

KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
008057693-04	OBS	No	22.796647	144.930147	206.8	2.344	10.8	10.4	1.41	6792	2.37	130.24
008057693-05	OBS	No	35.451867	150.331824	195.1	5.707	8.8	11.5	1.41	6792	2.24	72.28
008057693-06	OBS	No	40.229411	161.560789	261.3	0.625	9.7	5.7	1.41	6792	2.44	61.07
008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
008057693-08	OBS	No	47.933620	135.506699	266.7	1.445	9.0	9.0	1.41	6792	2.53	48.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

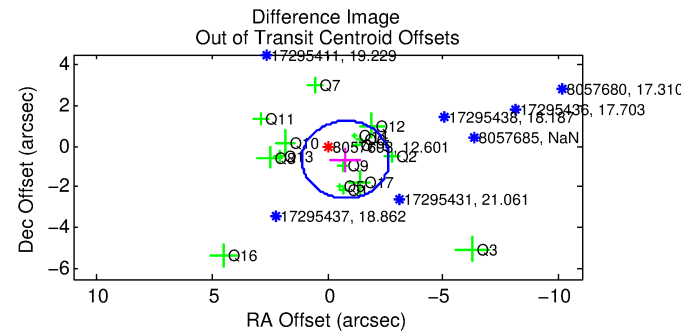
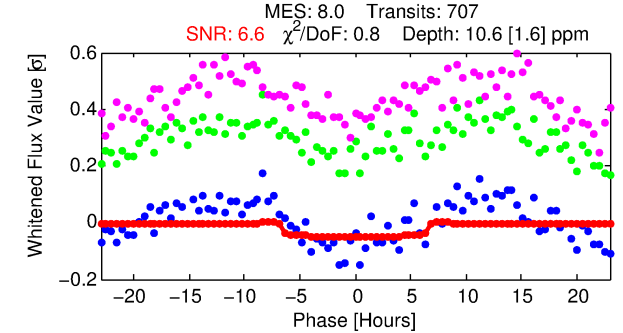
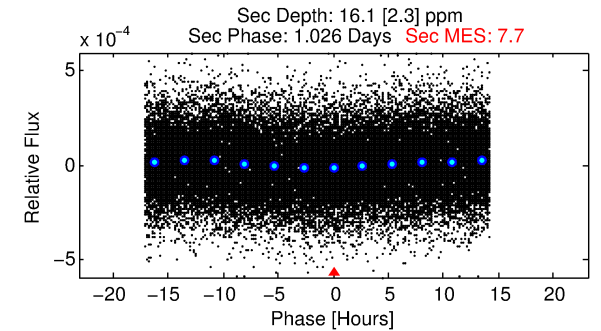
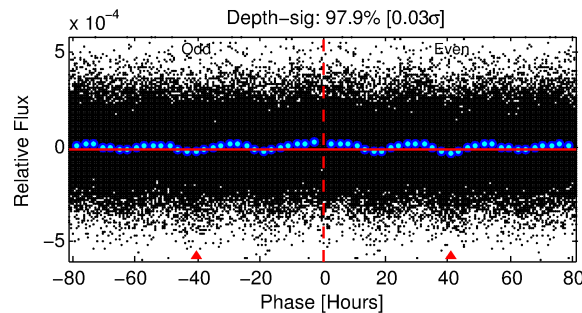
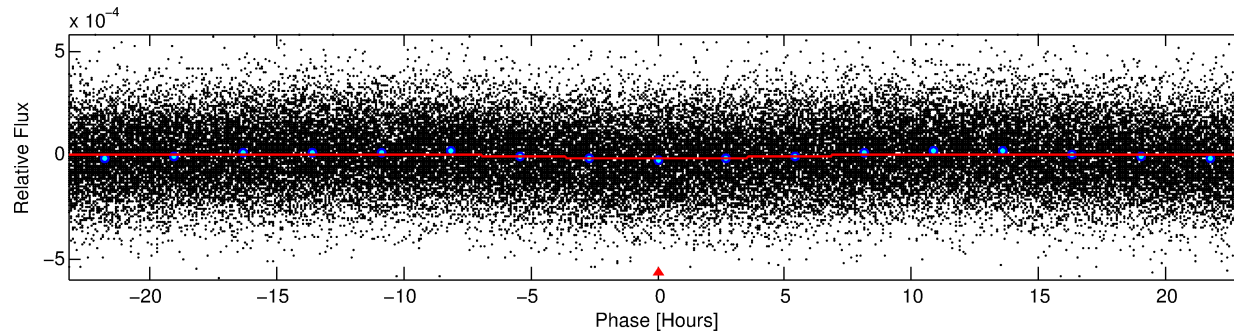
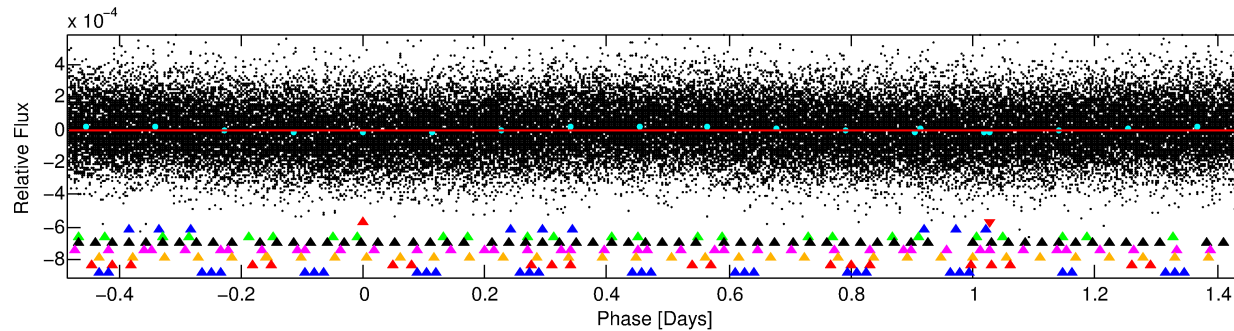
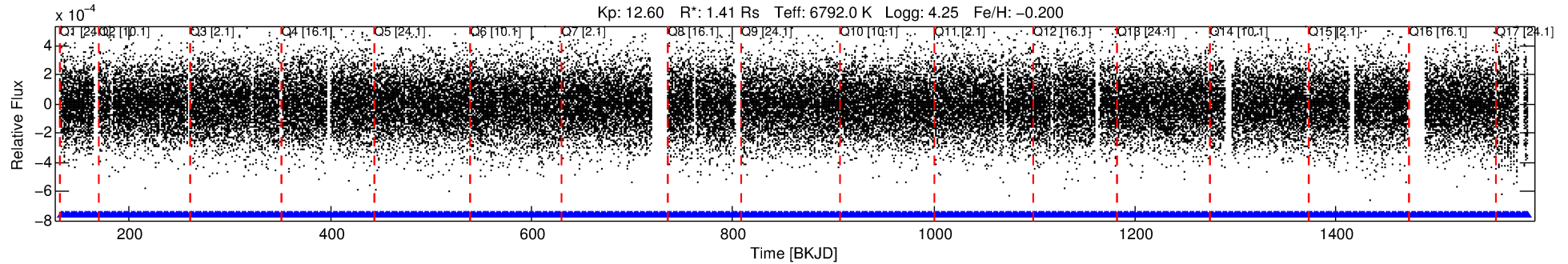
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-01

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 1 of 8 Period: 1.931 d



DV Fit Results:

Period = 1.93145 [0.00006] d
Epoch = 132.7491 [0.0146] BKJD
Rp/R* = 0.0031 [0.0030]
a/R* = 1.16 [1.66]
b = 0.64 [5.06]
Seff = 3499.93 [1354.70]
Teq = 1961 [190] K
Rp = 0.48 [0.48] Re
a = 0.0329 [0.0081] AU
Ag = 40.82 [78.61] [0.51 σ]
Teffp = 7665 [3643] K [1.56 σ]

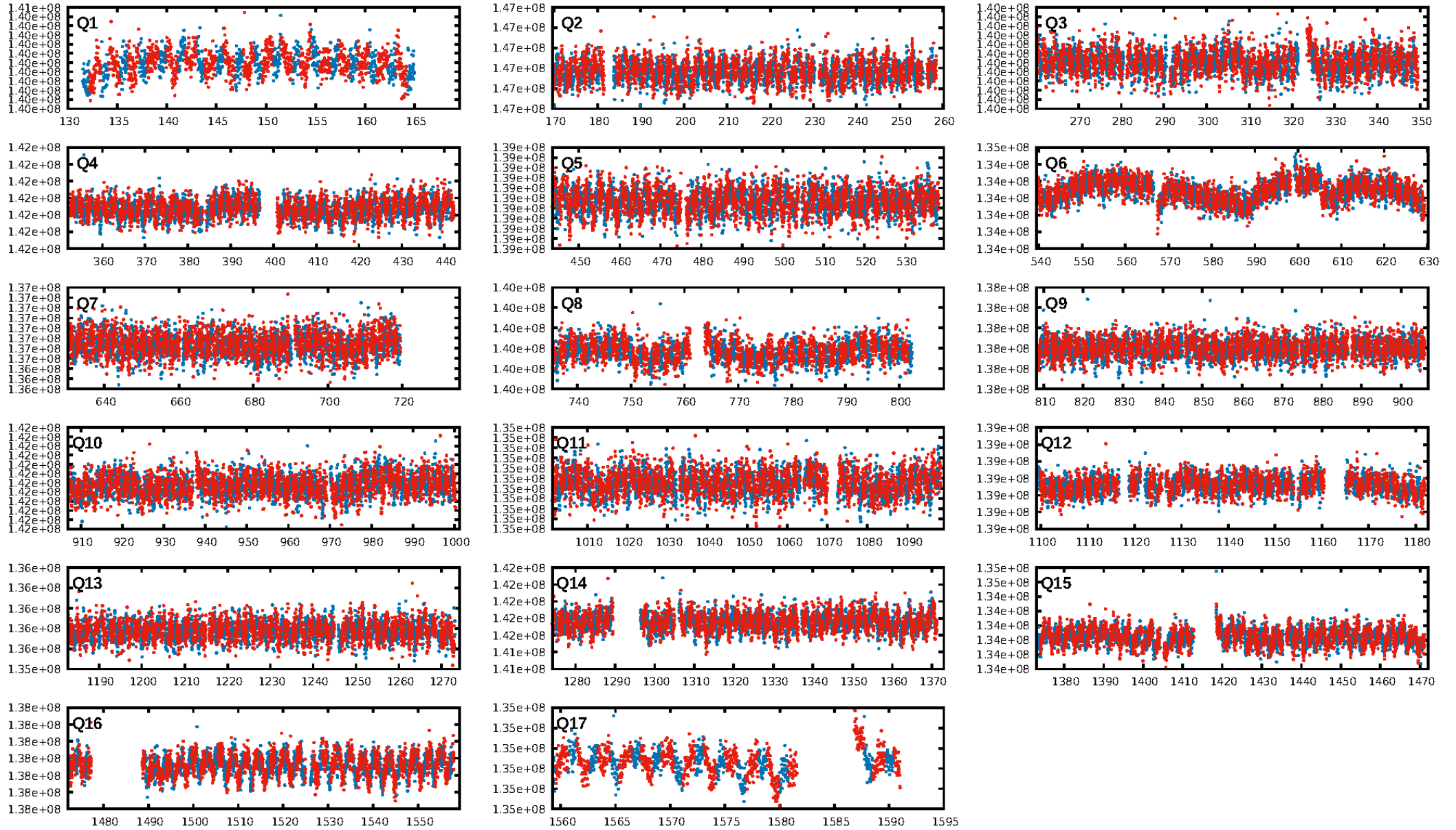
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [36.37 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.60e-06
RollingBand-fgt: 1.00 [675/675]
GhostDiagnostic-chr: 2.839
Centroid-sig: 3.4%
Centroid-so: 2.953 arcsec [1.90 σ]
OotOffset-rm: 1.015 arcsec [1.61 σ]
KicOffset-rm: 1.036 arcsec [1.66 σ]
OotOffset-st: 4/4/3/5 [16]
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DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 1.00 [17/17]

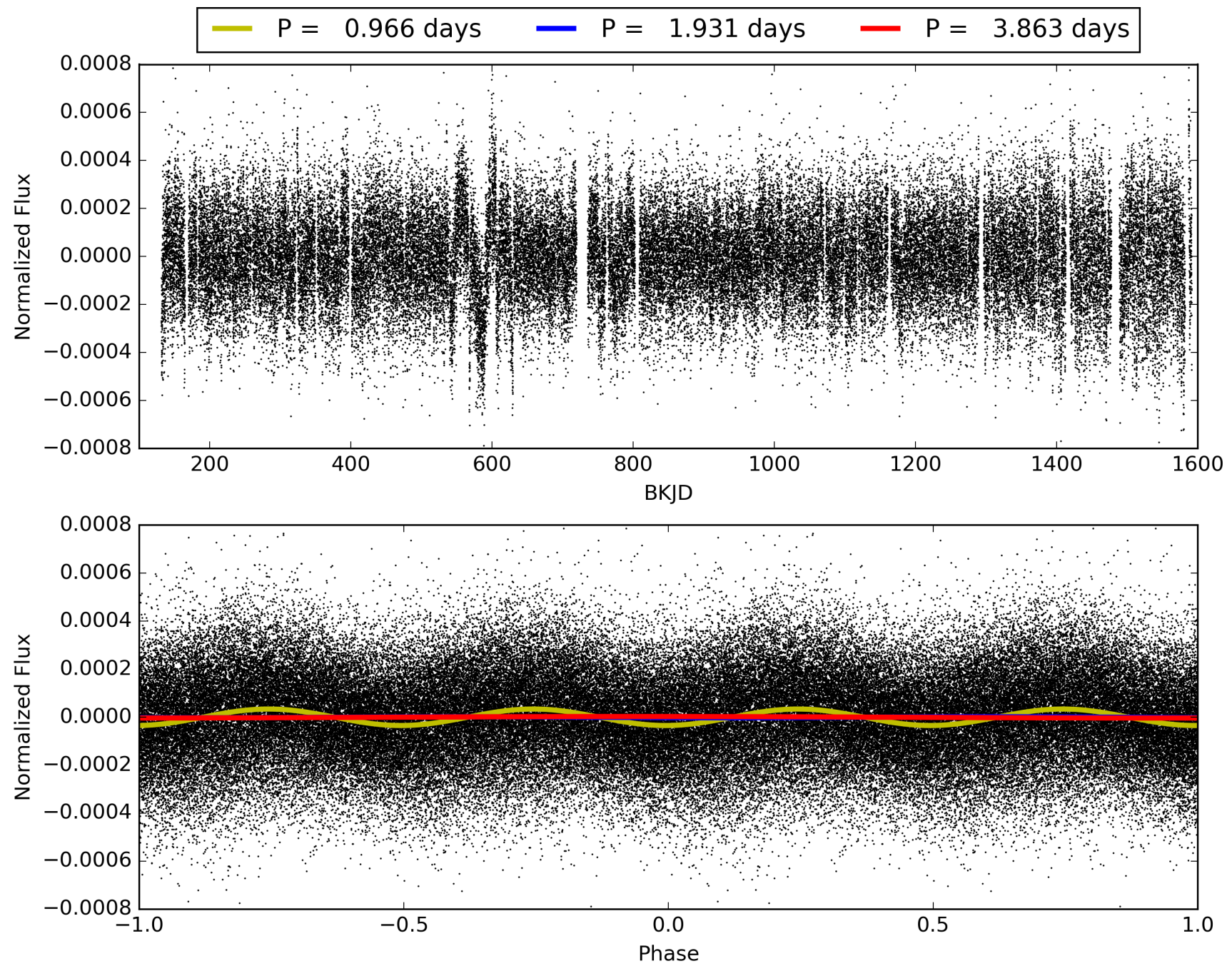
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008057693-01, PDC Light Curves

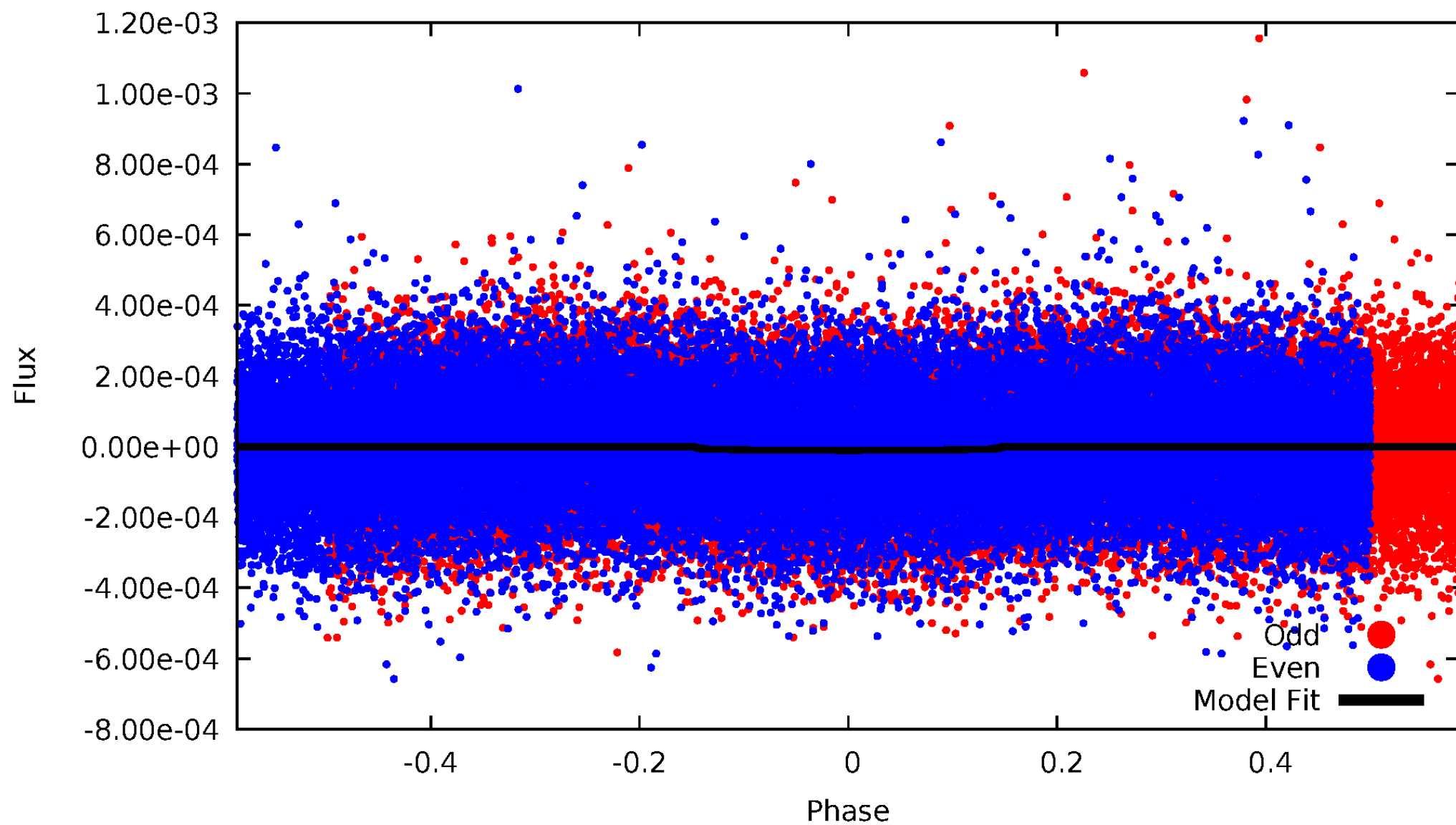


TCE 008057693-01



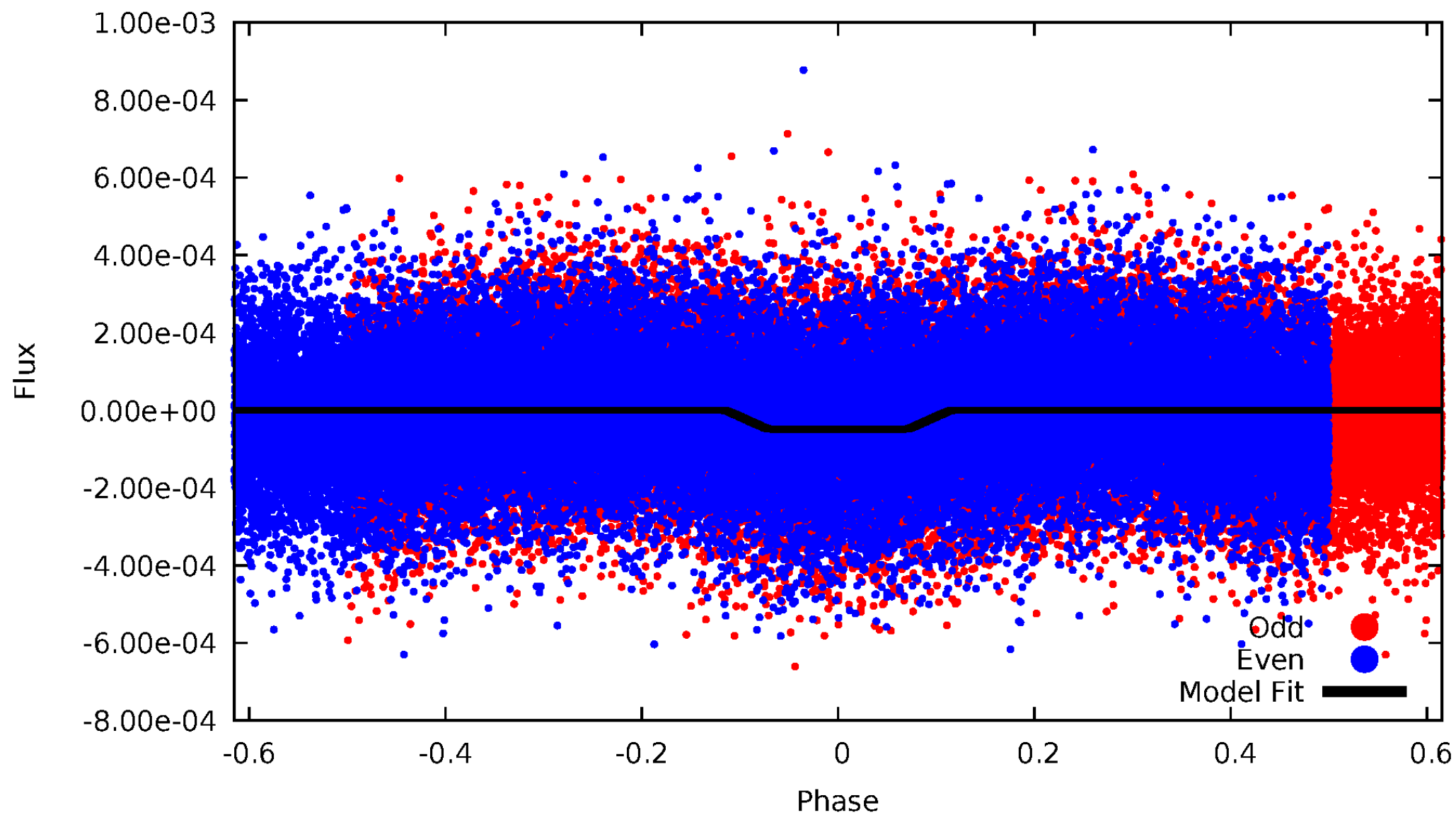
DV Odd/Even

TCE 008057693-01

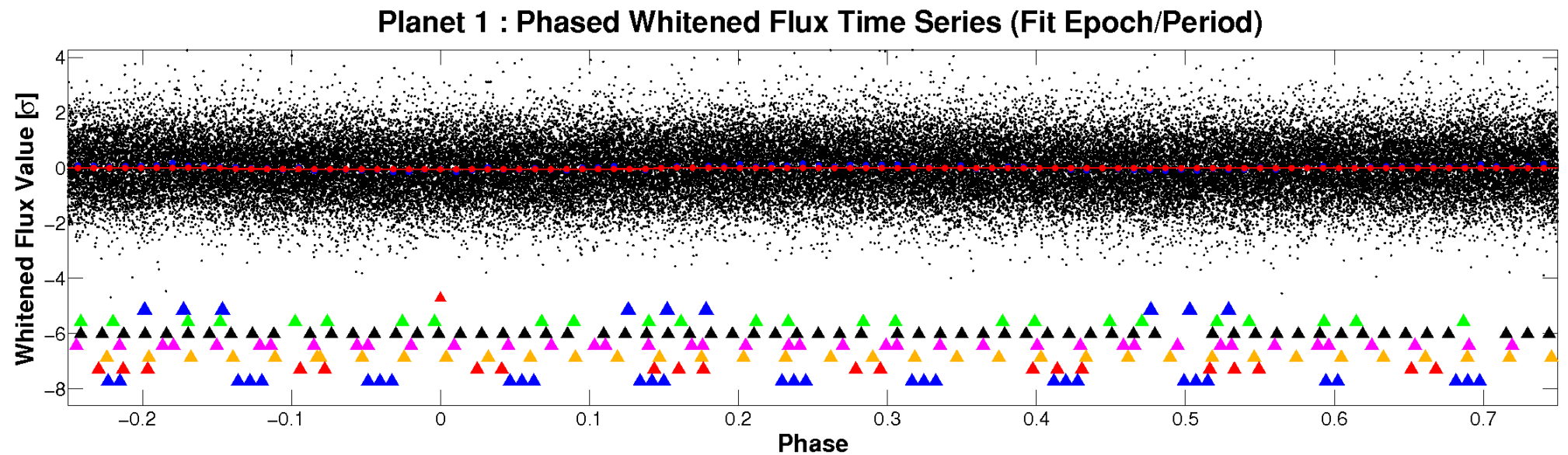
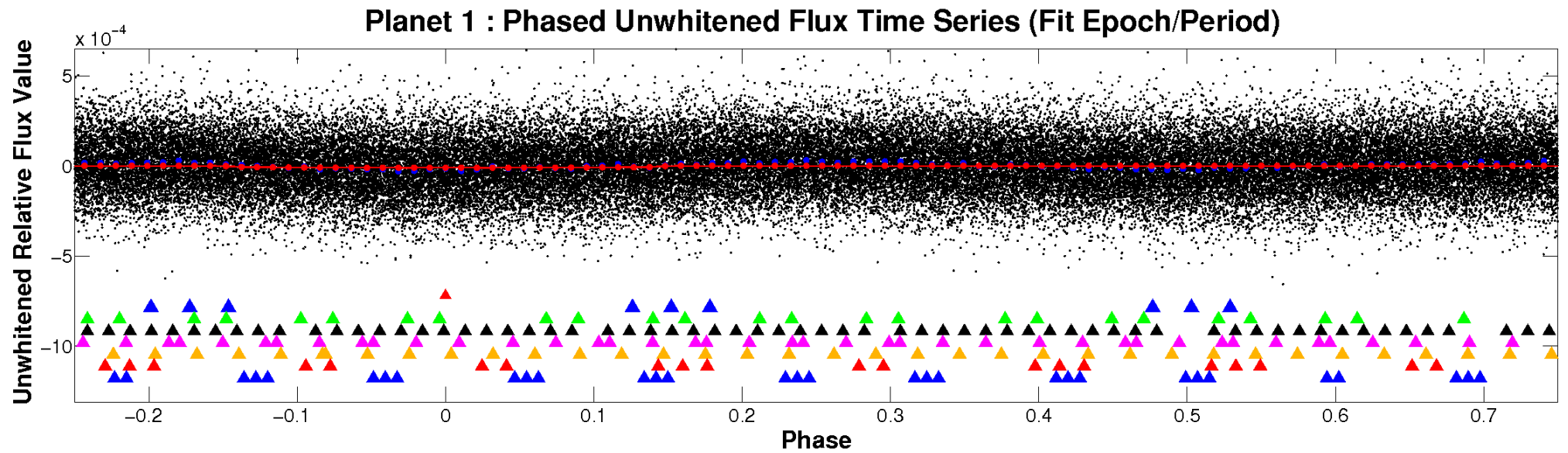


ALT Odd/Even

TCE 008057693-01

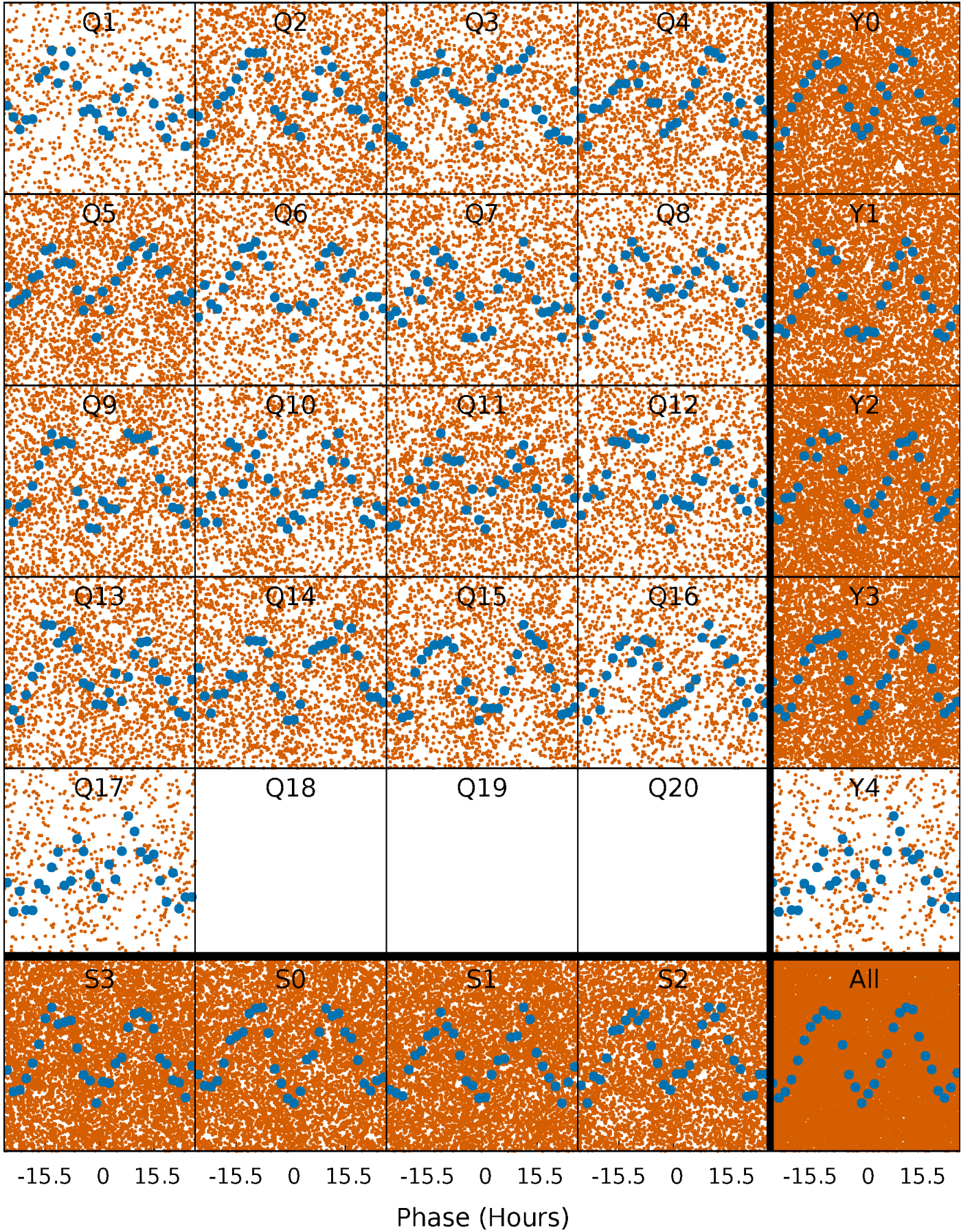


Non-Whitened Vs. Whitened Light Curve



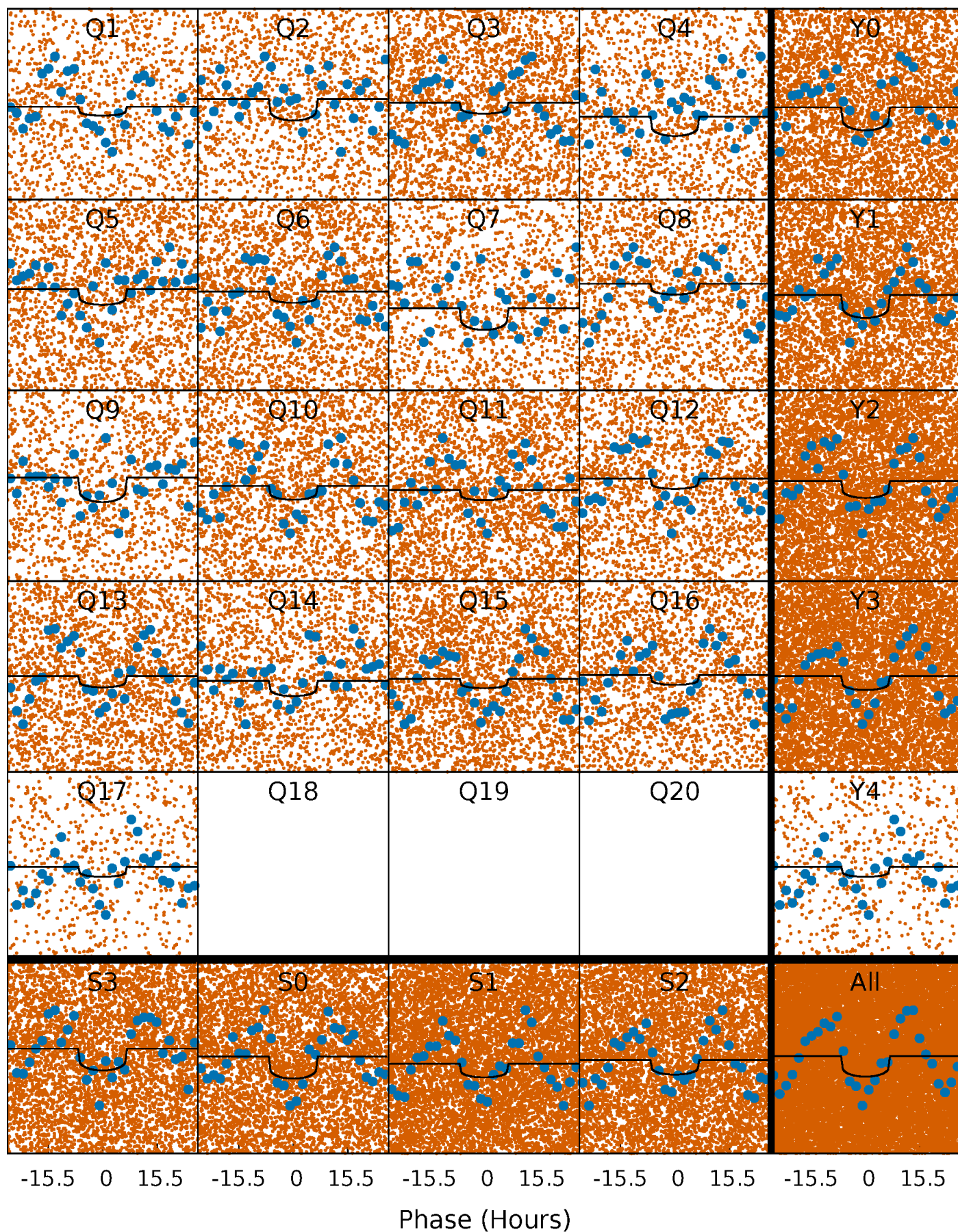
PDC Quarter-Phased Transit Curves

TCE 008057693-01 P= 1.931448 Days $T_0=132.749110$ (BKJD)



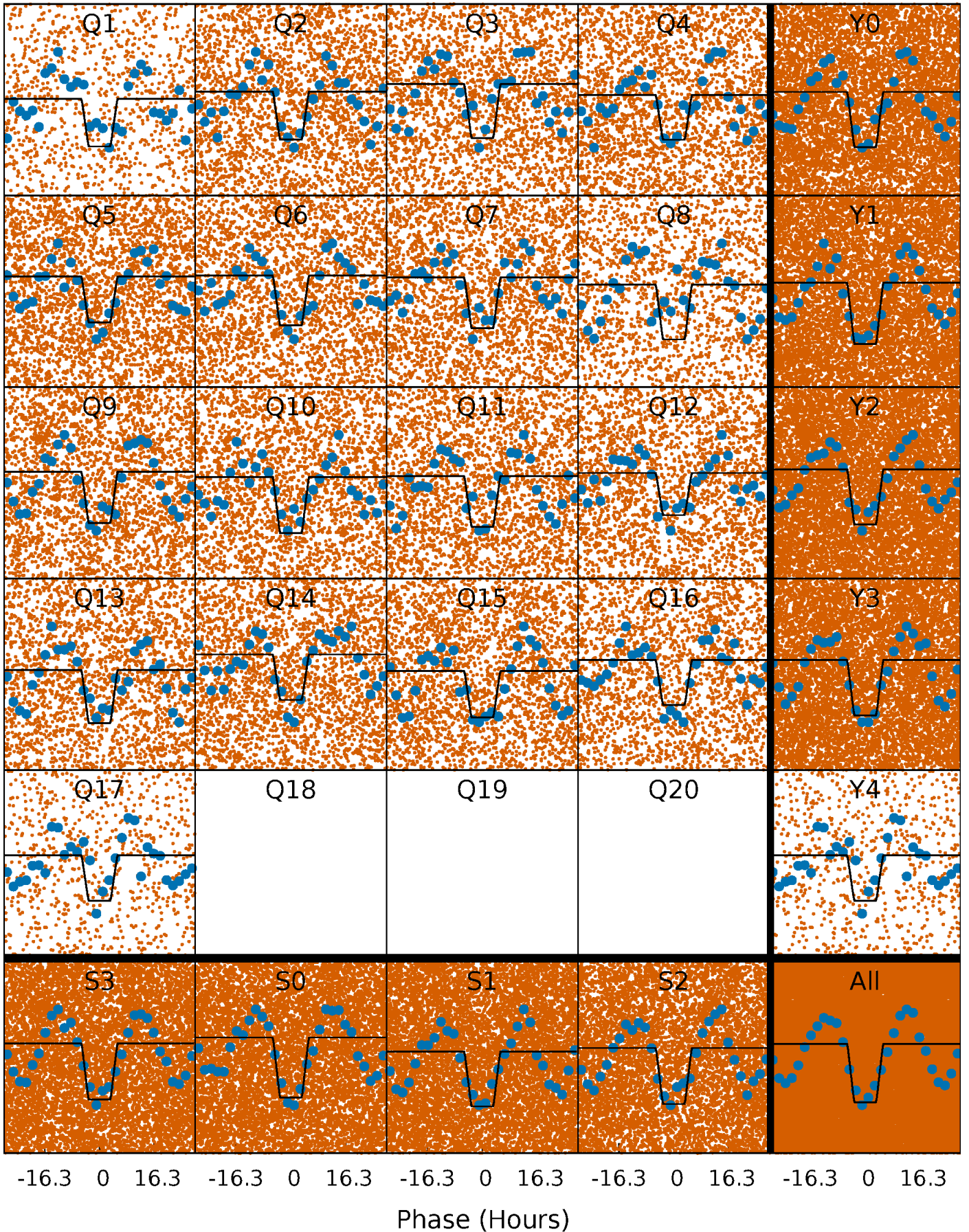
DV Quarter-Phased Transit Curves

TCE 008057693-01 P= 1.931448 Days $T_0=132.749110$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

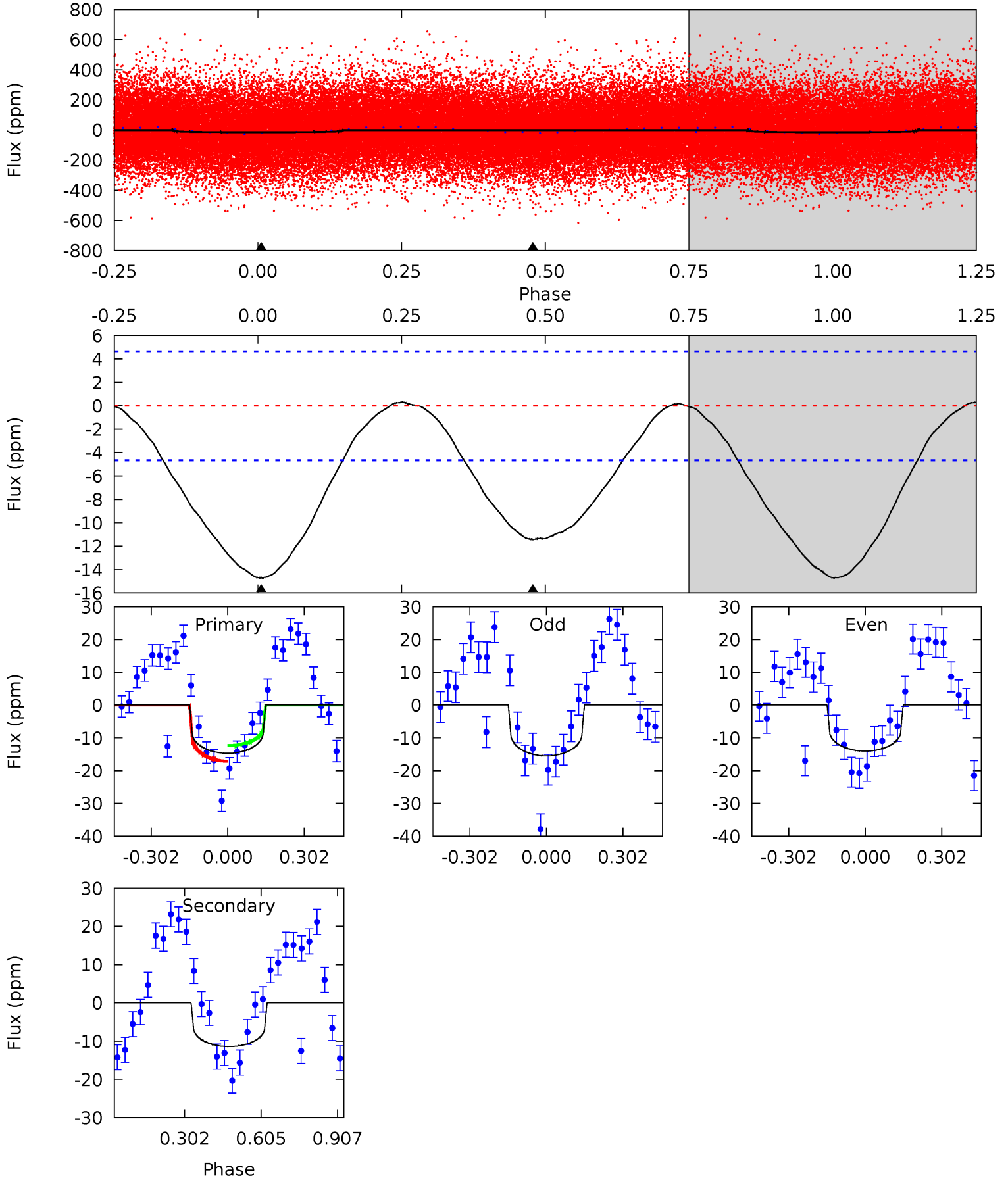
TCE 008057693-01 P= 1.931540 Days $T_0=132.700480$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-01, P = 1.931448 Days, E = 130.817662 Days

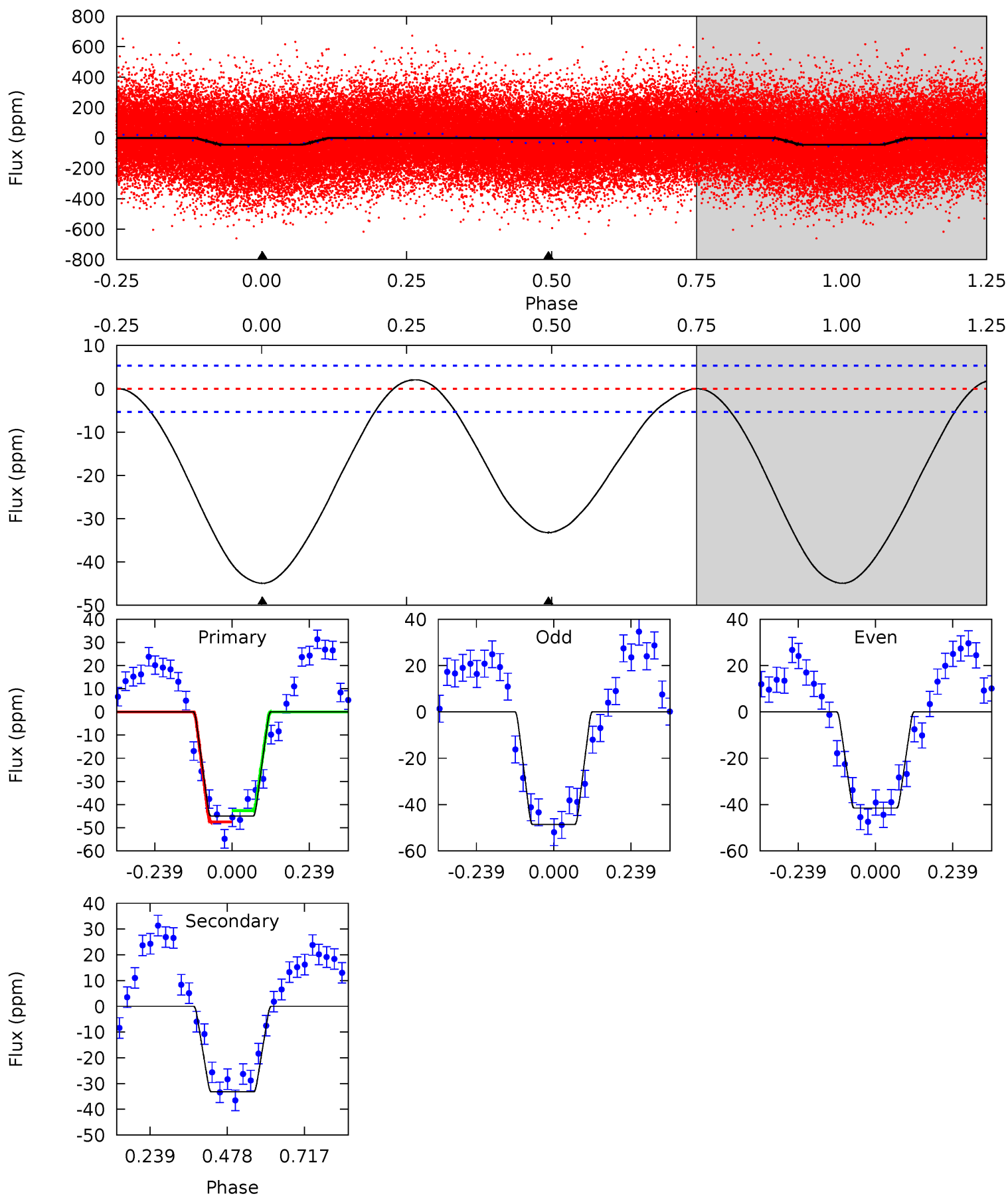
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	10.6	0	0	4.33	1.03	0.34	13.7	13.7	10.6	10.6	0.69	1.32	0.02	2.23



Alt Model-Shift Uniqueness Test

008057693-01, P = 1.931540 Days, E = 130.768940 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.9	27.3	0	0	4.38	1.18	0.85	36.9	36.9	27.3	27.3	2.88	1.01	0.04	1.90



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 1	$0.56^{+0.47}_{-0.35}$	2737^{+219}_{-177}	6519^{+6071}_{-1641}	22^{+134}_{-16}
Alt.	-33 ± 1	$1.09^{+0.51}_{-0.46}$	2740^{+228}_{-161}	6080^{+2032}_{-981}	16^{+32}_{-9}

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 $A_{obs} \gg 1.0$

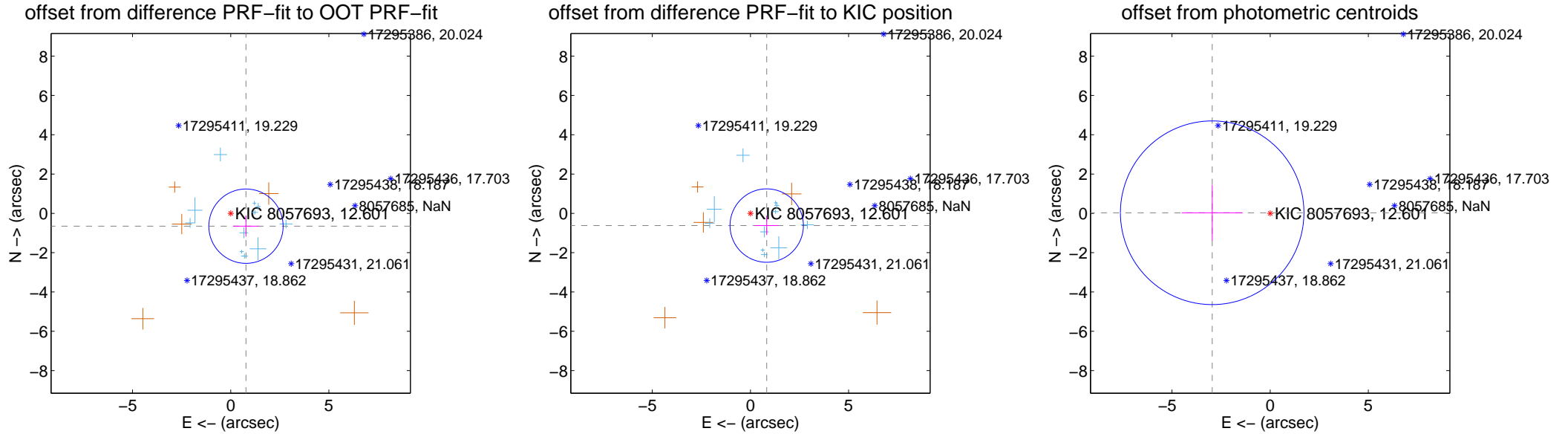
DV Centroid Data

Supplemental centroid analysis for 008057693-01. Kepler magnitude: 12.60. Transit SNR 6.65

There are 11 quarters with good PRF difference image offsets

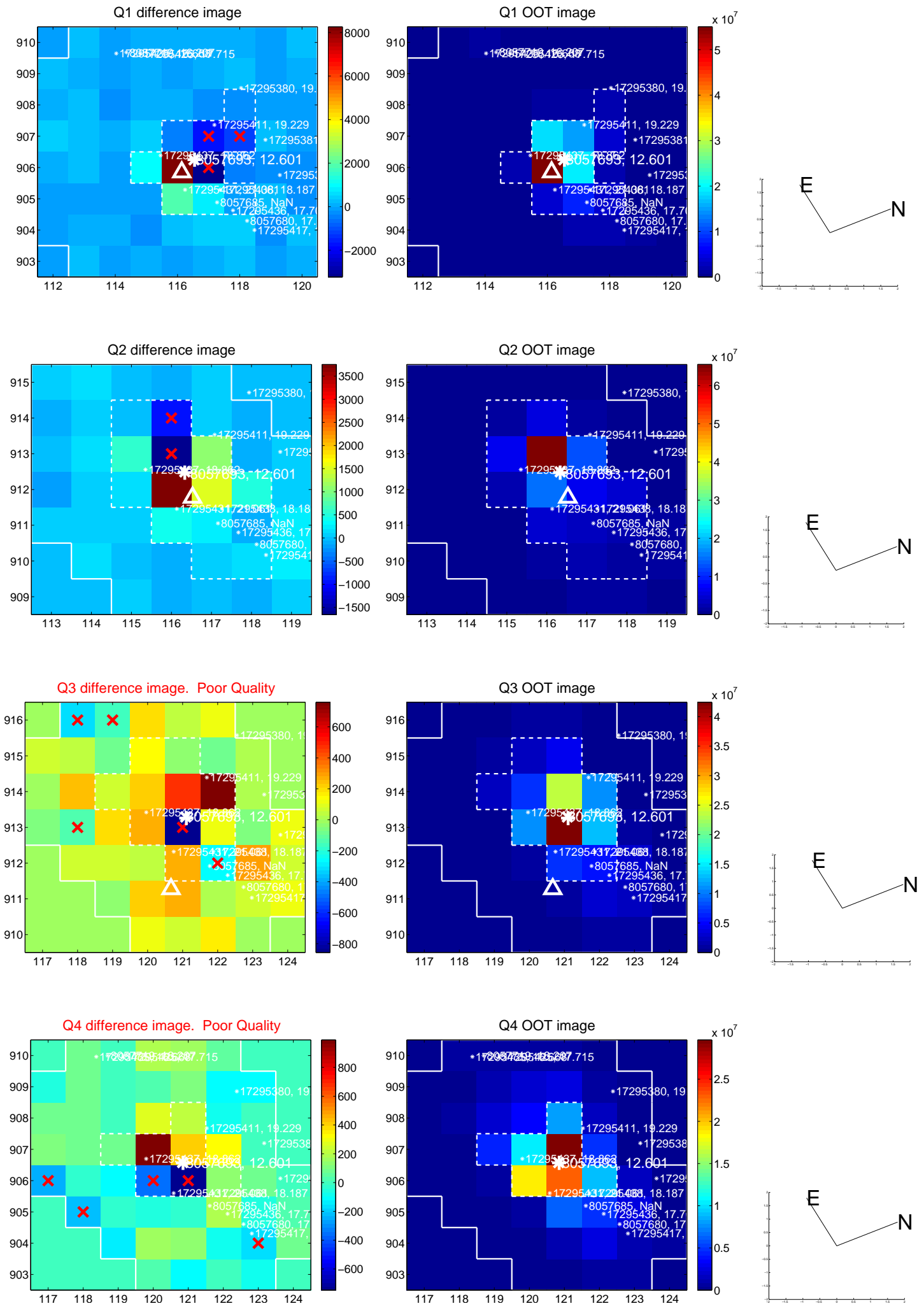
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.015 ± 0.630	1.61	-0.778 ± 0.648	-0.652 ± 0.532
PRF-fit source offset from KIC position	1.036 ± 0.623	1.66	-0.829 ± 0.606	-0.621 ± 0.482
photometric centroid source offset	2.95 ± 1.56	1.90	2.95 ± 1.56	0.03 ± 1.41

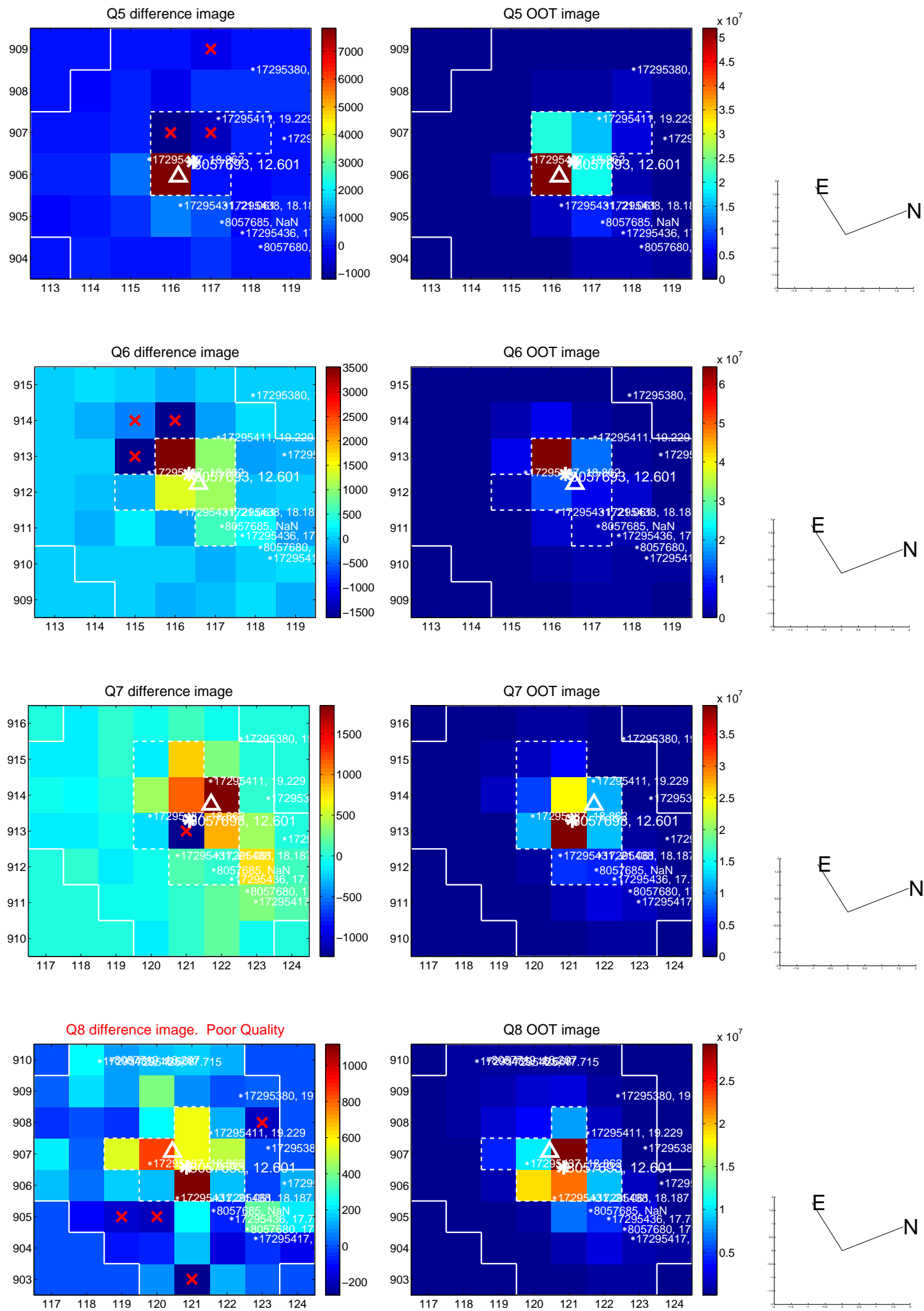


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

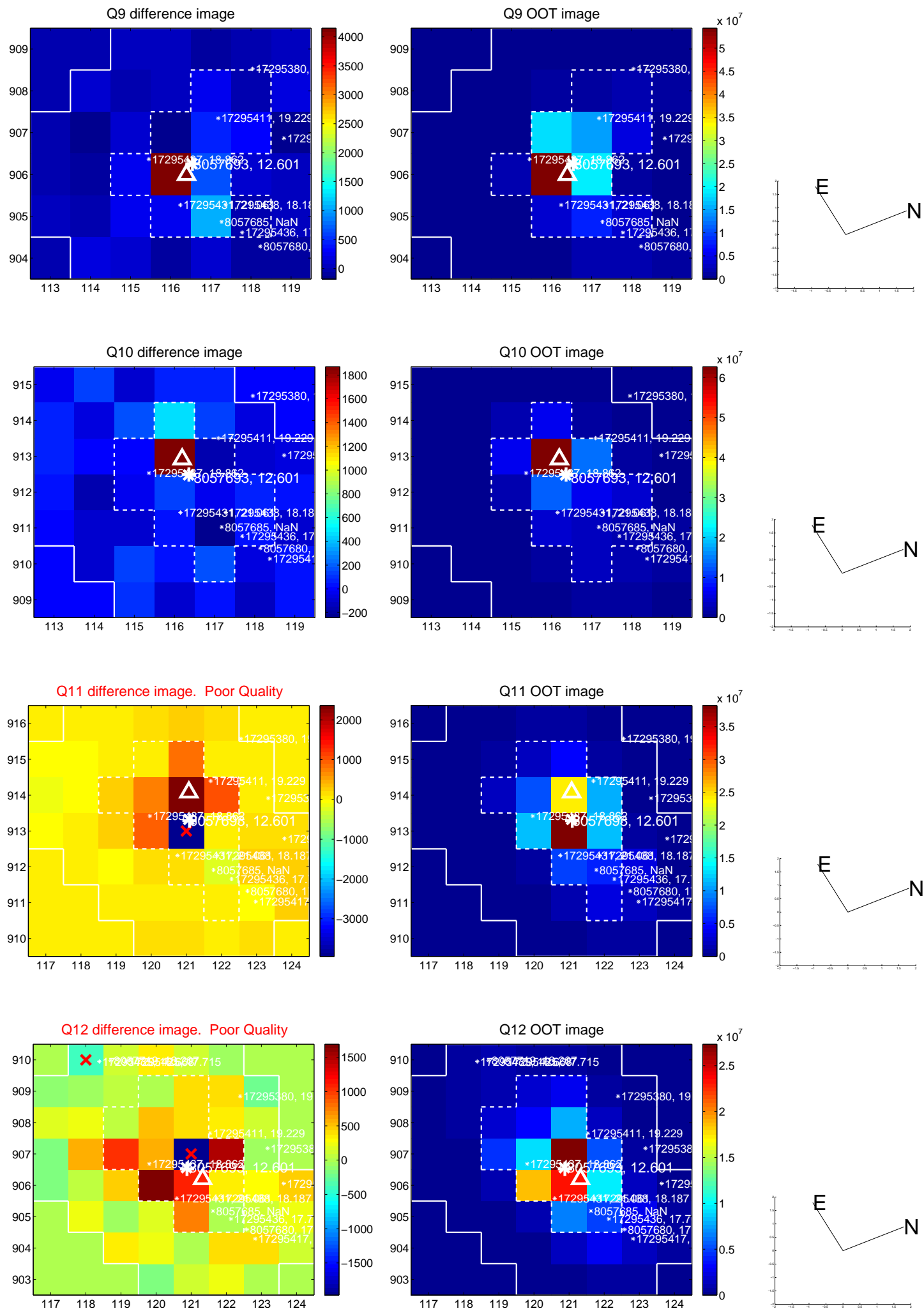
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



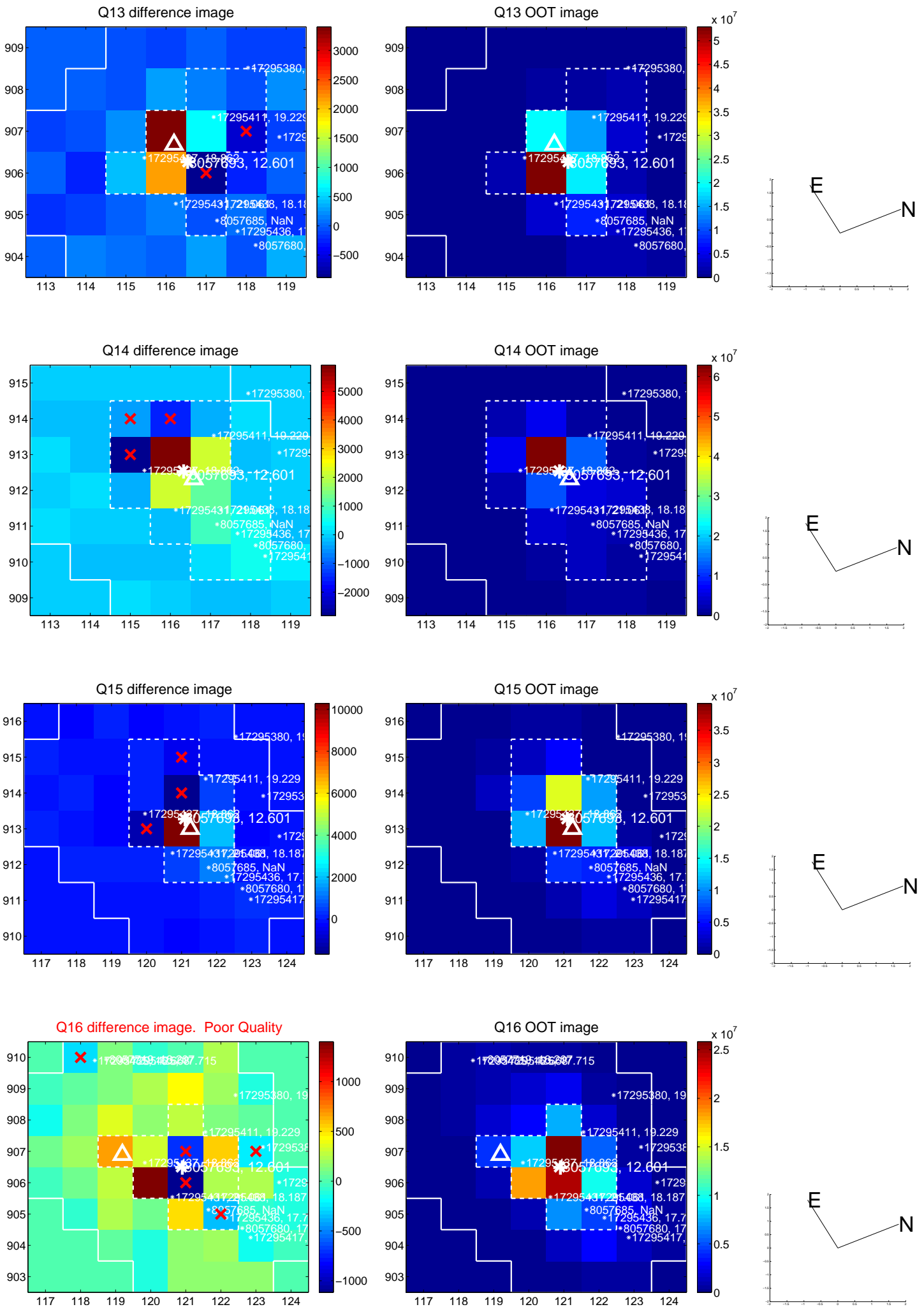
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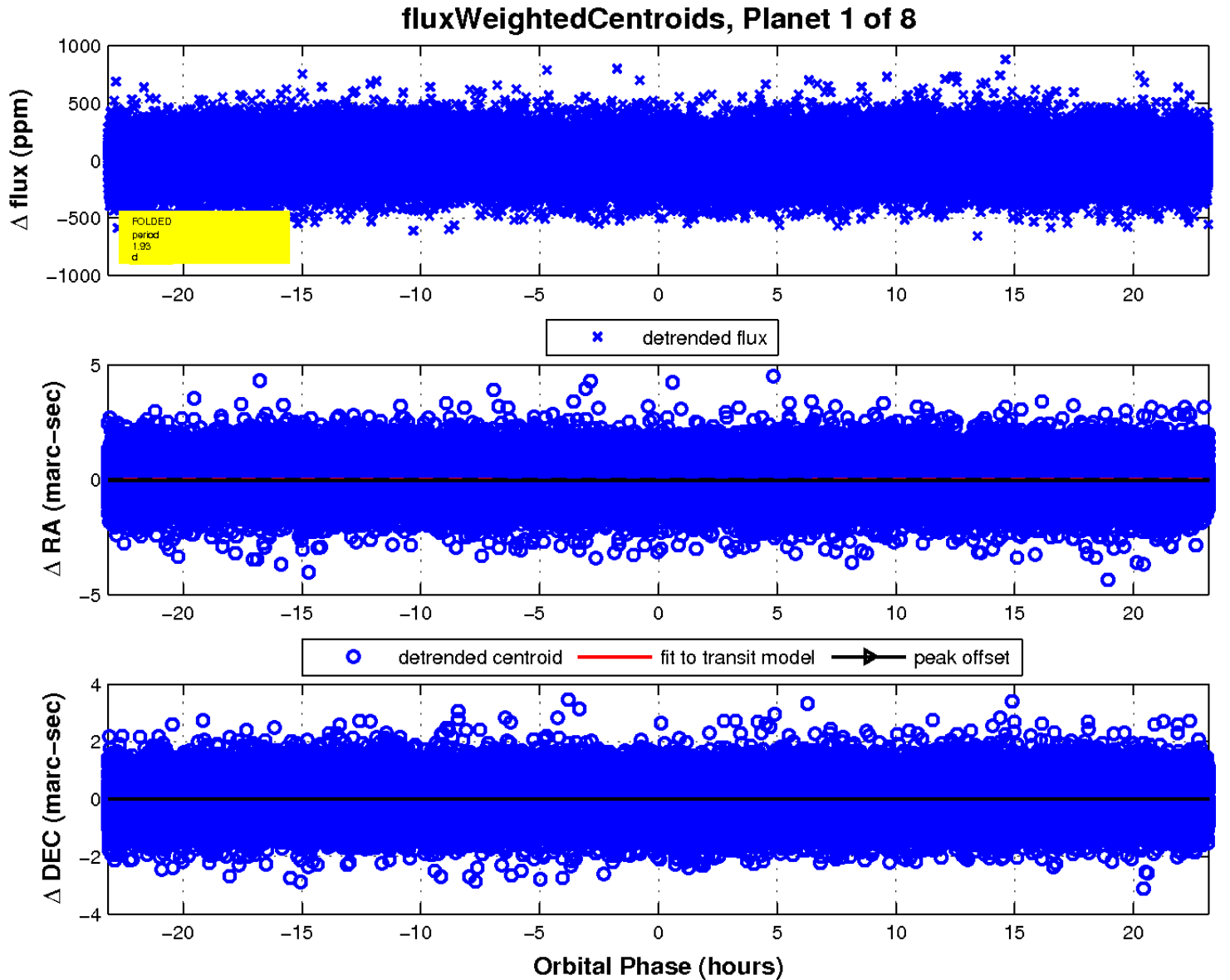
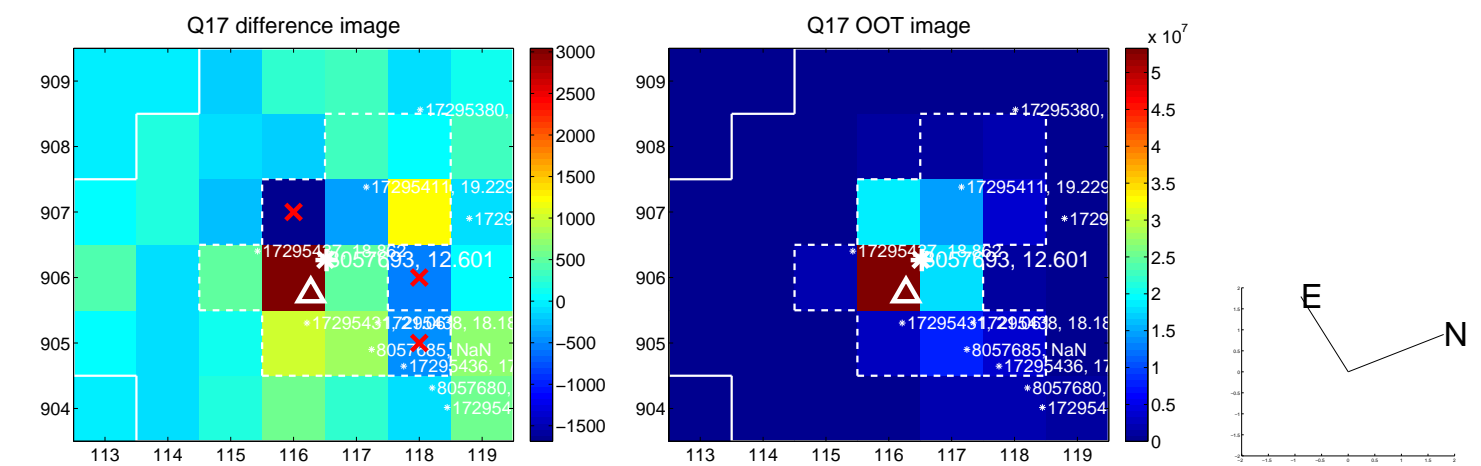
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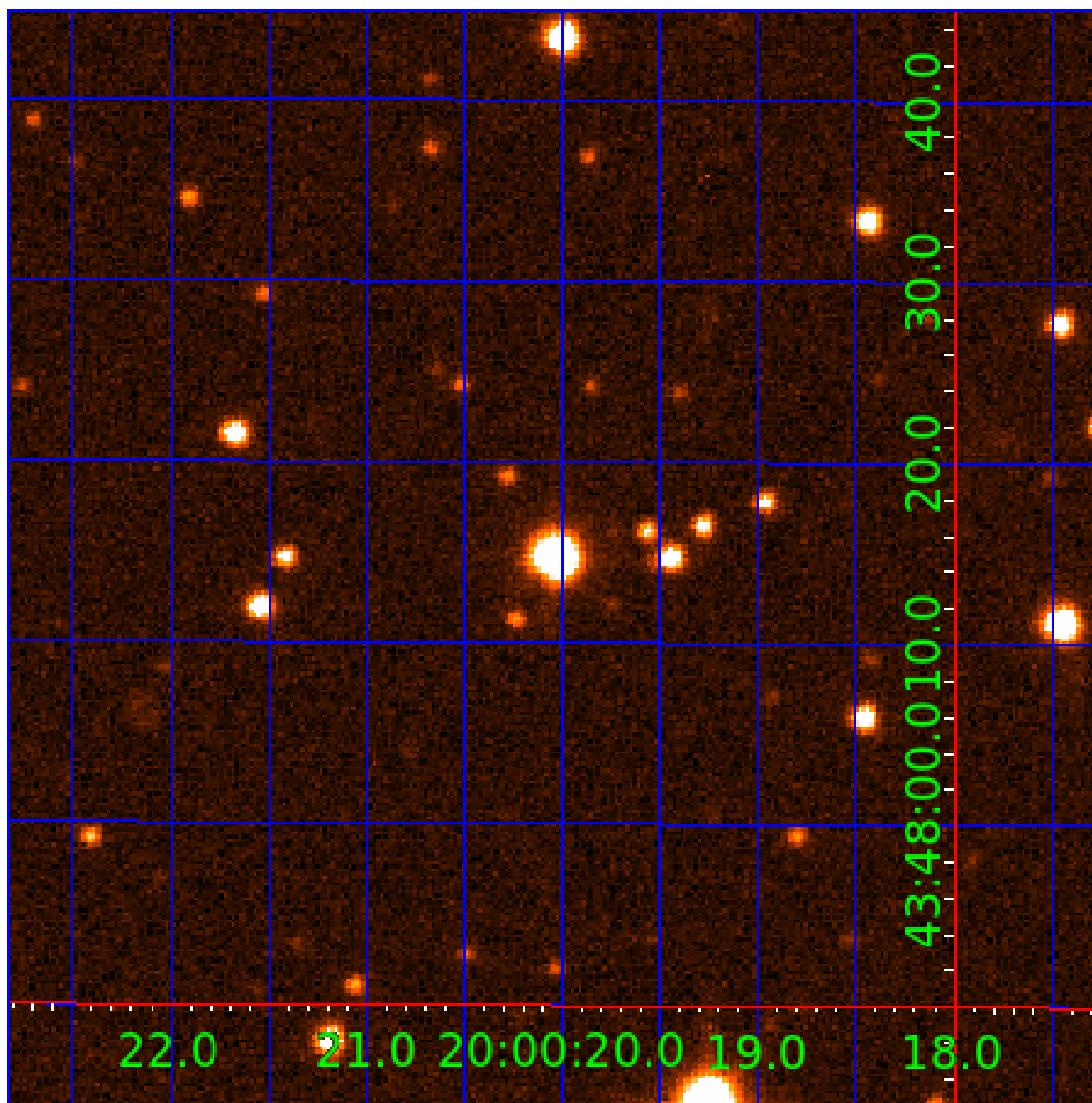


