

KIC 007117050

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})
007117050-01	OBS	No	81.430634	134.106537	495.2	18.432	23.4	24.4	14.71	4769	43.75	354.72
007117050-02	OBS	No	79.101064	151.729459	335.5	12.441	16.3	14.0	14.71	4769	36.08	368.71
007117050-03	OBS	8135.01	73.821749	174.048933	280.4	16.860	13.7	15.3	14.71	4769	32.77	404.29
007117050-04	OBS	No	80.873779	141.387204	192.6	60.637	12.7	7.8	14.71	4769	23.83	357.98
007117050-05	OBS	No	34.111369	140.539877	10.5	29.104	10.4	0.8	14.71	4769	5.71	1131.71
007117050-06	OBS	No	96.446605	179.222342	146.9	1.306	7.3	9.7	14.71	4769	18.99	283.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117050-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007117050-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED—HALO_GHOST
007117050-03	OBS	FP	0.11	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
007117050-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

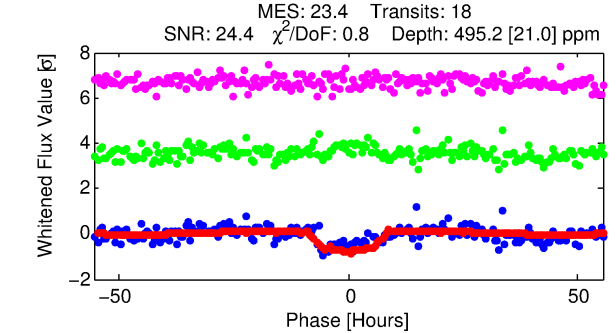
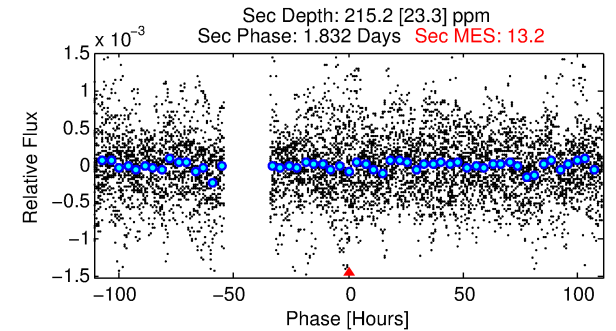
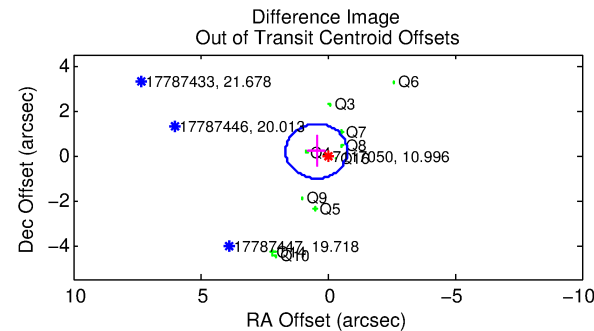
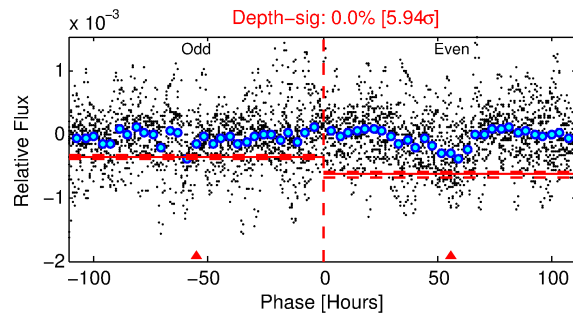
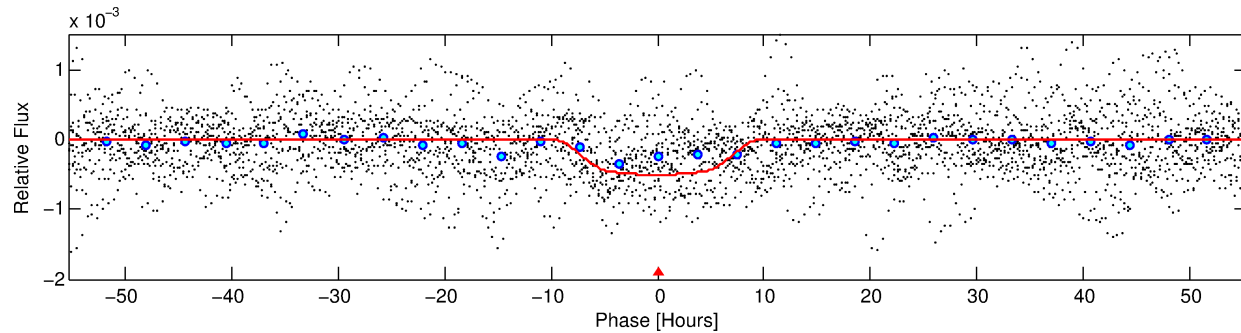
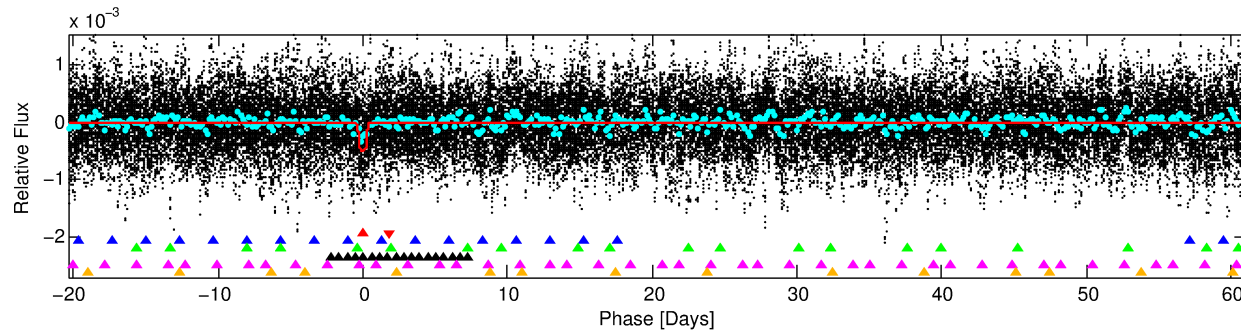
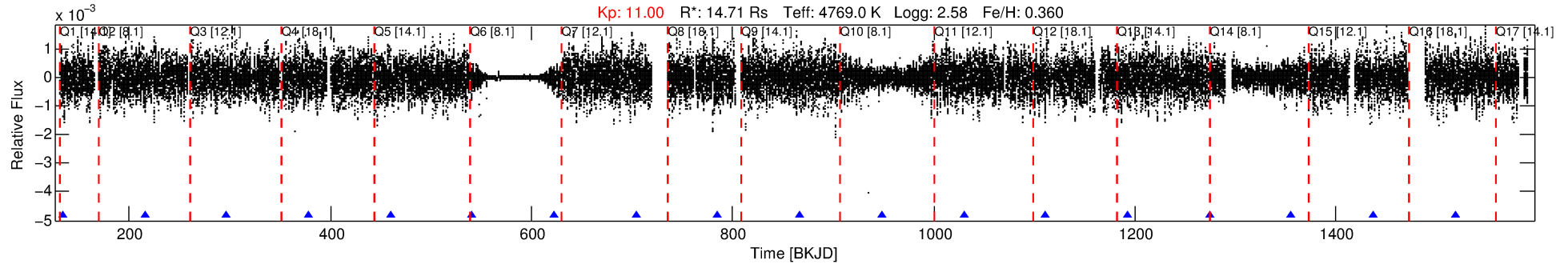
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007117050-01

No Significant Match Found

DV One-Page Summary

KIC: 7117050 Candidate: 1 of 6 Period: 81.431 d



DV Fit Results:

Period = 81.43063 [0.00242] d
Epoch = 134.1065 [0.0175] BKJD
Rp/R* = 0.0273 [0.0009]
a/R* = 13.23 [1.06]
b = 0.95 [0.01]
Seff = 354.72 [79.59]
Teq = 1107 [62] K
Rp = 43.75 [11.67] Re
a = 0.5316 [0.0947] AU
Ag = 17.48 [3.91] [4.22 σ]
Teffp = 3498 [159] K [14.02 σ]

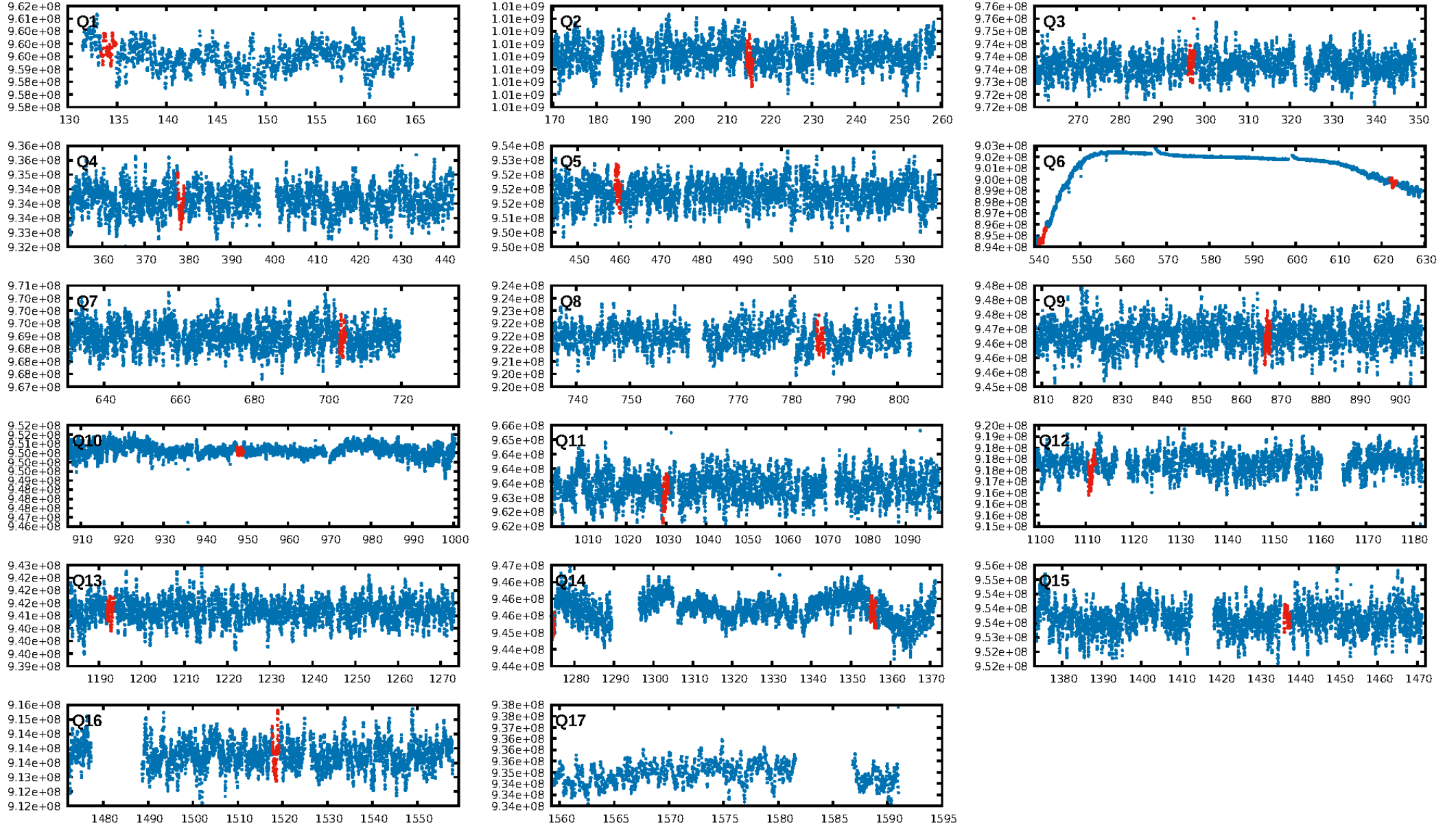
DV Diagnostic Results:

ShortPeriod-sig: 16.7% [0.21 σ]
LongPeriod-sig: 100.0% [19.50 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.61e-43
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: -0.4337
Centroid-sig: 59.3%
Centroid-so: 0.343 arcsec [1.49 σ]
OotOffset-rm: 0.478 arcsec [1.18 σ]
OotOffset-st: 3/2/3/2 [10]
KicOffset-rm: 0.265 arcsec [0.75 σ]
KicOffset-st: 3/2/3/2 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 0.42 [5/12]

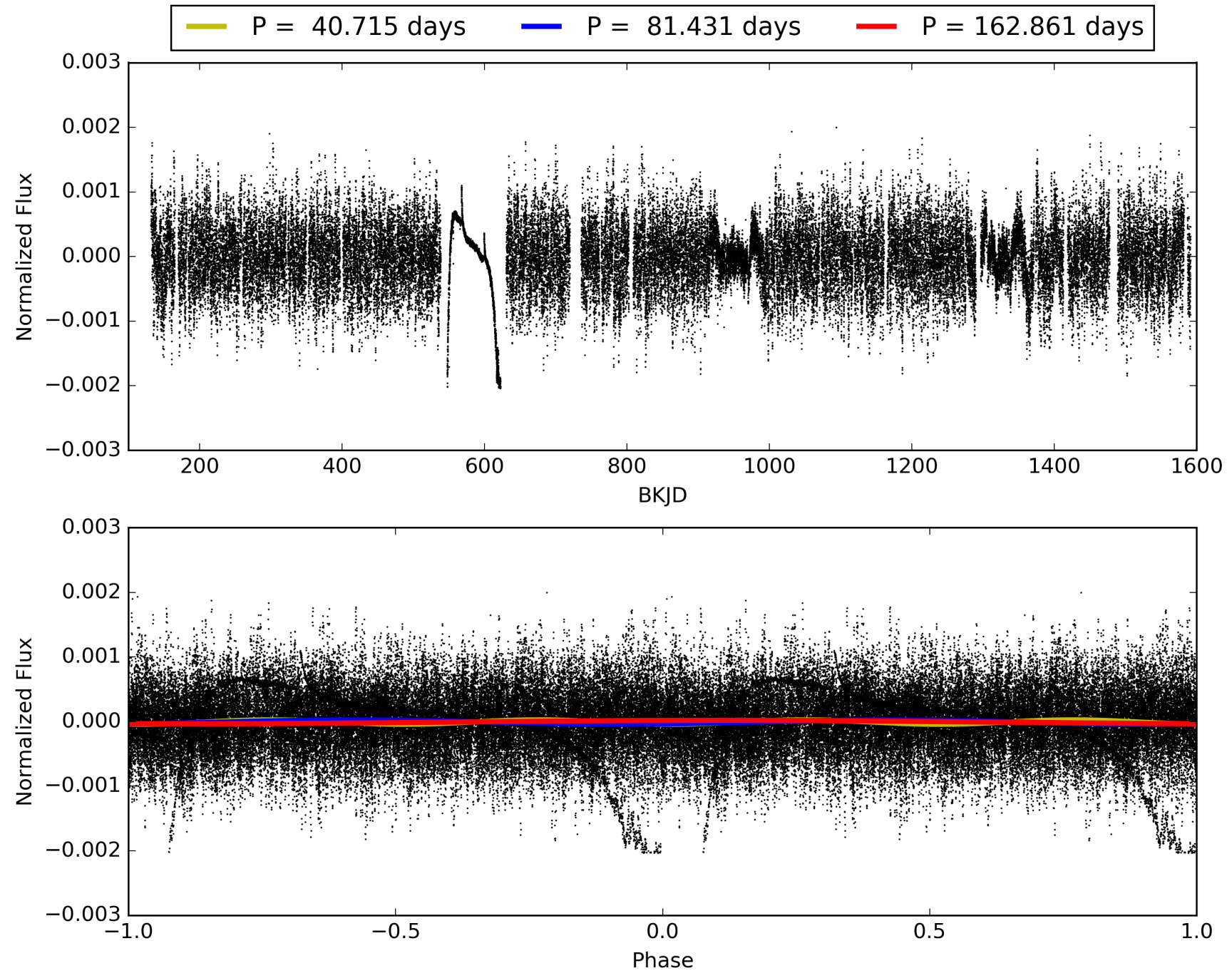
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:47:19 Z

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

TCE 007117050-01, PDC Light Curves

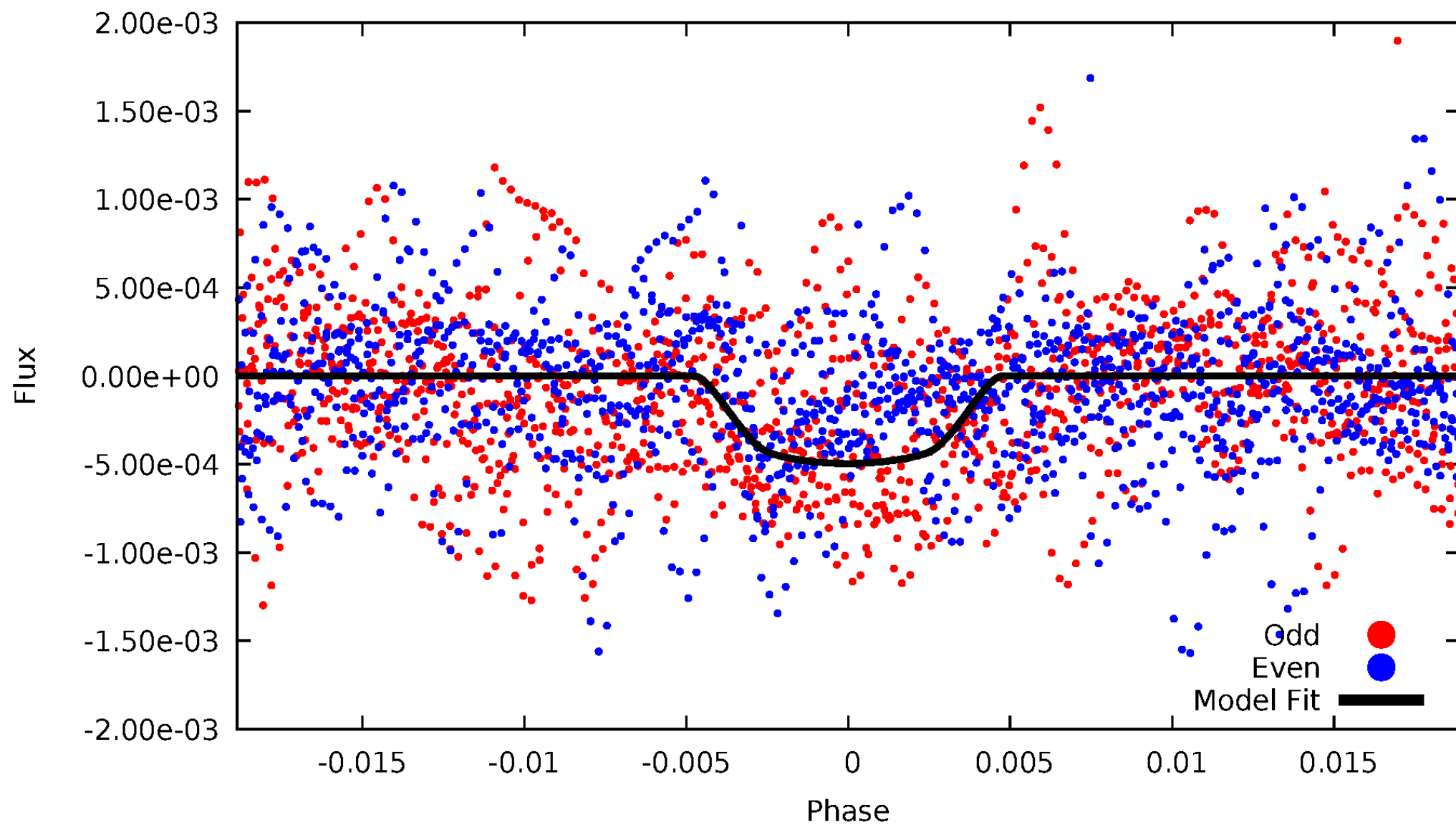


TCE 007117050-01



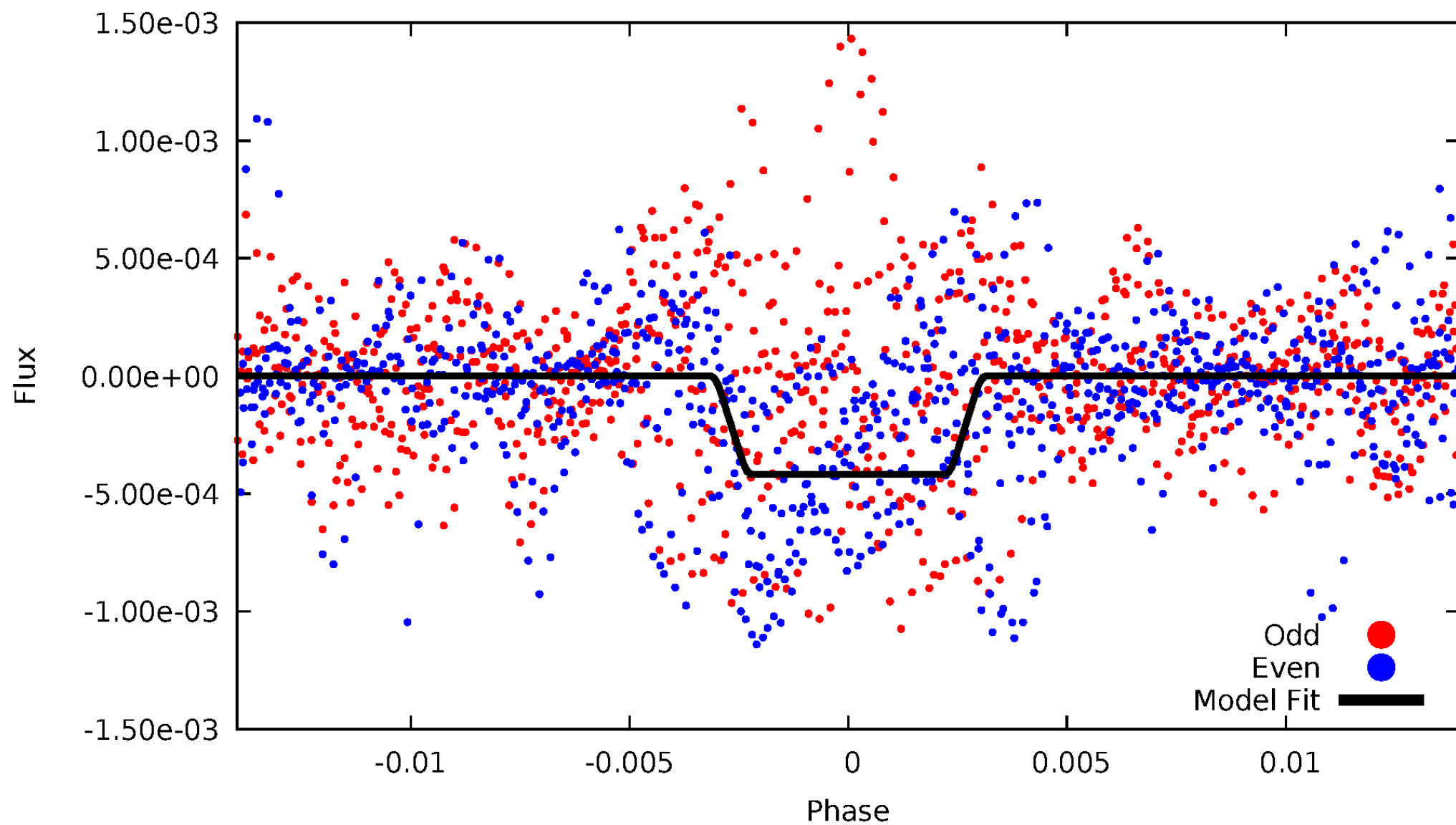
DV Odd/Even

TCE 007117050-01



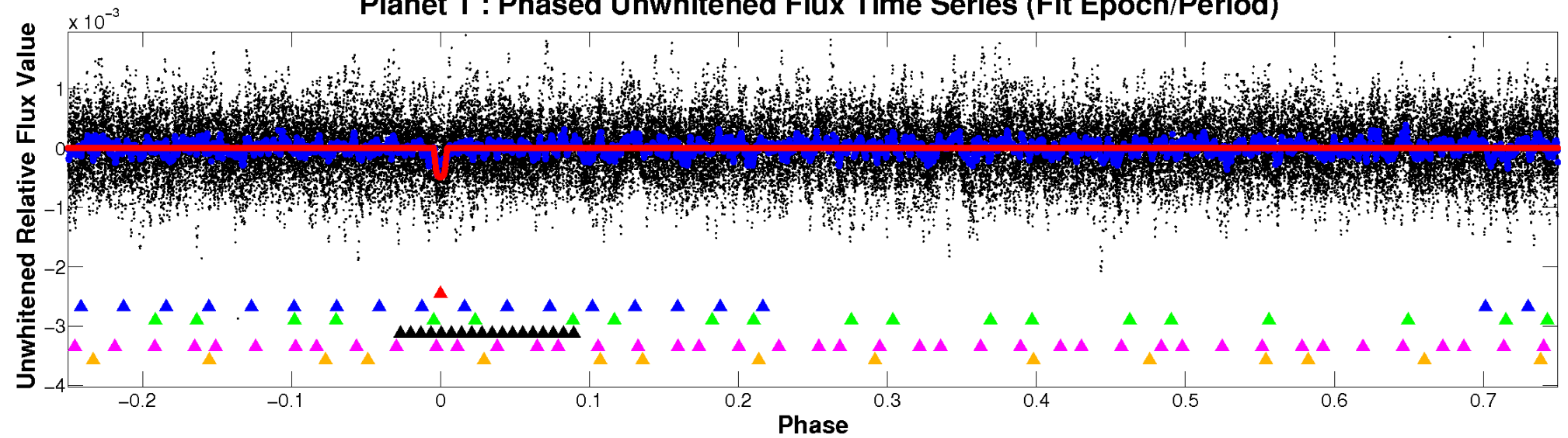
ALT Odd/Even

TCE 007117050-01

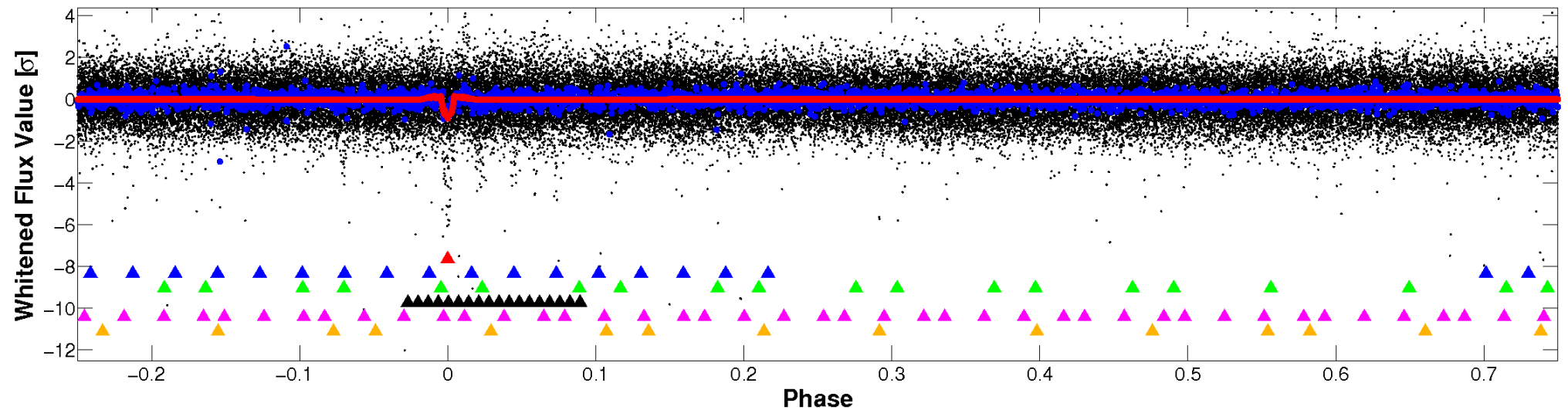


Non-Whitened Vs. Whitened Light Curve

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

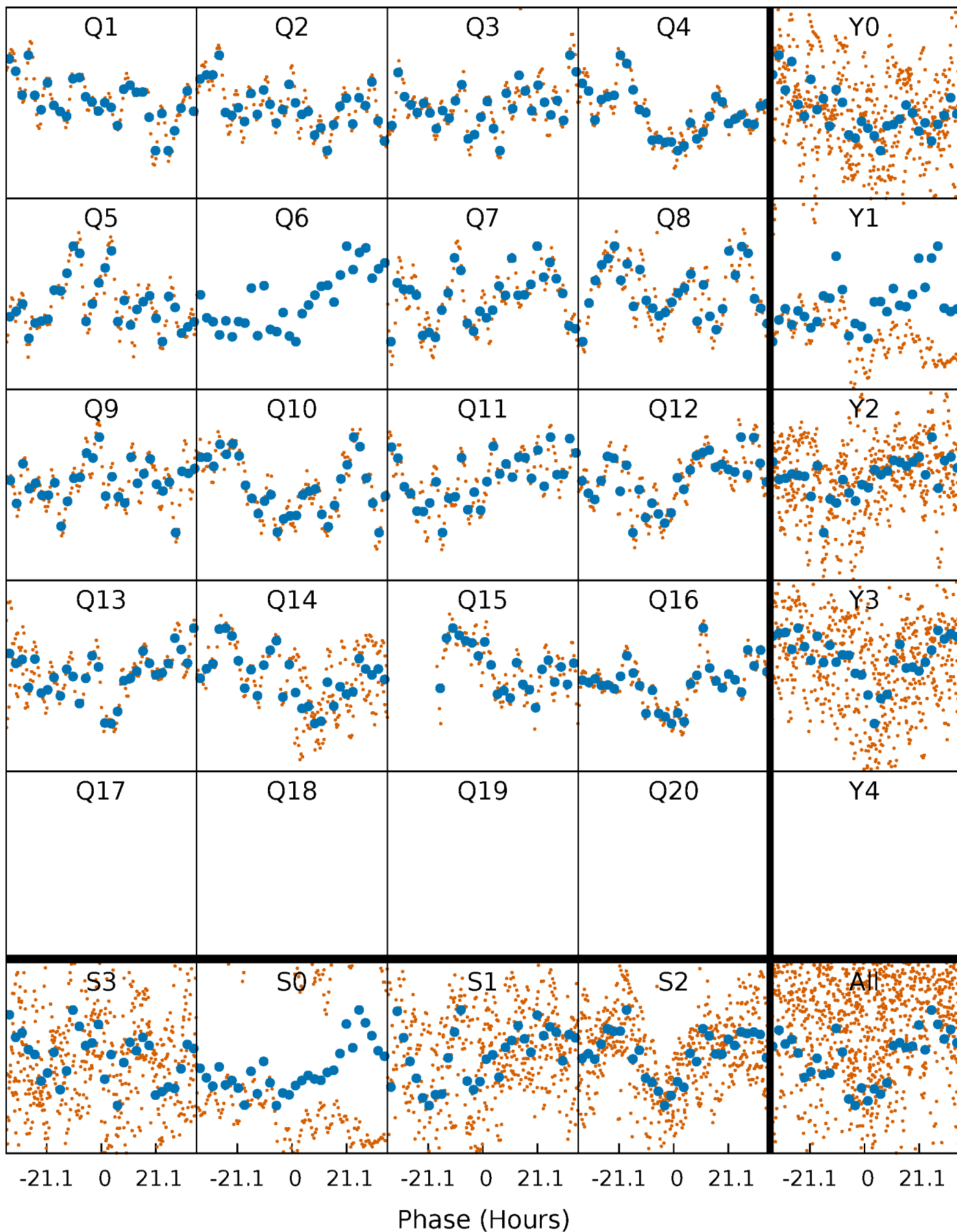


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



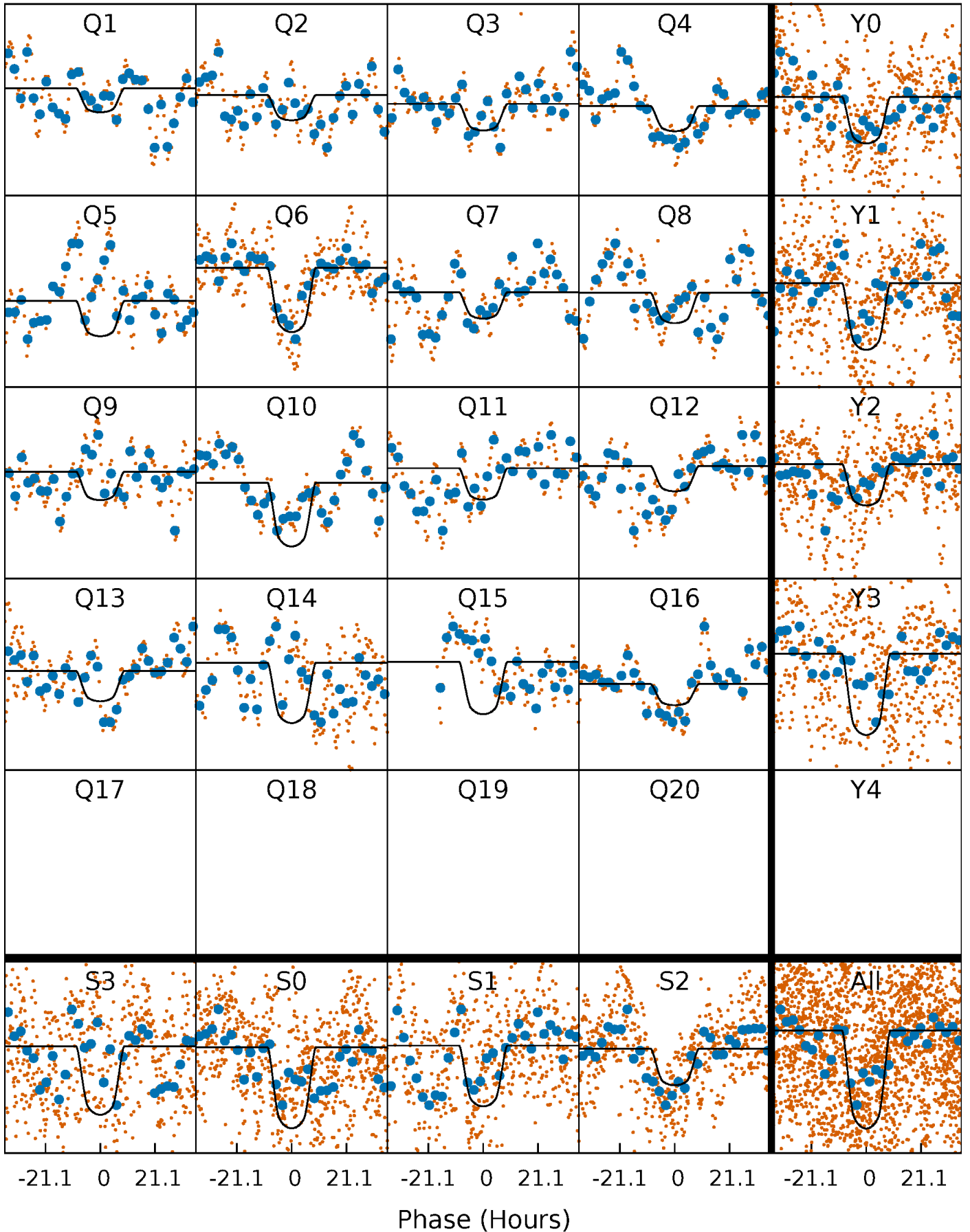
PDC Quarter-Phased Transit Curves

TCE 007117050-01 P= 81.430634 Days $T_0=134.106538$ (BKJD)



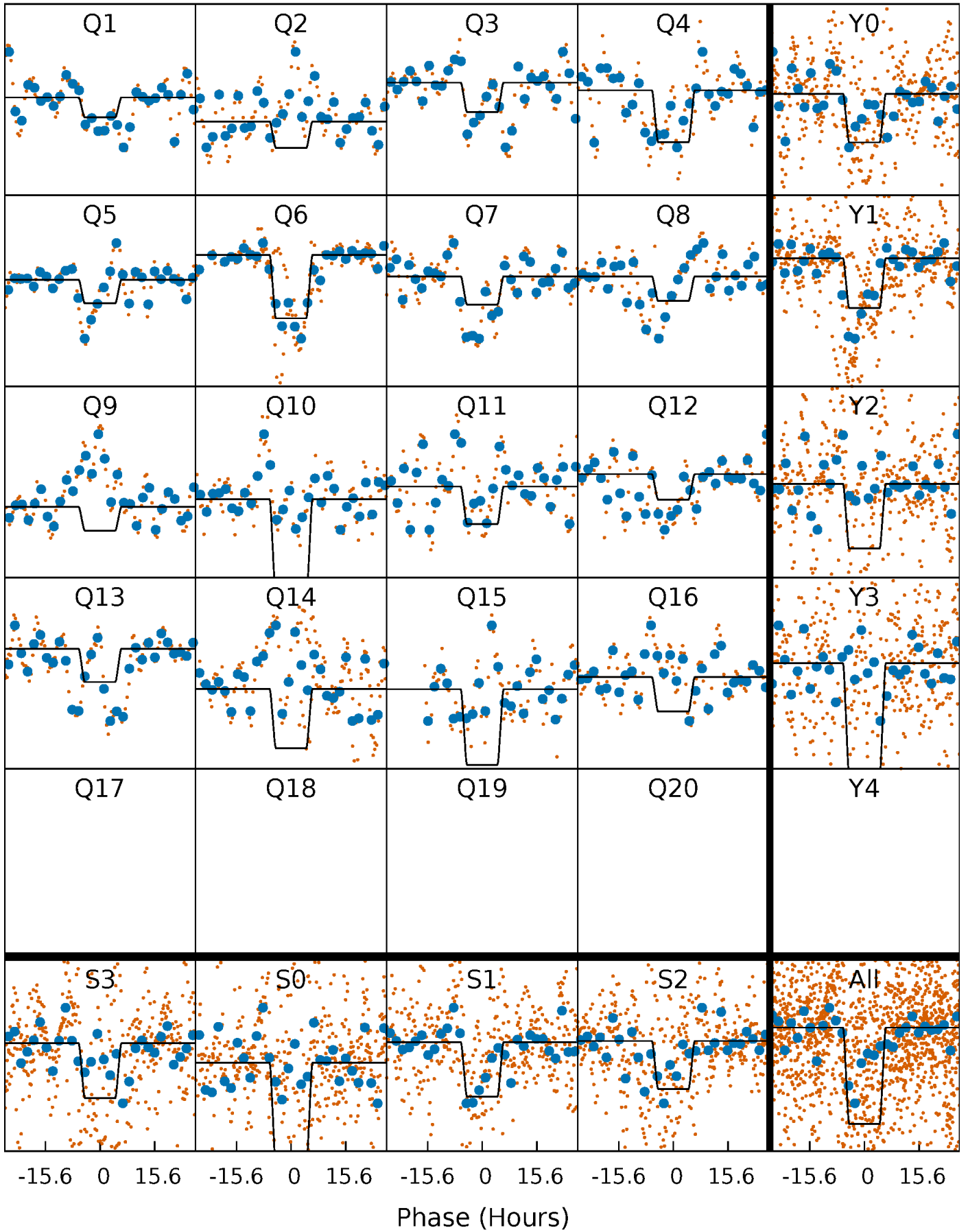
DV Quarter-Phased Transit Curves

TCE 007117050-01 P= 81.430634 Days $T_0=134.106538$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

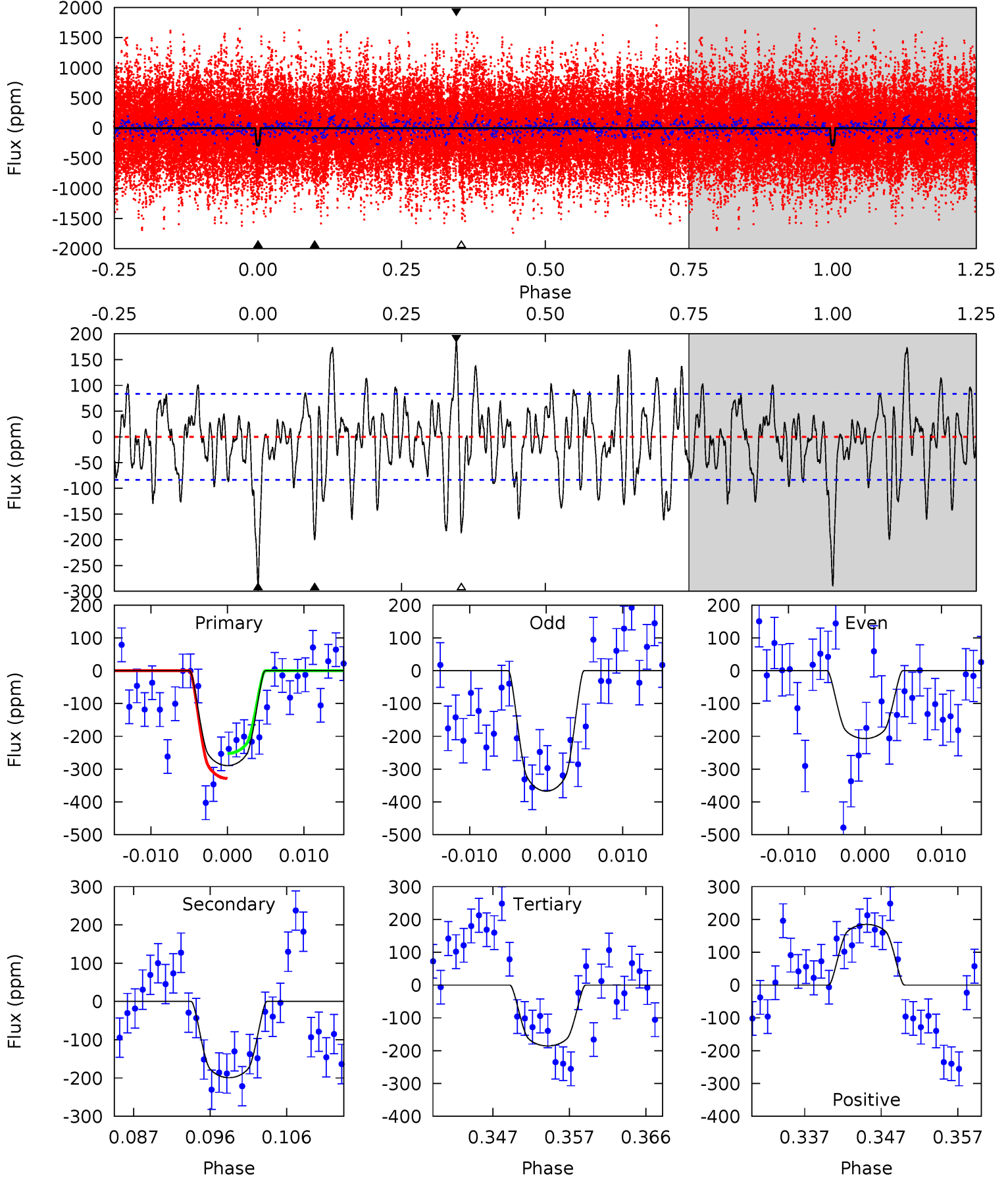
TCE 007117050-01 P= 81.429789 Days $T_0=134.064254$ (BKJD)



DV Model-Shift Uniqueness Test

007117050-01, P = 81.430634 Days, E = 52.675904 Days

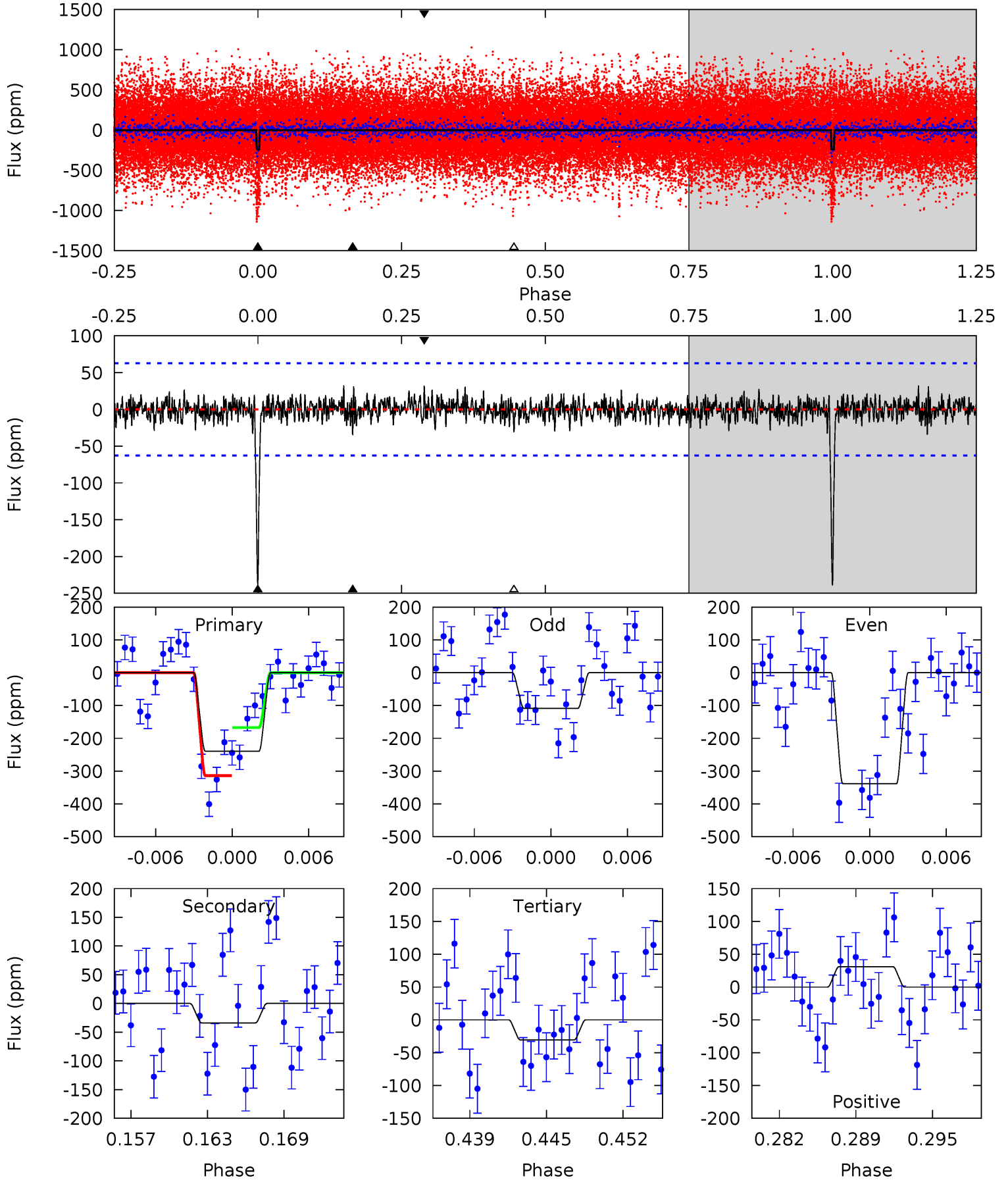
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	12.0	11.2	11.2	5.03	2.59	3.85	6.25	6.29	0.81	0.85	4.85	1.04	0.39	2.30



Alt Model-Shift Uniqueness Test

007117050-01, P = 81.429789 Days, E = 52.634465 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	2.76	2.48	2.53	5.12	2.73	0.79	17.0	17.0	0.27	0.23	9.40	0.66	0.12	6.01



Stellar Parameters For KIC 007117050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4769^{+57}_{-154}	$2.583^{+0.033}_{-0.027}$	$0.360^{+0.050}_{-0.250}$	$14.706^{+0.687}_{-3.890}$	$3.020^{+0.152}_{-1.371}$	$0.001^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+14%/-69%	+5%/-26%	+5%/-45%	+39%/-10%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007117050-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-199±17	$44.23^{+2.06}_{-2.69}$	1541^{+32}_{-52}	3712^{+86}_{-107}	16^{+2}_{-2}
Alt.	-34±12	$33.20^{+1.85}_{-2.27}$	1542^{+31}_{-56}	3057^{+158}_{-222}	$4.823^{+1.935}_{-1.726}$

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

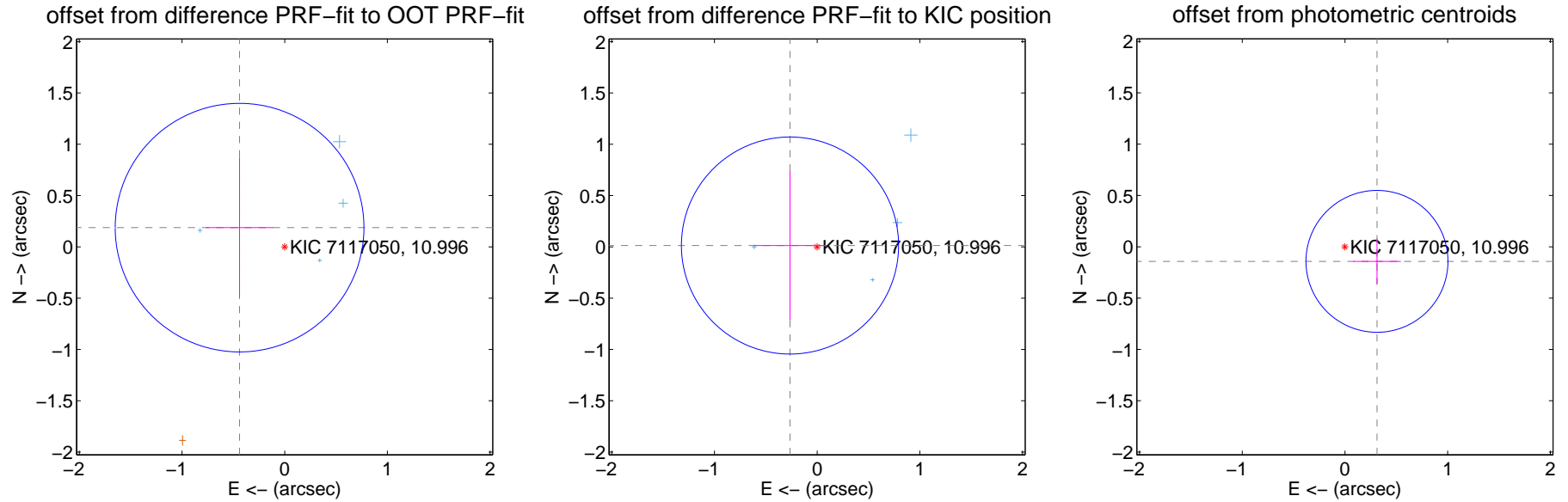
DV Centroid Data

Supplemental centroid analysis for 007117050-01. **Kepler magnitude: 11.00.** Transit SNR 24.39

There are 7 quarters with good PRF difference image offsets

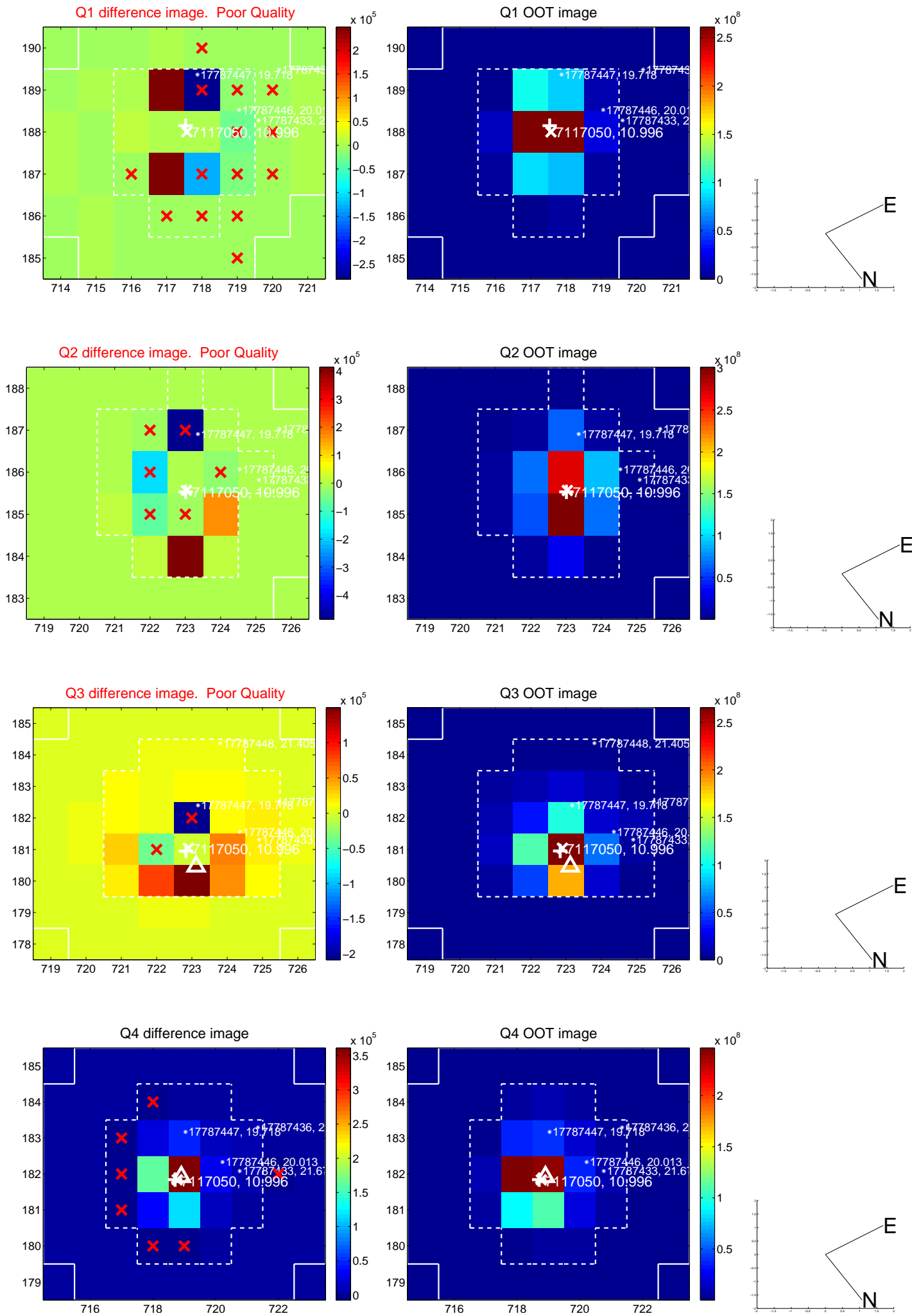
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.478 ± 0.404	1.18	0.439 ± 0.328	0.187 ± 0.683
PRF-fit source offset from KIC position	0.265 ± 0.352	0.75	0.264 ± 0.351	0.013 ± 0.727
photometric centroid source offset	0.34 ± 0.23	1.49	-0.31 ± 0.23	-0.14 ± 0.22

