

KIC 008692983

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})
008692983-01	OBS	No	2.493485	132.482096	27.5	8.865	10.1	9.0	3.61	7136	2.31	15239.25
008692983-02	OBS	No	630.403607	139.292001	284.6	18.590	12.8	8.9	3.61	7136	6.60	9.53
008692983-03	OBS	No	392.089197	389.414588	230.9	15.175	10.1	5.9	3.61	7136	5.96	17.95
008692983-04	OBS	No	184.774659	188.331750	220.7	6.192	7.8	7.7	3.61	7136	6.64	48.96
008692983-05	OBS	No	303.071579	307.883020	326.2	3.422	7.7	7.9	3.61	7136	7.36	25.31
008692983-06	OBS	No	112.671803	240.046636	140.0	2.000	7.1	-1.0	3.61	7136	4.33	94.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008692983-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008692983-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008692983-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008692983-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

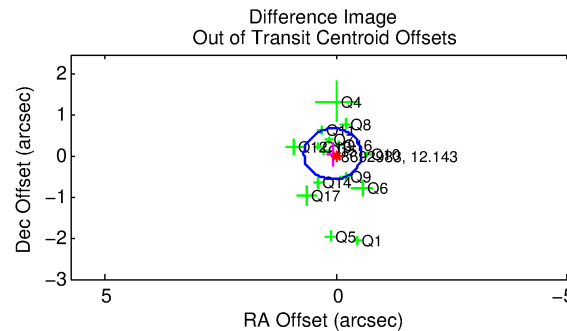
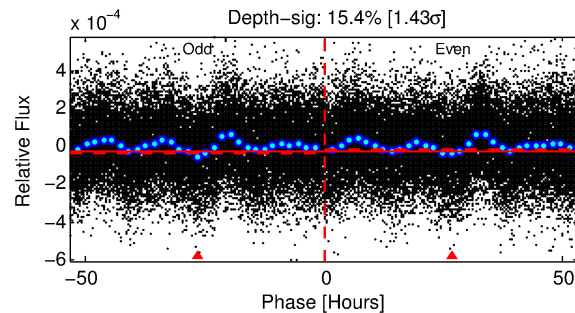
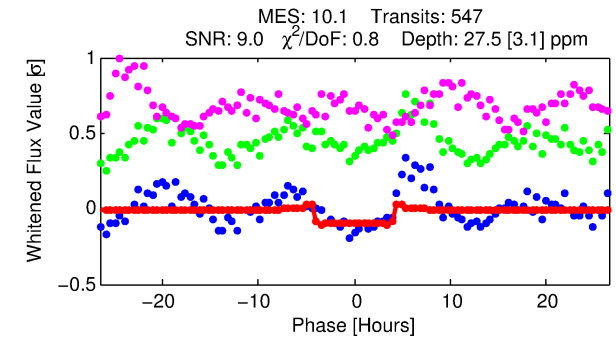
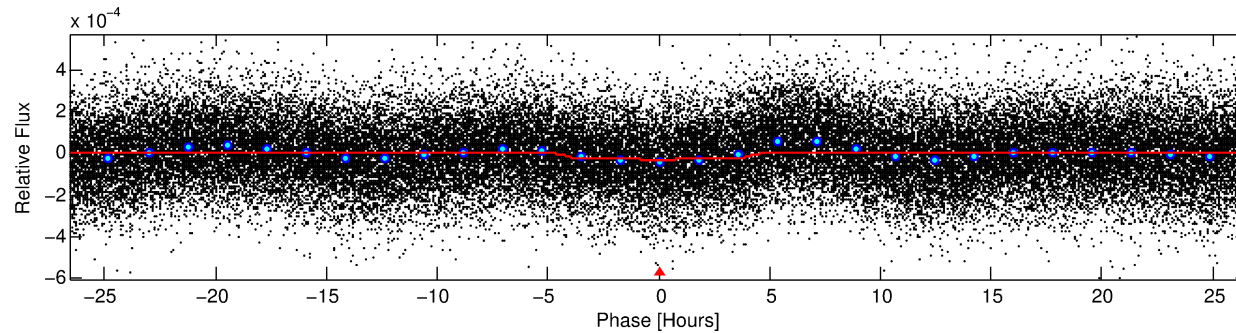
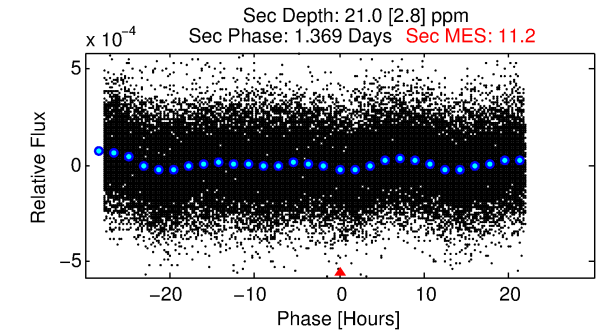
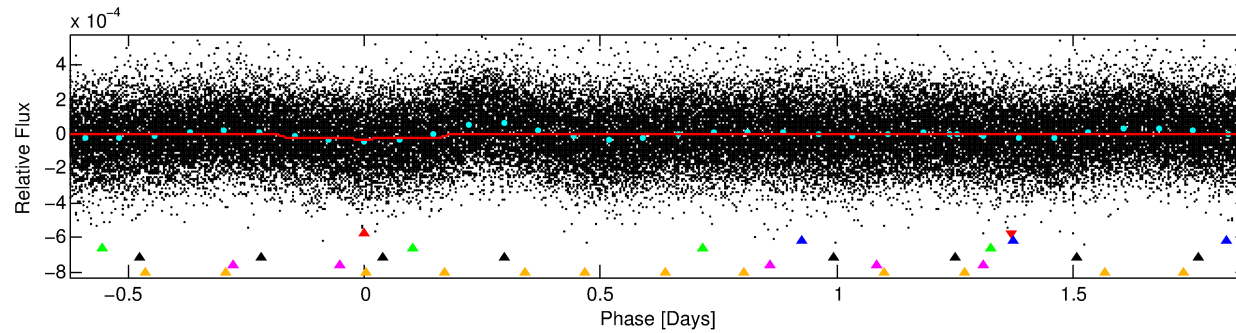
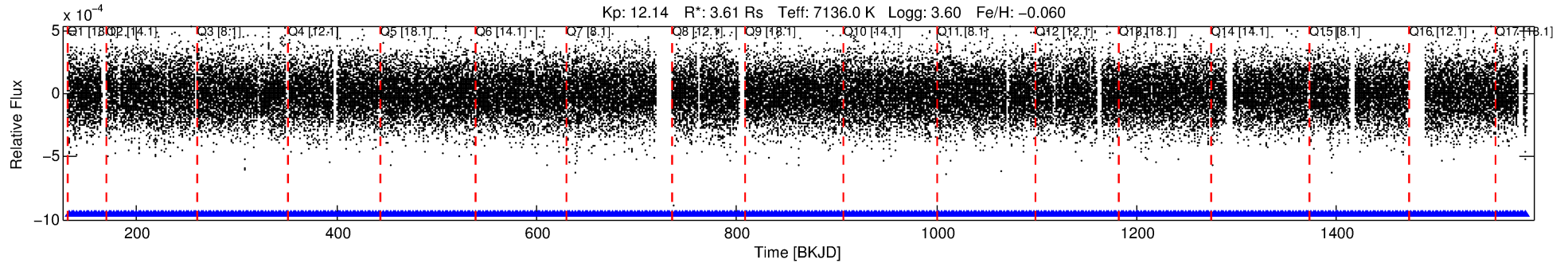
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008692983-01

No Significant Match Found

DV One-Page Summary

KIC: 8692983 Candidate: 1 of 6 Period: 2.493 d



DV Fit Results:

Period = 2.49348 [0.00003] d
Epoch = 132.4821 [0.0051] BKJD
Rp/R* = 0.0059 [0.0005]
a/R* = 1.20 [0.17]
b = 0.95 [0.05]
Seff = 15239.25 [7921.56]
Teq = 2833 [368] K
Rp = 2.31 [0.81] Re
a = 0.0446 [0.0141] AU
Ag = 4.30 [2.34] [1.41σ]
Teffp = 6307 [429] K [6.15σ]

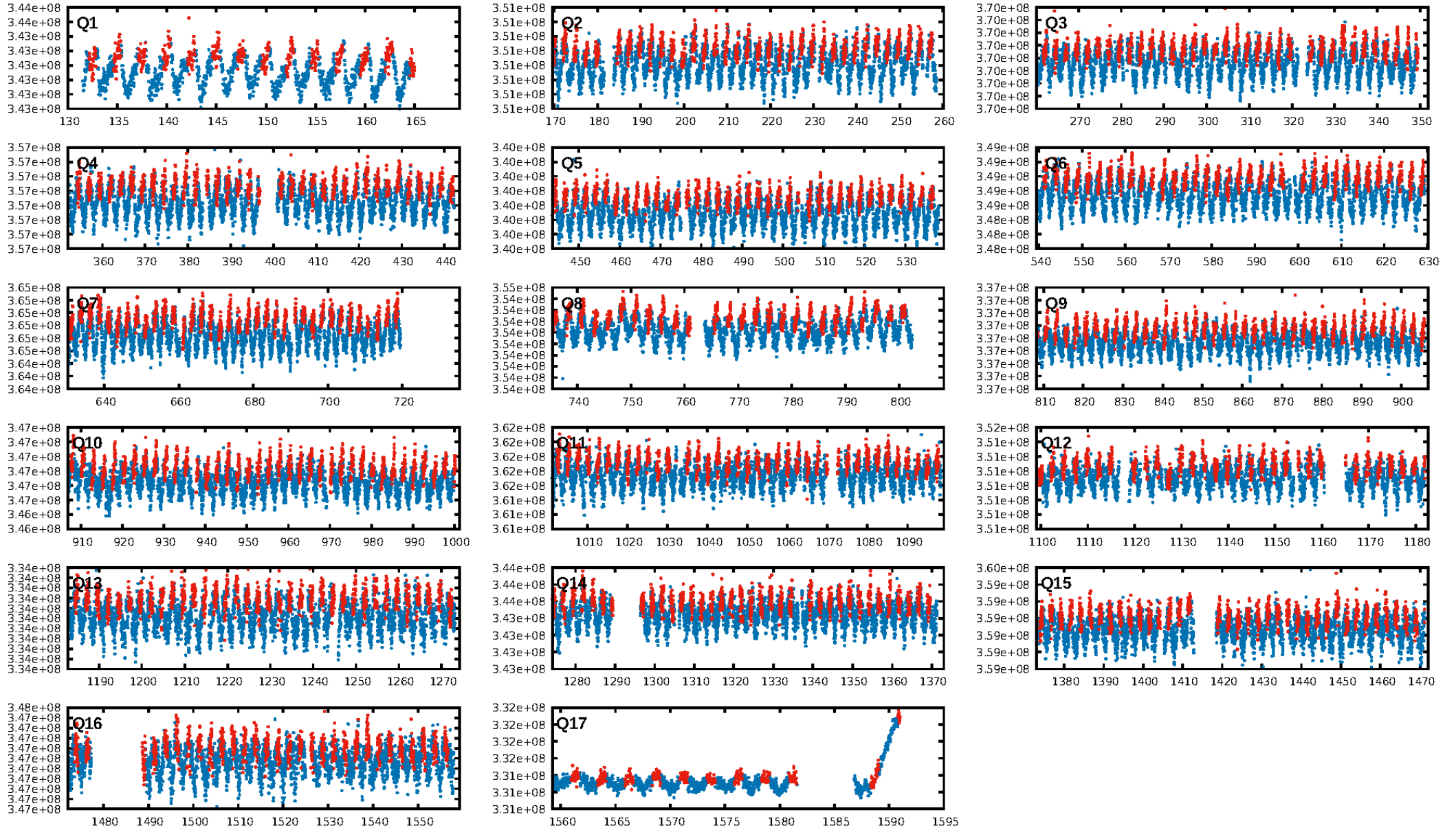
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [290.97σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [522/522]
GhostDiagnostic-chr: -2.562
Centroid-sig: 0.1%
Centroid-so: 1.004 arcsec [2.31σ]
OotOffset-rm: 0.096 arcsec [0.46σ]
KicOffset-rm: 0.275 arcsec [1.52σ]
OotOffset-st: 3/3/4/5 [15]
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DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 1.00 [17/17]

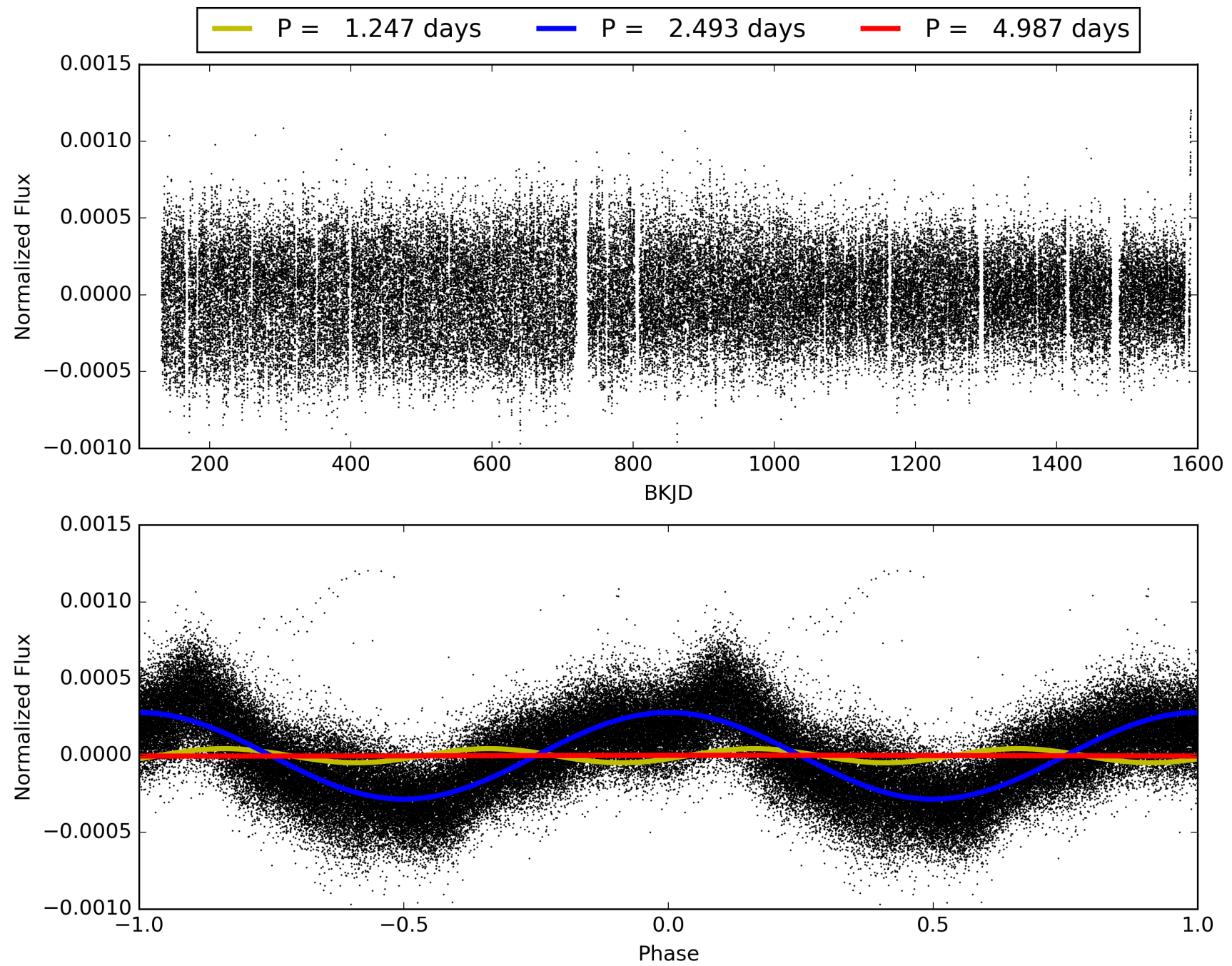
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008692983-01, PDC Light Curves