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

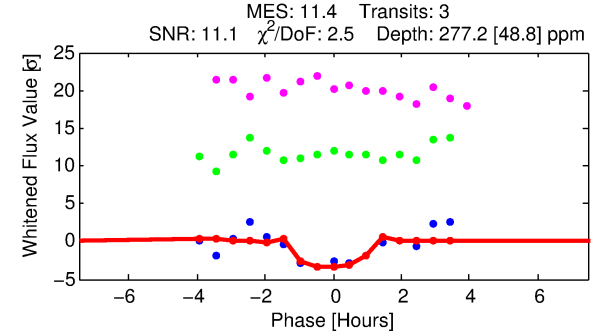
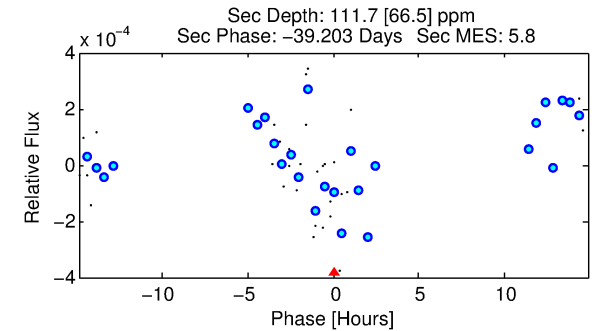
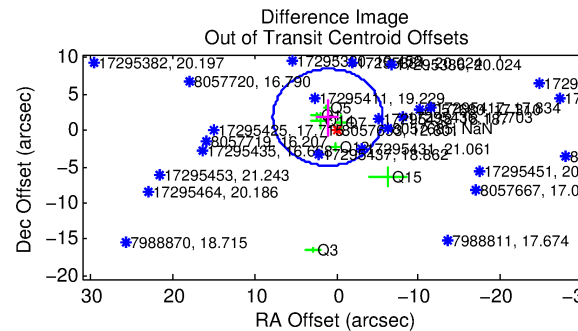
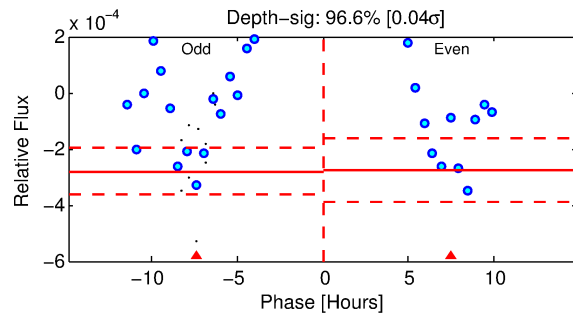
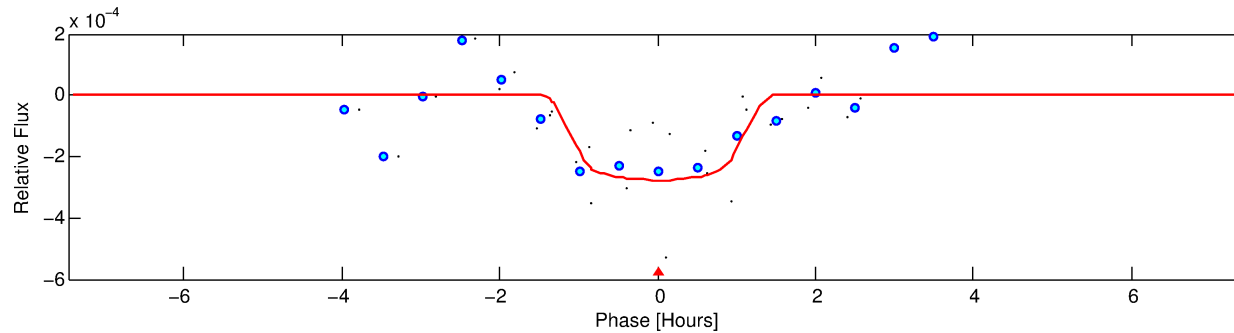
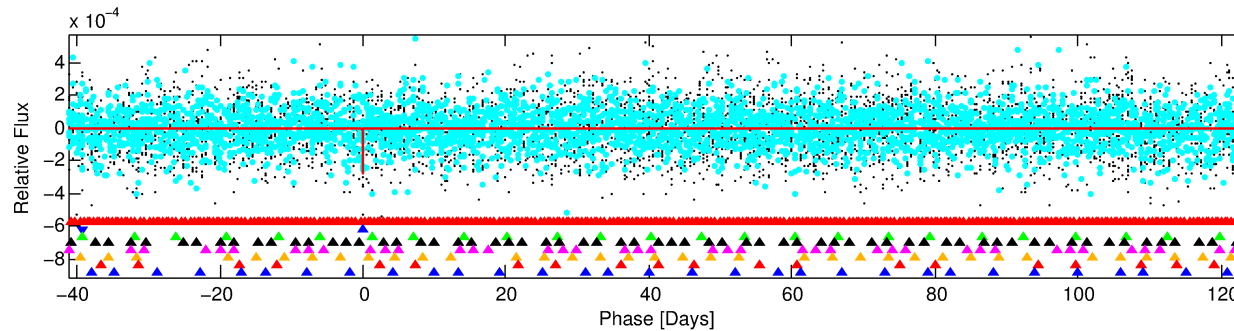
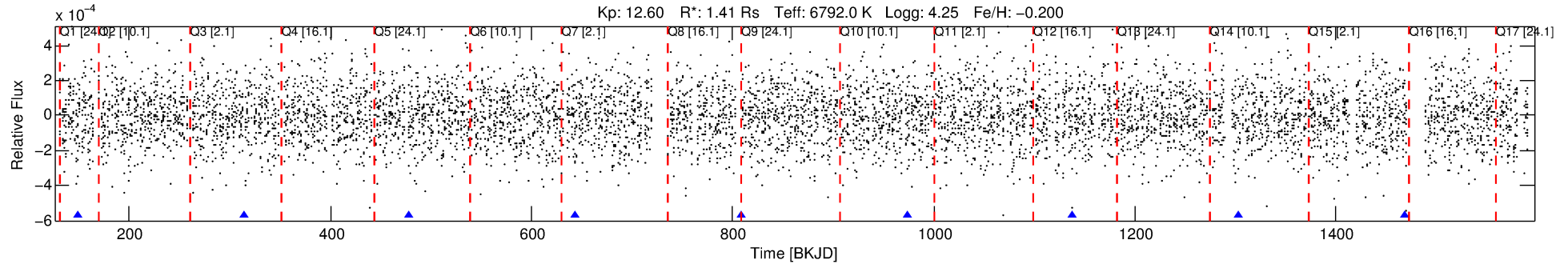
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-02

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 2 of 8 Period: 164.800 d



DV Fit Results:

Period = 164.80006 [0.00216] d
Epoch = 149.2225 [0.0083] BKJD
Rp/R* = 0.0178 [0.0084]
a/R* = 240.38 [651.32]
b = 0.90 [0.57]
Seff = 9.32 [3.61]
Teq = 446 [43] K
Rp = 2.74 [1.53] Re
a = 0.6383 [0.1573] AU
Ag = 3340.41 [3900.34] [0.86 σ]
Teffp = 5236 [1475] K [3.25 σ]

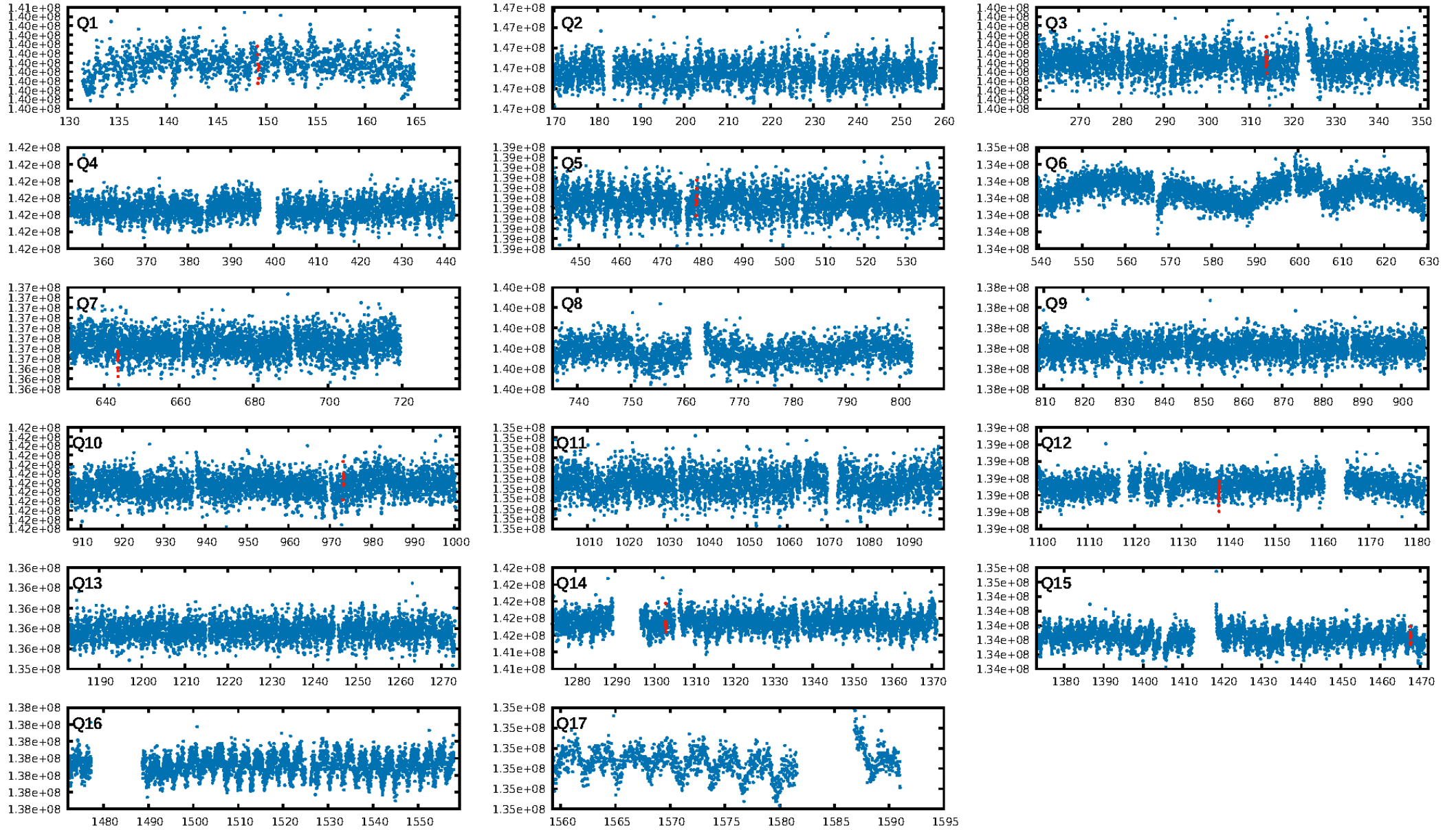
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [248.85 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 23.2%
ModelChiSquareGof-sig: 3.7%
Bootstrap-pfa: 3.49e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 21.56
Centroid-sig: 0.7%
Centroid-so: 2.045 arcsec [1.78 σ]
OotOffset-rm: 2.106 arcsec [0.95 σ]
KicOffset-rm: 2.112 arcsec [0.88 σ]
OotOffset-st: 1/3/1/2 [7]
KicOffset-st: 1/3/1/2 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.38 [3/8]

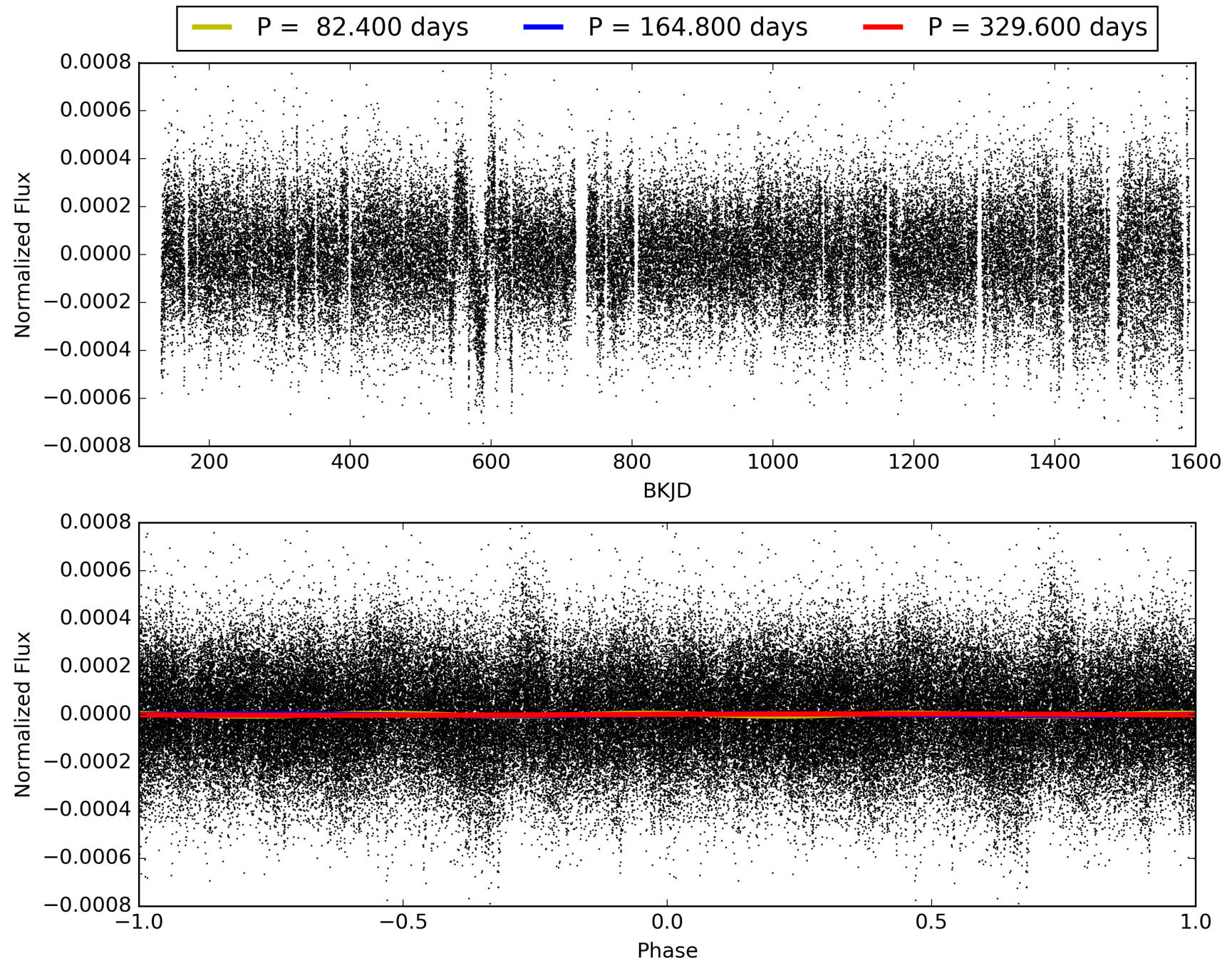
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008057693-02, PDC Light Curves

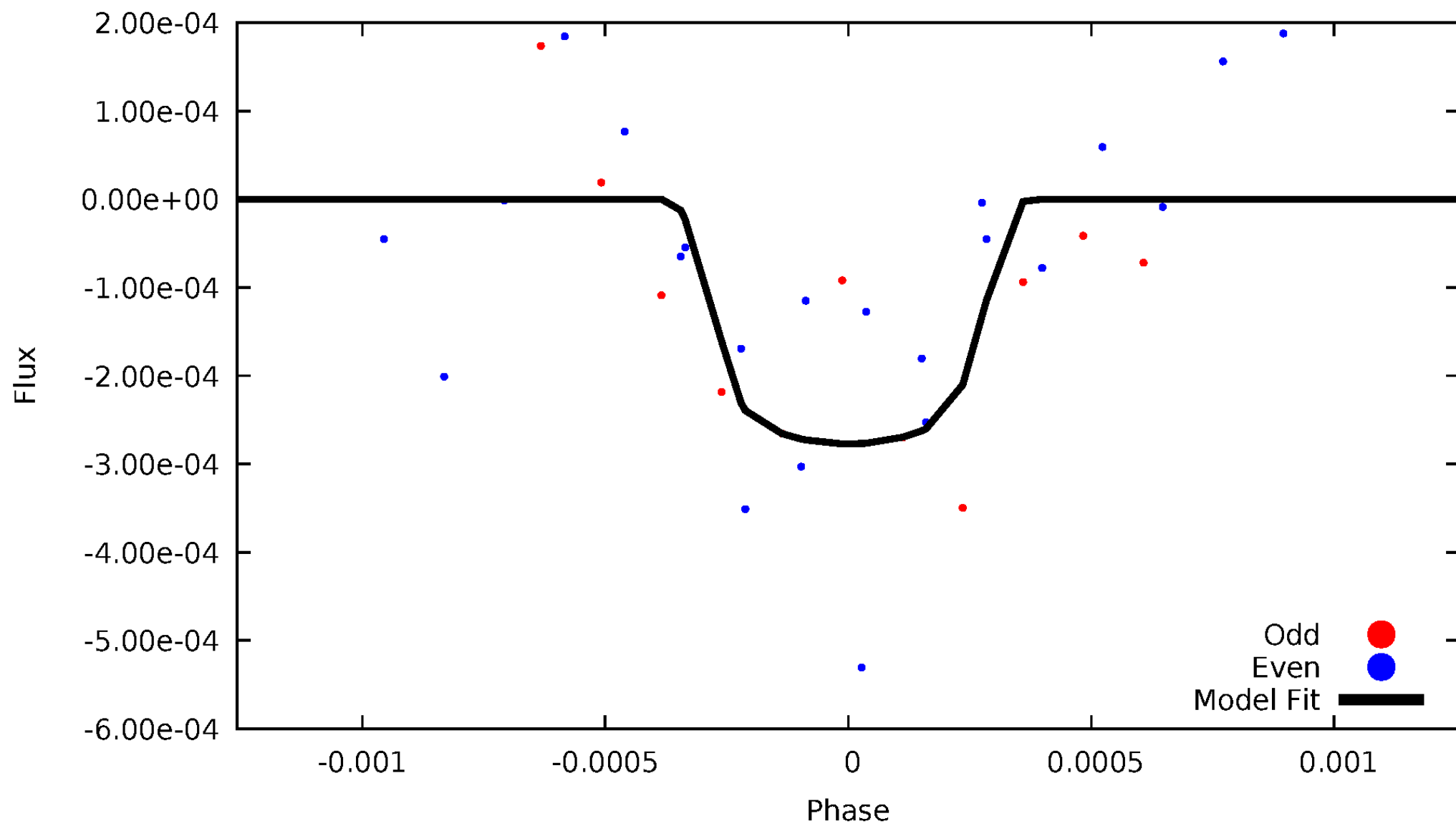


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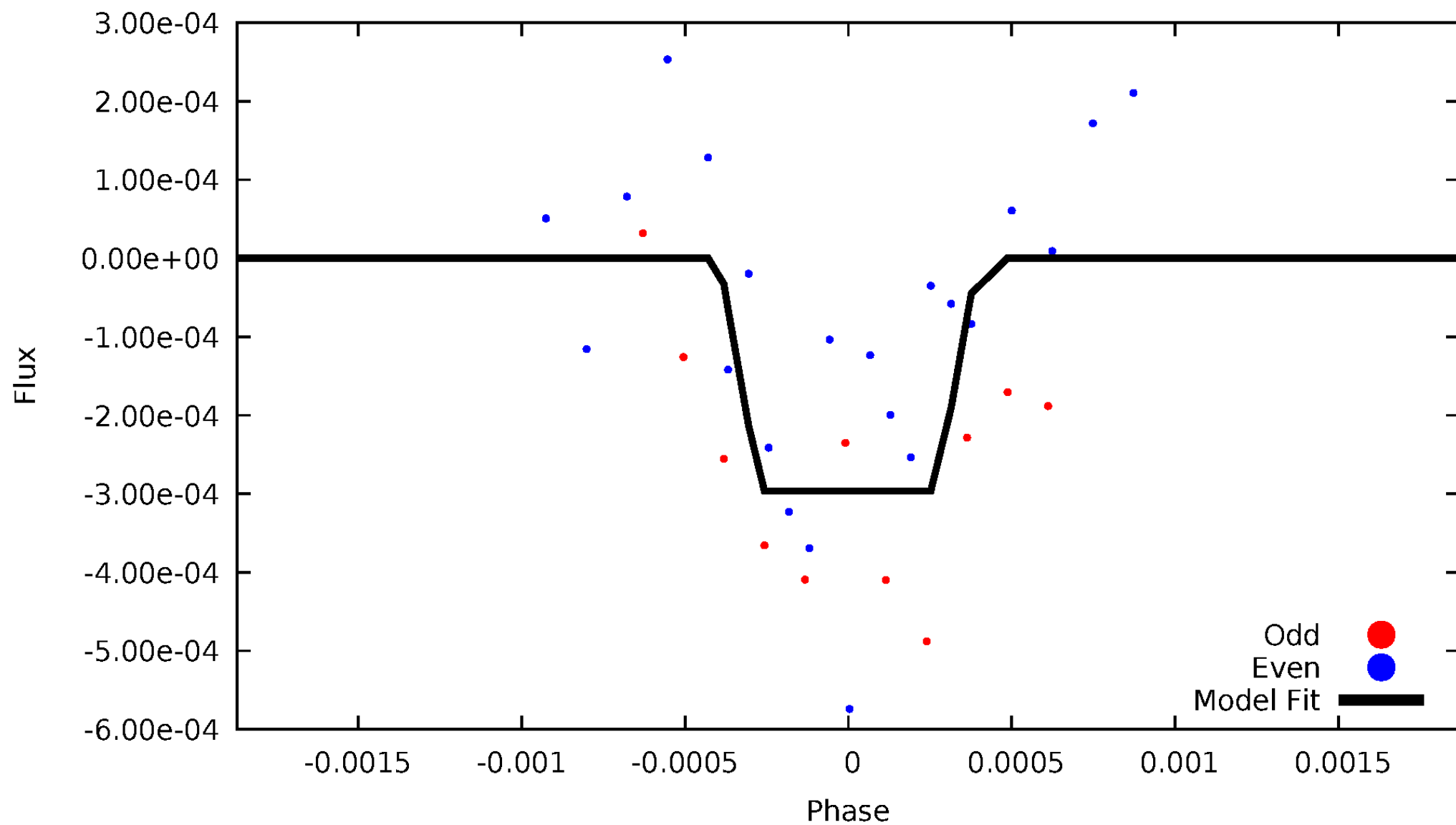
DV Odd/Even

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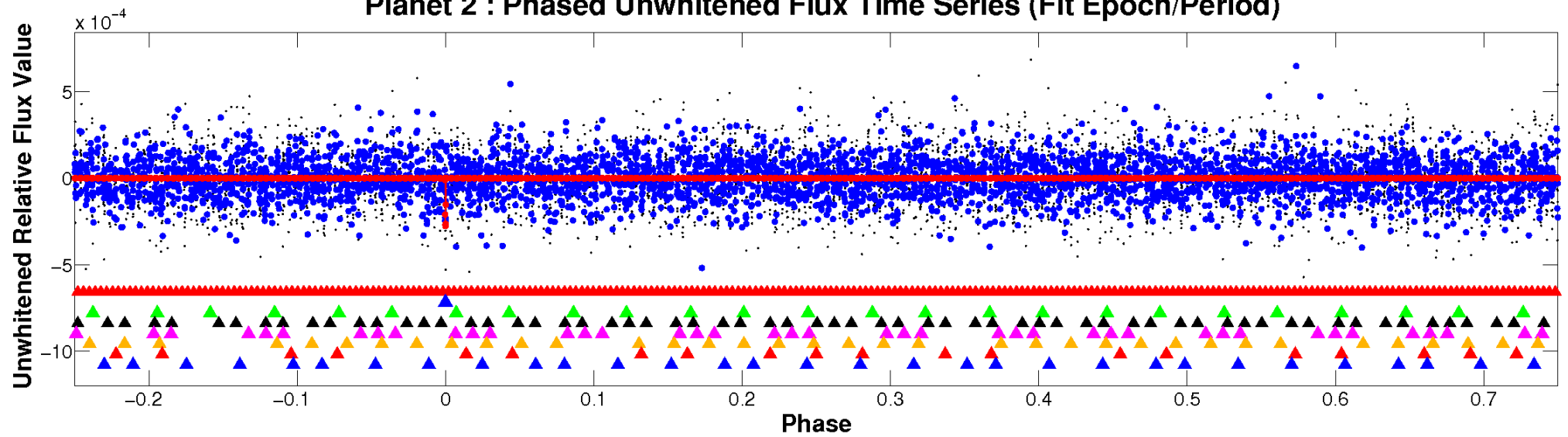
ALT Odd/Even

TCE 008057693-02

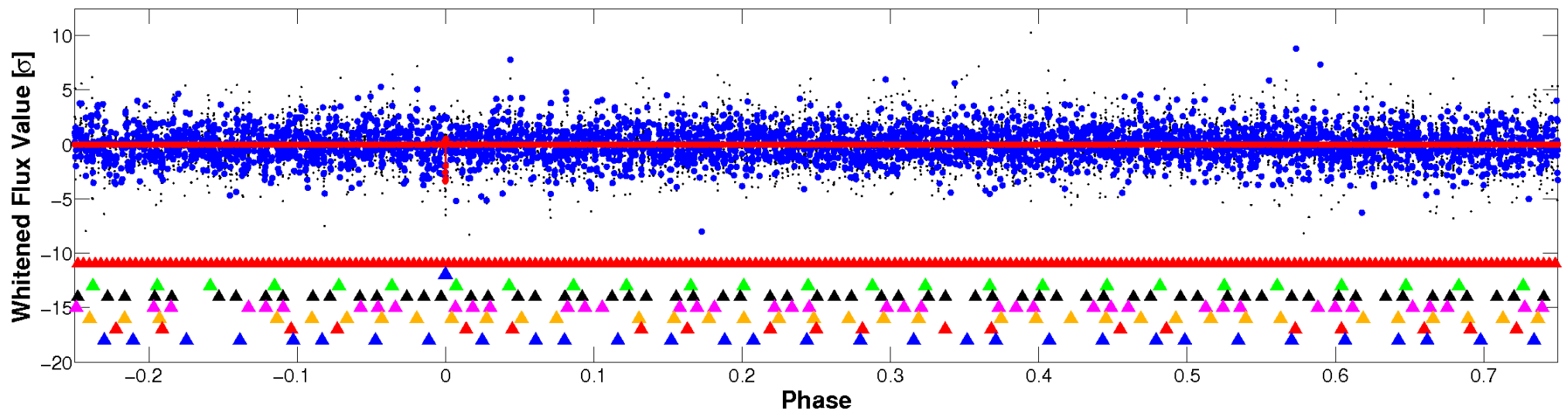


Non-Whitened Vs. Whitened Light Curve

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

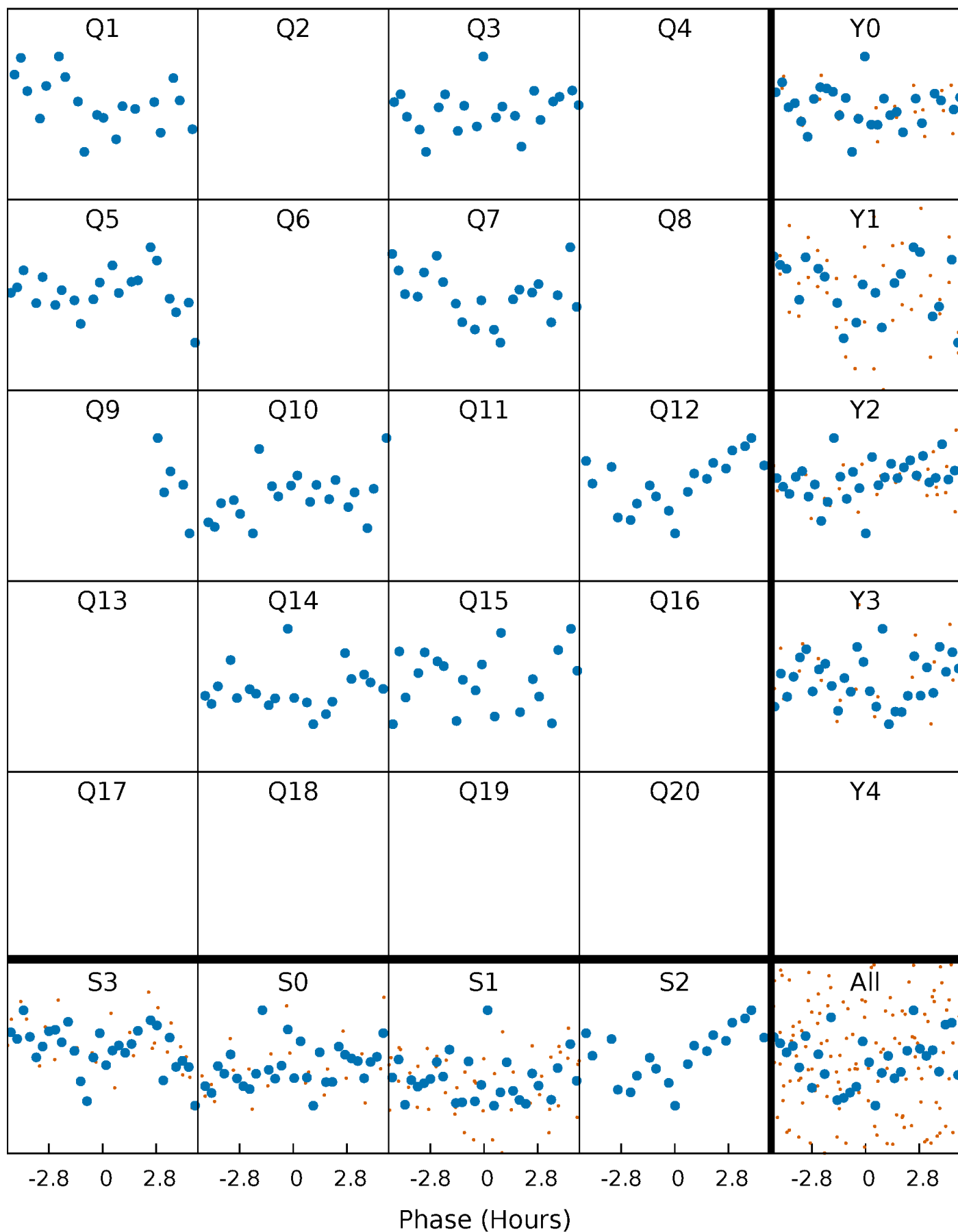


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



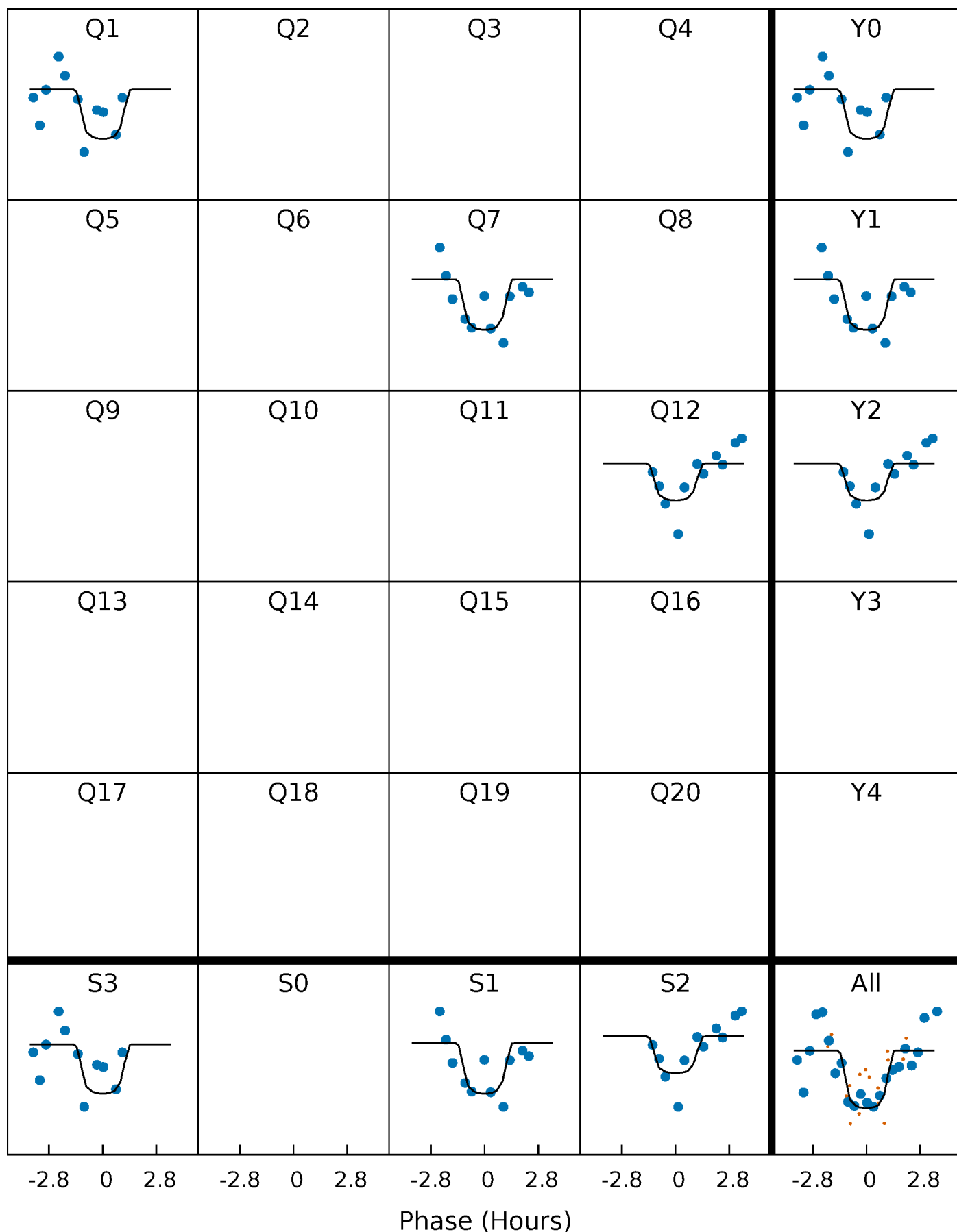
PDC Quarter-Phased Transit Curves

TCE 008057693-02 P=164.800061 Days $T_0=149.222508$ (BKJD)



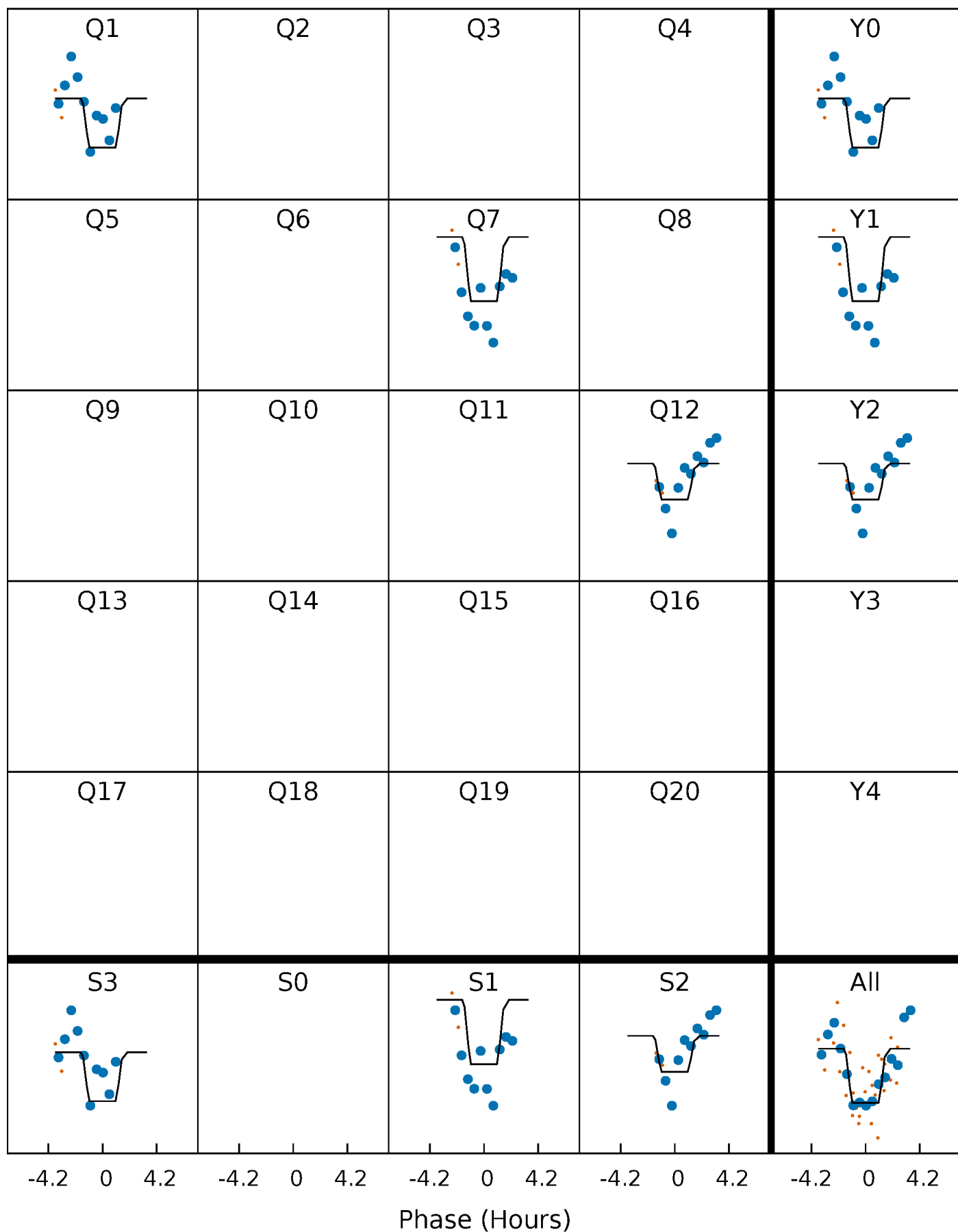
DV Quarter-Phased Transit Curves

TCE 008057693-02 P=164.800061 Days $T_0=149.222508$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

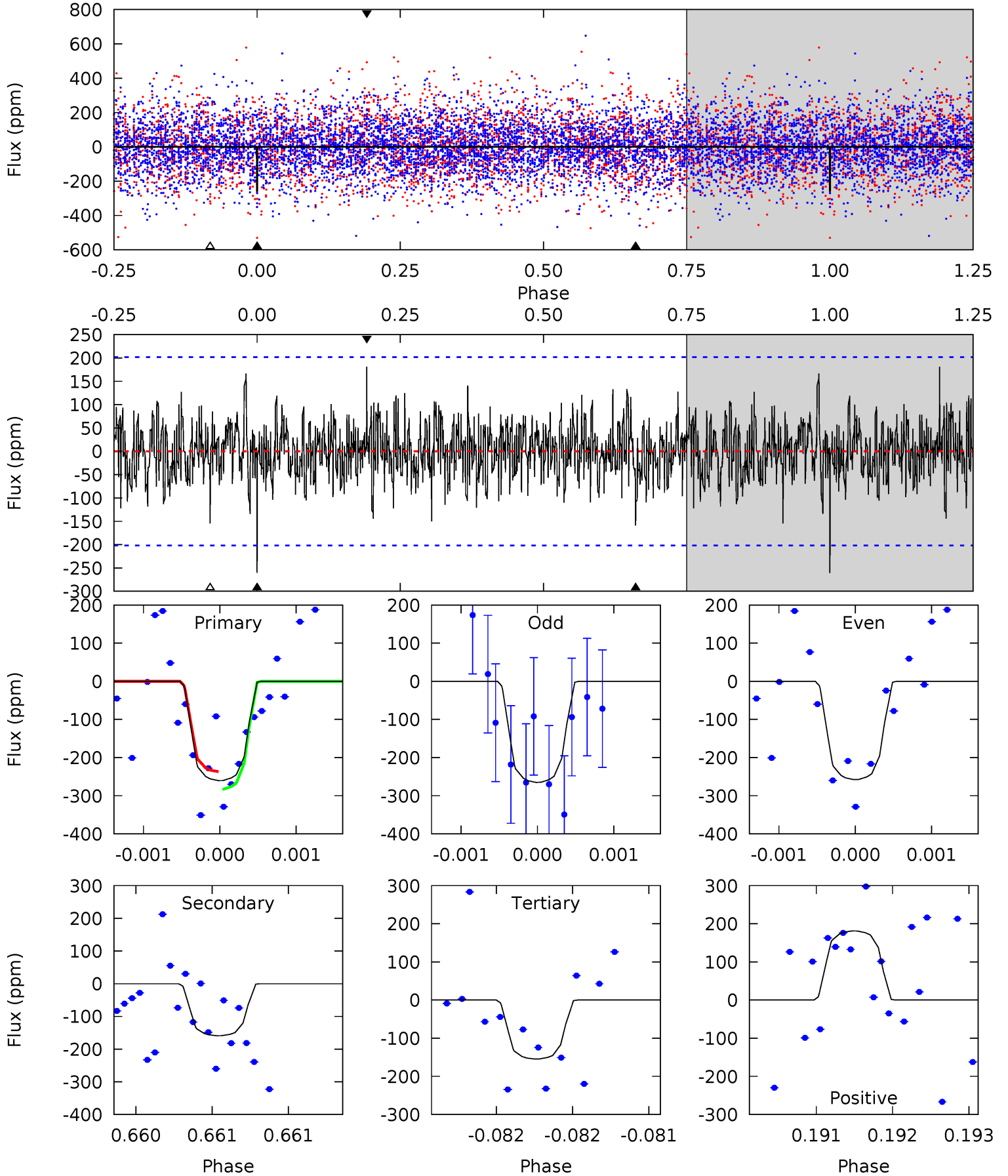
TCE 008057693-02 P=164.801532 Days $T_0=149.217463$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-02, P = 164.800061 Days, E = 149.222508 Days

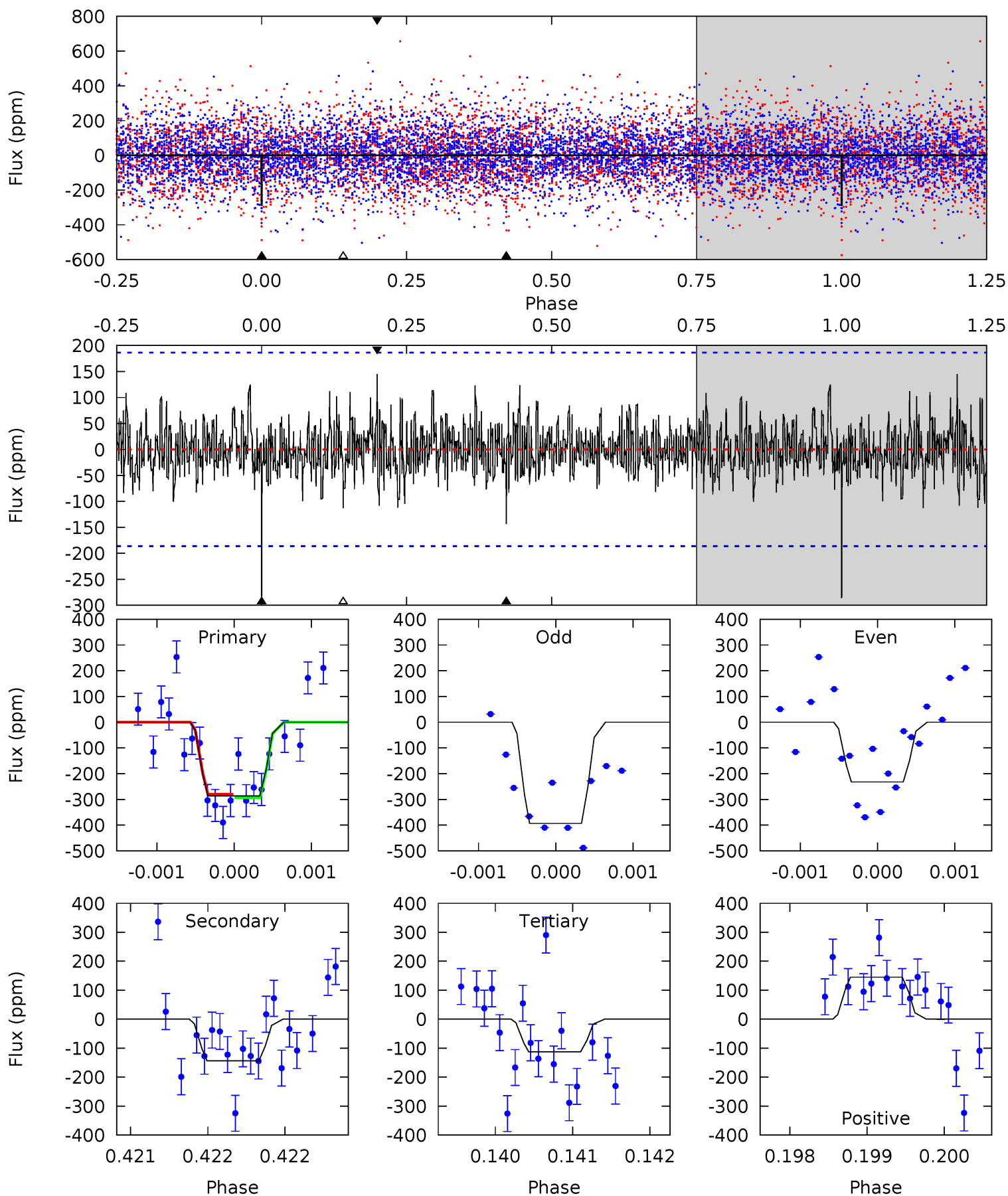
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.11	4.34	4.22	4.95	5.51	3.38	1.27	2.89	2.16	0.12	-0.61	0.10	0.98	0.41	0.63



Alt Model-Shift Uniqueness Test

008057693-02, P = 164.801532 Days, E = 149.217463 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.45	4.24	3.33	4.29	5.50	3.37	1.06	5.12	4.16	0.91	-0.05	2.28	0.99	0.34	0.18



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-159 ± 37	$2.78^{+1.37}_{-1.13}$	628^{+44}_{-41}	5689^{+1857}_{-946}	4487^{+8825}_{-2515}
Alt.	-144 ± 34	$2.66^{+1.38}_{-1.16}$	622^{+50}_{-41}	5619^{+2056}_{-917}	4416^{+9882}_{-2629}

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 $A_{obs} \gg 1.0$

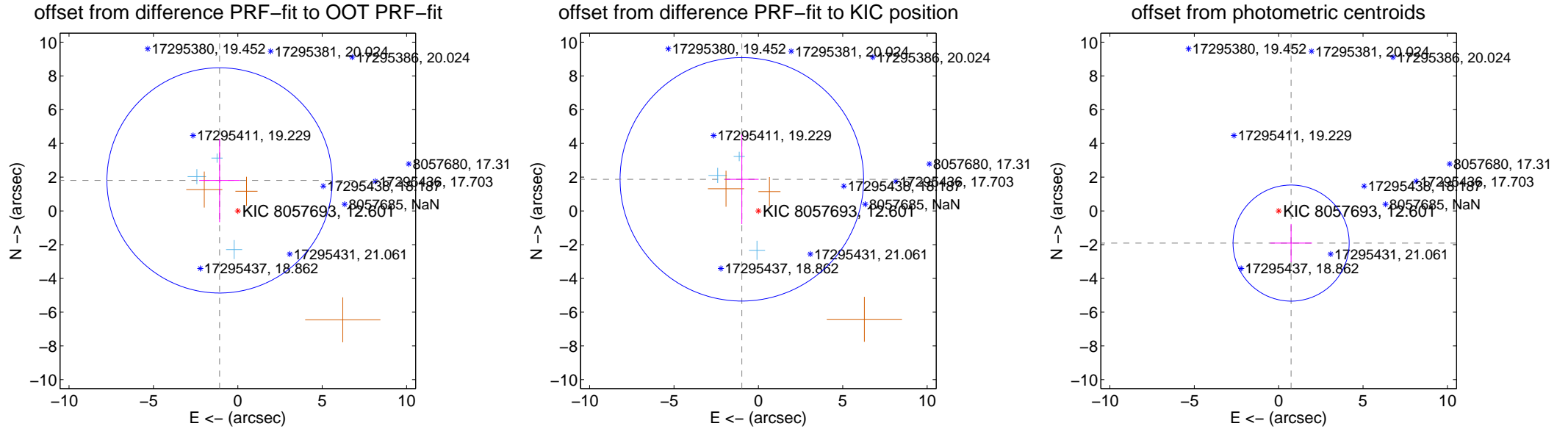
DV Centroid Data

Supplemental centroid analysis for 008057693-02. Kepler magnitude: 12.60. Transit SNR 11.09

There are 3 quarters with good PRF difference image offsets

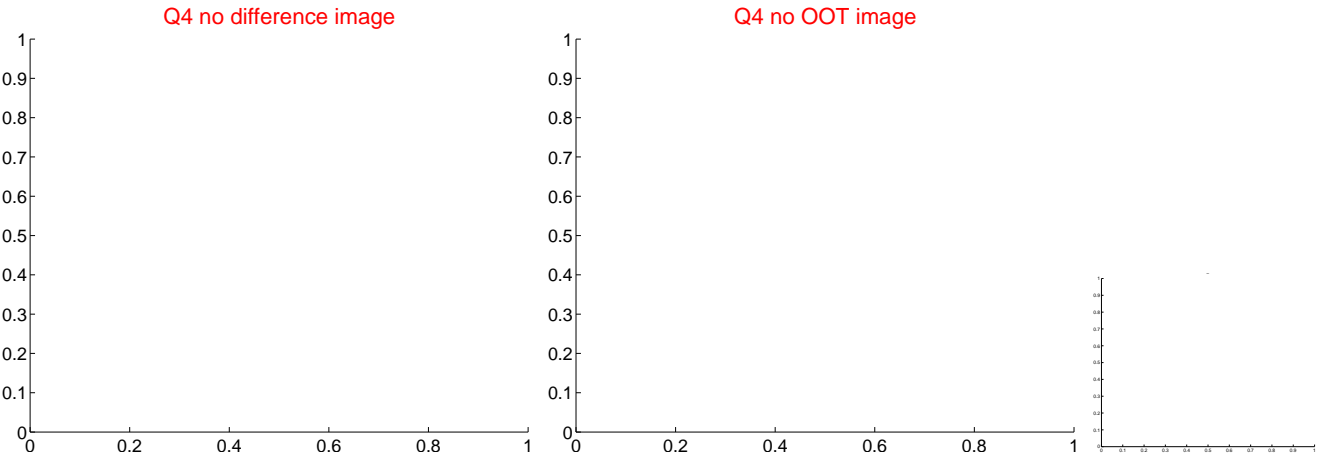
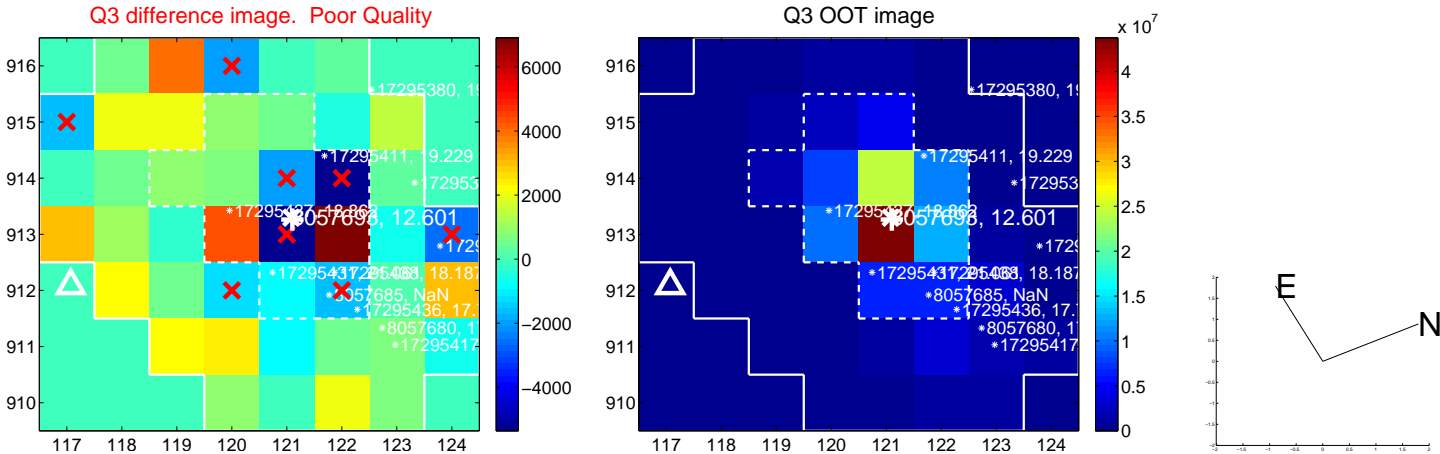
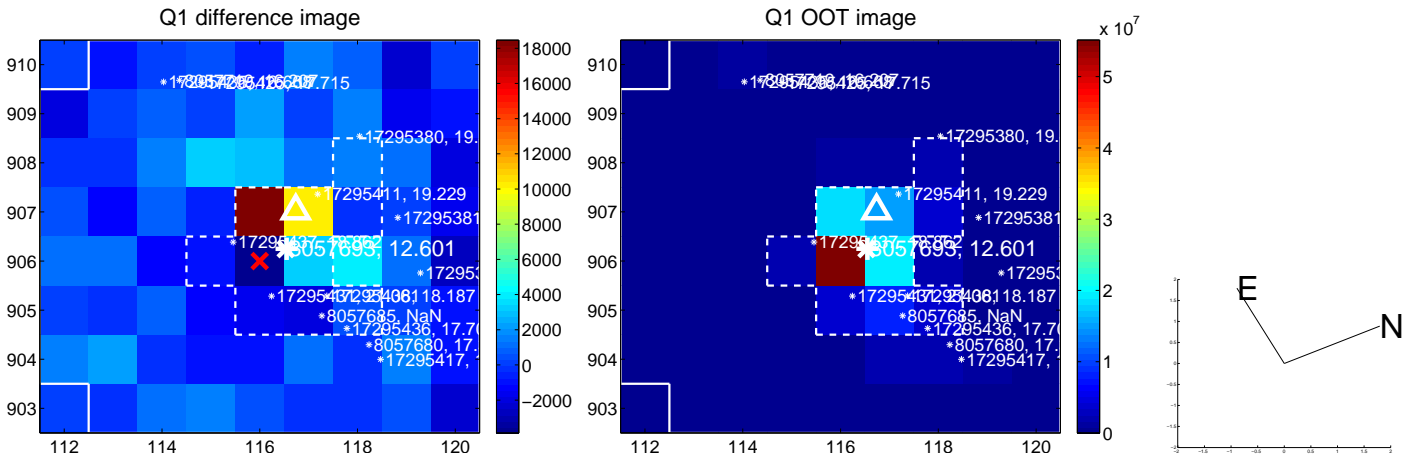
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.106 ± 2.225	0.95	1.081 ± 1.204	1.808 ± 2.472
PRF-fit source offset from KIC position	2.112 ± 2.405	0.88	0.980 ± 0.996	1.871 ± 2.650
photometric centroid source offset	2.04 ± 1.15	1.78	-0.74 ± 1.24	-1.91 ± 1.13

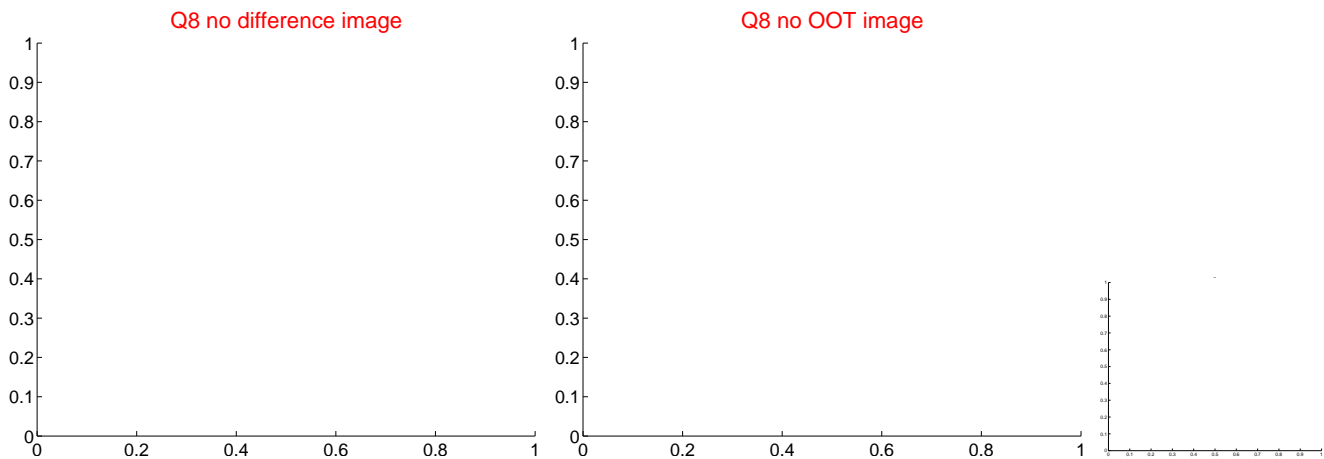
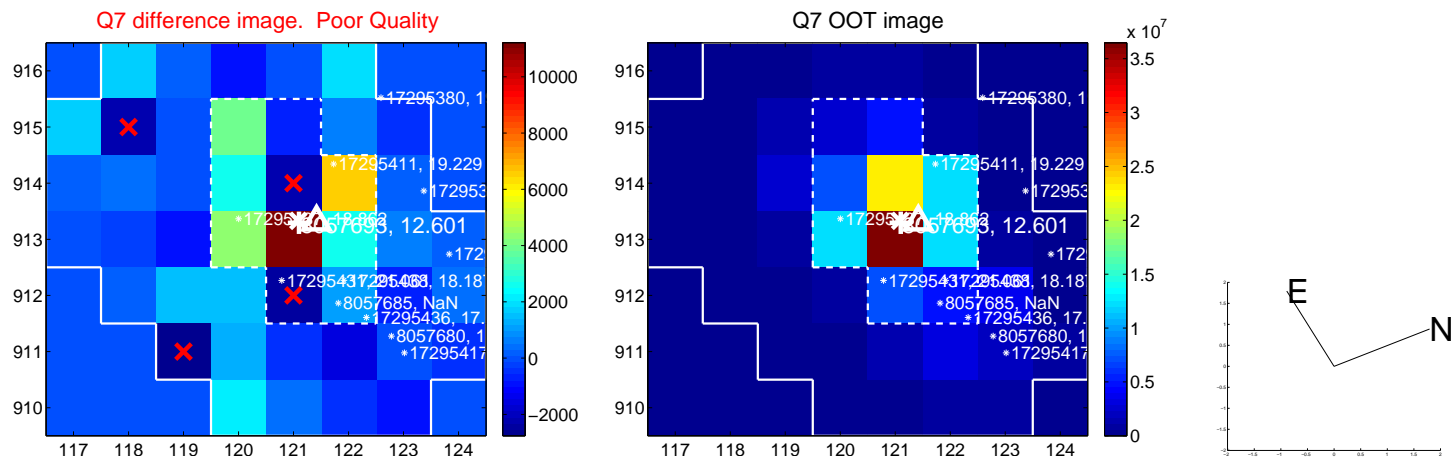
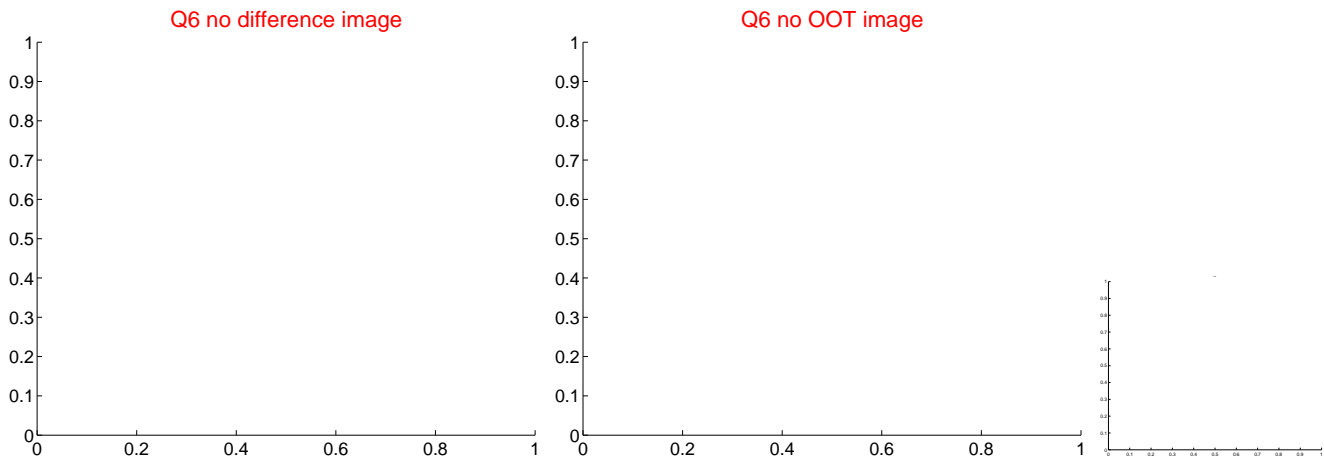
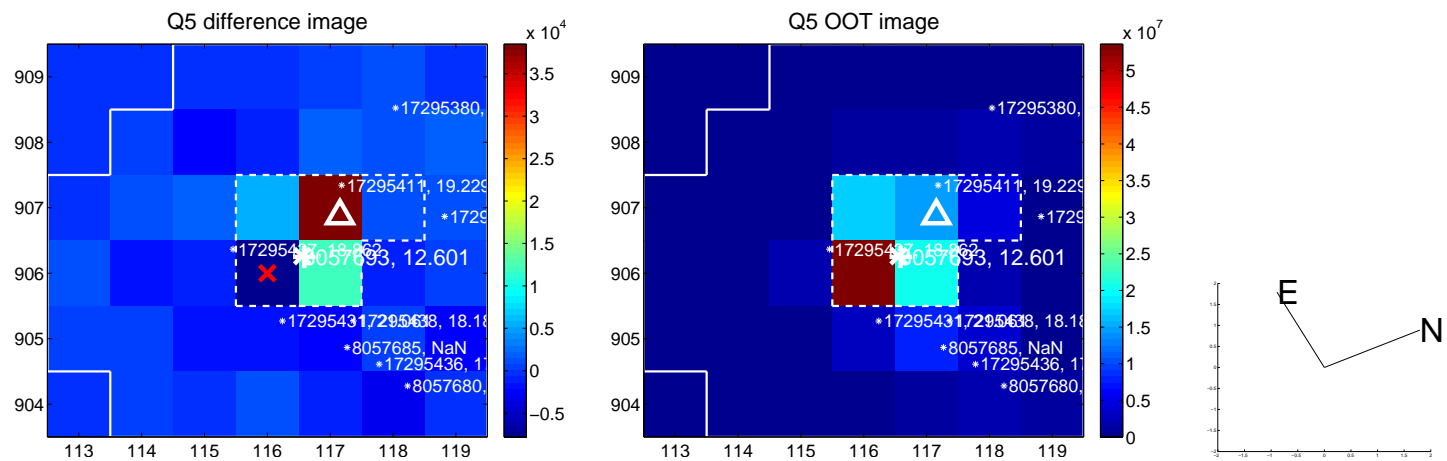


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

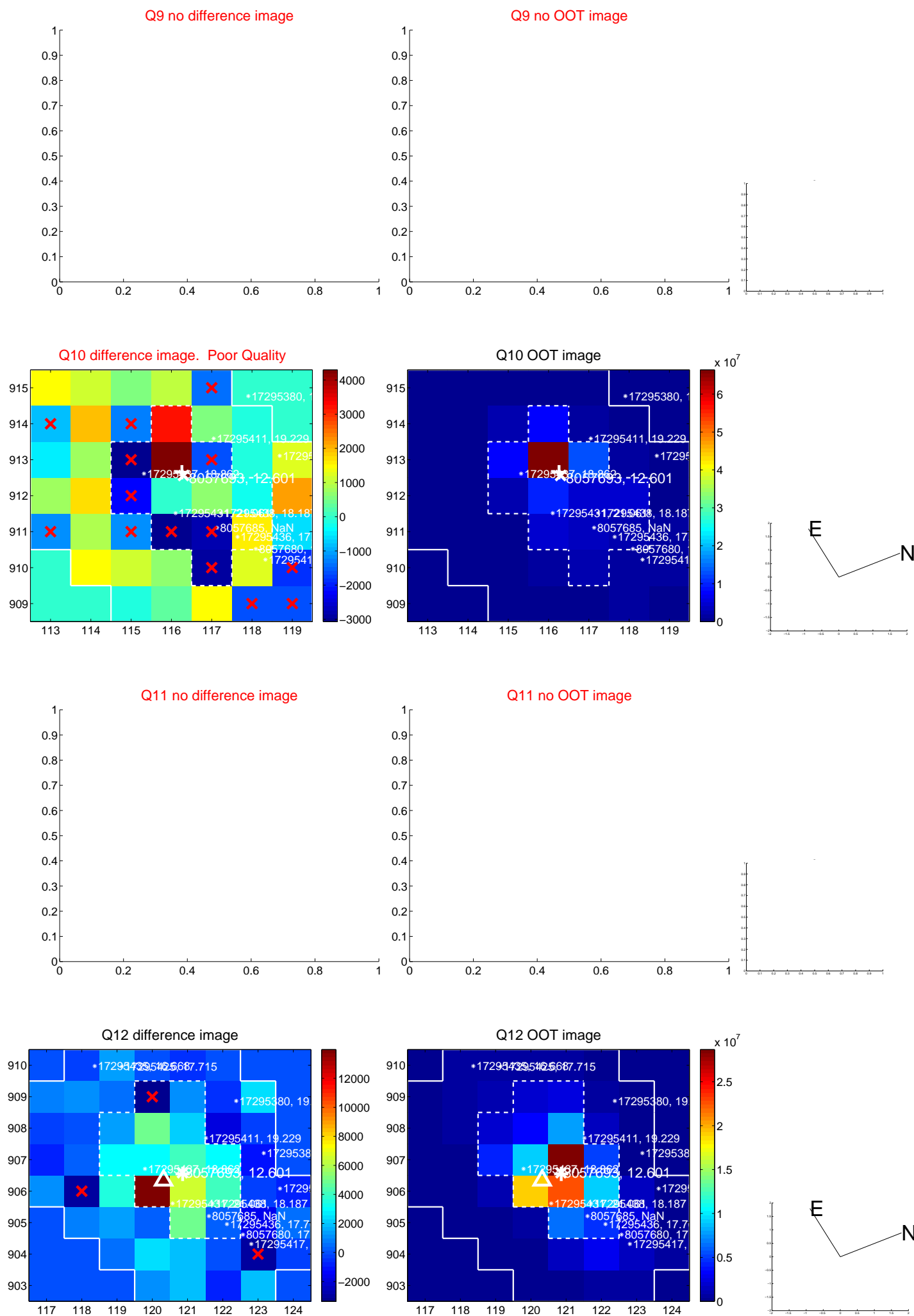
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



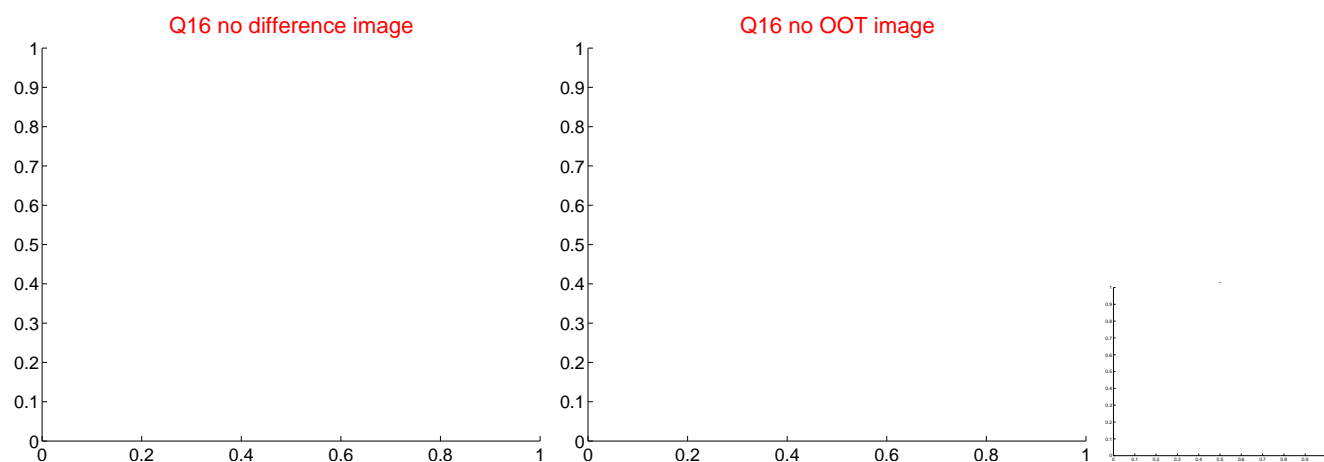
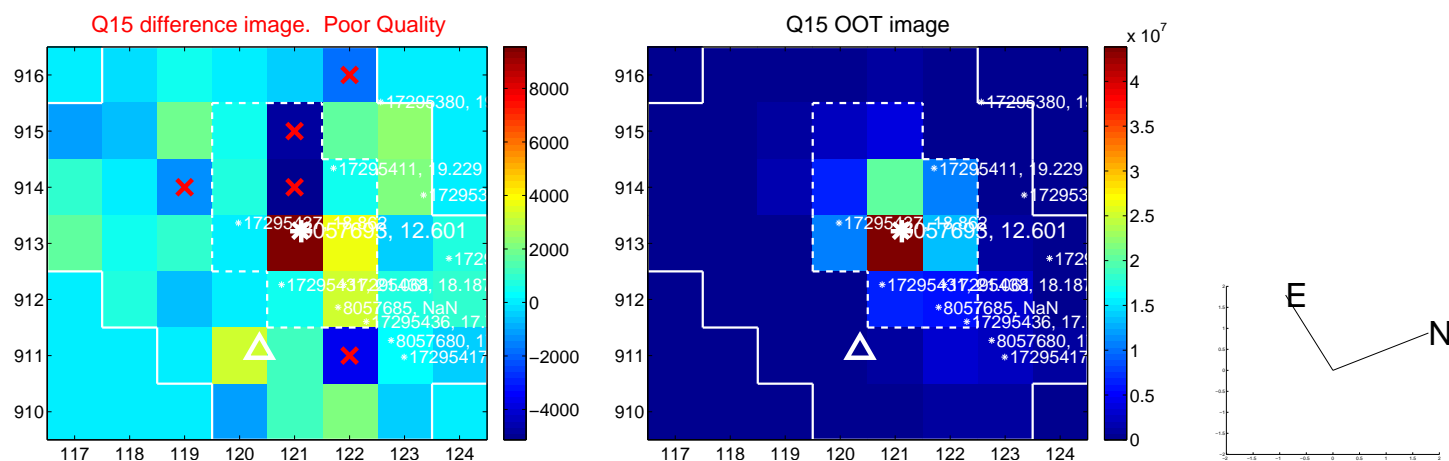
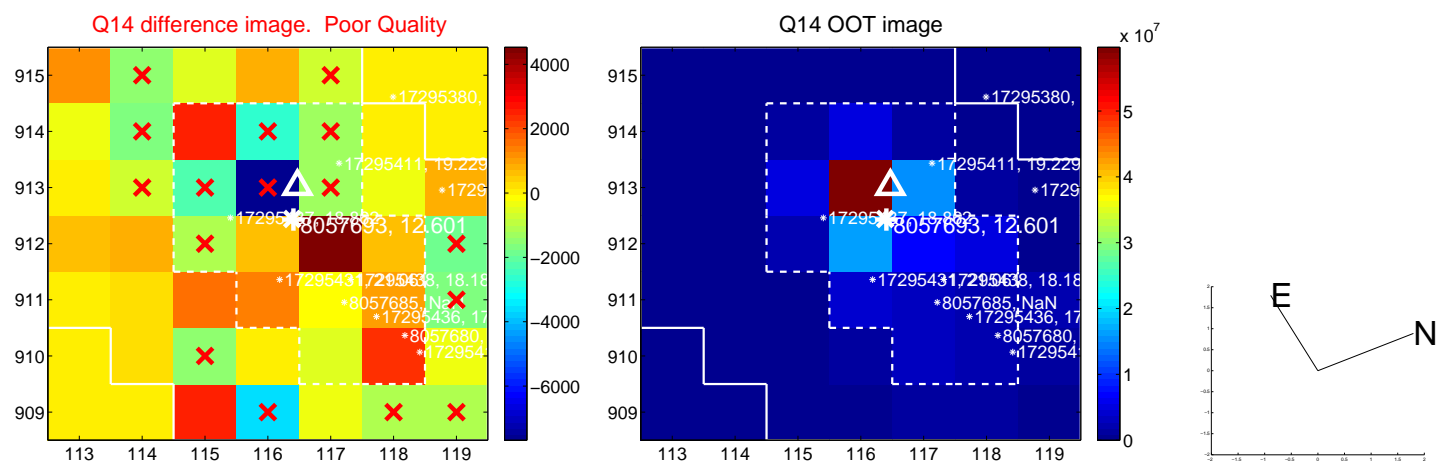
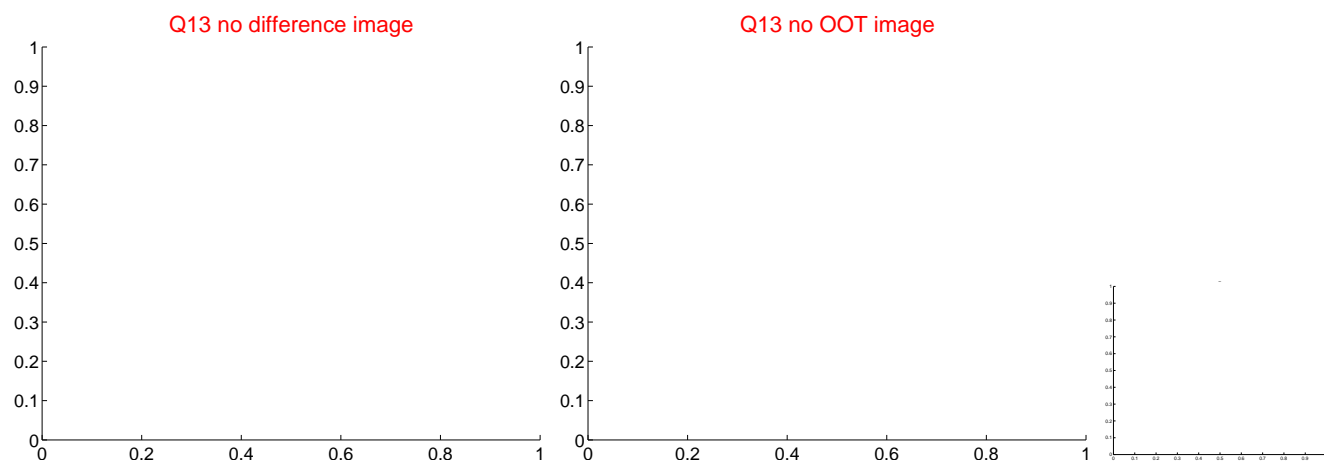
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



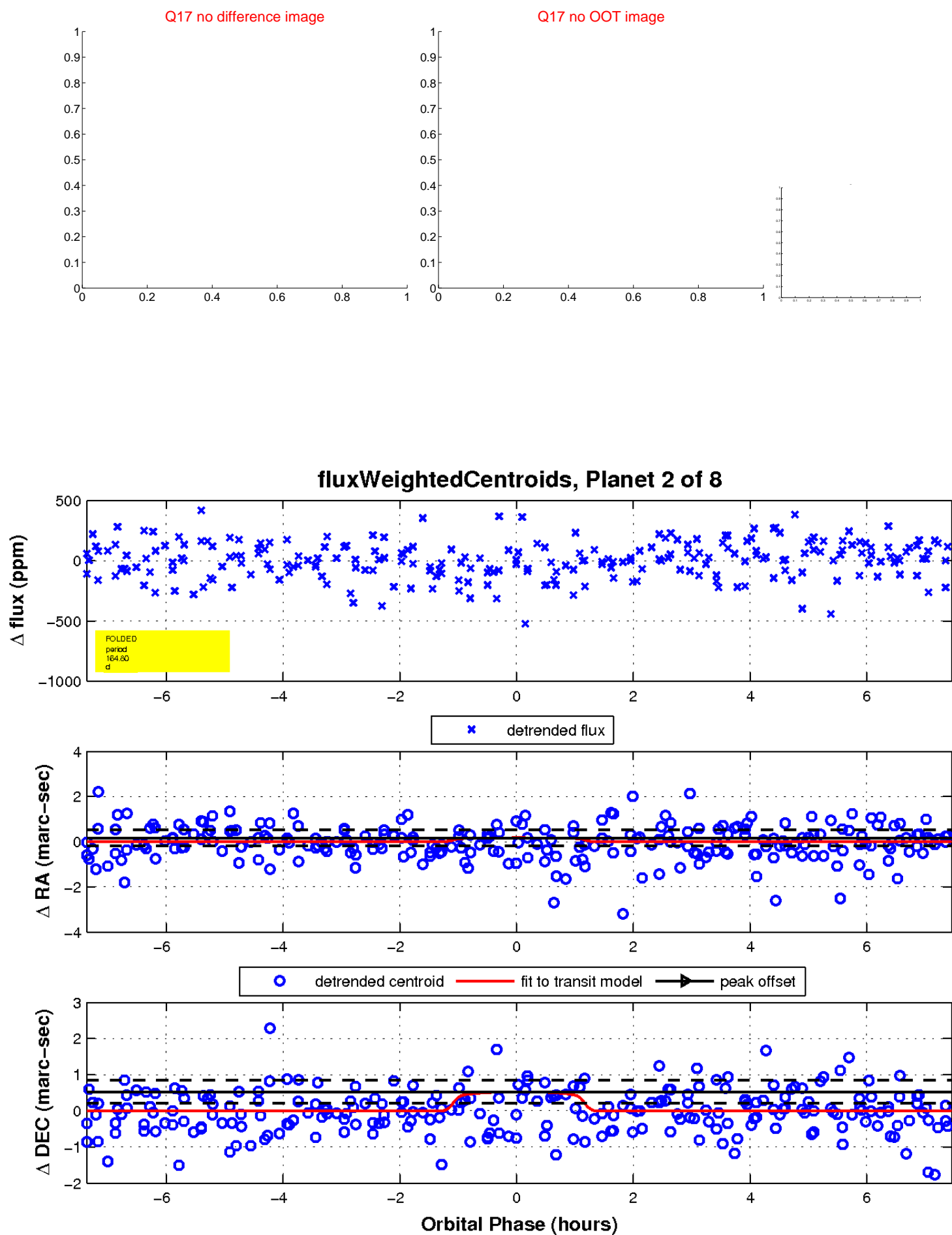
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