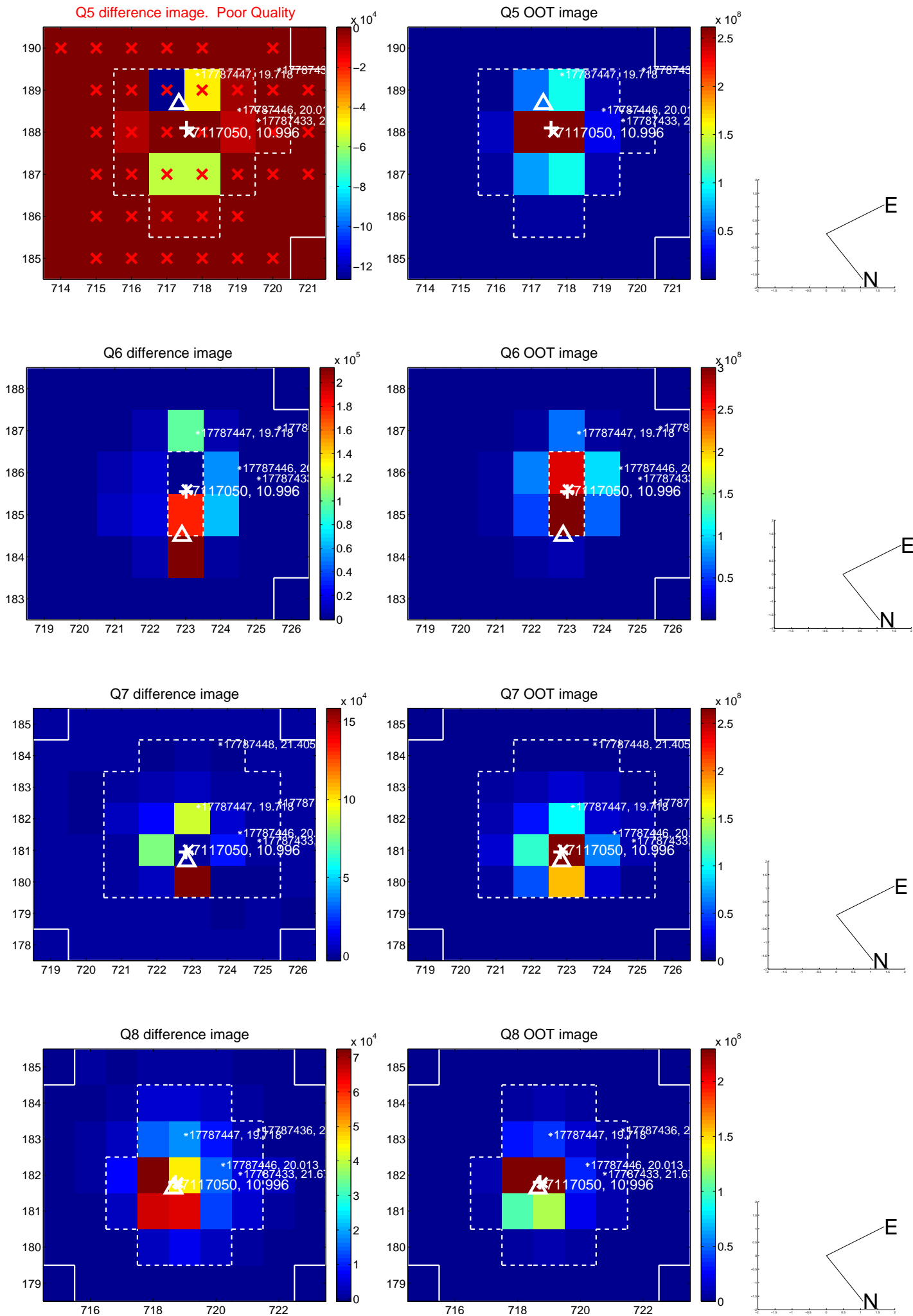


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

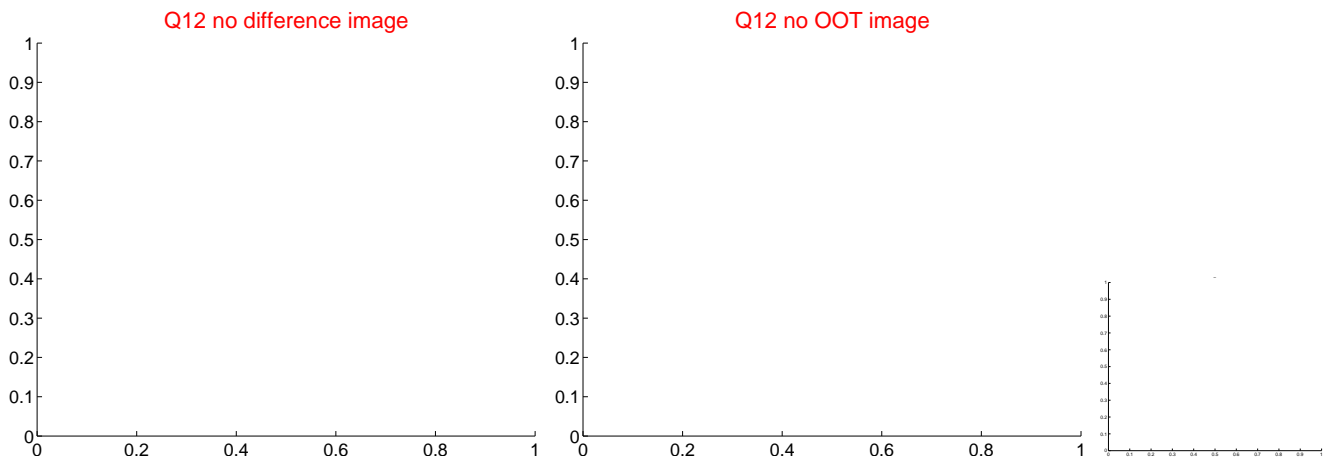
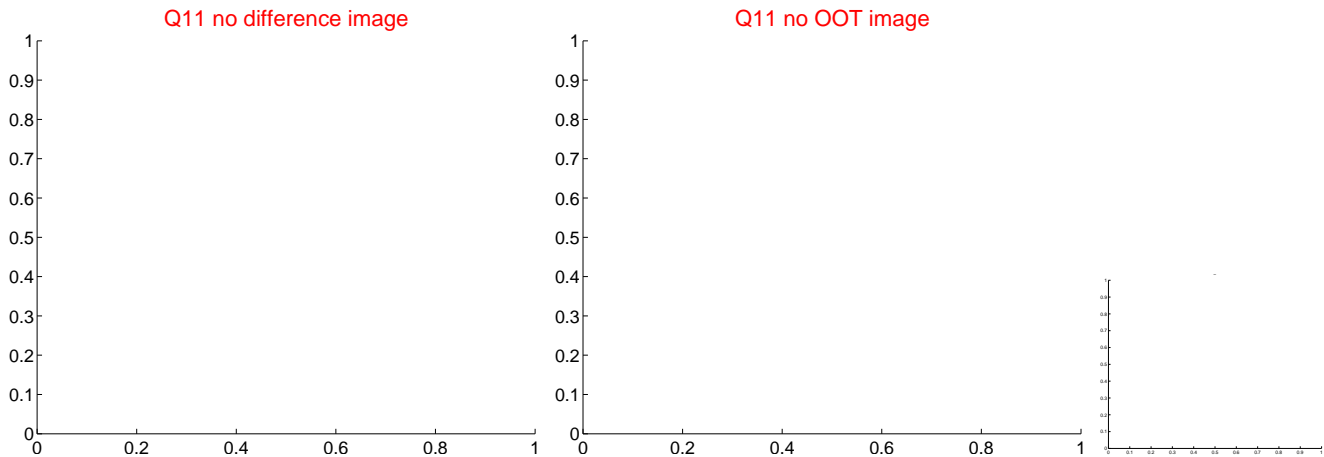
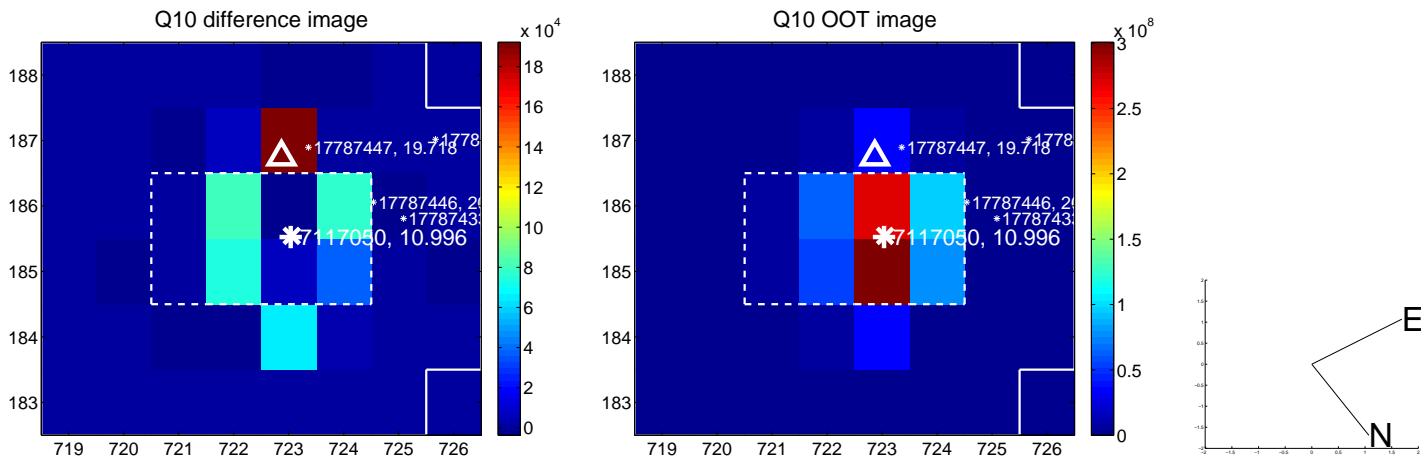
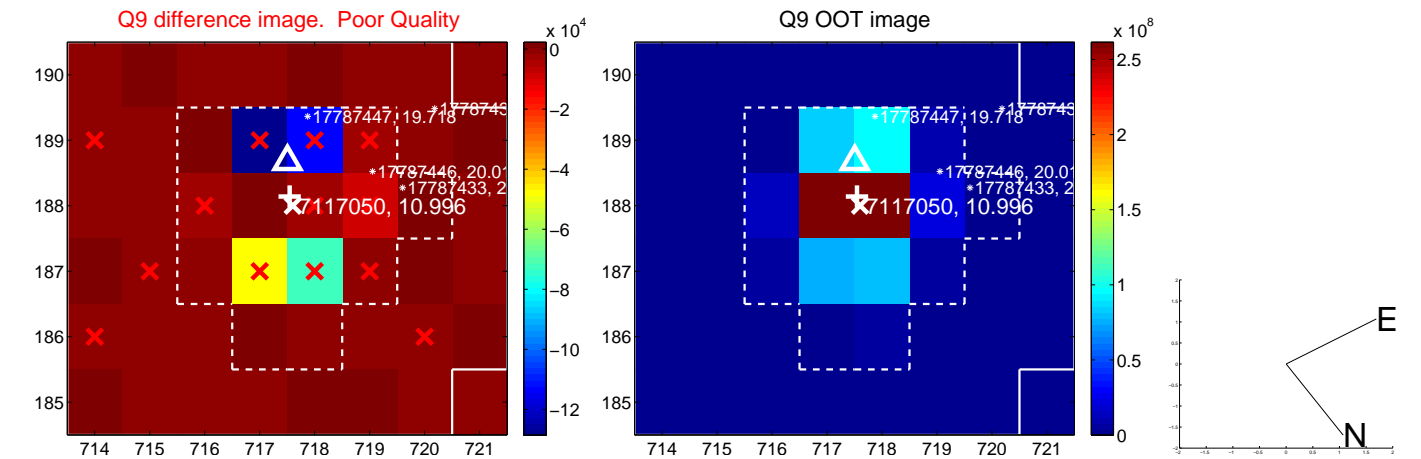
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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

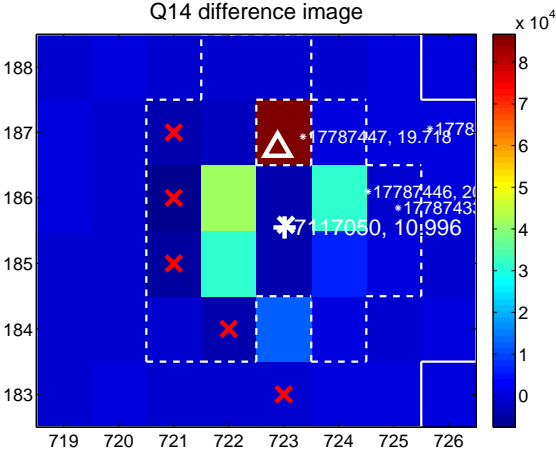
Q13 no difference image



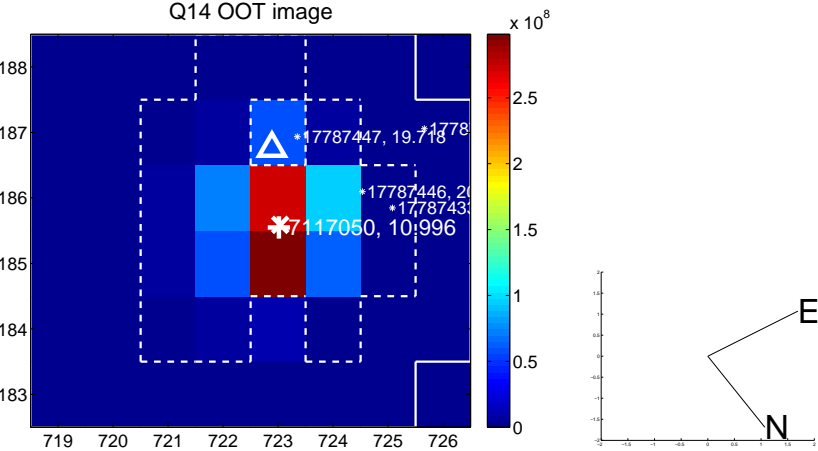
Q13 no OOT image



Q14 difference image



Q14 OOT image



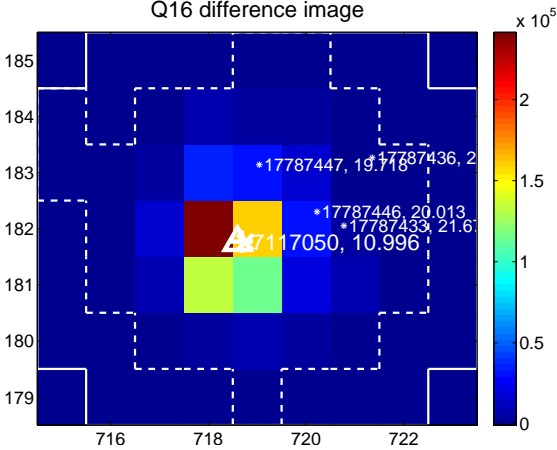
Q15 no difference image



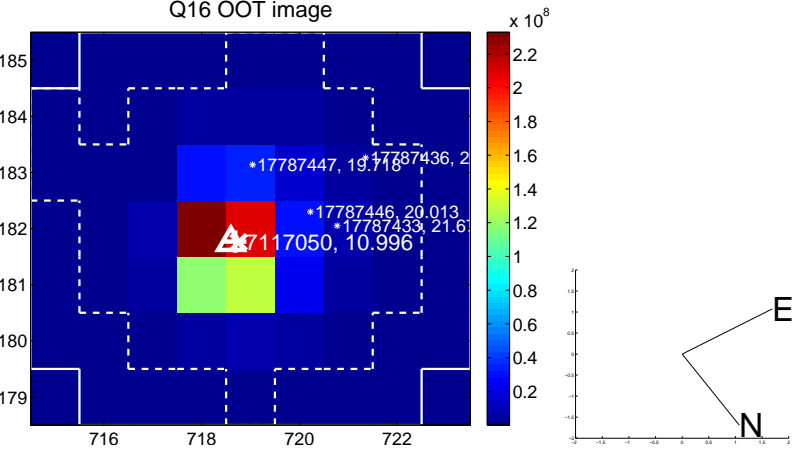
Q15 no OOT image



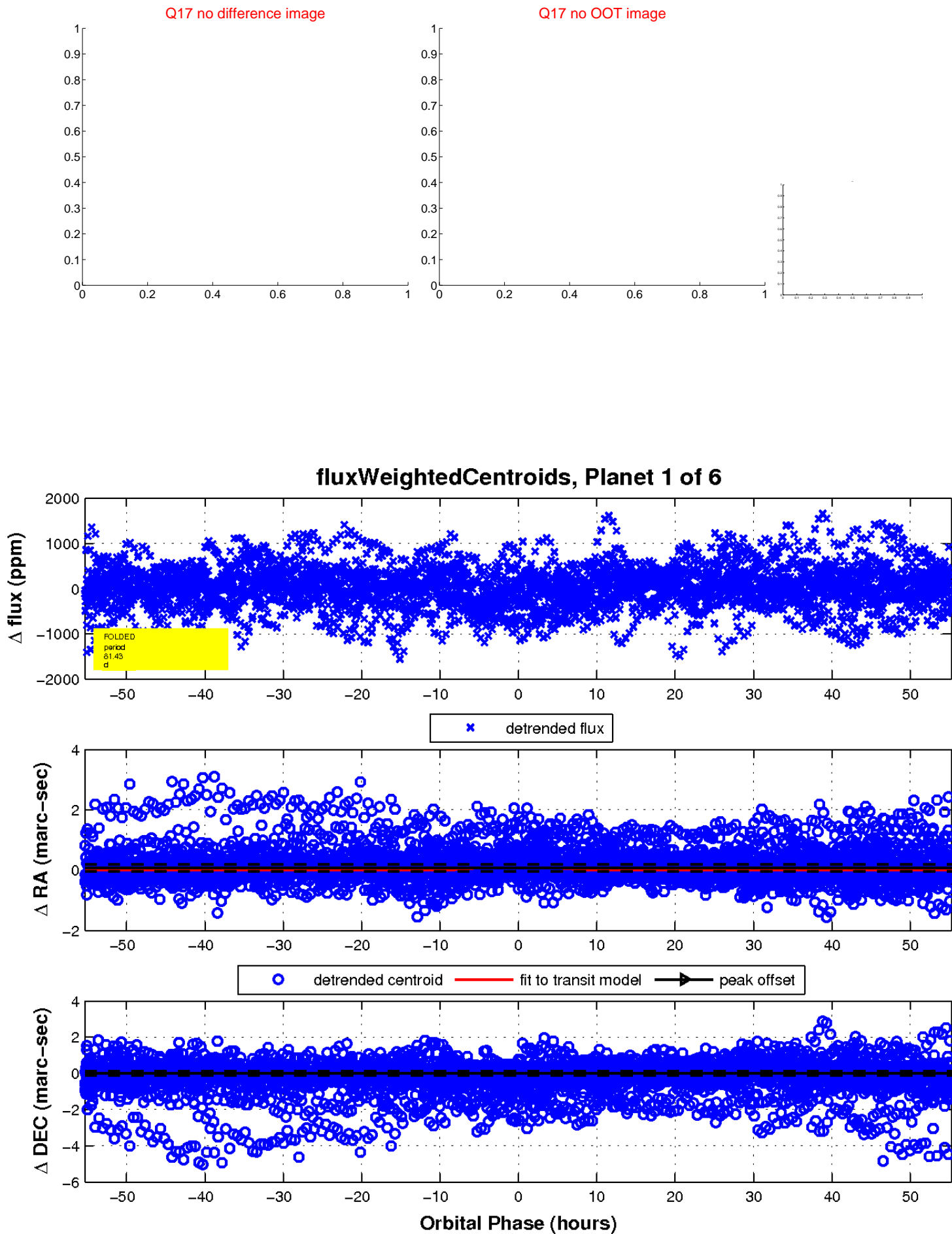
Q16 difference image



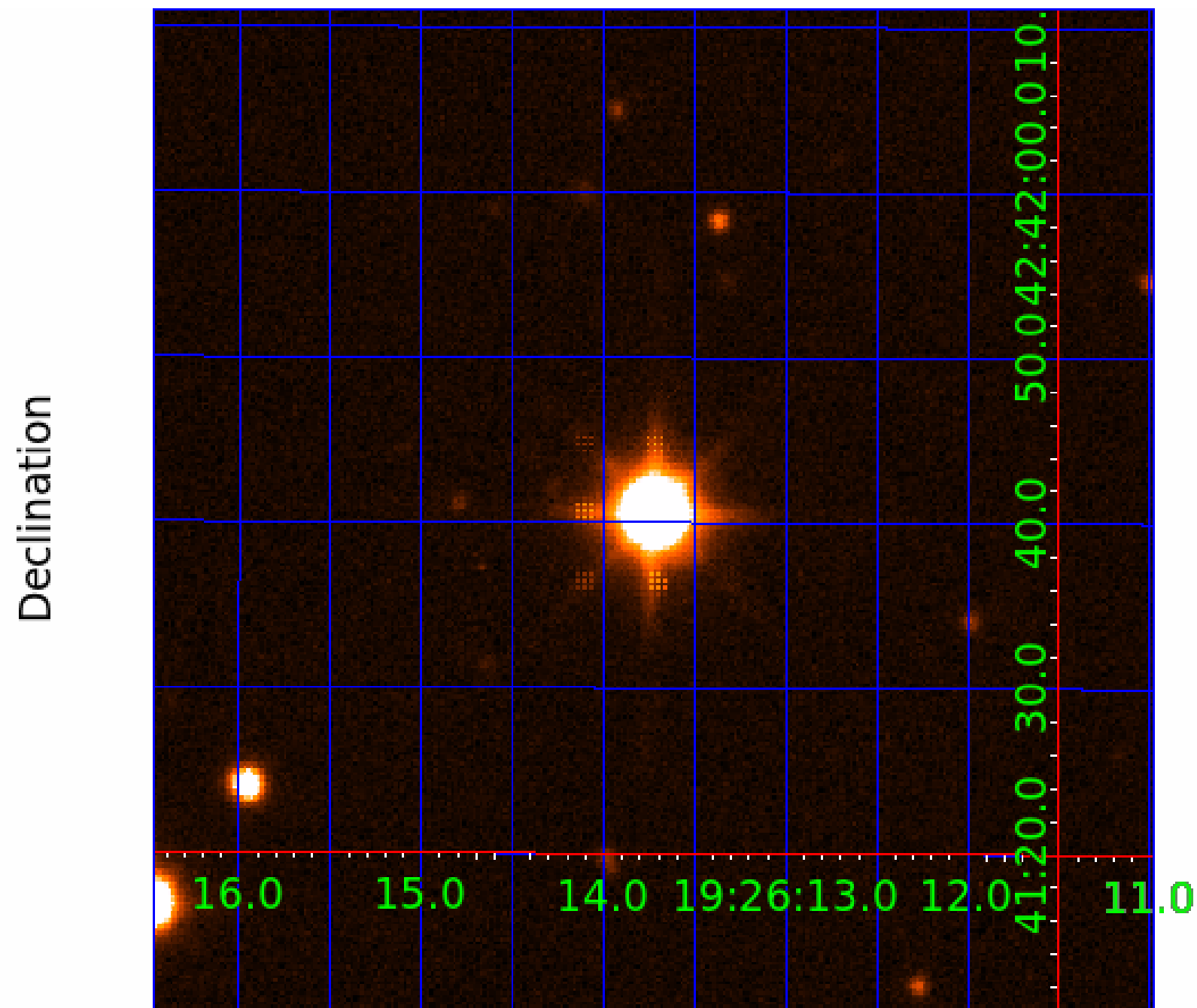
Q16 OOT image



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



UKIRT Image



KIC 007117050

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})
007117050-01	OBS	No	81.430634	134.106537	495.2	18.432	23.4	24.4	14.71	4769	43.75	354.72
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007117050-05	OBS	No	34.111369	140.539877	10.5	29.104	10.4	0.8	14.71	4769	5.71	1131.71
007117050-06	OBS	No	96.446605	179.222342	146.9	1.306	7.3	9.7	14.71	4769	18.99	283.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117050-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007117050-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED—HALO_GHOST
007117050-03	OBS	FP	0.11	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
007117050-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

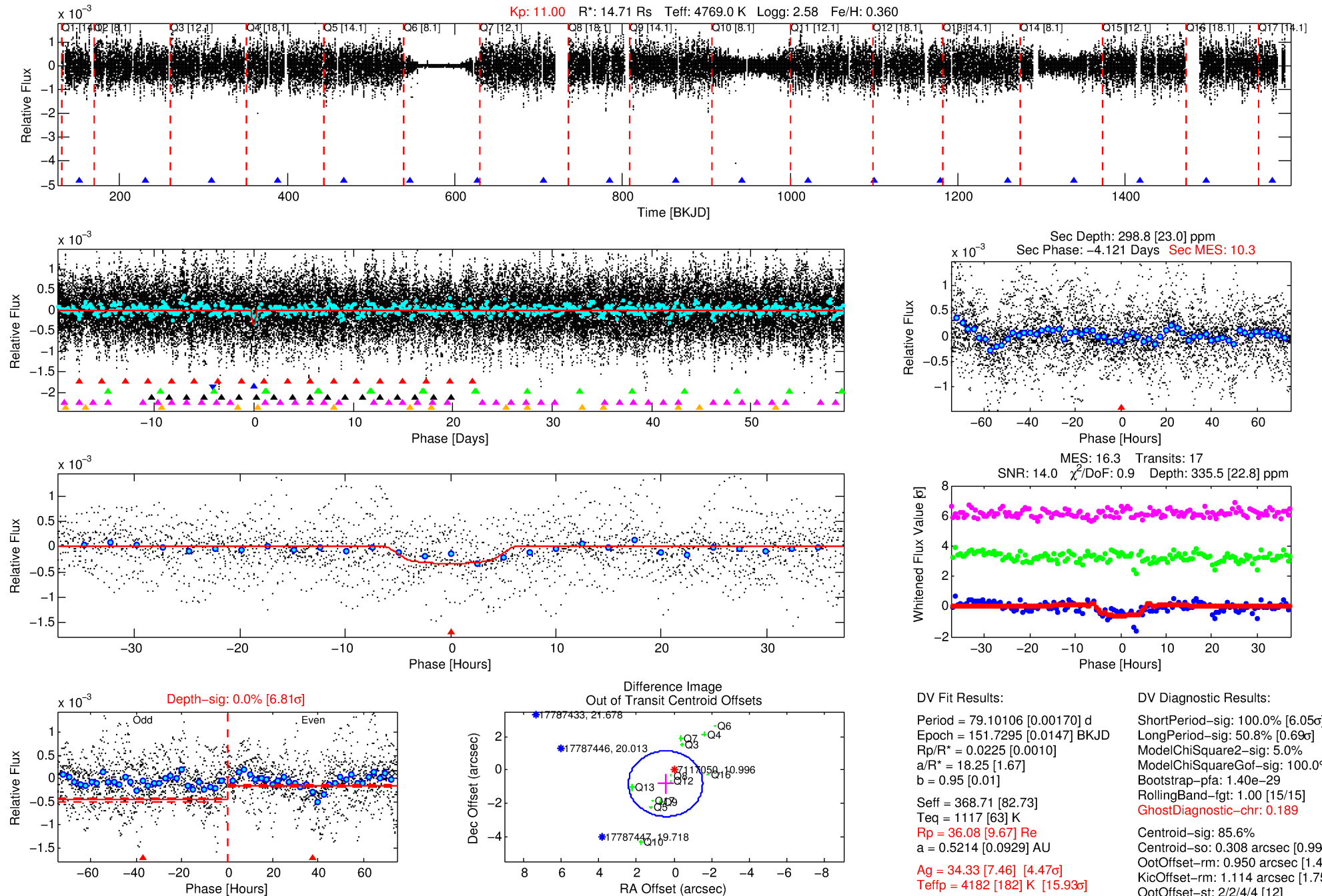
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007117050-02

No Significant Match Found

DV One-Page Summary

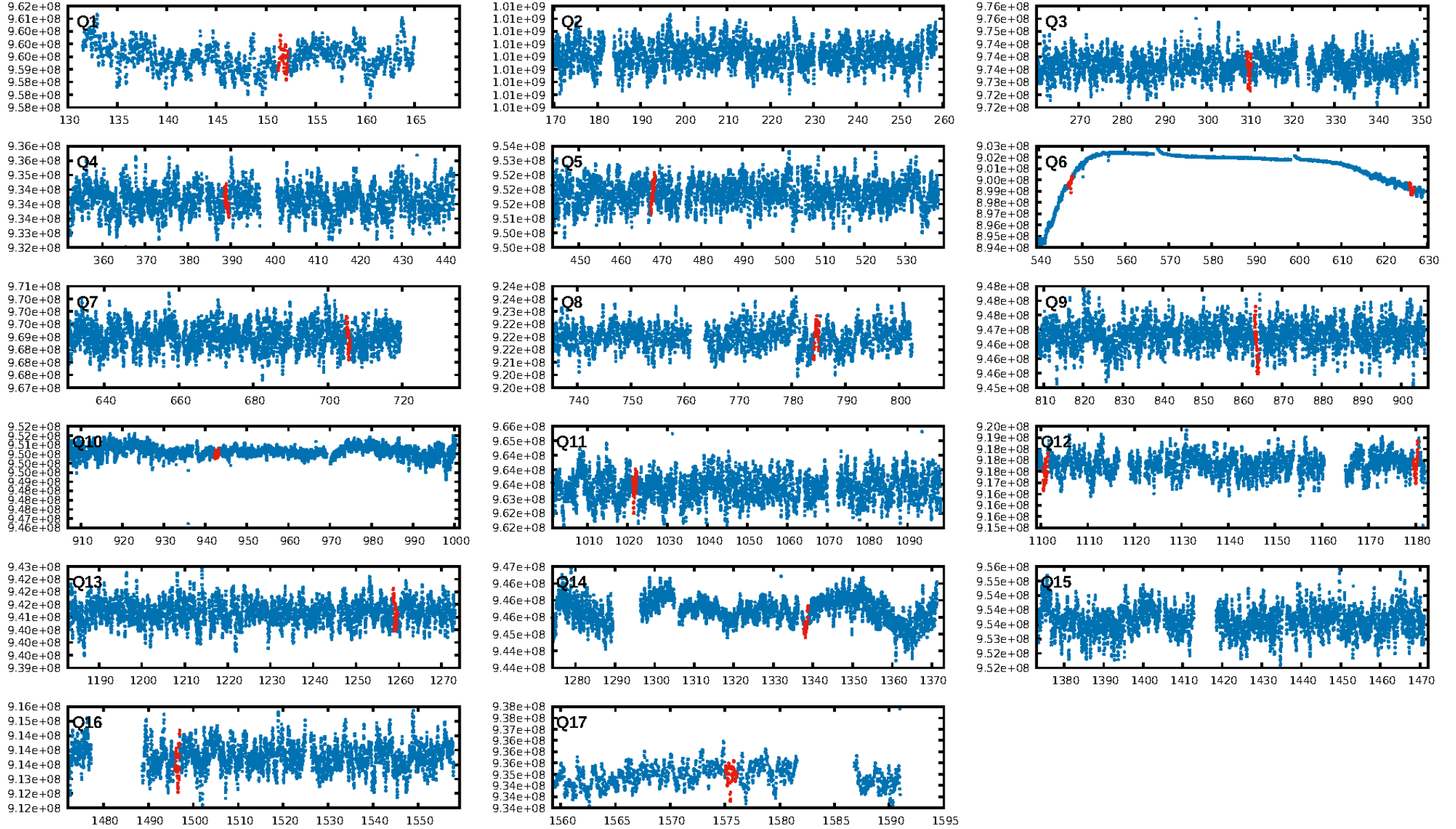
KIC: 7117050 Candidate: 2 of 6 Period: 79.101 d



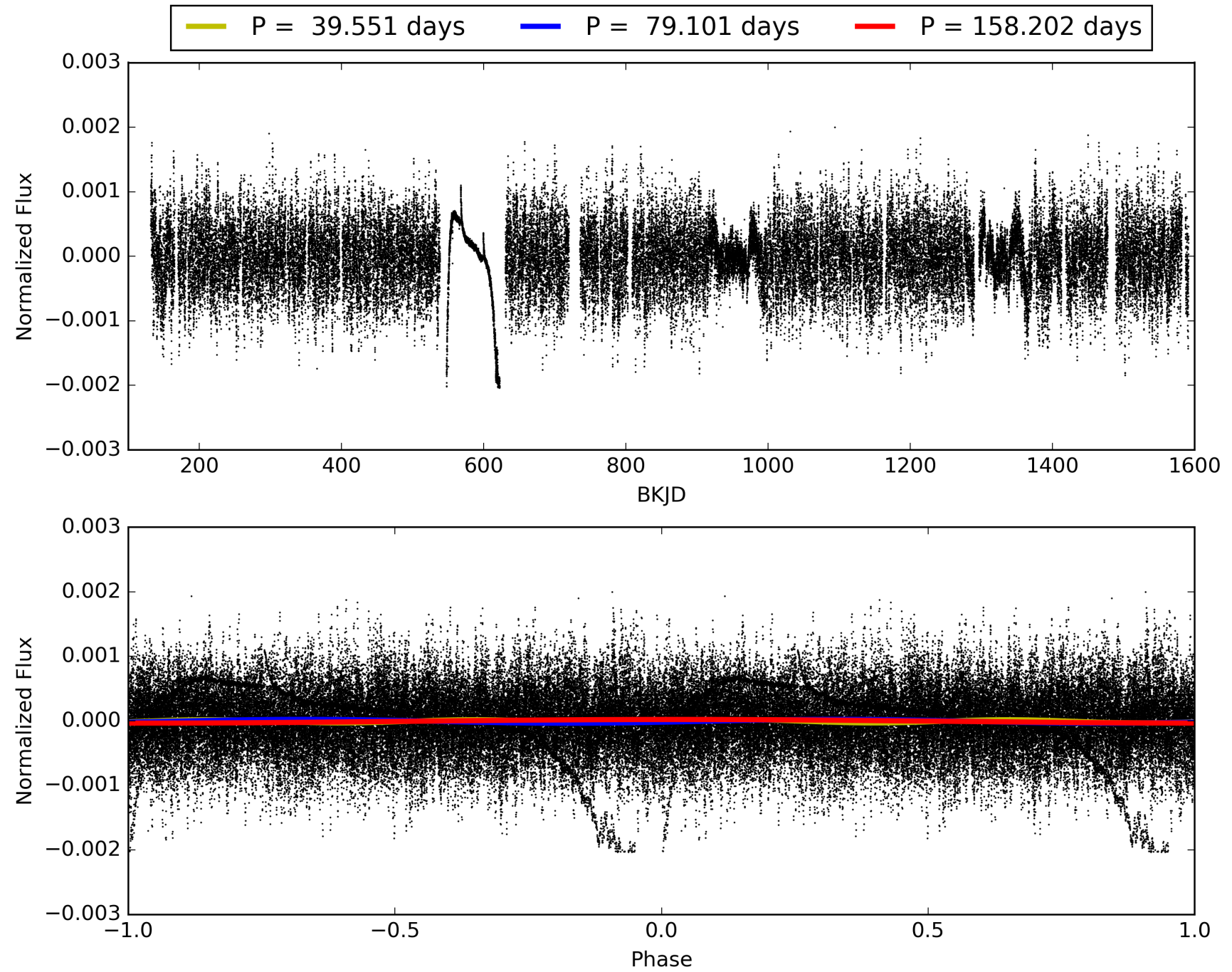
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007117050-02, PDC Light Curves

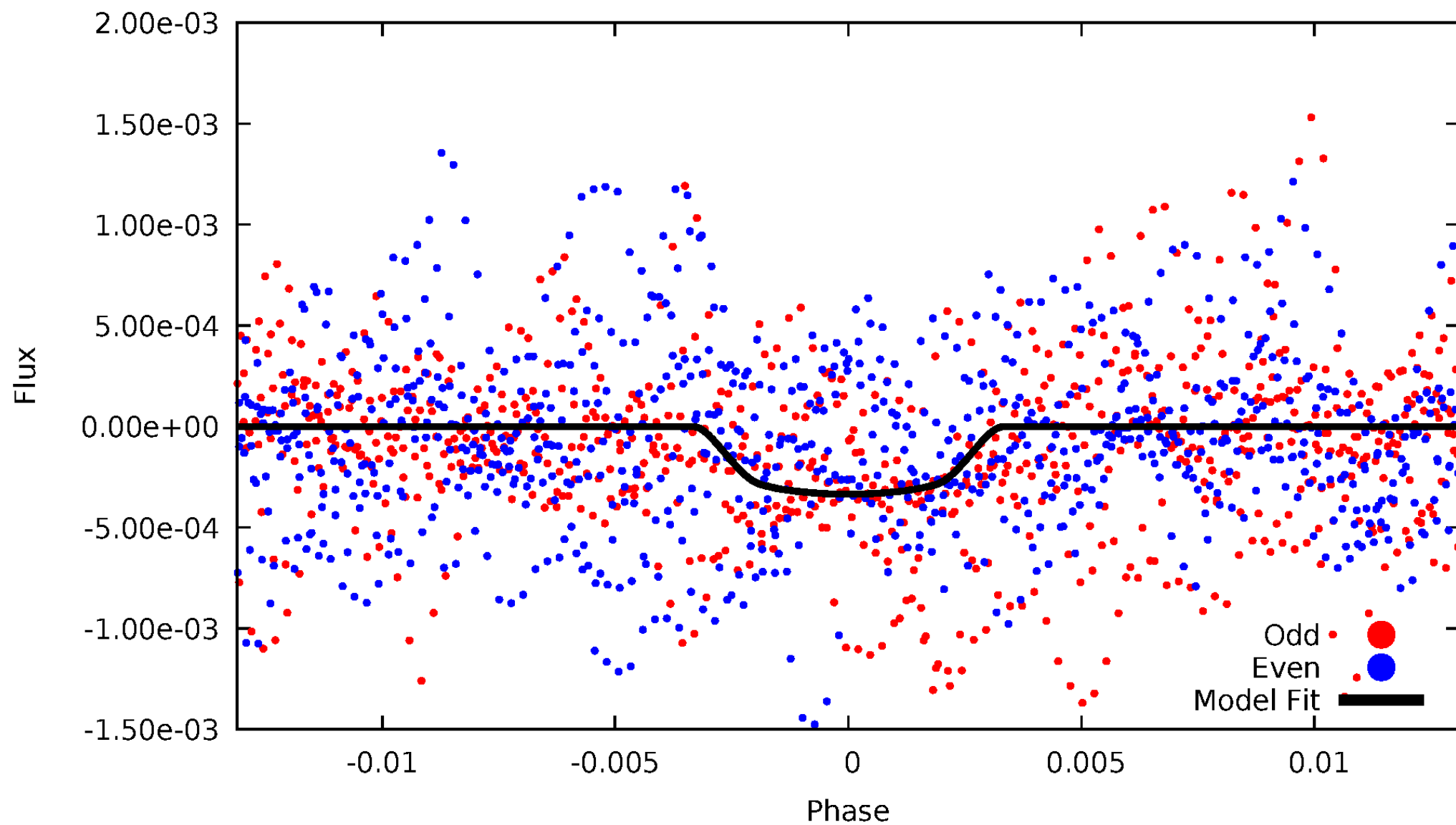


TCE 007117050-02



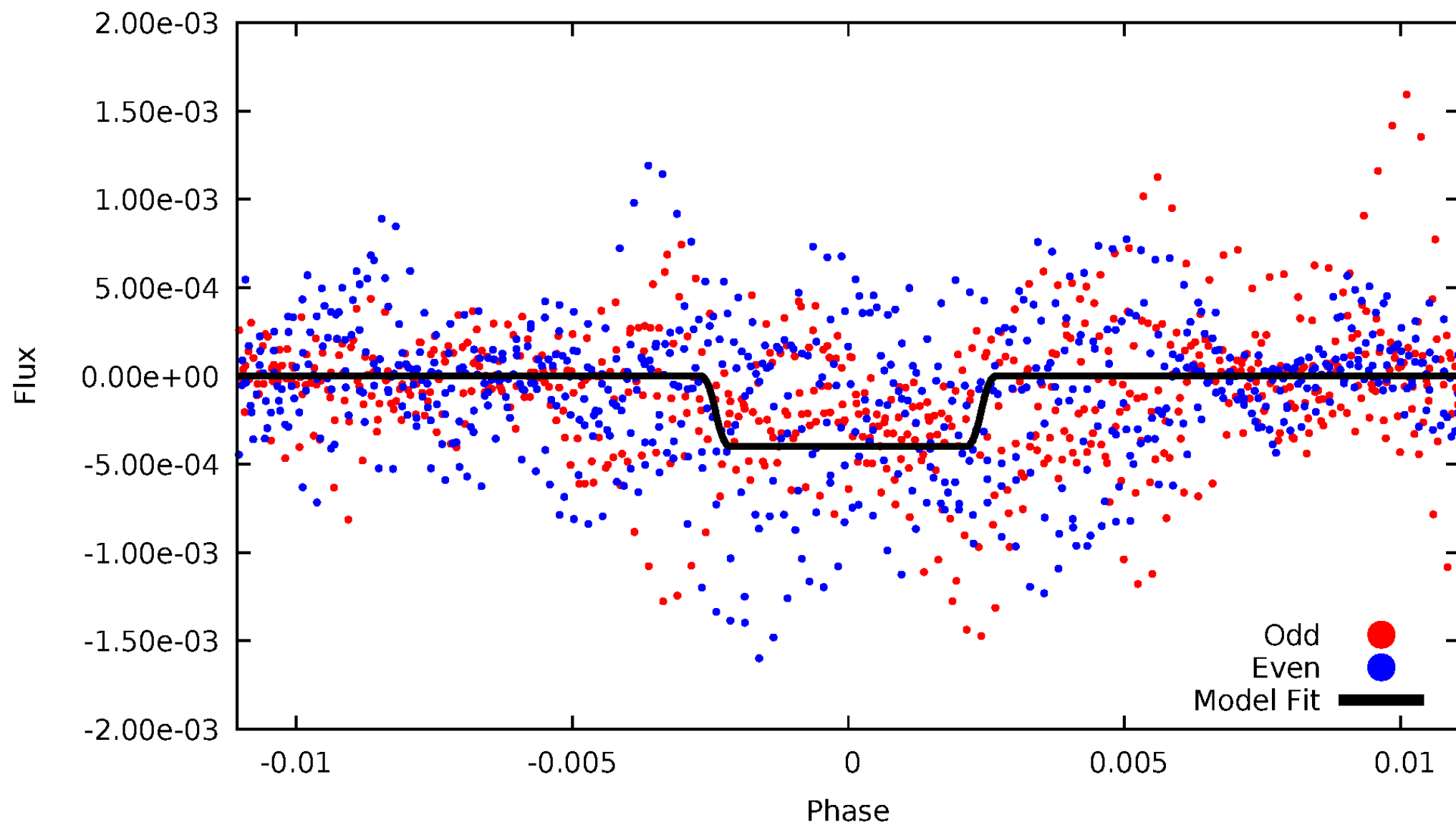
DV Odd/Even

TCE 007117050-02



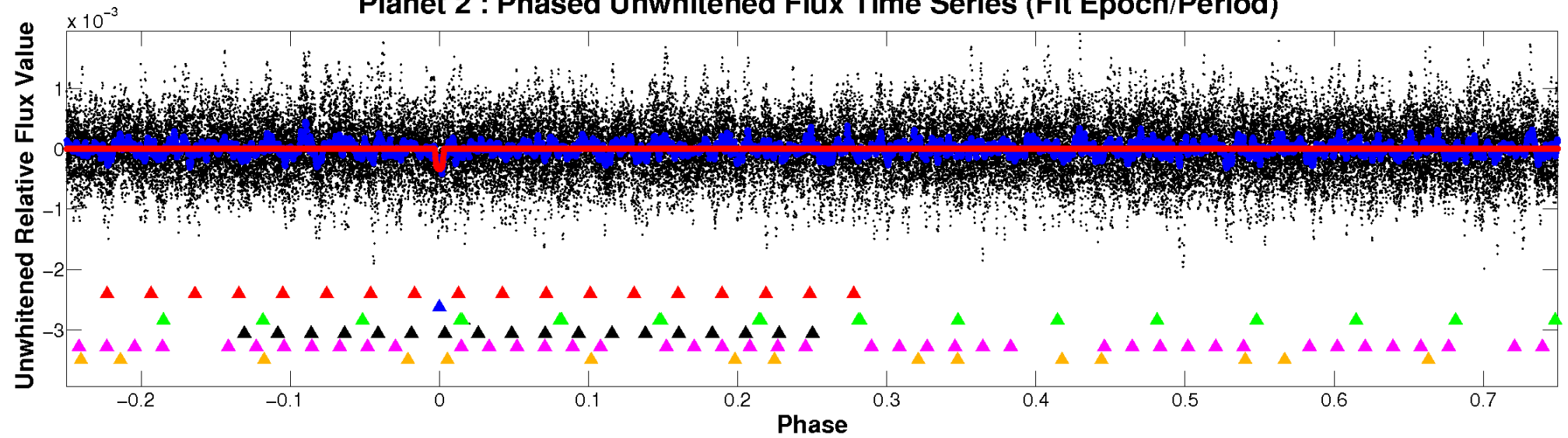
ALT Odd/Even

TCE 007117050-02

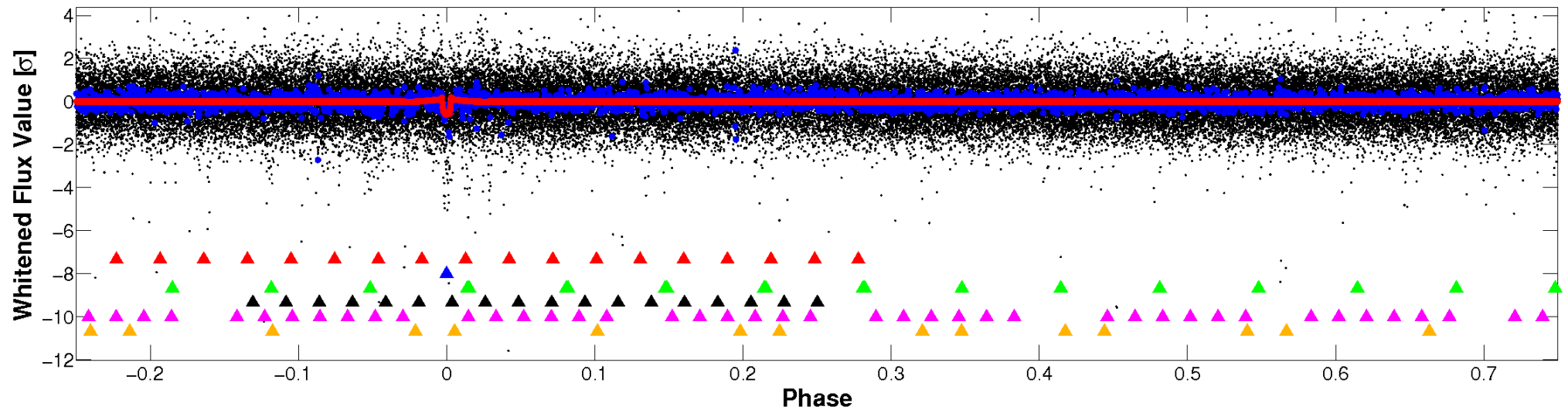


Non-Whitened Vs. Whitened Light Curve

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

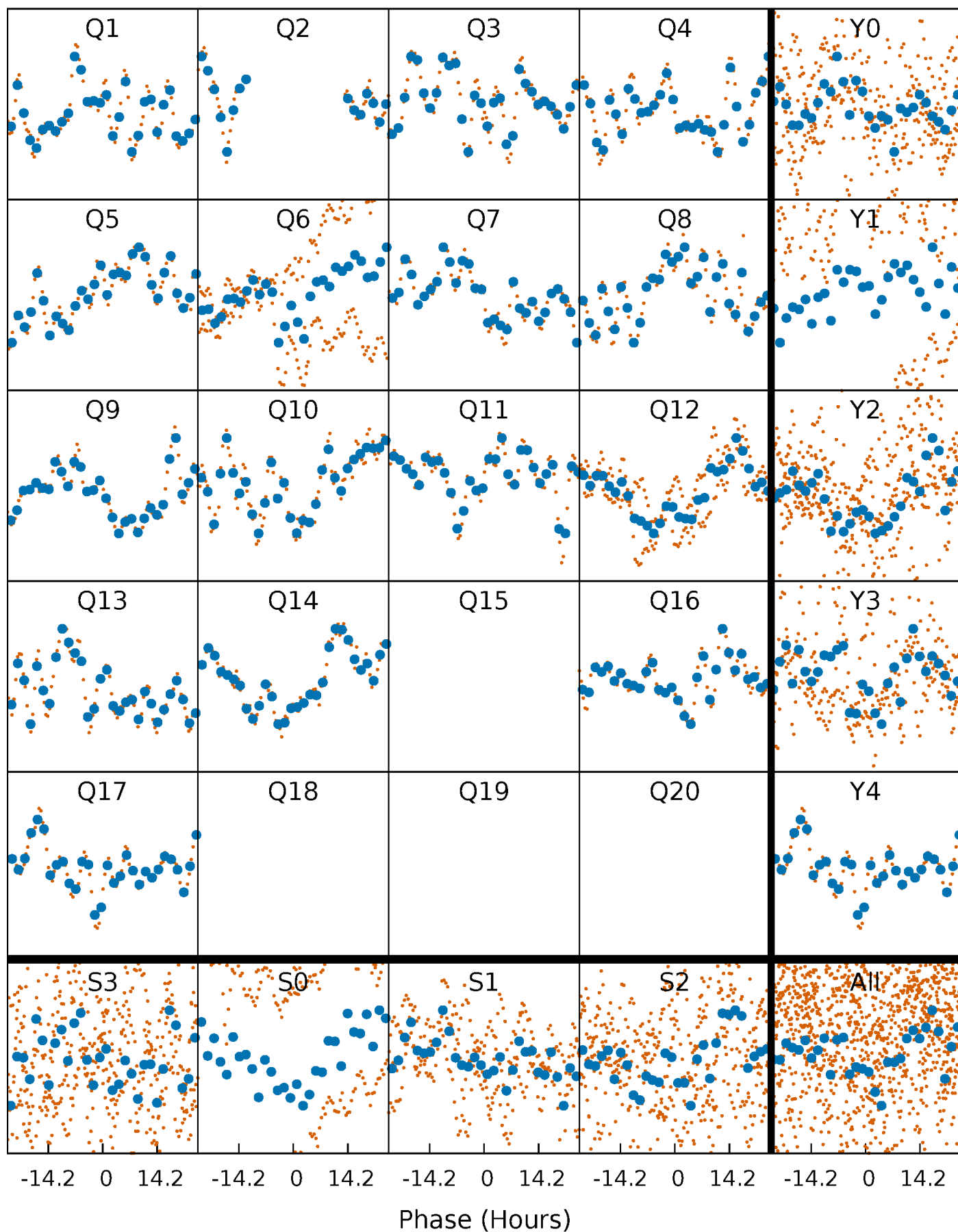


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



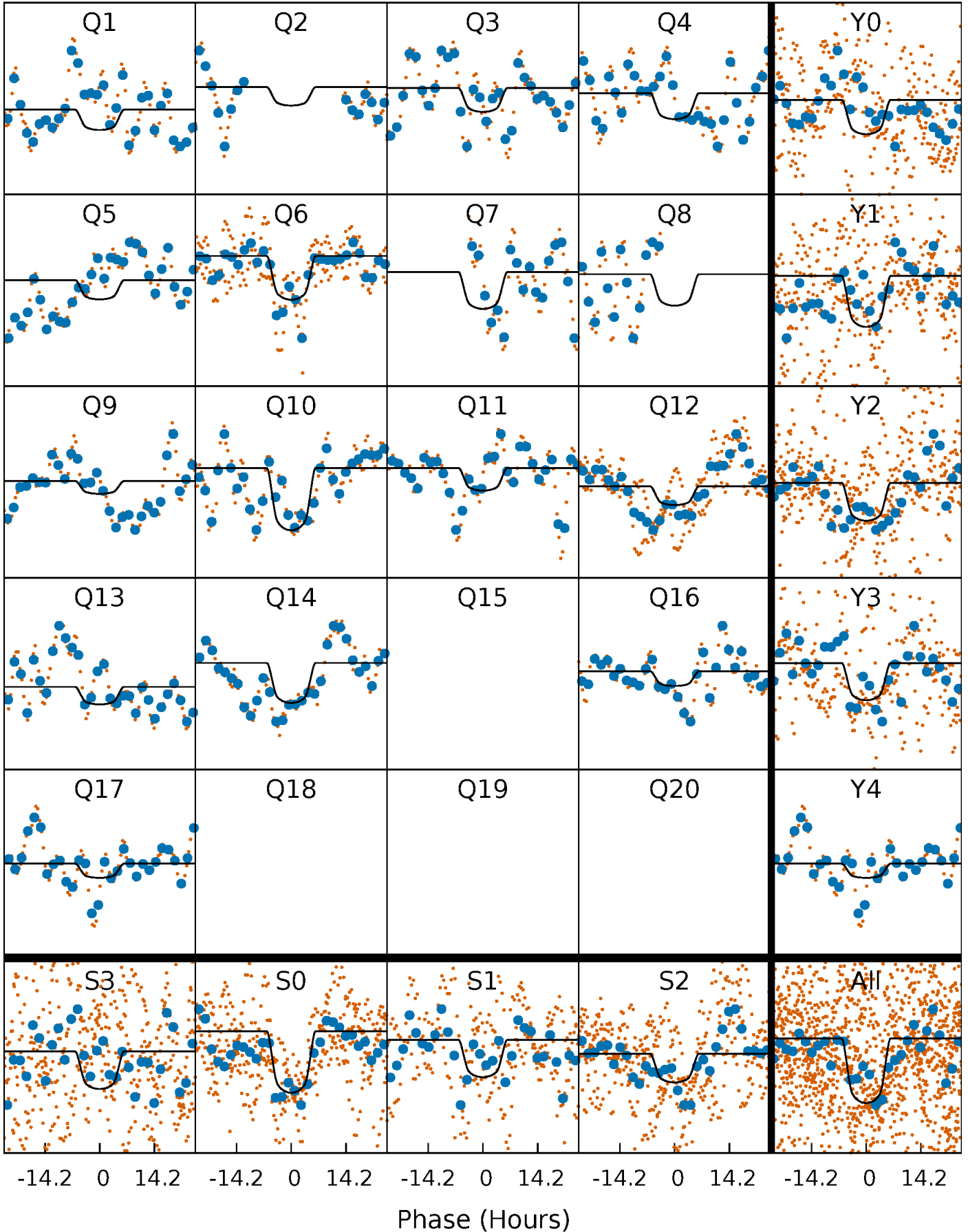
PDC Quarter-Phased Transit Curves

TCE 007117050-02 P= 79.101064 Days $T_0=151.729459$ (BKJD)



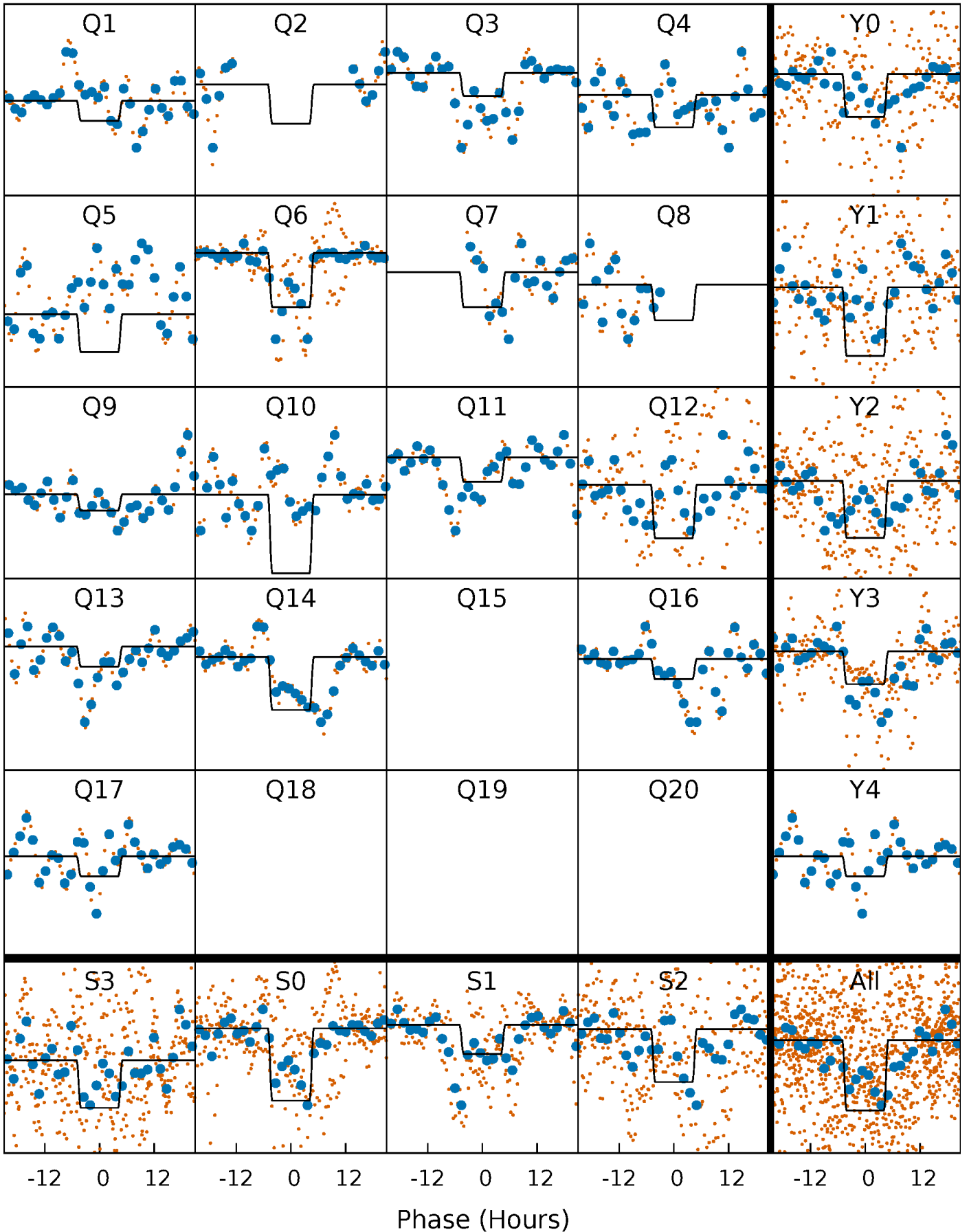
DV Quarter-Phased Transit Curves

TCE 007117050-02 P= 79.101064 Days $T_0=151.729459$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

