

KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

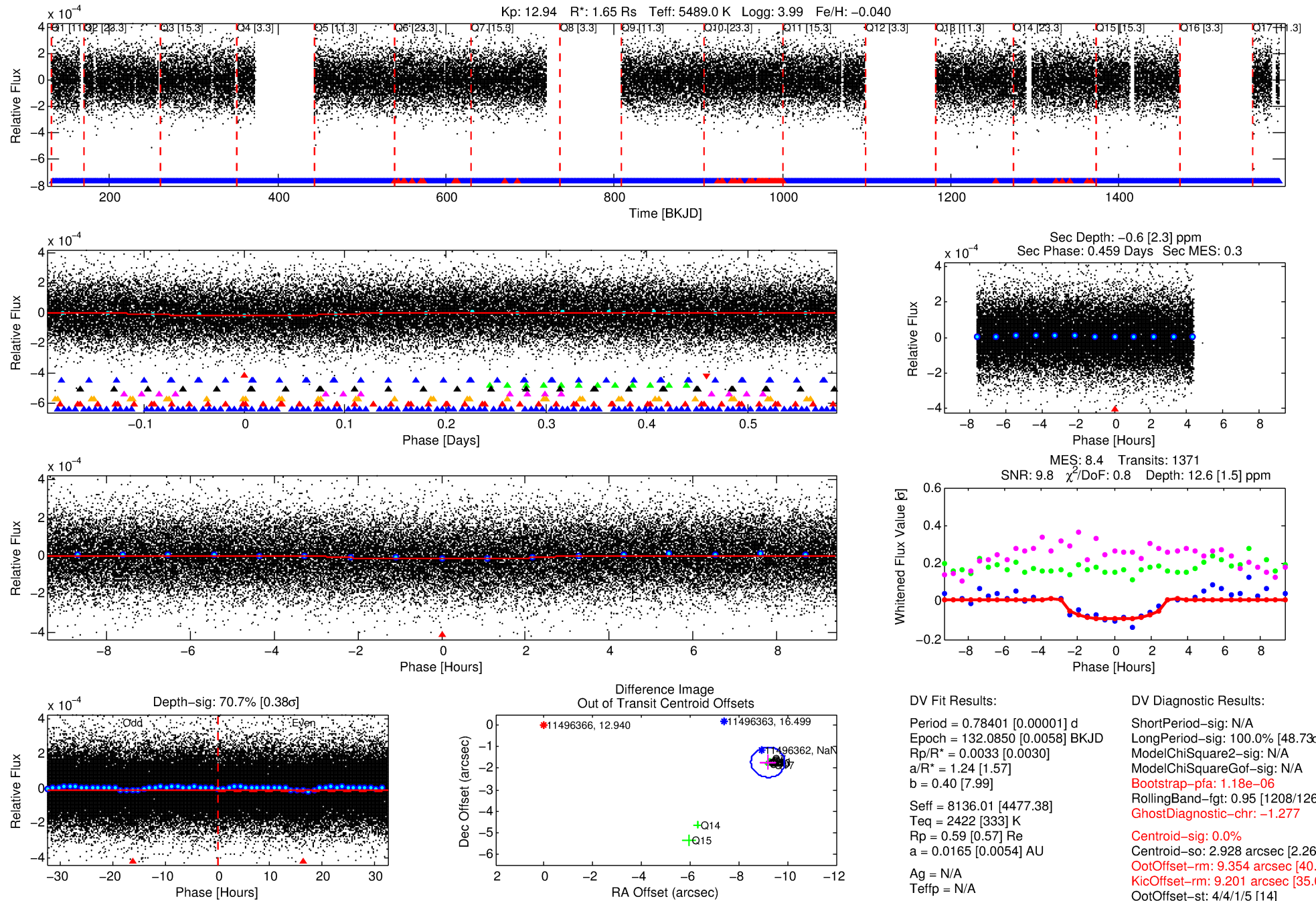
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-01

No Significant Match Found

DV One-Page Summary

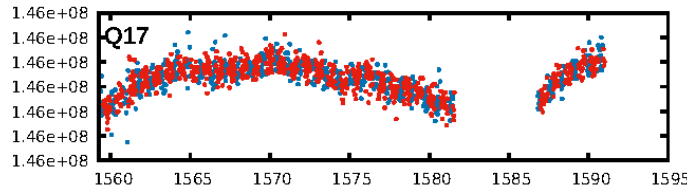
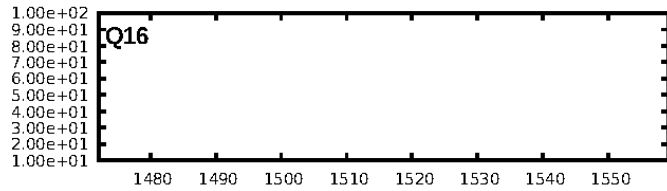
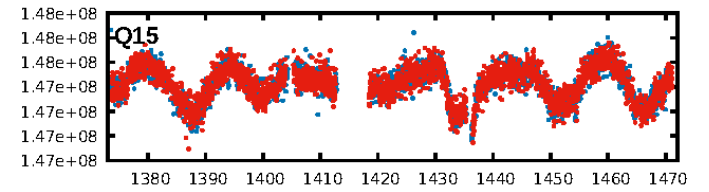
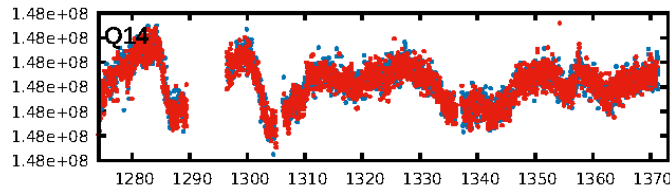
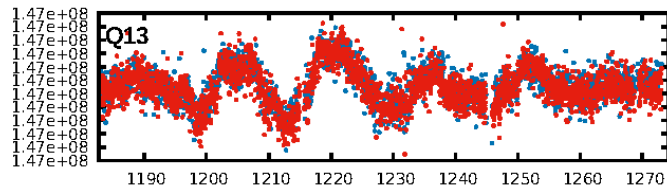
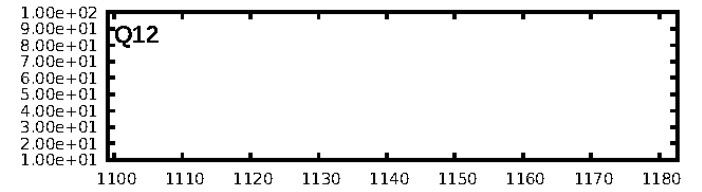
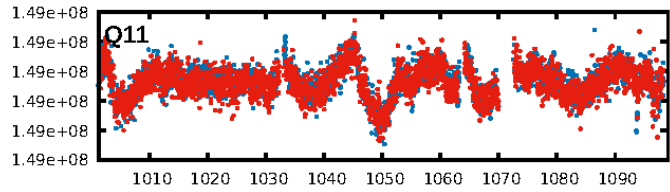
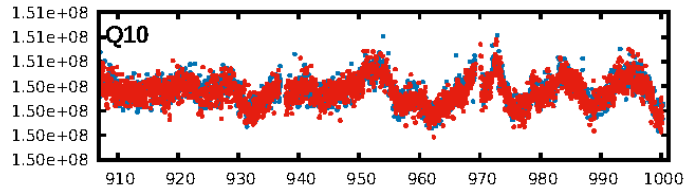
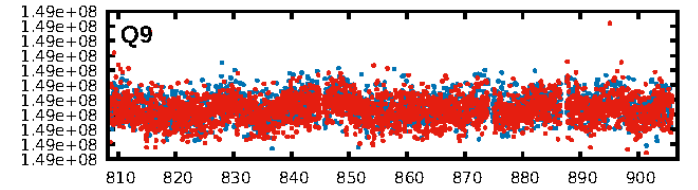
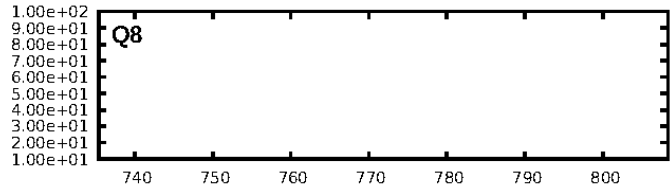
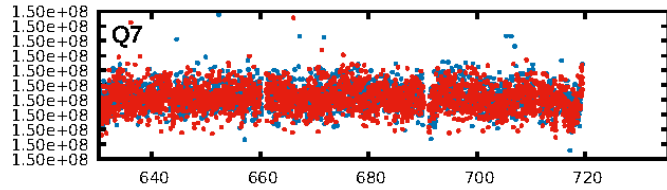
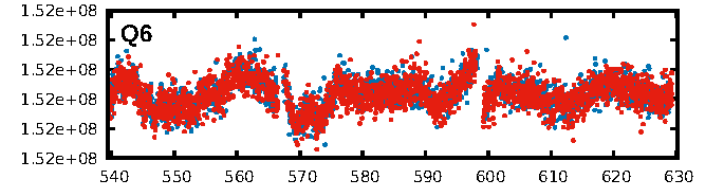
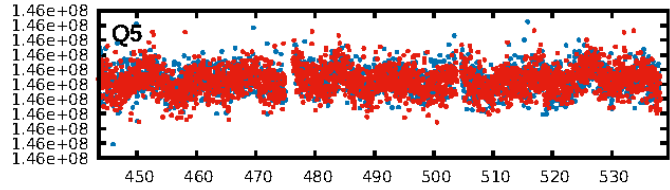
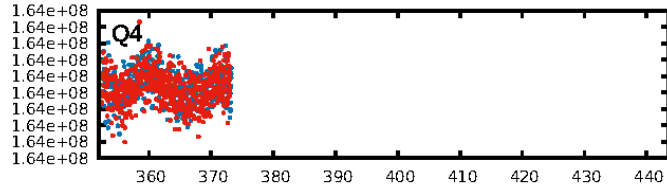
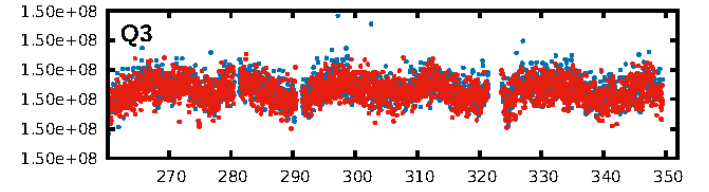
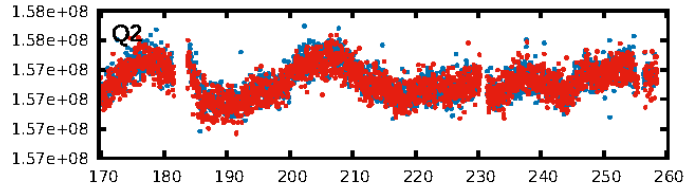
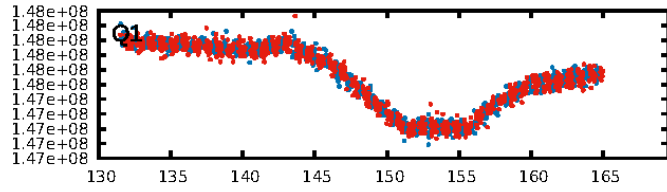
KIC: 11496366 Candidate: 1 of 8 Period: 0.784 d



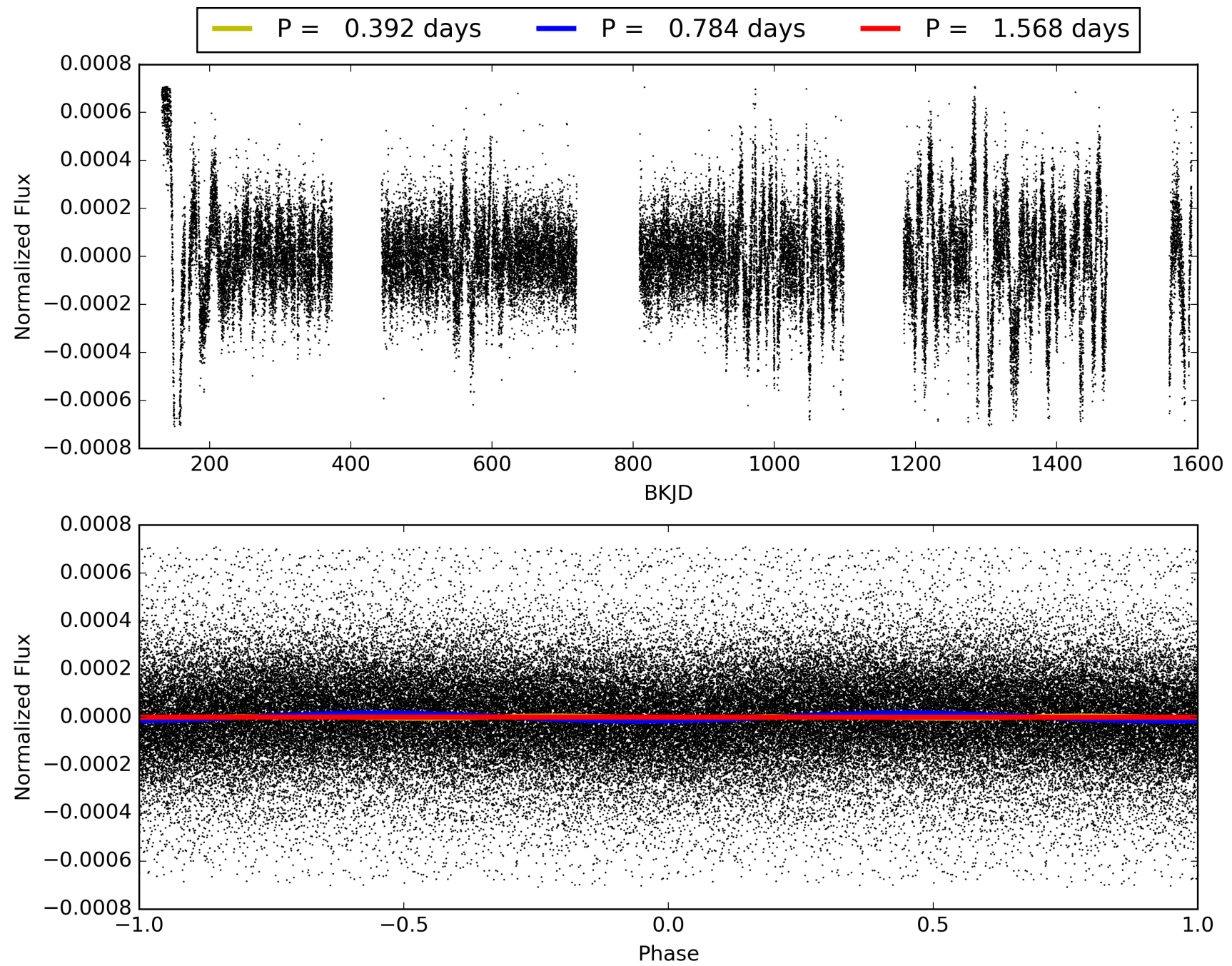
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:28 Z

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

TCE 011496366-01, PDC Light Curves

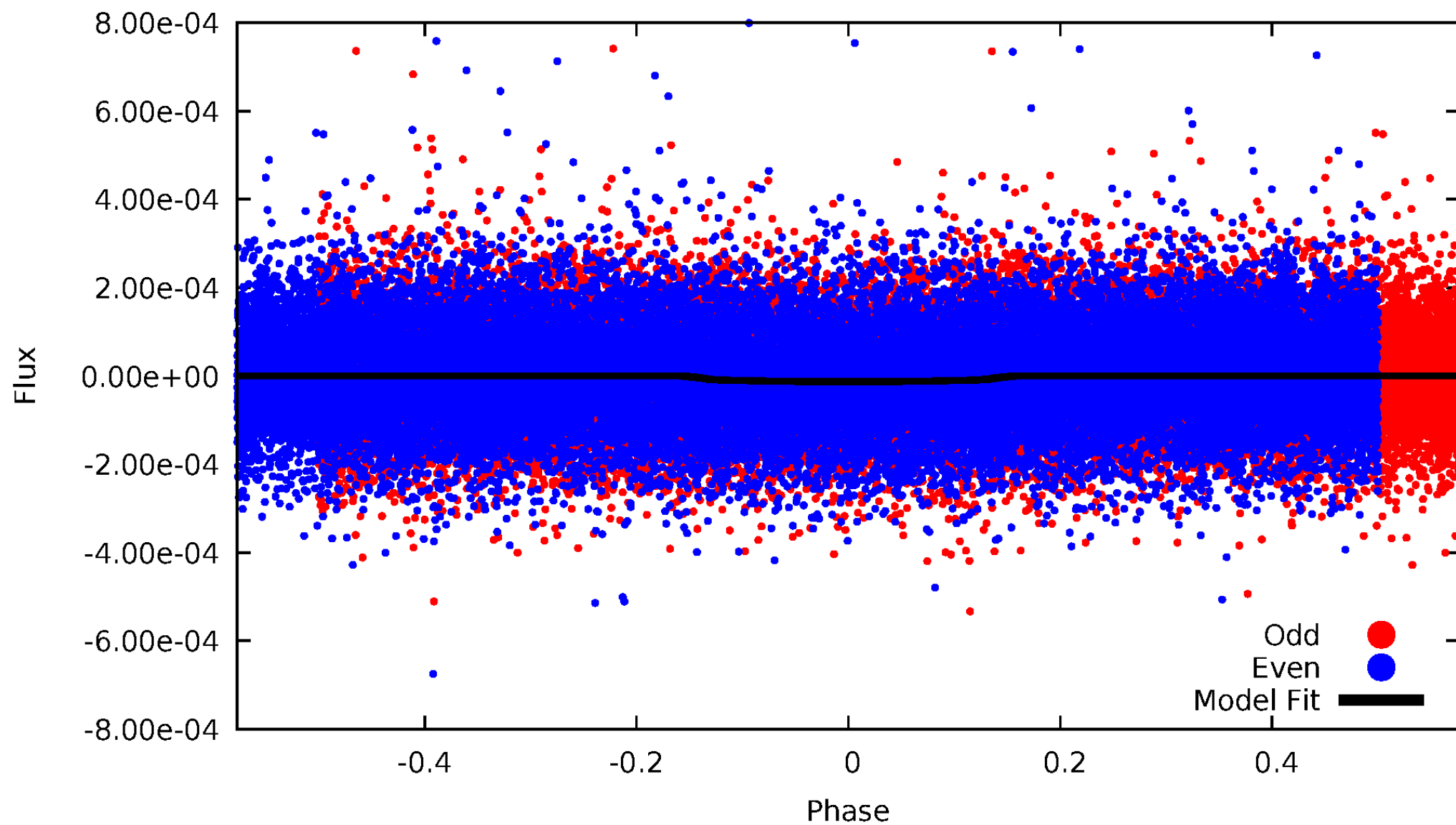


TCE 011496366-01



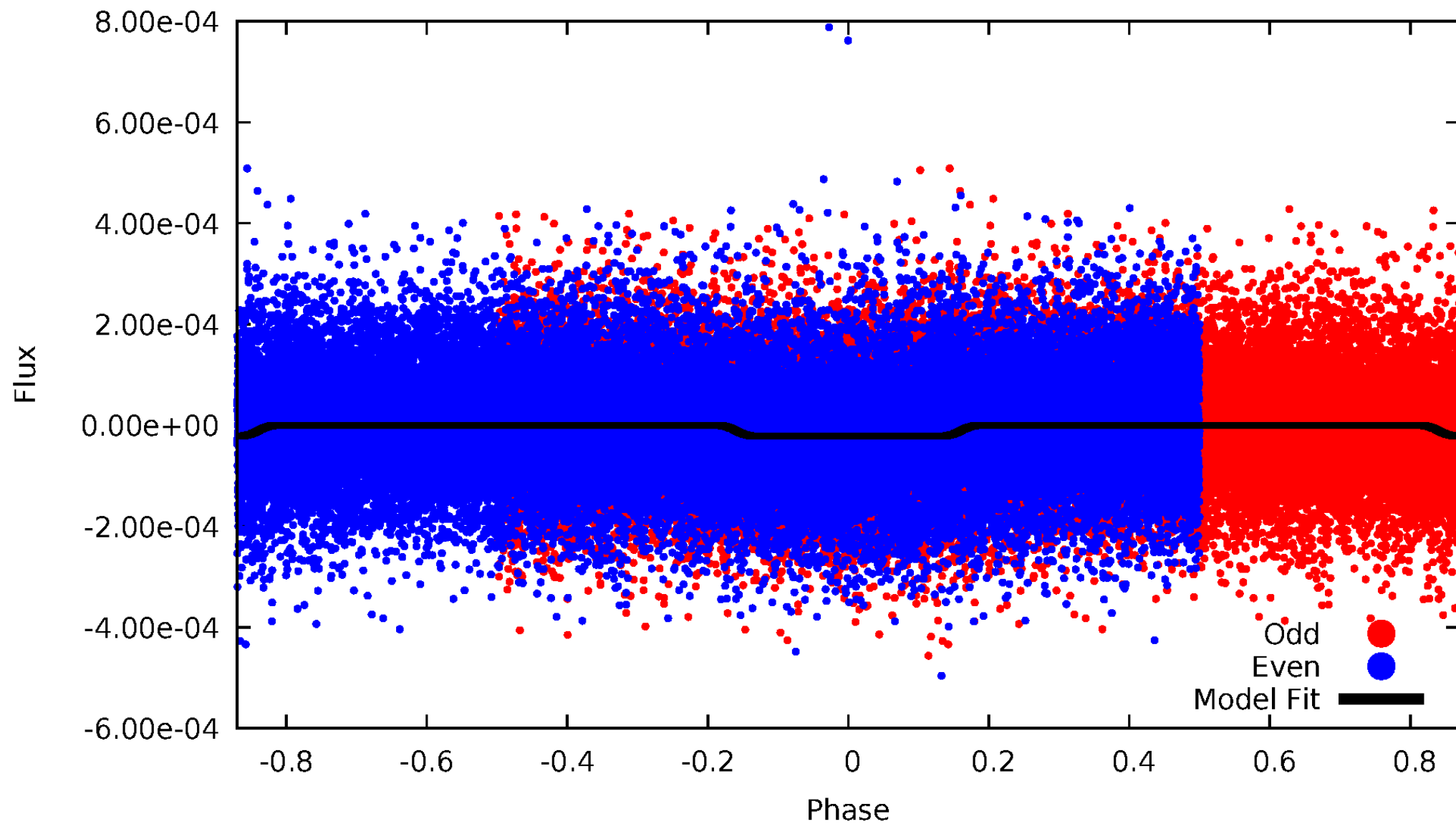
DV Odd/Even

TCE 011496366-01



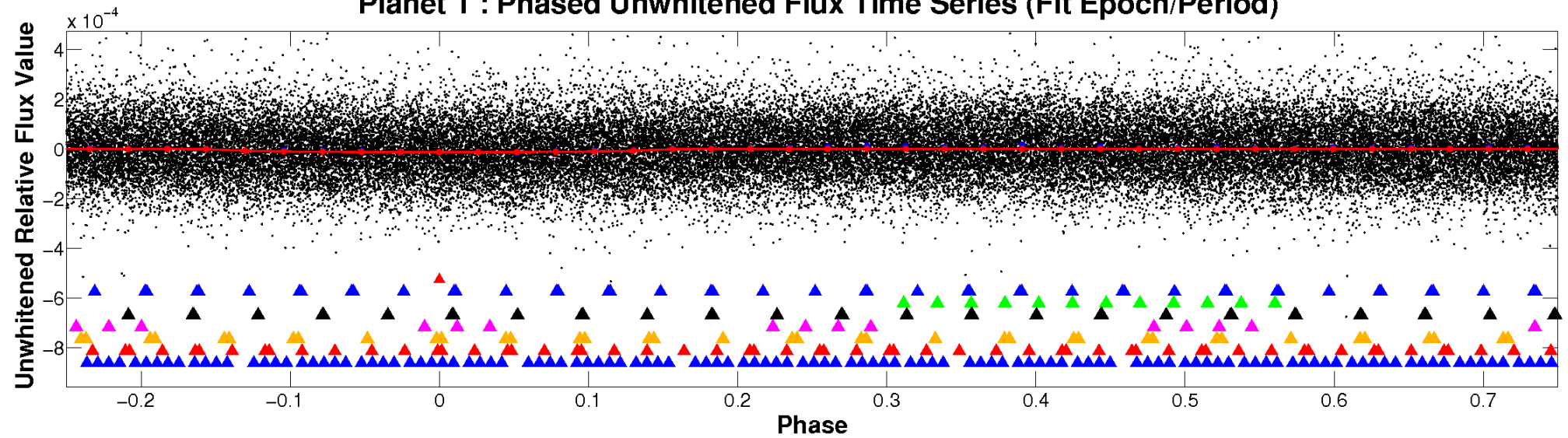
ALT Odd/Even

TCE 011496366-01

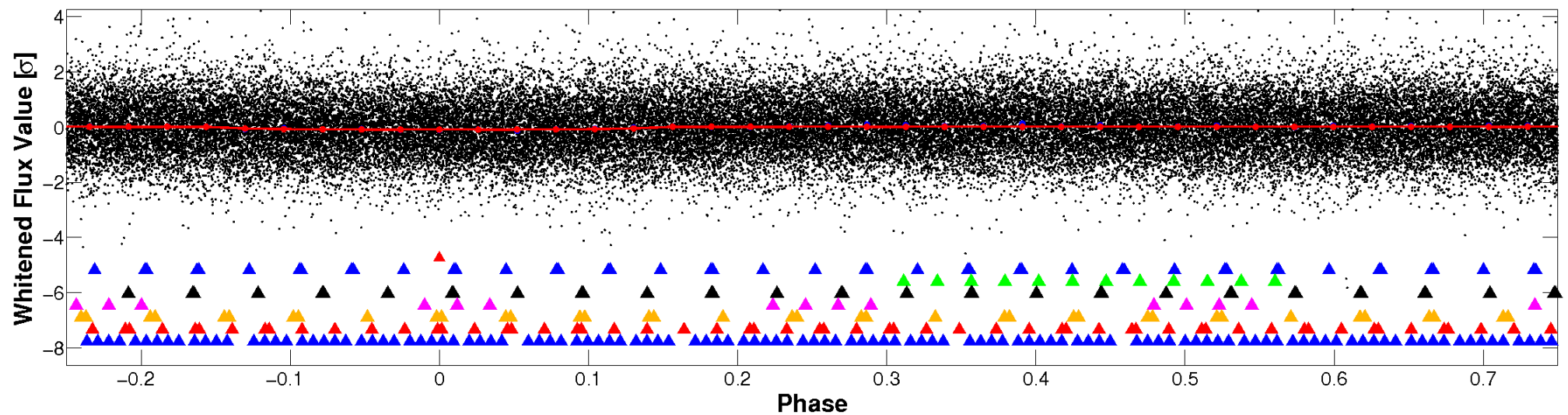


Non-Whitened Vs. Whitened Light Curve

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

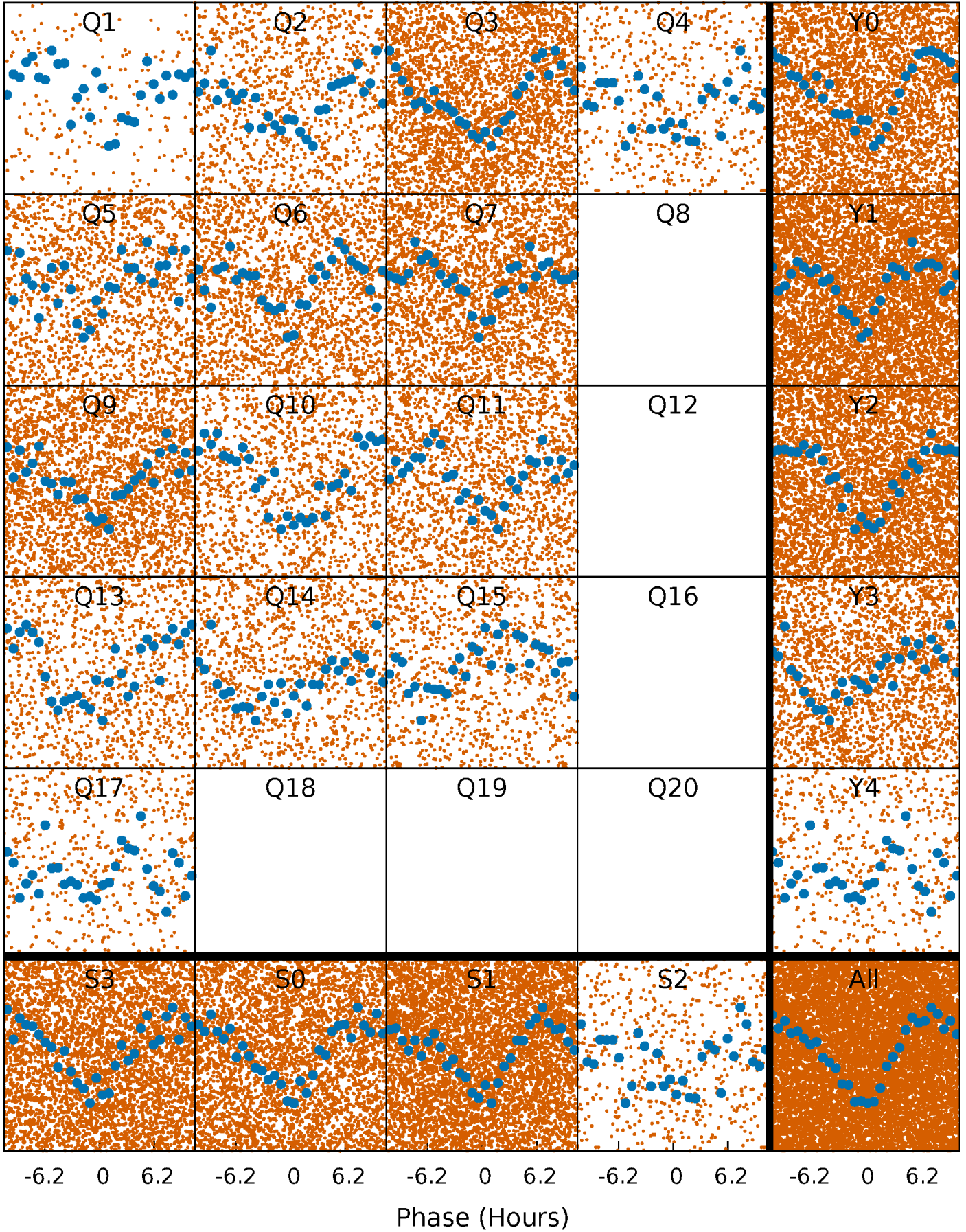


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



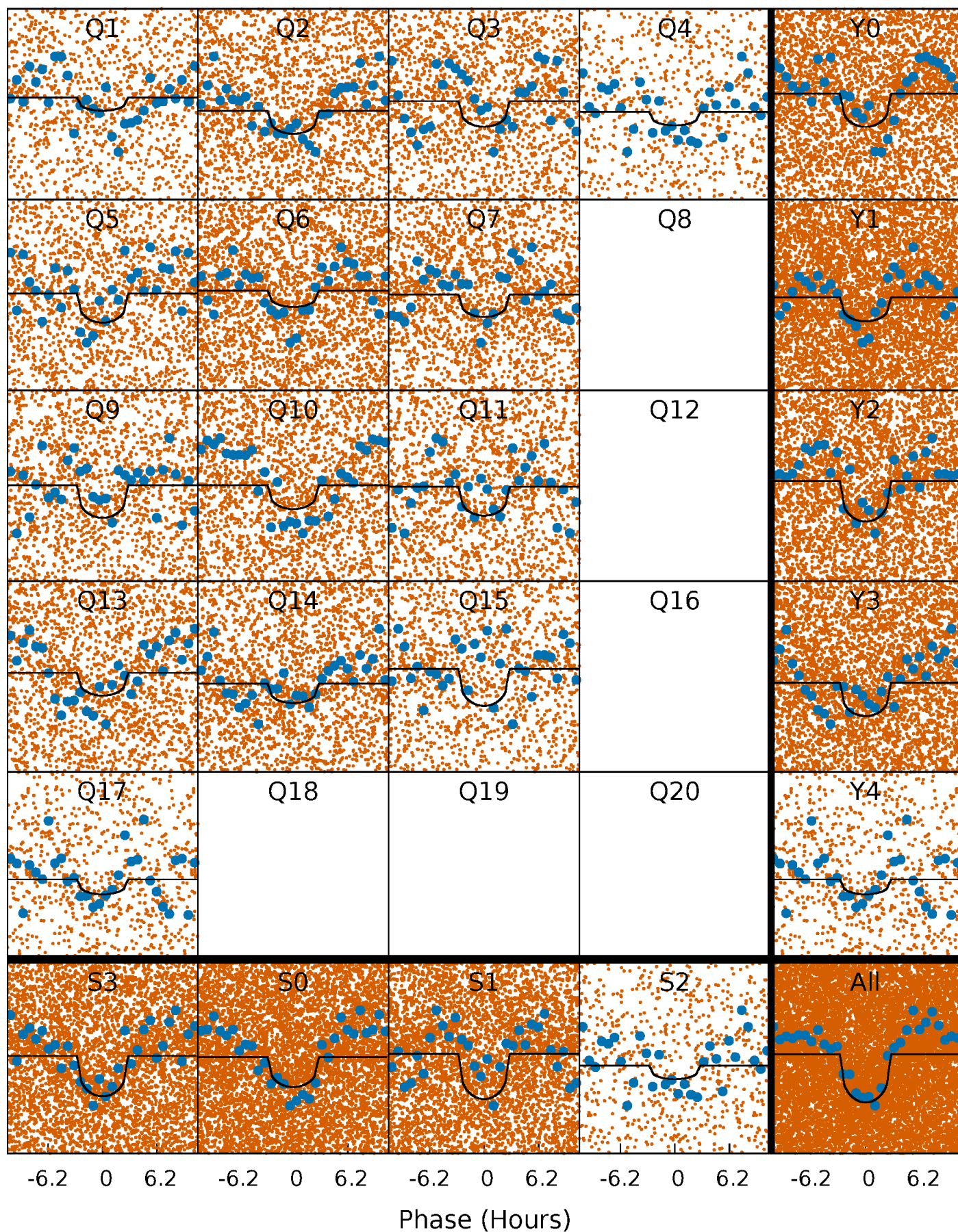
PDC Quarter-Phased Transit Curves

TCE 011496366-01 P= 0.784008 Days $T_0=132.085027$ (BKJD)



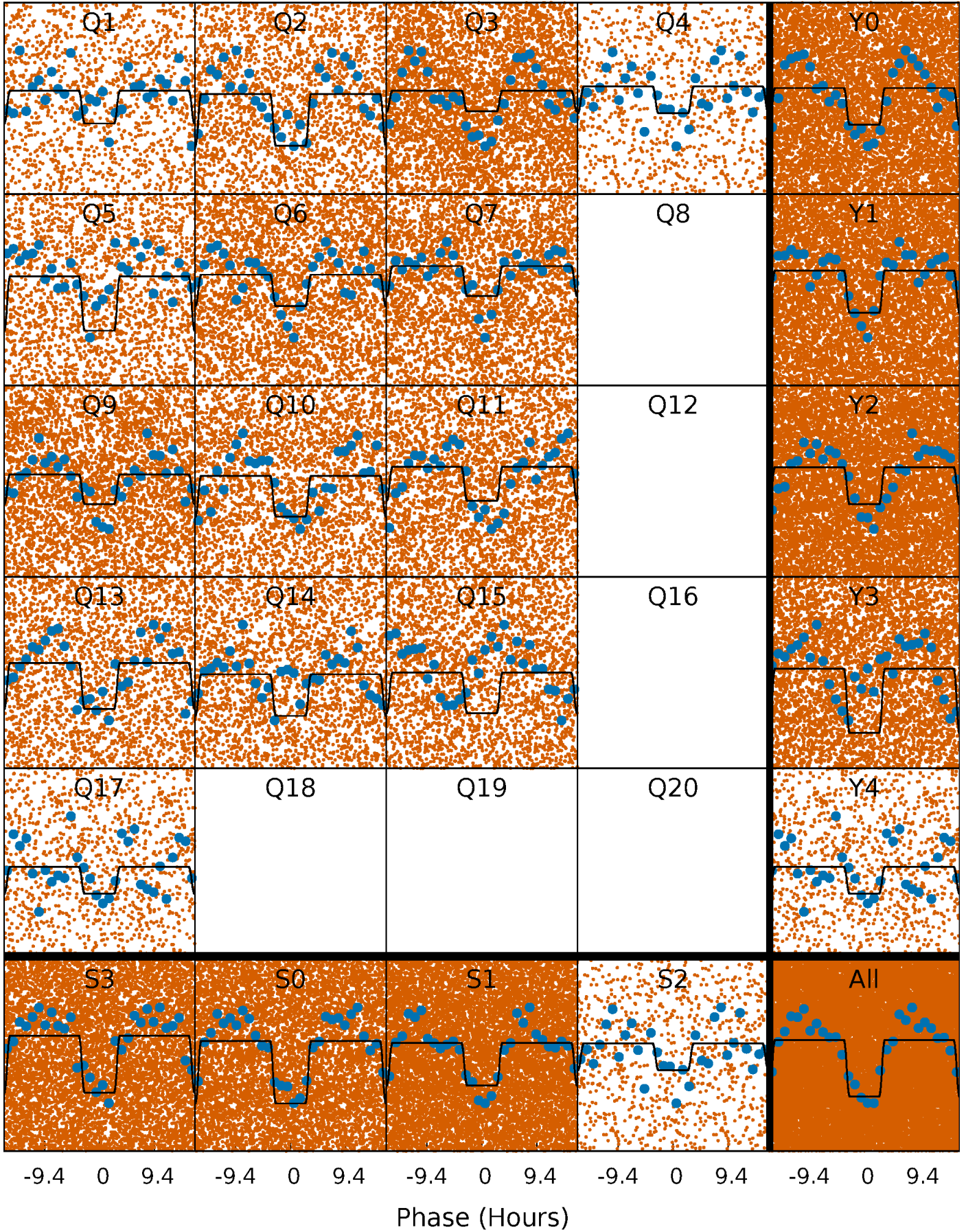
DV Quarter-Phased Transit Curves

TCE 011496366-01 P= 0.784008 Days $T_0=132.085027$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

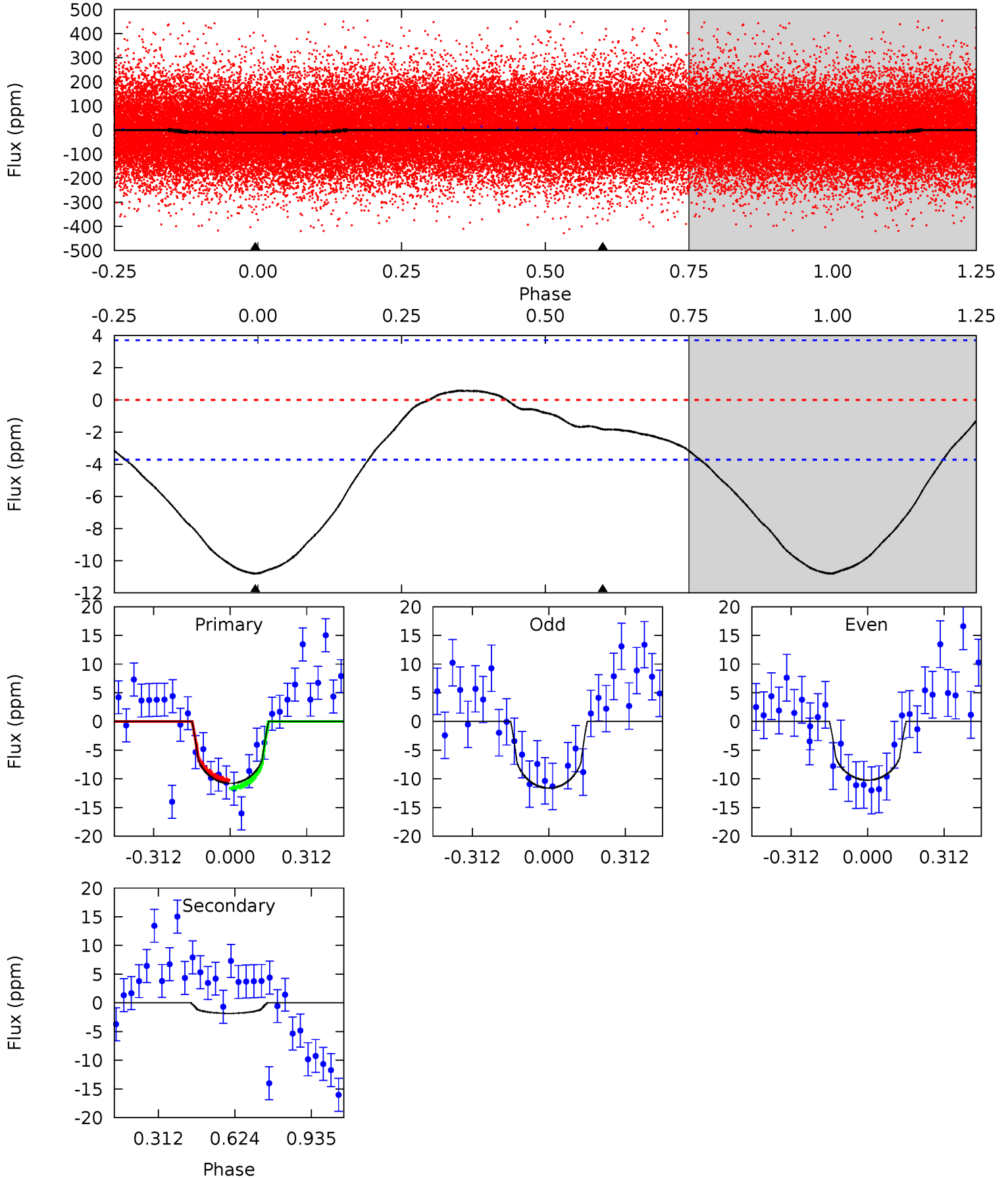
TCE 011496366-01 P= 0.783971 Days $T_0=132.091821$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-01, P = 0.784008 Days, E = 131.301019 Days

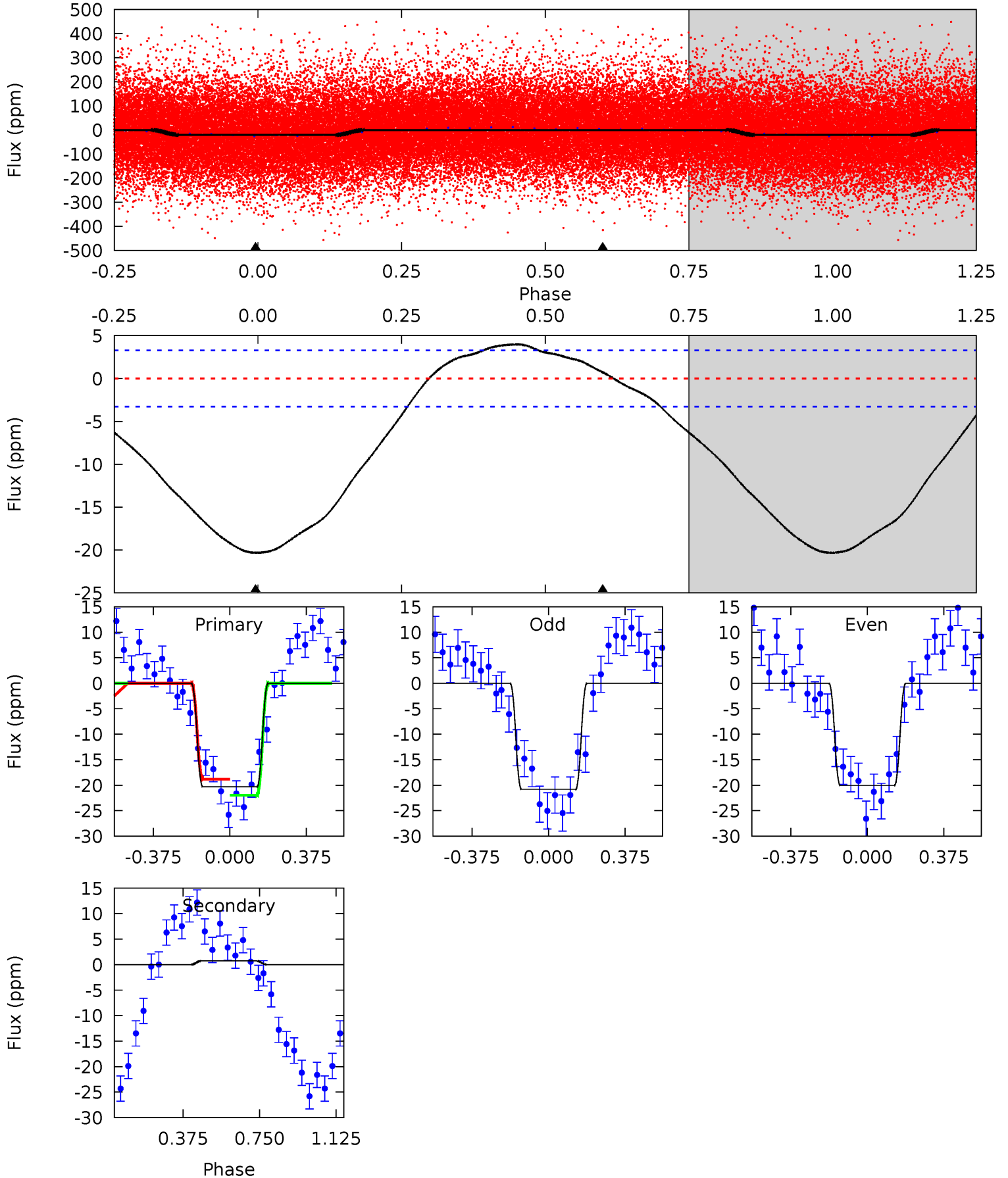
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	2.13	0	0	4.32	1.01	0.65	12.6	12.6	2.13	2.13	0.80	0.96	0.05	0.82



Alt Model-Shift Uniqueness Test

011496366-01, P = 0.783971 Days, E = 131.307850 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.4	-0.94	0	0	4.28	0.89	2.71	26.4	26.4	-0.94	-0.94	0.49	1.00	0.16	2.02



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2±1	$0.61^{+0.50}_{-0.37}$	3338^{+248}_{-285}	3346^{+1894}_{-6250}	$0.652^{+3.879}_{-0.478}$
Alt.	1±1	$0.80^{+0.54}_{-0.44}$	3367^{+236}_{-287}	-3523^{+312}_{-551}	$-0.138^{+0.141}_{-0.604}$

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

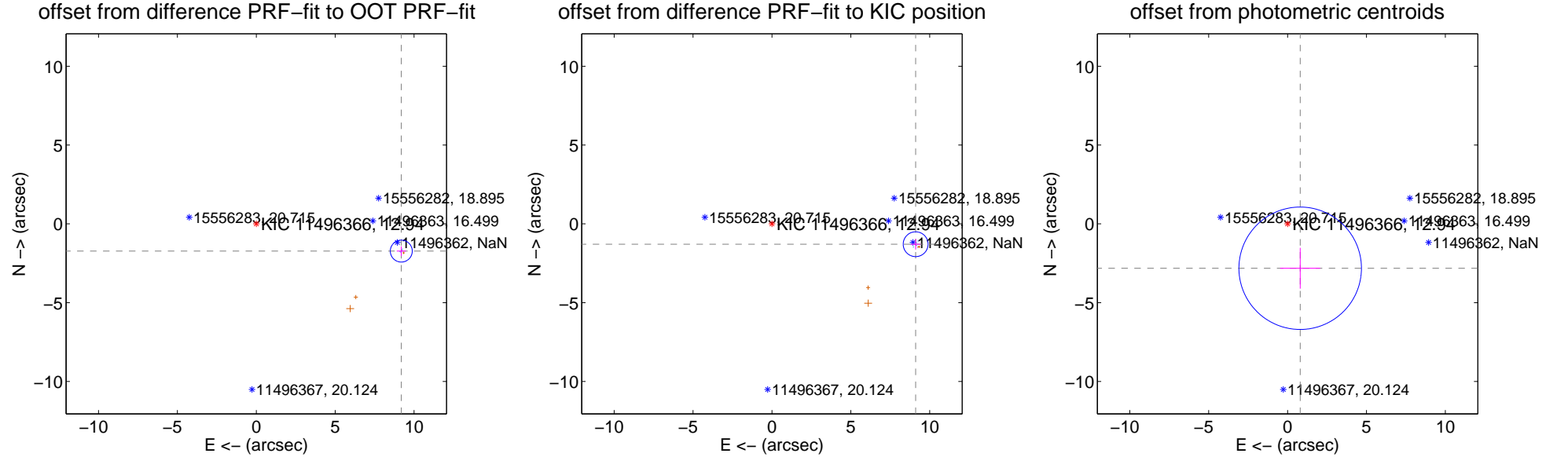
DV Centroid Data

Supplemental centroid analysis for 011496366-01. Kepler magnitude: 12.94. Transit SNR 9.79

There are 10 quarters with good PRF difference image offsets

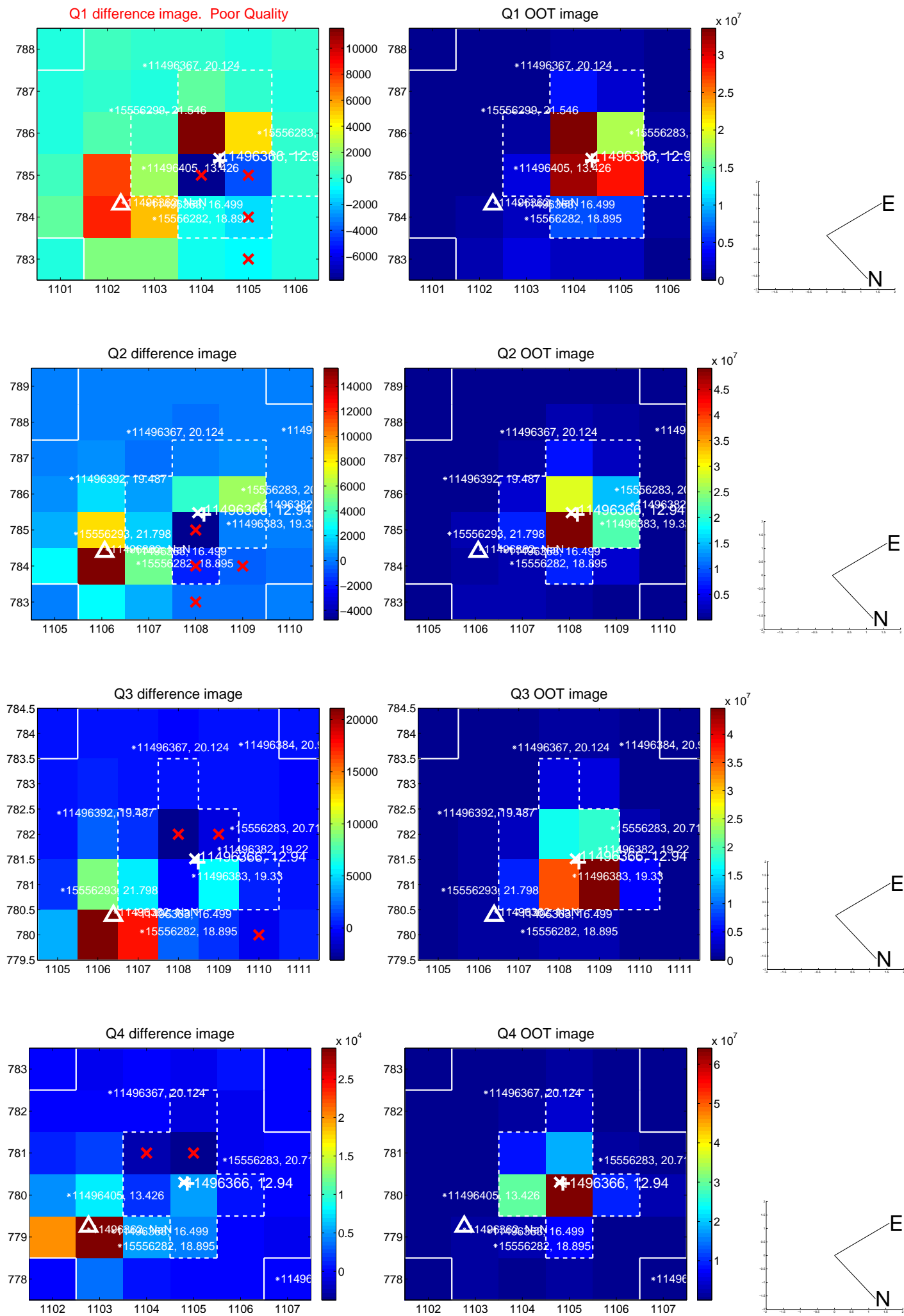
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.354 ± 0.232	40.33	-9.193 ± 0.289	-1.729 ± 0.304
PRF-fit source offset from KIC position	9.201 ± 0.263	35.04	-9.111 ± 0.309	-1.290 ± 0.337
photometric centroid source offset	2.93 ± 1.29	2.26	-0.80 ± 1.27	-2.82 ± 1.30

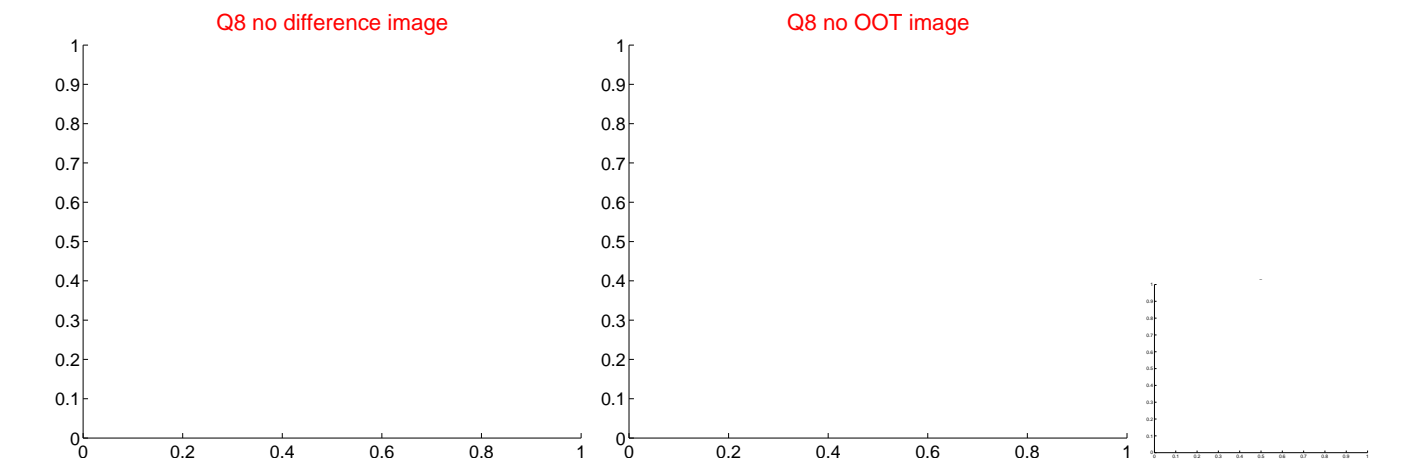
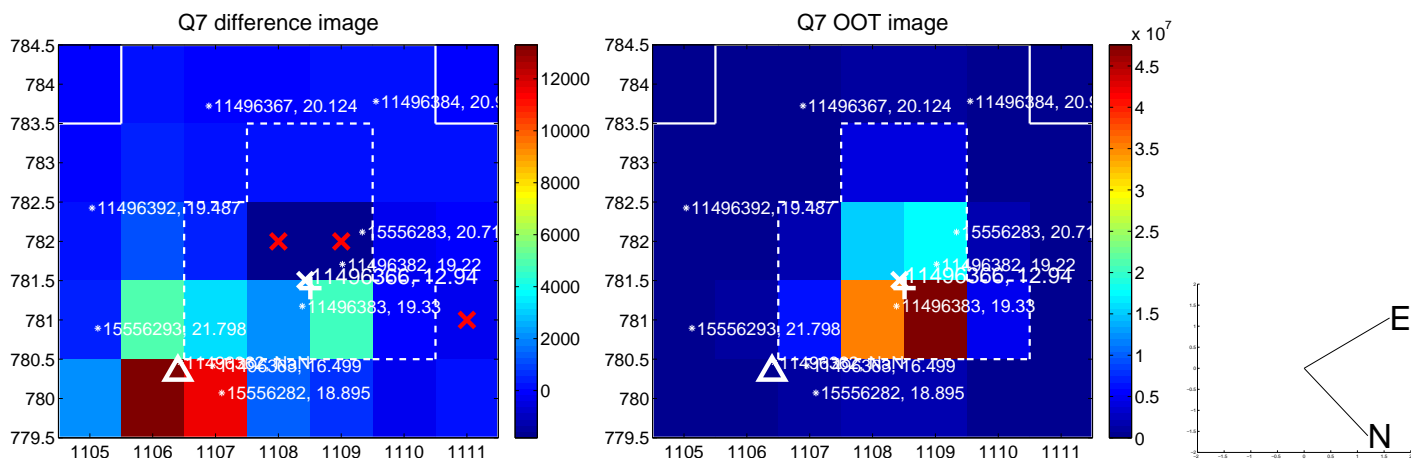
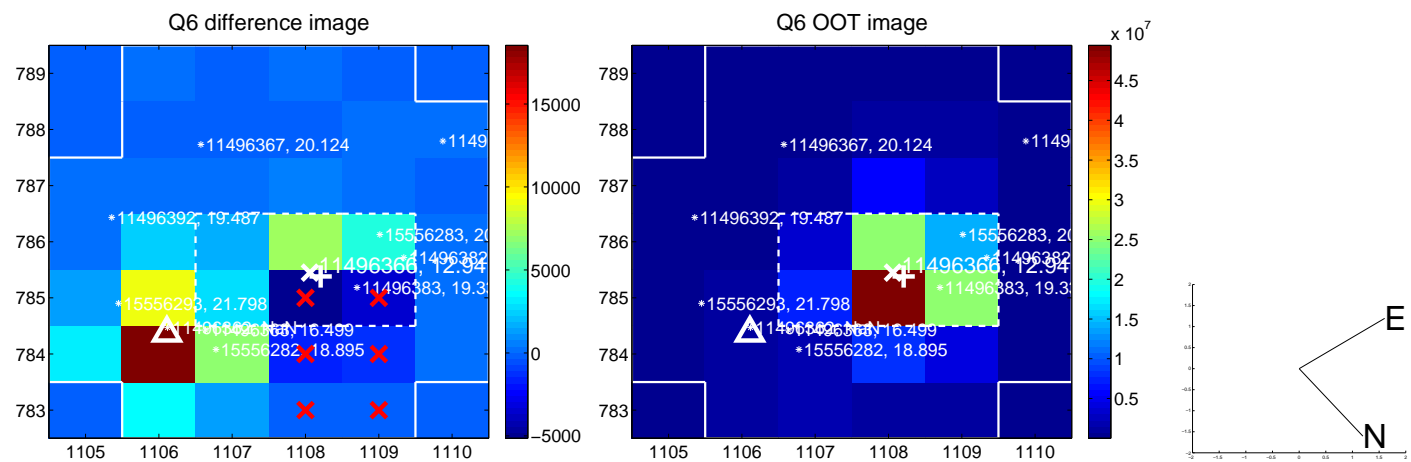
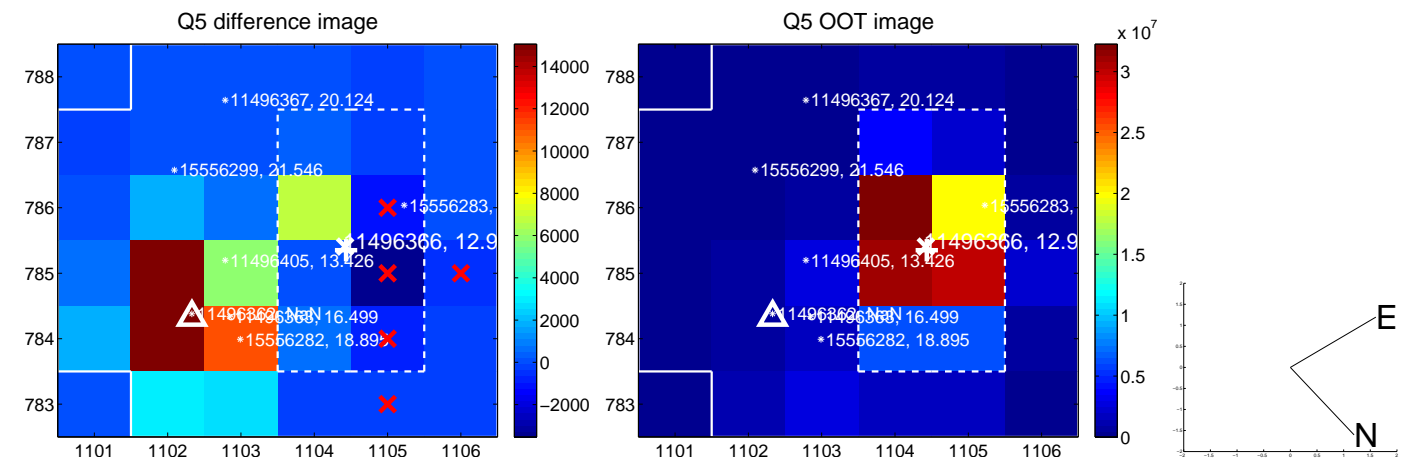


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

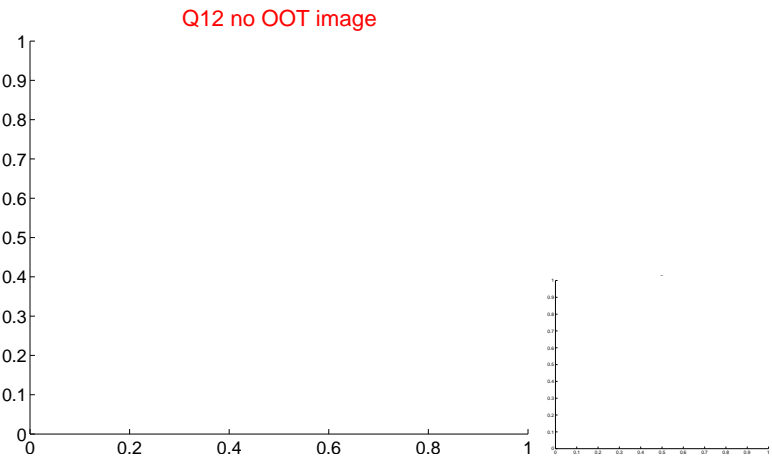
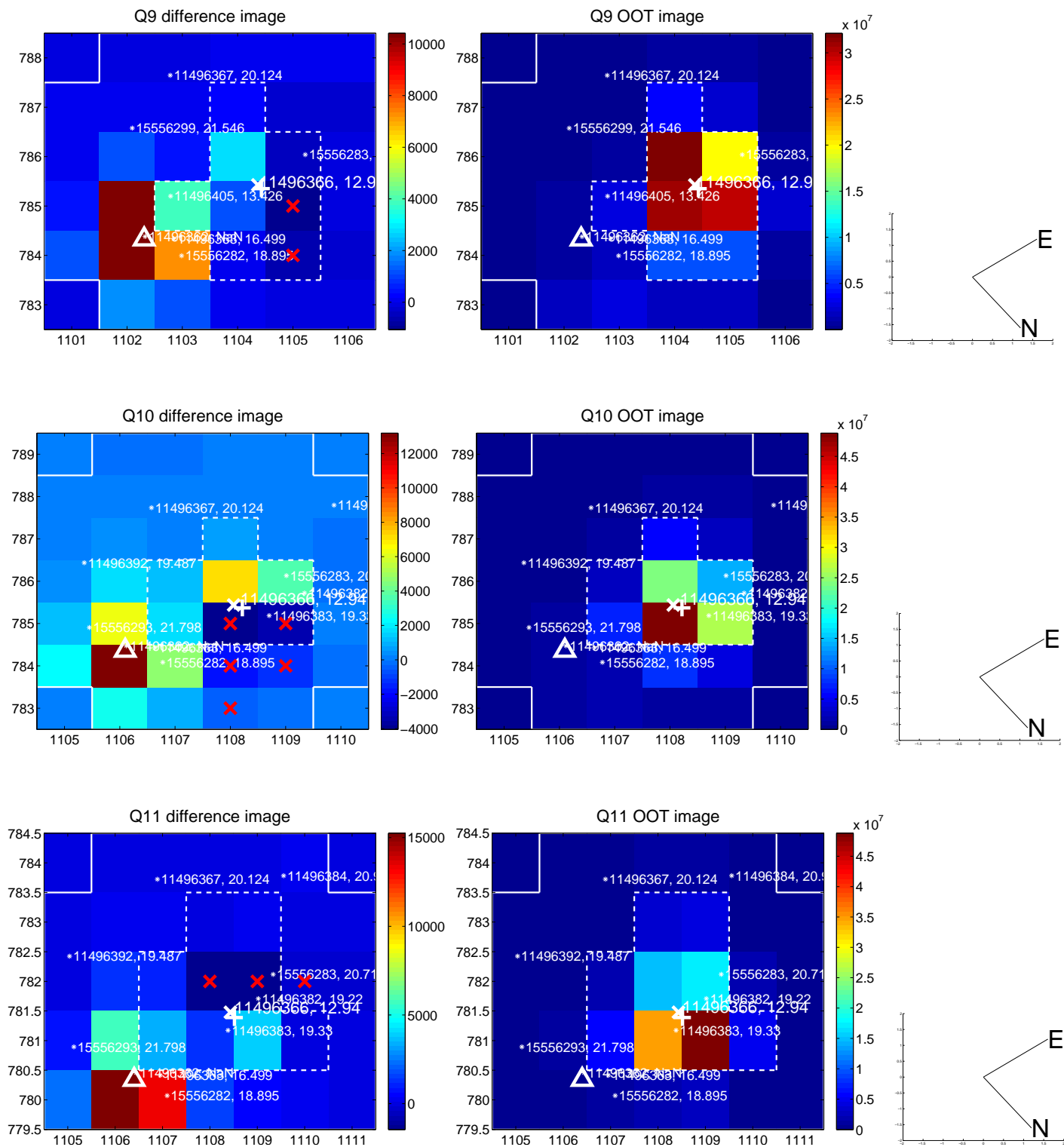
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



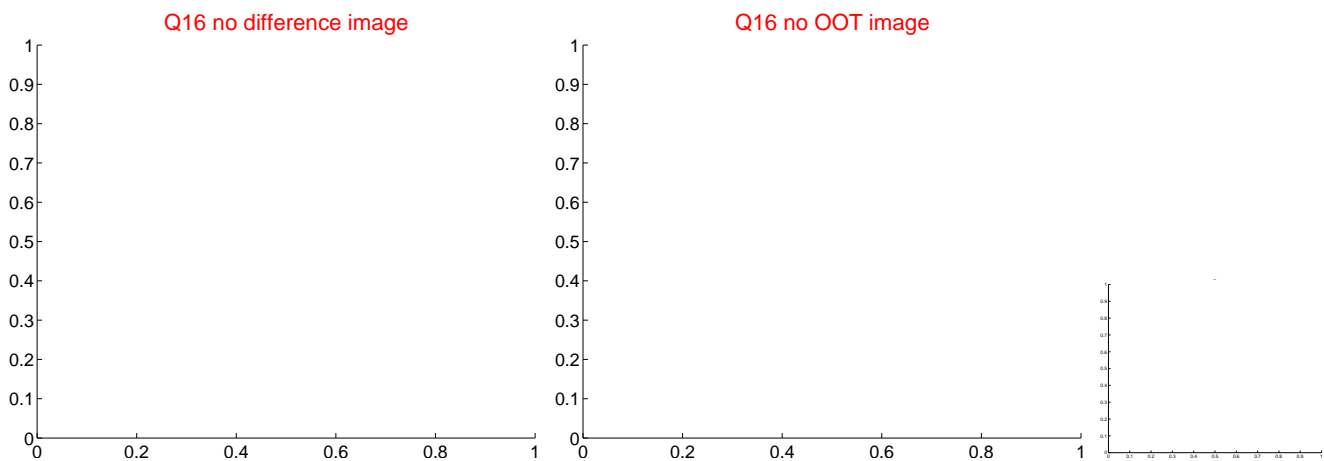
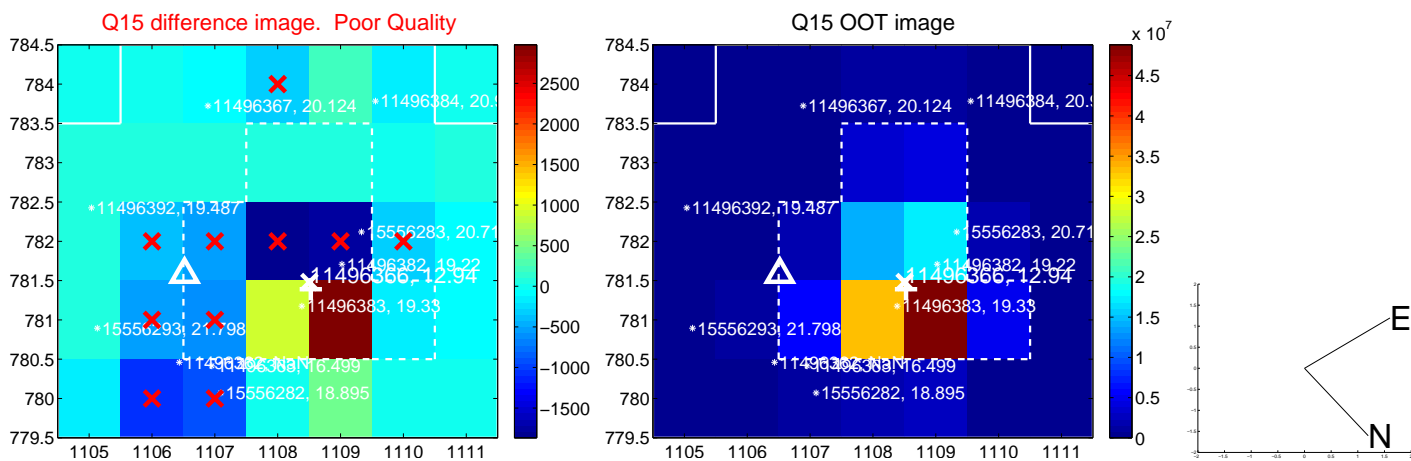
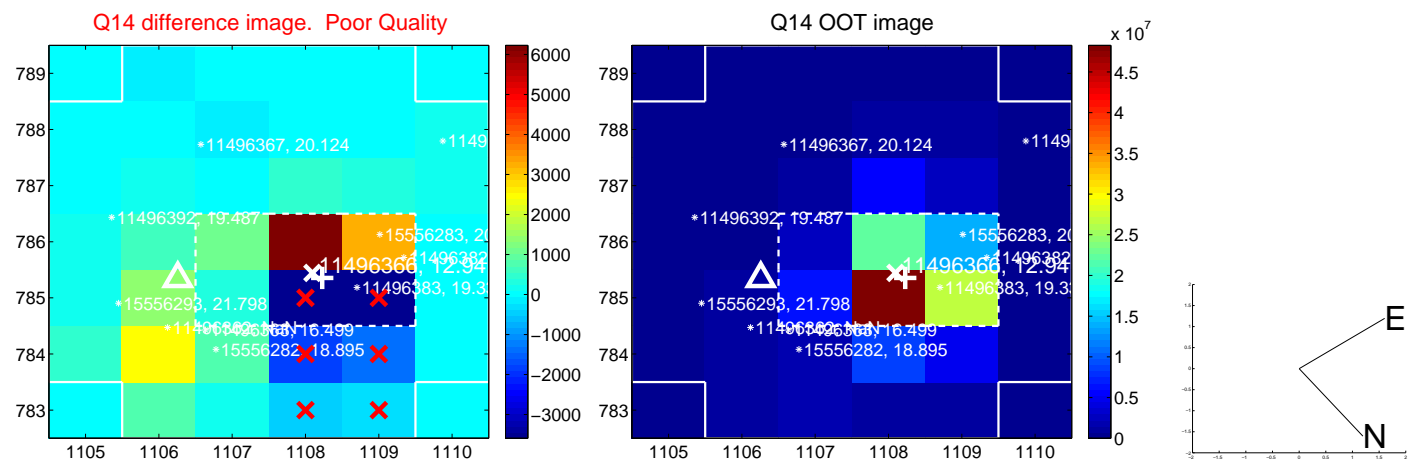
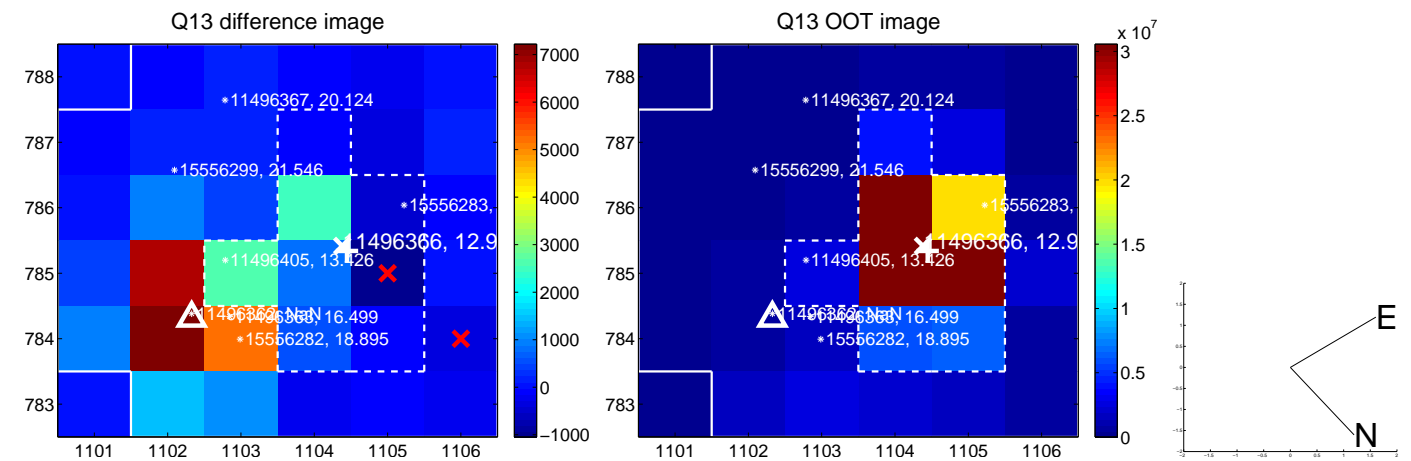
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



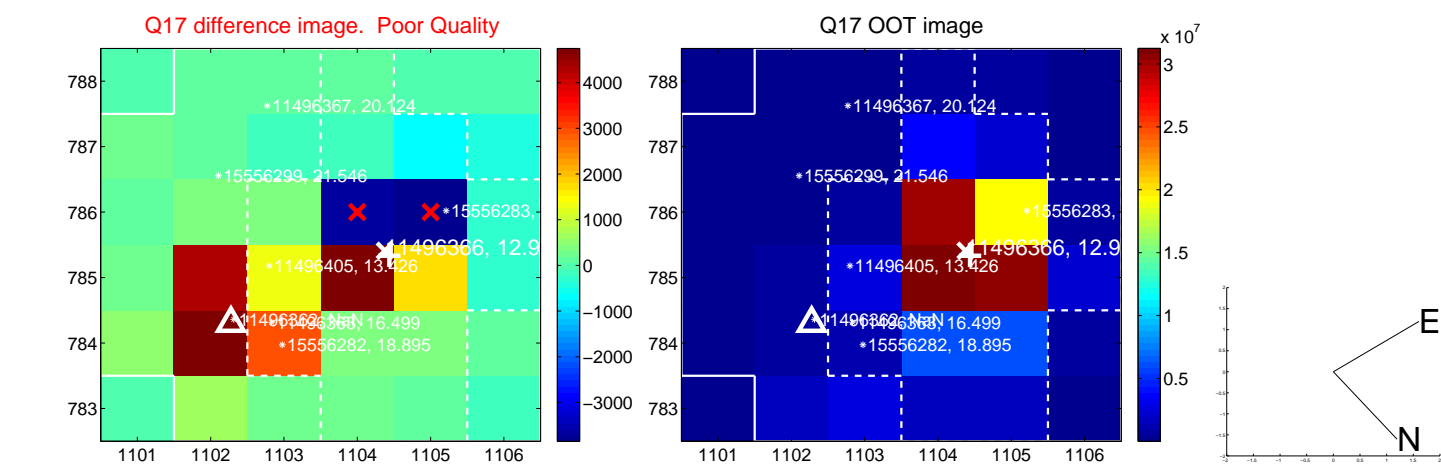
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



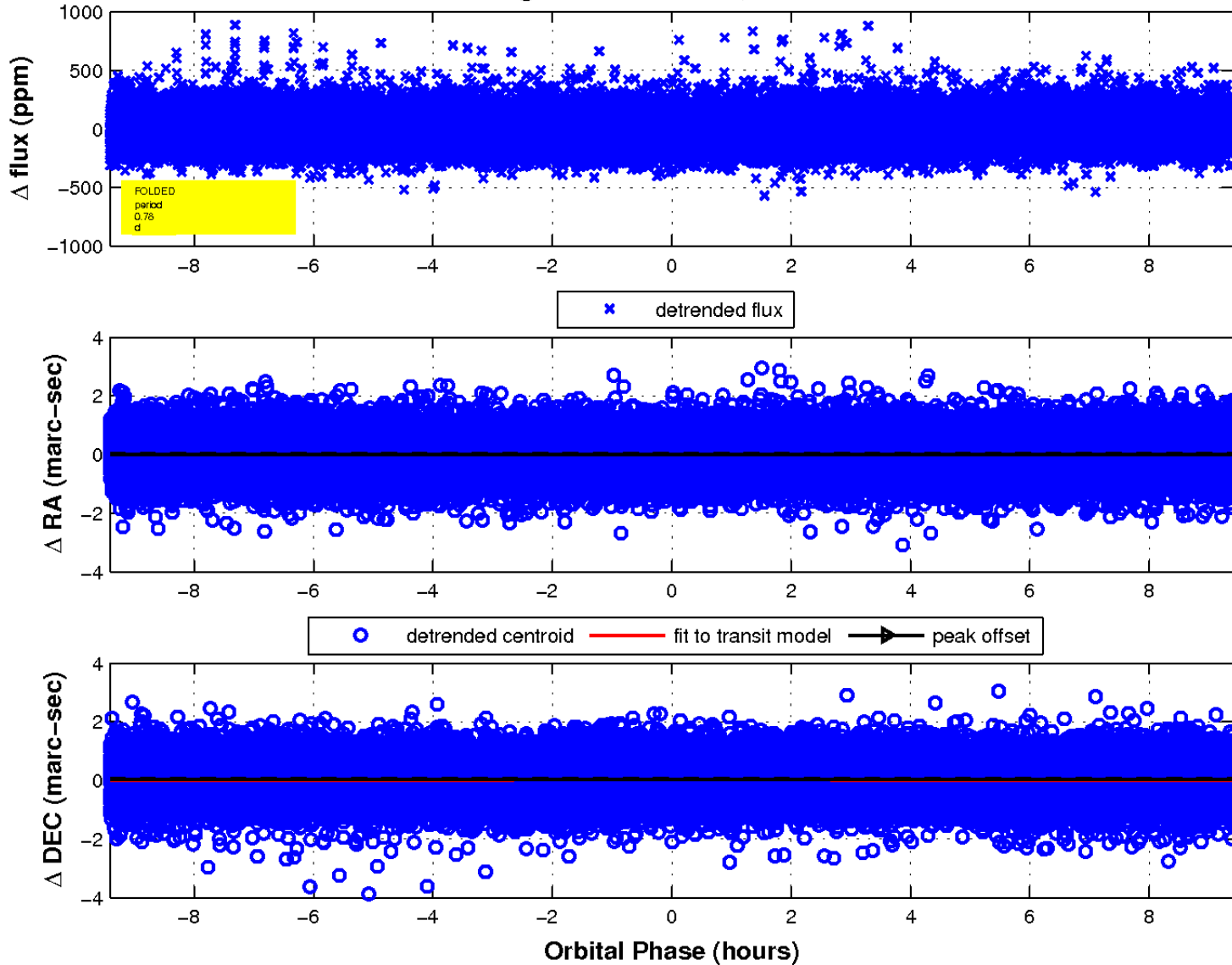
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



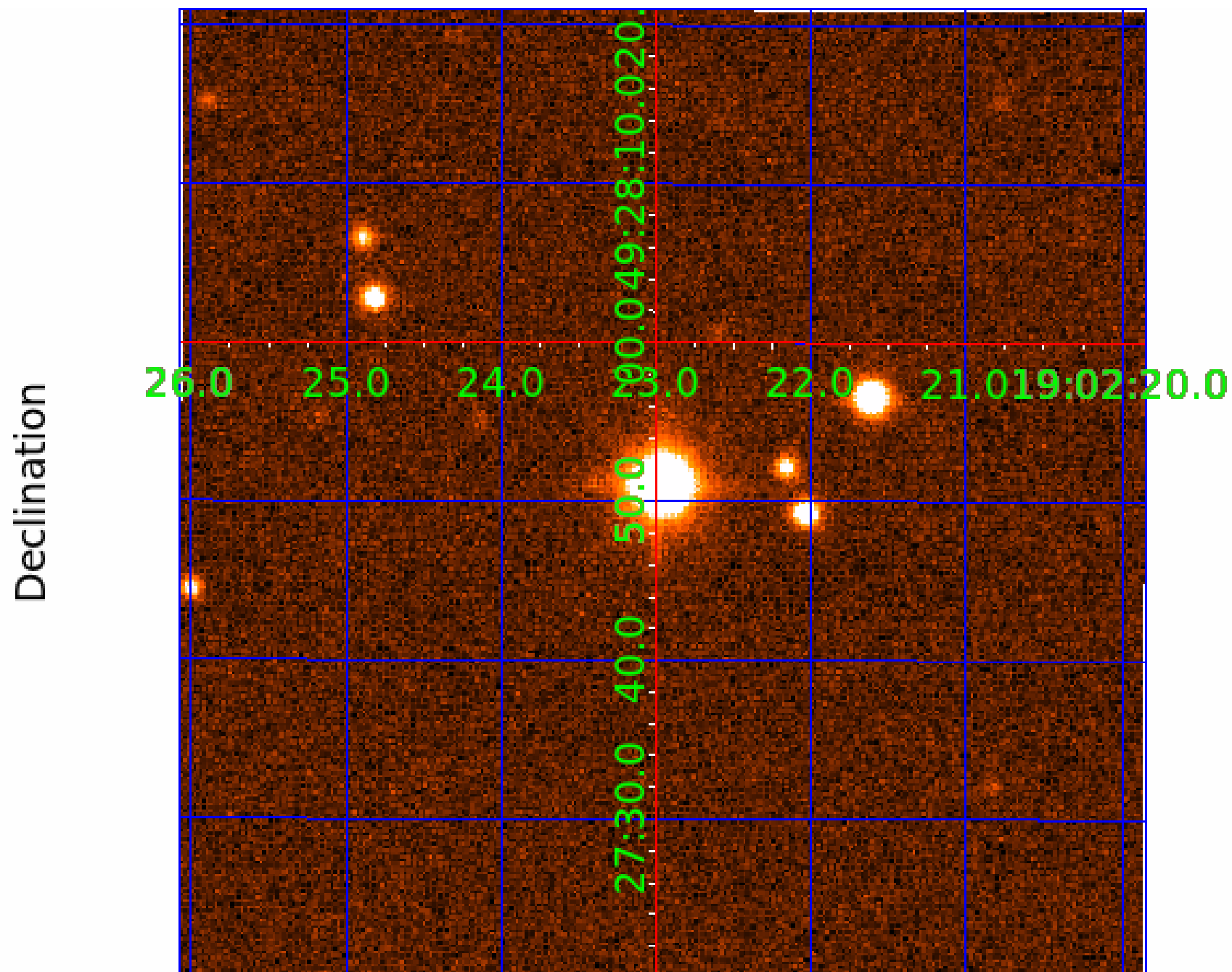
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 8