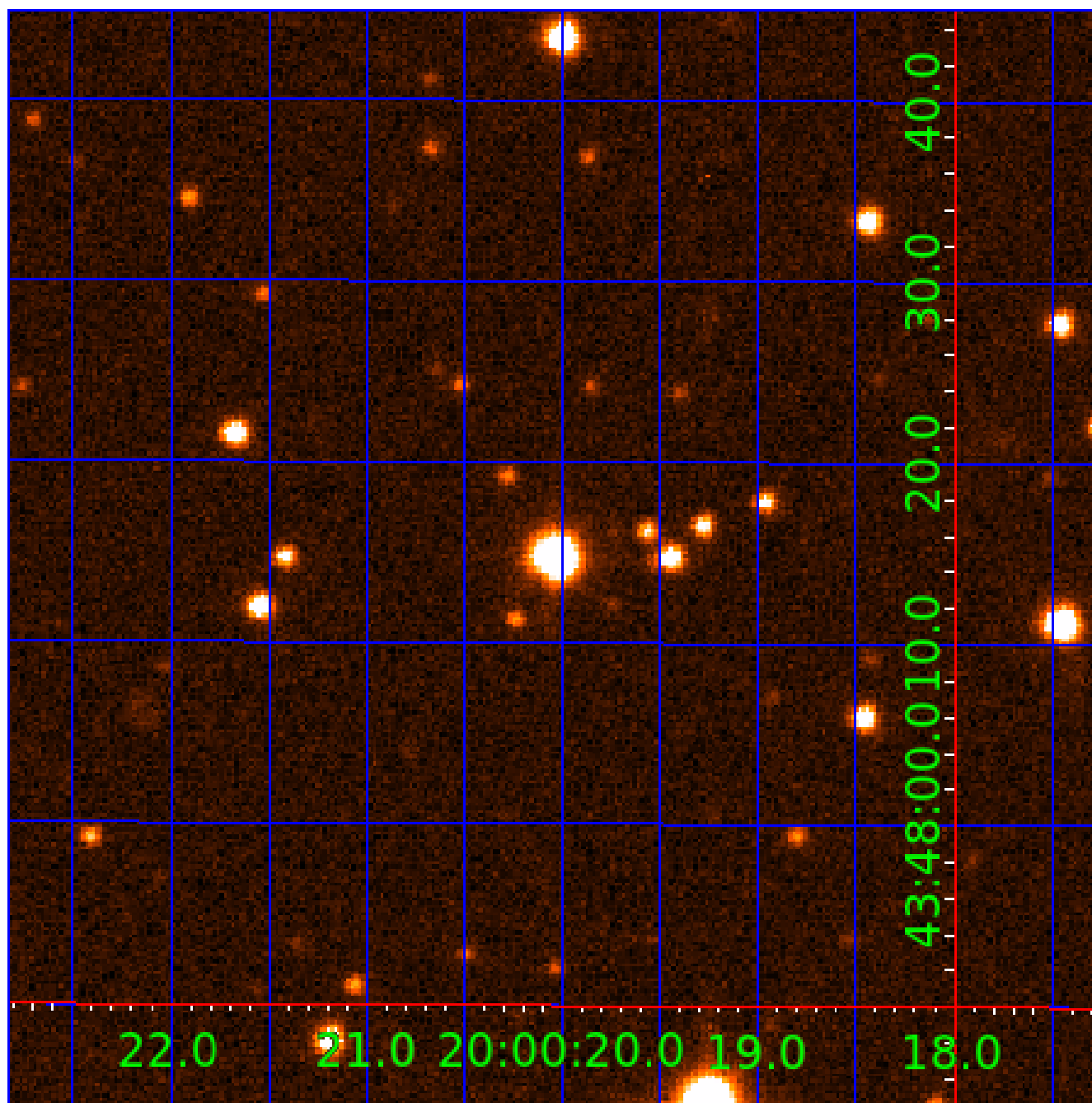


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
008057693-04	OBS	No	22.796647	144.930147	206.8	2.344	10.8	10.4	1.41	6792	2.37	130.24
008057693-05	OBS	No	35.451867	150.331824	195.1	5.707	8.8	11.5	1.41	6792	2.24	72.28
008057693-06	OBS	No	40.229411	161.560789	261.3	0.625	9.7	5.7	1.41	6792	2.44	61.07
008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
008057693-08	OBS	No	47.933620	135.506699	266.7	1.445	9.0	9.0	1.41	6792	2.53	48.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

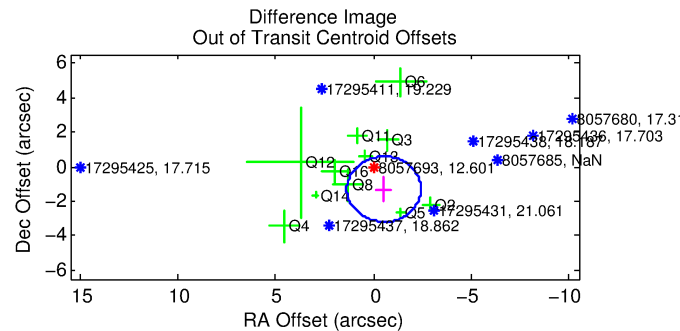
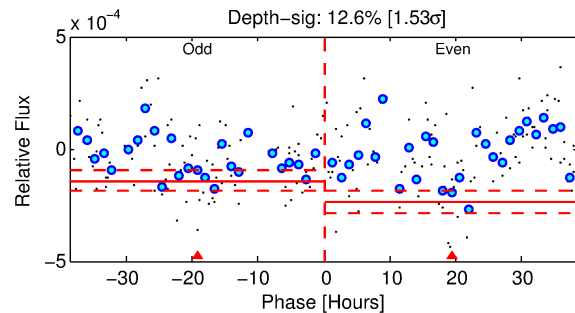
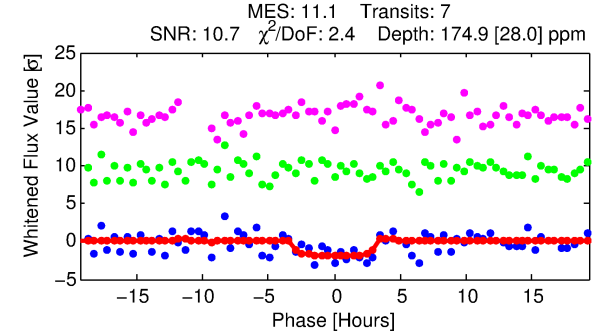
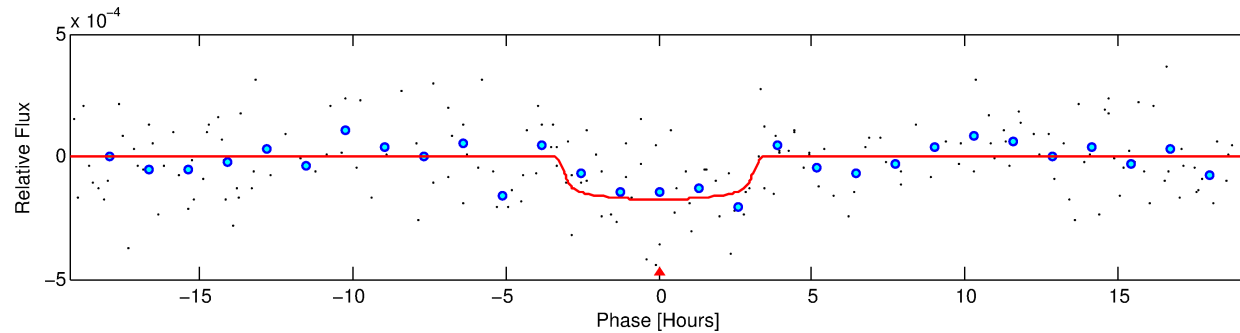
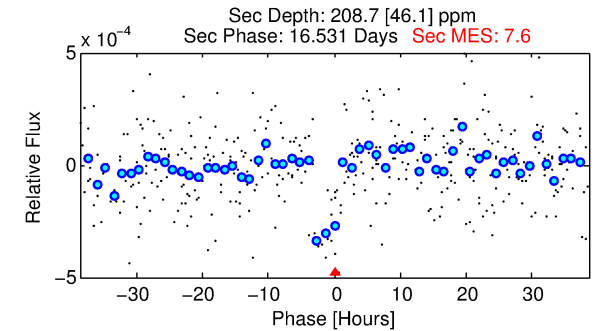
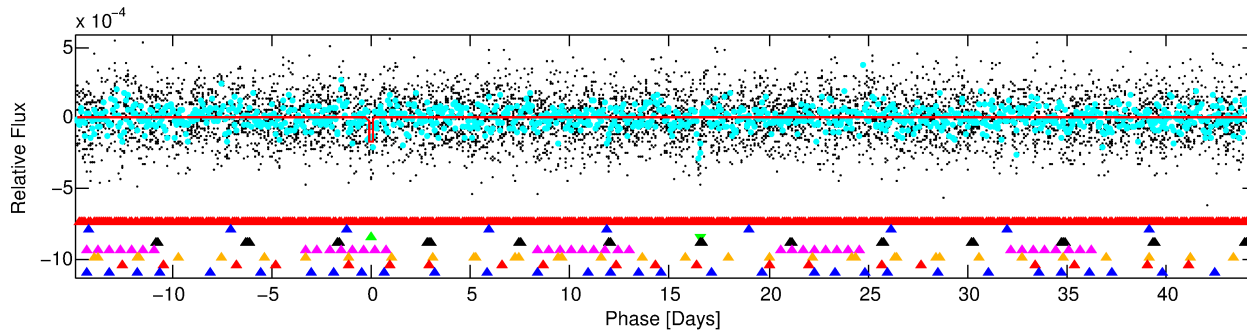
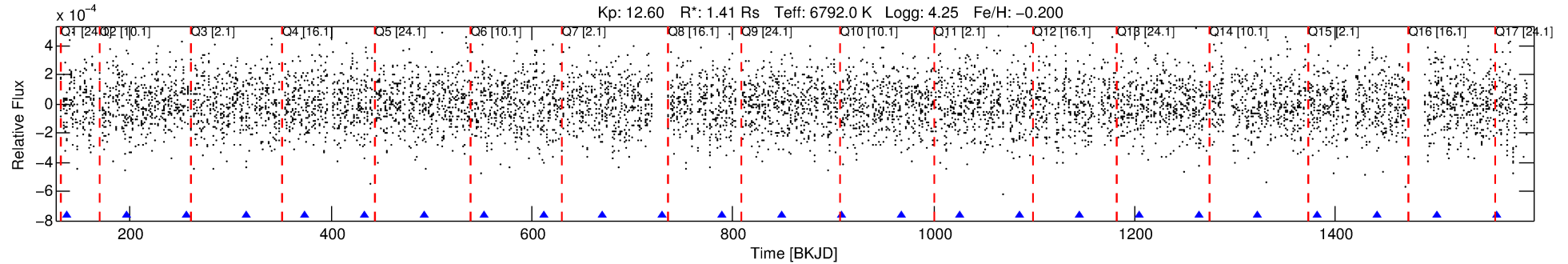
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-03

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 3 of 8 Period: 59.277 d



DV Fit Results:

Period = 59.27738 [0.00138] d
Epoch = 137.3825 [0.0165] BKJD
Rp/R* = 0.0130 [0.0113]
a/R* = 50.84 [251.43]
b = 0.71 [3.44]
Seff = 36.42 [14.10]
Teq = 626 [61] K
Rp = 2.00 [1.85] Re
a = 0.3228 [0.0795] AU
Ag = 2979.40 [5337.19] [0.56σ]
Teffp = 7156 [3157] K [2.07σ]

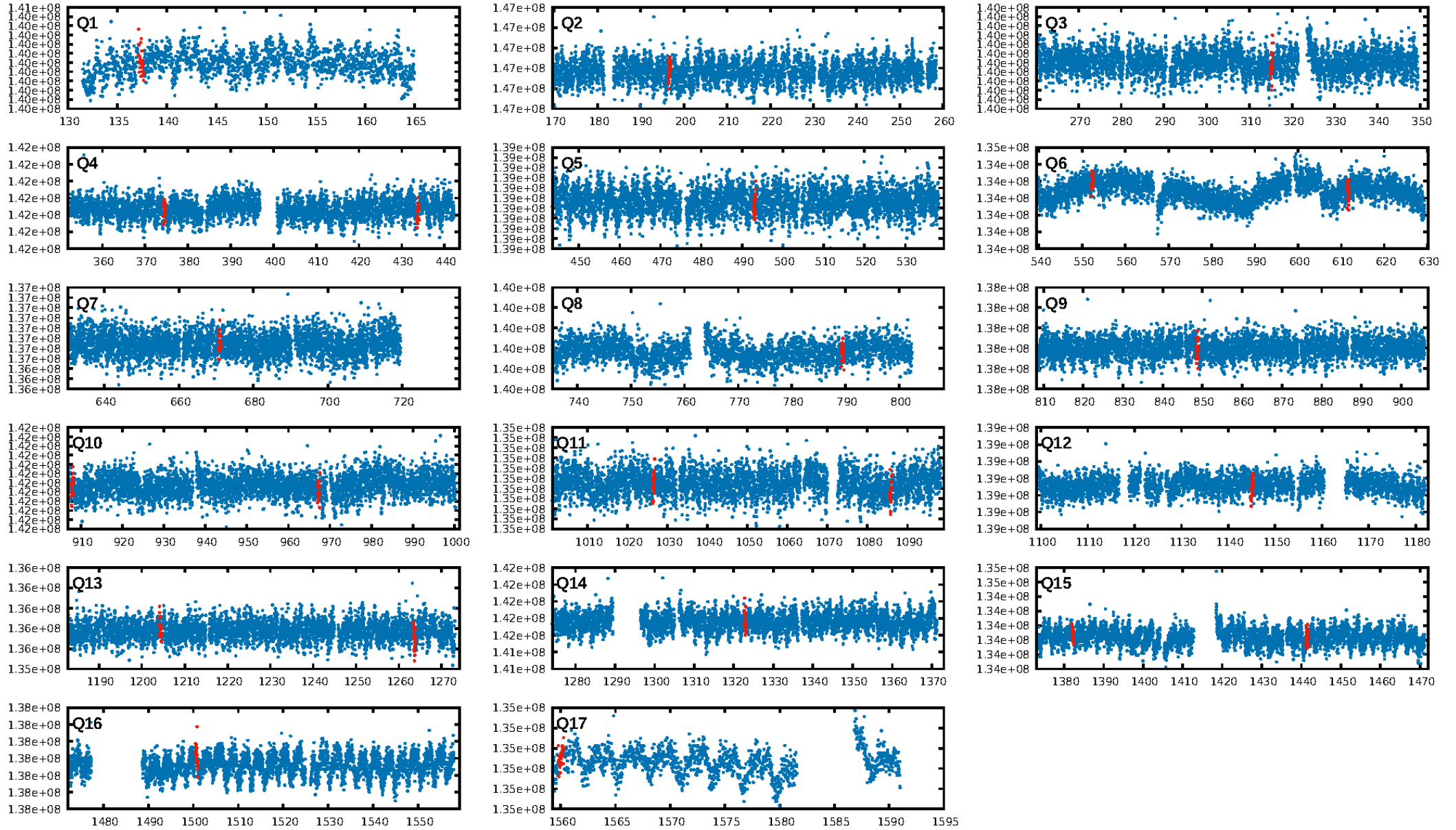
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [41.40σ]
LongPeriod-sig: 100.0% [30.13σ]
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 97.3%
Bootstrap-pfa: 1.96e-10
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.9122
Centroid-sig: 56.5%
Centroid-so: 0.686 arcsec [0.91σ]
OotOffset-rm: 1.402 arcsec [2.23σ]
KicOffset-rm: 1.405 arcsec [2.37σ]
OotOffset-st: 3/2/4/2 [11]
KicOffset-st: 3/2/4/2 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.25 [4/16]

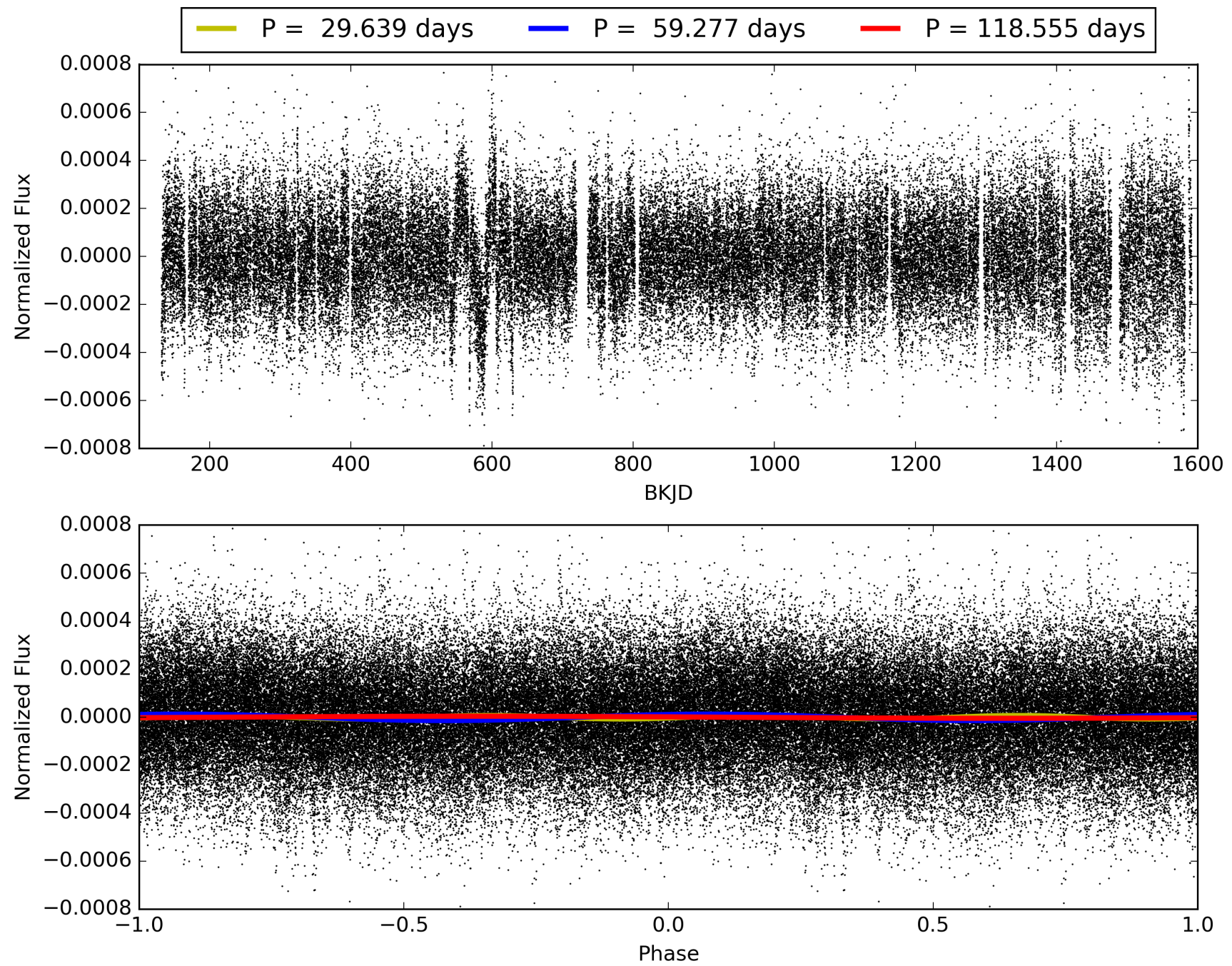
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:52:43 Z

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

TCE 008057693-03, PDC Light Curves

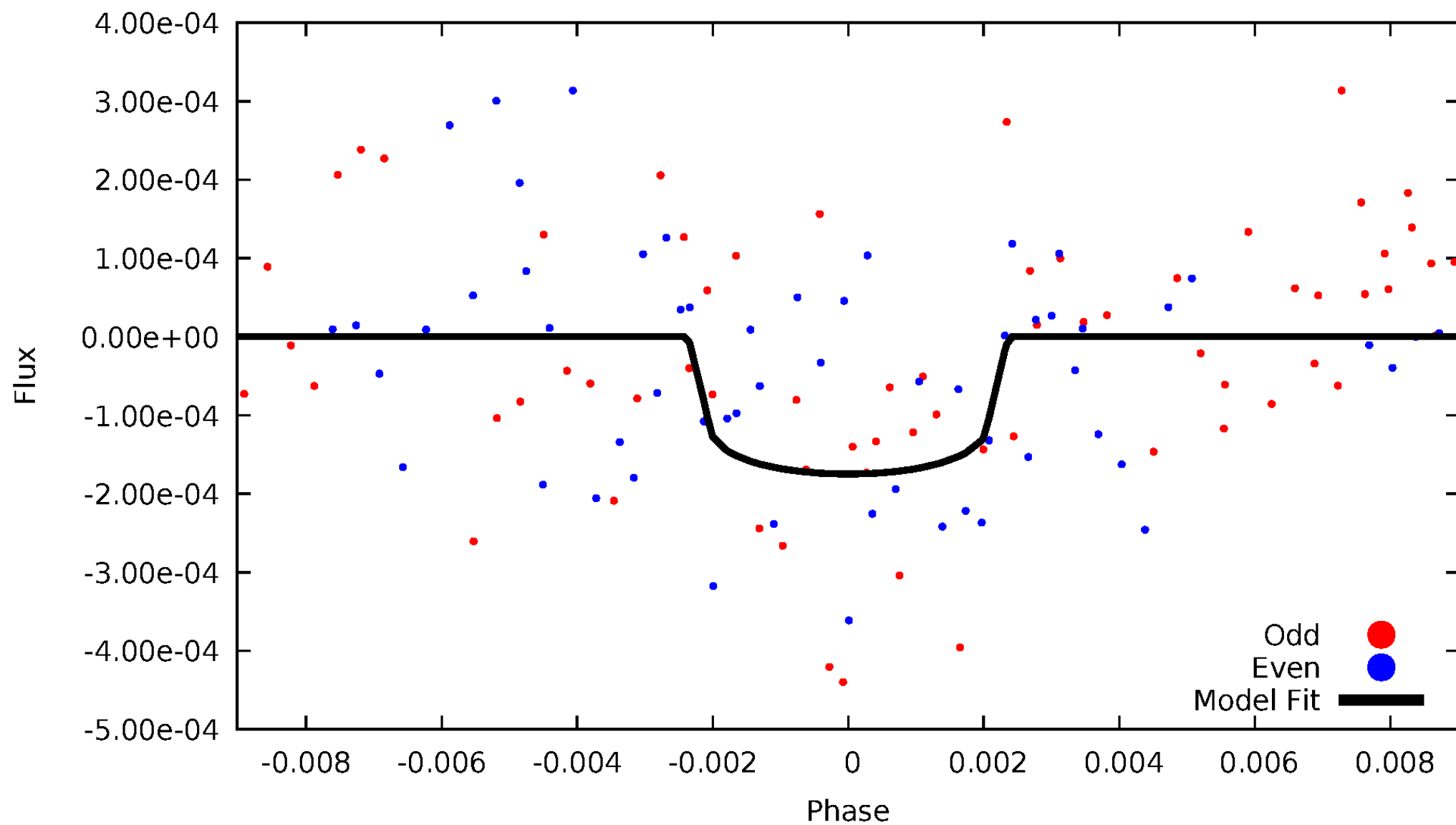


TCE 008057693-03



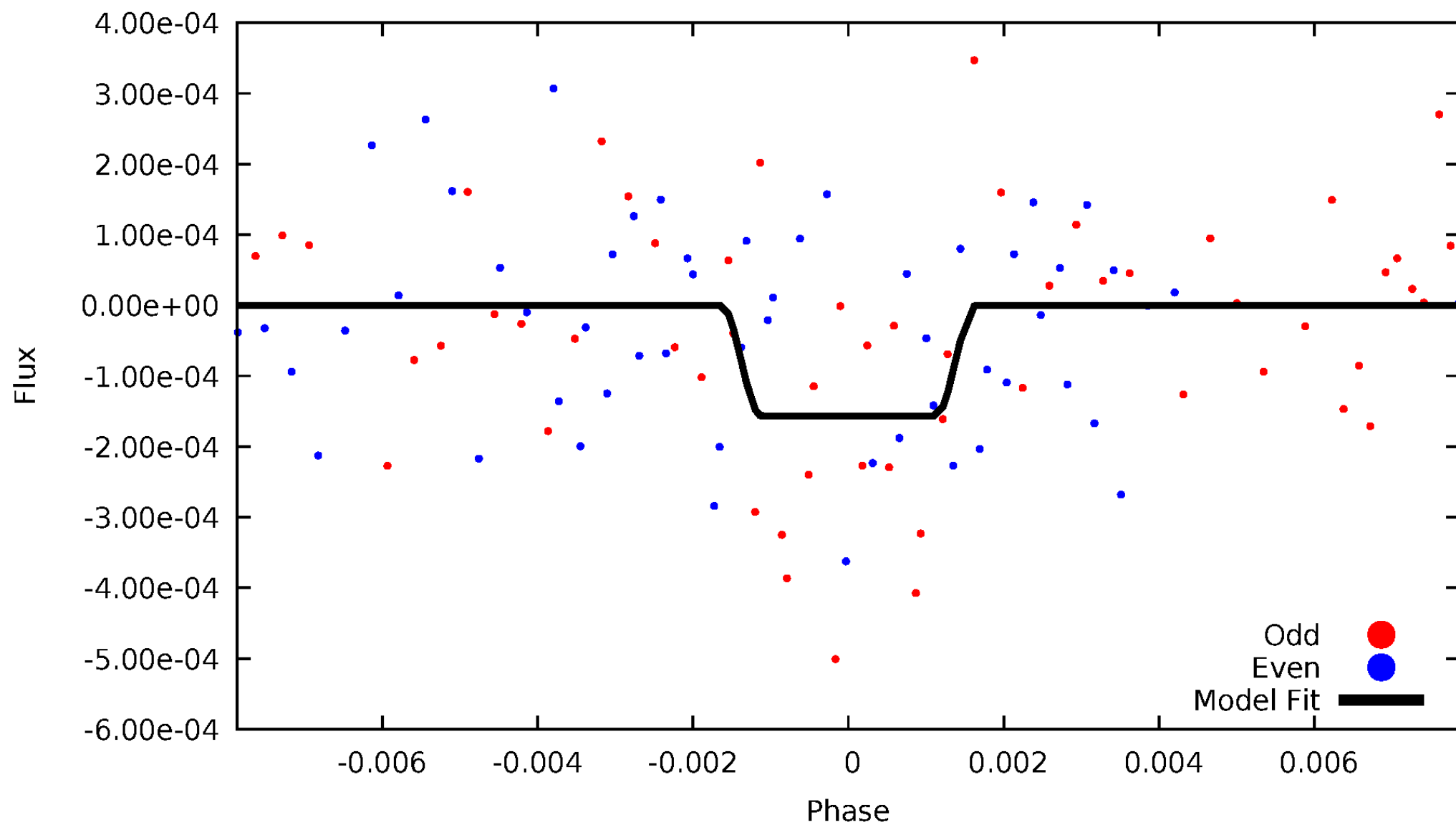
DV Odd/Even

TCE 008057693-03

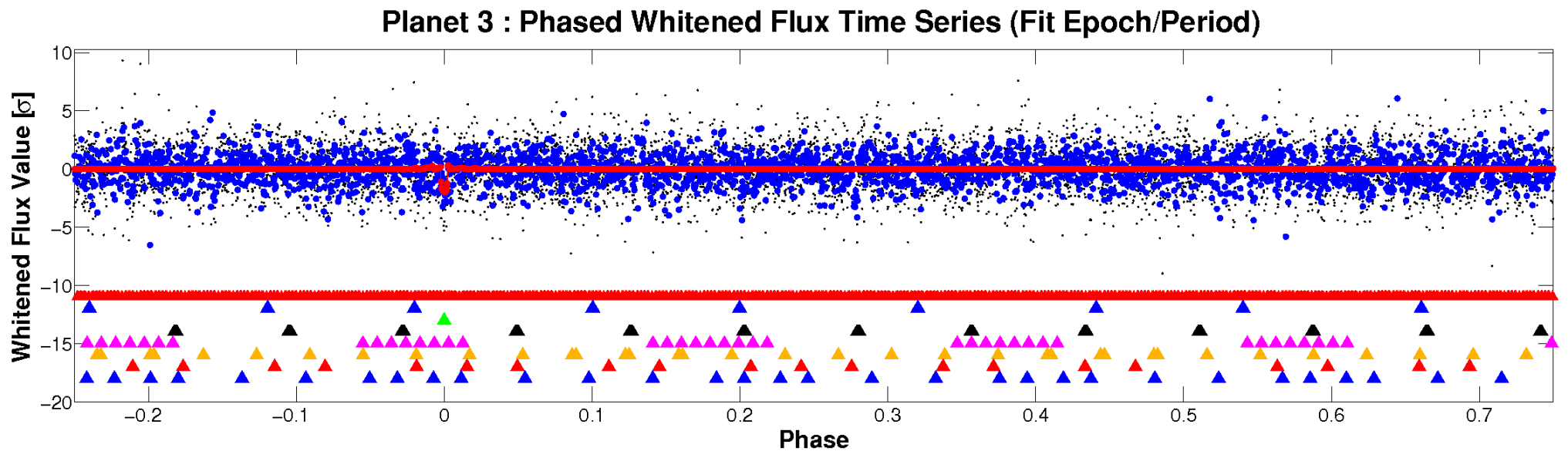
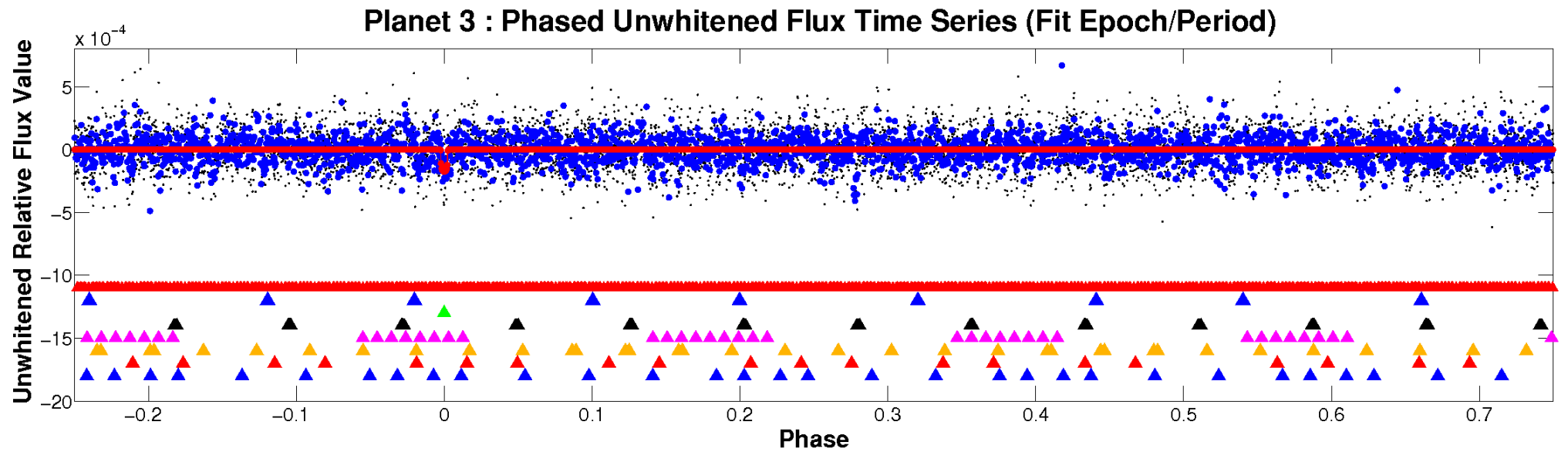


ALT Odd/Even

TCE 008057693-03

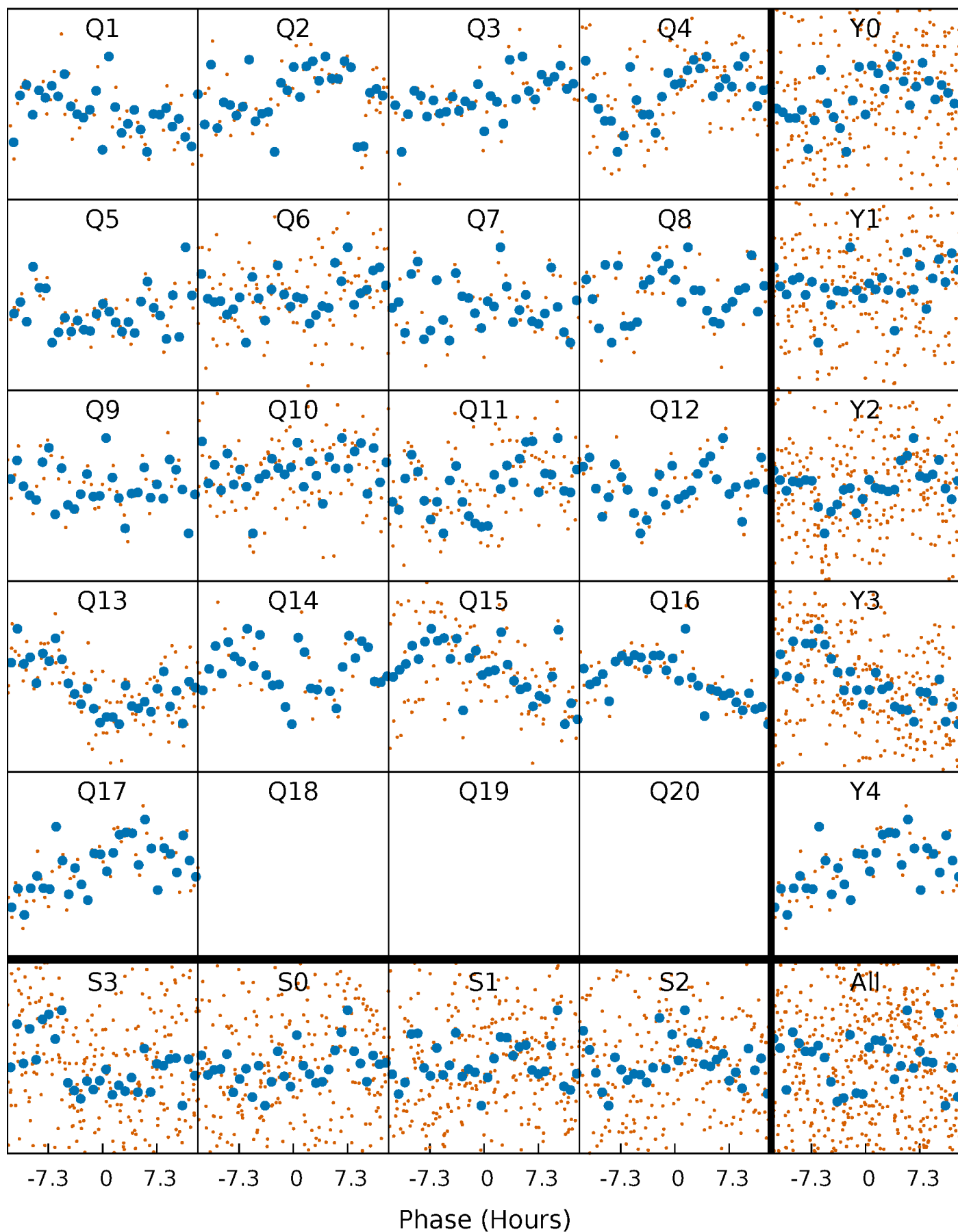


Non-Whitened Vs. Whitened Light Curve



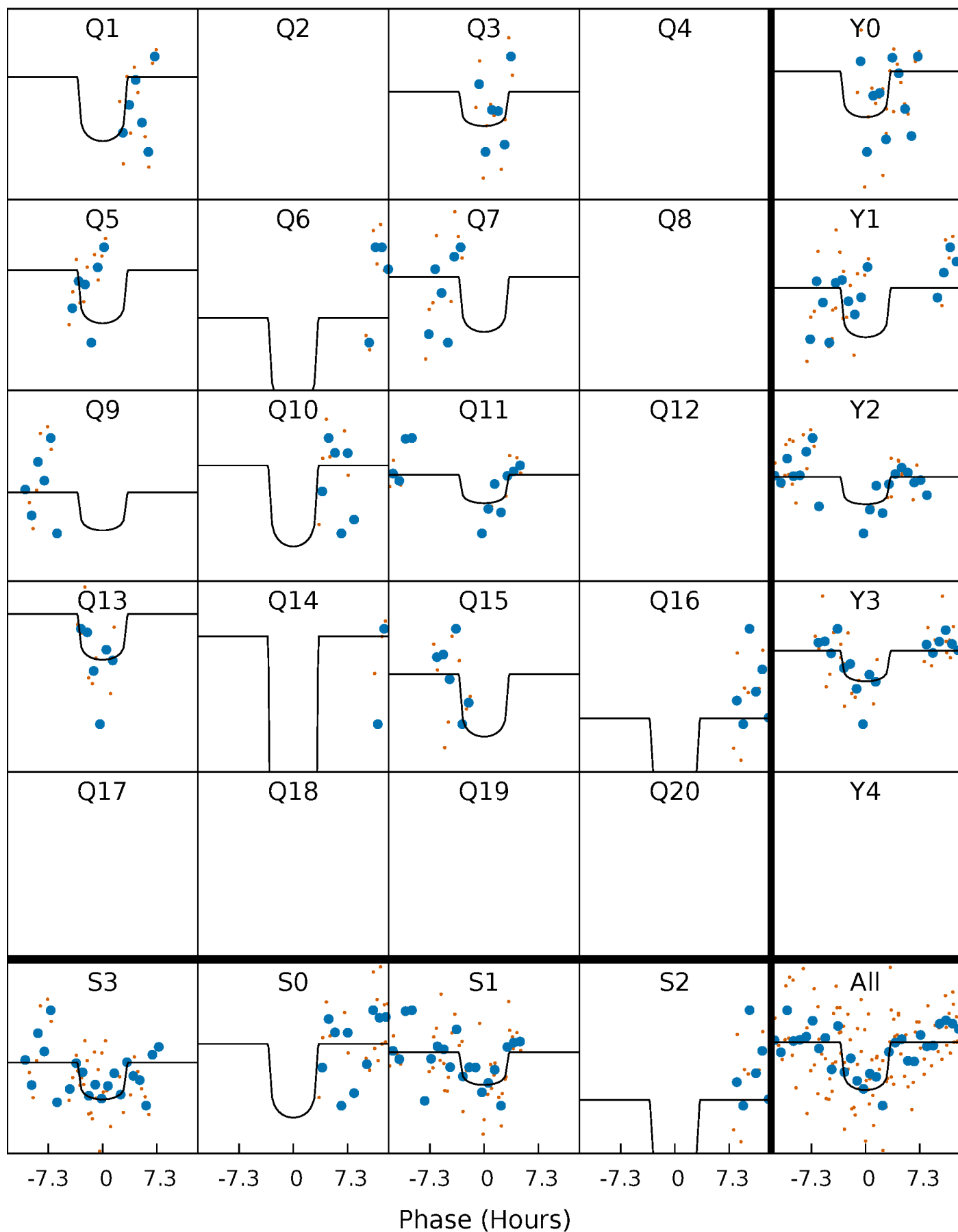
PDC Quarter-Phased Transit Curves

TCE 008057693-03 P= 59.277379 Days $T_0=137.382464$ (BKJD)



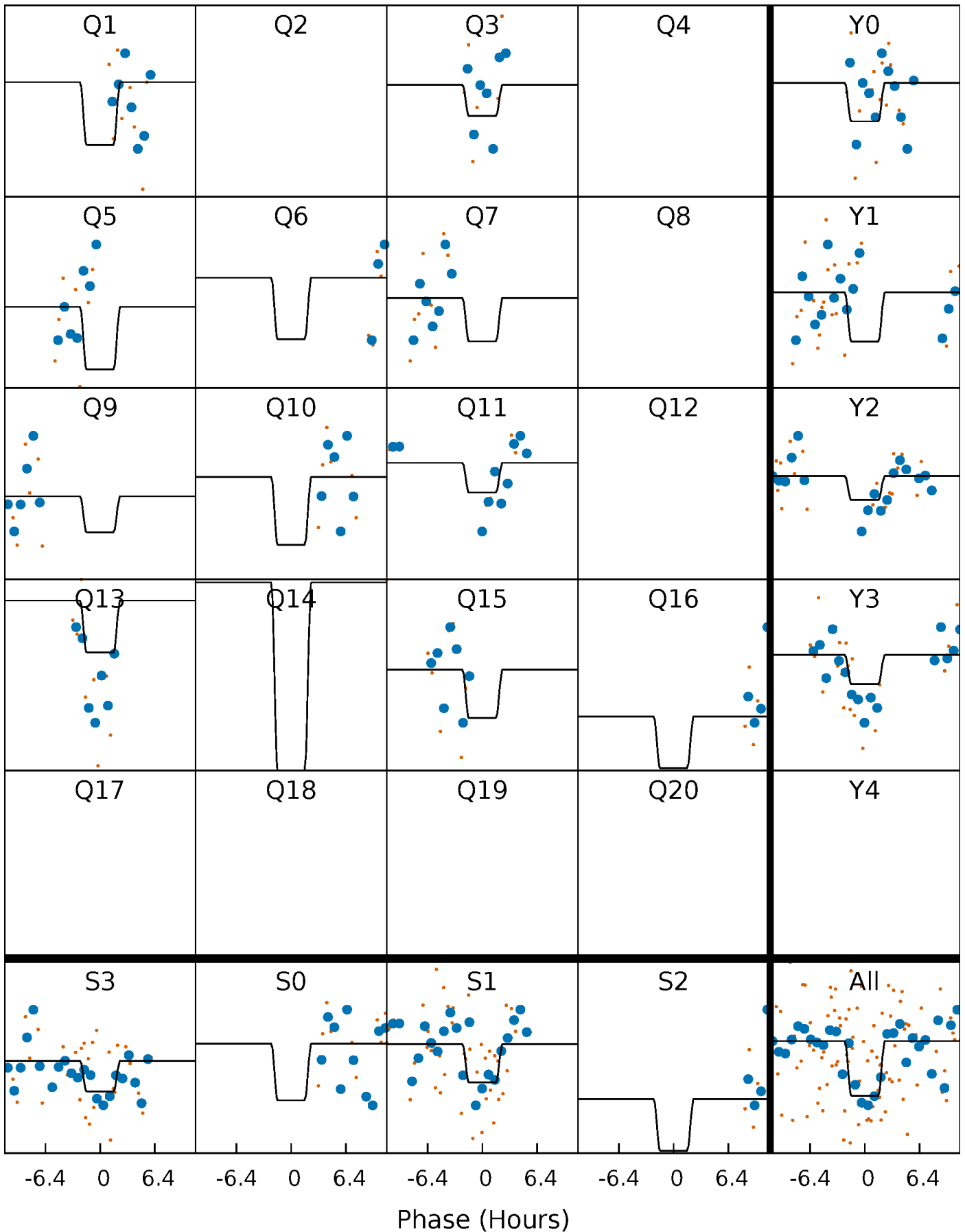
DV Quarter-Phased Transit Curves

TCE 008057693-03 P= 59.277379 Days $T_0=137.382464$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

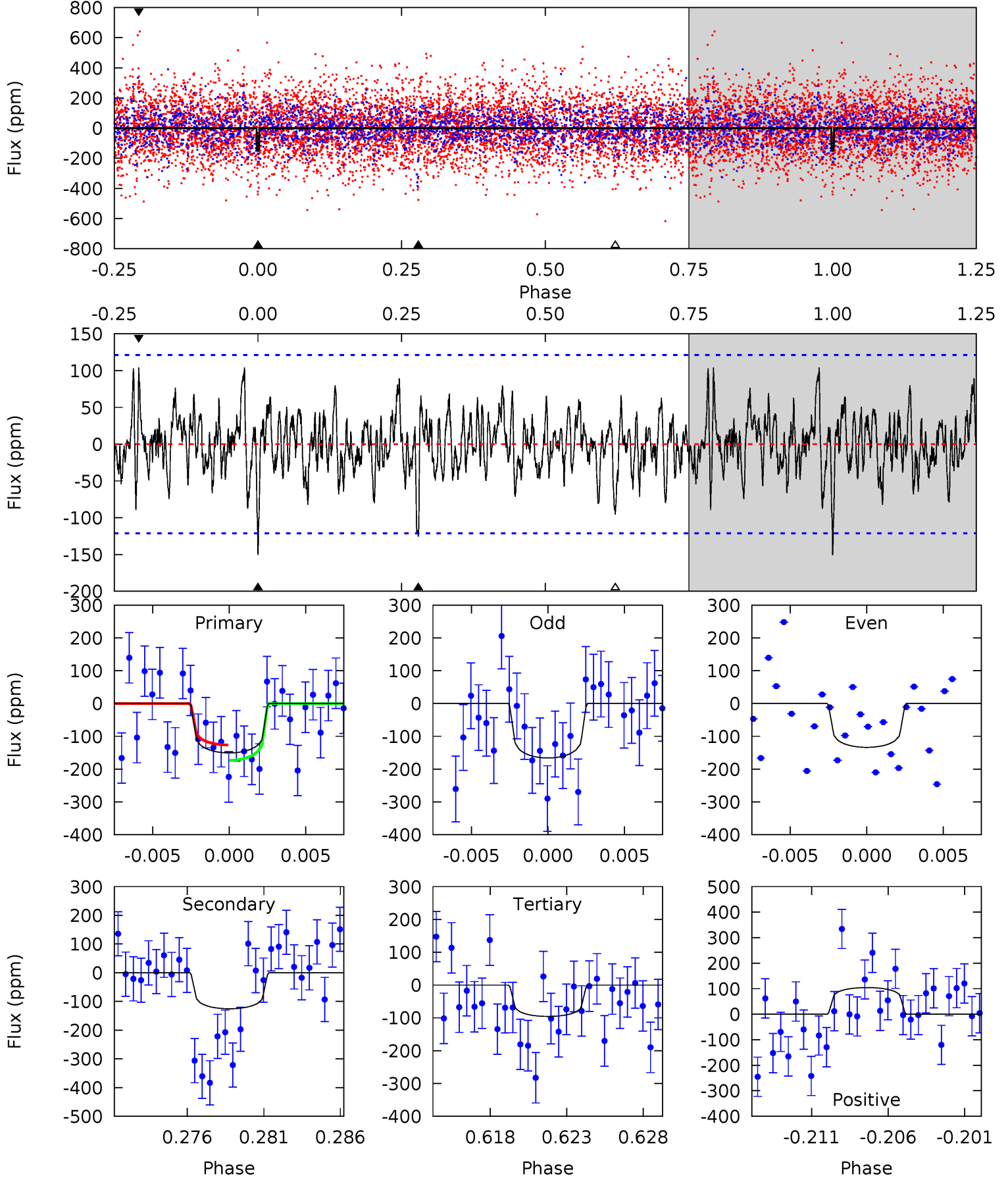
TCE 008057693-03 $P = 59.274305$ Days $T_0 = 137.434027$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-03, P = 59.277379 Days, E = 78.105085 Days

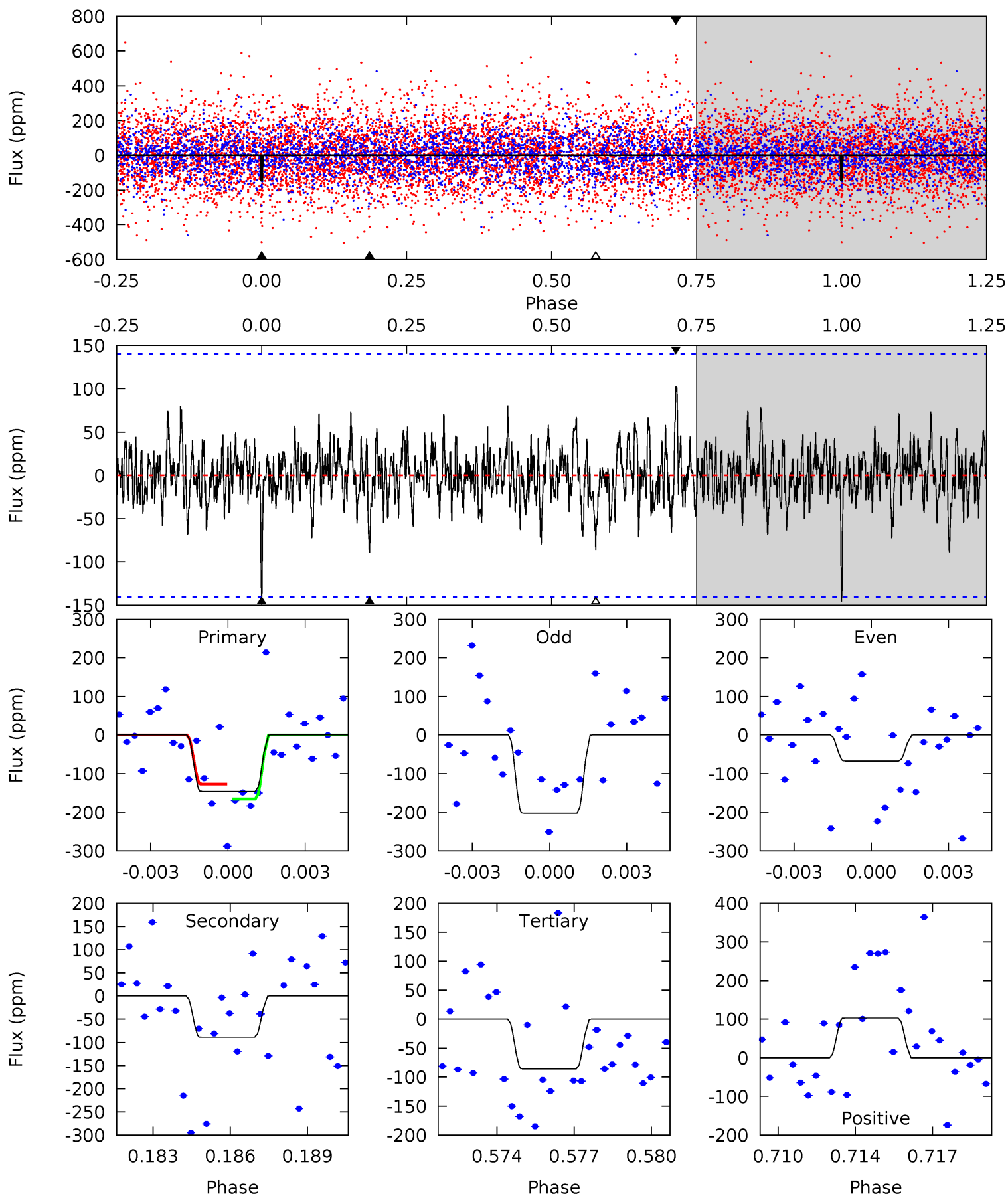
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.42	5.35	4.08	4.45	5.17	2.83	1.39	2.34	1.97	1.27	0.90	0.69	0.90	0.41	1.00



Alt Model-Shift Uniqueness Test

008057693-03, P = 59.274305 Days, E = 78.159722 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.44	3.32	3.20	3.85	5.25	2.96	0.97	2.24	1.59	0.12	-0.53	2.54	1.43	0.41	0.72



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-126 ± 23	$2.33^{+1.67}_{-1.47}$	874^{+62}_{-58}	5817^{+4953}_{-1257}	1283^{+8346}_{-850}
Alt.	-89 ± 27	$2.33^{+1.60}_{-1.42}$	879^{+61}_{-54}	5403^{+3680}_{-1154}	917^{+5558}_{-620}

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

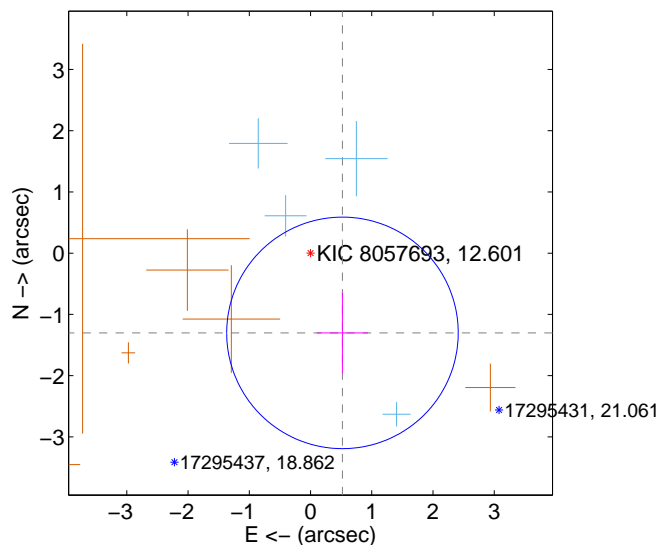
Supplemental centroid analysis for 008057693-03. Kepler magnitude: 12.60. Transit SNR 10.75

There are 4 quarters with good PRF difference image offsets

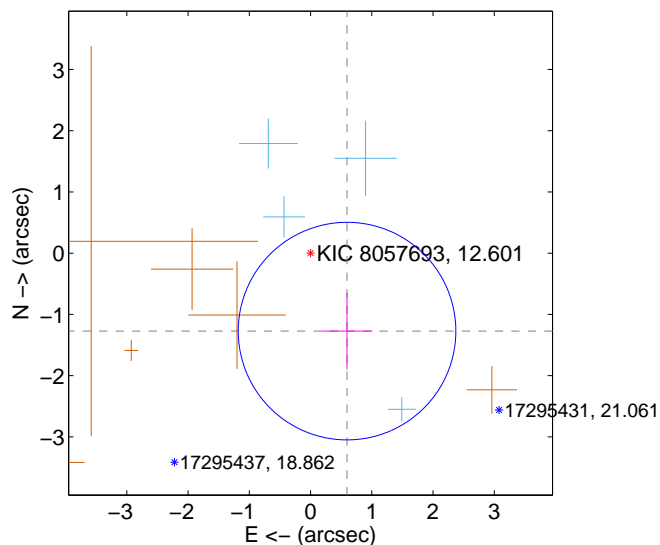
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.402 ± 0.630	2.23	-0.521 ± 0.417	-1.301 ± 0.658
PRF-fit source offset from KIC position	1.405 ± 0.592	2.37	-0.596 ± 0.413	-1.273 ± 0.624
photometric centroid source offset	0.69 ± 0.75	0.91	-0.65 ± 0.76	-0.23 ± 0.69

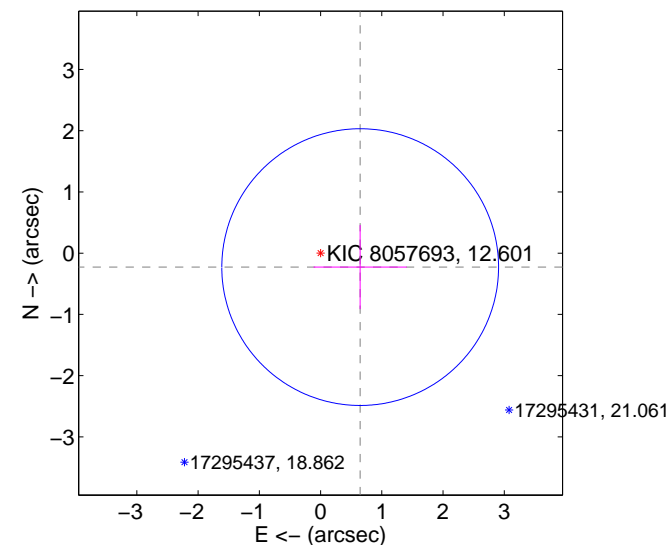
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

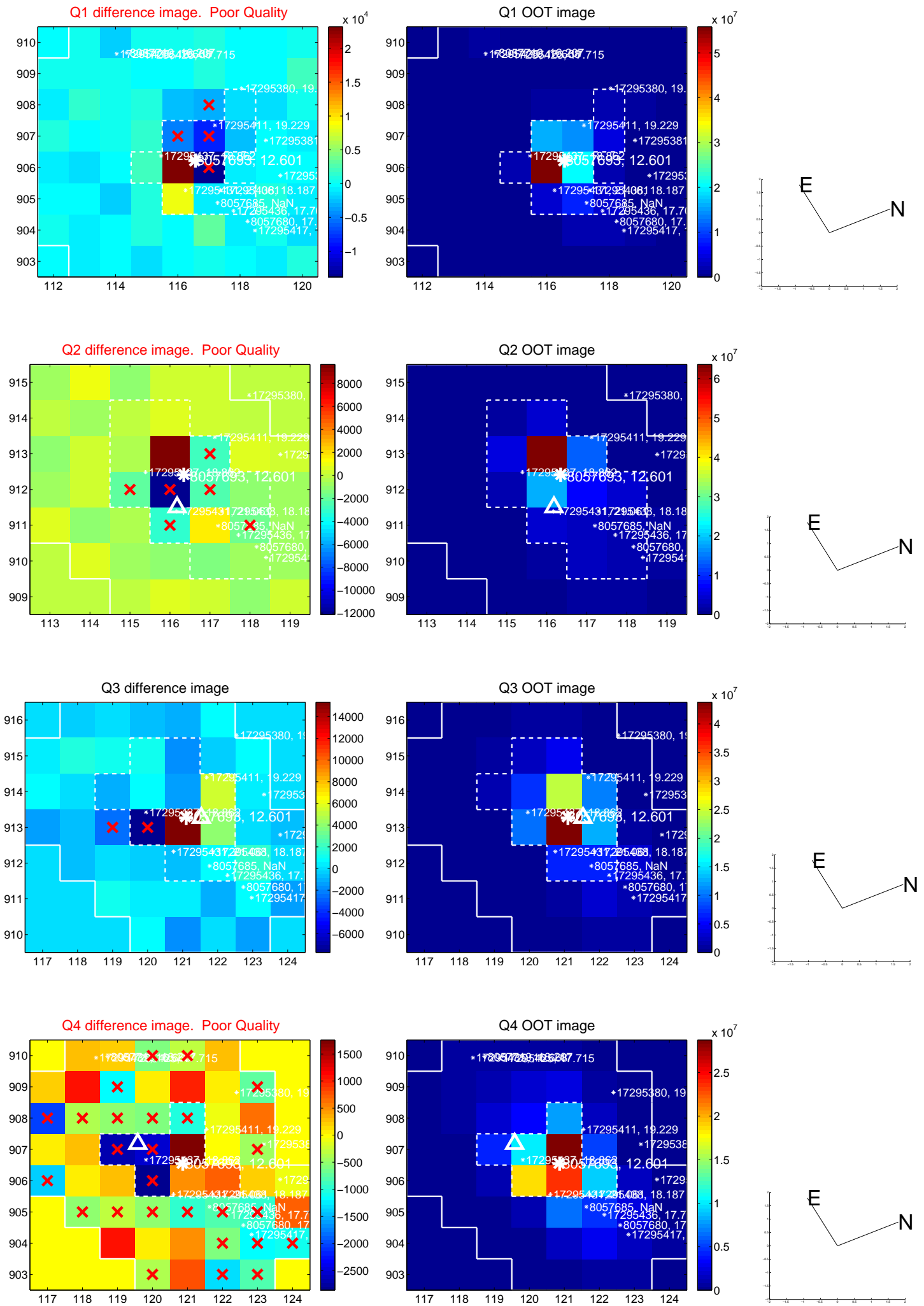


offset from photometric centroids

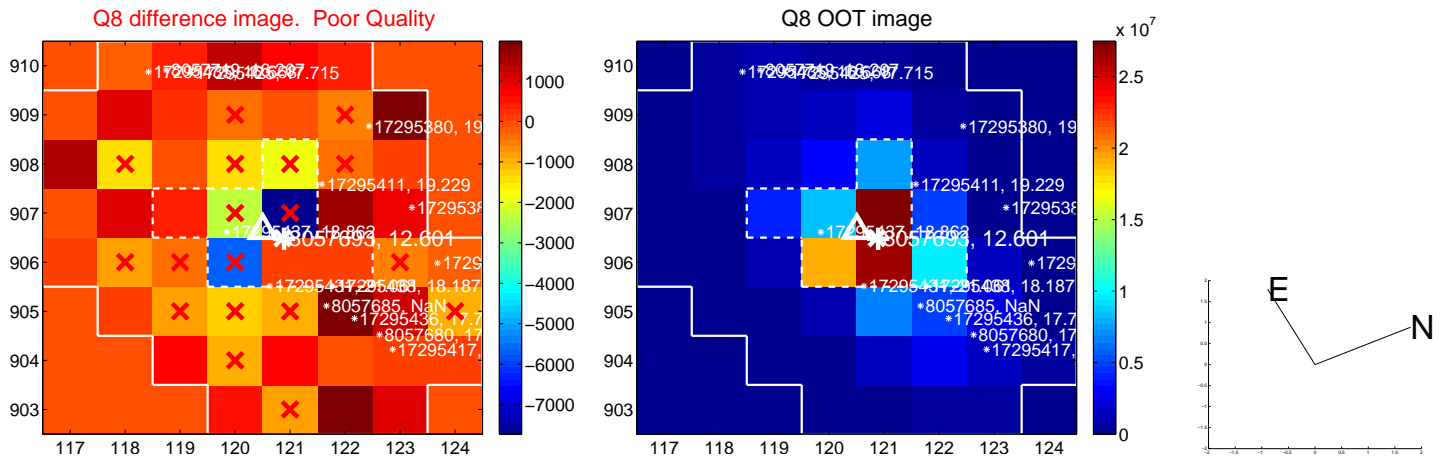
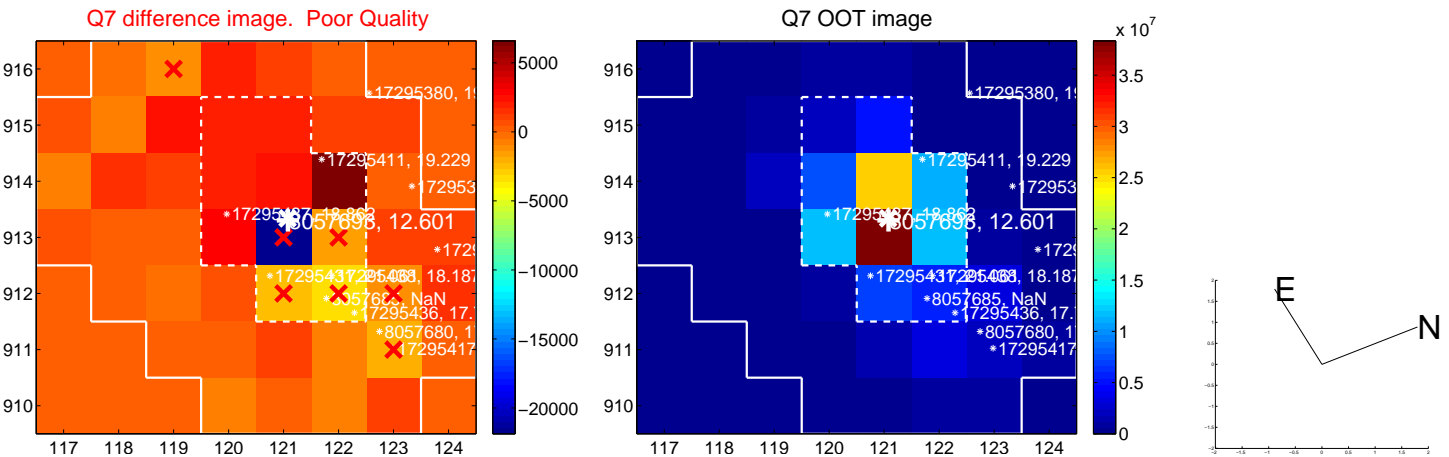
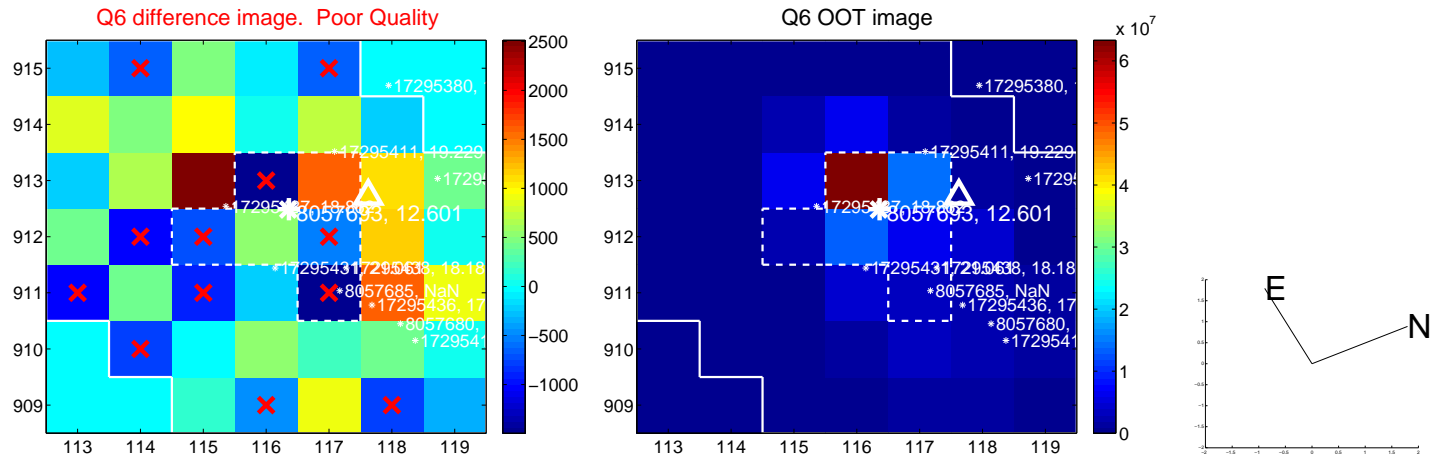
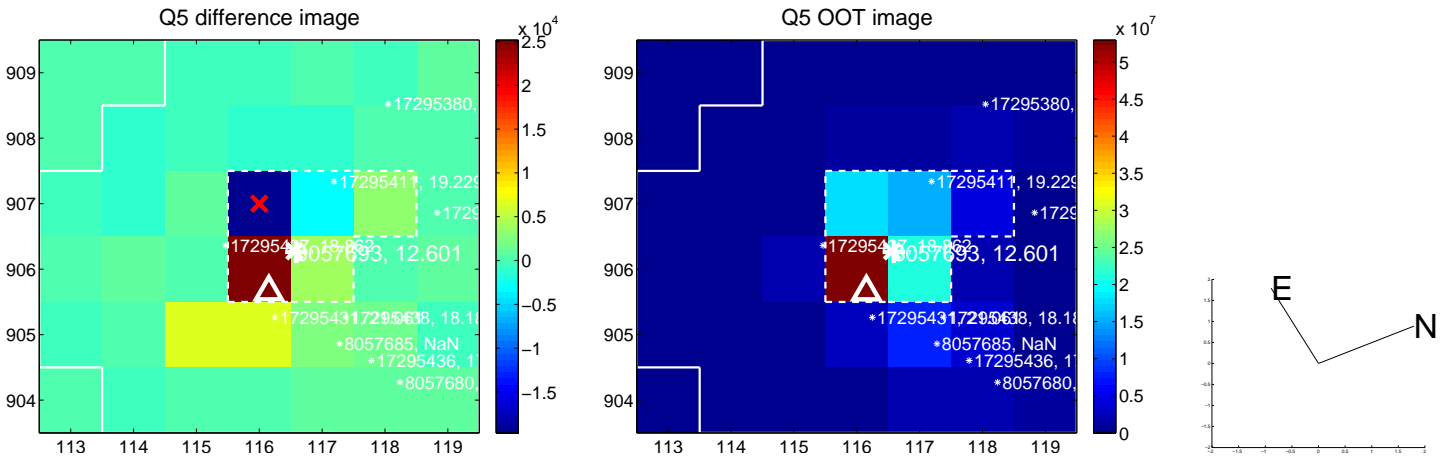


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

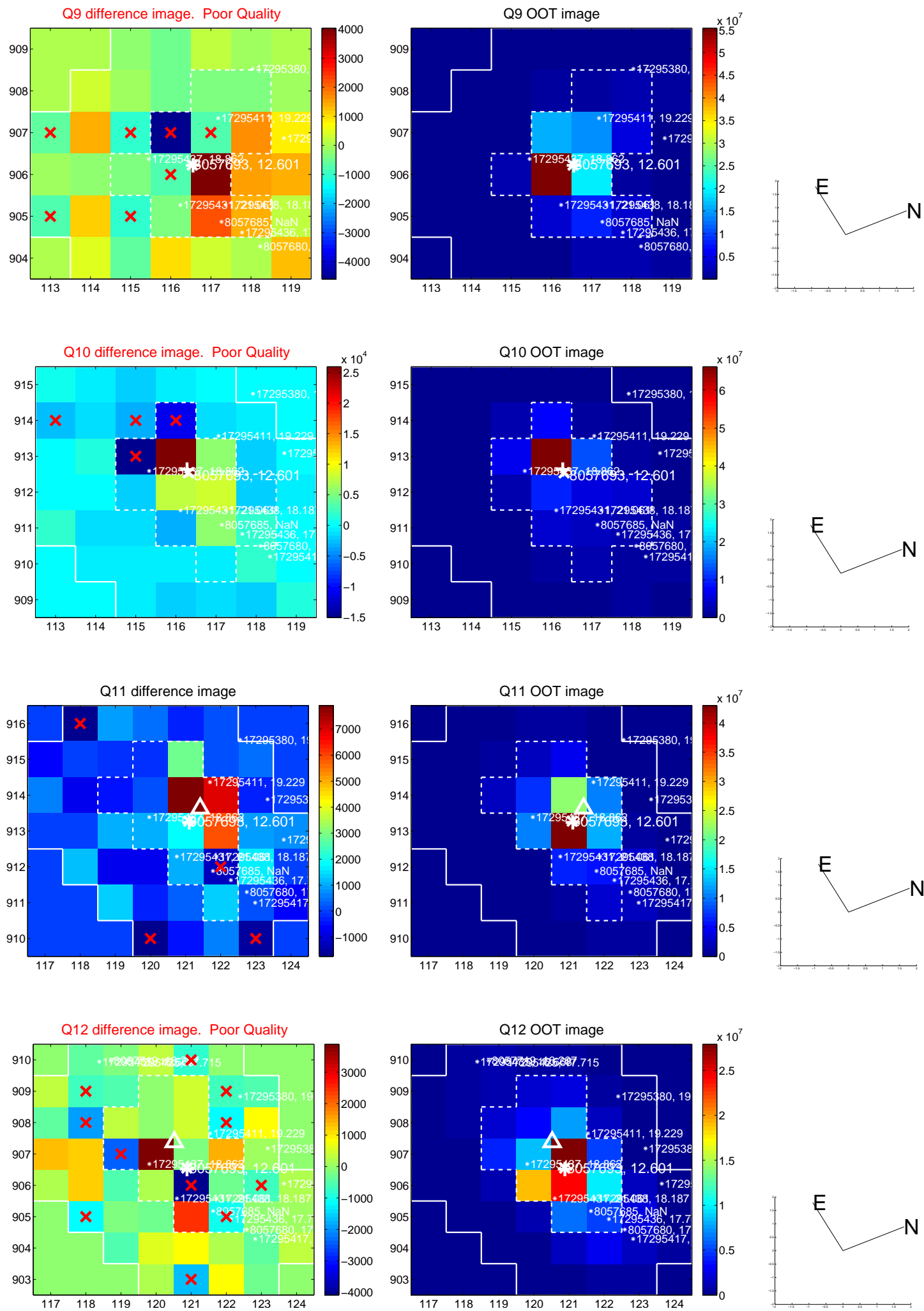
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



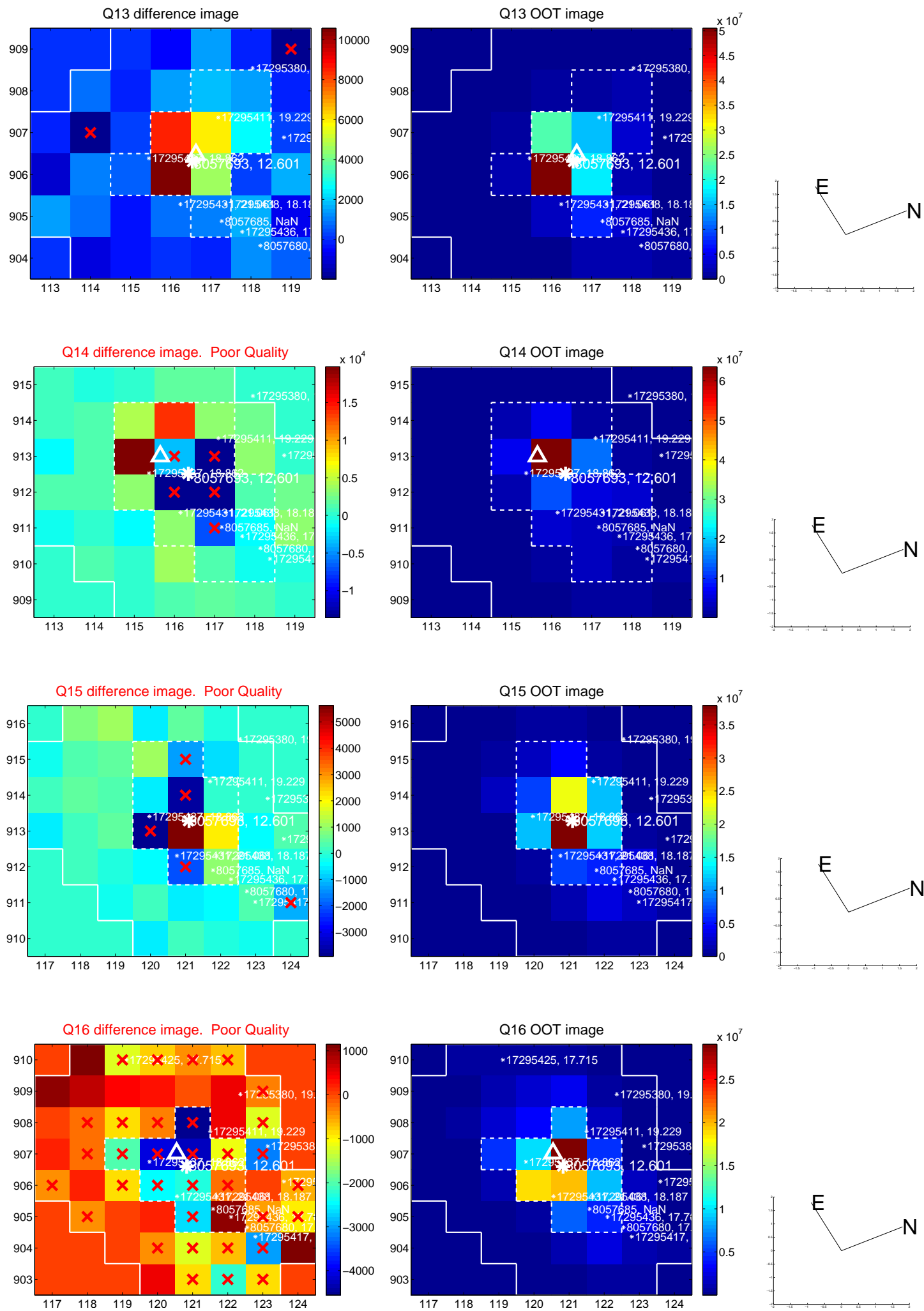
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