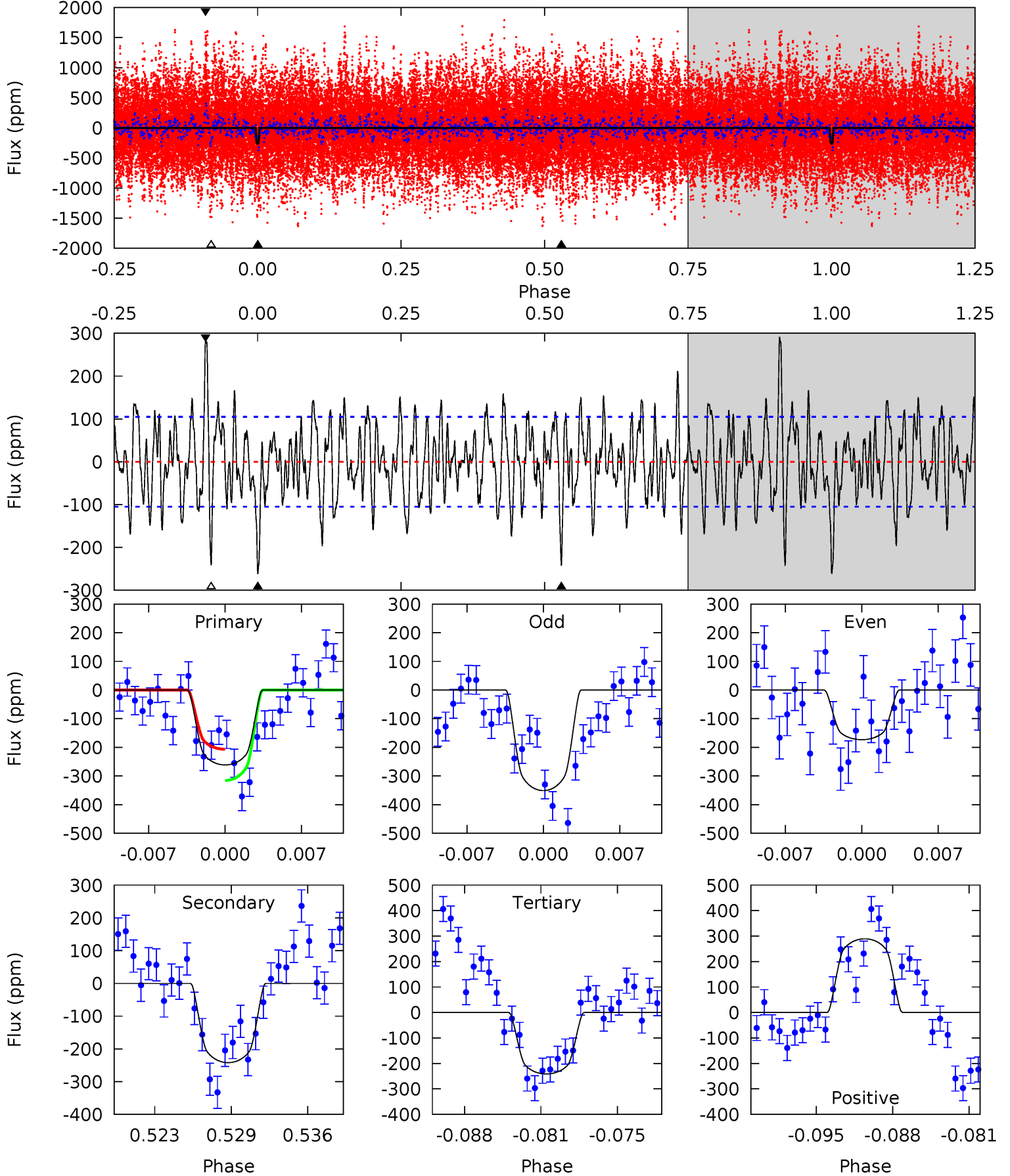
TCE 007117050-02 P= 79.100247 Days $T_0=151.722382$ (BKJD)



DV Model-Shift Uniqueness Test

007117050-02, P = 79.101064 Days, E = 72.628395 Days

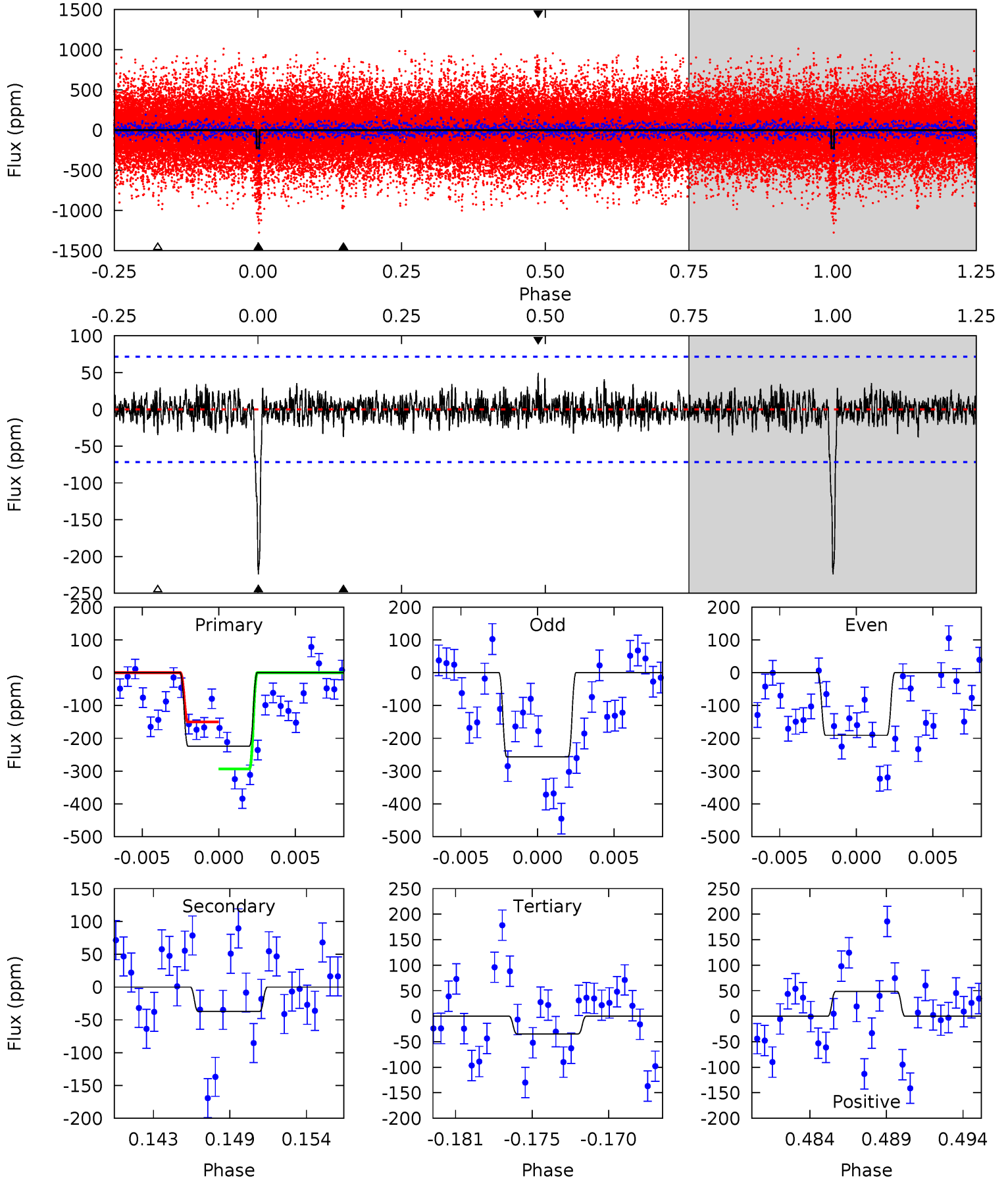
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	11.8	11.7	14.1	5.10	2.71	3.68	0.99	-1.35	0.04	-2.30	4.34	0.77	0.53	2.66



Alt Model-Shift Uniqueness Test

007117050-02, P = 79.100247 Days, E = 72.622135 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	2.68	2.49	3.50	5.15	2.79	0.90	13.6	12.6	0.19	-0.82	2.37	1.11	0.18	5.14



Stellar Parameters For KIC 007117050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4769^{+57}_{-154}	$2.583^{+0.033}_{-0.027}$	$0.360^{+0.050}_{-0.250}$	$14.706^{+0.687}_{-3.890}$	$3.020^{+0.152}_{-1.371}$	$0.001^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+14%/-69%	+5%/-26%	+5%/-45%	+39%/-10%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007117050-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-242±21	$36.61^{+1.86}_{-2.11}$	1558^{+32}_{-53}	4110^{+126}_{-141}	28^{+4}_{-4}
Alt.	-37±14	$32.51^{+1.99}_{-2.26}$	1559^{+29}_{-54}	3118^{+178}_{-222}	$5.268^{+2.293}_{-2.035}$

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 $A_{obs} \gg 1.0$

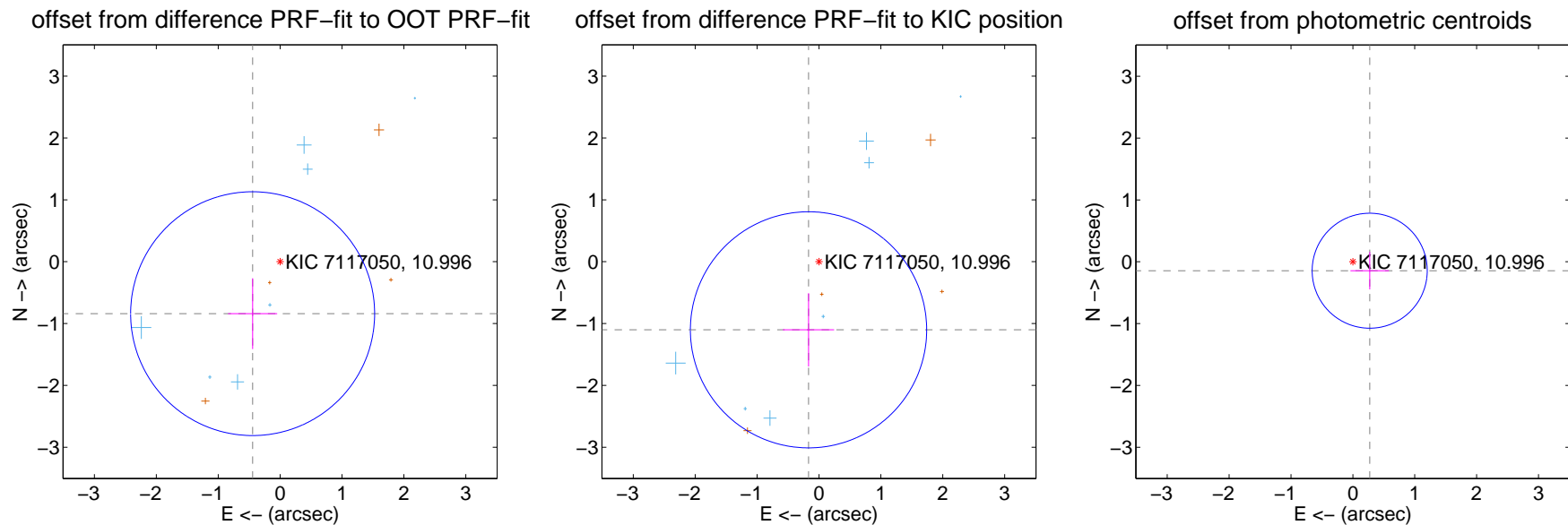
DV Centroid Data

Supplemental centroid analysis for 007117050-02. **Kepler magnitude: 11.00.** Transit SNR 13.95

There are 7 quarters with good PRF difference image offsets

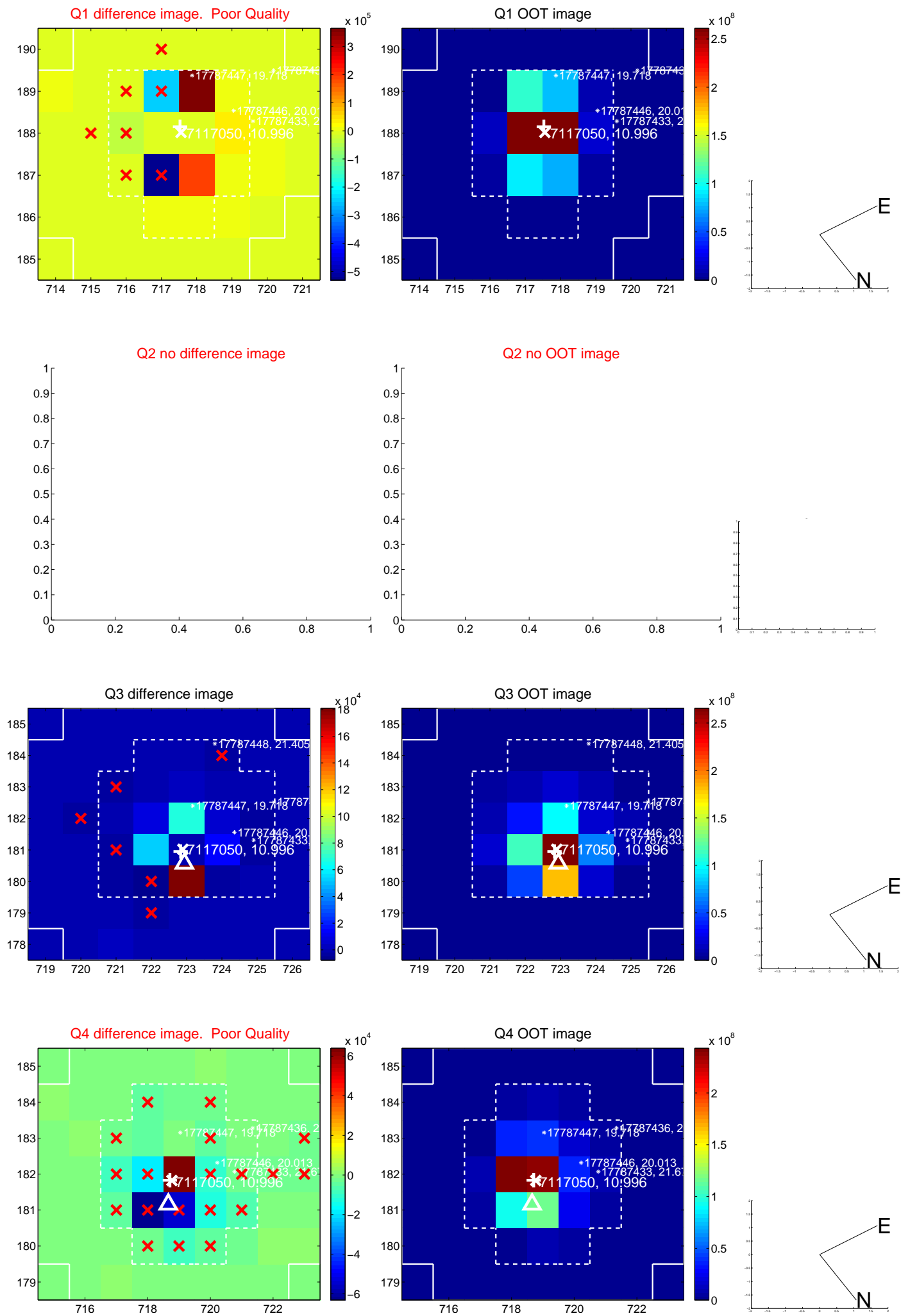
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.950 ± 0.657	1.45	0.444 ± 0.397	-0.840 ± 0.572
PRF-fit source offset from KIC position	1.114 ± 0.636	1.75	0.169 ± 0.414	-1.101 ± 0.593
photometric centroid source offset	0.31 ± 0.31	0.99	-0.27 ± 0.31	-0.14 ± 0.30

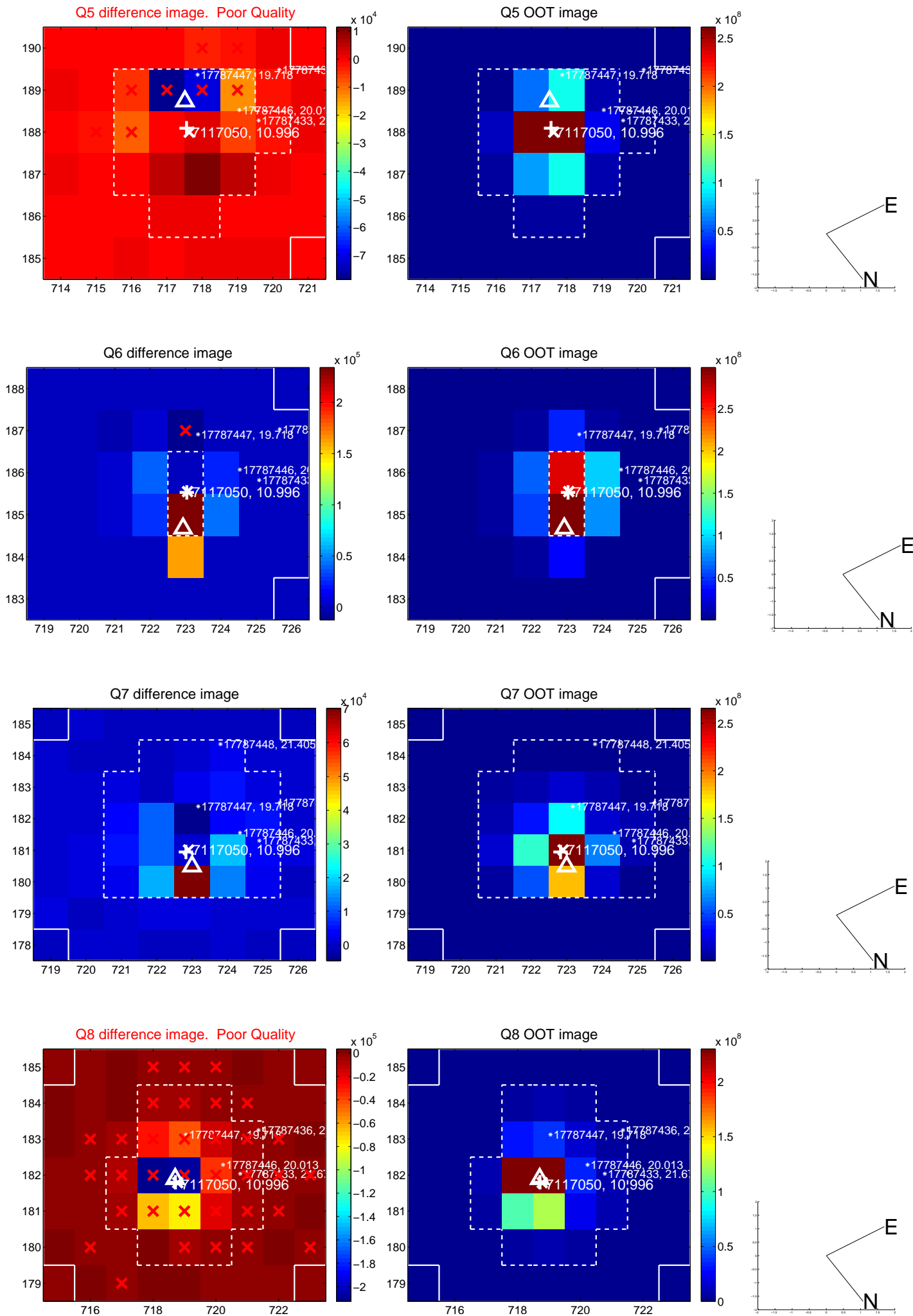


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

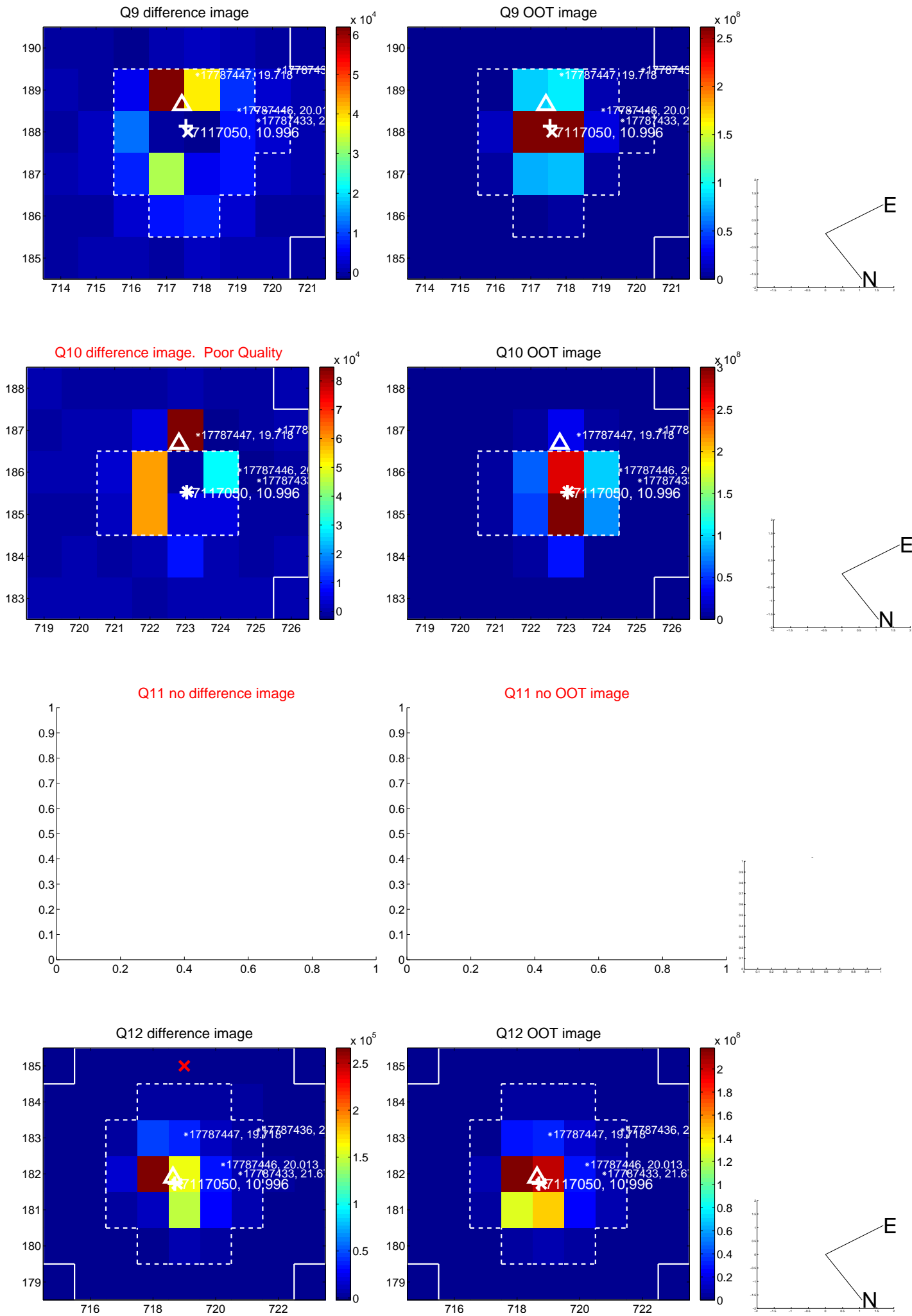
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



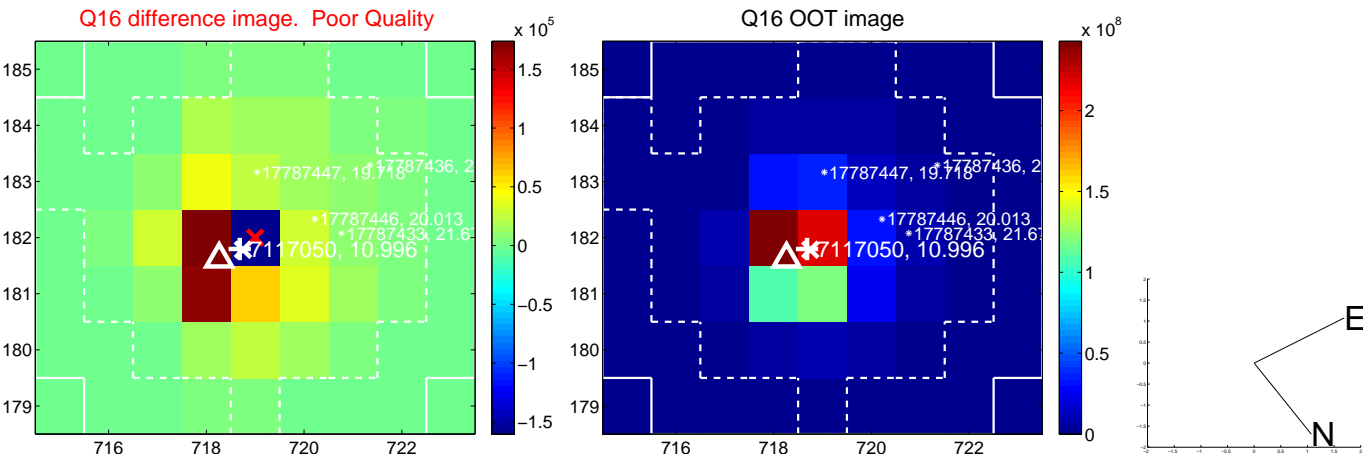
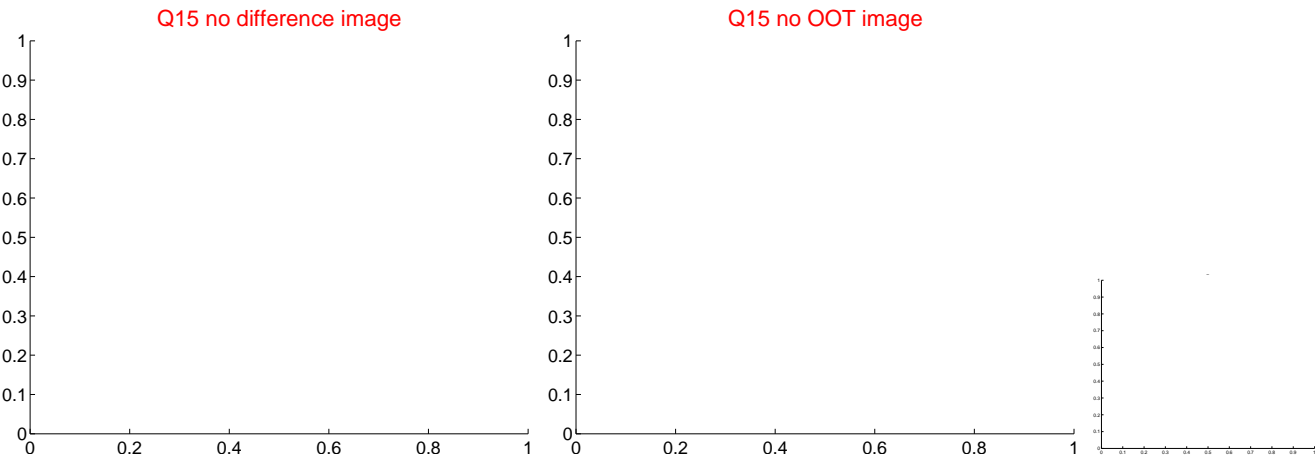
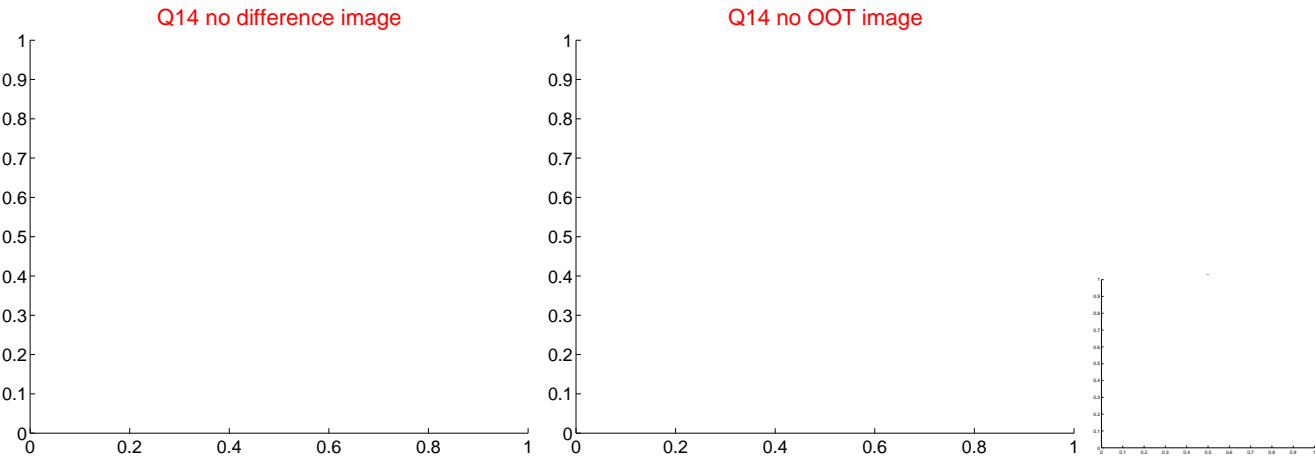
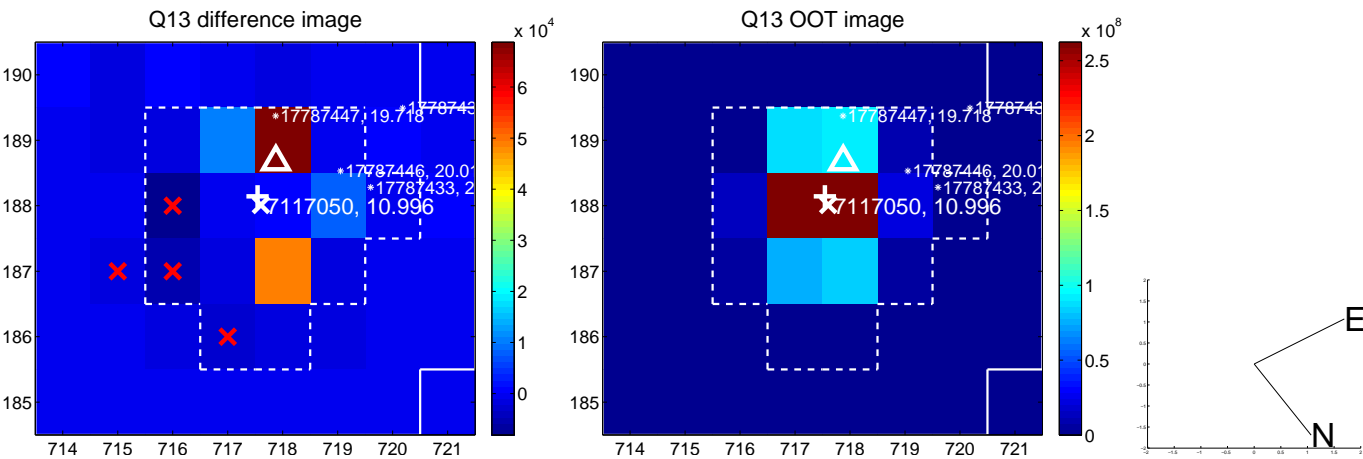
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



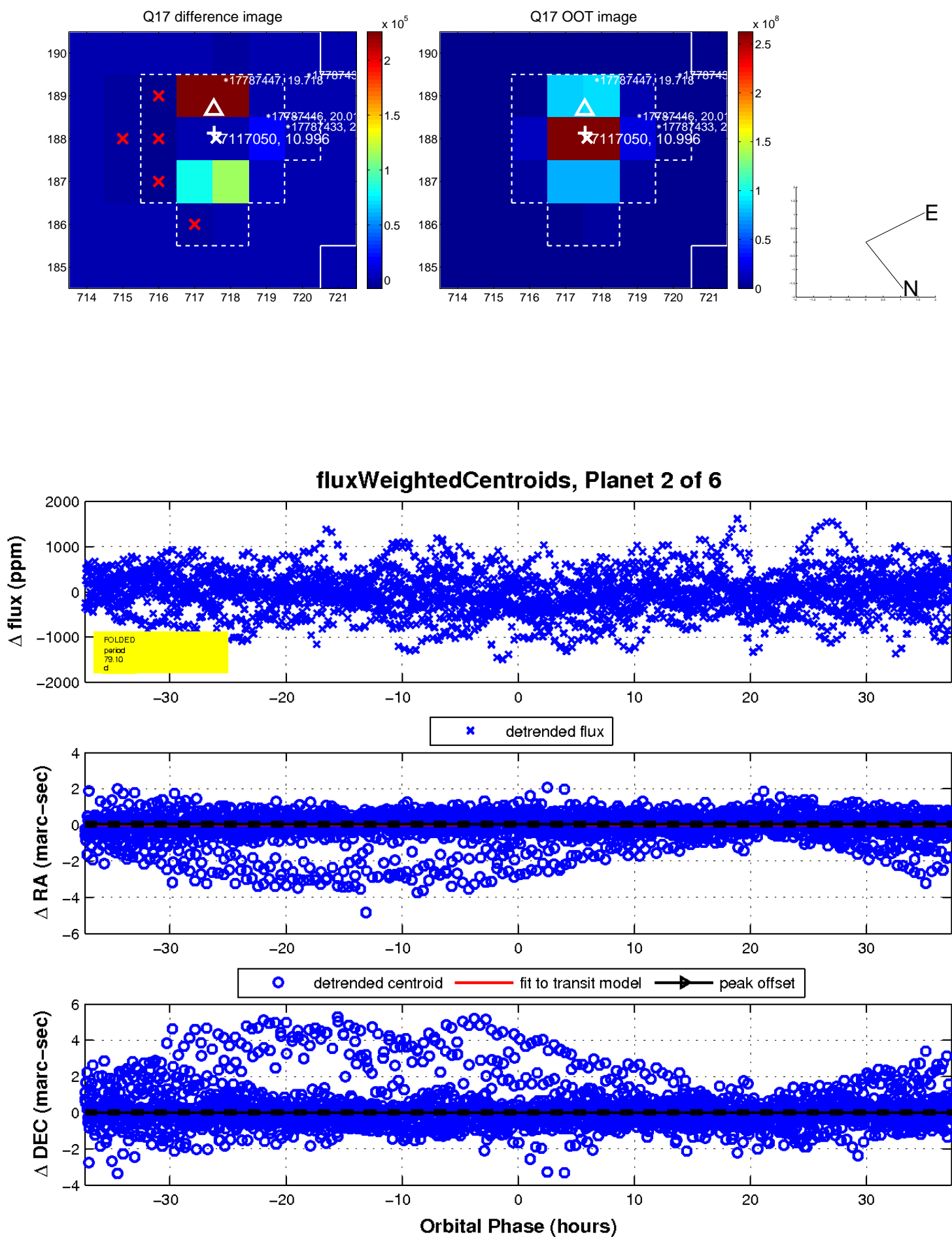
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



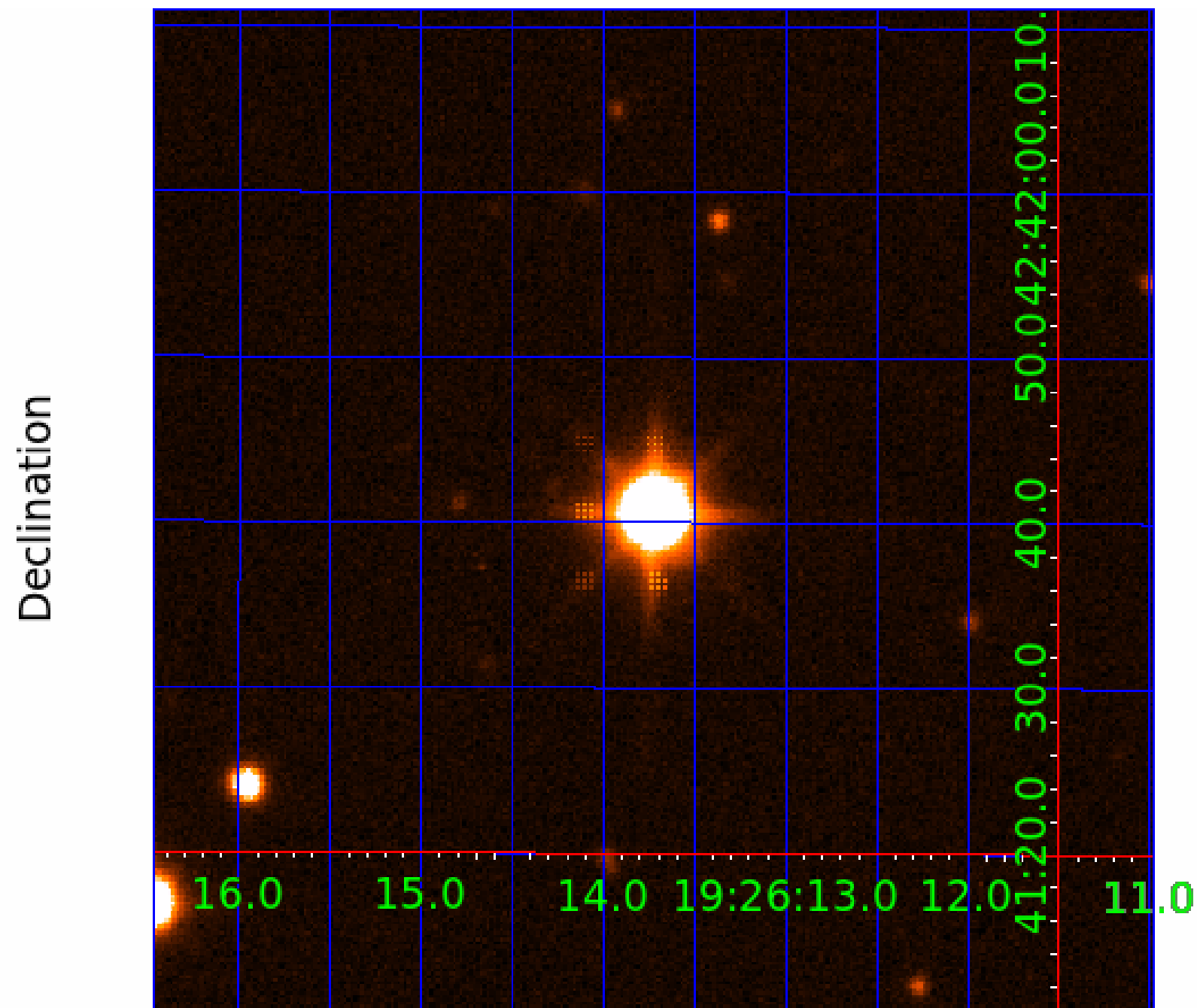
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007117050

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})
007117050-01	OBS	No	81.430634	134.106537	495.2	18.432	23.4	24.4	14.71	4769	43.75	354.72
007117050-02	OBS	No	79.101064	151.729459	335.5	12.441	16.3	14.0	14.71	4769	36.08	368.71
007117050-03	OBS	8135.01	73.821749	174.048933	280.4	16.860	13.7	15.3	14.71	4769	32.77	404.29
007117050-04	OBS	No	80.873779	141.387204	192.6	60.637	12.7	7.8	14.71	4769	23.83	357.98
007117050-05	OBS	No	34.111369	140.539877	10.5	29.104	10.4	0.8	14.71	4769	5.71	1131.71
007117050-06	OBS	No	96.446605	179.222342	146.9	1.306	7.3	9.7	14.71	4769	18.99	283.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117050-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007117050-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED—HALO_GHOST
007117050-03	OBS	FP	0.11	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
007117050-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

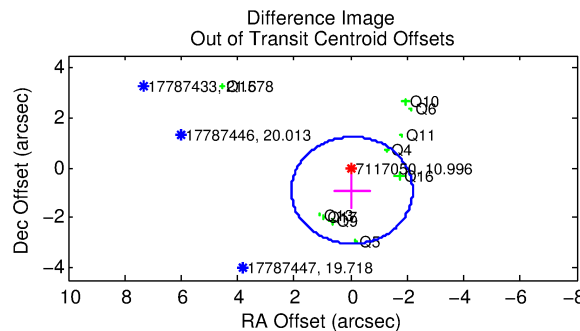
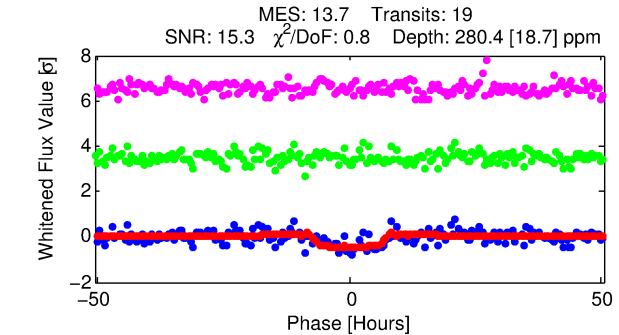
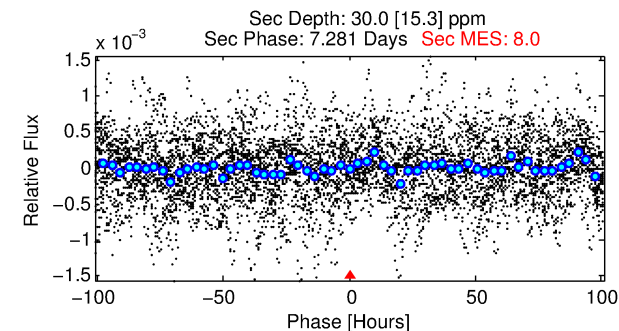
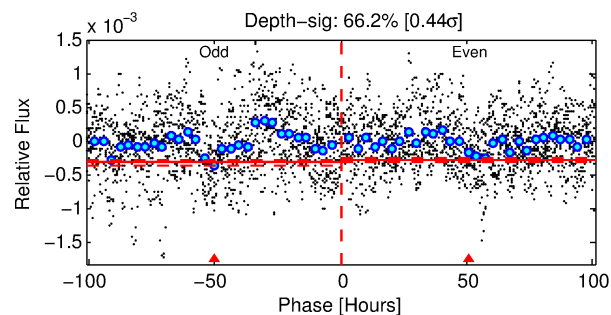
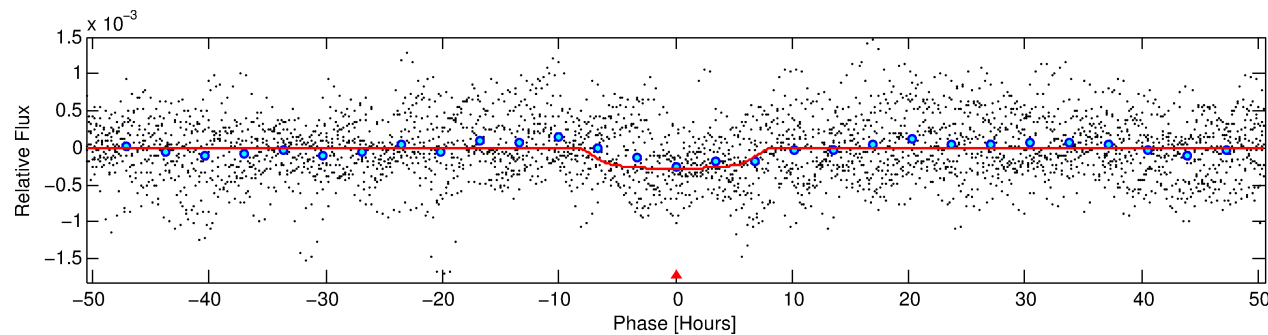
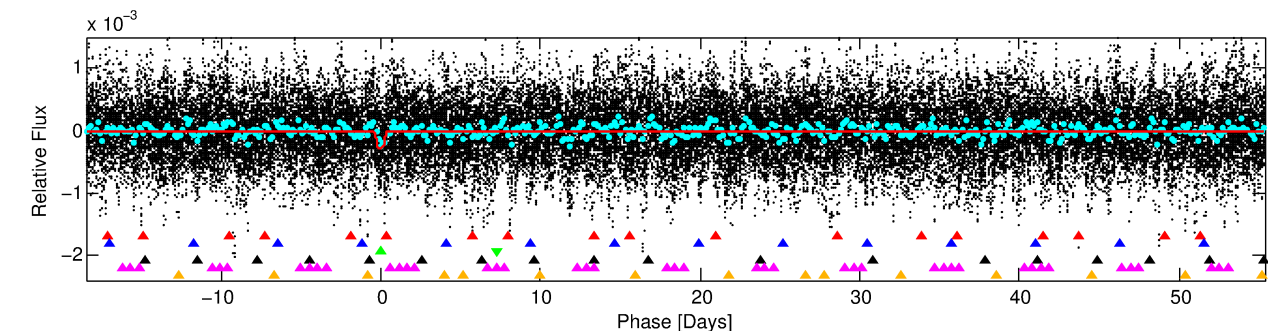
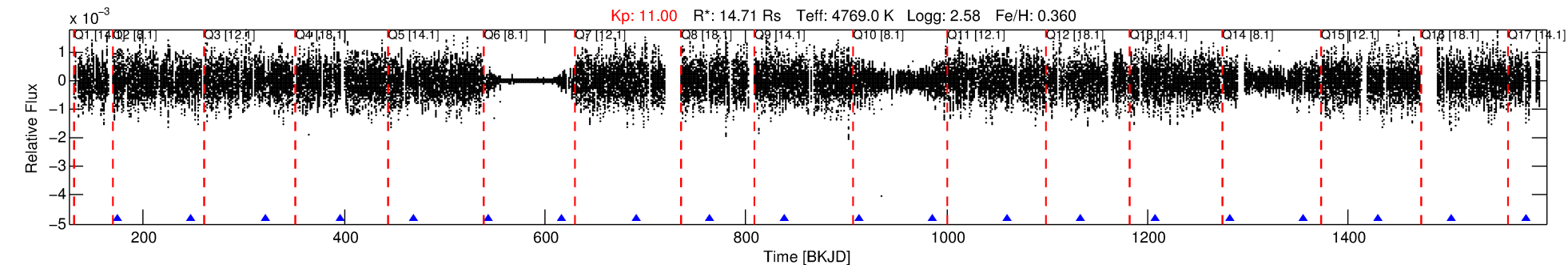
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007117050-03

No Significant Match Found

DV One-Page Summary

KIC: 7117050 Candidate: 3 of 6 Period: 73.822 d



DV Fit Results:

Period = 73.82175 [0.00268] d
Epoch = 174.0489 [0.0206] BKJD
Rp/R* = 0.0204 [0.0009]
a/R* = 12.63 [1.46]
b = 0.95 [0.01]
Seff = 404.28 [90.71]
Teff = 1143 [64] K
Rp = 32.77 [8.80] Re
a = 0.4979 [0.0887] AU
Ag = 3.81 [2.09] [1.34 σ]
Teffp = 2469 [329] K [3.95 σ]

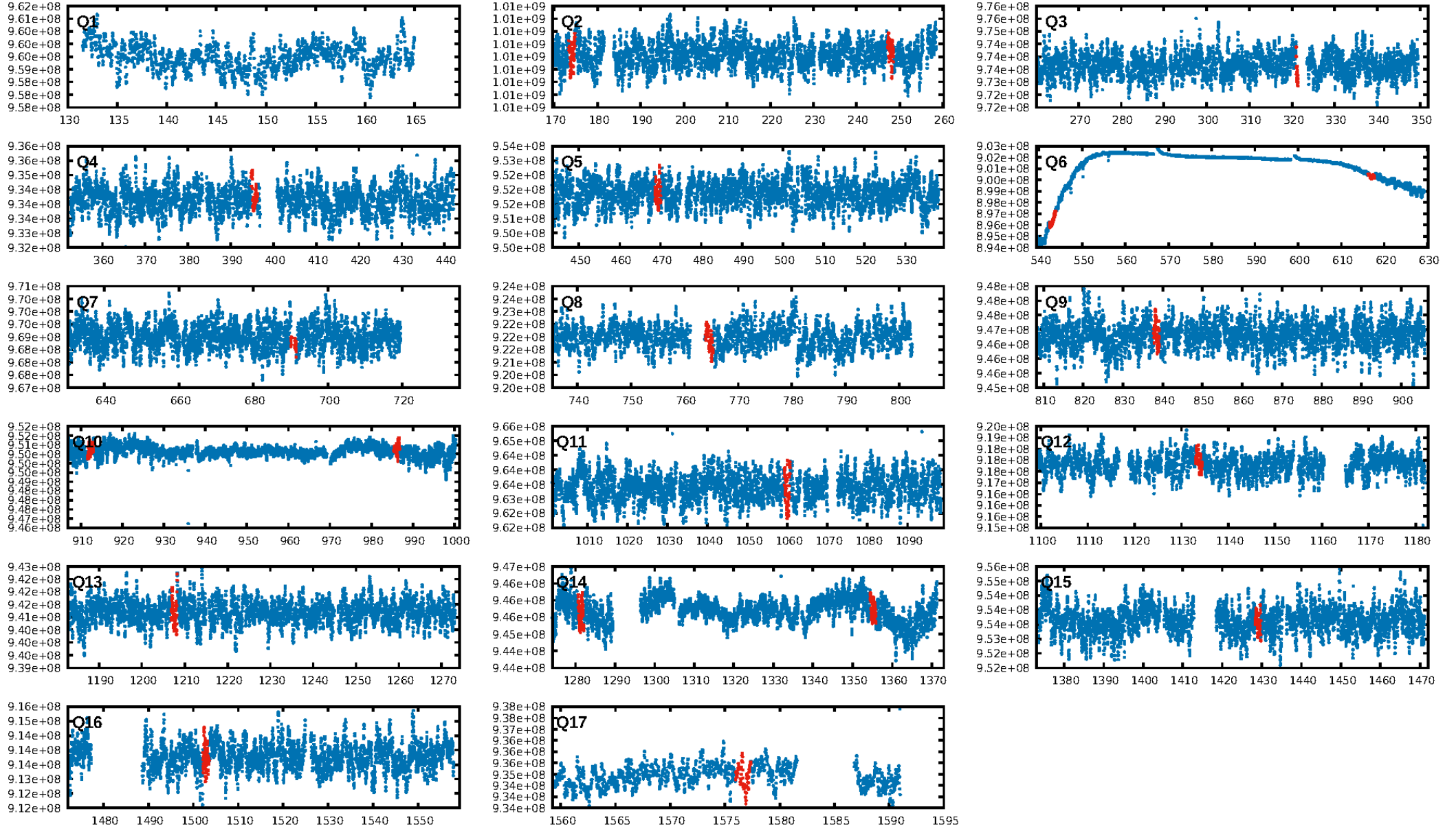
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [28.34 σ]
LongPeriod-sig: 100.0% [6.05 σ]
ModelChiSquare2-sig: 71.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.48e-21
RollingBand-fgt: 1.00 [18/18]
GhostDiagnostic-chr: 5.843
Centroid-sig: 6.8%
Centroid-so: 0.573 arcsec [1.49 σ]
OotOffset-rm: 0.910 arcsec [1.27 σ]
KicOffset-rm: 1.280 arcsec [1.61 σ]
OotOffset-st: 2/2/2/4 [10]
KicOffset-st: 2/2/2/4 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 0.67 [8/12]

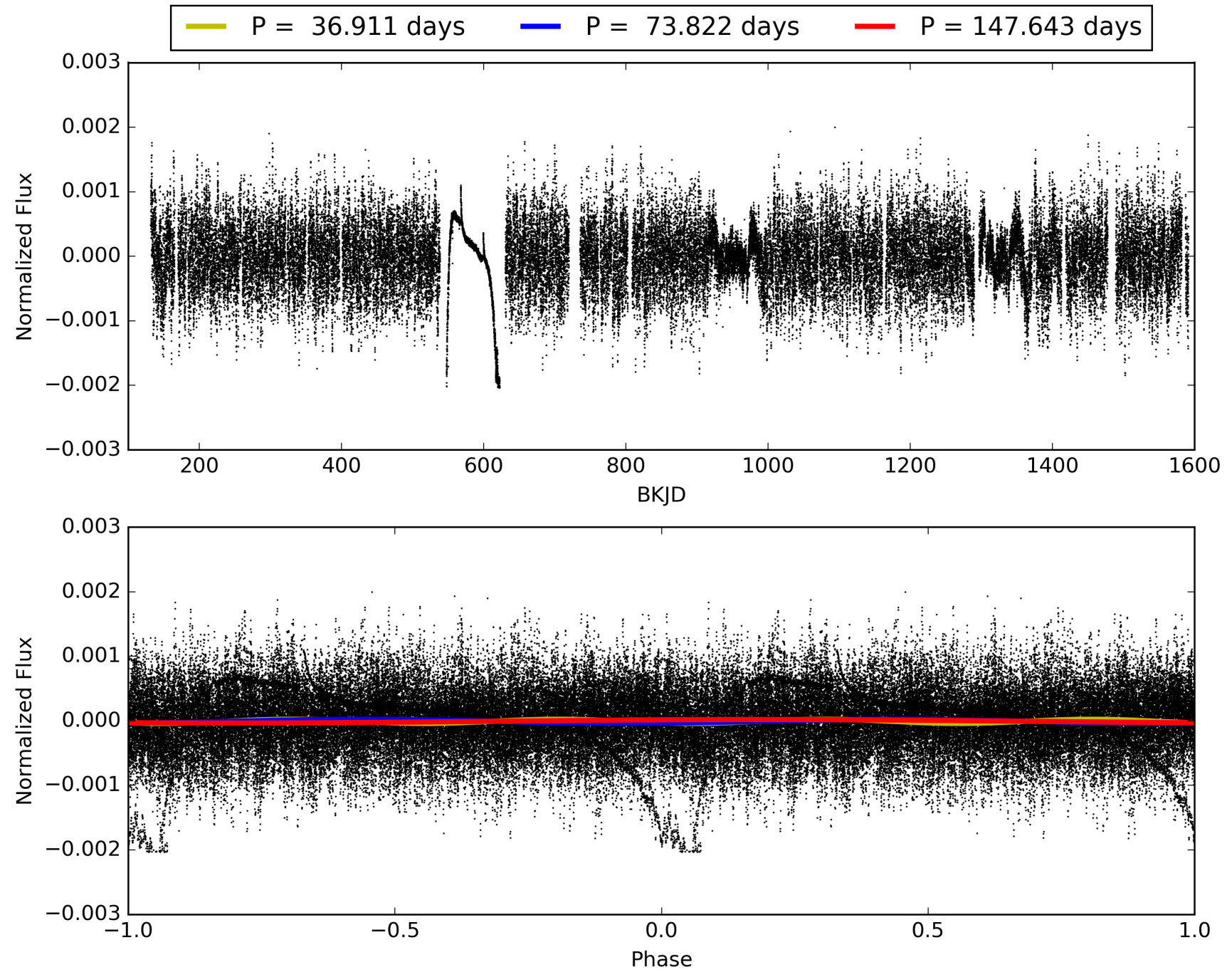
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:47:32 Z