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

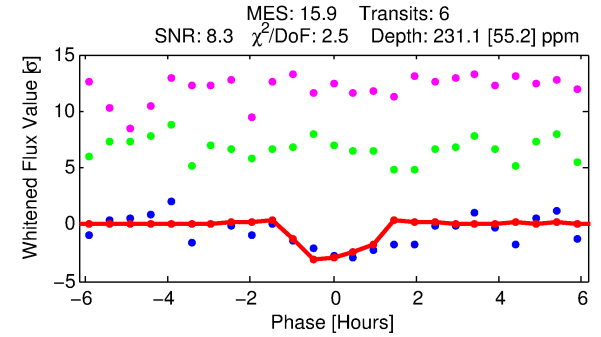
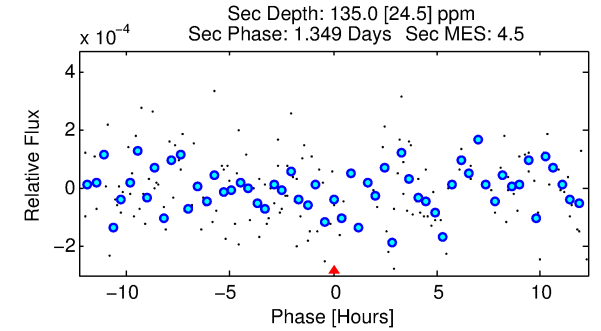
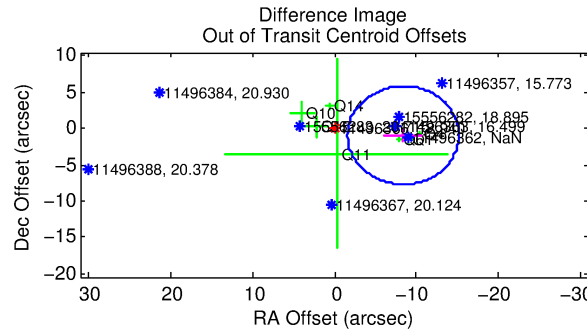
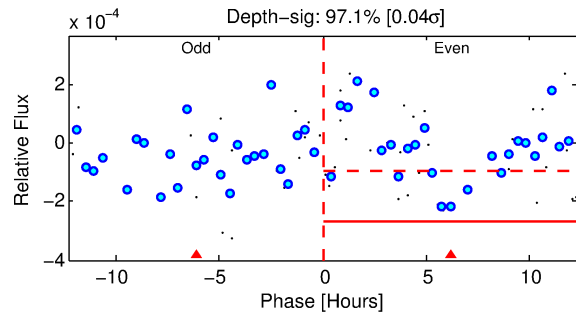
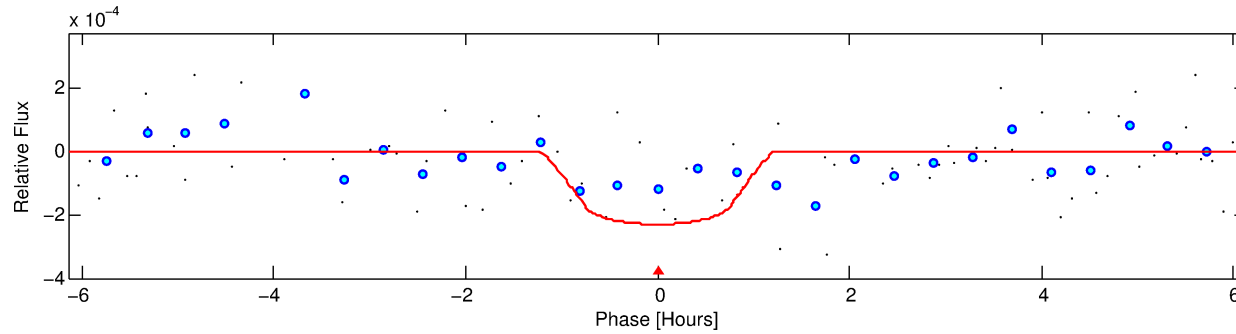
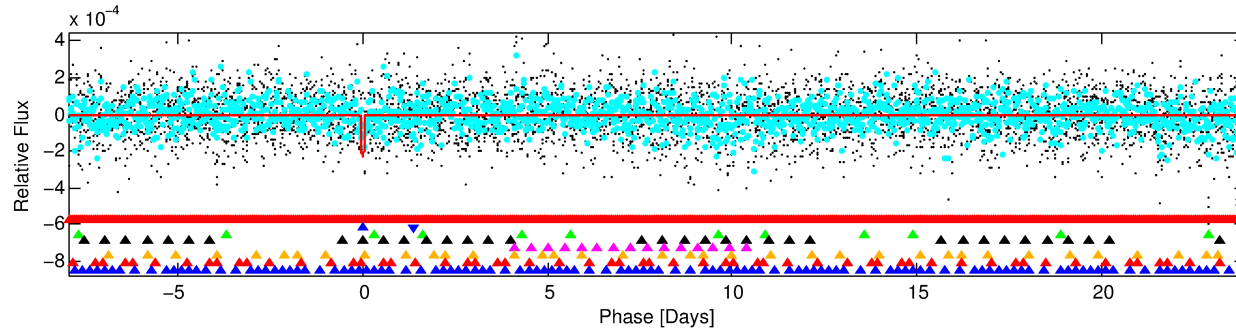
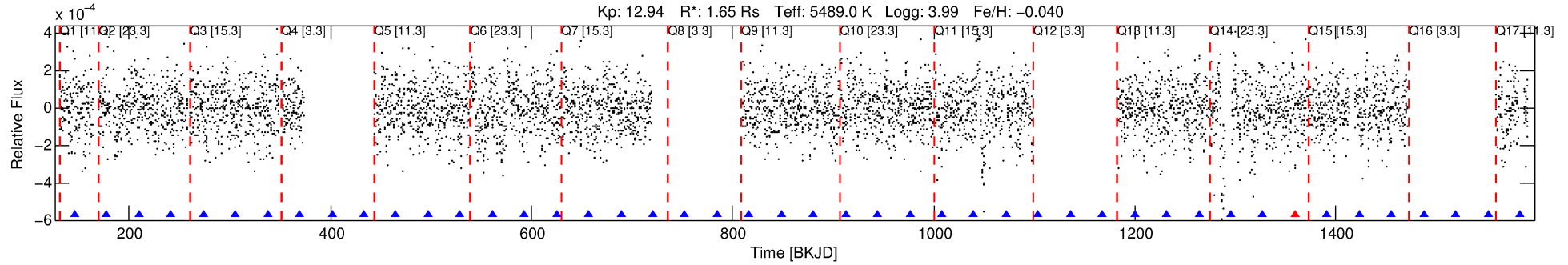
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-02

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 2 of 8 Period: 31.928 d



DV Fit Results:

Period = 31.92803 [0.00068] d
Epoch = 146.1520 [0.0178] BKJD
Rp/R* = 0.0158 [0.0364]
a/R* = 69.63 [677.87]
b = 0.83 [3.74]
Seff = 58.07 [31.96]
Teq = 704 [97] K
Rp = 2.84 [6.61] Re
a = 0.1950 [0.0634] AU
Ag = 349.61 [1621.96] [0.21σ]
Teffp = 4706 [5425] K [0.74σ]

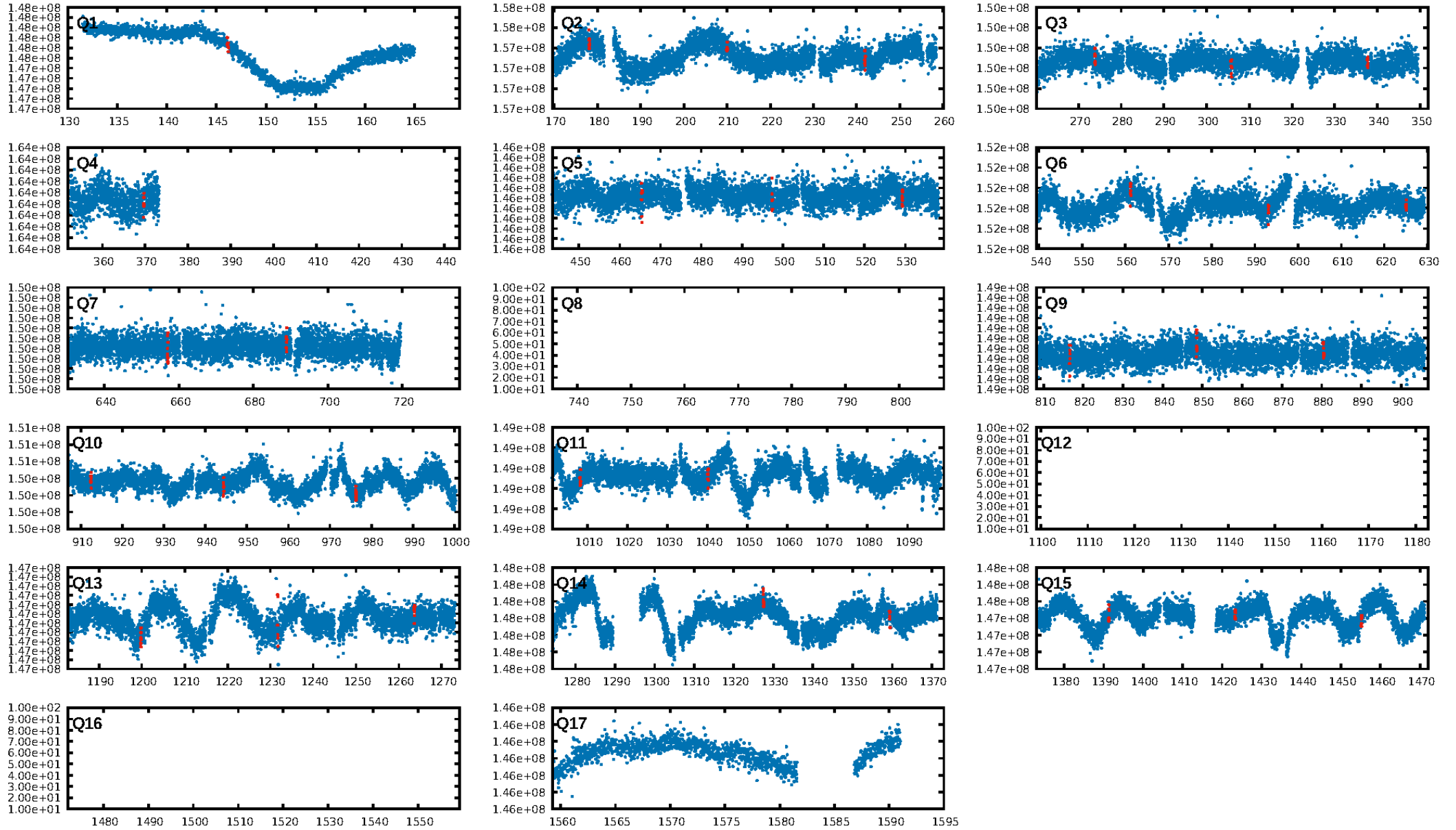
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [73.81σ]
LongPeriod-sig: 100.0% [77.91σ]
ModelChiSquare2-sig: 34.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.11e-38
RollingBand-fgt: 0.83 [5/6]
GhostDiagnostic-chr: -43.87
Centroid-sig: 46.8%
Centroid-so: 0.939 arcsec [1.32σ]
OotOffset-rm: 8.420 arcsec [3.73σ]
KicOffset-rm: 8.259 arcsec [3.98σ]
OotOffset-st: 3/2/1/1 [7]
KicOffset-st: 3/2/1/1 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.00 [0/13]

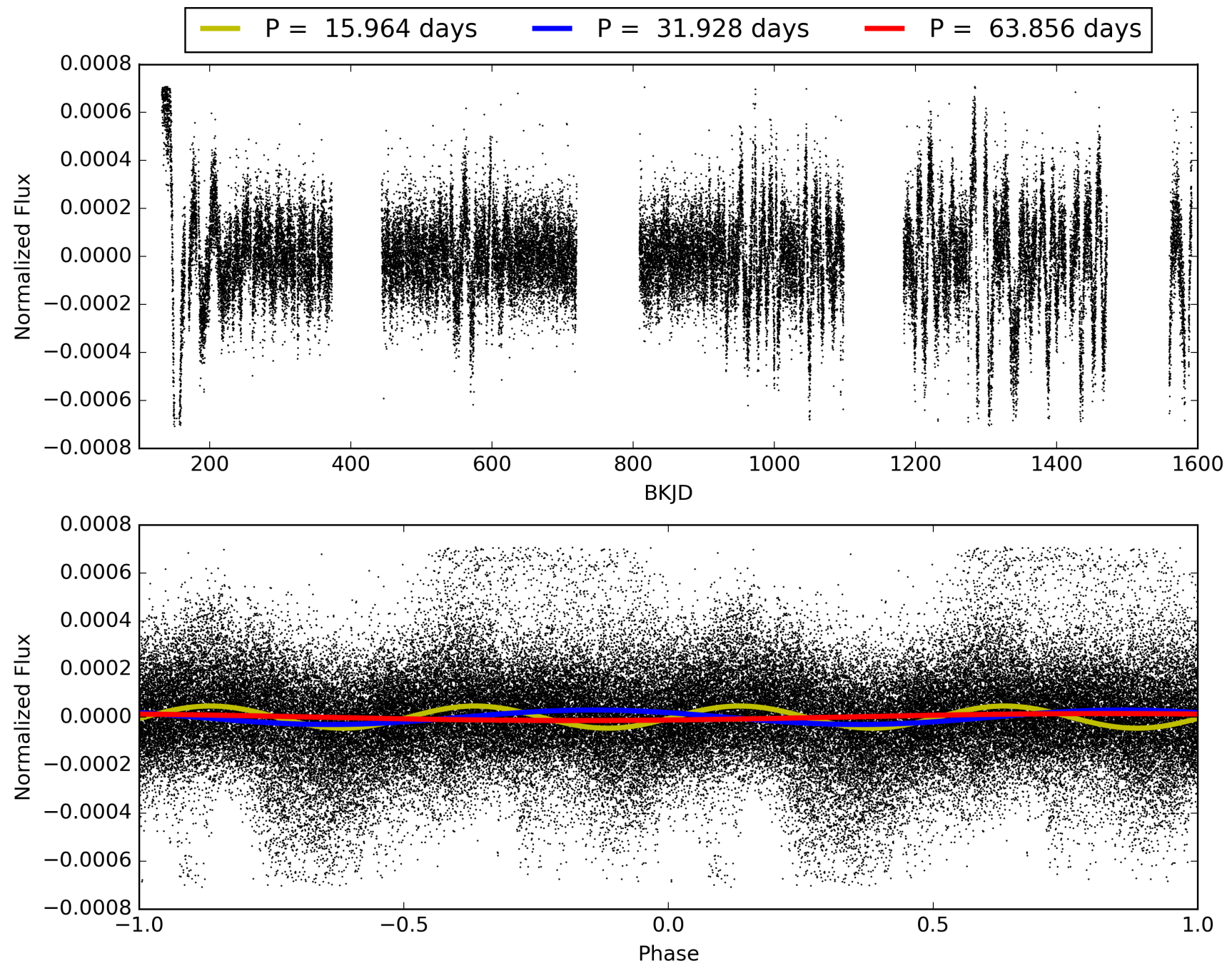
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:37 Z

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

TCE 011496366-02, PDC Light Curves

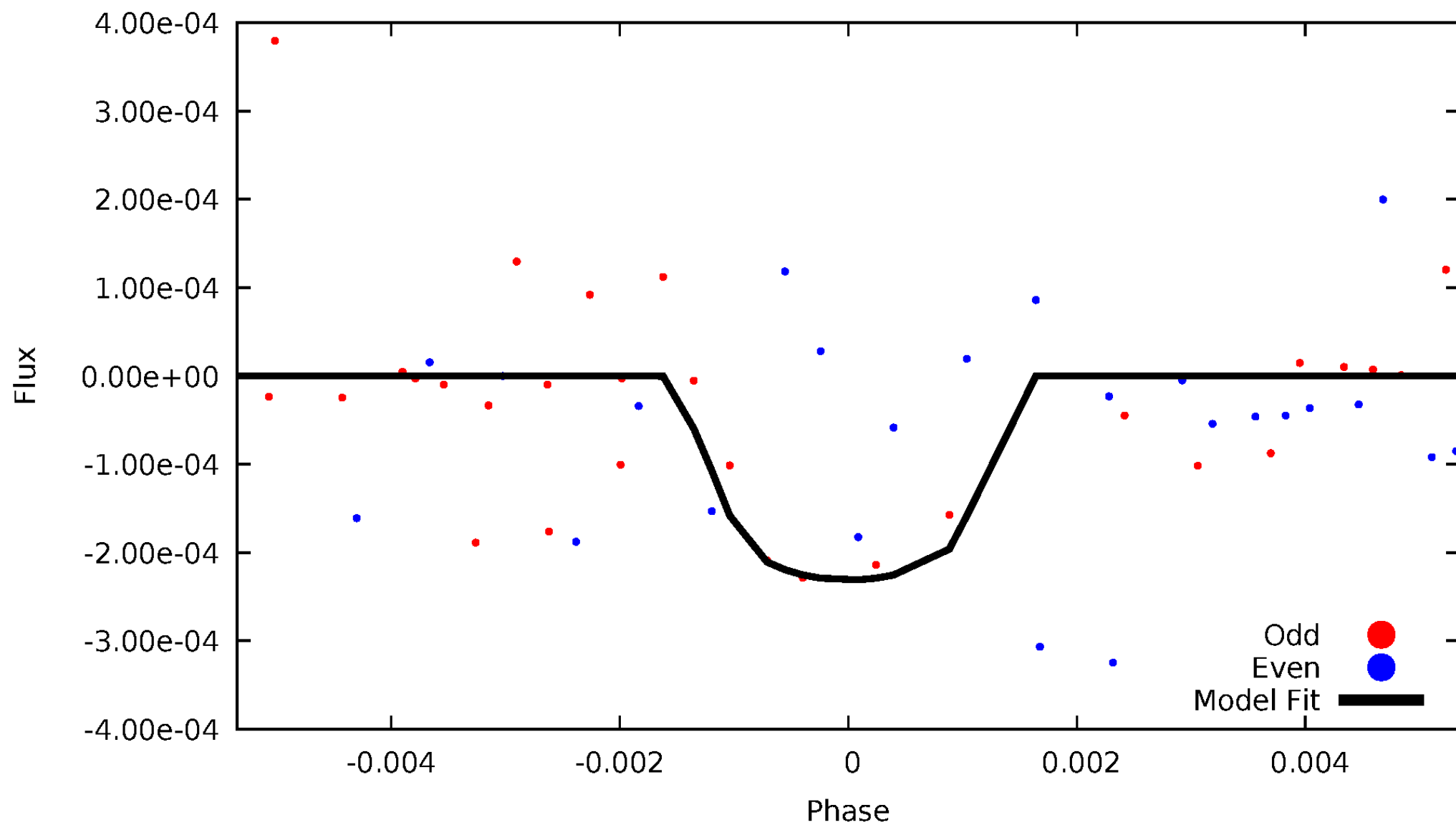


TCE 011496366-02



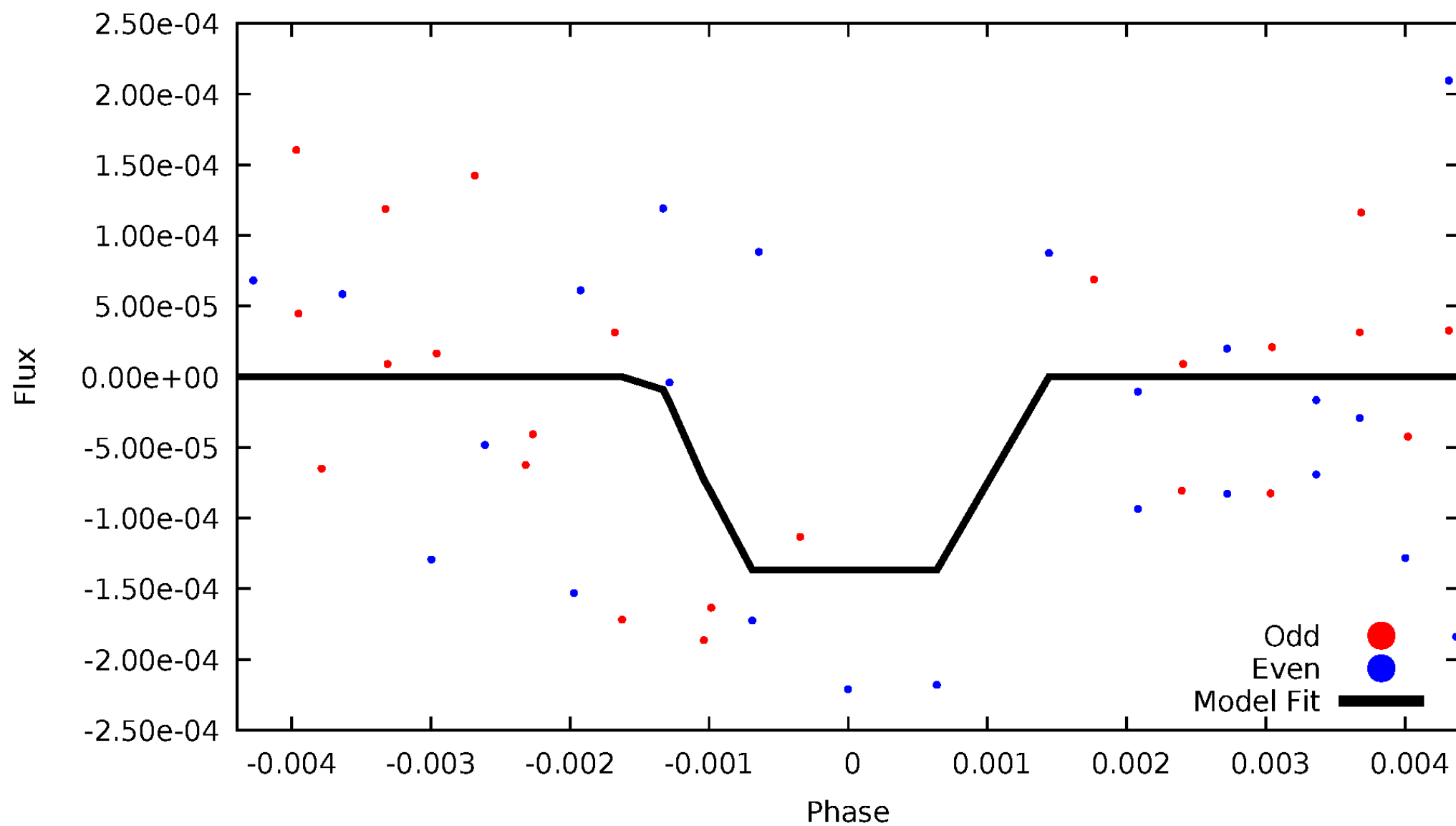
DV Odd/Even

TCE 011496366-02



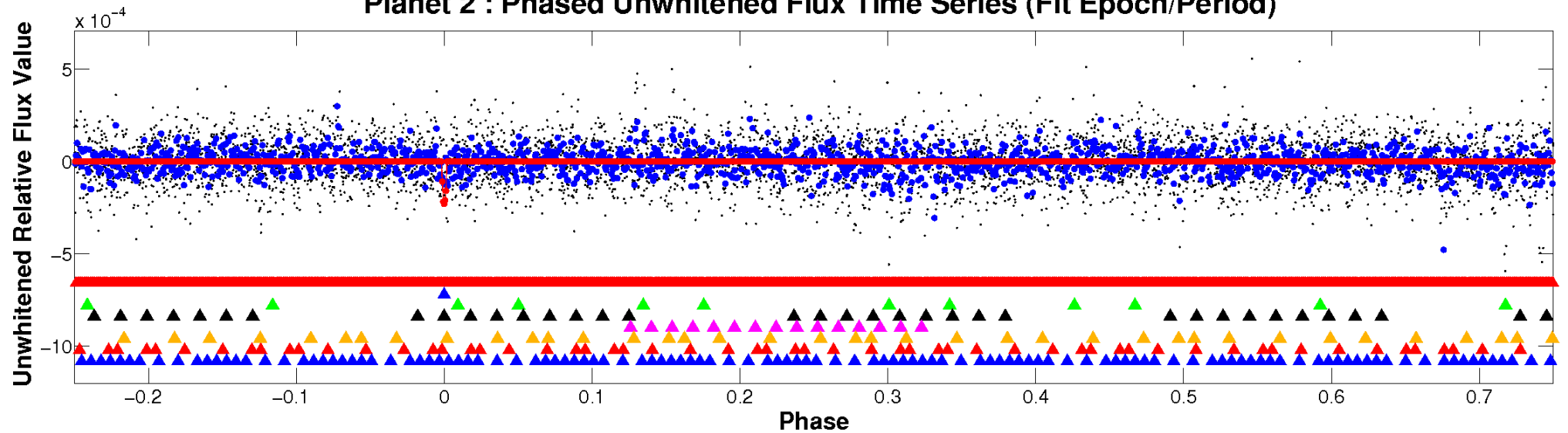
ALT Odd/Even

TCE 011496366-02

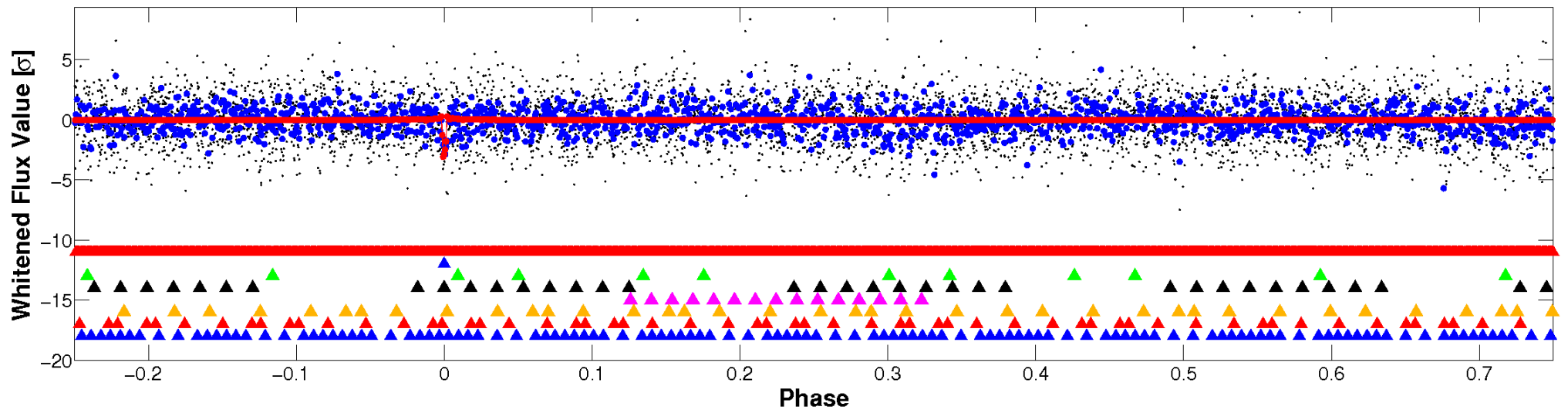


Non-Whitened Vs. Whitened Light Curve

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

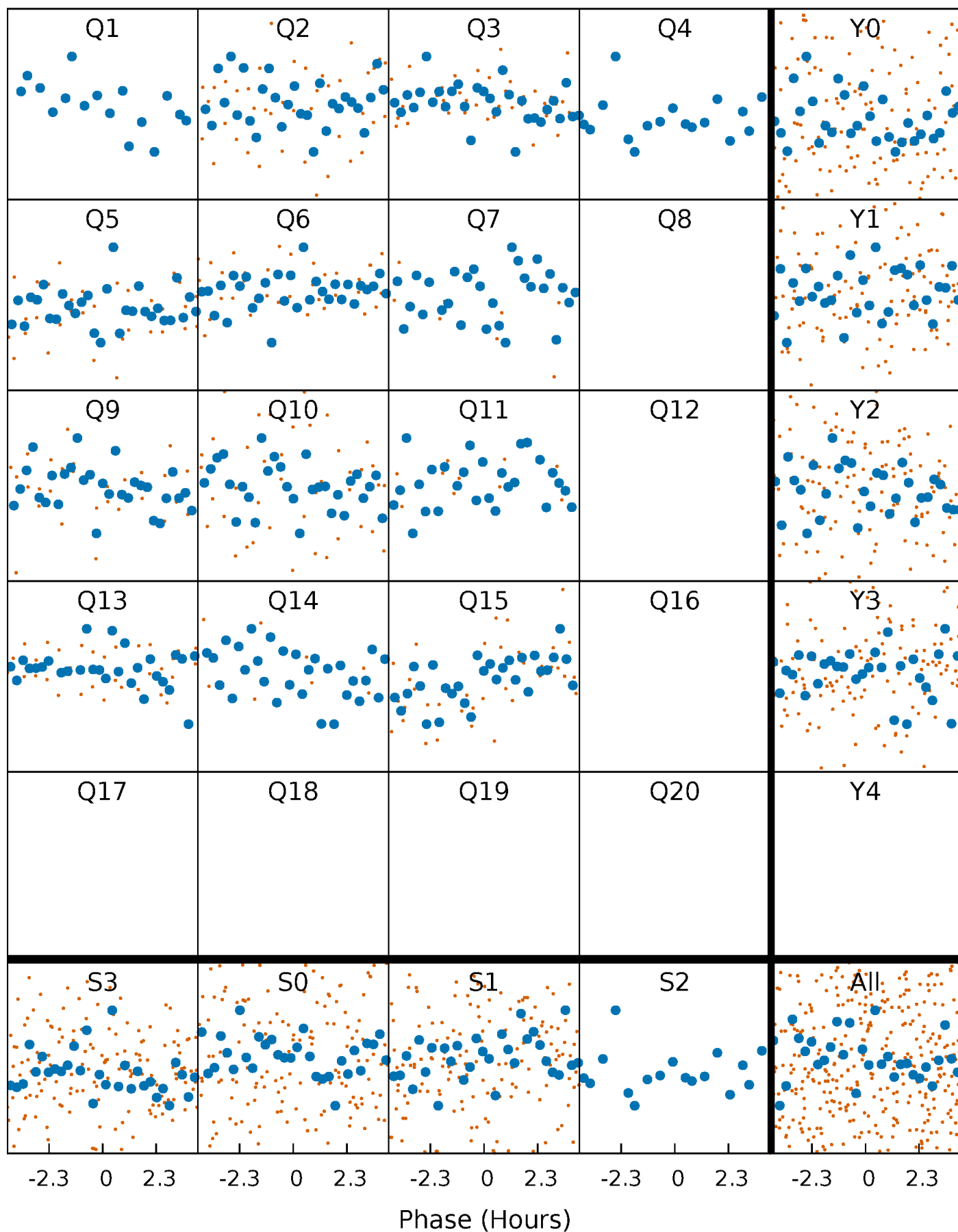


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



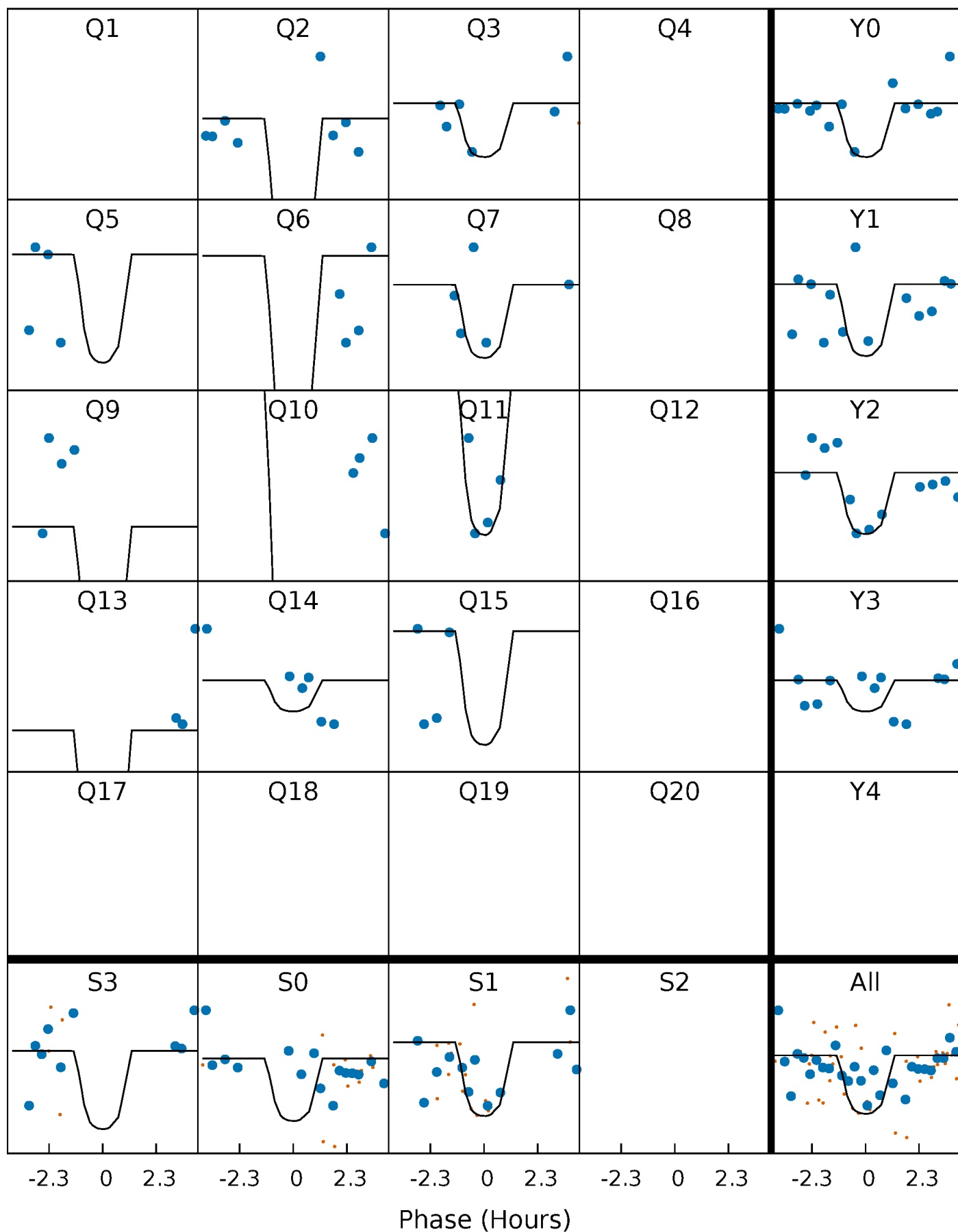
PDC Quarter-Phased Transit Curves

TCE 011496366-02 P= 31.928026 Days $T_0=146.151973$ (BKJD)



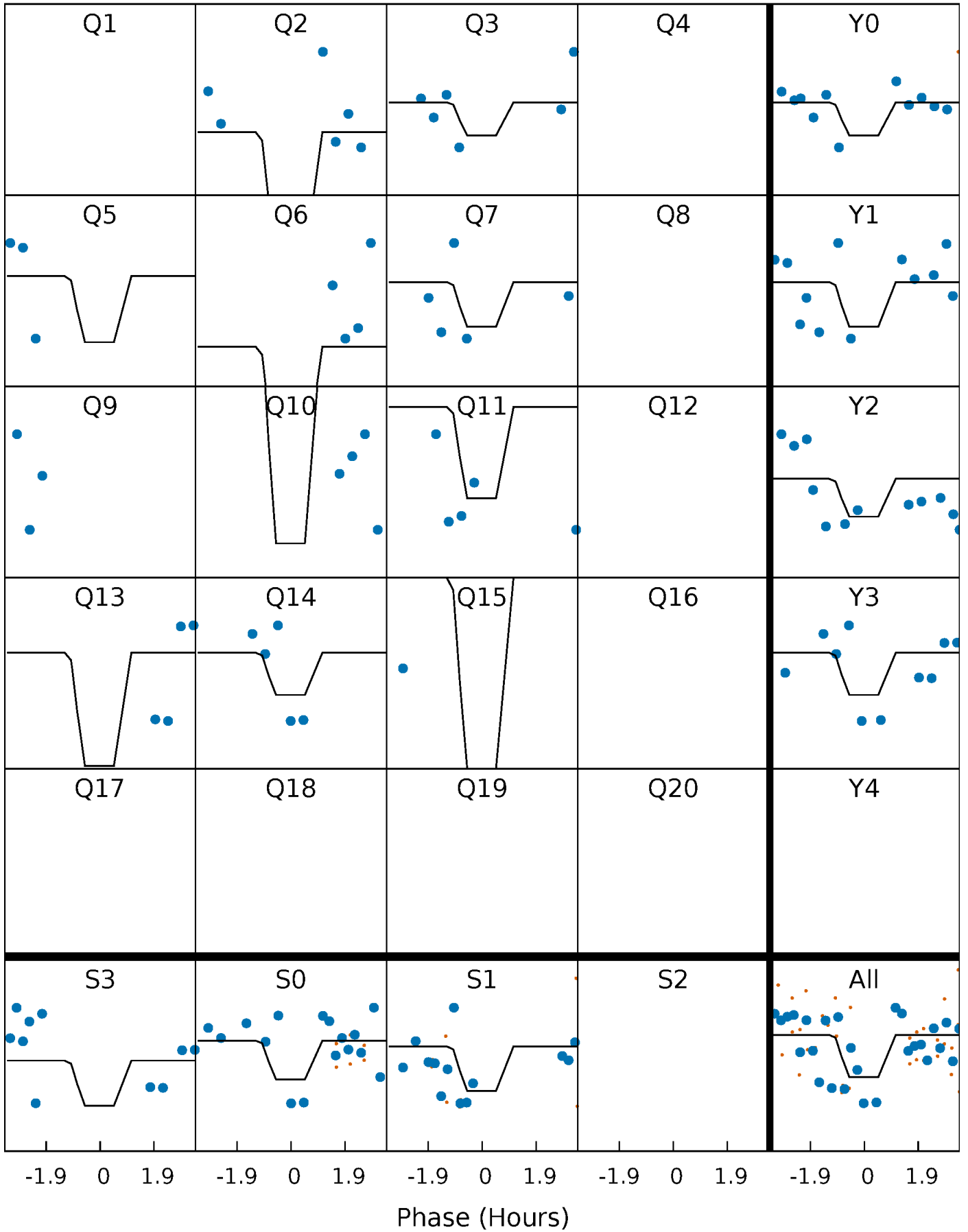
DV Quarter-Phased Transit Curves

TCE 011496366-02 P= 31.928026 Days $T_0=146.151973$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

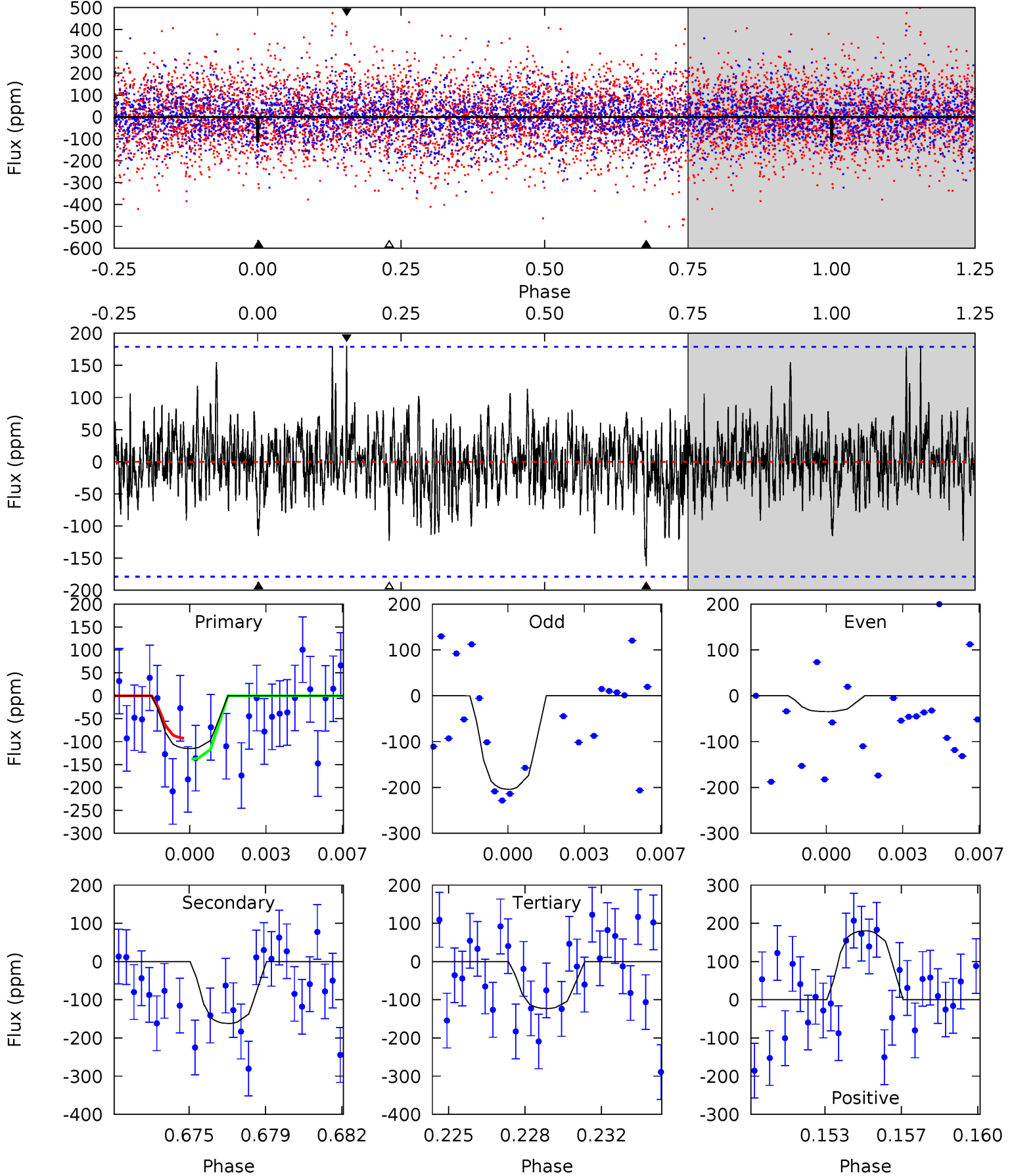
TCE 011496366-02 P= 31.929337 Days $T_0=146.155785$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-02, P = 31.928026 Days, E = 114.223947 Days

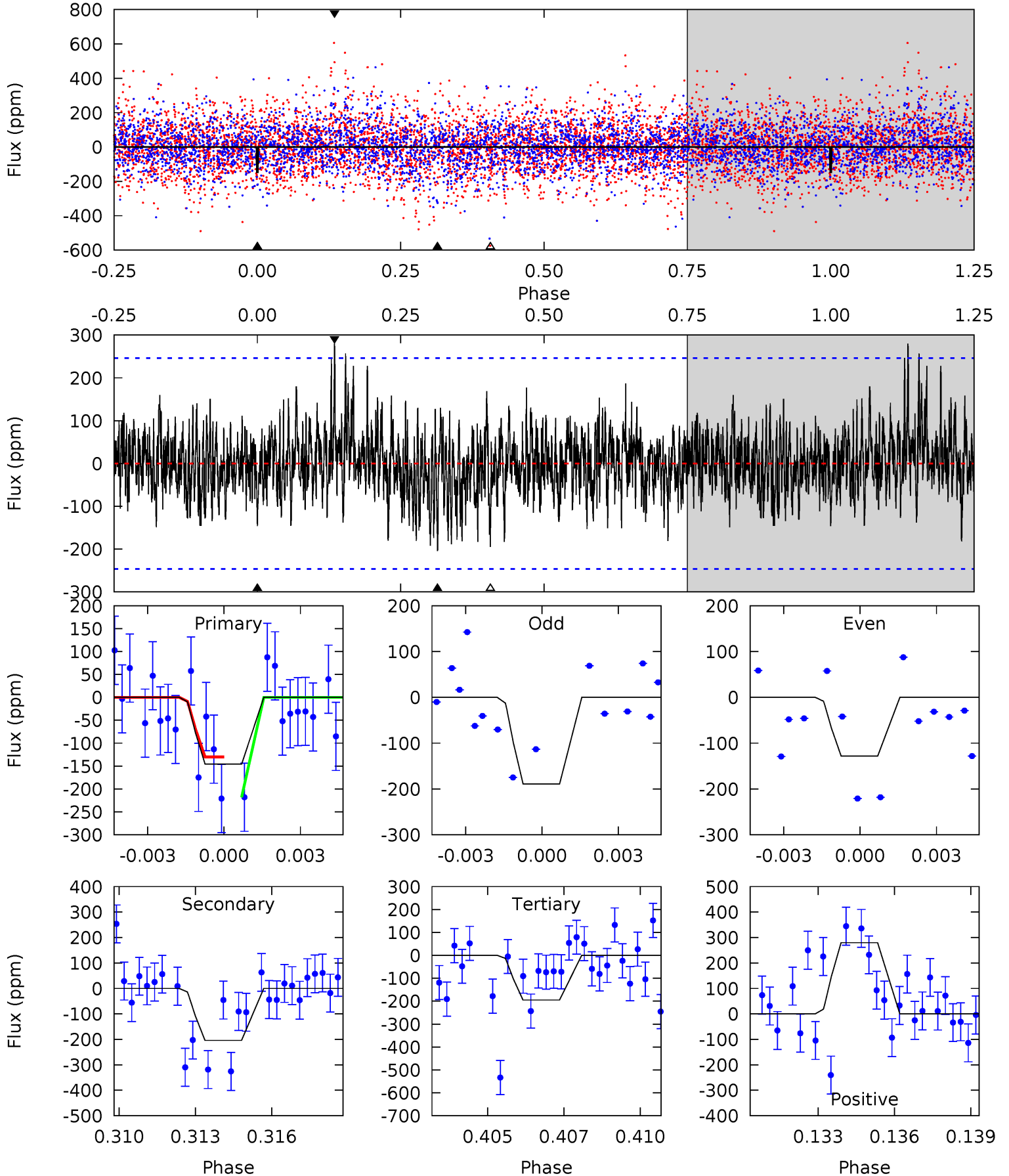
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.37	4.74	3.60	5.28	5.24	2.94	1.16	-0.22	-1.91	1.15	-0.54	2.49	0.91	0.53	0.66



Alt Model-Shift Uniqueness Test

011496366-02, P = 31.929337 Days, E = 114.226448 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.12	4.37	4.17	5.98	5.27	2.99	1.34	-1.05	-2.86	0.20	-1.61	0.63	0.93	0.58	0.61



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-162 ± 34	$5.35^{+5.75}_{-3.58}$	980^{+70}_{-95}	3869^{+2232}_{-751}	119^{+976}_{-91}
Alt.	-204 ± 47	$5.02^{+5.51}_{-3.49}$	974^{+66}_{-93}	4053^{+2912}_{-810}	168^{+1748}_{-130}

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

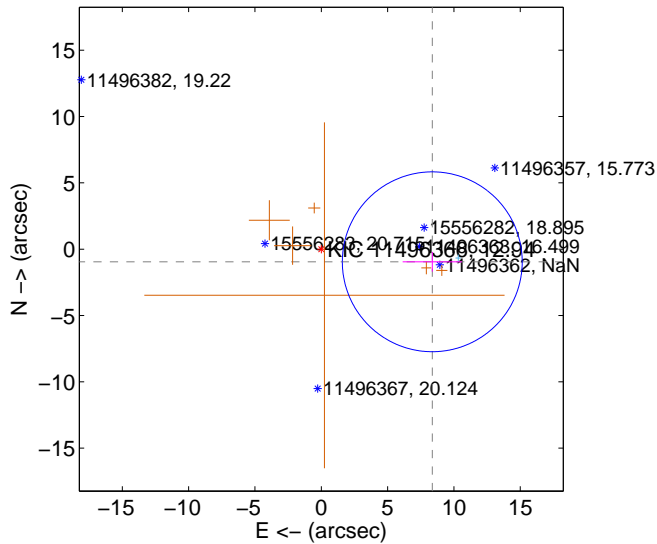
Supplemental centroid analysis for 011496366-02. Kepler magnitude: 12.94. Transit SNR 8.25

There are 1 quarters with good PRF difference image offsets

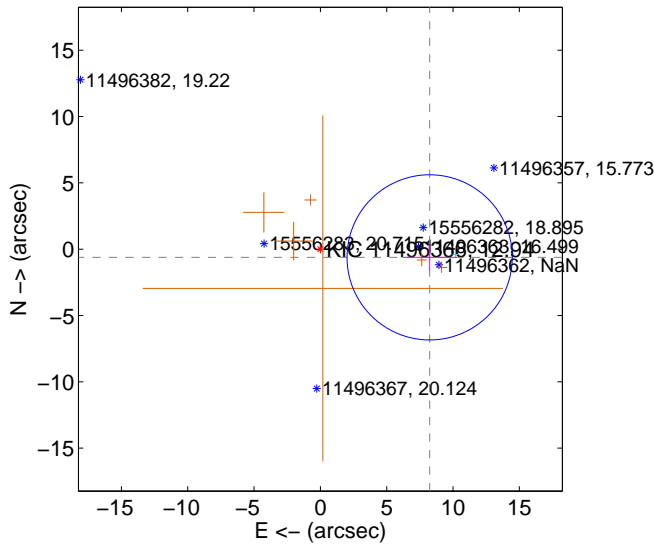
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.420 ± 2.260	3.73	-8.366 ± 2.235	-0.951 ± 0.745
PRF-fit source offset from KIC position	8.259 ± 2.075	3.98	-8.236 ± 2.049	-0.618 ± 0.967
photometric centroid source offset	0.94 ± 0.71	1.32	-0.82 ± 0.71	0.46 ± 0.73

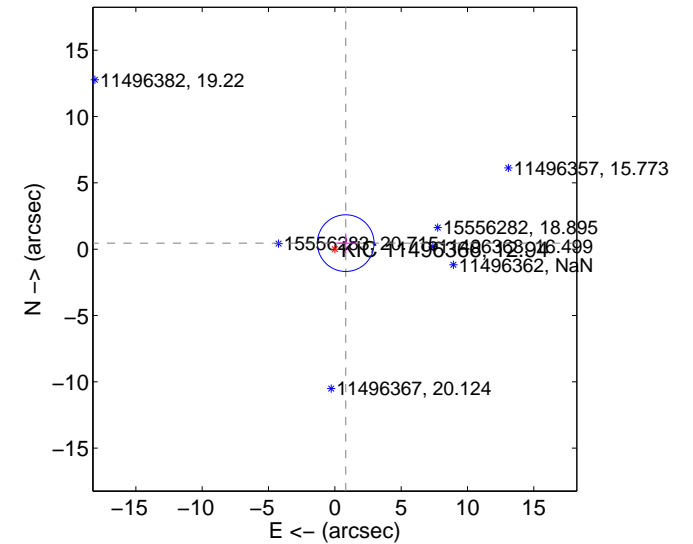
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

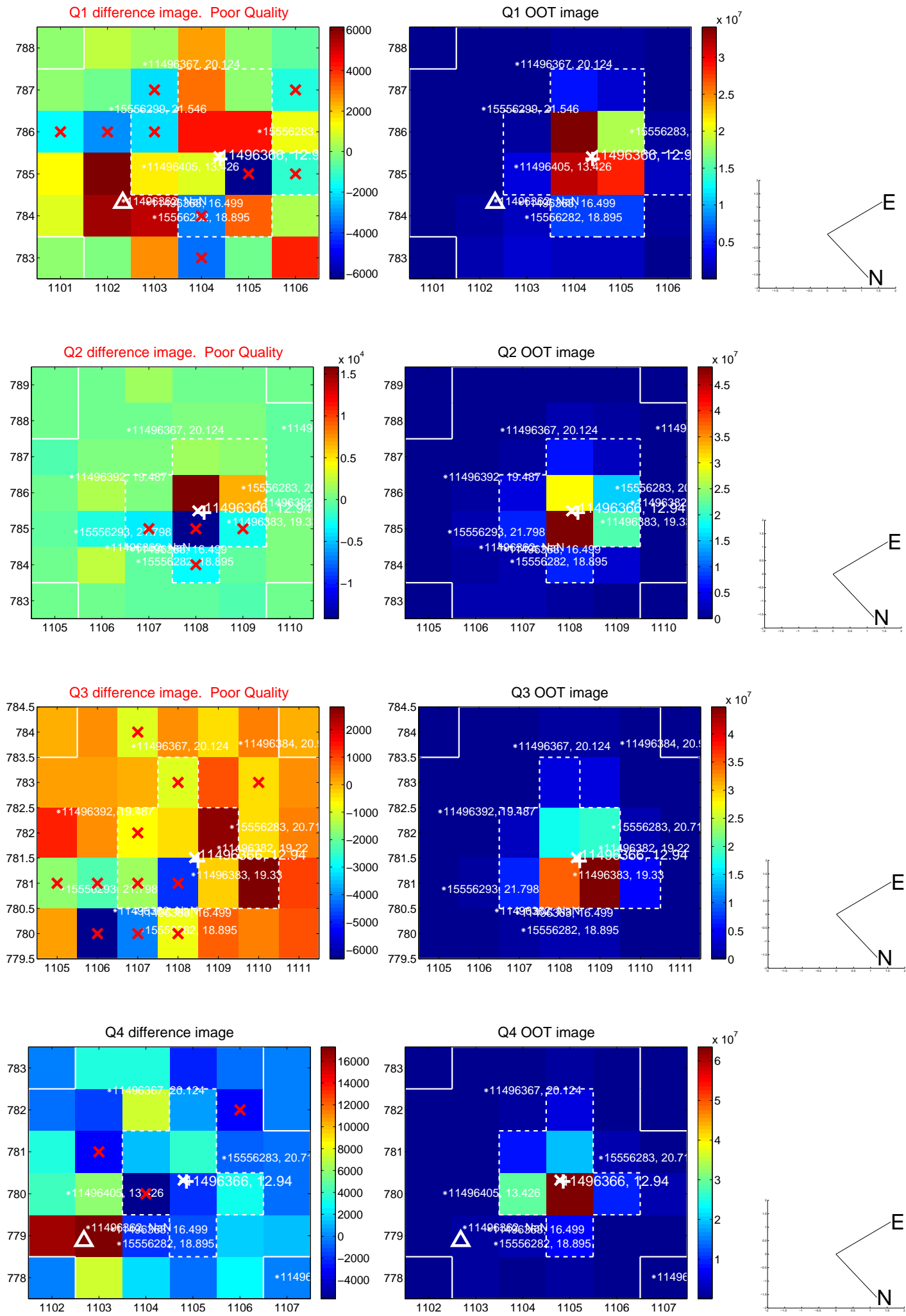


offset from photometric centroids

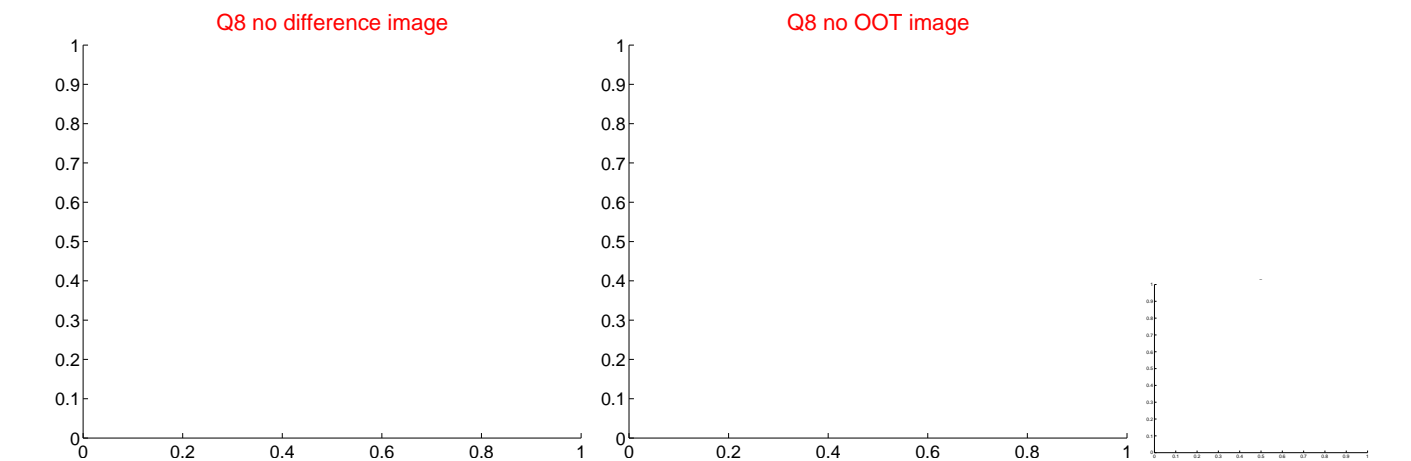
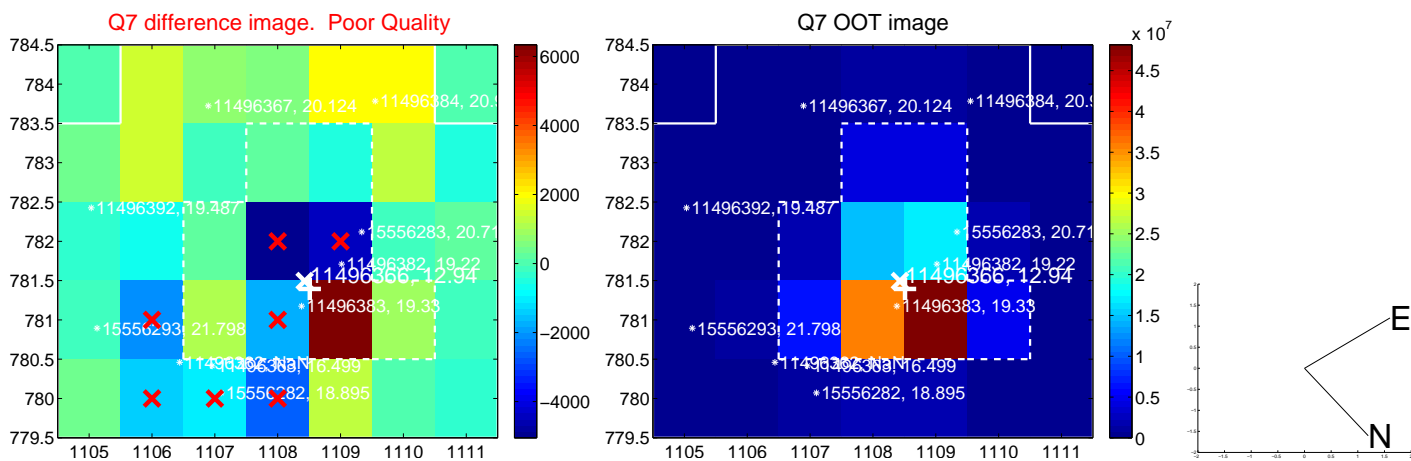
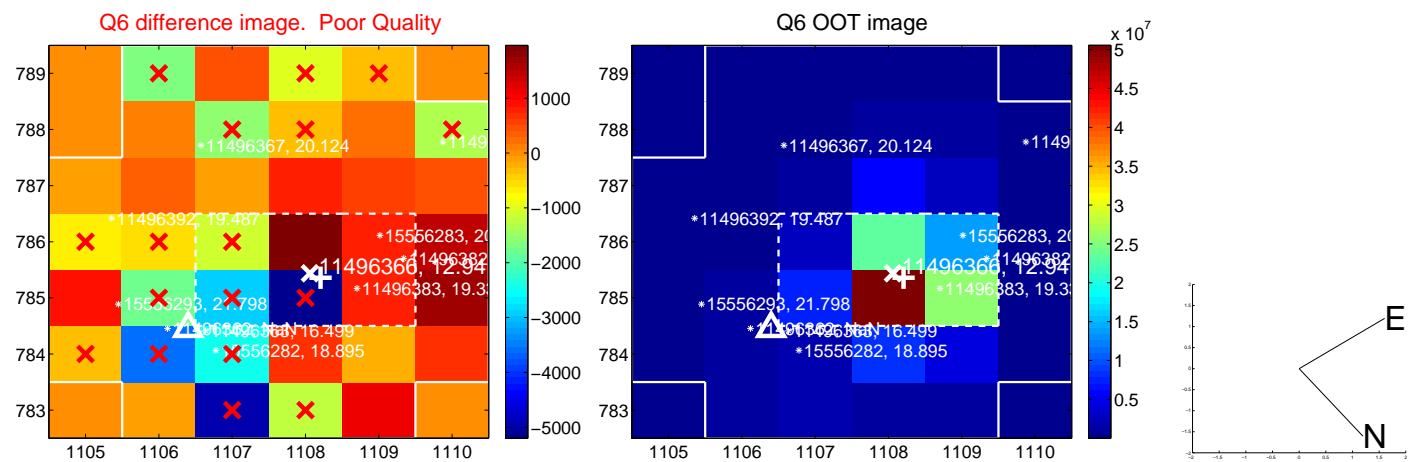
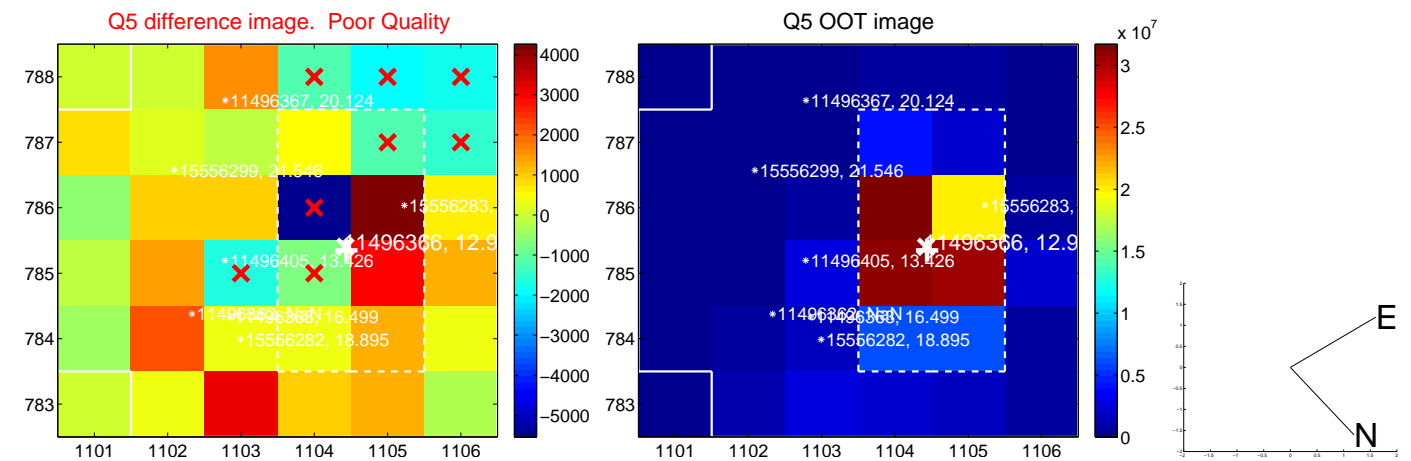


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

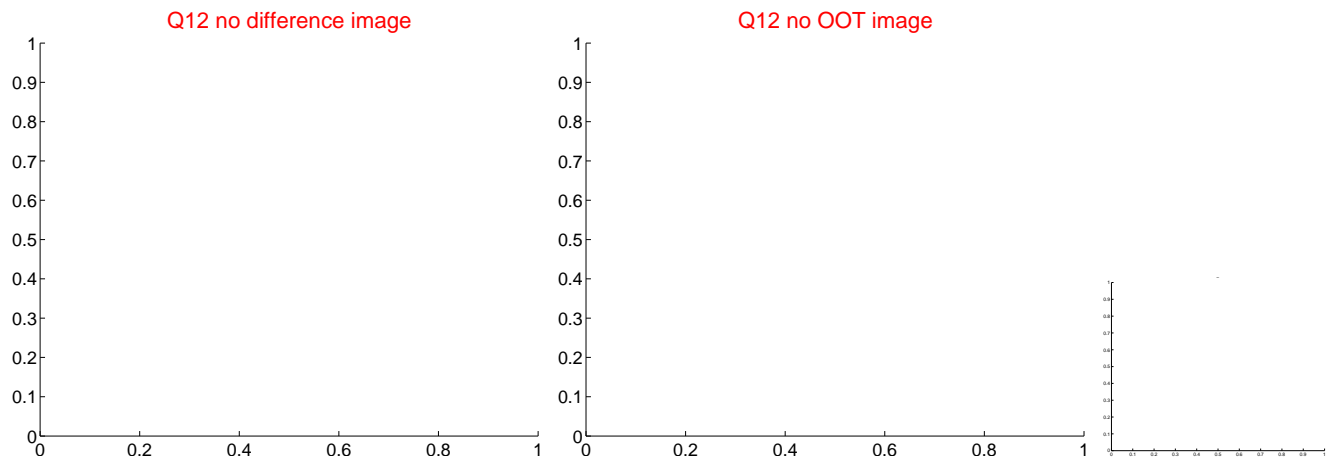
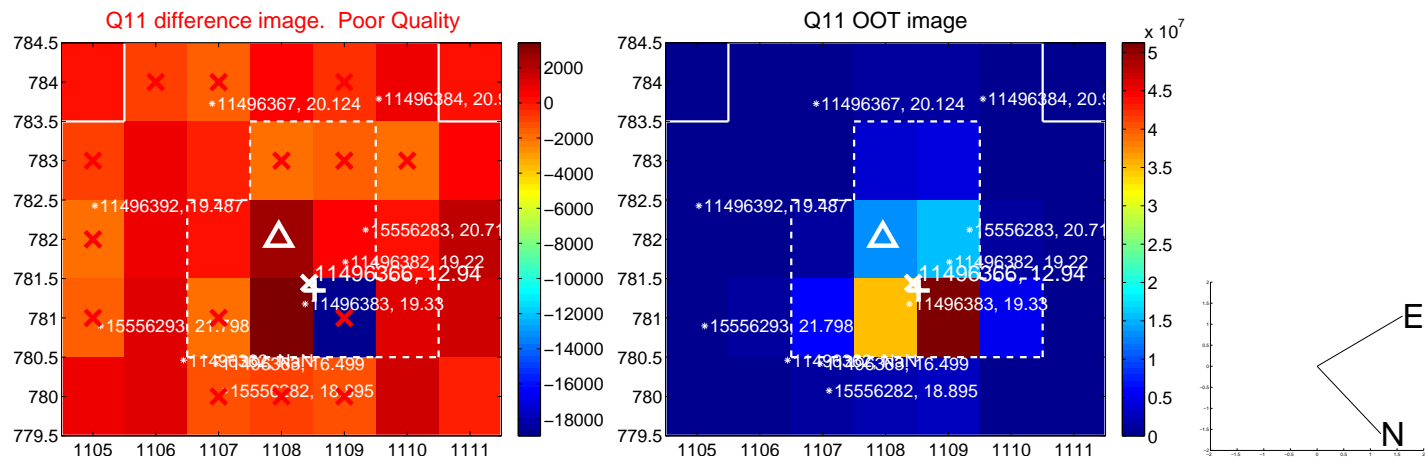
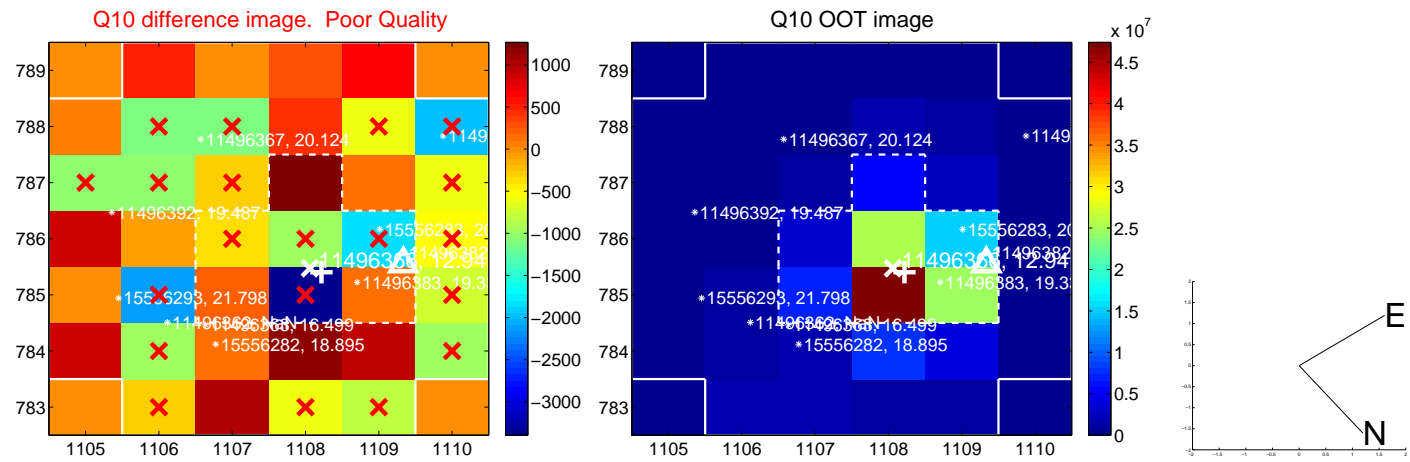
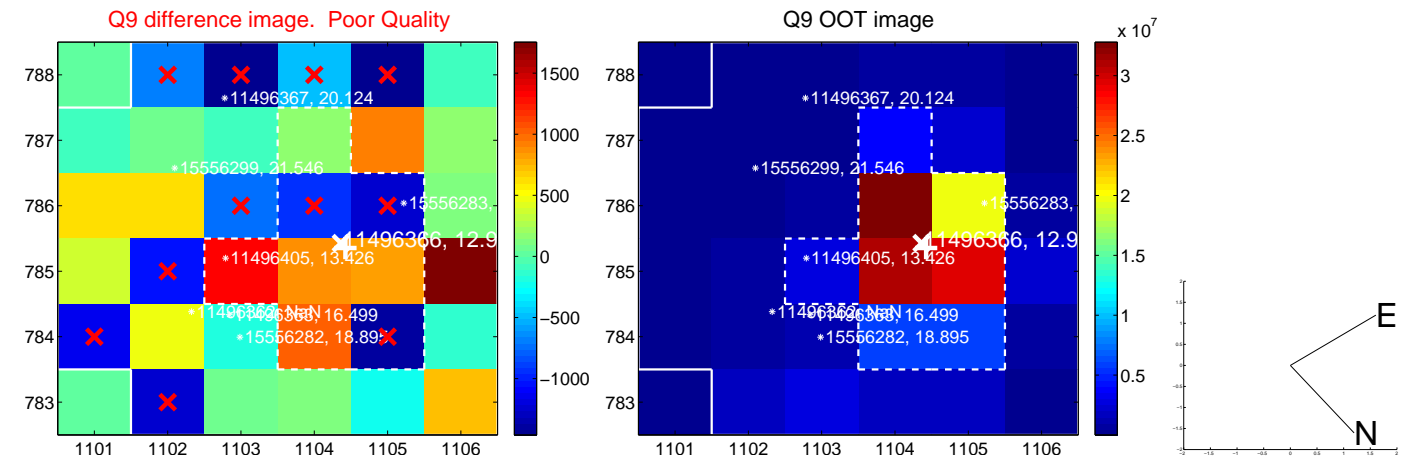
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



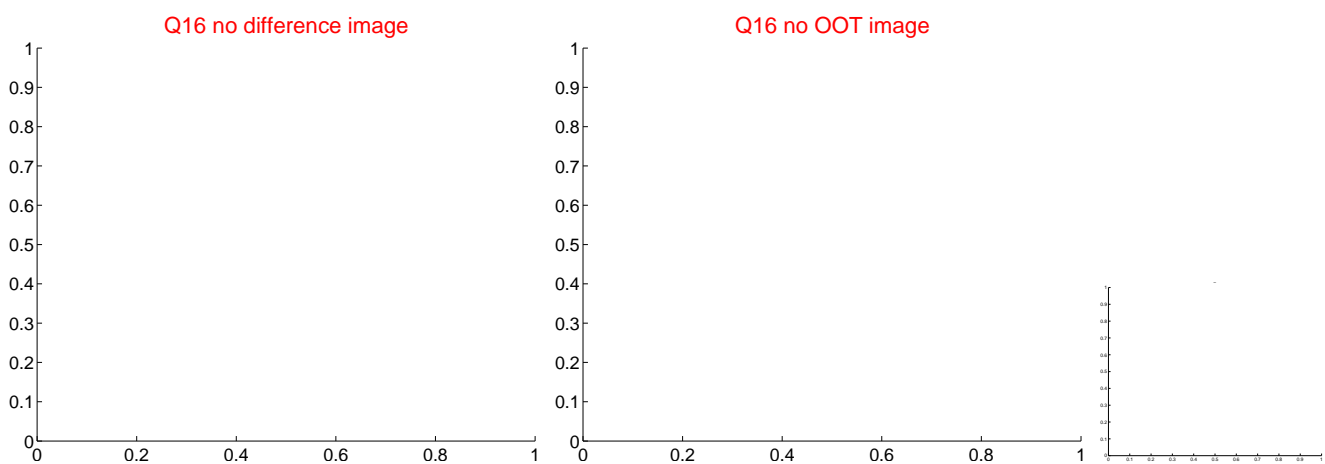
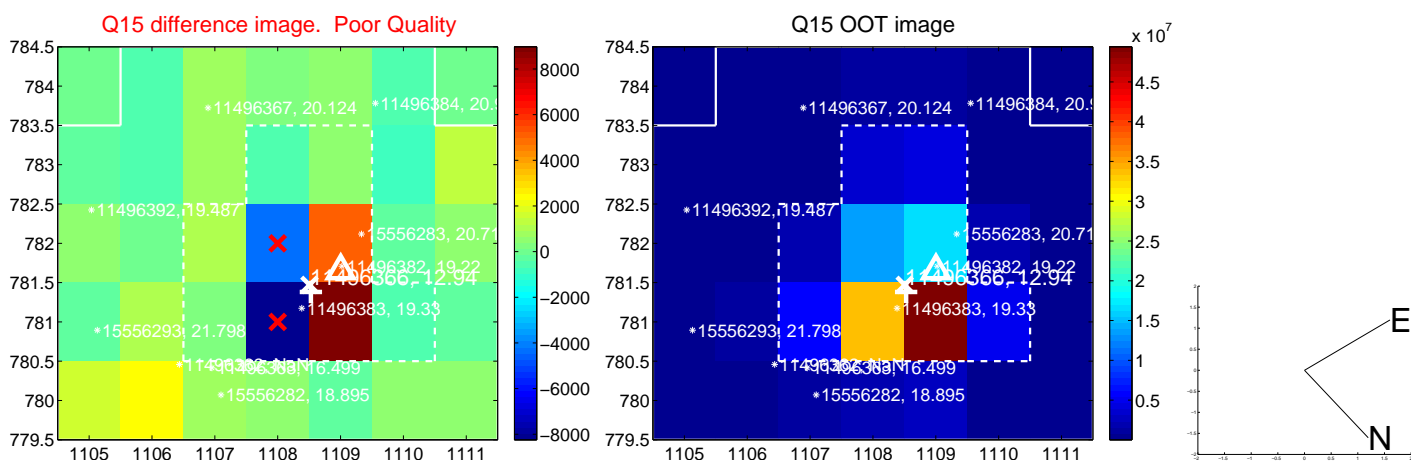
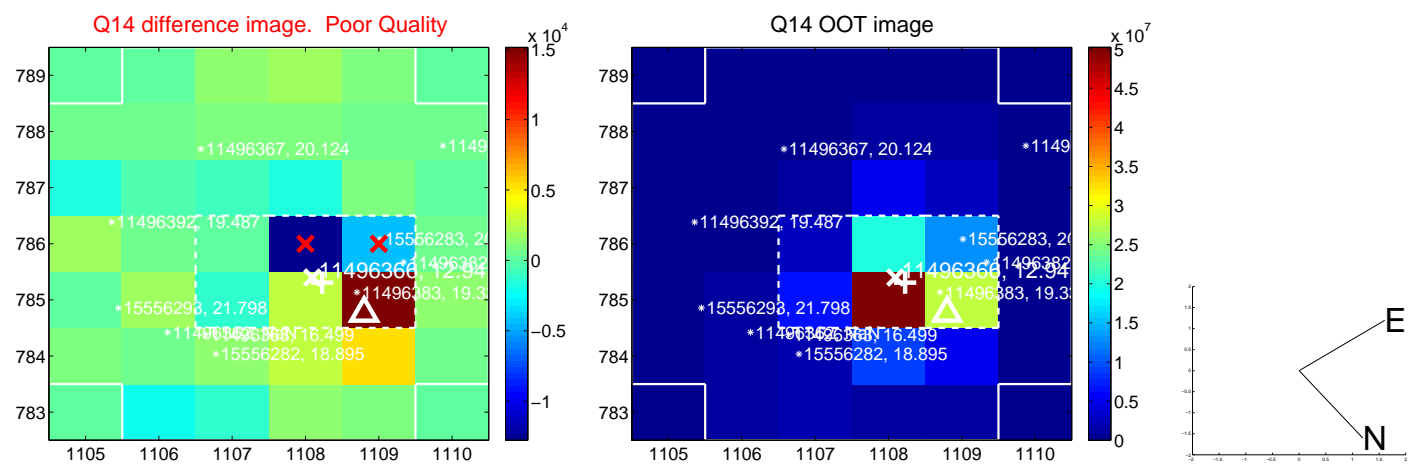
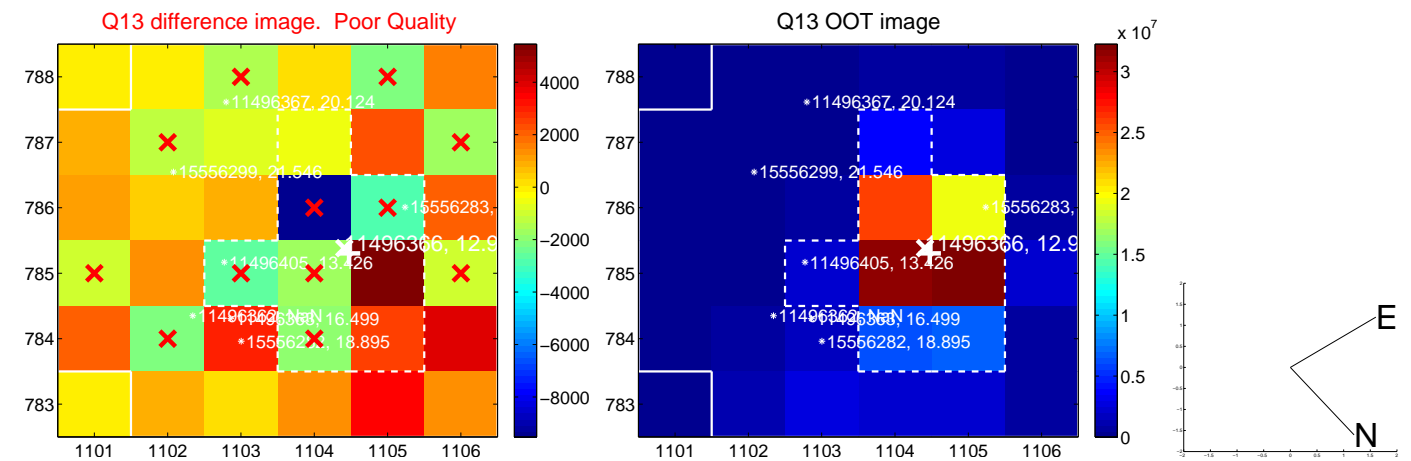
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



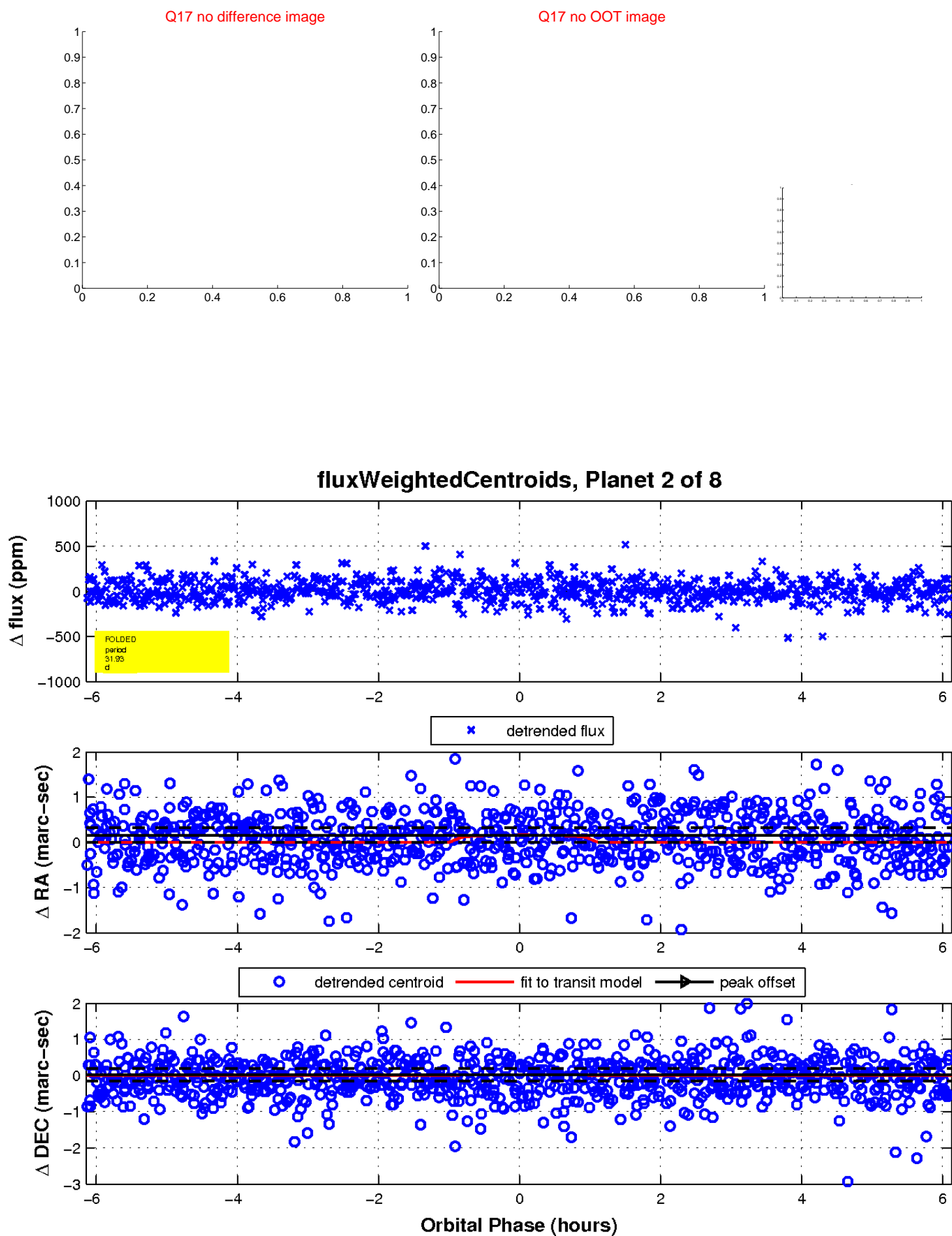
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



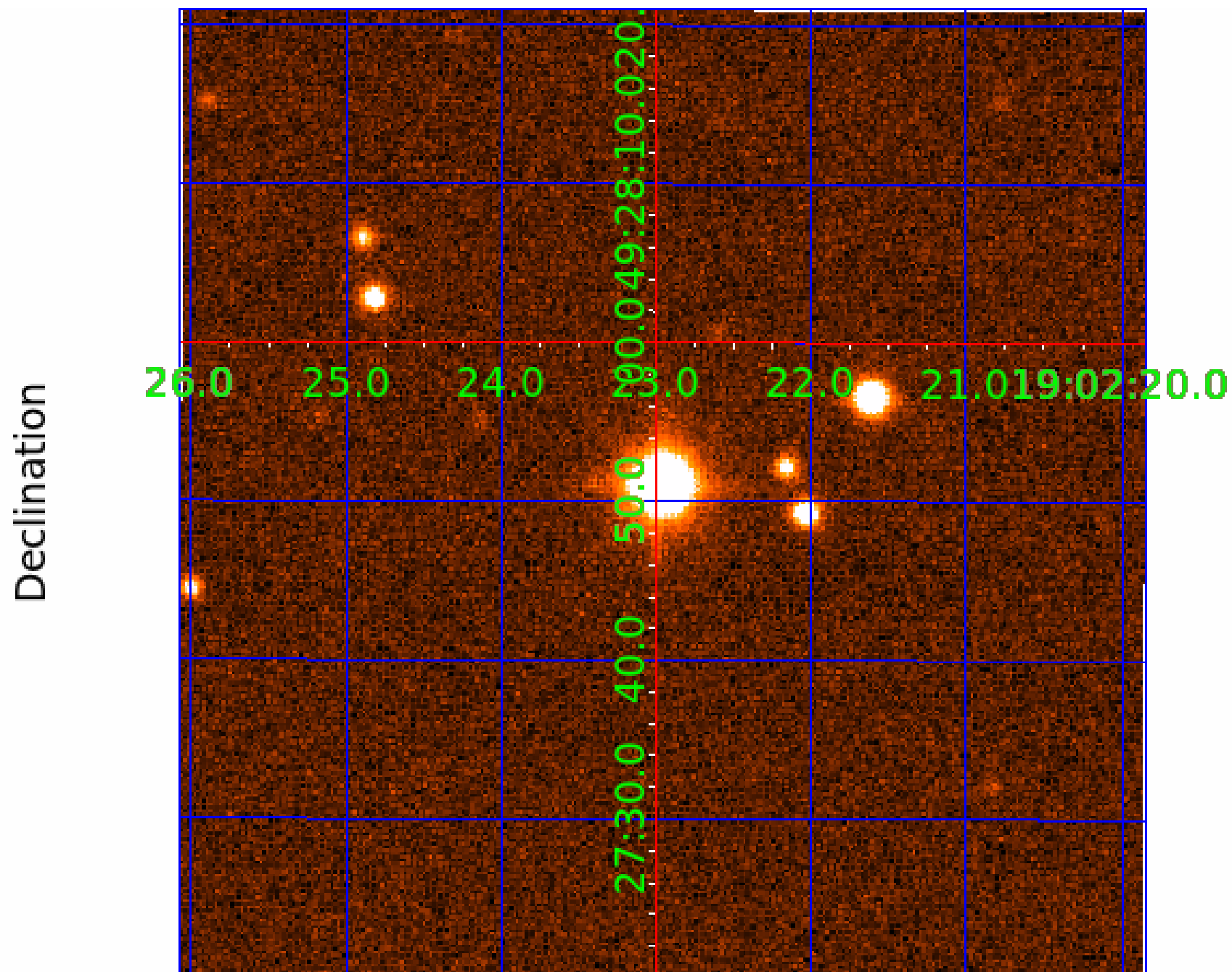
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