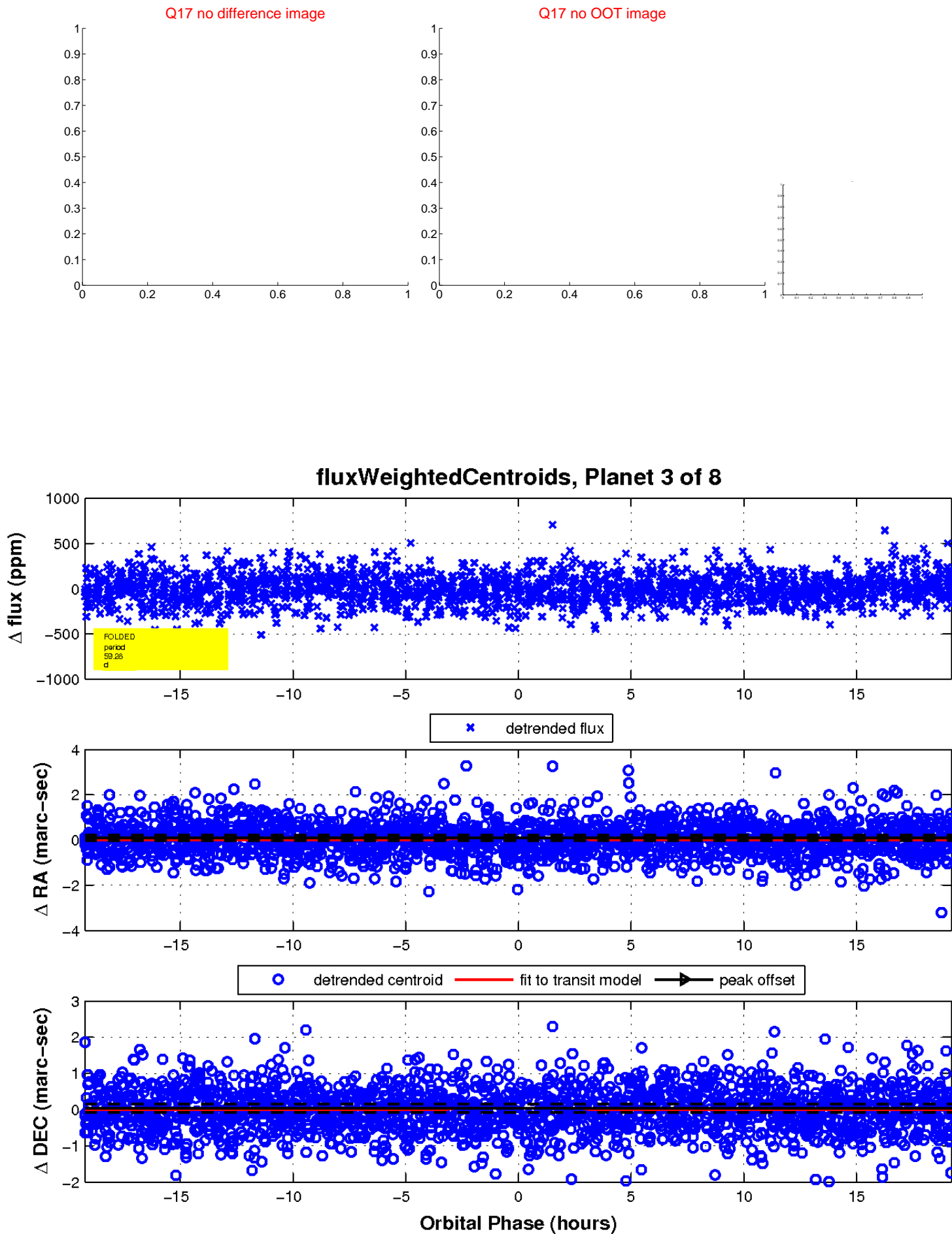
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

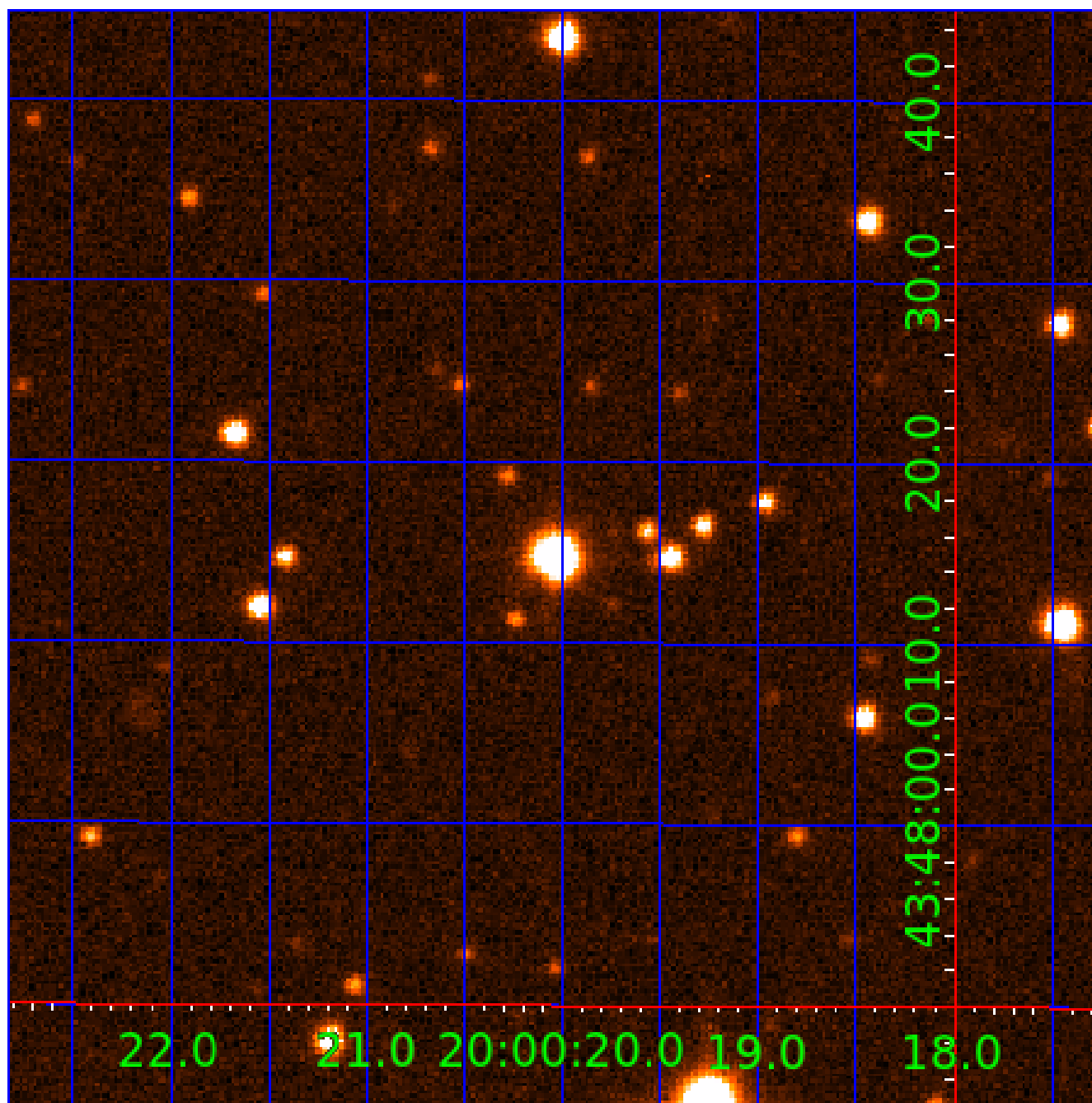


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
008057693-04	OBS	No	22.796647	144.930147	206.8	2.344	10.8	10.4	1.41	6792	2.37	130.24
008057693-05	OBS	No	35.451867	150.331824	195.1	5.707	8.8	11.5	1.41	6792	2.24	72.28
008057693-06	OBS	No	40.229411	161.560789	261.3	0.625	9.7	5.7	1.41	6792	2.44	61.07
008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
008057693-08	OBS	No	47.933620	135.506699	266.7	1.445	9.0	9.0	1.41	6792	2.53	48.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

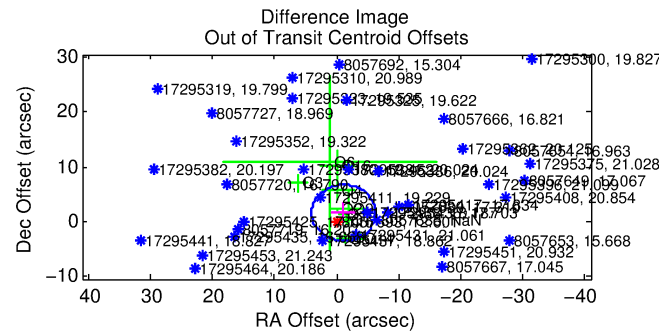
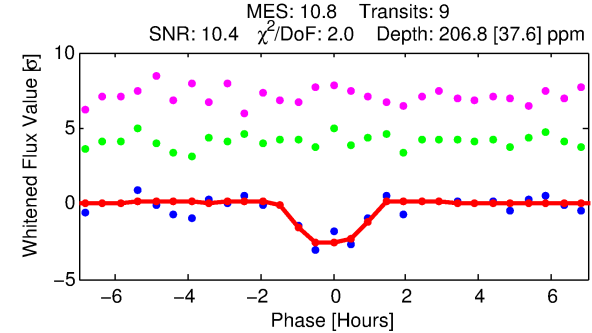
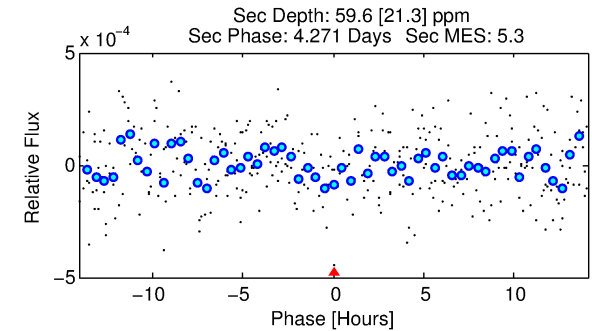
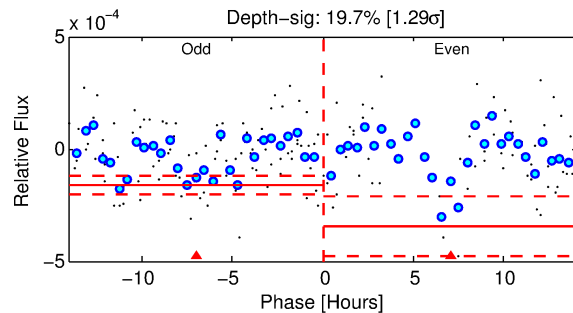
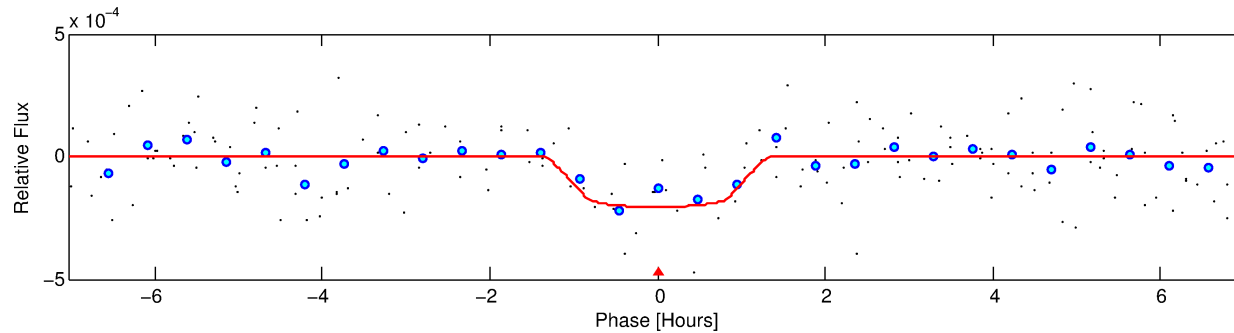
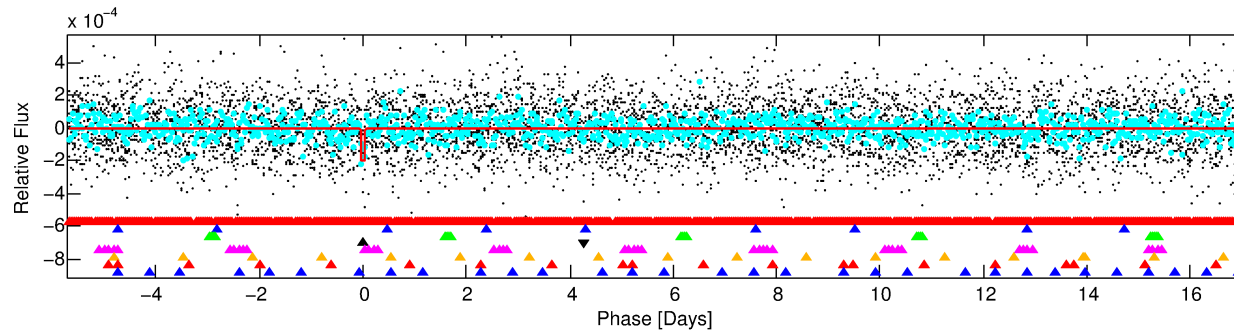
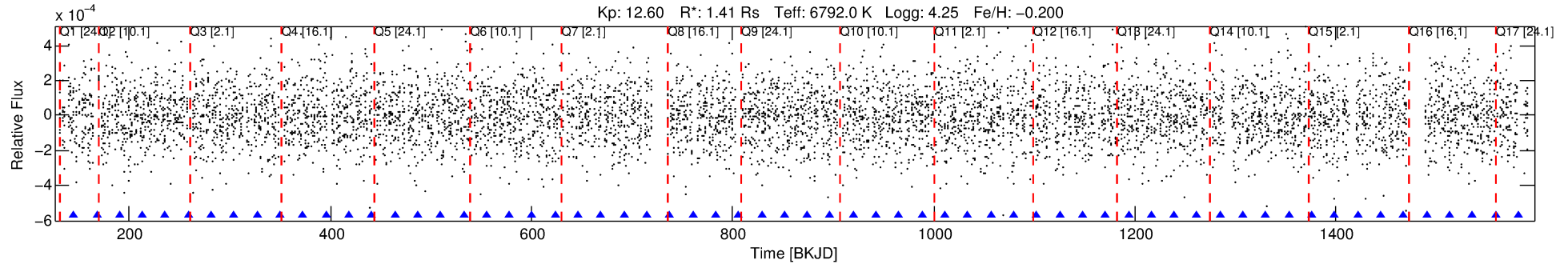
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-04

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 4 of 8 Period: 22.797 d



DV Fit Results:

Period = 22.79665 [0.00025] d
Epoch = 144.9301 [0.0086] BKJD
Rp/R* = 0.0154 [0.0223]
a/R* = 34.38 [301.50]
b = 0.90 [1.79]
Seff = 130.24 [50.41]
Teq = 861 [83] K
Rp = 2.37 [3.50] Re
a = 0.1707 [0.0421] AU
Ag = 169.90 [498.08] [0.34 σ]
Teffp = 4808 [3505] K [1.13 σ]

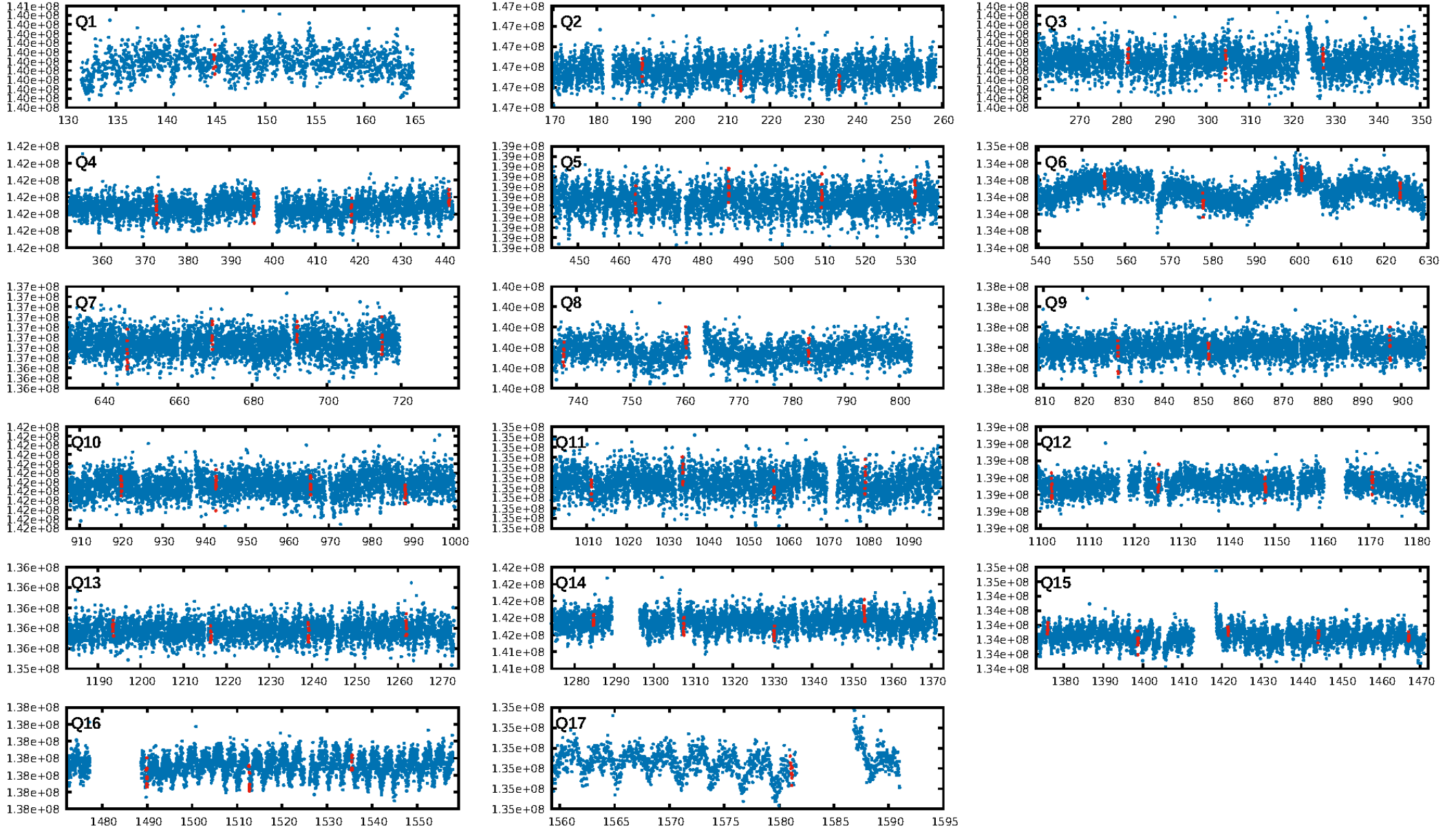
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [36.37 σ]
LongPeriod-sig: 100.0% [49.23 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 96.7%
Bootstrap-pfa: 4.02e-09
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -0.1239
Centroid-sig: 51.1%
Centroid-so: 0.563 arcsec [0.89 σ]
OotOffset-rm: 1.904 arcsec [1.11 σ]
OotOffset-st: 3/3/2/2 [10]
KicOffset-rm: 1.925 arcsec [1.12 σ]
KicOffset-st: 3/3/2/2 [10]
DiffImageQuality-fgm: 0.30 [3/10]
DiffImageOverlap-fno: 0.76 [13/17]

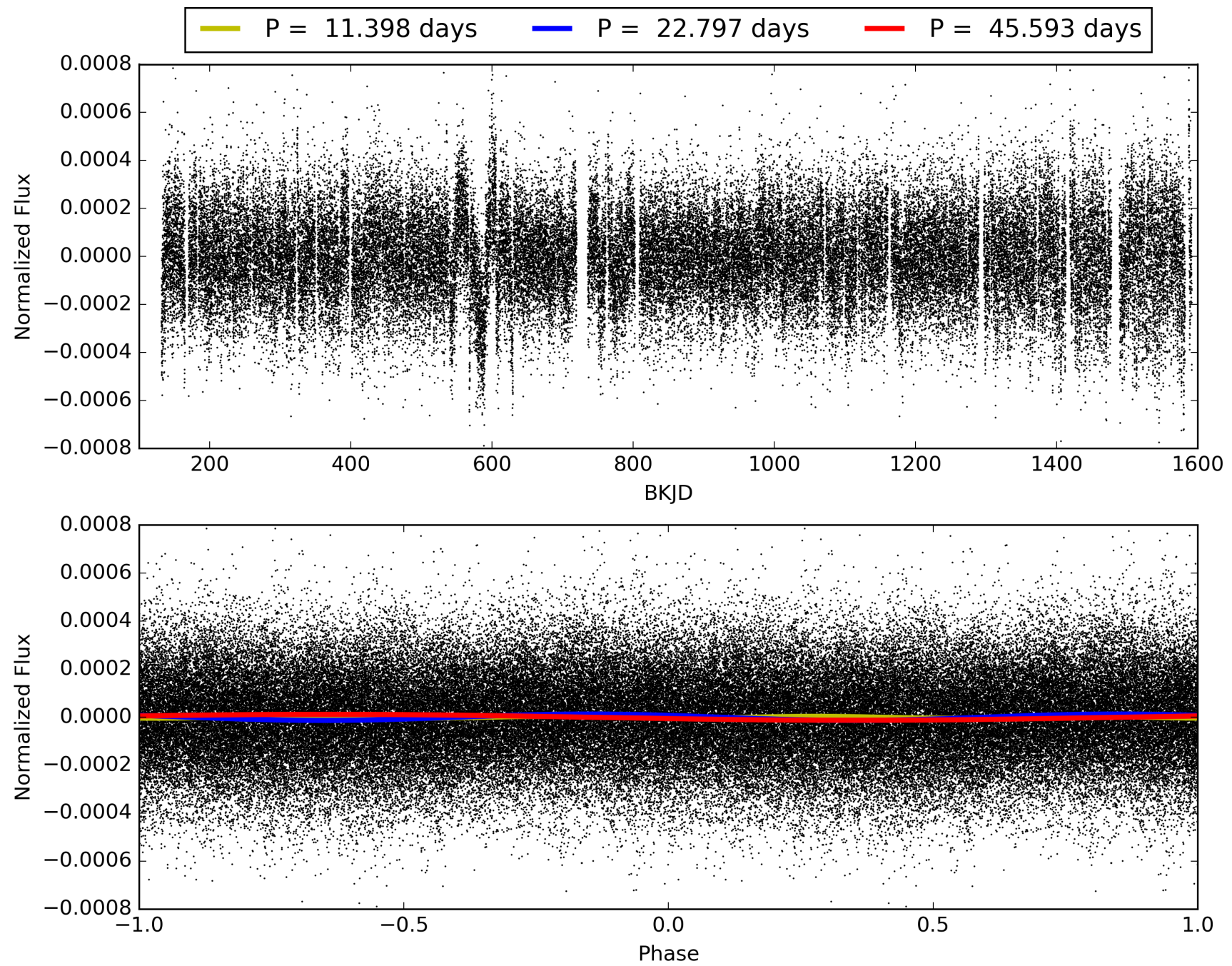
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:52:47 Z

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

TCE 008057693-04, PDC Light Curves

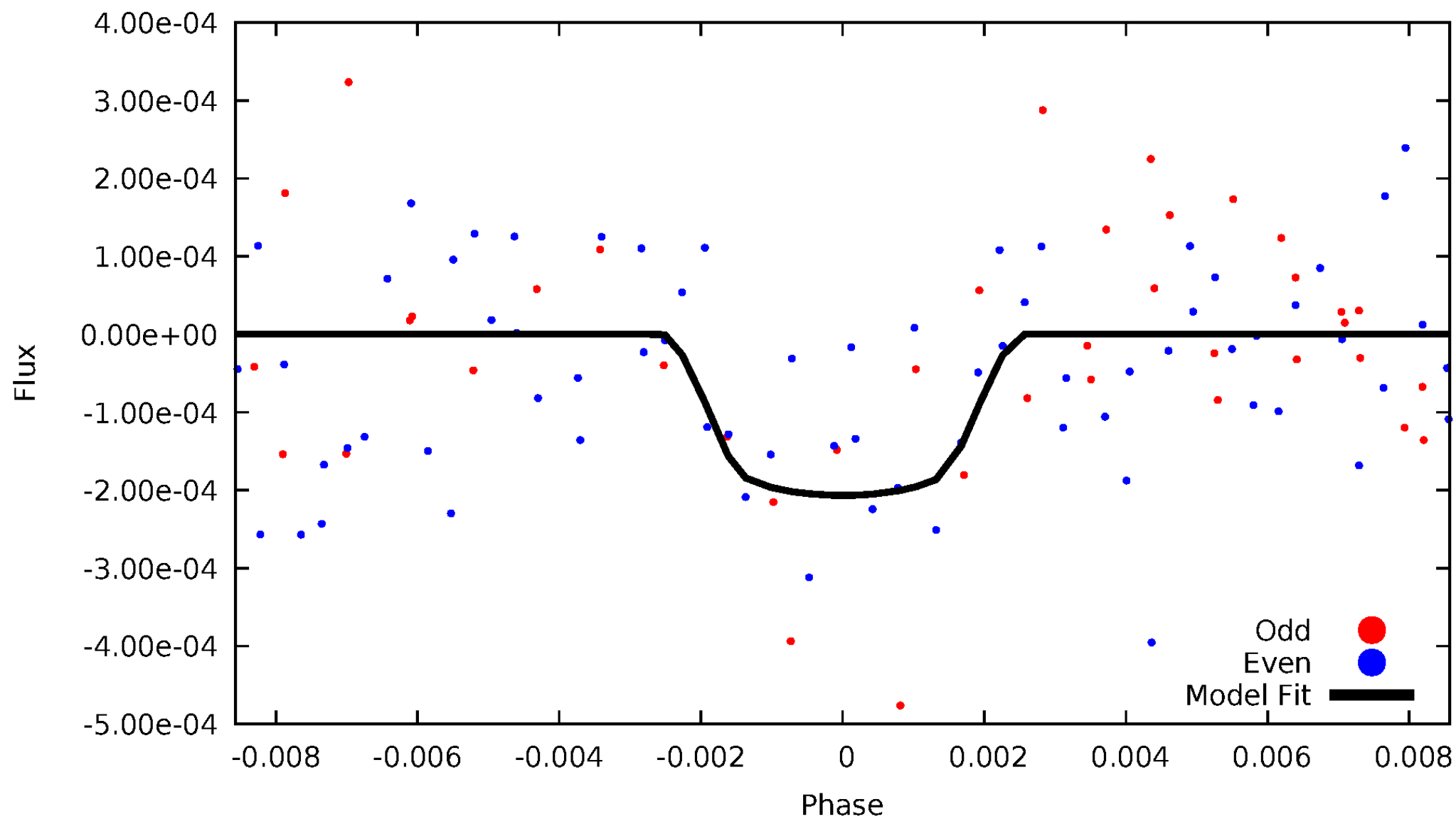


TCE 008057693-04



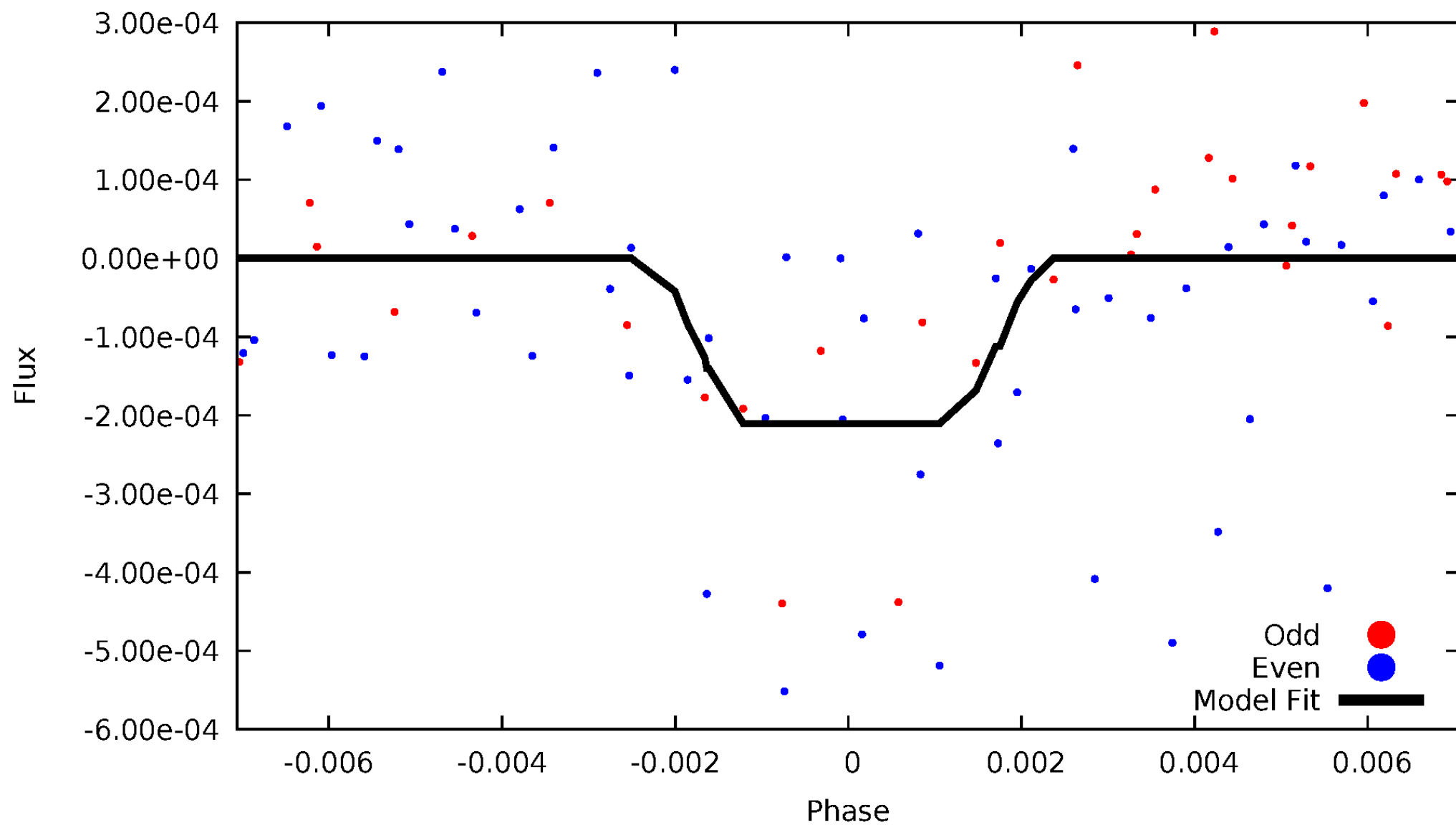
DV Odd/Even

TCE 008057693-04



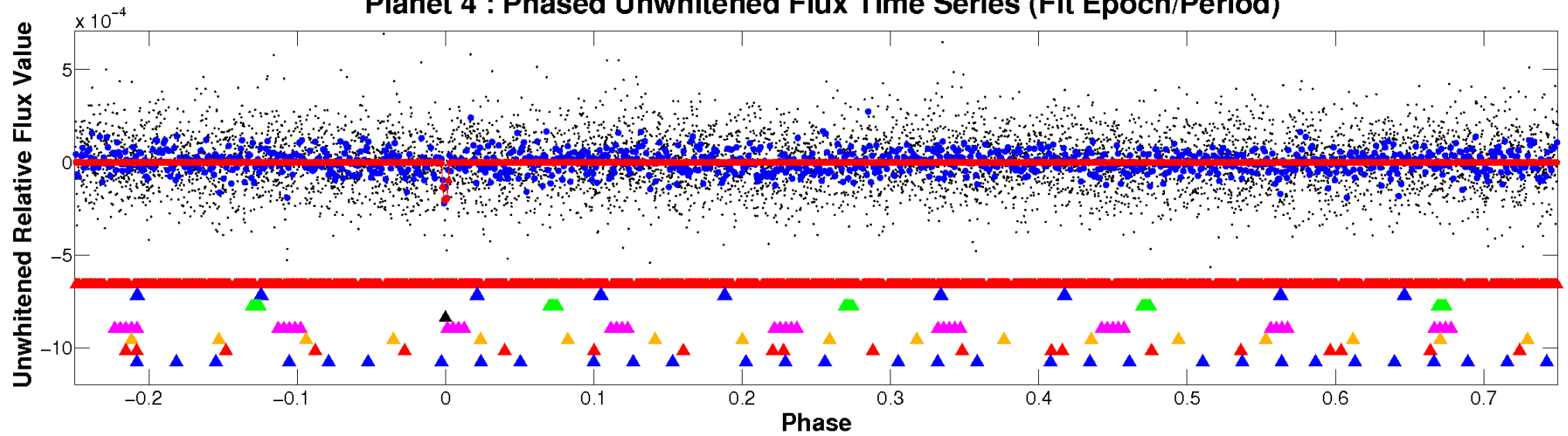
ALT Odd/Even

TCE 008057693-04

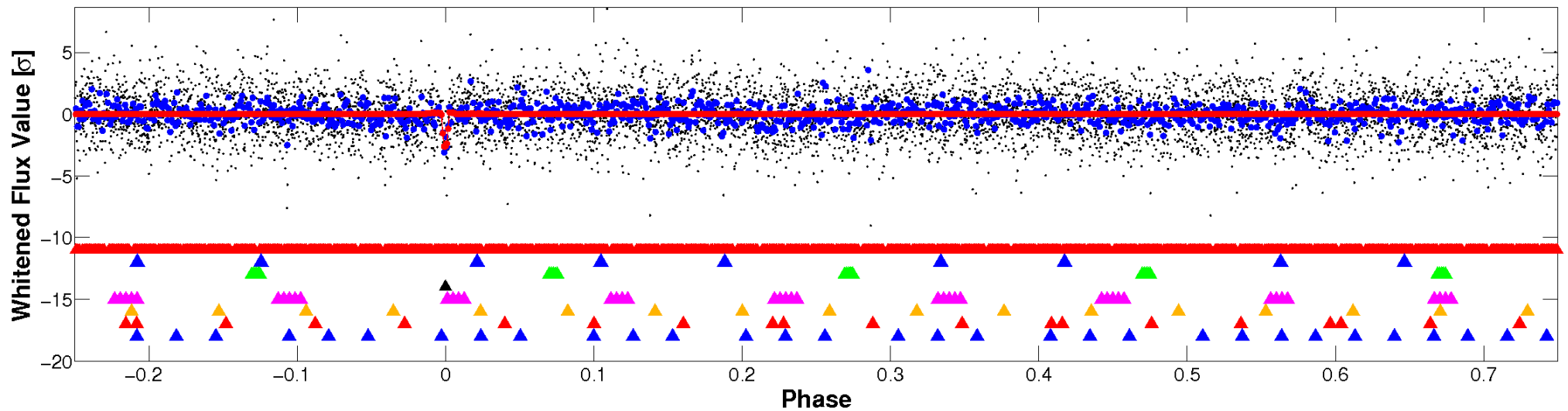


Non-Whitened Vs. Whitened Light Curve

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

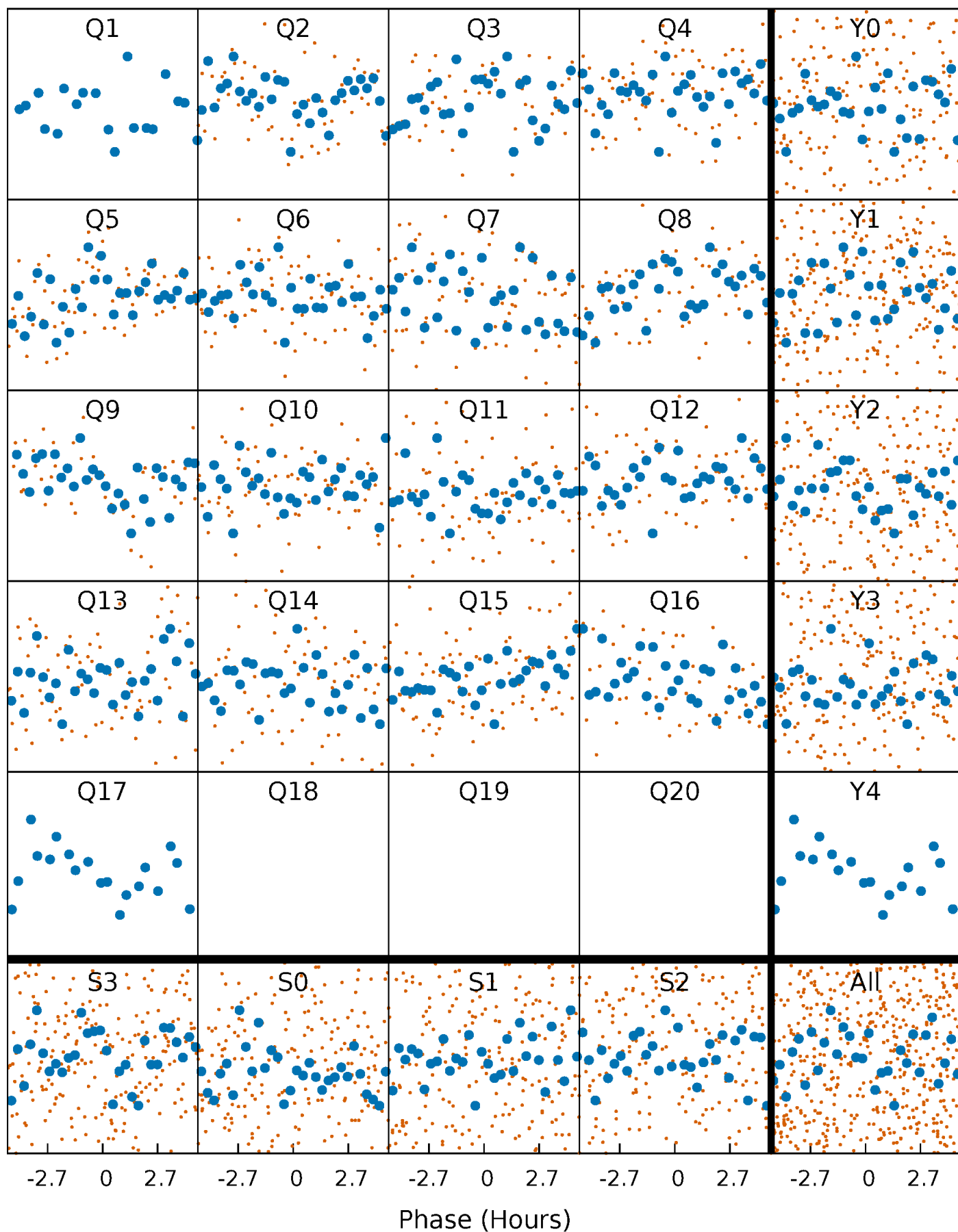


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



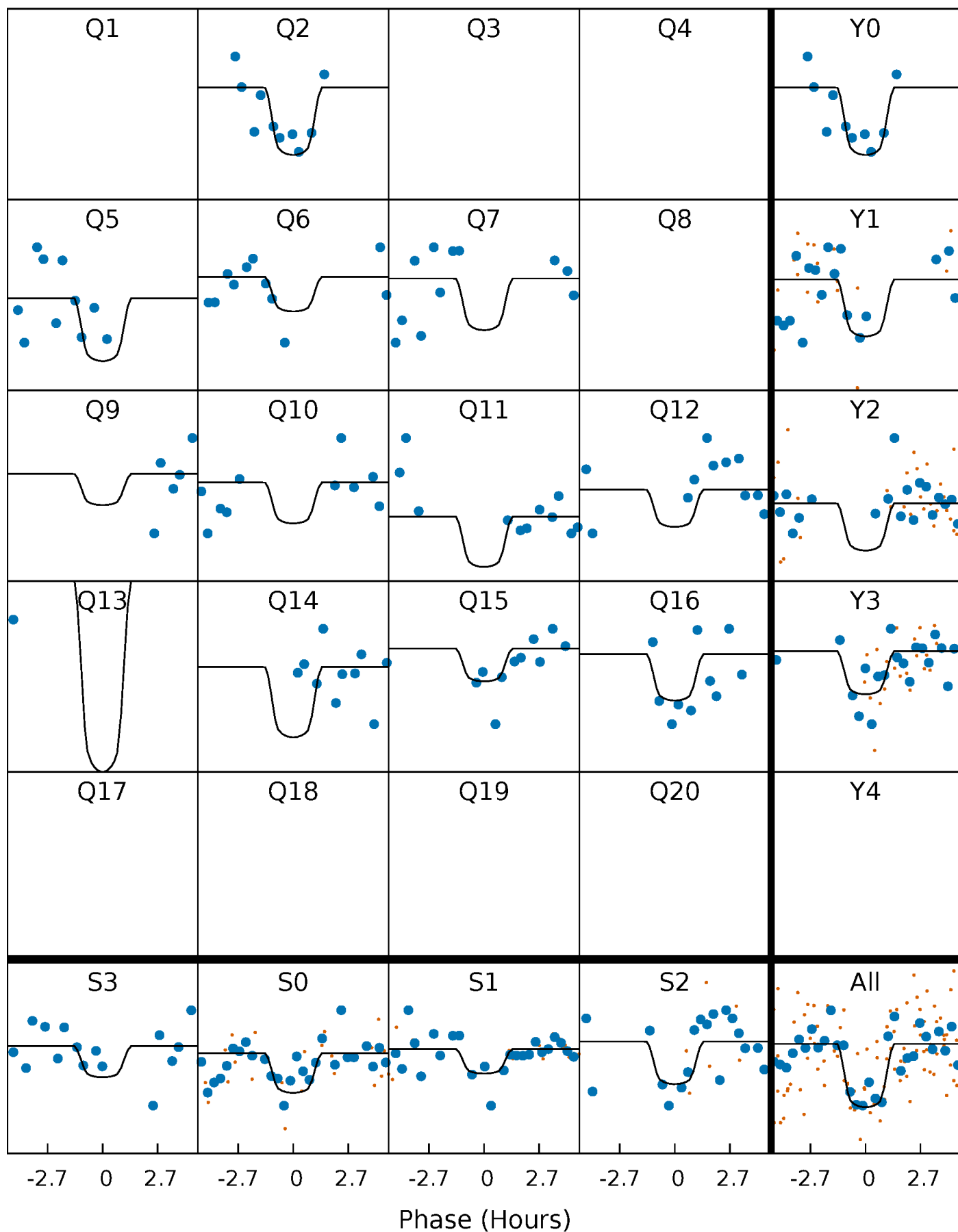
PDC Quarter-Phased Transit Curves

TCE 008057693-04 P= 22.796647 Days $T_0=144.930147$ (BKJD)



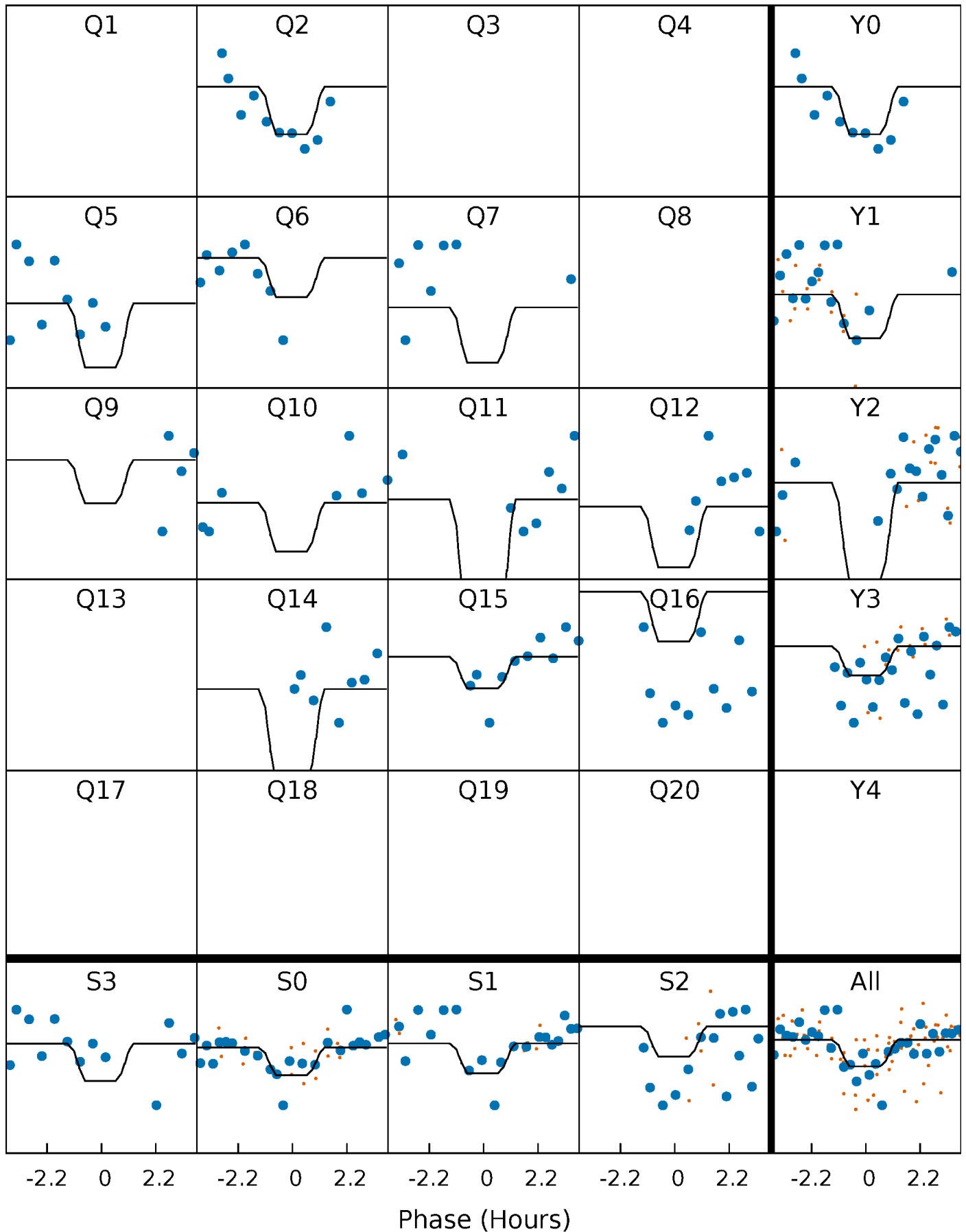
DV Quarter-Phased Transit Curves

TCE 008057693-04 P= 22.796647 Days $T_0=144.930147$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

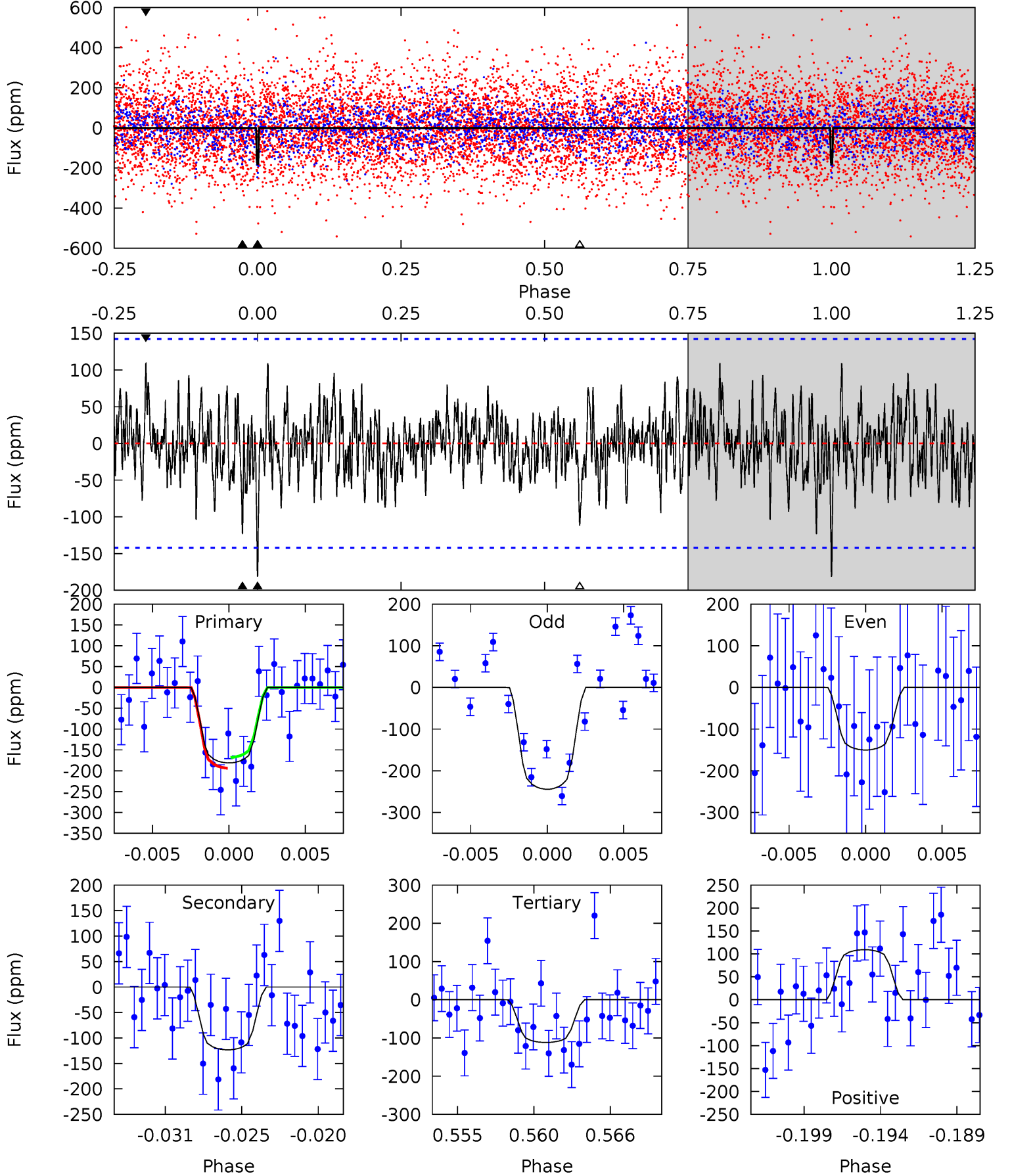
TCE 008057693-04 P= 22.796778 Days $T_0=144.928374$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-04, P = 22.796647 Days, E = 122.133500 Days

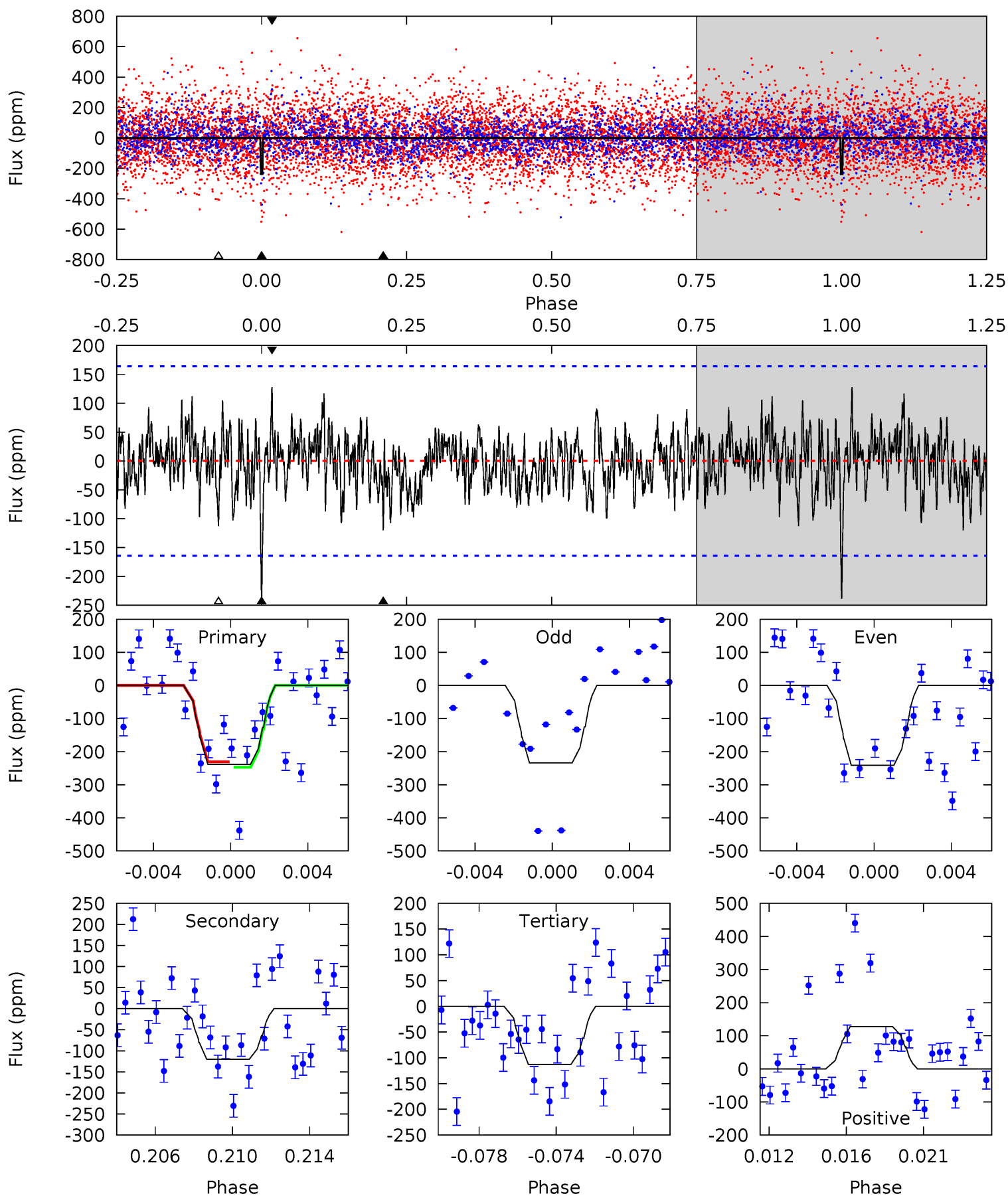
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.57	4.47	4.06	3.96	5.15	2.80	1.26	2.51	2.61	0.42	0.51	1.55	0.94	0.38	0.47



Alt Model-Shift Uniqueness Test

008057693-04, P = 22.796778 Days, E = 122.131596 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.55	3.80	3.56	4.03	5.19	2.87	1.22	3.99	3.52	0.24	-0.23	0.10	0.93	0.35	0.26



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-123 ± 28	$3.60^{+3.25}_{-2.44}$	1204^{+82}_{-78}	4749^{+3653}_{-999}	148^{+1312}_{-108}
Alt.	-120 ± 32	$3.48^{+3.05}_{-2.30}$	1212^{+95}_{-79}	4780^{+3613}_{-946}	148^{+1067}_{-107}

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 $A_{obs} \gg 1.0$

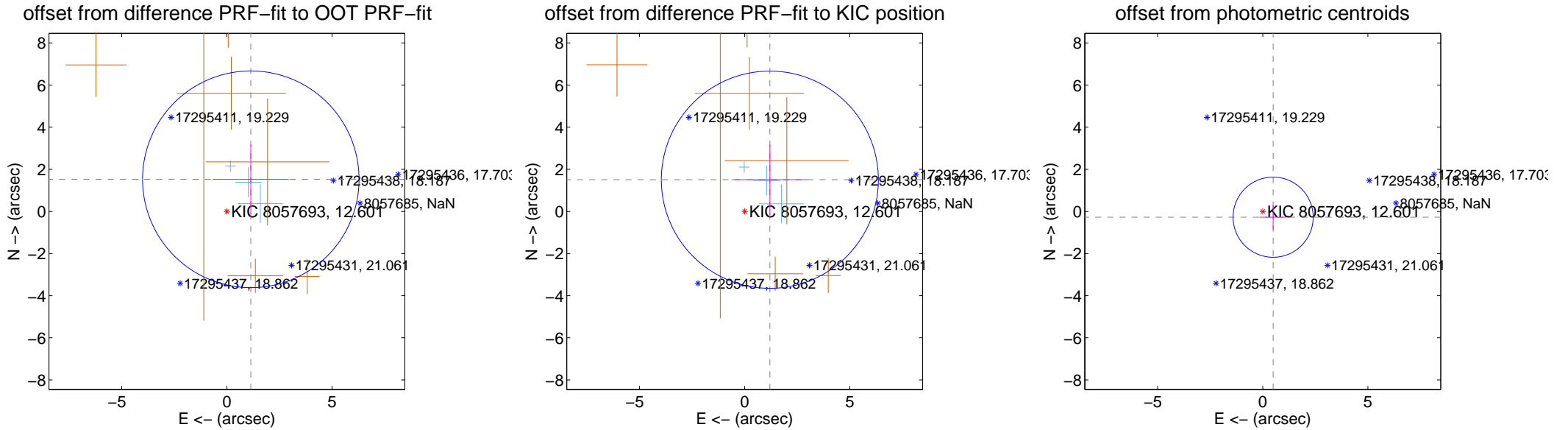
DV Centroid Data

Supplemental centroid analysis for 008057693-04. Kepler magnitude: 12.60. Transit SNR 10.41

There are 3 quarters with good PRF difference image offsets

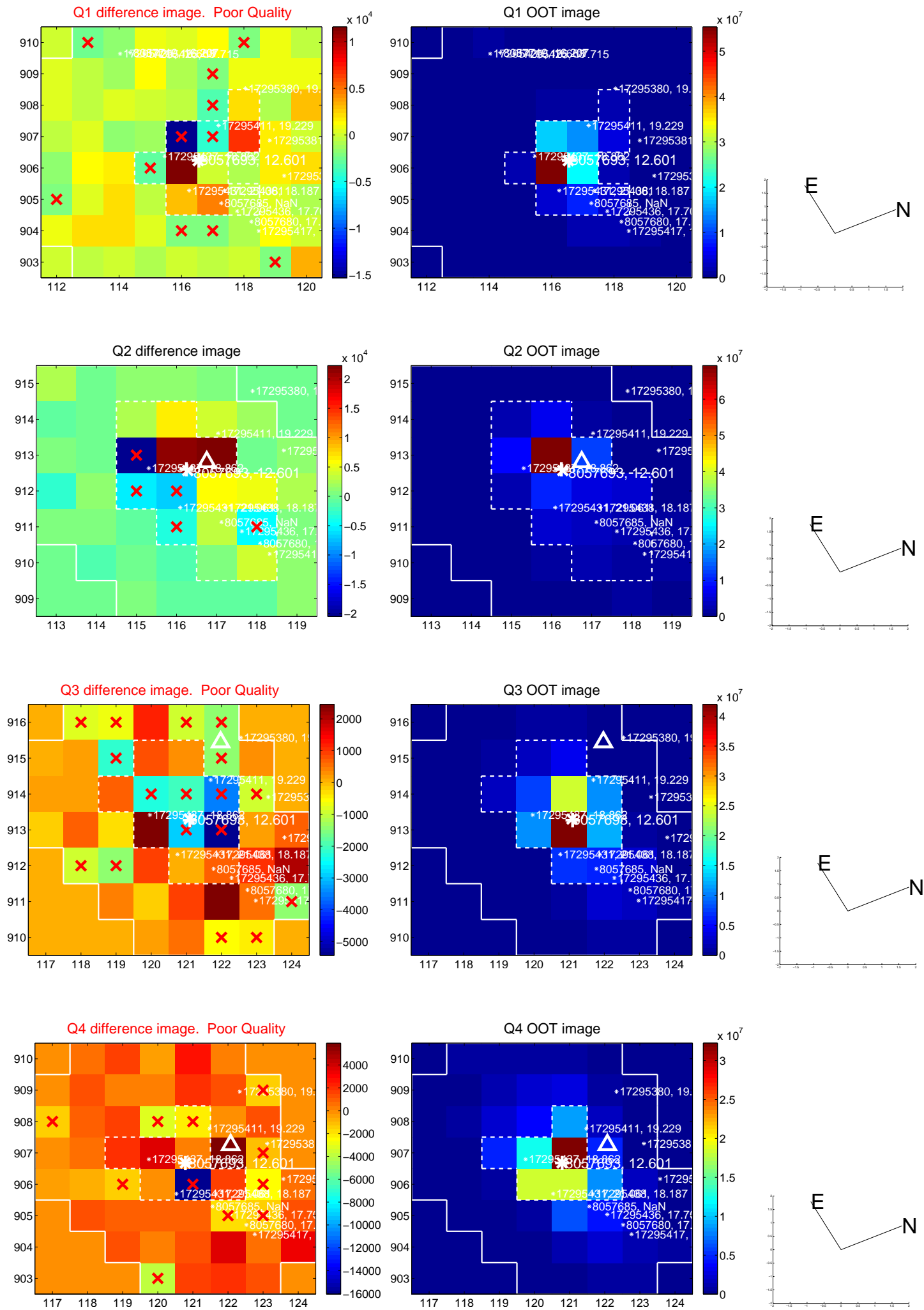
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.904 ± 1.715	1.11	-1.139 ± 1.805	1.526 ± 1.663
PRF-fit source offset from KIC position	1.925 ± 1.719	1.12	-1.197 ± 1.805	1.507 ± 1.663
photometric centroid source offset	0.56 ± 0.63	0.89	-0.49 ± 0.65	-0.27 ± 0.59

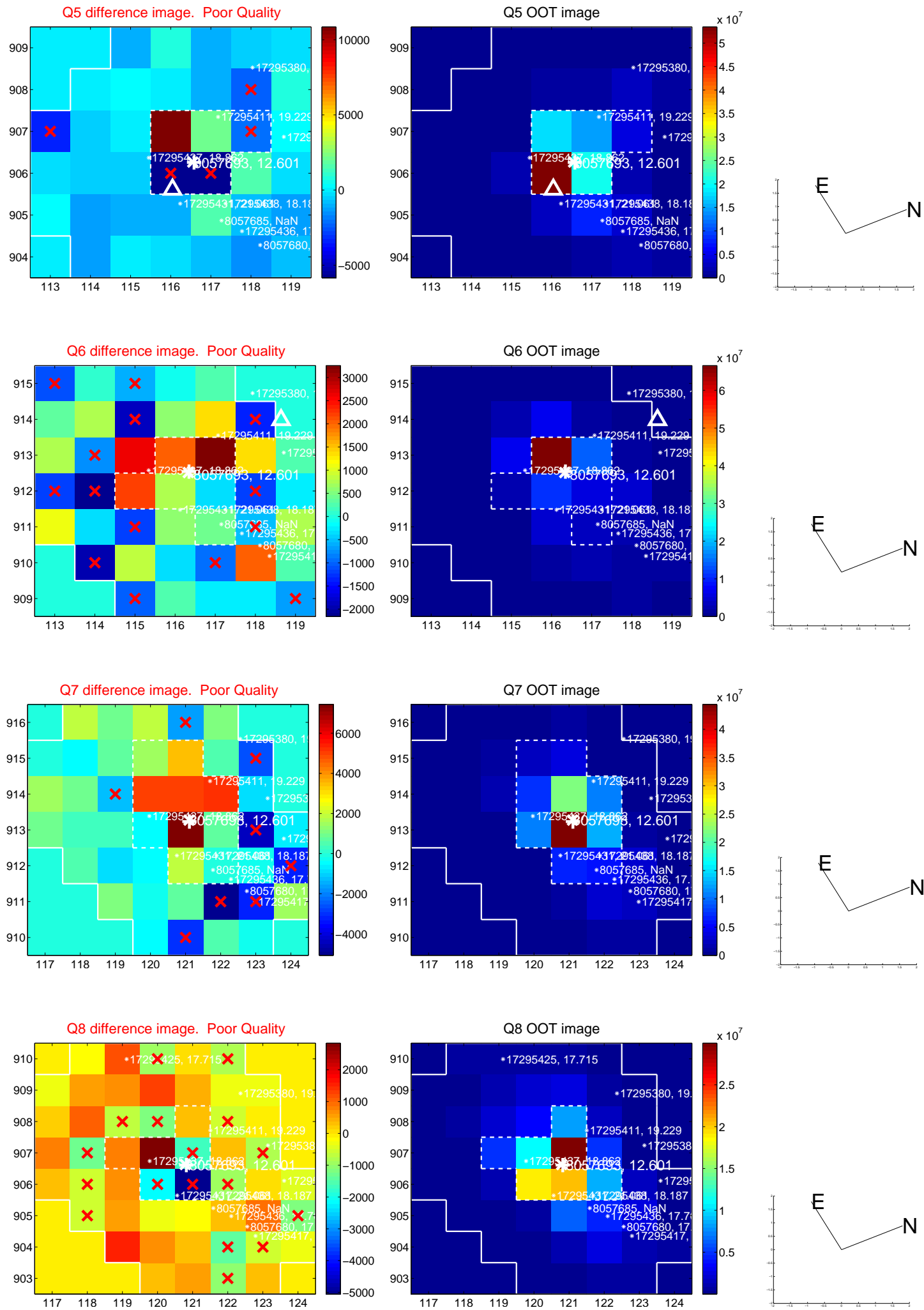


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

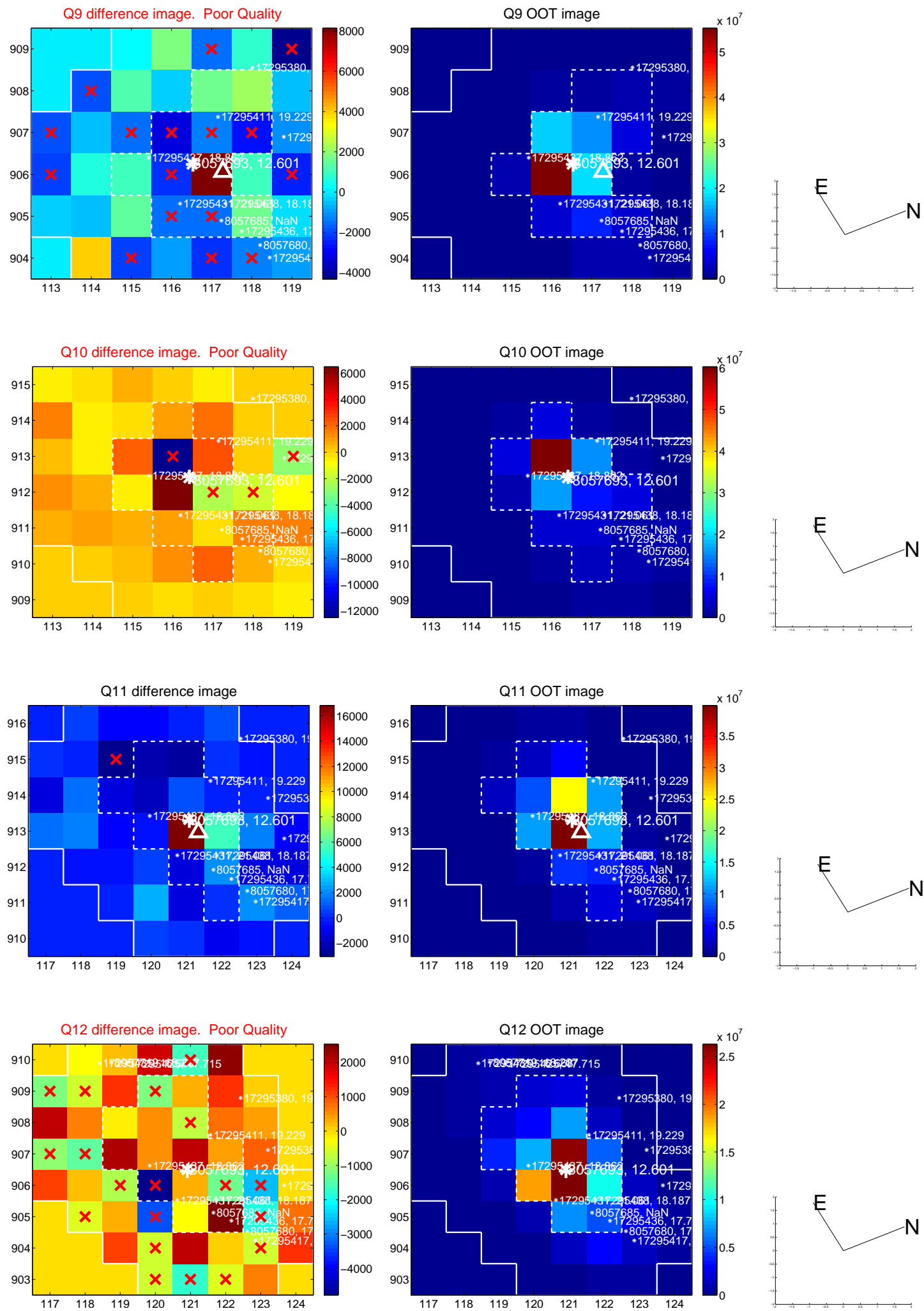
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



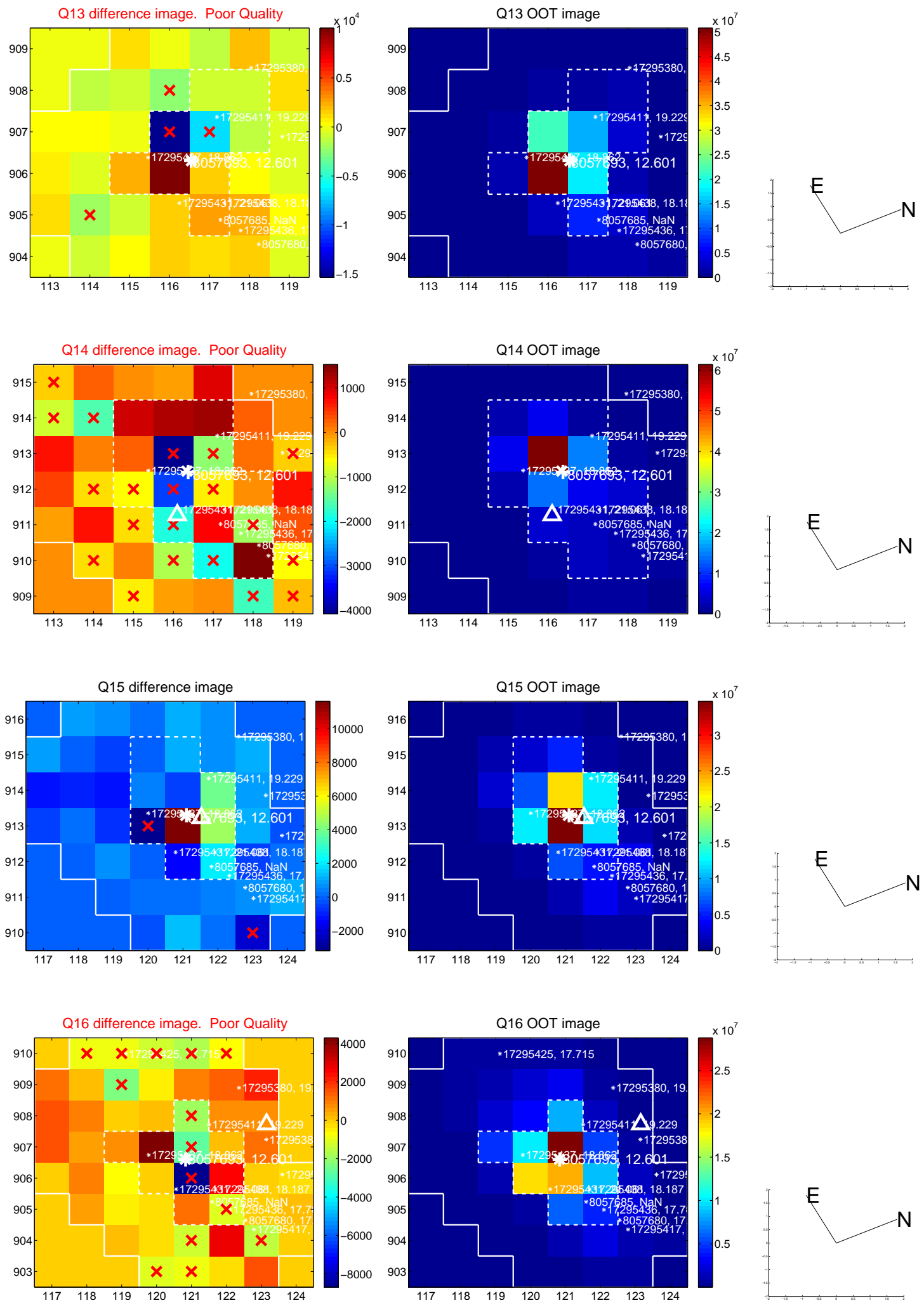
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

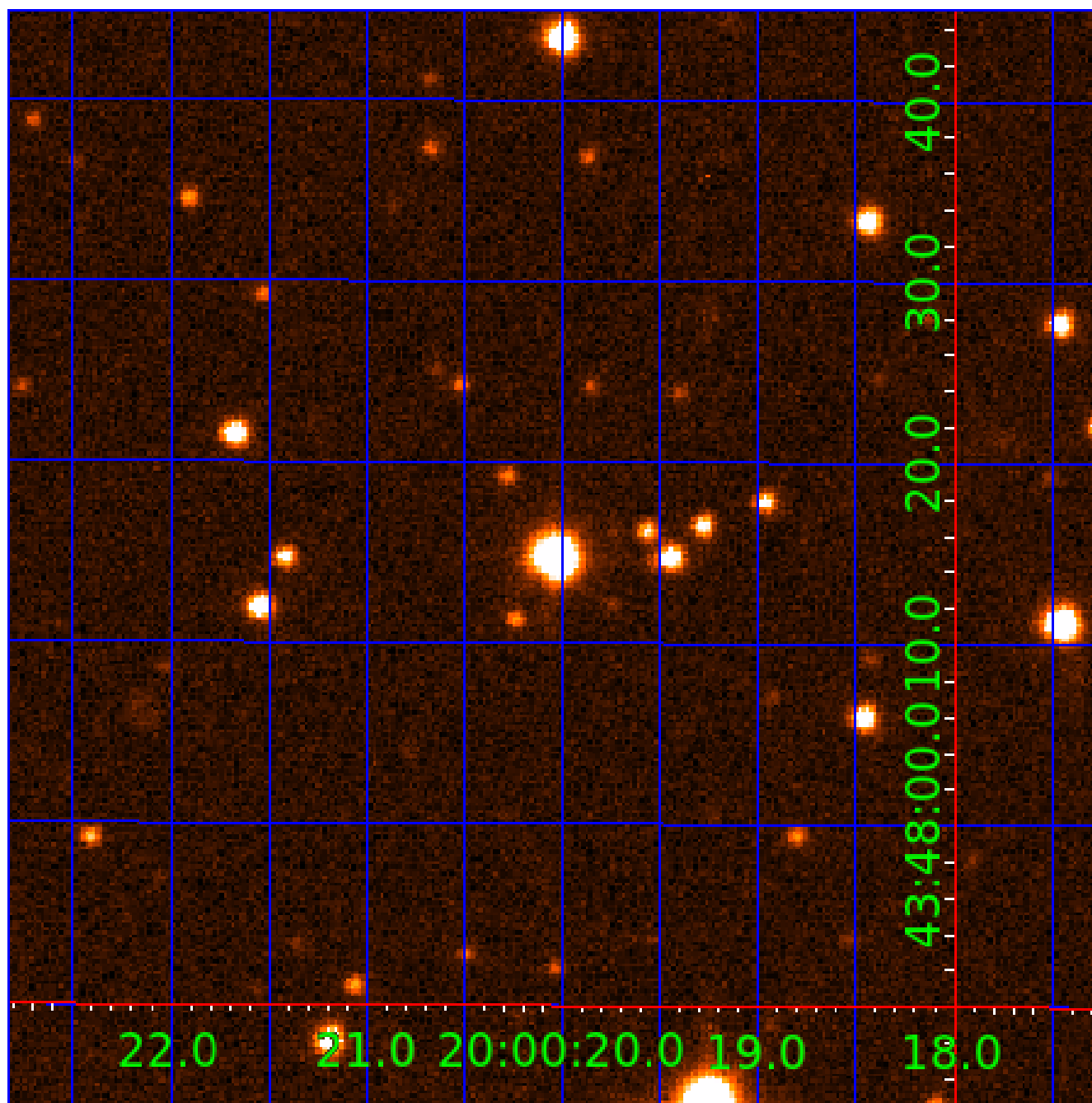


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
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008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