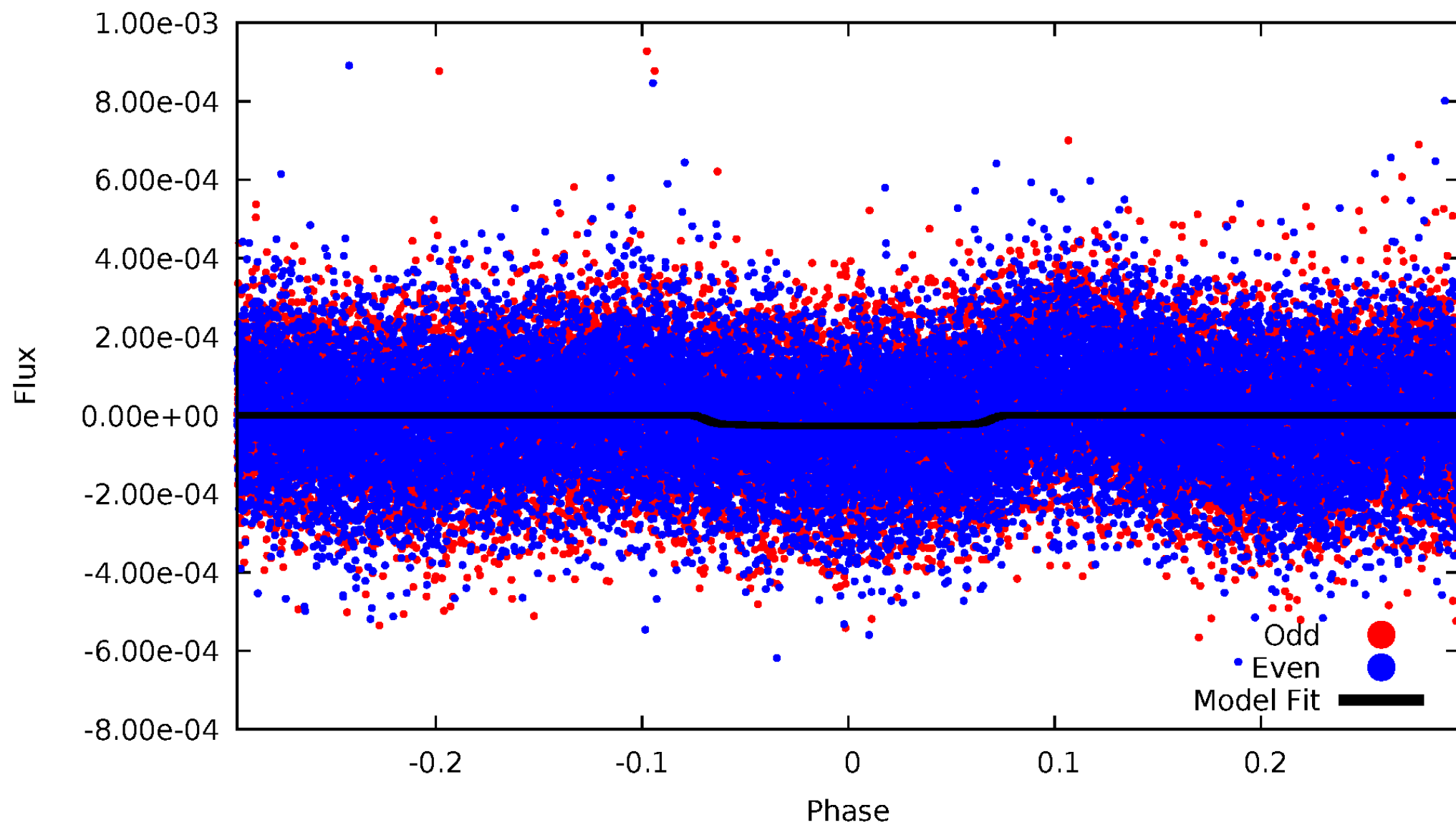


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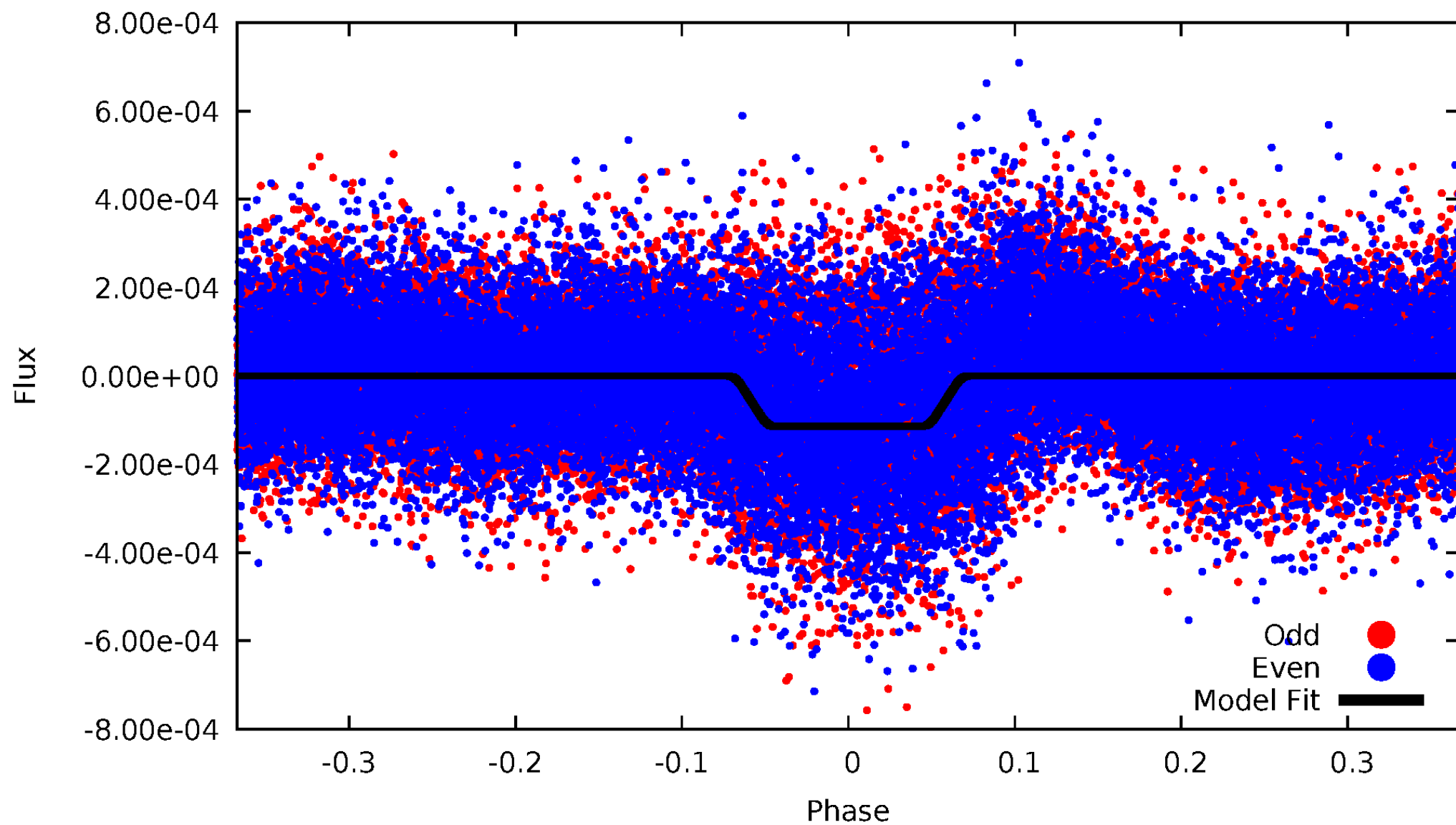
DV Odd/Even

TCE 008692983-01

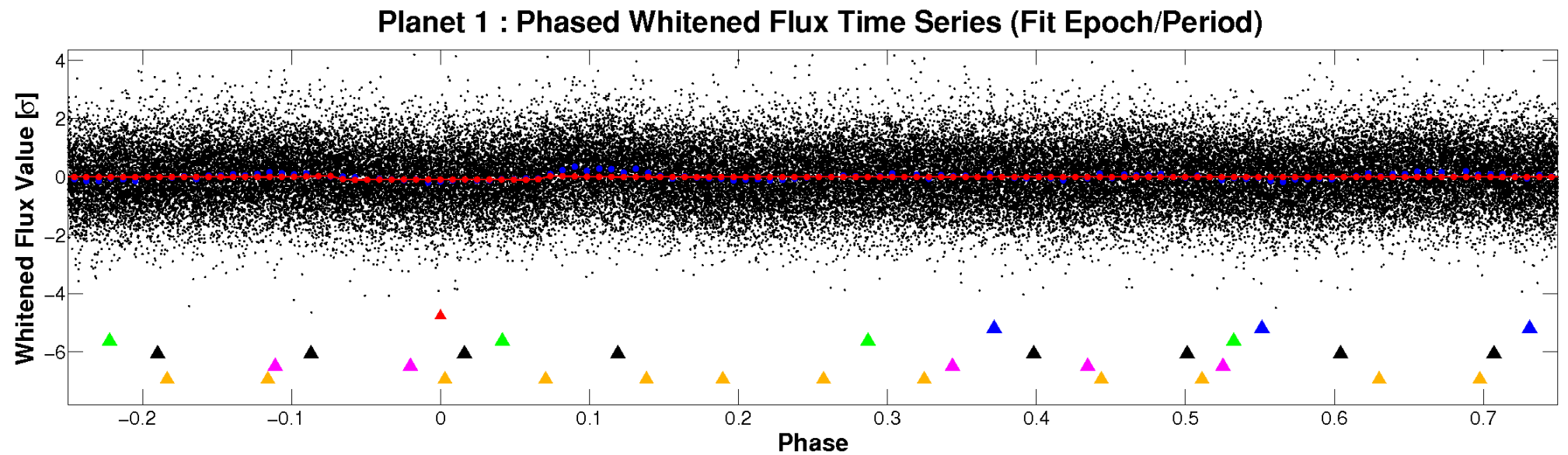
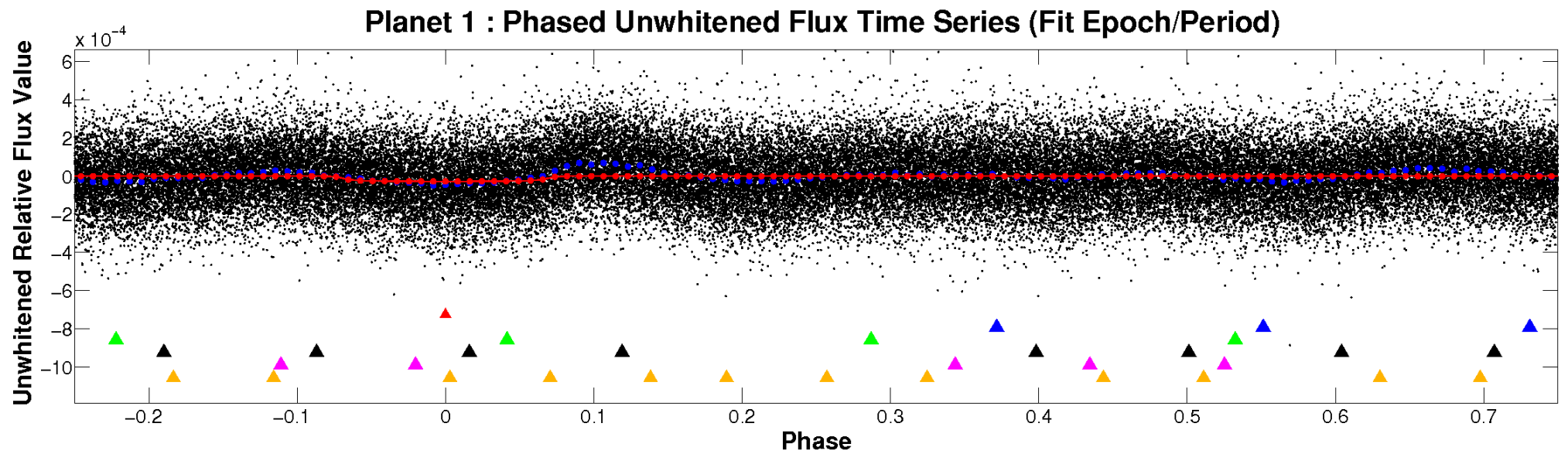


