

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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

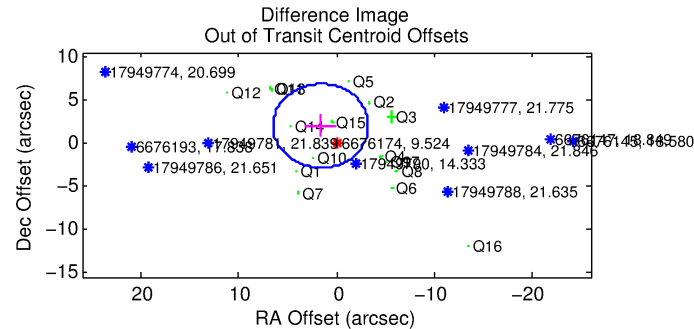
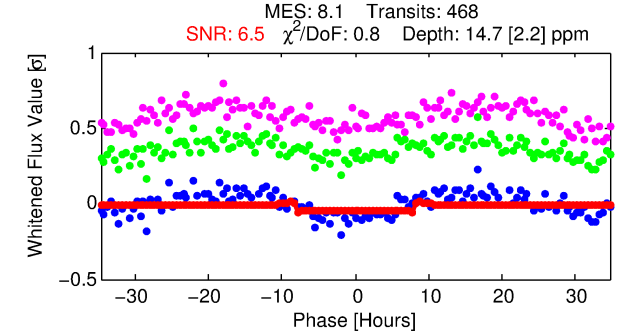
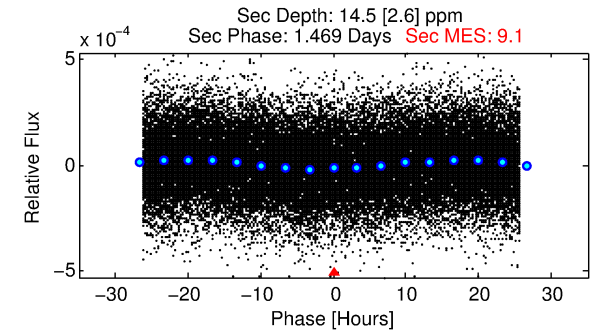
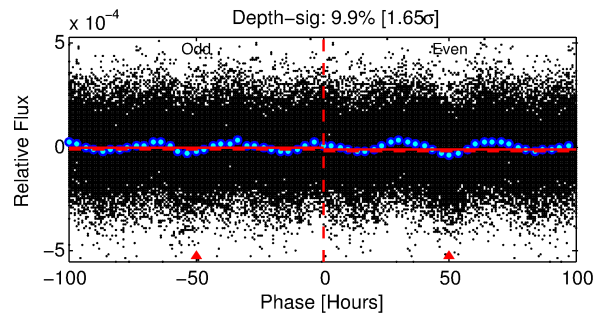
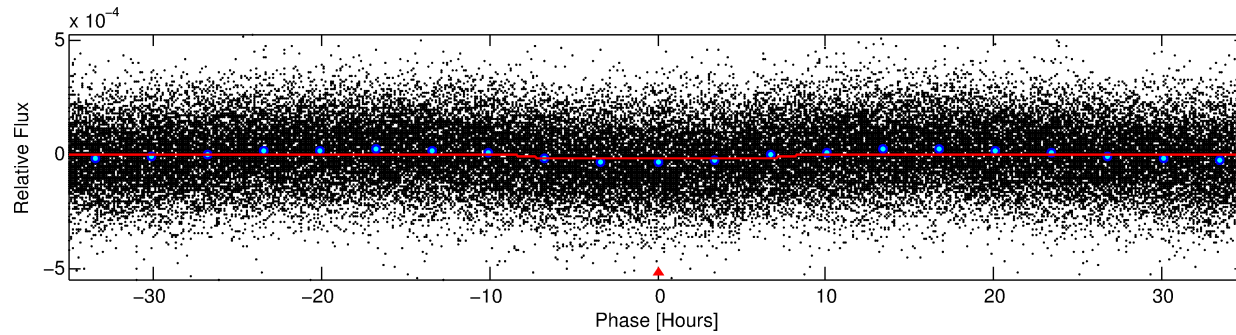
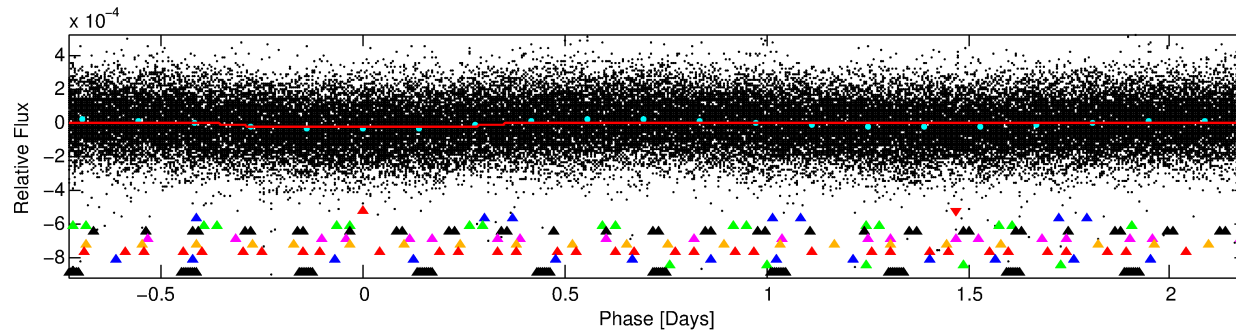
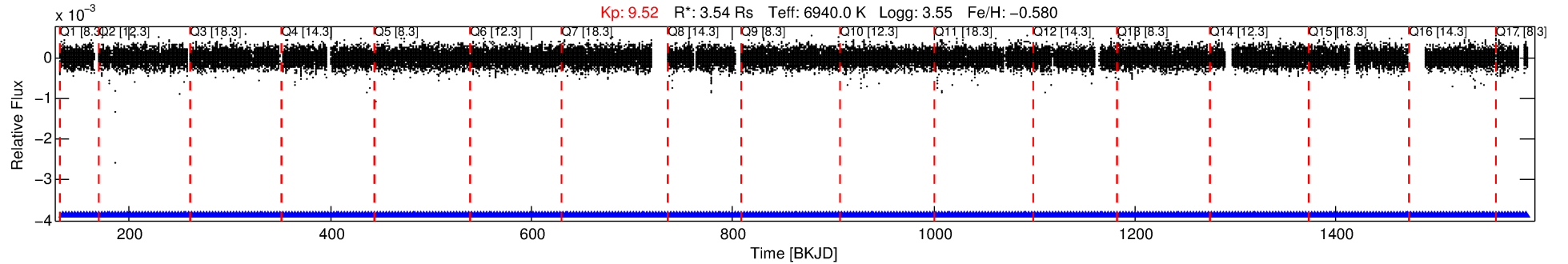
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-01

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 1 of 10 Period: 2.920 d



DV Fit Results:

Period = 2.92042 [0.00005] d
Epoch = 134.3566 [0.0082] BKJD
 $R_p/R^* = 0.0038$ [0.0010]
 $a/R^* = 1.27$ [0.76]
 $b = 0.70$ [1.15]
 $\text{Seff} = 11820.94$ [7465.20]
 $T_{\text{eq}} = 2659$ [420] K
 $R_p = 1.46$ [0.73] R_e
 $a = 0.0470$ [0.0185] AU
 $A_g = 8.31$ [7.06] [1.04 σ]
 $T_{\text{eff}} = 6980$ [1034] K [3.87 σ]

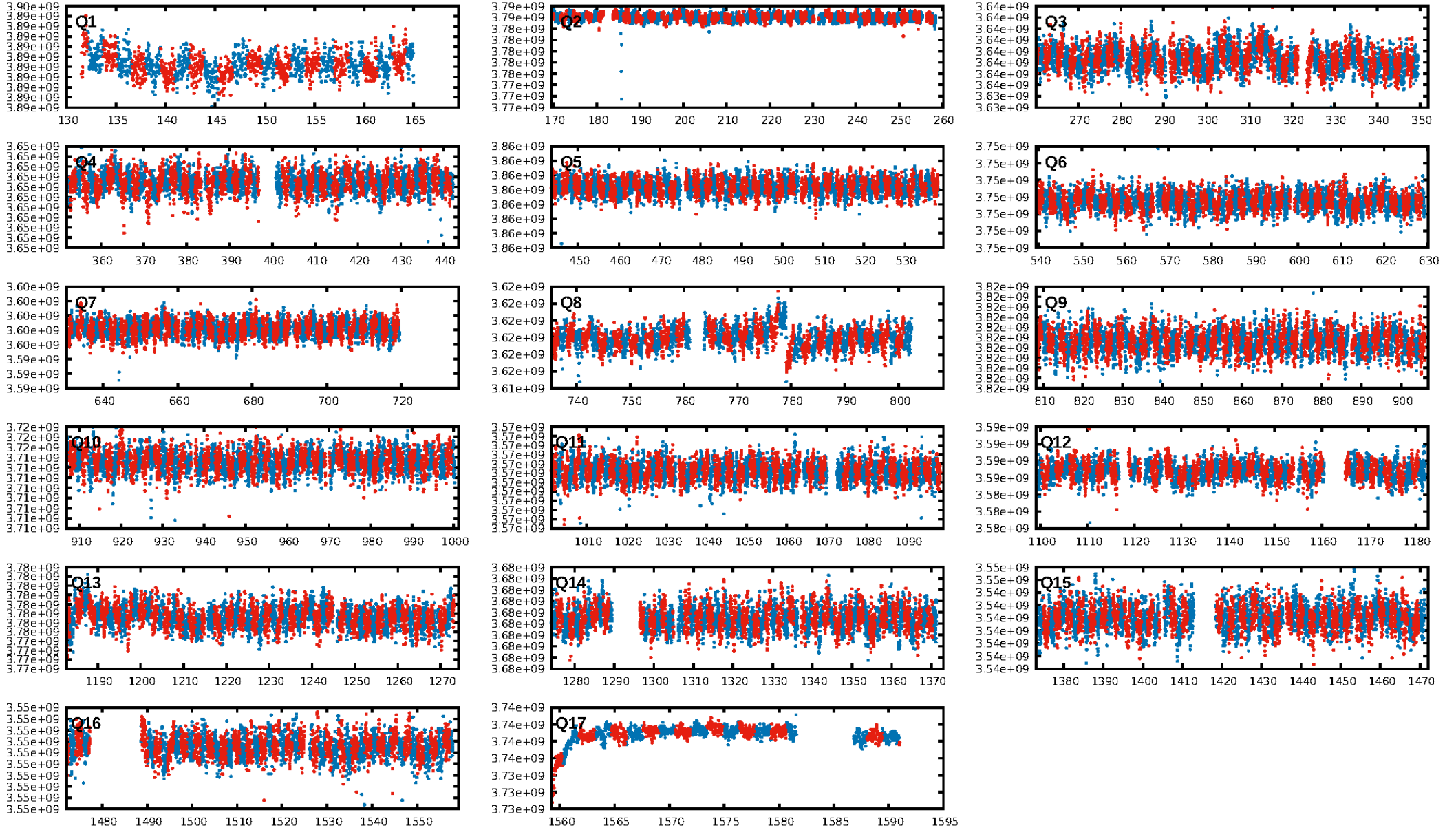
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [10.72 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [447/447]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 2.859 arcsec [2.90 σ]
OotOffset-rm: 2.568 arcsec [1.58 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 1.991 arcsec [1.16 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.06 [1/17]
DiffImageOverlap-fno: 1.00 [17/17]

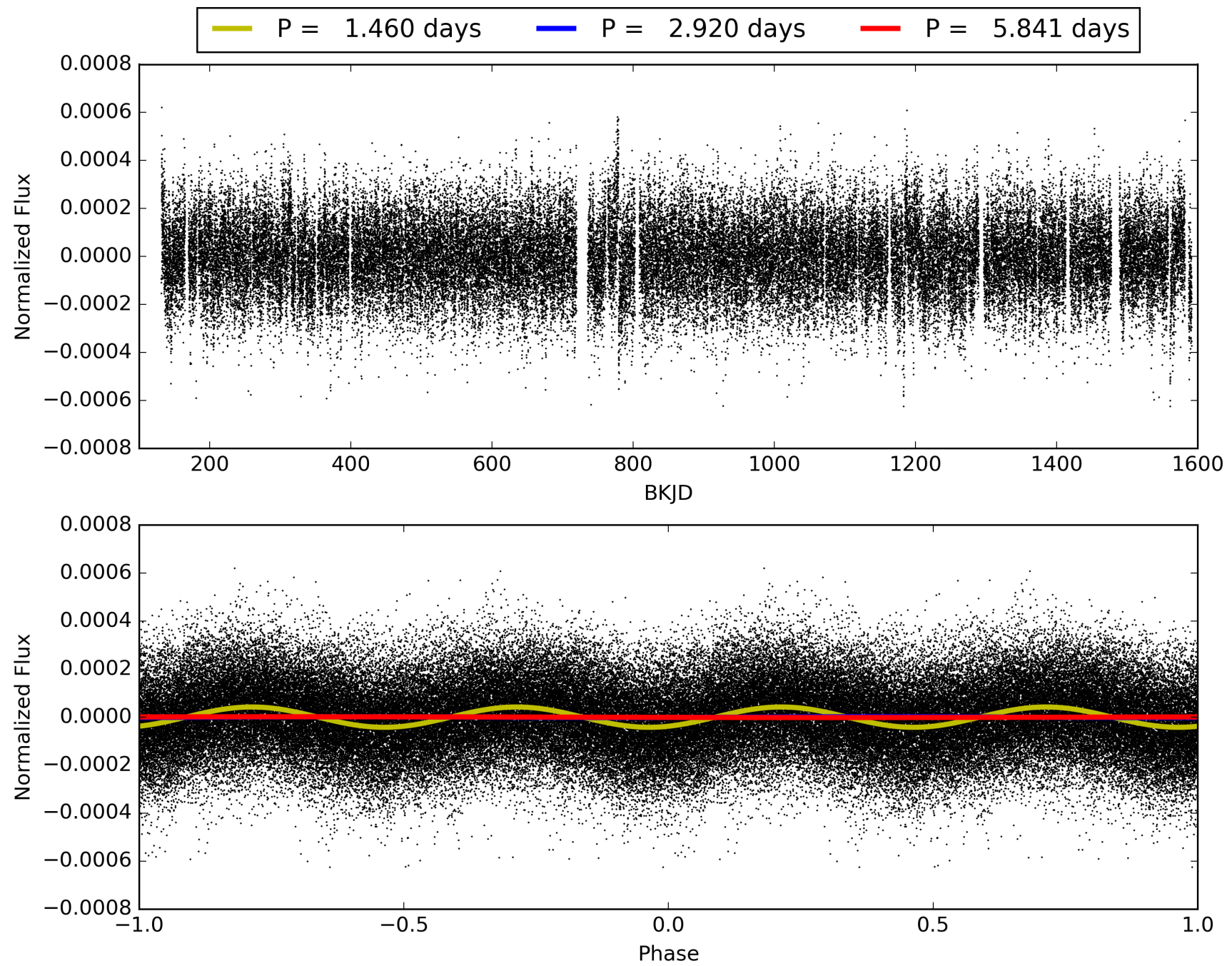
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006676174-01, PDC Light Curves

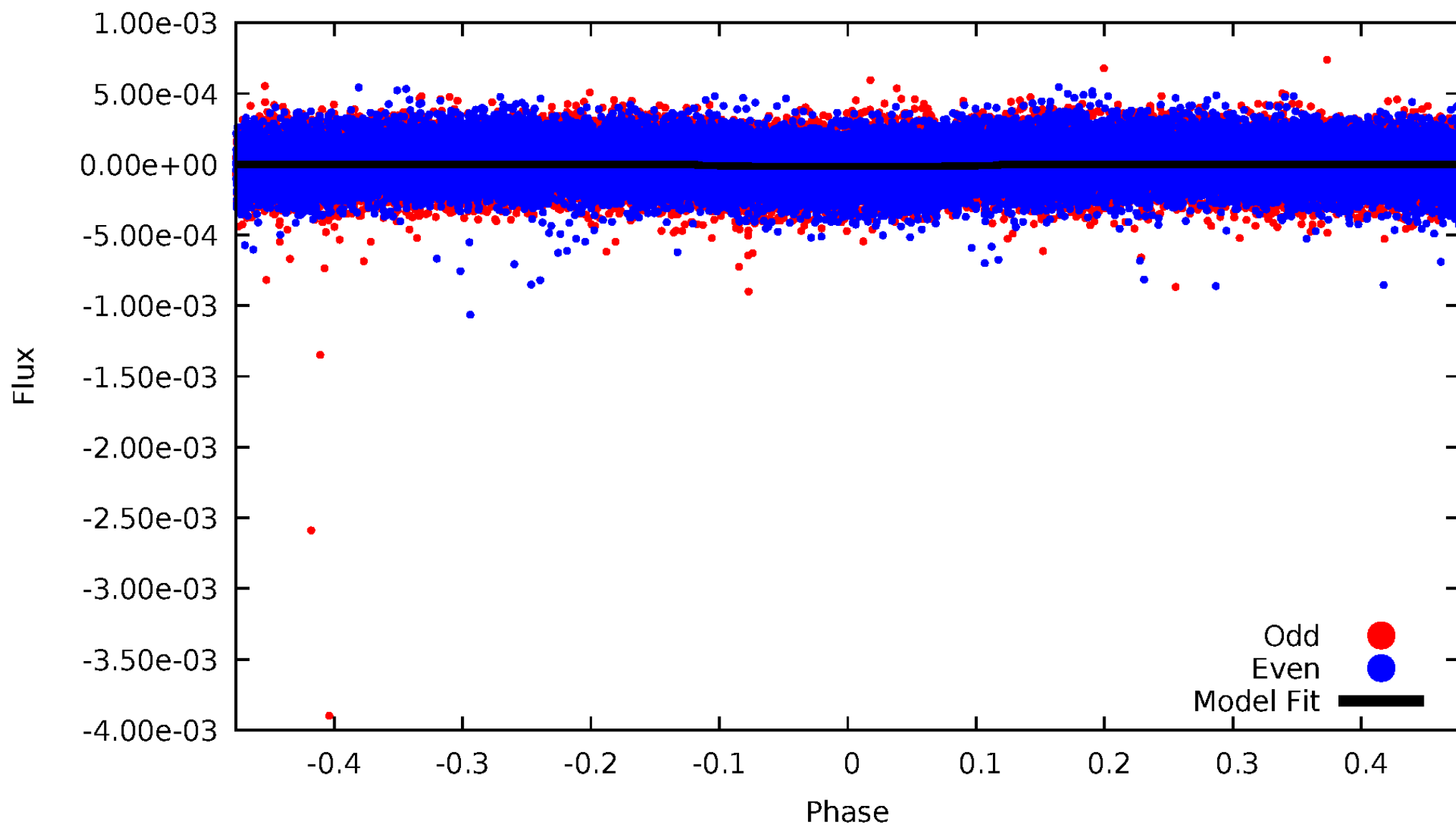


TCE 006676174-01



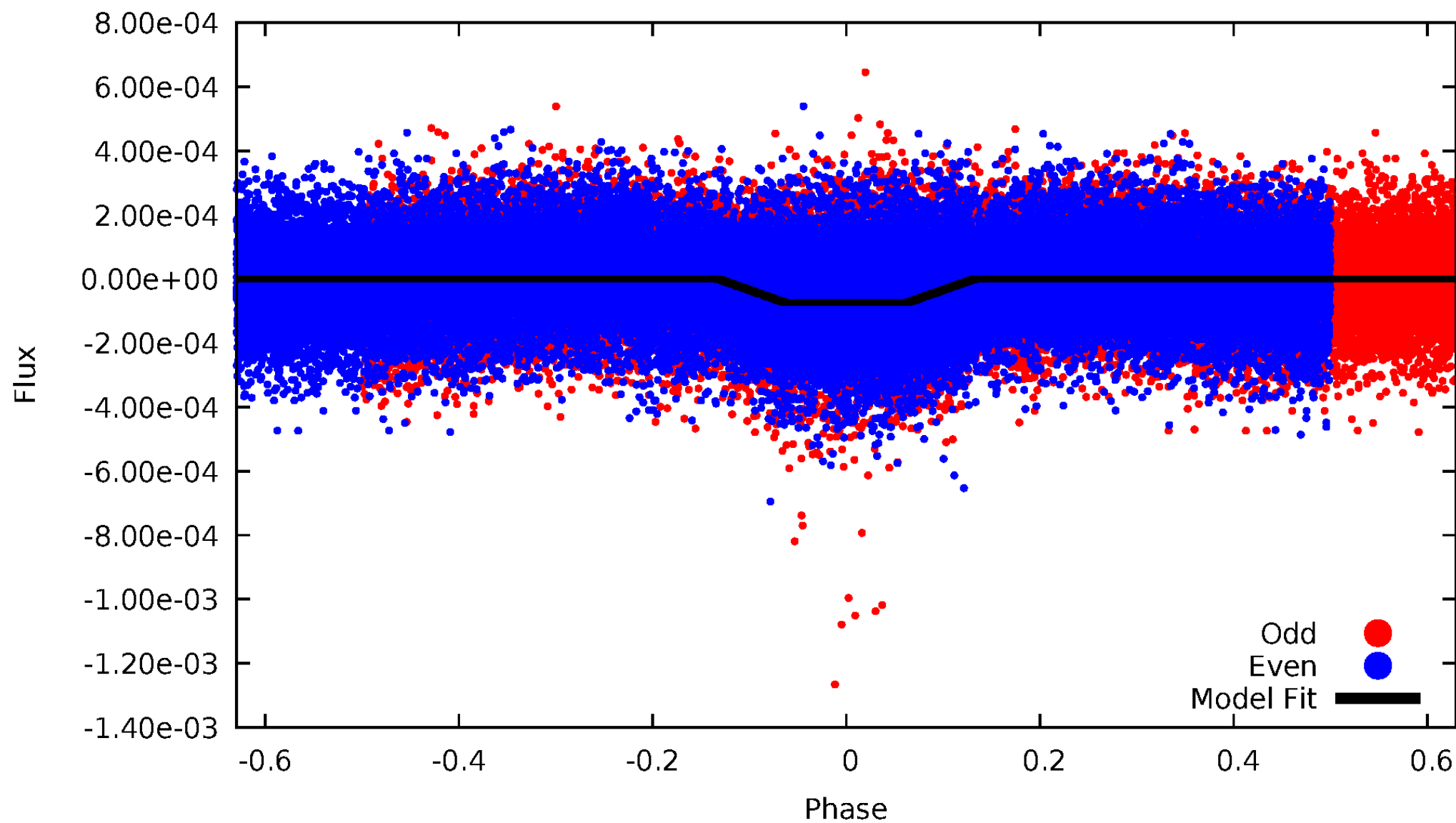
DV Odd/Even

TCE 006676174-01



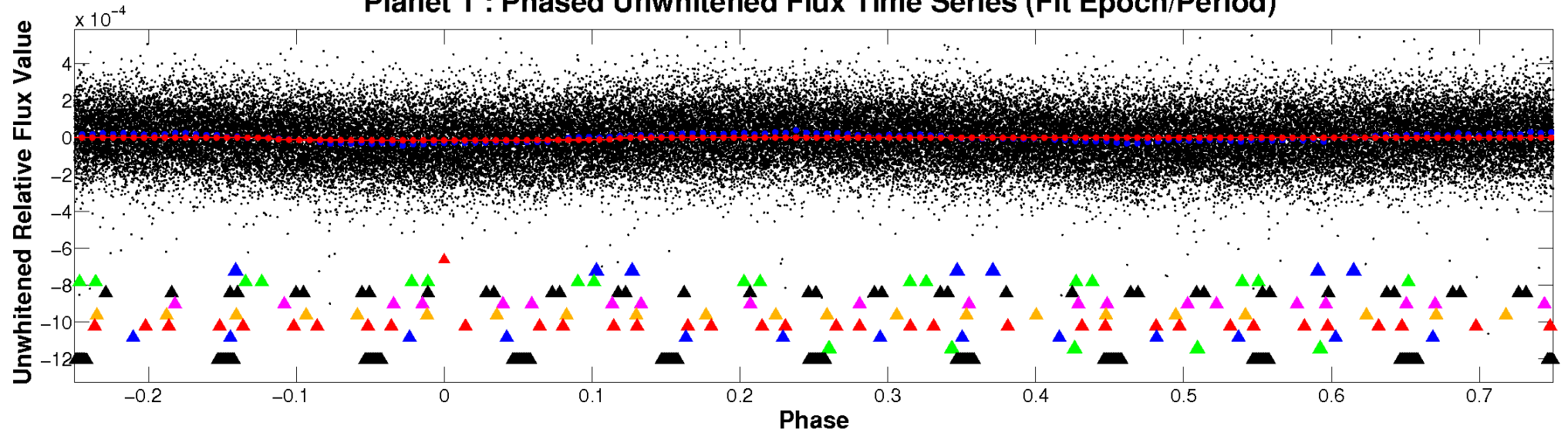
ALT Odd/Even

TCE 006676174-01

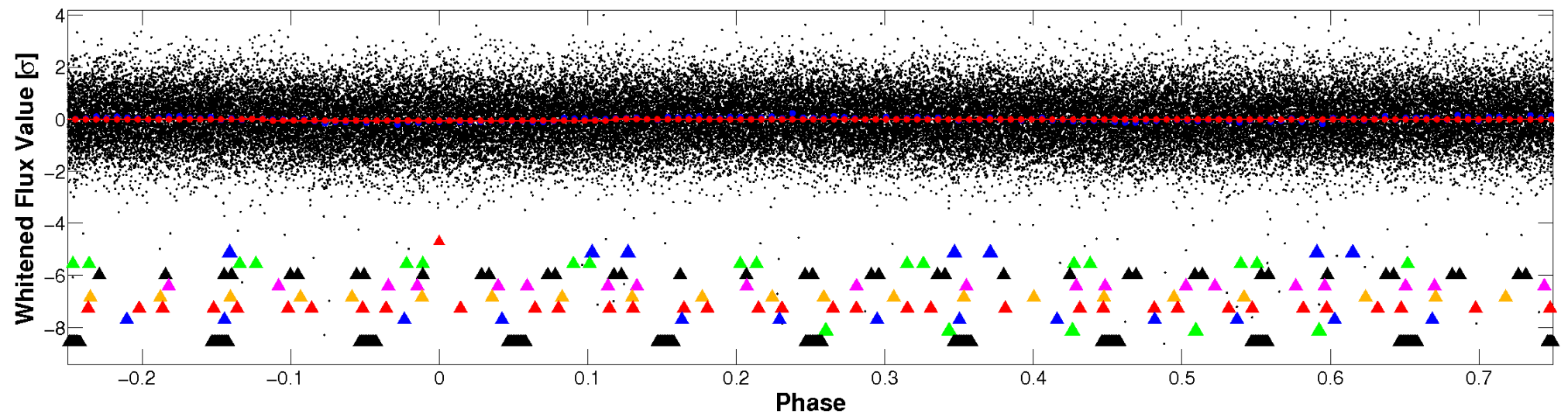


Non-Whitened Vs. Whitened Light Curve

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

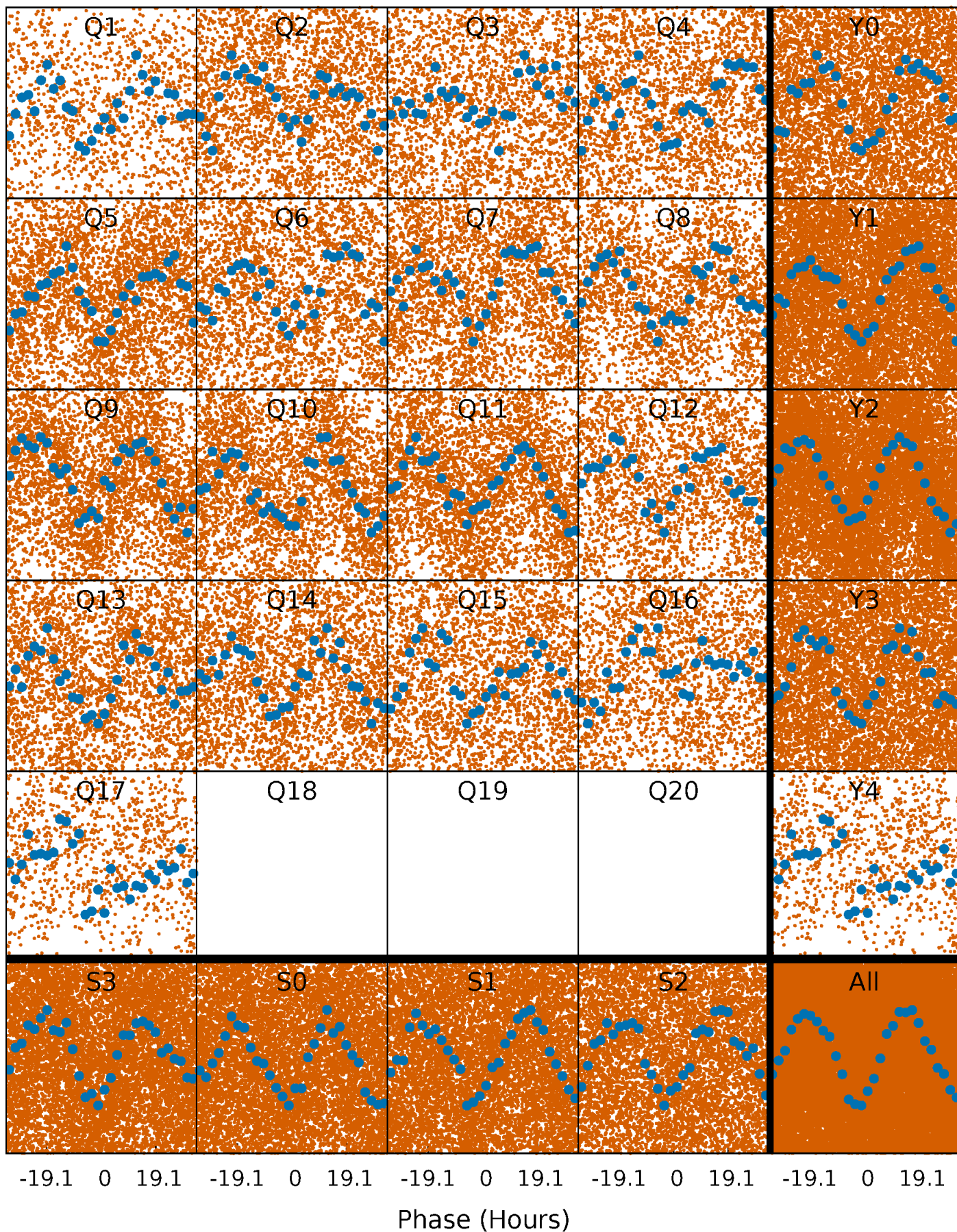


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



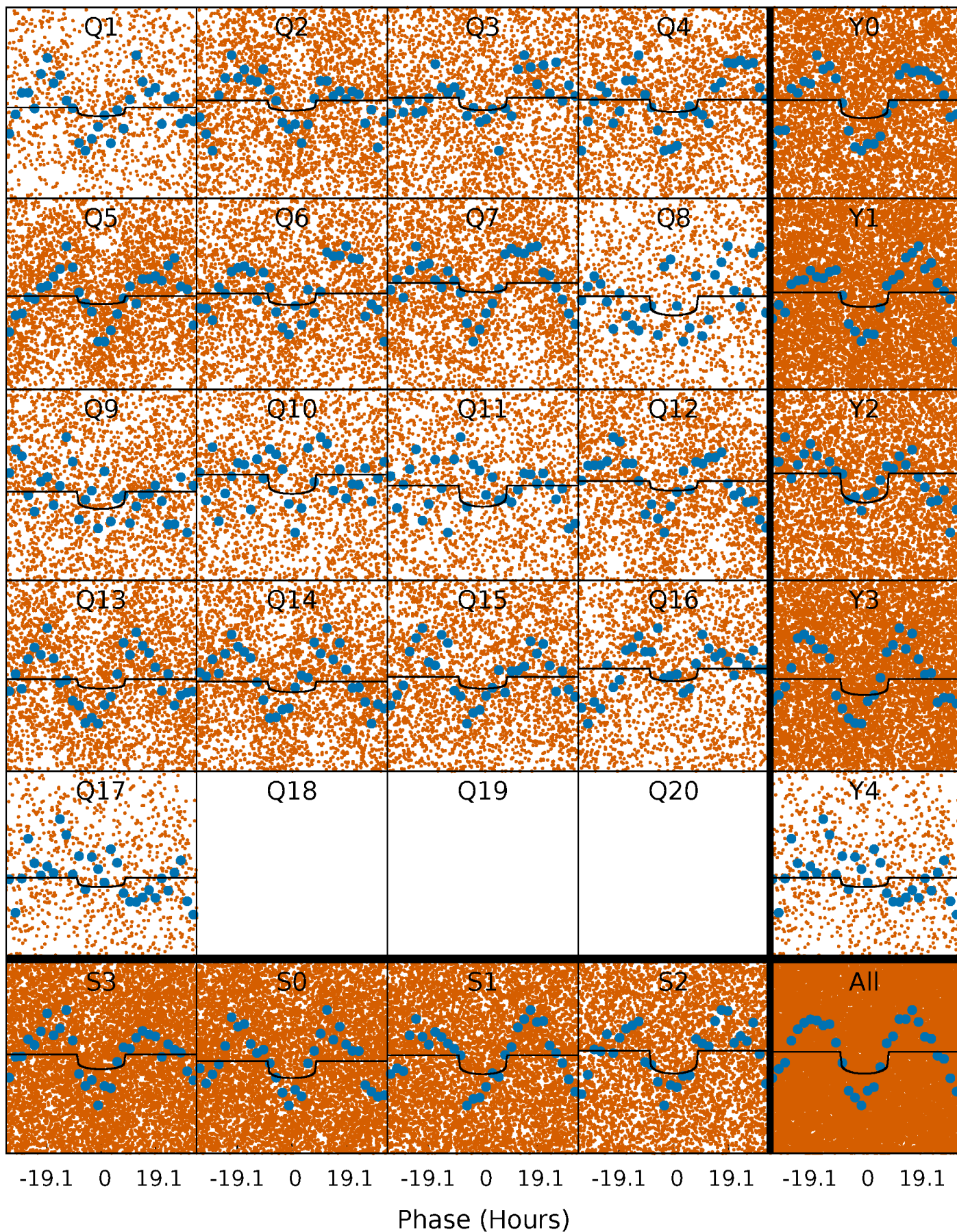
PDC Quarter-Phased Transit Curves

TCE 006676174-01 P= 2.920424 Days $T_0=134.356610$ (BKJD)



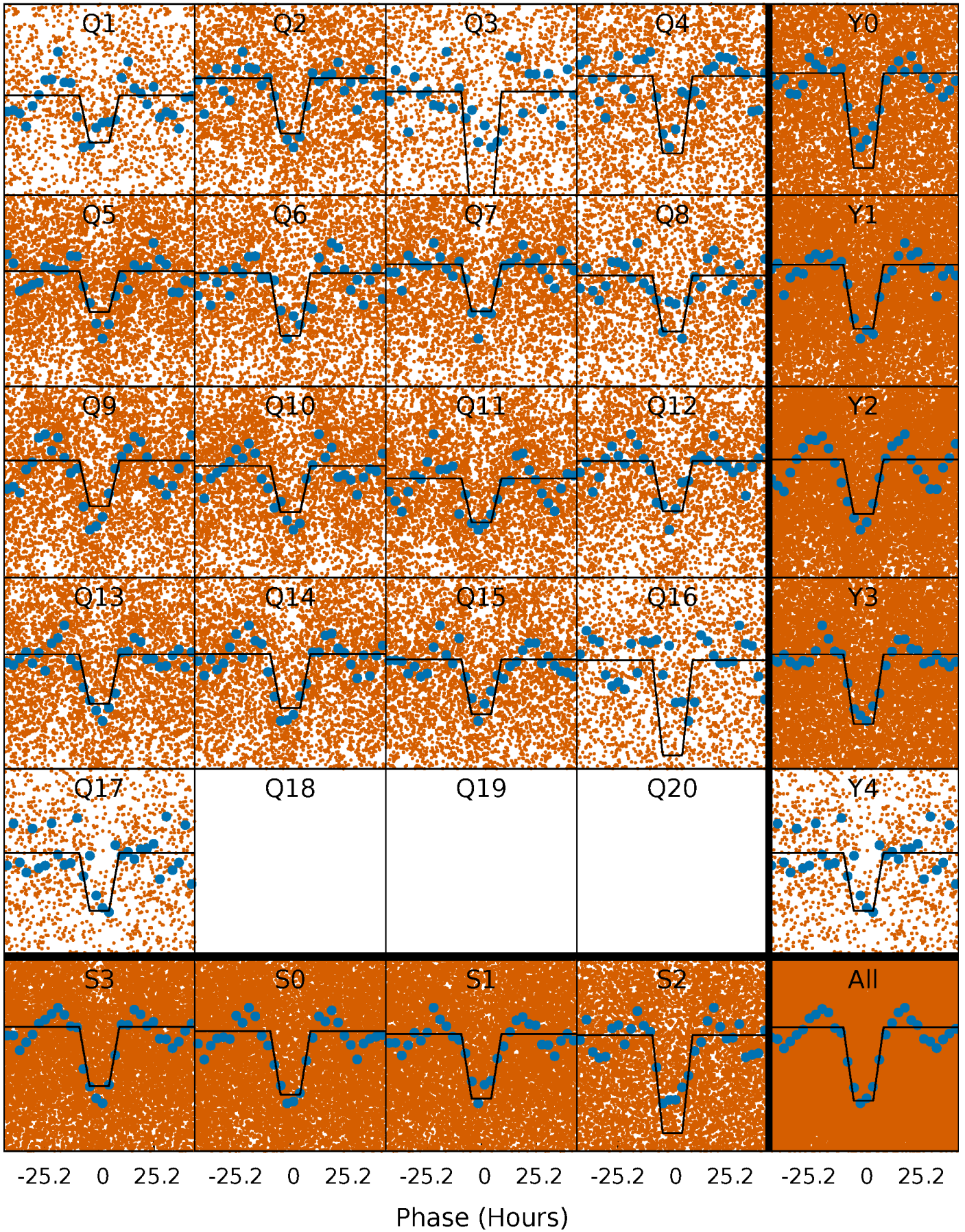
DV Quarter-Phased Transit Curves

TCE 006676174-01 P= 2.920424 Days $T_0=134.356610$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

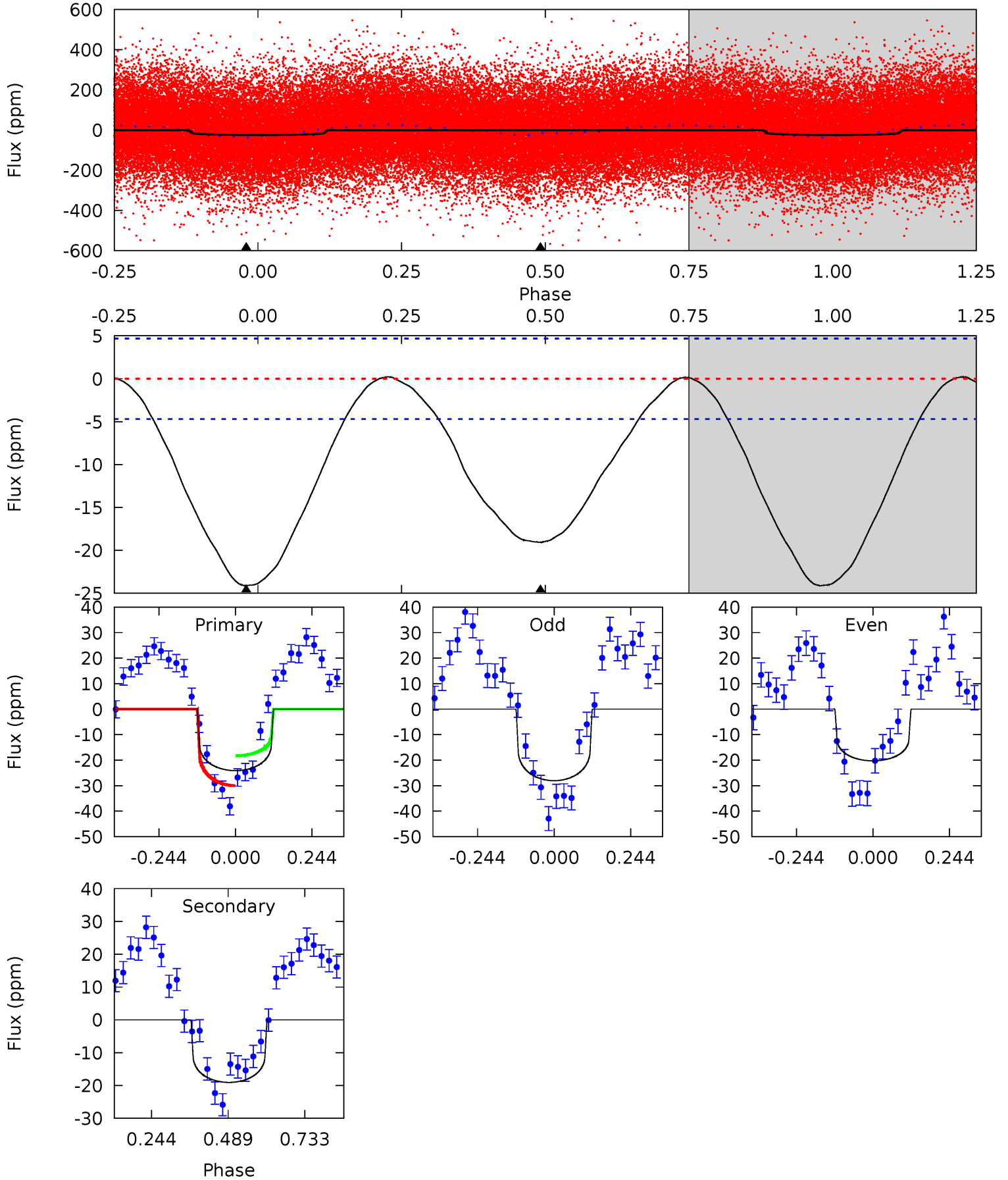
TCE 006676174-01 P= 2.920060 Days $T_0=134.373155$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-01, P = 2.920424 Days, E = 131.436186 Days

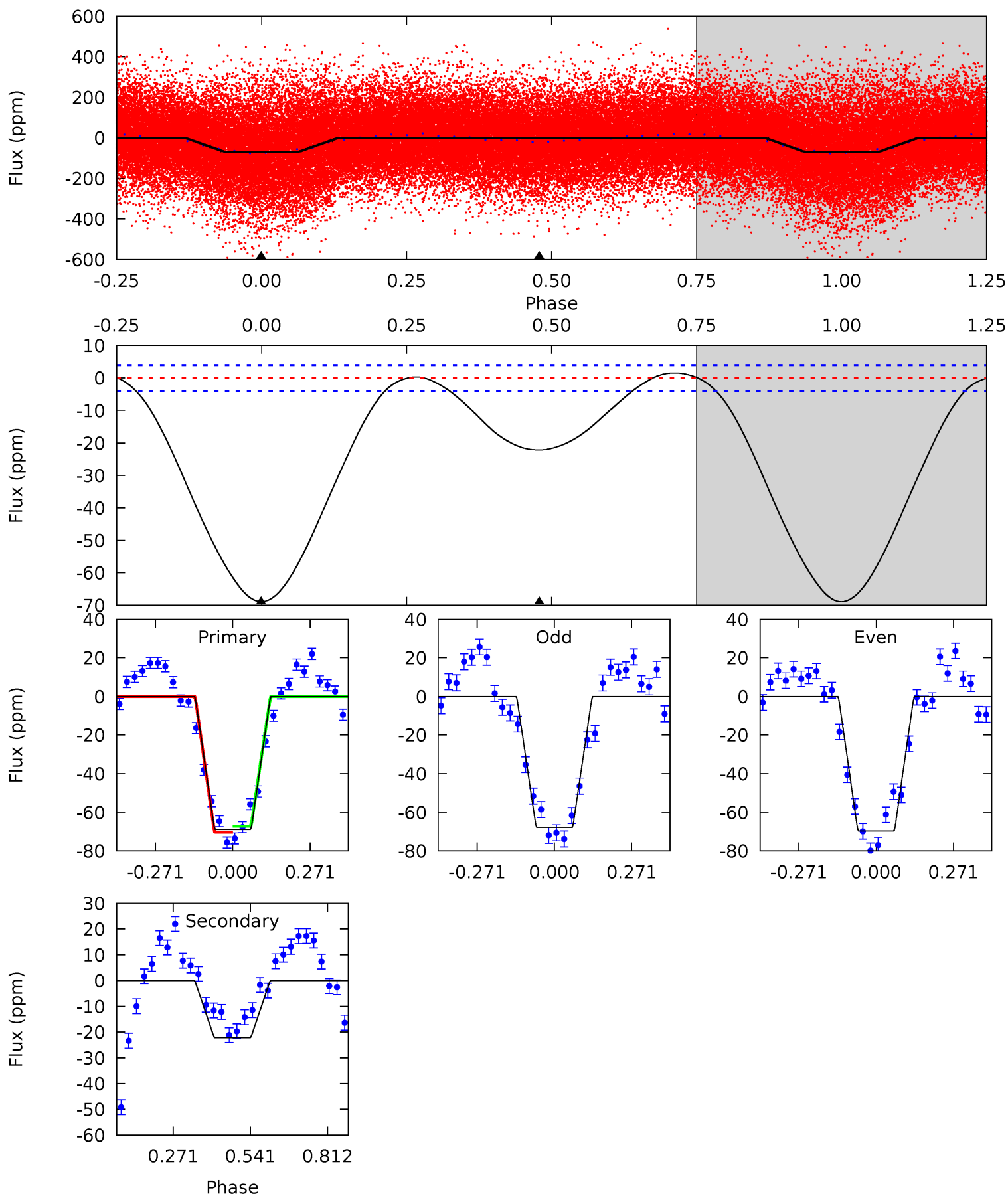
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	17.8	0	0	4.37	1.16	0.30	22.5	22.5	17.8	17.8	3.62	1.00	0.01	5.44



Alt Model-Shift Uniqueness Test

006676174-01, P = 2.920060 Days, E = 131.453095 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
75.4	24.3	0	0	4.35	1.10	1.33	75.4	75.4	24.3	24.3	1.03	1.08	0.02	1.60



Stellar Parameters For KIC 006676174

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 1	$1.37^{+0.45}_{-0.46}$	3648^{+197}_{-368}	7509^{+1772}_{-991}	13^{+16}_{-6}
Alt.	-22 ± 1	$3.11^{+0.67}_{-0.72}$	3648^{+209}_{-388}	5066^{+351}_{-299}	$2.804^{+1.521}_{-0.825}$

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

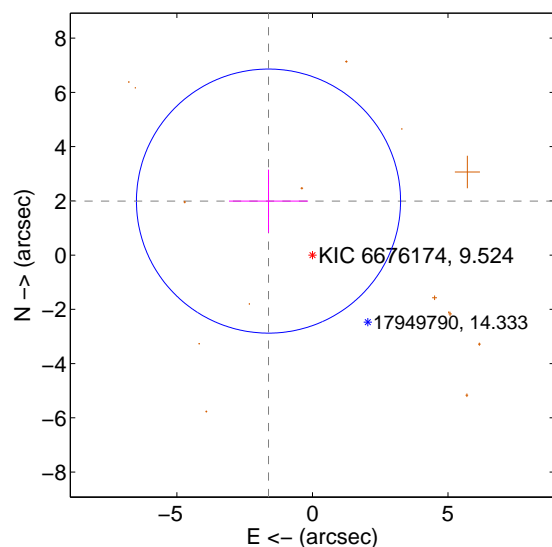
Supplemental centroid analysis for 006676174-01. **Kepler magnitude: 9.52.** Transit SNR 6.52

There are 1 quarters with good PRF difference image offsets

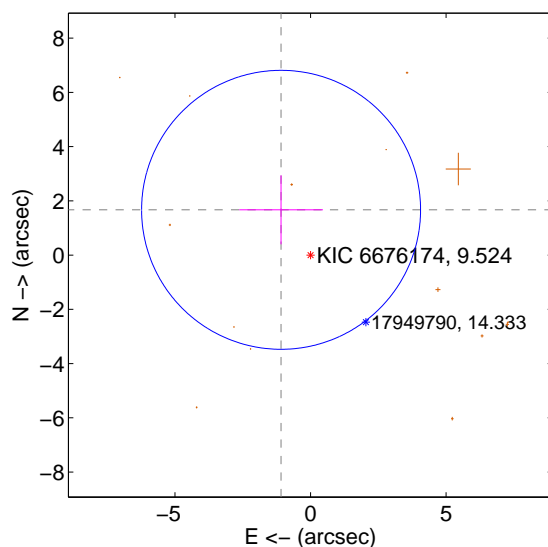
The OOT PRF centroid is offset from the target star catalog position by about 2.22 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.568 ± 1.623	1.58	1.620 ± 1.456	1.992 ± 1.160
PRF-fit source offset from KIC position	1.991 ± 1.715	1.16	1.086 ± 1.543	1.669 ± 1.270
photometric centroid source offset	2.86 ± 0.99	2.90	-2.17 ± 1.04	-1.86 ± 0.91

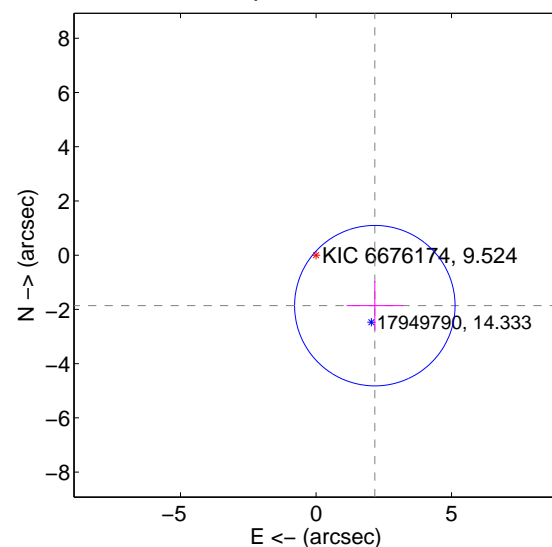
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

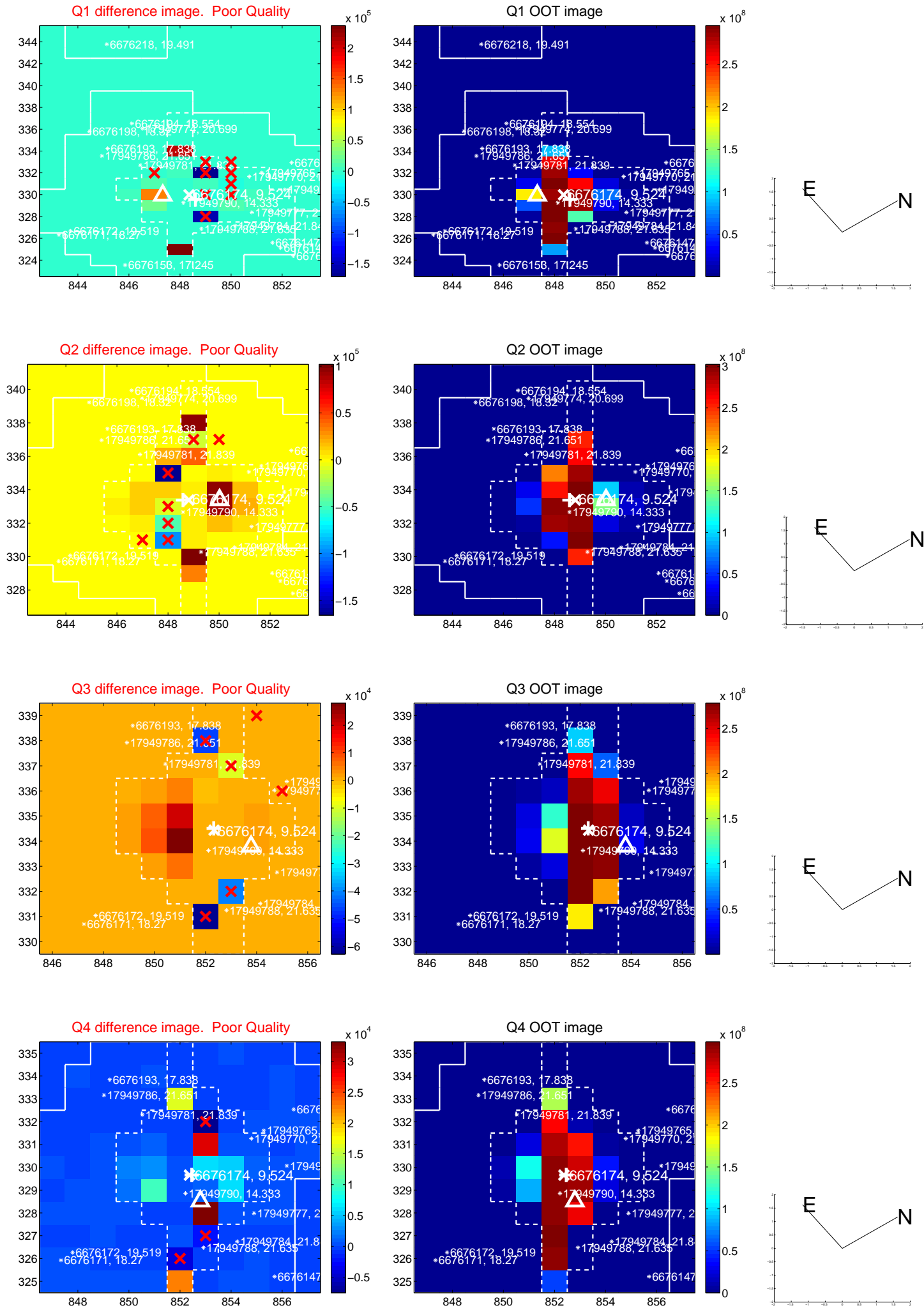


offset from photometric centroids

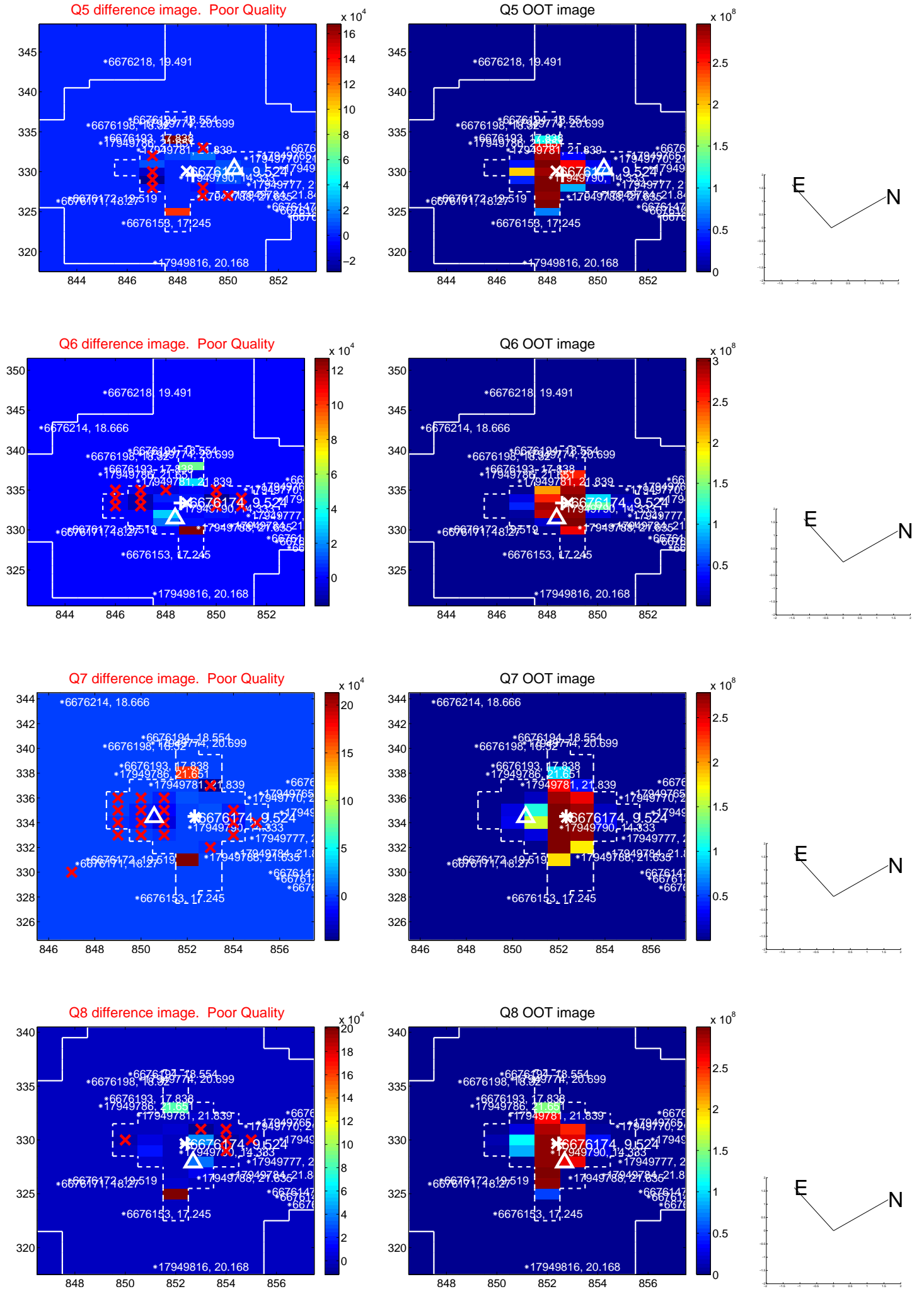


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

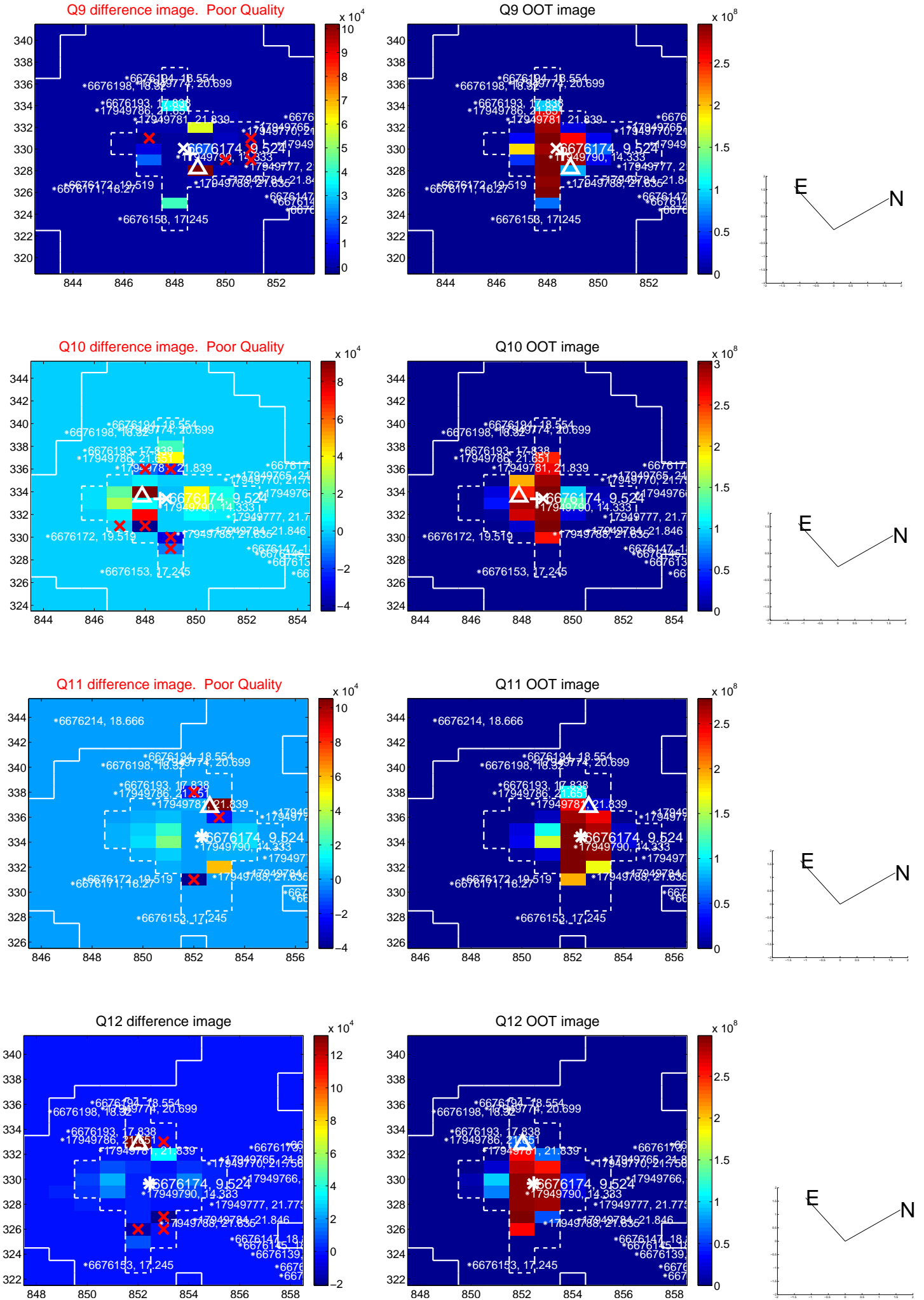
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



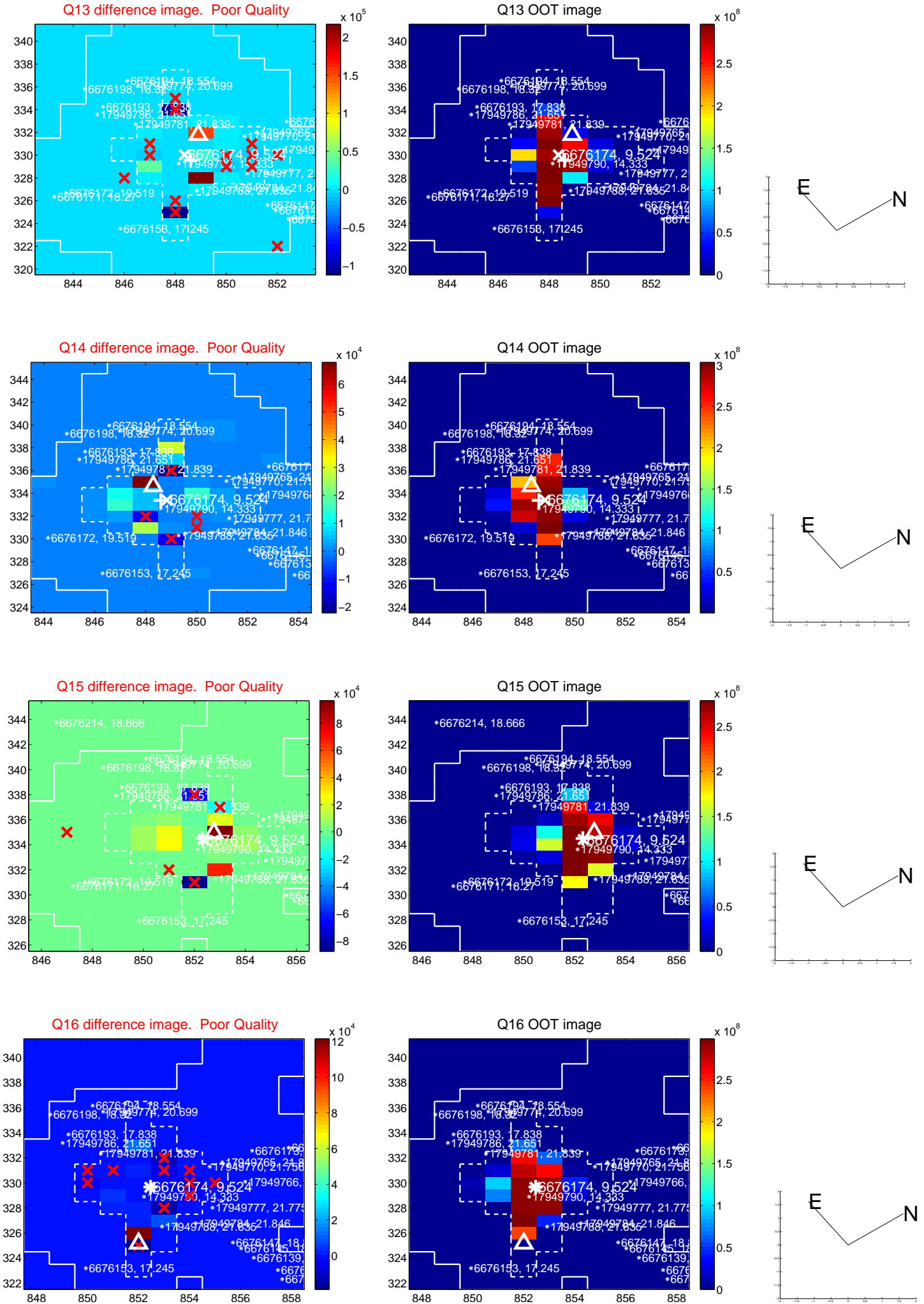
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



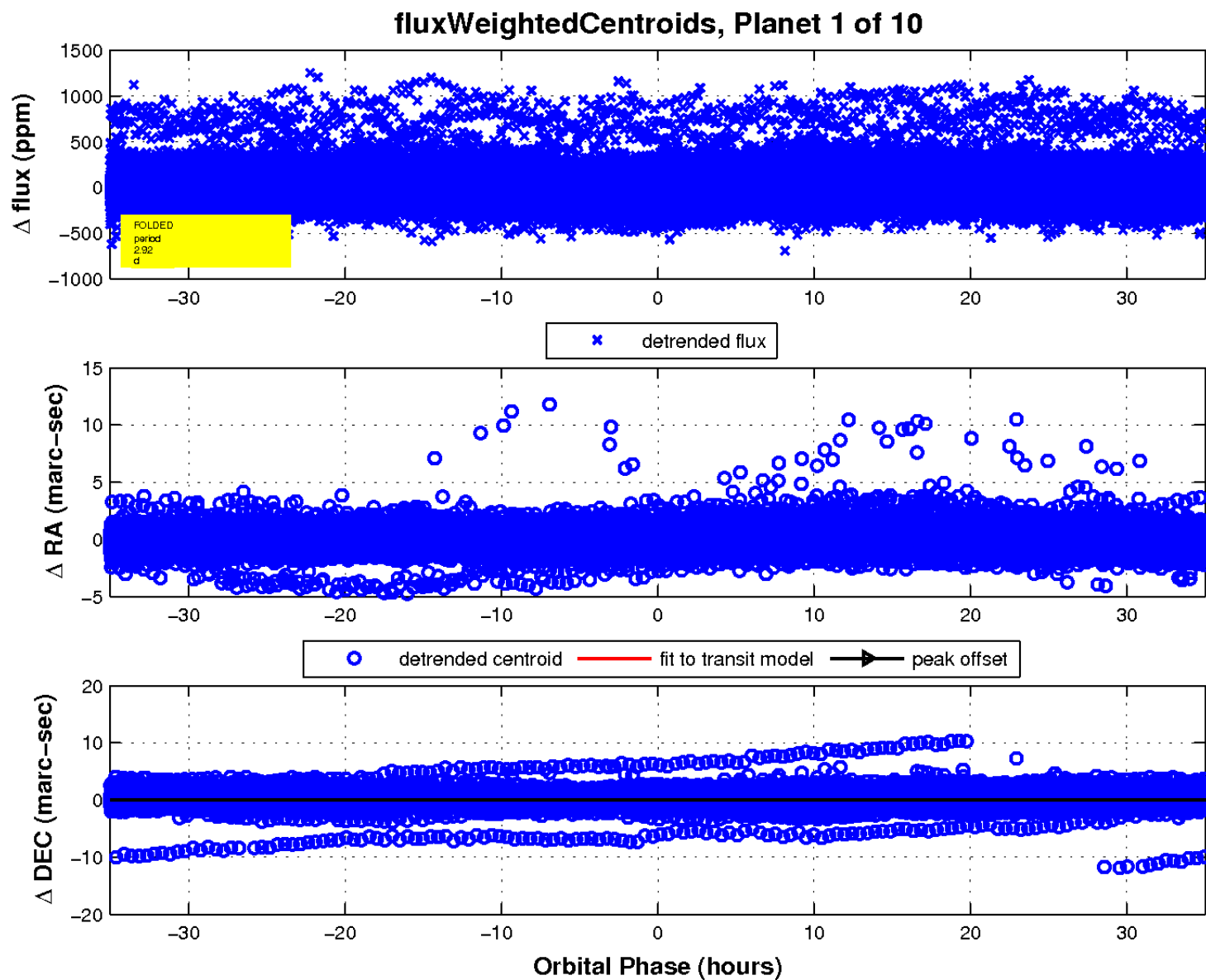
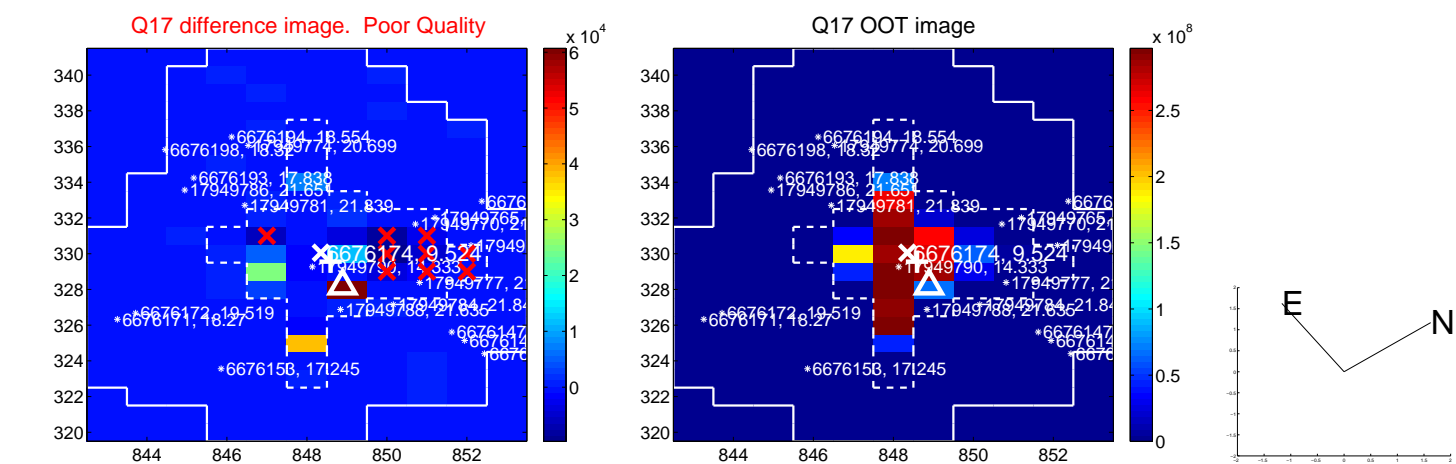
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

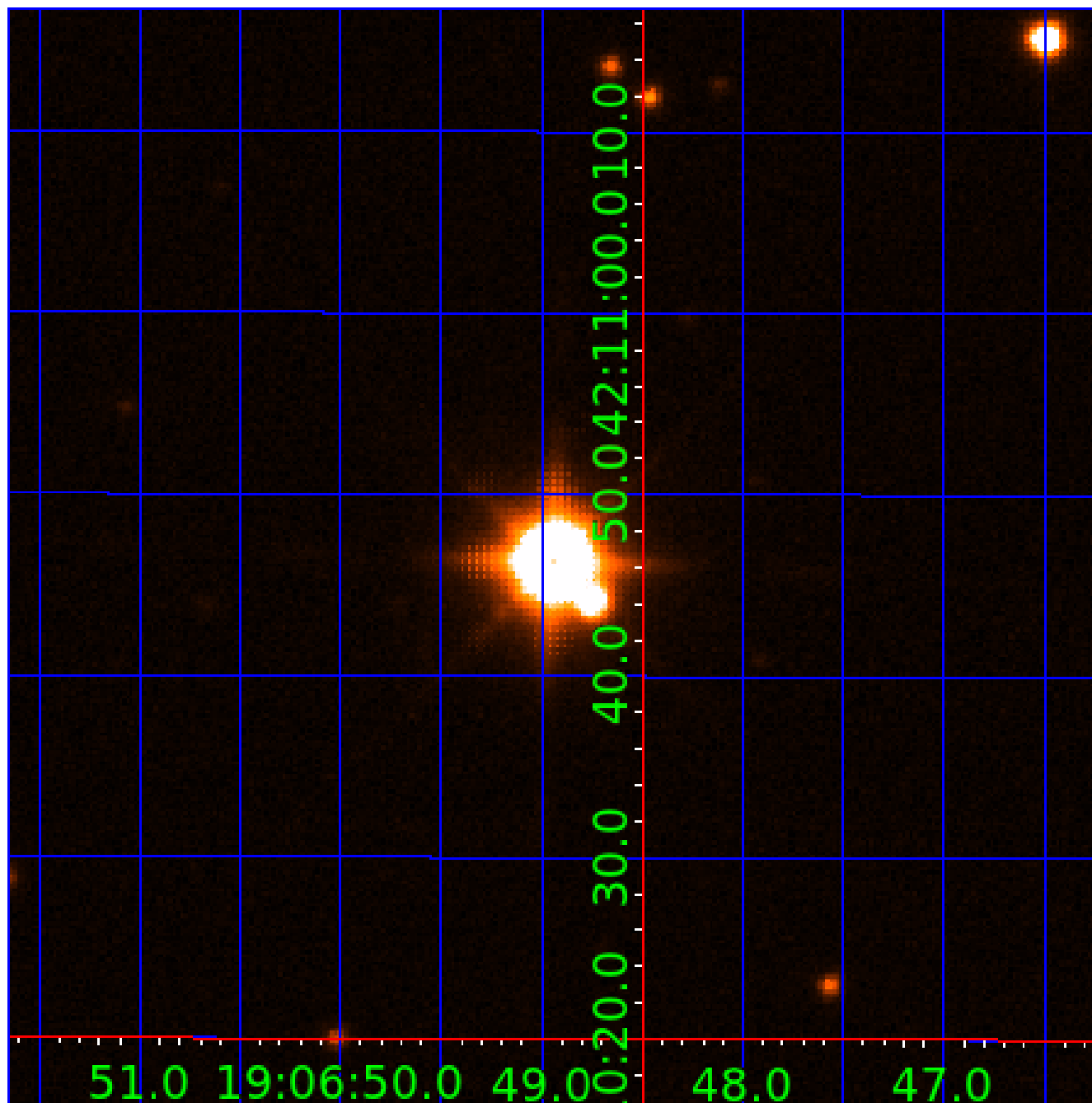


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



Q1-17 DR25 TCE Parameters

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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

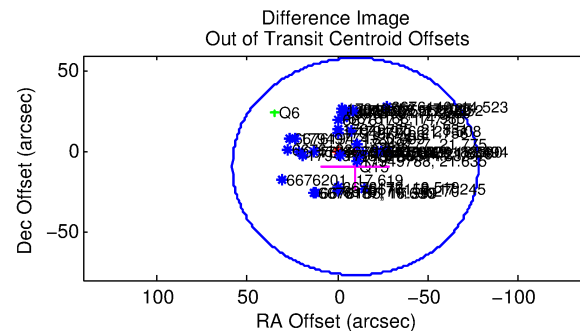
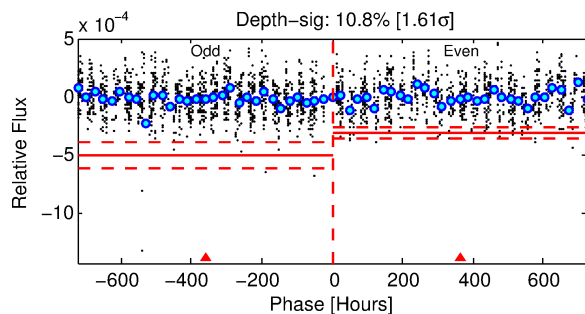
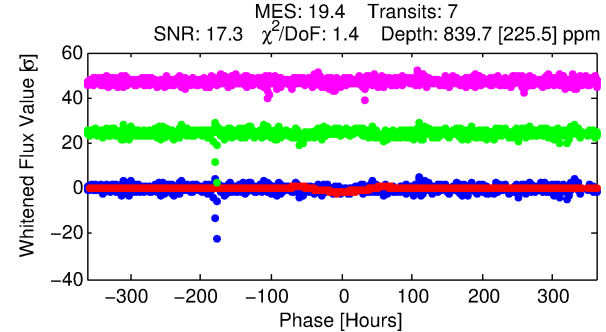
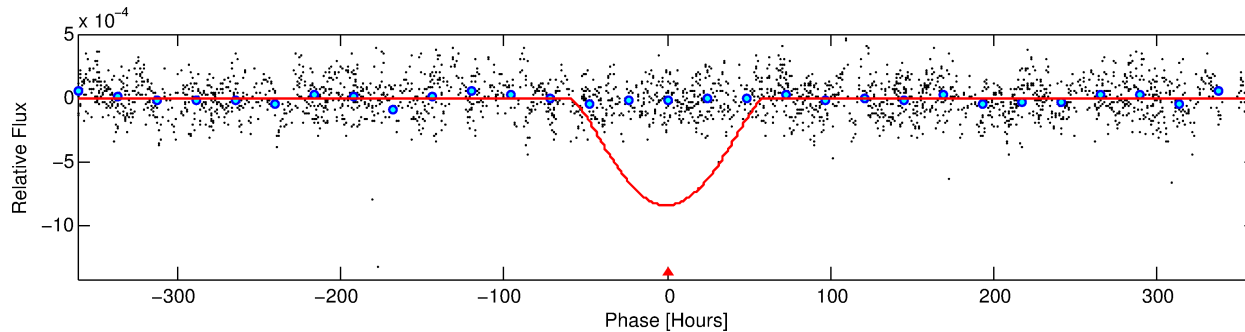
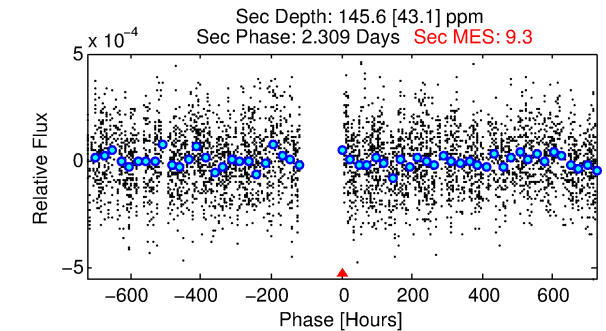
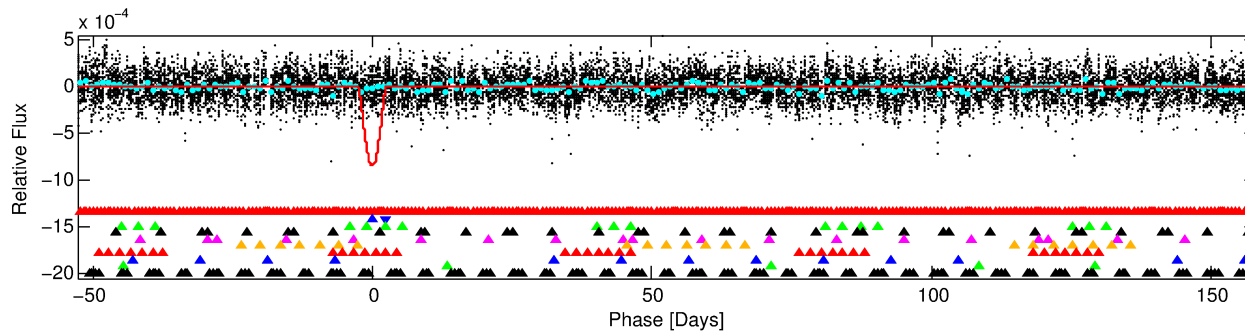
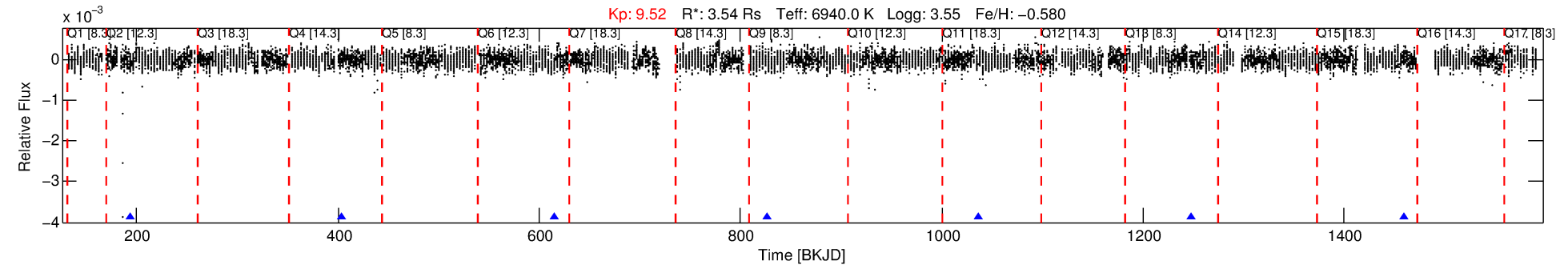
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-02

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 2 of 10 Period: 210.983 d



DV Fit Results:

Period = 210.98298 [0.23448] d
Epoch = 193.1363 [0.3782] BKJD
Rp/R* = 0.0483 [0.0612]
a/R* = 4.41 [1.67]
b = 1.00 [0.09]
Seff = 39.29 [24.81]
Teq = 638 [101] K
Rp = 18.67 [24.93] Re
a = 0.8149 [0.3211] AU
Ag = 152.55 [400.57] [0.38 sigma]
Teffp = 3469 [2215] K [1.28 sigma]

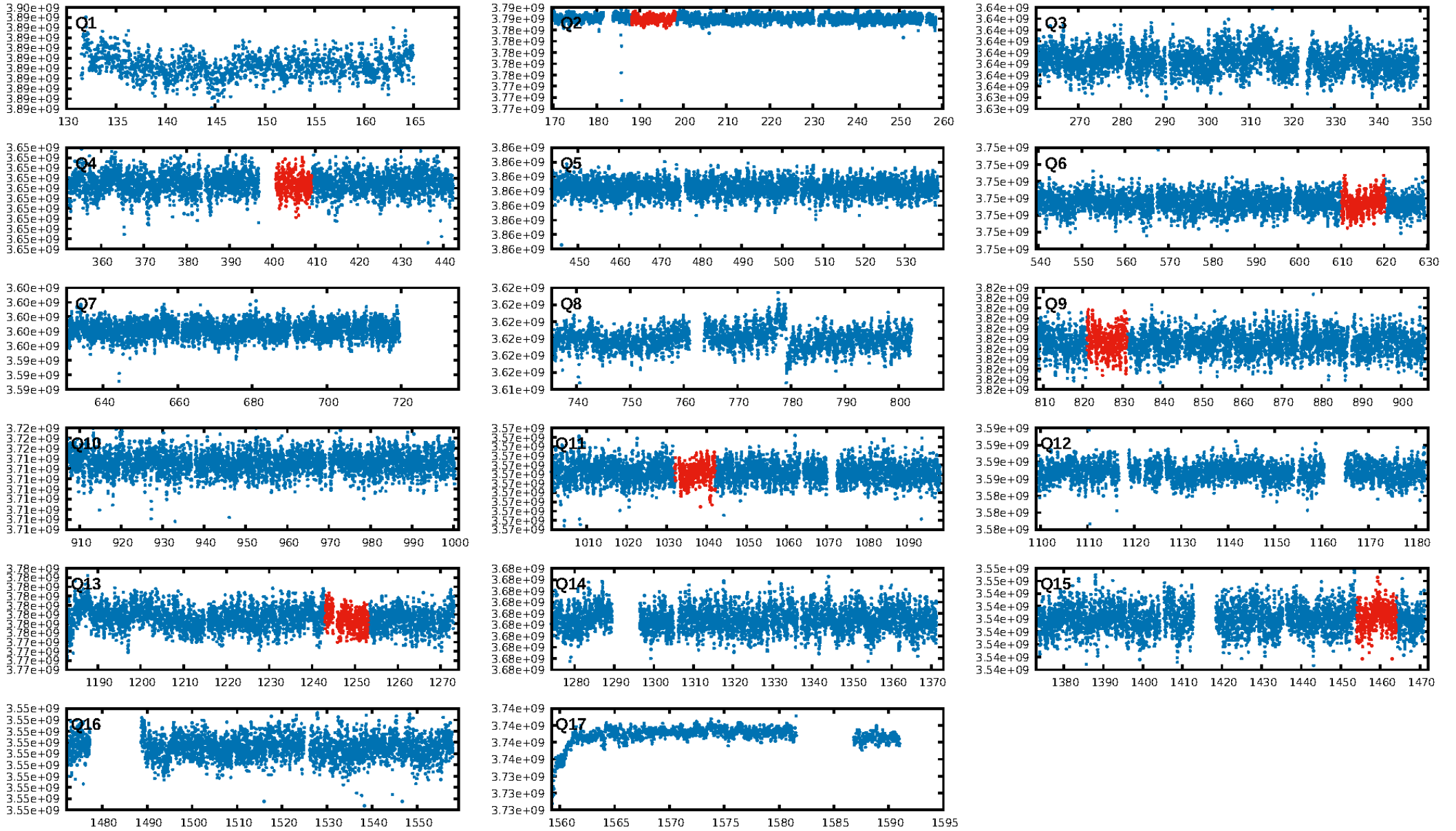
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [19.77 sigma]
LongPeriod-sig: 100.0% [11.46 sigma]
ModelChiSquare2-sig: 1.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.092 arcsec [8.59 sigma]
OotOffset-rm: 13.582 arcsec [0.60 sigma]
KicOffset-rm: 13.383 arcsec [0.97 sigma]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.00 [0/3]

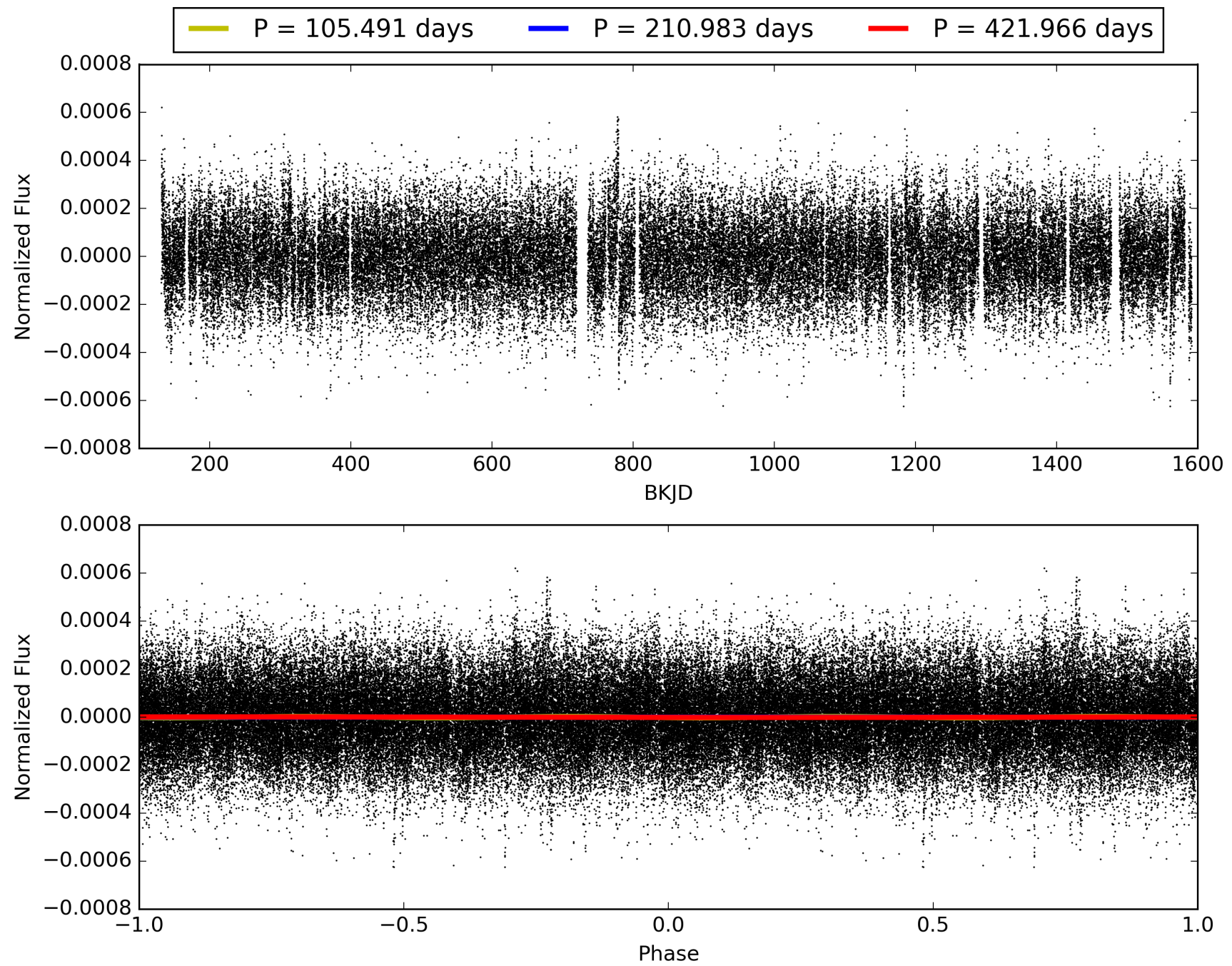
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:14:39 Z