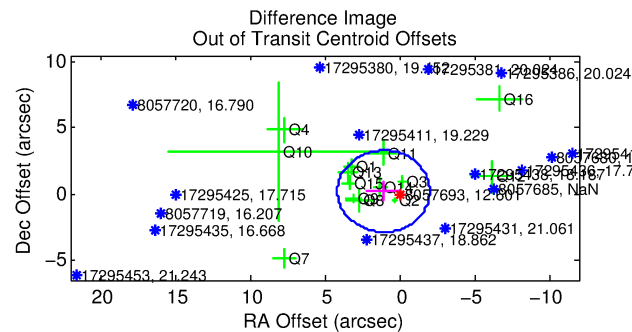
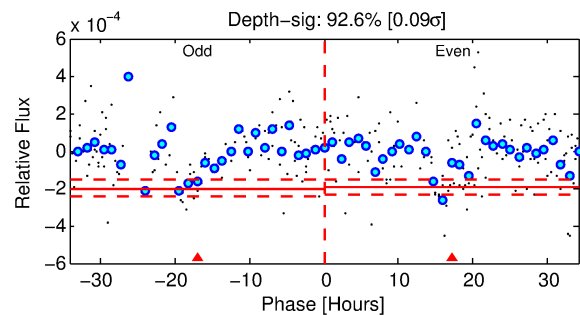
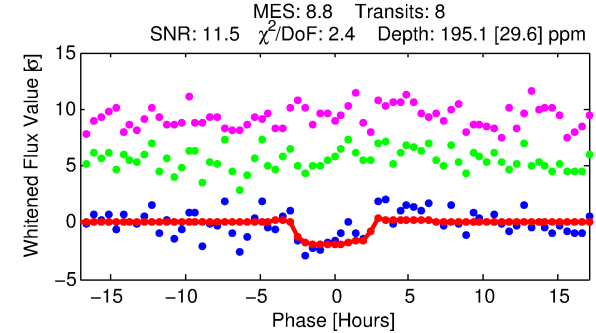
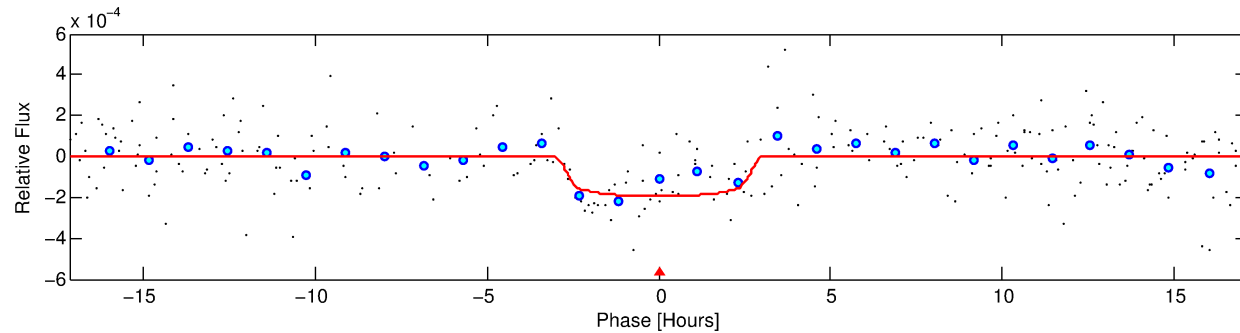
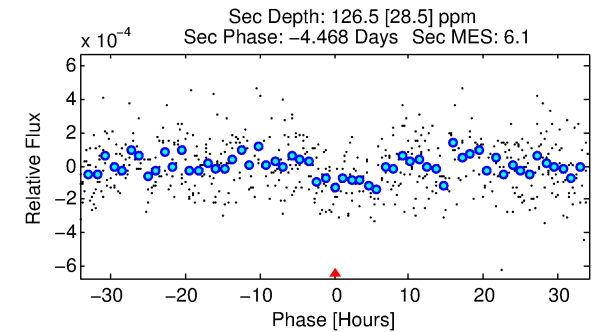
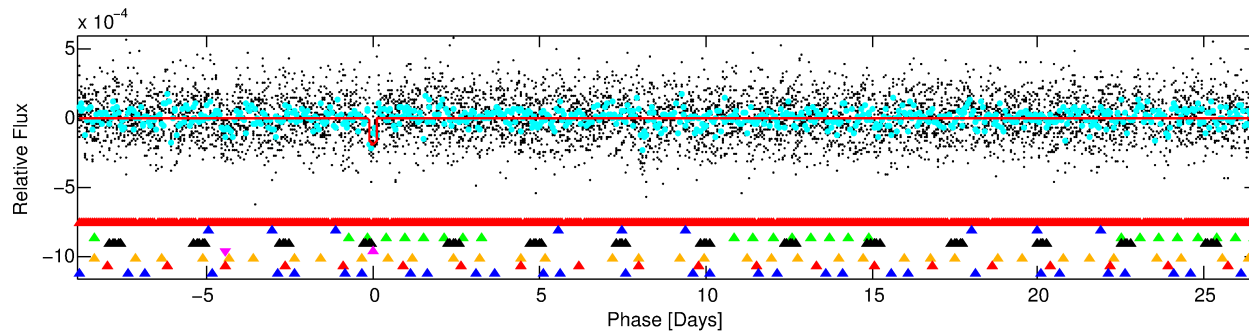
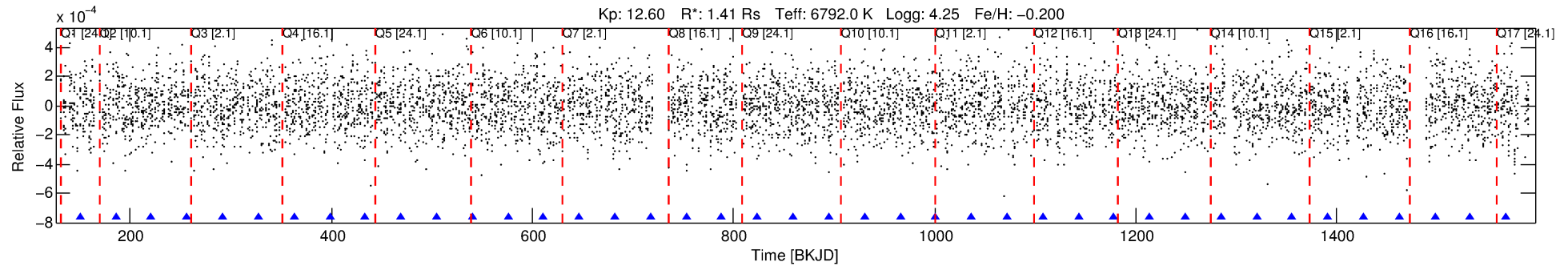
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-05

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 5 of 8 Period: 35.452 d



DV Fit Results:

Period = 35.45187 [0.00071] d
Epoch = 150.3318 [0.0185] BKJD
Rp/R* = 0.0145 [0.0075]
a/R* = 25.36 [76.44]
b = 0.86 [0.90]
Seff = 72.29 [27.98]
Teq = 744 [72] K
Rp = 2.24 [1.33] Re
a = 0.2292 [0.0565] AU
Ag = 729.94 [809.66] [0.90σ]
Teffp = 5975 [1592] K [3.28σ]

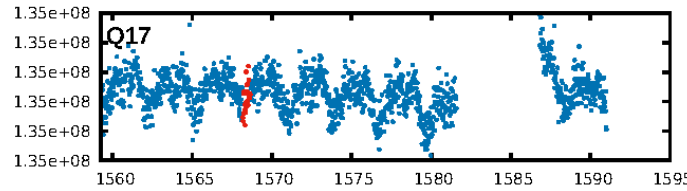
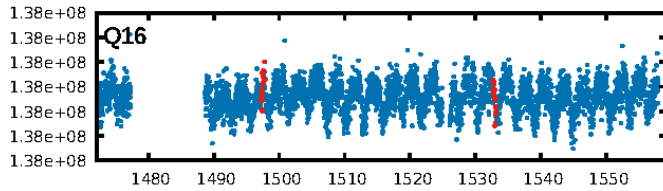
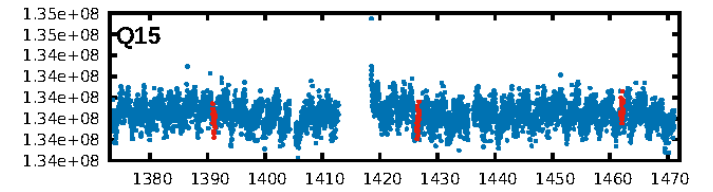
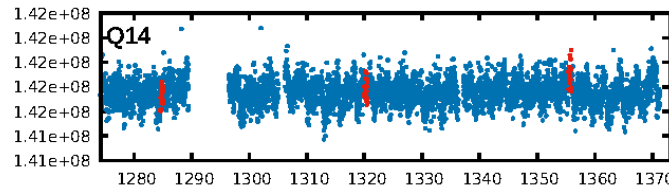
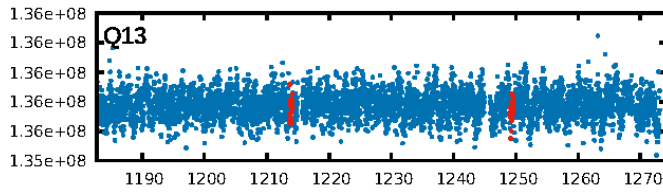
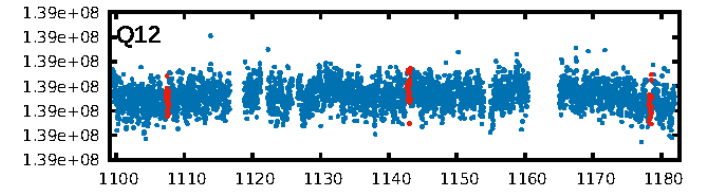
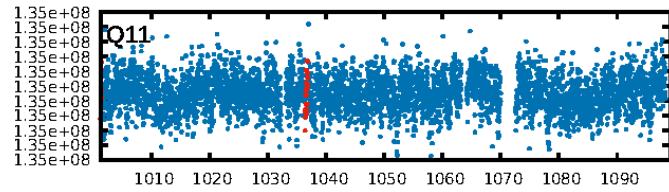
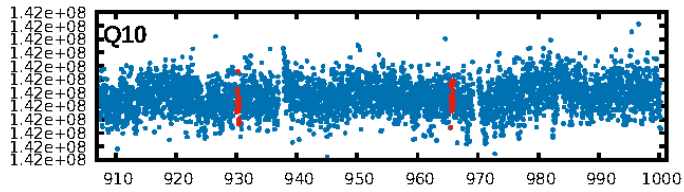
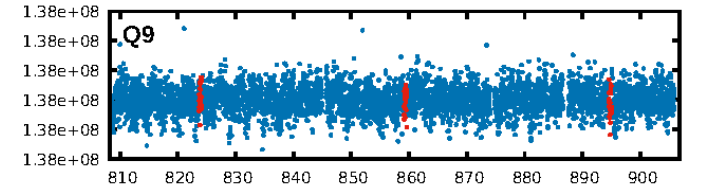
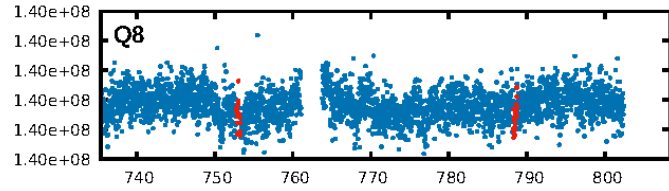
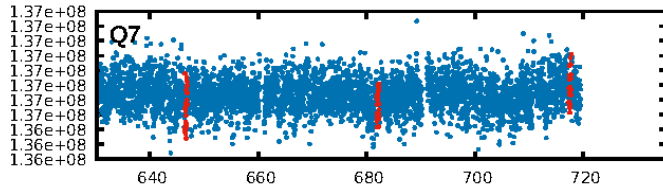
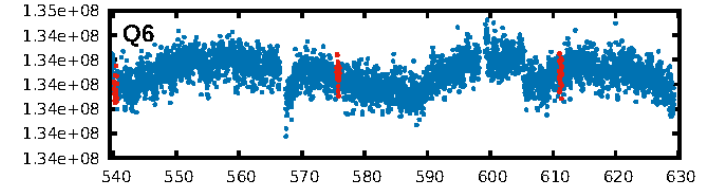
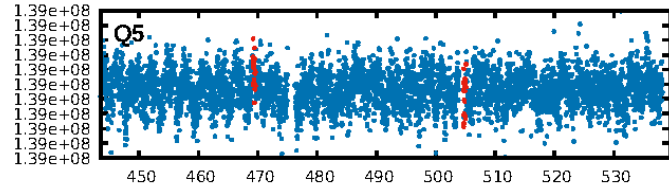
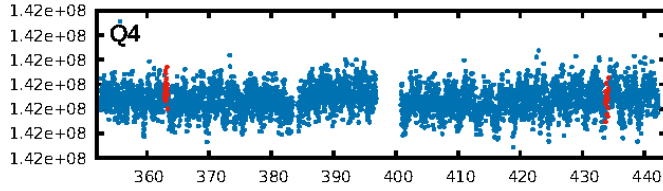
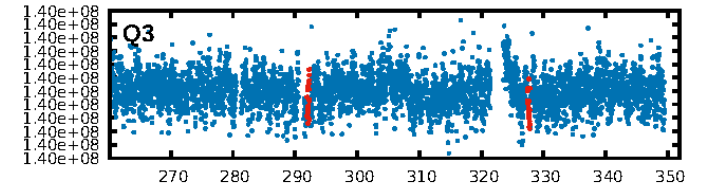
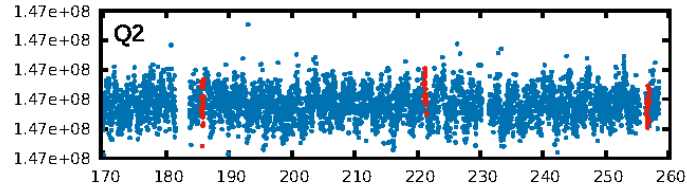
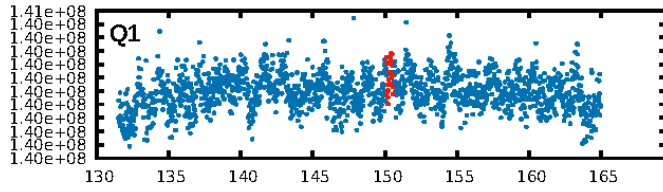
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [49.23σ]
LongPeriod-sig: 100.0% [19.97σ]
ModelChiSquare2-sig: 2.9%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.97e-07
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: -2.672
Centroid-sig: 15.0%
Centroid-so: 0.921 arcsec [1.62σ]
OotOffset-rm: 1.092 arcsec [1.06σ]
KicOffset-rm: 1.027 arcsec [0.96σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.36 [5/14]
DiffImageOverlap-fno: 0.35 [6/17]

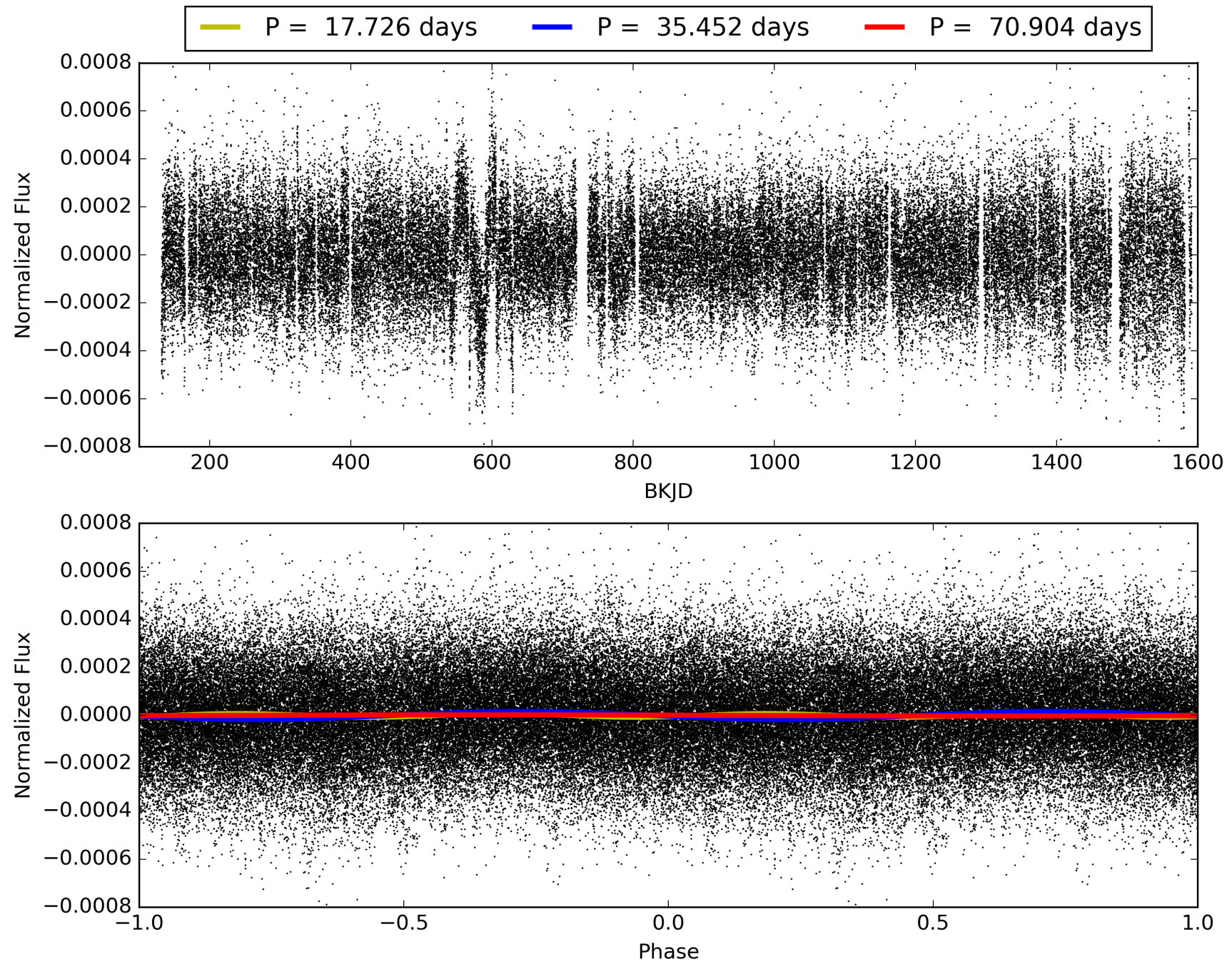
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:52:50 Z

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

TCE 008057693-05, PDC Light Curves

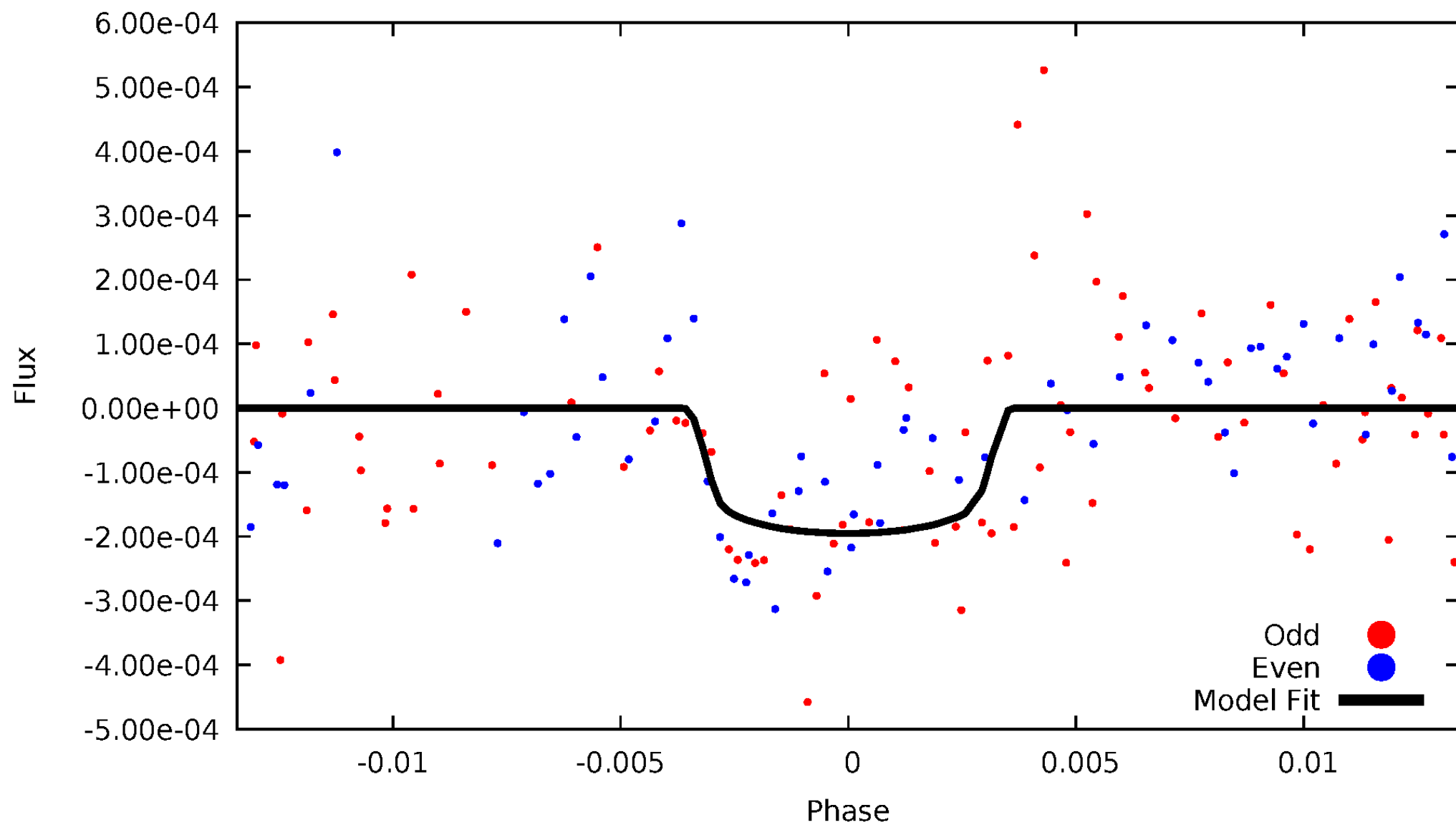


TCE 008057693-05



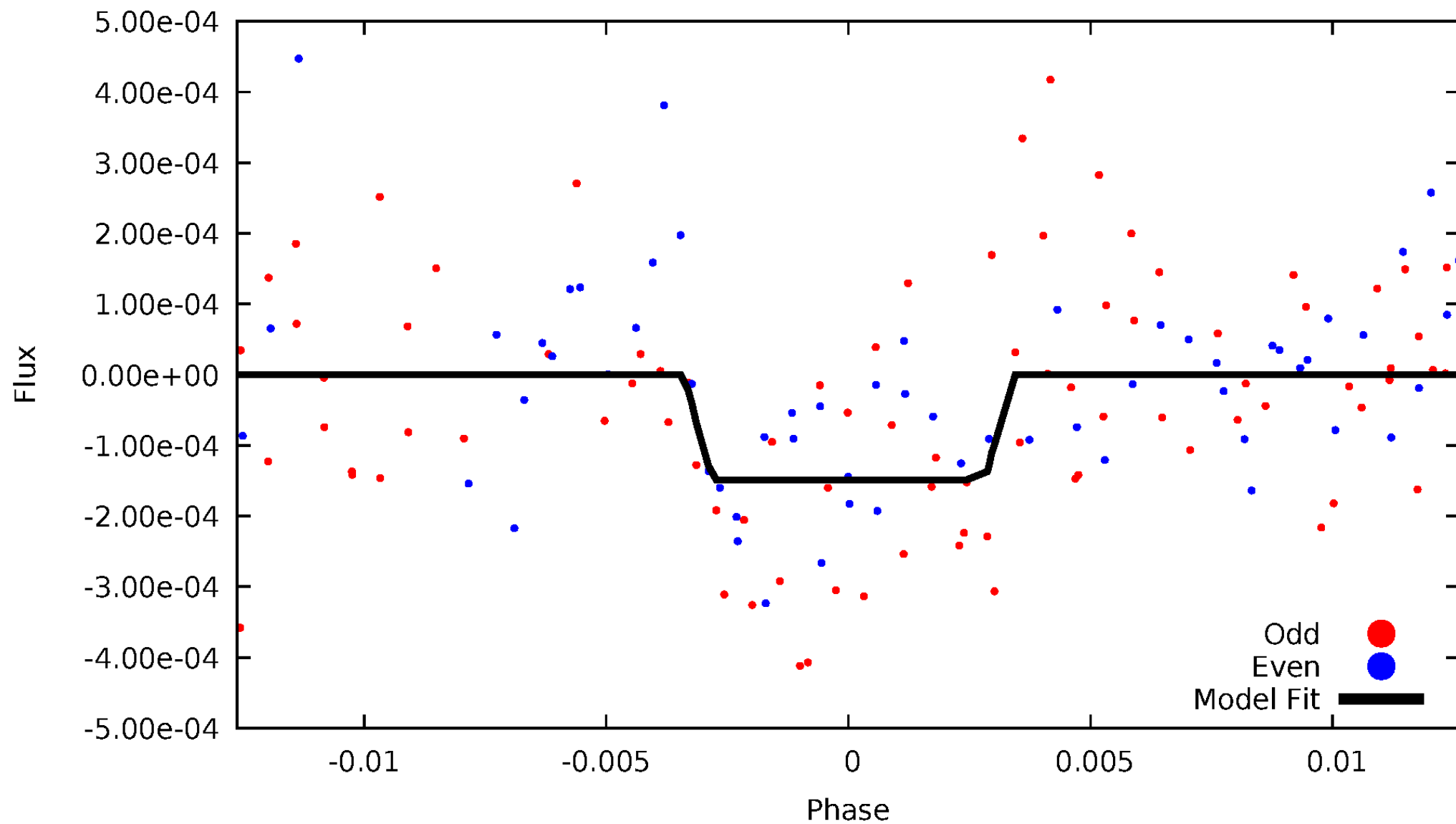
DV Odd/Even

TCE 008057693-05



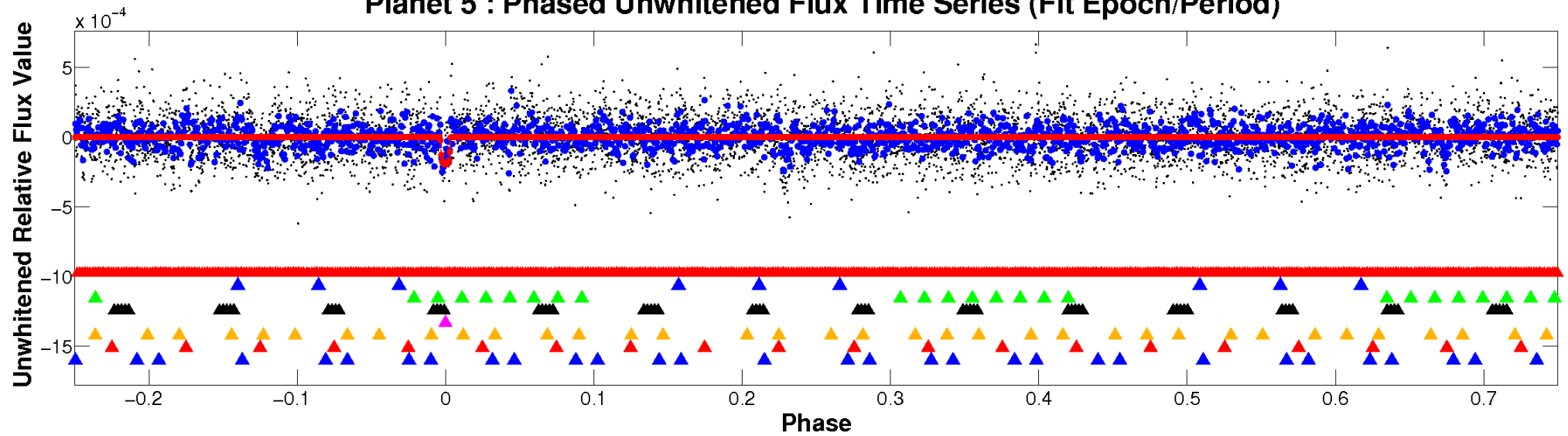
ALT Odd/Even

TCE 008057693-05

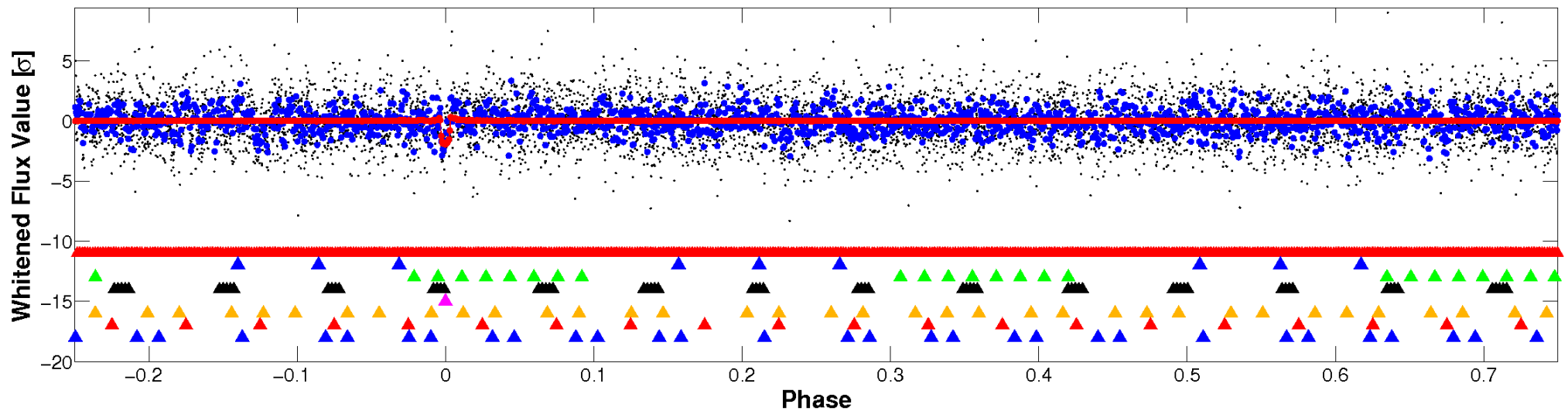


Non-Whitened Vs. Whitened Light Curve

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

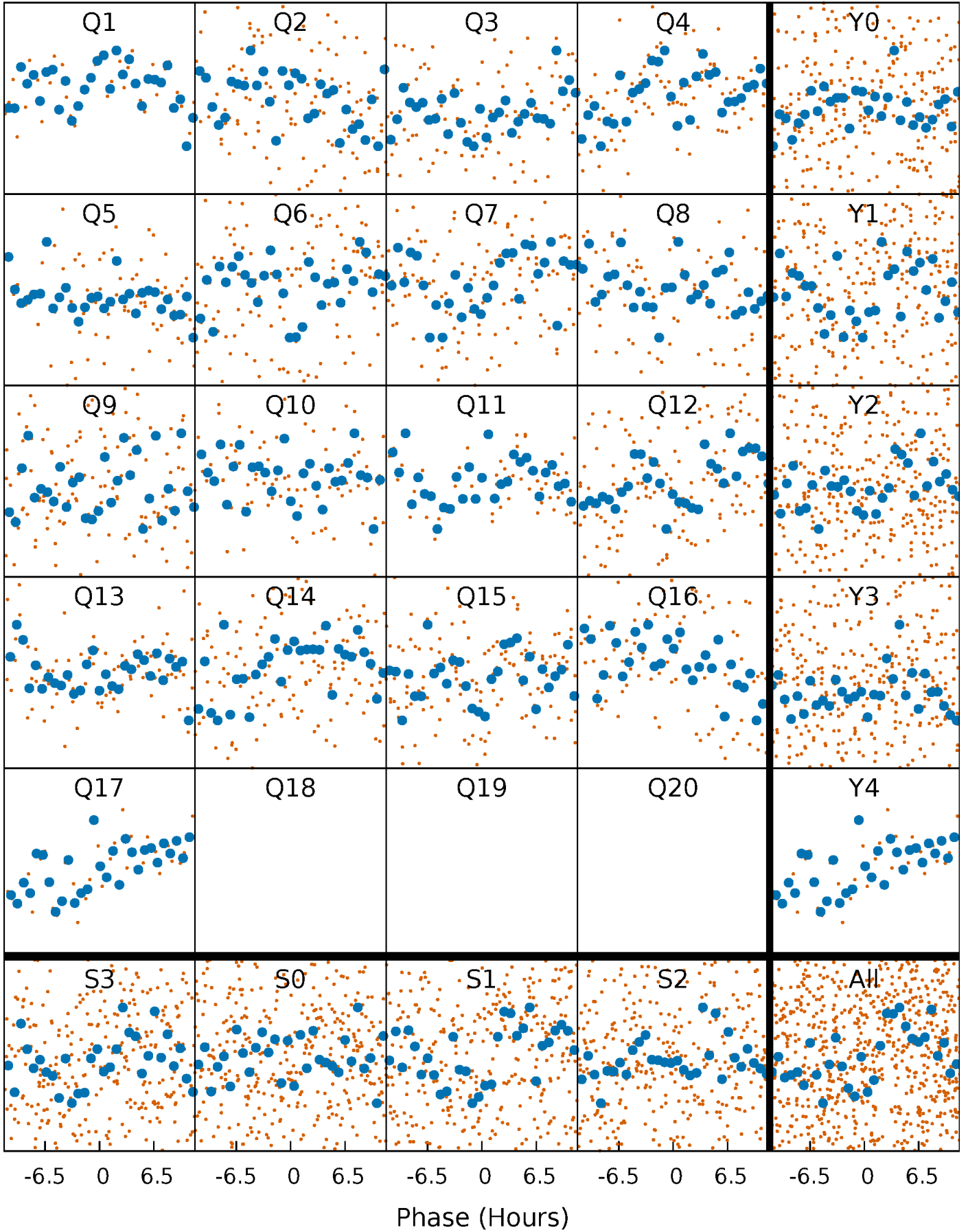


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



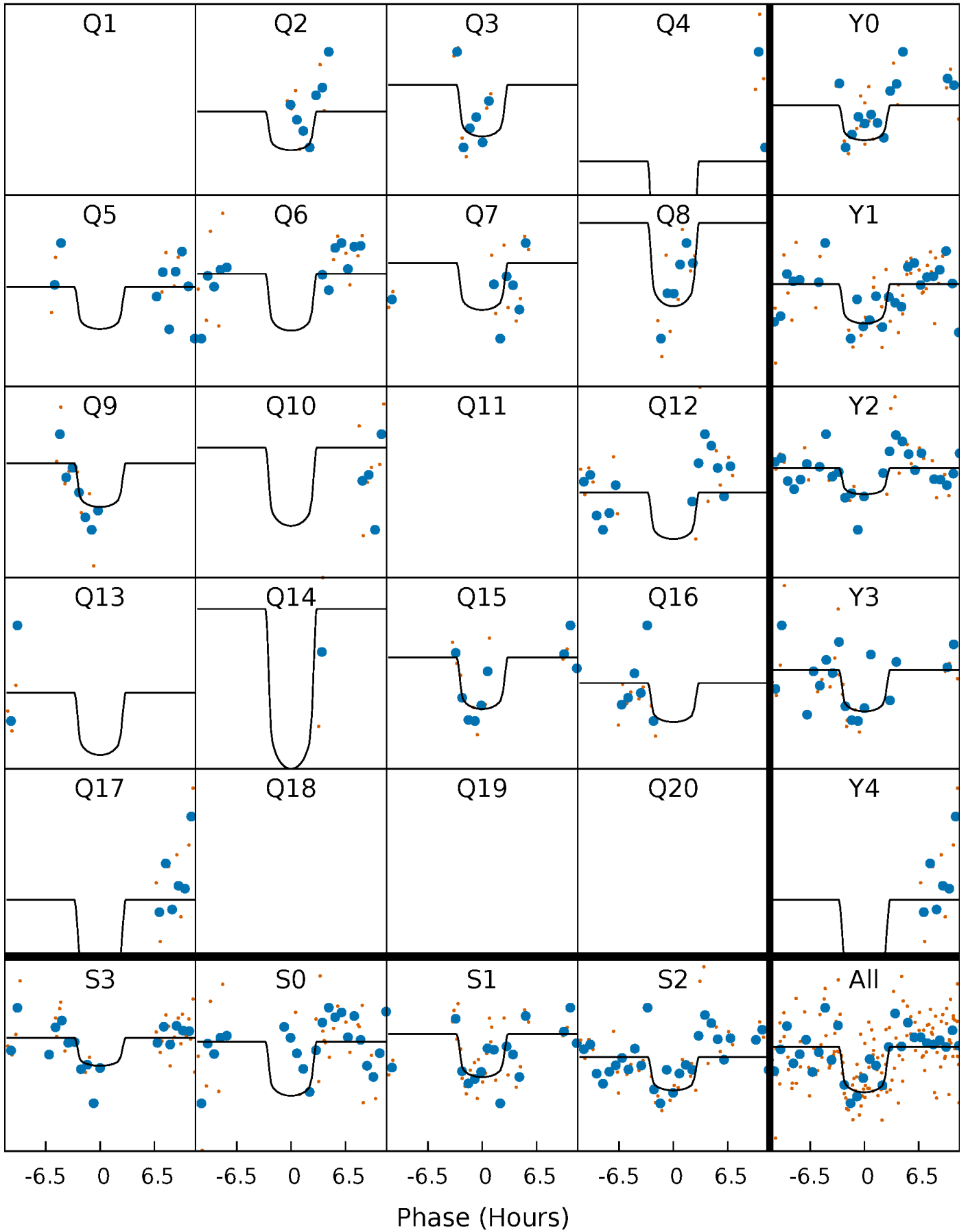
PDC Quarter-Phased Transit Curves

TCE 008057693-05 P= 35.451867 Days $T_0=150.331824$ (BKJD)



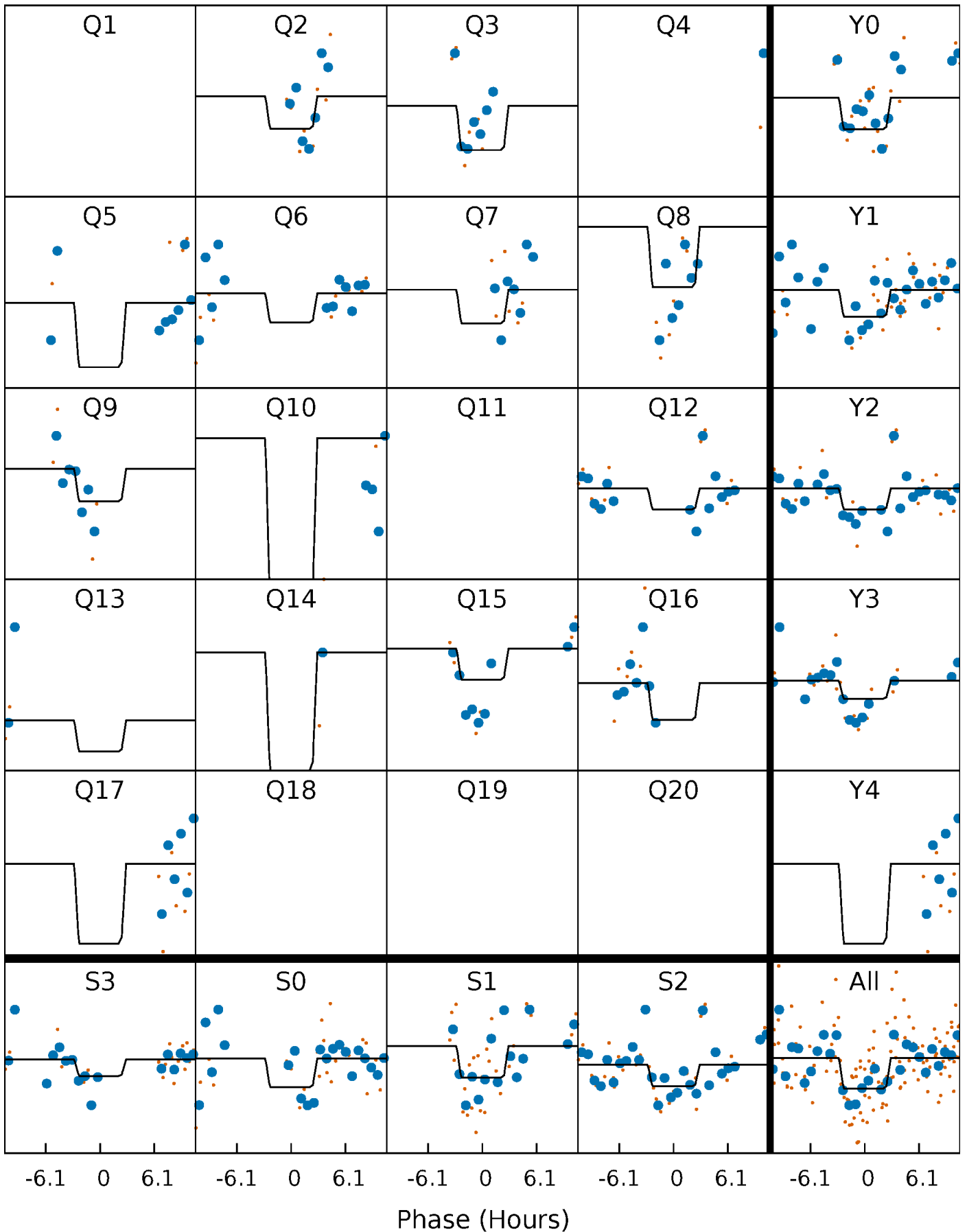
DV Quarter-Phased Transit Curves

TCE 008057693-05 $P = 35.451867$ Days $T_0 = 150.331824$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

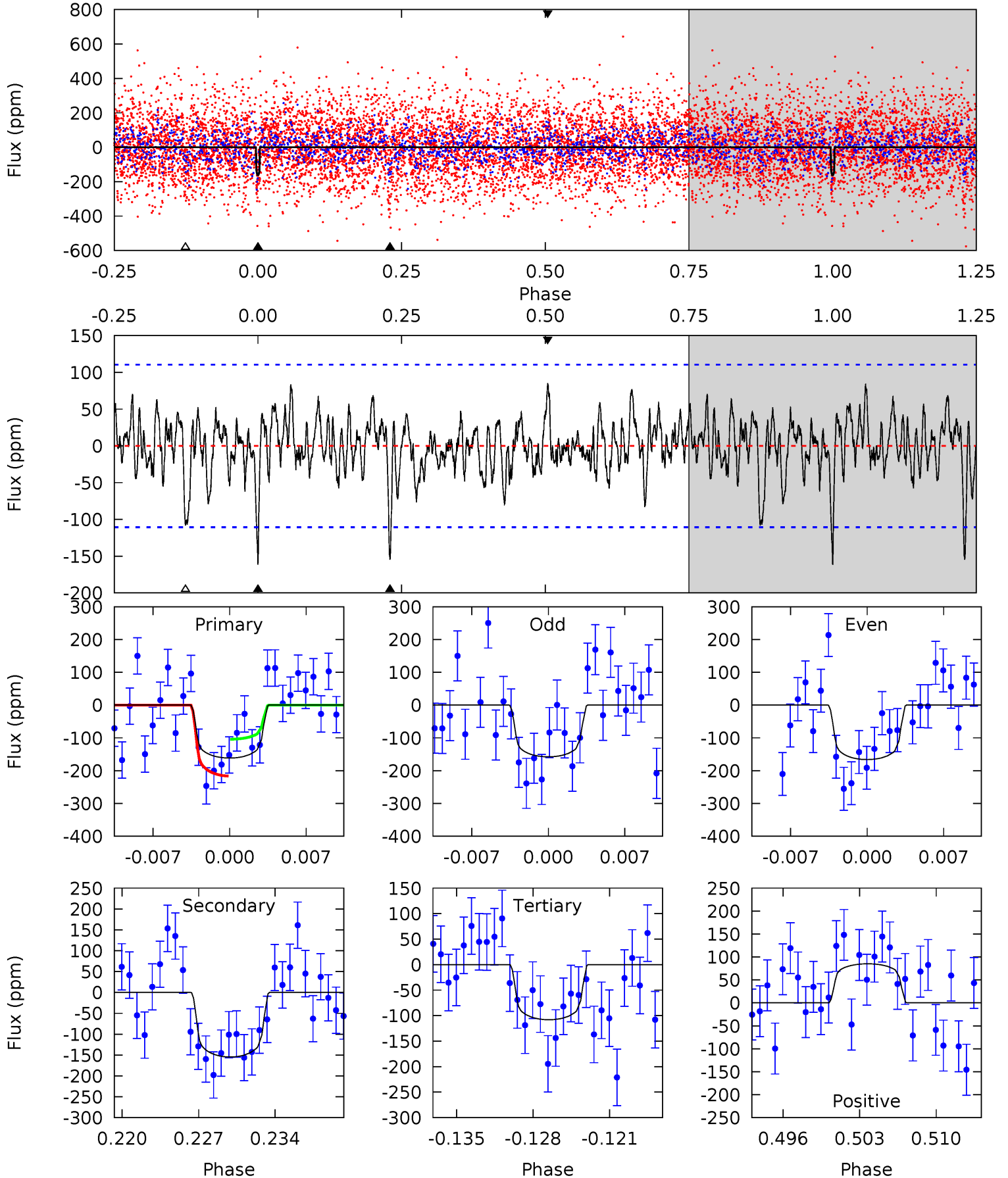
TCE 008057693-05 $P = 35.451943$ Days $T_0 = 150.333966$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-05, P = 35.451867 Days, E = 114.879957 Days

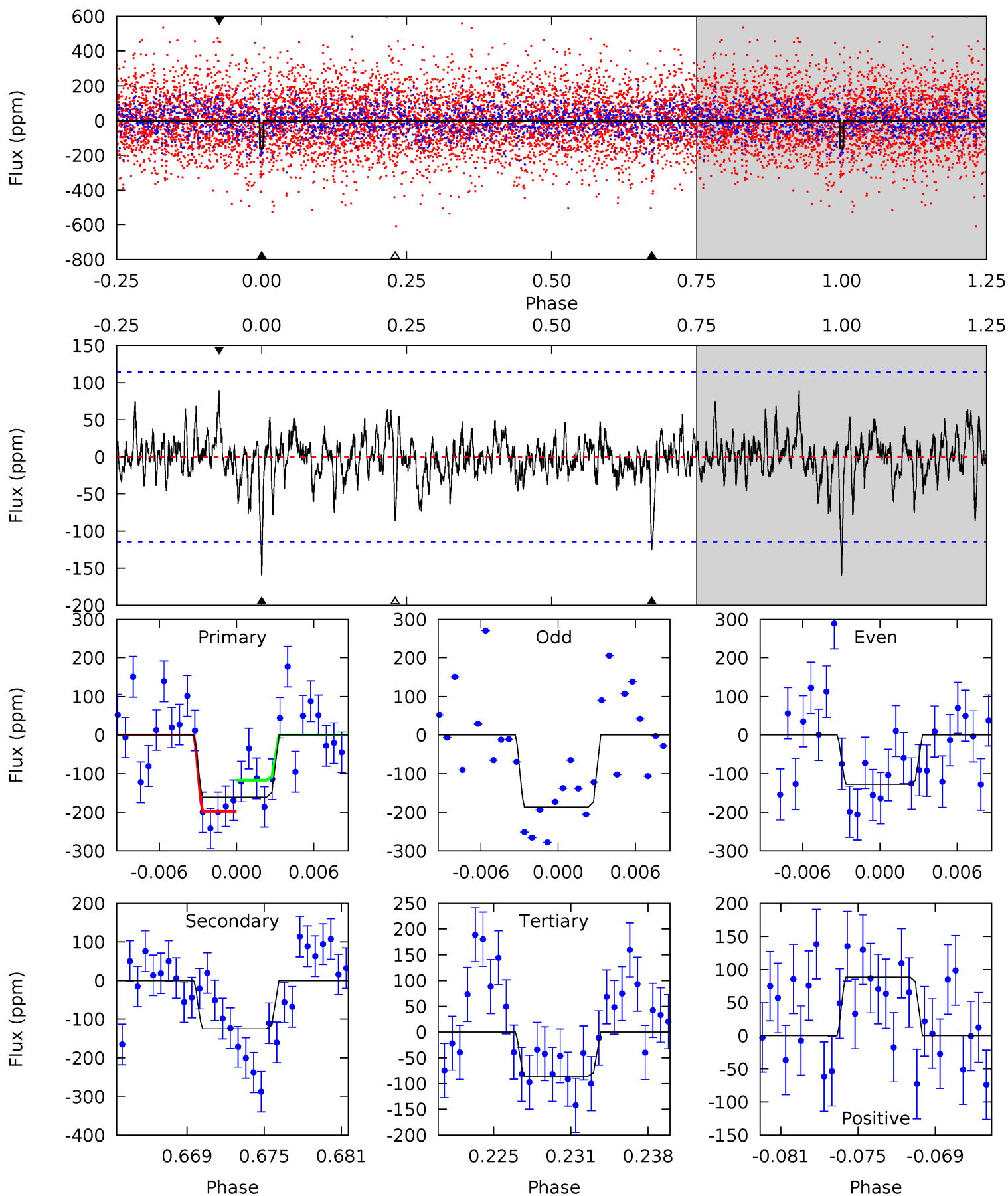
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.45	7.13	4.98	3.92	5.09	2.69	1.39	2.47	3.52	2.15	3.21	0.19	1.10	0.35	2.59



Alt Model-Shift Uniqueness Test

008057693-05, P = 35.451943 Days, E = 114.882023 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.20	5.61	3.85	3.98	5.12	2.73	1.09	3.34	3.22	1.75	1.63	1.33	1.03	0.36	1.81



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-155 ± 22	$2.31^{+1.22}_{-1.14}$	1043^{+80}_{-67}	6168^{+2778}_{-1083}	817^{+2344}_{-472}
Alt.	-125 ± 22	$2.02^{+1.11}_{-1.11}$	1044^{+80}_{-64}	6278^{+3703}_{-1273}	875^{+3511}_{-529}

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 $A_{obs} \gg 1.0$

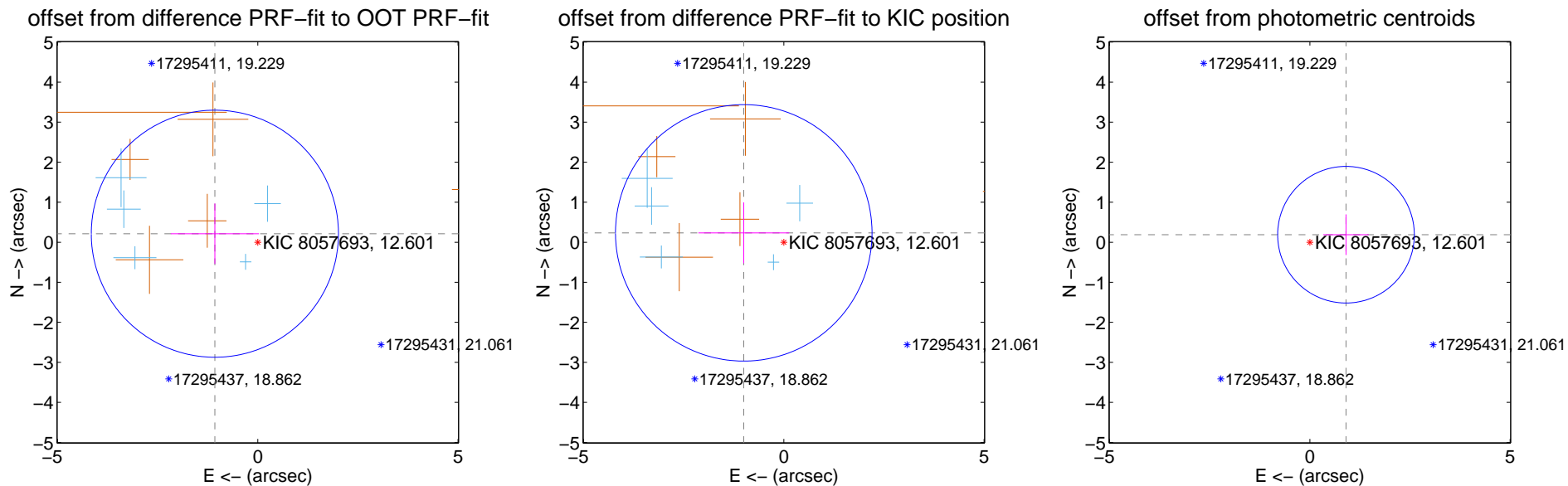
DV Centroid Data

Supplemental centroid analysis for 008057693-05. Kepler magnitude: 12.60. Transit SNR 11.47

There are 5 quarters with good PRF difference image offsets

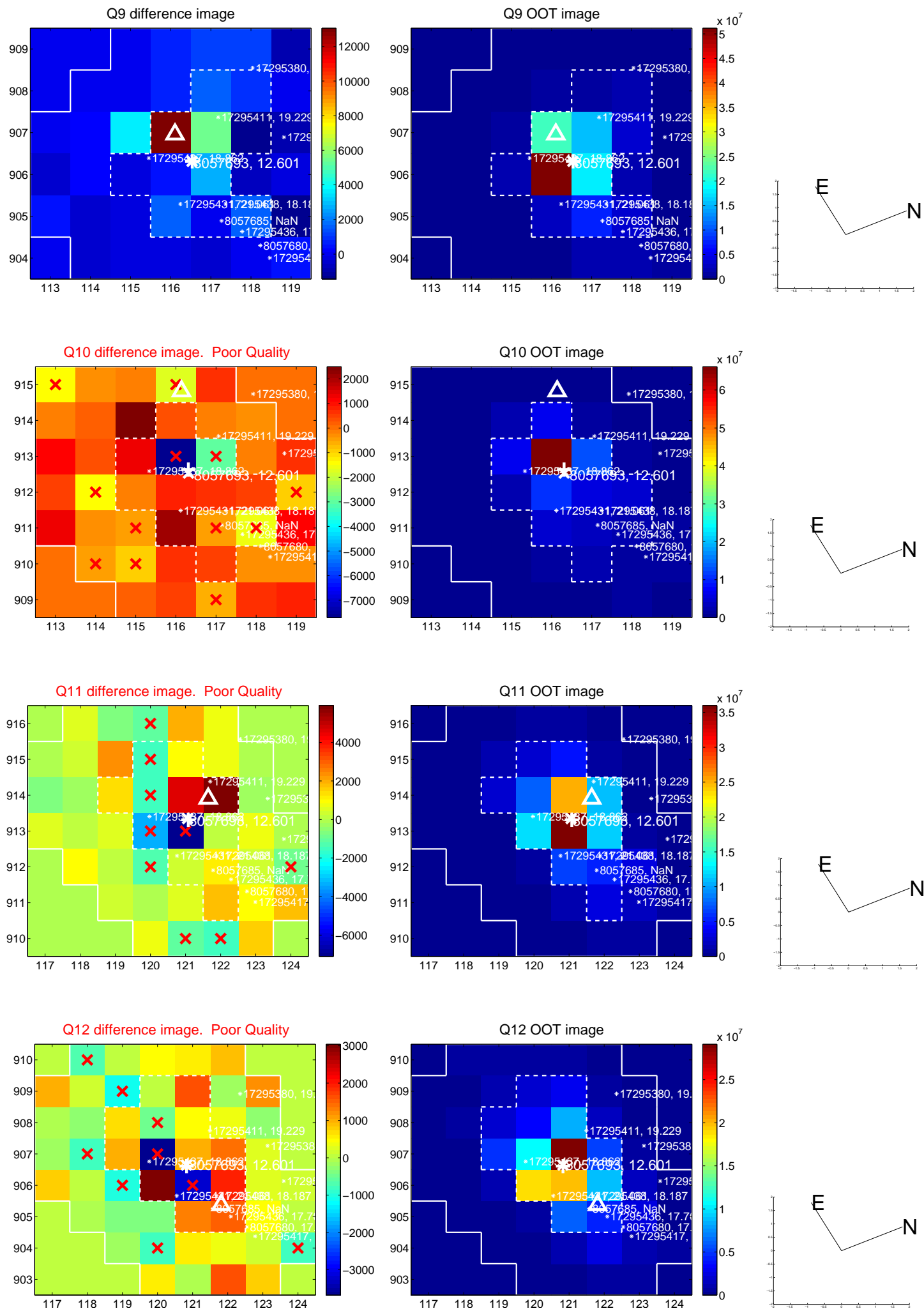
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.092 ± 1.029	1.06	1.071 ± 1.100	0.213 ± 0.755
PRF-fit source offset from KIC position	1.027 ± 1.067	0.96	1.000 ± 1.135	0.234 ± 0.760
photometric centroid source offset	0.92 ± 0.57	1.62	-0.90 ± 0.57	0.19 ± 0.51

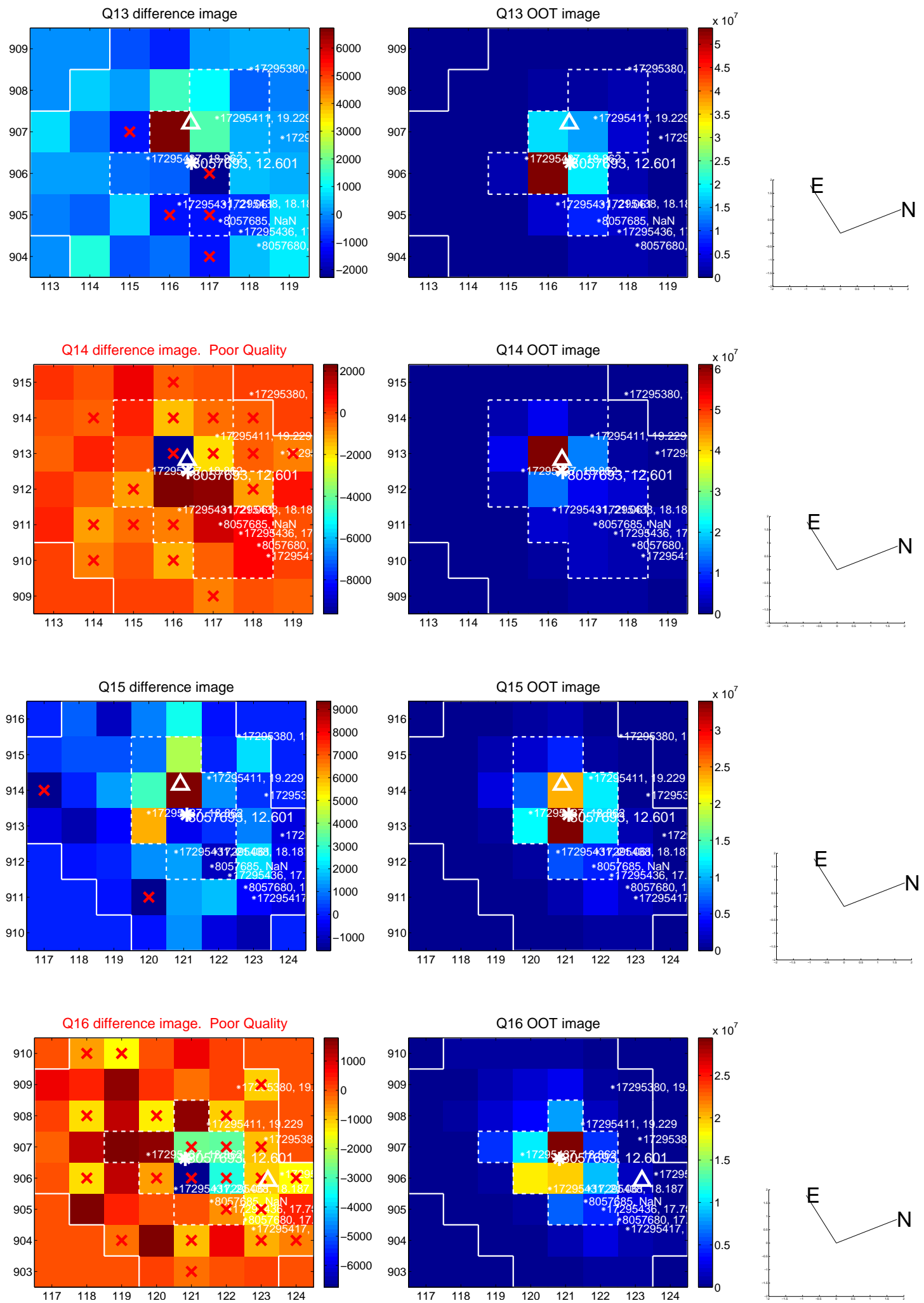


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

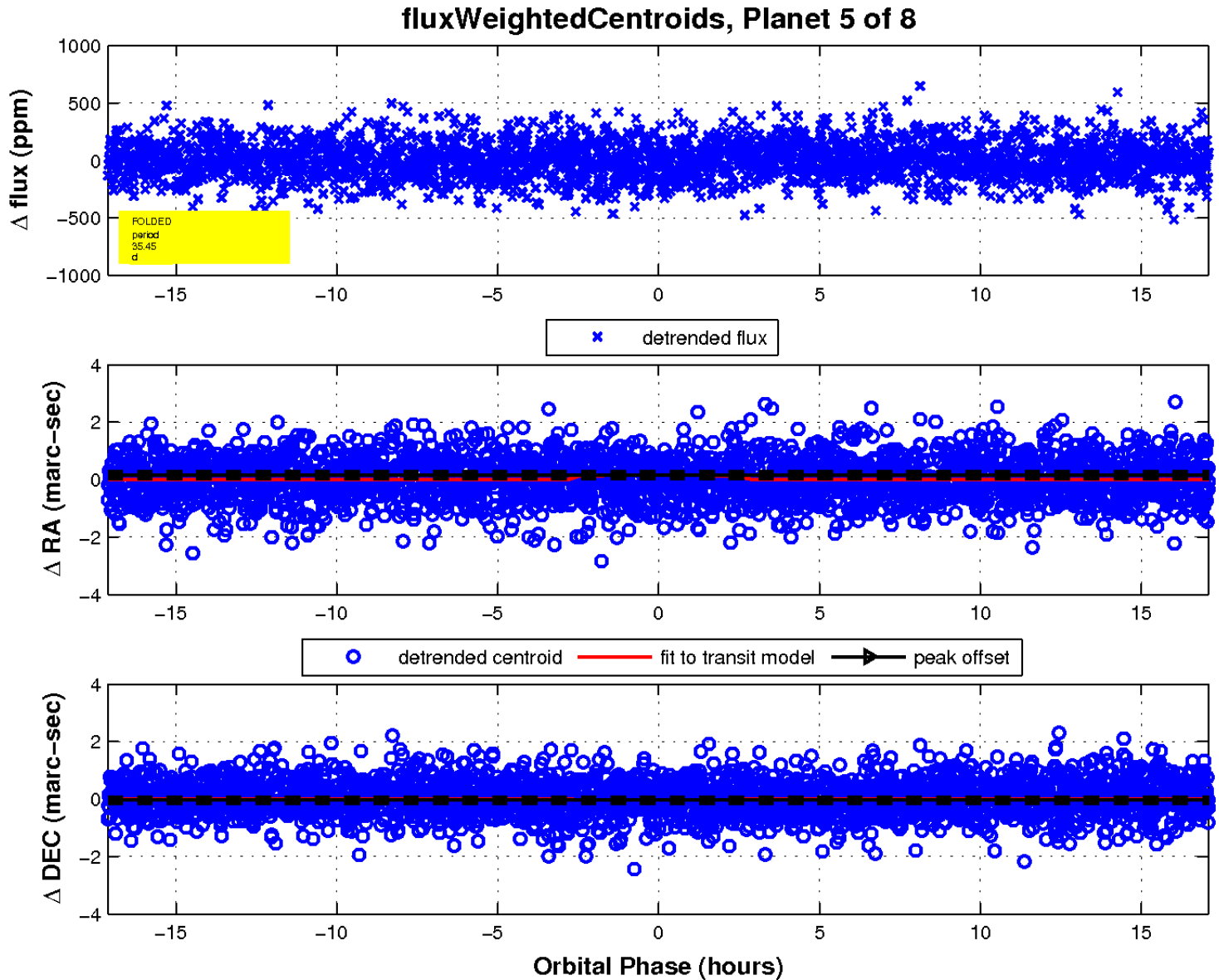
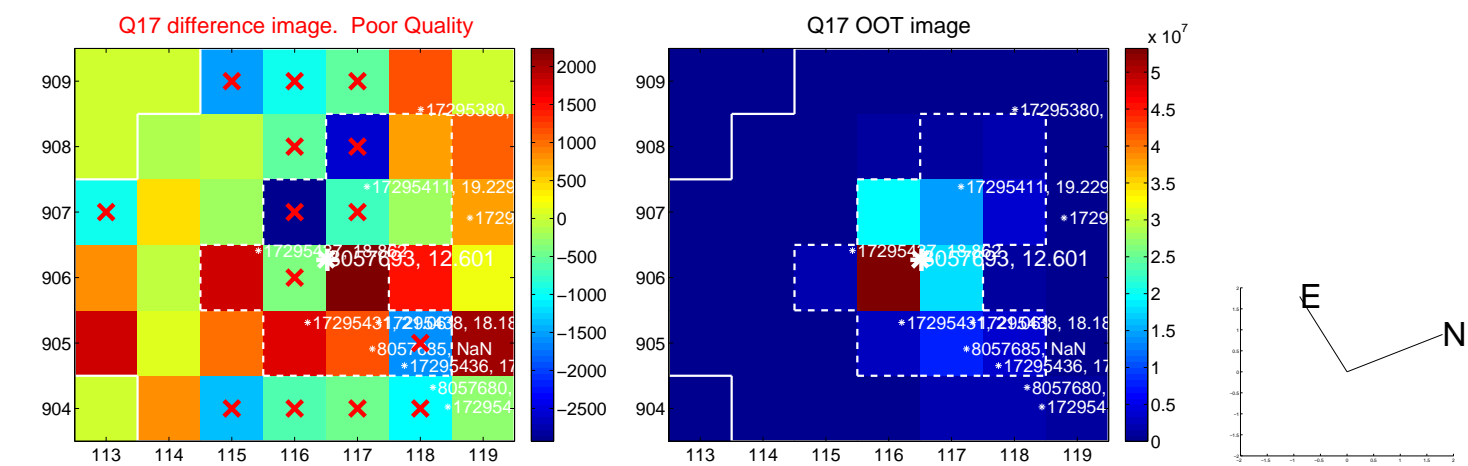
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

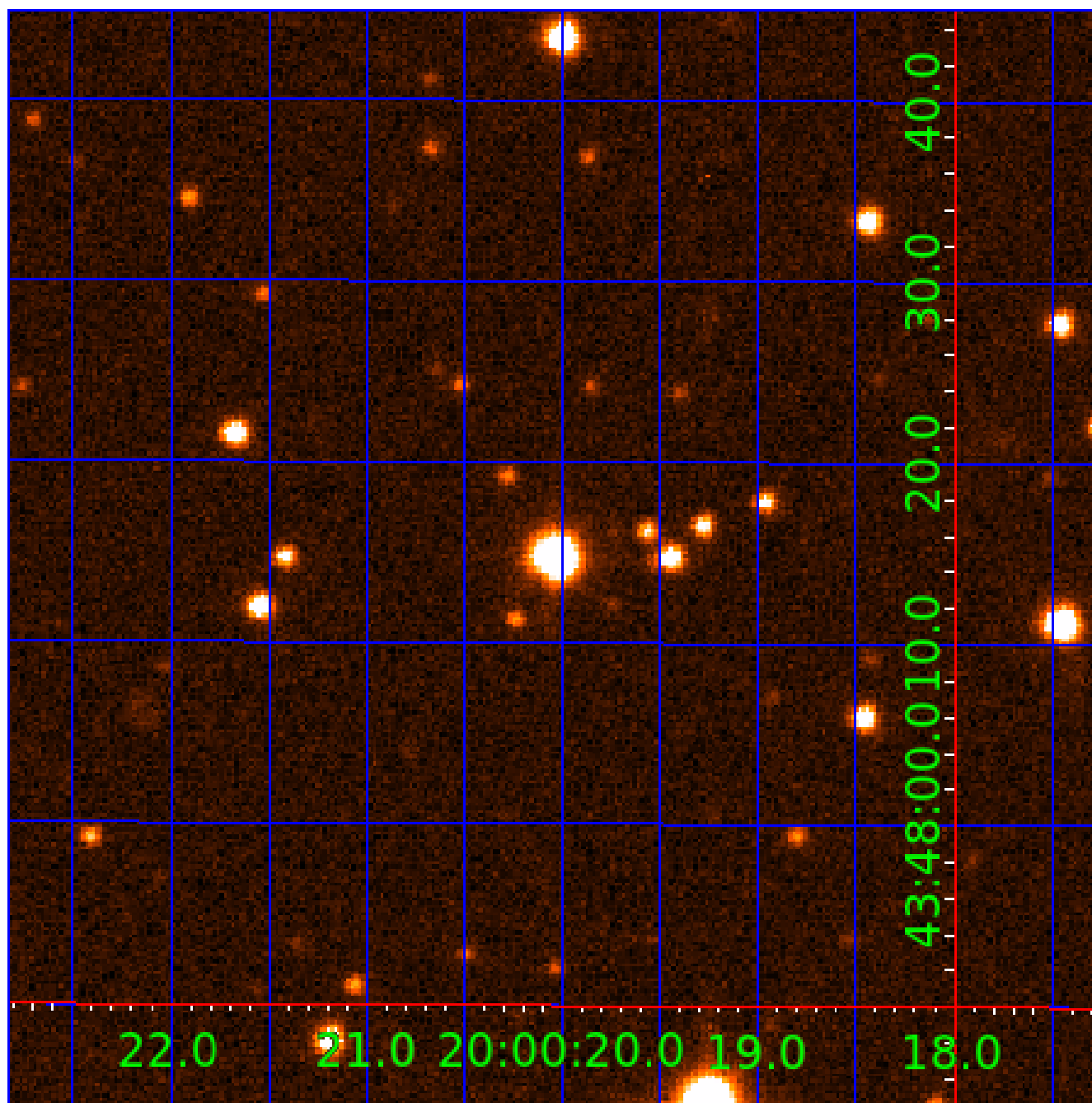


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
008057693-04	OBS	No	22.796647	144.930147	206.8	2.344	10.8	10.4	1.41	6792	2.37	130.24
008057693-05	OBS	No	35.451867	150.331824	195.1	5.707	8.8	11.5	1.41	6792	2.24	72.28
008057693-06	OBS	No	40.229411	161.560789	261.3	0.625	9.7	5.7	1.41	6792	2.44	61.07
008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
008057693-08	OBS	No	47.933620	135.506699	266.7	1.445	9.0	9.0	1.41	6792	2.53	48.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

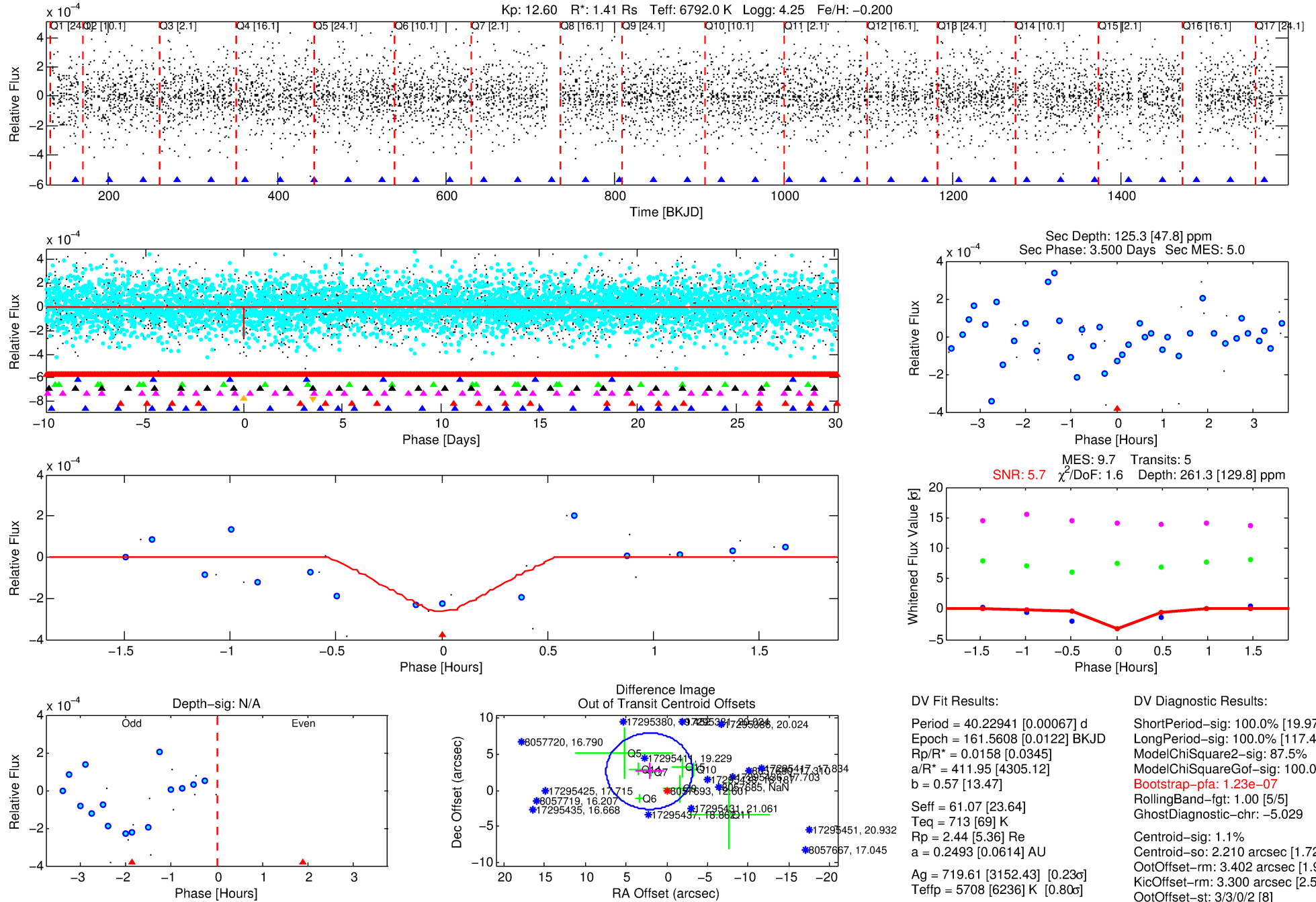
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-06