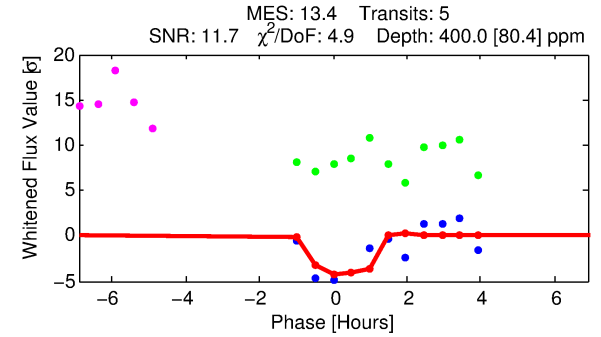
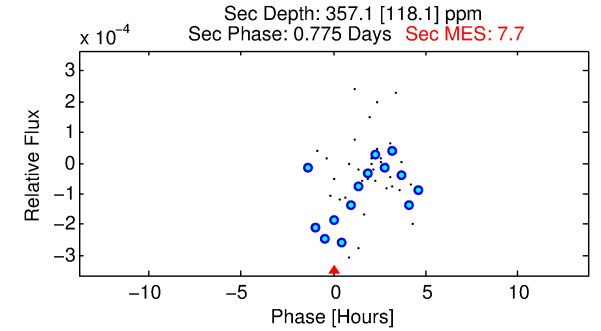
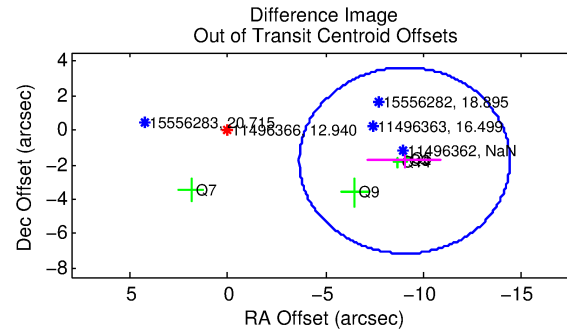
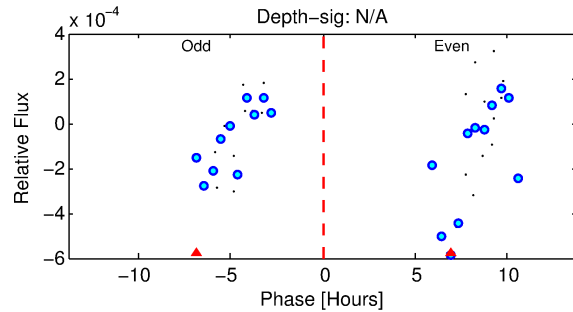
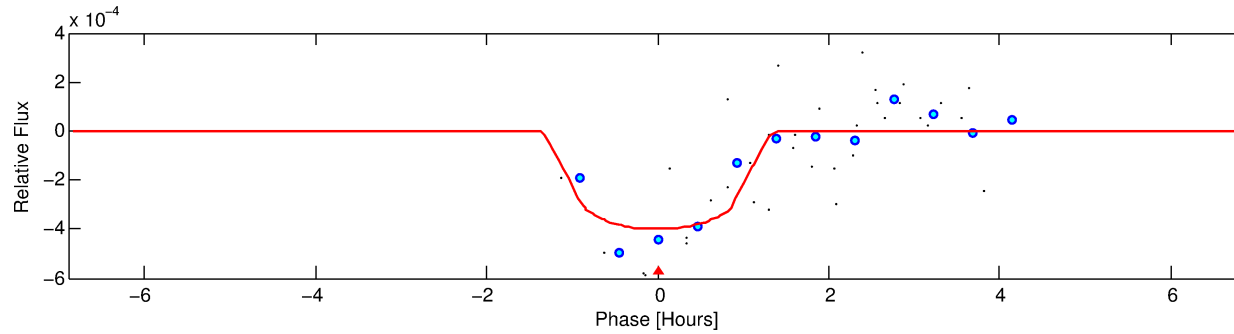
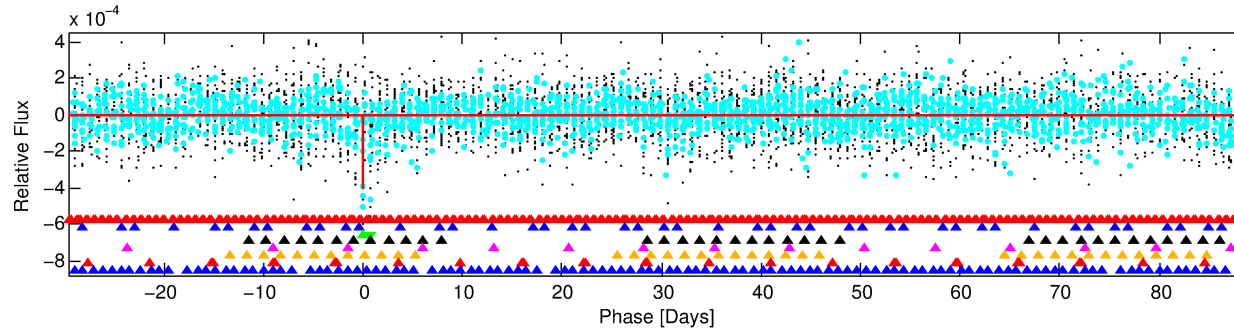
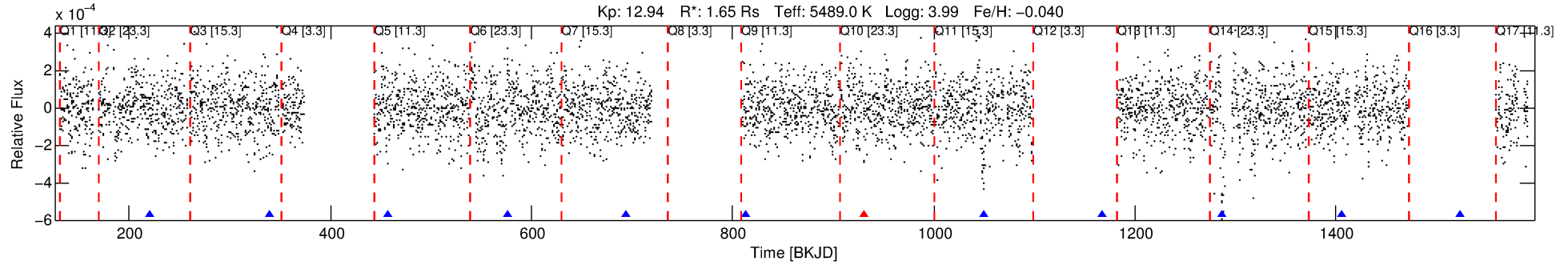
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-03

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 3 of 8 Period: 118.403 d



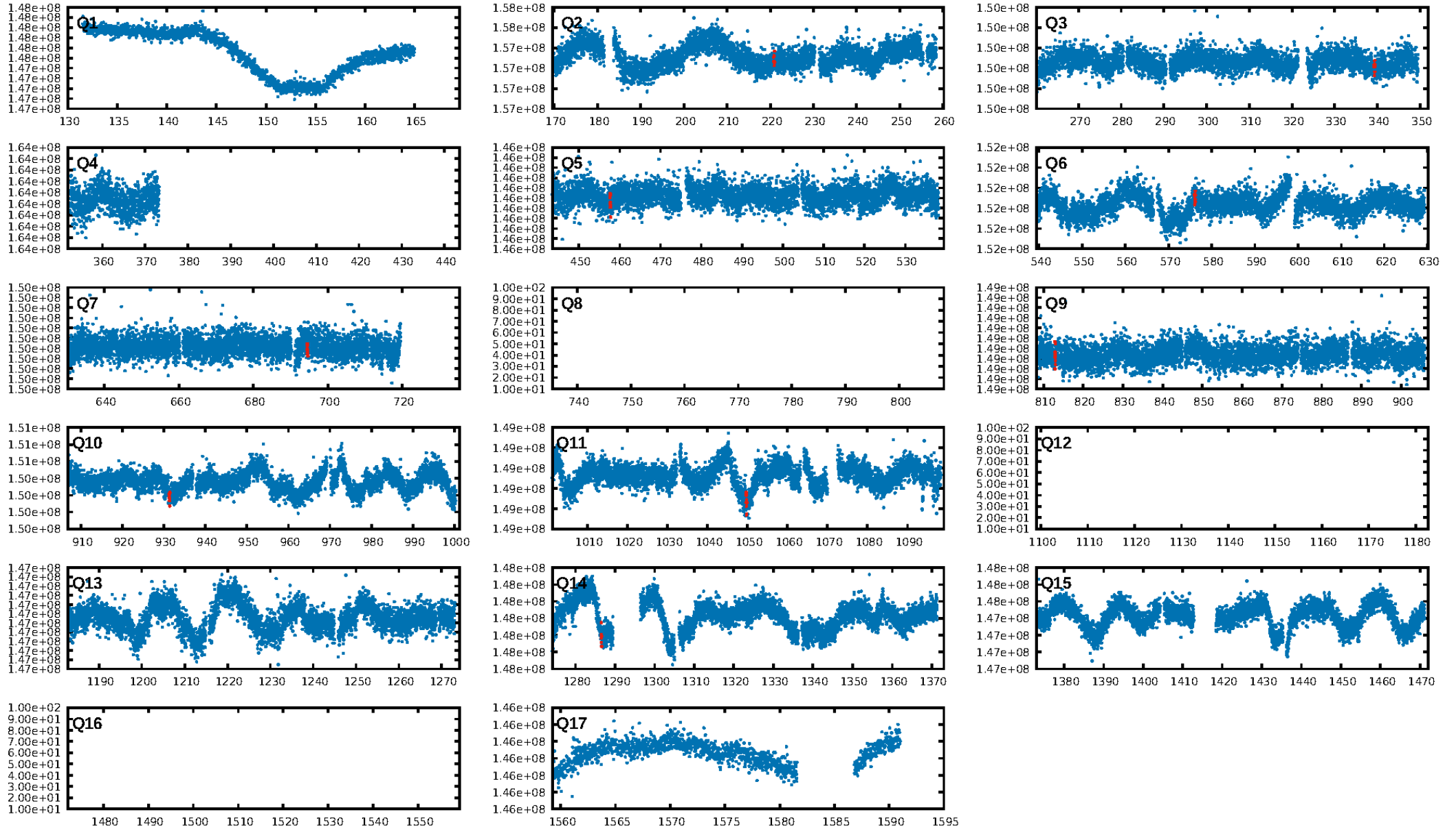
DV Fit Results:

Period = 118.40299 [0.00283] d
Epoch = 220.9221 [0.0215] BKJD
Rp/R* = 0.0180 [0.1167]
a/R* = 400.94 [10527.06]
b = 0.01 [5169.16]
Seff = 10.12 [5.57]
Teq = 455 [63] K
Rp = 3.24 [21.02] Re
a = 0.4673 [0.1520] AU
Ag = 4076.73 [52825.28] [0.08σ]
Teffp = 5618 [18186] K [0.28σ]

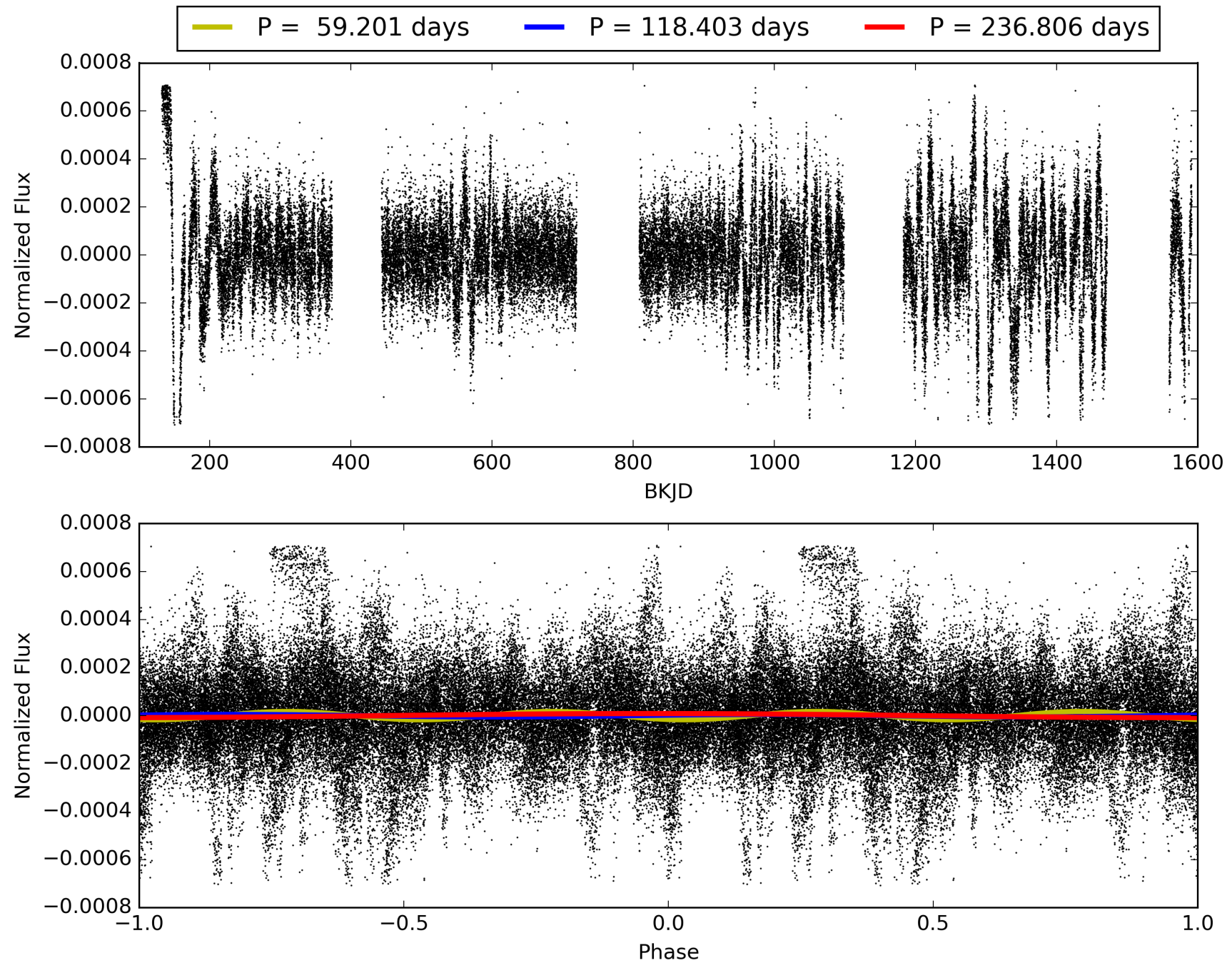
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [174.71σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.4%
ModelChiSquareGof-sig: 41.8%
Bootstrap-pfa: 1.96e-15
RollingBand-fgt: 0.80 [4/5]
GhostDiagnostic-chr: 0.8013
Centroid-sig: 50.4%
Centroid-so: 0.597 arcsec [0.82σ]
OotOffset-rm: 9.214 arcsec [5.14σ]
KicOffset-rm: 9.079 arcsec [4.68σ]
OotOffset-st: 1/2/0/2 [5]
KicOffset-st: 1/2/0/2 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 0.00 [0/9]

TCE 011496366-03, PDC Light Curves

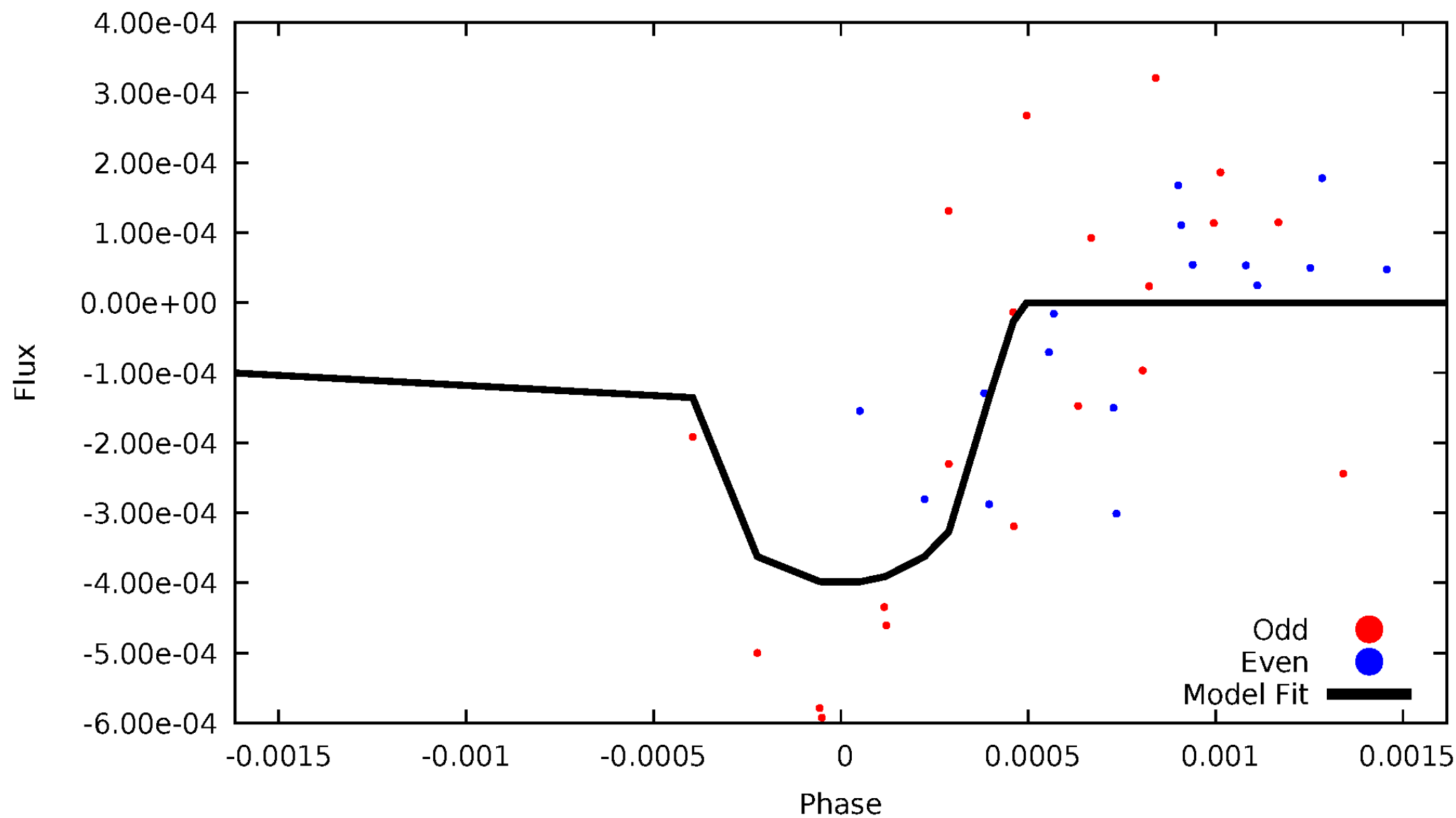


TCE 011496366-03



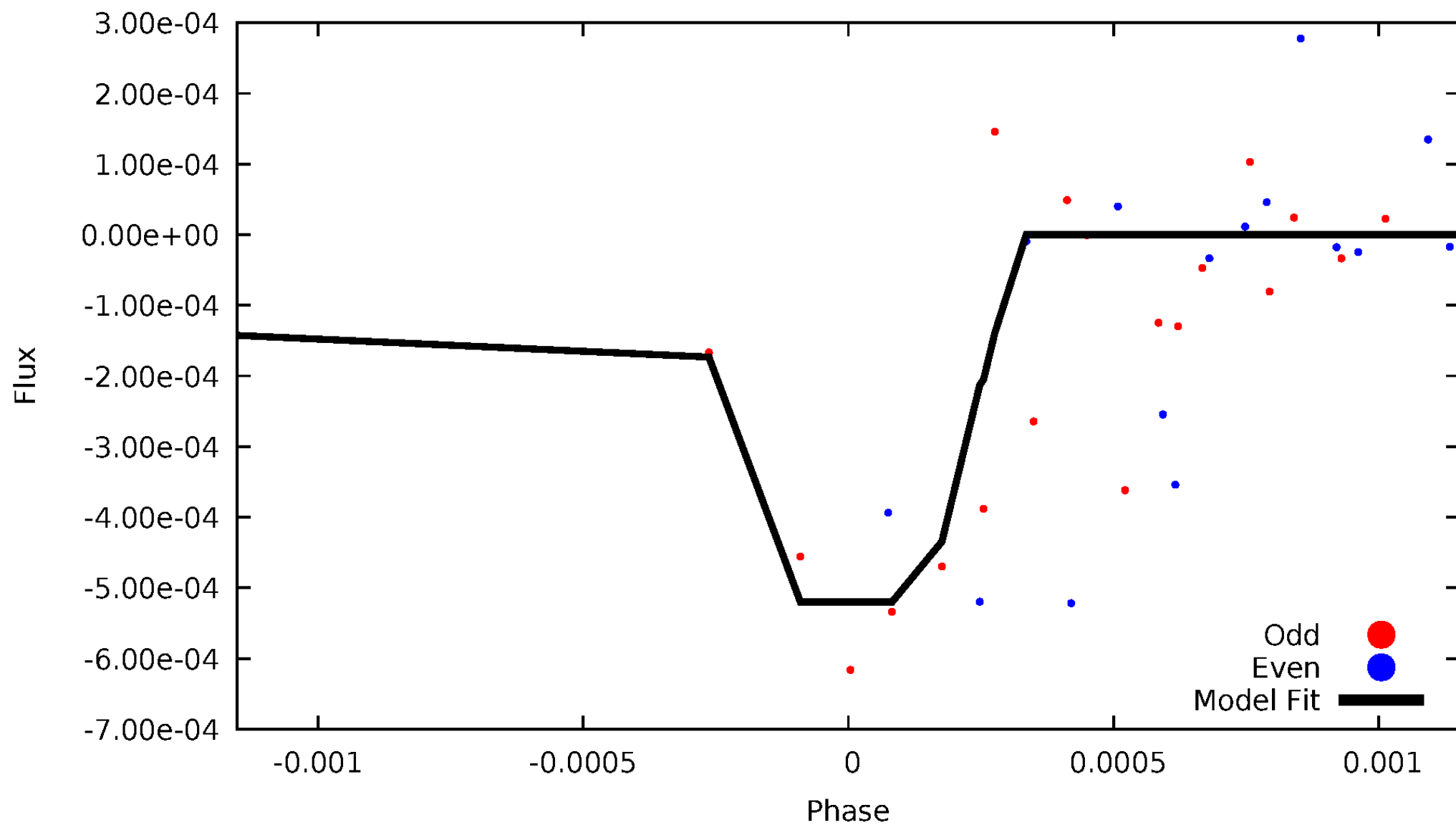
DV Odd/Even

TCE 011496366-03

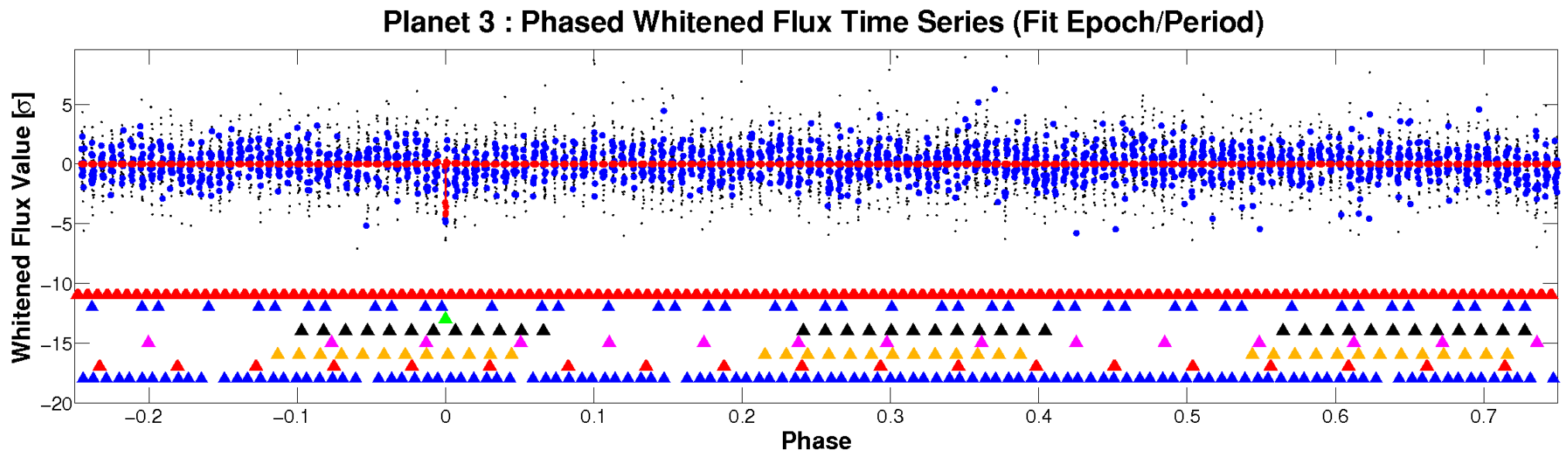
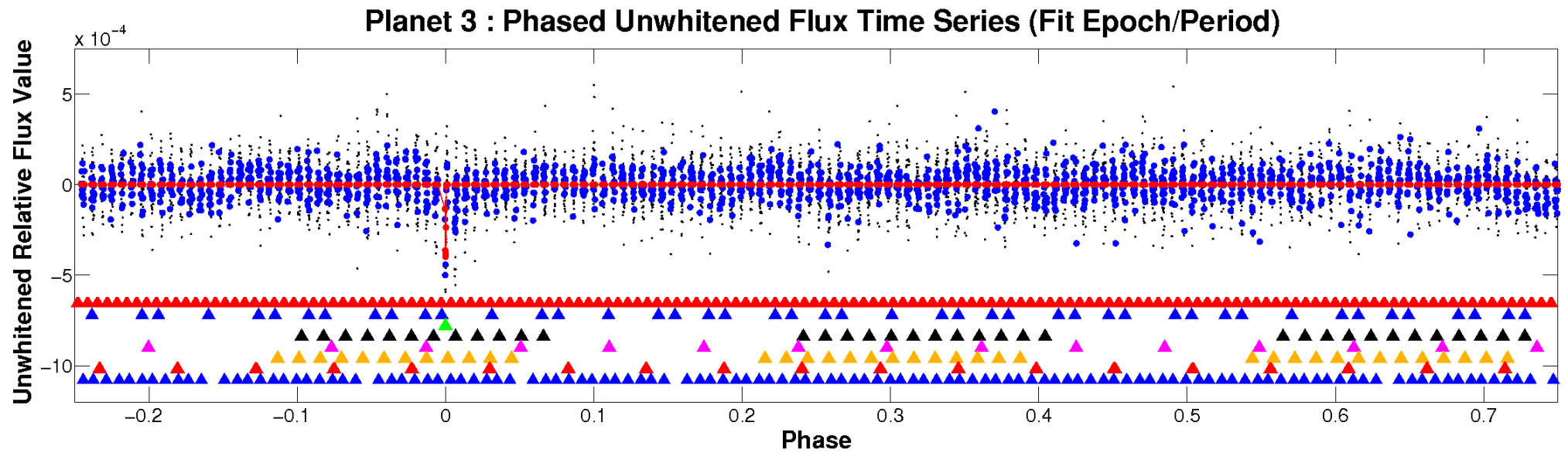


ALT Odd/Even

TCE 011496366-03

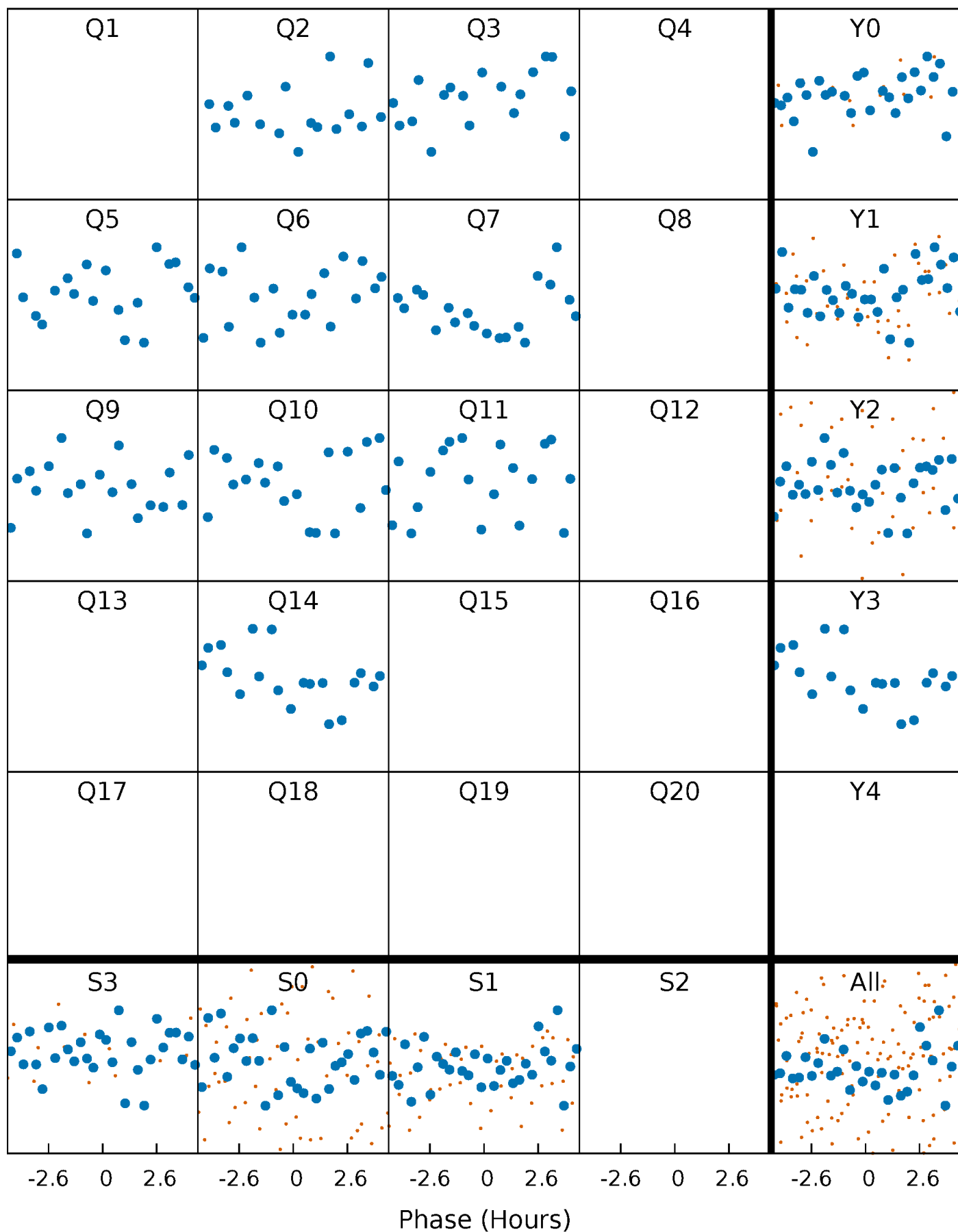


Non-Whitened Vs. Whitened Light Curve



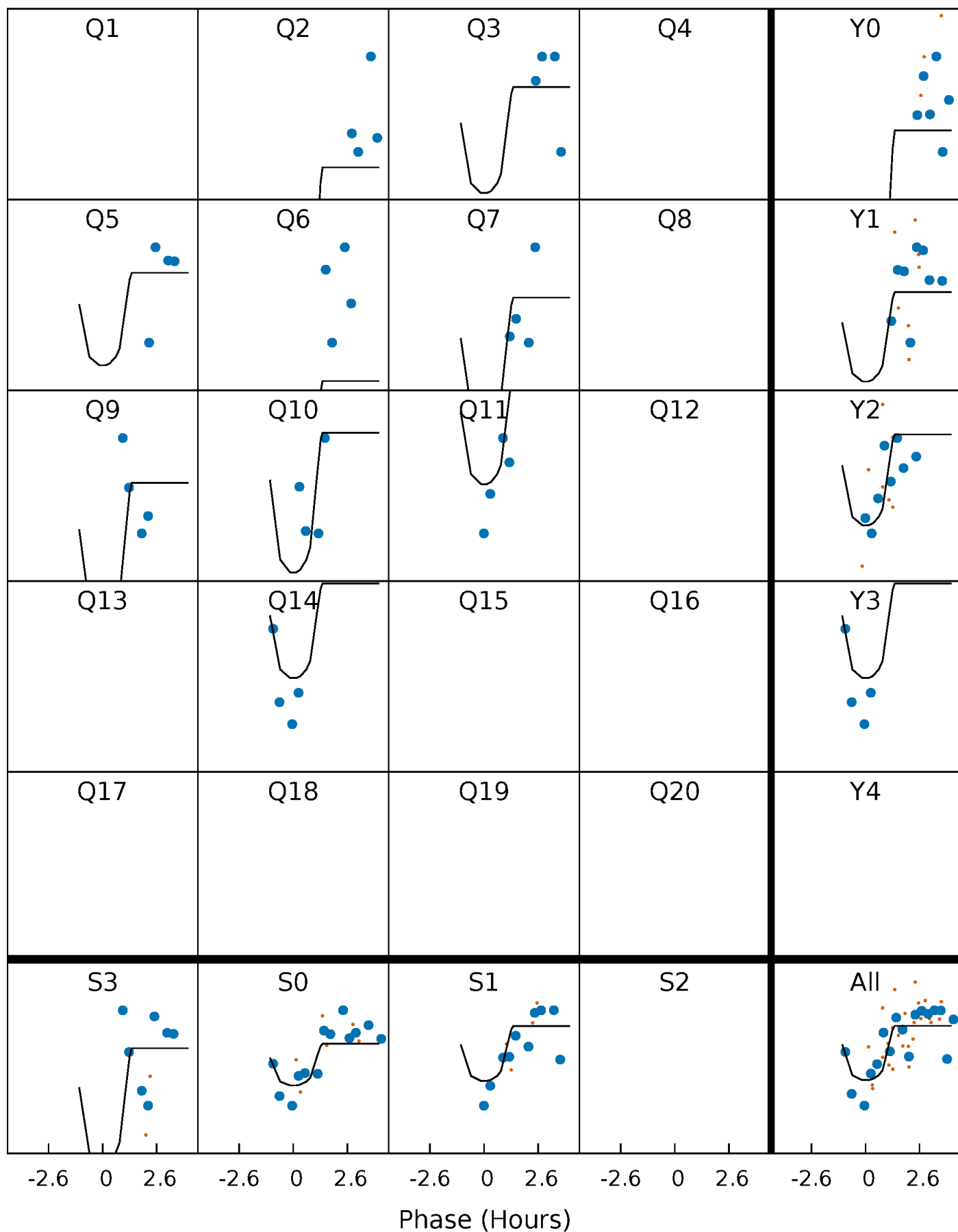
PDC Quarter-Phased Transit Curves

TCE 011496366-03 P=118.402986 Days $T_0=220.922056$ (BKJD)



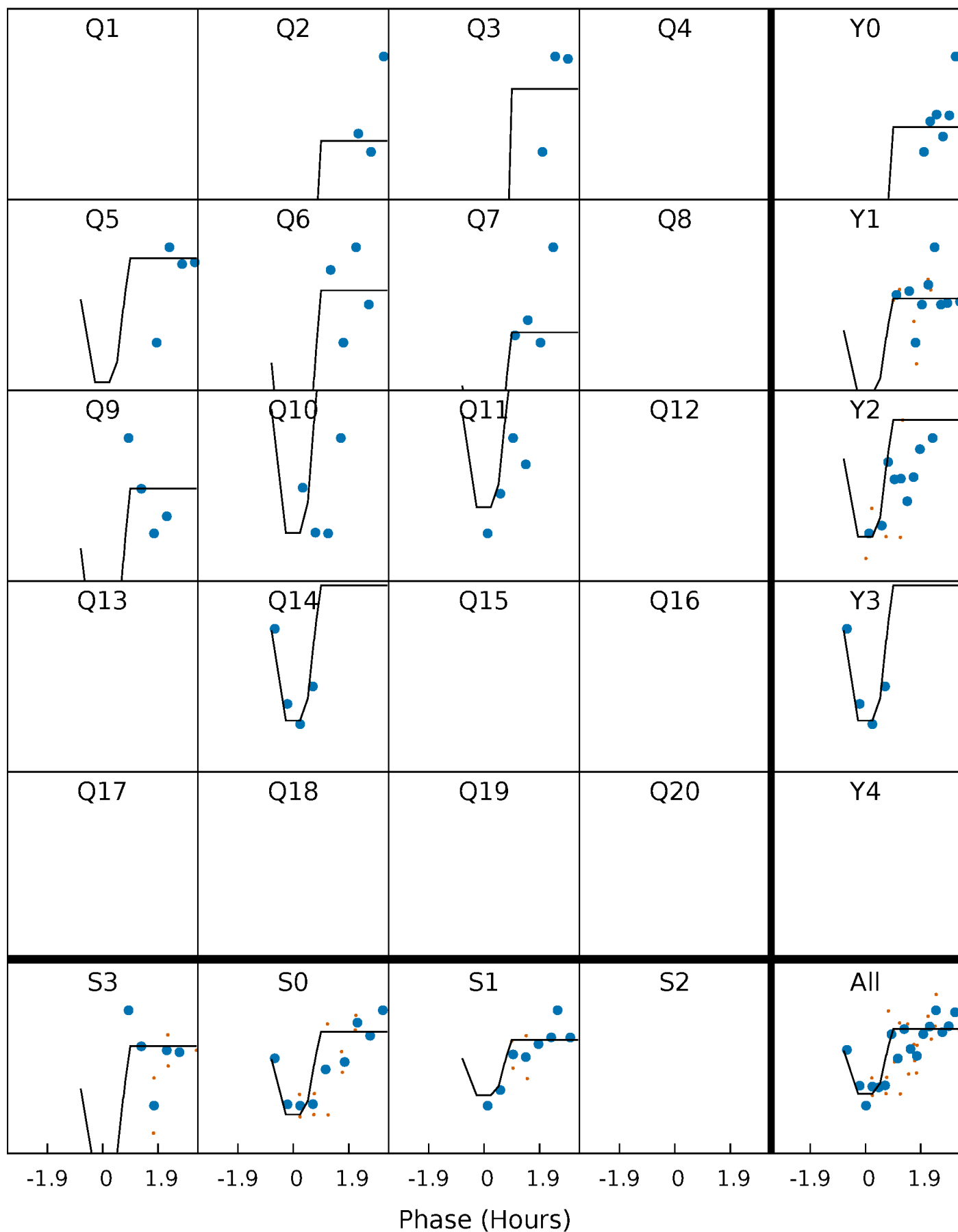
DV Quarter-Phased Transit Curves

TCE 011496366-03 P=118.402986 Days $T_0=220.922056$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

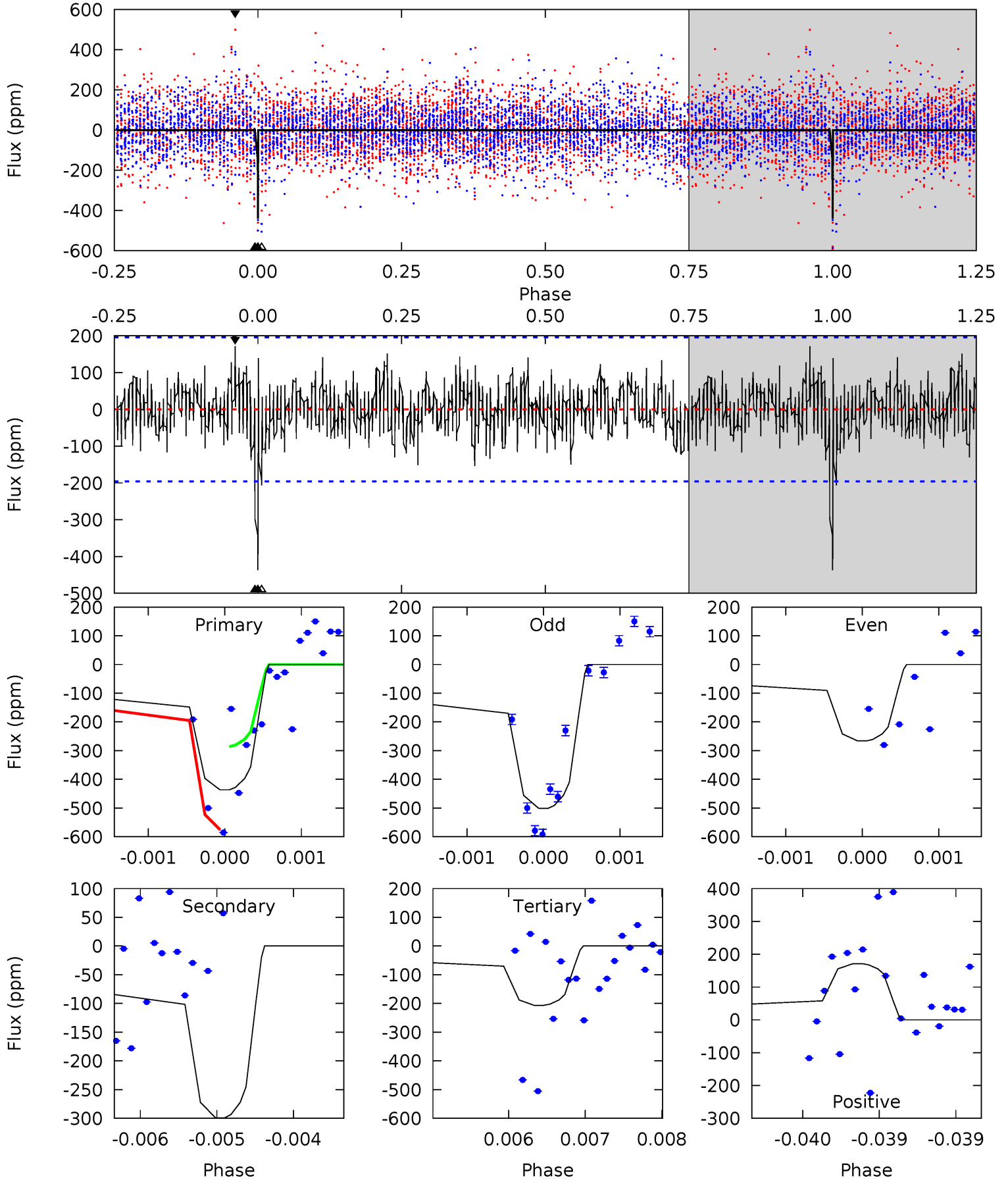
TCE 011496366-03 P=118.398728 Days $T_0=220.944658$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-03, P = 118.402986 Days, E = 102.519070 Days

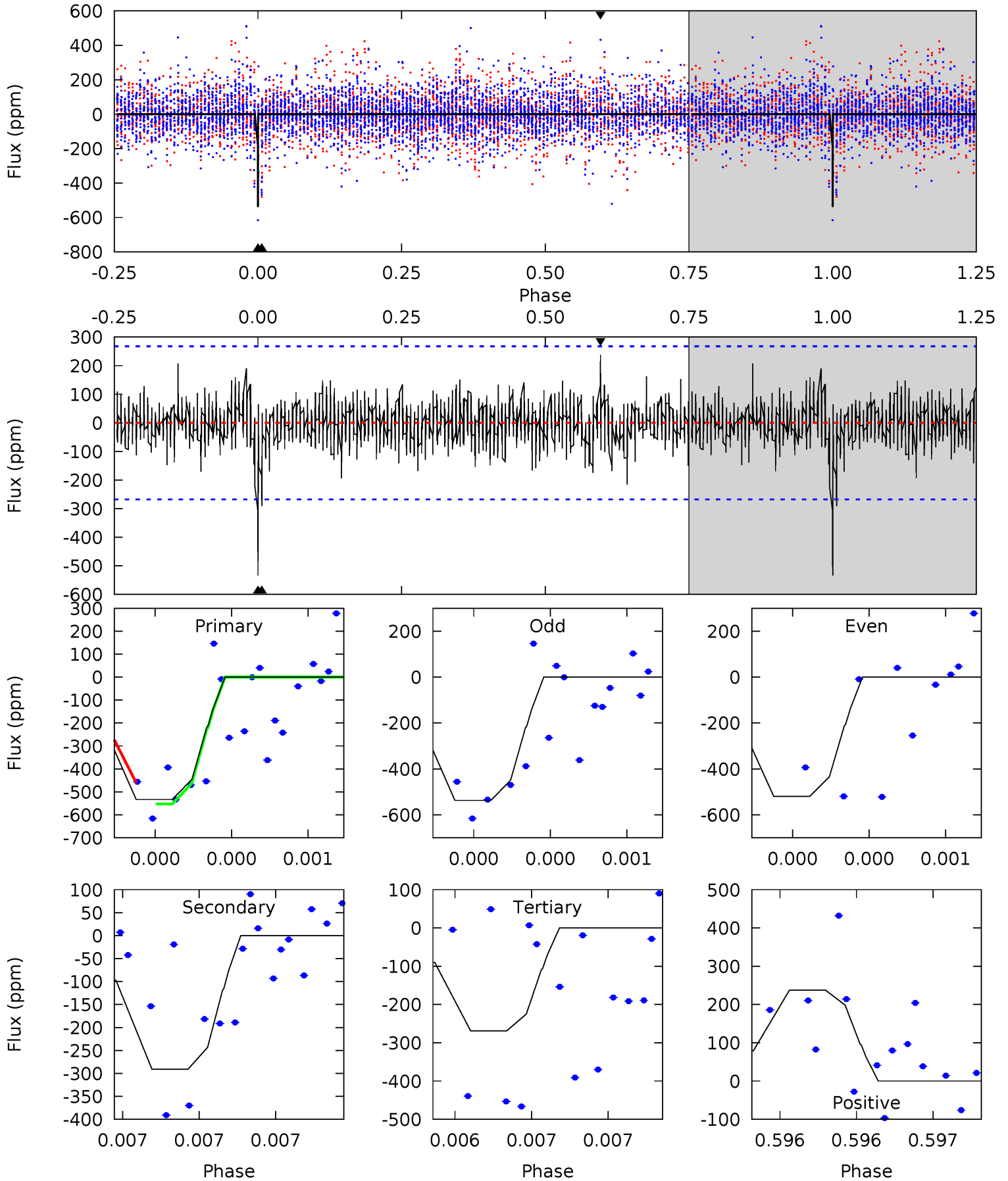
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	8.36	5.77	4.79	5.48	3.33	1.39	6.43	7.42	2.59	3.58	3.24	0.76	0.28	3.61



Alt Model-Shift Uniqueness Test

011496366-03, P = 118.398728 Days, E = 102.545930 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	6.12	5.66	4.99	5.63	3.56	1.12	5.55	6.21	0.46	1.13	0.18	1.04	0.31	0.00



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-299 ± 36	$15.34^{+17.03}_{-10.21}$	631^{+45}_{-61}	3051^{+1263}_{-520}	147^{+1216}_{-111}
Alt.	-291 ± 48	$14.89^{+18.30}_{-9.77}$	630^{+44}_{-61}	3066^{+1368}_{-557}	161^{+1359}_{-129}

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 $A_{obs} \gg 1.0$

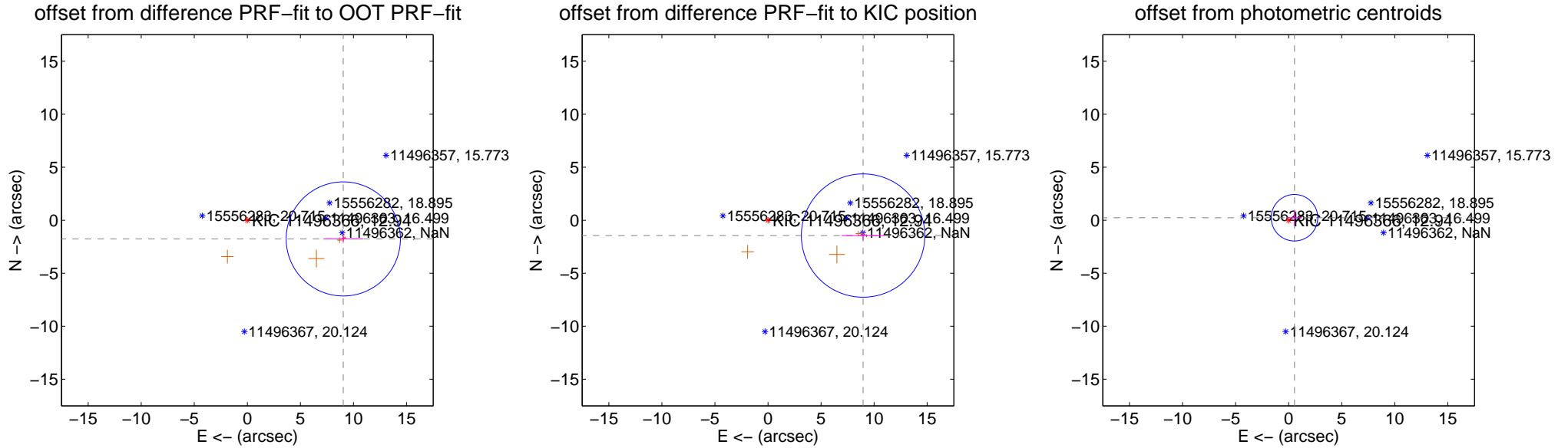
DV Centroid Data

Supplemental centroid analysis for 011496366-03. Kepler magnitude: 12.94. Transit SNR 11.70

There are 0 quarters with good PRF difference image offsets

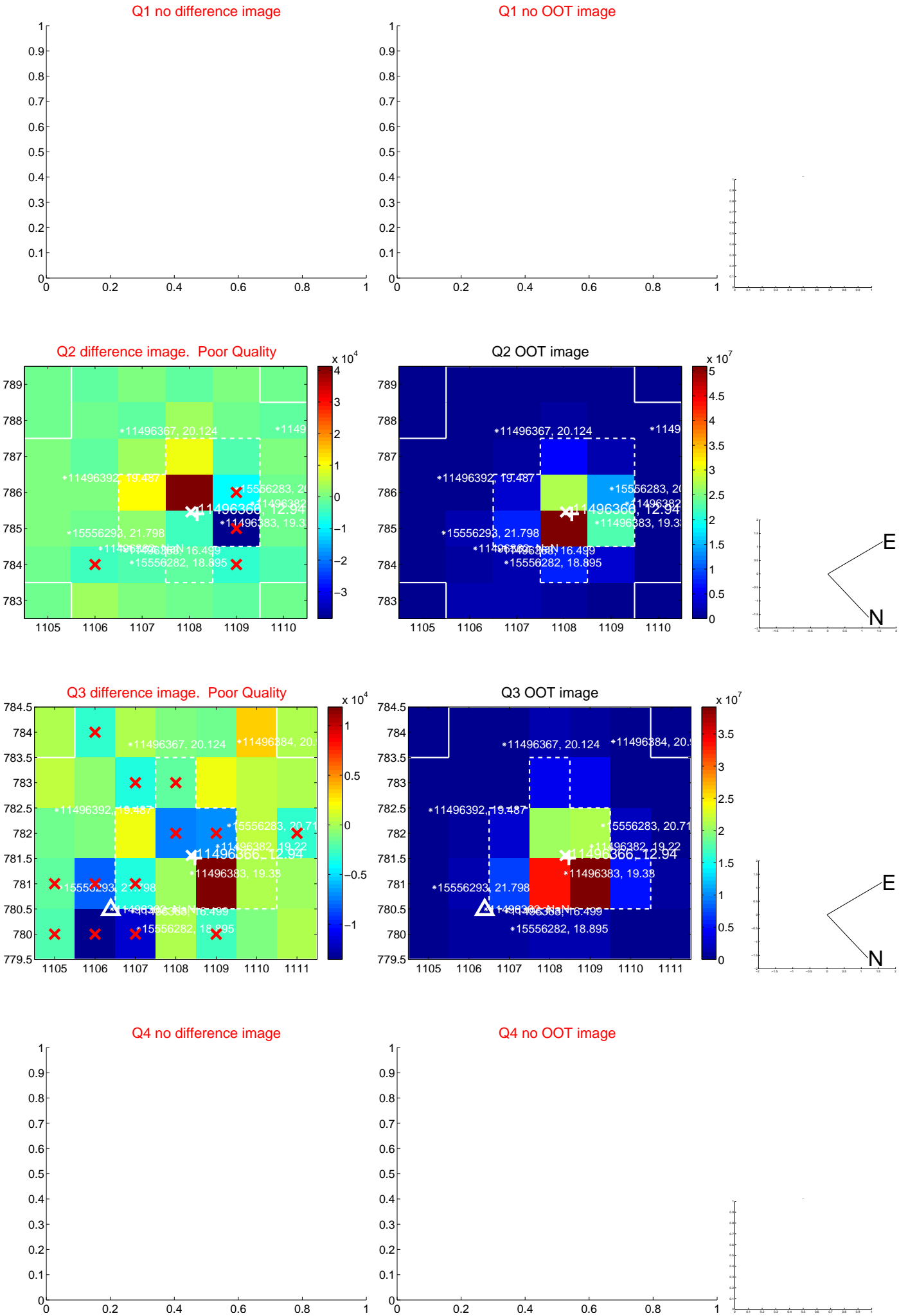
The direct PRF centroid is offset from the target star catalog position by about 0.65 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.214 ± 1.794	5.14	-9.044 ± 1.874	-1.763 ± 0.363
PRF-fit source offset from KIC position	9.079 ± 1.939	4.68	-8.963 ± 2.019	-1.444 ± 0.430
photometric centroid source offset	0.60 ± 0.73	0.82	-0.55 ± 0.73	0.24 ± 0.73

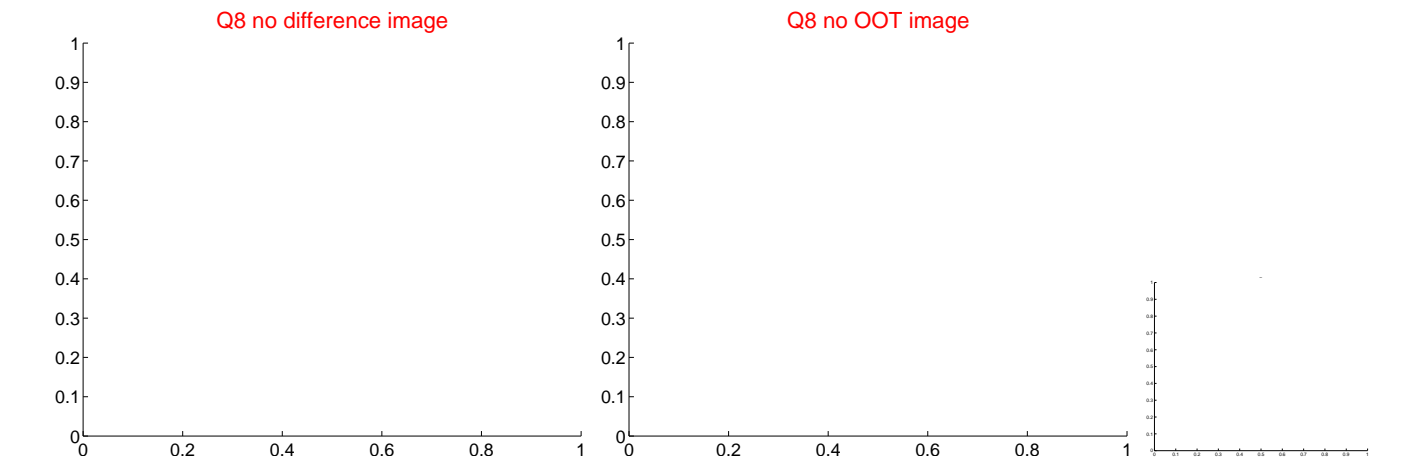
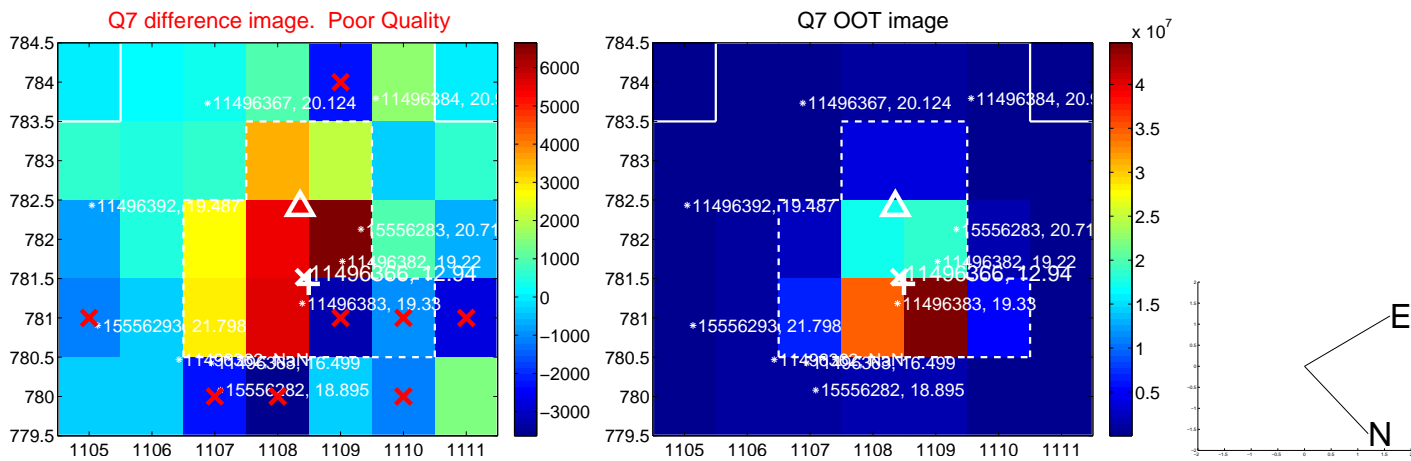
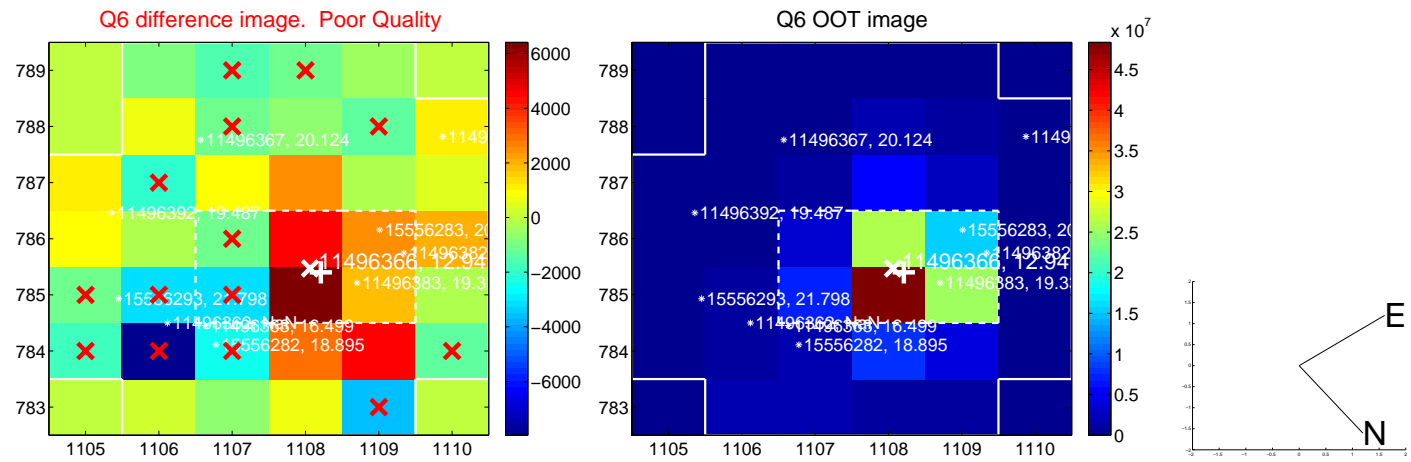
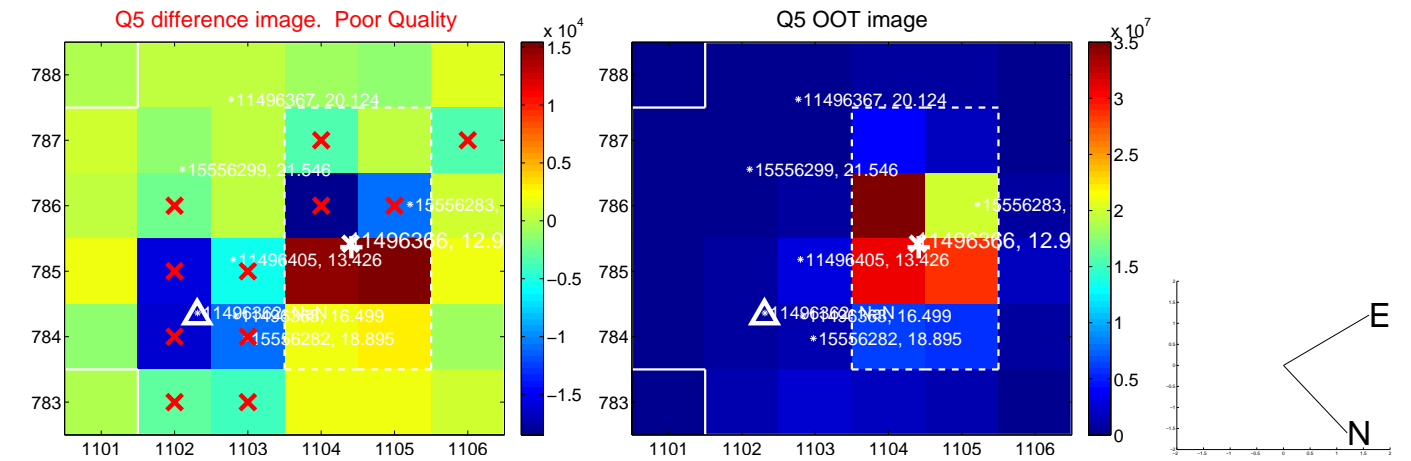


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

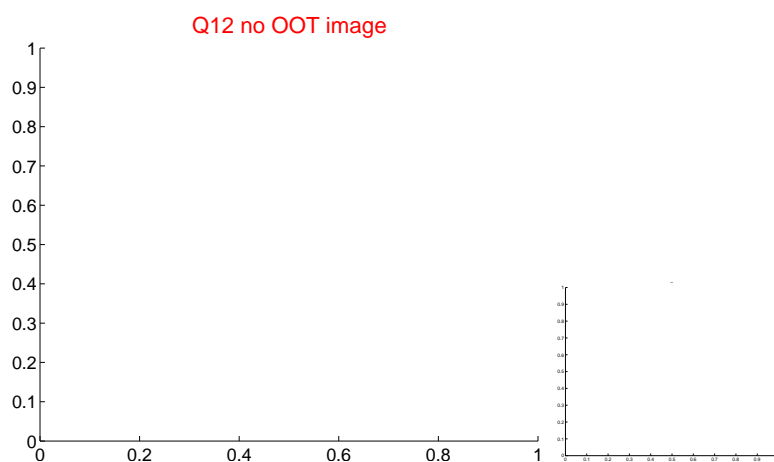
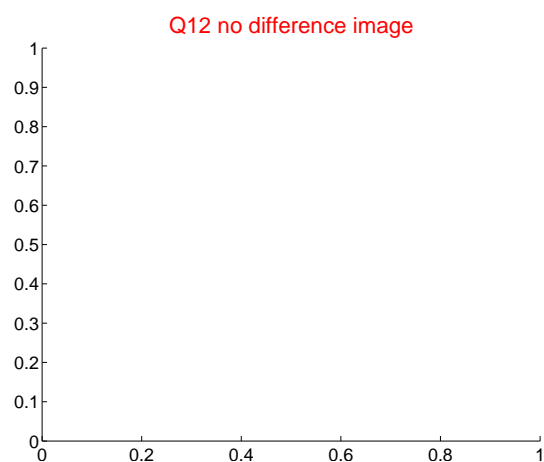
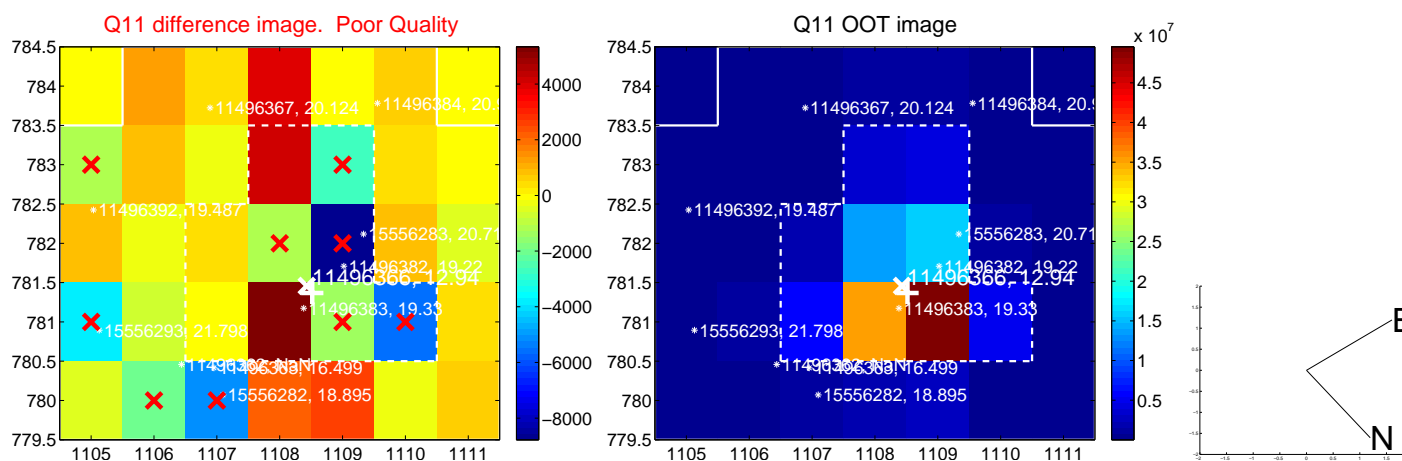
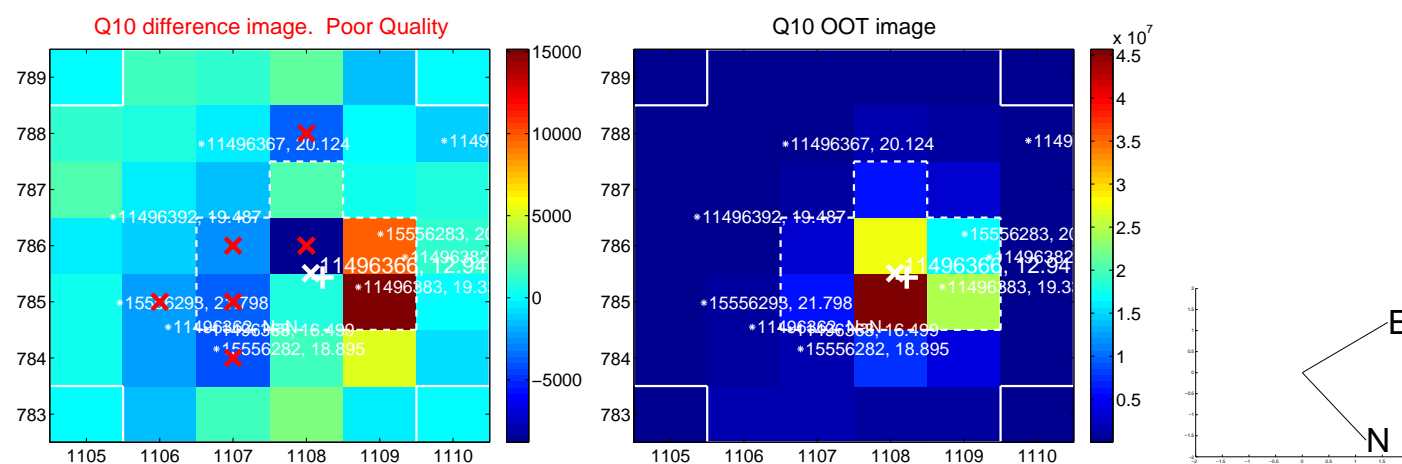
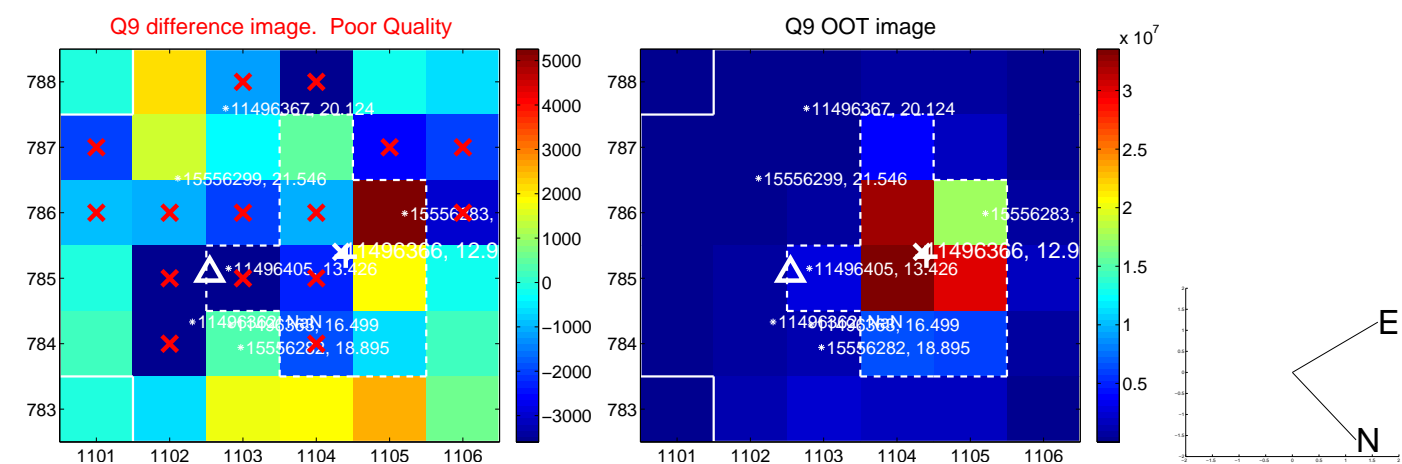
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



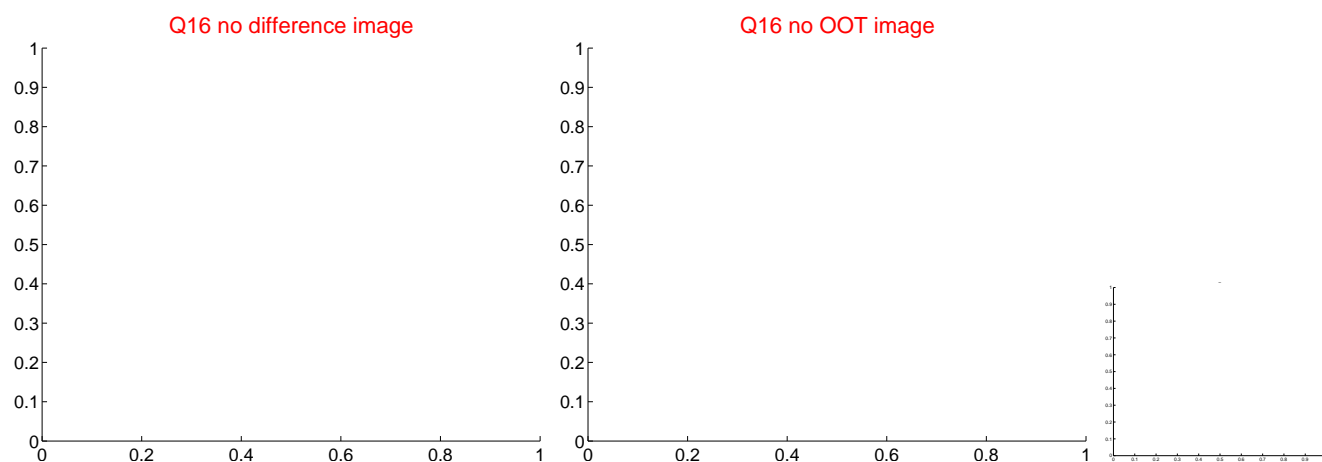
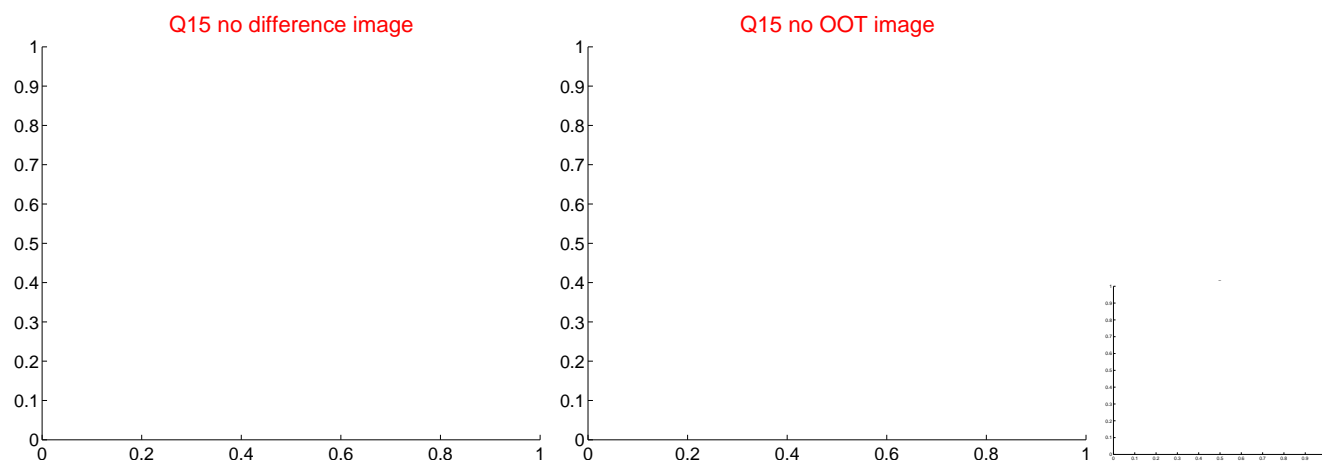
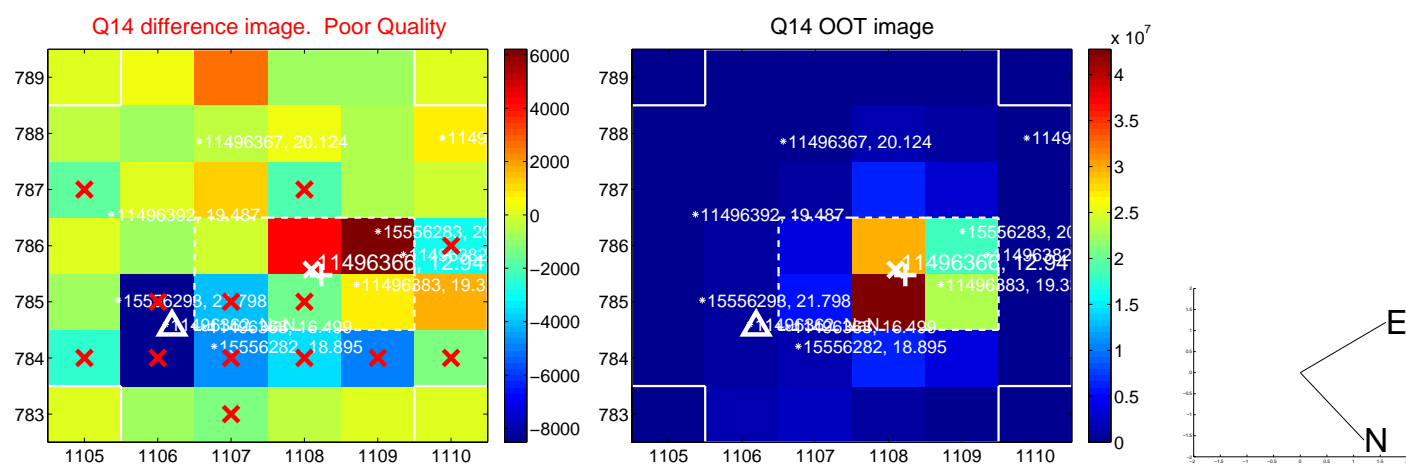
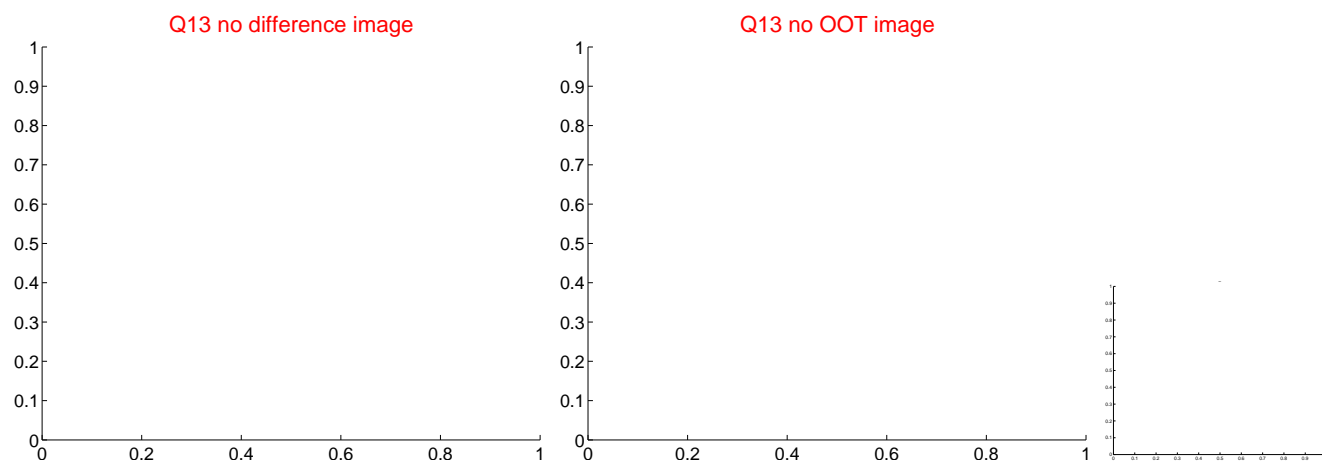
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



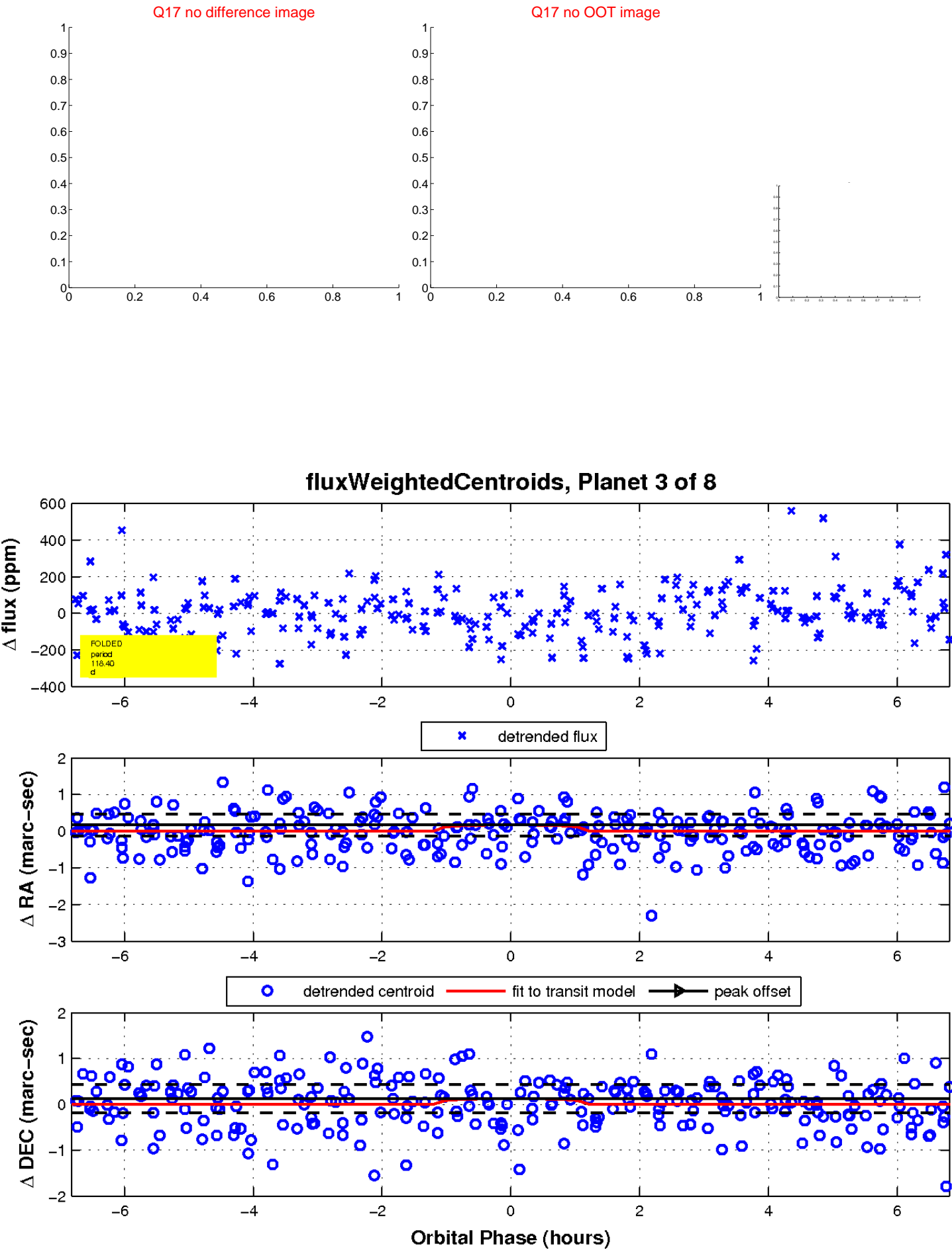
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



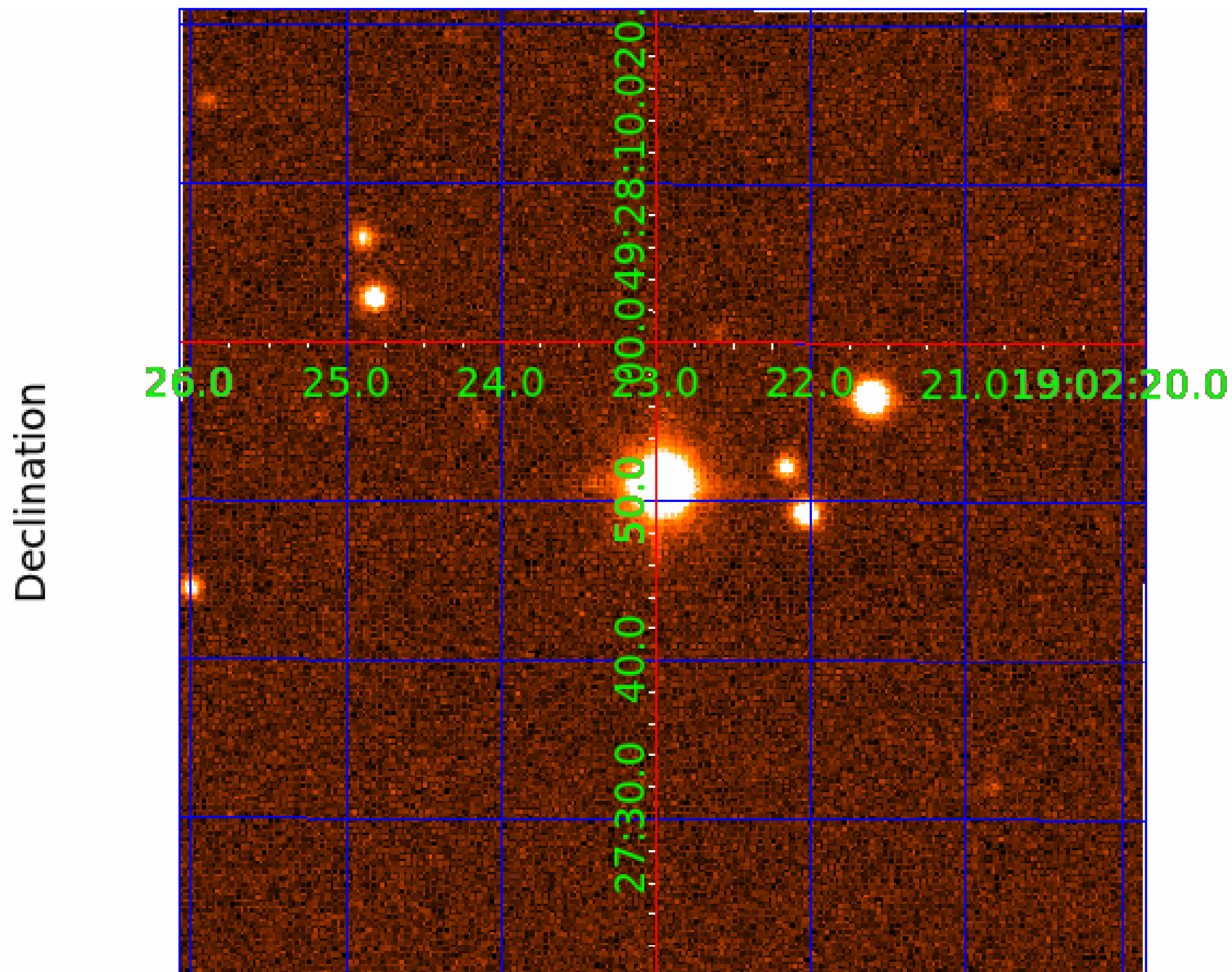
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