ALT Odd/Even

TCE 008692983-01

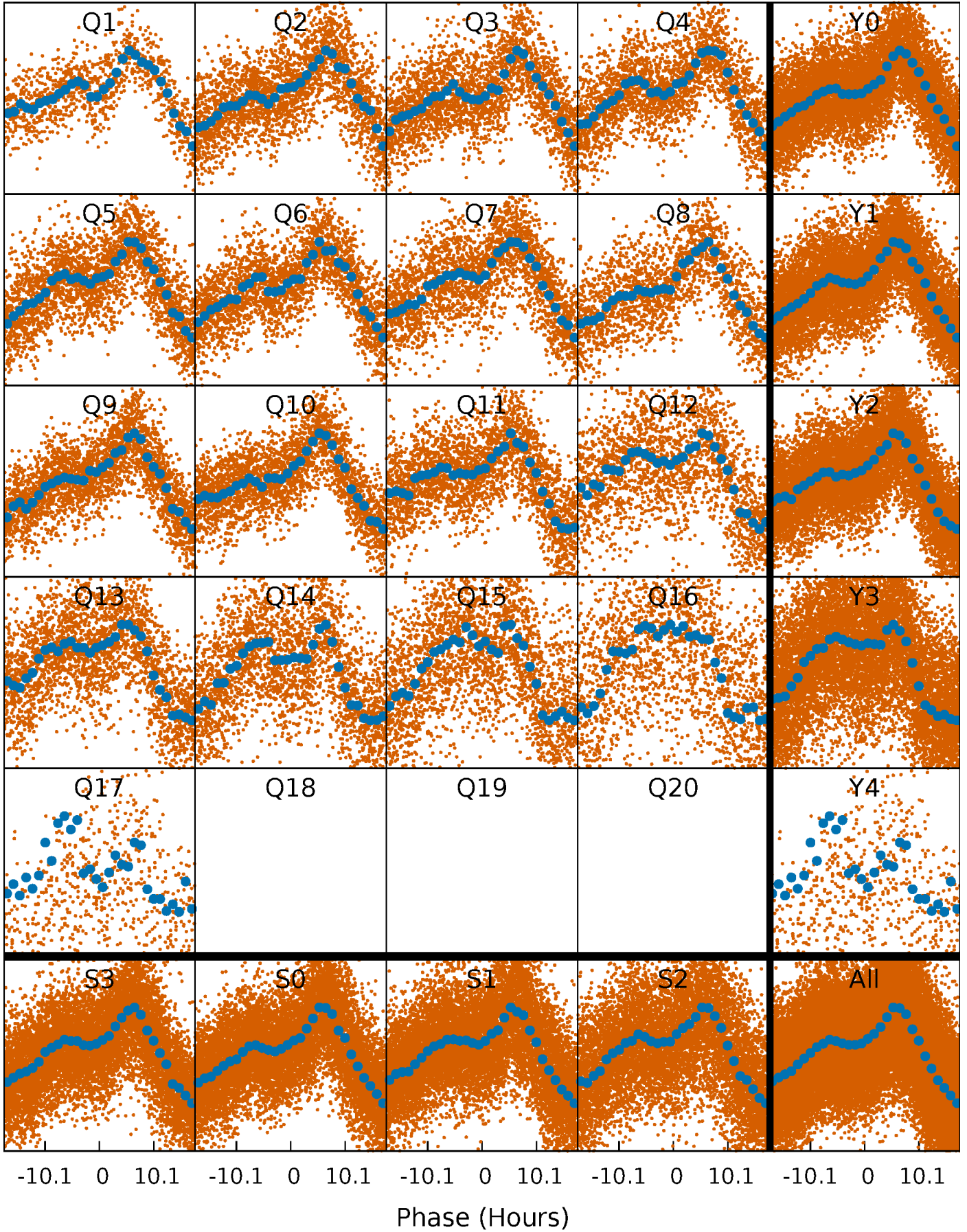


Non-Whitened Vs. Whitened Light Curve



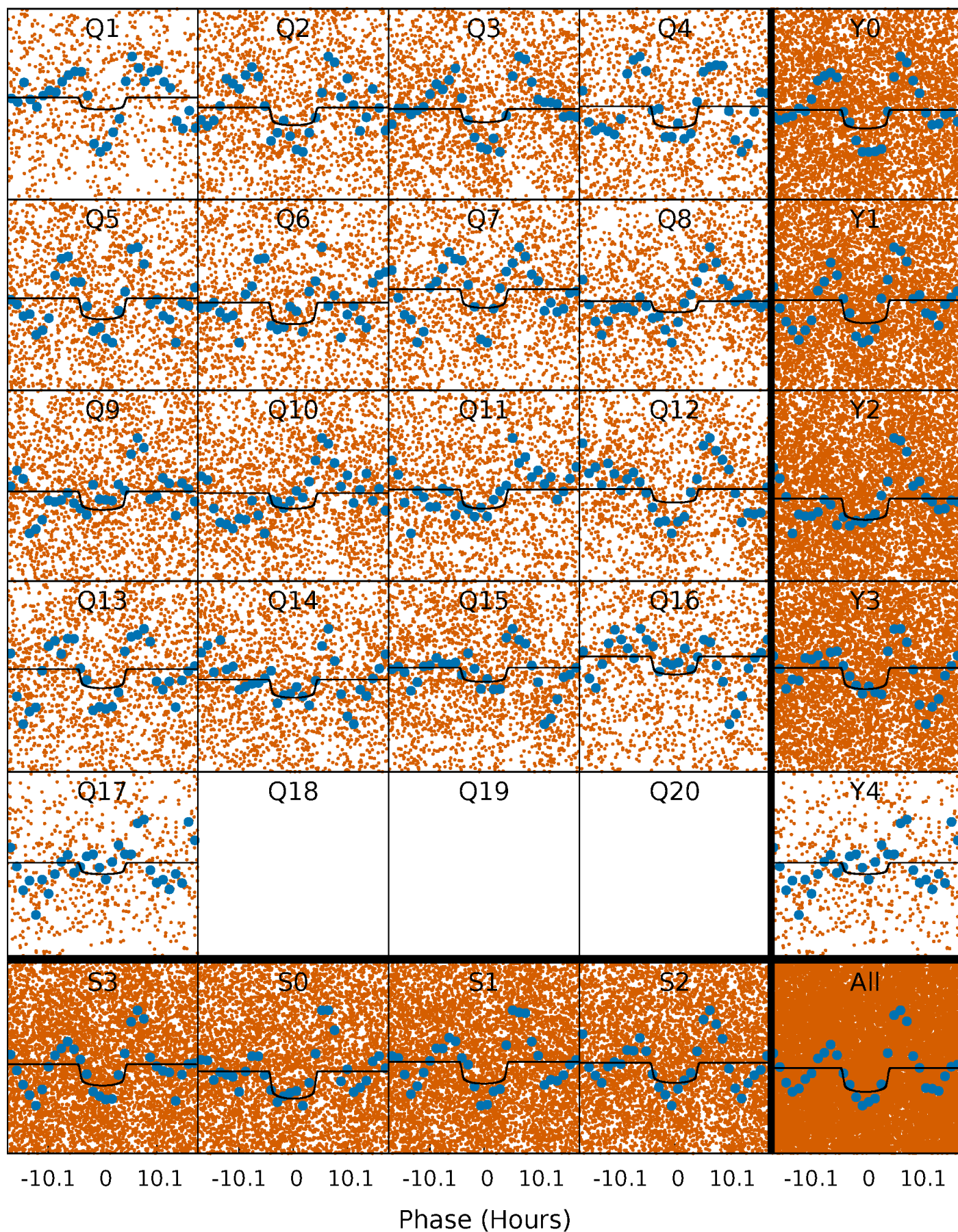
PDC Quarter-Phased Transit Curves

TCE 008692983-01 P= 2.493485 Days $T_0=132.482096$ (BKJD)



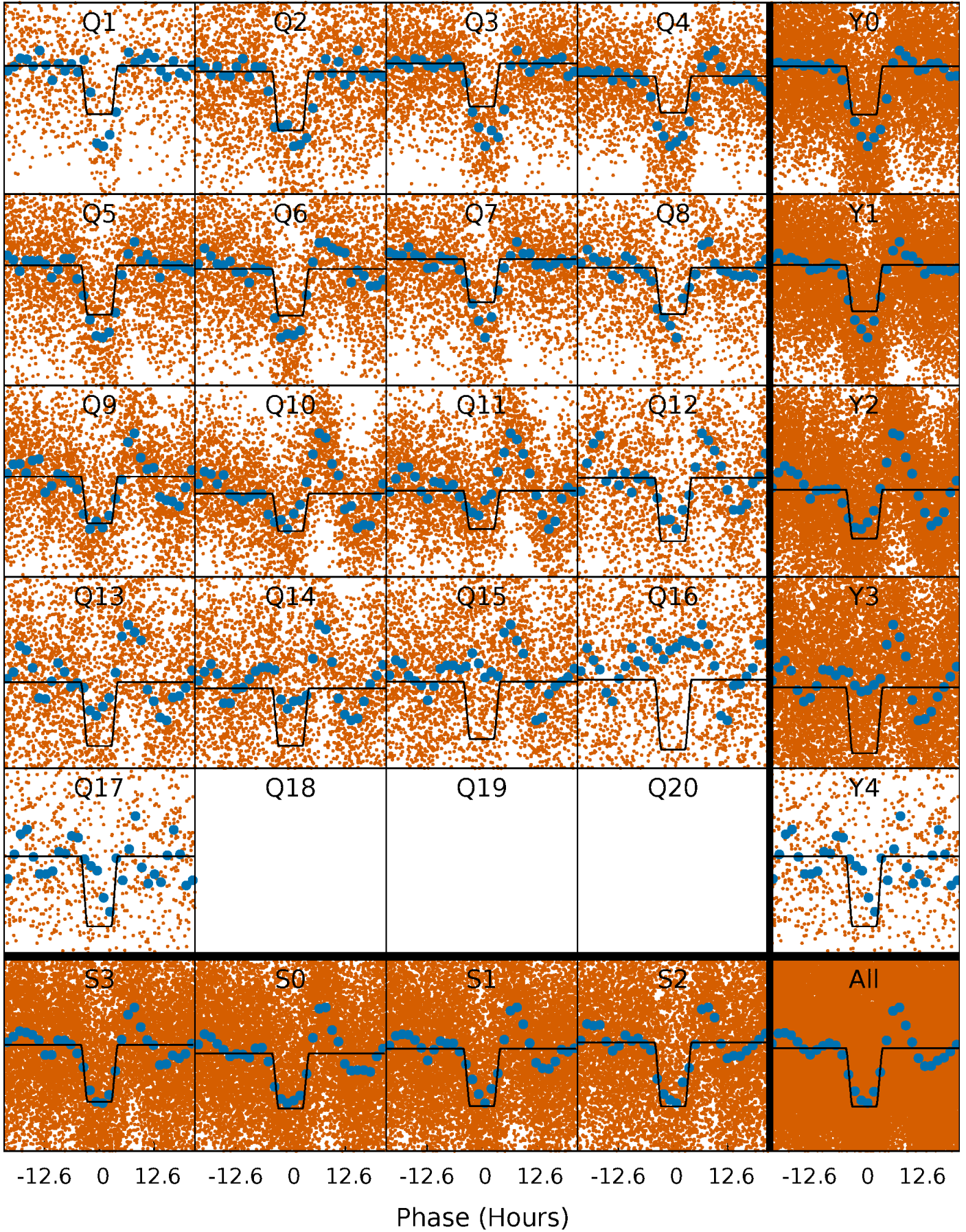
DV Quarter-Phased Transit Curves

TCE 008692983-01 P= 2.493485 Days $T_0=132.482096$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

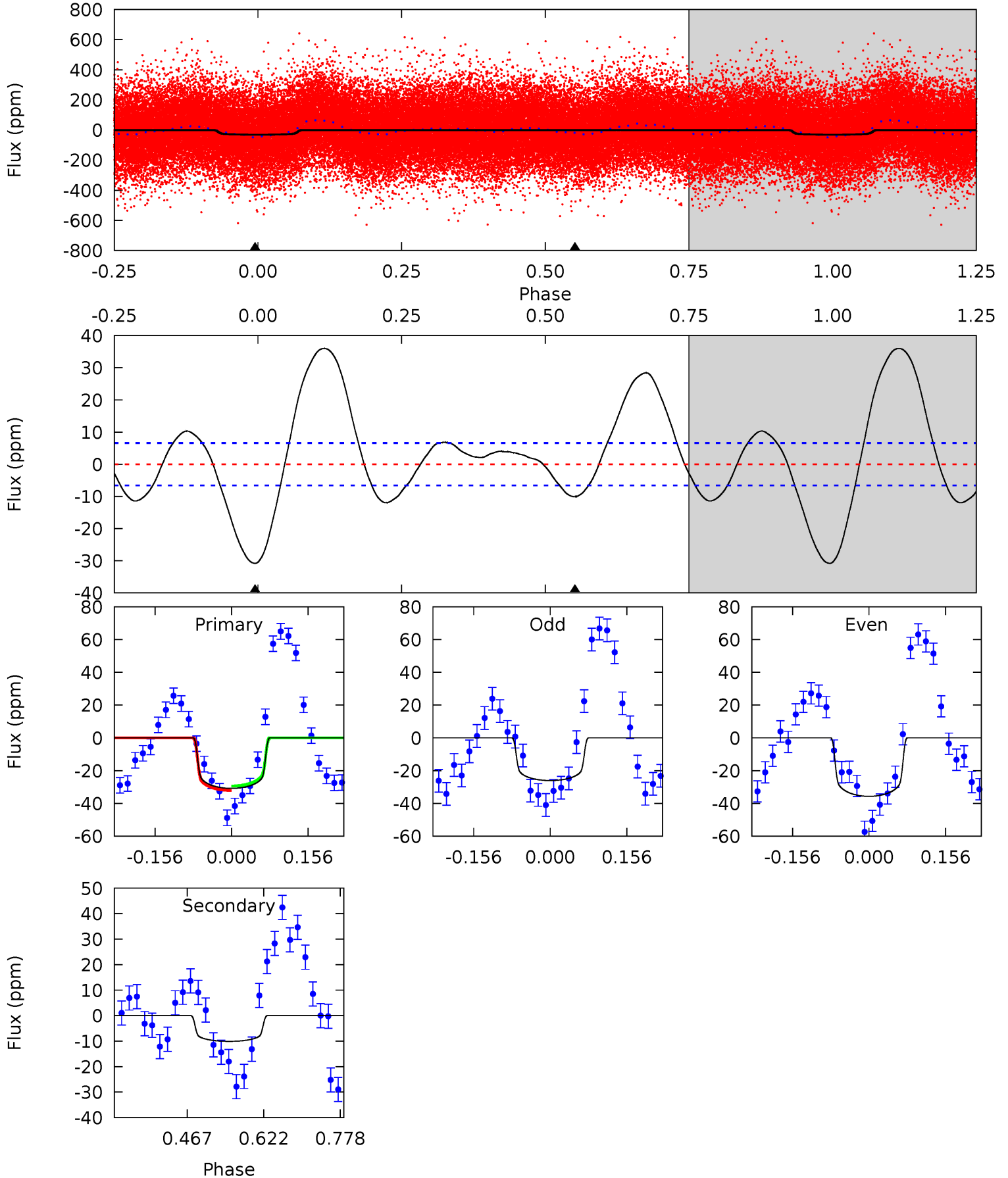
TCE 008692983-01 P= 2.493462 Days $T_0=132.455214$ (BKJD)



