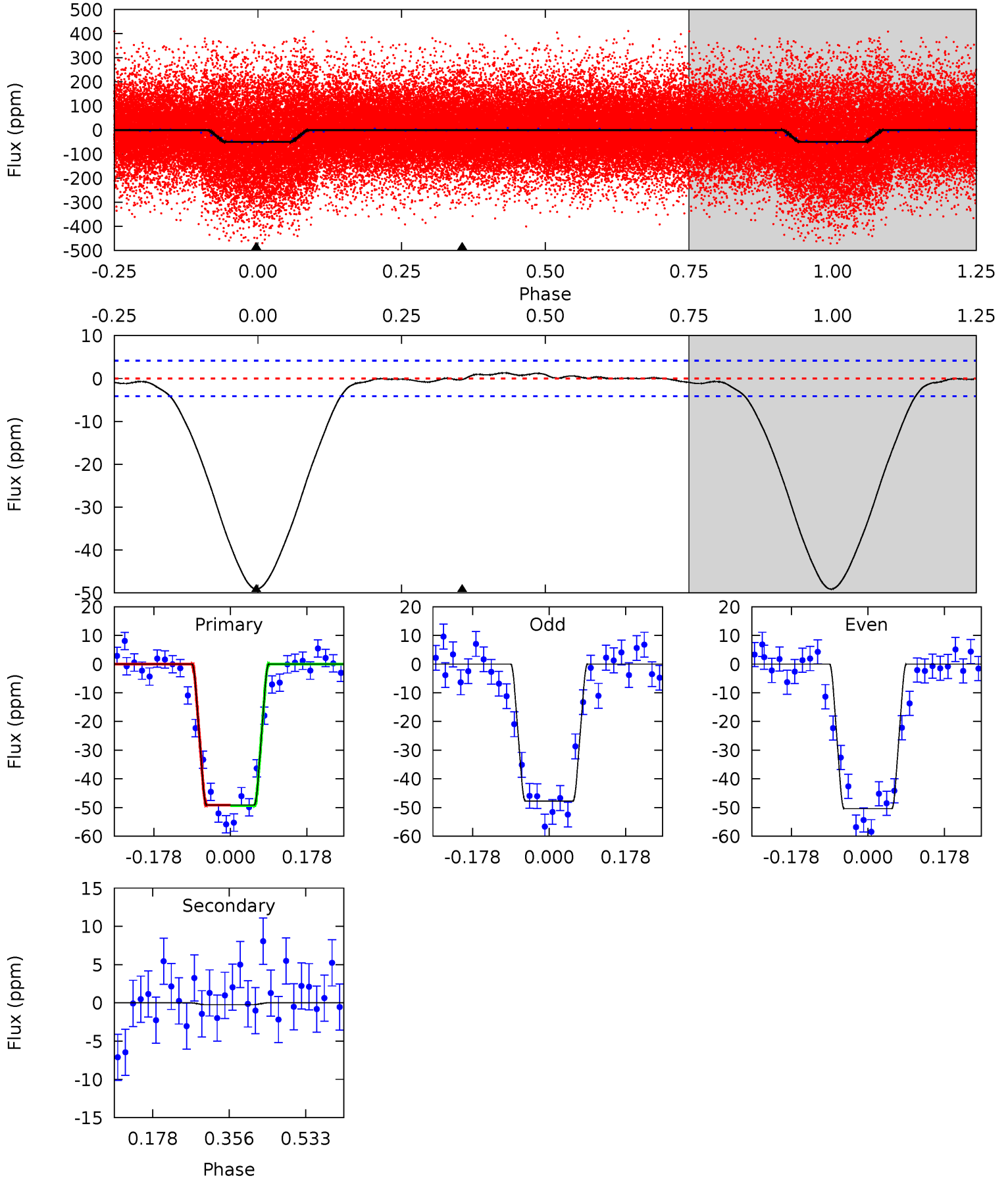
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.4	3.74	0	0	4.42	1.30	1.82	26.4	26.4	3.74	3.74	10.4	1.11	0.03	1.07



Alt Model-Shift Uniqueness Test

007134502-01, P = 2.317939 Days, E = 131.250535 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.7	0.26	0	0	4.44	1.35	0.57	52.7	52.7	0.26	0.26	1.43	0.98	0.03	0.12



Stellar Parameters For KIC 007134502

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6489^{+162}_{-194}	$4.155^{+0.192}_{-0.128}$	$-0.400^{+0.300}_{-0.300}$	$1.434^{+0.311}_{-0.311}$	$1.071^{+0.177}_{-0.118}$	$0.511^{+0.533}_{-0.195}$
	+2%/-3%	+5%/-3%	+75%/-75%	+22%/-22%	+17%/-11%	+104%/-38%
Source	PHO1	FLK73	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 007134502-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 1	$1.03^{+0.14}_{-0.13}$	2536^{+153}_{-155}	3886^{+201}_{-228}	$2.760^{+1.208}_{-0.811}$
Alt.	-0 ± 1	$1.13^{+0.14}_{-0.15}$	2537^{+144}_{-177}	-2634^{+5454}_{-537}	$0.122^{+0.512}_{-0.518}$

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 $A_{obs} \gg 1.0$

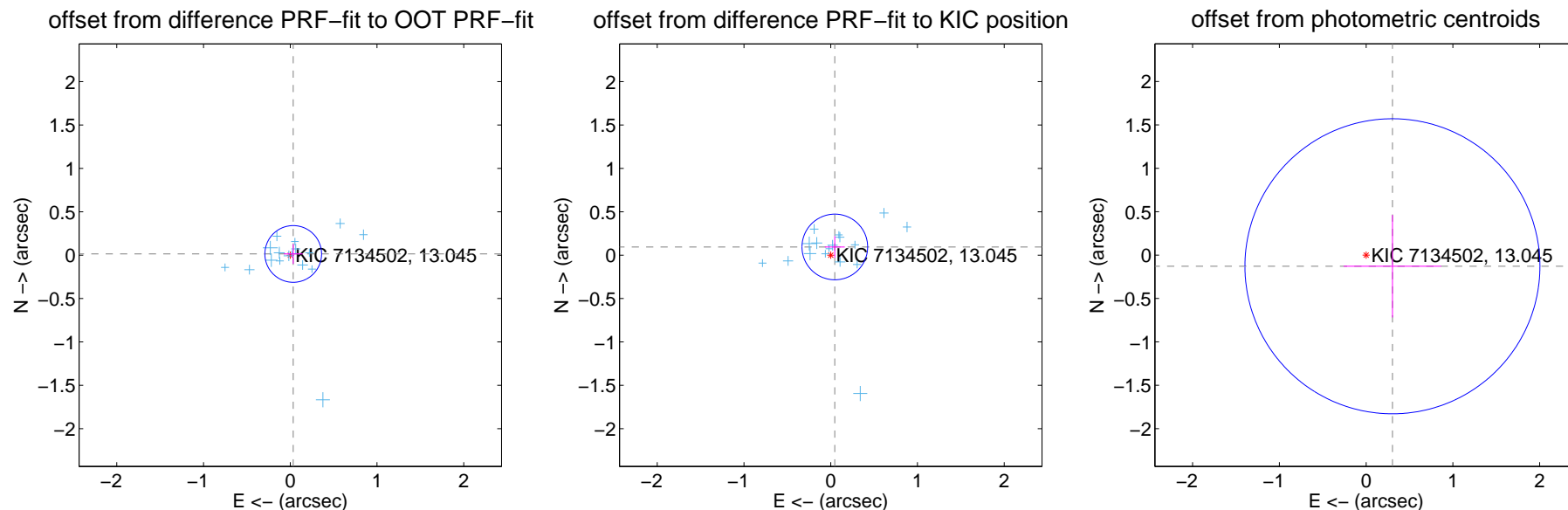
DV Centroid Data

Supplemental centroid analysis for 007134502-01. Kepler magnitude: 13.04. Transit SNR 13.09

There are 17 quarters with good PRF difference image offsets

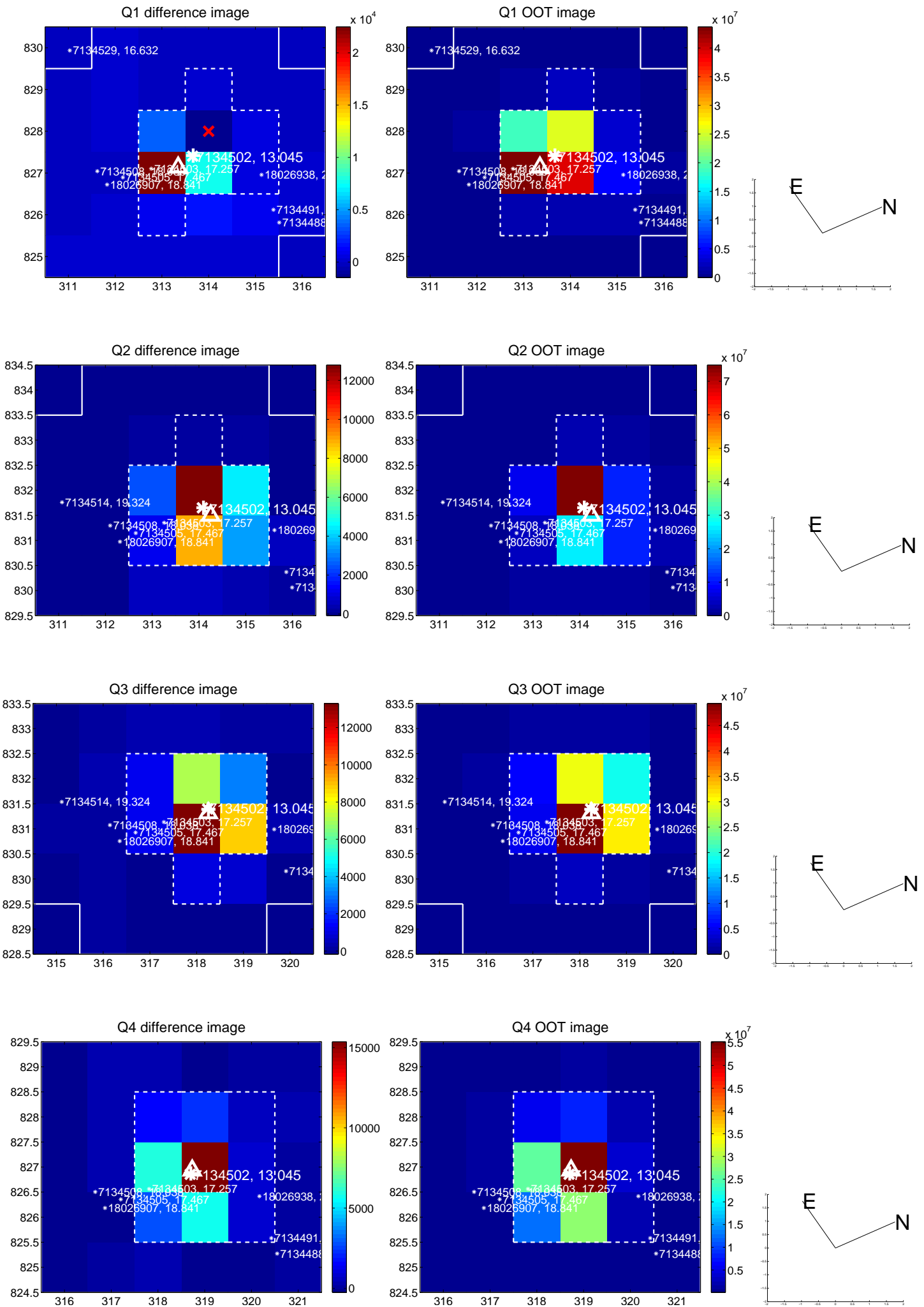
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.037 ± 0.109	0.34	-0.034 ± 0.108	0.014 ± 0.114
PRF-fit source offset from KIC position	0.106 ± 0.126	0.84	-0.047 ± 0.114	0.094 ± 0.125
photometric centroid source offset	0.33 ± 0.57	0.58	-0.30 ± 0.56	-0.13 ± 0.59

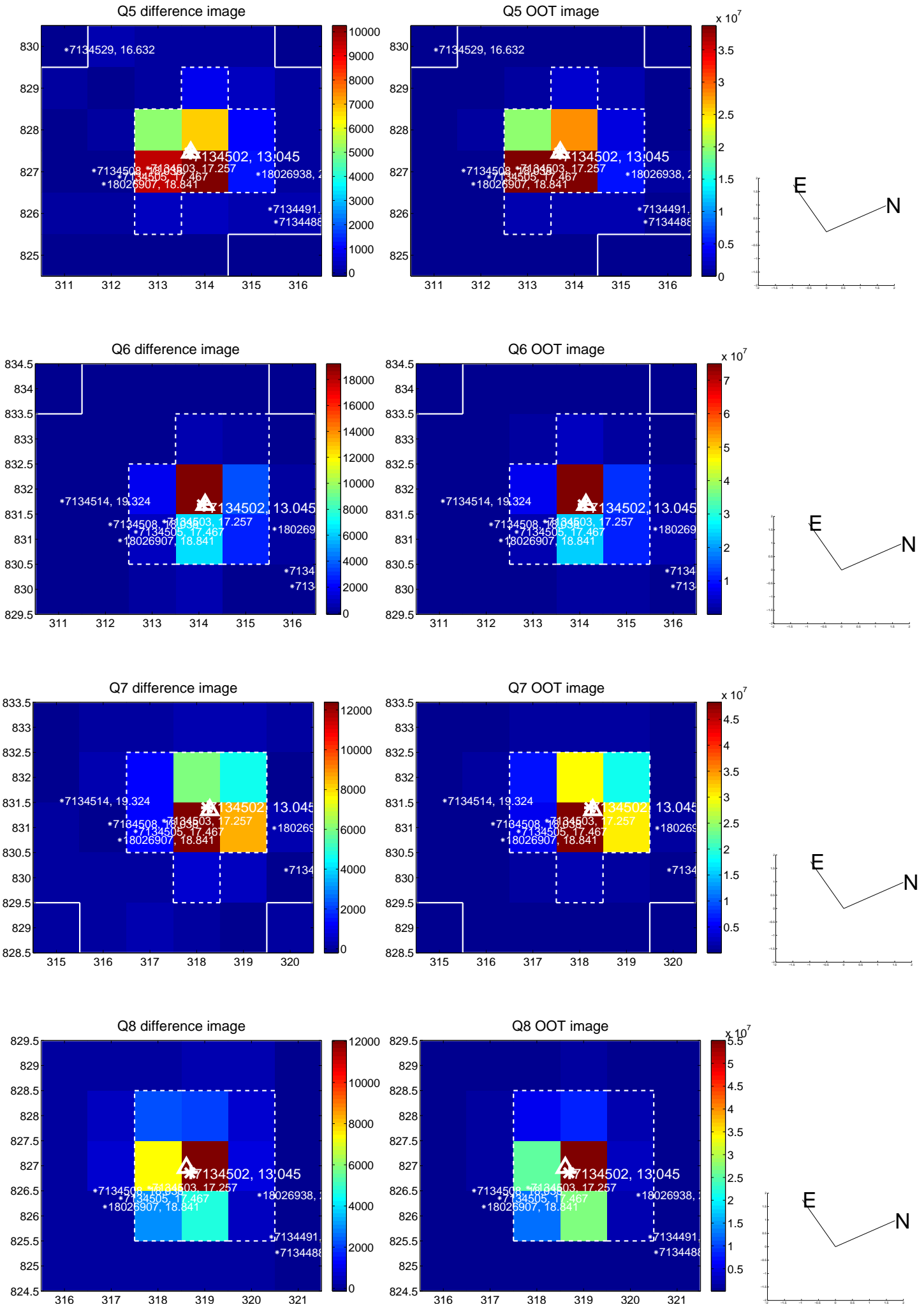


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

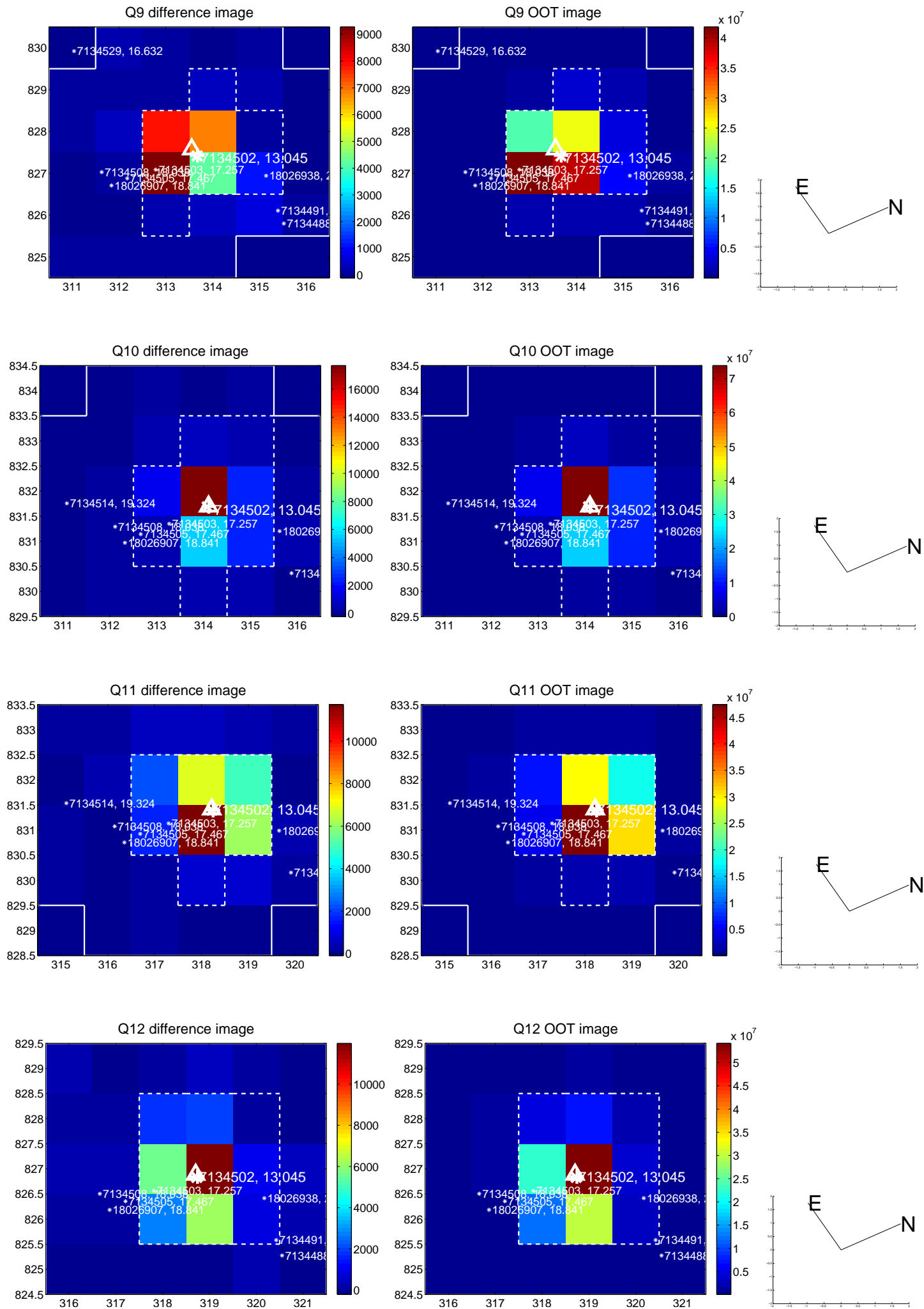
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



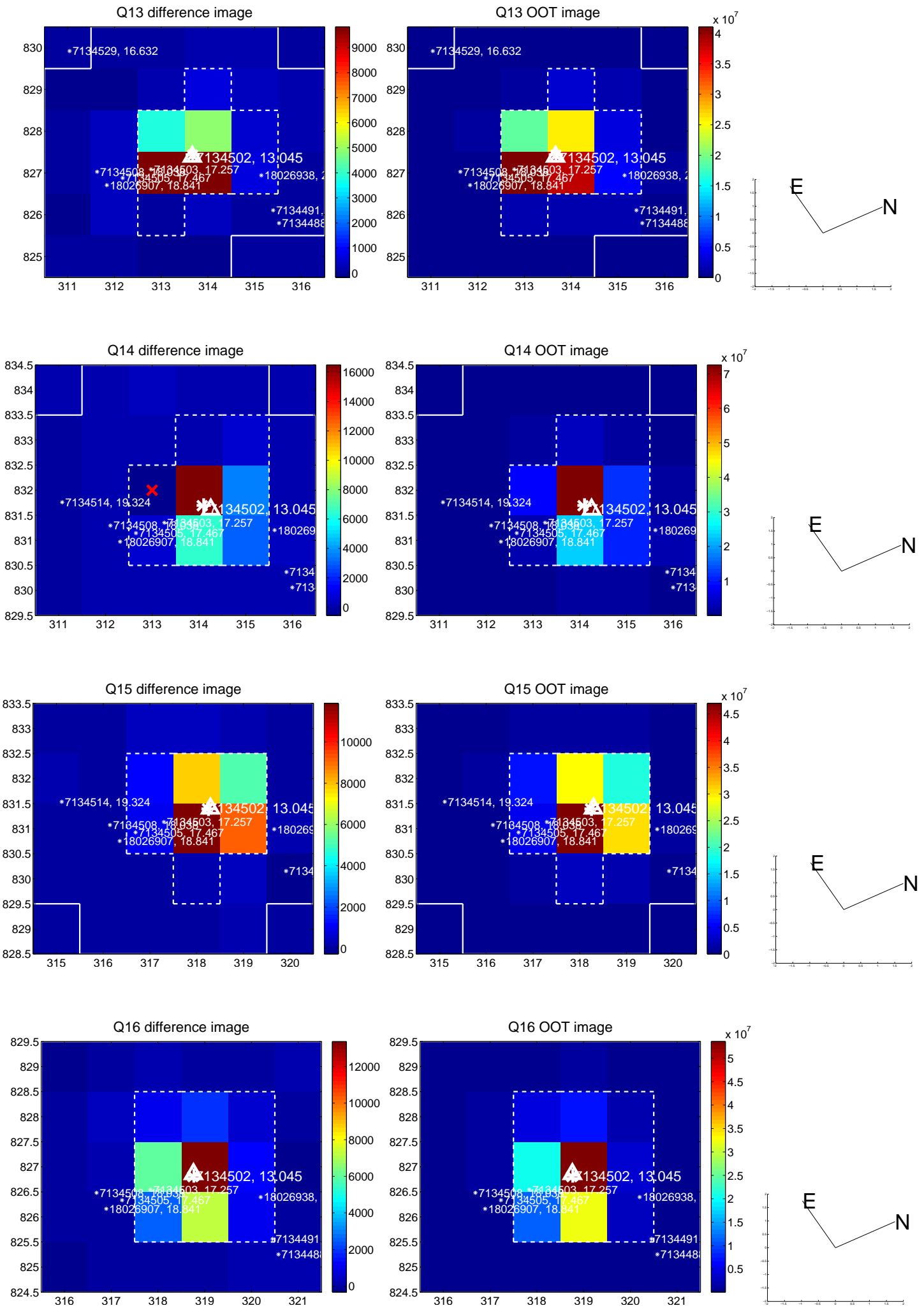
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