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

TCE 007117050-03, PDC Light Curves

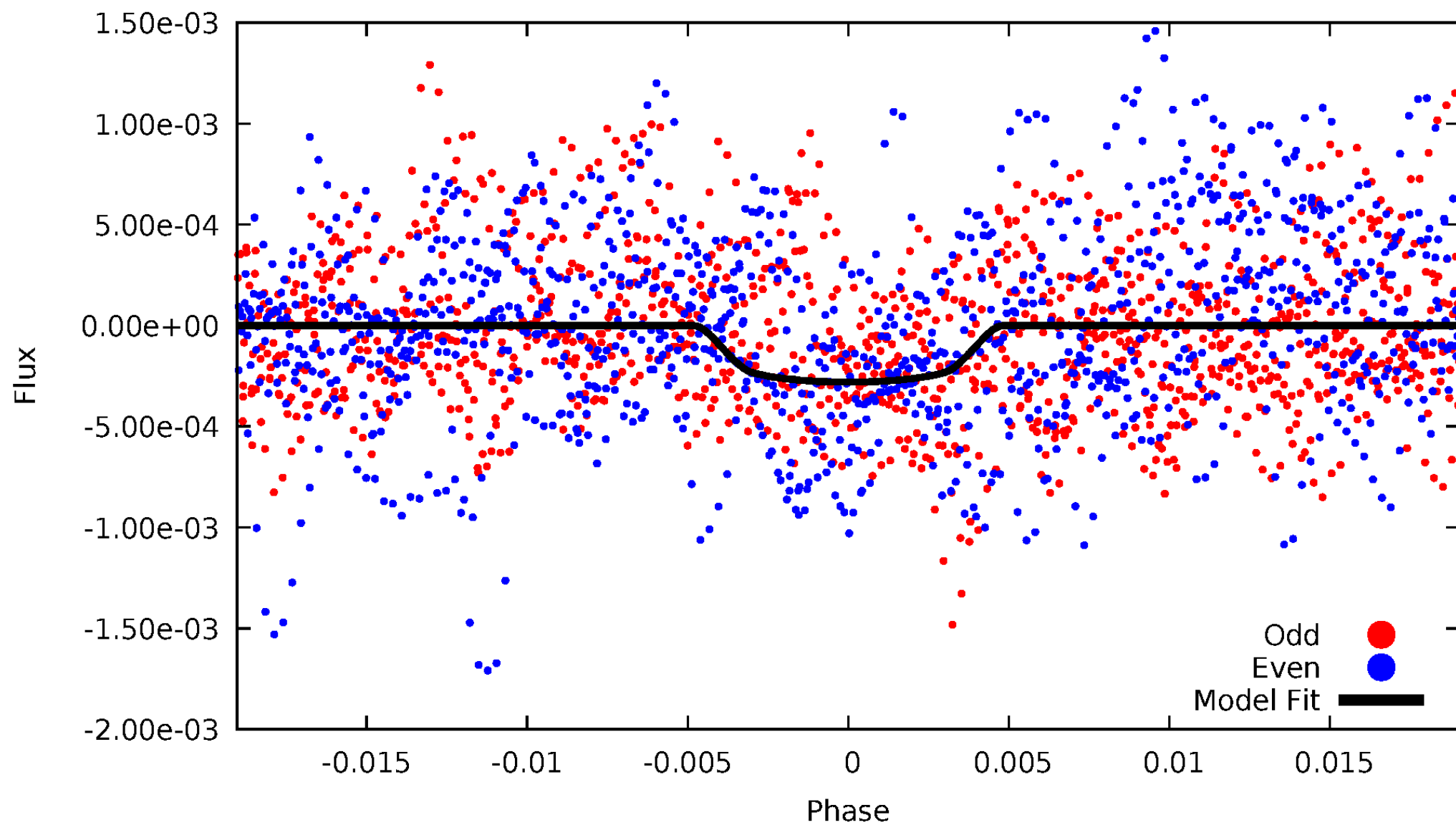


TCE 007117050-03



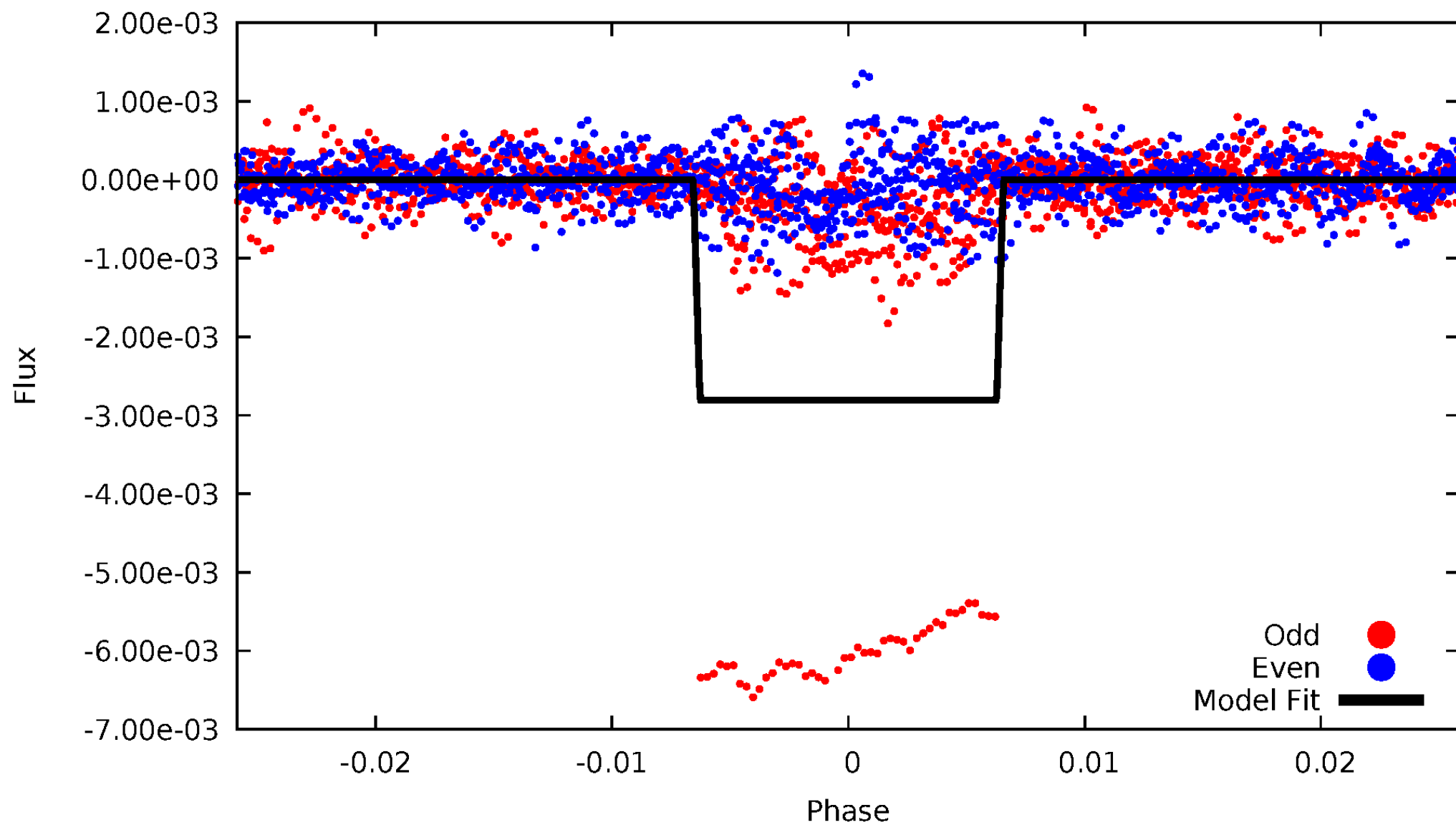
DV Odd/Even

TCE 007117050-03



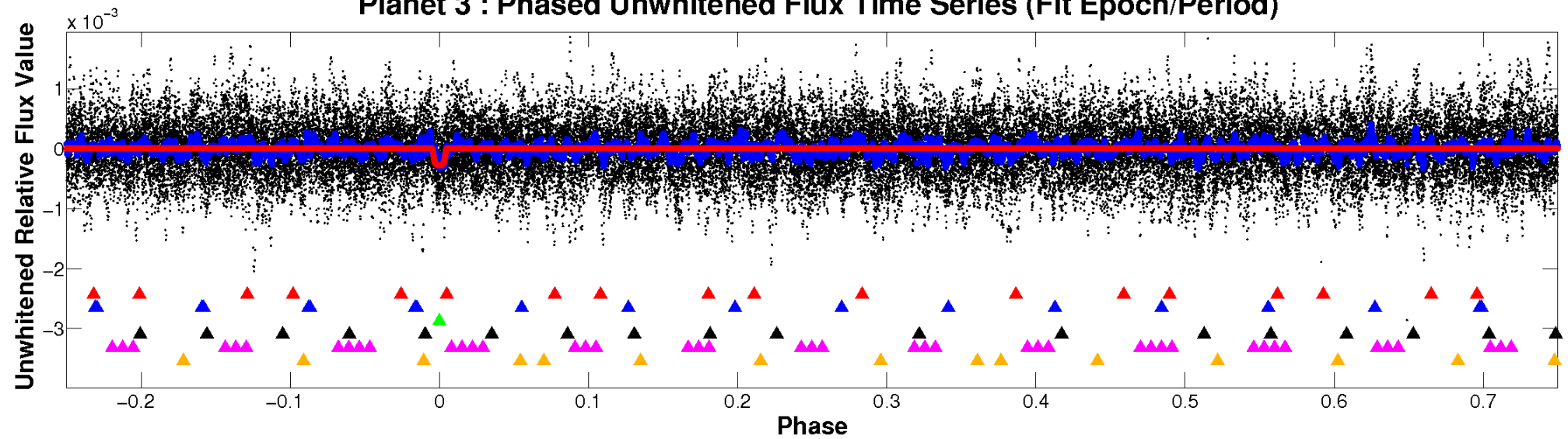
ALT Odd/Even

TCE 007117050-03

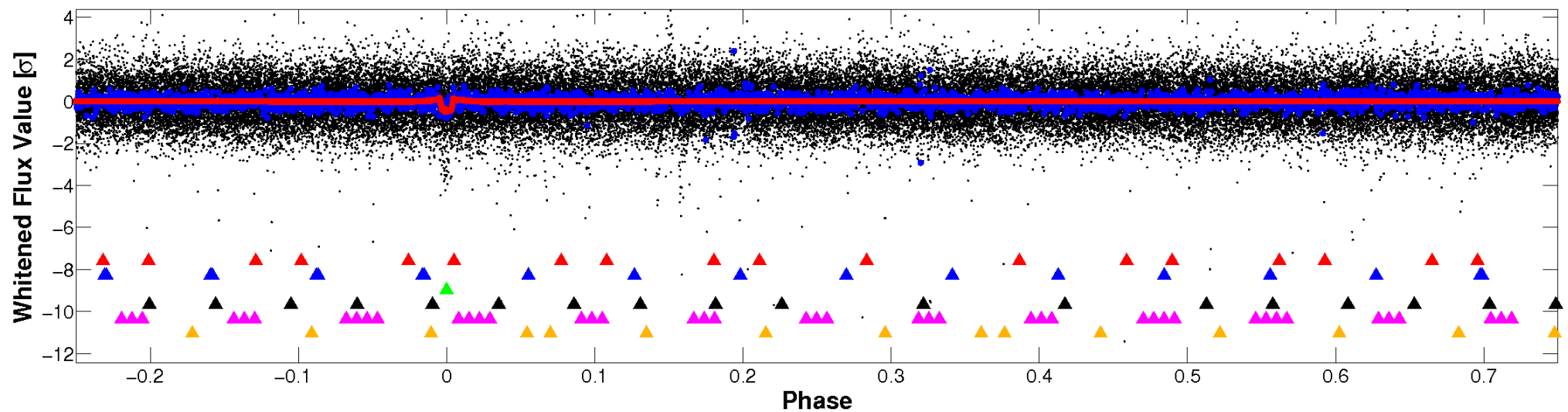


Non-Whitened Vs. Whitened Light Curve

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

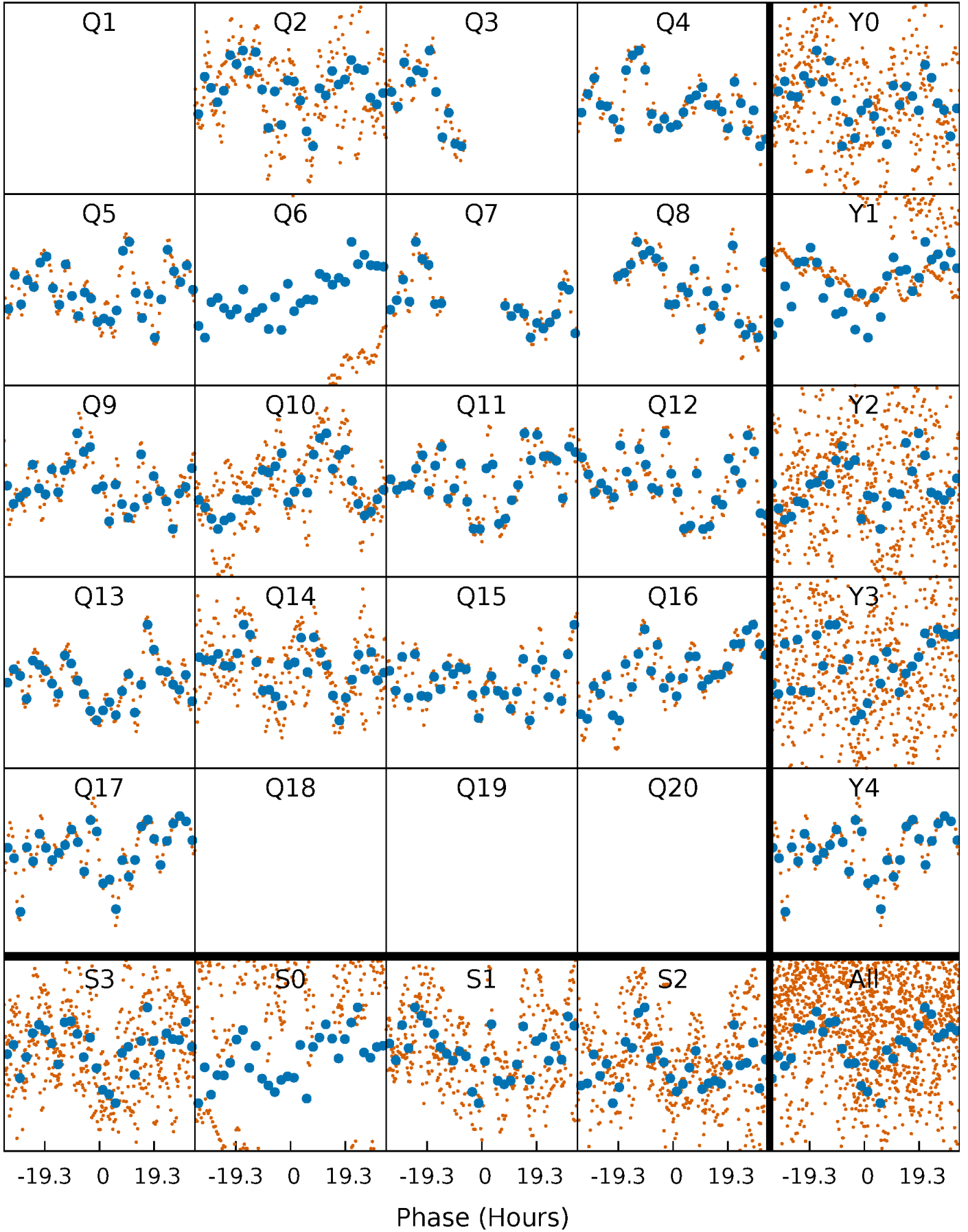


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



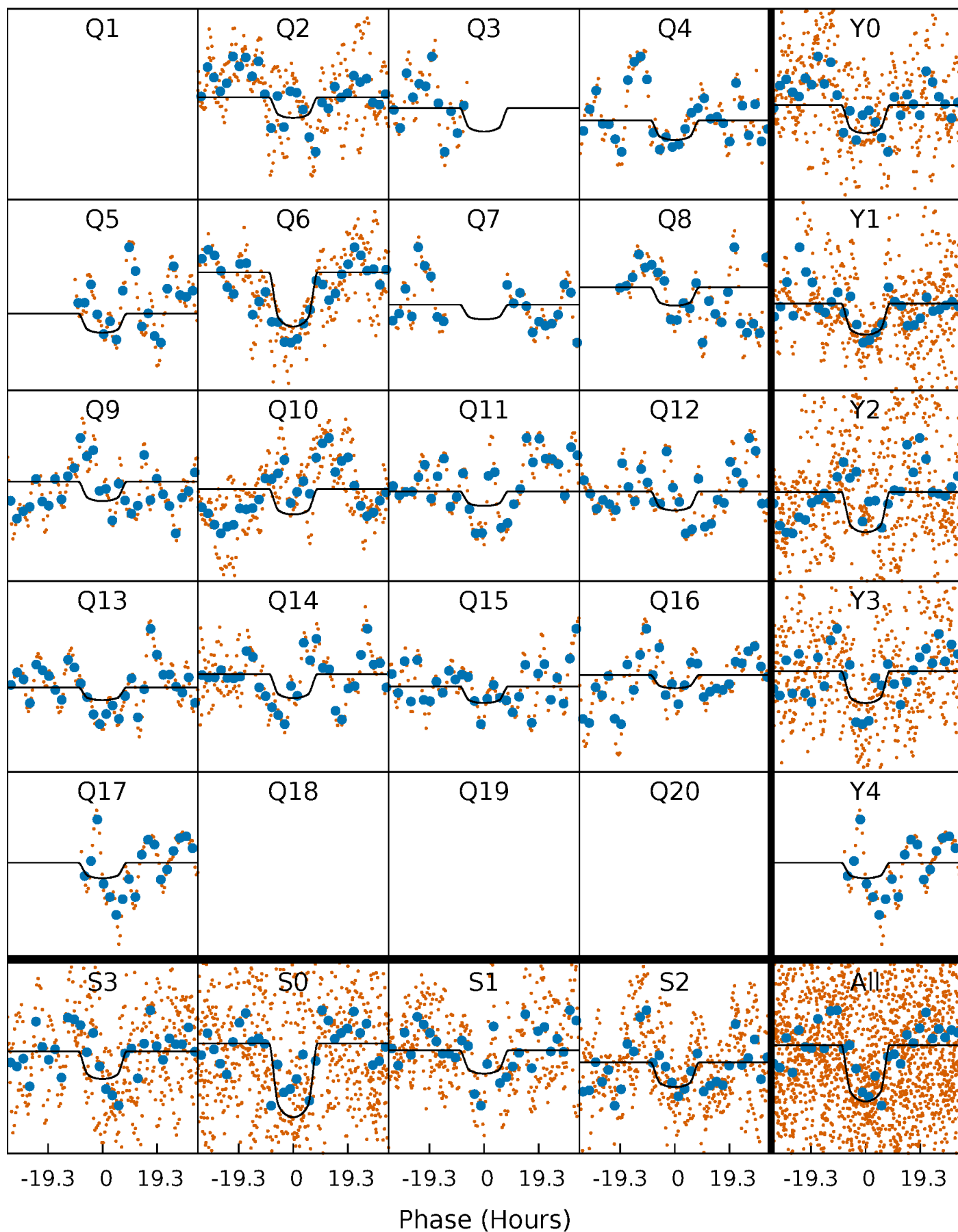
PDC Quarter-Phased Transit Curves

TCE 007117050-03 P= 73.821749 Days $T_0=174.048933$ (BKJD)



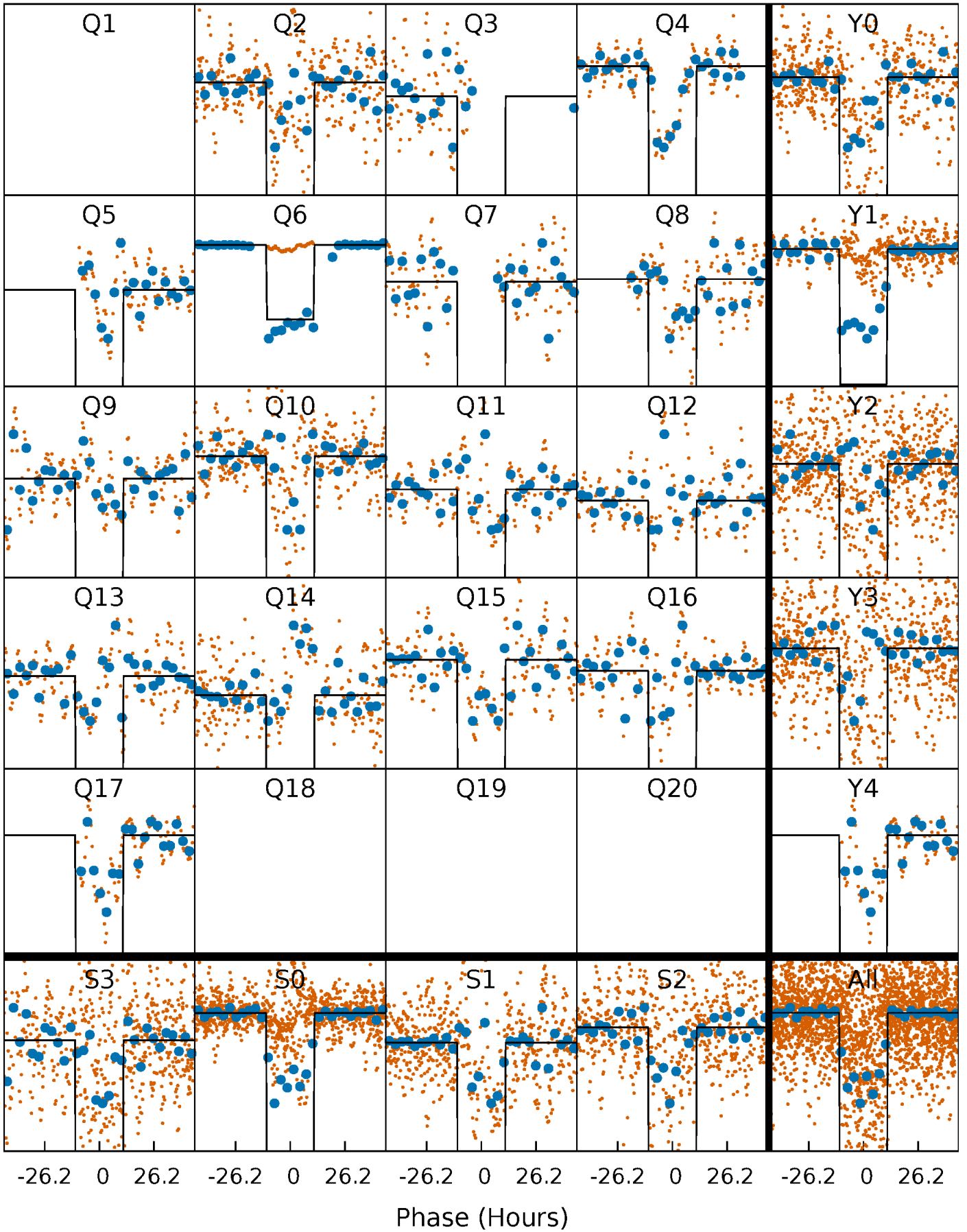
DV Quarter-Phased Transit Curves

TCE 007117050-03 P= 73.821749 Days $T_0=174.048933$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

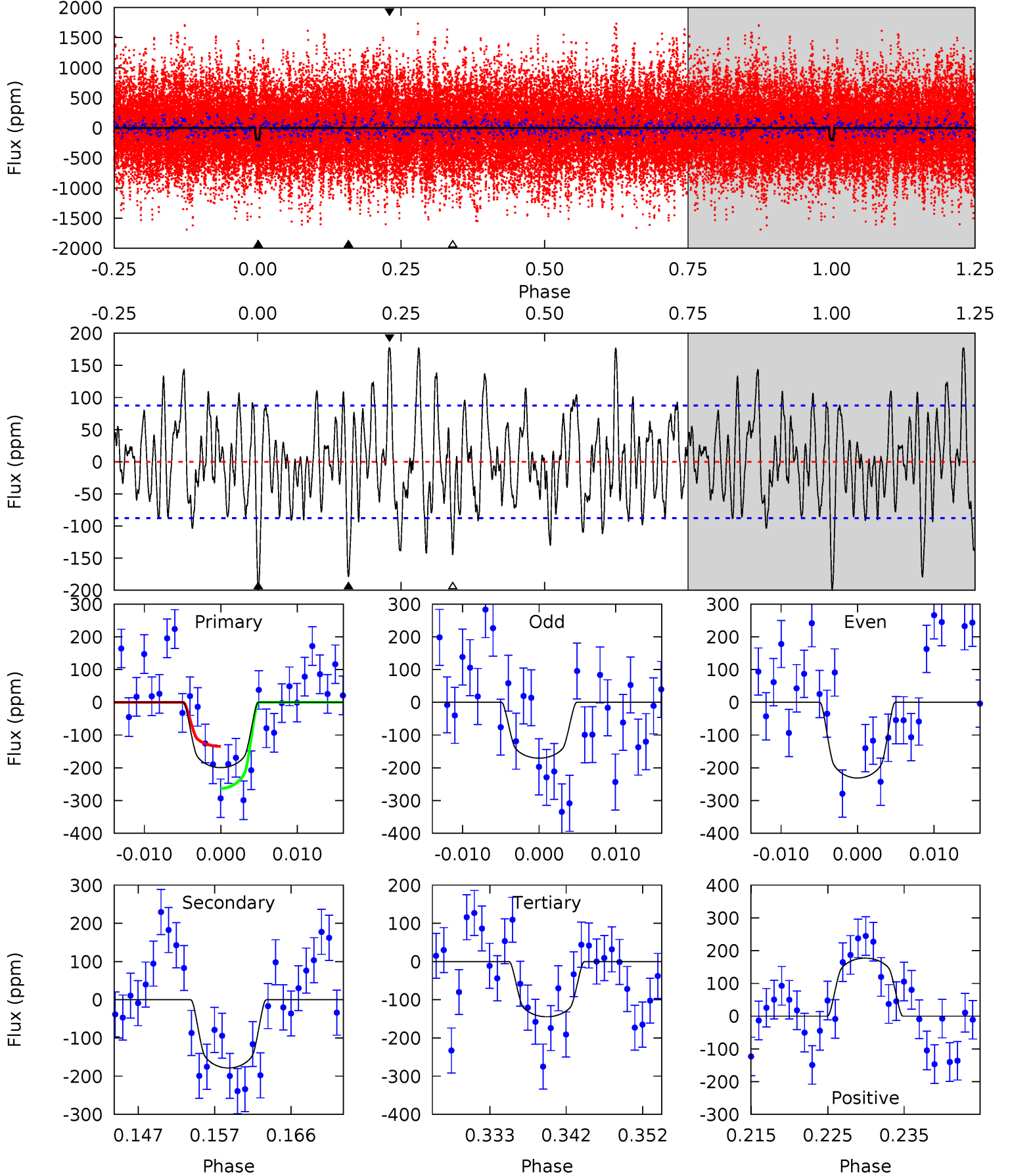
TCE 007117050-03 P= 73.829851 Days $T_0=174.010974$ (BKJD)



DV Model-Shift Uniqueness Test

007117050-03, P = 73.821749 Days, E = 100.227184 Days

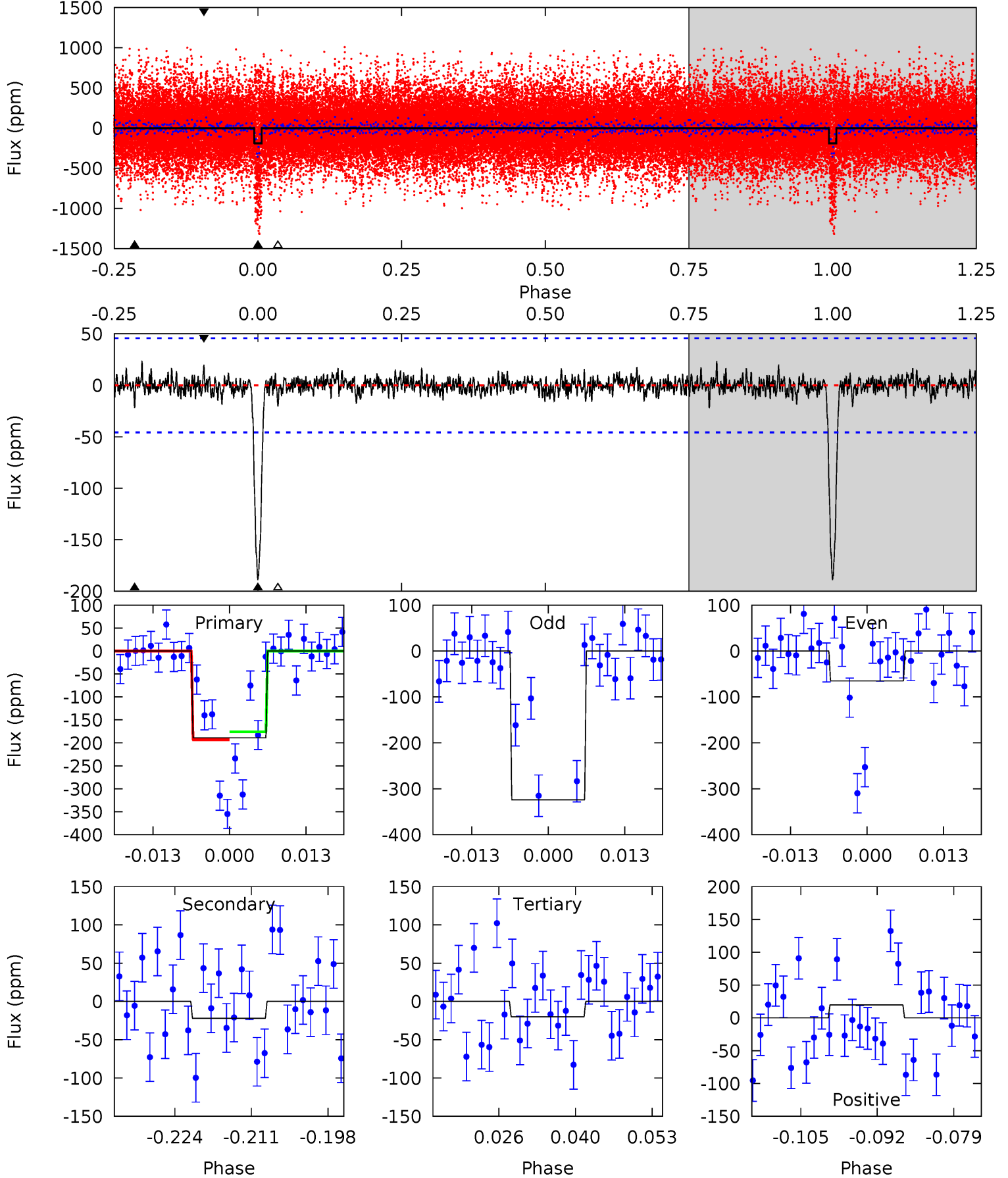
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	10.3	8.30	10.2	5.03	2.58	3.41	3.16	1.28	1.96	0.08	1.75	0.89	0.47	3.70



Alt Model-Shift Uniqueness Test

007117050-03, P = 73.829851 Days, E = 100.181123 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	2.39	2.19	2.15	4.97	2.48	0.63	18.3	18.4	0.20	0.24	14.0	4.98	0.11	0.94



Stellar Parameters For KIC 007117050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4769^{+57}_{-154}	$2.583^{+0.033}_{-0.027}$	$0.360^{+0.050}_{-0.250}$	$14.706^{+0.687}_{-3.890}$	$3.020^{+0.152}_{-1.371}$	$0.001^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+14%/-69%	+5%/-26%	+5%/-45%	+39%/-10%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007117050-03 / KOI 8135.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-179 ± 17	$33.16^{+1.82}_{-2.42}$	1593^{+31}_{-54}	4026^{+116}_{-140}	23^{+4}_{-3}
Alt.	-22 ± 9	$86.66^{+2.60}_{-3.70}$	1594^{+32}_{-54}	1979^{+222}_{-3912}	$0.403^{+0.183}_{-0.187}$

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

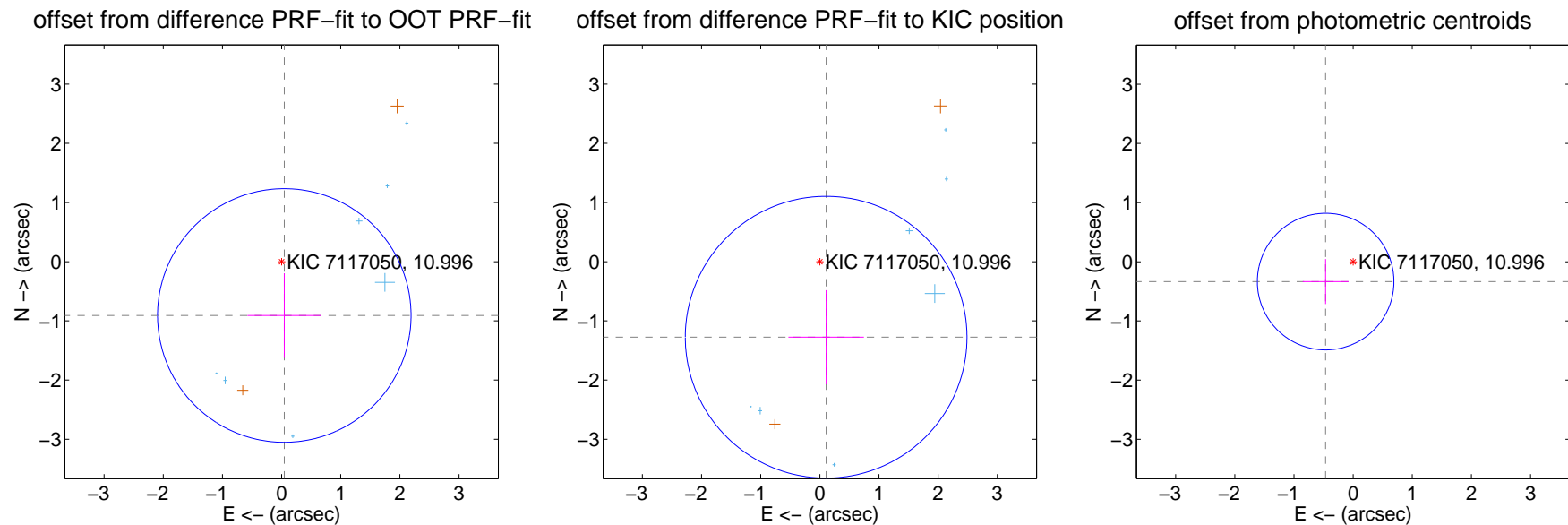
DV Centroid Data

Supplemental centroid analysis for 007117050-03. **Kepler magnitude: 11.00.** Transit SNR 15.28

There are 7 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.910 ± 0.714	1.27	-0.046 ± 0.622	-0.909 ± 0.714
PRF-fit source offset from KIC position	1.280 ± 0.794	1.61	-0.106 ± 0.638	-1.276 ± 0.794
photometric centroid source offset	0.57 ± 0.38	1.49	0.46 ± 0.39	-0.34 ± 0.38



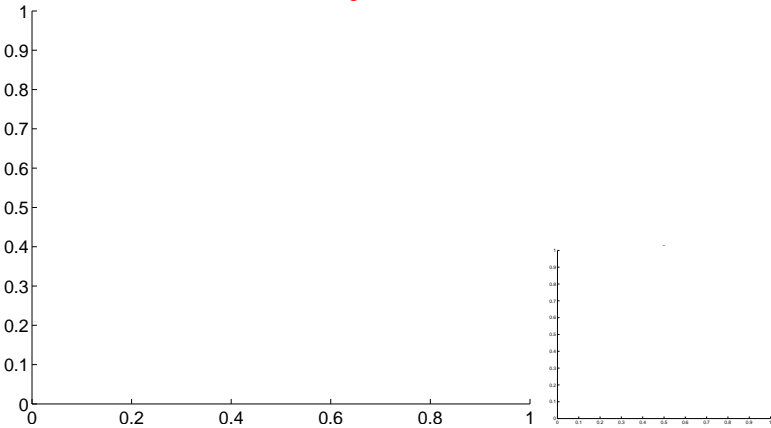
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

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

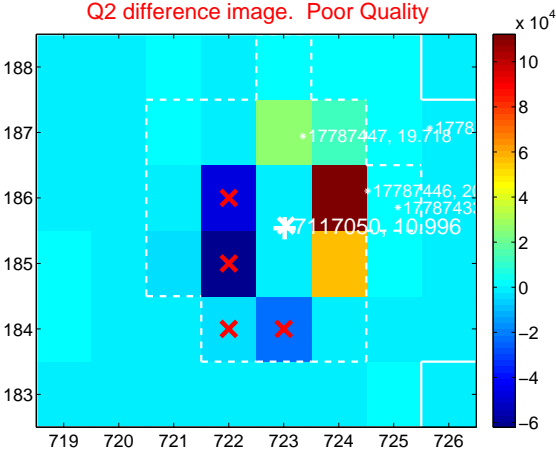
Q1 no difference image



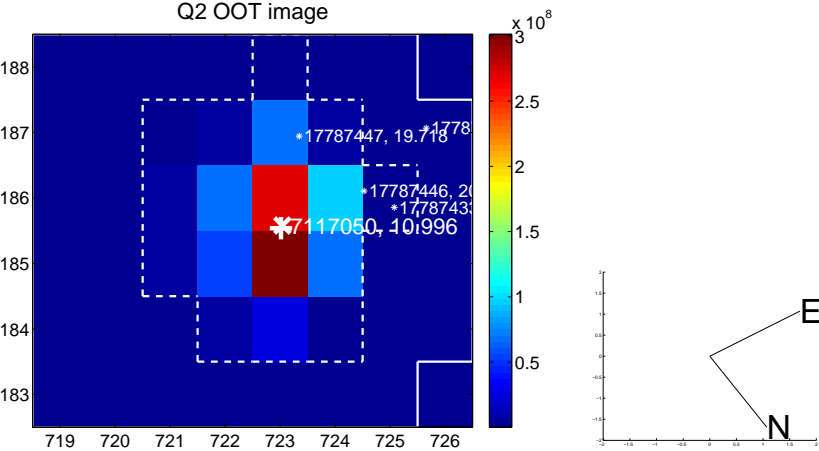
Q1 no OOT image



Q2 difference image. Poor Quality



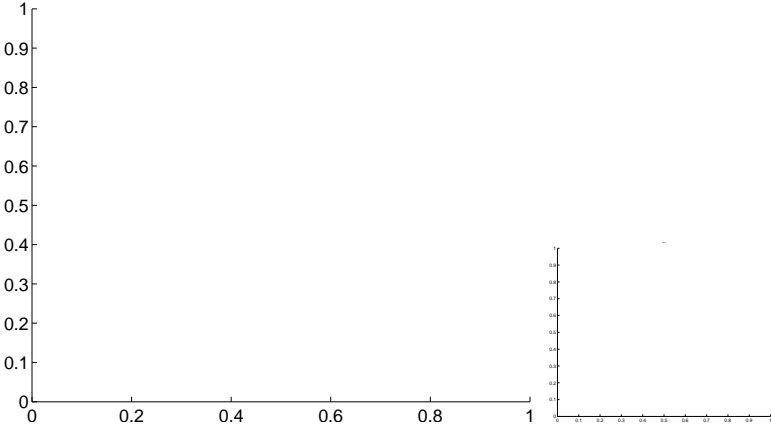
Q2 OOT image



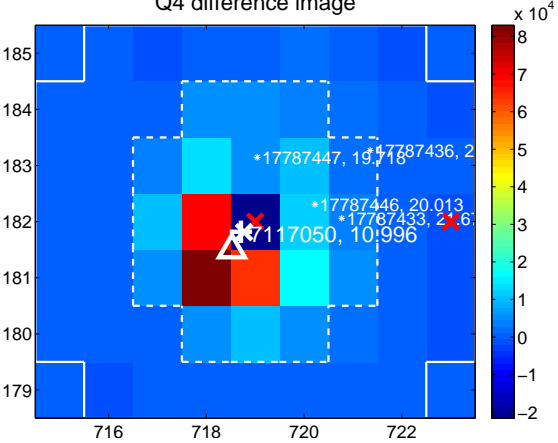
Q3 no difference image



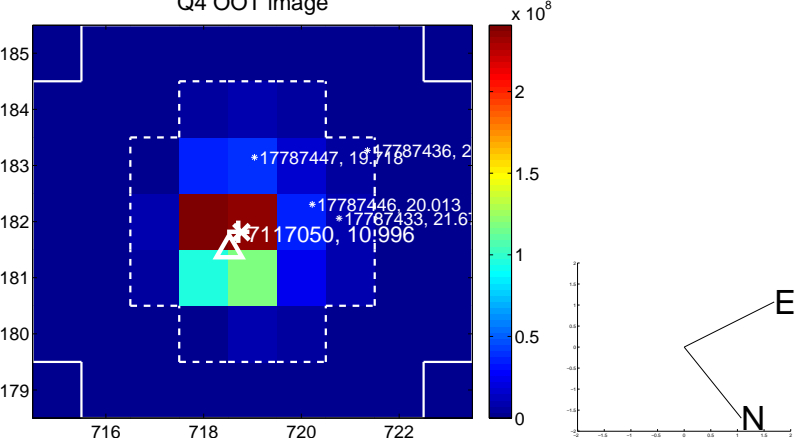
Q3 no OOT image



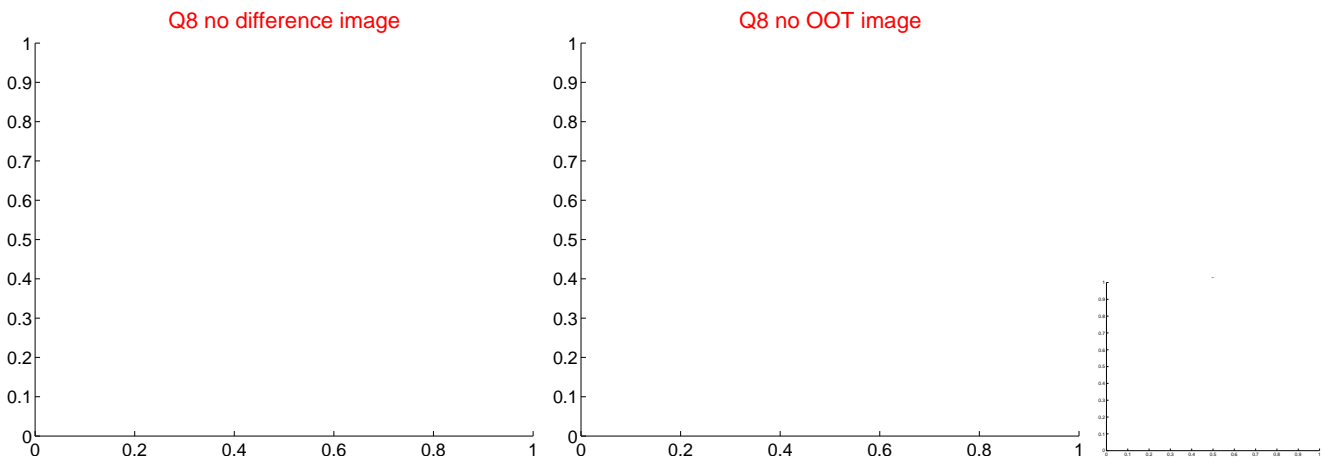
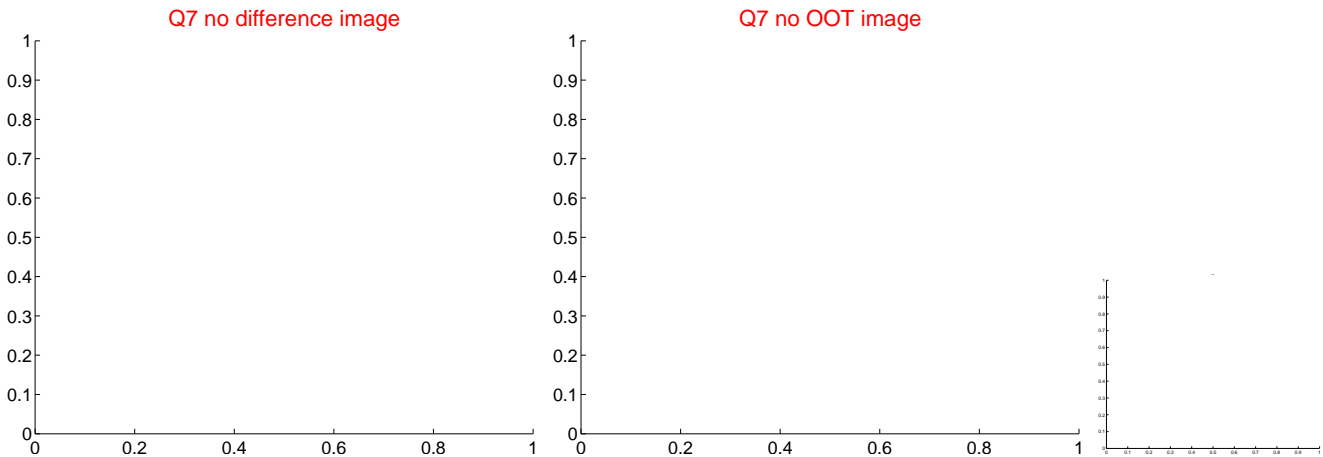
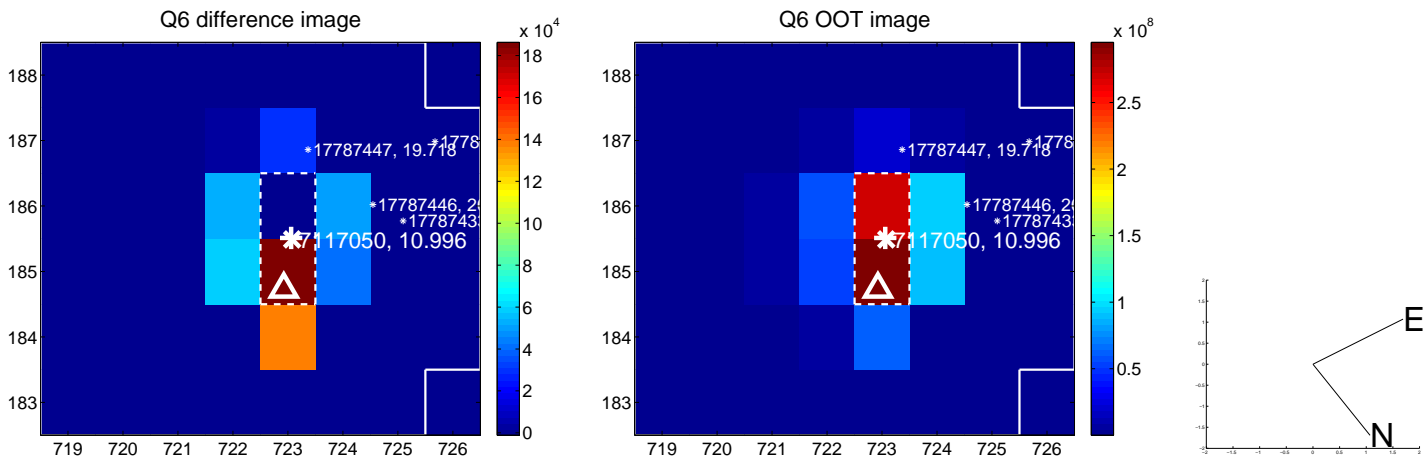
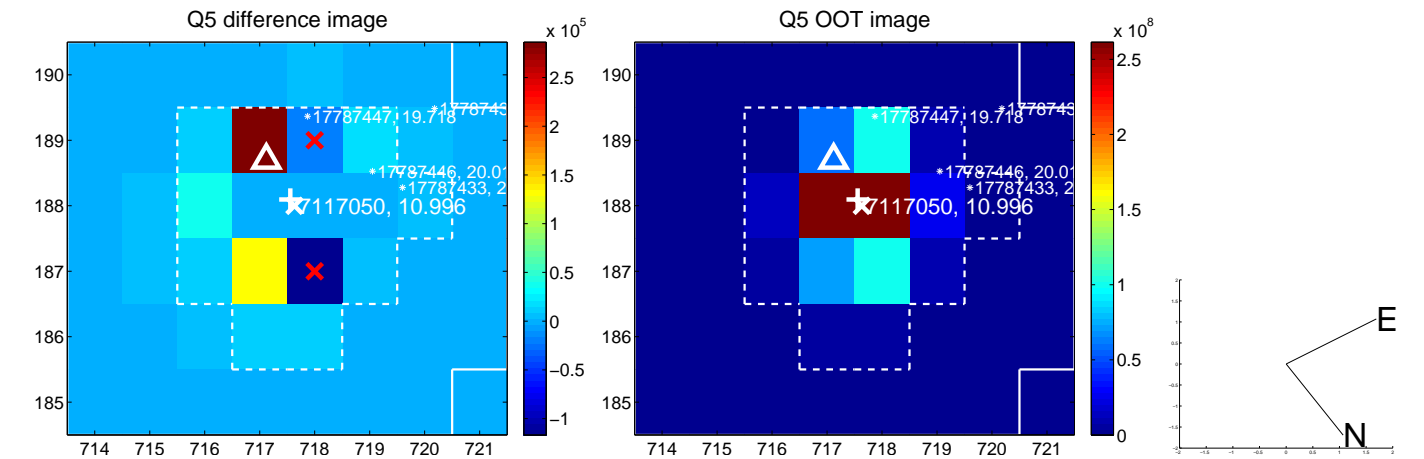
Q4 difference image



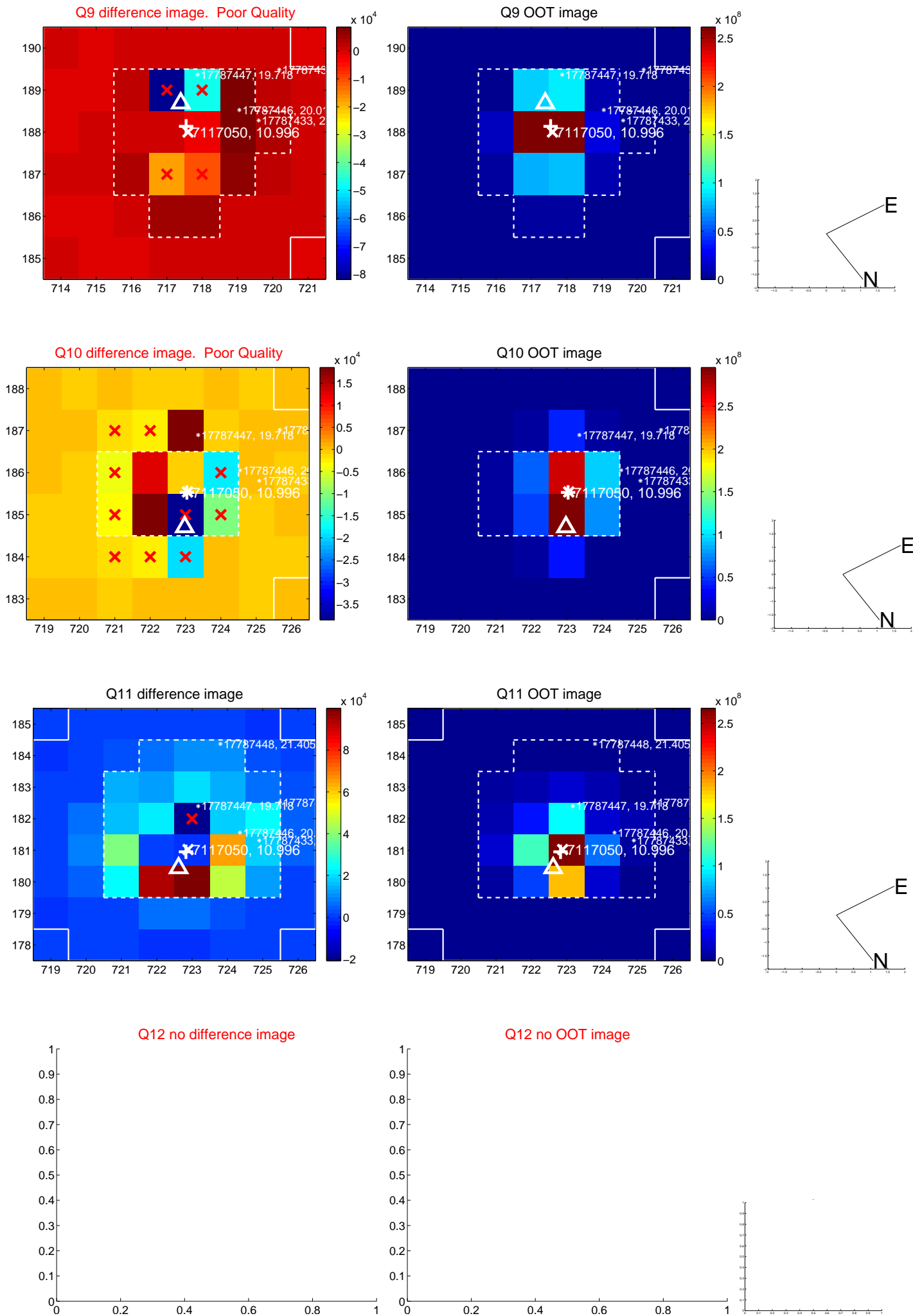
Q4 OOT image



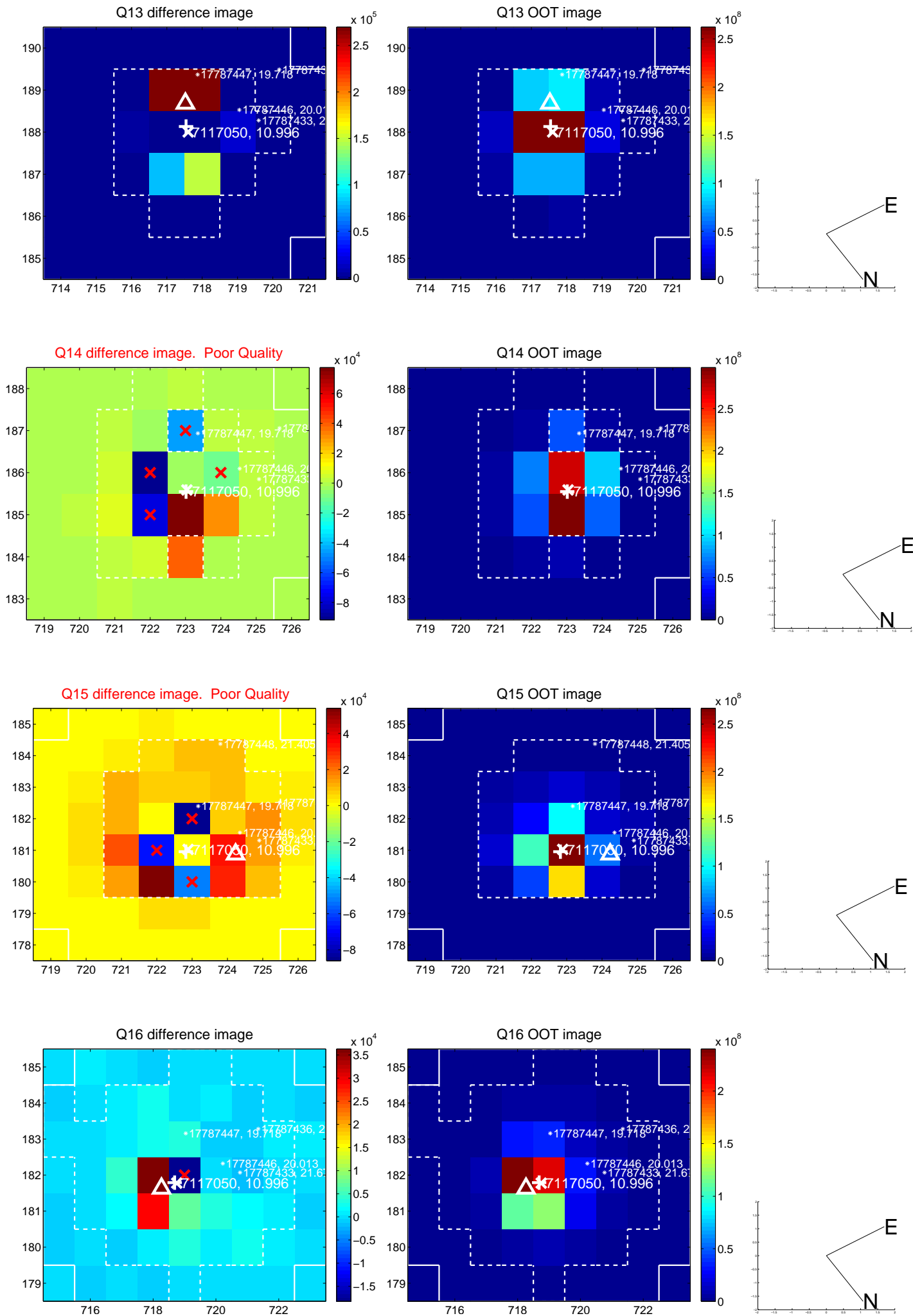
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



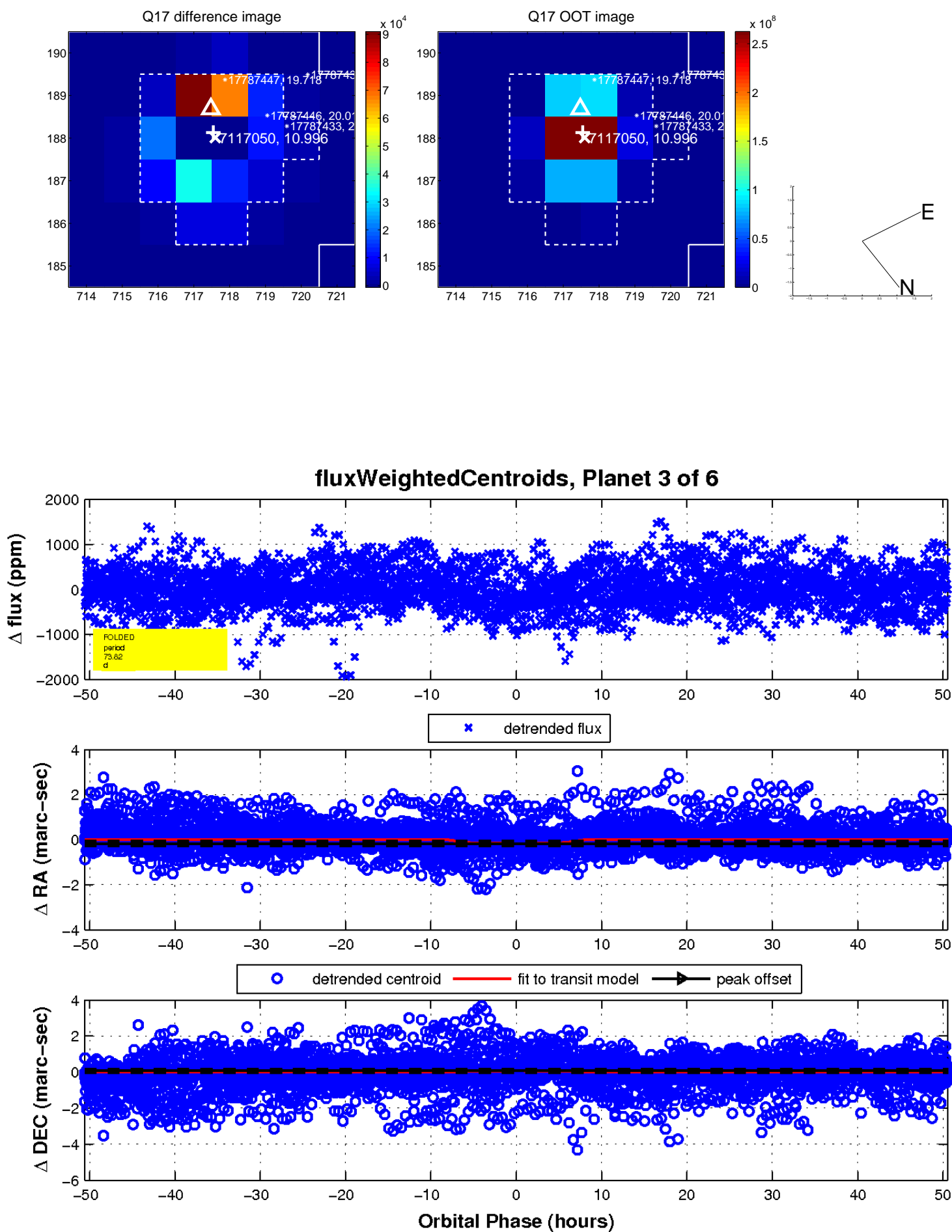
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