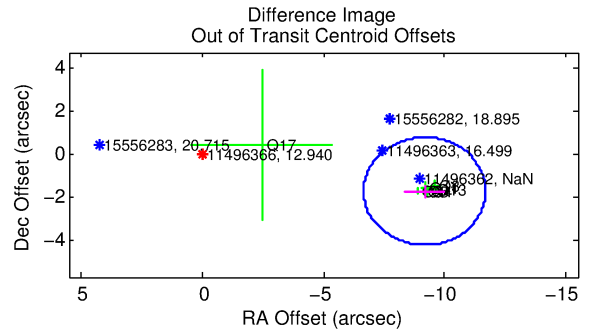
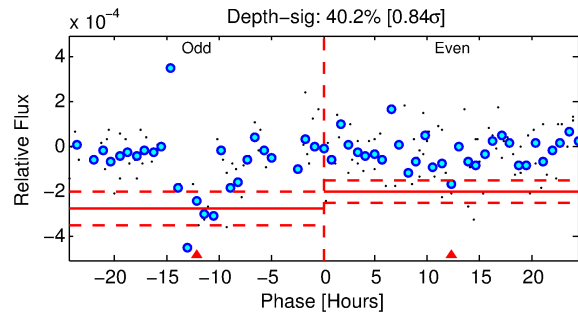
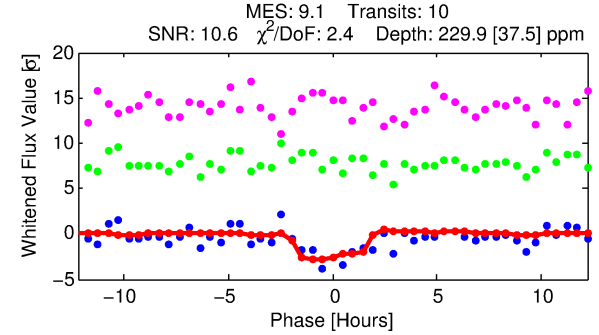
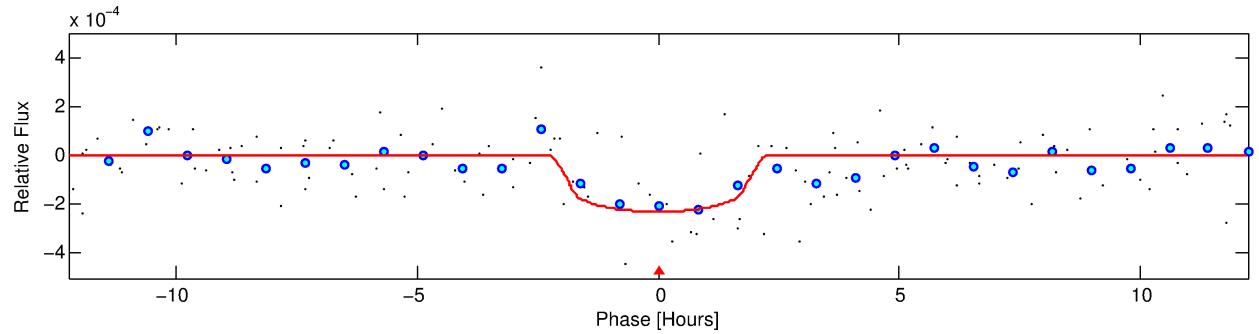
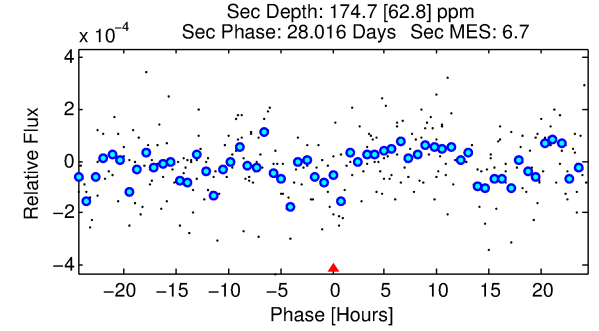
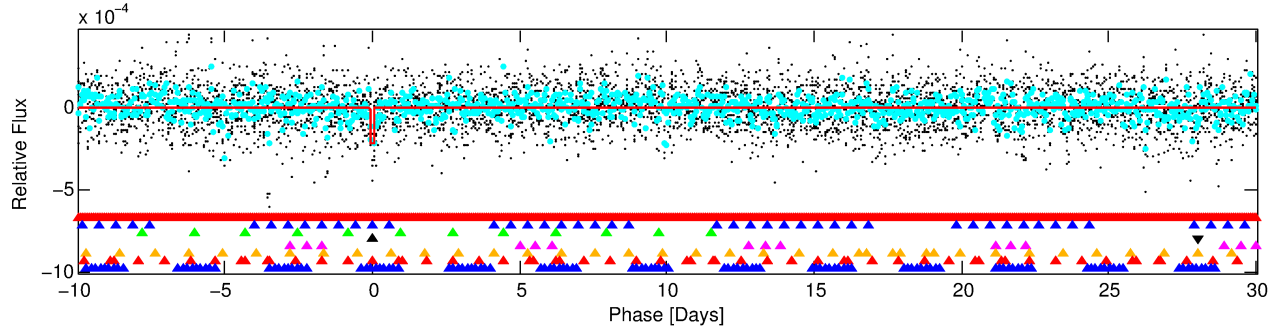
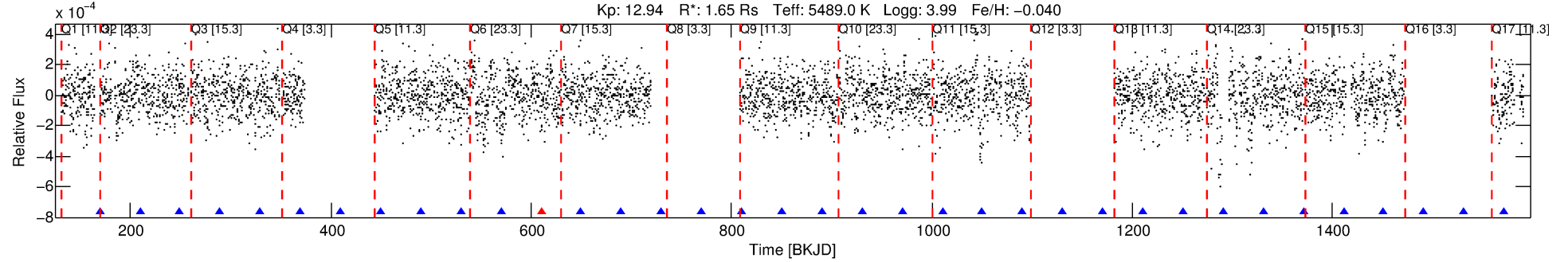
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-04

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 4 of 8 Period: 40.053 d



DV Fit Results:

Period = 40.05262 [0.00069] d
Epoch = 169.3831 [0.0158] BKJD
Rp/R* = 0.0155 [0.0145]
a/R* = 46.73 [182.49]
b = 0.80 [1.78]
Seff = 42.92 [23.62]
Teq = 653 [90] K
Rp = 2.78 [2.77] Re
a = 0.2269 [0.0738] AU
Ag = 638.31 [1267.31] [0.50σ]
Teffp = 5072 [2433] K [1.82σ]

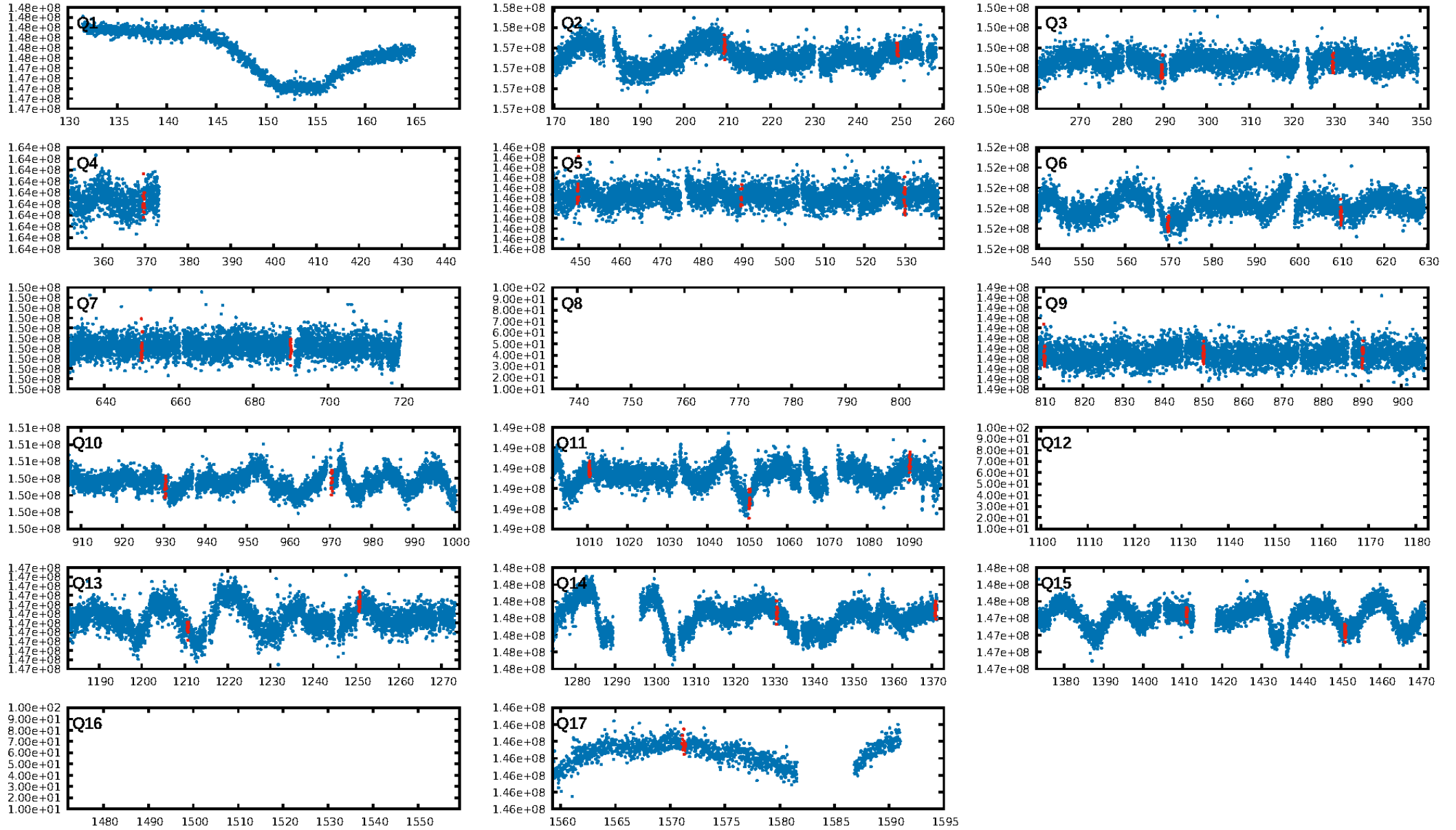
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.68σ]
LongPeriod-sig: 100.0% [296.60σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.95e-09
RollingBand-fgt: 0.89 [8/9]
GhostDiagnostic-chr: -0.1023
Centroid-sig: 9.7%
Centroid-so: 1.364 arcsec [2.28σ]
OotOffset-rm: 9.334 arcsec [11.13σ]
KicOffset-rm: 9.271 arcsec [7.18σ]
OotOffset-st: 0/2/1/4 [7]
KicOffset-st: 0/2/1/4 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 0.00 [0/13]

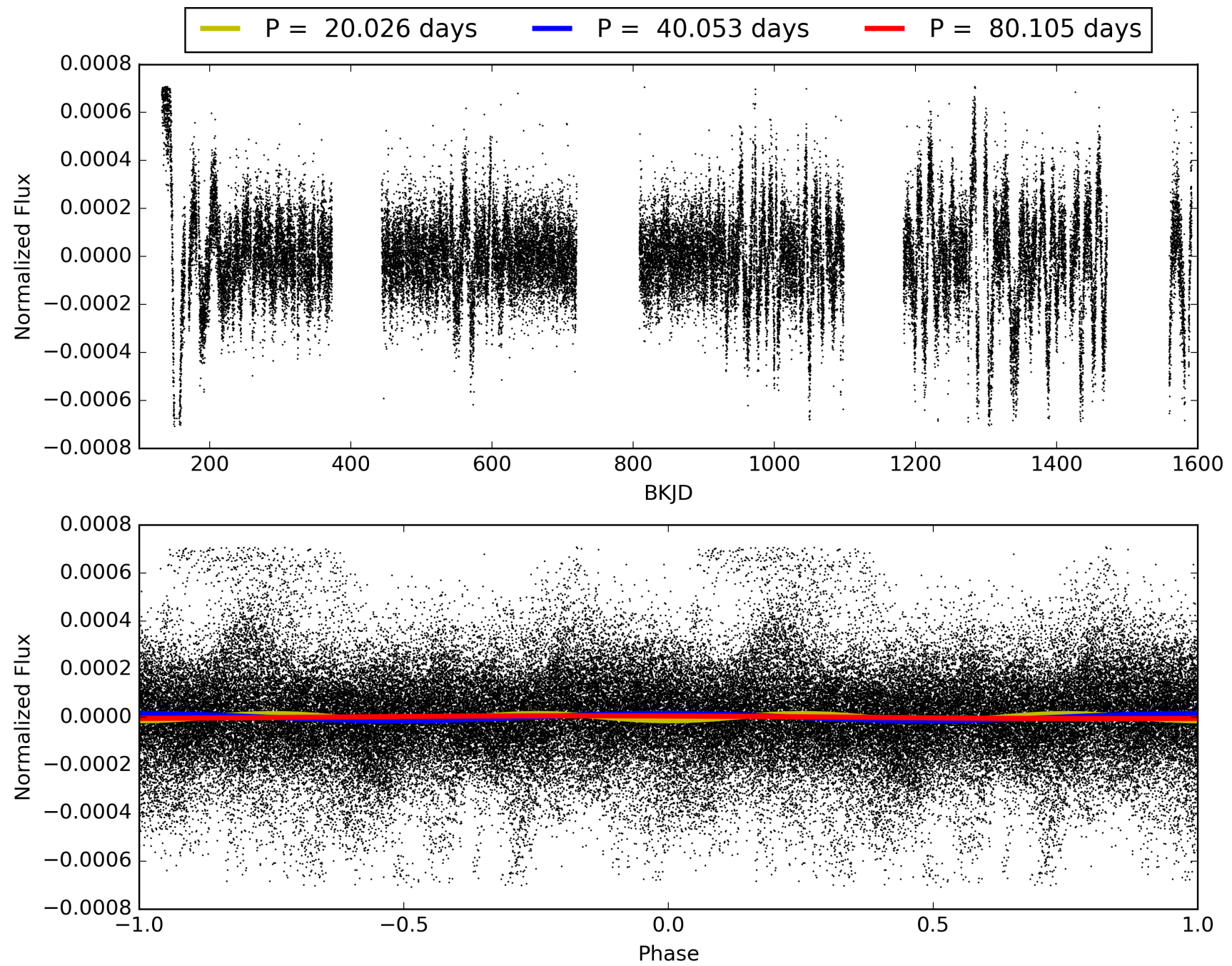
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:44 Z

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

TCE 011496366-04, PDC Light Curves

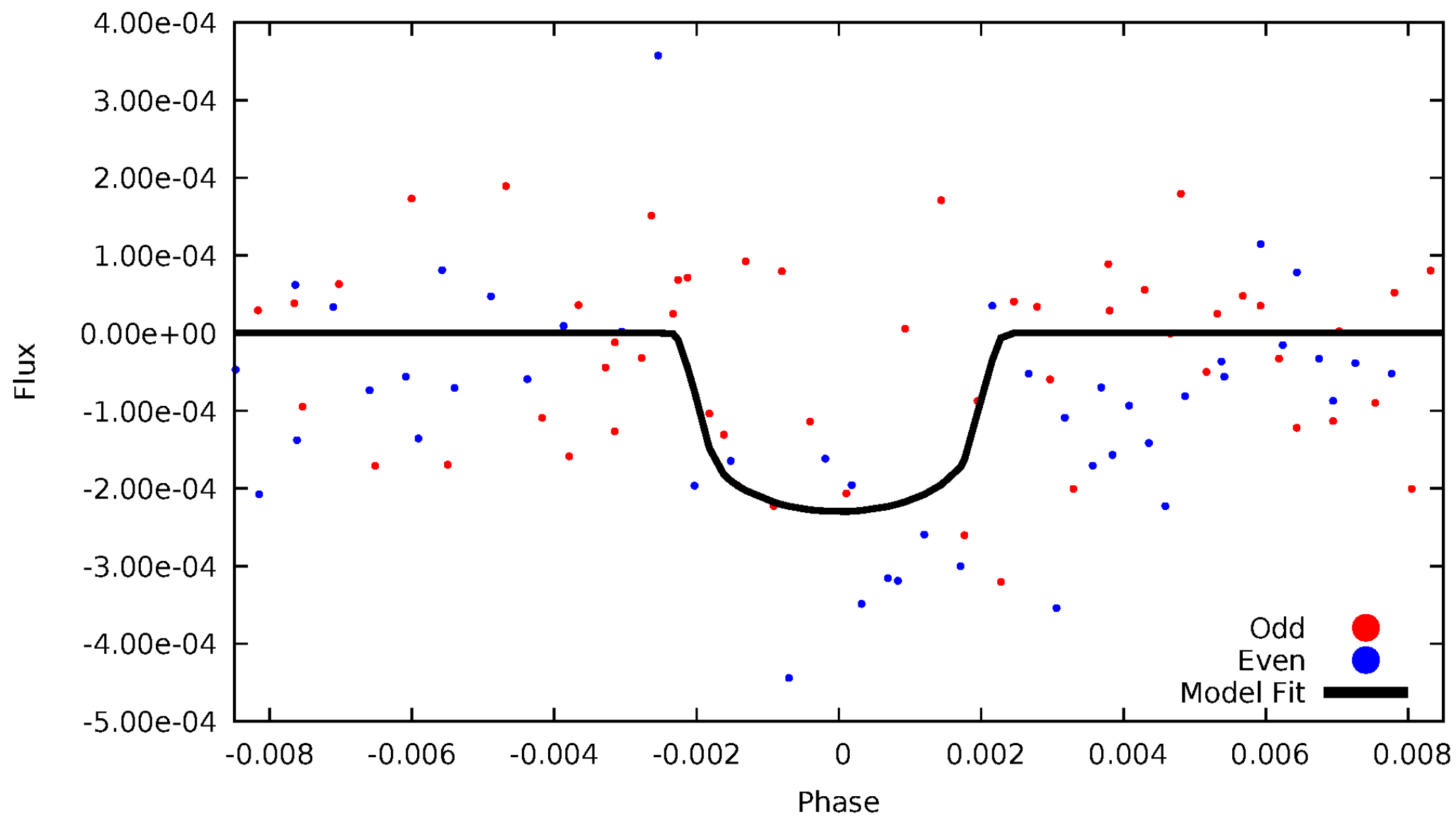


TCE 011496366-04



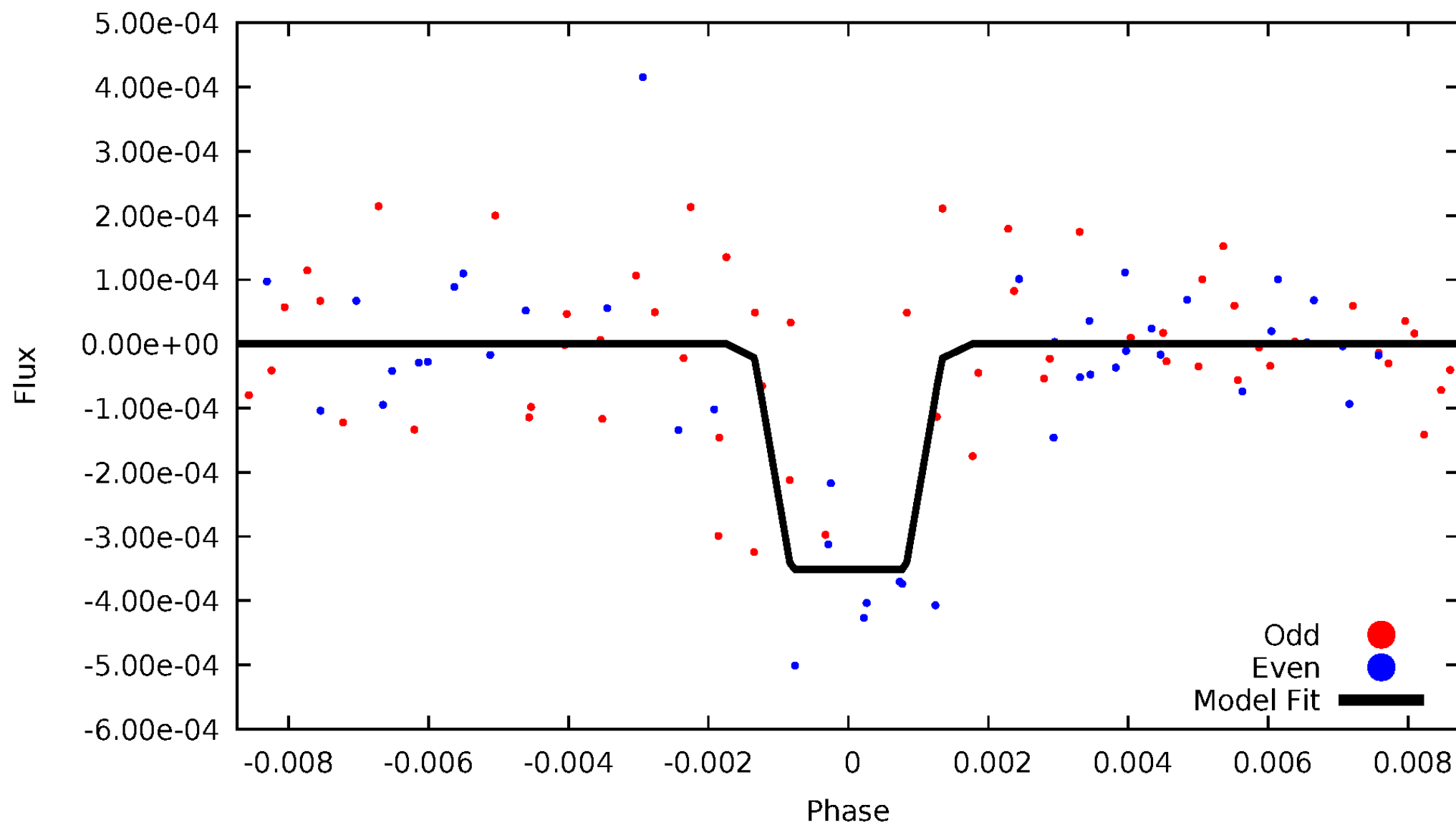
DV Odd/Even

TCE 011496366-04



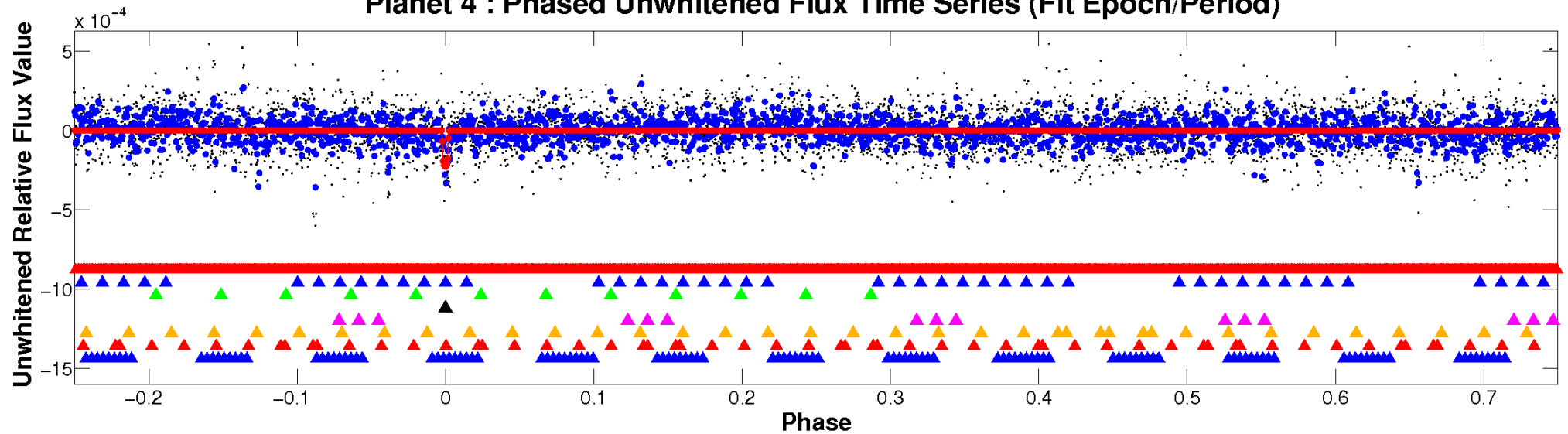
ALT Odd/Even

TCE 011496366-04

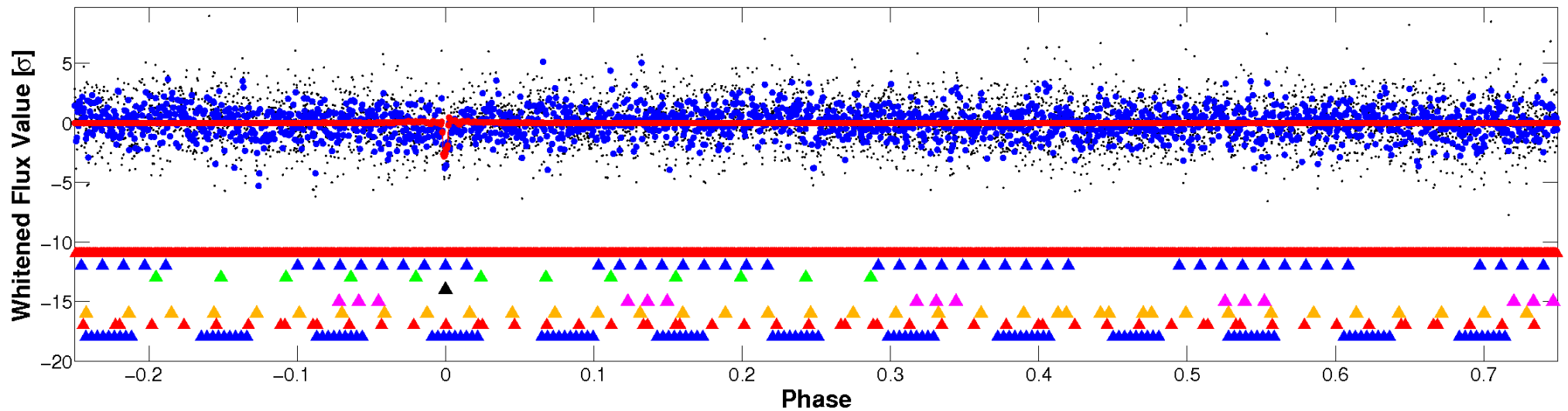


Non-Whitened Vs. Whitened Light Curve

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

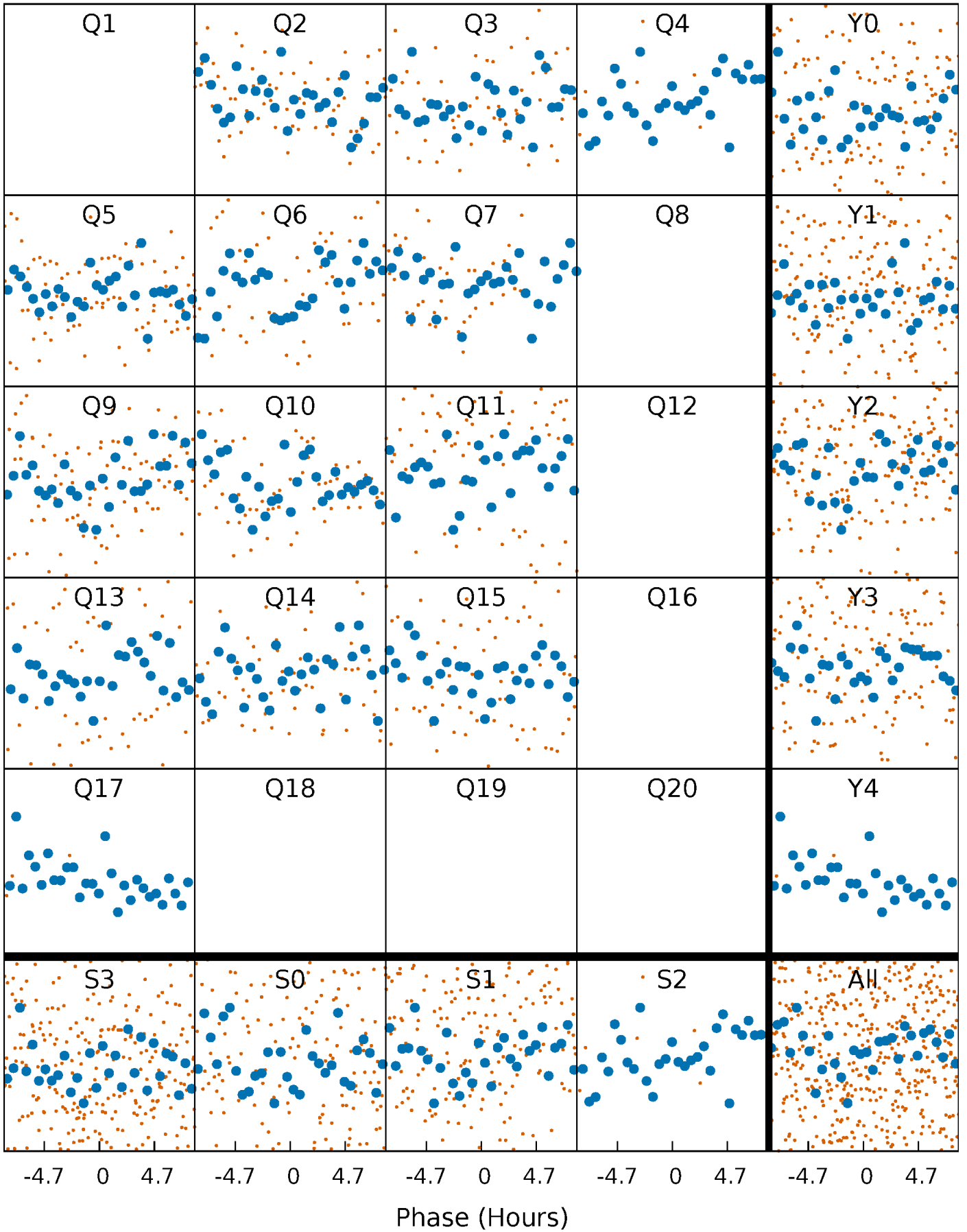


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



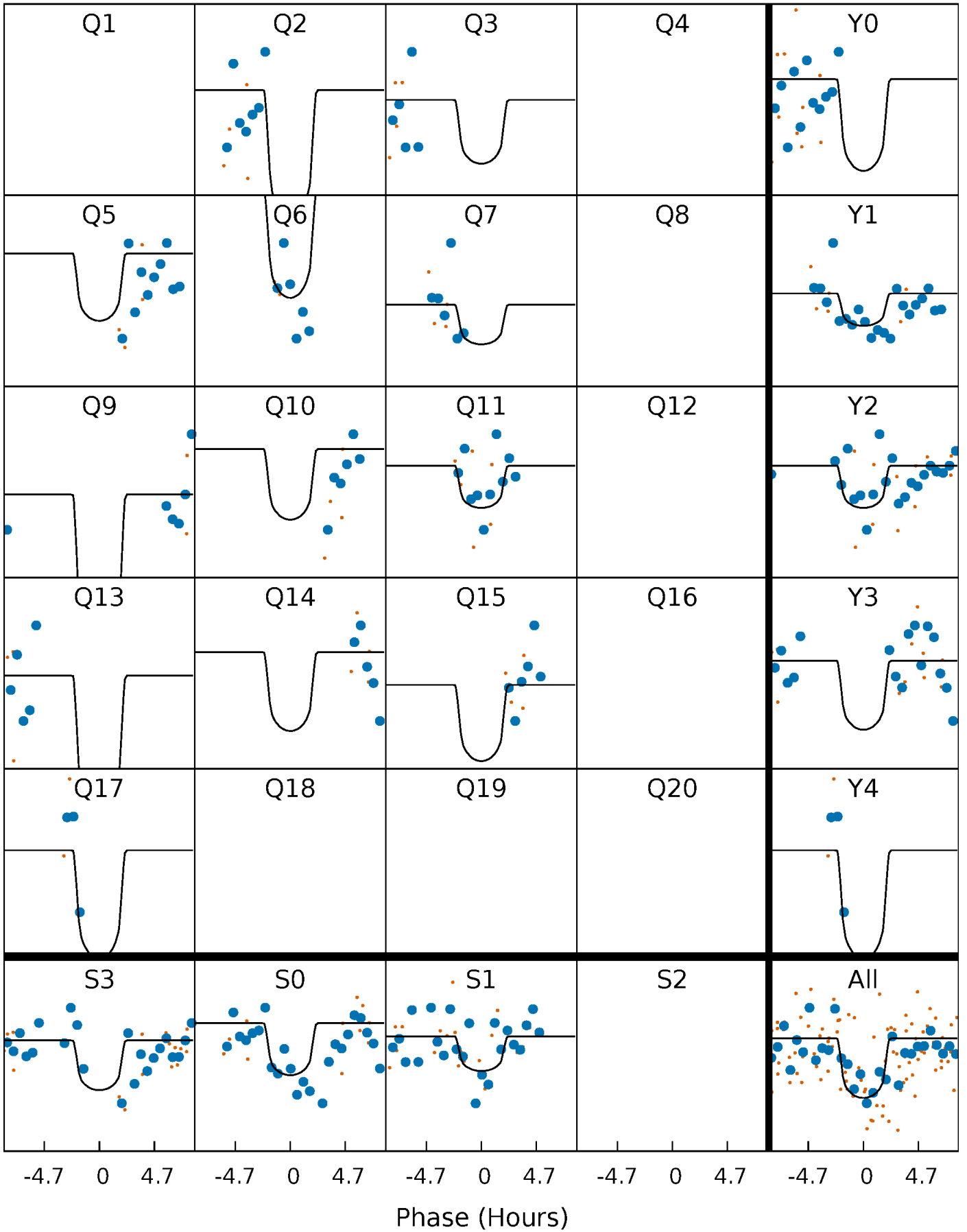
PDC Quarter-Phased Transit Curves

TCE 011496366-04 P= 40.052619 Days $T_0=169.383140$ (BKJD)



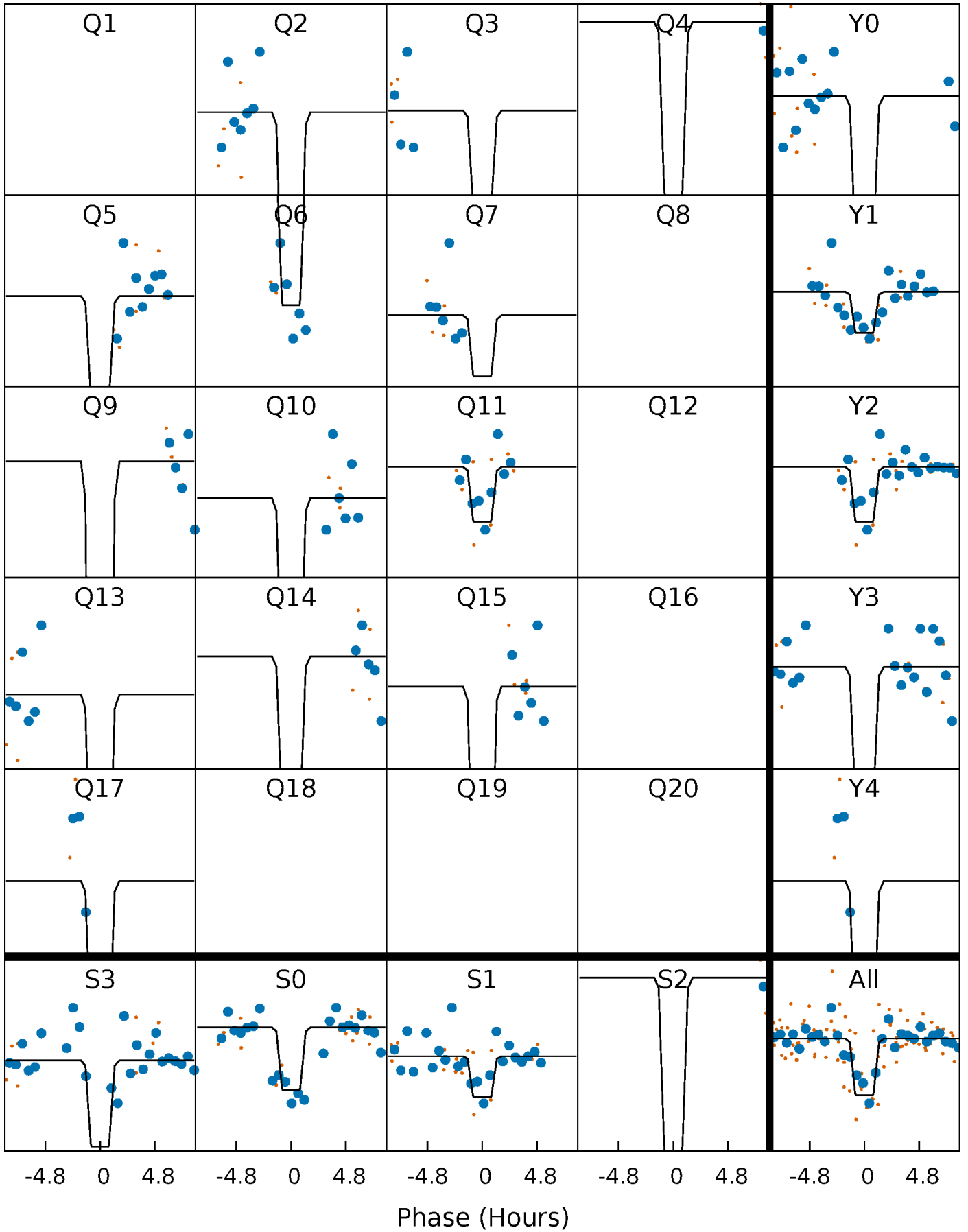
DV Quarter-Phased Transit Curves

TCE 011496366-04 P= 40.052619 Days $T_0=169.383140$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

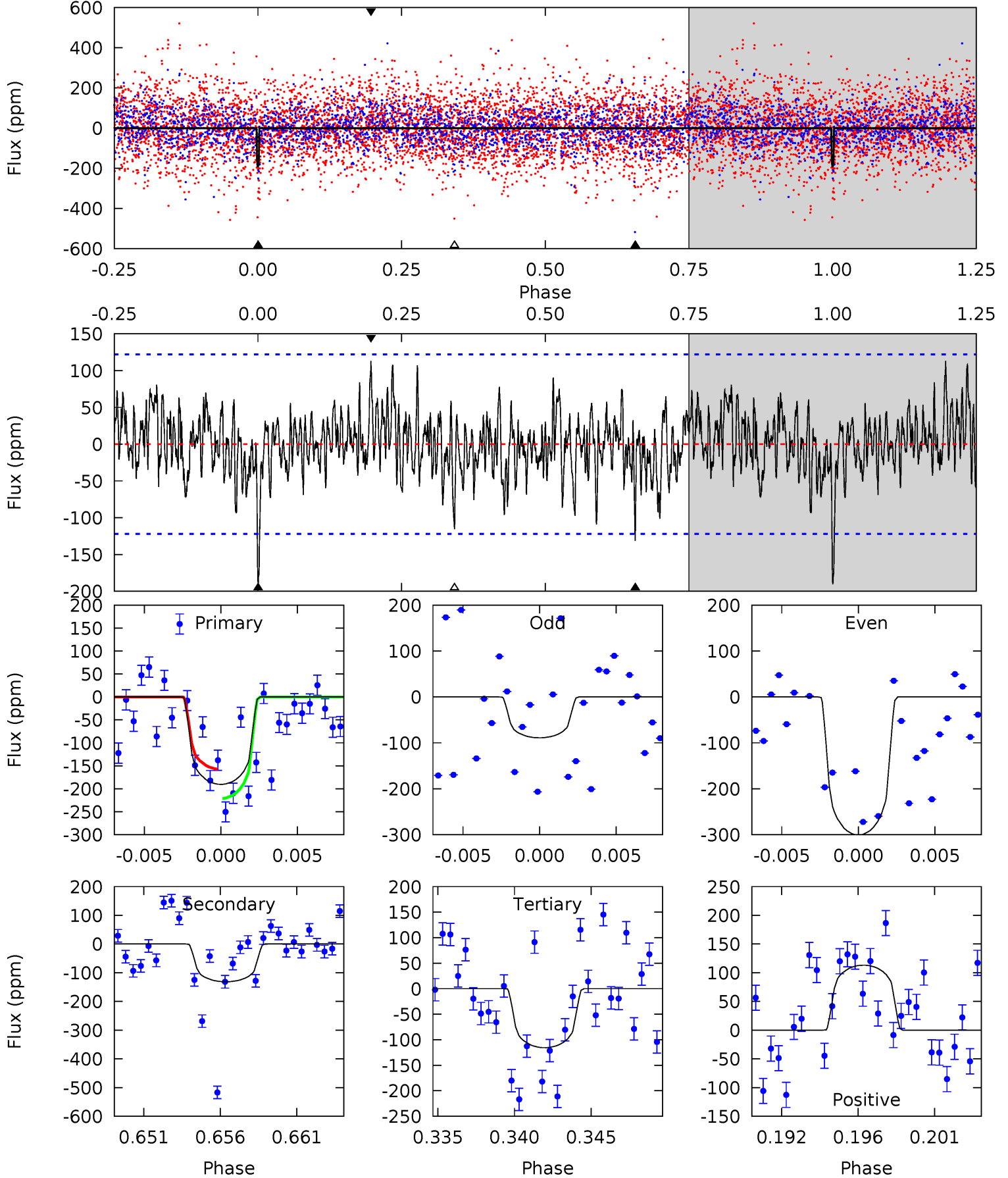
TCE 011496366-04 P= 40.051258 Days $T_0=169.415444$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-04, $P = 40.052619$ Days, $E = 129.330521$ Days

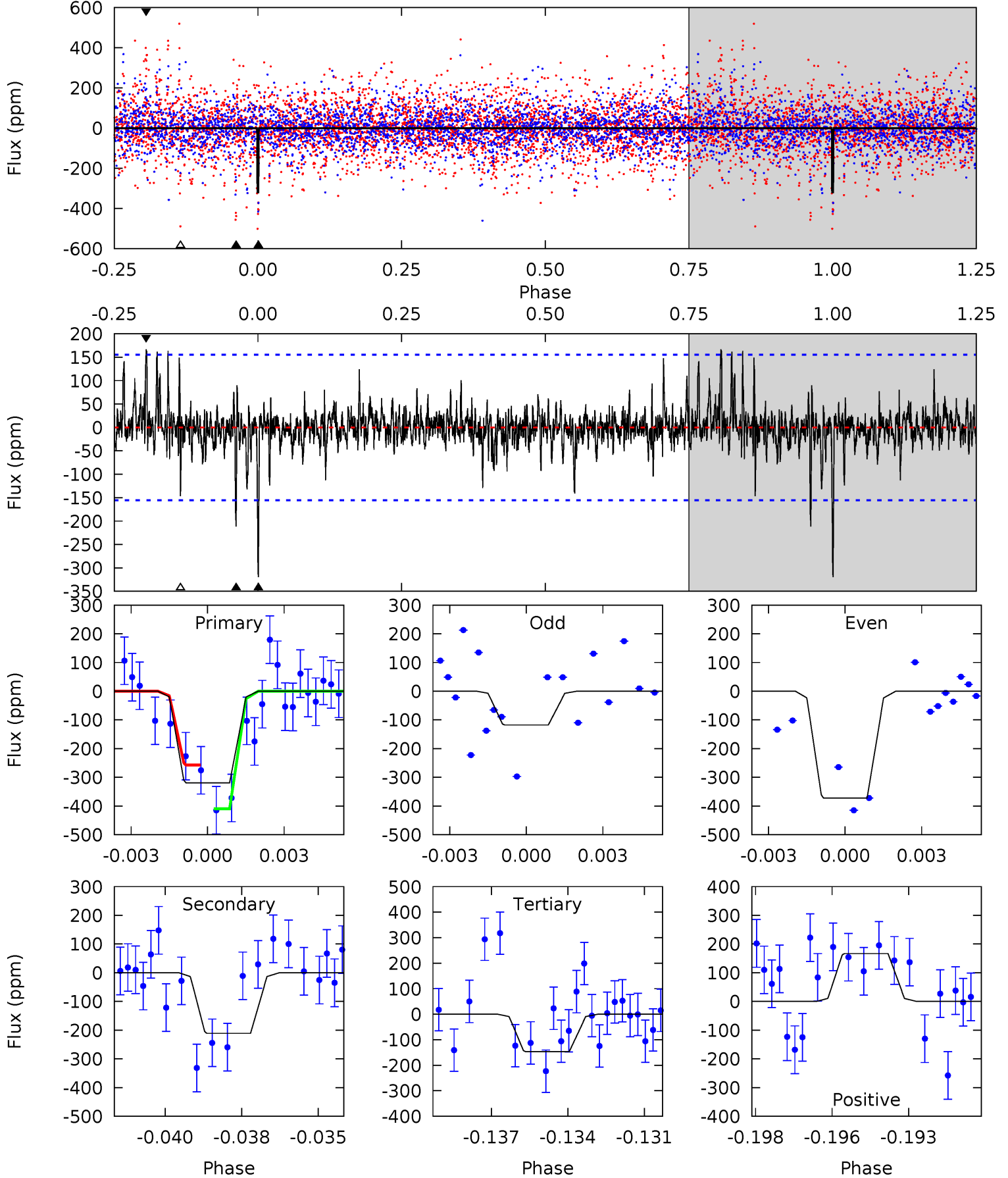
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.06	5.57	4.89	4.80	5.17	2.82	1.49	3.16	3.26	0.67	0.77	4.39	0.82	0.37	1.36



Alt Model-Shift Uniqueness Test

011496366-04, P = 40.051258 Days, E = 129.364186 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	7.16	4.98	5.66	5.27	3.00	1.09	5.85	5.17	2.19	1.50	4.31	0.69	0.34	2.60



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-131 ± 24	$2.93^{+2.37}_{-1.81}$	906^{+65}_{-82}	4618^{+2808}_{-881}	413^{+2710}_{-278}
Alt.	-211 ± 29	$3.53^{+2.39}_{-2.12}$	899^{+65}_{-85}	4741^{+2700}_{-836}	492^{+2594}_{-317}

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 $A_{obs} \gg 1.0$

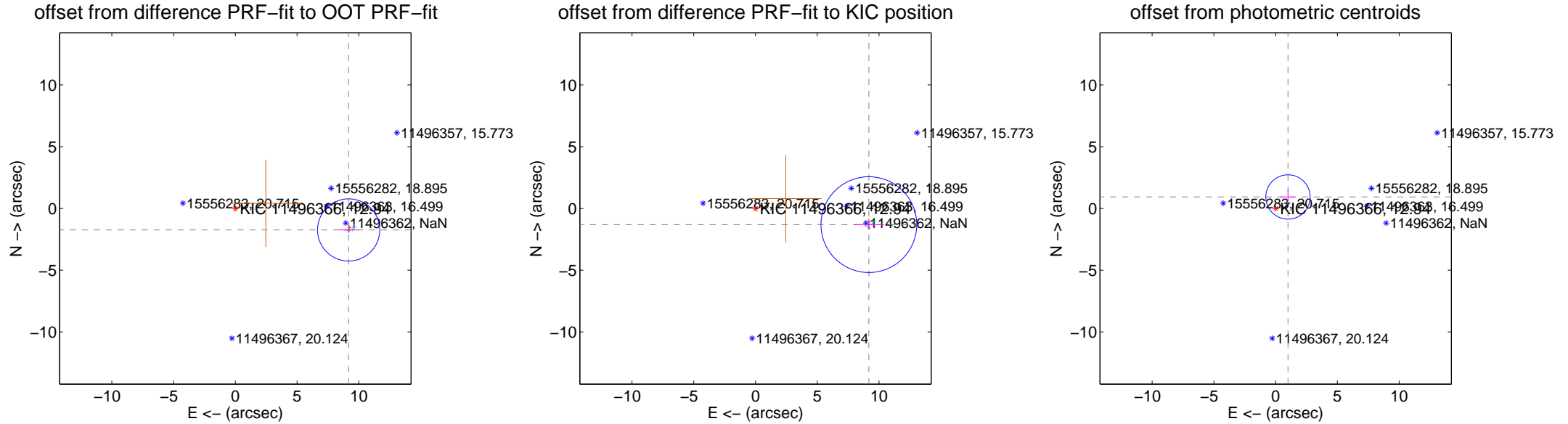
DV Centroid Data

Supplemental centroid analysis for 011496366-04. Kepler magnitude: 12.94. Transit SNR 10.58

There are 4 quarters with good PRF difference image offsets

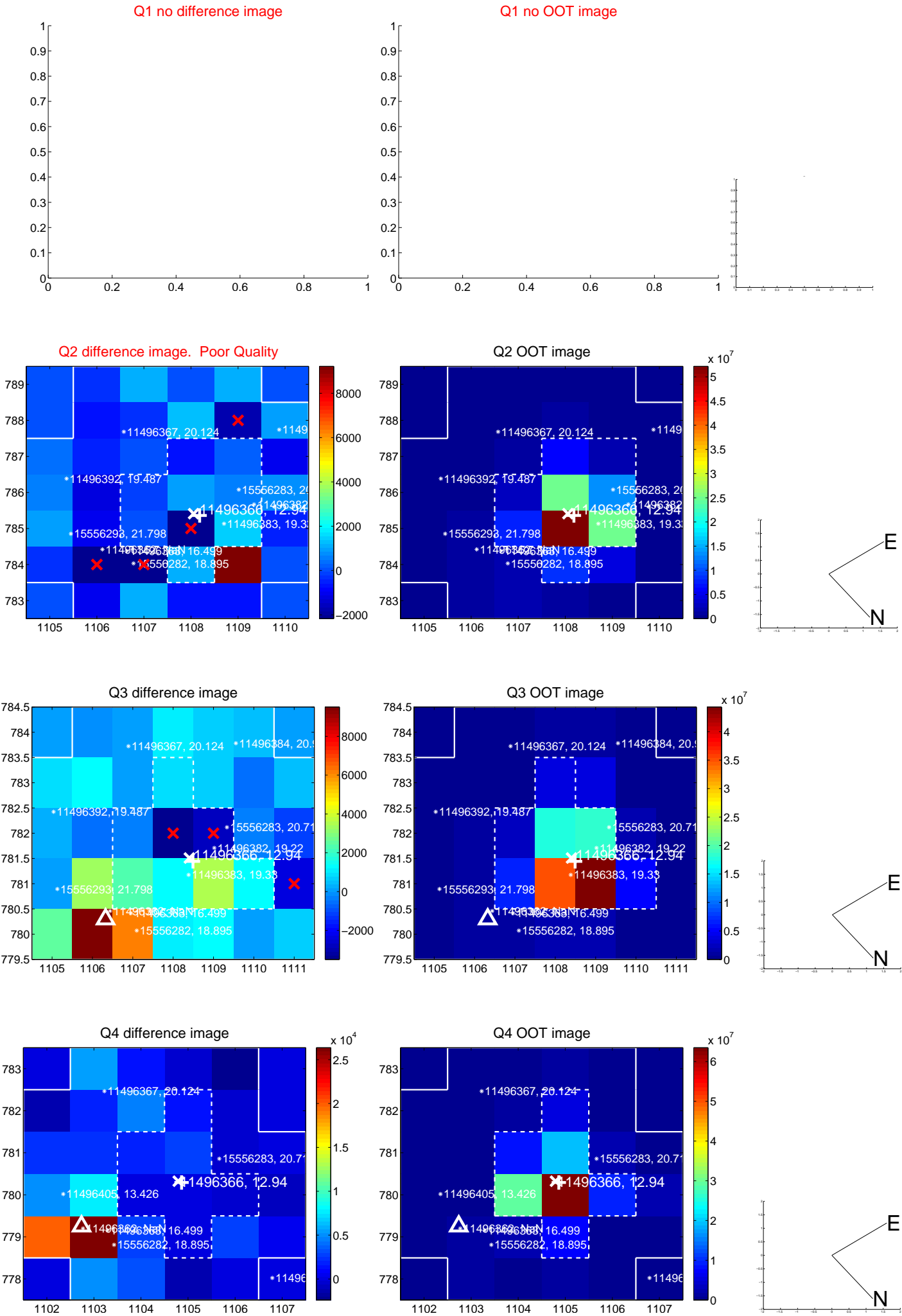
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.334 ± 0.839	11.13	-9.171 ± 0.809	-1.740 ± 0.252
PRF-fit source offset from KIC position	9.271 ± 1.292	7.18	-9.177 ± 1.247	-1.310 ± 0.418
photometric centroid source offset	1.36 ± 0.60	2.28	-1.00 ± 0.60	0.93 ± 0.59

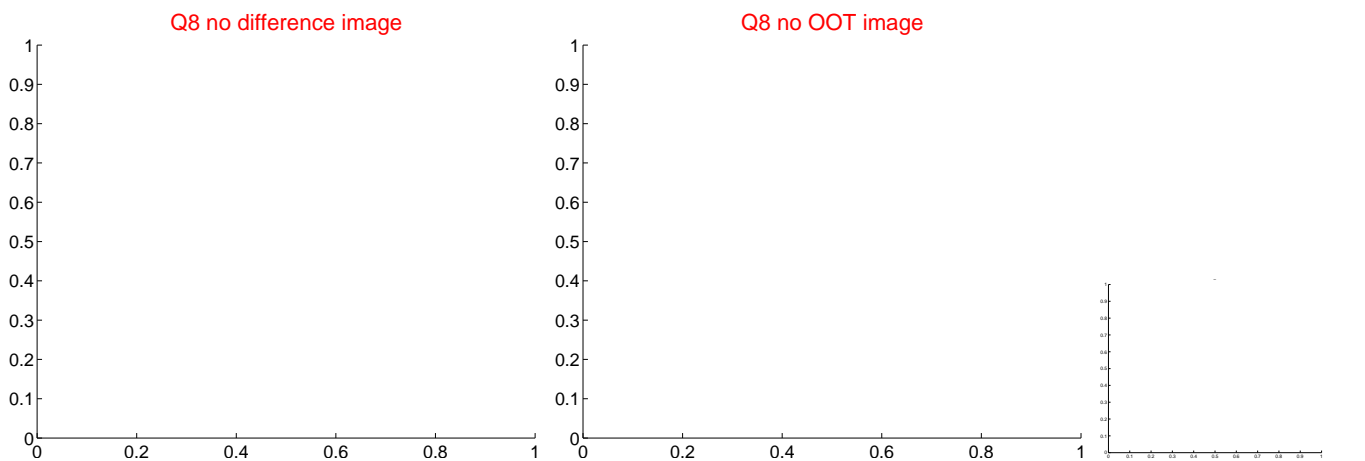
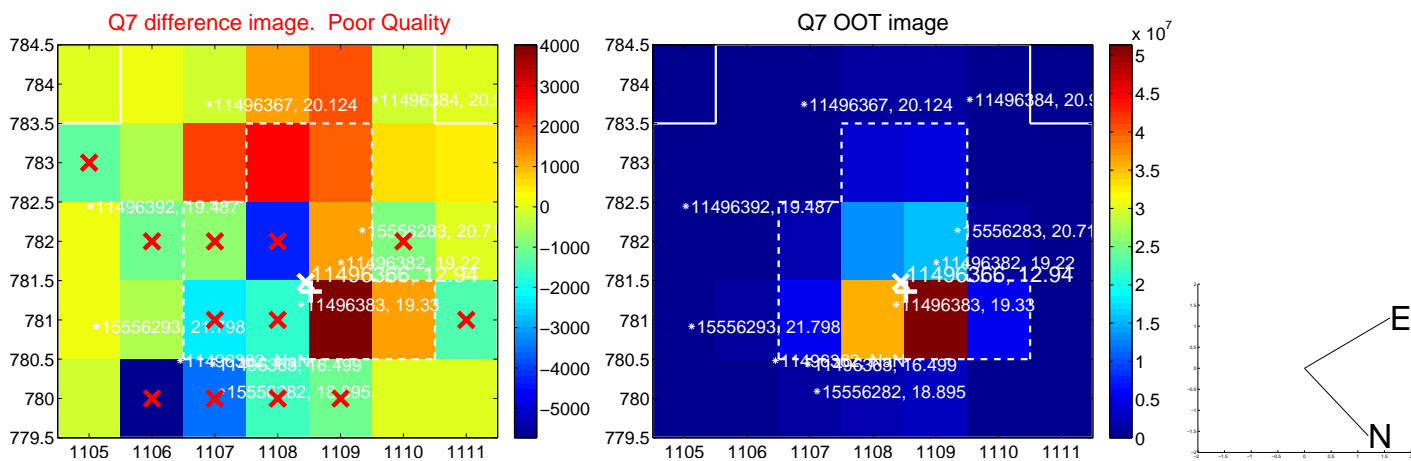
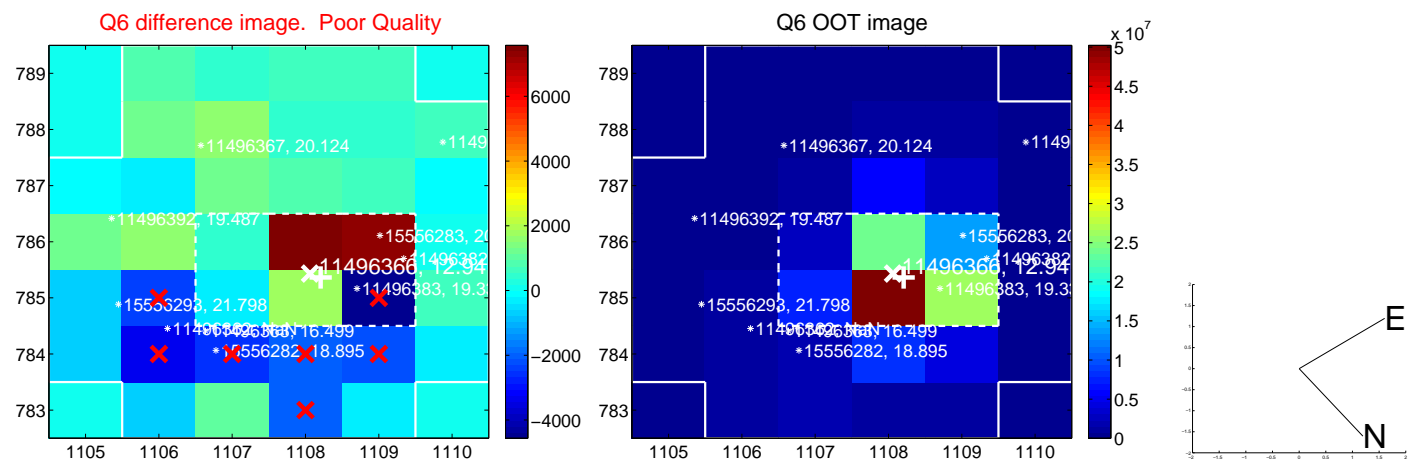
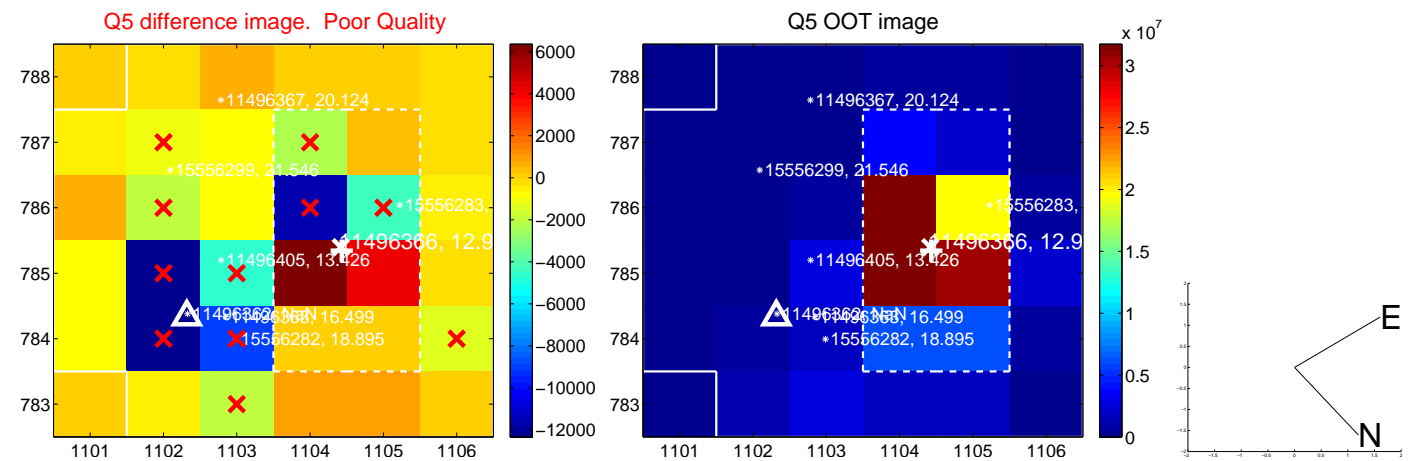


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

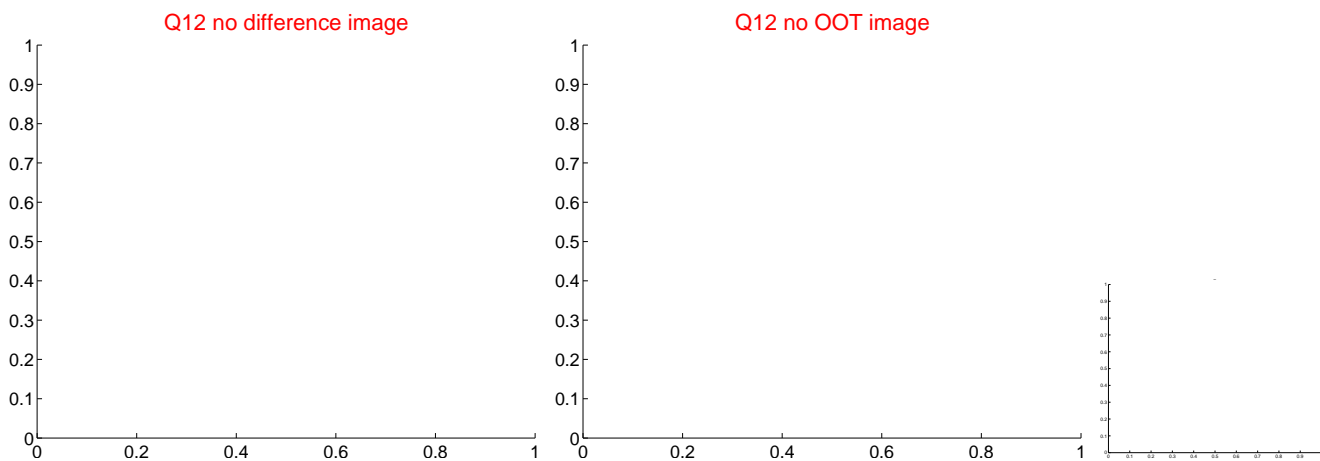
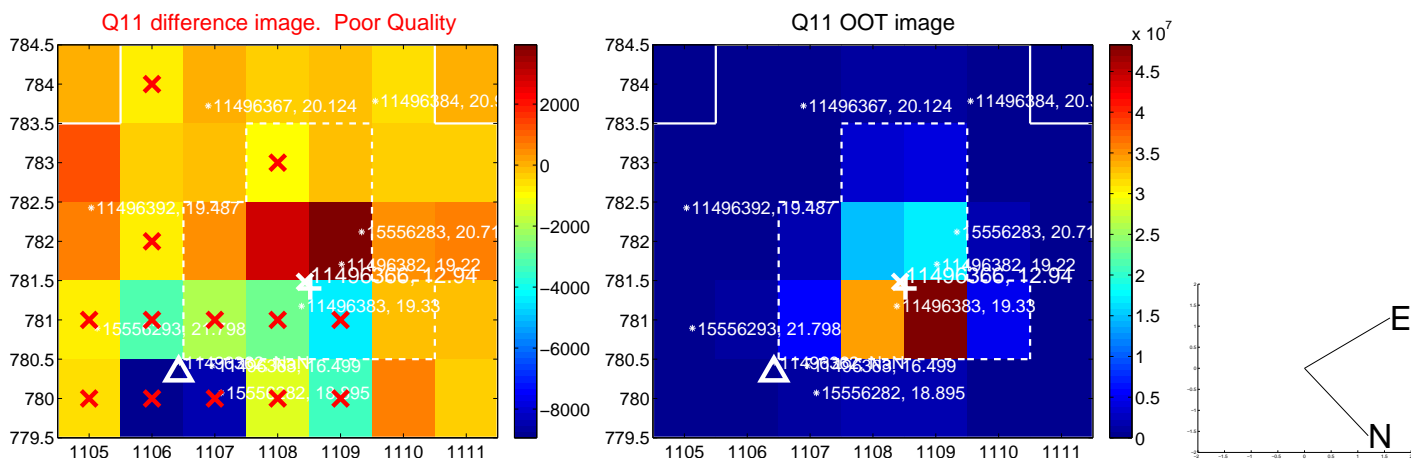
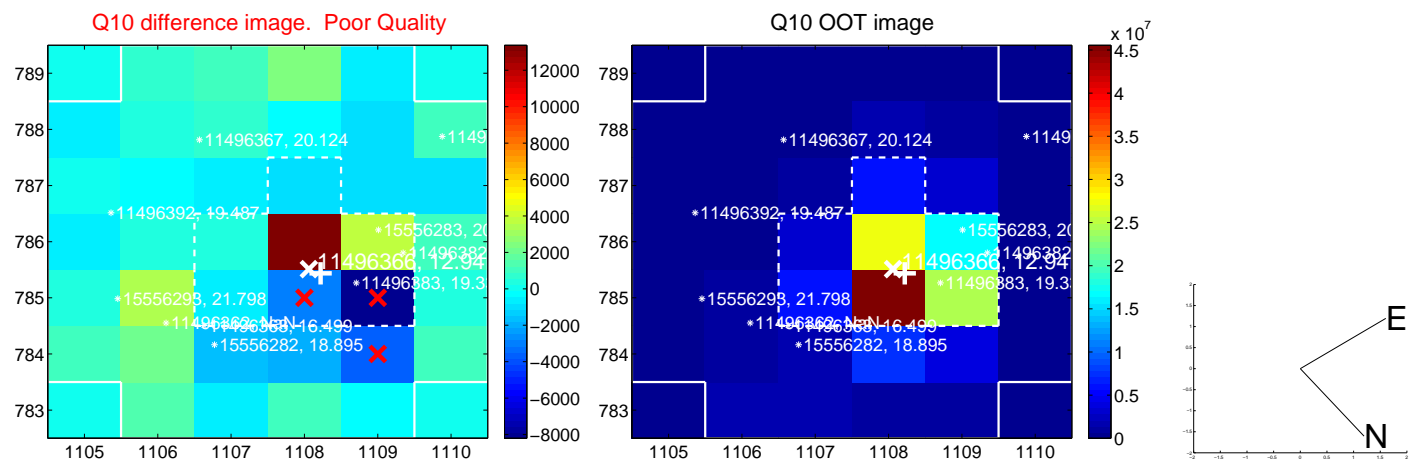
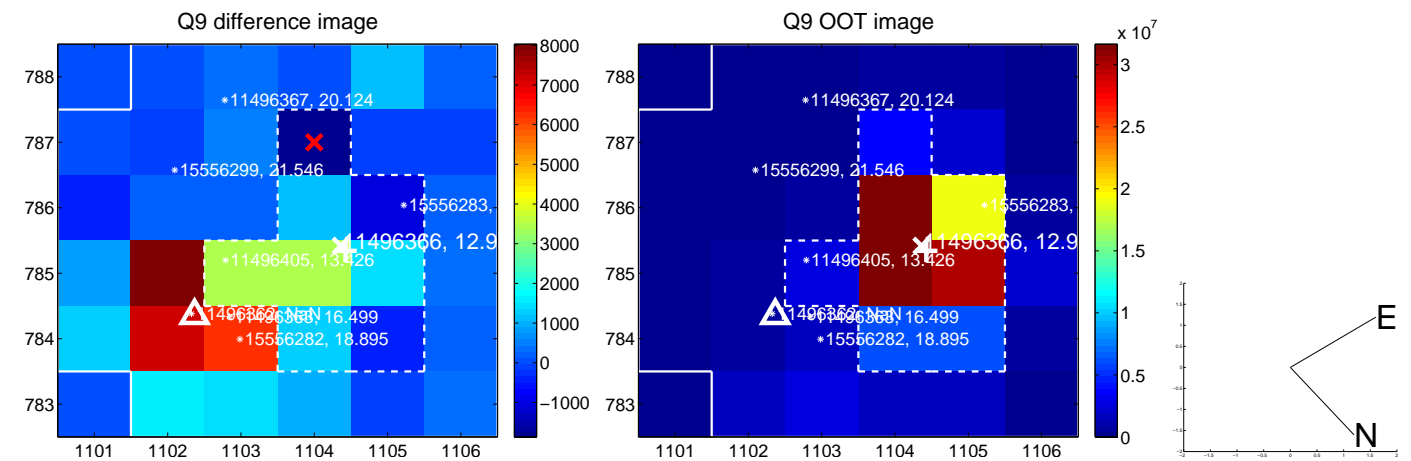
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



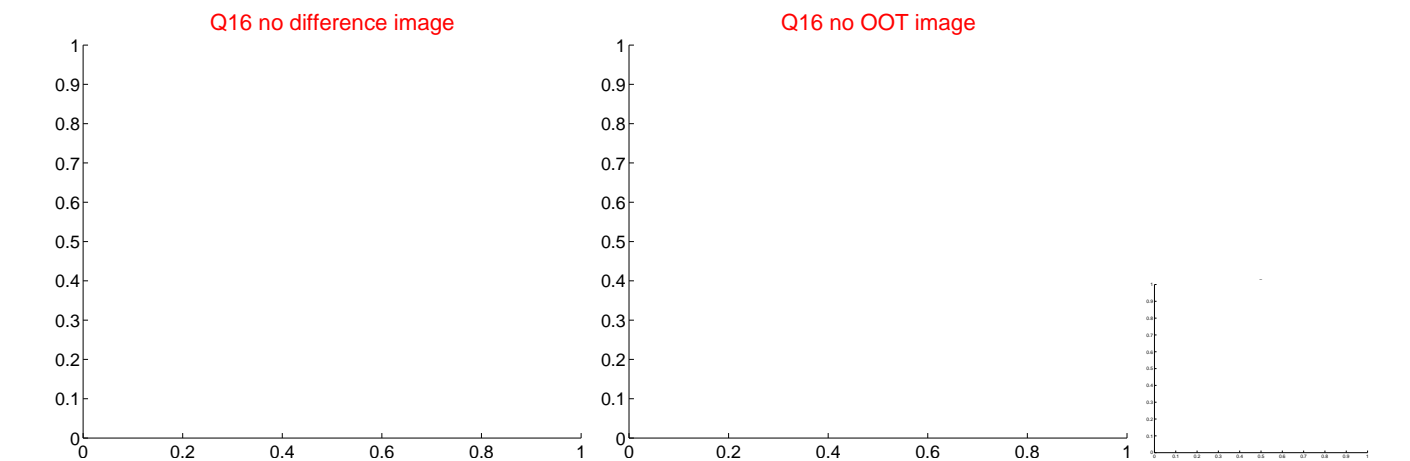
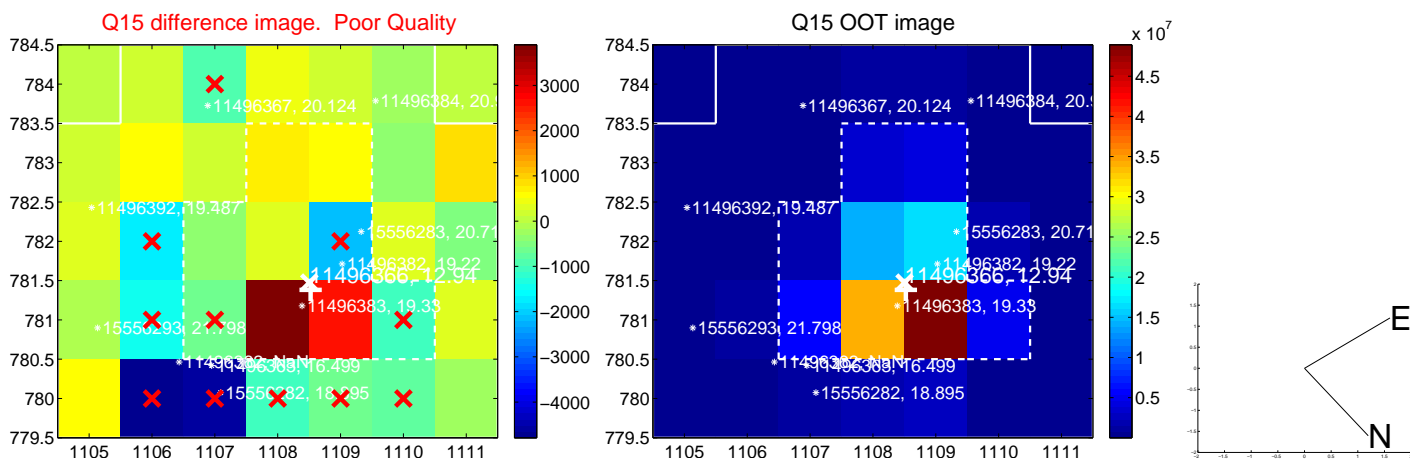
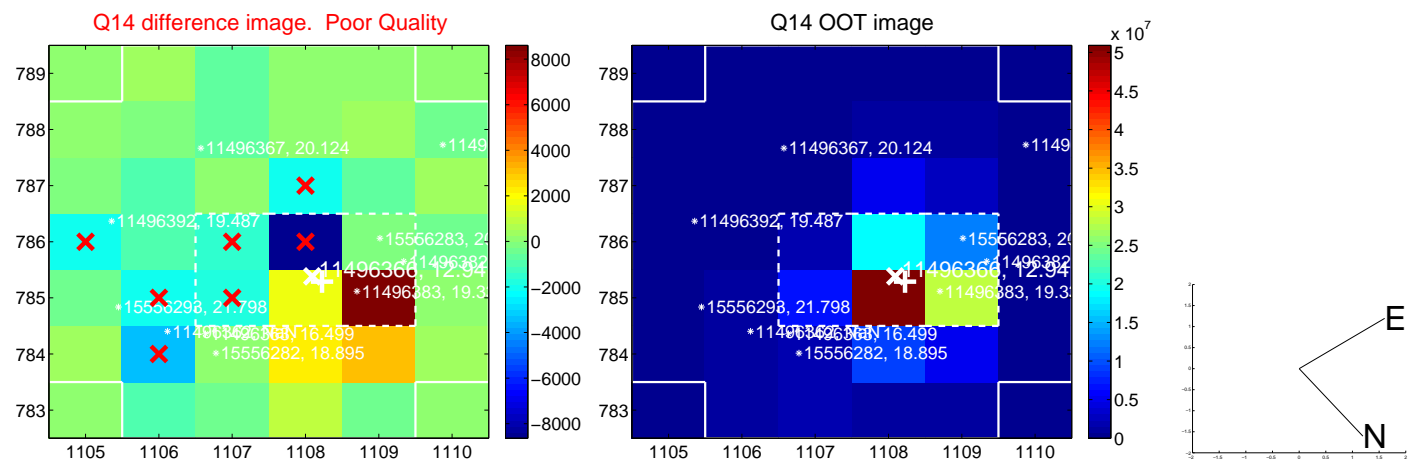
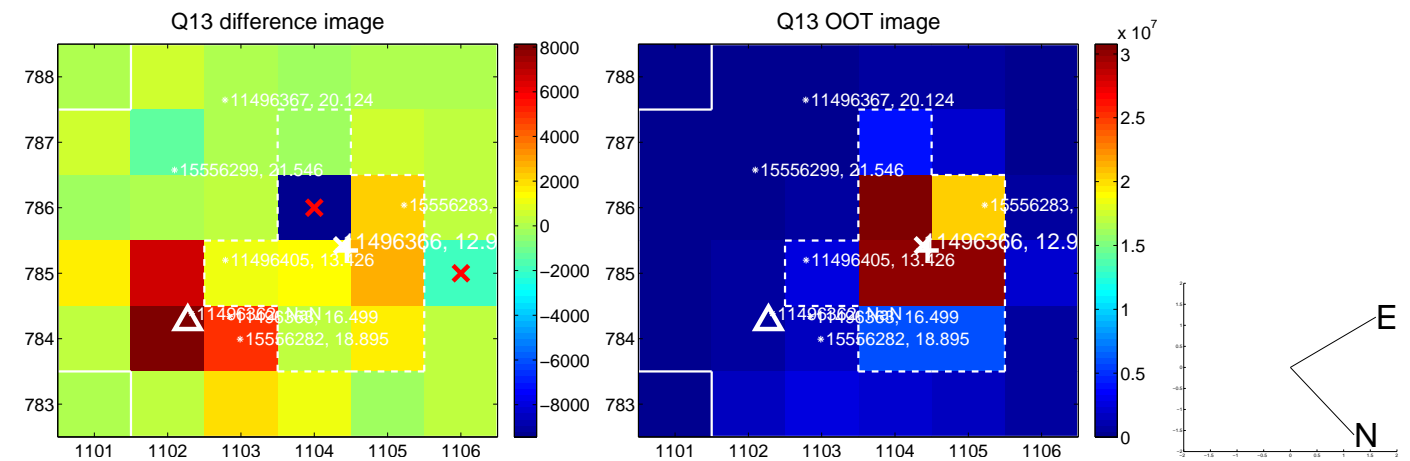
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



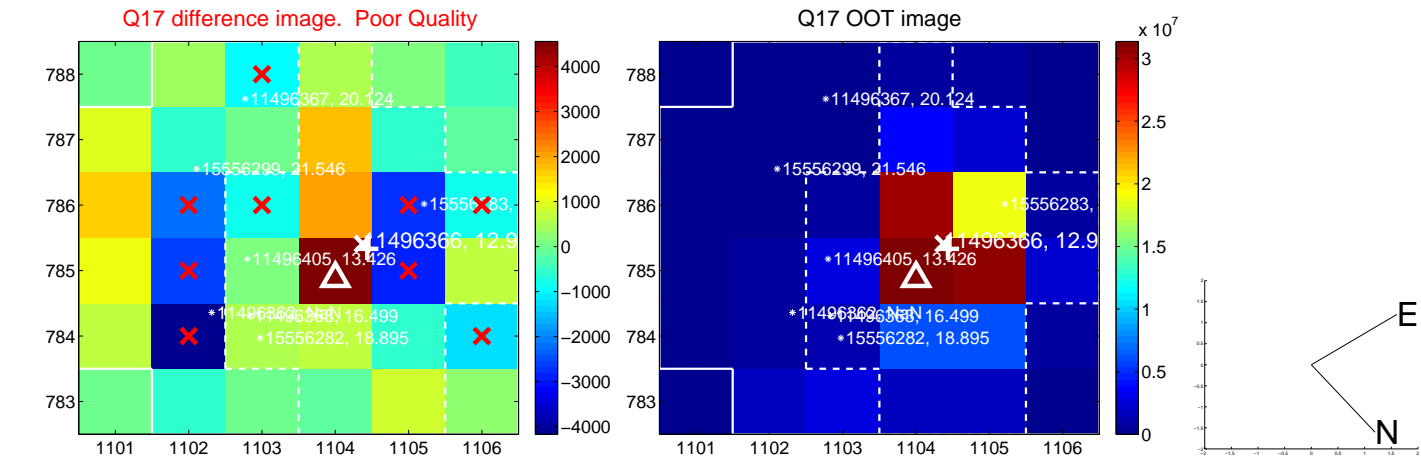
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



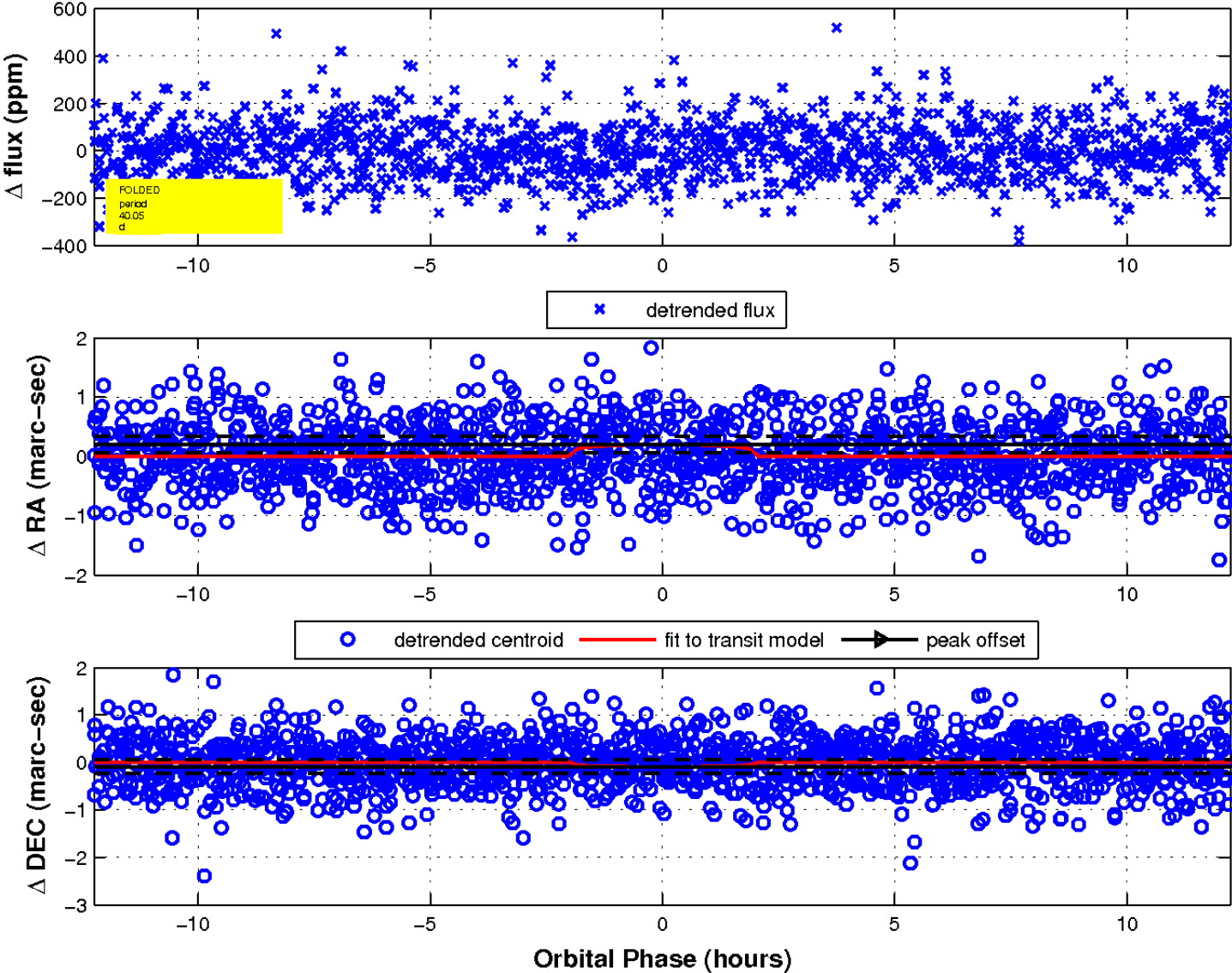
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