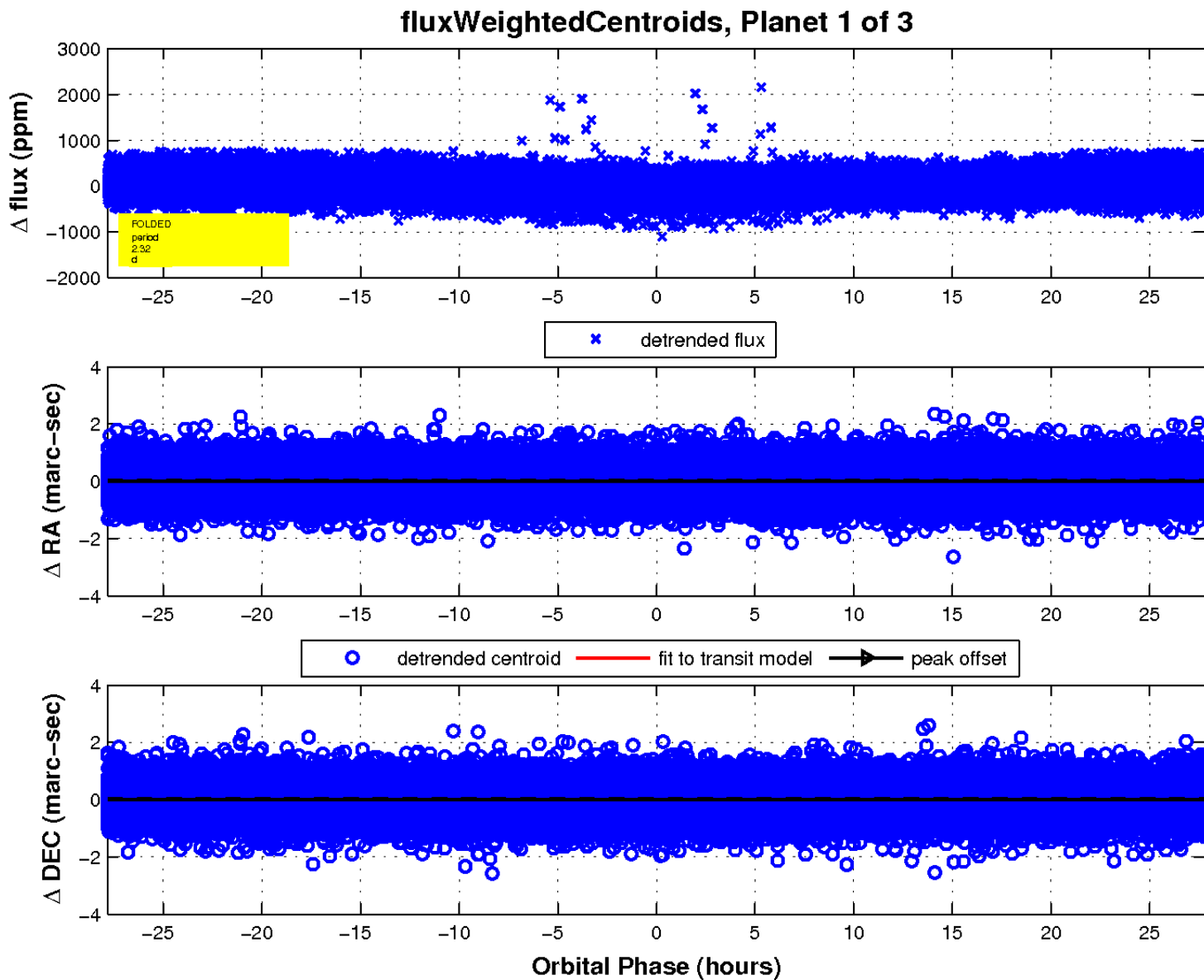
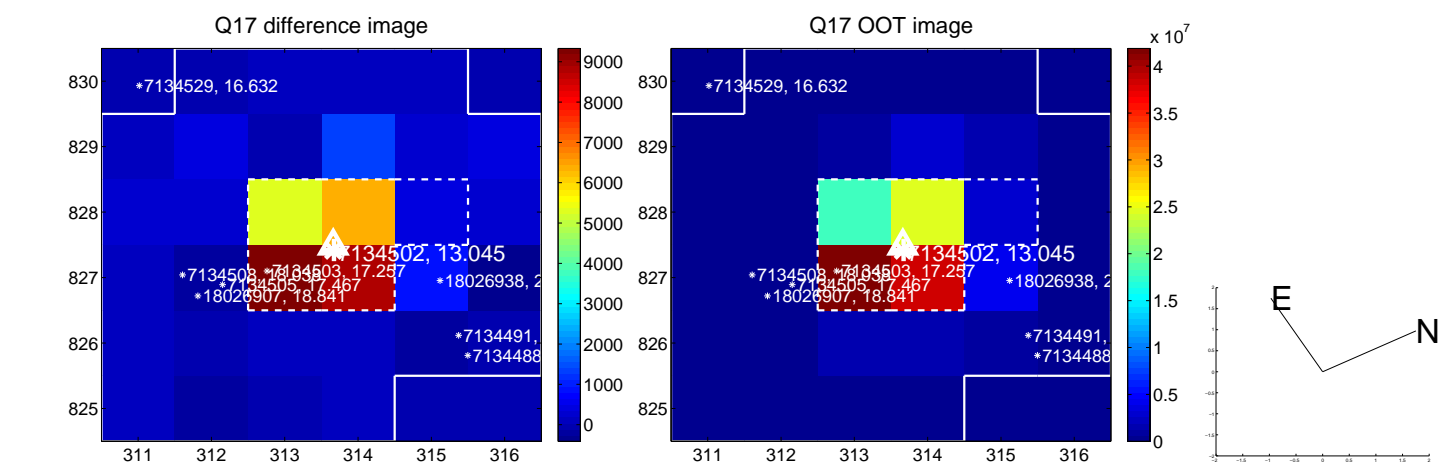
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

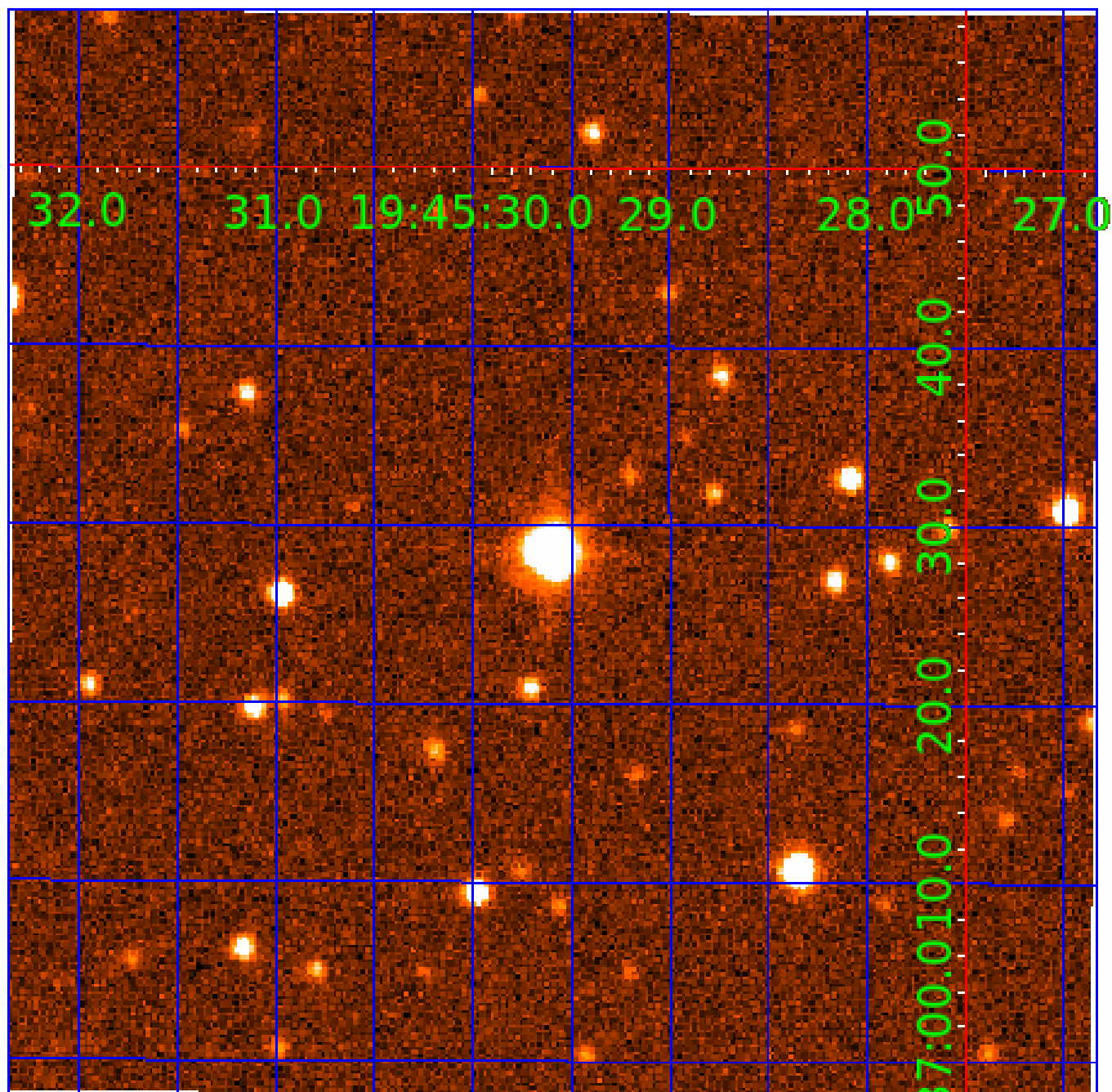


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007134502

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})
007134502-01	OBS	No	2.317937	133.574430	28.7	10.317	11.6	13.1	1.43	6489	1.03	2653.60
007134502-02	OBS	No	274.137412	236.353722	266.7	13.522	20.7	10.0	1.43	6489	2.53	4.57
007134502-03	OBS	No	447.304251	563.261900	228.4	9.000	10.5	-1.0	1.43	6489	2.18	2.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007134502-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007134502-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007134502-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

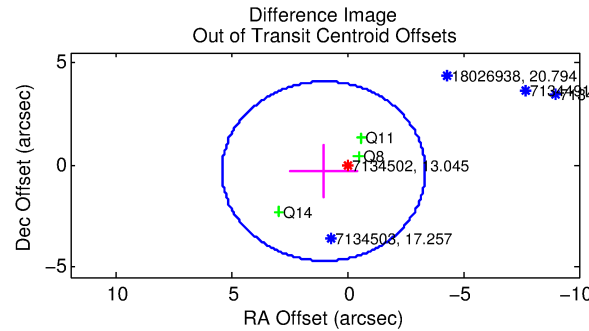
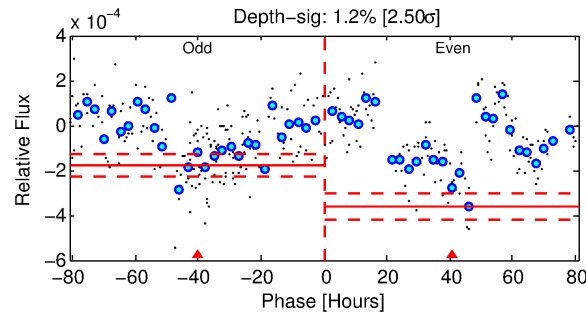
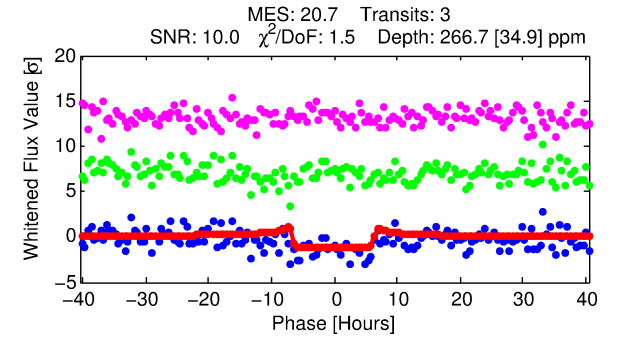
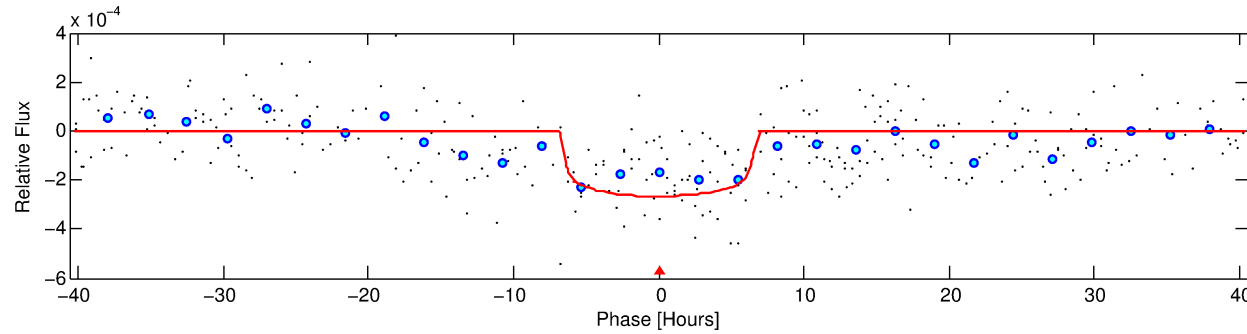
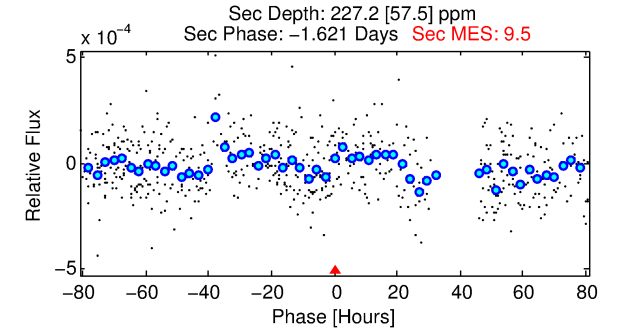
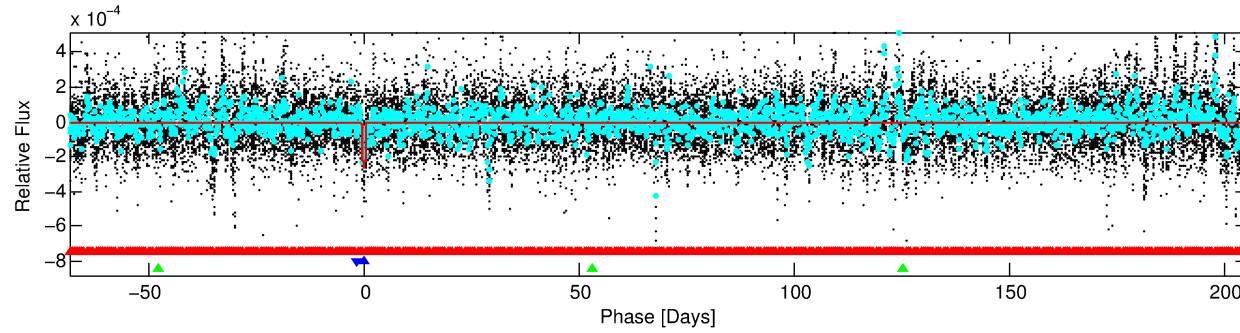
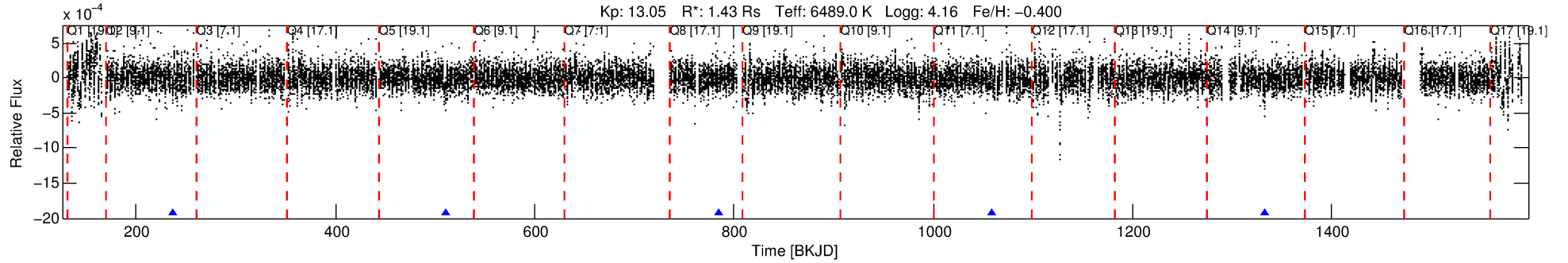
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007134502-02

No Significant Match Found

DV One-Page Summary

KIC: 7134502 Candidate: 2 of 3 Period: 274.137 d



DV Fit Results:

Period = 274.13741 [0.00447] d
Epoch = 236.3537 [0.0136] BKJD
Rp/R* = 0.0161 [0.0036]
a/R* = 109.71 [127.92]
b = 0.73 [0.75]
Seff = 4.57 [1.60]
Teq = 373 [33] K
Rp = 2.53 [0.79] Re
a = 0.8454 [0.1745] AU
Ag = 14002.72 [8554.48] [1.64σ]
Teffp = 6271 [829] K [7.11σ]

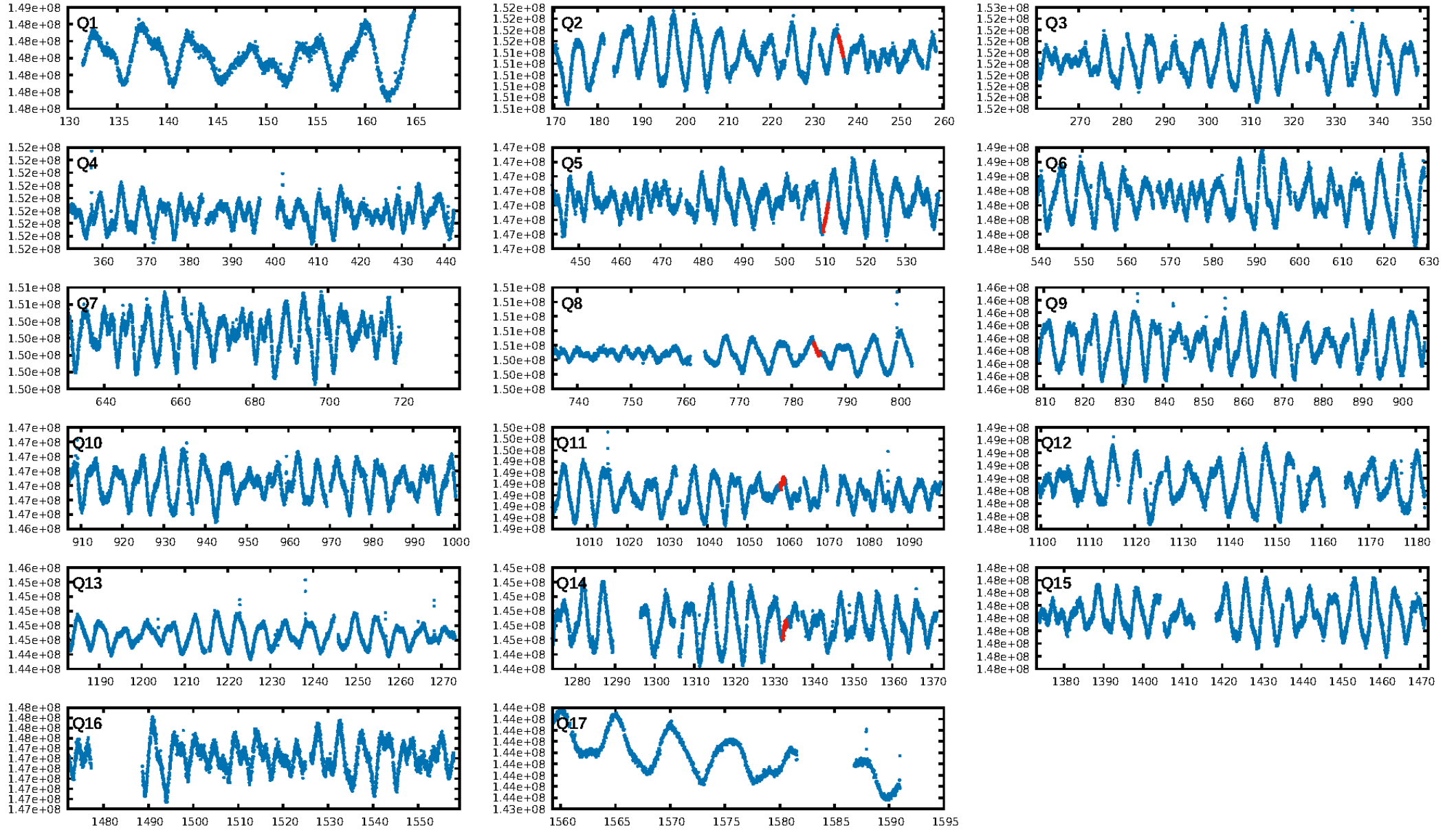
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [383.56σ]
LongPeriod-sig: 100.0% [255.86σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 56.4%
Bootstrap-pfa: 8.18e-37
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 8.935
Centroid-sig: 2.5%
Centroid-so: 1.068 arcsec [1.65σ]
OotOffset-rm: 1.084 arcsec [0.74σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-rm: 1.029 arcsec [0.71σ]
KicOffset-st: 1/1/1/0 [3]
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DiffImageOverlap-fno: 0.00 [0/5]