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

TCE 006676174-02, PDC Light Curves

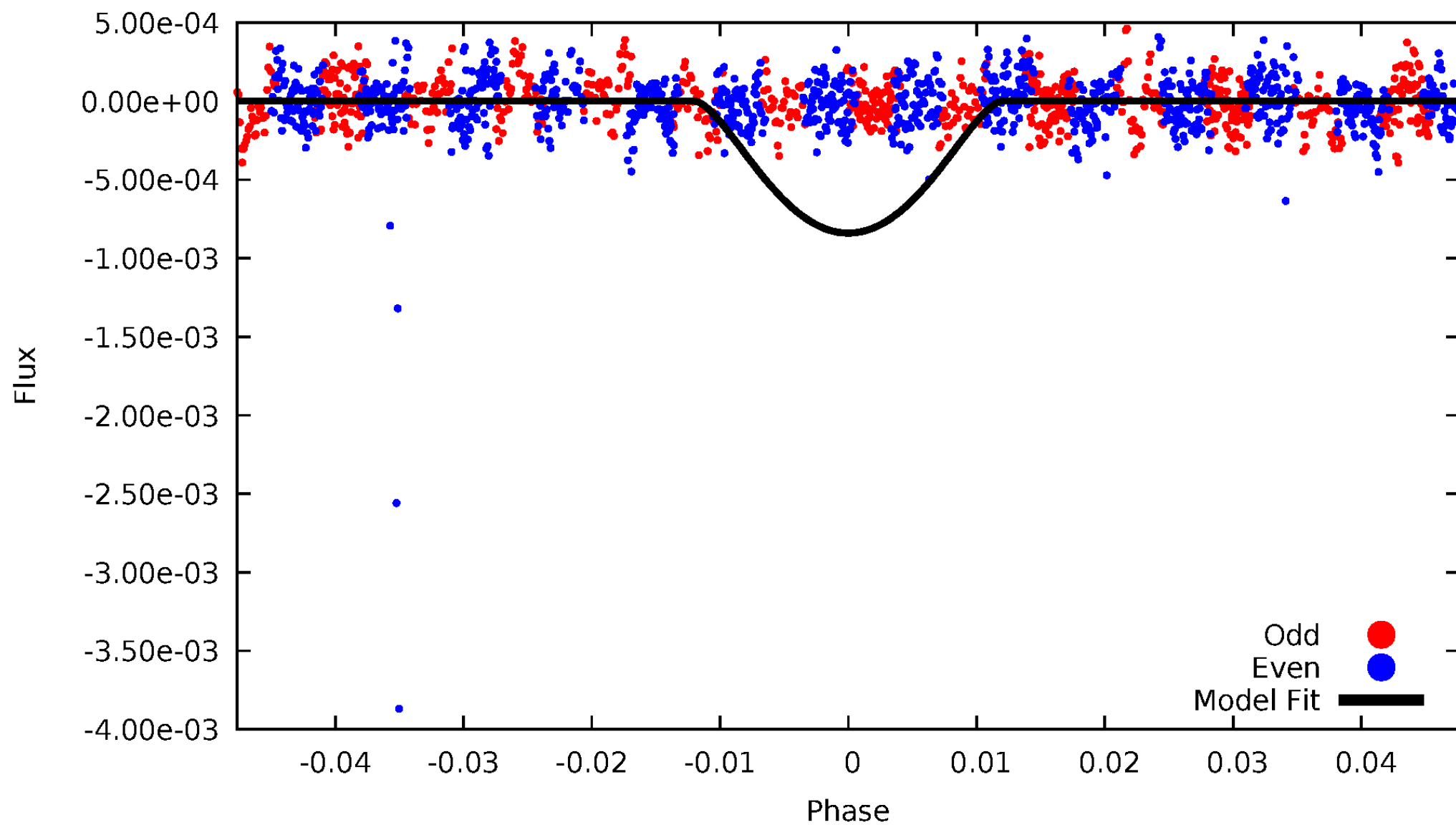


TCE 006676174-02



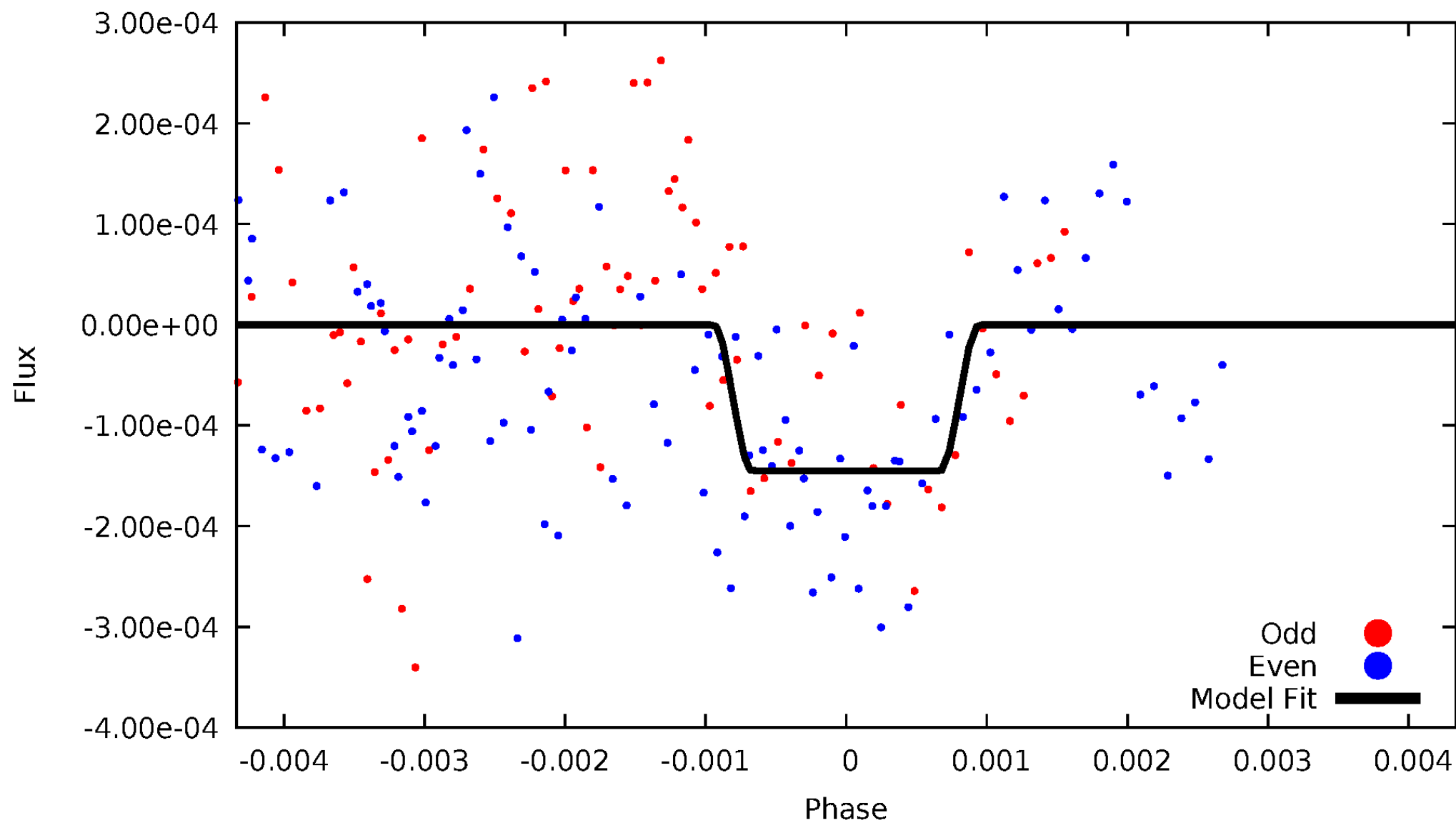
DV Odd/Even

TCE 006676174-02



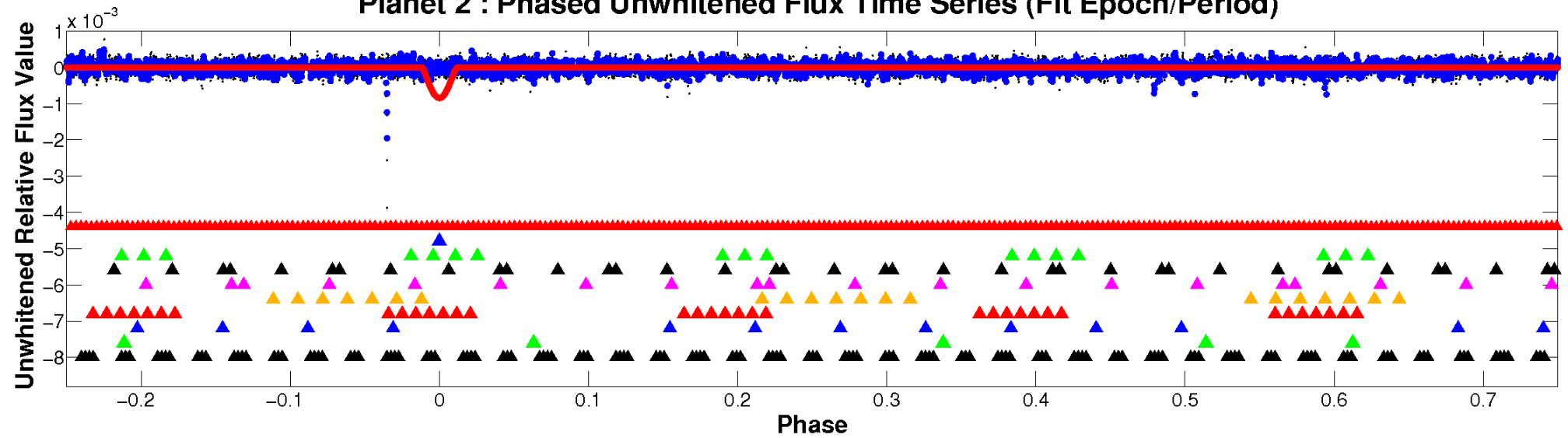
ALT Odd/Even

TCE 006676174-02

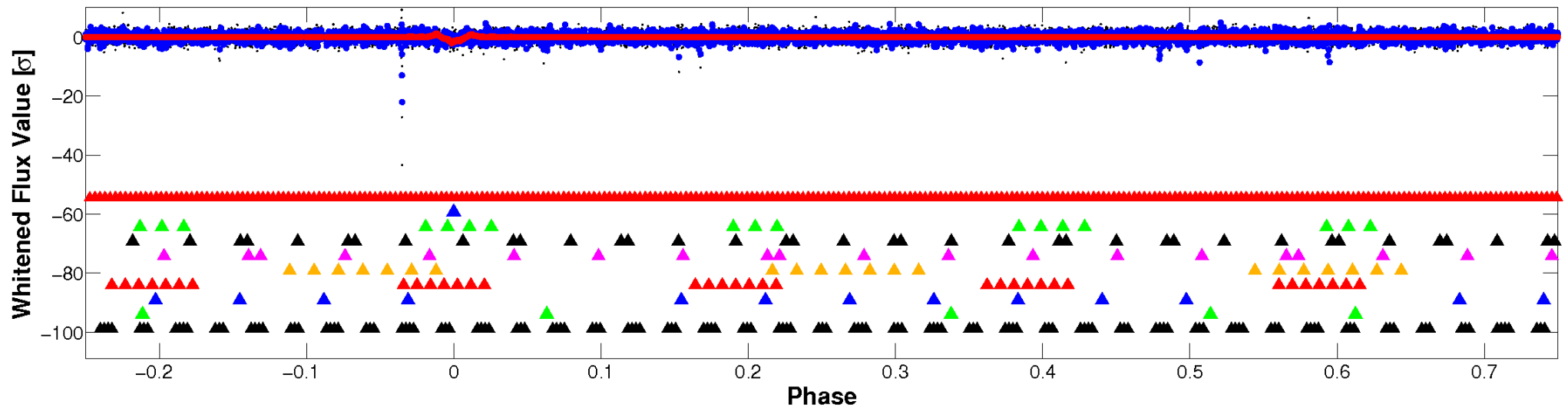


Non-Whitened Vs. Whitened Light Curve

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

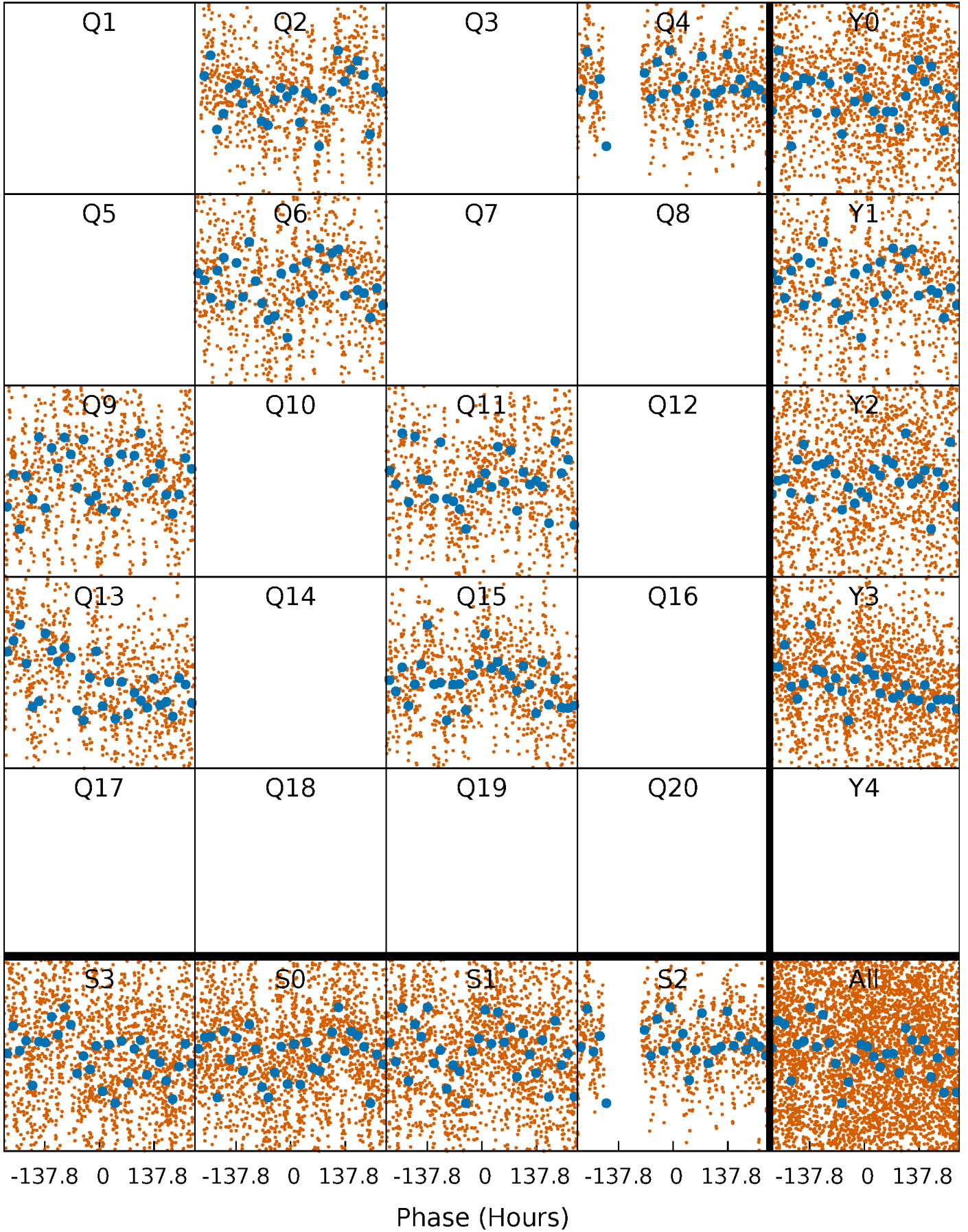


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



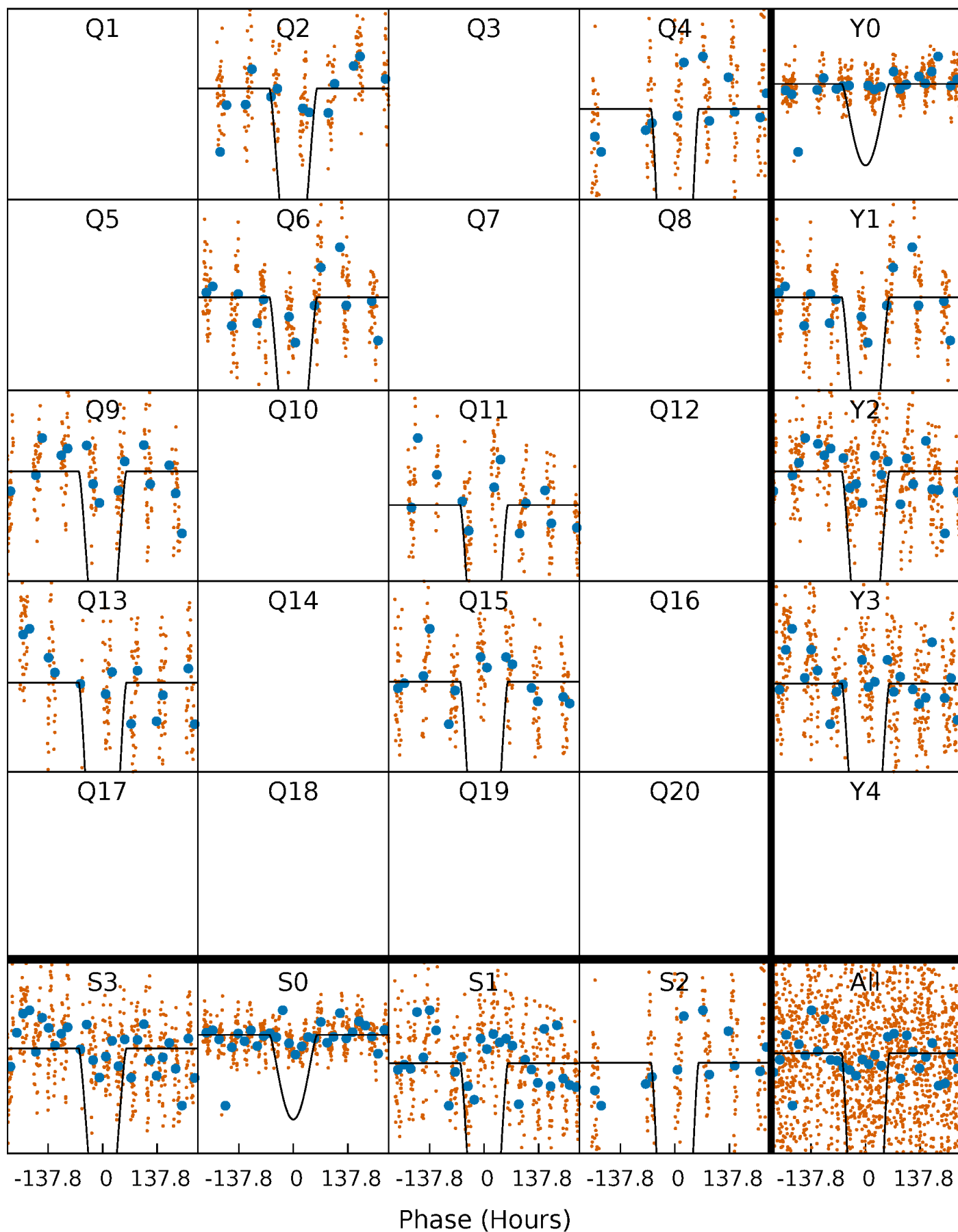
PDC Quarter-Phased Transit Curves

TCE 006676174-02 P=210.982983 Days $T_0=193.136271$ (BKJD)



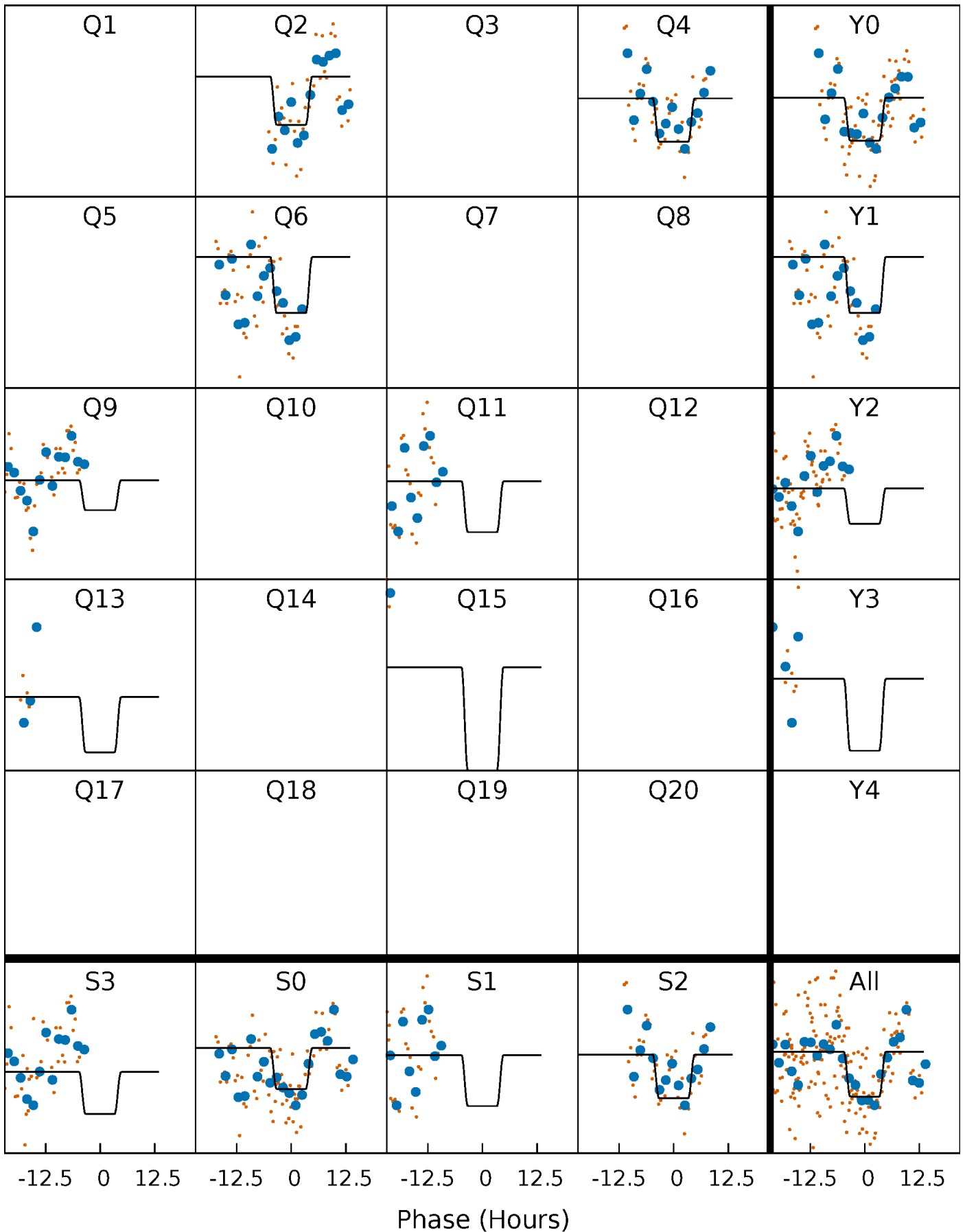
DV Quarter-Phased Transit Curves

TCE 006676174-02 P=210.982983 Days $T_0=193.136271$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

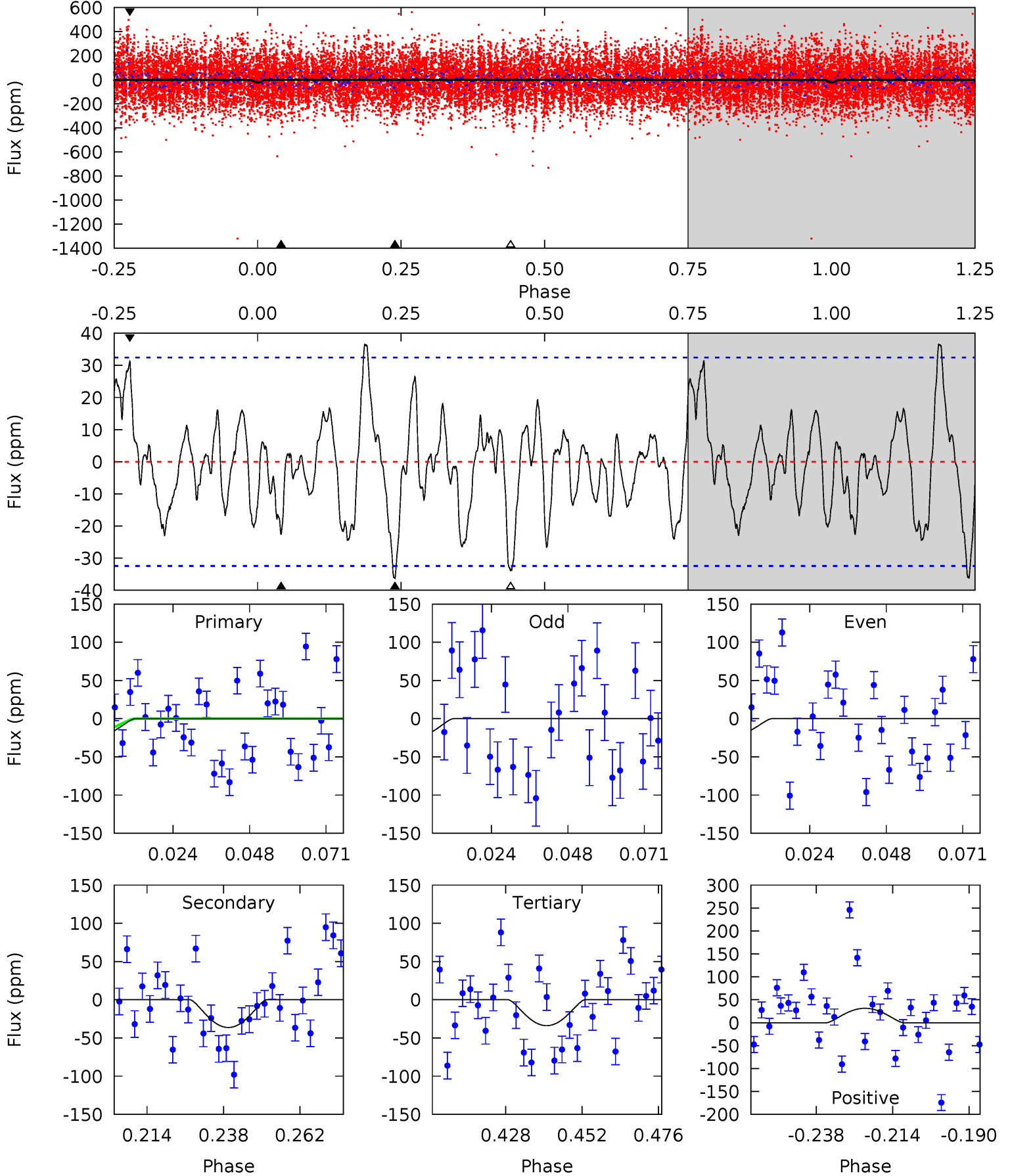
TCE 006676174-02 P=210.513346 Days $T_0=194.050259$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-02, P = 210.982983 Days, E = 193.136271 Days

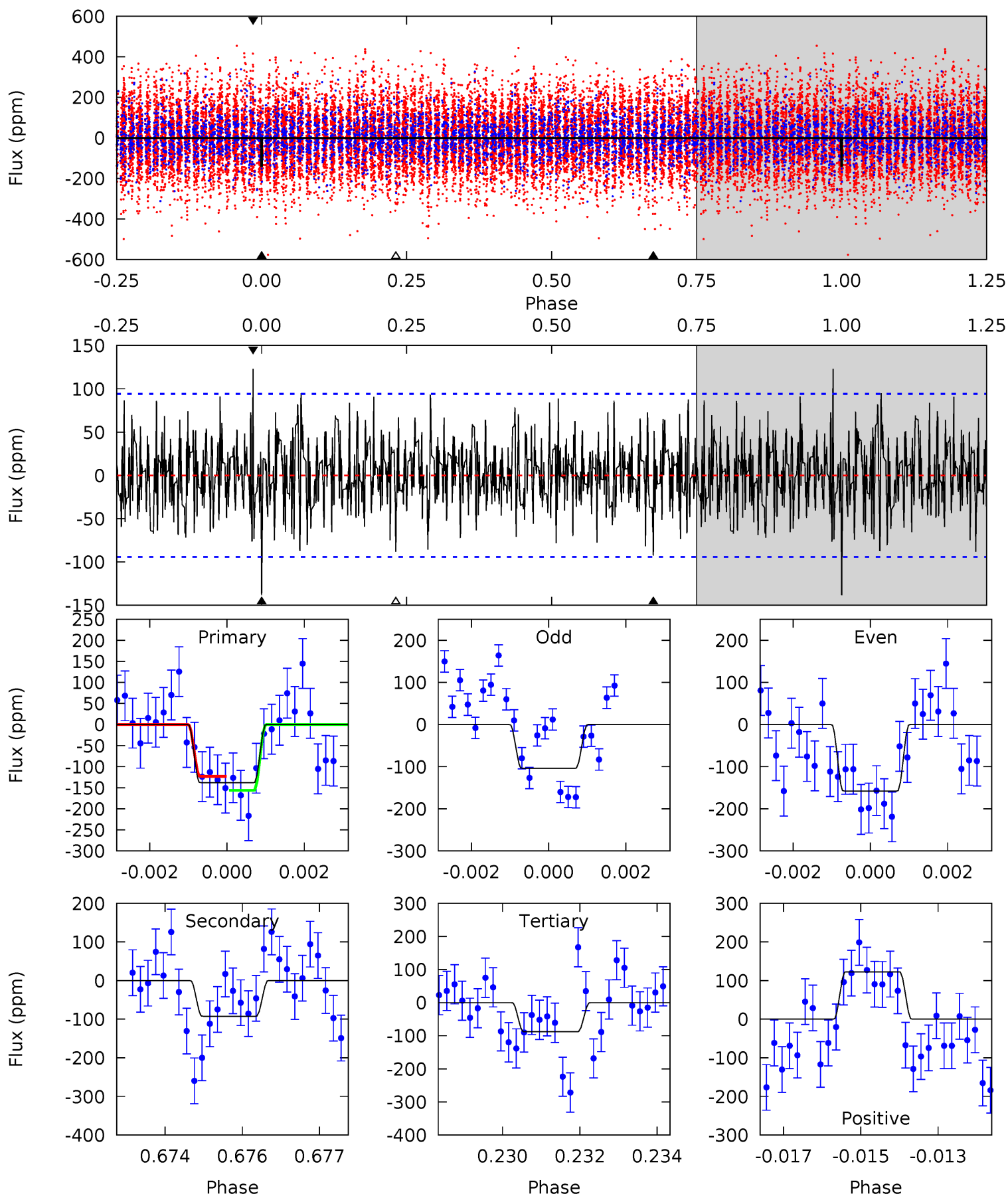
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.36	5.43	5.07	4.69	4.86	2.26	1.94	-1.71	-1.33	0.36	0.74	0.18	1.28	0.50	1.20



Alt Model-Shift Uniqueness Test

006676174-02, P = 210.513346 Days, E = 194.050259 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.83	5.24	4.99	6.96	5.34	3.11	1.76	2.85	0.87	0.26	-1.71	1.50	0.60	0.47	0.94



Stellar Parameters For KIC 006676174

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-36 ± 7	$23.75^{+20.27}_{-15.81}$	874^{+51}_{-83}	2791^{+1142}_{-384}	25^{+194}_{-18}
Alt.	-93 ± 18	$16.59^{+17.99}_{-11.58}$	875^{+47}_{-86}	3574^{+2028}_{-679}	121^{+1166}_{-93}

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 $A_{obs} \gg 1.0$

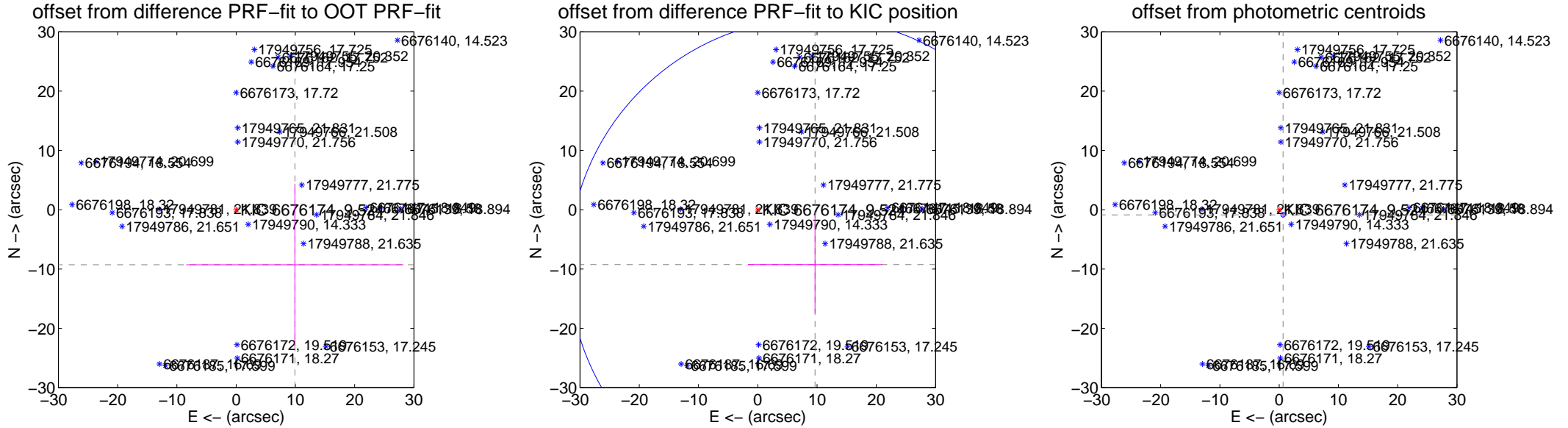
DV Centroid Data

Supplemental centroid analysis for 006676174-02. **Kepler magnitude: 9.52.** Transit SNR 17.31

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.582 ± 22.715	0.60	-9.916 ± 18.324	-9.281 ± 13.663
PRF-fit source offset from KIC position	13.383 ± 13.851	0.97	-9.667 ± 11.333	-9.255 ± 8.192
photometric centroid source offset	1.09 ± 0.13	8.59	-0.66 ± 0.14	-0.87 ± 0.12



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

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

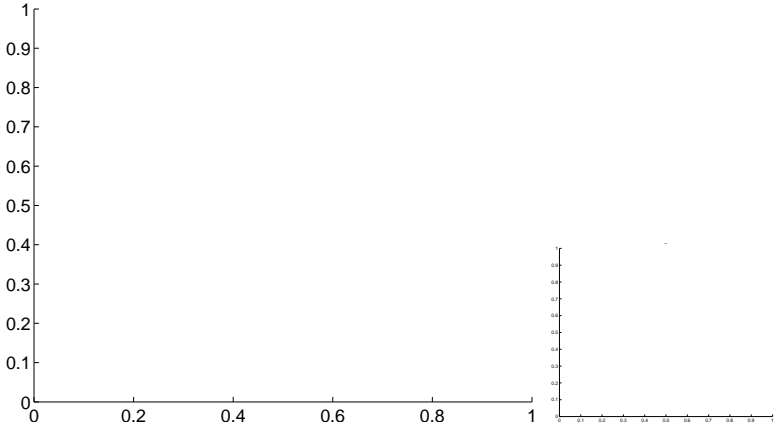


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

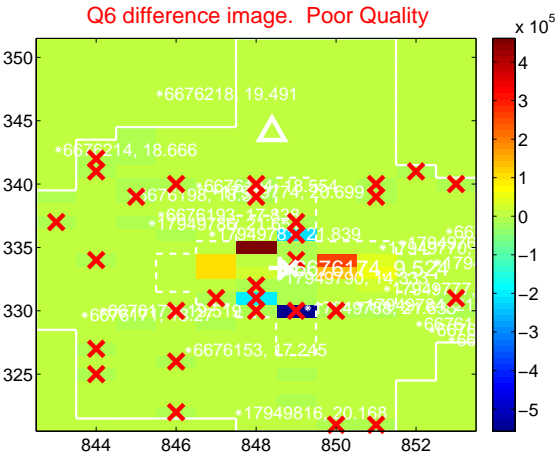
Q5 no difference image



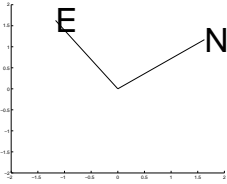
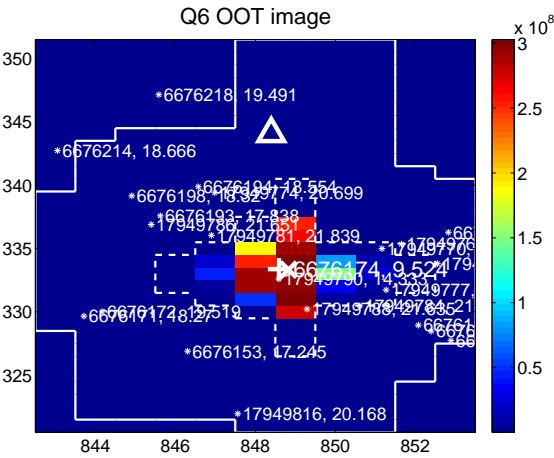
Q5 no OOT image



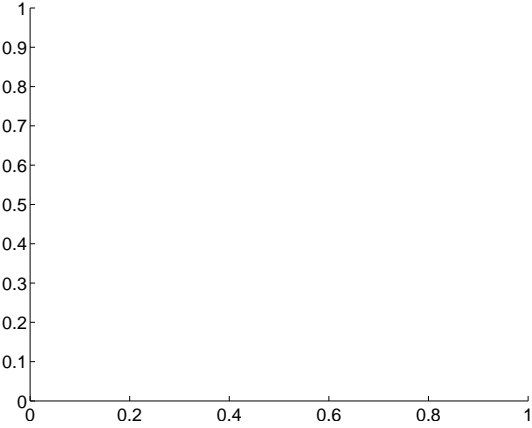
Q6 difference image. Poor Quality



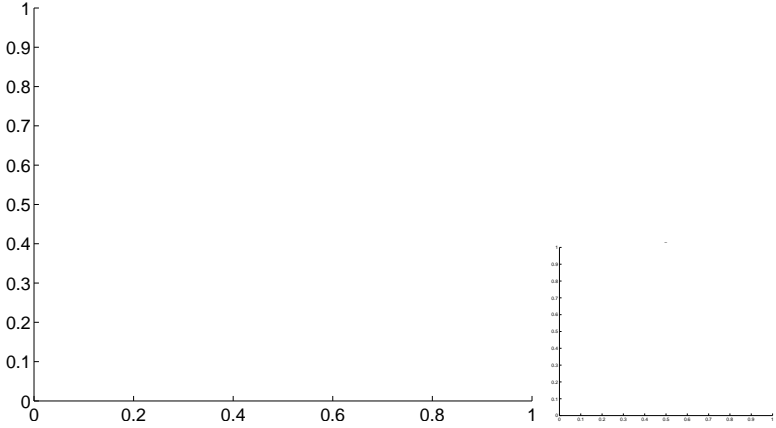
Q6 OOT image



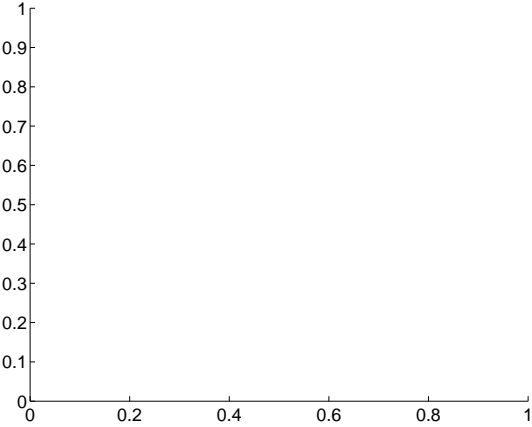
Q7 no difference image



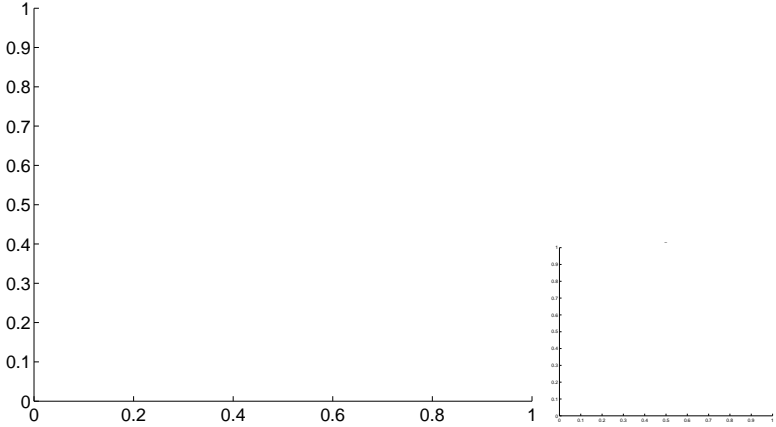
Q7 no OOT image



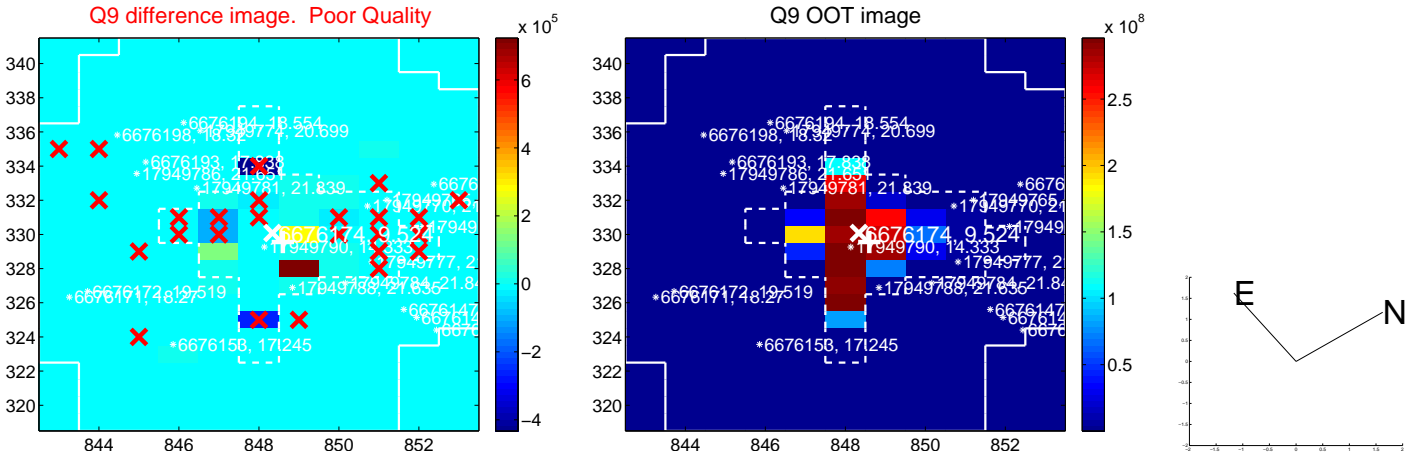
Q8 no difference image



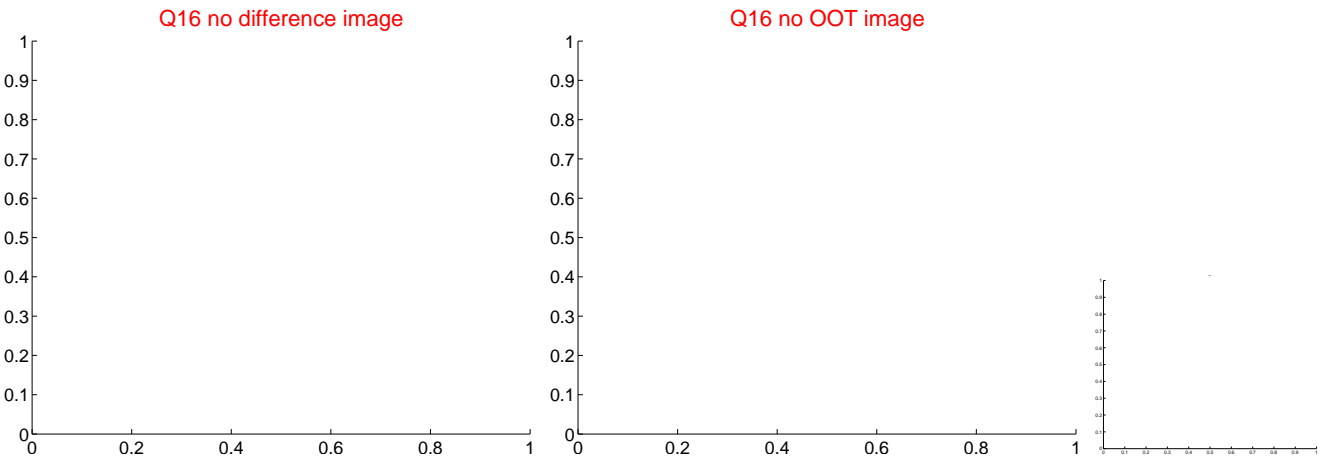
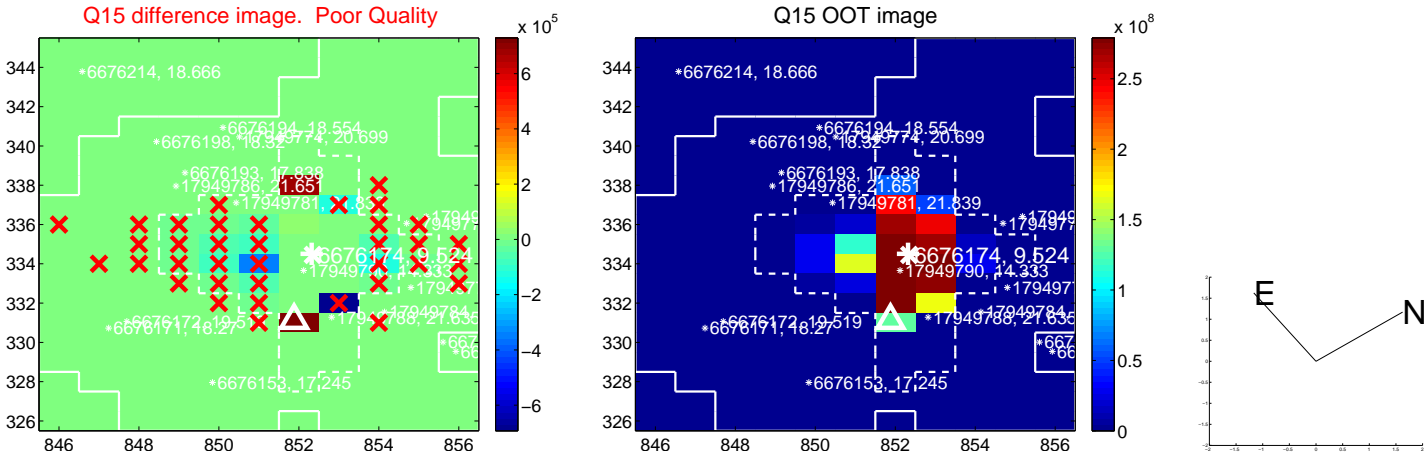
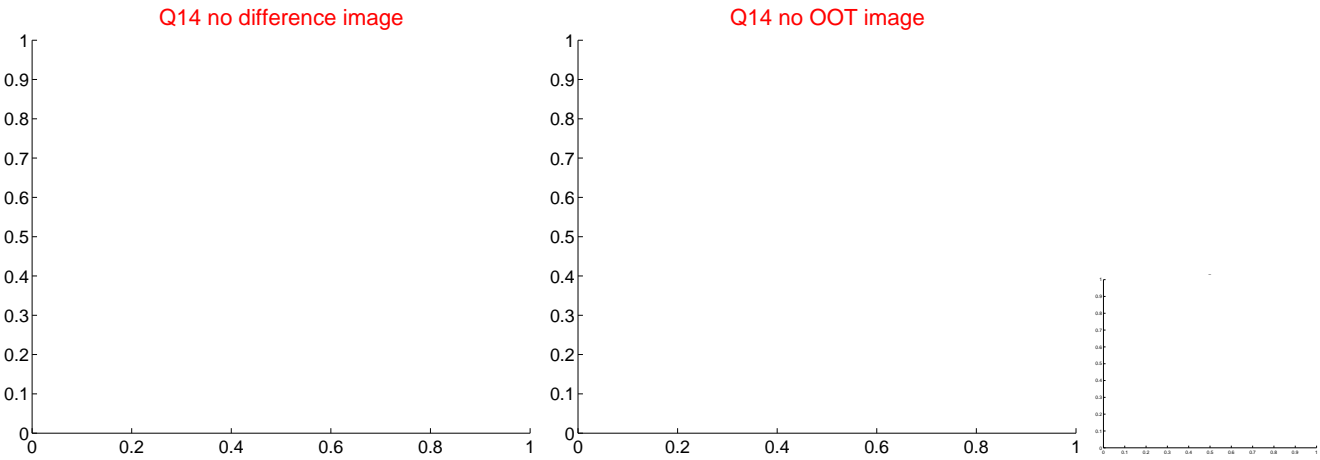
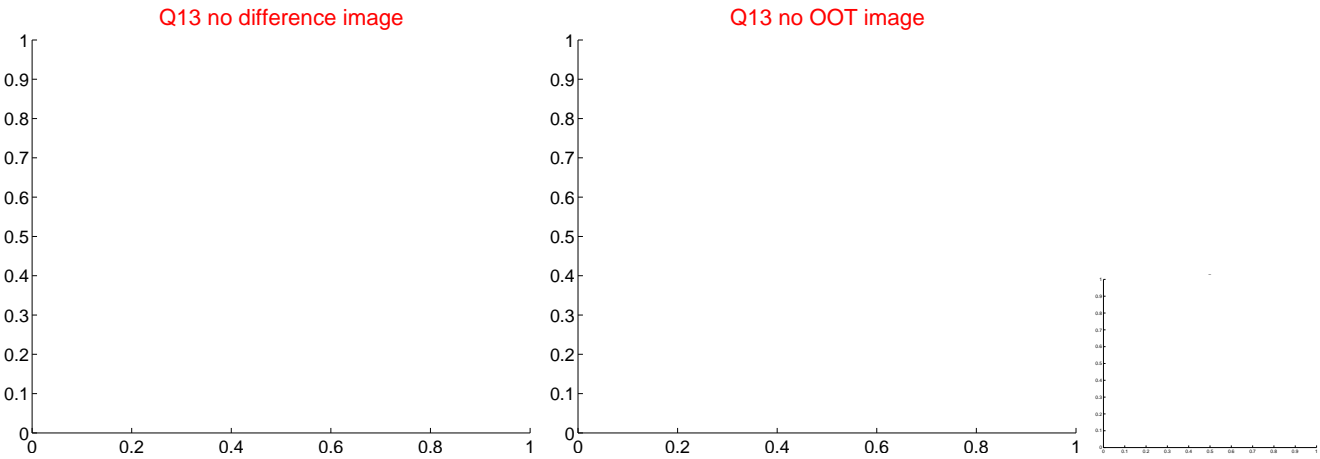
Q8 no OOT image



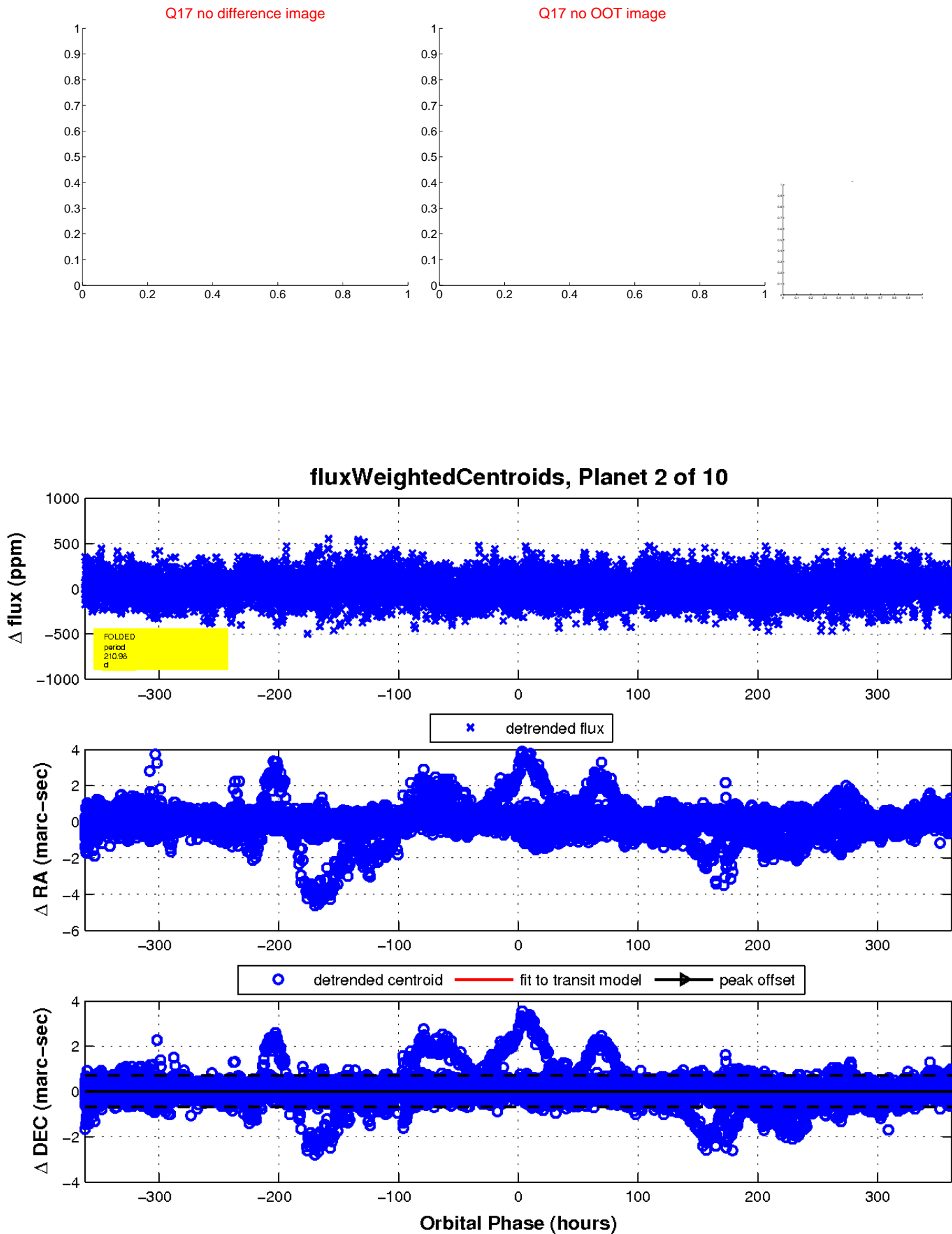
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

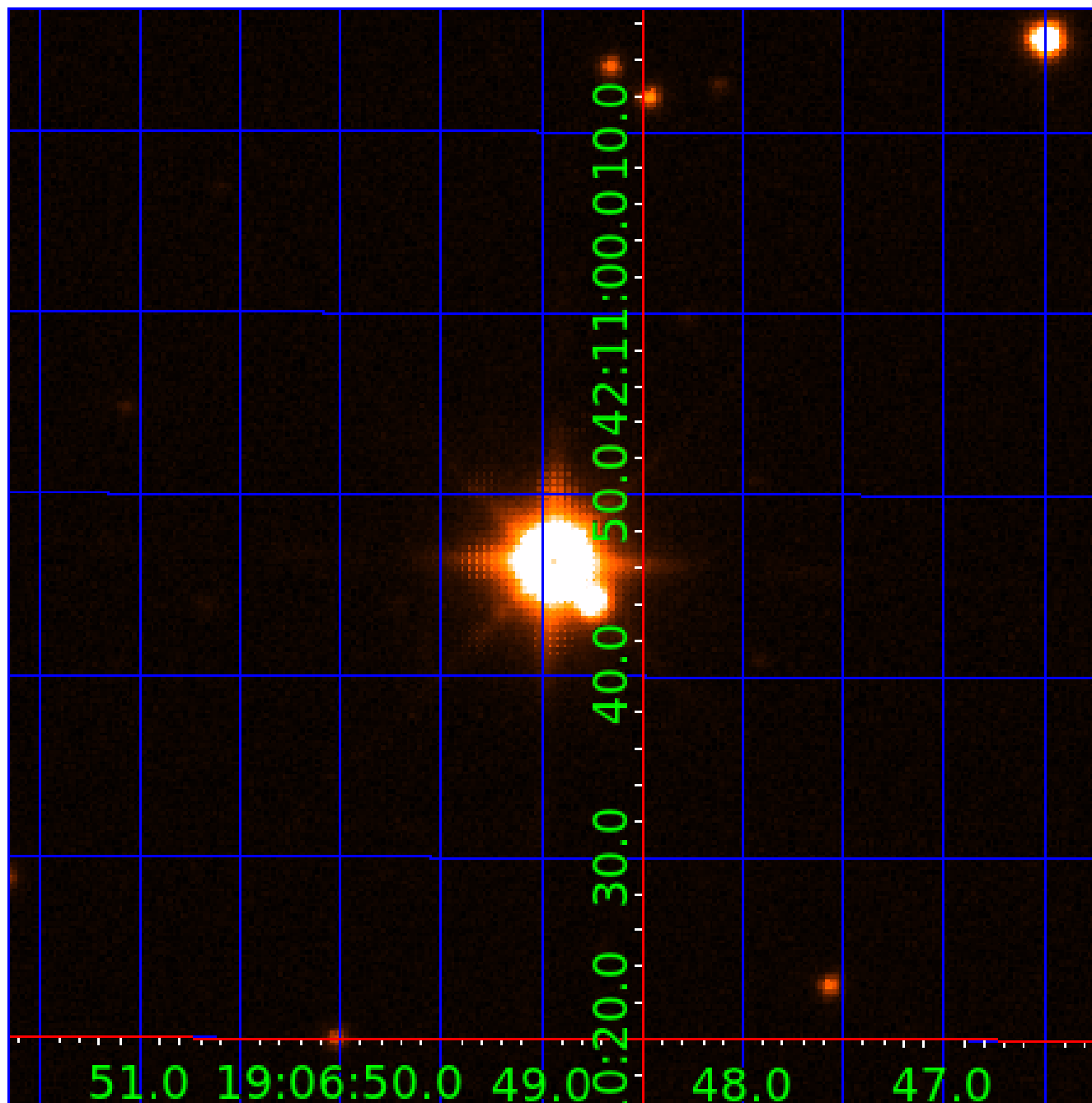


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

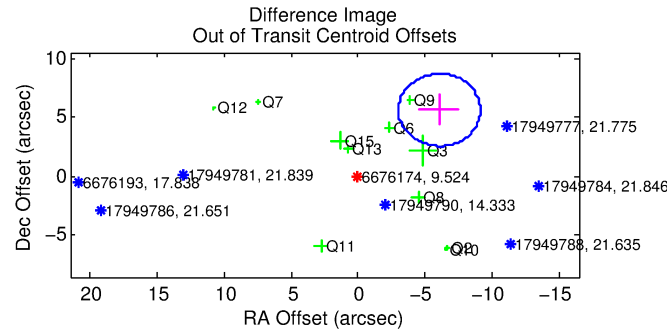
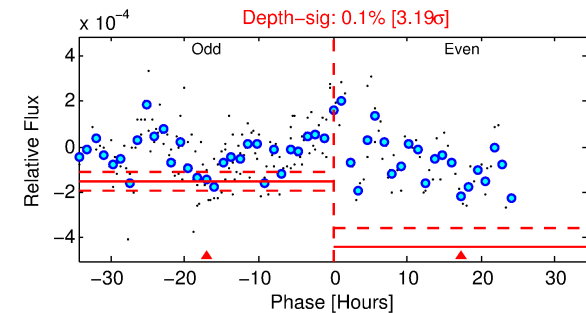
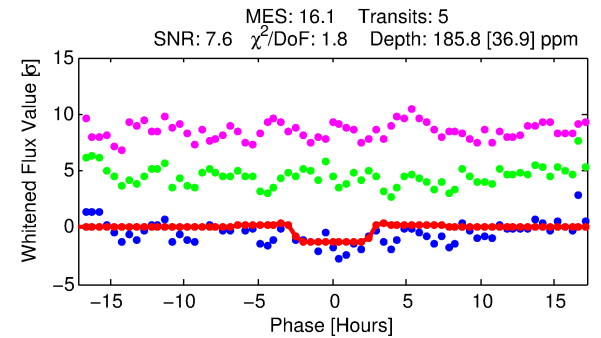
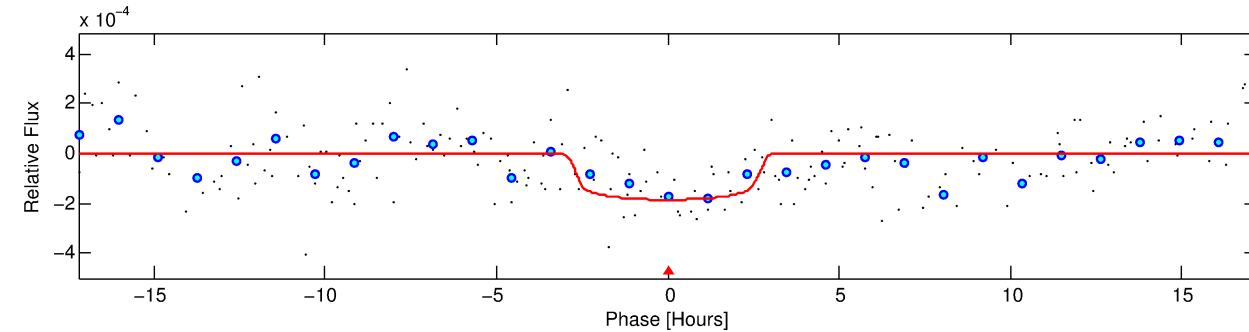
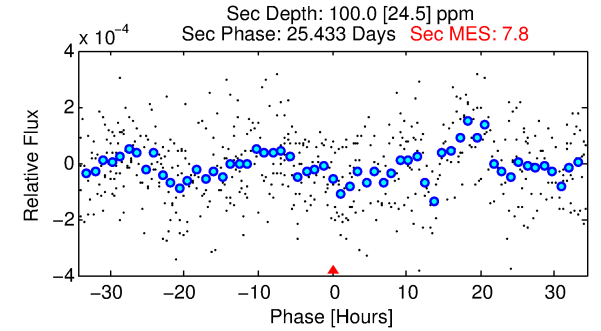
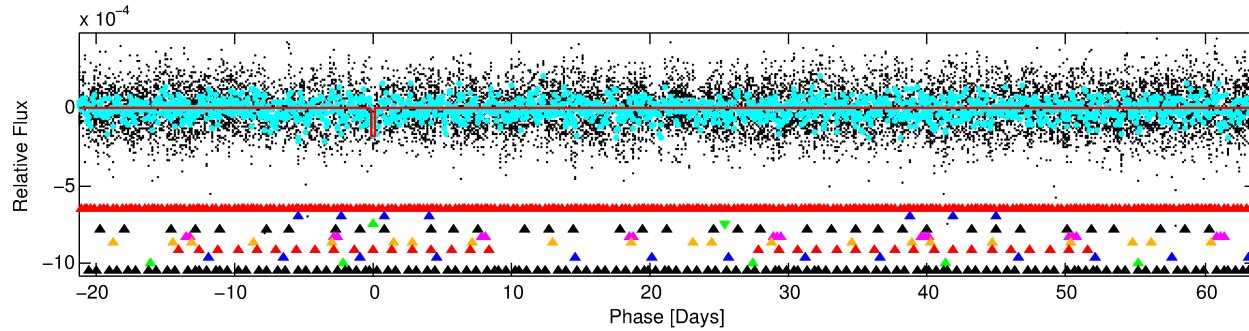
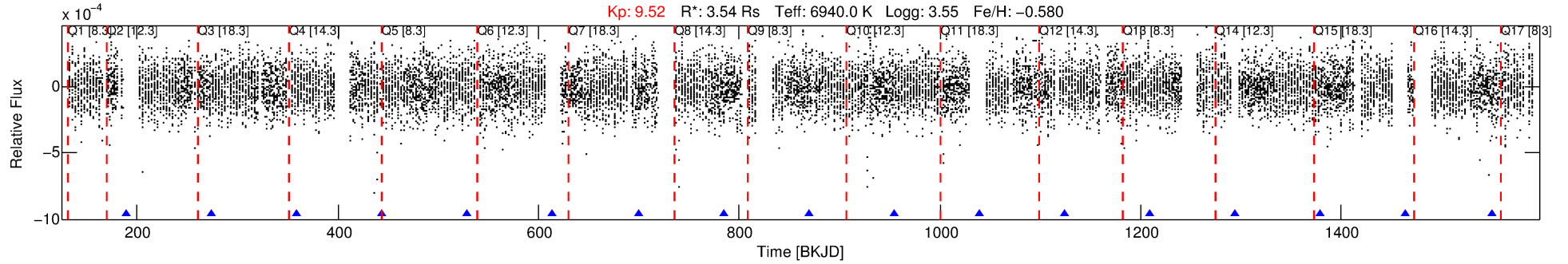
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-03

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 3 of 10 Period: 85.020 d



DV Fit Results:

Period = 85.02033 [0.00168] d
Epoch = 189.1245 [0.0182] BKJD
Rp/R* = 0.0141 [0.0097]
a/R* = 60.93 [250.23]
b = 0.86 [1.26]
Seff = 131.99 [83.36]
Teq = 864 [136] K
Rp = 5.47 [4.40] Re
a = 0.4446 [0.1752] AU
Ag = 363.42 [553.94] [0.65σ]
Teffp = 5835 [2039] K [2.43σ]

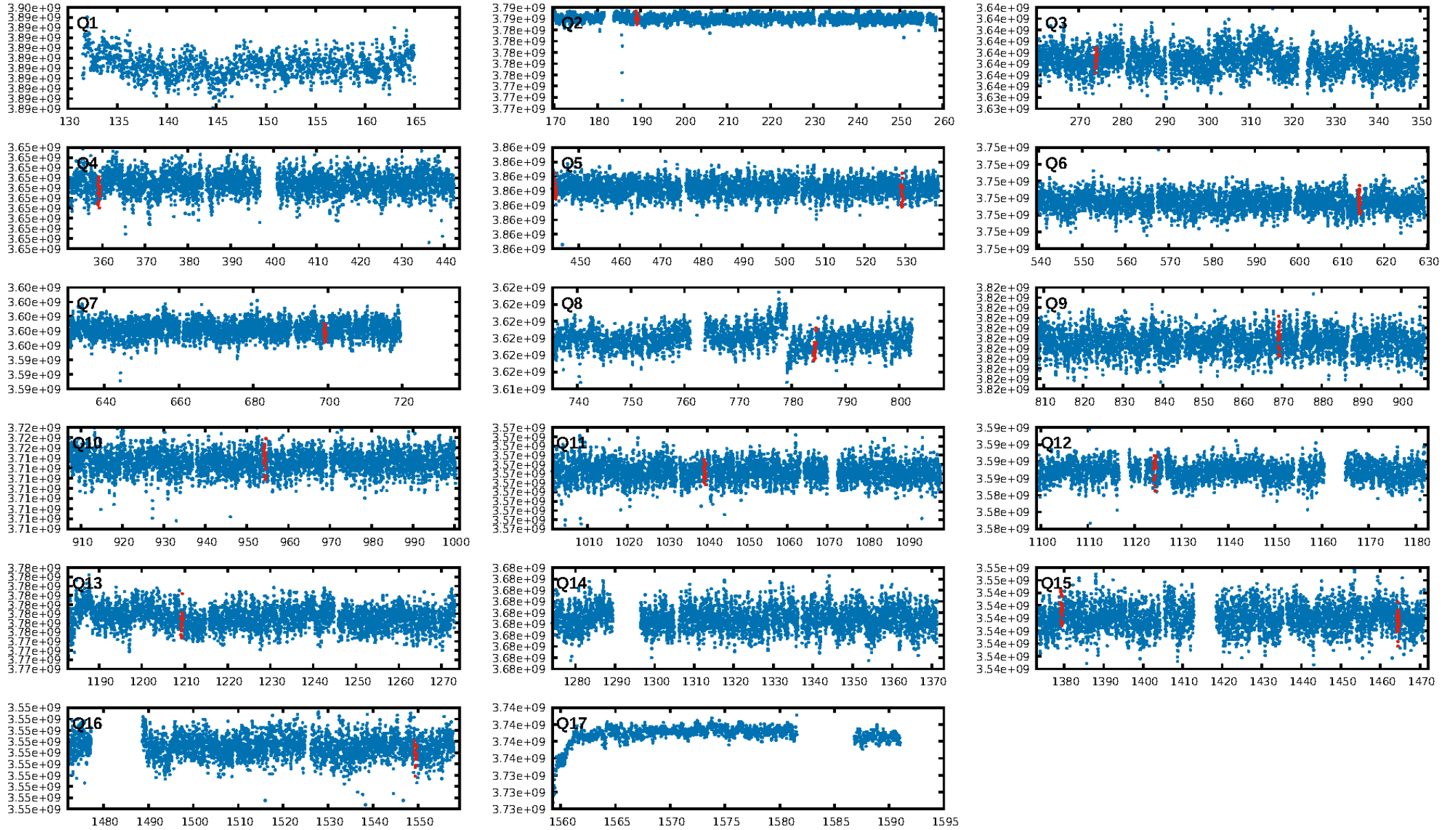
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [38.24σ]
LongPeriod-sig: 100.0% [74.24σ]
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 89.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.402 arcsec [0.82σ]
OotOffset-rm: 8.272 arcsec [8.12σ]
KicOffset-rm: 8.022 arcsec [6.26σ]
OotOffset-st: 3/4/2/2 [11]
KicOffset-st: 3/4/2/2 [11]
DiffImageQuality-fgm: 0.00 [0/11]
DiffImageOverlap-fno: 0.23 [3/13]

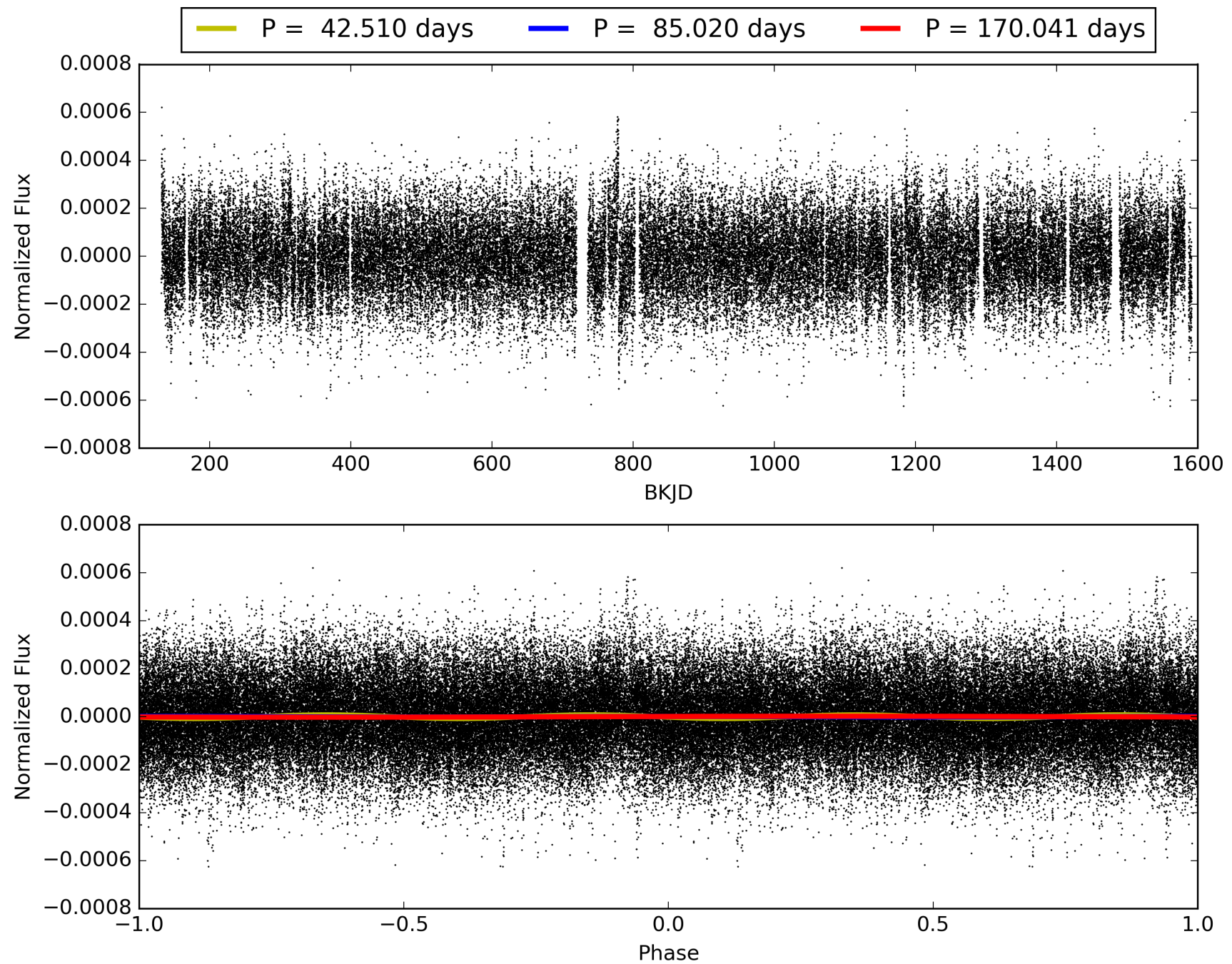
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:14:44 Z

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

TCE 006676174-03, PDC Light Curves

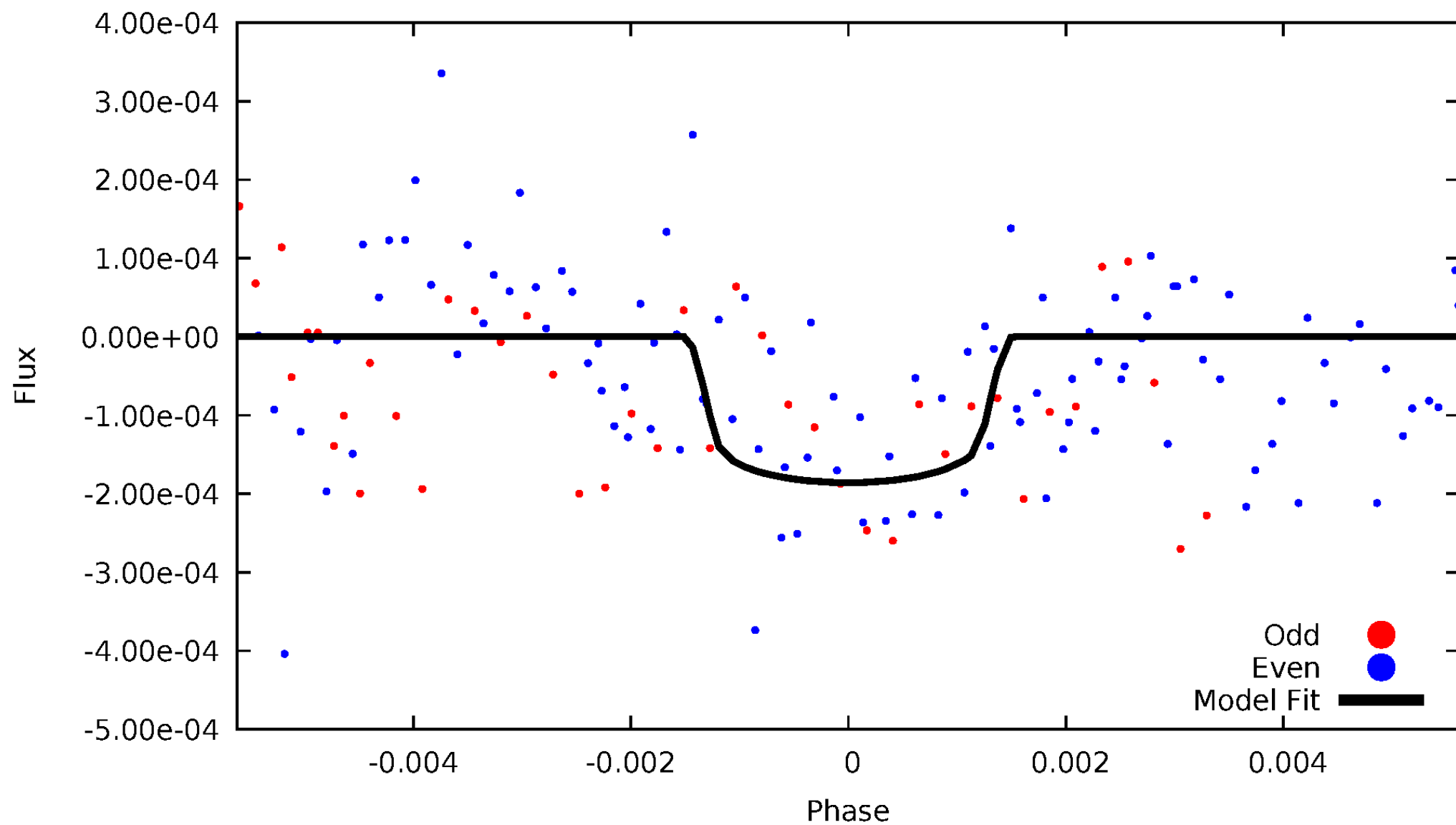


TCE 006676174-03



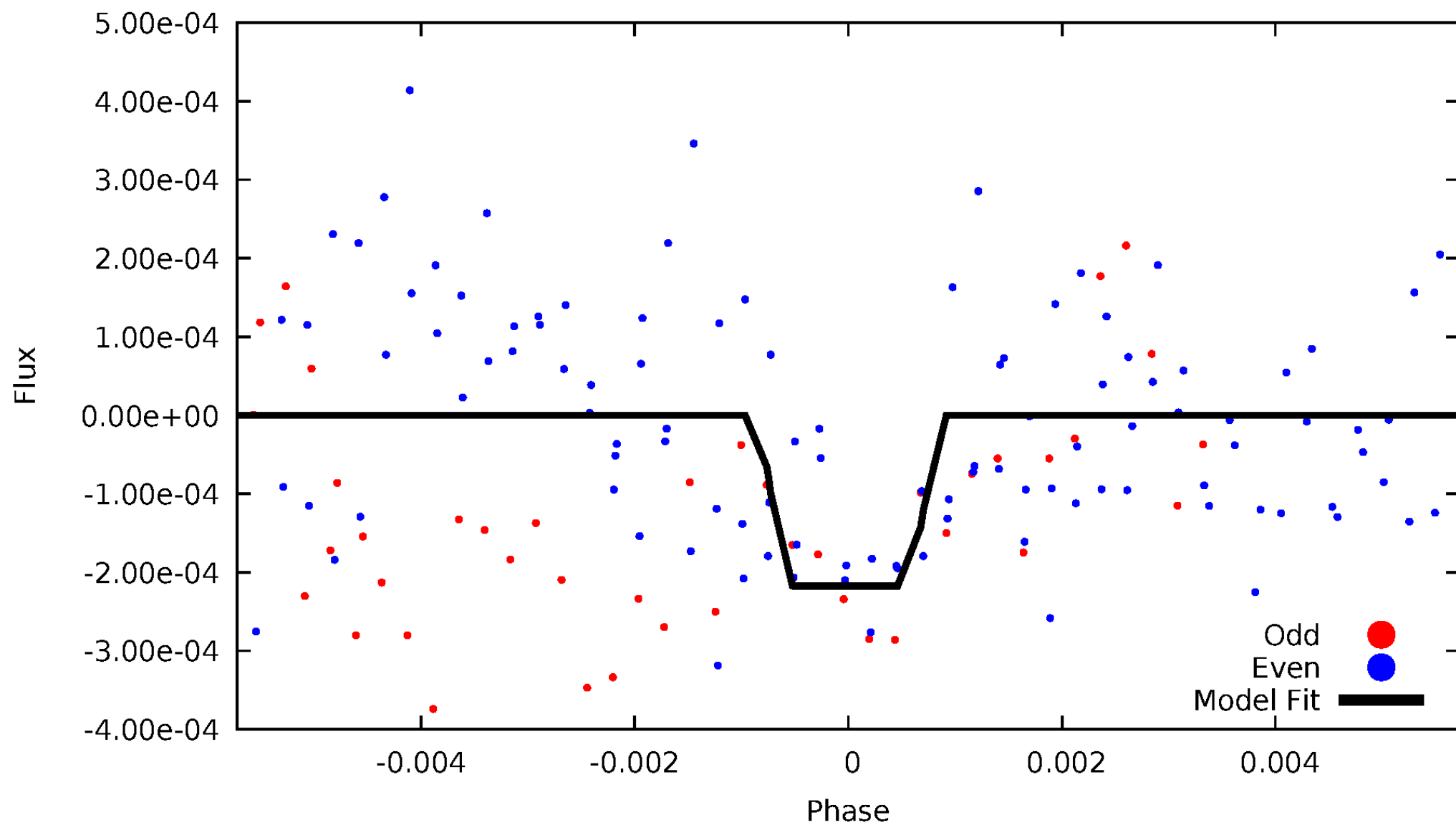
DV Odd/Even

TCE 006676174-03



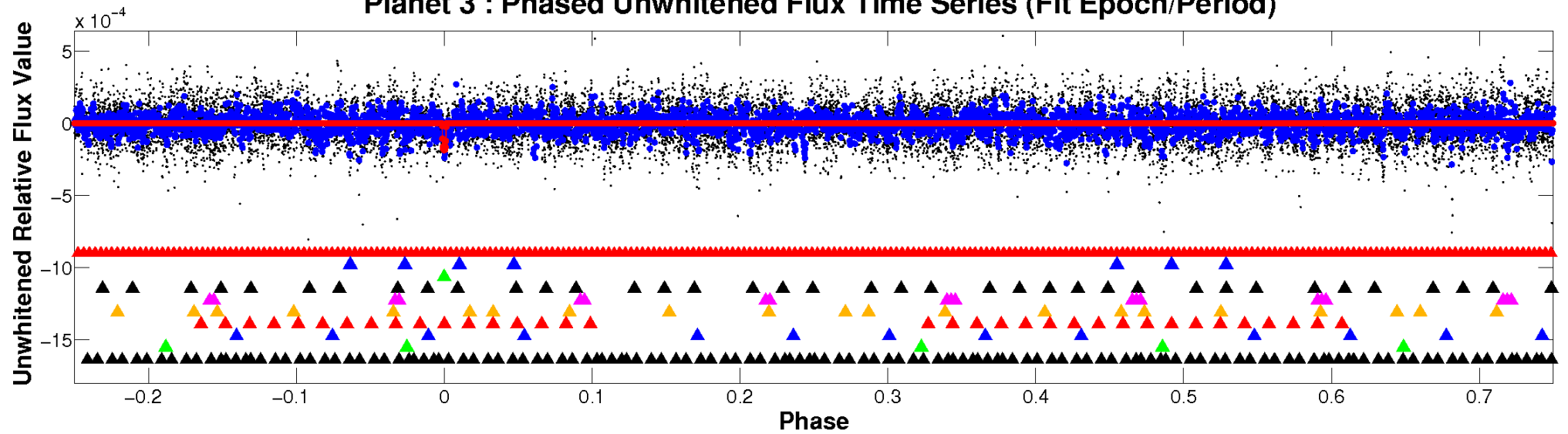
ALT Odd/Even

TCE 006676174-03

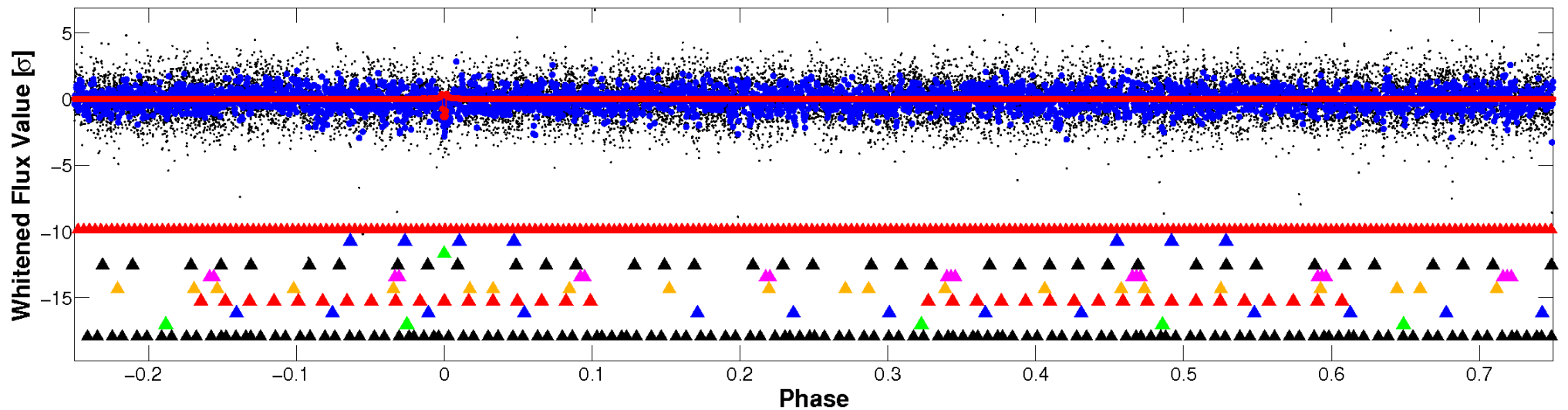


Non-Whitened Vs. Whitened Light Curve

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

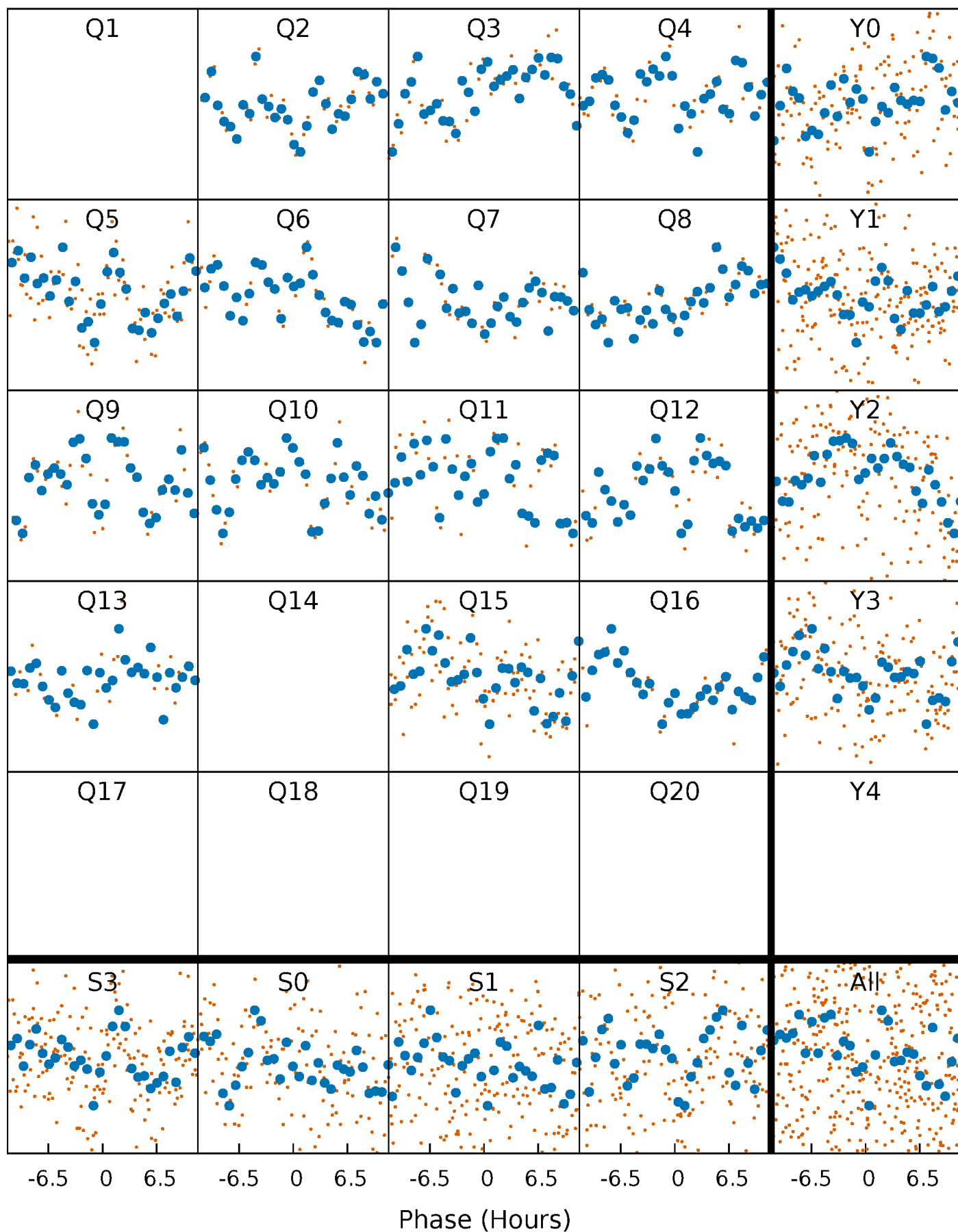


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



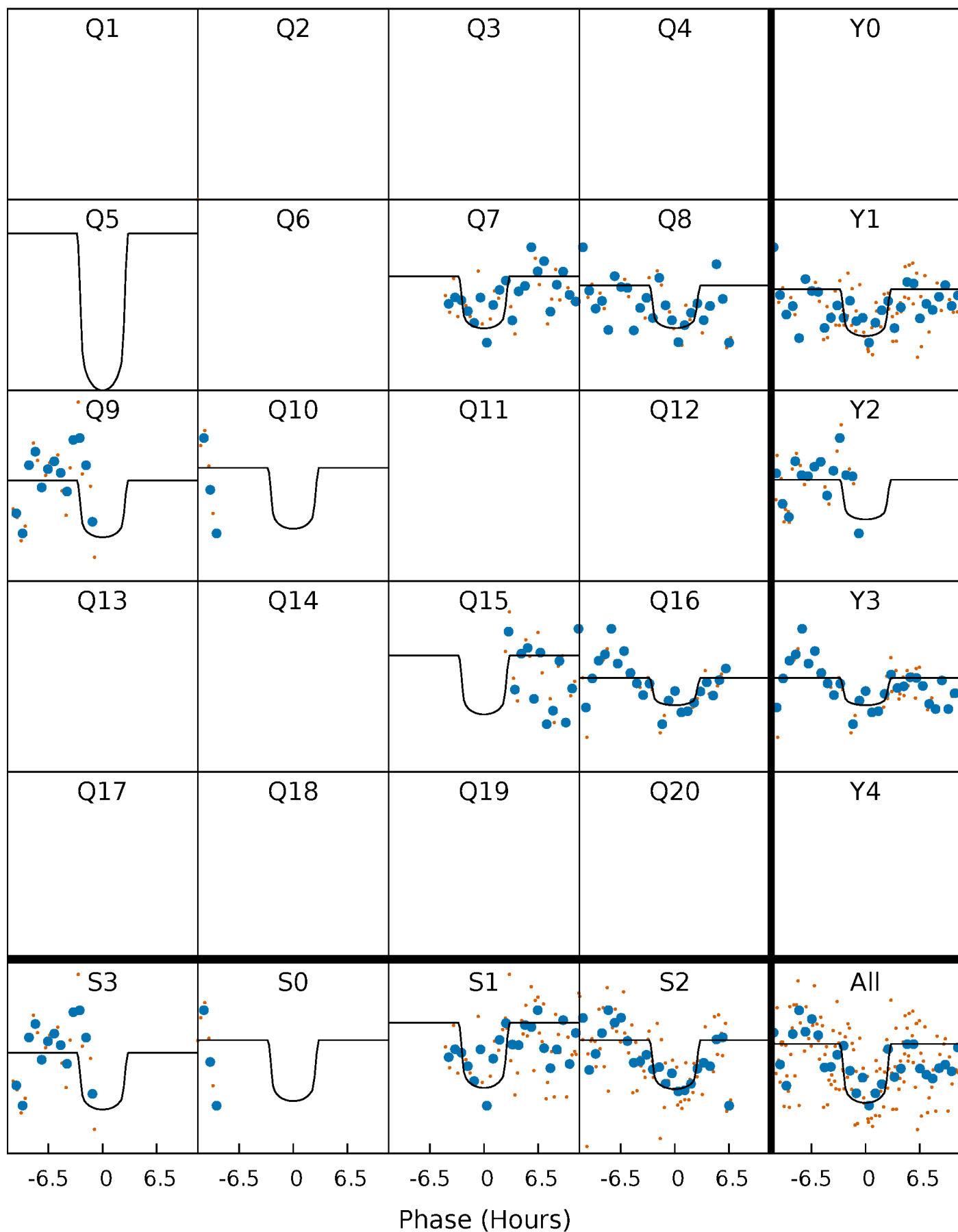
PDC Quarter-Phased Transit Curves

TCE 006676174-03 P= 85.020327 Days $T_0=189.124496$ (BKJD)



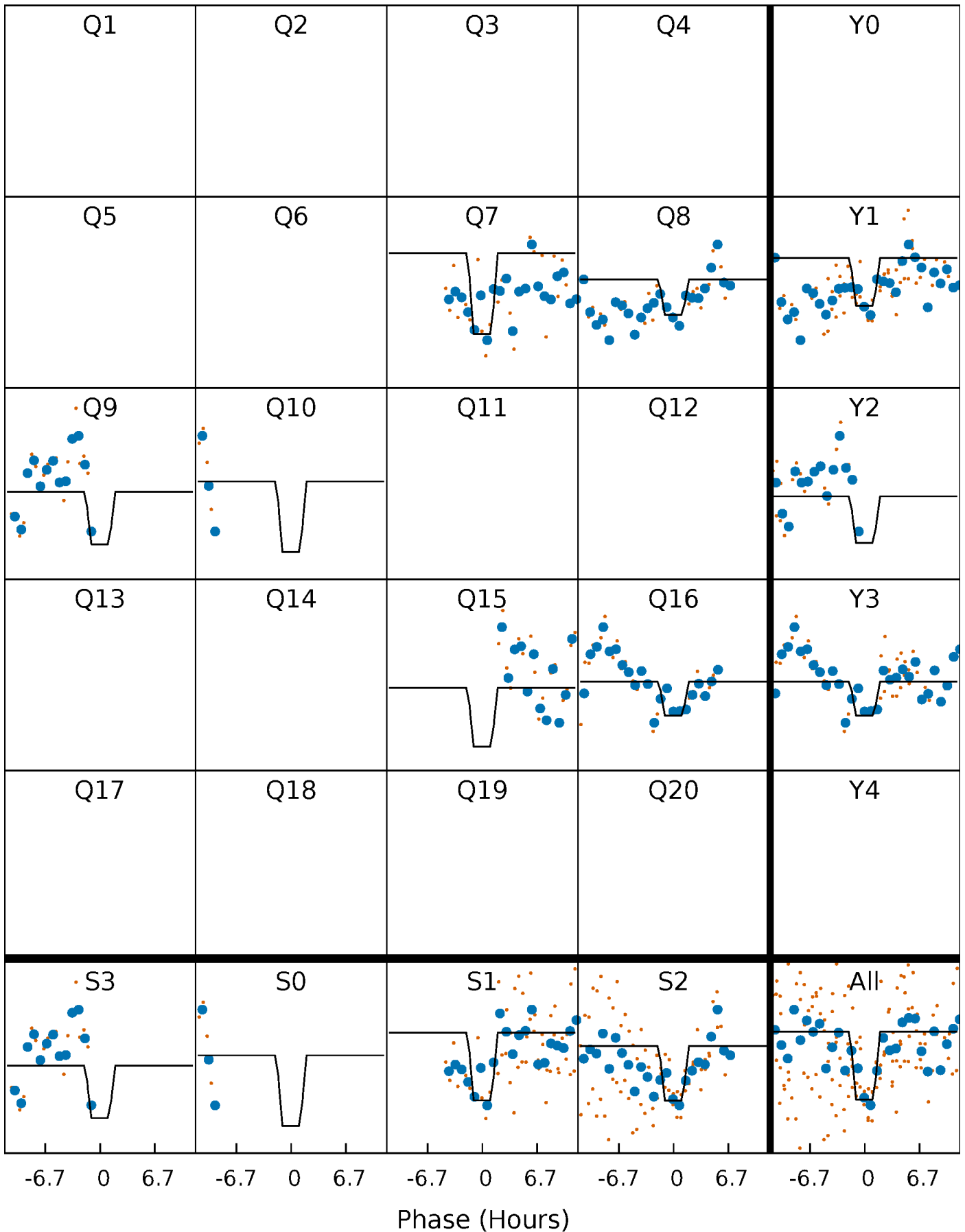
DV Quarter-Phased Transit Curves

TCE 006676174-03 $P = 85.020327$ Days $T_0 = 189.124496$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

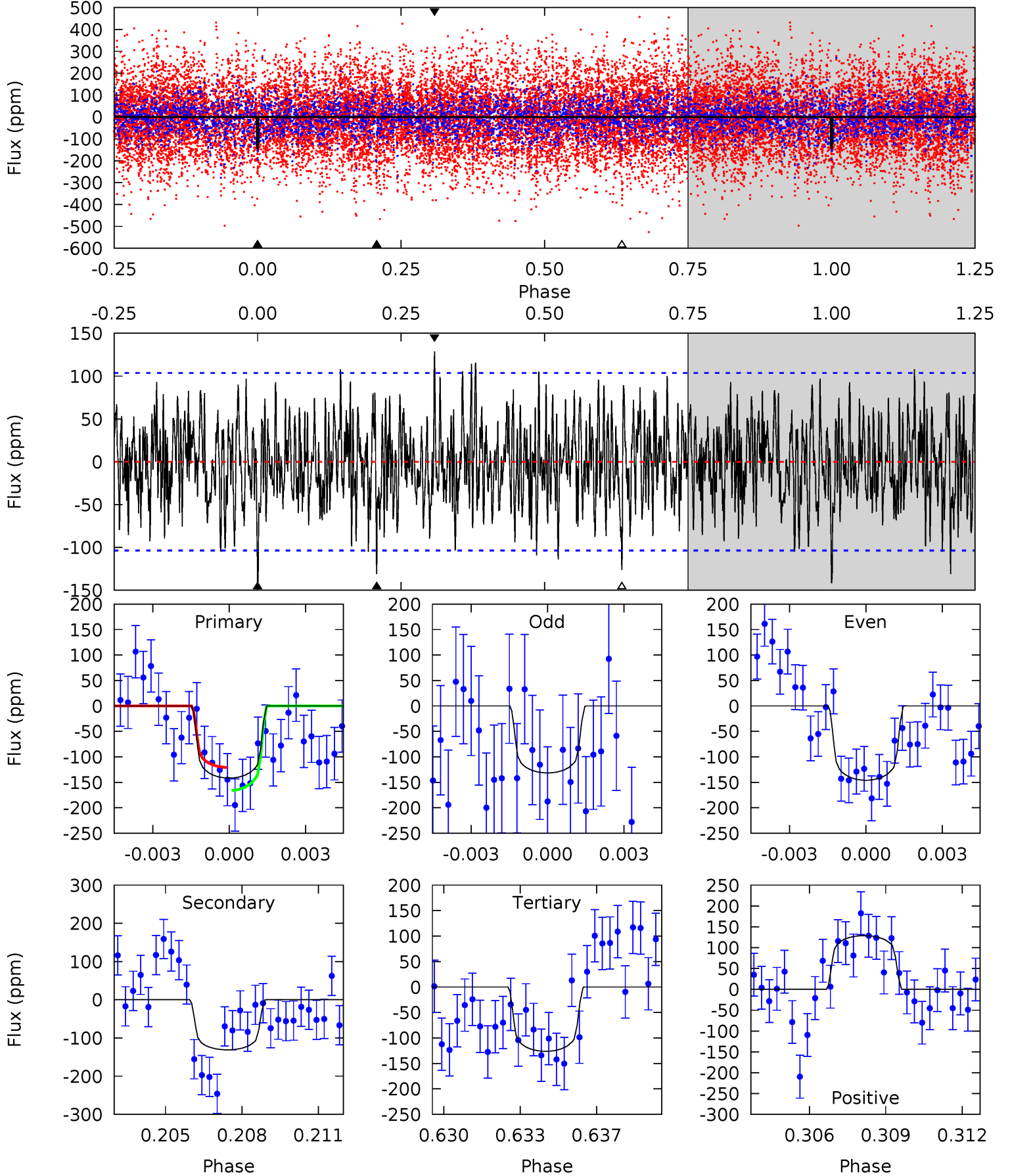
TCE 006676174-03 P= 85.024043 Days $T_0=189.096112$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-03, P = 85.020327 Days, E = 104.104169 Days

