

KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
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011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

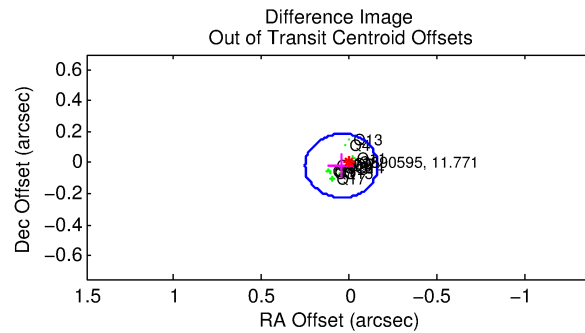
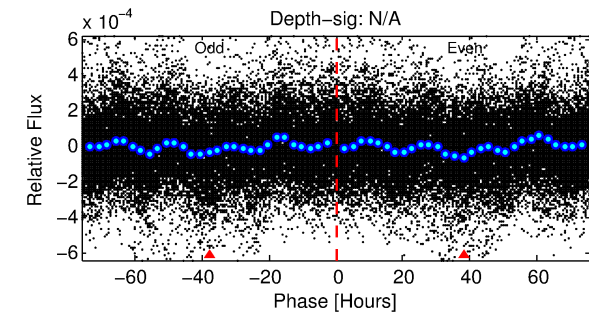
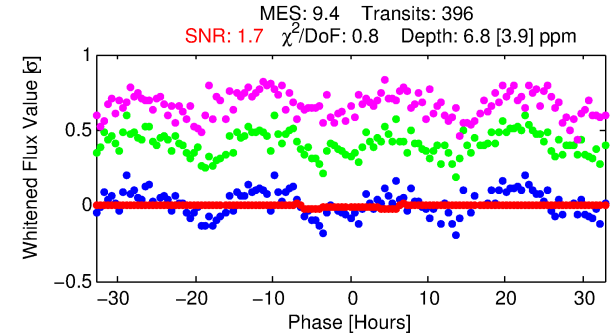
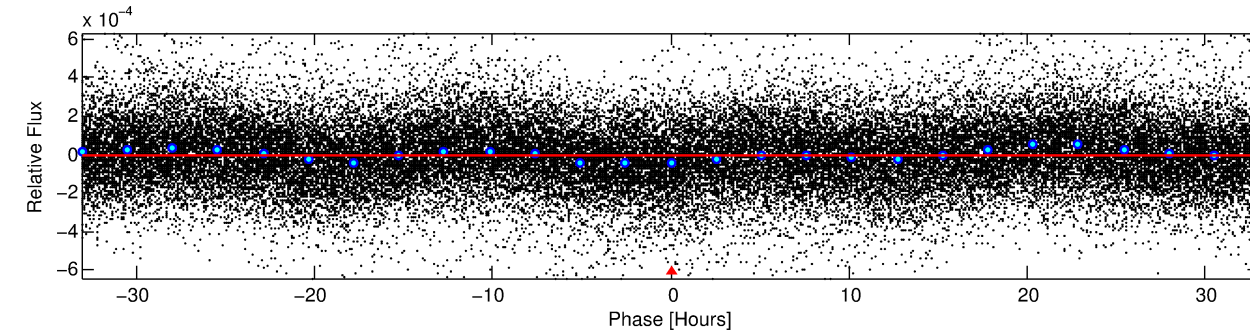
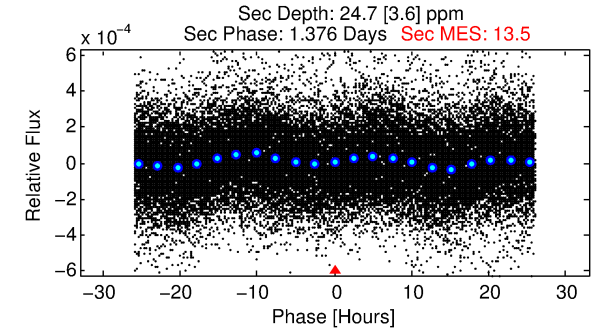
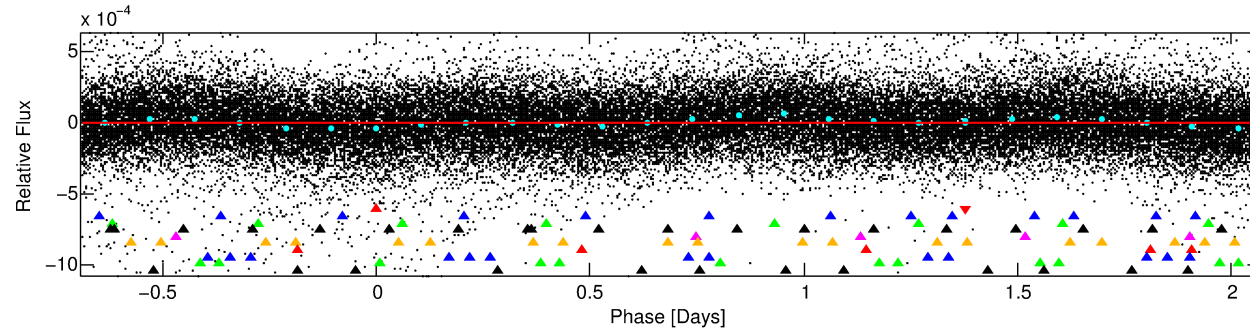
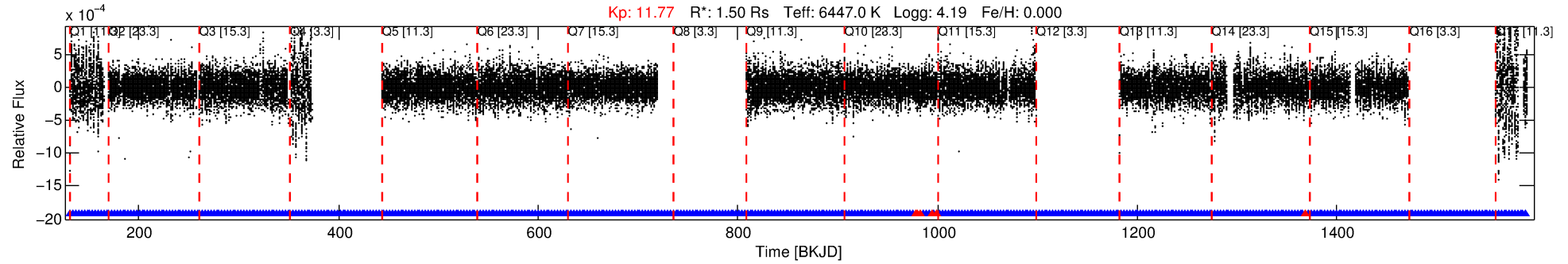
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-01

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 1 of 10 Period: 2.755 d



DV Fit Results:

Period = 2.75503 [0.00012] d
Epoch = 131.8912 [0.0219] BKJD
Rp/R* = 0.0028 [0.0015]
a/R* = 1.21 [1.03]
b = 0.88 [0.65]
Seff = 2008.56 [767.75]
Teff = 1707 [163] K
Rp = 0.45 [0.29] Re
a = 0.0416 [0.0106] AU
Ag = 115.67 [134.72] [0.85σ]
Teffp = 8656 [2426] K [2.86σ]

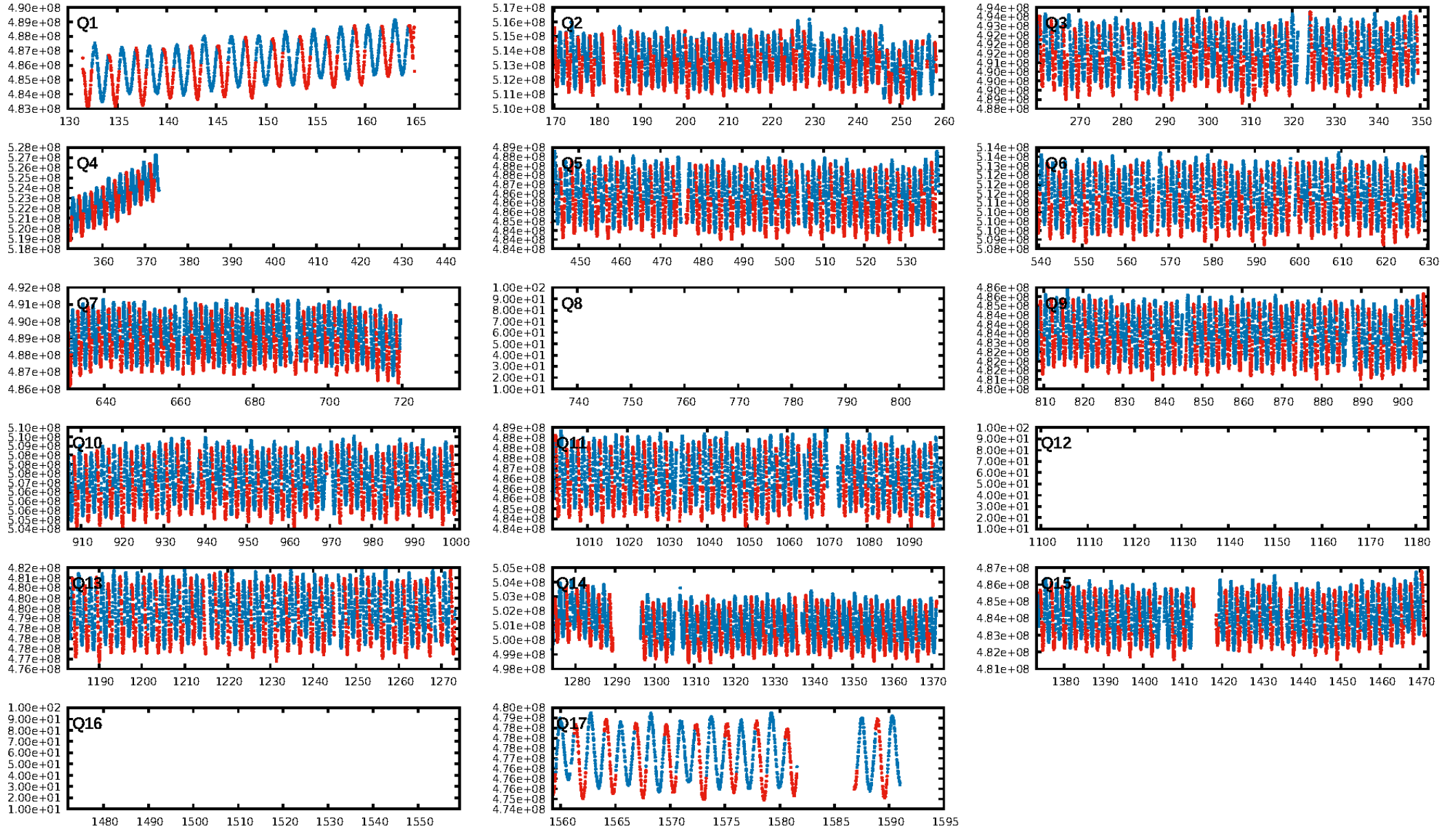
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [126.16σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [359/365]
GhostDiagnostic-chr: 1.484
Centroid-sig: 0.0%
Centroid-so: 10.863 arcsec [4.74σ]
OotOffset-rm: 0.050 arcsec [0.73σ]
KicOffset-rm: 0.165 arcsec [2.39σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

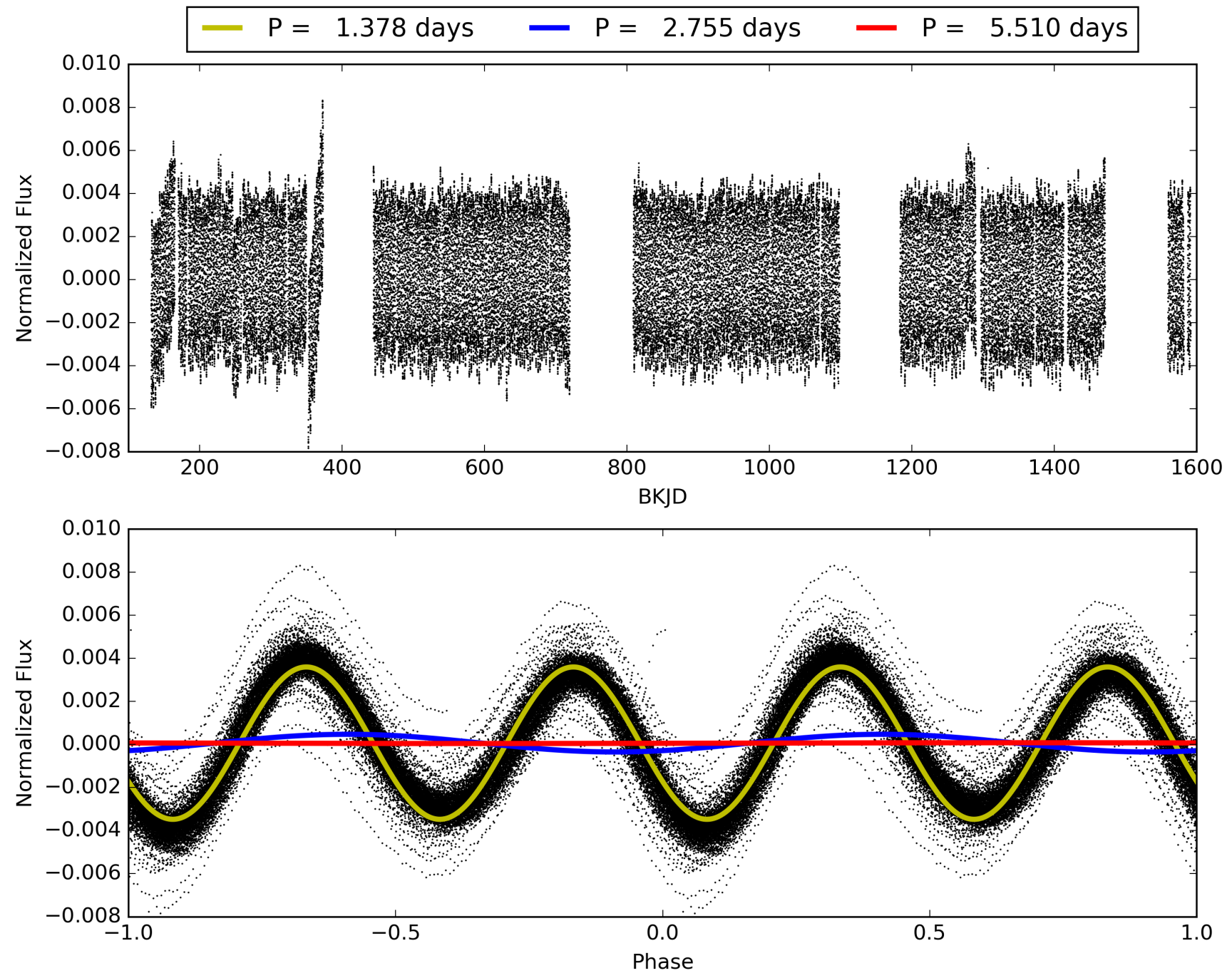
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:28:53 Z

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

TCE 011390595-01, PDC Light Curves

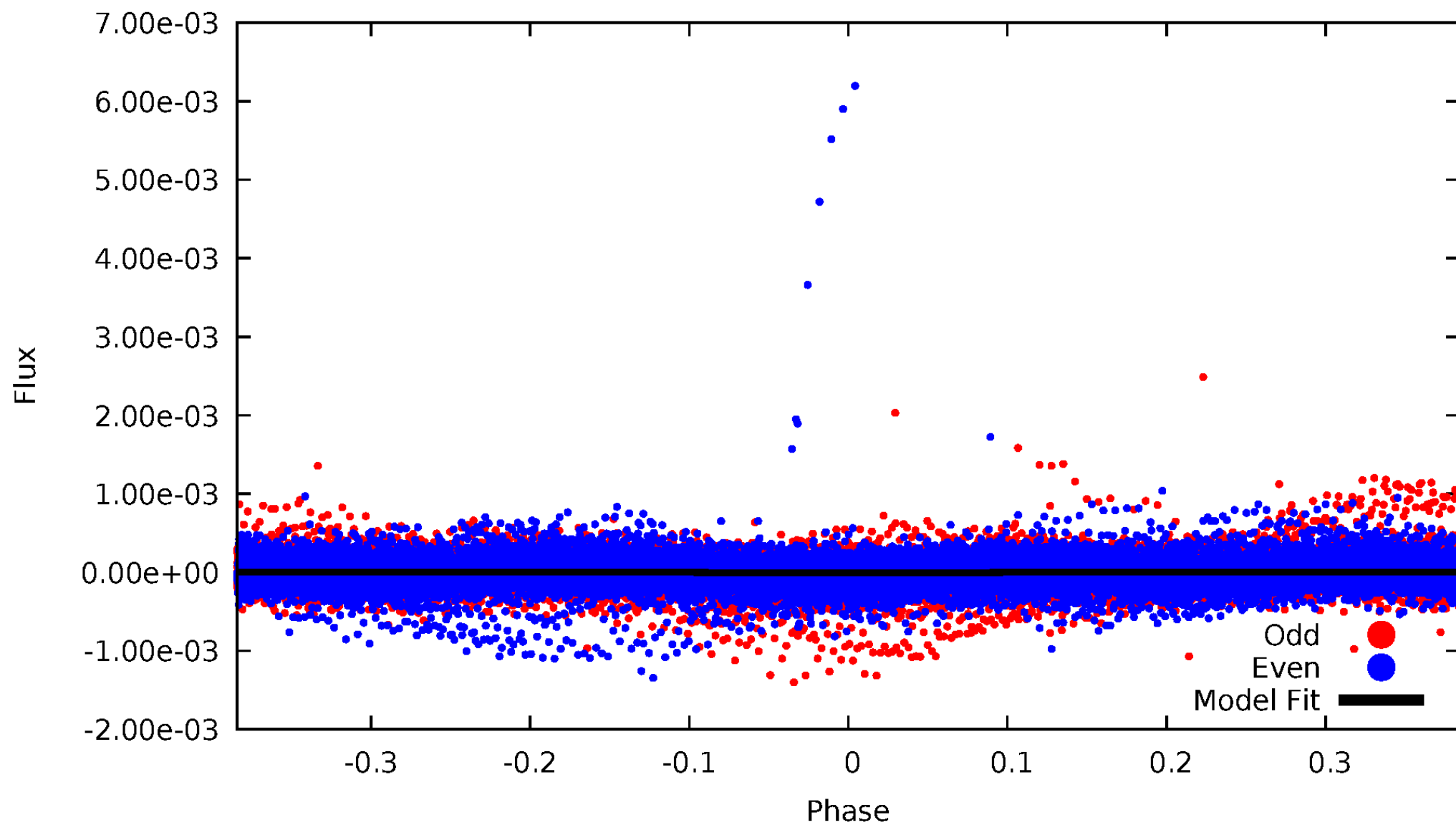


TCE 011390595-01



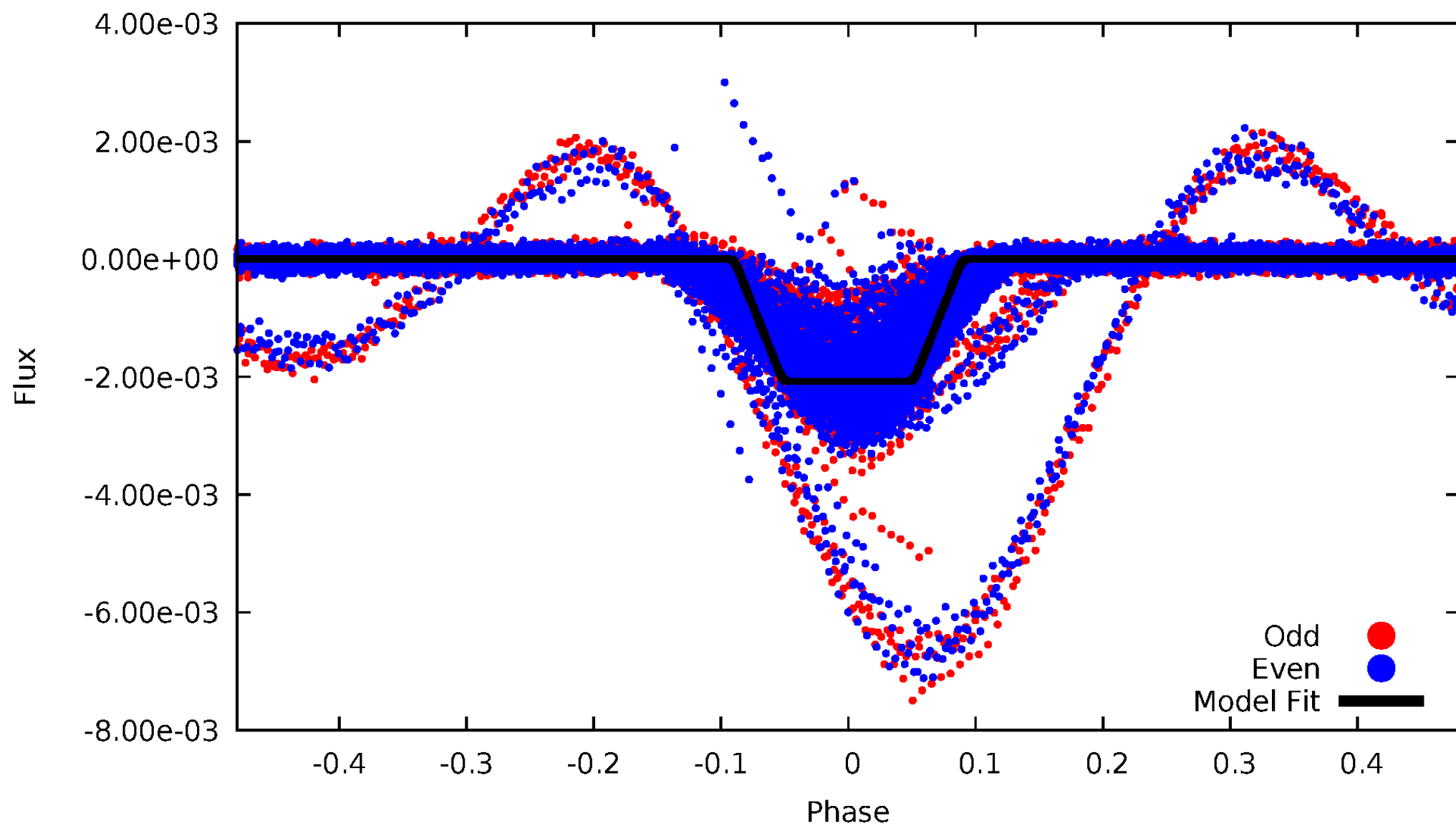
DV Odd/Even

TCE 011390595-01

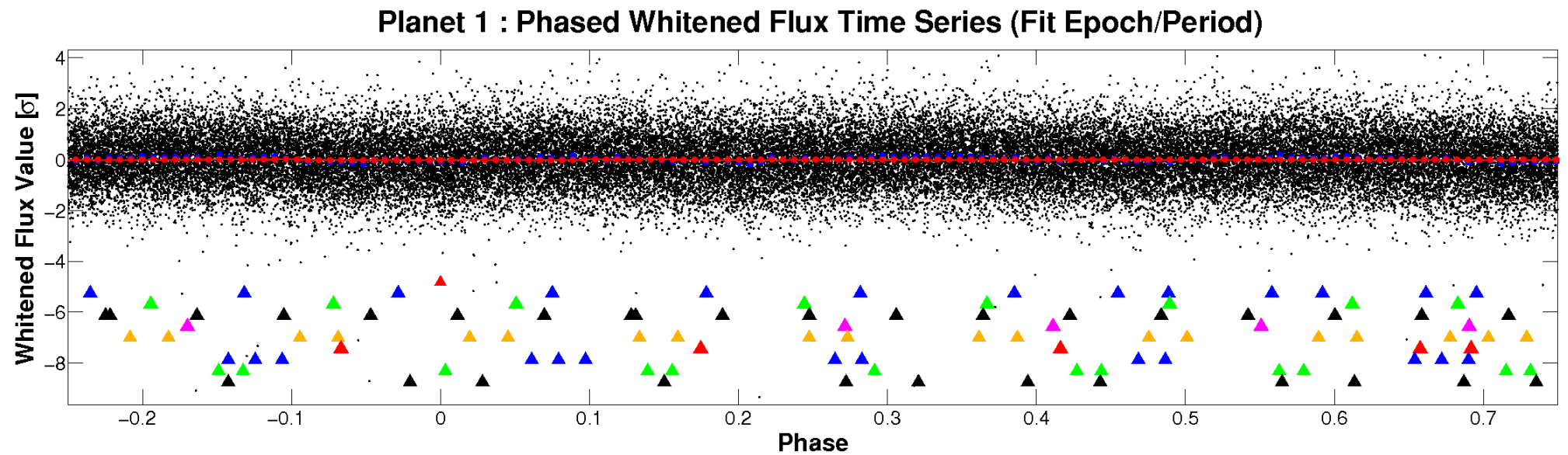
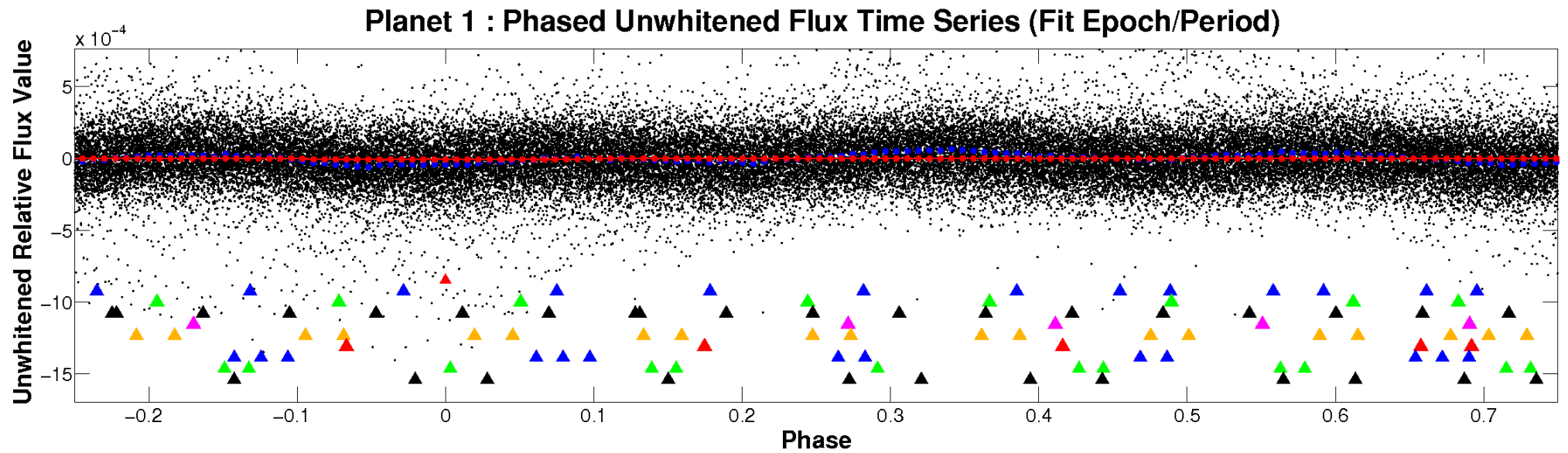


ALT Odd/Even

TCE 011390595-01

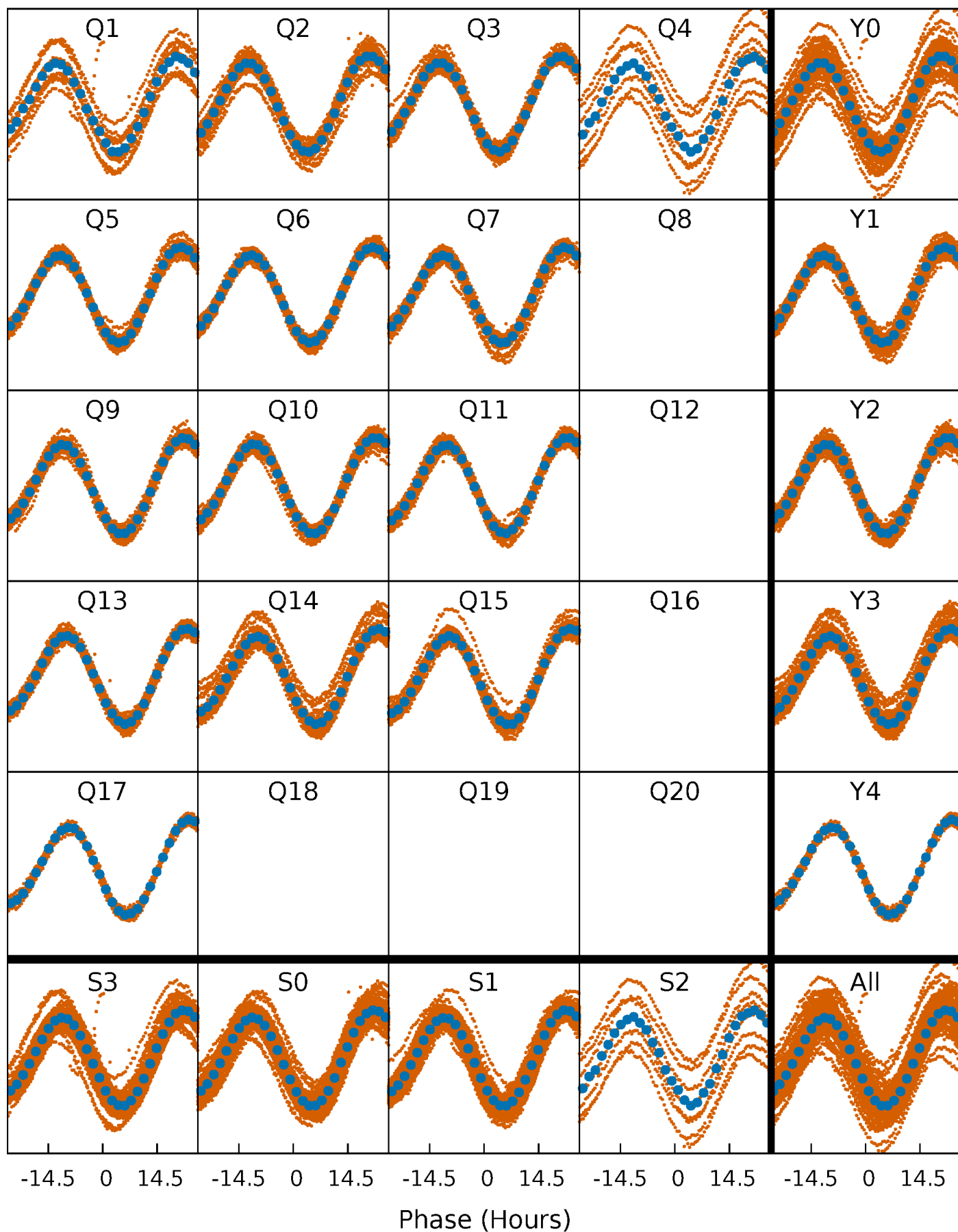


Non-Whitened Vs. Whitened Light Curve



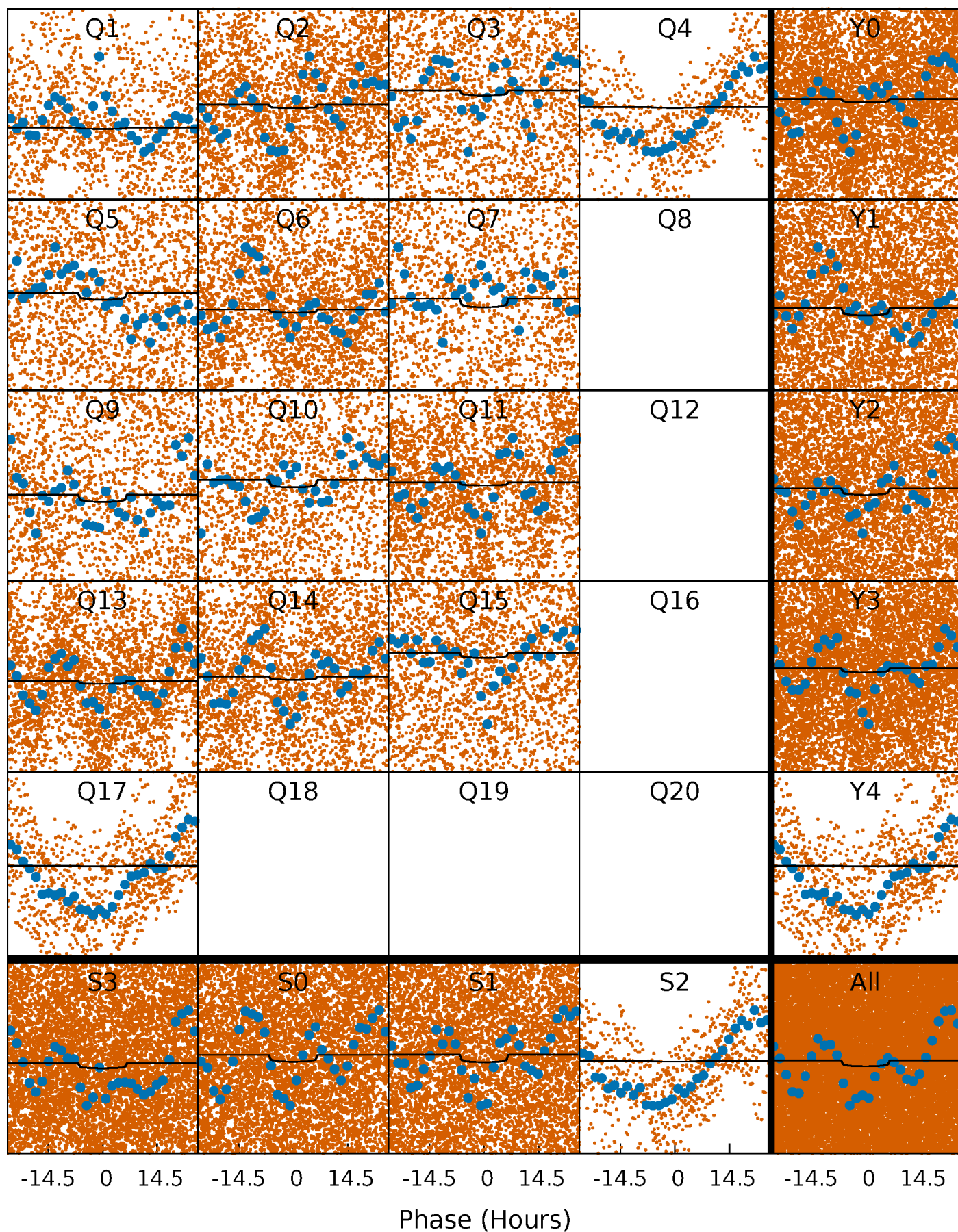
PDC Quarter-Phased Transit Curves

TCE 011390595-01 P= 2.755031 Days $T_0=131.891194$ (BKJD)



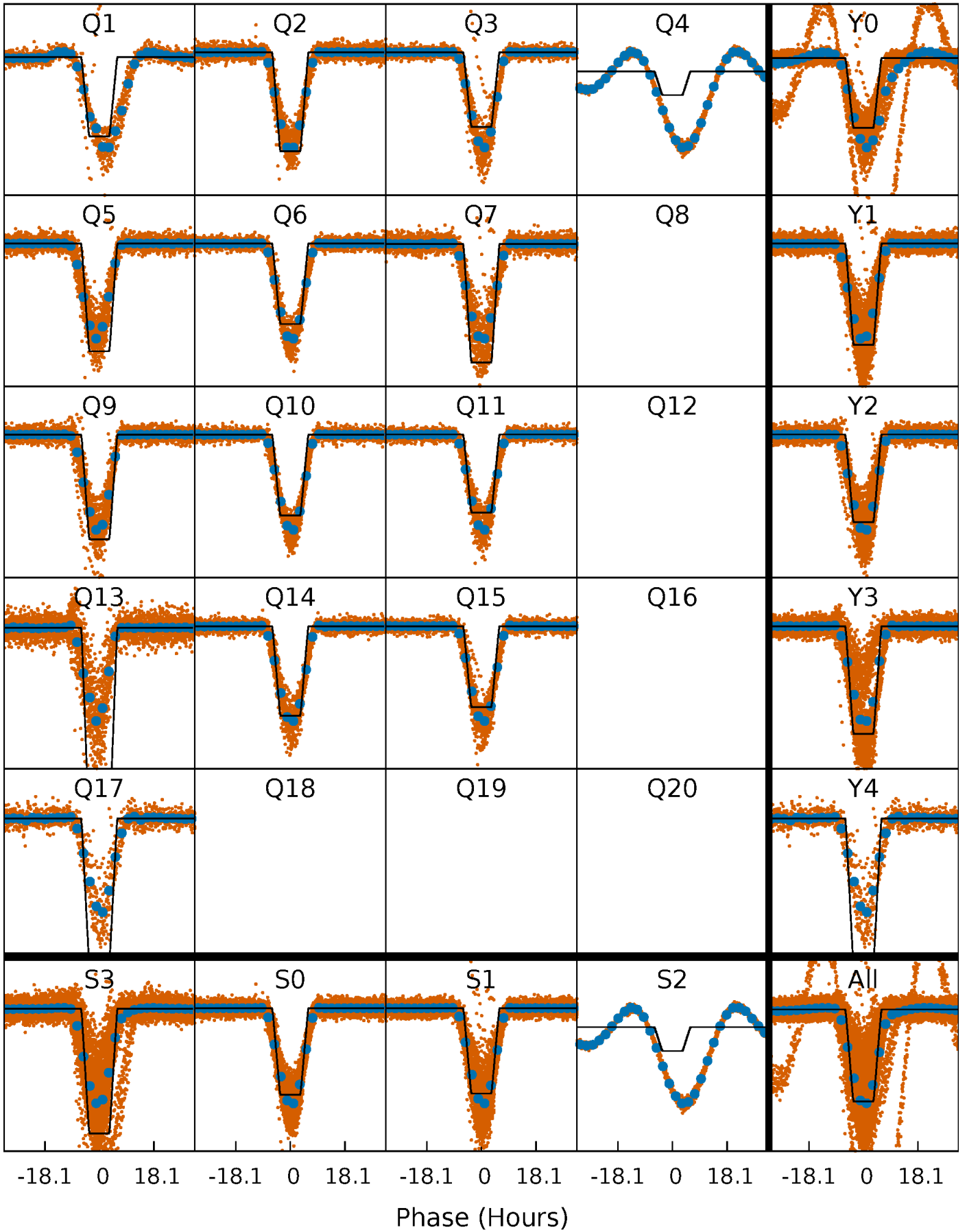
DV Quarter-Phased Transit Curves

TCE 011390595-01 P= 2.755031 Days $T_0=131.891194$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

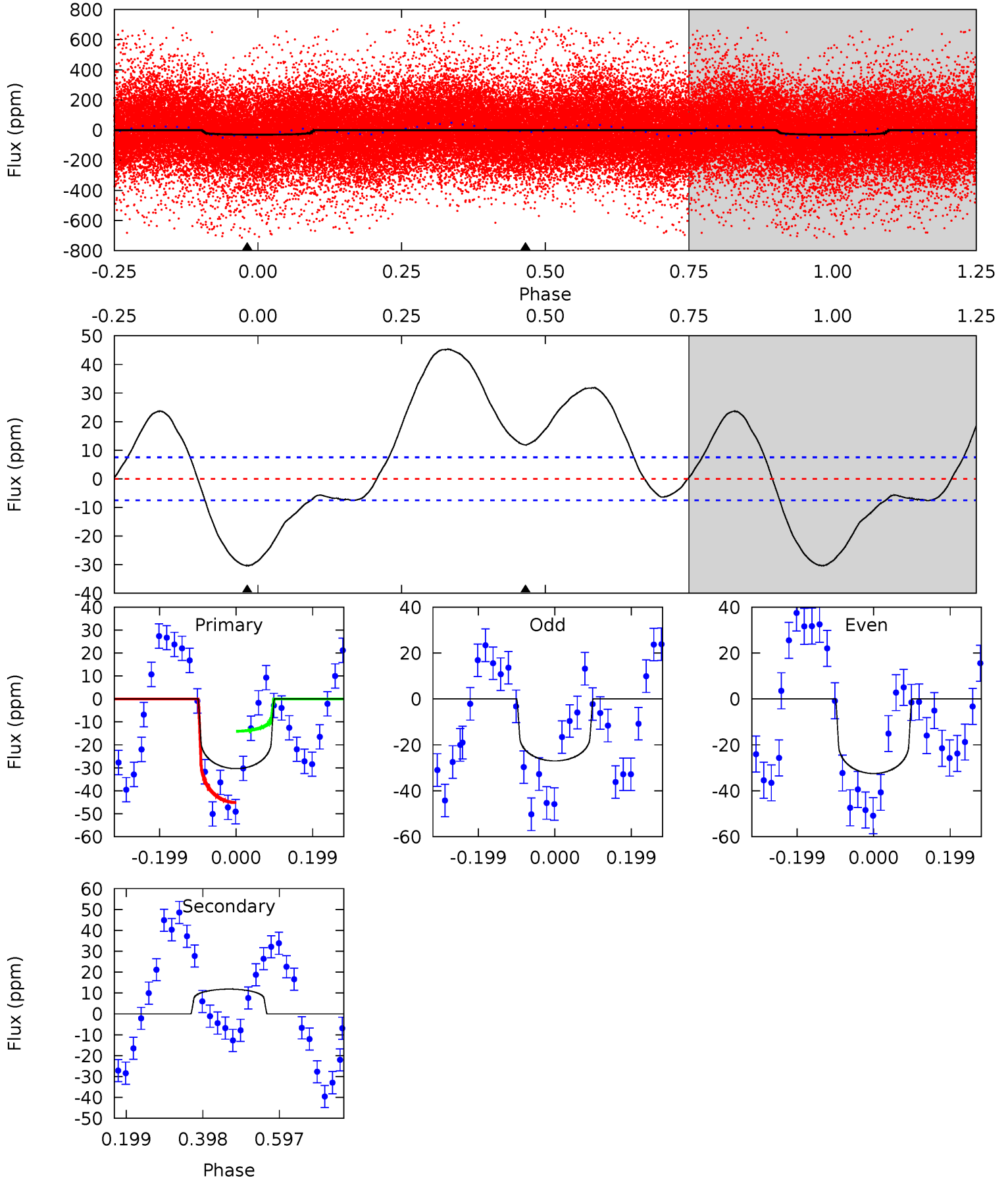
TCE 011390595-01 P= 2.755253 Days $T_0=131.888388$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-01, P = 2.755031 Days, E = 129.136163 Days

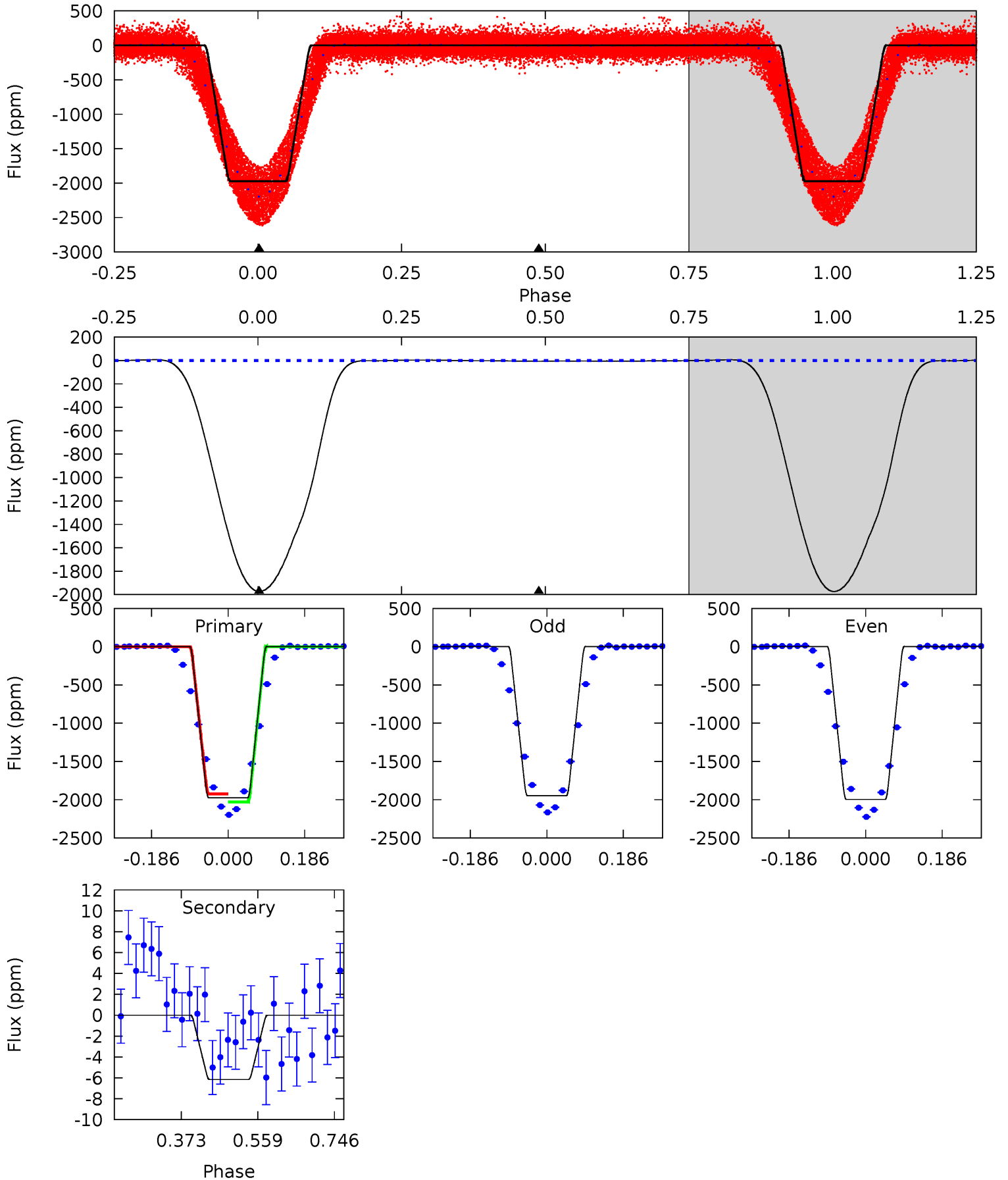
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.8	-6.97	0	0	4.42	1.28	5.07	17.8	17.8	-6.97	-6.97	1.62	1.62	0.60	9.20



Alt Model-Shift Uniqueness Test

011390595-01, P = 2.755253 Days, E = 129.133135 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1842	5.75	0	0	4.43	1.32	2.68	1842	1842	5.75	5.75	22.6	1.01	0.00	0



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	12 ± 2	$0.46^{+0.25}_{-0.25}$	2372^{+184}_{-173}	-7143^{+1435}_{-4901}	$-53.652^{+31.948}_{-197.655}$
Alt.	-6 ± 1	$7.47^{+1.32}_{-1.06}$	2378^{+201}_{-175}	-2574^{+151}_{-160}	$0.104^{+0.040}_{-0.031}$

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 $A_{obs} \gg 1.0$

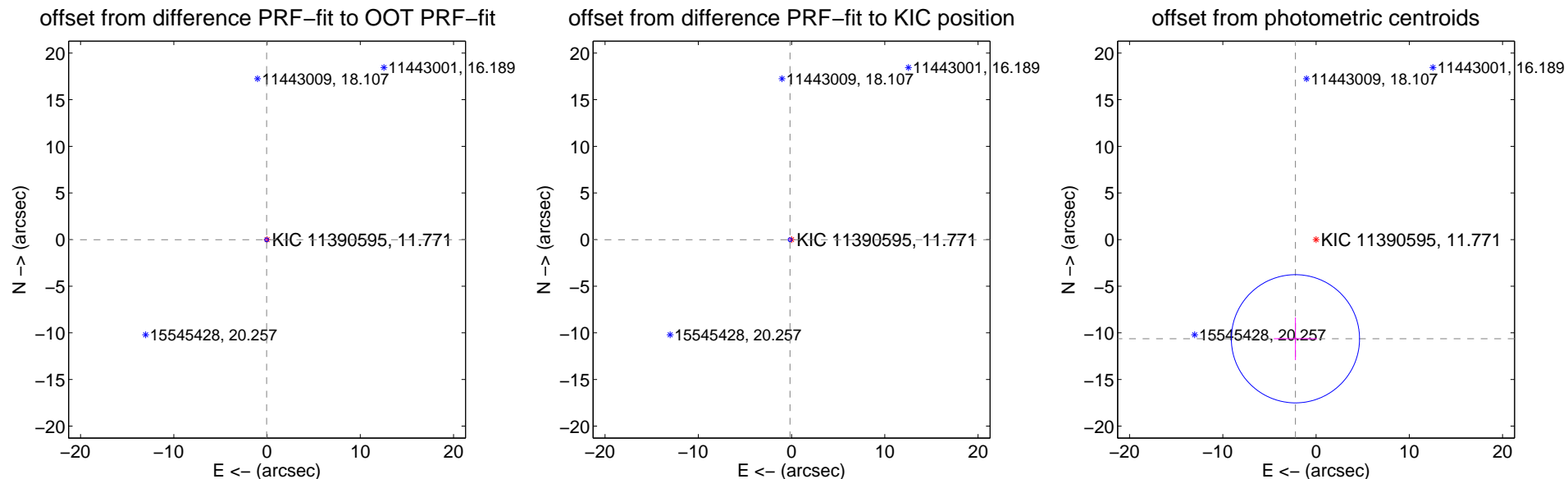
DV Centroid Data

Supplemental centroid analysis for 011390595-01. **Kepler magnitude: 11.77.** Transit SNR 1.72

There are 14 quarters with good PRF difference image offsets

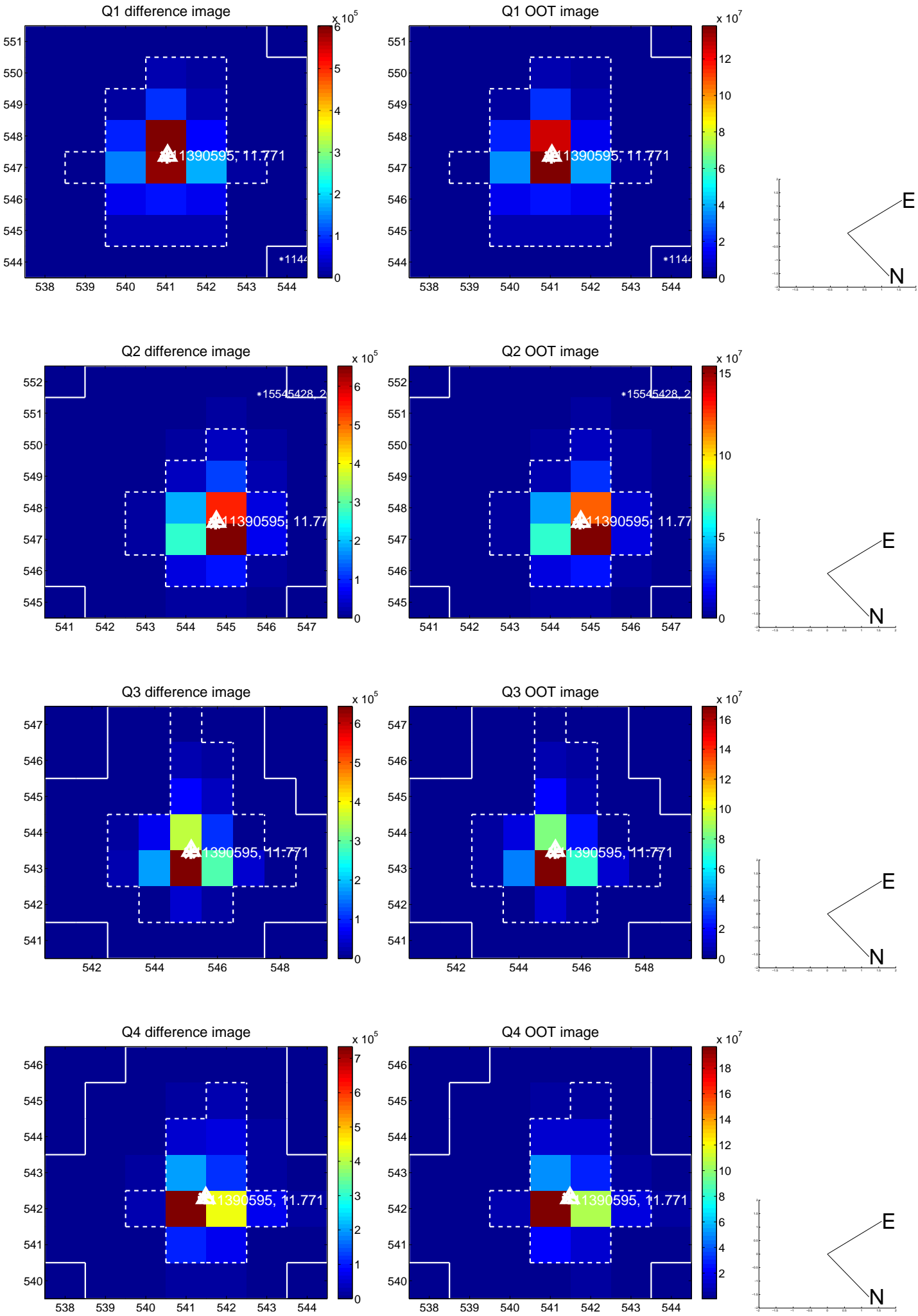
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.050 ± 0.069	0.73	0.046 ± 0.068	-0.019 ± 0.069
PRF-fit source offset from KIC position	0.165 ± 0.069	2.39	0.164 ± 0.069	-0.016 ± 0.071
photometric centroid source offset	10.86 ± 2.29	4.74	2.21 ± 2.31	-10.64 ± 2.29

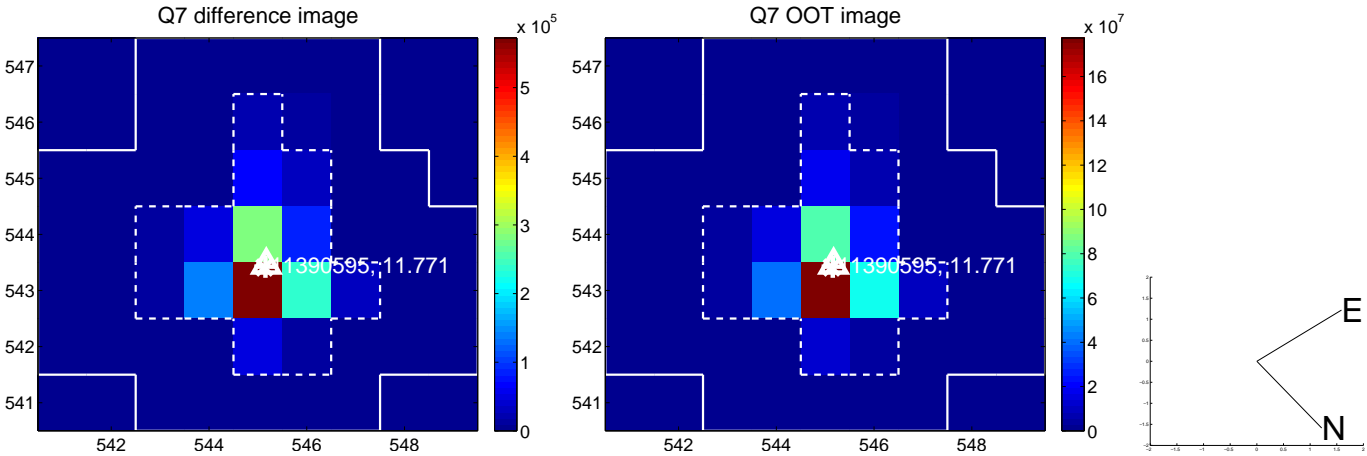
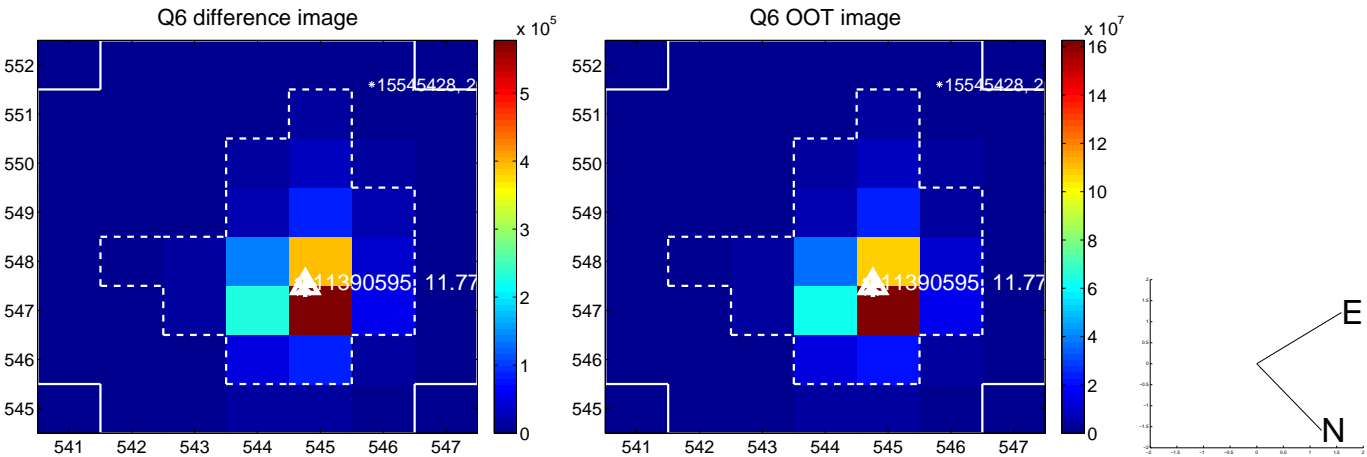
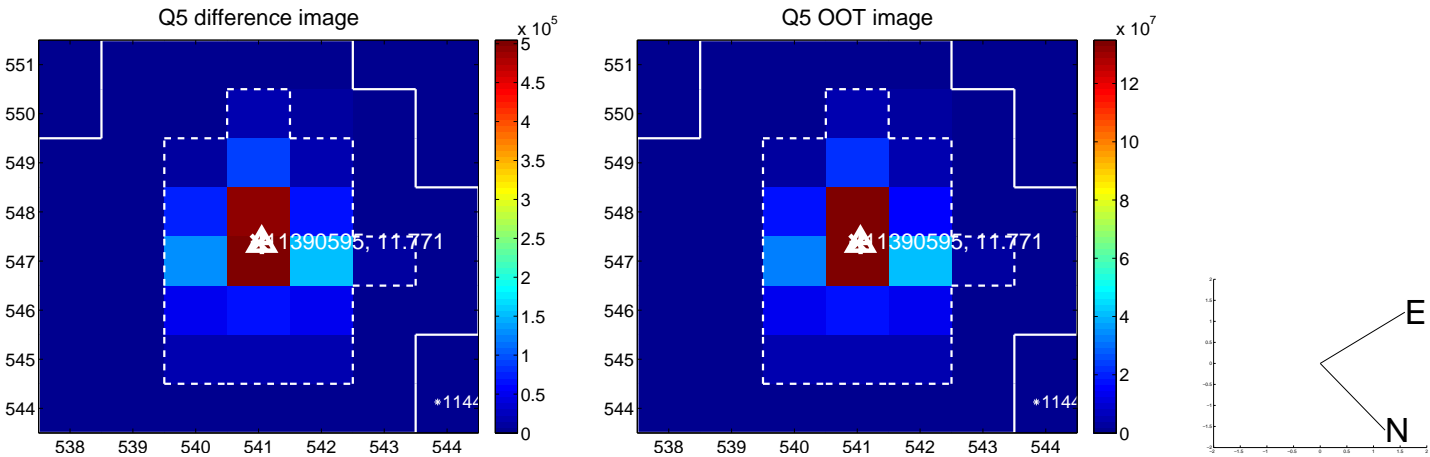


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

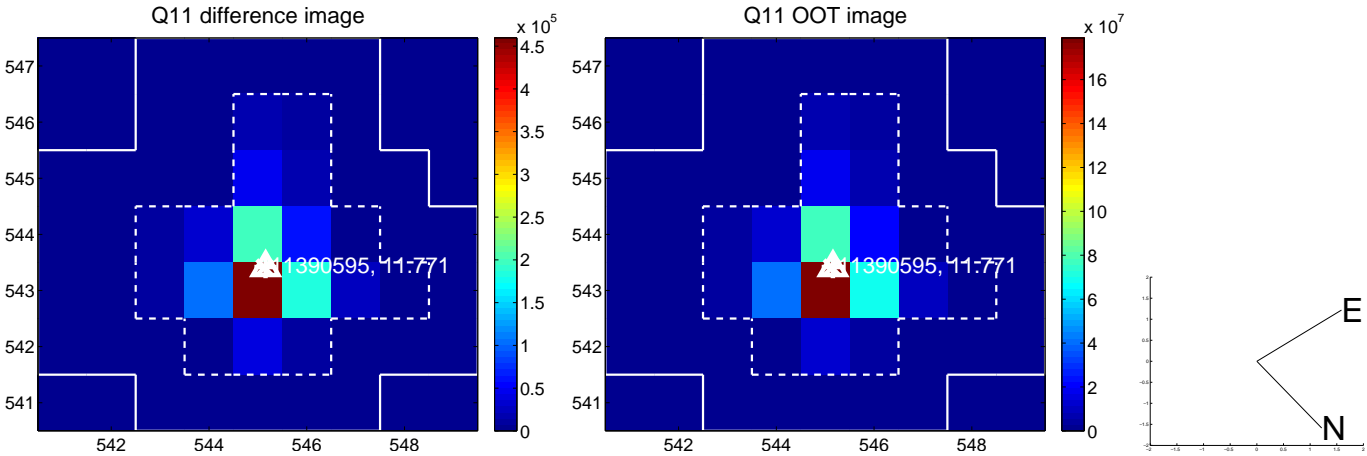
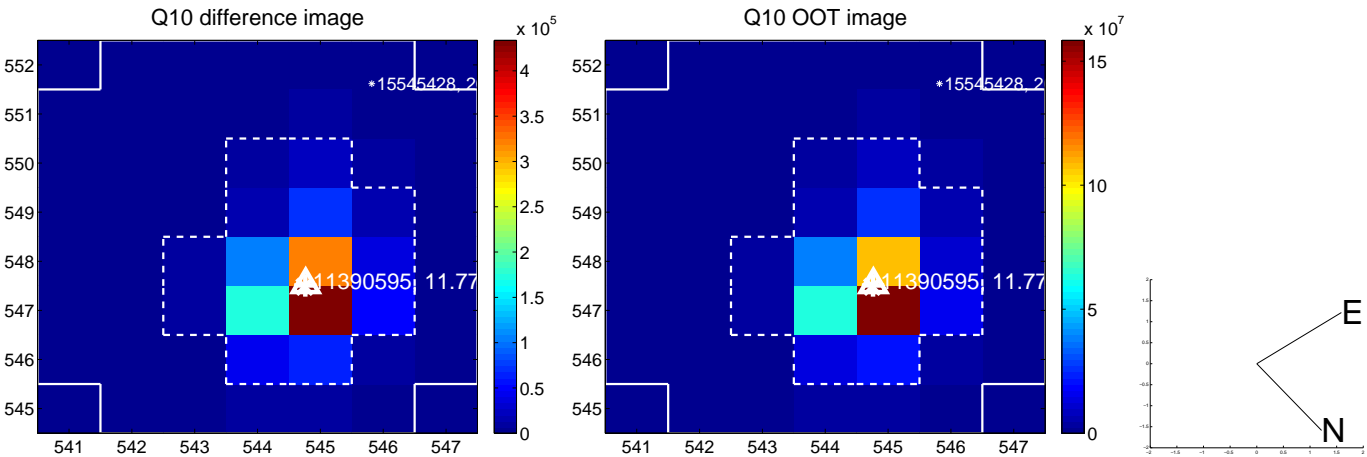
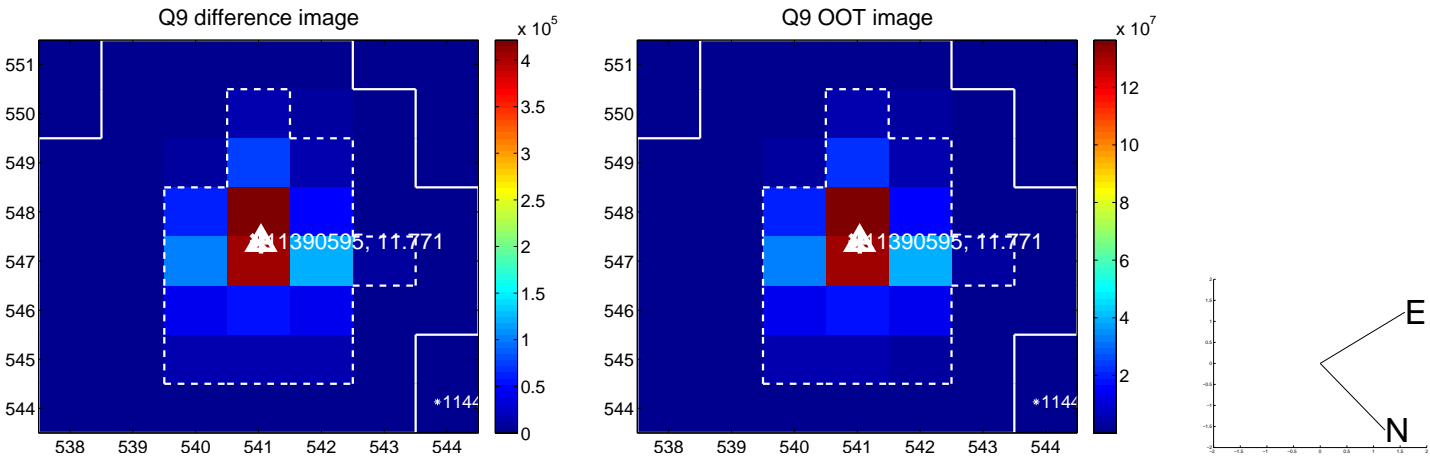
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



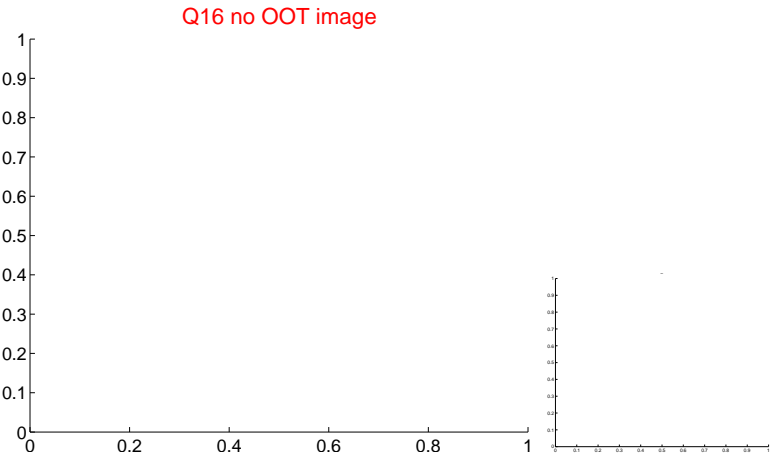
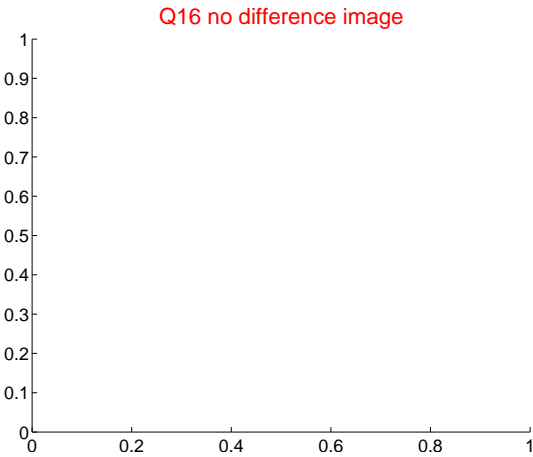
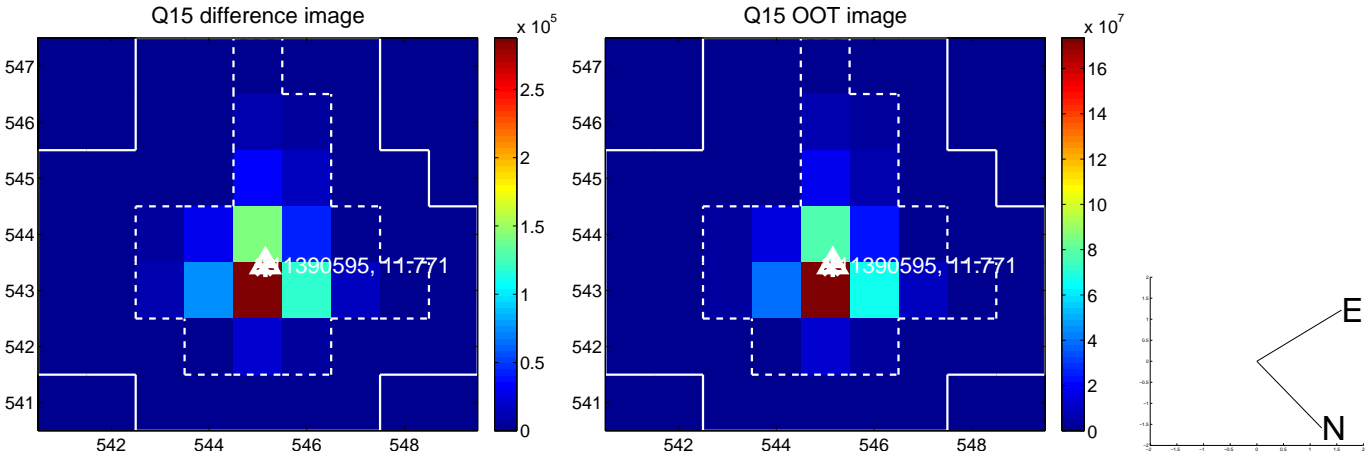
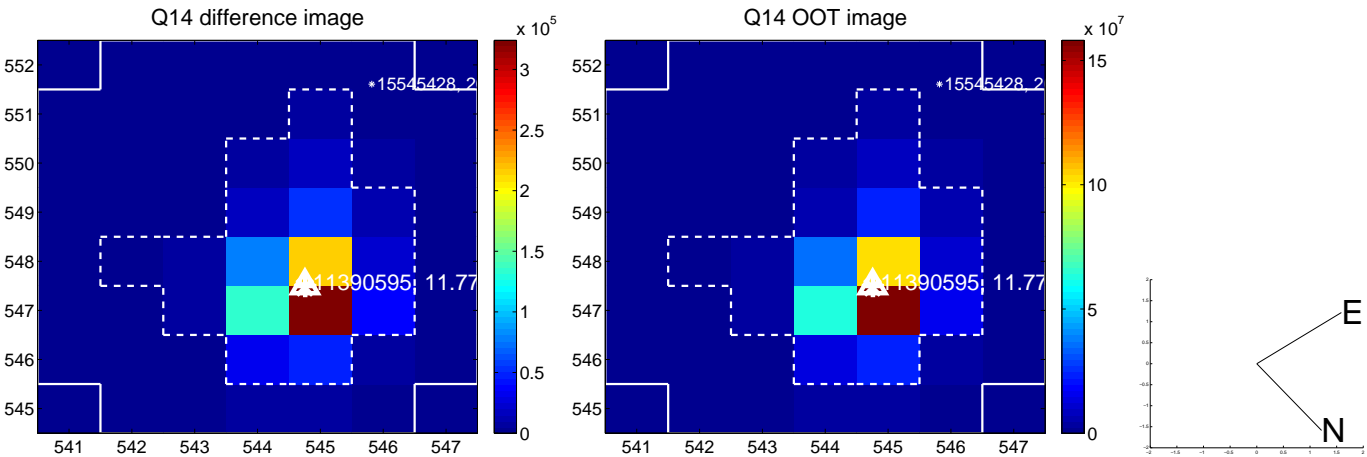
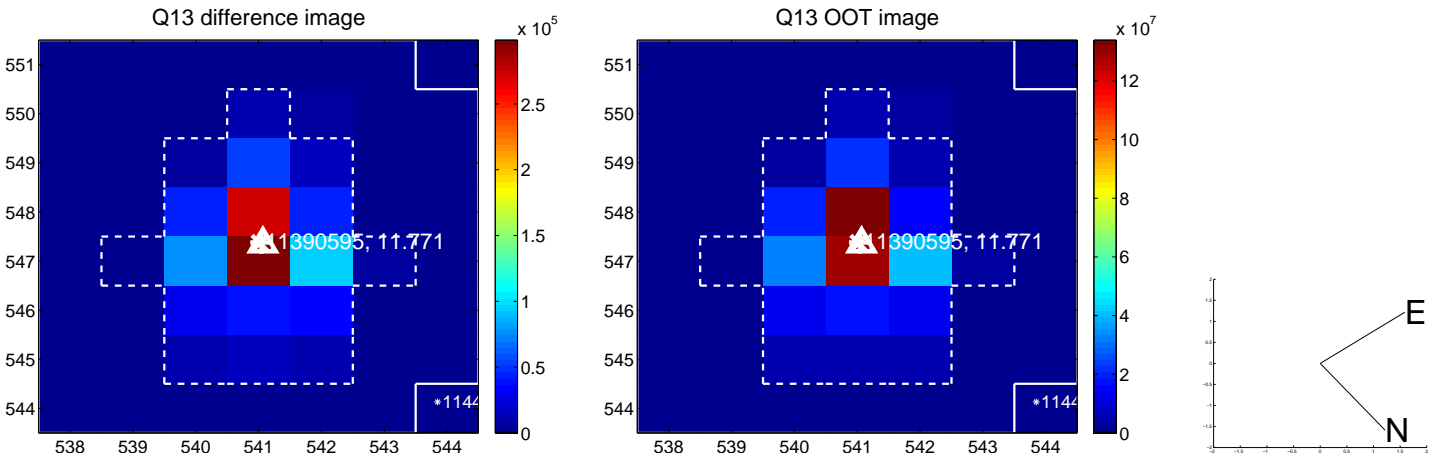
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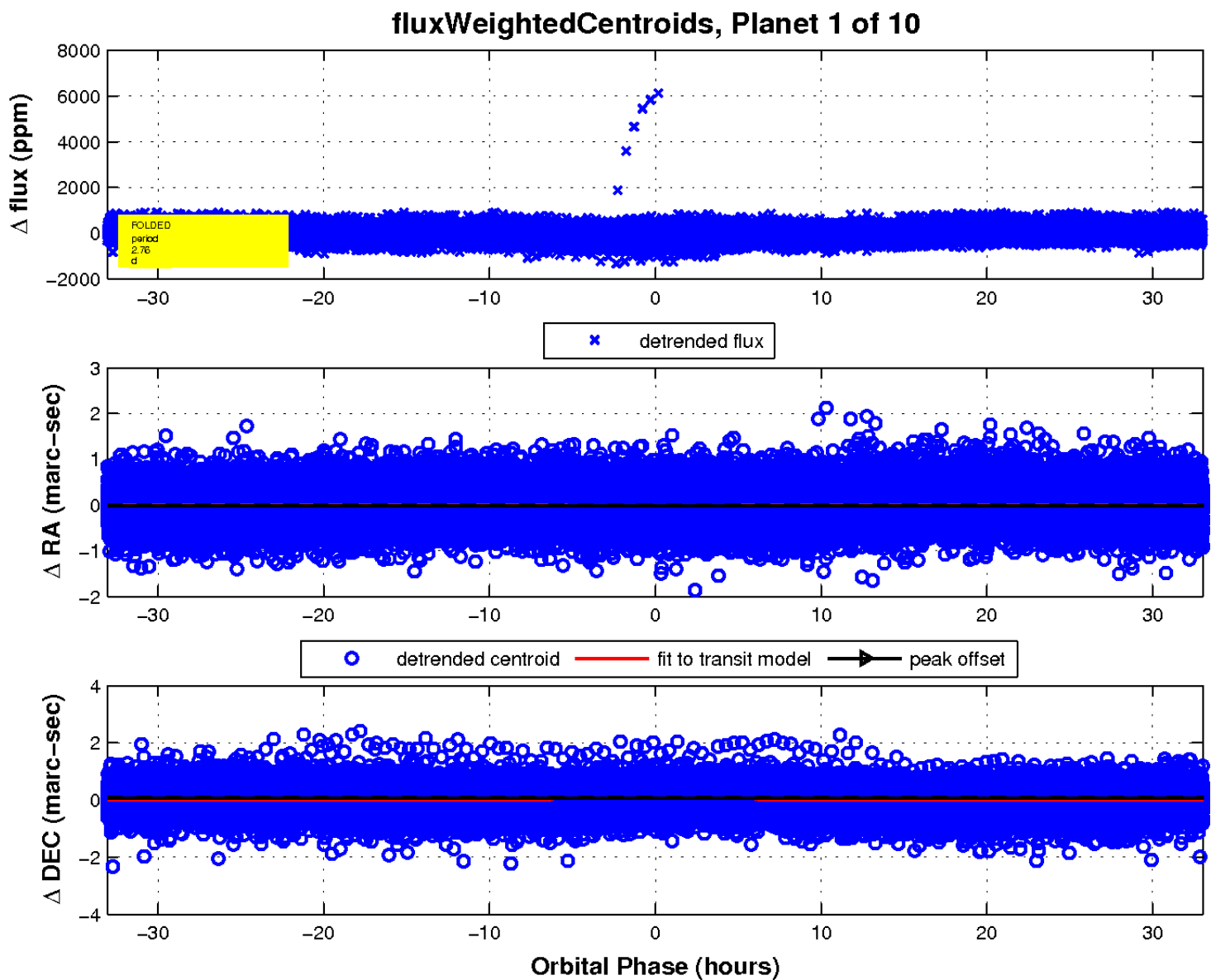
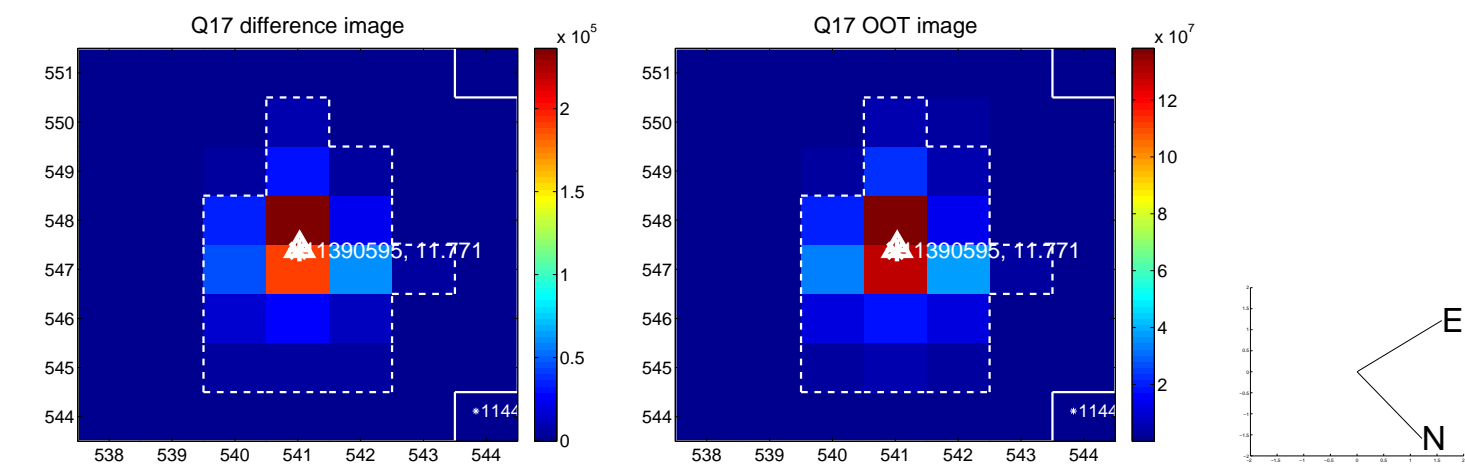
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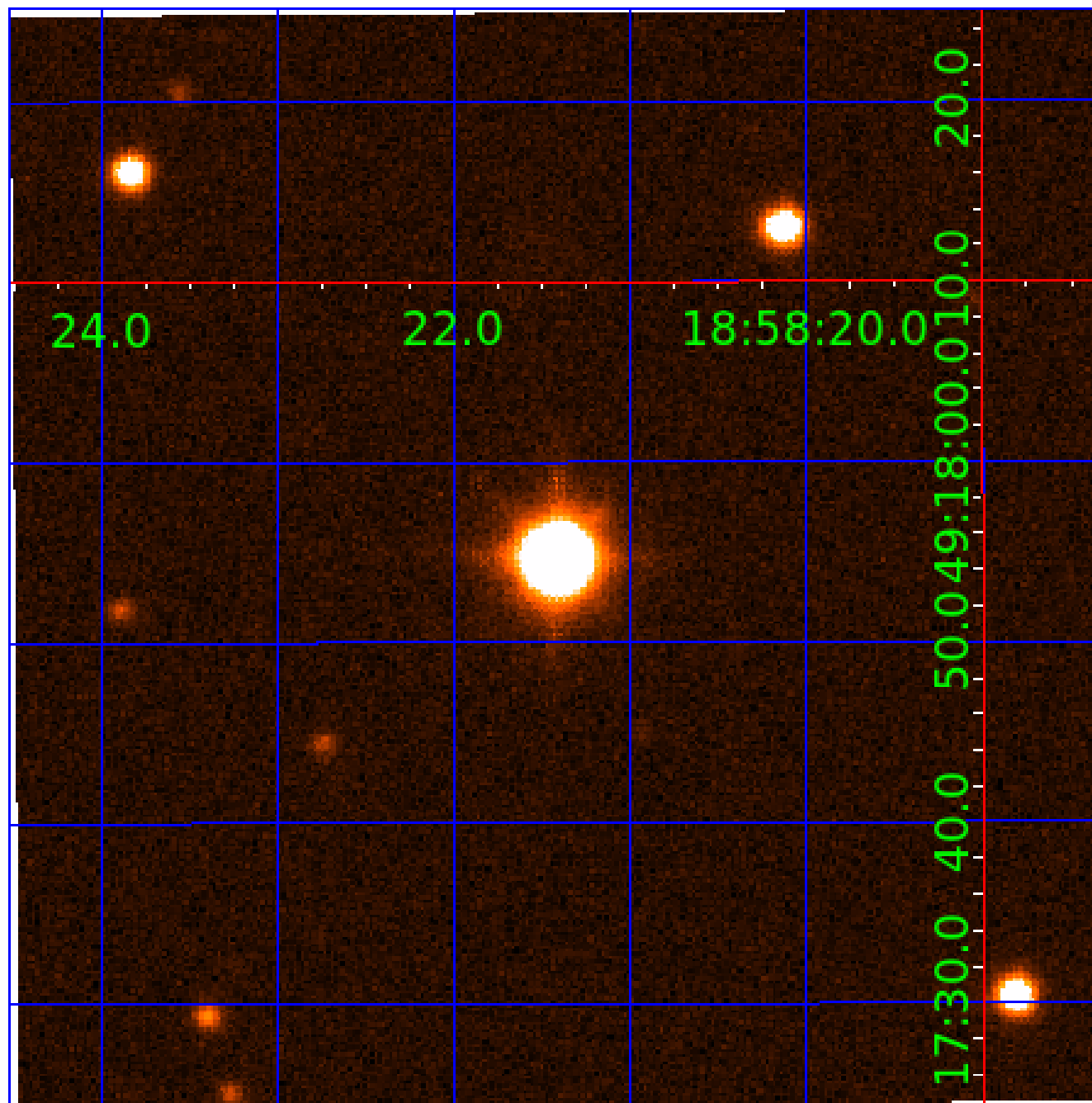