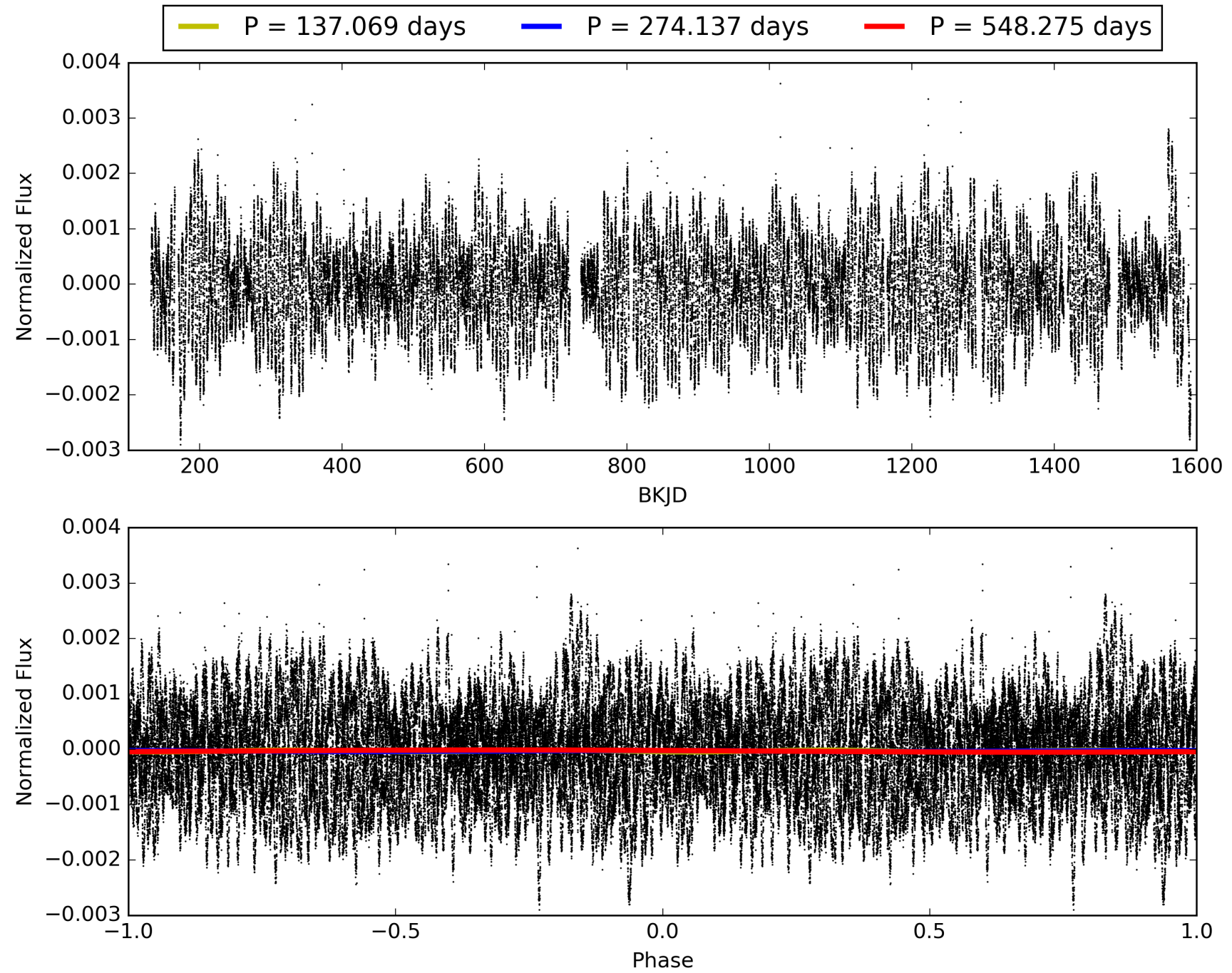
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:35:36 Z

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

TCE 007134502-02, PDC Light Curves

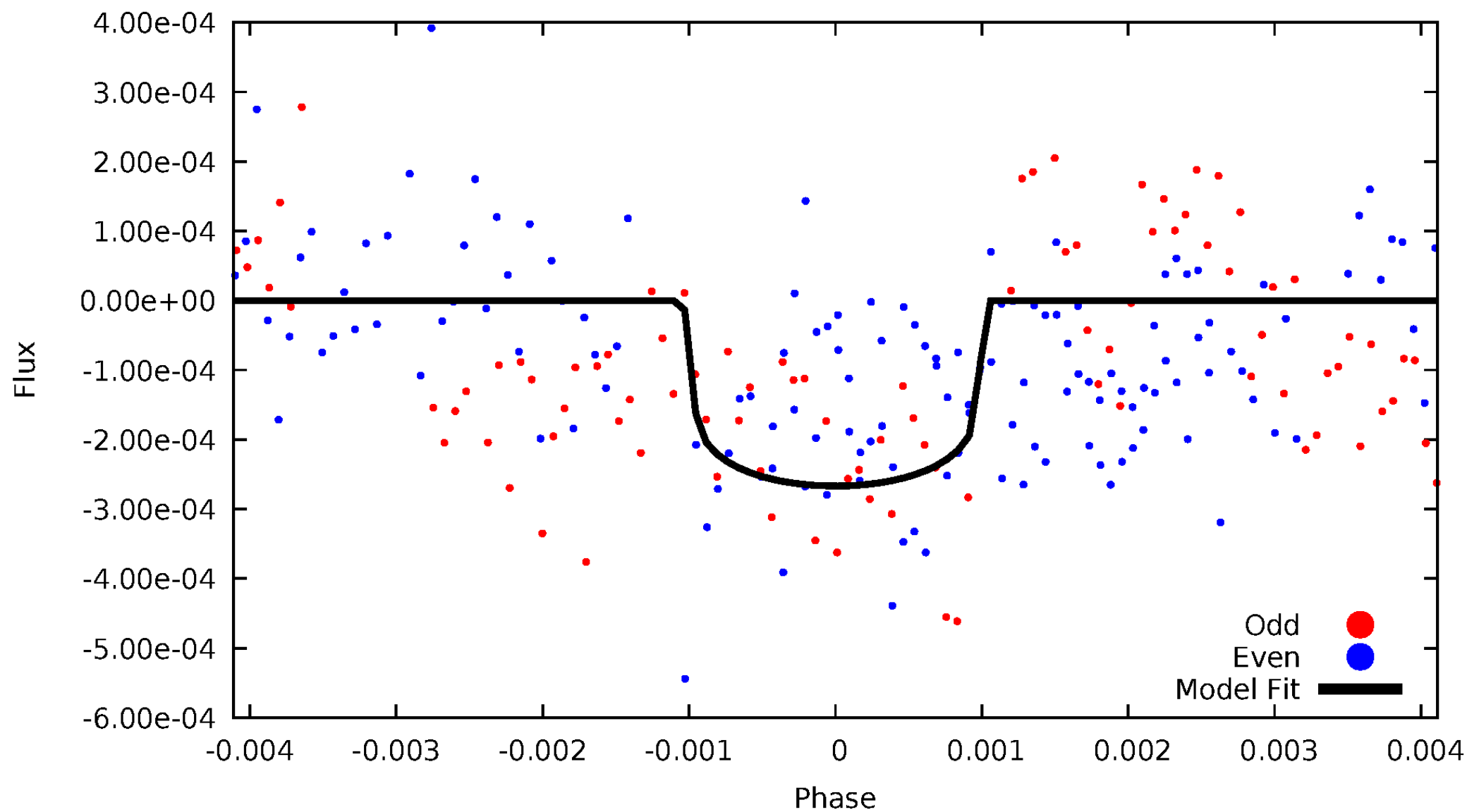


TCE 007134502-02



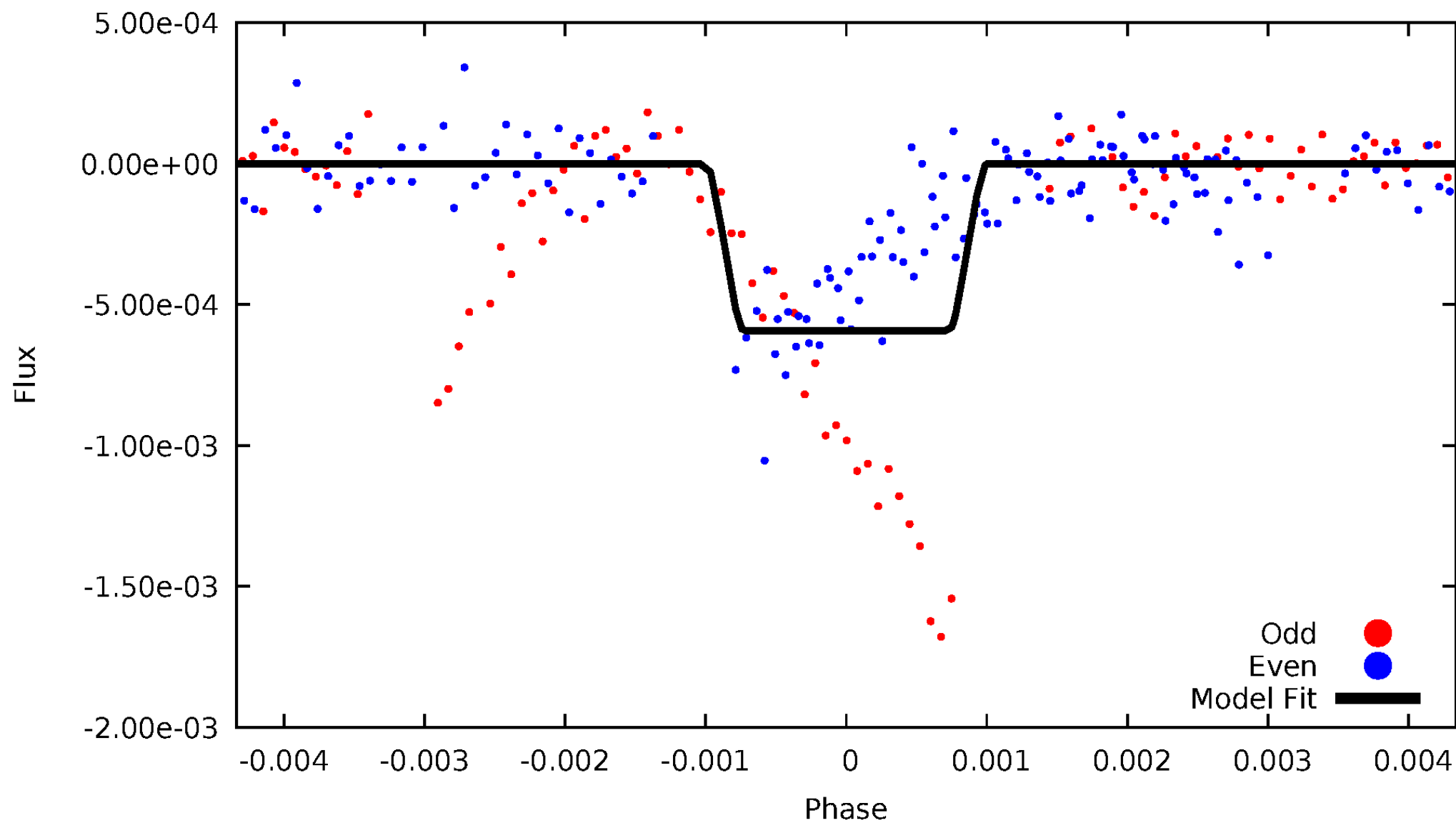
DV Odd/Even

TCE 007134502-02



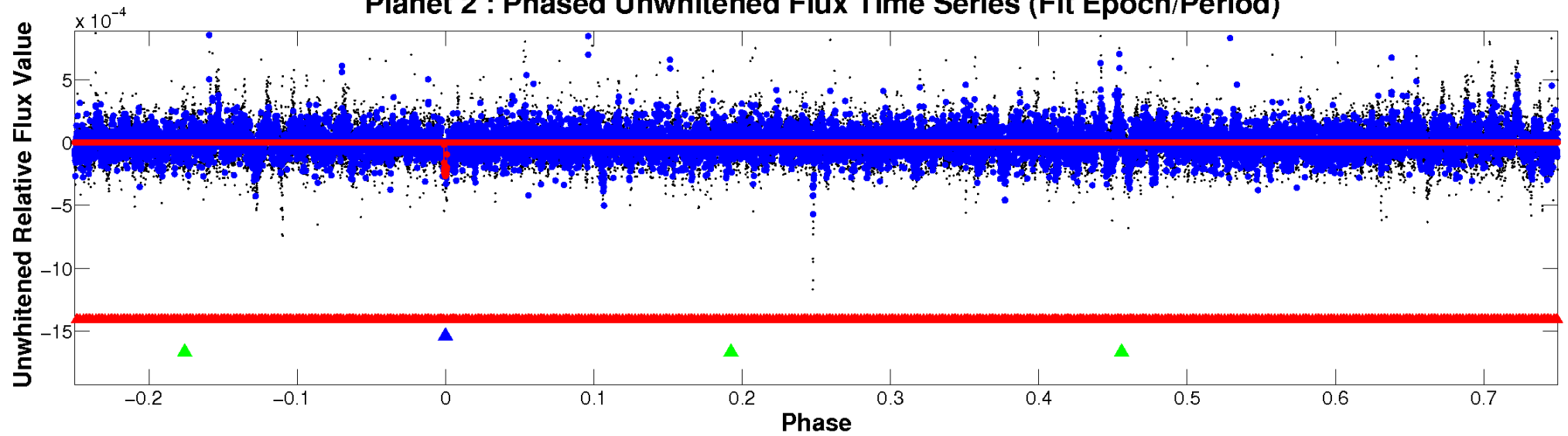
ALT Odd/Even

TCE 007134502-02

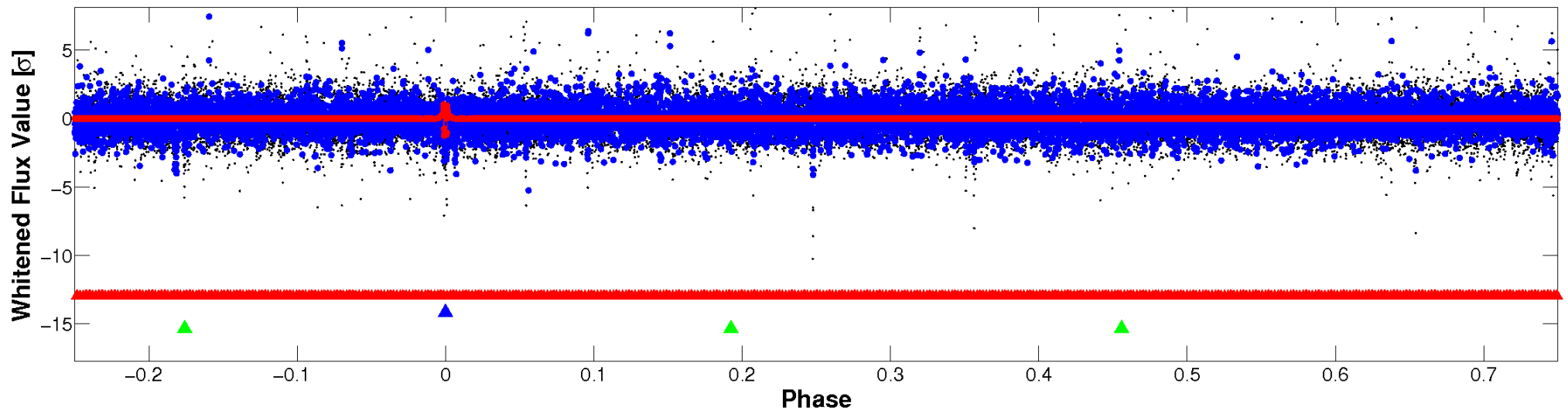


Non-Whitened Vs. Whitened Light Curve

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

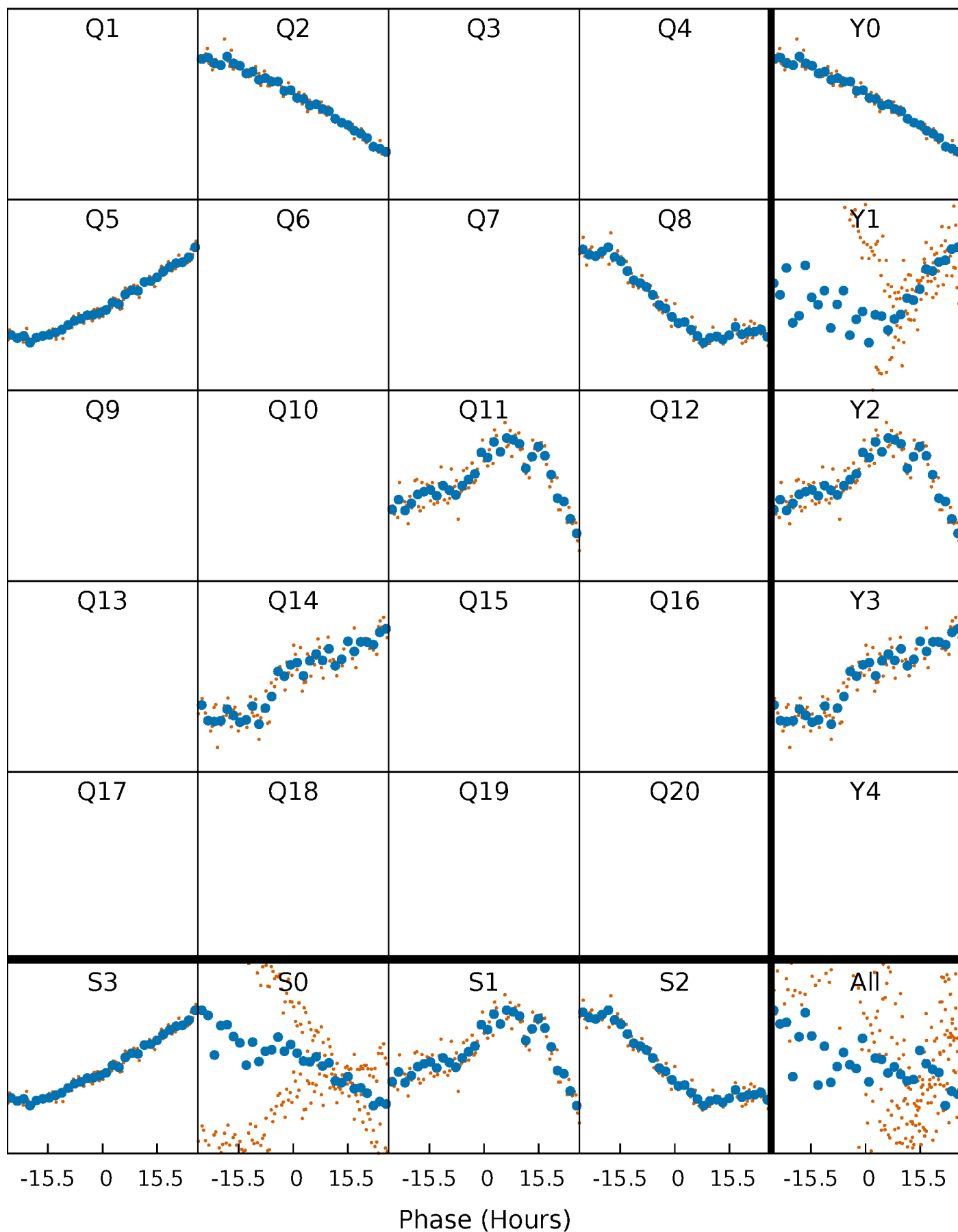


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



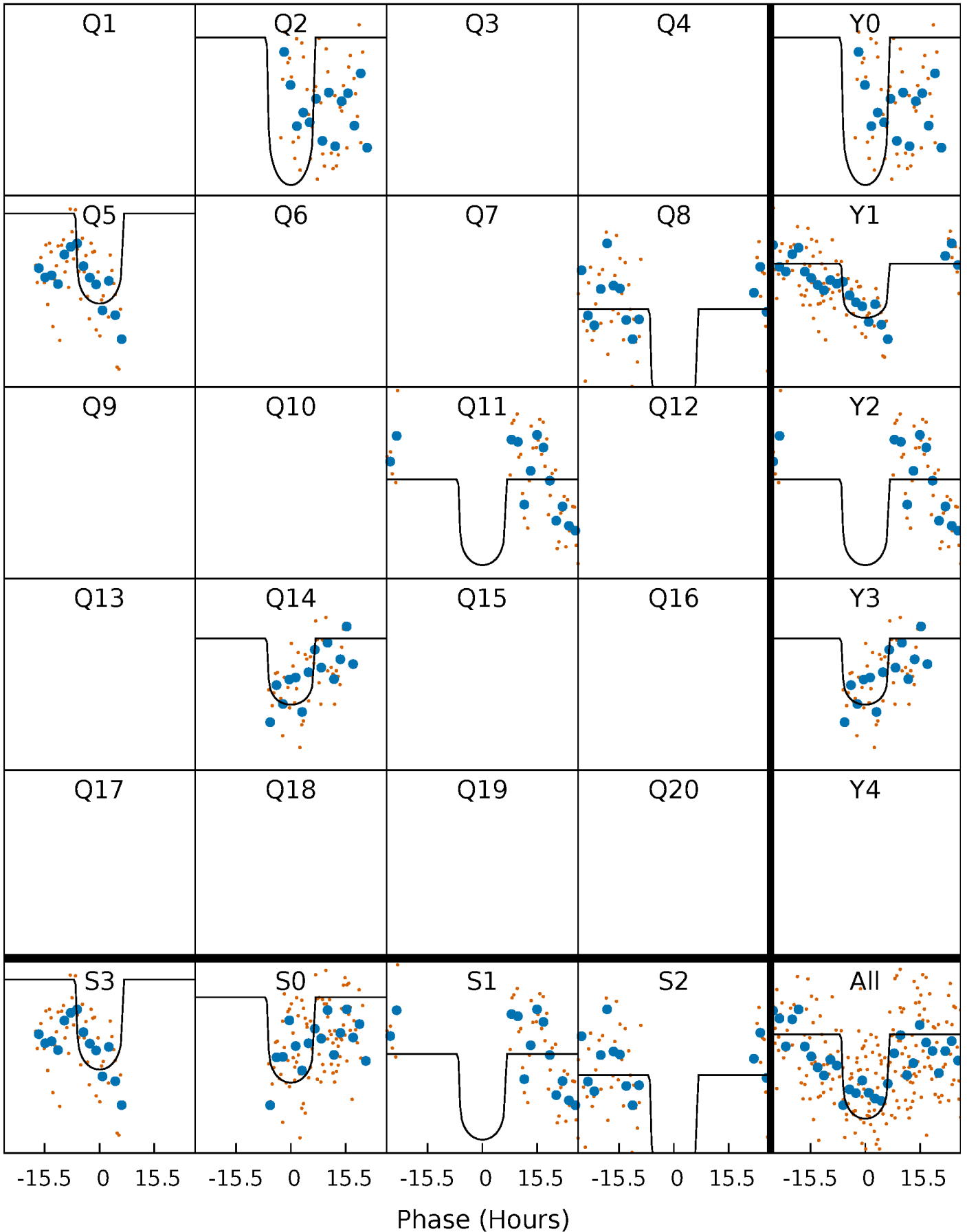
PDC Quarter-Phased Transit Curves

TCE 007134502-02 $P=274.137412$ Days $T_0=236.353722$ (BKJD)