No Significant Match Found

DV One-Page Summary

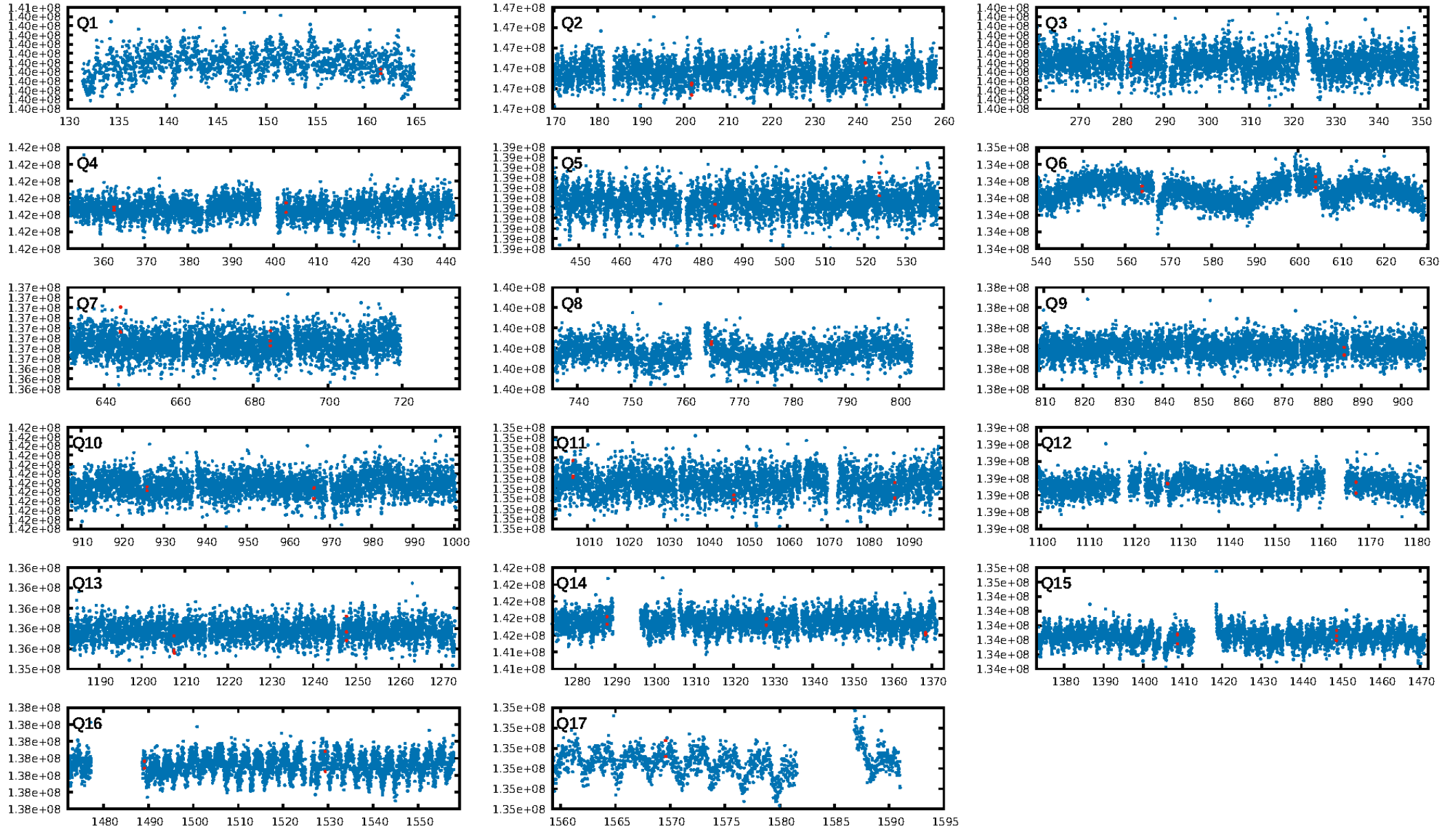
KIC: 8057693 Candidate: 6 of 8 Period: 40.229 d



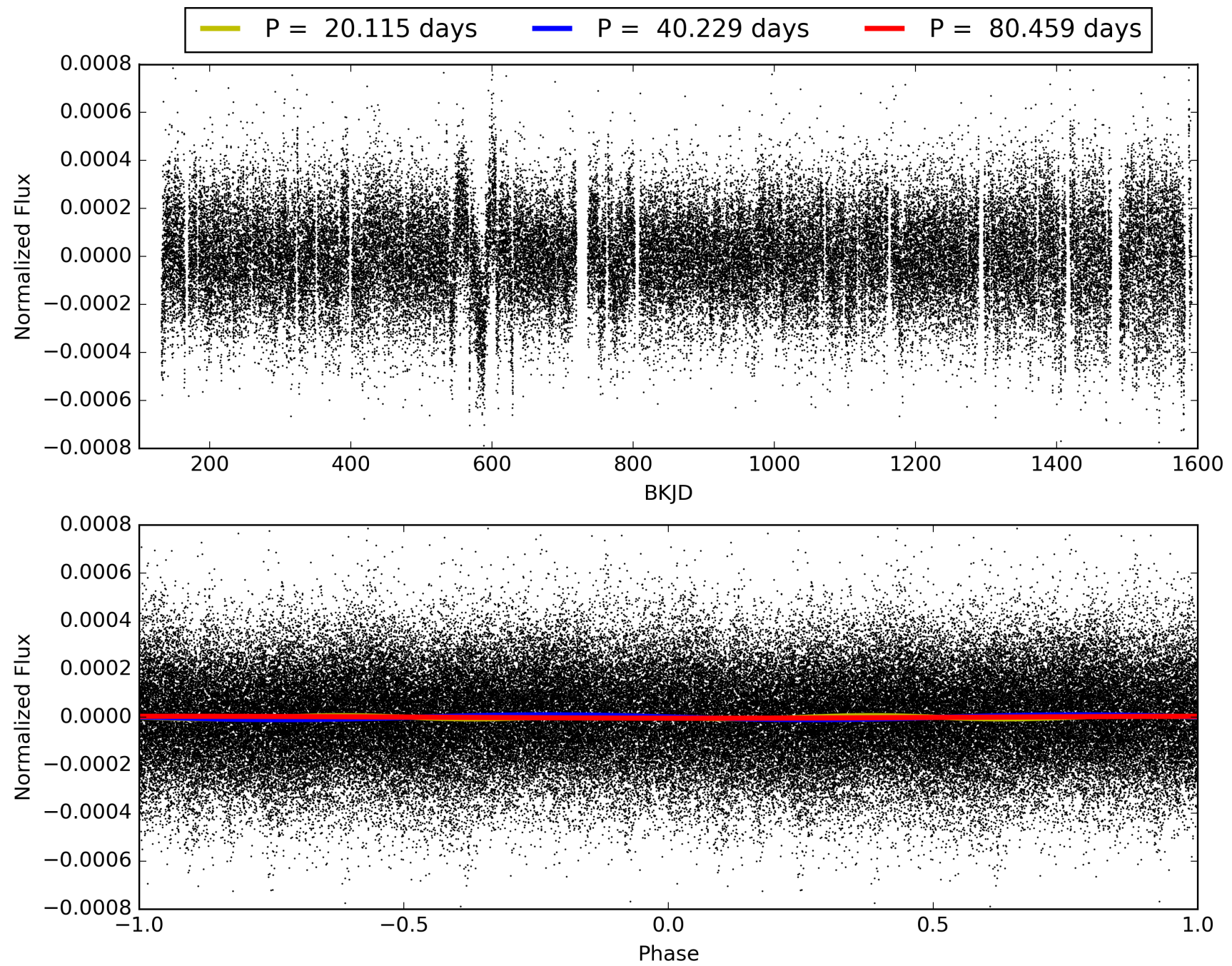
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:52:55 Z

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

TCE 008057693-06, PDC Light Curves

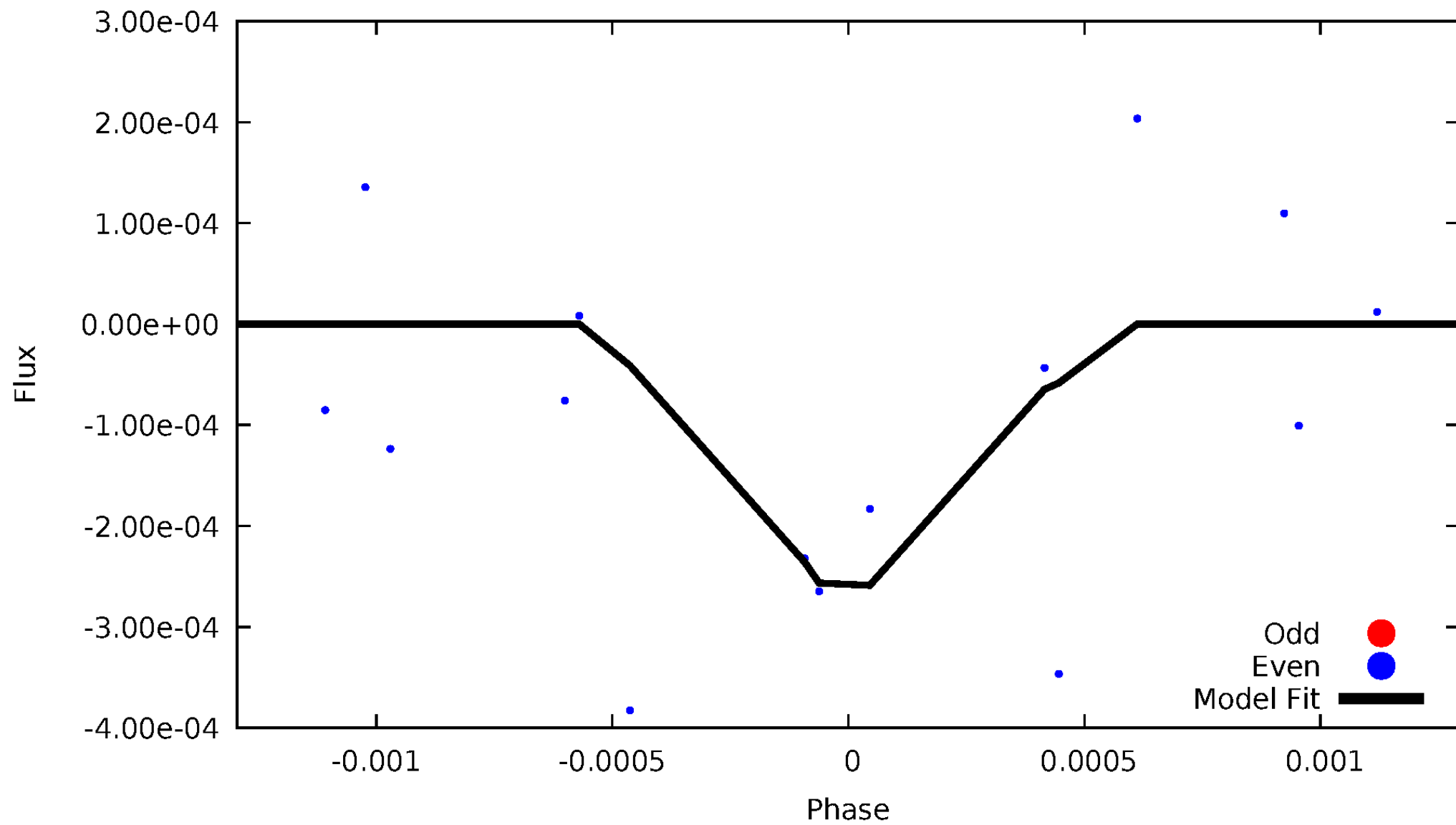


TCE 008057693-06



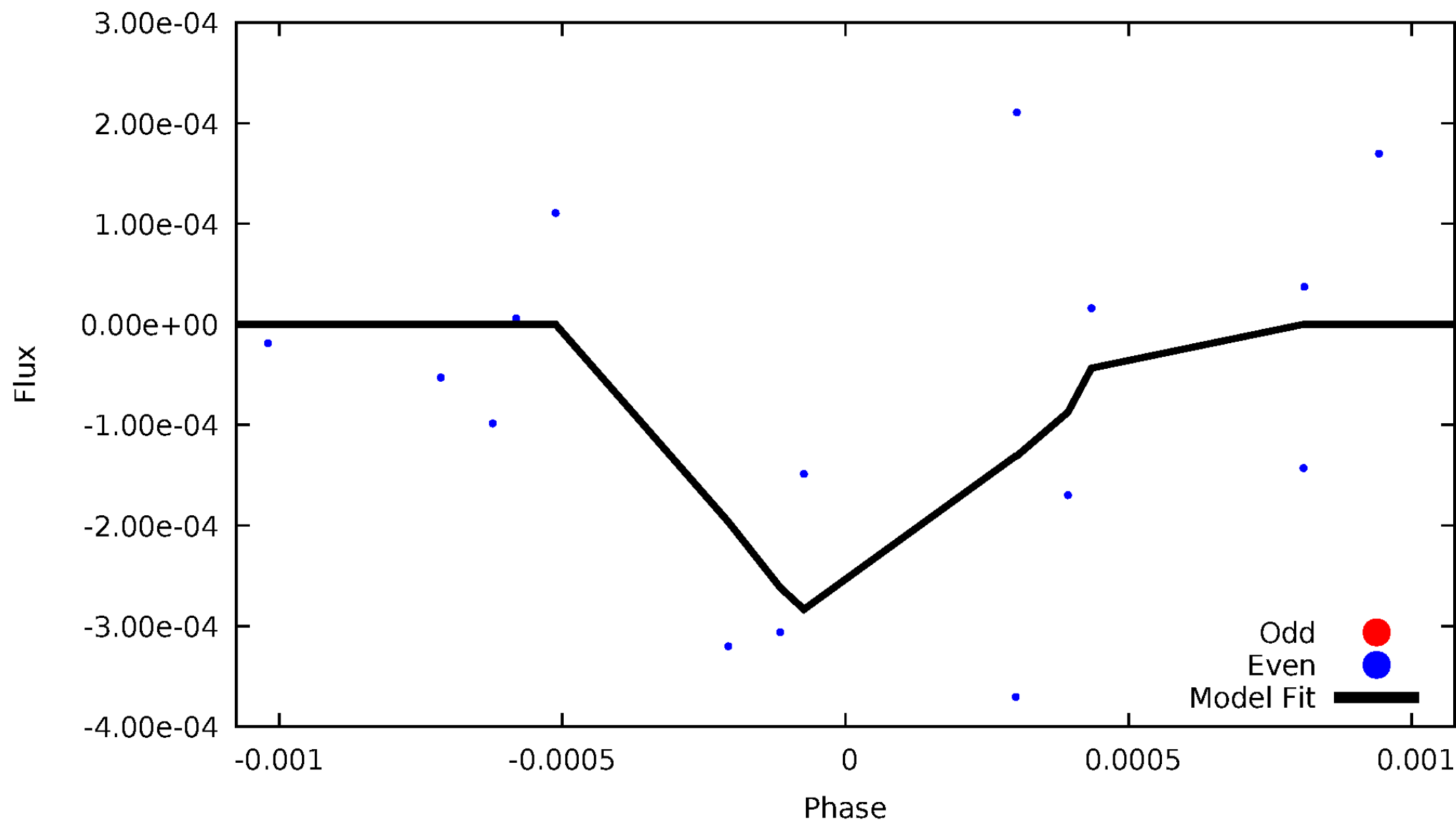
DV Odd/Even

TCE 008057693-06



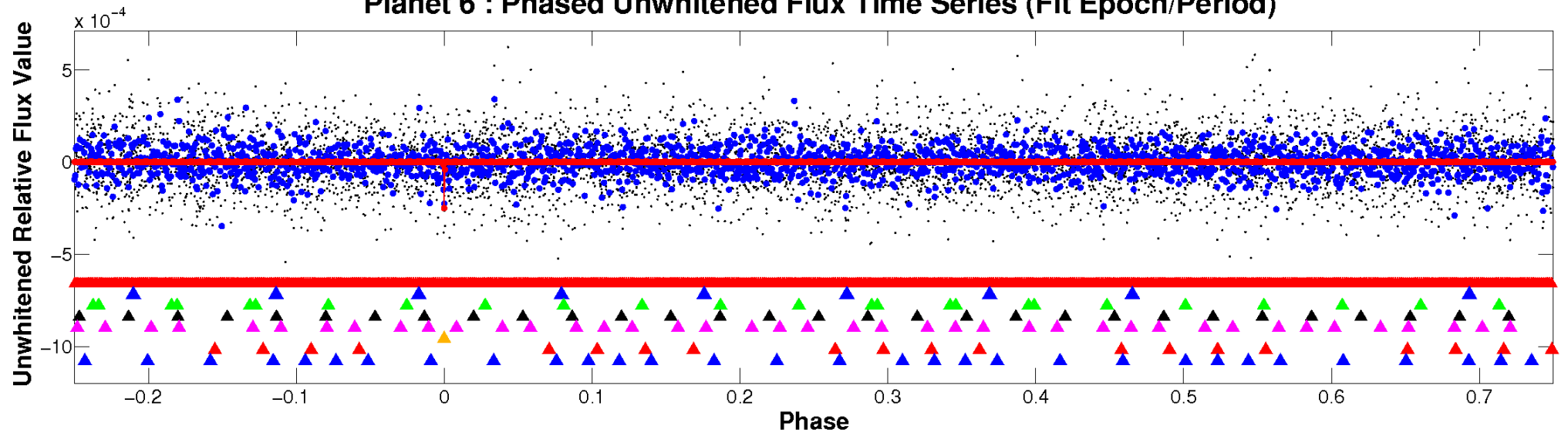
ALT Odd/Even

TCE 008057693-06

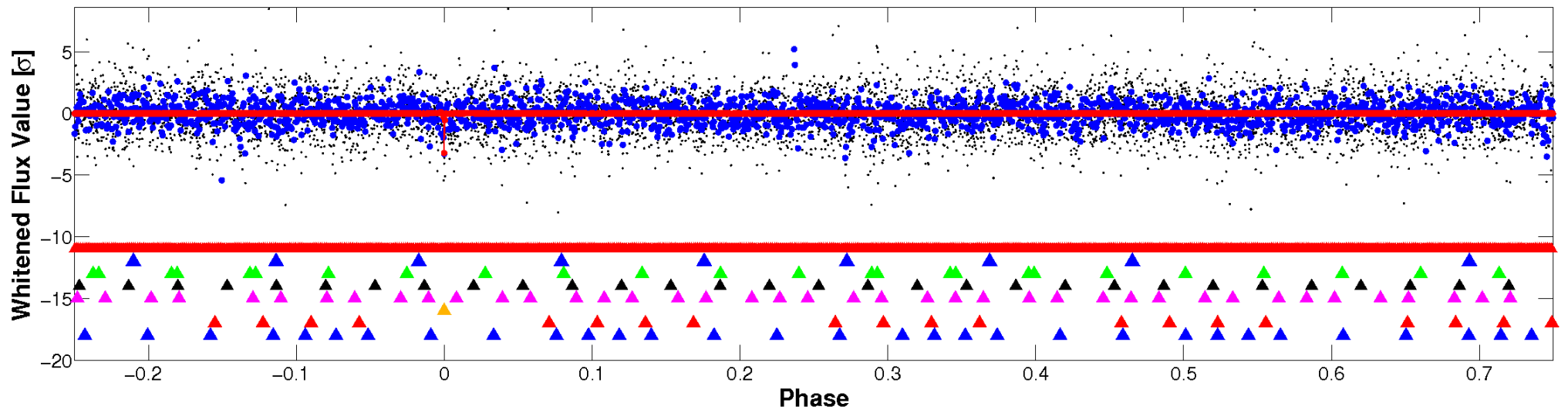


Non-Whitened Vs. Whitened Light Curve

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

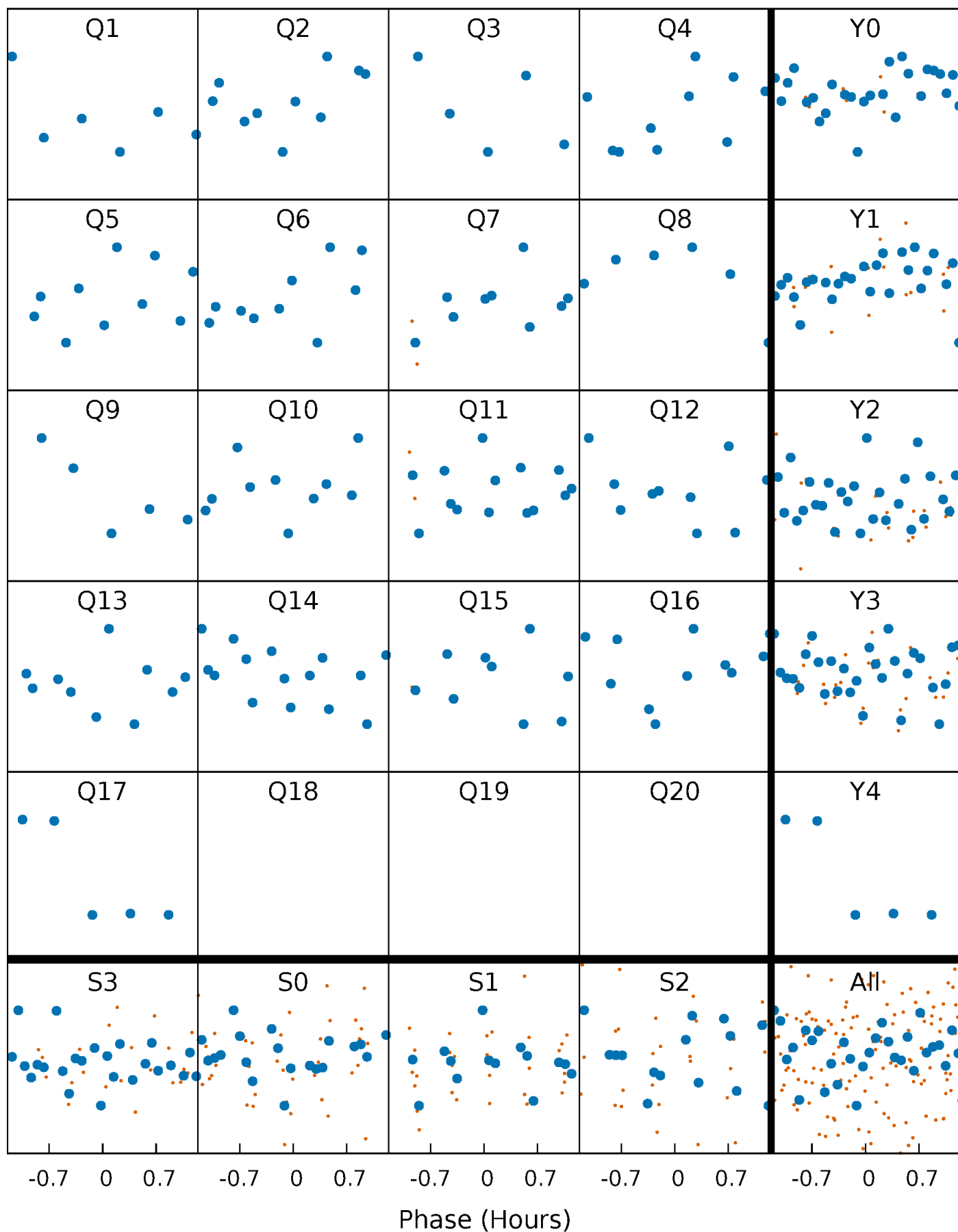


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



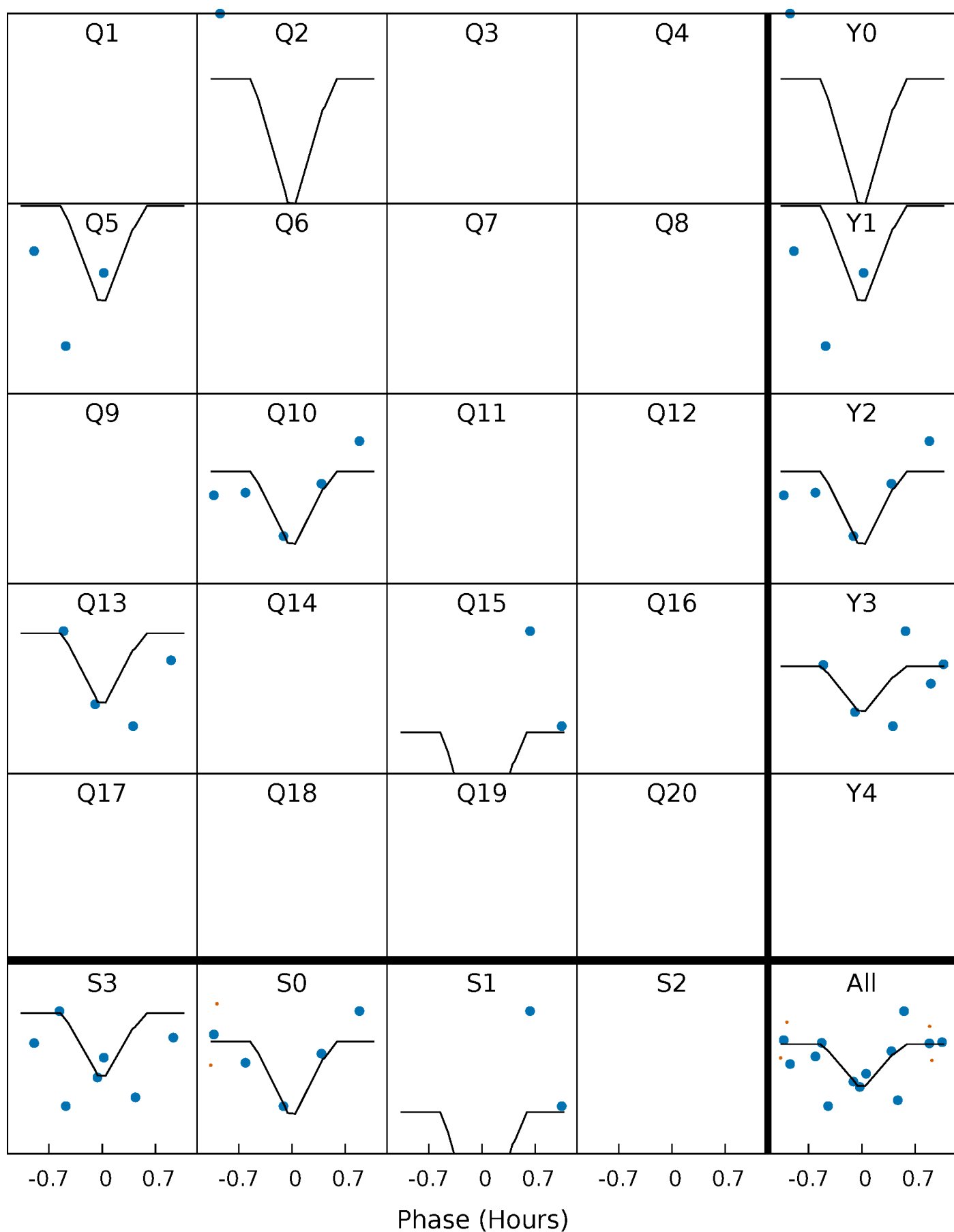
PDC Quarter-Phased Transit Curves

TCE 008057693-06 P= 40.229411 Days $T_0=161.560789$ (BKJD)



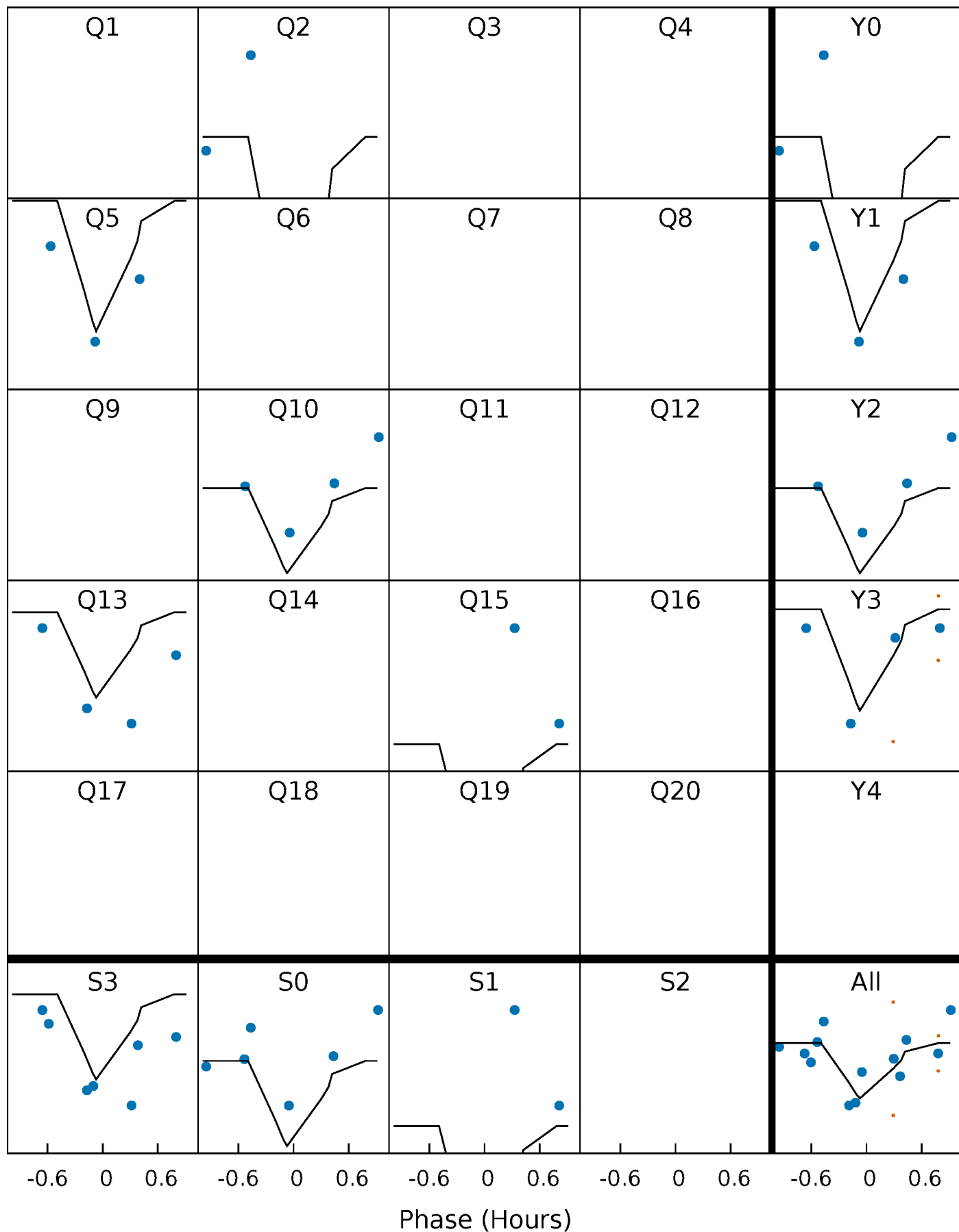
DV Quarter-Phased Transit Curves

TCE 008057693-06 P= 40.229411 Days $T_0=161.560789$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

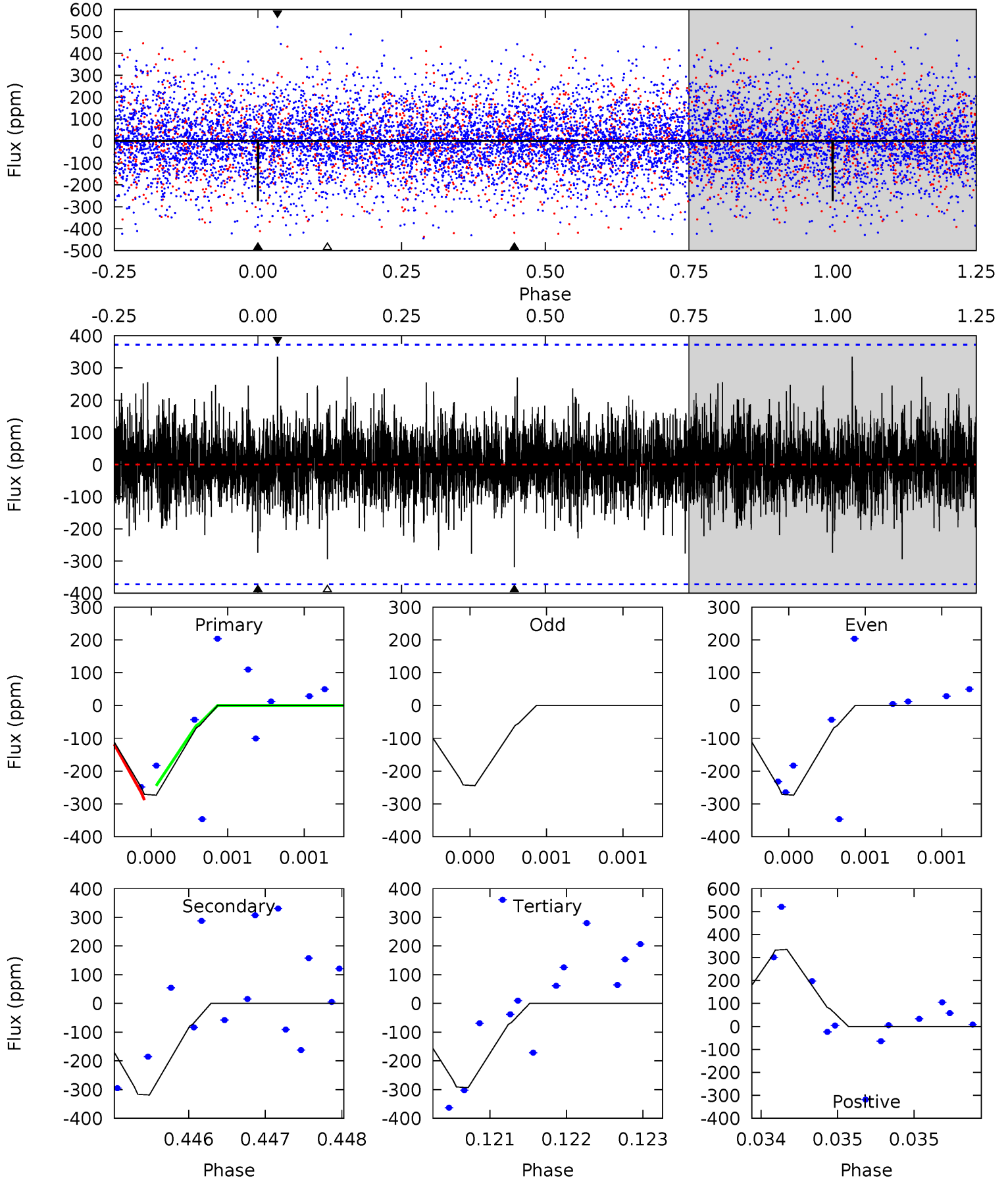
TCE 008057693-06 P= 40.230511 Days $T_0=161.538016$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-06, P = 40.229411 Days, E = 121.331378 Days

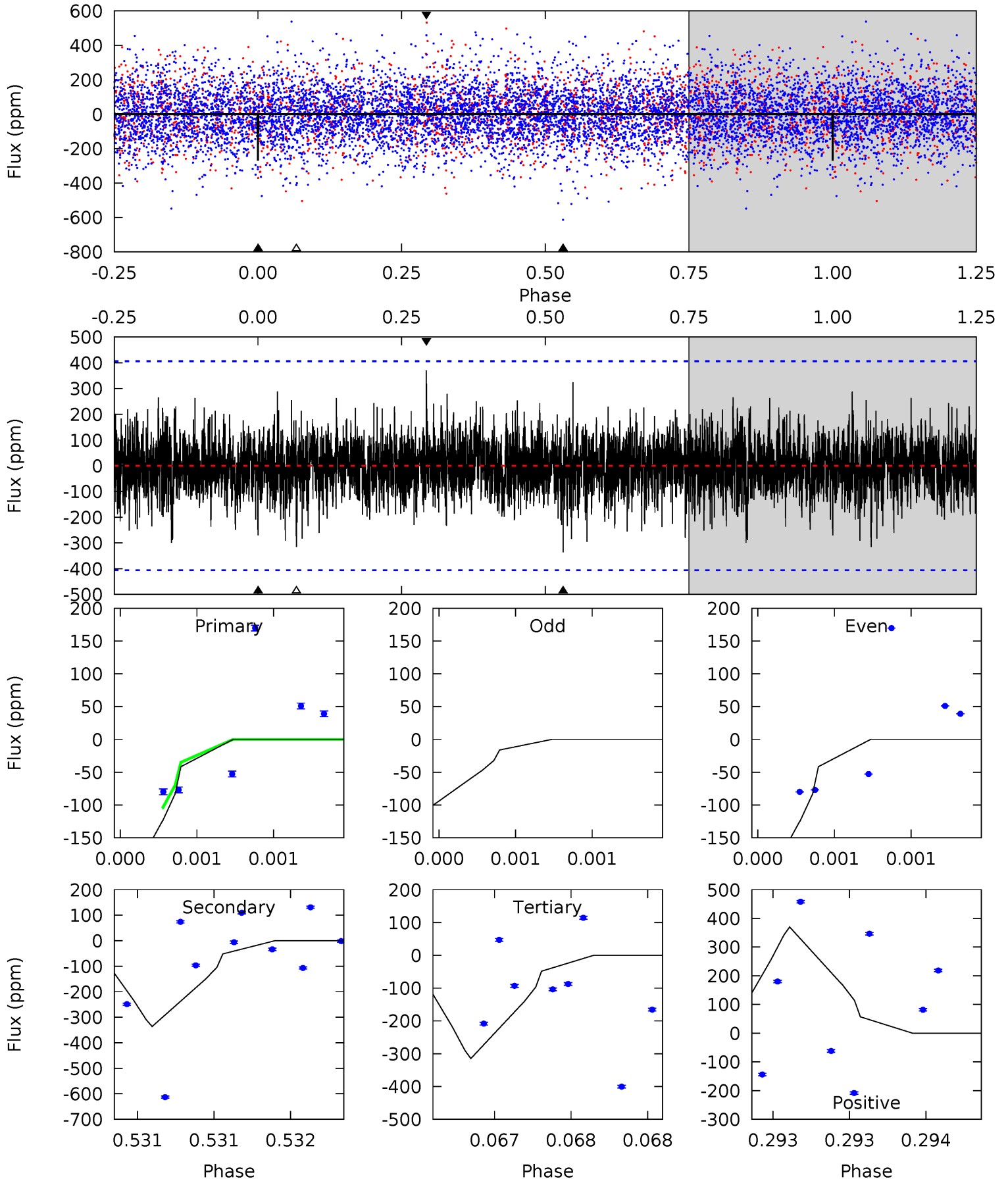
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.05	4.73	4.35	4.96	5.51	3.39	1.10	-0.30	-0.91	0.38	-0.24	0.30	1.09	0.51	0.28



Alt Model-Shift Uniqueness Test

008057693-06, P = 40.230511 Days, E = 121.307505 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.70	4.60	4.31	5.07	5.56	3.46	1.13	-0.61	-1.37	0.29	-0.46	1.49	1.00	0.52	1.04



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-319 ± 67	$4.71^{+4.60}_{-3.12}$	1000^{+72}_{-61}	5128^{+4635}_{-1156}	455^{+3932}_{-337}
Alt.	-336 ± 73	$5.06^{+4.76}_{-3.57}$	1003^{+81}_{-65}	5160^{+4851}_{-1203}	440^{+4355}_{-324}

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 $A_{obs} \gg 1.0$

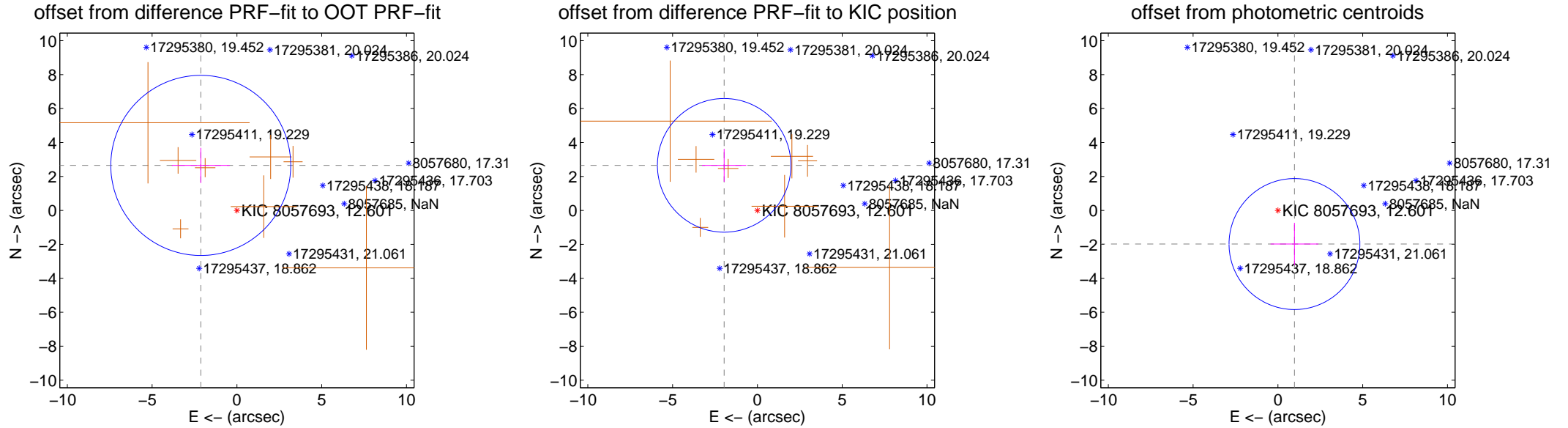
DV Centroid Data

Supplemental centroid analysis for 008057693-06. Kepler magnitude: 12.60. Transit SNR 5.69

There are 0 quarters with good PRF difference image offsets

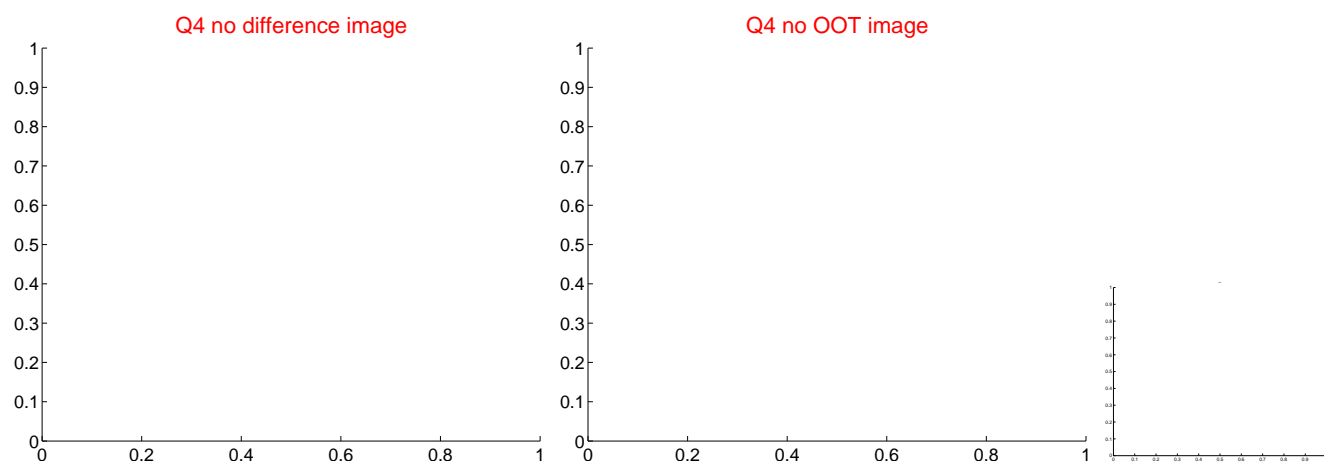
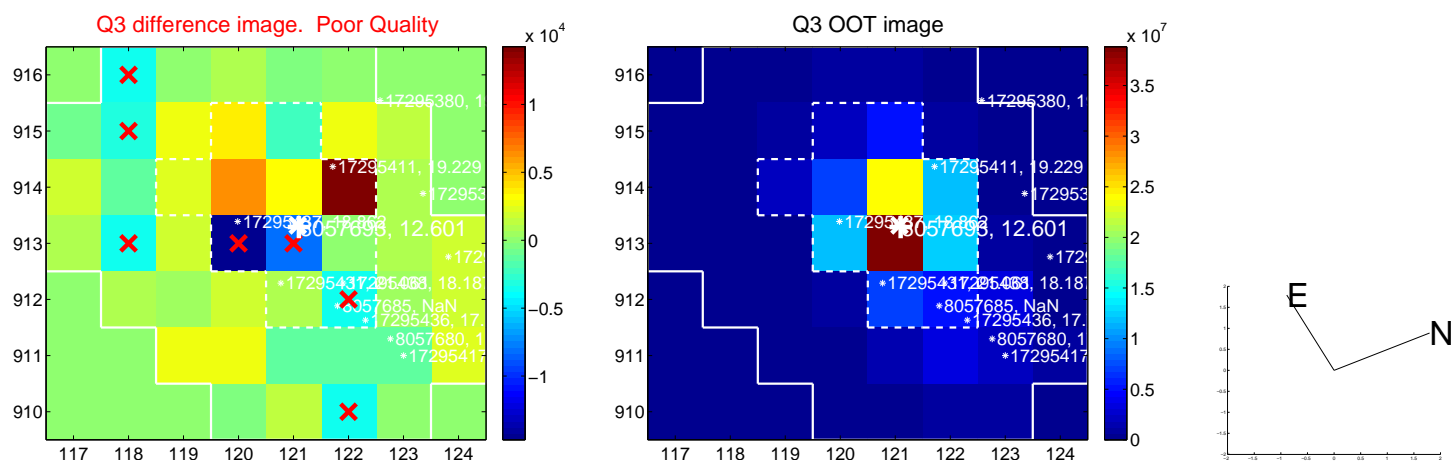
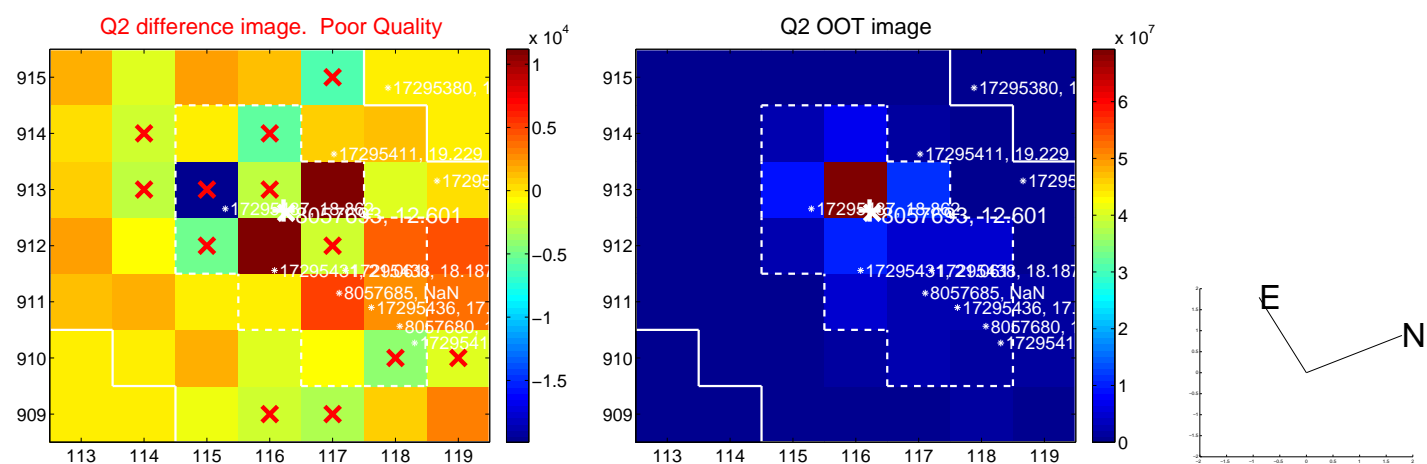
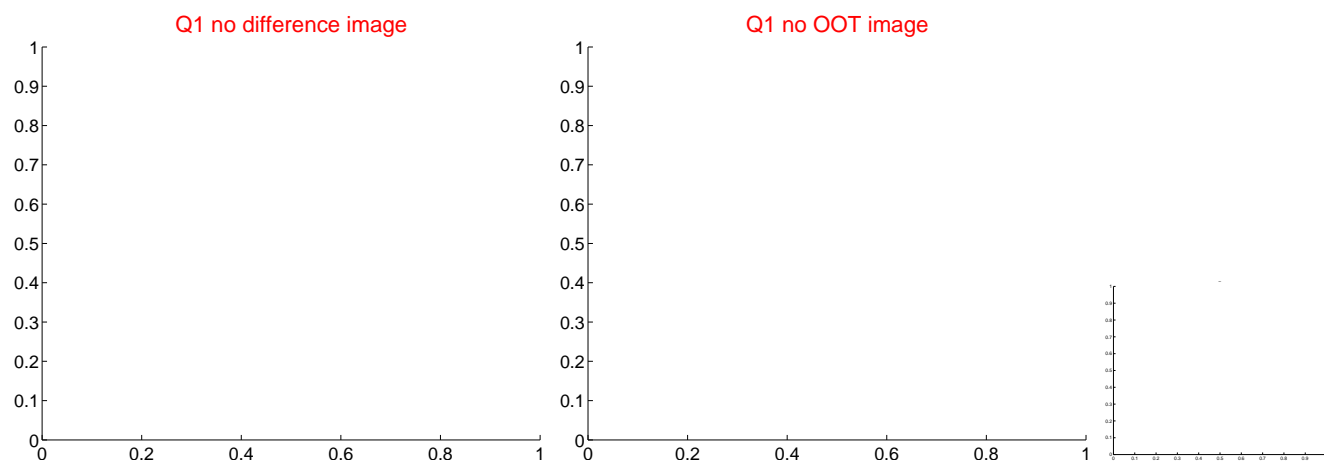
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.402 ± 1.769	1.92	2.131 ± 1.702	2.651 ± 1.035
PRF-fit source offset from KIC position	3.300 ± 1.313	2.51	1.960 ± 1.307	2.655 ± 0.970
photometric centroid source offset	2.21 ± 1.29	1.72	-0.98 ± 1.41	-1.98 ± 1.25

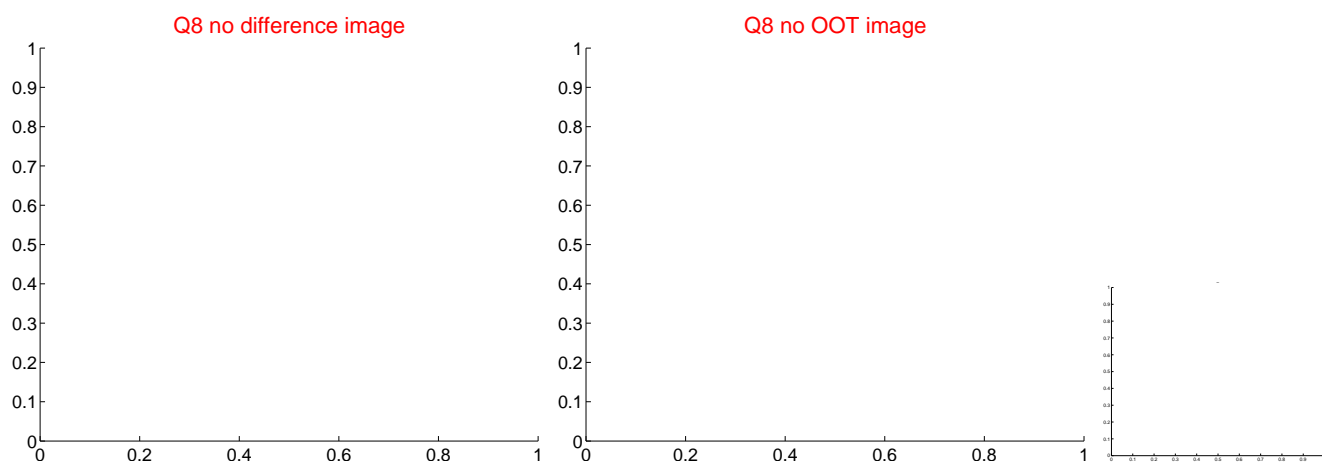
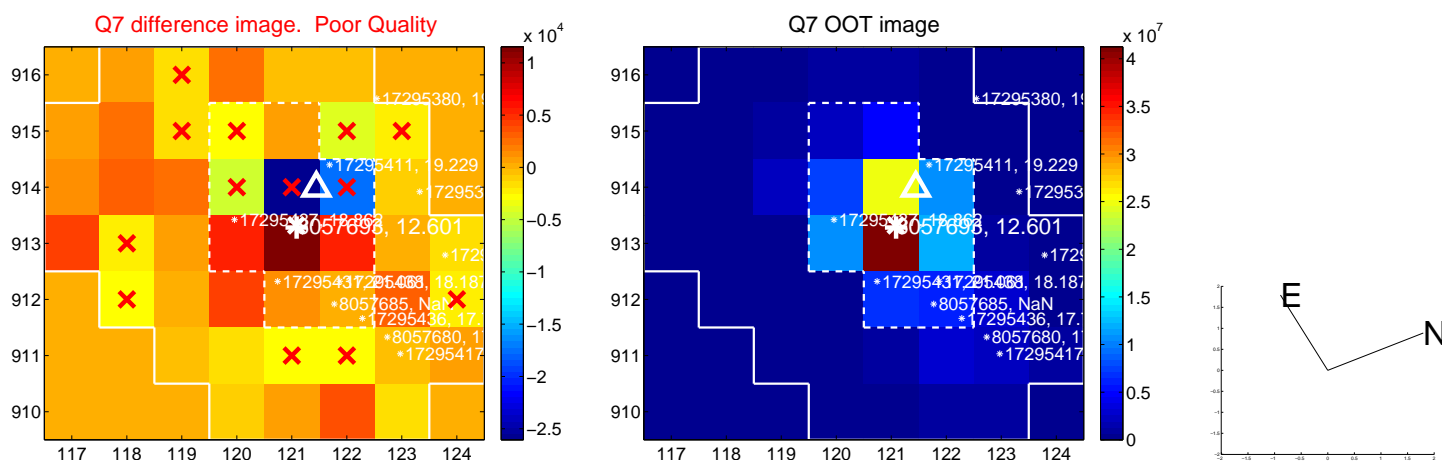
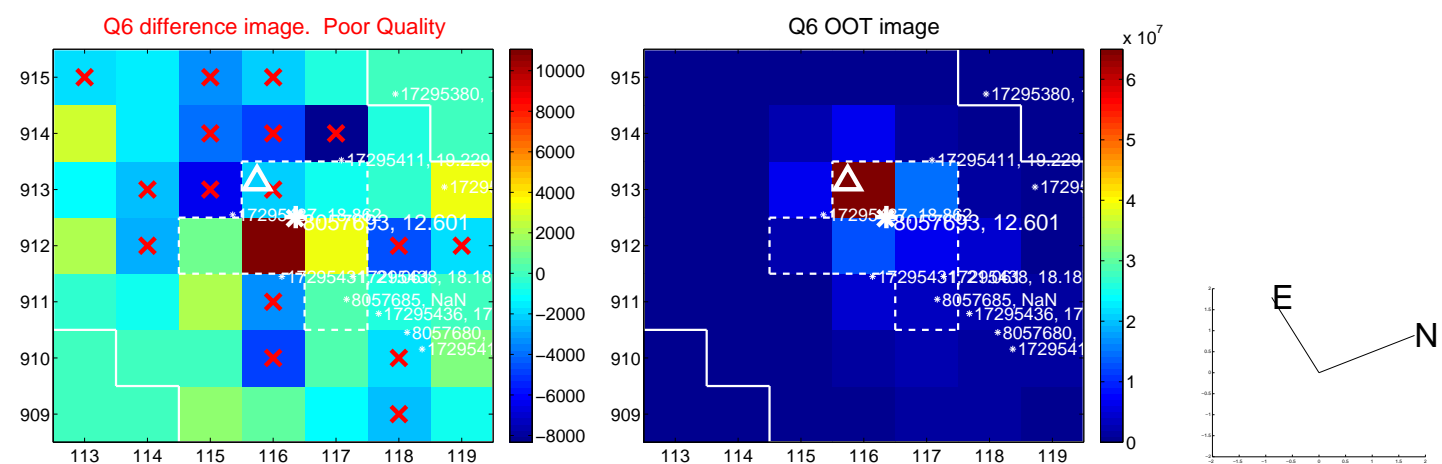
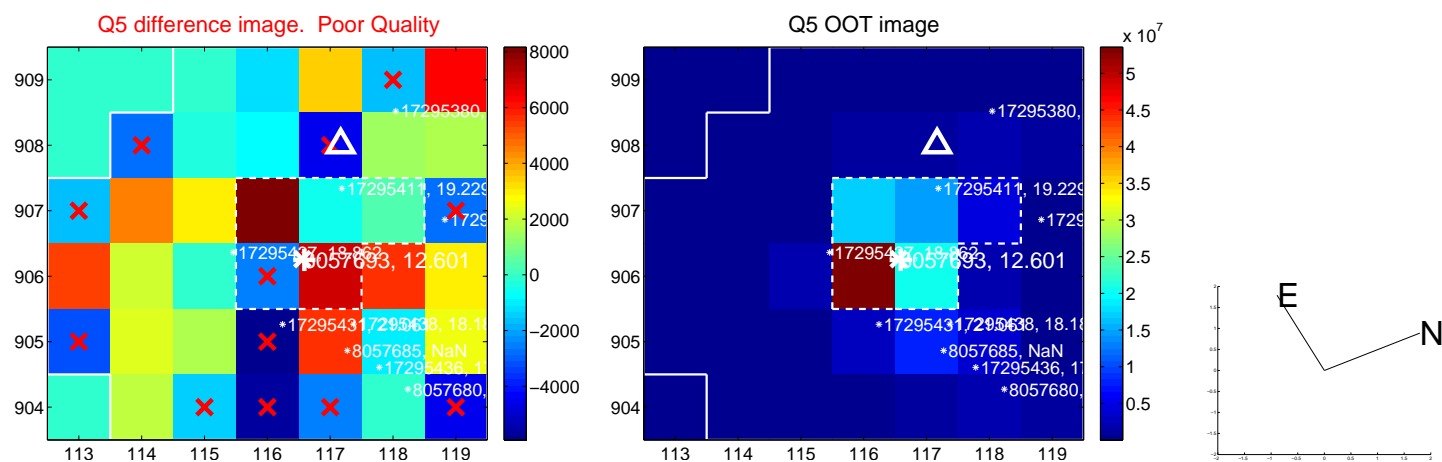


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

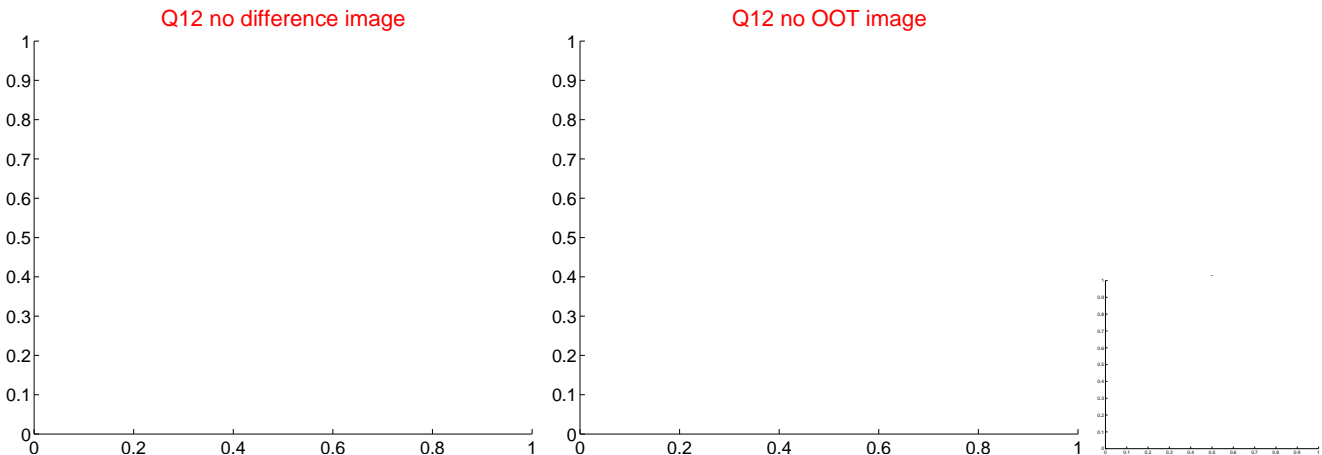
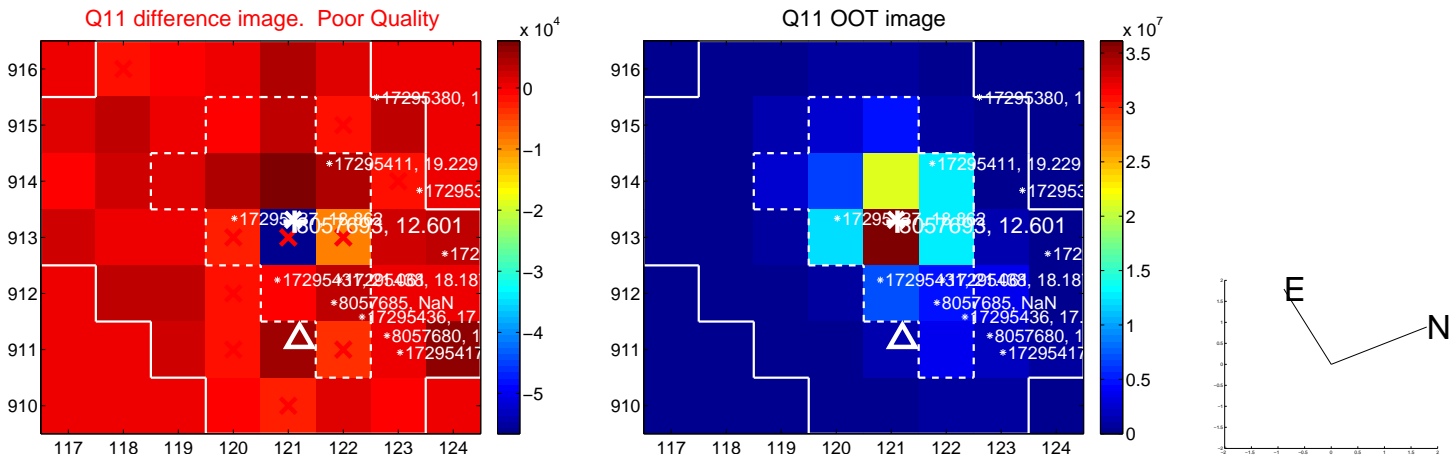
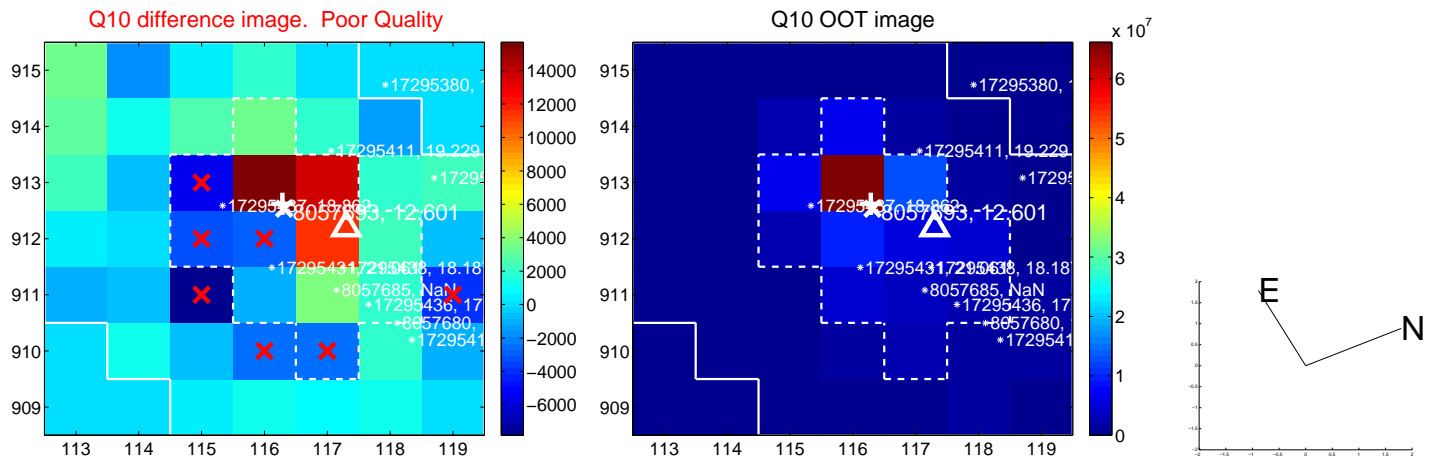
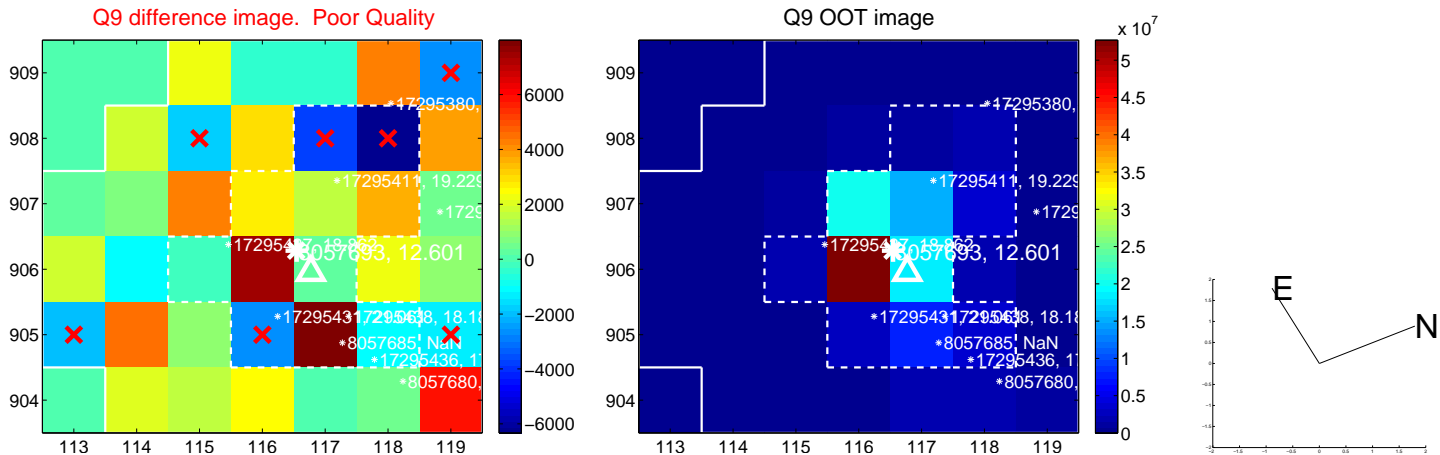
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



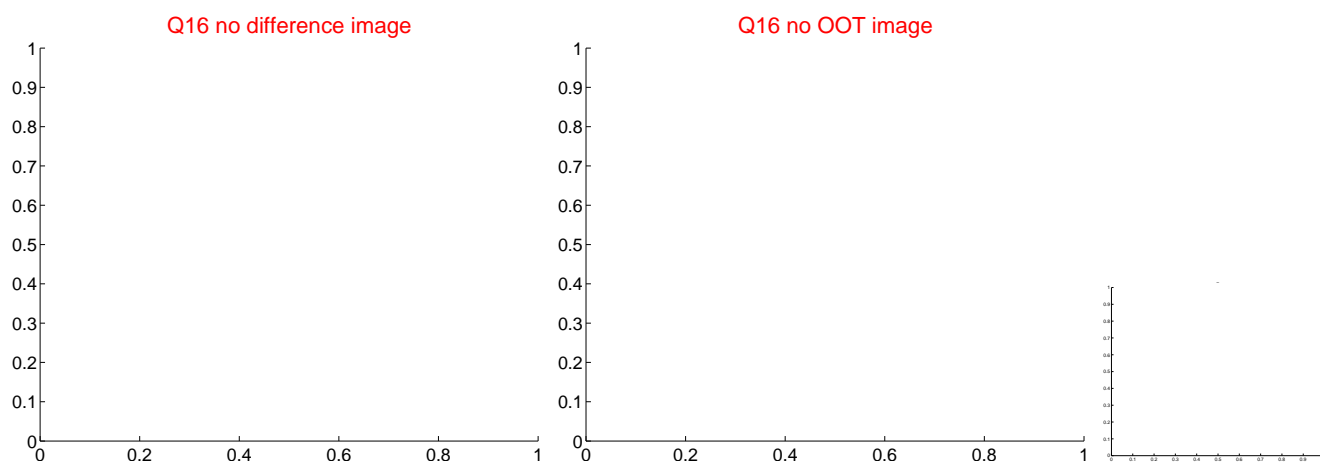
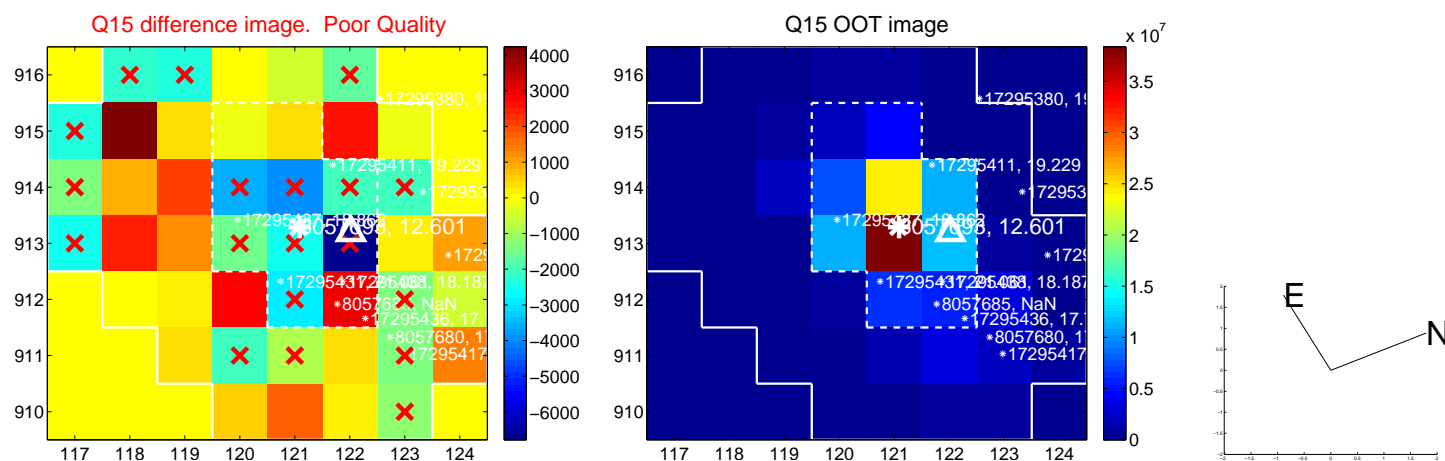
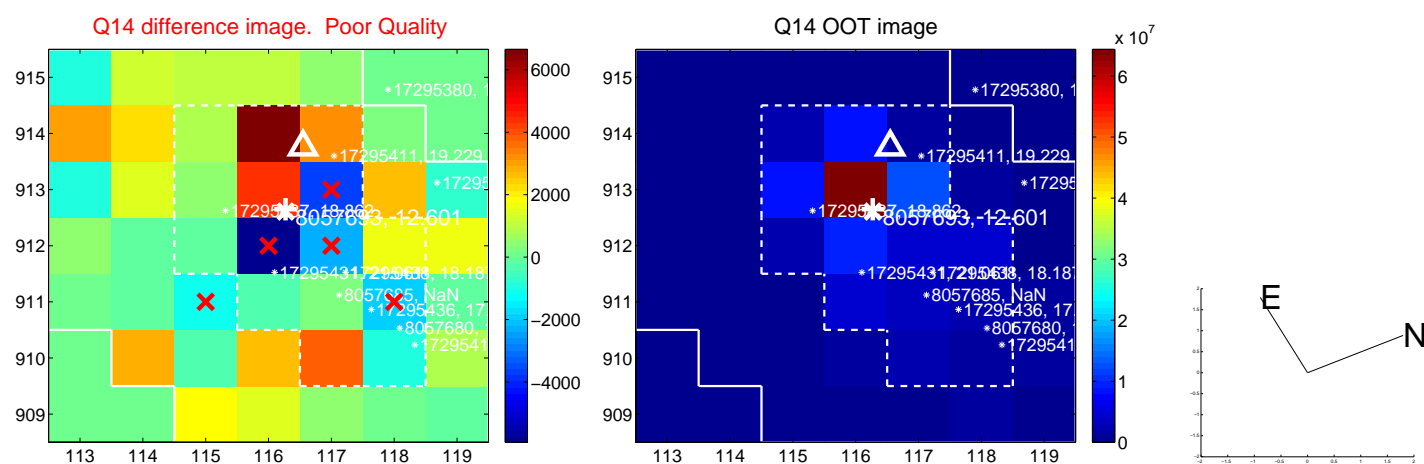
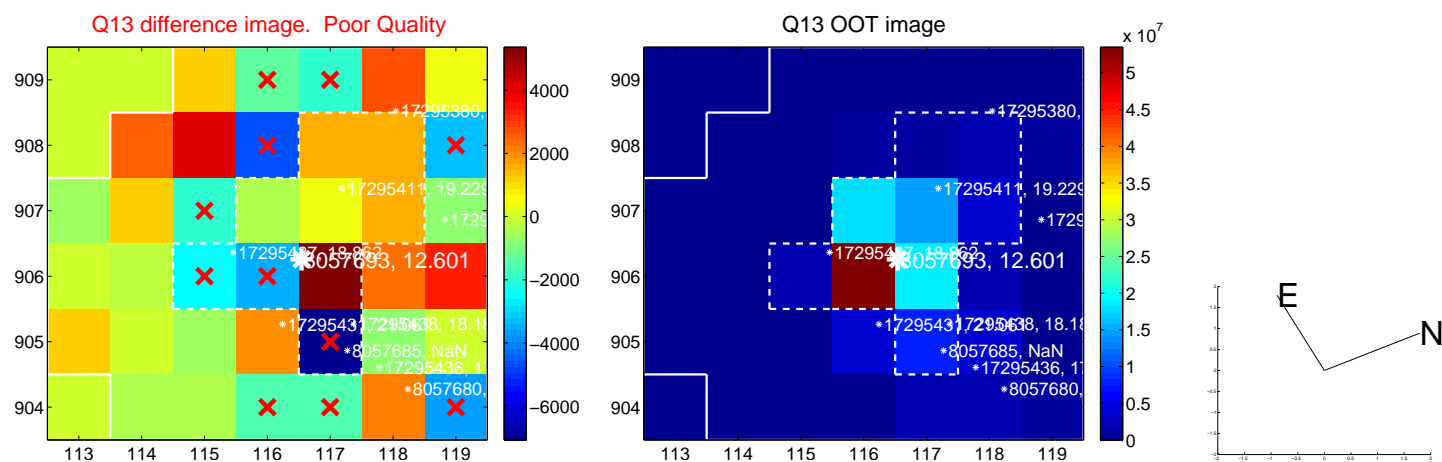
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