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UKIRT Image

Declination



KIC 011390595

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011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
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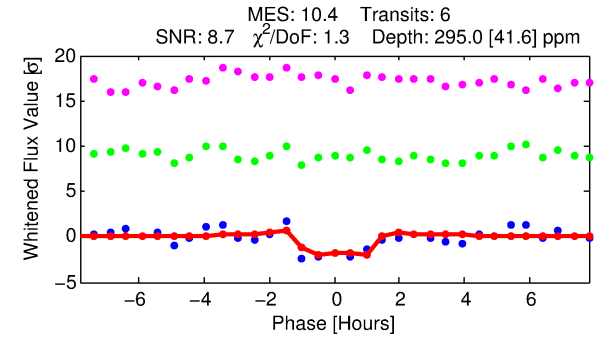
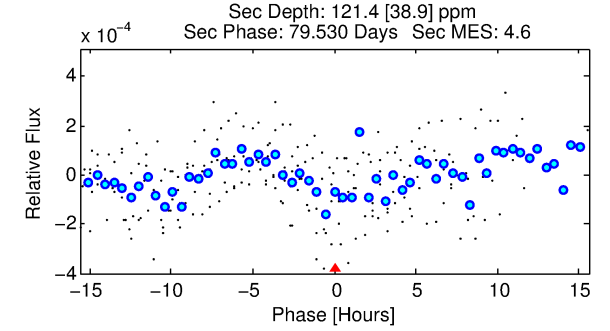
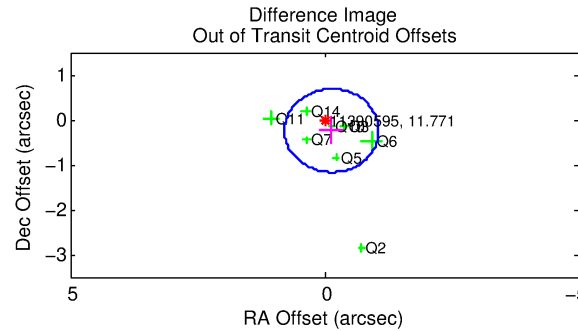
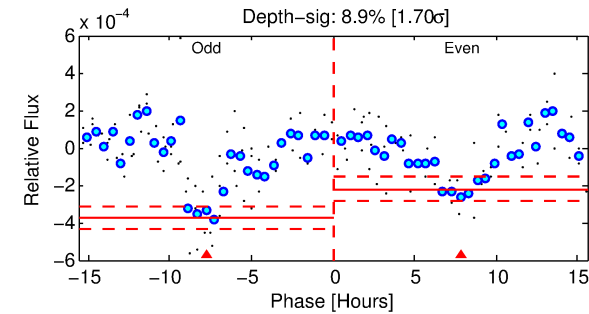
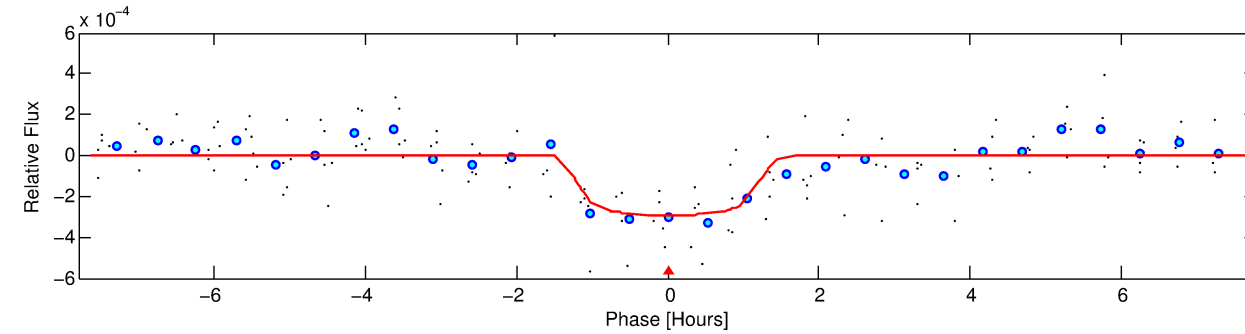
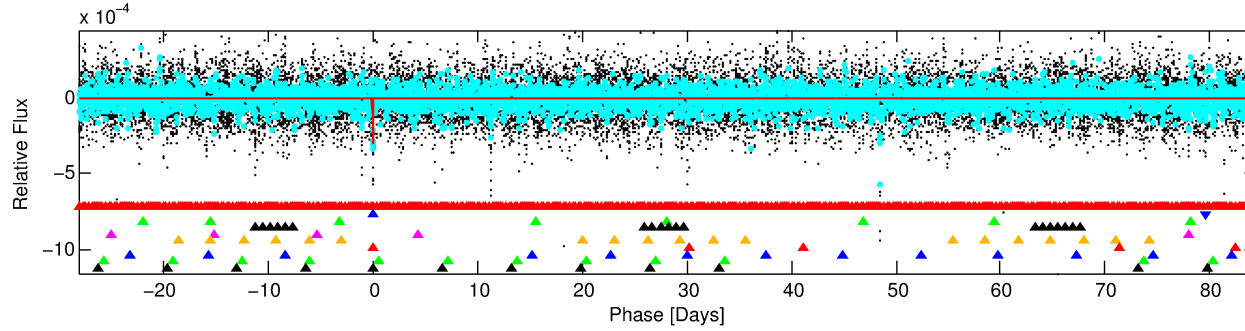
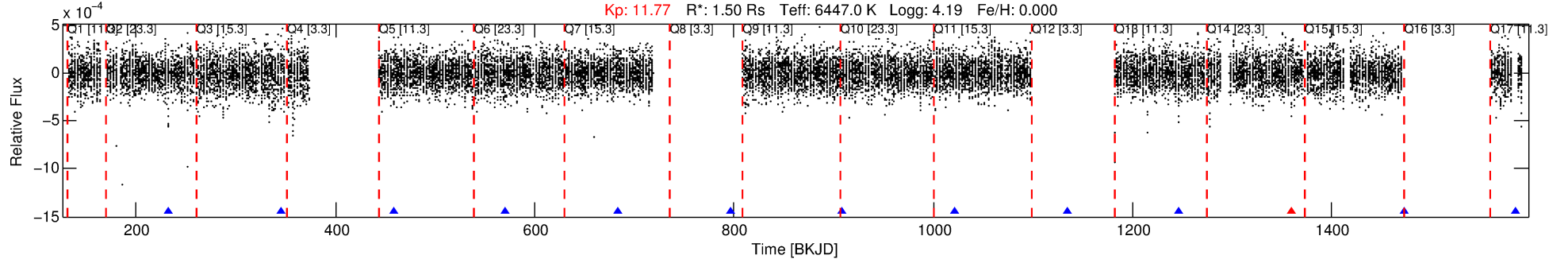
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-02

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 2 of 10 Period: 112.671 d



DV Fit Results:

Period = 112.67145 [0.00092] d
Epoch = 232.9882 [0.0045] BKJD
Rp/R* = 0.0173 [0.0158]
a/R* = 215.68 [1068.92]
b = 0.78 [2.48]
Seff = 14.26 [5.45]
Teff = 495 [47] K
Rp = 2.83 [2.75] Re
a = 0.4943 [0.1264] AU
Ag = 2036.61 [3851.83] [0.53 σ]
Teffp = 5146 [2399] K [1.94 σ]

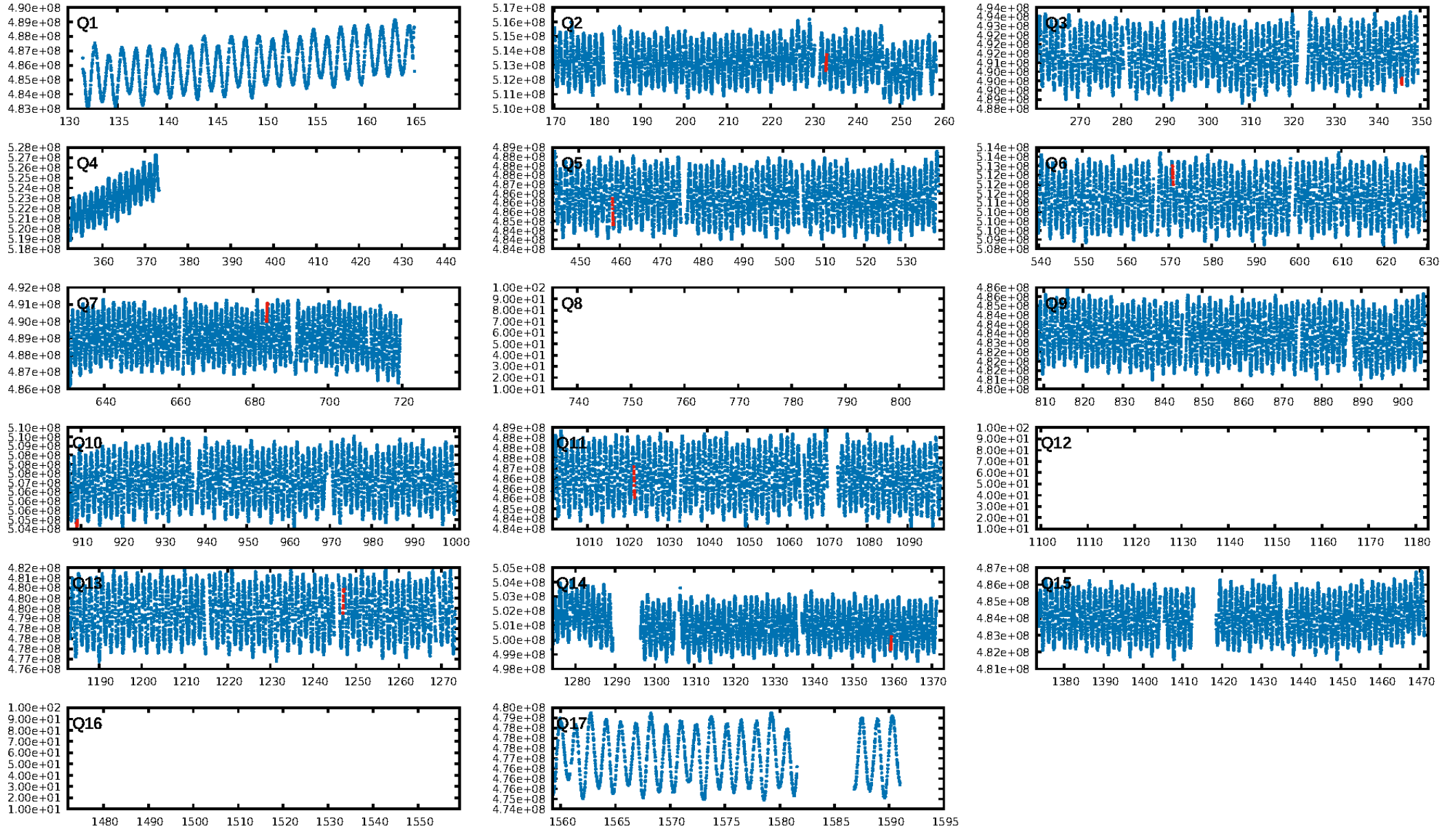
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [54.97 σ]
LongPeriod-sig: 100.0% [43.43 σ]
ModelChiSquare2-sig: 1.1%
ModelChiSquareGof-sig: 84.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [5/6]
GhostDiagnostic-chr: 0.7347
Centroid-sig: 25.6%
Centroid-so: 0.494 arcsec [0.87 σ]
OotOffset-rm: 0.278 arcsec [0.90 σ]
KicOffset-rm: 0.293 arcsec [0.93 σ]
OotOffset-st: 4/3/0/1 [8]
KicOffset-st: 4/3/0/1 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 0.75 [6/8]

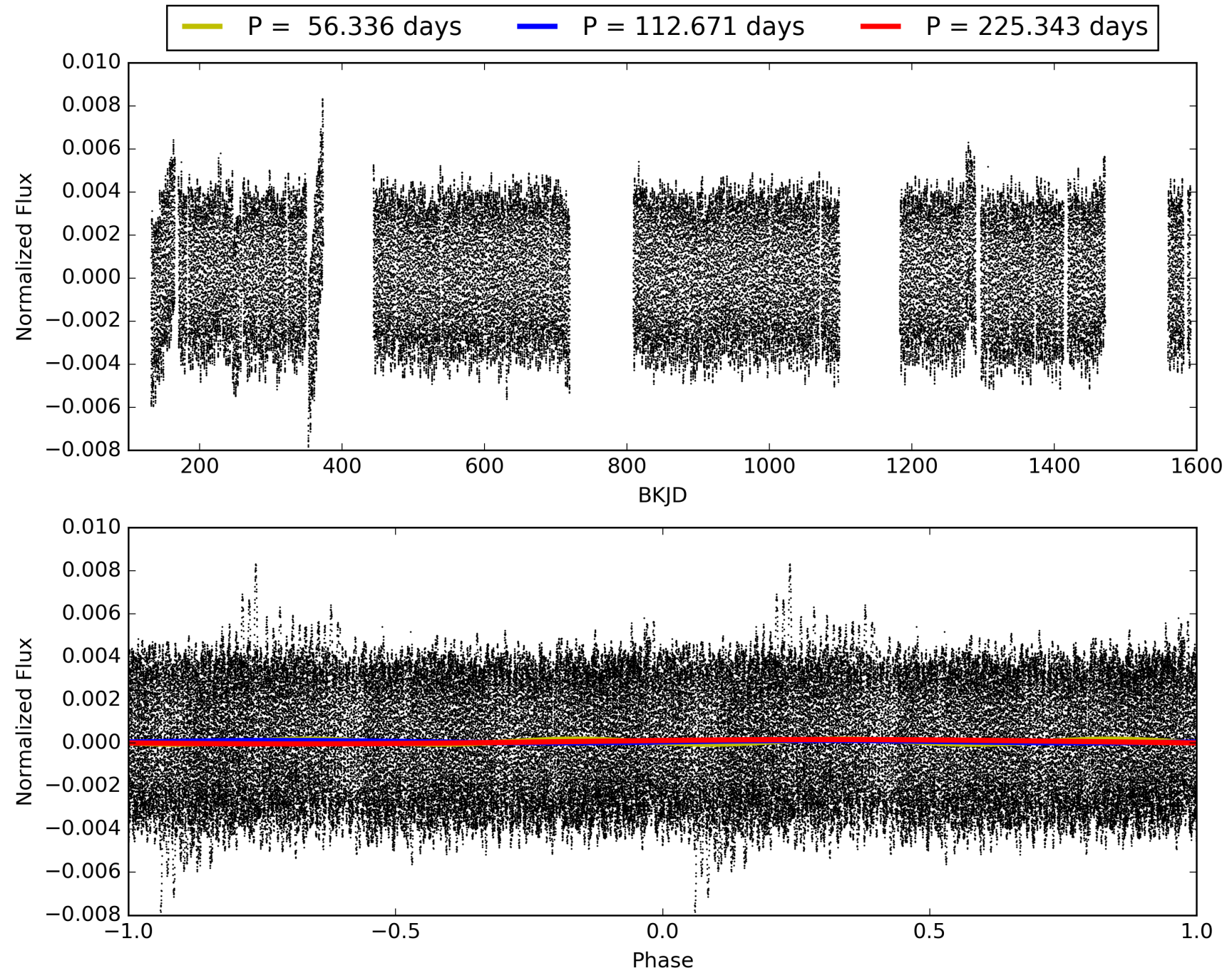
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:29:04 Z

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

TCE 011390595-02, PDC Light Curves

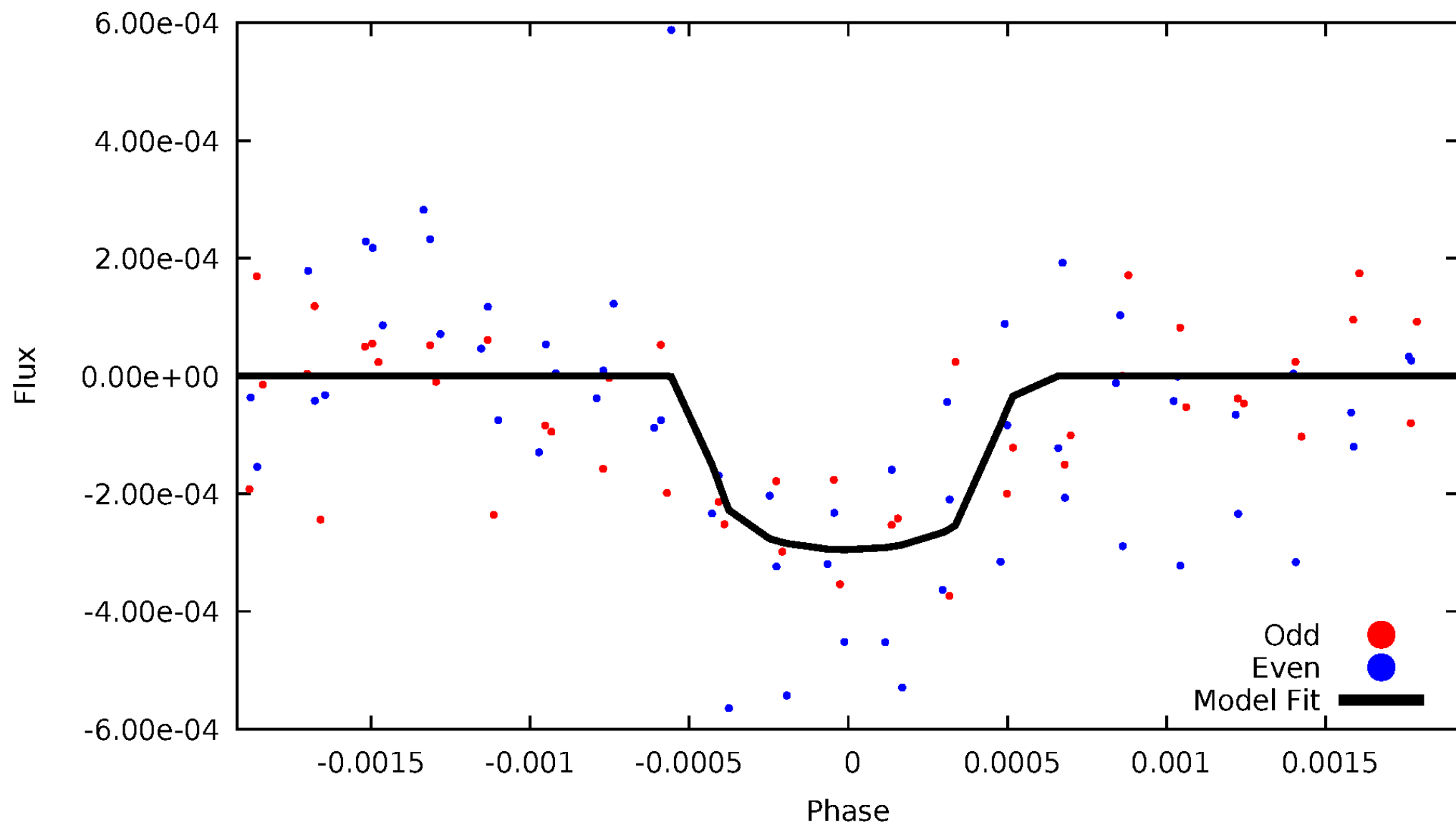


TCE 011390595-02



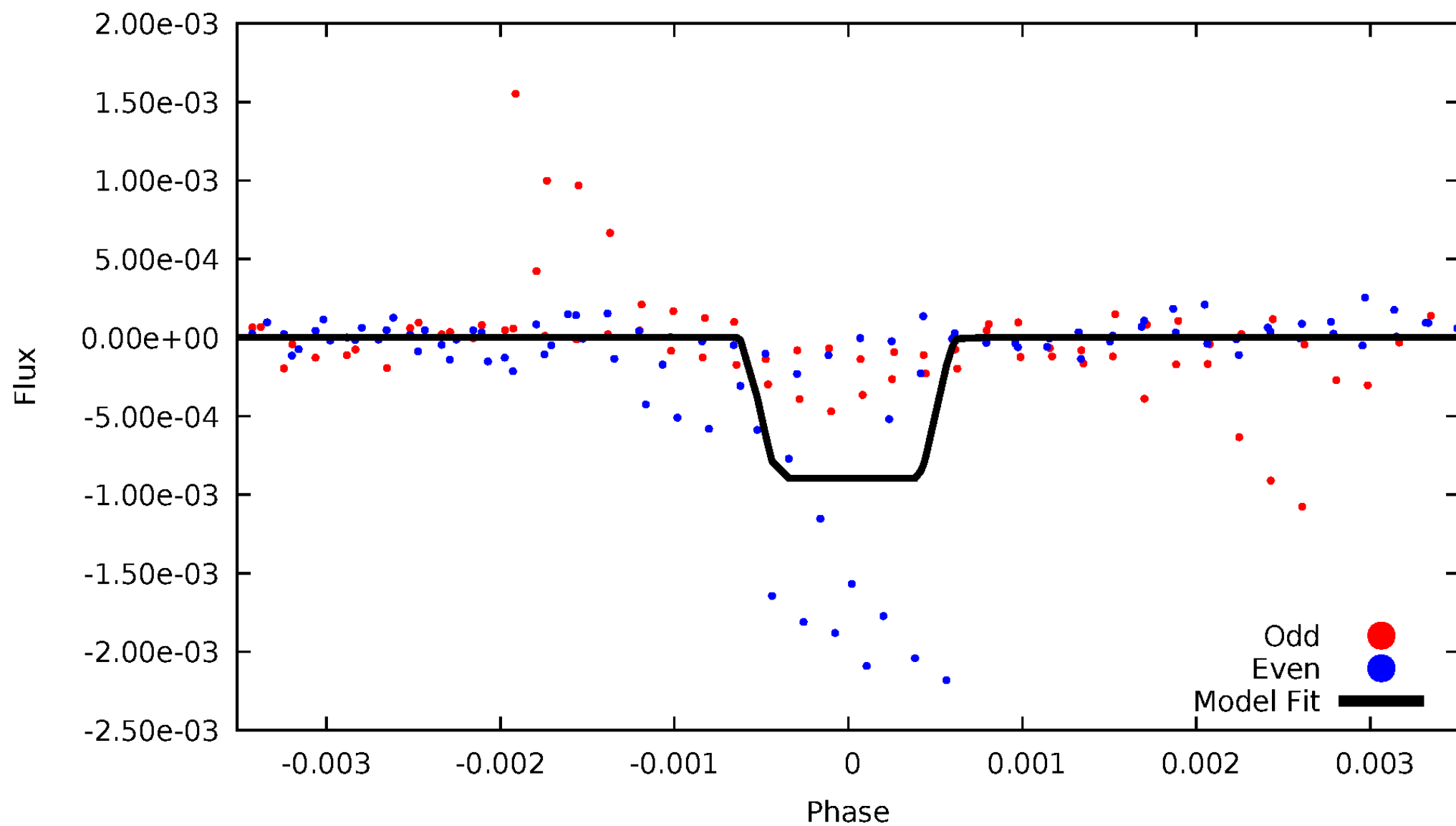
DV Odd/Even

TCE 011390595-02



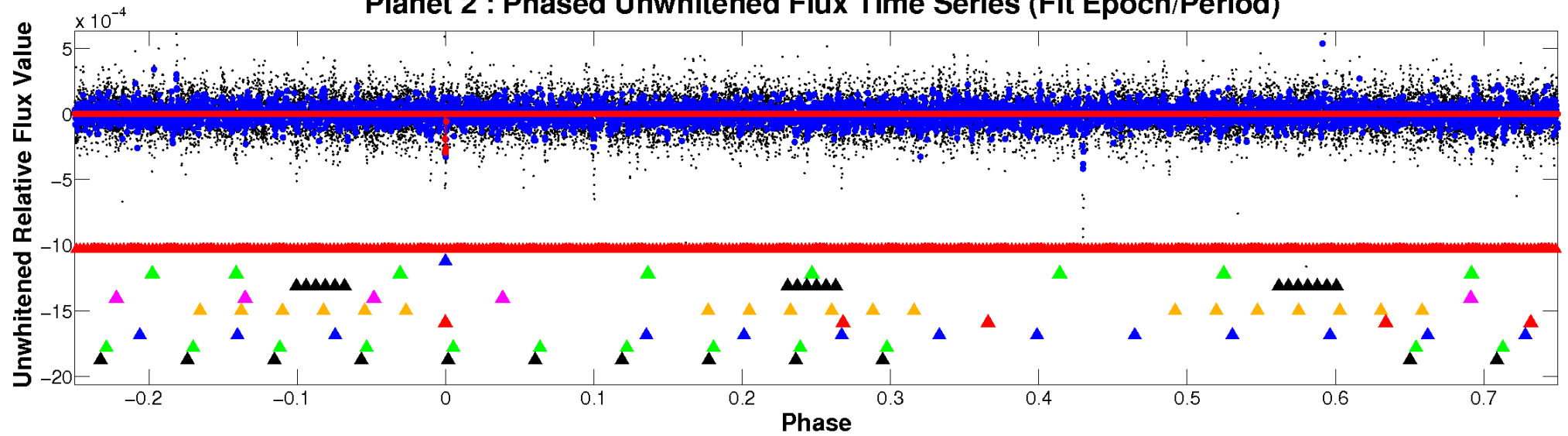
ALT Odd/Even

TCE 011390595-02

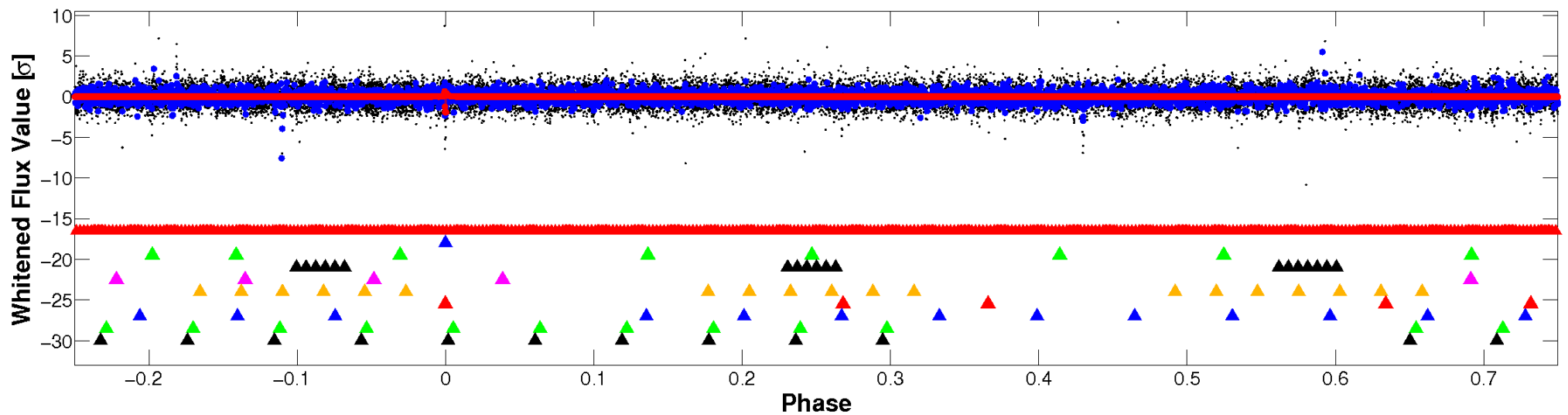


Non-Whitened Vs. Whitened Light Curve

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

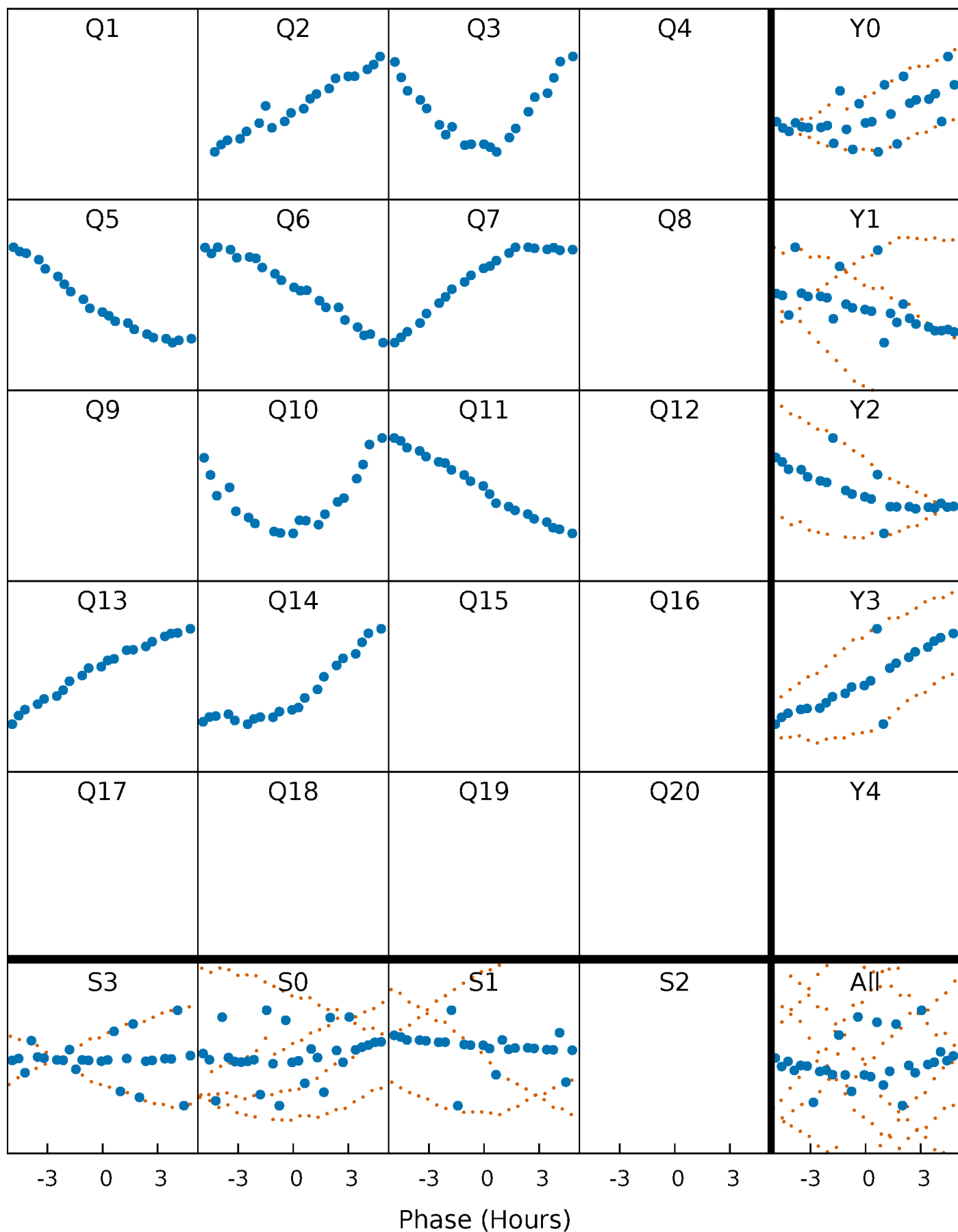


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



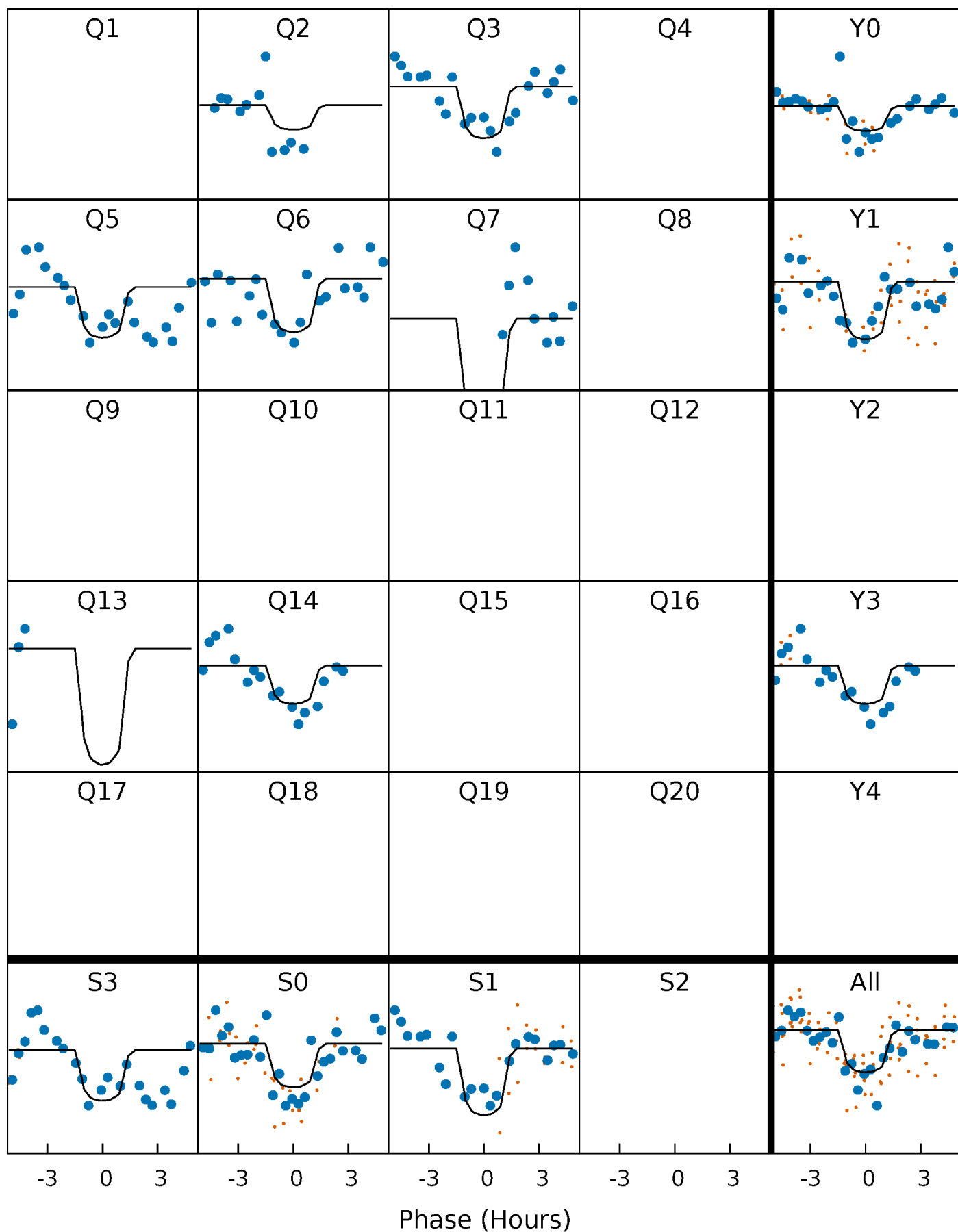
PDC Quarter-Phased Transit Curves

TCE 011390595-02 P=112.671448 Days $T_0=232.988150$ (BKJD)



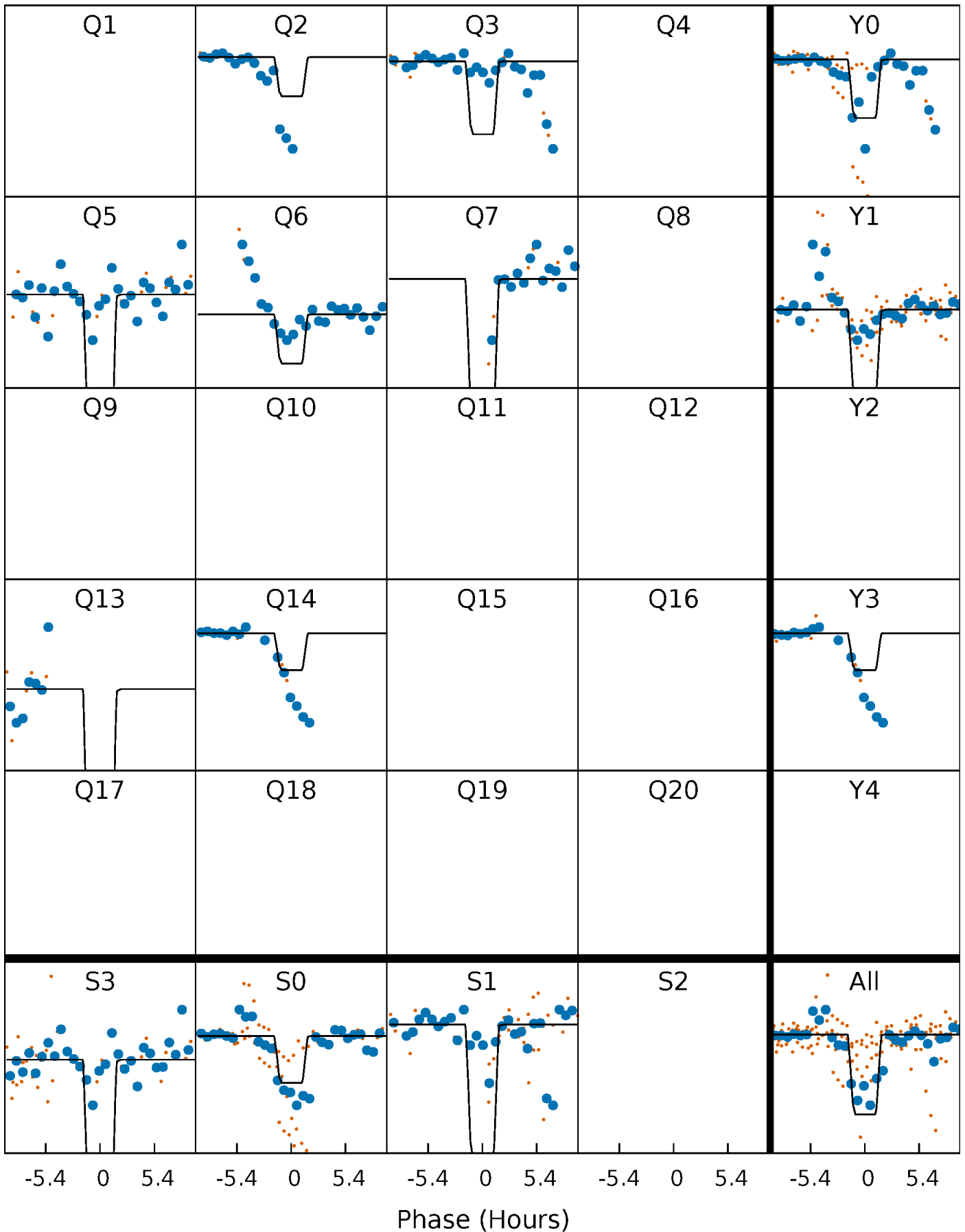
DV Quarter-Phased Transit Curves

TCE 011390595-02 P=112.671448 Days $T_0=232.988150$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

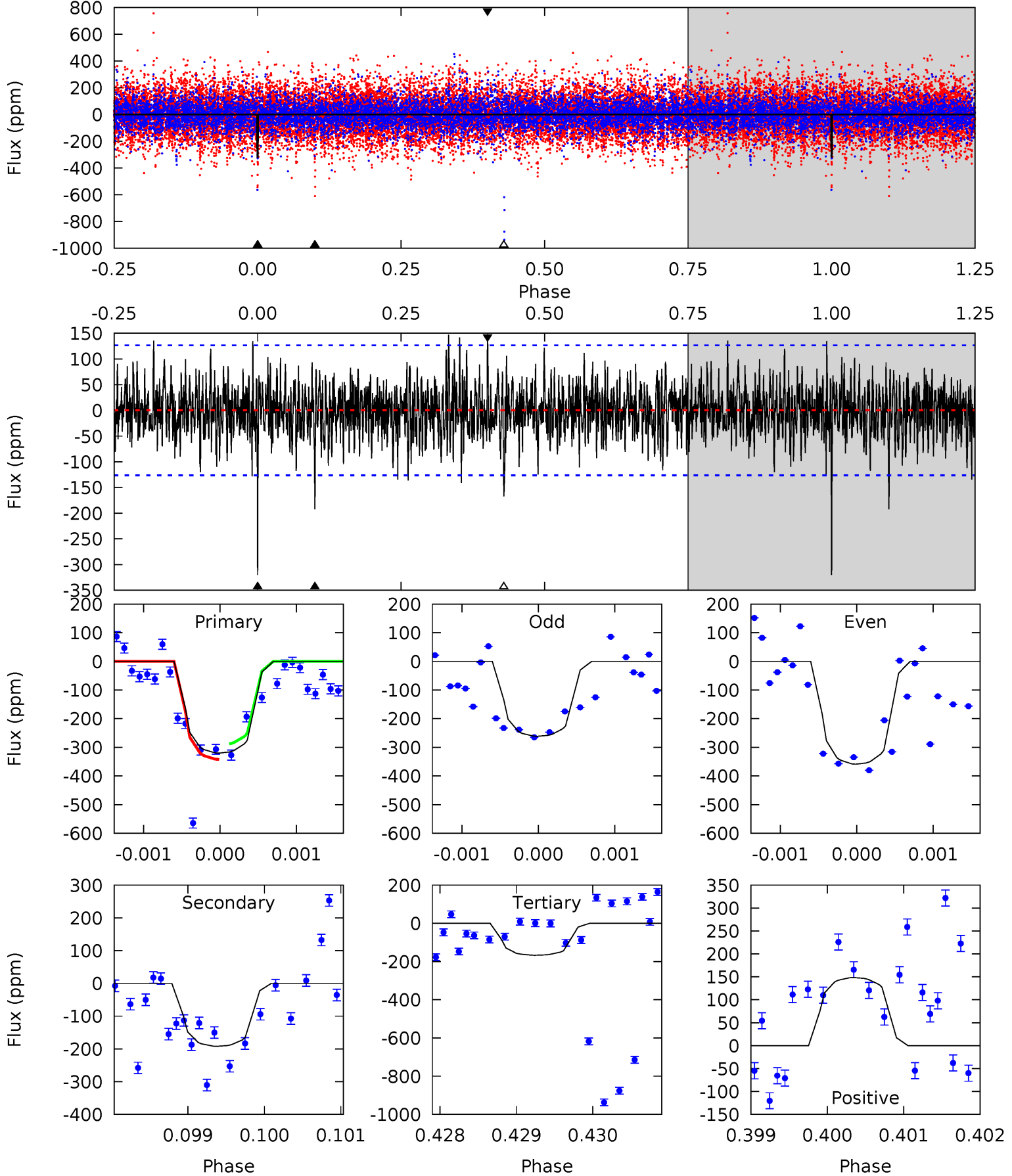
TCE 011390595-02 P=112.671803 Days $T_0=232.995278$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-02, P = 112.671448 Days, E = 120.316702 Days

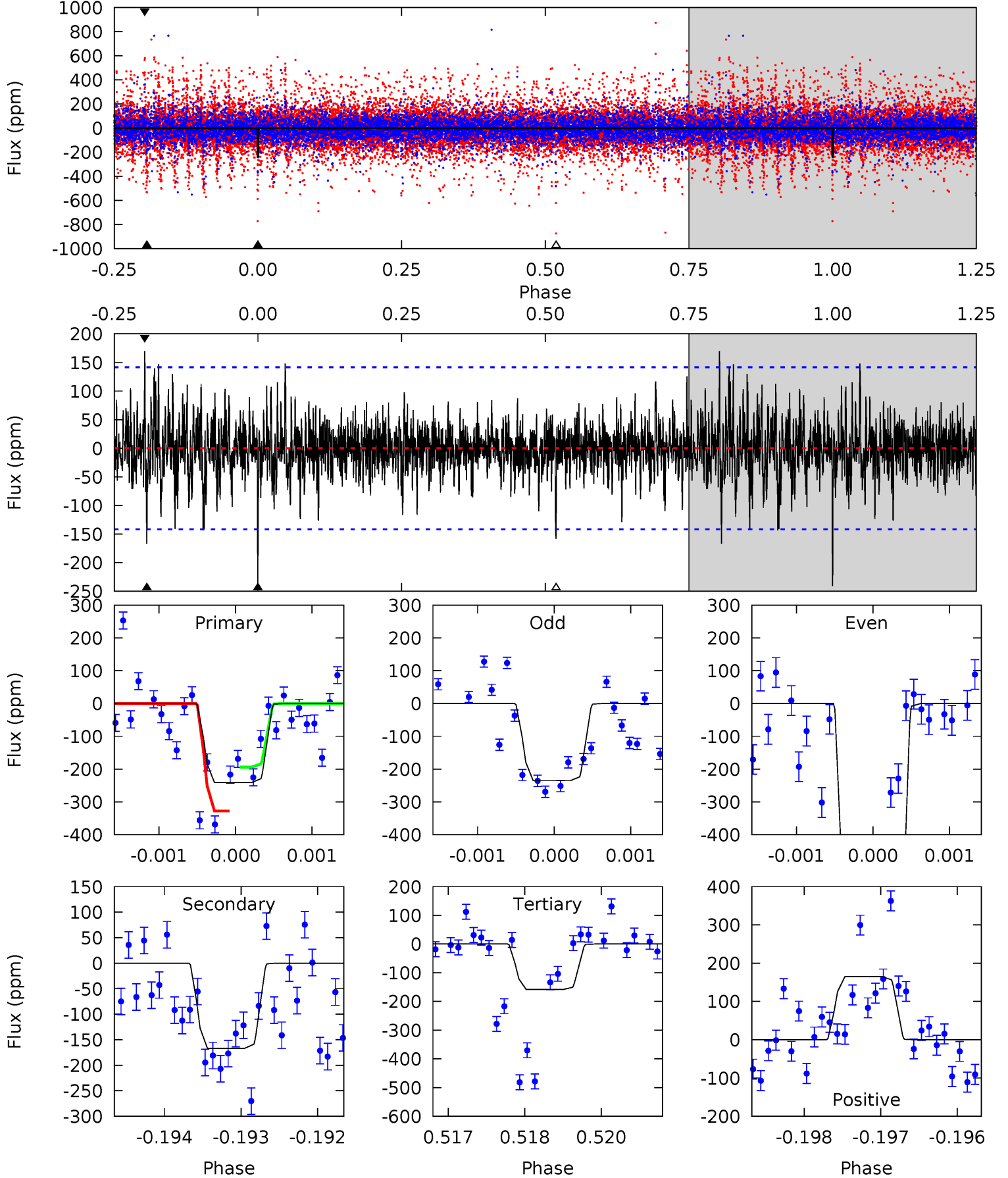
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	8.30	7.22	6.41	5.46	3.31	1.74	6.61	7.42	1.08	1.89	2.05	1.10	0.32	1.17



Alt Model-Shift Uniqueness Test

011390595-02, P = 112.671803 Days, E = 120.323475 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.21	6.37	6.05	6.29	5.41	3.23	1.40	3.16	2.91	0.33	0.08	9.70	2.03	0.41	0



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-192 ± 23	$3.29^{+2.56}_{-2.05}$	688^{+51}_{-46}	5382^{+3529}_{-1128}	2455^{+14140}_{-1722}
Alt.	-167 ± 26	$4.86^{+2.93}_{-2.42}$	691^{+50}_{-50}	4386^{+1566}_{-612}	932^{+2924}_{-560}

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

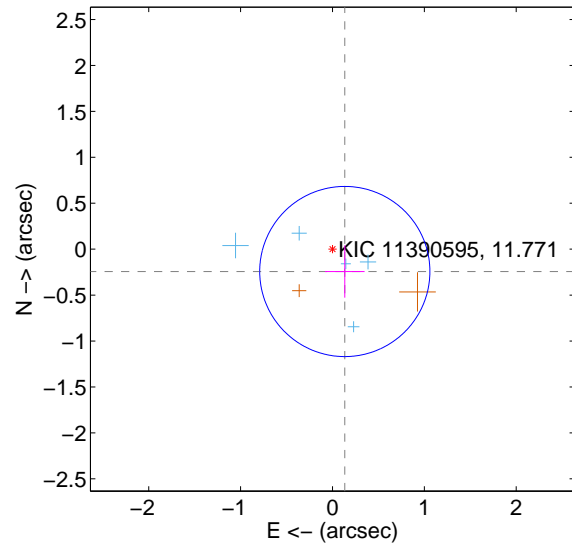
Supplemental centroid analysis for 011390595-02. **Kepler magnitude: 11.77.** Transit SNR 8.67

There are 6 quarters with good PRF difference image offsets

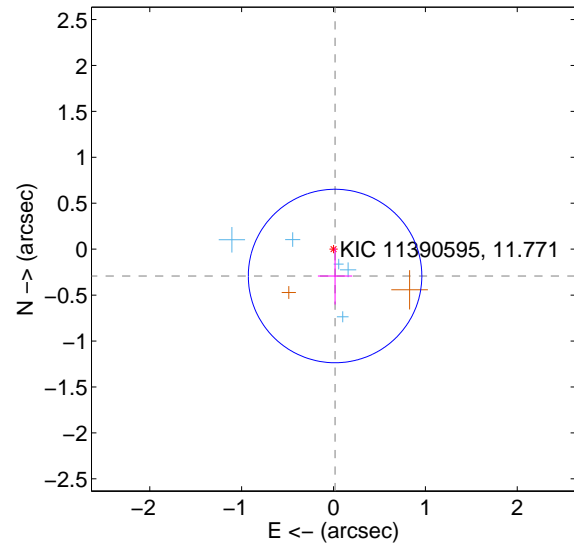
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.278 ± 0.309	0.90	-0.134 ± 0.215	-0.243 ± 0.285
PRF-fit source offset from KIC position	0.293 ± 0.315	0.93	-0.017 ± 0.187	-0.292 ± 0.310
photometric centroid source offset	0.49 ± 0.57	0.87	-0.17 ± 0.54	-0.46 ± 0.57

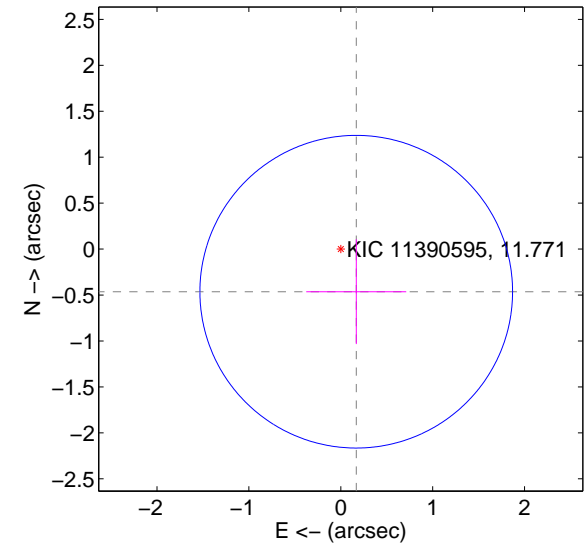
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

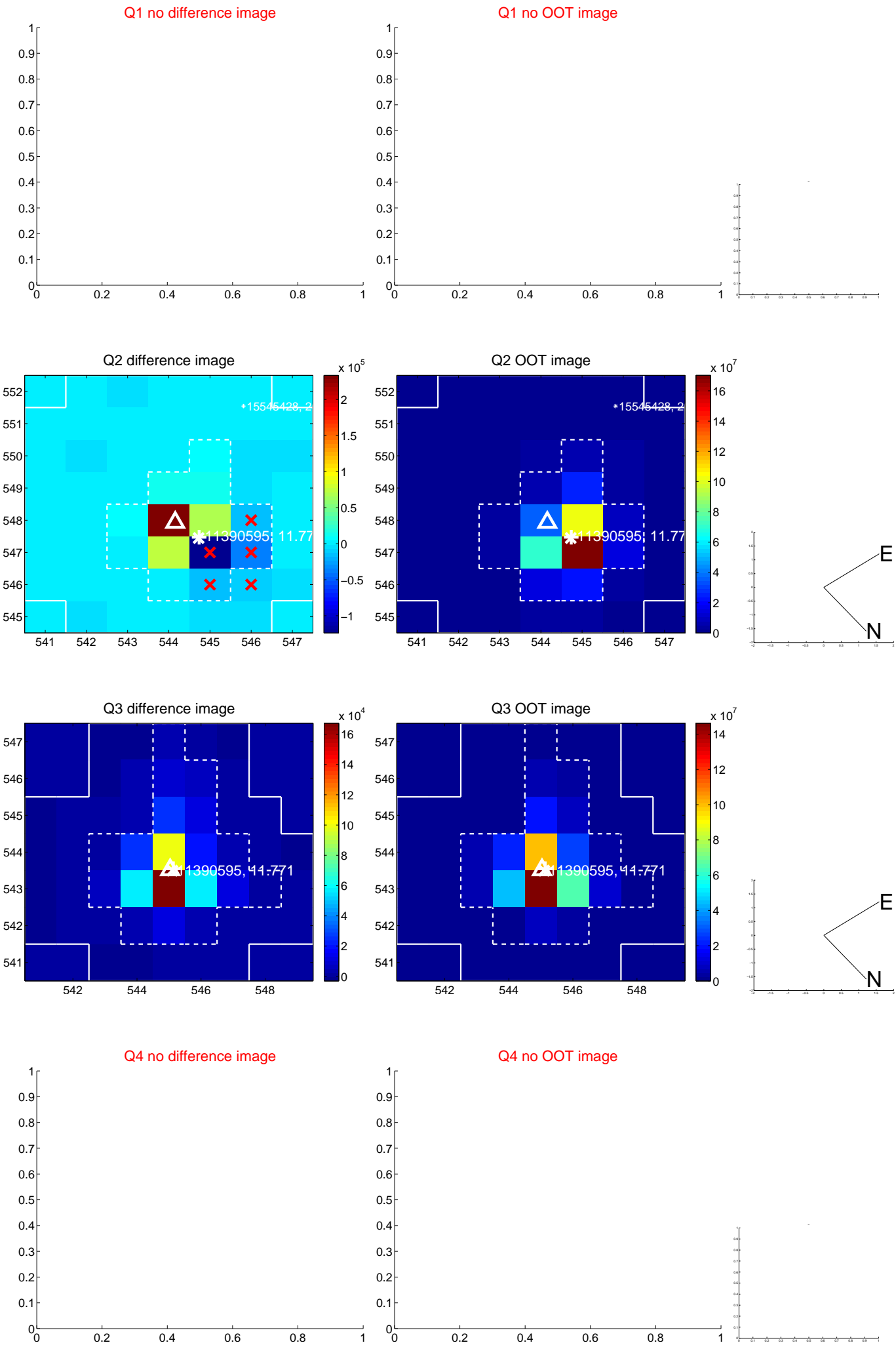


offset from photometric centroids

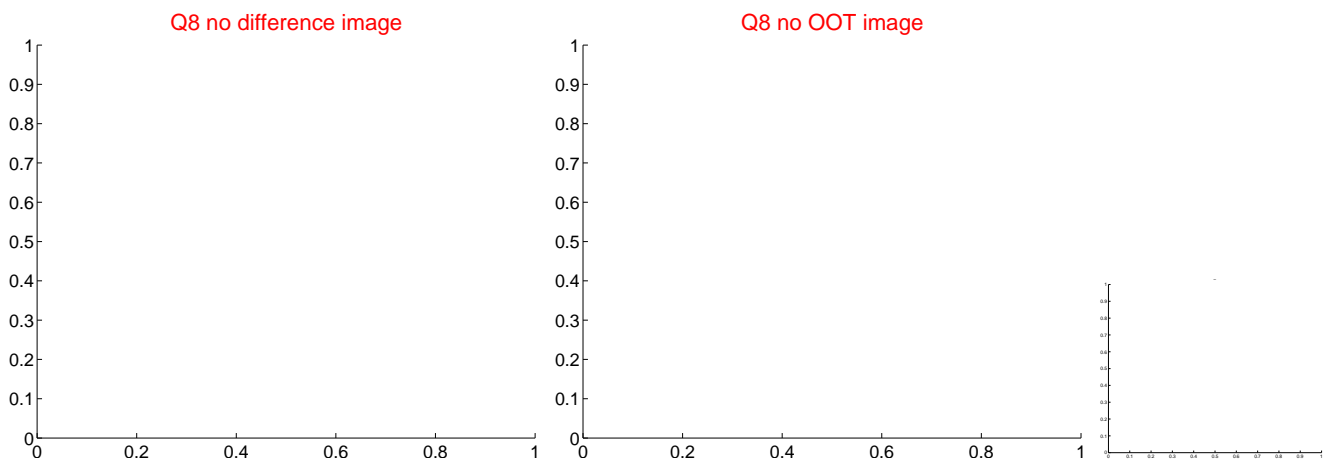
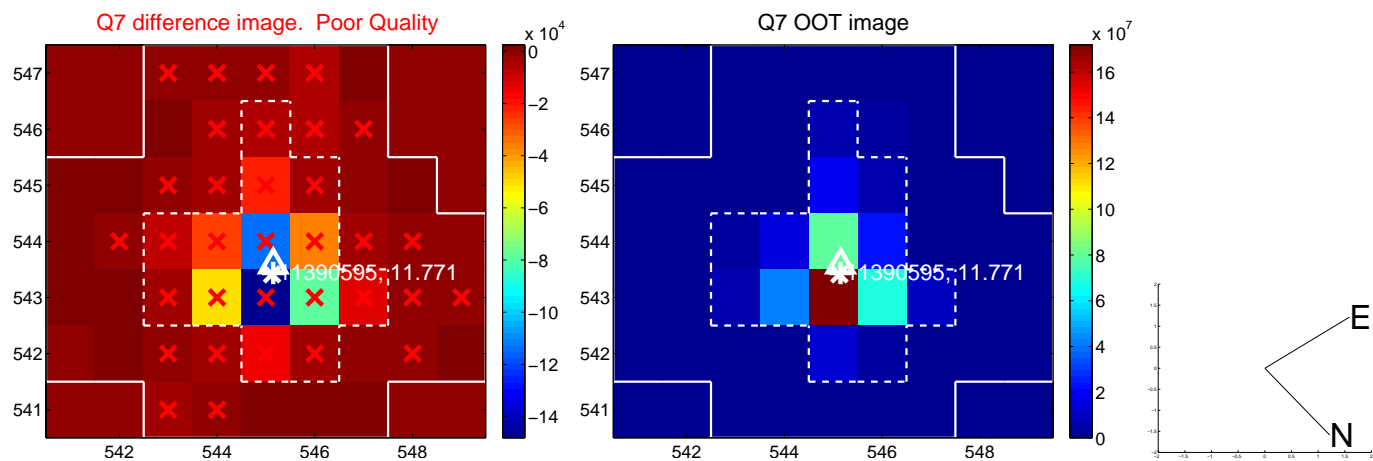
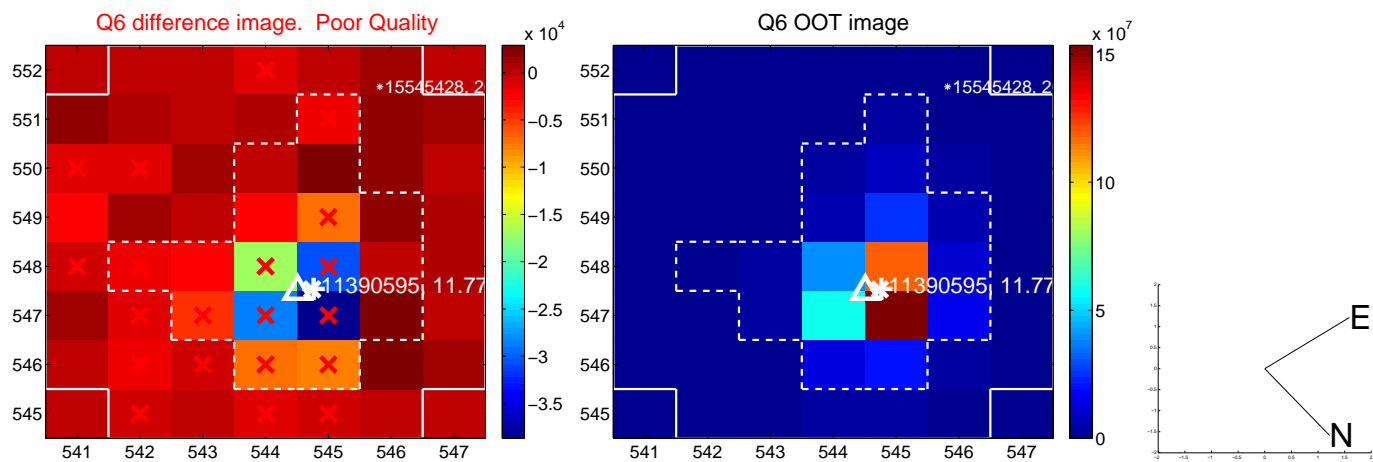
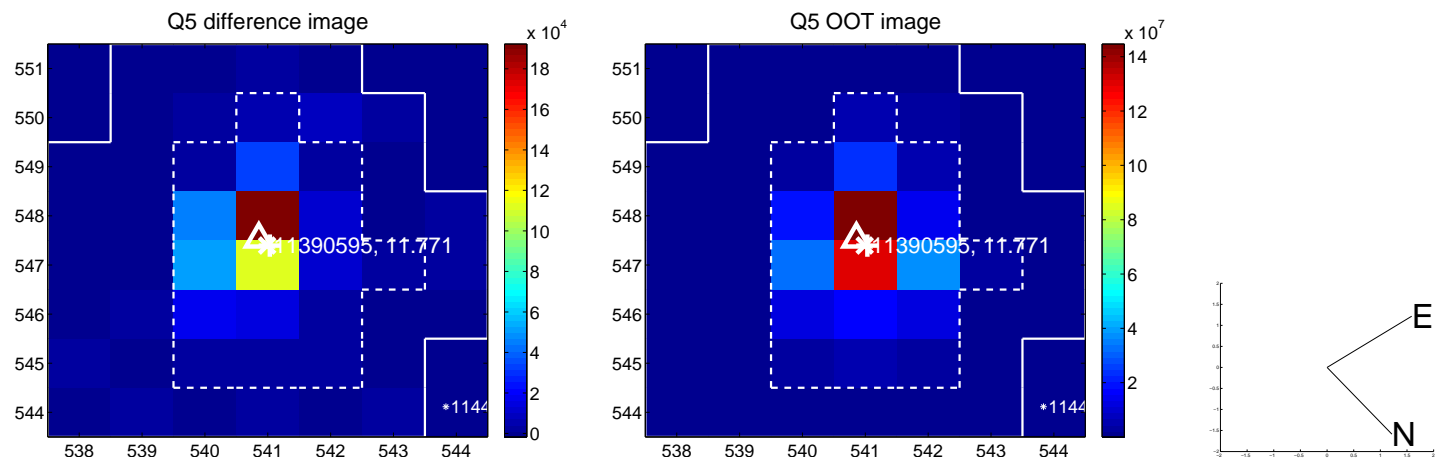


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

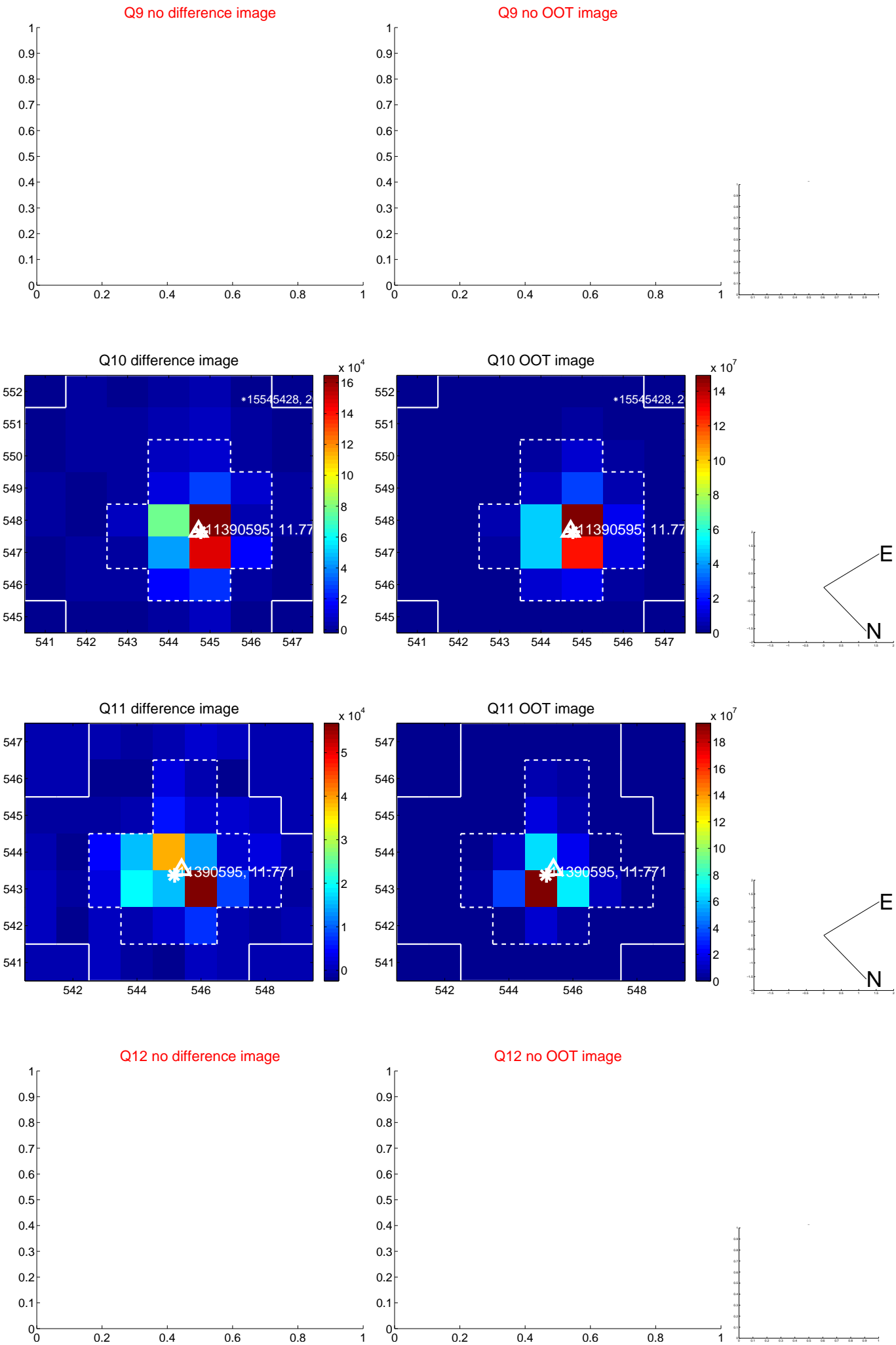
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



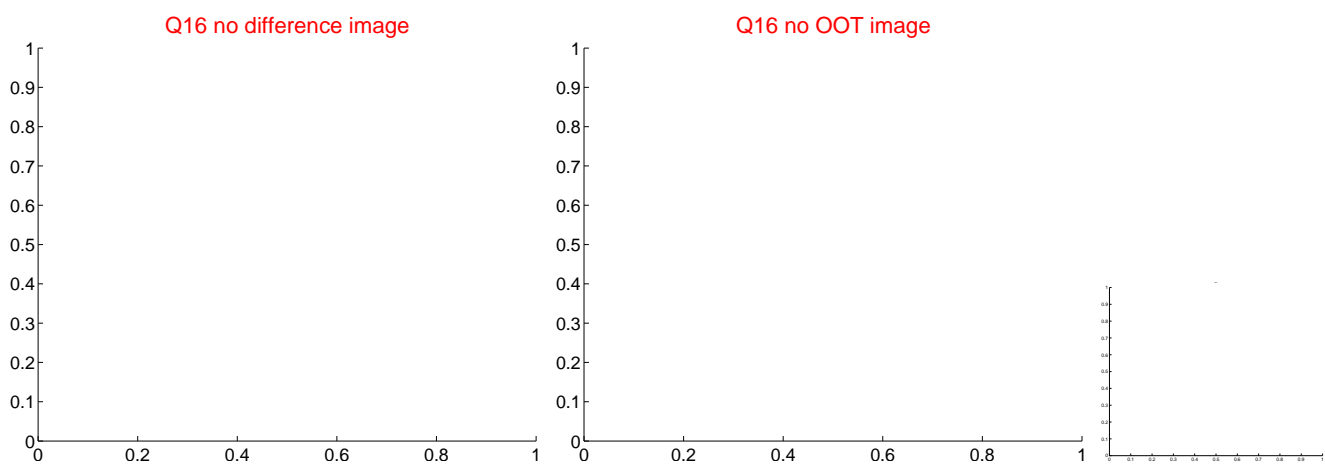
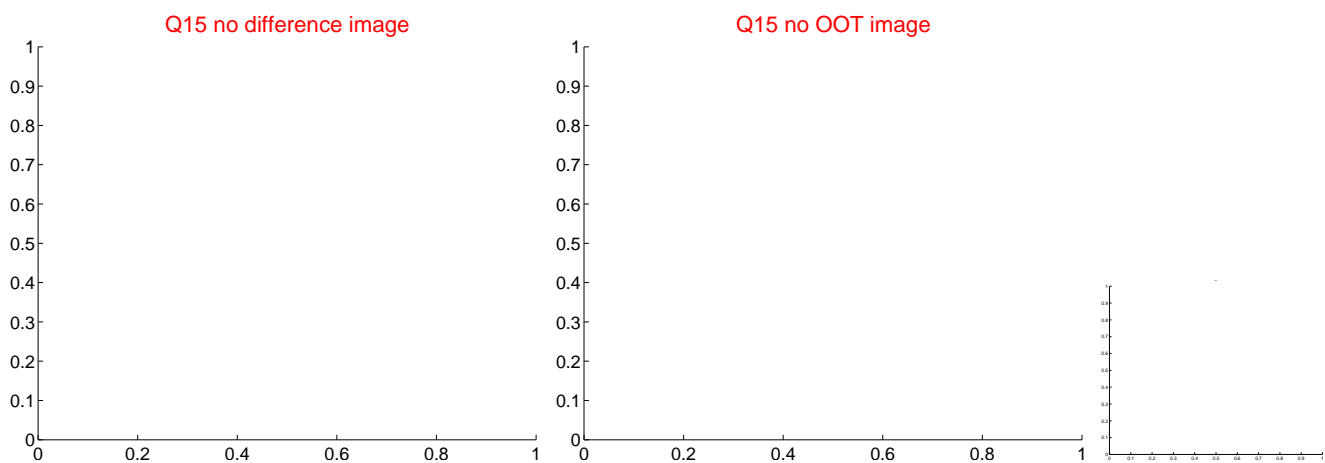
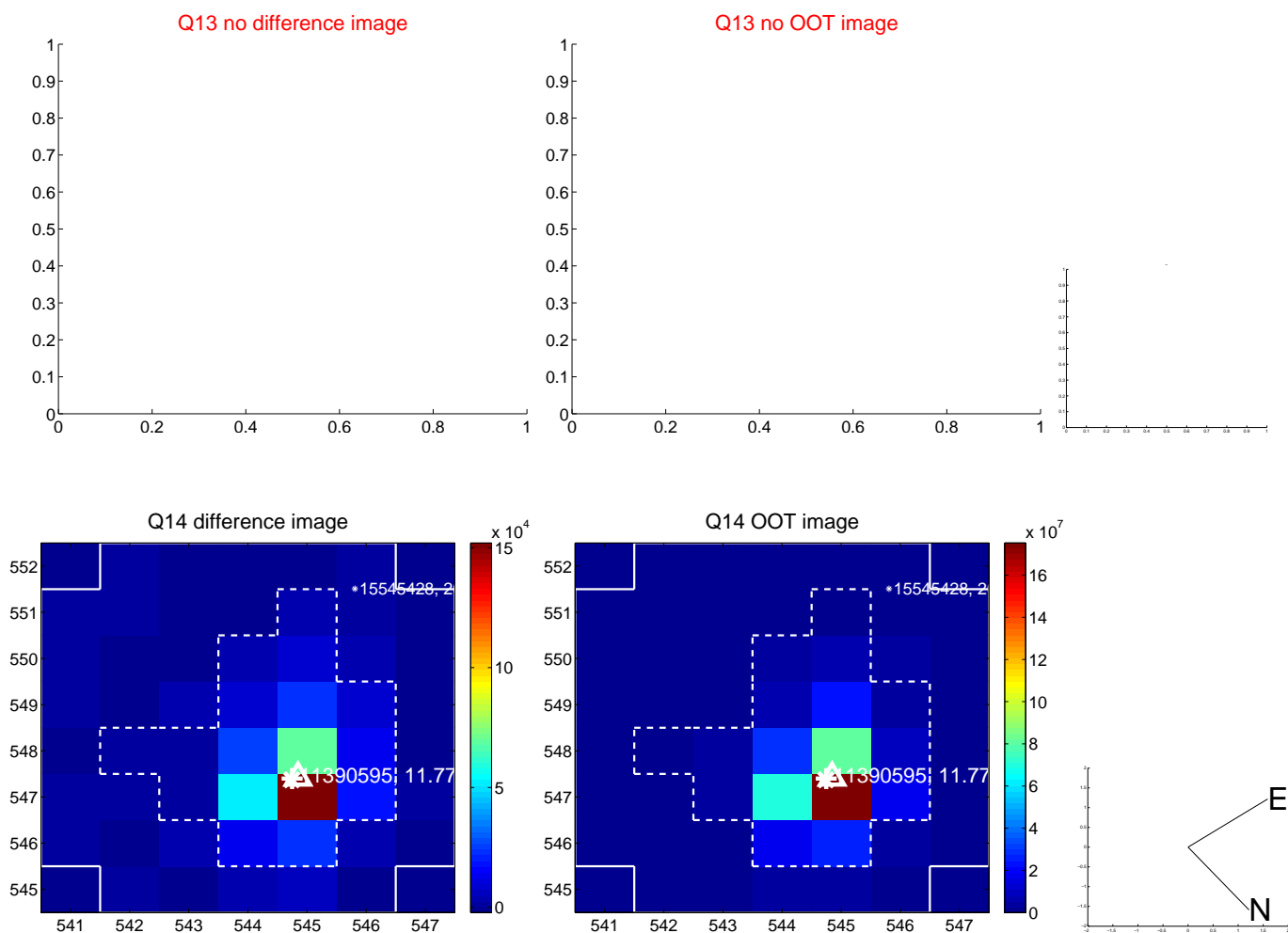
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



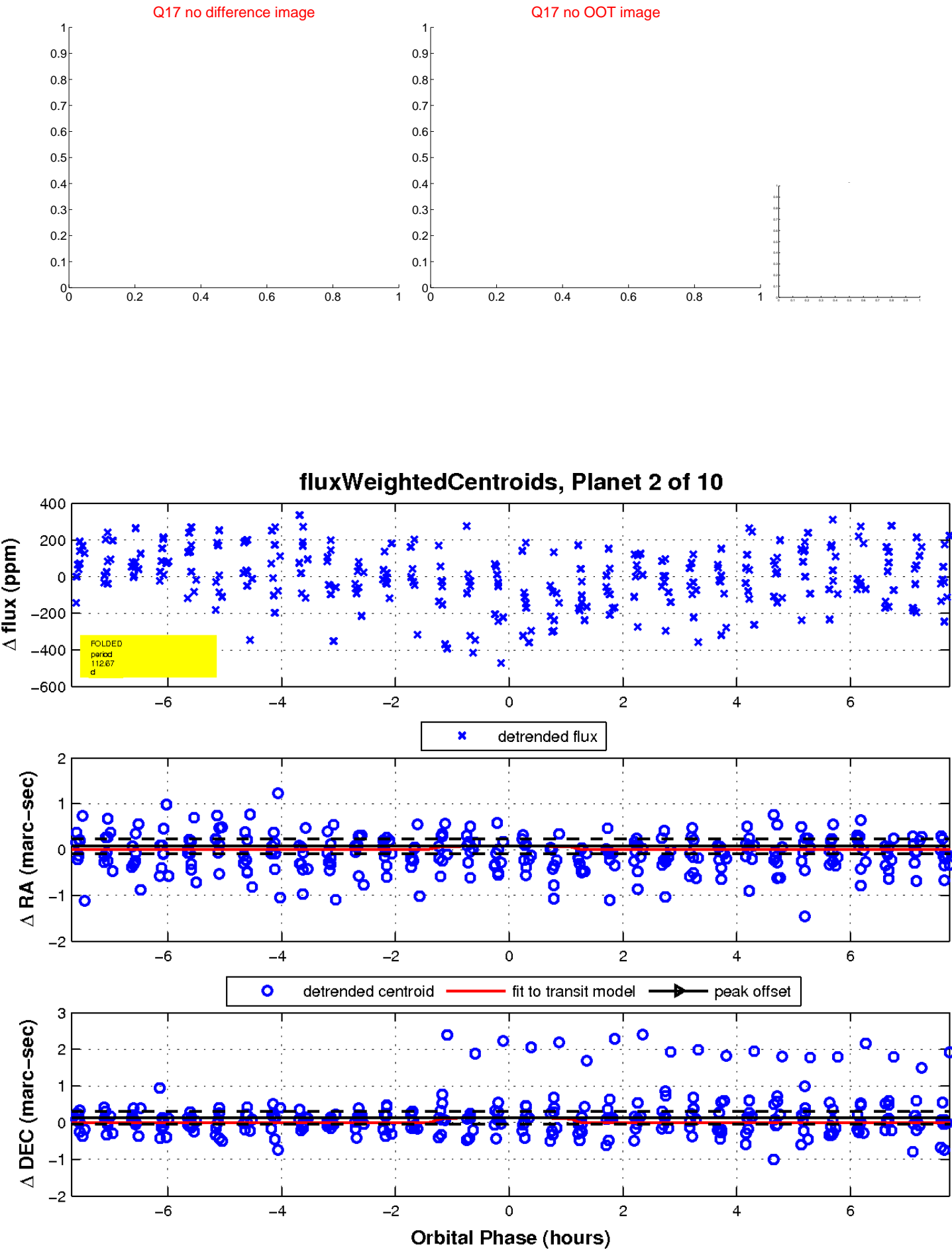
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

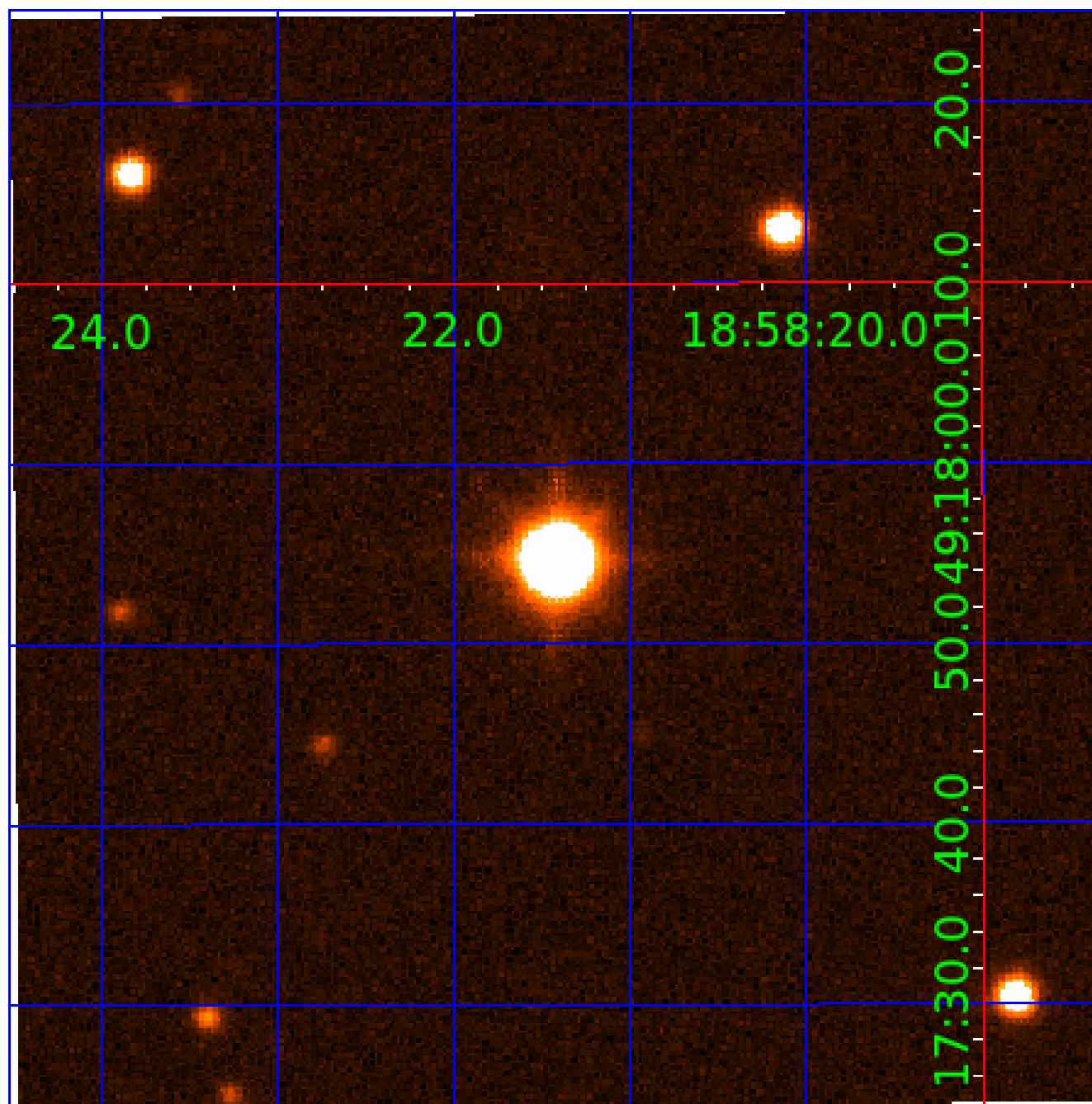


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

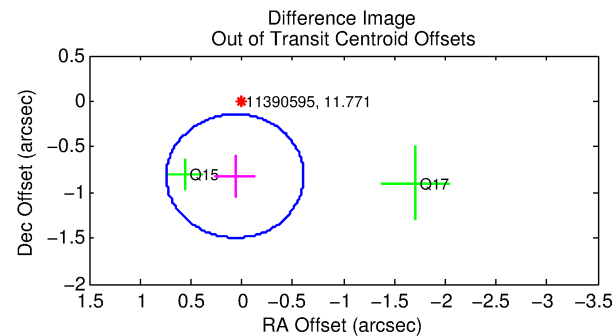
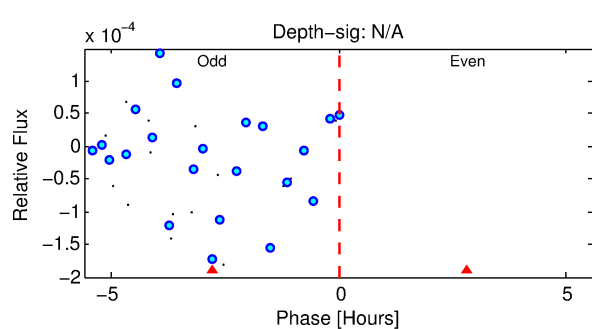
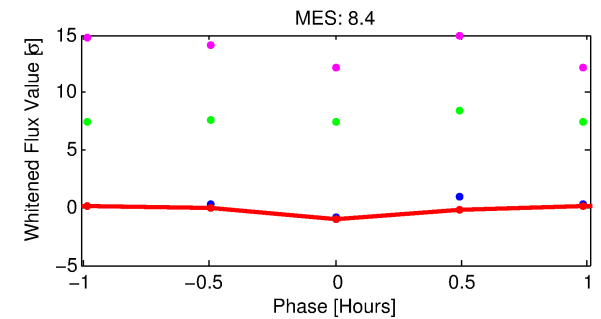
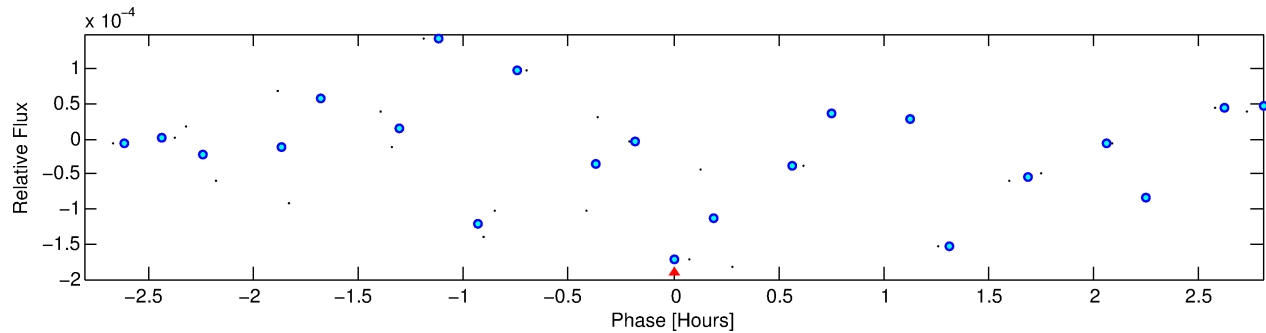
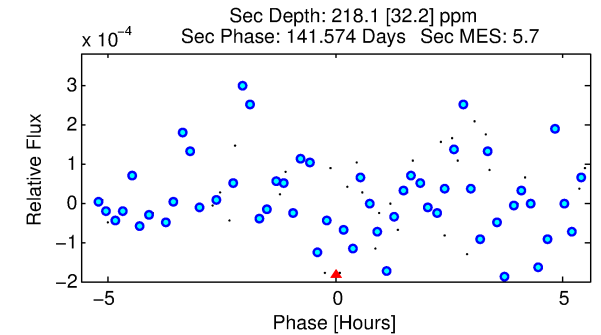
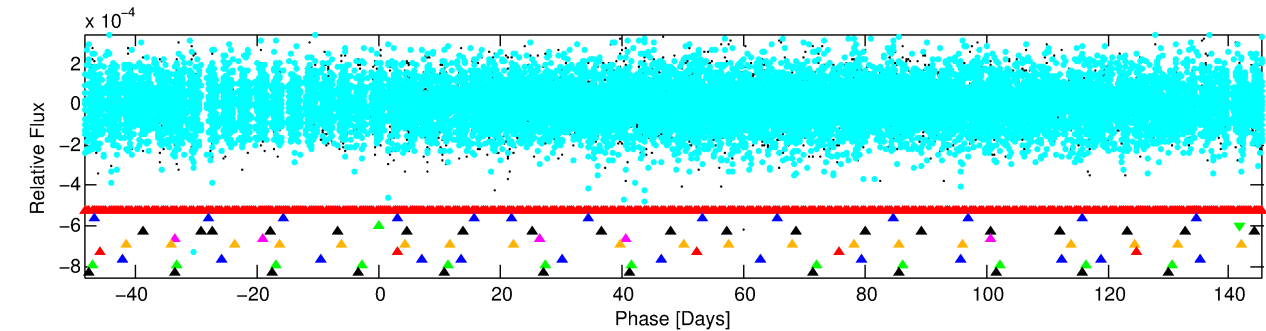
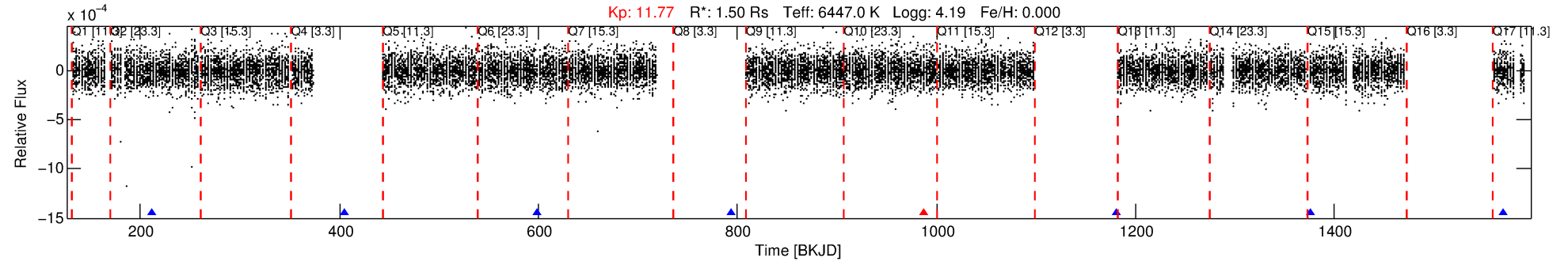
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-03

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 3 of 10 Period: 194.061 d



TPS TCE Results:

Period = 194.06081 d
Epoch = 210.7183 BKJD

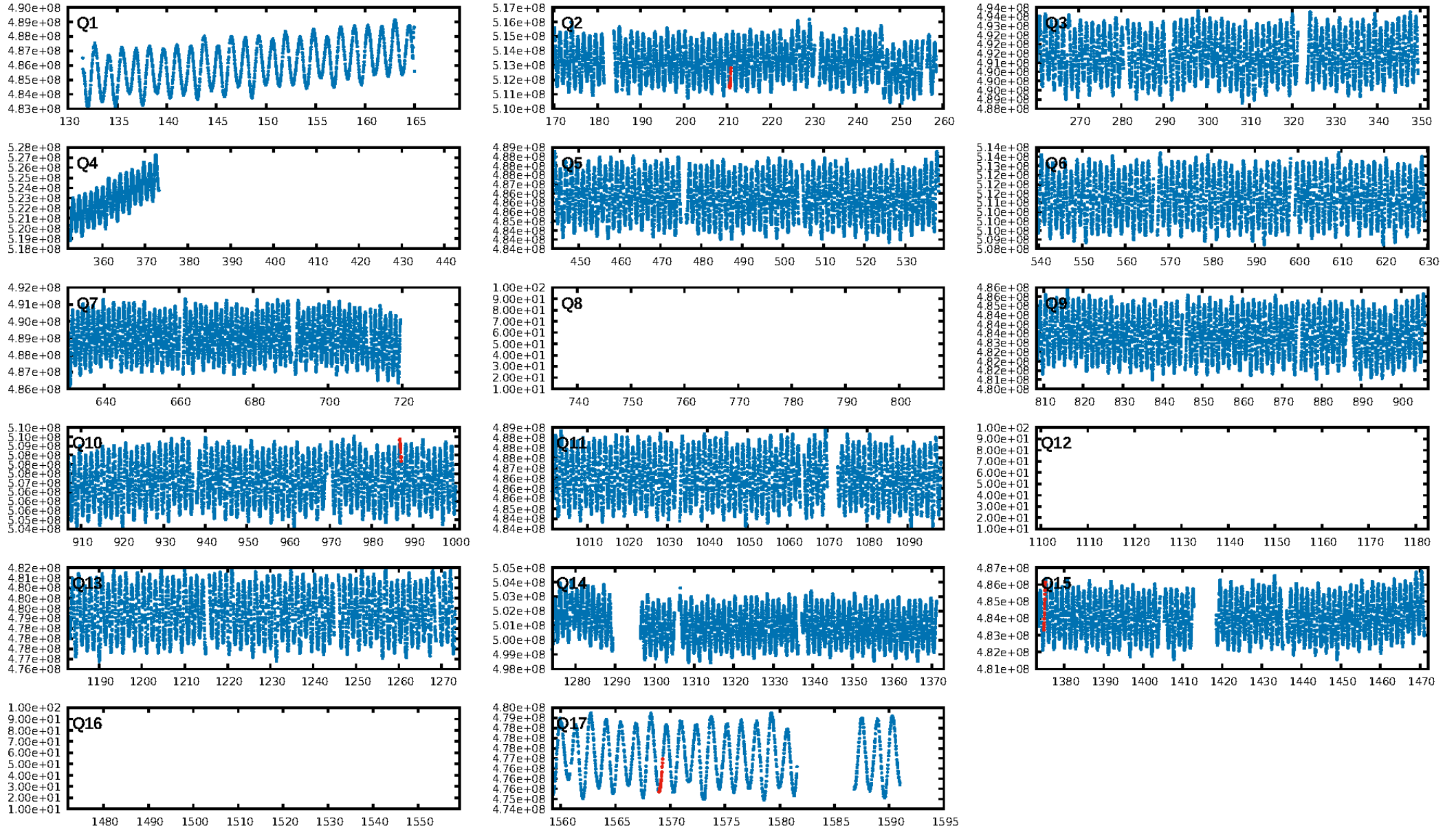
DV fit results are unavailable

DV Diagnostic Results:

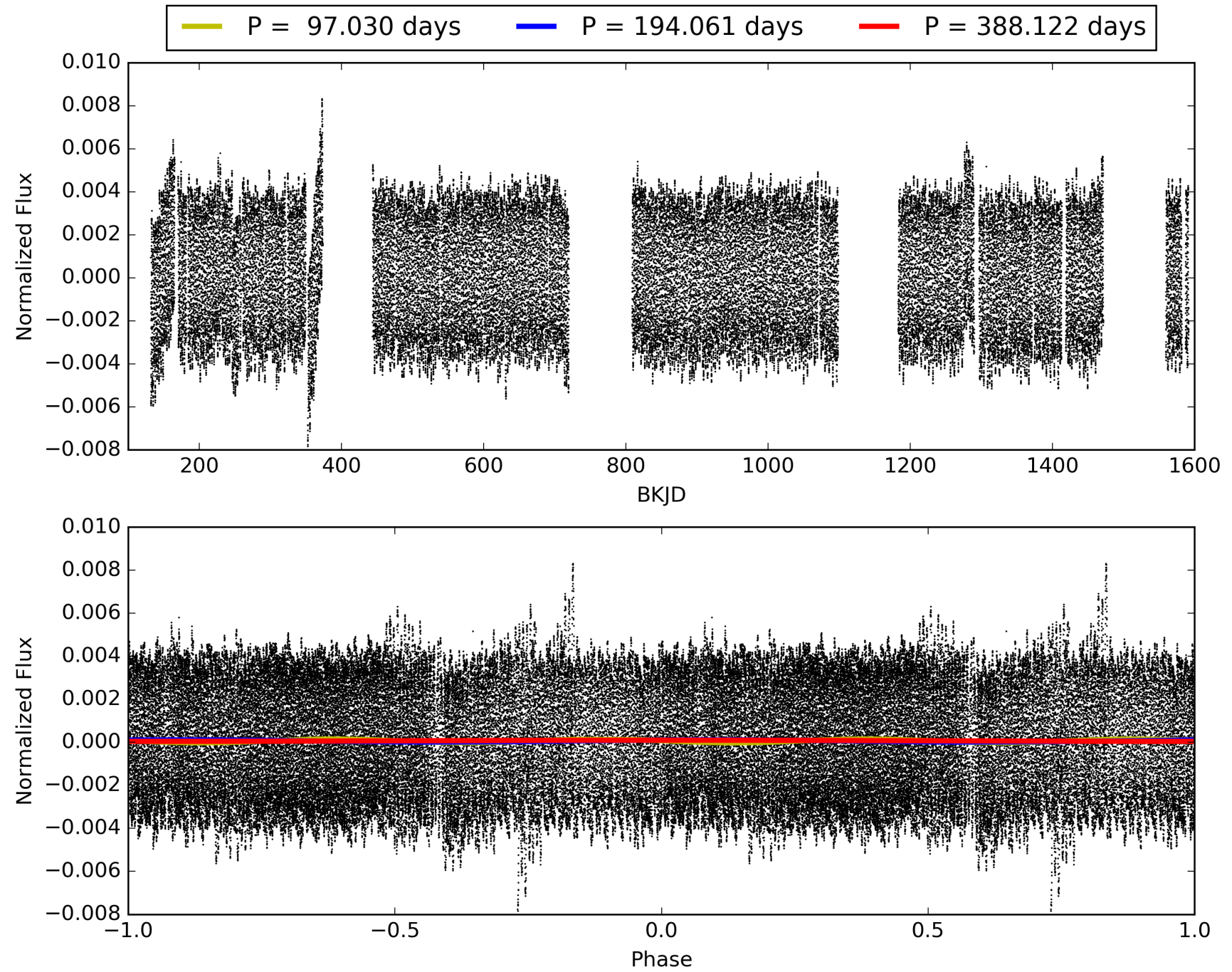
ShortPeriod-sig: 100.0% [282.04σ]
LongPeriod-sig: 100.0% [197.74σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 0.5004

Centroid-sig: 74.6%
Centroid-so: 0.689 arcsec [0.40σ]
OotOffset-rm: 0.821 arcsec [3.64σ]
KicOffset-rm: 0.781 arcsec [3.24σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 011390595-03, PDC Light Curves

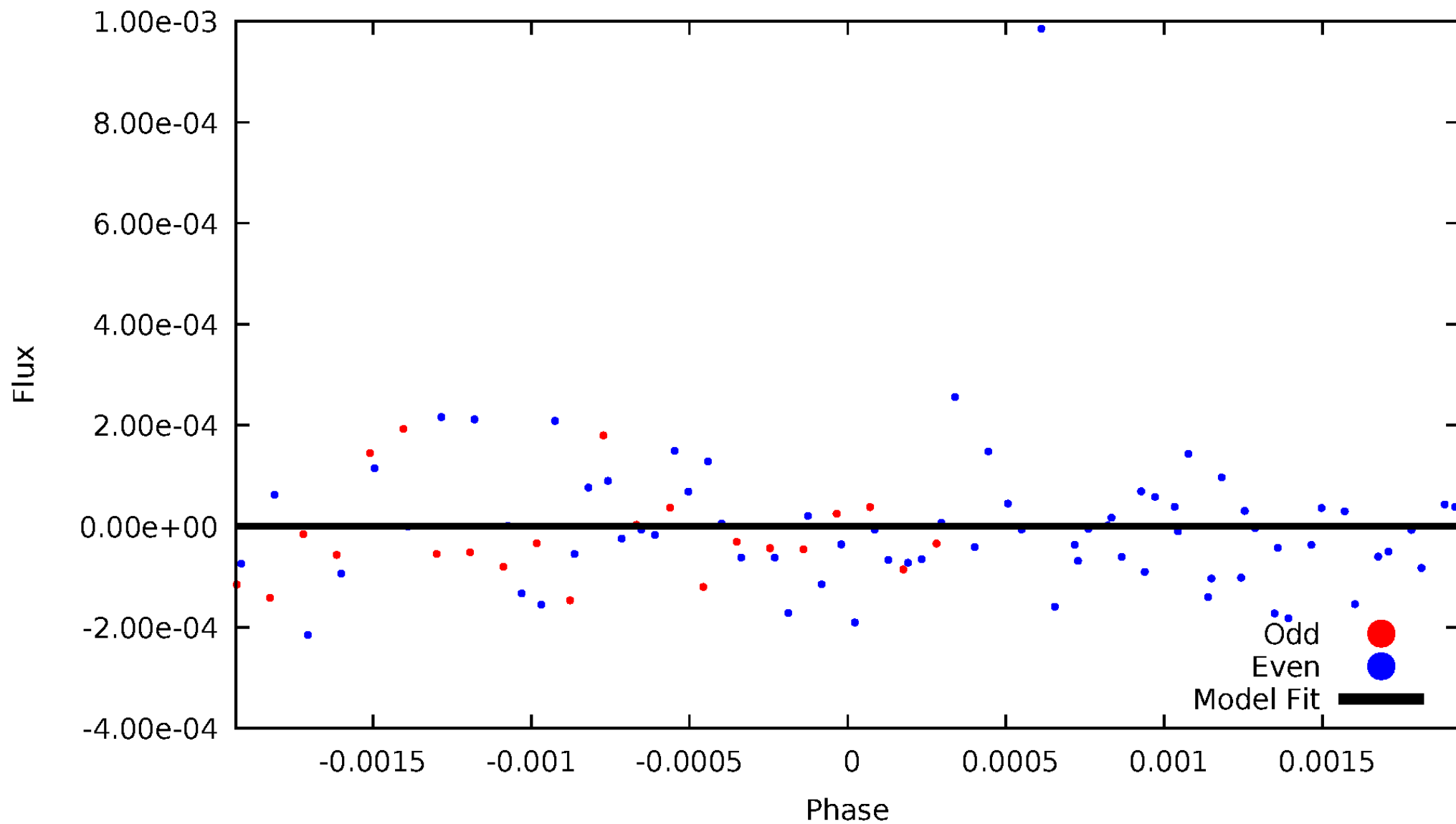


TCE 011390595-03



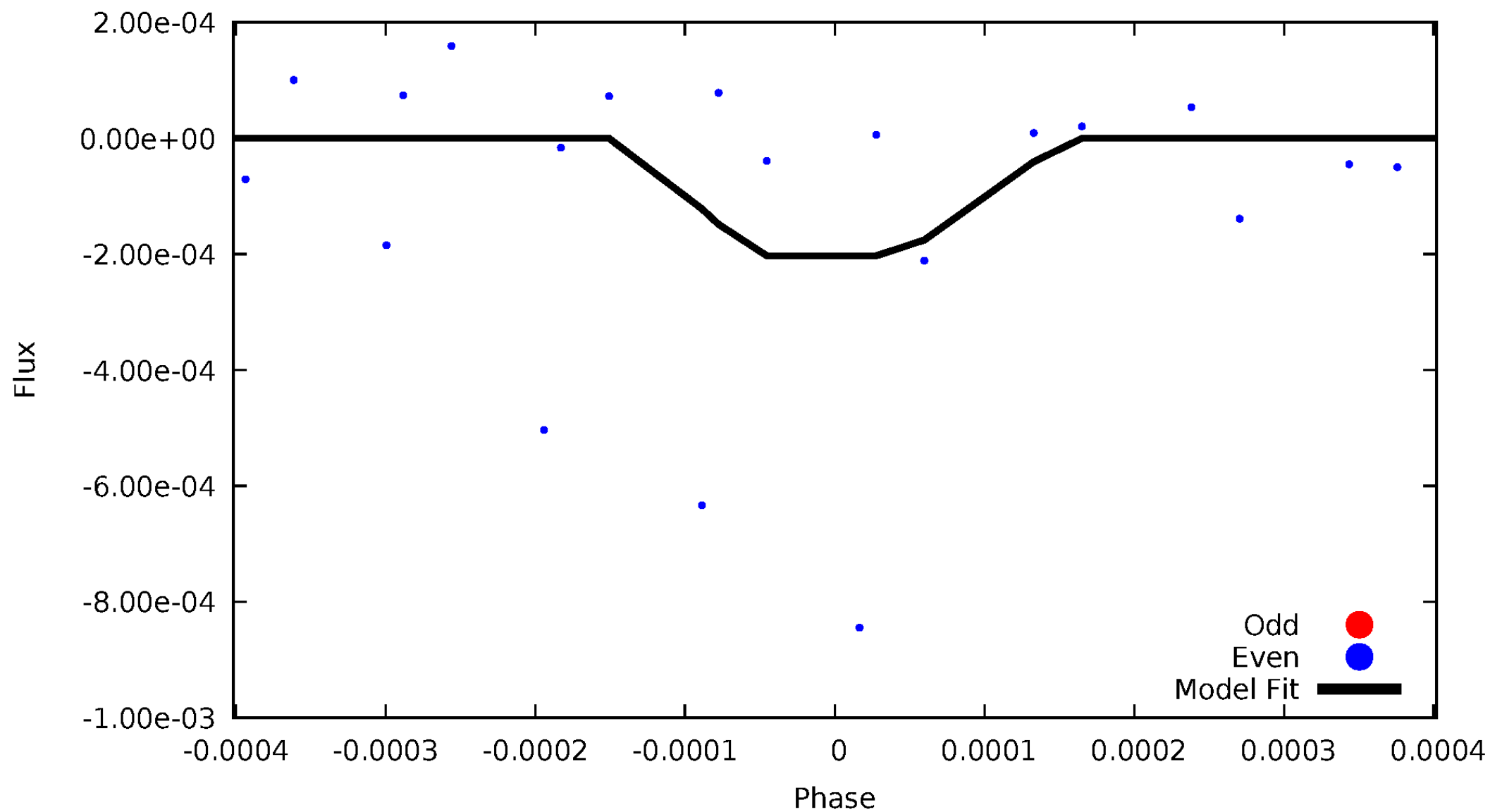
DV Odd/Even

TCE 011390595-03

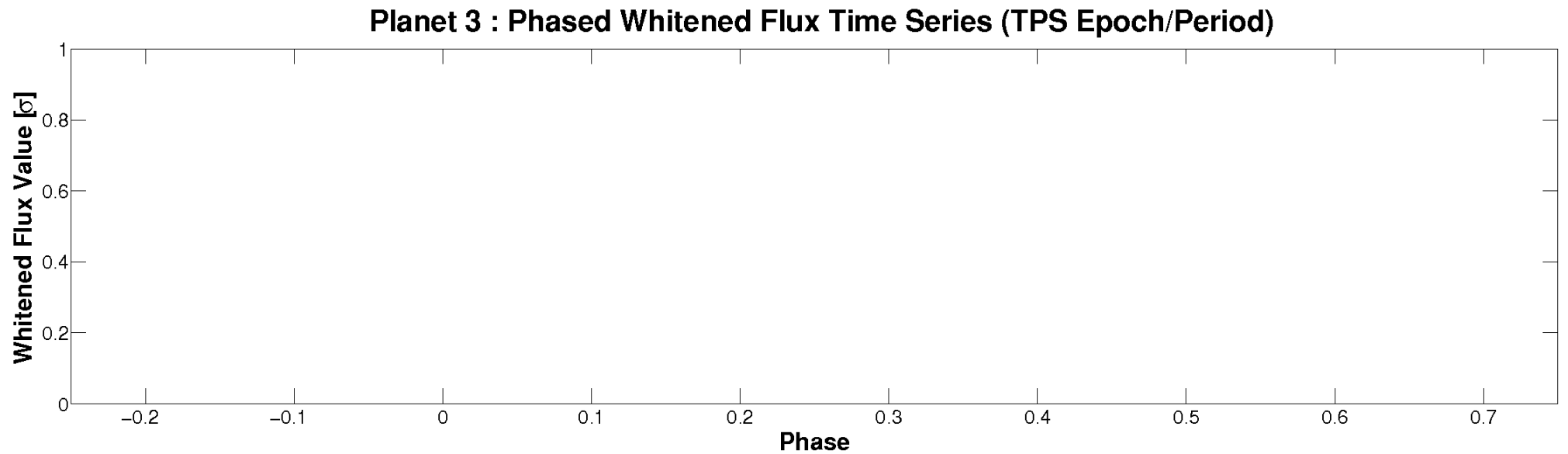
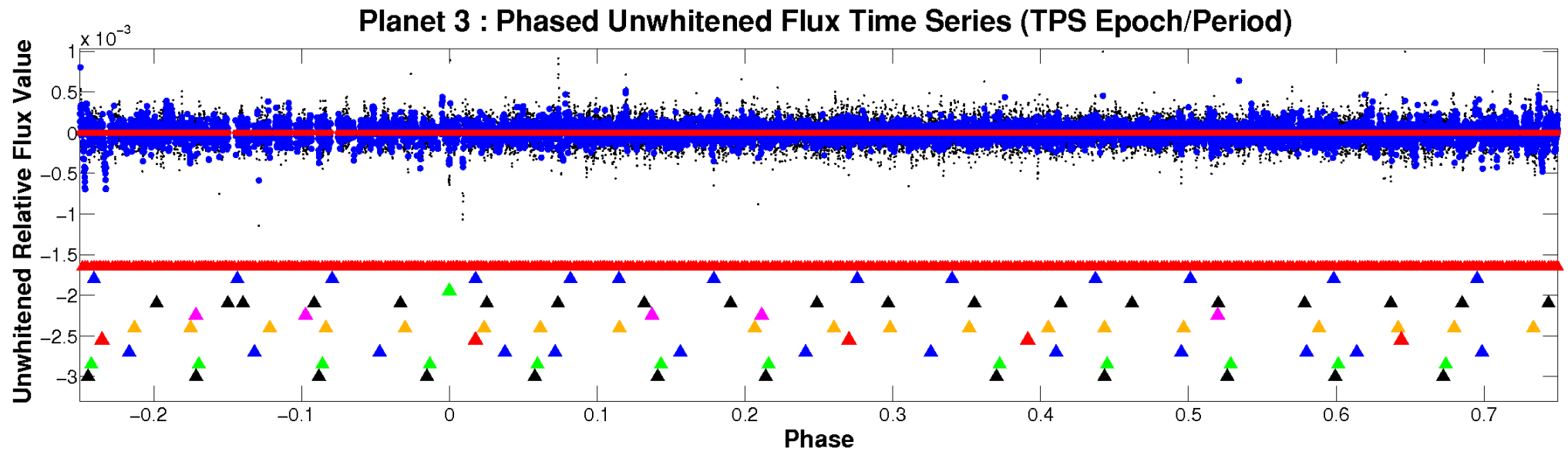


ALT Odd/Even

TCE 011390595-03

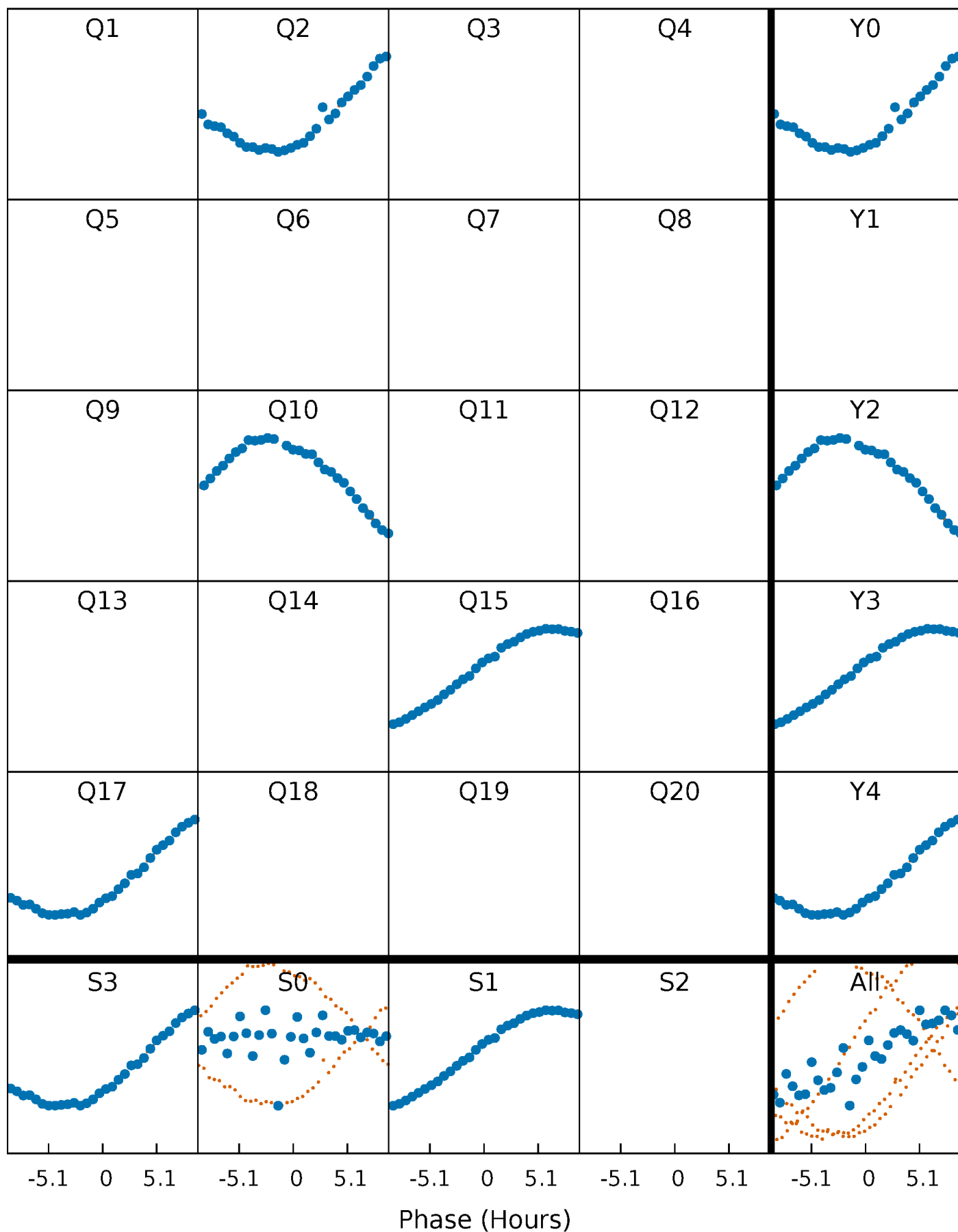


Non-Whitened Vs. Whitened Light Curve



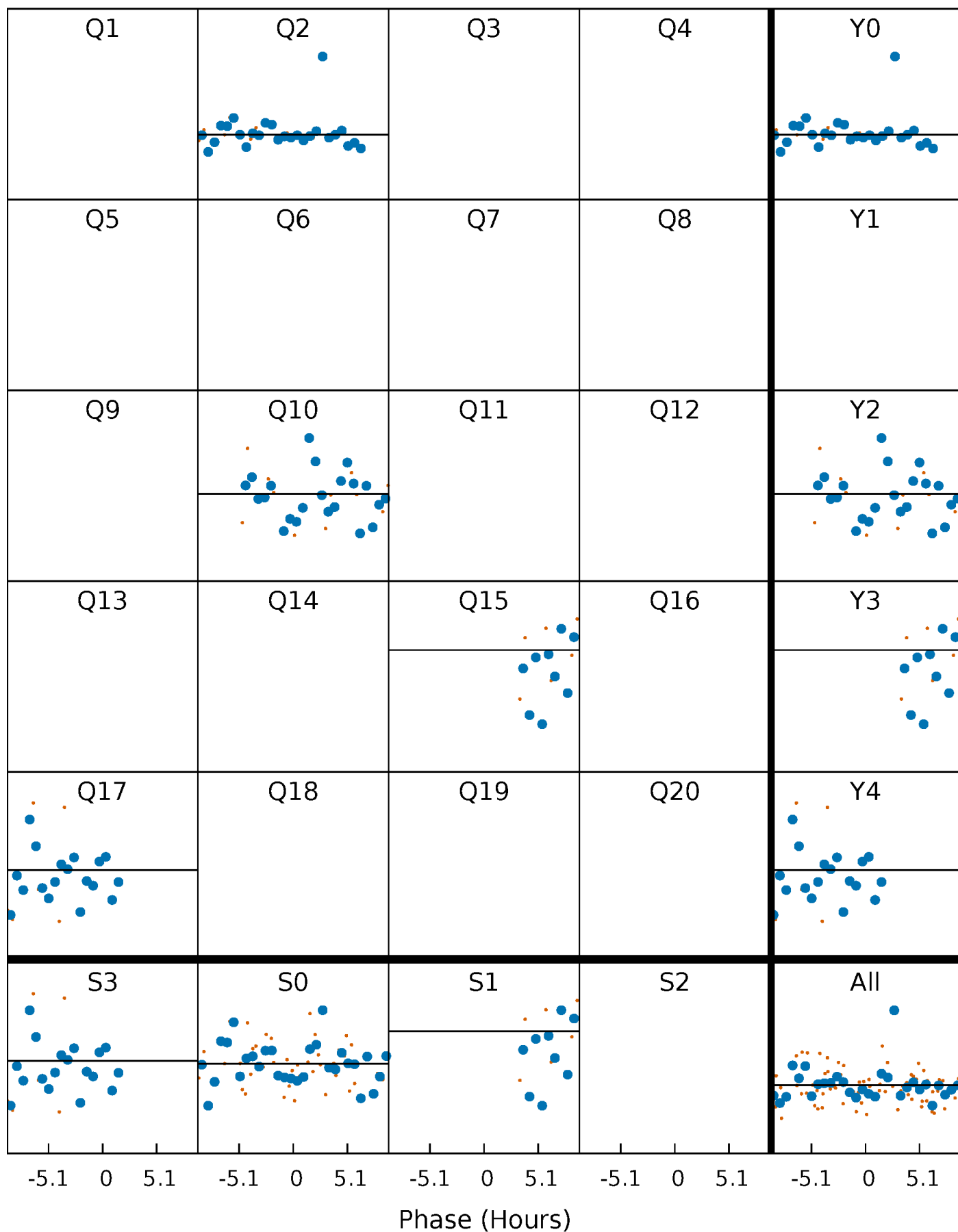
PDC Quarter-Phased Transit Curves

TCE 011390595-03 P=194.060809 Days $T_0=210.718284$ (BKJD)



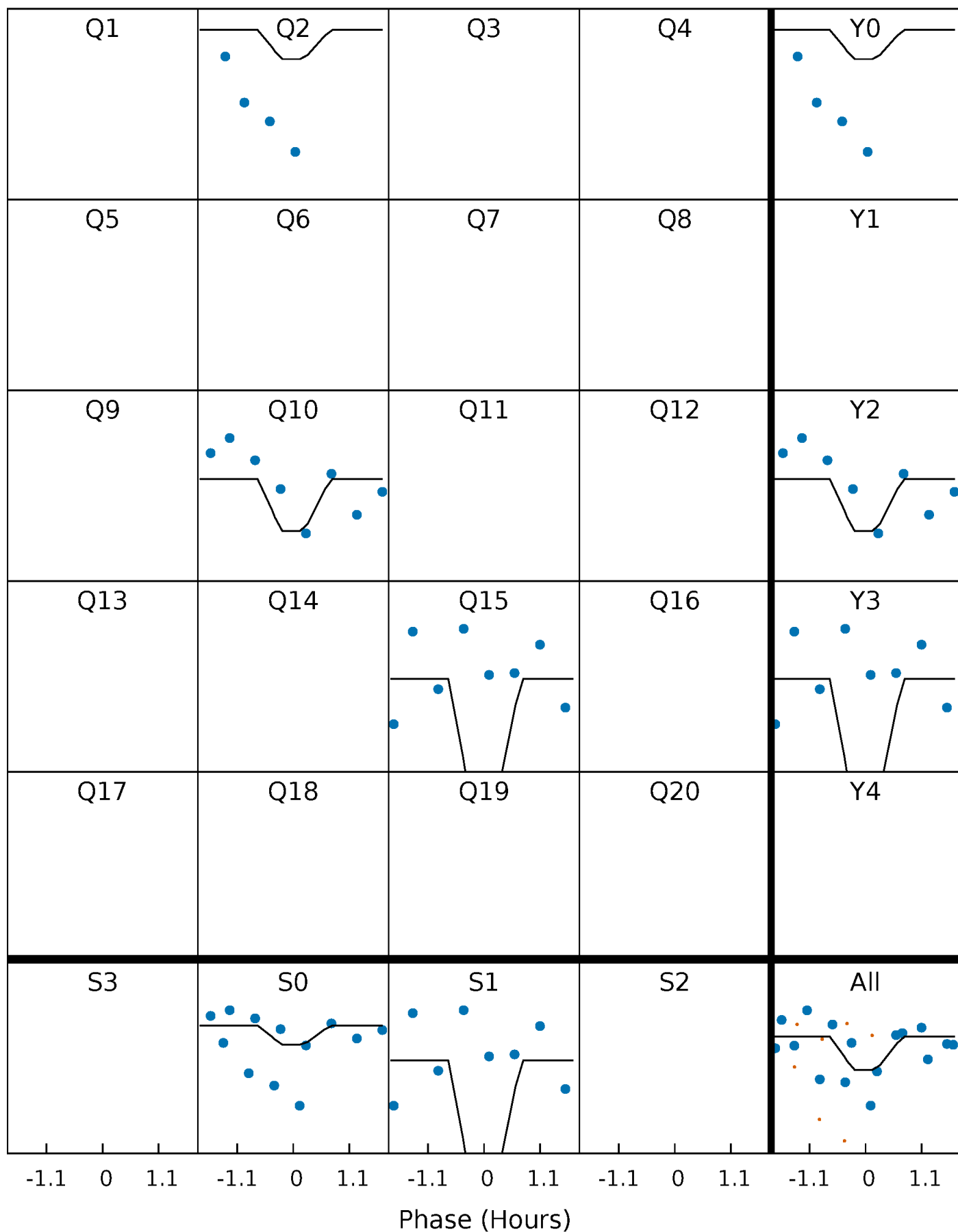
DV Quarter-Phased Transit Curves

TCE 011390595-03 P=194.060809 Days $T_0=210.718284$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

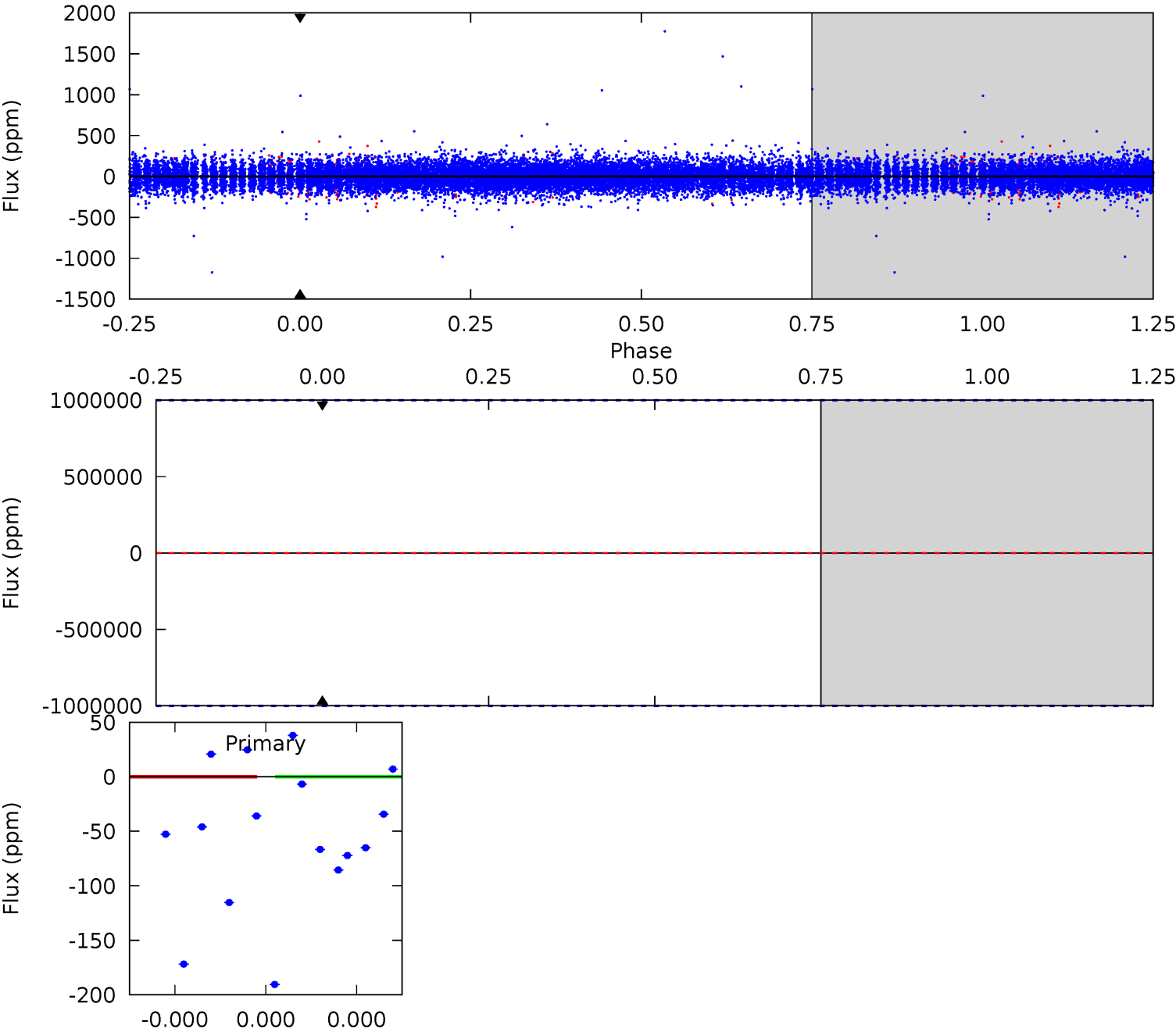
TCE 011390595-03 P=194.060809 Days $T_0=210.976759$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-03, P = 194.060809 Days, E = 16.657475 Days

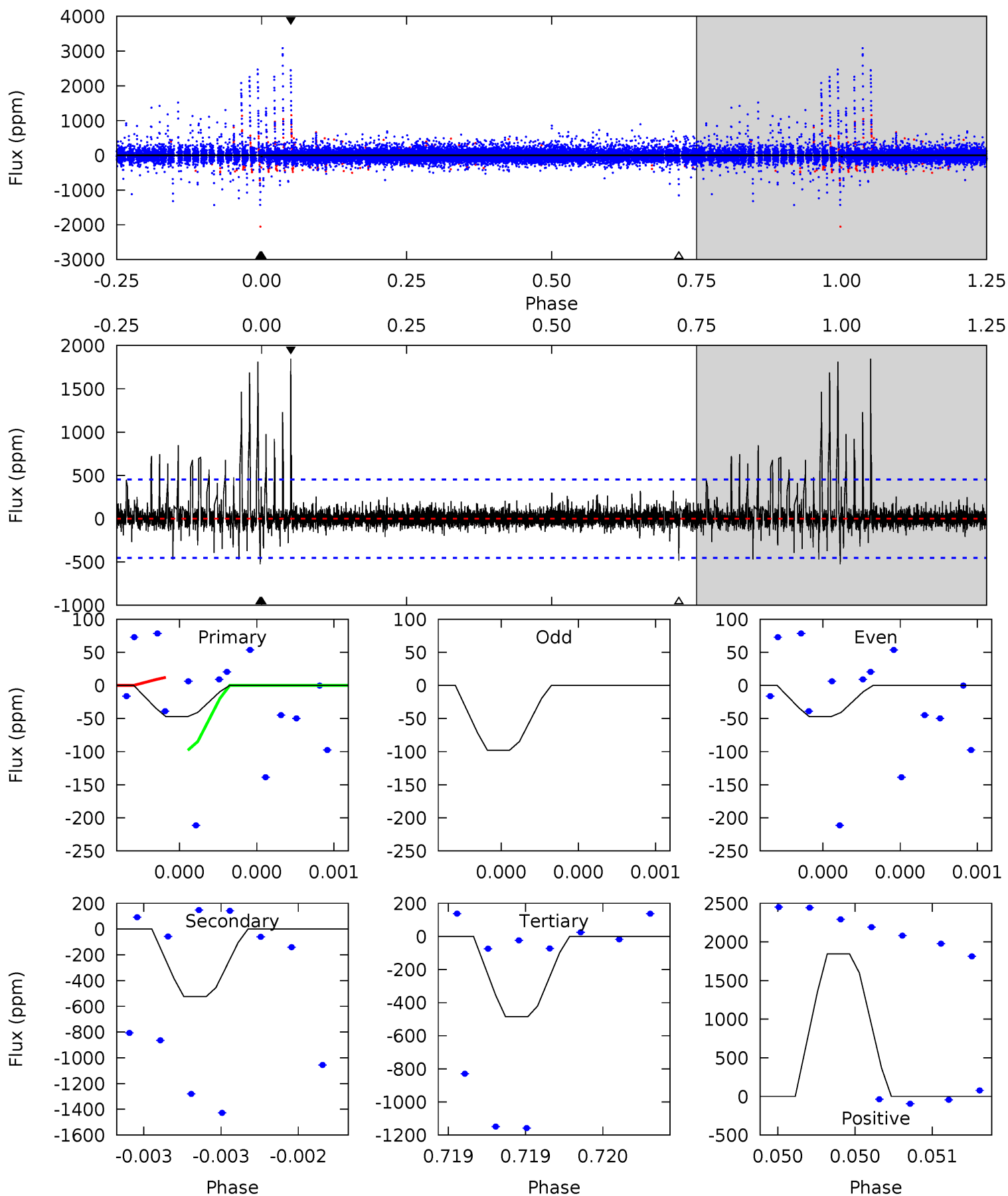
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011390595-03, P = 194.060809 Days, E = 16.915950 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.59	6.61	6.10	23.2	5.69	3.66	1.26	-5.51	-22.6	0.50	-16.6	0.42	2.59	0.78	0.52



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$11.38^{+12.08}_{-7.78}$	576^{+46}_{-37}	5188^{+27103}_{-30437}	$3593^{+462759}_{-307610}$
Alt.	-525 ± 80	$11.18^{+12.44}_{-7.69}$	572^{+43}_{-40}	4005^{+2367}_{-846}	1155^{+10173}_{-897}

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

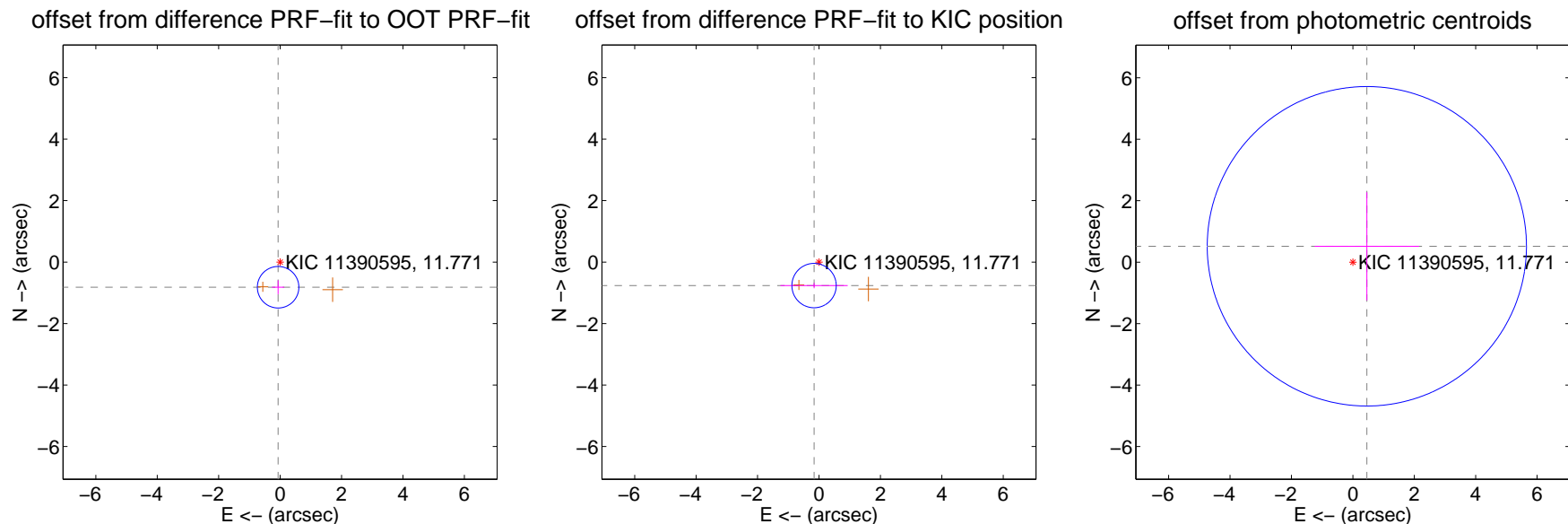
DV Centroid Data

Supplemental centroid analysis for 011390595-03. **Kepler magnitude: 11.77.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

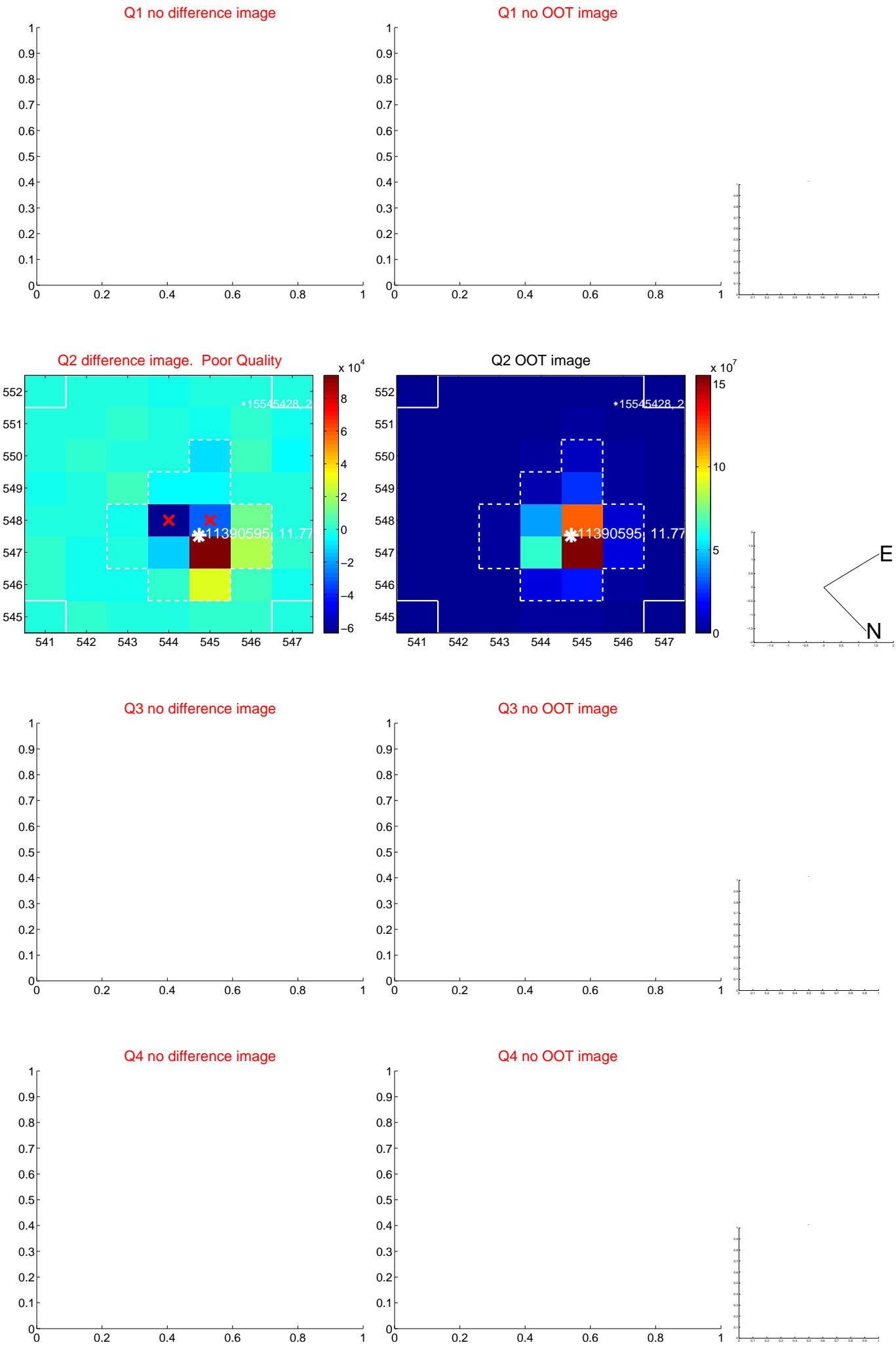
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.821 ± 0.225	3.64	0.065 ± 0.199	-0.818 ± 0.225
PRF-fit source offset from KIC position	0.781 ± 0.241	3.24	0.161 ± 1.096	-0.764 ± 0.087
photometric centroid source offset	0.69 ± 1.73	0.40	-0.46 ± 1.70	0.52 ± 1.76



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

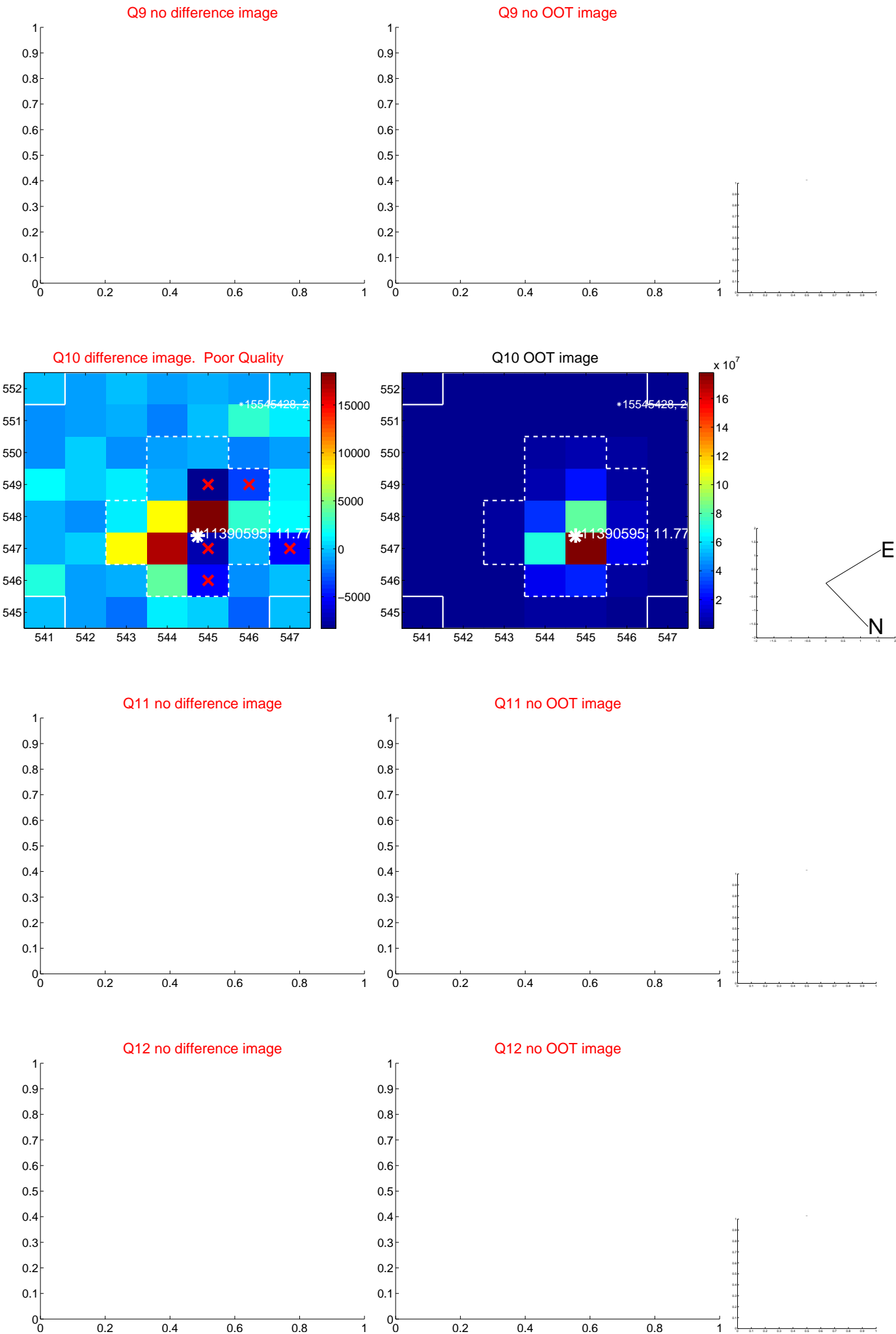
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



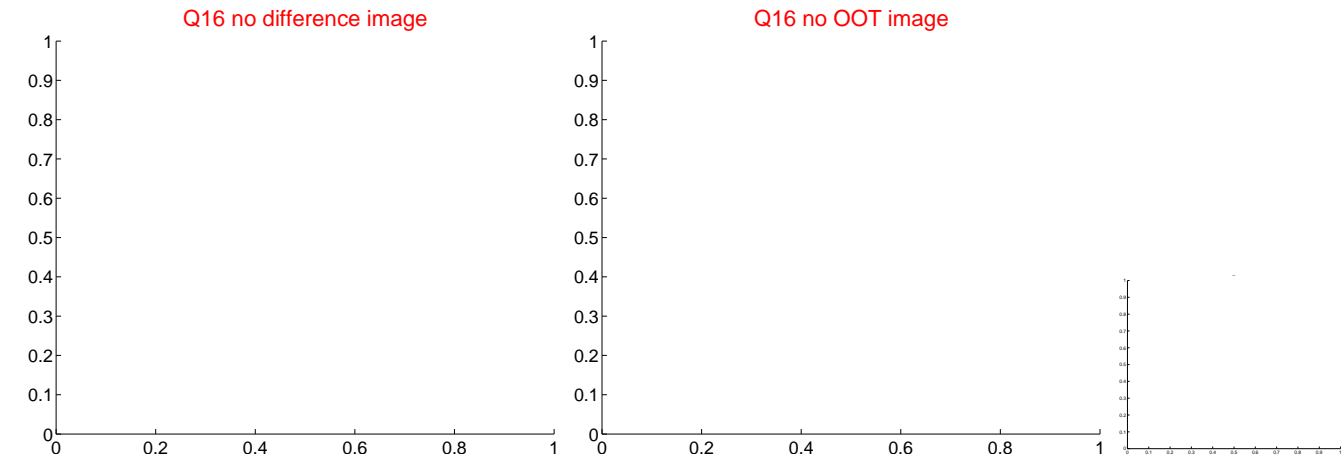
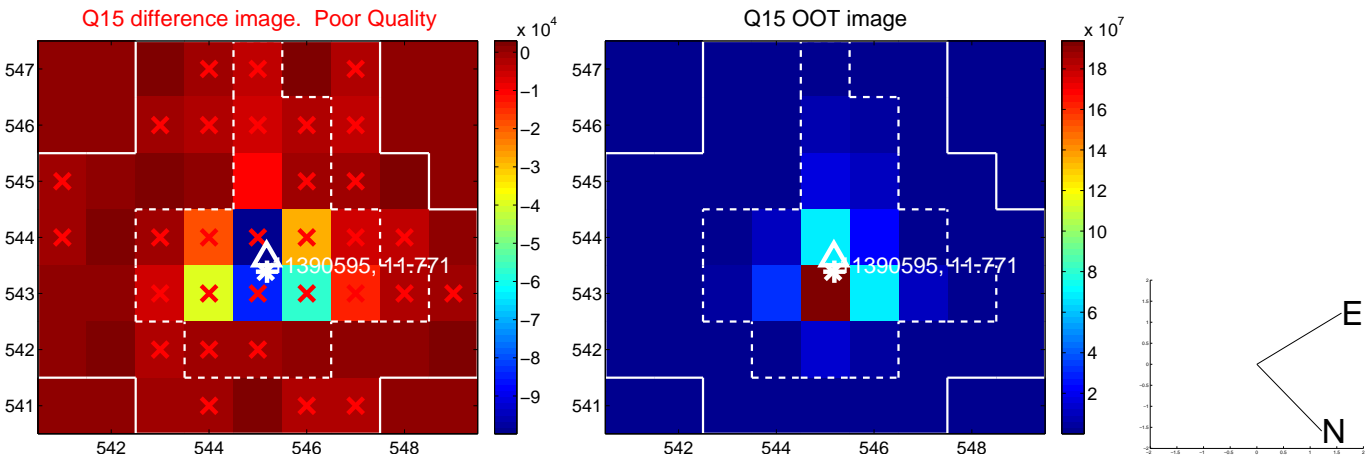
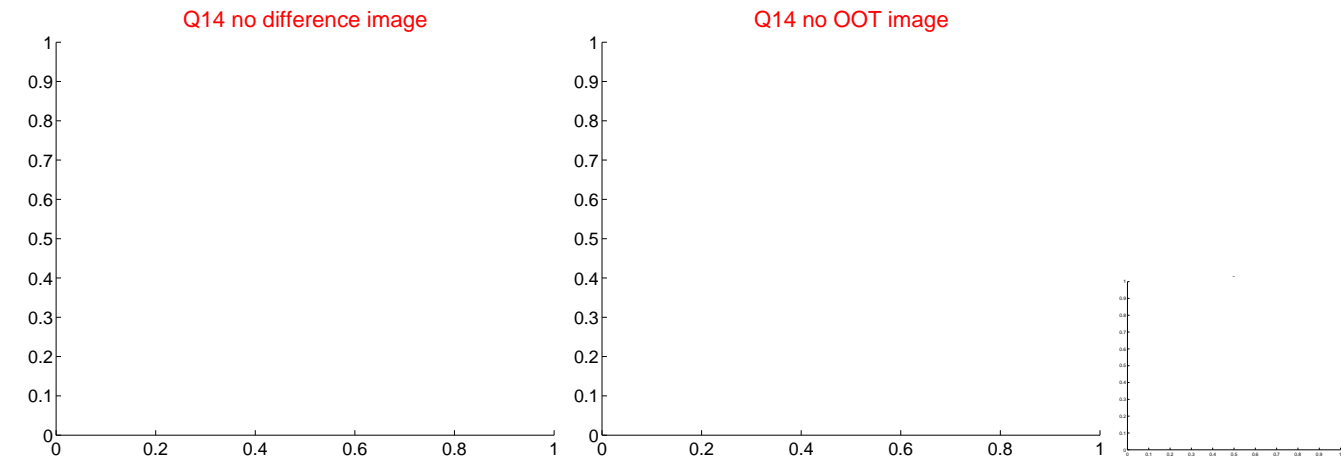
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



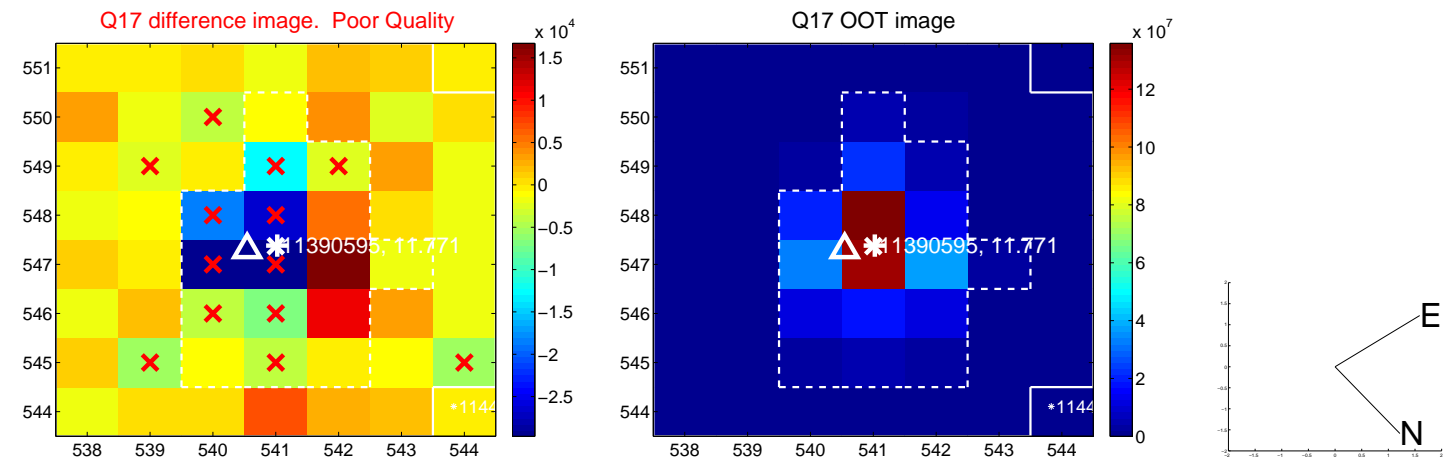
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



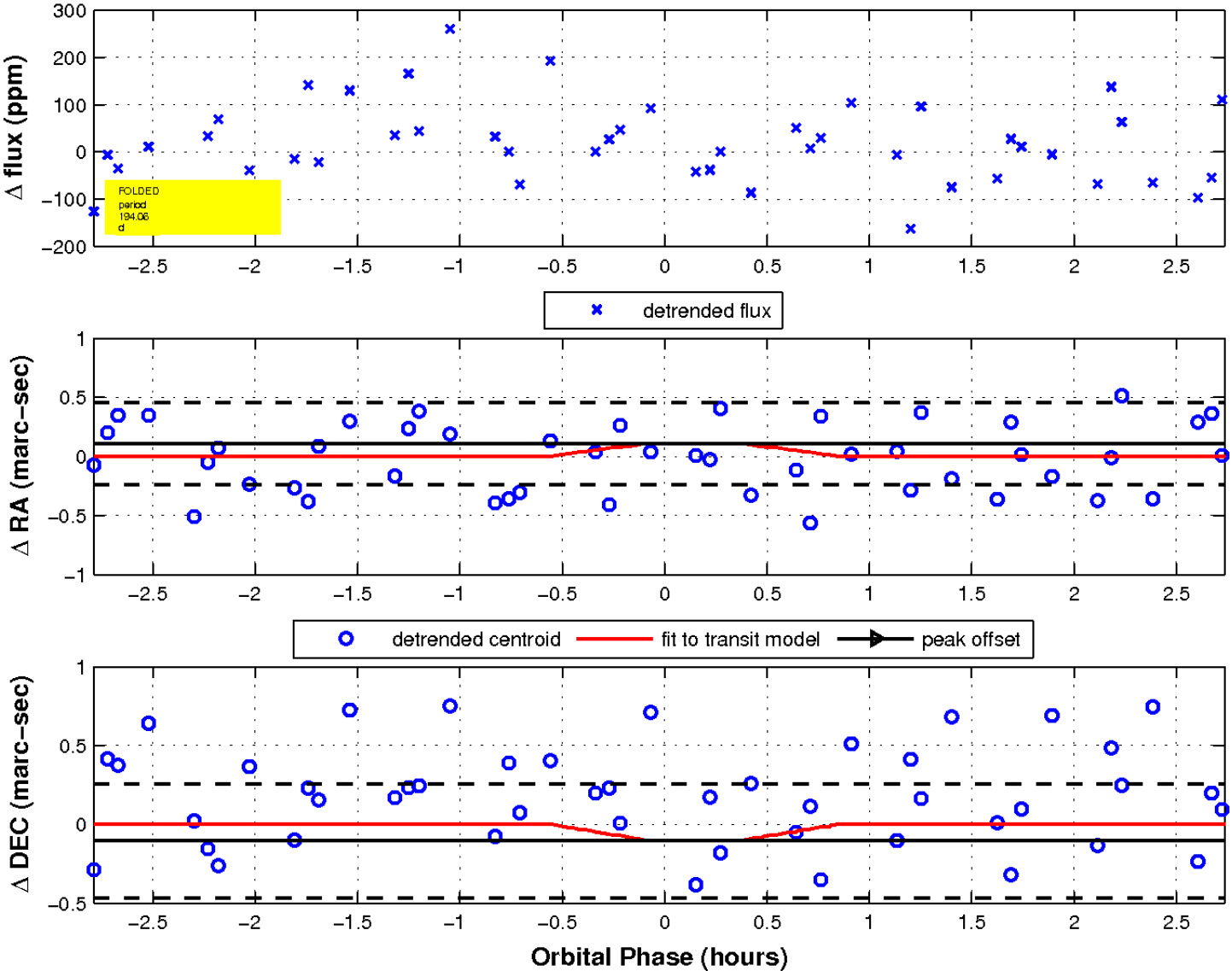
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

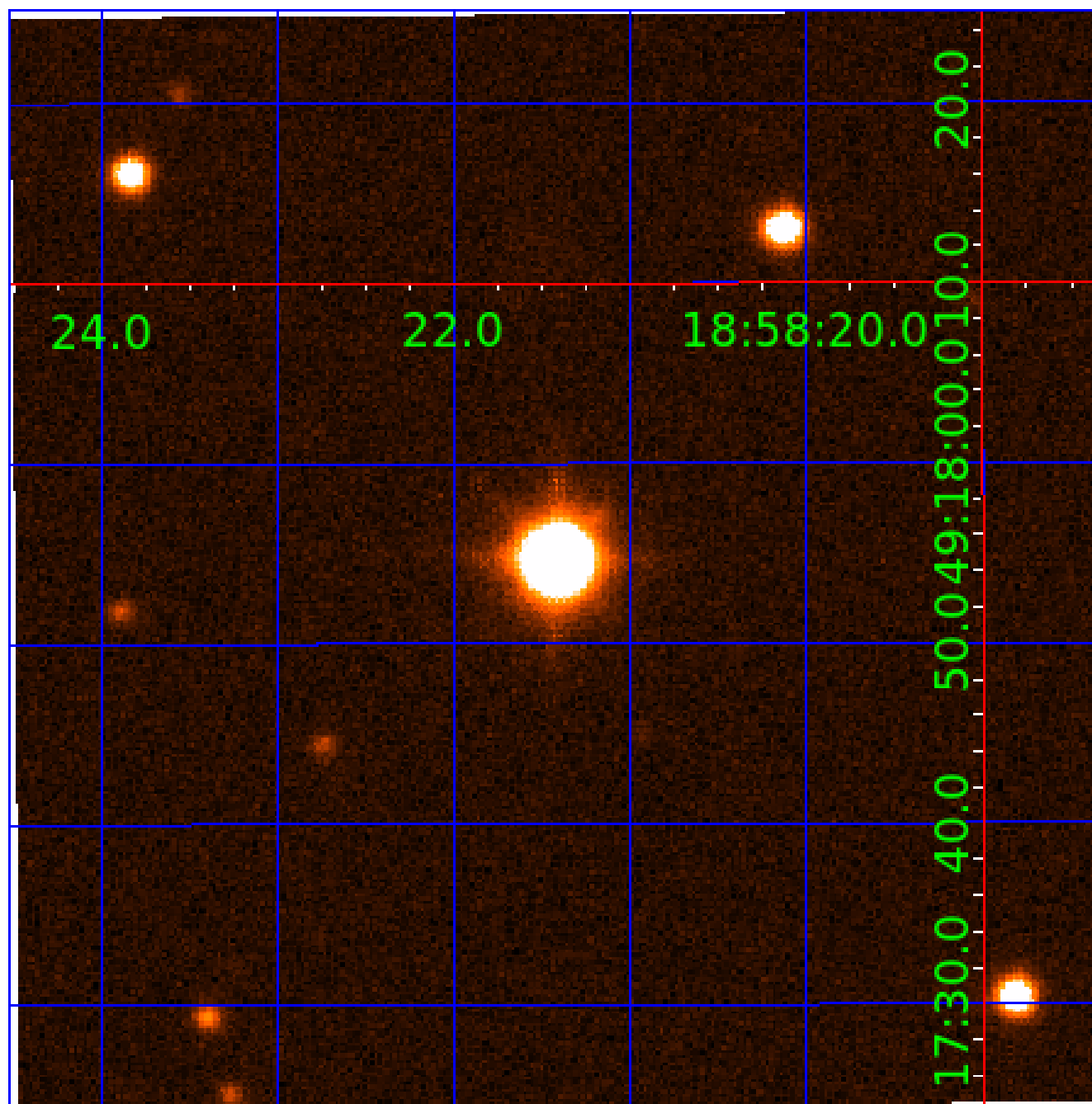


fluxWeightedCentroids, Planet 3 of 10



UKIRT Image

Declination



KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

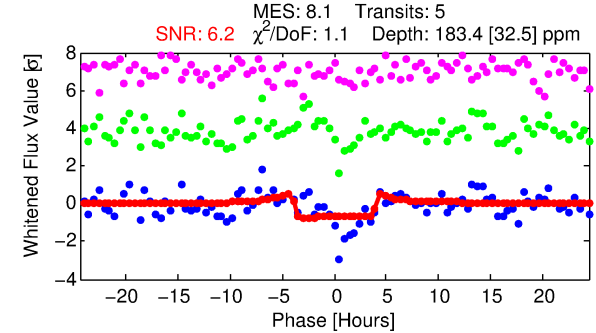
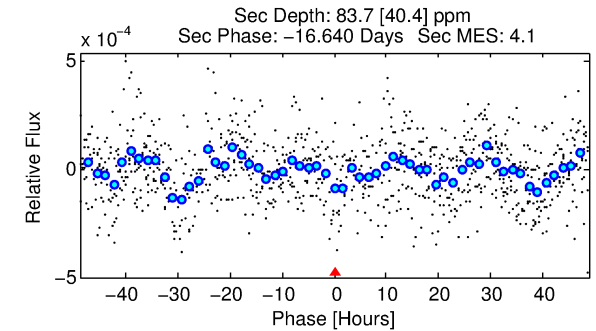
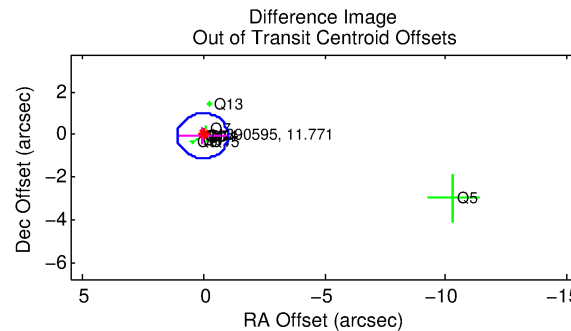
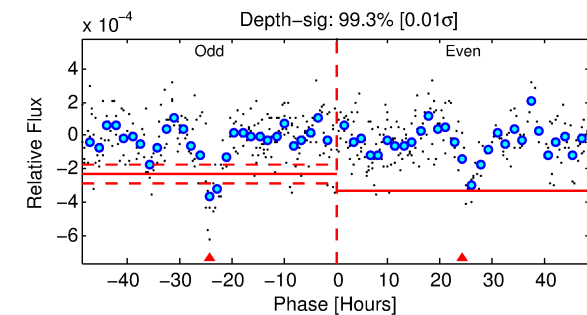
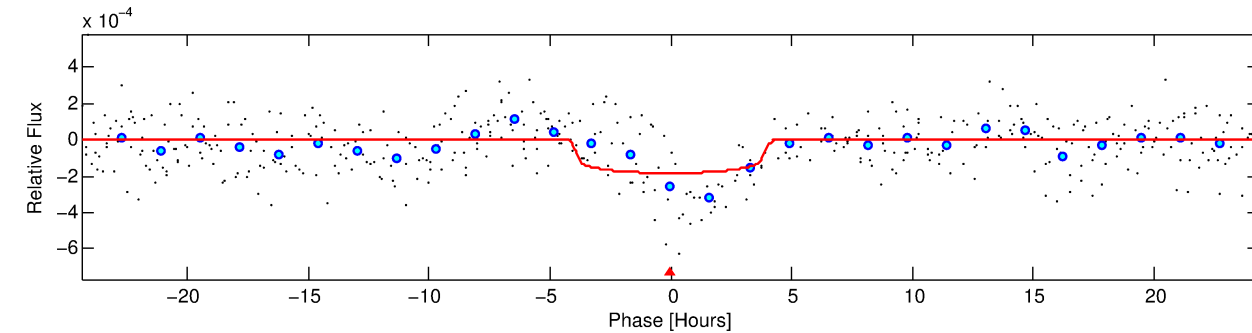
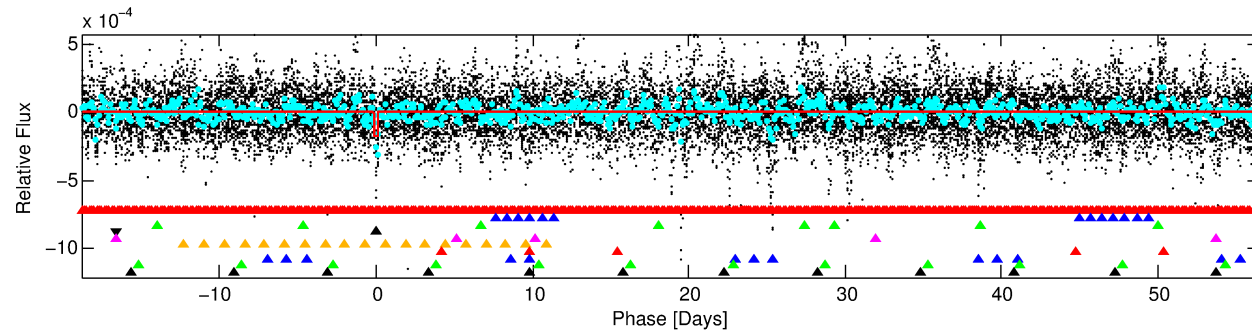
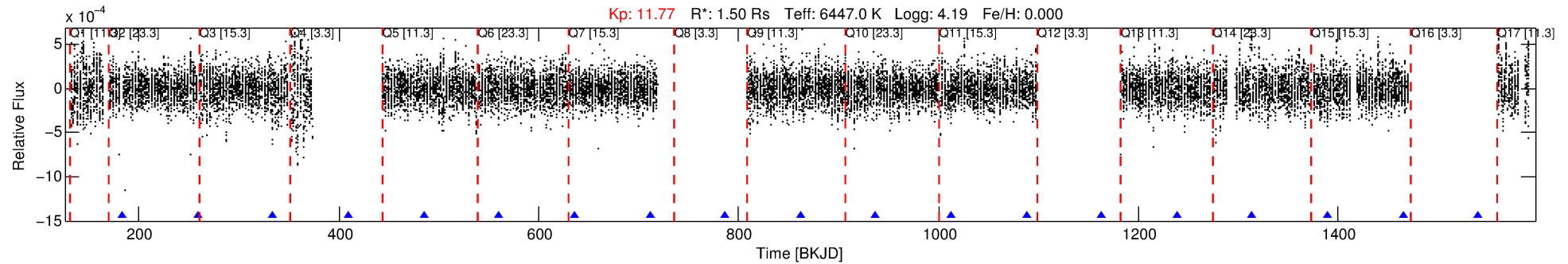
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-04

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 4 of 10 Period: 75.358 d



DV Fit Results:

Period = 75.35772 [0.00132] d
Epoch = 183.6259 [0.0135] BKJD
Rp/R* = 0.0134 [0.0076]
a/R* = 48.96 [143.99]
b = 0.74 [1.81]
Seff = 24.37 [9.32]
Teq = 567 [54] K
Rp = 2.20 [1.43] Re
a = 0.3780 [0.0966] AU
Ag = 1363.01 [1739.43] [0.78 σ]
Teffp = 5322 [1646] K [2.89 σ]

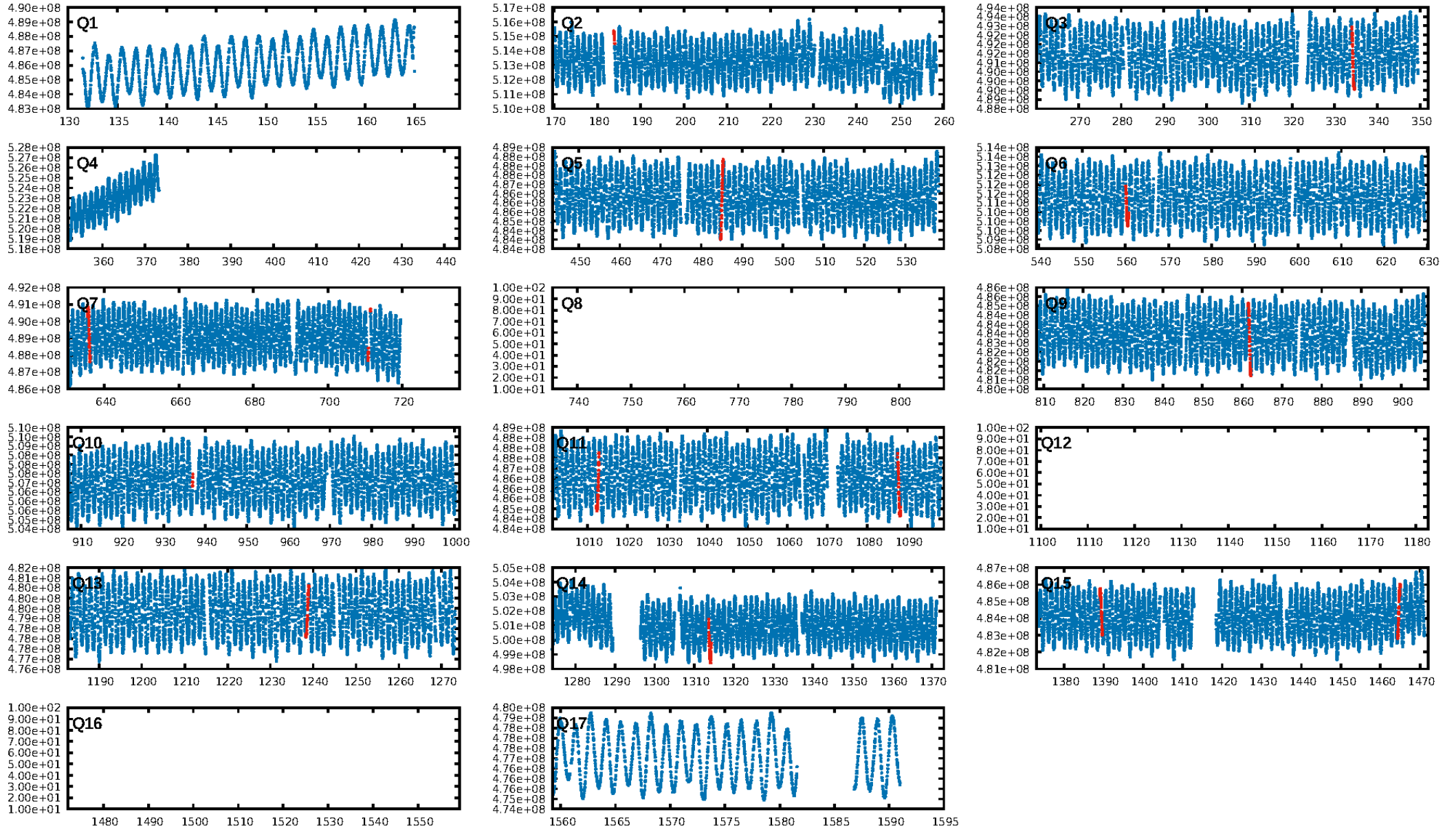
DV Diagnostic Results:

ShortPeriod-sig: 99.9% [3.27 σ]
LongPeriod-sig: 100.0% [85.77 σ]
ModelChiSquare2-sig: 6.1%
ModelChiSquareGof-sig: 98.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 6.845
Centroid-sig: 90.9%
Centroid-so: 0.106 arcsec [0.18 σ]
OotOffset-rm: 0.066 arcsec [0.19 σ]
KicOffset-rm: 0.138 arcsec [0.18 σ]
OotOffset-st: 2/4/0/3 [9]
KicOffset-st: 2/4/0/3 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 0.44 [4/9]

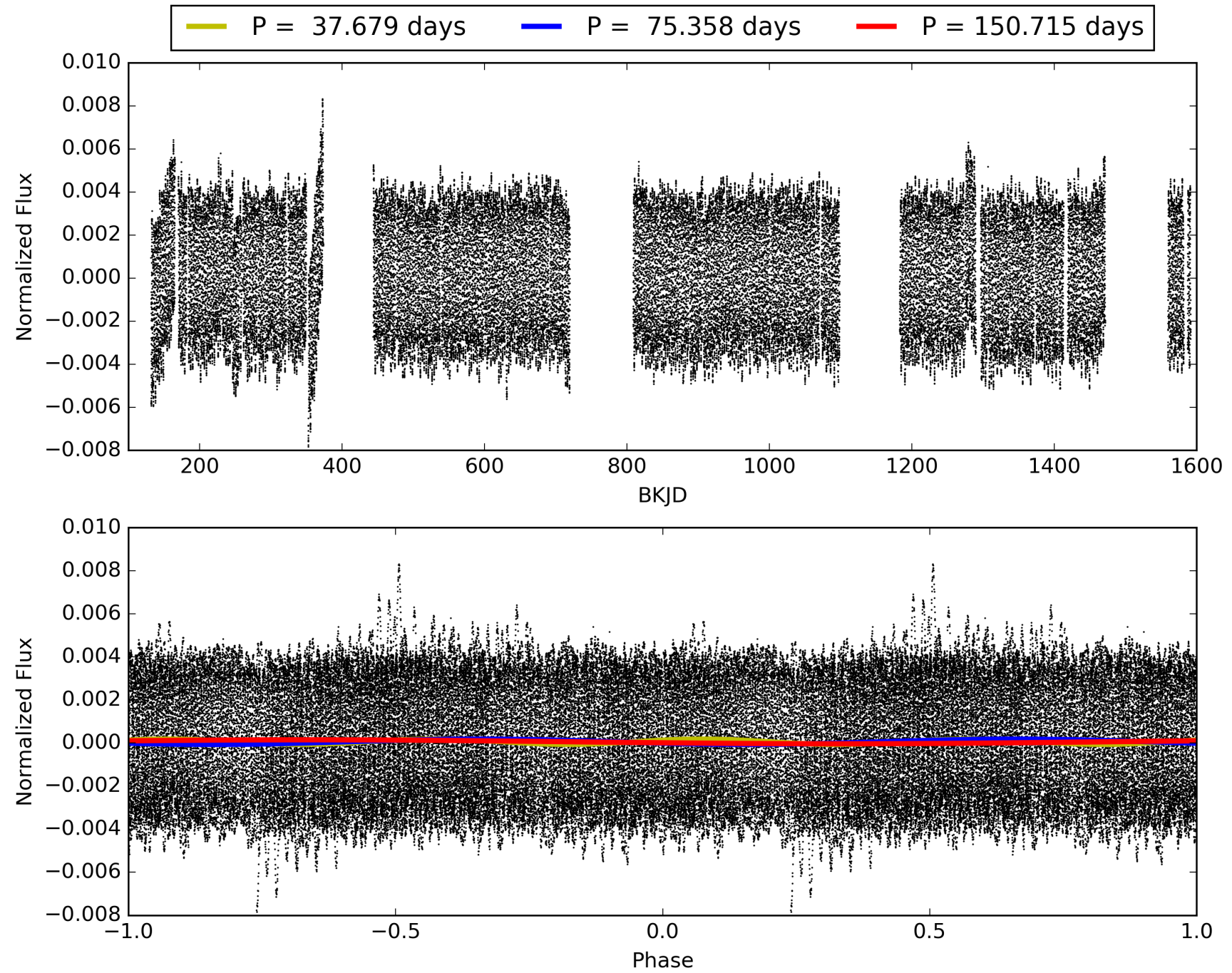
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:29:21 Z