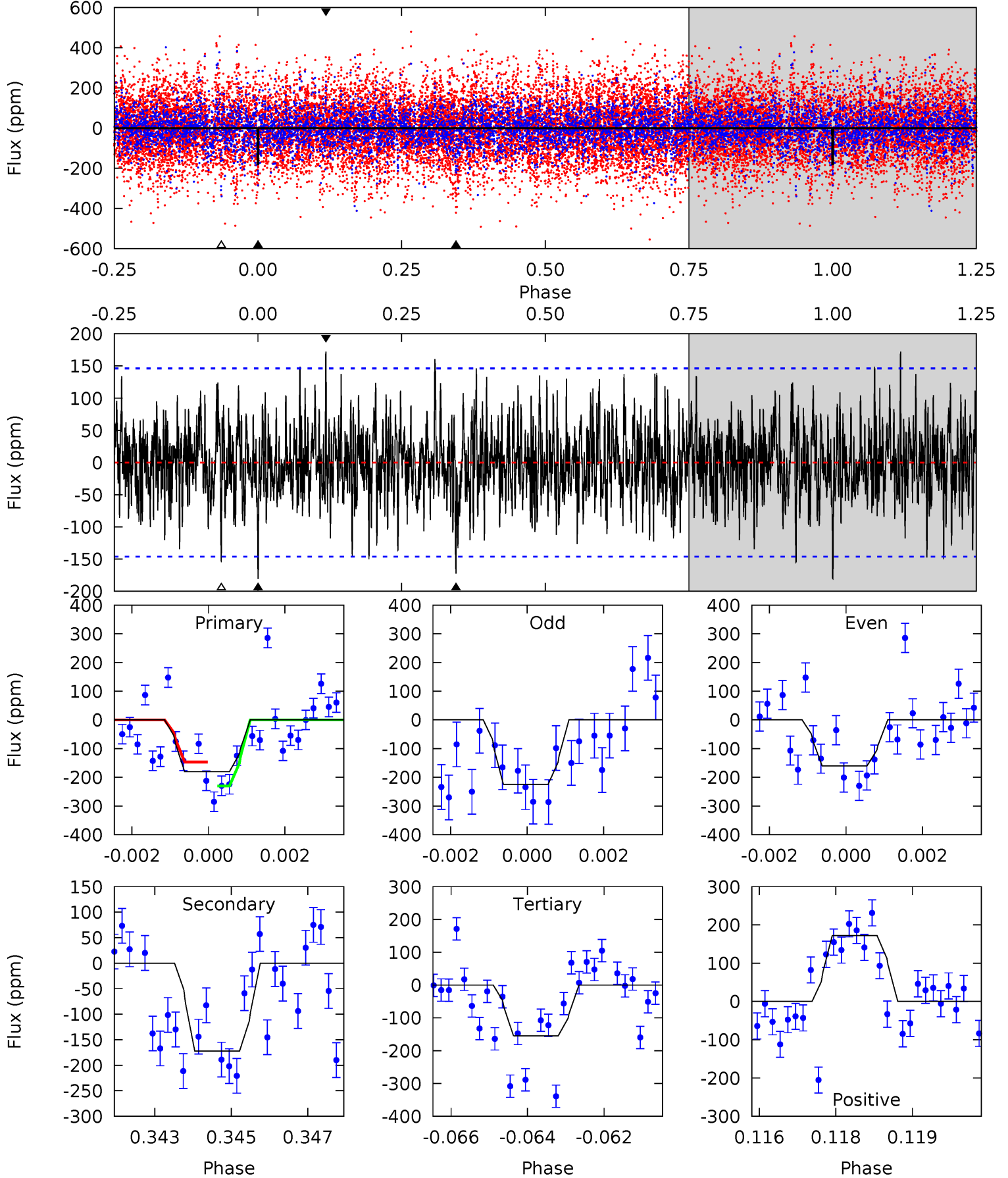
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.17	6.63	6.39	6.52	5.25	2.96	2.05	0.78	0.65	0.24	0.11	0.33	0.84	0.48	1.14



Alt Model-Shift Uniqueness Test

006676174-03, P = 85.024043 Days, E = 104.072069 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.61	6.31	5.66	6.30	5.36	3.14	1.75	0.96	0.31	0.65	0.01	1.05	1.00	0.49	1.52



Stellar Parameters For KIC 006676174

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-131 ± 20	$5.25^{+3.88}_{-2.90}$	1186^{+67}_{-116}	6042^{+3382}_{-1217}	518^{+2185}_{-344}
Alt.	-172 ± 27	$5.59^{+3.77}_{-3.21}$	1179^{+71}_{-127}	6307^{+4005}_{-1297}	604^{+2645}_{-386}

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 $A_{obs} \gg 1.0$

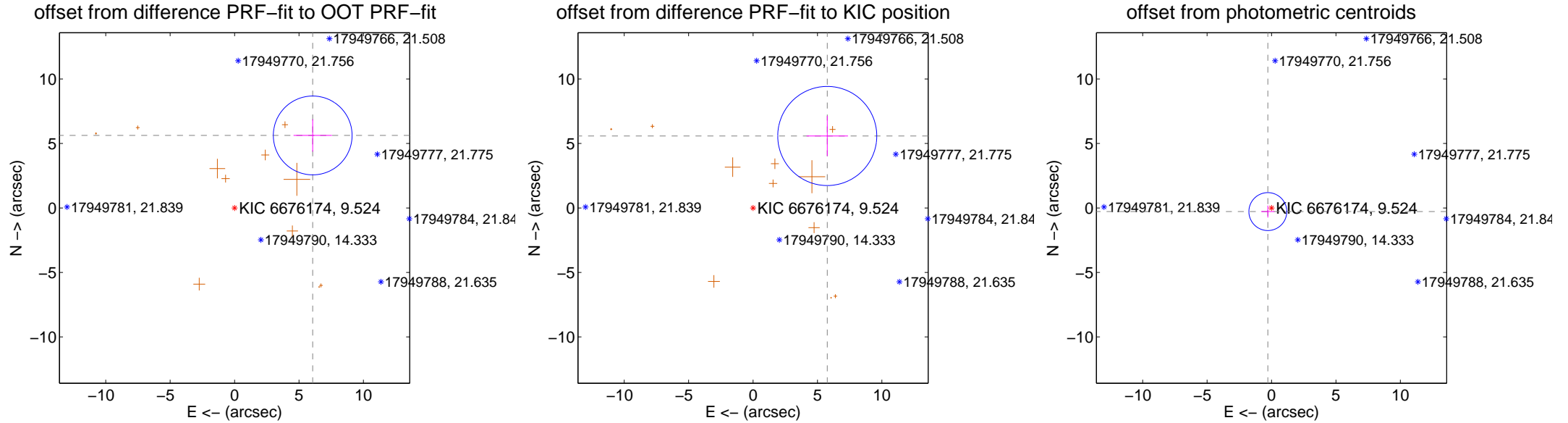
DV Centroid Data

Supplemental centroid analysis for 006676174-03. **Kepler magnitude: 9.52.** Transit SNR 7.61

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.272 ± 1.019	8.12	-6.066 ± 1.489	5.624 ± 1.258
PRF-fit source offset from KIC position	8.022 ± 1.281	6.26	-5.761 ± 1.610	5.582 ± 1.556
photometric centroid source offset	0.40 ± 0.49	0.82	0.29 ± 0.51	-0.28 ± 0.46



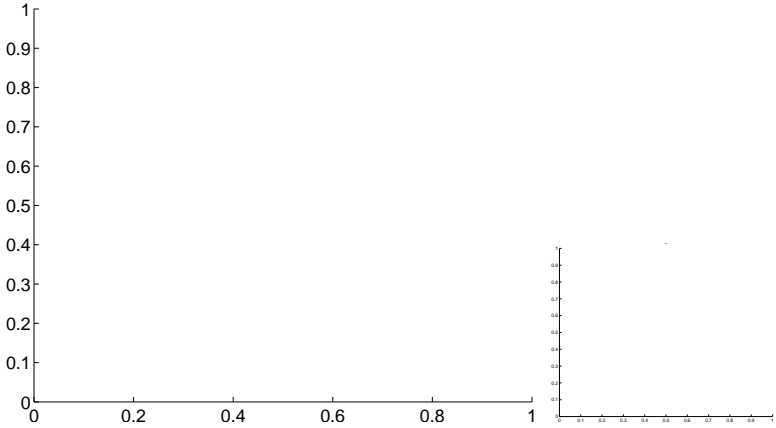
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

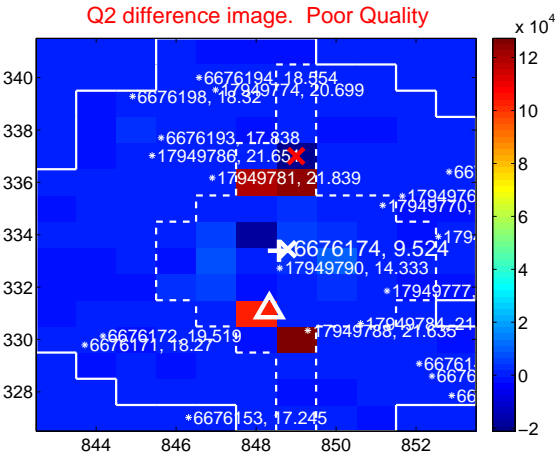
Q1 no difference image



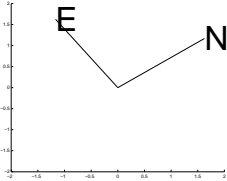
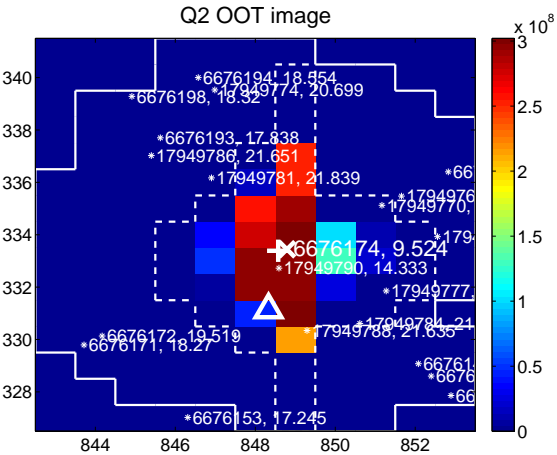
Q1 no OOT image



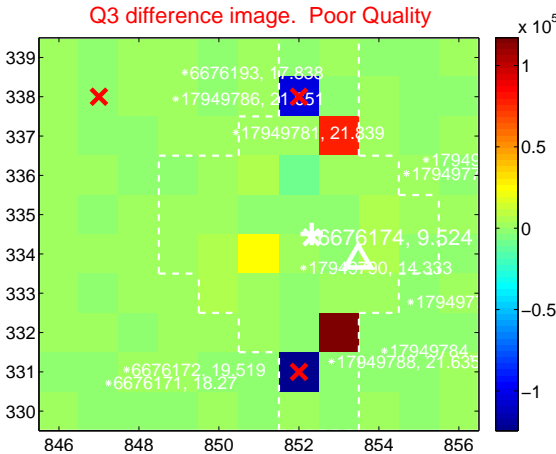
Q2 difference image. Poor Quality



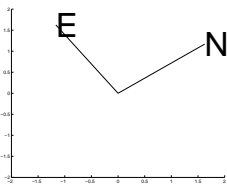
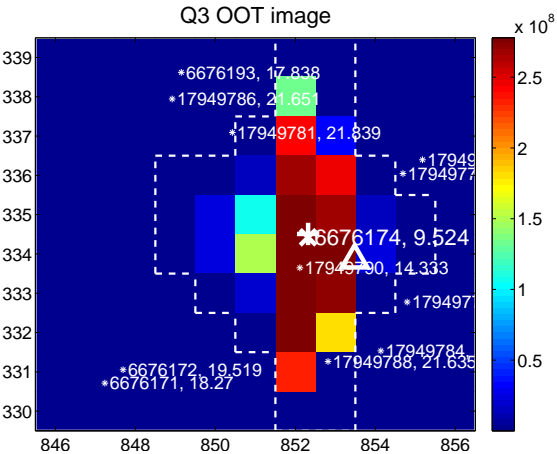
Q2 OOT image



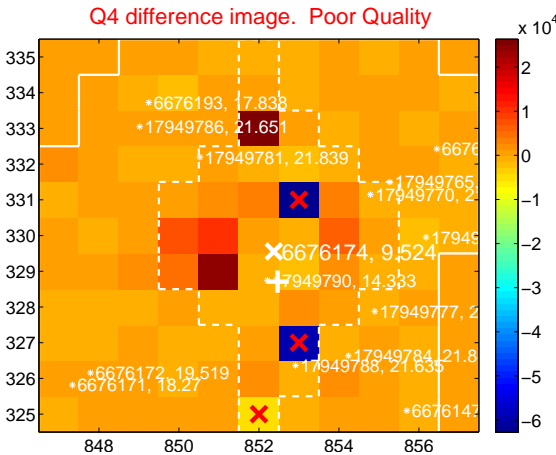
Q3 difference image. Poor Quality



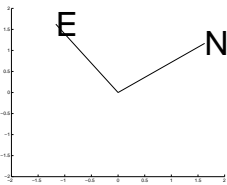
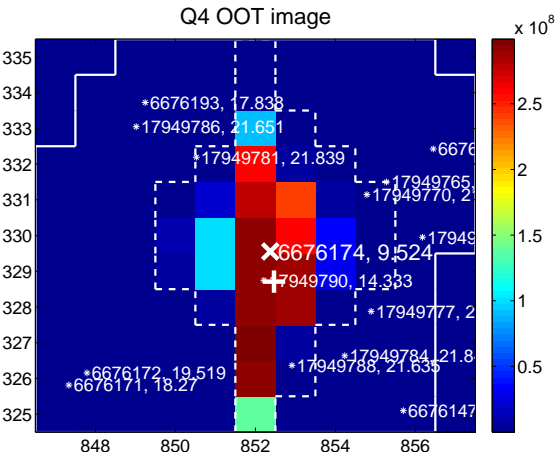
Q3 OOT image



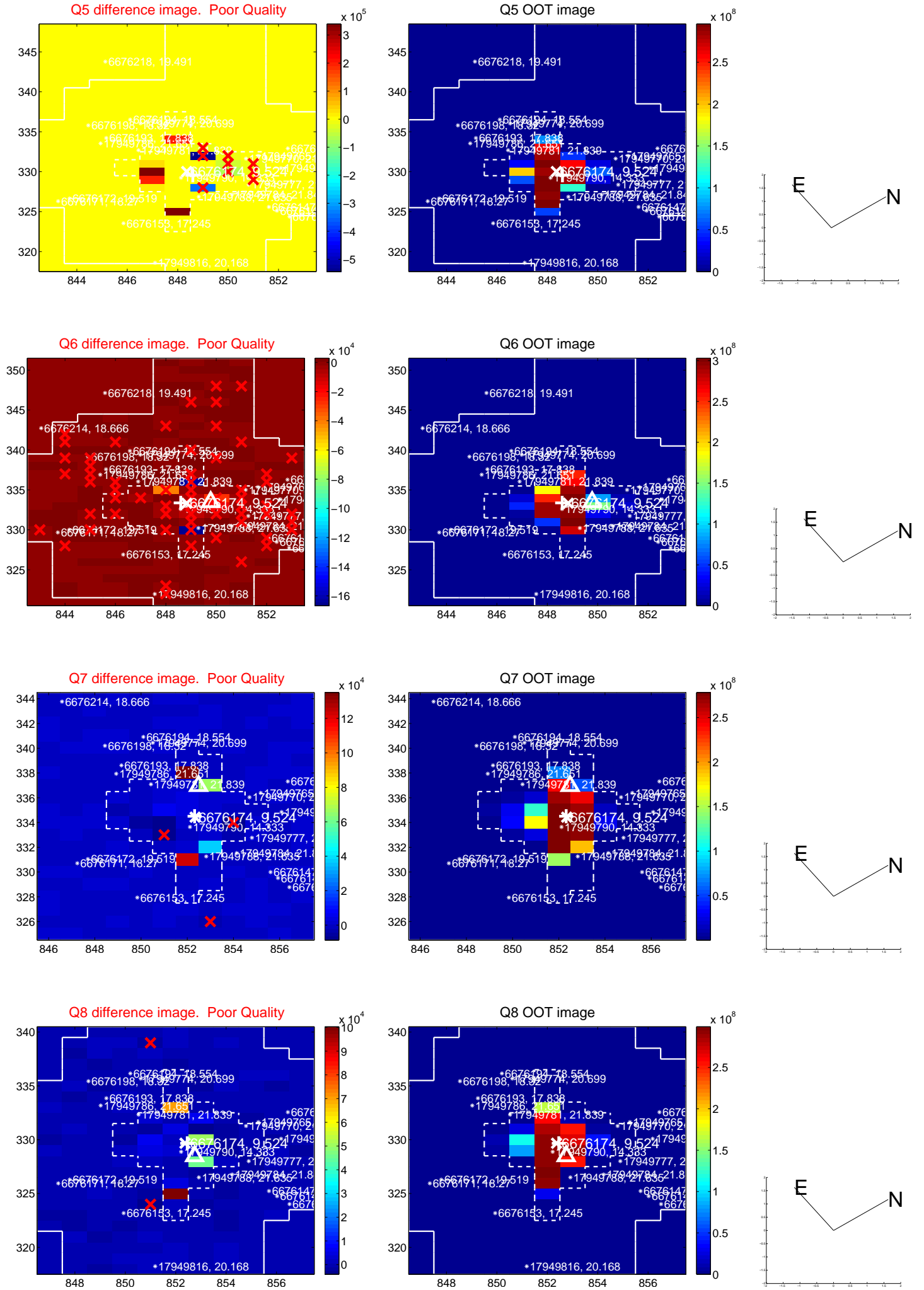
Q4 difference image. Poor Quality



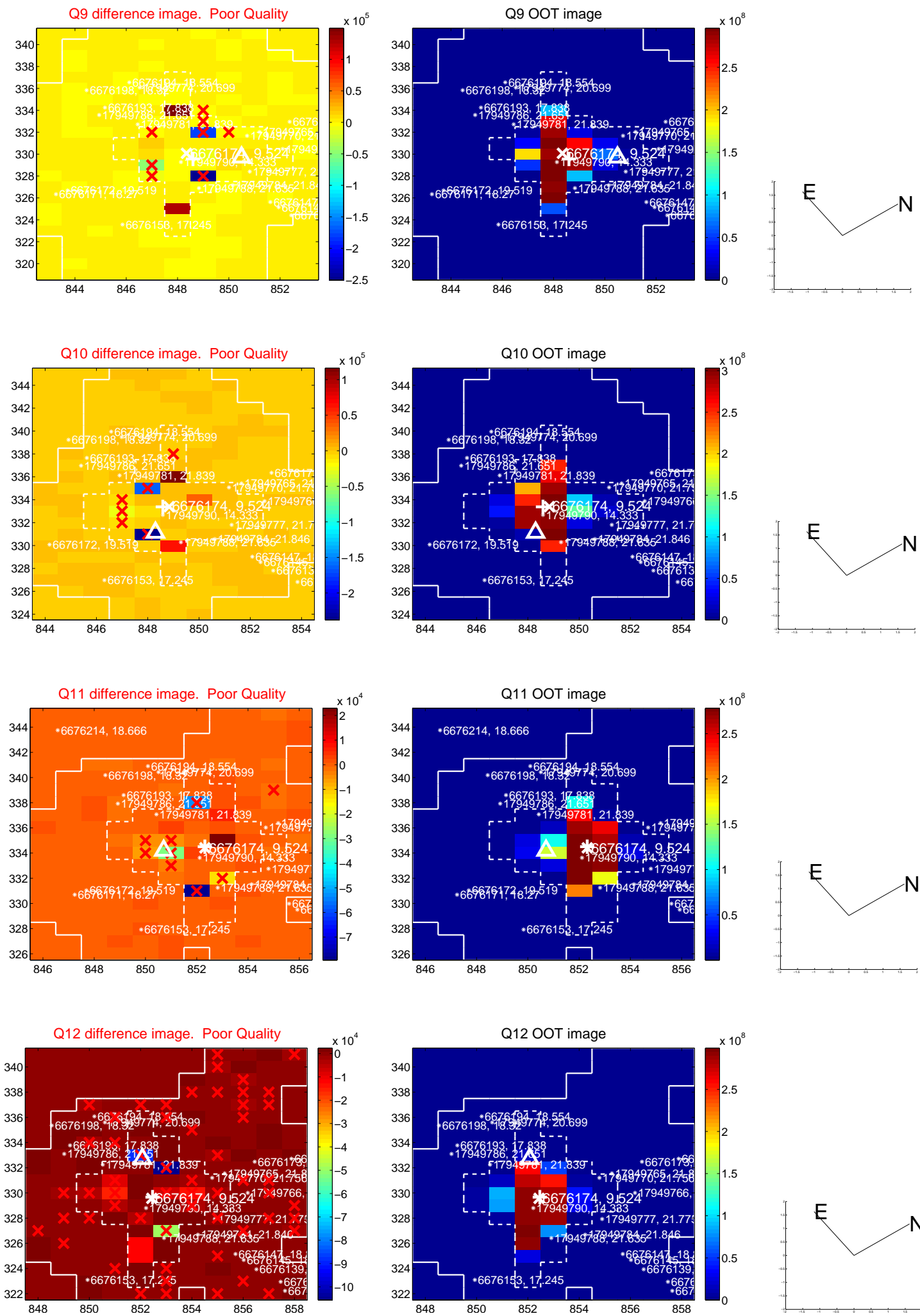
Q4 OOT image



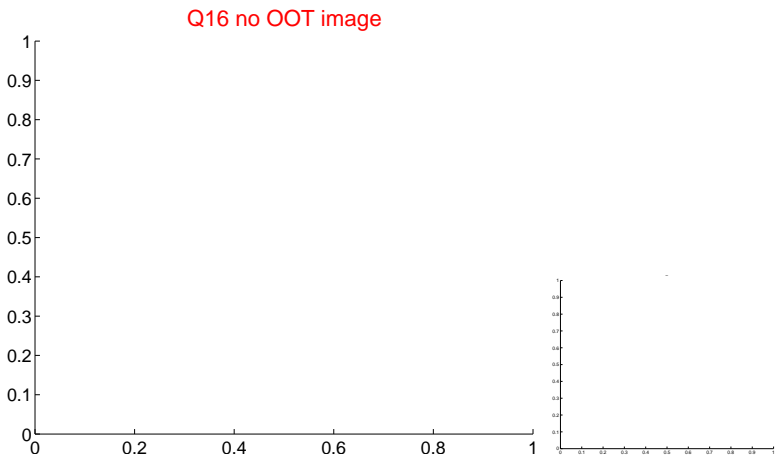
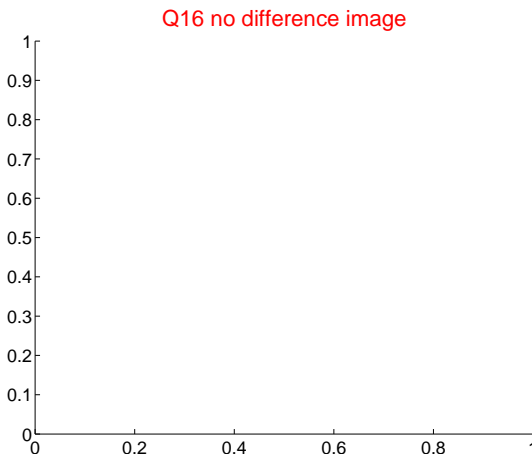
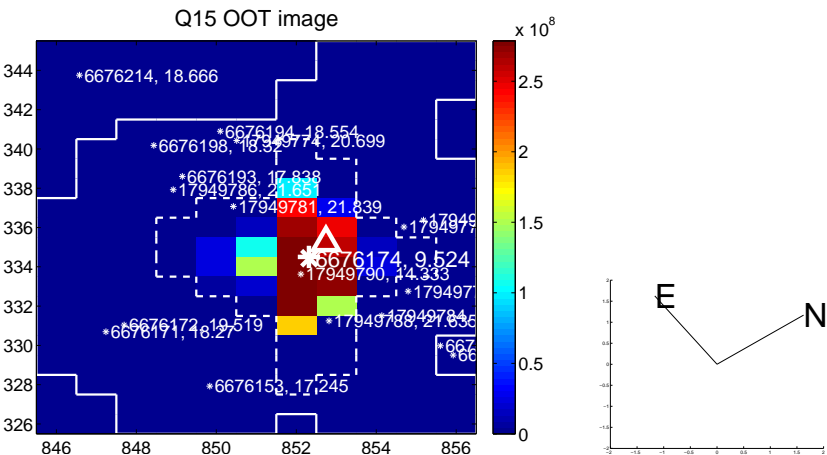
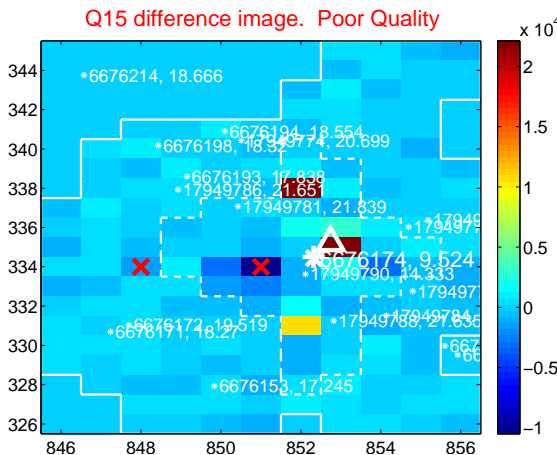
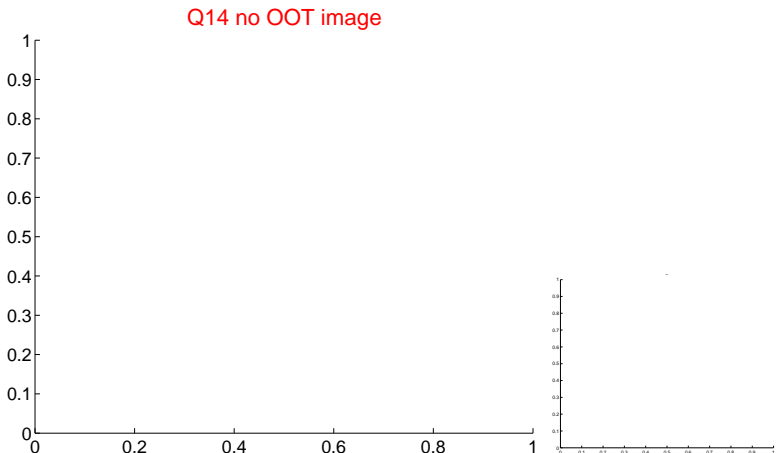
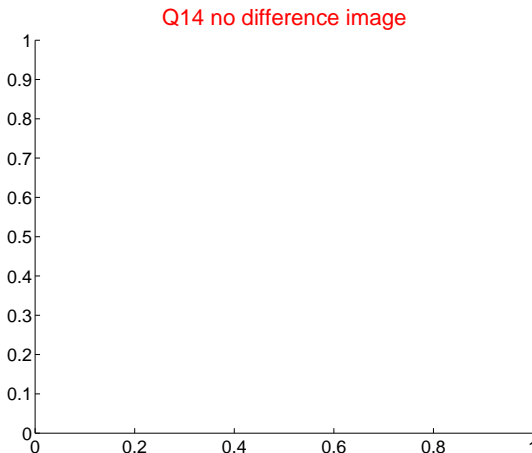
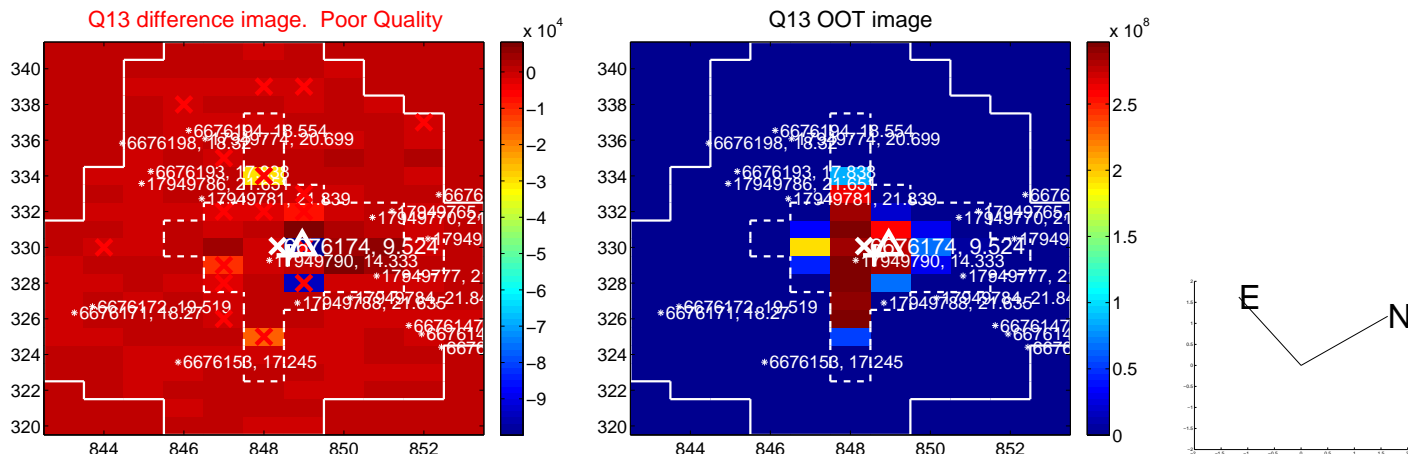
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



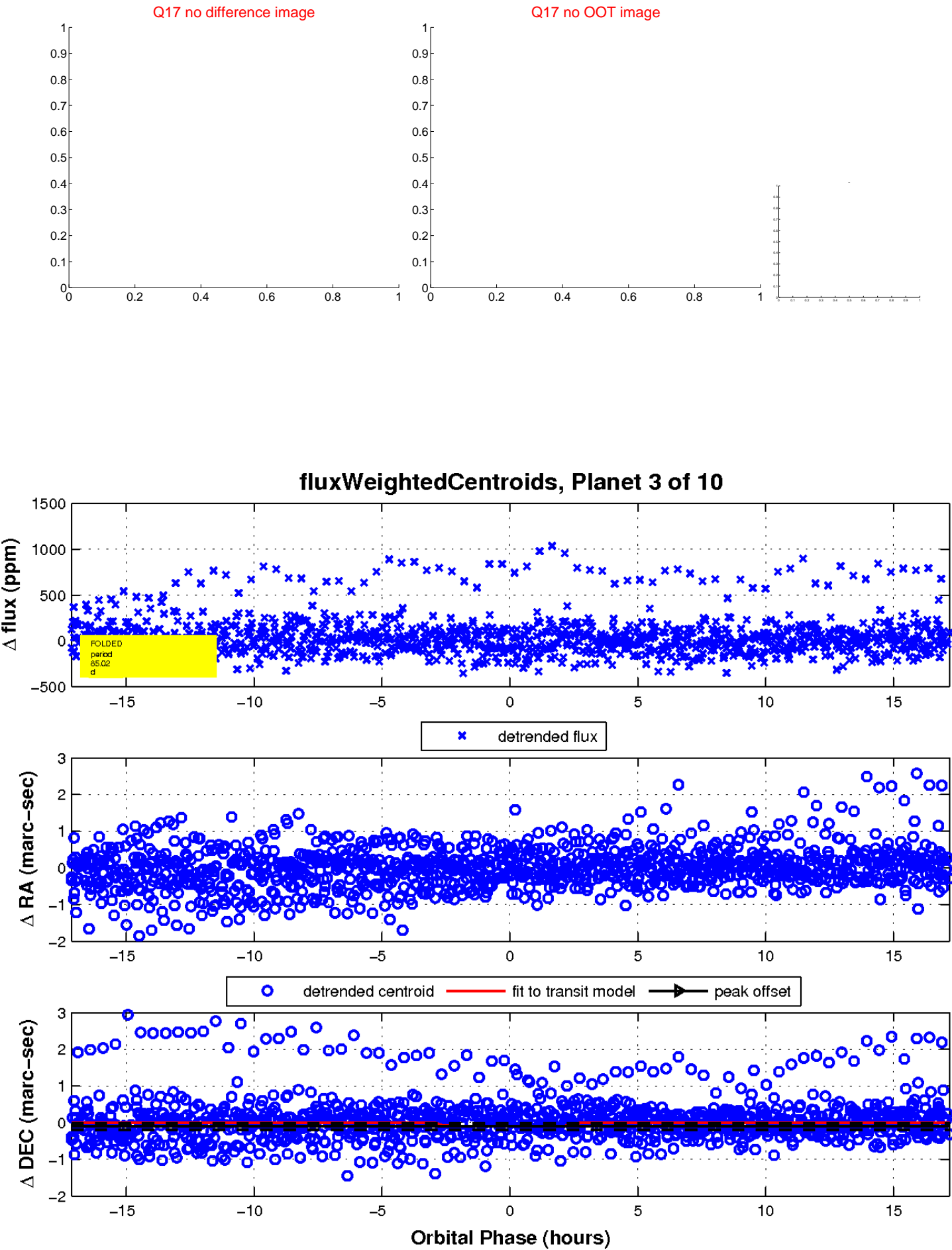
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

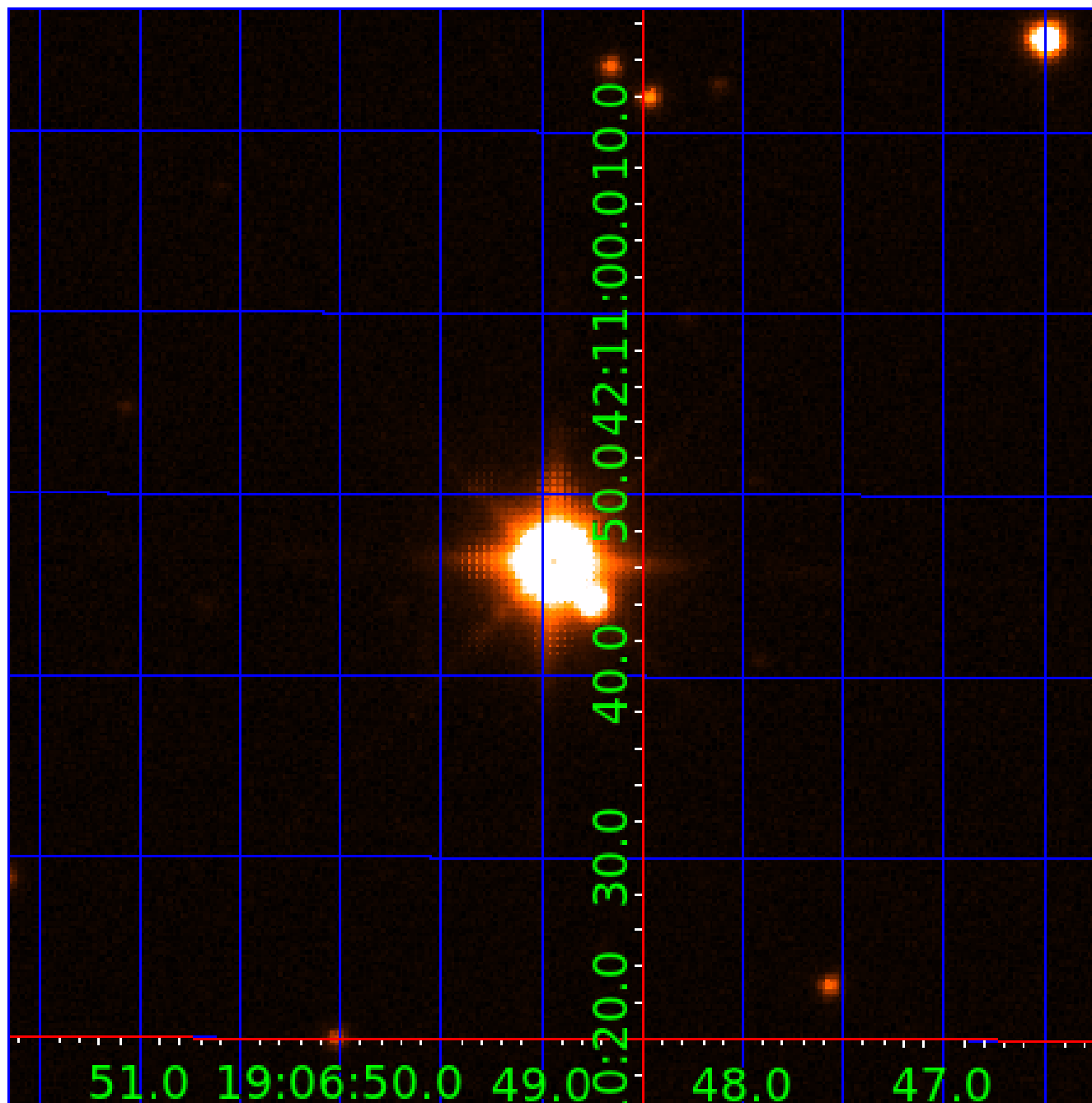


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

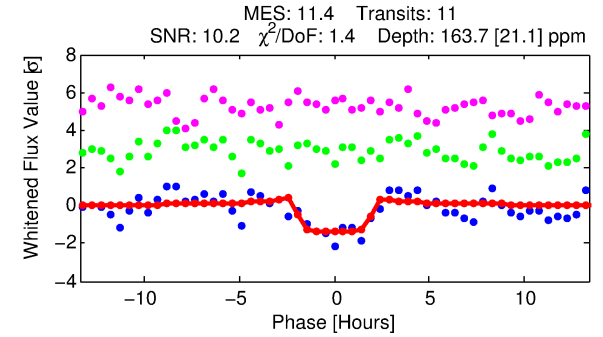
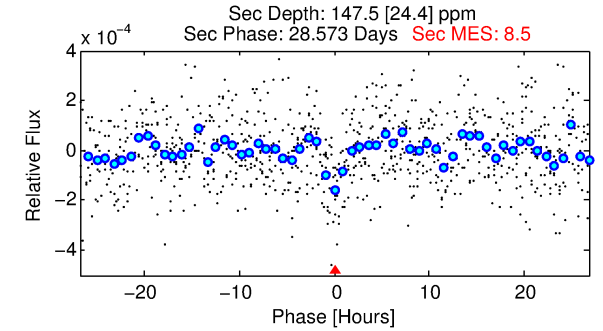
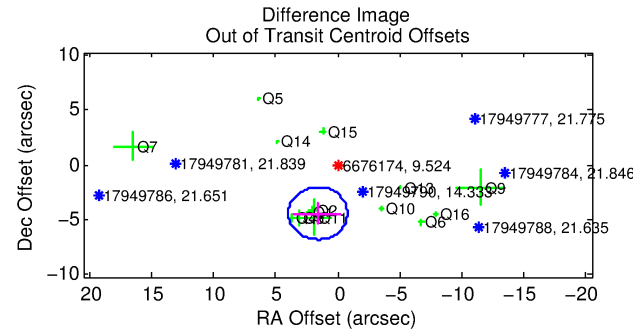
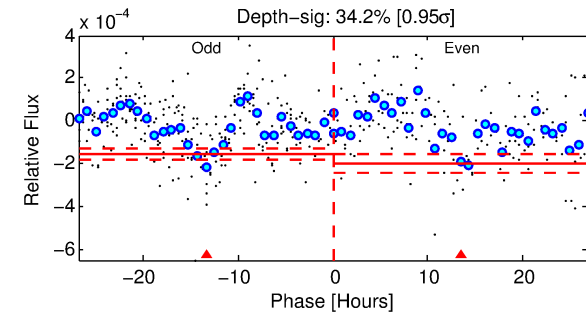
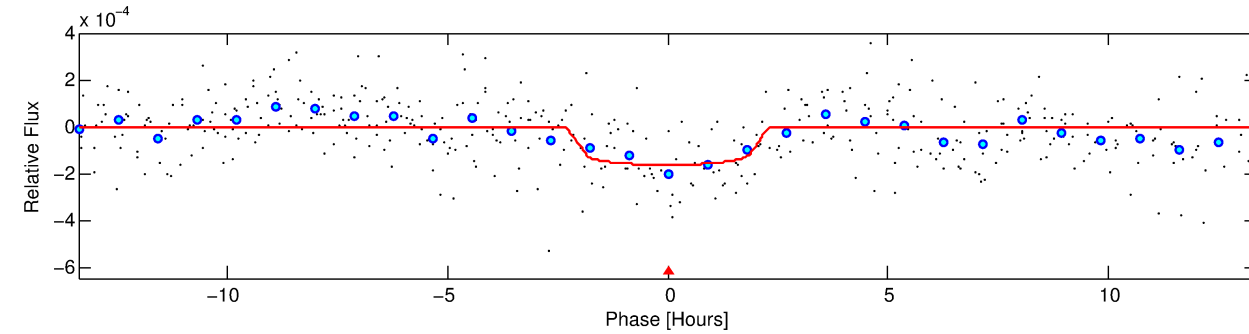
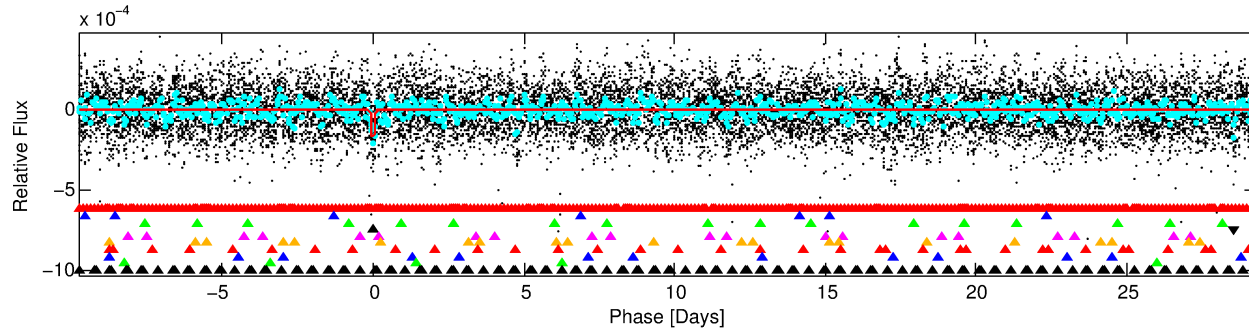
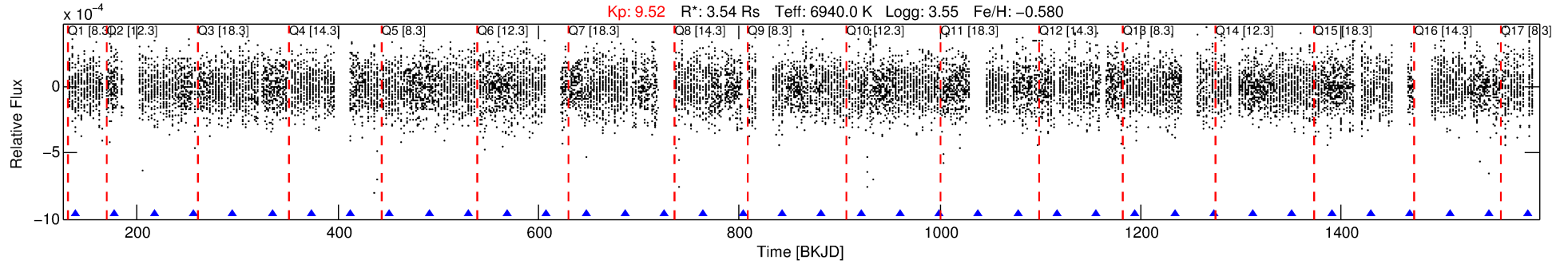
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-04

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 4 of 10 Period: 39.108 d



DV Fit Results:

Period = 39.10764 [0.00038] d
Epoch = 138.9077 [0.0082] BKJD
Rp/R* = 0.0137 [0.0048]
a/R* = 30.91 [64.20]
b = 0.90 [0.43]
Seff = 371.73 [234.76]
Teq = 1120 [177] K
Rp = 5.28 [2.89] Re
a = 0.2649 [0.1044] AU
Ag = 204.27 [193.32] [1.05 σ]
Teffp = 6544 [1187] K [4.52 σ]

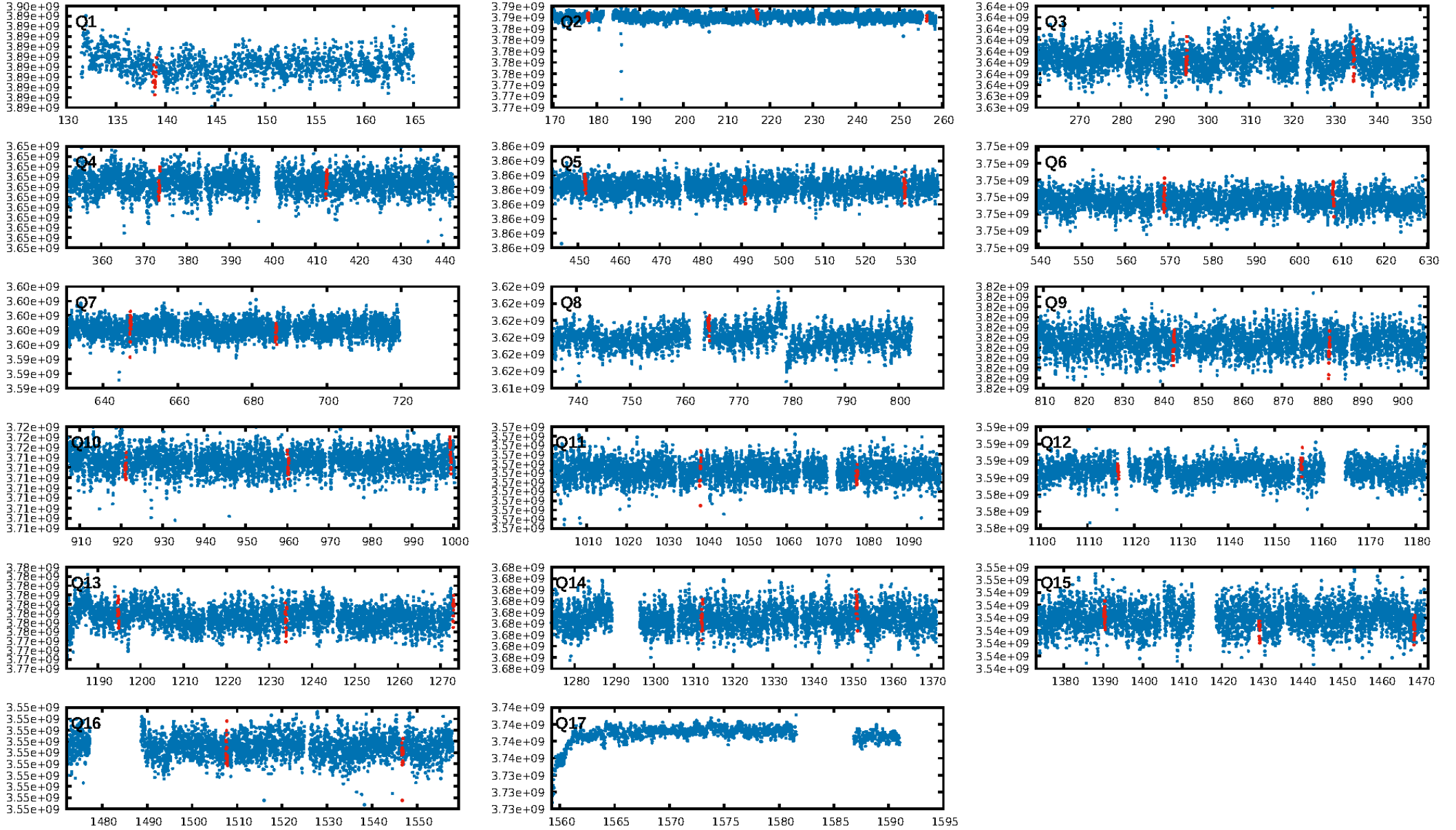
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [93.34 σ]
LongPeriod-sig: 100.0% [7.64 σ]
ModelChiSquare2-sig: 39.7%
ModelChiSquareGof-sig: 98.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.421 arcsec [3.97 σ]
OotOffset-rm: 4.732 arcsec [5.94 σ]
KicOffset-rm: 6.000 arcsec [3.80 σ]
OotOffset-st: 4/4/2/4 [14]
KicOffset-st: 4/4/2/4 [14]
DiffImageQuality-fgm: 0.00 [0/14]
DiffImageOverlap-fno: 0.71 [10/14]

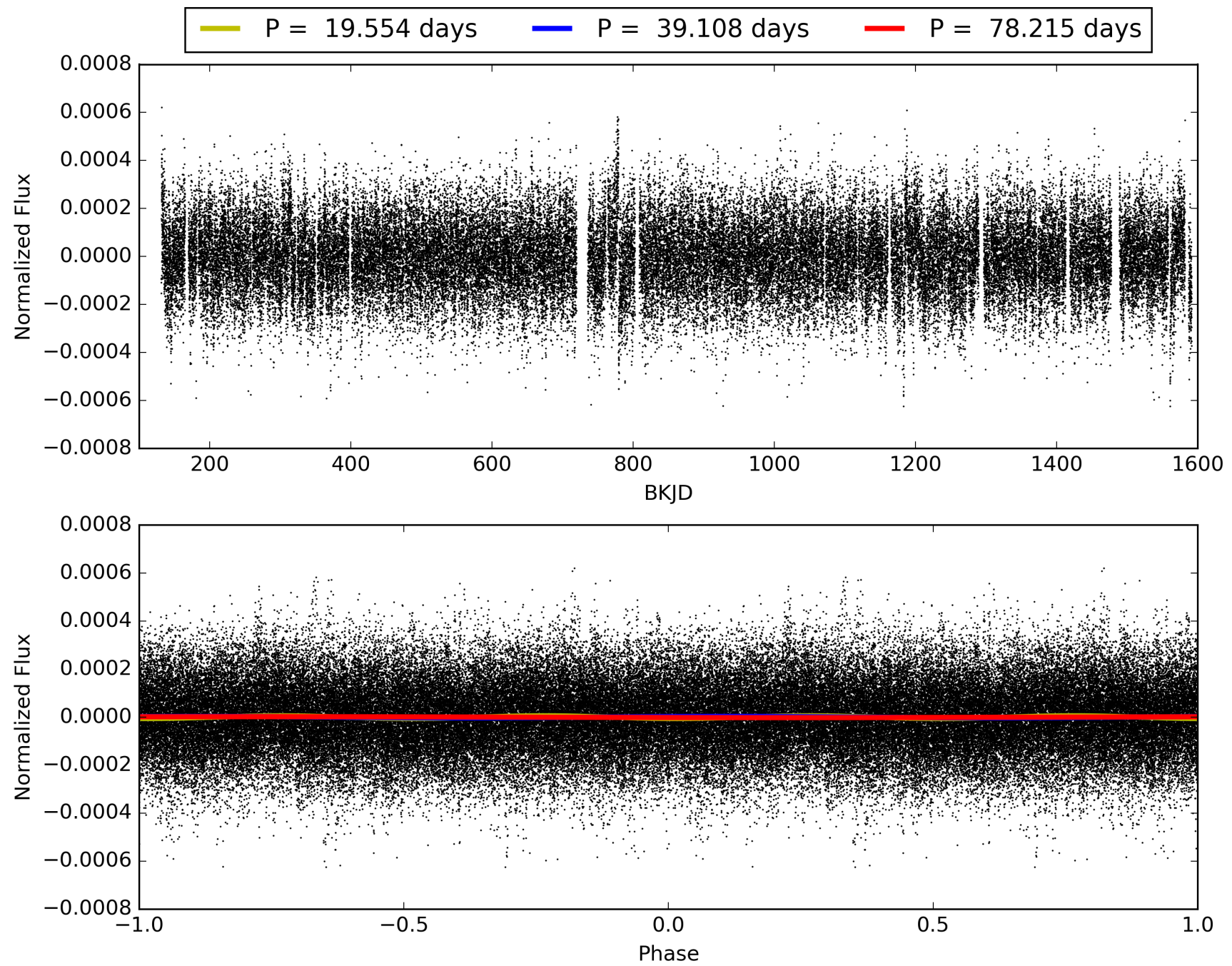
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:14:48 Z

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

TCE 006676174-04, PDC Light Curves

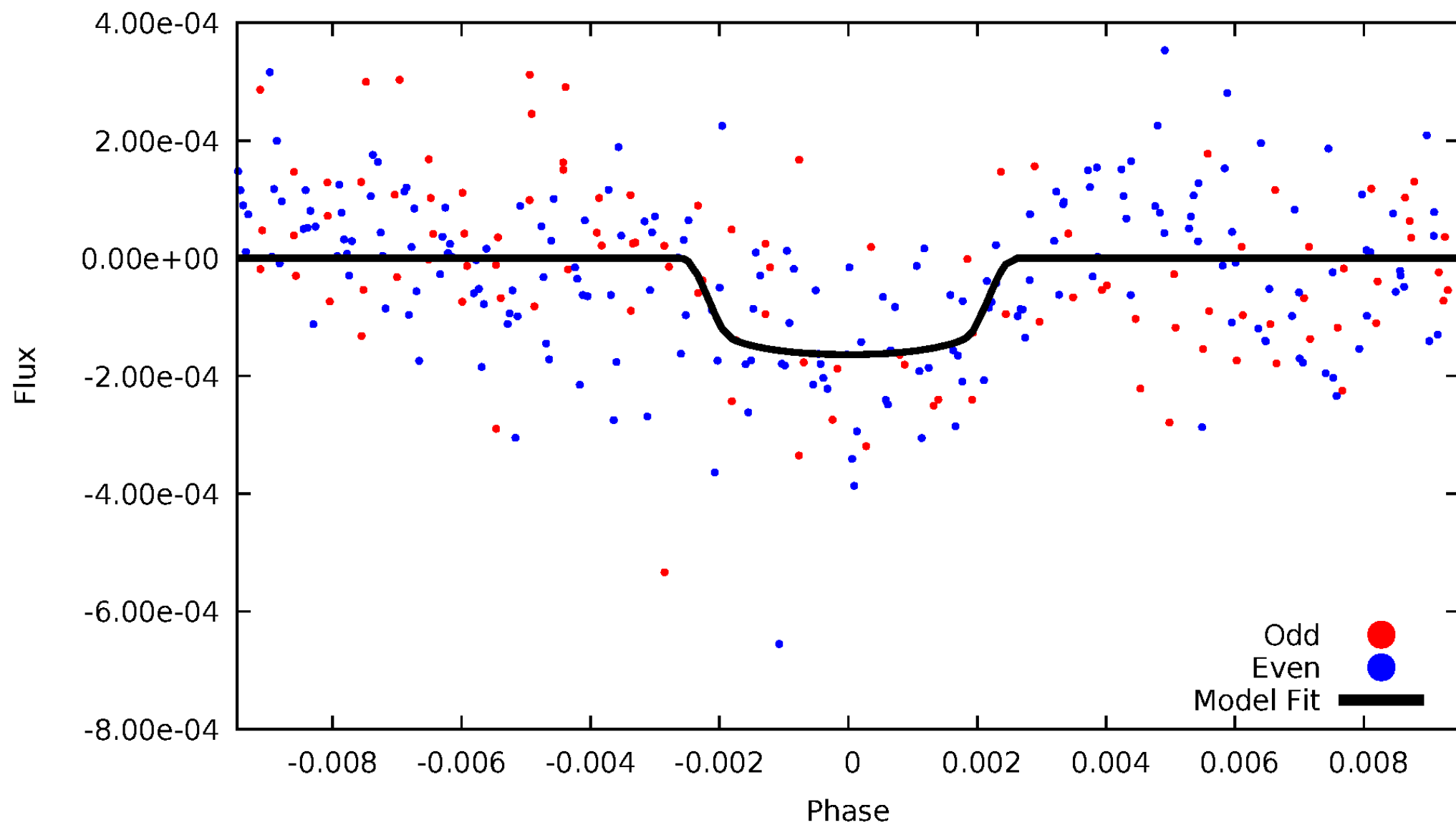


TCE 006676174-04



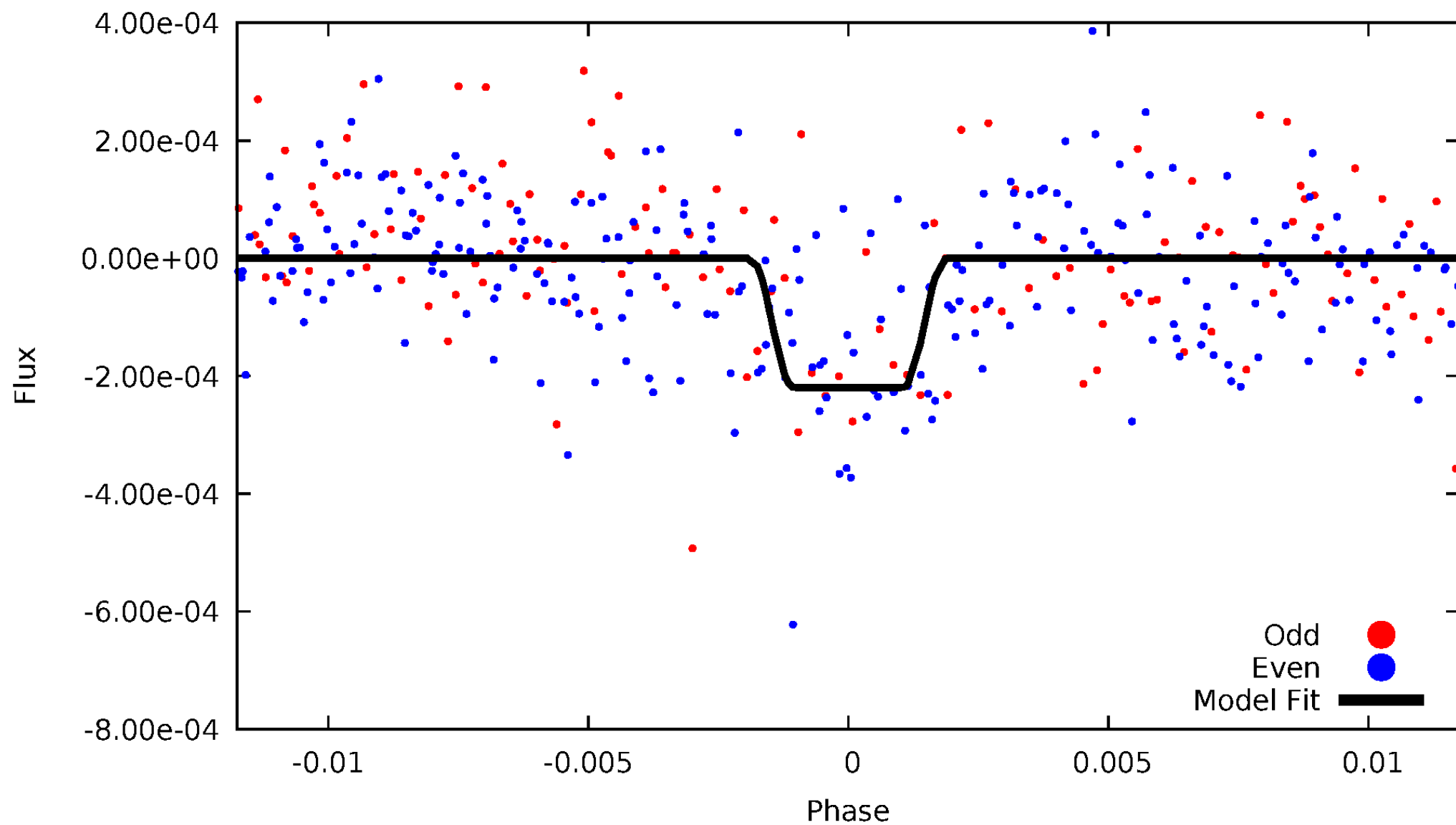
DV Odd/Even

TCE 006676174-04



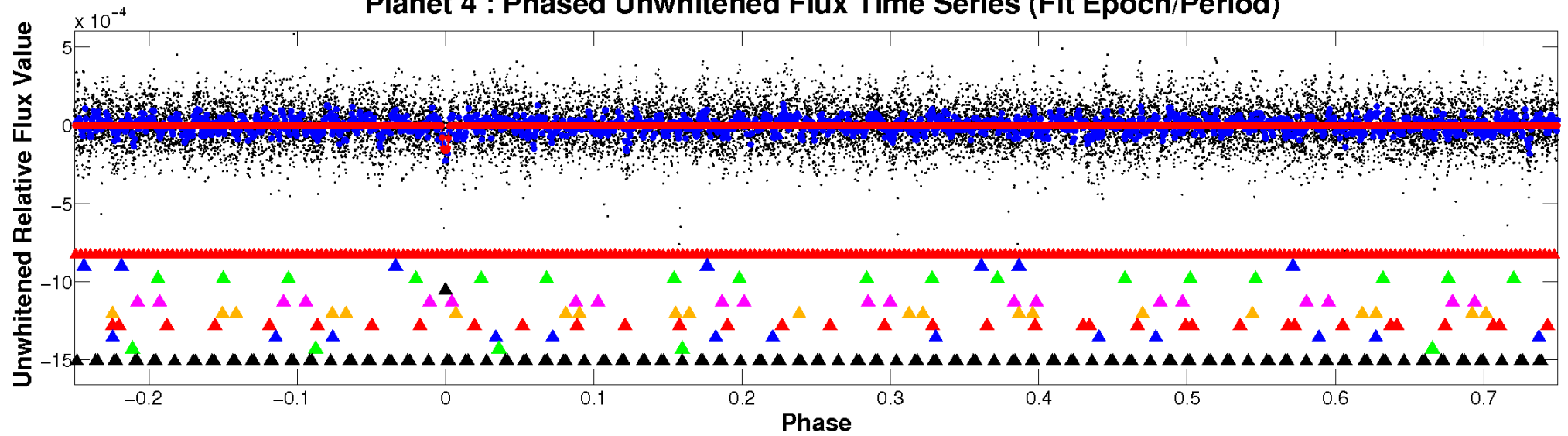
ALT Odd/Even

TCE 006676174-04

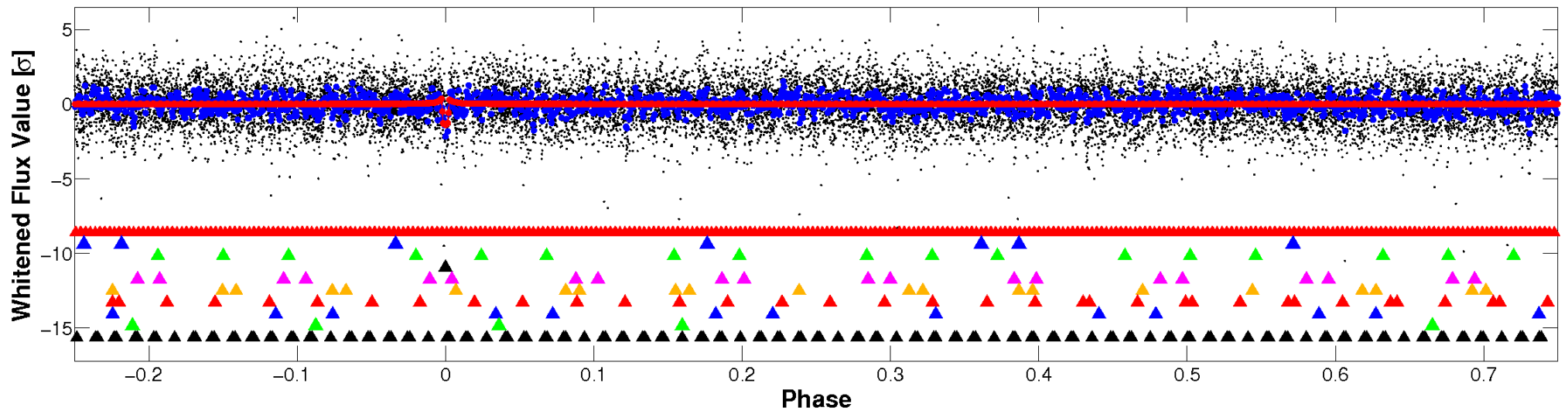


Non-Whitened Vs. Whitened Light Curve

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

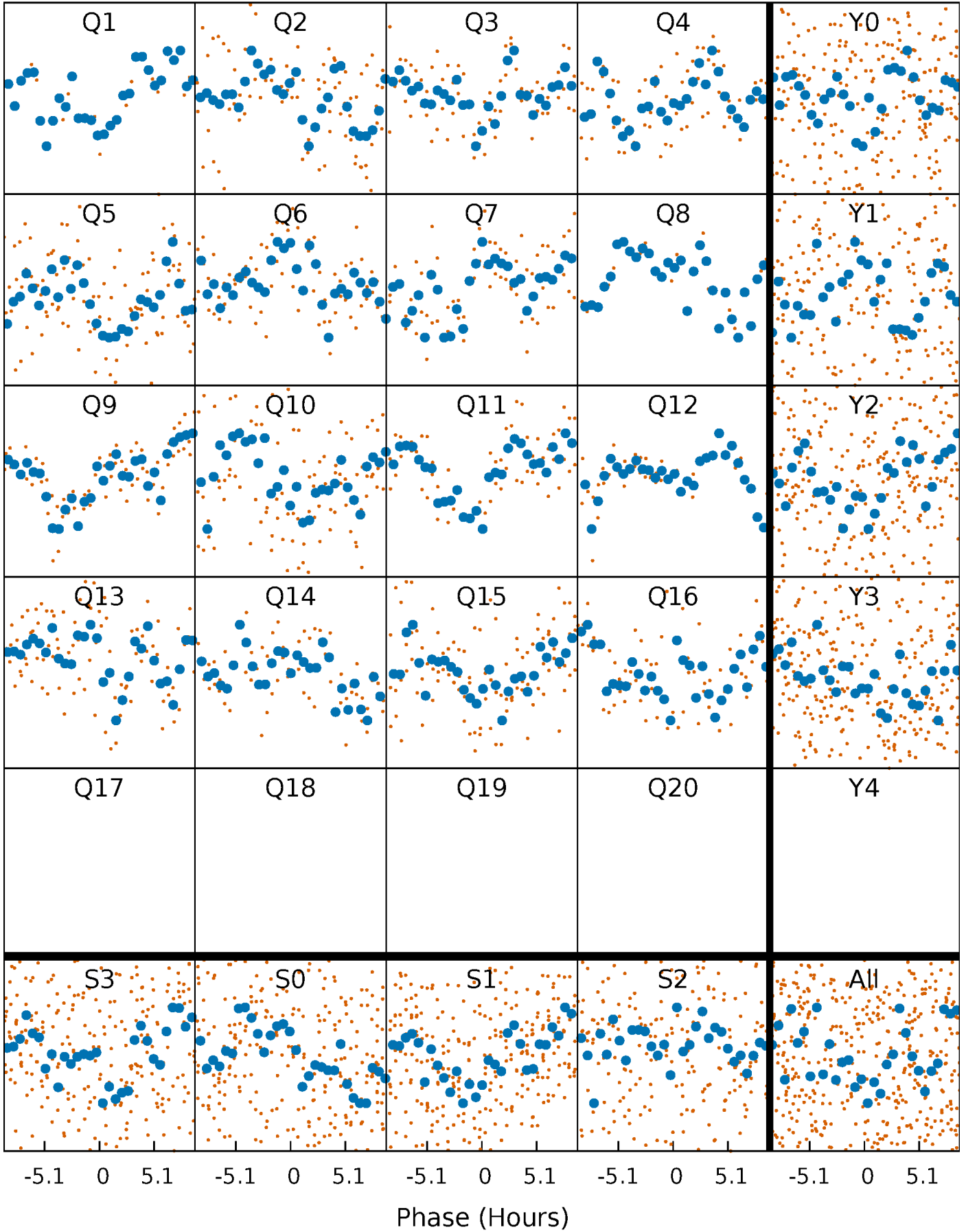


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



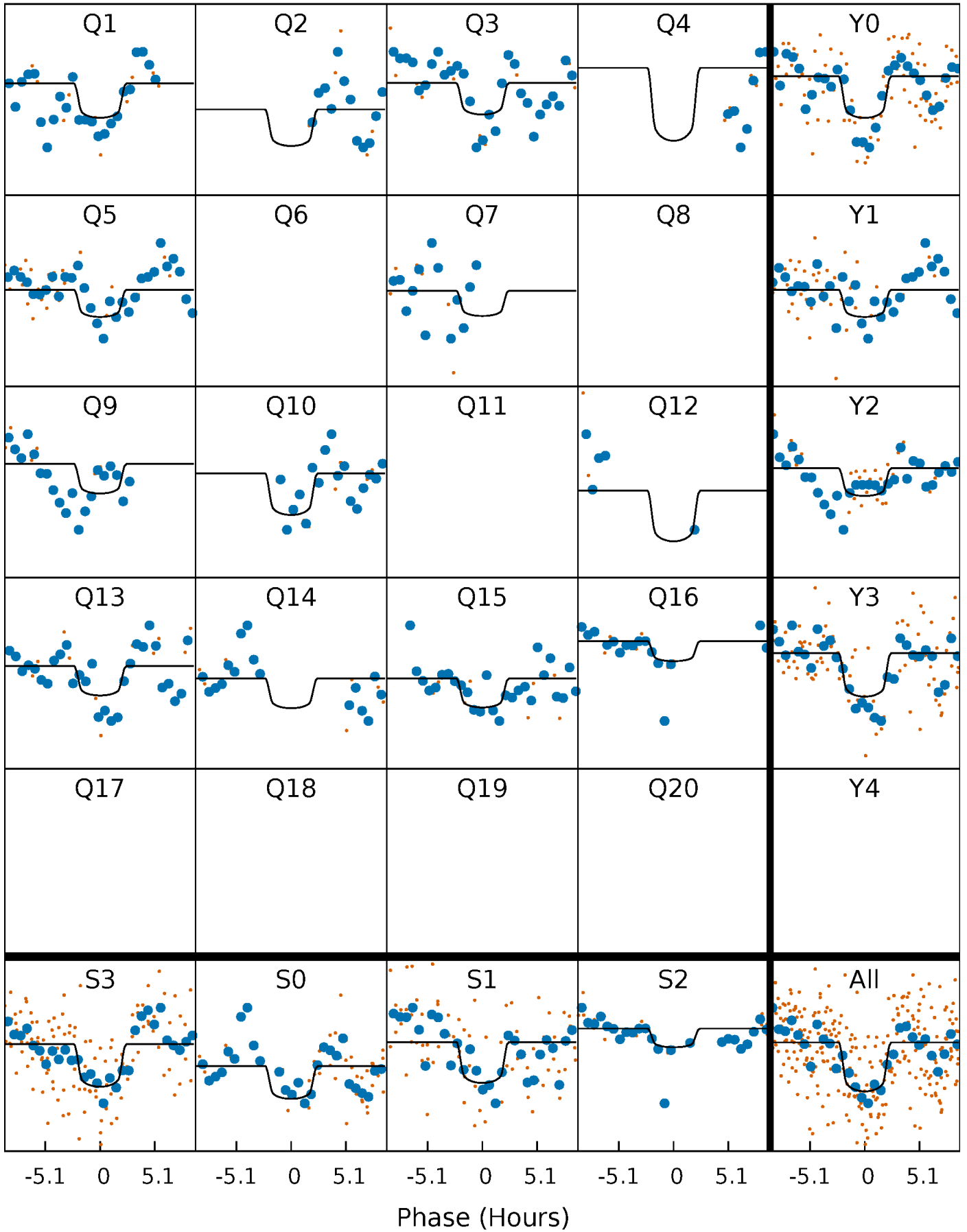
PDC Quarter-Phased Transit Curves

TCE 006676174-04 P= 39.107644 Days $T_0=138.907657$ (BKJD)



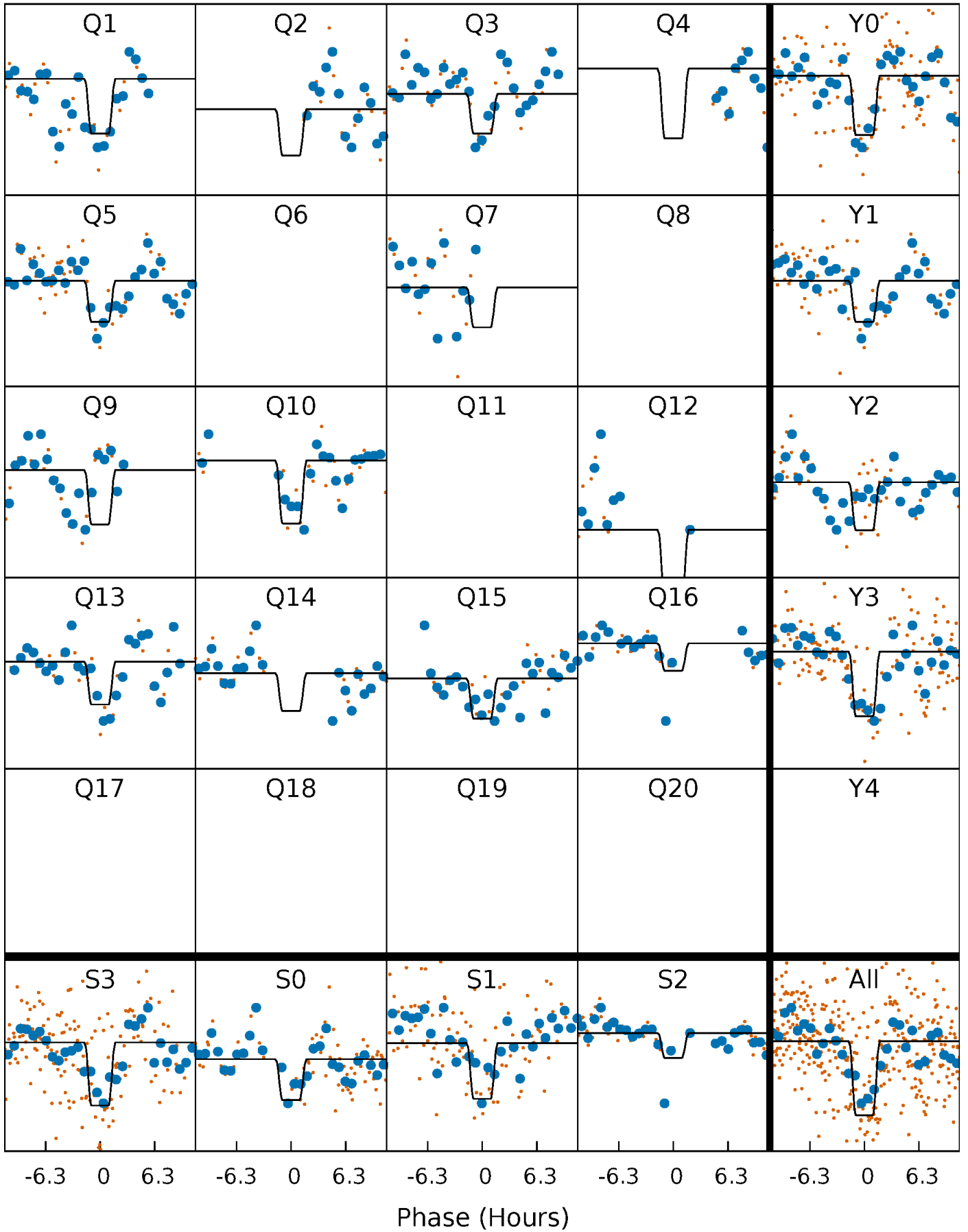
DV Quarter-Phased Transit Curves

TCE 006676174-04 P= 39.107644 Days $T_0=138.907657$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

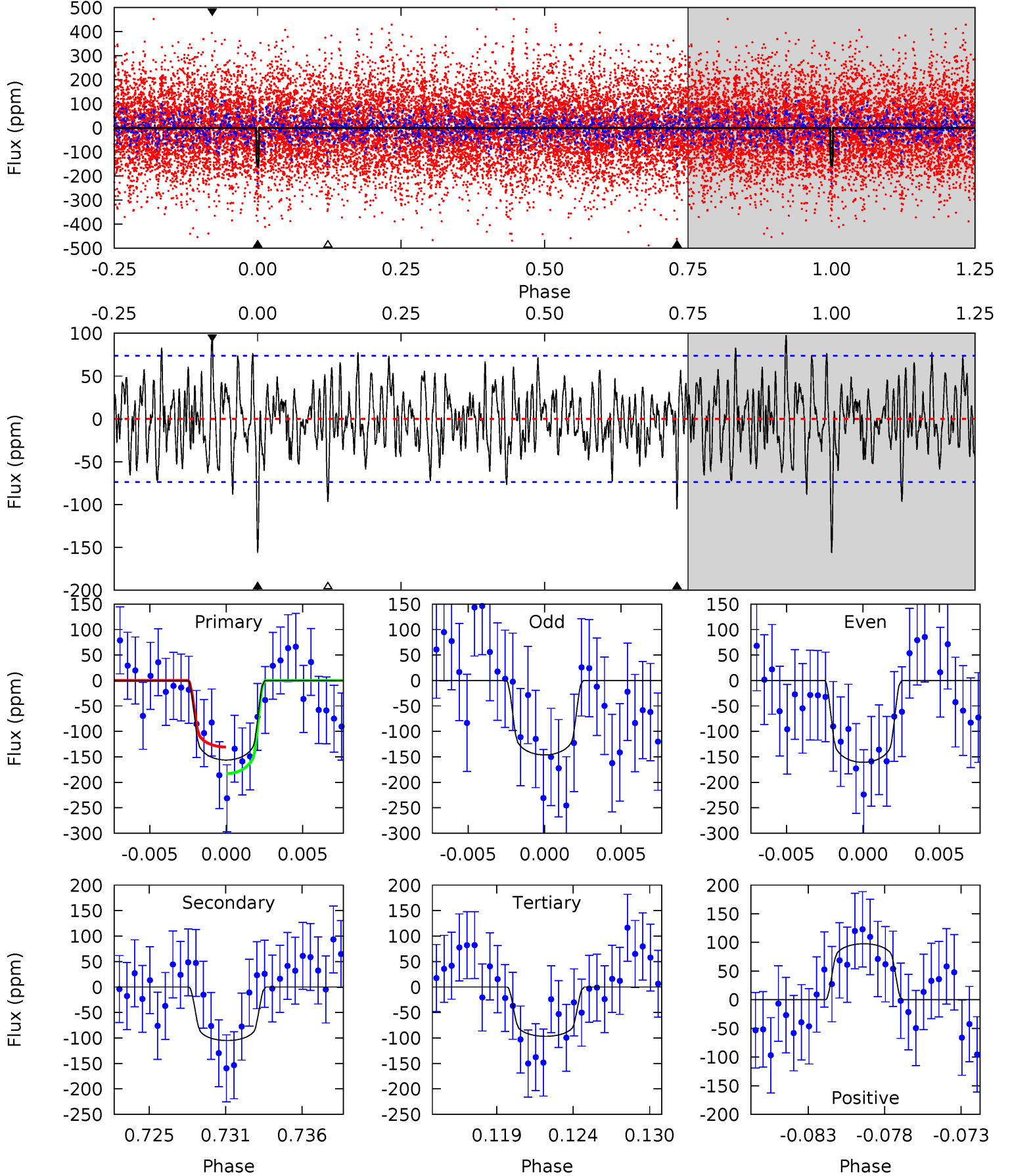
TCE 006676174-04 P= 39.107386 Days $T_0=138.916633$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-04, P = 39.107644 Days, E = 99.800013 Days

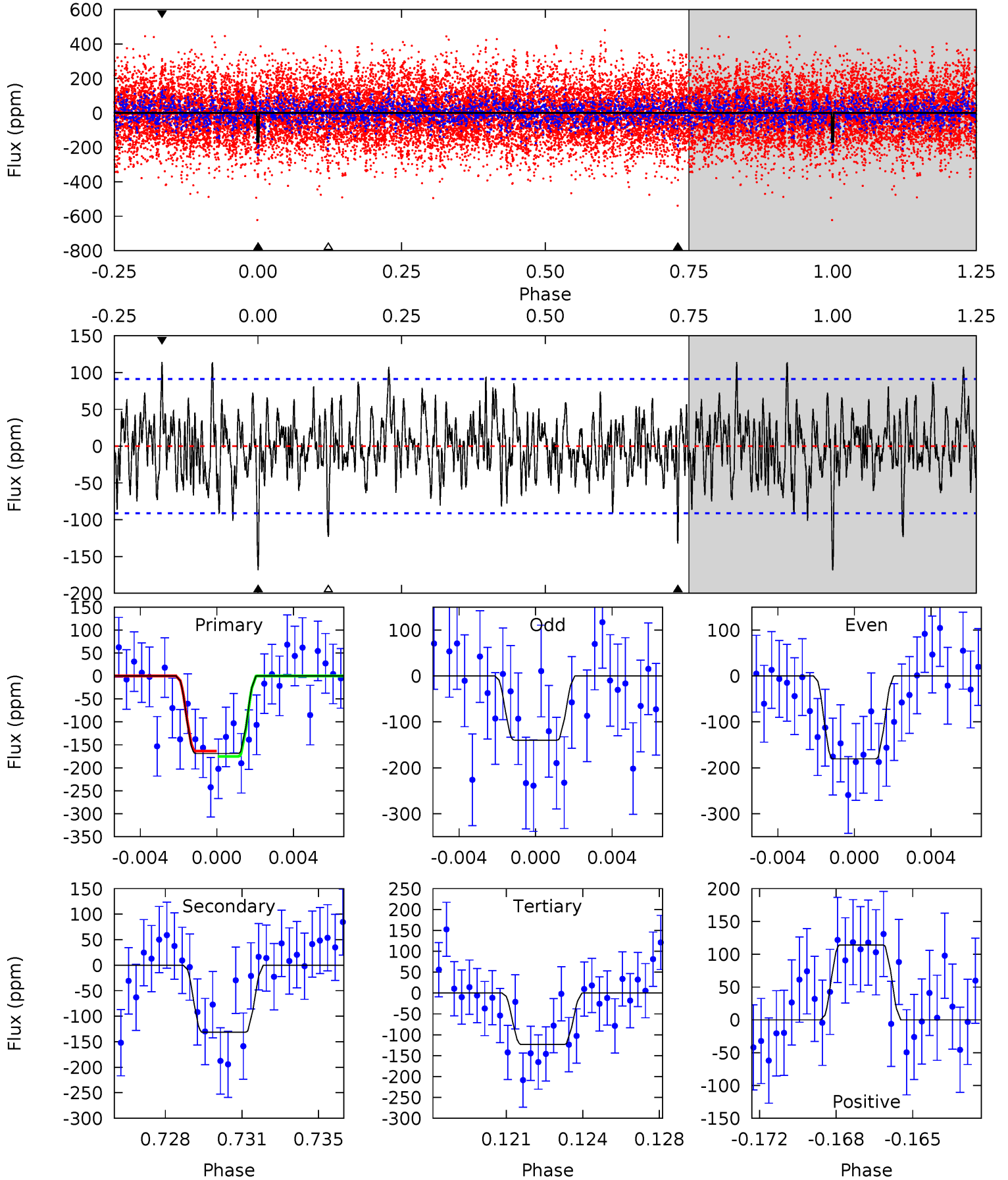
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	7.34	6.76	6.83	5.15	2.80	2.08	4.15	4.09	0.58	0.51	0.48	1.08	0.38	1.82



Alt Model-Shift Uniqueness Test

006676174-04, P = 39.107386 Days, E = 99.809247 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.64	7.51	7.04	6.52	5.22	2.91	1.96	2.59	3.11	0.47	0.99	1.05	0.68	0.40	0.33



Stellar Parameters For KIC 006676174

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-105 ± 14	$4.86^{+2.13}_{-1.90}$	1524^{+86}_{-142}	5933^{+1632}_{-773}	172^{+276}_{-88}
Alt.	-131 ± 18	$5.28^{+2.04}_{-2.02}$	1525^{+86}_{-128}	6077^{+1427}_{-806}	184^{+264}_{-91}

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

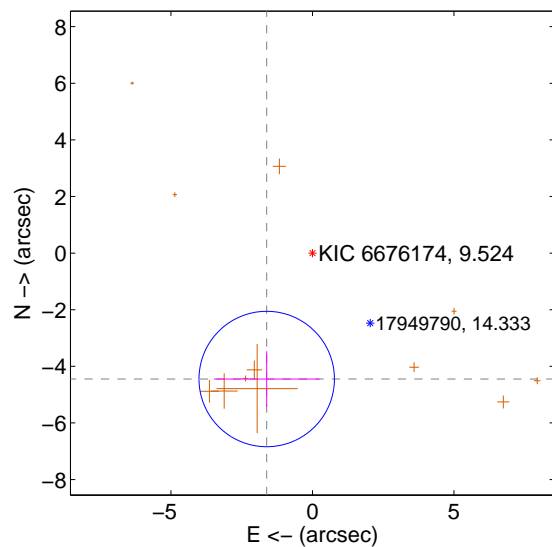
Supplemental centroid analysis for 006676174-04. **Kepler magnitude: 9.52.** Transit SNR 10.24

There are 0 quarters with good PRF difference image offsets

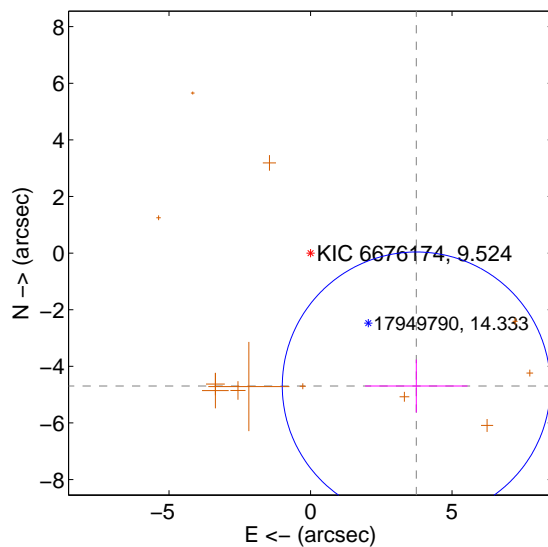
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.732 ± 0.797	5.94	1.616 ± 1.866	-4.448 ± 0.984
PRF-fit source offset from KIC position	6.000 ± 1.578	3.80	-3.737 ± 1.809	-4.695 ± 0.934
photometric centroid source offset	1.42 ± 0.36	3.97	-0.11 ± 0.40	-1.42 ± 0.36

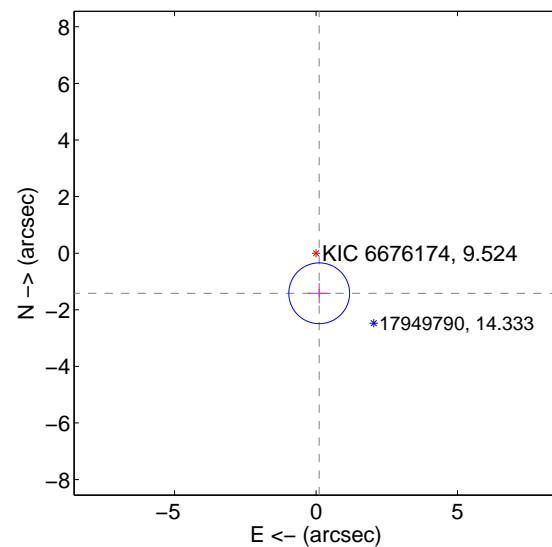
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

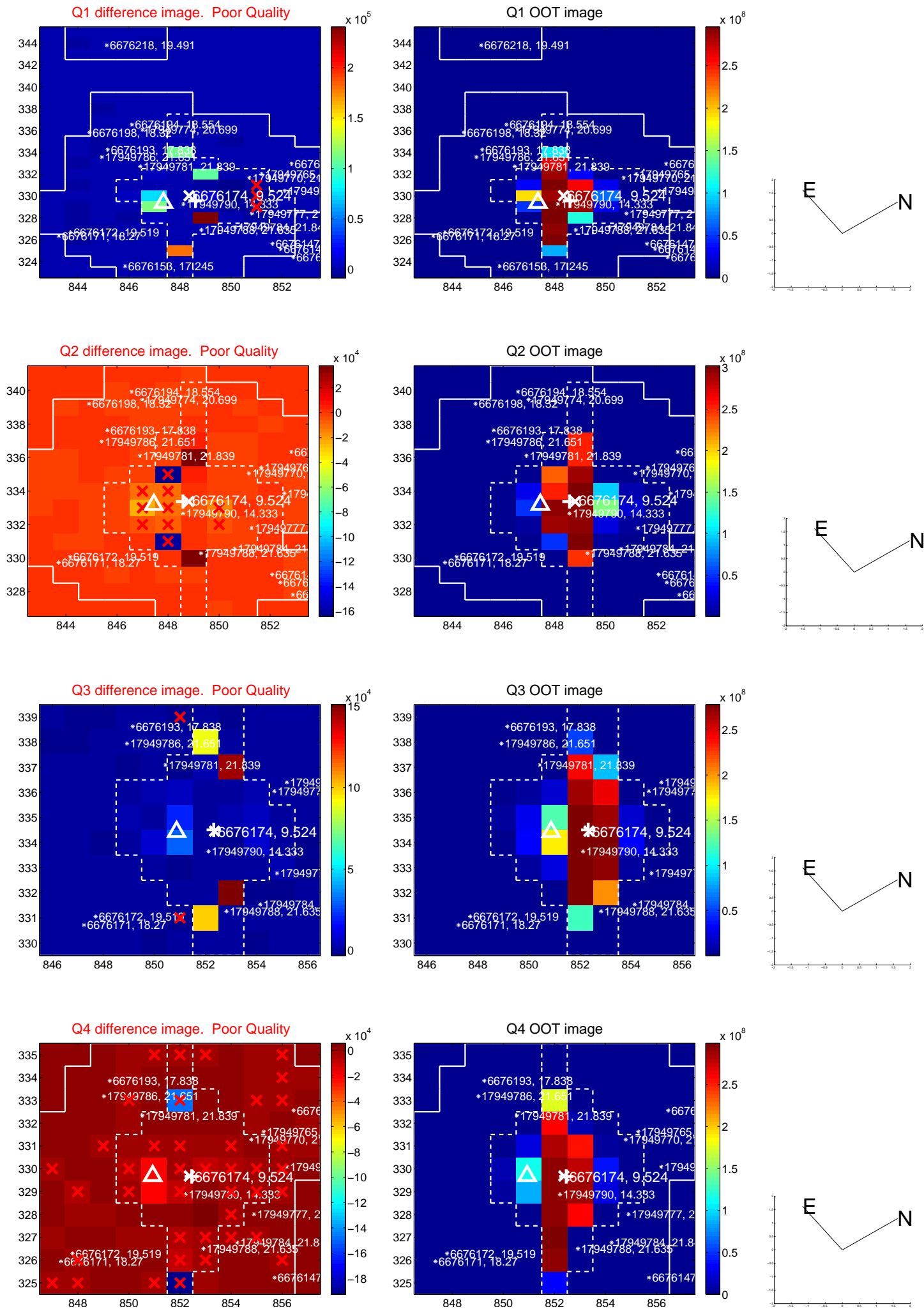


offset from photometric centroids

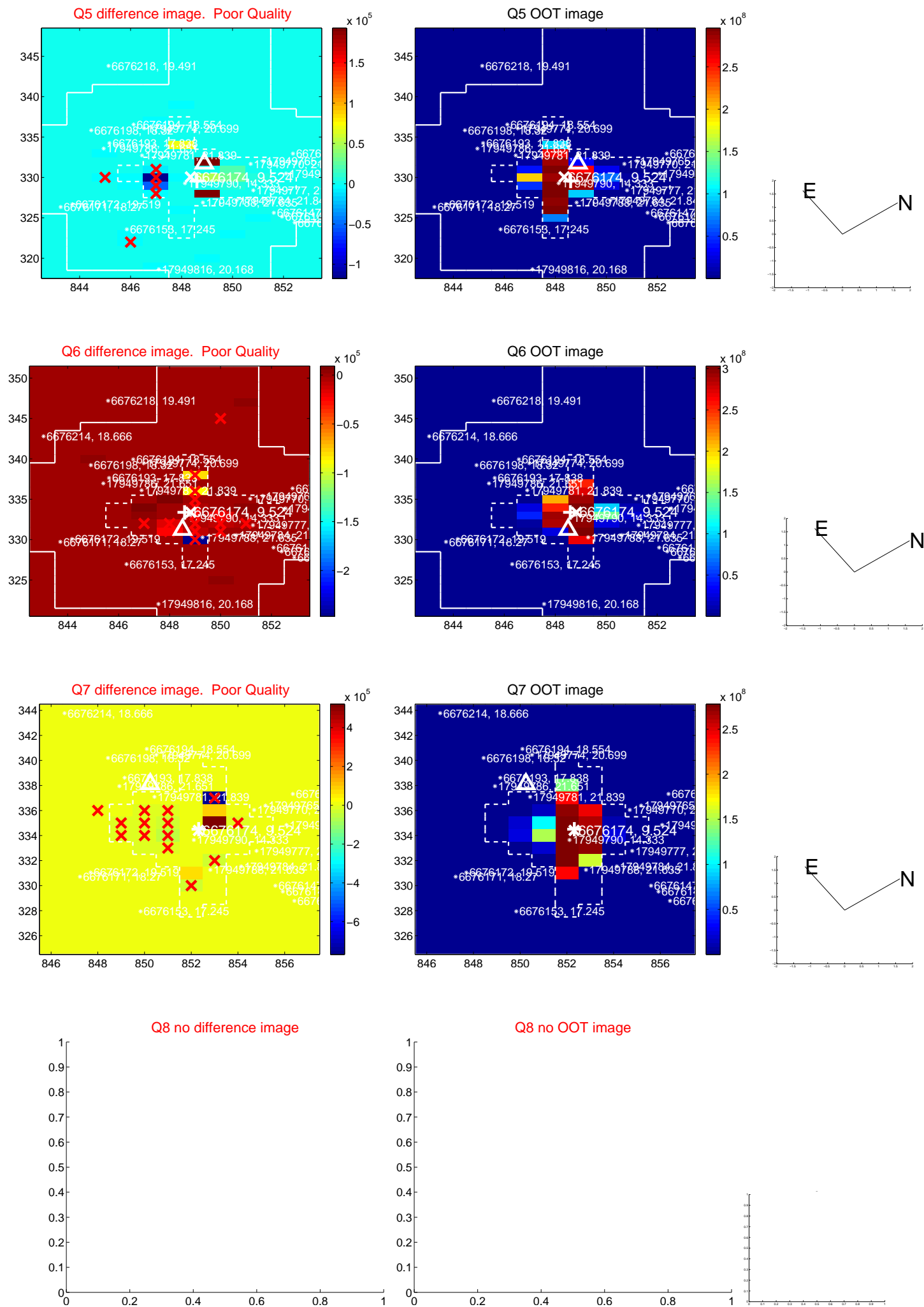


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

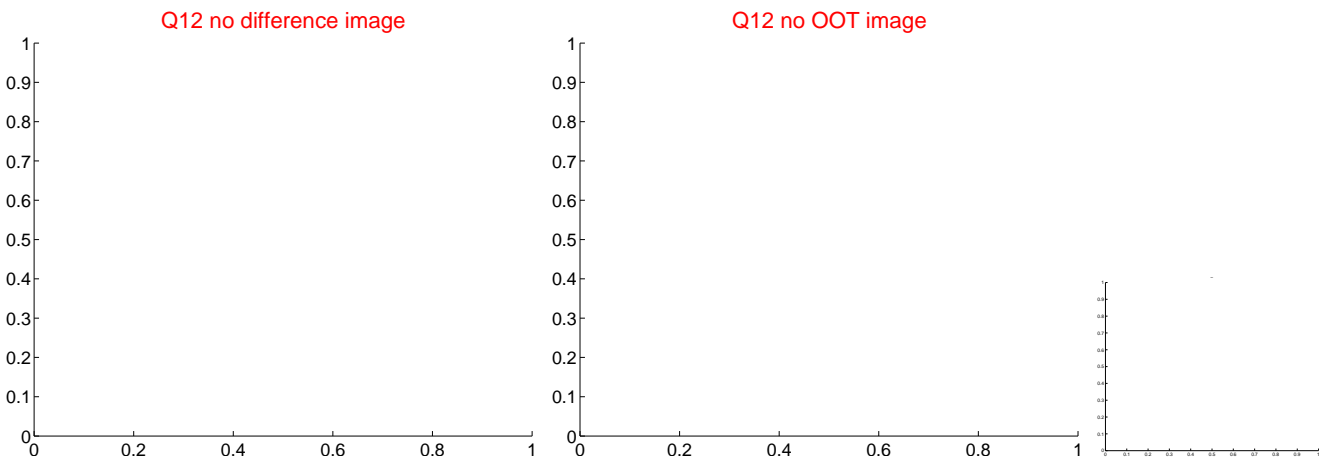
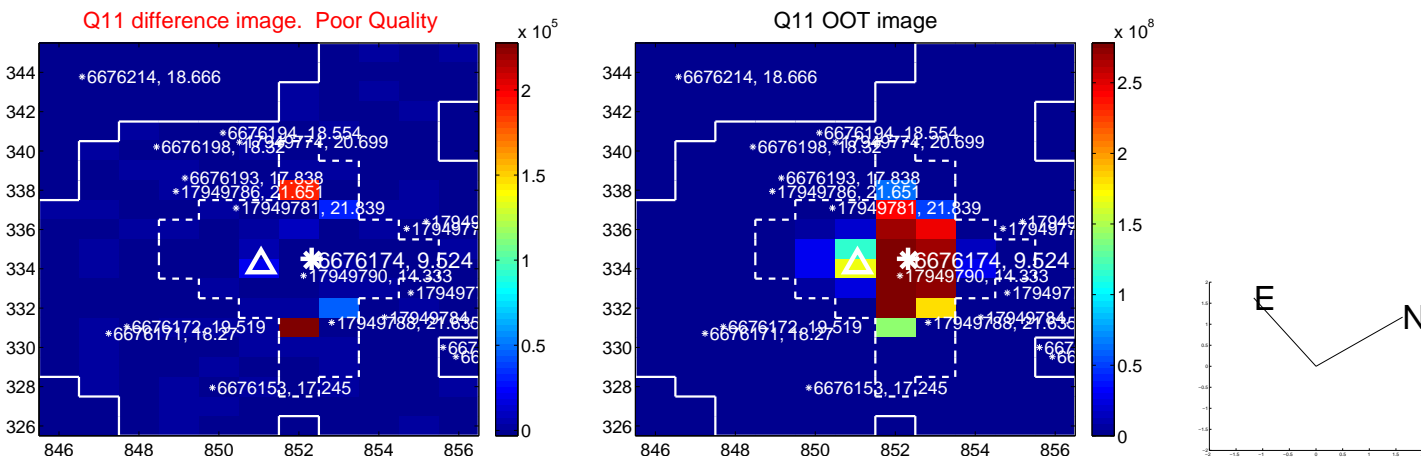
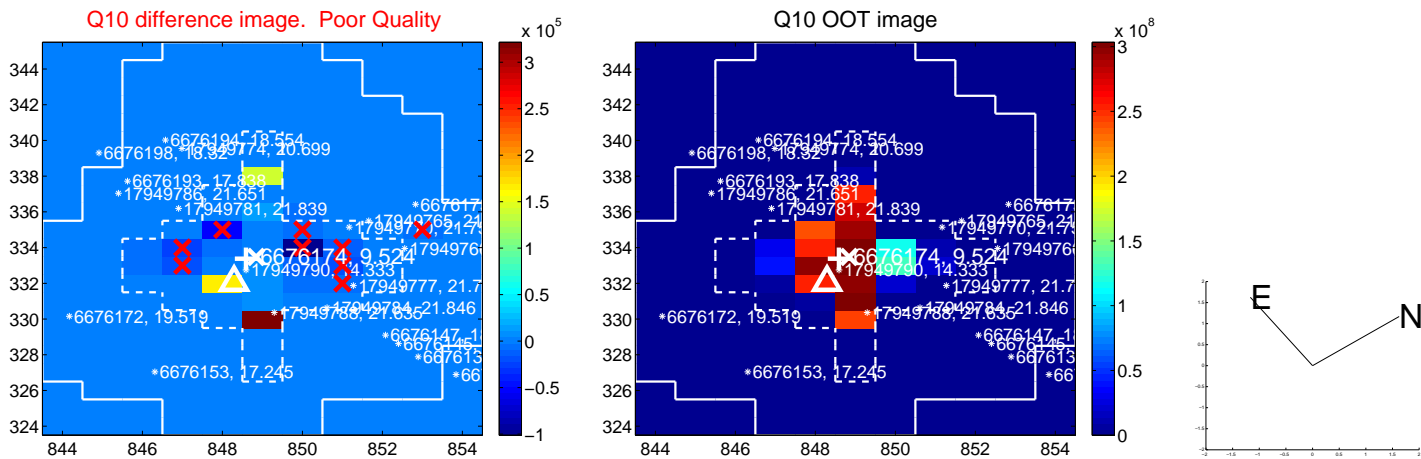
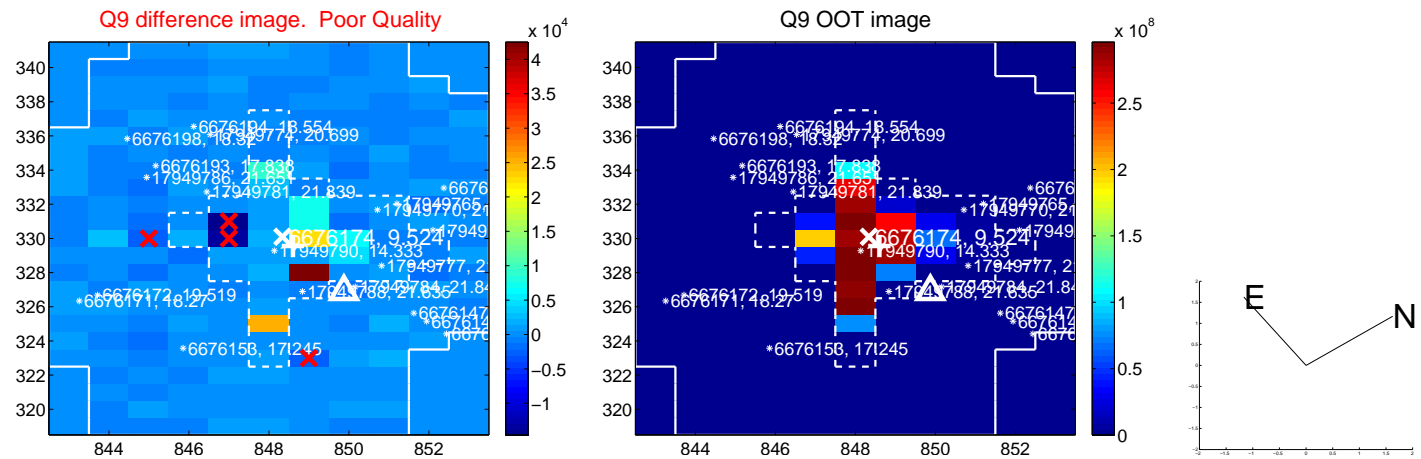
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