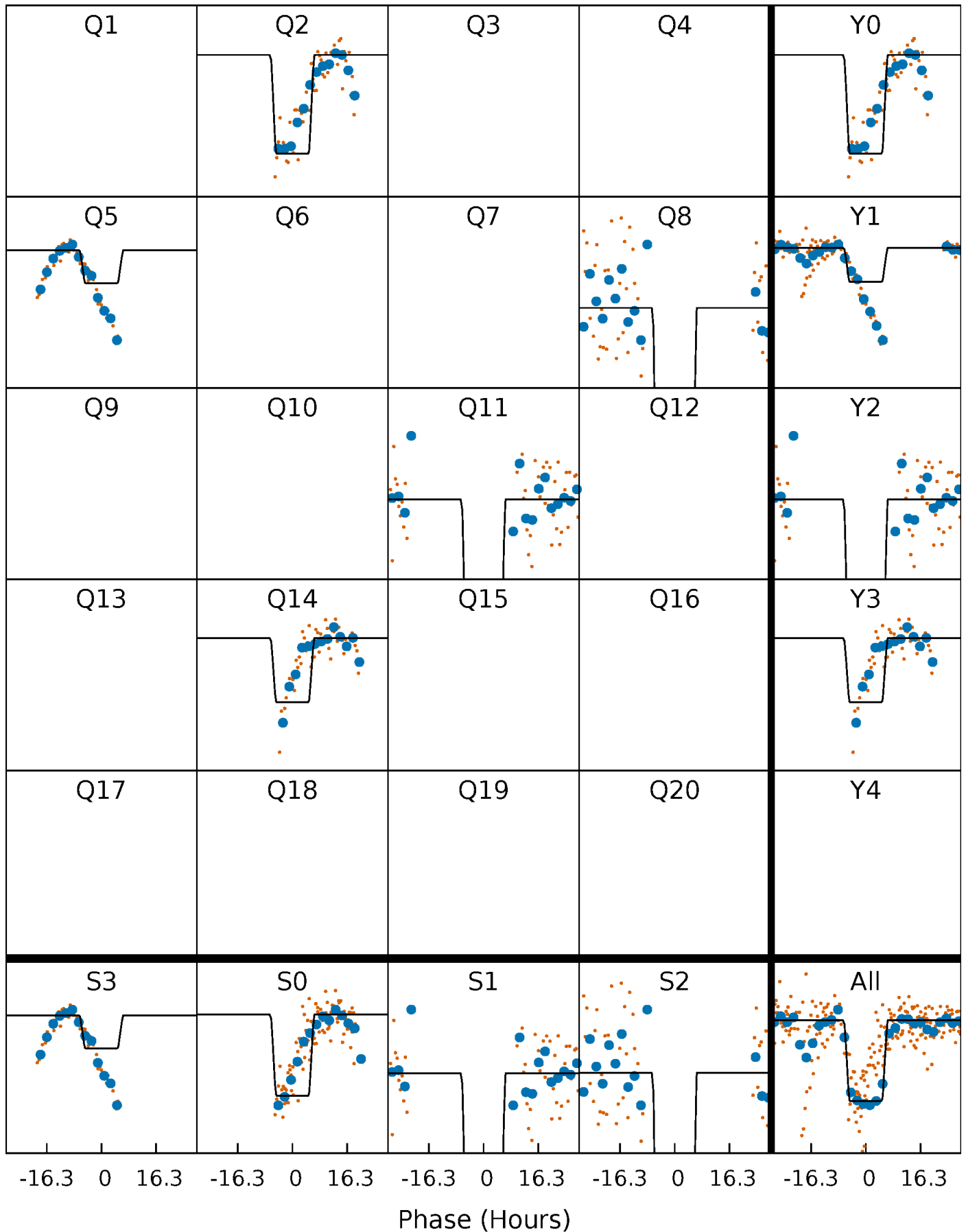
DV Quarter-Phased Transit Curves

TCE 007134502-02 $P=274.137412$ Days $T_0=236.353722$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

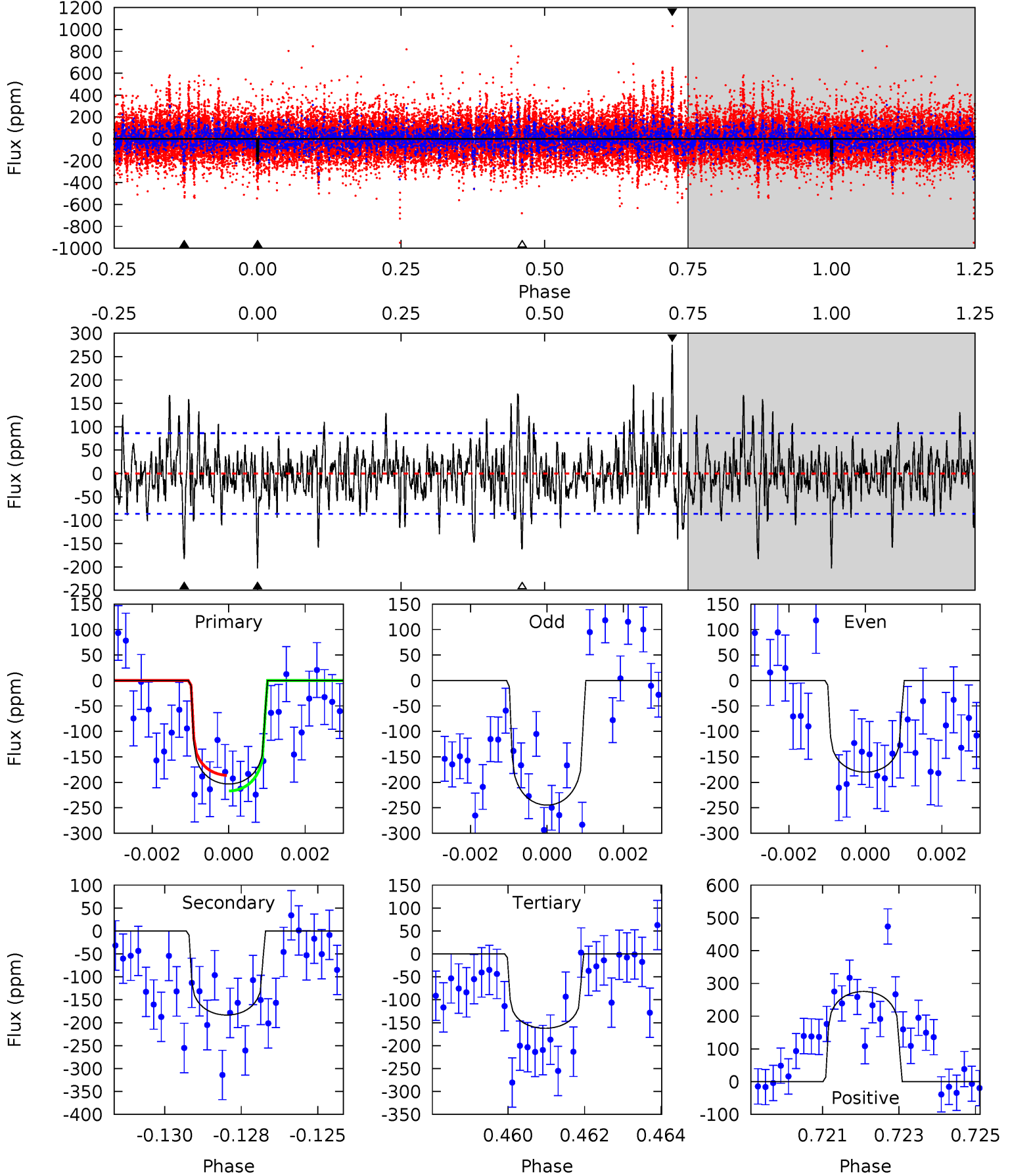
TCE 007134502-02 $P=274.082152$ Days $T_0=236.452168$ (BKJD)



DV Model-Shift Uniqueness Test

007134502-02, P = 274.137412 Days, E = 236.353722 Days

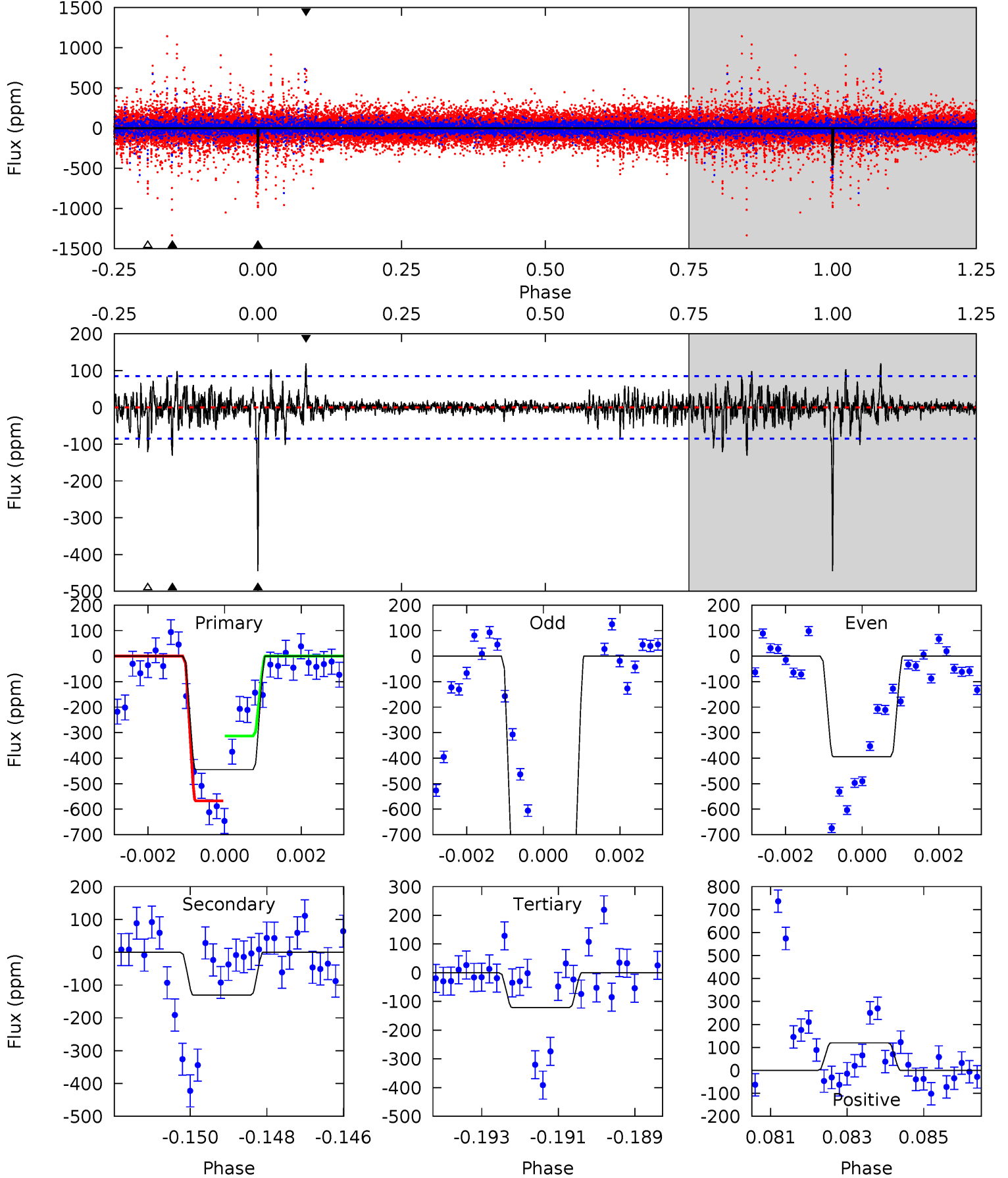
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	11.3	10.0	17.0	5.32	3.08	3.09	2.53	-4.45	1.30	-5.67	1.87	0.85	0.58	0.94



Alt Model-Shift Uniqueness Test

007134502-02, P = 274.082152 Days, E = 236.452168 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.0	8.24	7.61	7.52	5.34	3.11	1.34	20.4	20.5	0.63	0.72	16.3	1.27	0.21	7.96



Stellar Parameters For KIC 007134502

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6489^{+162}_{-194}	$4.155^{+0.192}_{-0.128}$	$-0.400^{+0.300}_{-0.300}$	$1.434^{+0.311}_{-0.311}$	$1.071^{+0.177}_{-0.118}$	$0.511^{+0.533}_{-0.195}$
	+2%/-3%	+5%/-3%	+75%/-75%	+22%/-22%	+17%/-11%	+104%/-38%
Source	PHO1	FLK73	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 007134502-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-183 ± 16	$2.47^{+0.71}_{-0.62}$	516^{+32}_{-33}	5993^{+872}_{-648}	11952^{+9662}_{-4707}
Alt.	-131 ± 16	$3.76^{+0.73}_{-0.67}$	517^{+33}_{-34}	4571^{+383}_{-262}	3791^{+1701}_{-1289}

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

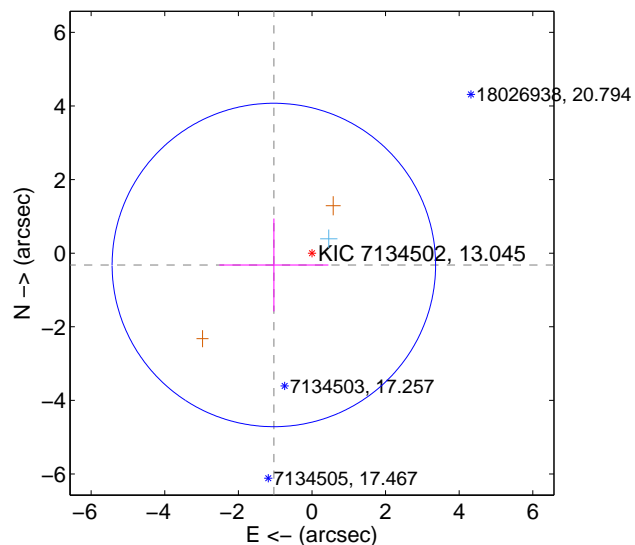
Supplemental centroid analysis for 007134502-02. Kepler magnitude: 13.04. Transit SNR 9.97

There are 1 quarters with good PRF difference image offsets

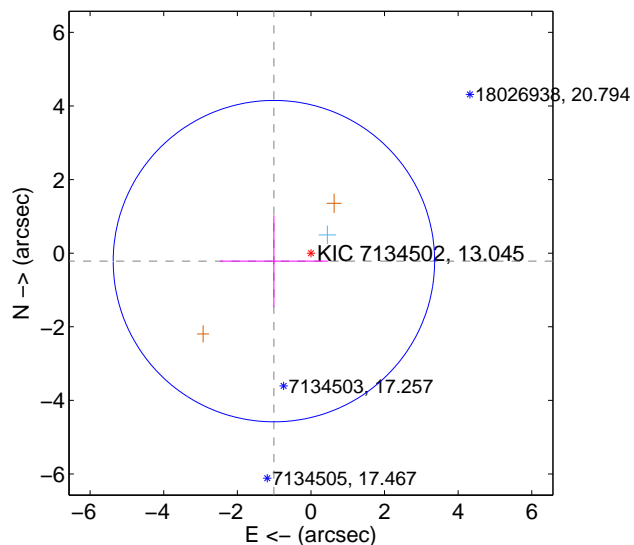
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.084 ± 1.465	0.74	1.036 ± 1.483	-0.321 ± 1.262
PRF-fit source offset from KIC position	1.029 ± 1.456	0.71	1.006 ± 1.465	-0.216 ± 1.246
photometric centroid source offset	1.07 ± 0.65	1.65	-0.42 ± 0.62	0.98 ± 0.65

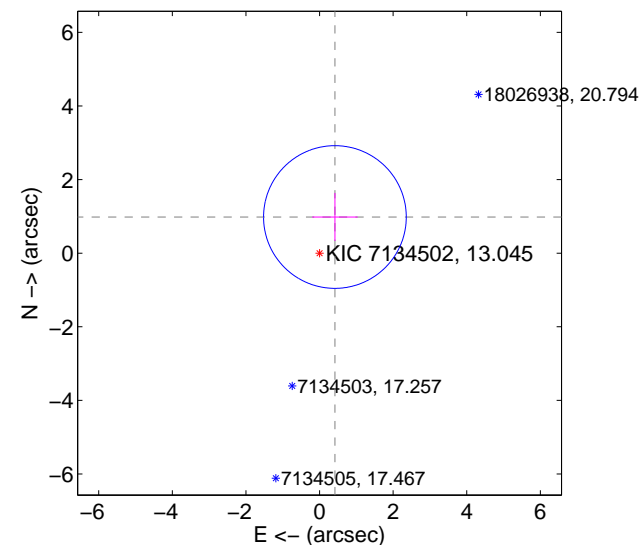
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