DV Model-Shift Uniqueness Test

008692983-01, P = 2.493485 Days, E = 129.988611 Days

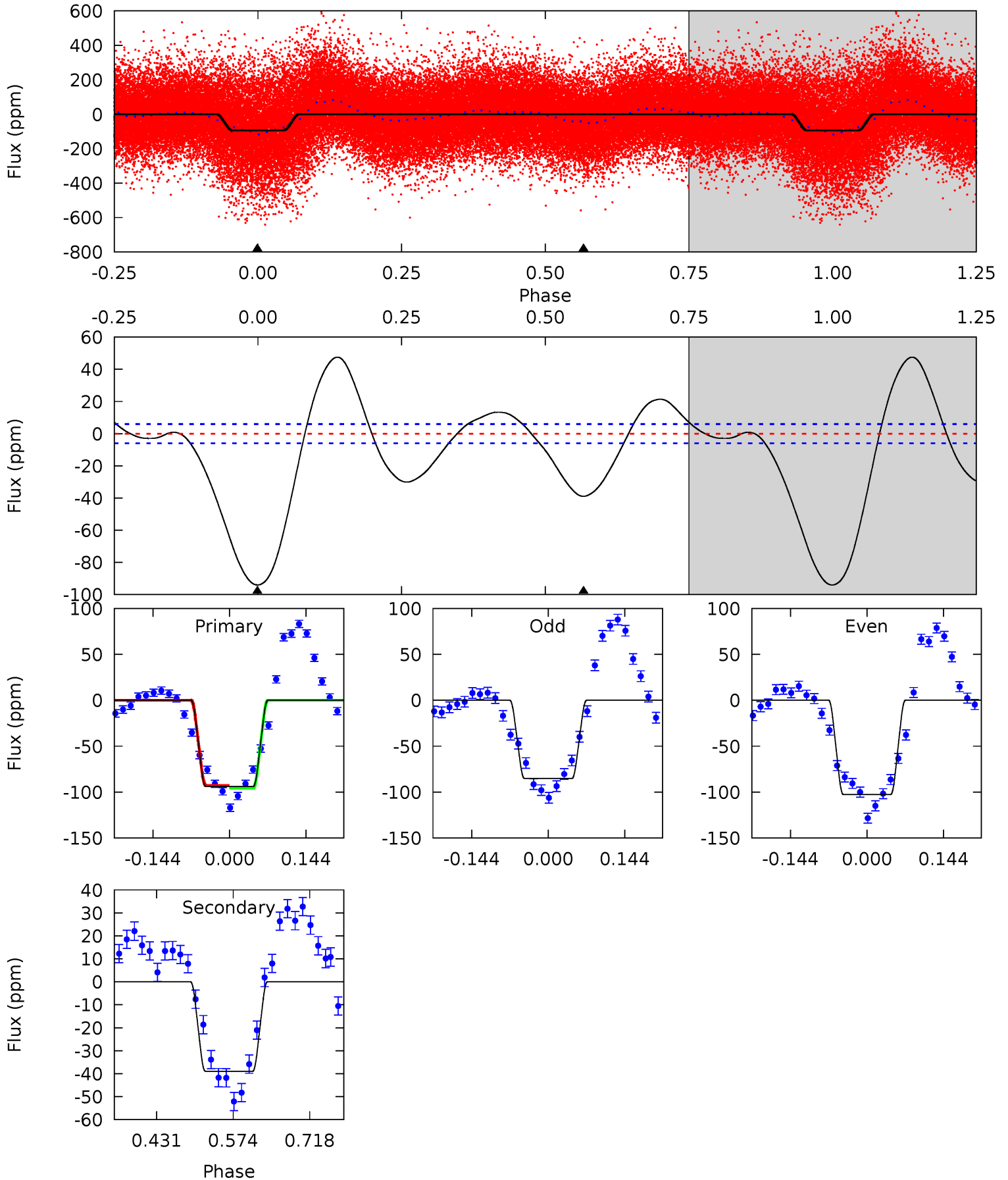
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	6.85	0	0	4.47	1.42	5.60	20.9	20.9	6.85	6.85	3.28	1.06	0.54	0.92



Alt Model-Shift Uniqueness Test

008692983-01, P = 2.493462 Days, E = 129.961752 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.7	29.3	0	0	4.49	1.46	13.3	70.7	70.7	29.3	29.3	6.52	1.06	0.34	1.10



Stellar Parameters For KIC 008692983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7136^{+197}_{-272}	$3.602^{+0.289}_{-0.051}$	$-0.060^{+0.250}_{-0.250}$	$3.614^{+0.303}_{-1.214}$	$1.906^{+0.167}_{-0.310}$	$0.057^{+0.111}_{-0.010}$
	+3%/-4%	+8%/-1%	+417%/-417%	+8%/-34%	+9%/-16%	+196%/-17%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008692983-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 1	$2.21^{+0.34}_{-0.39}$	3880^{+188}_{-332}	5074^{+319}_{-319}	$2.241^{+0.993}_{-0.560}$
Alt.	-39 ± 1	$4.10^{+0.42}_{-0.73}$	3850^{+214}_{-342}	5278^{+198}_{-203}	$2.595^{+1.040}_{-0.438}$

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 $A_{obs} \gg 1.0$

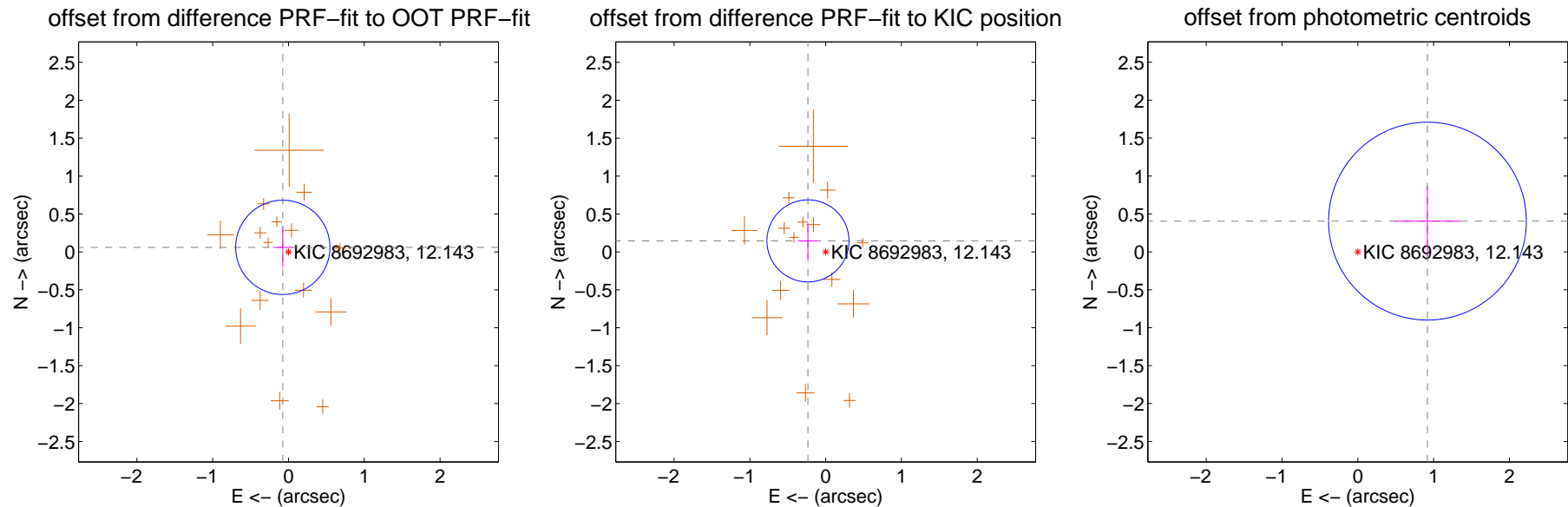
DV Centroid Data

Supplemental centroid analysis for 008692983-01. Kepler magnitude: 12.14. Transit SNR 8.97

There are 0 quarters with good PRF difference image offsets

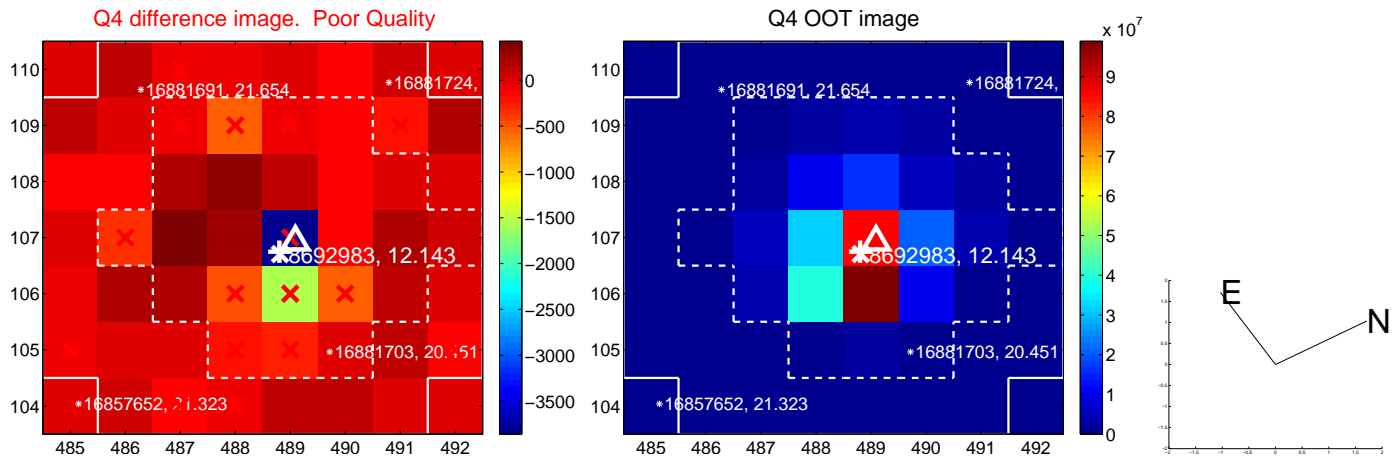
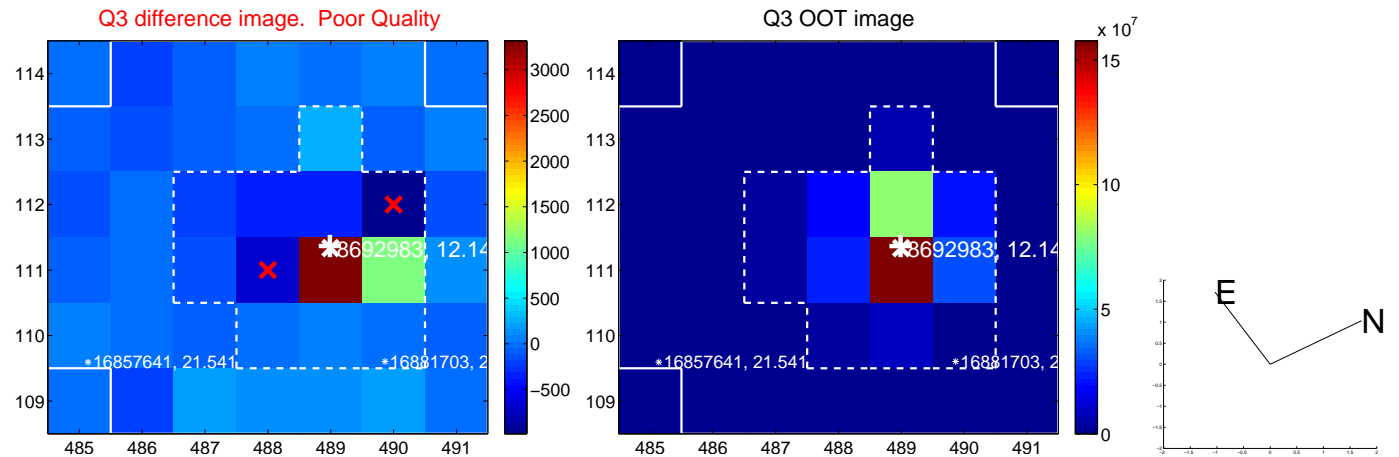
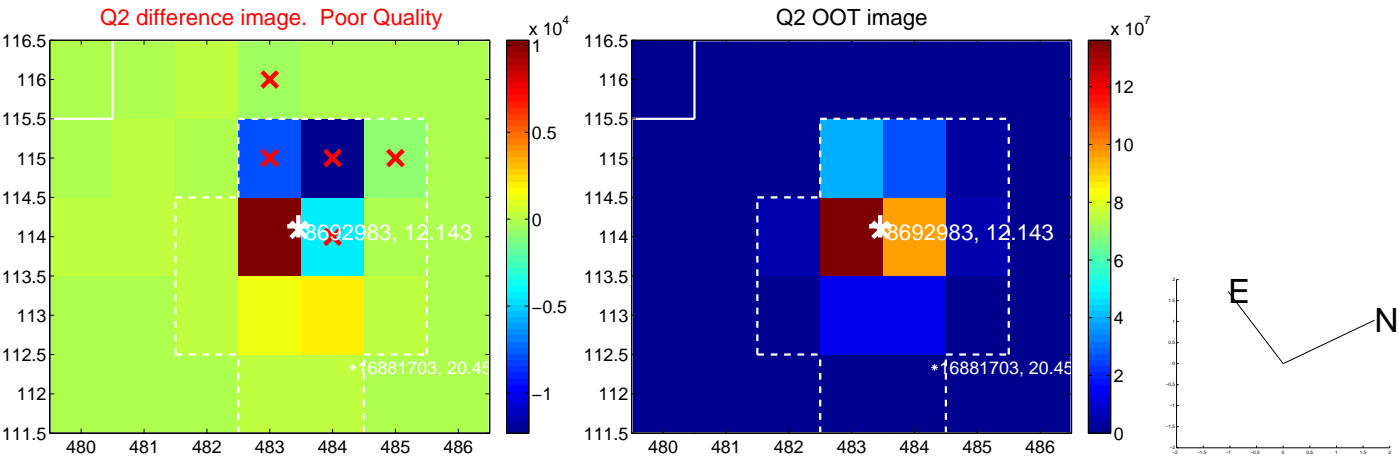
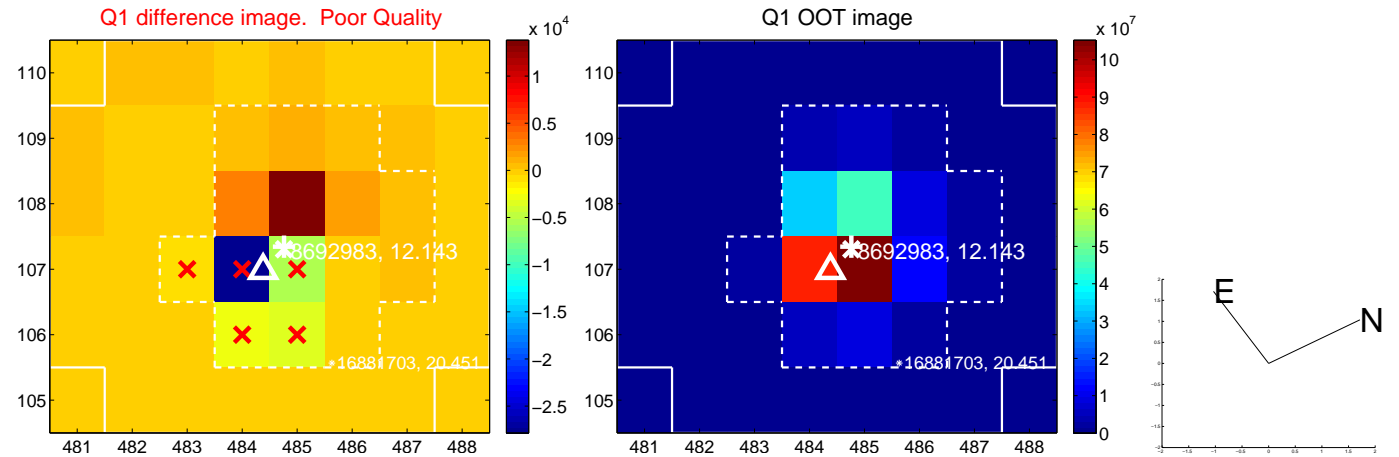
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.207	0.46	0.075 ± 0.125	0.060 ± 0.267
PRF-fit source offset from KIC position	0.275 ± 0.180	1.52	0.234 ± 0.131	0.145 ± 0.237
photometric centroid source offset	1.00 ± 0.43	2.31	-0.92 ± 0.43	0.41 ± 0.46