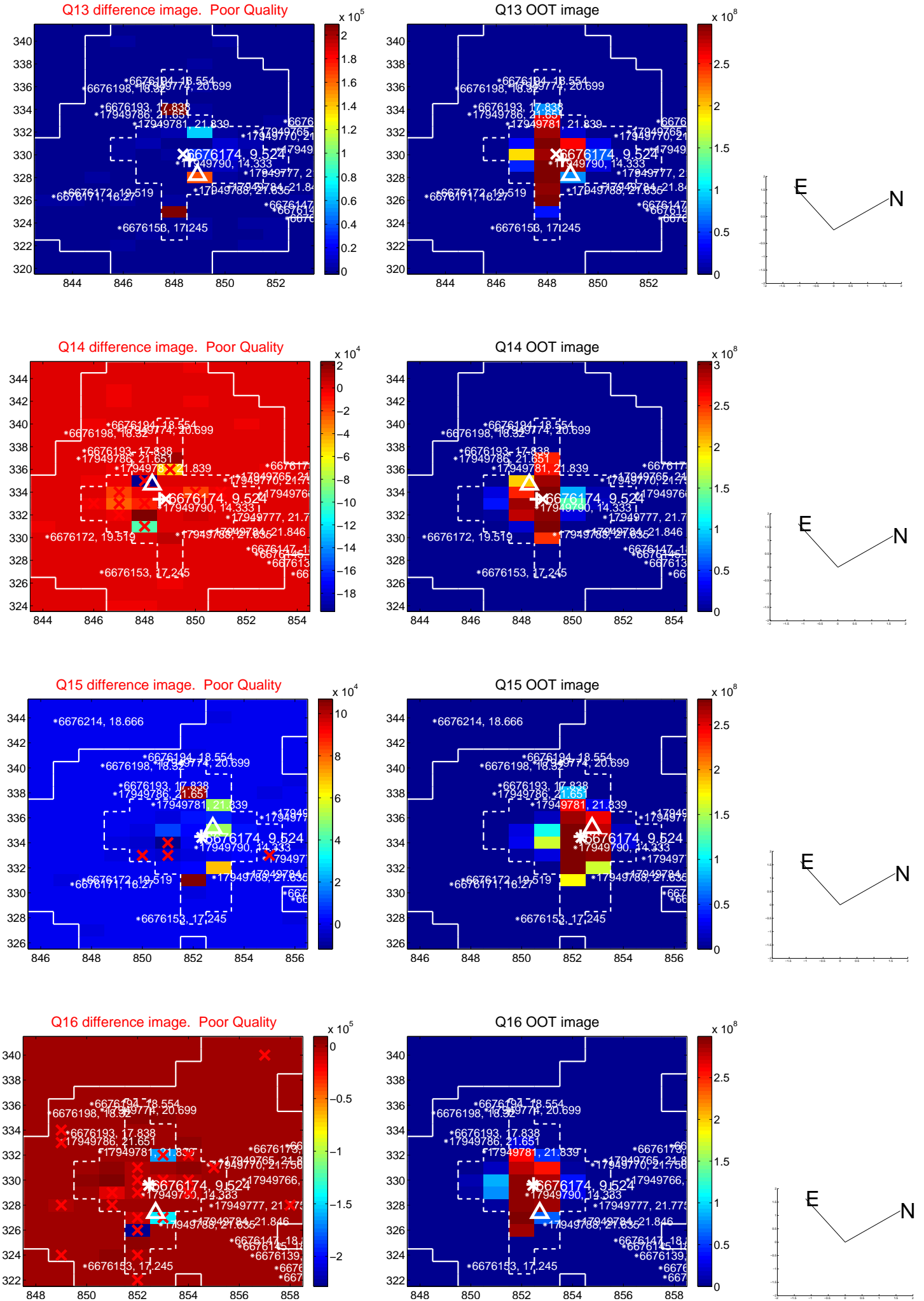
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



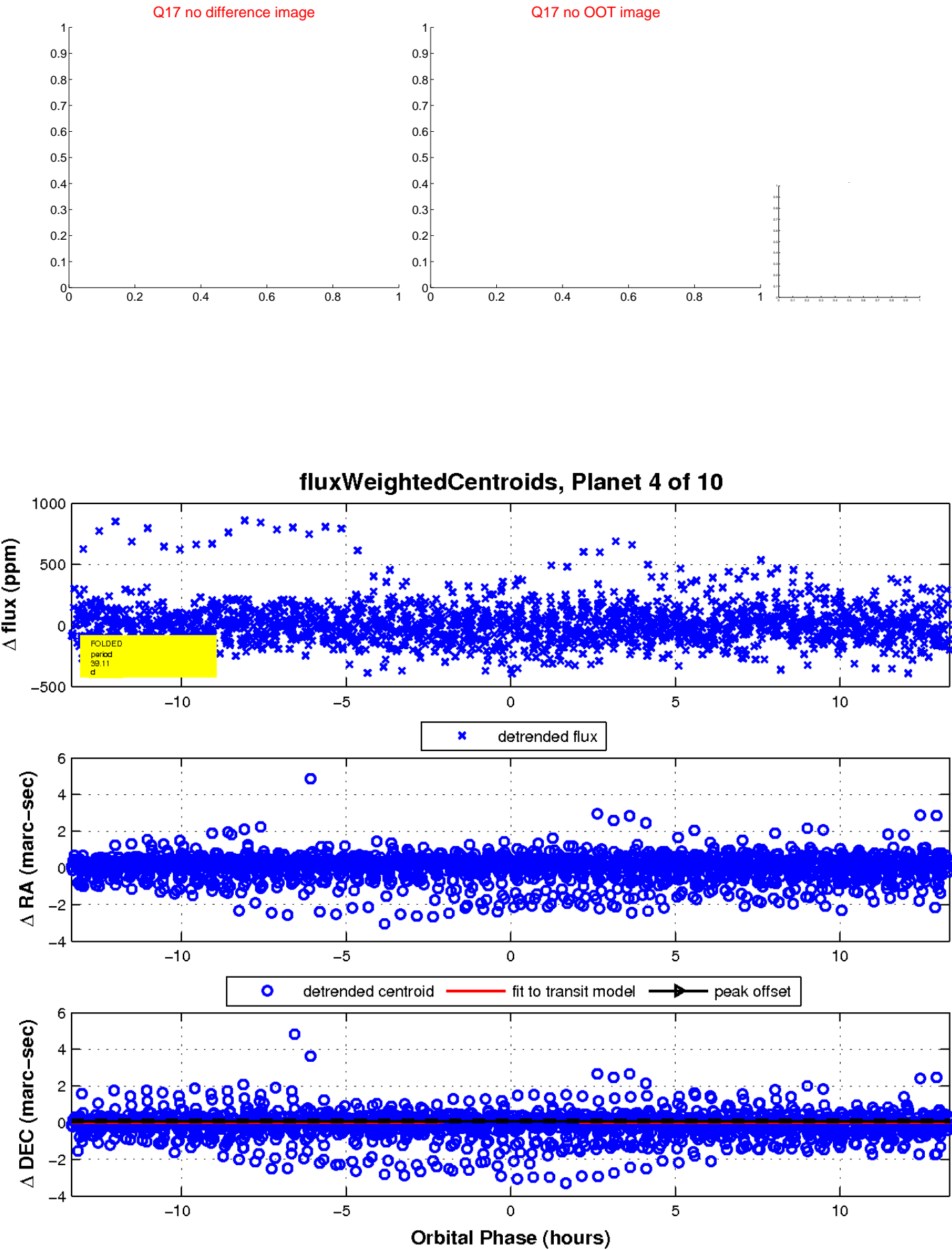
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

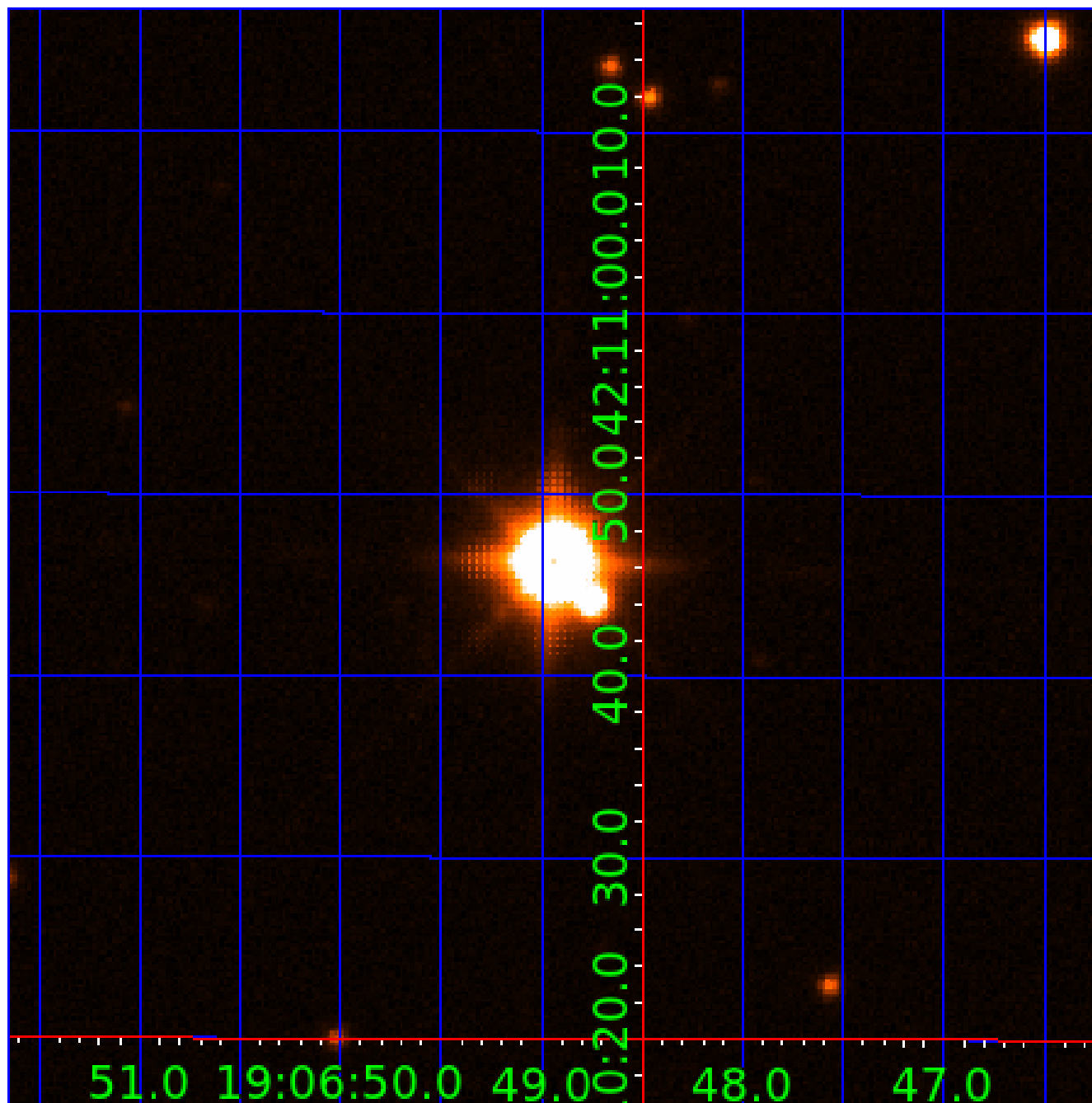


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

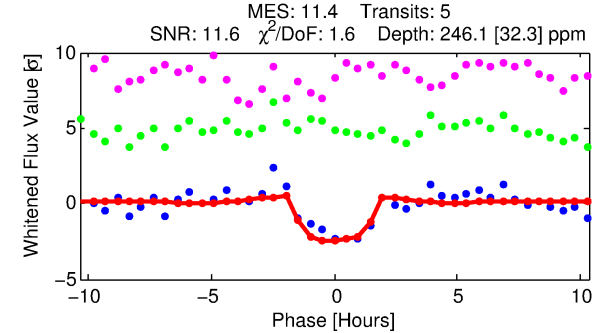
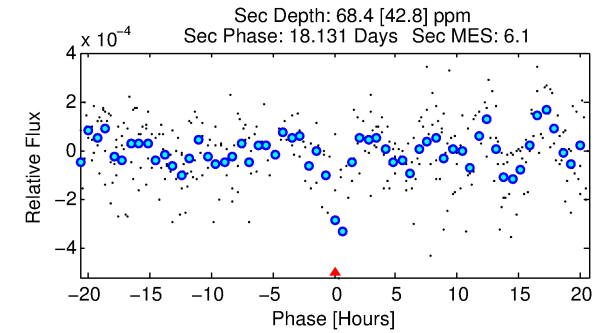
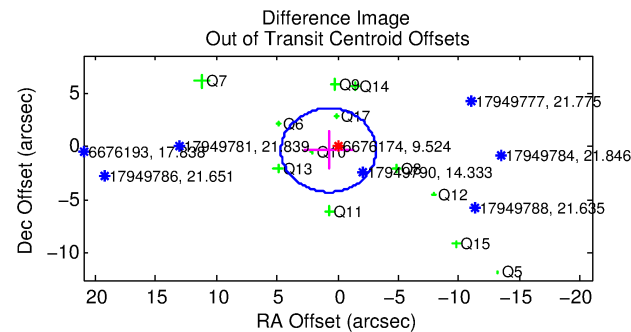
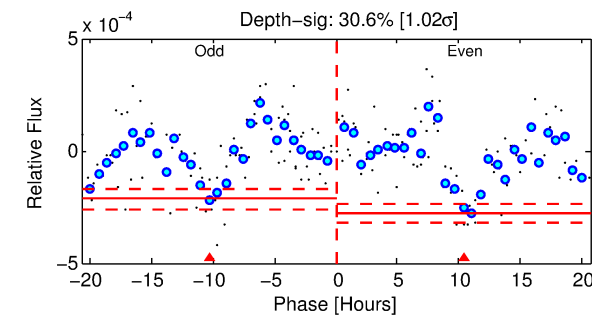
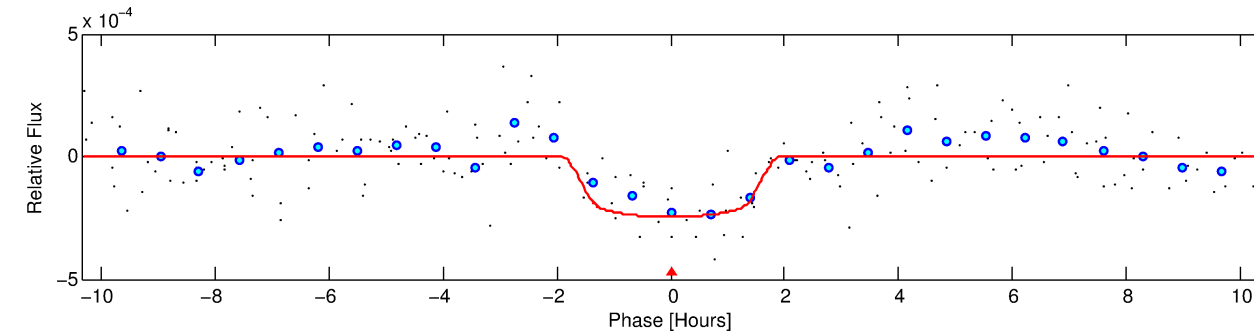
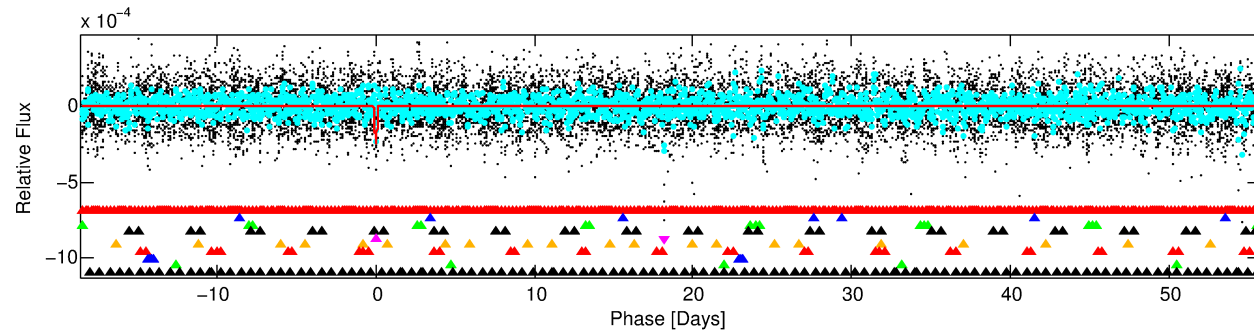
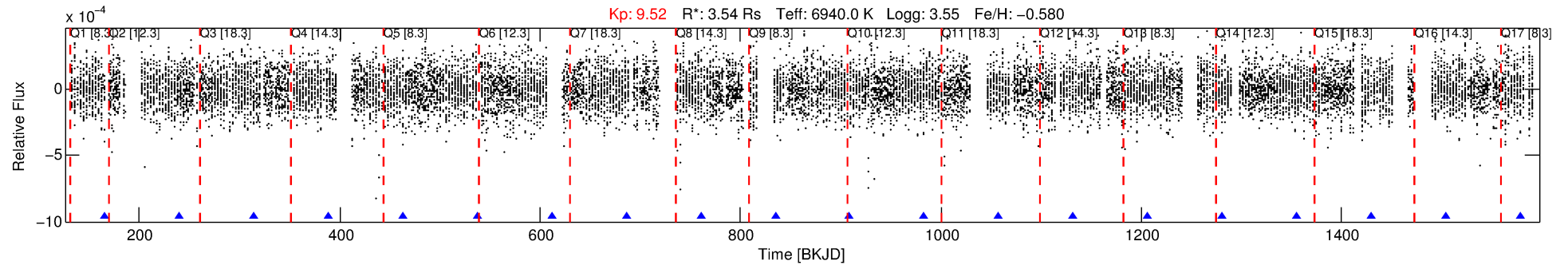
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-05

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 5 of 10 Period: 74.363 d



DV Fit Results:

Period = 74.36286 [0.00064] d
Epoch = 165.4609 [0.0088] BKJD
Rp/R* = 0.0166 [0.0134]
a/R* = 80.60 [398.23]
b = 0.89 [1.15]
Seff = 157.80 [99.65]
Teq = 904 [143] K
Rp = 6.42 [5.84] Re
a = 0.4066 [0.1602] AU
Ag = 151.12 [277.45] [0.54 σ]
Teffp = 4899 [2122] K [1.88 σ]

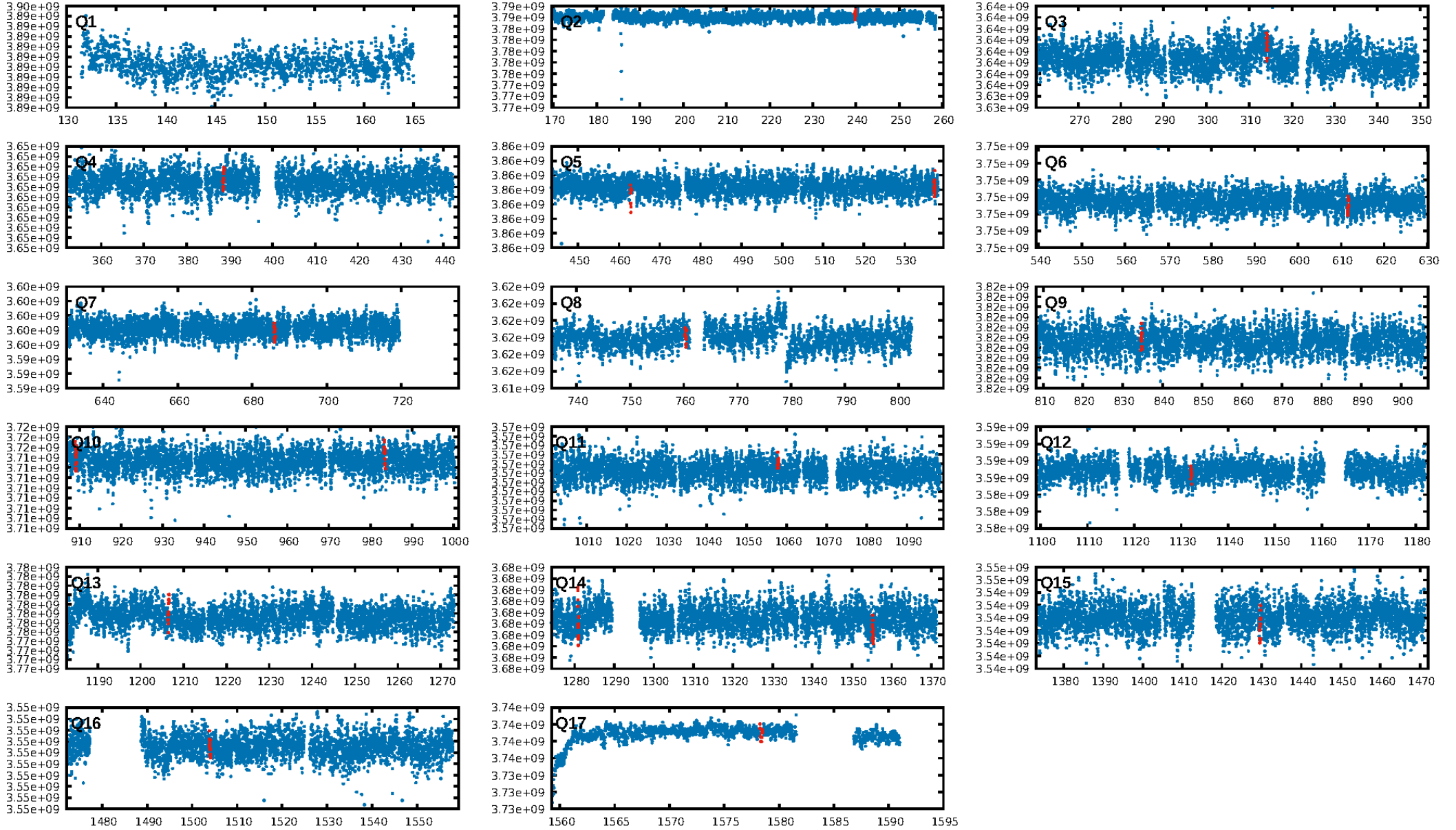
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [22.10 σ]
LongPeriod-sig: 100.0% [38.24 σ]
ModelChiSquare2-sig: 3.8%
ModelChiSquareGof-sig: 70.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.032 arcsec [3.16 σ]
OotOffset-rm: 0.843 arcsec [0.65 σ]
KicOffset-rm: 1.151 arcsec [1.24 σ]
OotOffset-st: 3/3/2/4 [12]
KicOffset-st: 3/3/2/4 [12]
DiffImageQuality-fgm: 0.08 [1/12]
DiffImageOverlap-fno: 0.44 [7/16]

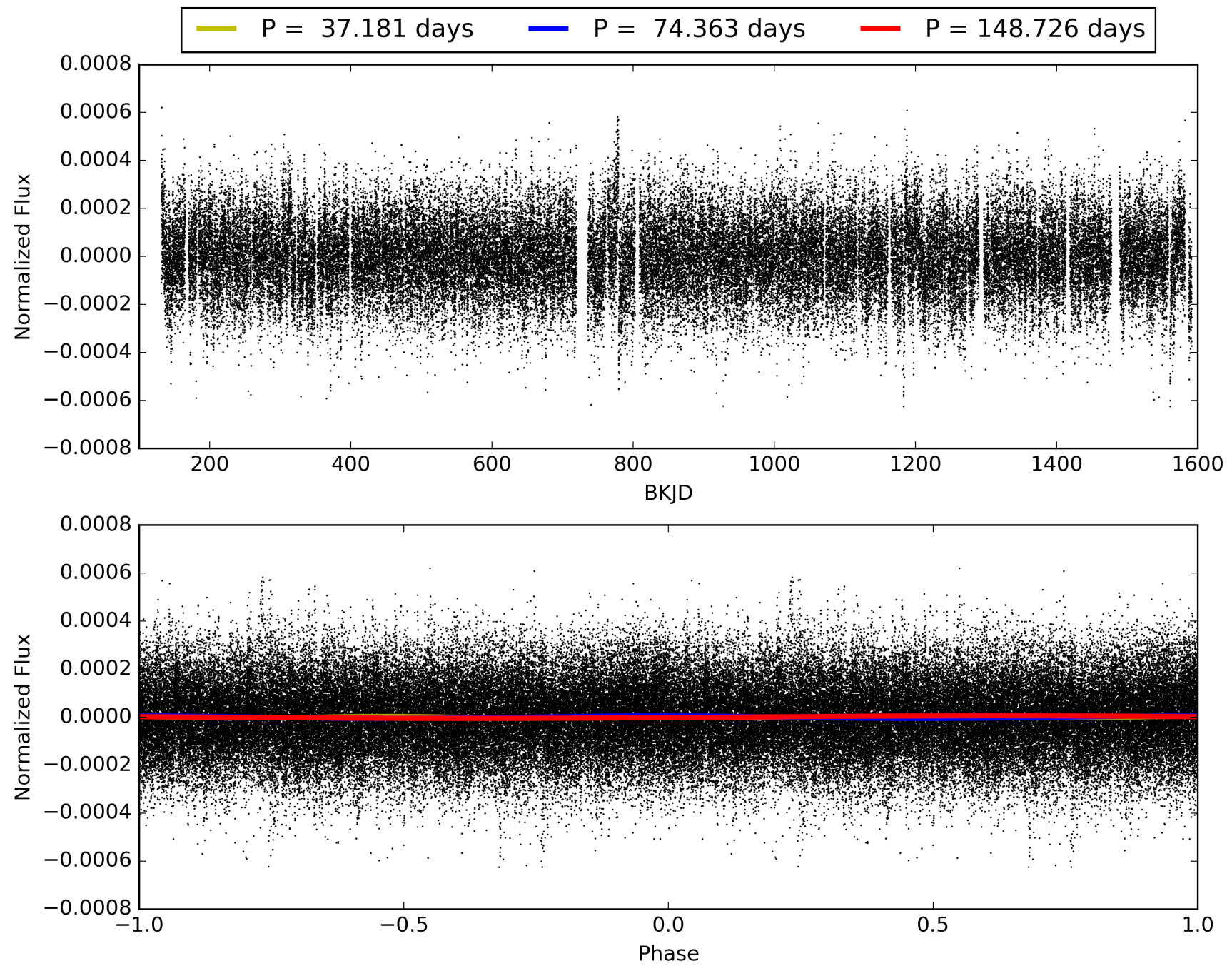
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:14:52 Z

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

TCE 006676174-05, PDC Light Curves

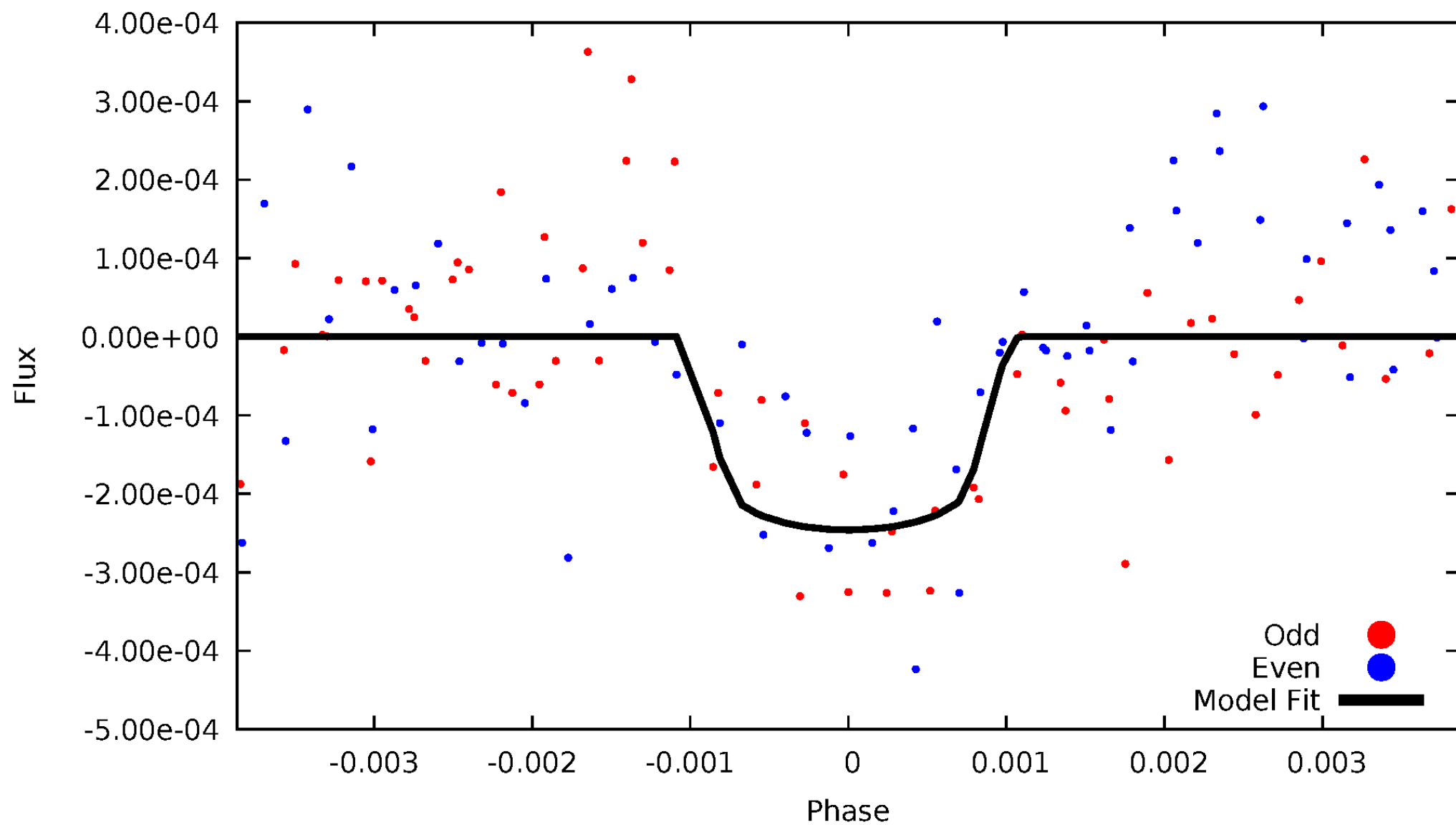


TCE 006676174-05



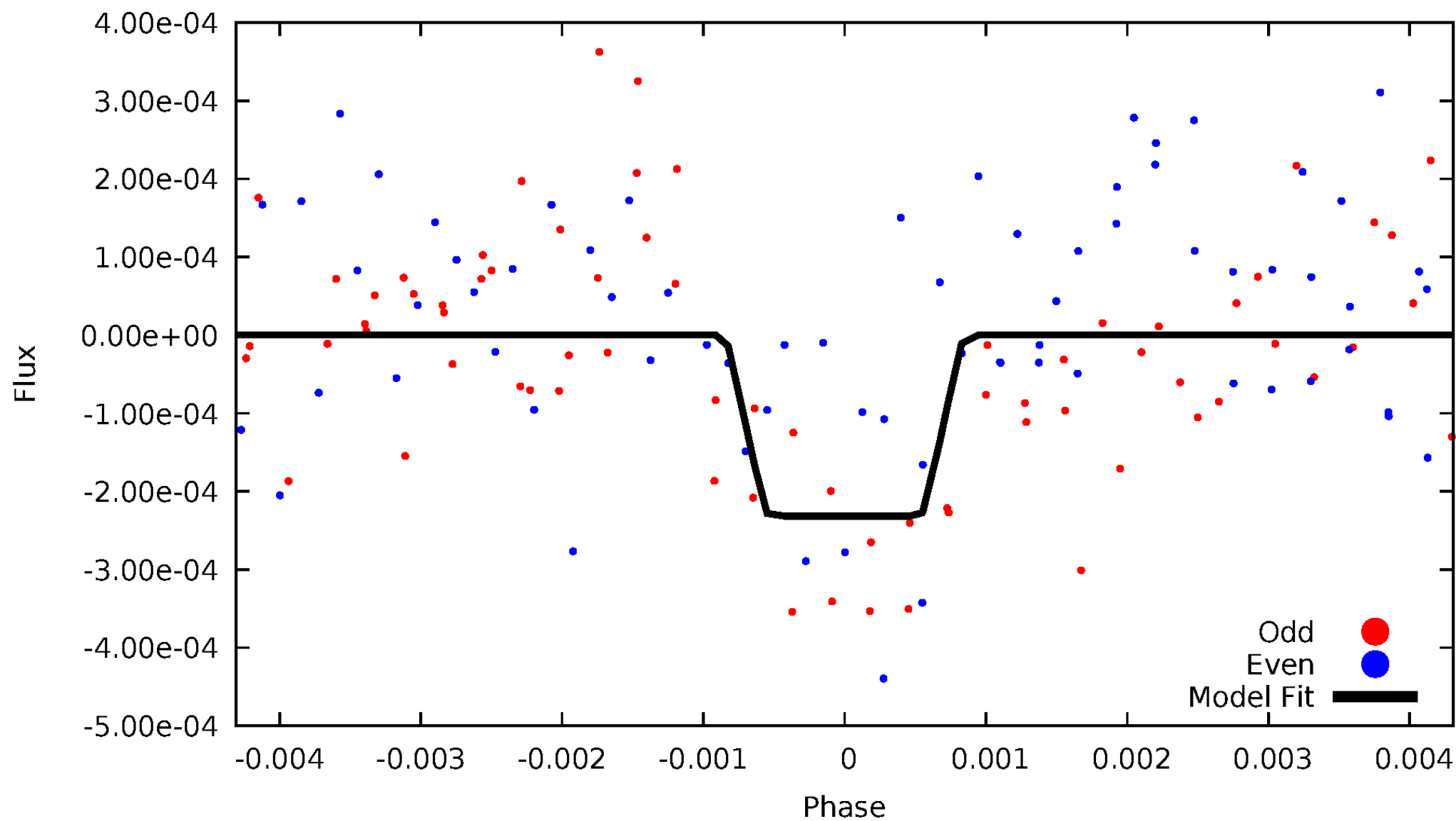
DV Odd/Even

TCE 006676174-05

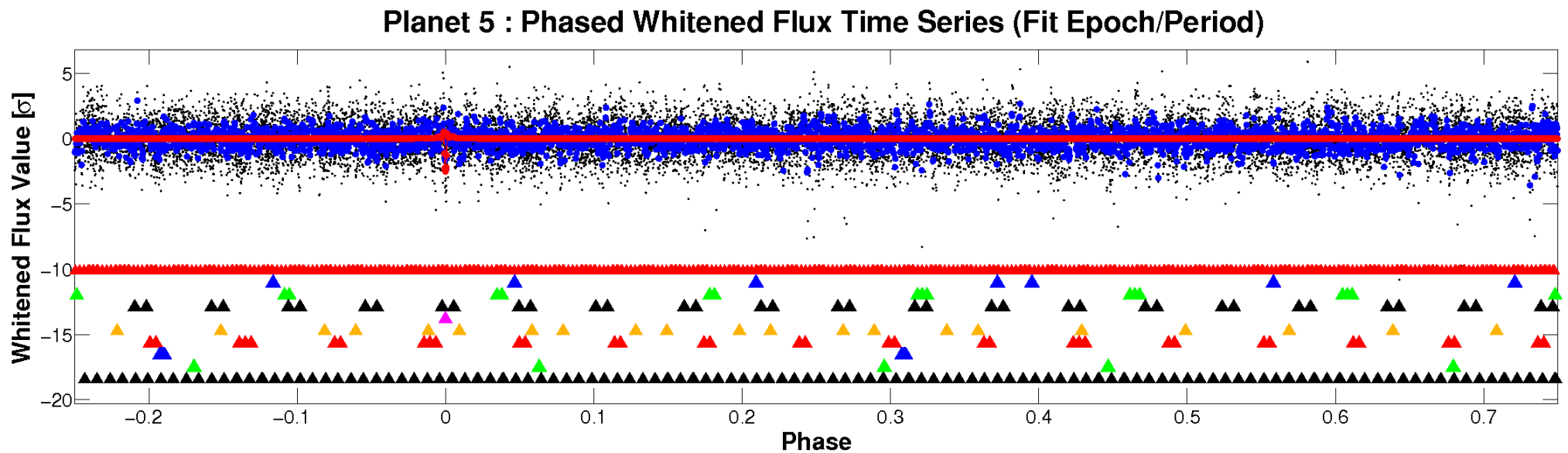
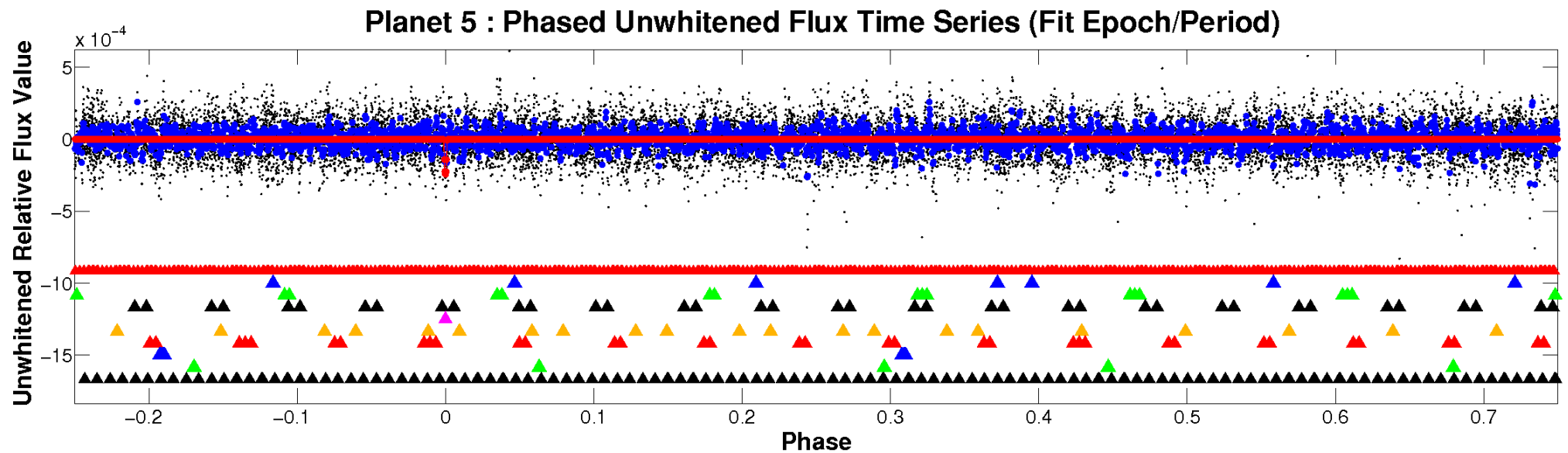


ALT Odd/Even

TCE 006676174-05

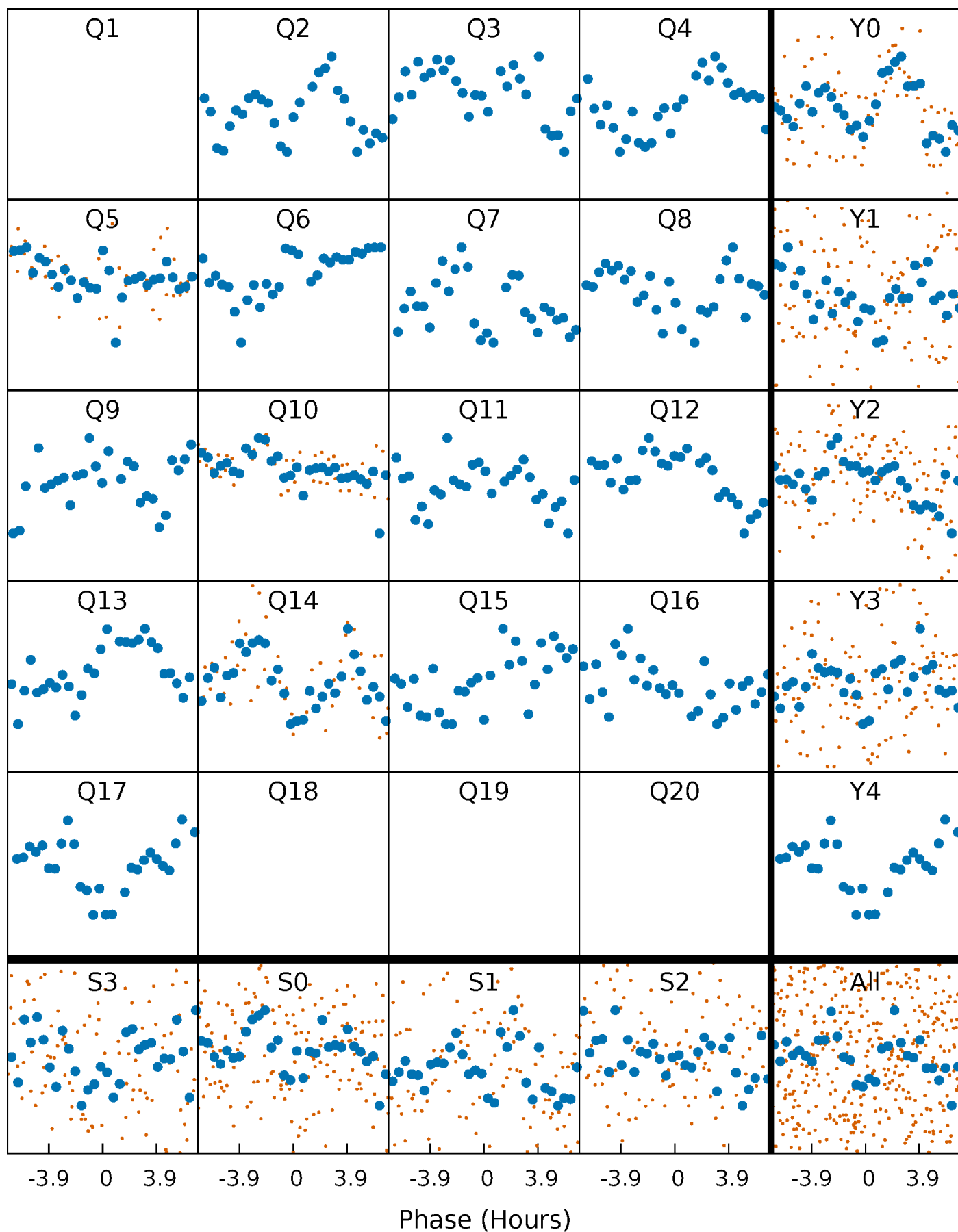


Non-Whitened Vs. Whitened Light Curve



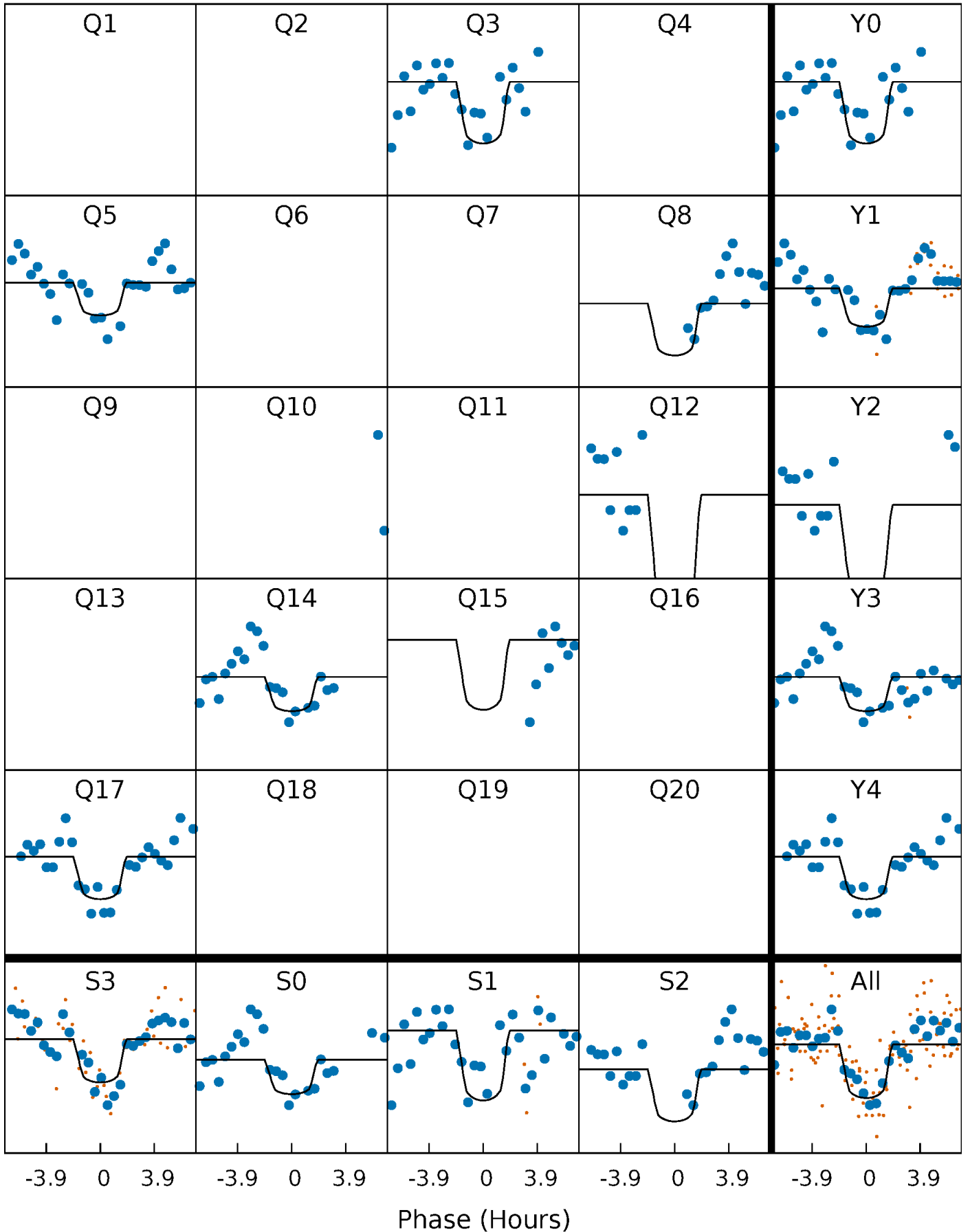
PDC Quarter-Phased Transit Curves

TCE 006676174-05 $P = 74.362856$ Days $T_0 = 165.460893$ (BKJD)



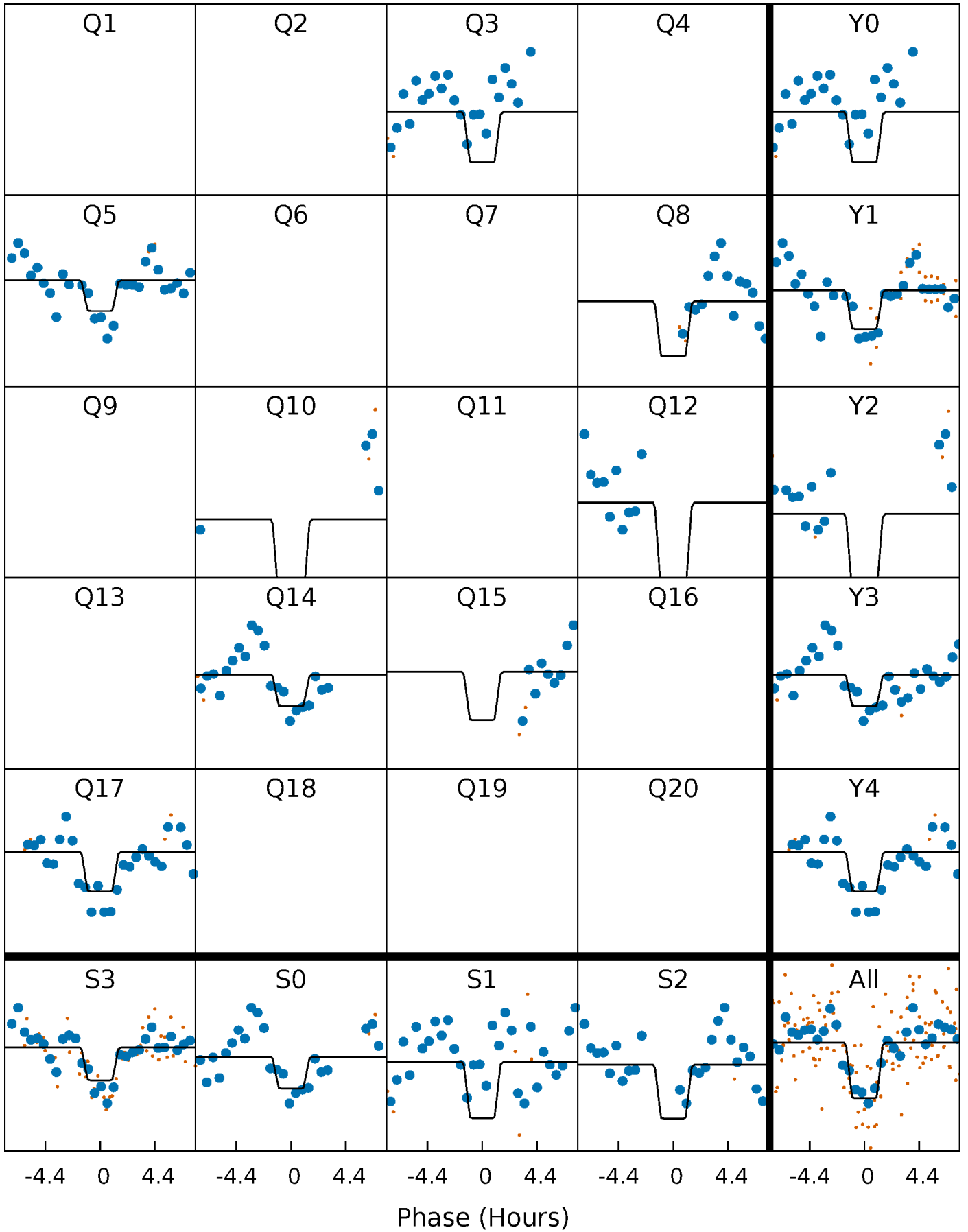
DV Quarter-Phased Transit Curves

TCE 006676174-05 $P = 74.362856$ Days $T_0 = 165.460893$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

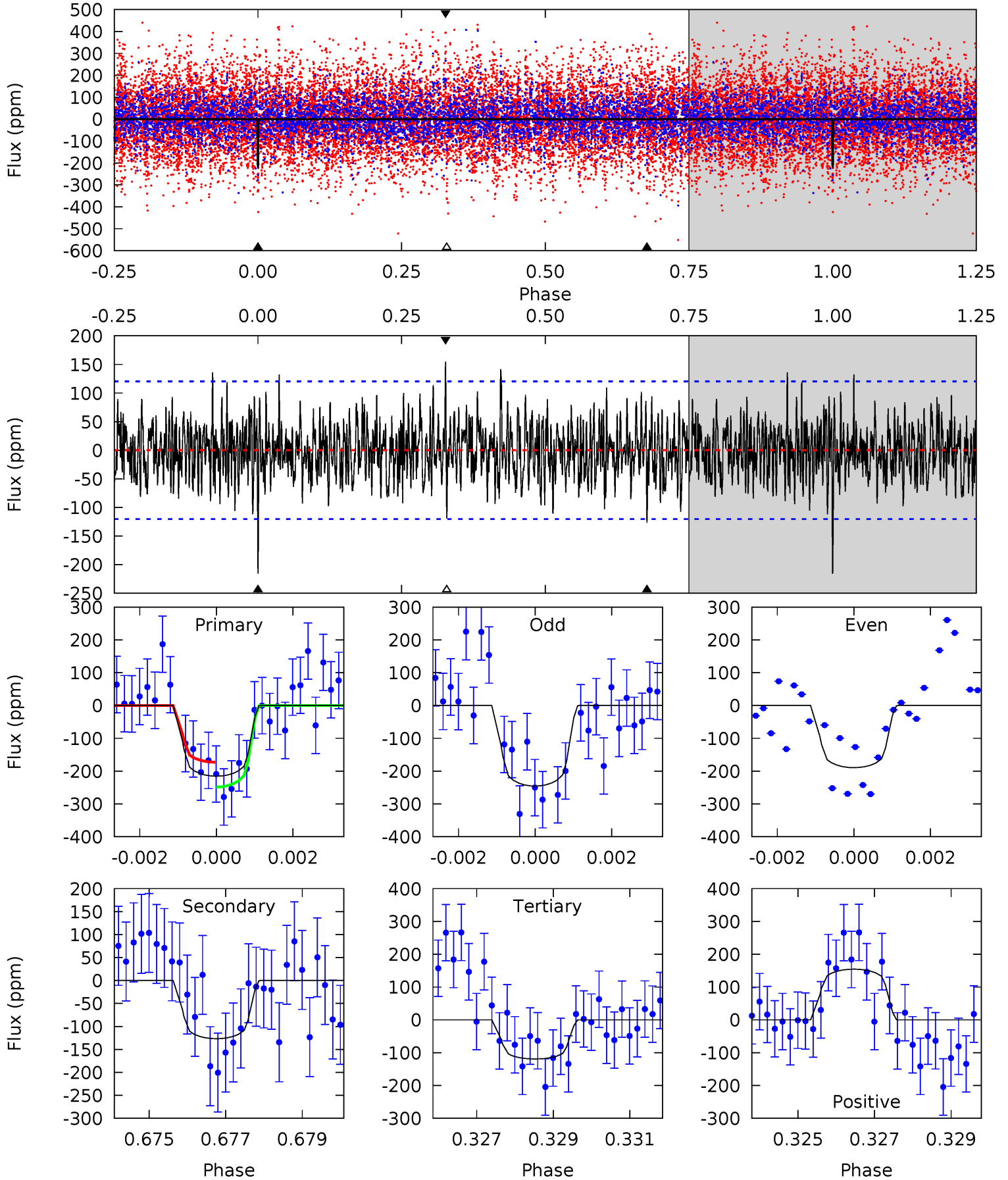
TCE 006676174-05 $P = 74.362438$ Days $T_0 = 165.473781$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-05, P = 74.362856 Days, E = 91.098037 Days

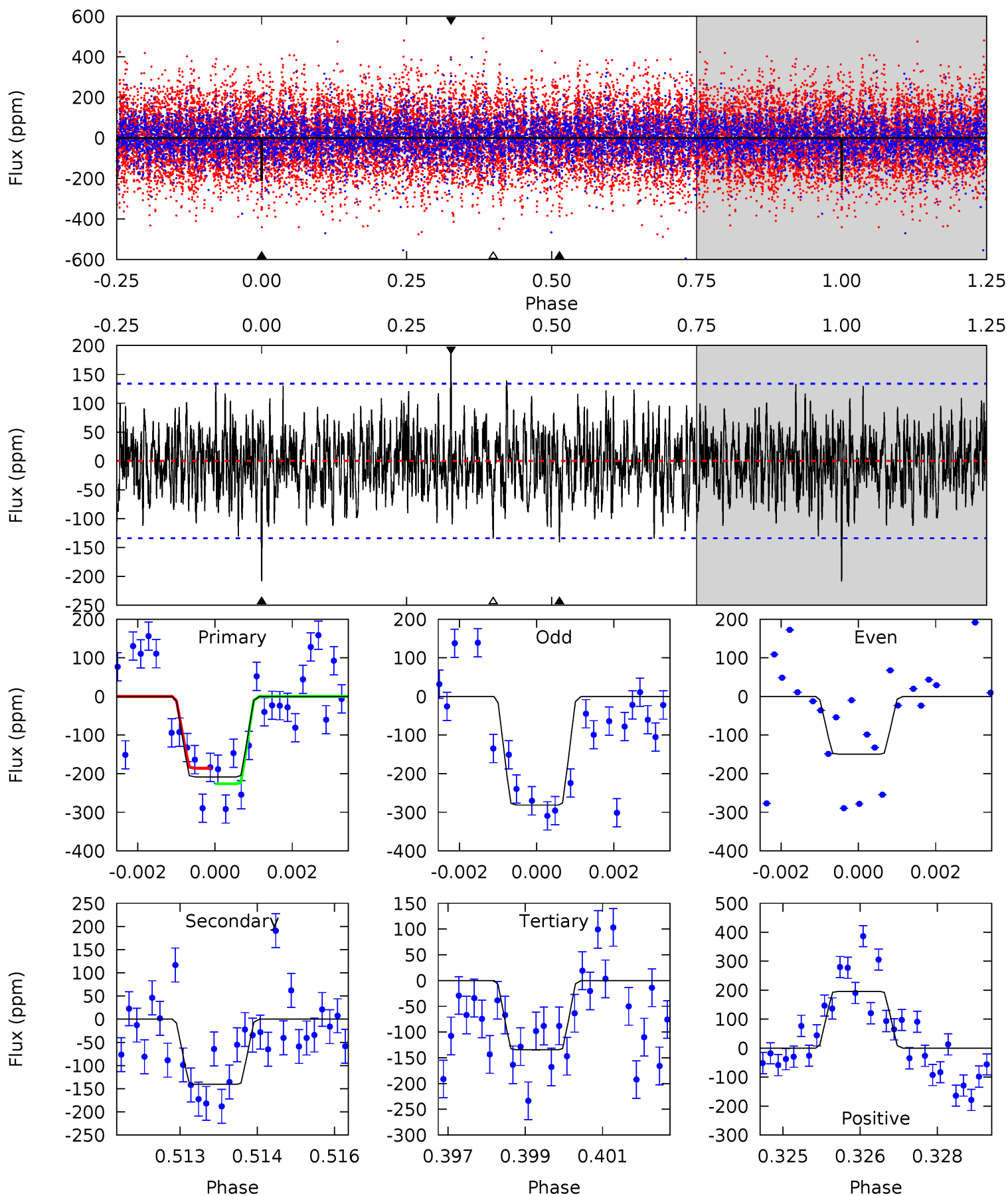
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.55	5.62	5.28	6.85	5.33	3.10	1.78	4.27	2.71	0.34	-1.23	1.23	0.99	0.42	1.64



Alt Model-Shift Uniqueness Test

006676174-05, P = 74.362438 Days, E = 91.111343 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.35	5.64	5.39	7.85	5.36	3.15	1.81	2.96	0.50	0.25	-2.22	2.64	0.82	0.48	0.79



Stellar Parameters For KIC 006676174

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-127 ± 23	$6.77^{+4.72}_{-4.08}$	1237^{+67}_{-124}	5369^{+3362}_{-1031}	253^{+1305}_{-167}
Alt.	-141 ± 25	$6.17^{+4.59}_{-3.76}$	1241^{+71}_{-127}	5659^{+4231}_{-1122}	335^{+1921}_{-227}

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 $A_{obs} \gg 1.0$

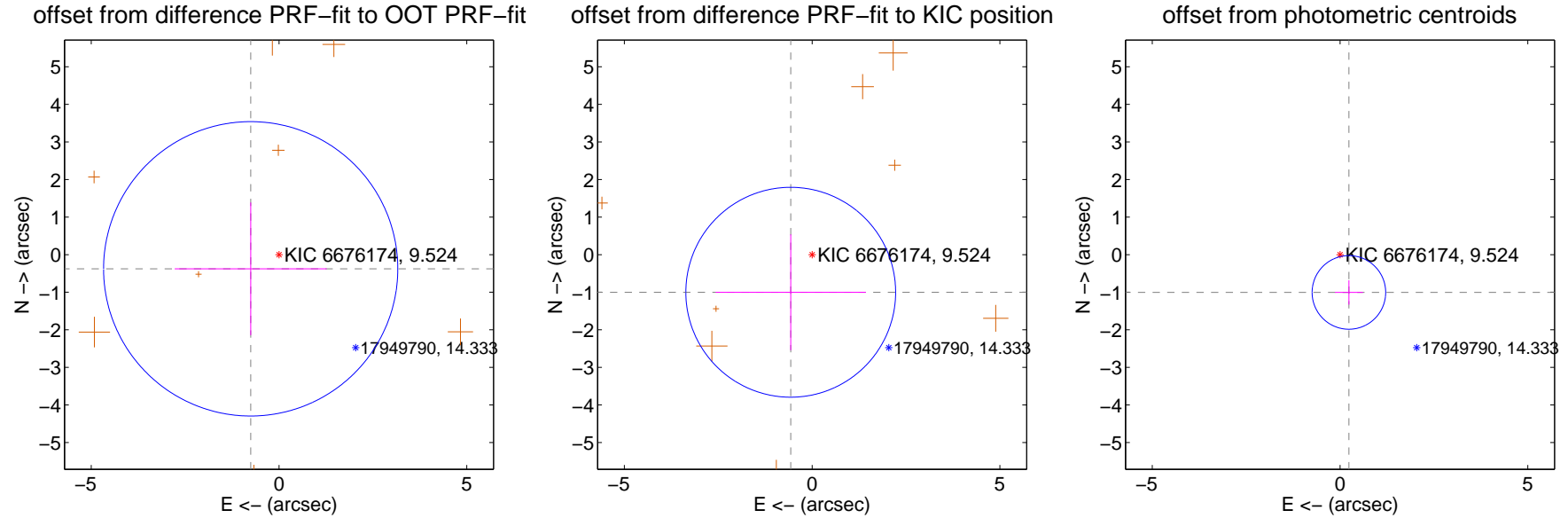
DV Centroid Data

Supplemental centroid analysis for 006676174-05. **Kepler magnitude: 9.52.** Transit SNR 11.58

There are 1 quarters with good PRF difference image offsets

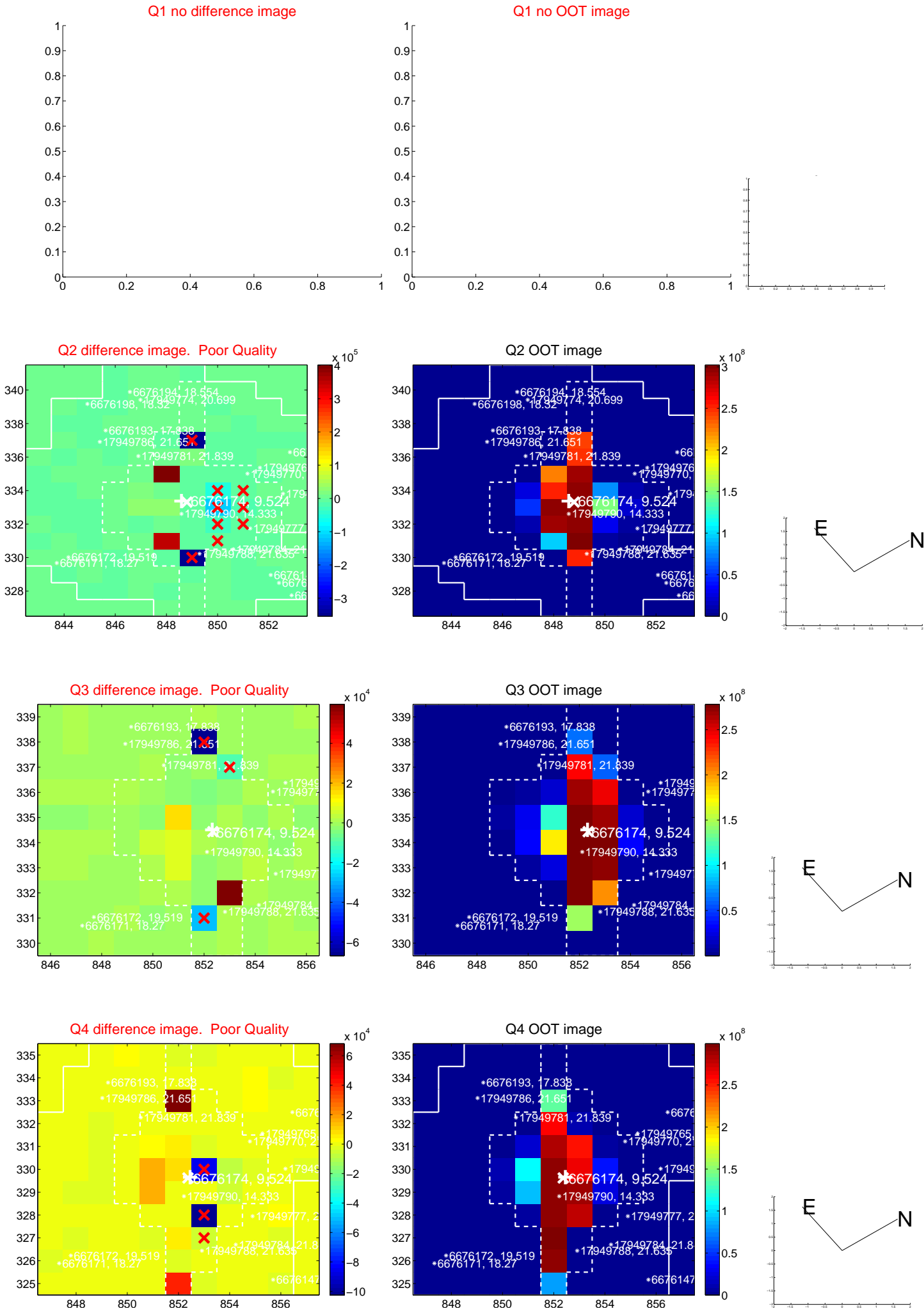
The OOT PRF centroid is offset from the target star catalog position by about 2.25 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.843 ± 1.305	0.65	0.754 ± 2.022	-0.377 ± 1.766
PRF-fit source offset from KIC position	1.151 ± 0.931	1.24	0.569 ± 2.000	-1.000 ± 1.541
photometric centroid source offset	1.03 ± 0.33	3.16	-0.24 ± 0.37	-1.00 ± 0.32

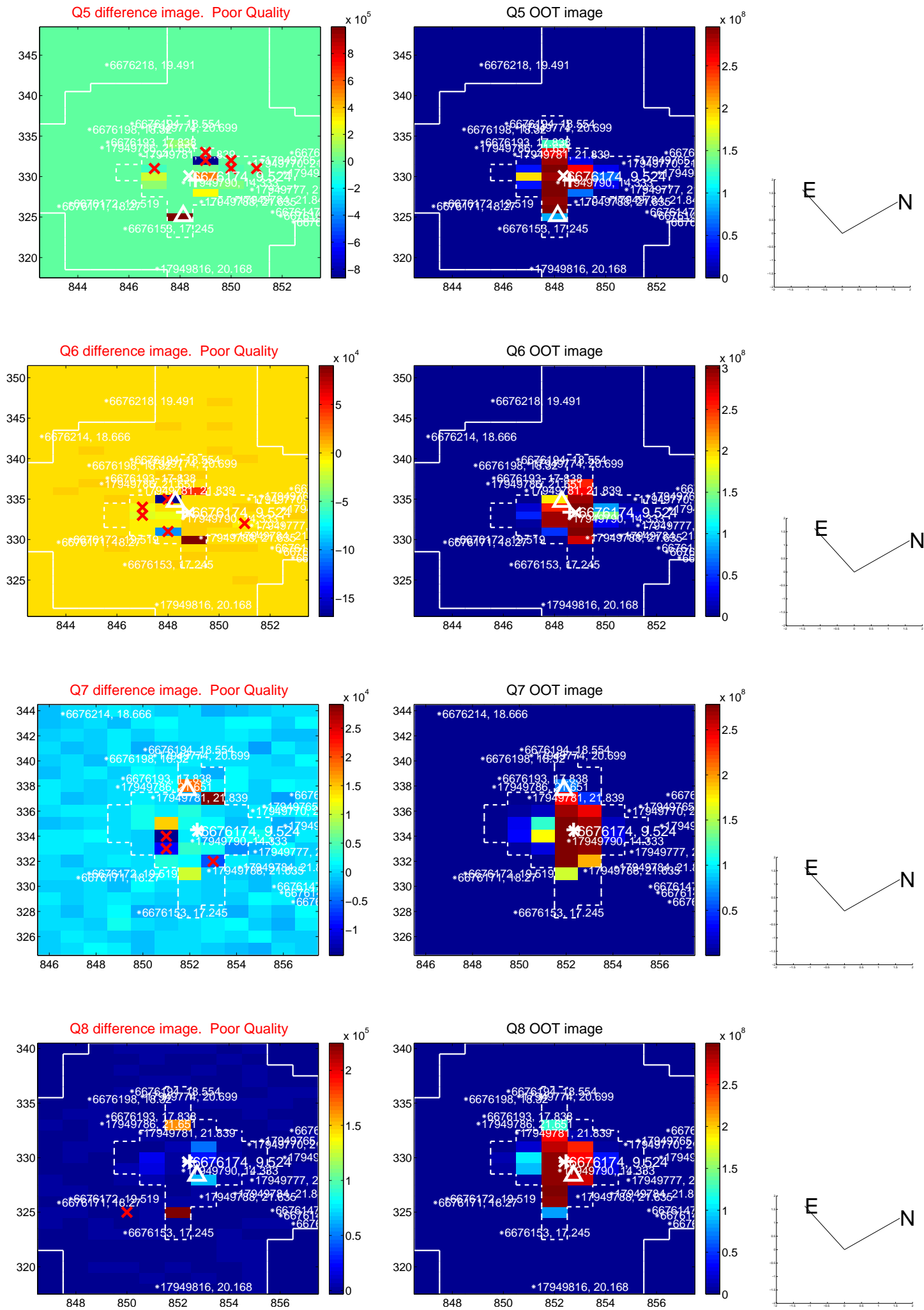


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

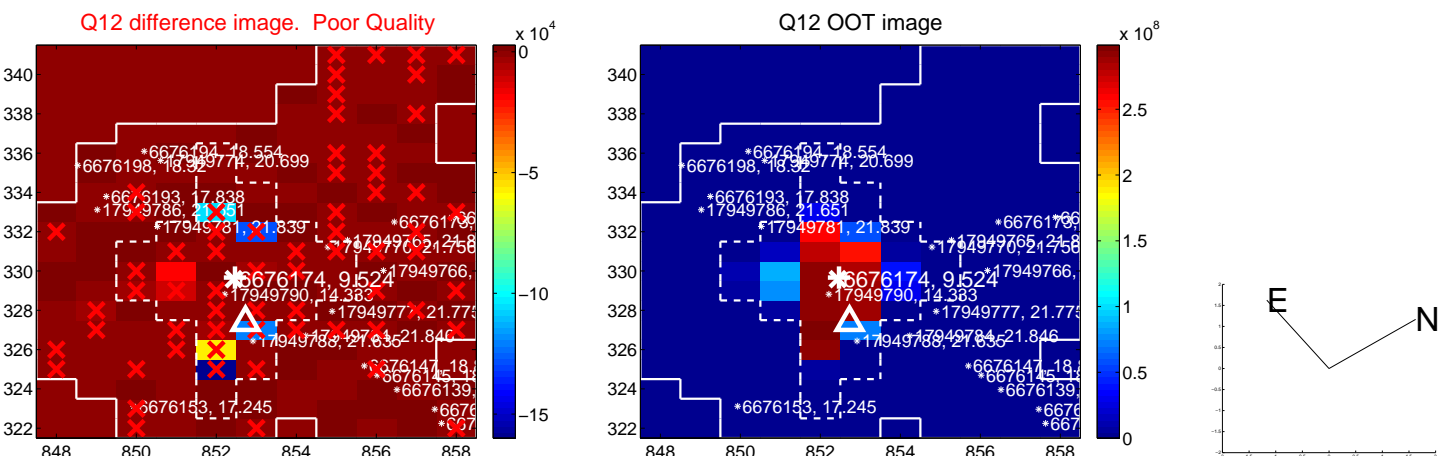
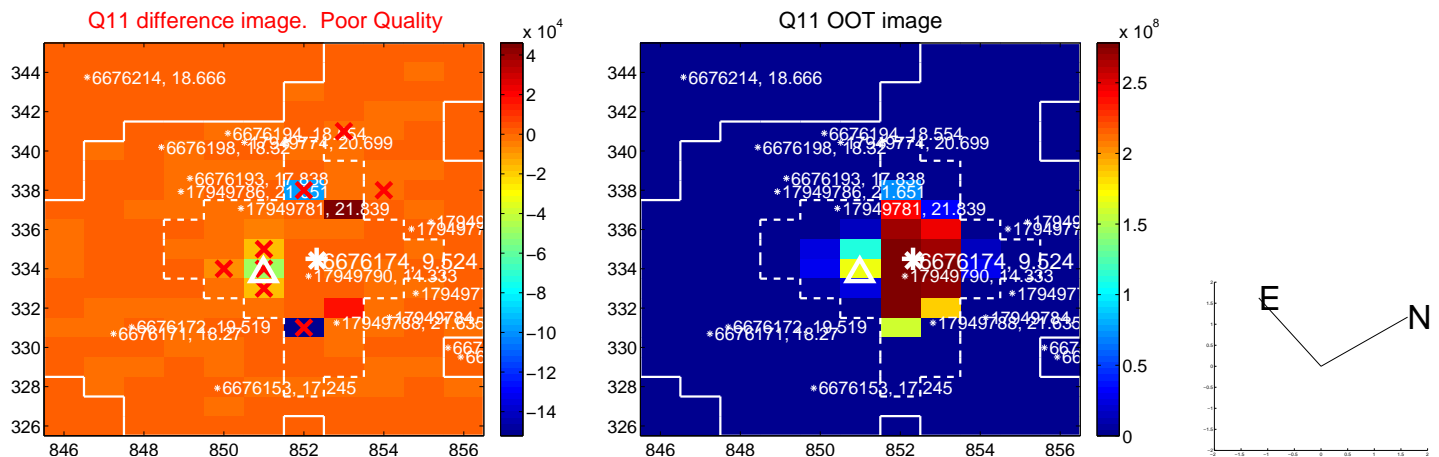
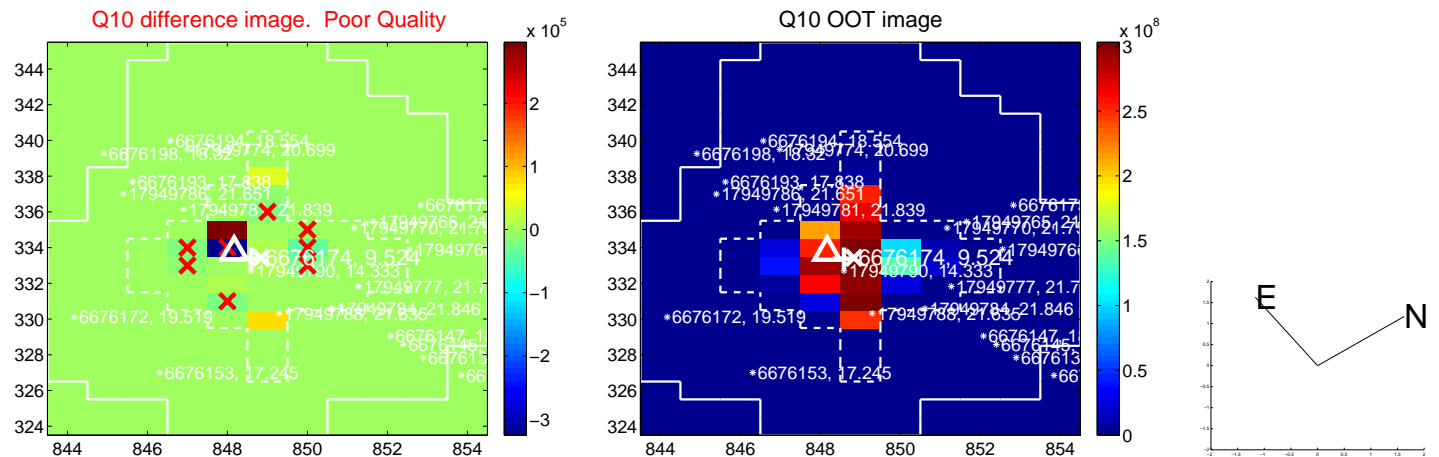
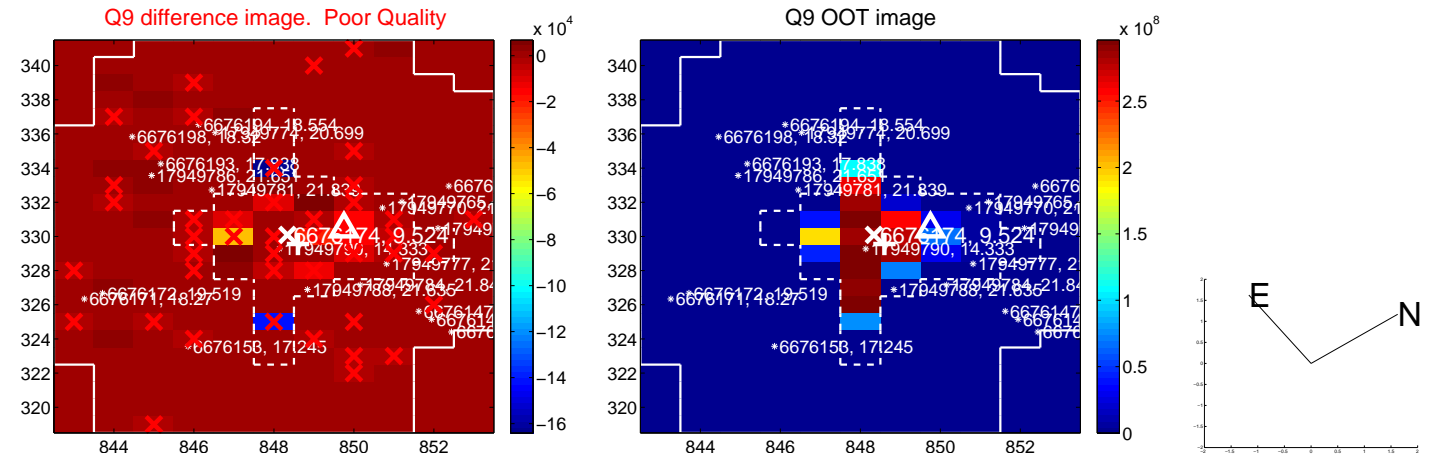
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



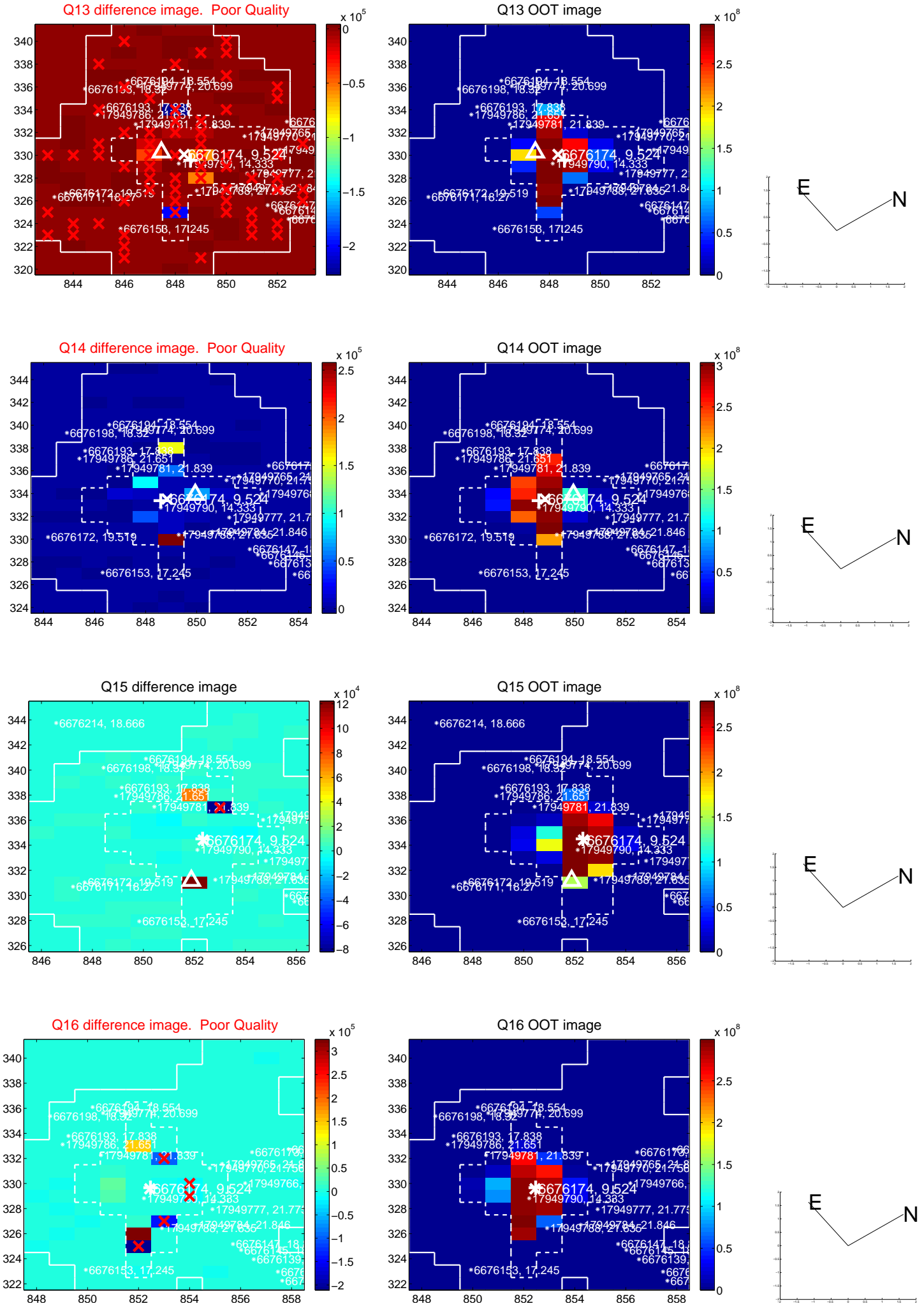
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



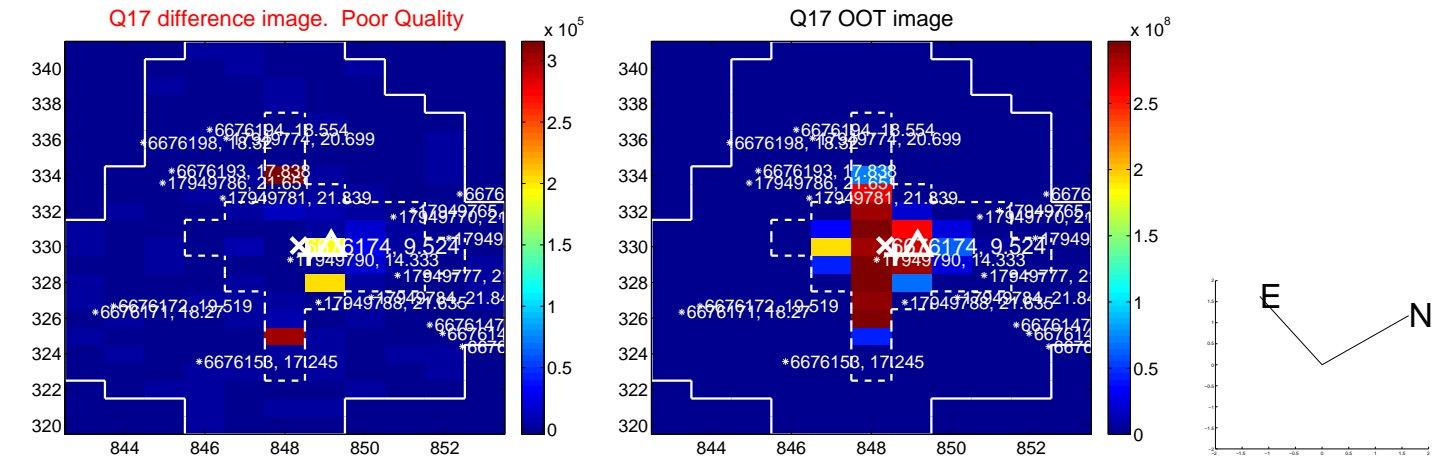
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



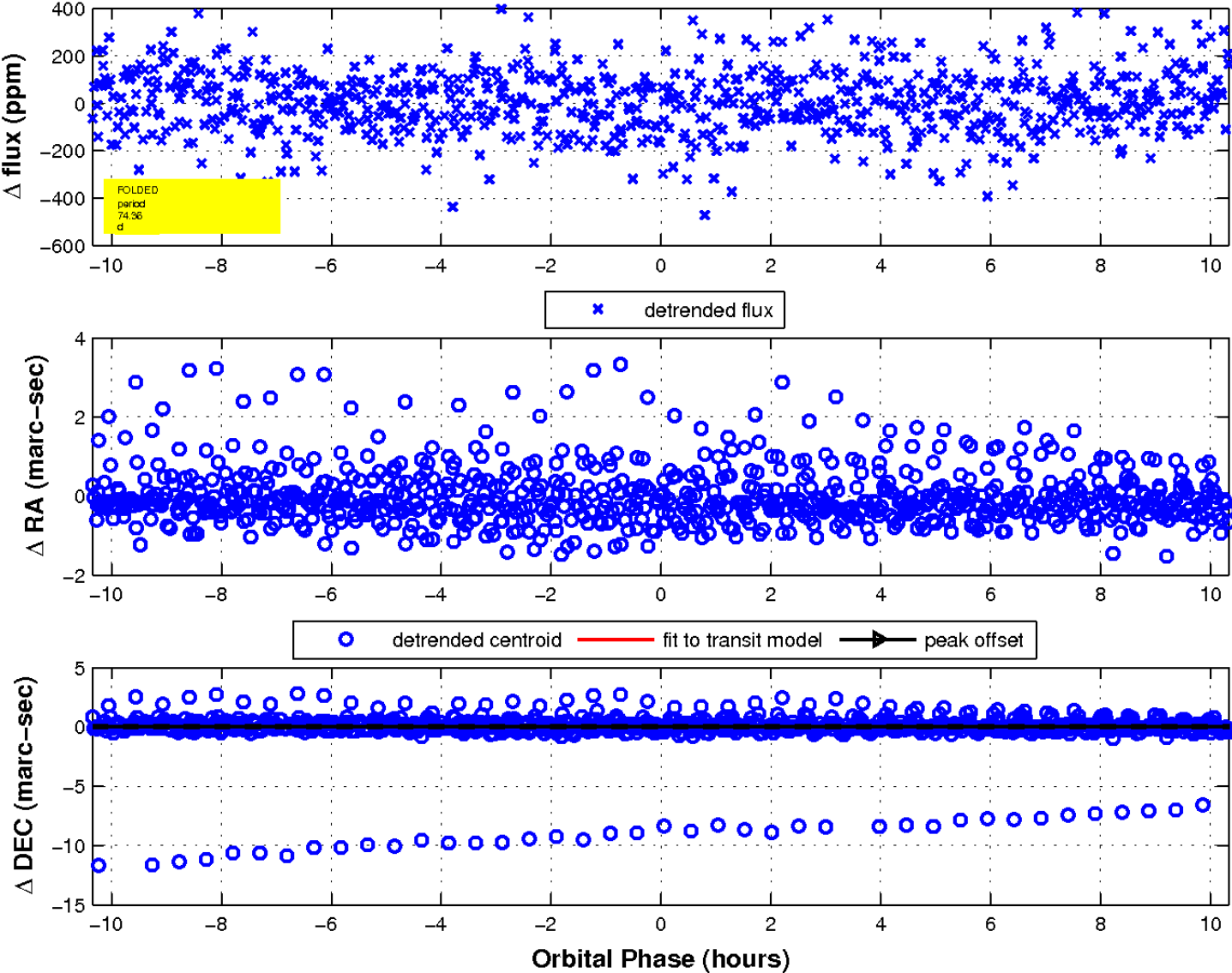
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

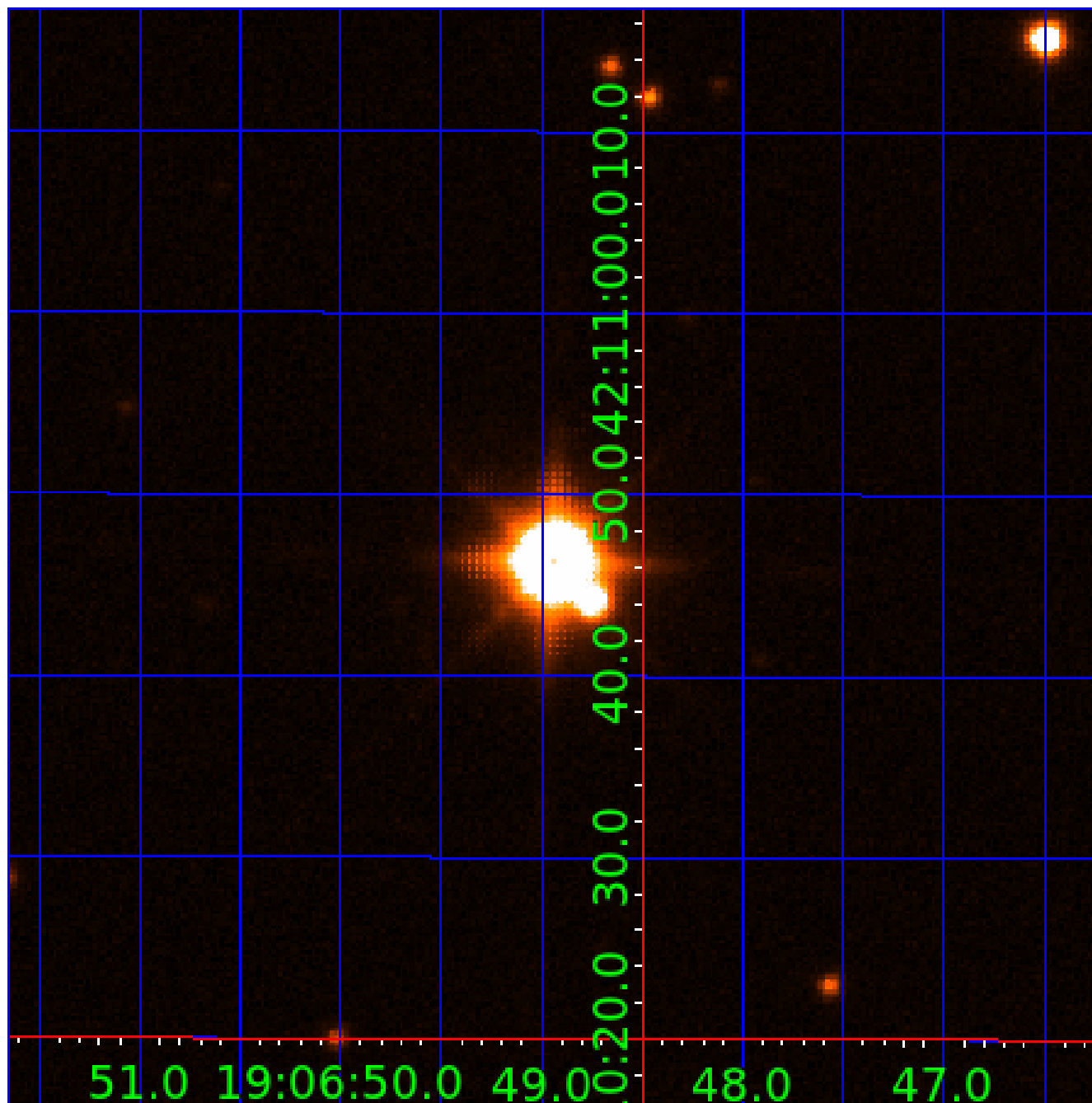


fluxWeightedCentroids, Planet 5 of 10



UKIRT Image

Declination



Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
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006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
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006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
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Robovetter Results

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006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