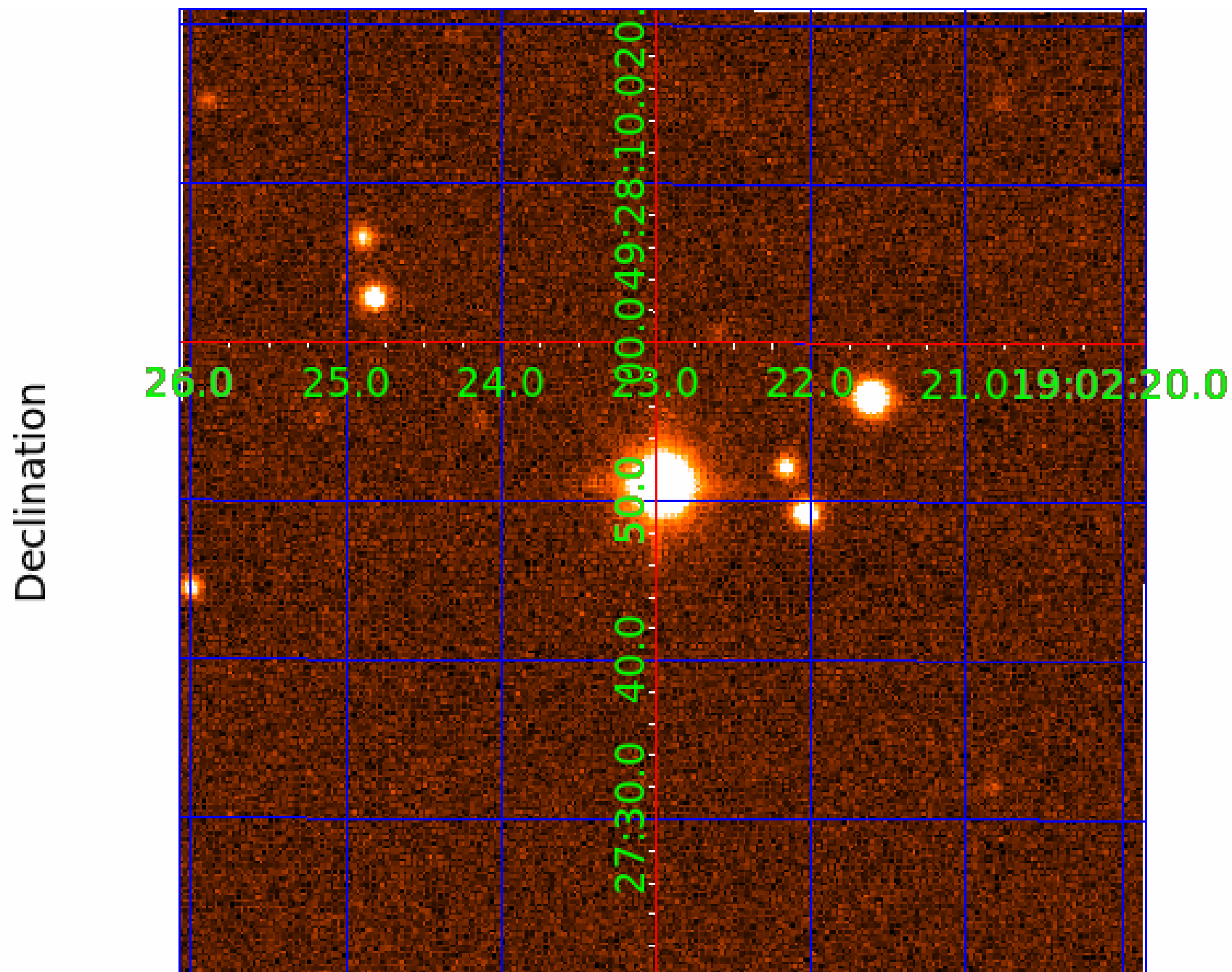
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 4 of 8



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

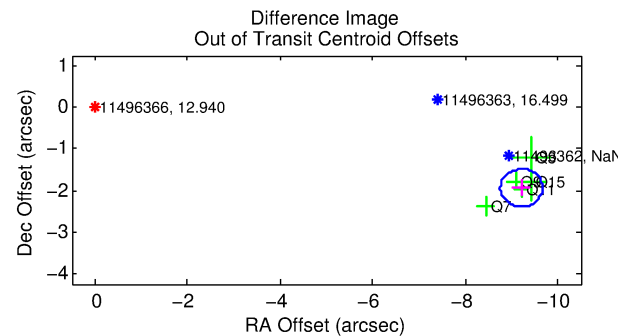
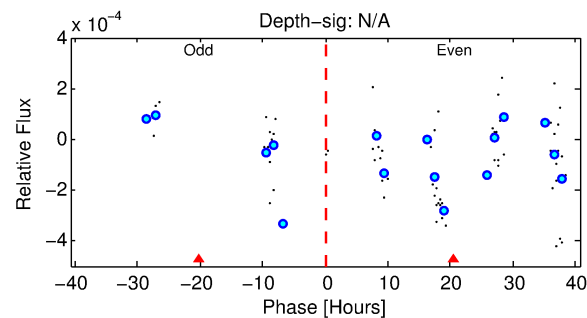
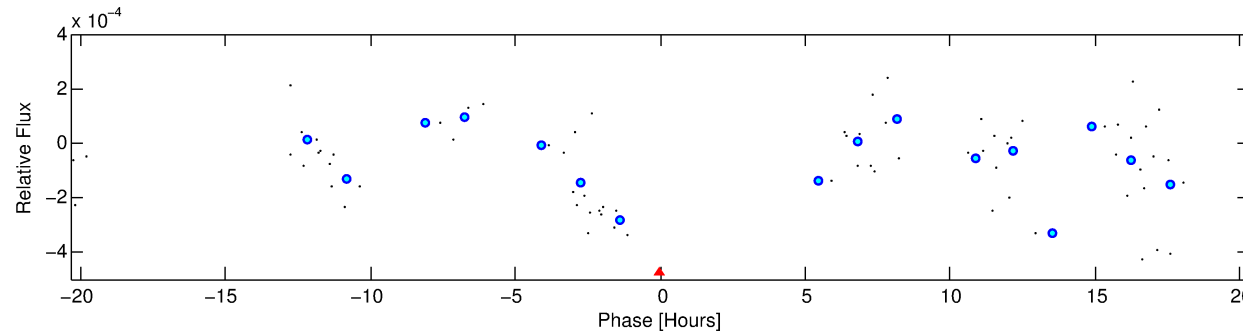
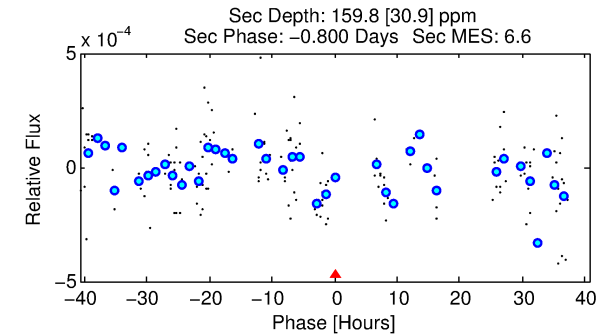
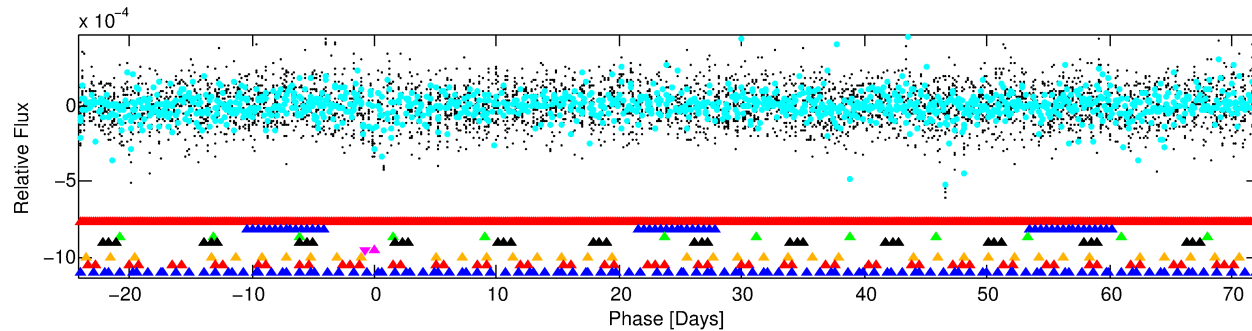
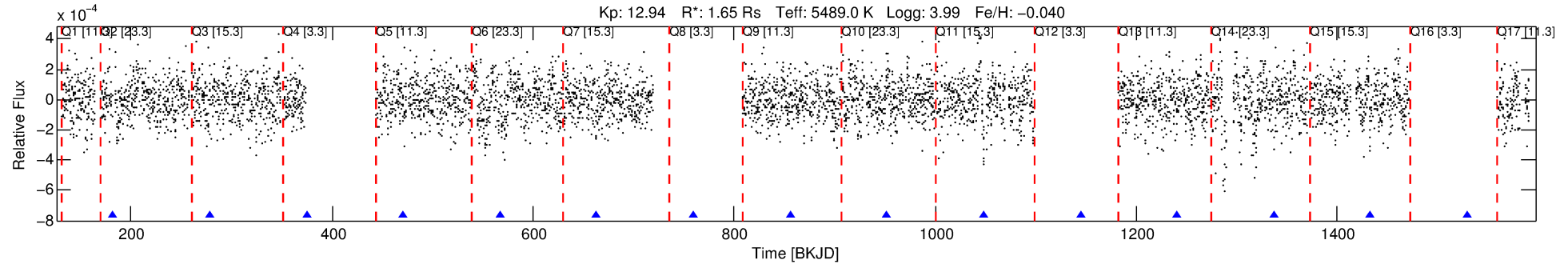
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-05

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 5 of 8 Period: 96.233 d



TPS TCE Results:

Period = 96.23272 d
Epoch = 182.1050 BKJD

DV fit results are unavailable

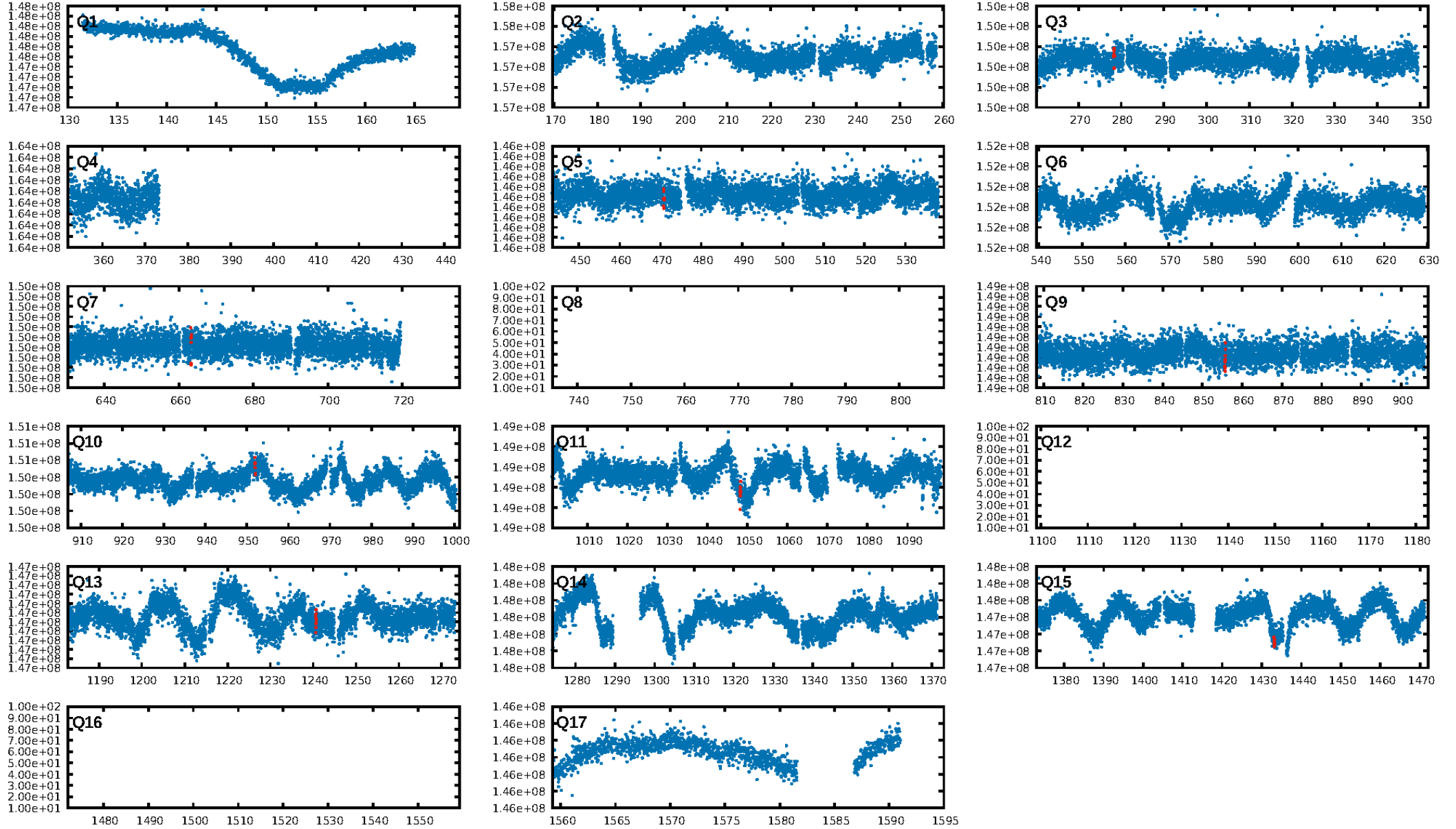
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [296.60σ]
LongPeriod-sig: 100.0% [174.71σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.98e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.377
Centroid-sig: 68.0%
Centroid-so: 0.718 arcsec [1.94σ]
OotOffset-rm: 9.414 arcsec [61.96σ]
KicOffset-rm: 9.281 arcsec [67.74σ]
OotOffset-st: 0/4/0/1 [5]
KicOffset-st: 0/4/0/1 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 0.00 [0/8]

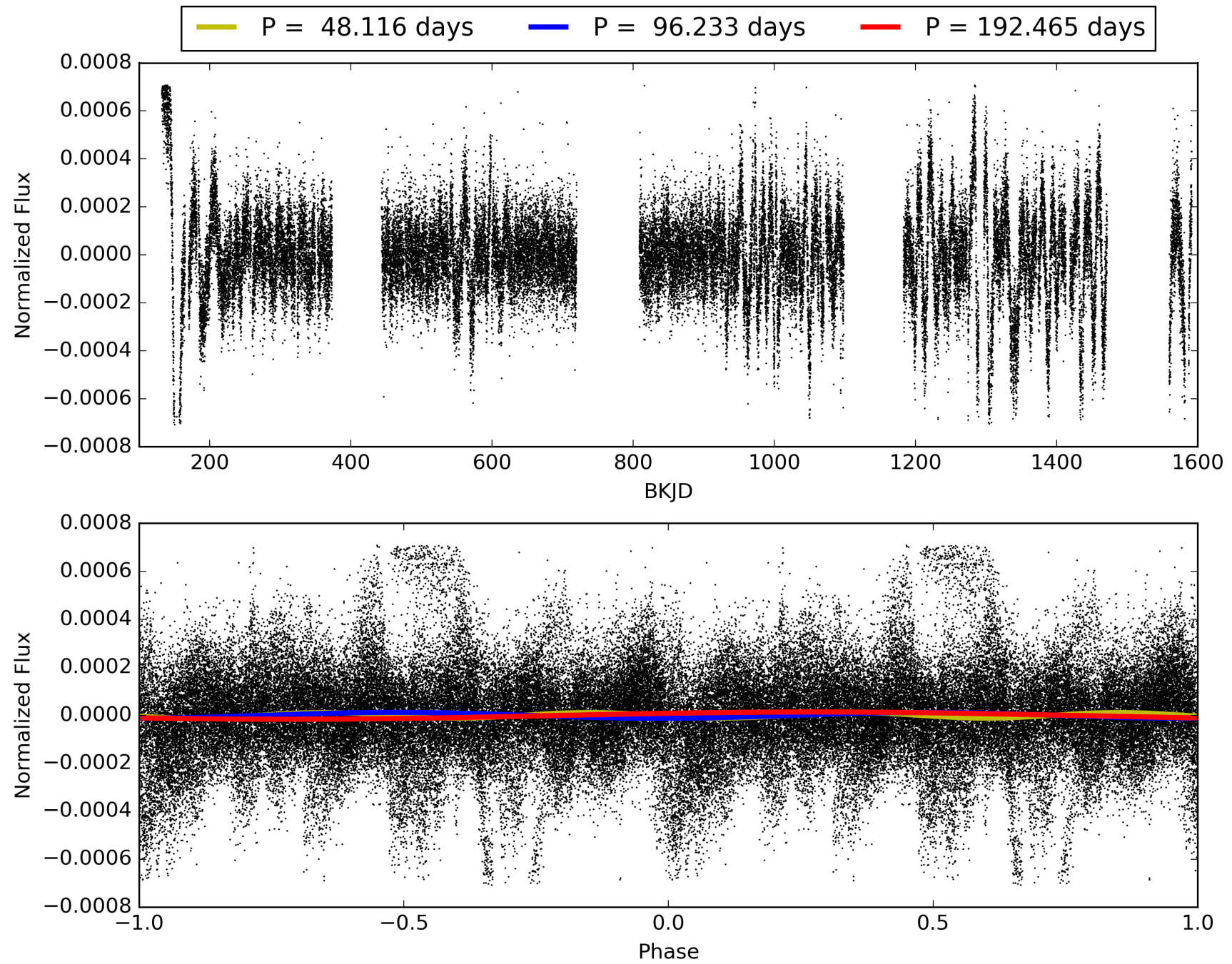
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:47 Z

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

TCE 011496366-05, PDC Light Curves

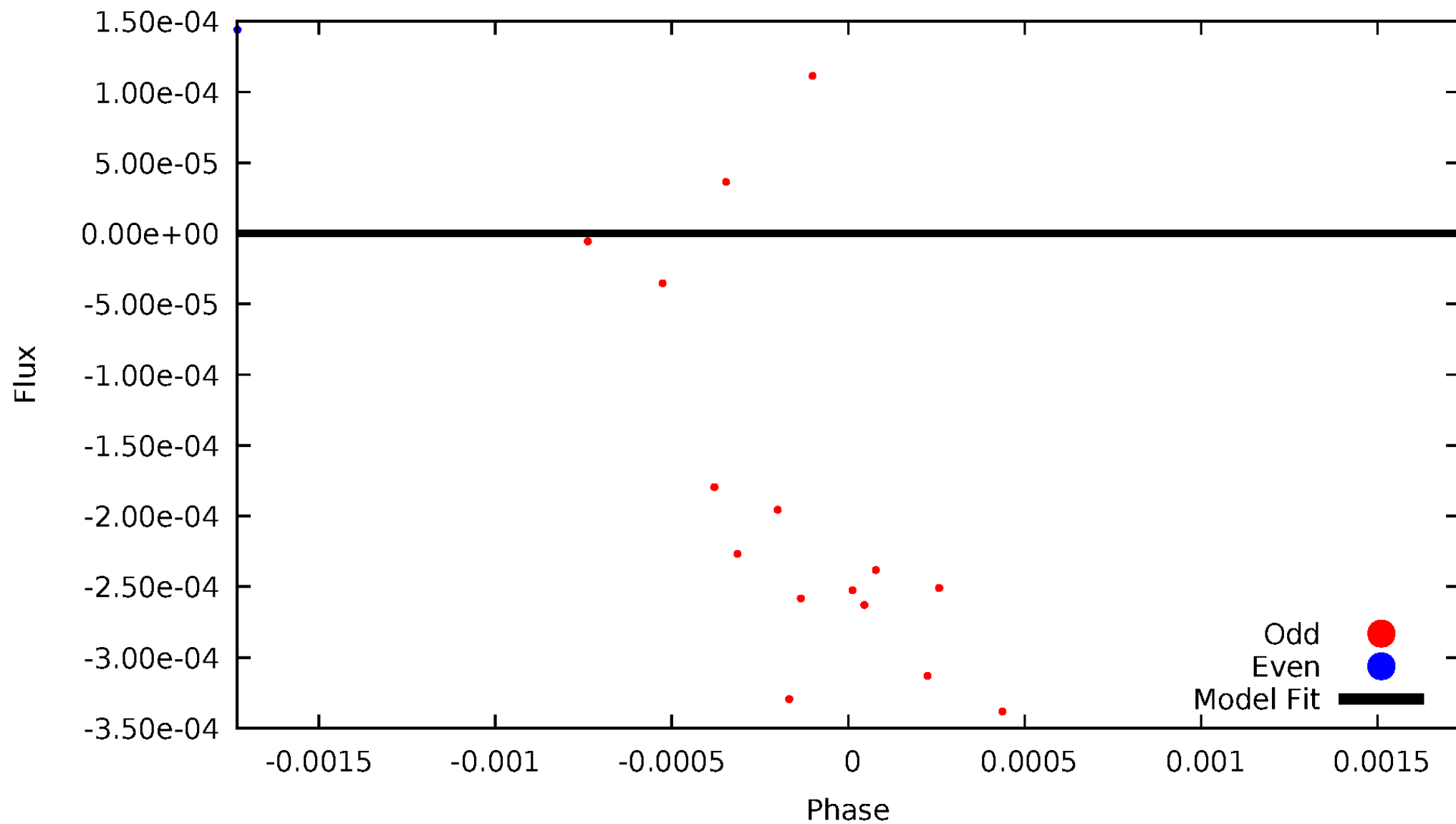


TCE 011496366-05



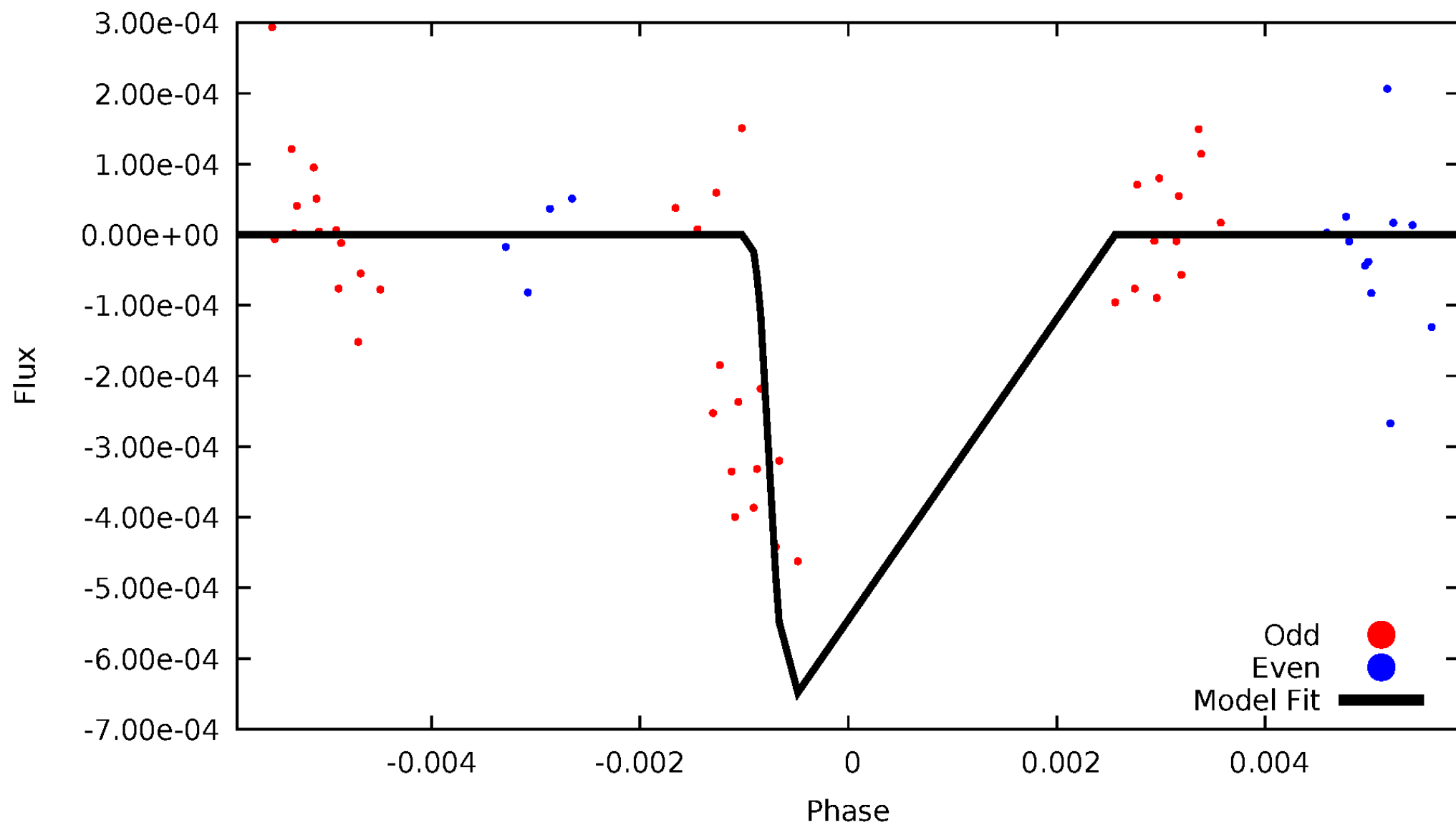
DV Odd/Even

TCE 011496366-05

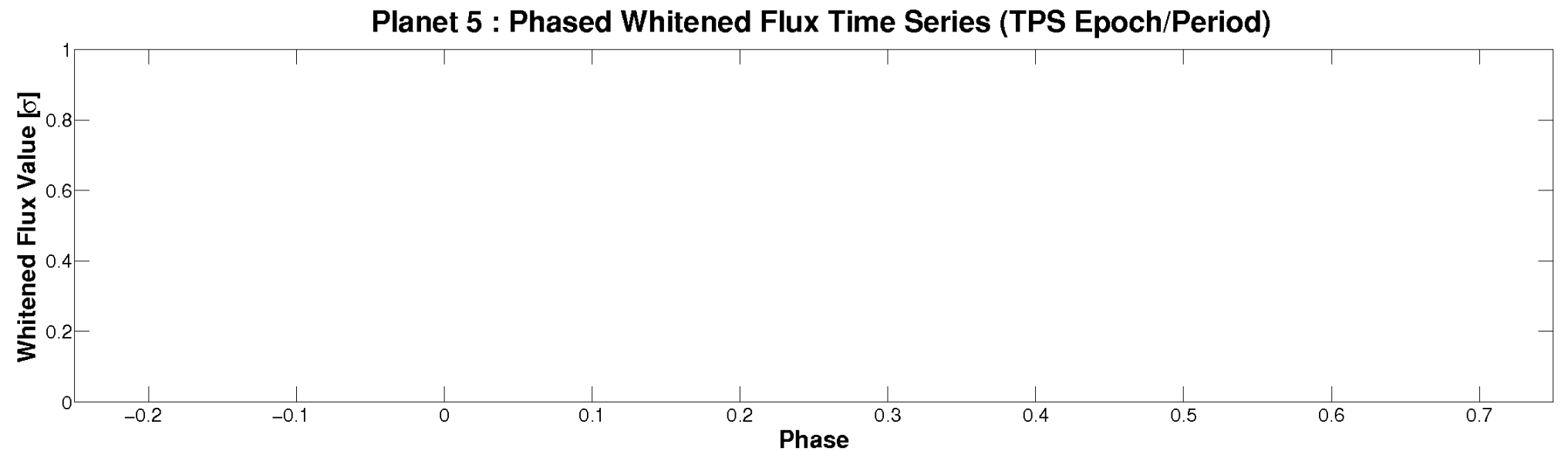
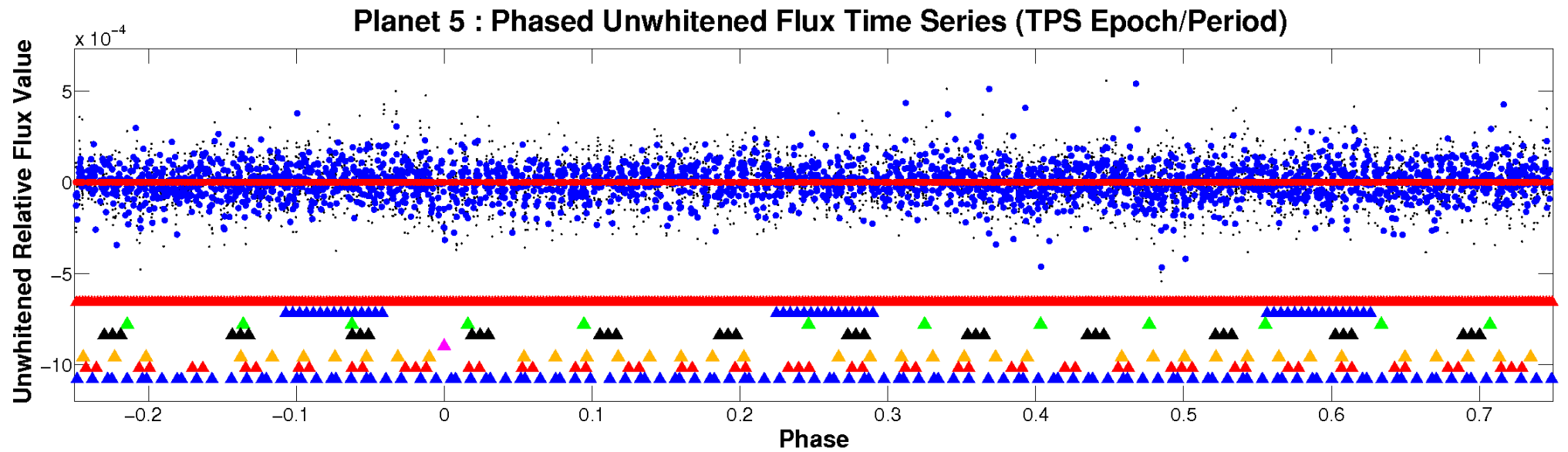


ALT Odd/Even

TCE 011496366-05

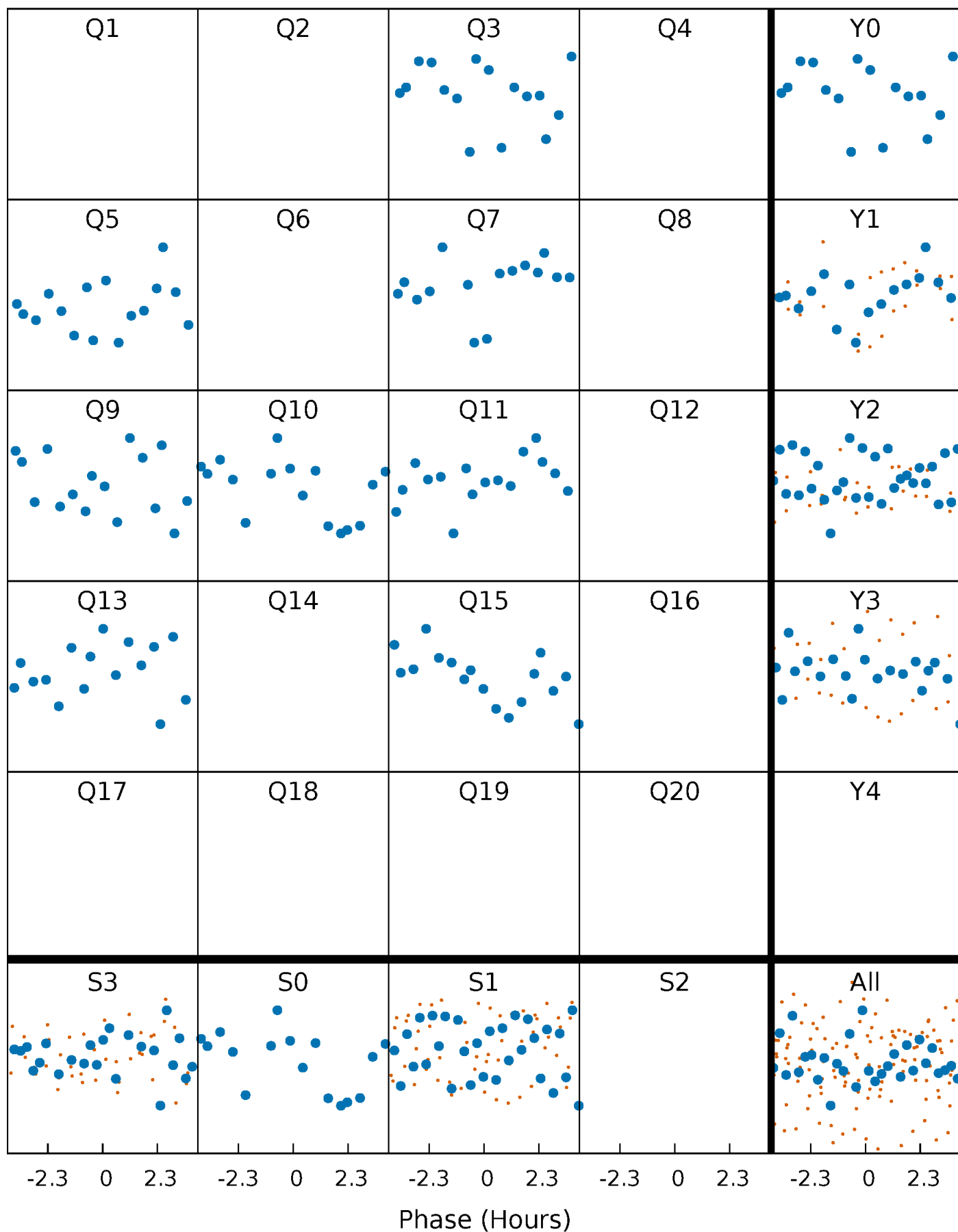


Non-Whitened Vs. Whitened Light Curve



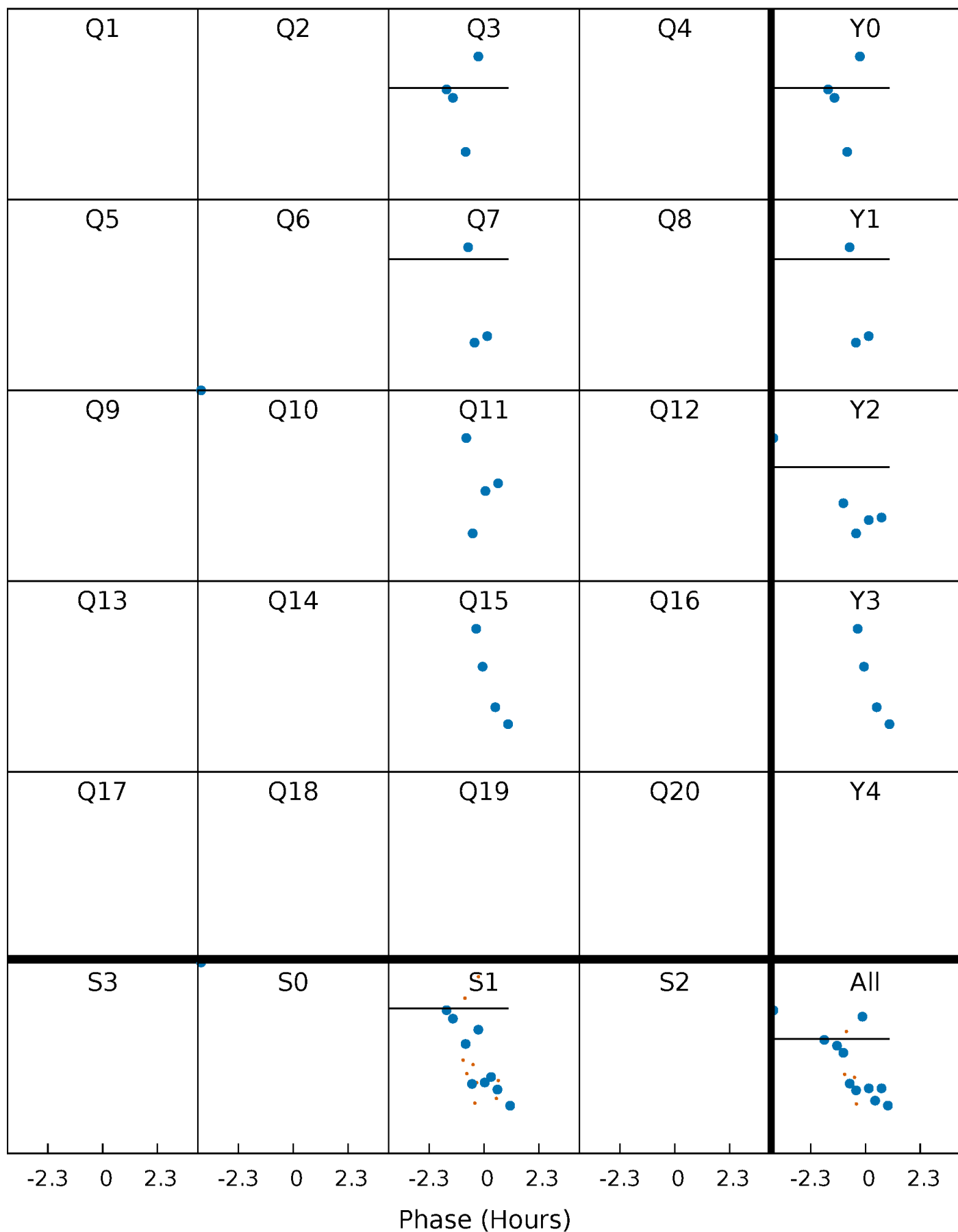
PDC Quarter-Phased Transit Curves

TCE 011496366-05 P= 96.232720 Days $T_0=182.104956$ (BKJD)



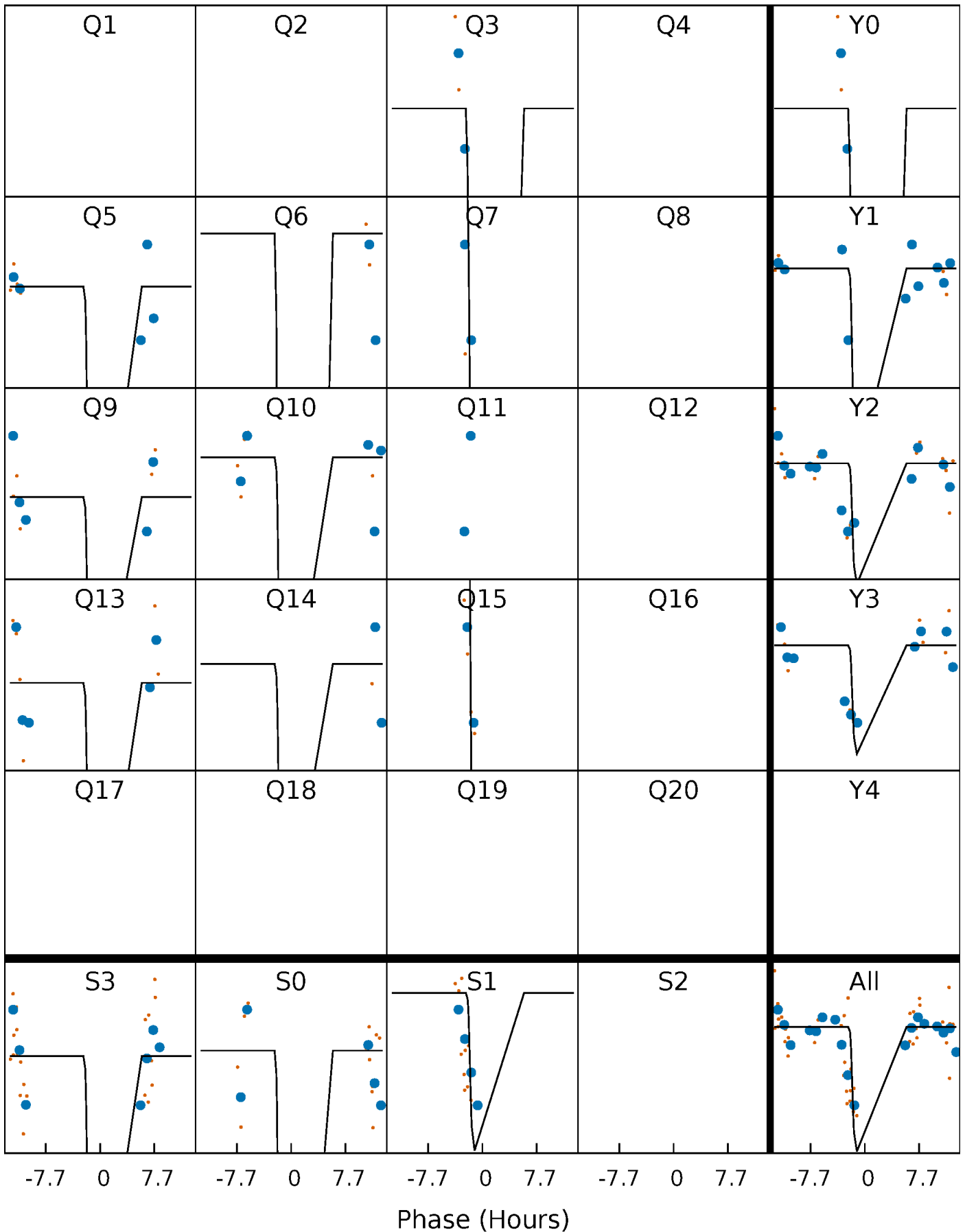
DV Quarter-Phased Transit Curves

TCE 011496366-05 P= 96.232720 Days $T_0=182.104956$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

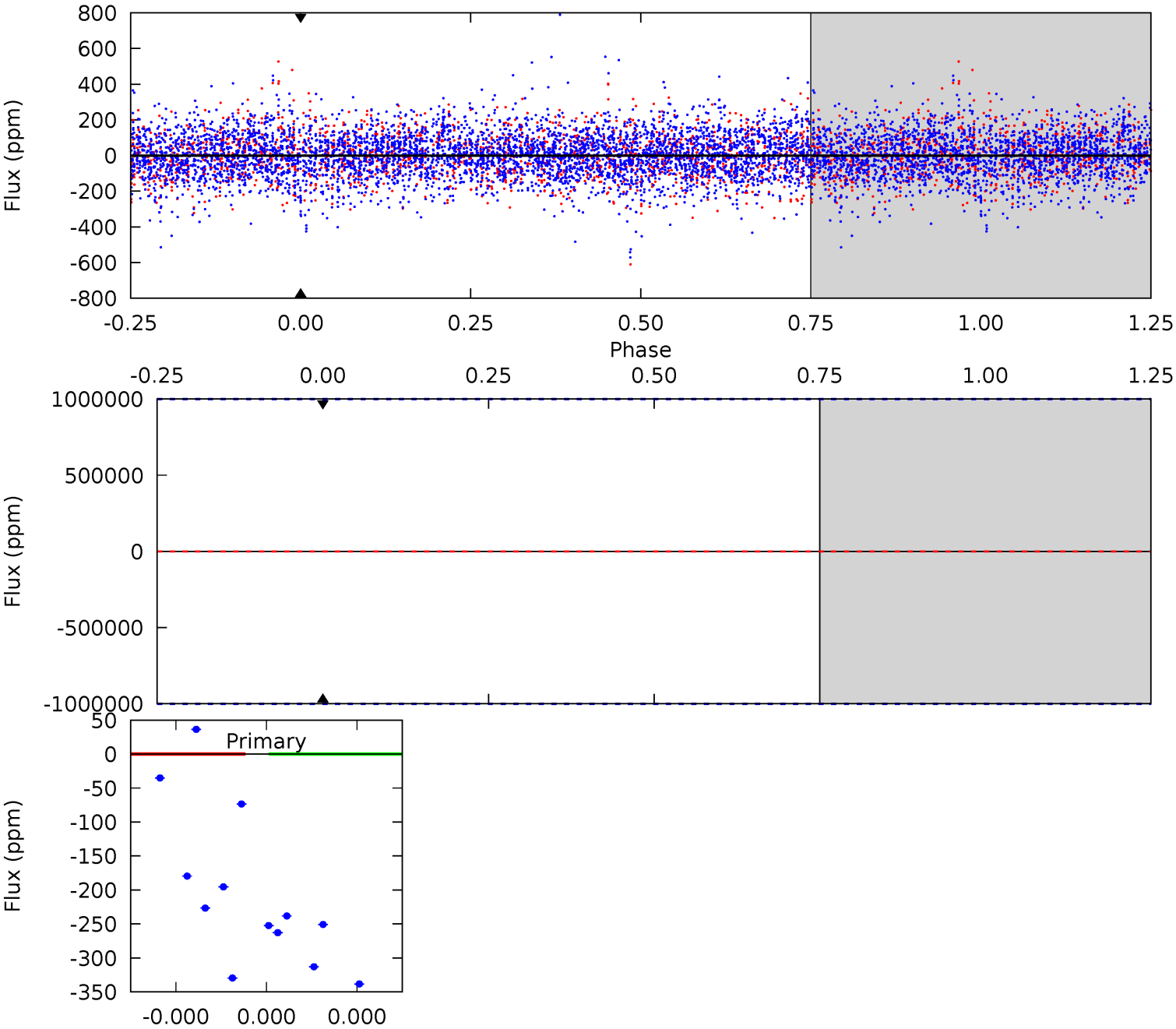
TCE 011496366-05 $P = 96.232720$ Days $T_0 = 182.193550$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-05, P = 96.232720 Days, E = 85.872236 Days

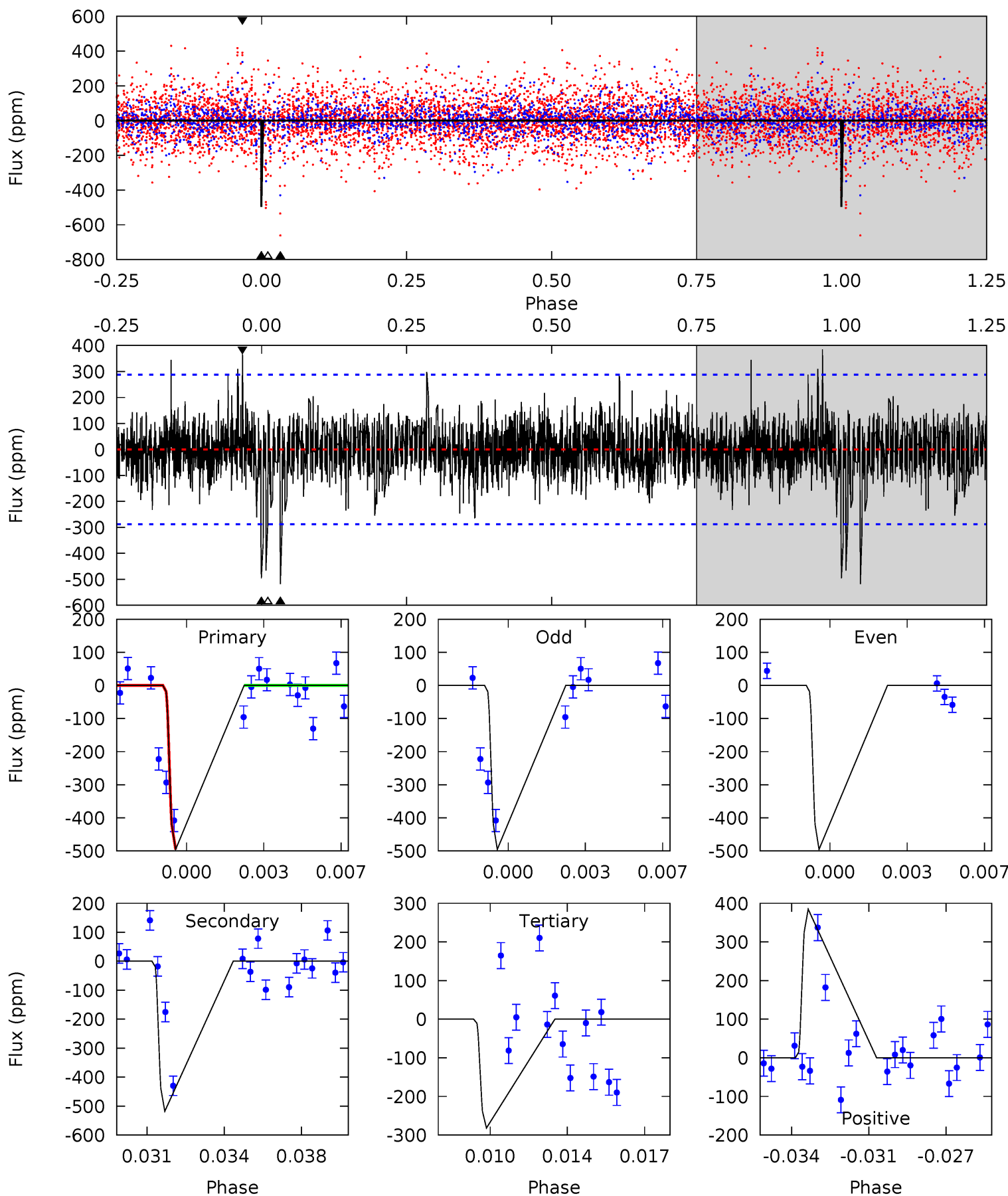
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011496366-05, P = 96.232720 Days, E = 85.960830 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.00	9.41	5.12	6.99	5.23	2.93	1.32	3.88	2.01	4.29	2.42	0	0	0.43	0



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$12.30^{+13.83}_{-8.20}$	676^{+47}_{-66}	-2329^{+21259}_{-15179}	$-11.609^{+103497.893}_{-88322.952}$
Alt.	-518 ± 55	$13.37^{+14.89}_{-8.90}$	677^{+48}_{-64}	3461^{+1779}_{-653}	269^{+2202}_{-207}

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

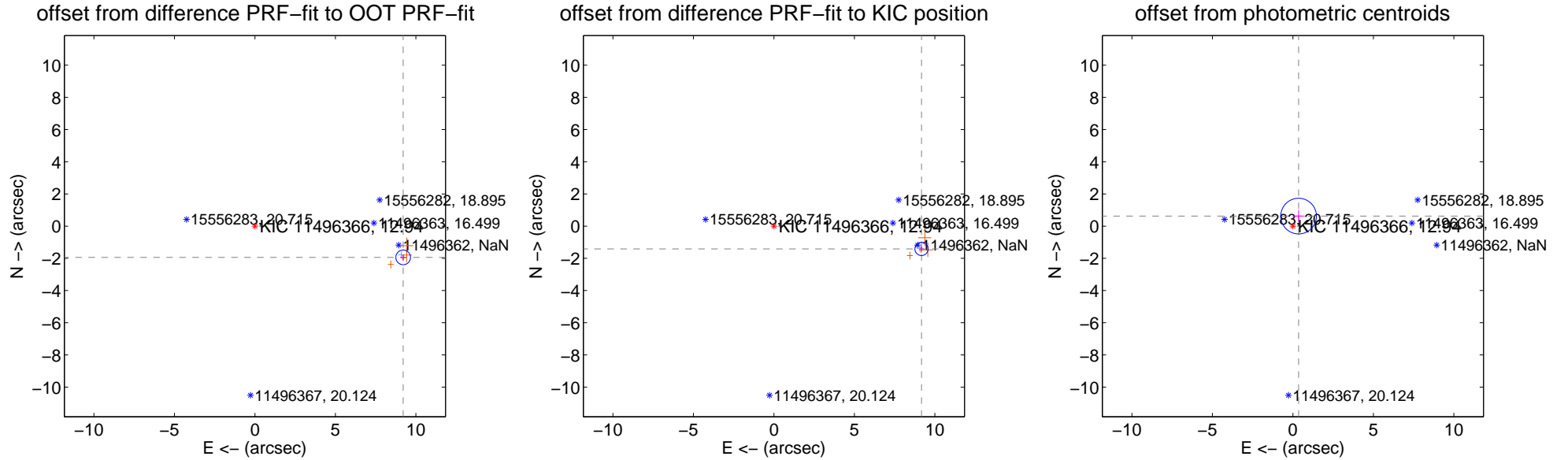
DV Centroid Data

Supplemental centroid analysis for 011496366-05. Kepler magnitude: 12.94. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

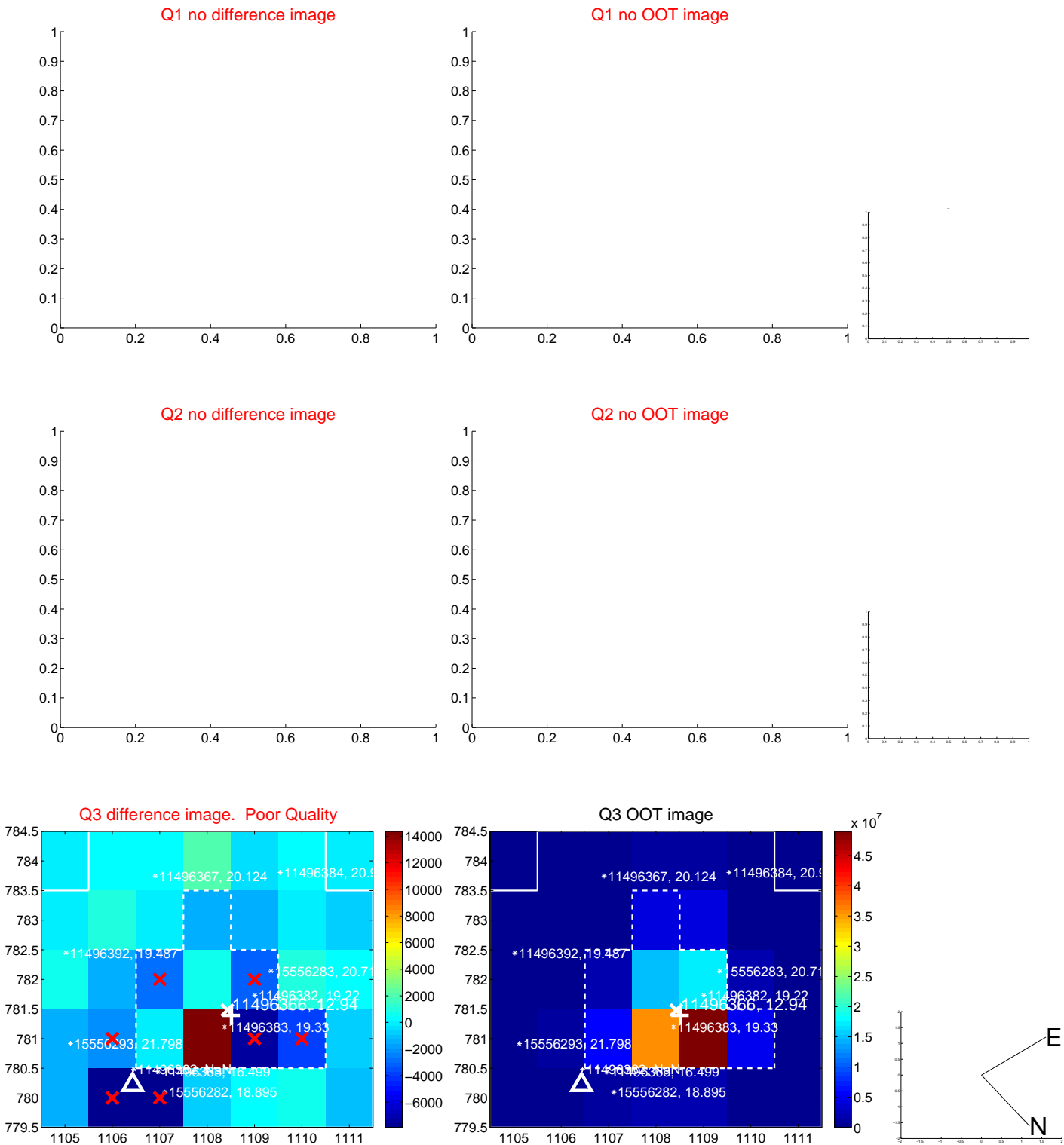
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.414 ± 0.152	61.96	-9.211 ± 0.180	-1.940 ± 0.172
PRF-fit source offset from KIC position	9.281 ± 0.137	67.74	-9.172 ± 0.136	-1.416 ± 0.167
photometric centroid source offset	0.72 ± 0.37	1.94	-0.35 ± 0.37	0.62 ± 0.37

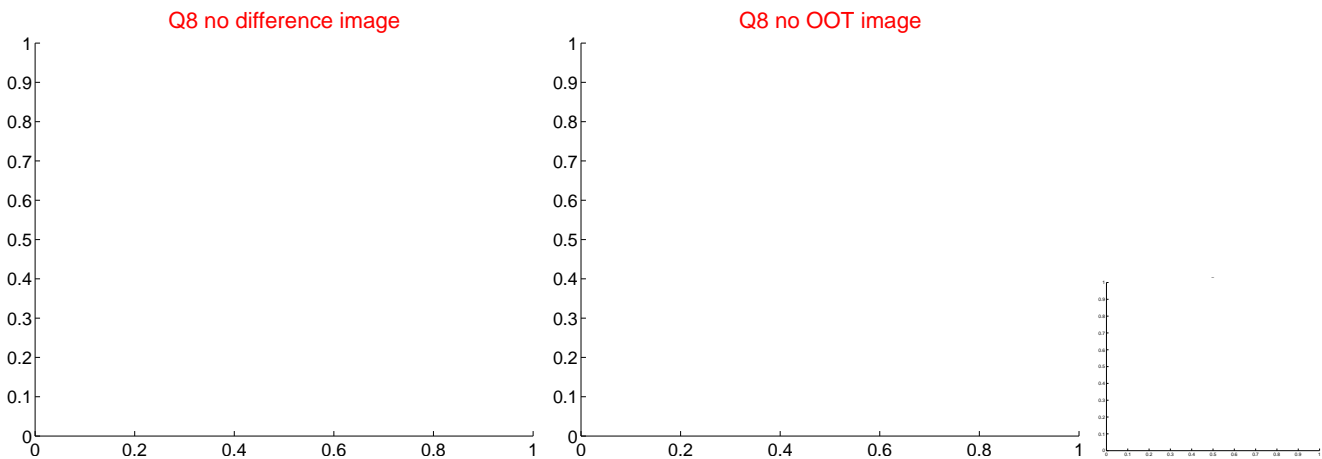
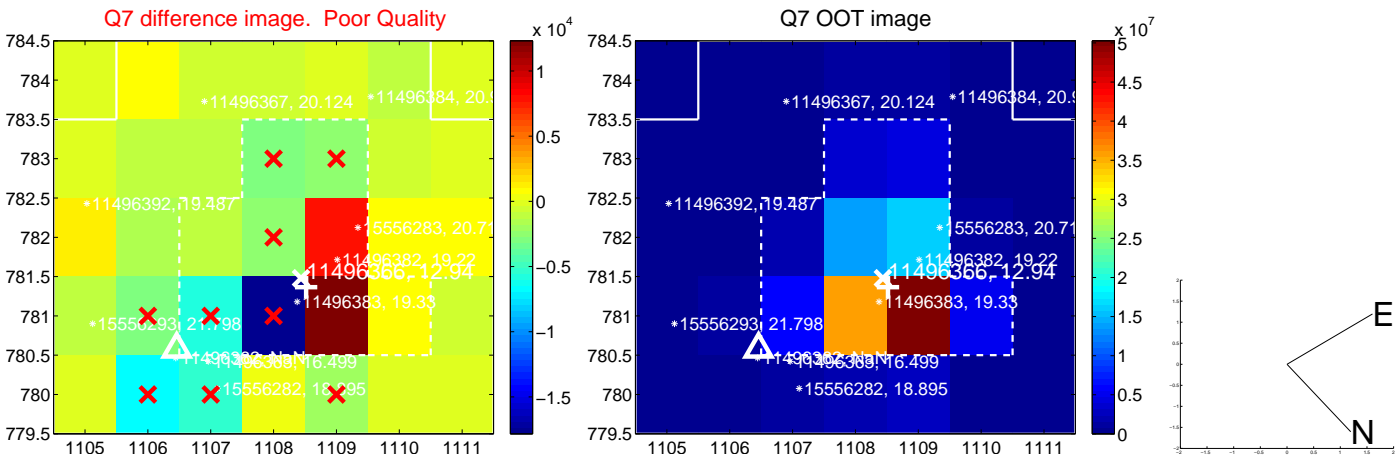
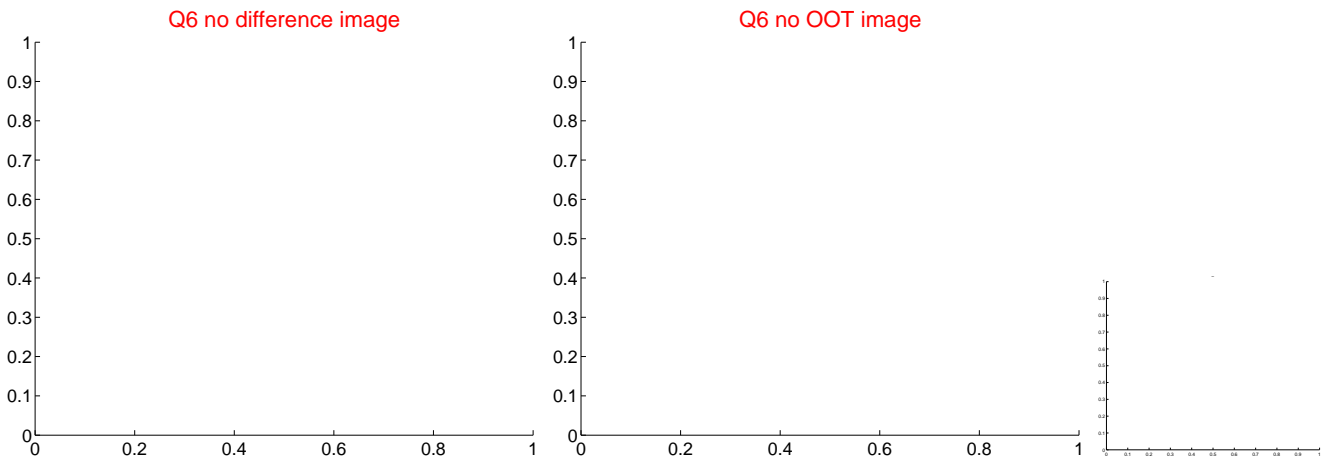
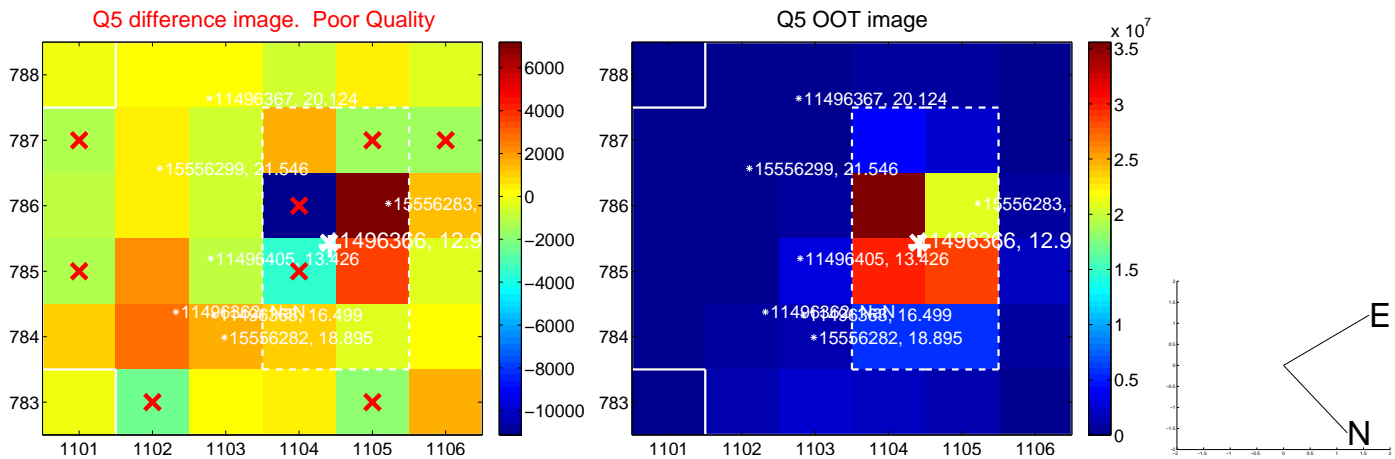


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

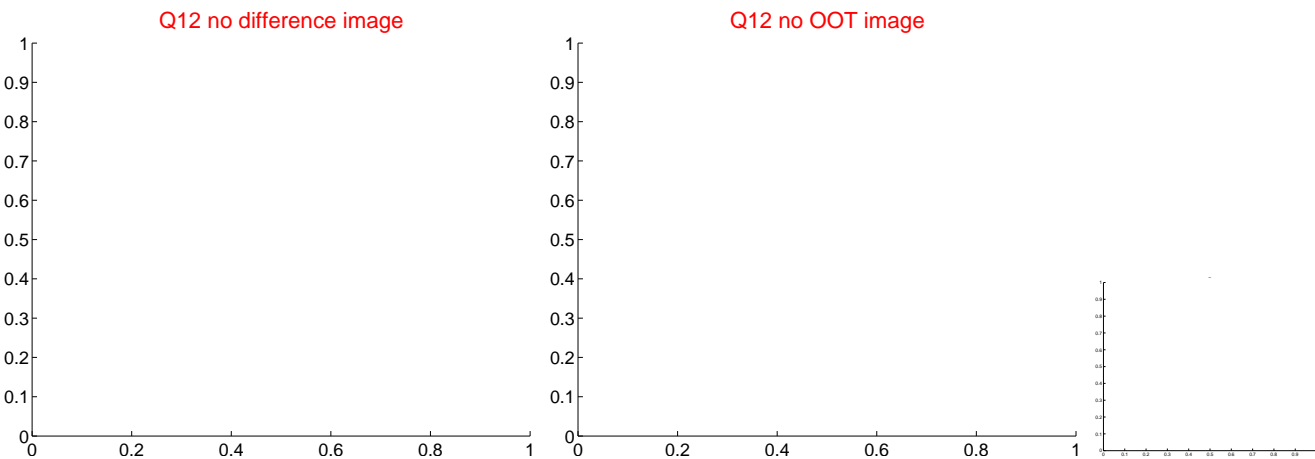
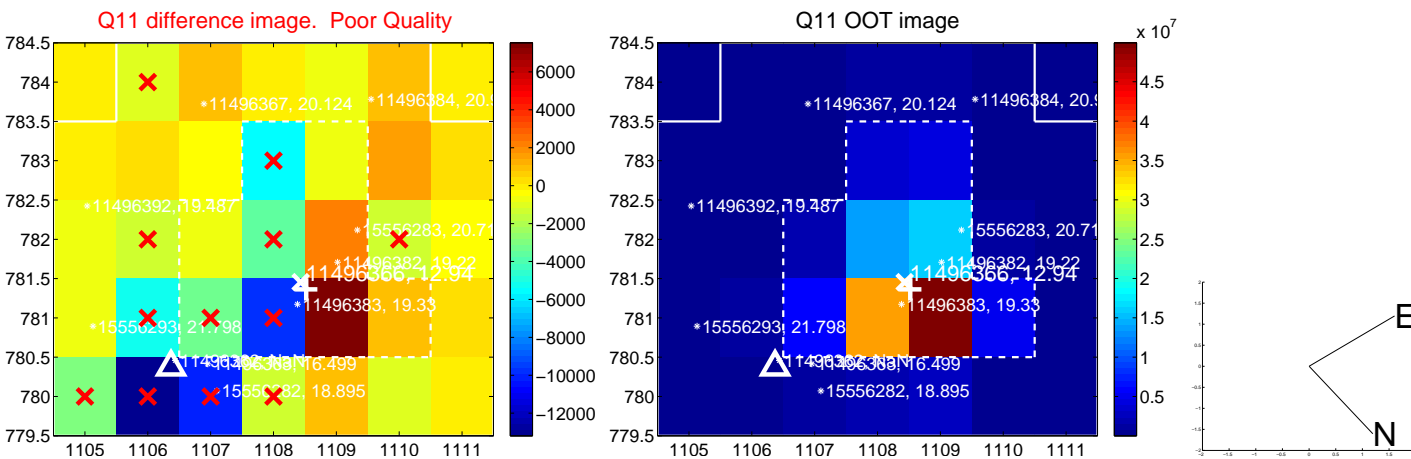
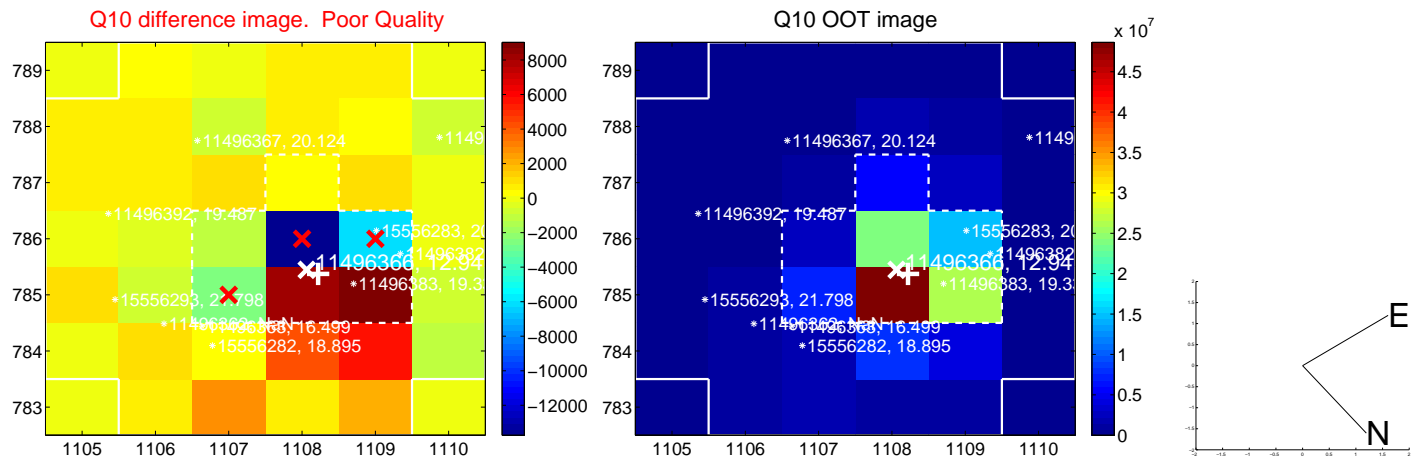
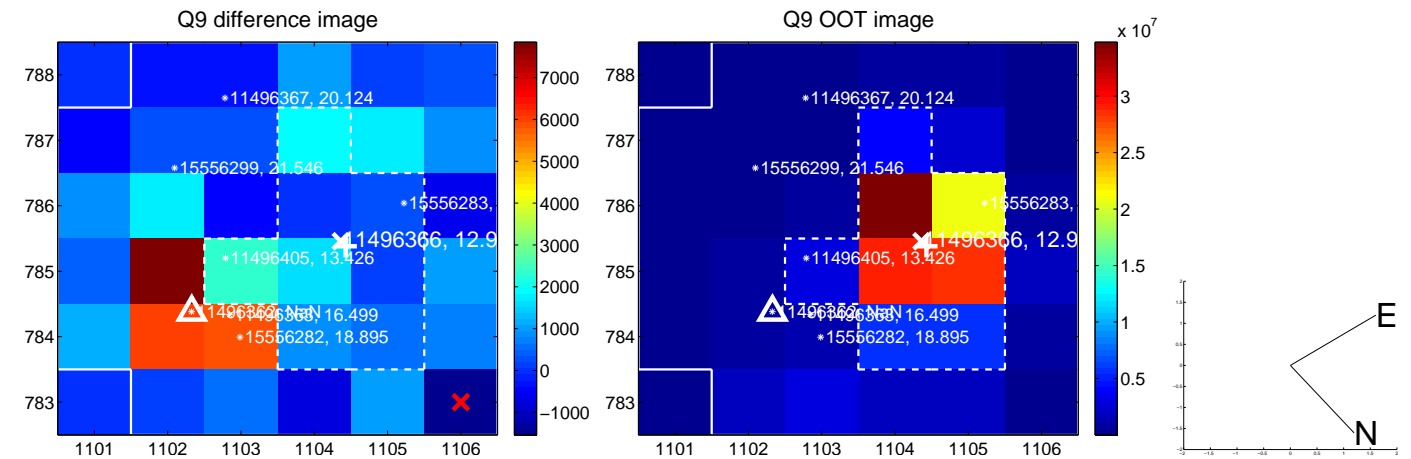
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



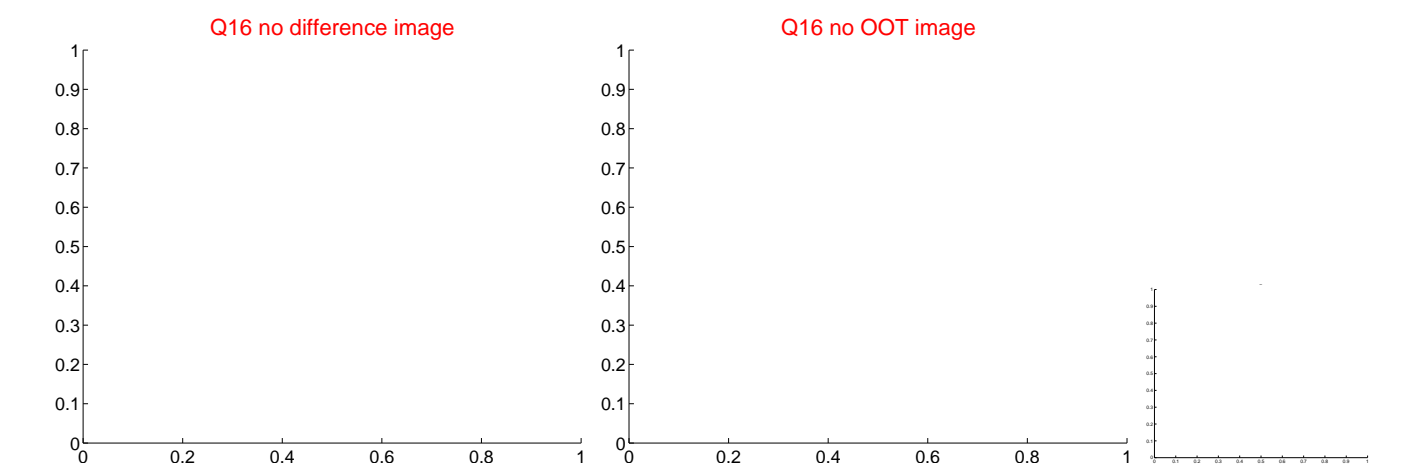
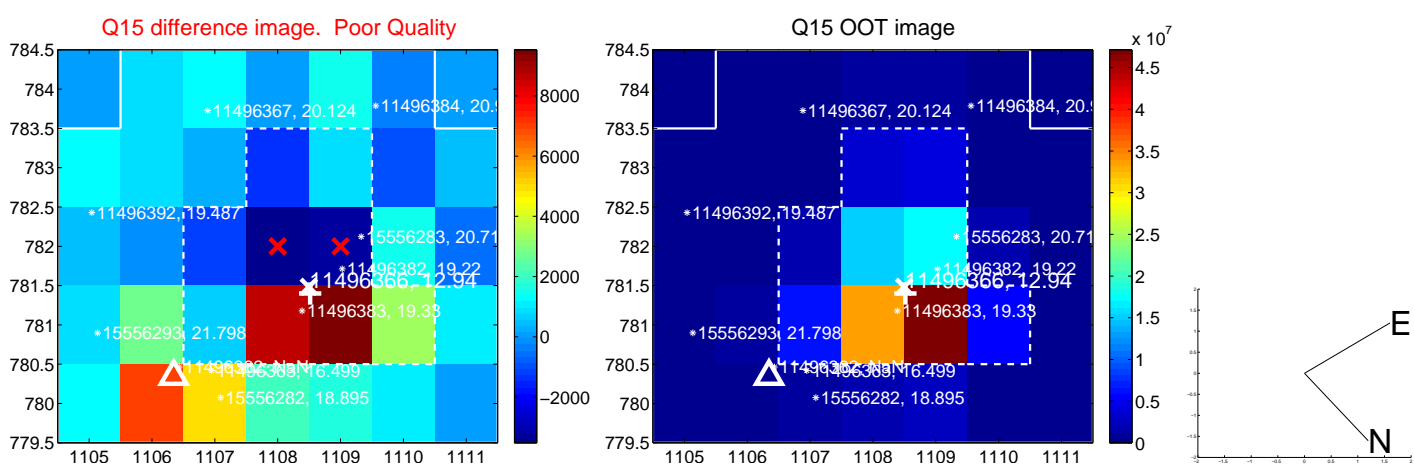
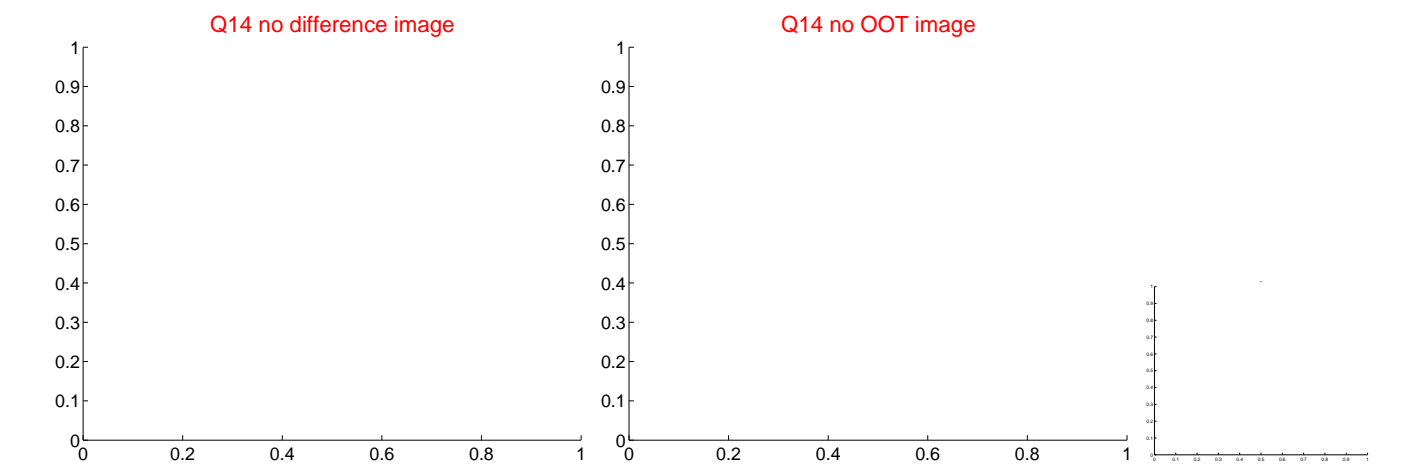
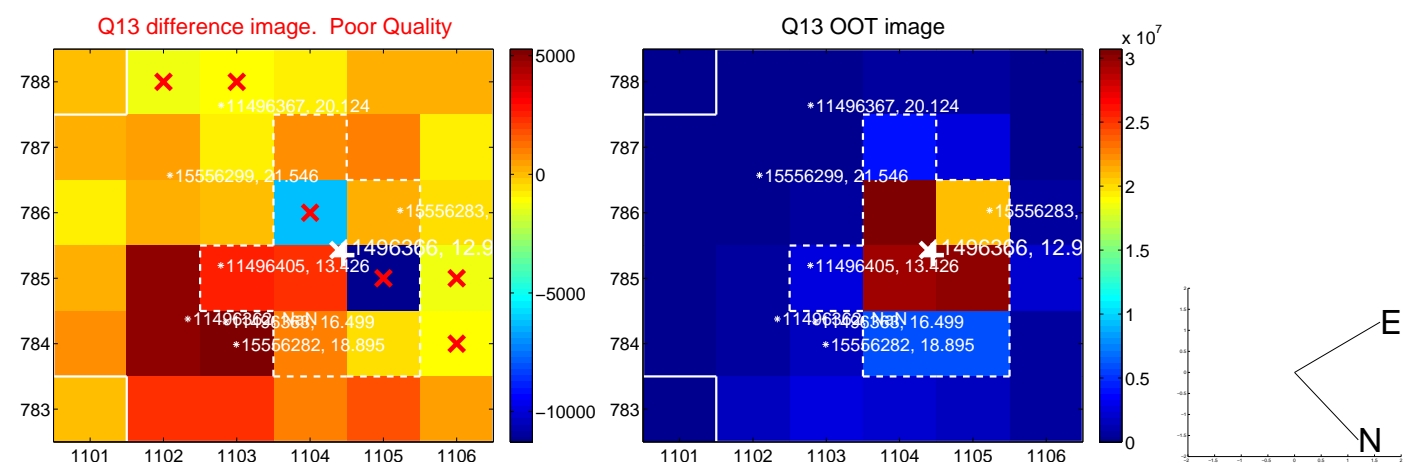
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



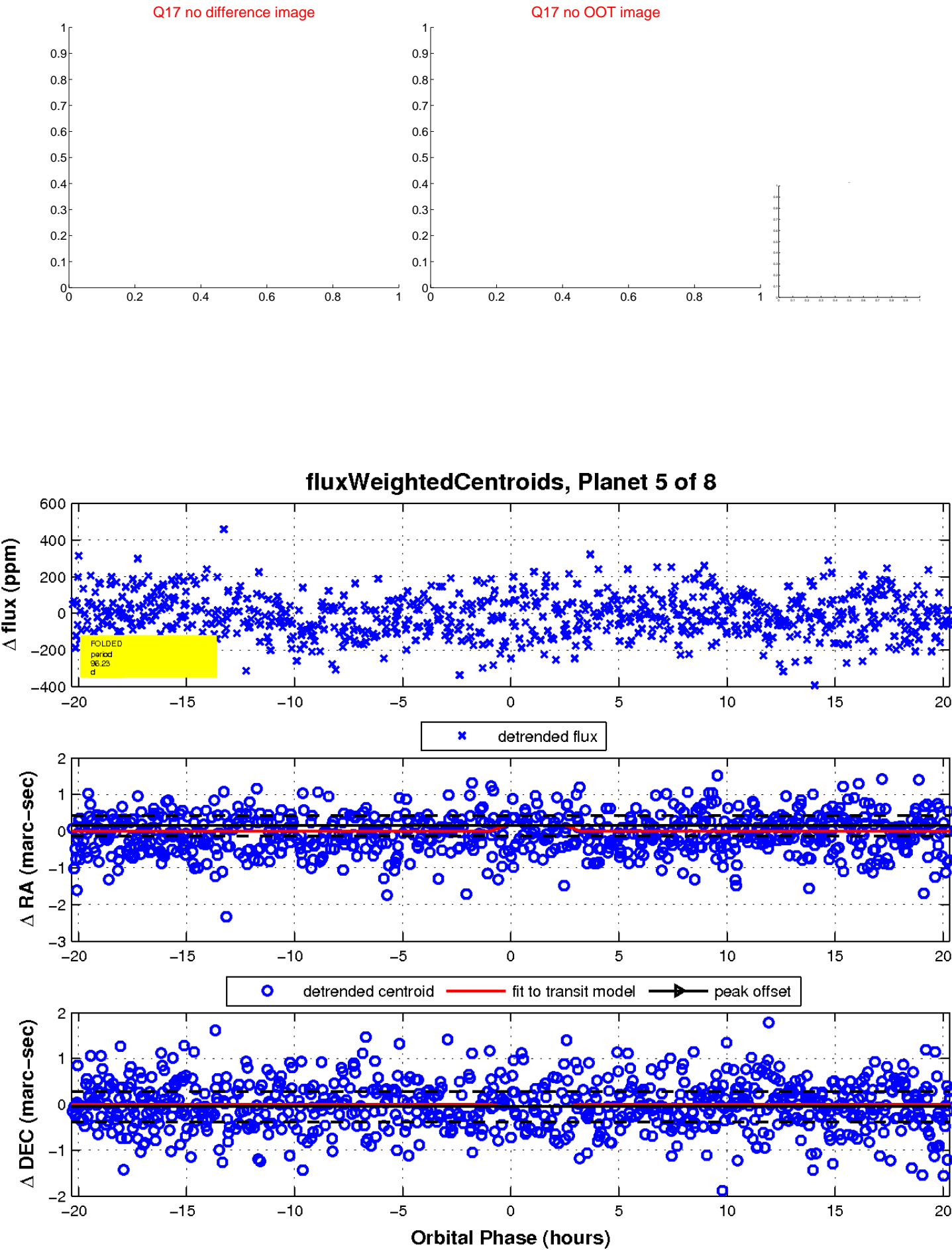
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



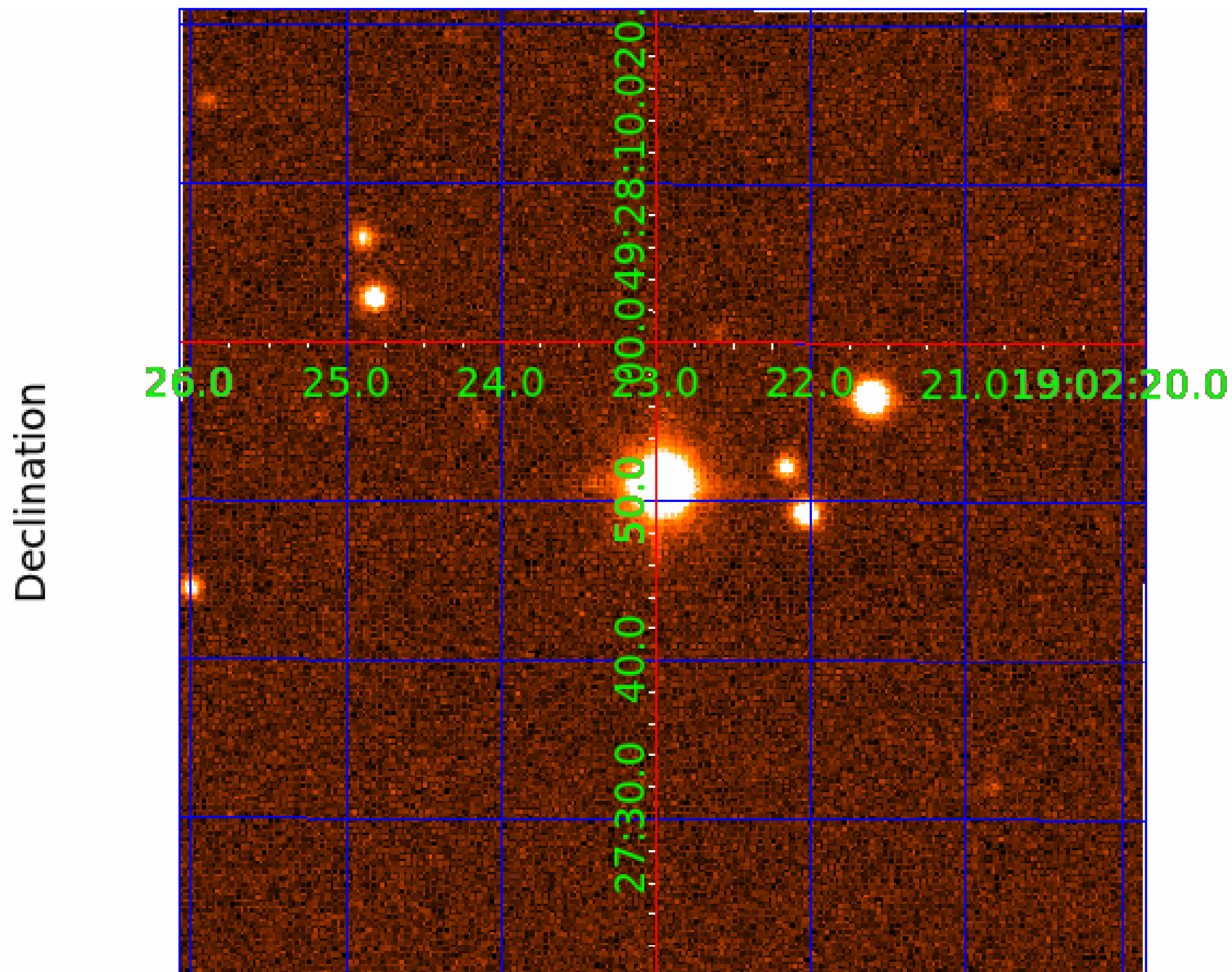
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