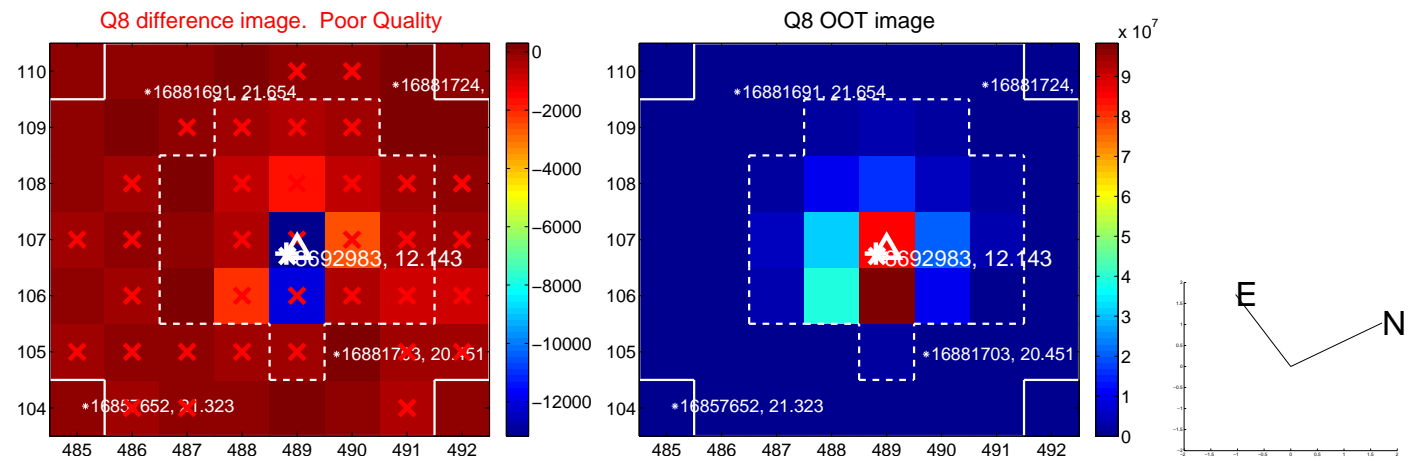
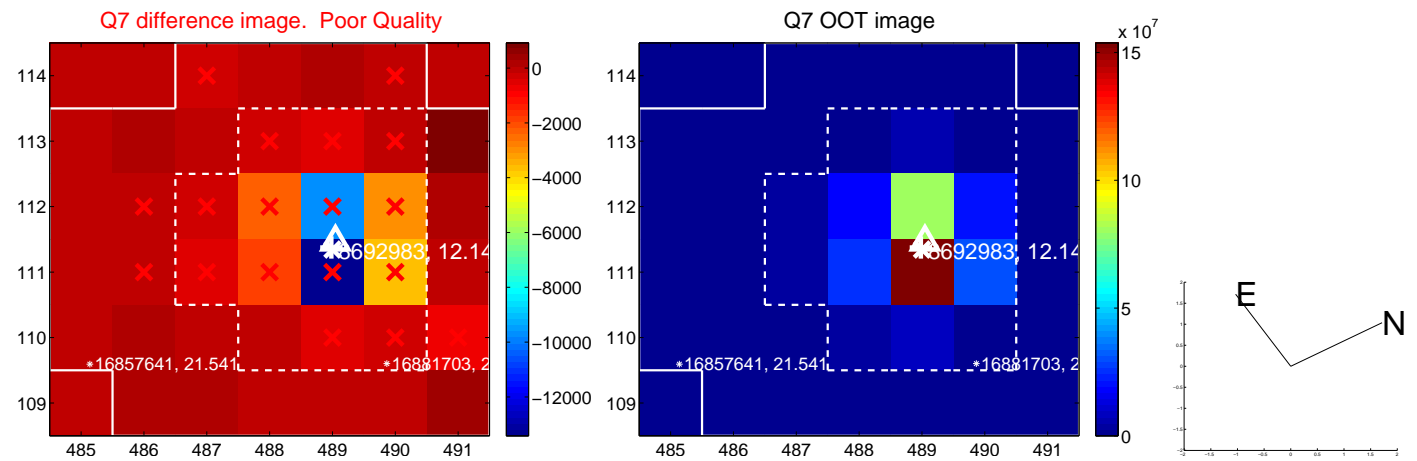
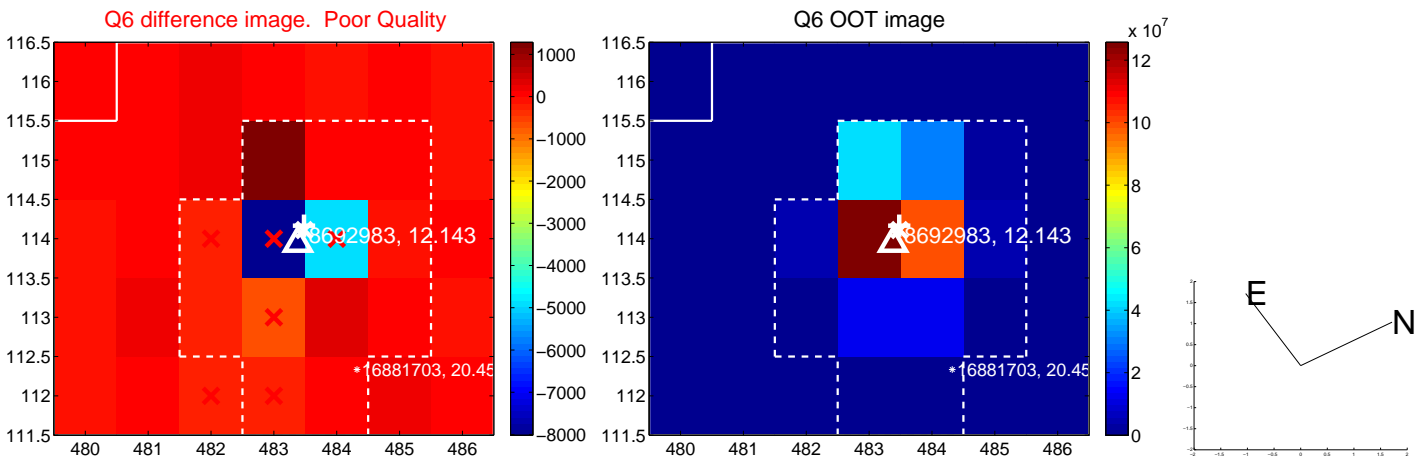
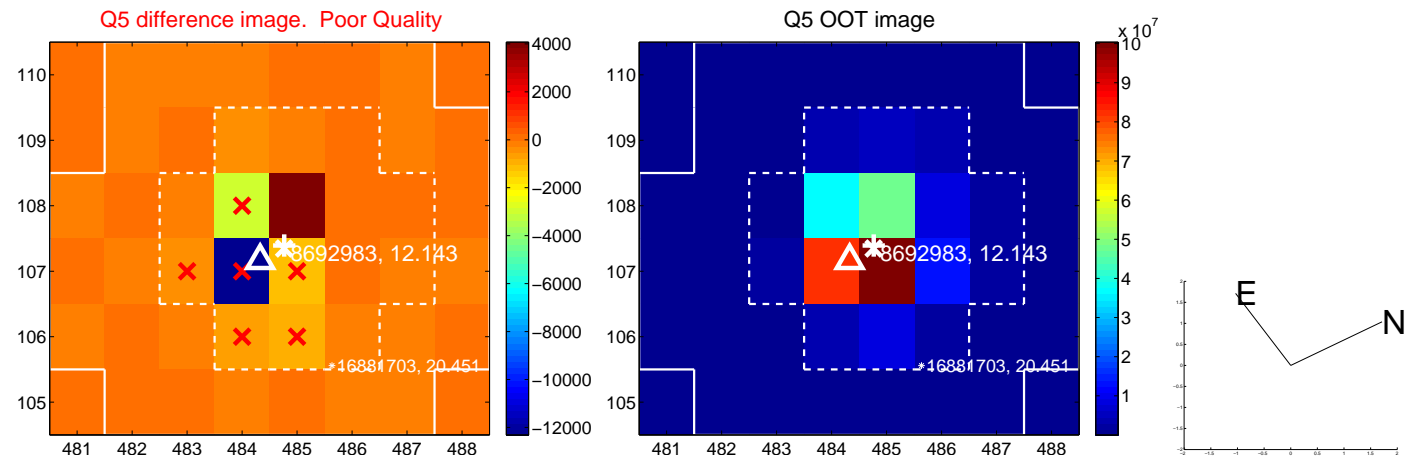


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

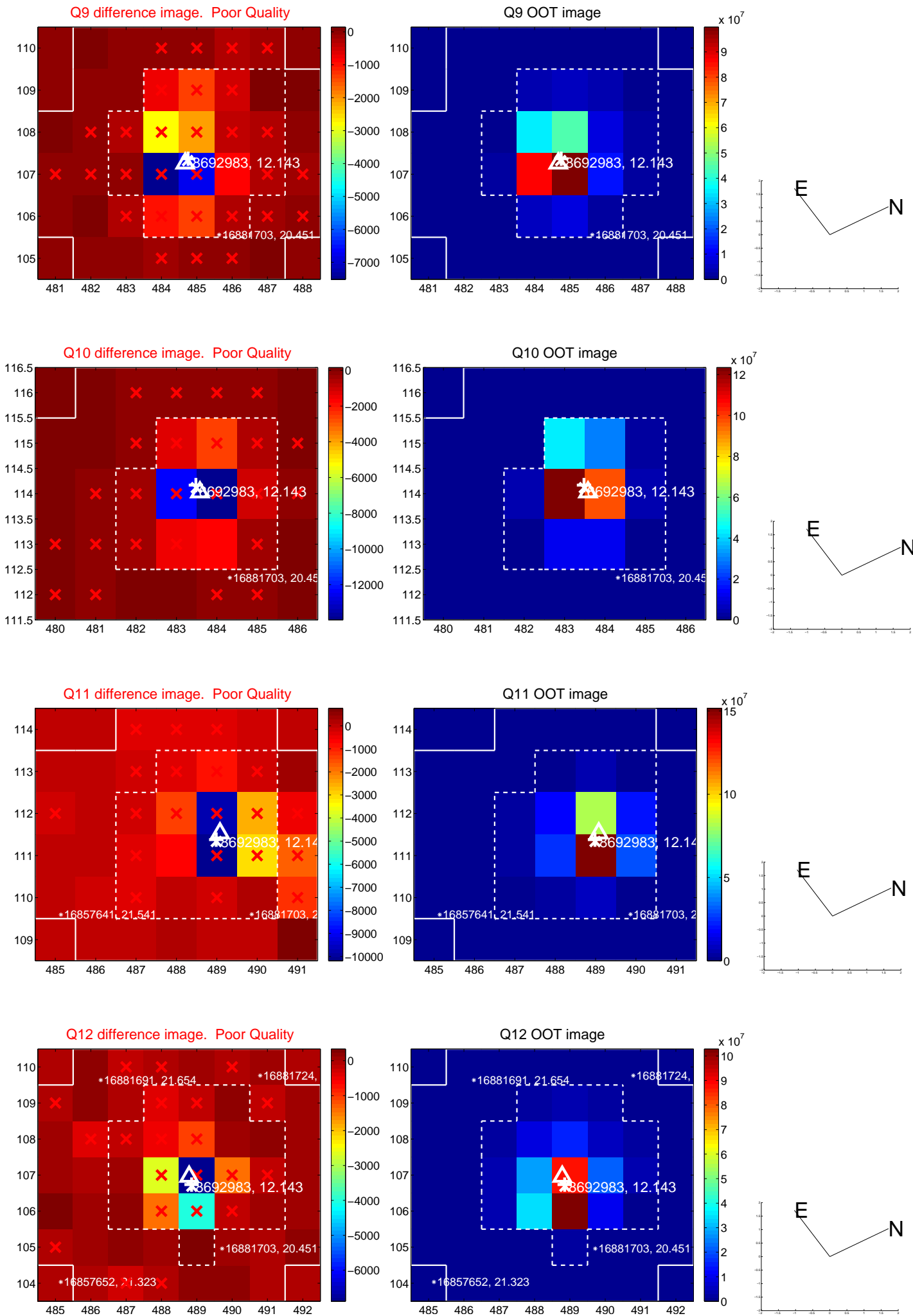
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



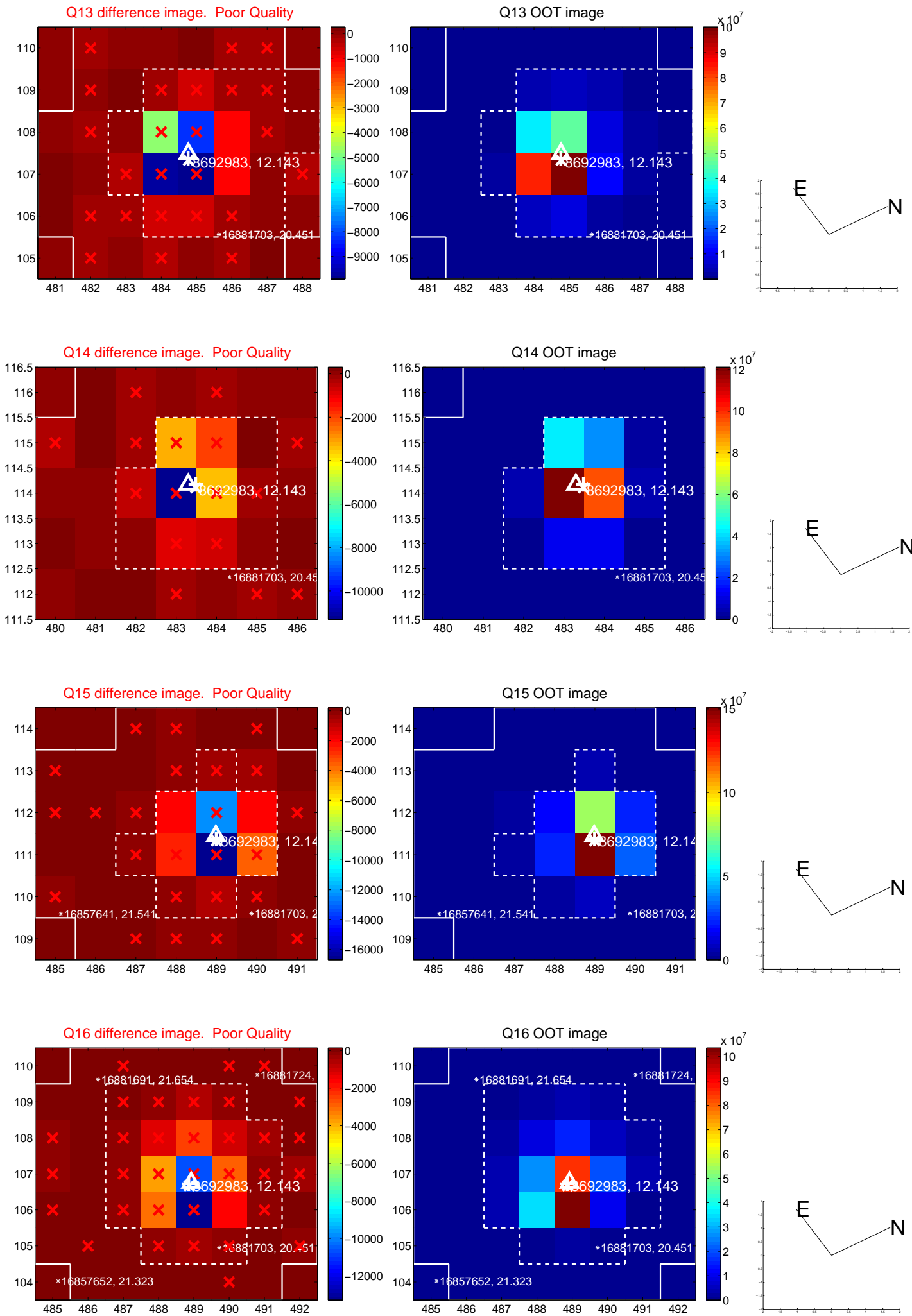
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