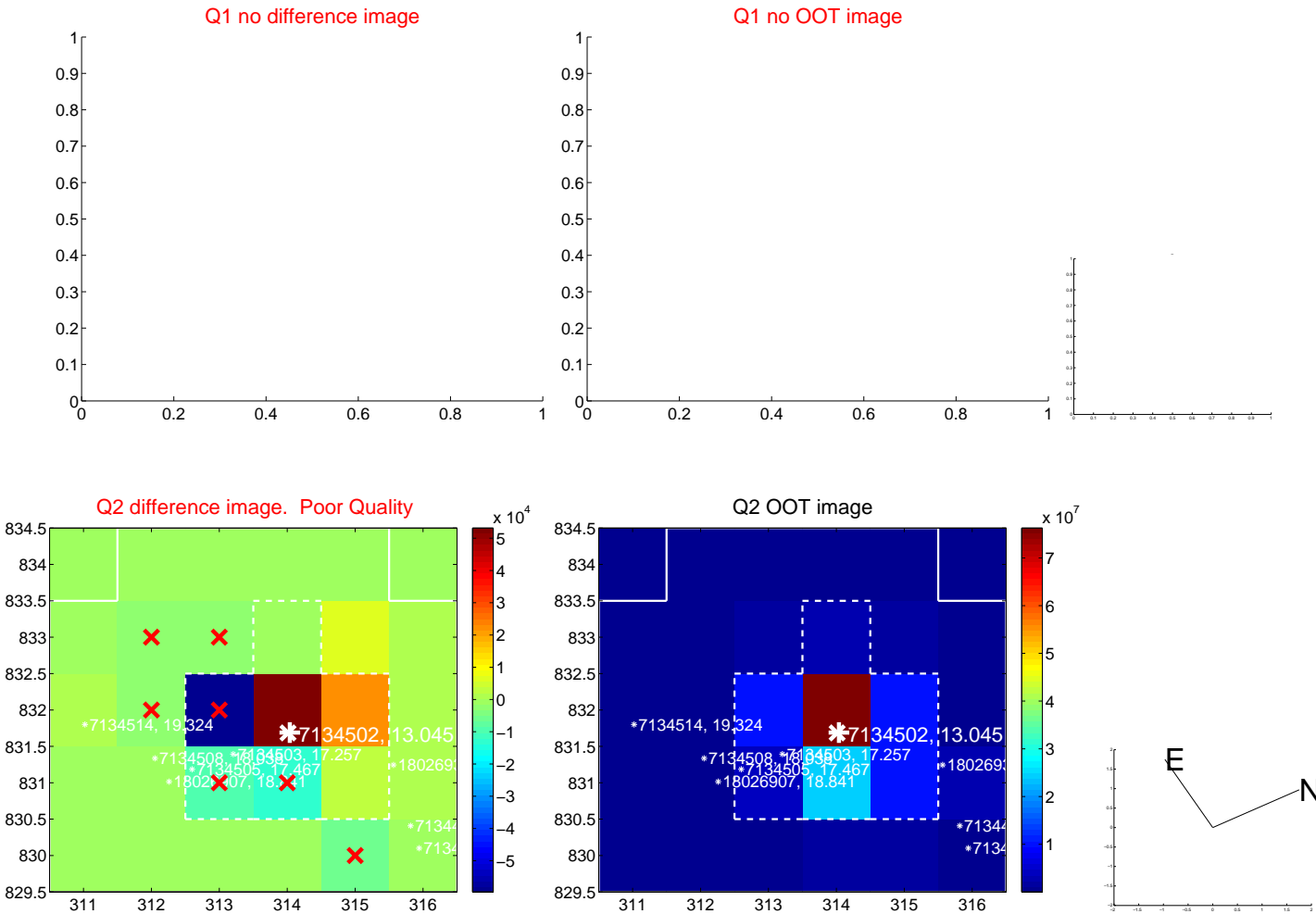


offset from photometric centroids

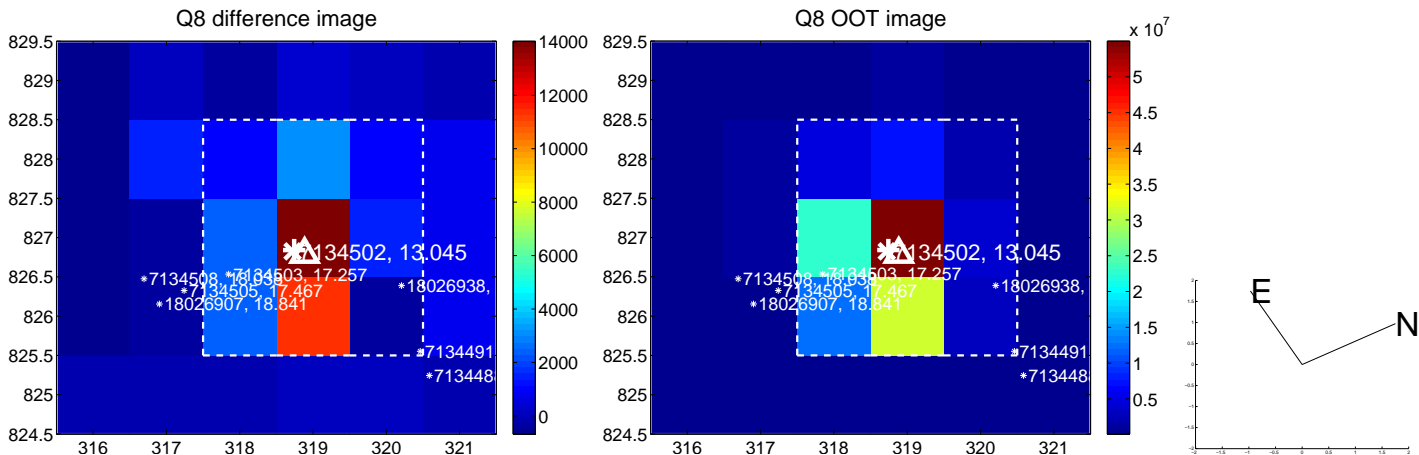
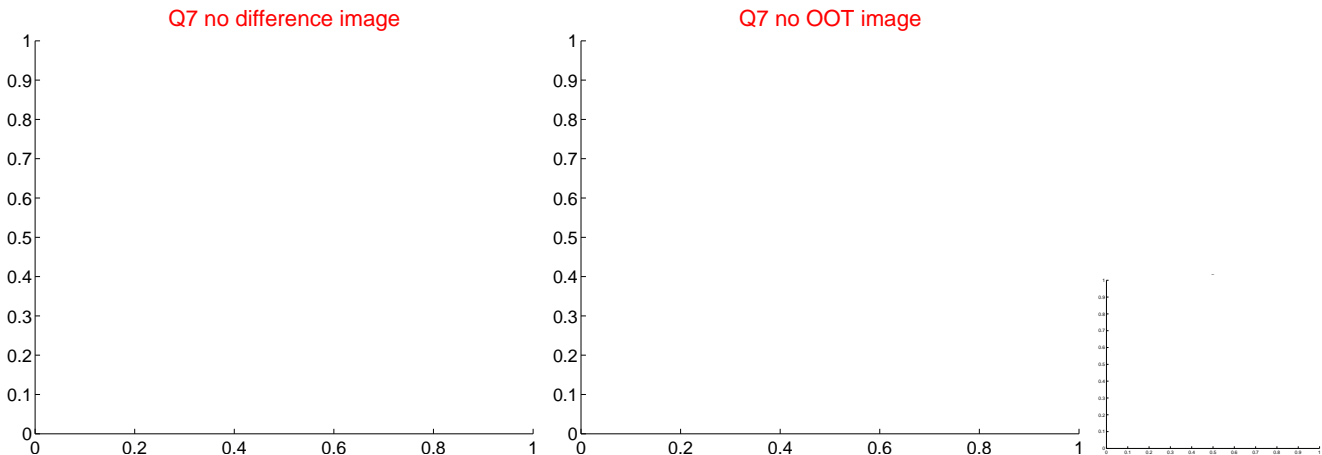
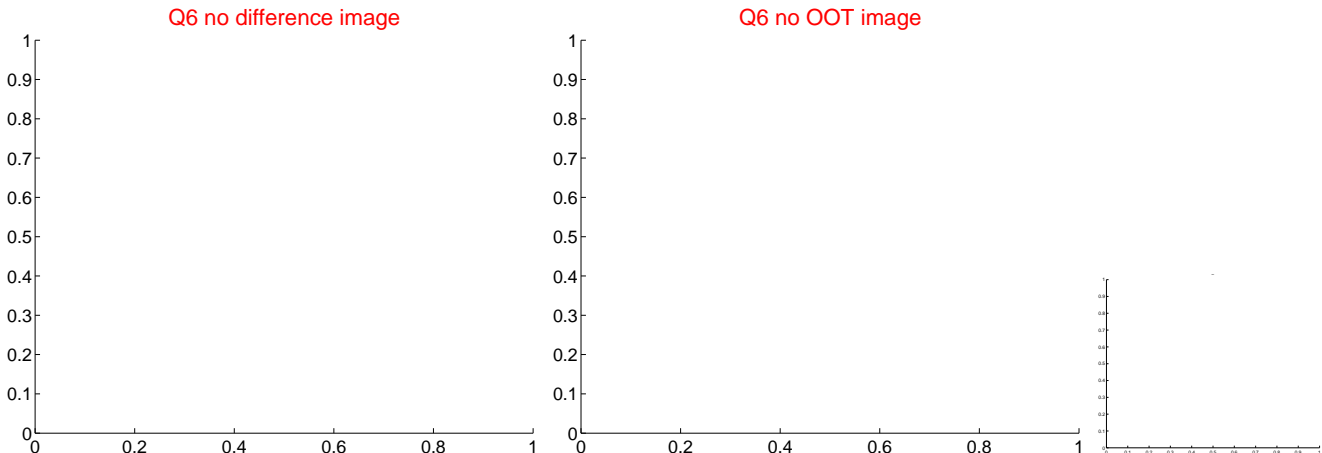
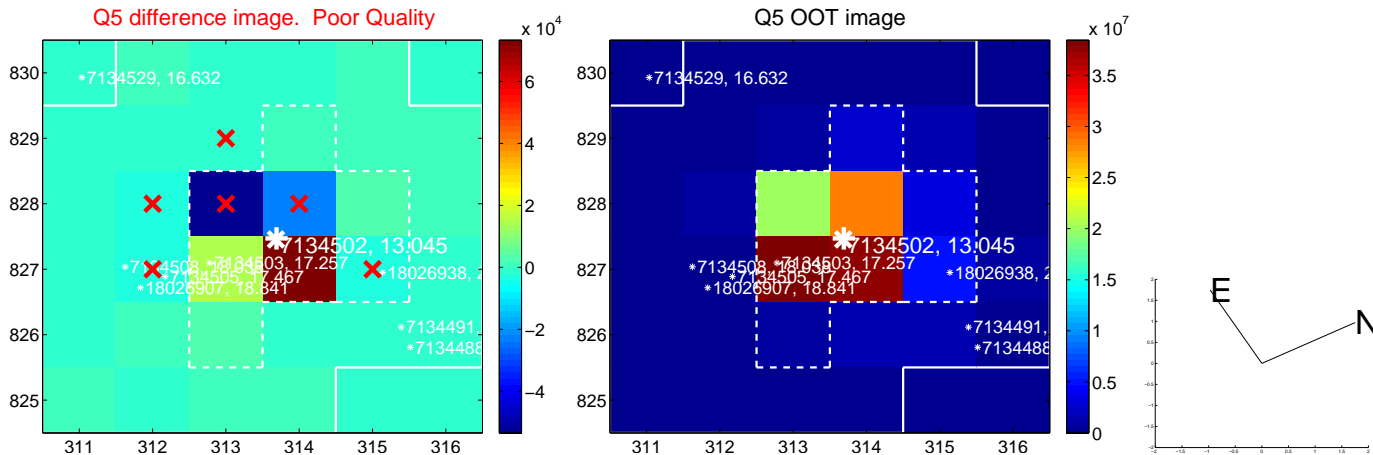


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

Q9 no difference image



Q9 no OOT image



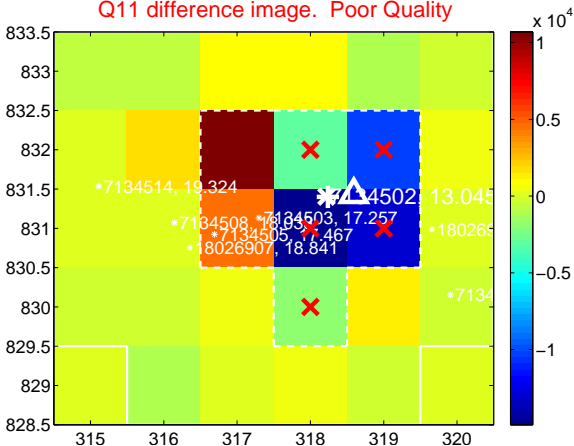
Q10 no difference image



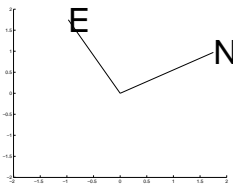
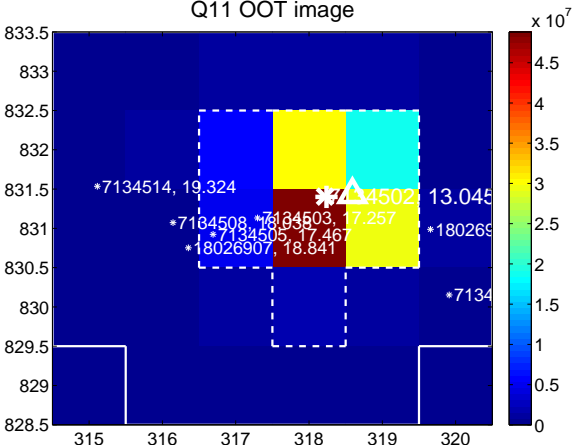
Q10 no OOT image



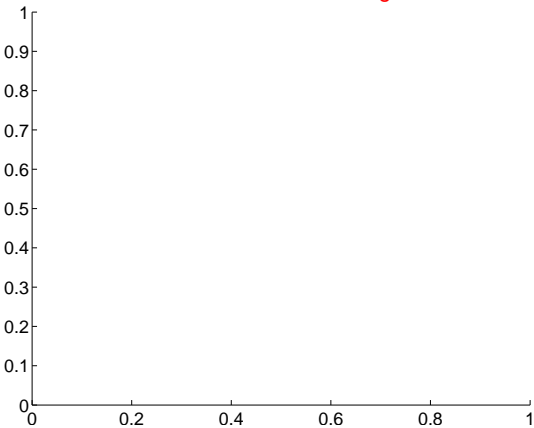
Q11 difference image. Poor Quality



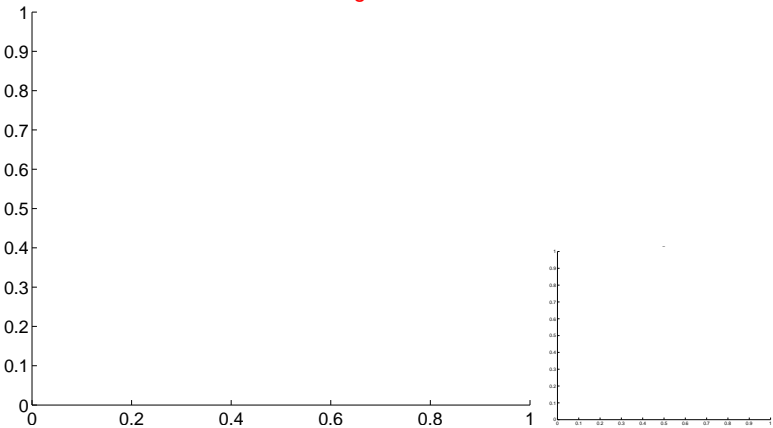
Q11 OOT image



Q12 no difference image



Q12 no OOT image



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

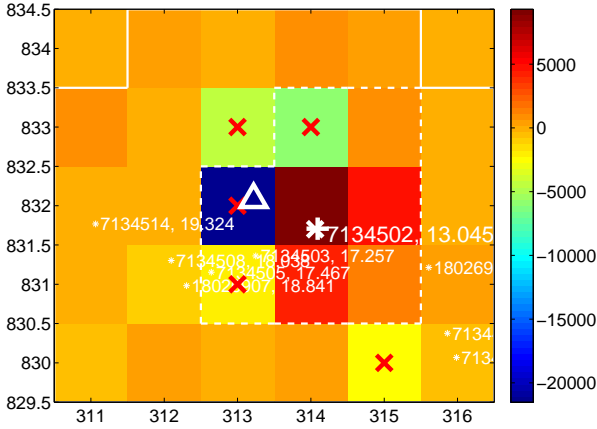
Q13 no difference image



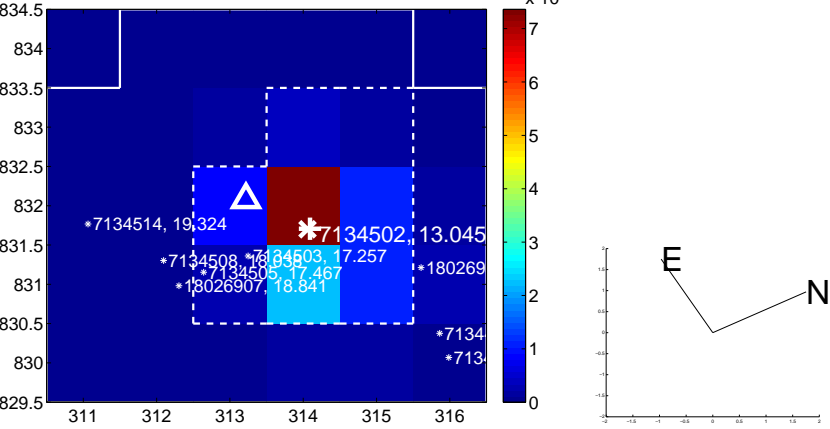
Q13 no OOT image



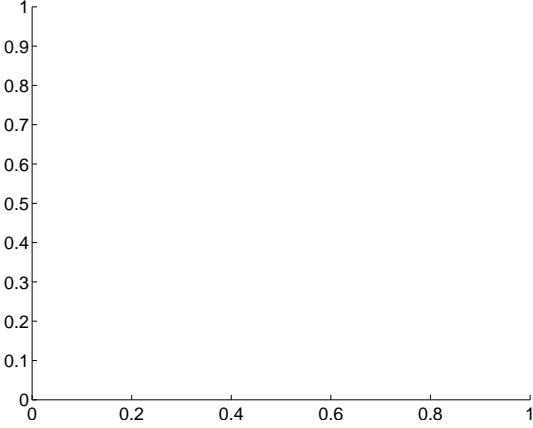
Q14 difference image. Poor Quality



Q14 OOT image



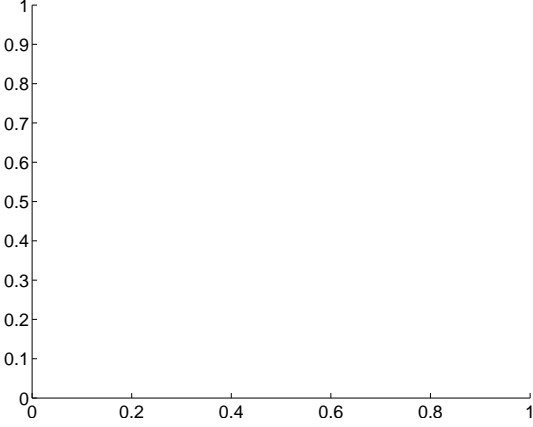
Q15 no difference image



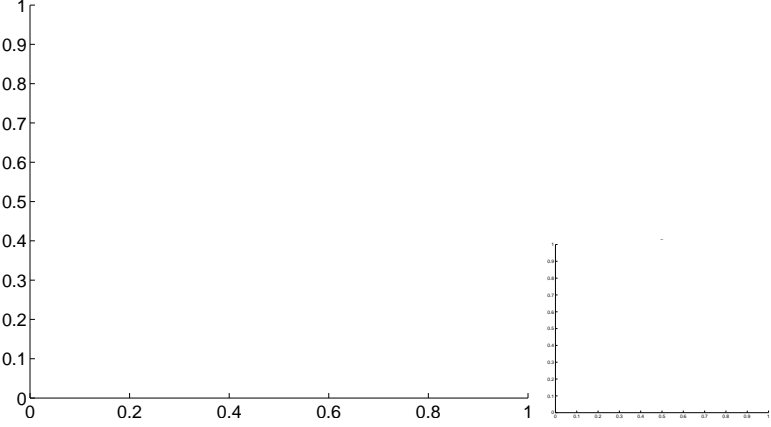
Q15 no OOT image



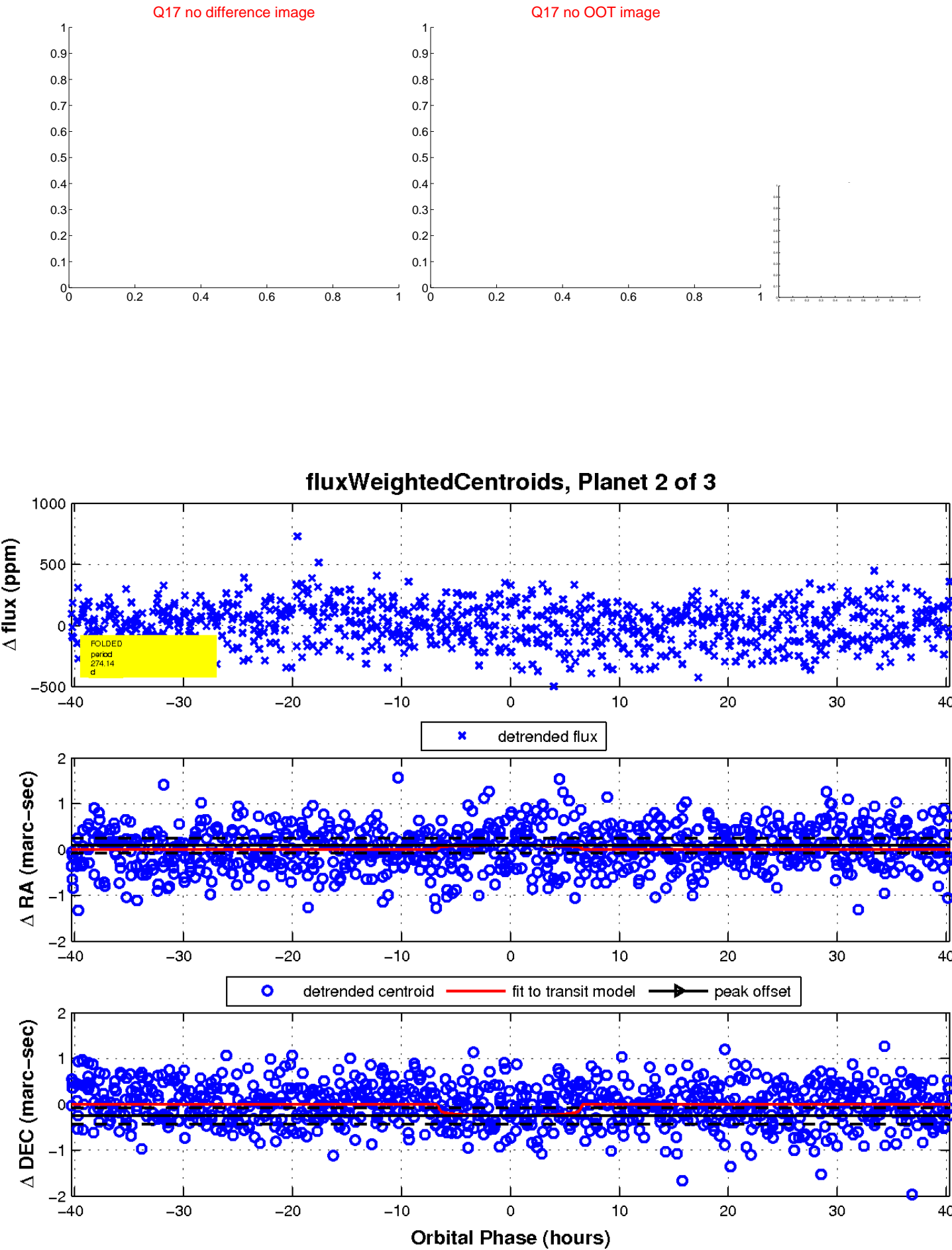
Q16 no difference image



Q16 no OOT image

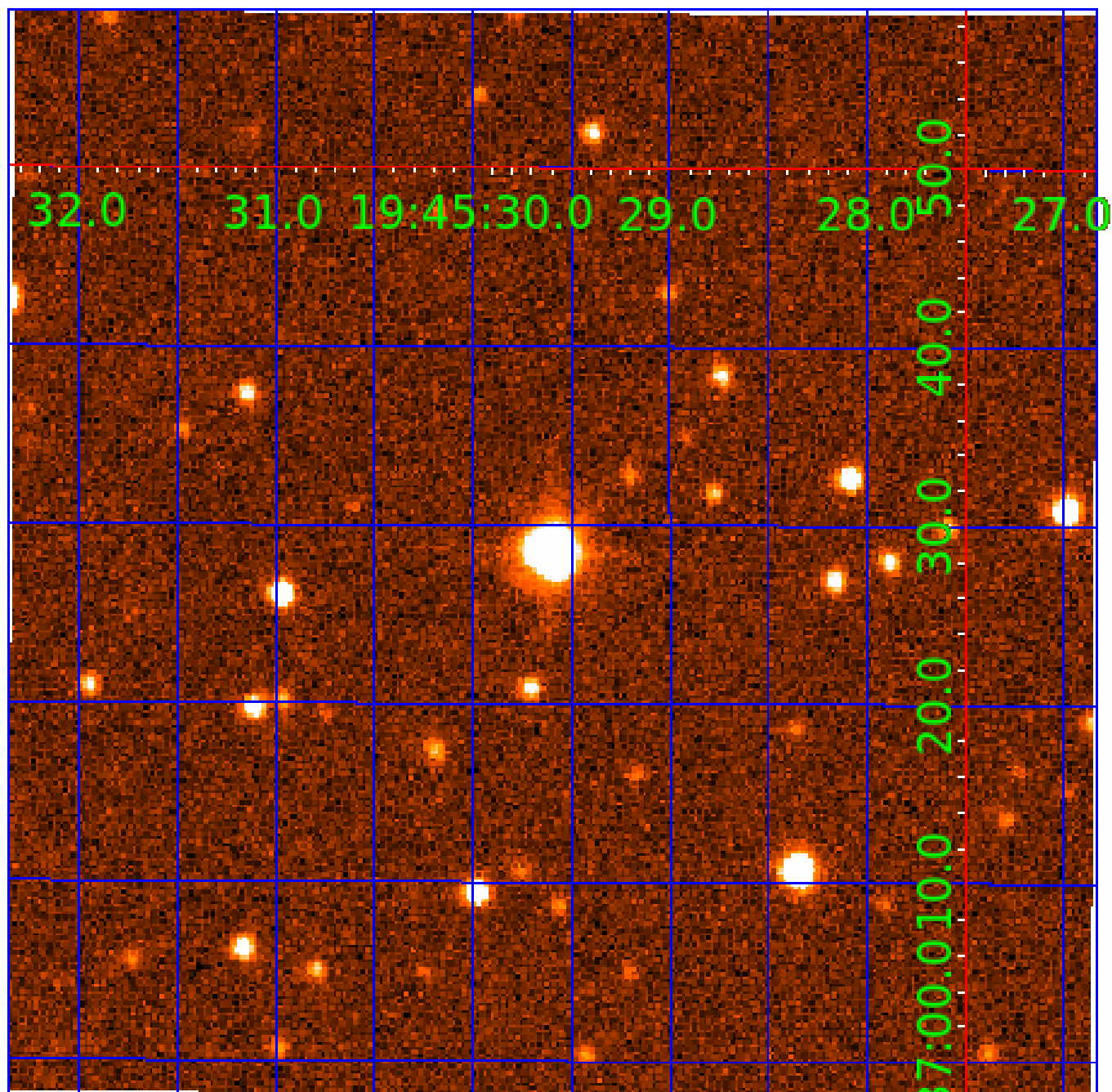


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007134502

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})
007134502-01	OBS	No	2.317937	133.574430	28.7	10.317	11.6	13.1	1.43	6489	1.03	2653.60
007134502-02	OBS	No	274.137412	236.353722	266.7	13.522	20.7	10.0	1.43	6489	2.53	4.57
007134502-03	OBS	No	447.304251	563.261900	228.4	9.000	10.5	-1.0	1.43	6489	2.18	2.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007134502-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007134502-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007134502-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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