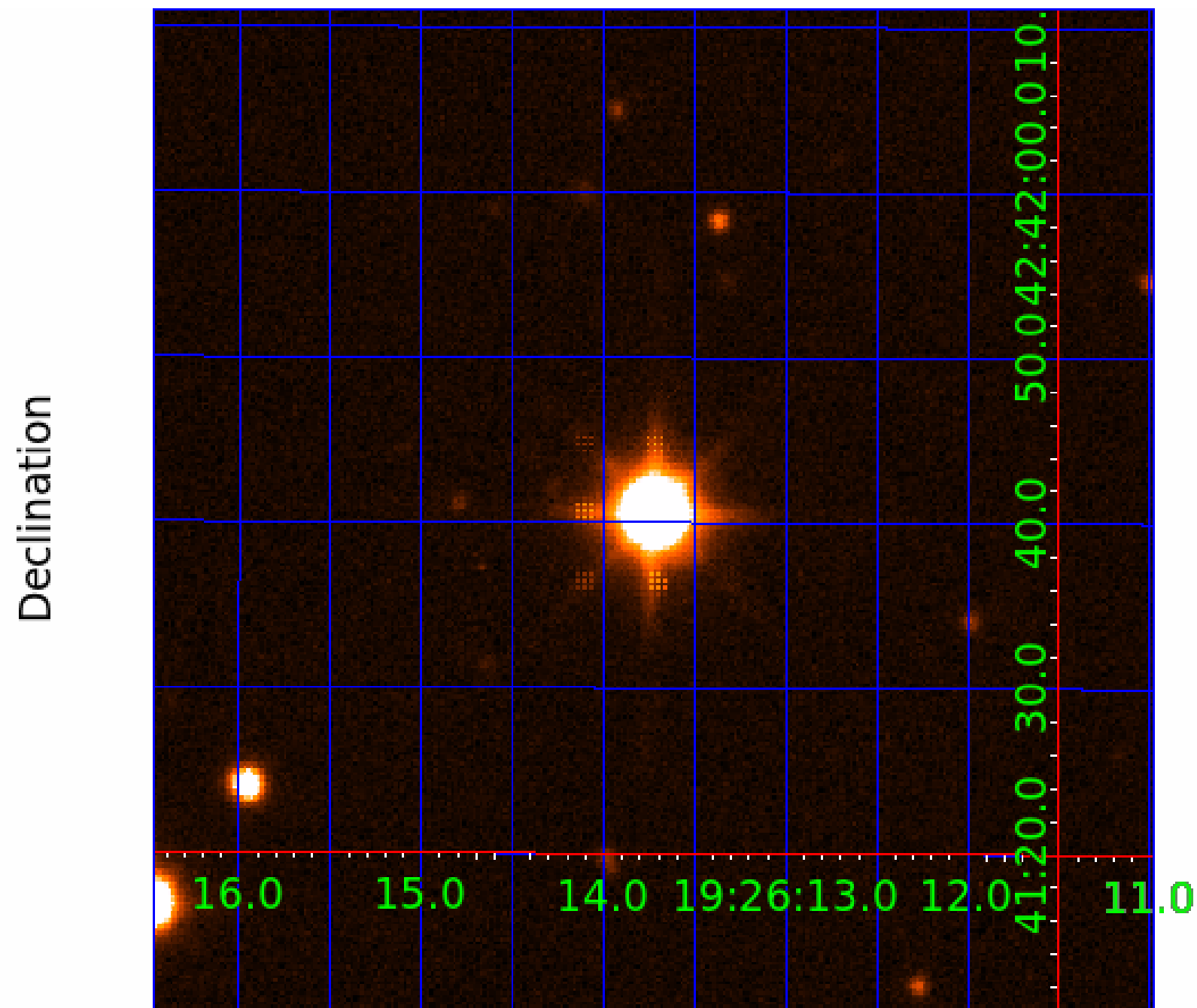
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 007117050

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})
007117050-01	OBS	No	81.430634	134.106537	495.2	18.432	23.4	24.4	14.71	4769	43.75	354.72
007117050-02	OBS	No	79.101064	151.729459	335.5	12.441	16.3	14.0	14.71	4769	36.08	368.71
007117050-03	OBS	8135.01	73.821749	174.048933	280.4	16.860	13.7	15.3	14.71	4769	32.77	404.29
007117050-04	OBS	No	80.873779	141.387204	192.6	60.637	12.7	7.8	14.71	4769	23.83	357.98
007117050-05	OBS	No	34.111369	140.539877	10.5	29.104	10.4	0.8	14.71	4769	5.71	1131.71
007117050-06	OBS	No	96.446605	179.222342	146.9	1.306	7.3	9.7	14.71	4769	18.99	283.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117050-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007117050-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED—HALO_GHOST
007117050-03	OBS	FP	0.11	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
007117050-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

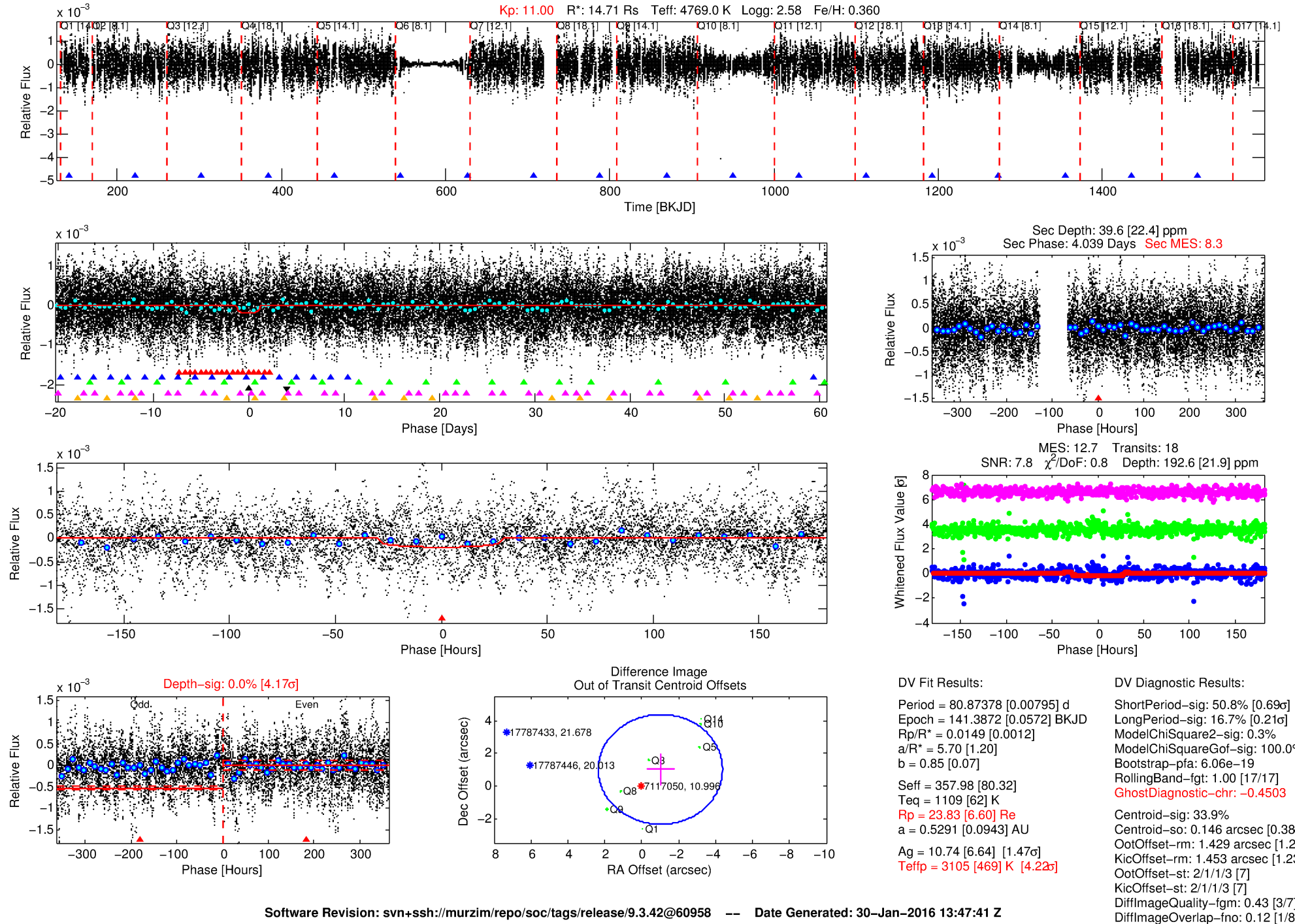
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007117050-04

No Significant Match Found

DV One-Page Summary

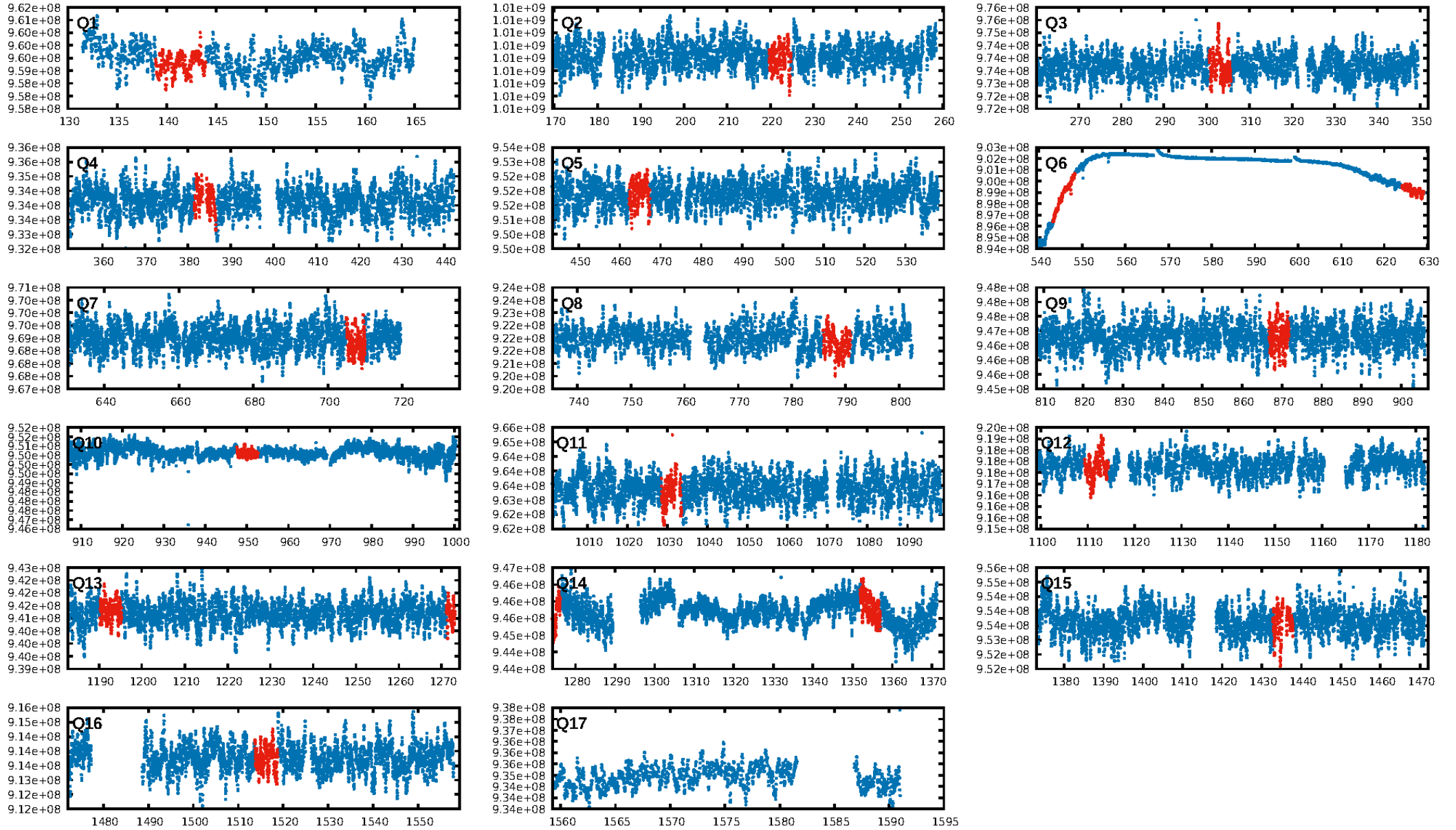
KIC: 7117050 Candidate: 4 of 6 Period: 80.874 d



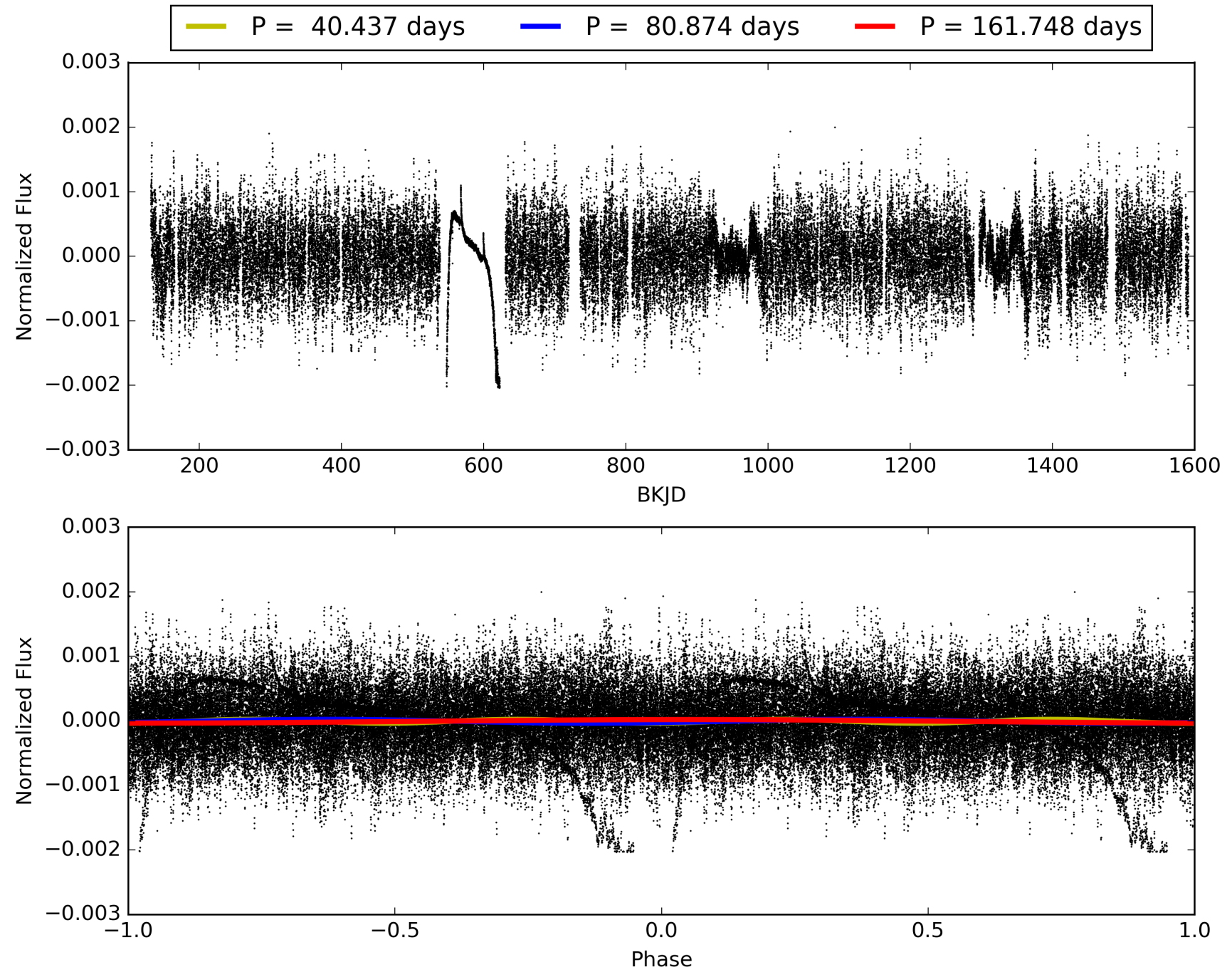
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:47:41 Z

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

TCE 007117050-04, PDC Light Curves

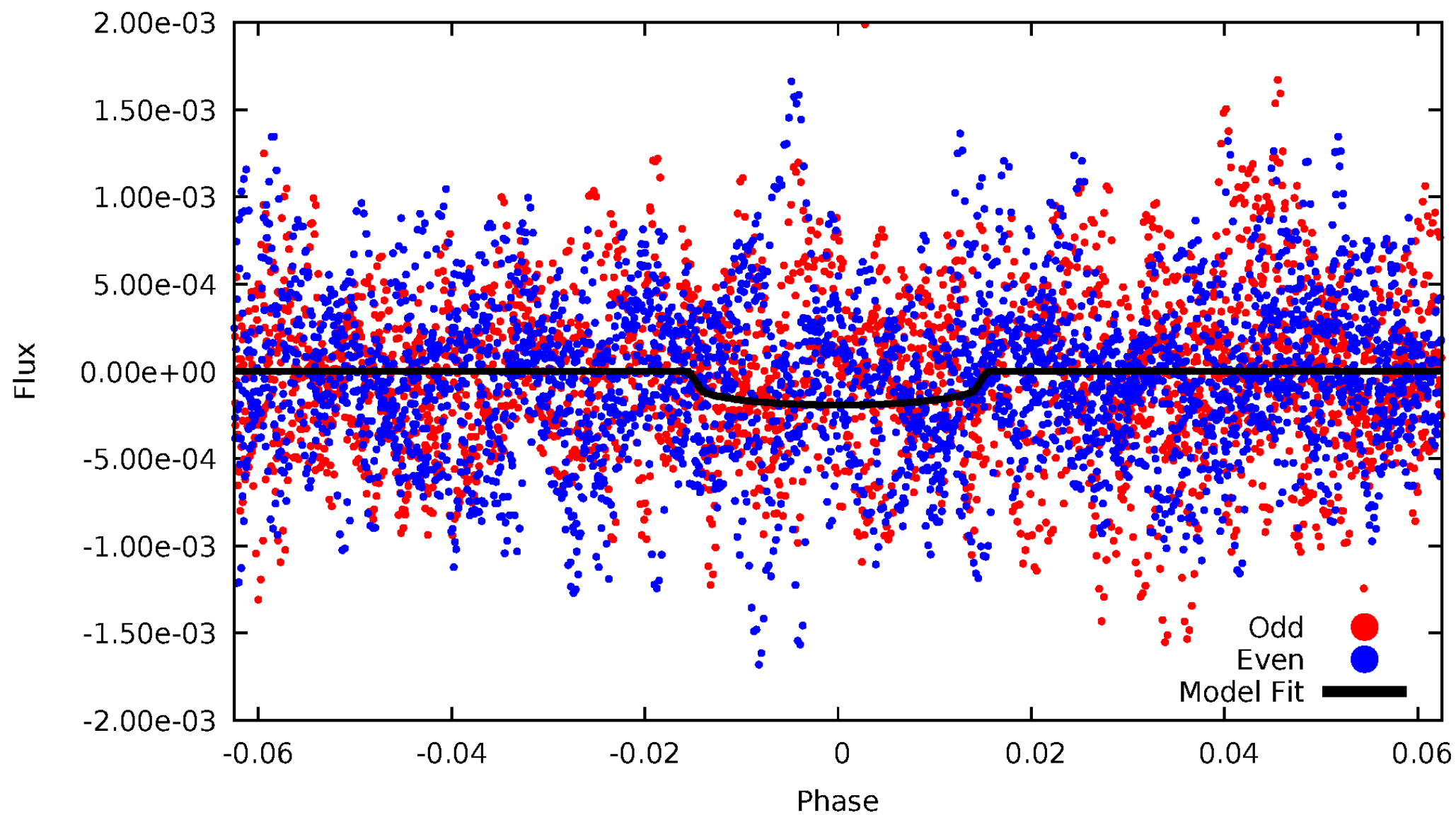


TCE 007117050-04



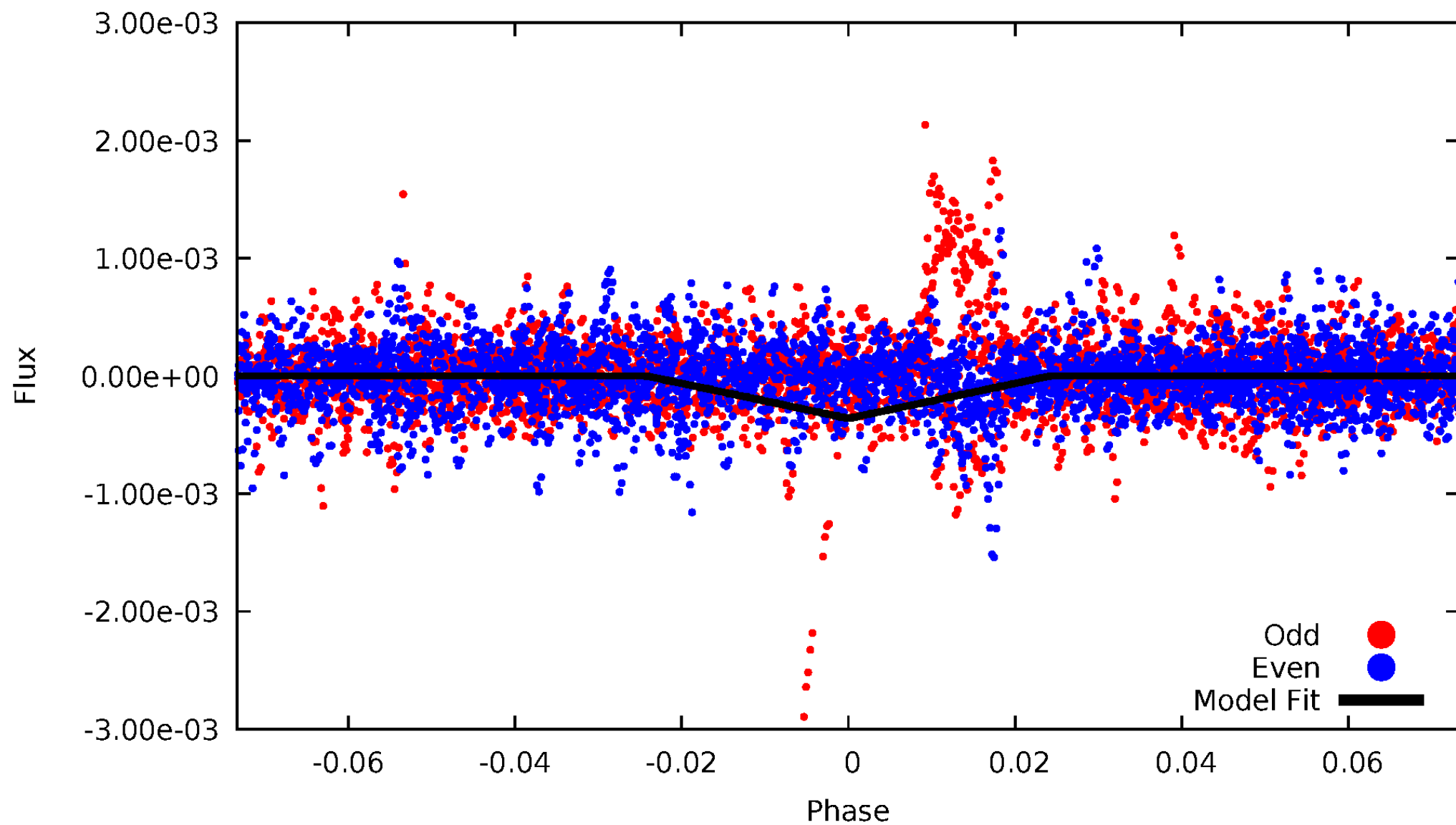
DV Odd/Even

TCE 007117050-04



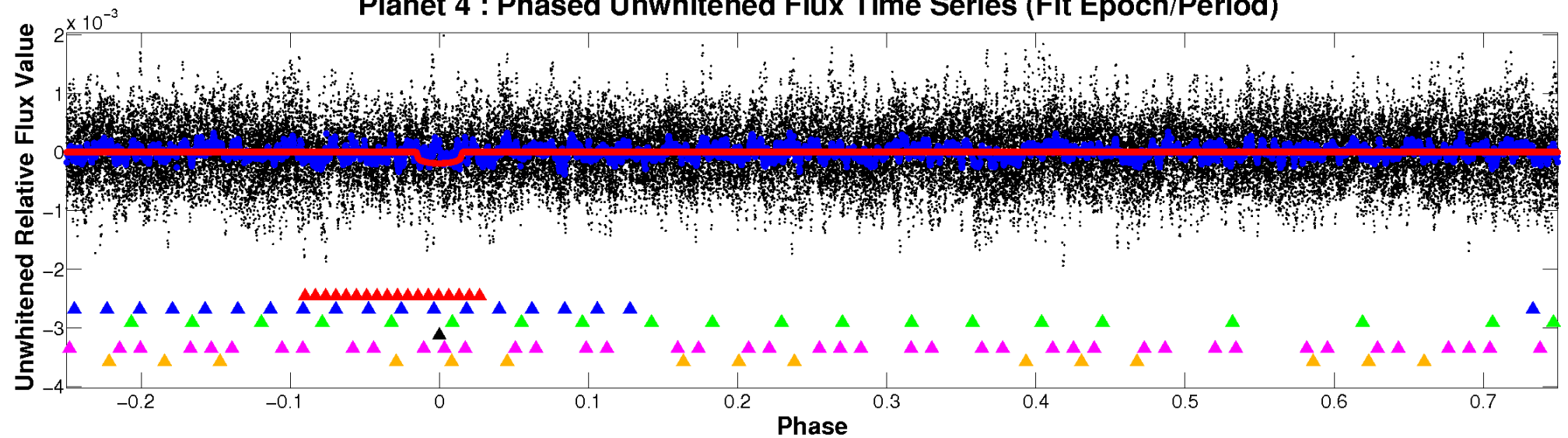
ALT Odd/Even

TCE 007117050-04

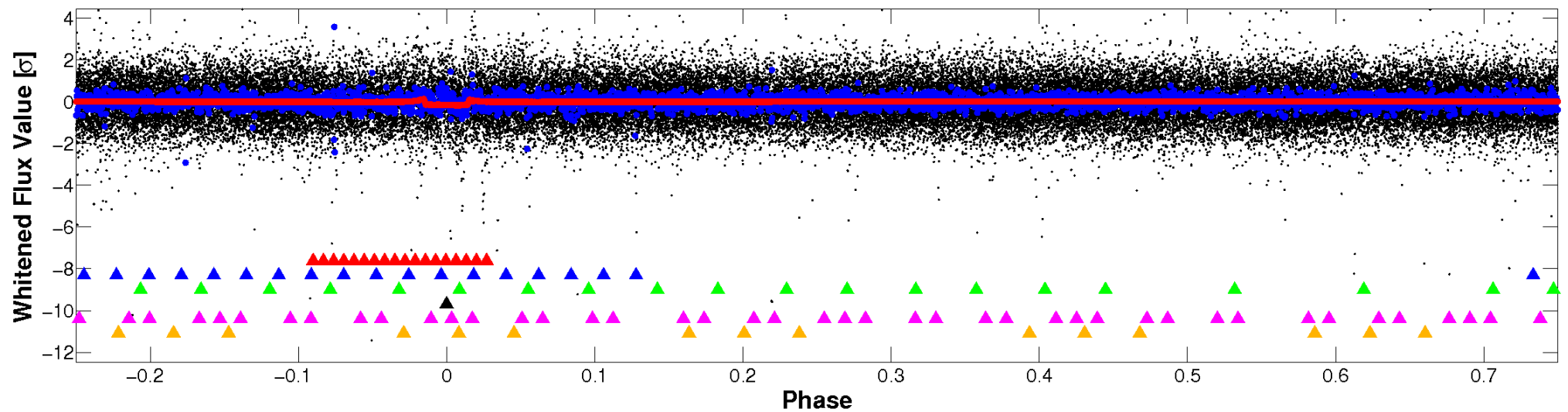


Non-Whitened Vs. Whitened Light Curve

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

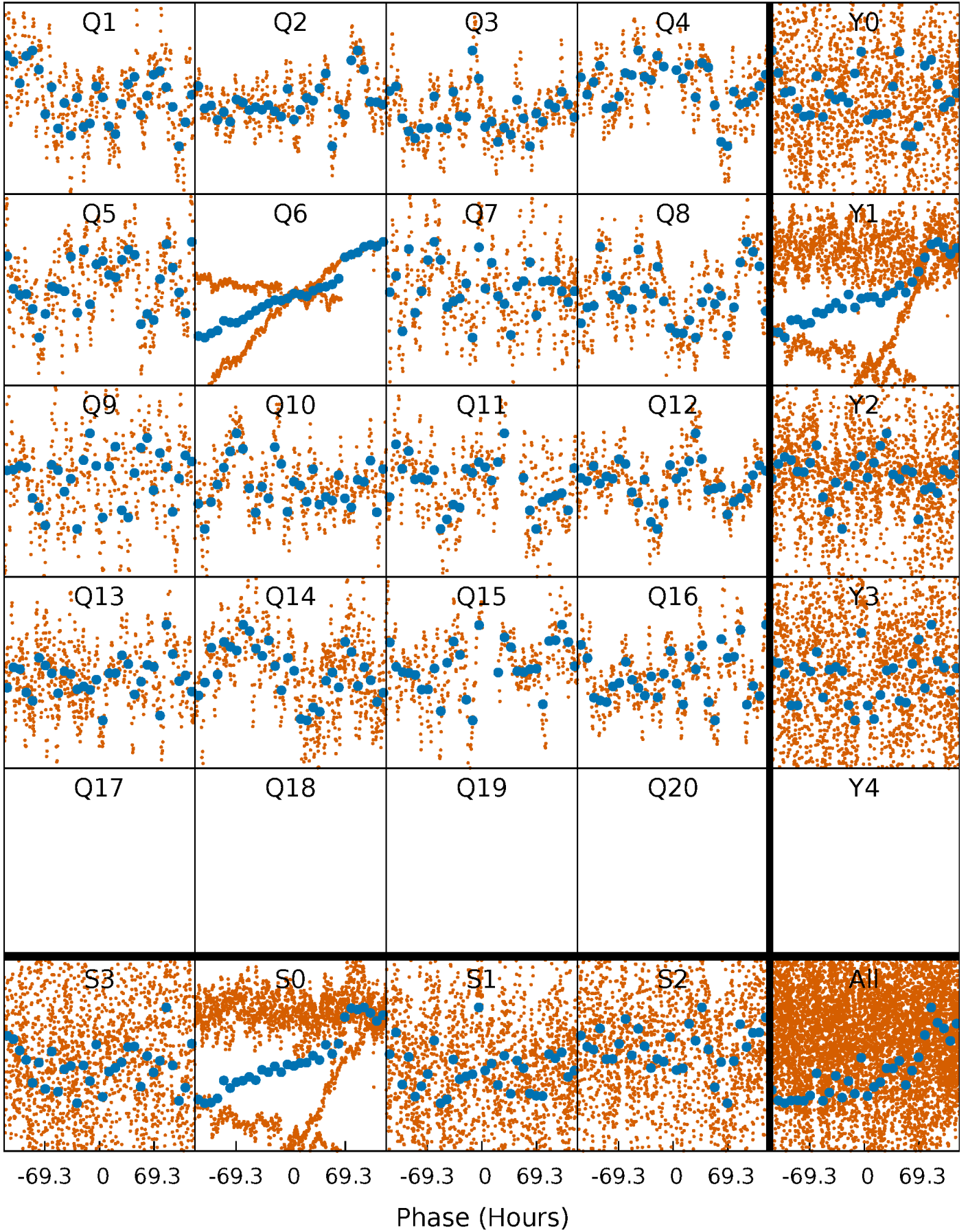


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



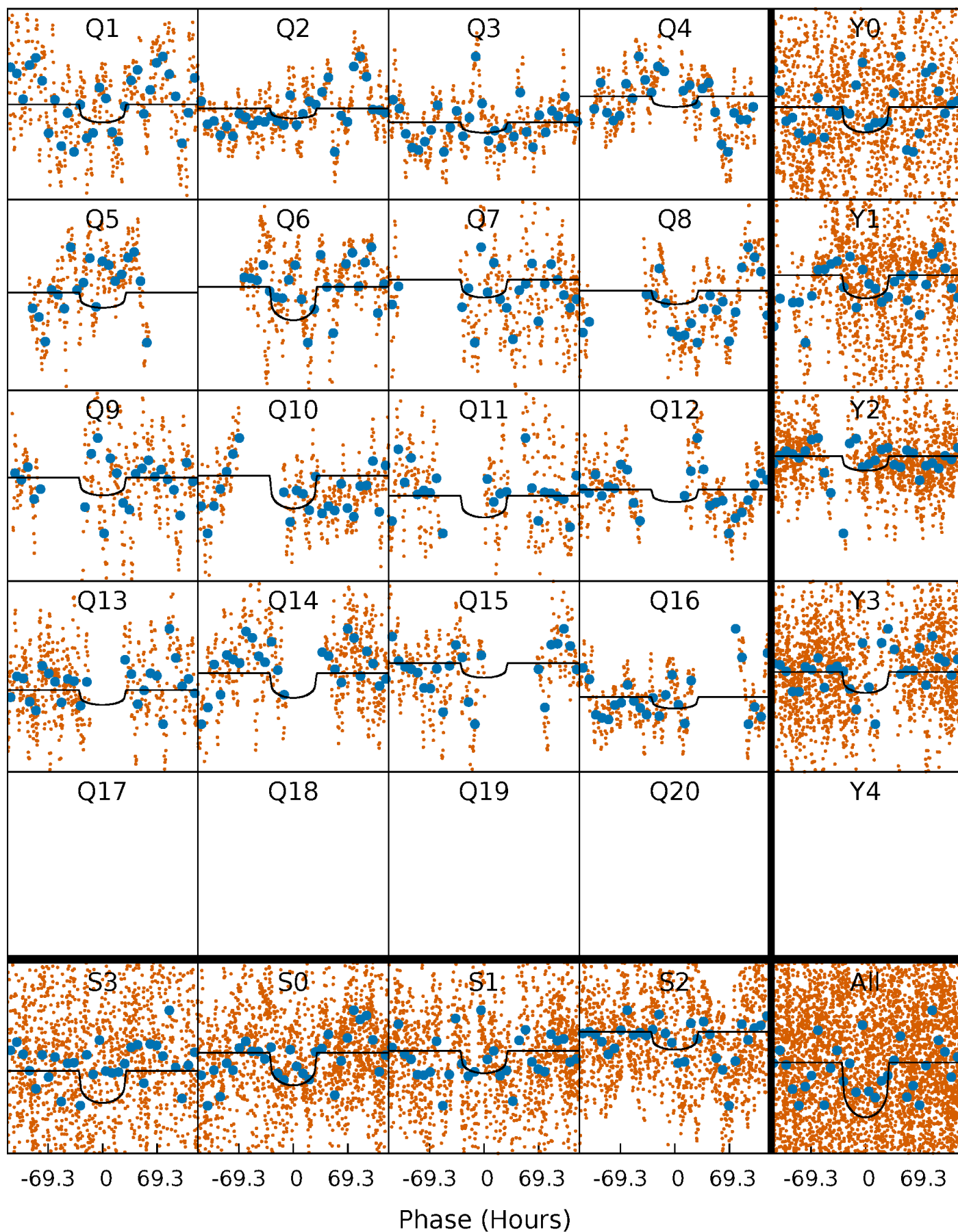
PDC Quarter-Phased Transit Curves

TCE 007117050-04 P= 80.873779 Days $T_0=141.387204$ (BKJD)



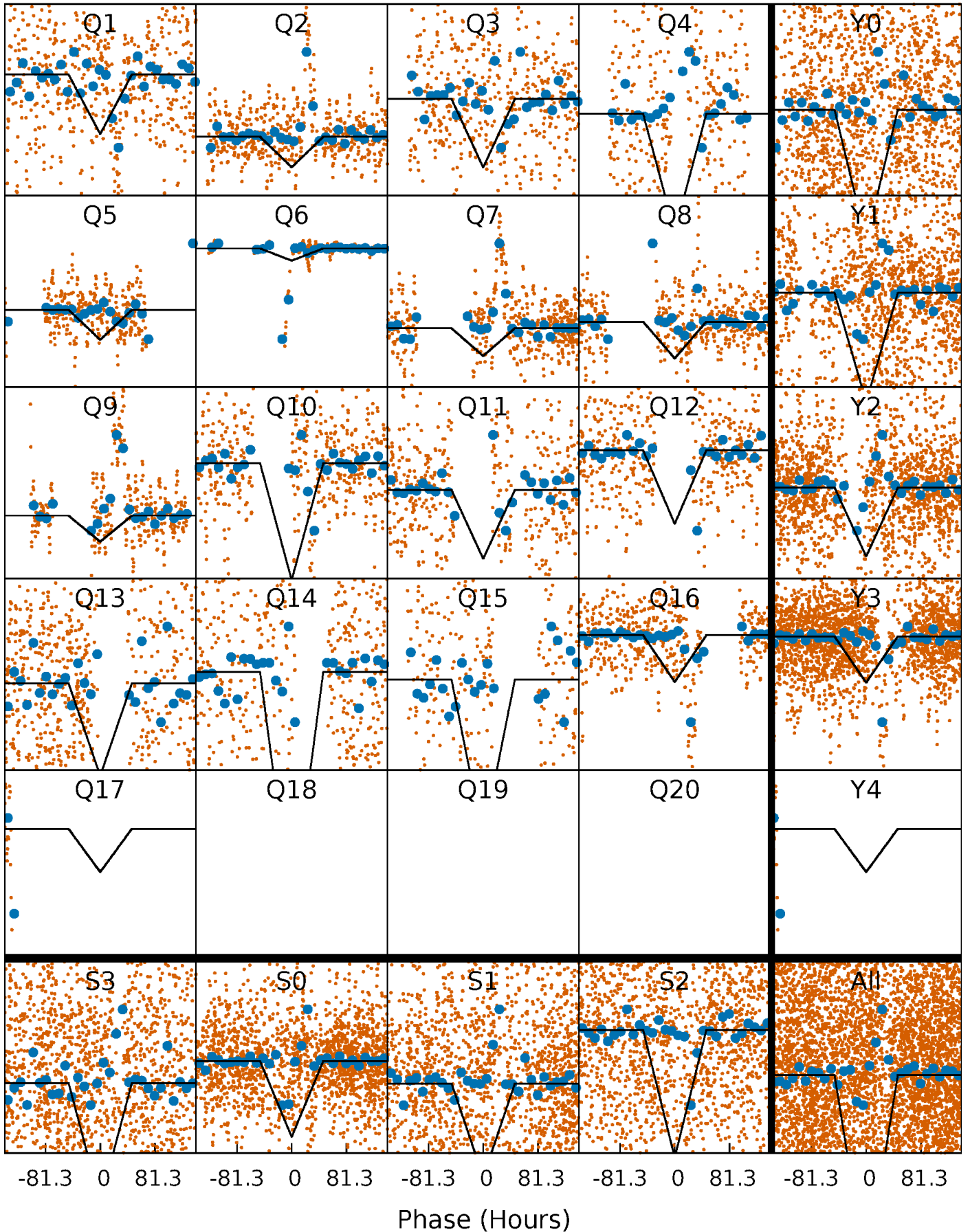
DV Quarter-Phased Transit Curves

TCE 007117050-04 P= 80.873779 Days $T_0=141.387204$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

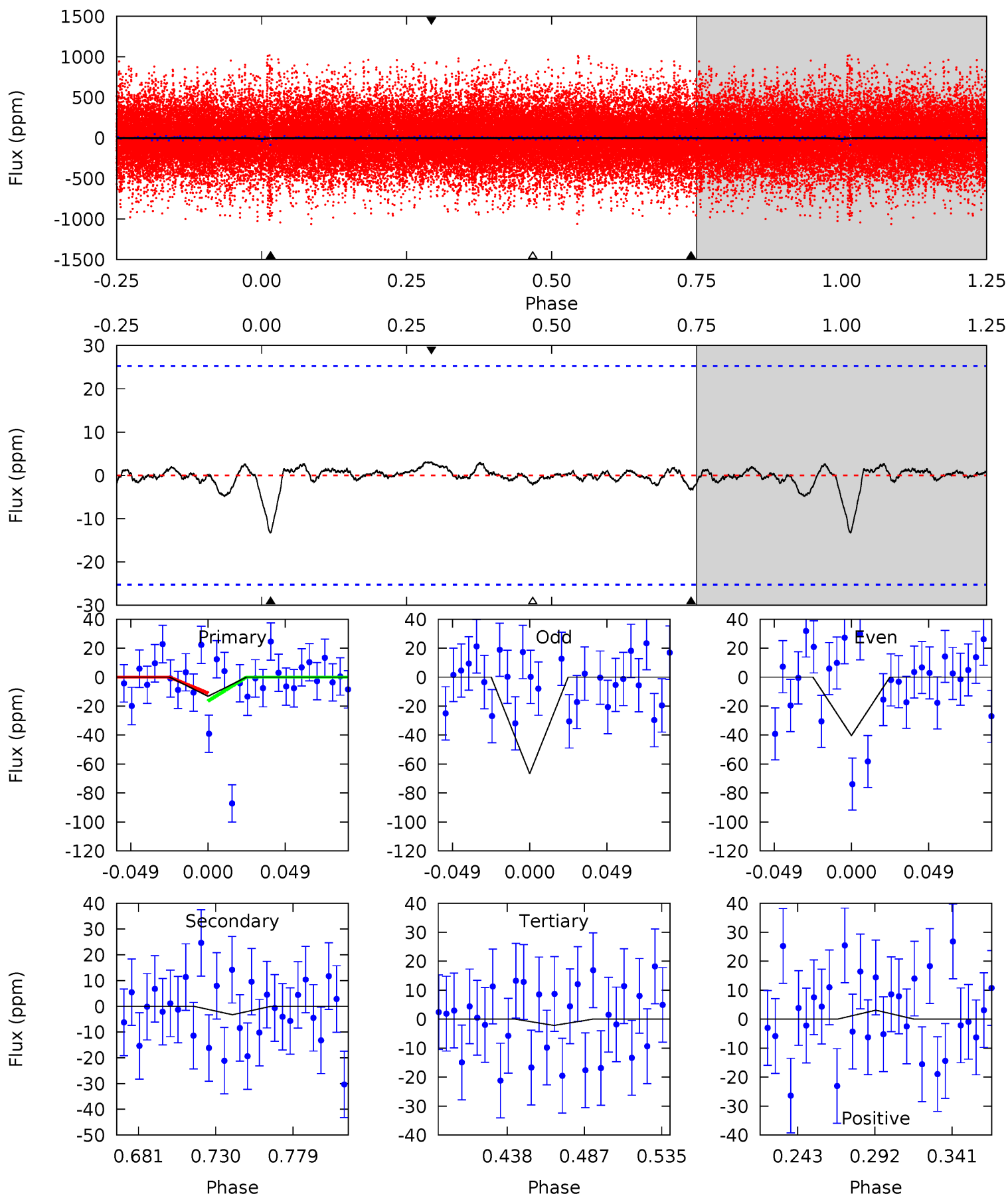
TCE 007117050-04 P= 80.856826 Days $T_0=141.053072$ (BKJD)



Alt Model-Shift Uniqueness Test

007117050-04, P = 80.856826 Days, E = 60.196246 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.46	0.61	0.40	0.58	4.71	1.97	0.24	2.06	1.88	0.21	0.03	2.45	8.18	0.19	0.50



Stellar Parameters For KIC 007117050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4769^{+57}_{-154}	$2.583^{+0.033}_{-0.027}$	$0.360^{+0.050}_{-0.250}$	$14.706^{+0.687}_{-3.890}$	$3.020^{+0.152}_{-1.371}$	$0.001^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+14%/-69%	+5%/-26%	+5%/-45%	+39%/-10%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007117050-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-126 ± 11	$24.06^{+2.32}_{-2.78}$	1545^{+33}_{-49}	4243^{+182}_{-163}	34^{+9}_{-6}
Alt.	-3 ± 5	$31.46^{+2.30}_{-2.83}$	1546^{+32}_{-49}	2101^{+431}_{-4487}	$0.521^{+0.872}_{-0.862}$

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

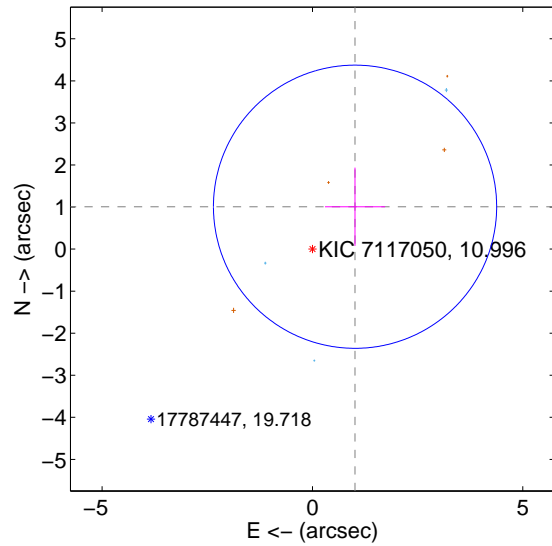
Supplemental centroid analysis for 007117050-04. **Kepler magnitude: 11.00.** Transit SNR 7.78

There are 3 quarters with good PRF difference image offsets

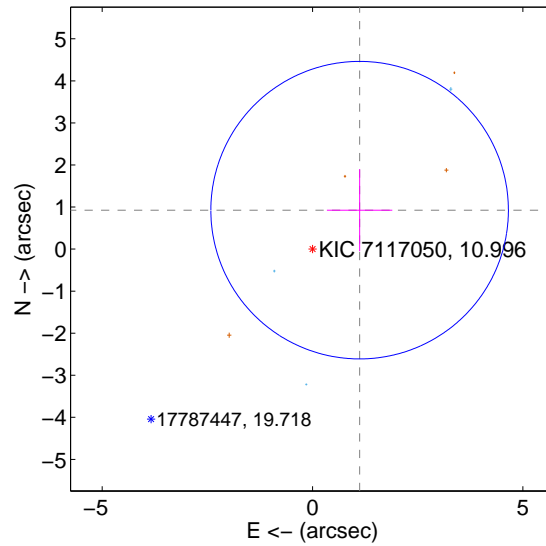
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.429 ± 1.122	1.27	-1.013 ± 0.715	1.007 ± 0.931
PRF-fit source offset from KIC position	1.453 ± 1.179	1.23	-1.120 ± 0.777	0.926 ± 0.975
photometric centroid source offset	0.15 ± 0.39	0.38	0.13 ± 0.40	0.07 ± 0.32

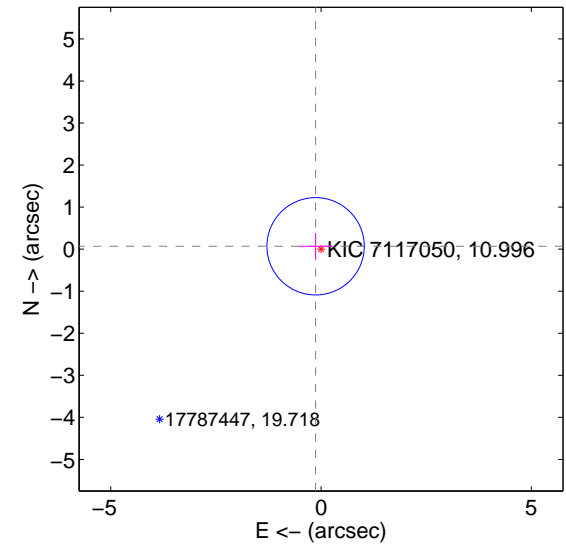
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