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

TCE 011390595-04, PDC Light Curves

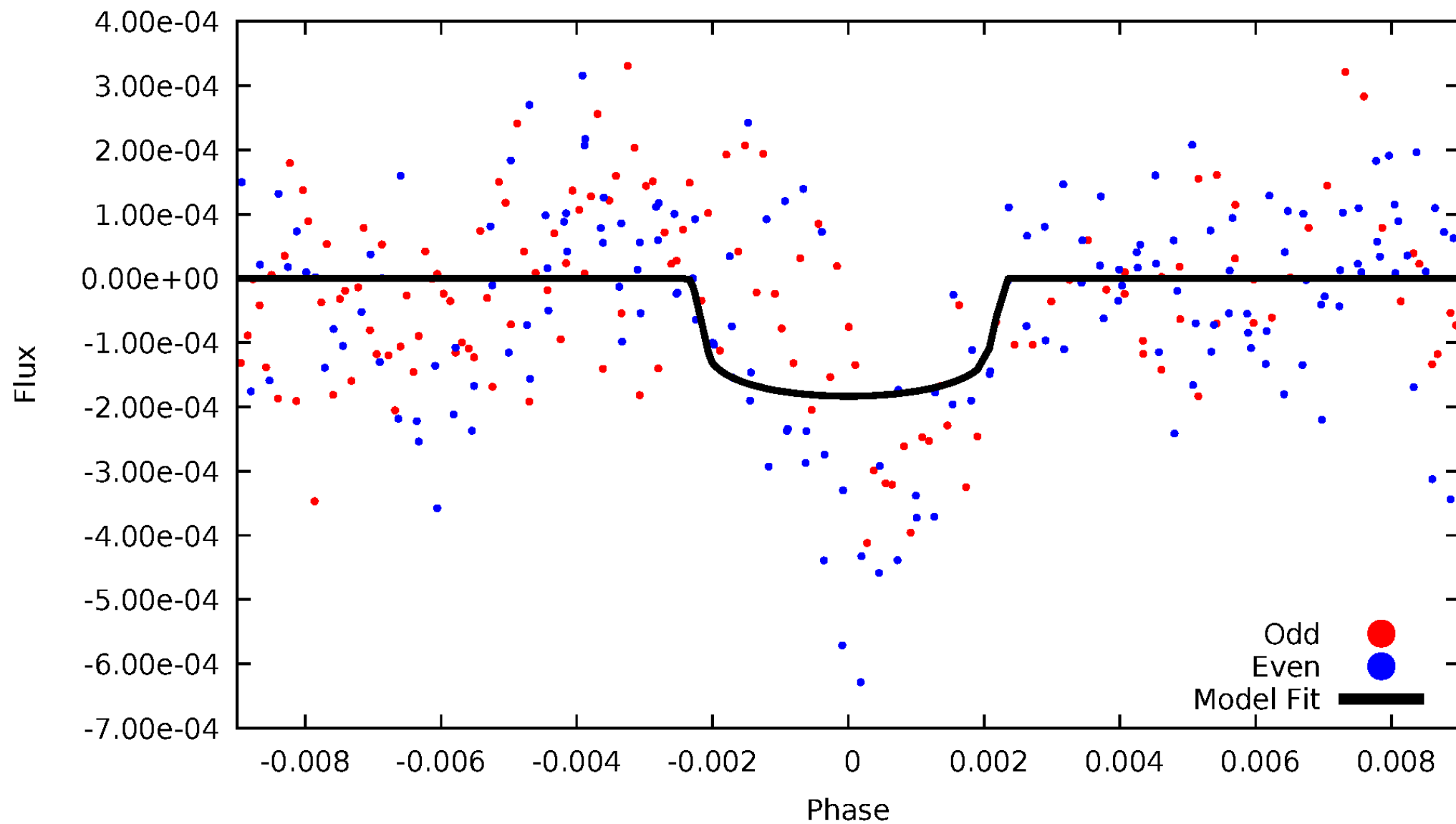


TCE 011390595-04



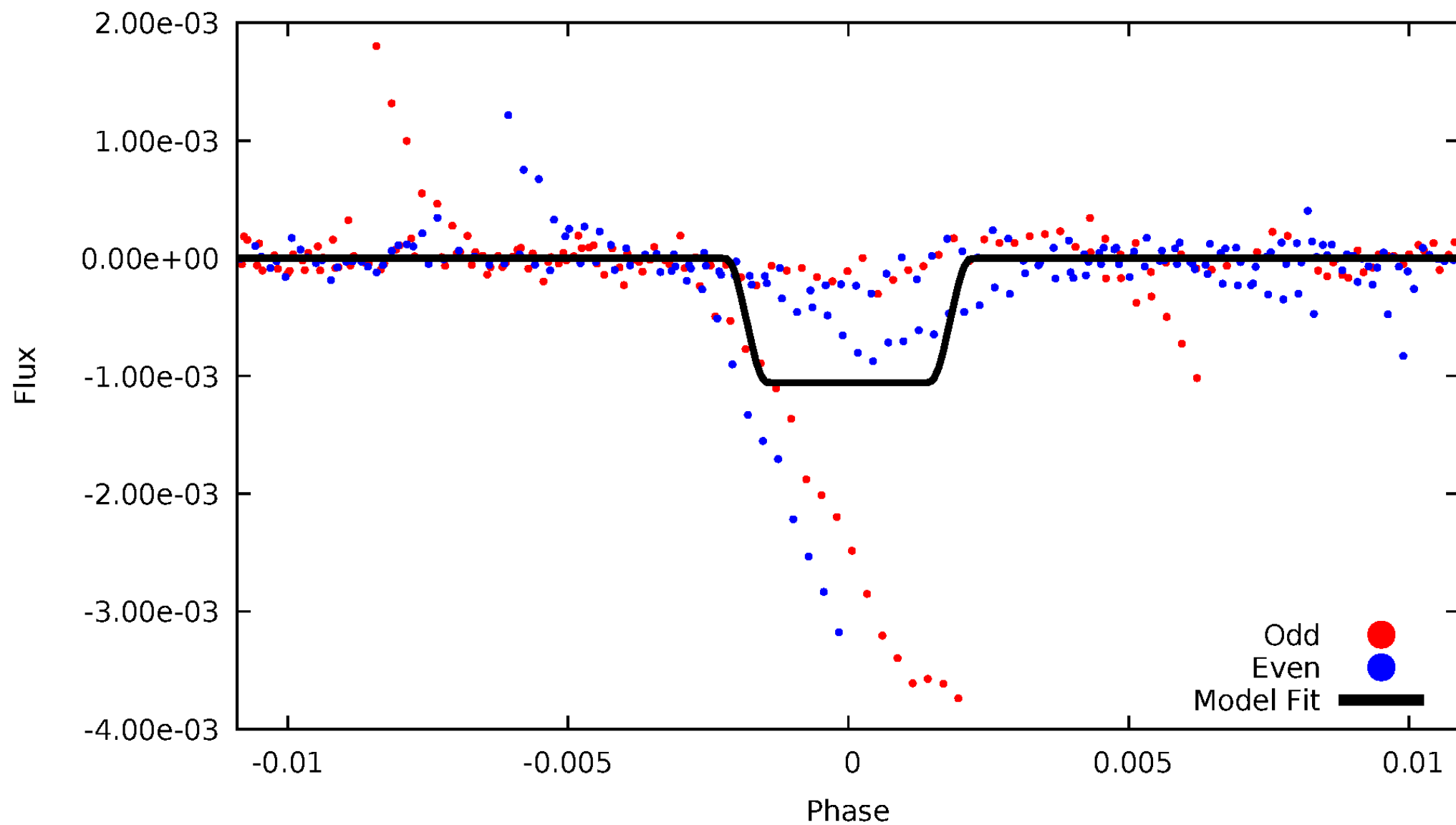
DV Odd/Even

TCE 011390595-04



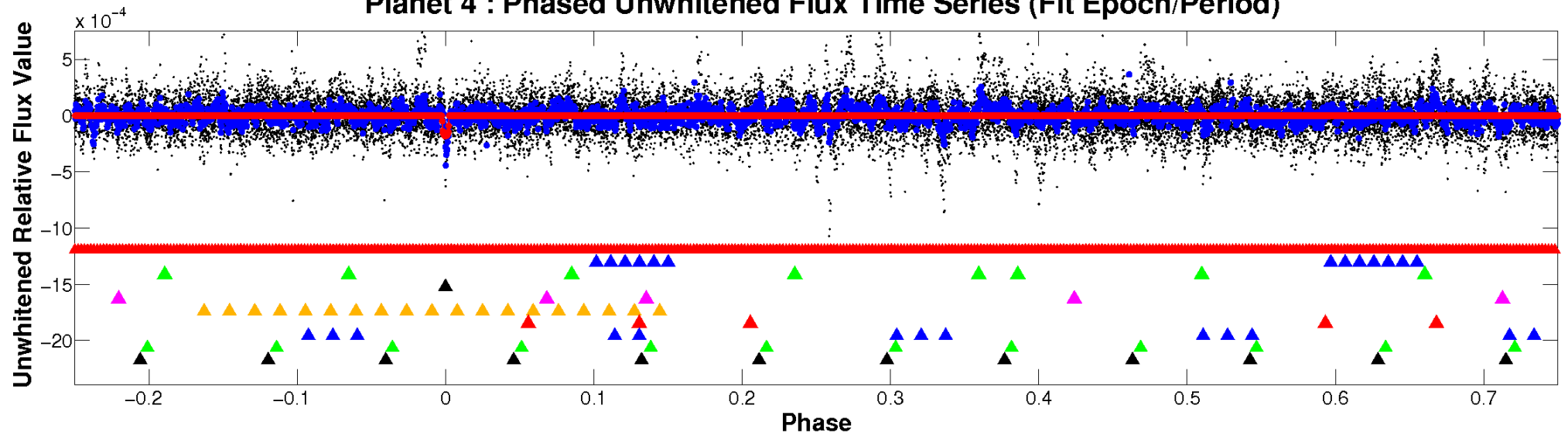
ALT Odd/Even

TCE 011390595-04

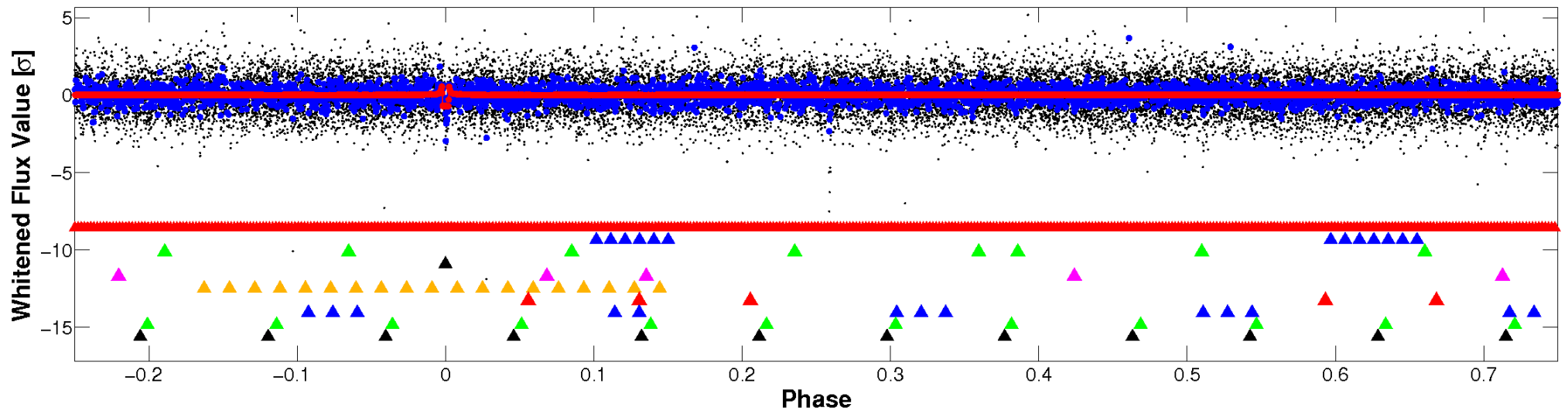


Non-Whitened Vs. Whitened Light Curve

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

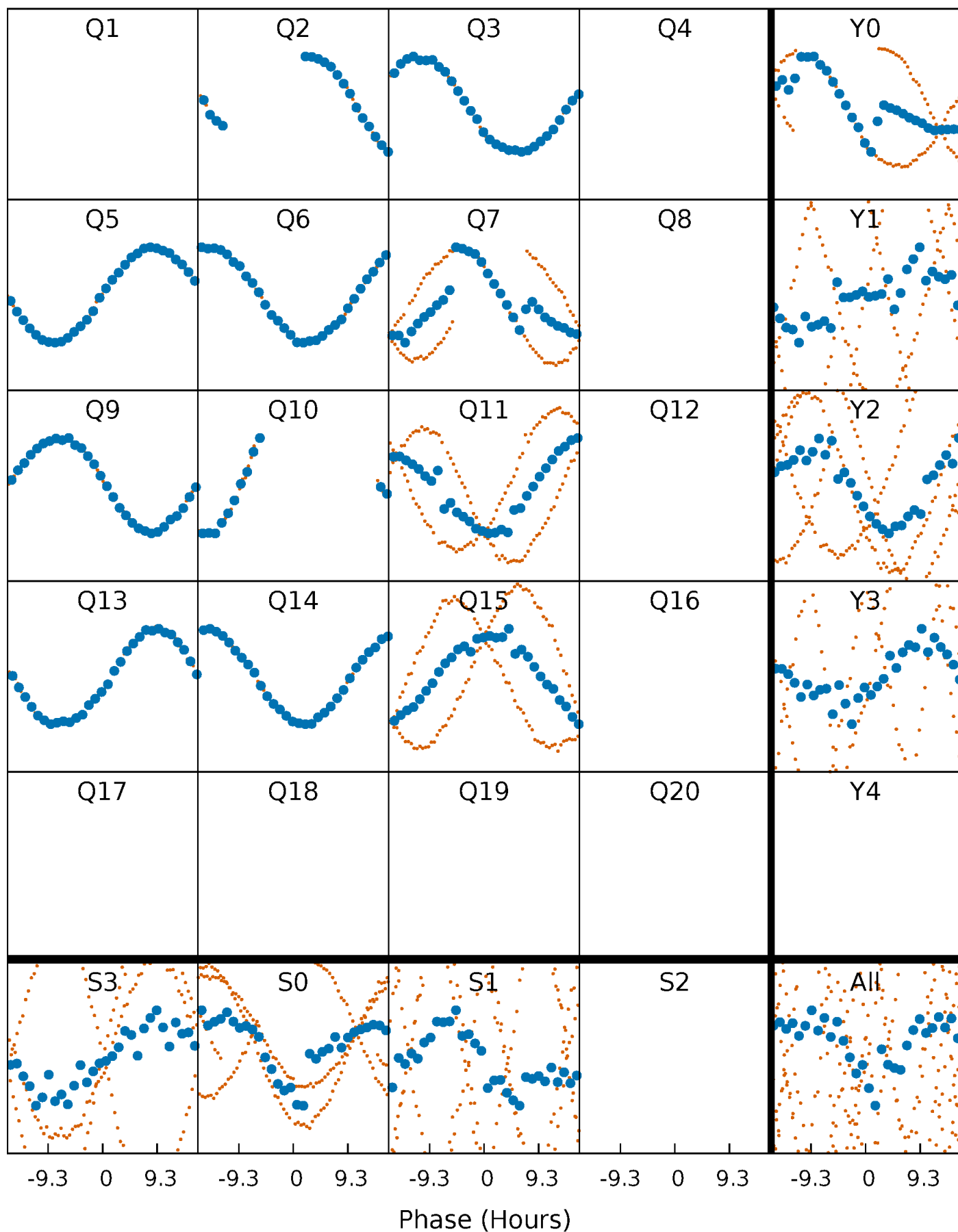


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



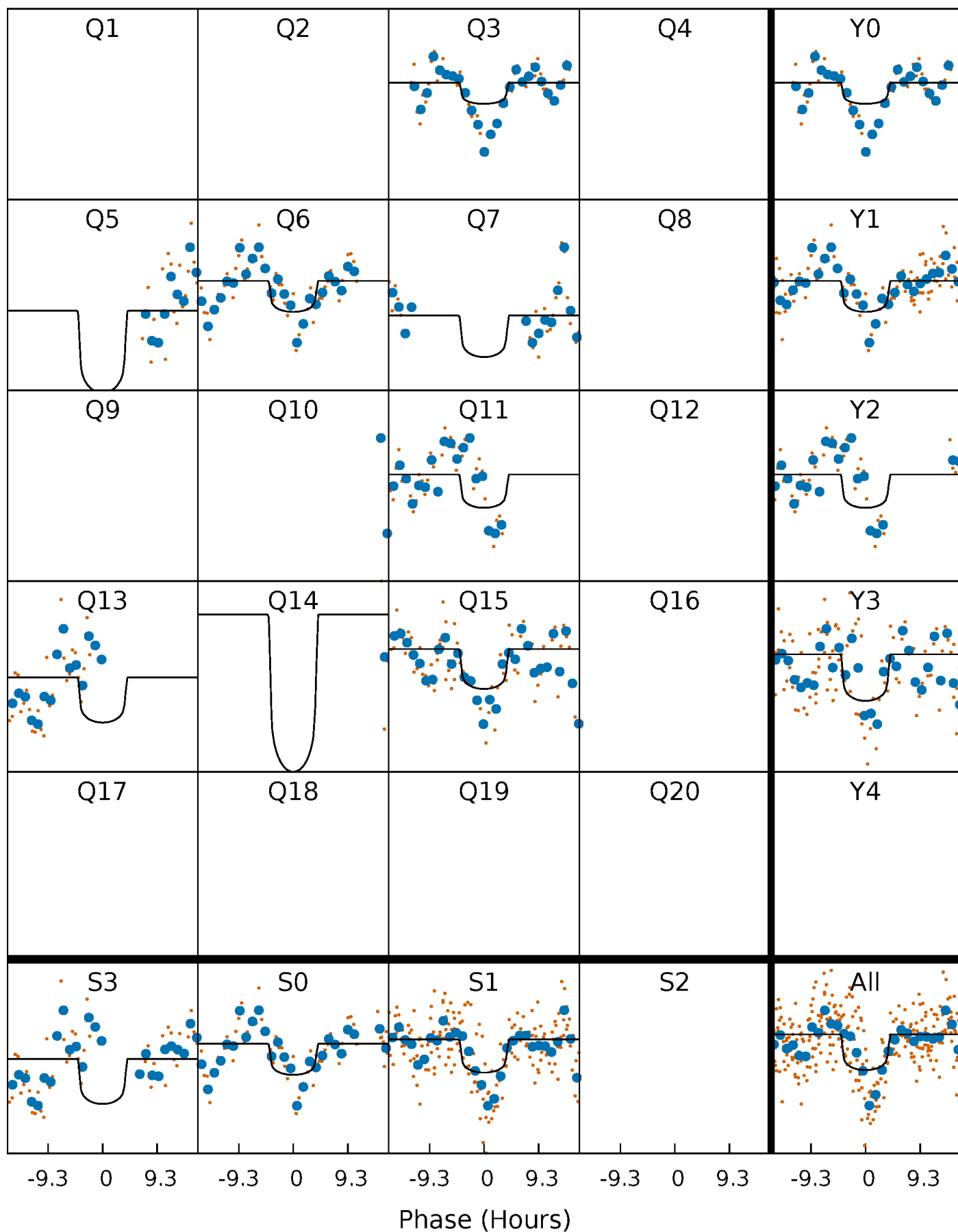
PDC Quarter-Phased Transit Curves

TCE 011390595-04 P= 75.357724 Days $T_0=183.625875$ (BKJD)



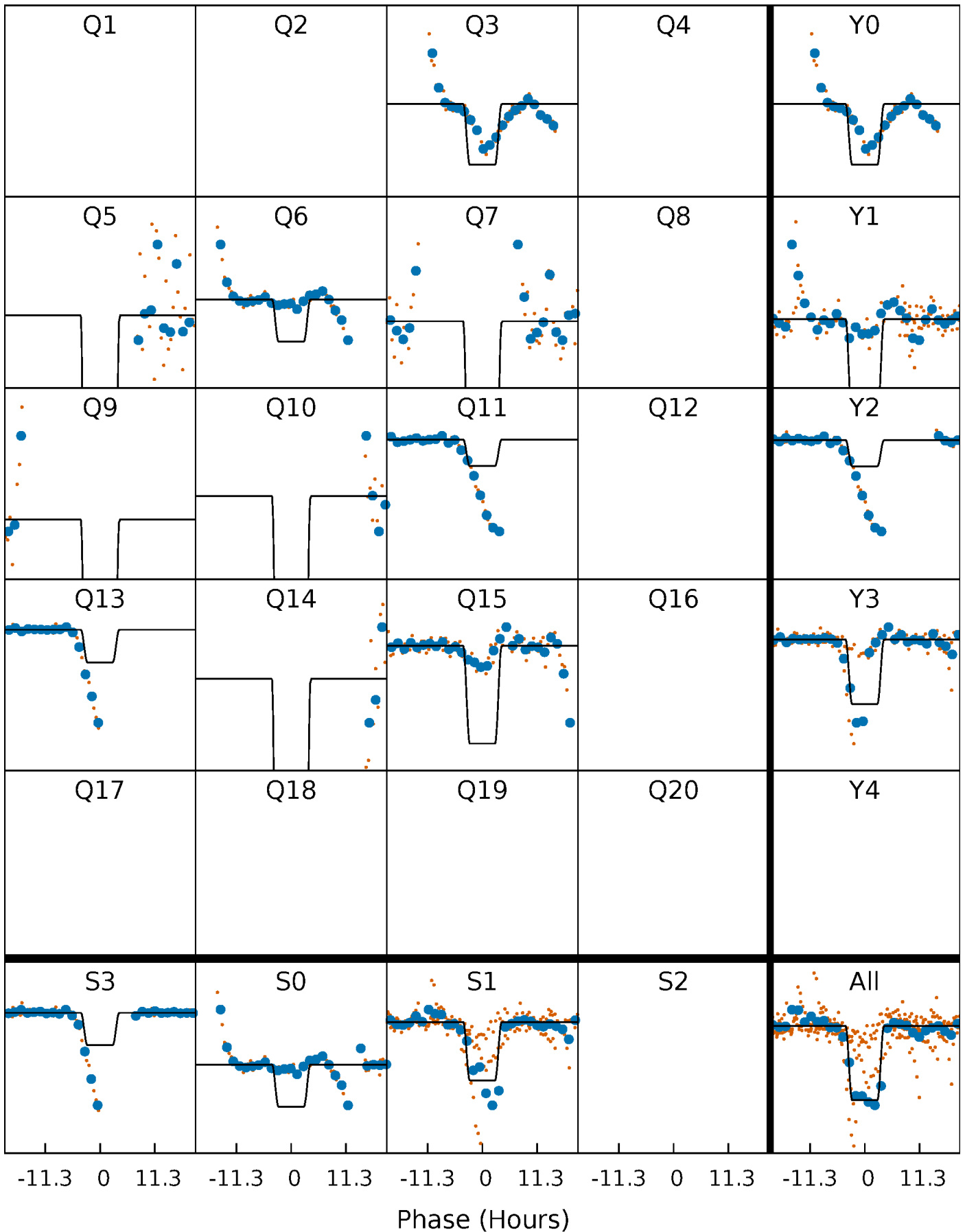
DV Quarter-Phased Transit Curves

TCE 011390595-04 $P = 75.357724$ Days $T_0 = 183.625875$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

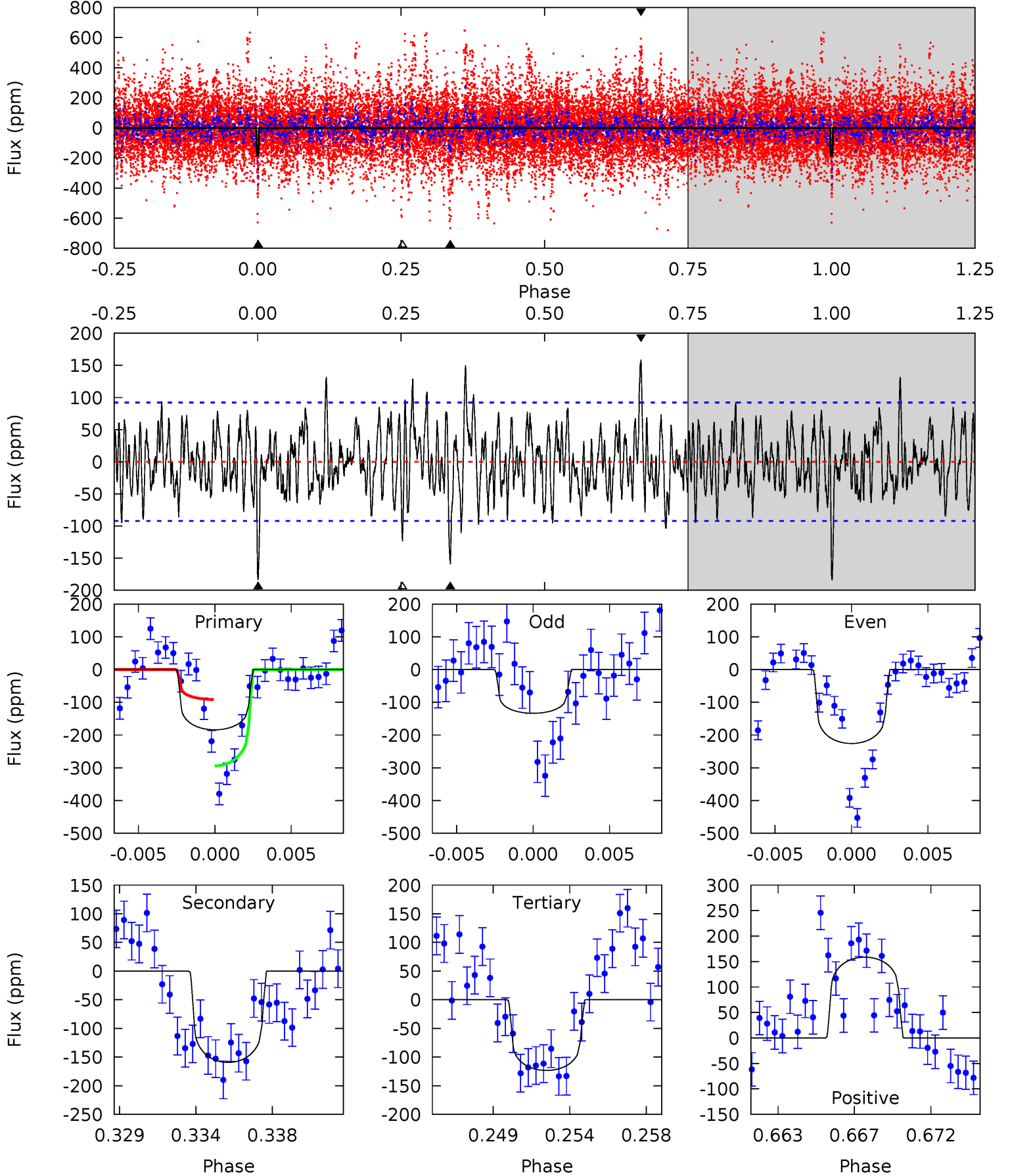
TCE 011390595-04 P= 75.357965 Days $T_0=183.605753$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-04, $P = 75.357724$ Days, $E = 108.268151$ Days

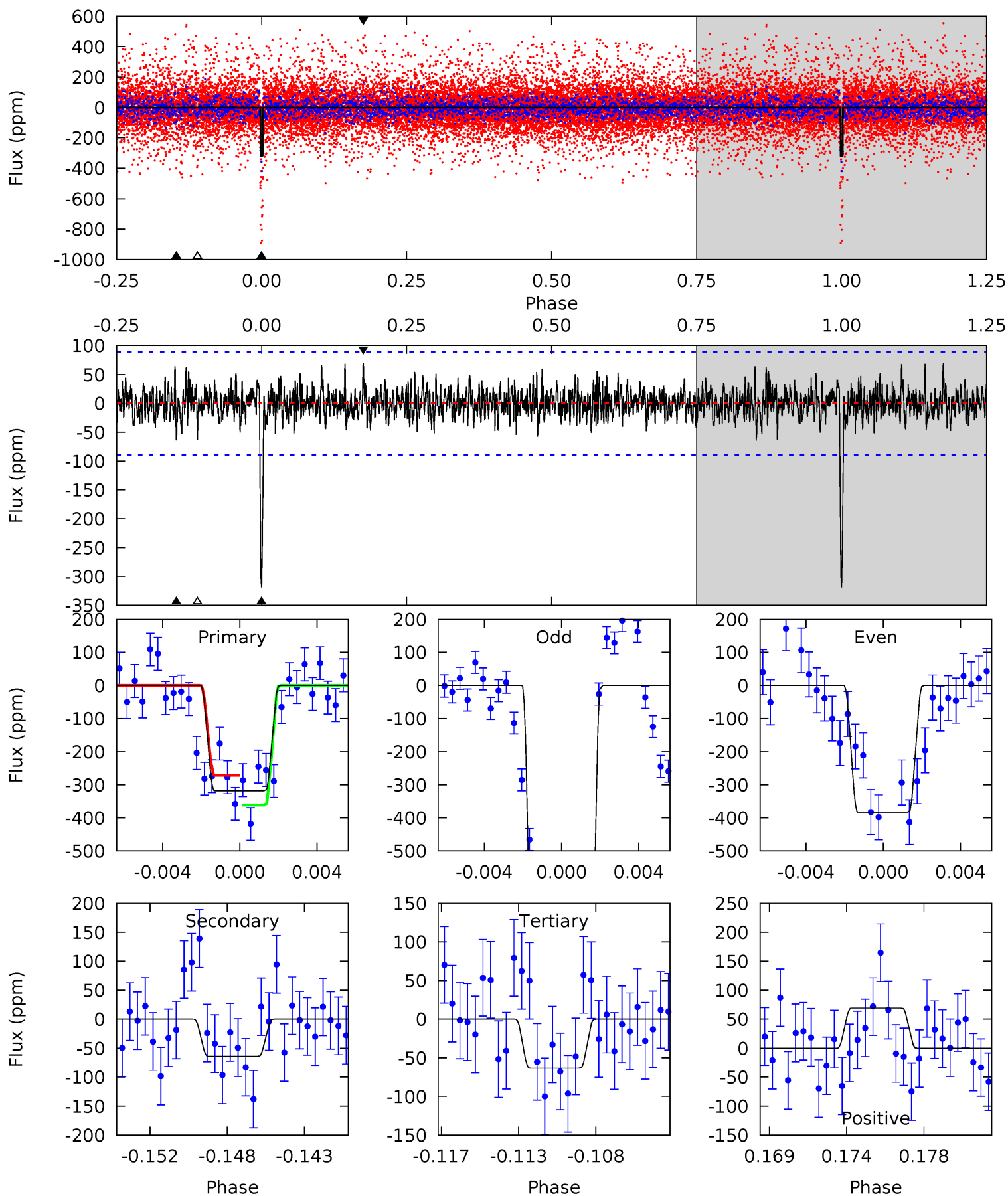
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	8.94	6.92	8.90	5.17	2.83	2.39	3.41	1.43	2.02	0.04	2.57	0.88	0.46	5.62



Alt Model-Shift Uniqueness Test

011390595-04, P = 75.357965 Days, E = 108.247788 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	3.73	3.69	4.02	5.18	2.85	1.12	14.8	14.5	0.04	-0.30	23.1	1.99	0.18	2.56



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-159 ± 18	$2.15^{+1.35}_{-1.05}$	788^{+60}_{-56}	6268^{+2983}_{-1258}	2740^{+7559}_{-1746}
Alt.	-64 ± 17	$5.26^{+1.54}_{-1.28}$	788^{+65}_{-56}	3608^{+385}_{-284}	178^{+153}_{-81}

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

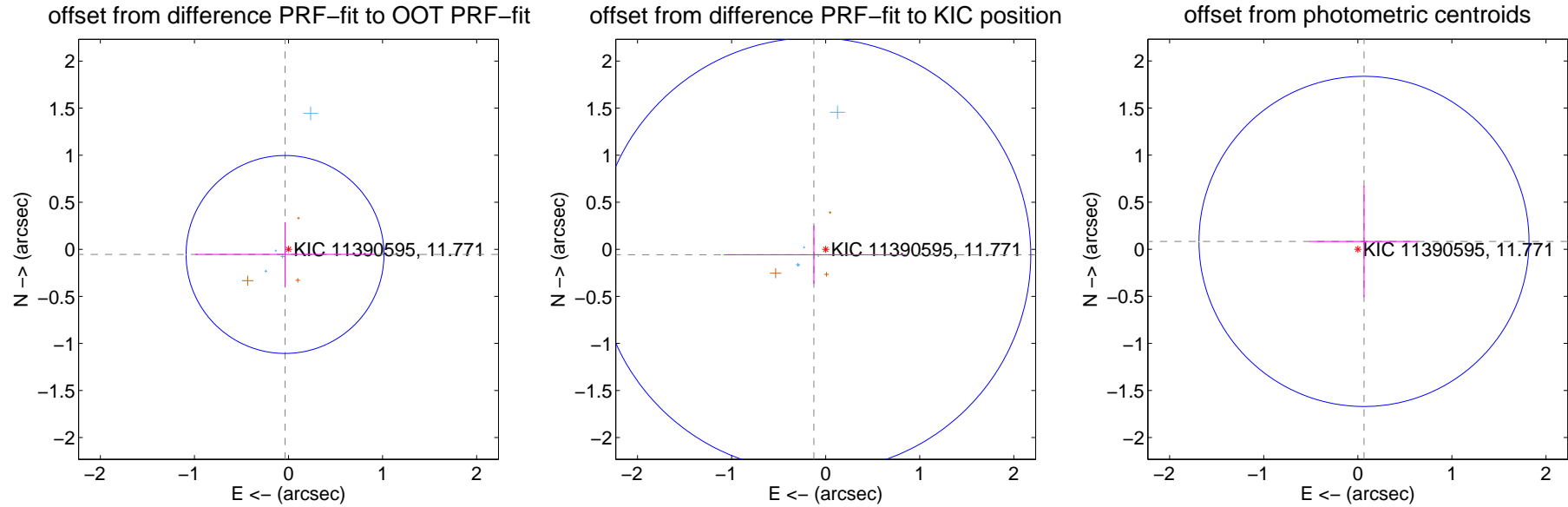
DV Centroid Data

Supplemental centroid analysis for 011390595-04. **Kepler magnitude: 11.77.** Transit SNR 6.20

There are 5 quarters with good PRF difference image offsets

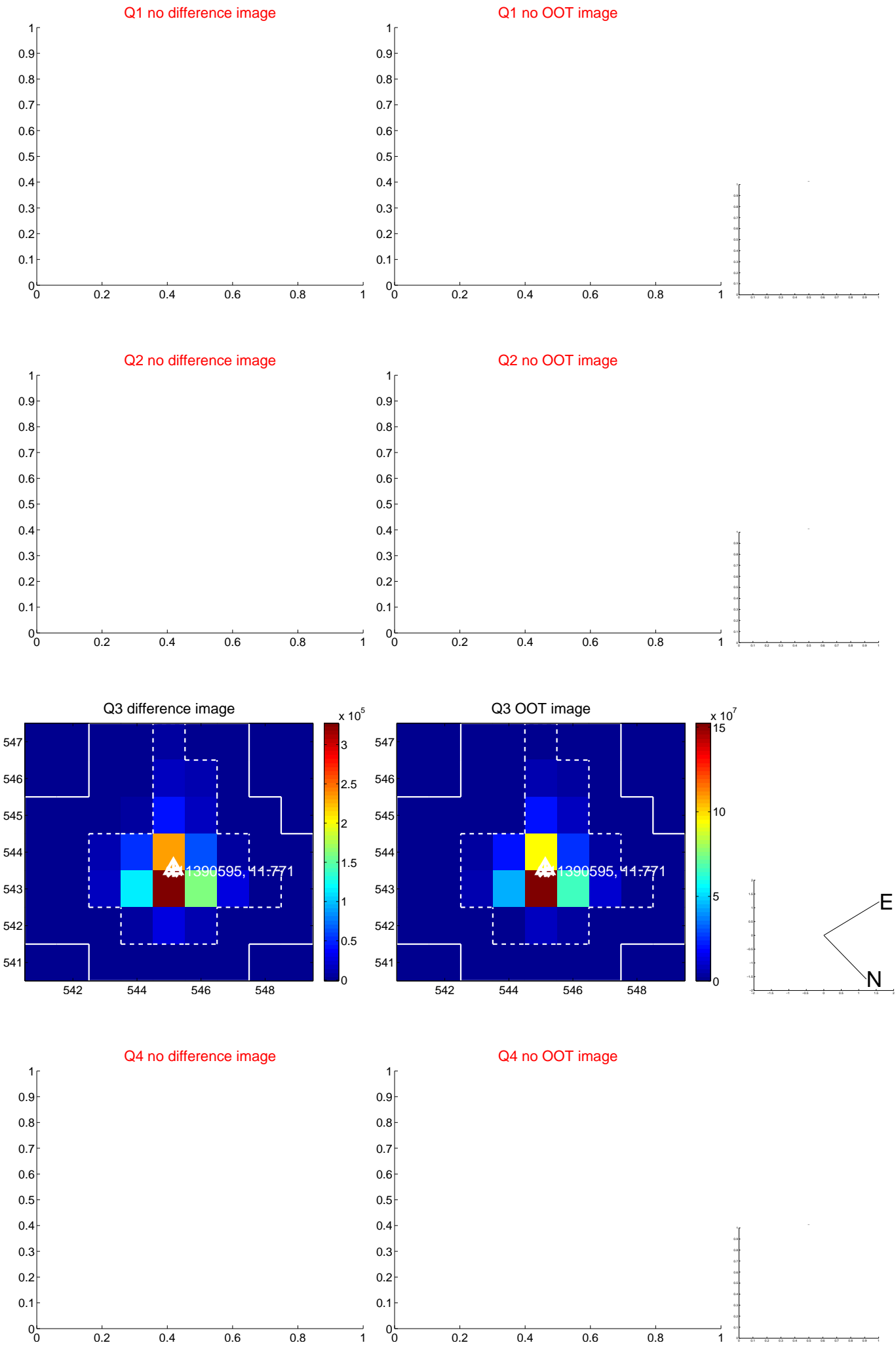
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.066 ± 0.350	0.19	0.037 ± 0.954	-0.055 ± 0.343
PRF-fit source offset from KIC position	0.138 ± 0.768	0.18	0.125 ± 0.958	-0.058 ± 0.309
photometric centroid source offset	0.11 ± 0.58	0.18	-0.07 ± 0.58	0.08 ± 0.59

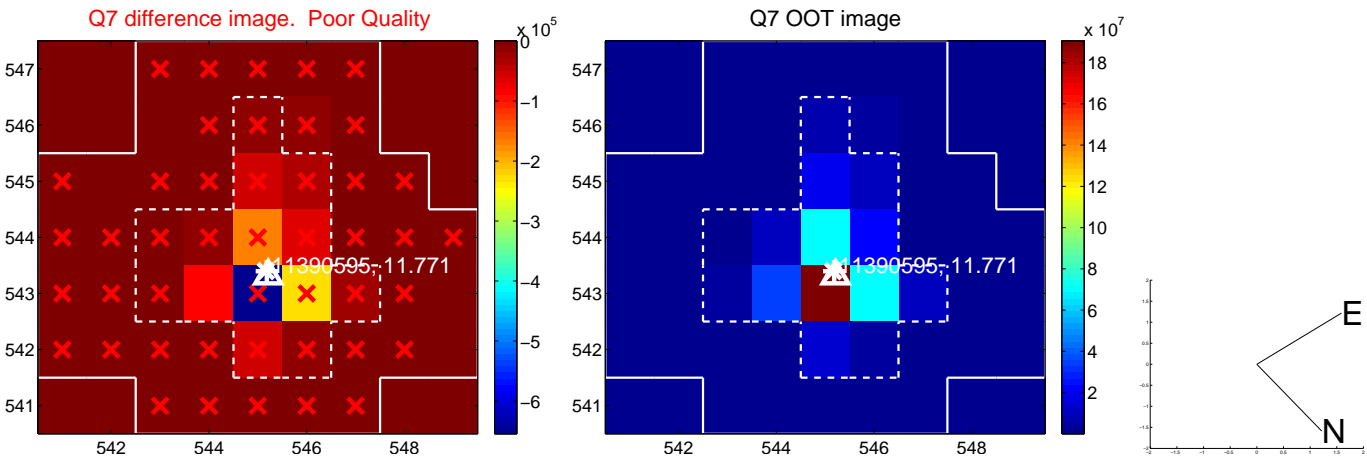
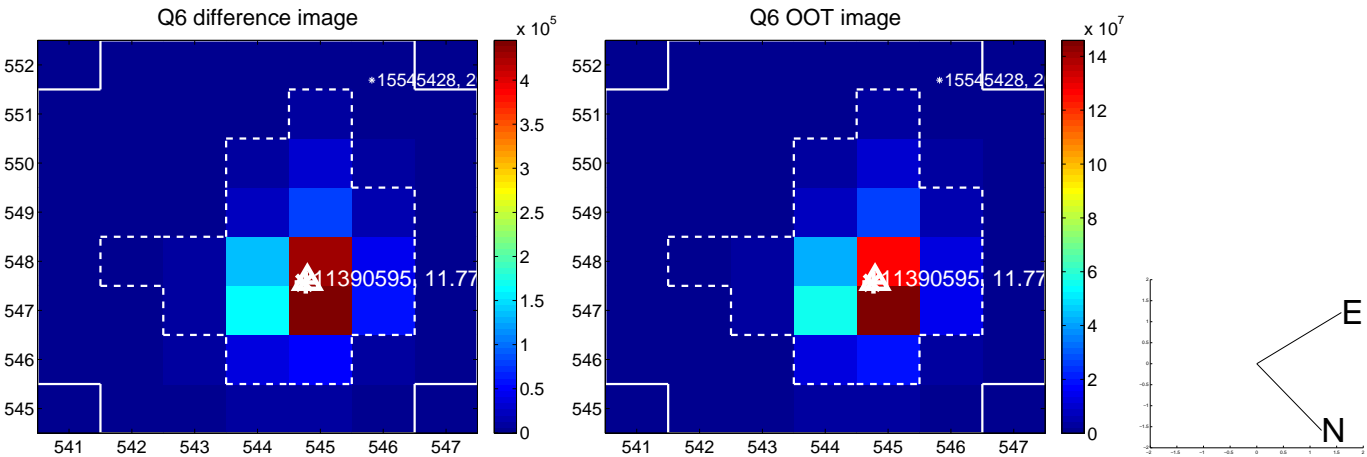
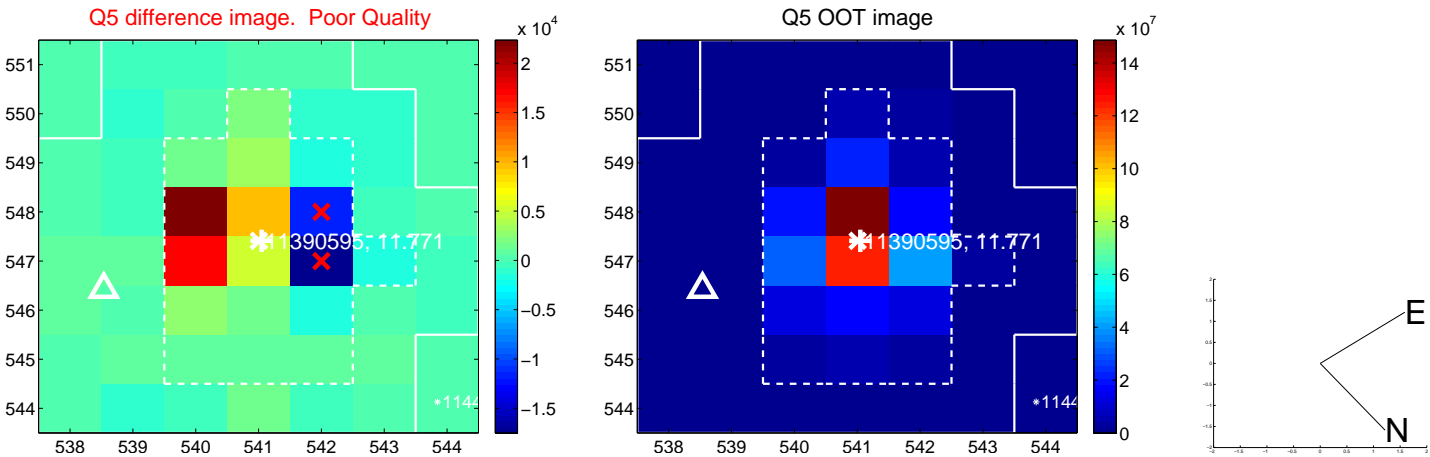


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

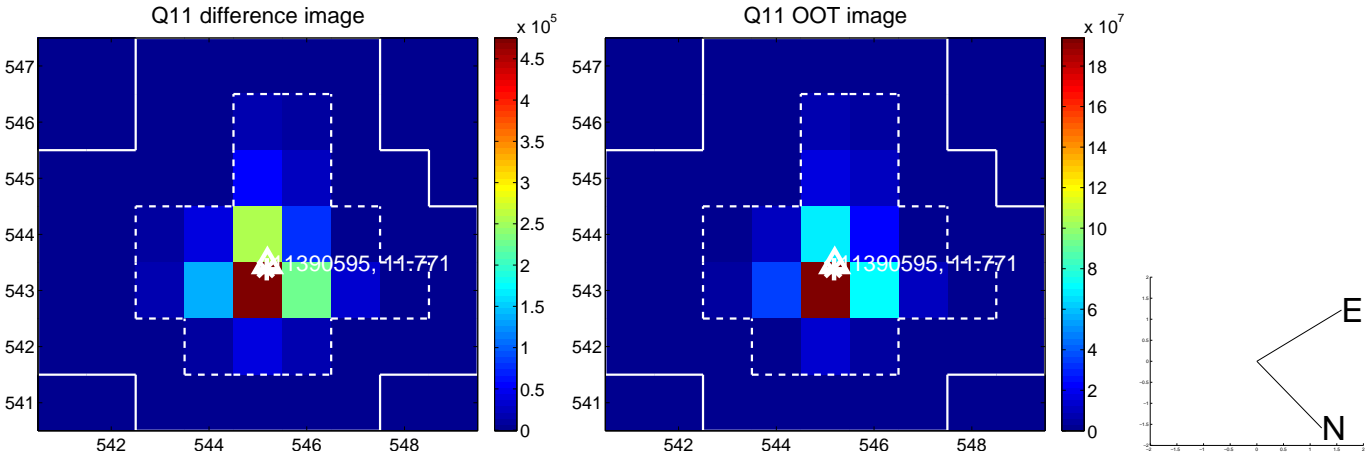
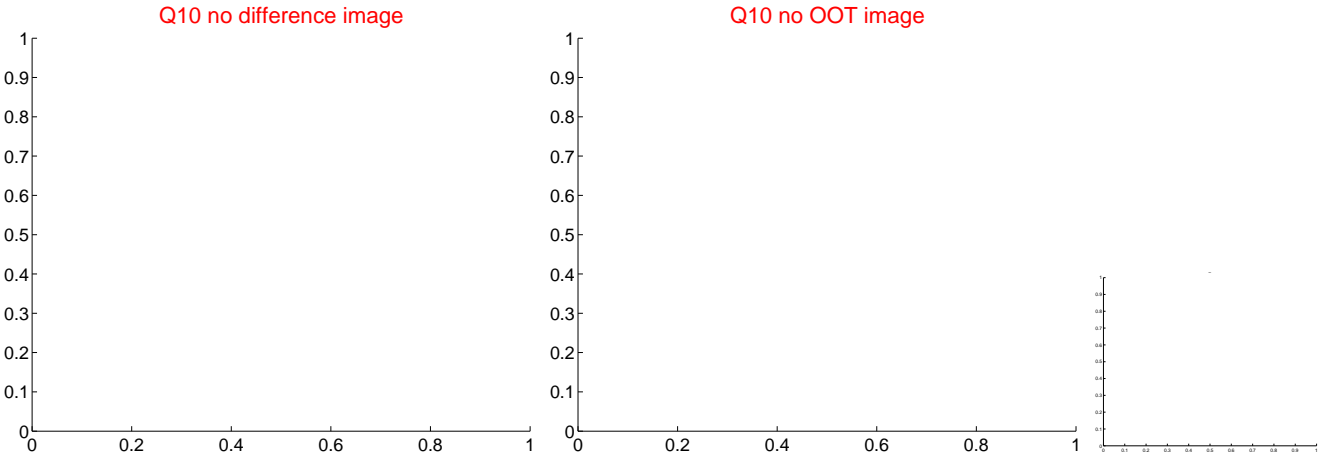
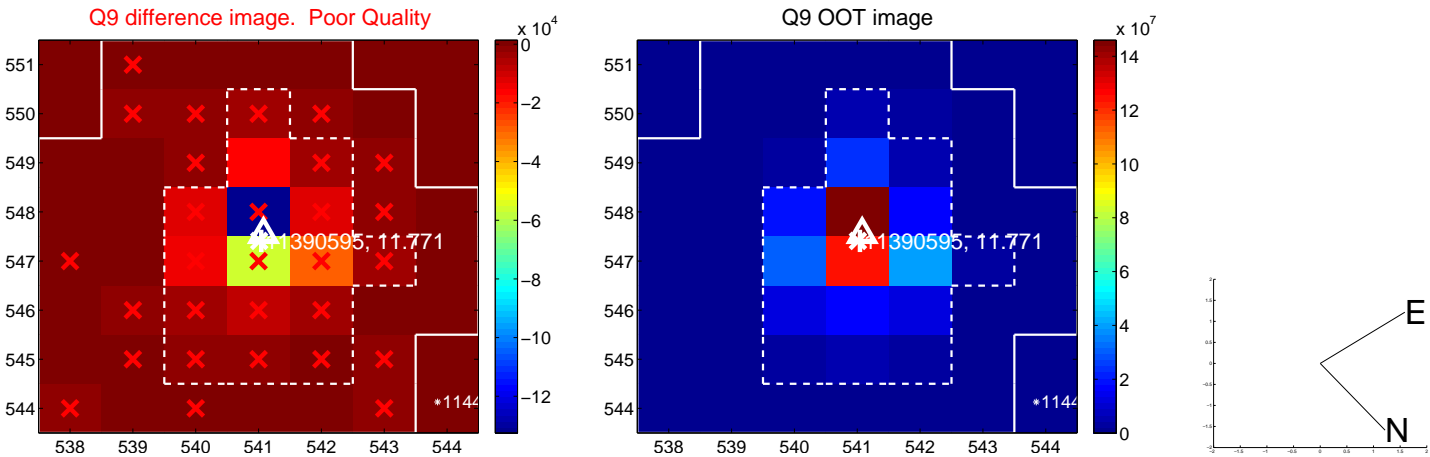
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



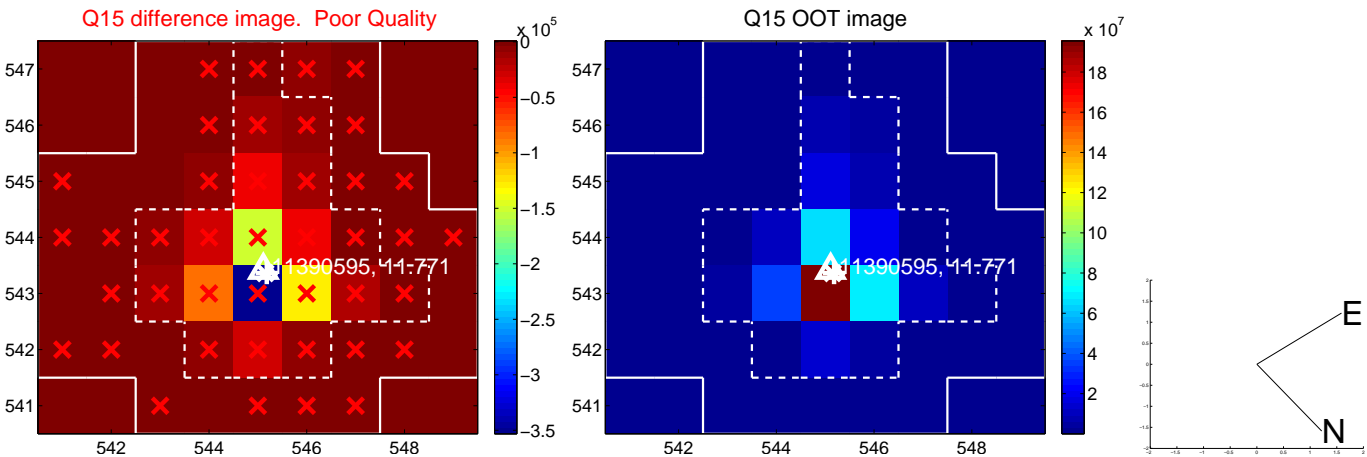
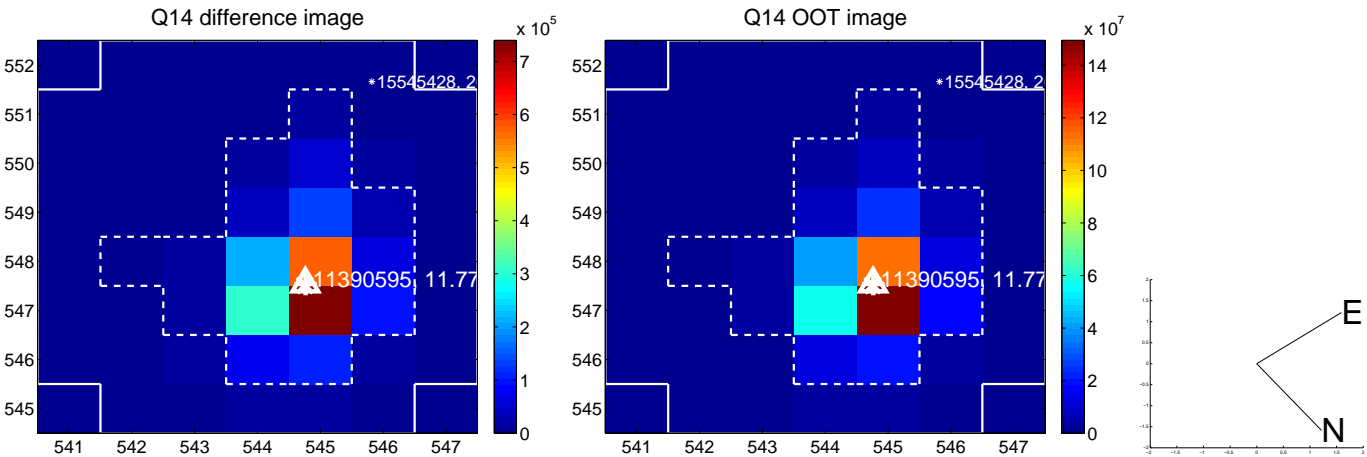
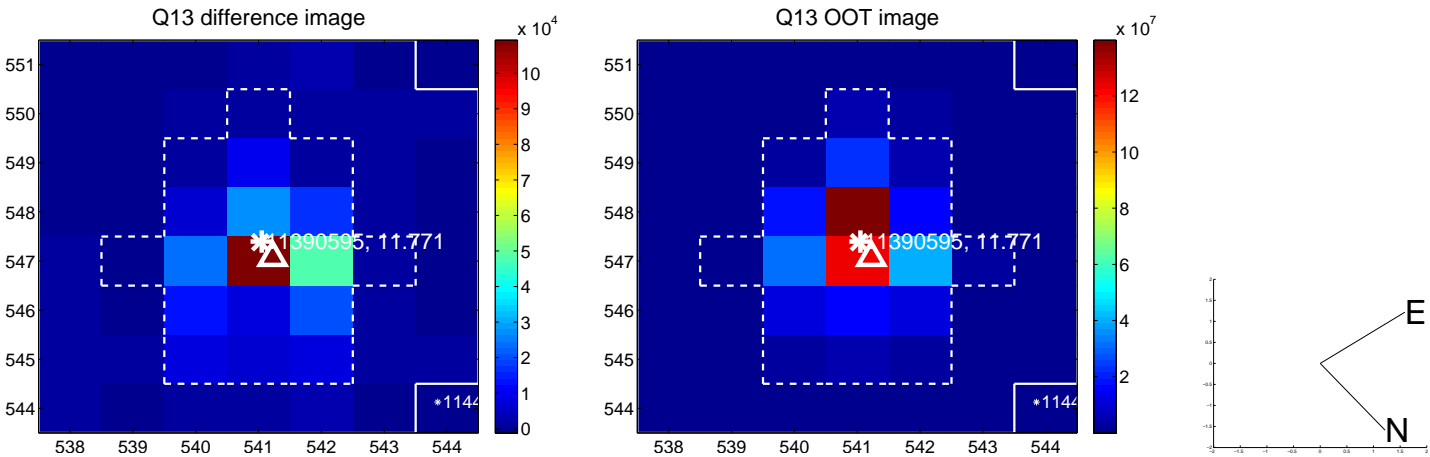
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



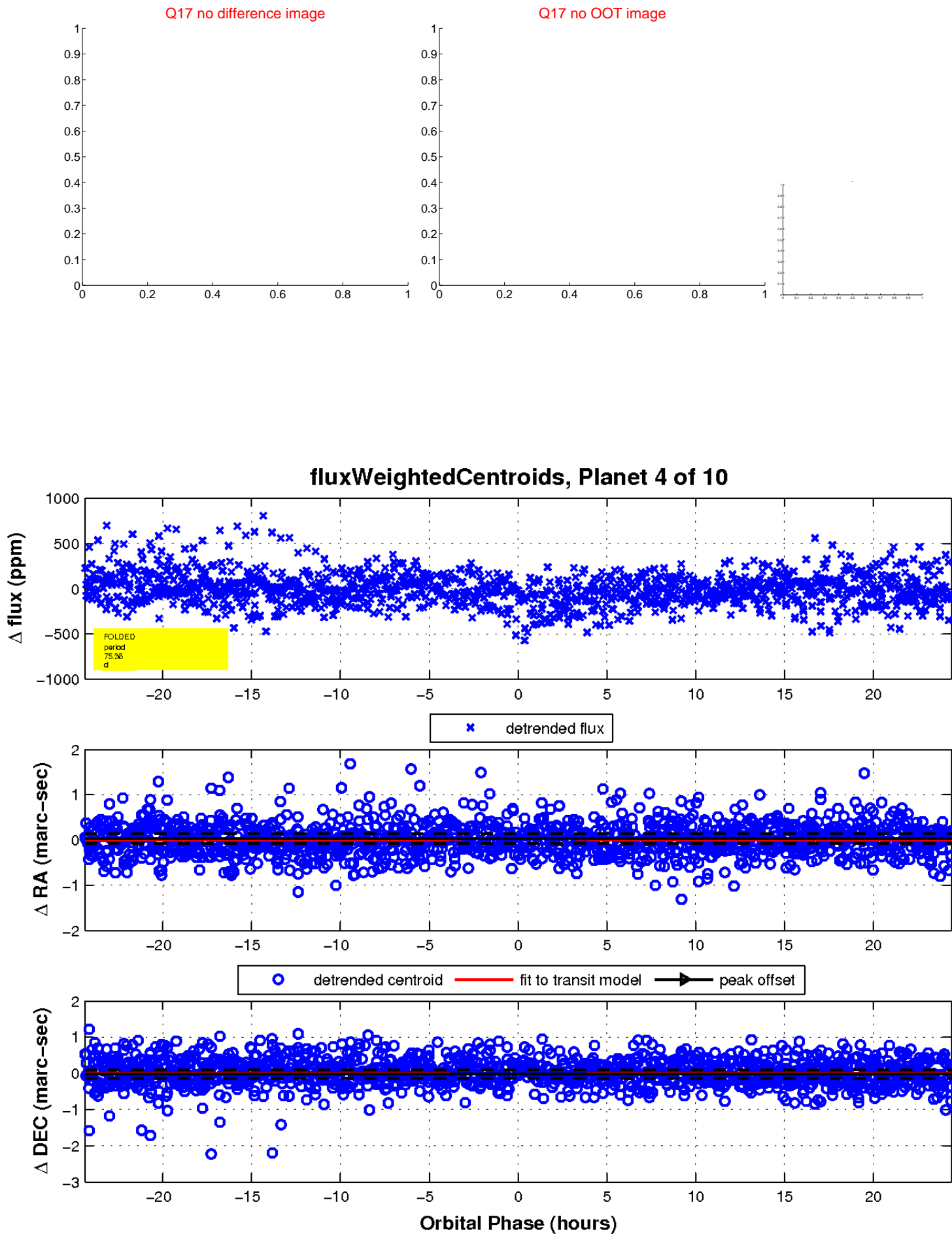
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

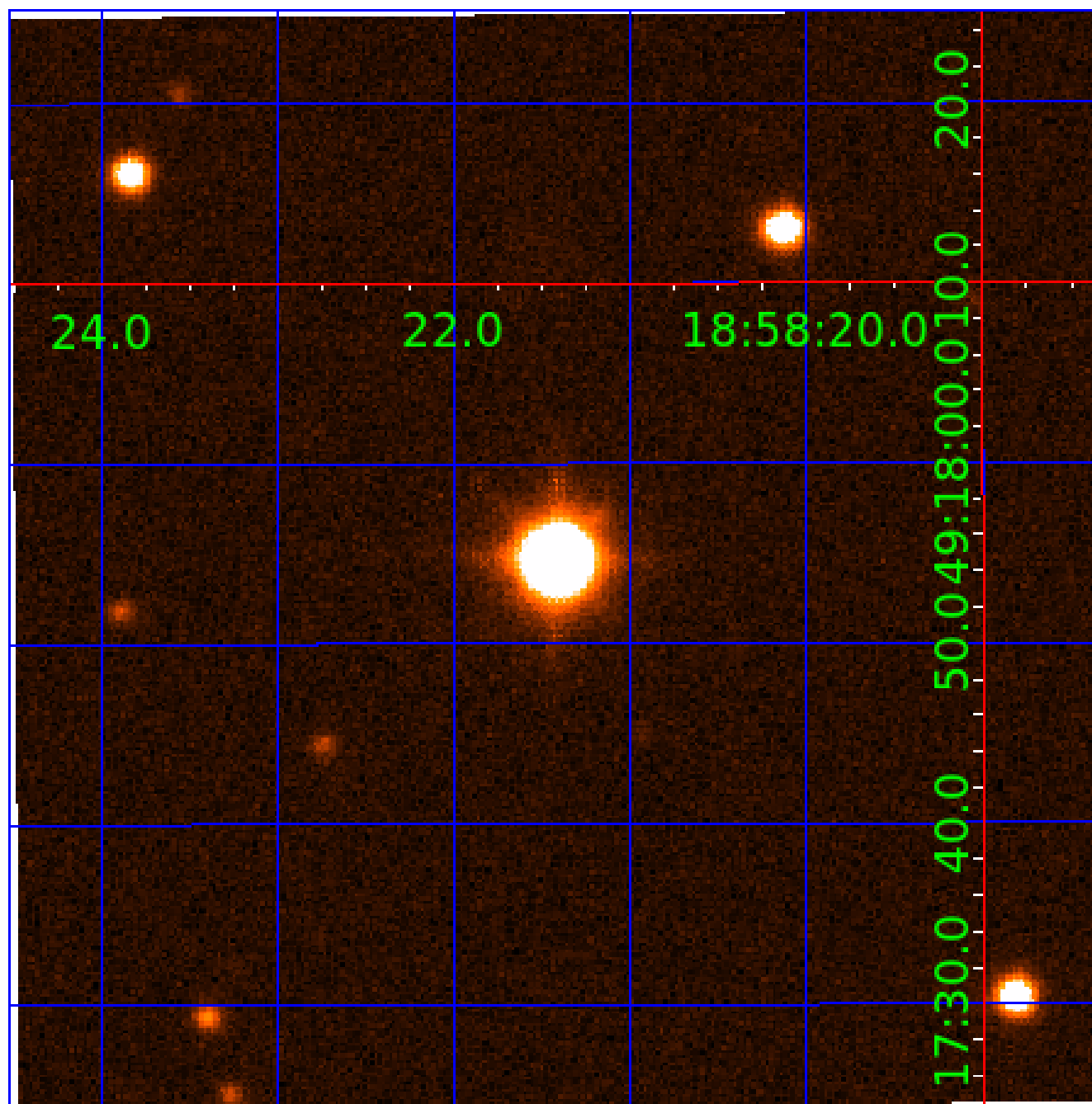


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

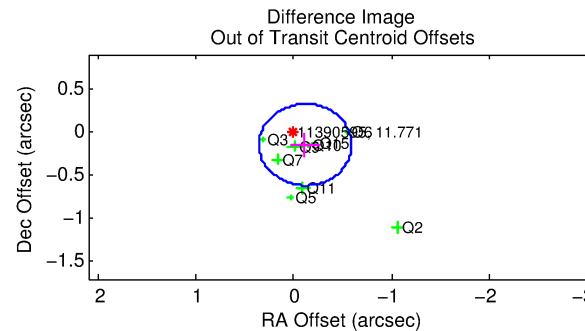
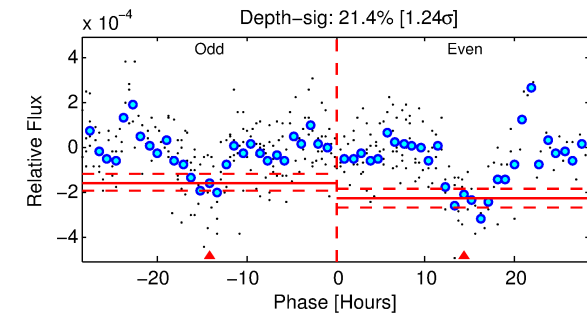
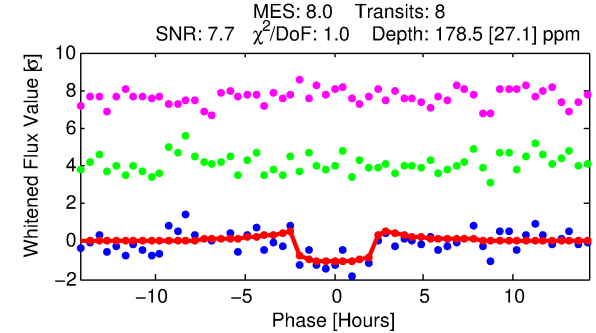
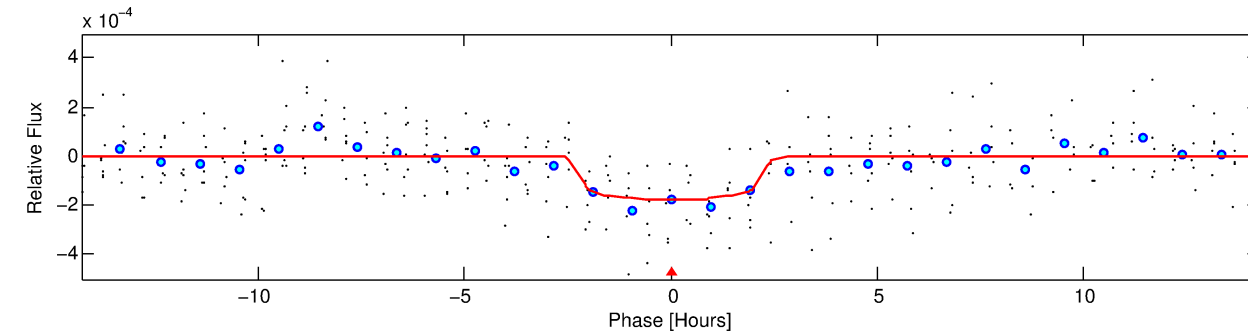
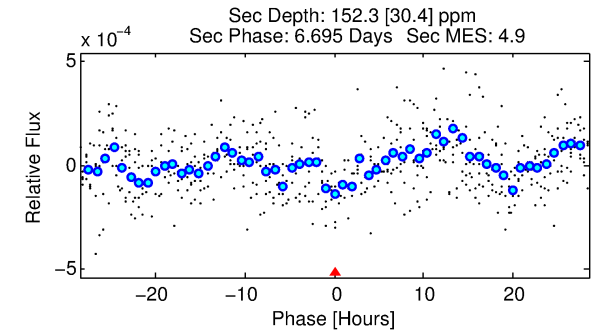
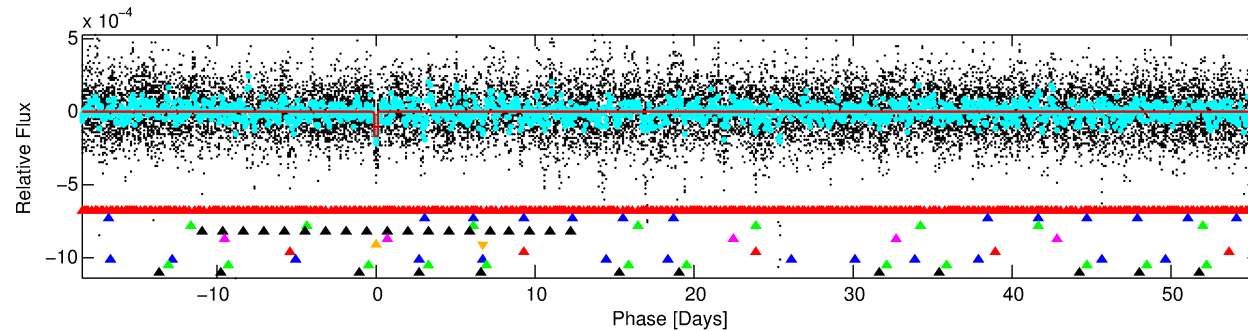
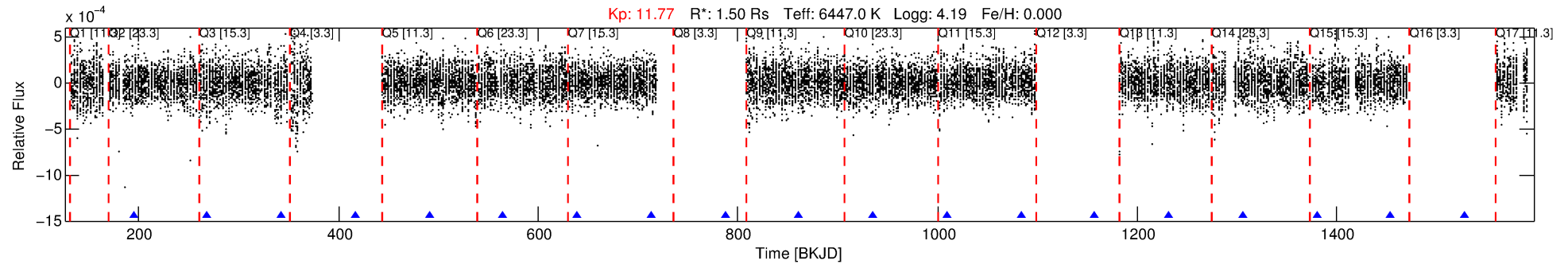
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-06

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 6 of 10 Period: 74.072 d



DV Fit Results:

Period = 74.07185 [0.00117] d
Epoch = 194.5107 [0.0101] BKJD
 $R_p/R^* = 0.0139$ [0.0051]
 $a/R^* = 64.71$ [124.25]
 $b = 0.86$ [0.61]
 $S_{\text{eff}} = 24.94$ [9.53]
 $T_{\text{eq}} = 570$ [54] K
 $R_p = 2.27$ [1.11] R_e
 $a = 0.3737$ [0.0955] AU
 $A_g = 2262.50$ [1901.01] [1.19σ]
 $T_{\text{effp}} = 6076$ [1183] K [4.65σ]

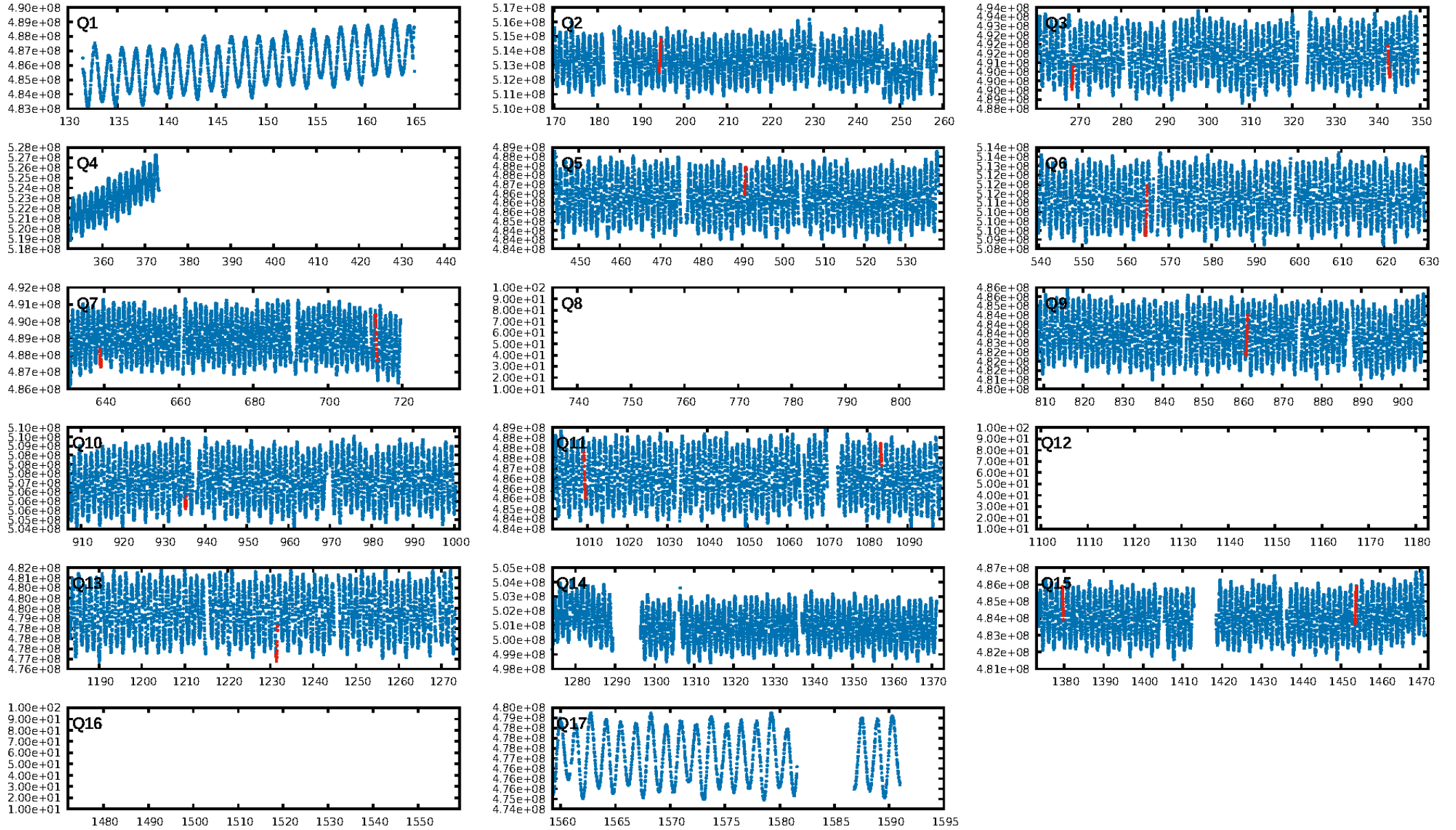
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [126.16σ]
LongPeriod-sig: 99.9% [3.27σ]
ModelChiSquare2-sig: 17.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 2.123
Centroid-sig: 67.2%
Centroid-so: 0.308 arcsec [0.51σ]
OotOffset-rm: 0.188 arcsec [1.19σ]
OotOffset-st: 3/4/0/2 [9]
KicOffset-rm: 0.152 arcsec [1.03σ]
KicOffset-st: 3/4/0/2 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 0.56 [5/9]

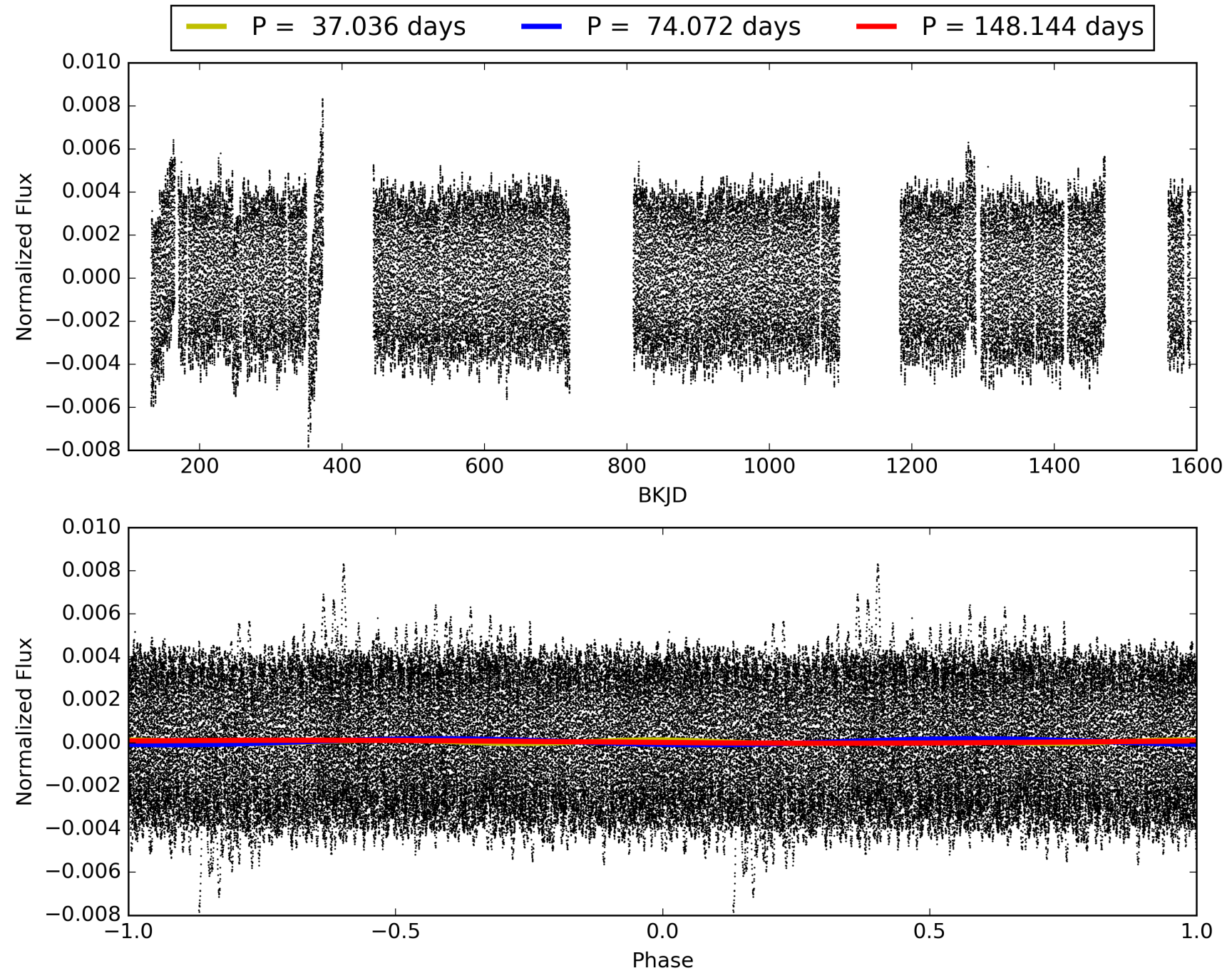
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011390595-06, PDC Light Curves

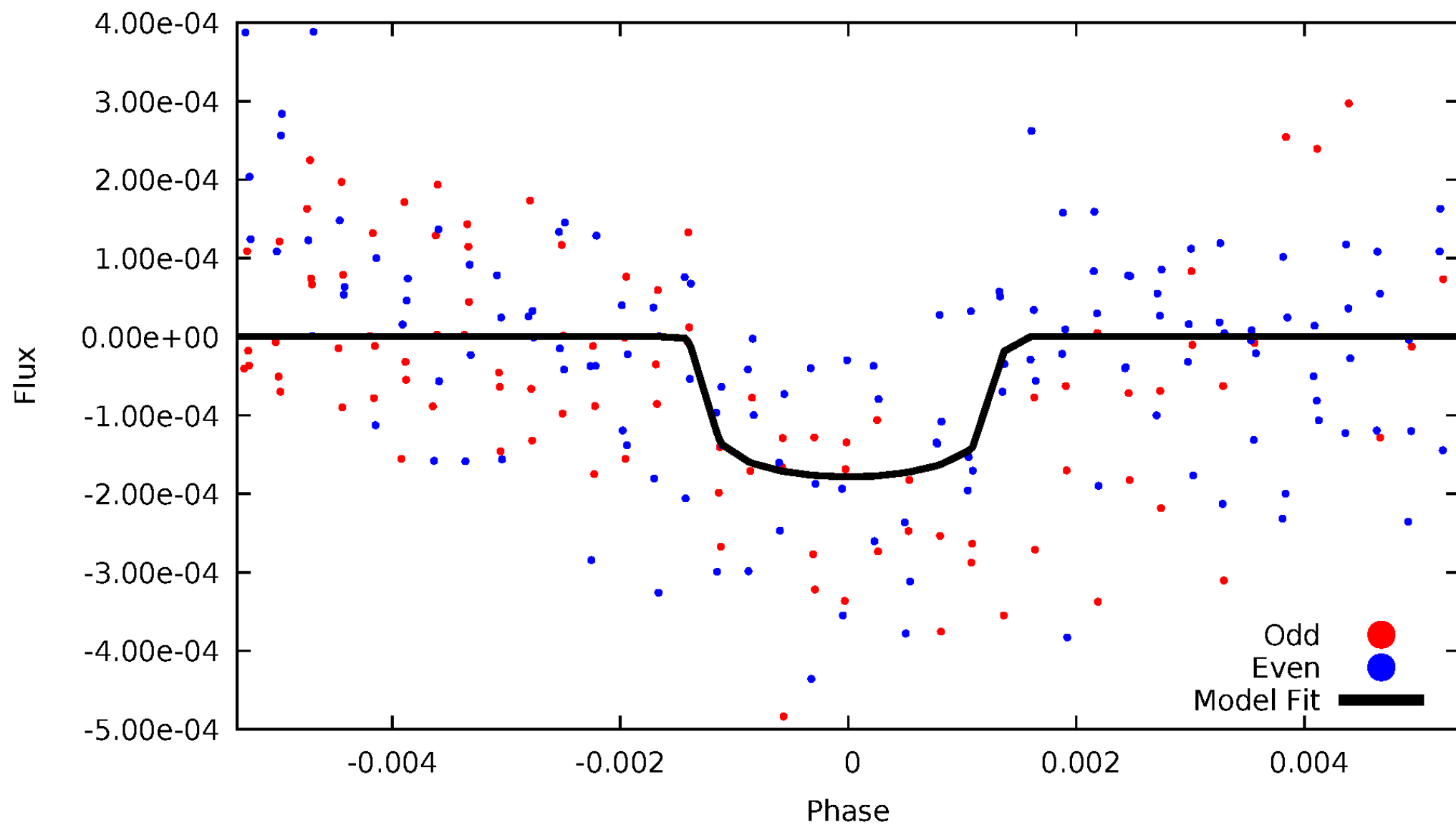


TCE 011390595-06



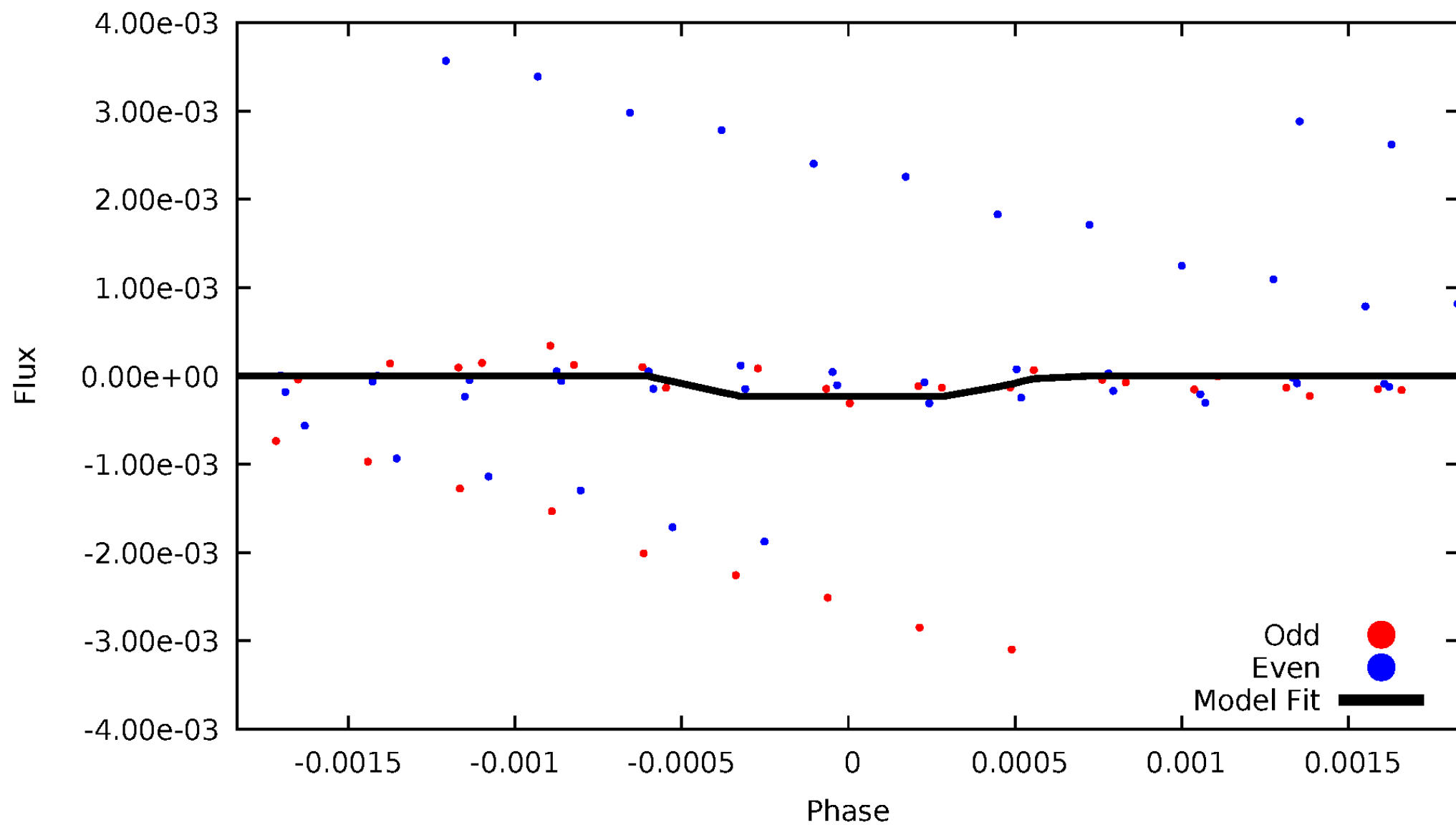
DV Odd/Even

TCE 011390595-06



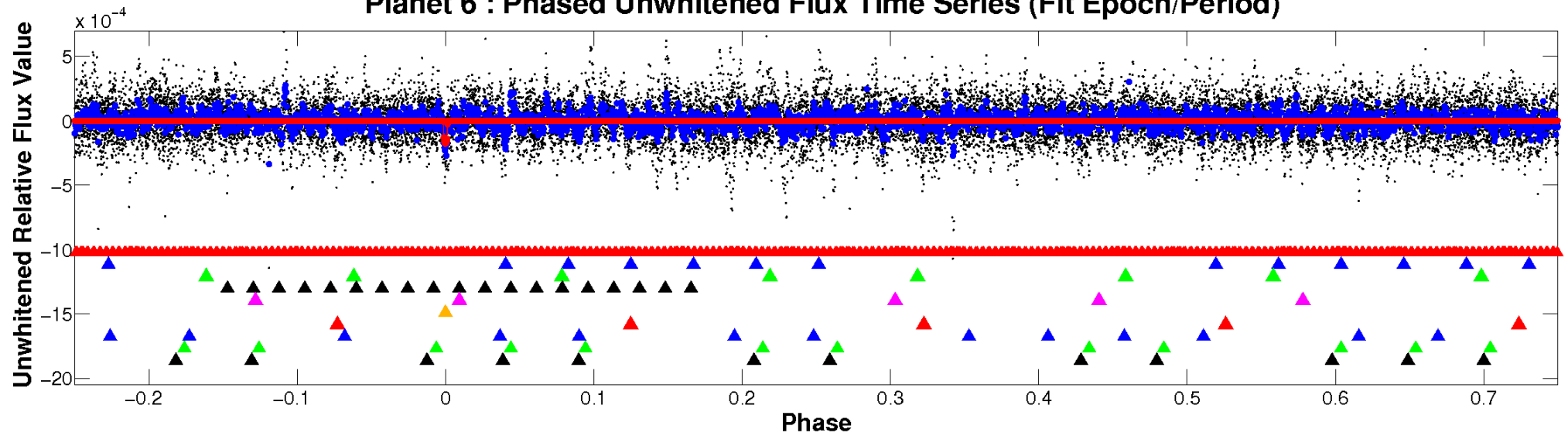
ALT Odd/Even

TCE 011390595-06

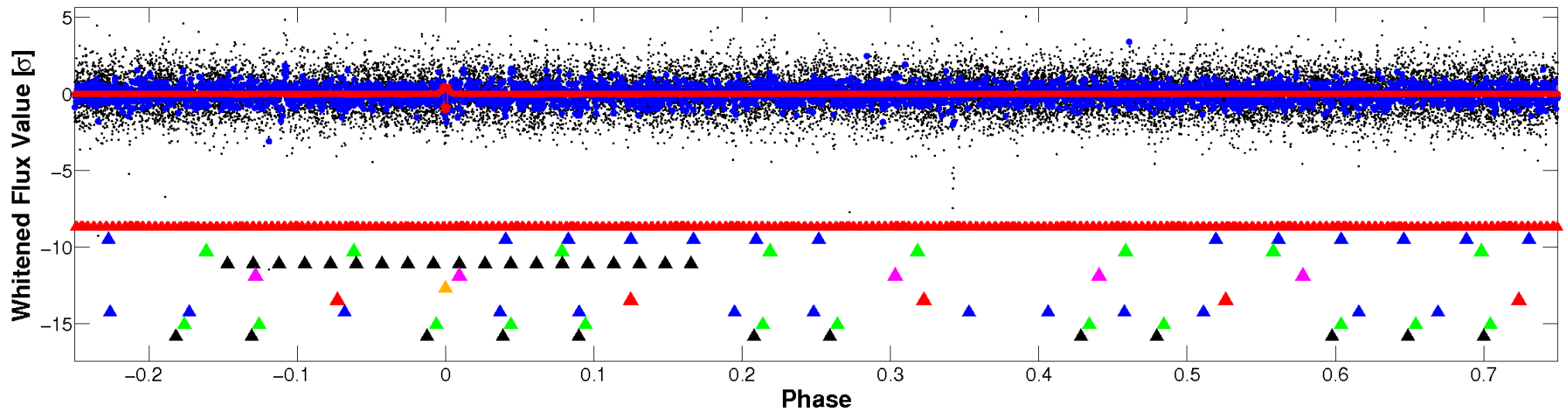


Non-Whitened Vs. Whitened Light Curve

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

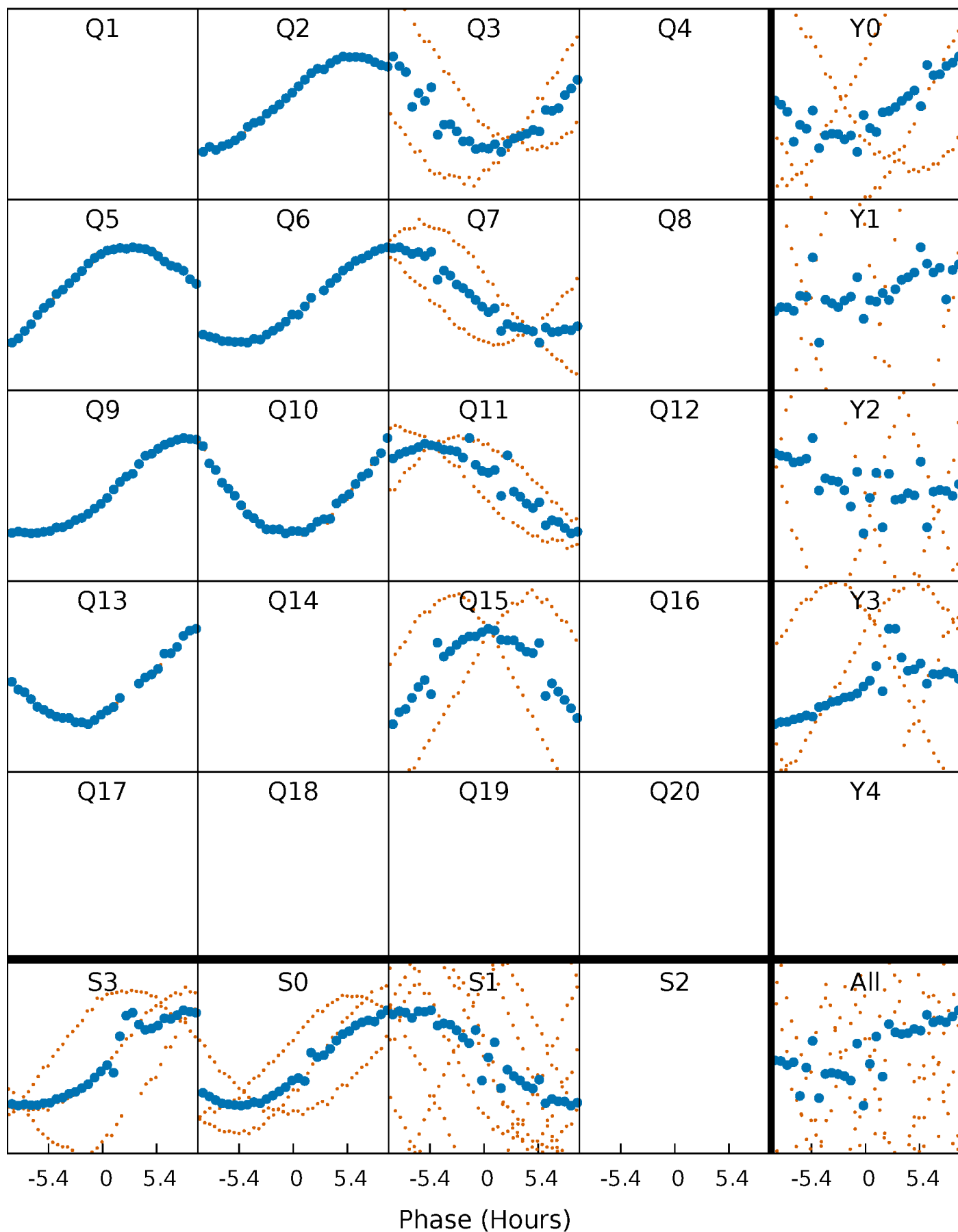


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



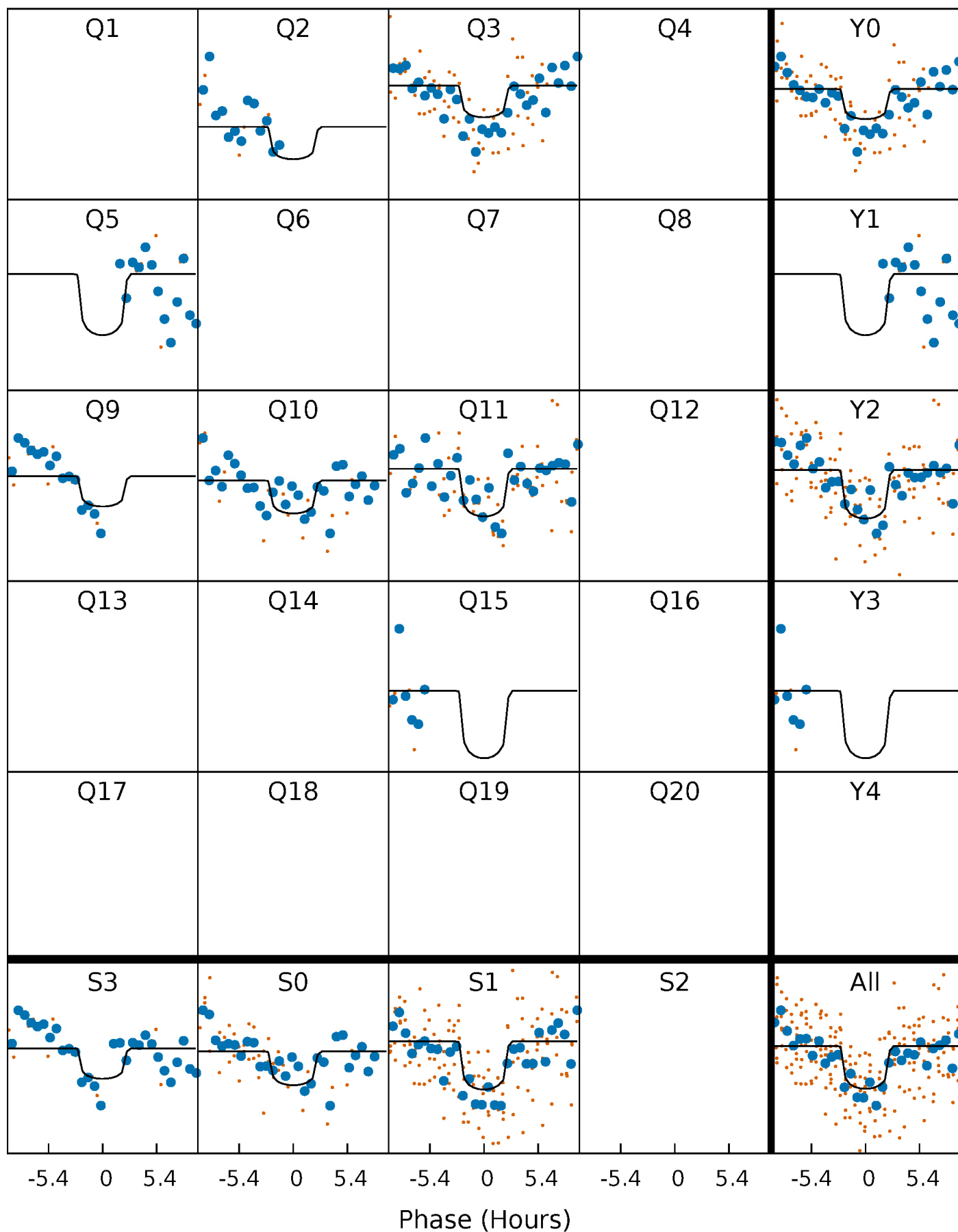
PDC Quarter-Phased Transit Curves

TCE 011390595-06 P= 74.071854 Days $T_0=194.510669$ (BKJD)