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

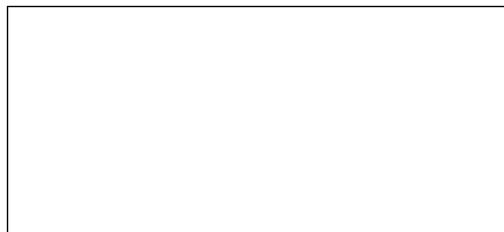
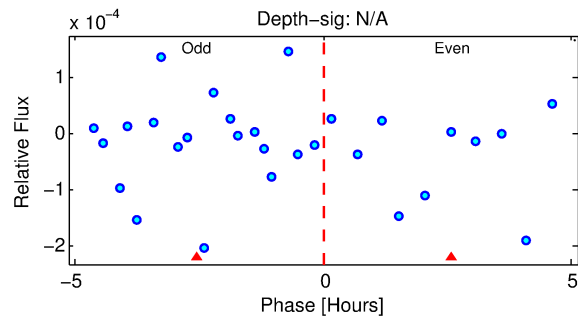
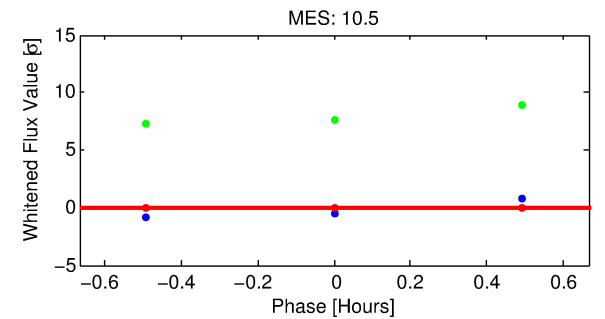
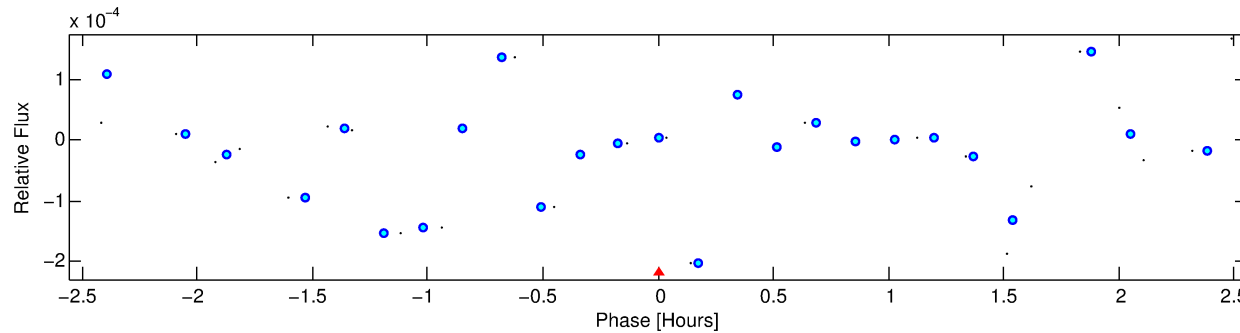
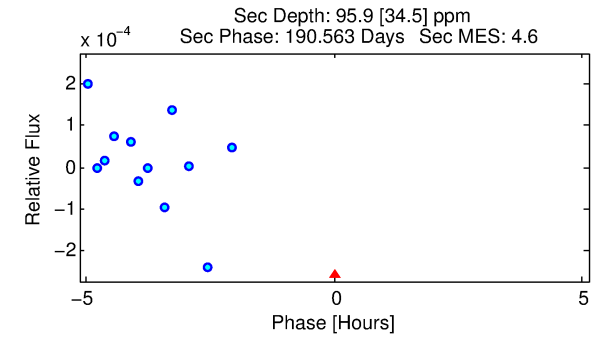
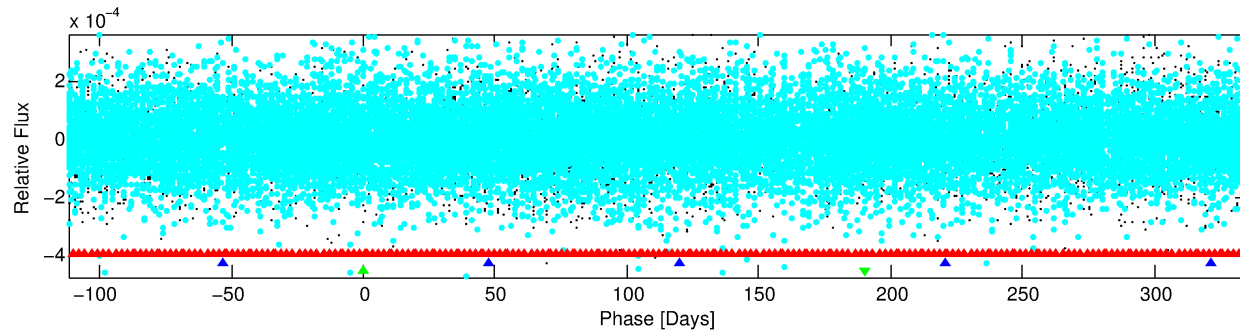
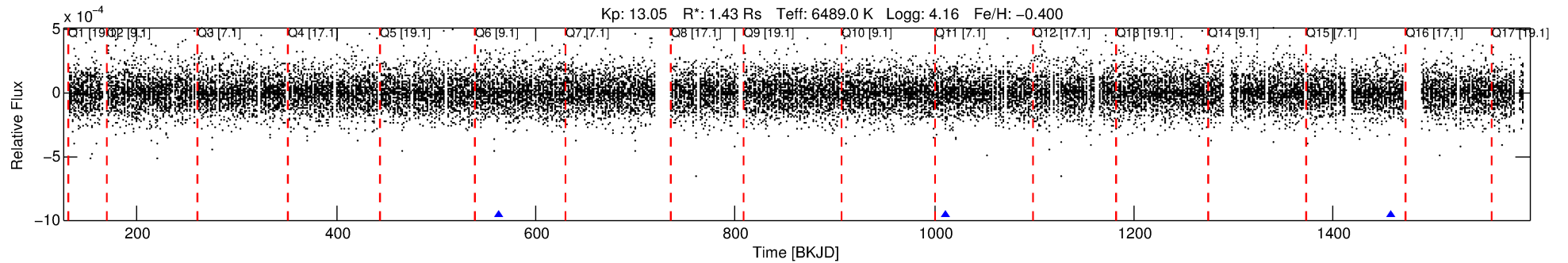
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007134502-03

No Significant Match Found

DV One-Page Summary

KIC: 7134502 Candidate: 3 of 3 Period: 447.304 d



TPS TCE Results:

Period = 447.30425 d
Epoch = 563.2619 BKJD

DV fit results are unavailable

DV Diagnostic Results:

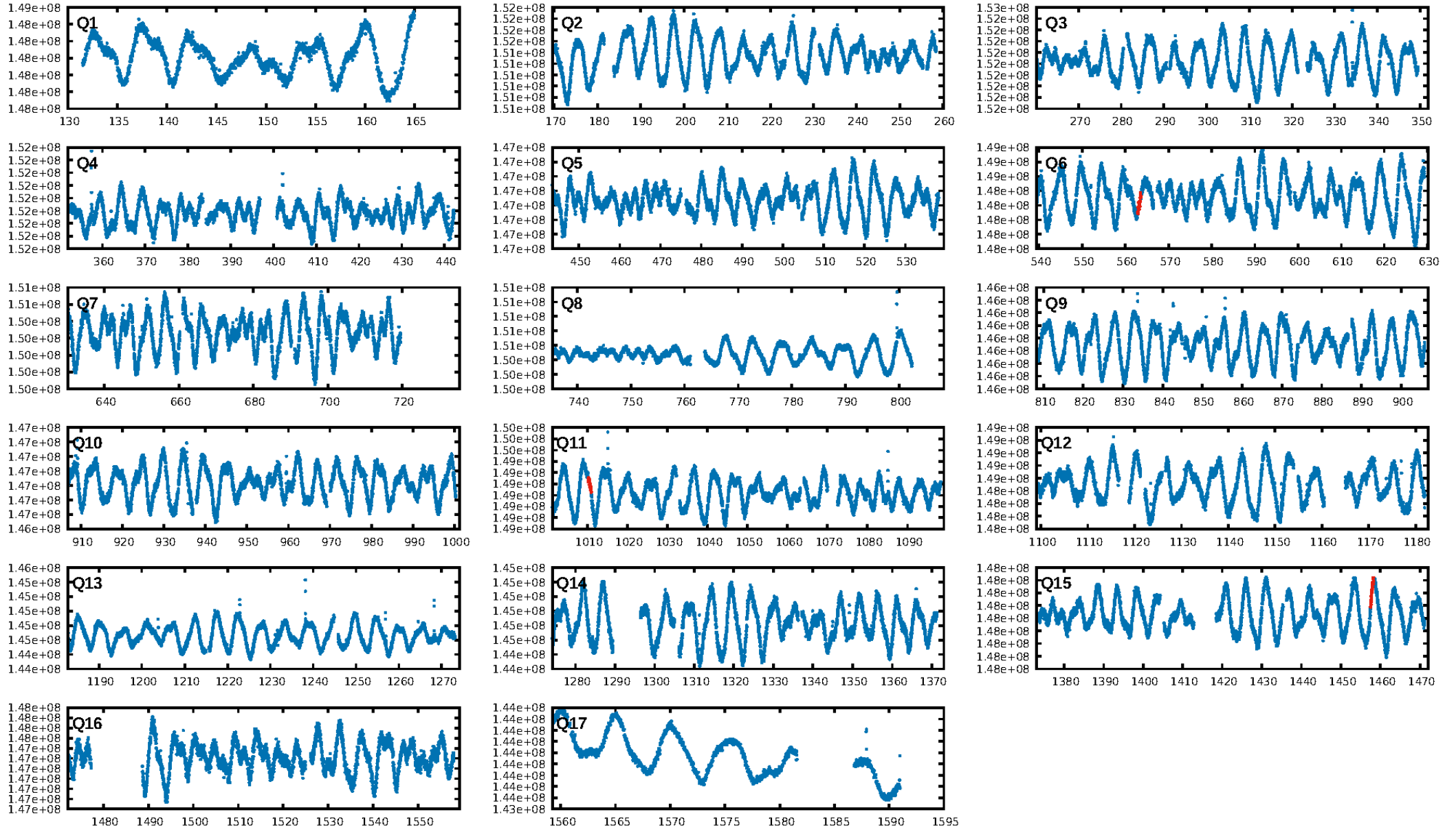
ShortPeriod-sig: 100.0% [255.86 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 2.38e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.397

Centroid-sig: 68.0%
Centroid-so: 8.562 arcsec [0.61 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

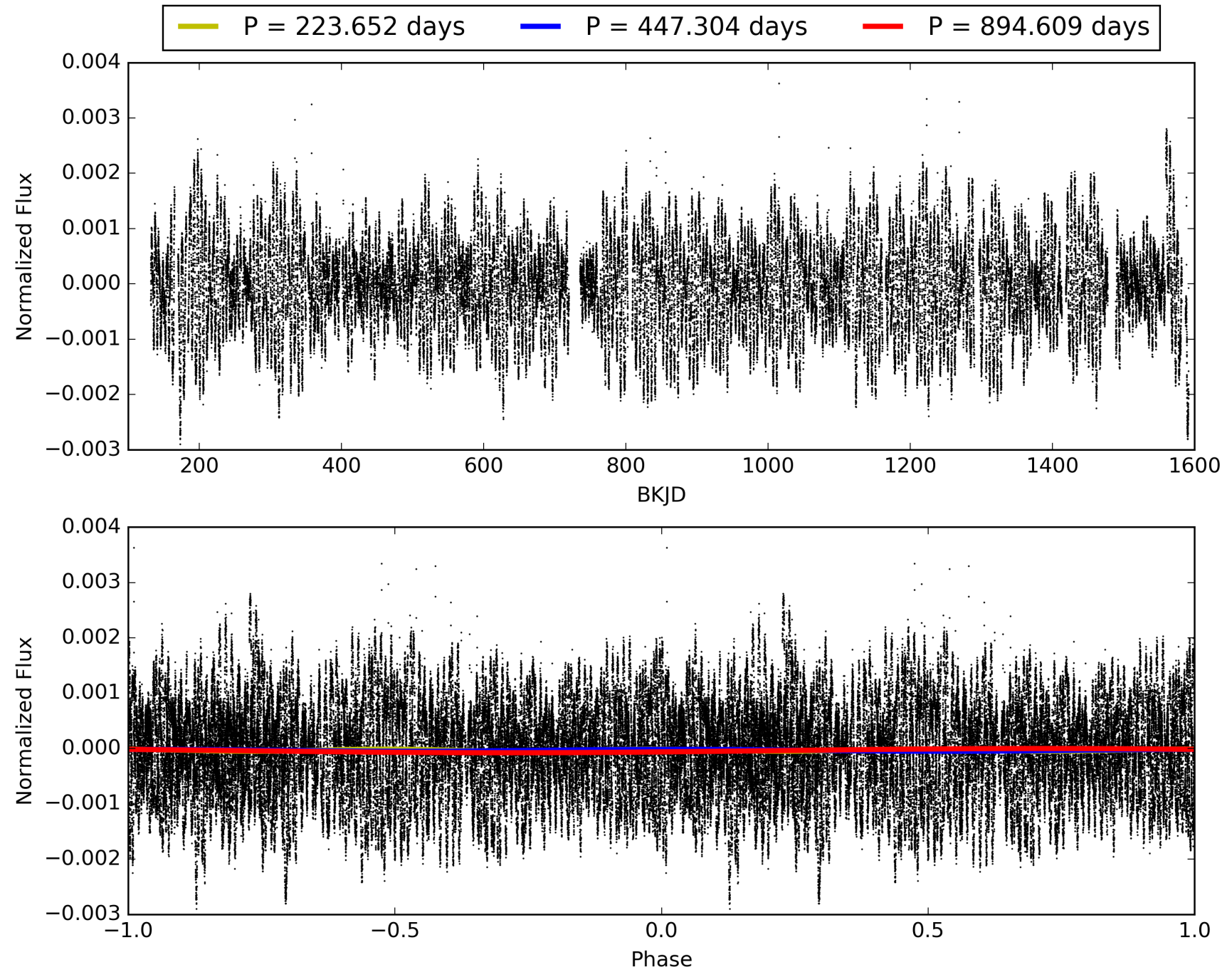
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:36:04 Z