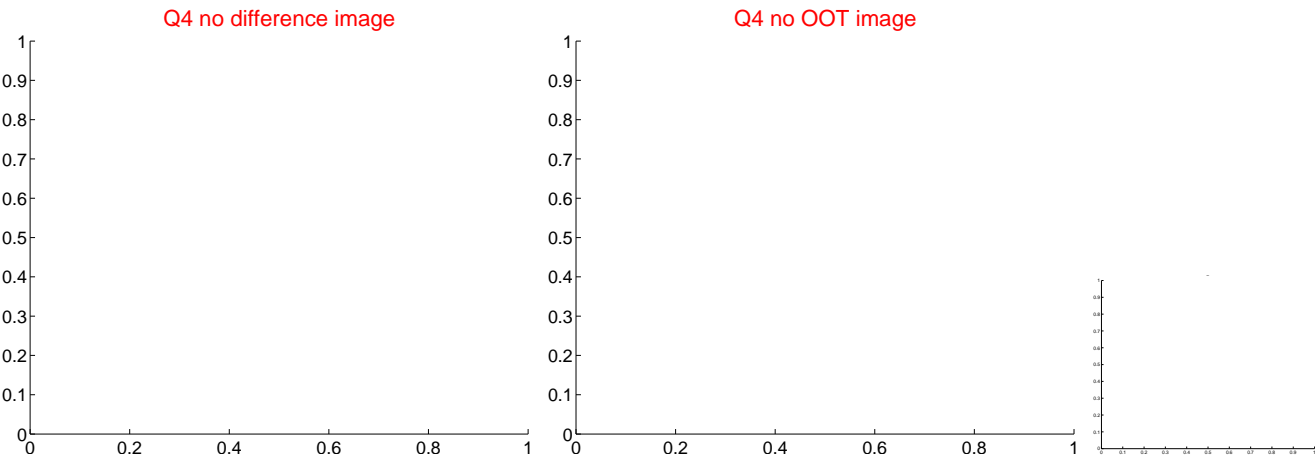
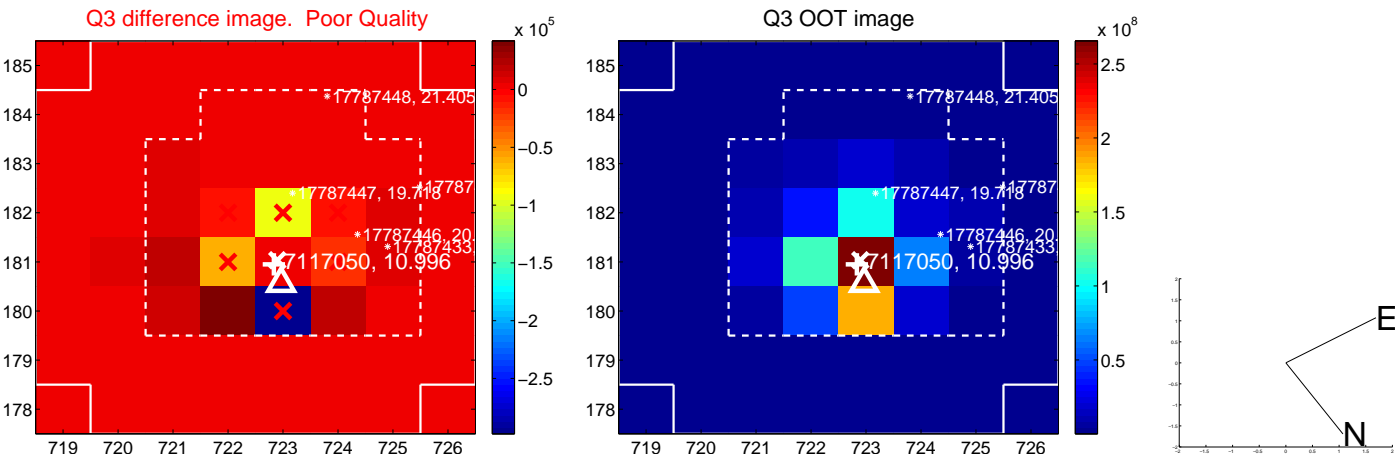
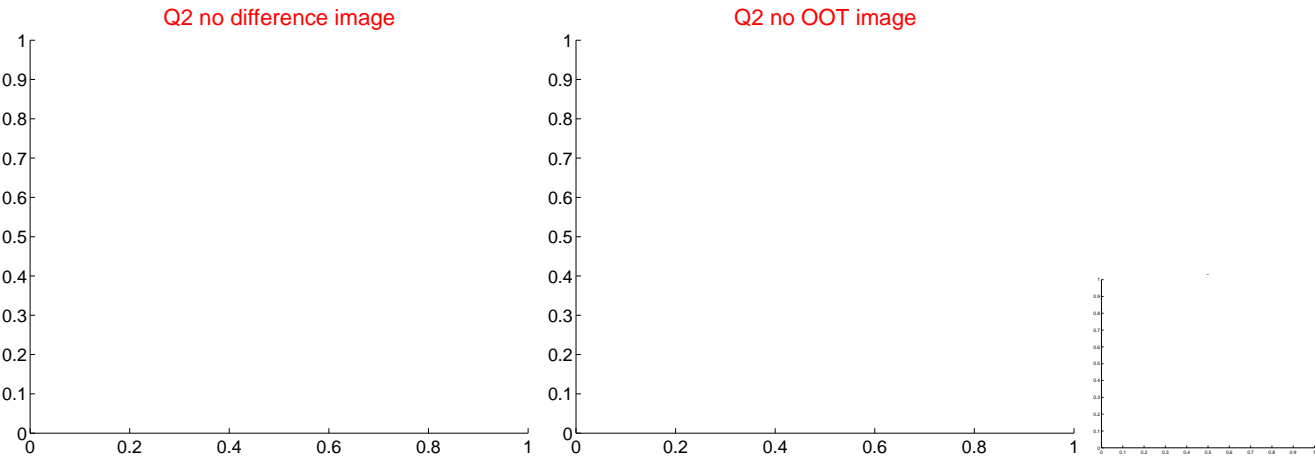
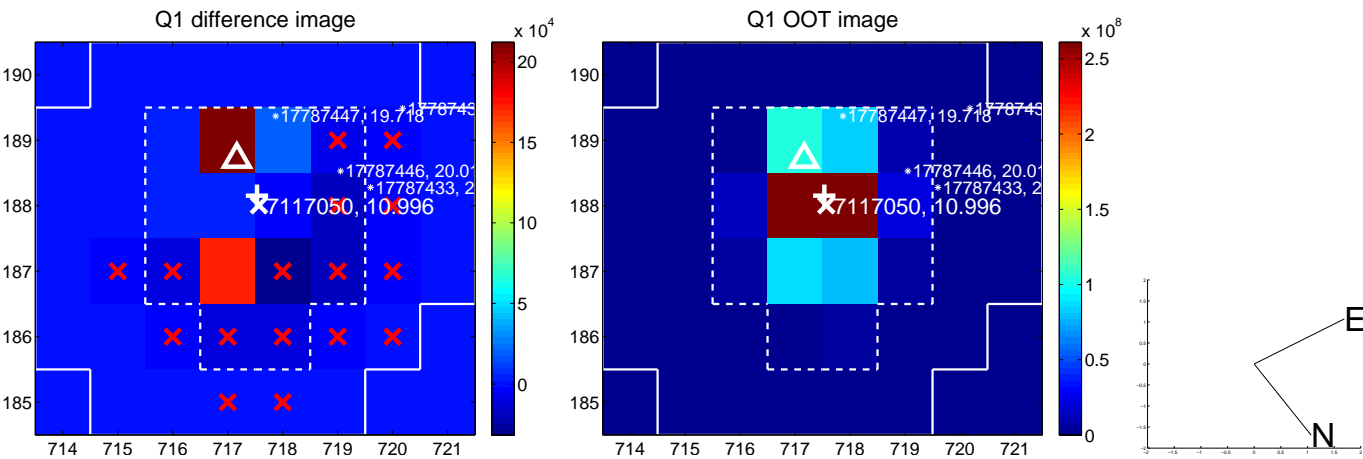


offset from photometric centroids

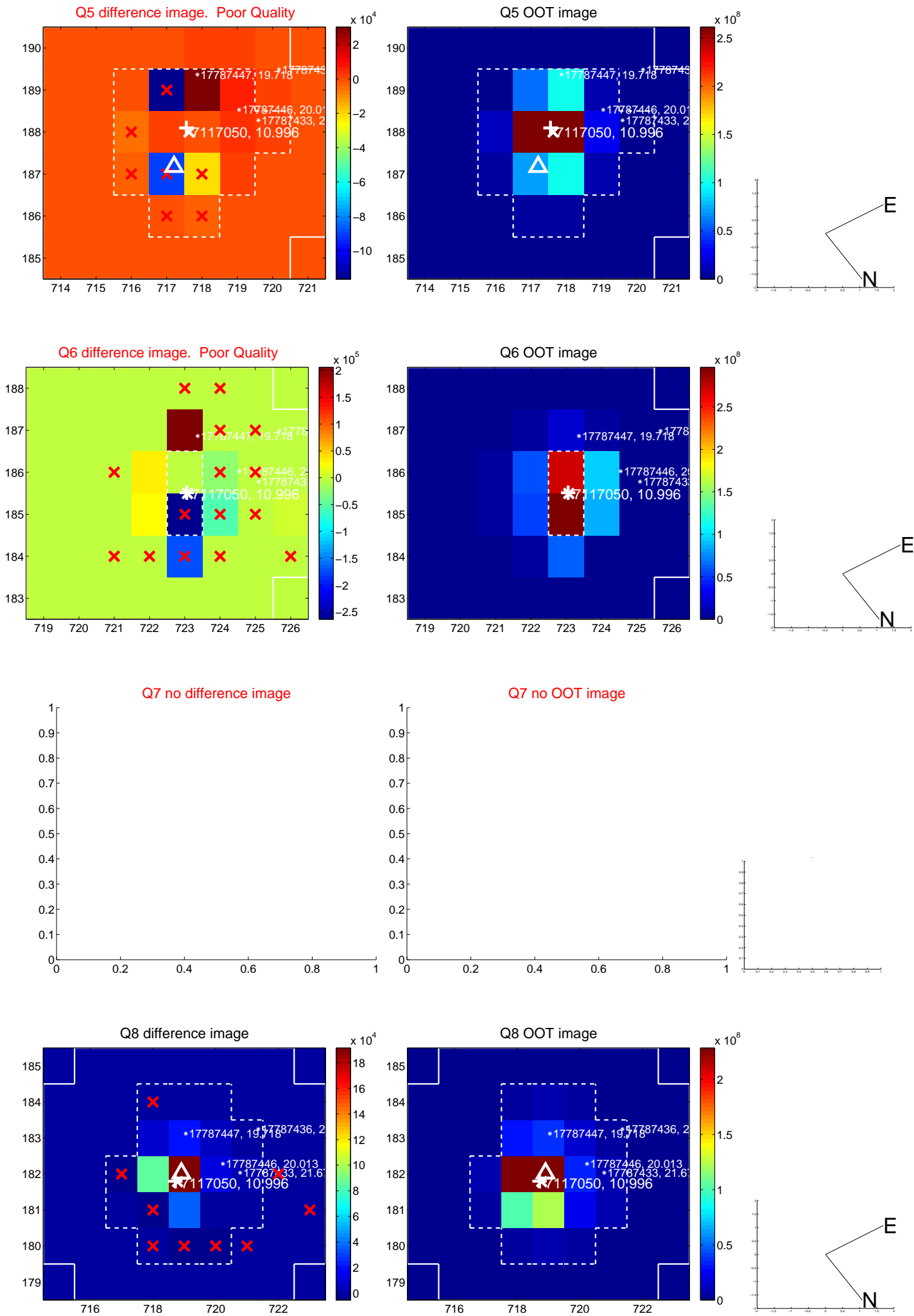


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

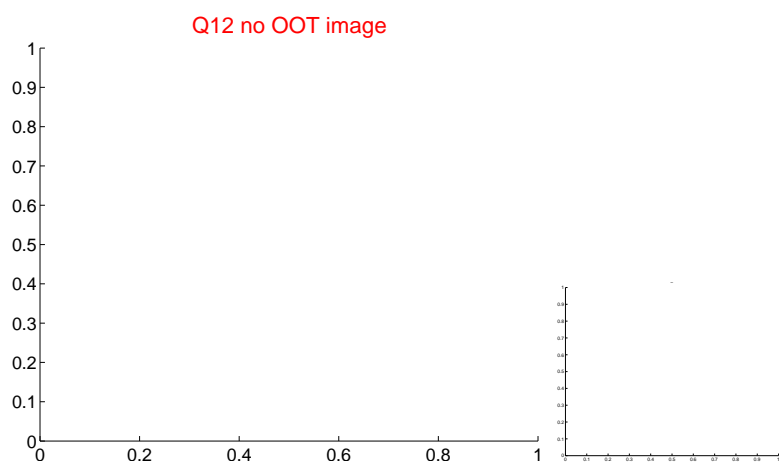
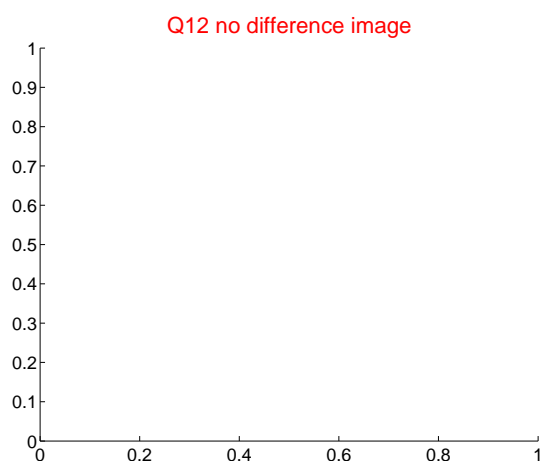
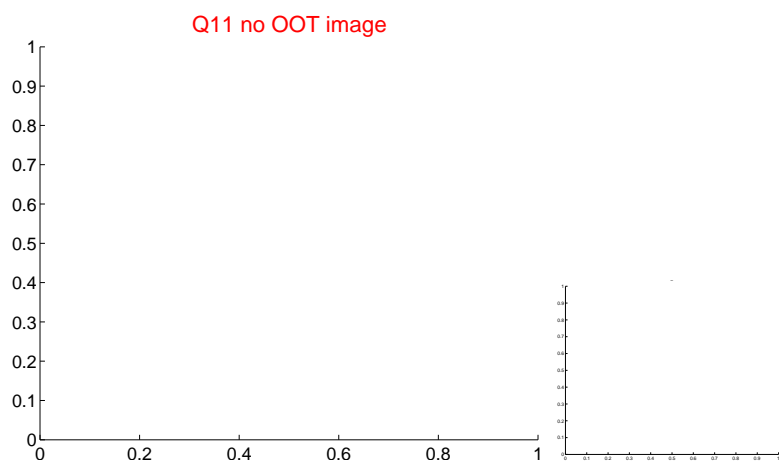
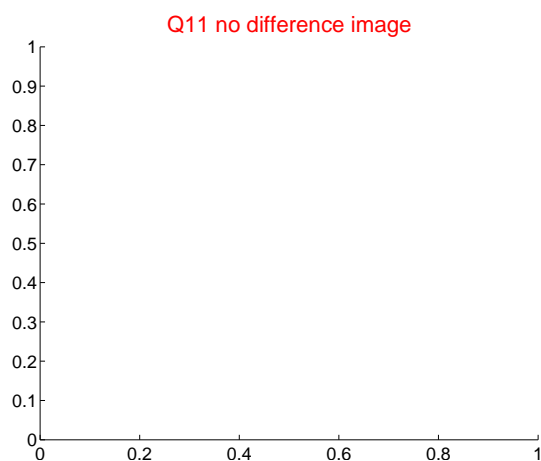
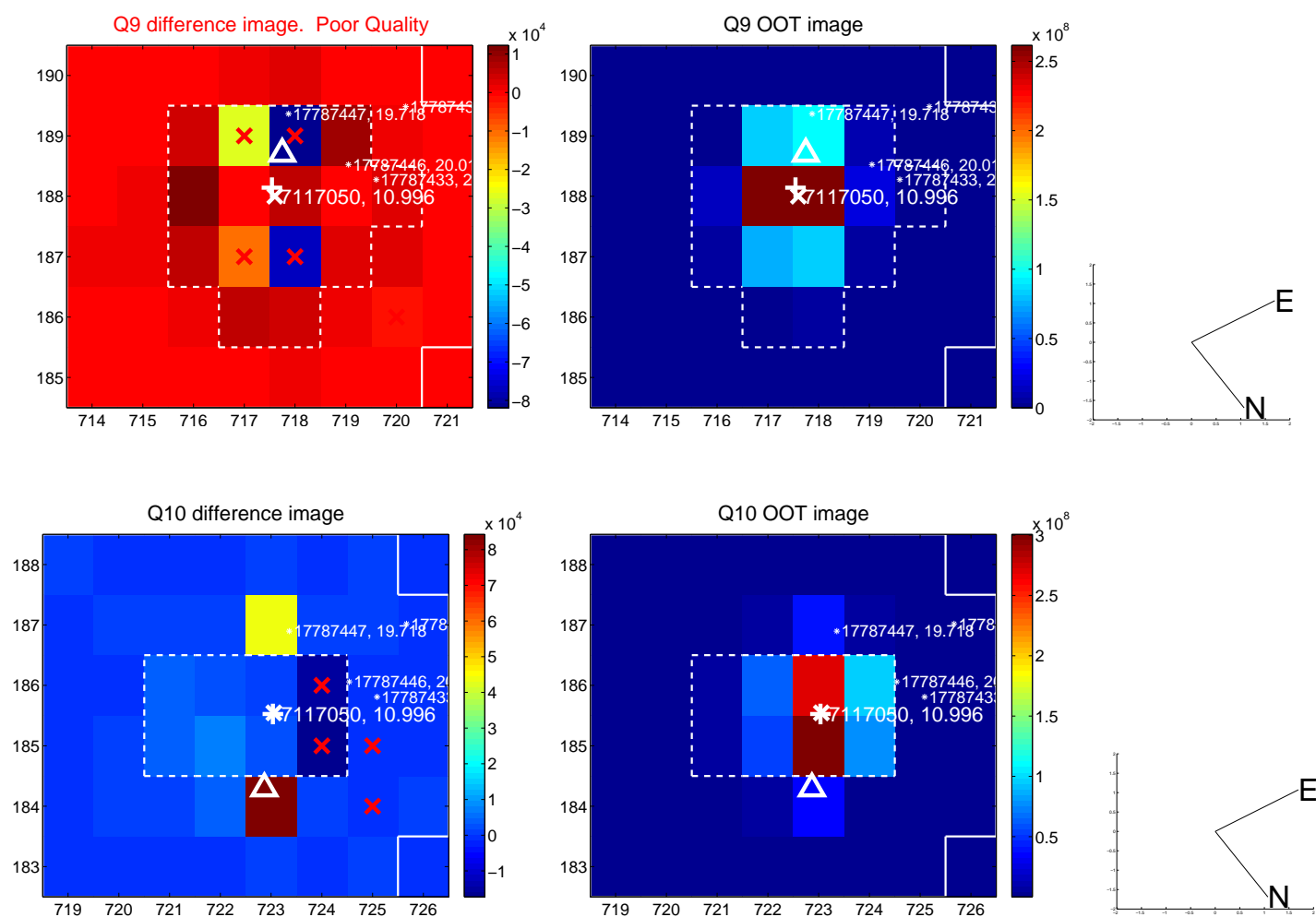
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

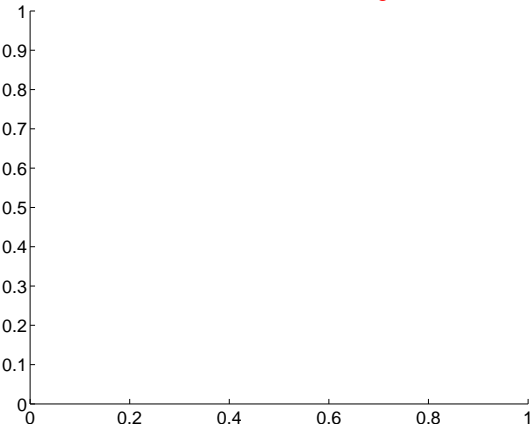


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

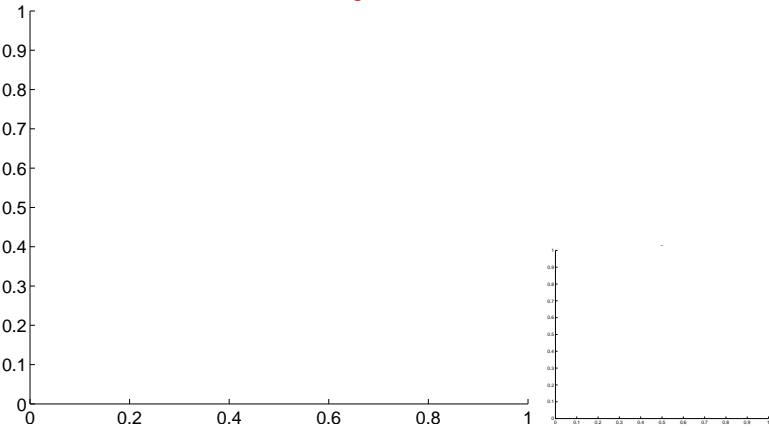


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

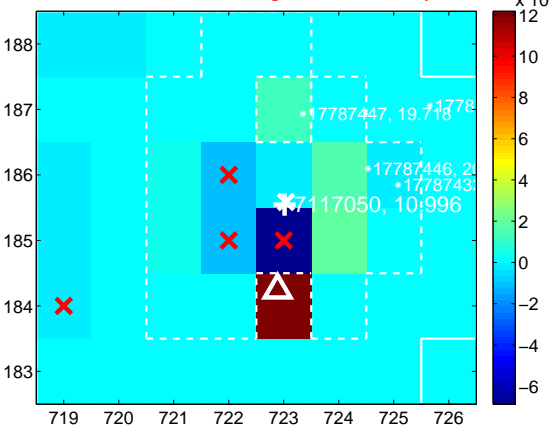
Q13 no difference image



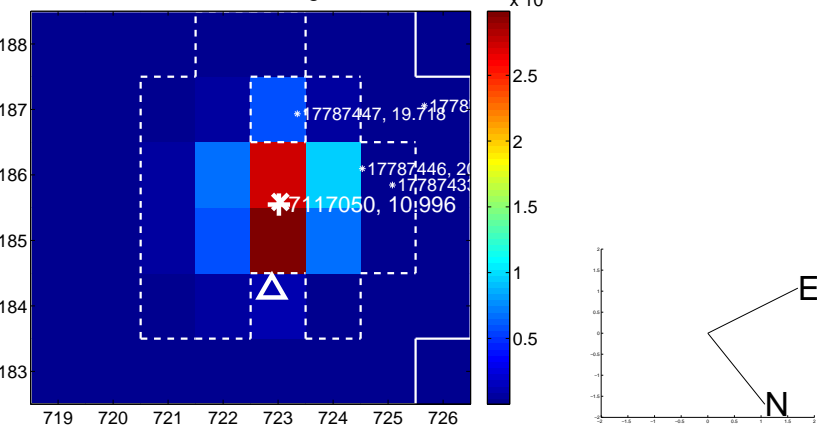
Q13 no OOT image



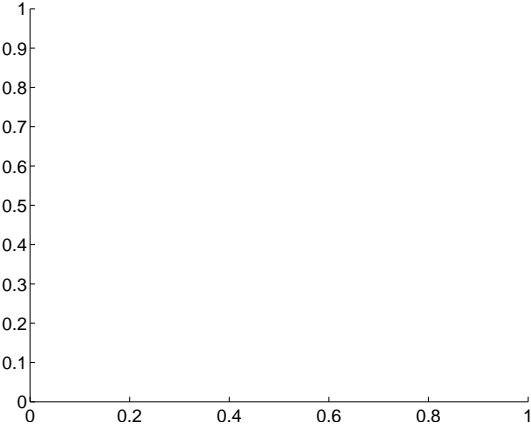
Q14 difference image. Poor Quality



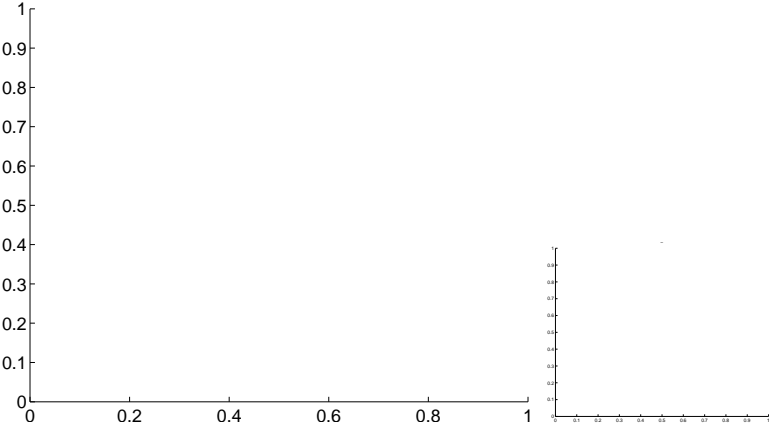
Q14 OOT image



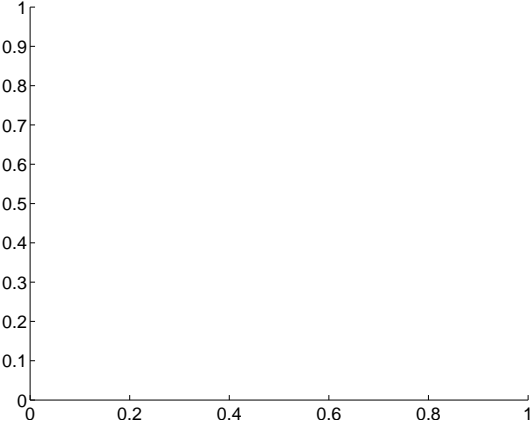
Q15 no difference image



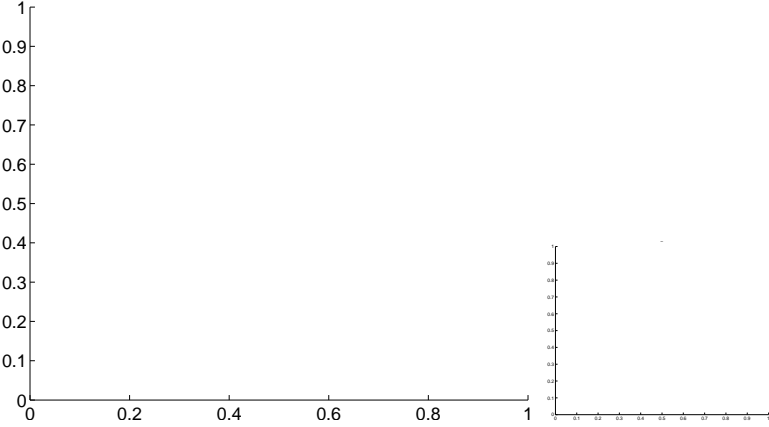
Q15 no OOT image



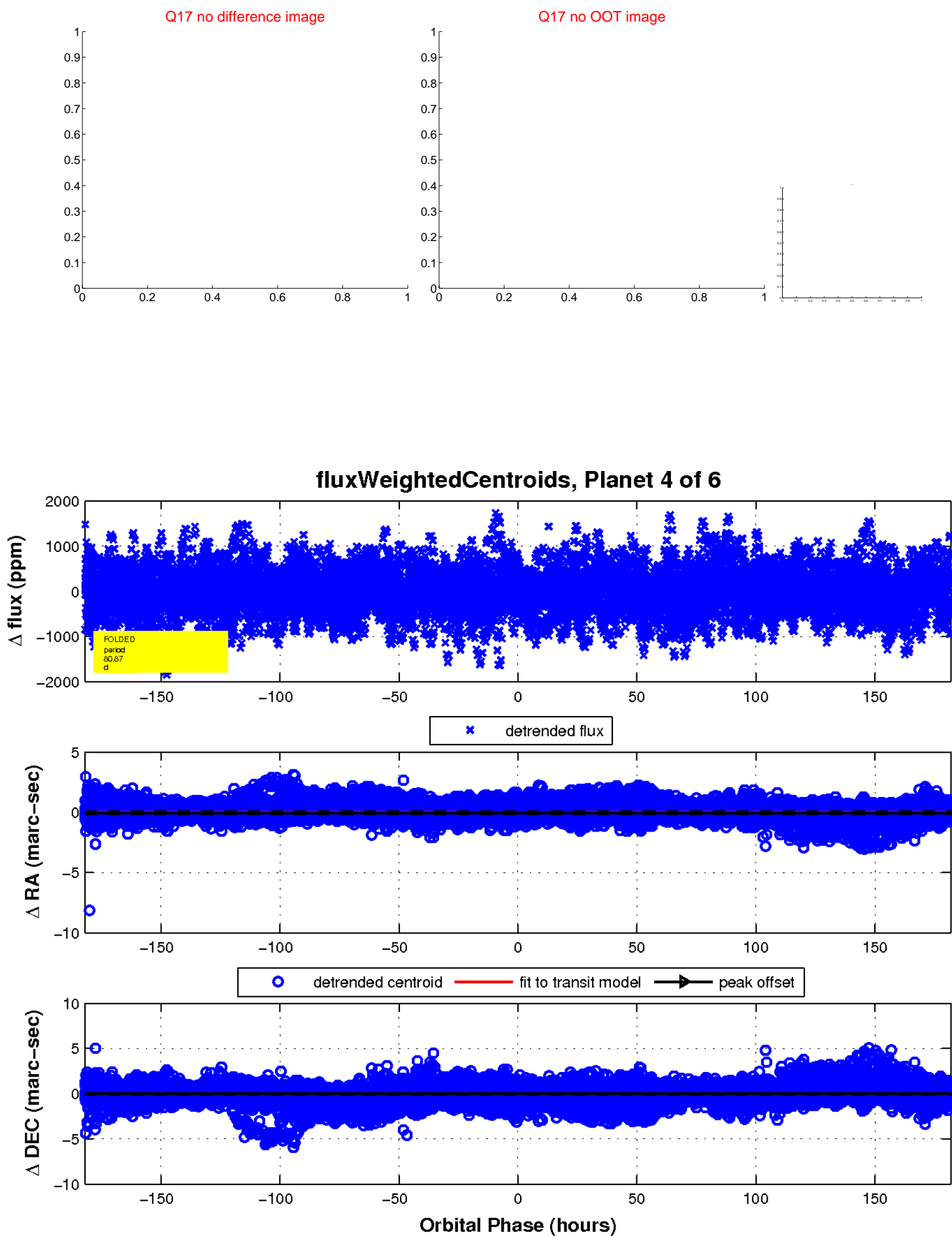
Q16 no difference image



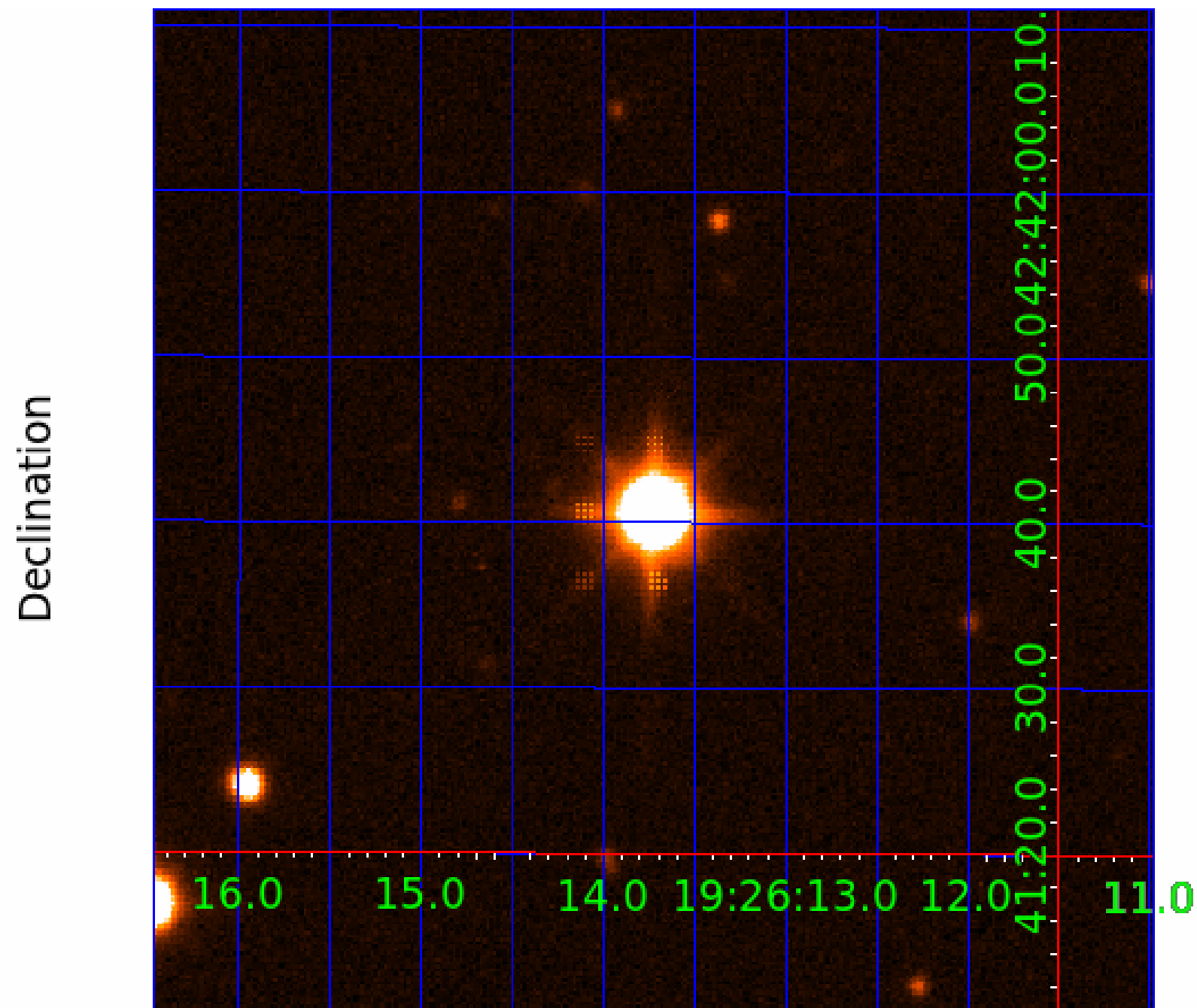
Q16 no OOT image



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



UKIRT Image



KIC 007117050

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})
007117050-01	OBS	No	81.430634	134.106537	495.2	18.432	23.4	24.4	14.71	4769	43.75	354.72
007117050-02	OBS	No	79.101064	151.729459	335.5	12.441	16.3	14.0	14.71	4769	36.08	368.71
007117050-03	OBS	8135.01	73.821749	174.048933	280.4	16.860	13.7	15.3	14.71	4769	32.77	404.29
007117050-04	OBS	No	80.873779	141.387204	192.6	60.637	12.7	7.8	14.71	4769	23.83	357.98
007117050-05	OBS	No	34.111369	140.539877	10.5	29.104	10.4	0.8	14.71	4769	5.71	1131.71
007117050-06	OBS	No	96.446605	179.222342	146.9	1.306	7.3	9.7	14.71	4769	18.99	283.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117050-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007117050-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED—HALO_GHOST
007117050-03	OBS	FP	0.11	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
007117050-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

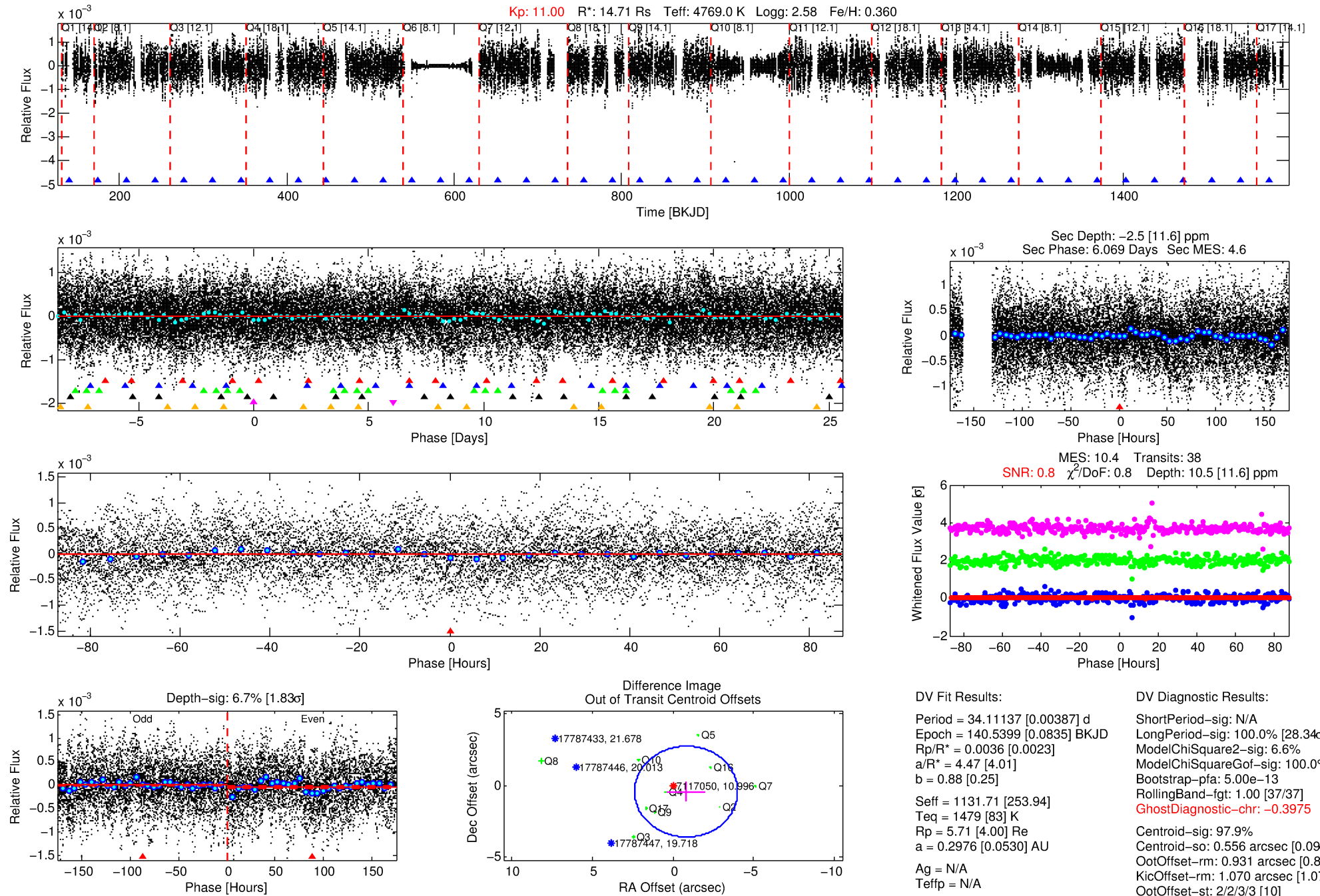
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007117050-05

No Significant Match Found

DV One-Page Summary

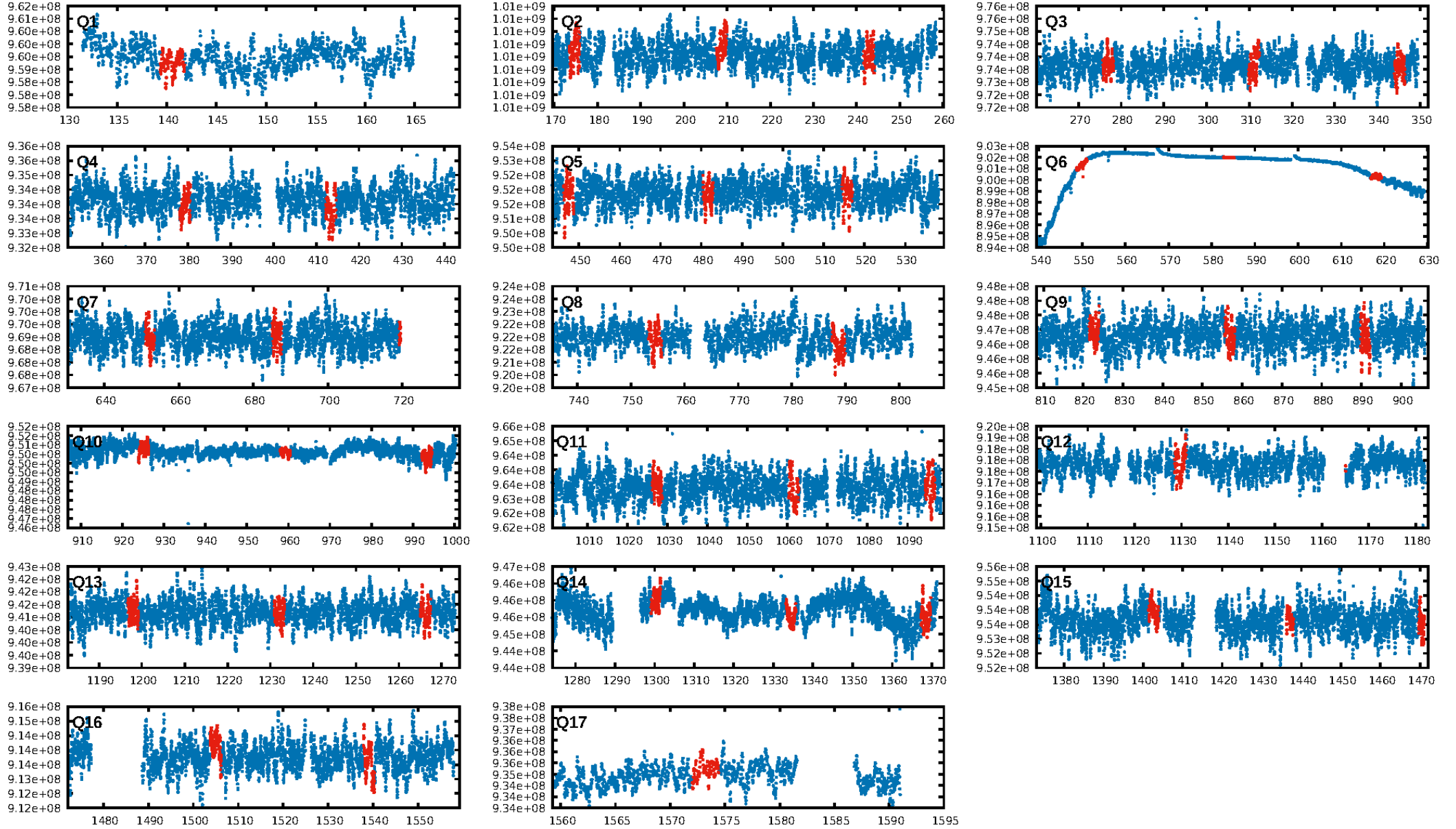
KIC: 7117050 Candidate: 5 of 6 Period: 34.111 d



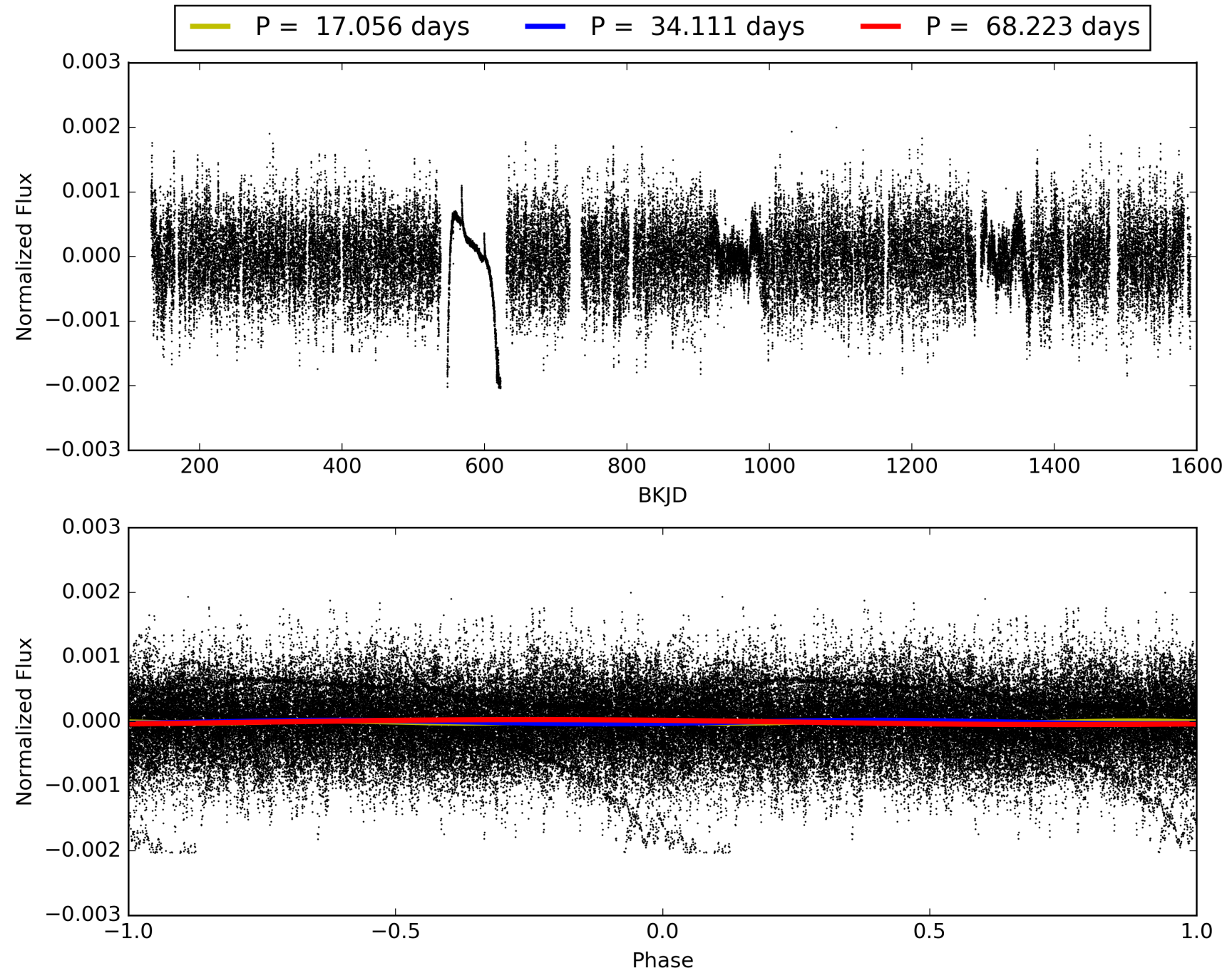
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:47:48 Z

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

TCE 007117050-05, PDC Light Curves

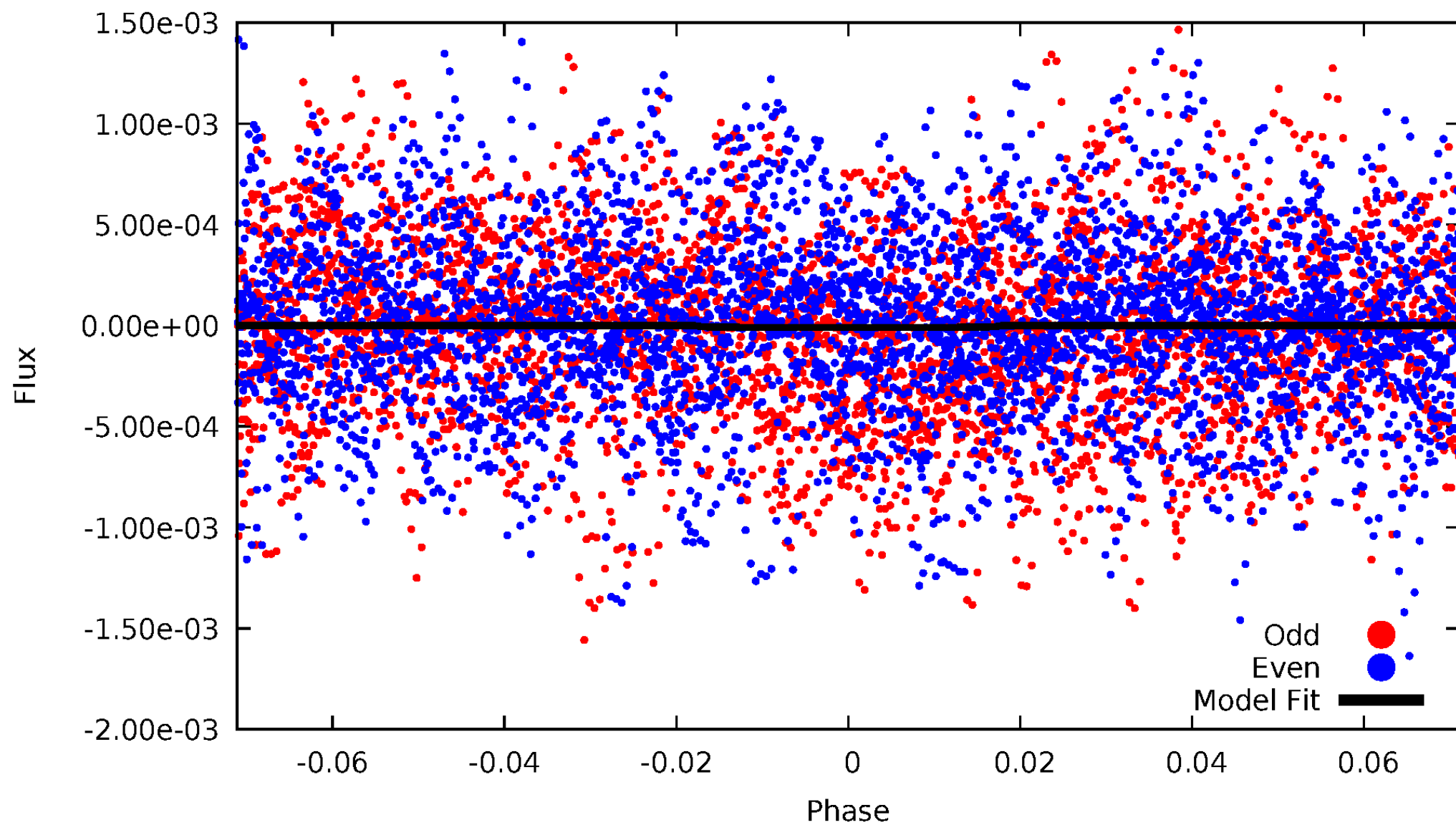


TCE 007117050-05



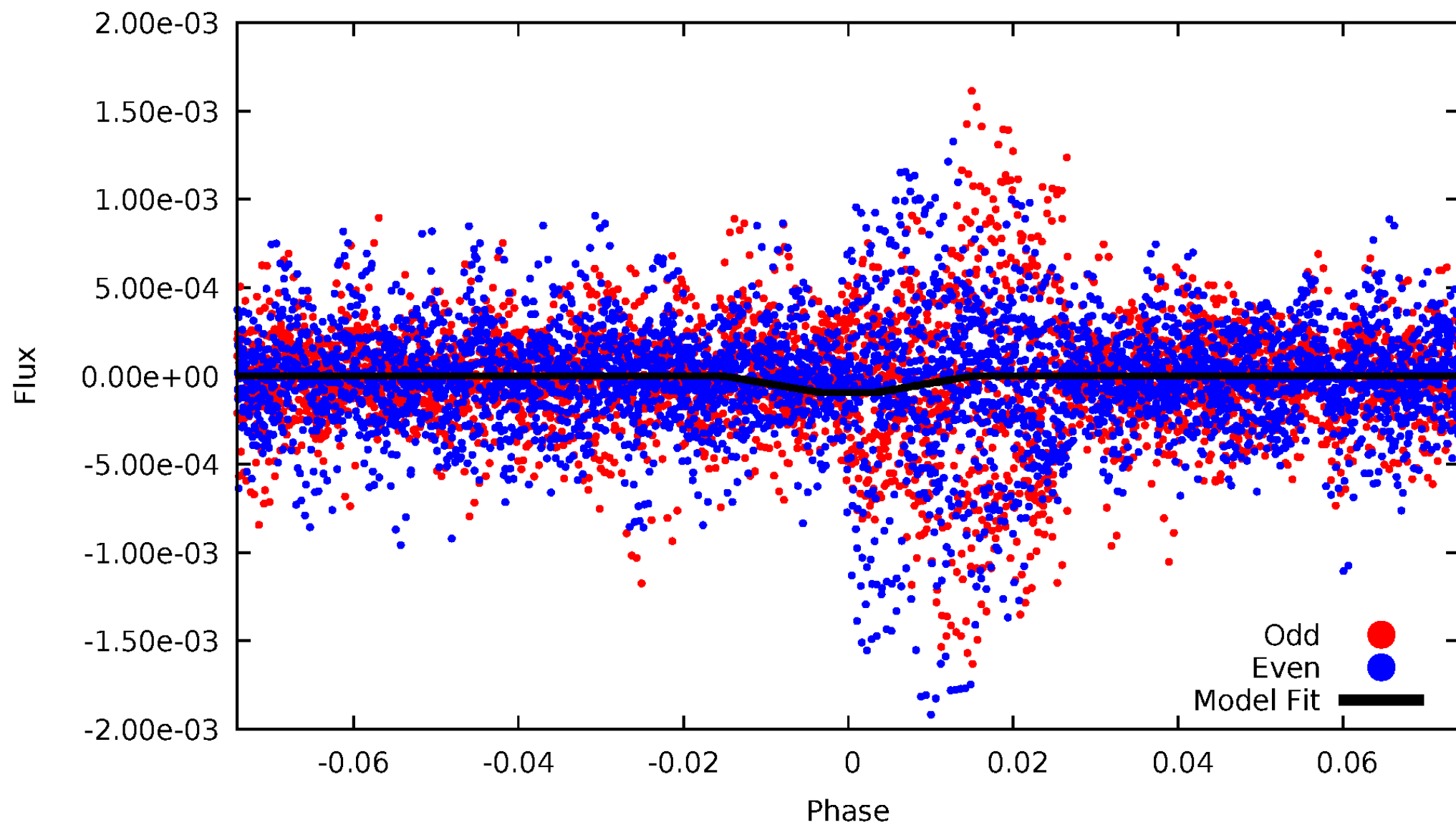
DV Odd/Even

TCE 007117050-05



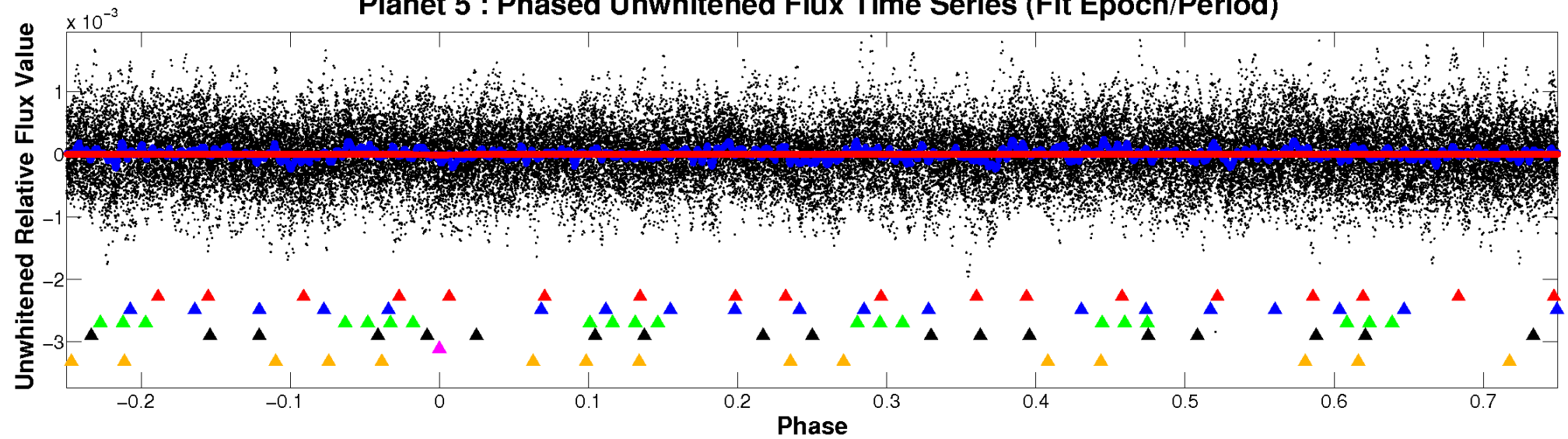
ALT Odd/Even

TCE 007117050-05

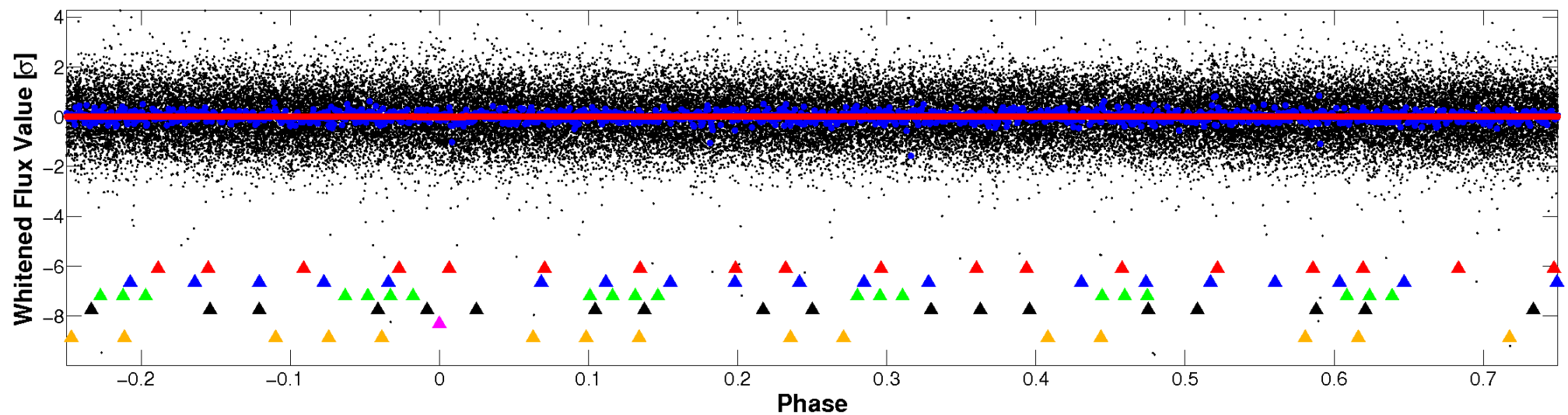


Non-Whitened Vs. Whitened Light Curve

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

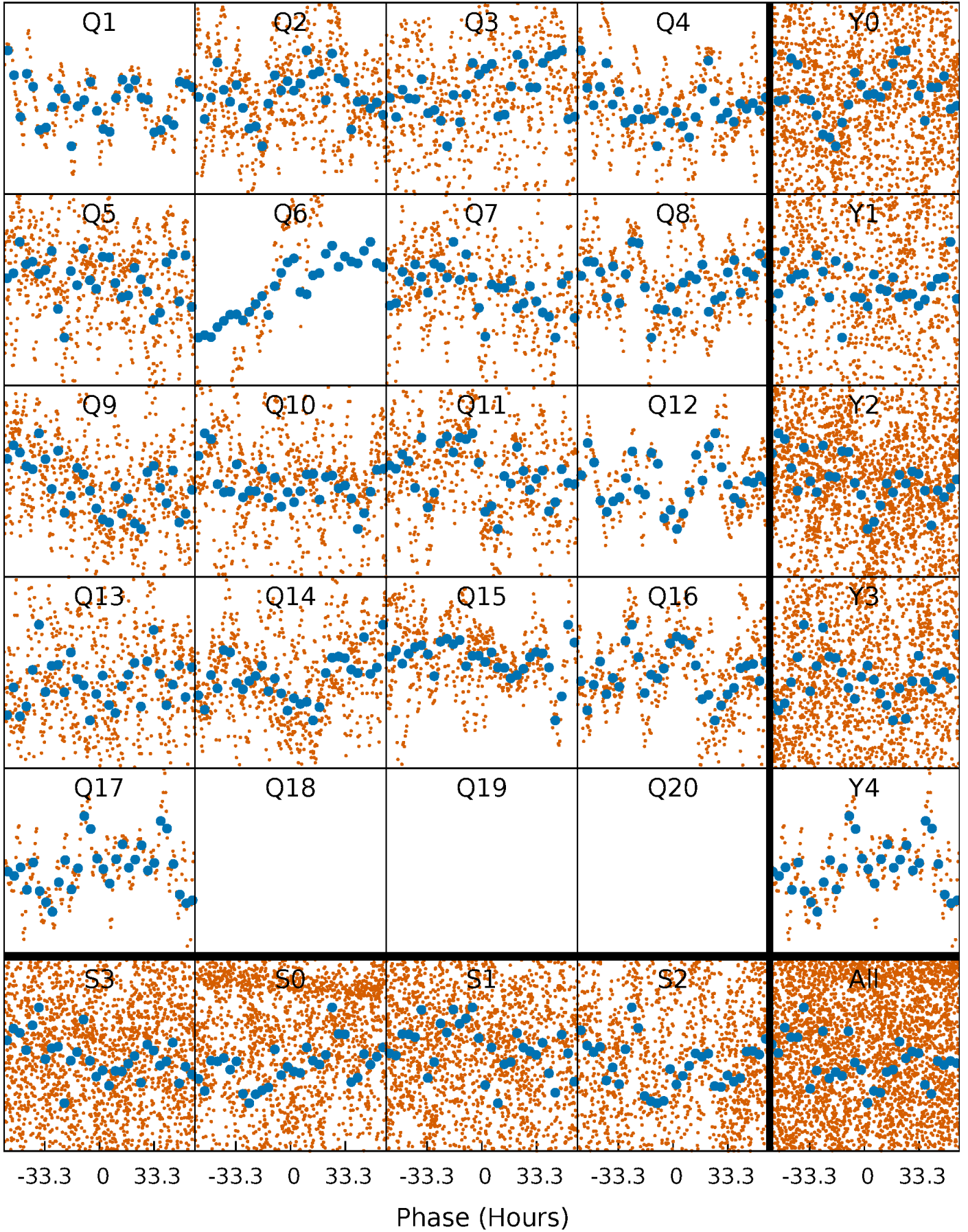


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



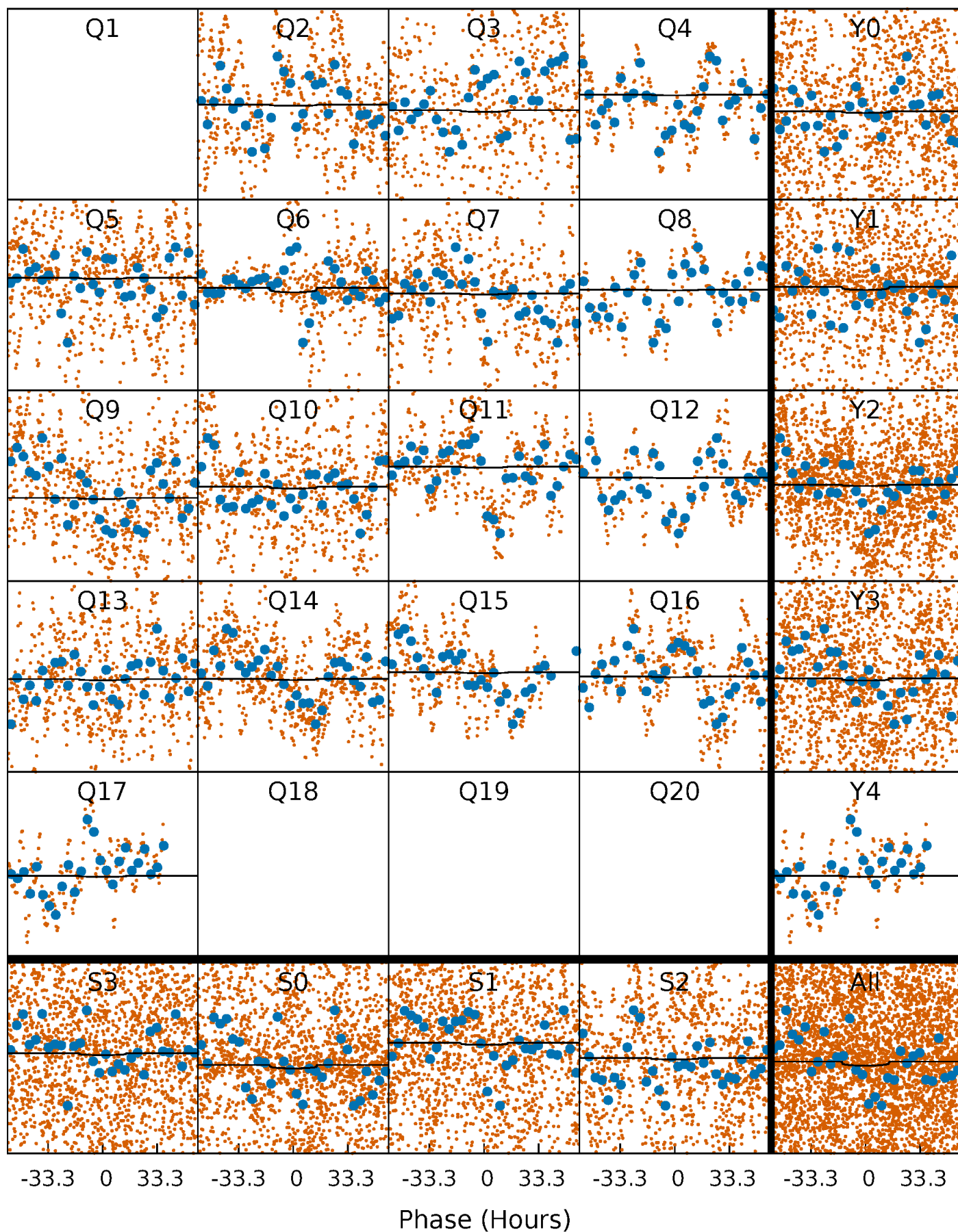
PDC Quarter-Phased Transit Curves

TCE 007117050-05 $P = 34.111369$ Days $T_0 = 140.539877$ (BKJD)