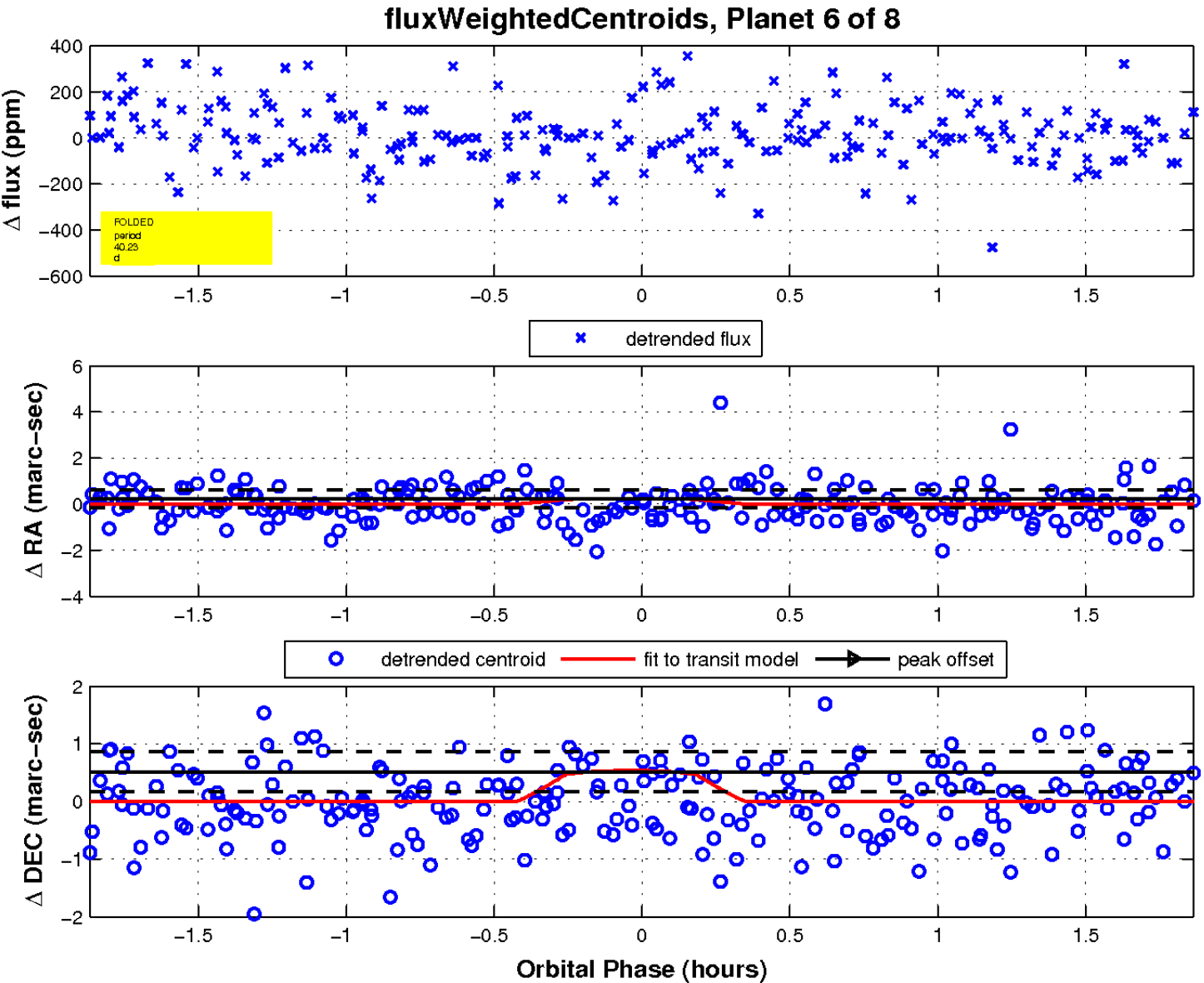
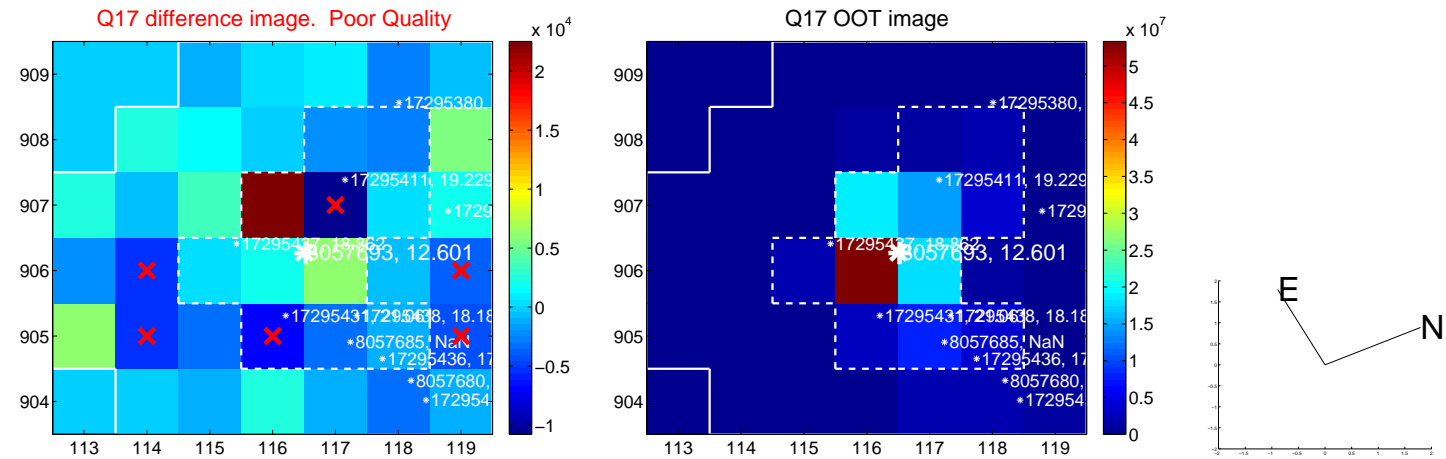
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

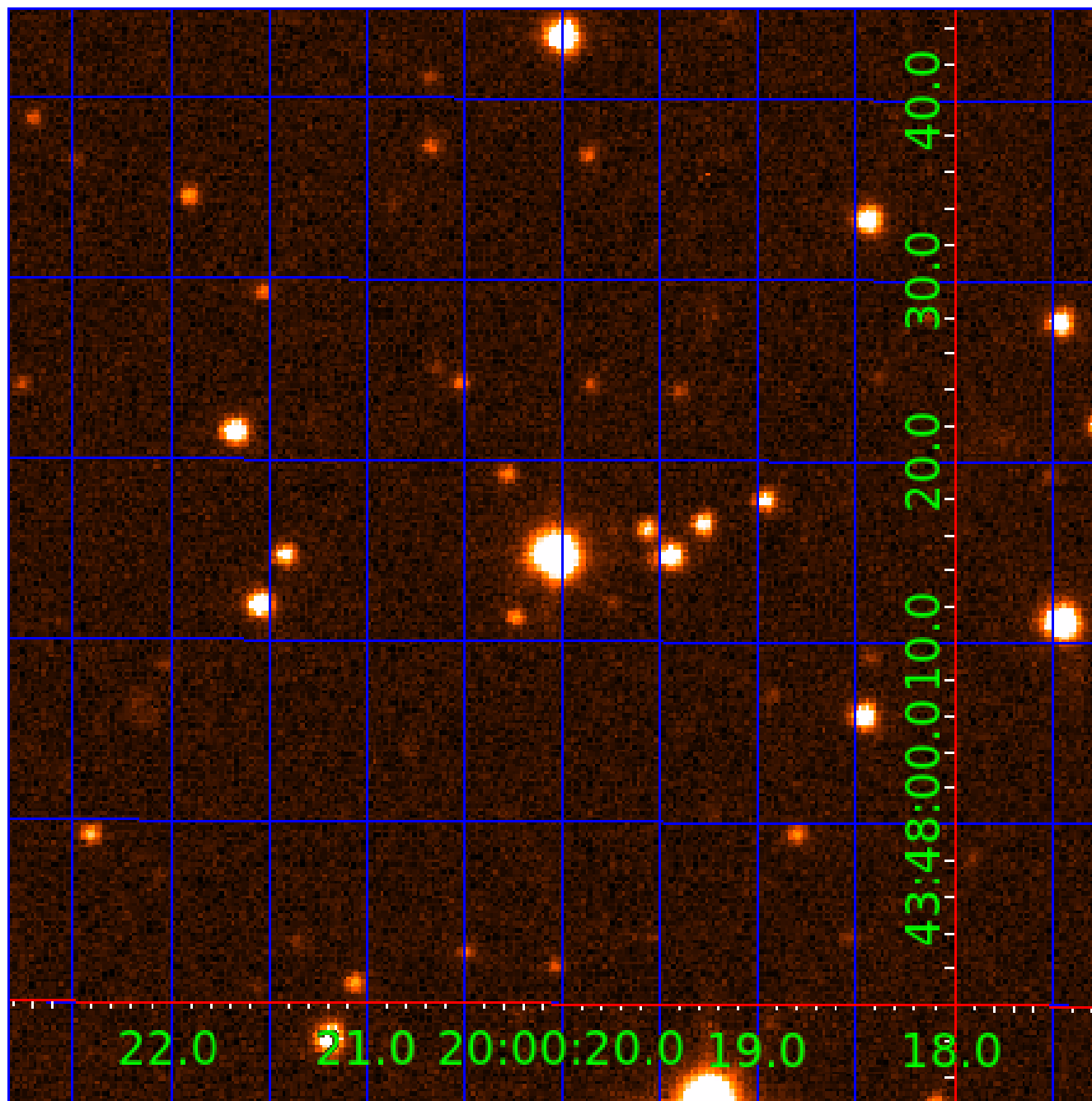


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
008057693-04	OBS	No	22.796647	144.930147	206.8	2.344	10.8	10.4	1.41	6792	2.37	130.24
008057693-05	OBS	No	35.451867	150.331824	195.1	5.707	8.8	11.5	1.41	6792	2.24	72.28
008057693-06	OBS	No	40.229411	161.560789	261.3	0.625	9.7	5.7	1.41	6792	2.44	61.07
008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
008057693-08	OBS	No	47.933620	135.506699	266.7	1.445	9.0	9.0	1.41	6792	2.53	48.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

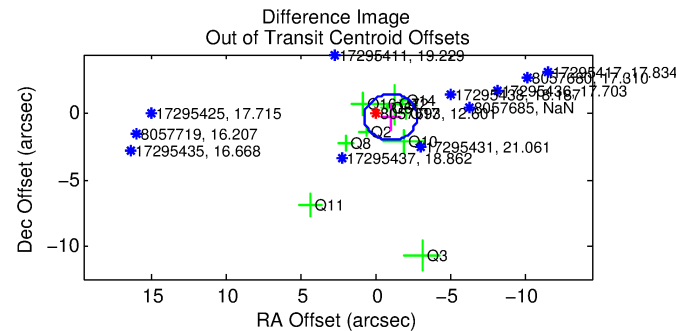
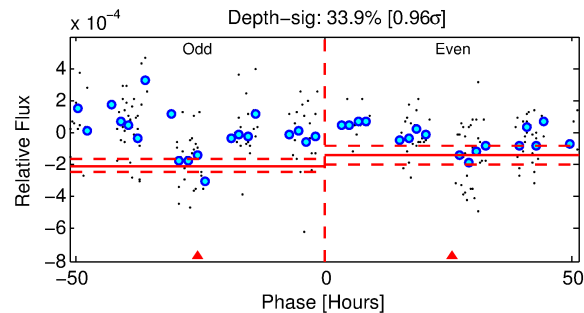
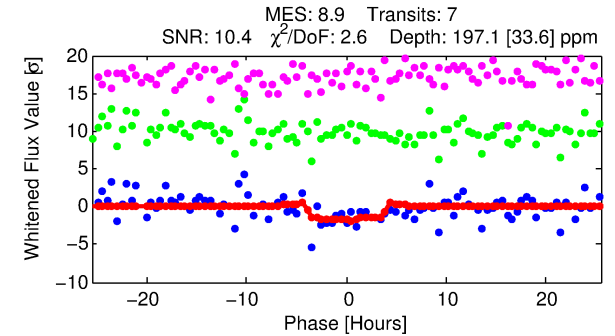
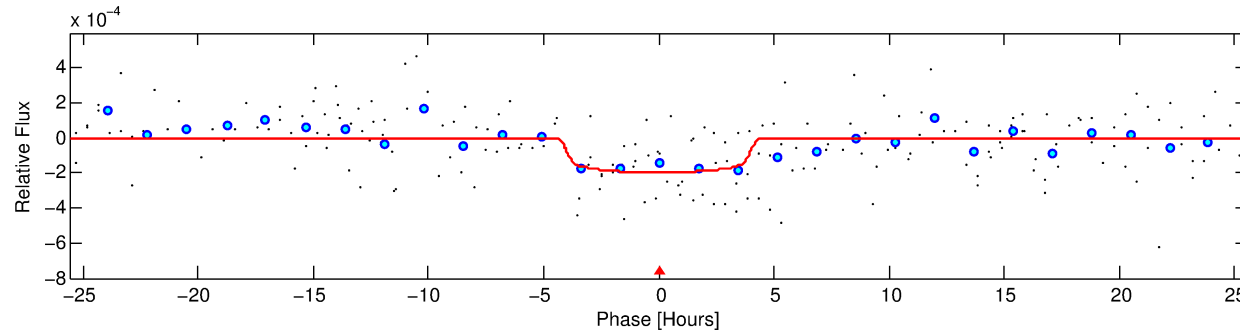
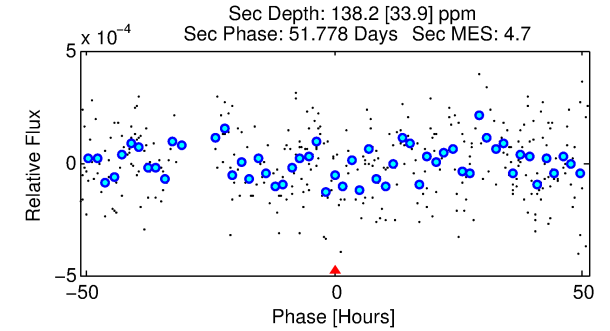
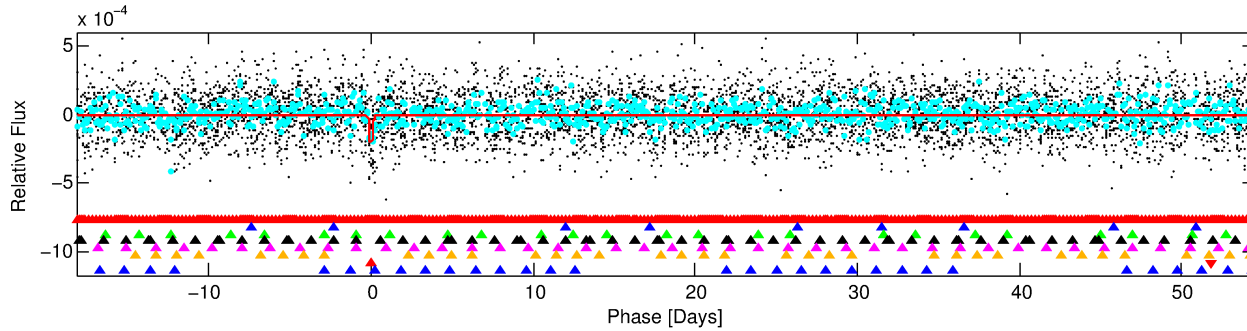
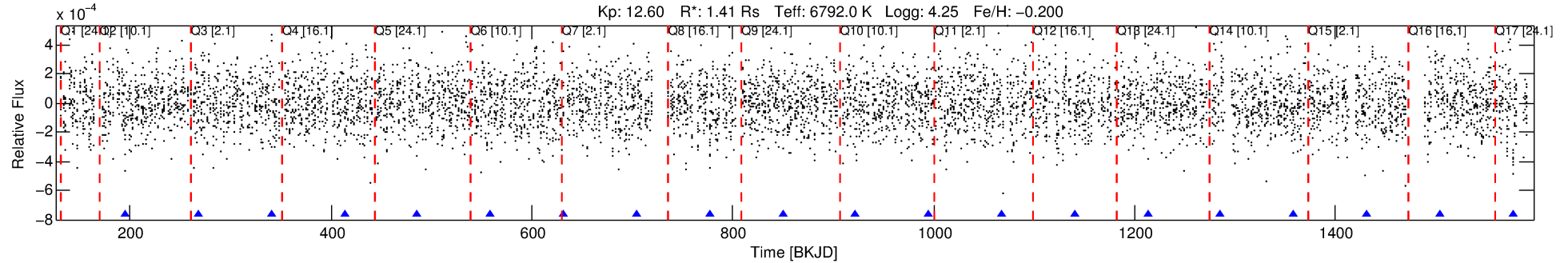
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-07

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 7 of 8 Period: 72.675 d



DV Fit Results:

Period = 72.67470 [0.00208] d
Epoch = 195.5529 [0.0266] BKJD
Rp/R* = 0.0147 [0.0054]
a/R* = 33.91 [71.83]
b = 0.87 [0.59]
Seff = 27.76 [10.74]
Teq = 585 [57] K
Rp = 2.26 [1.07] Re
a = 0.3698 [0.0911] AU
Ag = 2034.93 [1724.87] [1.18 σ]
Teffp = 6078 [1201] K [4.57 σ]

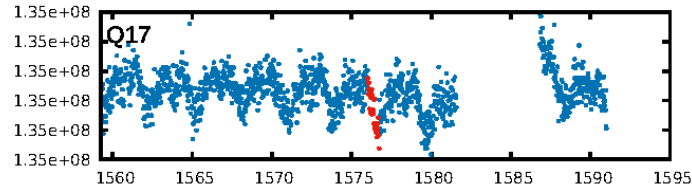
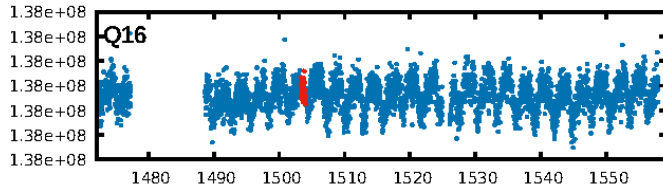
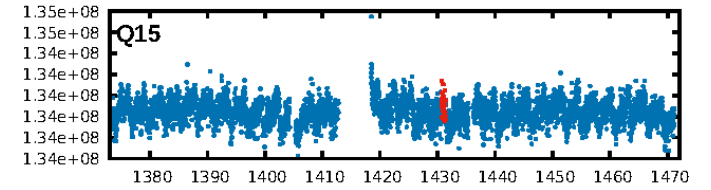
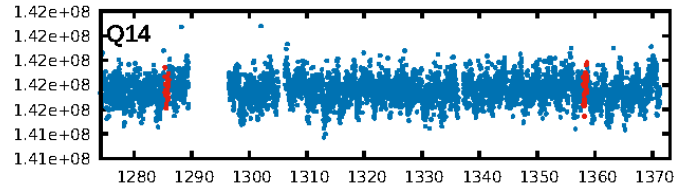
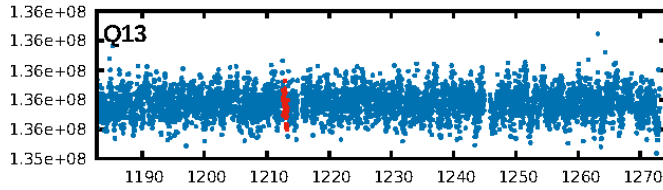
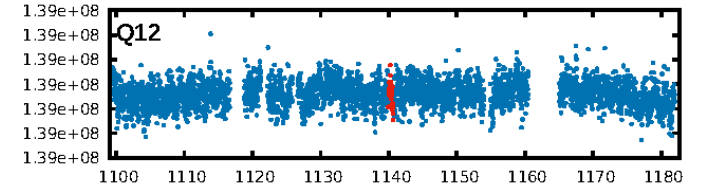
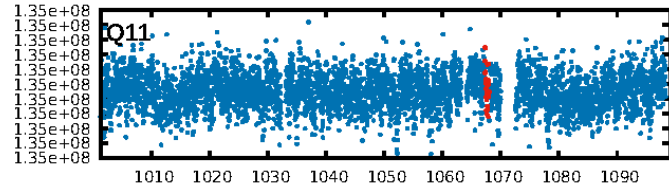
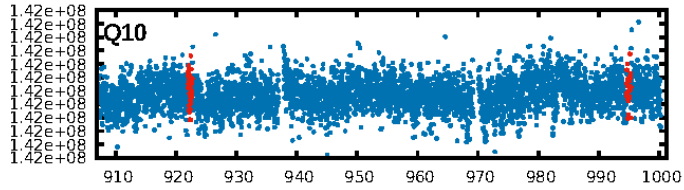
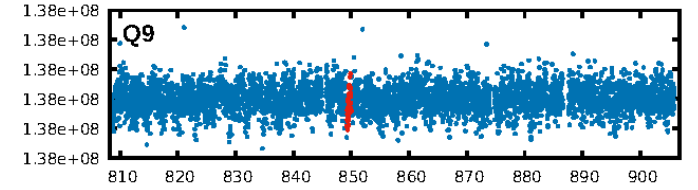
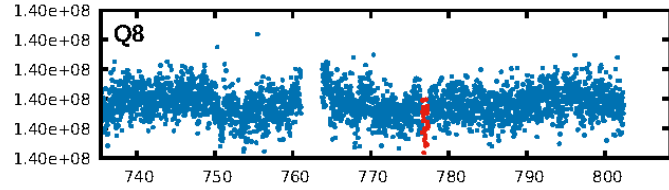
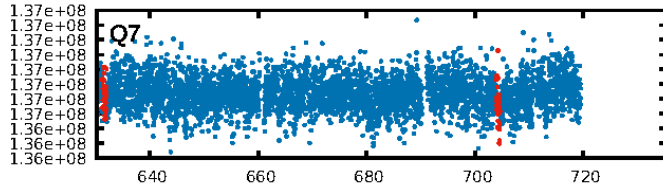
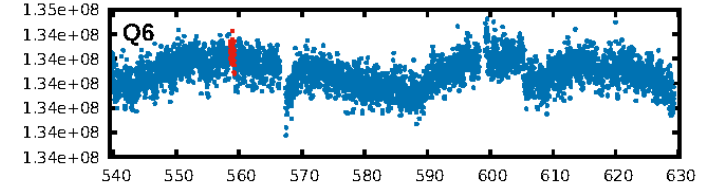
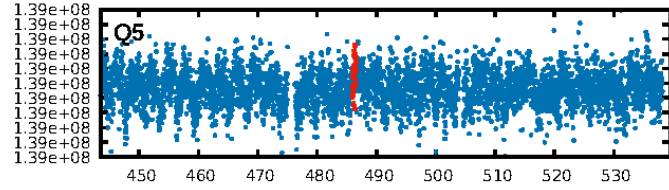
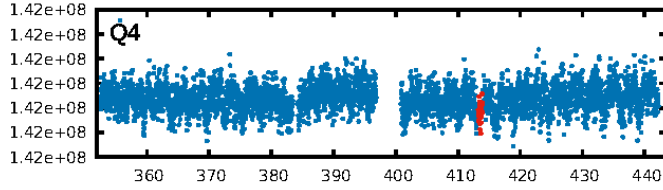
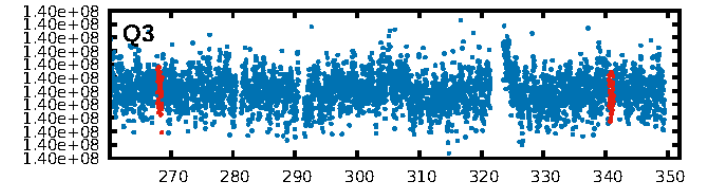
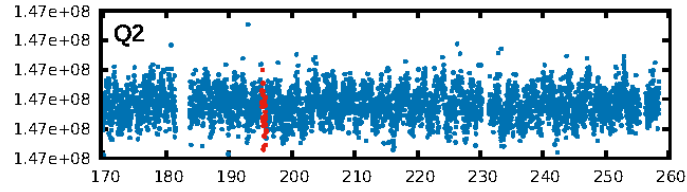
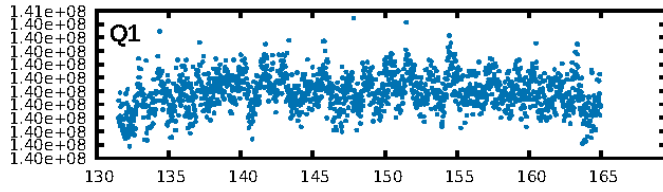
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [30.13 σ]
LongPeriod-sig: 100.0% [248.85 σ]
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: 9.00e-07
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -2.452
Centroid-sig: 1.6%
Centroid-so: 1.500 arcsec [2.23 σ]
OotOffset-rm: 1.065 arcsec [1.82 σ]
KicOffset-rm: 1.095 arcsec [1.85 σ]
OotOffset-st: 4/3/3/1 [11]
KicOffset-st: 4/3/3/1 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 0.00 [0/16]

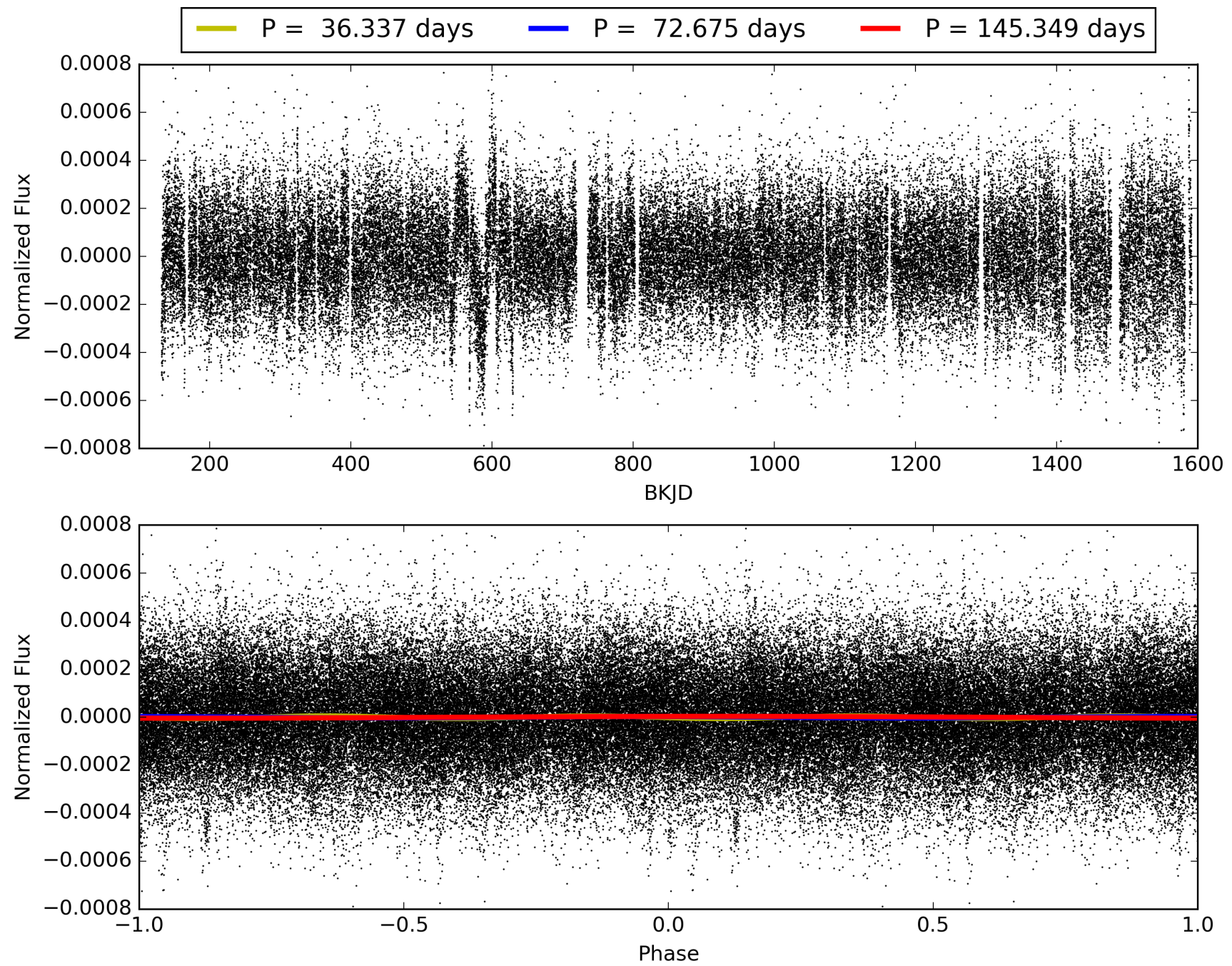
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:52:58 Z

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

TCE 008057693-07, PDC Light Curves

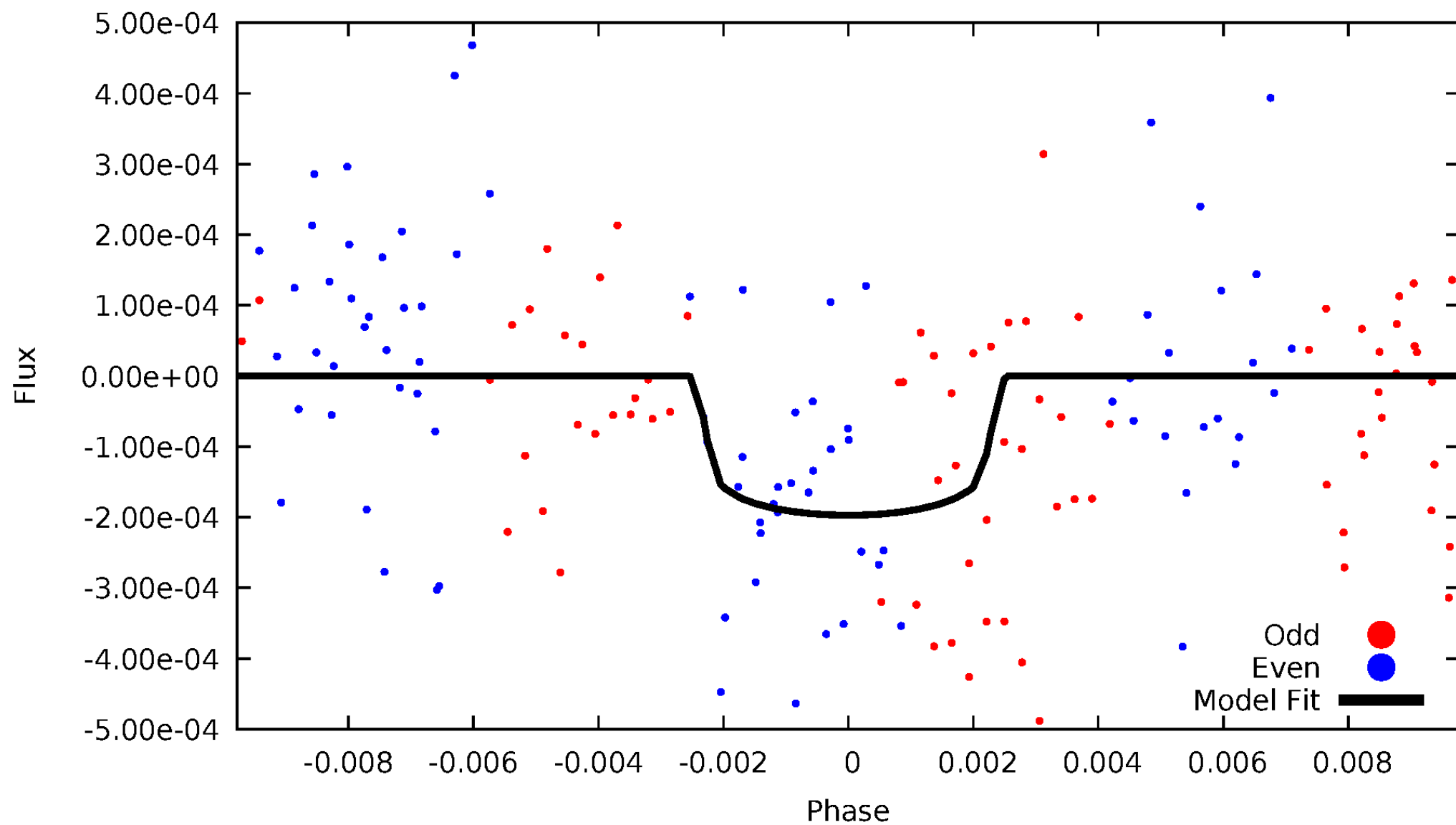


TCE 008057693-07



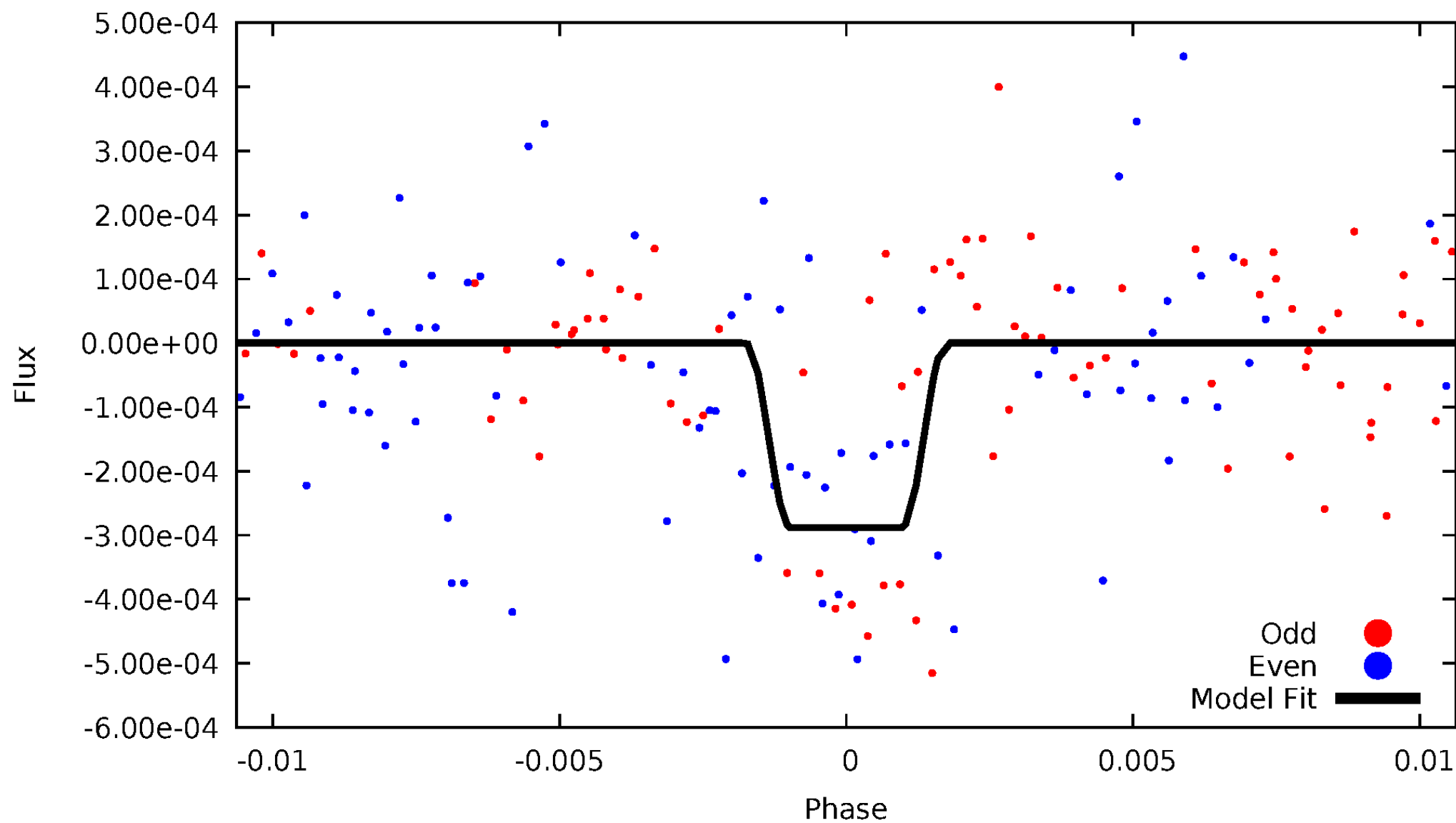
DV Odd/Even

TCE 008057693-07



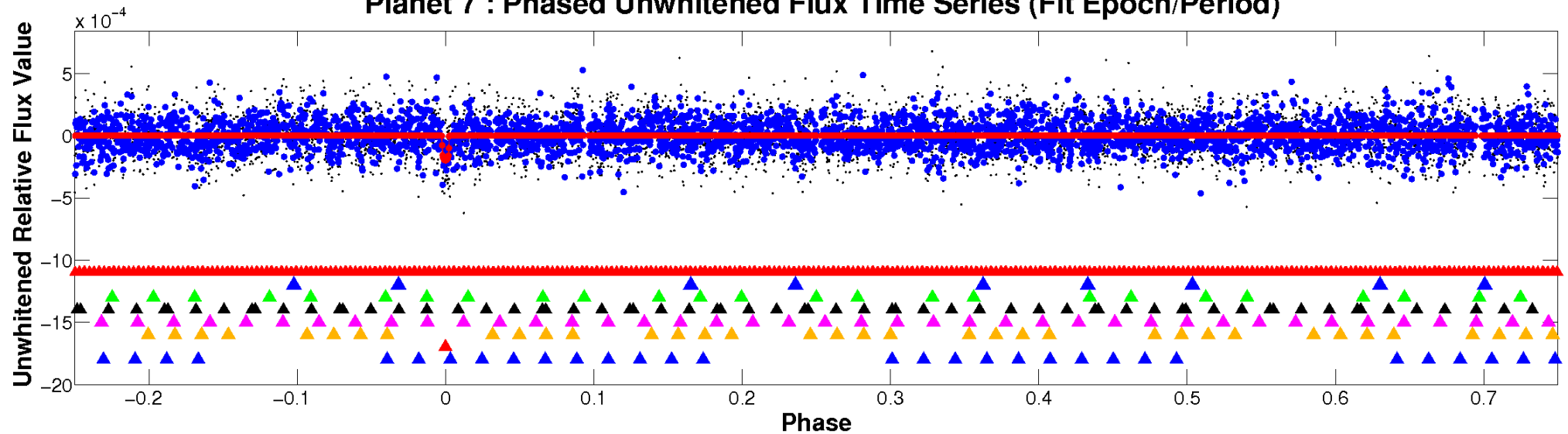
ALT Odd/Even

TCE 008057693-07

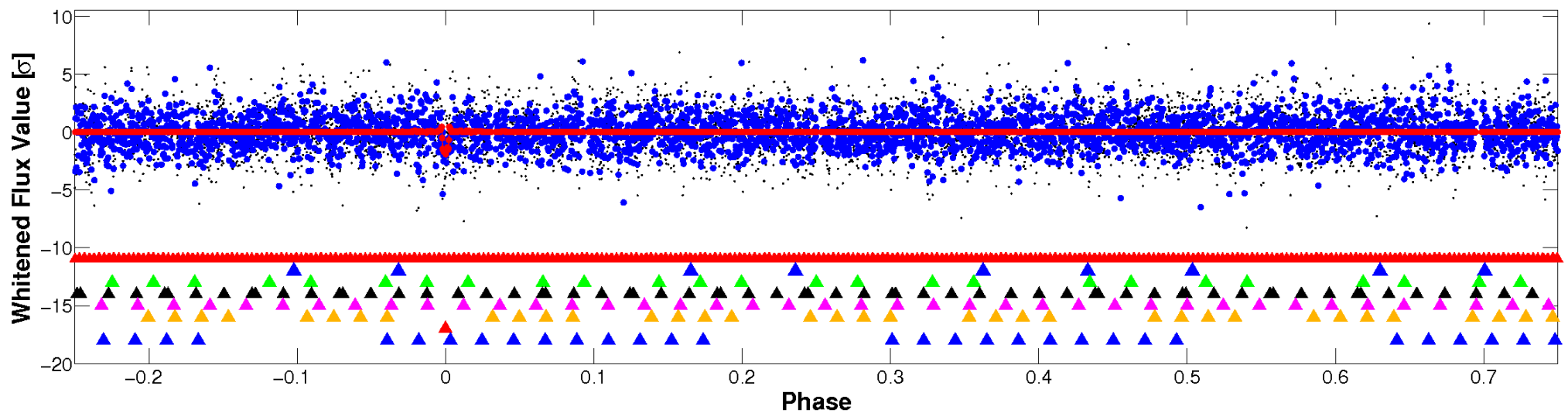


Non-Whitened Vs. Whitened Light Curve

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

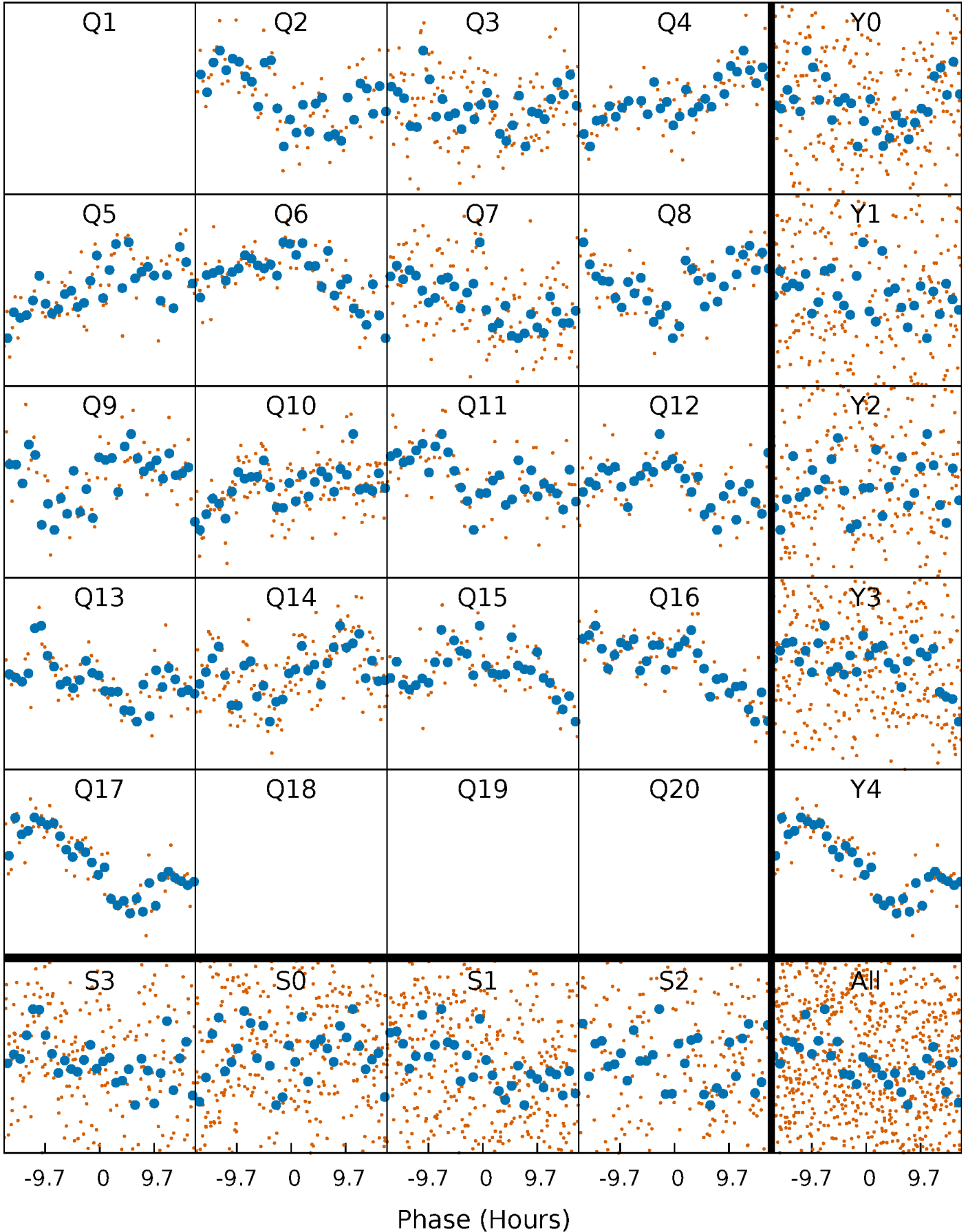


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



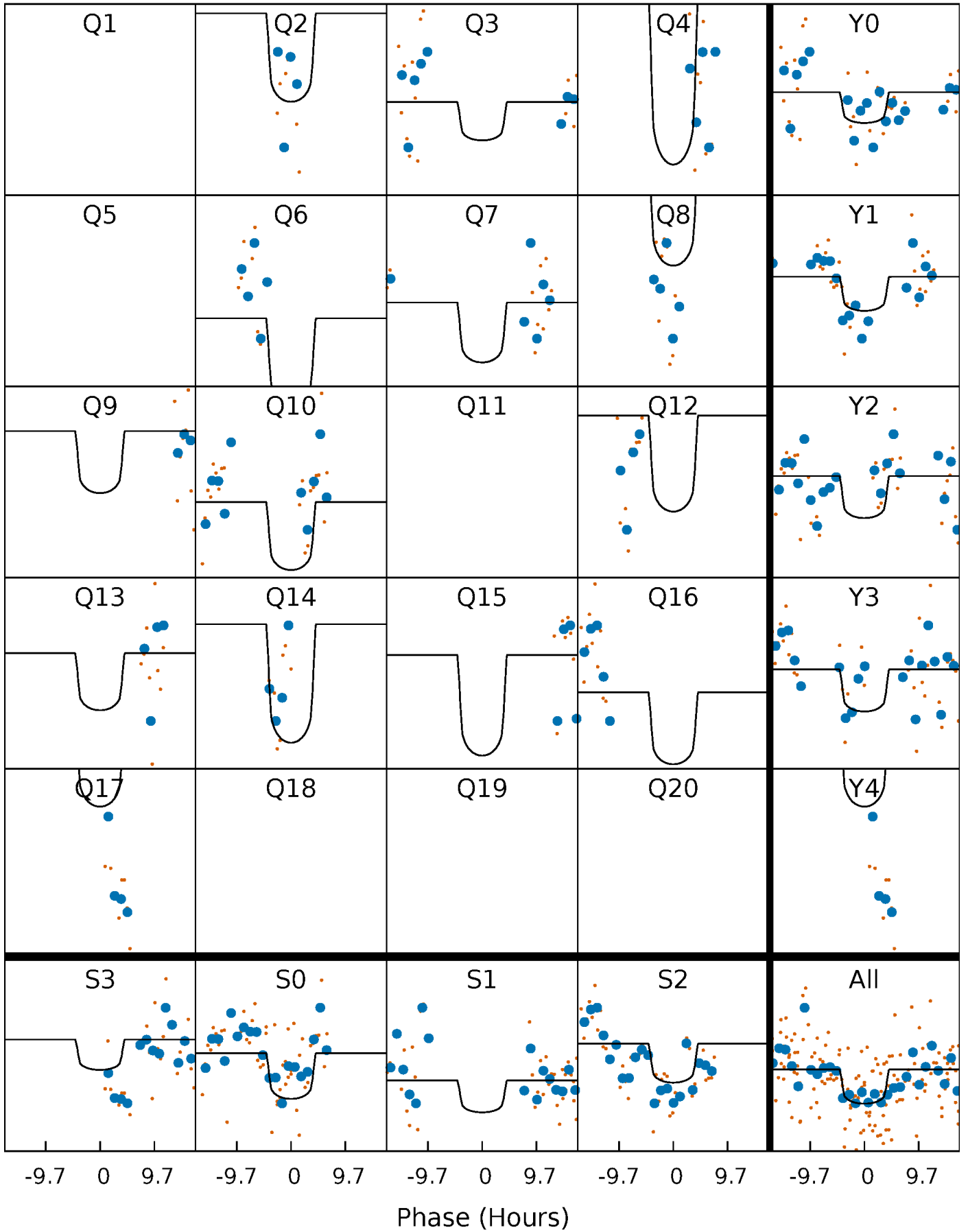
PDC Quarter-Phased Transit Curves

TCE 008057693-07 $P = 72.674698$ Days $T_0 = 195.552884$ (BKJD)



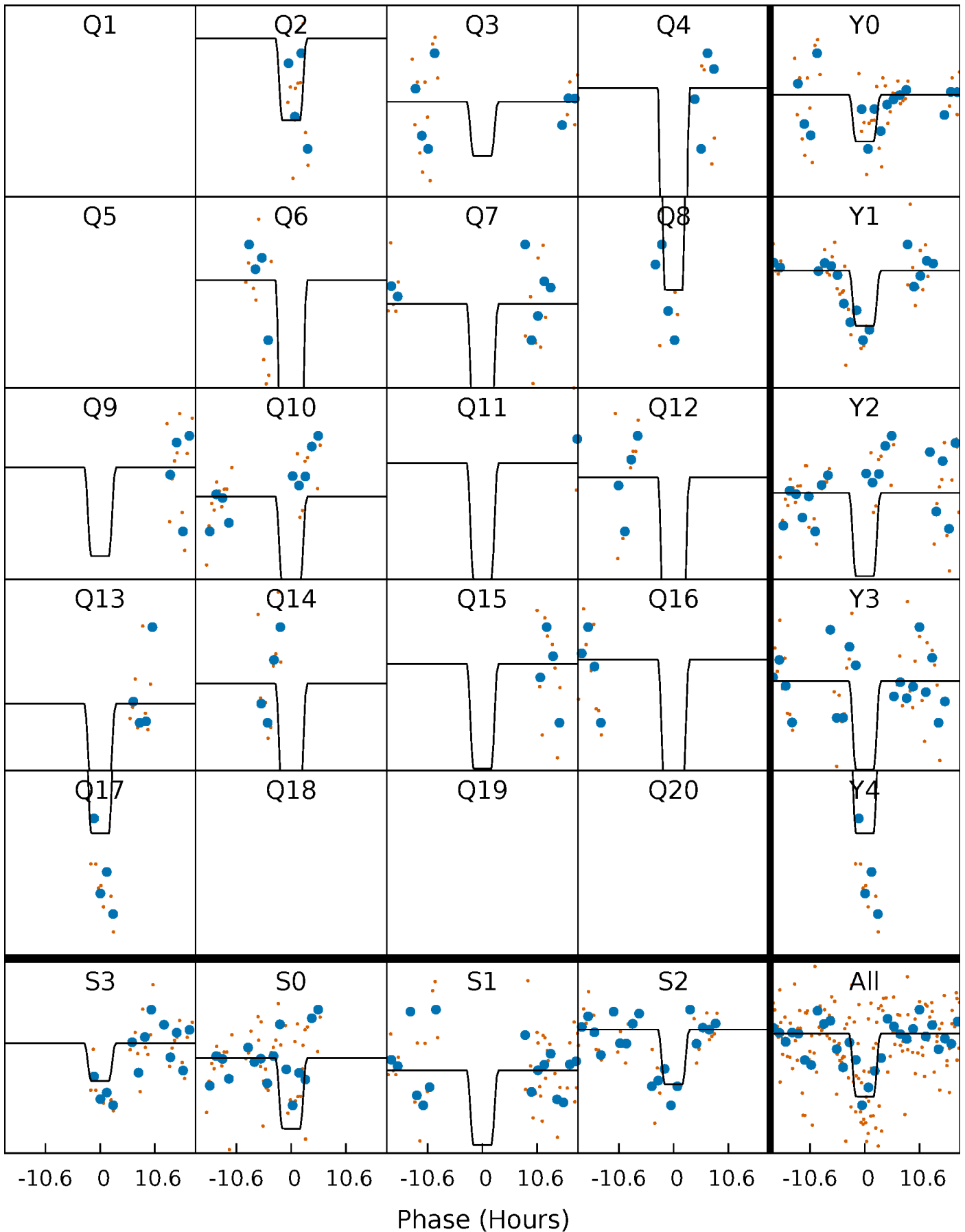
DV Quarter-Phased Transit Curves

TCE 008057693-07 $P = 72.674698$ Days $T_0 = 195.552884$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

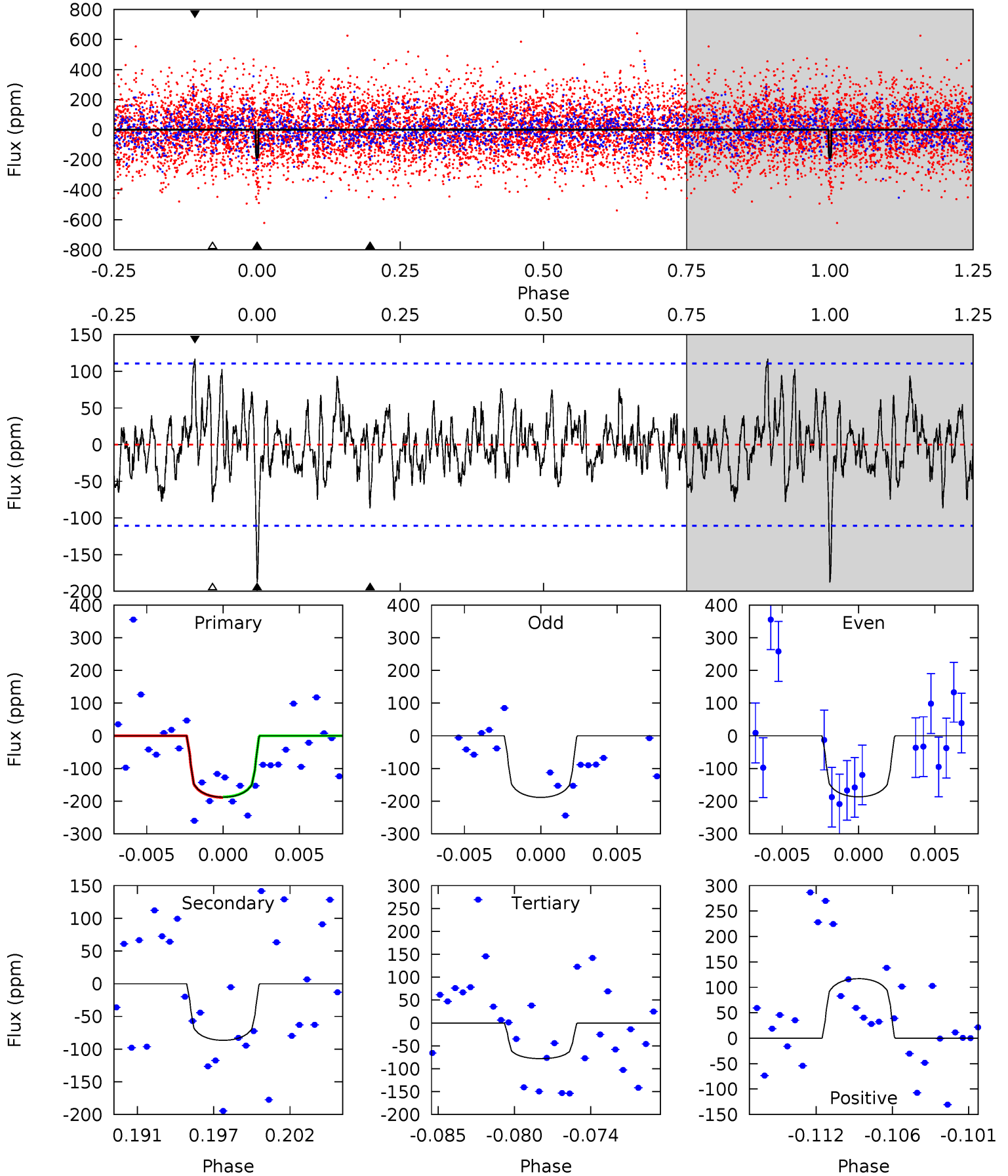
TCE 008057693-07 P= 72.684625 Days $T_0=195.477677$ (BKJD)



DV Model-Shift Uniqueness Test

008057693-07, $P = 72.674698$ Days, $E = 122.878186$ Days

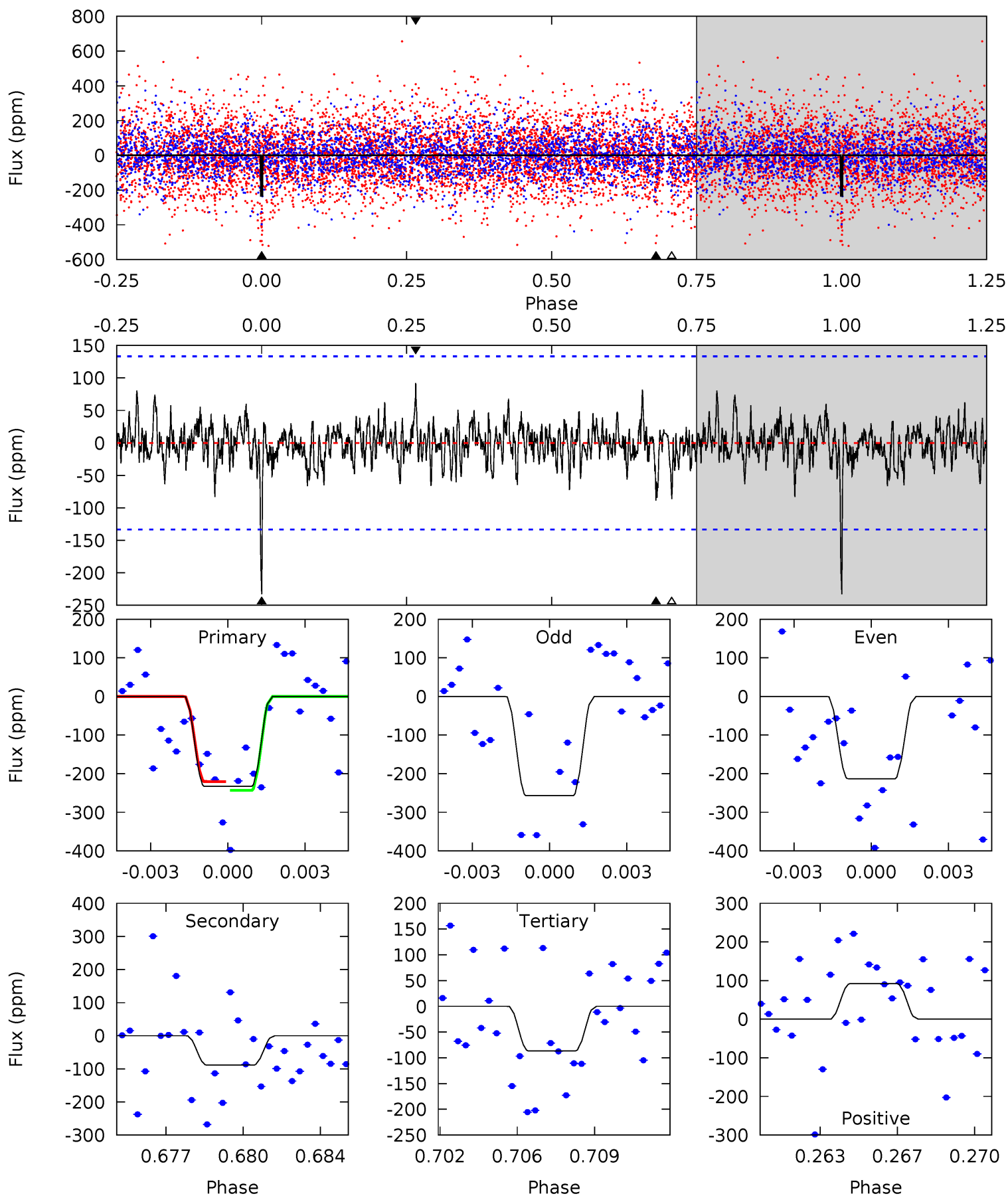
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.74	4.03	3.63	5.44	5.15	2.79	1.49	5.10	3.29	0.40	-1.42	0.04	1.24	0.38	0.03



Alt Model-Shift Uniqueness Test

008057693-07, P = 72.684625 Days, E = 122.793052 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.16	3.49	3.40	3.62	5.24	2.95	0.95	5.76	5.54	0.08	-0.13	0.87	0.80	0.28	0.45



Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-87 ± 22	$2.33^{+0.90}_{-0.88}$	821^{+62}_{-49}	5351^{+1351}_{-737}	1167^{+1836}_{-607}
Alt.	-89 ± 25	$2.66^{+1.00}_{-0.85}$	824^{+59}_{-51}	5054^{+1044}_{-656}	878^{+1204}_{-425}

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 $A_{obs} \gg 1.0$

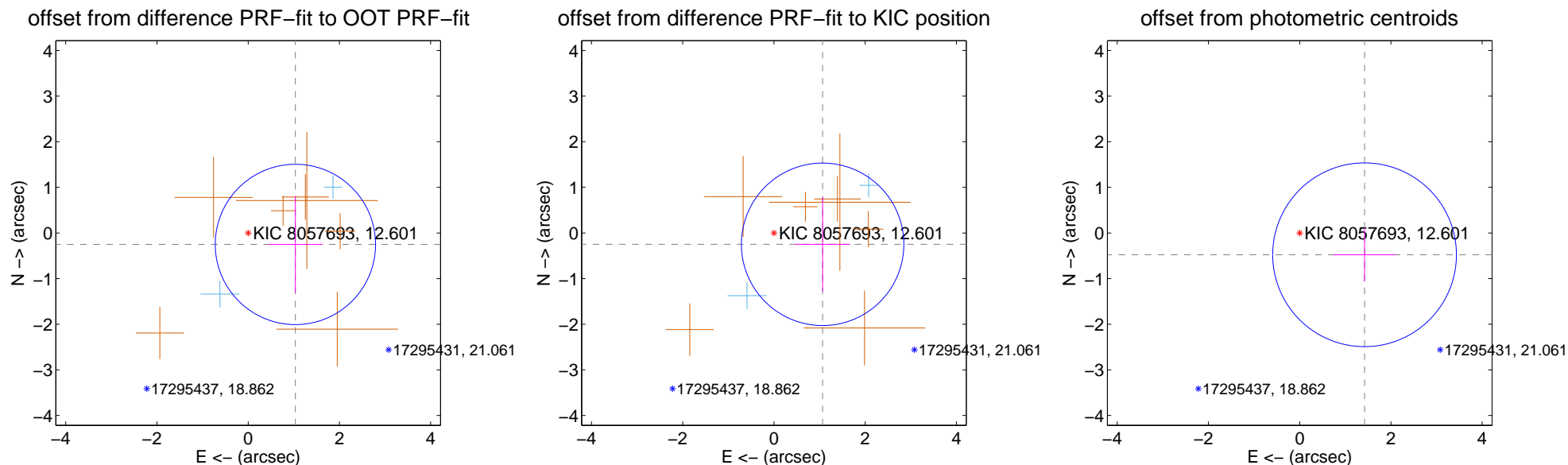
DV Centroid Data

Supplemental centroid analysis for 008057693-07. Kepler magnitude: 12.60. Transit SNR 10.40

There are 2 quarters with good PRF difference image offsets

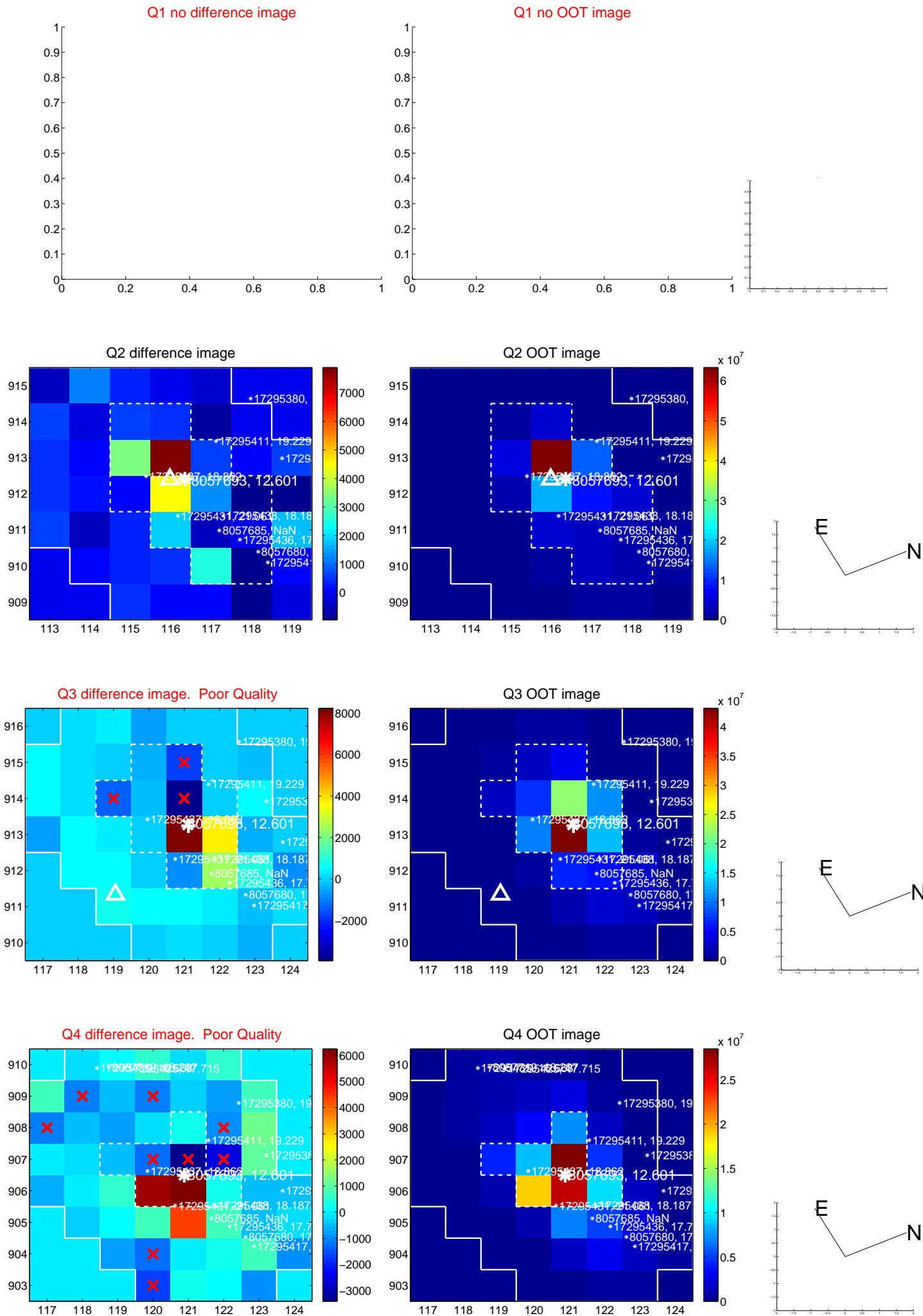
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.065 ± 0.586	1.82	-1.035 ± 0.598	-0.251 ± 1.057
PRF-fit source offset from KIC position	1.095 ± 0.594	1.85	-1.067 ± 0.603	-0.248 ± 1.031
photometric centroid source offset	1.50 ± 0.67	2.23	-1.42 ± 0.68	-0.48 ± 0.58

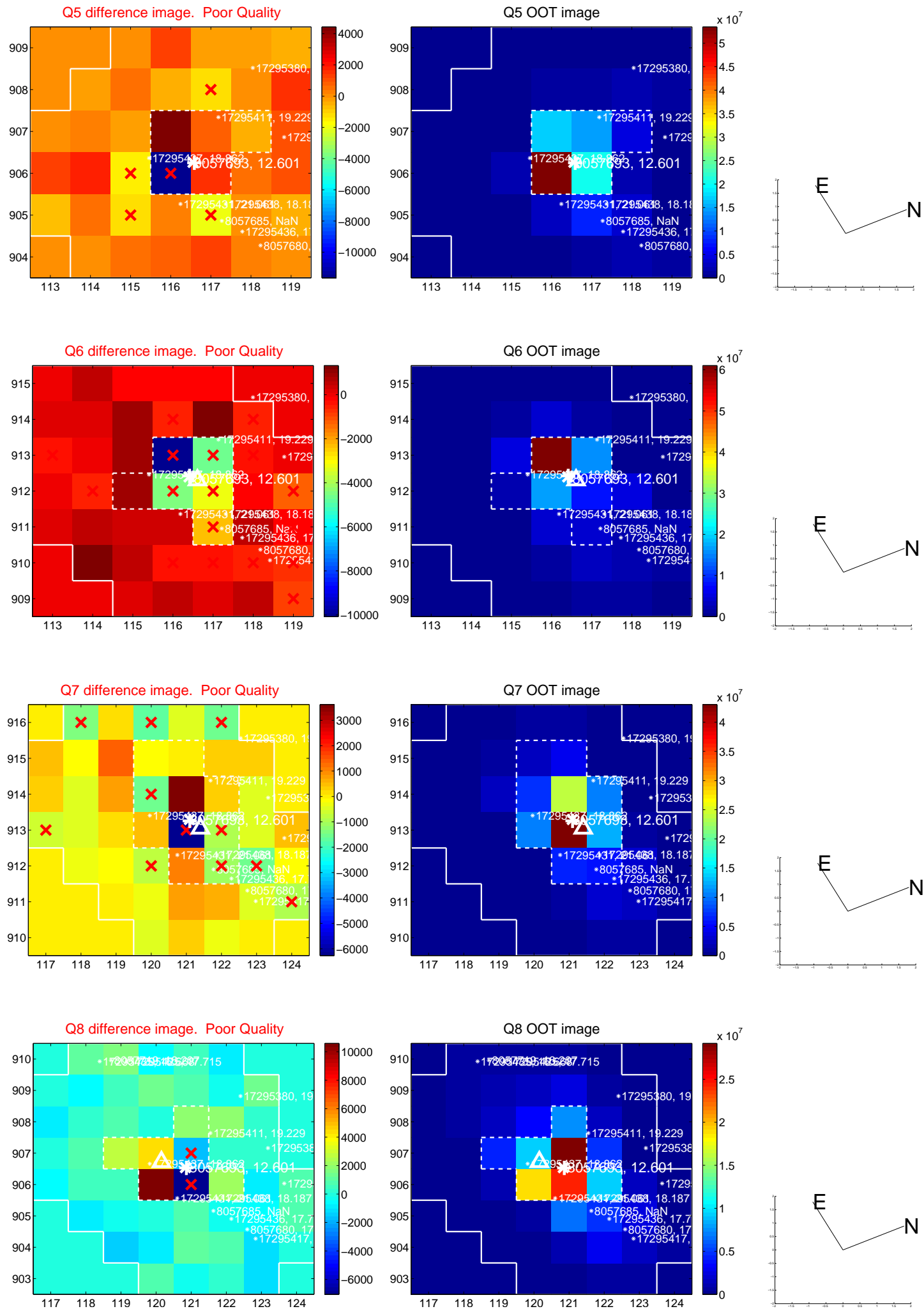


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

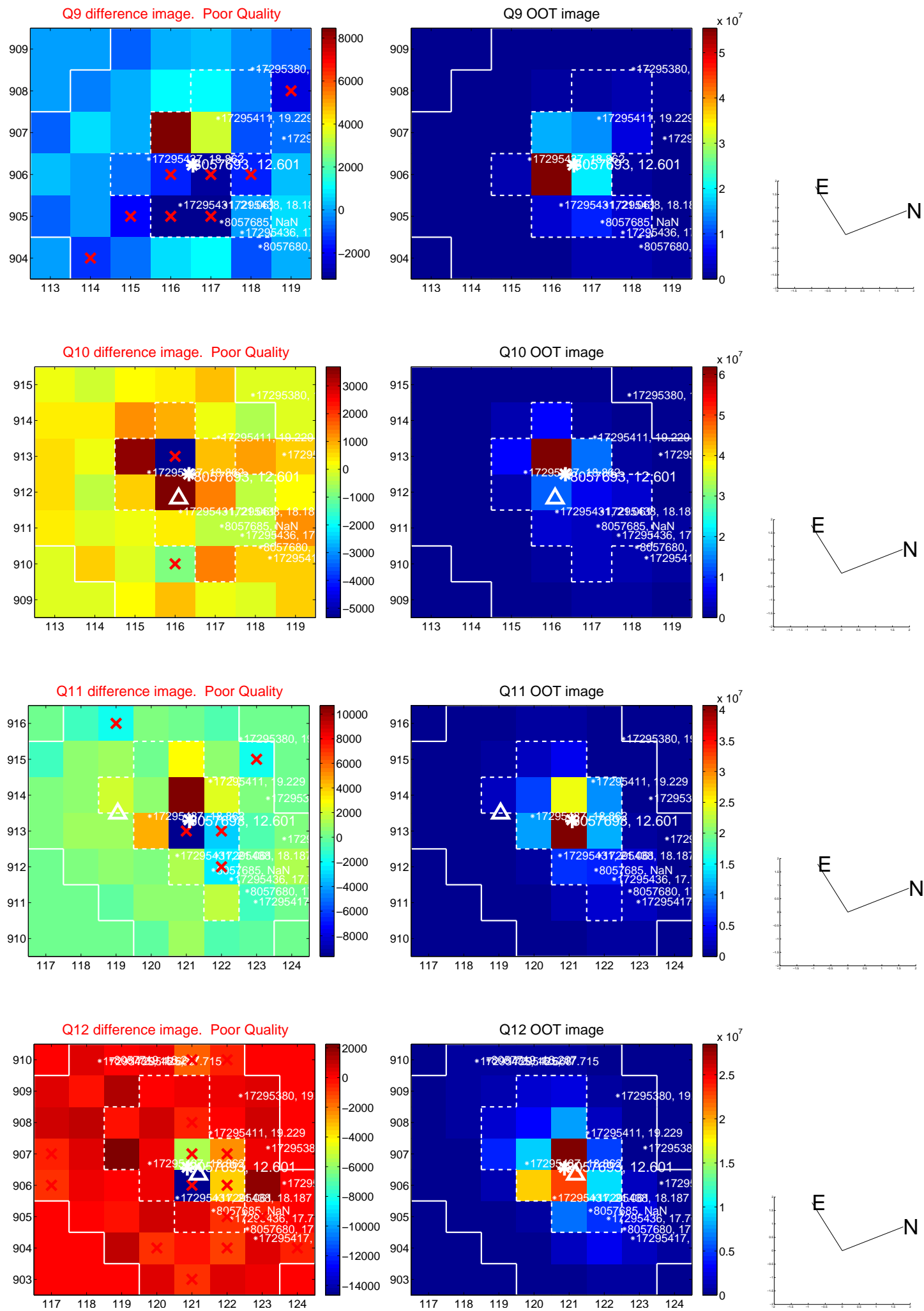
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



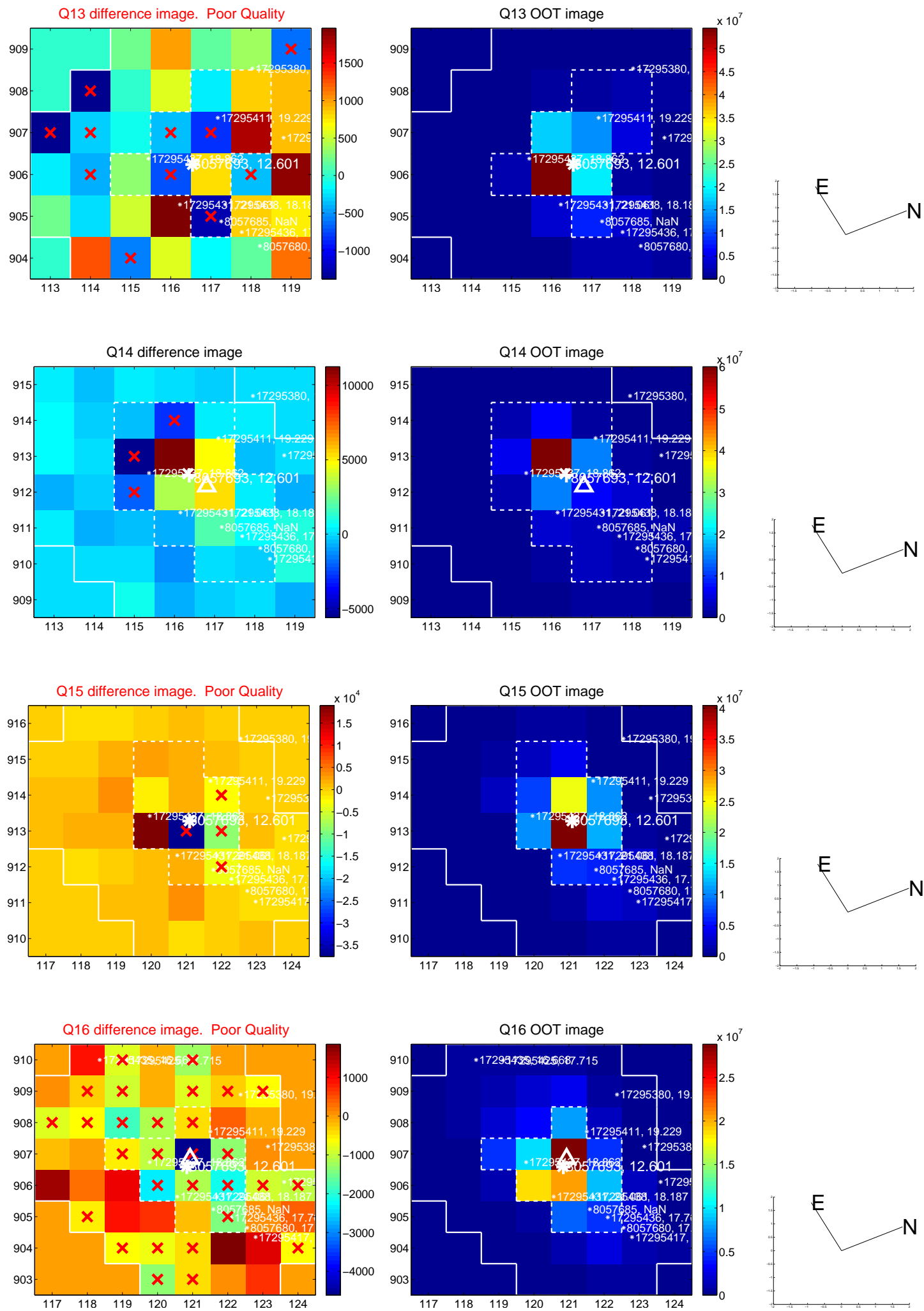
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