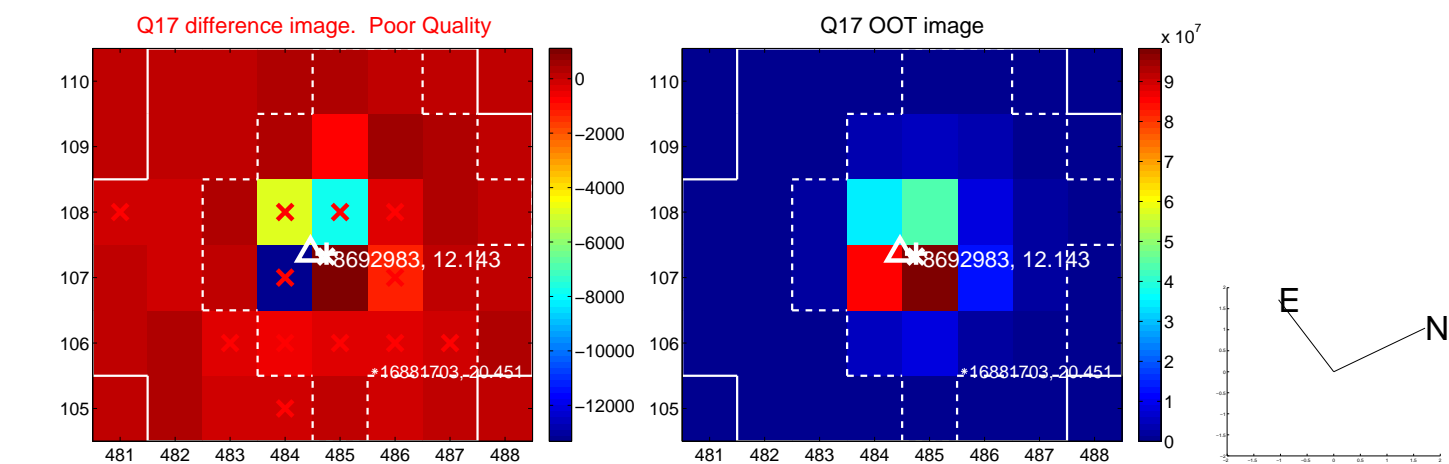
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



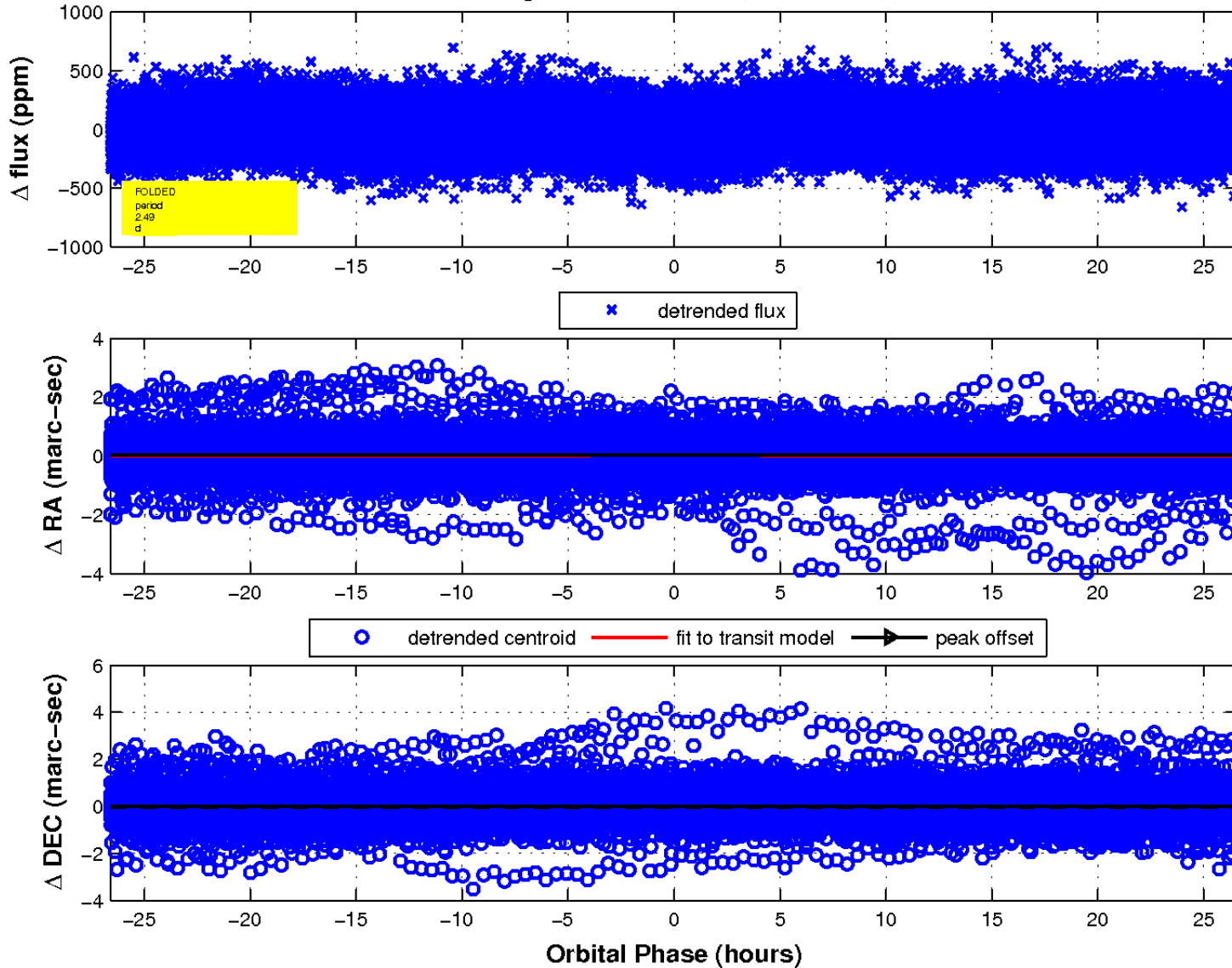
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

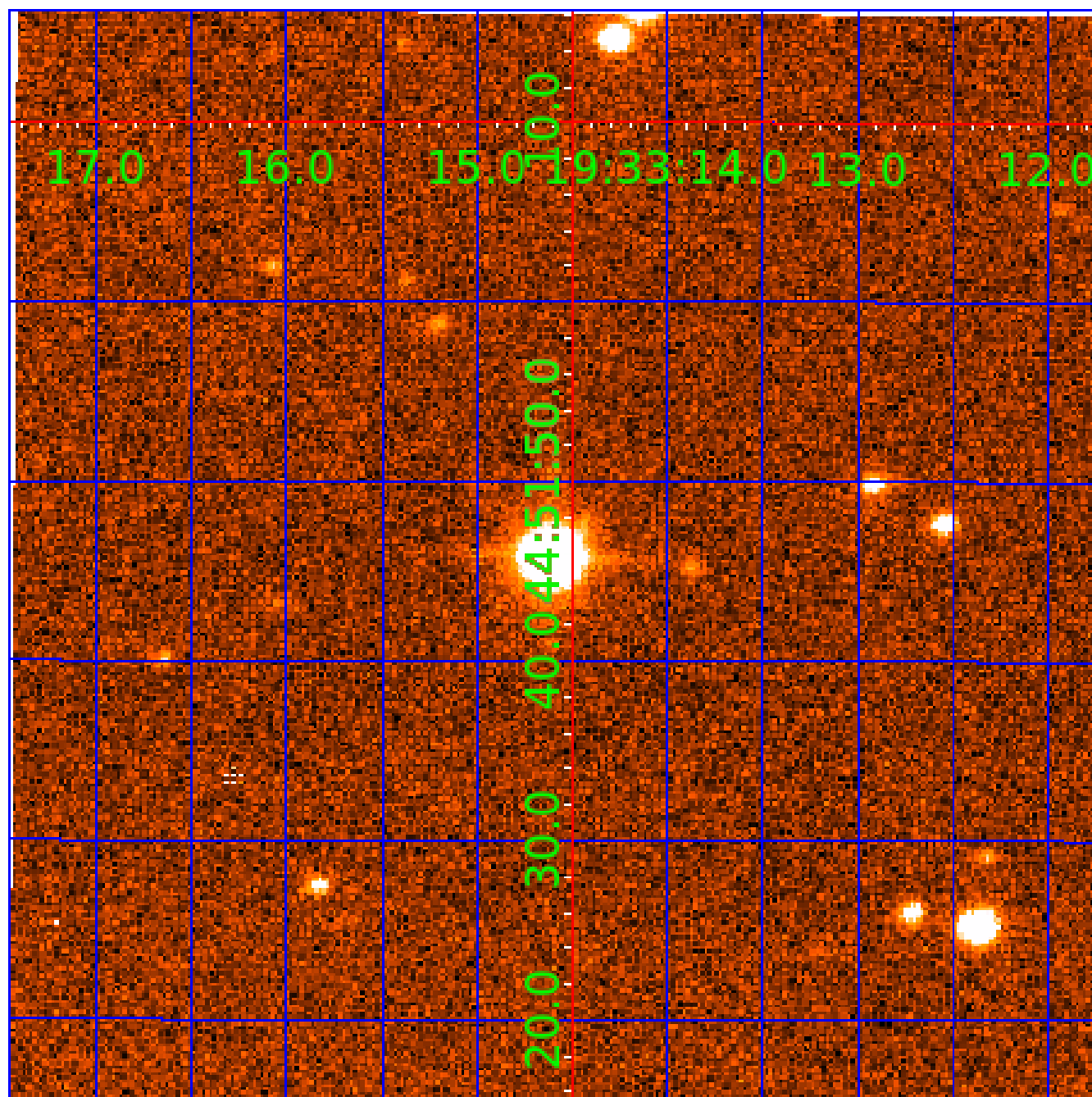


fluxWeightedCentroids, Planet 1 of 6



UKIRT Image

Declination



KIC 008692983

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})
008692983-01	OBS	No	2.493485	132.482096	27.5	8.865	10.1	9.0	3.61	7136	2.31	15239.25
008692983-02	OBS	No	630.403607	139.292001	284.6	18.590	12.8	8.9	3.61	7136	6.60	9.53
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008692983-05	OBS	No	303.071579	307.883020	326.2	3.422	7.7	7.9	3.61	7136	7.36	25.31
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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008692983-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008692983-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008692983-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

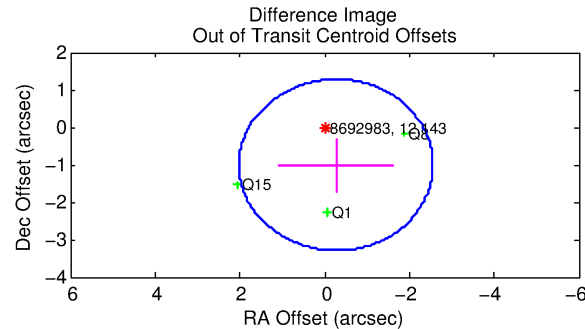
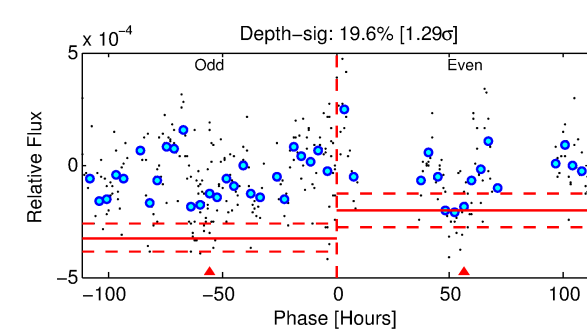
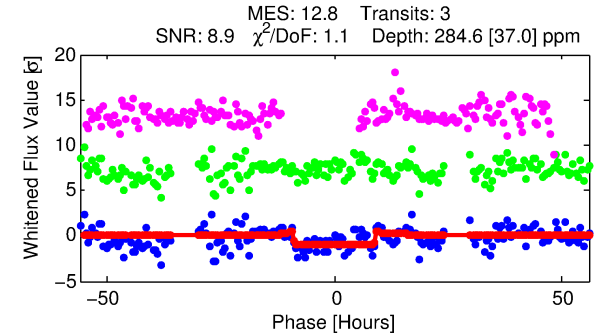
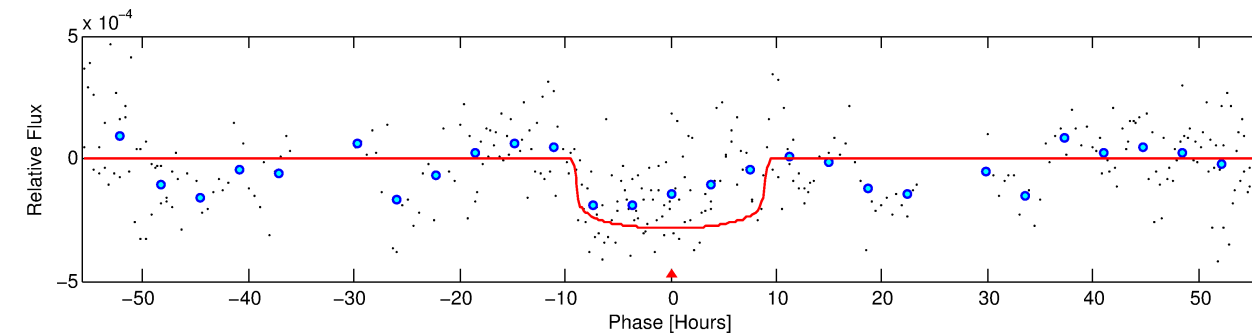
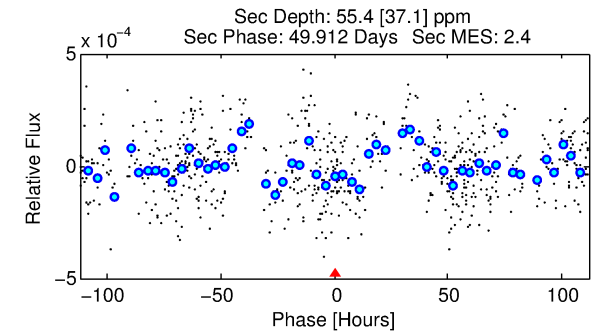
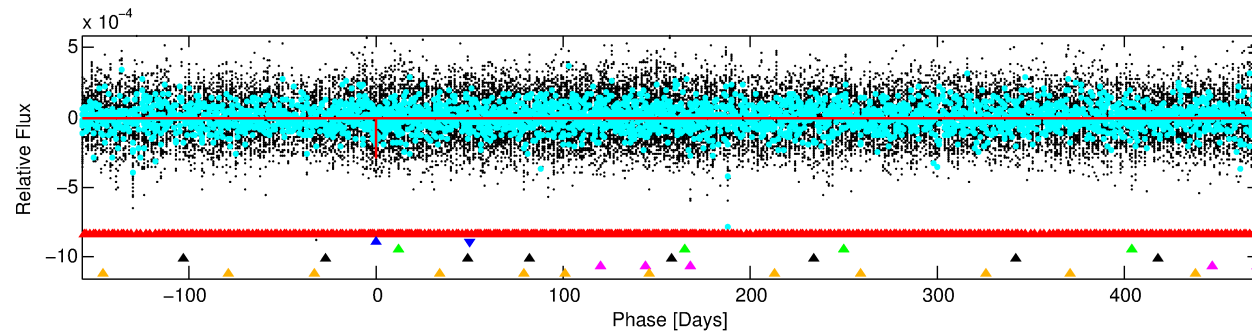
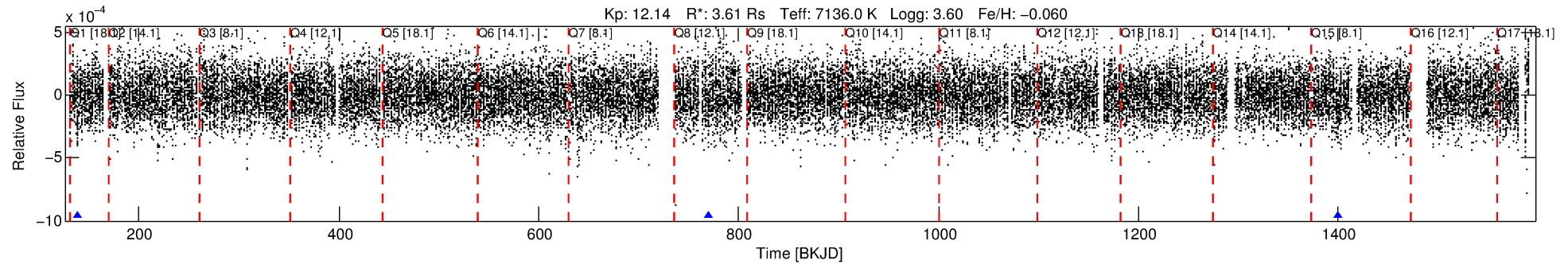
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008692983-02