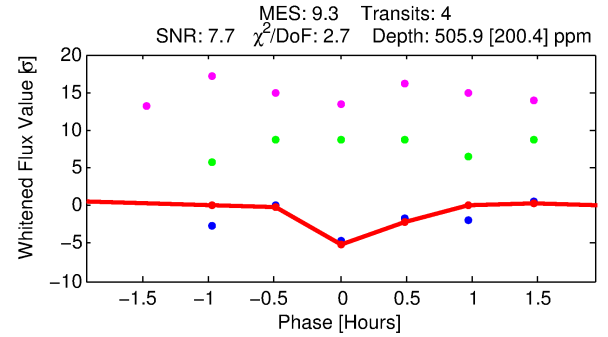
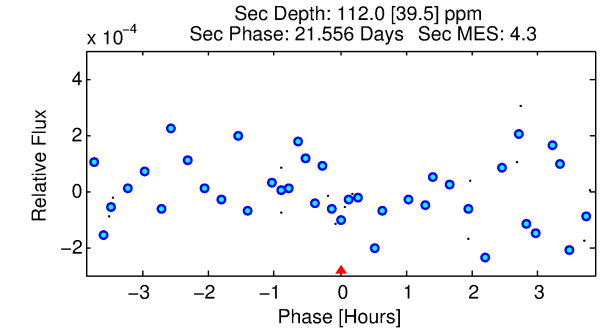
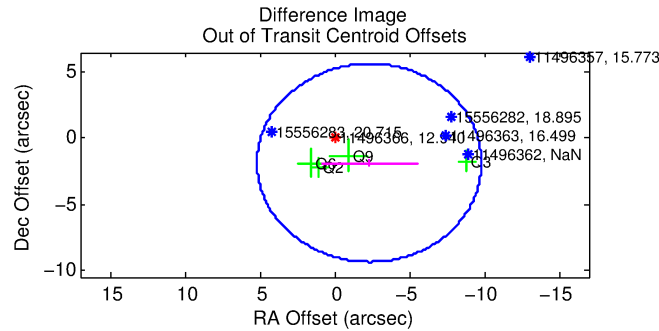
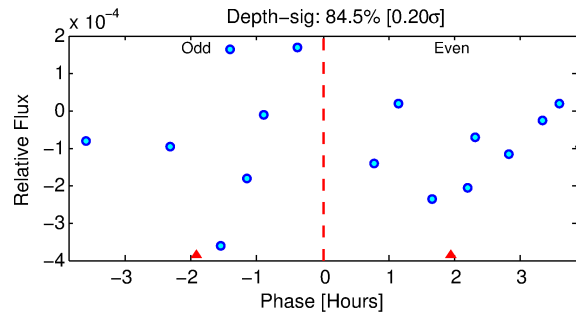
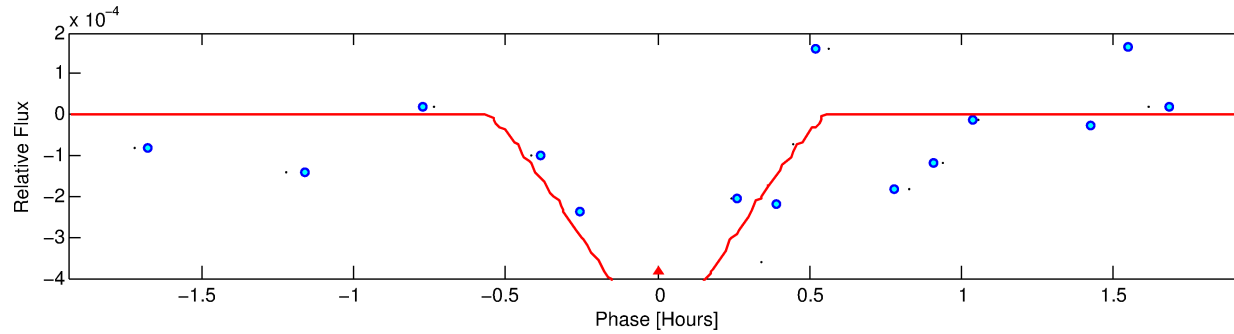
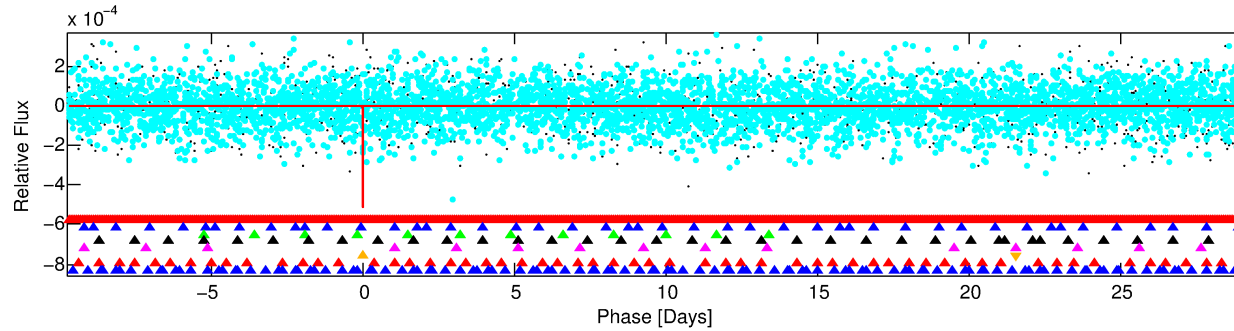
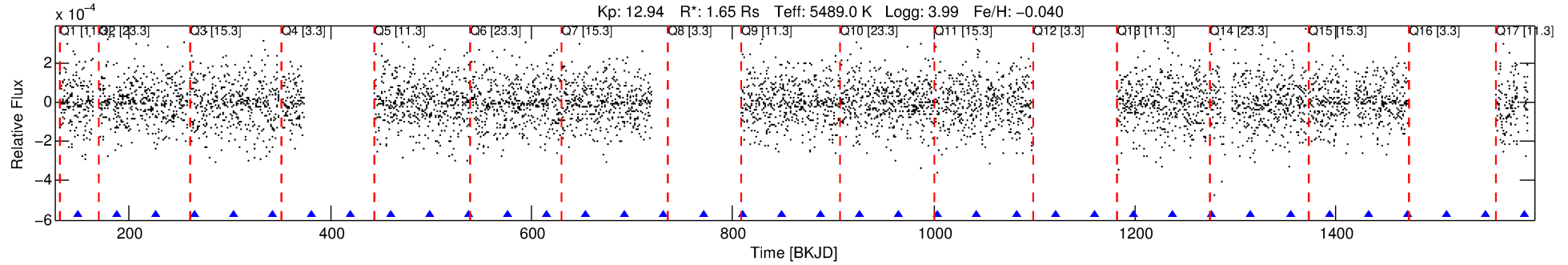
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-06

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 6 of 8 Period: 38.902 d



DV Fit Results:

Period = 38.90186 [0.00031] d
Epoch = 148.3972 [0.0078] BKJD
Rp/R* = 0.0210 [0.2869]
a/R* = 452.82 [25625.68]
b = 0.26 [198.90]
Seff = 44.62 [24.56]
Teq = 659 [91] K
Rp = 3.78 [51.60] Re
a = 0.2225 [0.0724] AU
Ag = 212.96 [5807.42] [0.04σ]
Teffp = 3892 [26533] K [0.12σ]

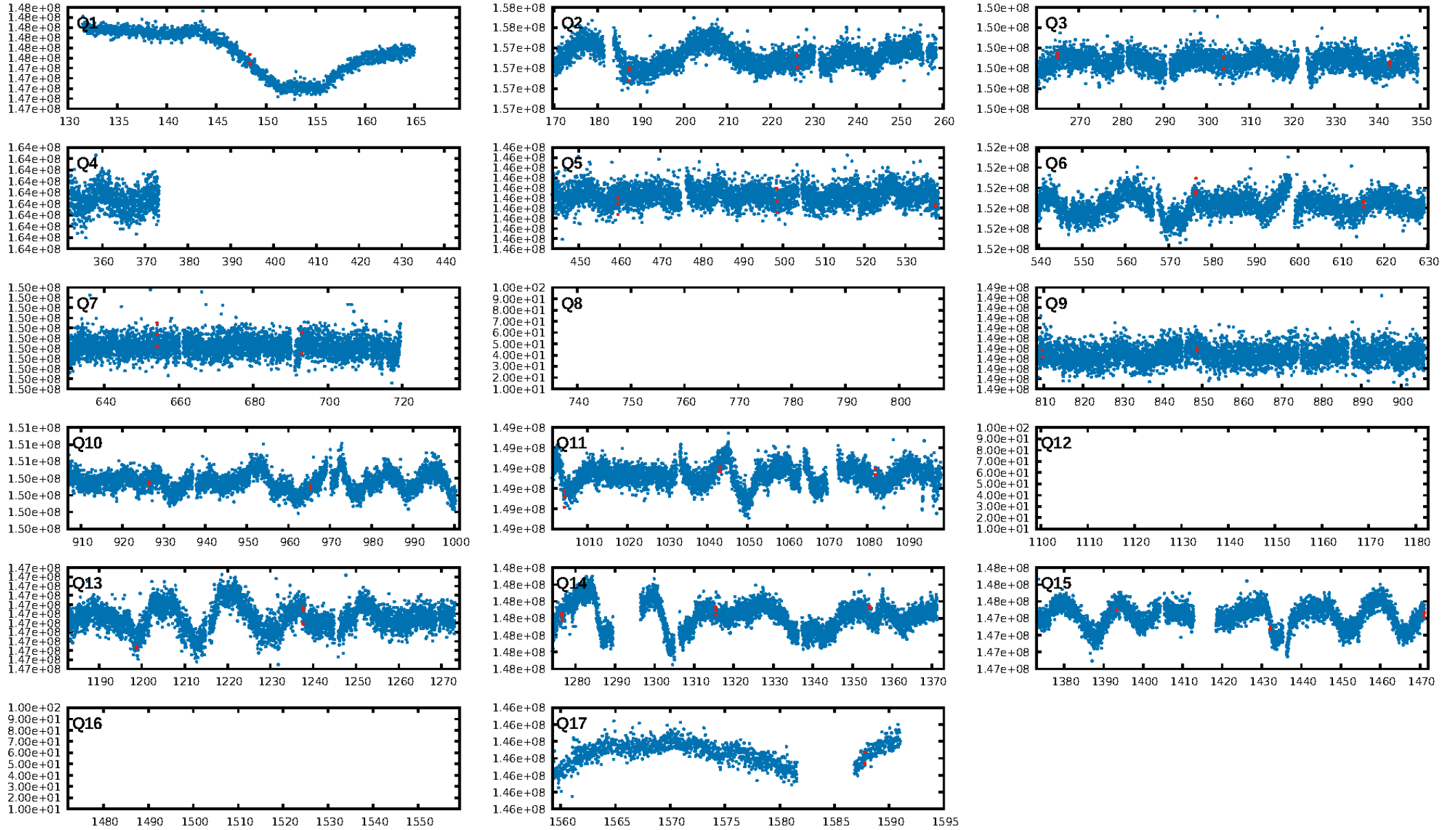
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [77.91σ]
LongPeriod-sig: 100.0% [6.68σ]
ModelChiSquare2-sig: 13.5%
ModelChiSquareGof-sig: 77.6%
Bootstrap-pfa: 1.53e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.4758
Centroid-sig: 6.6%
Centroid-so: 0.318 arcsec [0.54σ]
OotOffset-rm: 2.988 arcsec [1.20σ]
OotOffset-st: 2/1/0/1 [4]
KicOffset-rm: 2.552 arcsec [0.93σ]
KicOffset-st: 2/1/0/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.00 [0/9]

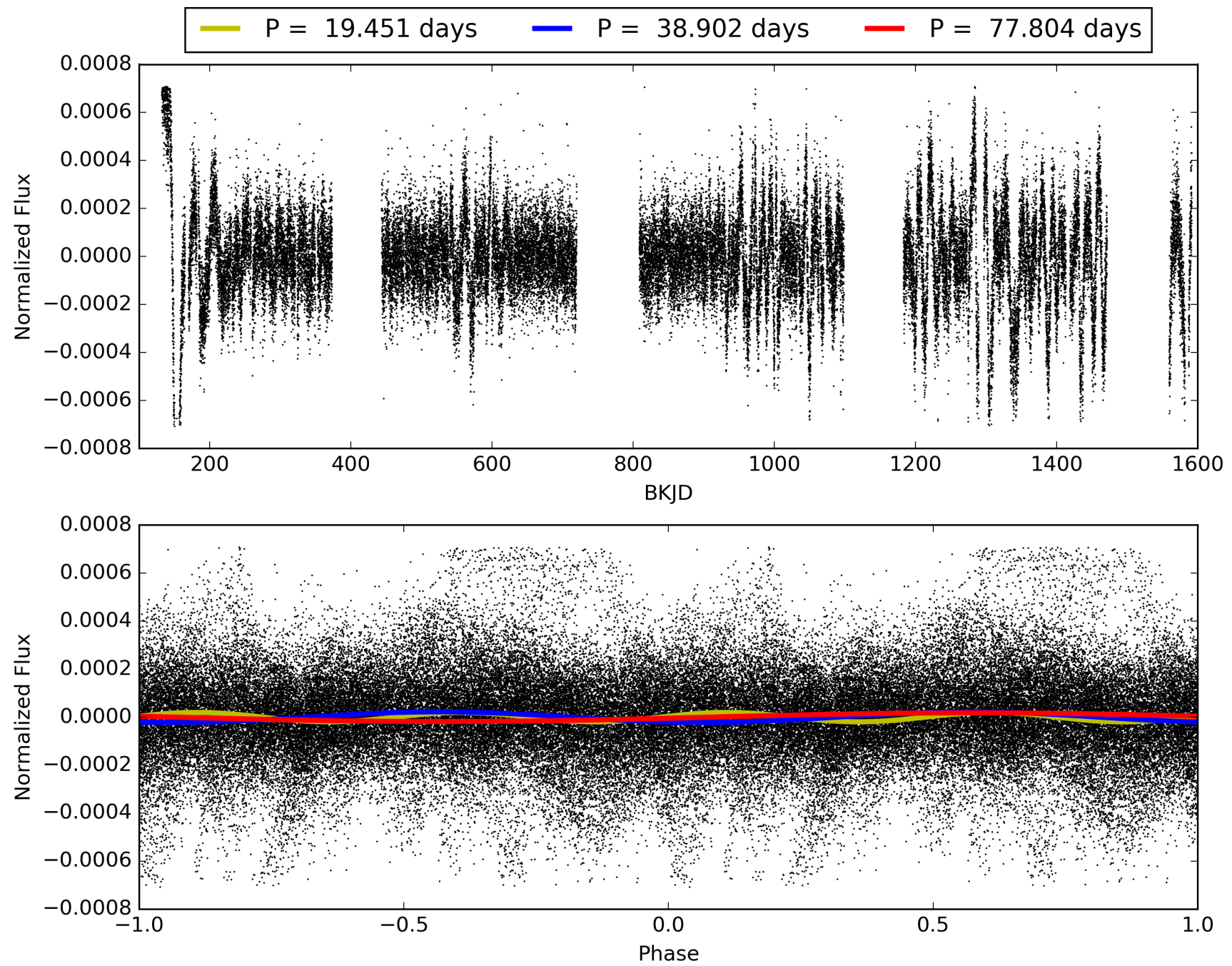
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:50 Z

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

TCE 011496366-06, PDC Light Curves

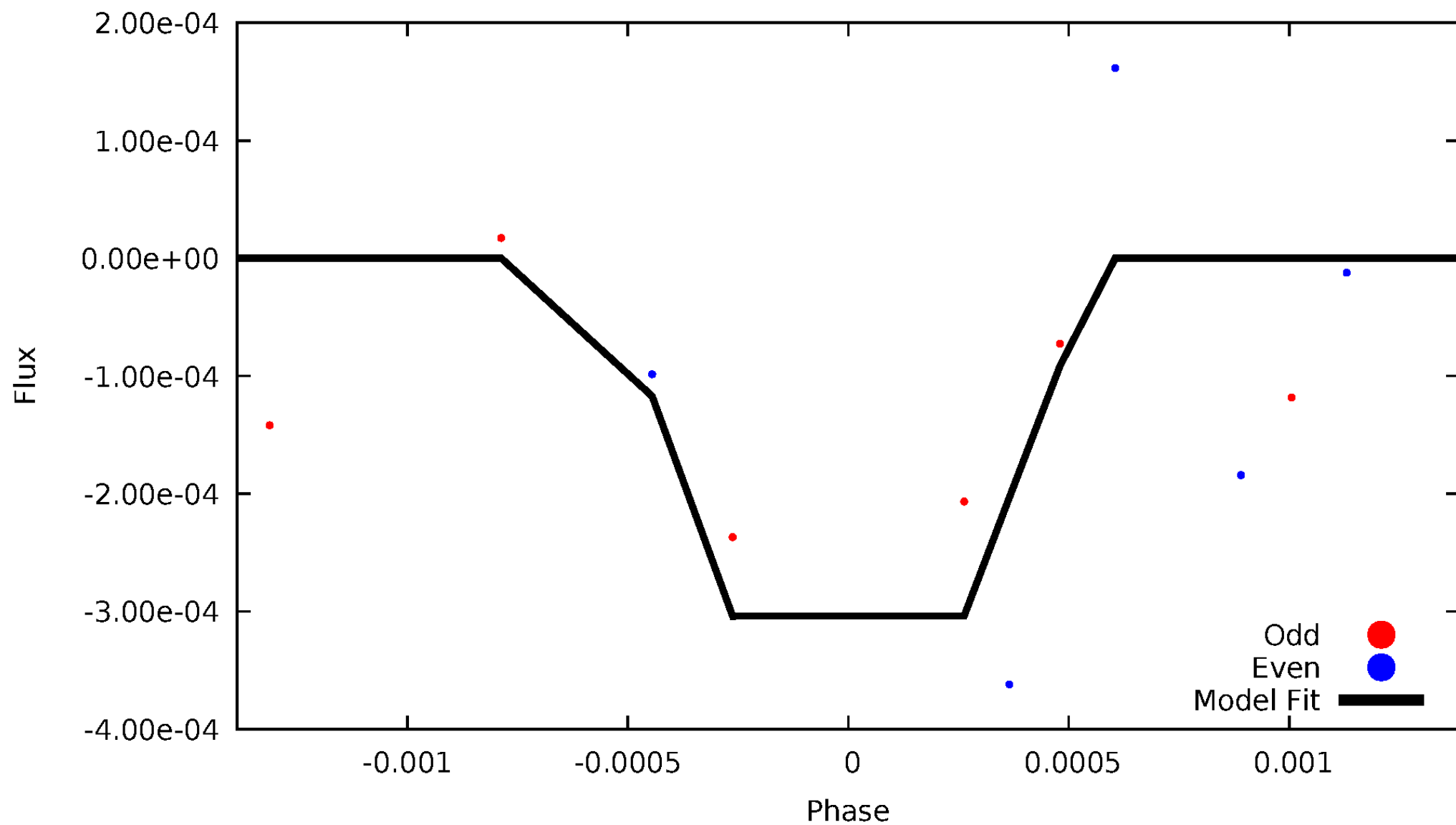


TCE 011496366-06



DV Odd/Even

TCE 011496366-06

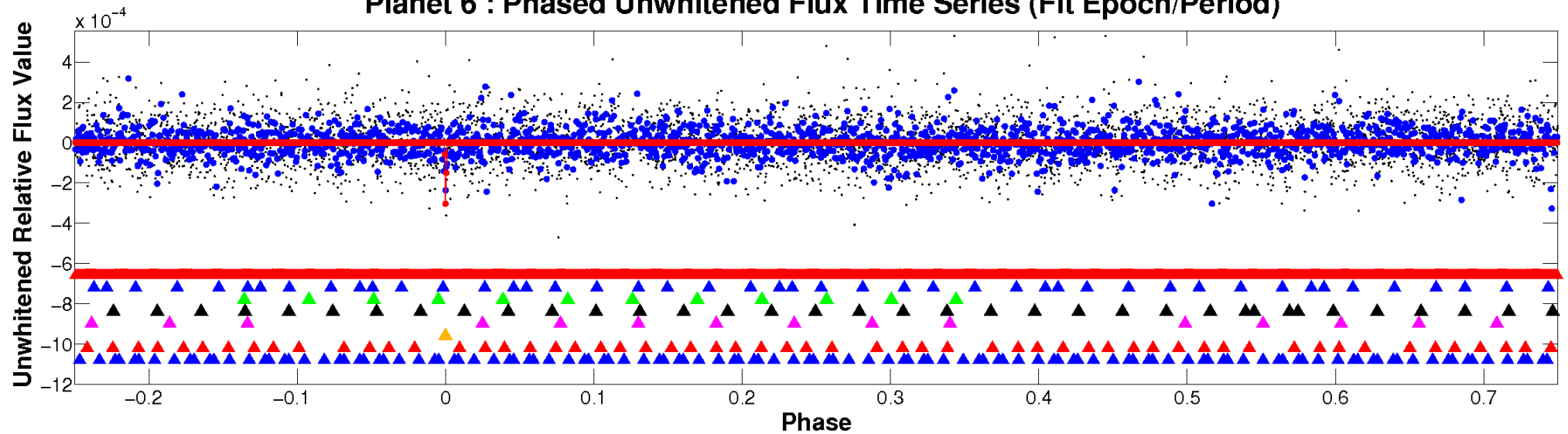


ALT Odd/Even

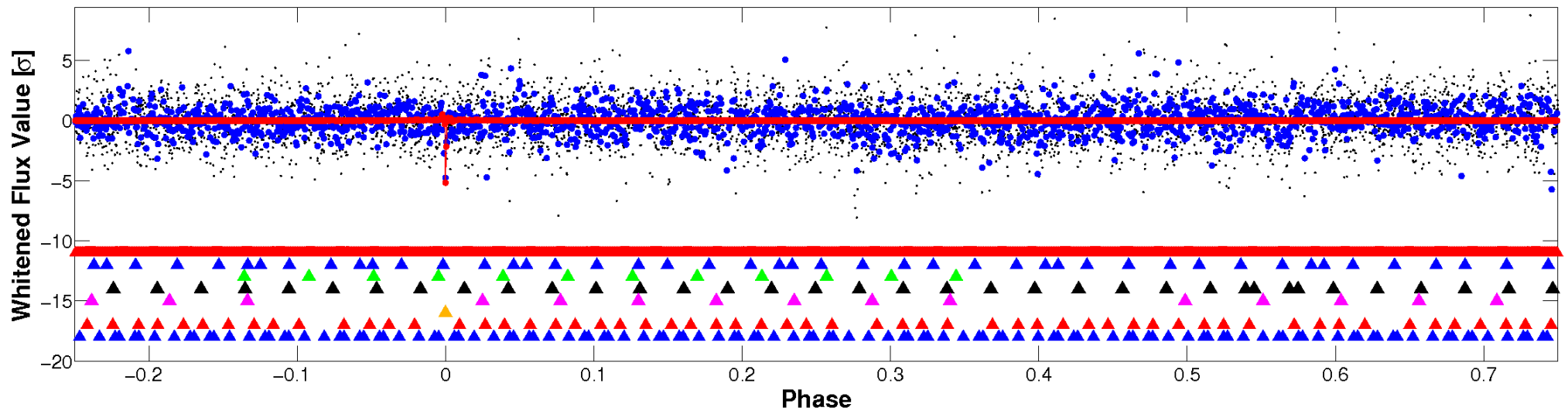
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

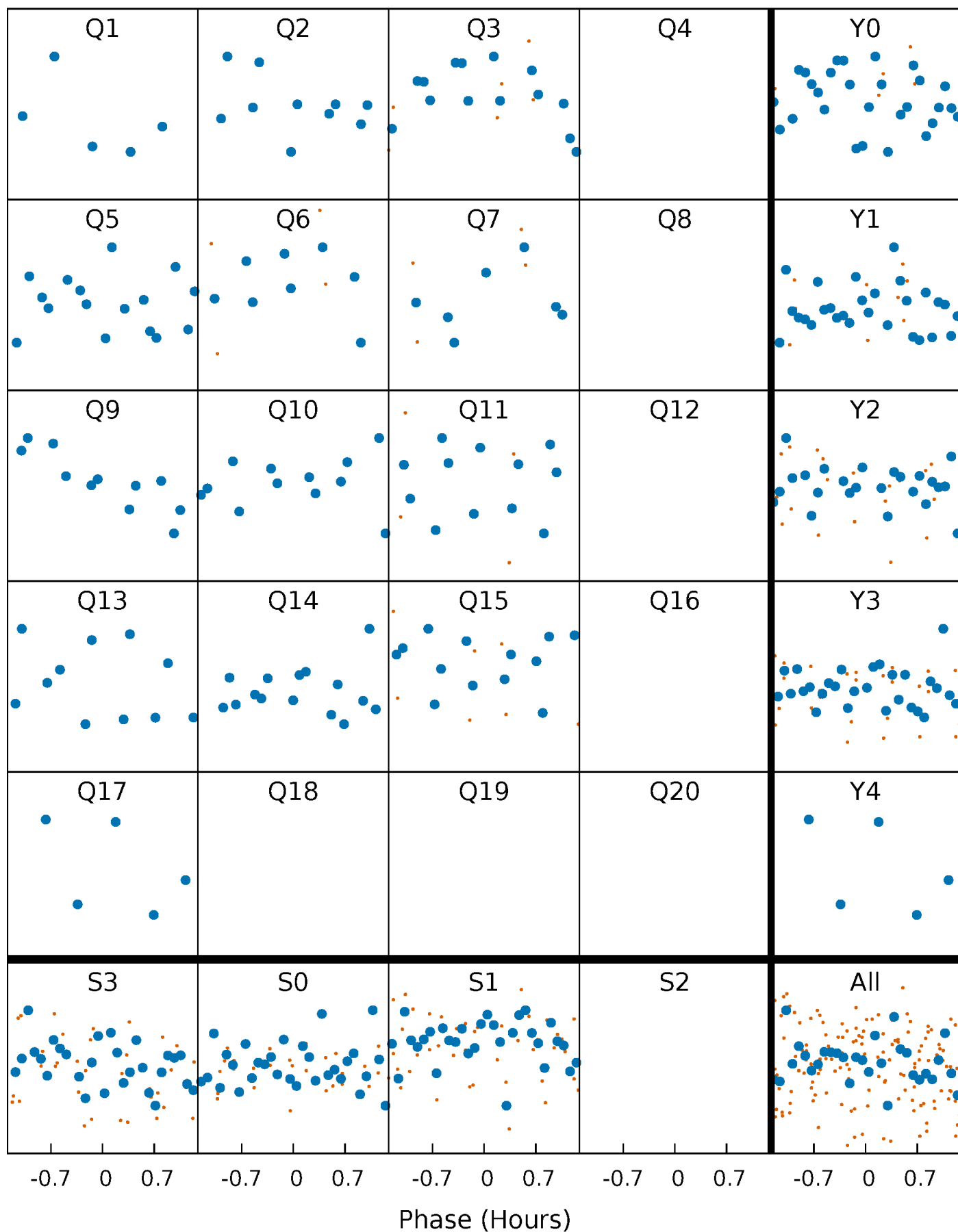


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



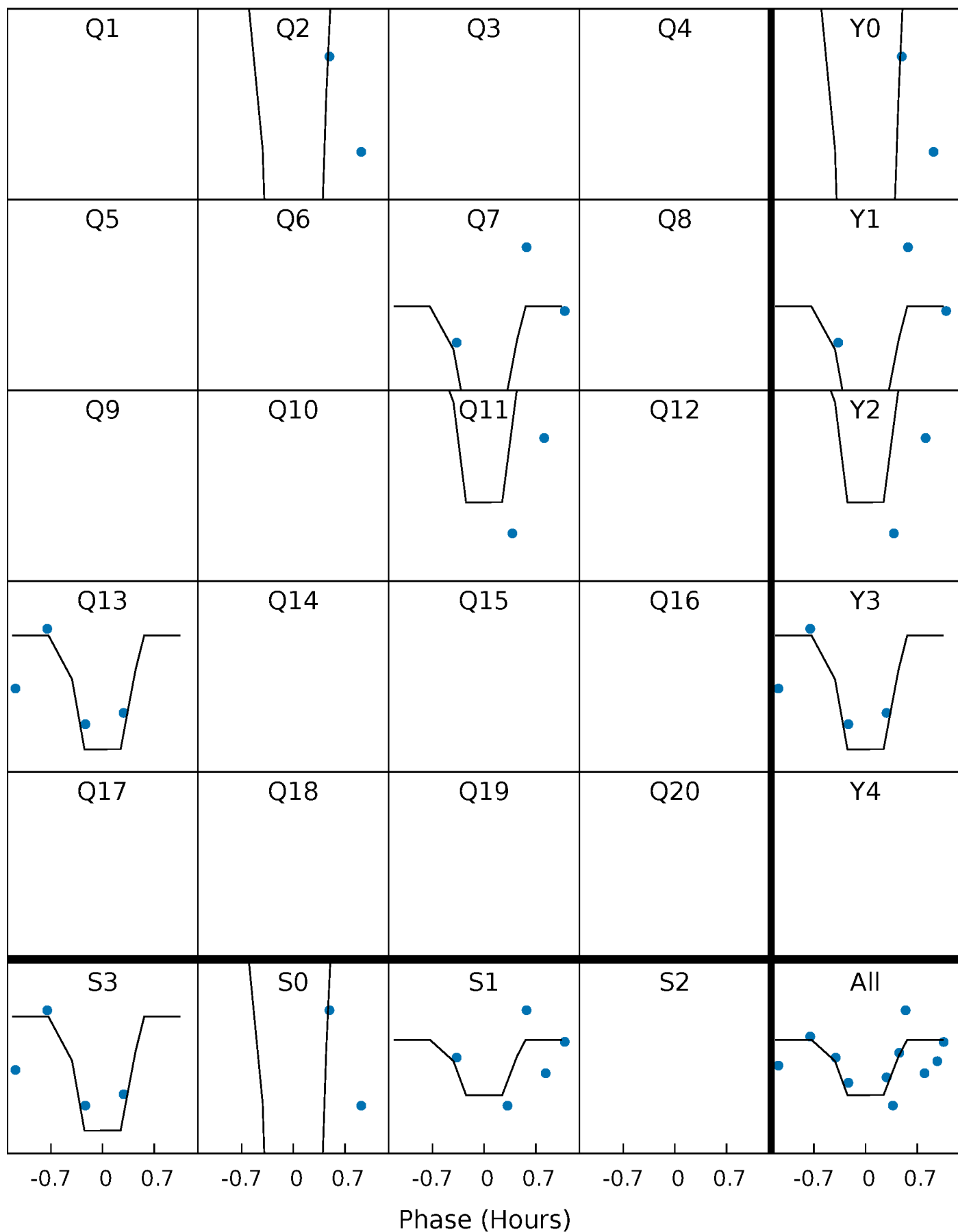
PDC Quarter-Phased Transit Curves

TCE 011496366-06 P= 38.901864 Days $T_0=148.397189$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011496366-06 P= 38.901864 Days $T_0=148.397189$ (BKJD)

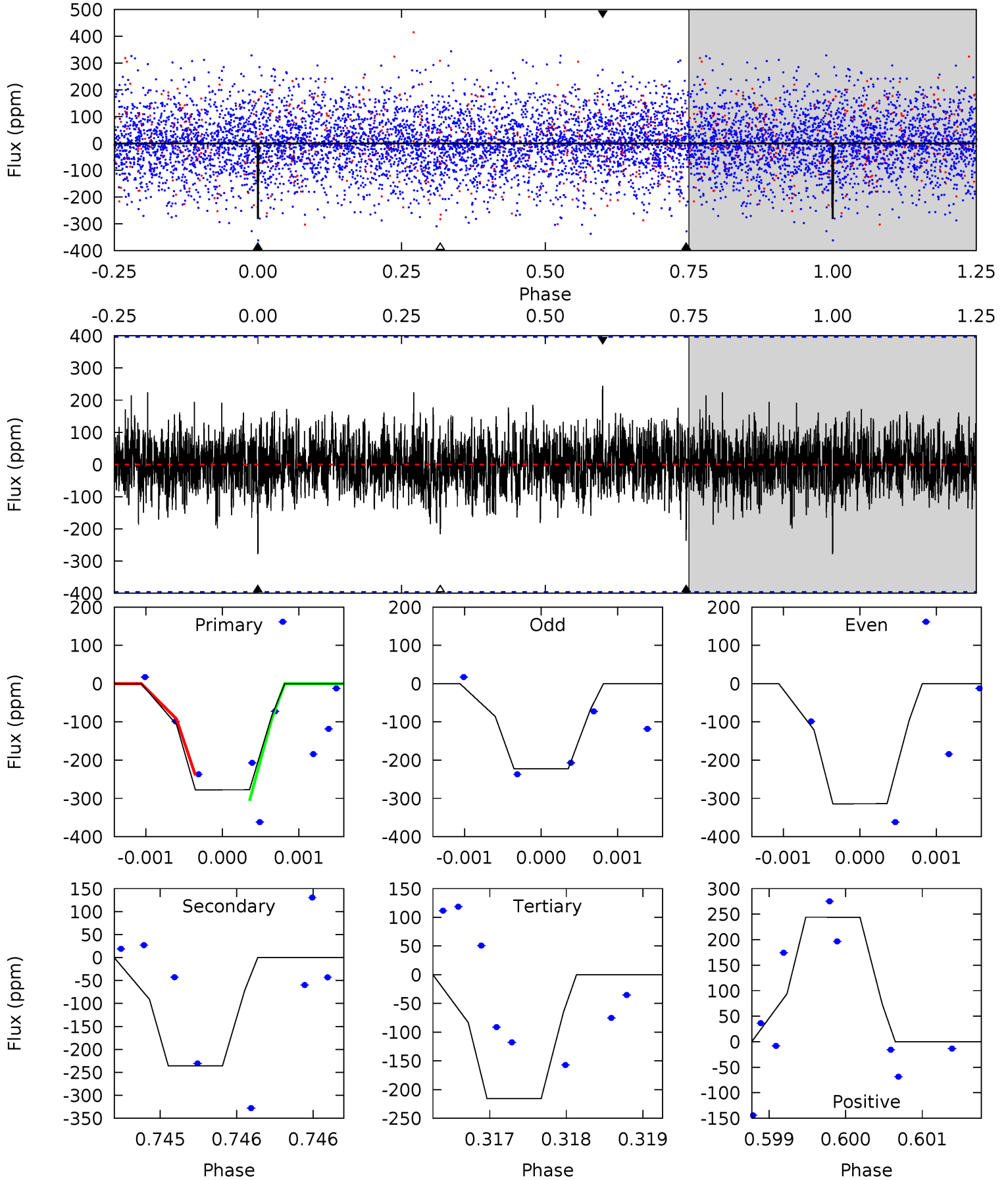


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011496366-06, P = 38.901864 Days, E = 109.495325 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.85	3.28	2.99	3.39	5.50	3.37	0.87	0.86	0.47	0.28	-0.11	0.64	1.00	0.47	0.00



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-236 ± 72	$34.97^{+37.11}_{-24.03}$	910^{+61}_{-79}	2381^{+962}_{-418}	$5.421^{+50.125}_{-4.318}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

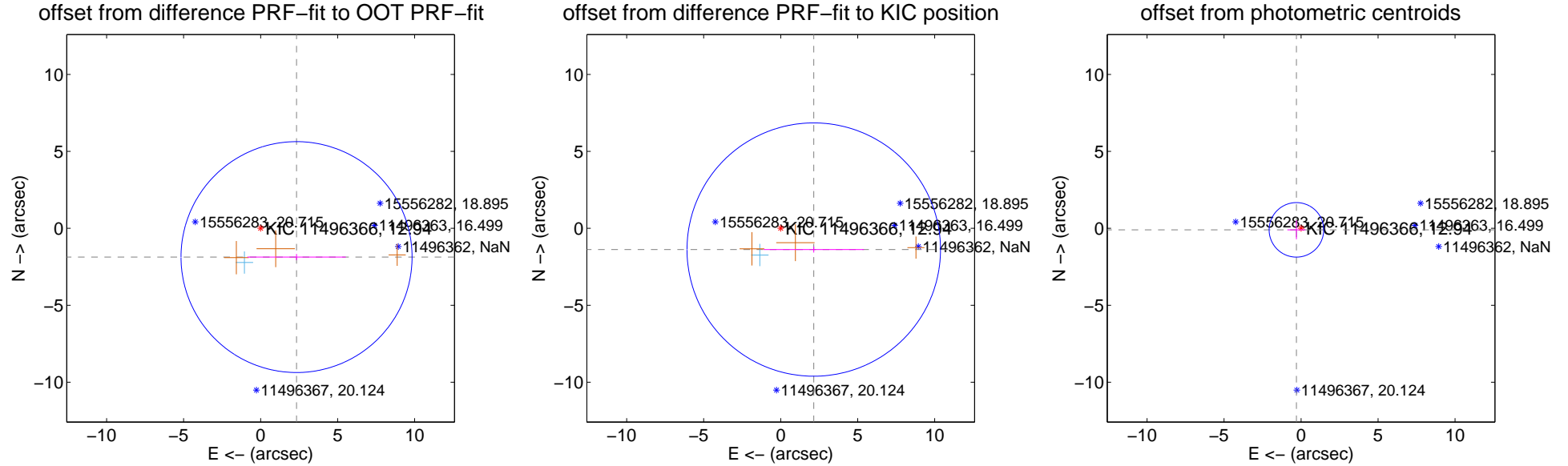
DV Centroid Data

Supplemental centroid analysis for 011496366-06. Kepler magnitude: 12.94. Transit SNR 7.69

There are 1 quarters with good PRF difference image offsets

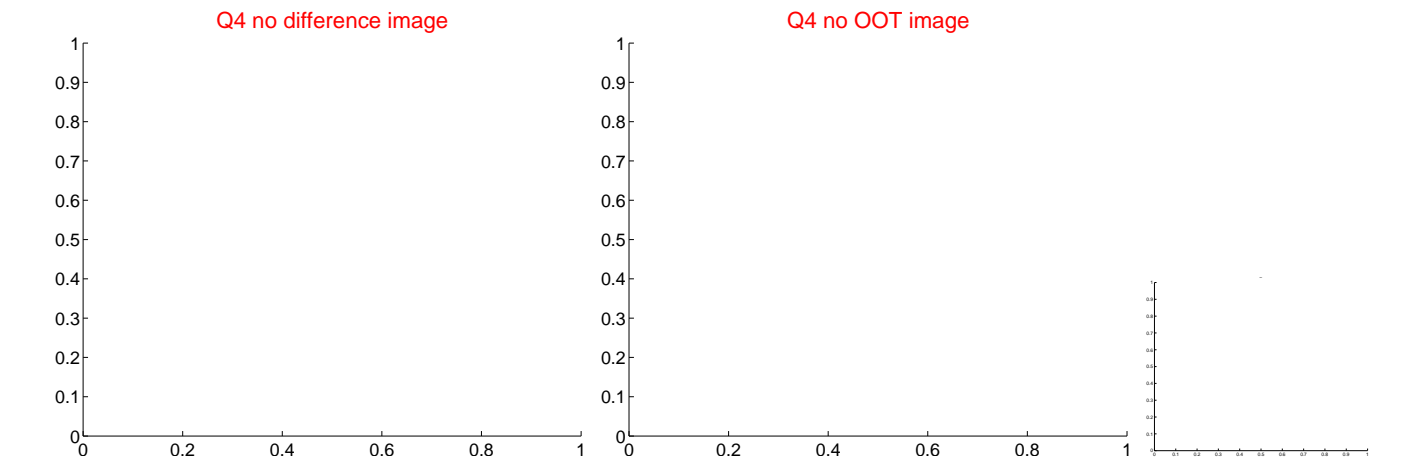
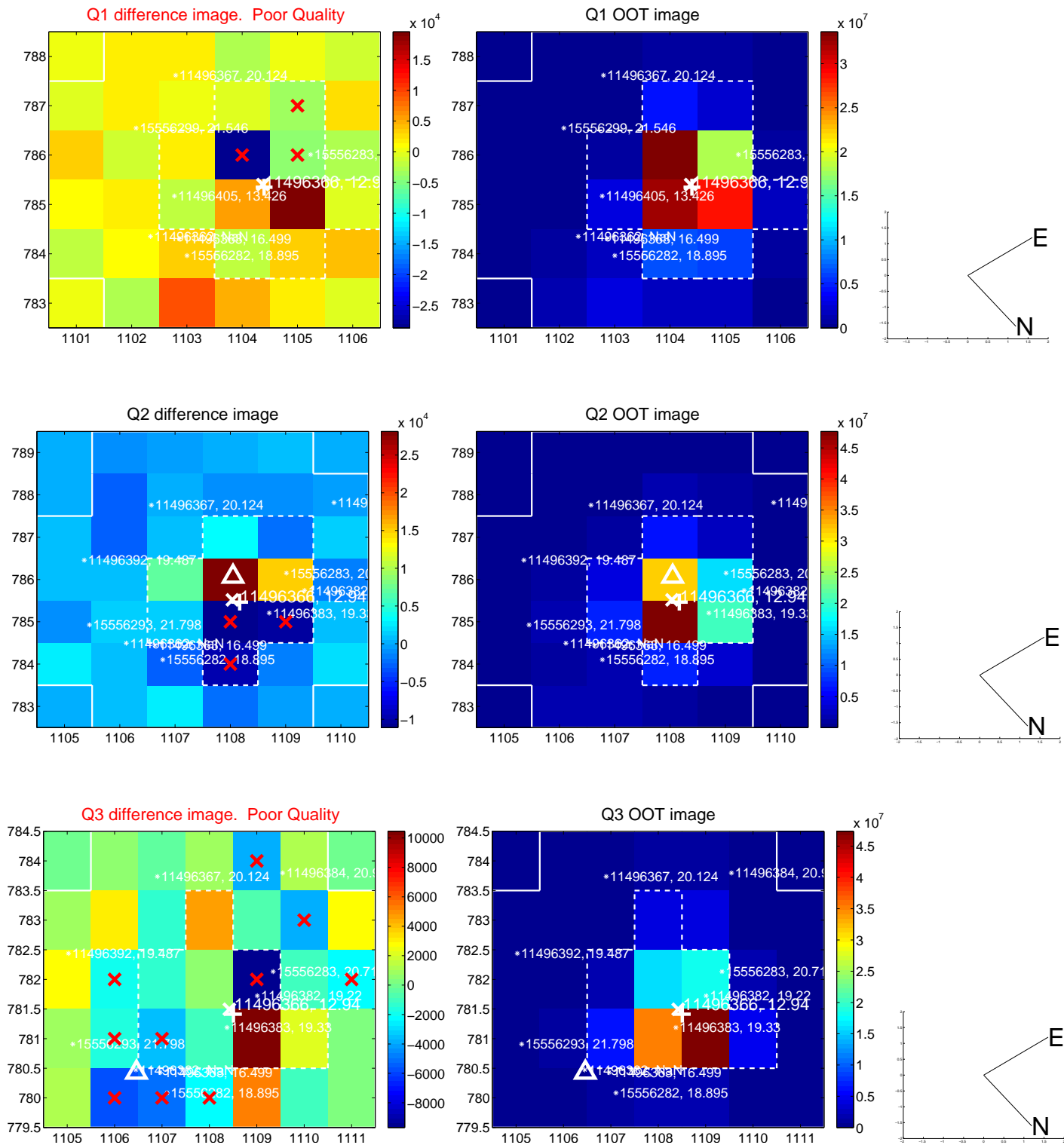
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.988 ± 2.500	1.20	-2.332 ± 3.199	-1.868 ± 0.204
PRF-fit source offset from KIC position	2.552 ± 2.743	0.93	-2.147 ± 3.258	-1.379 ± 0.194
photometric centroid source offset	0.32 ± 0.59	0.54	0.30 ± 0.59	-0.10 ± 0.61

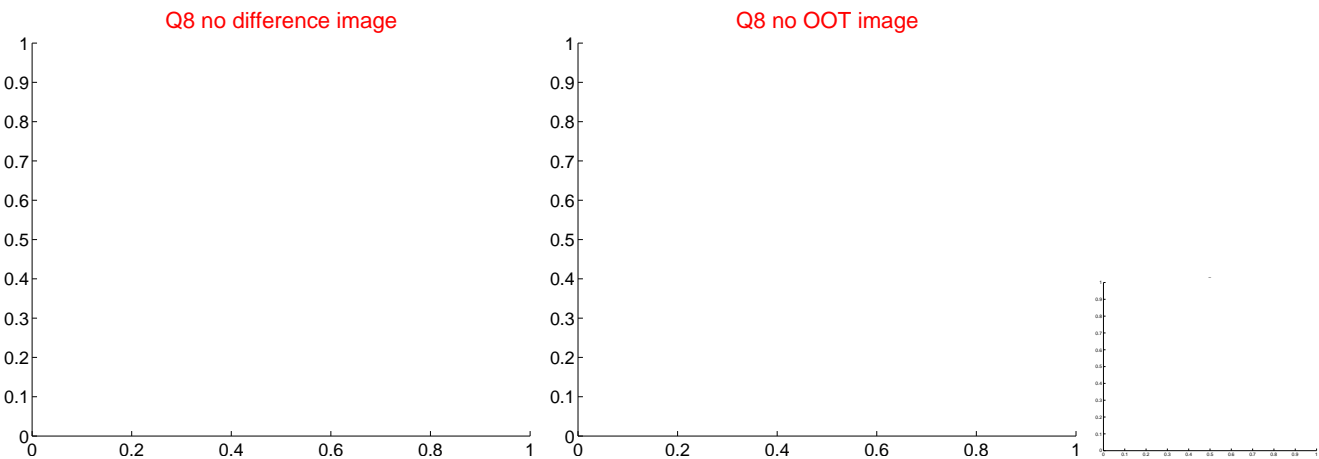
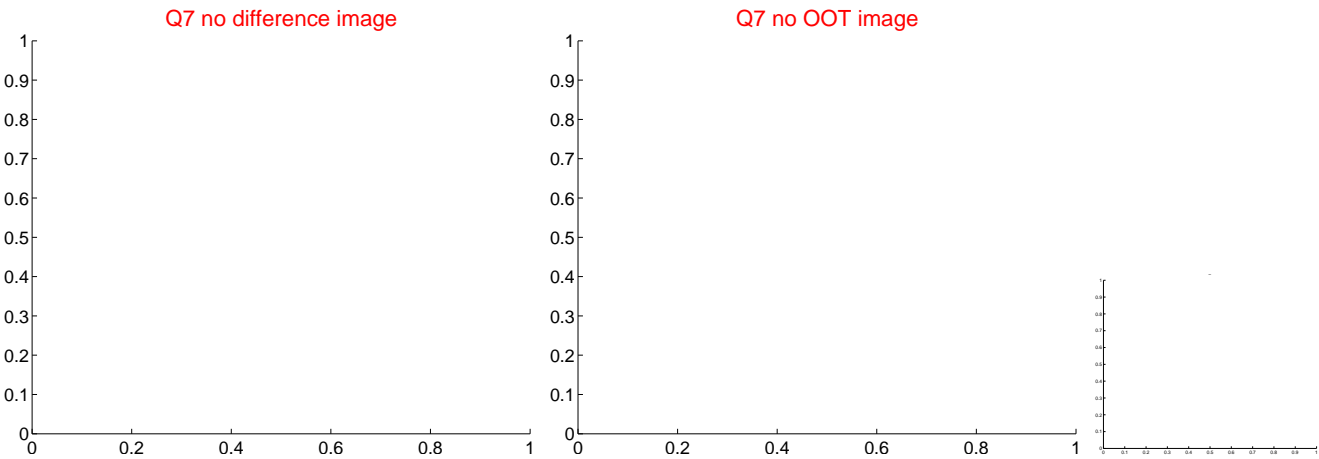
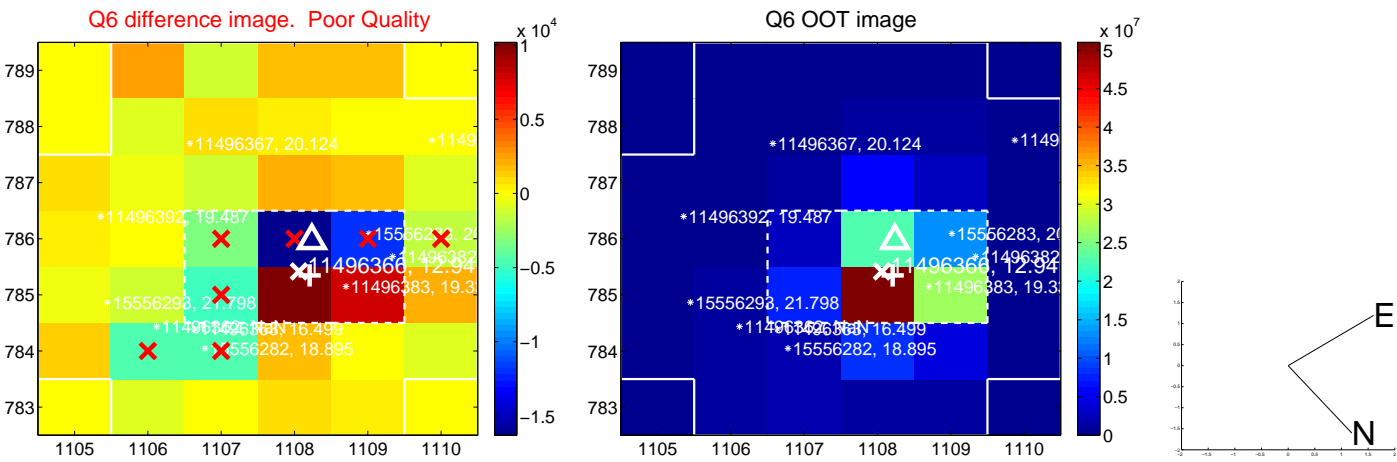
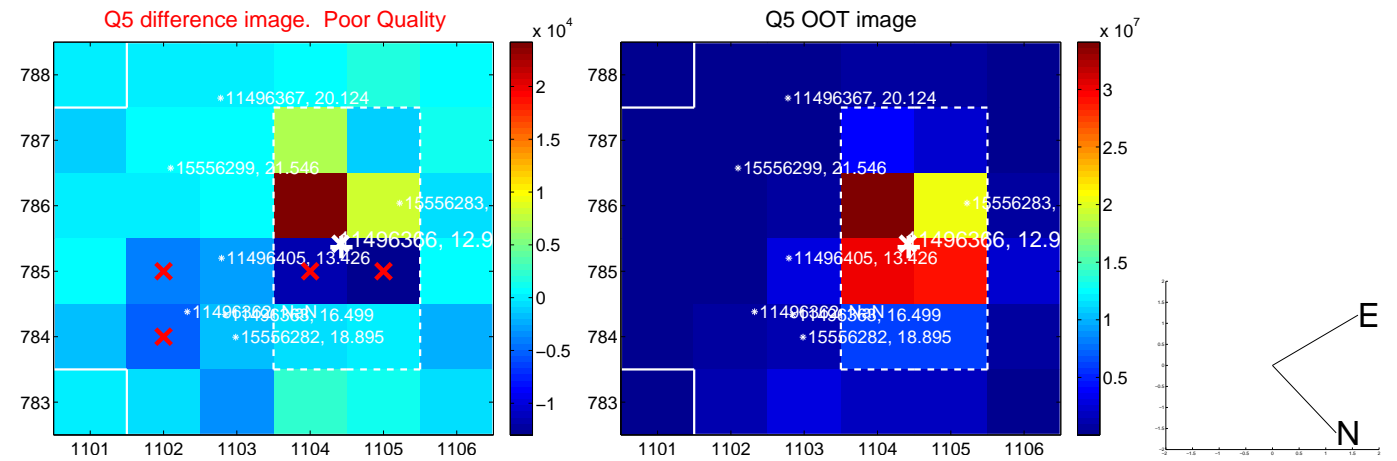


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

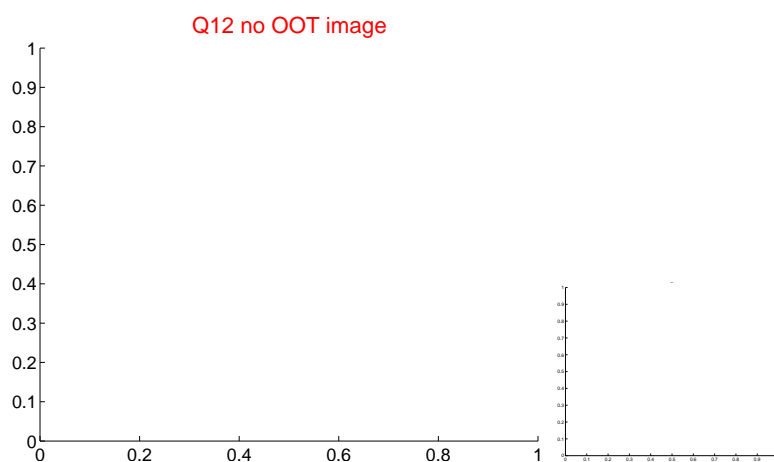
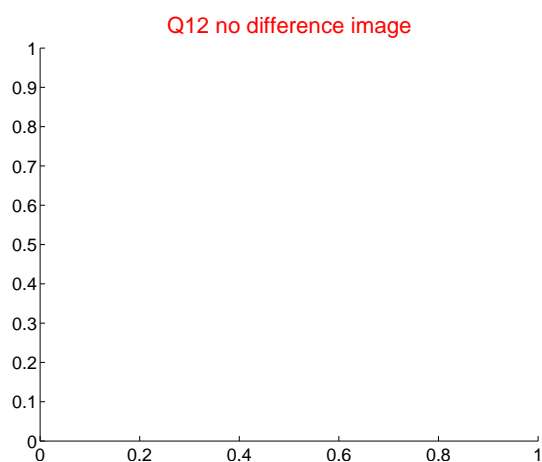
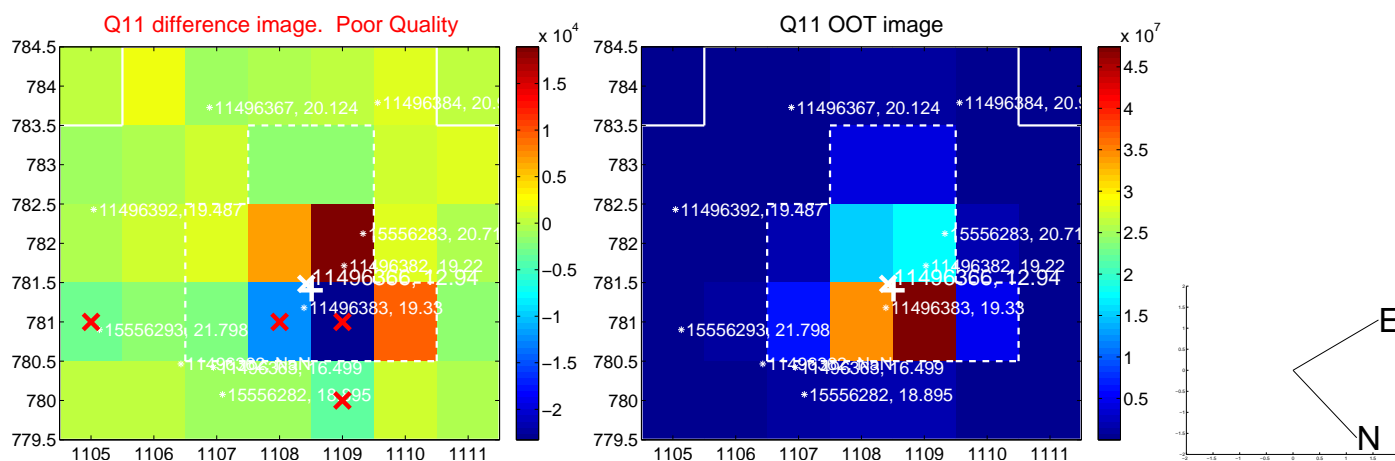
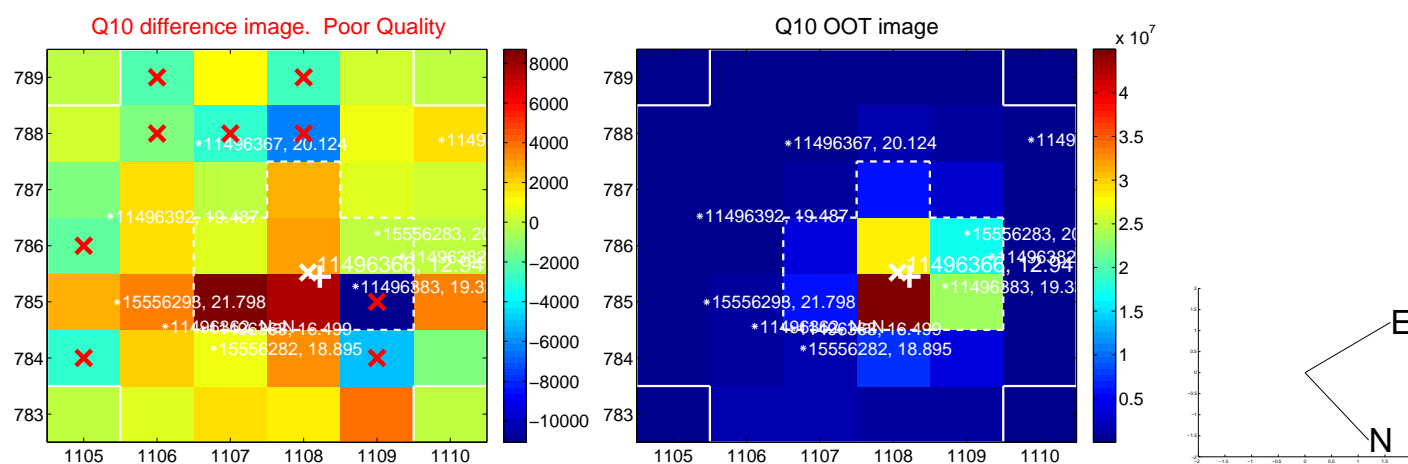
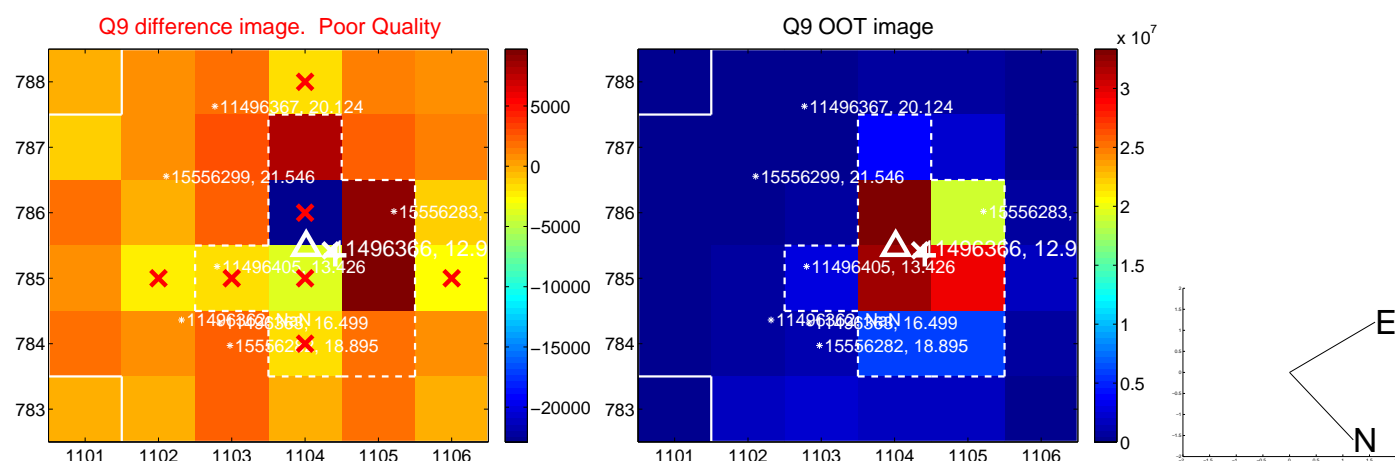
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



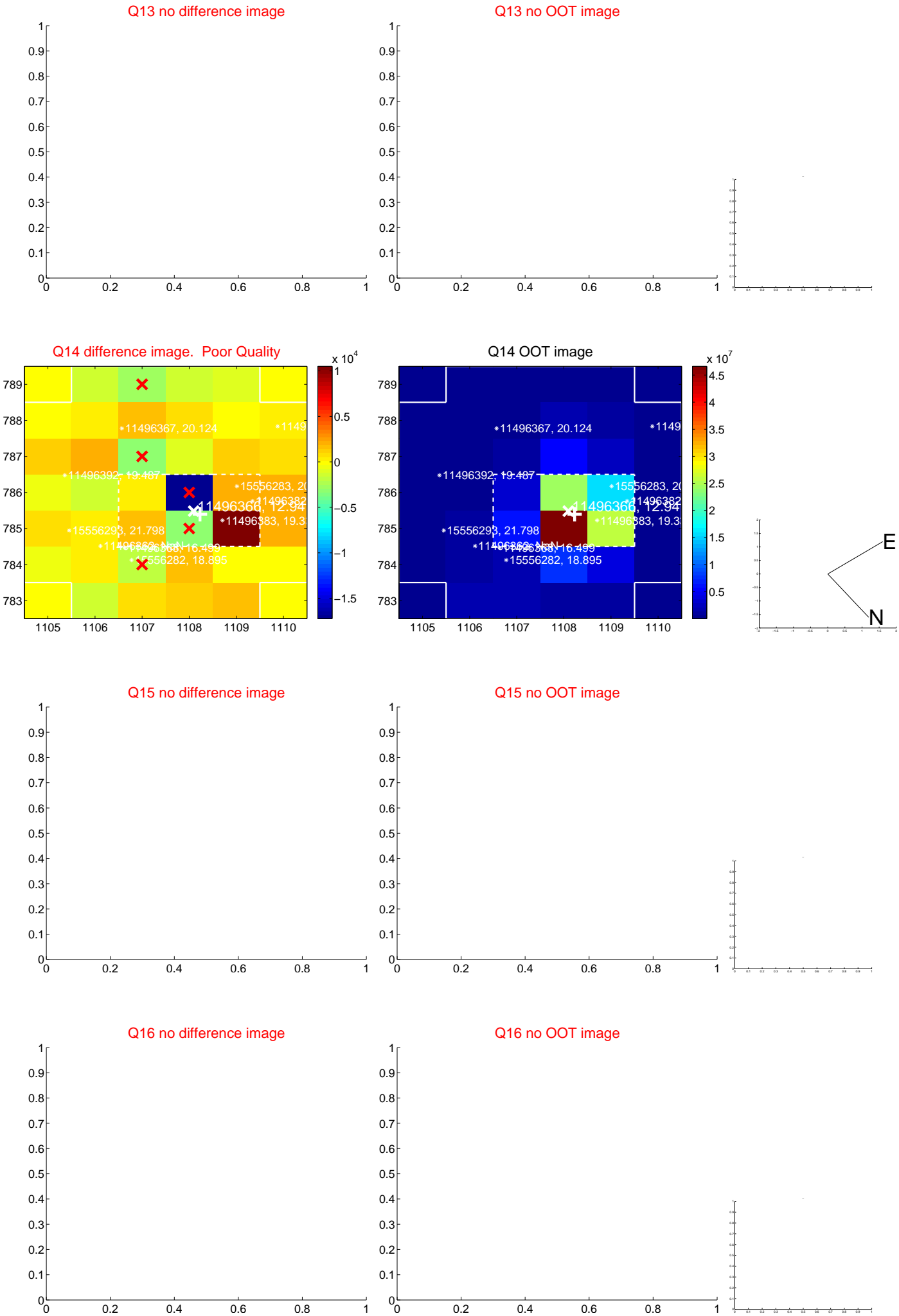
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



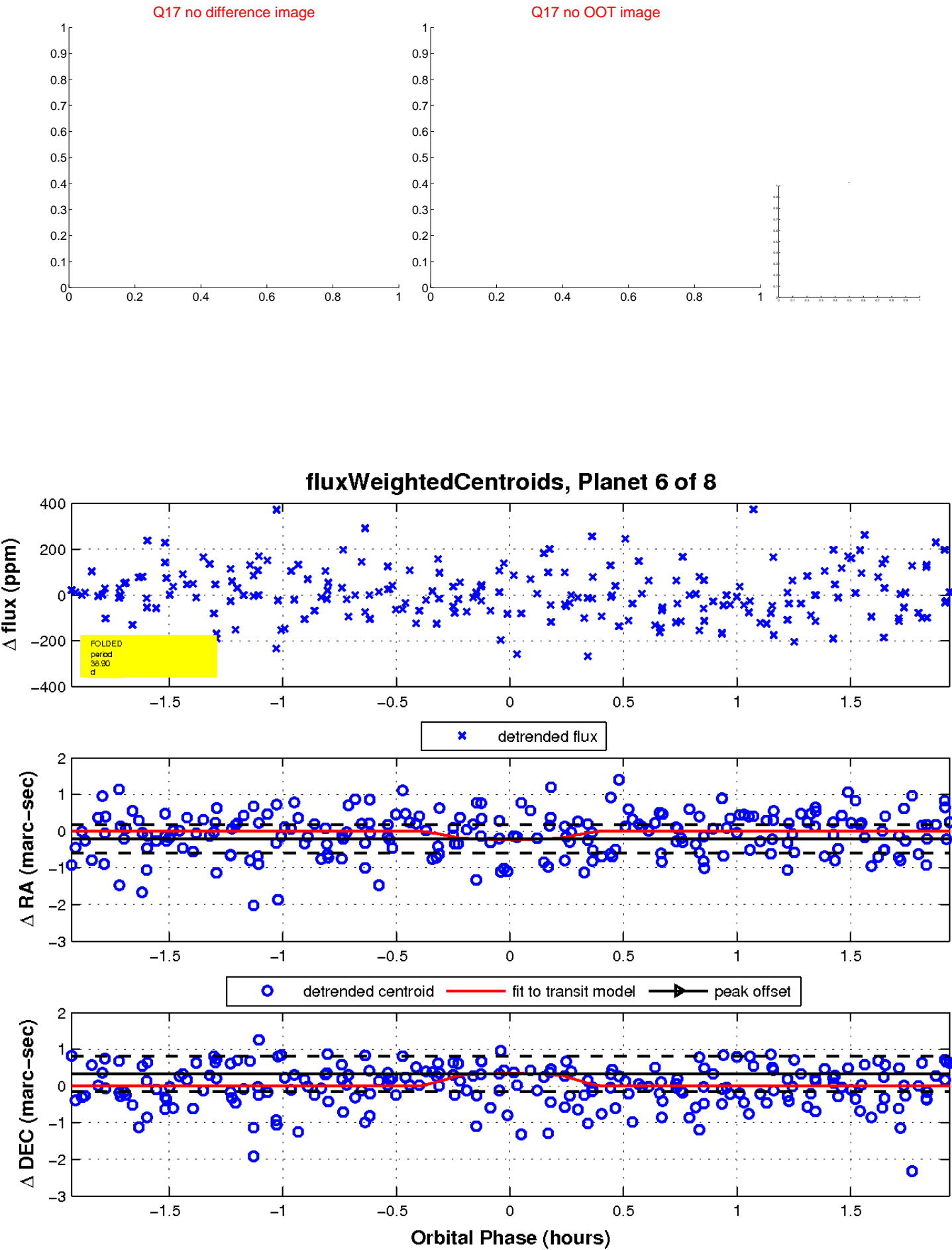
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



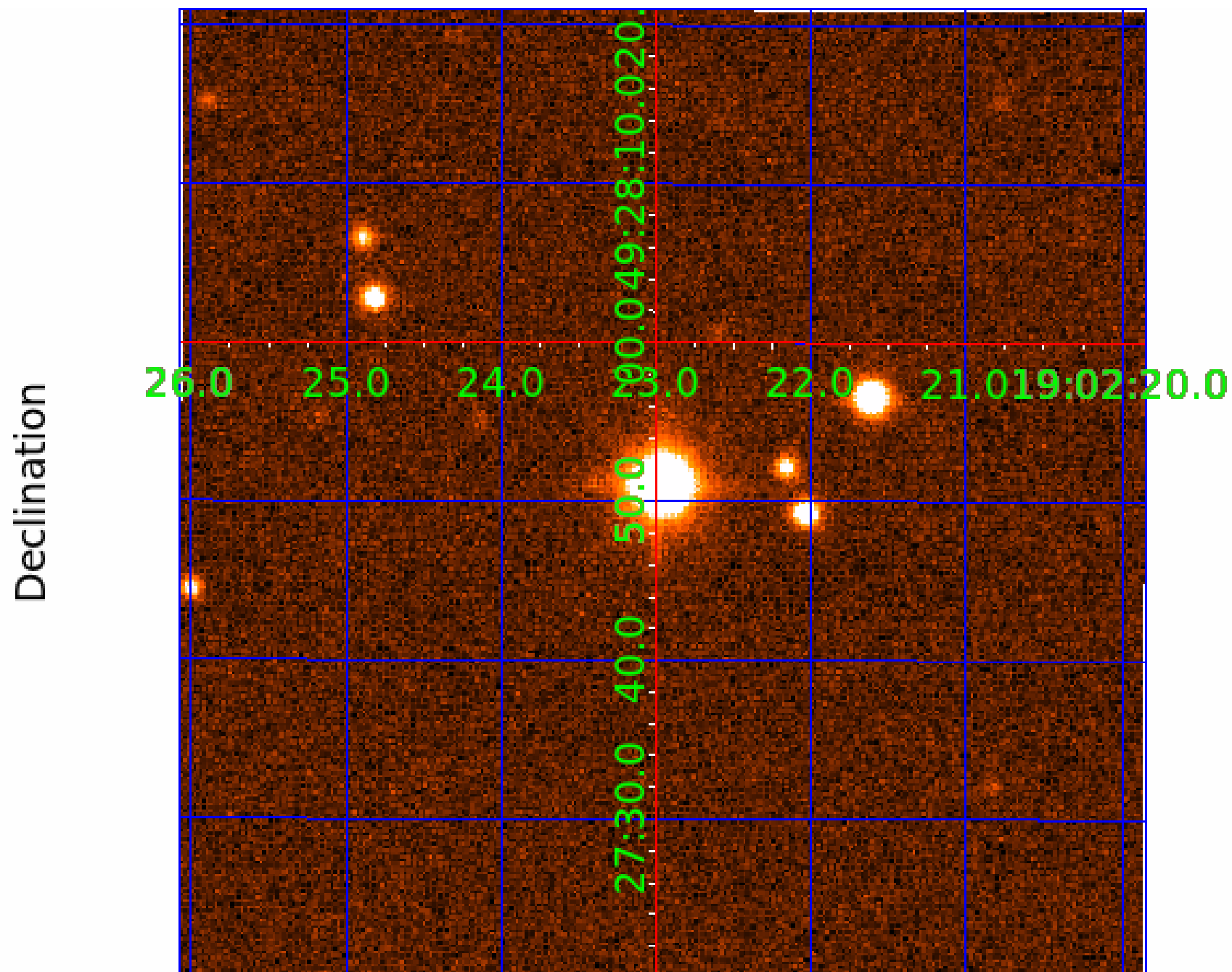
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

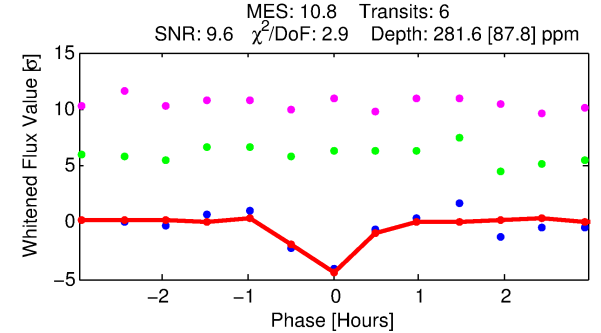
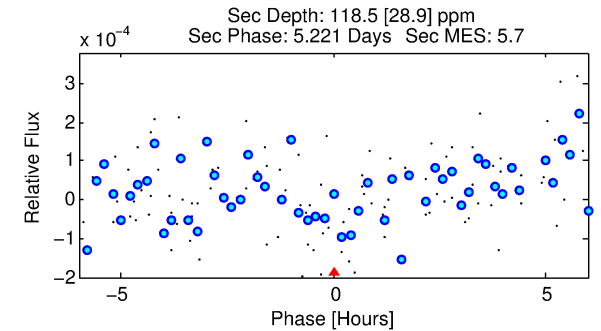
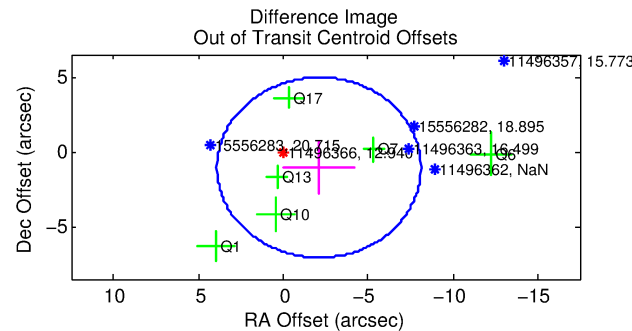
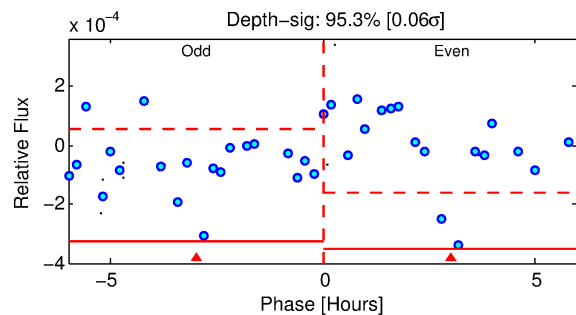
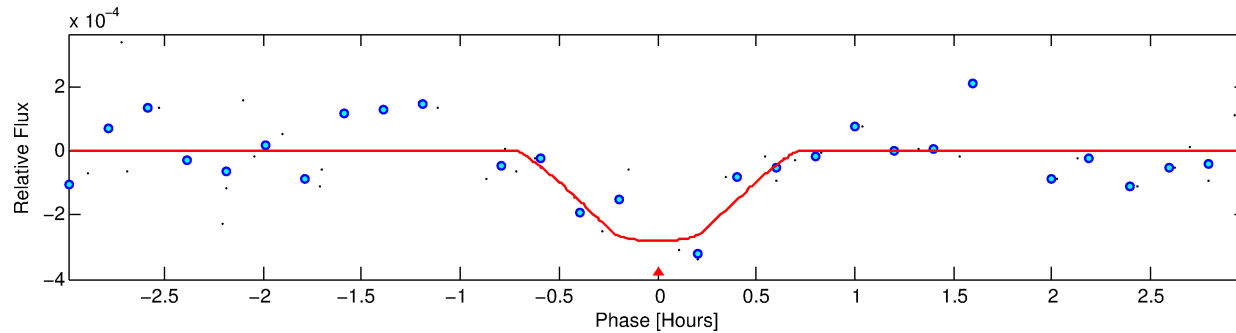
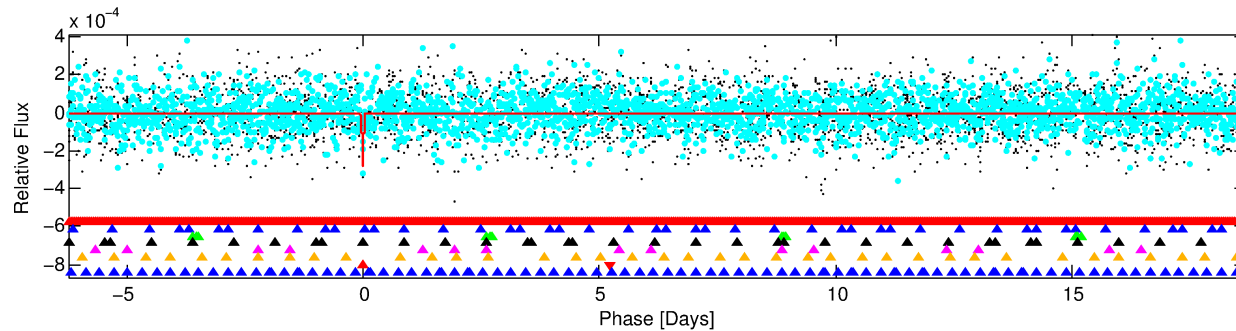
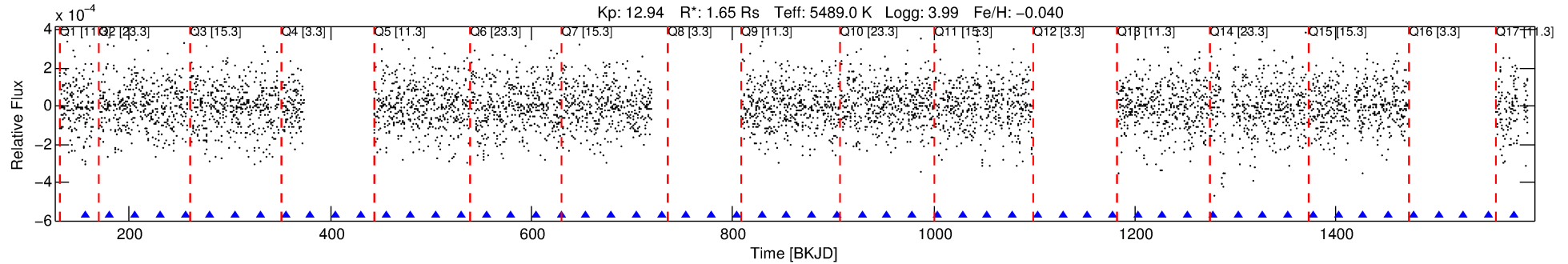
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-07

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 7 of 8 Period: 24.924 d



DV Fit Results:

Period = 24.92412 [0.00015] d
Epoch = 156.0082 [0.0046] BKJD
Rp/R* = 0.0181 [0.0327]
a/R* = 101.86 [752.32]
b = 0.87 [2.20]
Seff = 80.79 [44.46]
Teq = 764 [105] K
Rp = 3.25 [5.97] Re
a = 0.1654 [0.0538] AU
Ag = 168.63 [617.36] [0.27 σ]
Teffp = 4259 [3860] K [0.90 σ]

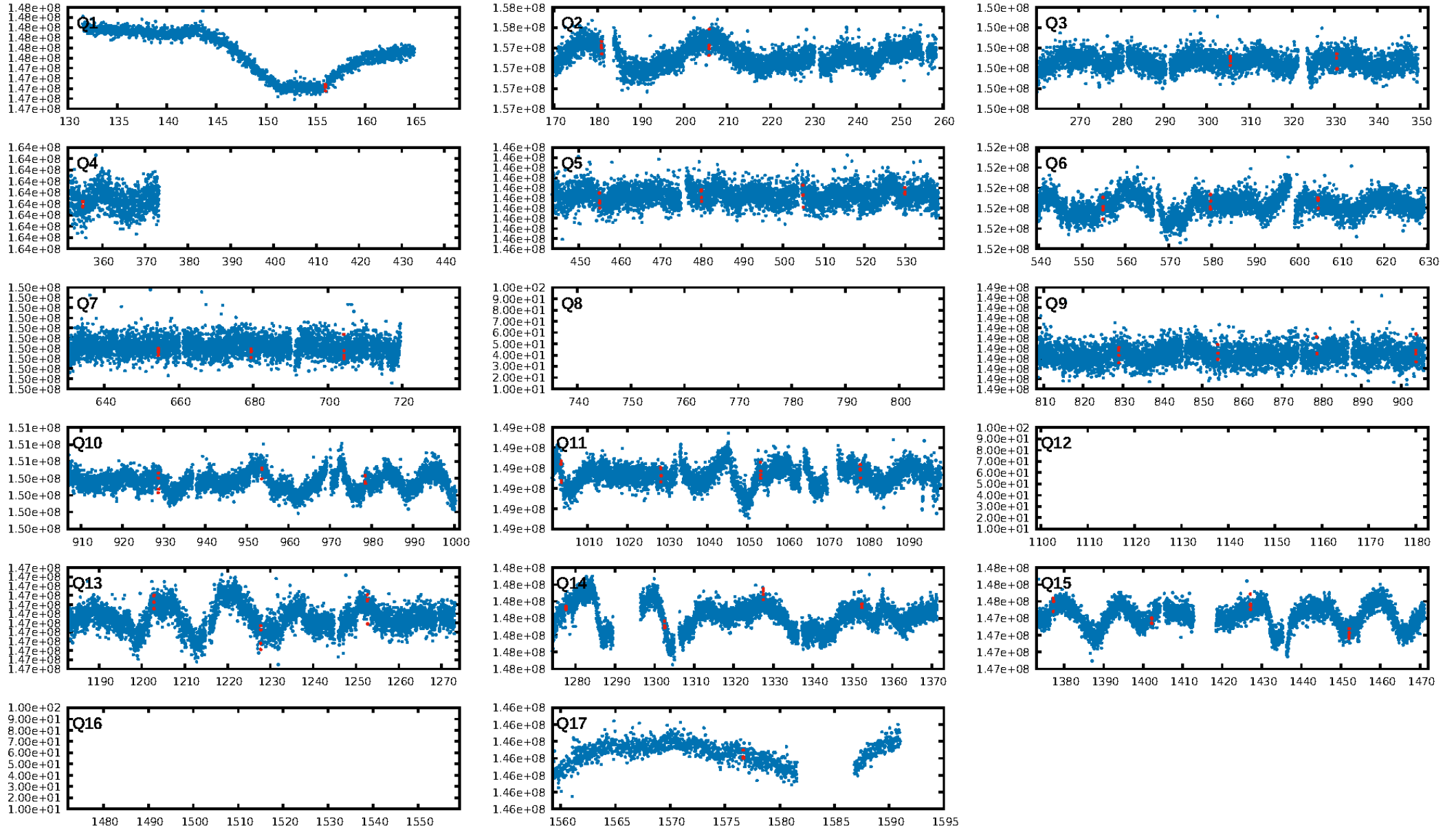
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [155.72 σ]
LongPeriod-sig: 100.0% [73.81 σ]
ModelChiSquare2-sig: 1.8%
ModelChiSquareGof-sig: 76.6%
Bootstrap-pfa: 4.73e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.2861
Centroid-sig: 43.3%
Centroid-so: 1.052 arcsec [1.40 σ]
OotOffset-rm: 2.365 arcsec [1.18 σ]
OotOffset-st: 2/1/0/3 [6]
KicOffset-rm: 2.131 arcsec [1.00 σ]
KicOffset-st: 2/1/0/3 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 0.23 [3/13]