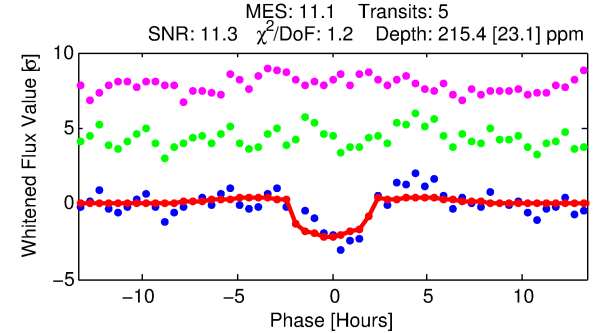
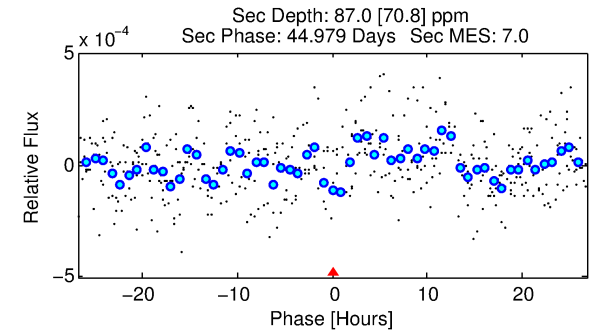
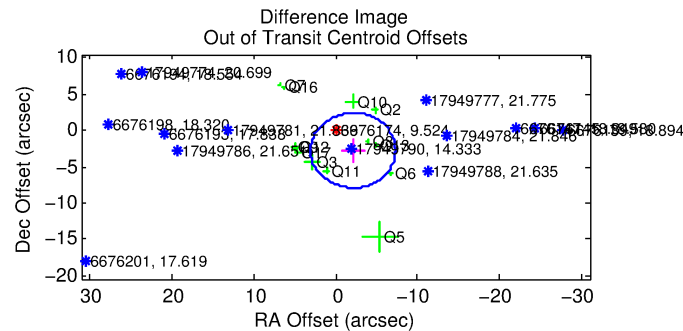
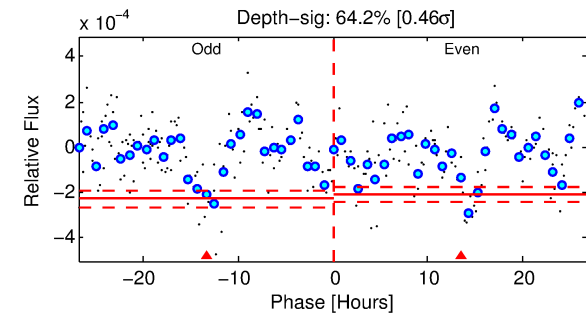
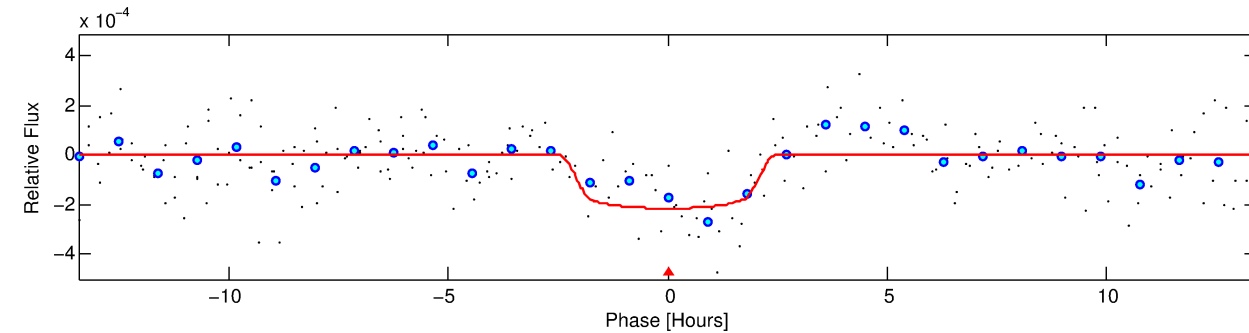
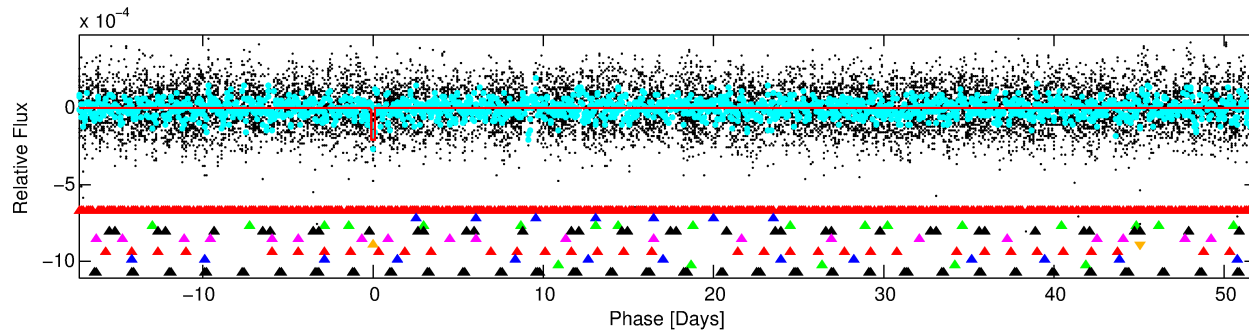
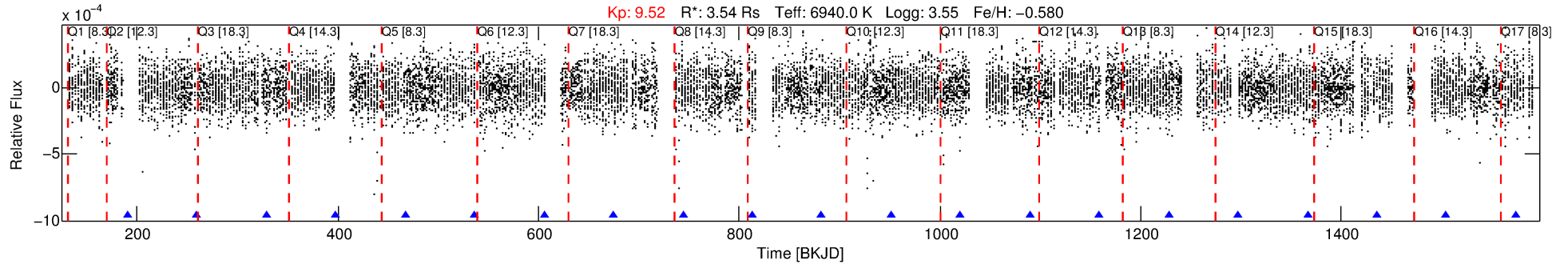
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-06

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 6 of 10 Period: 69.163 d



DV Fit Results:

Period = 69.16260 [0.00101] d
Epoch = 190.6008 [0.0116] BKJD
Rp/R* = 0.0152 [0.0075]
a/R* = 65.27 [193.76]
b = 0.85 [0.96]
Seff = 173.81 [109.77]
Teq = 926 [146] K
Rp = 5.87 [3.80] Re
a = 0.3874 [0.1527] AU
Ag = 208.87 [296.23] [0.70 σ]
Teff = 5442 [1743] K [2.58 σ]

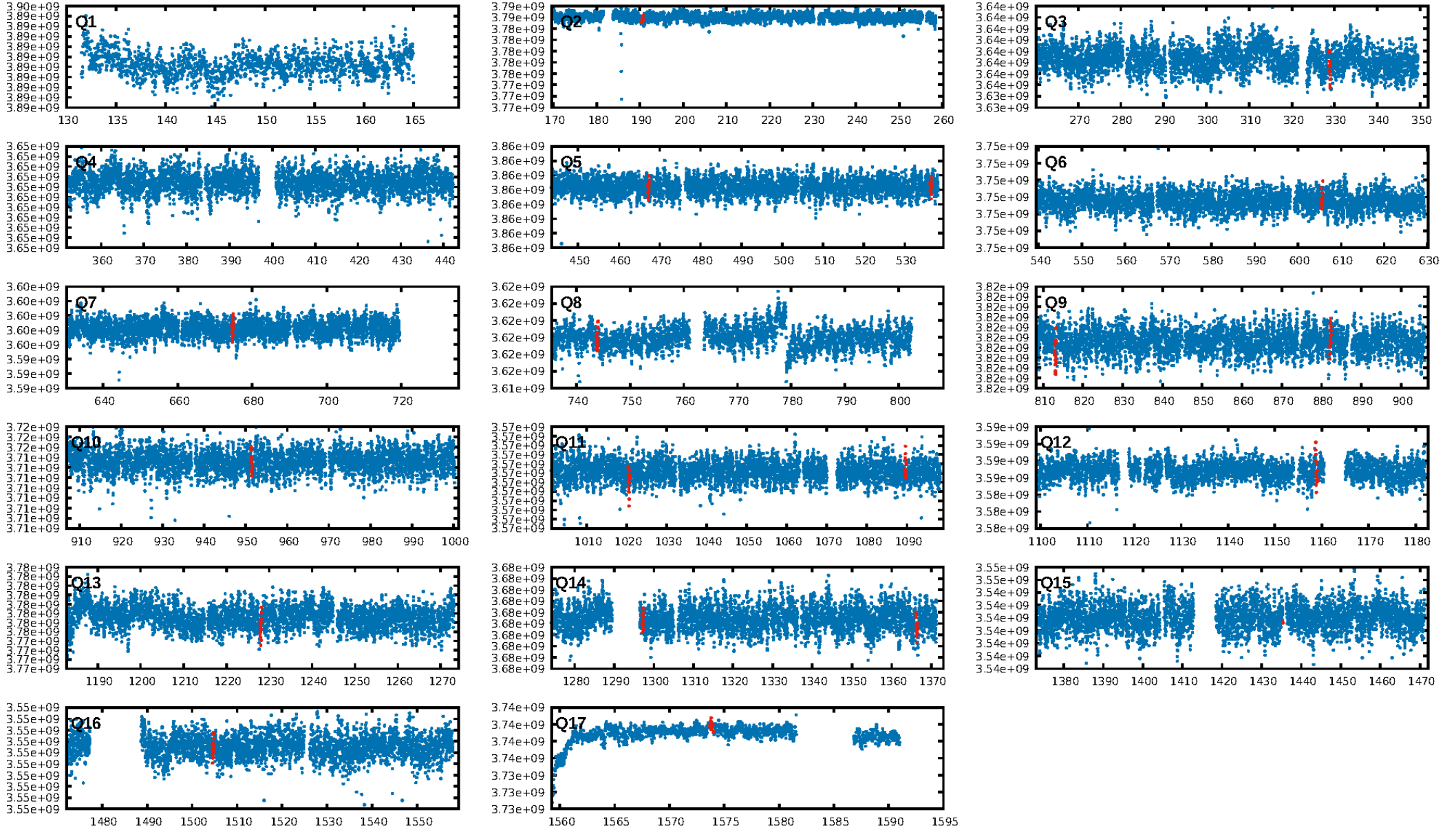
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [77.23 σ]
LongPeriod-sig: 100.0% [22.10 σ]
ModelChiSquare2-sig: 53.3%
ModelChiSquareGof-sig: 95.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.015 arcsec [2.55 σ]
OotOffset-rm: 3.476 arcsec [2.01 σ]
KicOffset-rm: 4.697 arcsec [4.52 σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 0.50 [7/14]

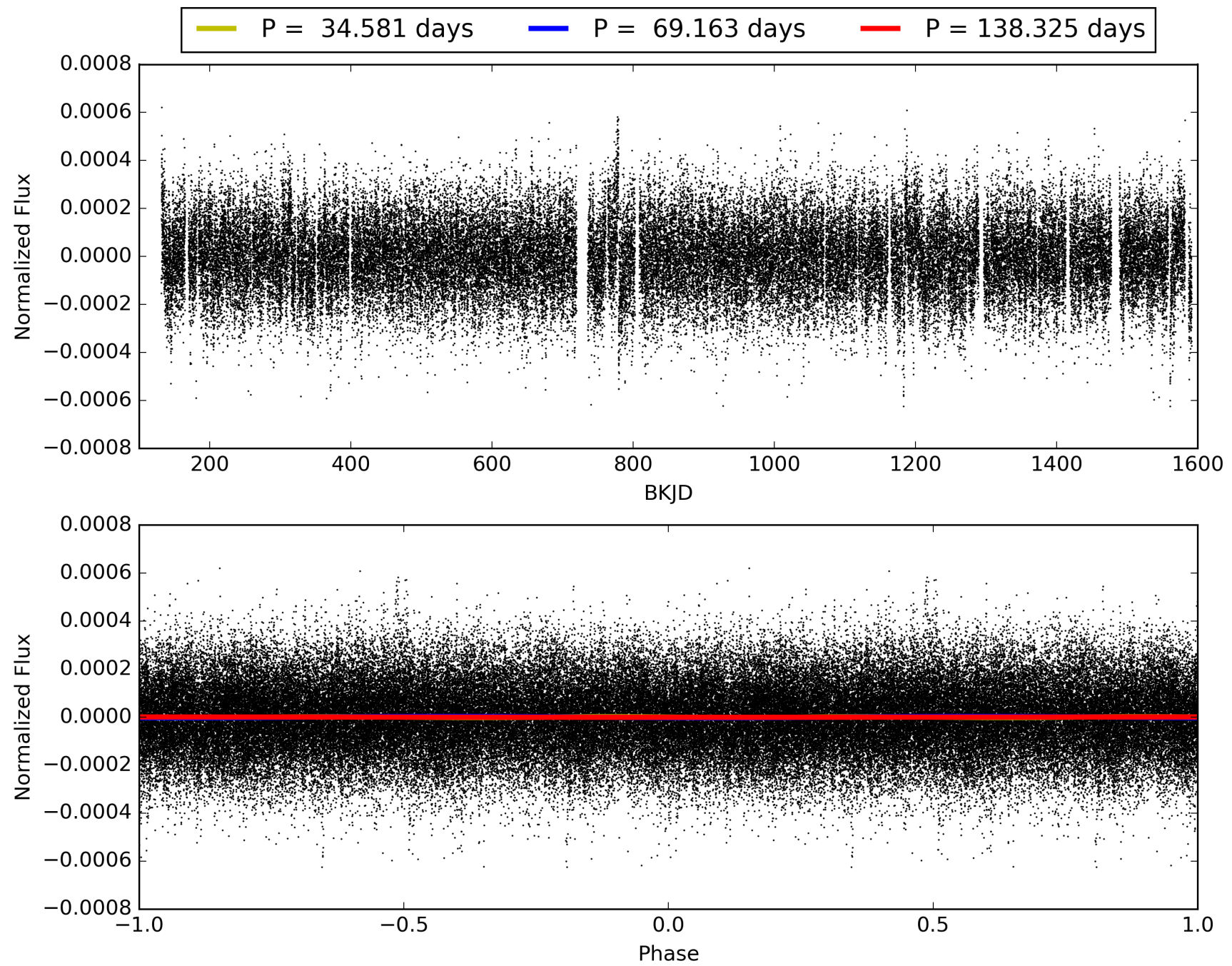
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:14:56 Z

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

TCE 006676174-06, PDC Light Curves

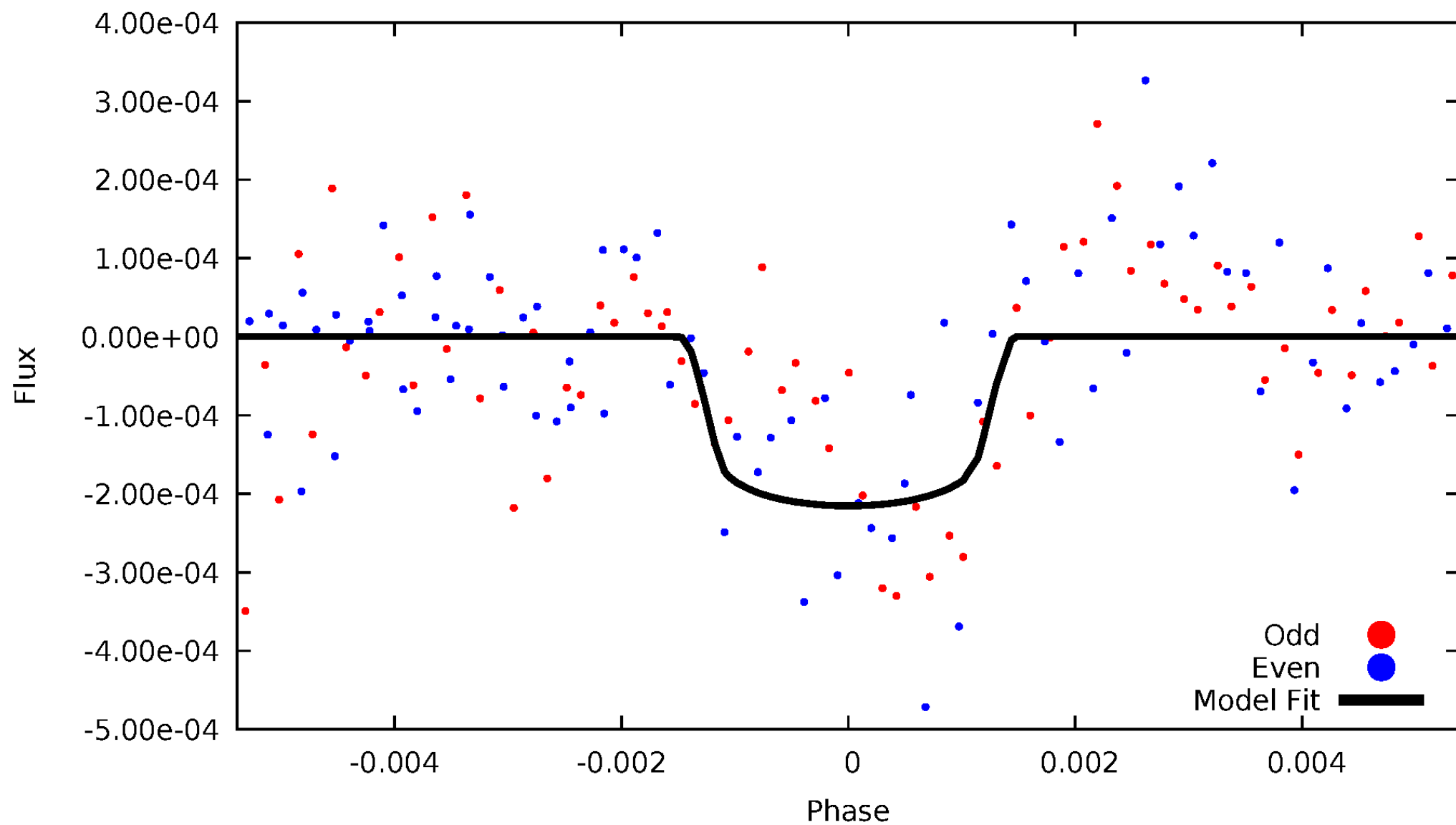


TCE 006676174-06



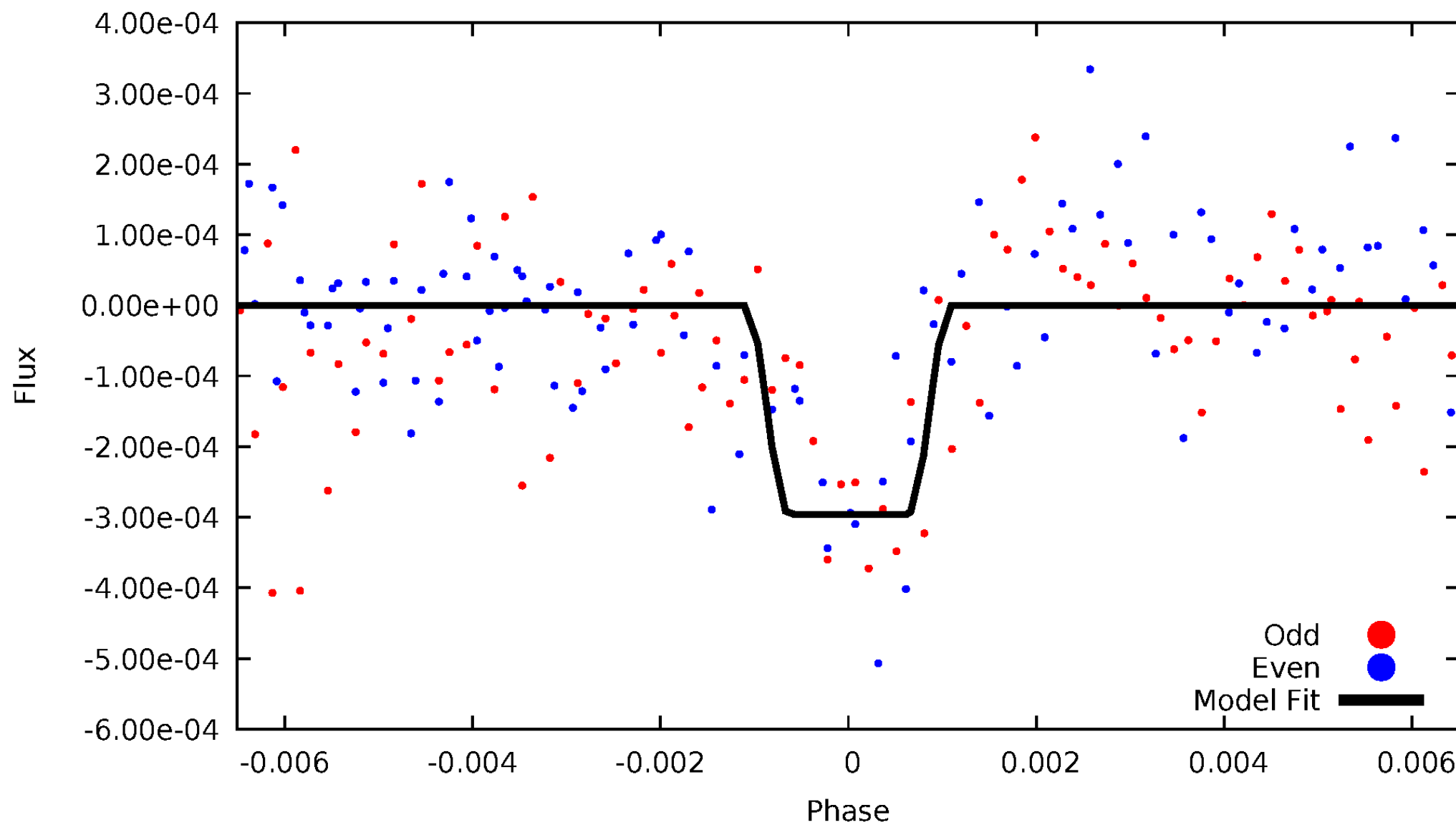
DV Odd/Even

TCE 006676174-06



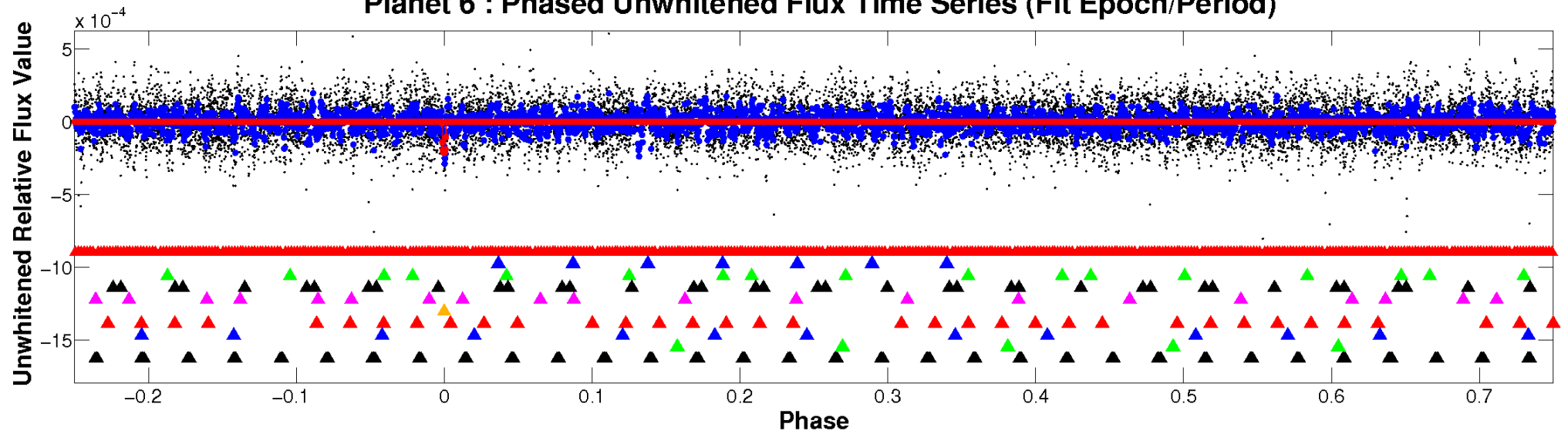
ALT Odd/Even

TCE 006676174-06

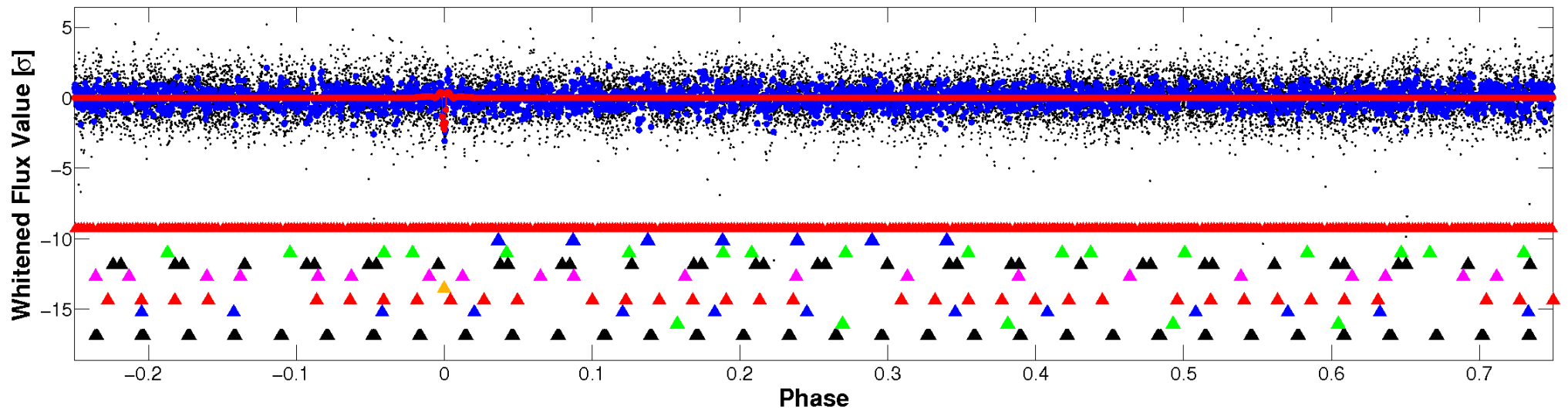


Non-Whitened Vs. Whitened Light Curve

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

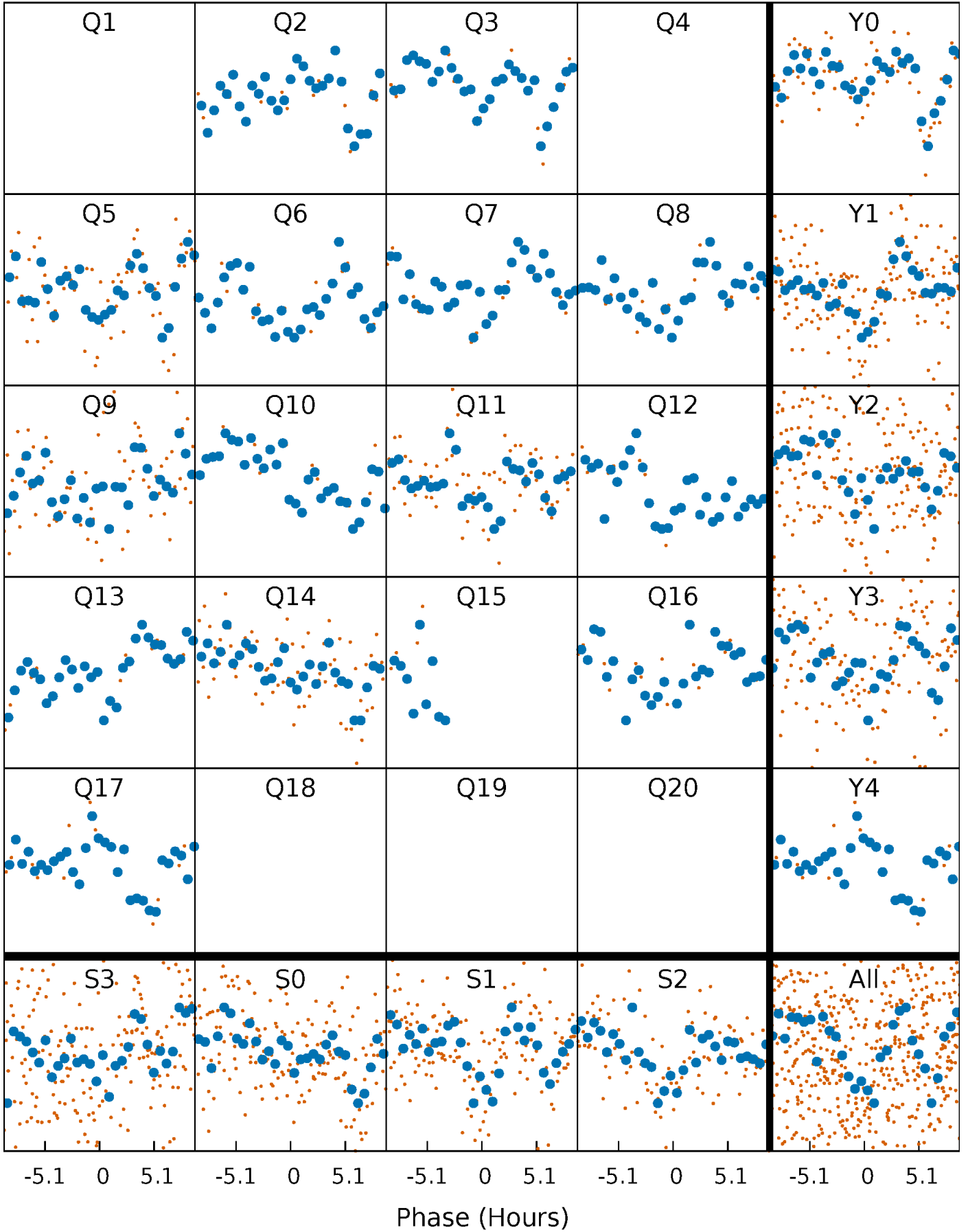


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



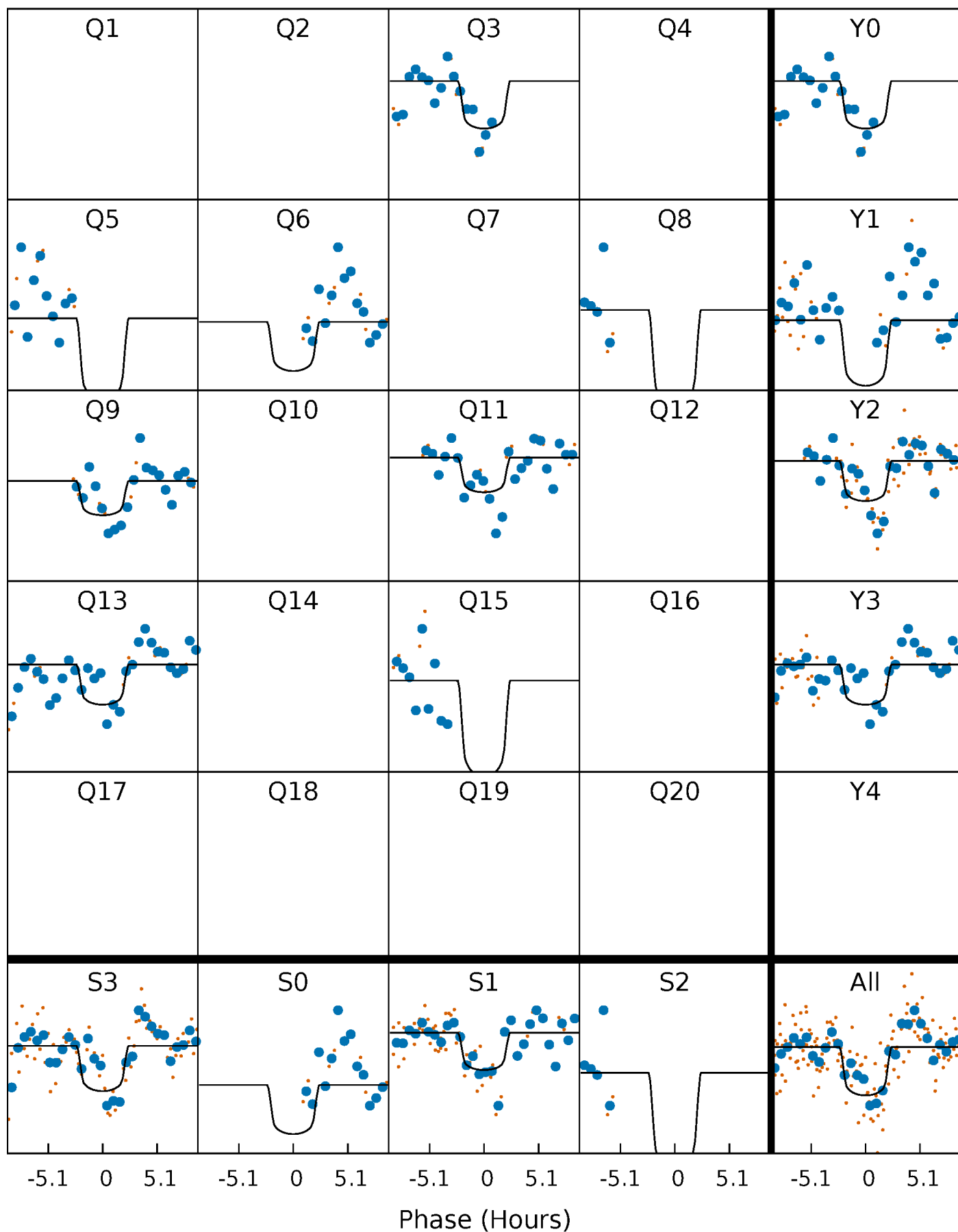
PDC Quarter-Phased Transit Curves

TCE 006676174-06 P= 69.162601 Days $T_0=190.600758$ (BKJD)



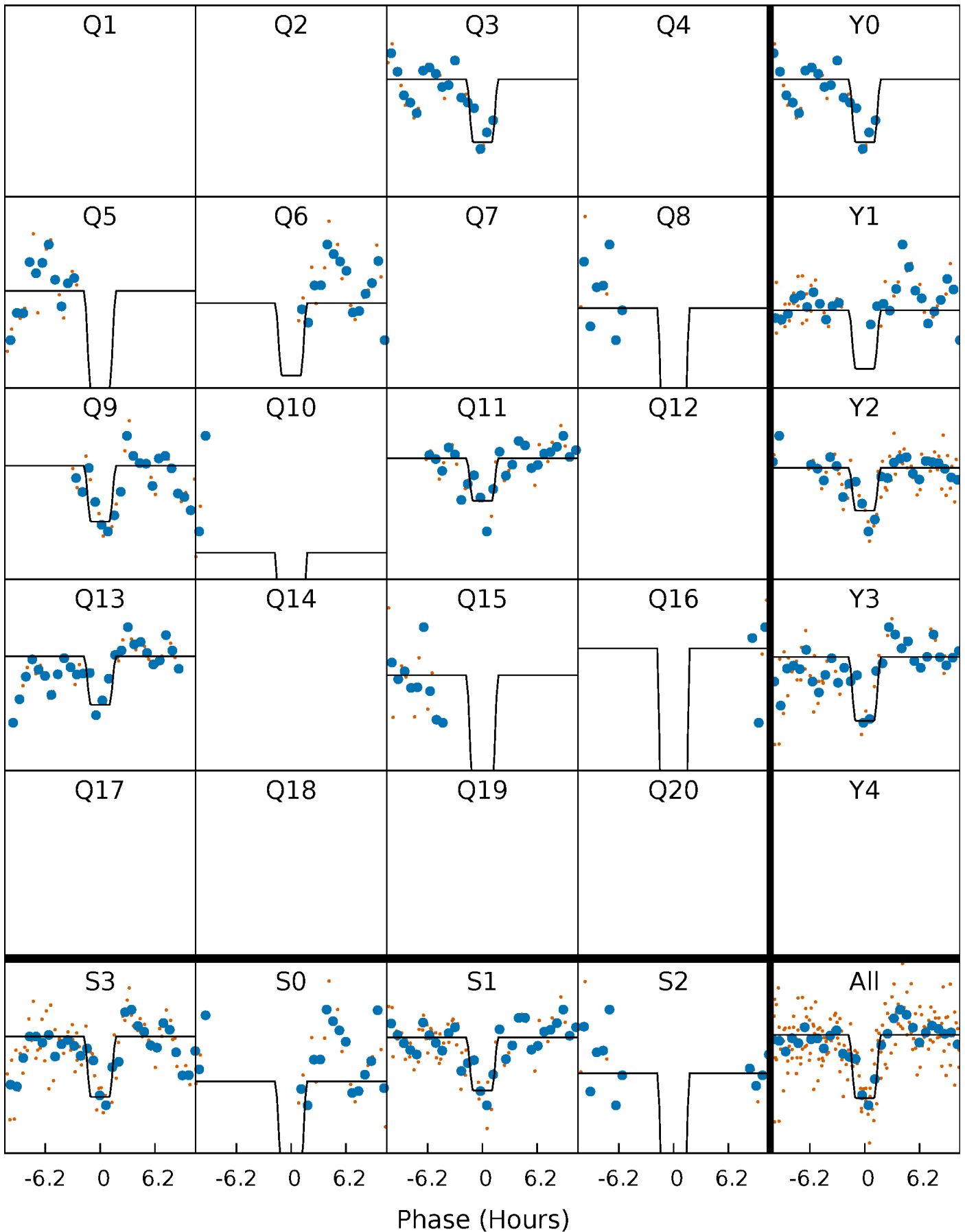
DV Quarter-Phased Transit Curves

TCE 006676174-06 P= 69.162601 Days $T_0=190.600758$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

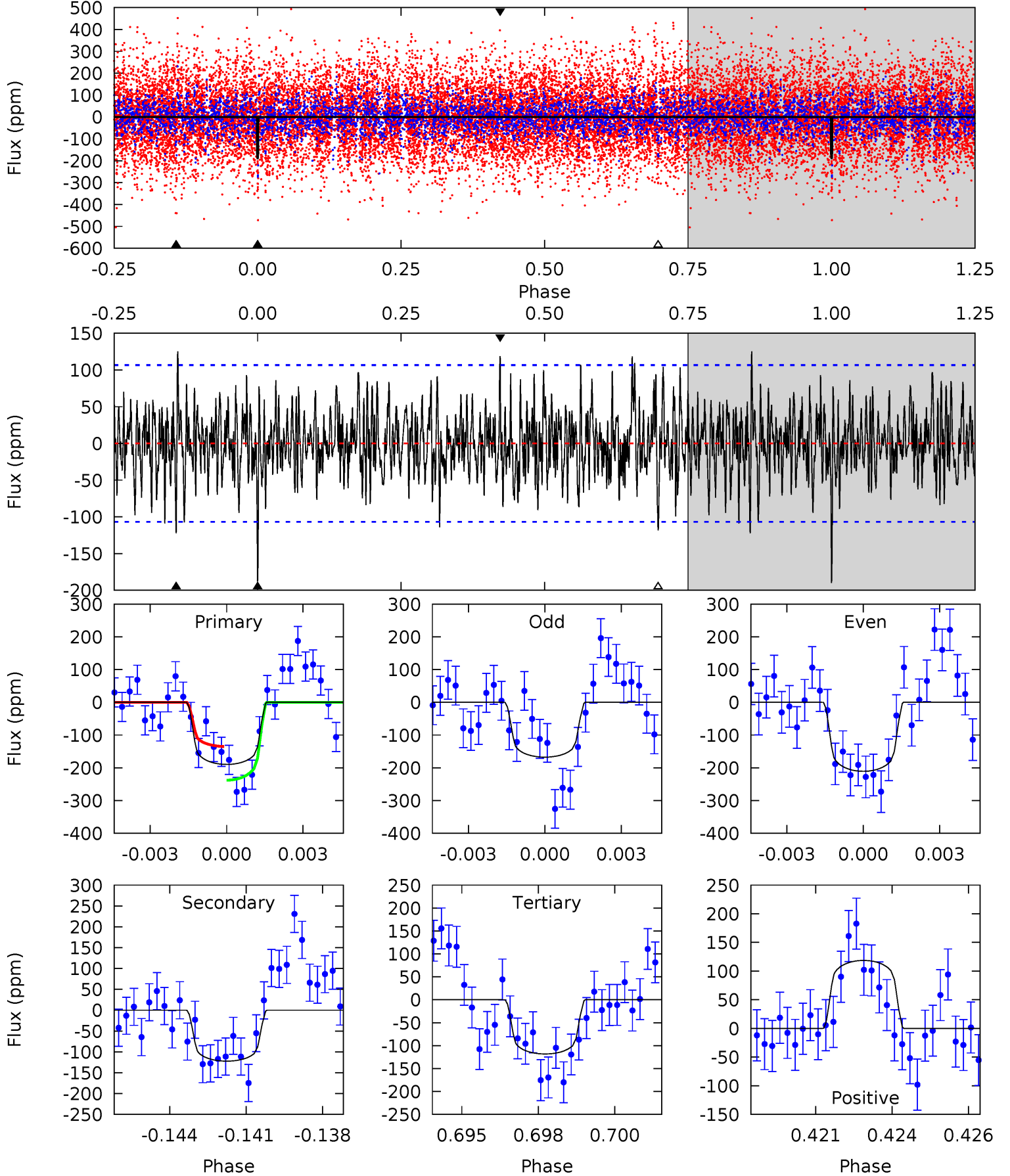
TCE 006676174-06 P= 69.166273 Days $T_0=190.581828$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-06, P = 69.162601 Days, E = 121.438157 Days

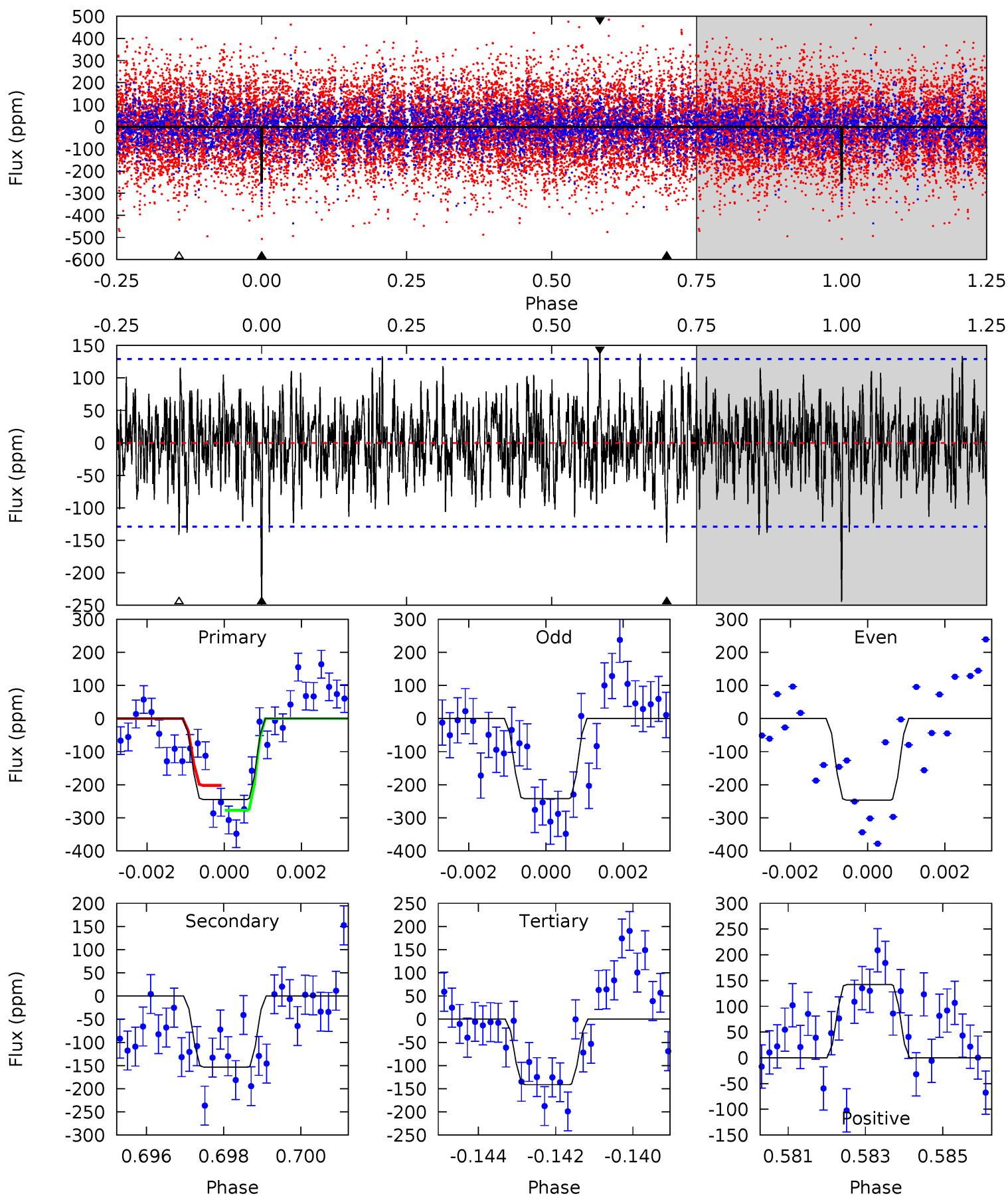
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.35	6.03	5.83	5.85	5.26	2.99	1.85	3.53	3.51	0.20	0.18	1.07	0.96	0.40	2.52



Alt Model-Shift Uniqueness Test

006676174-06, P = 69.166273 Days, E = 121.415555 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	6.33	5.83	5.86	5.32	3.08	1.81	4.25	4.22	0.50	0.46	0.09	0.88	0.37	1.53



Stellar Parameters For KIC 006676174

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-122 ± 20	$5.42^{+3.06}_{-2.61}$	1270^{+71}_{-132}	5815^{+2413}_{-894}	342^{+914}_{-202}
Alt.	-153 ± 24	$6.20^{+3.18}_{-2.70}$	1272^{+68}_{-128}	5822^{+1902}_{-878}	325^{+670}_{-177}

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 $A_{obs} \gg 1.0$

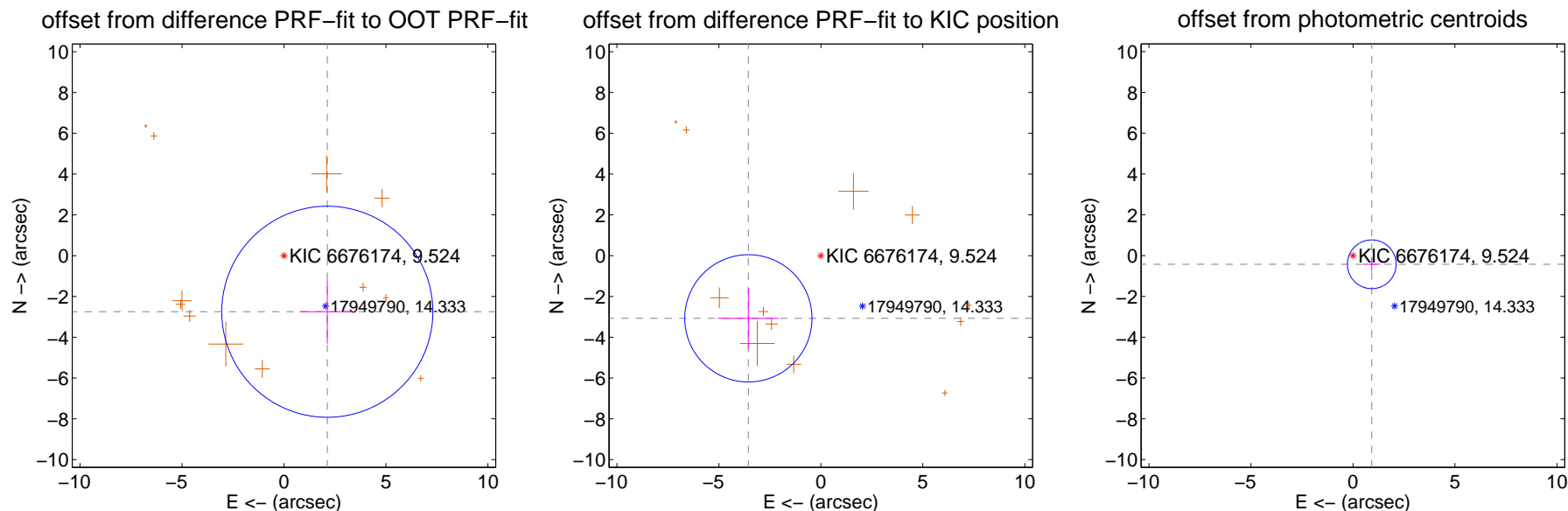
DV Centroid Data

Supplemental centroid analysis for 006676174-06. **Kepler magnitude: 9.52.** Transit SNR 11.33

There are 0 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.24 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.476 ± 1.725	2.01	-2.124 ± 1.371	-2.751 ± 1.571
PRF-fit source offset from KIC position	4.697 ± 1.040	4.52	3.553 ± 1.498	-3.073 ± 1.504
photometric centroid source offset	1.01 ± 0.40	2.55	-0.92 ± 0.41	-0.43 ± 0.36



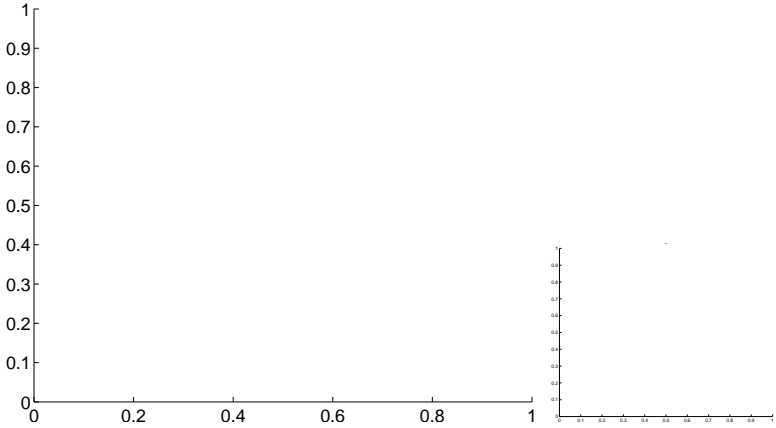
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

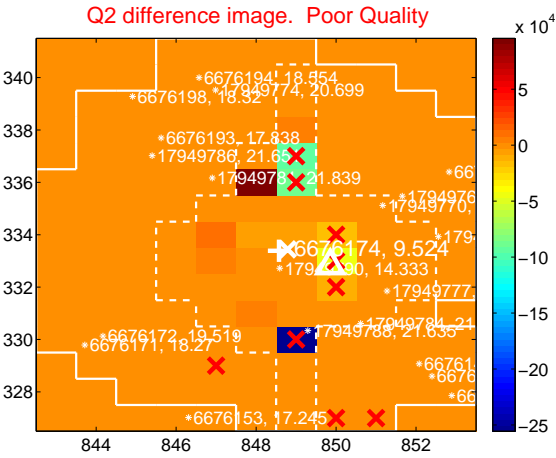
Q1 no difference image



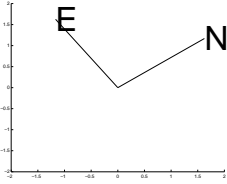
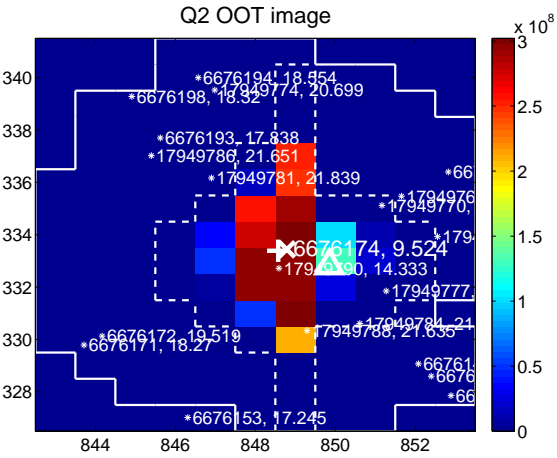
Q1 no OOT image



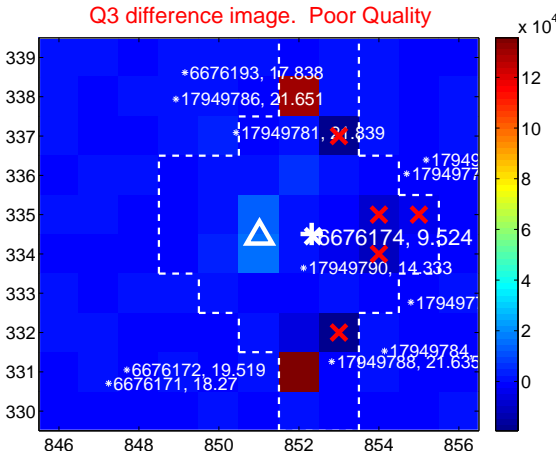
Q2 difference image. Poor Quality



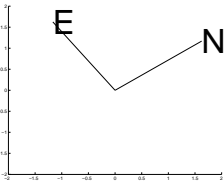
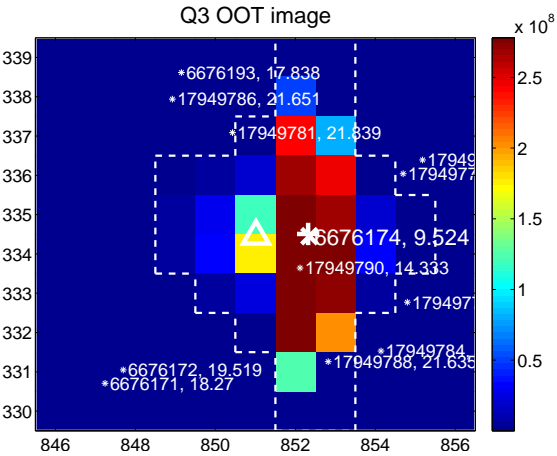
Q2 OOT image



Q3 difference image. Poor Quality



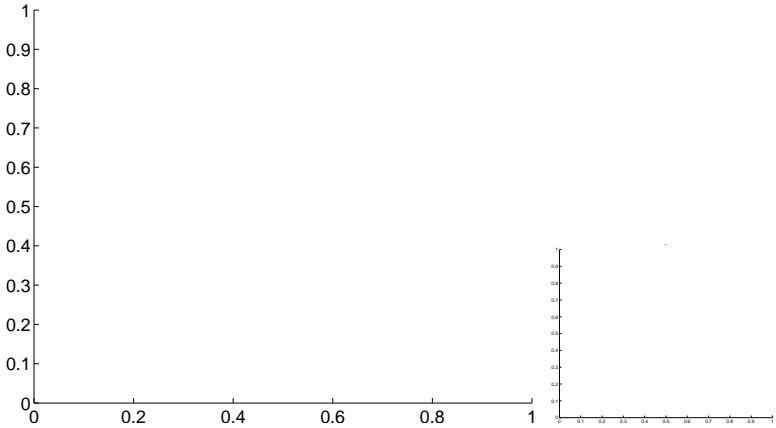
Q3 OOT image



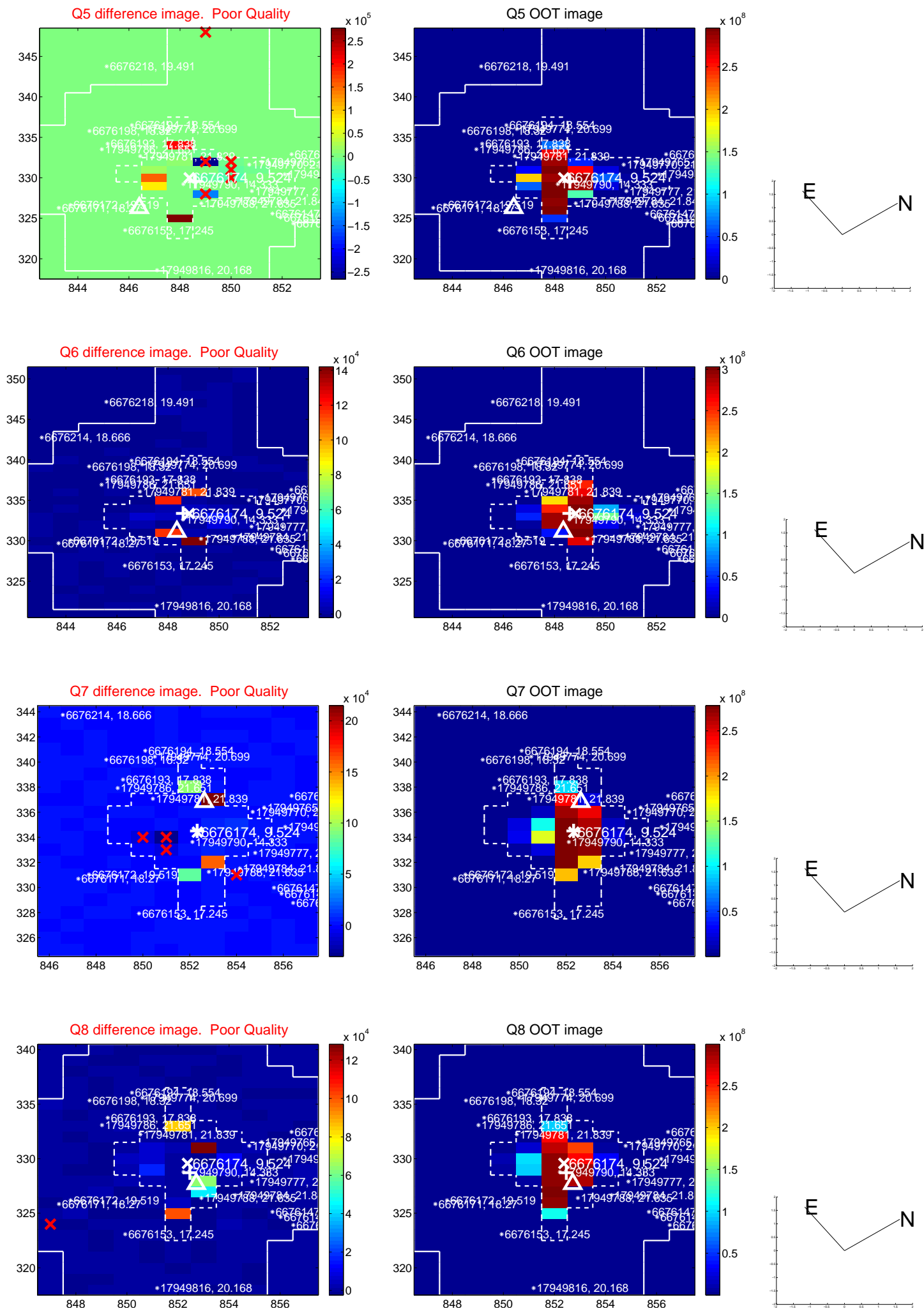
Q4 no difference image



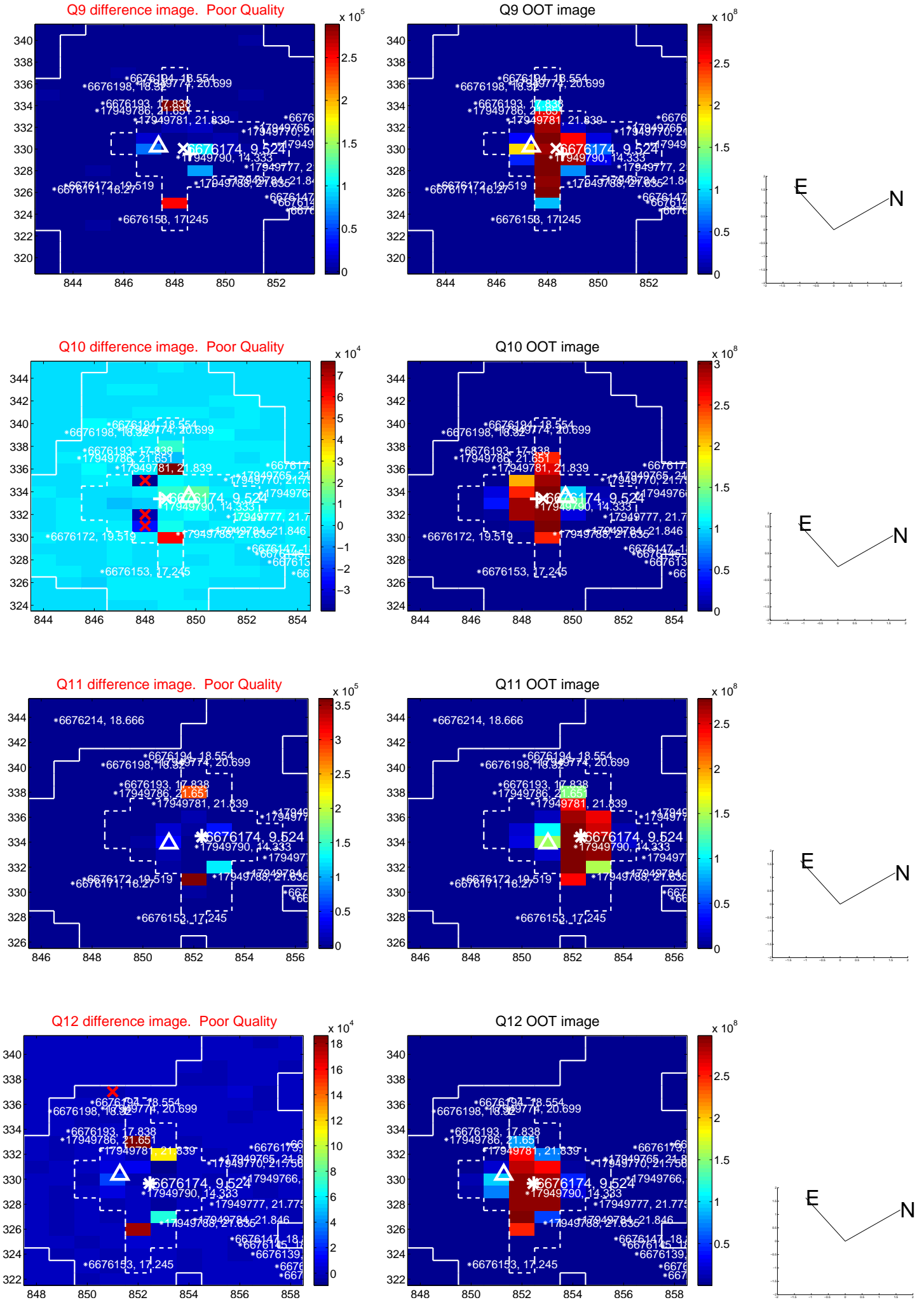
Q4 no OOT image



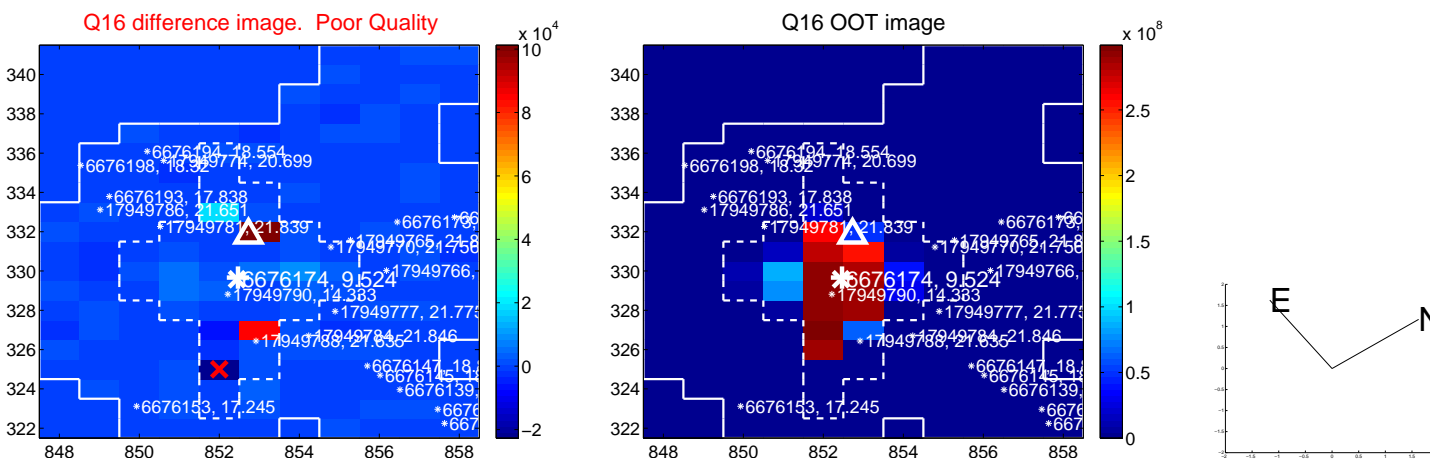
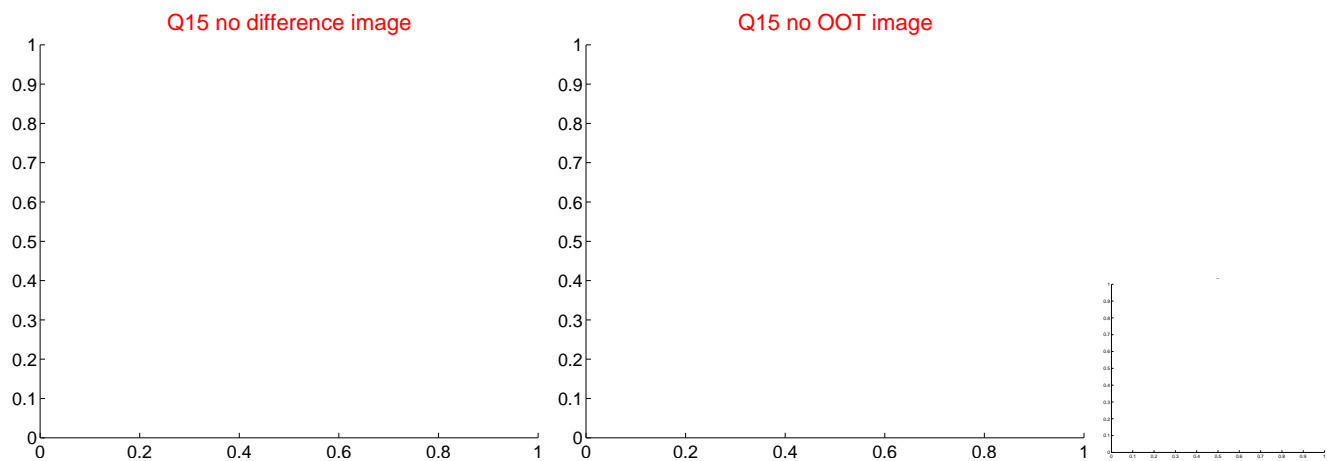
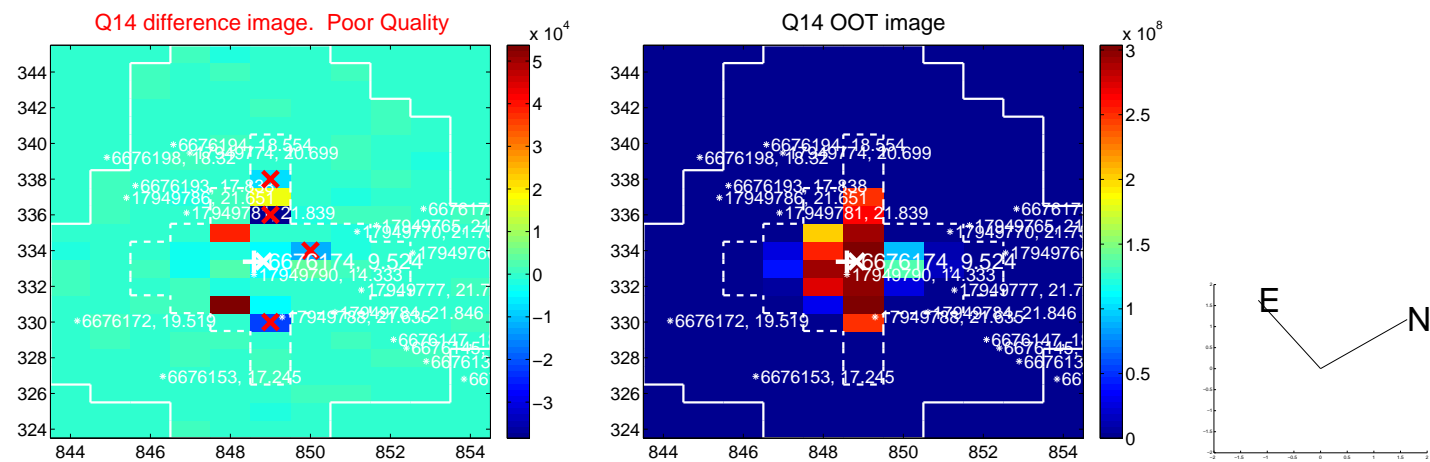
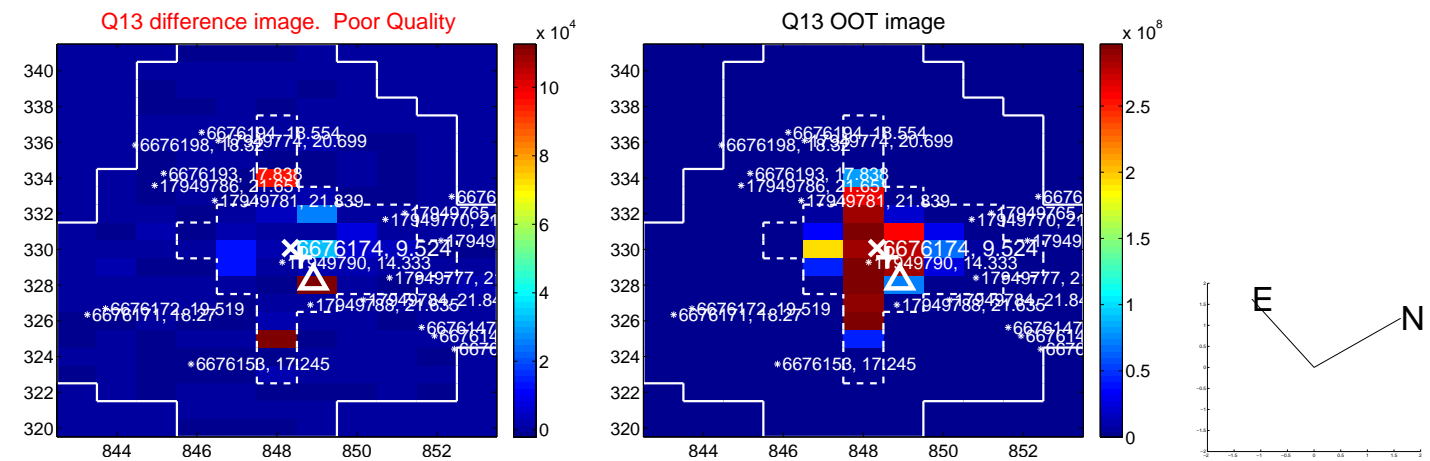
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



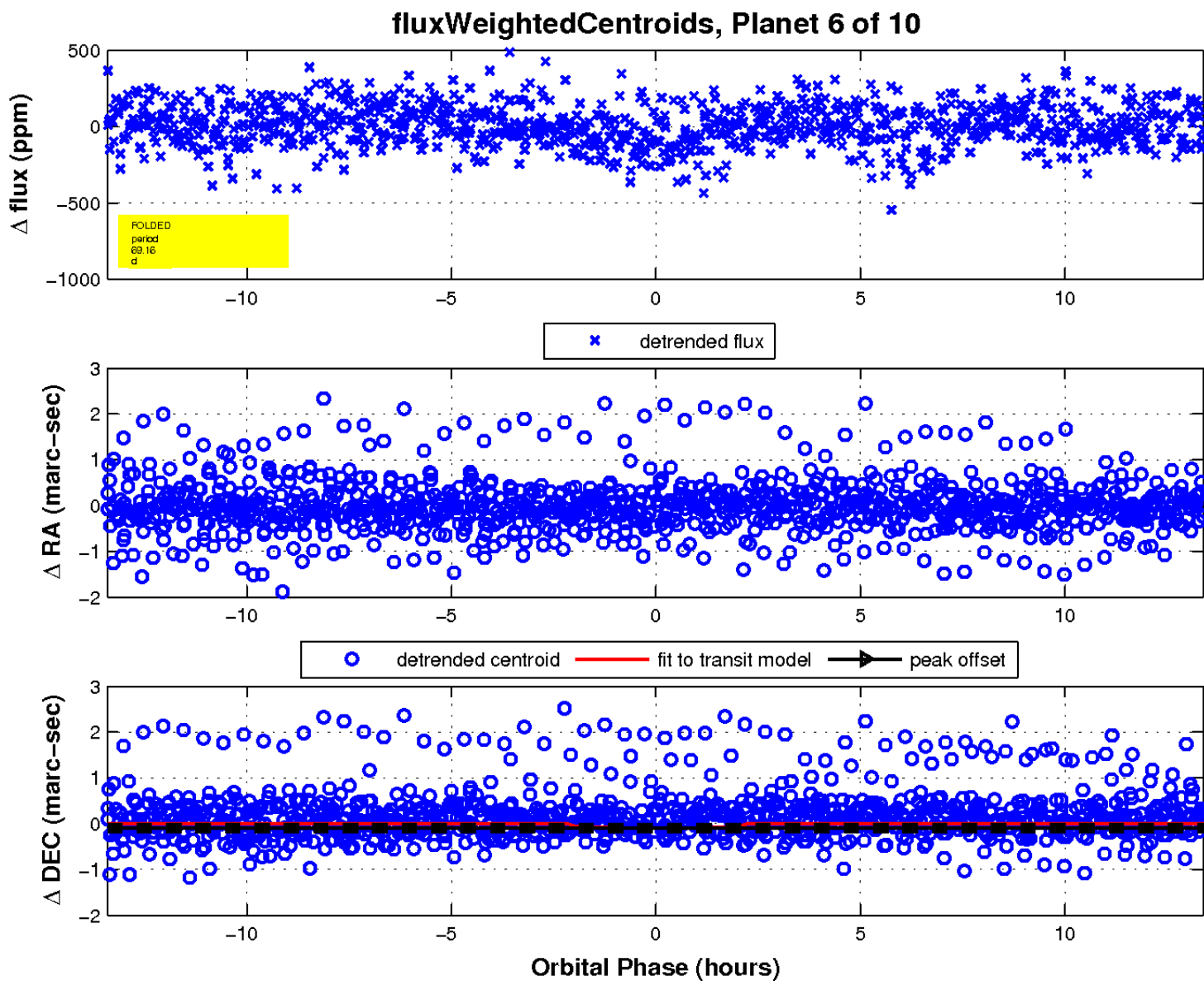
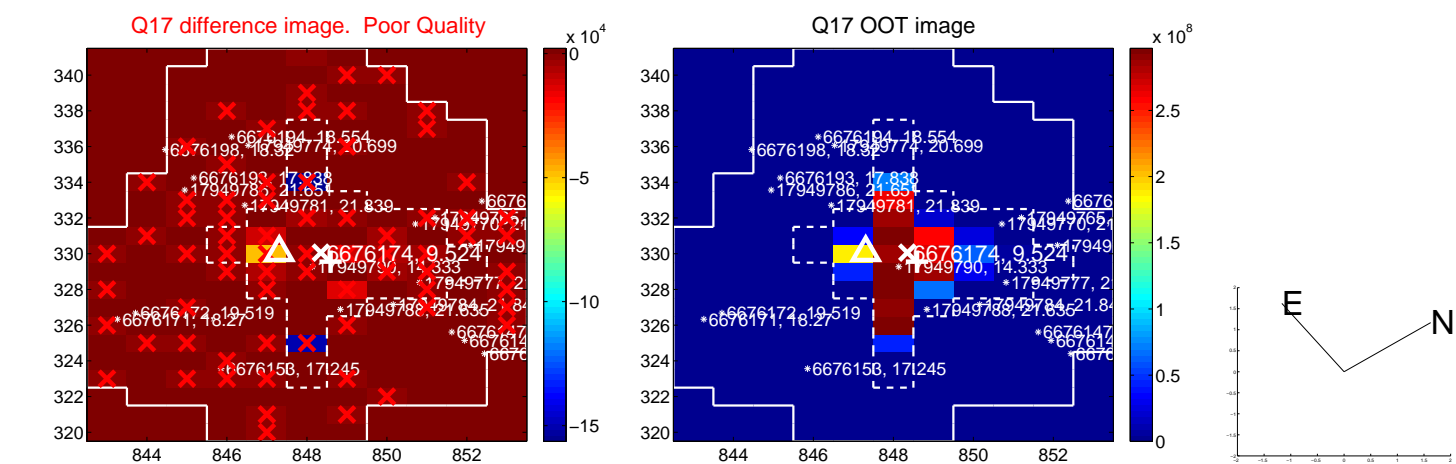
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

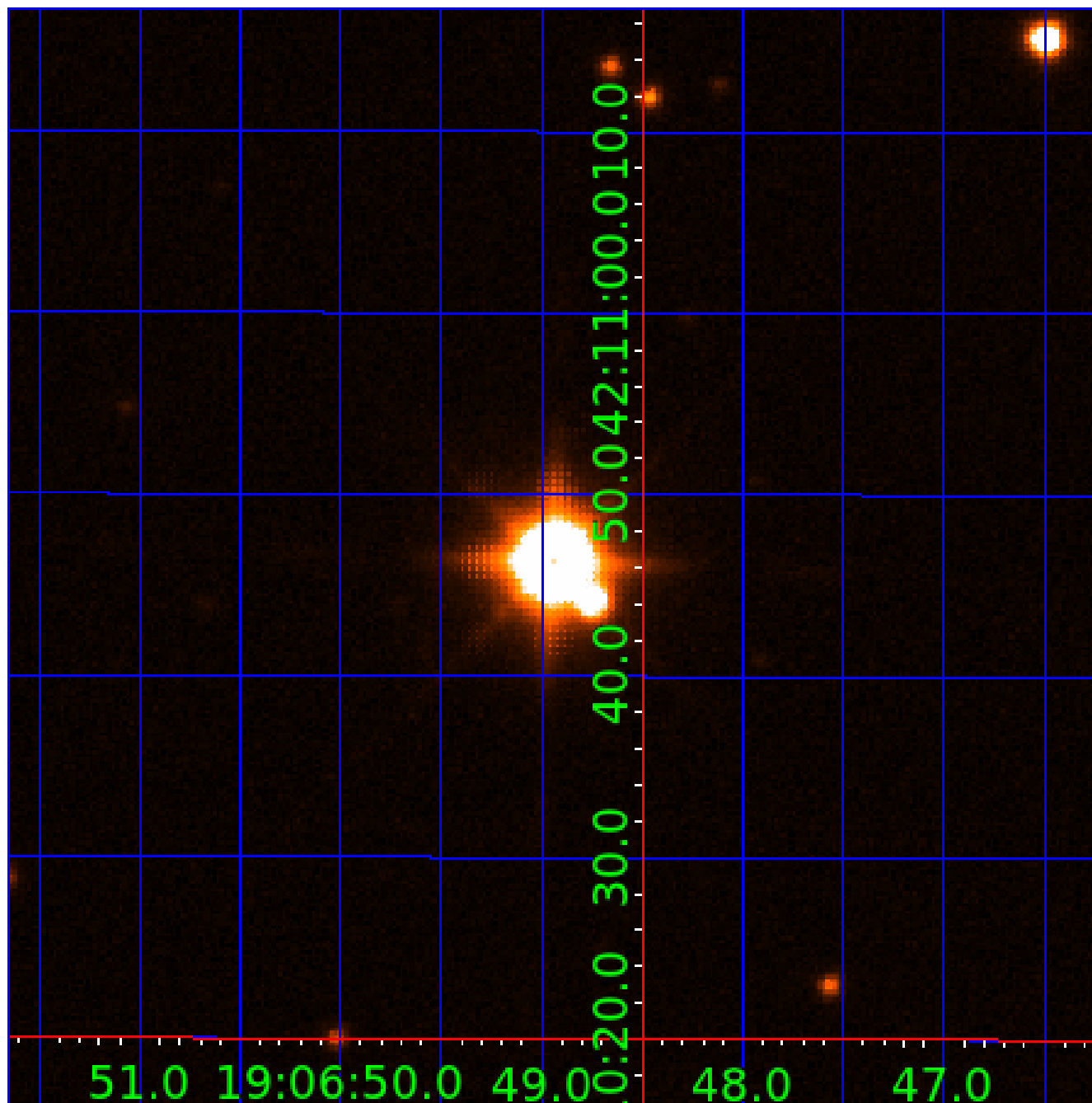


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

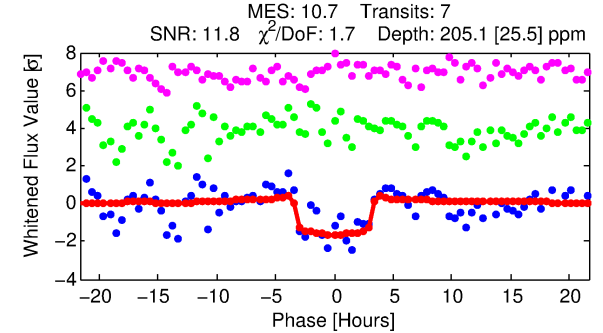
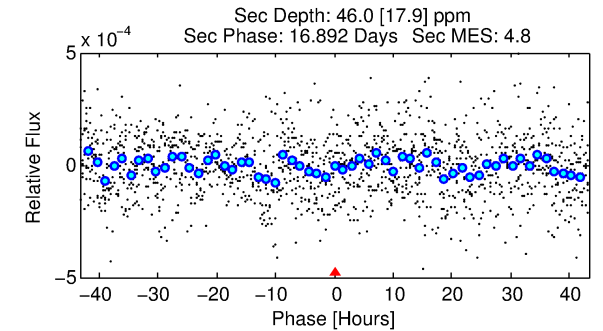
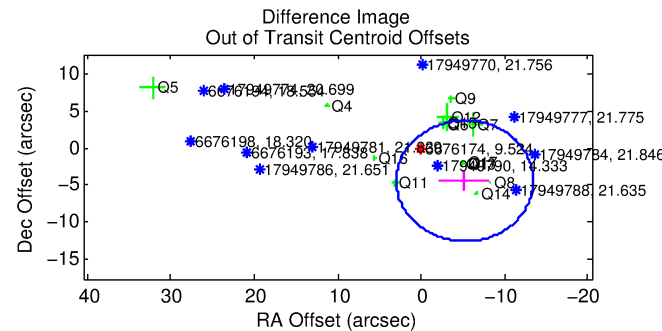
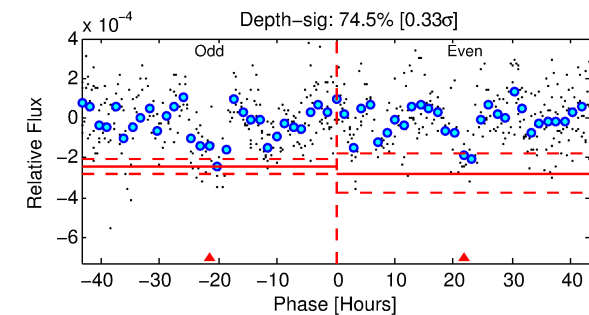
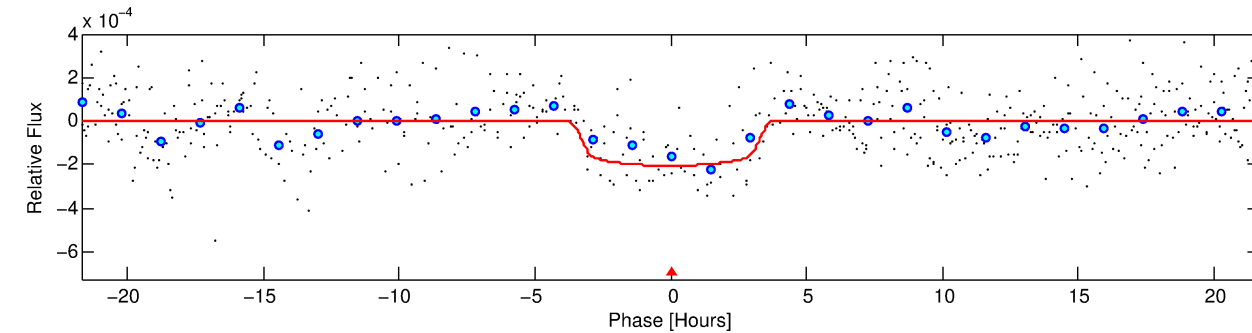
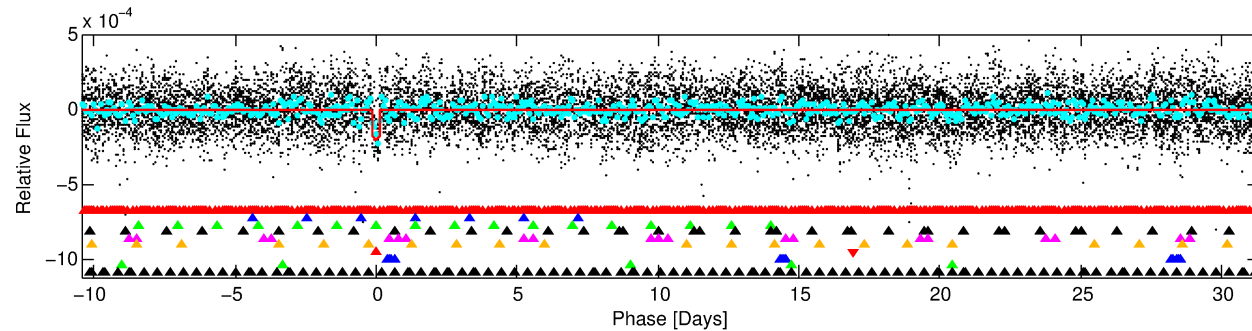
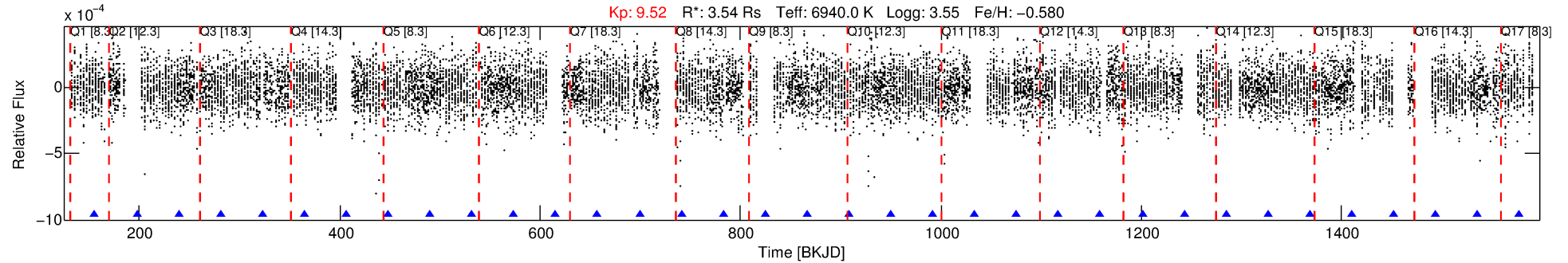
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-07

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 7 of 10 Period: 41.811 d



DV Fit Results:

Period = 41.81060 [0.00054] d
Epoch = 155.7202 [0.0123] BKJD
Rp/R* = 0.0154 [0.0019]
a/R* = 19.73 [11.66]
b = 0.91 [0.11]
Seff = 340.04 [214.74]
Teq = 1095 [173] K
Rp = 5.95 [2.61] Re
a = 0.2770 [0.1091] AU
Ag = 54.78 [42.29] [1.27 σ]
Teffp = 4606 [548] K [6.11 σ]

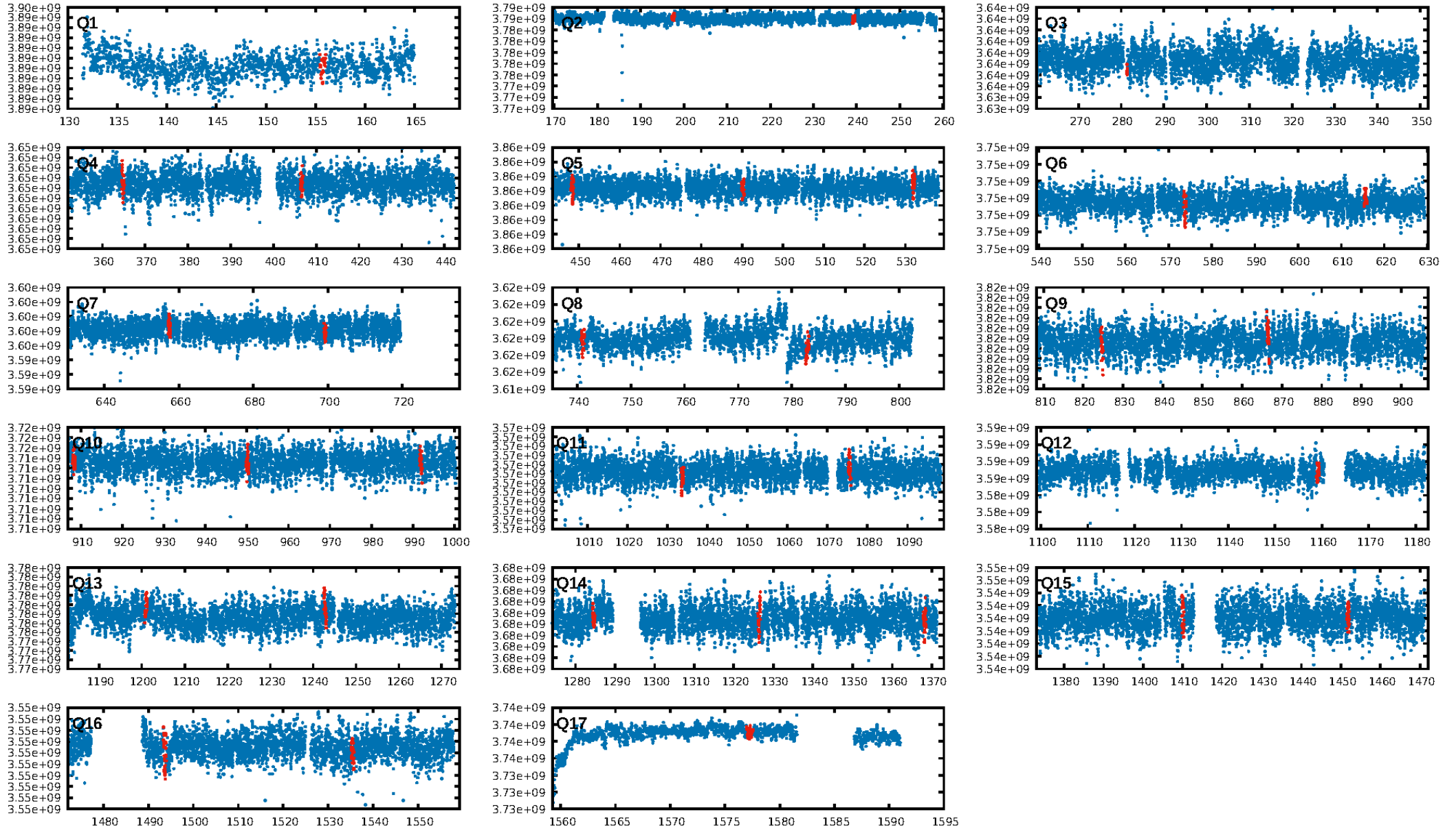
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.64 σ]
LongPeriod-sig: 100.0% [77.23 σ]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 96.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.519 arcsec [5.38 σ]
OotOffset-rm: 6.861 arcsec [2.51 σ]
KicOffset-rm: 7.620 arcsec [3.03 σ]
OotOffset-st: 2/3/4/5 [14]
KicOffset-st: 2/3/4/5 [14]
DiffImageQuality-fgm: 0.07 [1/14]
DiffImageOverlap-fno: 0.31 [5/16]

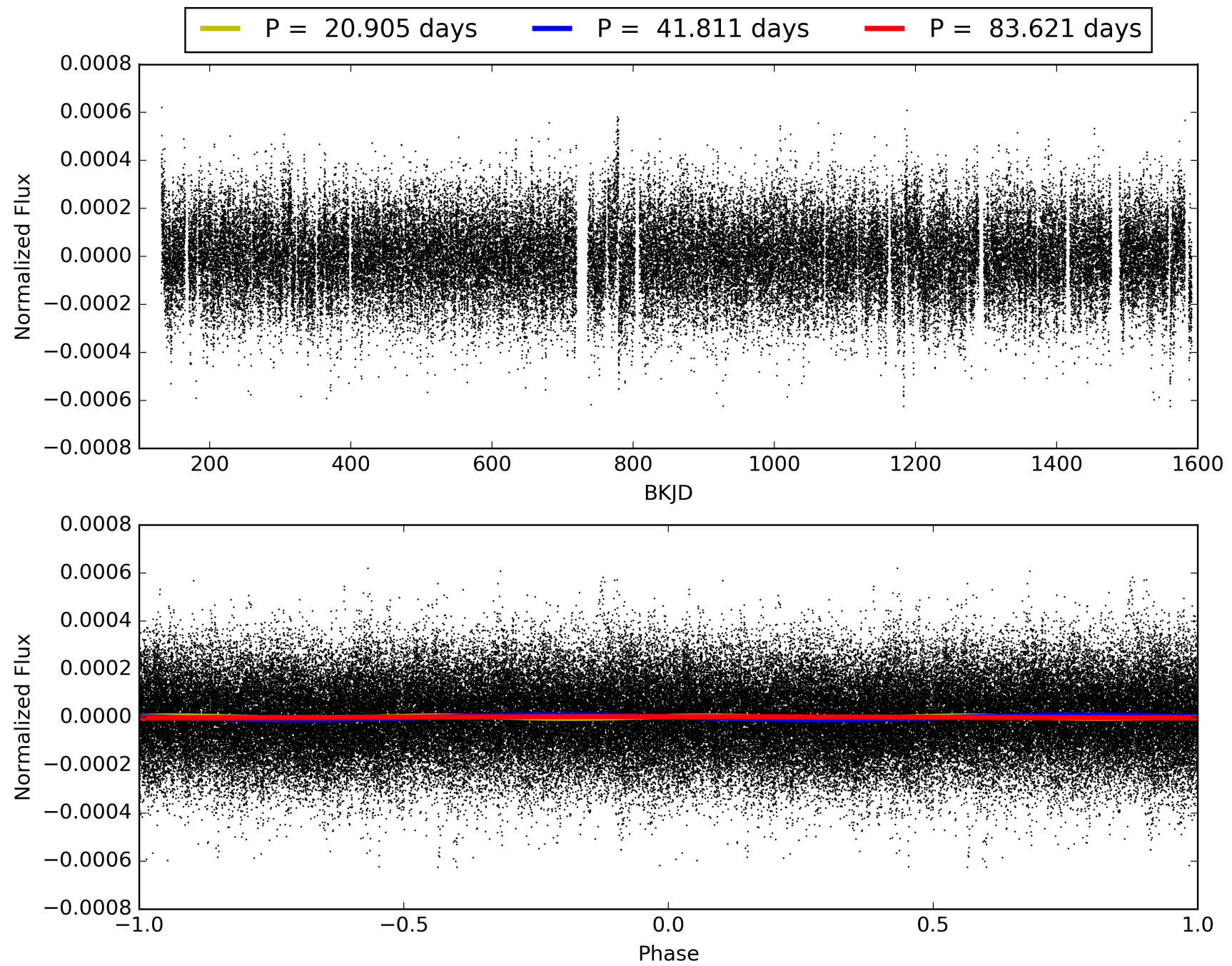
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:15:00 Z