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

TCE 007134502-03, PDC Light Curves

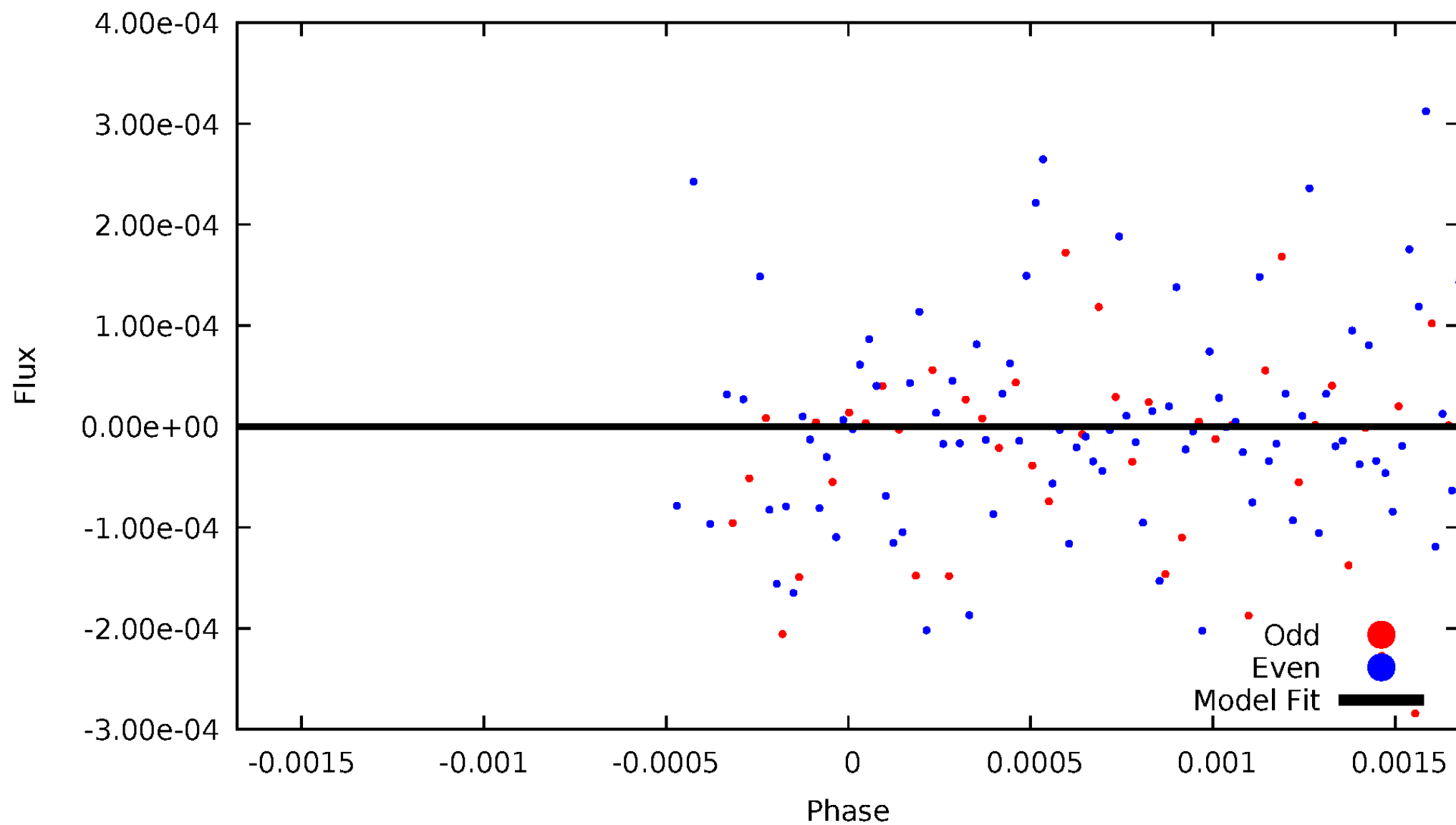


TCE 007134502-03



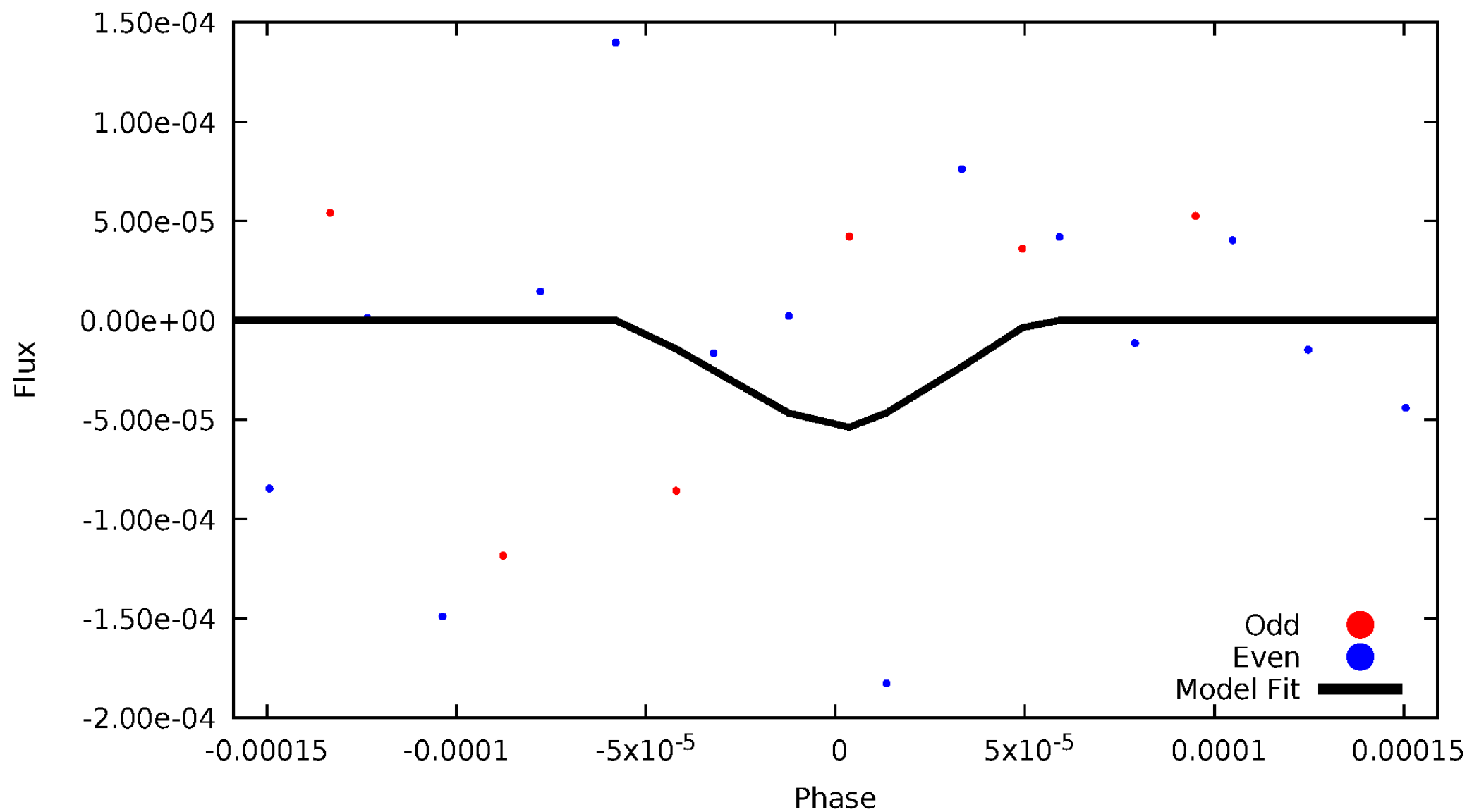
DV Odd/Even

TCE 007134502-03

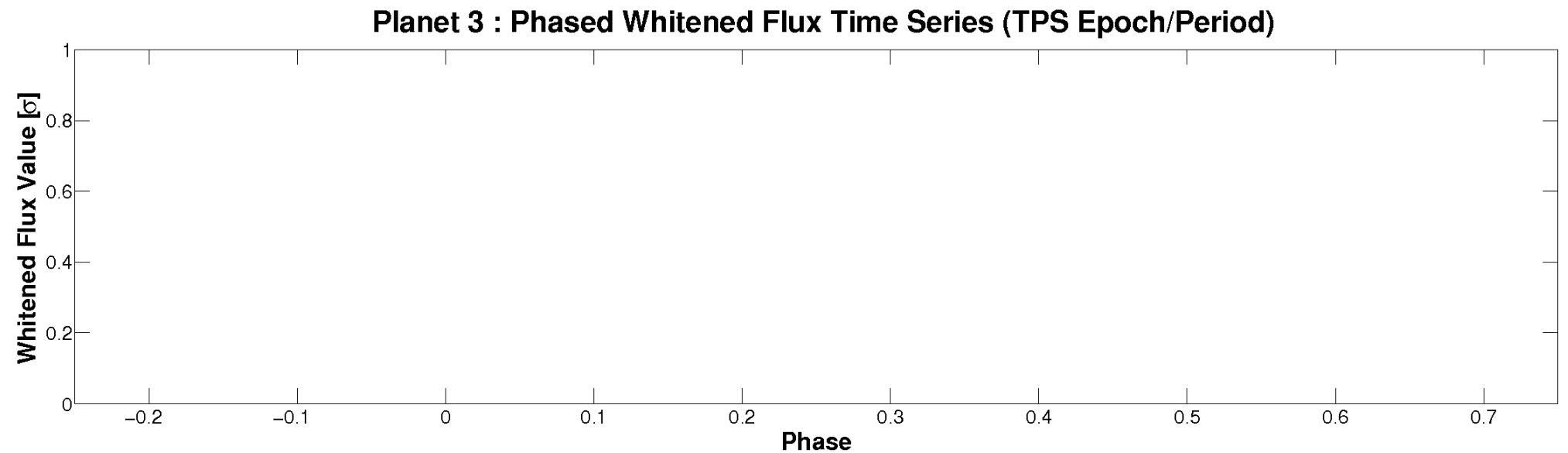
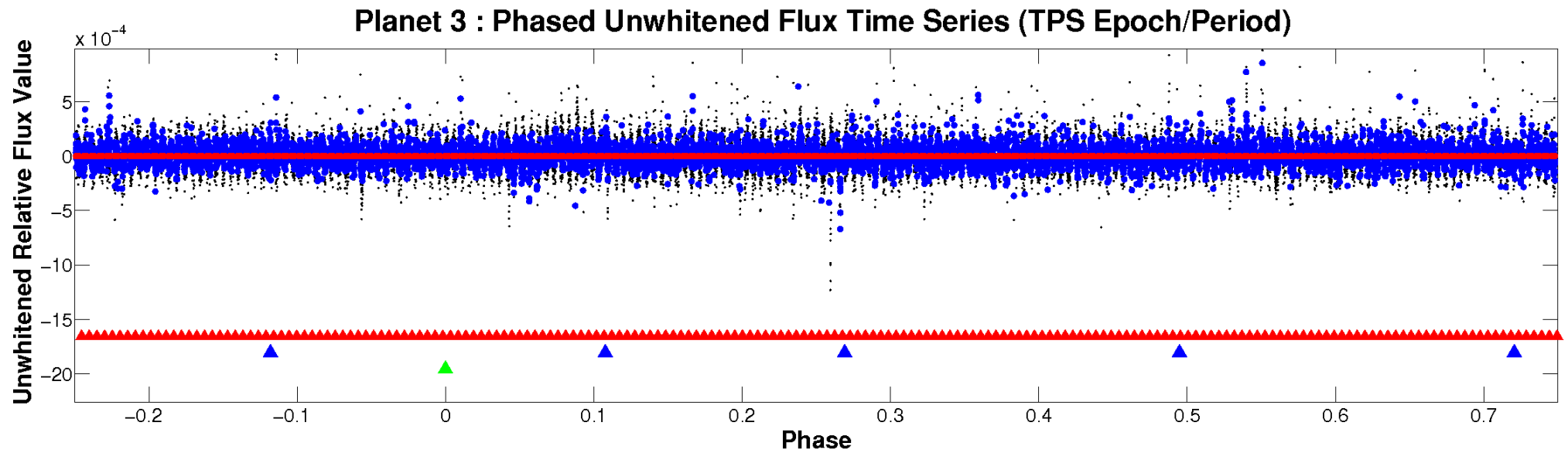


ALT Odd/Even

TCE 007134502-03

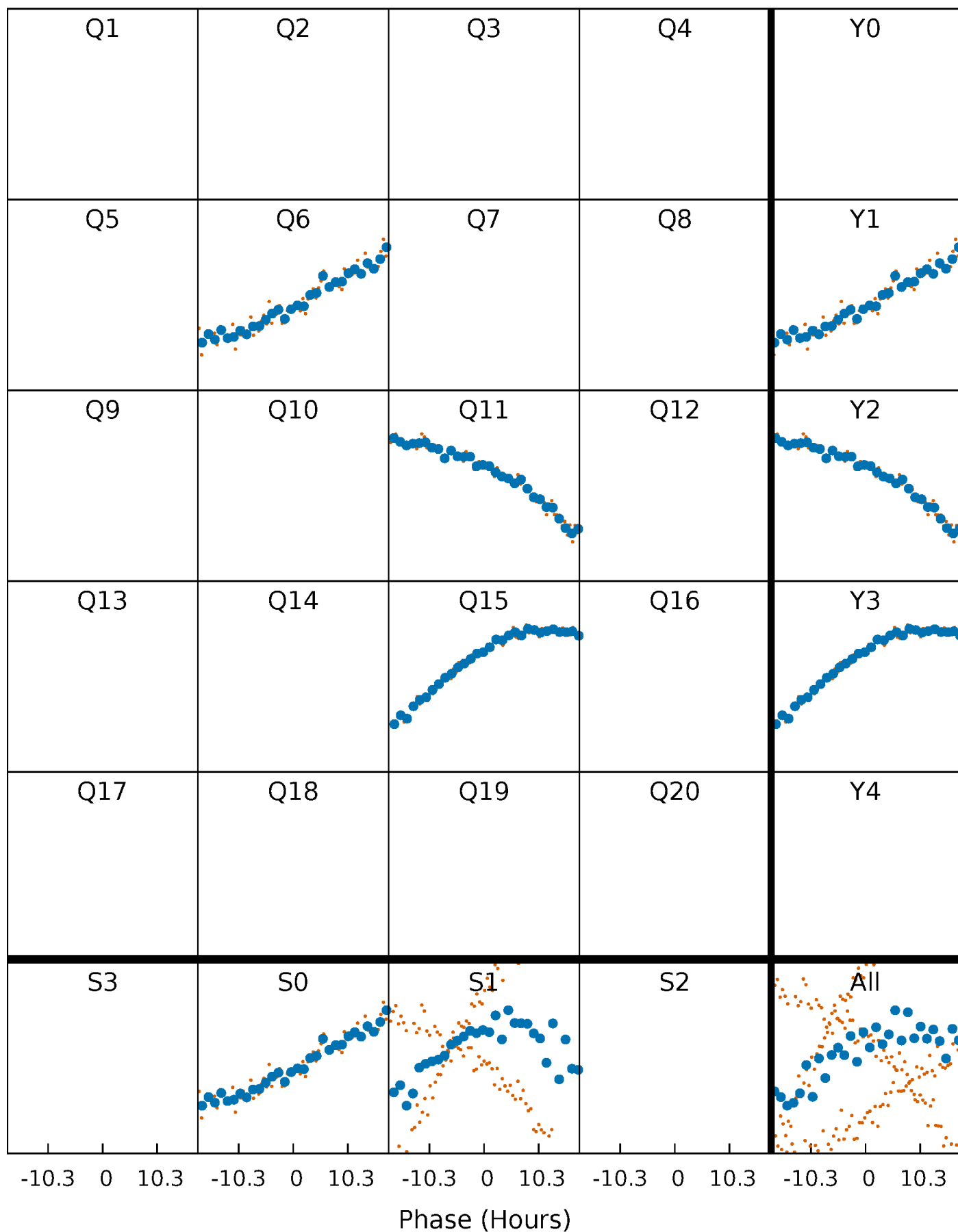


Non-Whitened Vs. Whitened Light Curve



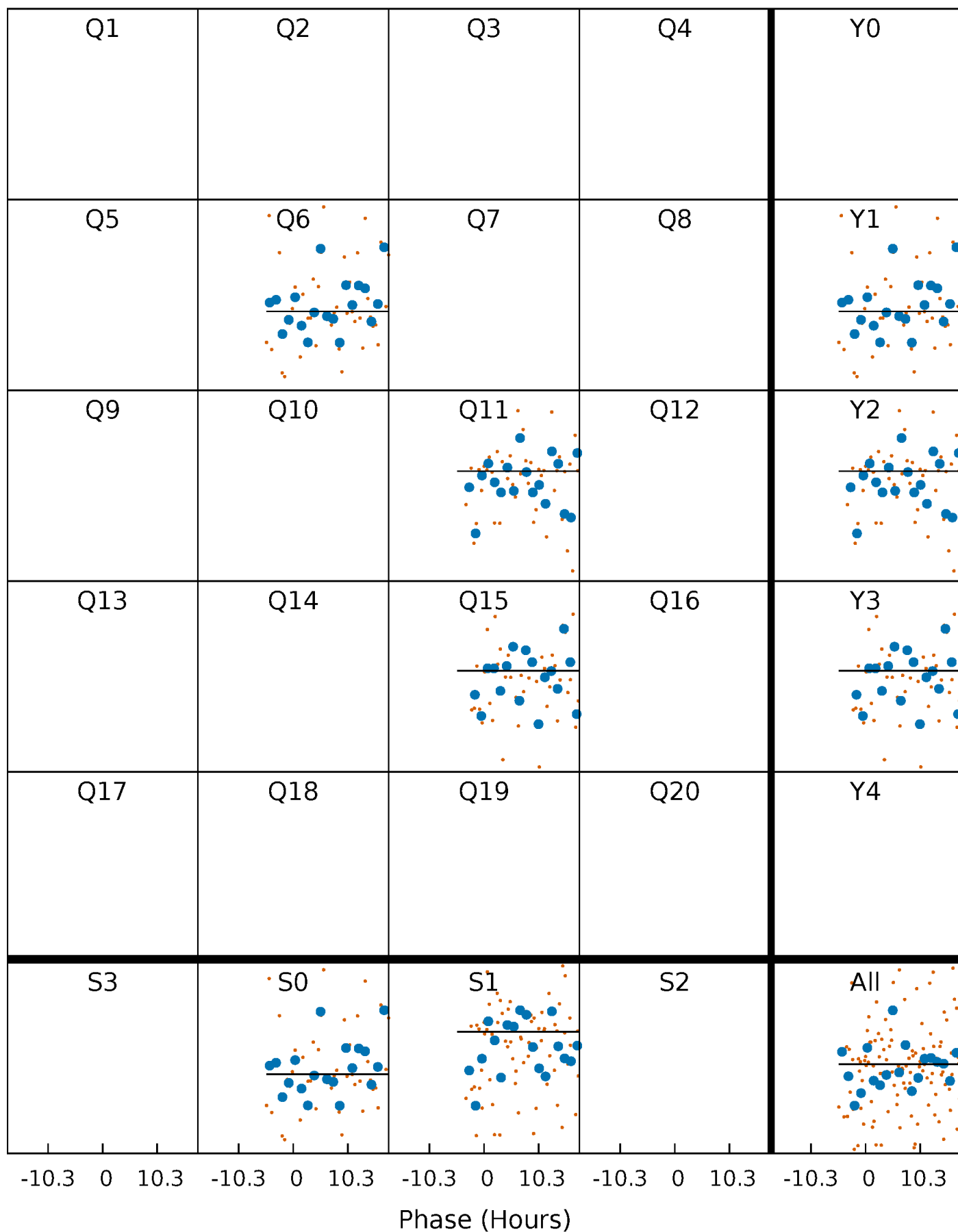
PDC Quarter-Phased Transit Curves

TCE 007134502-03 $P=447.304251$ Days $T_0=563.261900$ (BKJD)



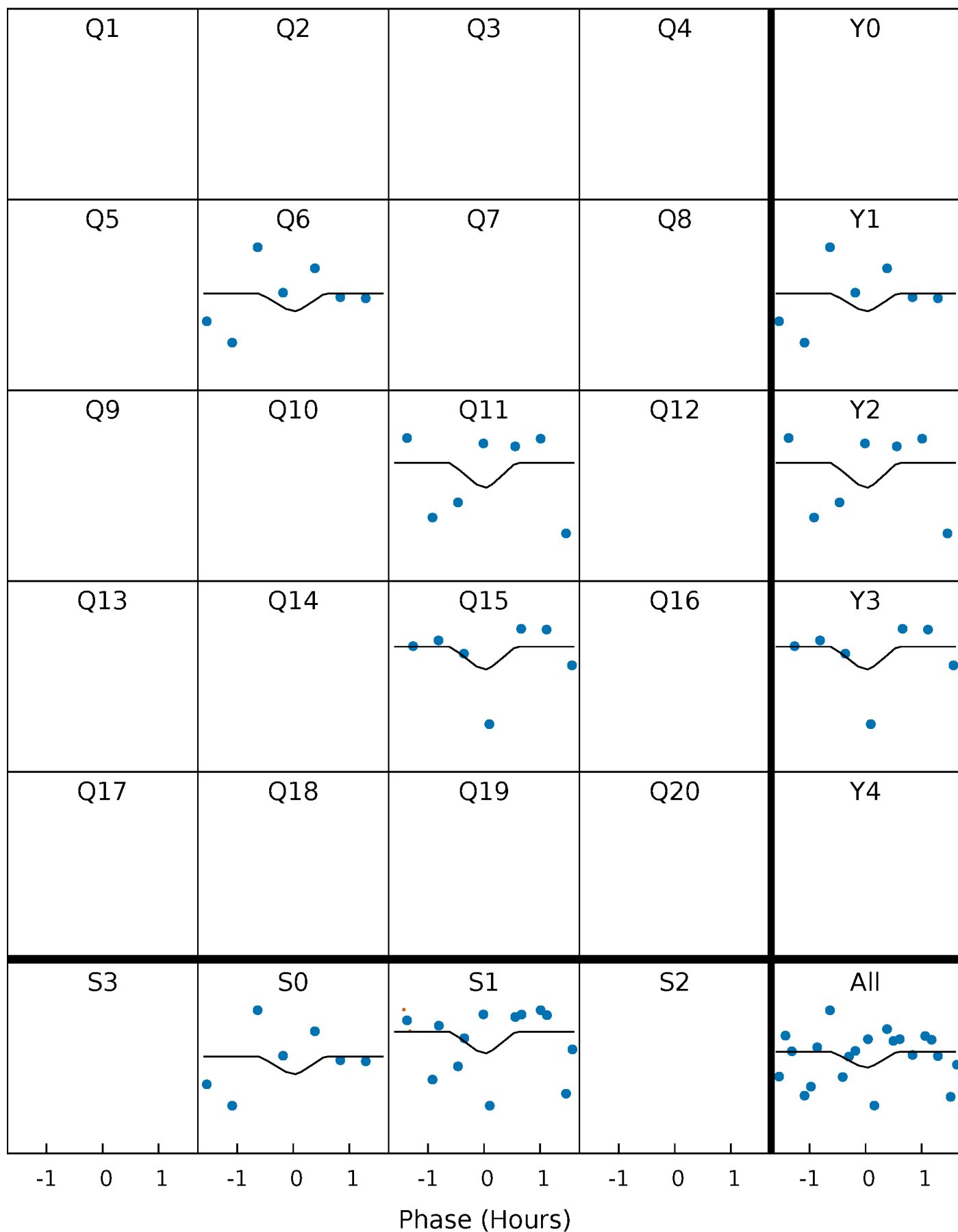
DV Quarter-Phased Transit Curves

TCE 007134502-03 P=447.304251 Days $T_0=563.261900$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

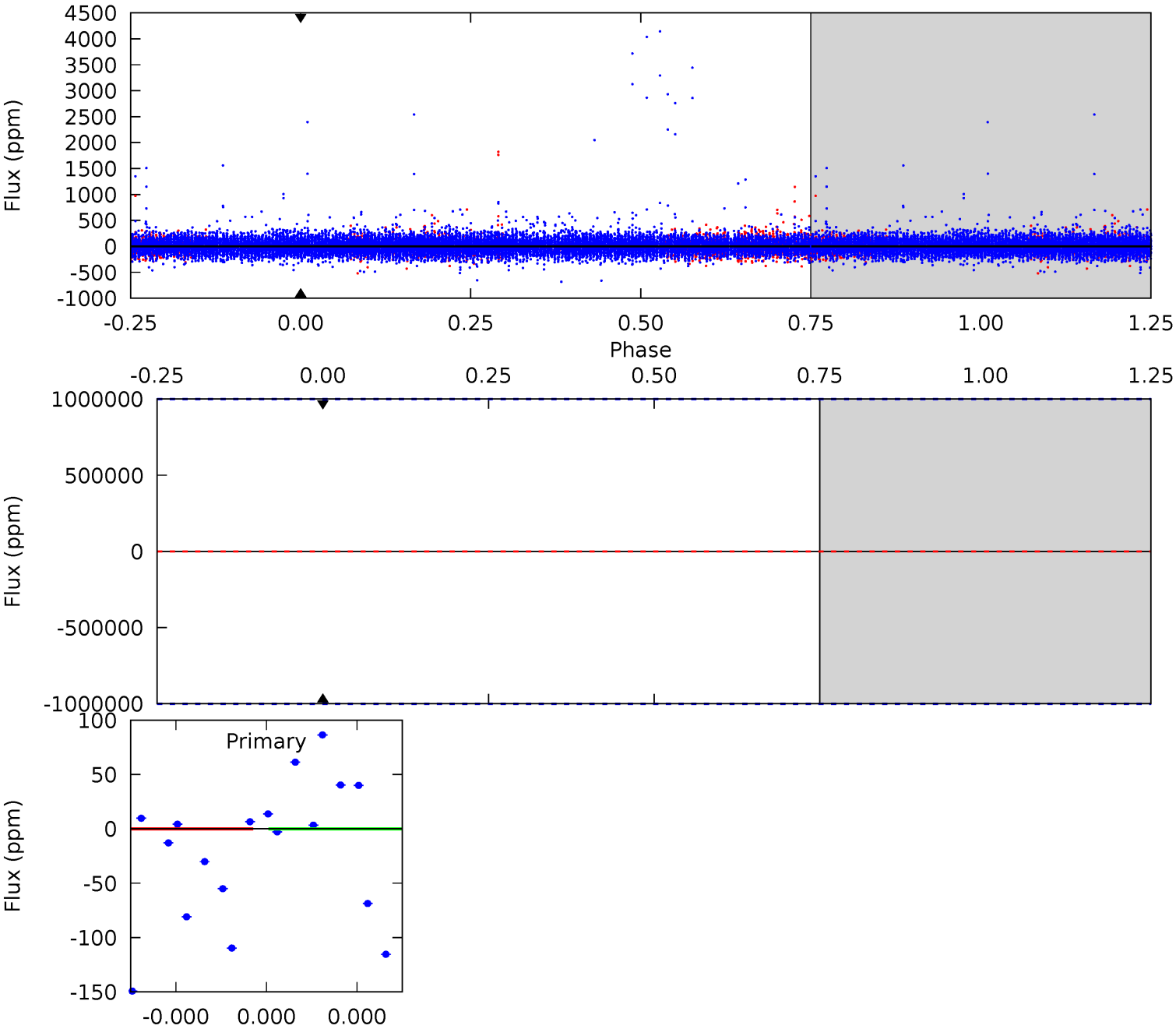
TCE 007134502-03 P=447.304251 Days $T_0=563.690360$ (BKJD)