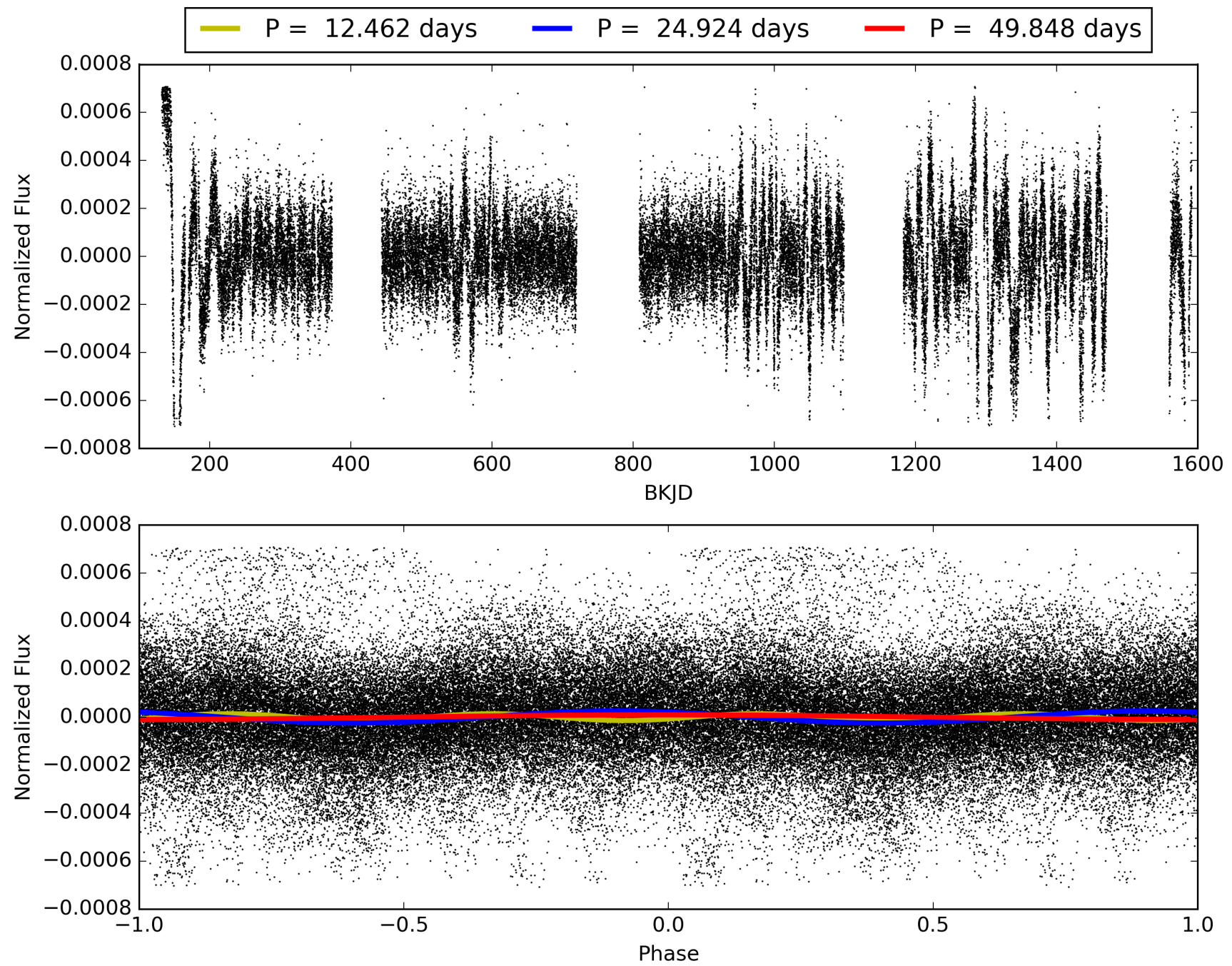
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:54 Z

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

TCE 011496366-07, PDC Light Curves

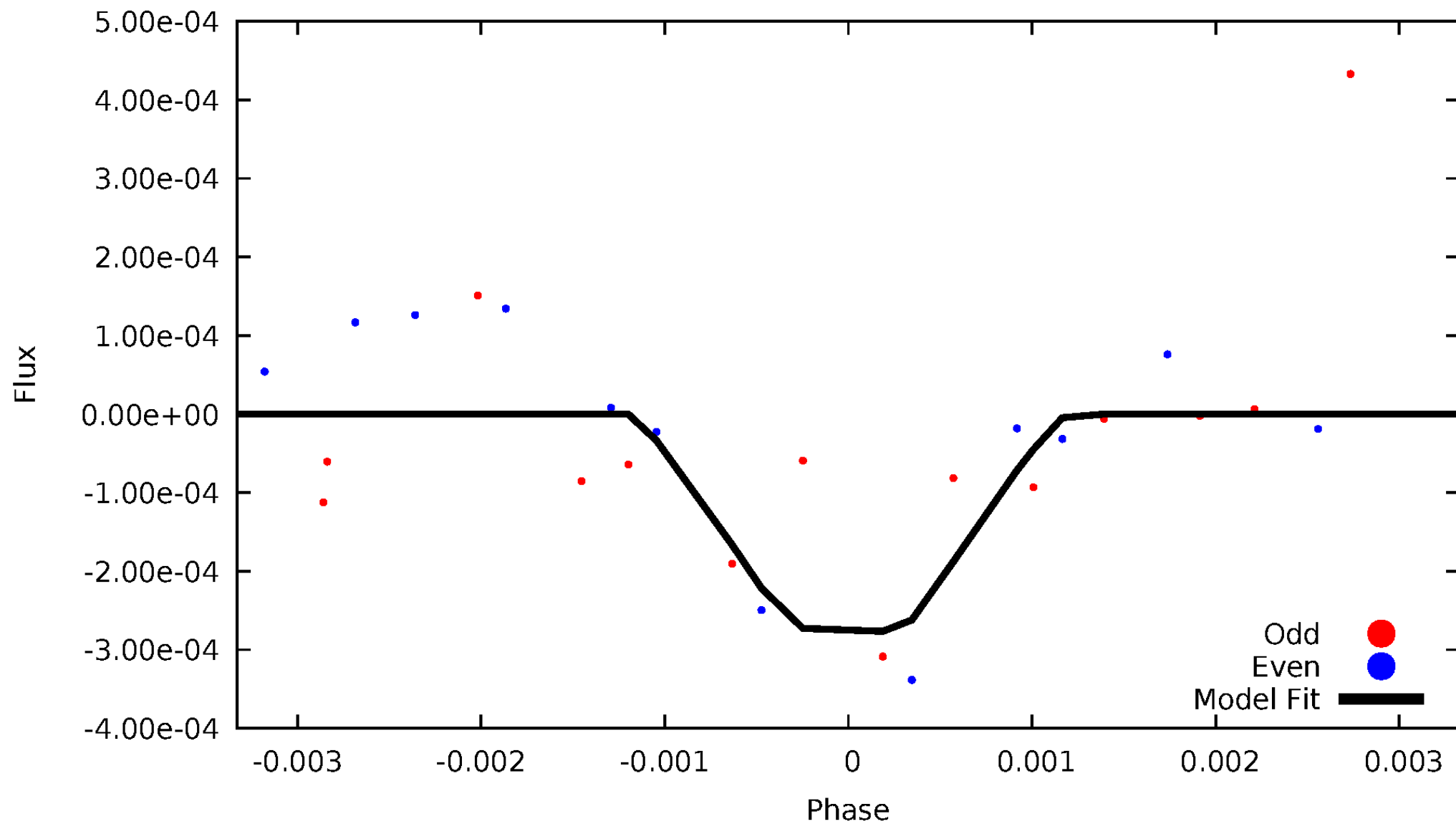


TCE 011496366-07



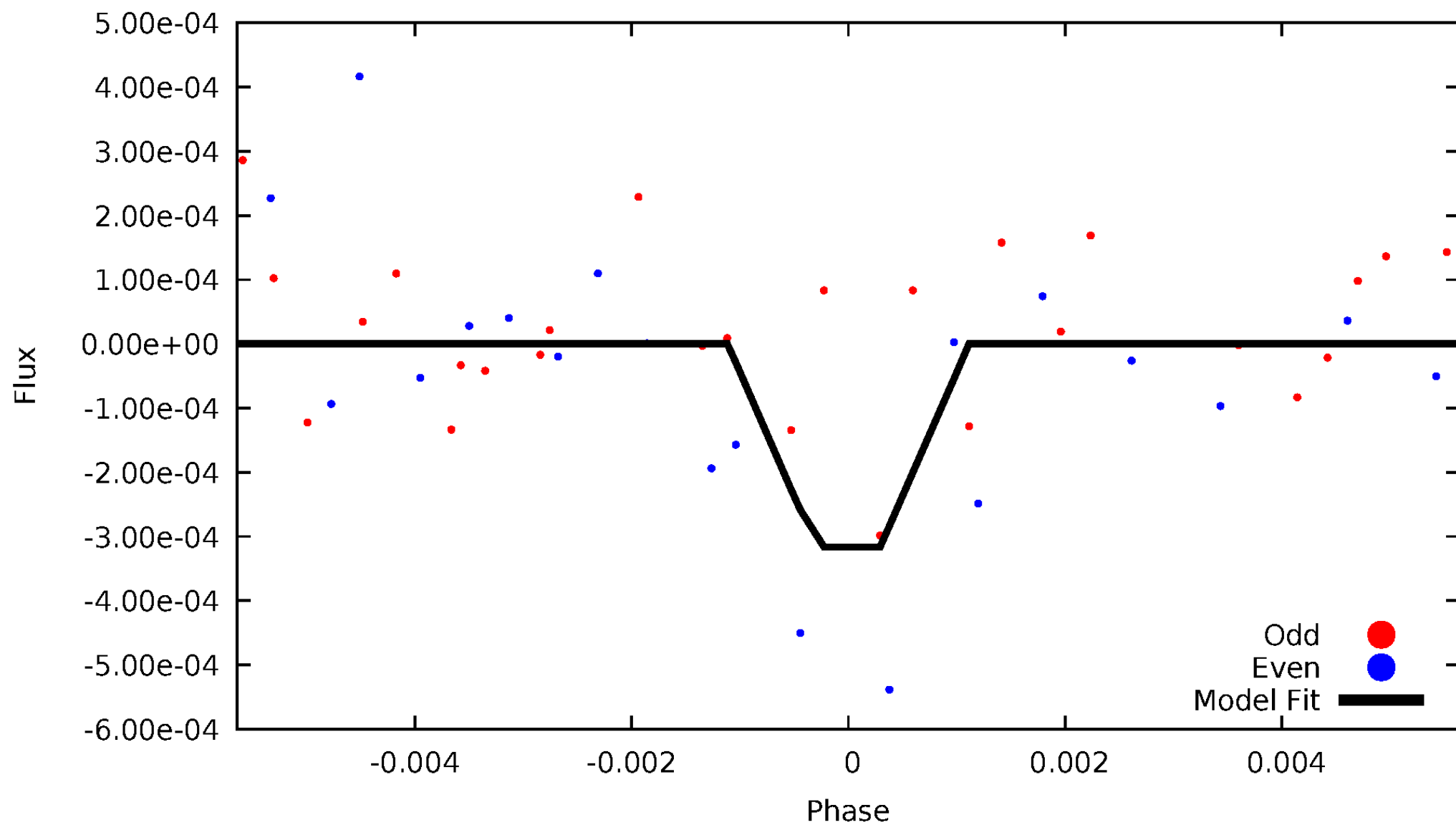
DV Odd/Even

TCE 011496366-07



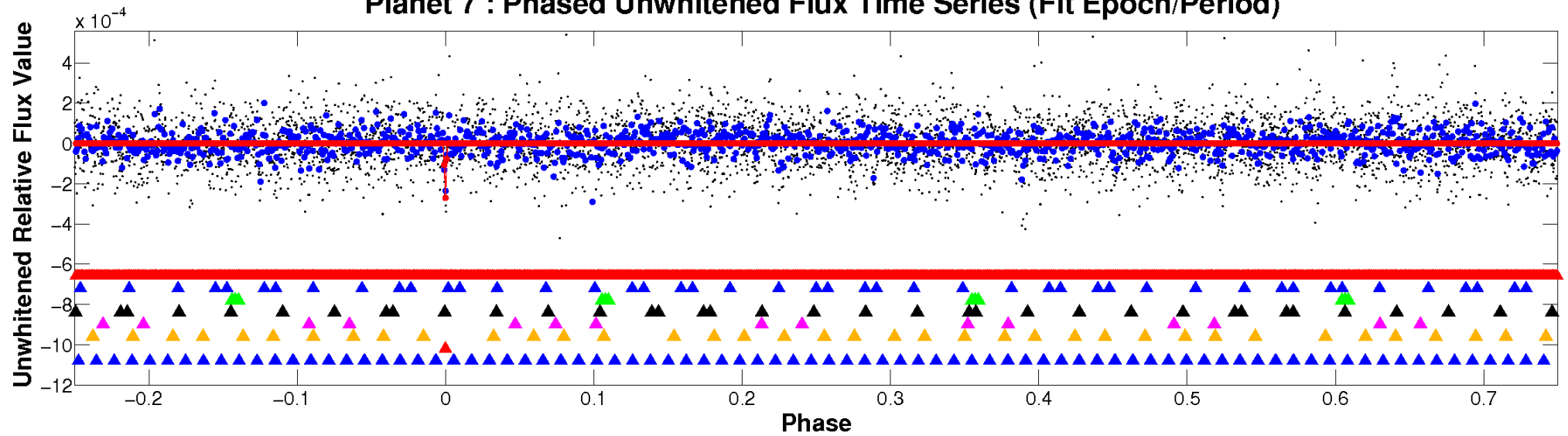
ALT Odd/Even

TCE 011496366-07

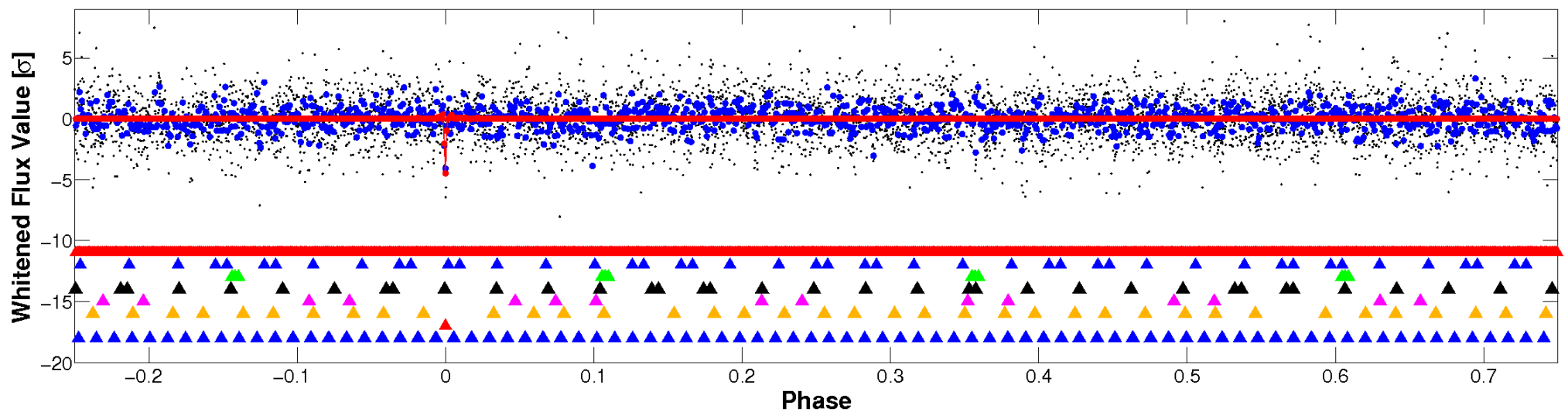


Non-Whitened Vs. Whitened Light Curve

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

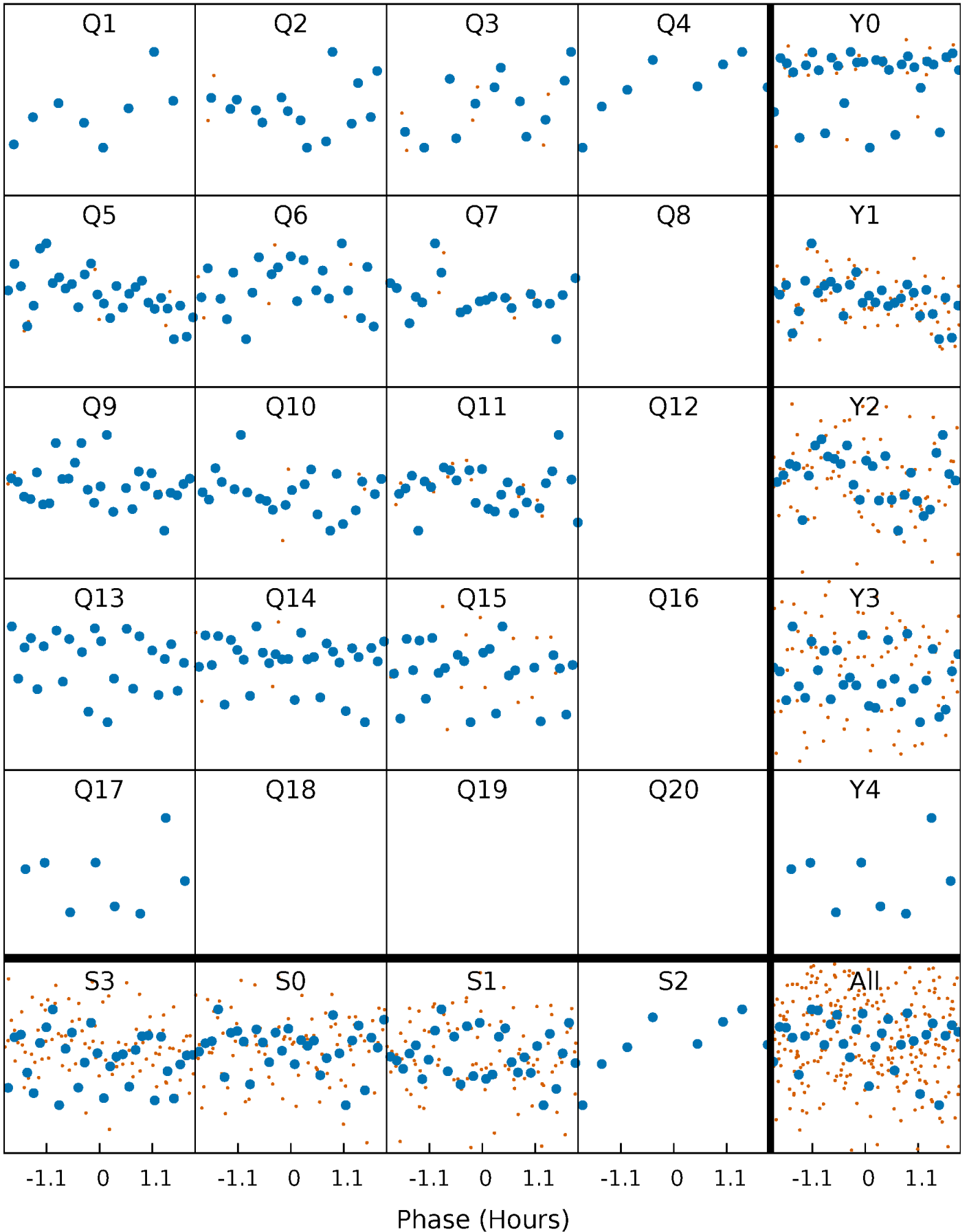


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



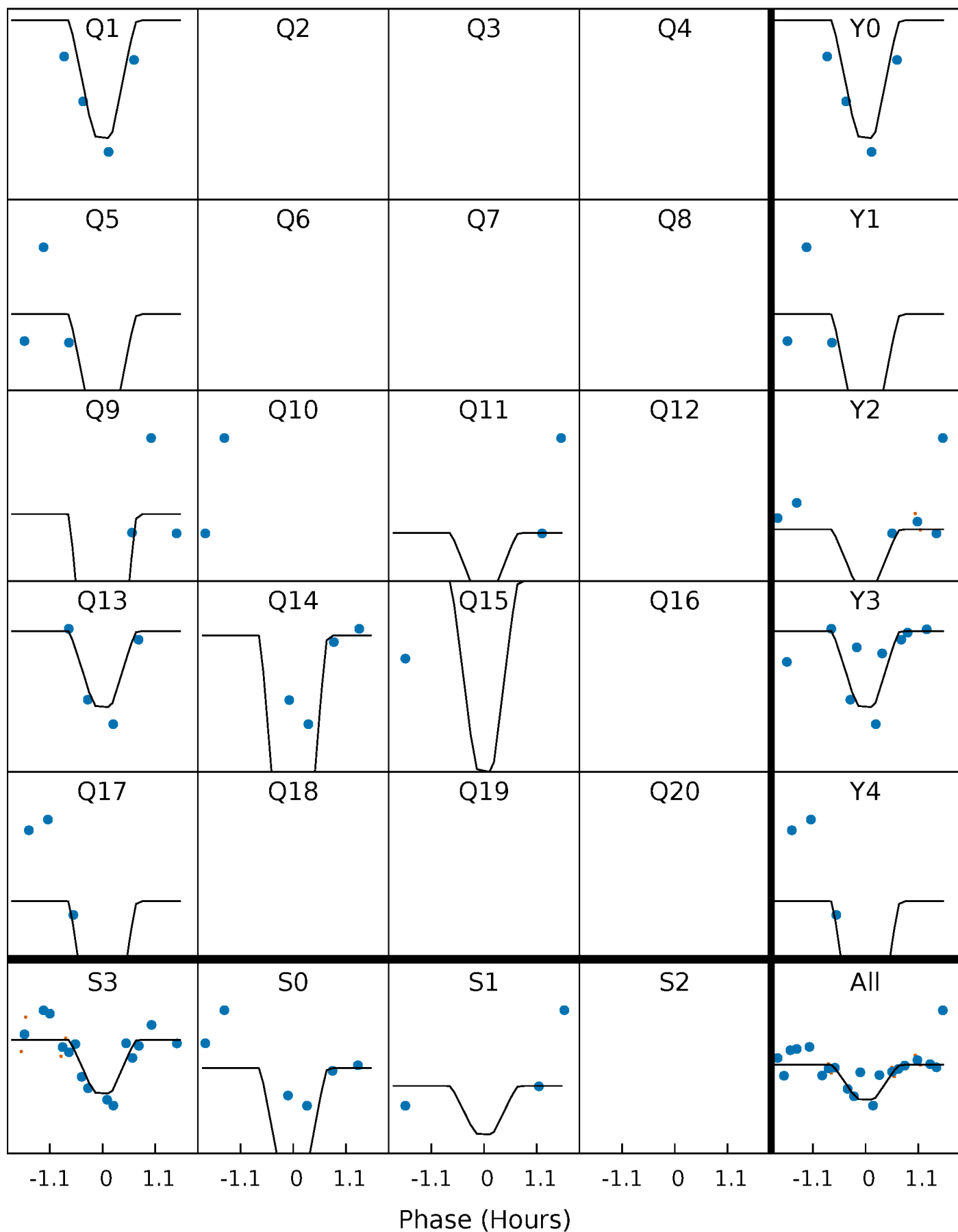
PDC Quarter-Phased Transit Curves

TCE 011496366-07 $P = 24.924118$ Days $T_0 = 156.008235$ (BKJD)



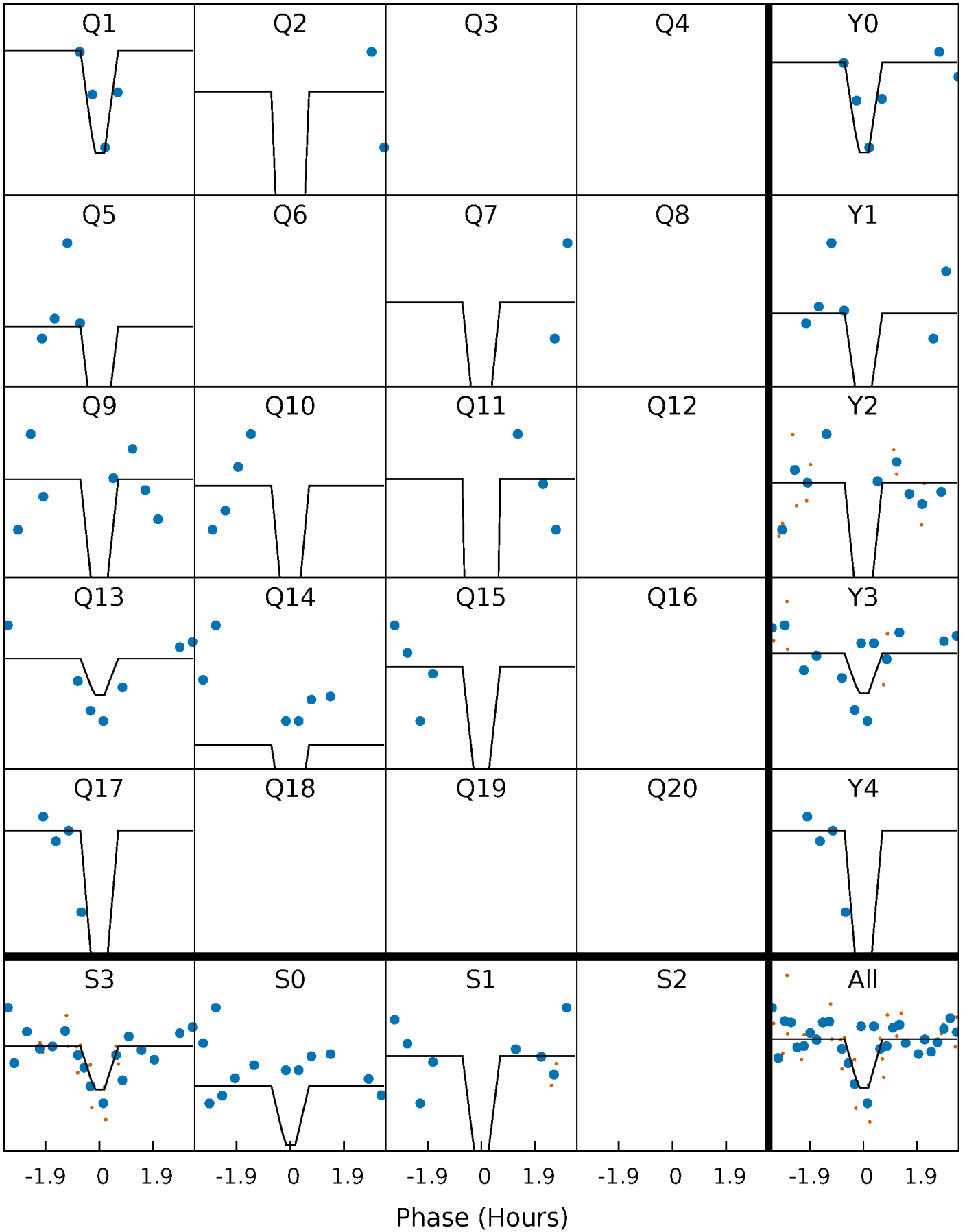
DV Quarter-Phased Transit Curves

TCE 011496366-07 P= 24.924118 Days $T_0=156.008235$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

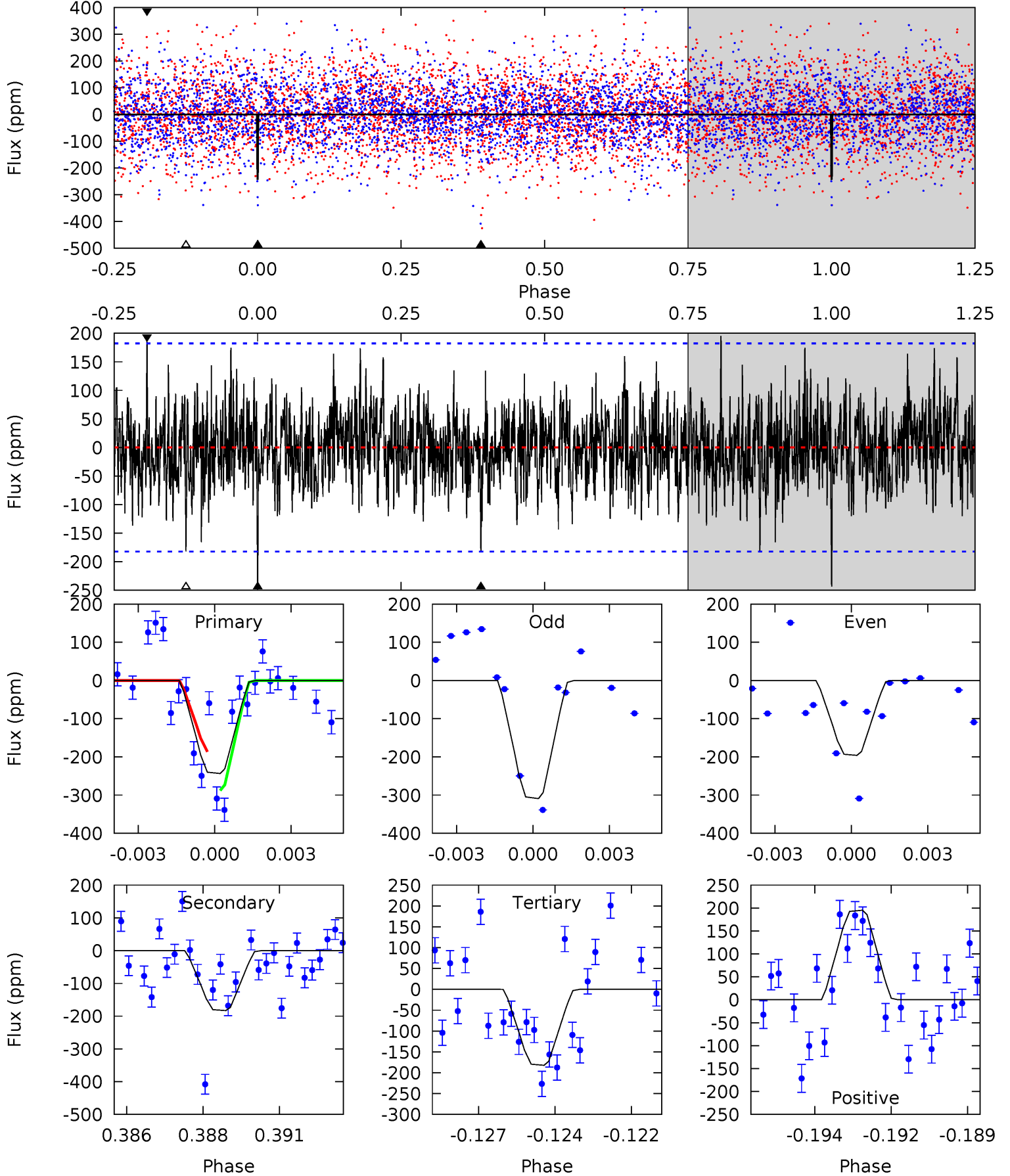
TCE 011496366-07 P= 24.924161 Days $T_0=156.005614$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-07, P = 24.924118 Days, E = 131.084117 Days

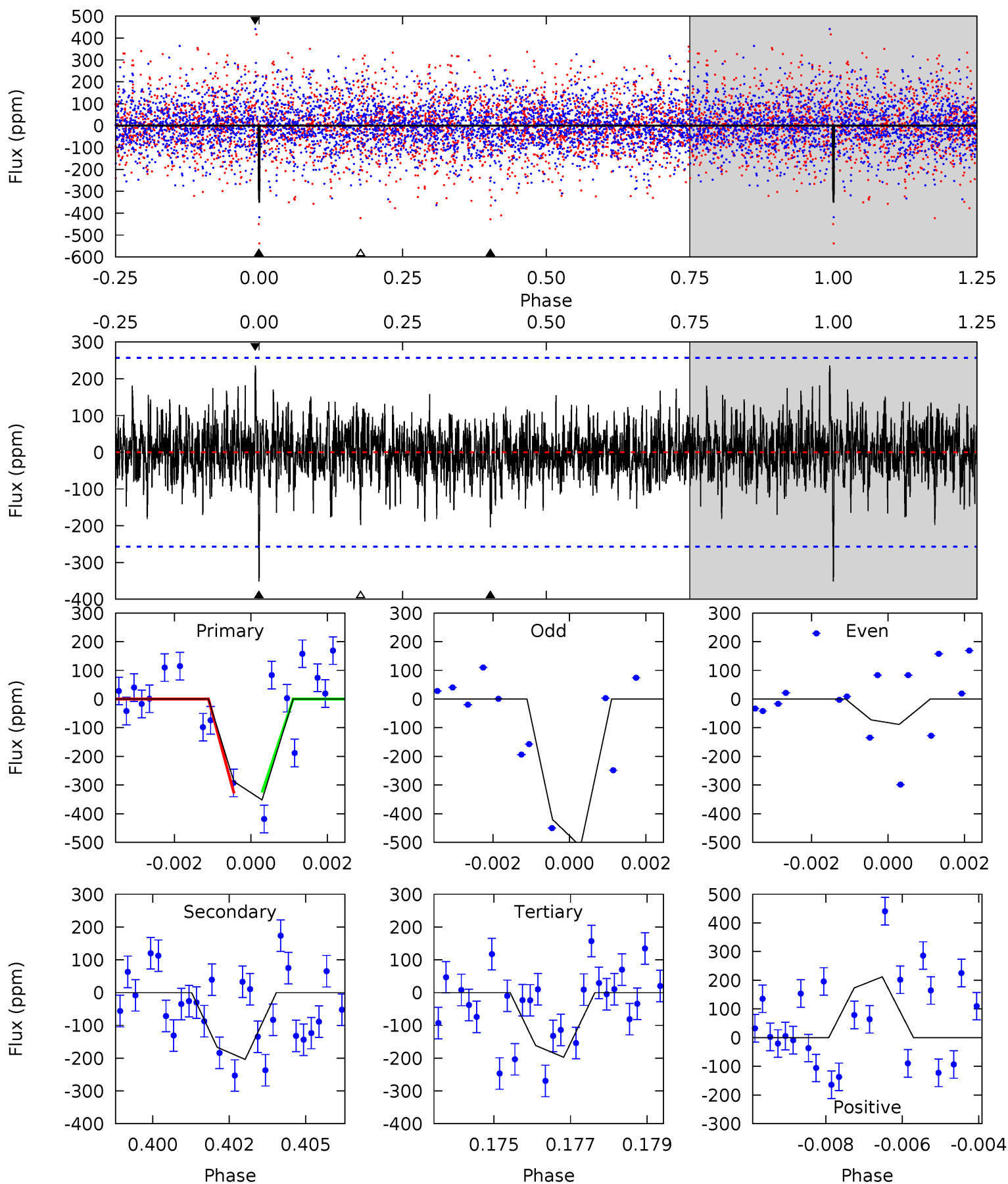
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.05	5.30	5.28	5.66	5.28	3.01	1.48	1.78	1.40	0.02	-0.36	1.64	0.77	0.45	1.44



Alt Model-Shift Uniqueness Test

011496366-07, P = 24.924161 Days, E = 131.081453 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.29	4.23	4.09	4.39	5.33	3.09	1.16	3.20	2.90	0.13	-0.16	4.53	0.95	0.40	0



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-183 ± 35	$5.43^{+4.79}_{-3.72}$	1059^{+77}_{-92}	3941^{+2434}_{-722}	95^{+864}_{-69}
Alt.	-204 ± 48	$5.04^{+5.14}_{-3.40}$	1058^{+71}_{-97}	4103^{+2574}_{-840}	119^{+1026}_{-89}

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 $A_{obs} \gg 1.0$

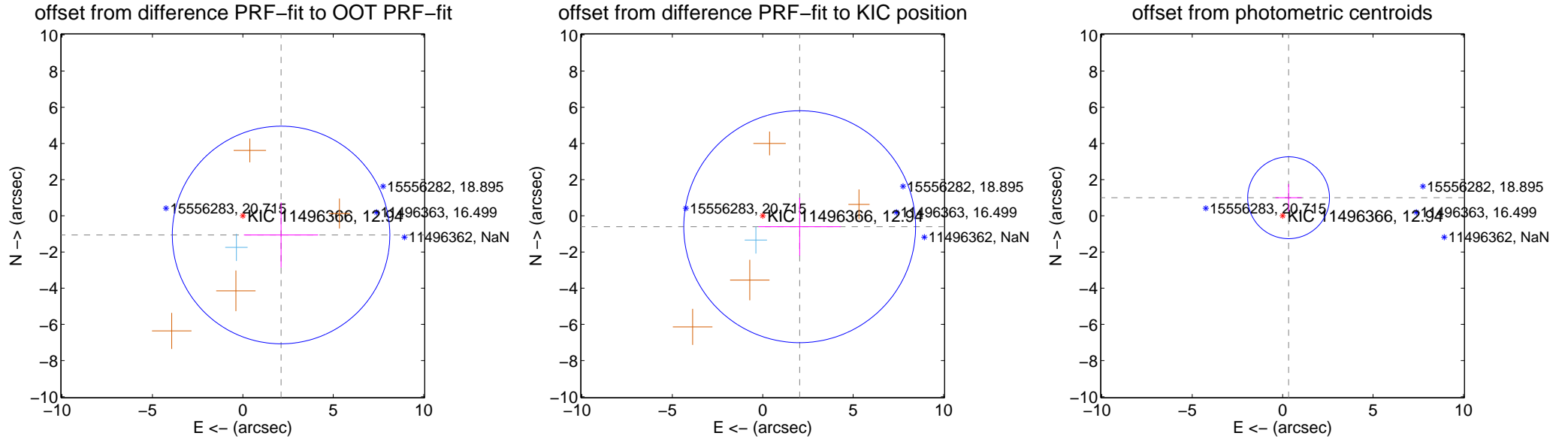
DV Centroid Data

Supplemental centroid analysis for 011496366-07. Kepler magnitude: 12.94. Transit SNR 9.62

There are 1 quarters with good PRF difference image offsets

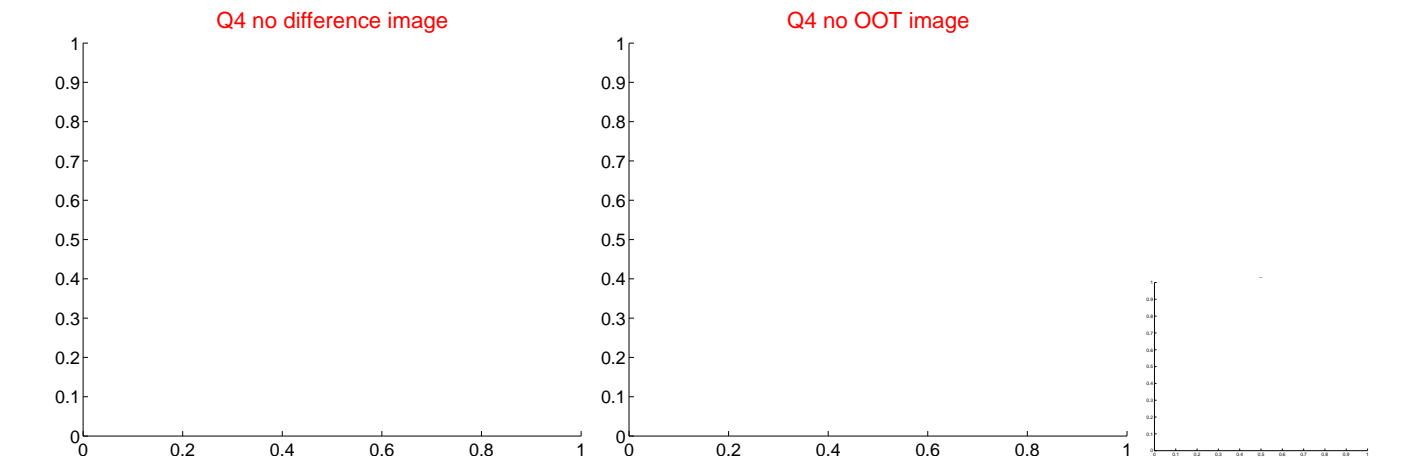
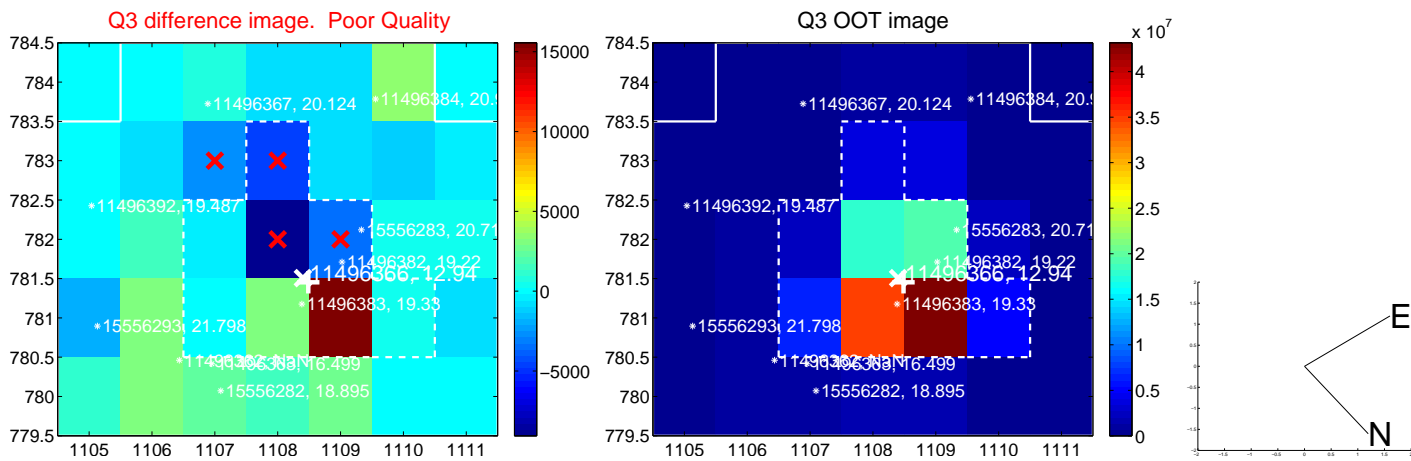
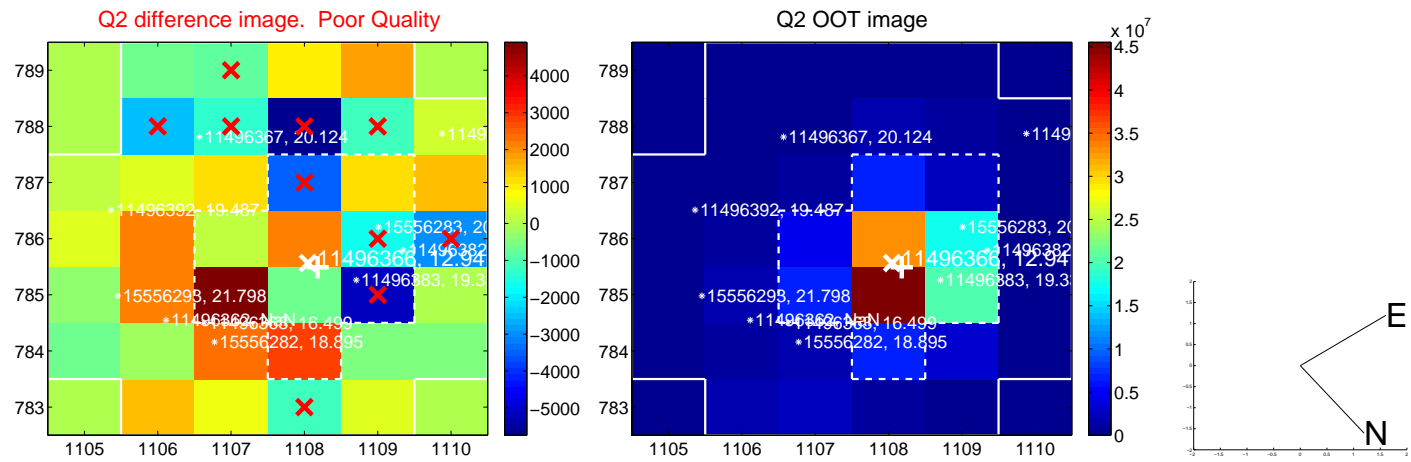
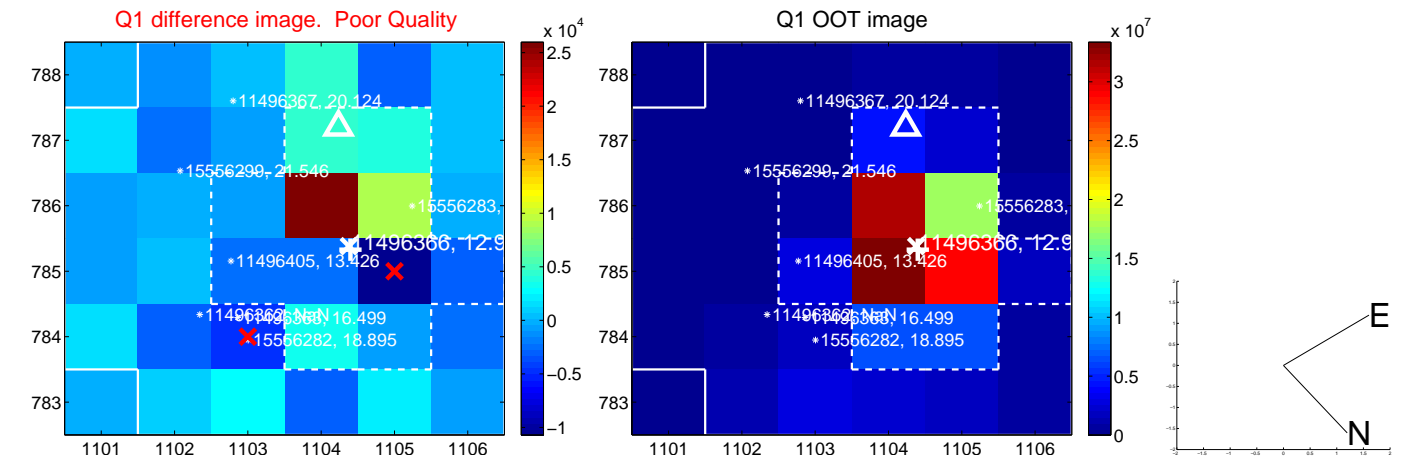
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.365 ± 2.005	1.18	-2.114 ± 2.053	-1.060 ± 1.799
PRF-fit source offset from KIC position	2.131 ± 2.136	1.00	-2.044 ± 2.272	-0.603 ± 1.600
photometric centroid source offset	1.05 ± 0.75	1.40	-0.33 ± 0.73	1.00 ± 0.76

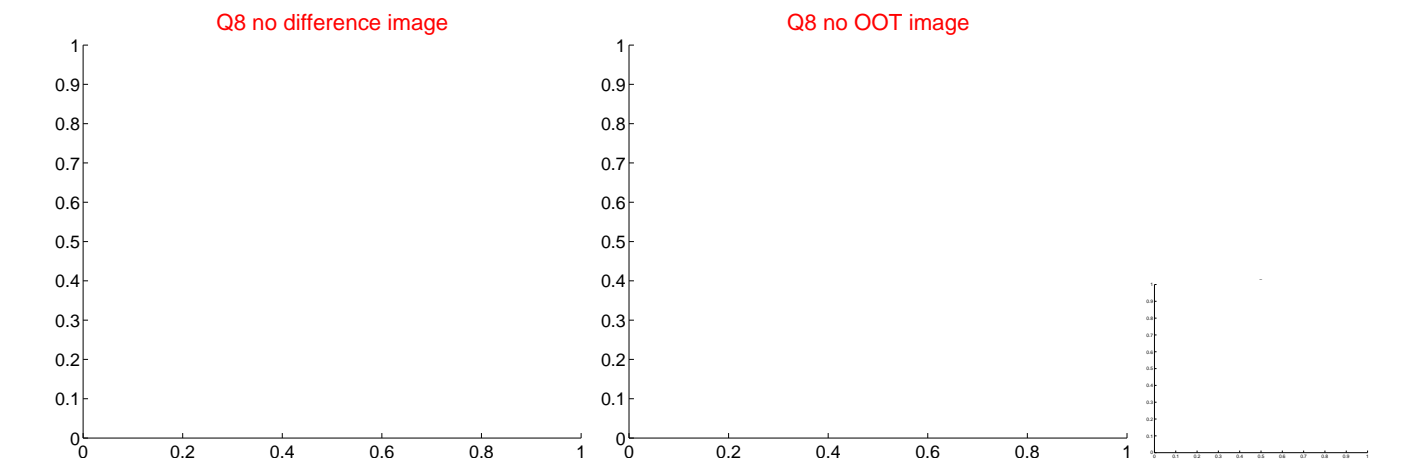
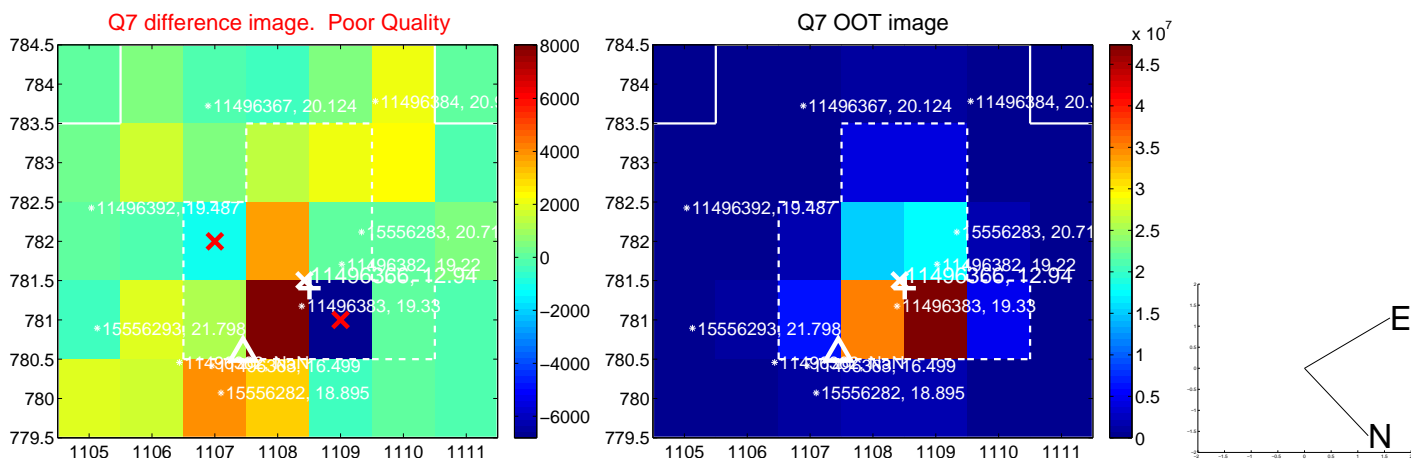
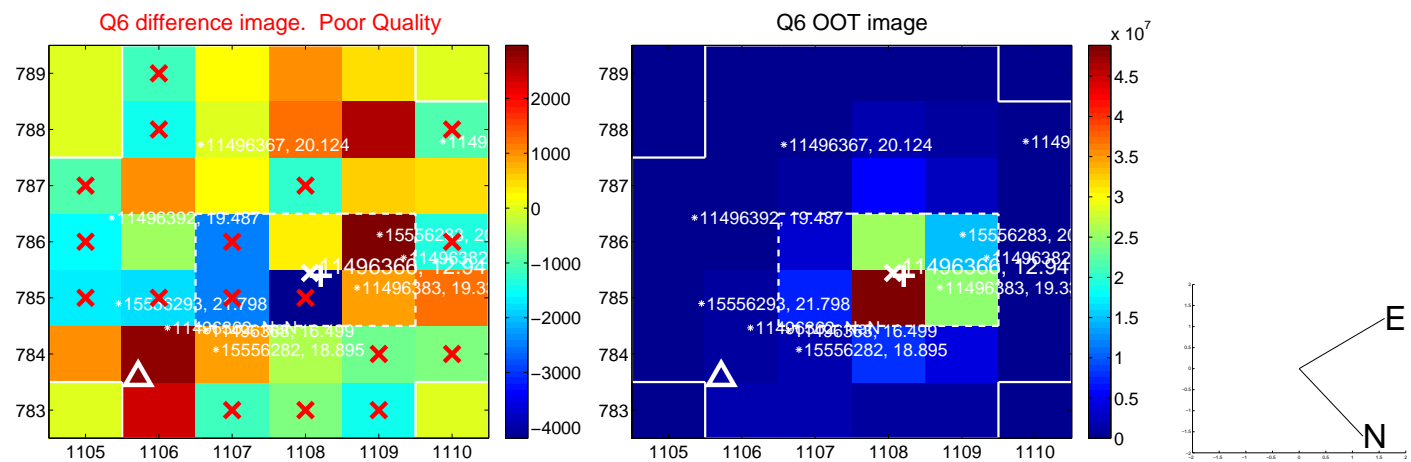
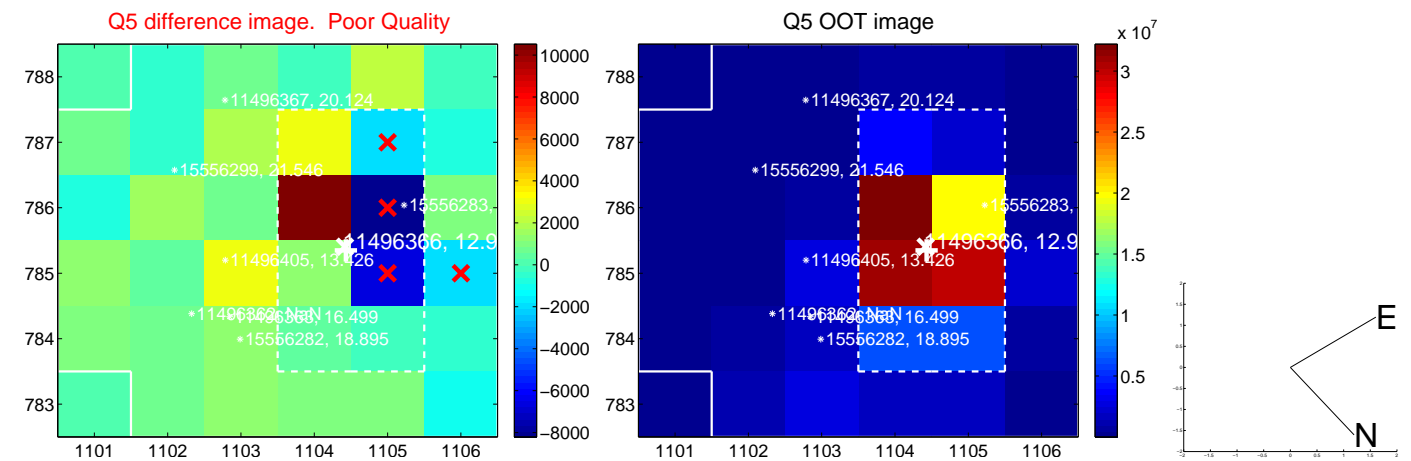


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

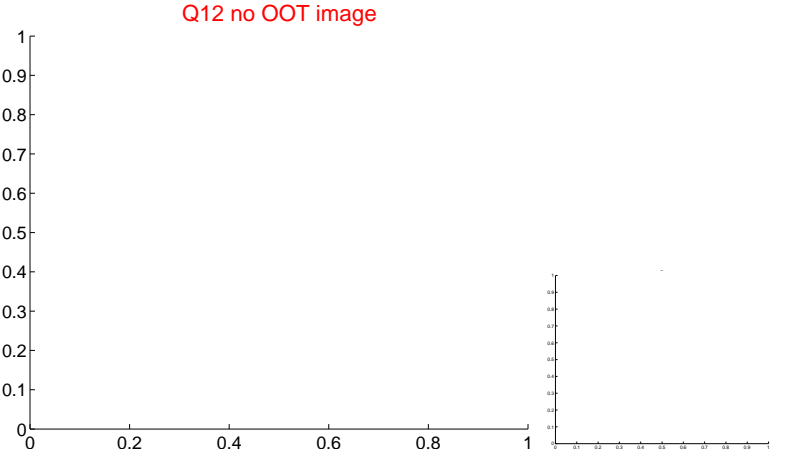
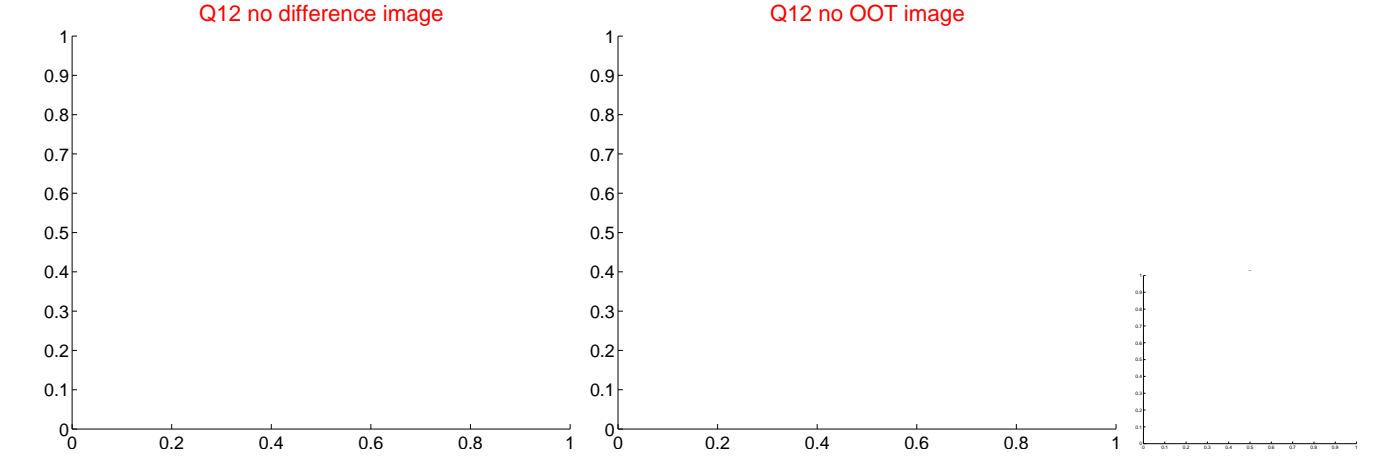
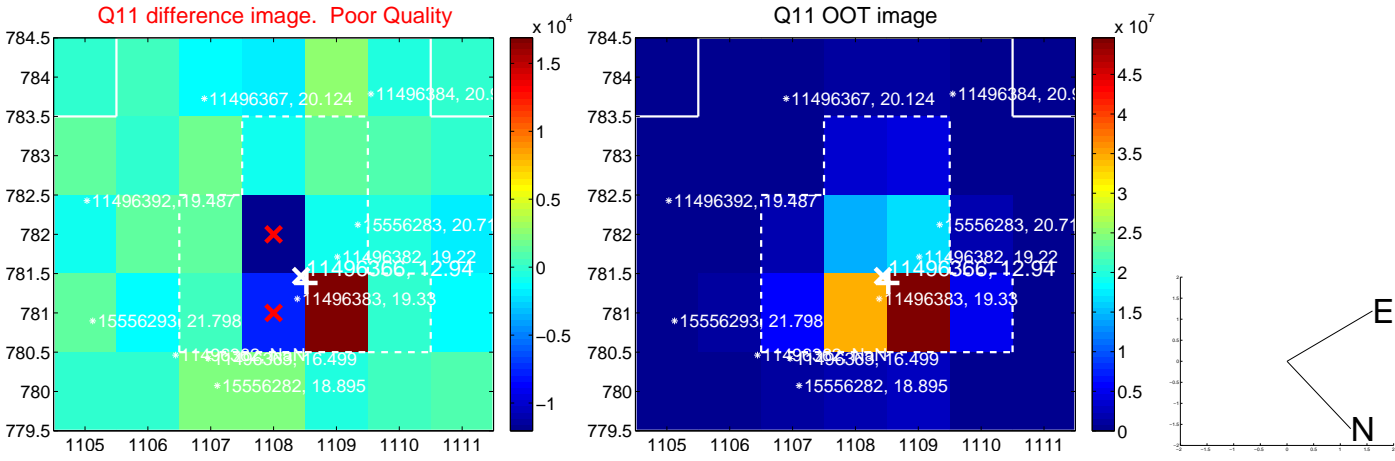
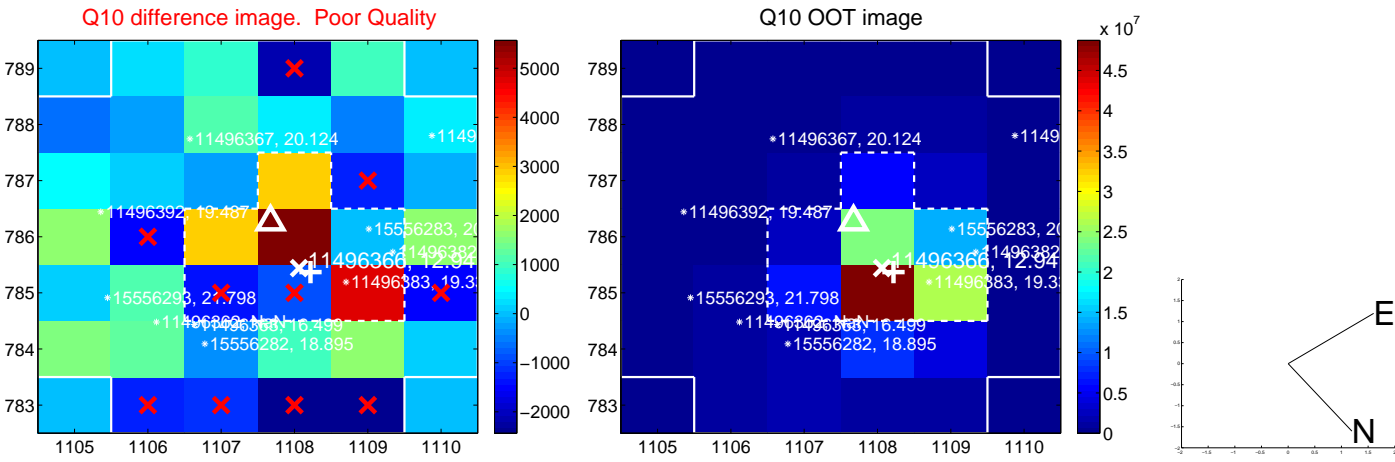
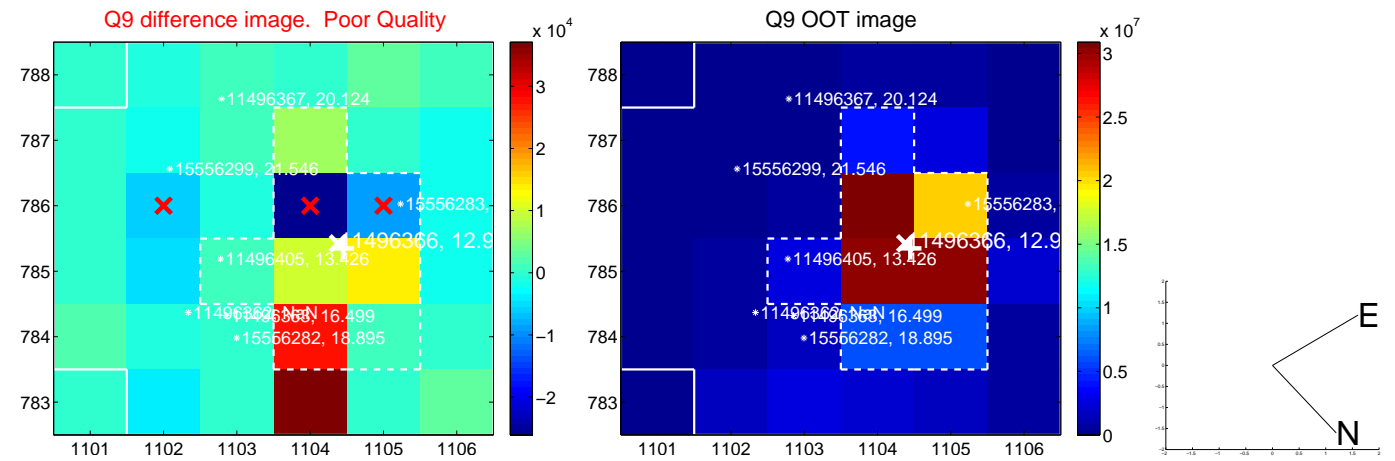
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



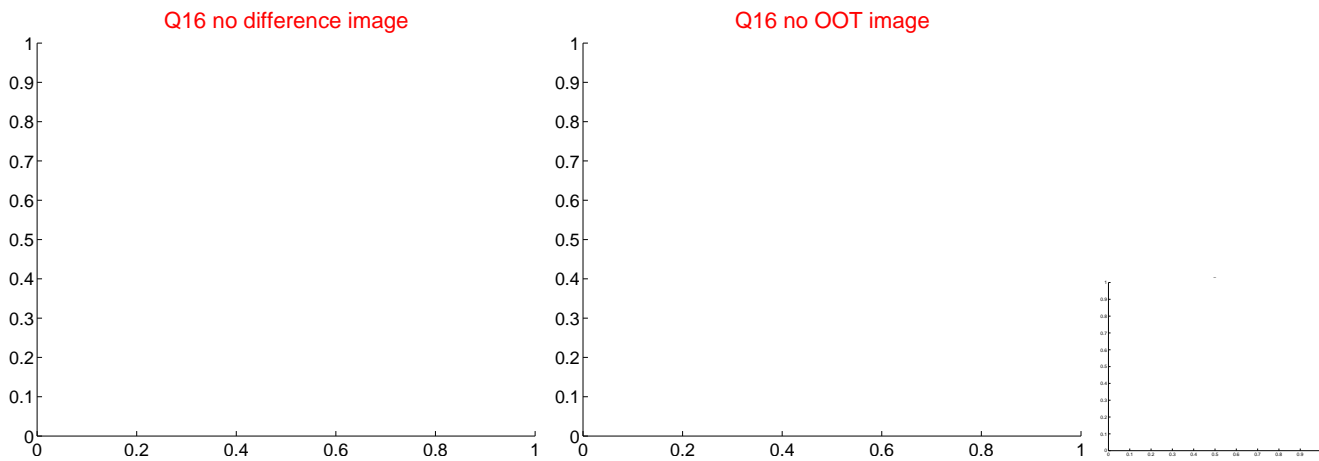
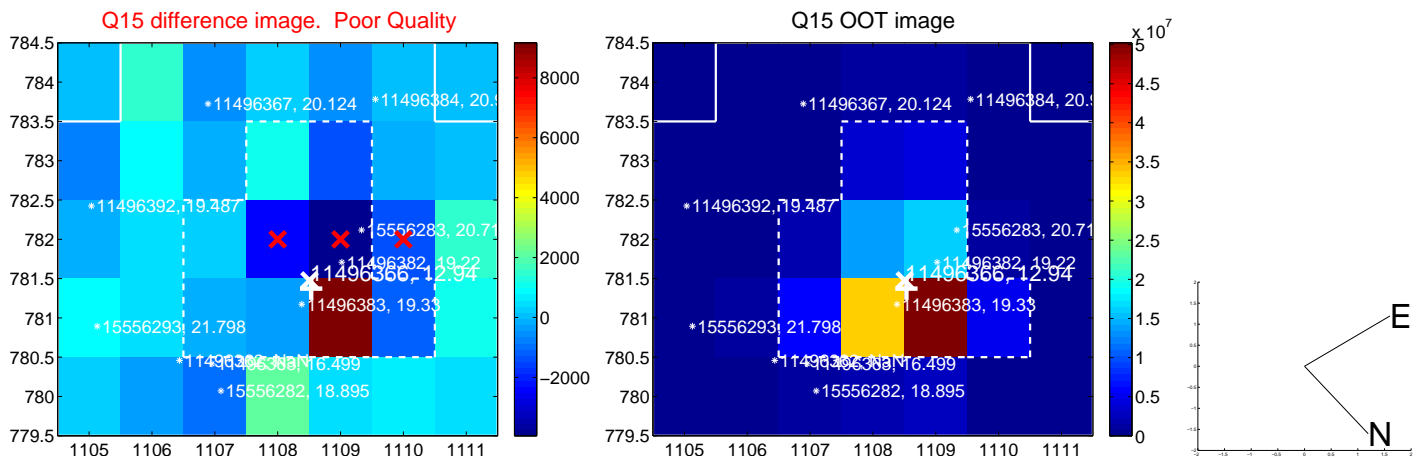
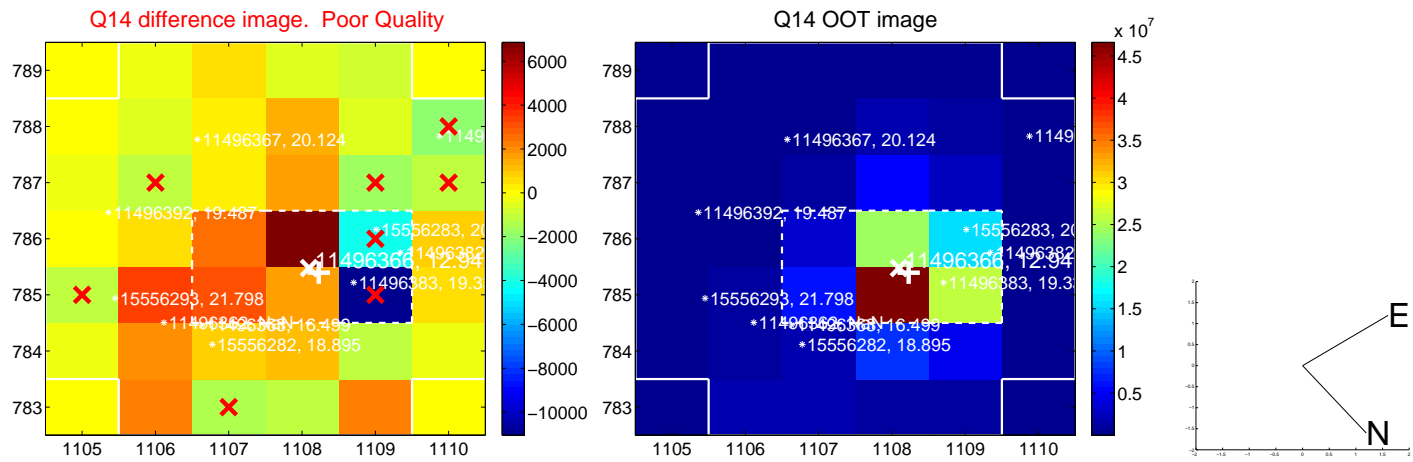
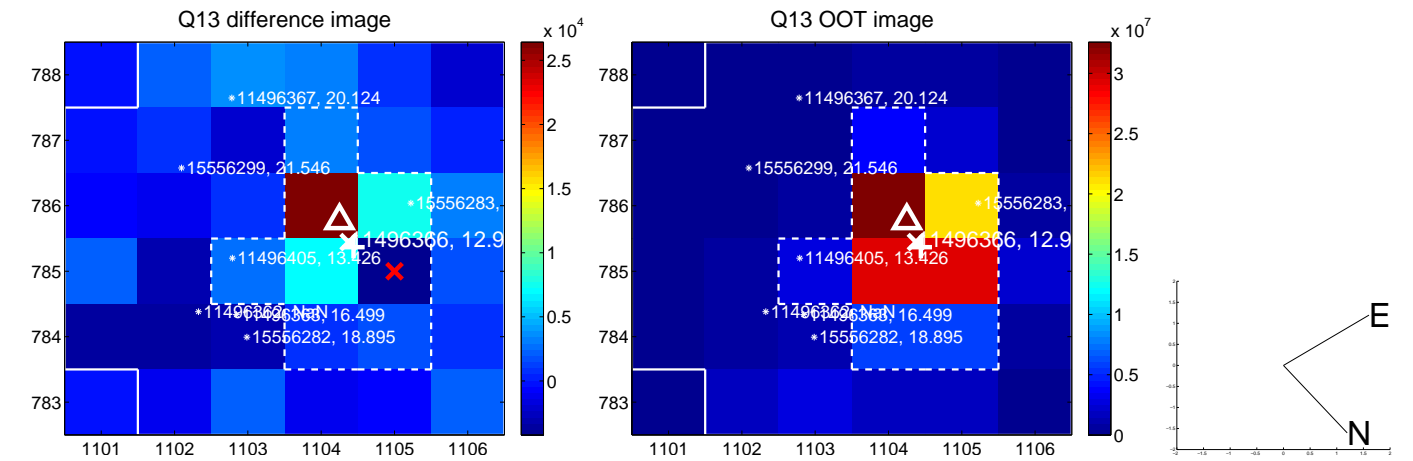
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



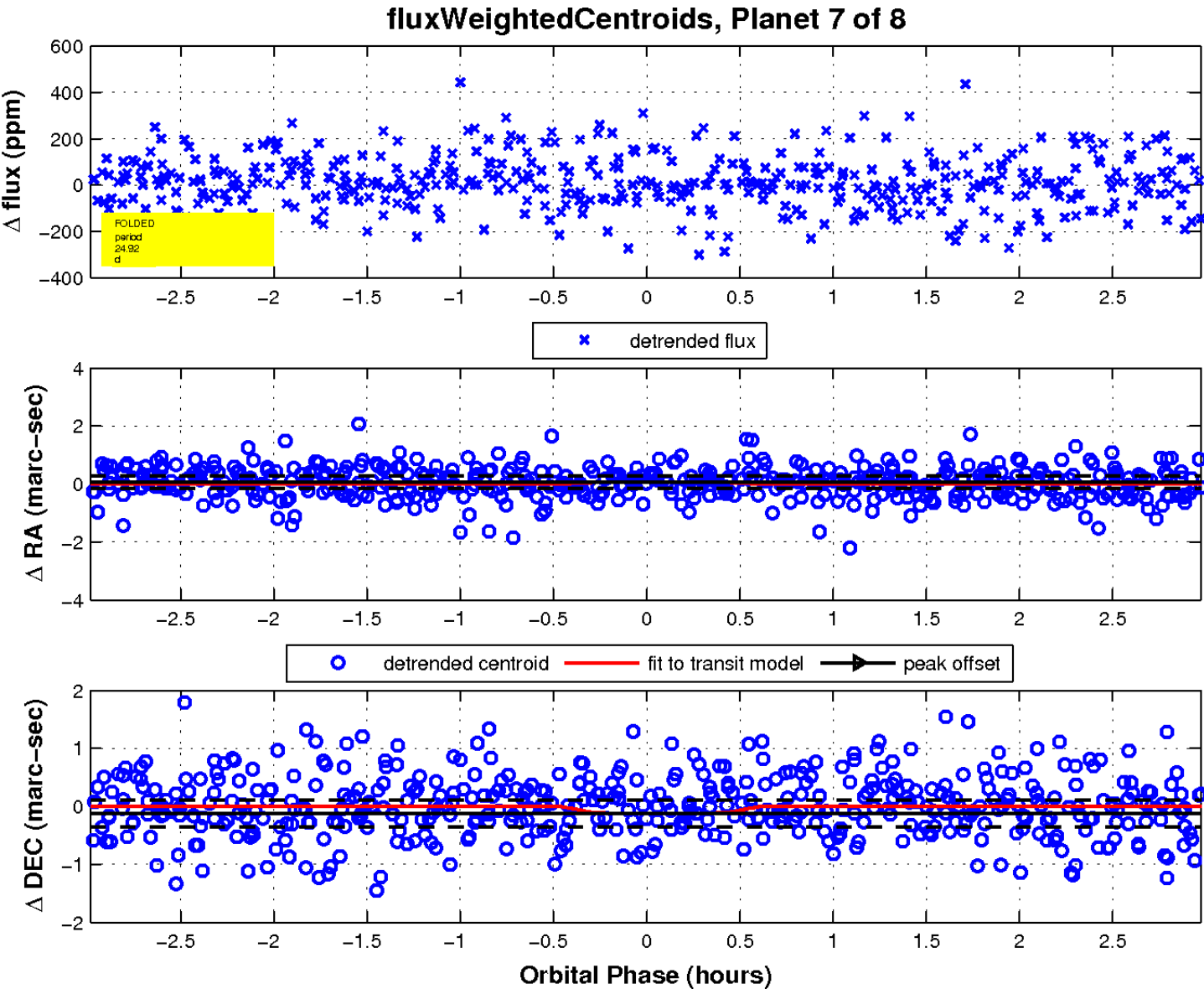
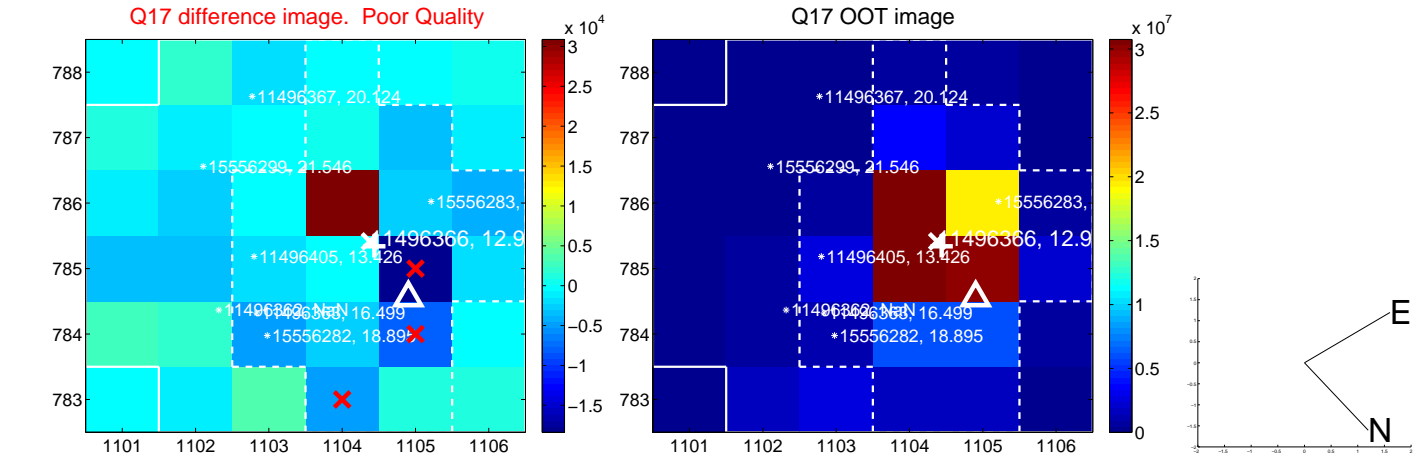
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



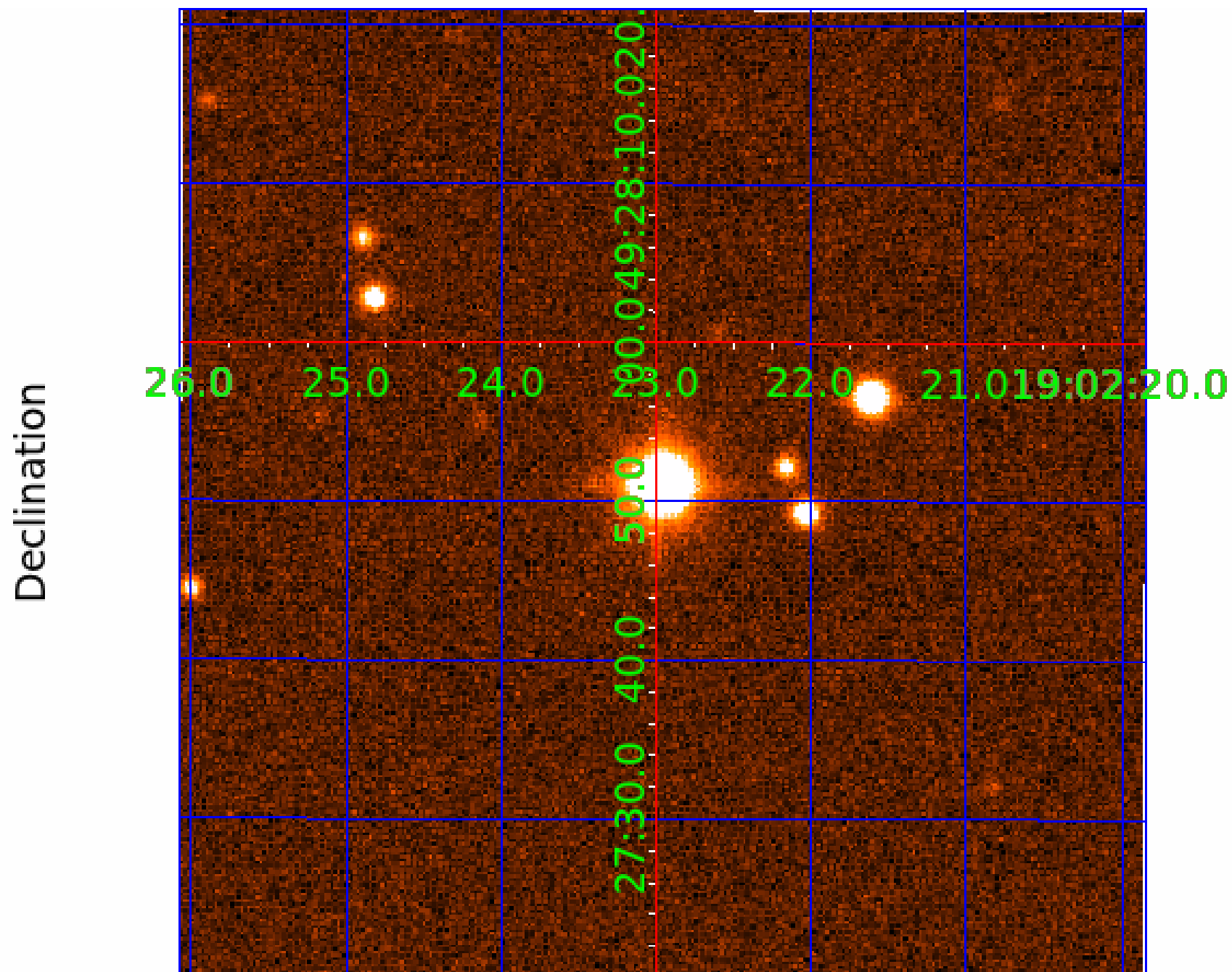
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 011496366

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})
011496366-01	OBS	No	0.784008	132.085027	12.6	5.426	8.4	9.8	1.65	5489	0.59	8136.01
011496366-02	OBS	No	31.928026	146.151973	231.1	2.049	15.9	8.3	1.65	5489	2.84	58.07
011496366-03	OBS	No	118.402986	220.922056	400.0	2.297	13.4	11.7	1.65	5489	3.24	10.12
011496366-04	OBS	No	40.052619	169.383140	229.9	4.082	9.1	10.6	1.65	5489	2.78	42.92
011496366-05	OBS	No	96.232720	182.104956	384.3	2.000	9.7	-1.0	1.65	5489	3.19	13.34
011496366-06	OBS	No	38.901864	148.397189	505.9	0.647	9.3	7.7	1.65	5489	3.79	44.62
011496366-07	OBS	No	24.924118	156.008235	281.6	0.995	10.8	9.6	1.65	5489	3.25	80.79
011496366-08	OBS	No	12.312044	133.317737	129.9	1.670	9.7	9.3	1.65	5489	2.26	206.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011496366-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
011496366-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011496366-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
011496366-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
011496366-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—CENT_NOFITS
011496366-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_FEW_DIFFS
011496366-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNCERTAIN
011496366-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_KIC_POS

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

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

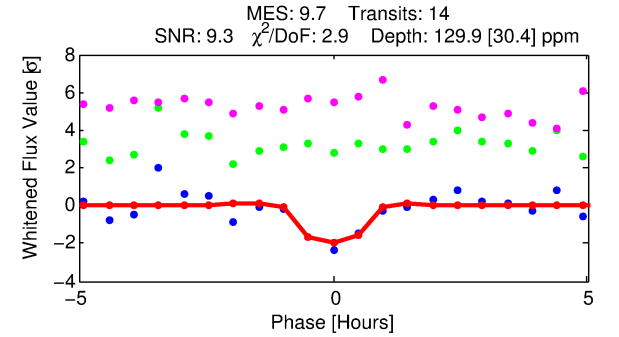
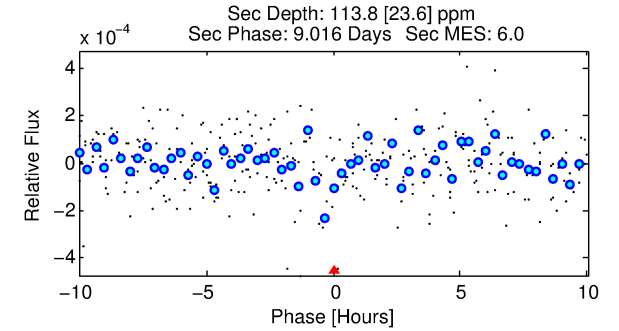
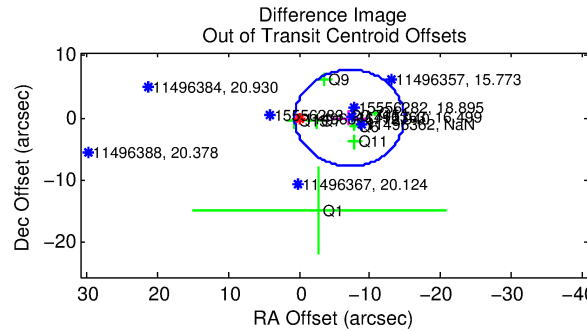
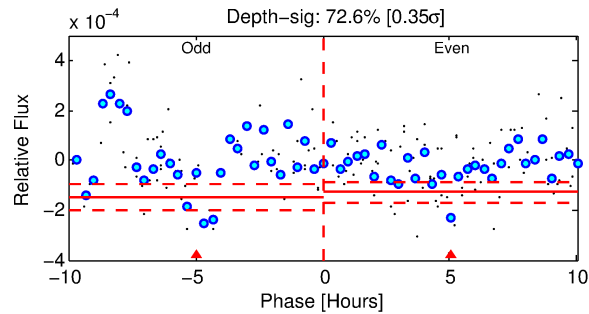
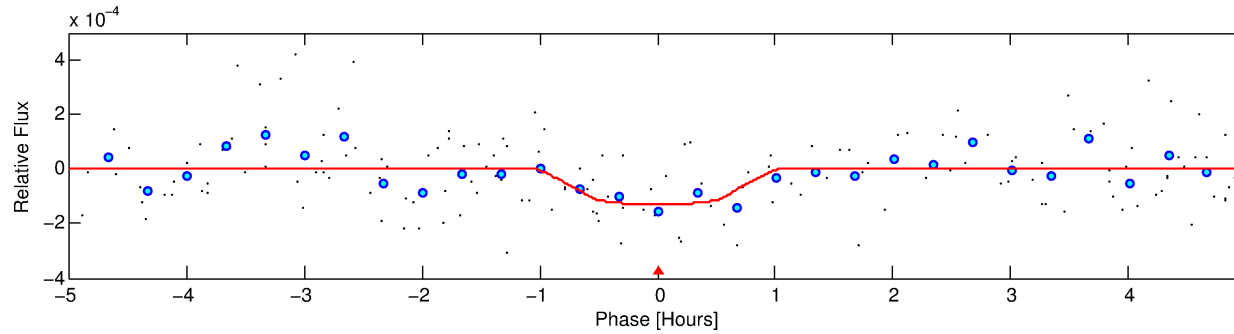
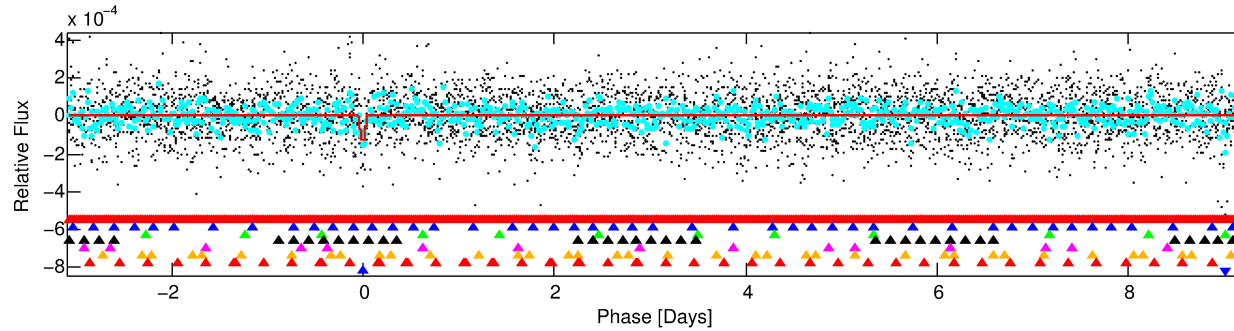
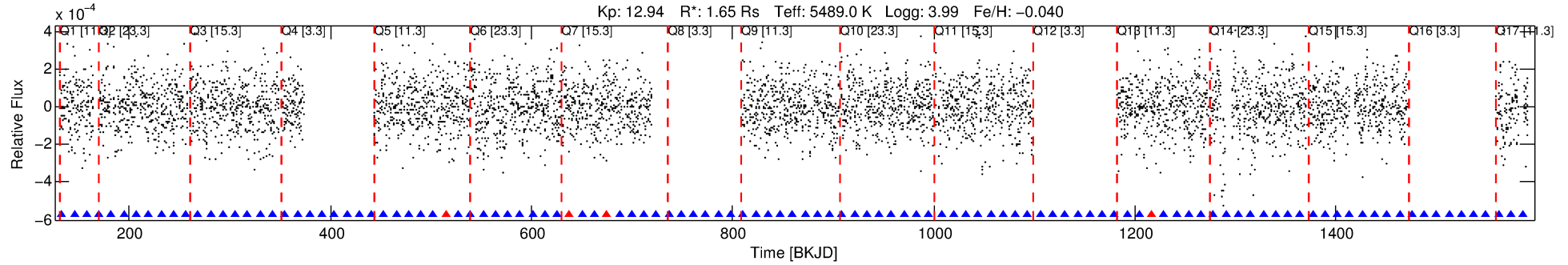
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011496366-08