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

TCE 006676174-07, PDC Light Curves

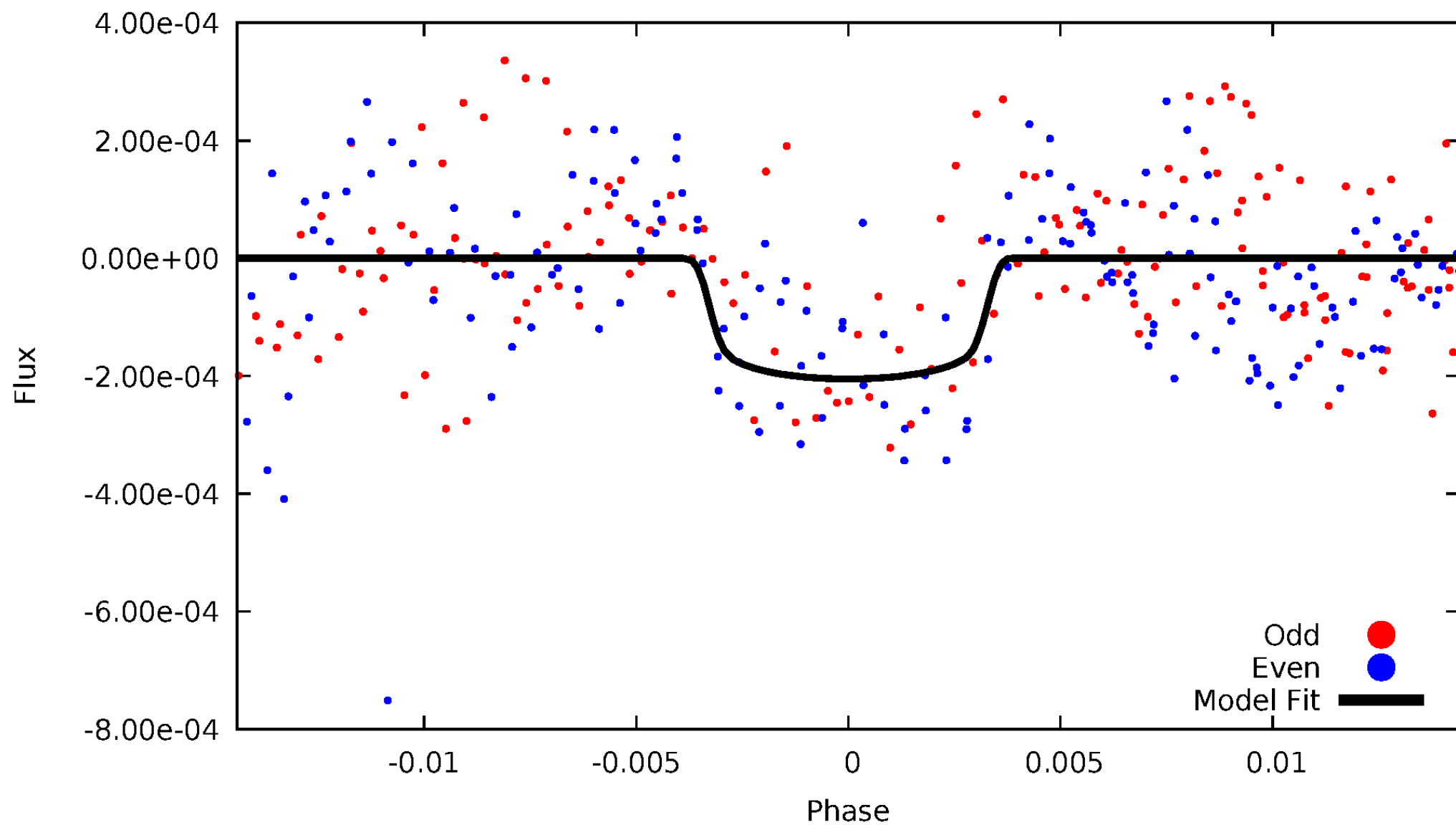


TCE 006676174-07



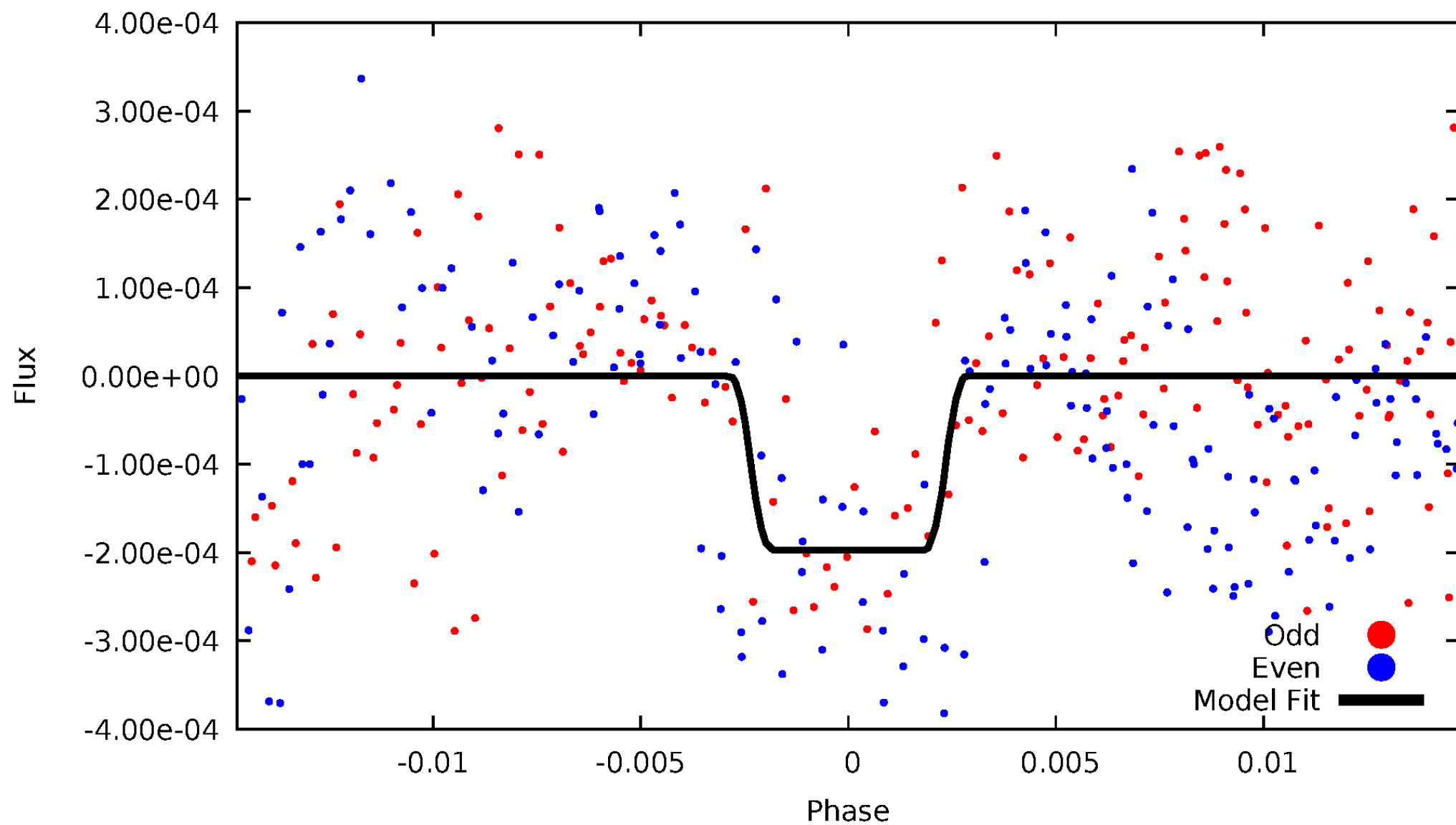
DV Odd/Even

TCE 006676174-07



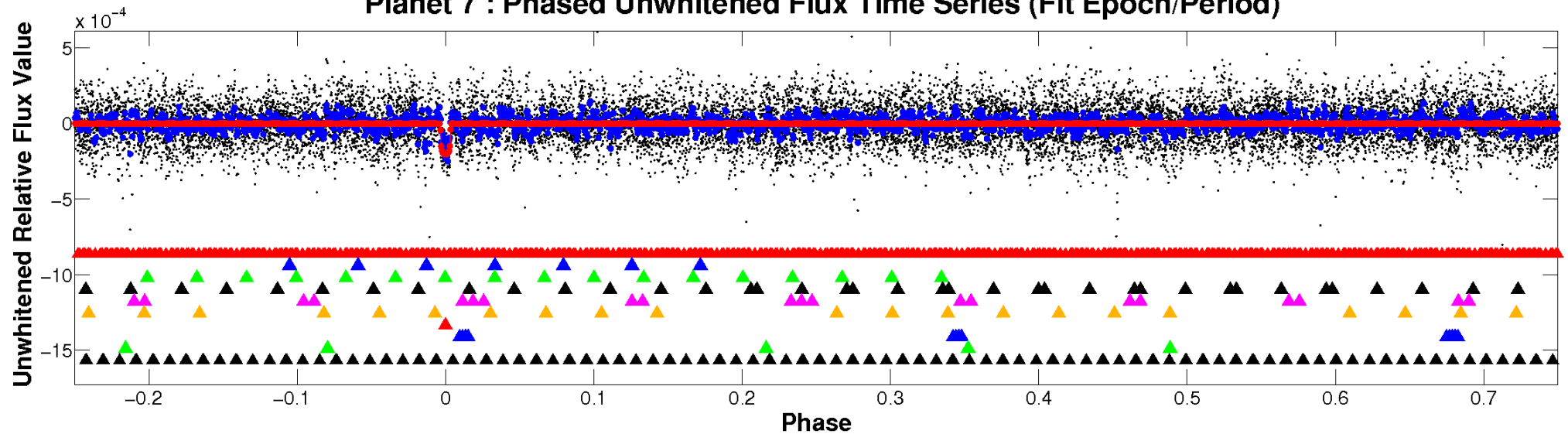
ALT Odd/Even

TCE 006676174-07

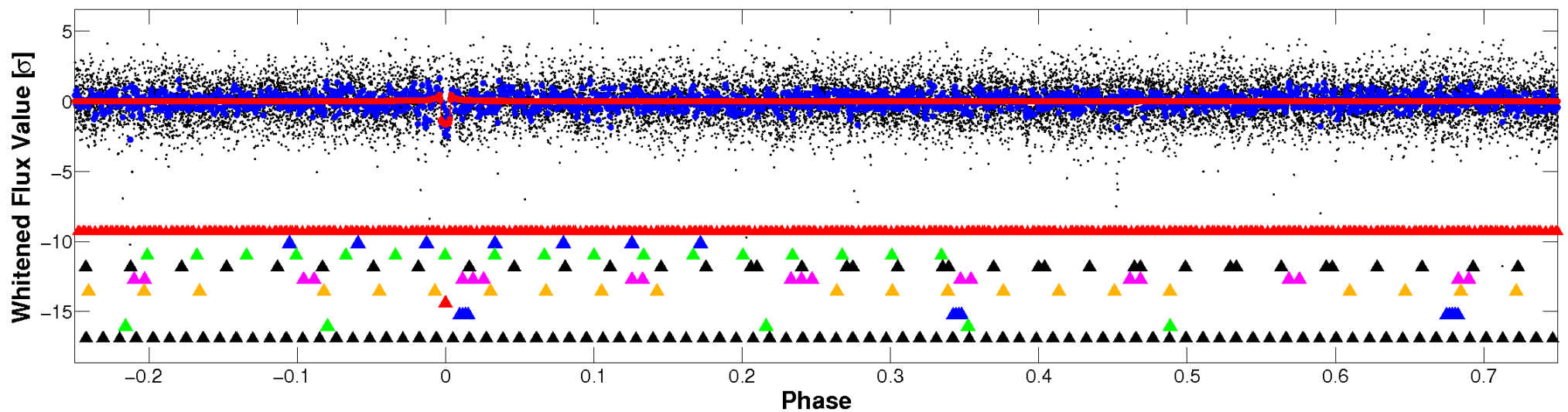


Non-Whitened Vs. Whitened Light Curve

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

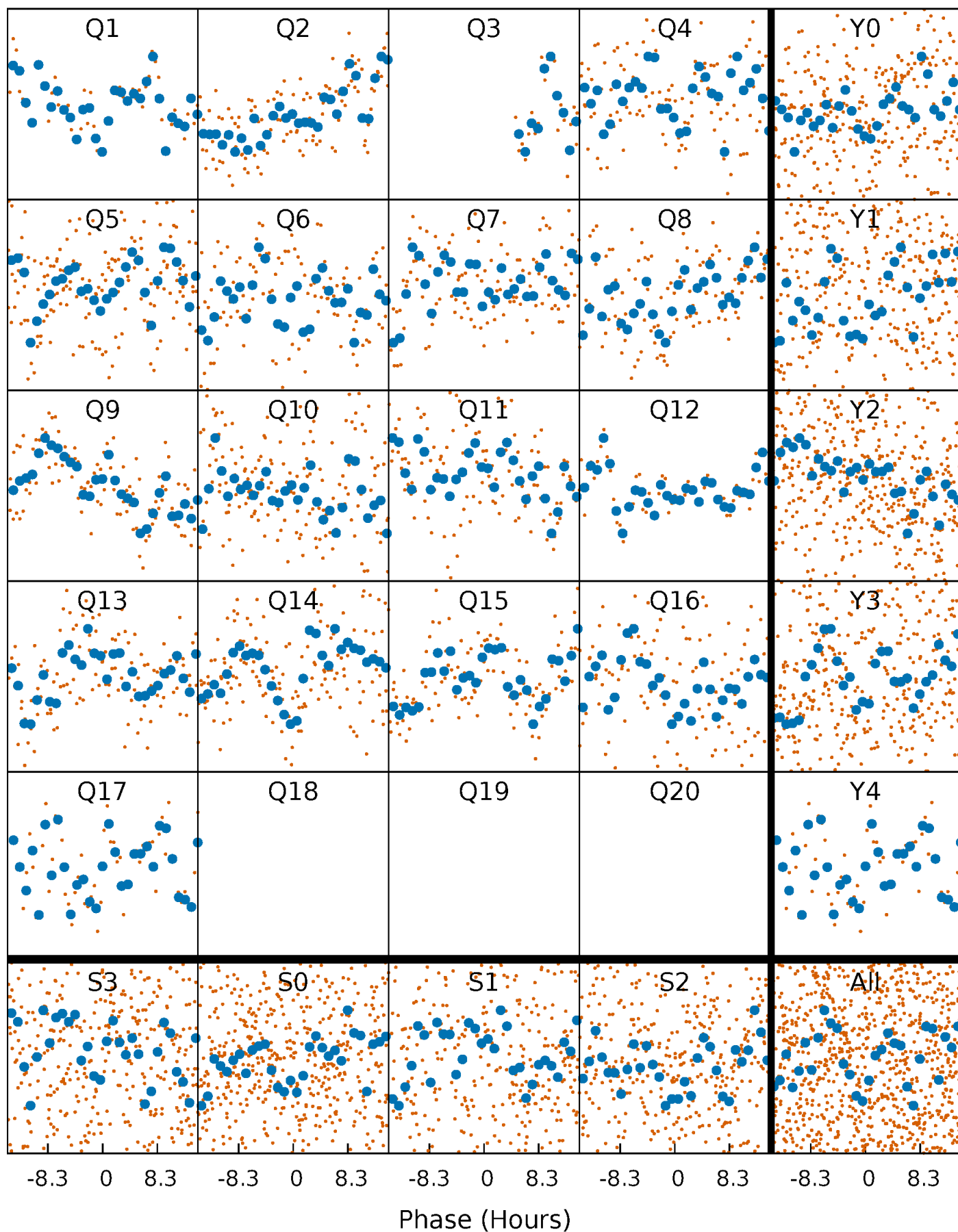


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



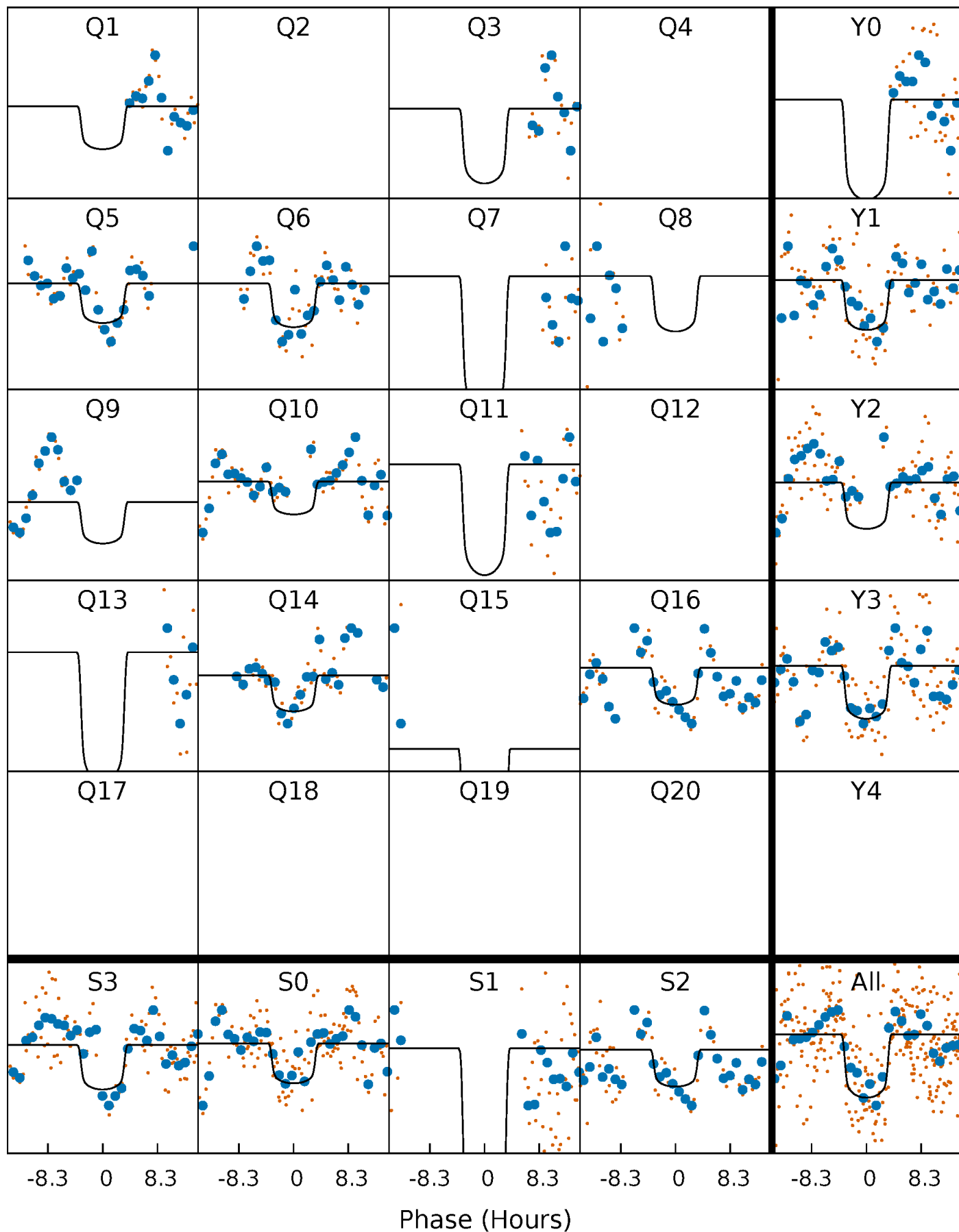
PDC Quarter-Phased Transit Curves

TCE 006676174-07 P= 41.810597 Days $T_0=155.720183$ (BKJD)



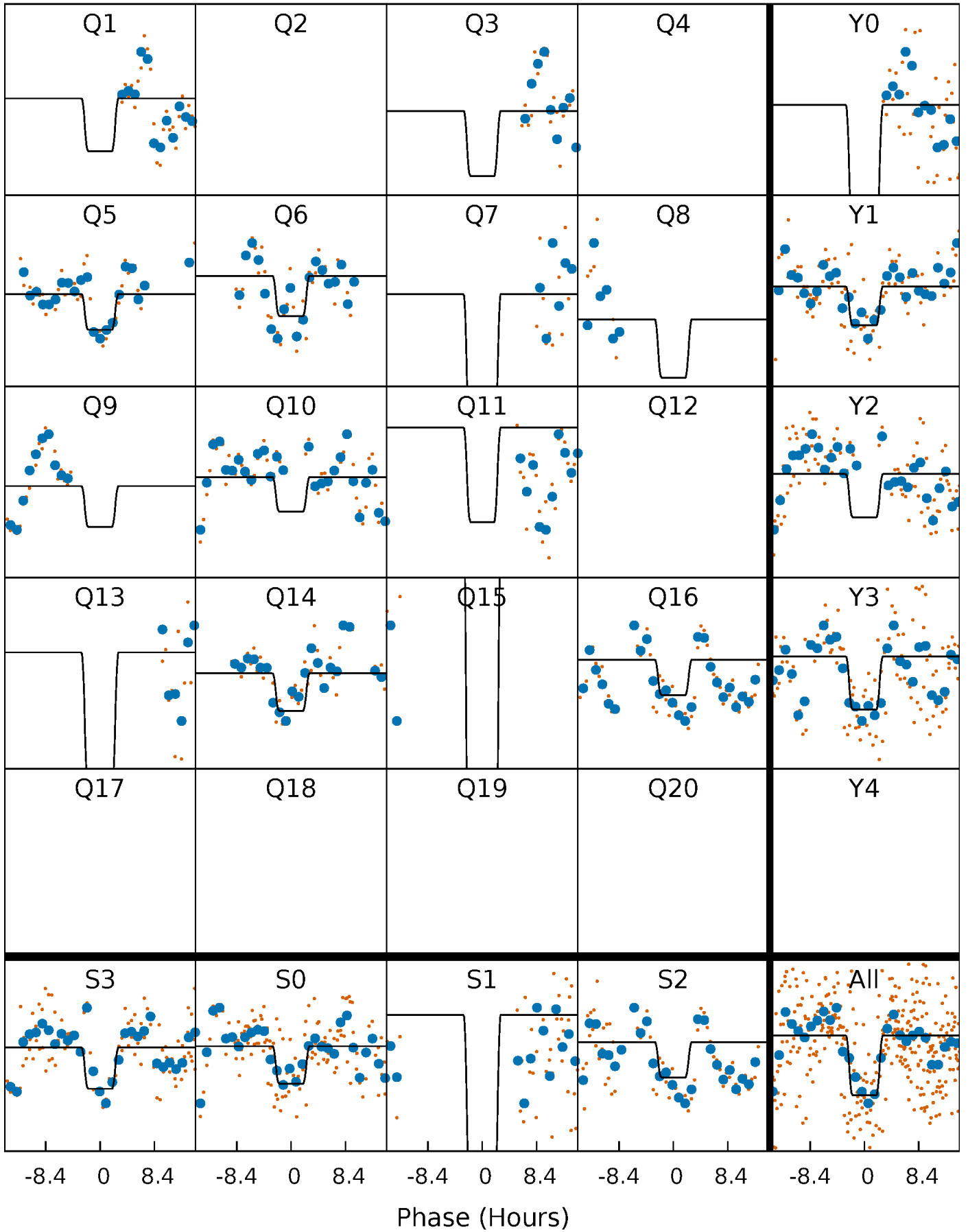
DV Quarter-Phased Transit Curves

TCE 006676174-07 P= 41.810597 Days $T_0=155.720183$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

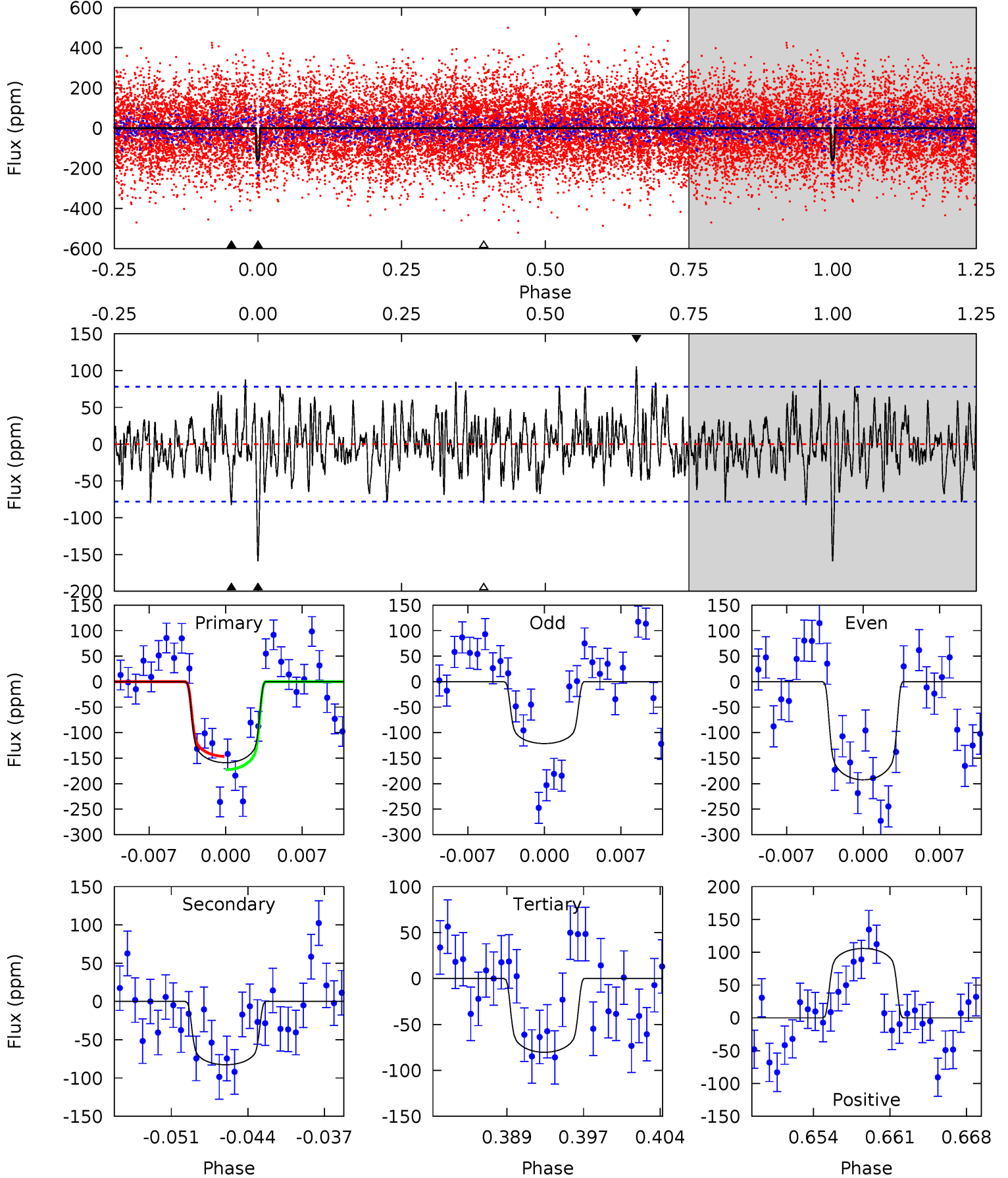
TCE 006676174-07 P= 41.809729 Days $T_0=155.748350$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-07, P = 41.810597 Days, E = 113.909586 Days

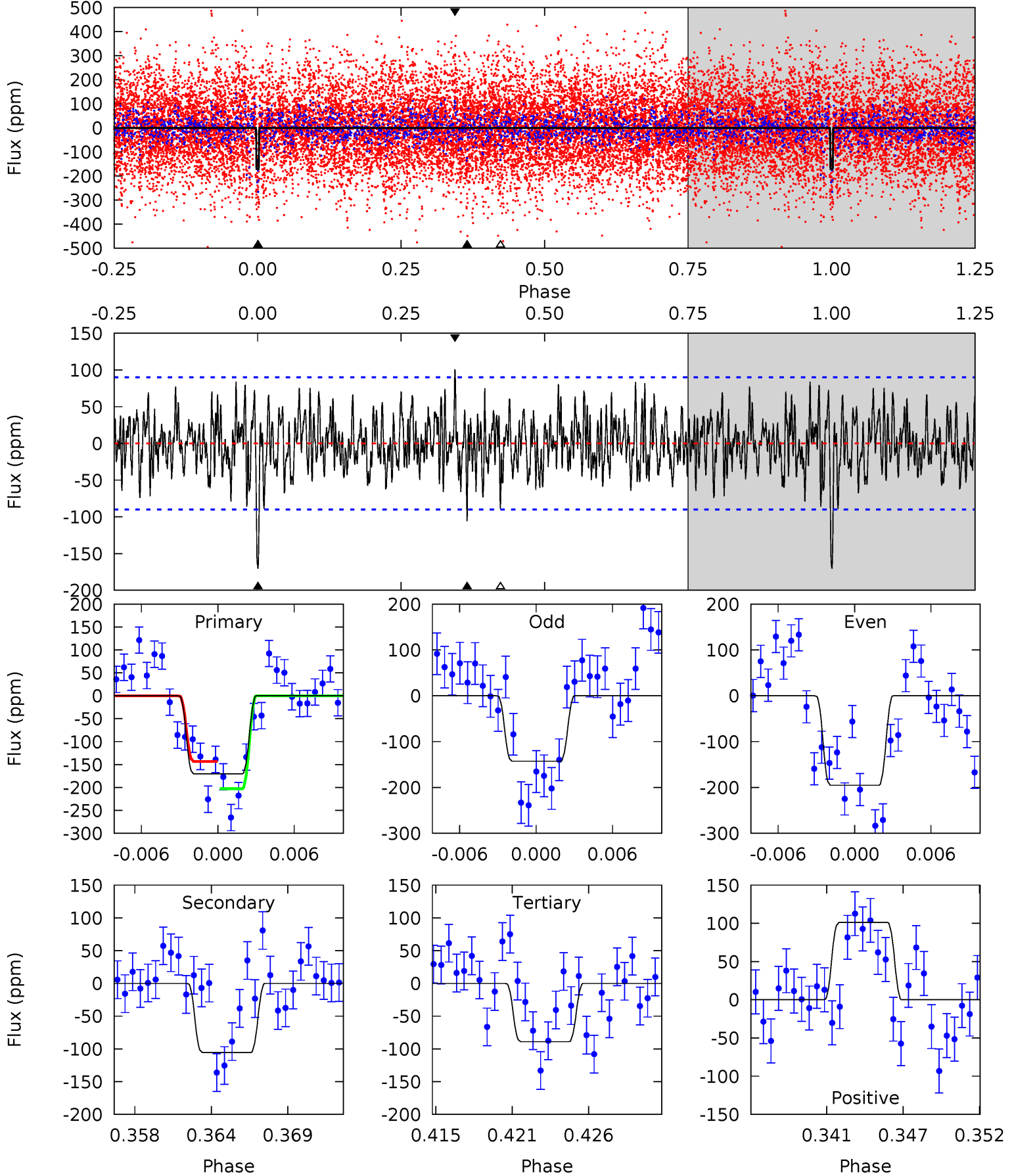
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	5.39	5.23	6.89	5.09	2.68	1.91	5.12	3.46	0.15	-1.50	2.33	0.64	0.40	0.85



Alt Model-Shift Uniqueness Test

006676174-07, P = 41.809729 Days, E = 113.938621 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.70	6.01	5.07	5.76	5.13	2.77	1.76	4.63	3.94	0.94	0.25	1.49	0.52	0.37	1.70



Stellar Parameters For KIC 006676174

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-83 ± 15	$5.65^{+1.13}_{-1.18}$	1501^{+80}_{-148}	5339^{+397}_{-385}	110^{+70}_{-36}
Alt.	-106 ± 18	$5.14^{+0.97}_{-1.10}$	1499^{+83}_{-143}	5894^{+528}_{-460}	170^{+99}_{-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 $A_{\text{obs}} \gg 1.0$

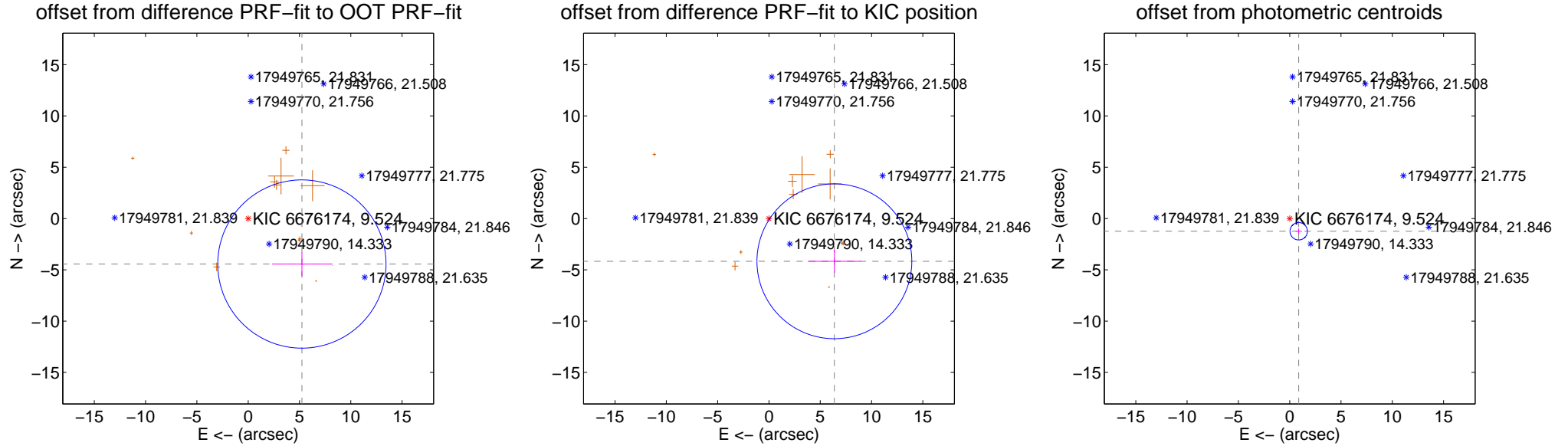
DV Centroid Data

Supplemental centroid analysis for 006676174-07. **Kepler magnitude: 9.52.** Transit SNR 11.79

There are 1 quarters with good PRF difference image offsets

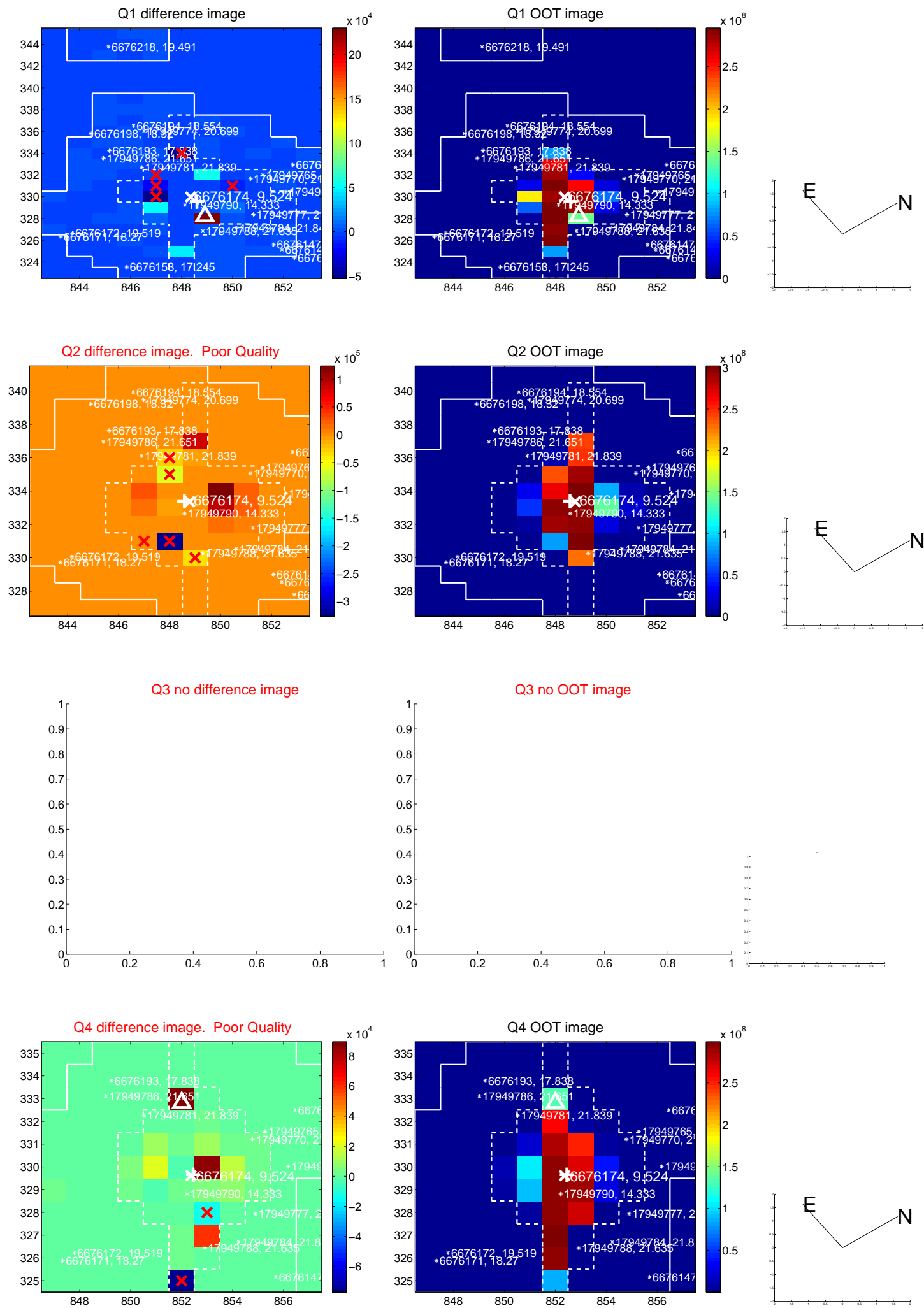
The OOT PRF centroid is offset from the target star catalog position by about 2.25 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.861 ± 2.733	2.51	-5.236 ± 2.904	-4.434 ± 1.175
PRF-fit source offset from KIC position	7.620 ± 2.516	3.03	-6.379 ± 2.588	-4.168 ± 1.118
photometric centroid source offset	1.52 ± 0.28	5.38	-0.88 ± 0.31	-1.24 ± 0.27

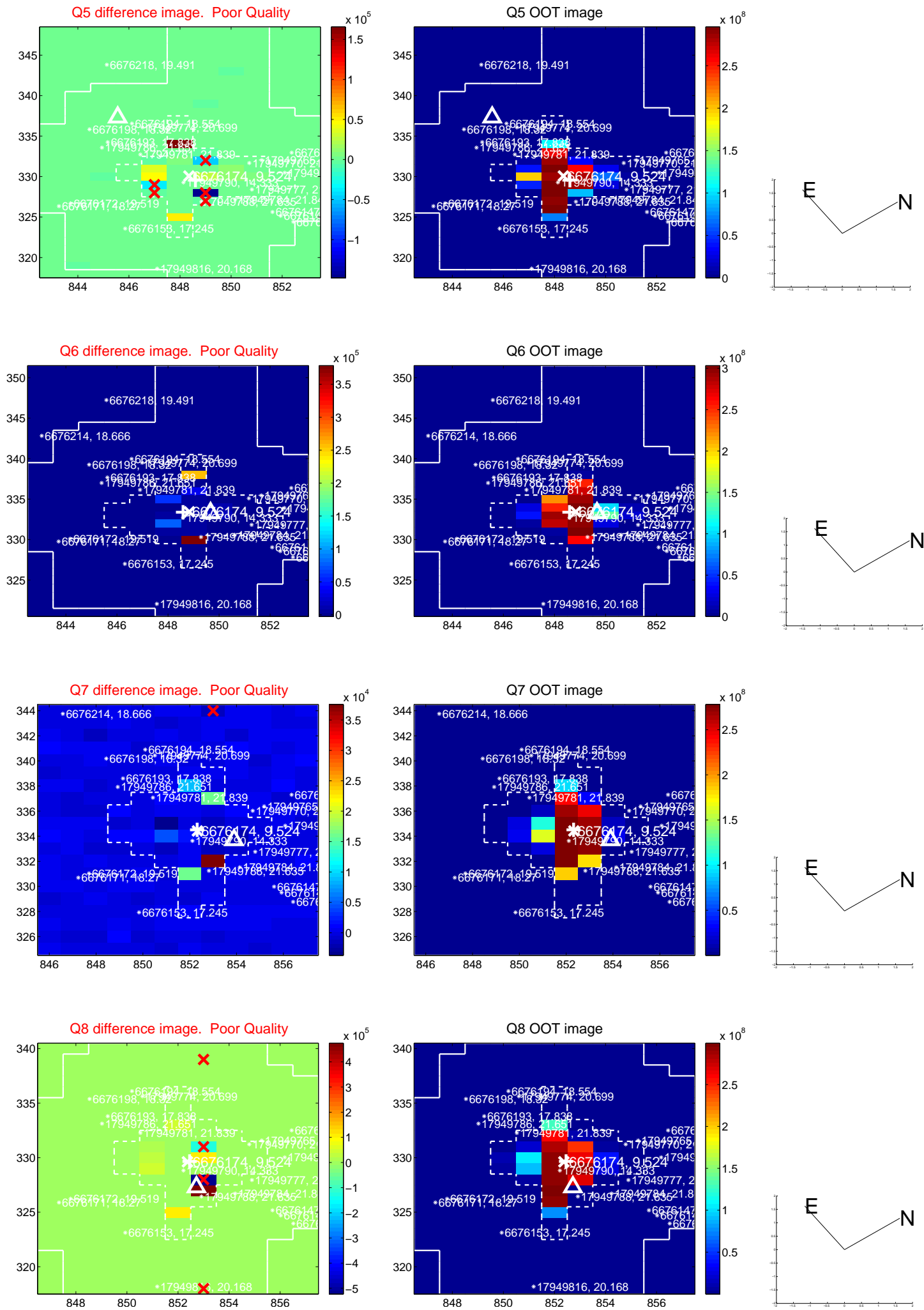


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

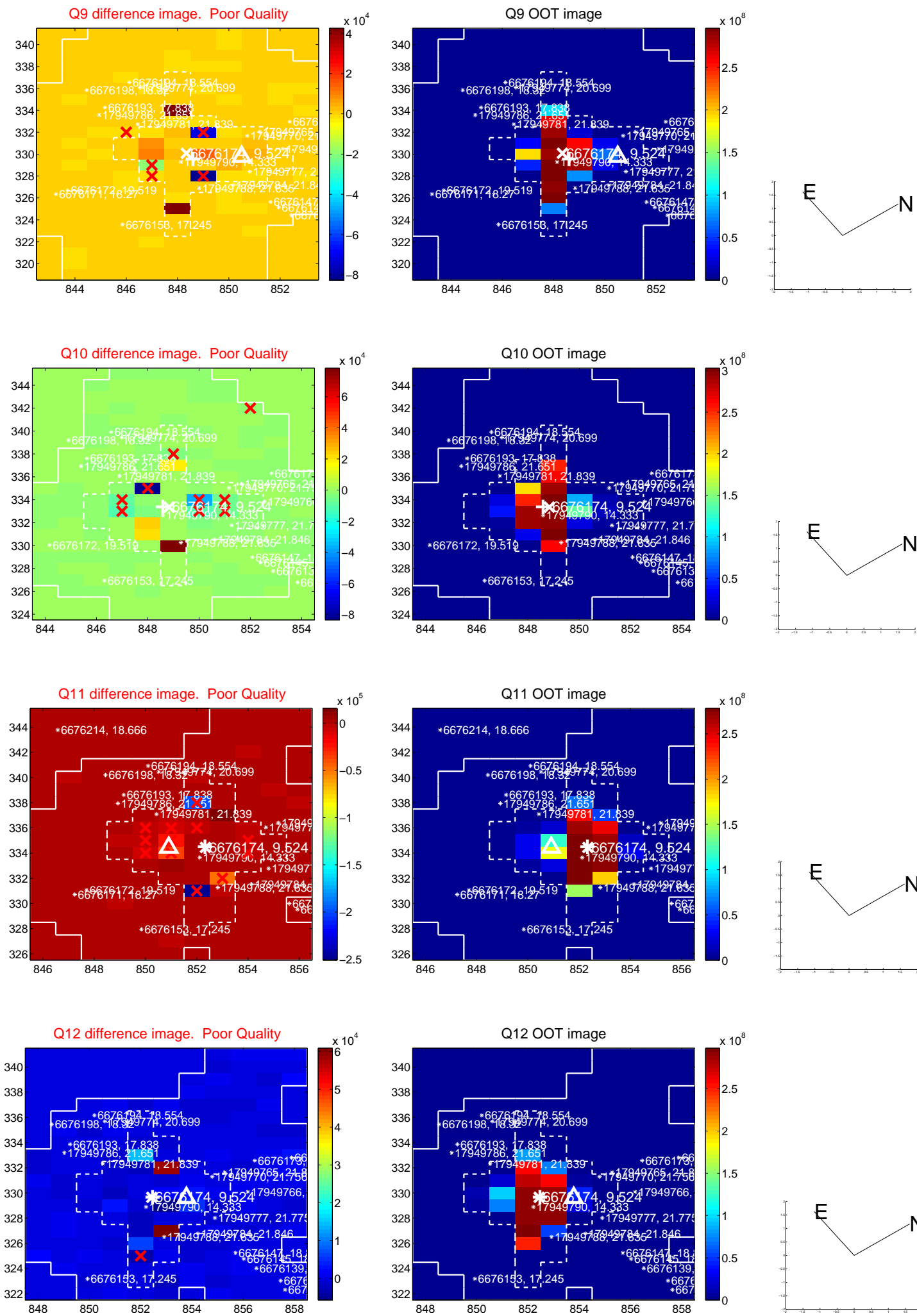
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



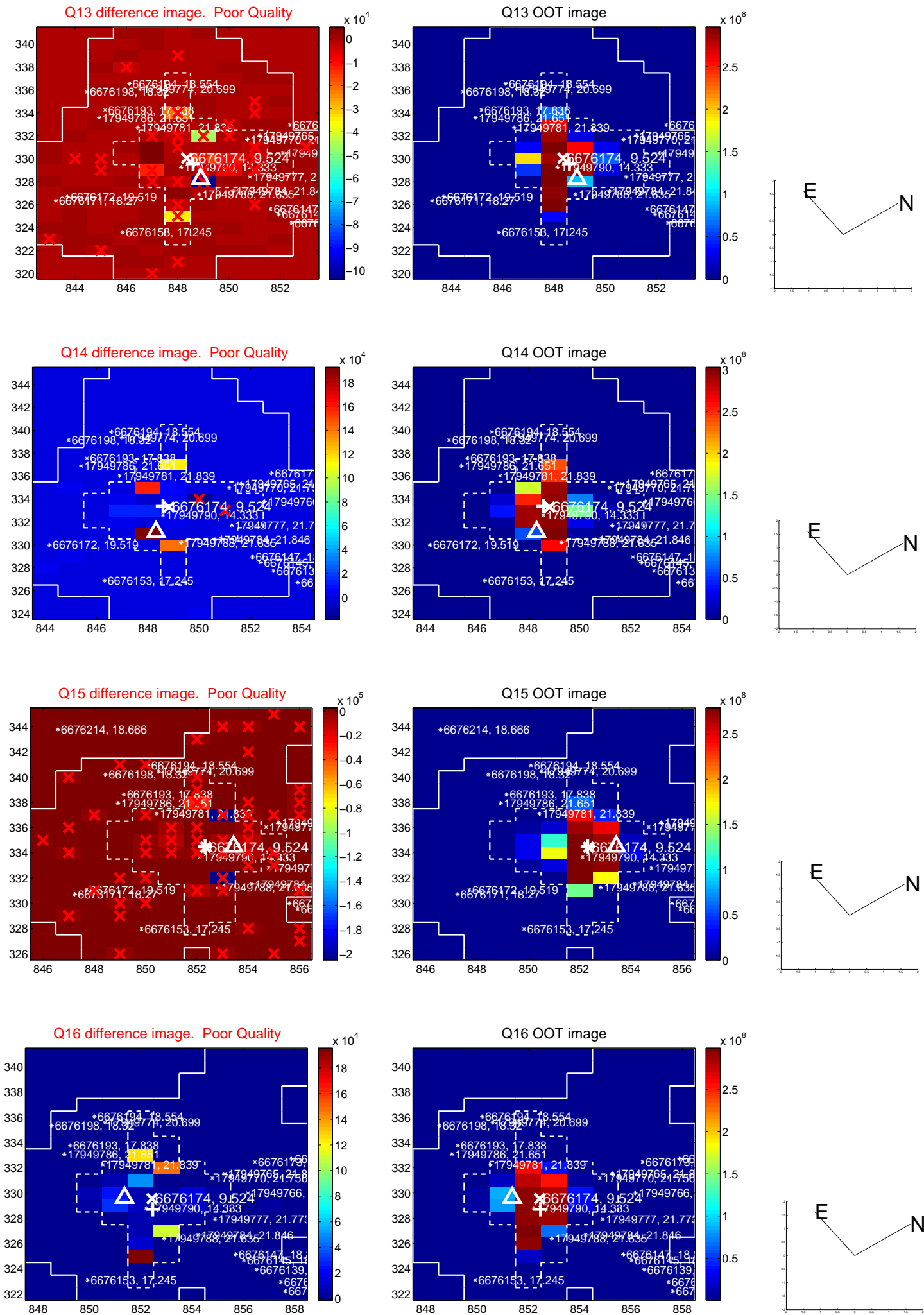
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



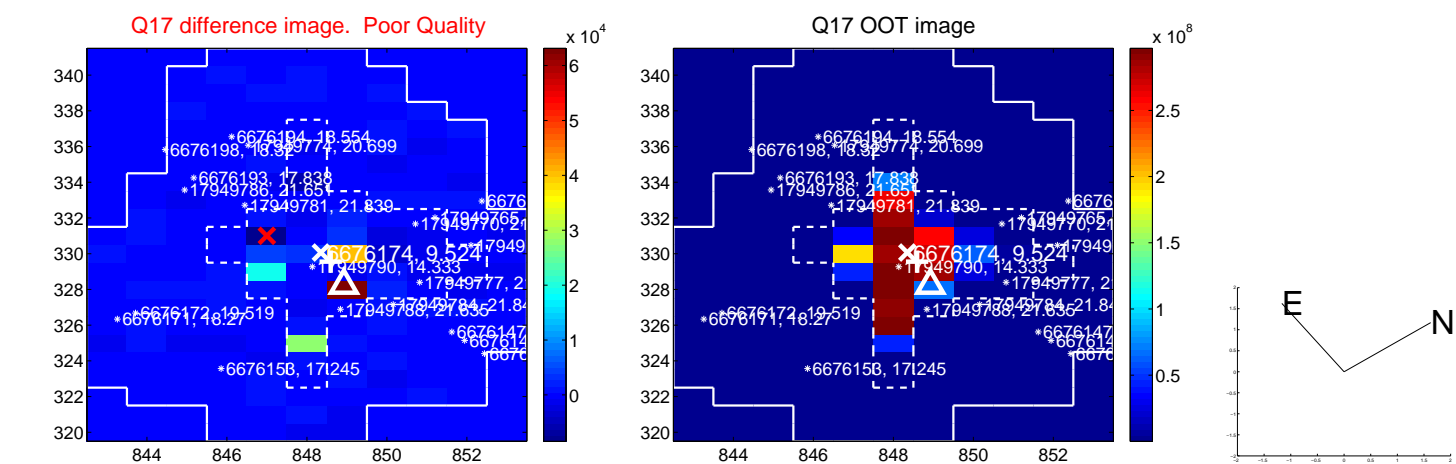
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



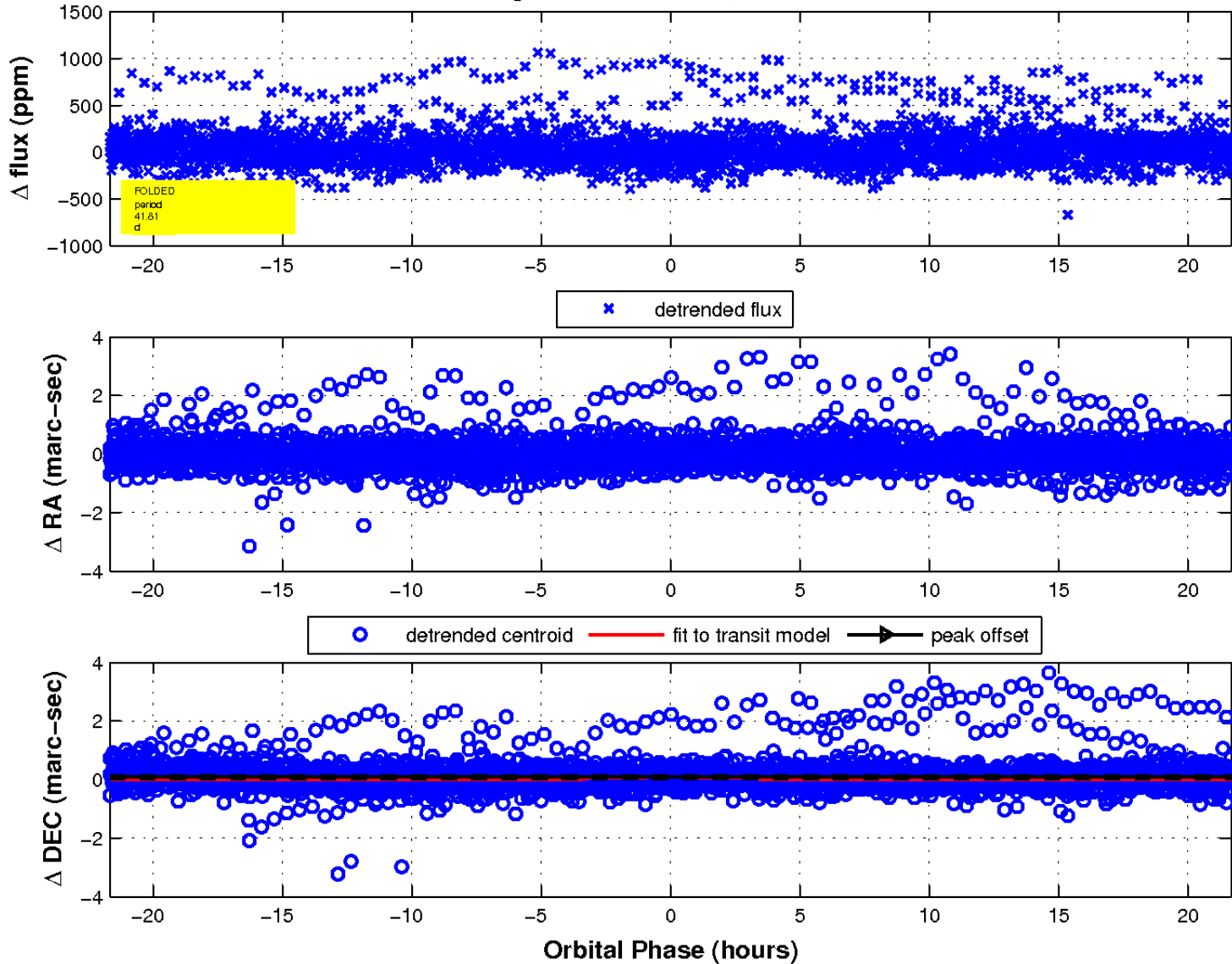
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

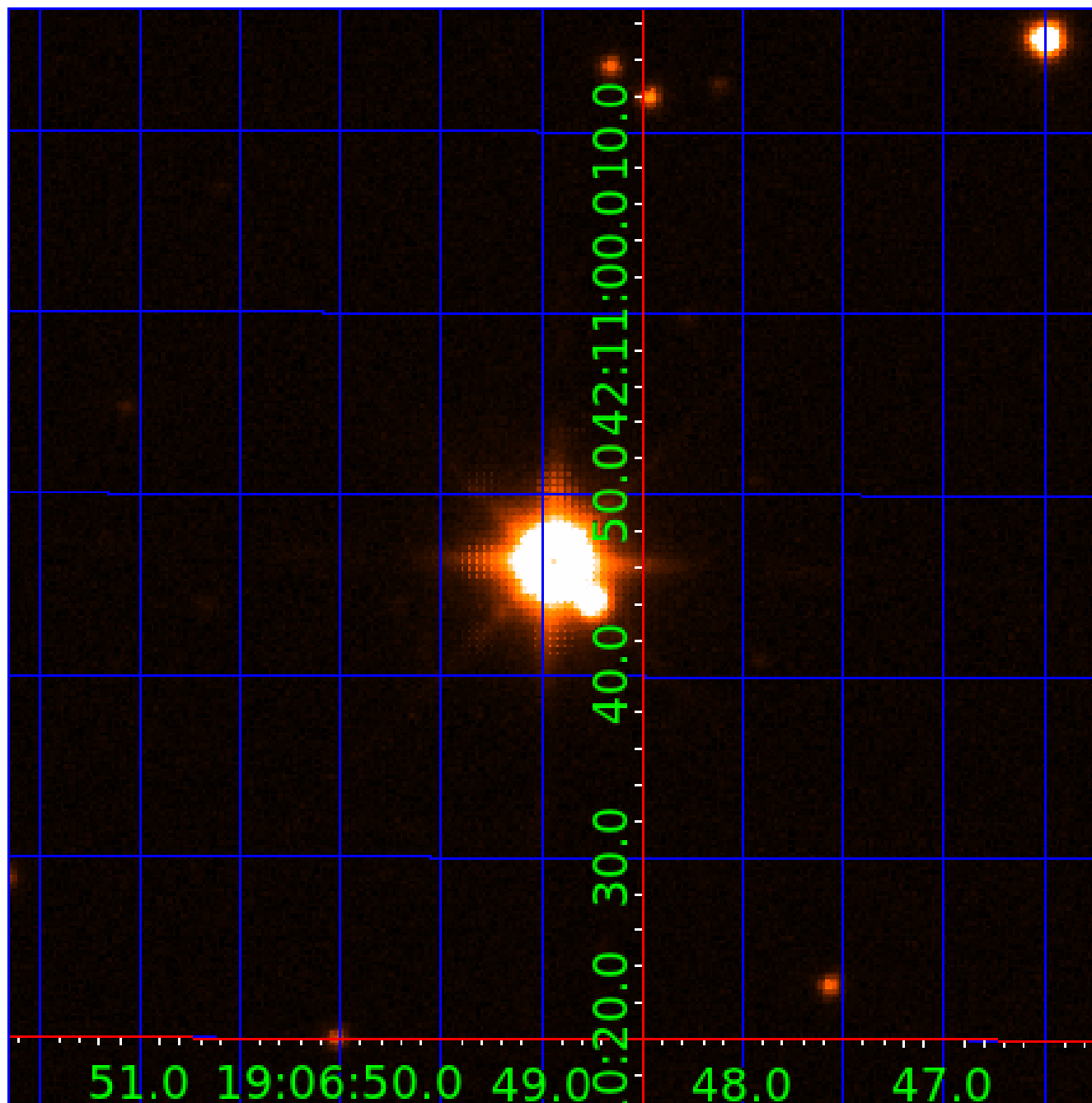


fluxWeightedCentroids, Planet 7 of 10



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

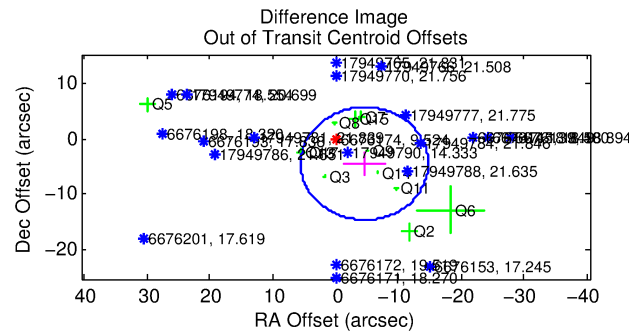
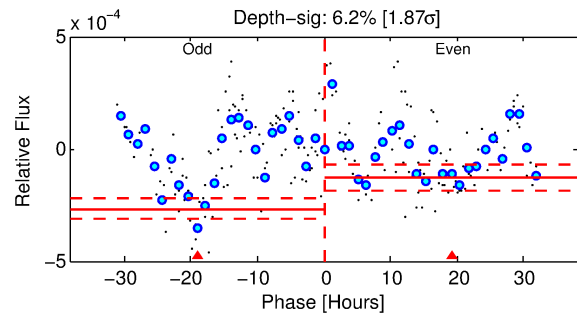
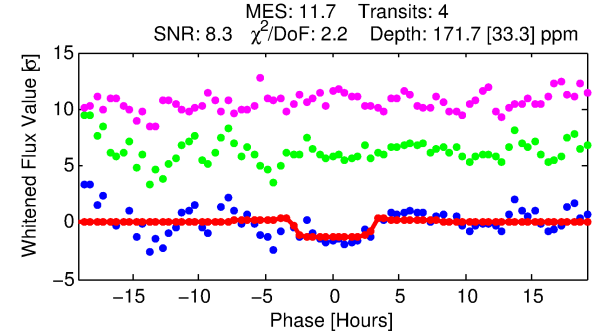
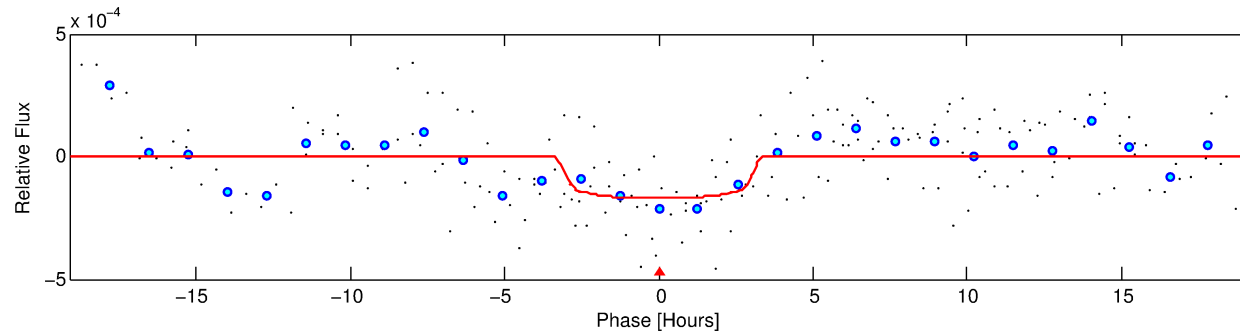
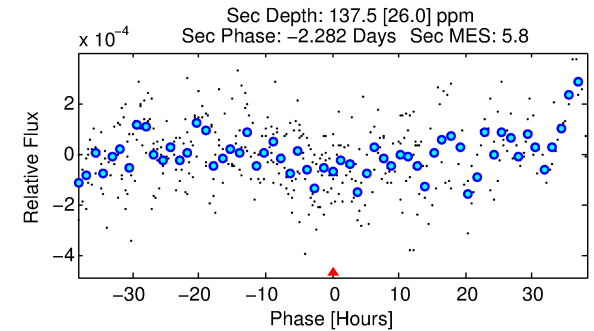
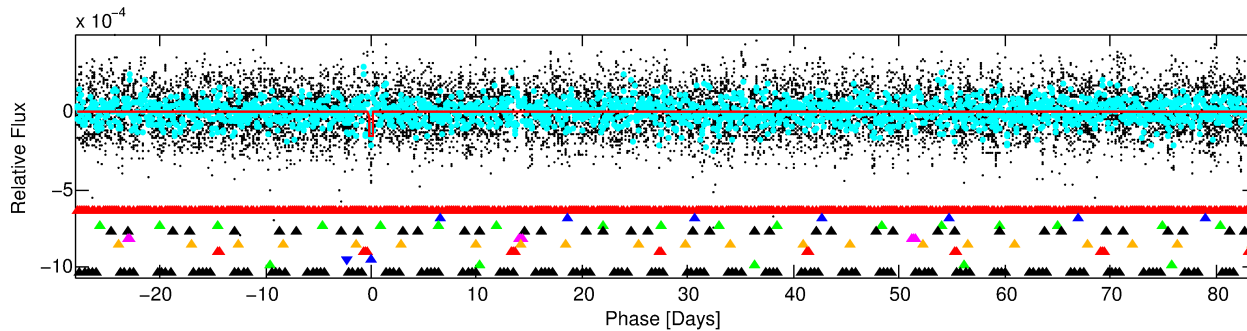
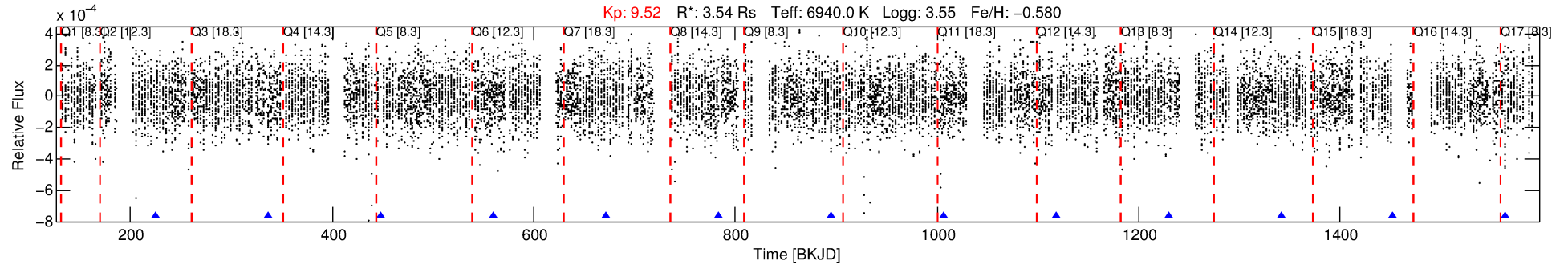
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-08

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 8 of 10 Period: 111.522 d



DV Fit Results:

Period = 111.52180 [0.00214] d
Epoch = 225.7508 [0.0151] BKJD
Rp/R* = 0.0132 [0.0087]
a/R* = 84.18 [331.21]
b = 0.79 [1.83]
Seff = 91.92 [58.05]
Teq = 790 [125] K
Rp = 5.11 [4.01] Re
a = 0.5327 [0.2099] AU
Ag = 822.48 [1212.10] [0.68σ]
Teffp = 6537 [2194] K [2.62σ]

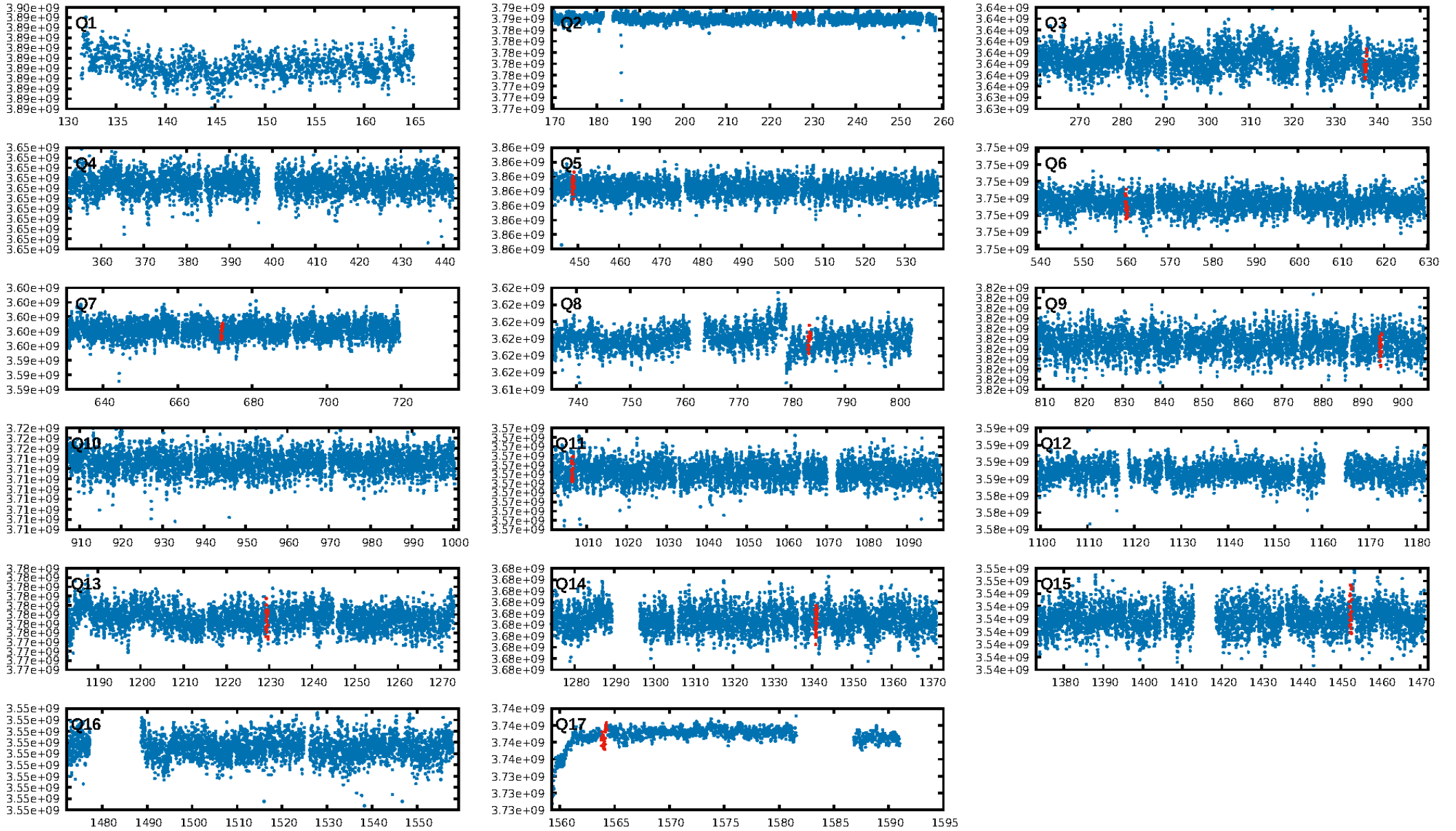
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [74.24σ]
LongPeriod-sig: 100.0% [19.77σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 13.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.649 arcsec [2.83σ]
OotOffset-rm: 6.386 arcsec [1.89σ]
KicOffset-rm: 7.123 arcsec [2.13σ]
OotOffset-st: 3/4/1/4 [12]
KicOffset-st: 3/4/1/4 [12]
DiffImageQuality-fgm: 0.08 [1/12]
DiffImageOverlap-fno: 0.33 [4/12]

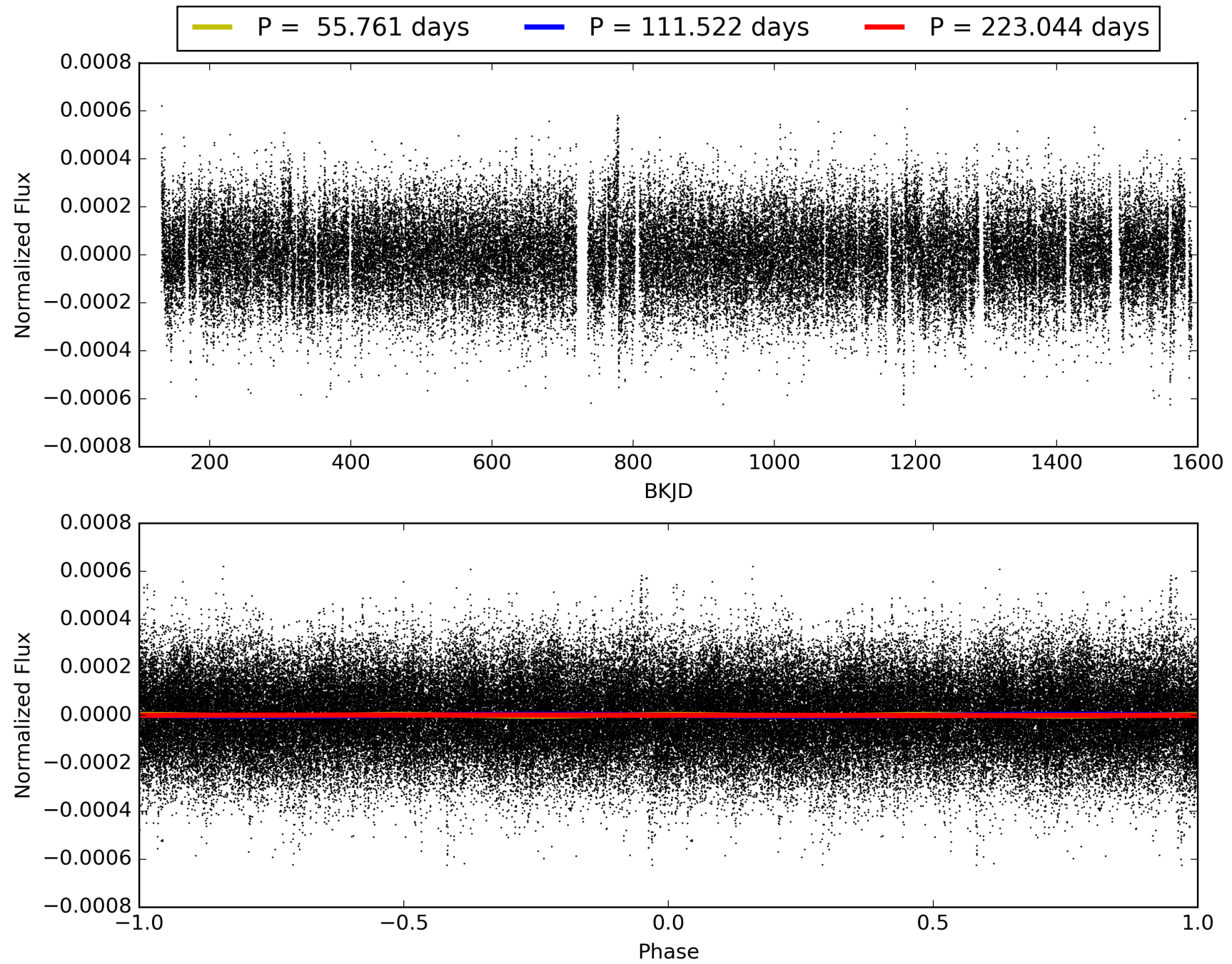
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:15:04 Z

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TCE 006676174-08, PDC Light Curves

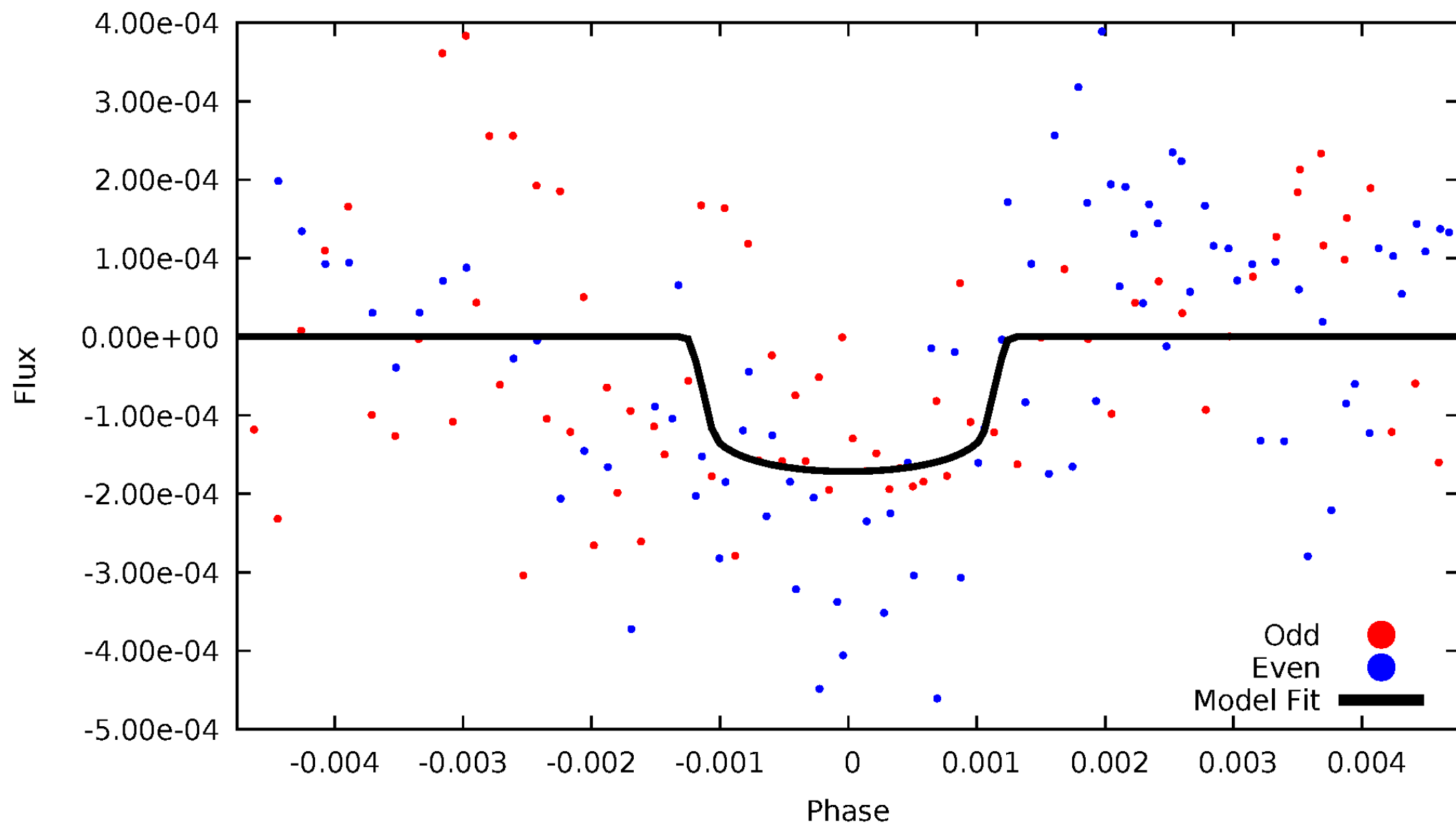


TCE 006676174-08



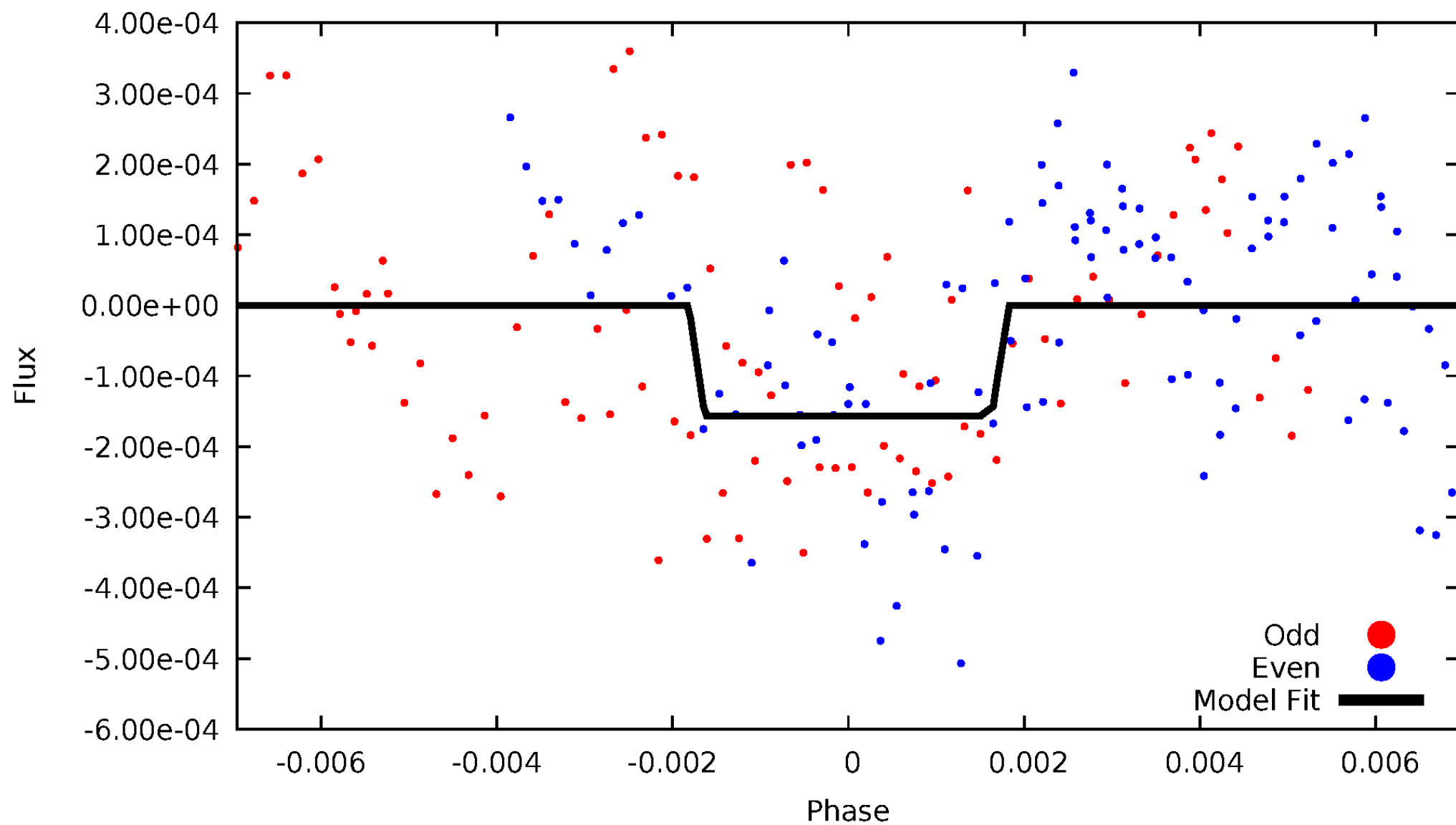
DV Odd/Even

TCE 006676174-08



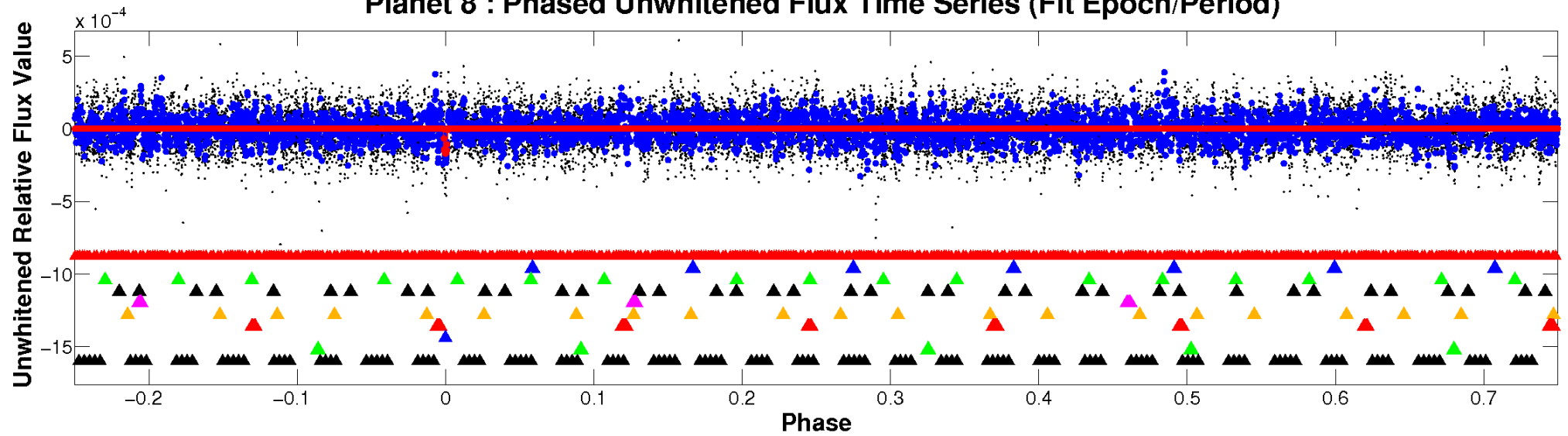
ALT Odd/Even

TCE 006676174-08

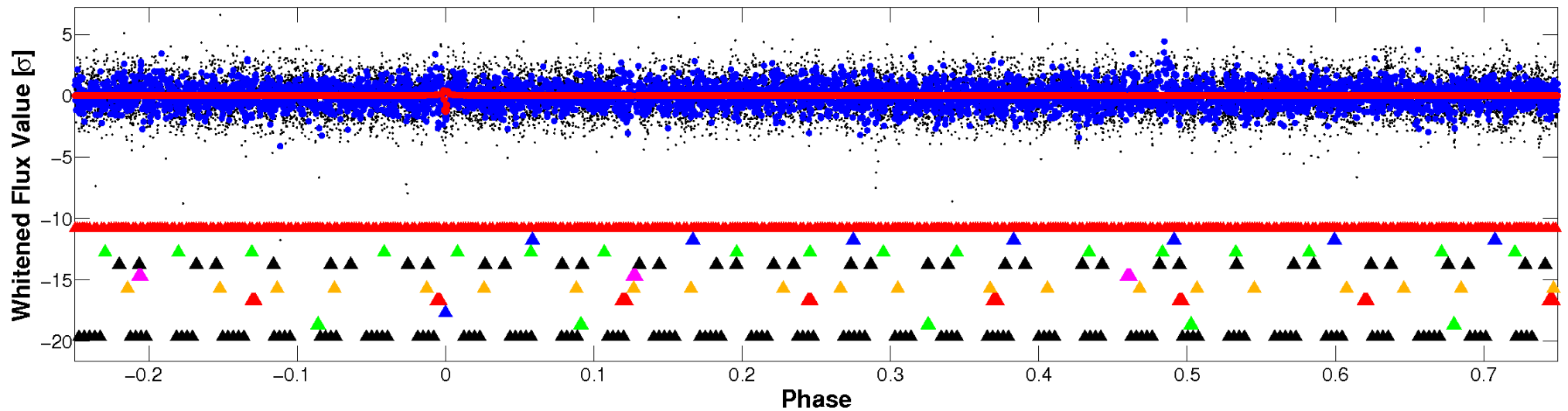


Non-Whitened Vs. Whitened Light Curve

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

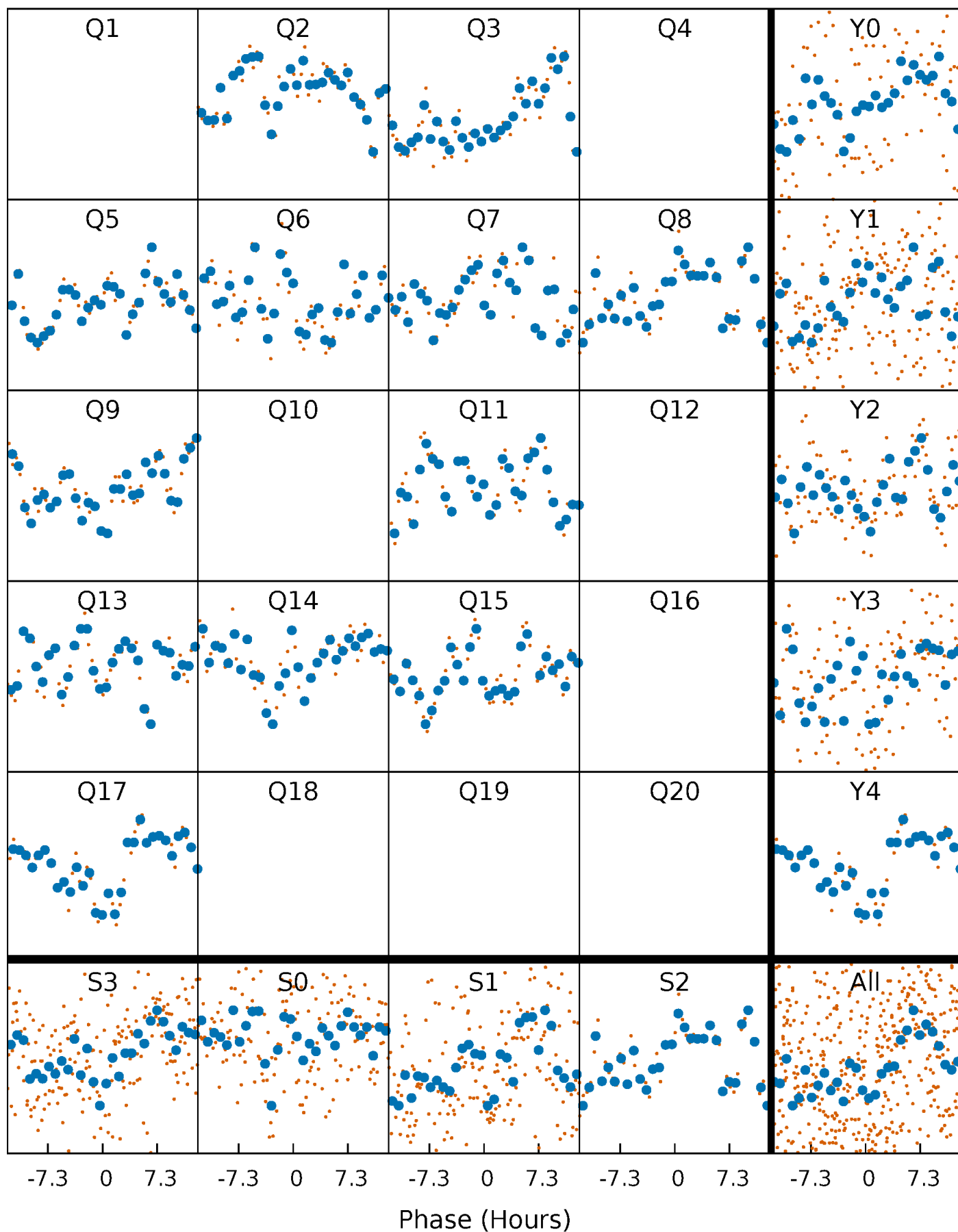


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



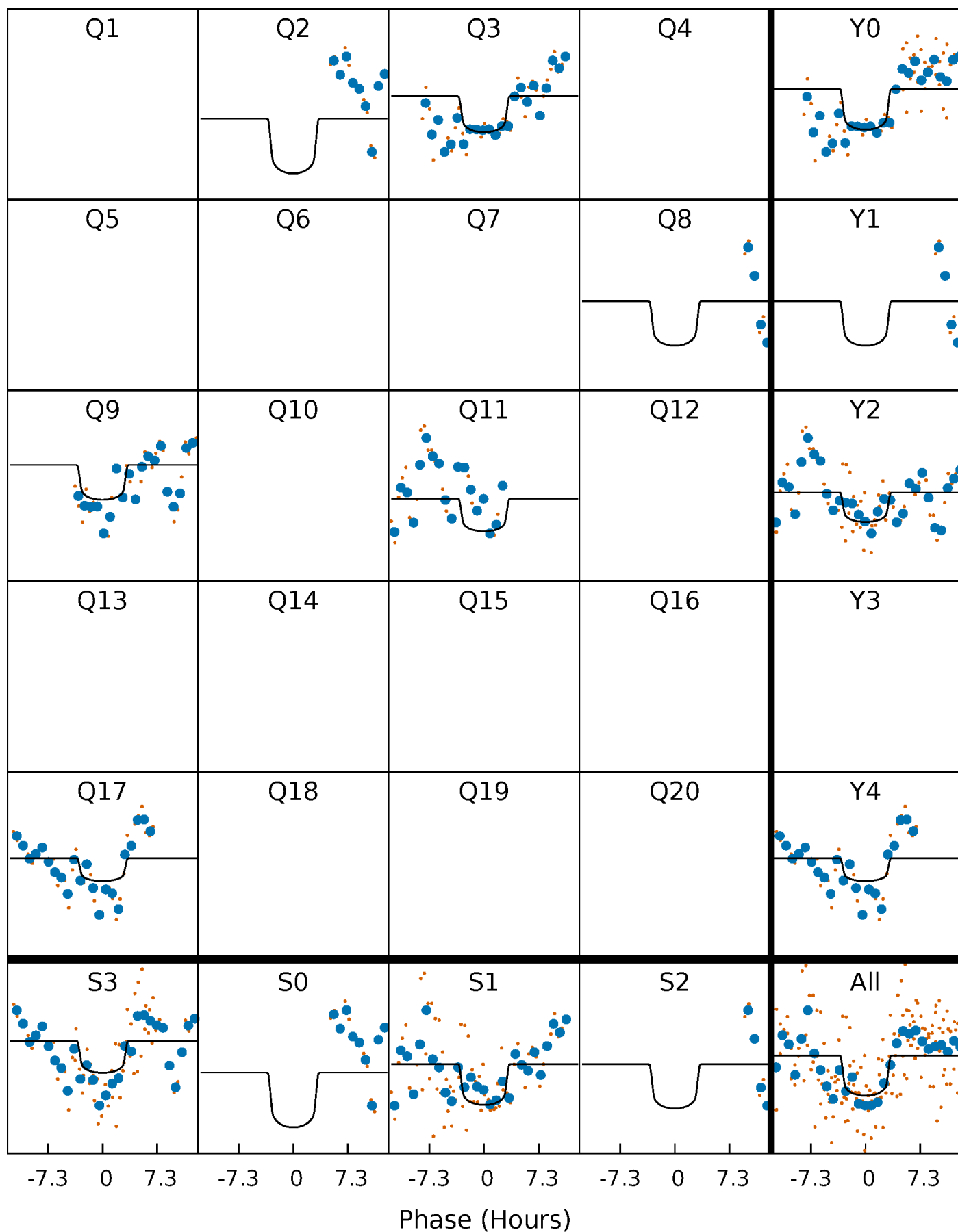
PDC Quarter-Phased Transit Curves

TCE 006676174-08 P=111.521799 Days $T_0=225.750836$ (BKJD)



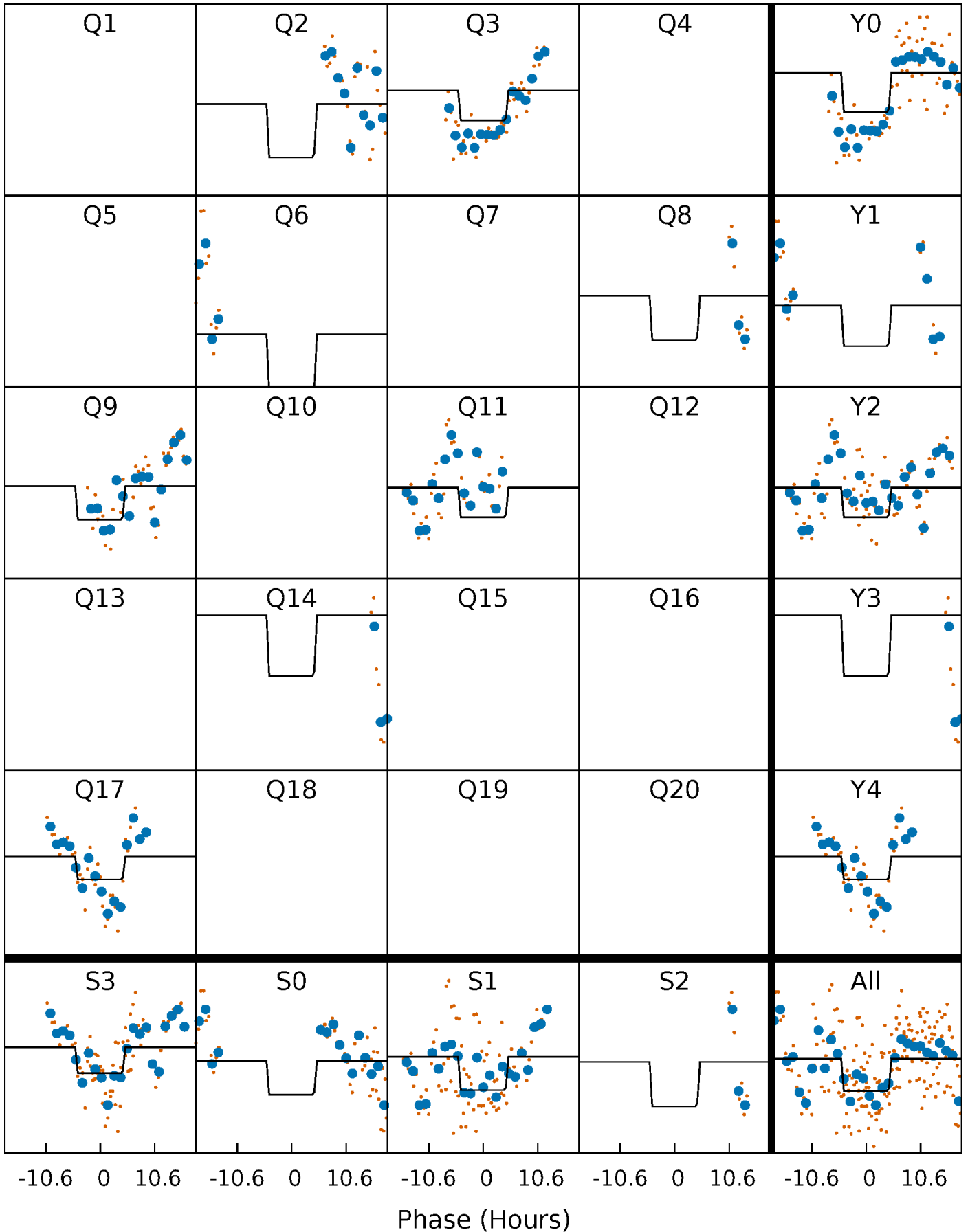
DV Quarter-Phased Transit Curves

TCE 006676174-08 P=111.521799 Days $T_0=225.750836$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

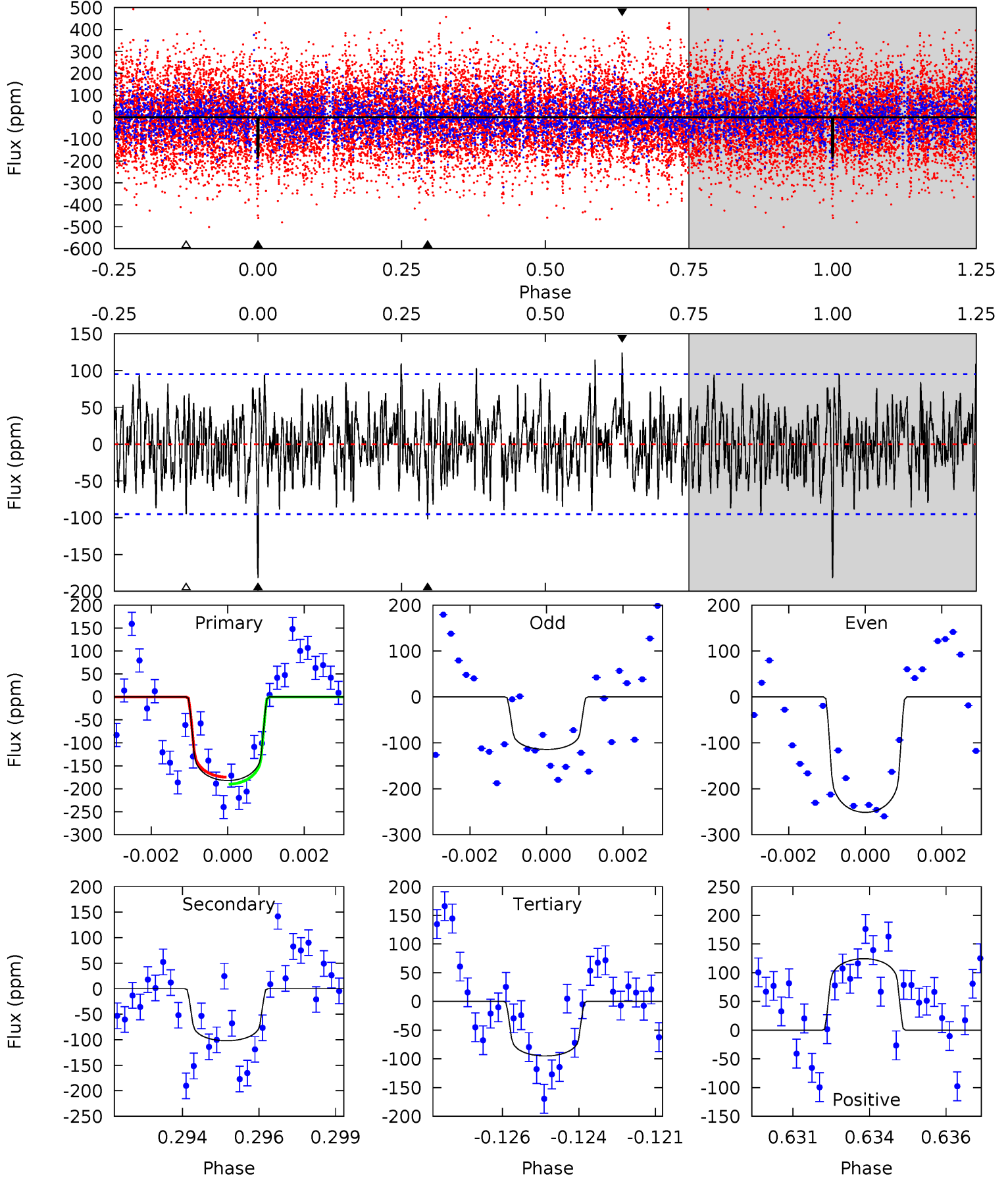
TCE 006676174-08 P=111.519559 Days $T_0=225.711879$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-08, P = 111.521799 Days, E = 114.229037 Days

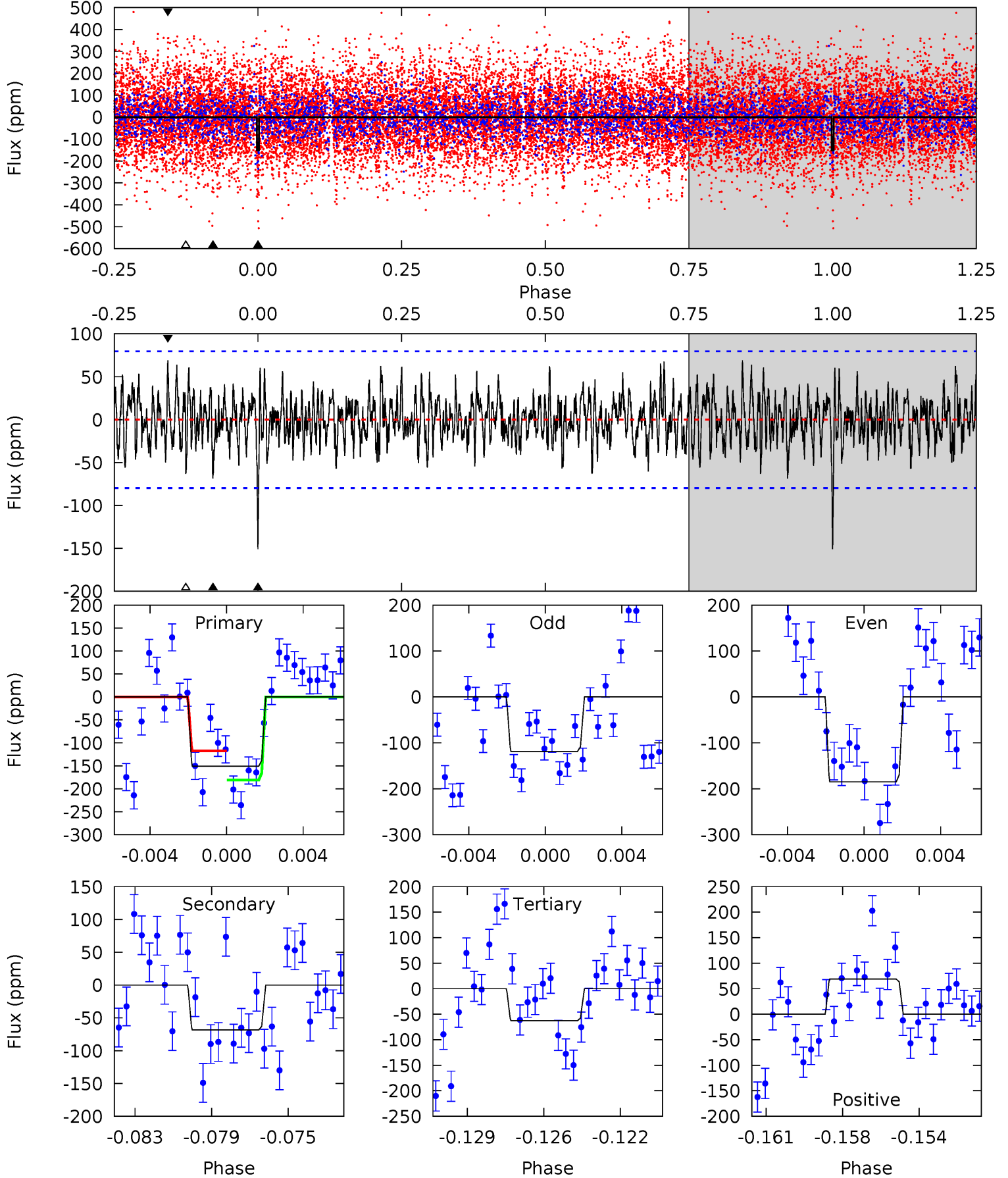
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	5.67	5.28	6.92	5.29	3.03	1.93	4.84	3.20	0.39	-1.25	3.81	0.93	0.41	0.43



Alt Model-Shift Uniqueness Test

006676174-08, P = 111.519559 Days, E = 114.192320 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.88	4.48	4.12	4.51	5.22	2.91	1.48	5.76	5.36	0.36	-0.03	2.17	0.81	0.31	2.07



Stellar Parameters For KIC 006676174

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-102 ± 18	$4.81^{+3.60}_{-2.87}$	1084^{+59}_{-106}	5929^{+4489}_{-1217}	683^{+3555}_{-459}
Alt.	-68 ± 15	$4.77^{+3.04}_{-2.61}$	1081^{+56}_{-108}	5458^{+2766}_{-1010}	498^{+1766}_{-340}

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 $A_{obs} \gg 1.0$

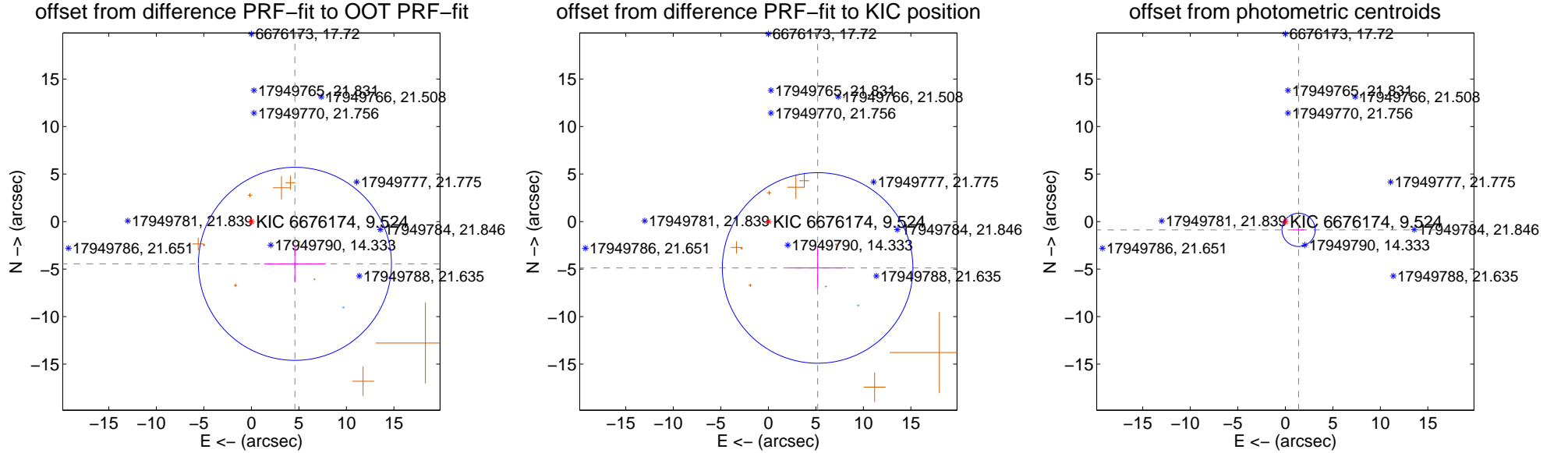
DV Centroid Data

Supplemental centroid analysis for 006676174-08. **Kepler magnitude: 9.52.** Transit SNR 8.30

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 2.20 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.386 ± 3.385	1.89	-4.582 ± 3.250	-4.448 ± 1.934
PRF-fit source offset from KIC position	7.123 ± 3.342	2.13	-5.187 ± 3.023	-4.882 ± 2.184
photometric centroid source offset	1.65 ± 0.58	2.83	-1.40 ± 0.60	-0.87 ± 0.54



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.