No Significant Match Found

DV One-Page Summary

KIC: 8692983 Candidate: 2 of 6 Period: 630.404 d



DV Fit Results:

Period = 630.40361 [0.01936] d
Epoch = 139.2920 [0.0229] BKJD
Rp/R* = 0.0167 [0.0022]
a/R* = 179.55 [117.51]
b = 0.74 [0.40]
Seff = 9.53 [4.96]
Teq = 448 [58] K
Rp = 6.60 [2.38] Re
a = 1.7842 [0.5624] AU
Ag = 2223.62 [1942.98] [1.14σ]
Teffp = 4757 [874] K [4.92σ]

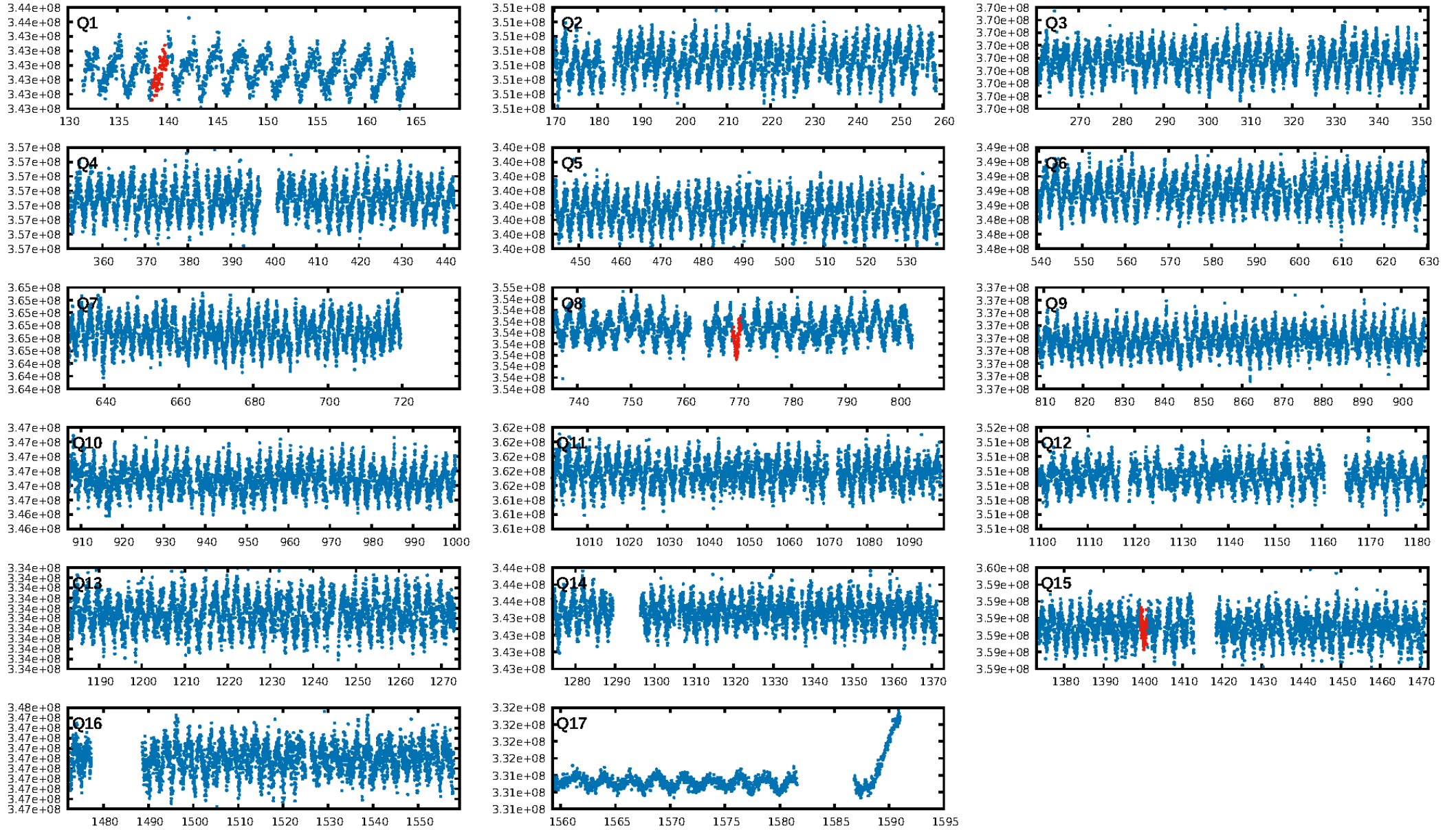
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [238.34σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 4.159
Centroid-sig: 49.8%
Centroid-so: 0.429 arcsec [0.97σ]
OotOffset-rm: 1.042 arcsec [1.37σ]
KicOffset-rm: 0.959 arcsec [1.38σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/3]

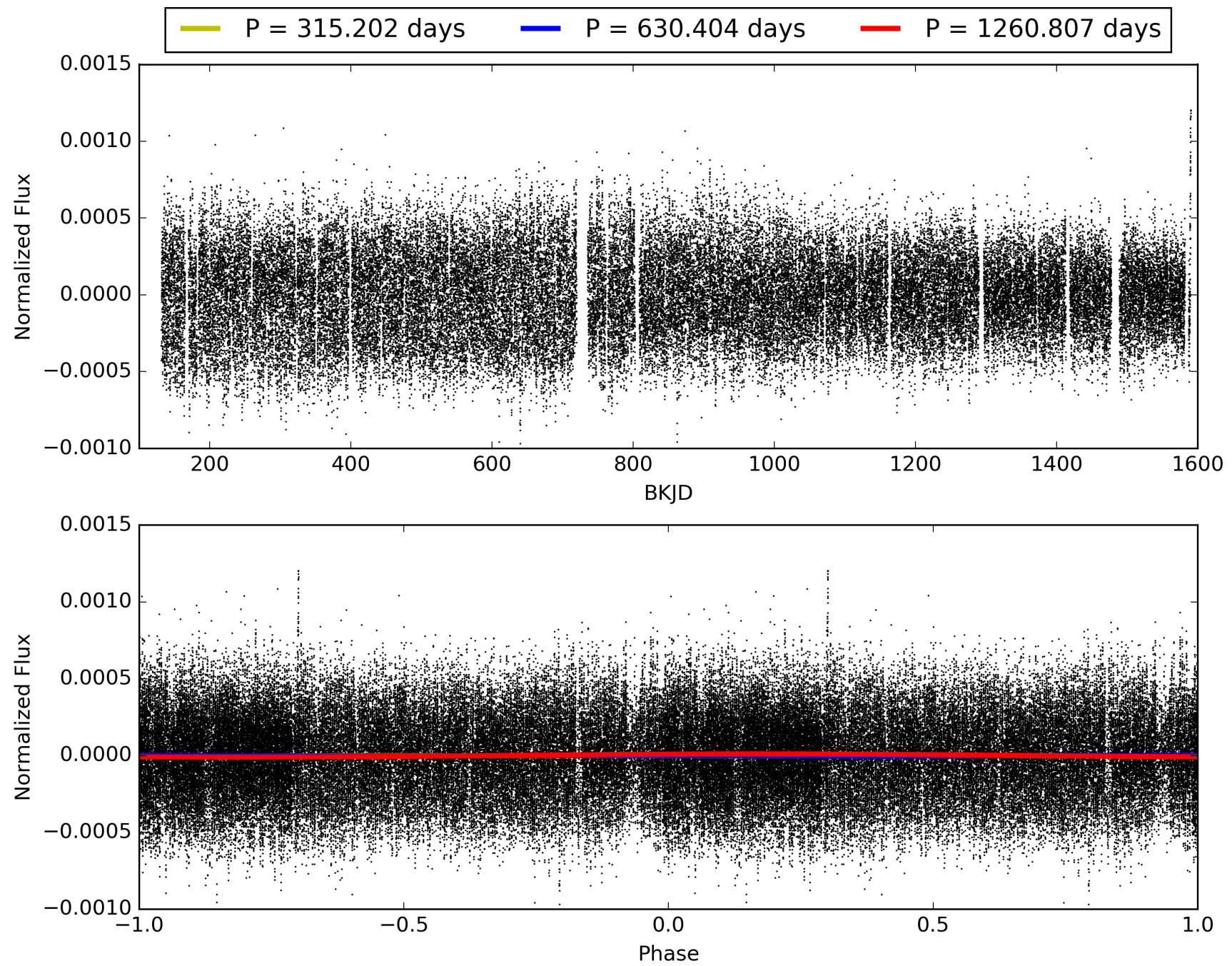
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008692983-02, PDC Light Curves