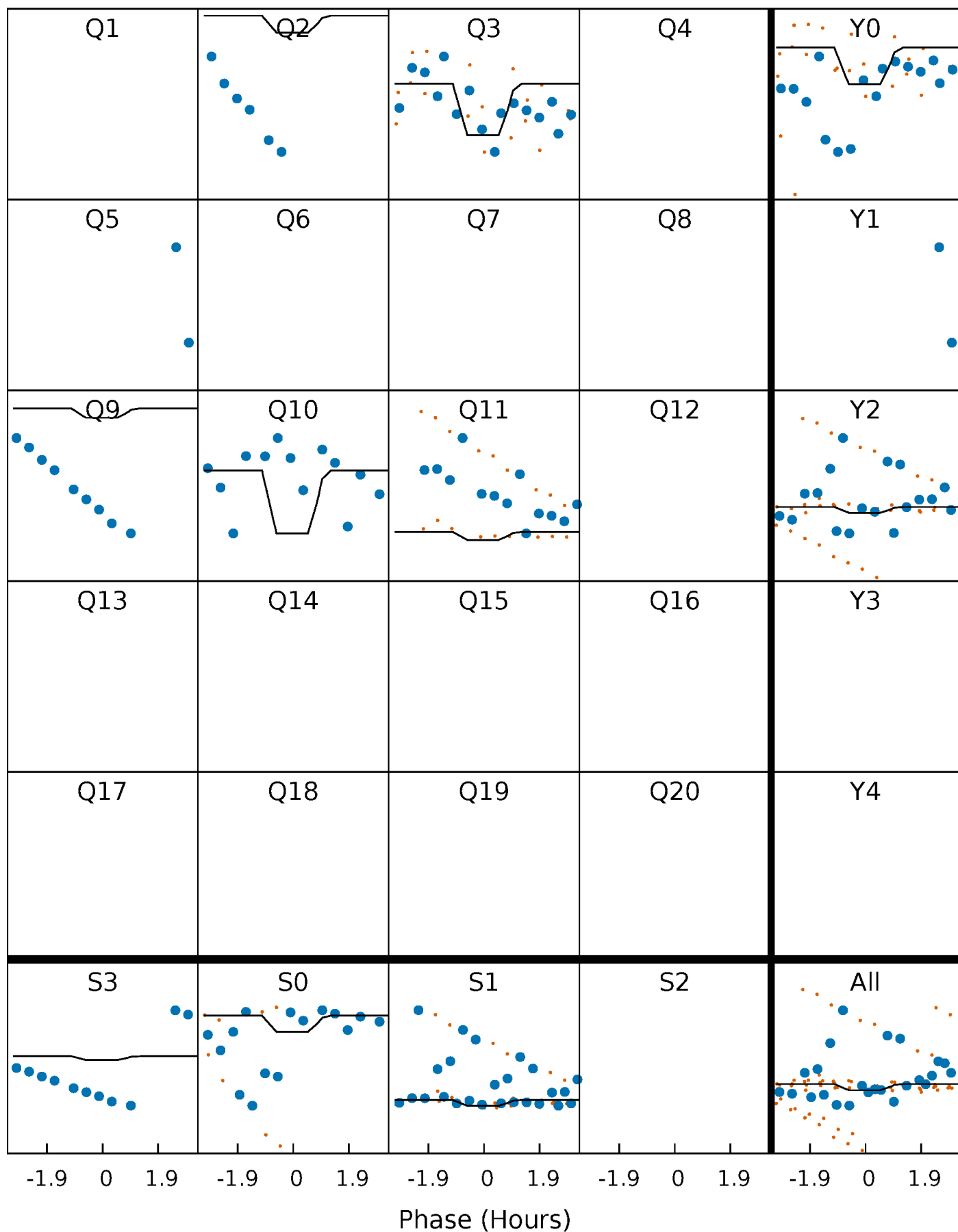
DV Quarter-Phased Transit Curves

TCE 011390595-06 P= 74.071854 Days $T_0=194.510669$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

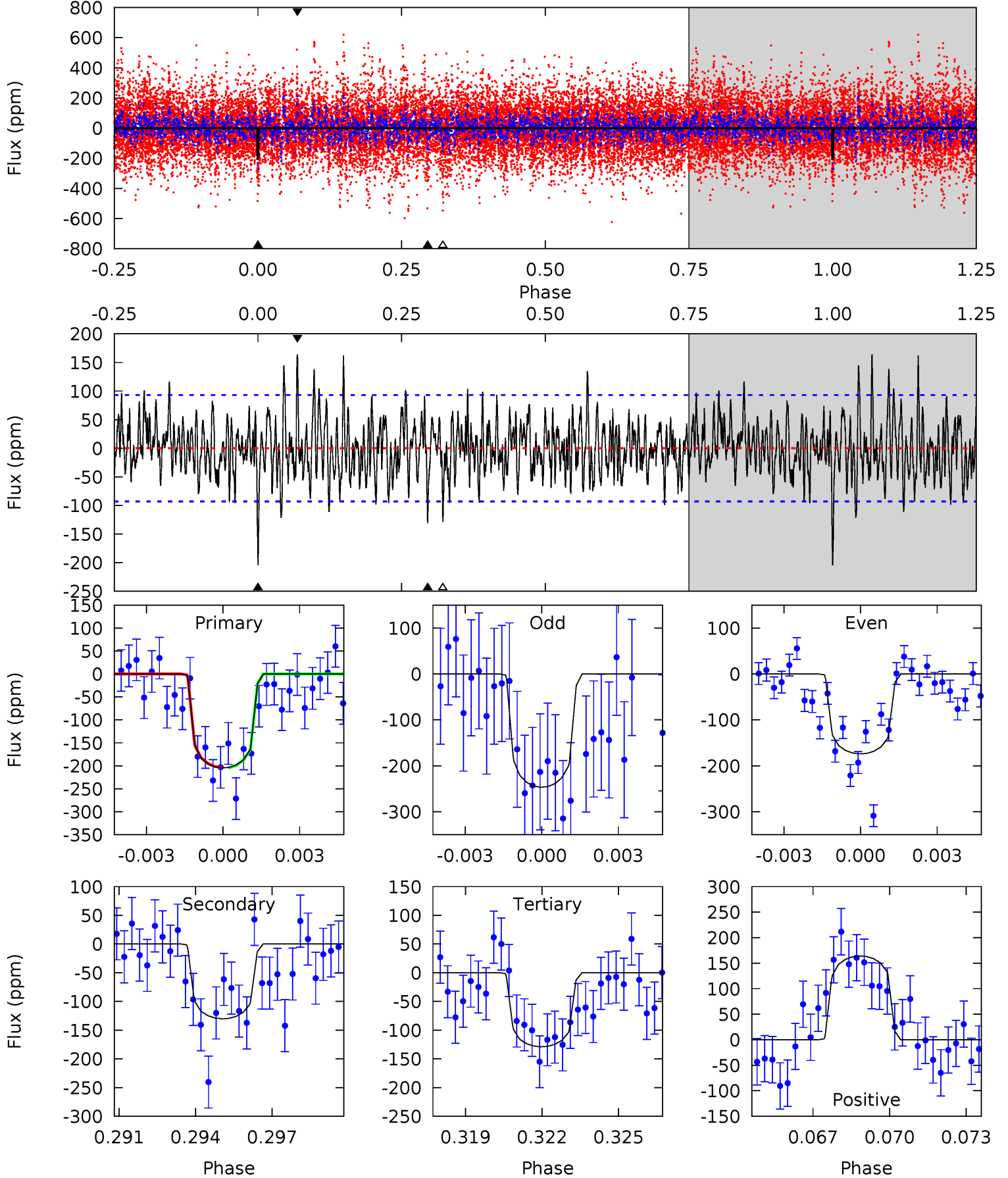
TCE 011390595-06 P= 74.072326 Days $T_0=194.467763$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-06, P = 74.071854 Days, E = 120.438815 Days

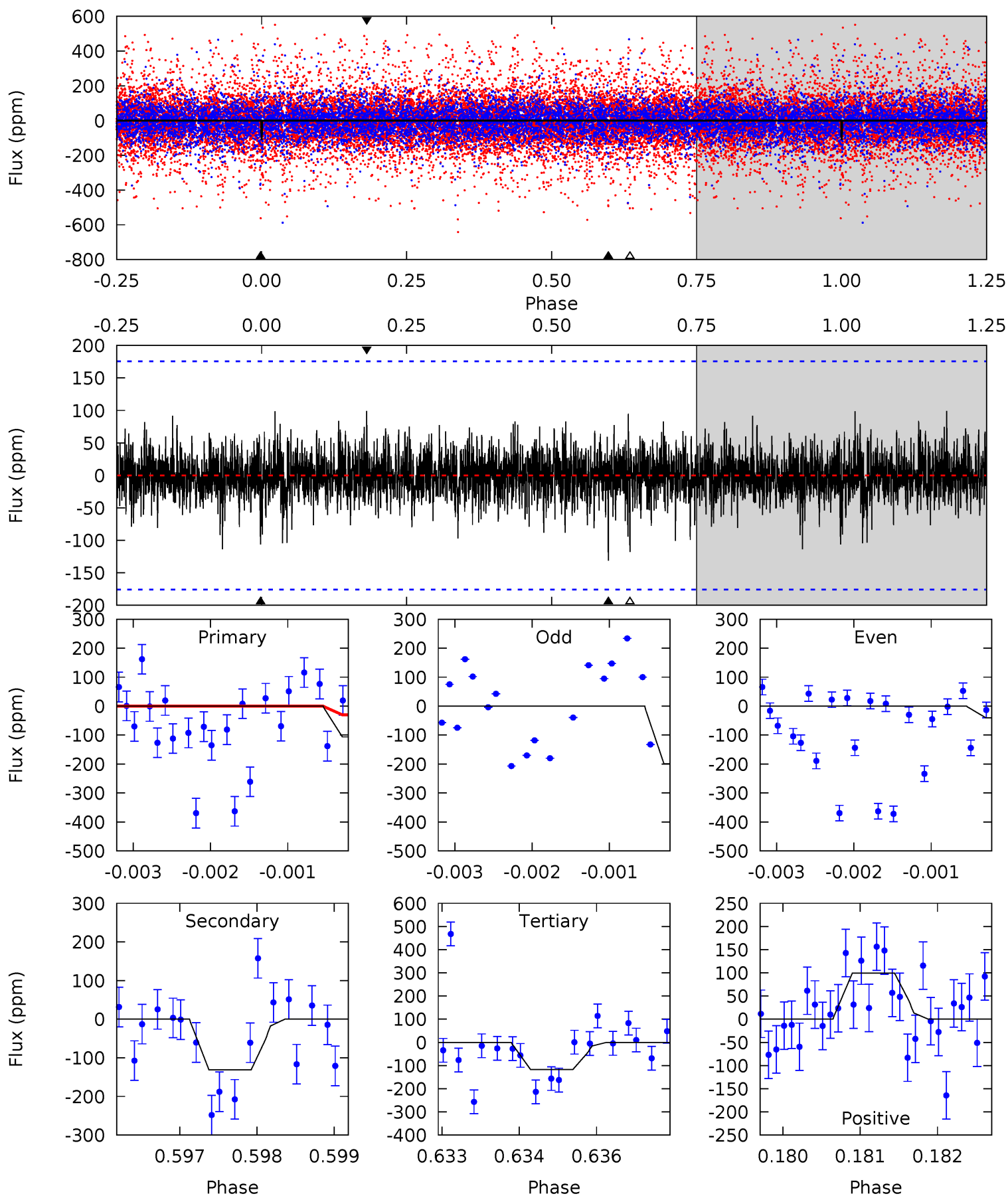
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	7.35	7.28	9.27	5.25	2.96	2.32	4.27	2.28	0.07	-1.92	2.01	1.07	0.45	0.02



Alt Model-Shift Uniqueness Test

011390595-06, $P = 74.072326$ Days, $E = 120.395437$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.28	4.05	3.64	3.07	5.43	3.26	0.84	-0.36	0.21	0.42	0.98	1.88	2.75	0.43	2.52



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-130 ± 18	$2.28^{+0.92}_{-0.88}$	794^{+62}_{-56}	5812^{+1602}_{-772}	1924^{+2968}_{-943}
Alt.	-131 ± 32	$2.49^{+0.98}_{-0.89}$	796^{+68}_{-56}	5570^{+1311}_{-711}	1593^{+2373}_{-804}

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

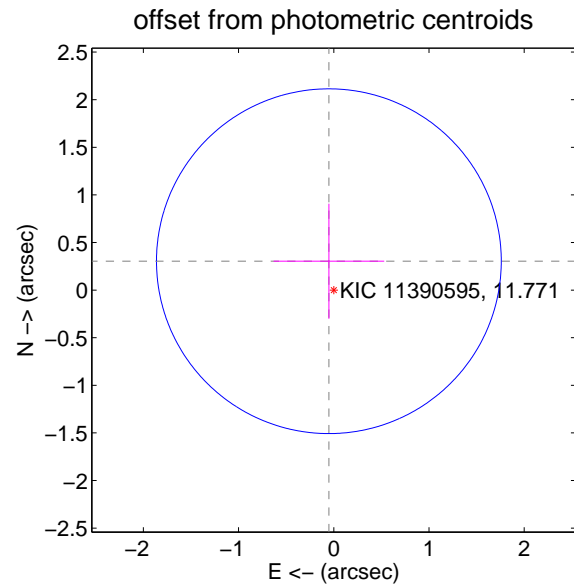
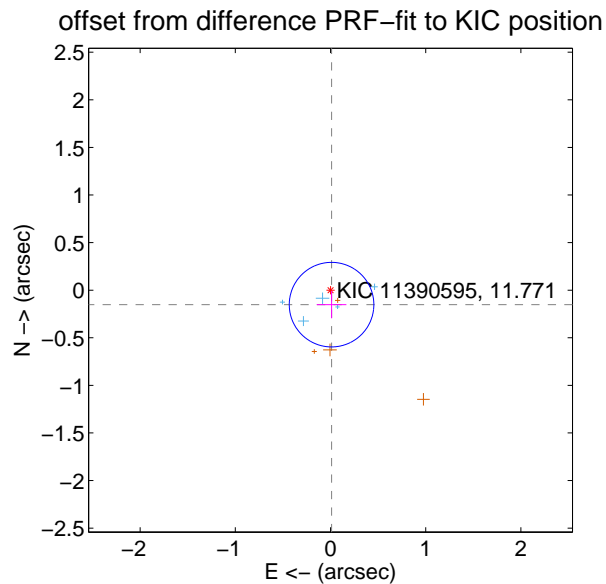
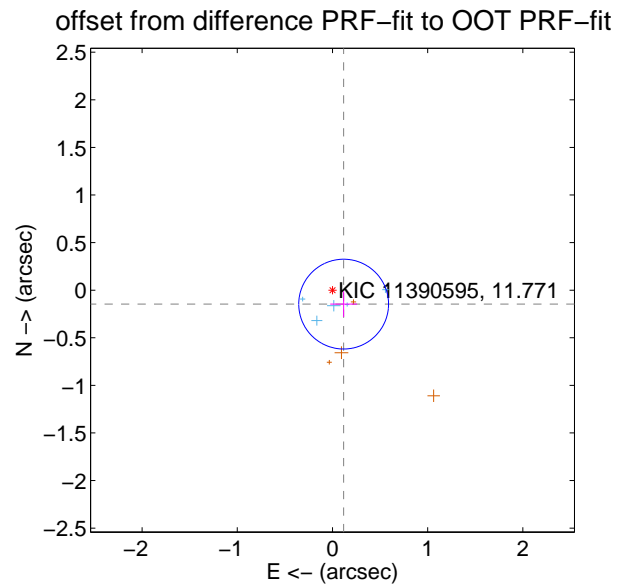
DV Centroid Data

Supplemental centroid analysis for 011390595-06. **Kepler magnitude: 11.77.** Transit SNR 7.68

There are 5 quarters with good PRF difference image offsets

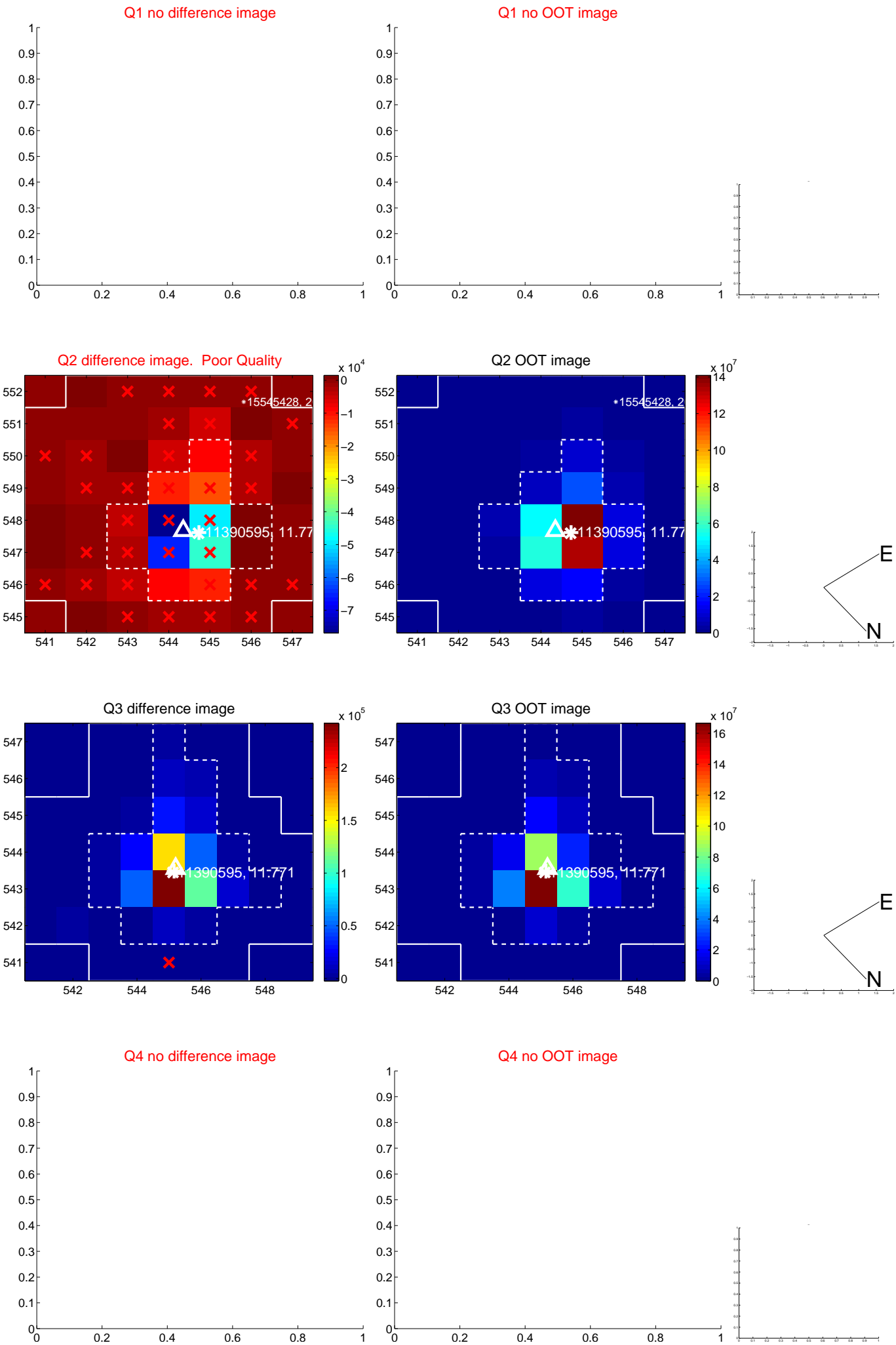
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.188 ± 0.157	1.19	-0.117 ± 0.140	-0.147 ± 0.134
PRF-fit source offset from KIC position	0.152 ± 0.148	1.03	-0.011 ± 0.156	-0.152 ± 0.143
photometric centroid source offset	0.31 ± 0.60	0.51	0.05 ± 0.58	0.30 ± 0.60

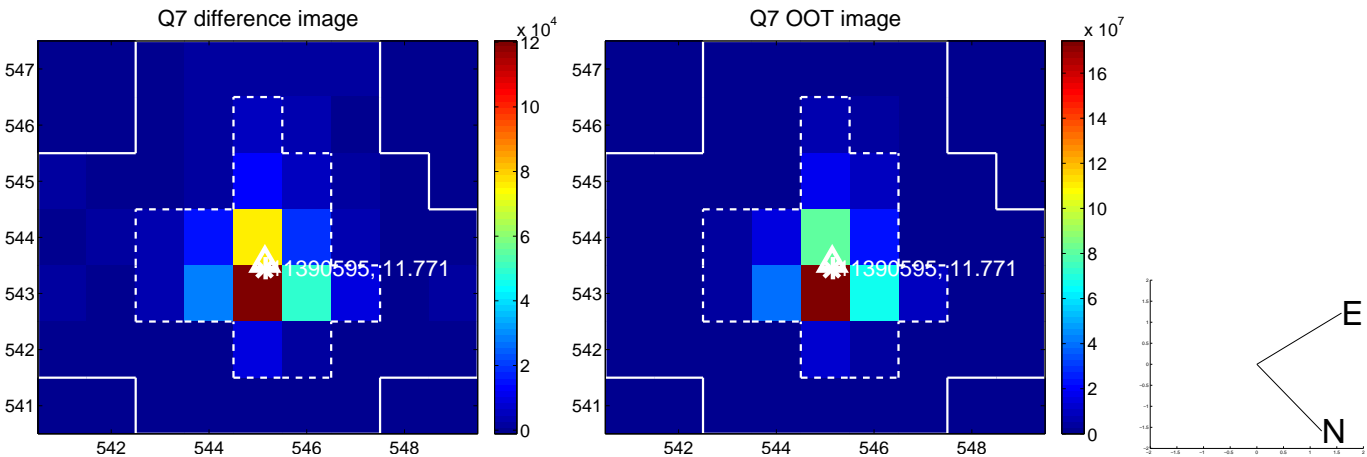
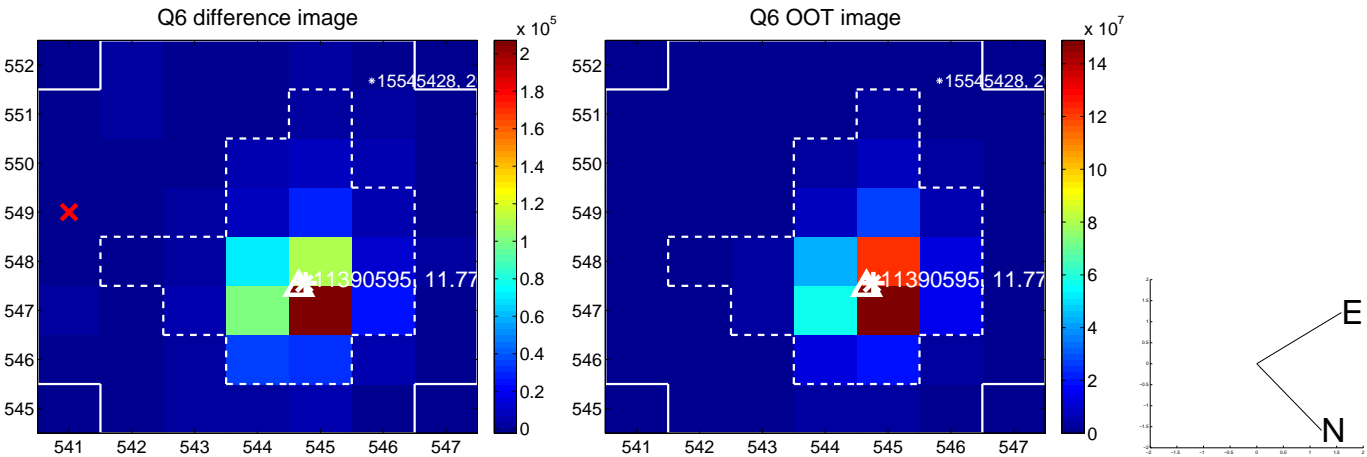
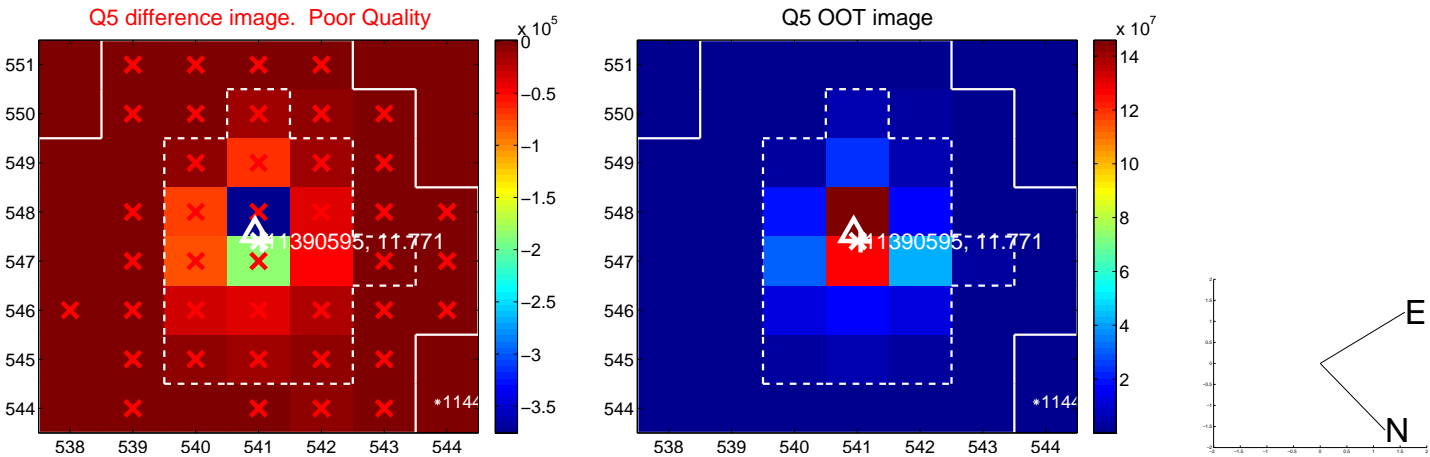


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

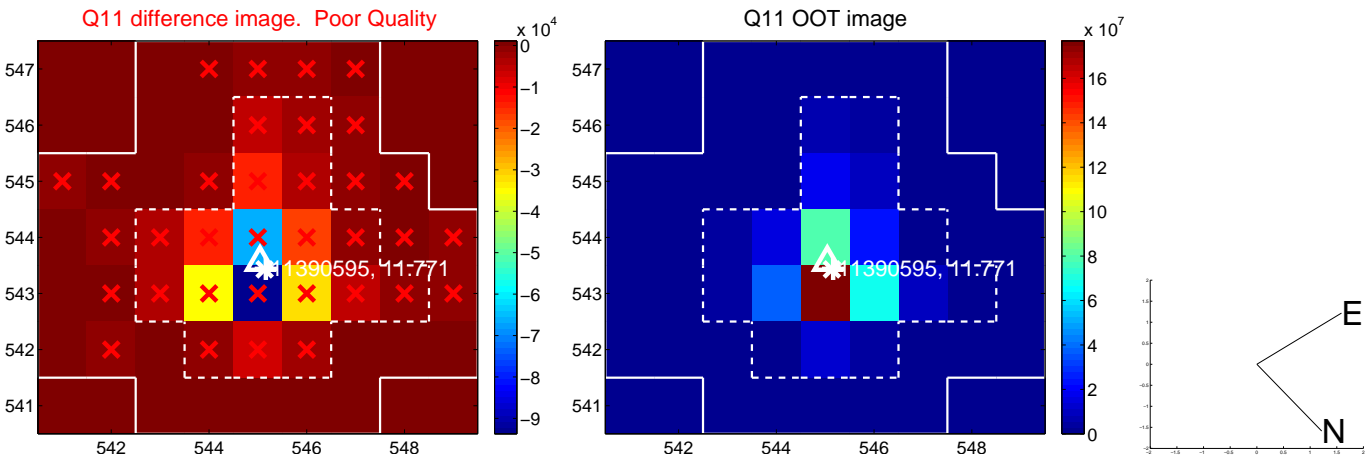
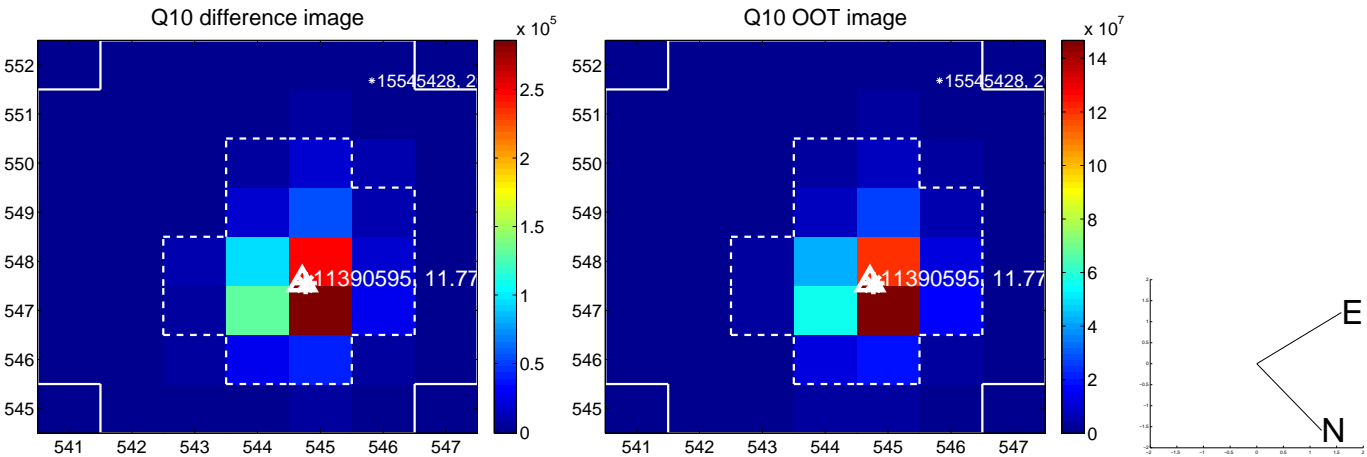
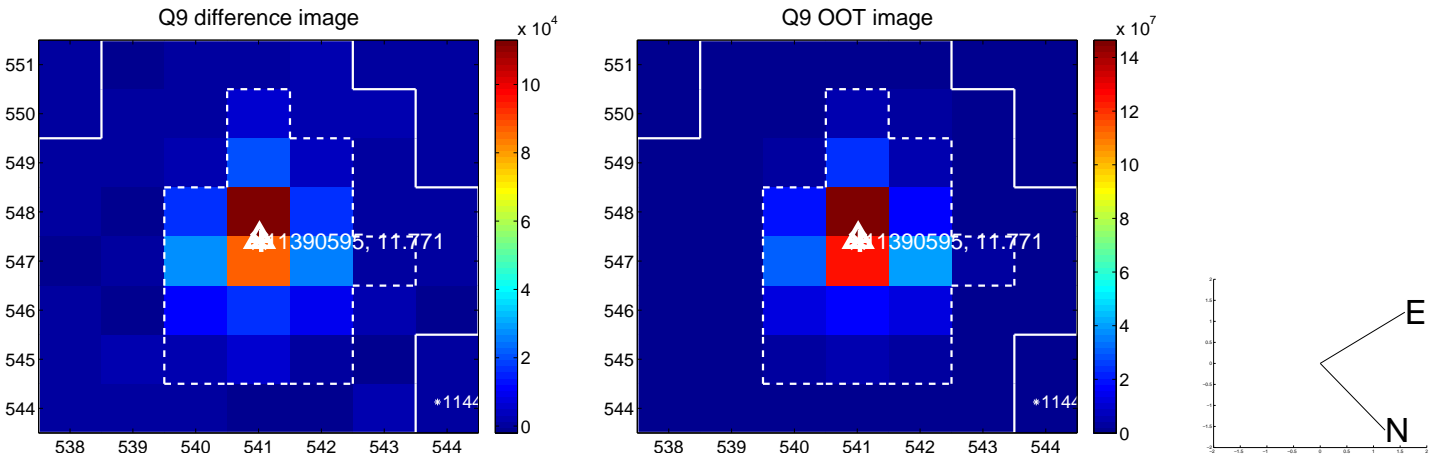
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



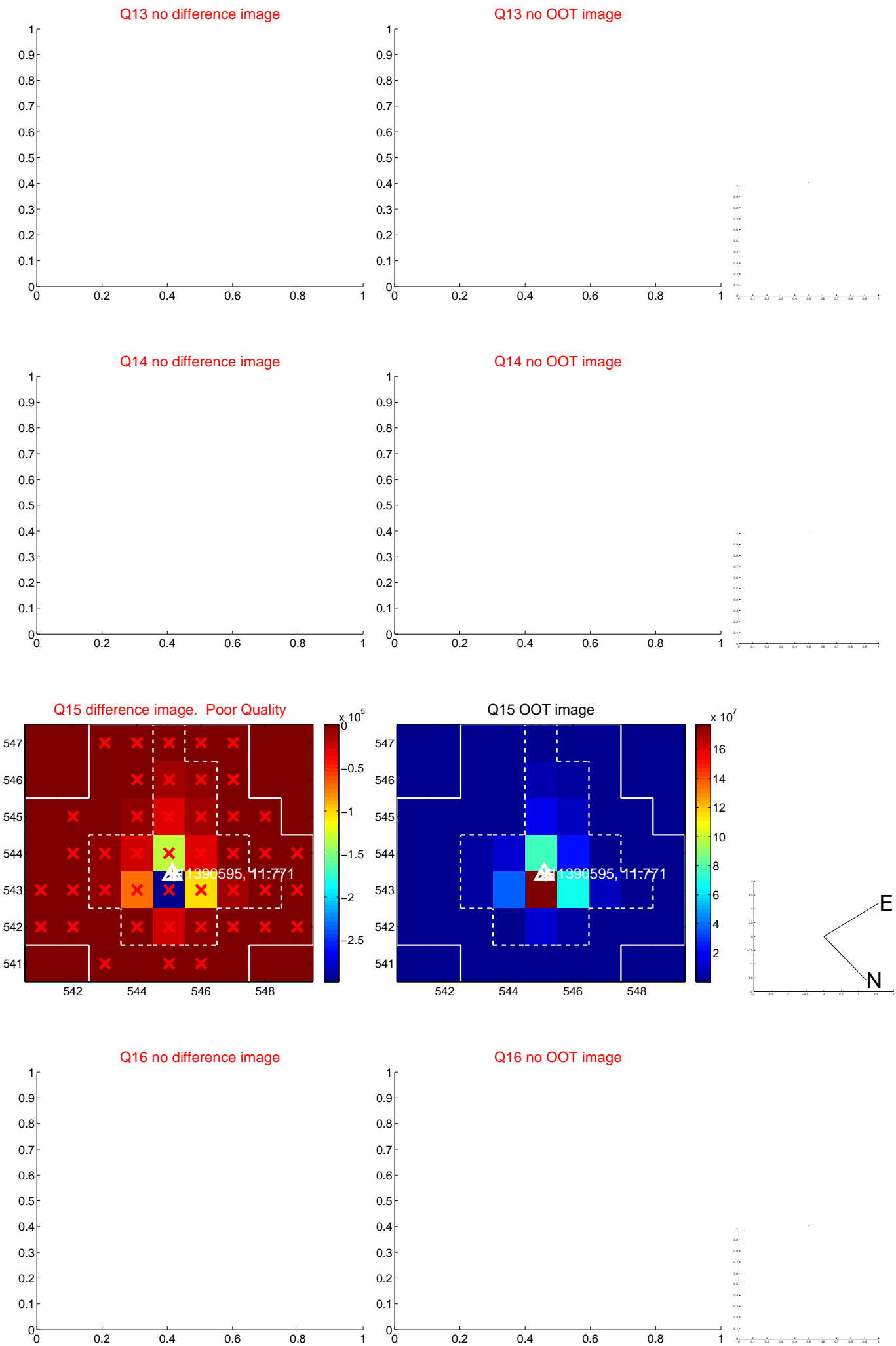
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



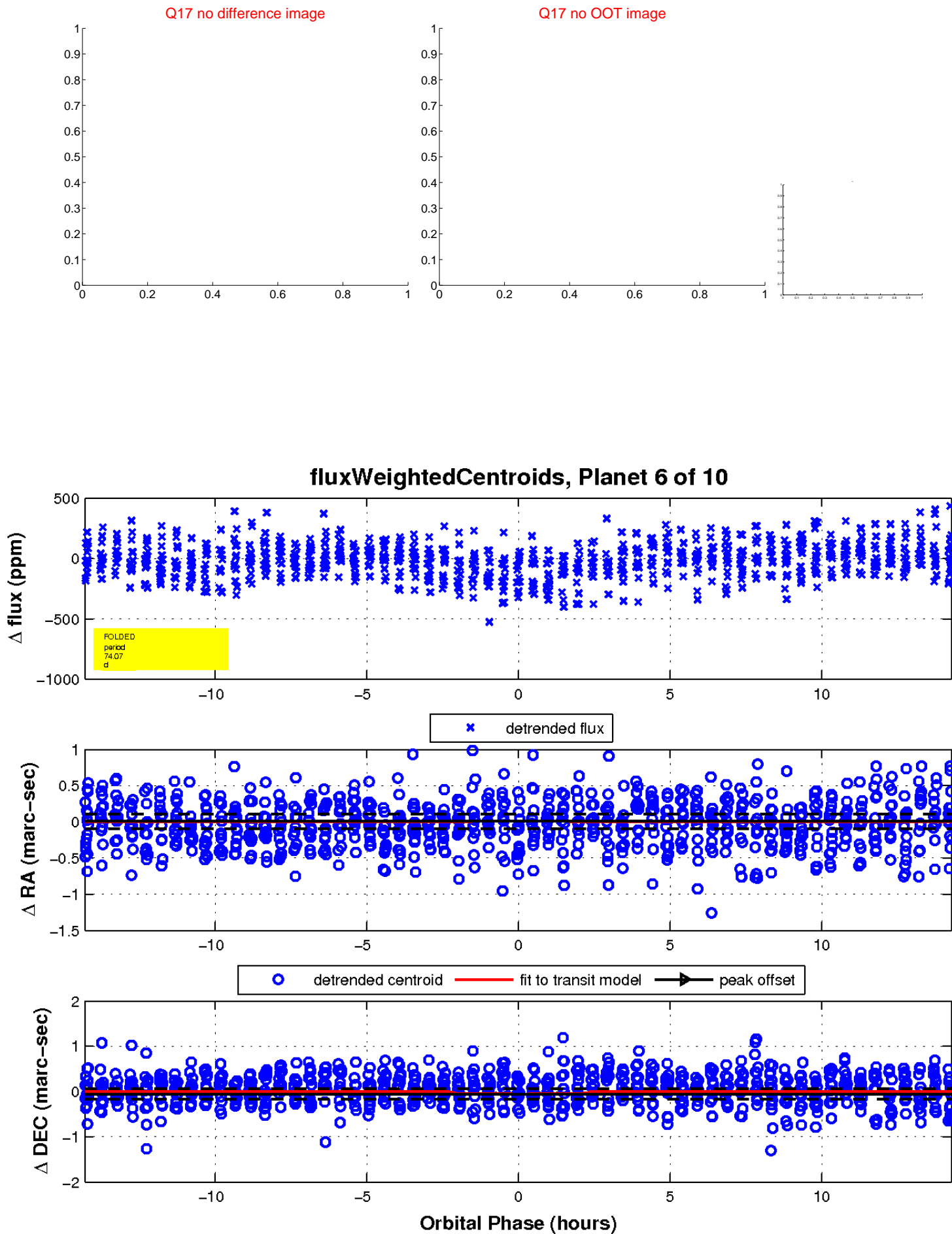
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

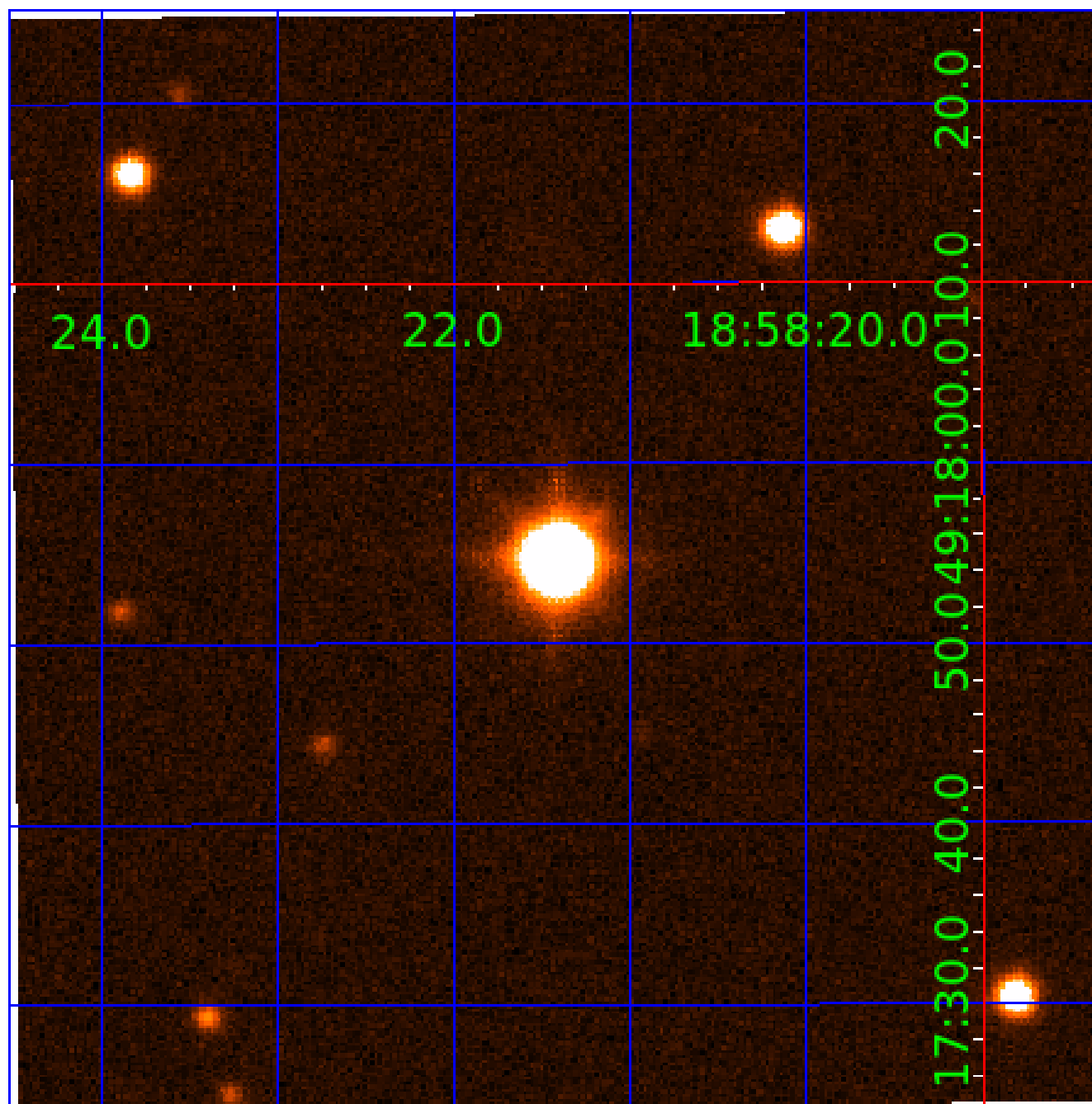


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

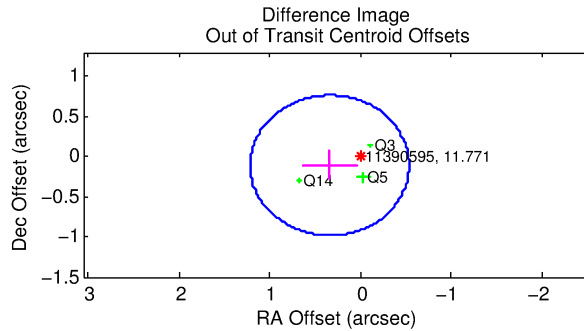
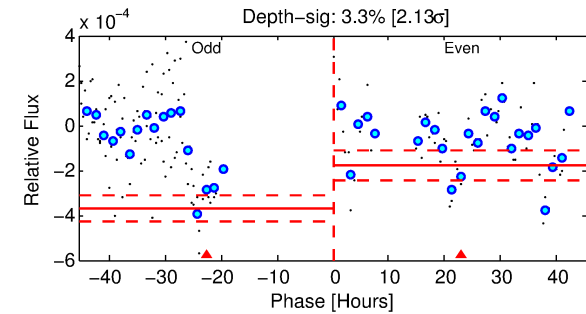
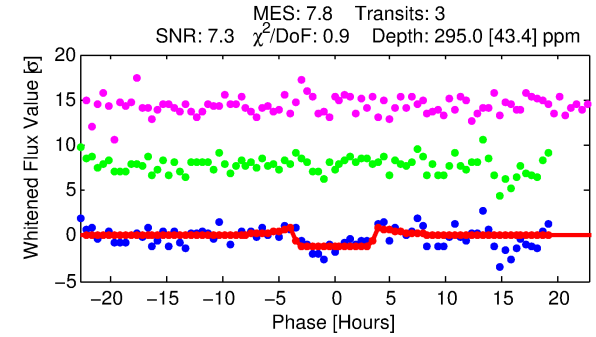
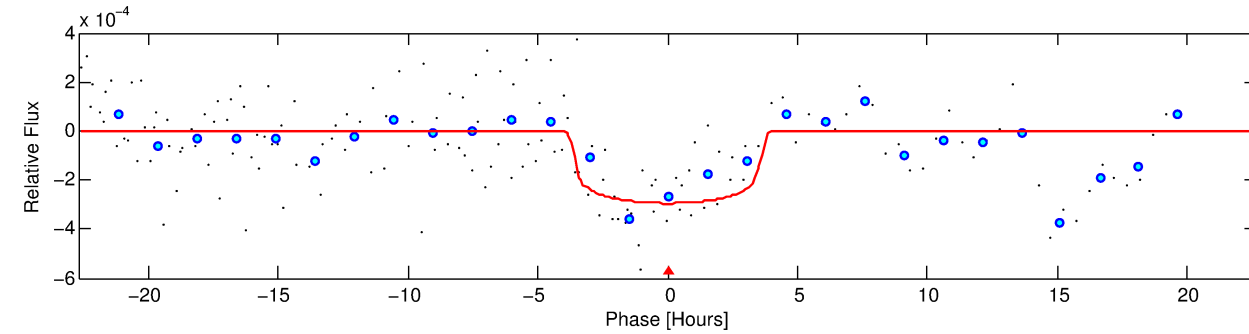
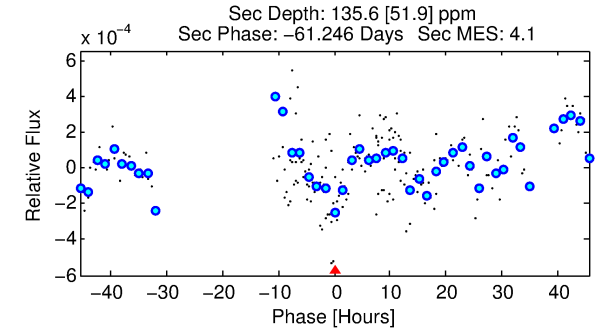
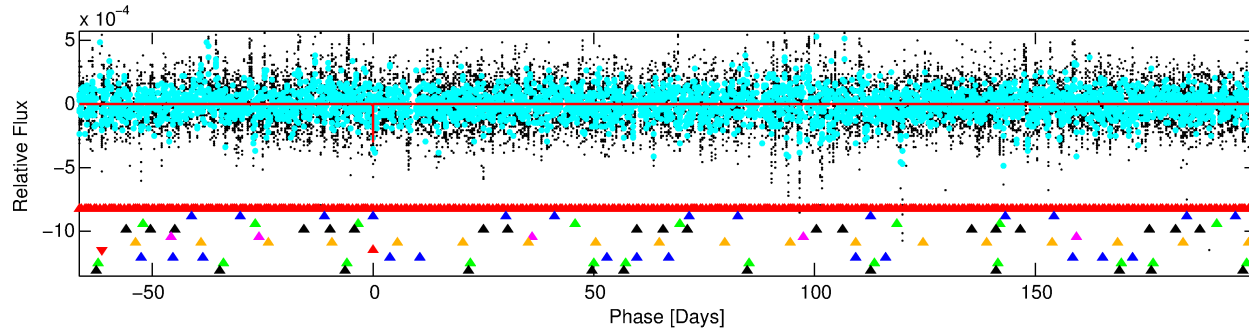
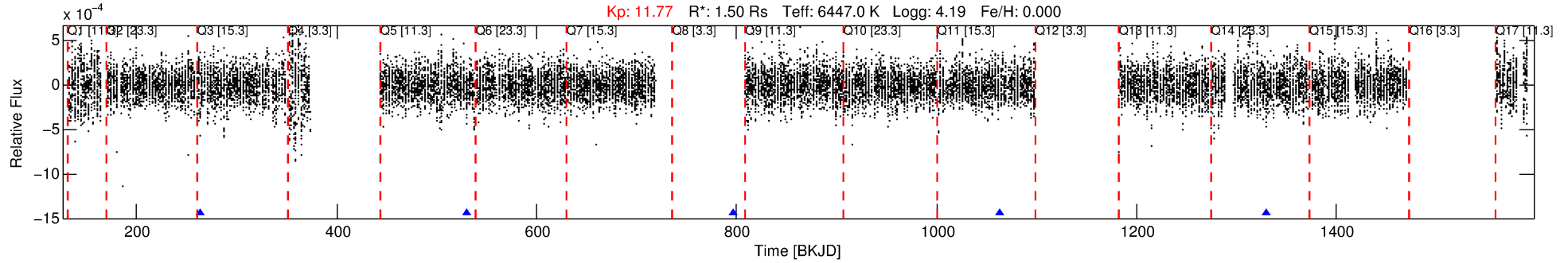
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-07

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 7 of 10 Period: 266.573 d



DV Fit Results:

Period = 266.57282 [0.00372] d
Epoch = 263.1894 [0.0086] BKJD
Rp/R* = 0.0173 [0.0077]
a/R* = 174.91 [413.88]
b = 0.78 [1.17]
Seff = 4.52 [1.73]
Teq = 372 [36] K
Rp = 2.83 [1.56] Re
a = 0.8776 [0.2244] AU
Ag = 7187.95 [7436.47] [0.97σ]
Teff = 5293 [1304] K [3.77σ]

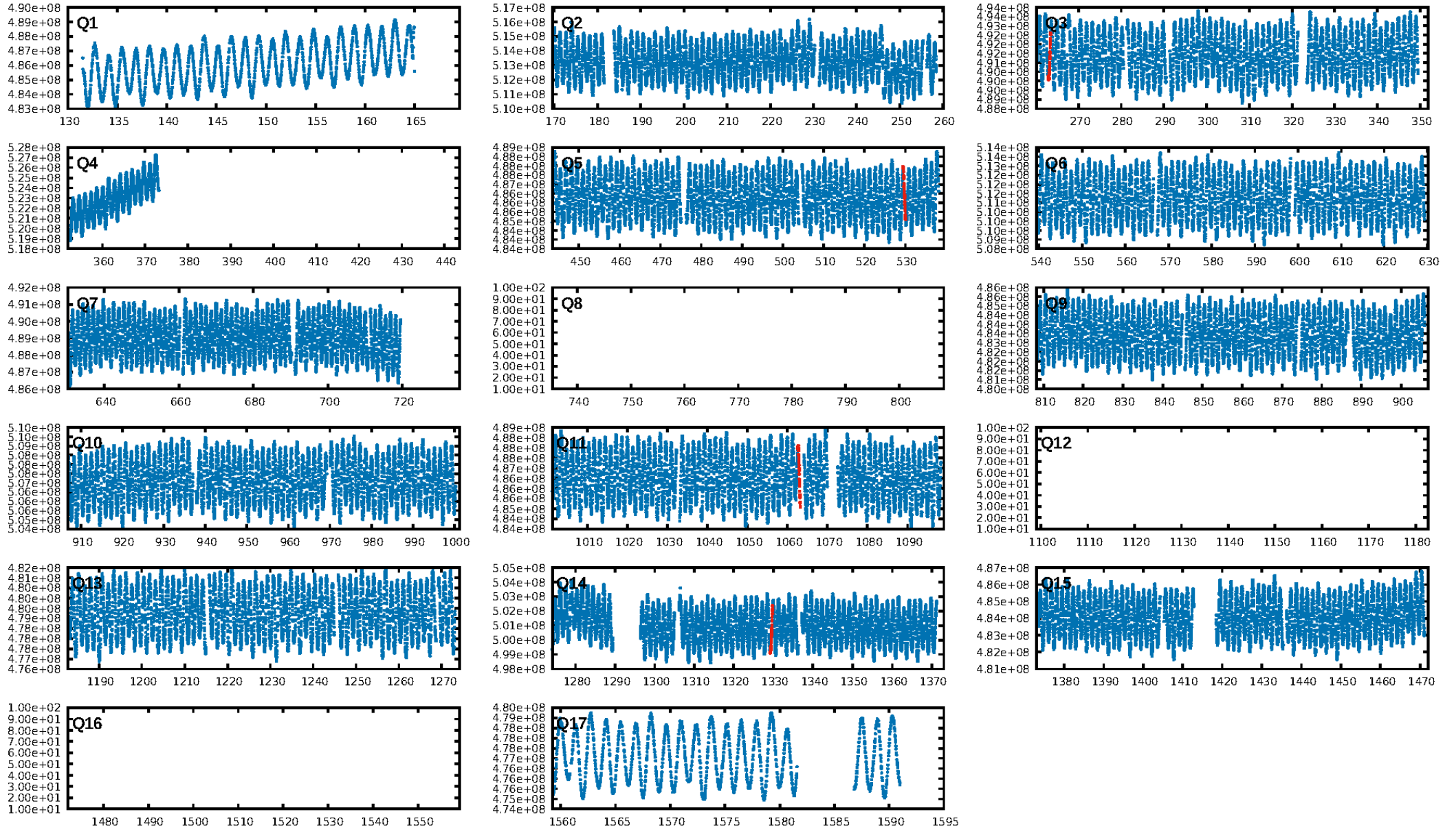
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [197.74σ]
LongPeriod-sig: 100.0% [157.01σ]
ModelChiSquare2-sig: 21.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -31.33
Centroid-sig: 97.5%
Centroid-so: 0.180 arcsec [0.29σ]
OotOffset-rm: 0.355 arcsec [1.22σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.450 arcsec [1.58σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.67 [2/3]

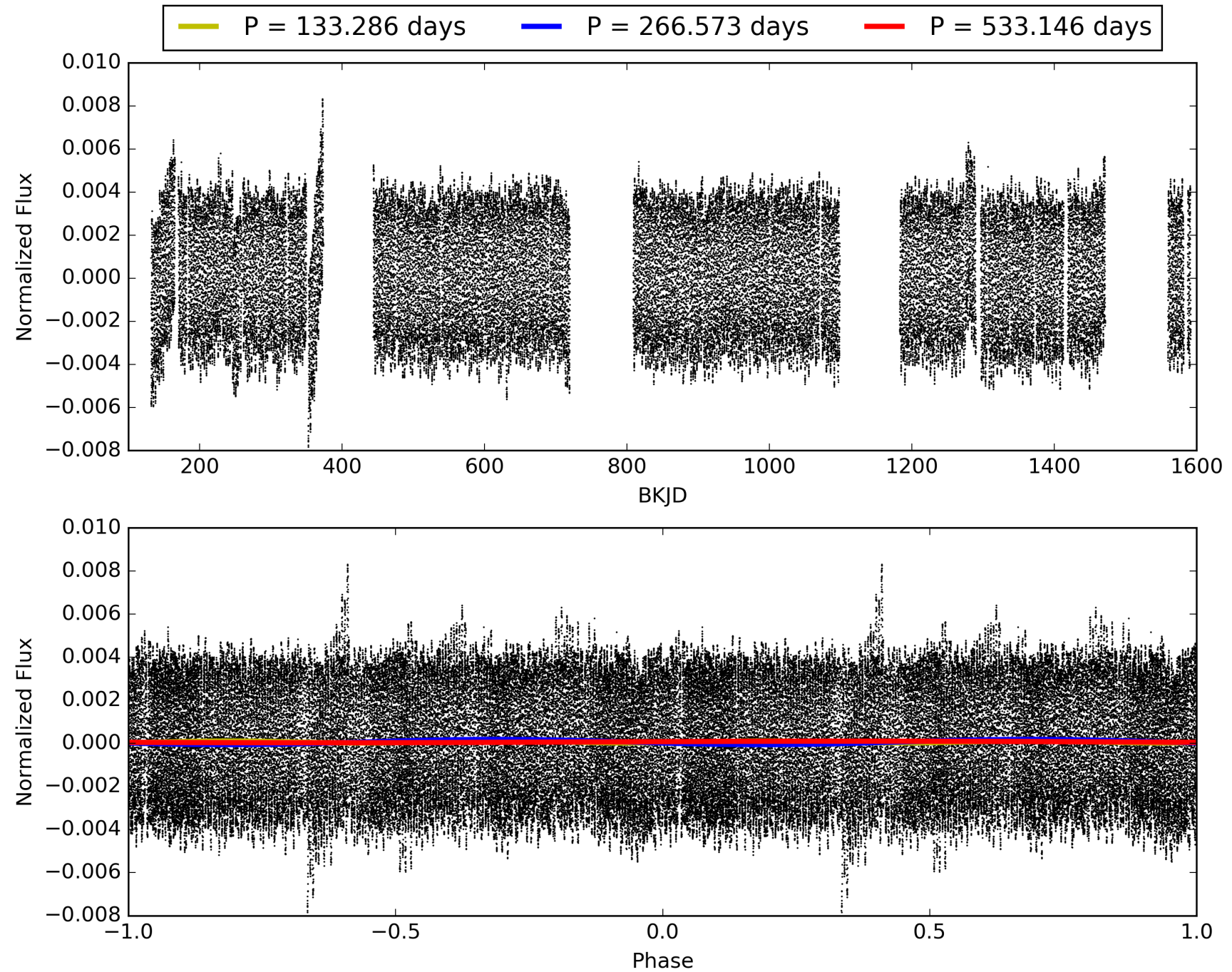
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:29:36 Z

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

TCE 011390595-07, PDC Light Curves

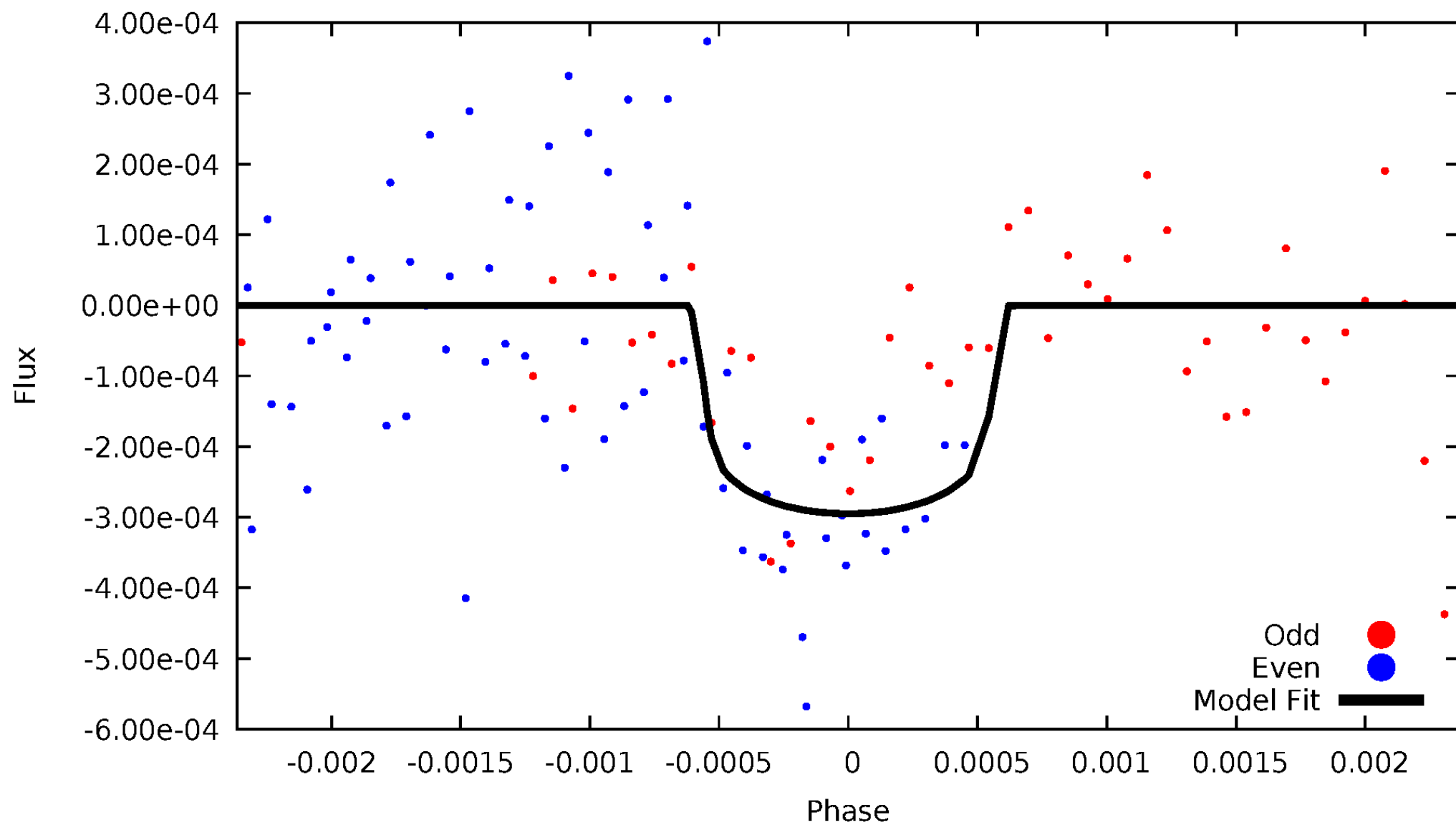


TCE 011390595-07



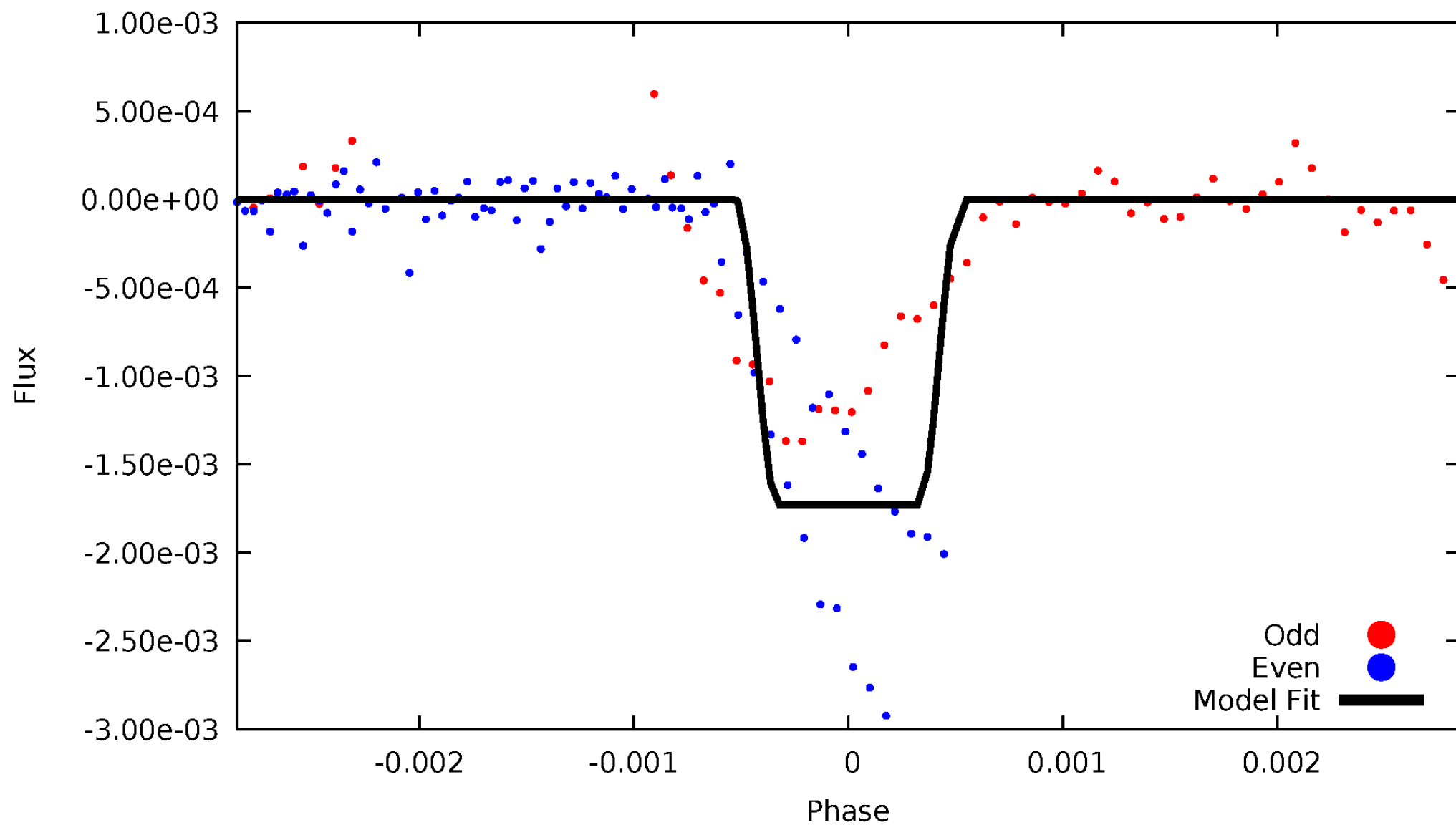
DV Odd/Even

TCE 011390595-07



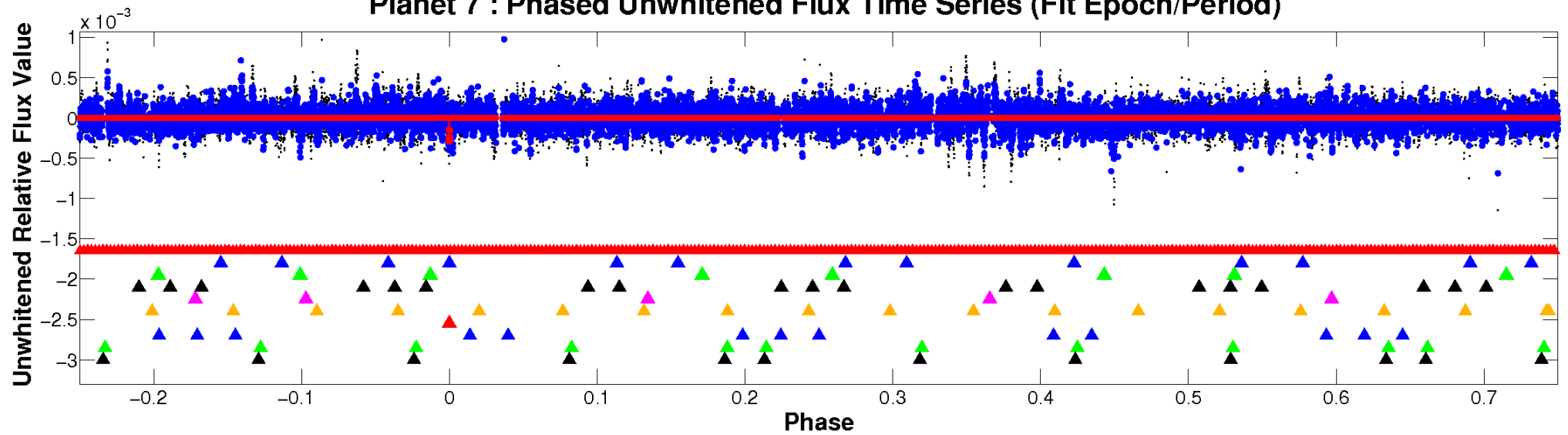
ALT Odd/Even

TCE 011390595-07

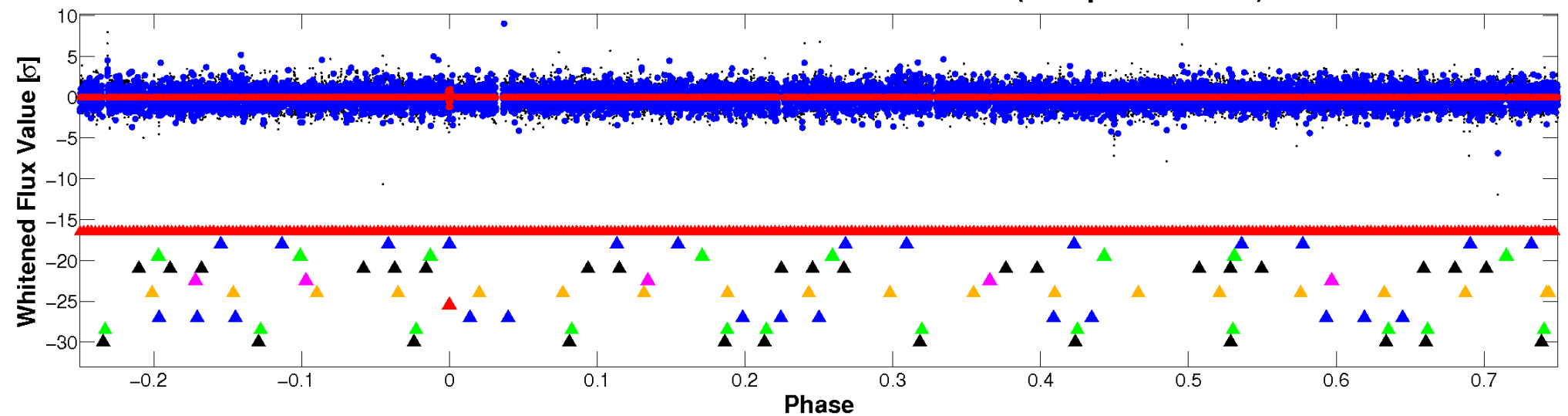


Non-Whitened Vs. Whitened Light Curve

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

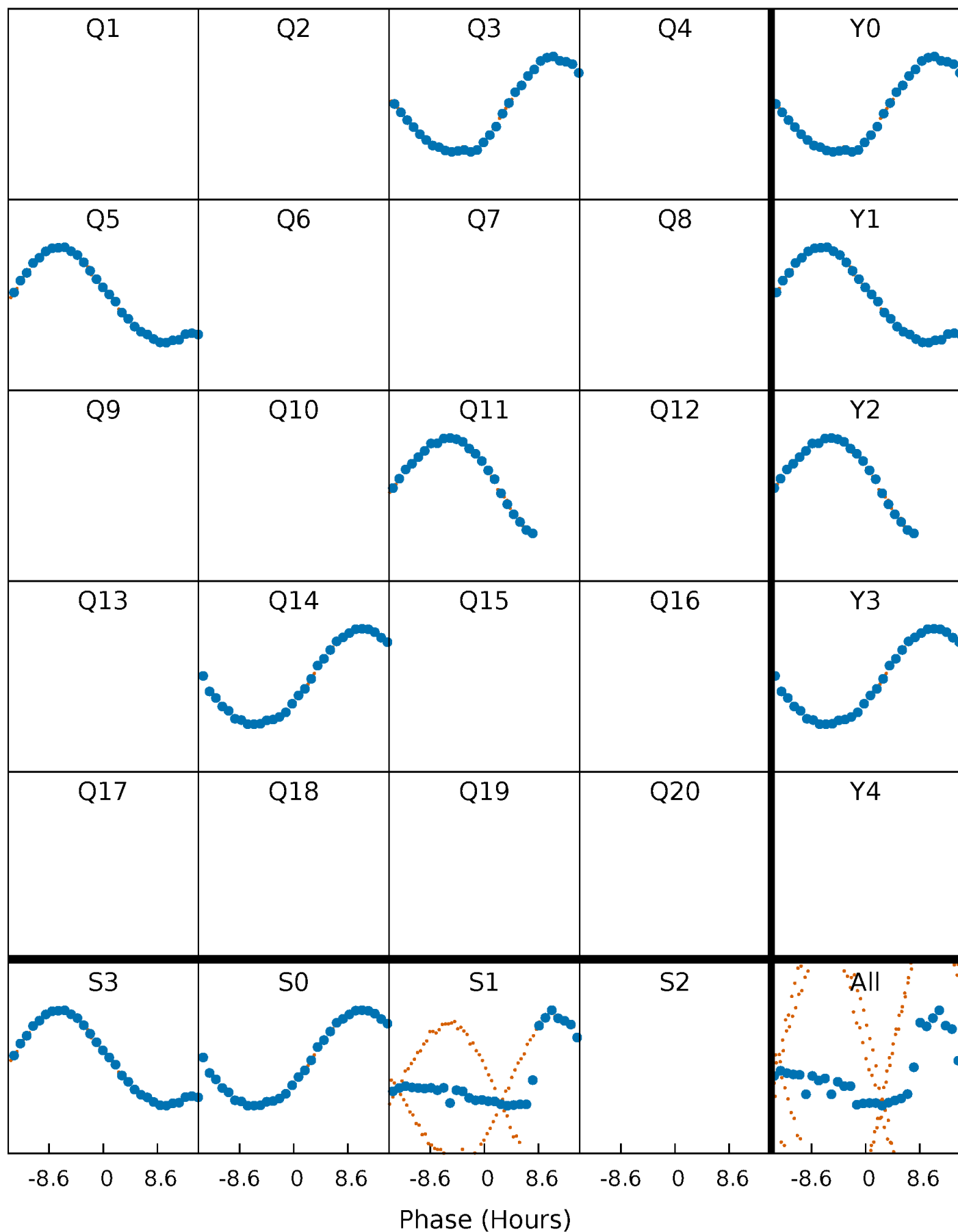


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



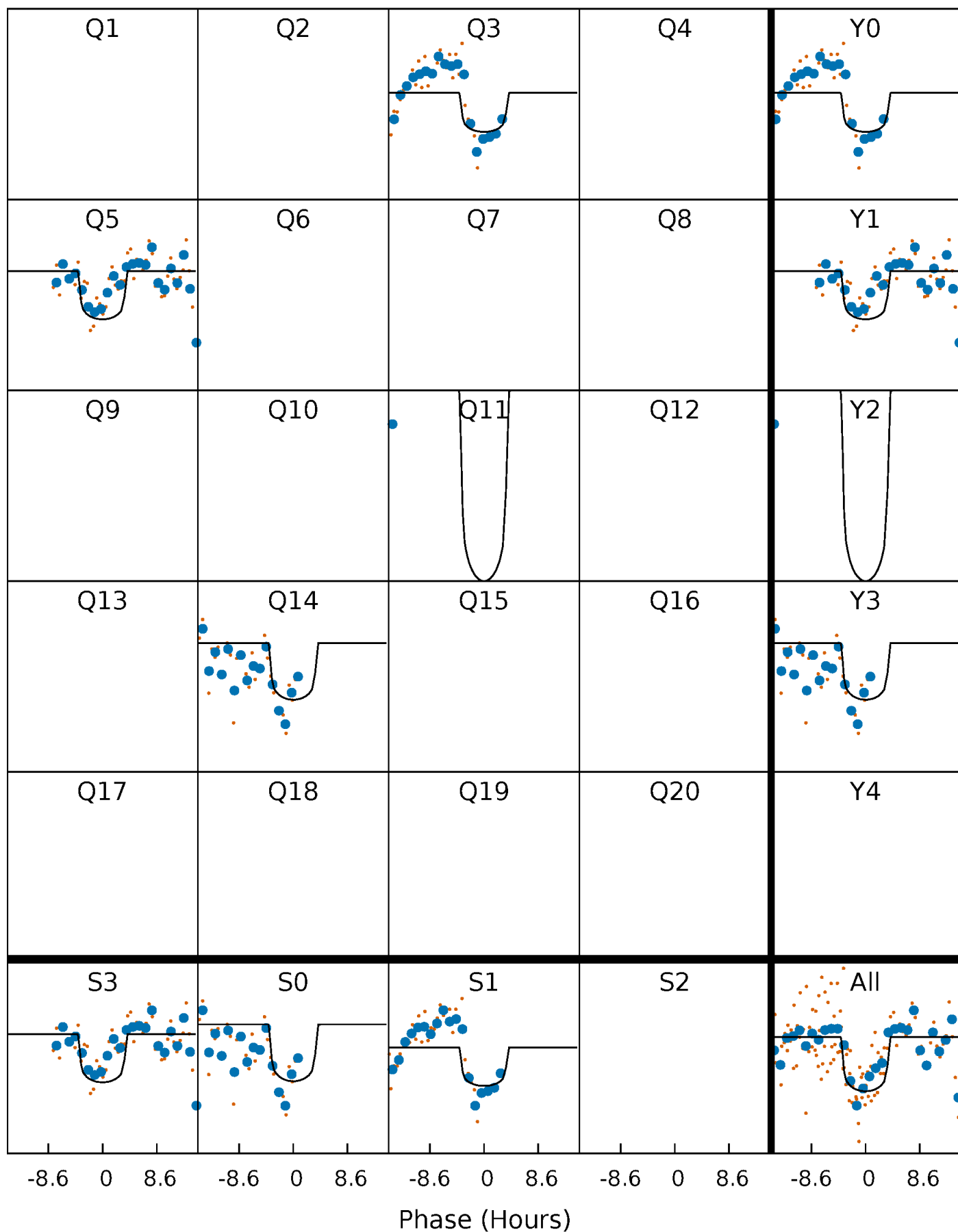
PDC Quarter-Phased Transit Curves

TCE 011390595-07 $P=266.572824$ Days $T_0=263.189391$ (BKJD)



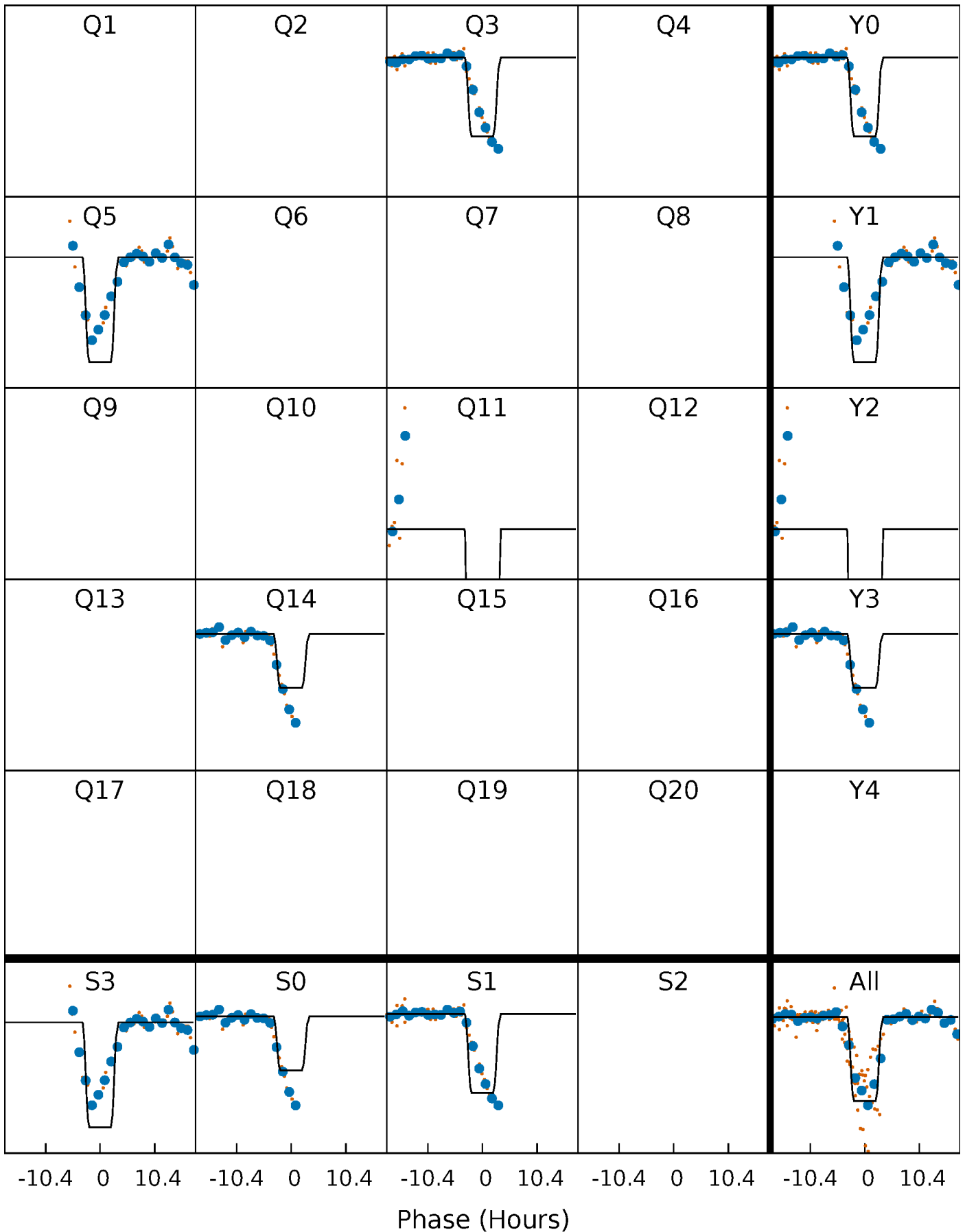
DV Quarter-Phased Transit Curves

TCE 011390595-07 $P=266.572824$ Days $T_0=263.189391$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