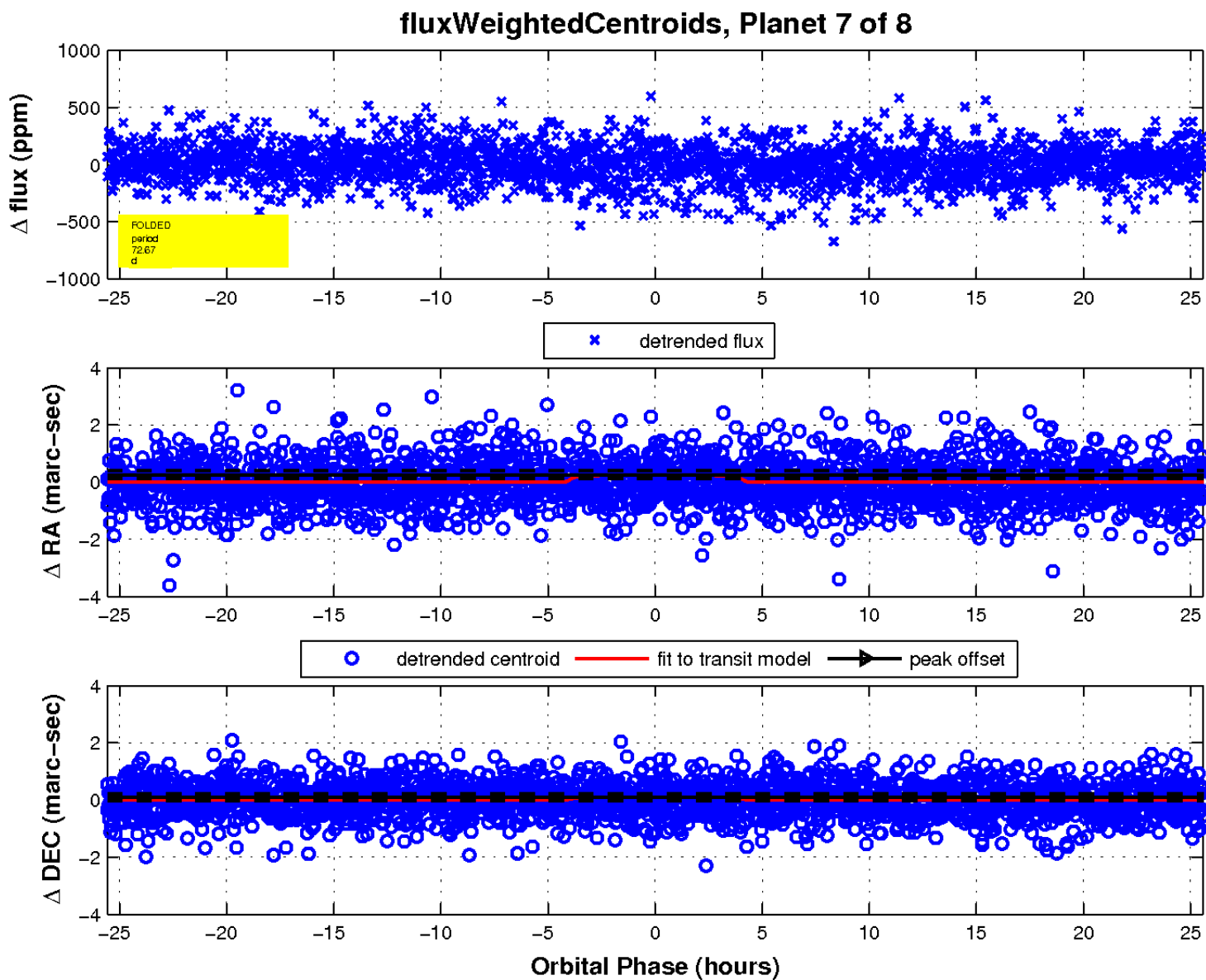
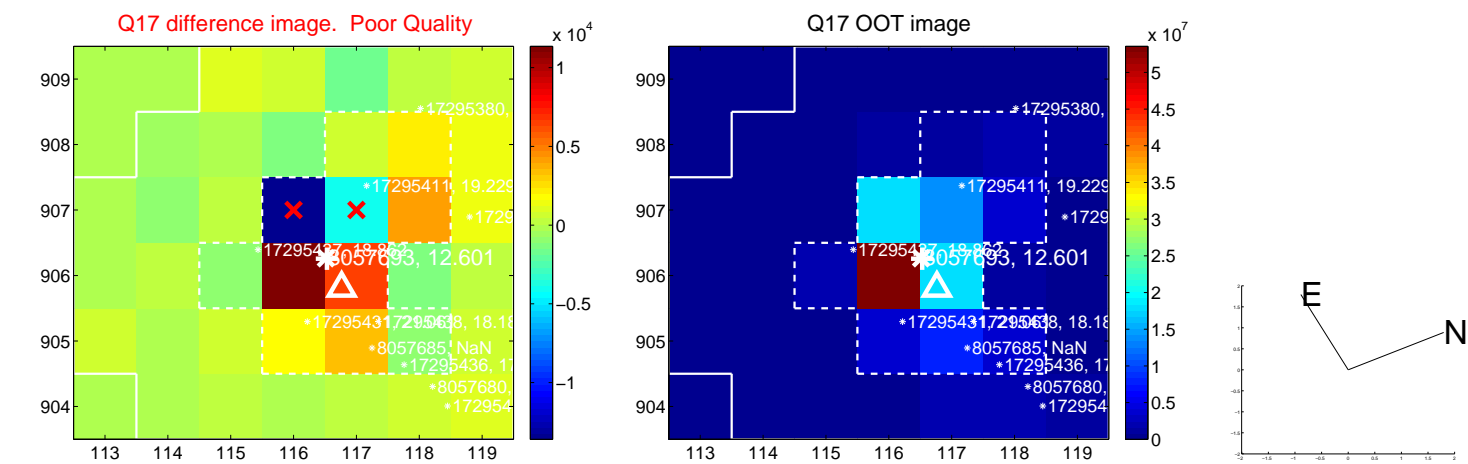
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

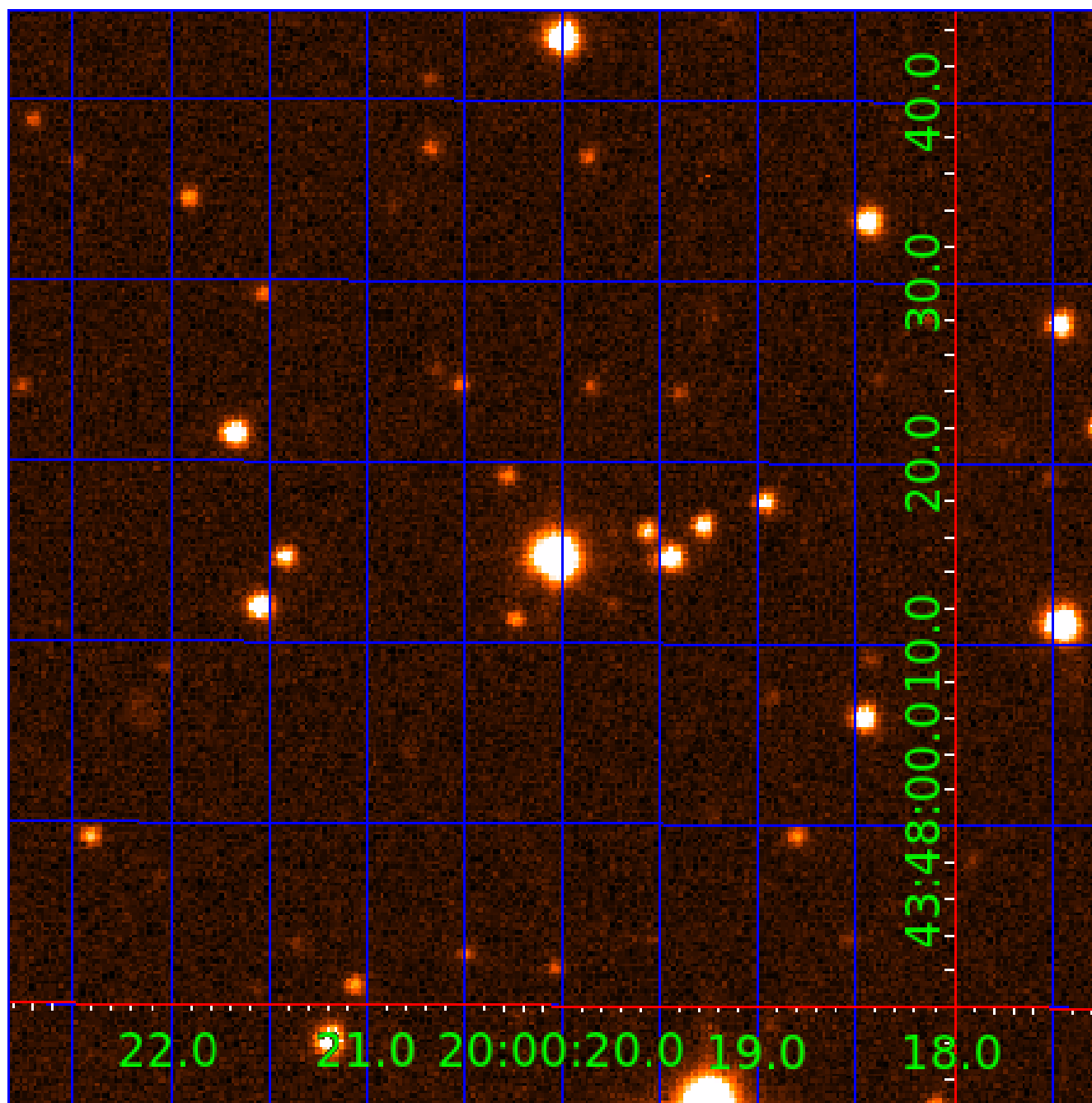


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008057693

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})
008057693-01	OBS	No	1.931448	132.749110	10.6	13.568	8.0	6.6	1.41	6792	0.48	3499.93
008057693-02	OBS	No	164.800061	149.222507	277.2	2.487	11.4	11.1	1.41	6792	2.74	9.32
008057693-03	OBS	No	59.277379	137.382465	174.9	6.415	11.1	10.7	1.41	6792	2.00	36.42
008057693-04	OBS	No	22.796647	144.930147	206.8	2.344	10.8	10.4	1.41	6792	2.37	130.24
008057693-05	OBS	No	35.451867	150.331824	195.1	5.707	8.8	11.5	1.41	6792	2.24	72.28
008057693-06	OBS	No	40.229411	161.560789	261.3	0.625	9.7	5.7	1.41	6792	2.44	61.07
008057693-07	OBS	No	72.674698	195.552883	197.1	8.530	8.9	10.4	1.41	6792	2.26	27.76
008057693-08	OBS	No	47.933620	135.506699	266.7	1.445	9.0	9.0	1.41	6792	2.53	48.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008057693-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
008057693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
008057693-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
008057693-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008057693-08	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

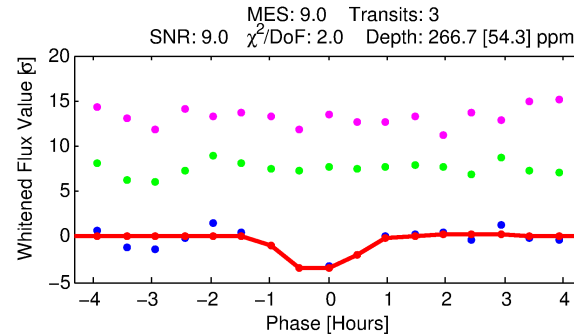
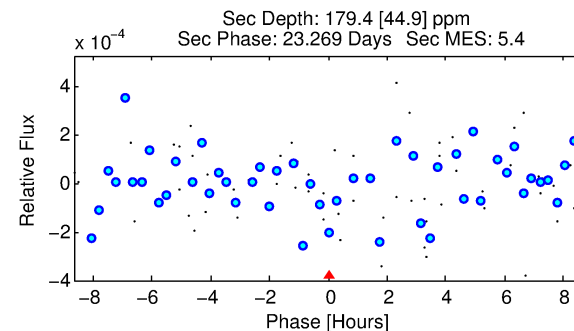
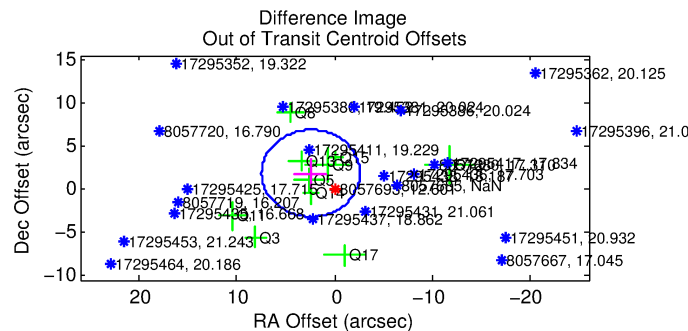
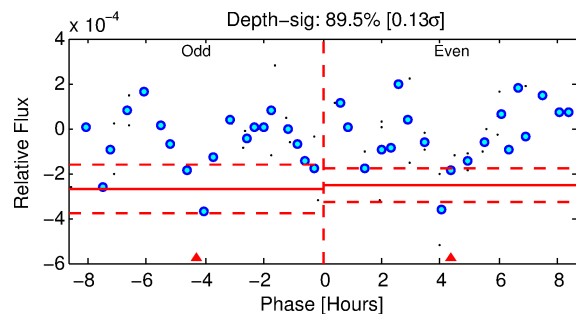
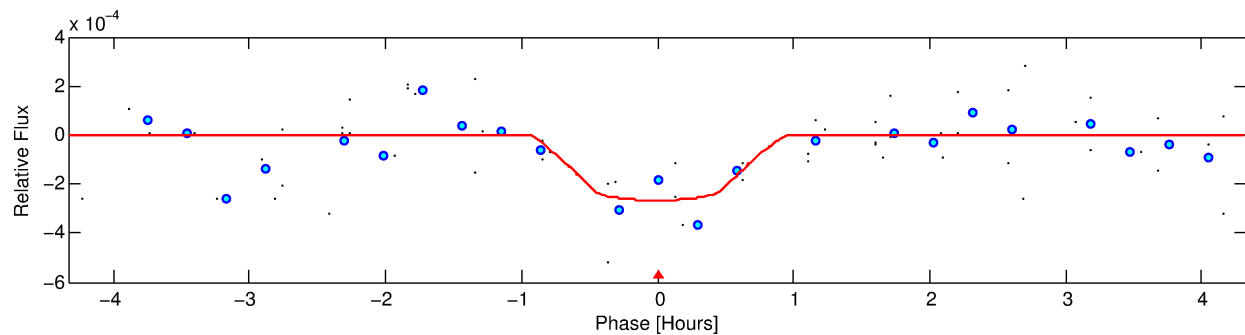
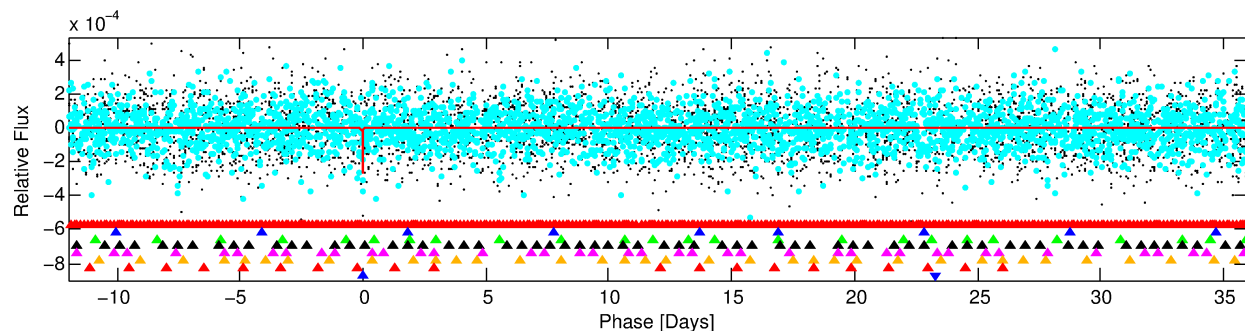
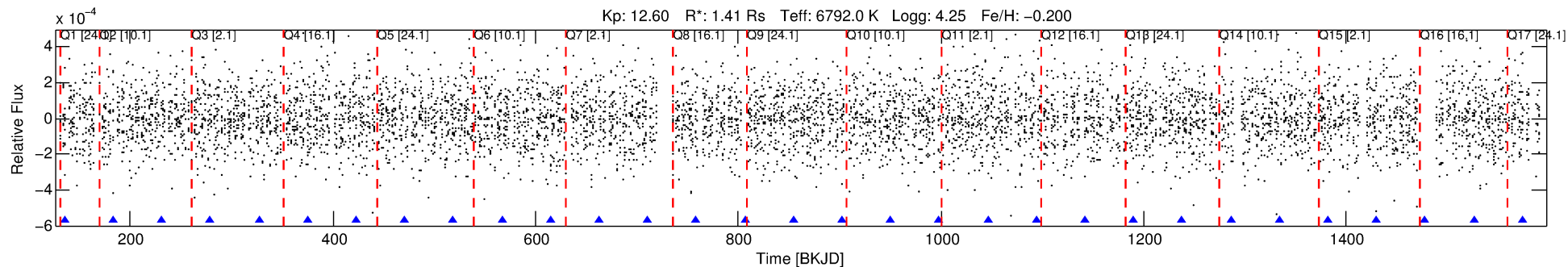
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008057693-08

No Significant Match Found

DV One-Page Summary

KIC: 8057693 Candidate: 8 of 8 Period: 47.934 d



DV Fit Results:

Period = 47.93362 [0.00069] d
Epoch = 135.5067 [0.0107] BKJD
Rp/R* = 0.0164 [0.0327]
b = 0.77 [6.07]
Seff = 48.35 [18.71]
Teq = 672 [65] K
Rp = 2.53 [5.10] Re
a = 0.2802 [0.0690] AU
Ag = 1213.25 [4867.05] [0.25 σ]
Teffp = 6136 [6135] K [0.89 σ]

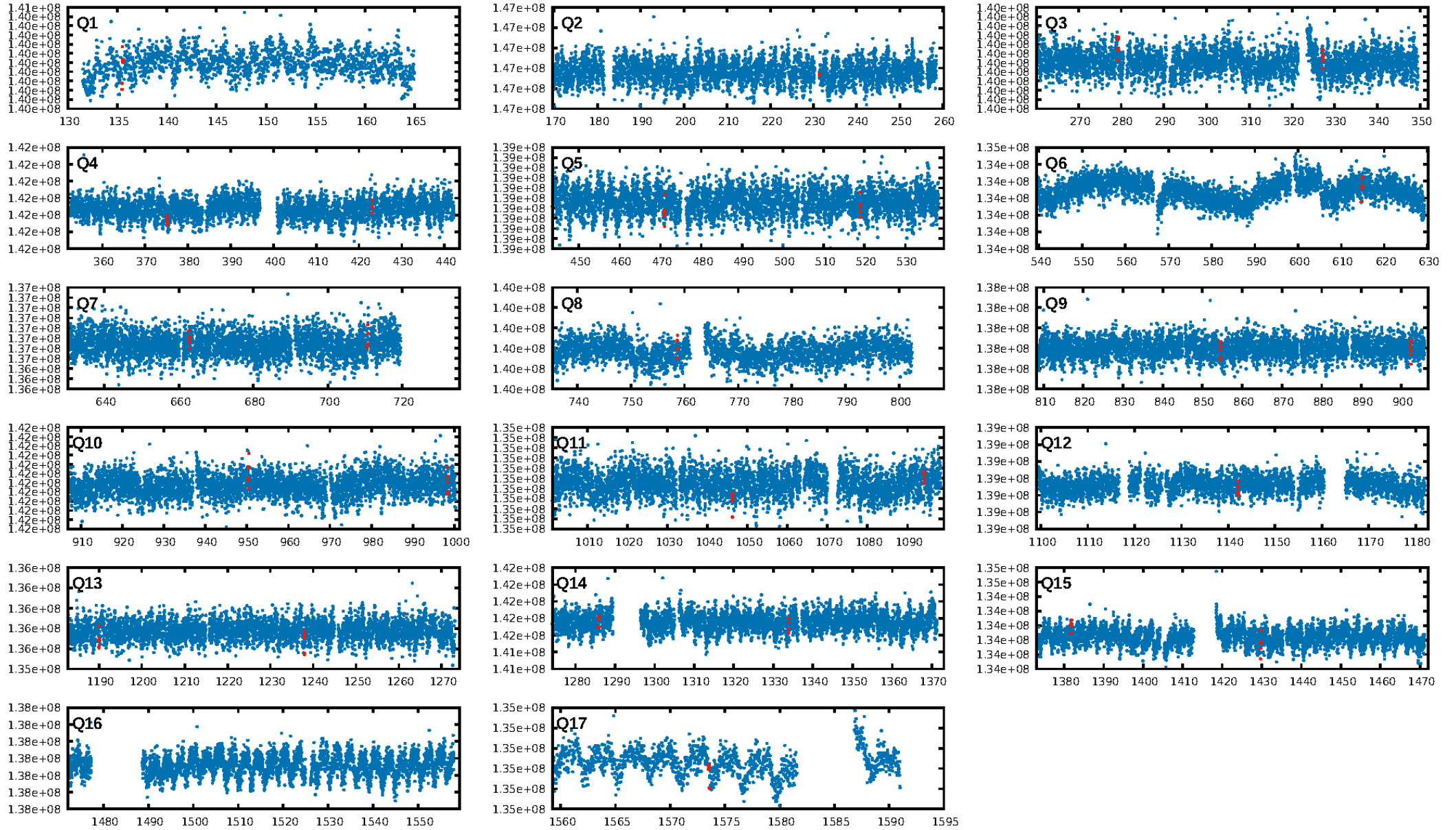
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [117.47 σ]
LongPeriod-sig: 100.0% [41.40 σ]
ModelChiSquare2-sig: 15.4%
ModelChiSquareGof-sig: 63.5%
Bootstrap-pfa: 7.27e-07
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.6503
Centroid-sig: 55.8%
Centroid-so: 0.564 arcsec [0.64 σ]
OotOffset-rm: 3.063 arcsec [1.83 σ]
KicOffset-rm: 2.985 arcsec [1.76 σ]
OotOffset-st: 1/3/2/4 [10]
KicOffset-st: 1/3/2/4 [10]
DiffImageQuality-fgm: 0.20 [2/10]
DiffImageOverlap-fno: 0.60 [9/15]

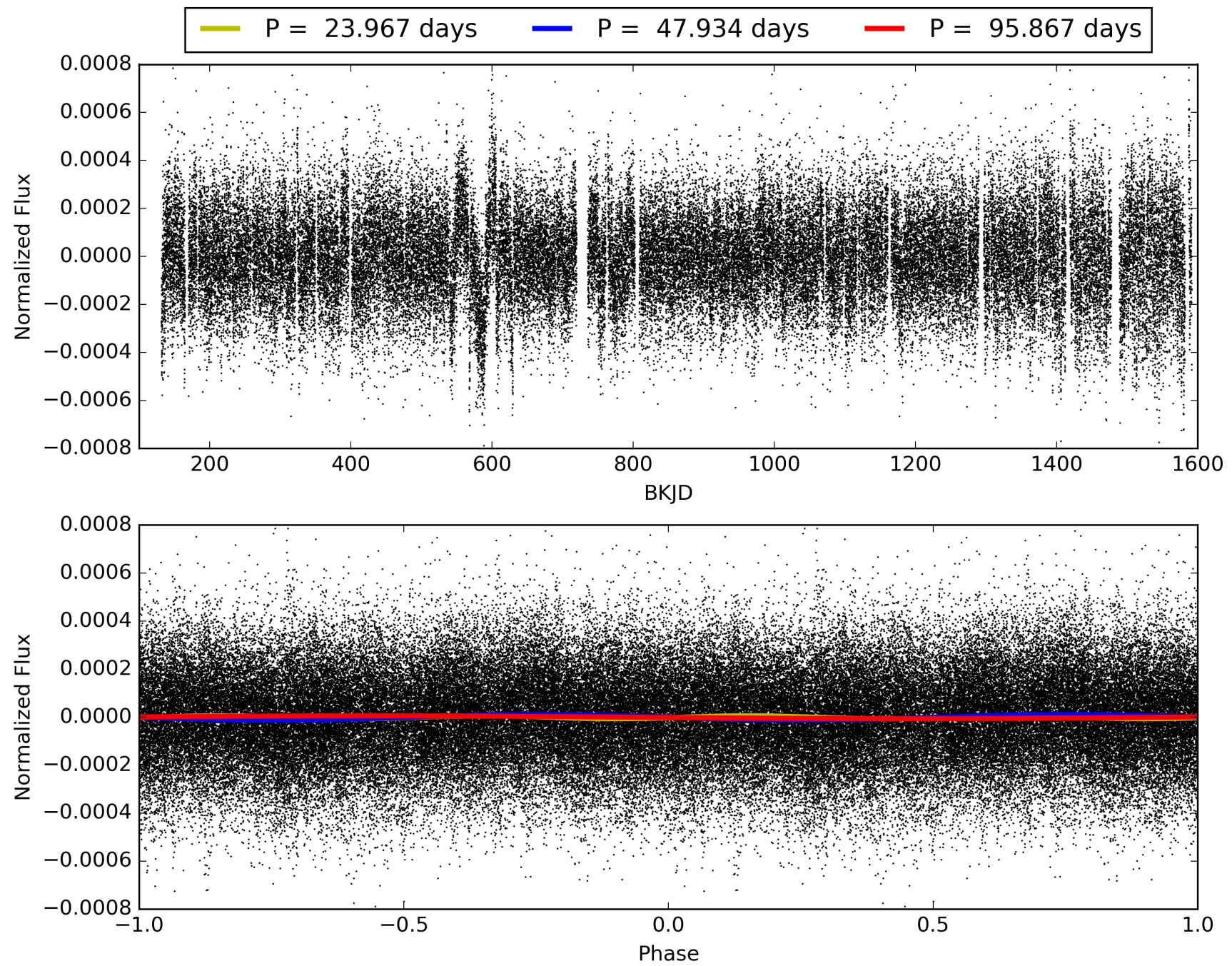
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:53:02 Z

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

TCE 008057693-08, PDC Light Curves

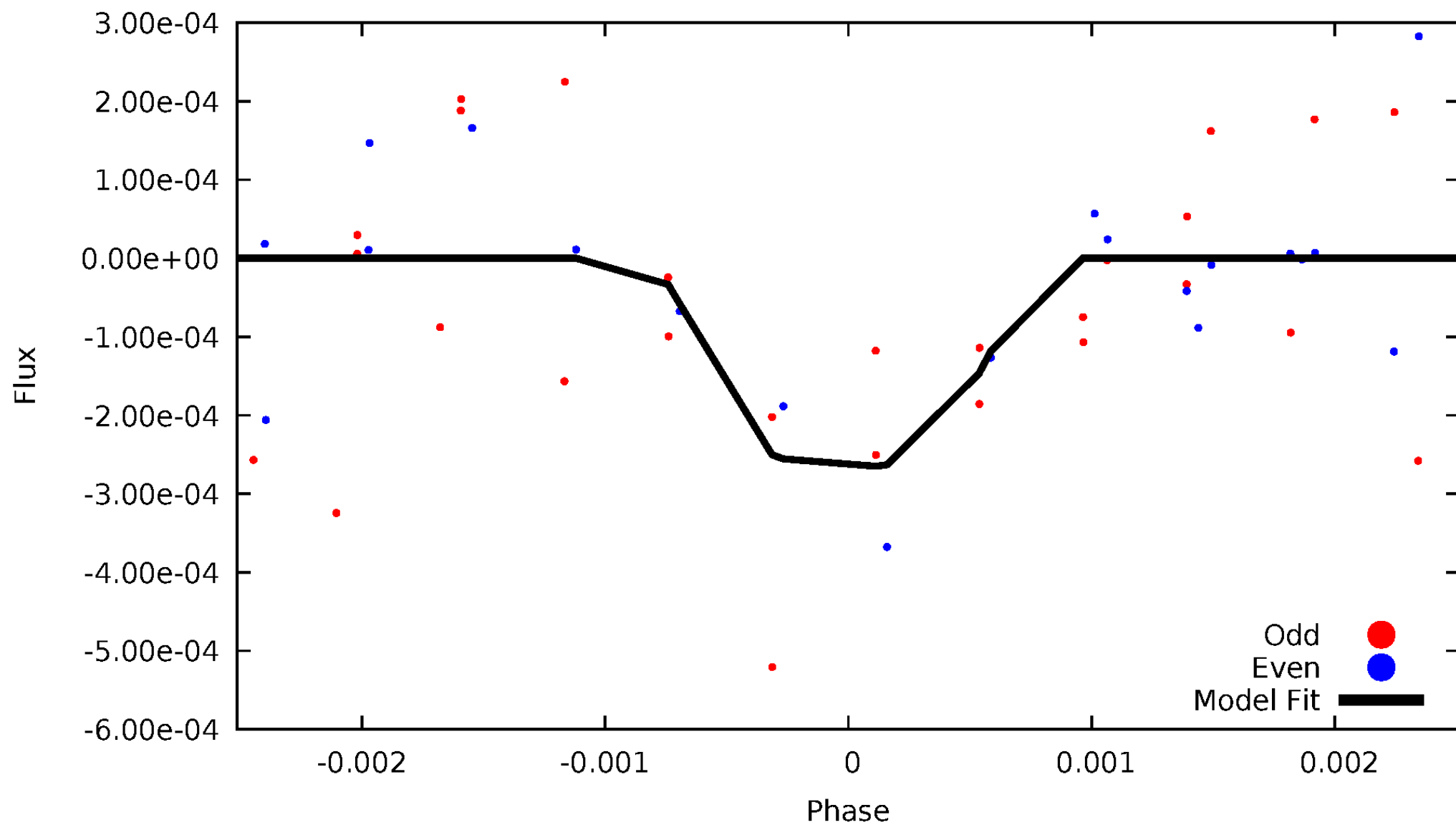


TCE 008057693-08



DV Odd/Even

TCE 008057693-08

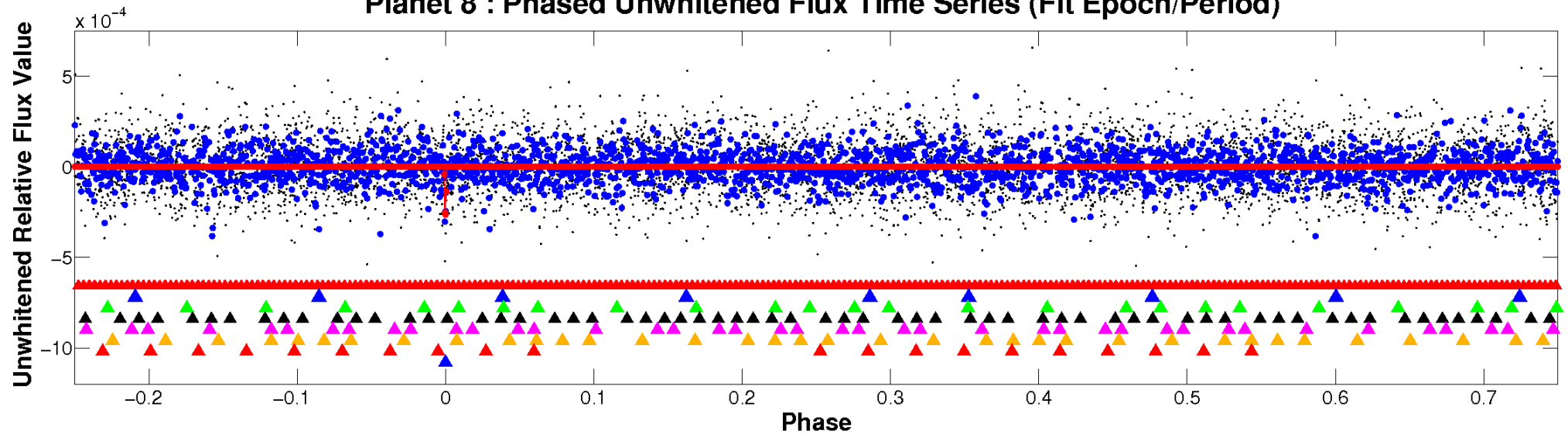


ALT Odd/Even

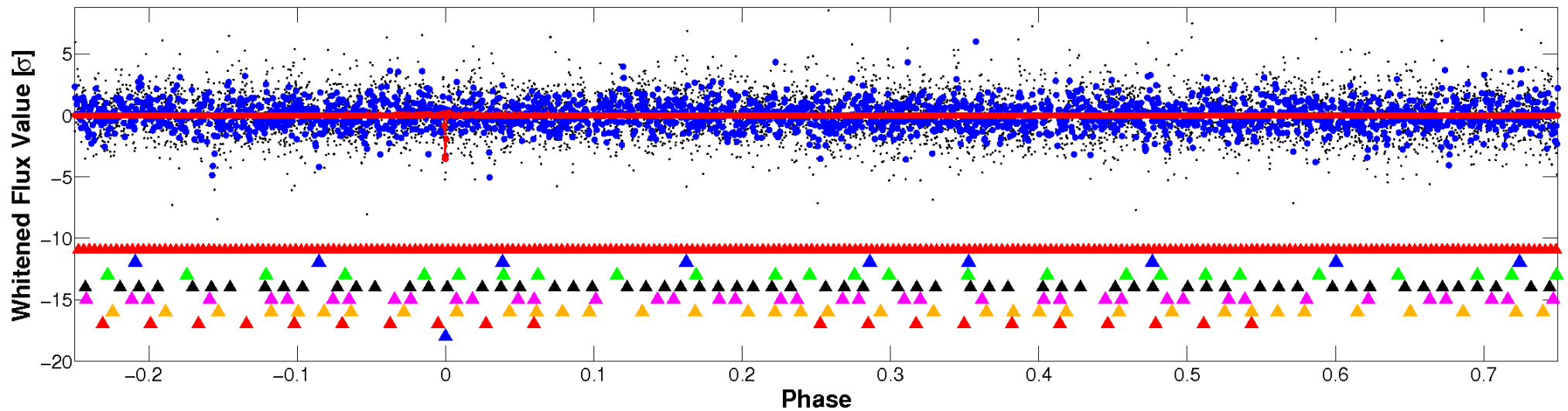
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

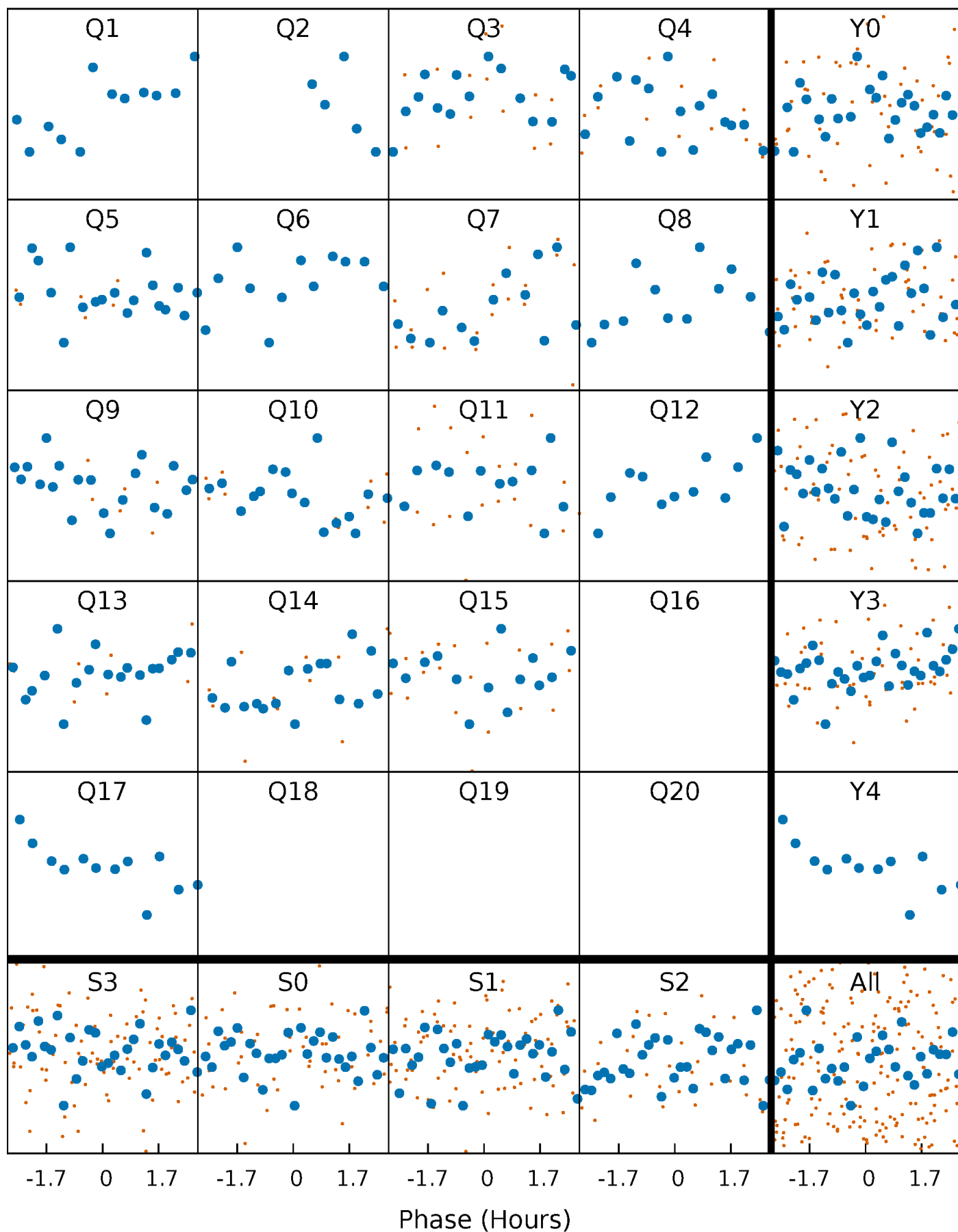


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



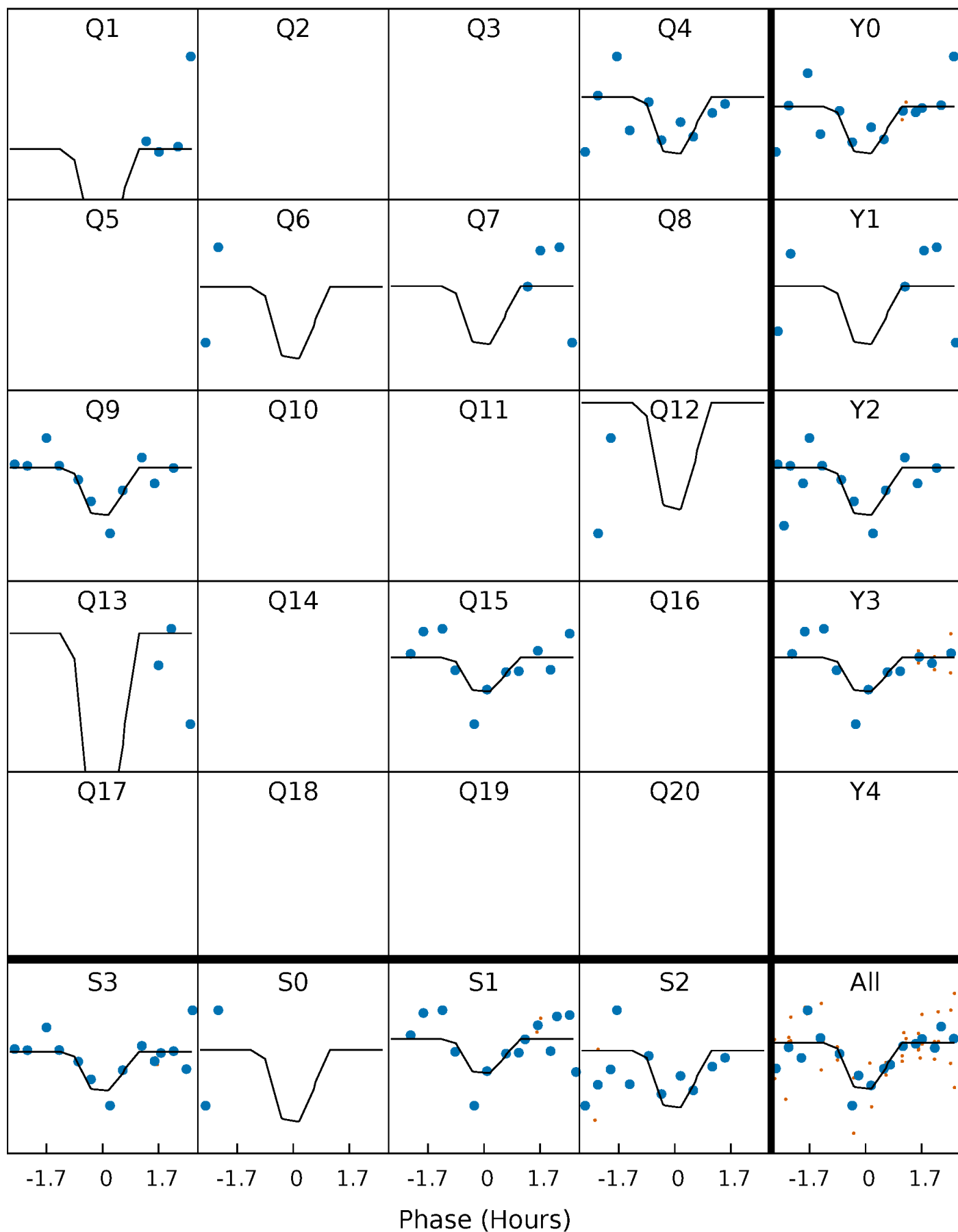
PDC Quarter-Phased Transit Curves

TCE 008057693-08 P= 47.933620 Days $T_0=135.506699$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008057693-08 P= 47.933620 Days $T_0=135.506699$ (BKJD)

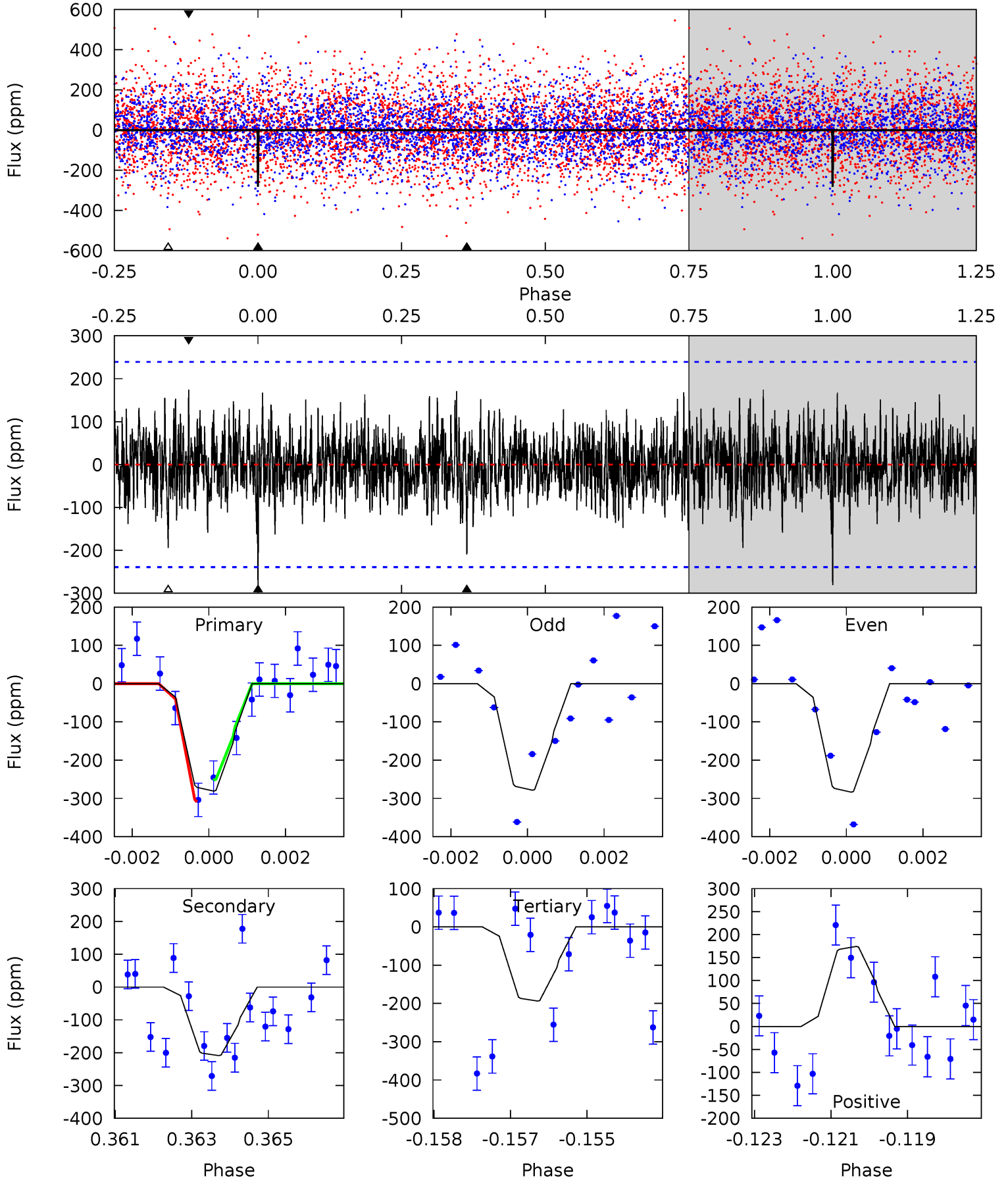


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

008057693-08, P = 47.933620 Days, E = 87.573079 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.29	4.68	4.34	3.90	5.36	3.14	1.20	1.95	2.39	0.34	0.78	0.06	0.98	0.38	0.63



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 008057693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6792^{+189}_{-284}	$4.245^{+0.124}_{-0.186}$	$-0.200^{+0.250}_{-0.300}$	$1.411^{+0.425}_{-0.248}$	$1.285^{+0.182}_{-0.202}$	$0.645^{+0.382}_{-0.322}$
	+3%/-4%	+3%/-4%	+125%/-150%	+30%/-18%	+14%/-16%	+59%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 008057693-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-209 ± 45	$4.52^{+4.71}_{-3.07}$	944^{+74}_{-61}	4839^{+3921}_{-1107}	424^{+3680}_{-317}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

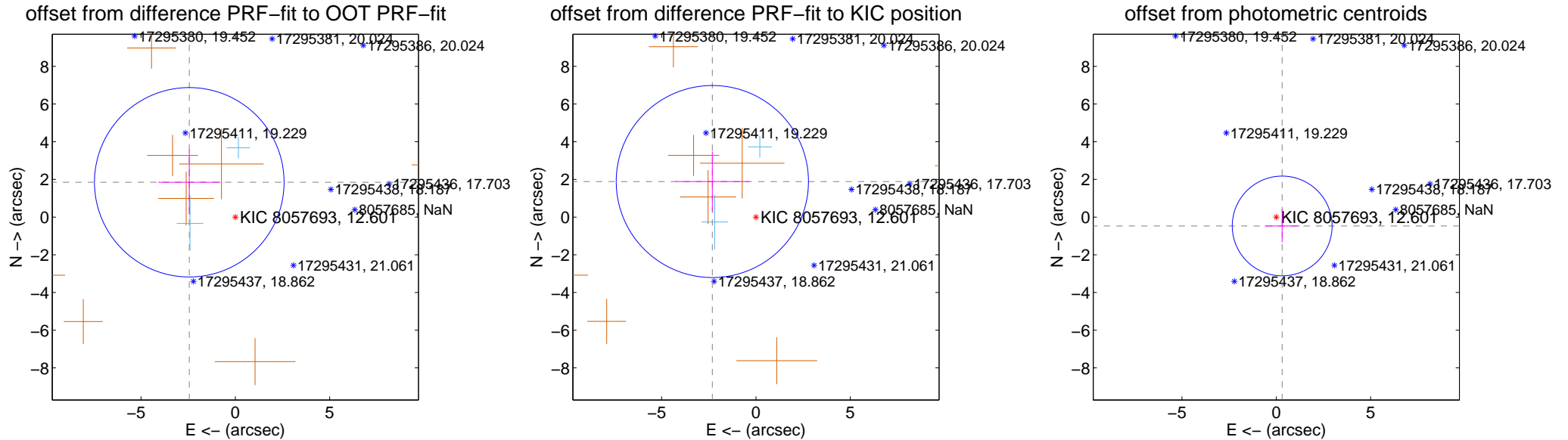
DV Centroid Data

Supplemental centroid analysis for 008057693-08. Kepler magnitude: 12.60. Transit SNR 9.05

There are 2 quarters with good PRF difference image offsets

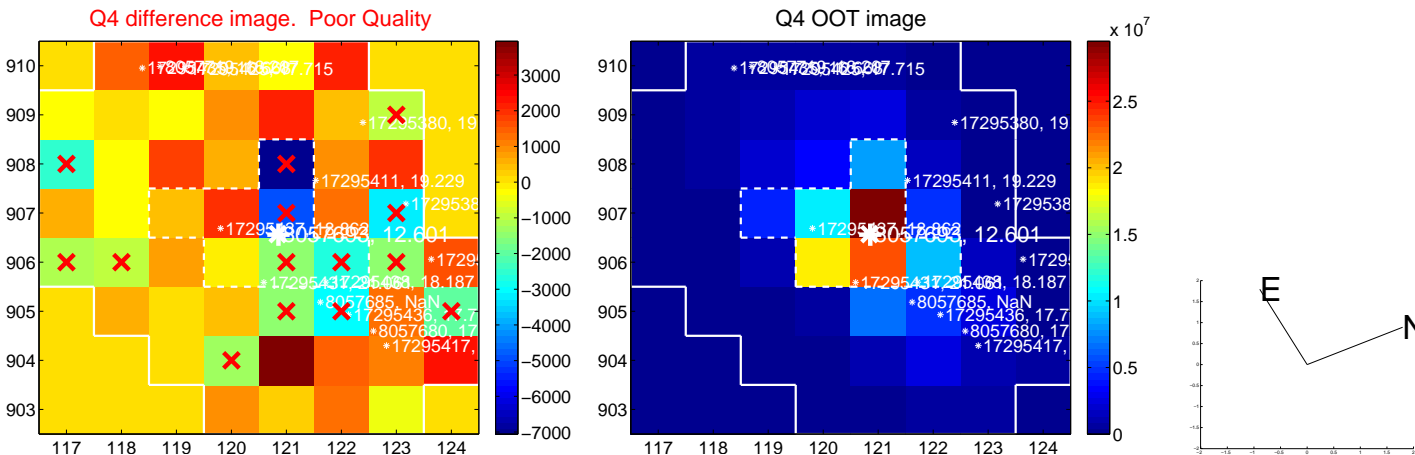
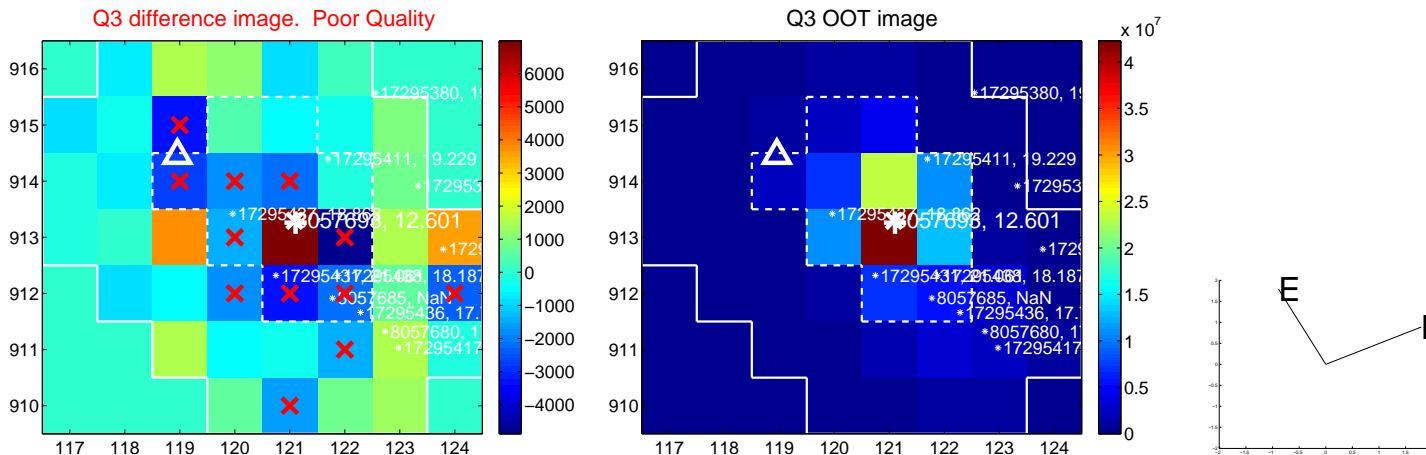
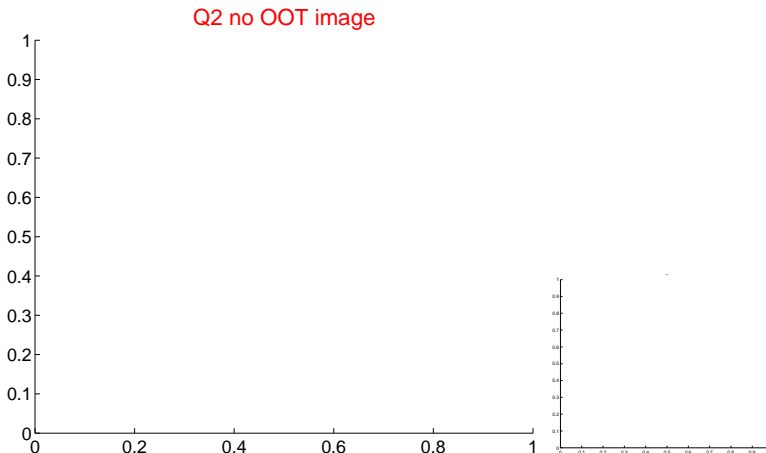
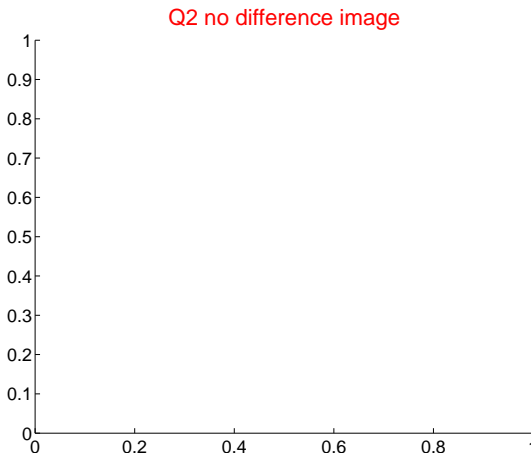
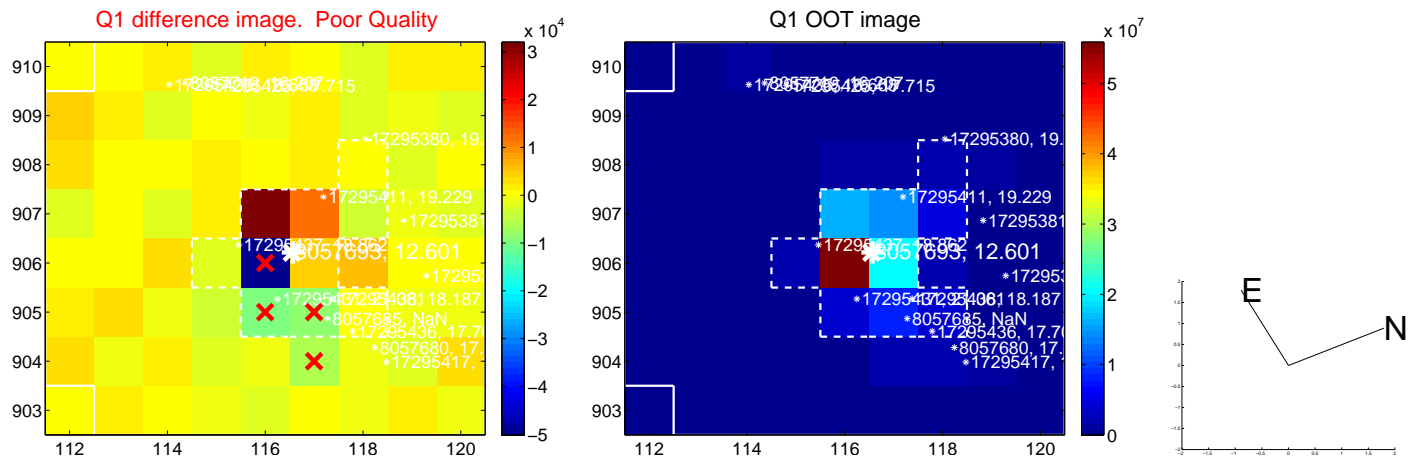
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.063 ± 1.675	1.83	2.443 ± 1.648	1.848 ± 1.721
PRF-fit source offset from KIC position	2.985 ± 1.698	1.76	2.312 ± 1.959	1.888 ± 1.591
photometric centroid source offset	0.56 ± 0.88	0.64	-0.31 ± 0.92	-0.47 ± 0.86

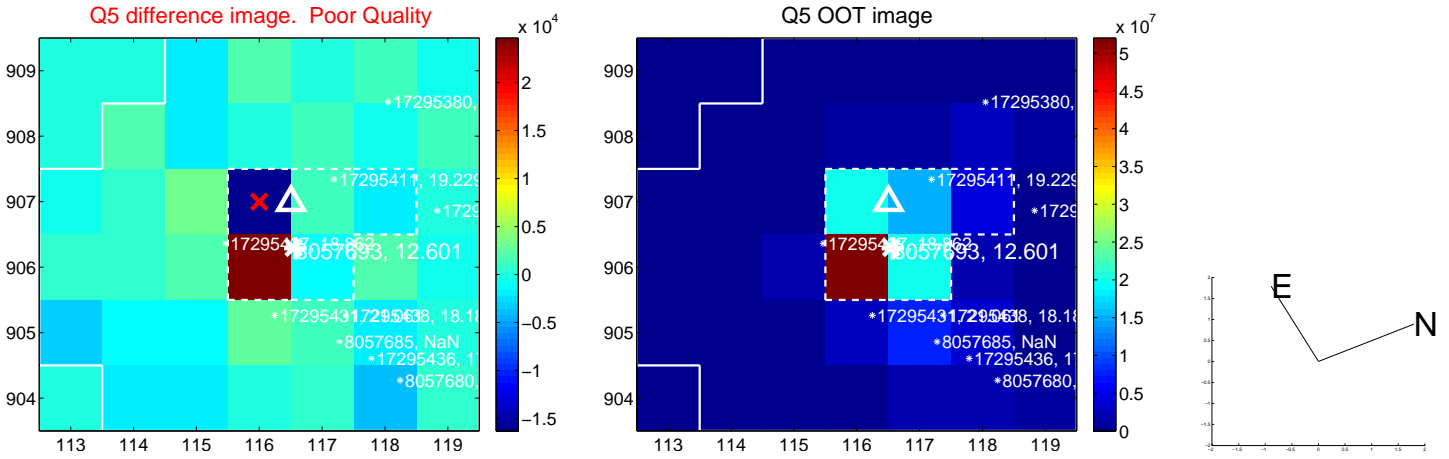


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

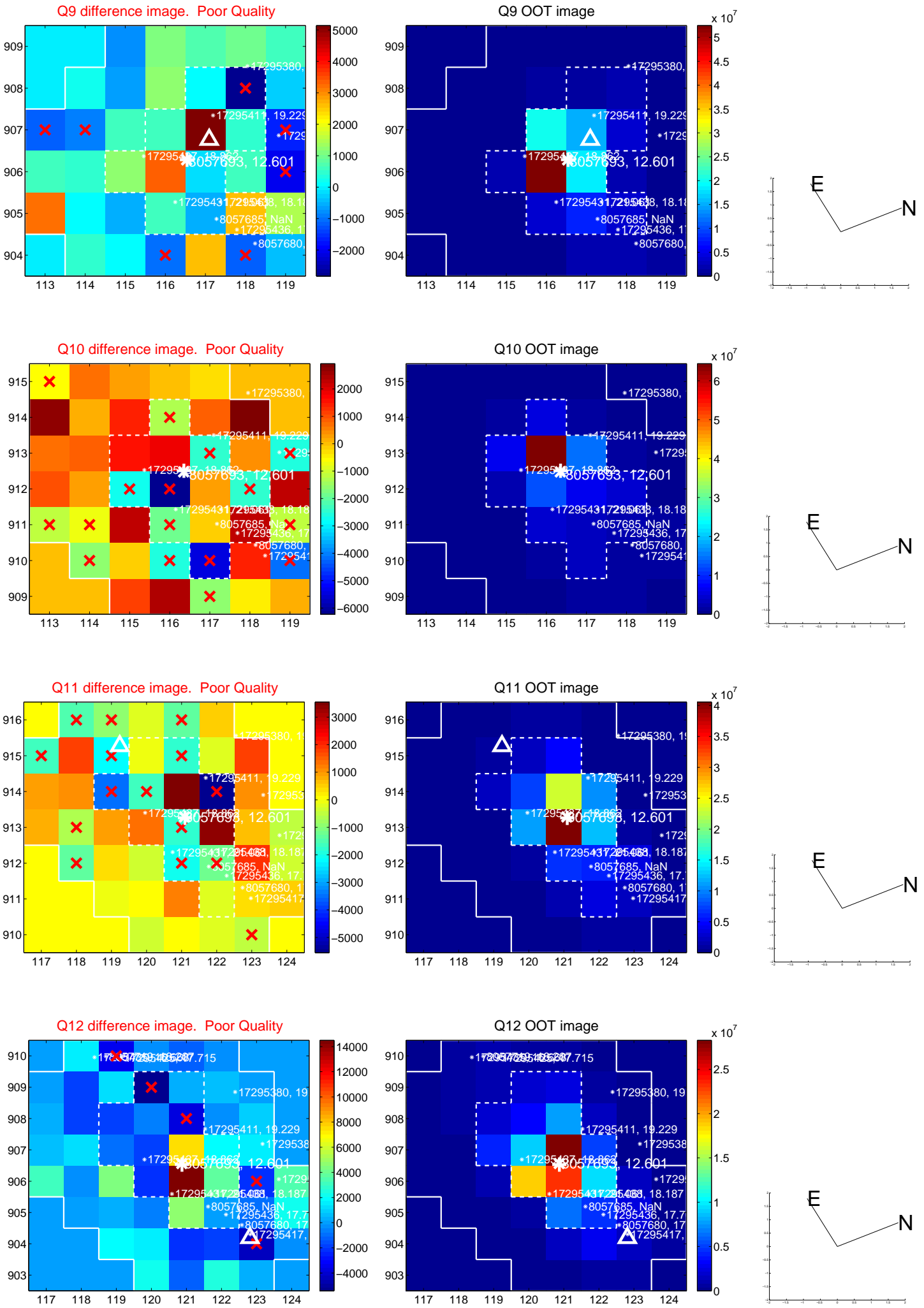
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



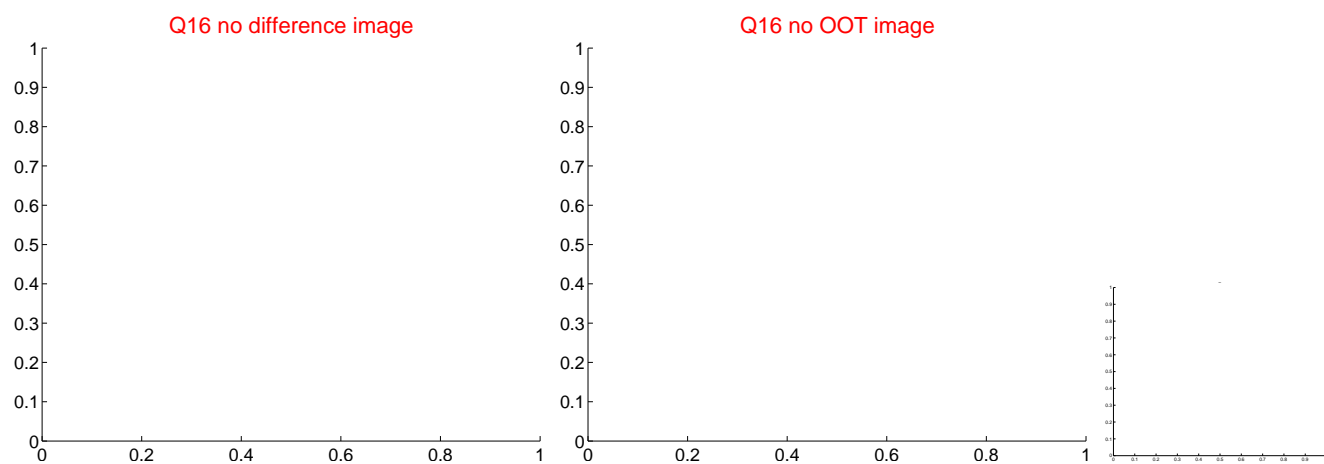
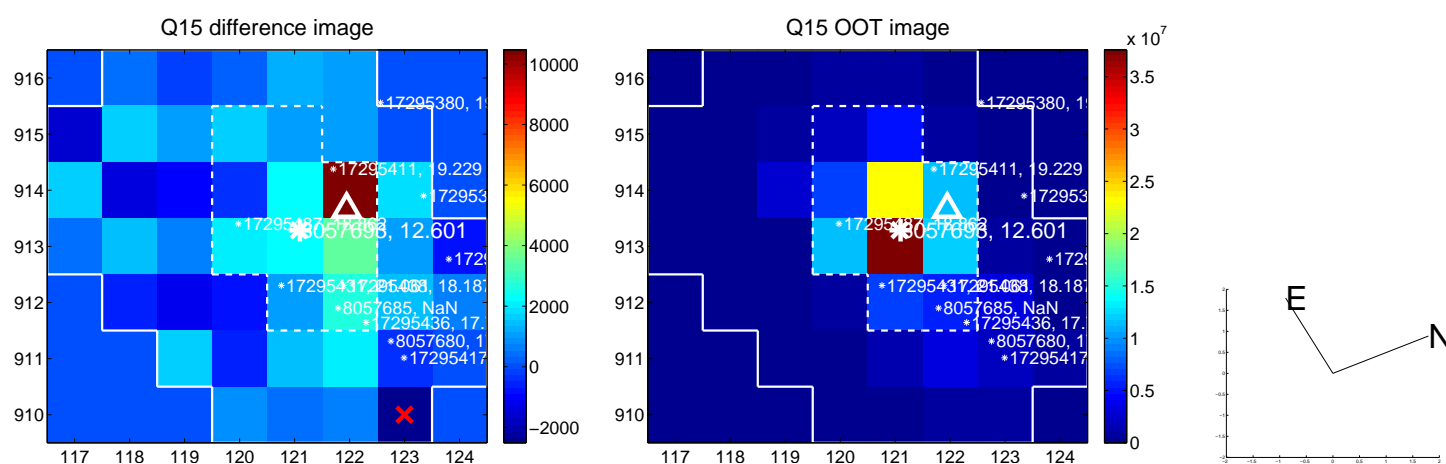
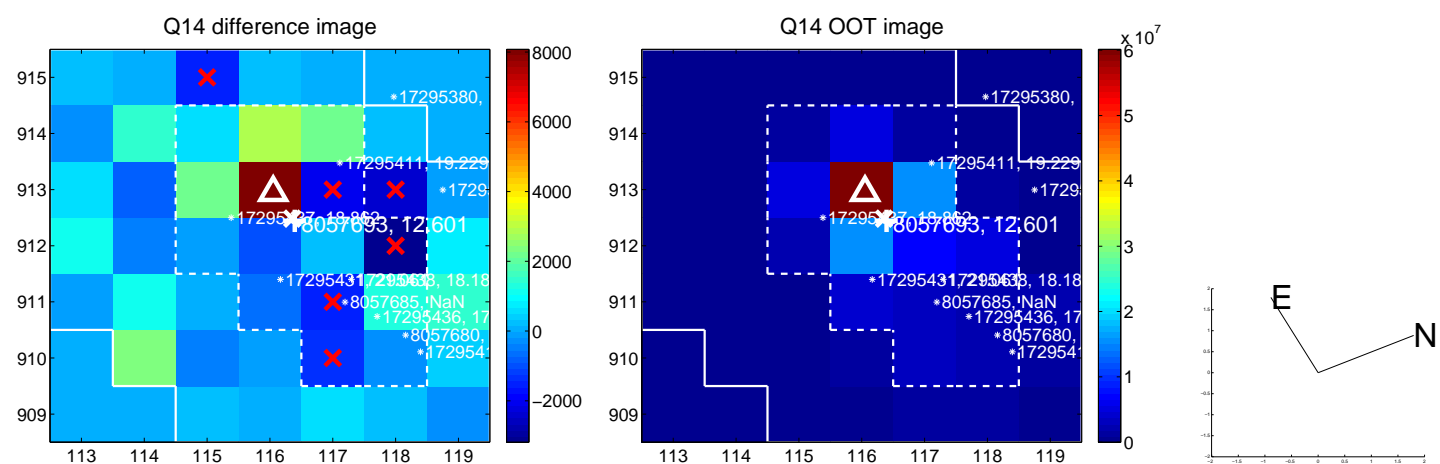
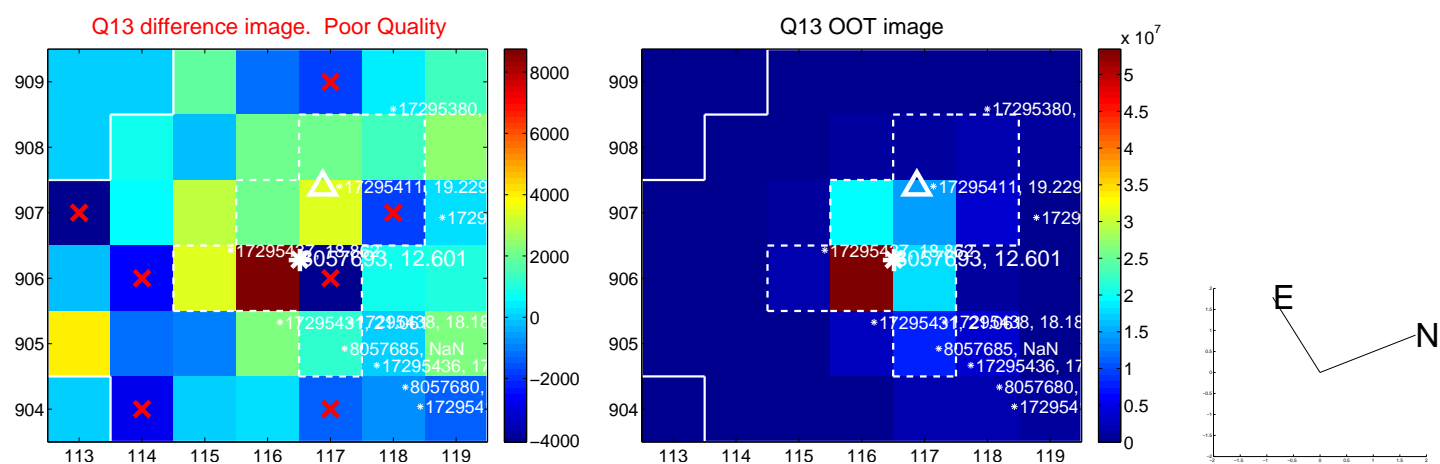
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



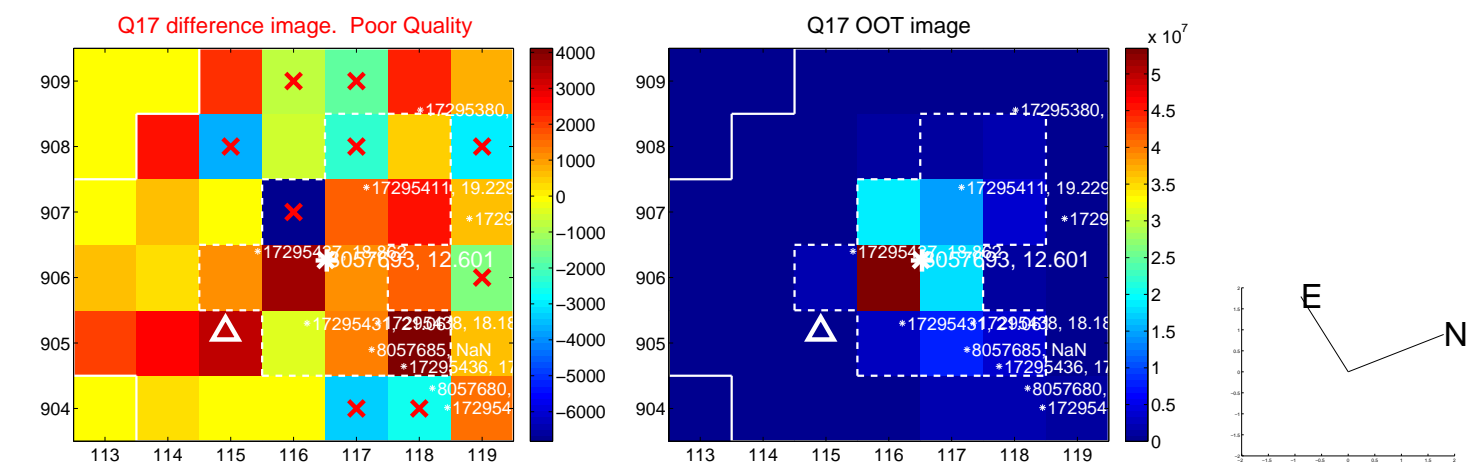
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



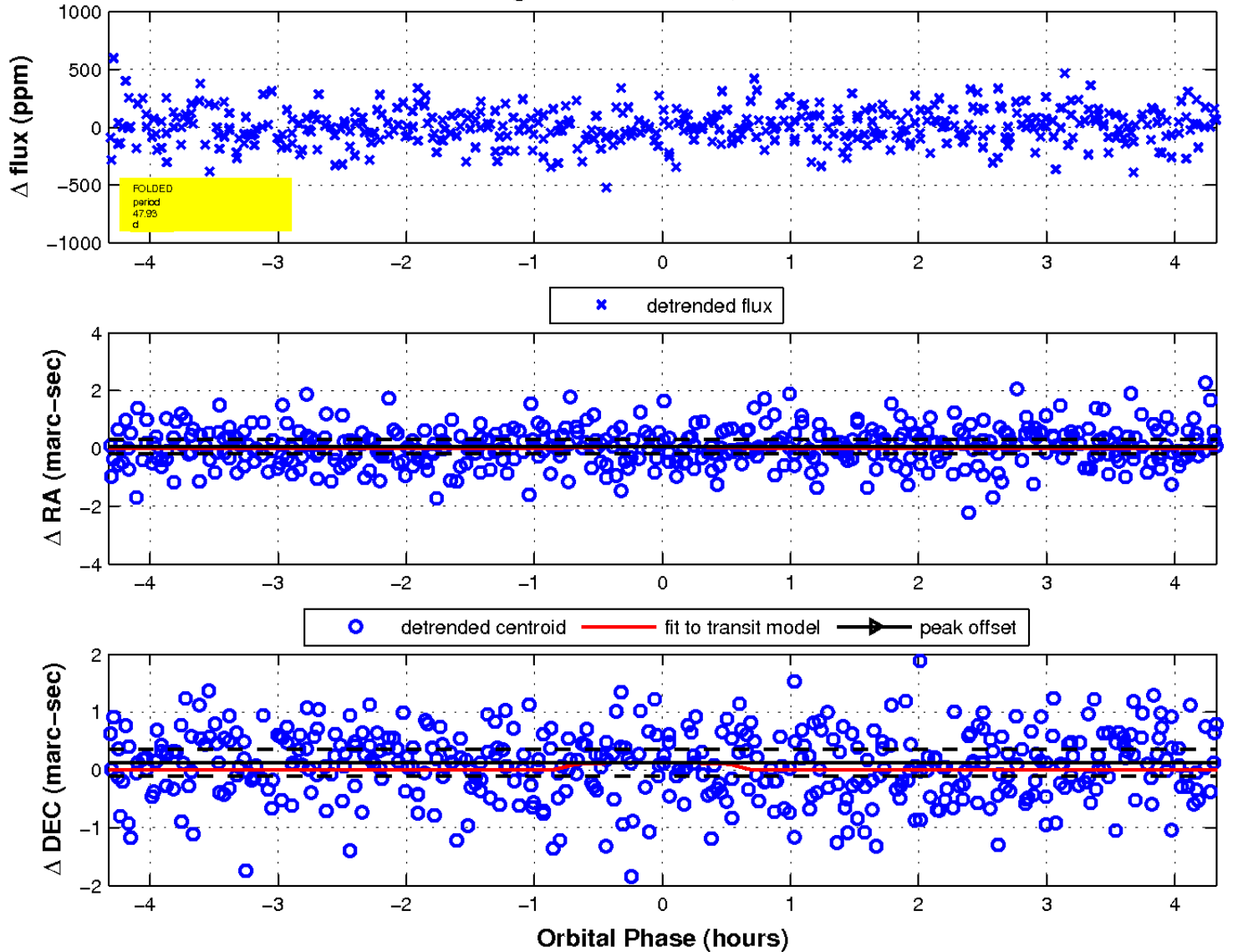
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 8 of 8



UKIRT Image

Declination