No Significant Match Found

DV One-Page Summary

KIC: 11496366 Candidate: 8 of 8 Period: 12.312 d



DV Fit Results:

Period = 12.31204 [0.00014] d
Epoch = 133.3177 [0.0079] BKJD
Rp/R* = 0.0125 [0.0174]
a/R* = 26.17 [160.00]
b = 0.90 [1.34]
Seff = 206.89 [113.85]
Teq = 967 [133] K
Rp = 2.26 [3.21] Re
a = 0.1033 [0.0336] AU
Ag = 131.41 [372.14] [0.35 σ]
Teffp = 5062 [3525] K [1.16 σ]

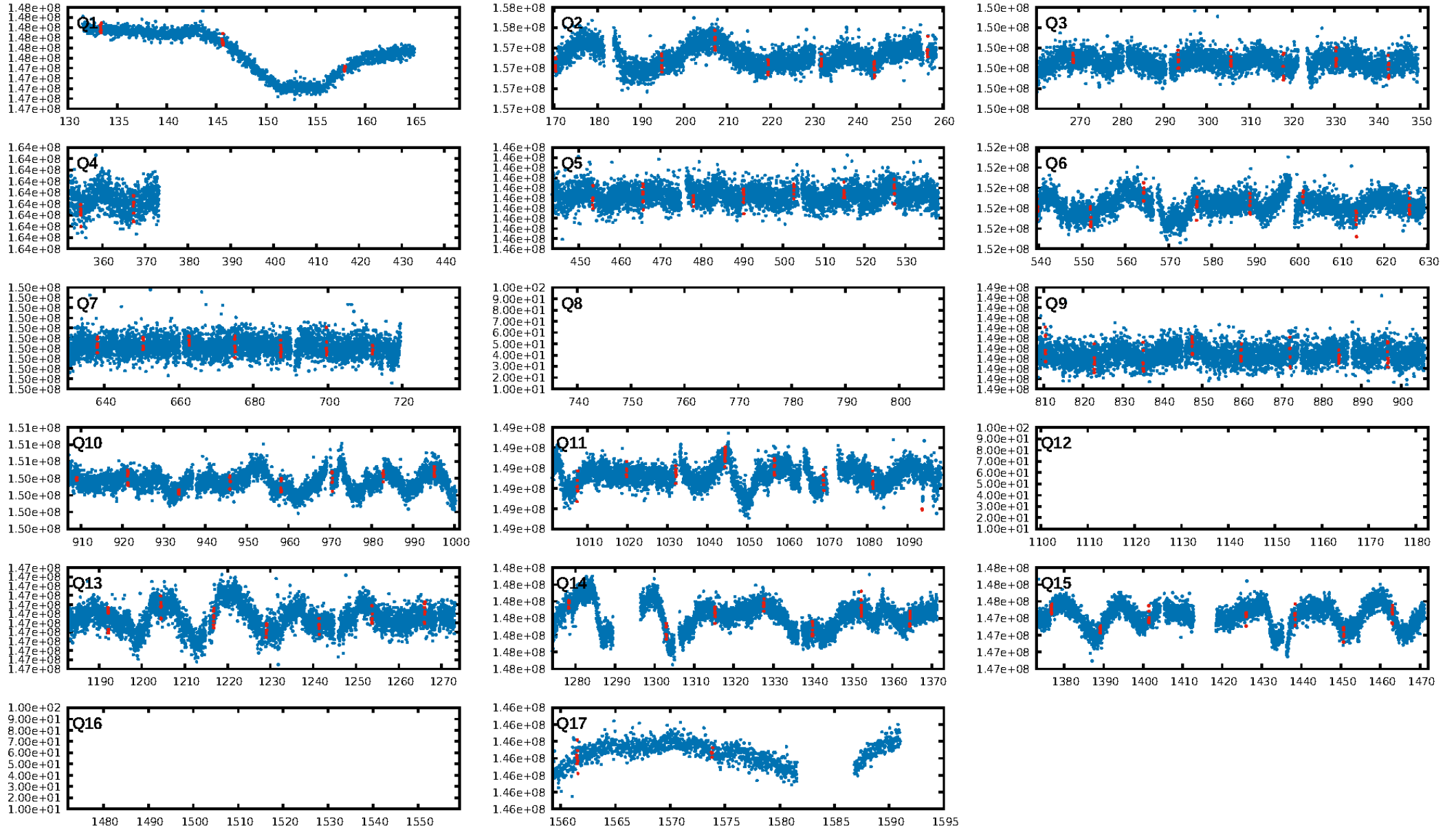
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.73 σ]
LongPeriod-sig: 100.0% [155.72 σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 42.0%
Bootstrap-pfa: 9.77e-10
RollingBand-fgt: 0.69 [9/13]
GhostDiagnostic-chr: -0.8533
Centroid-sig: 1.6%
Centroid-so: 2.335 arcsec [2.79 σ]
OotOffset-rm: 7.117 arcsec [2.76 σ]
OotOffset-st: 2/3/0/2 [7]
KicOffset-rm: 6.958 arcsec [2.71 σ]
KicOffset-st: 2/3/0/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.46 [6/13]

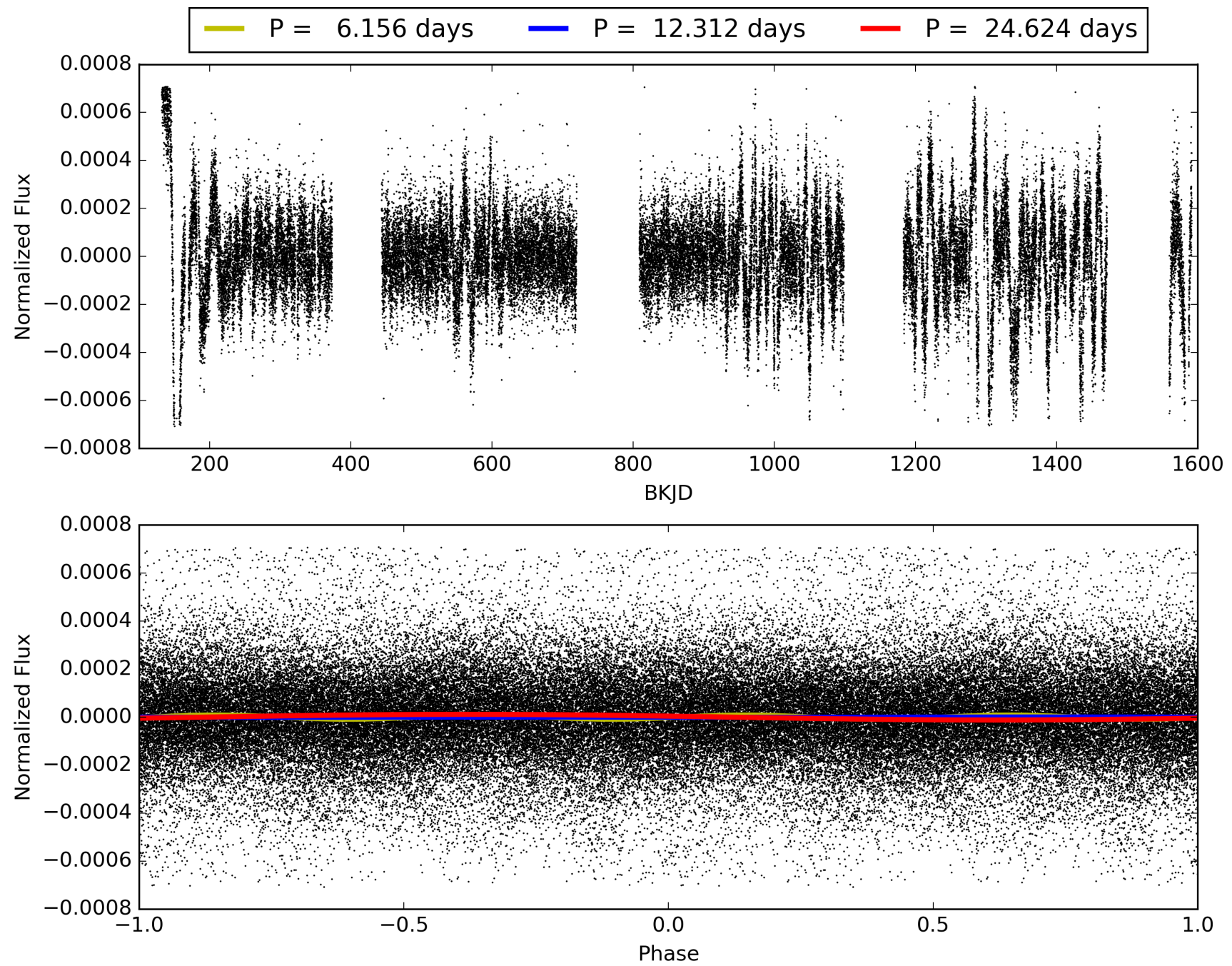
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:54:57 Z

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

TCE 011496366-08, PDC Light Curves

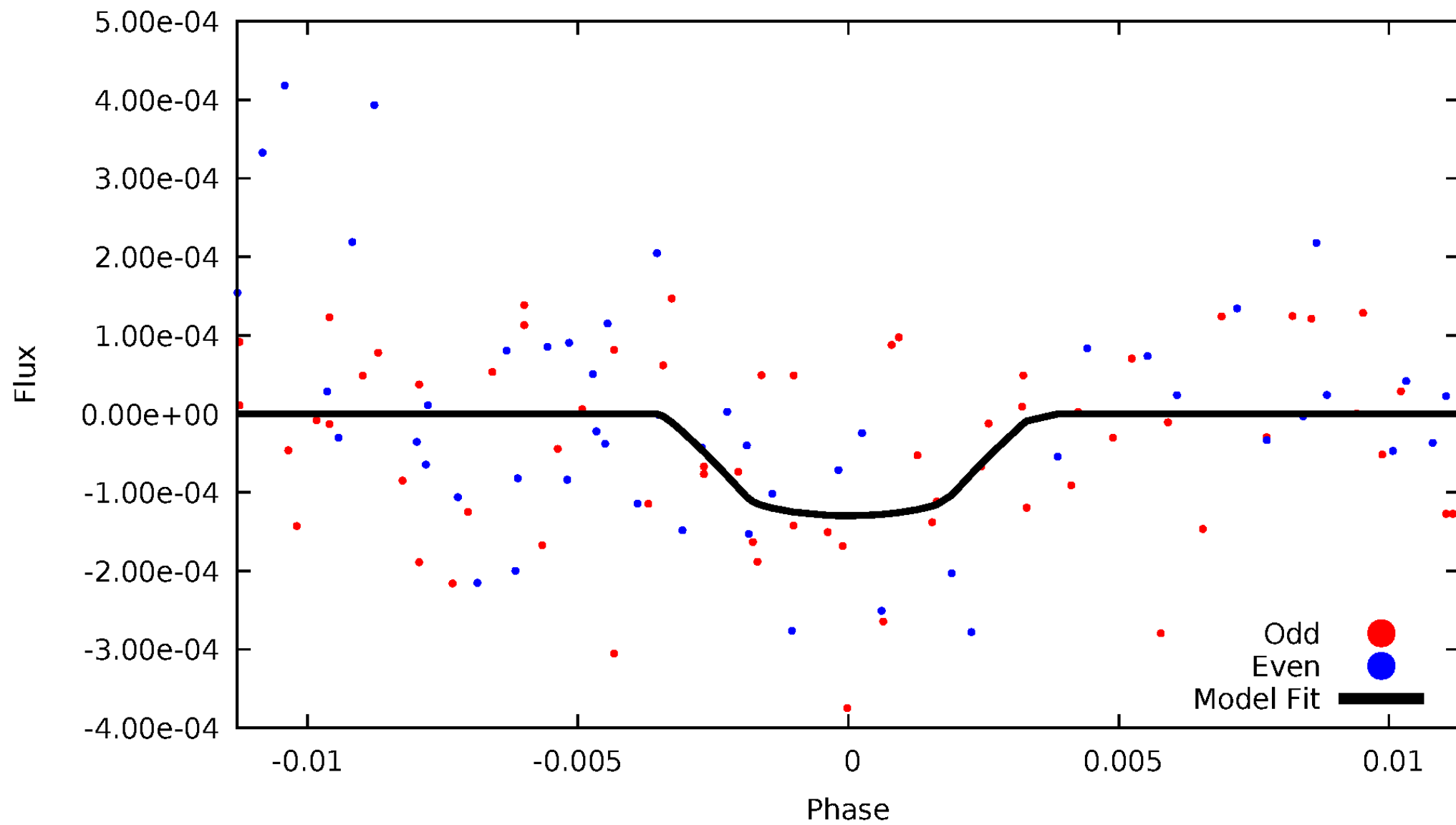


TCE 011496366-08



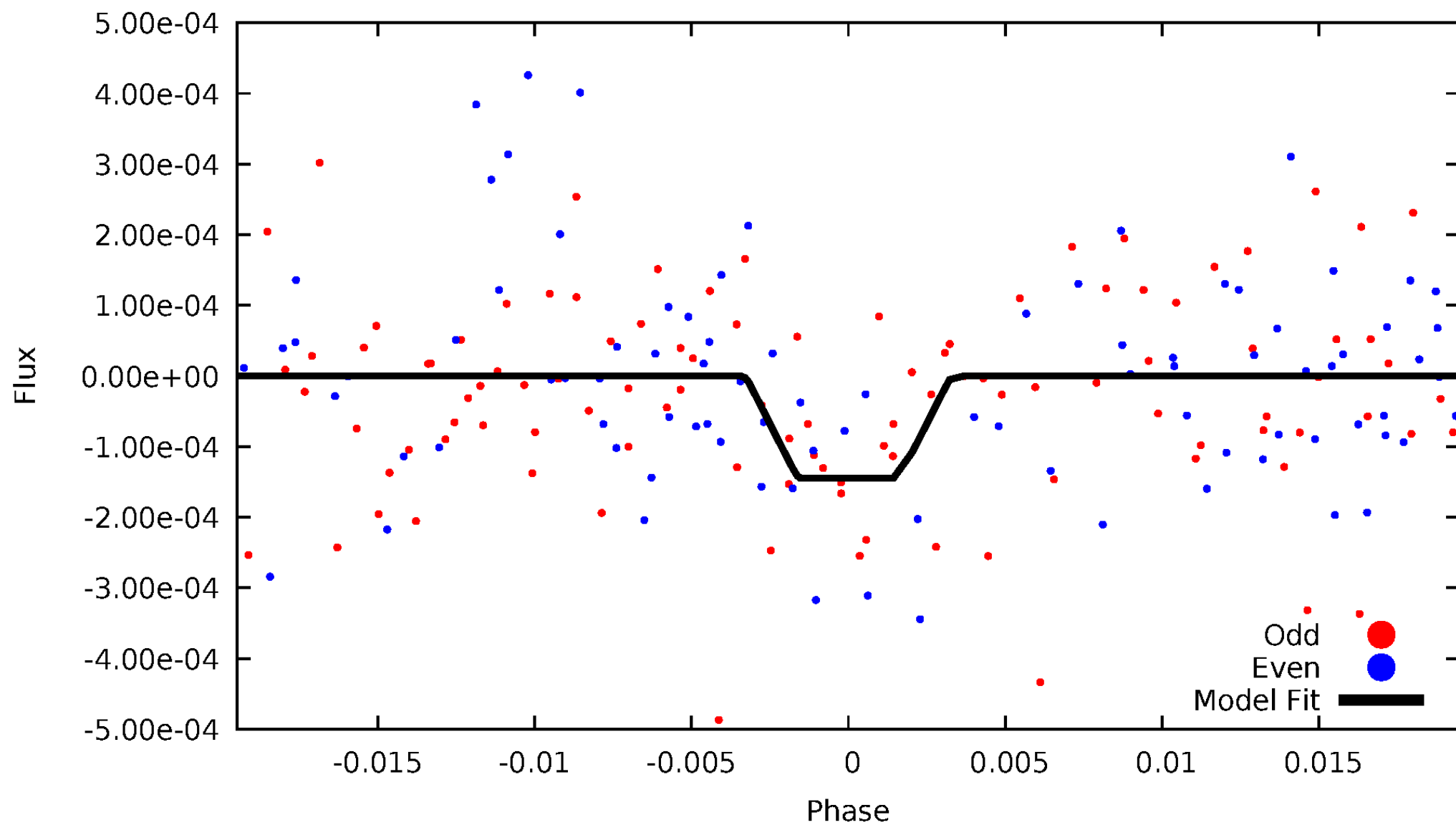
DV Odd/Even

TCE 011496366-08



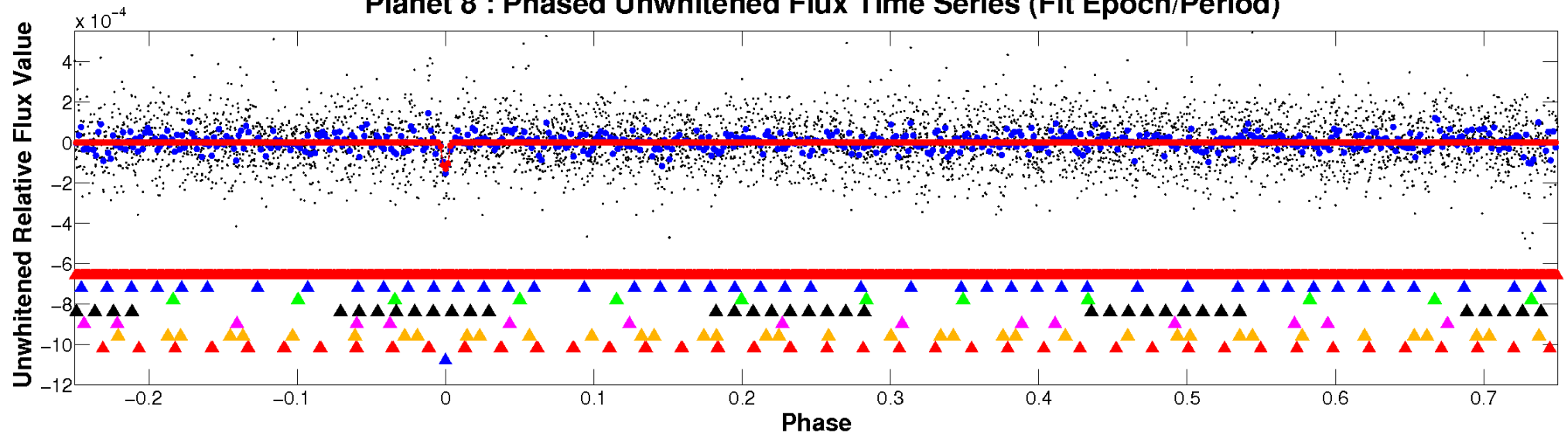
ALT Odd/Even

TCE 011496366-08

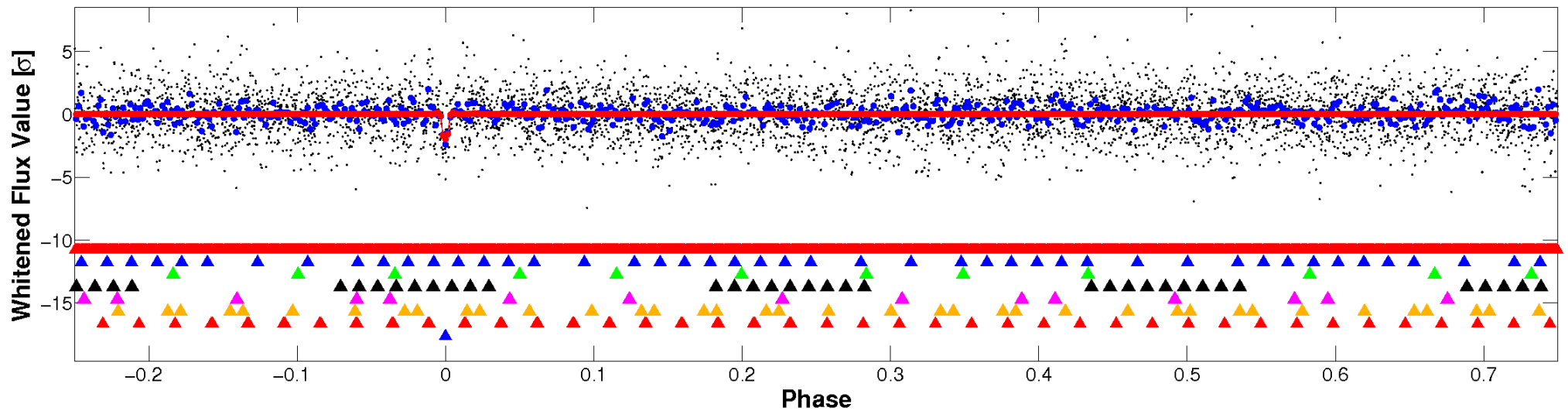


Non-Whitened Vs. Whitened Light Curve

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

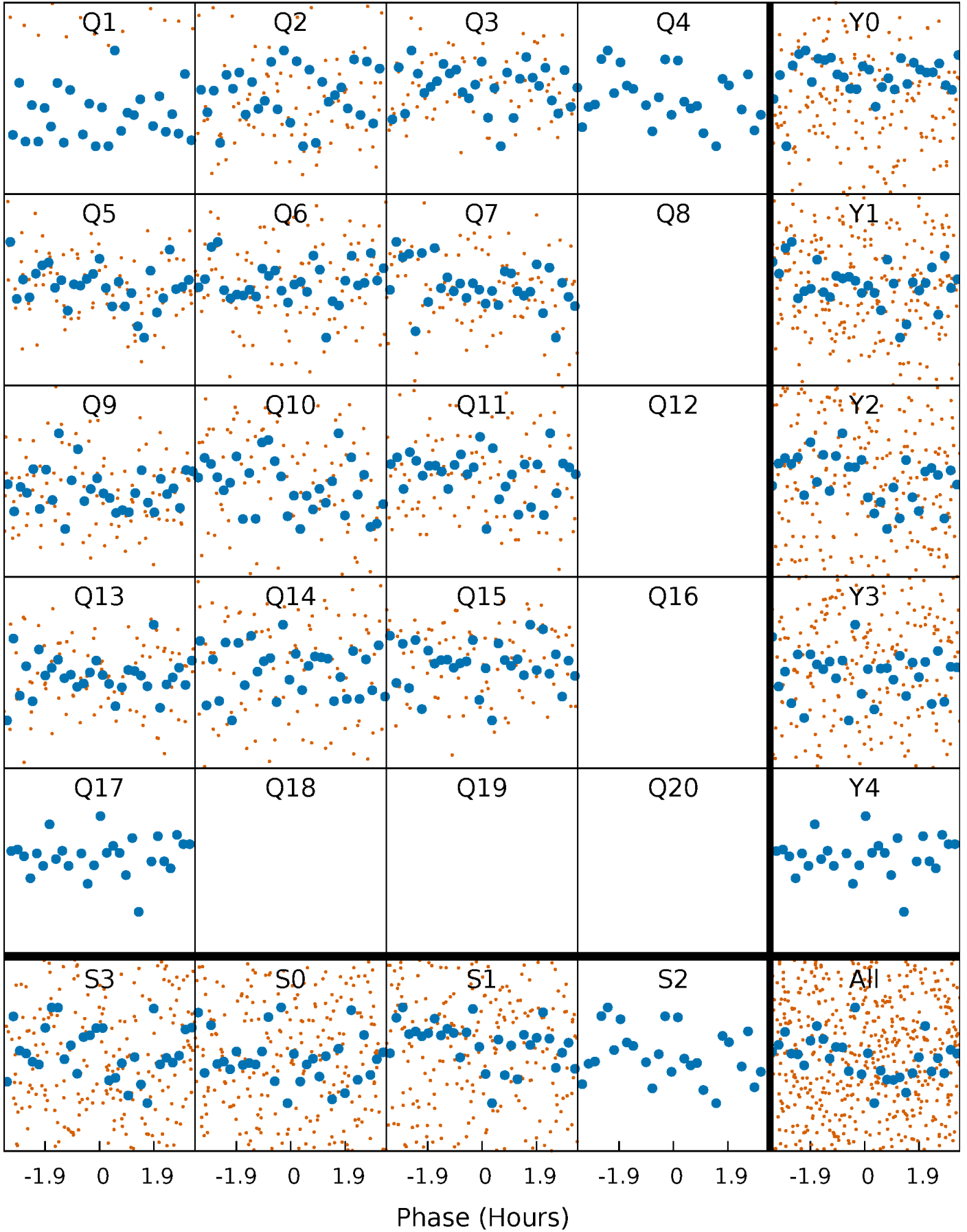


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



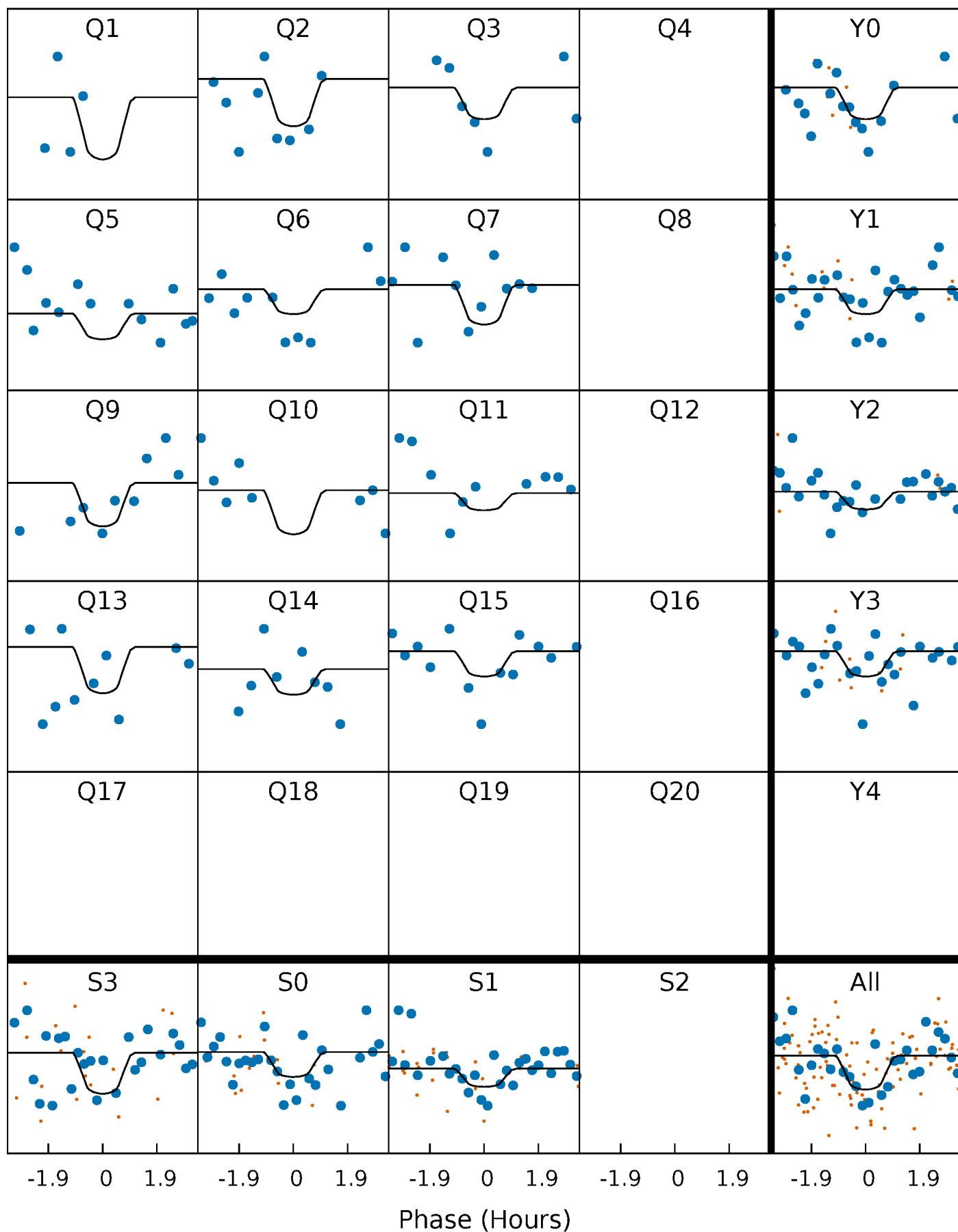
PDC Quarter-Phased Transit Curves

TCE 011496366-08 P= 12.312044 Days $T_0=133.317737$ (BKJD)



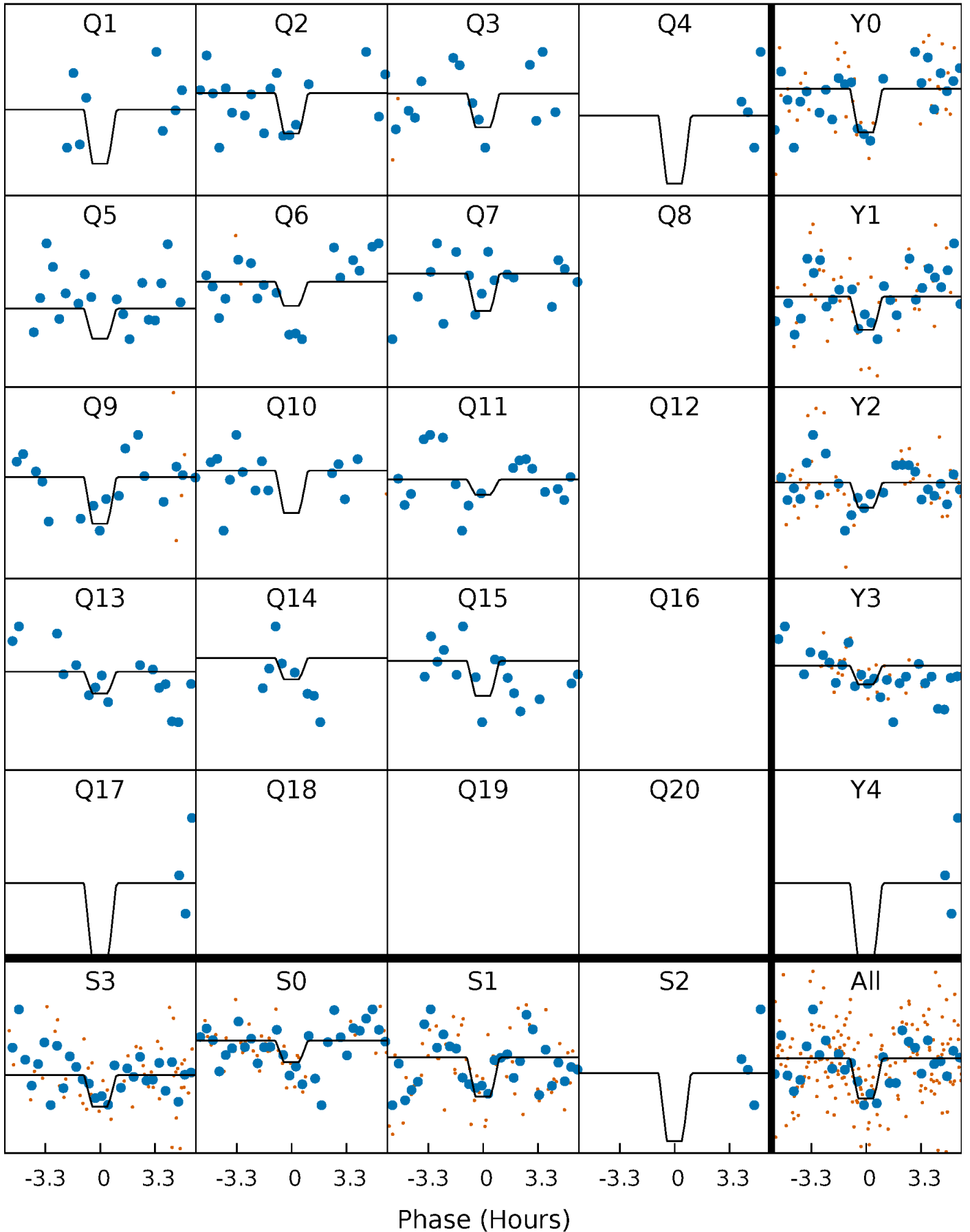
DV Quarter-Phased Transit Curves

TCE 011496366-08 P= 12.312044 Days $T_0=133.317737$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

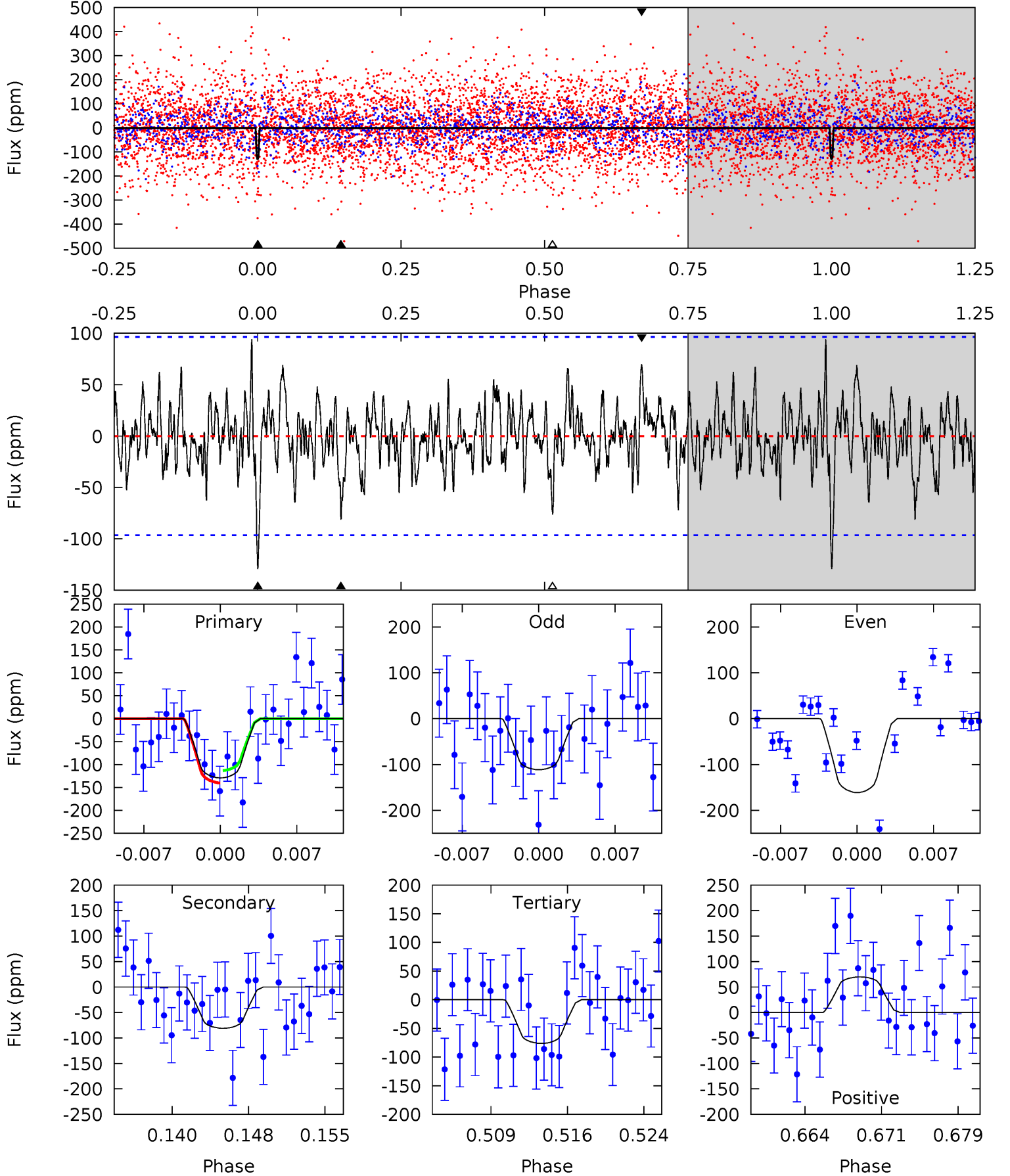
TCE 011496366-08 P= 12.311979 Days $T_0=133.319810$ (BKJD)



DV Model-Shift Uniqueness Test

011496366-08, $P = 12.312044$ Days, $E = 121.005693$ Days

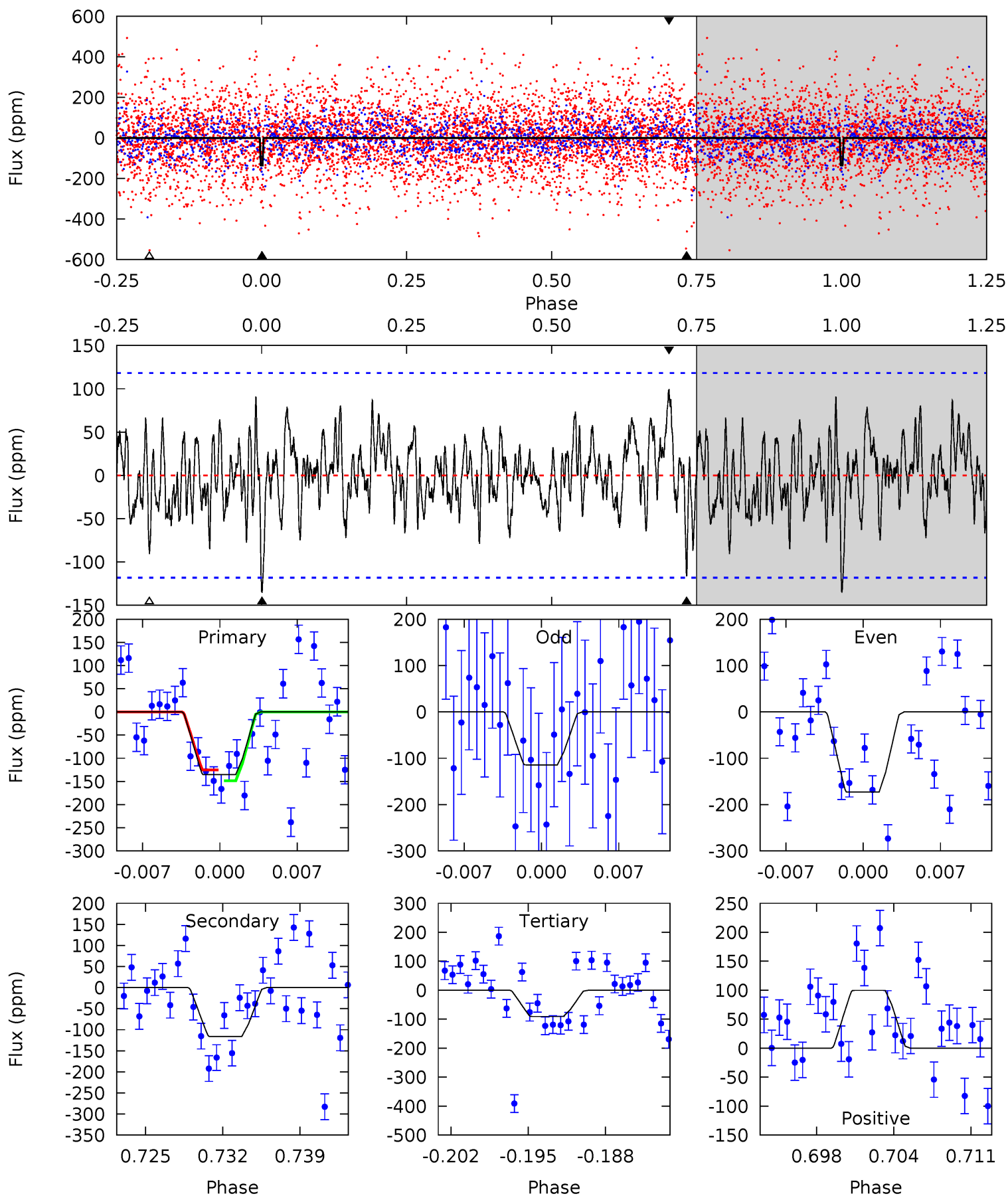
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.81	4.28	4.02	3.68	5.08	2.68	1.29	2.79	3.13	0.26	0.59	1.23	0.82	0.42	0.70



Alt Model-Shift Uniqueness Test

011496366-08, $P = 12.311979$ Days, $E = 121.007831$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.83	5.00	3.91	4.30	5.09	2.70	1.43	1.92	1.54	1.09	0.70	1.21	0.94	0.42	0.51



Stellar Parameters For KIC 011496366

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5489^{+202}_{-134}	$3.991^{+0.315}_{-0.135}$	$-0.040^{+0.350}_{-0.200}$	$1.648^{+0.359}_{-0.538}$	$0.970^{+0.144}_{-0.084}$	$0.305^{+0.627}_{-0.115}$
	+4%/-2%	+8%/-3%	+875%/-500%	+22%/-33%	+15%/-9%	+205%/-38%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011496366-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-81±19	$3.21^{+2.70}_{-2.23}$	1342^{+96}_{-124}	4120^{+2621}_{-800}	46^{+424}_{-33}
Alt.	-116±23	$3.00^{+2.68}_{-2.09}$	1343^{+92}_{-126}	4482^{+3484}_{-905}	76^{+748}_{-56}

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

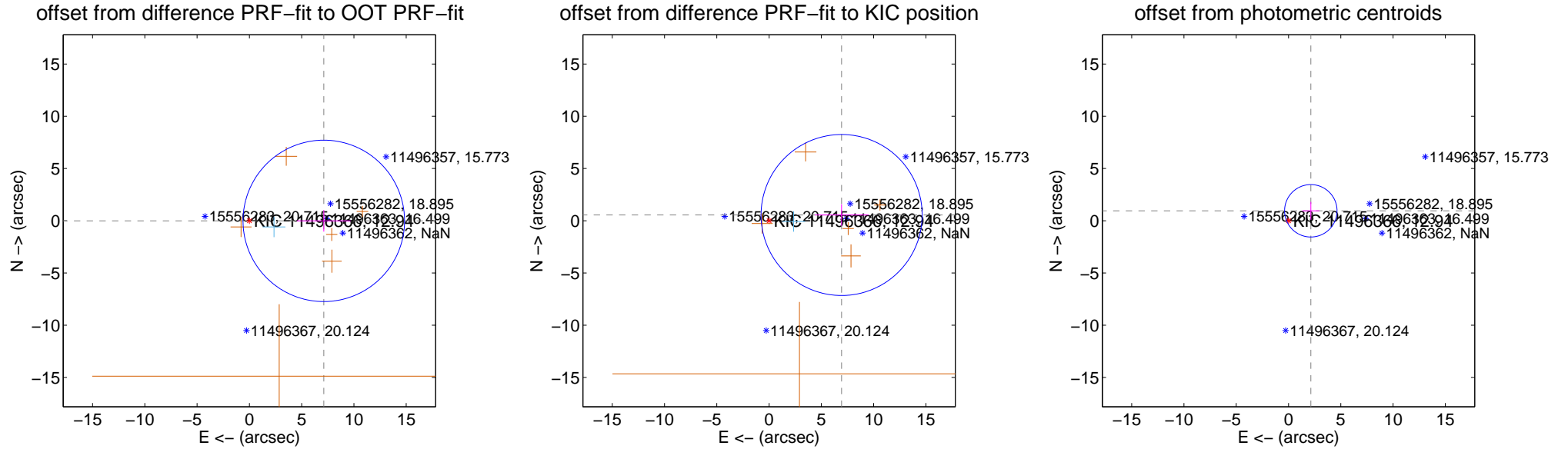
DV Centroid Data

Supplemental centroid analysis for 011496366-08. Kepler magnitude: 12.94. Transit SNR 9.26

There are 1 quarters with good PRF difference image offsets

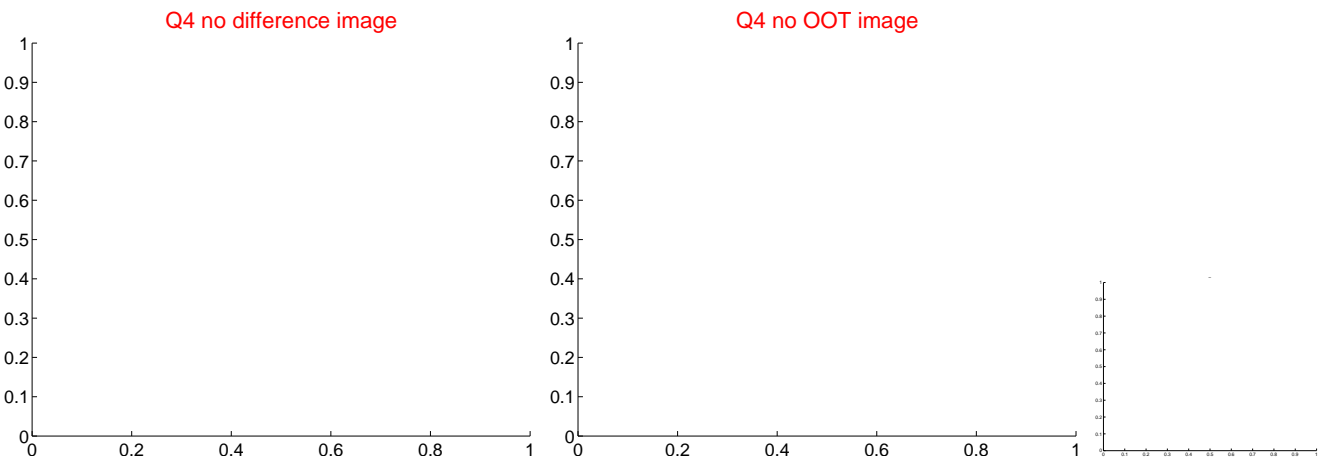
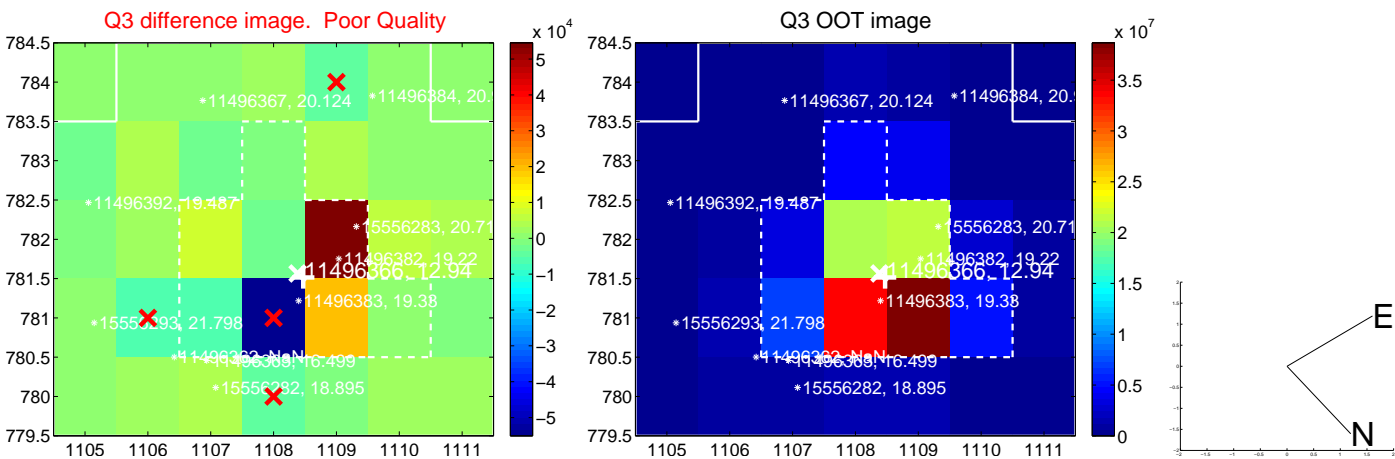
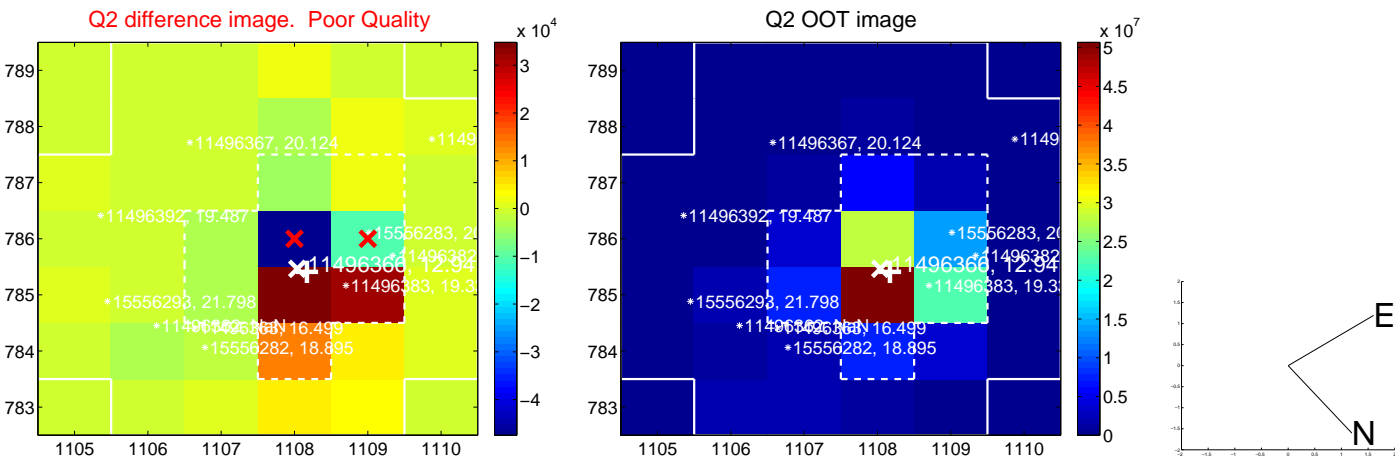
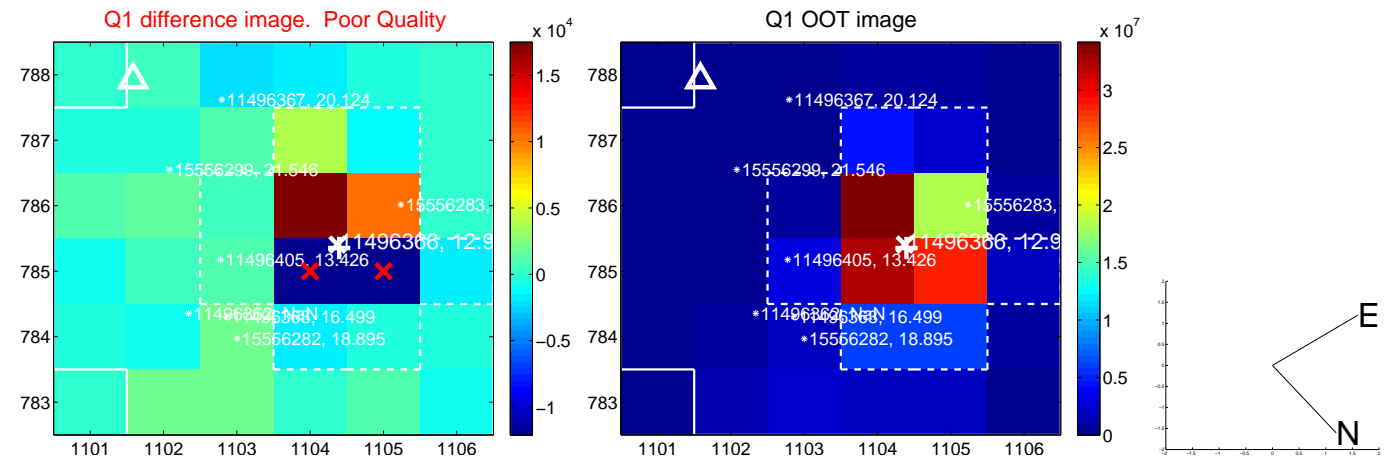
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.117 ± 2.575	2.76	-7.117 ± 2.575	-0.013 ± 1.032
PRF-fit source offset from KIC position	6.958 ± 2.568	2.71	-6.936 ± 2.575	0.549 ± 1.032
photometric centroid source offset	2.34 ± 0.84	2.79	-2.13 ± 0.83	0.95 ± 0.85

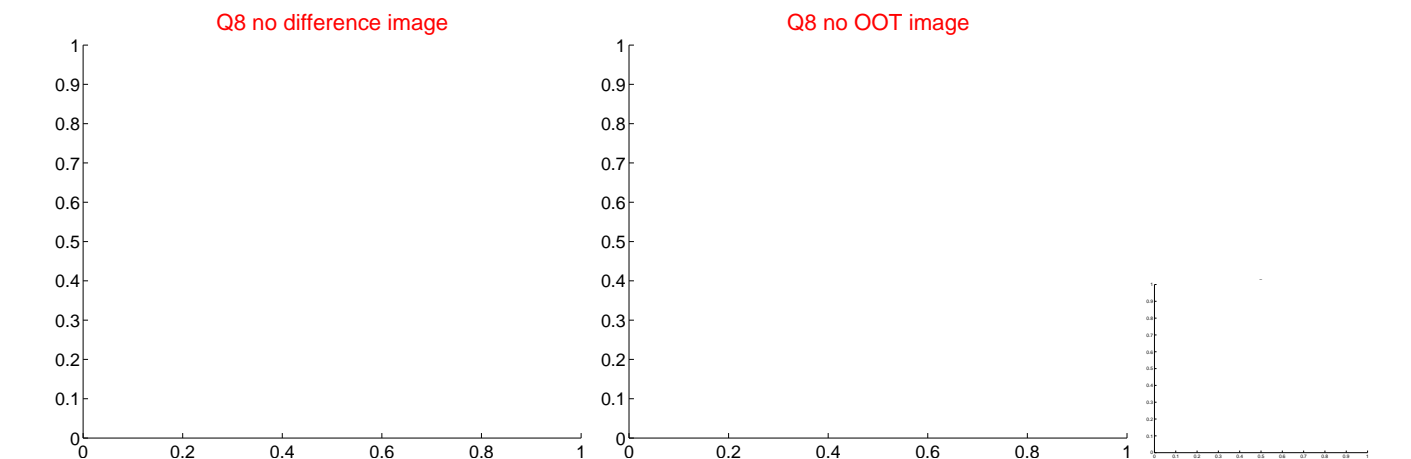
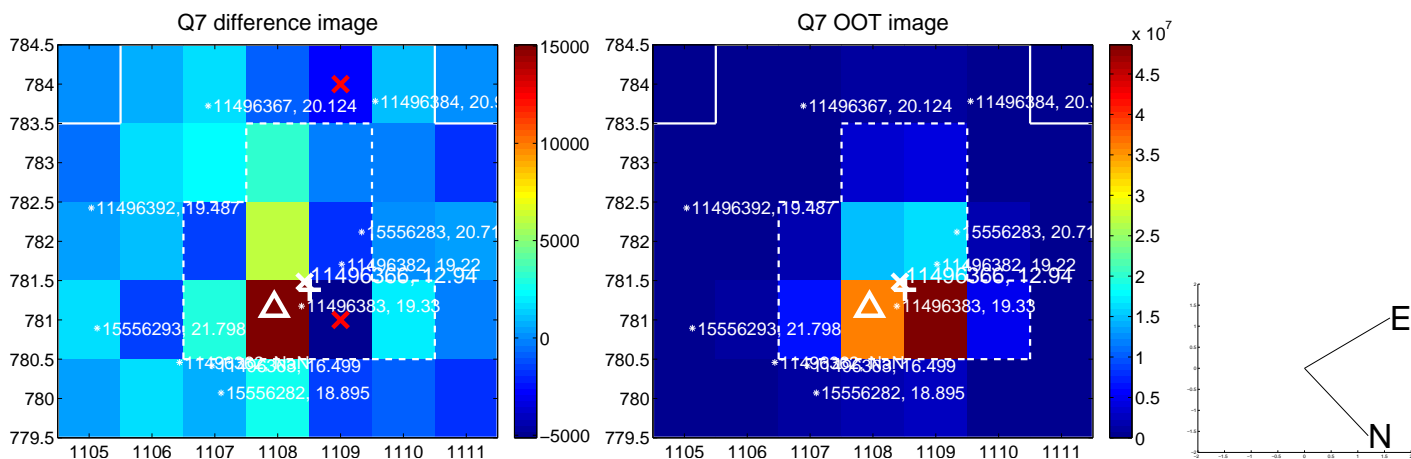
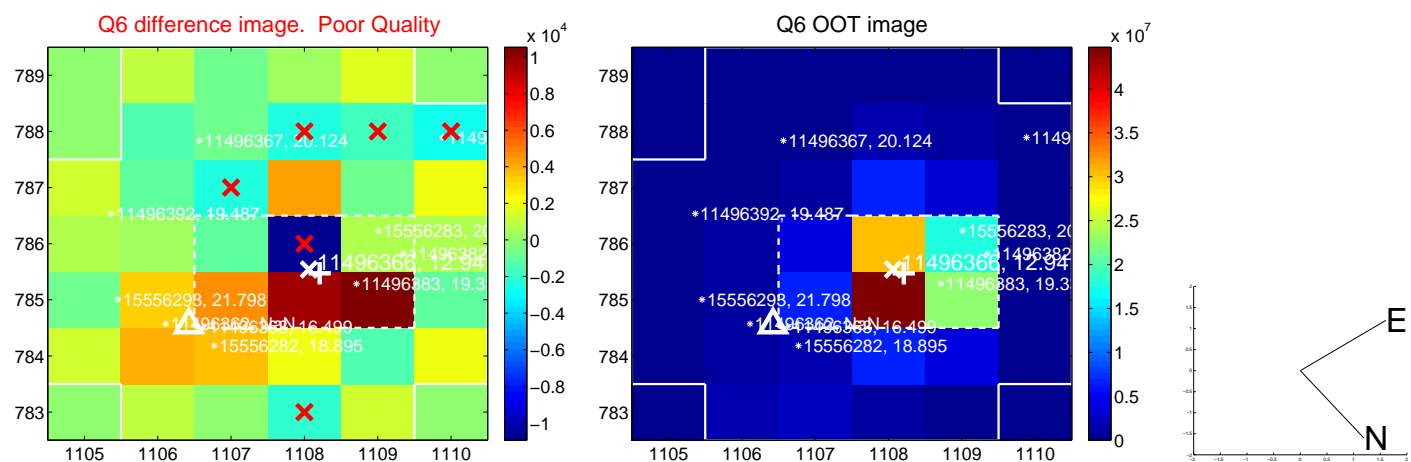
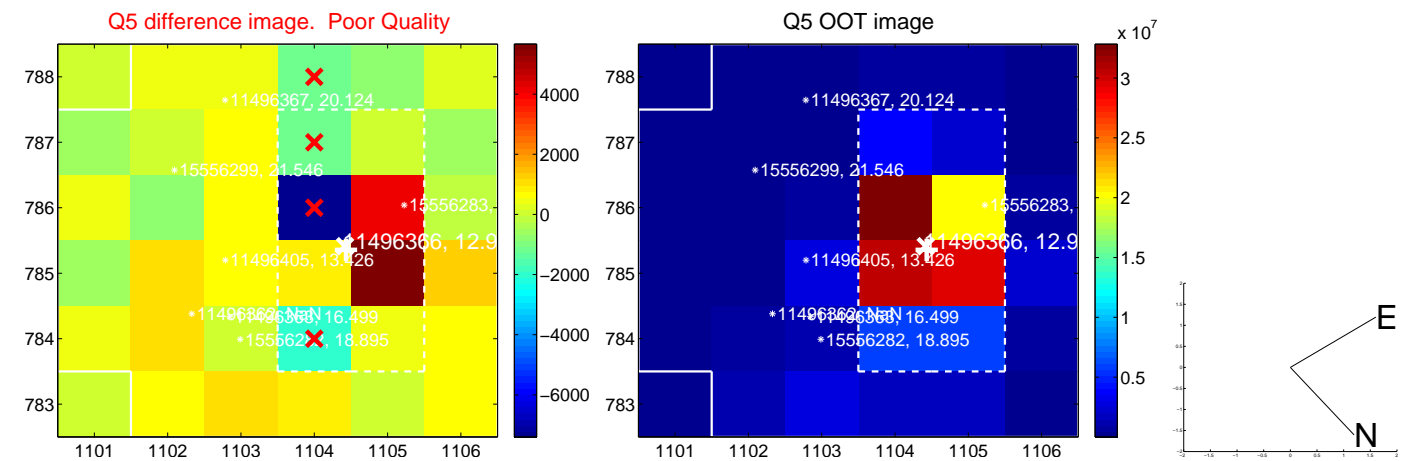


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

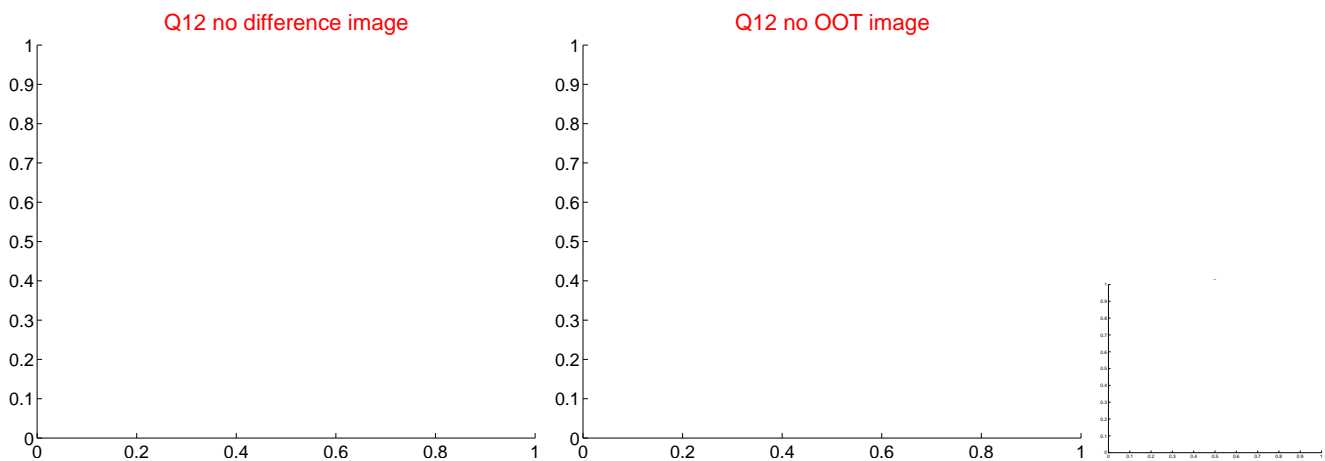
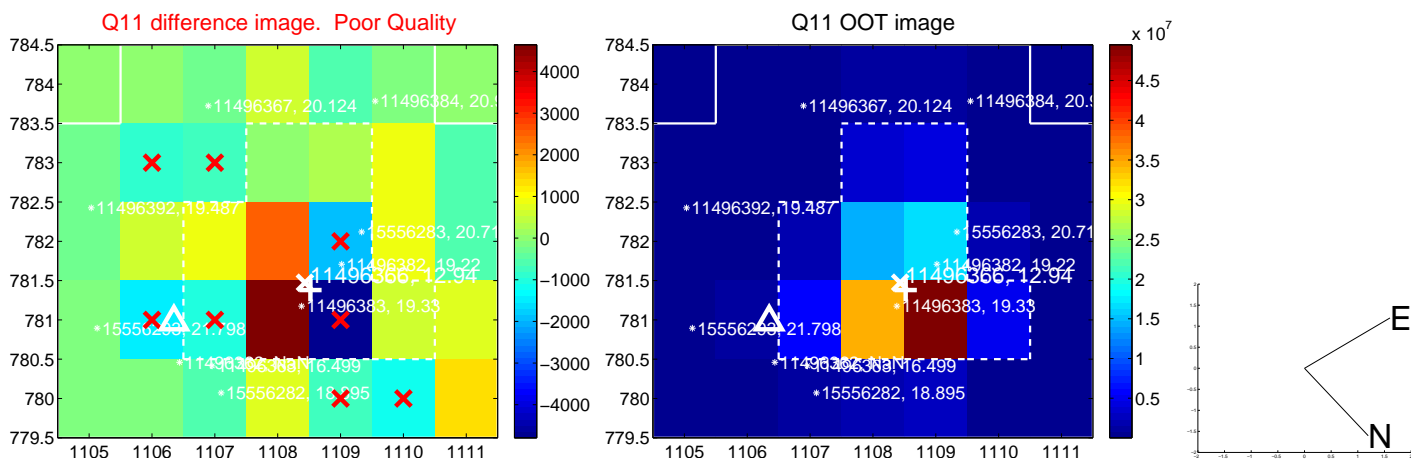
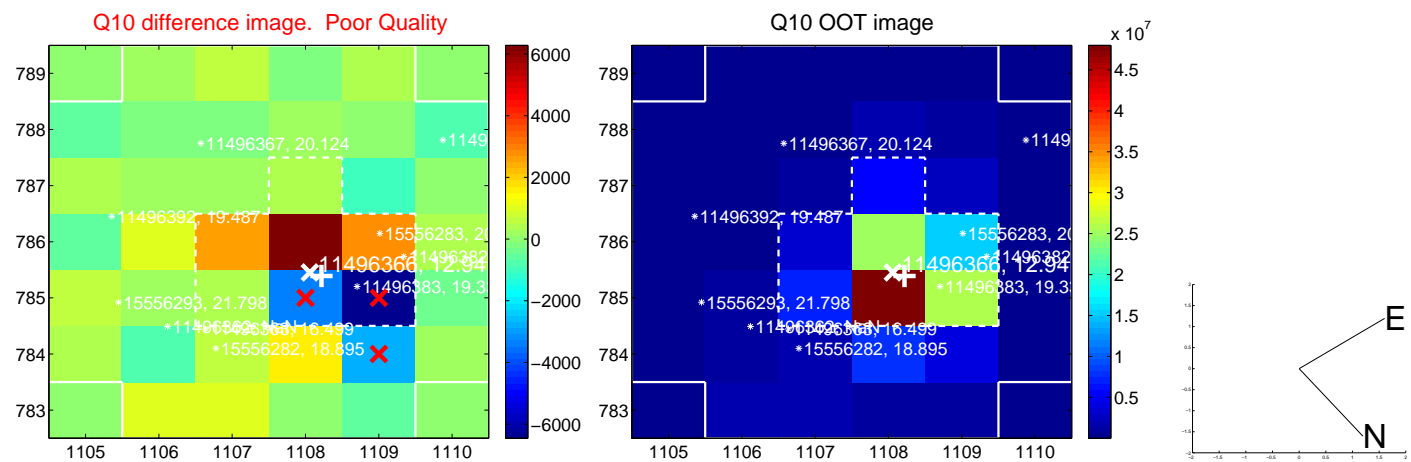
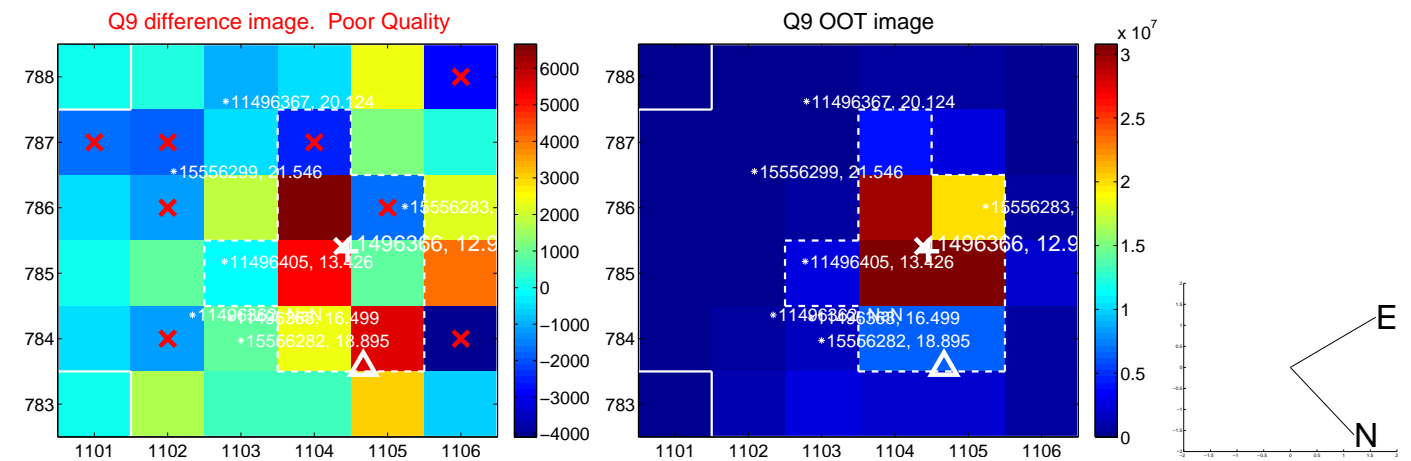
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



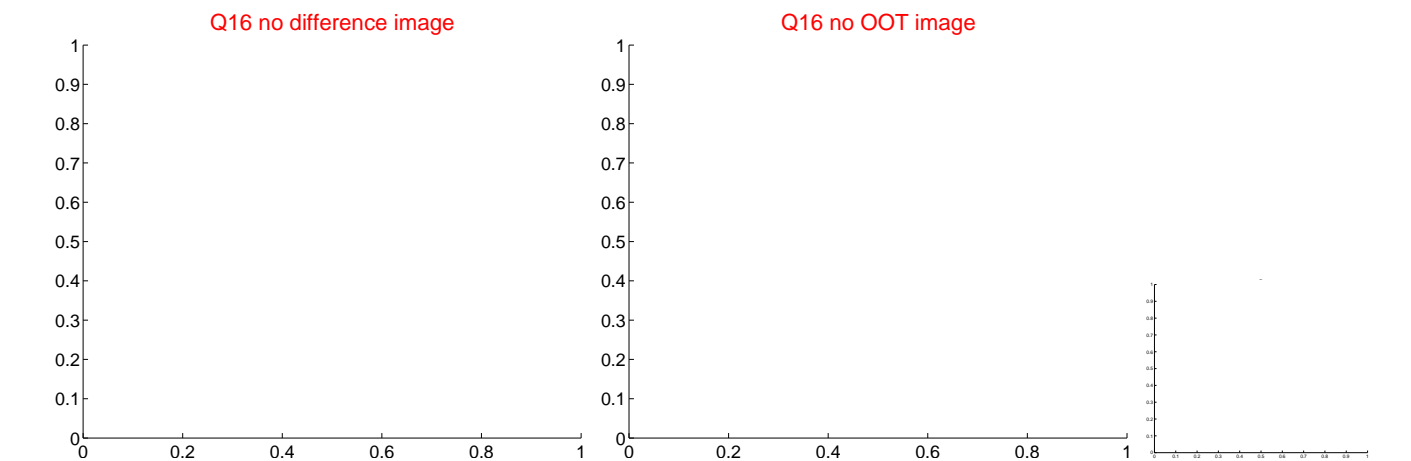
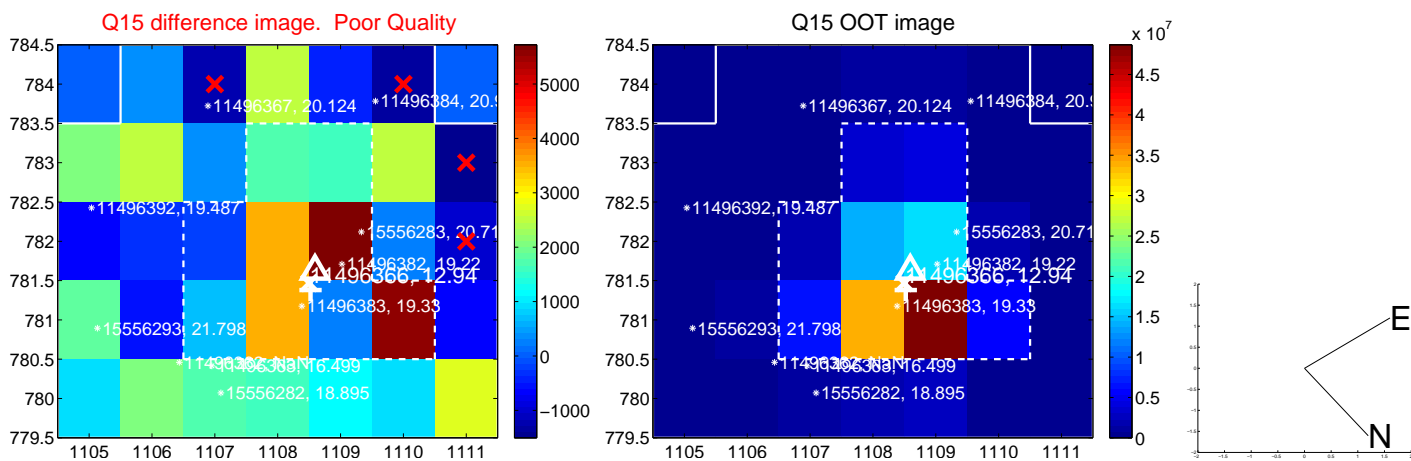
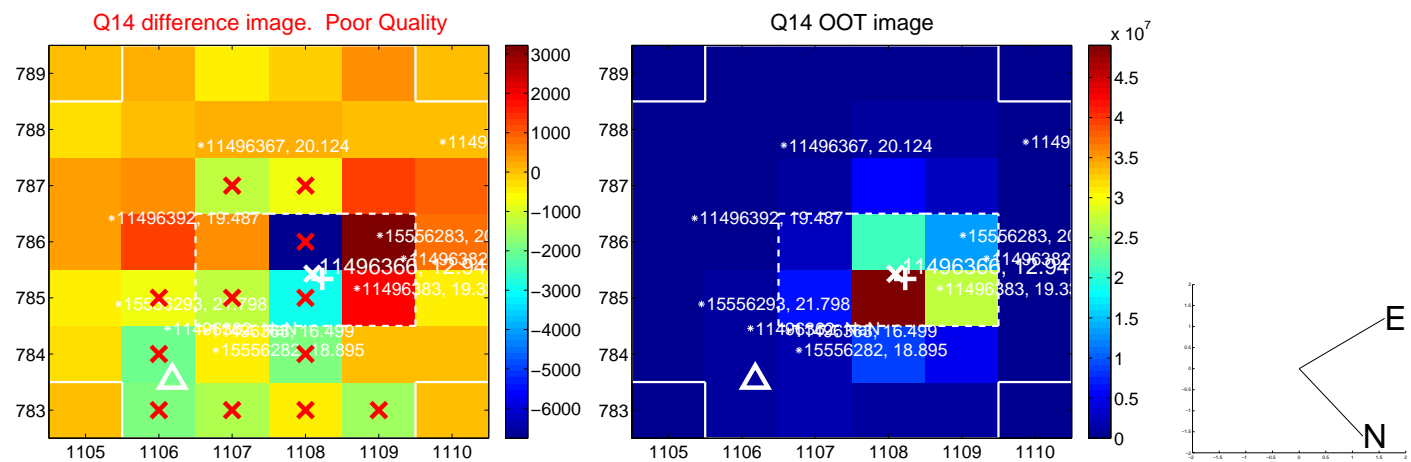
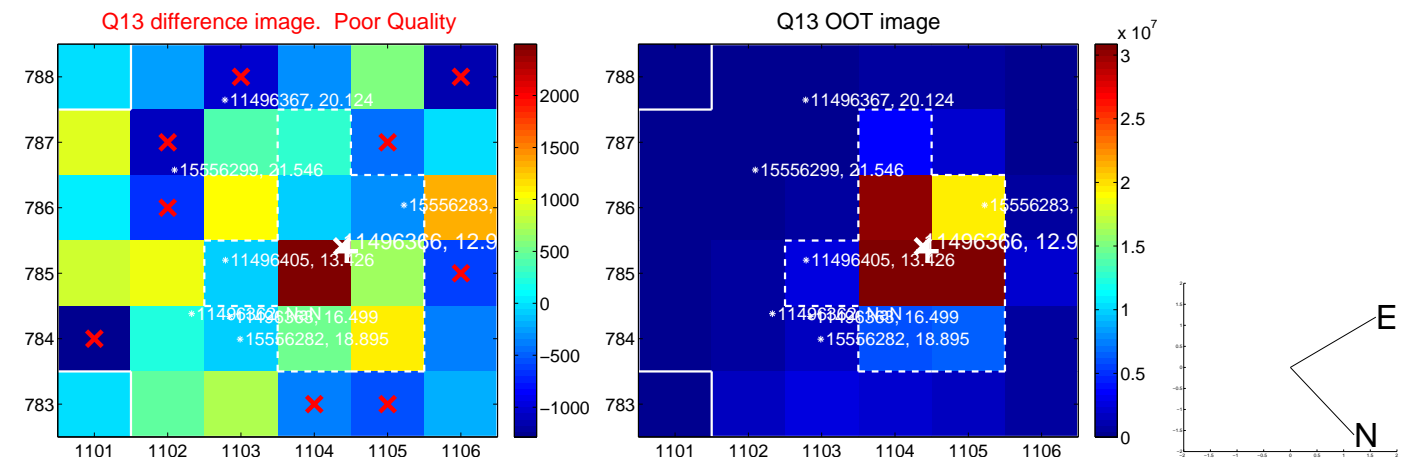
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



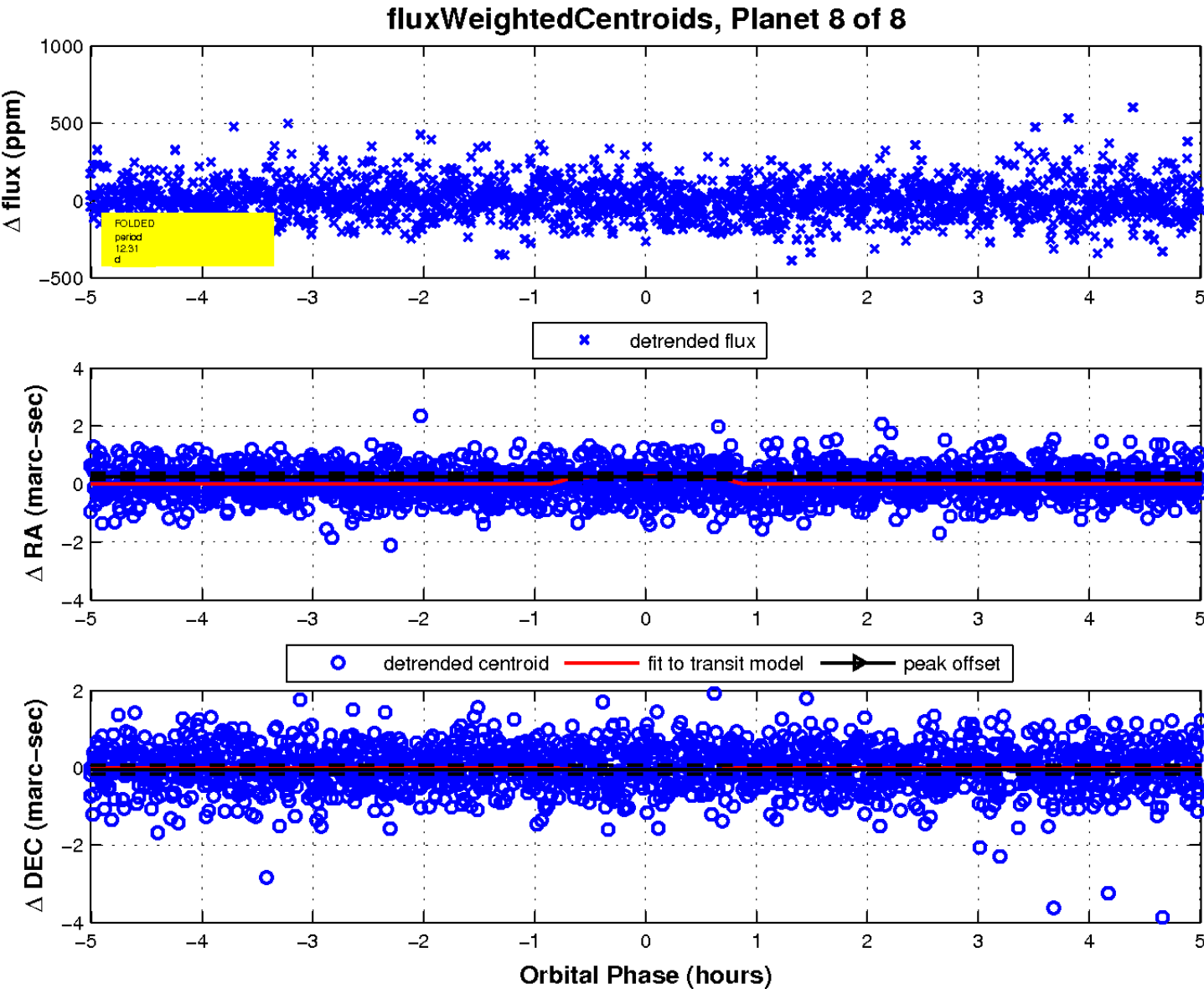
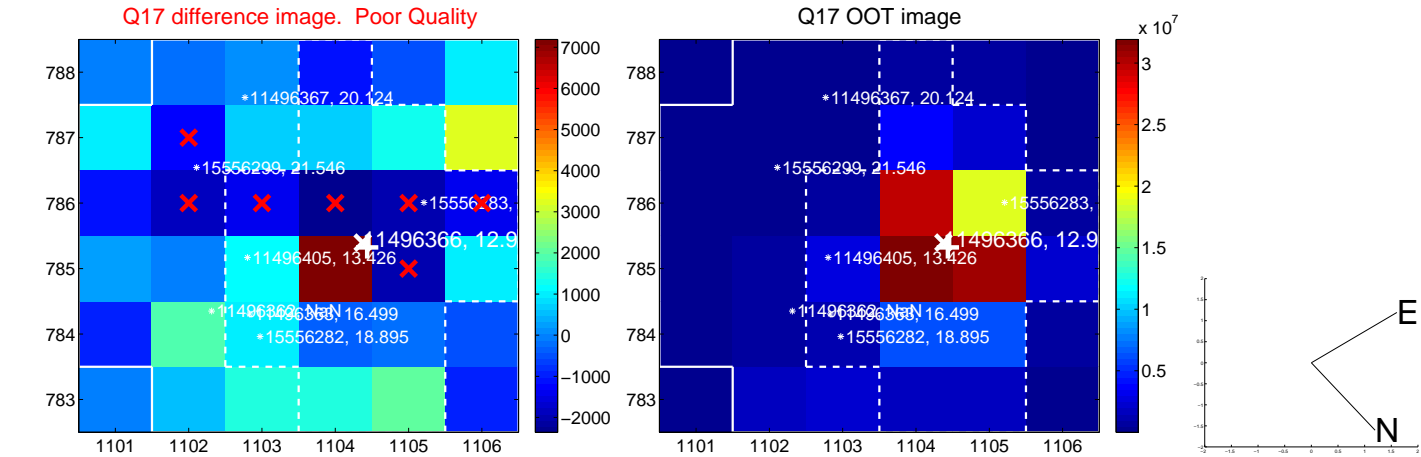
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