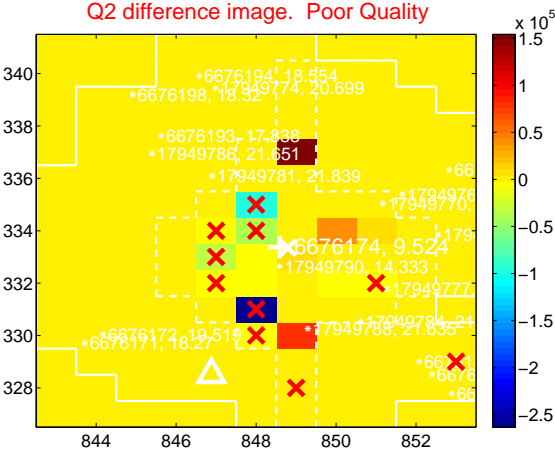
Q1 no difference image



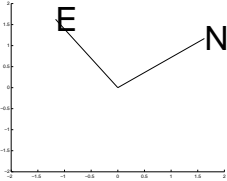
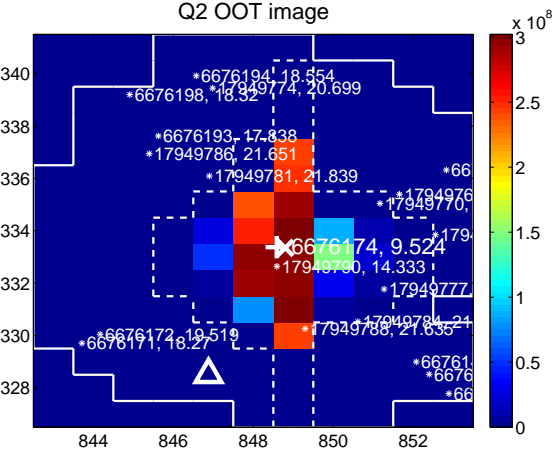
Q1 no OOT image



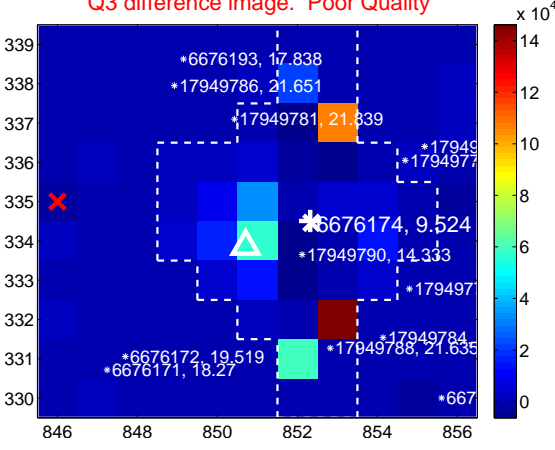
Q2 difference image. Poor Quality



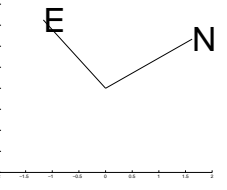
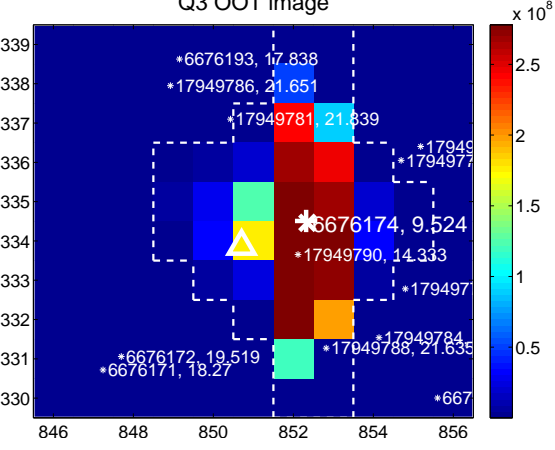
Q2 OOT image



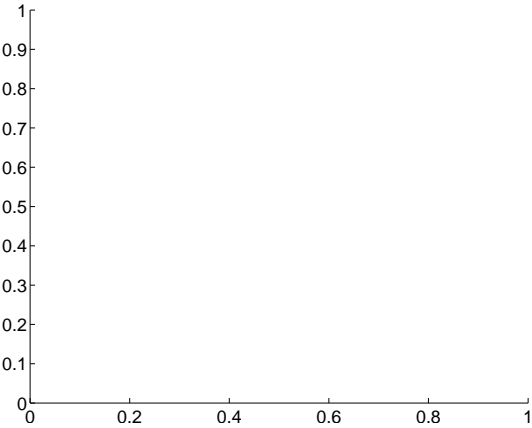
Q3 difference image. Poor Quality



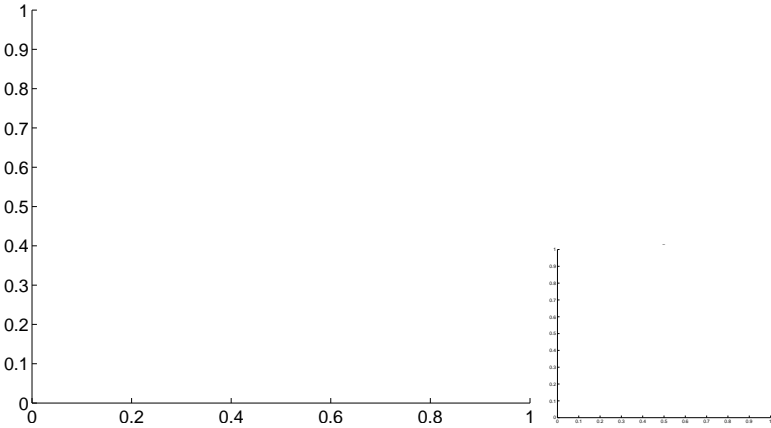
Q3 OOT image



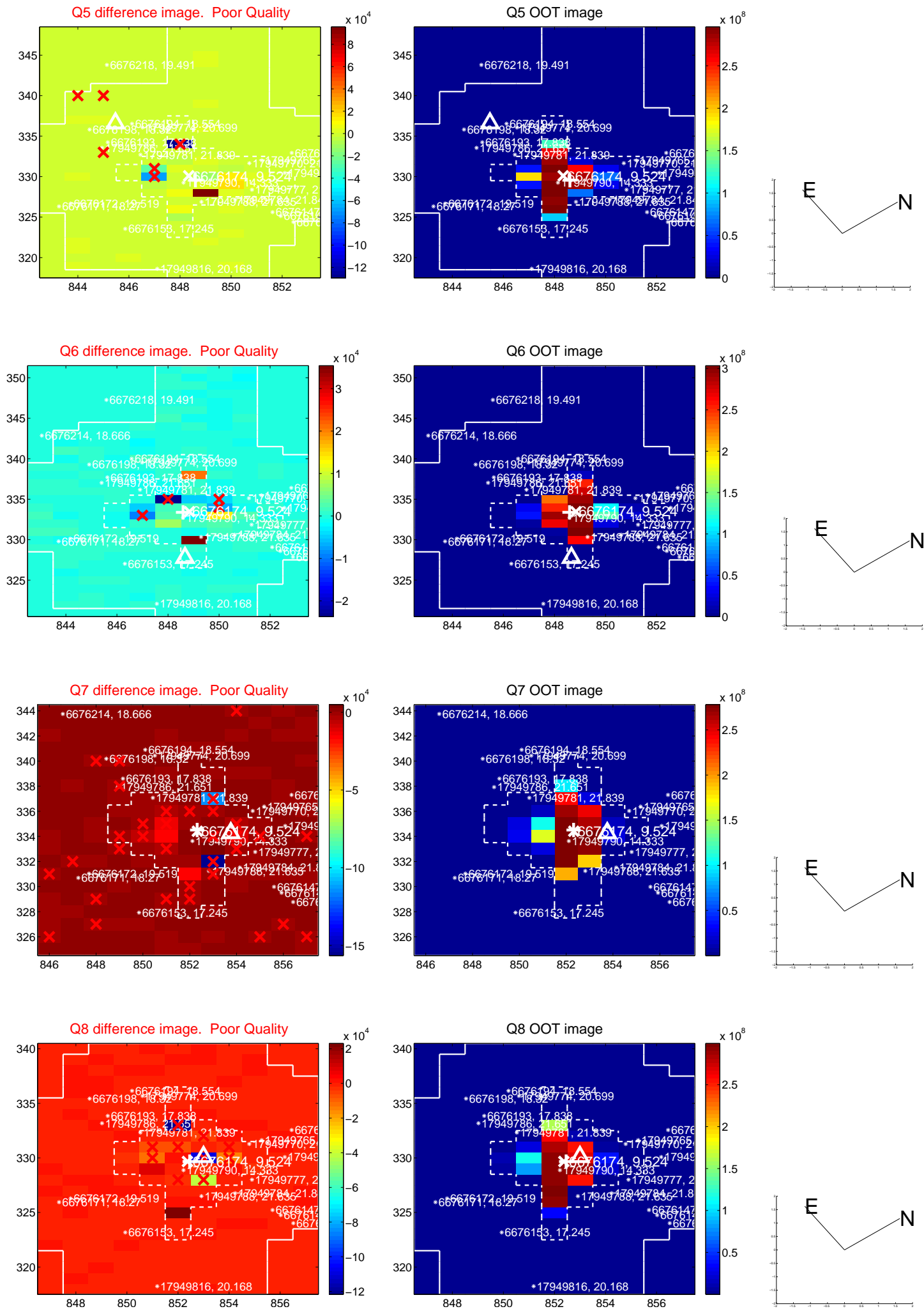
Q4 no difference image



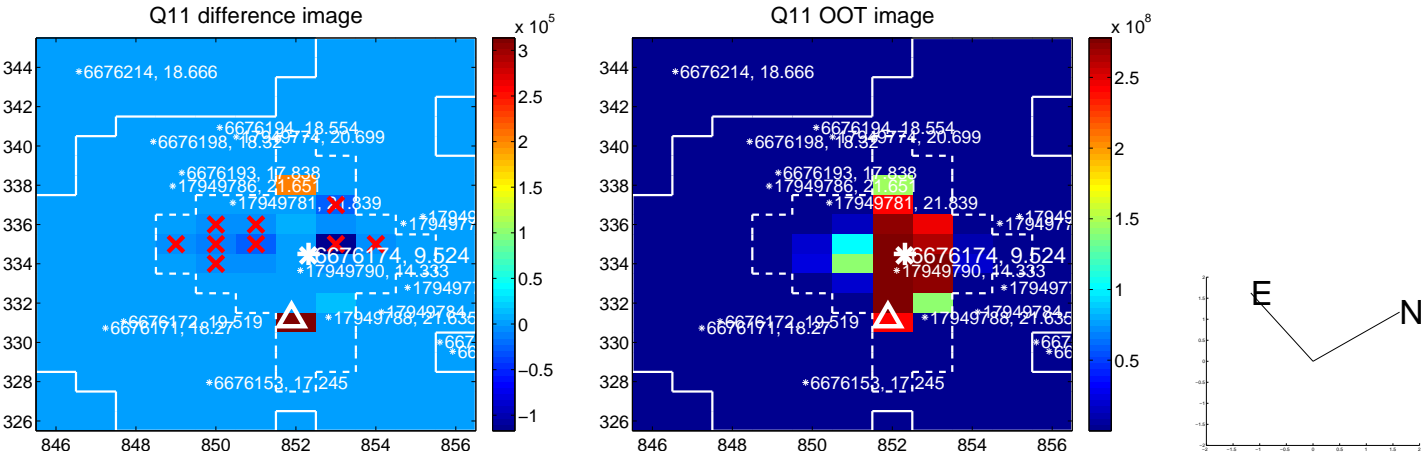
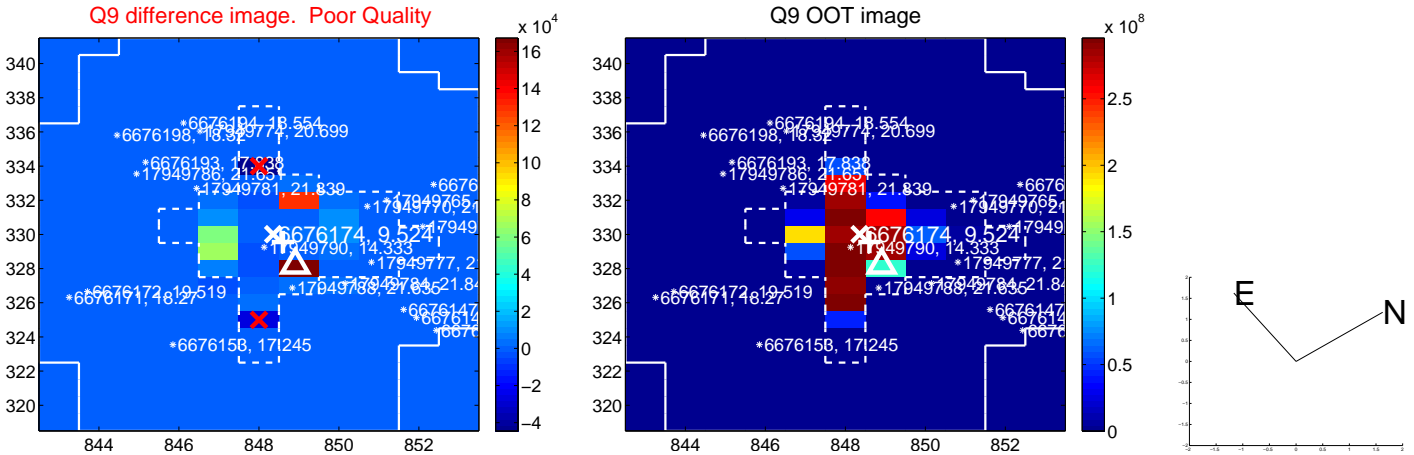
Q4 no OOT image



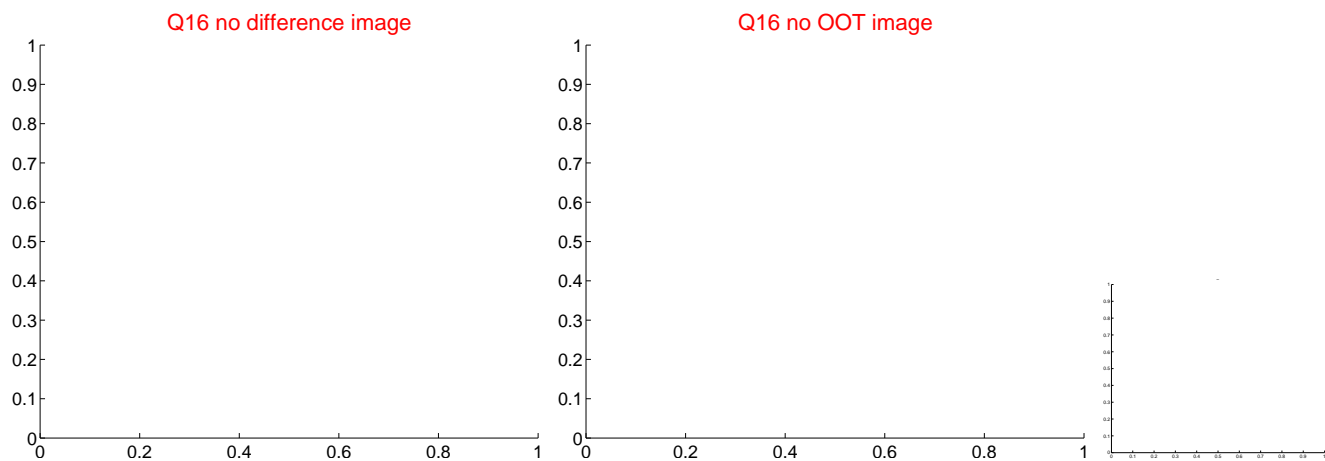
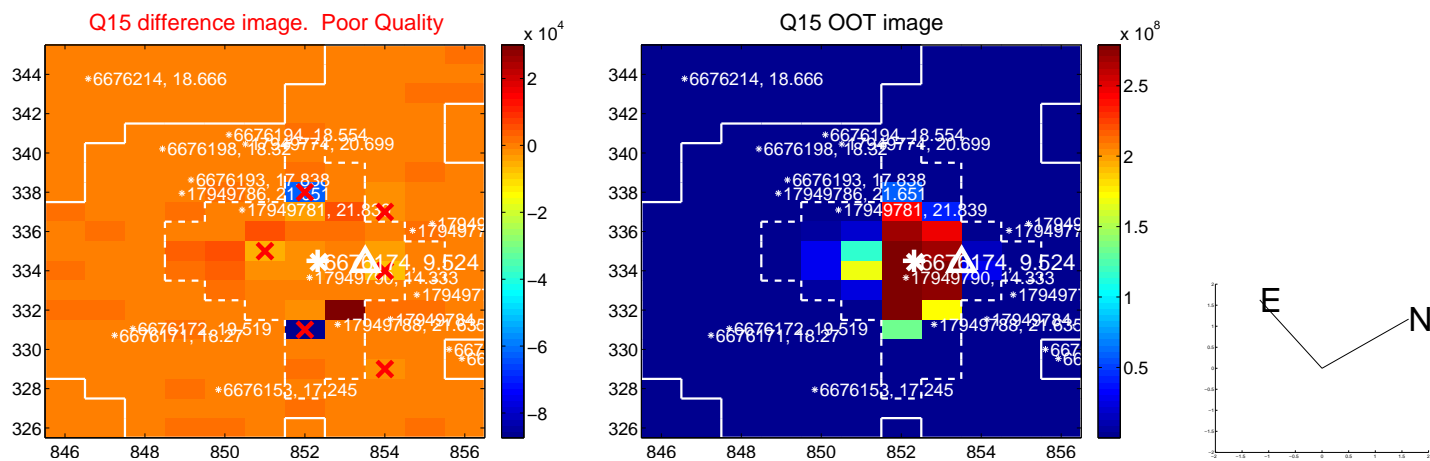
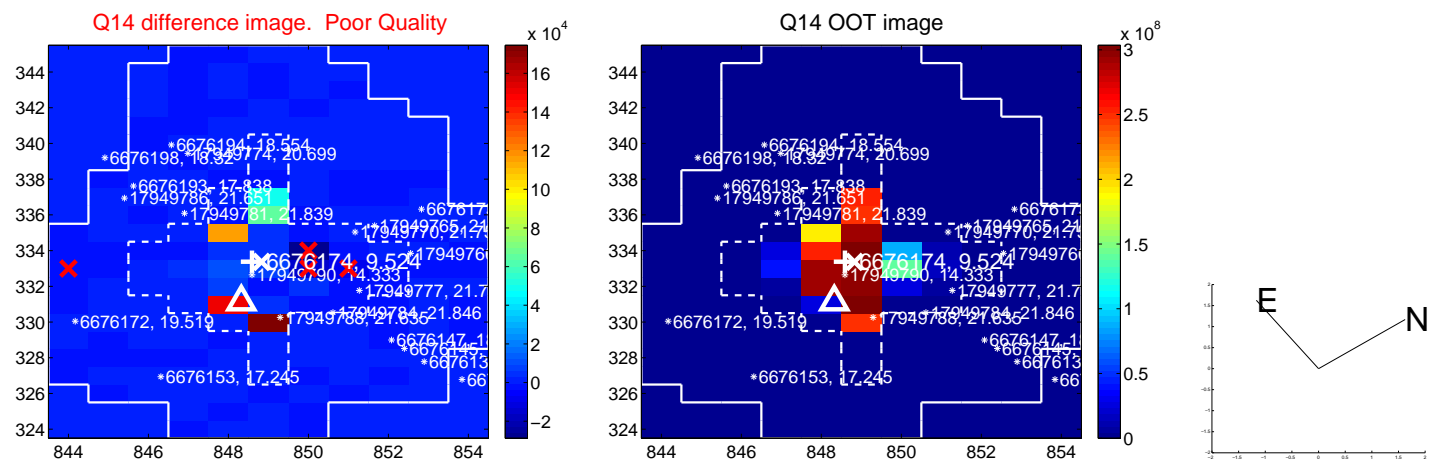
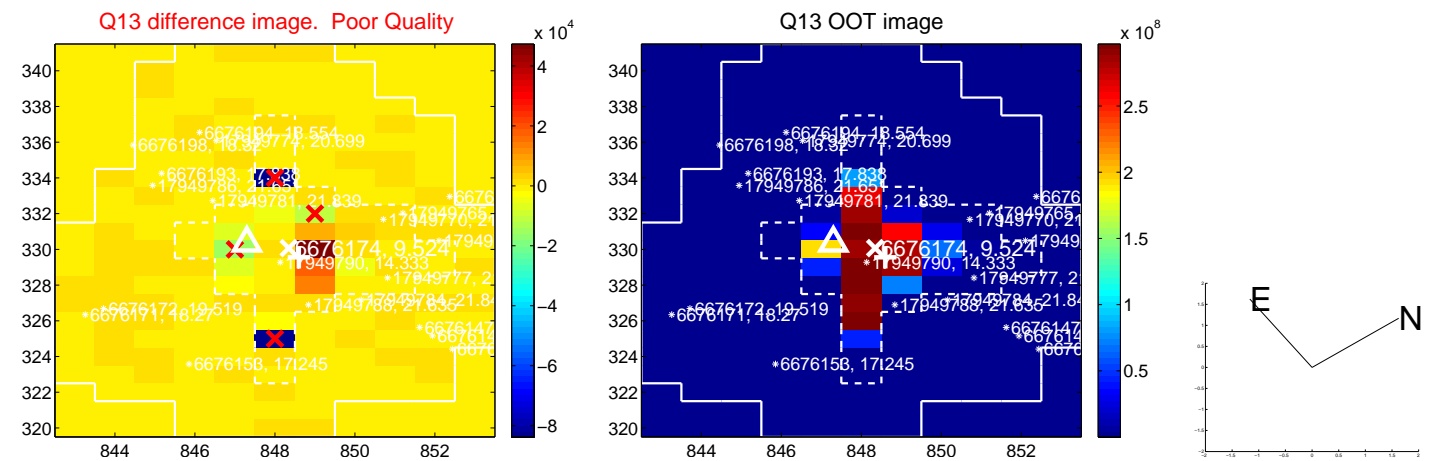
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

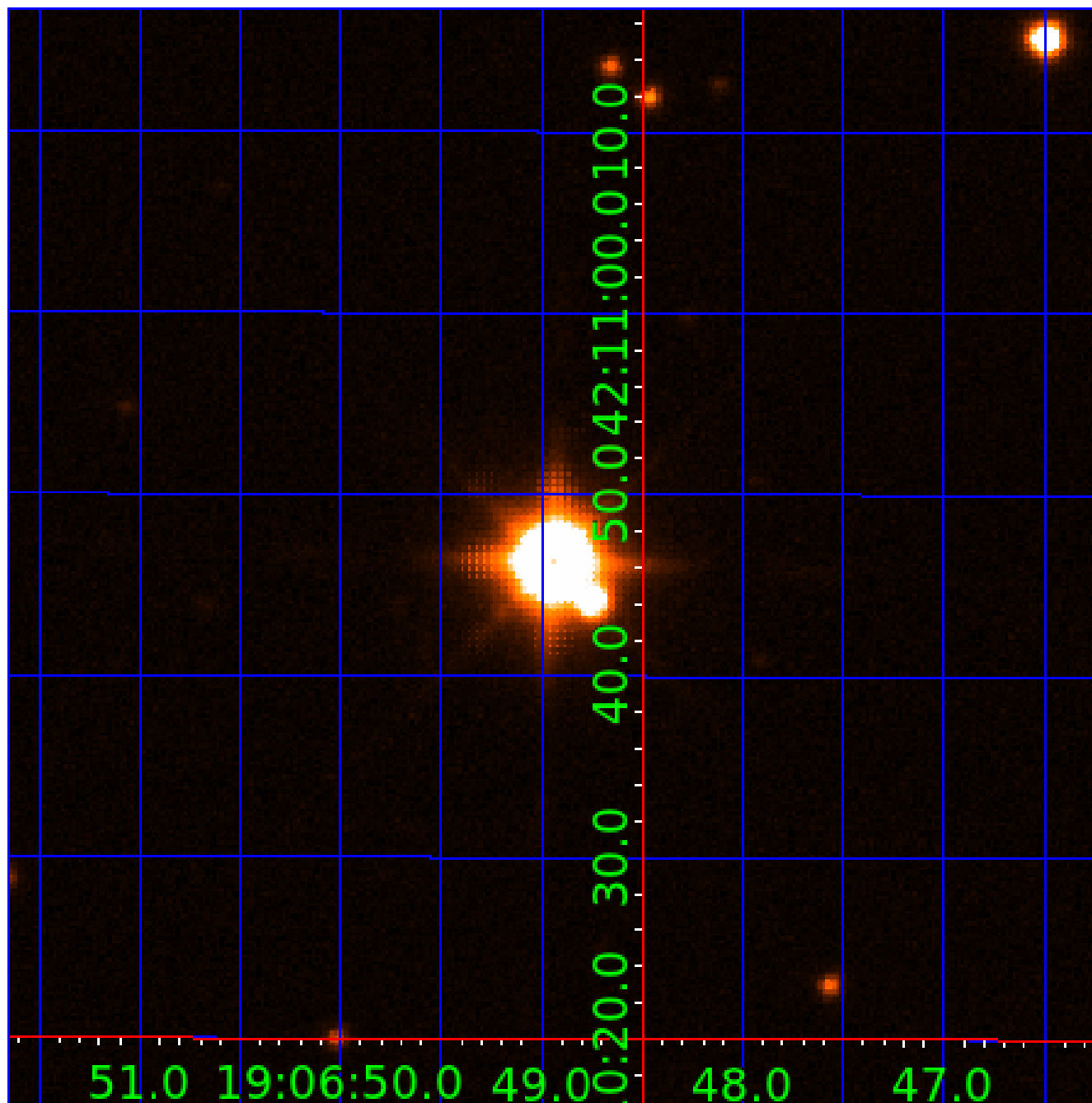


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

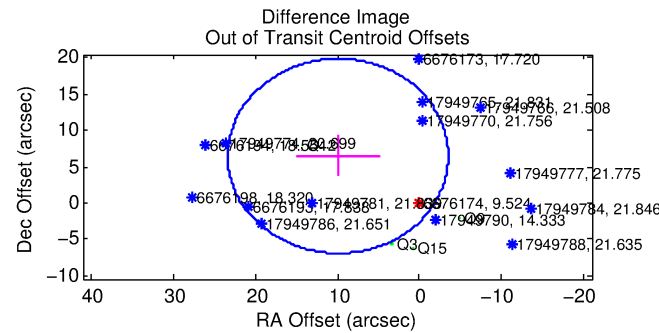
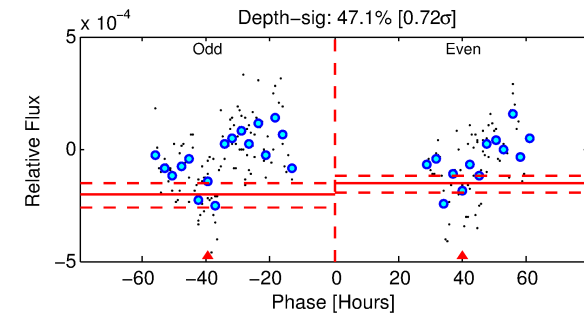
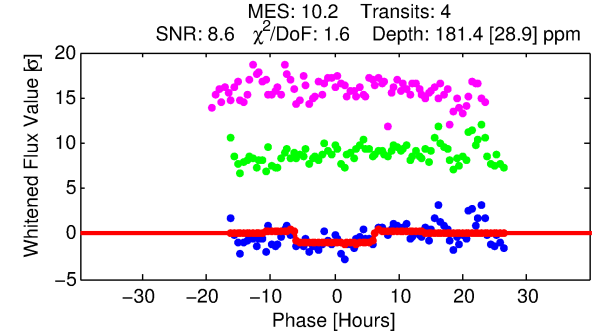
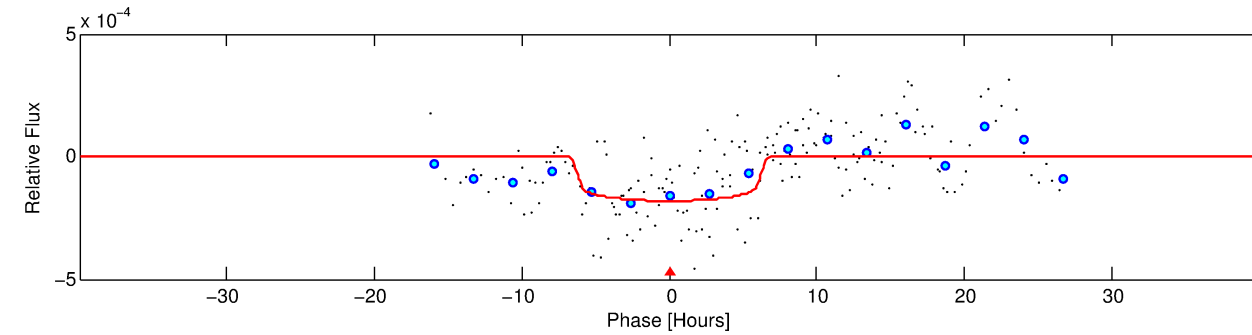
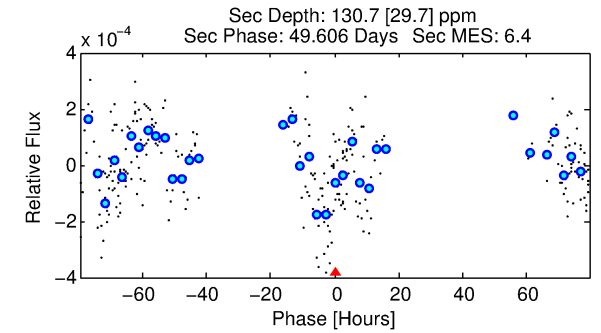
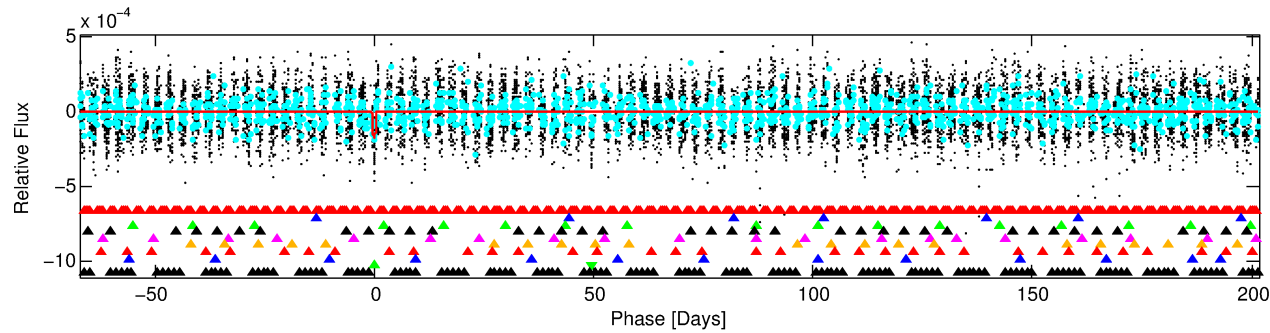
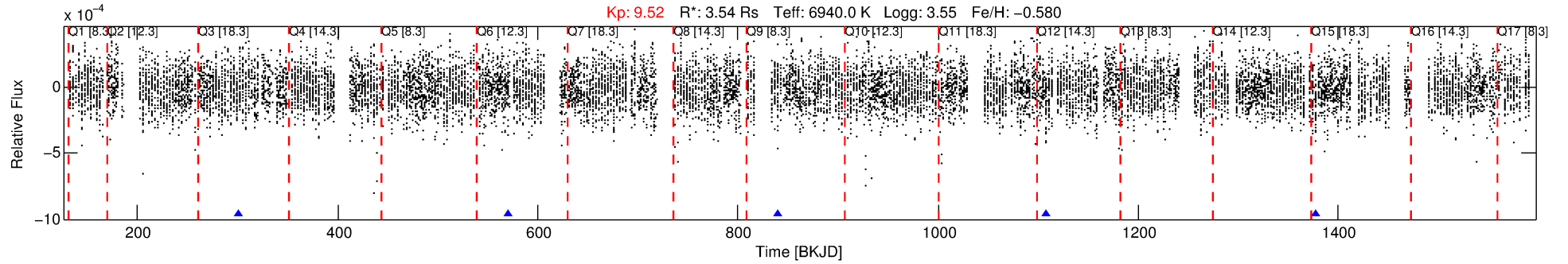
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-09

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 9 of 10 Period: 268.921 d



DV Fit Results:

Period = 268.92145 [0.01566] d
Epoch = 301.5809 [0.0454] BKJD
 $R_p/R^* = 0.0141$ [0.0023]
 $a/R^* = 79.97$ [68.26]
 $b = 0.87$ [0.23]
 $\text{Seff} = 28.43$ [17.95]
 $T_{\text{eq}} = 589$ [93] K
 $R_p = 5.44$ [2.46] R_e
 $a = 0.9580$ [0.3775] AU
 $A_g = 2230.20$ [1646.09] [1.35σ]
 $T_{\text{eff}} = 6256$ [654] K [8.58σ]

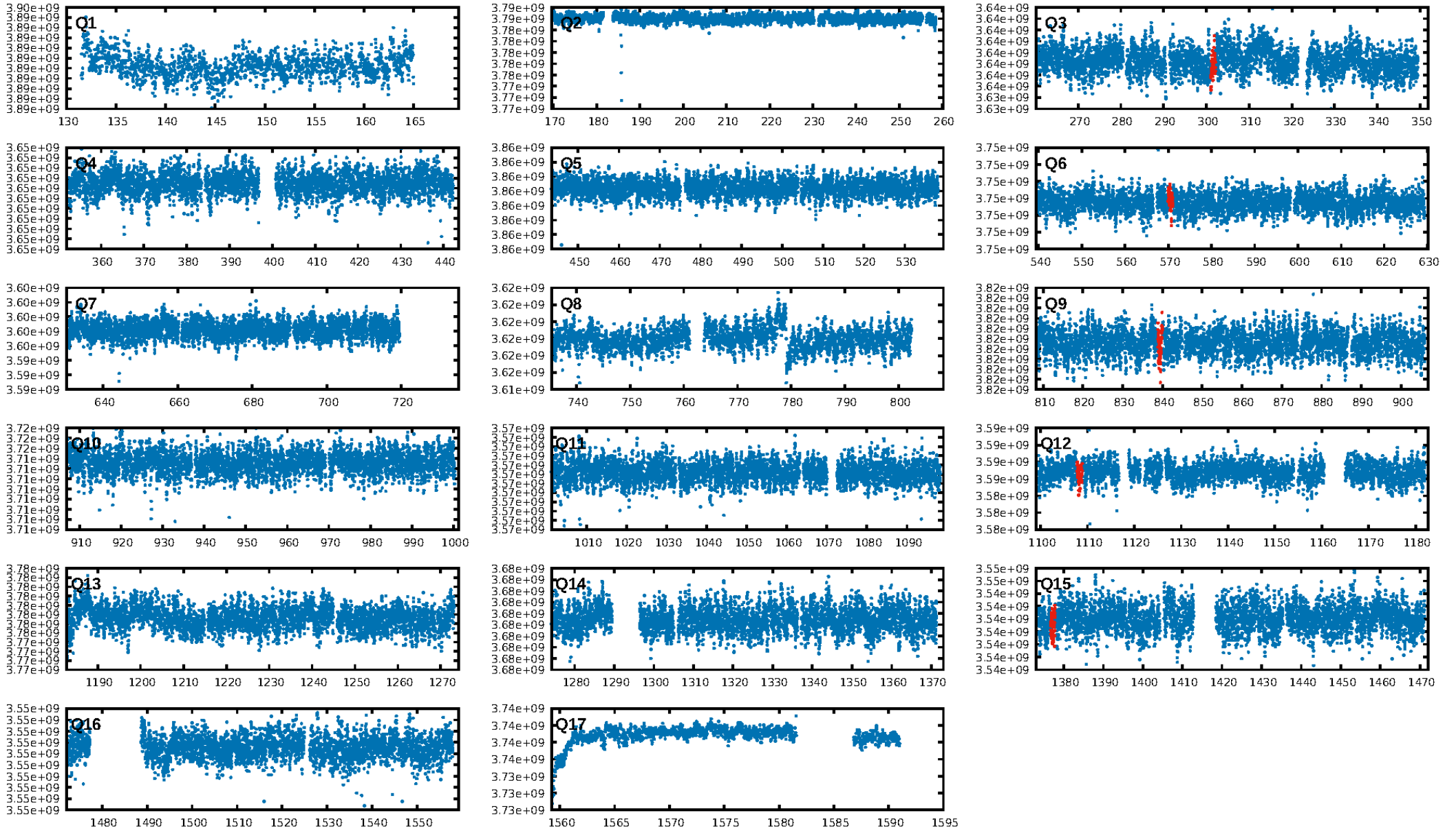
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [11.46σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 24.9%
ModelChiSquareGof-sig: 64.3%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.342 arcsec [1.62σ]
OotOffset-rm: 11.845 arcsec [2.65σ]
KicOffset-rm: 8.993 arcsec [2.14σ]
OotOffset-st: 0/2/1/1 [4]
KicOffset-st: 0/2/1/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.20 [1/5]

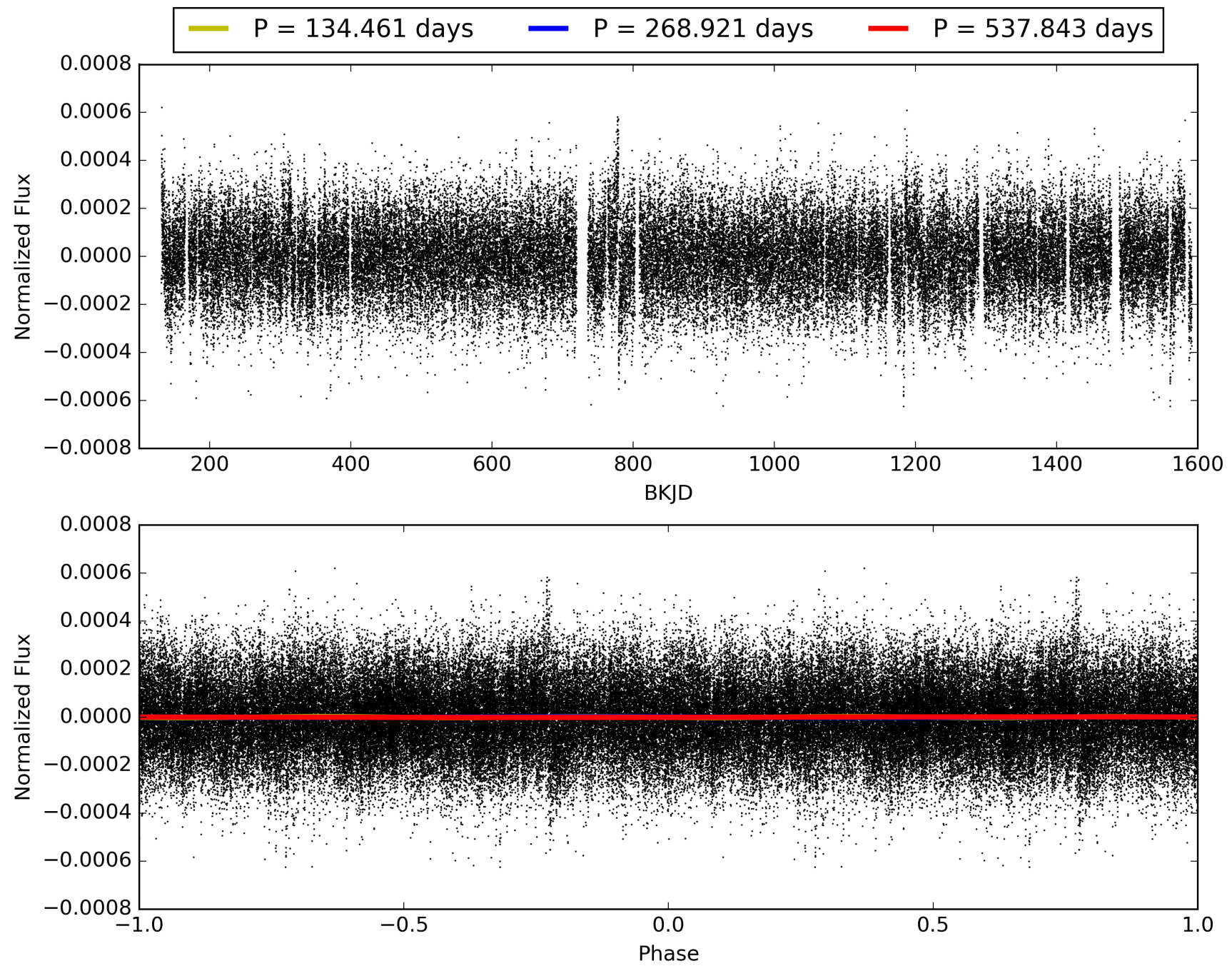
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:15:09 Z

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

TCE 006676174-09, PDC Light Curves

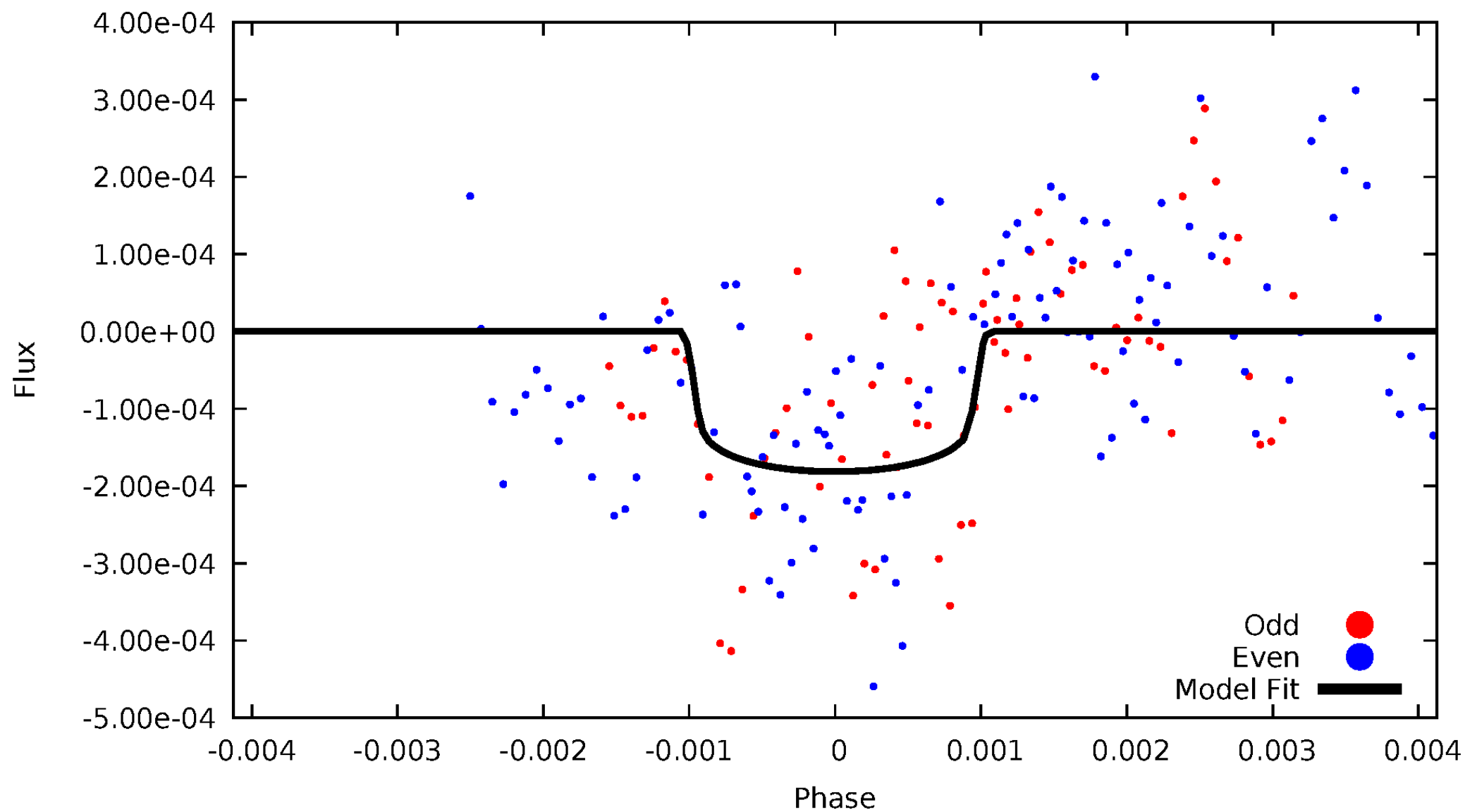


TCE 006676174-09



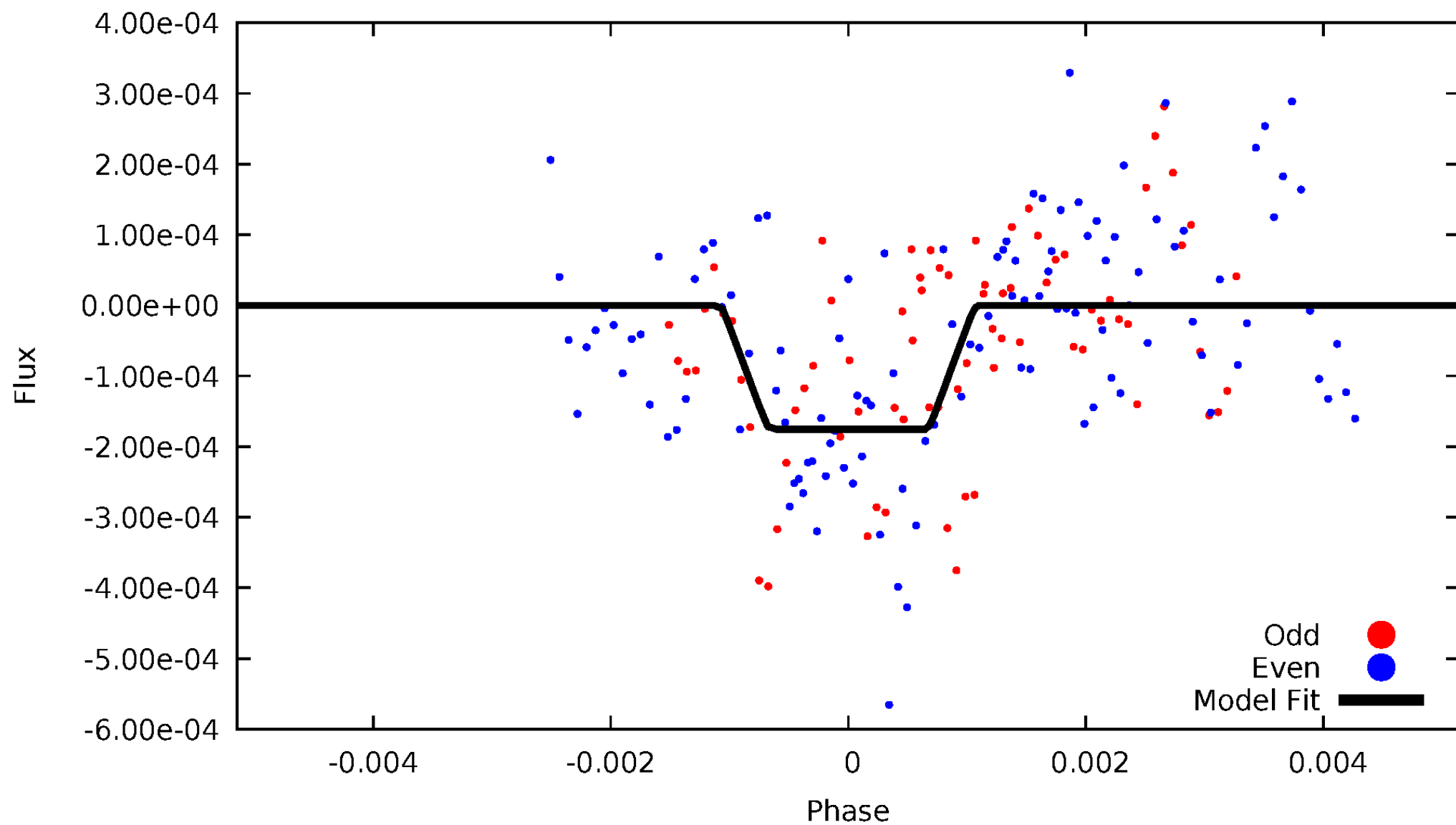
DV Odd/Even

TCE 006676174-09



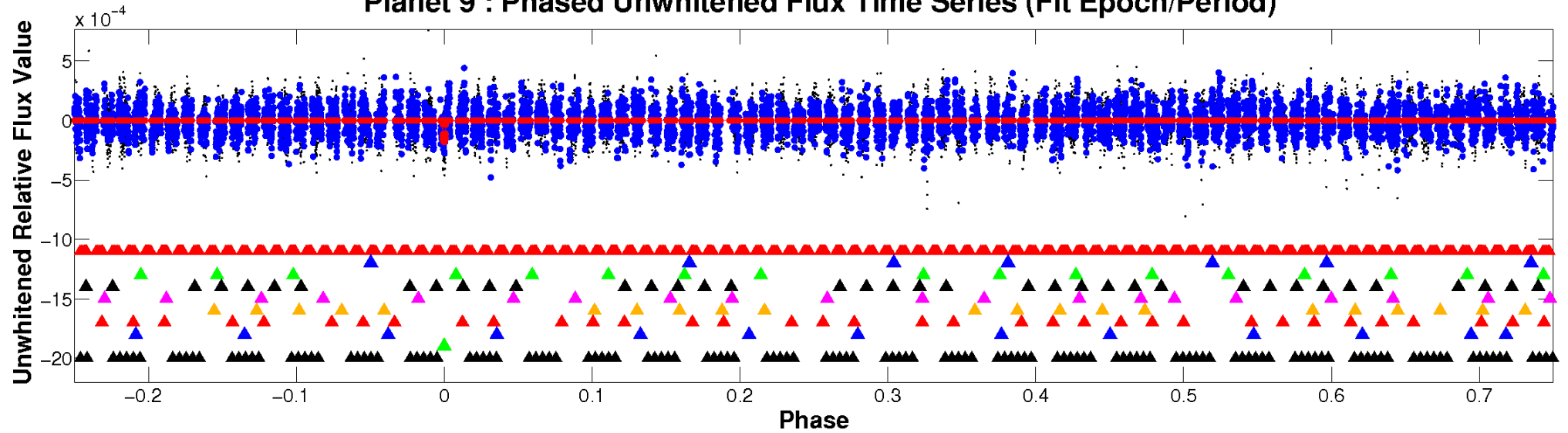
ALT Odd/Even

TCE 006676174-09

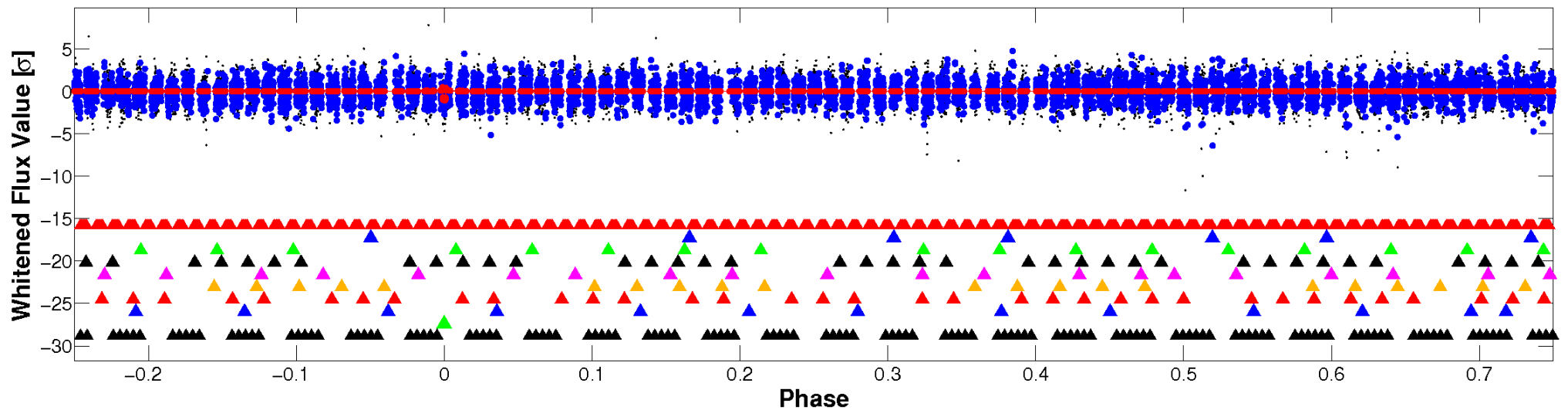


Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

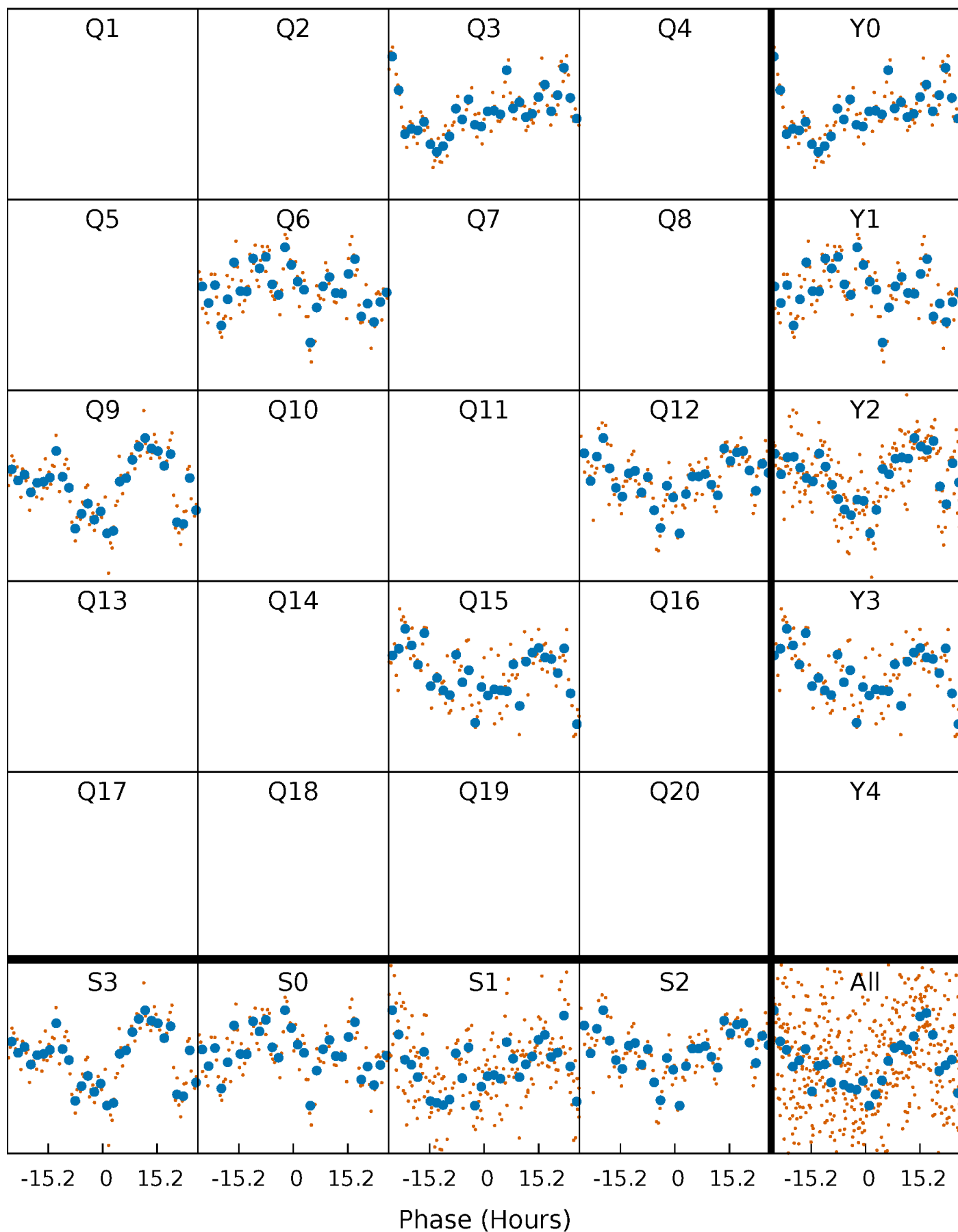


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



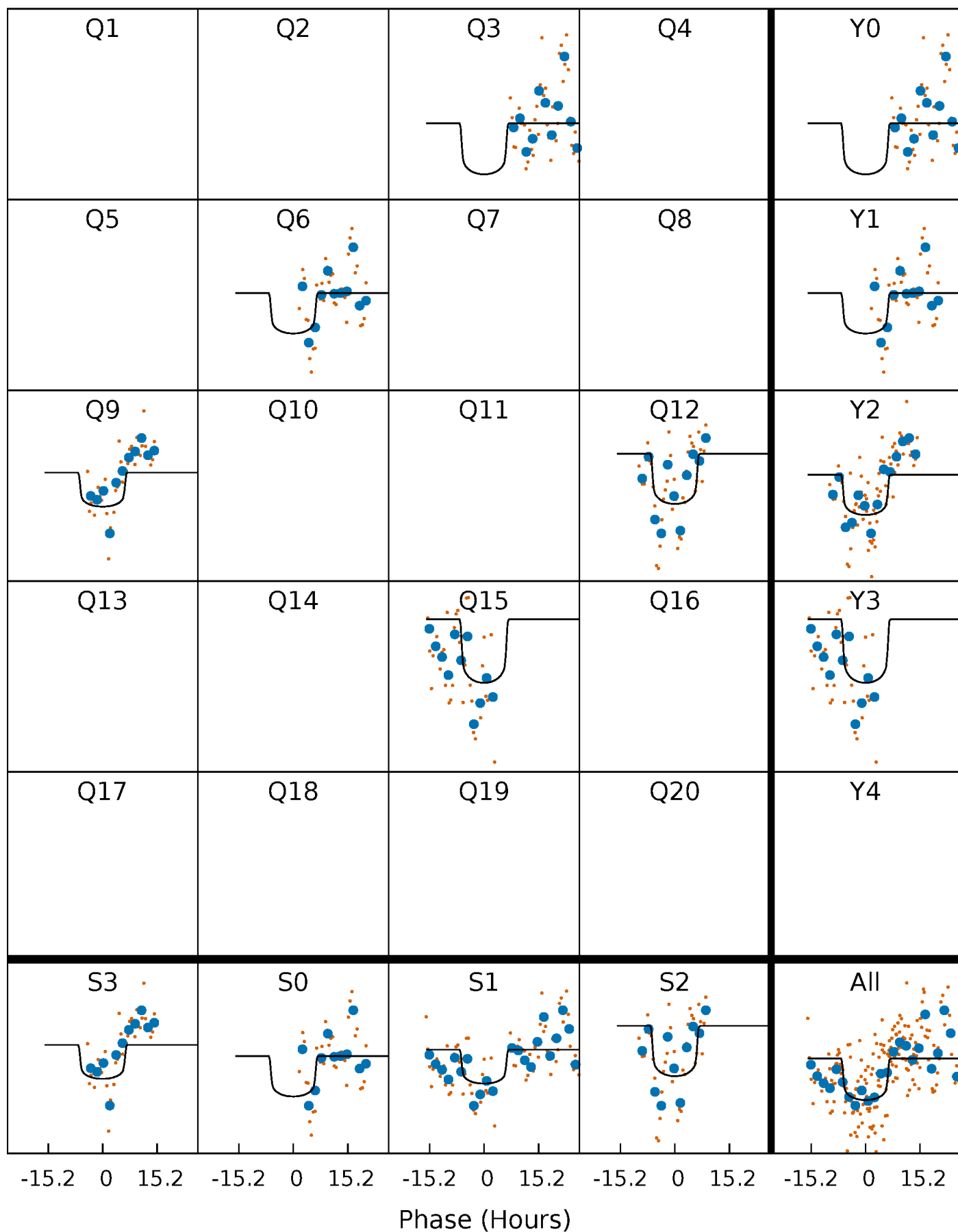
PDC Quarter-Phased Transit Curves

TCE 006676174-09 P=268.921452 Days $T_0=301.580920$ (BKJD)



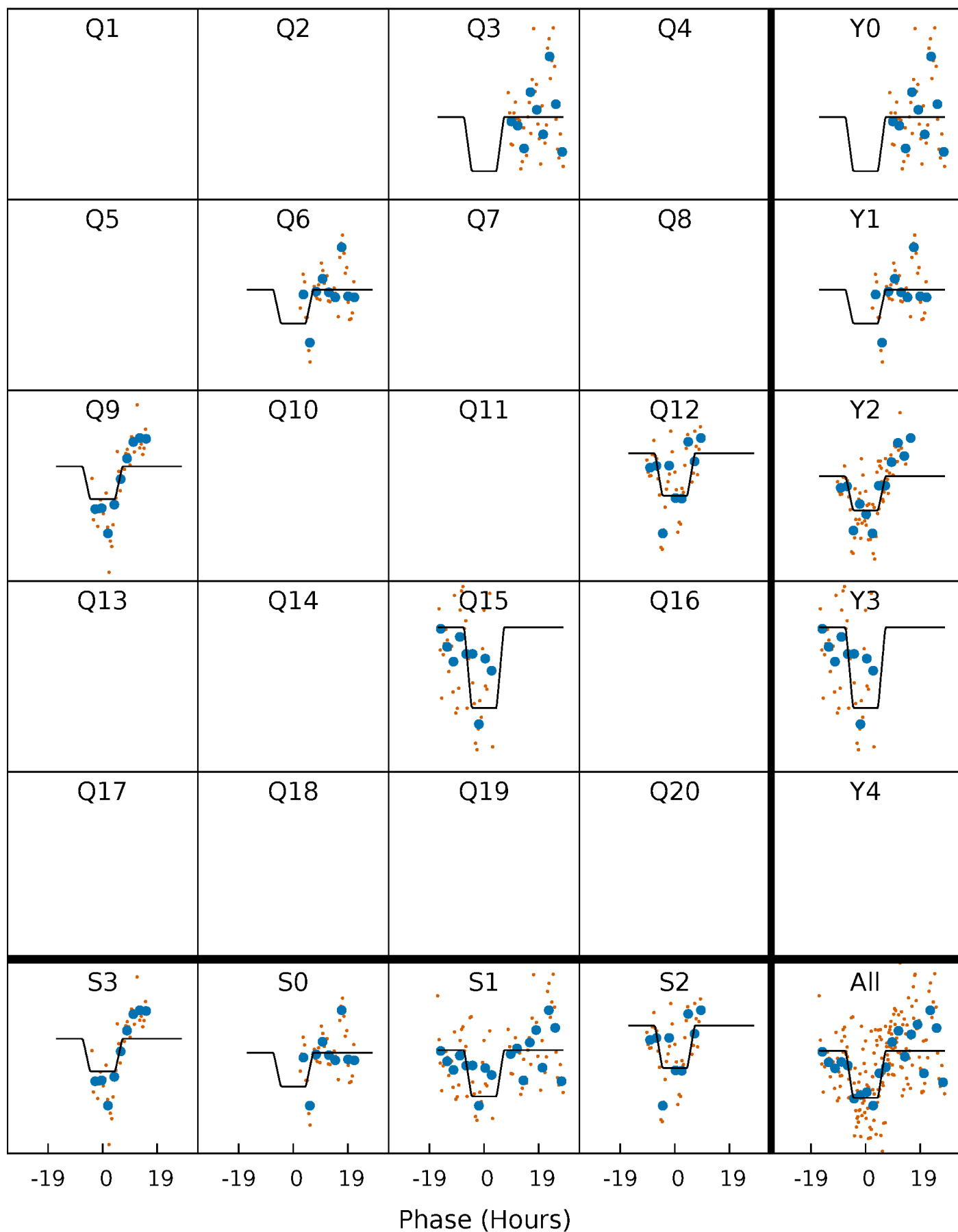
DV Quarter-Phased Transit Curves

TCE 006676174-09 $P=268.921452$ Days $T_0=301.580920$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

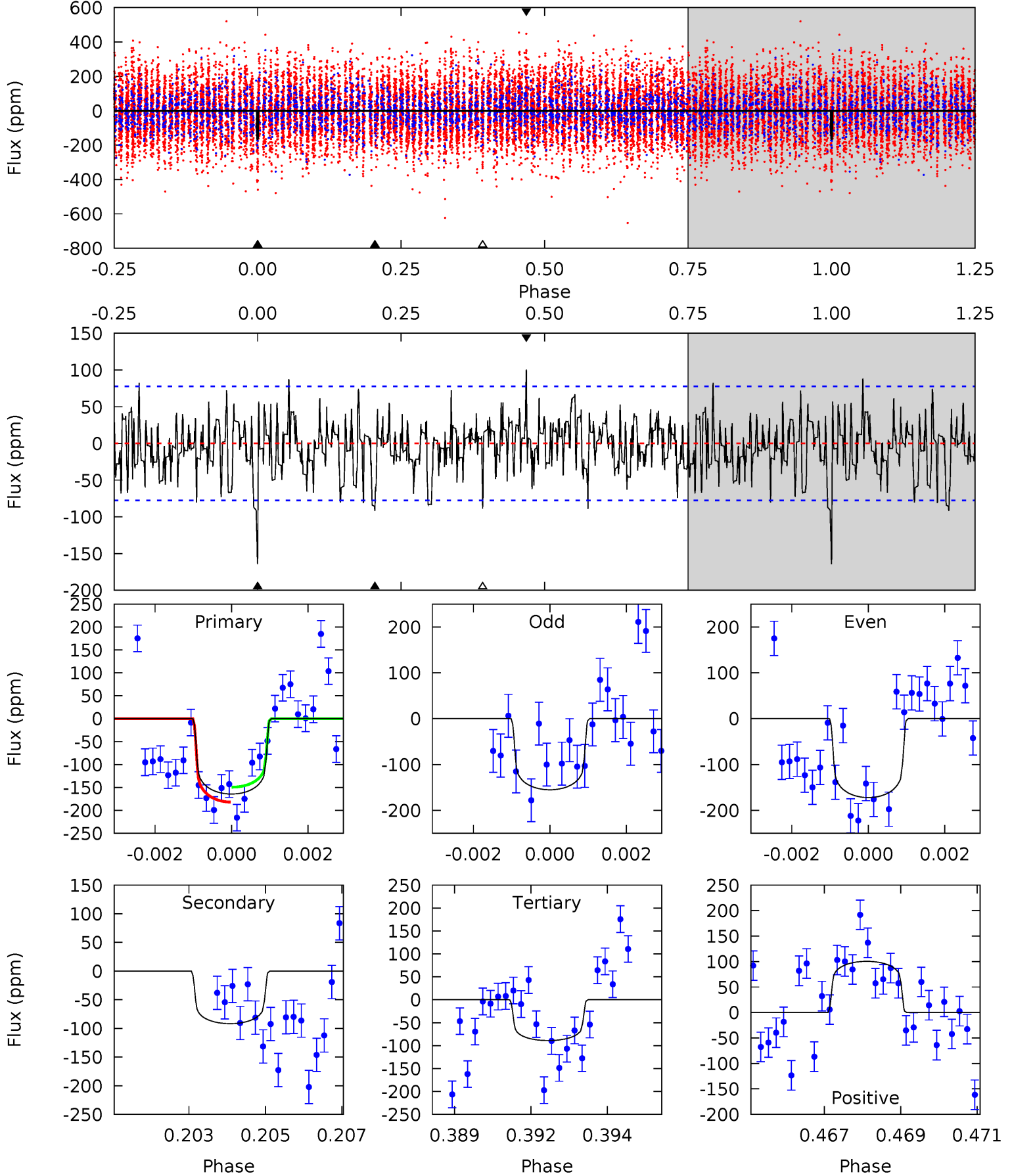
TCE 006676174-09 P=268.932894 Days $T_0=301.536468$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-09, P = 268.921452 Days, E = 32.659468 Days

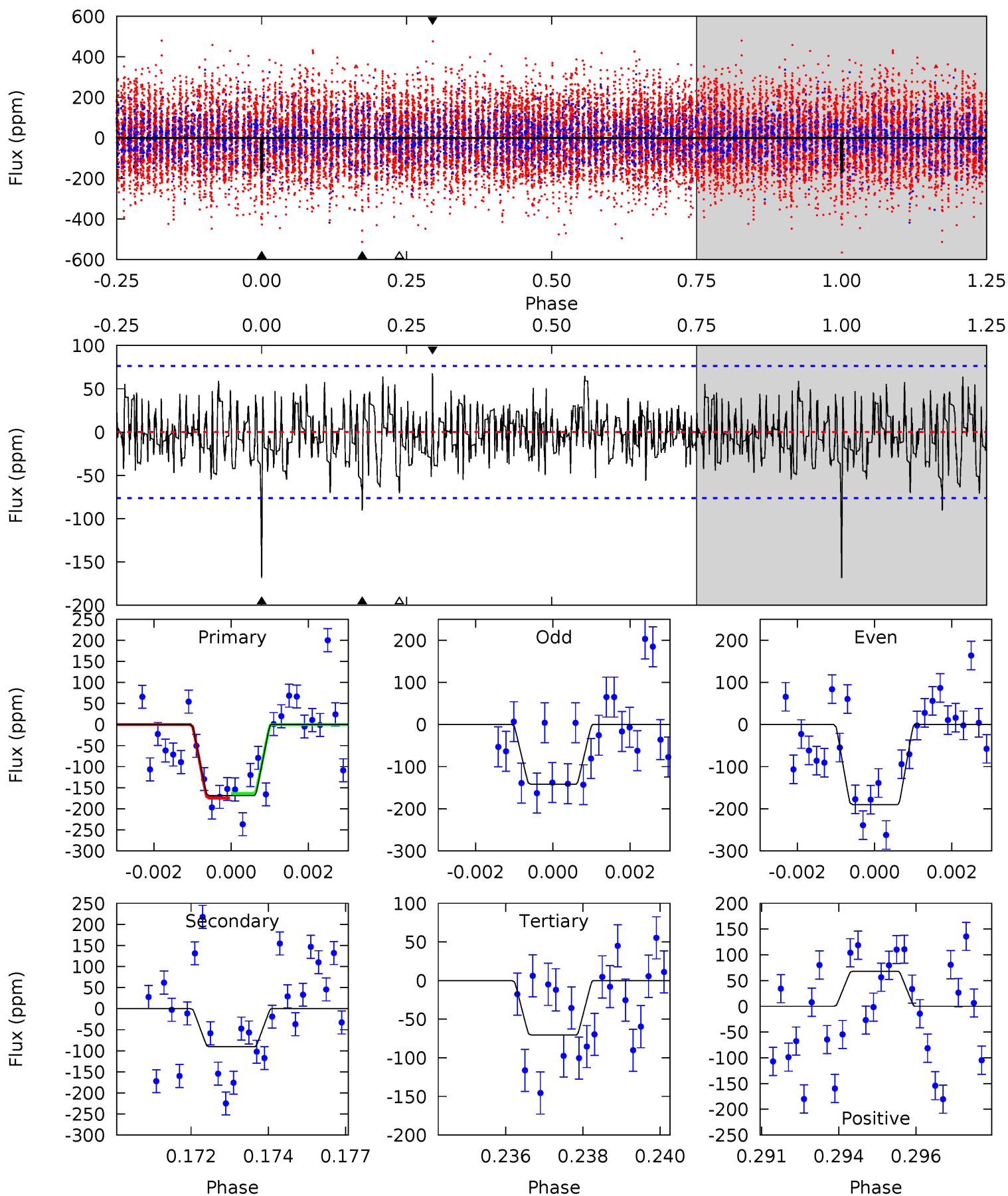
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	6.29	6.10	6.88	5.32	3.08	2.02	5.17	4.39	0.18	-0.60	0.58	1.03	0.38	1.11



Alt Model-Shift Uniqueness Test

006676174-09, P = 268.932894 Days, E = 32.603574 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	6.31	4.91	4.73	5.32	3.07	1.56	6.83	7.02	1.39	1.58	1.68	1.18	0.29	0.37



Stellar Parameters For KIC 006676174

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-92 ± 15	$5.16^{+1.27}_{-1.28}$	804^{+46}_{-85}	5659^{+621}_{-448}	1767^{+1264}_{-647}
Alt.	-90 ± 14	$4.86^{+1.15}_{-1.23}$	806^{+47}_{-71}	5808^{+655}_{-506}	1907^{+1450}_{-693}

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 $A_{obs} \gg 1.0$

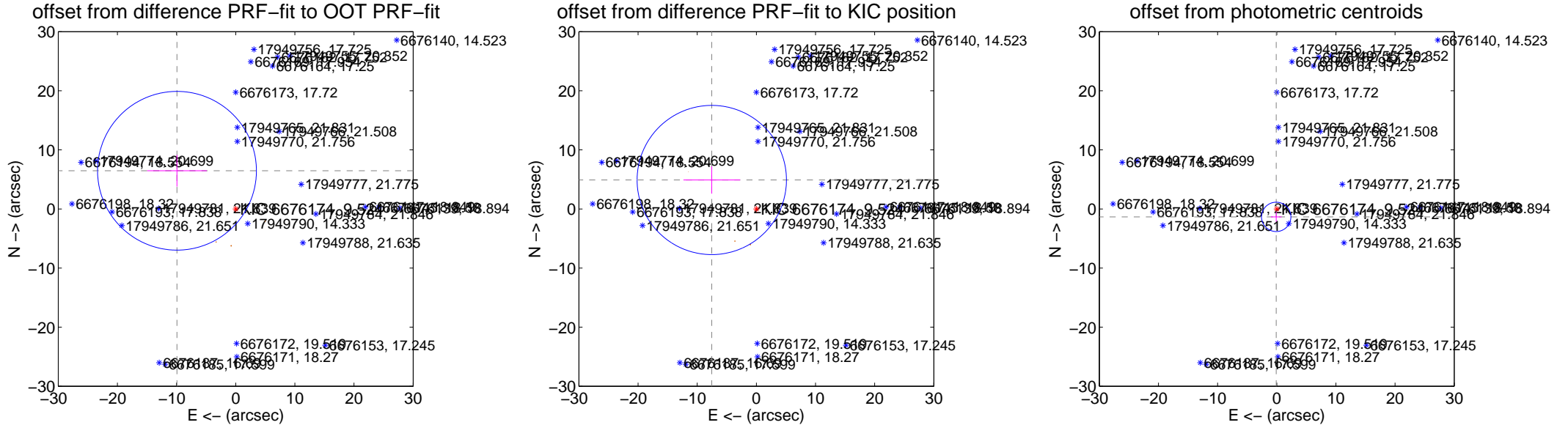
DV Centroid Data

Supplemental centroid analysis for 006676174-09. **Kepler magnitude: 9.52.** Transit SNR 8.64

There are 0 quarters with good PRF difference image offsets

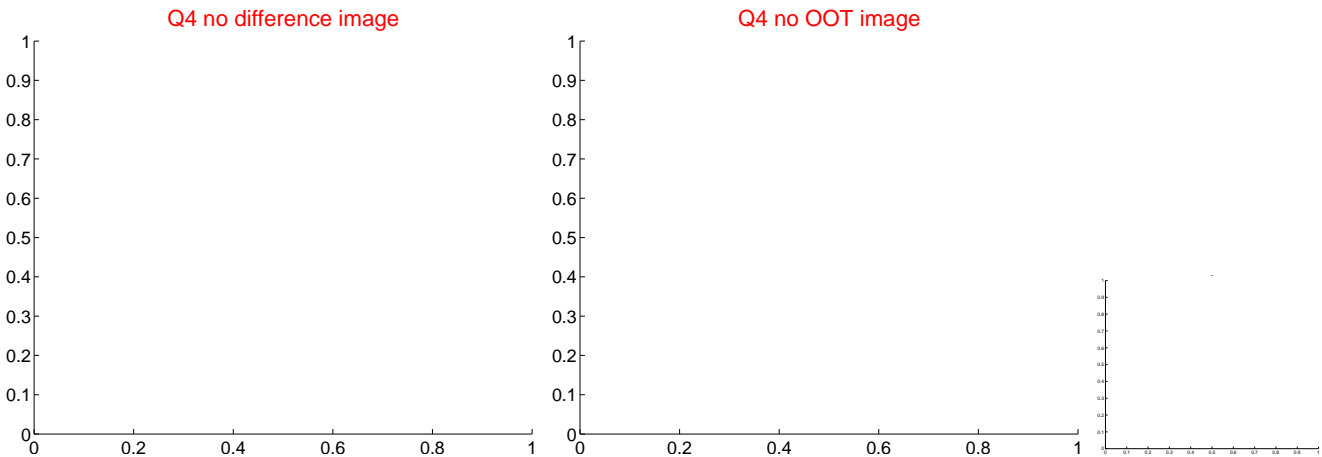
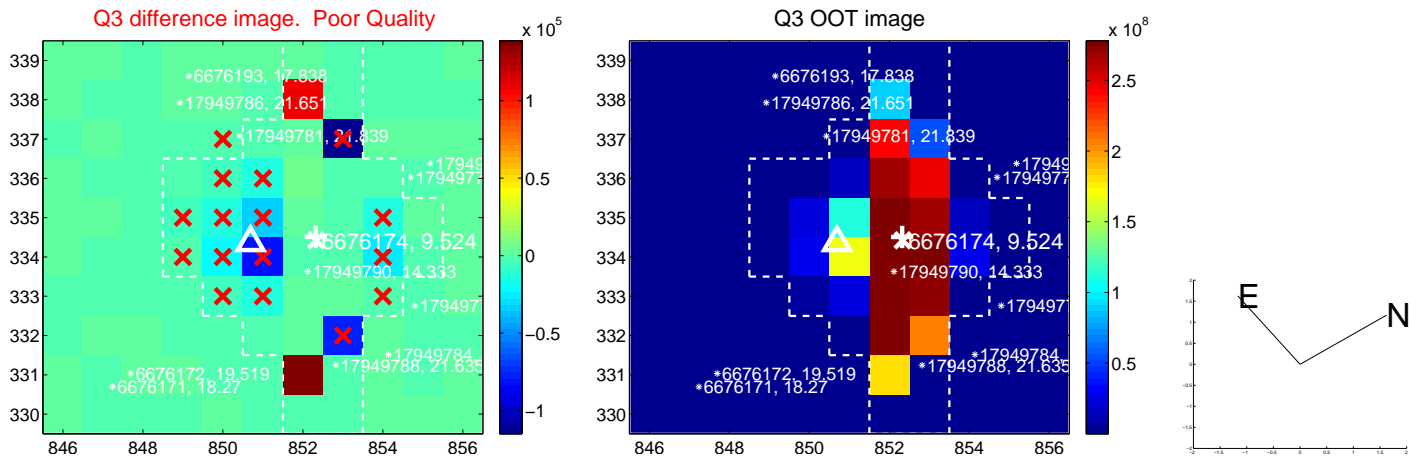
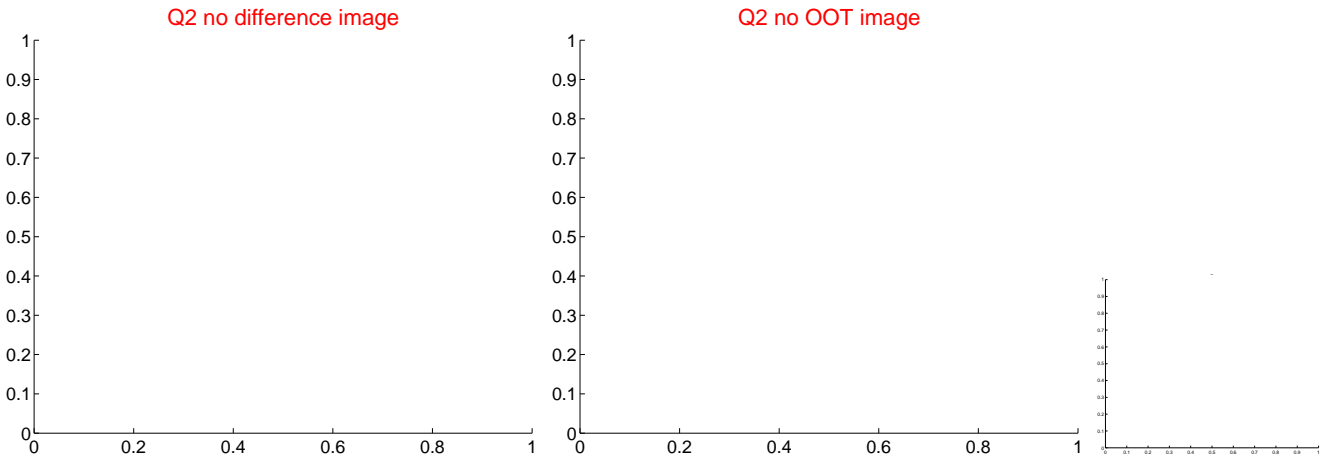
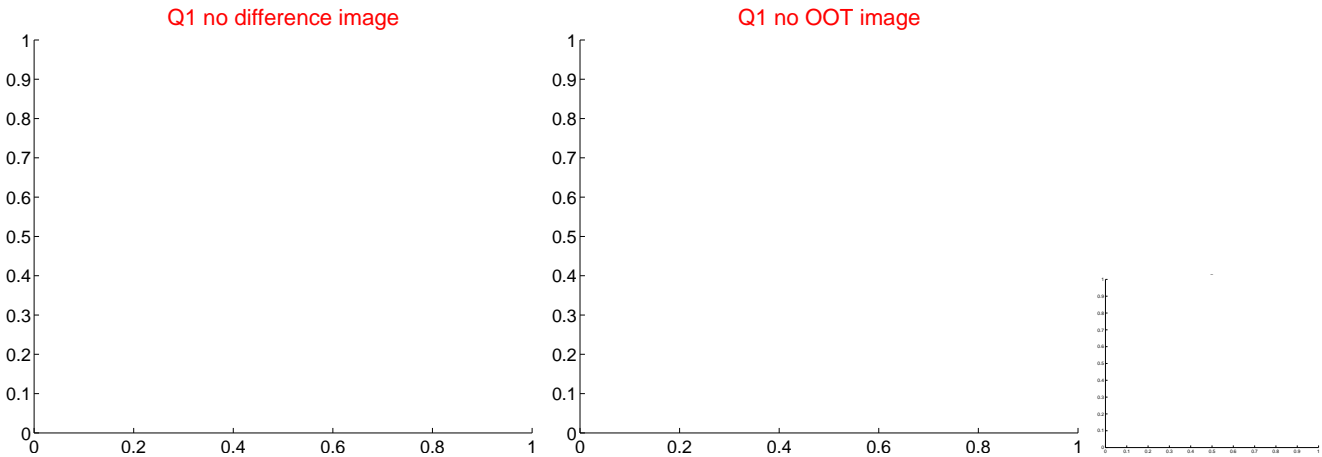
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.845 ± 4.476	2.65	9.927 ± 5.049	6.463 ± 2.678
PRF-fit source offset from KIC position	8.993 ± 4.208	2.14	7.539 ± 4.789	4.902 ± 2.308
photometric centroid source offset	1.34 ± 0.83	1.62	0.09 ± 0.91	-1.34 ± 0.83