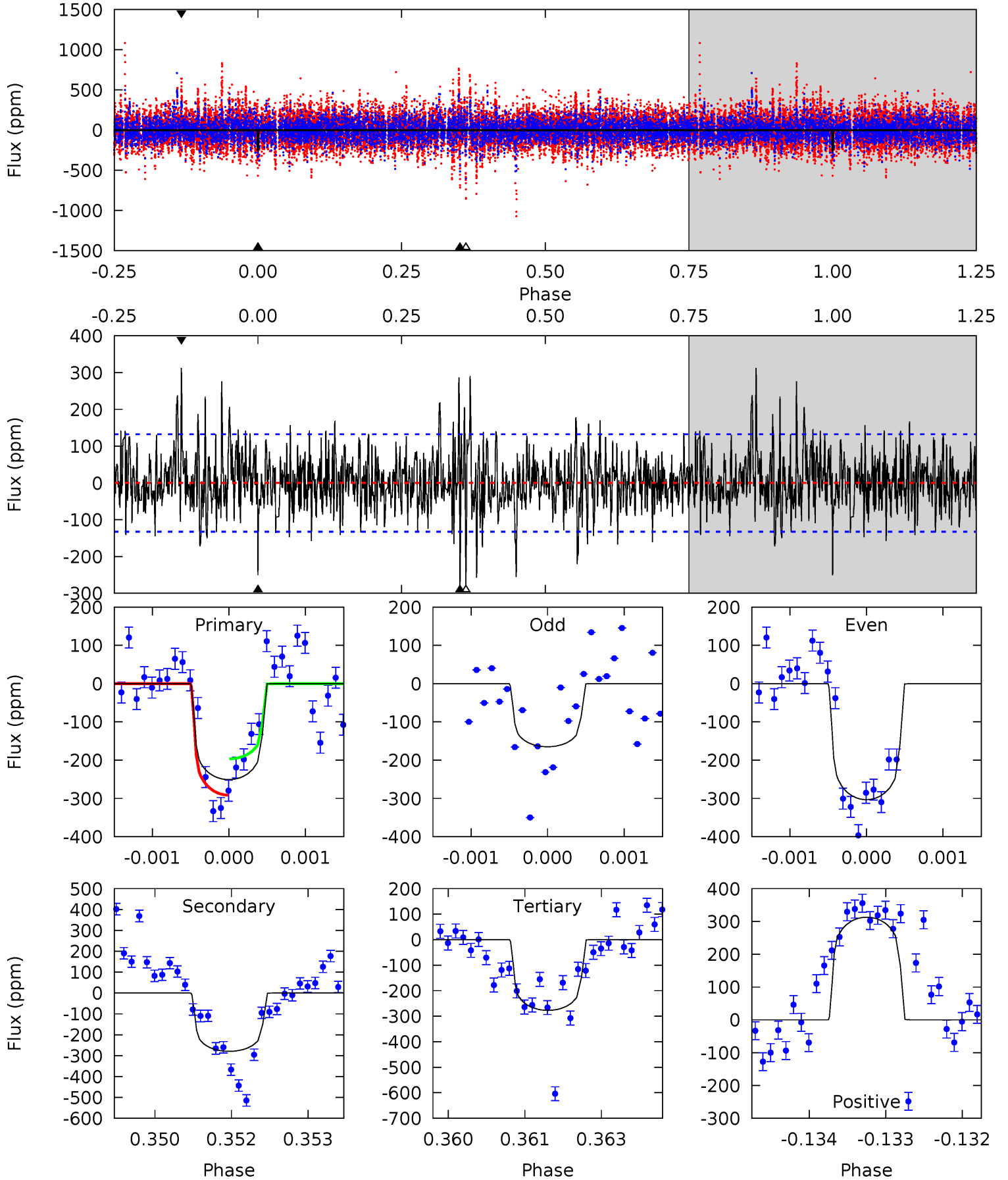
TCE 011390595-07 $P=266.569413$ Days $T_0=263.190522$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-07, P = 266.572824 Days, E = 263.189391 Days

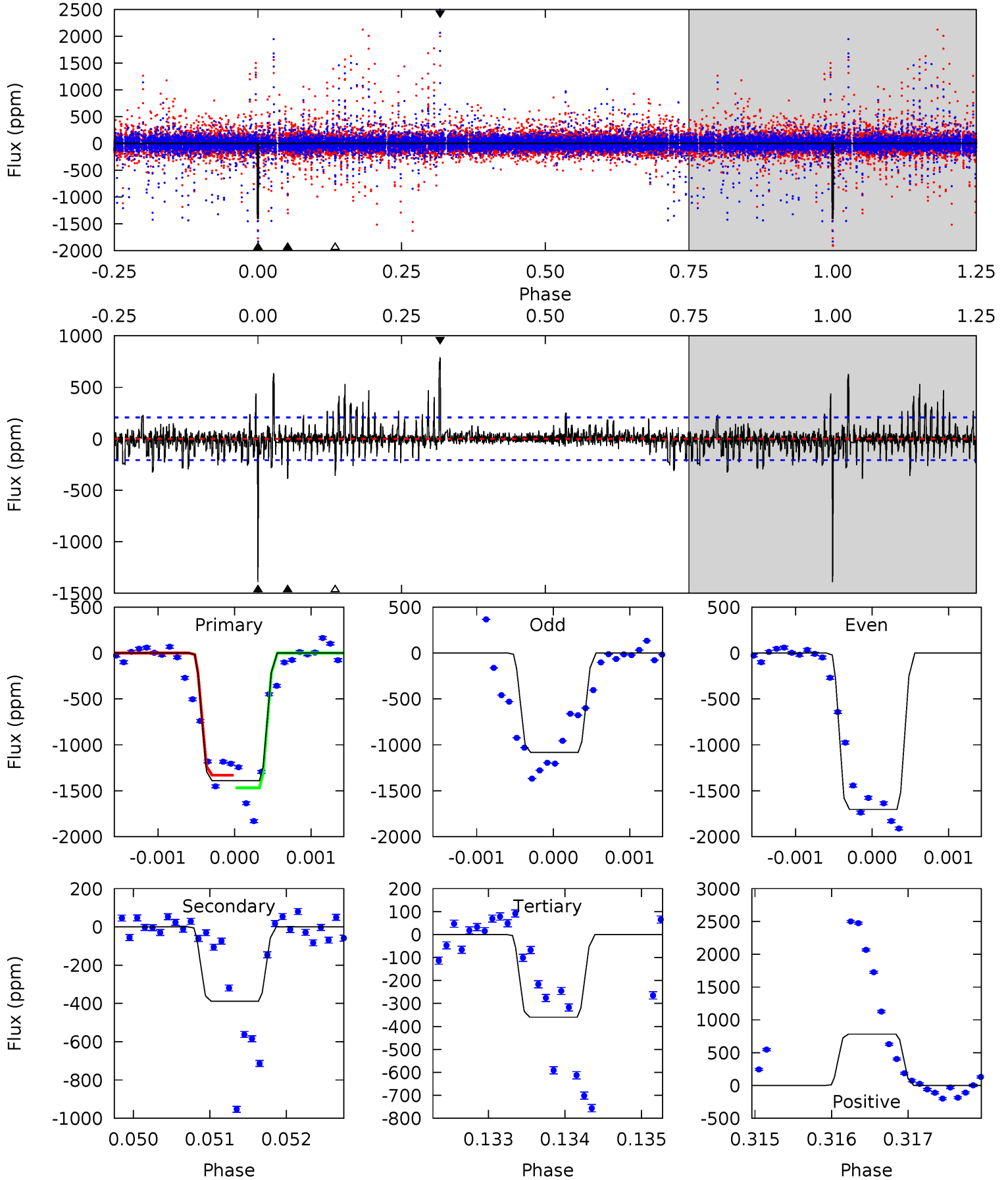
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	11.4	11.3	12.8	5.41	3.23	2.72	-1.07	-2.53	0.09	-1.37	2.82	0.87	0.53	1.90



Alt Model-Shift Uniqueness Test

011390595-07, P = 266.569413 Days, E = 263.190522 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.6	10.2	9.46	20.6	5.45	3.29	1.87	27.1	16.0	0.73	-10.4	8.17	1.13	0.36	1.73



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-279 ± 24	$2.79^{+1.39}_{-1.18}$	517^{+41}_{-37}	6284^{+2440}_{-1078}	15032^{+29404}_{-8350}
Alt.	-388 ± 38	$6.78^{+1.64}_{-1.52}$	516^{+40}_{-36}	4582^{+423}_{-322}	3559^{+2316}_{-1254}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

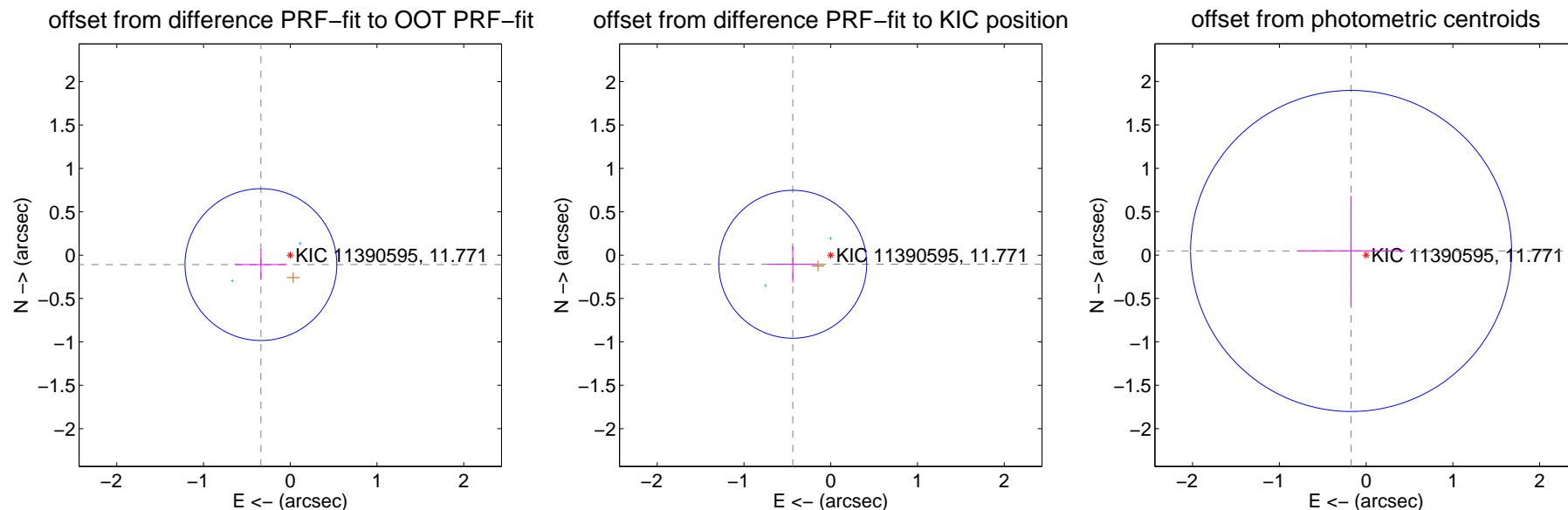
DV Centroid Data

Supplemental centroid analysis for 011390595-07. **Kepler magnitude: 11.77.** Transit SNR 7.30

There are 2 quarters with good PRF difference image offsets

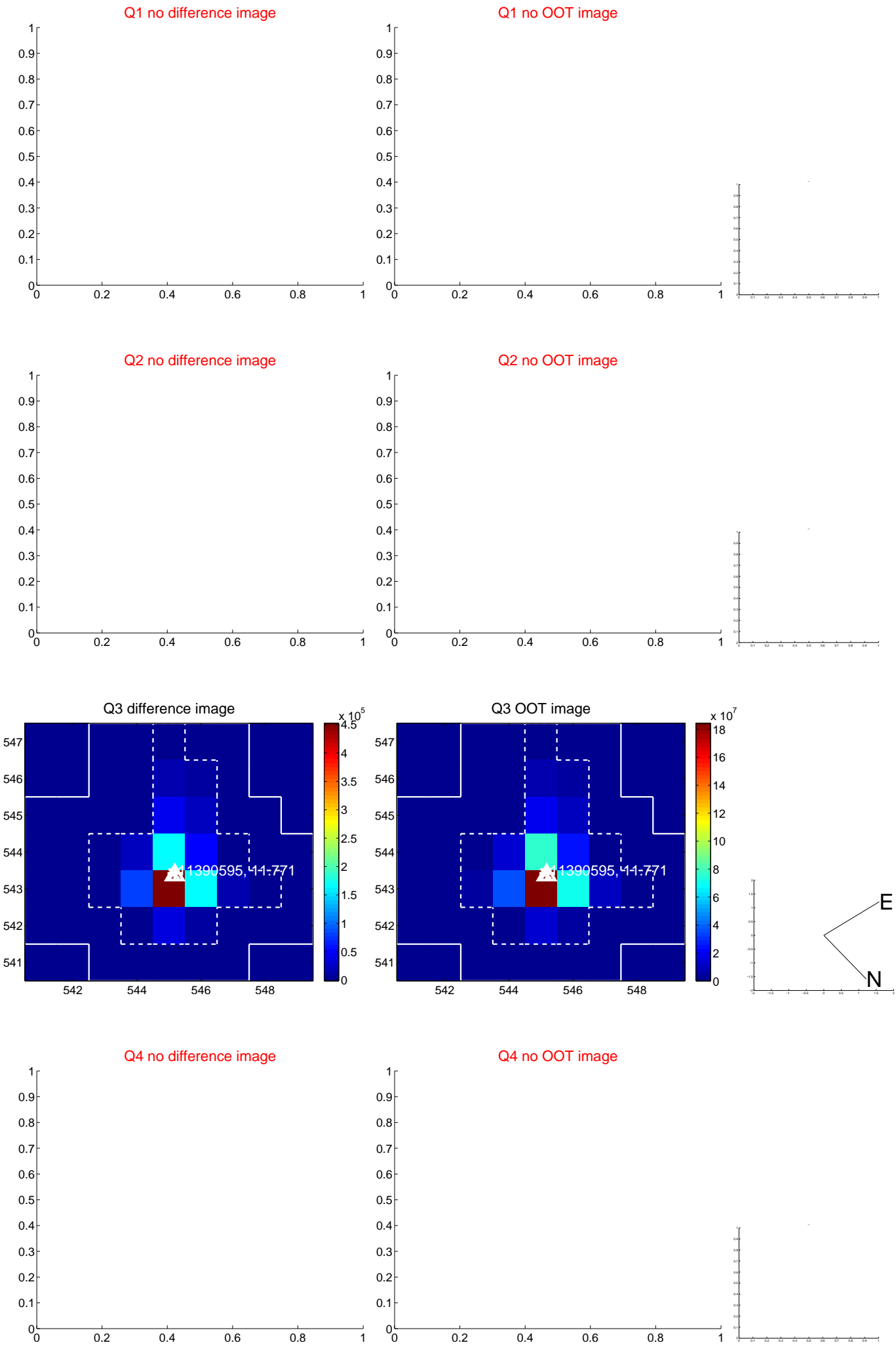
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.355 ± 0.292	1.22	0.338 ± 0.301	-0.109 ± 0.175
PRF-fit source offset from KIC position	0.450 ± 0.284	1.58	0.438 ± 0.288	-0.105 ± 0.212
photometric centroid source offset	0.18 ± 0.62	0.29	0.17 ± 0.61	0.05 ± 0.63

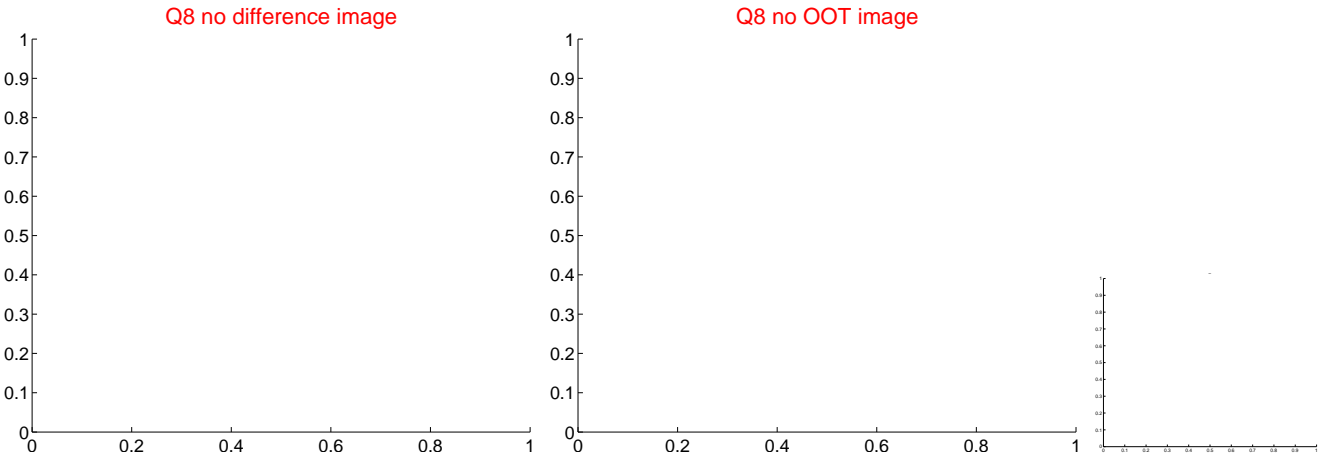
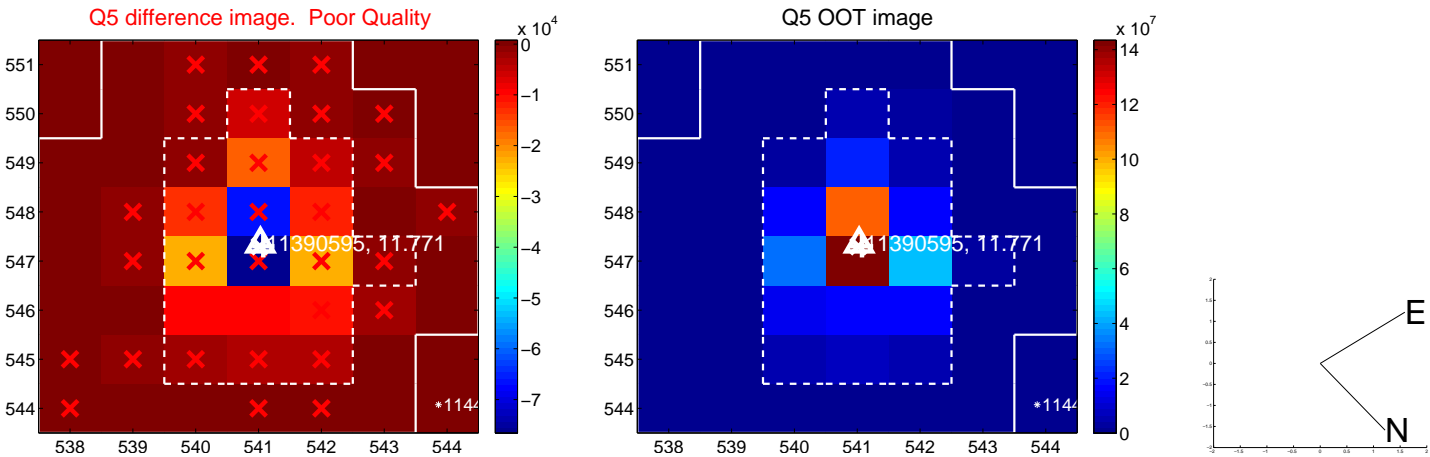


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



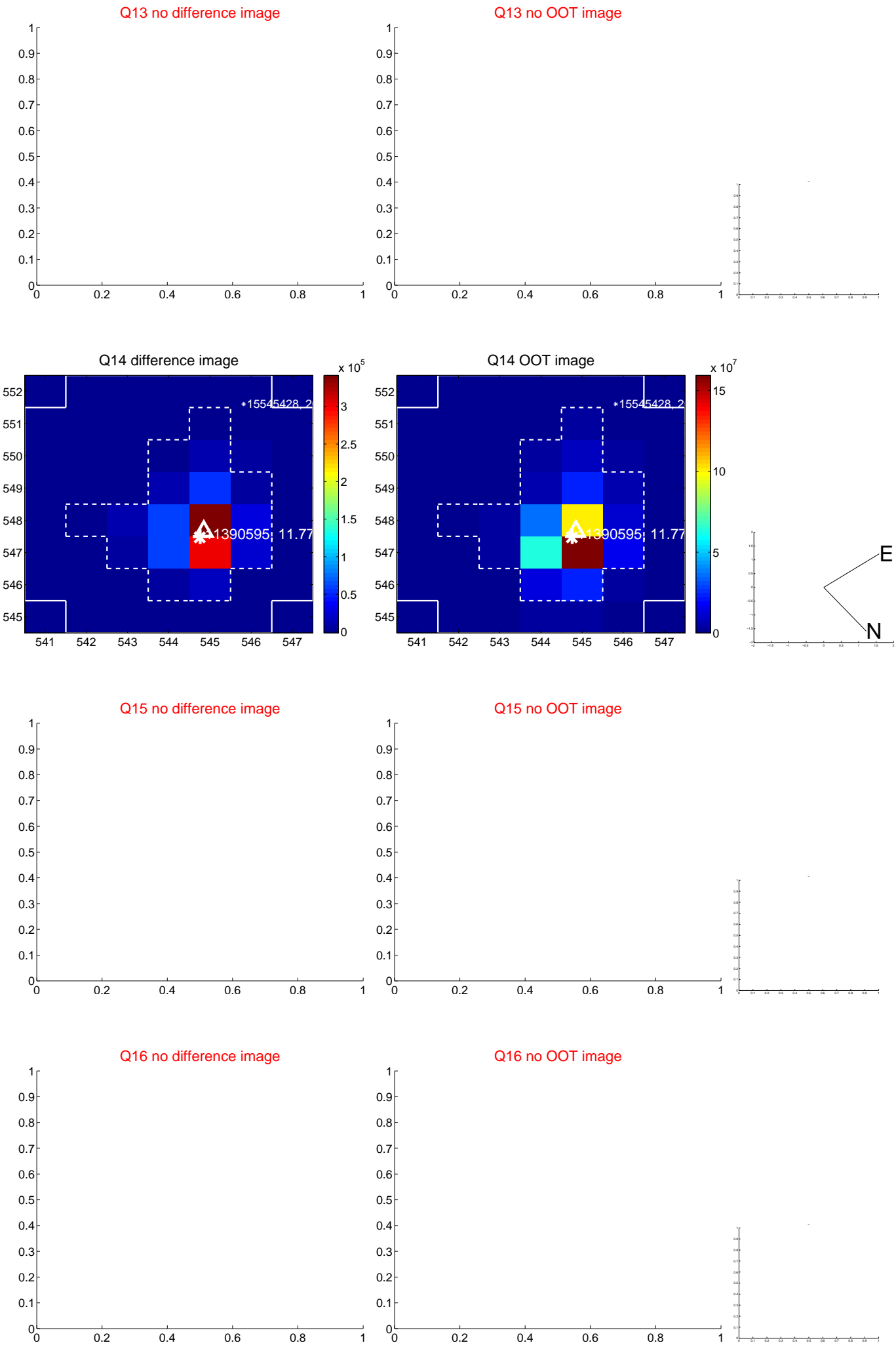
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



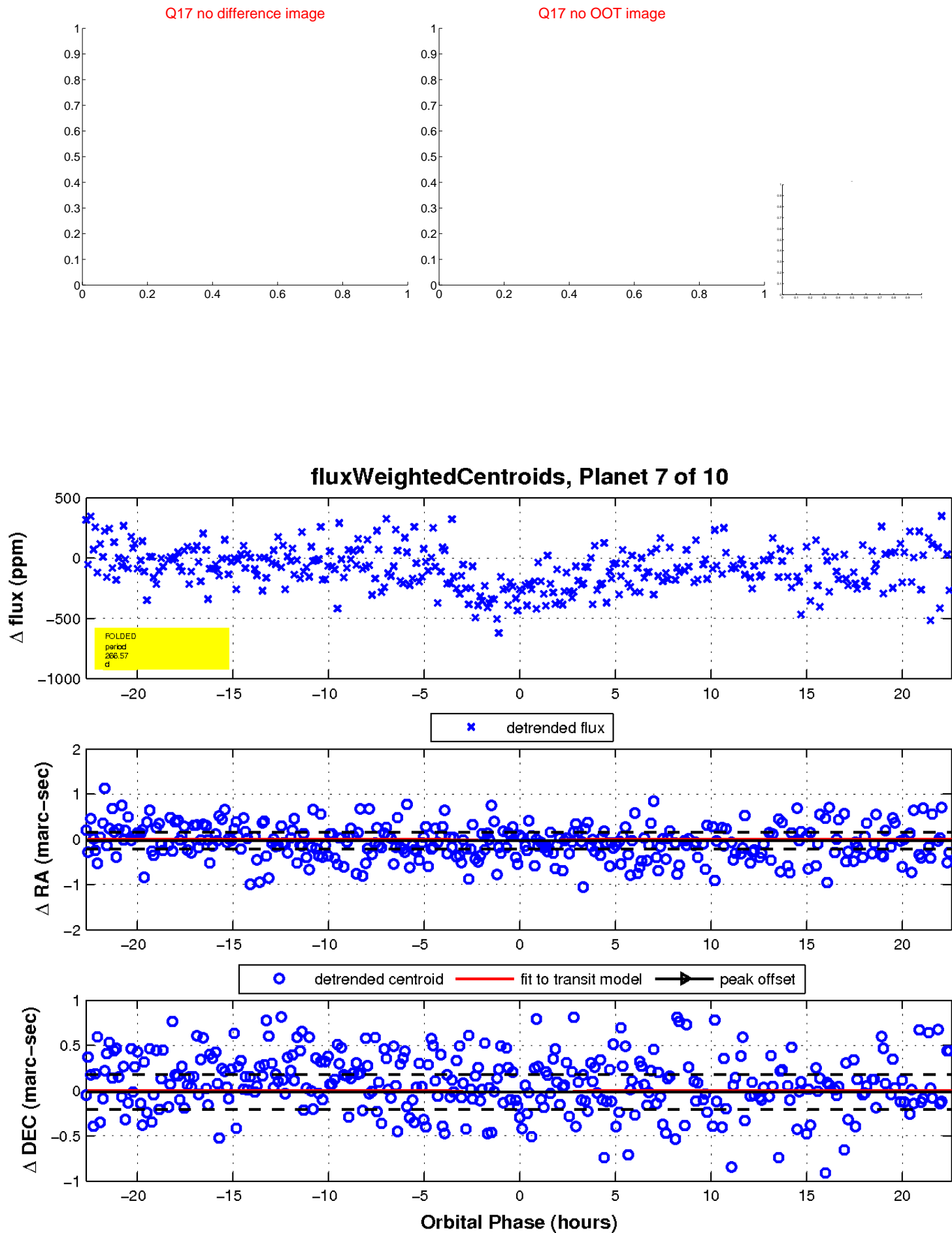
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

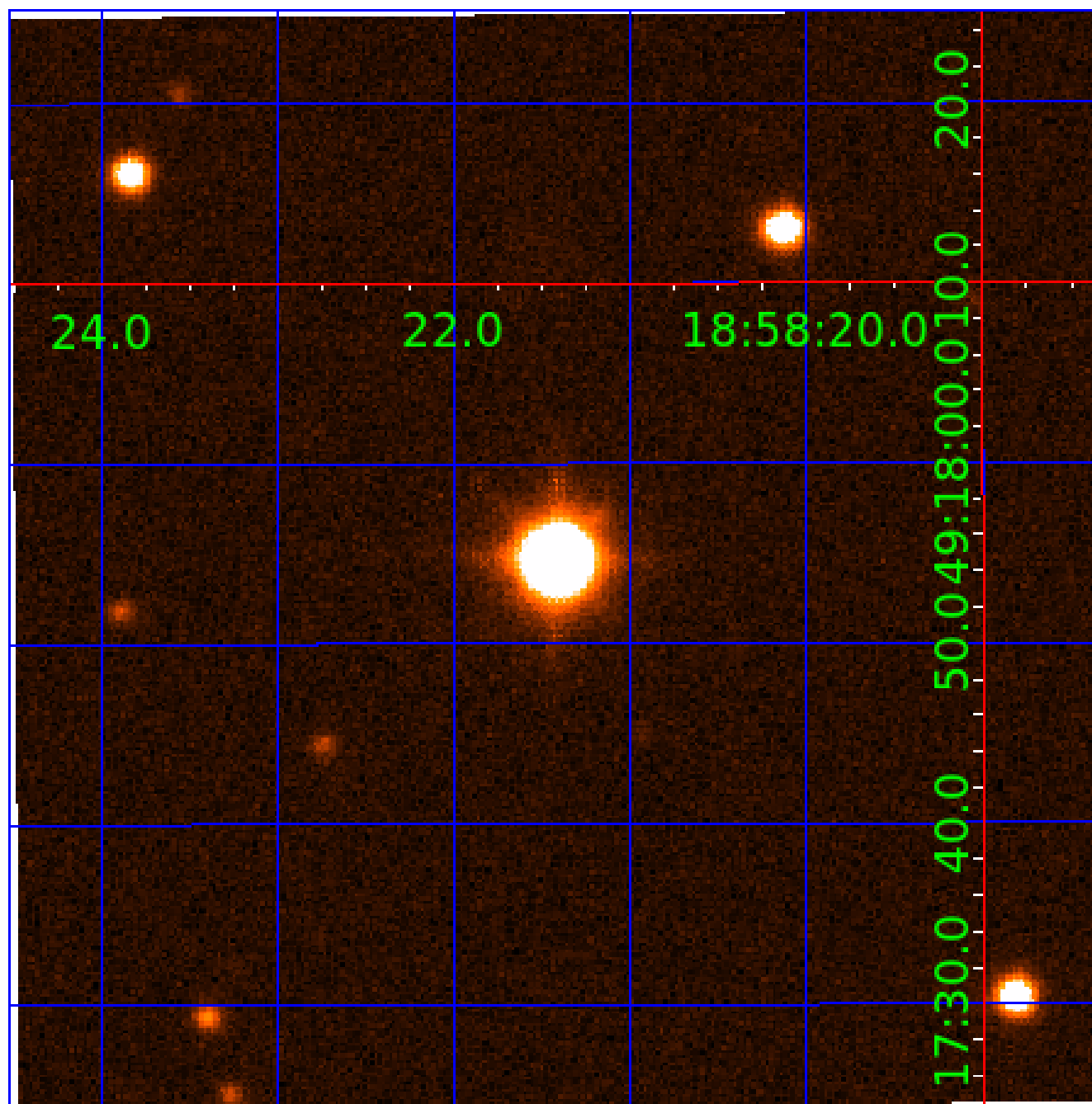


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

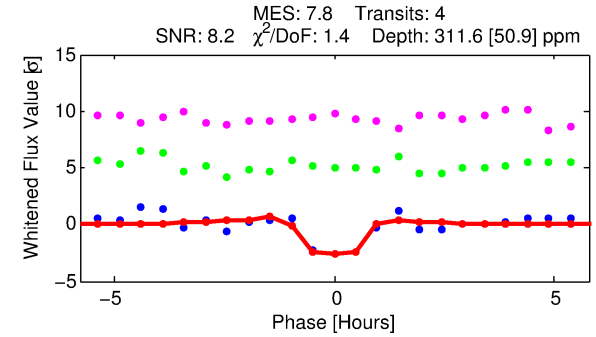
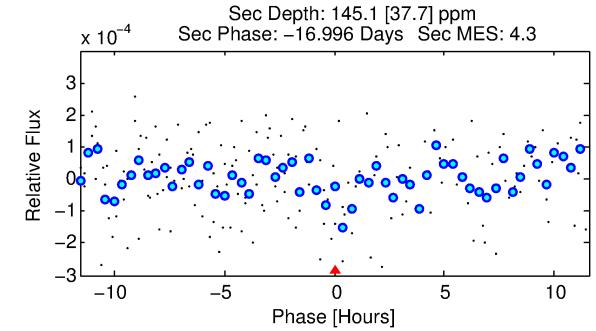
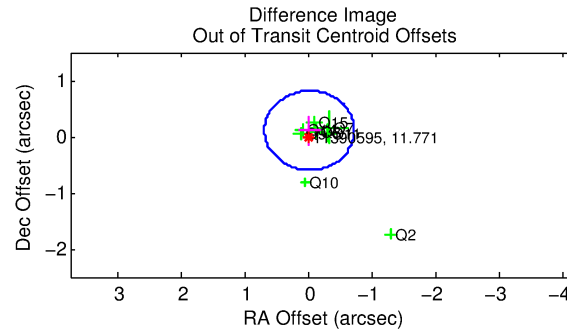
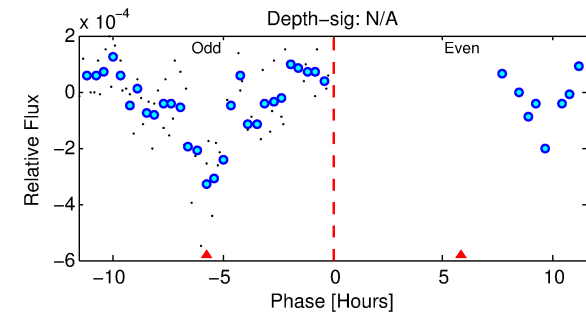
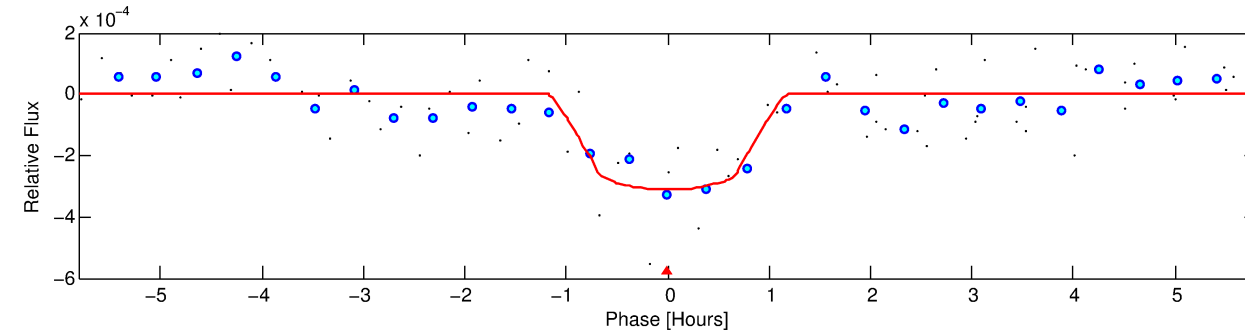
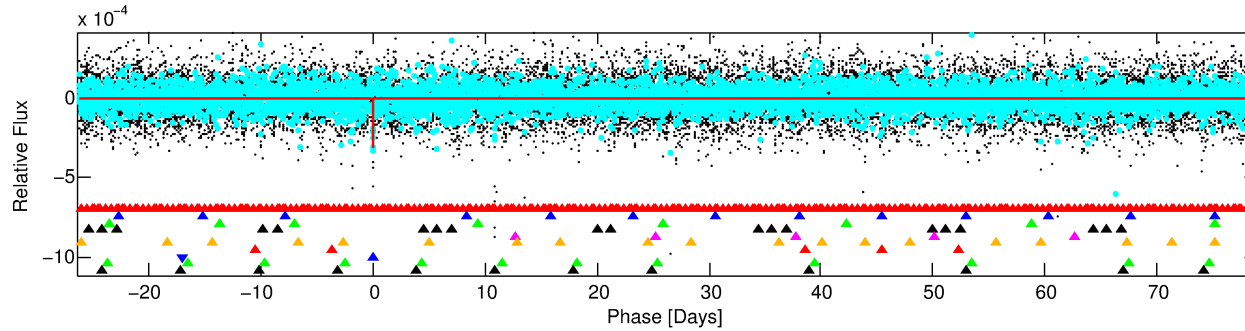
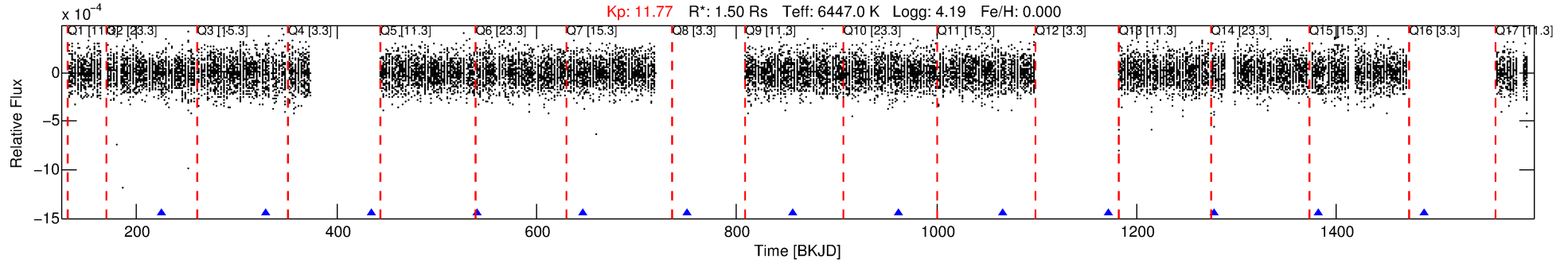
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-08

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 8 of 10 Period: 105.252 d



DV Fit Results:

Period = 105.25215 [0.00079] d
Epoch = 224.6090 [0.0048] BKJD
Rp/R* = 0.0182 [0.0152]
a/R* = 243.83 [1090.09]
b = 0.83 [1.68]
Seff = 15.61 [5.97]
Teq = 507 [48] K
Rp = 2.97 [2.66] Re
a = 0.4723 [0.1208] AU
Ag = 2013.77 [3472.57] [0.58σ]
Teffp = 5250 [2225] K [2.13σ]

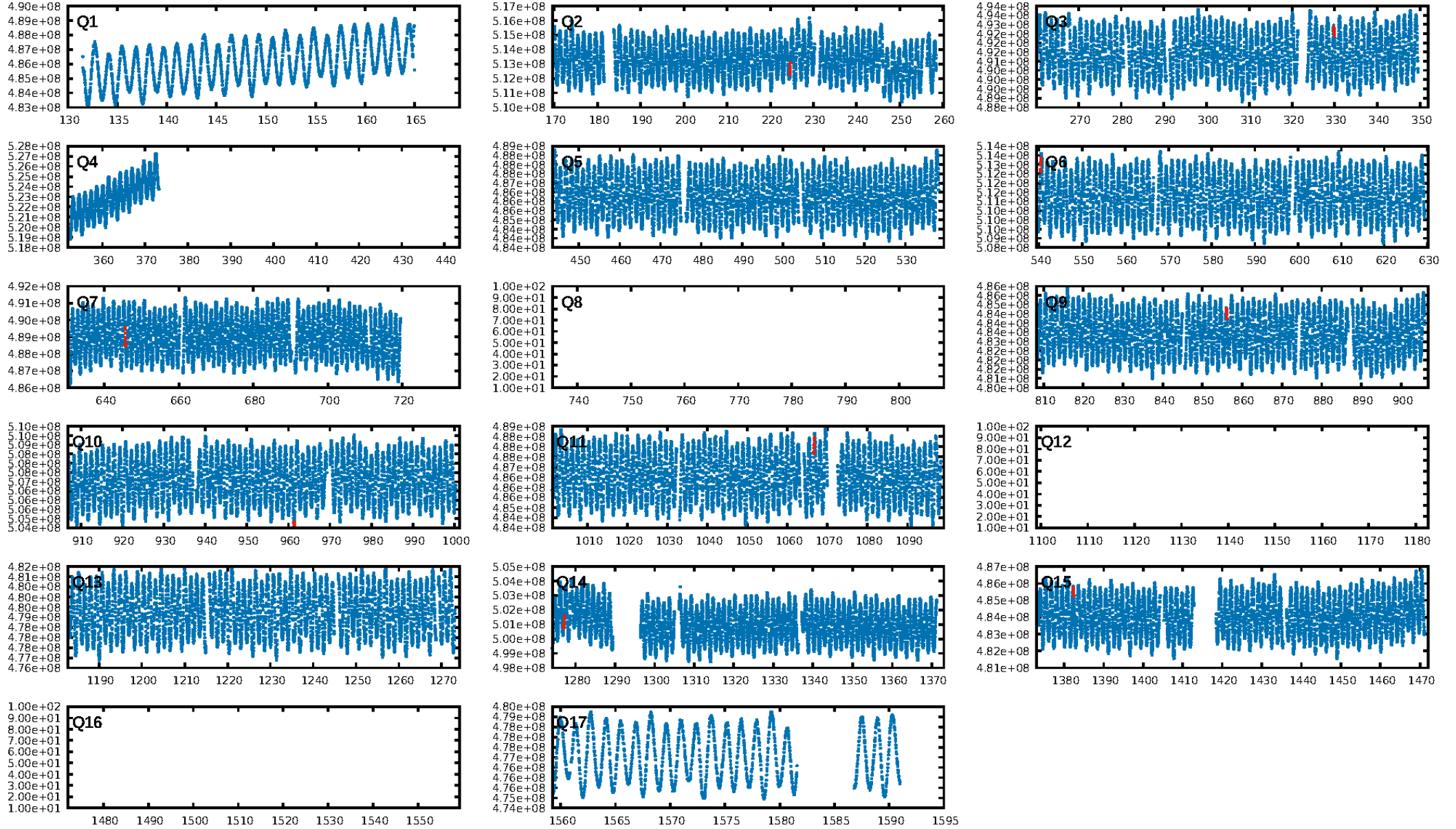
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [85.77σ]
LongPeriod-sig: 100.0% [54.97σ]
ModelChiSquare2-sig: 4.8%
ModelChiSquareGof-sig: 85.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -3.703
Centroid-sig: 46.1%
Centroid-so: 0.381 arcsec [0.64σ]
OotOffset-rm: 0.110 arcsec [0.47σ]
OotOffset-st: 3/4/0/1 [8]
KicOffset-rm: 0.156 arcsec [0.53σ]
KicOffset-st: 3/4/0/1 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.50 [4/8]

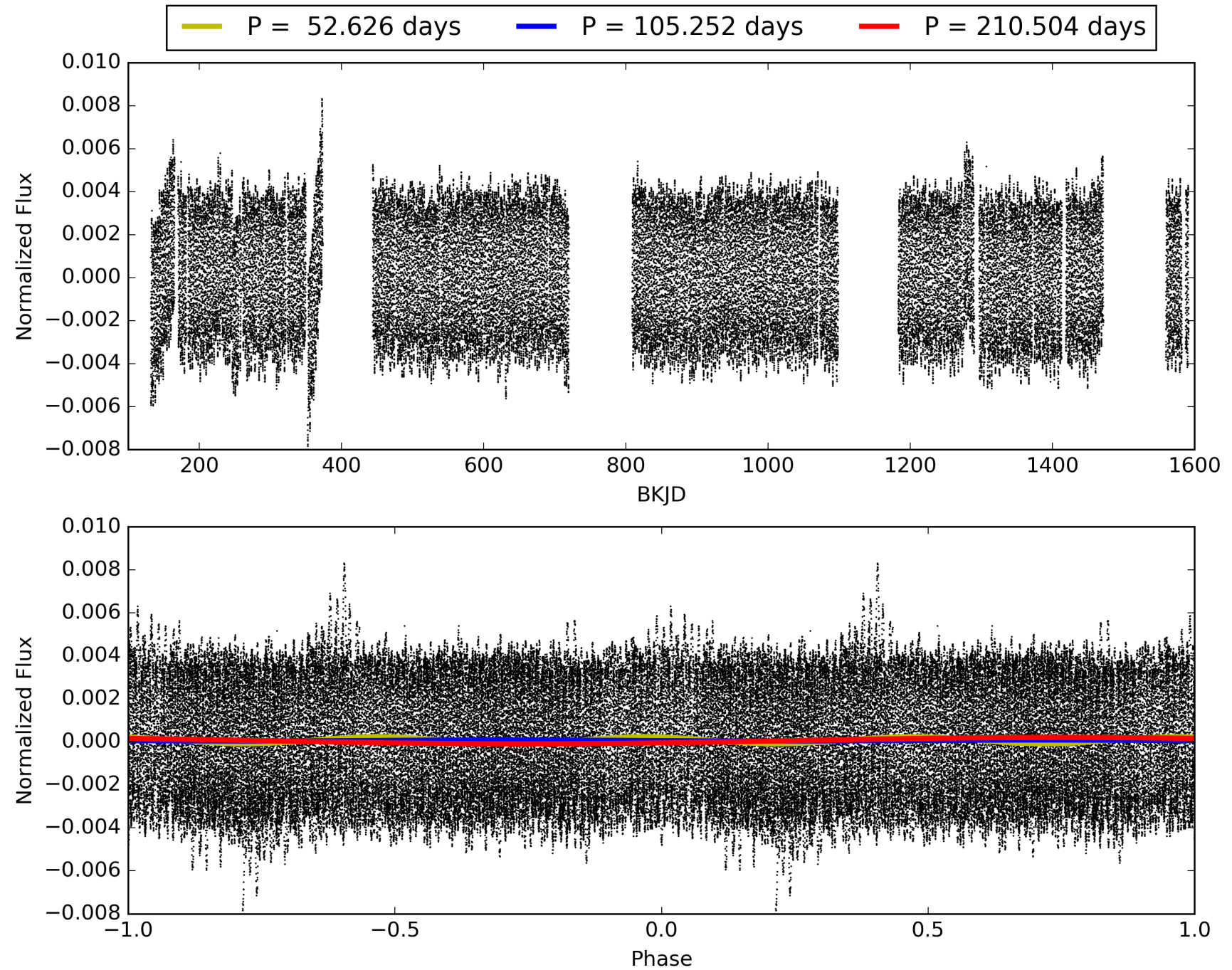
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:29:42 Z

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TCE 011390595-08, PDC Light Curves

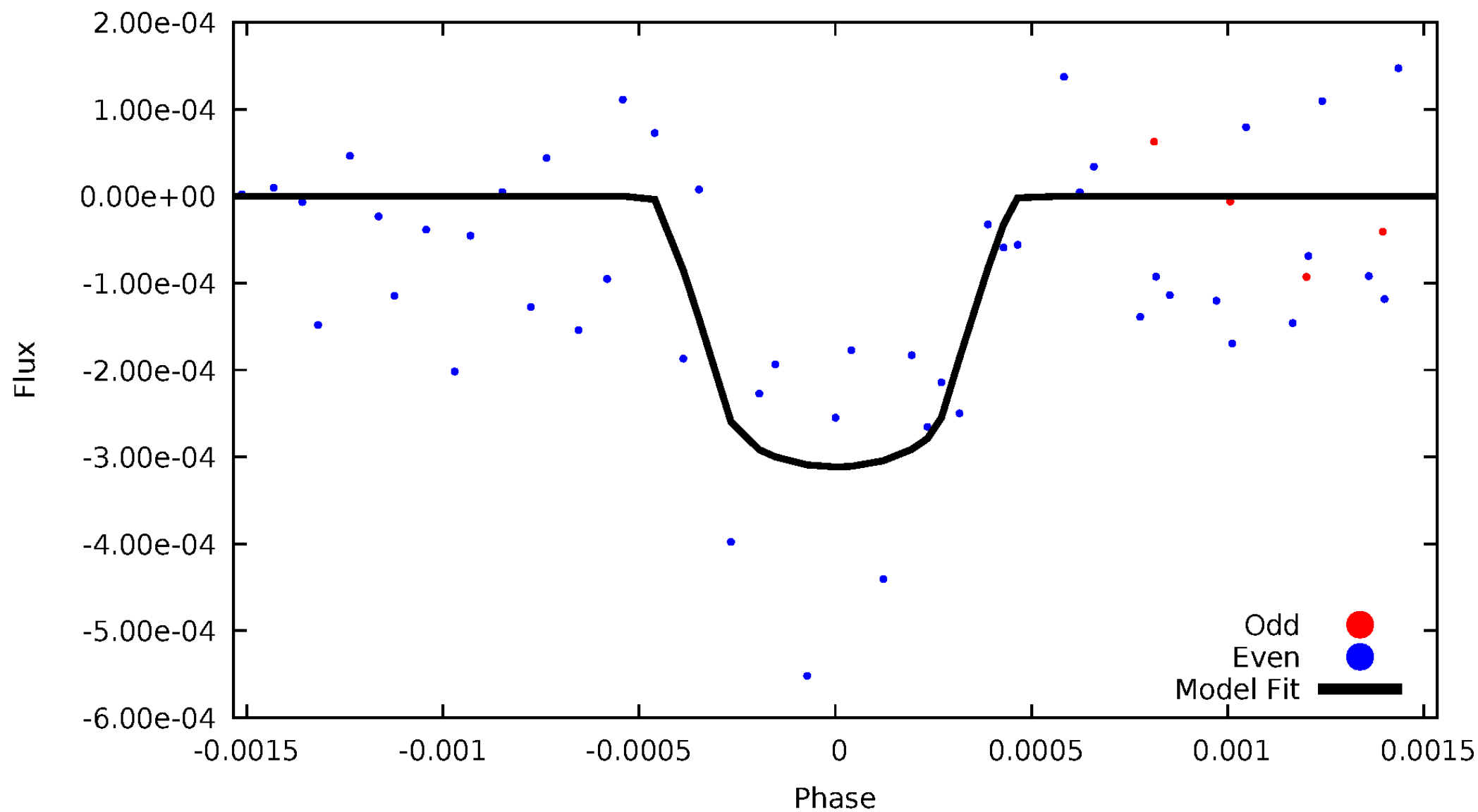


TCE 011390595-08



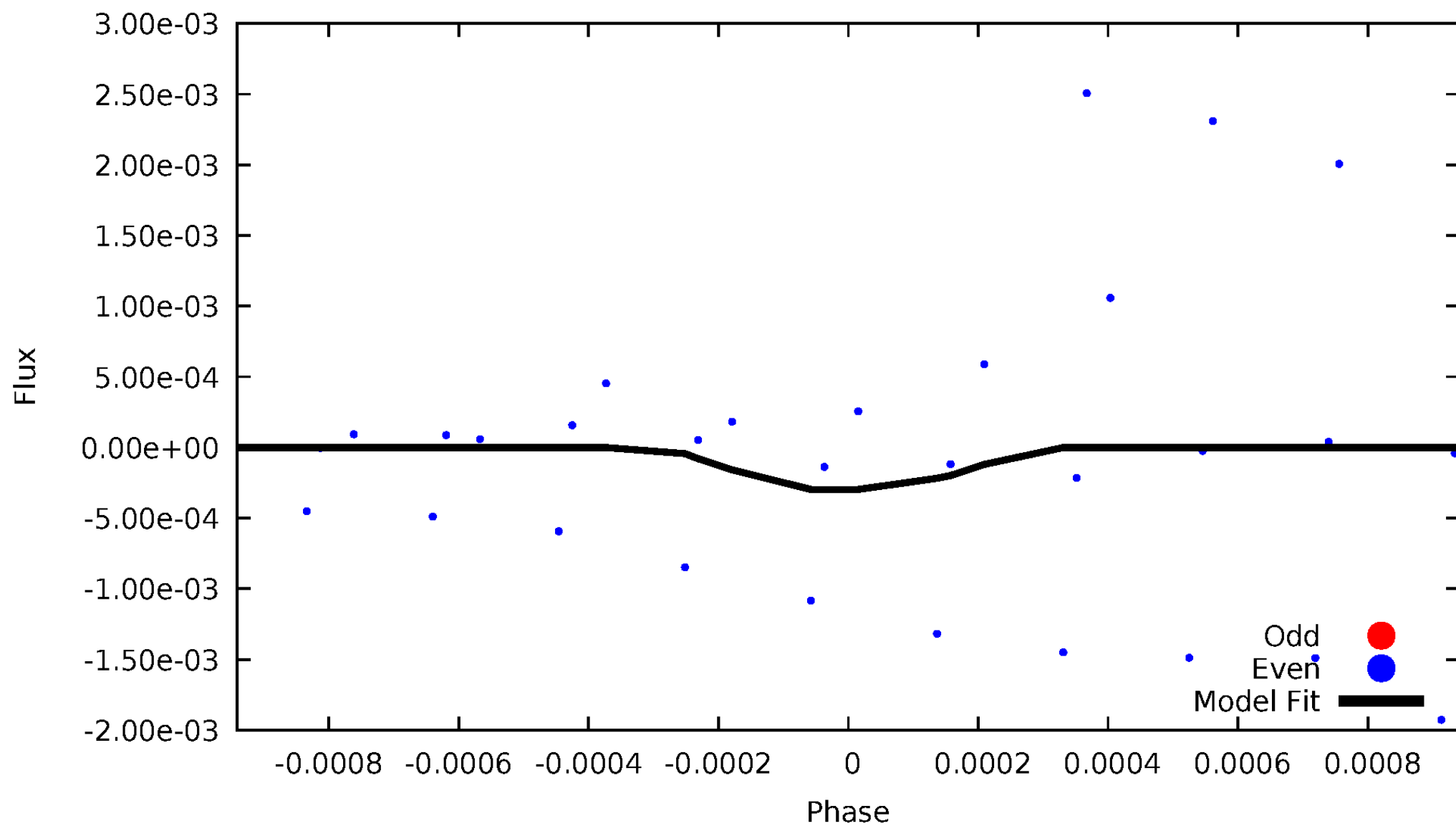
DV Odd/Even

TCE 011390595-08



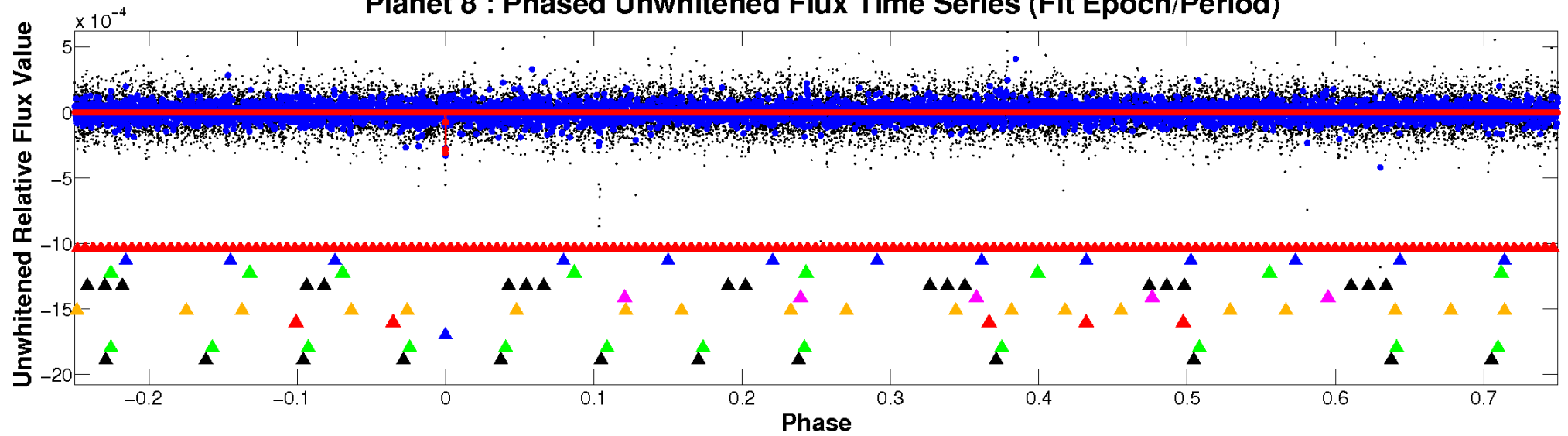
ALT Odd/Even

TCE 011390595-08

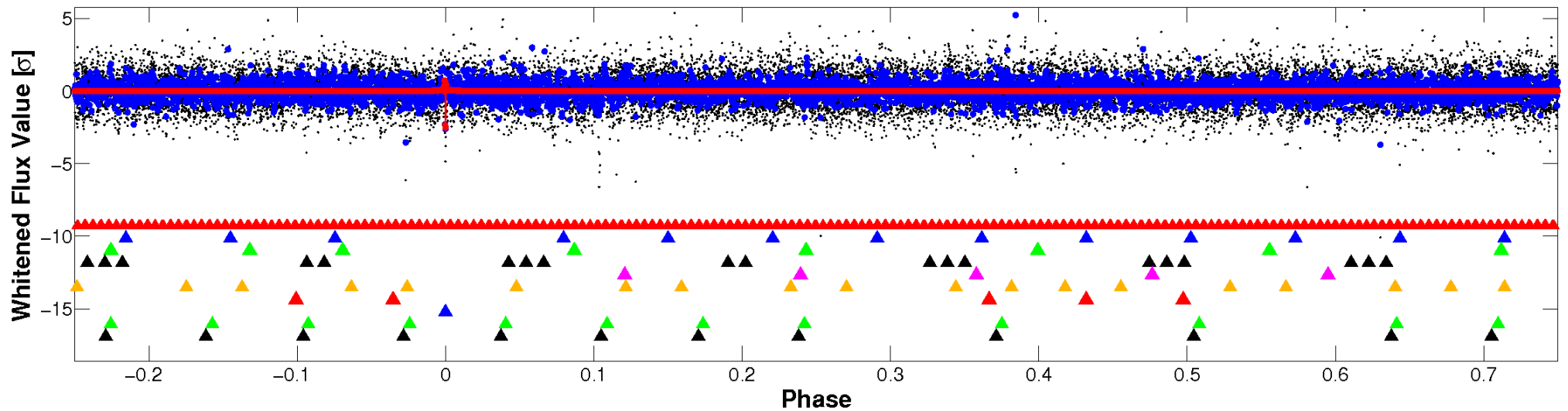


Non-Whitened Vs. Whitened Light Curve

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

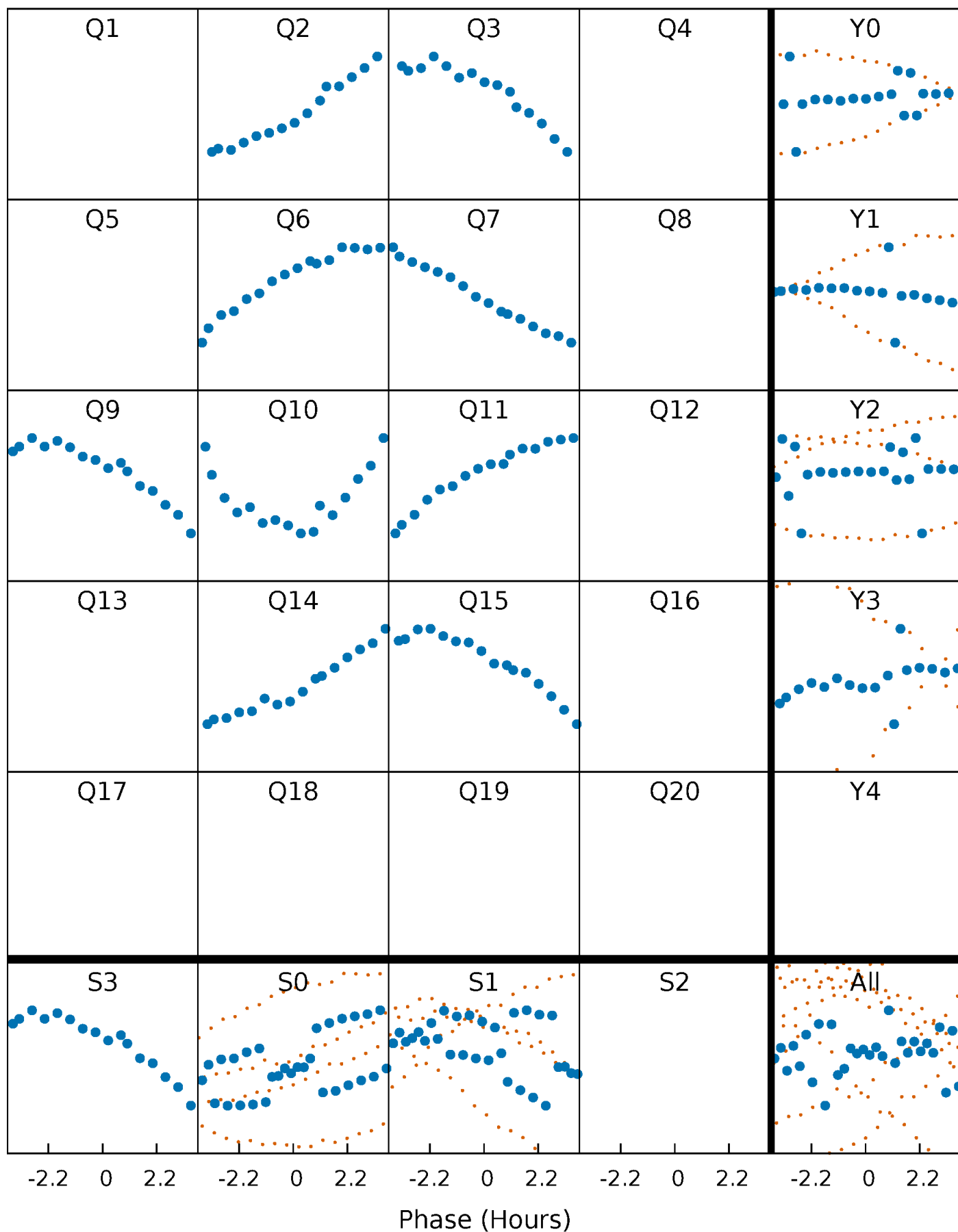


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



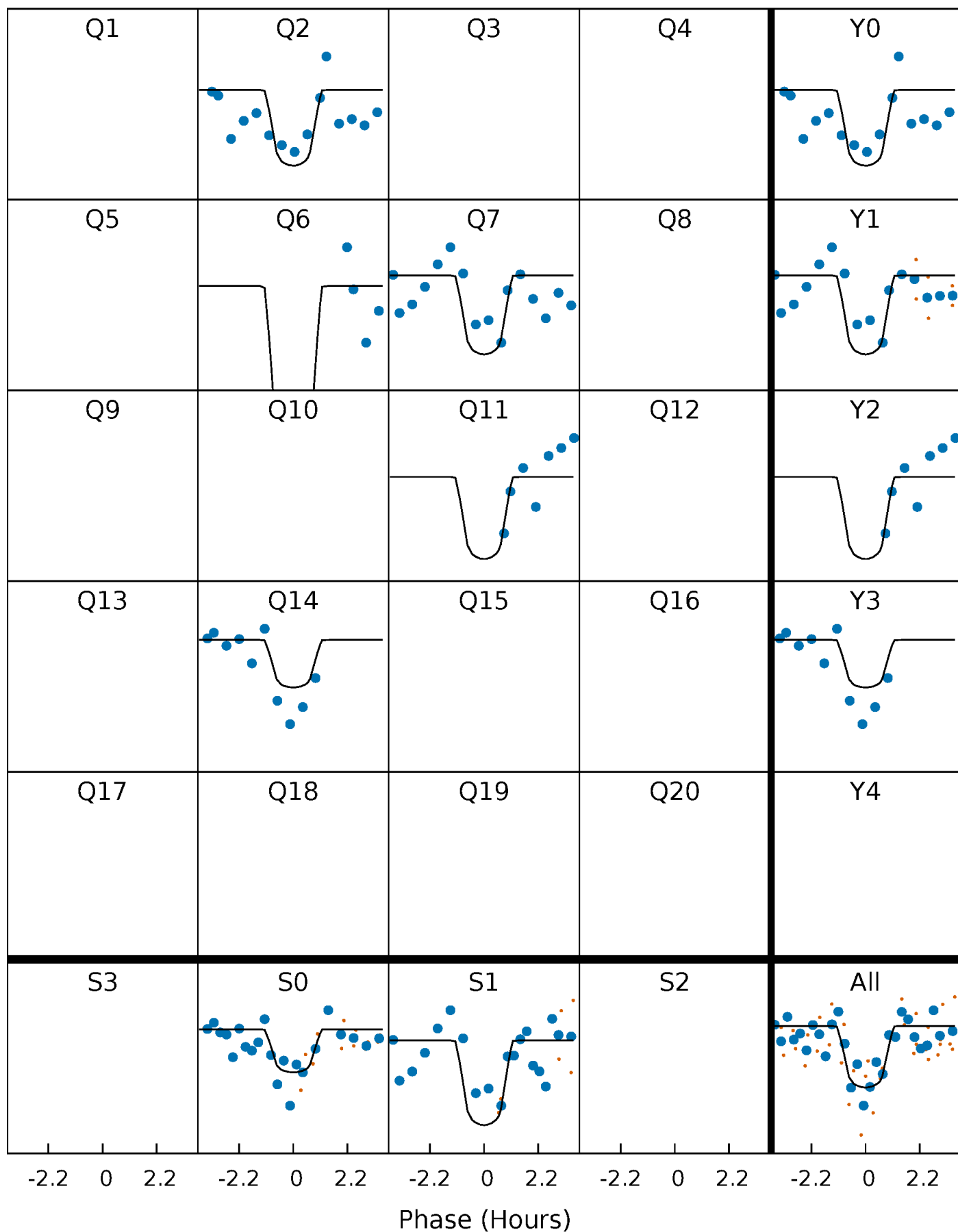
PDC Quarter-Phased Transit Curves

TCE 011390595-08 P=105.252148 Days $T_0=224.609000$ (BKJD)



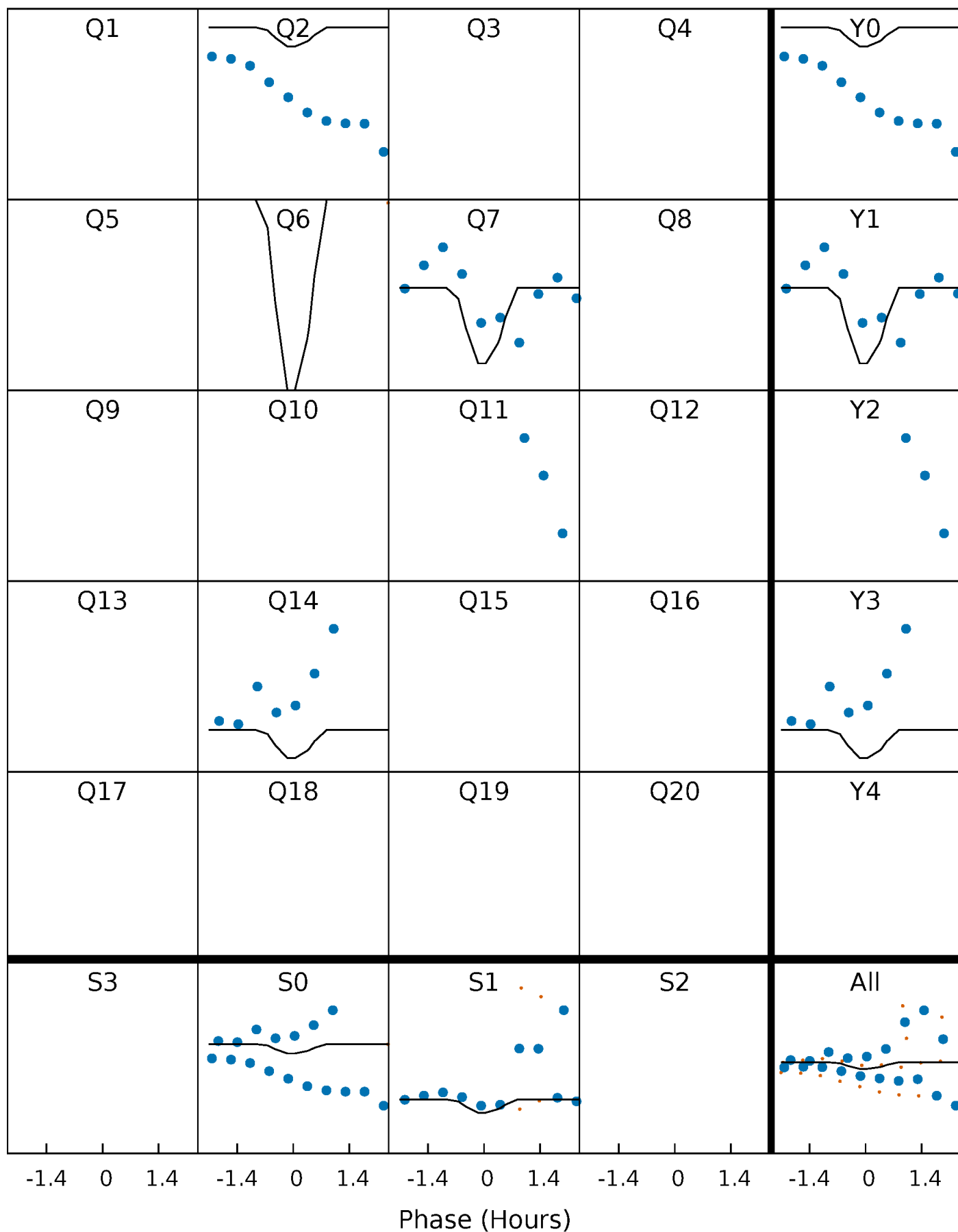
DV Quarter-Phased Transit Curves

TCE 011390595-08 P=105.252148 Days $T_0=224.609000$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

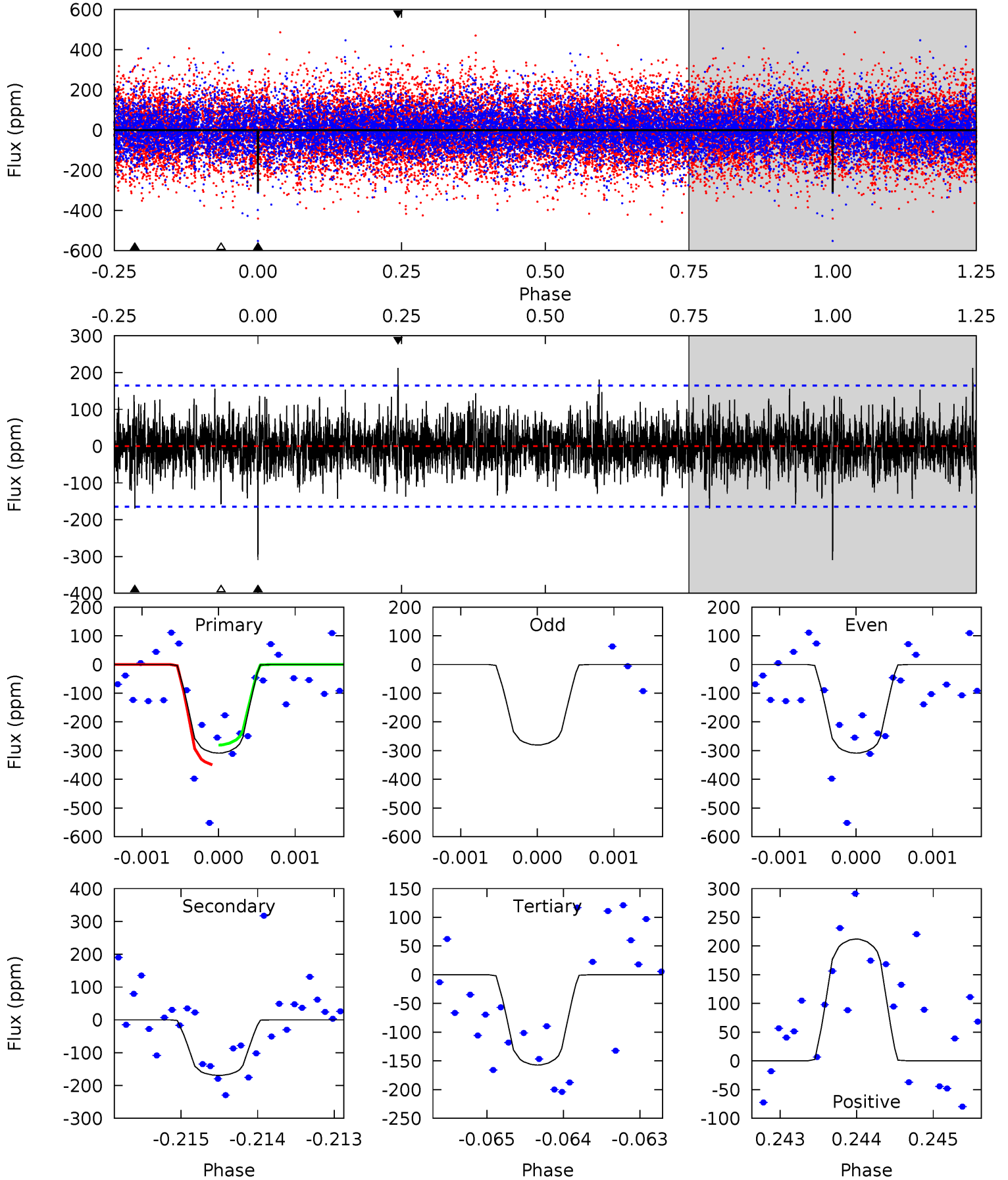
TCE 011390595-08 P=105.252662 Days $T_0=224.594699$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-08, P = 105.252148 Days, E = 119.356852 Days

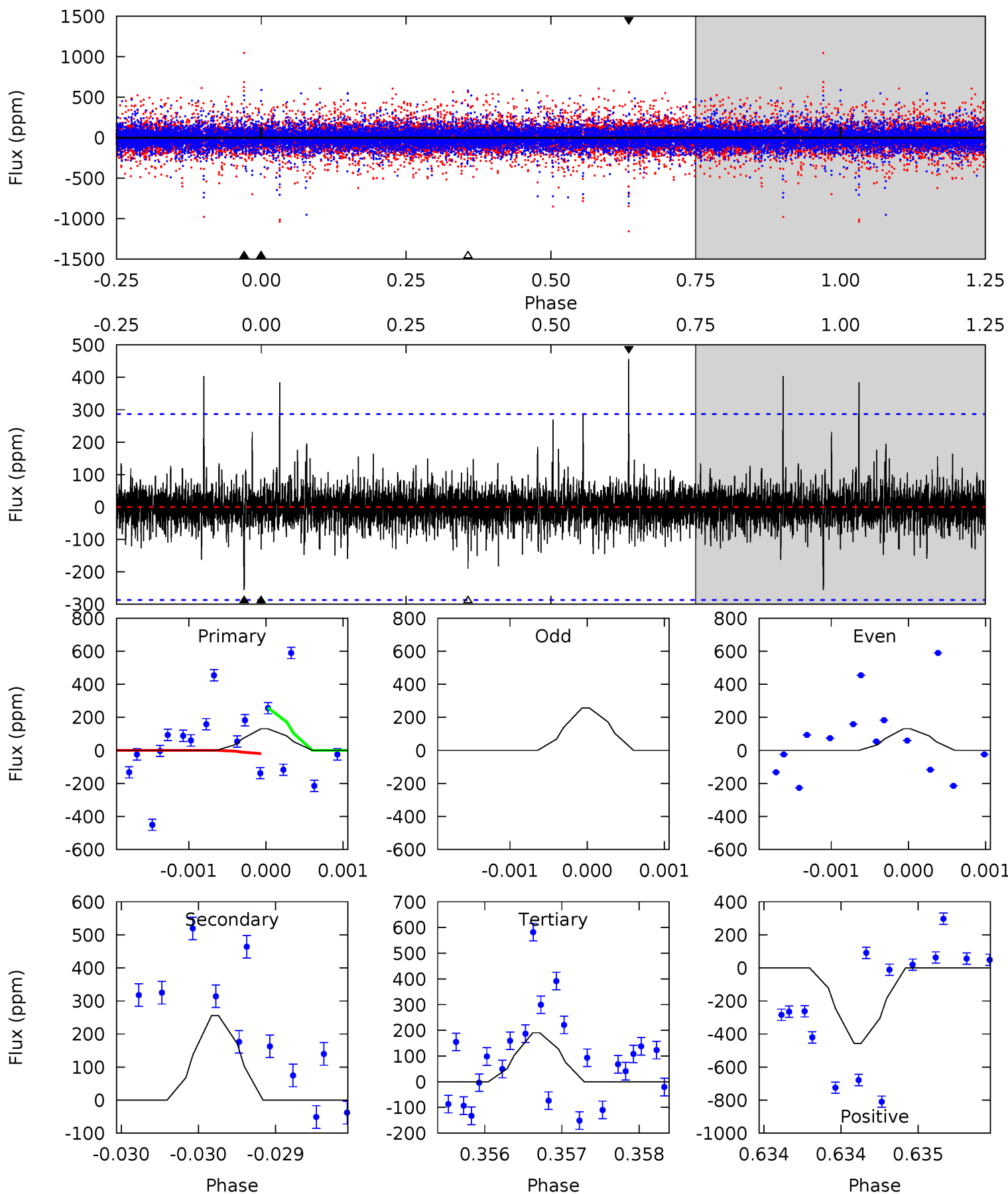
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	5.64	5.24	7.07	5.48	3.34	1.49	5.05	3.22	0.40	-1.43	0.59	1.19	0.41	1.10



Alt Model-Shift Uniqueness Test

011390595-08, P = 105.252662 Days, E = 119.342037 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.53	4.95	3.68	8.85	5.55	3.44	0.78	-1.15	-6.32	1.27	-3.90	1.22	2.80	0.64	2.36



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-169 ± 30	$3.29^{+2.34}_{-2.06}$	703^{+54}_{-52}	5218^{+3089}_{-1046}	1856^{+10592}_{-1230}
Alt.	-256 ± 52	$3.28^{+2.32}_{-2.03}$	710^{+54}_{-56}	5722^{+4212}_{-1187}	2835^{+17138}_{-1921}

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 $A_{obs} \gg 1.0$

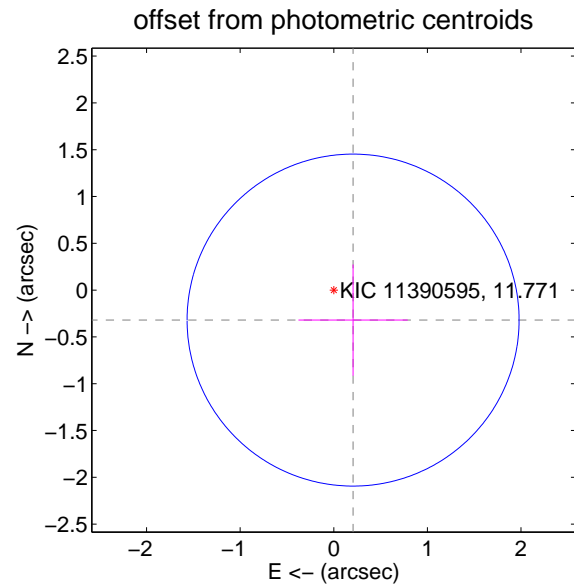
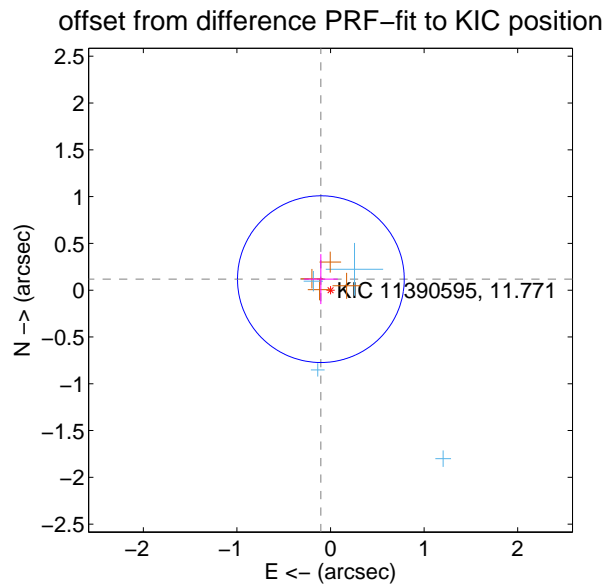
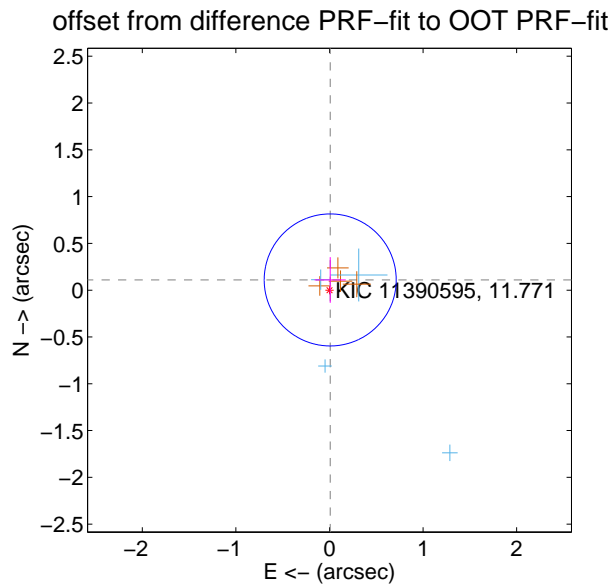
DV Centroid Data

Supplemental centroid analysis for 011390595-08. **Kepler magnitude: 11.77.** Transit SNR 8.18

There are 4 quarters with good PRF difference image offsets

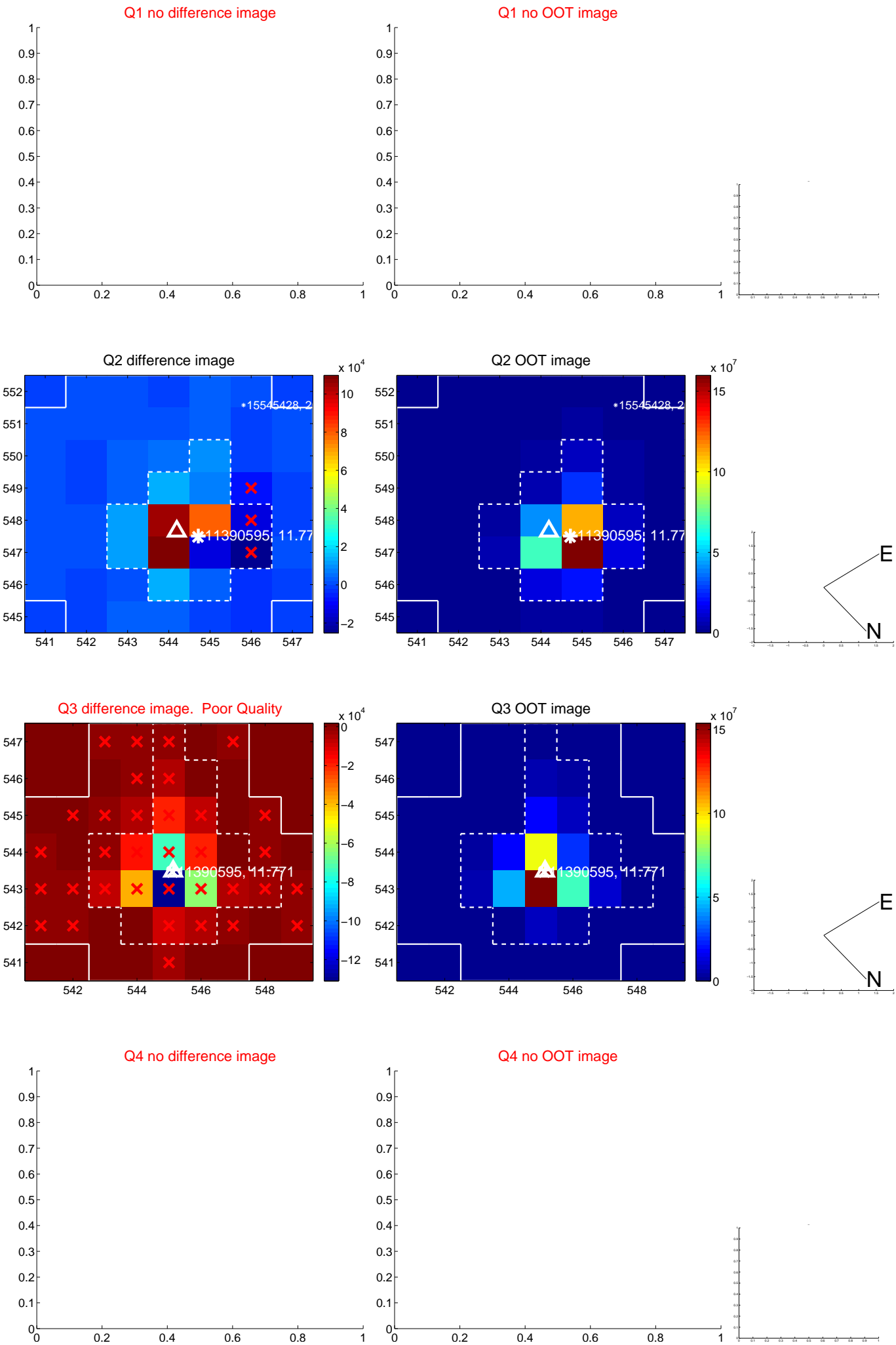
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.110 ± 0.235	0.47	-0.008 ± 0.166	0.109 ± 0.244
PRF-fit source offset from KIC position	0.156 ± 0.297	0.53	0.103 ± 0.180	0.118 ± 0.267
photometric centroid source offset	0.38 ± 0.59	0.64	-0.21 ± 0.58	-0.32 ± 0.59