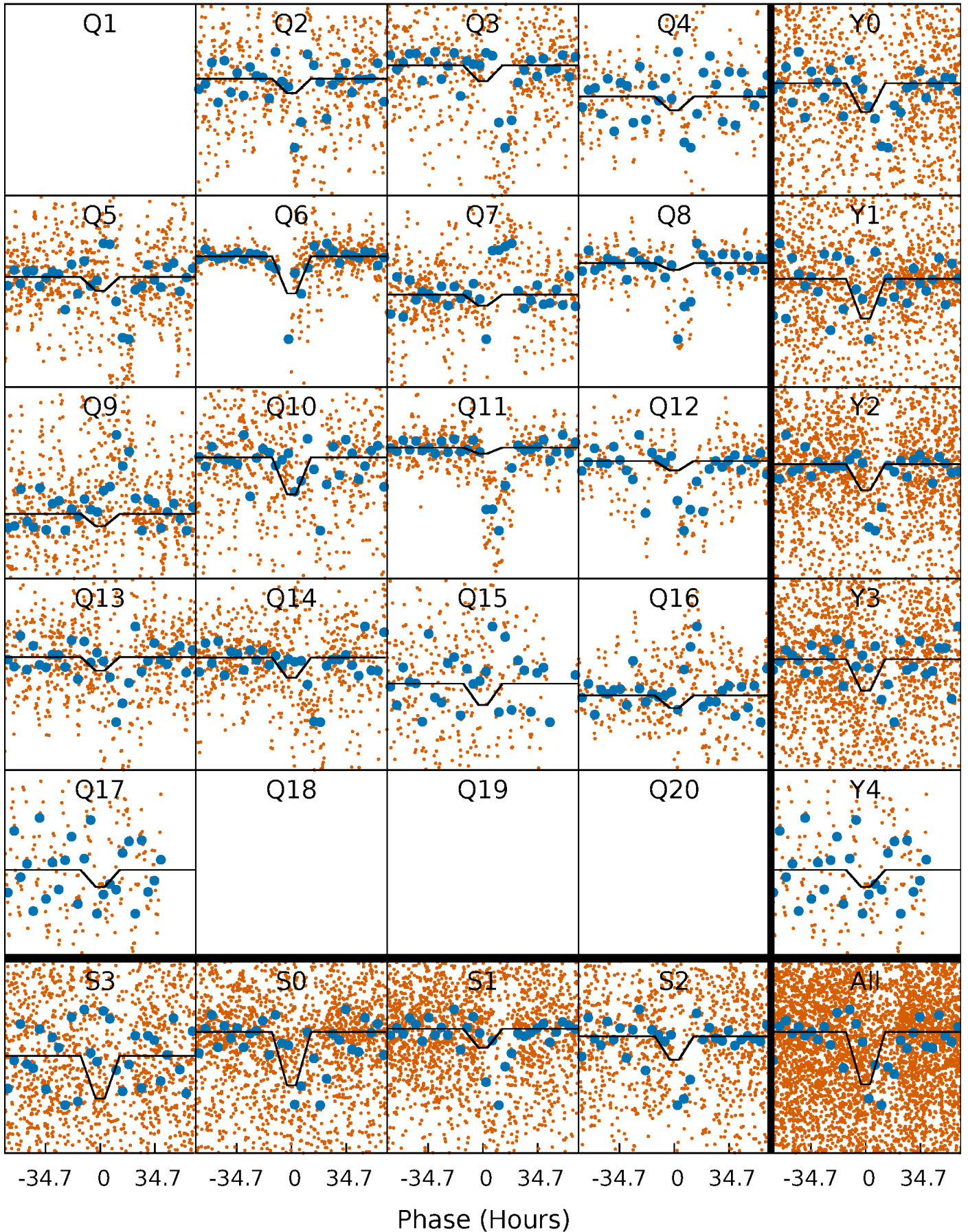
DV Quarter-Phased Transit Curves

TCE 007117050-05 P= 34.111369 Days $T_0=140.539877$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

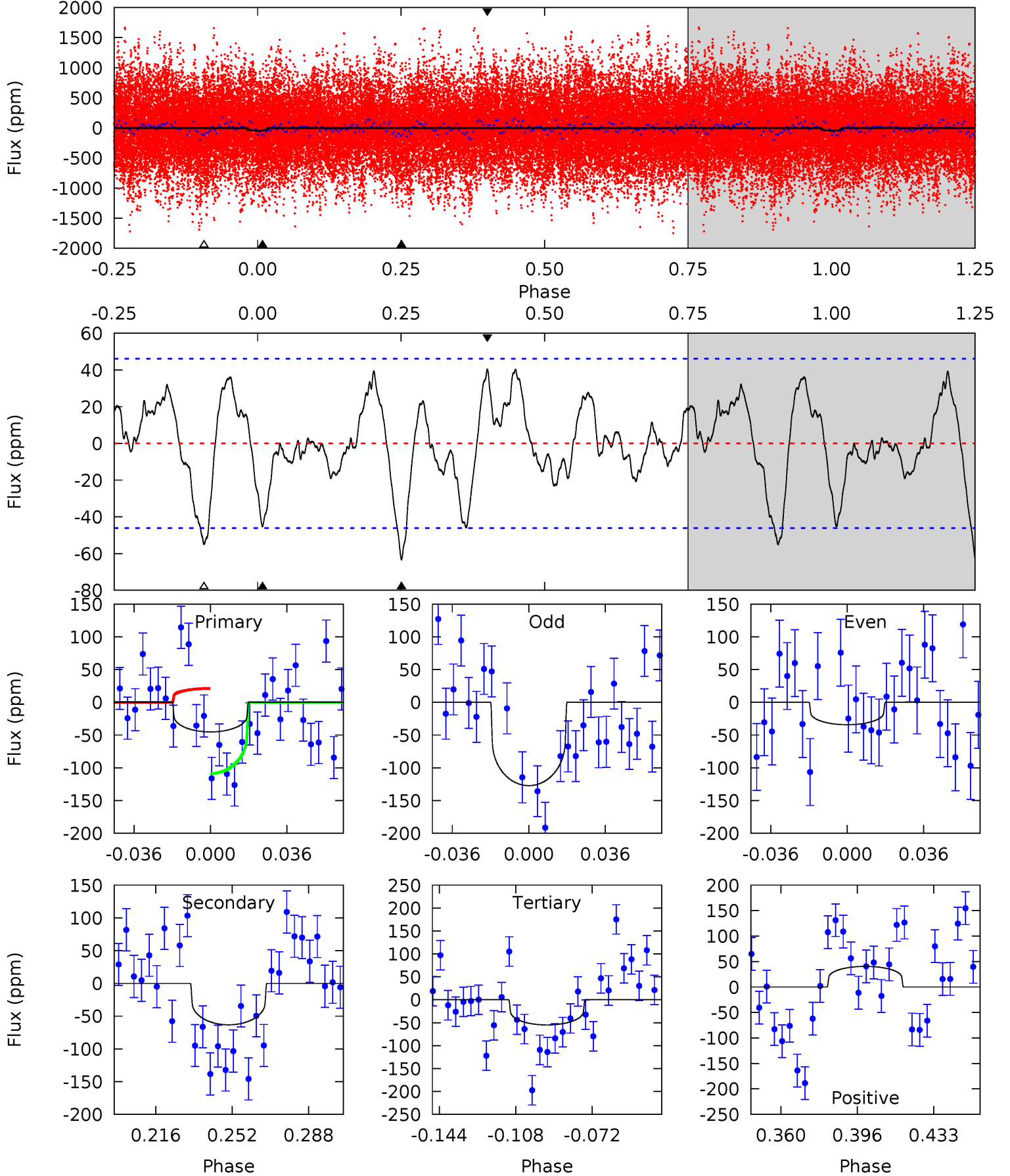
TCE 007117050-05 $P = 34.110018$ Days $T_0 = 140.532995$ (BKJD)



DV Model-Shift Uniqueness Test

007117050-05, $P = 34.111369$ Days, $E = 106.428508$ Days

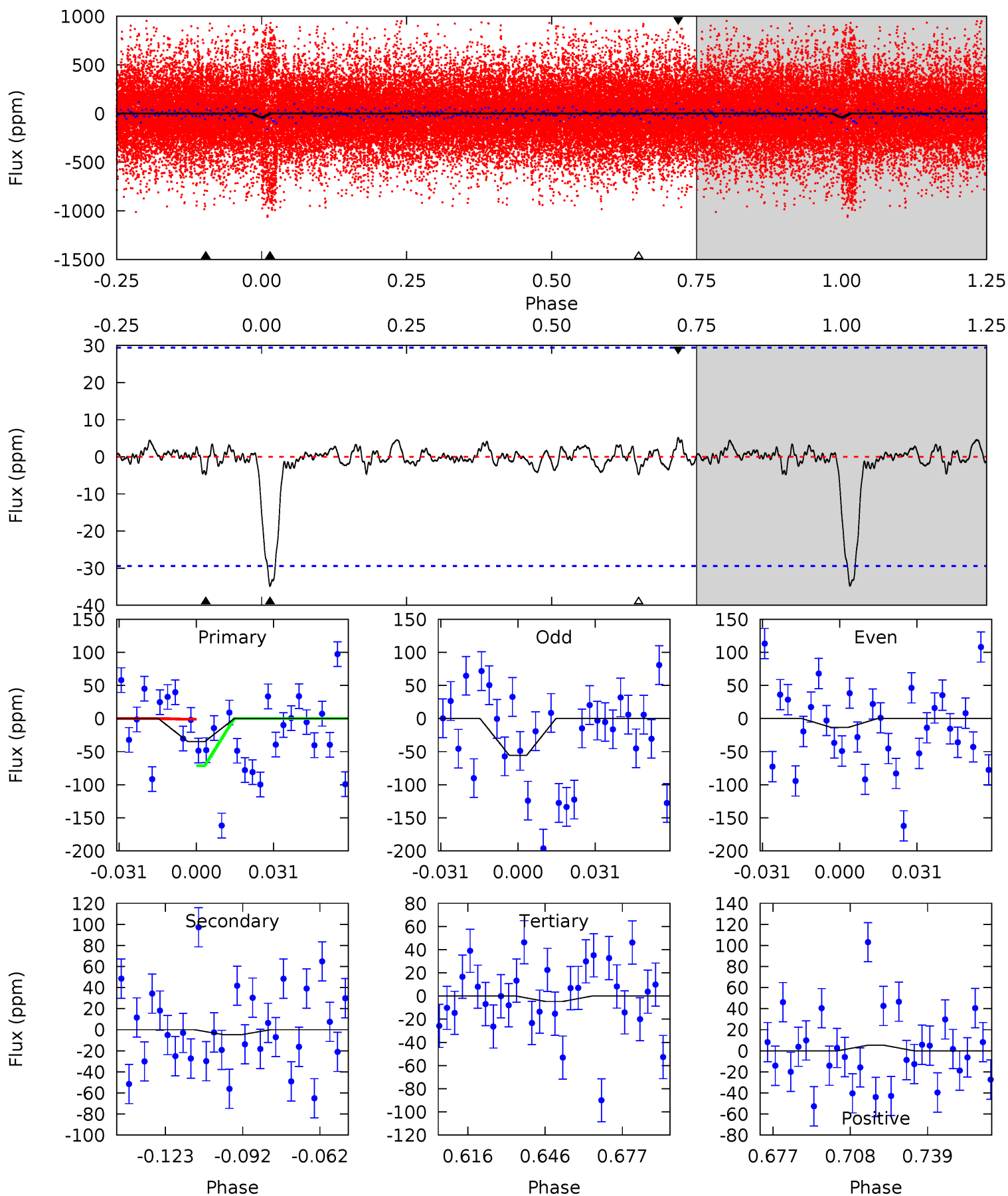
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.68	6.55	5.70	4.19	4.77	2.10	2.01	-1.01	0.49	0.86	2.36	4.83	2.47	0.39	4.56



Alt Model-Shift Uniqueness Test

007117050-05, P = 34.110018 Days, E = 106.422977 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.69	0.78	0.77	0.85	4.81	2.16	0.30	4.91	4.84	0.01	-0.06	3.47	-19.8	0.13	5.74



Stellar Parameters For KIC 007117050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4769^{+57}_{-154}	$2.583^{+0.033}_{-0.027}$	$0.360^{+0.050}_{-0.250}$	$14.706^{+0.687}_{-3.890}$	$3.020^{+0.152}_{-1.371}$	$0.001^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+14%/-69%	+5%/-26%	+5%/-45%	+39%/-10%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007117050-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-63 ± 10	$5.71^{+3.59}_{-2.96}$	2059^{+42}_{-72}	6831^{+4564}_{-1493}	93^{+324}_{-59}
Alt.	-5 ± 6	$15.60^{+3.95}_{-3.86}$	2061^{+43}_{-67}	2743^{+523}_{-5378}	$0.969^{+1.611}_{-1.161}$

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

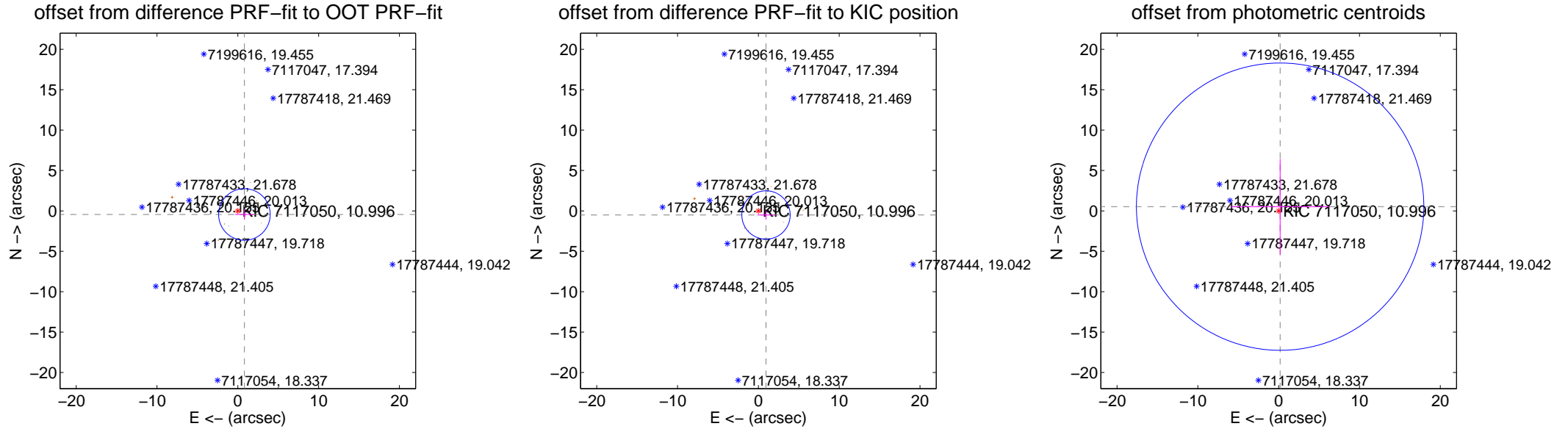
DV Centroid Data

Supplemental centroid analysis for 007117050-05. **Kepler magnitude: 11.00.** Transit SNR 0.84

There are 2 quarters with good PRF difference image offsets

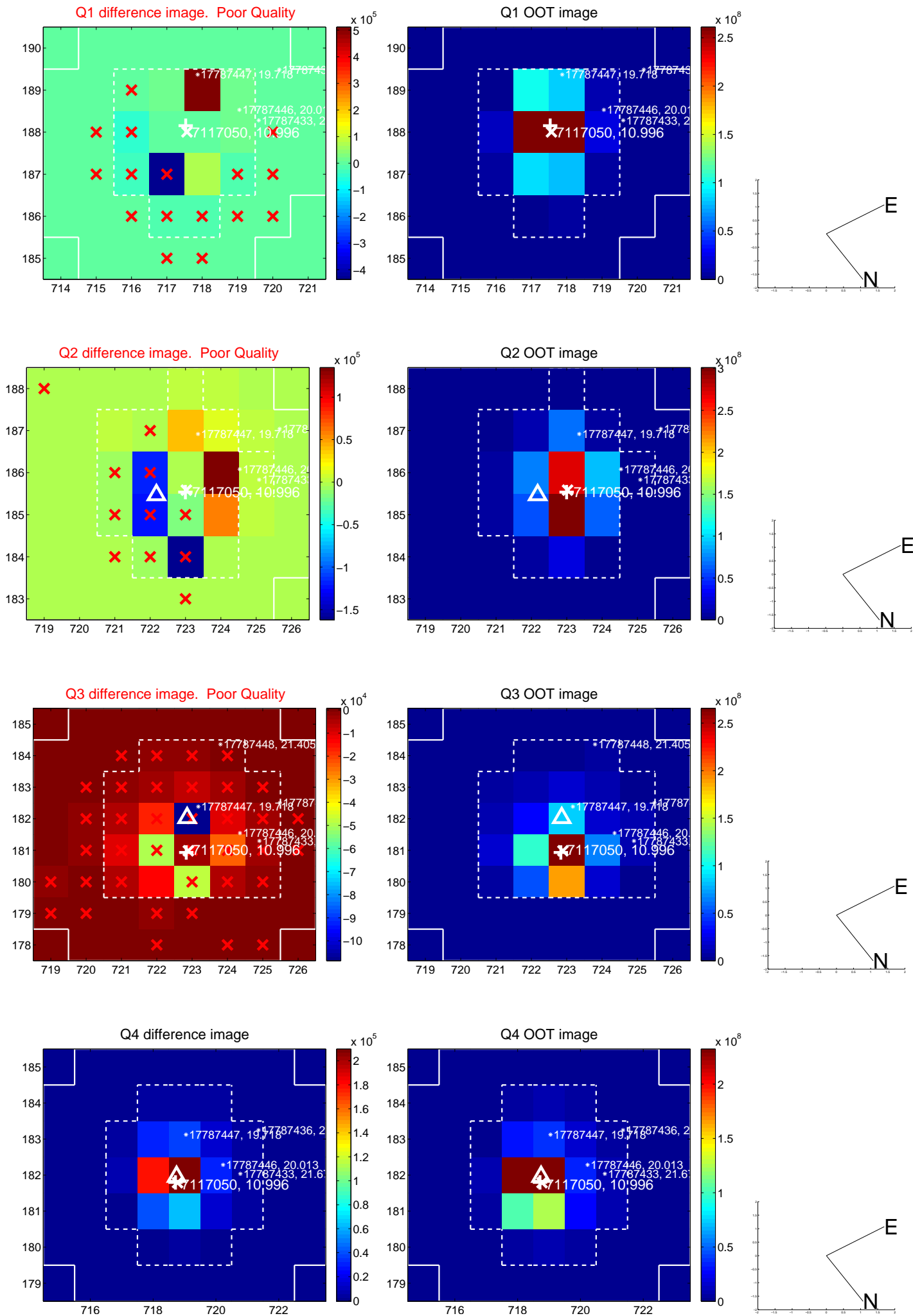
The direct PRF centroid is offset from the target star catalog position by about 0.51 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.931 ± 1.064	0.87	-0.818 ± 1.151	-0.444 ± 0.644
PRF-fit source offset from KIC position	1.070 ± 0.997	1.07	-0.944 ± 1.054	-0.505 ± 0.556
photometric centroid source offset	0.56 ± 5.93	0.09	-0.18 ± 6.14	0.53 ± 5.90

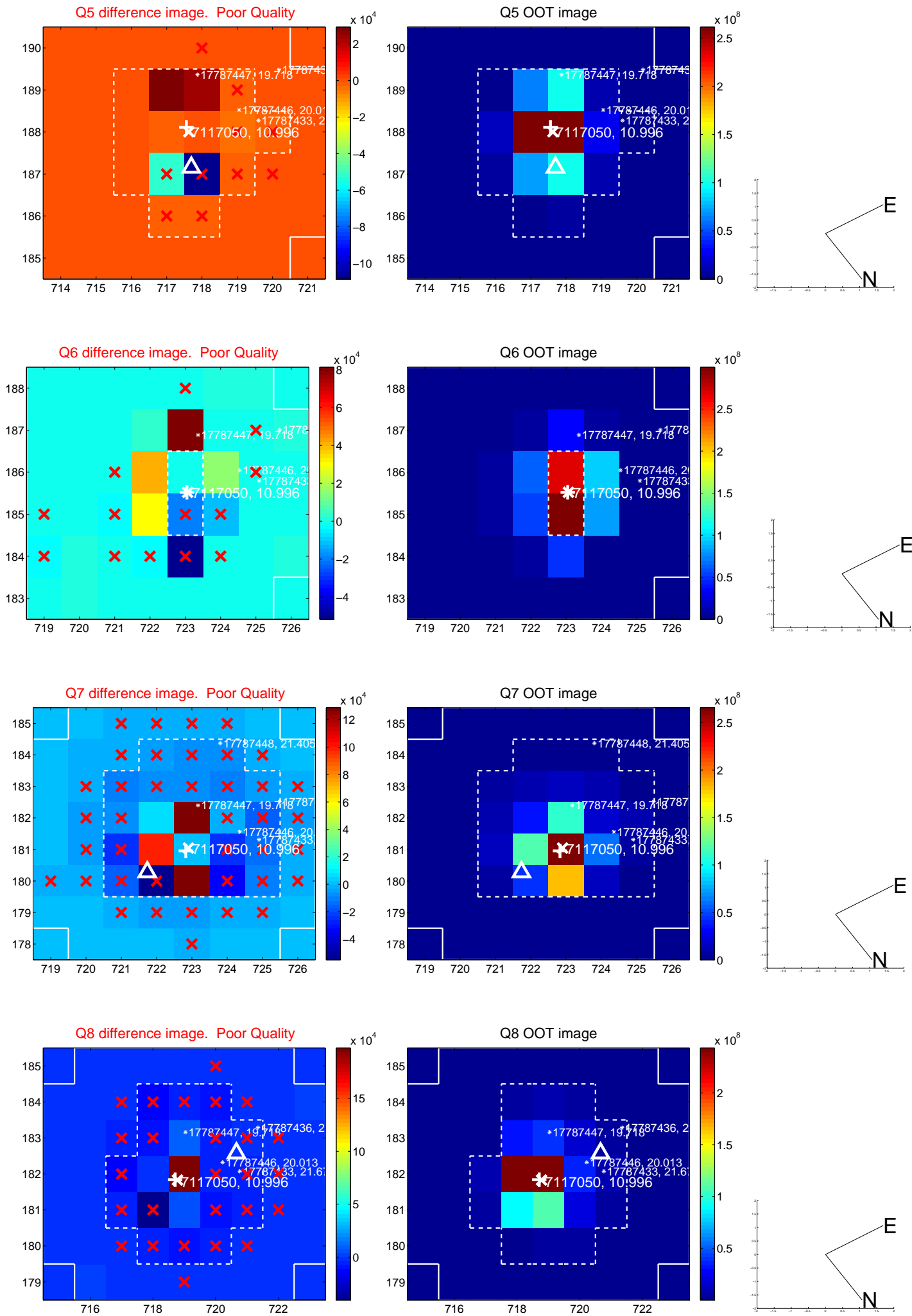


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

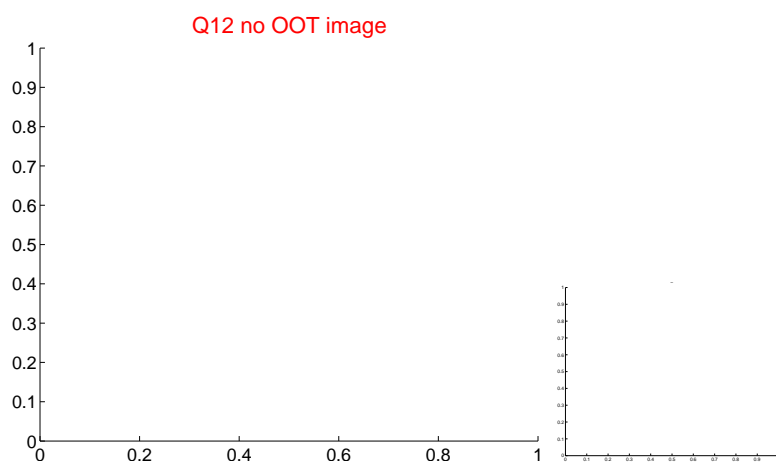
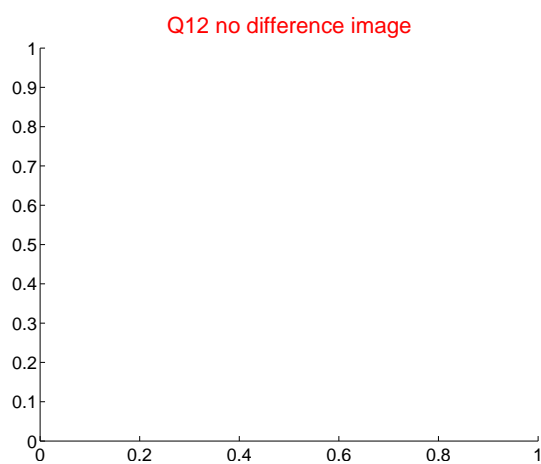
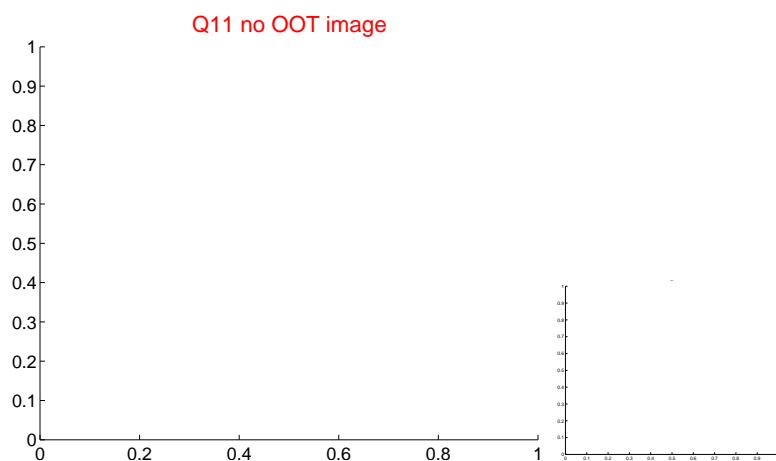
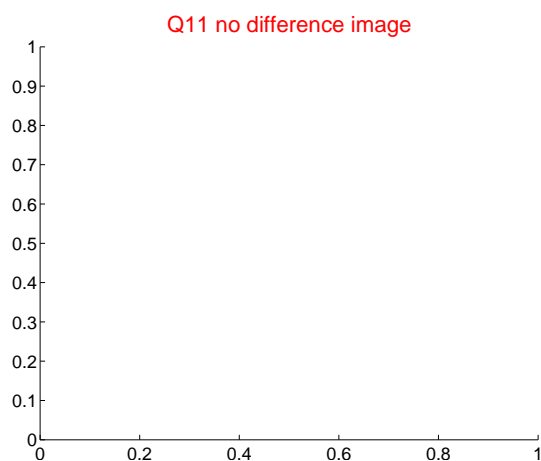
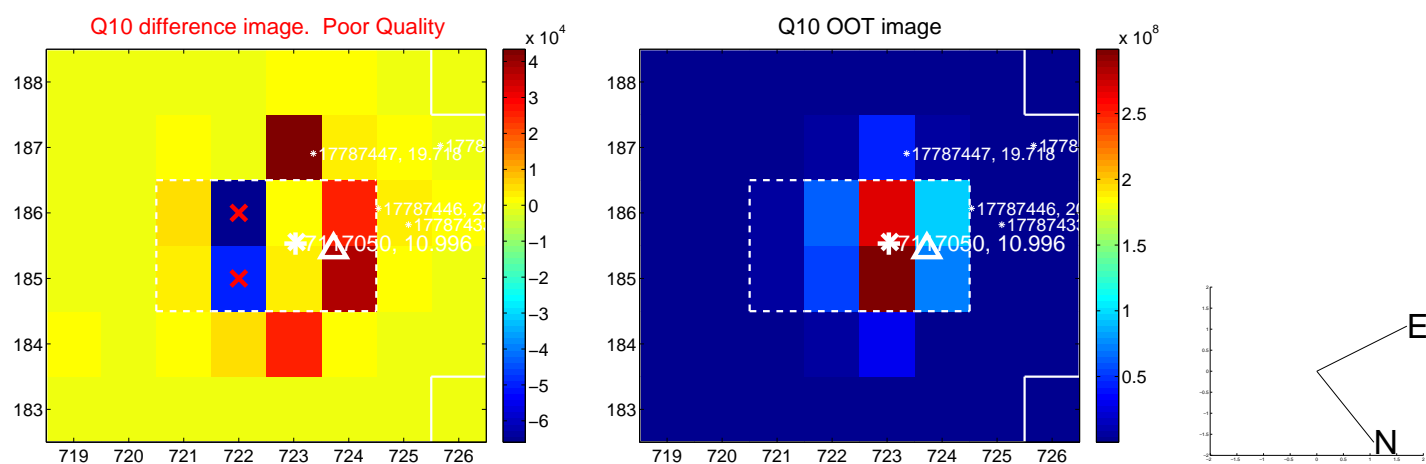
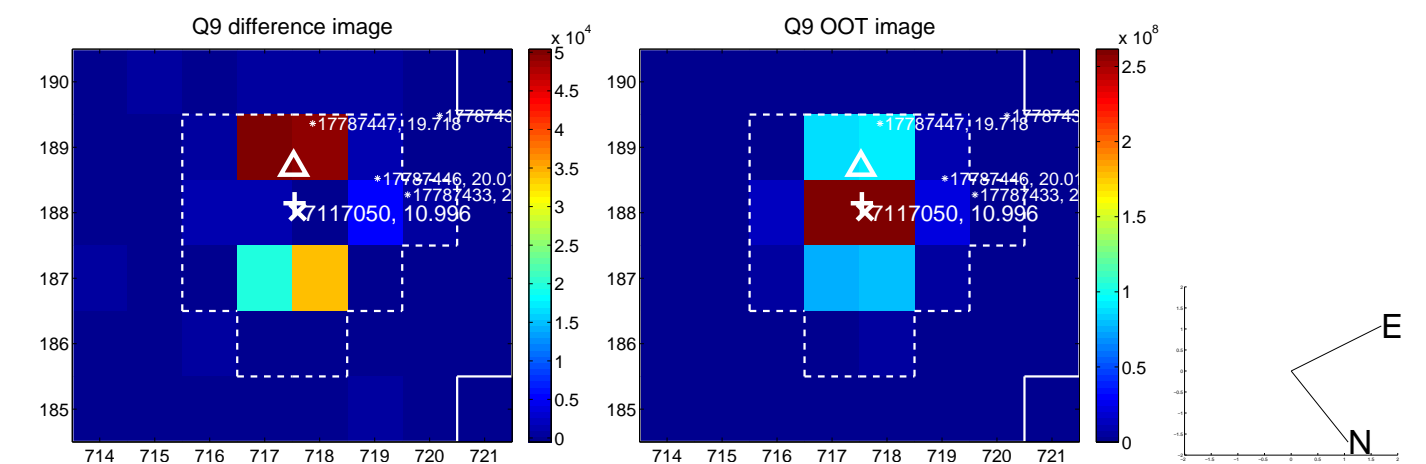
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



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

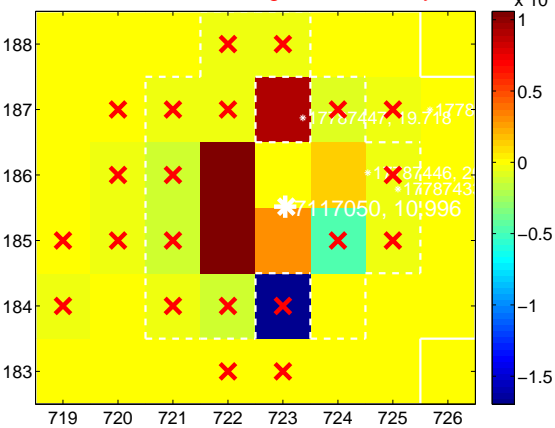
Q13 no difference image



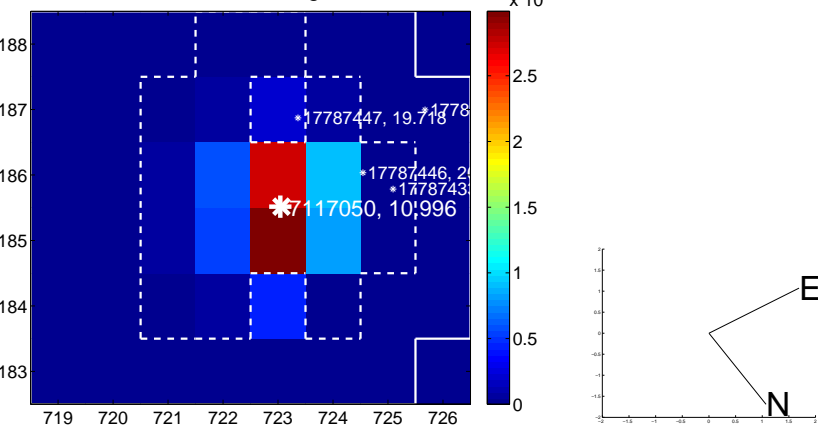
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



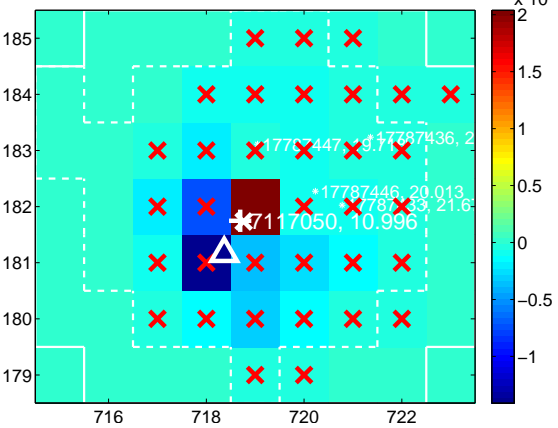
Q15 no difference image



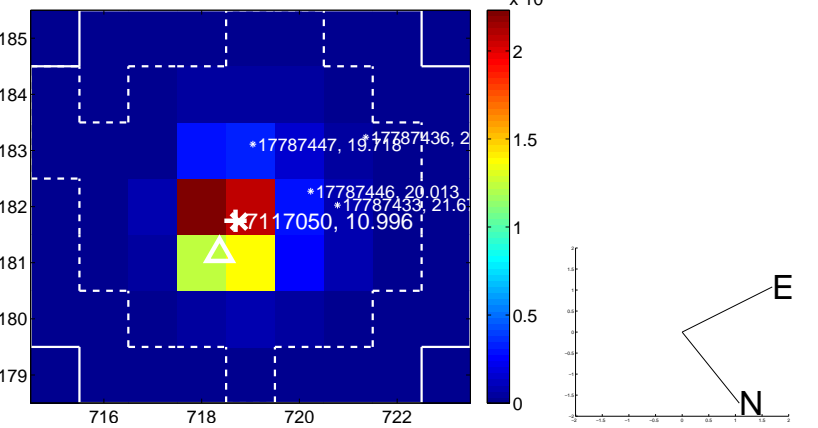
Q15 no OOT image



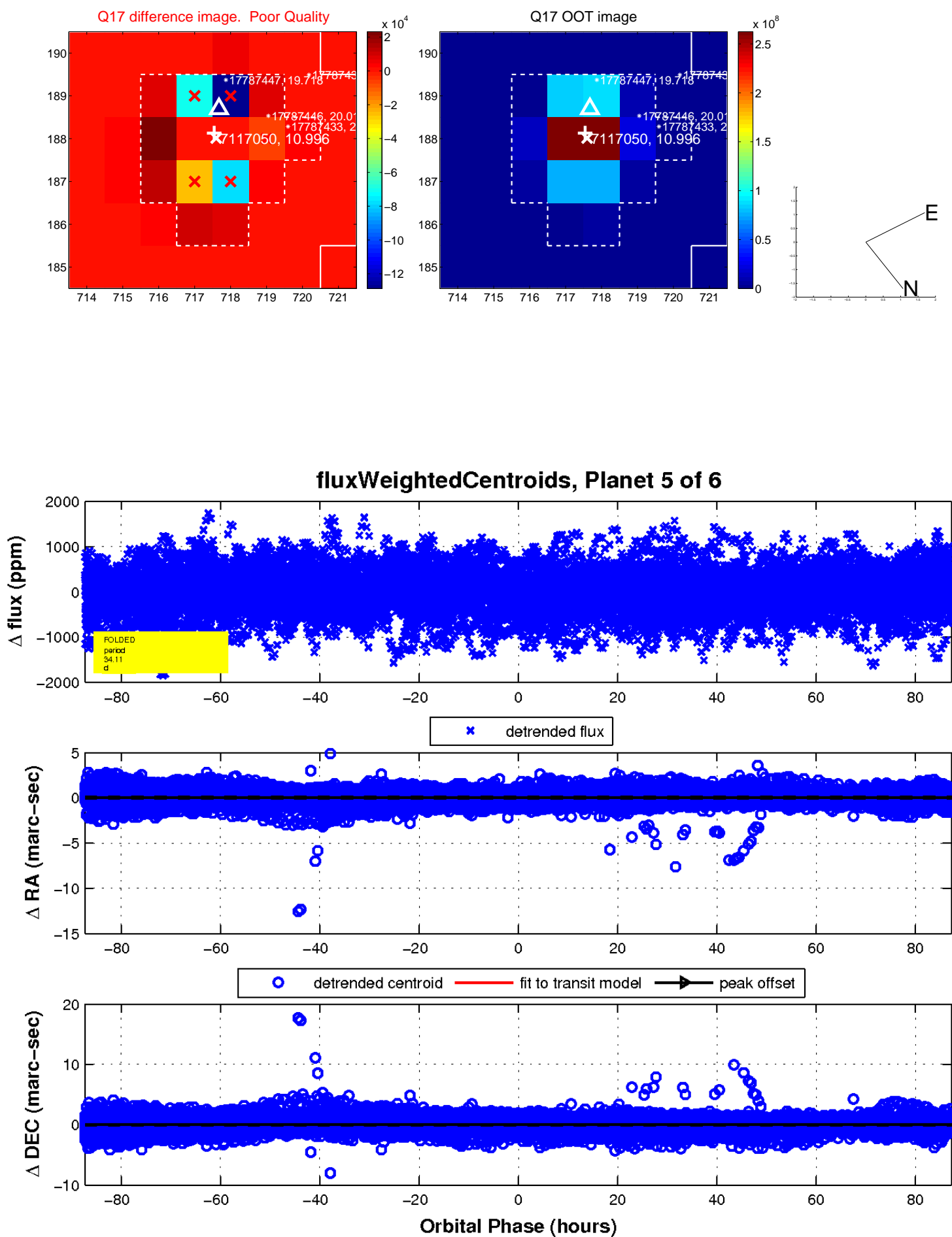
Q16 difference image. Poor Quality



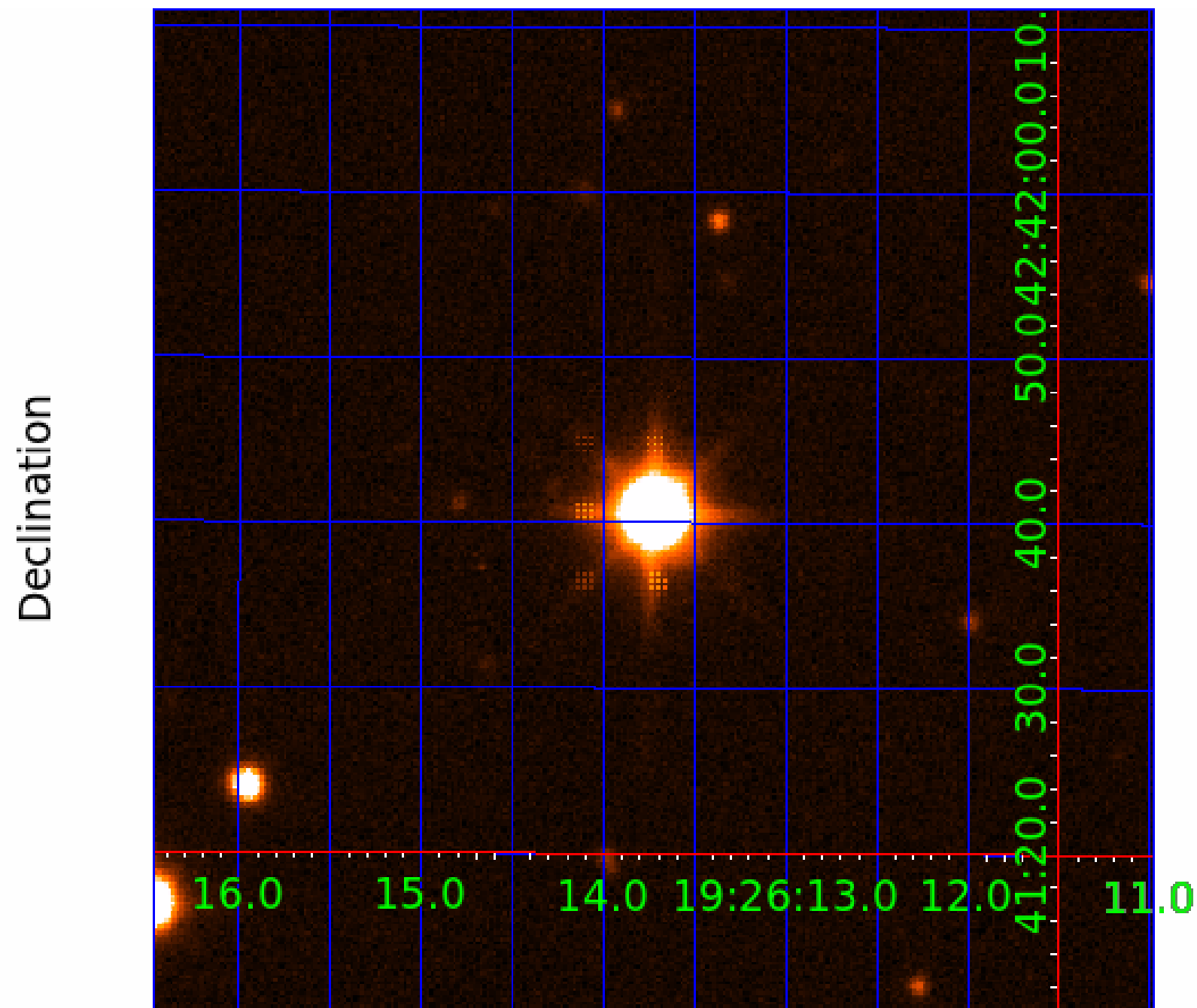
Q16 OOT image



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



UKIRT Image



KIC 007117050

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})
007117050-01	OBS	No	81.430634	134.106537	495.2	18.432	23.4	24.4	14.71	4769	43.75	354.72
007117050-02	OBS	No	79.101064	151.729459	335.5	12.441	16.3	14.0	14.71	4769	36.08	368.71
007117050-03	OBS	8135.01	73.821749	174.048933	280.4	16.860	13.7	15.3	14.71	4769	32.77	404.29
007117050-04	OBS	No	80.873779	141.387204	192.6	60.637	12.7	7.8	14.71	4769	23.83	357.98
007117050-05	OBS	No	34.111369	140.539877	10.5	29.104	10.4	0.8	14.71	4769	5.71	1131.71
007117050-06	OBS	No	96.446605	179.222342	146.9	1.306	7.3	9.7	14.71	4769	18.99	283.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007117050-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007117050-02	OBS	FP	0.00	1	0	1	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_SATURATED—HALO_GHOST
007117050-03	OBS	FP	0.11	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_SATURATED
007117050-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—CENT_SATURATED
007117050-06	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

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

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

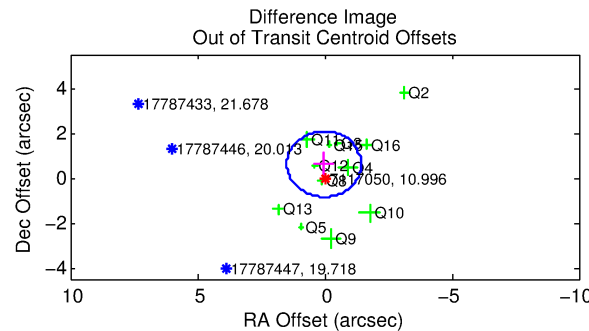
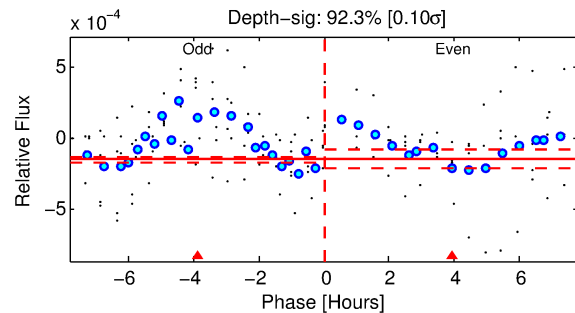
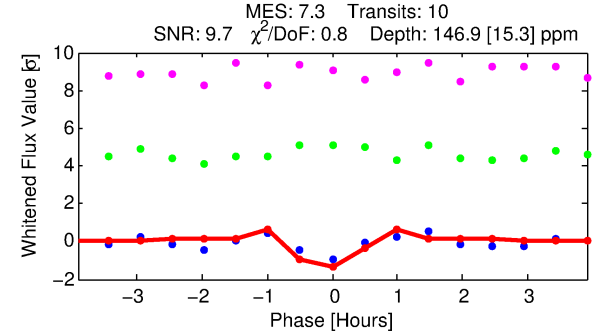
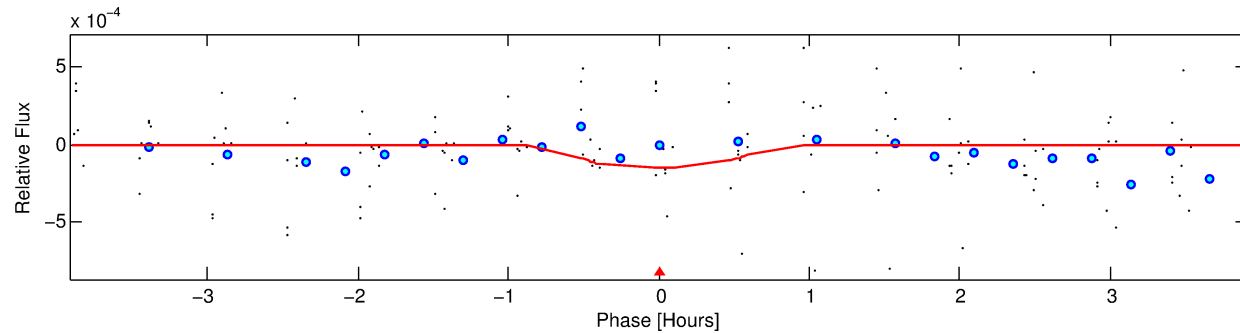
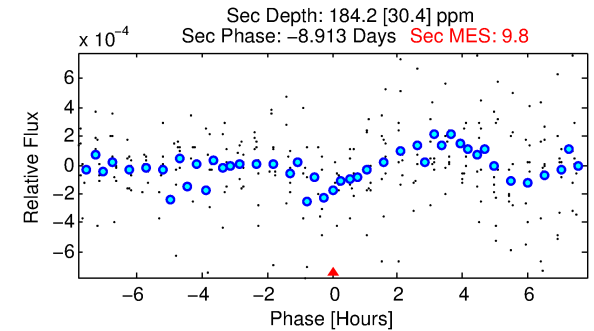
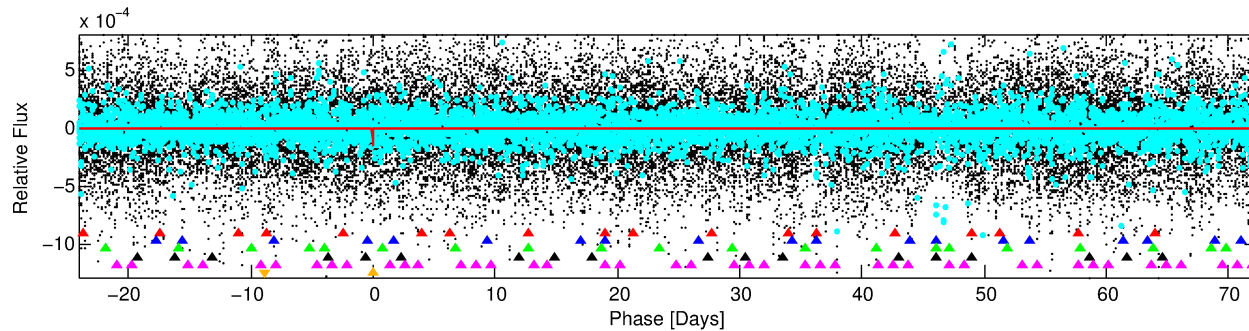
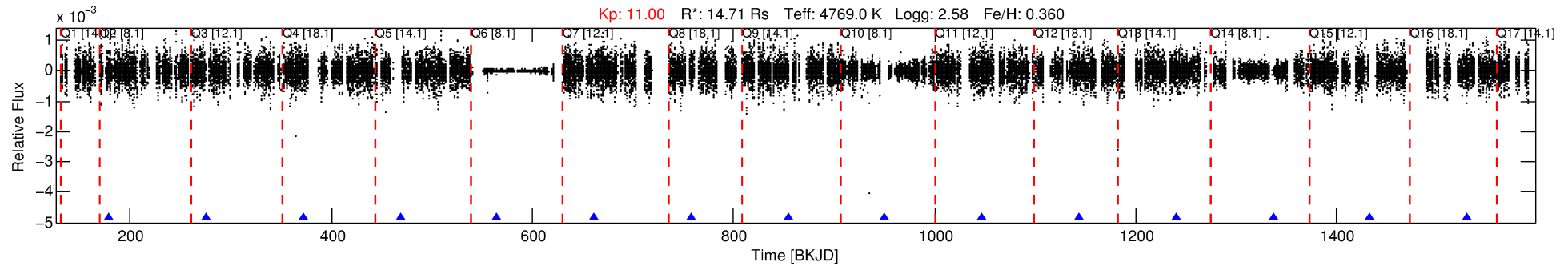
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007117050-06

No Significant Match Found

DV One-Page Summary

KIC: 7117050 Candidate: 6 of 6 Period: 96.447 d



DV Fit Results:

Period = 96.44660 [0.00050] d
Epoch = 179.2223 [0.0035] BKJD
Rp/R* = 0.0118 [0.0141]
a/R* = 422.45 [1560.42]
b = 0.68 [3.03]
Seff = 283.06 [63.51]
Teq = 1046 [59] K
Rp = 18.99 [23.14] Re
a = 0.5950 [0.1060] AU
Ag = 99.53 [238.08] [0.41σ]
Teffp = 5108 [3050] K [1.33σ]

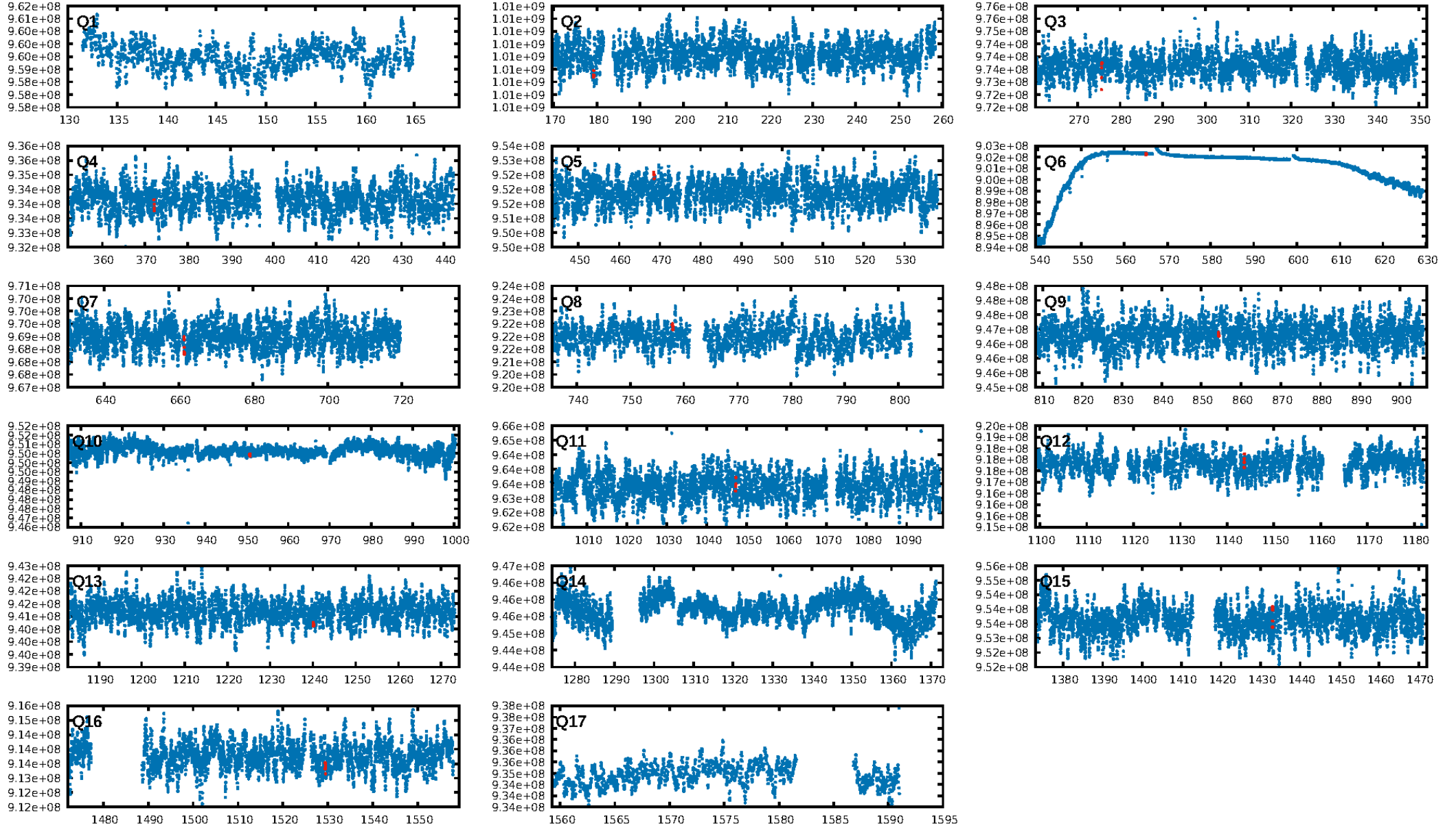
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.50σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 77.6%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: 2.70e-10
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 1.912
Centroid-sig: 3.4%
Centroid-so: 2.015 arcsec [1.69σ]
OotOffset-rm: 0.612 arcsec [1.26σ]
OotOffset-st: 2/3/4/3 [12]
KicOffset-rm: 0.652 arcsec [1.16σ]
KicOffset-st: 2/3/4/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 0.85 [11/13]