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

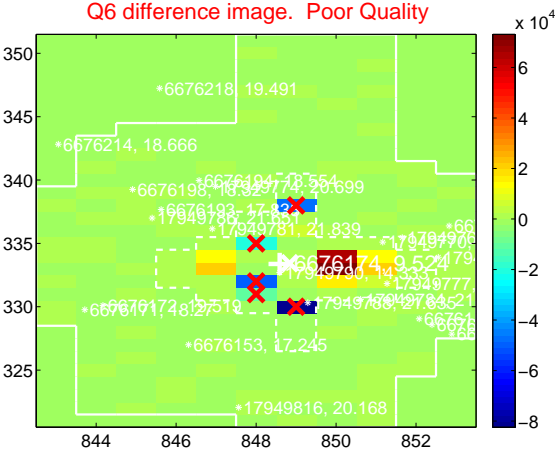
Q5 no difference image



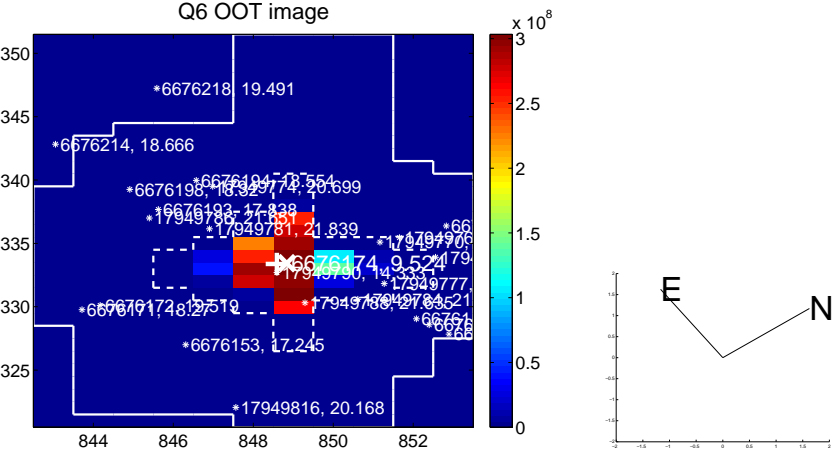
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



Q7 no difference image



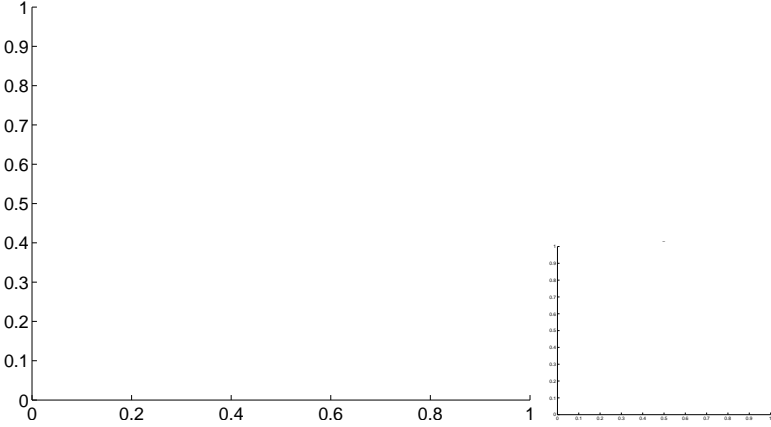
Q7 no OOT image



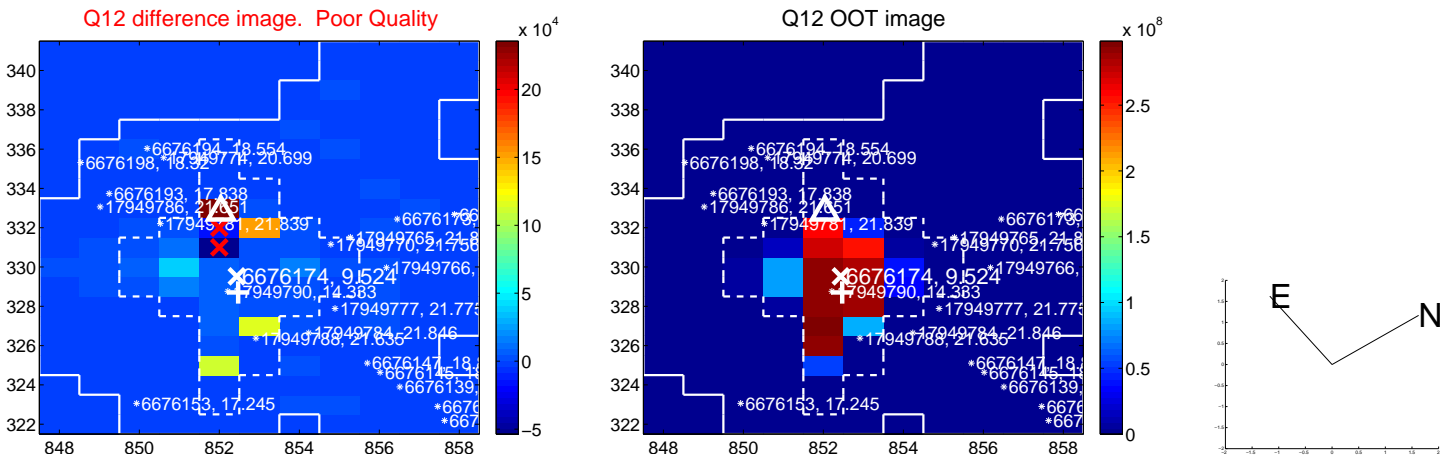
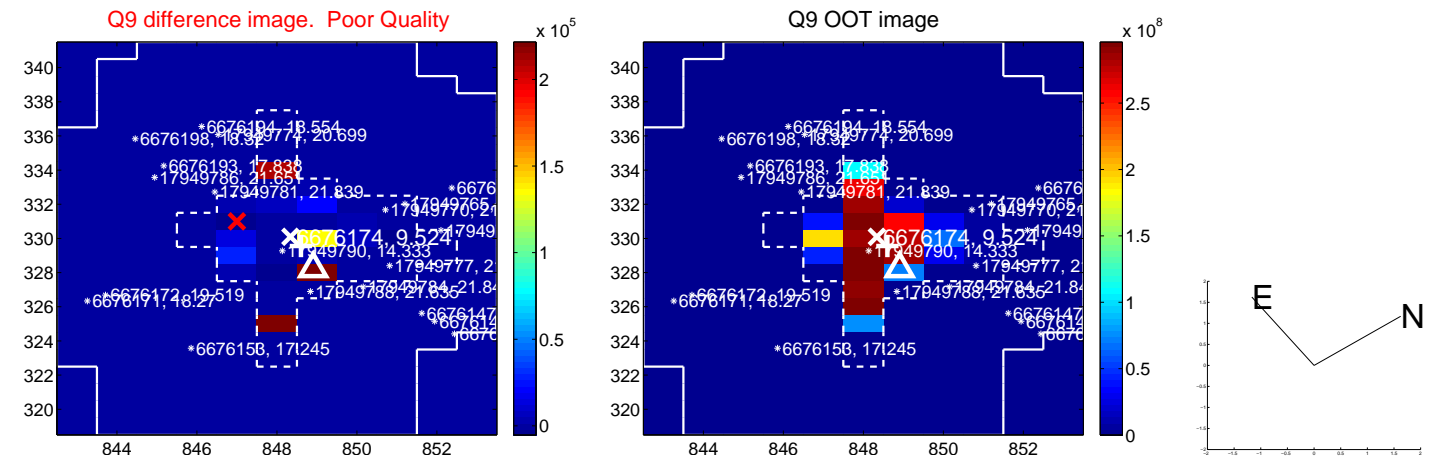
Q8 no difference image



Q8 no OOT image



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



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

Q13 no difference image



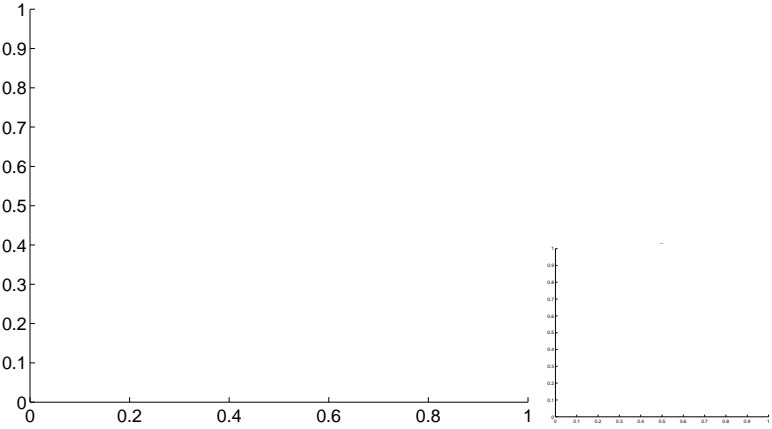
Q13 no OOT image



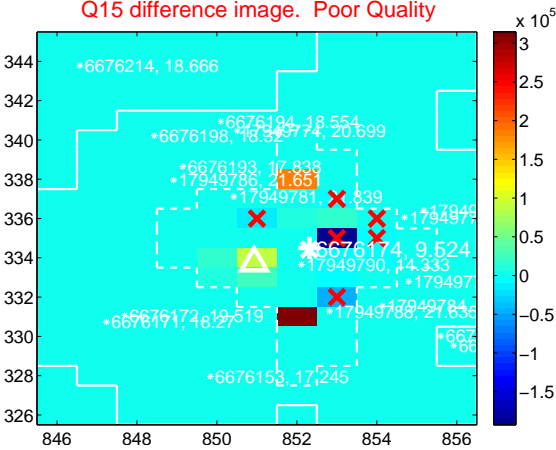
Q14 no difference image



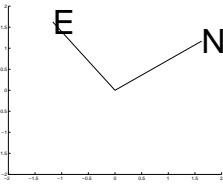
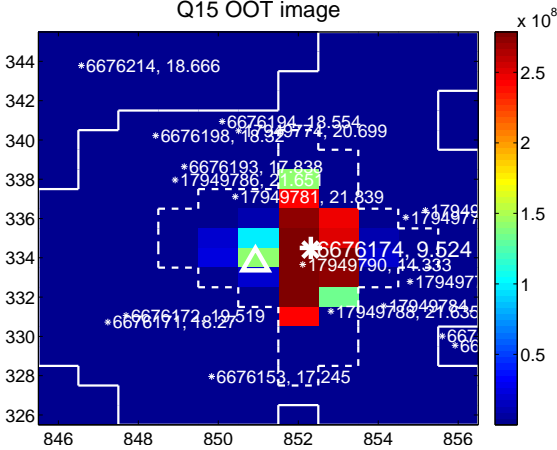
Q14 no OOT image



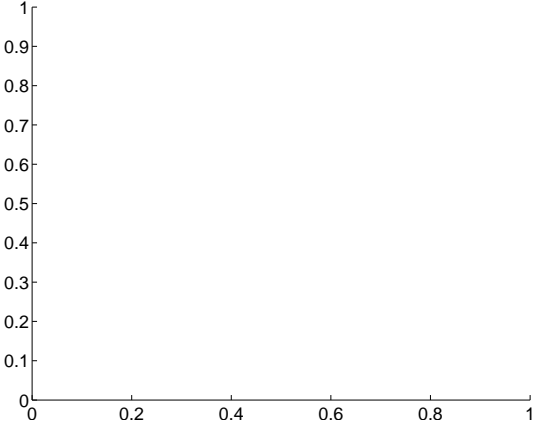
Q15 difference image. Poor Quality



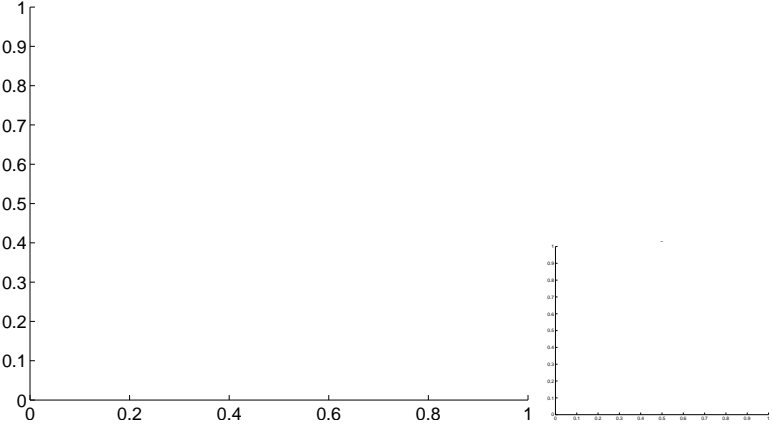
Q15 OOT image



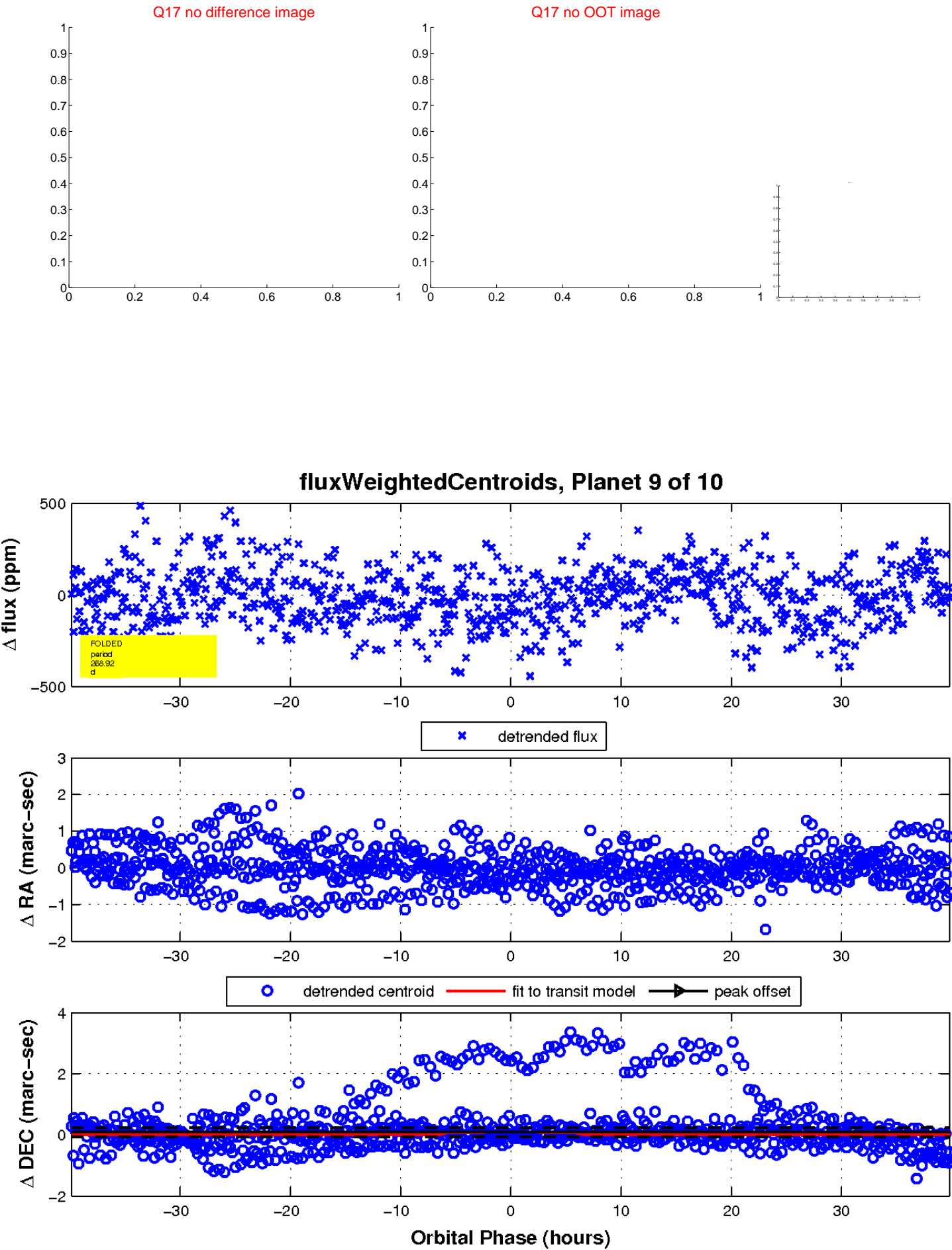
Q16 no difference image



Q16 no OOT image

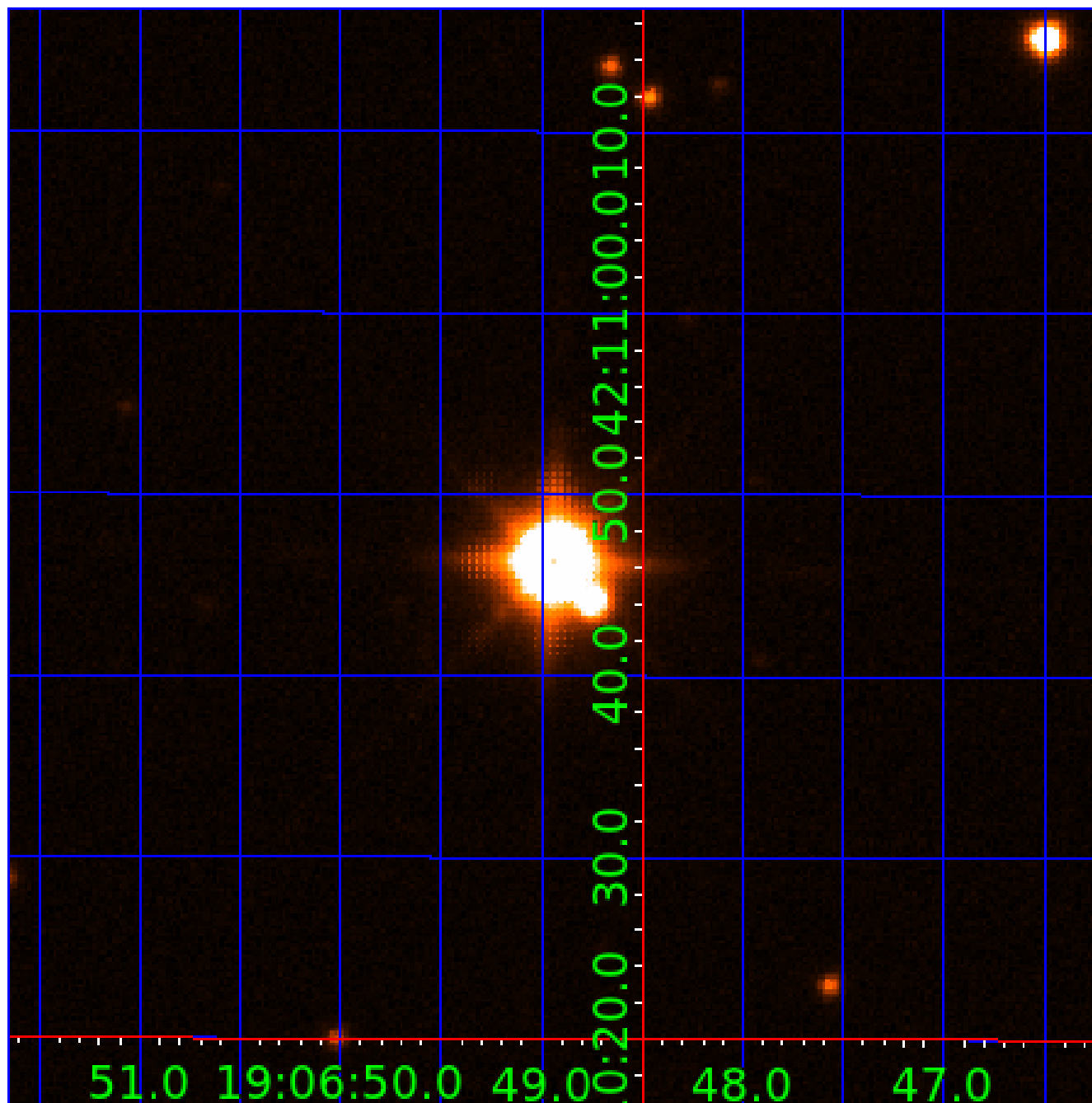


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
006676174-01	OBS	No	2.920424	134.356610	14.7	16.695	8.1	6.5	3.54	6940	1.46	11820.94
006676174-02	OBS	No	210.982983	193.136271	839.7	120.598	19.4	17.3	3.54	6940	18.67	39.29
006676174-03	OBS	No	85.020327	189.124496	185.8	5.731	16.1	7.6	3.54	6940	5.47	131.99
006676174-04	OBS	No	39.107644	138.907657	163.7	4.450	11.4	10.2	3.54	6940	5.28	371.73
006676174-05	OBS	No	74.362856	165.460893	246.1	3.450	11.4	11.6	3.54	6940	6.42	157.80
006676174-06	OBS	No	69.162601	190.600758	215.4	4.470	11.1	11.3	3.54	6940	5.87	173.81
006676174-07	OBS	No	41.810597	155.720183	205.1	7.229	10.7	11.8	3.54	6940	5.95	340.04
006676174-08	OBS	No	111.521799	225.750836	171.7	6.367	11.7	8.3	3.54	6940	5.11	91.92
006676174-09	OBS	No	268.921452	301.580920	181.4	13.310	10.2	8.6	3.54	6940	5.44	28.43
006676174-10	OBS	No	10.805295	133.359360	62.6	5.759	10.7	8.7	3.54	6940	3.25	2065.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676174-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
006676174-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-04	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
006676174-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
006676174-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
006676174-10	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

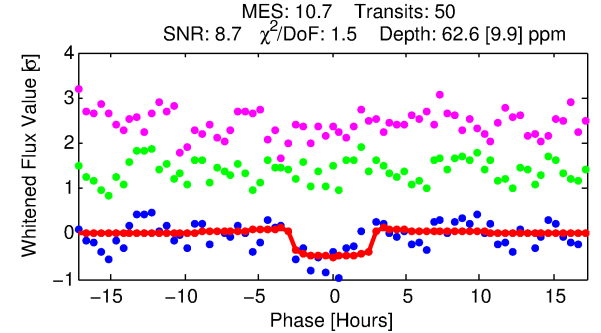
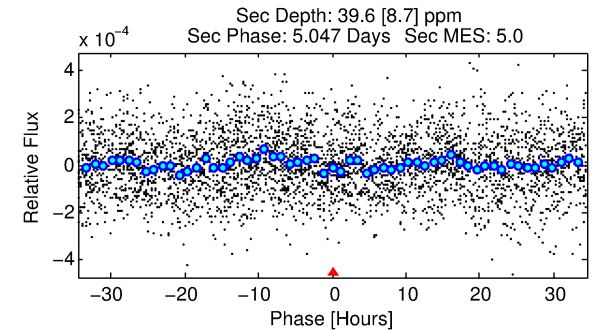
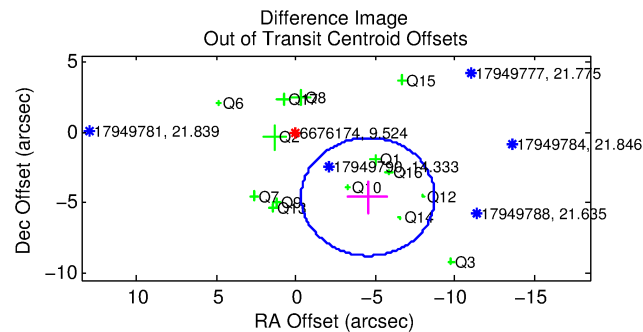
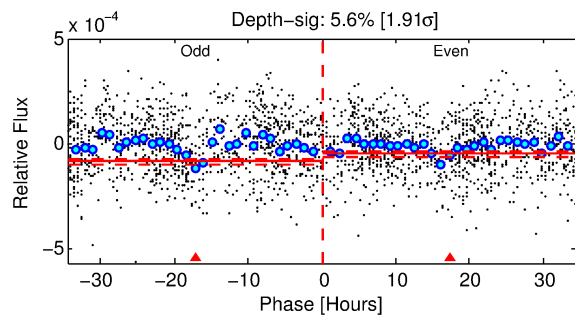
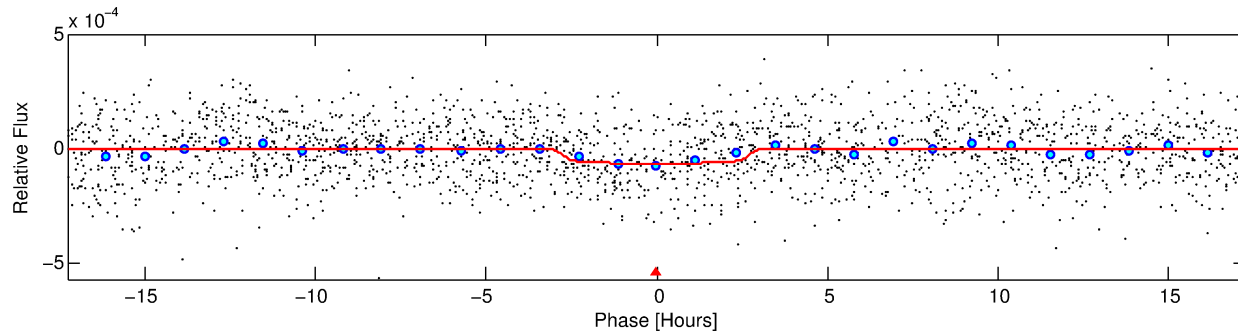
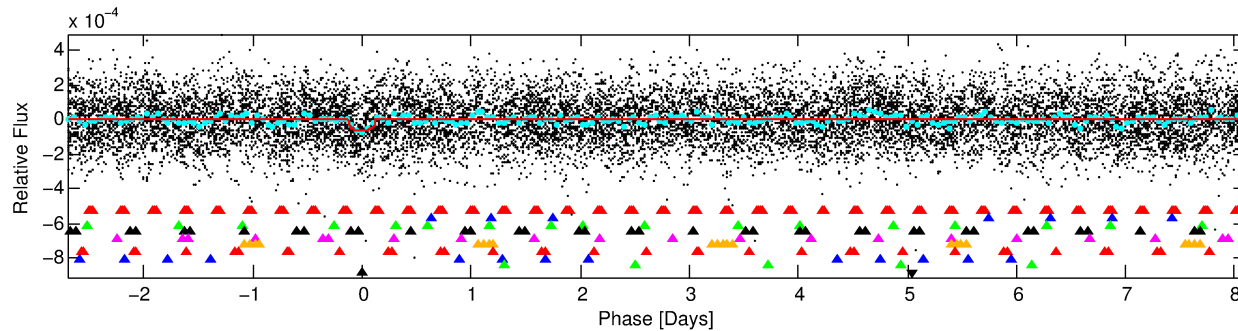
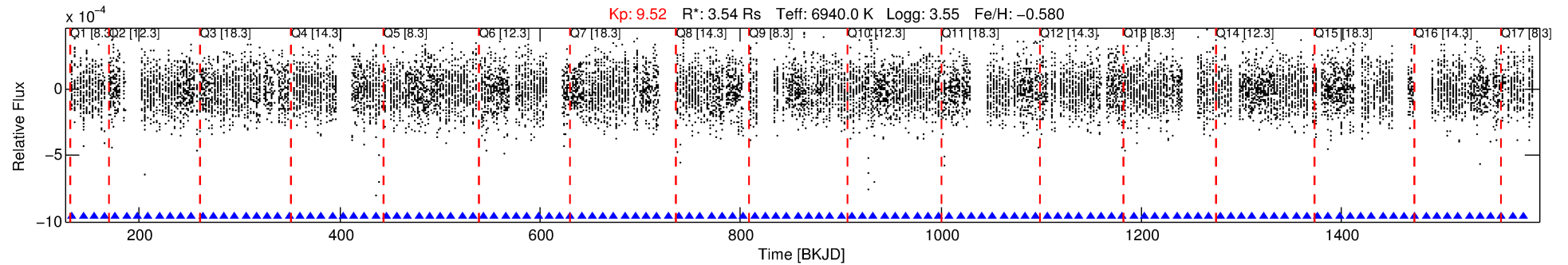
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676174-10

No Significant Match Found

DV One-Page Summary

KIC: 6676174 Candidate: 10 of 10 Period: 10.805 d



DV Fit Results:

Period = 10.80529 [0.00015] d
Epoch = 133.3594 [0.0105] BKJD
Rp/R* = 0.0084 [0.0031]
a/R* = 6.64 [14.16]
b = 0.90 [0.47]
Seff = 2065.69 [1304.53]
Teq = 1719 [271] K
Rp = 3.25 [1.81] Re
a = 0.1124 [0.0443] AU
Ag = 26.05 [25.62] [0.98 σ]
Teff = 6004 [1161] K [3.60 σ]

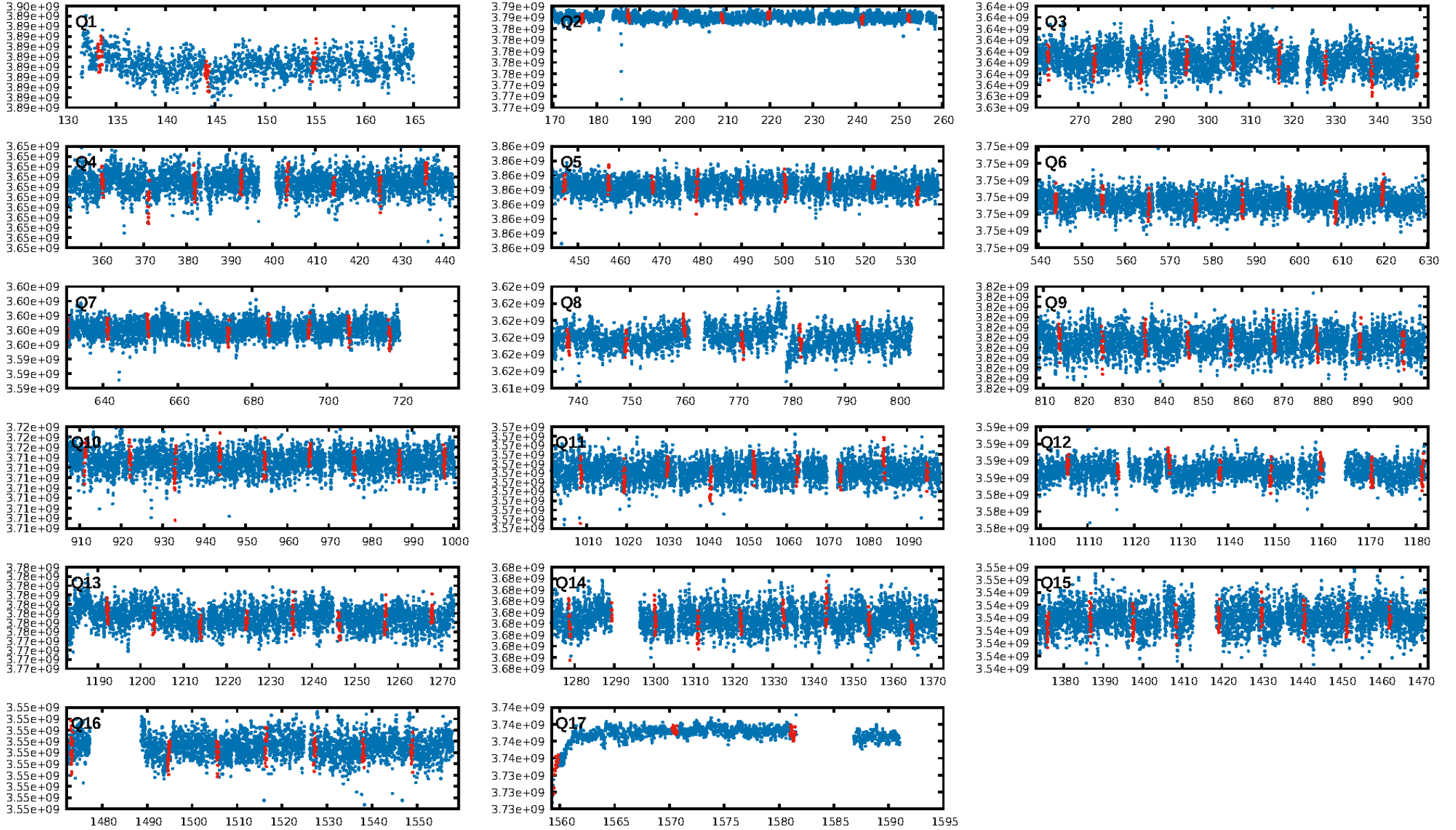
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [10.72 σ]
LongPeriod-sig: 100.0% [93.34 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [47/47]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 0.992 arcsec [2.13 σ]
OotOffset-rm: 6.442 arcsec [4.60 σ]
KicOffset-rm: 6.310 arcsec [5.13 σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 0.07 [1/14]
DiffImageOverlap-fno: 0.88 [15/17]

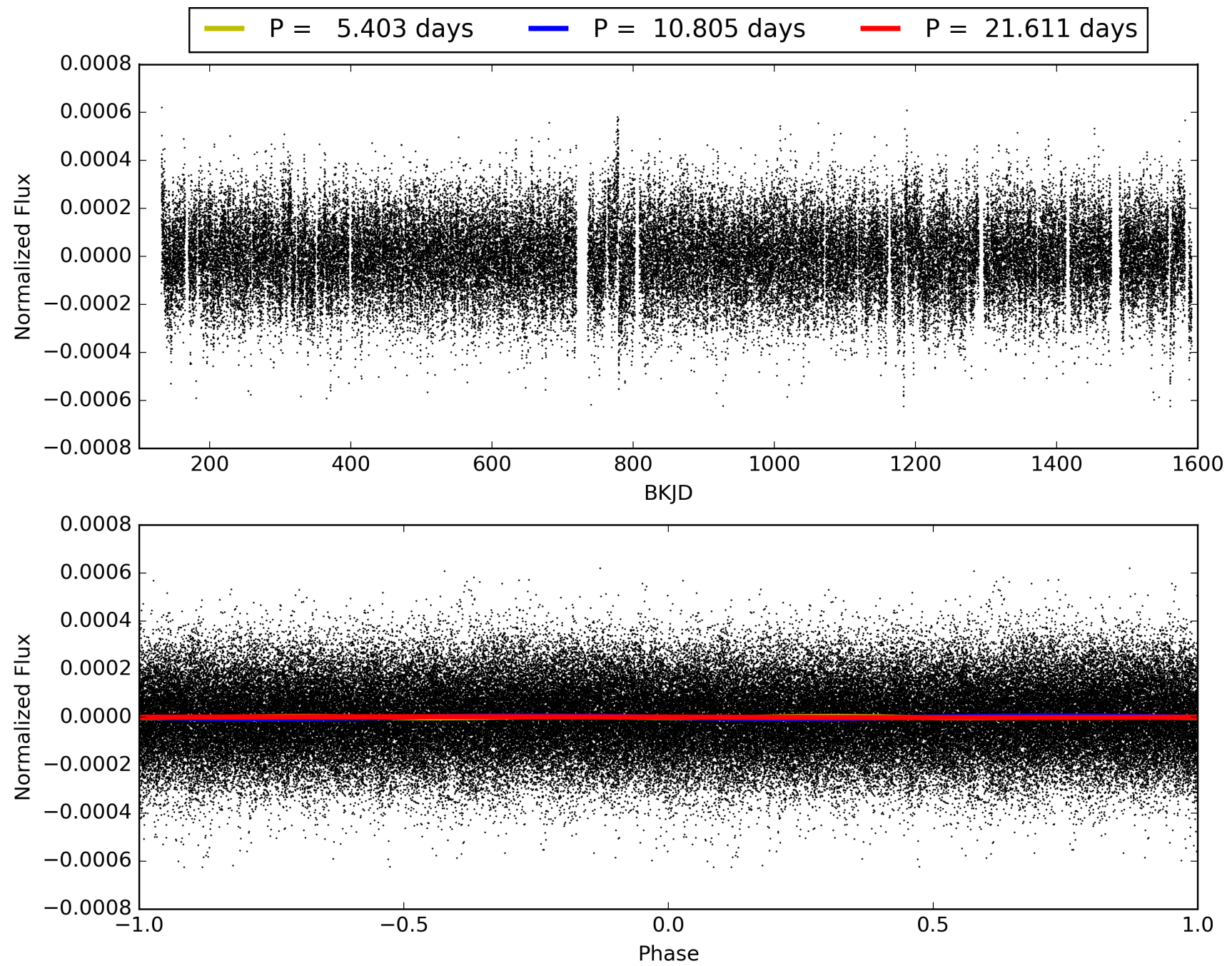
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:15:13 Z

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

TCE 006676174-10, PDC Light Curves

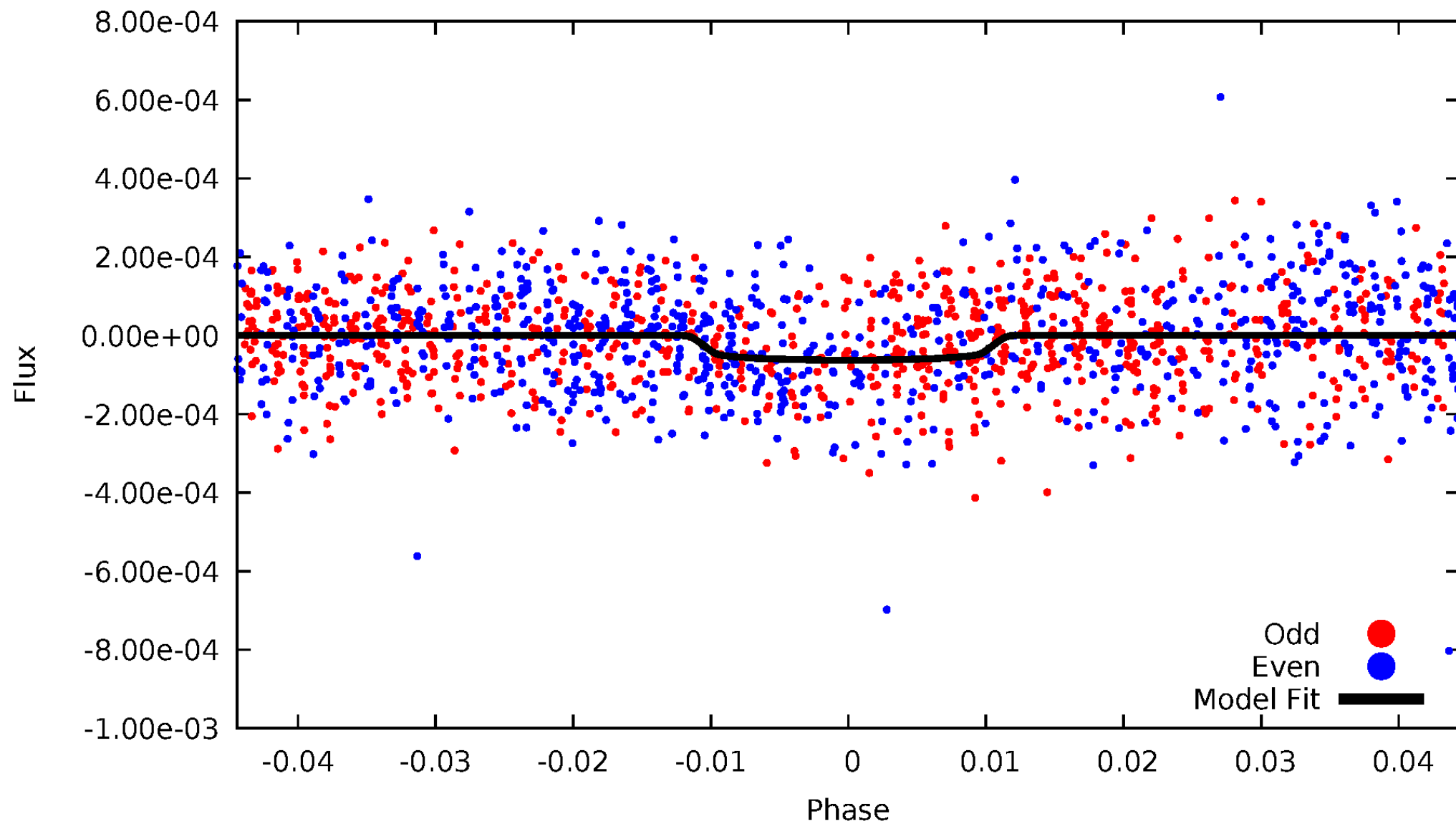


TCE 006676174-10



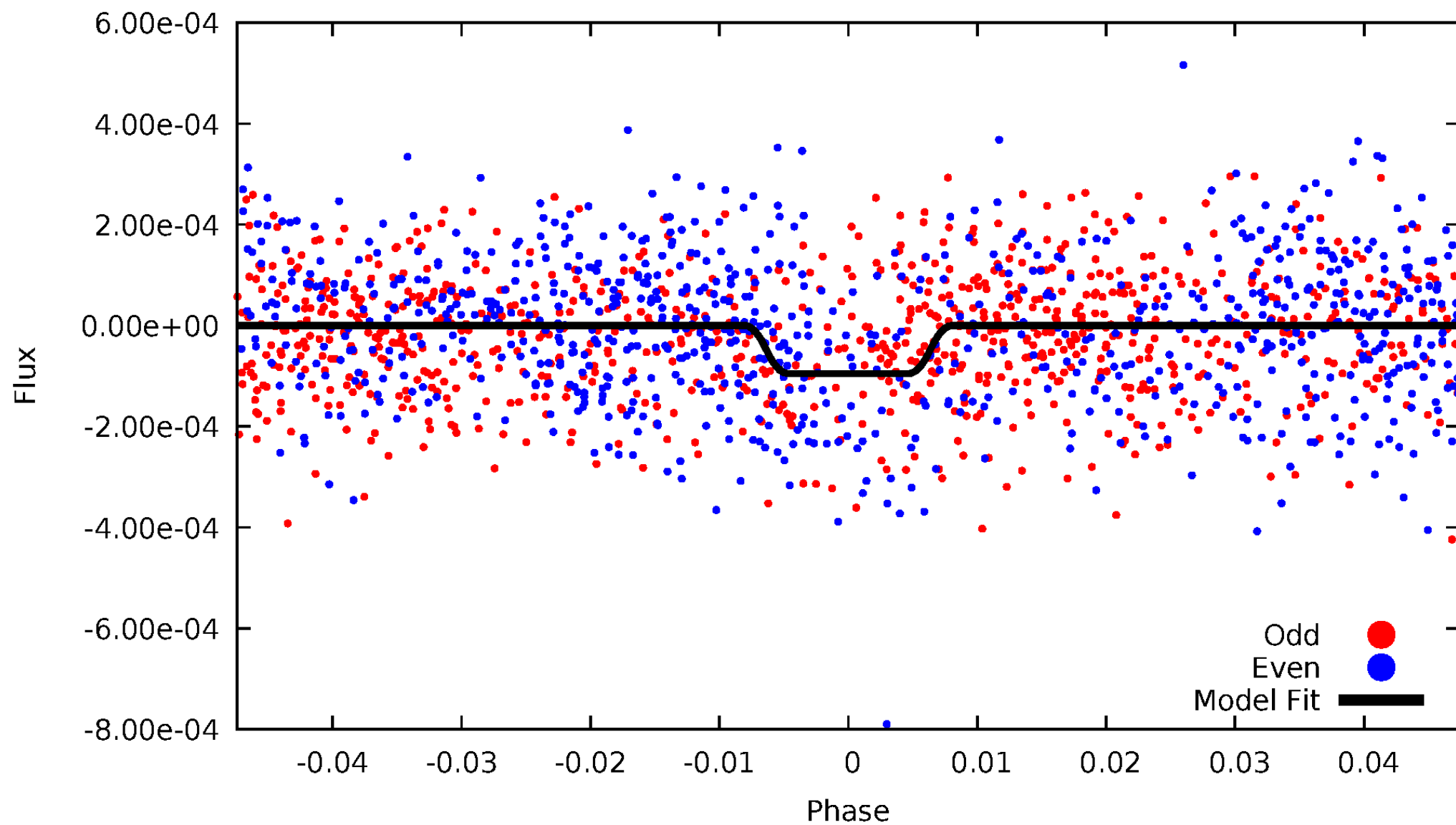
DV Odd/Even

TCE 006676174-10



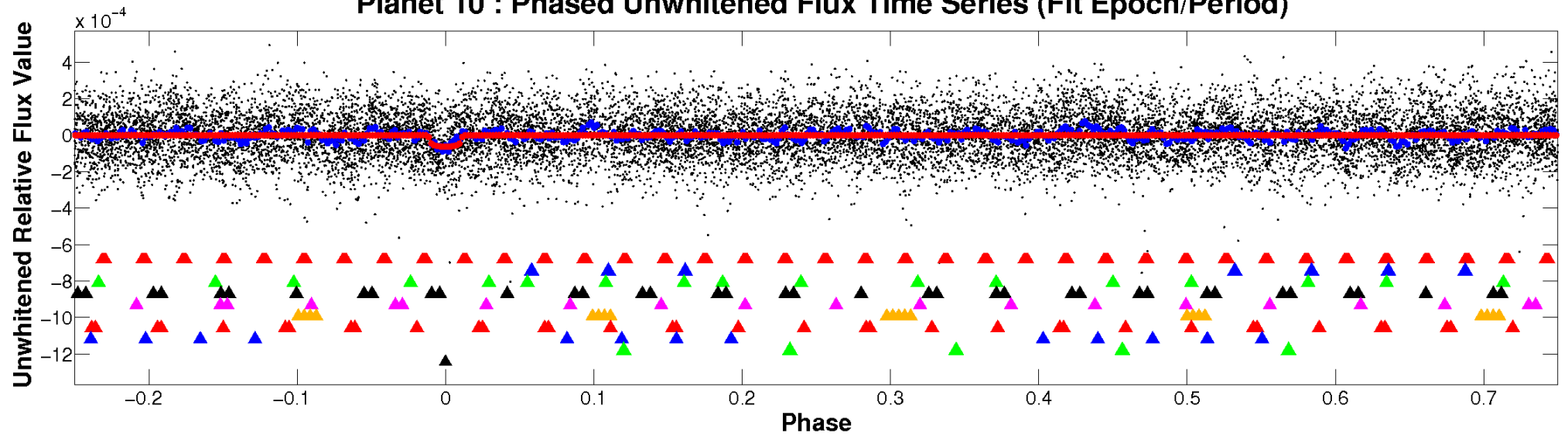
ALT Odd/Even

TCE 006676174-10

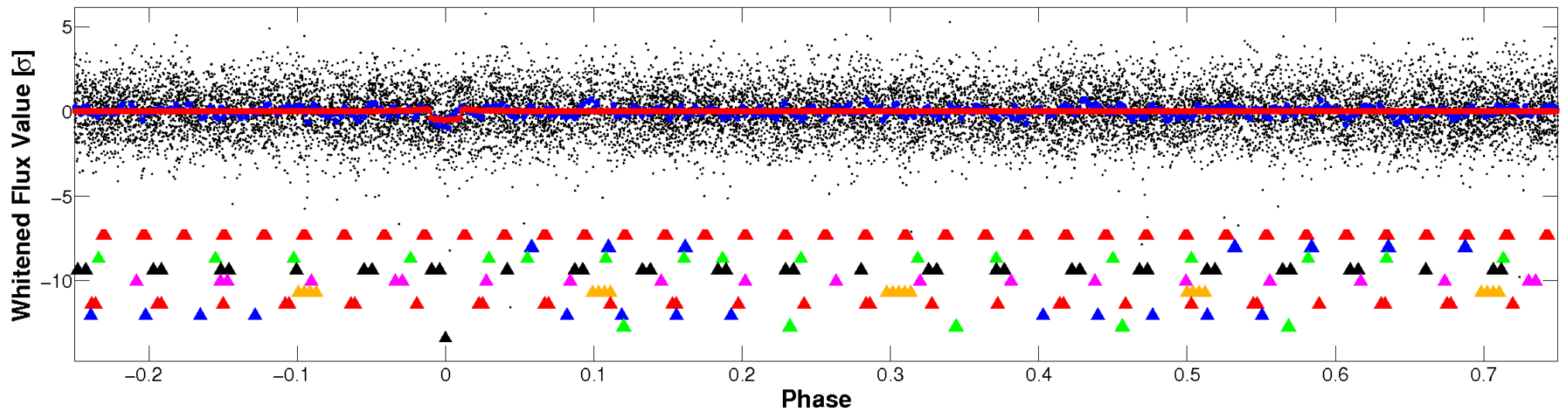


Non-Whitened Vs. Whitened Light Curve

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

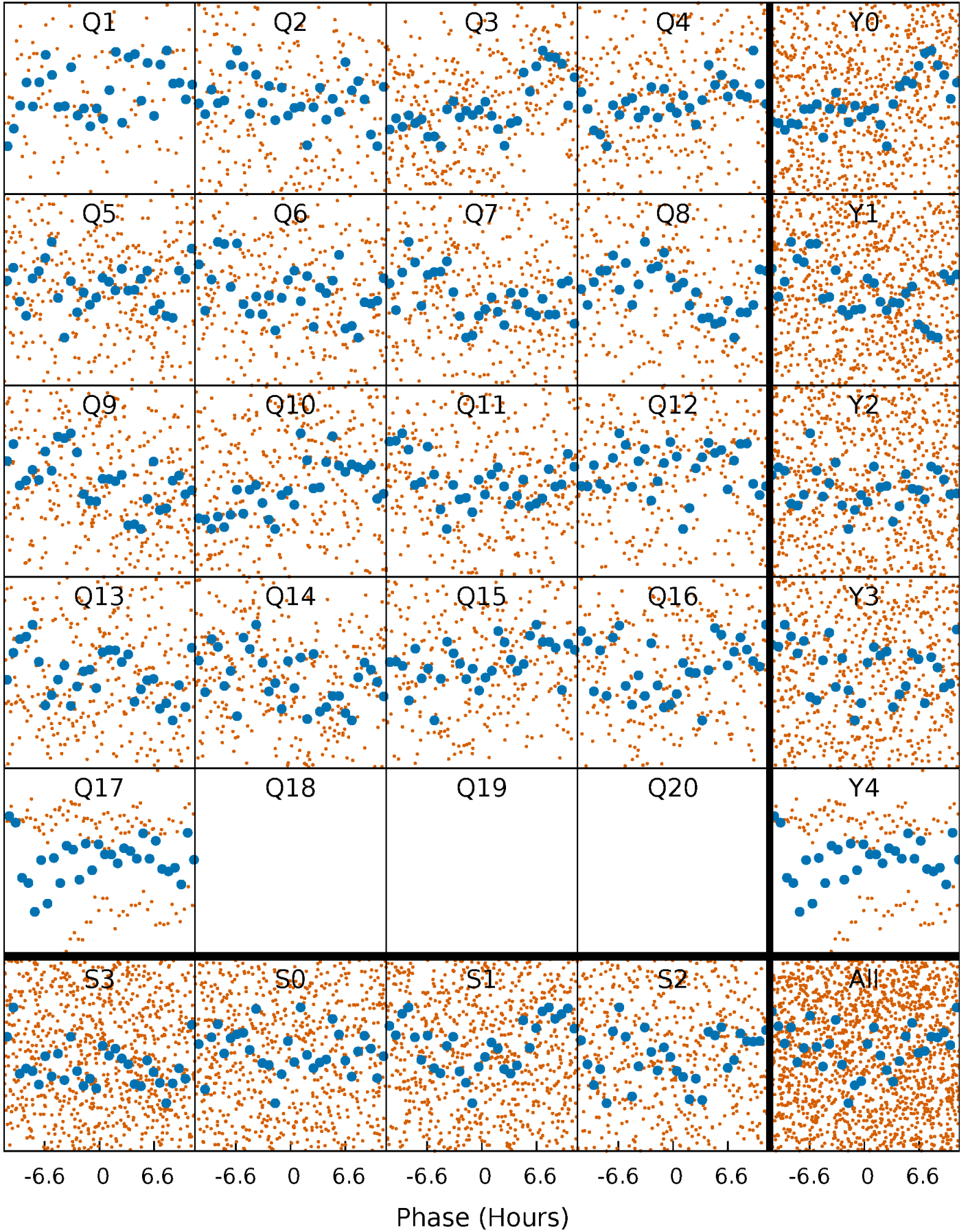


Planet 10 : Phased Whitened Flux Time Series (Fit Epoch/Period)



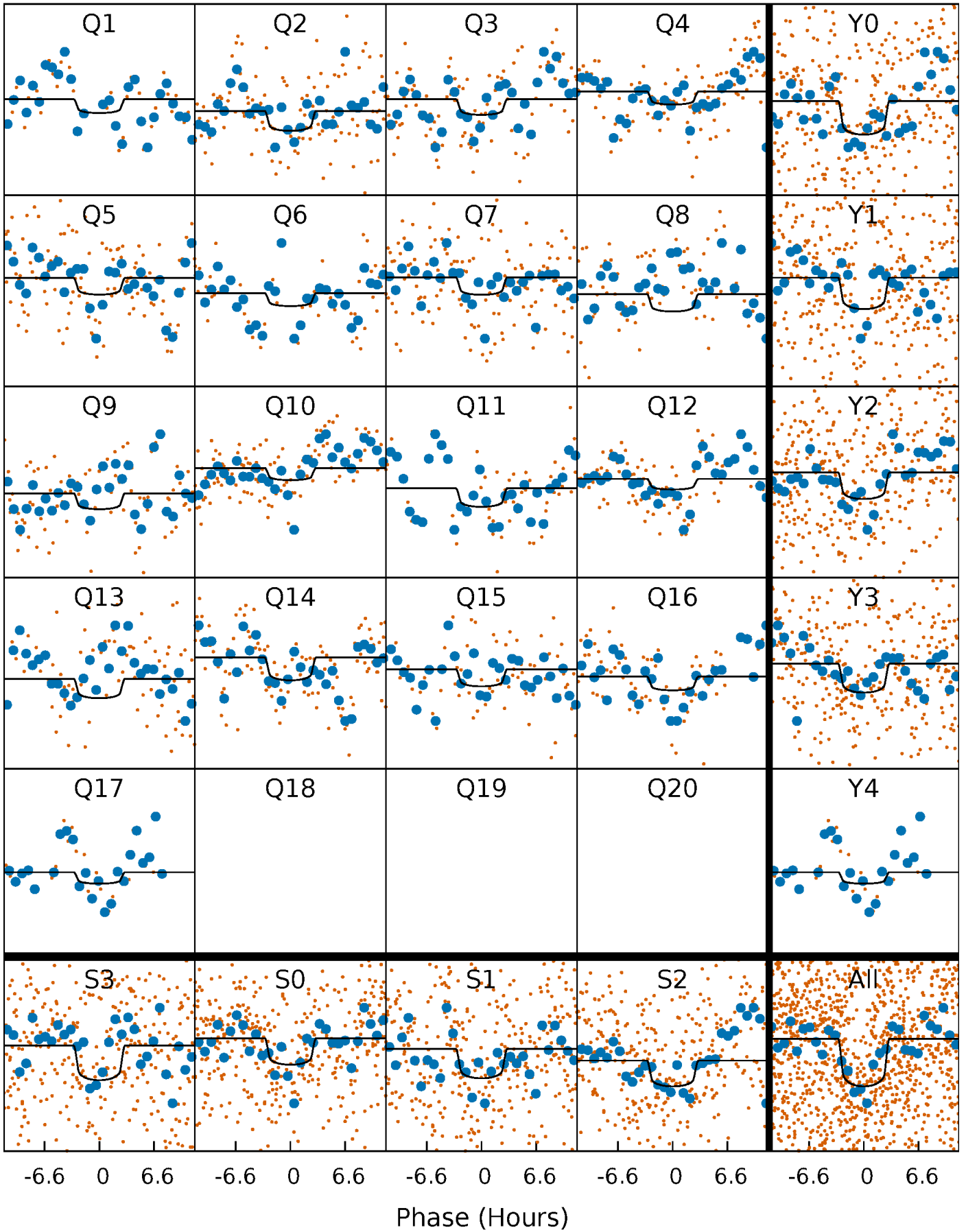
PDC Quarter-Phased Transit Curves

TCE 006676174-10 P= 10.805295 Days $T_0=133.359360$ (BKJD)



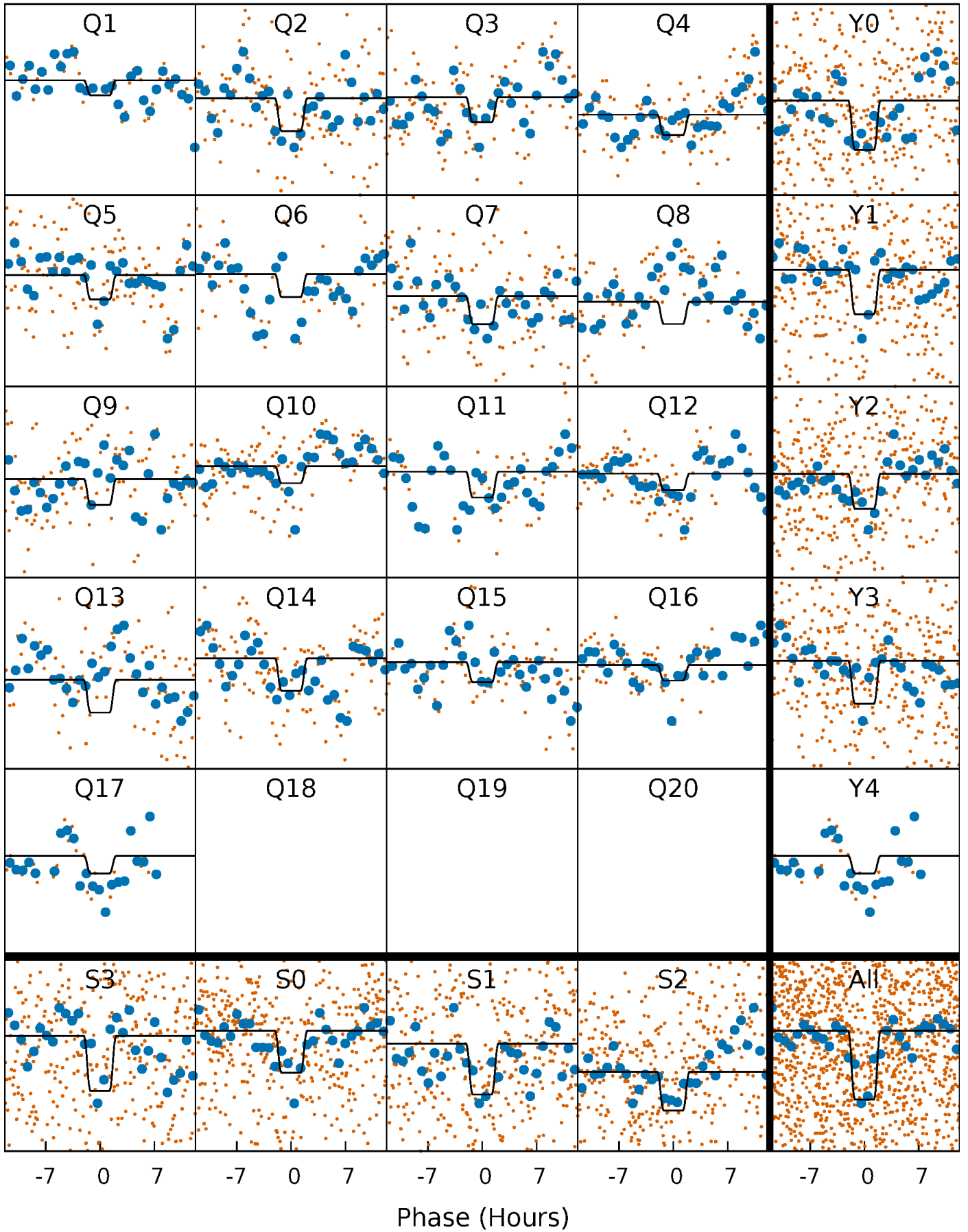
DV Quarter-Phased Transit Curves

TCE 006676174-10 P= 10.805295 Days $T_0=133.359360$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

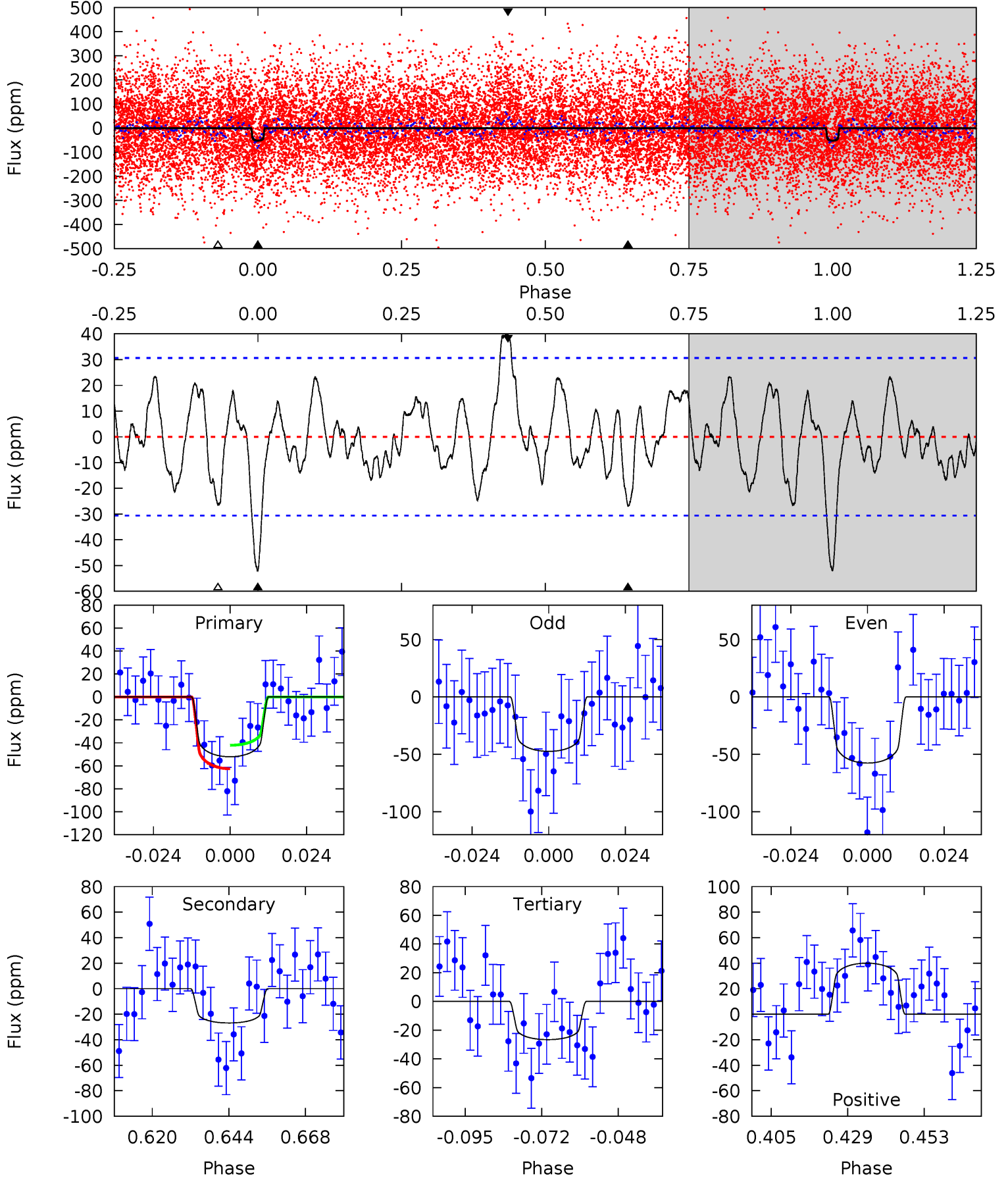
TCE 006676174-10 P= 10.805520 Days $T_0=133.340542$ (BKJD)



DV Model-Shift Uniqueness Test

006676174-10, P = 10.805295 Days, E = 122.554065 Days

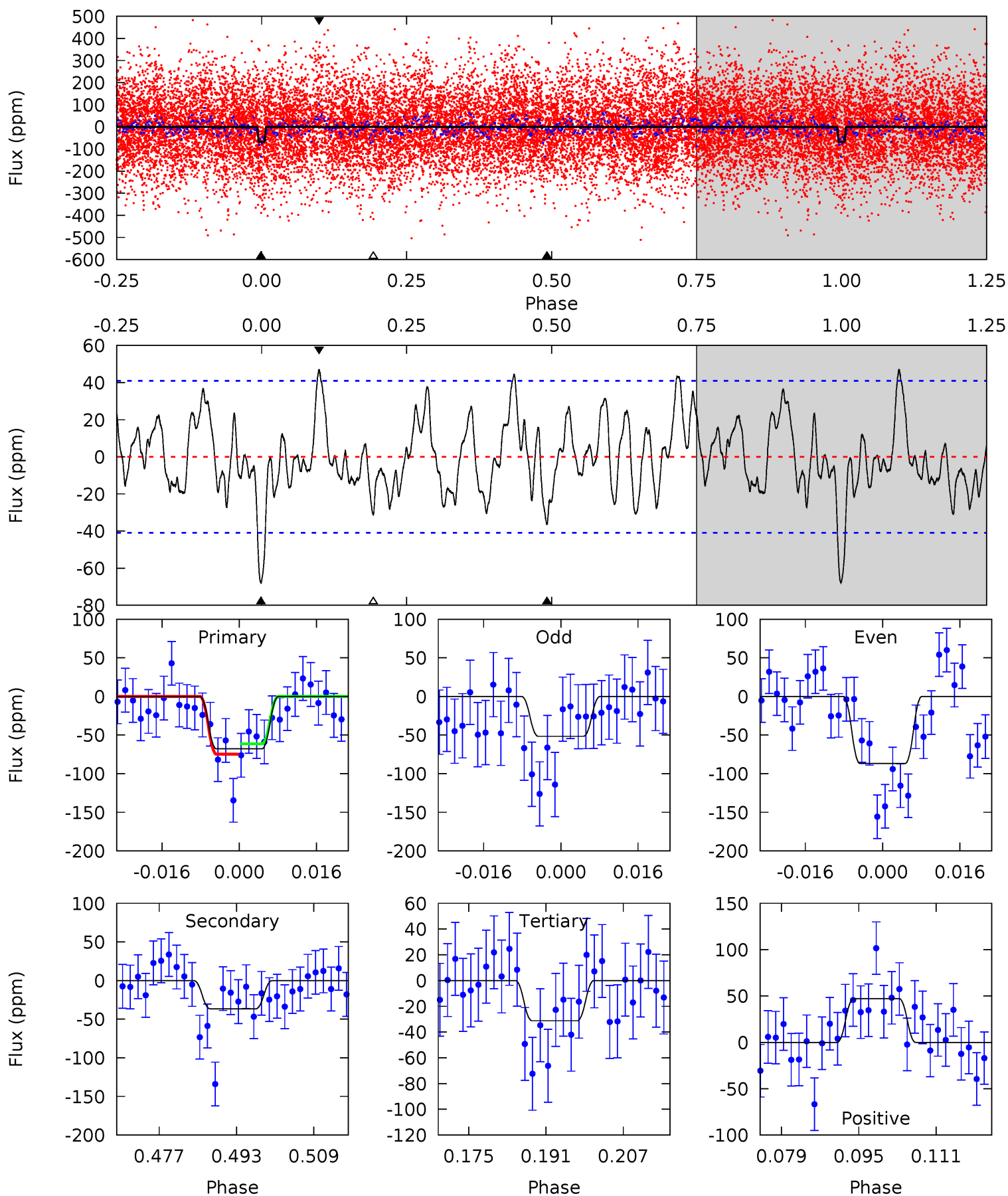
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.26	4.26	4.22	6.34	4.86	2.26	2.03	4.04	1.92	0.05	-2.08	0.81	0.62	0.43	1.62



Alt Model-Shift Uniqueness Test

006676174-10, P = 10.805520 Days, E = 122.535022 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.19	4.42	3.76	5.69	4.94	2.41	2.05	4.43	2.50	0.66	-1.27	2.12	0.70	0.41	0.81



Stellar Parameters For KIC 006676174

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6940^{+156}_{-209}	$3.549^{+0.360}_{-0.090}$	$-0.580^{+0.350}_{-0.300}$	$3.543^{+0.467}_{-1.493}$	$1.623^{+0.232}_{-0.377}$	$0.051^{+0.150}_{-0.015}$
	+2%/-3%	+10%/-3%	+60%/-52%	+13%/-42%	+14%/-23%	+292%/-29%
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 006676174-10 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 6	$3.06^{+1.35}_{-1.13}$	2350^{+142}_{-224}	5349^{+1185}_{-718}	20^{+30}_{-11}
Alt.	-37 ± 8	$3.46^{+1.43}_{-1.30}$	2350^{+141}_{-234}	5420^{+1185}_{-634}	21^{+32}_{-10}

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 $A_{obs} \gg 1.0$

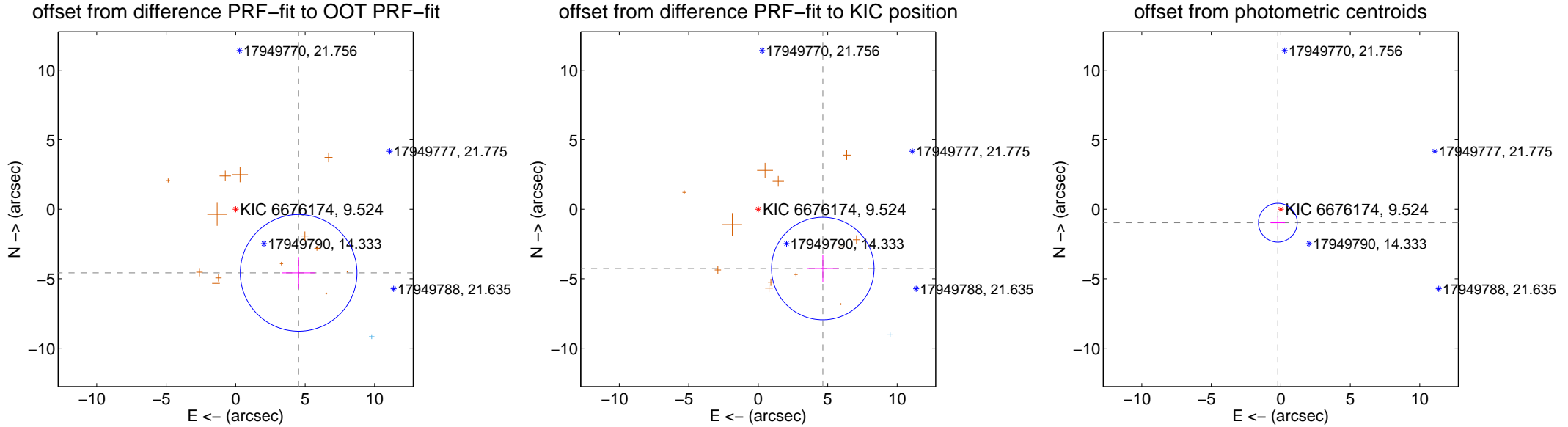
DV Centroid Data

Supplemental centroid analysis for 006676174-10. **Kepler magnitude: 9.52.** Transit SNR 8.71

There are 1 quarters with good PRF difference image offsets

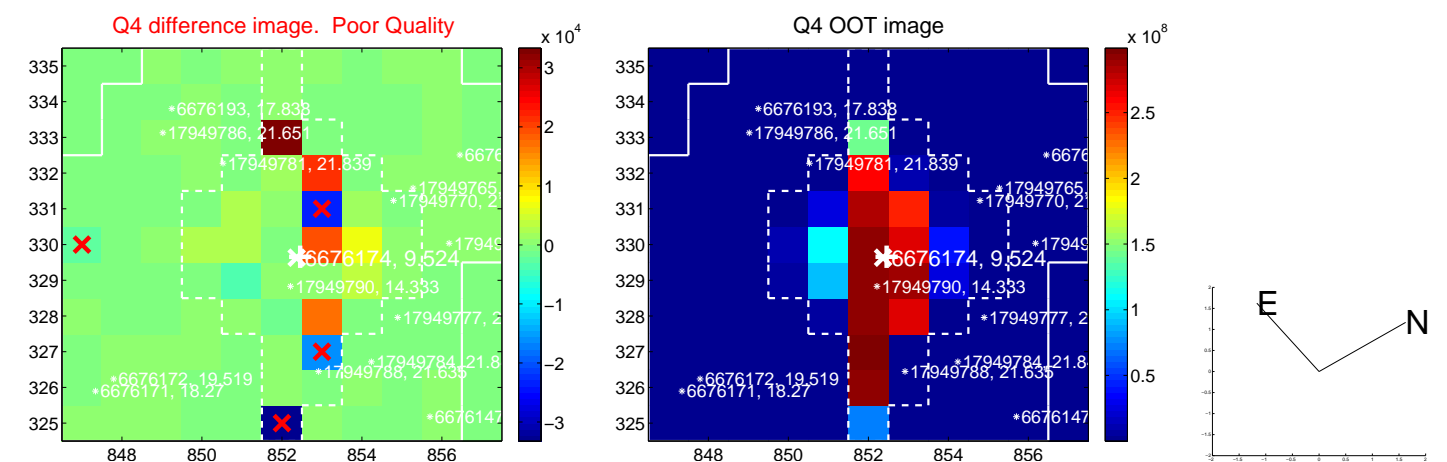
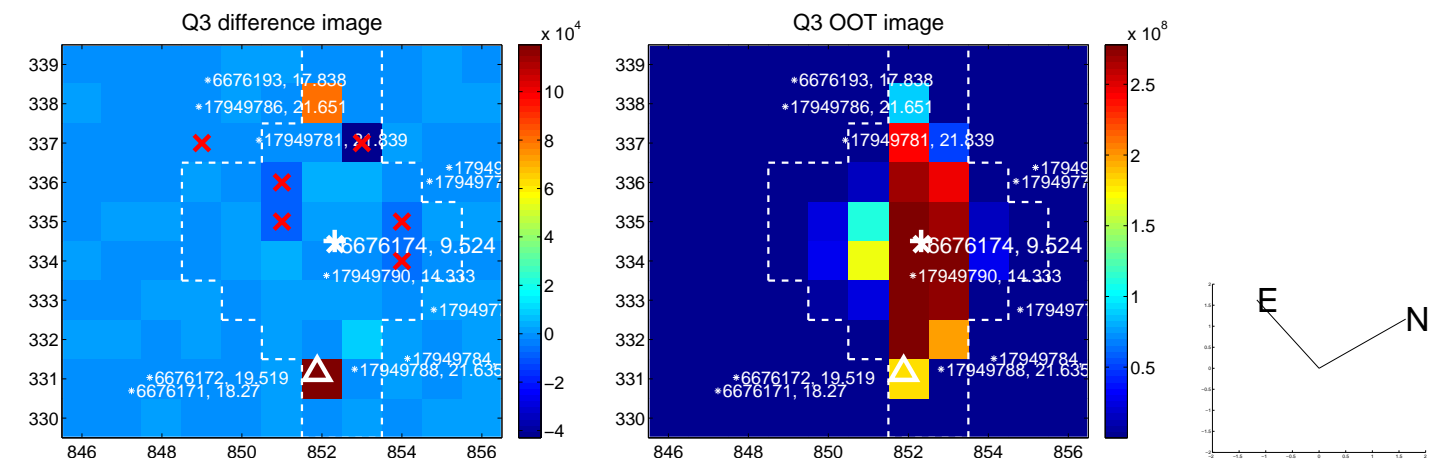
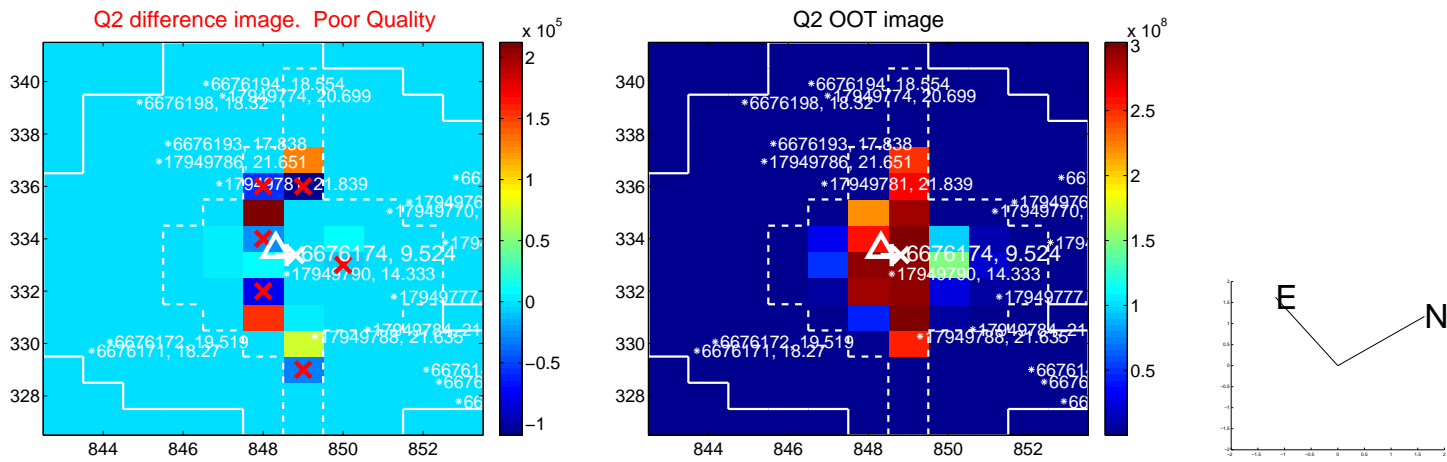
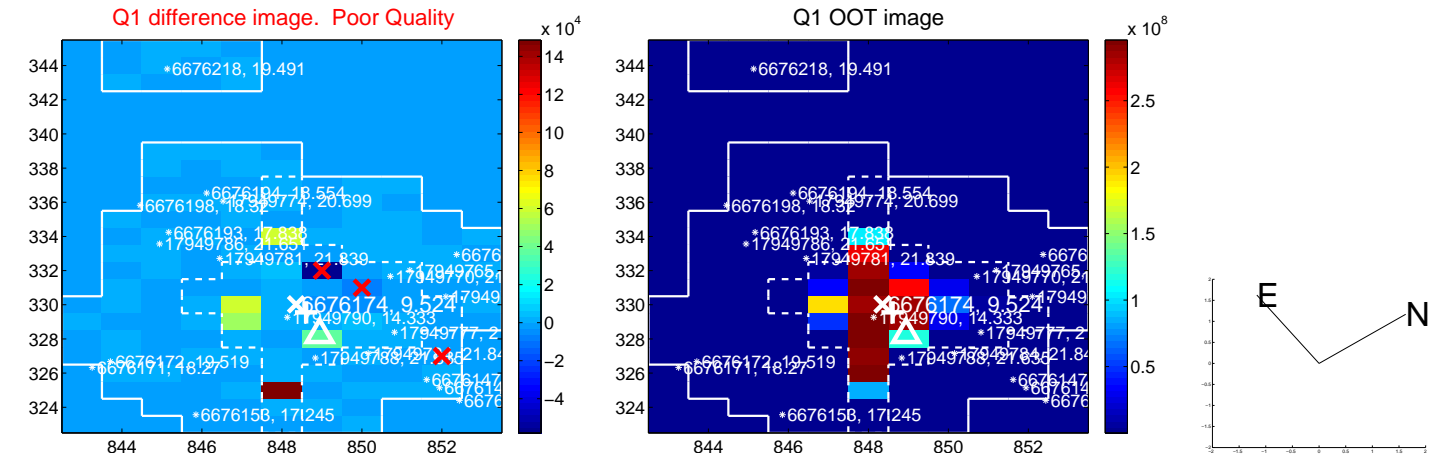
The OOT PRF centroid is offset from the target star catalog position by about 2.23 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.442 ± 1.400	4.60	-4.532 ± 1.211	-4.579 ± 1.143
PRF-fit source offset from KIC position	6.310 ± 1.230	5.13	-4.648 ± 1.139	-4.267 ± 0.972
photometric centroid source offset	0.99 ± 0.47	2.13	0.22 ± 0.52	-0.97 ± 0.46

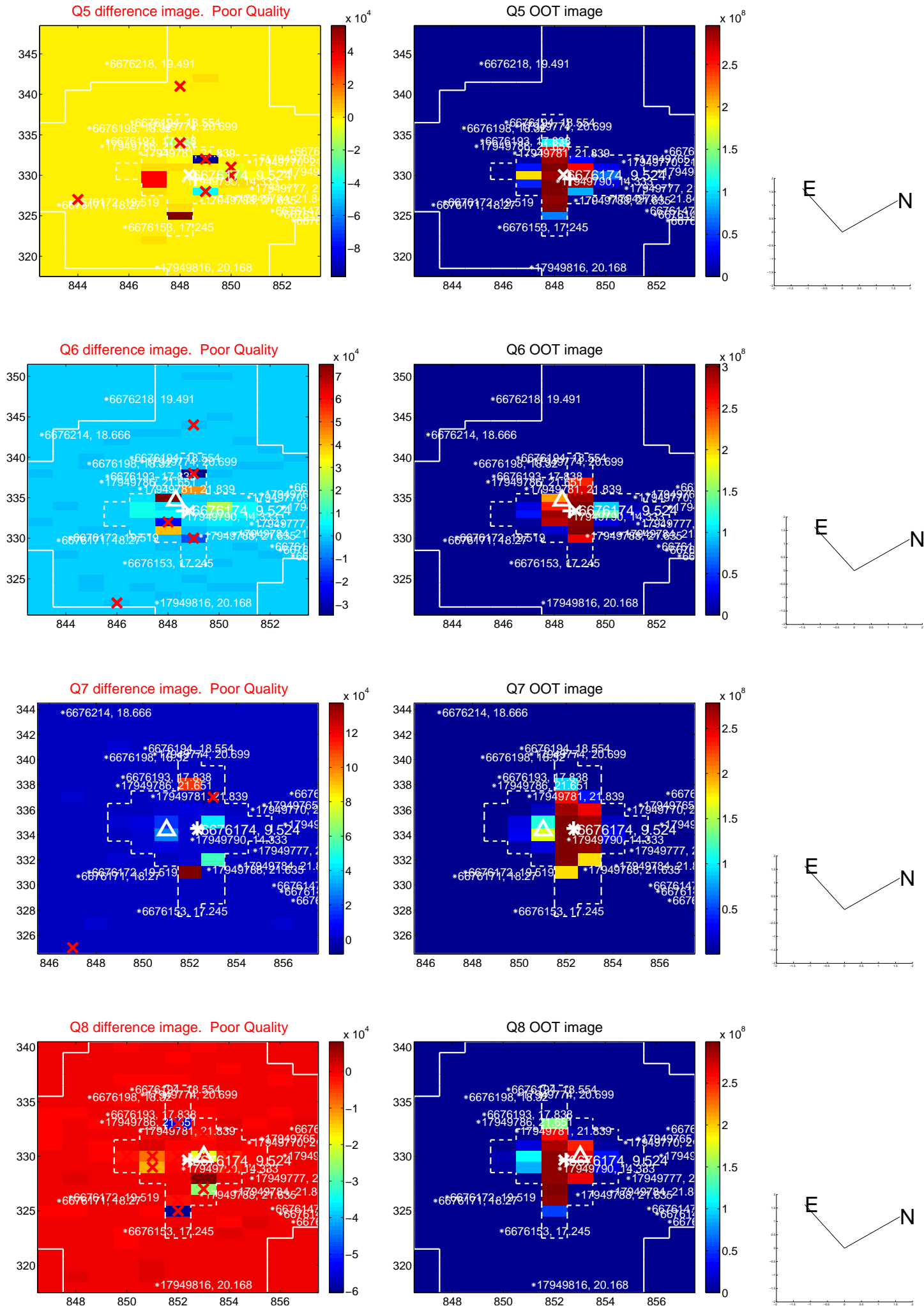


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

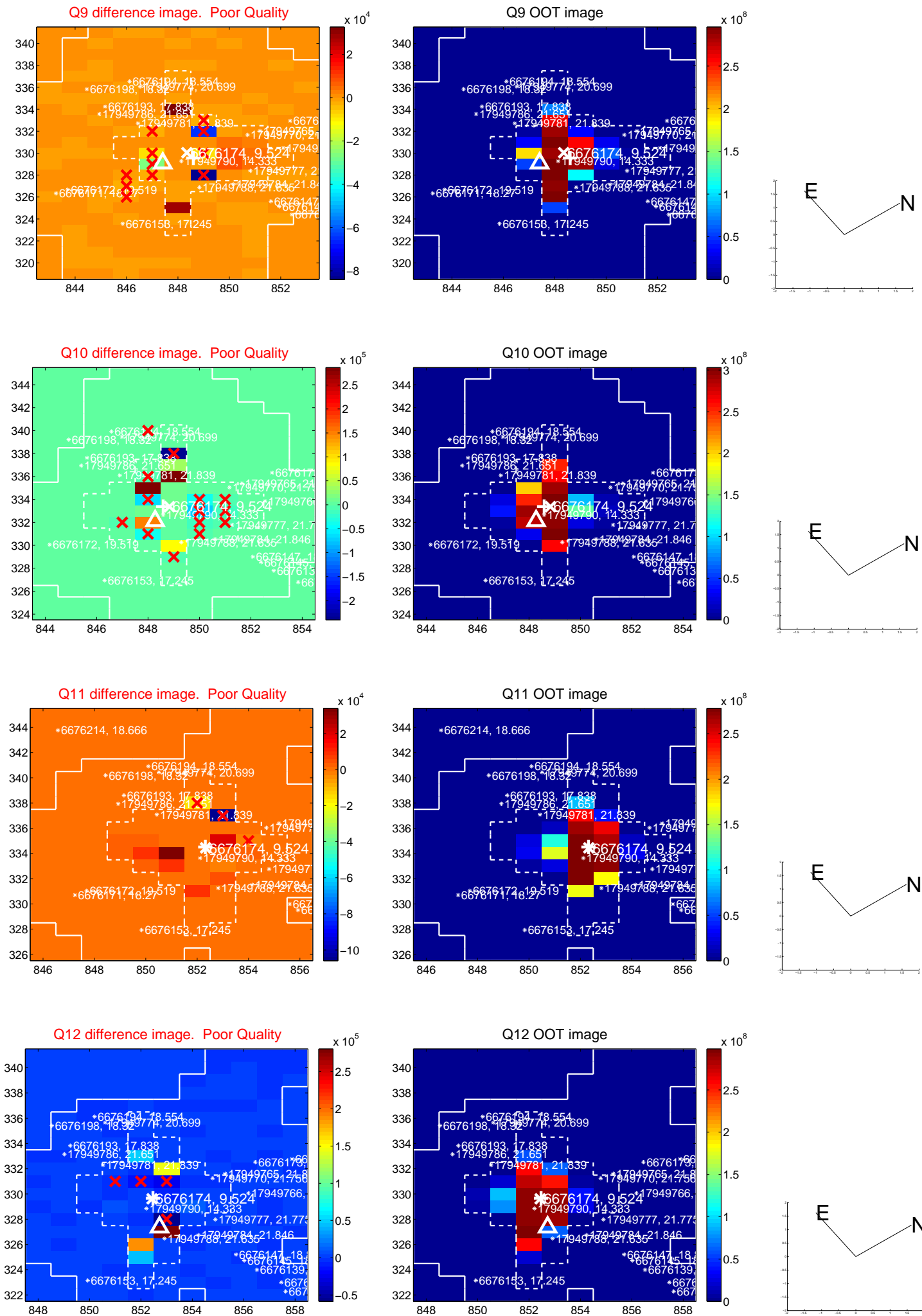
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



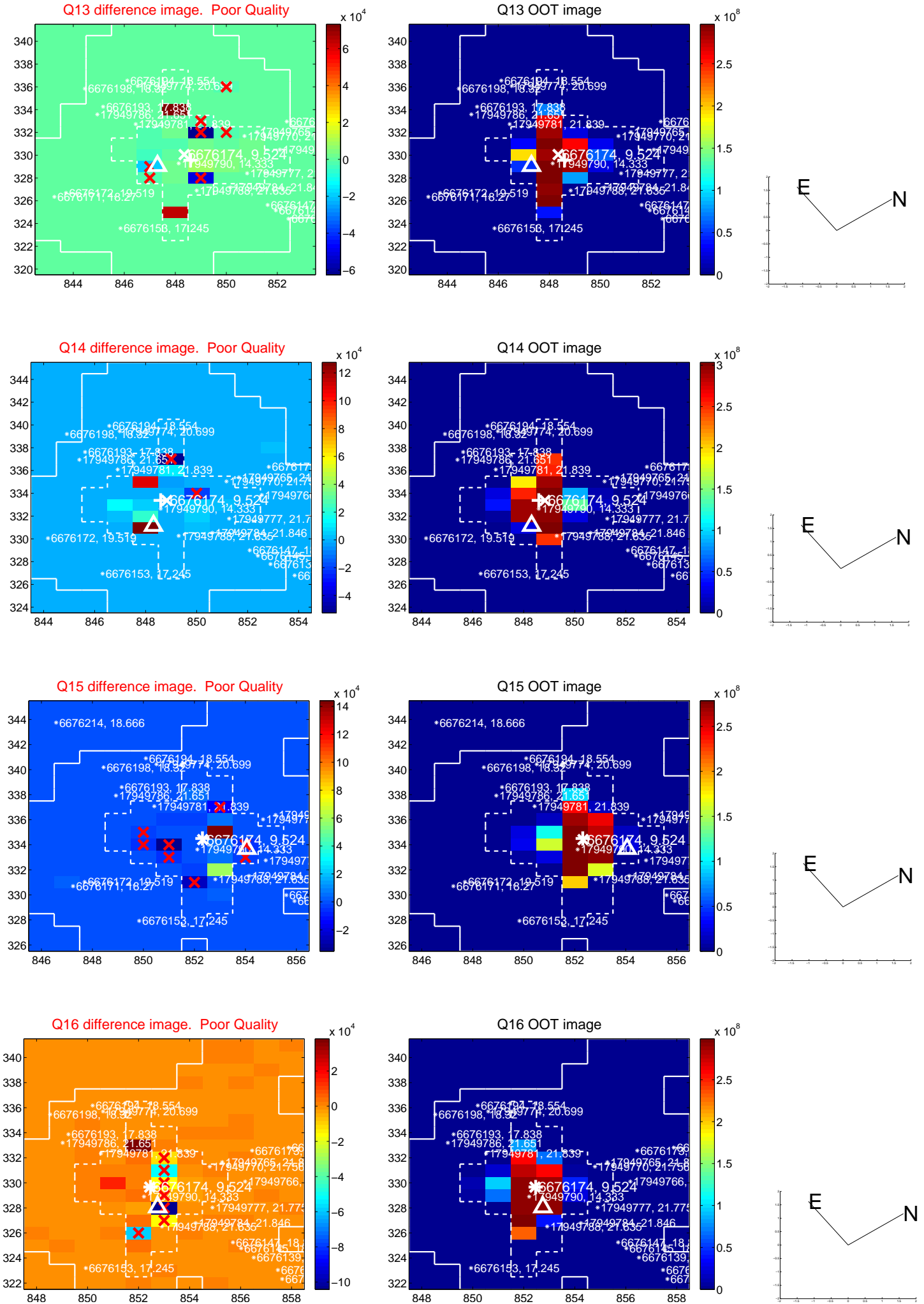
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



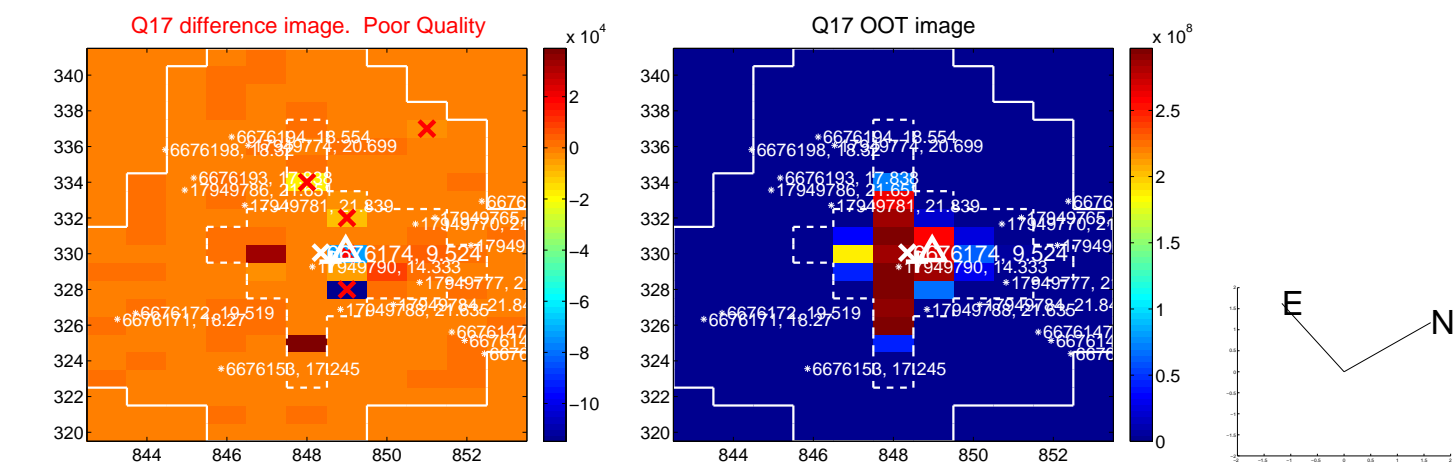
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



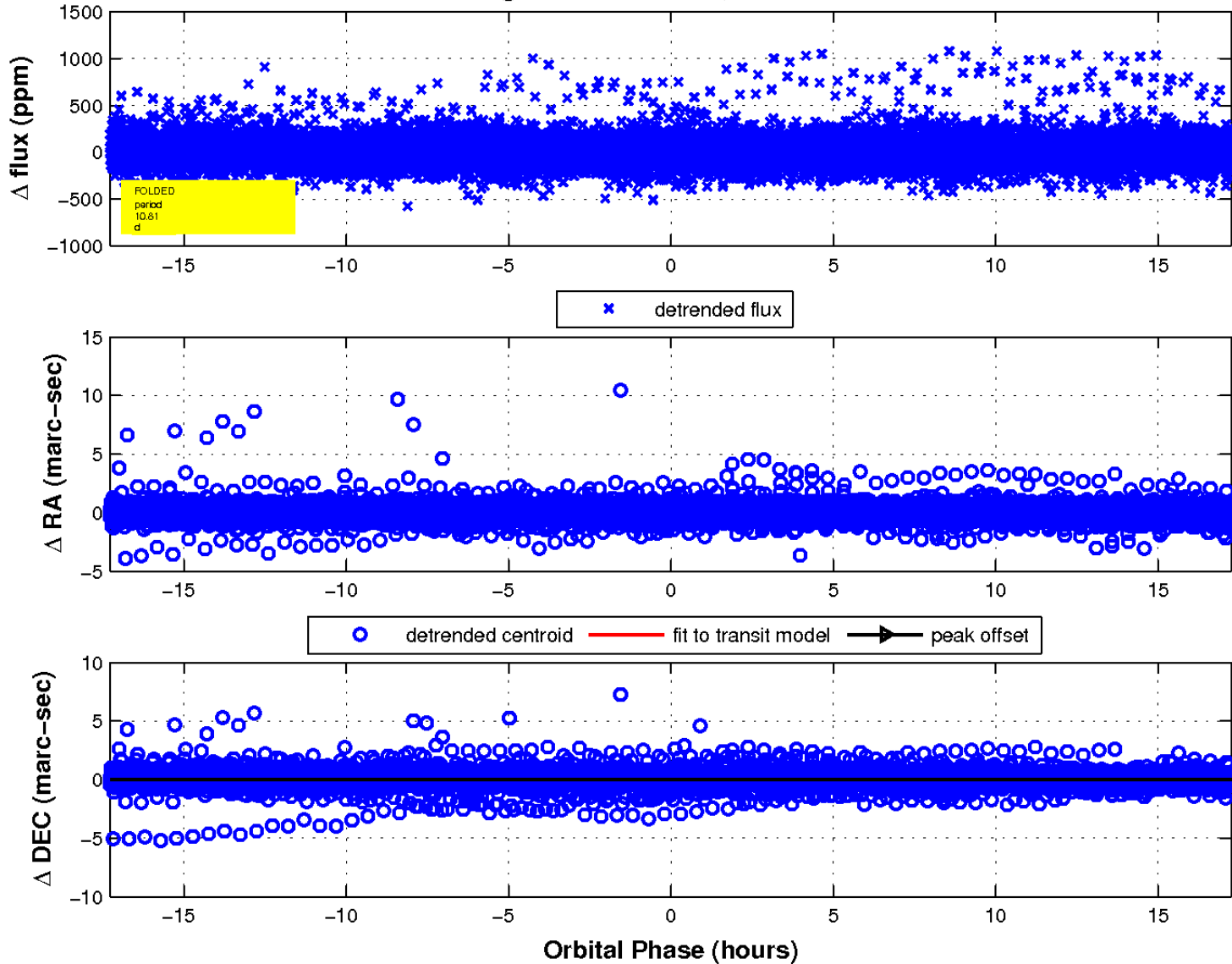
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 10 of 10



UKIRT Image

Declination