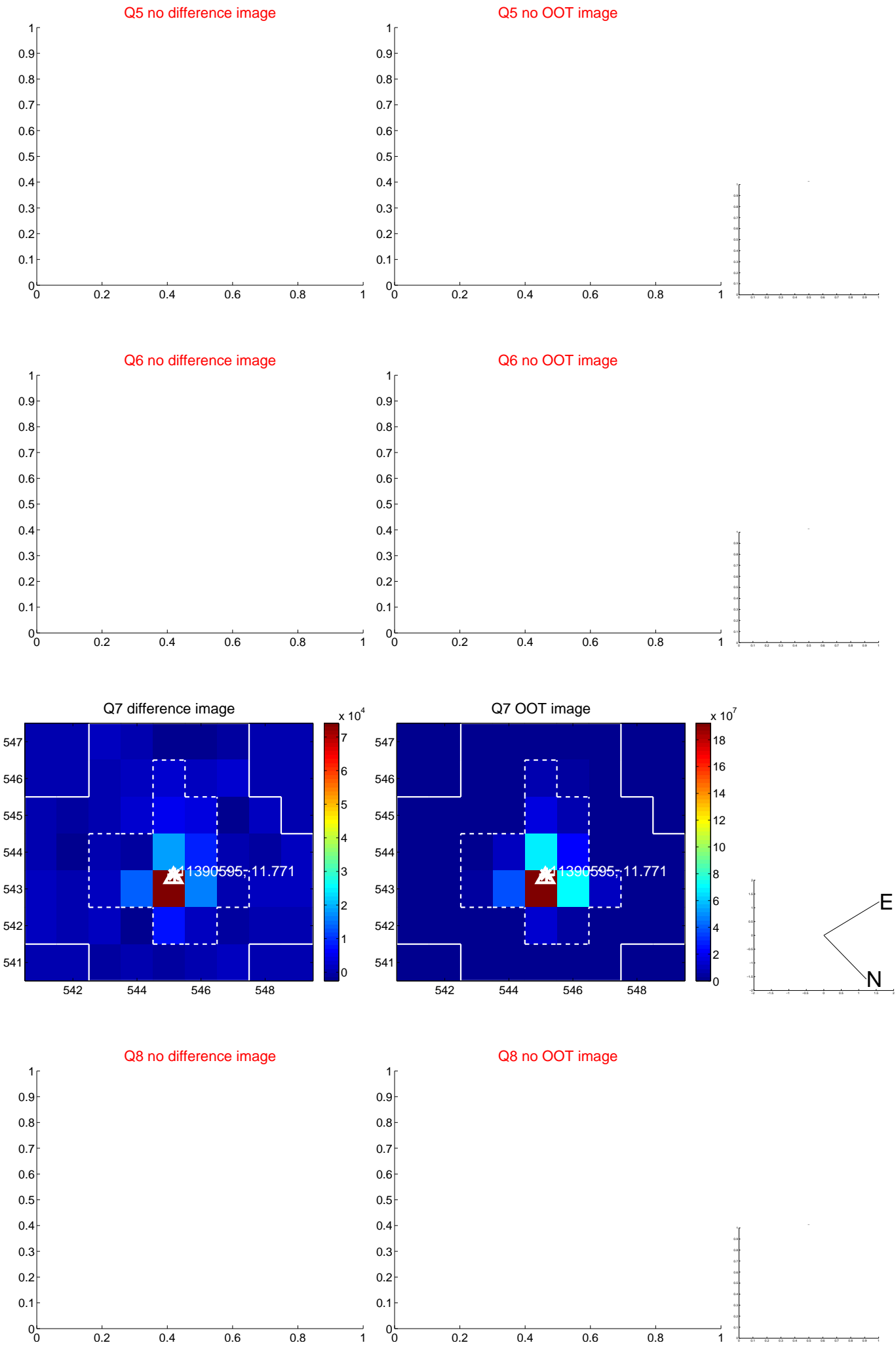


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

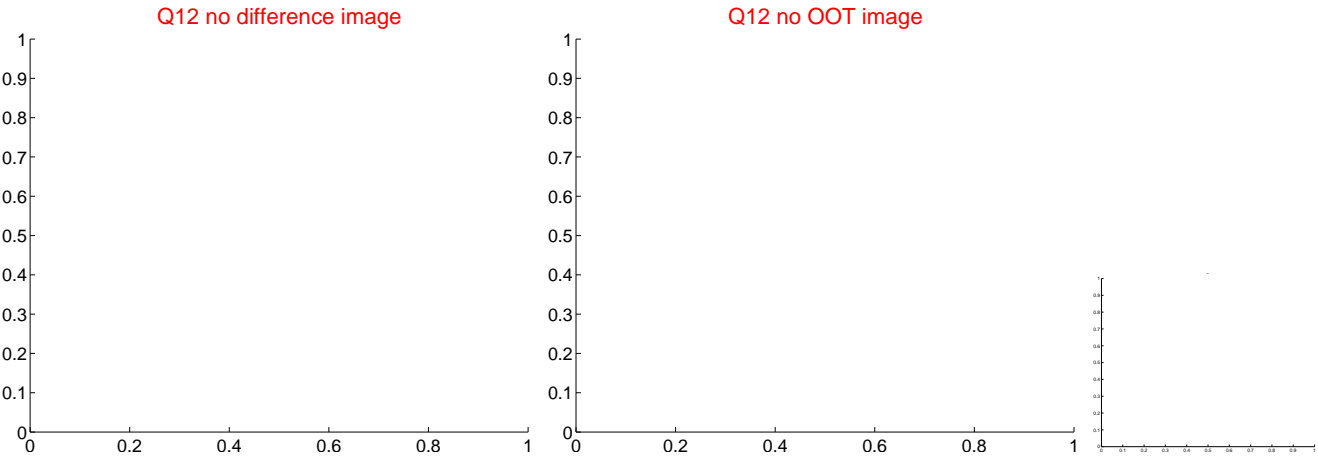
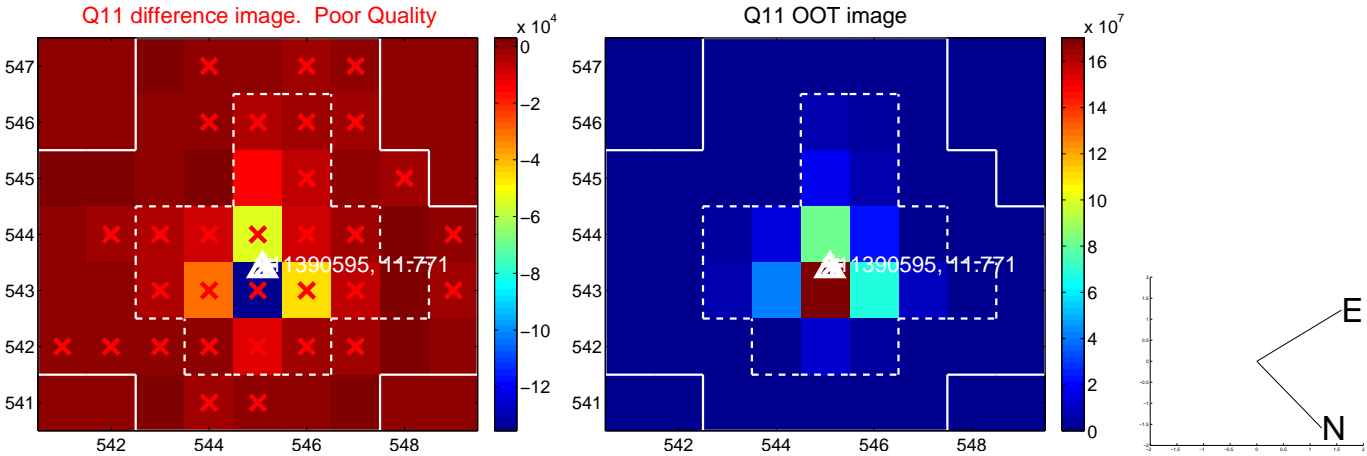
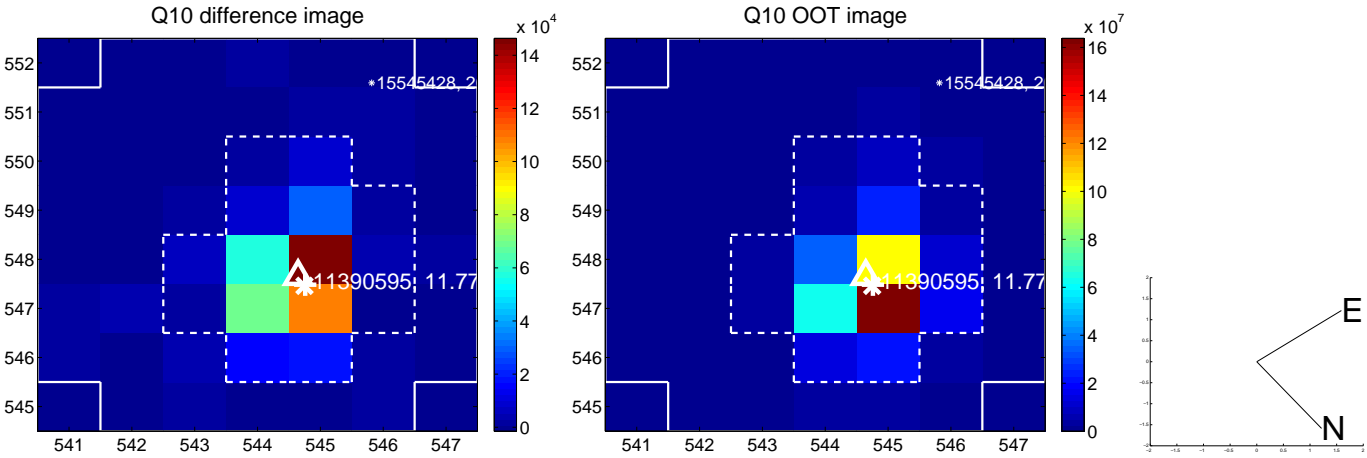
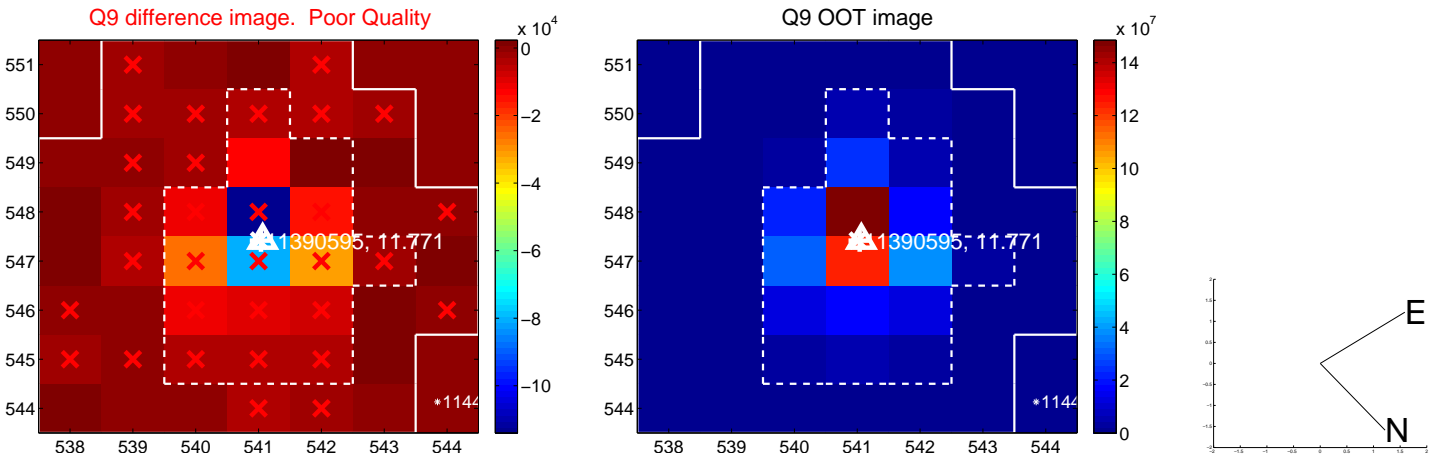
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



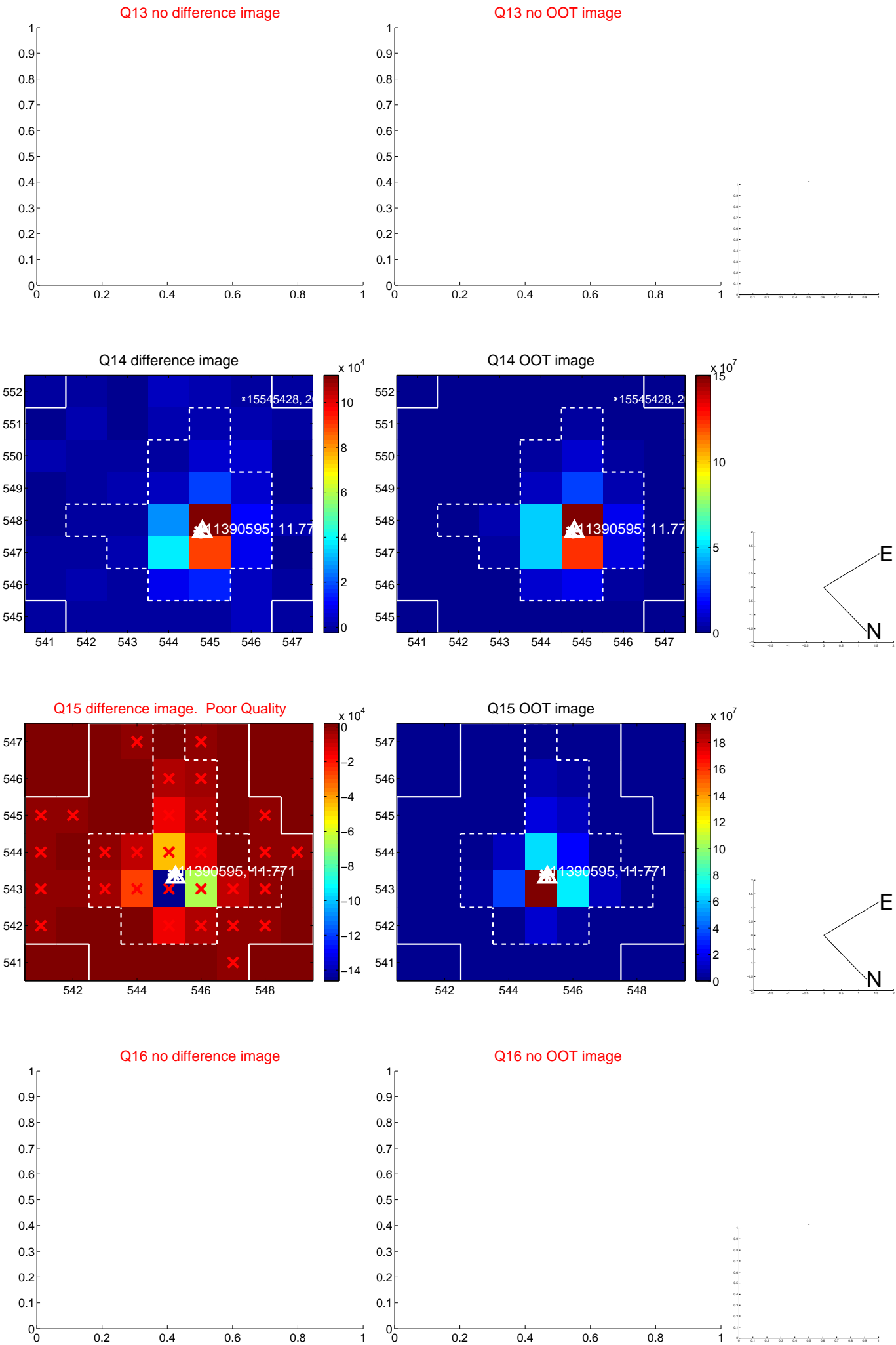
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



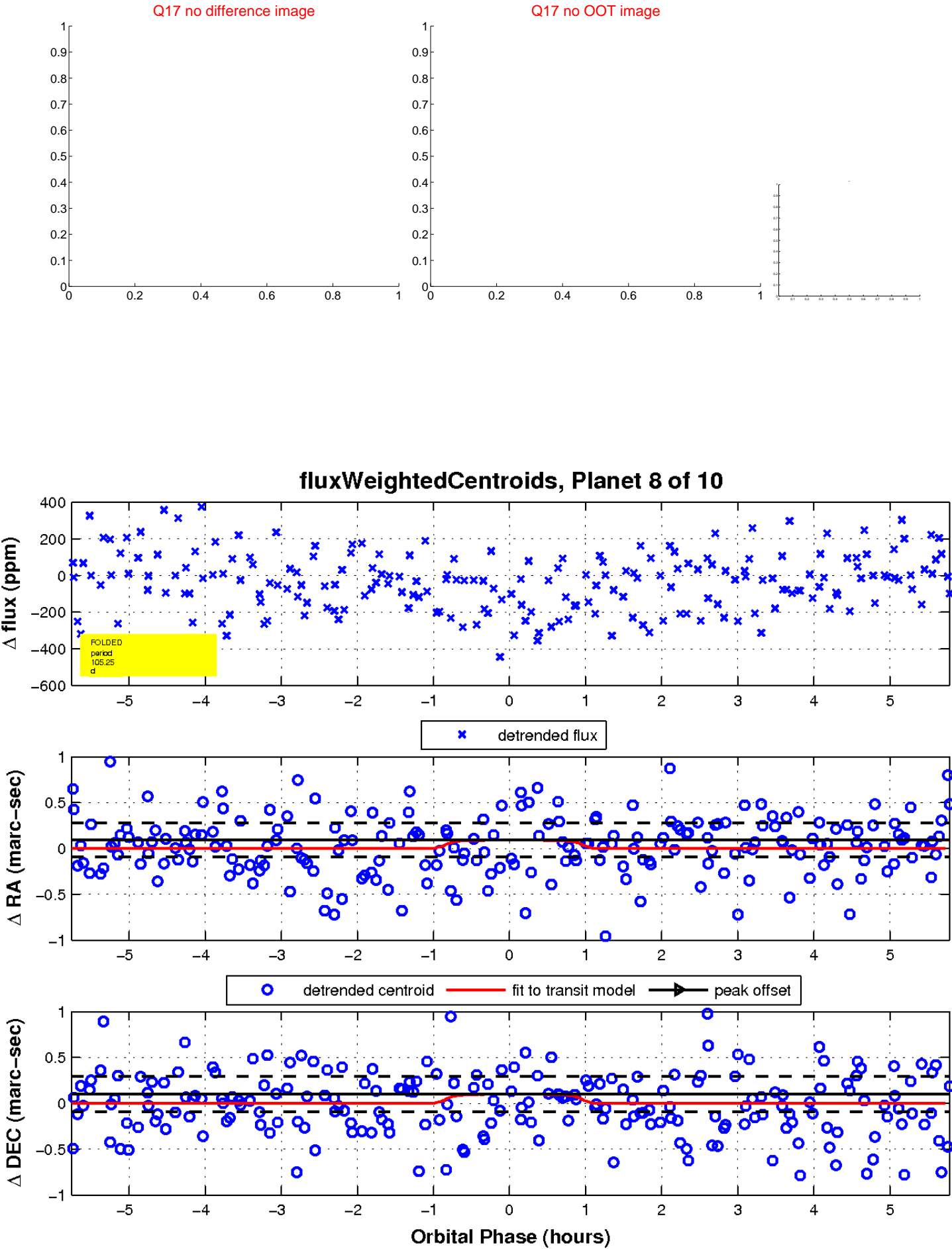
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

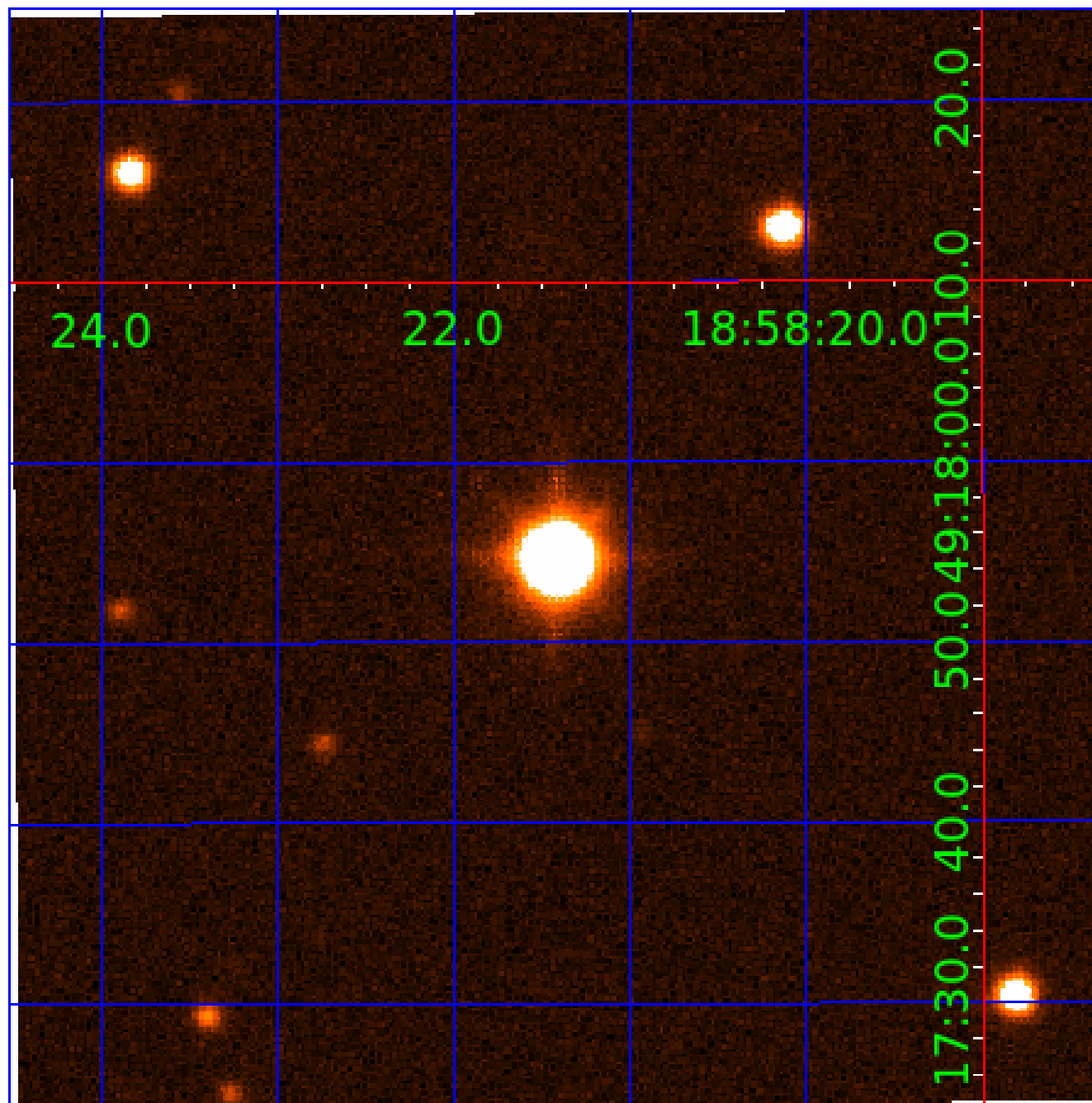


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011390595

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})
011390595-01	OBS	No	2.755031	131.891194	6.8	12.703	9.4	1.7	1.50	6447	0.45	2008.56
011390595-02	OBS	No	112.671448	232.988150	295.0	2.597	10.4	8.7	1.50	6447	2.83	14.26
011390595-03	OBS	No	194.060809	210.718284	114.9	4.500	8.4	-1.0	1.50	6447	1.61	6.91
011390595-04	OBS	No	75.357724	183.625875	183.4	8.138	8.1	6.2	1.50	6447	2.20	24.37
011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

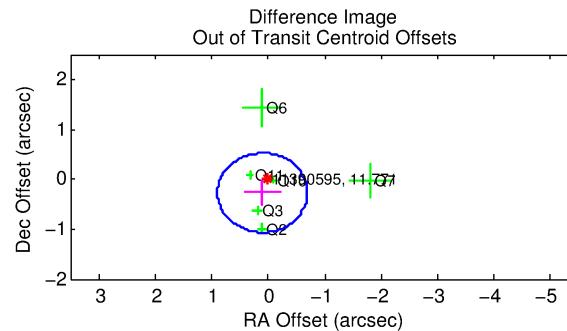
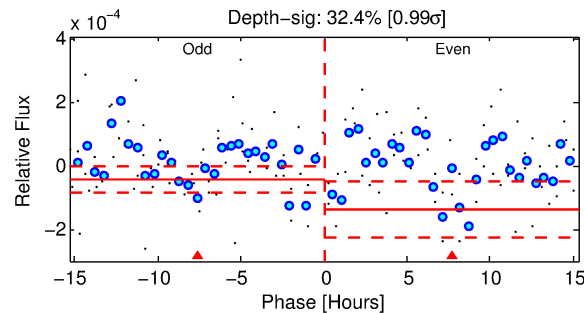
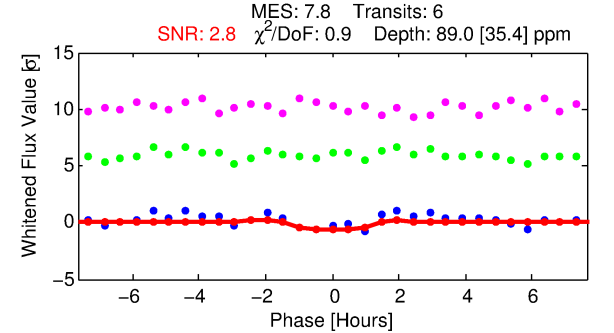
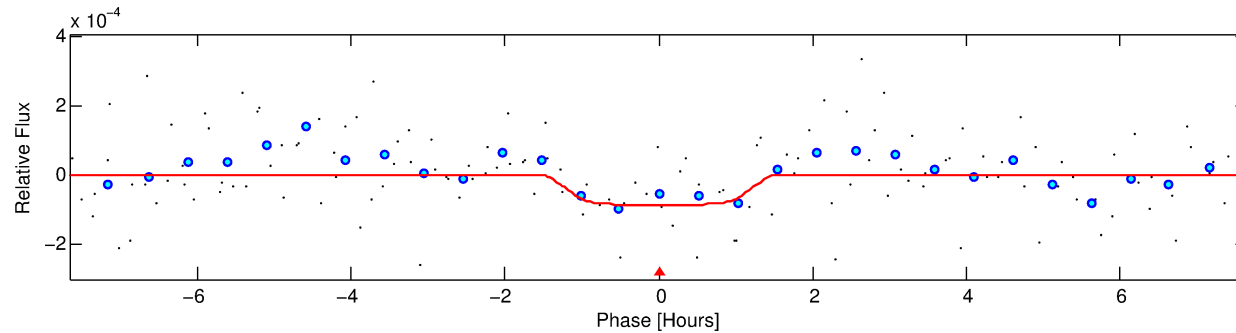
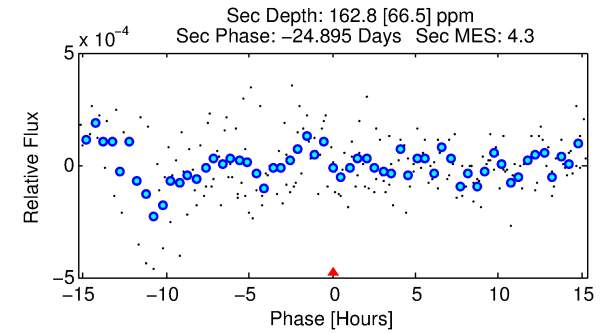
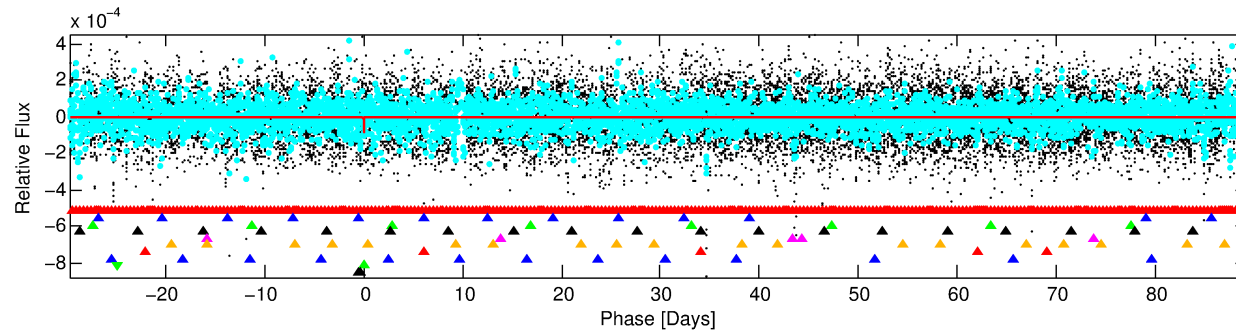
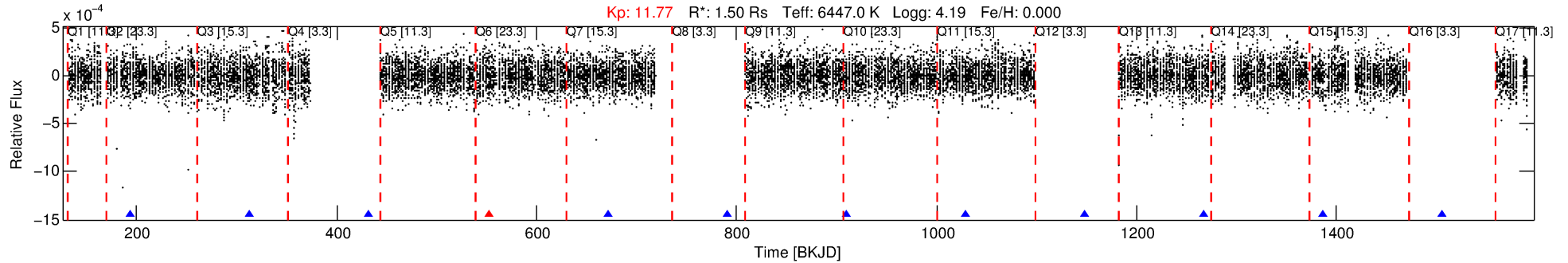
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-09

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 9 of 10 Period: 119.260 d



DV Fit Results:

Period = 119.25996 [0.00241] d
Epoch = 194.0529 [0.0166] BKJD
Rp/R* = 0.0096 [0.0255]
a/R* = 217.63 [3200.74]
b = 0.80 [6.46]
Seff = 13.21 [5.05]
Teff = 486 [46] K
Rp = 1.57 [4.21] Re
a = 0.5134 [0.1312] AU
Ag = 9596.36 [51362.99] [0.19σ]
Teffp = 7440 [9938] K [0.70σ]

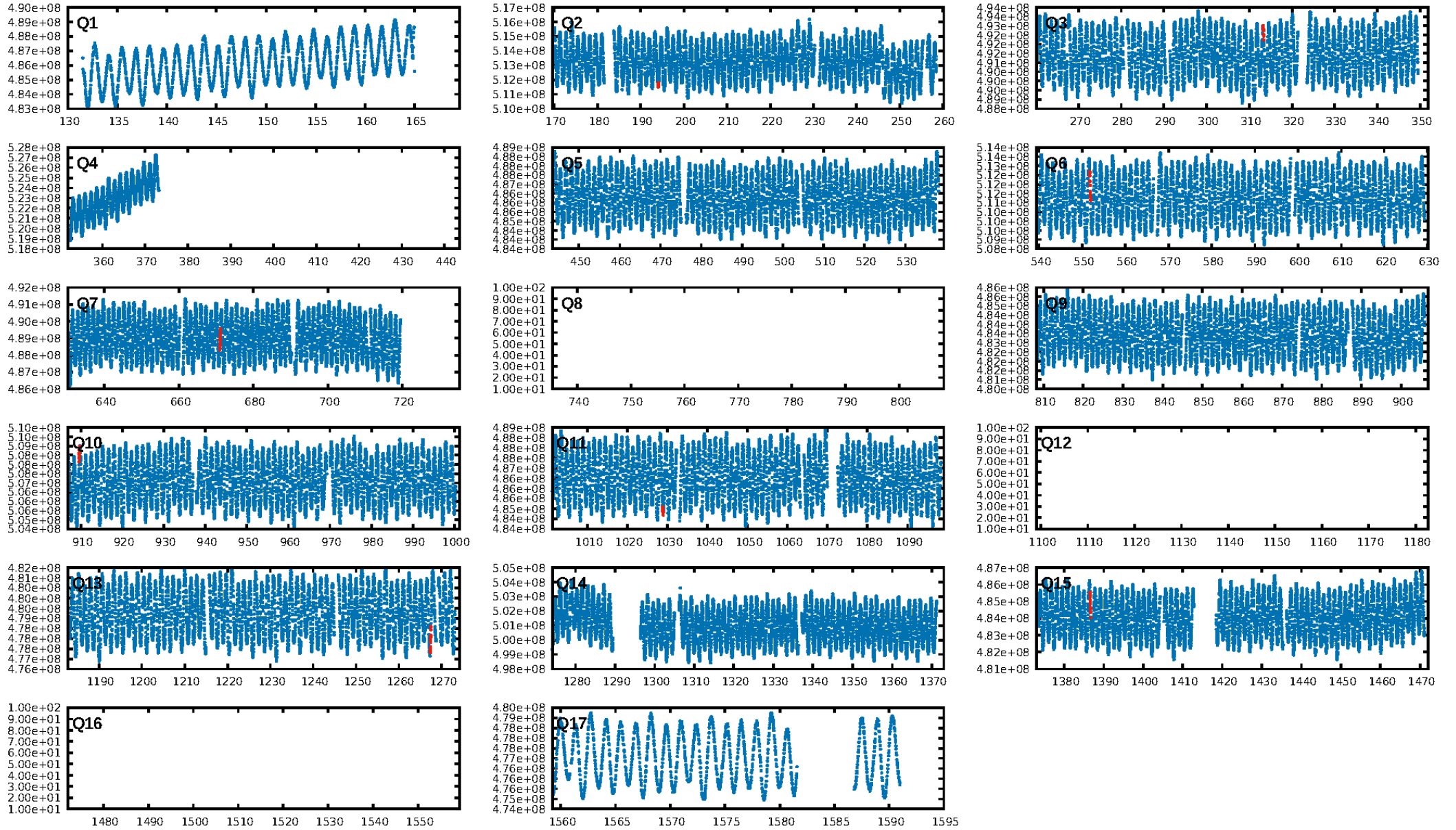
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [43.43σ]
LongPeriod-sig: 4.7% [0.06σ]
ModelChiSquare2-sig: 77.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [5/6]
GhostDiagnostic-chr: 29.67
Centroid-sig: 27.8%
Centroid-so: 2.566 arcsec [1.32σ]
OotOffset-rm: 0.291 arcsec [1.10σ]
OotOffset-st: 3/3/0/0 [6]
KicOffset-rm: 0.344 arcsec [1.20σ]
KicOffset-st: 3/3/0/0 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 0.86 [6/7]

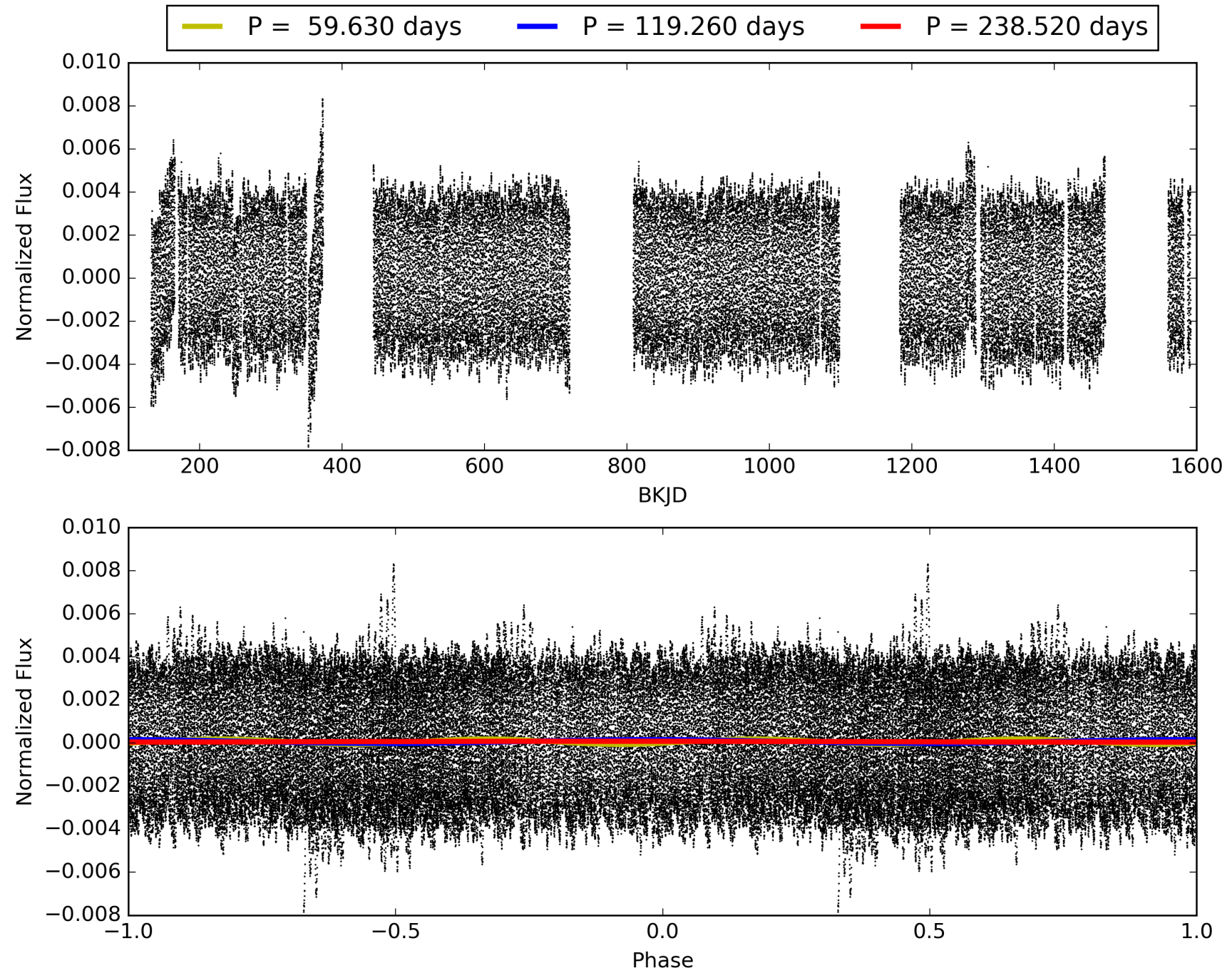
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:29:47 Z

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

TCE 011390595-09, PDC Light Curves

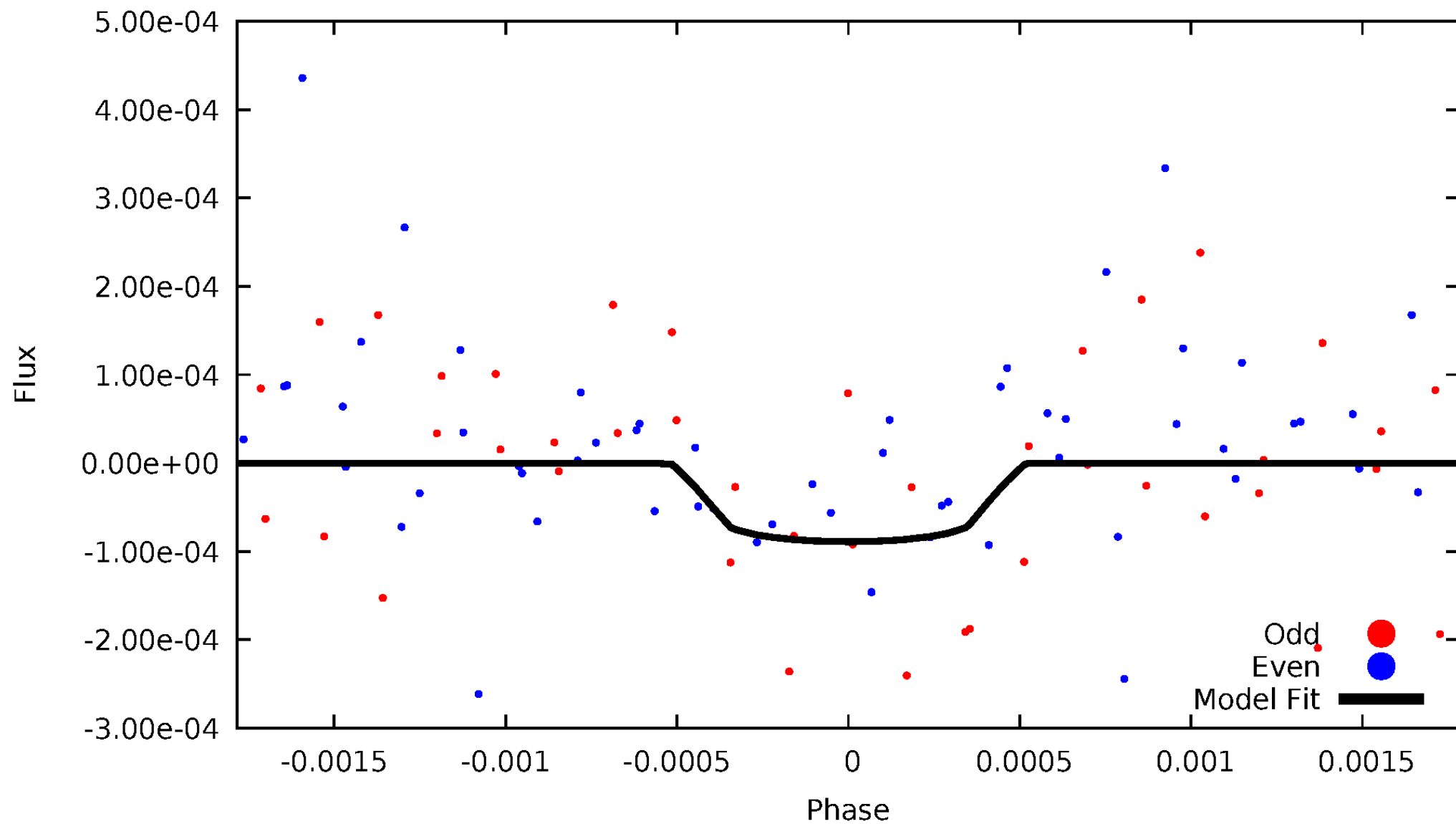


TCE 011390595-09



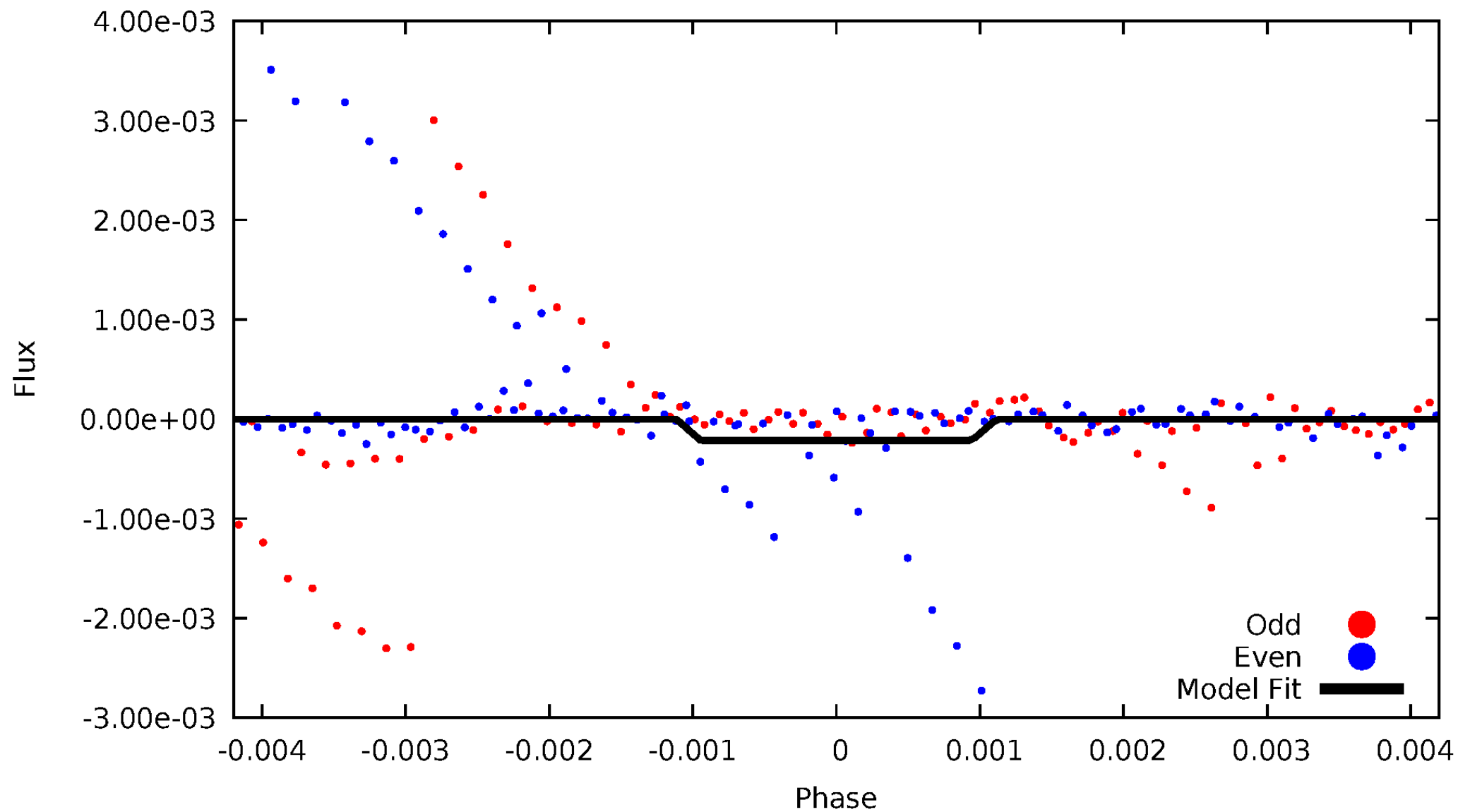
DV Odd/Even

TCE 011390595-09

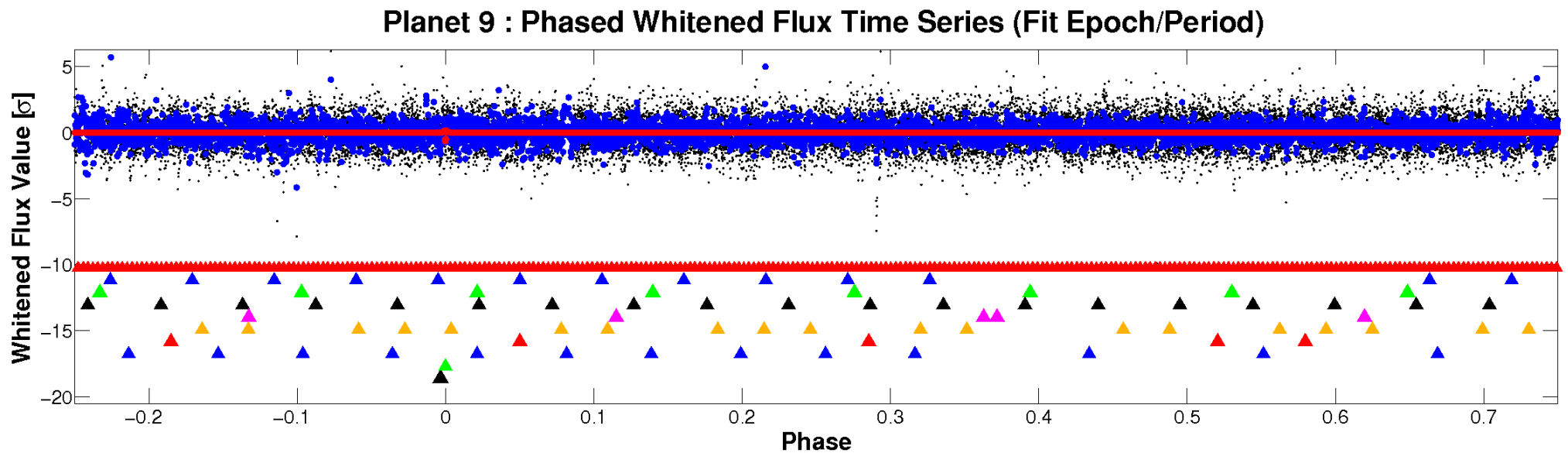
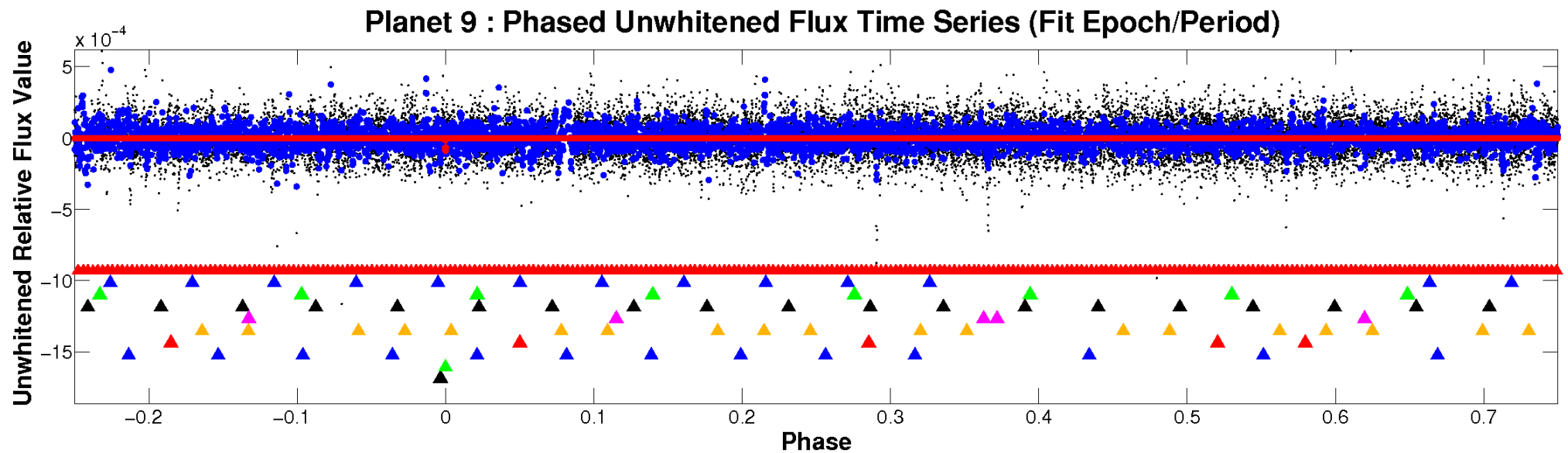


ALT Odd/Even

TCE 011390595-09

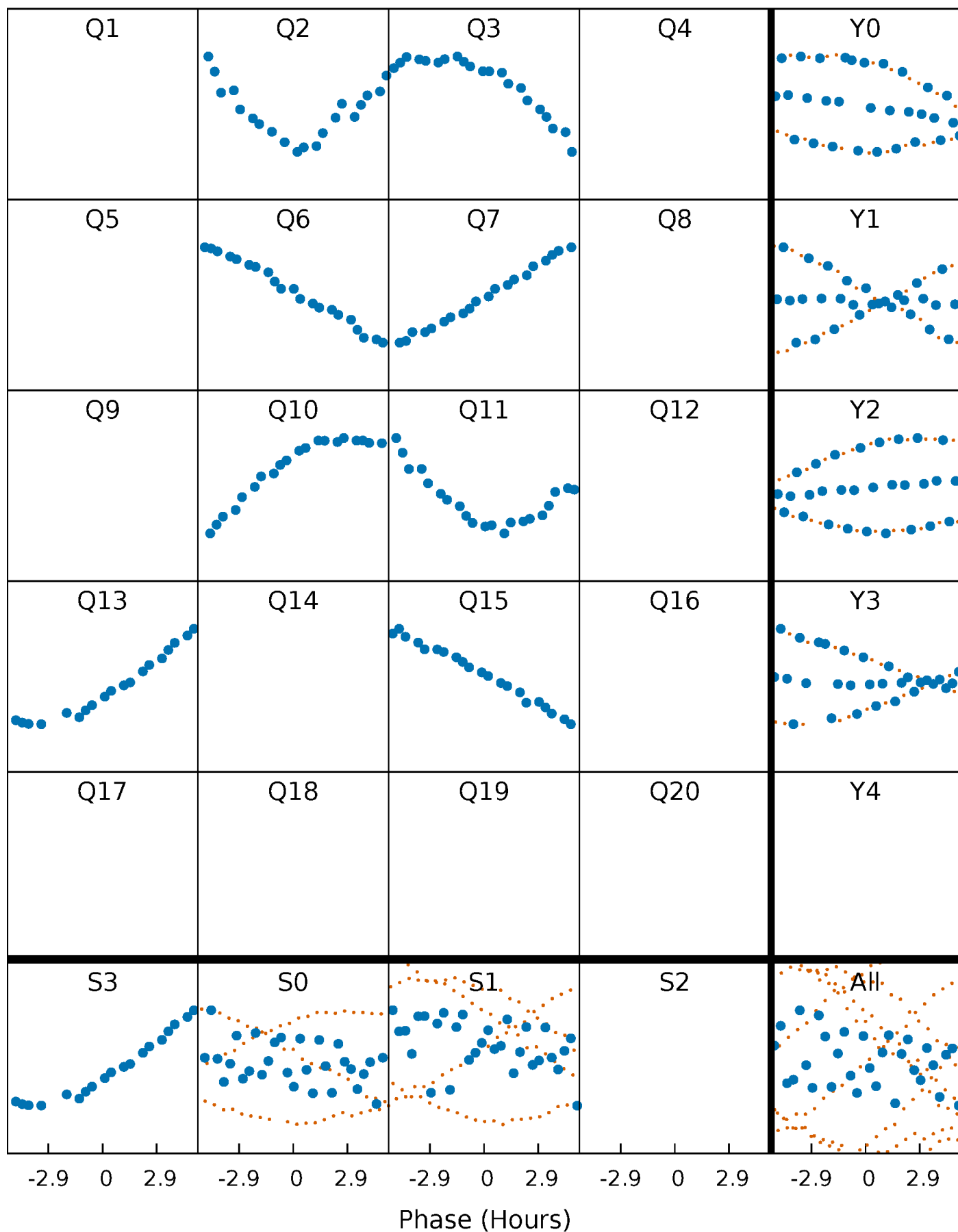


Non-Whitened Vs. Whitened Light Curve



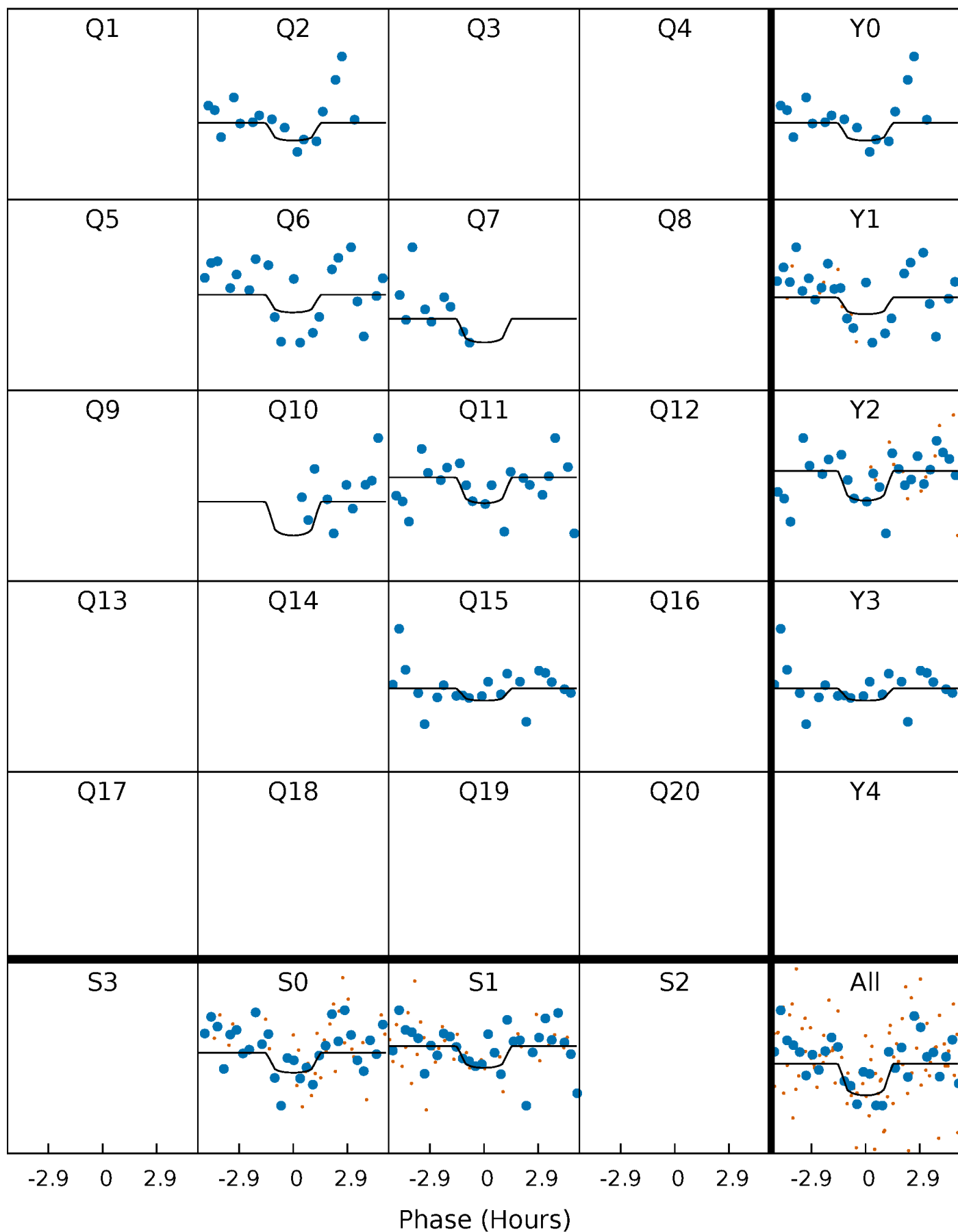
PDC Quarter-Phased Transit Curves

TCE 011390595-09 $P=119.259965$ Days $T_0=194.052880$ (BKJD)



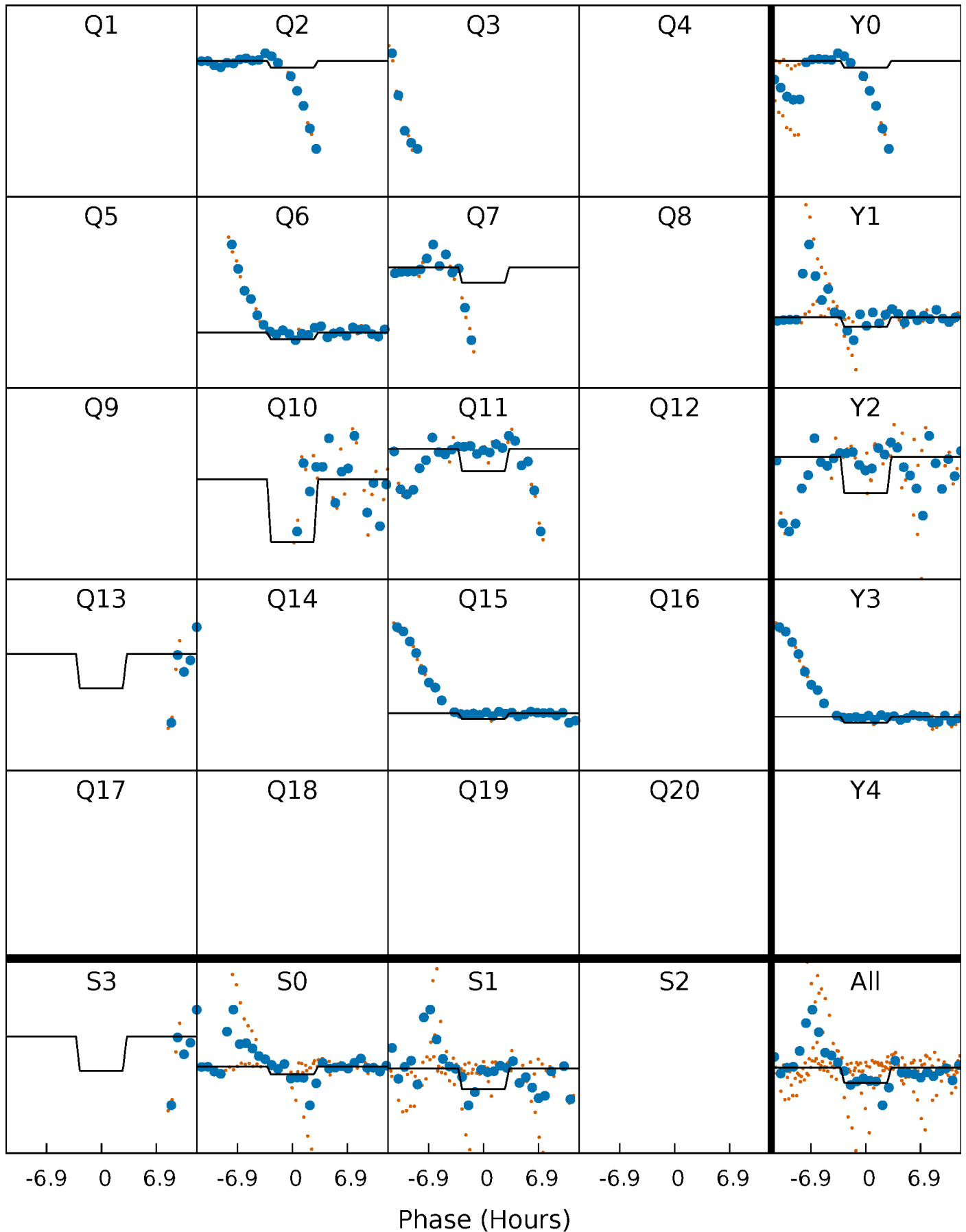
DV Quarter-Phased Transit Curves

TCE 011390595-09 P=119.259965 Days $T_0=194.052880$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

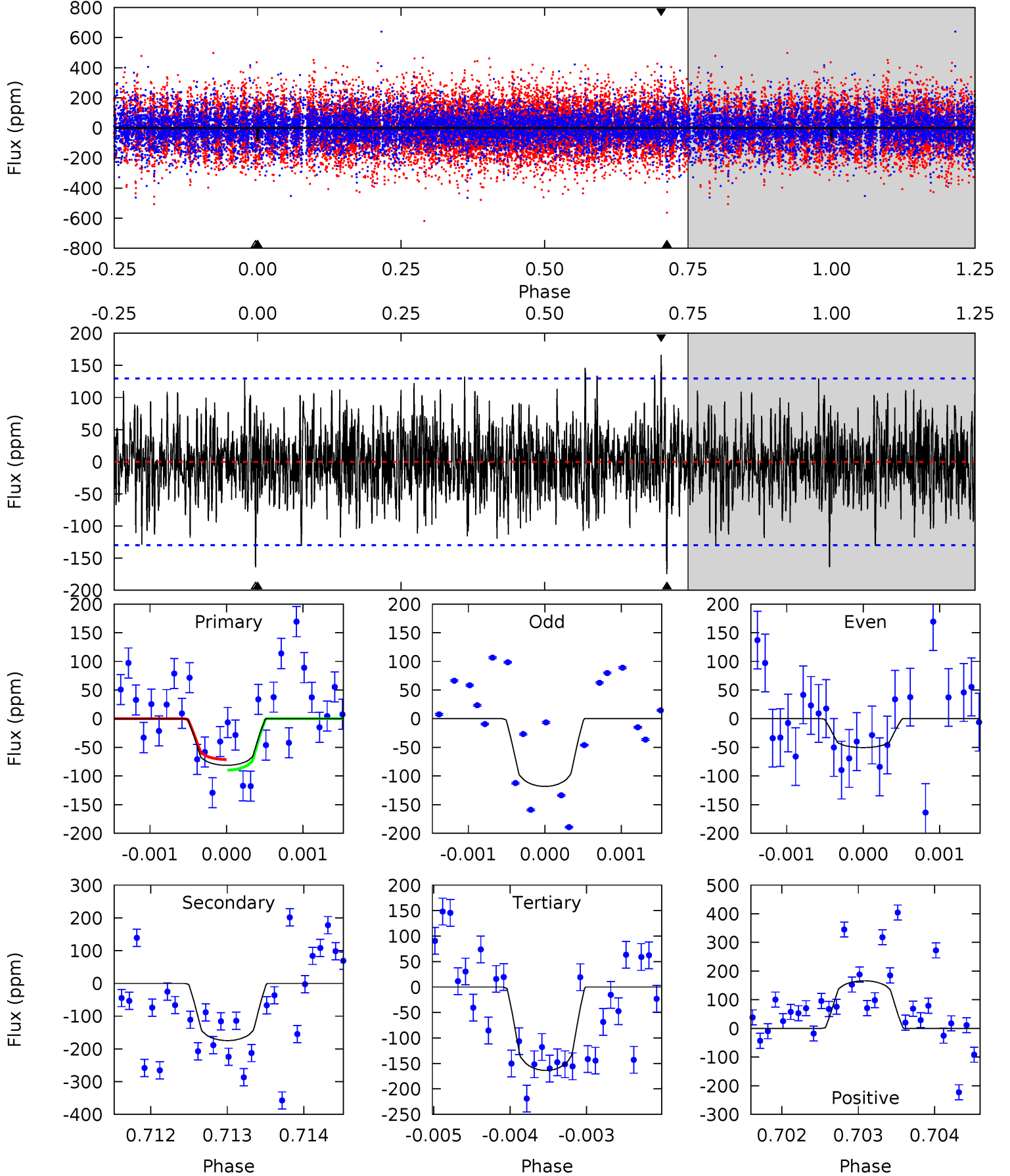
TCE 011390595-09 $P=119.272617$ Days $T_0=193.981266$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-09, P = 119.259965 Days, E = 74.792915 Days

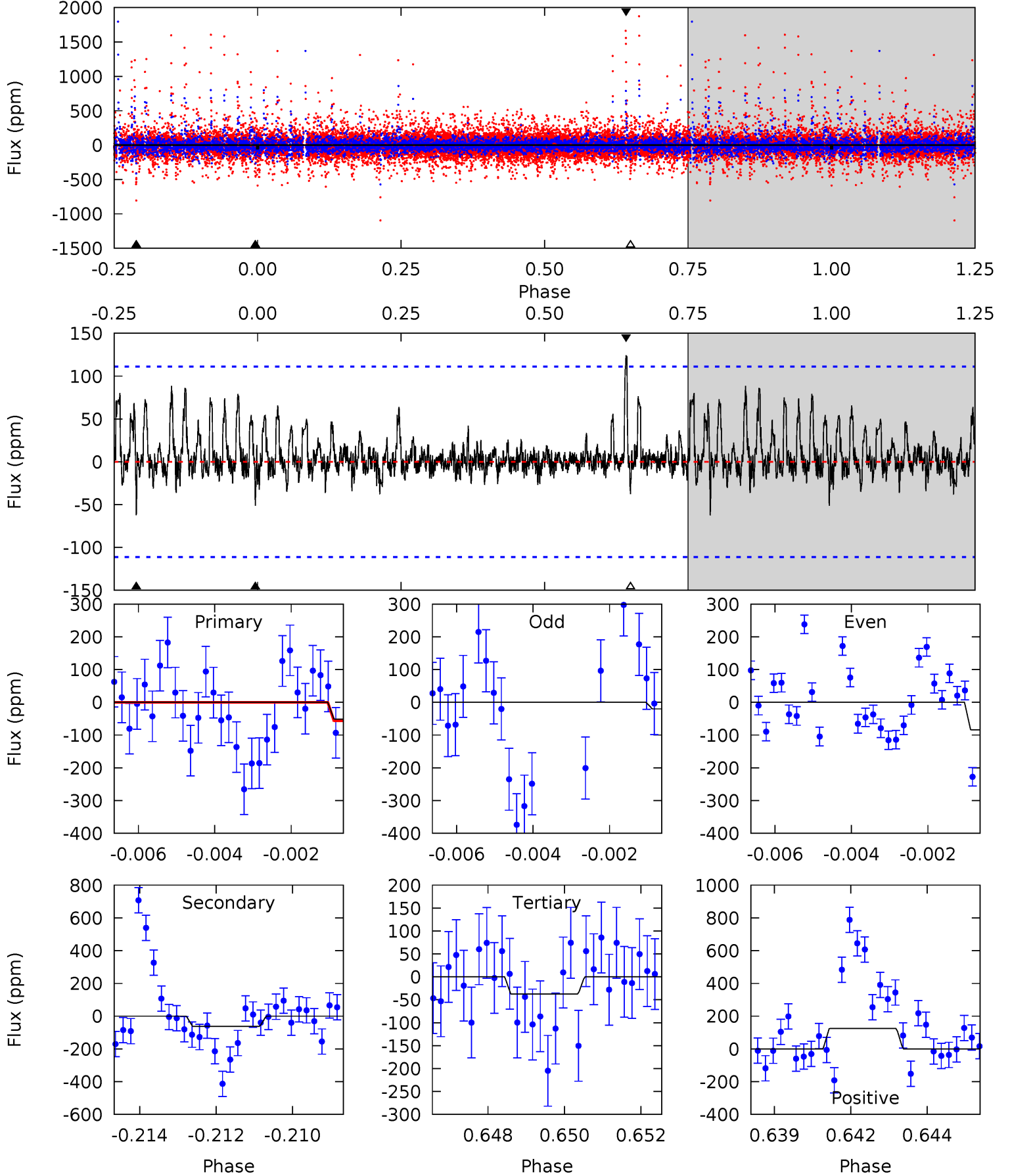
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.42	7.34	6.88	6.98	5.45	3.29	1.72	-3.46	-3.56	0.46	0.36	1.37	0.87	0.49	0.39



Alt Model-Shift Uniqueness Test

011390595-09, P = 119.272617 Days, E = 74.708649 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.44	2.98	1.79	5.94	5.31	3.07	0.78	0.65	-3.50	1.19	-2.96	1.07	8.99	0.67	0



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-175 ± 24	$3.44^{+3.81}_{-2.46}$	674^{+55}_{-48}	5076^{+5421}_{-1203}	2111^{+24692}_{-1635}
Alt.	-62 ± 21	$3.69^{+3.79}_{-2.39}$	679^{+54}_{-51}	4051^{+2335}_{-867}	633^{+4556}_{-490}

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 $A_{obs} \gg 1.0$

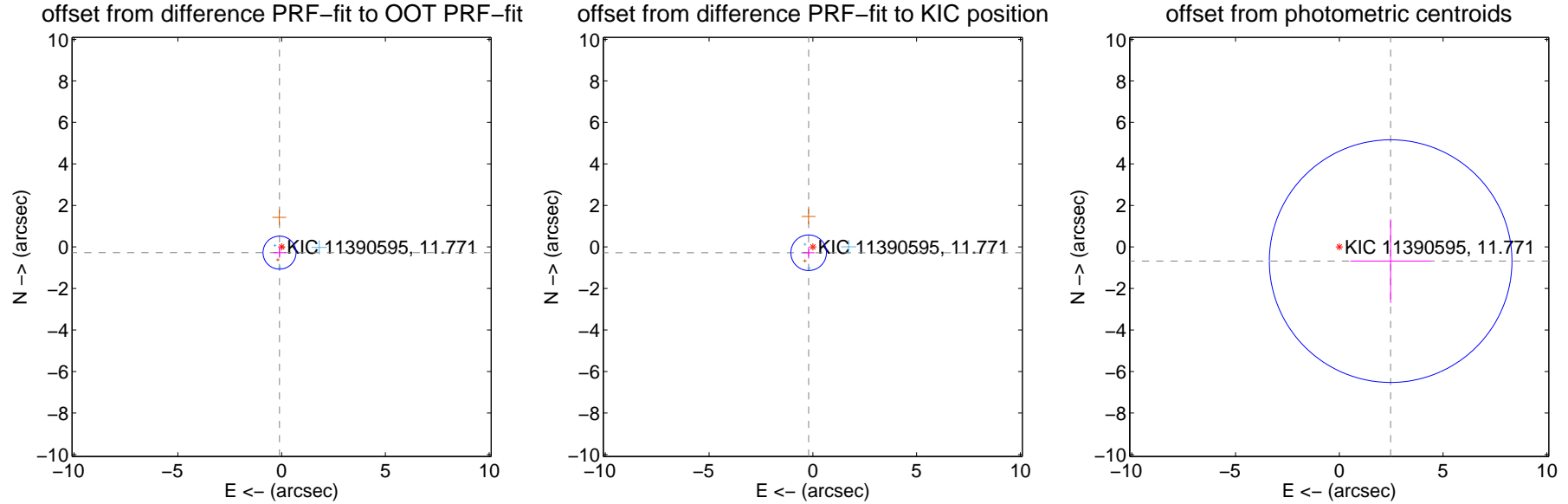
DV Centroid Data

Supplemental centroid analysis for 011390595-09. **Kepler magnitude: 11.77.** Transit SNR 2.80

There are 3 quarters with good PRF difference image offsets

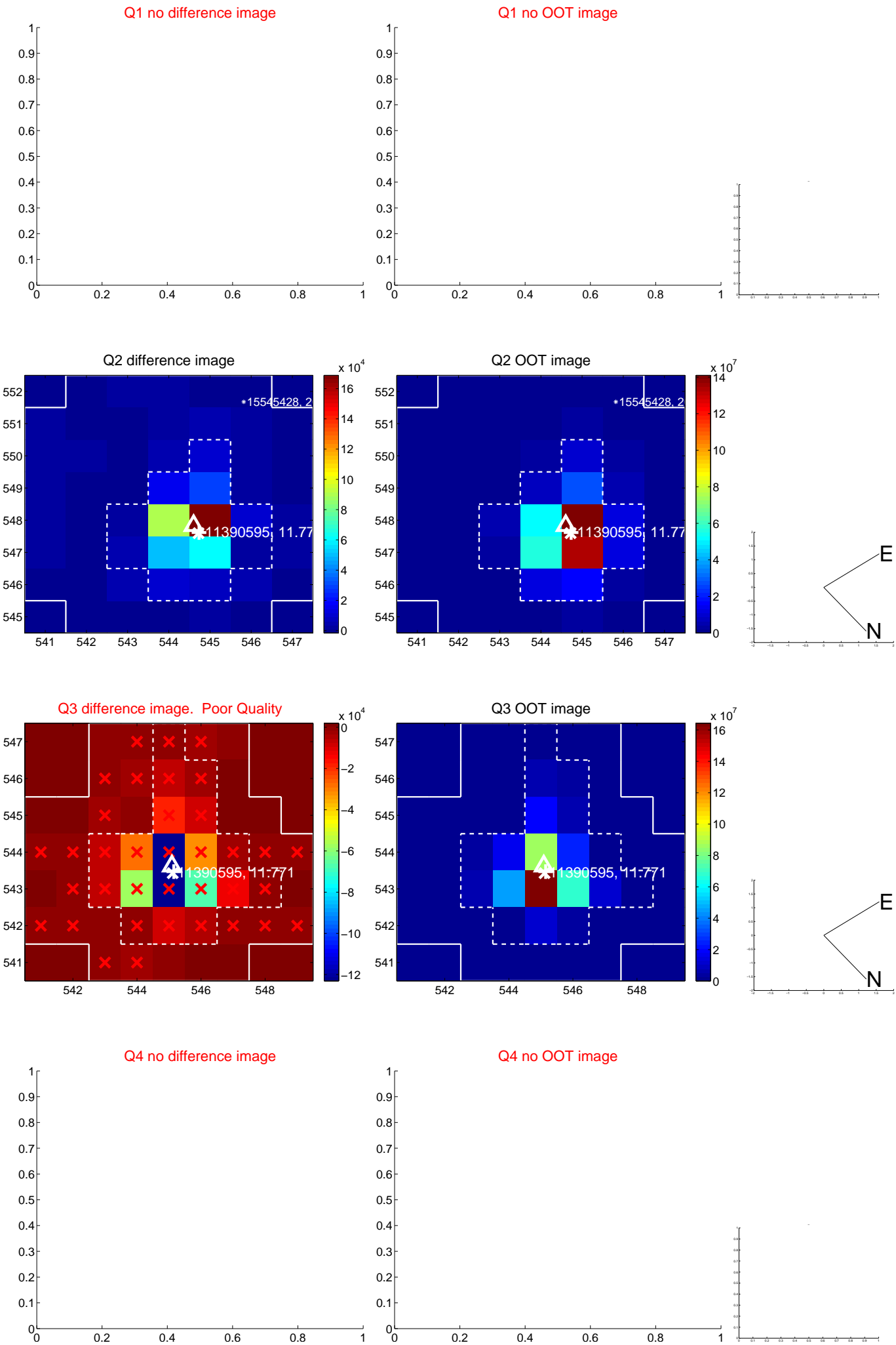
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.291 ± 0.265	1.10	0.101 ± 0.310	-0.273 ± 0.256
PRF-fit source offset from KIC position	0.344 ± 0.286	1.20	0.202 ± 0.285	-0.278 ± 0.277
photometric centroid source offset	2.57 ± 1.95	1.32	-2.47 ± 1.94	-0.68 ± 2.02

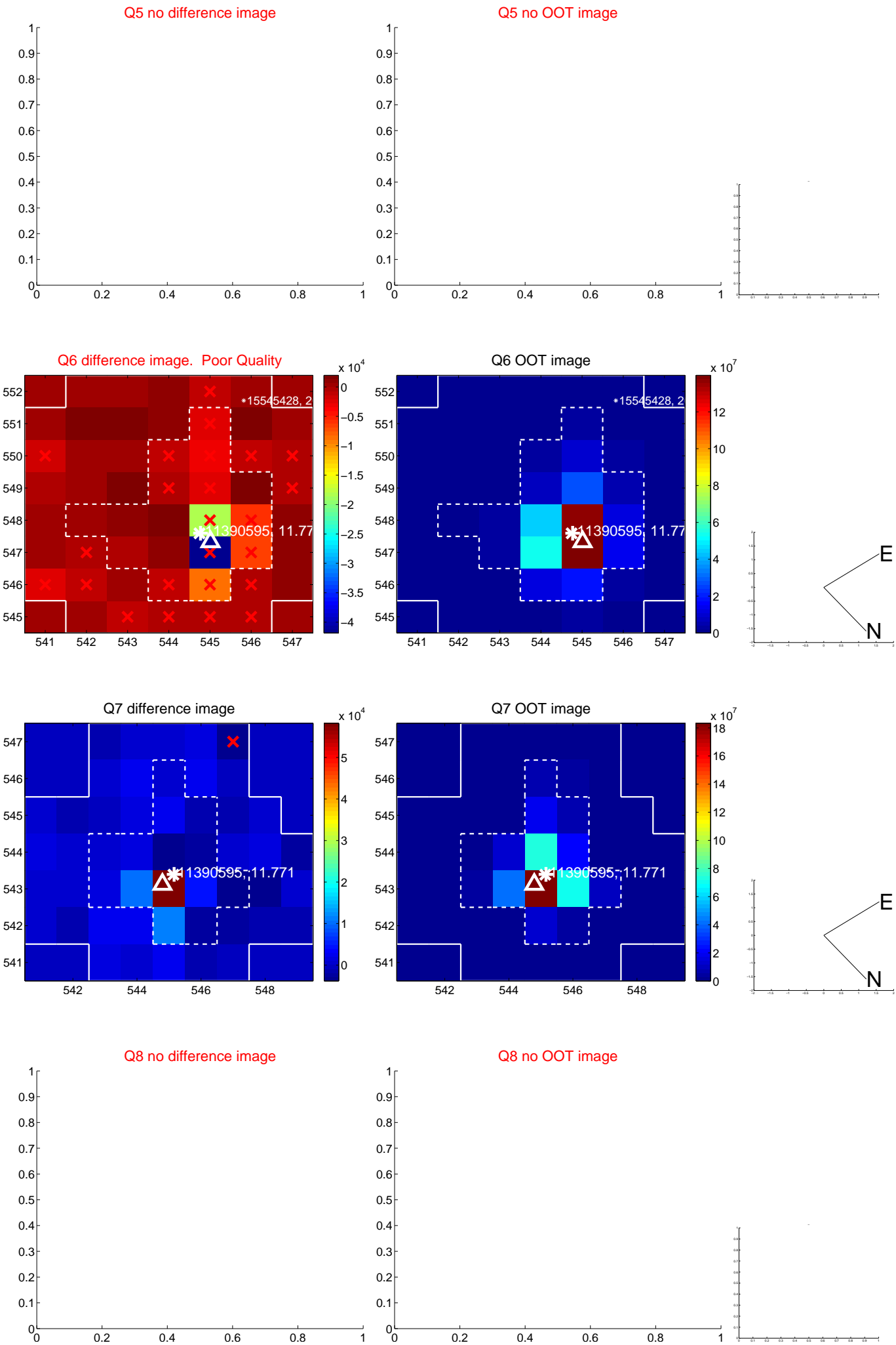


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

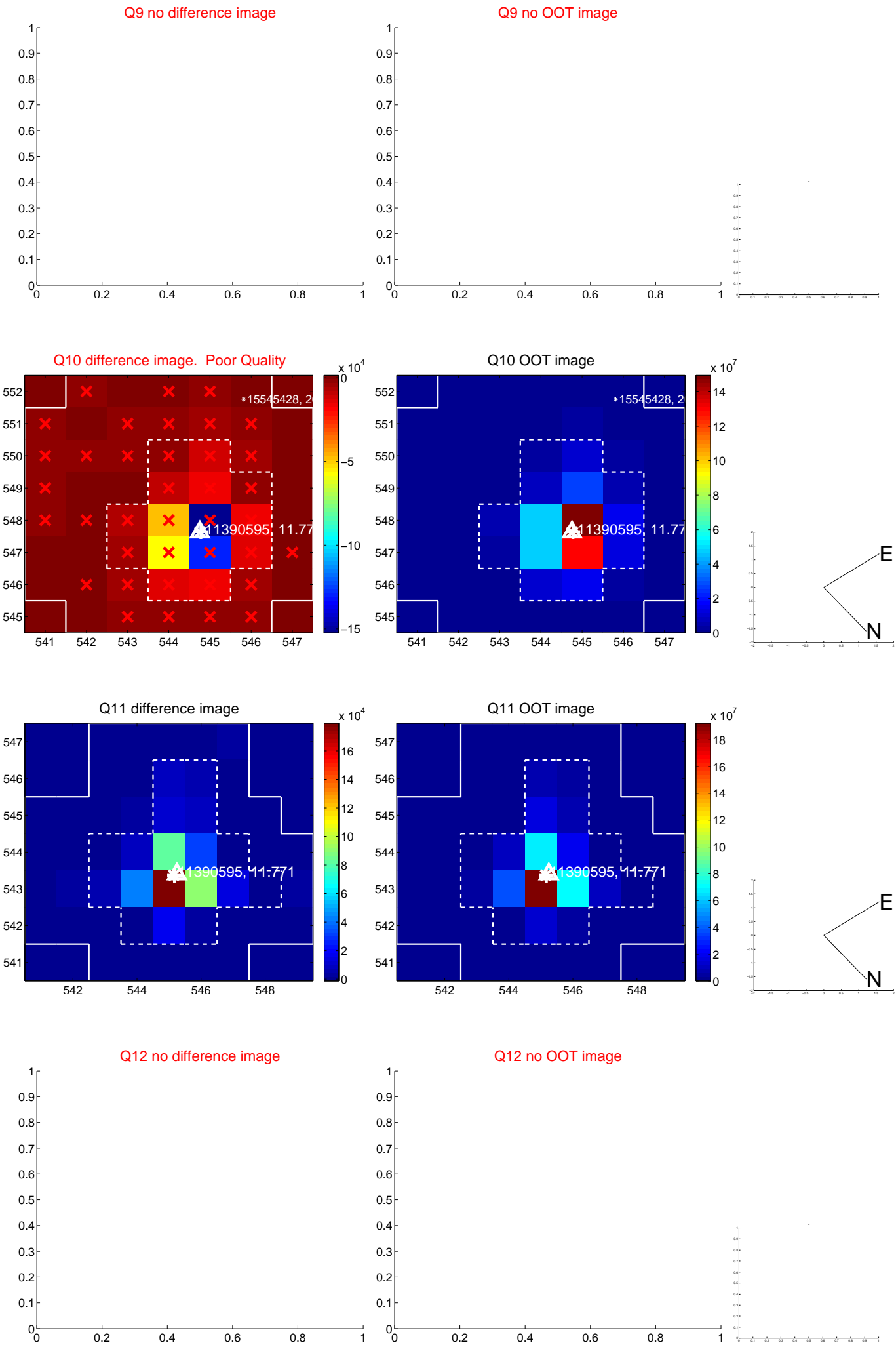
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



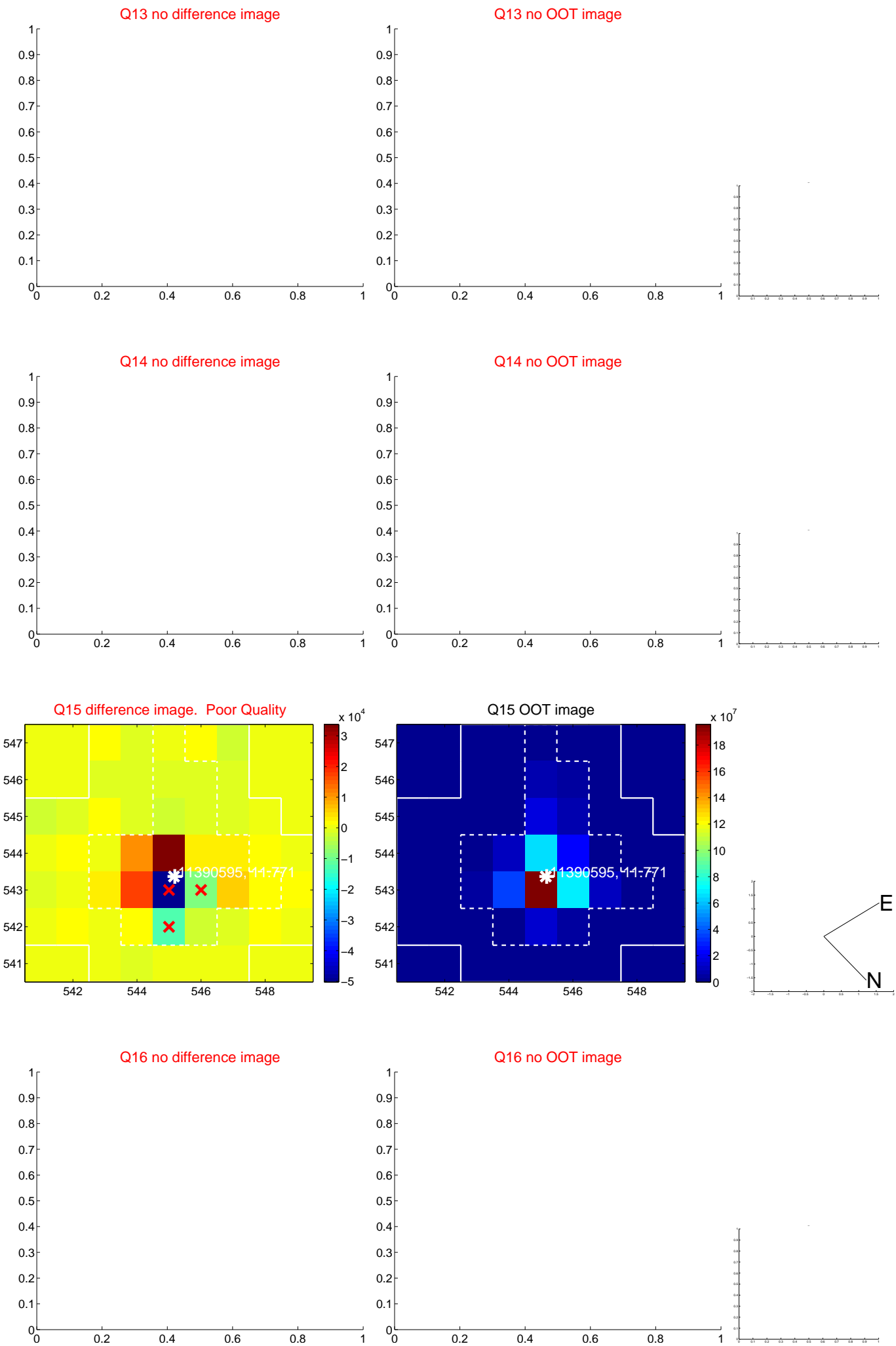
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