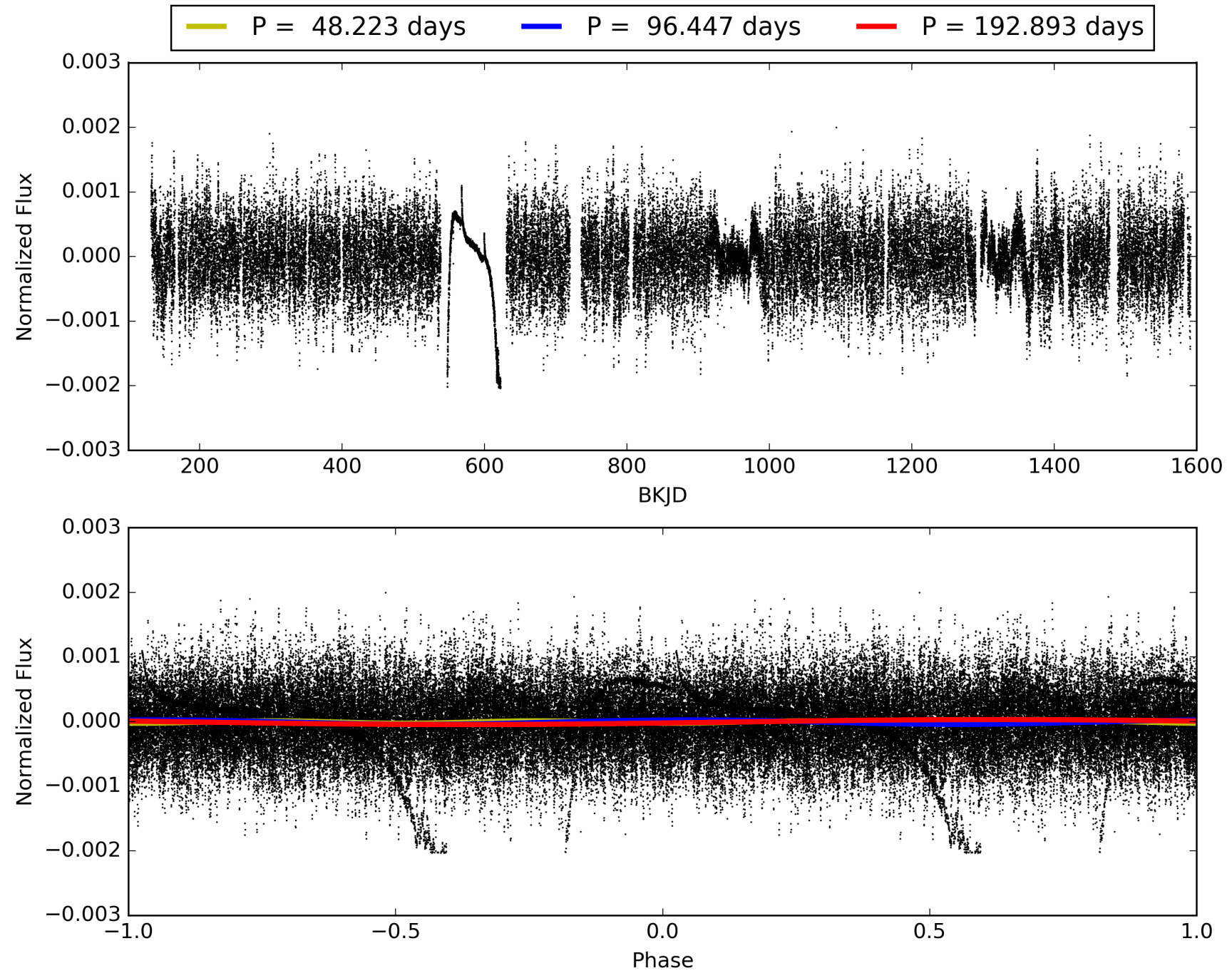
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:48:00 Z

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

TCE 007117050-06, PDC Light Curves

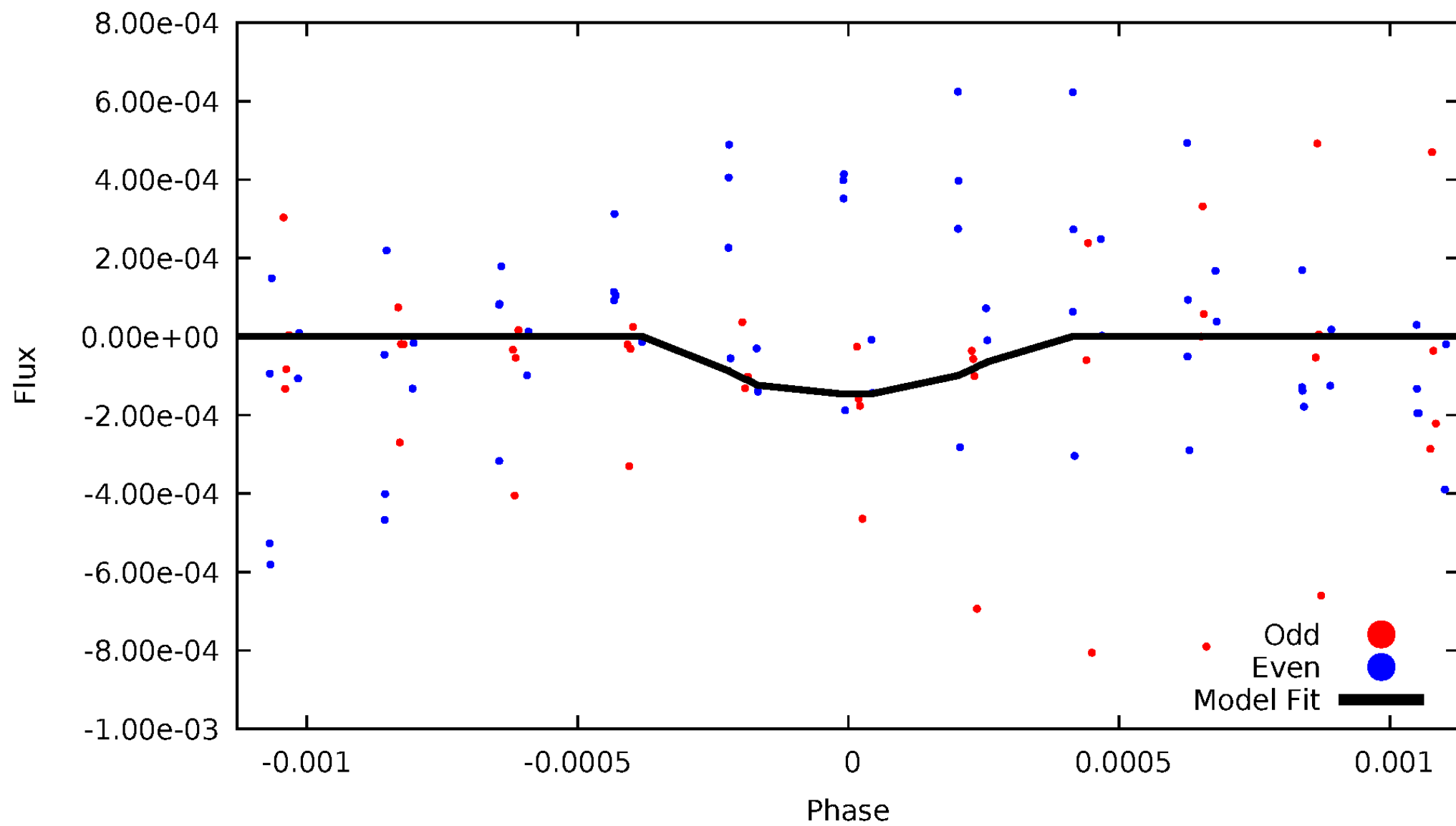


TCE 007117050-06



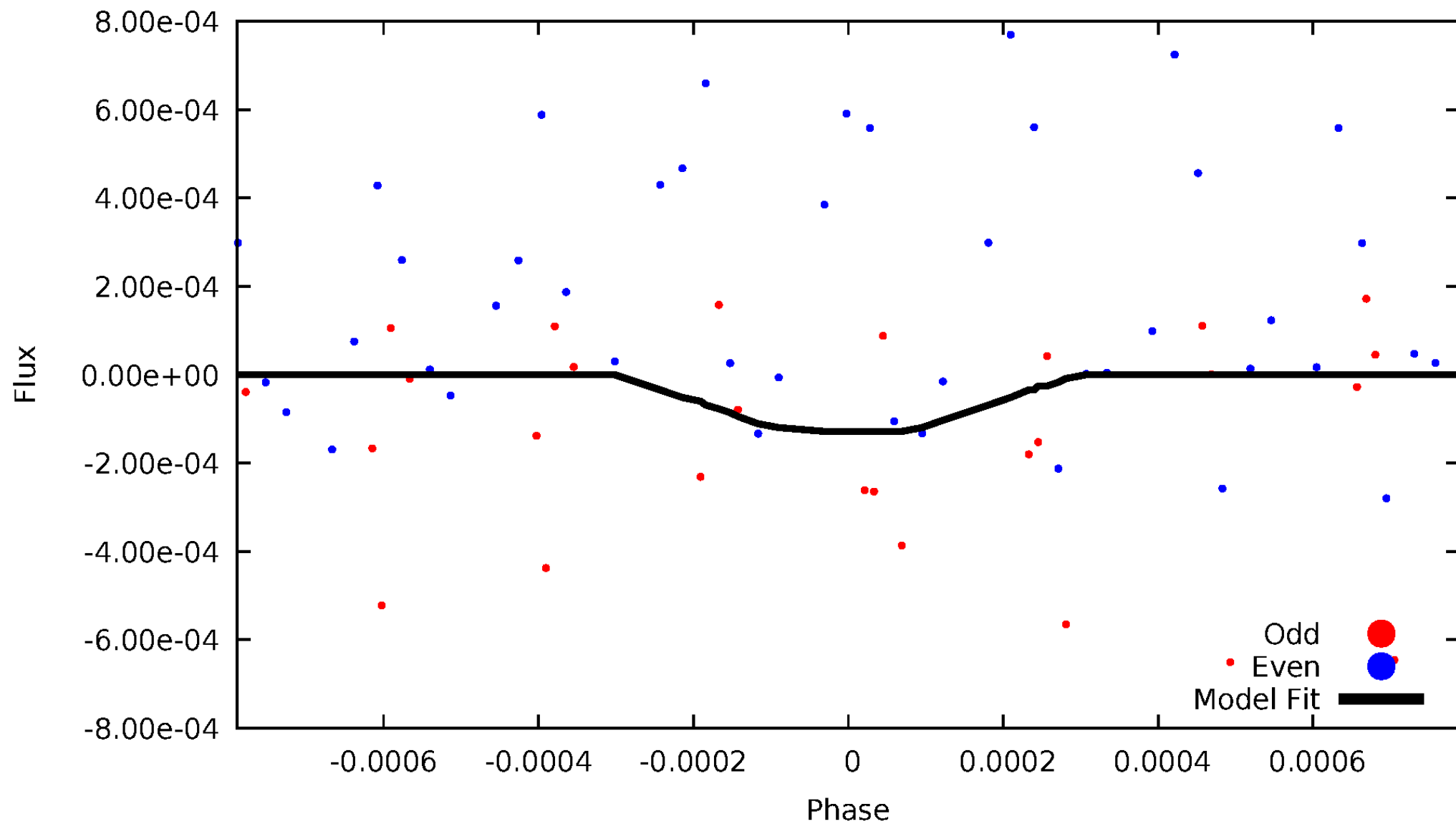
DV Odd/Even

TCE 007117050-06



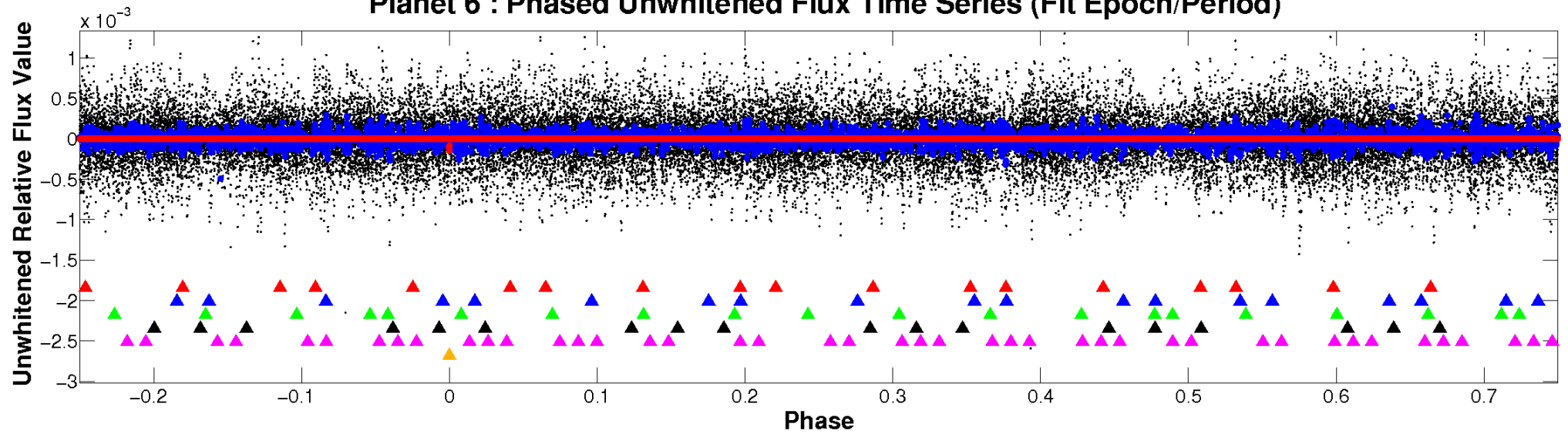
ALT Odd/Even

TCE 007117050-06

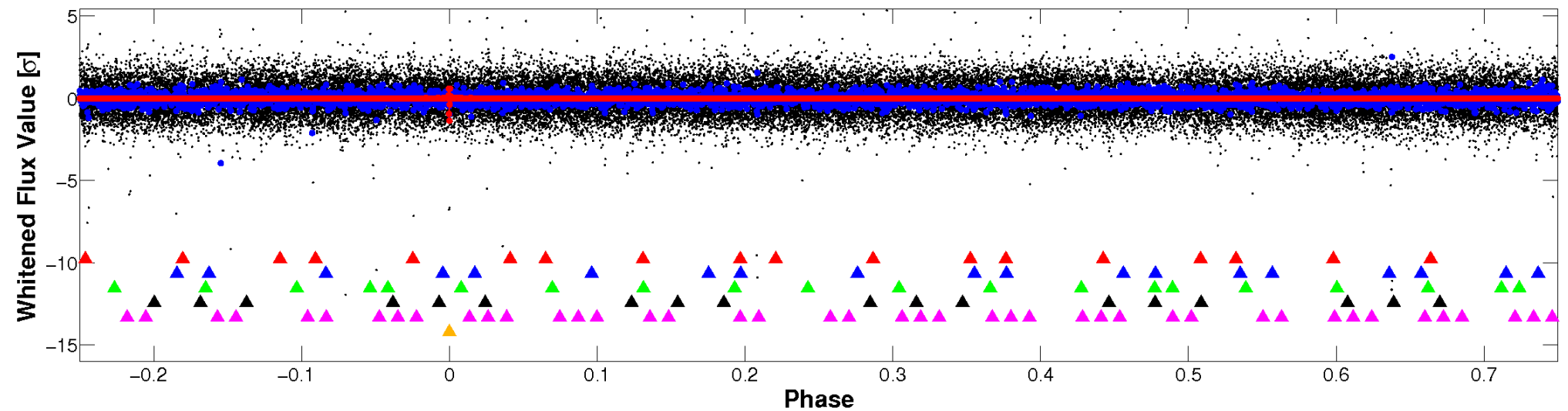


Non-Whitened Vs. Whitened Light Curve

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

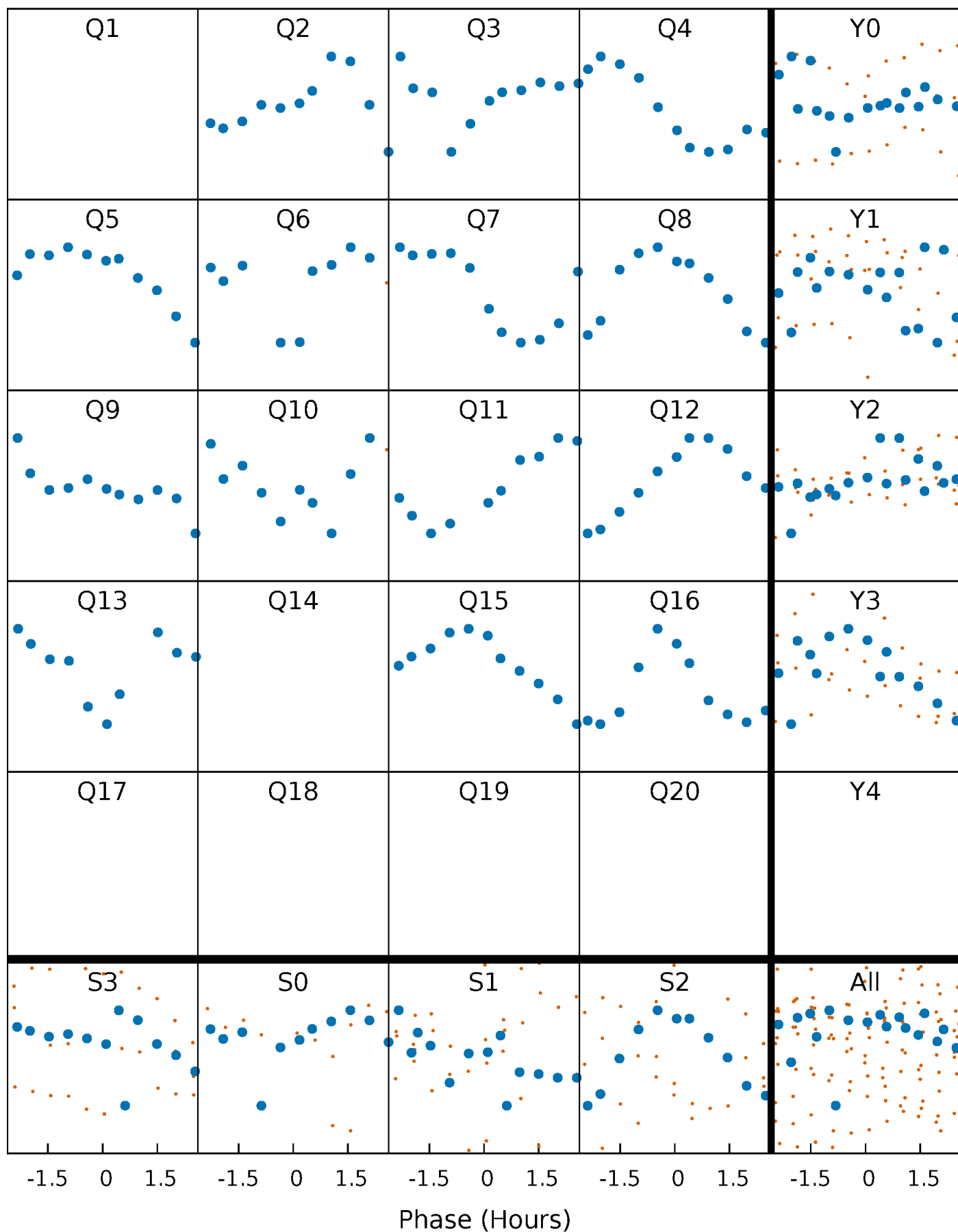


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



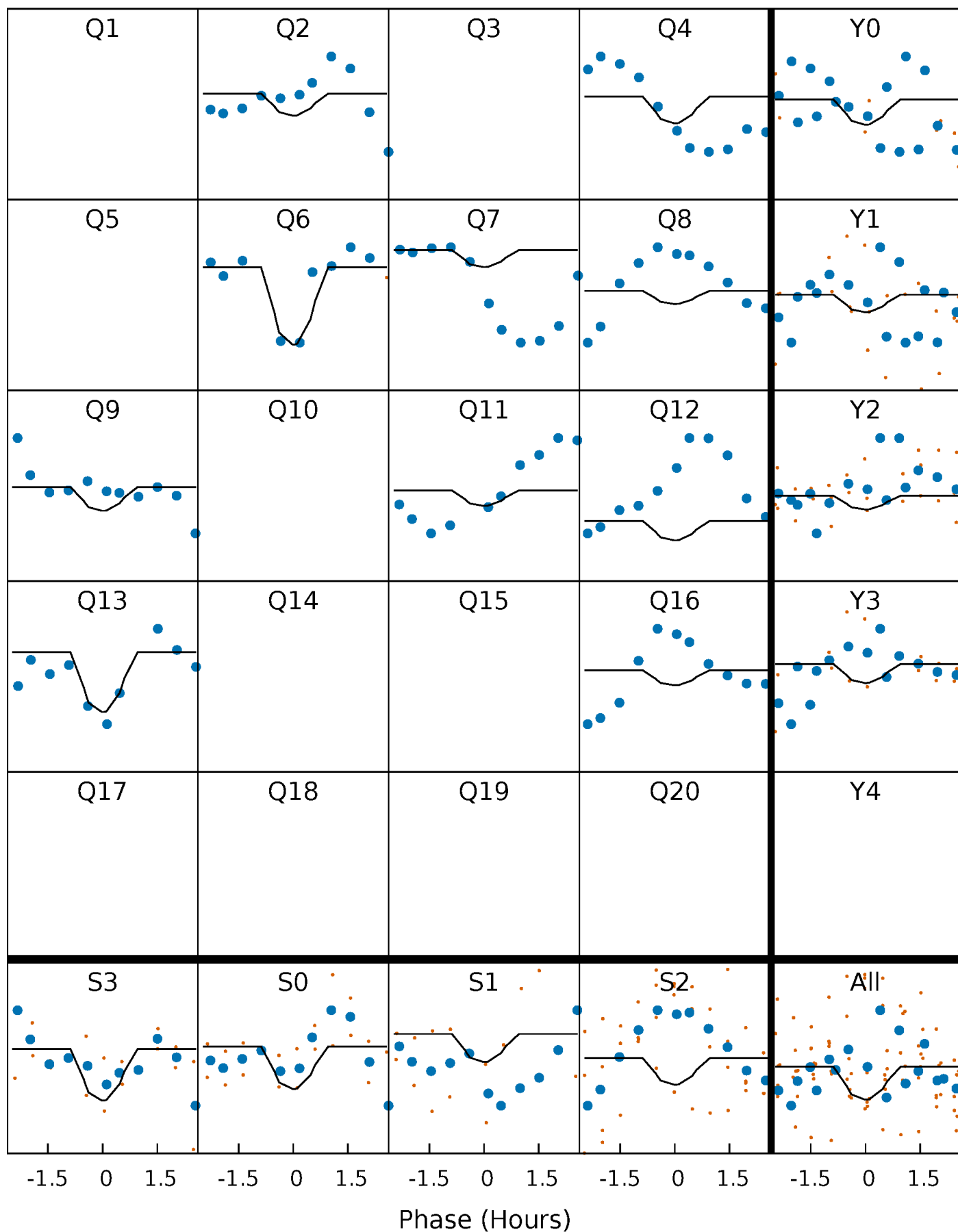
PDC Quarter-Phased Transit Curves

TCE 007117050-06 P= 96.446605 Days $T_0=179.222342$ (BKJD)



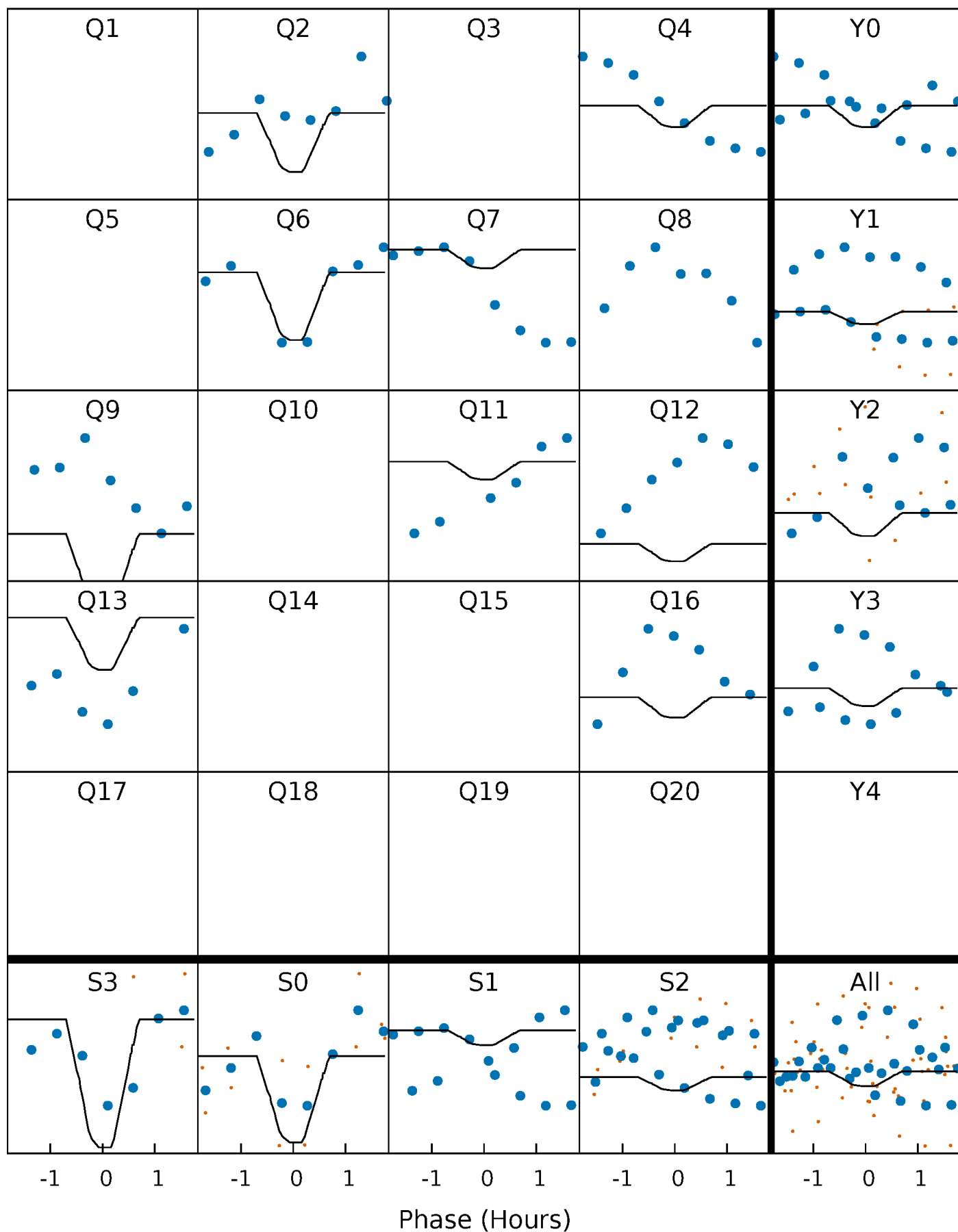
DV Quarter-Phased Transit Curves

TCE 007117050-06 P= 96.446605 Days $T_0=179.222342$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

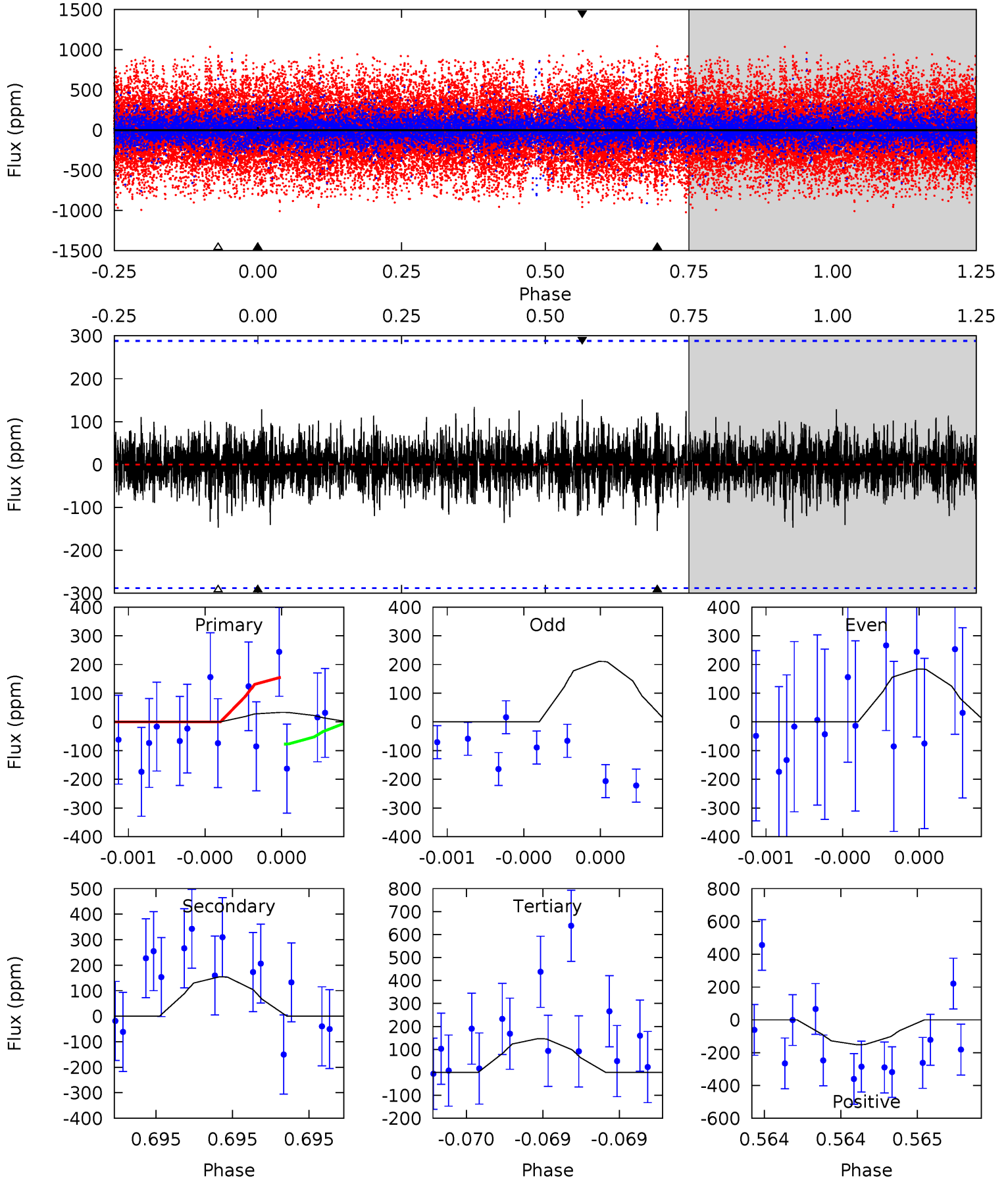
TCE 007117050-06 P= 96.447303 Days $T_0=179.214677$ (BKJD)



DV Model-Shift Uniqueness Test

007117050-06, P = 96.446605 Days, E = 82.775737 Days

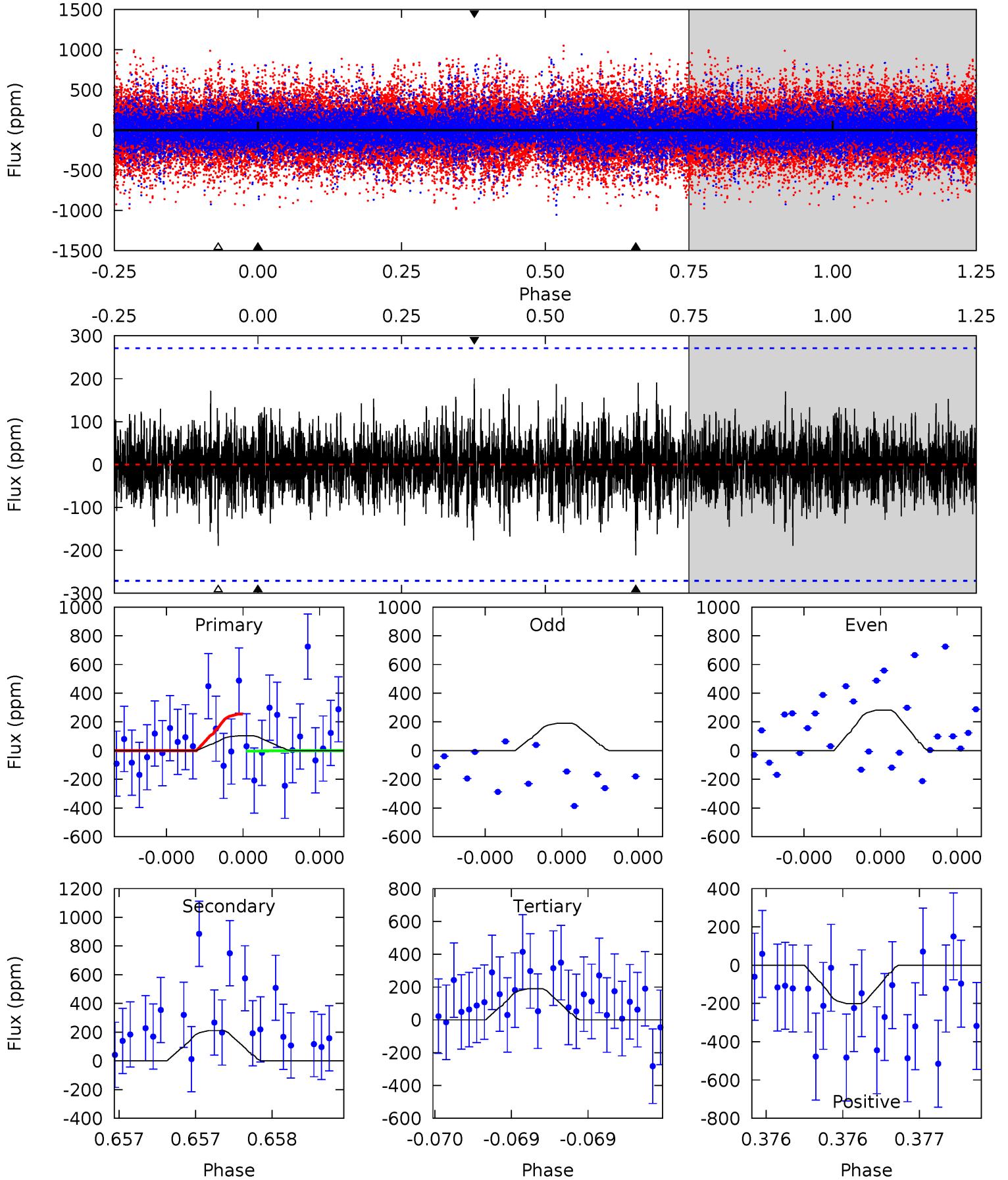
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.64	2.99	2.84	2.93	5.58	3.49	0.77	-2.20	-2.29	0.15	0.05	0.25	-0.40	0.50	0.75



Alt Model-Shift Uniqueness Test

007117050-06, P = 96.447303 Days, E = 82.767374 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.11	4.34	3.89	4.12	5.57	3.48	1.08	-1.78	-2.01	0.44	0.21	0.93	-2.33	0.49	2.50



Stellar Parameters For KIC 007117050

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4769^{+57}_{-154}	$2.583^{+0.033}_{-0.027}$	$0.360^{+0.050}_{-0.250}$	$14.706^{+0.687}_{-3.890}$	$3.020^{+0.152}_{-1.371}$	$0.001^{+0.001}_{-0.000}$
	+1%/-3%	+1%/-1%	+14%/-69%	+5%/-26%	+5%/-45%	+39%/-10%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 007117050-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-154 ± 52	$23.73^{+20.38}_{-15.14}$	1458^{+29}_{-47}	4406^{+2720}_{-920}	53^{+358}_{-39}
Alt.	-211 ± 49	$23.68^{+20.00}_{-15.16}$	1458^{+30}_{-49}	4672^{+3068}_{-926}	72^{+474}_{-52}

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

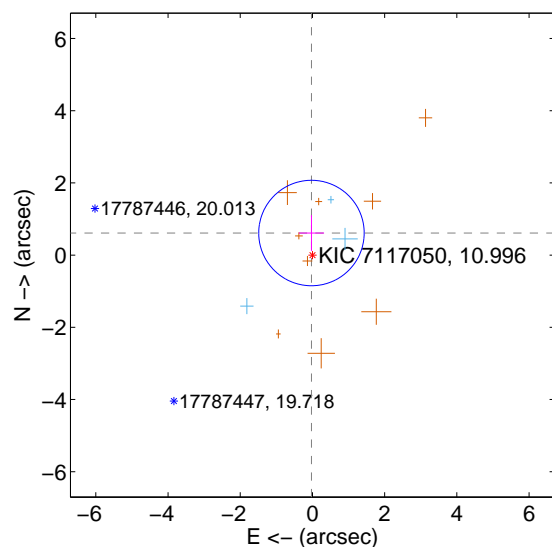
Supplemental centroid analysis for 007117050-06. **Kepler magnitude: 11.00.** Transit SNR 9.75

There are 3 quarters with good PRF difference image offsets

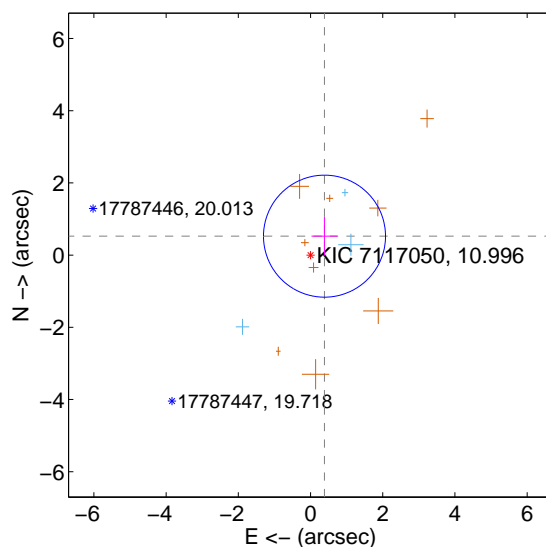
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.612 ± 0.487	1.26	0.027 ± 0.350	0.612 ± 0.495
PRF-fit source offset from KIC position	0.652 ± 0.563	1.16	-0.387 ± 0.358	0.524 ± 0.538
photometric centroid source offset	2.02 ± 1.19	1.69	-0.88 ± 1.10	-1.81 ± 1.21

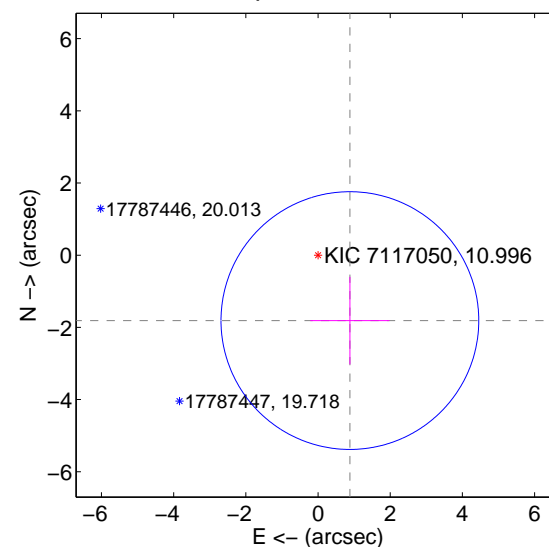
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

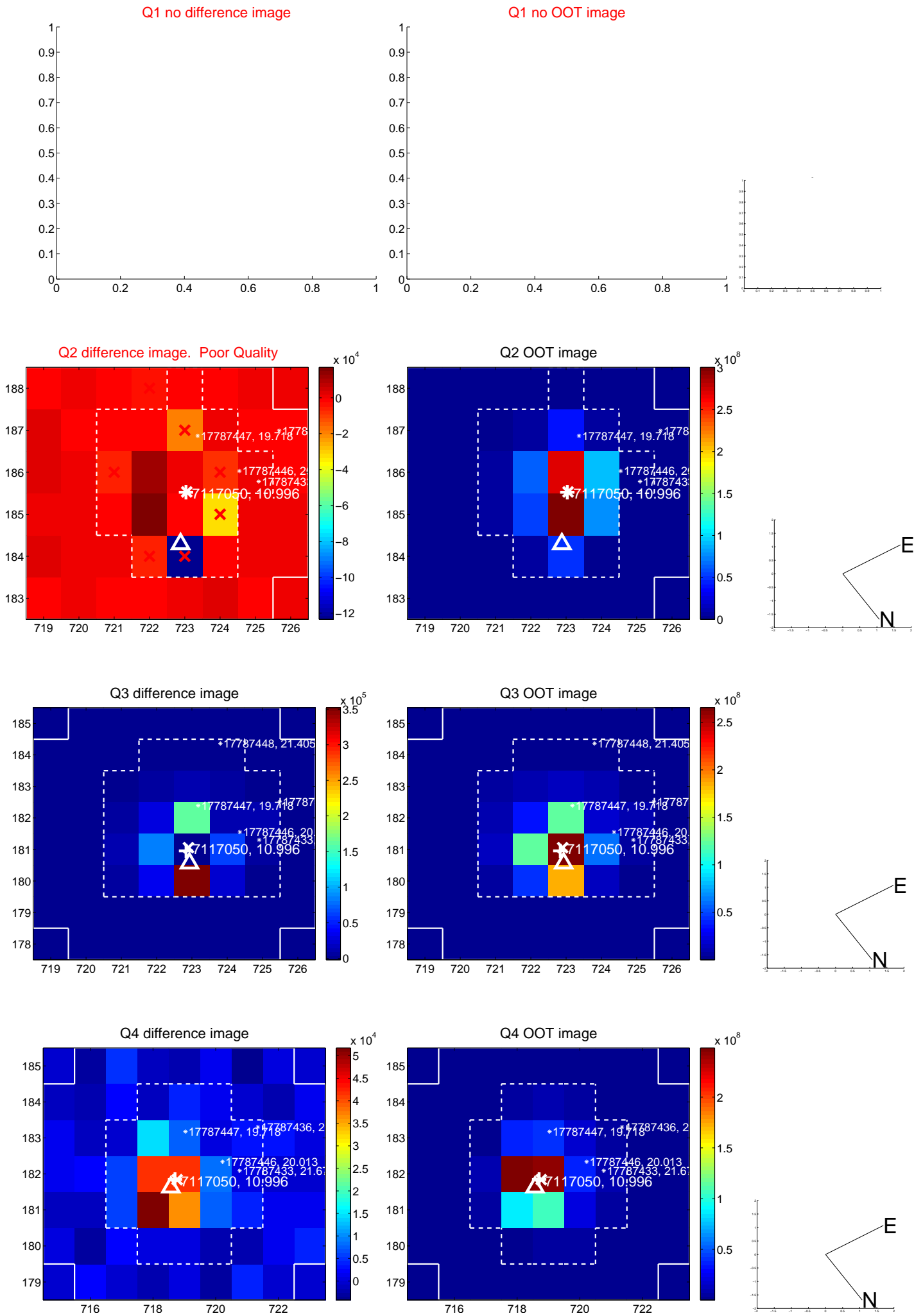


offset from photometric centroids

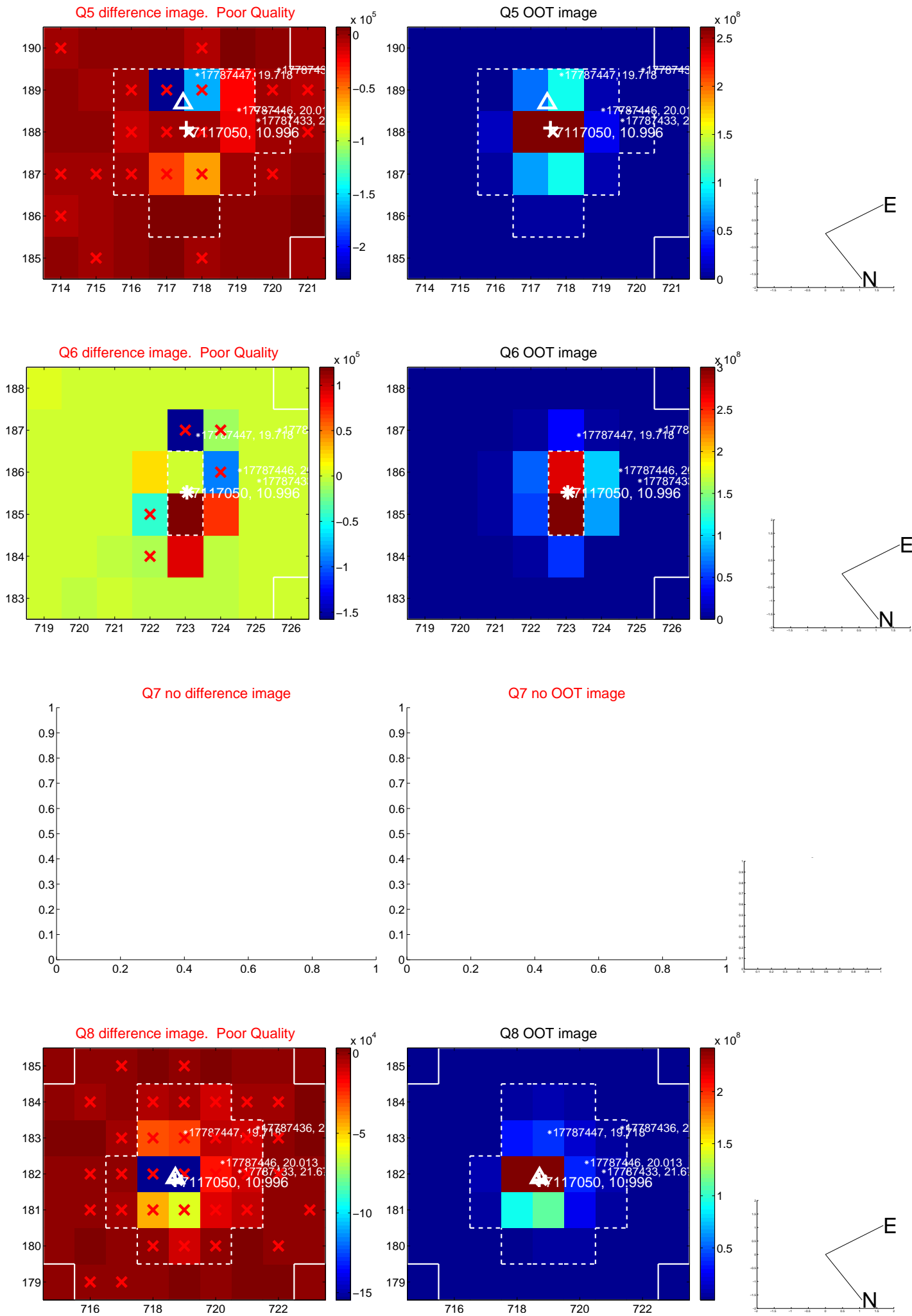


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

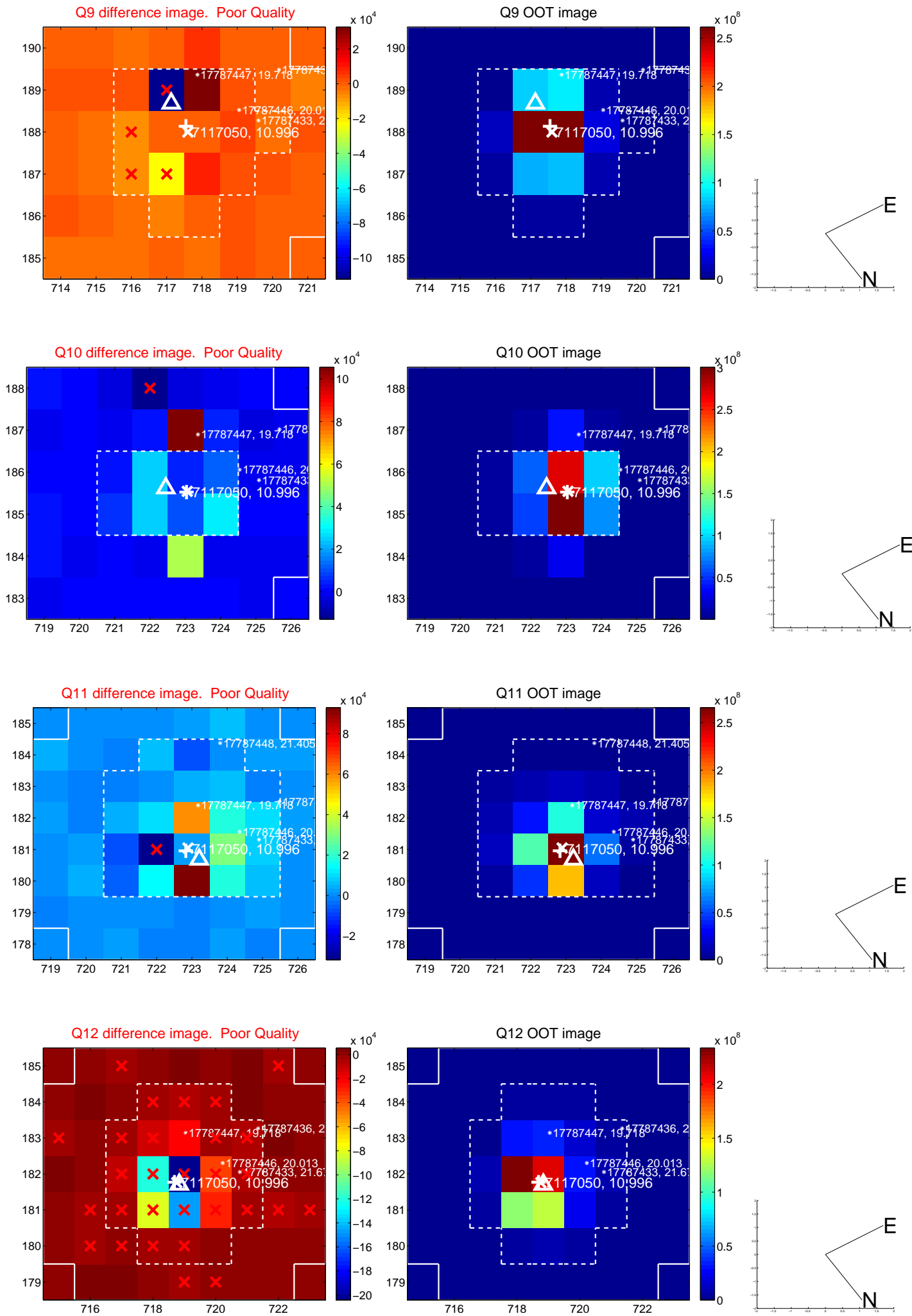
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



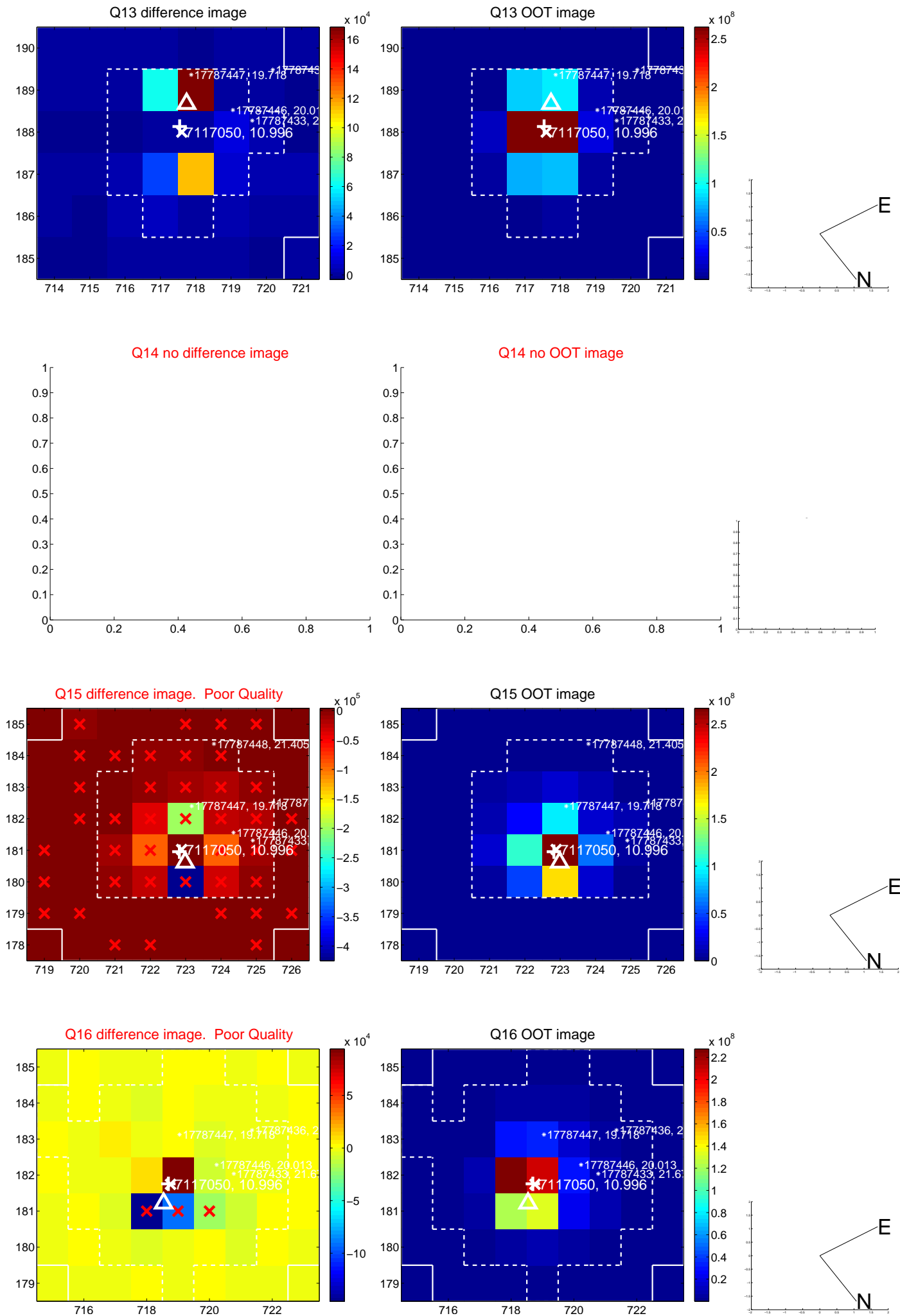
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



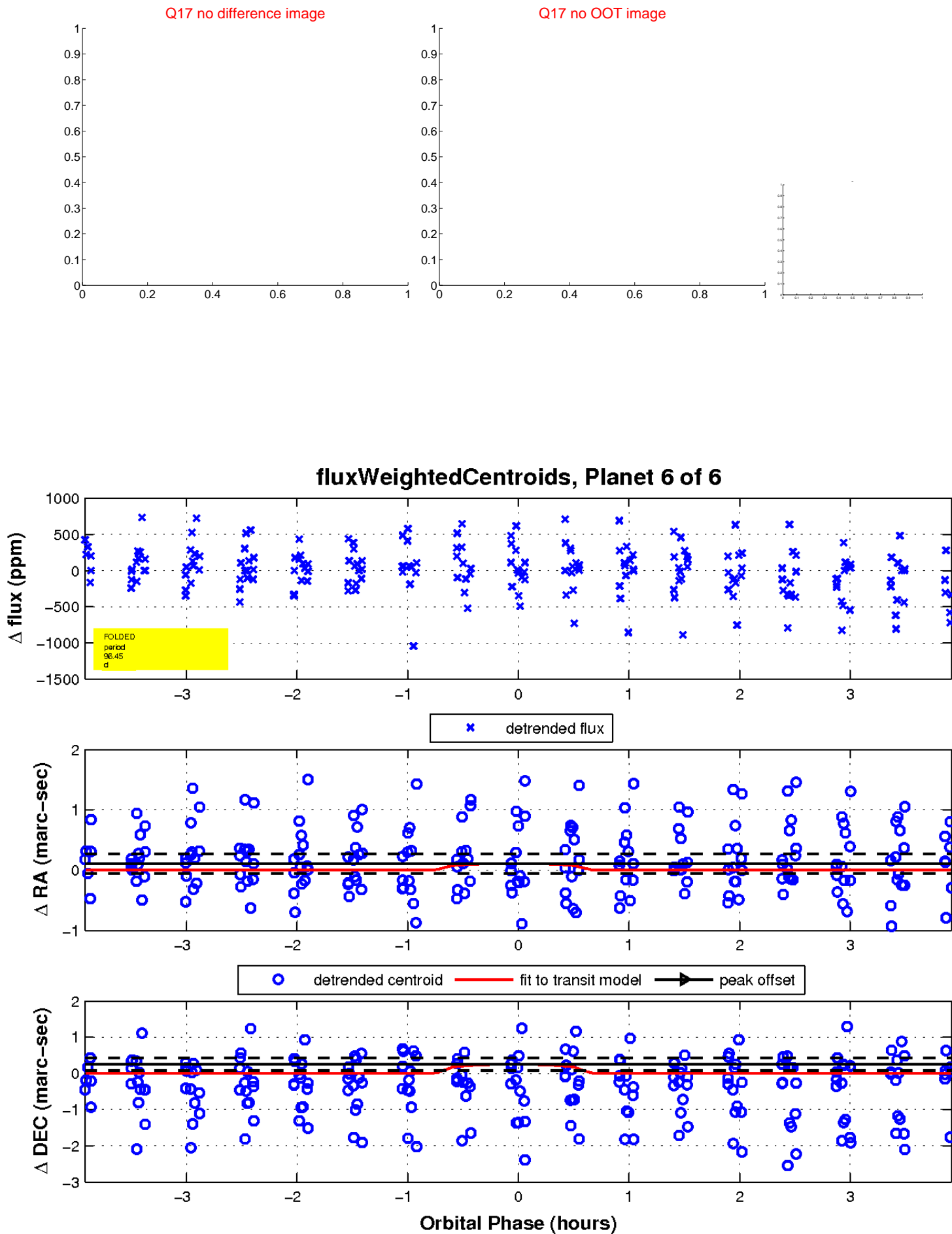
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