DV Model-Shift Uniqueness Test

007134502-03, P = 447.304251 Days, E = 115.957649 Days

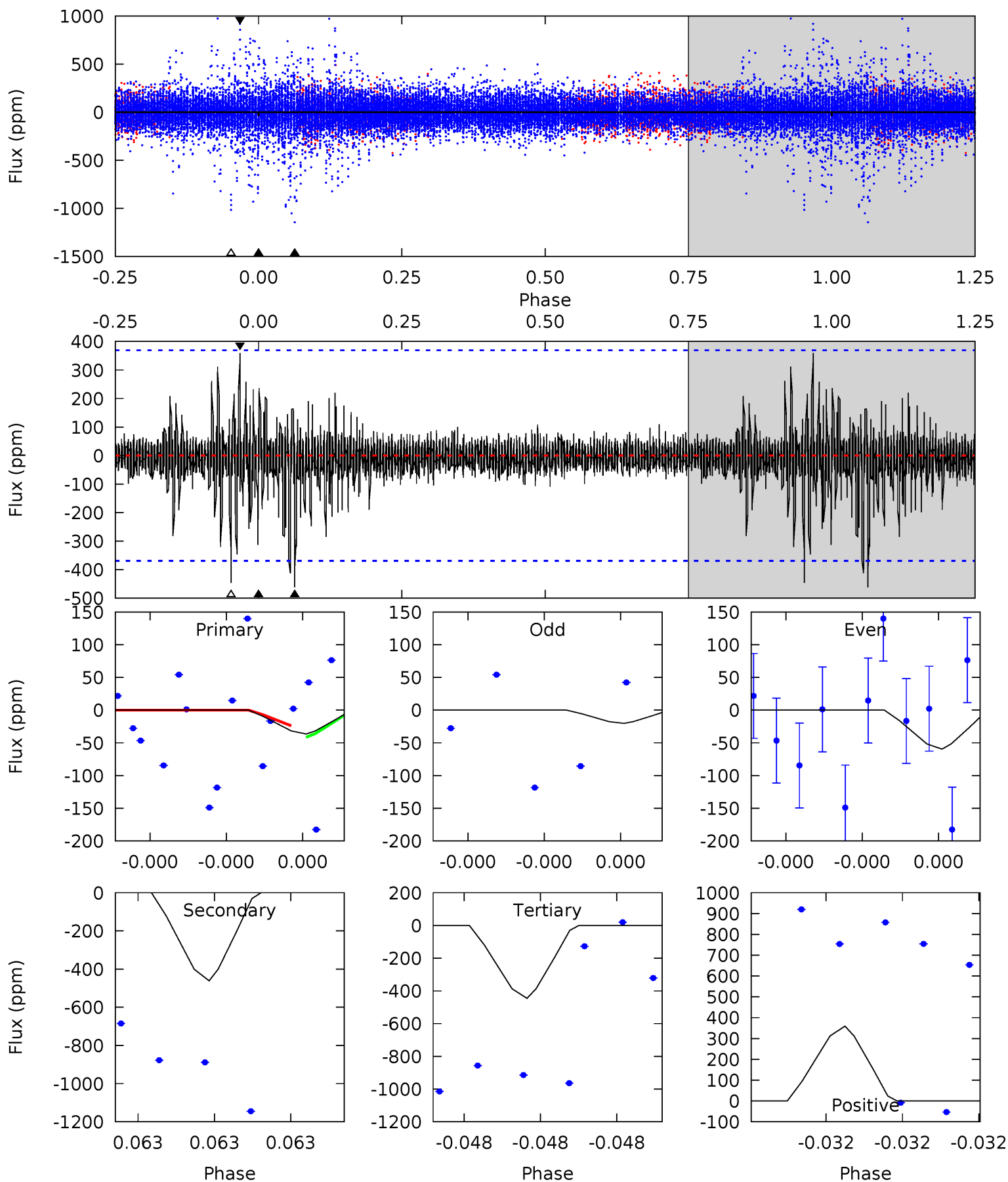
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007134502-03, P = 447.304251 Days, E = 116.386109 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.58	7.35	7.10	5.72	5.88	3.94	0.60	-6.52	-5.14	0.25	1.62	0.26	-1.87	0.44	0.13



Stellar Parameters For KIC 007134502

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6489^{+162}_{-194}	$4.155^{+0.192}_{-0.128}$	$-0.400^{+0.300}_{-0.300}$	$1.434^{+0.311}_{-0.311}$	$1.071^{+0.177}_{-0.118}$	$0.511^{+0.533}_{-0.195}$
	+2%/-3%	+5%/-3%	+75%/-75%	+22%/-22%	+17%/-11%	+104%/-38%
Source	PHO1	FLK73	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 007134502-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$11.30^{+12.88}_{-8.03}$	437^{+27}_{-29}	-4791^{+27563}_{-24127}	$-8896.879^{+794447.898}_{-1156684.270}$
Alt.	-461 ± 63	$10.37^{+11.73}_{-7.21}$	440^{+26}_{-31}	3949^{+2497}_{-832}	3203^{+30397}_{-2484}

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

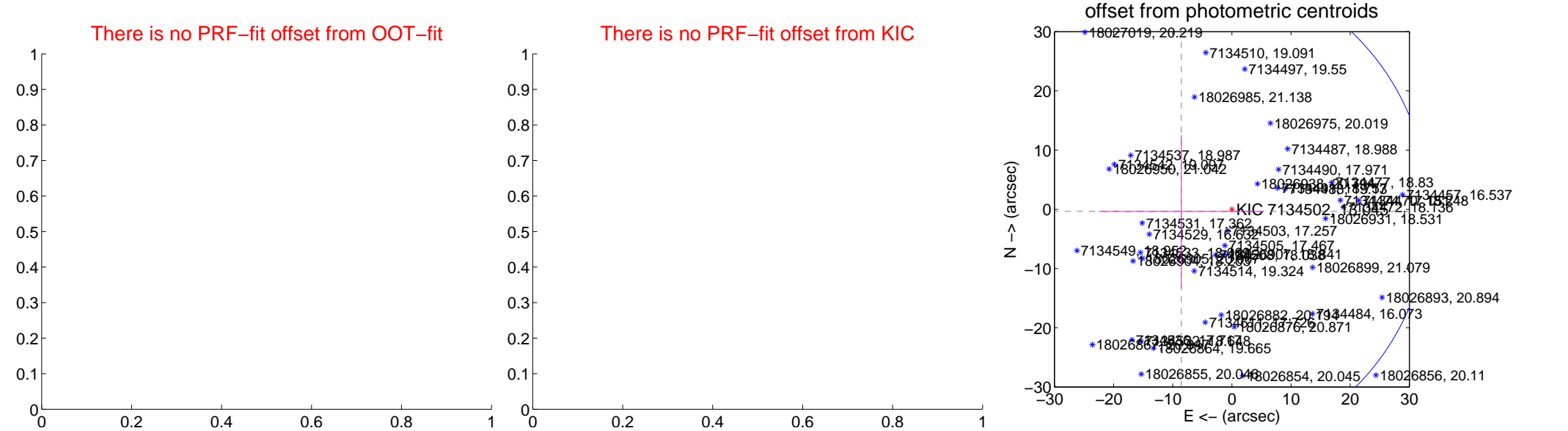
DV Centroid Data

Supplemental centroid analysis for 007134502-03. Kepler magnitude: 13.04. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	8.56 ± 13.93	0.61	8.55 ± 13.93	-0.35 ± 12.89



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.

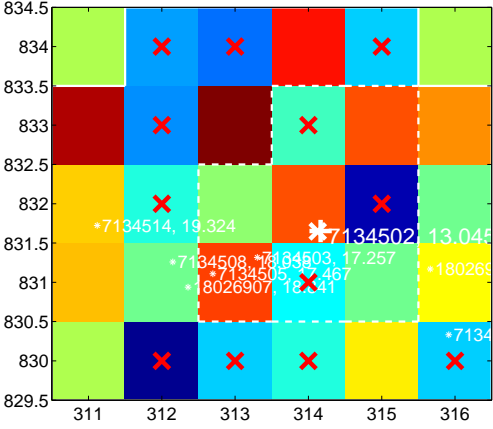
Q5 no difference image



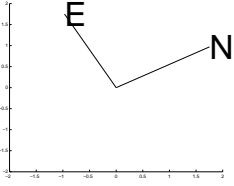
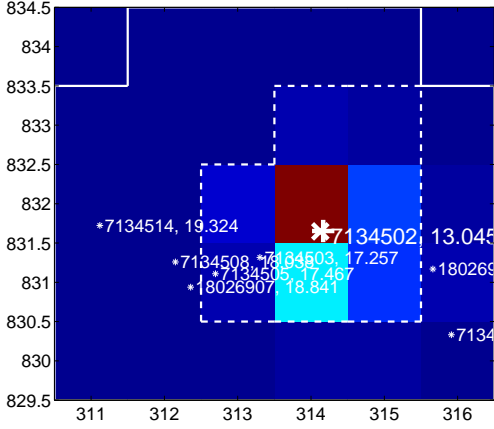
Q5 no OOT image



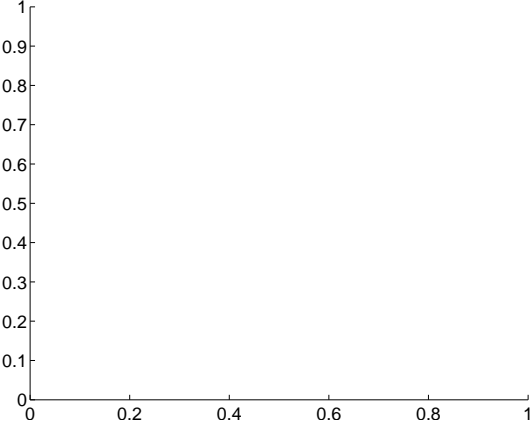
Q6 difference image. Poor Quality



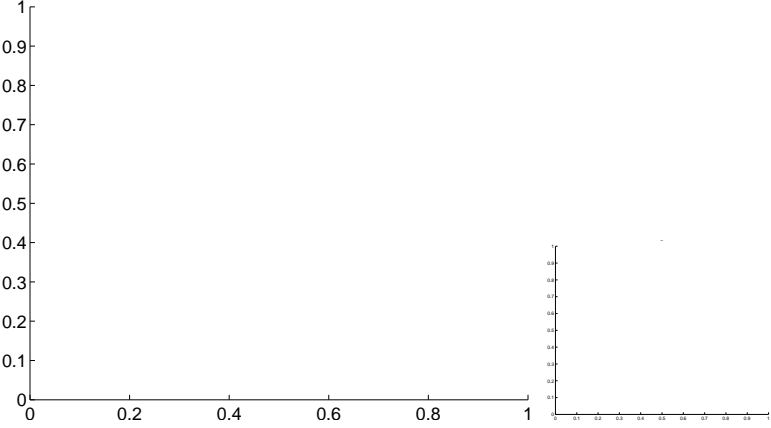
Q6 OOT image



Q7 no difference image



Q7 no OOT image



Q8 no difference image



Q8 no OOT image



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

Q9 no difference image



Q9 no OOT image



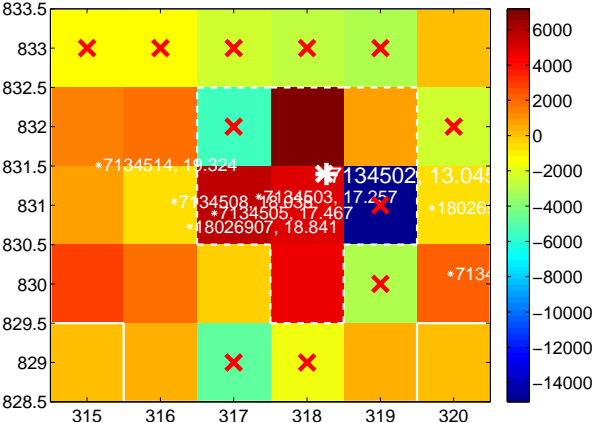
Q10 no difference image



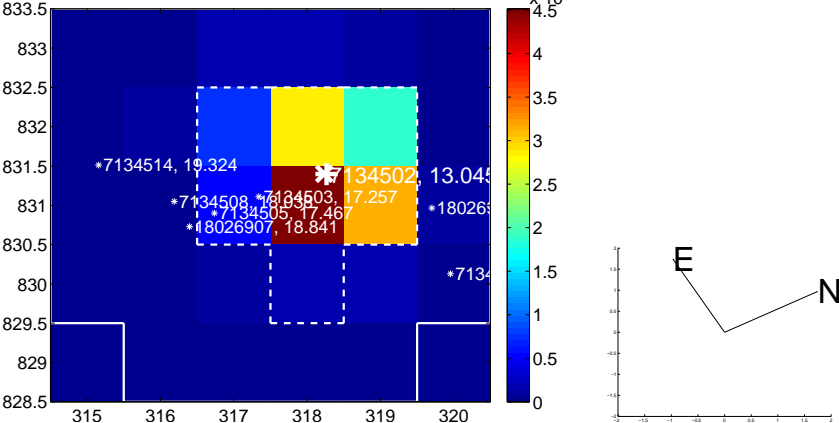
Q10 no OOT image



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.

Q13 no difference image



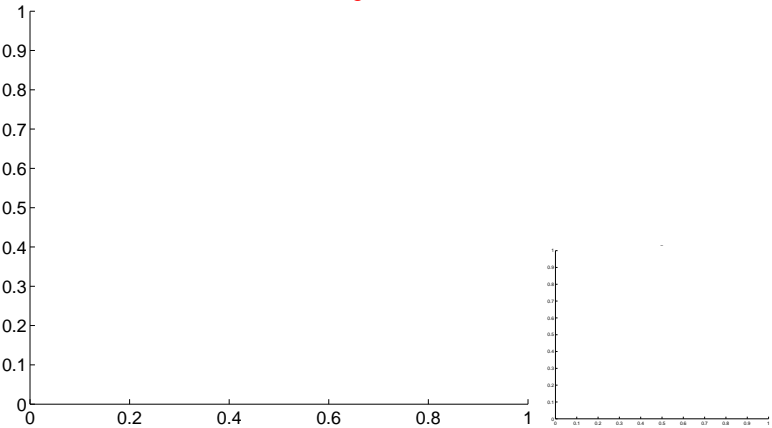
Q13 no OOT image



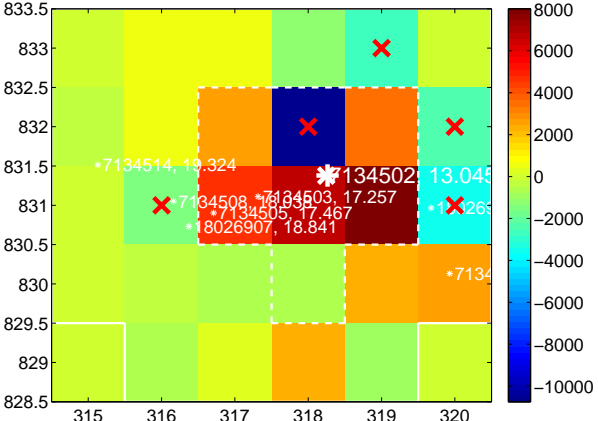
Q14 no difference image



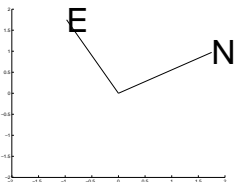
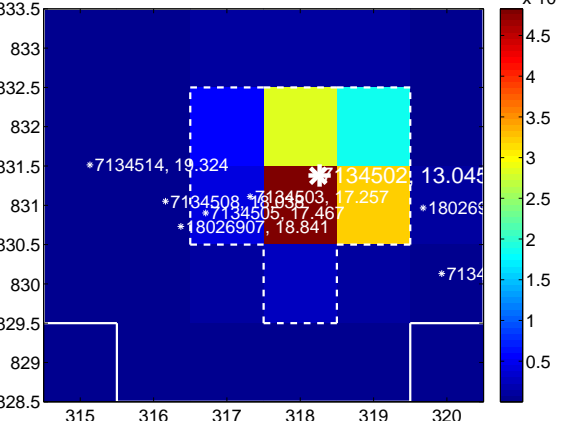
Q14 no OOT image



Q15 difference image. Poor Quality



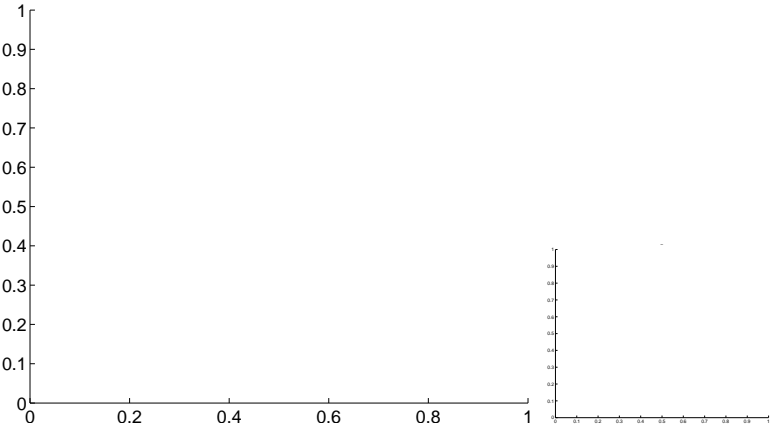
Q15 OOT image



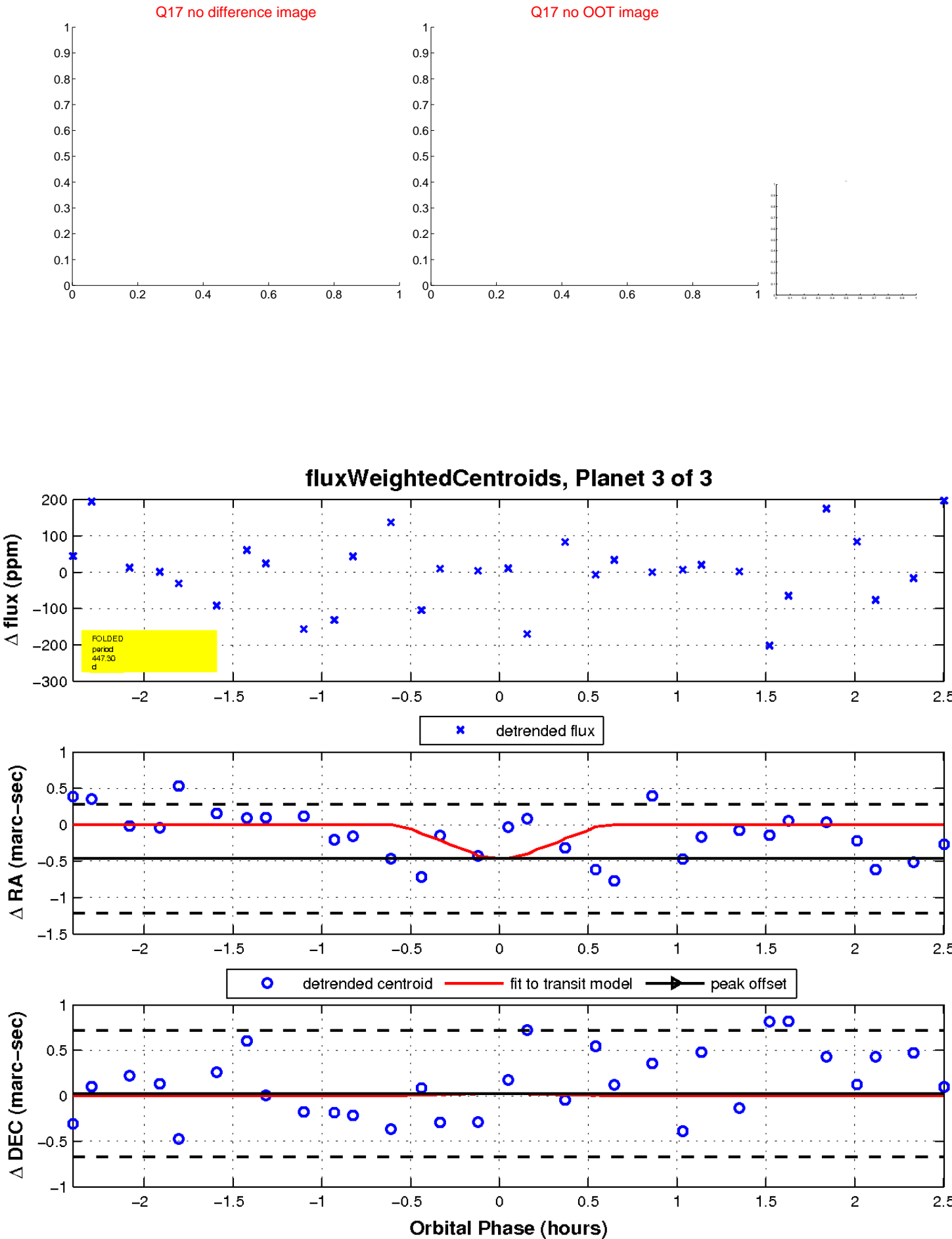
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