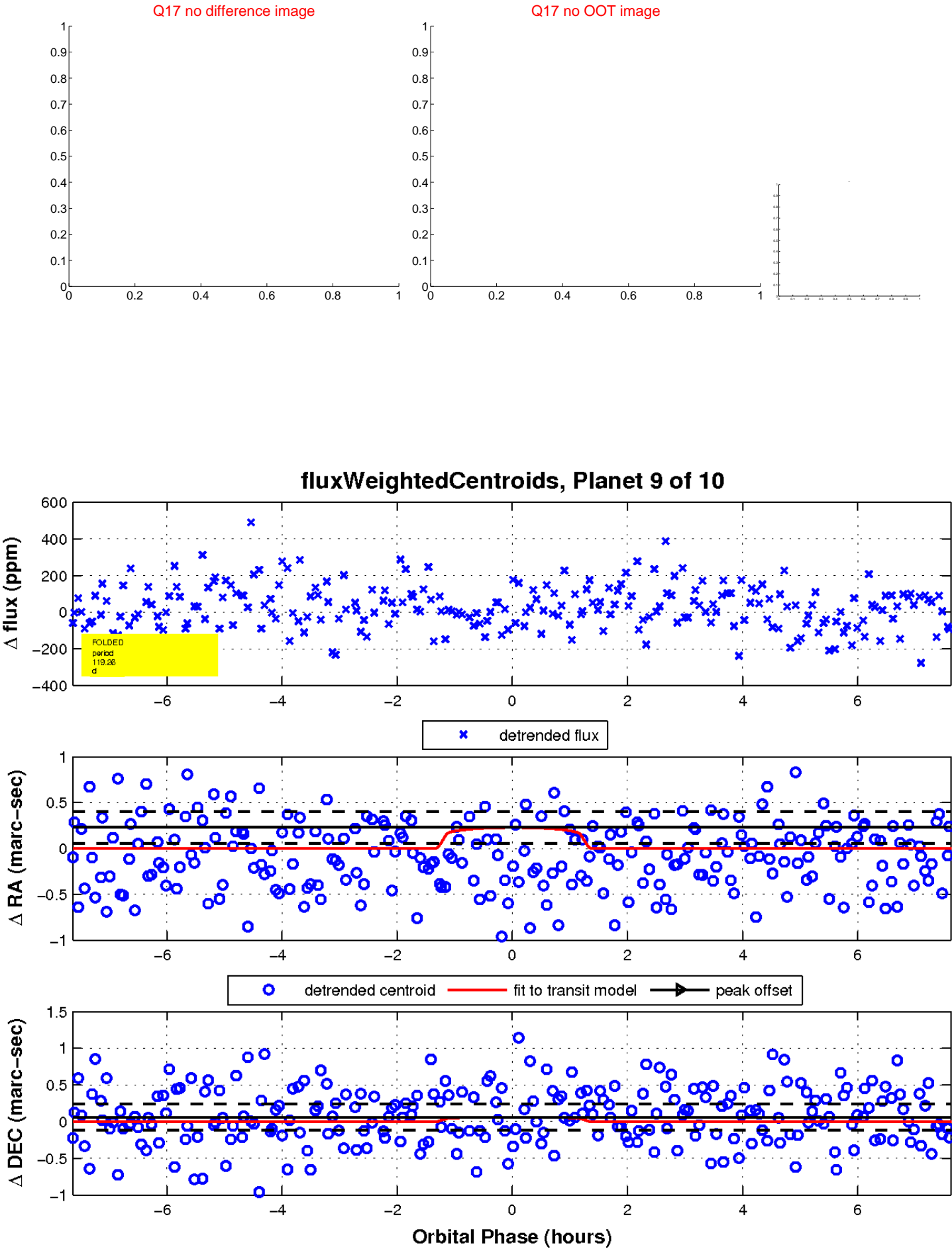
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

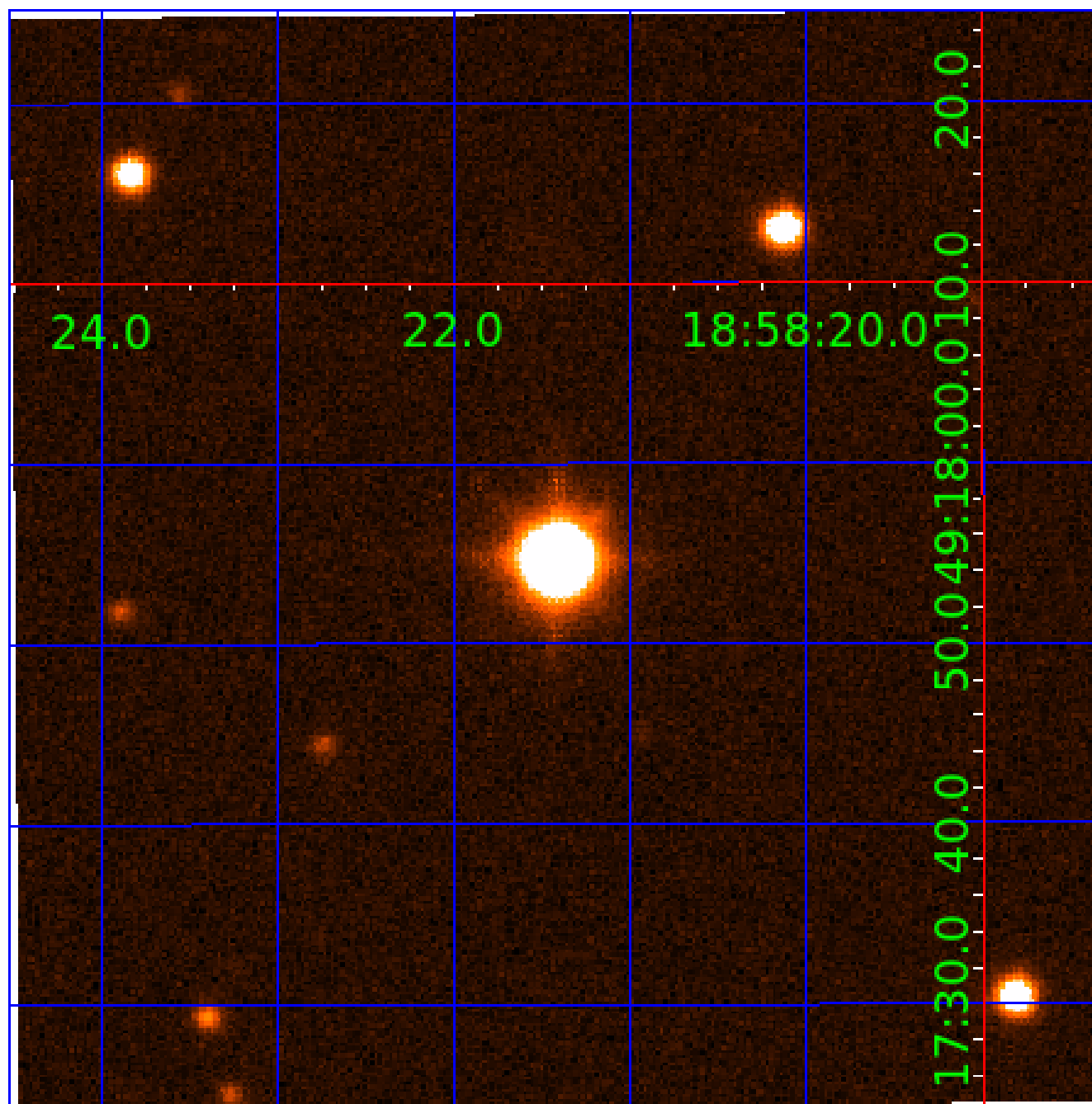


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011390595

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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011390595-06	OBS	No	74.071854	194.510669	178.5	4.765	8.0	7.7	1.50	6447	2.27	24.94
011390595-07	OBS	No	266.572824	263.189391	295.0	7.563	7.8	7.3	1.50	6447	2.83	4.52
011390595-08	OBS	No	105.252148	224.609000	311.6	1.937	7.8	8.2	1.50	6447	2.97	15.61
011390595-09	OBS	No	119.259965	194.052880	89.0	2.551	7.8	2.8	1.50	6447	1.57	13.21
011390595-10	OBS	No	119.272617	193.588149	87.2	4.500	7.7	-1.0	1.50	6447	1.41	13.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011390595-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
011390595-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
011390595-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
011390595-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV
011390595-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011390595-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
011390595-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
011390595-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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

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

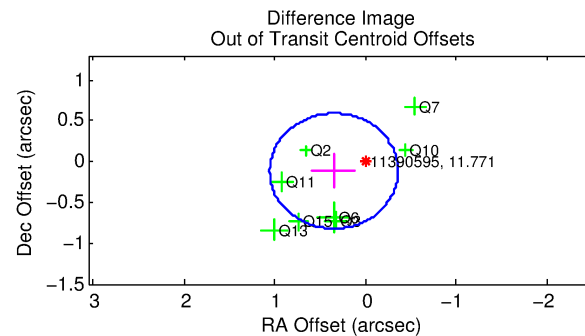
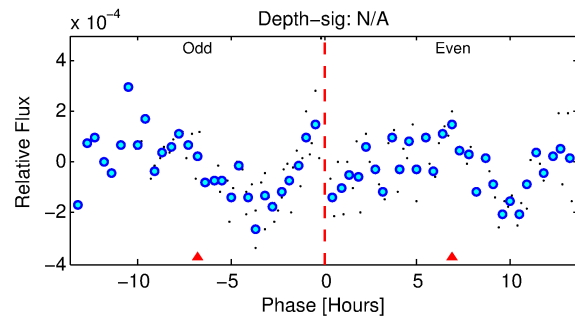
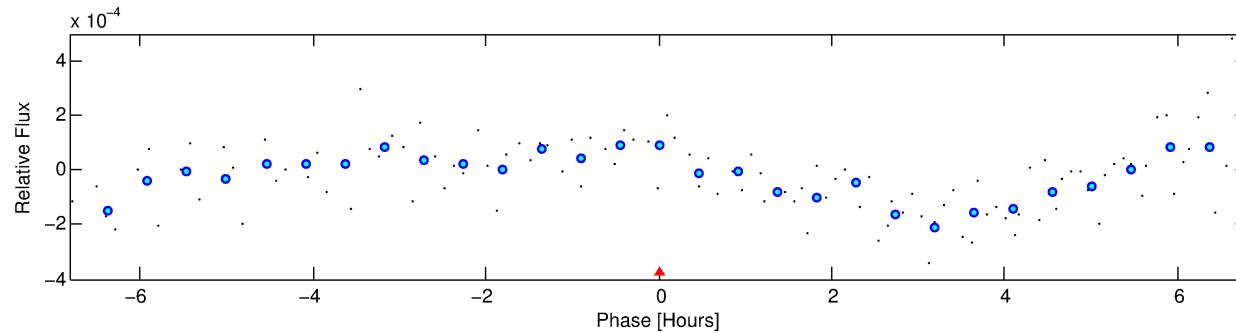
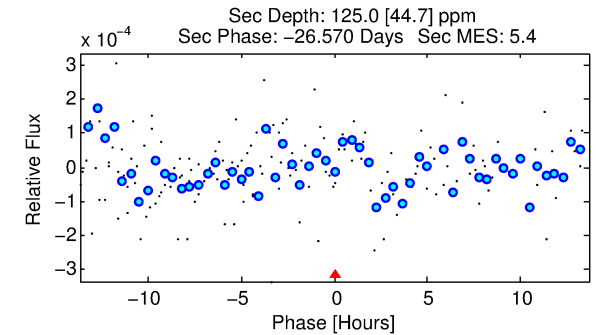
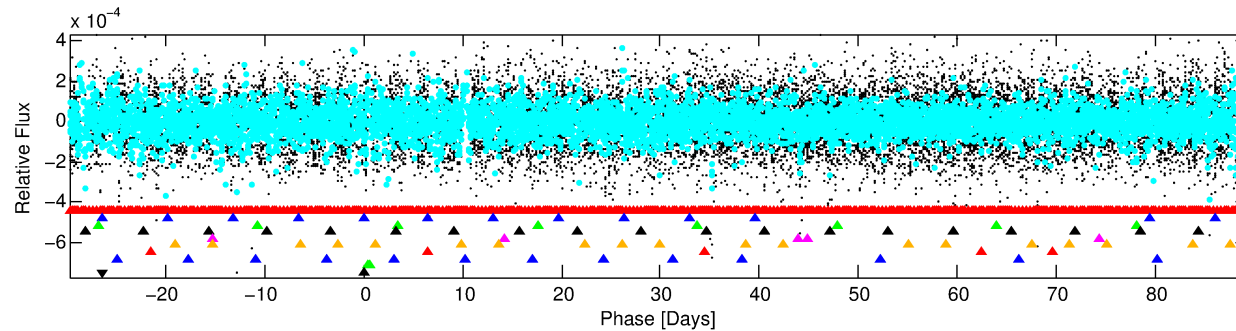
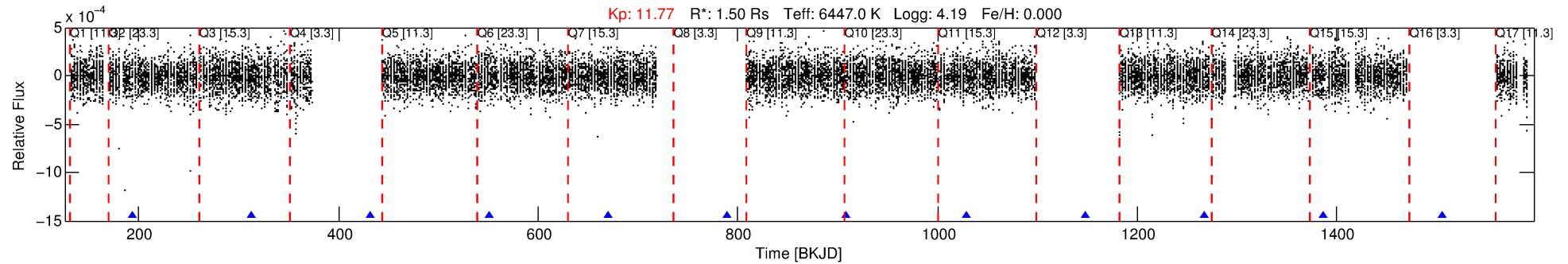
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011390595-10

No Significant Match Found

DV One-Page Summary

KIC: 11390595 Candidate: 10 of 10 Period: 119.273 d



TPS TCE Results:

Period = 119.27262 d
Epoch = 193.5881 BKJD

DV fit results are unavailable

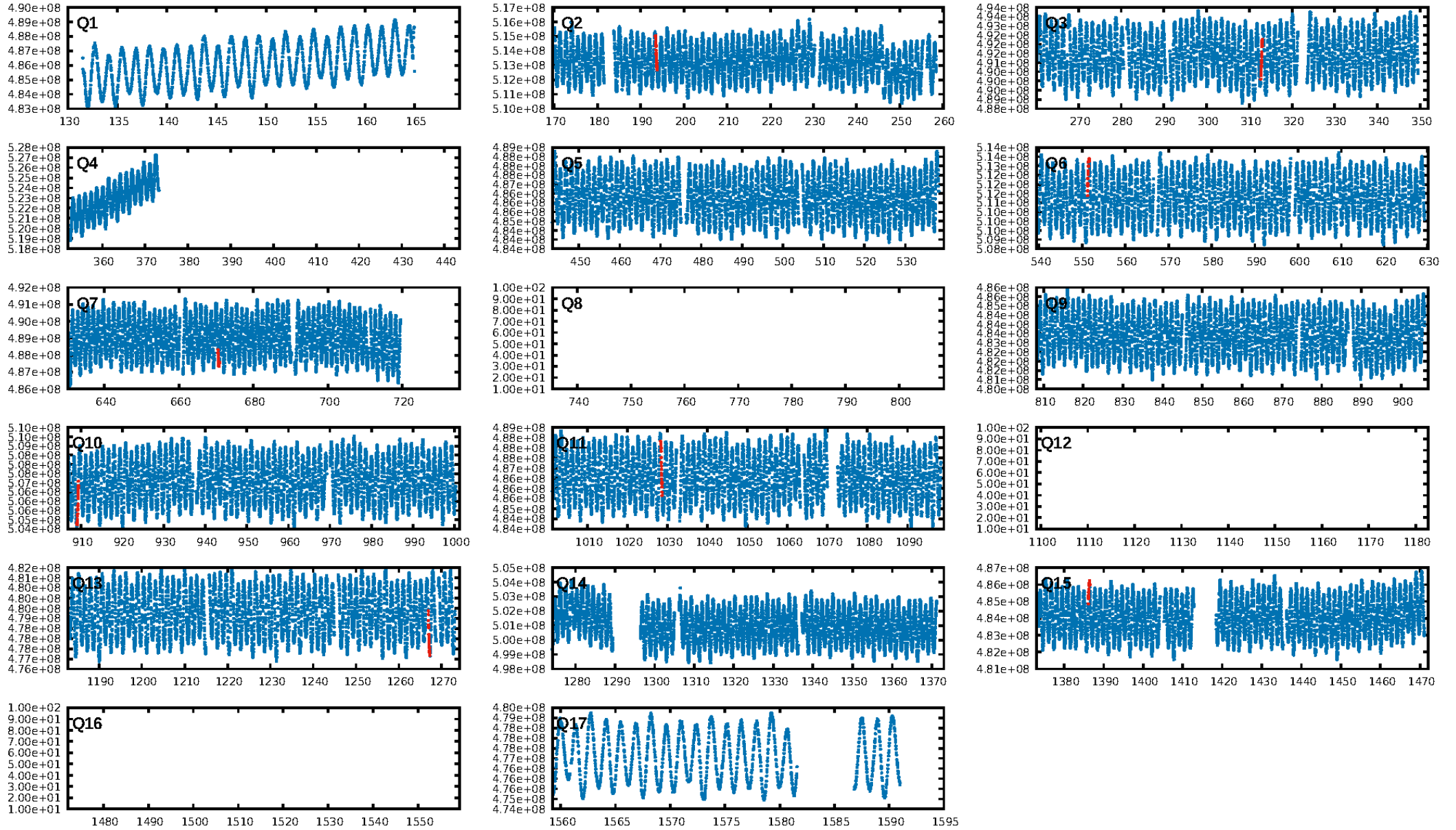
DV Diagnostic Results:

ShortPeriod-sig: 4.7% [0.06 σ]
LongPeriod-sig: 100.0% [282.04 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.937
Centroid-sig: 3.8%
Centroid-so: 7.147 arcsec [1.44 σ]
OotOffset-rm: 0.365 arcsec [1.55 σ]
KicOffset-rm: 0.468 arcsec [1.98 σ]
OotOffset-st: 3/4/0/1 [8]
KicOffset-st: 3/4/0/1 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.75 [6/8]

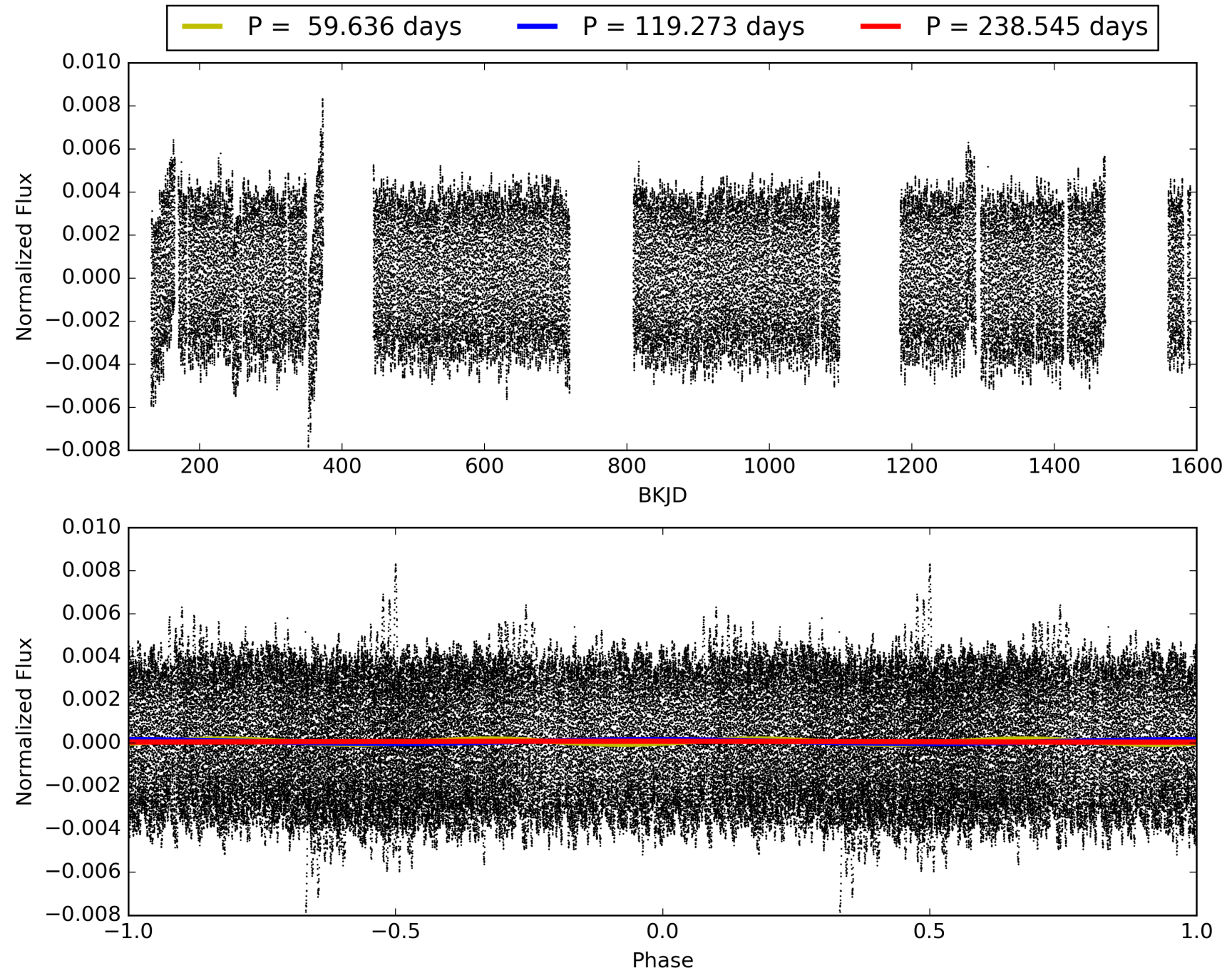
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:29:53 Z

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

TCE 011390595-10, PDC Light Curves

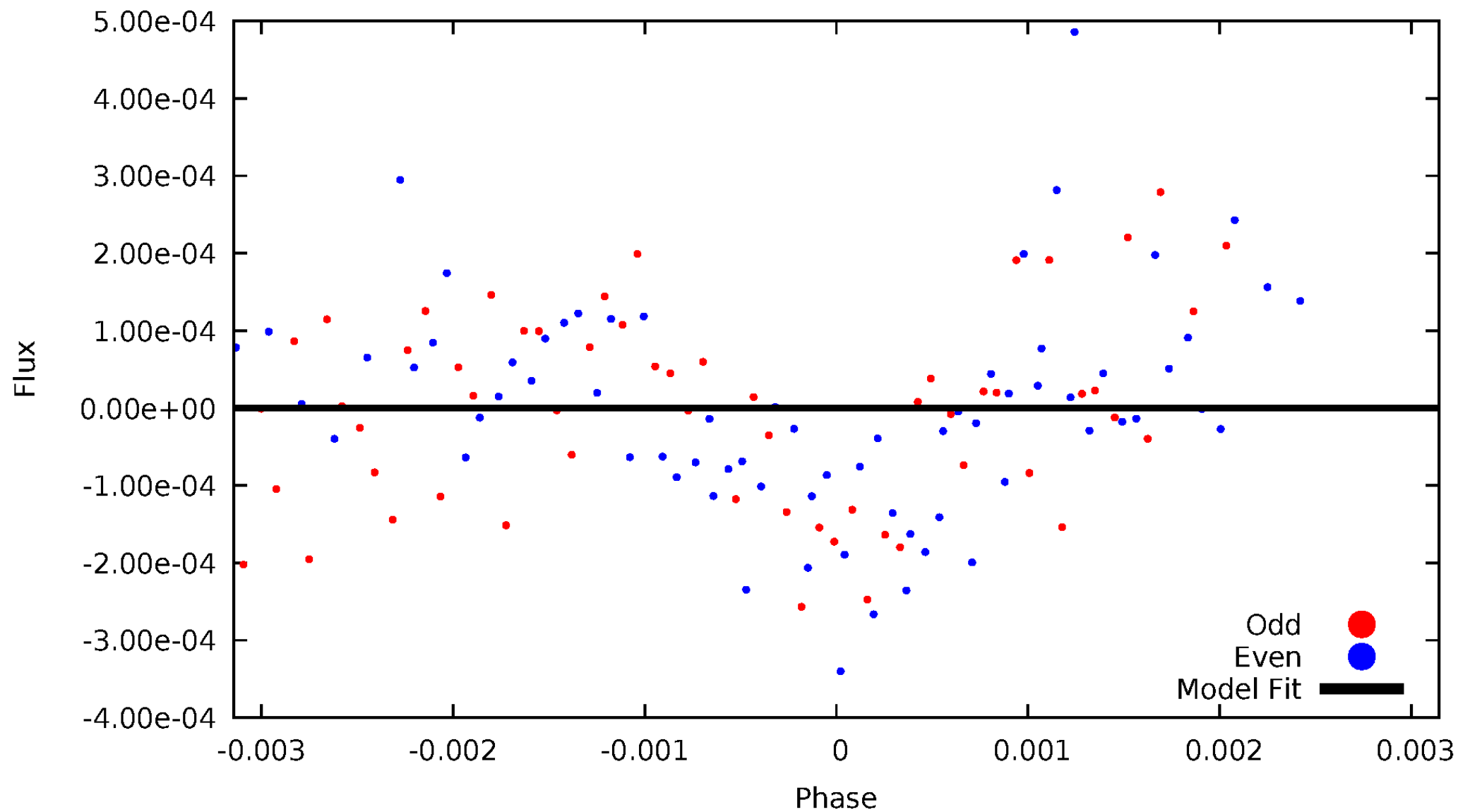


TCE 011390595-10



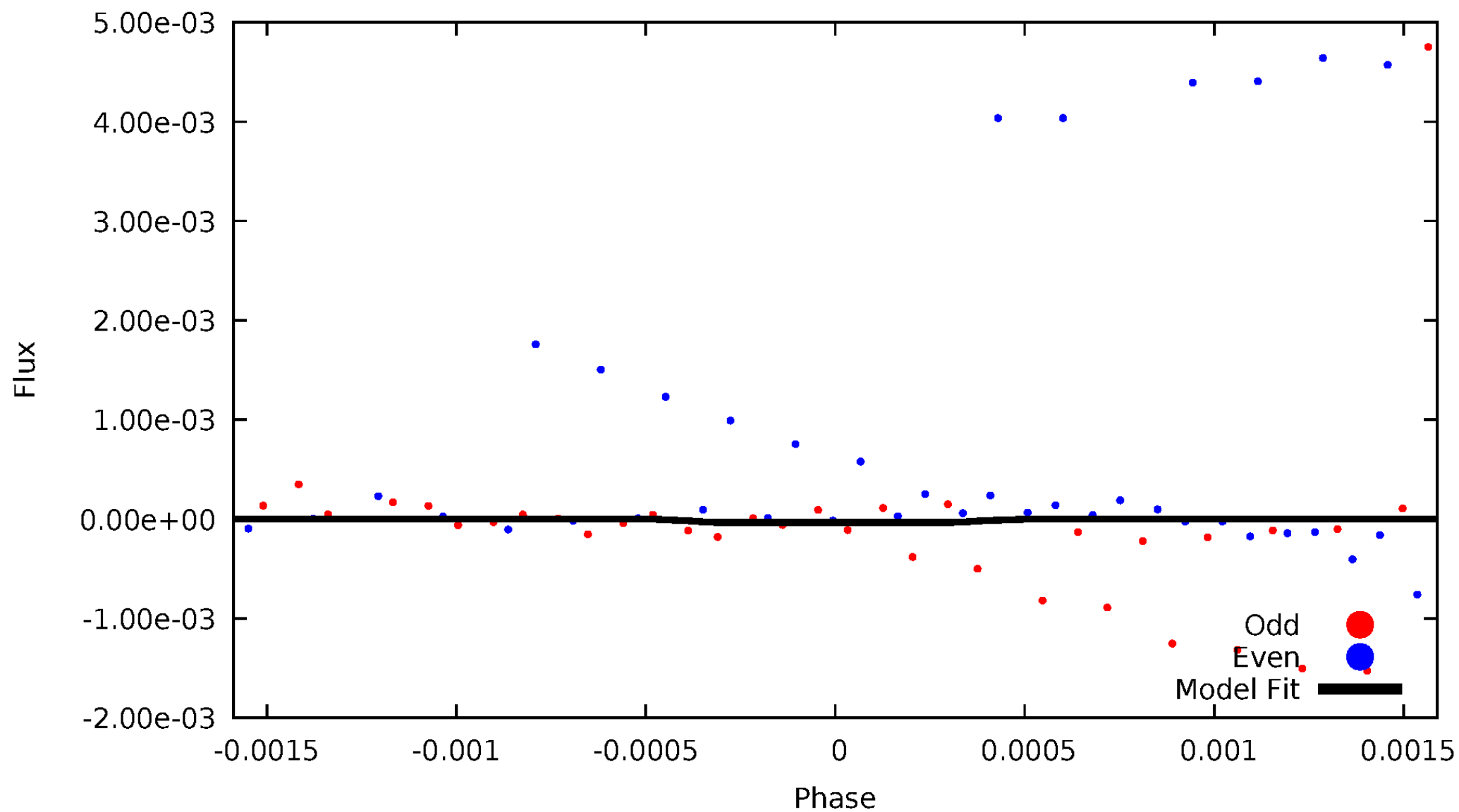
DV Odd/Even

TCE 011390595-10



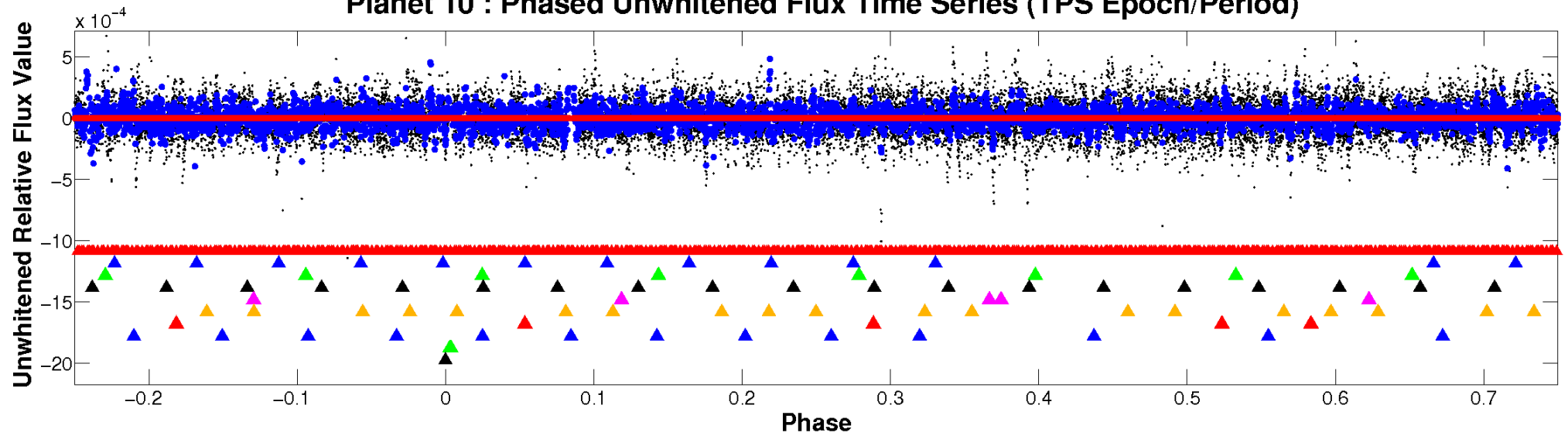
ALT Odd/Even

TCE 011390595-10

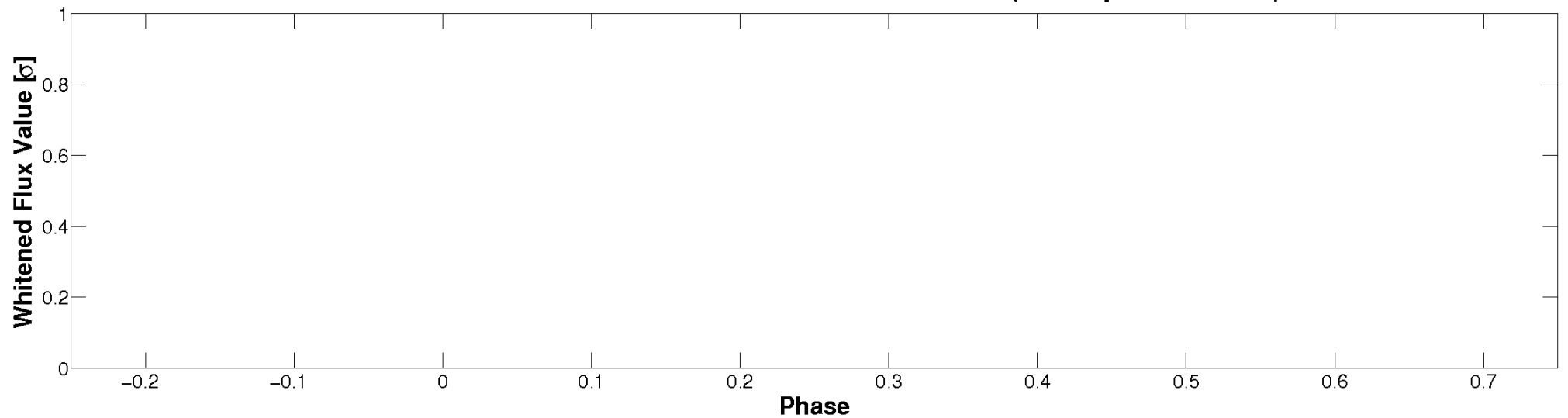


Non-Whitened Vs. Whitened Light Curve

Planet 10 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

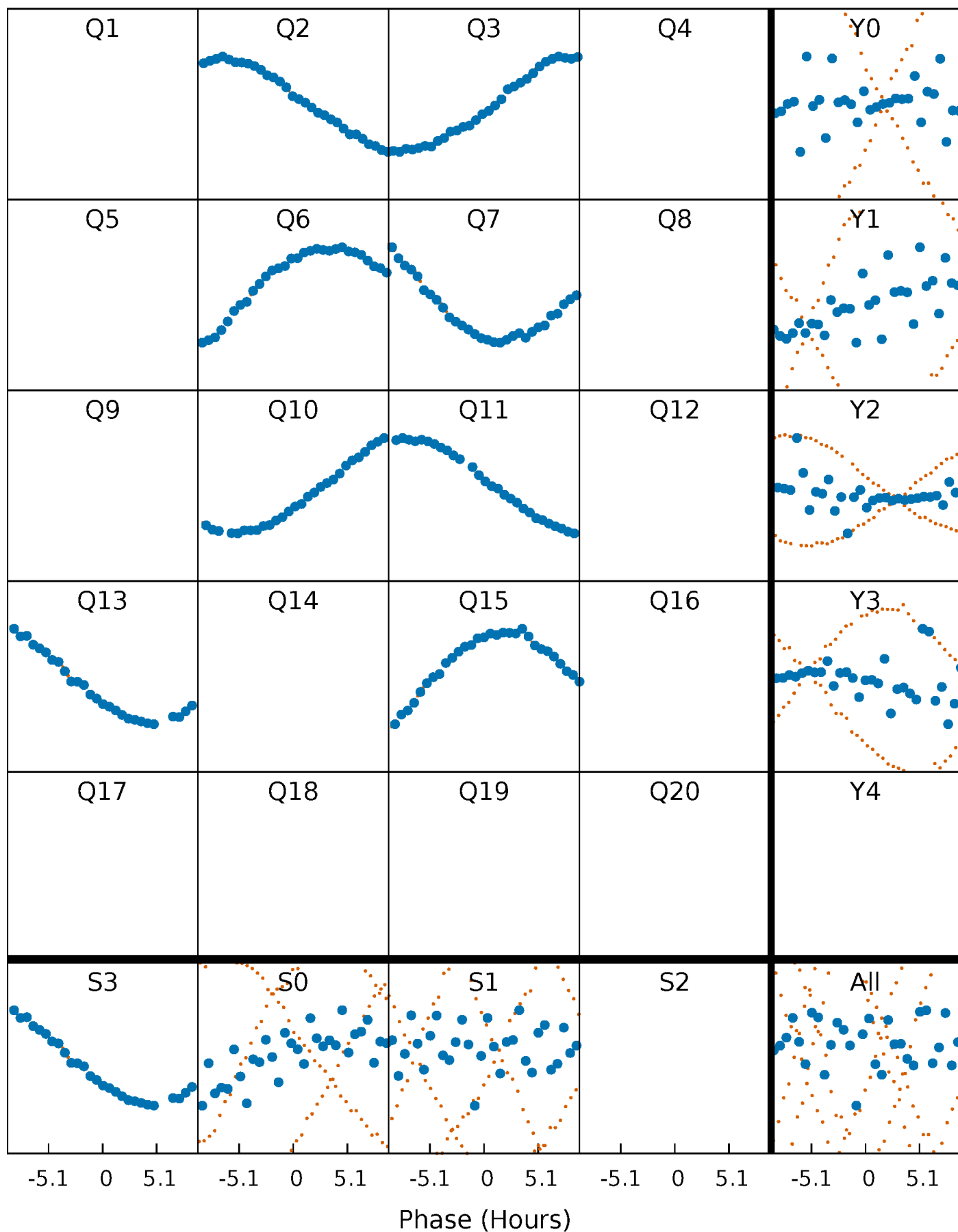


Planet 10 : Phased Whitened Flux Time Series (TPS Epoch/Period)



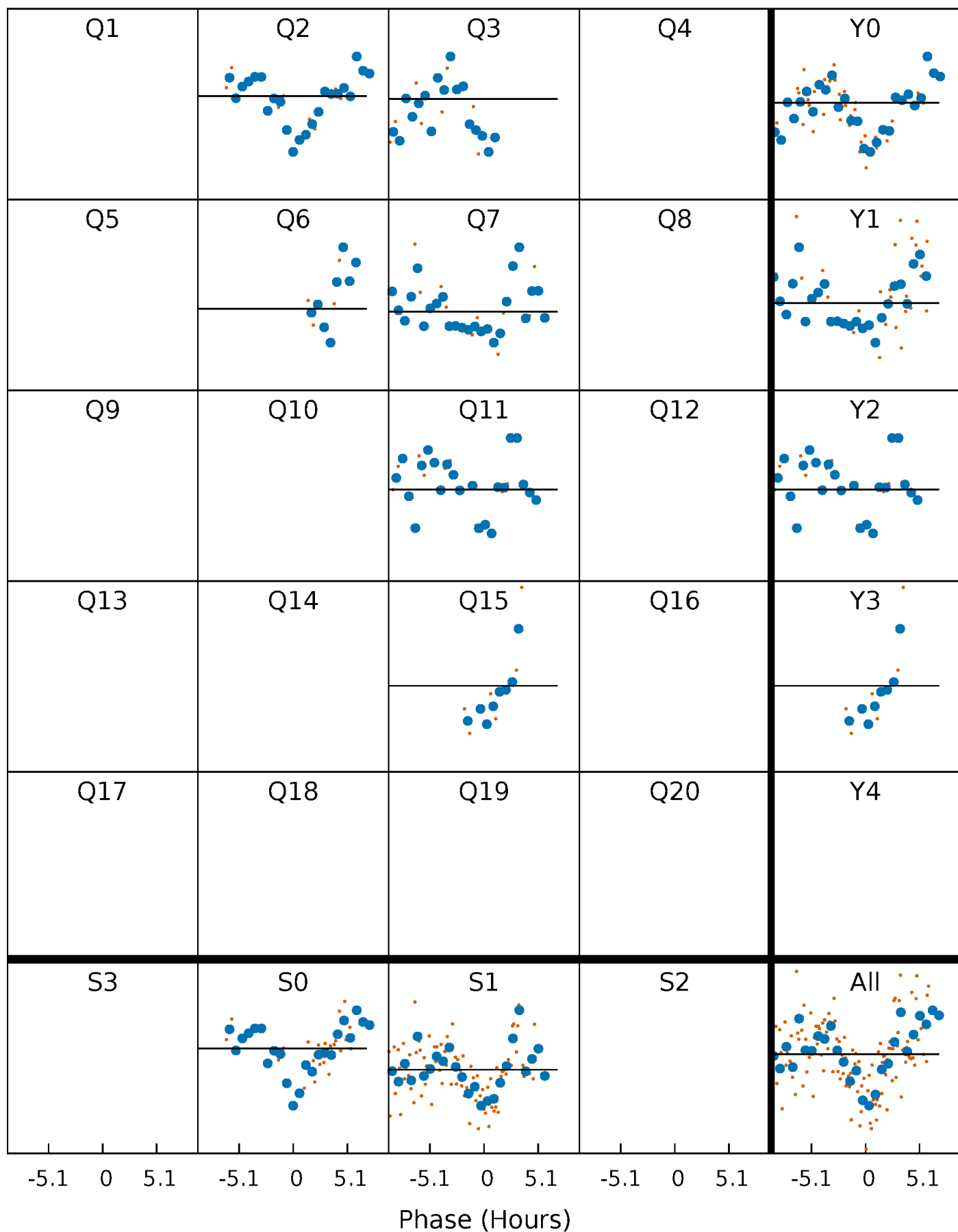
PDC Quarter-Phased Transit Curves

TCE 011390595-10 P=119.272617 Days $T_0=193.588149$ (BKJD)



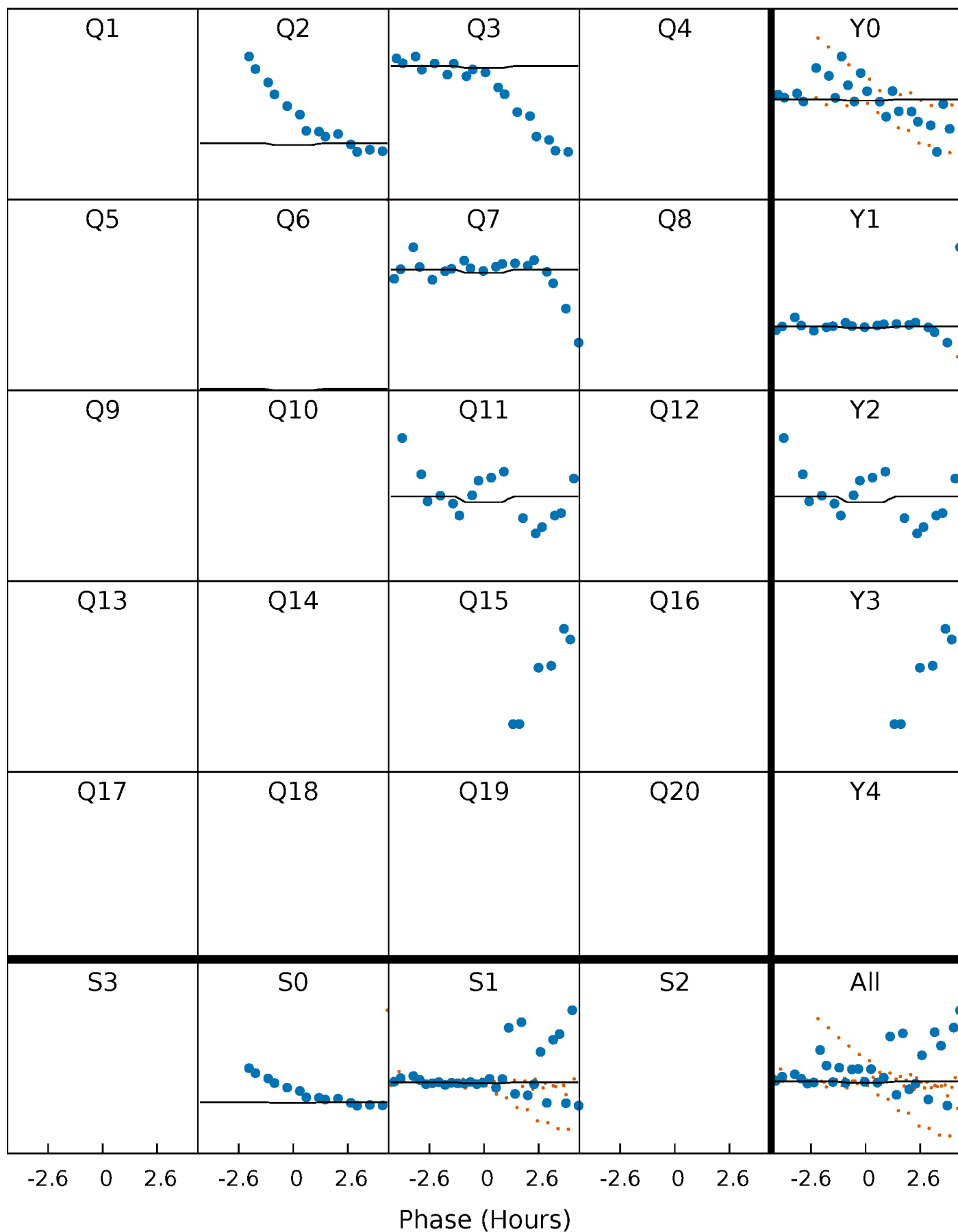
DV Quarter-Phased Transit Curves

TCE 011390595-10 P=119.272617 Days $T_0=193.588149$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

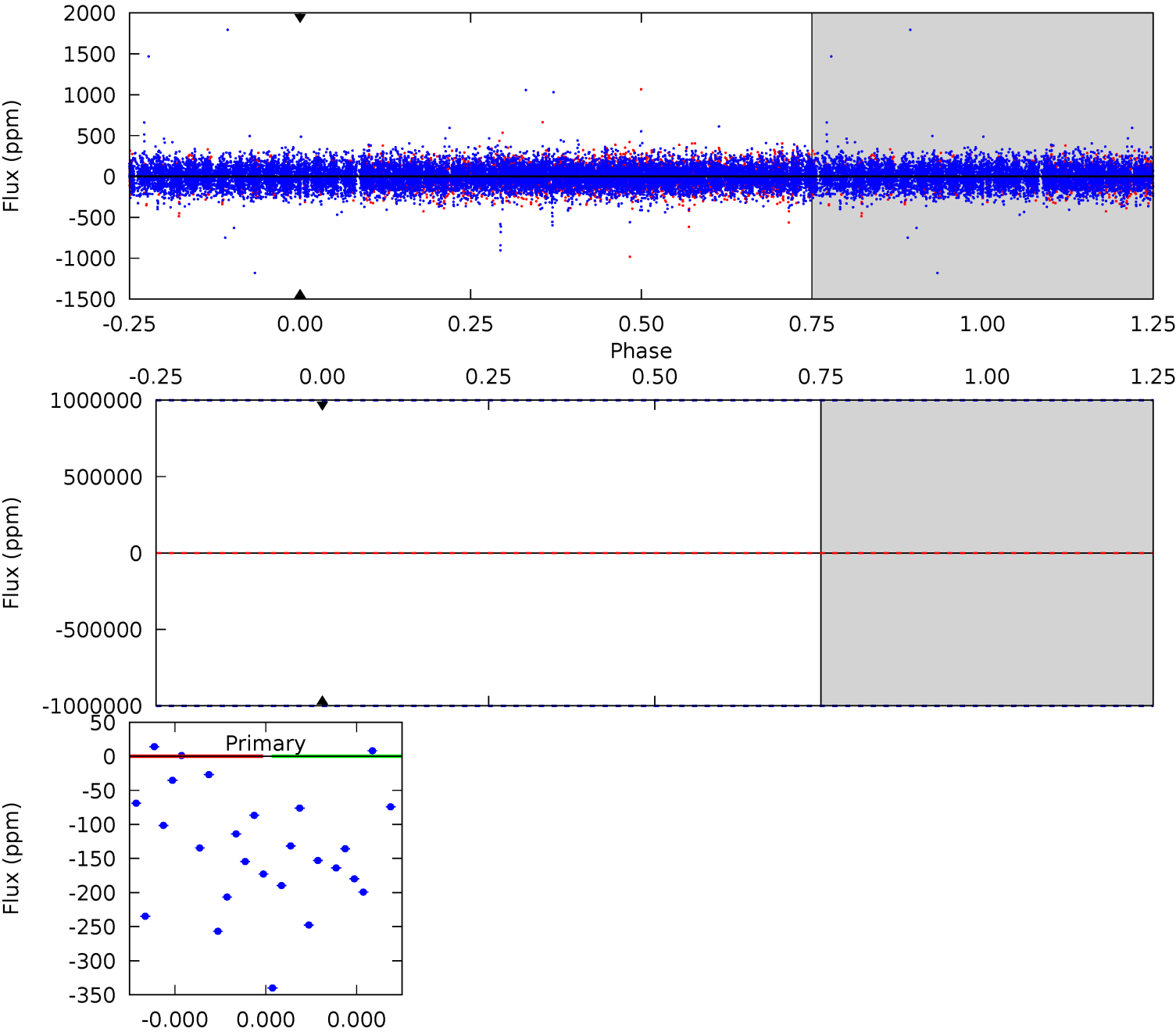
TCE 011390595-10 P=119.272617 Days $T_0=193.460399$ (BKJD)



DV Model-Shift Uniqueness Test

011390595-10, P = 119.272617 Days, E = 74.315532 Days

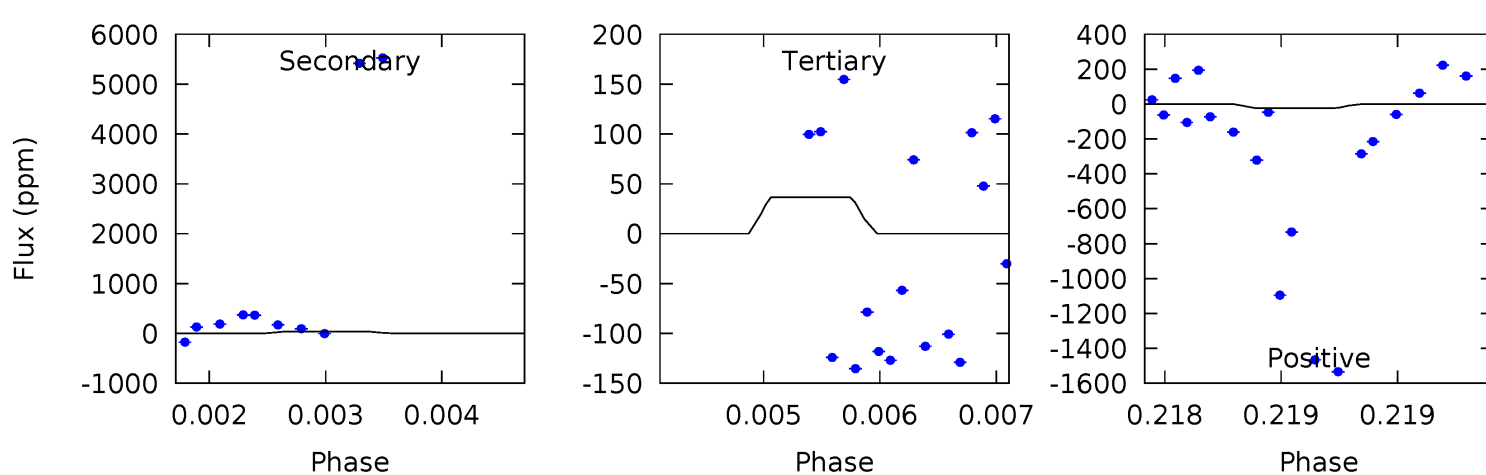
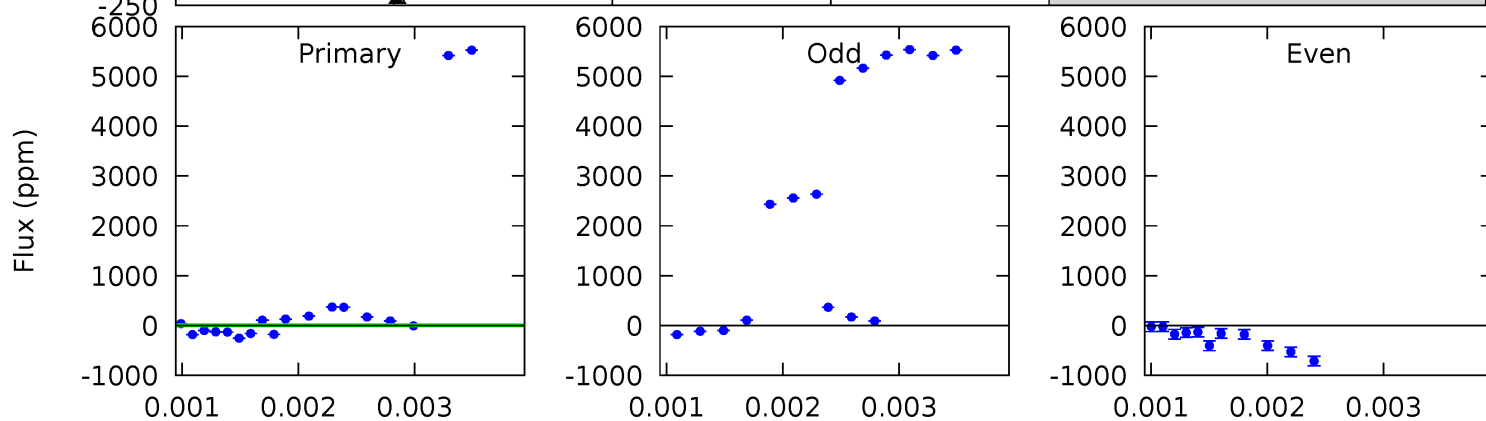
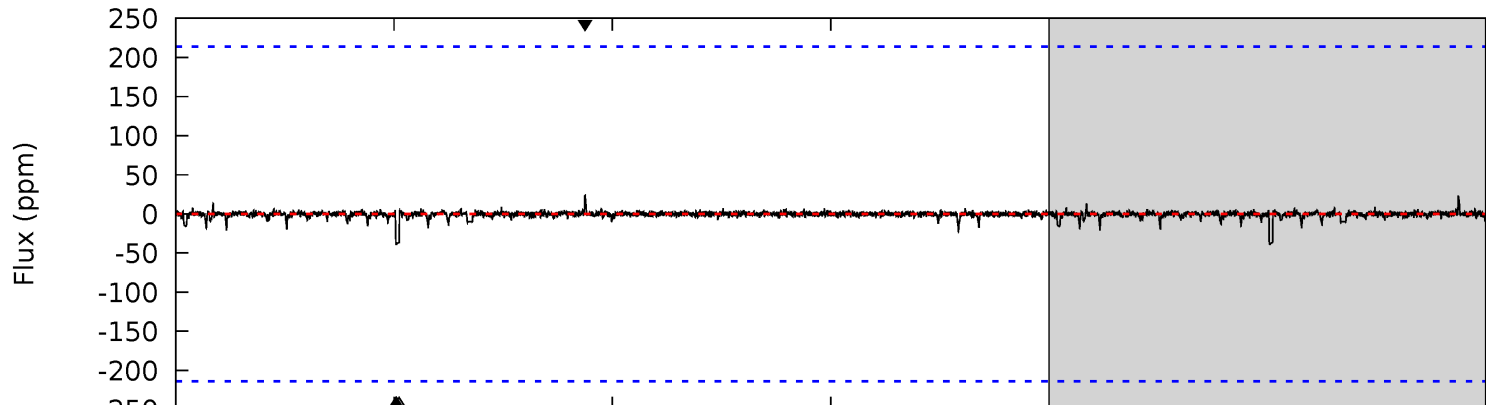
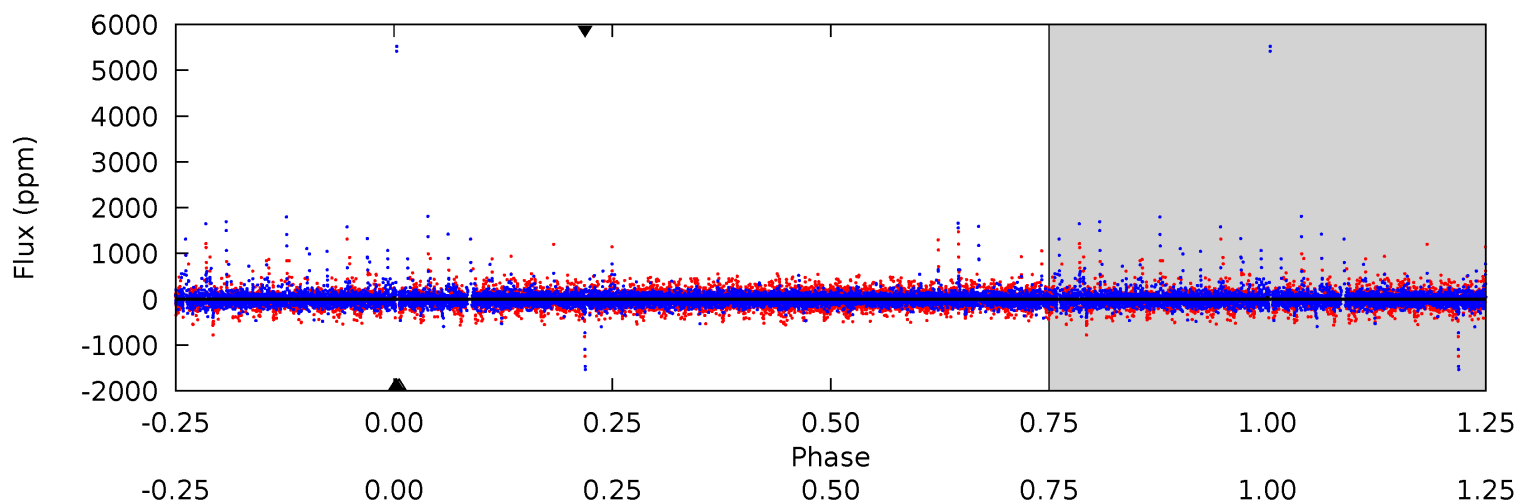
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011390595-10, P = 119.272617 Days, E = 74.187782 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.89	1.00	0.94	0.59	5.47	3.32	0.06	-0.05	0.30	0.07	0.41	2.25	2.69	0.37	1.03



Stellar Parameters For KIC 011390595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6447^{+179}_{-247}	$4.189^{+0.180}_{-0.180}$	$0.000^{+0.250}_{-0.300}$	$1.500^{+0.484}_{-0.363}$	$1.270^{+0.185}_{-0.206}$	$0.530^{+0.457}_{-0.268}$
	+3%/-4%	+4%/-4%	+inf%/-inf%	+32%/-24%	+15%/-16%	+86%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011390595-10 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$11.39^{+12.25}_{-8.05}$	677^{+53}_{-47}	-5241^{+36144}_{-26681}	$-2177.302^{+214489.867}_{-241712.333}$
Alt.	-39 ± 39	$11.86^{+12.72}_{-8.13}$	681^{+51}_{-53}	2556^{+1113}_{-4270}	27^{+310}_{-28}

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 $A_{obs} \gg 1.0$

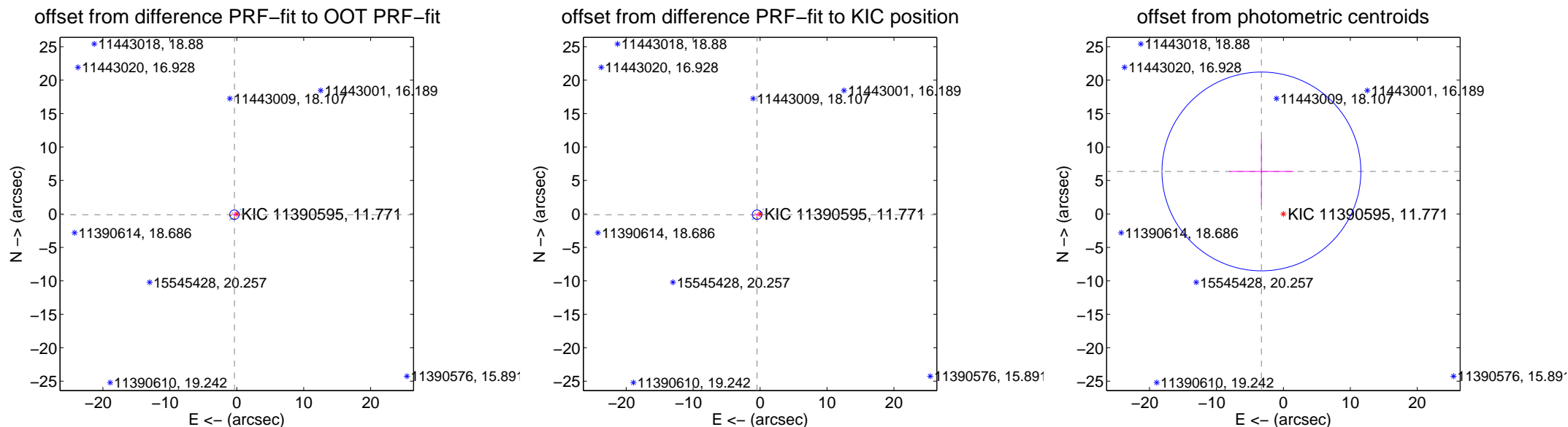
DV Centroid Data

Supplemental centroid analysis for 011390595-10. **Kepler magnitude: 11.77.** Transit SNR -1.00

There are 4 quarters with good PRF difference image offsets

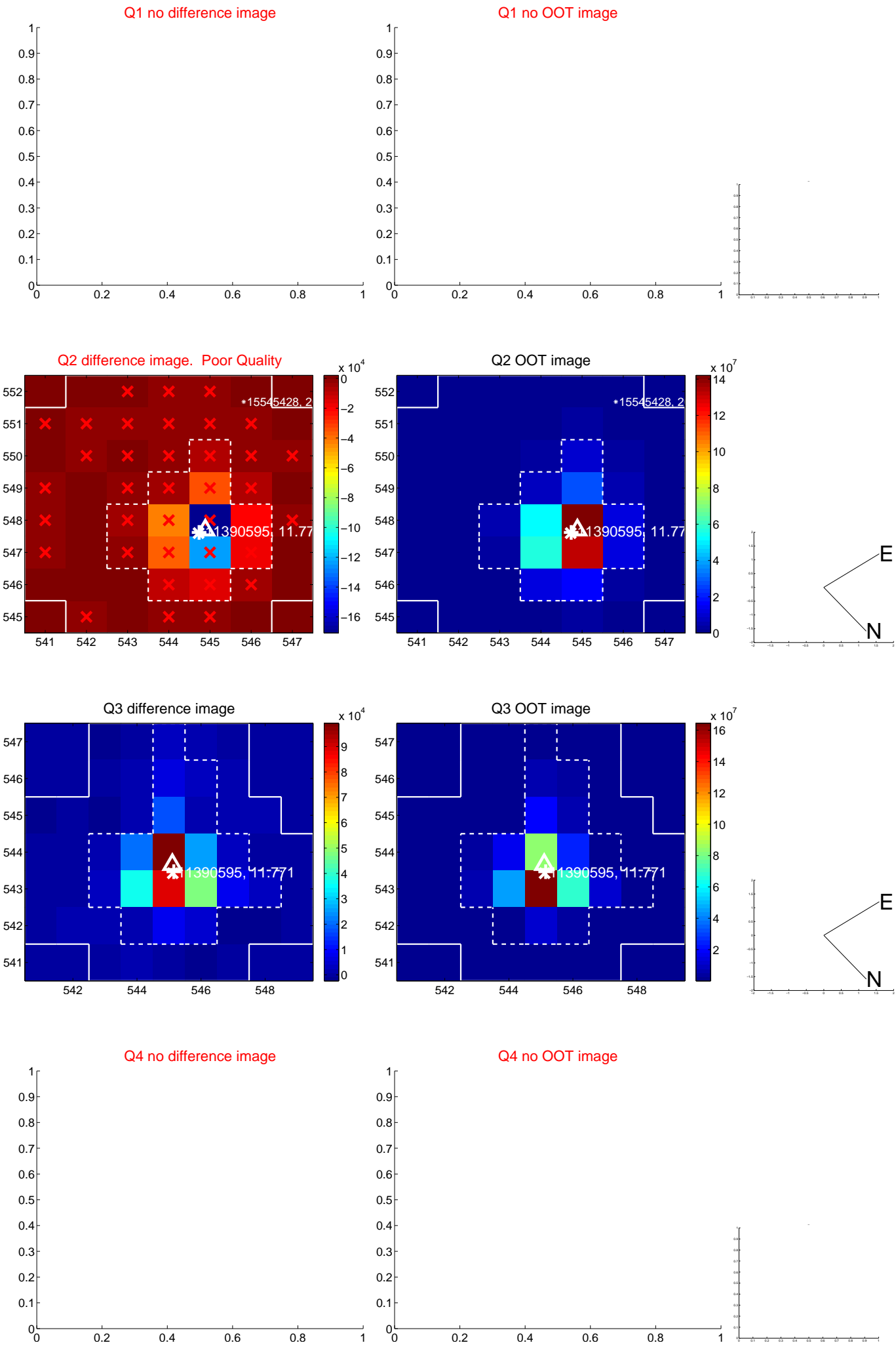
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.365 ± 0.236	1.55	0.347 ± 0.238	-0.114 ± 0.208
PRF-fit source offset from KIC position	0.468 ± 0.237	1.98	0.455 ± 0.238	-0.113 ± 0.204
photometric centroid source offset	7.15 ± 4.95	1.44	3.28 ± 4.83	6.35 ± 4.98

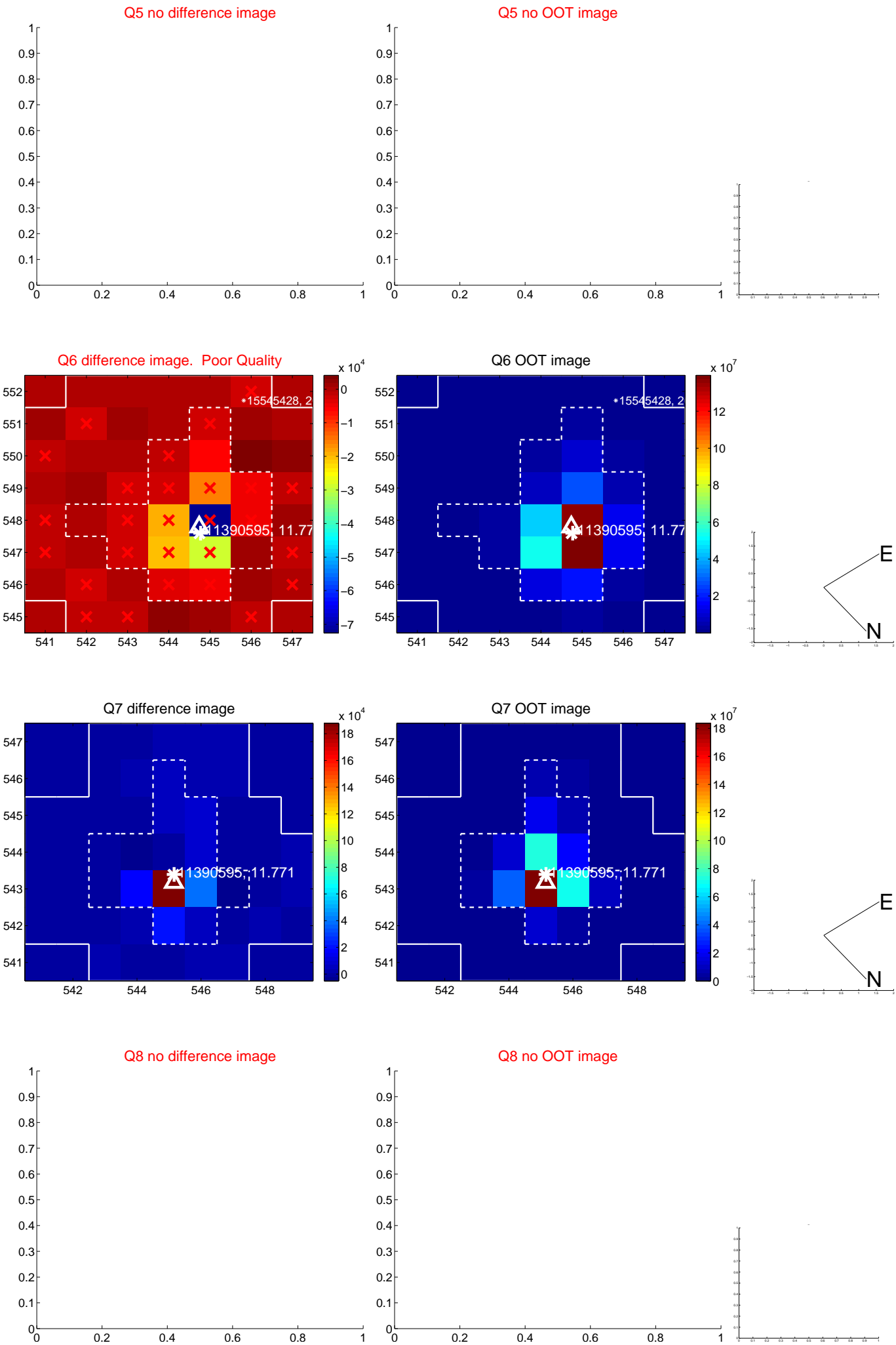


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

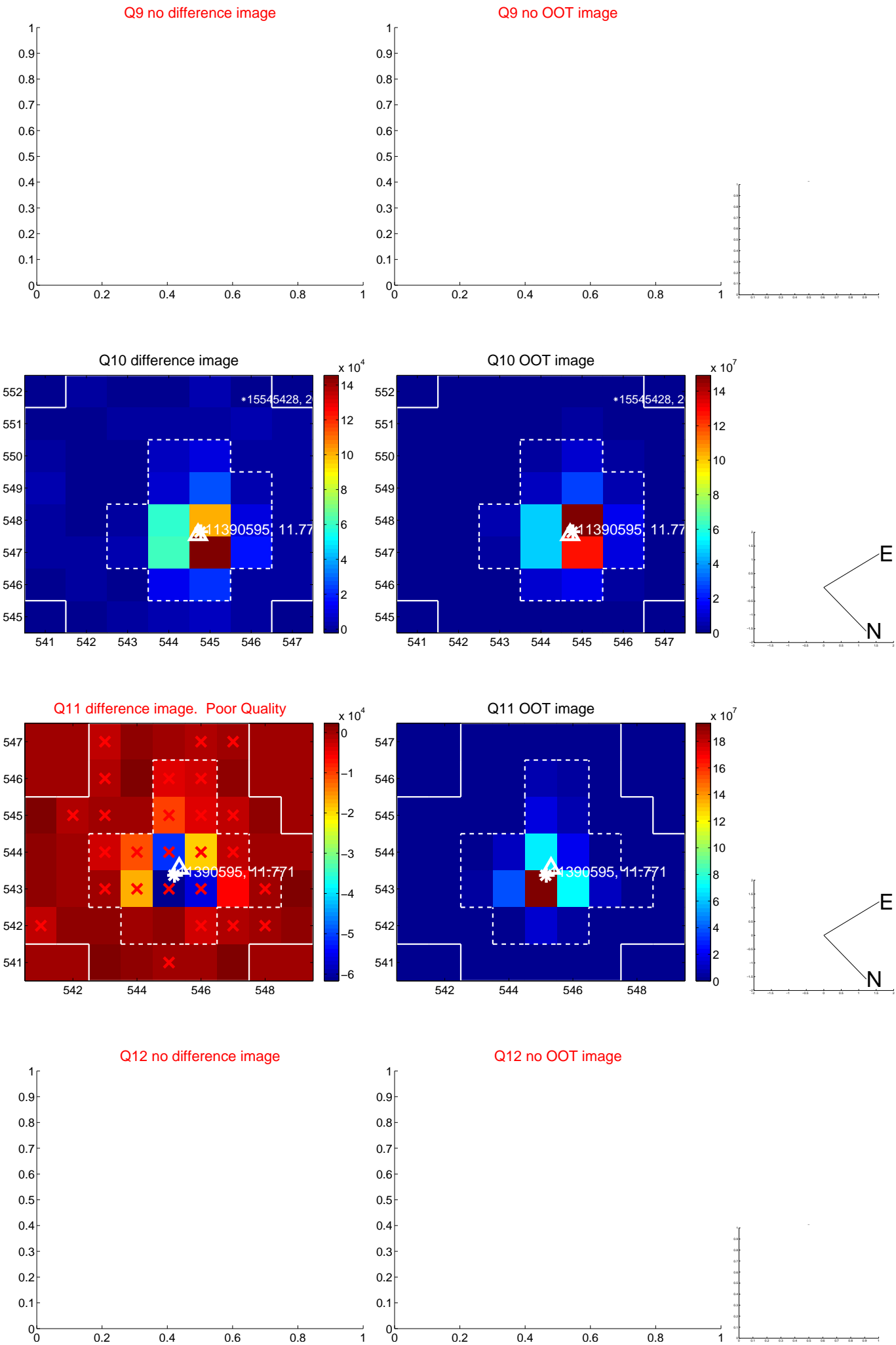
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



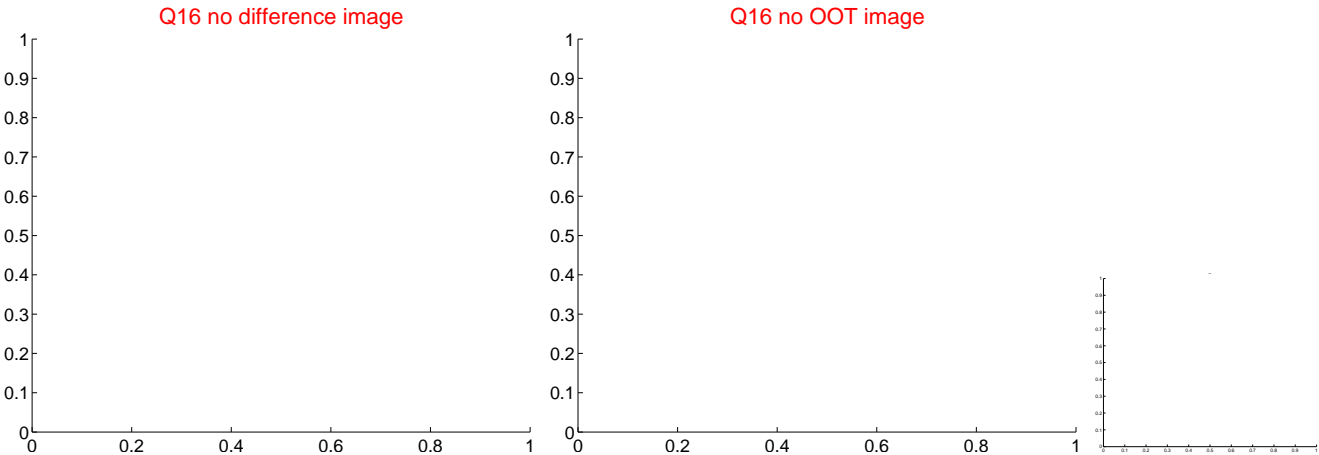
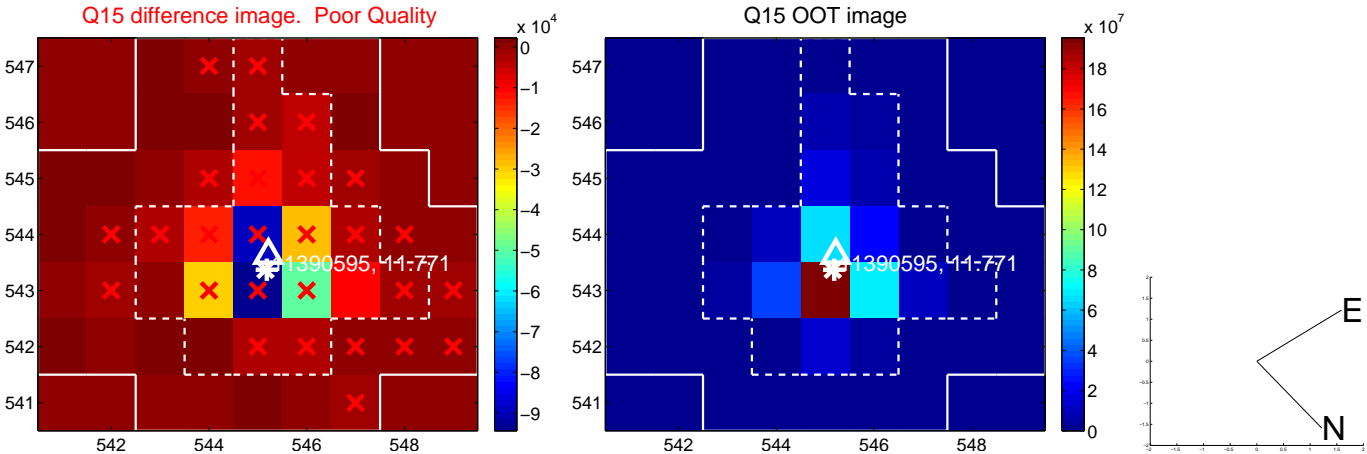
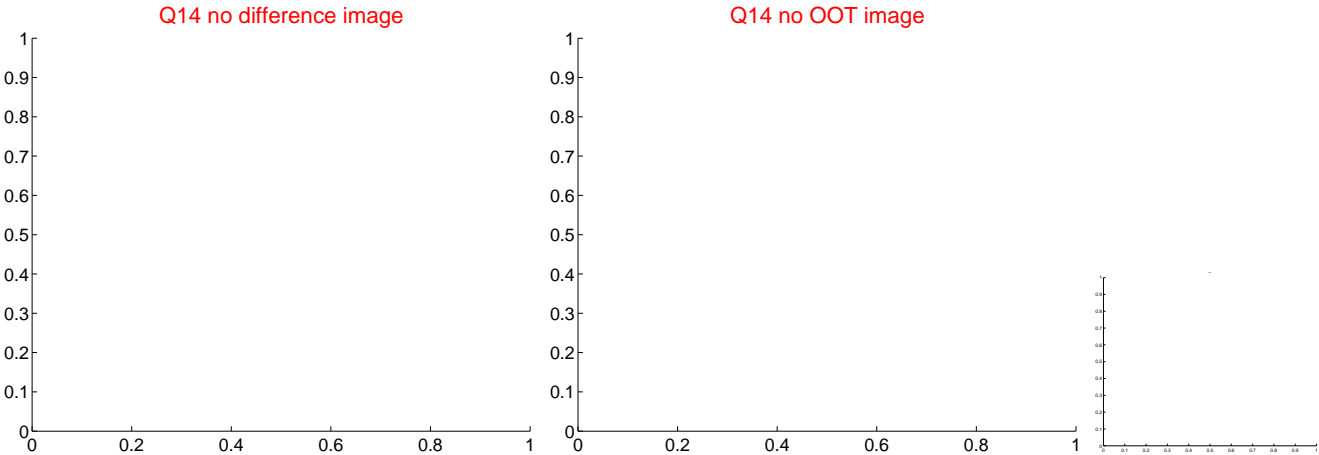
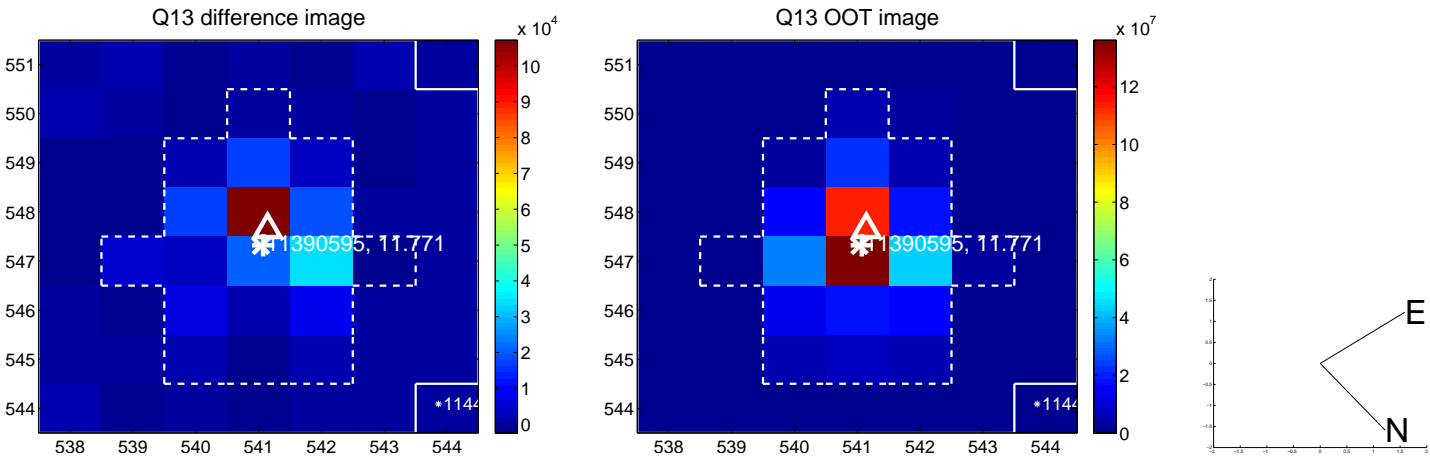
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



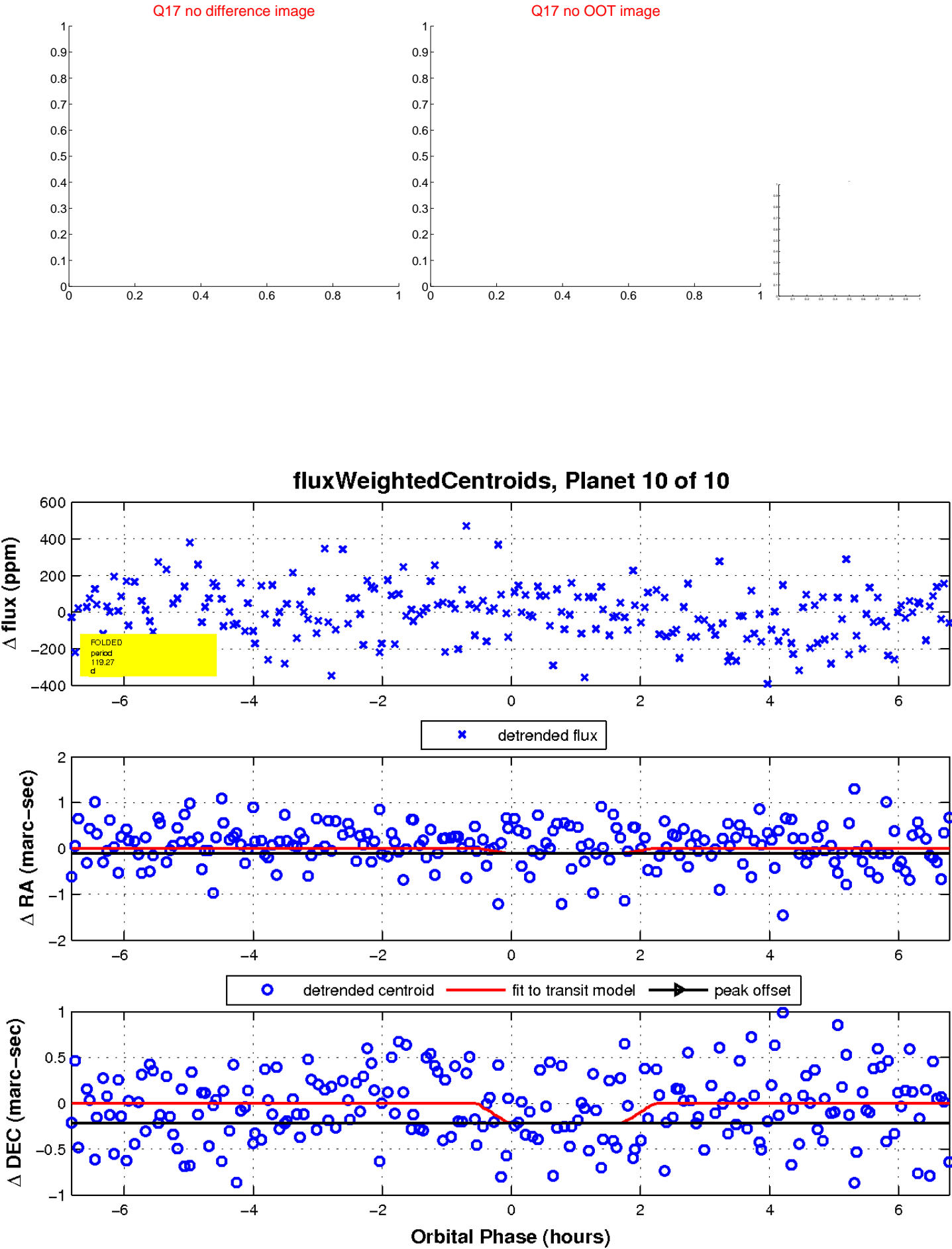
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