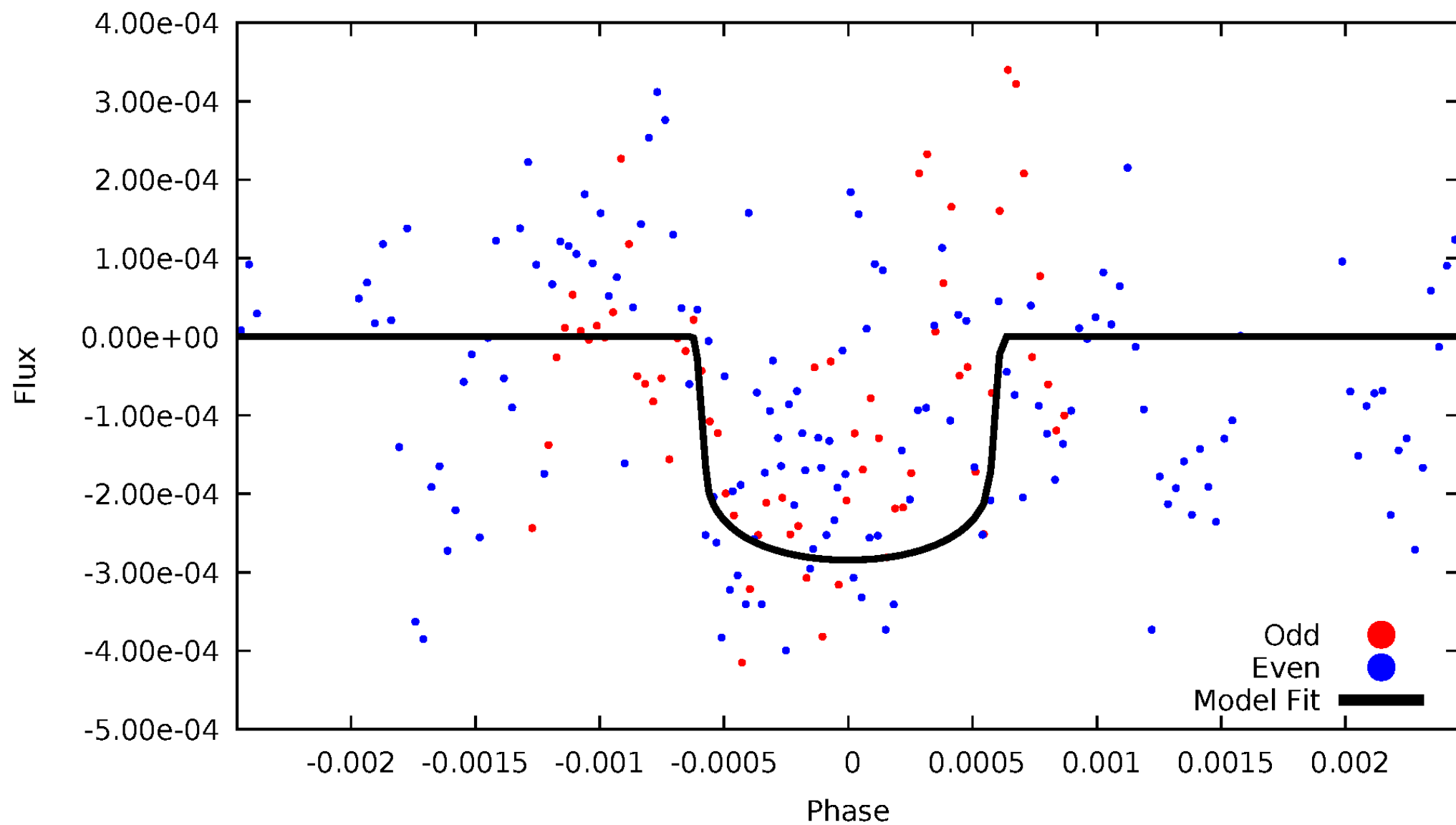


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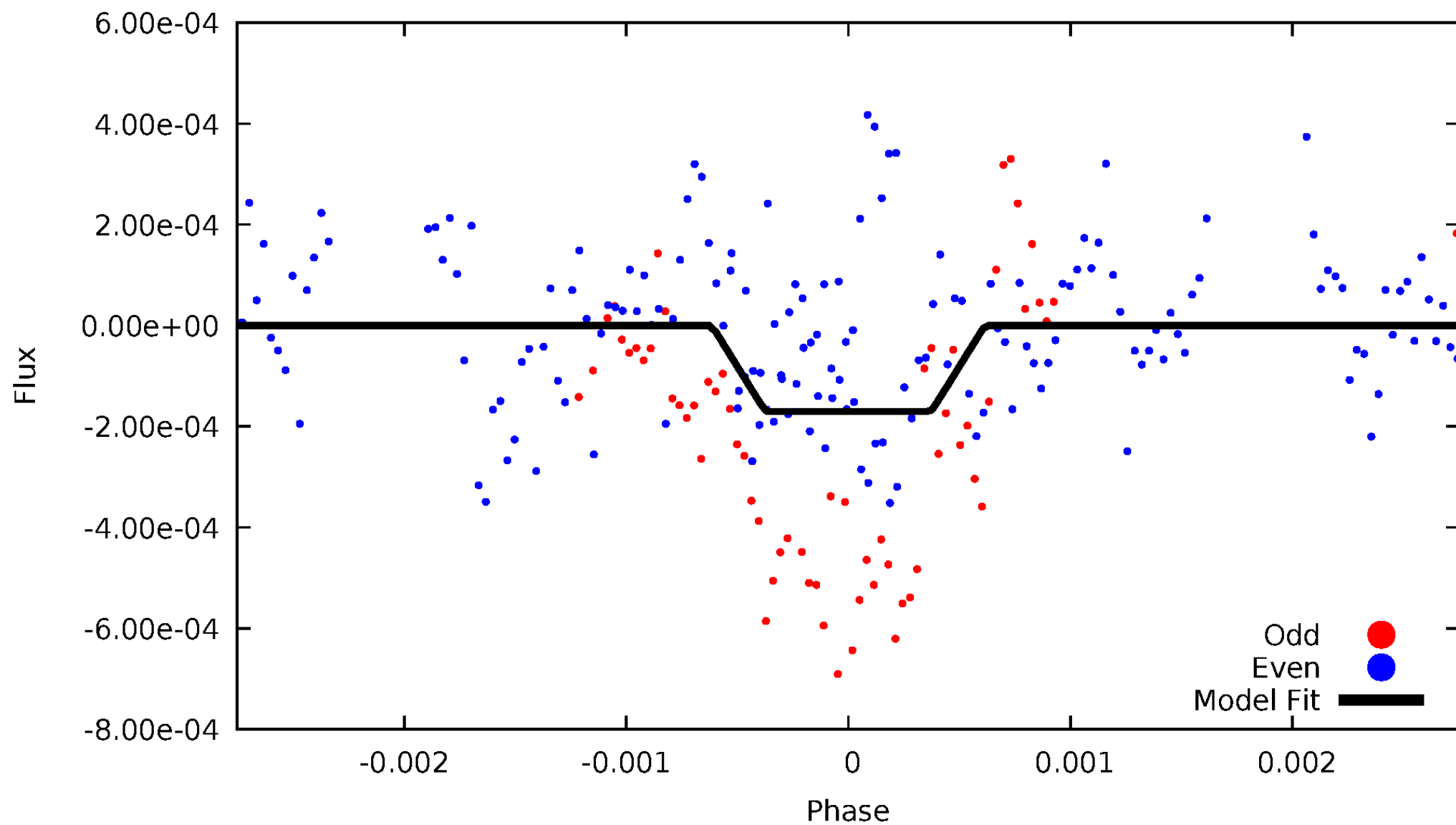
DV Odd/Even

TCE 008692983-02



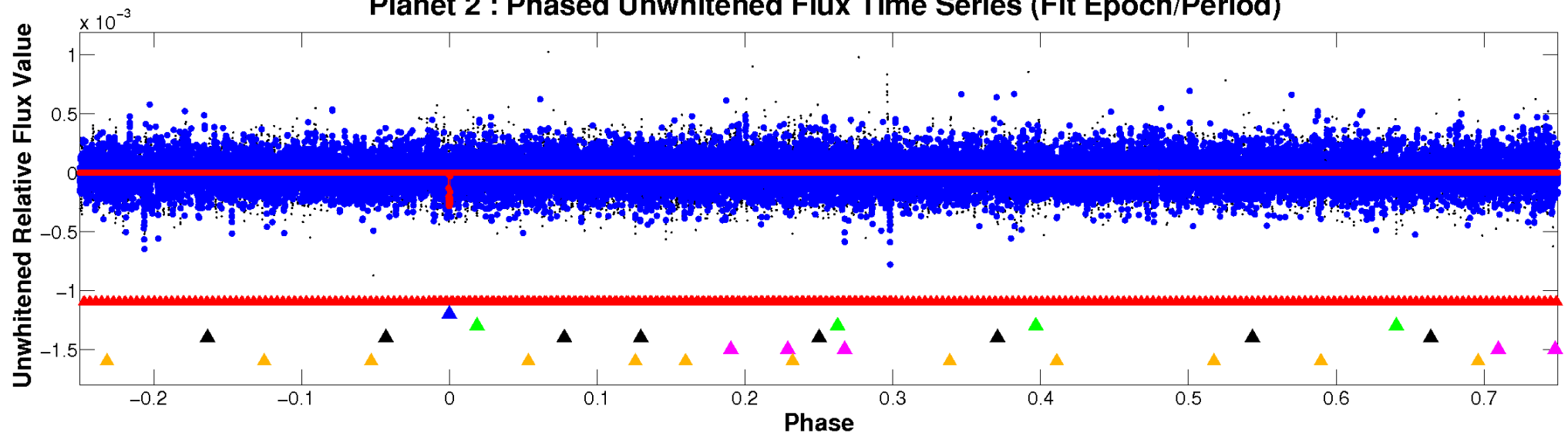
ALT Odd/Even

TCE 008692983-02

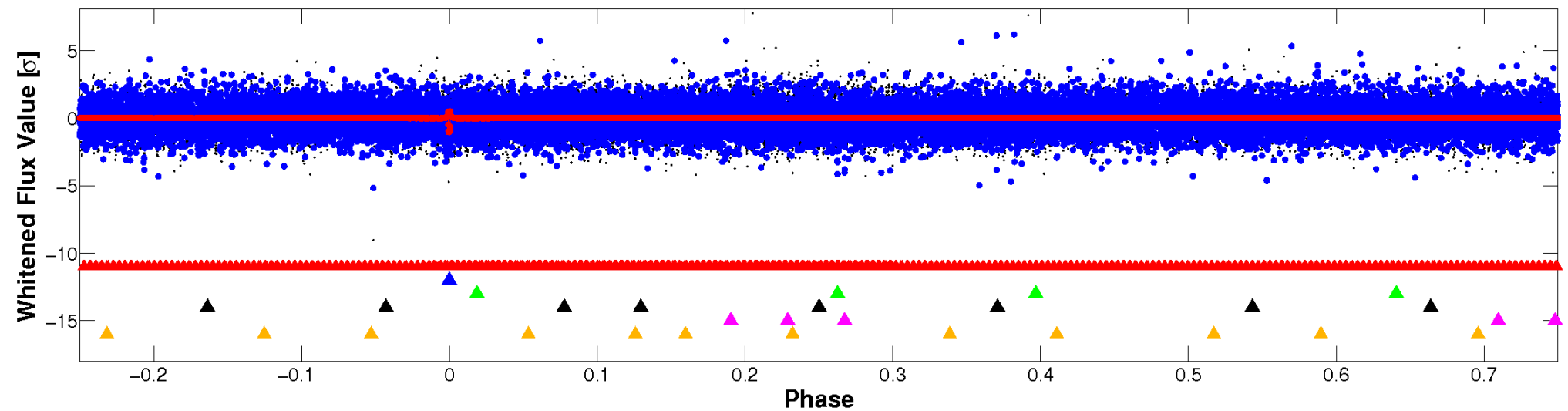


Non-Whitened Vs. Whitened Light Curve

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

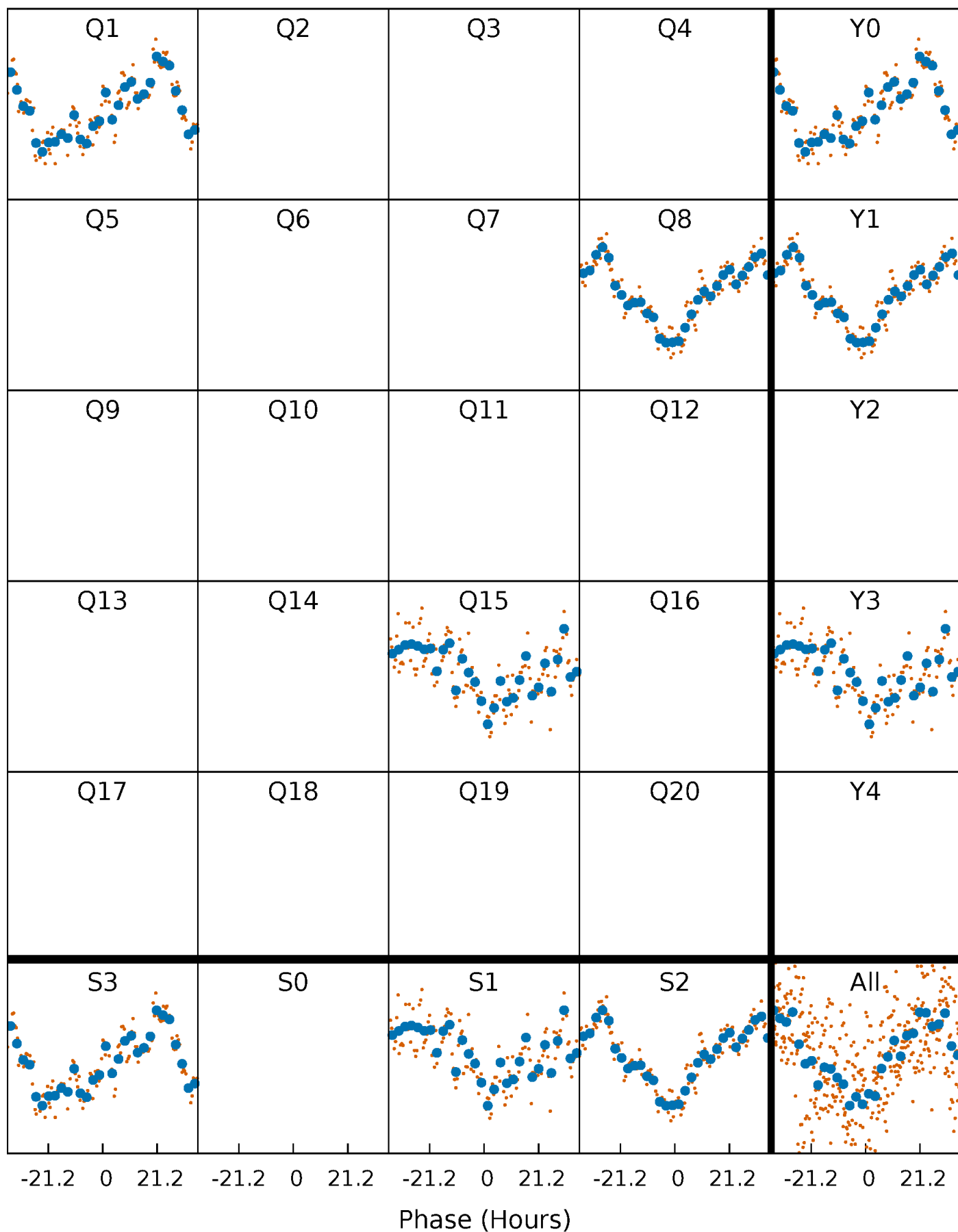


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



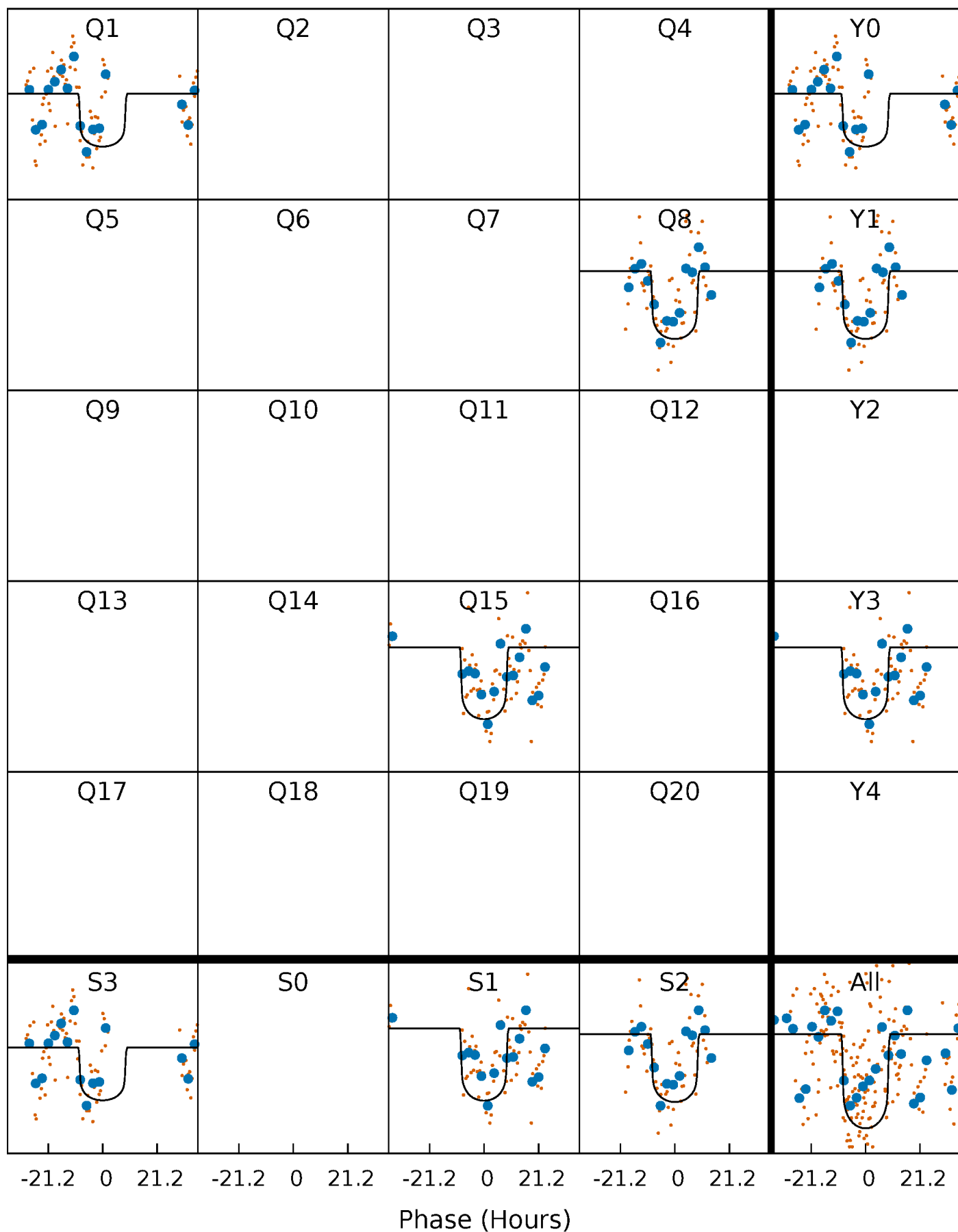
PDC Quarter-Phased Transit Curves

TCE 008692983-02 $P=630.403607$ Days $T_0=139.292001$ (BKJD)



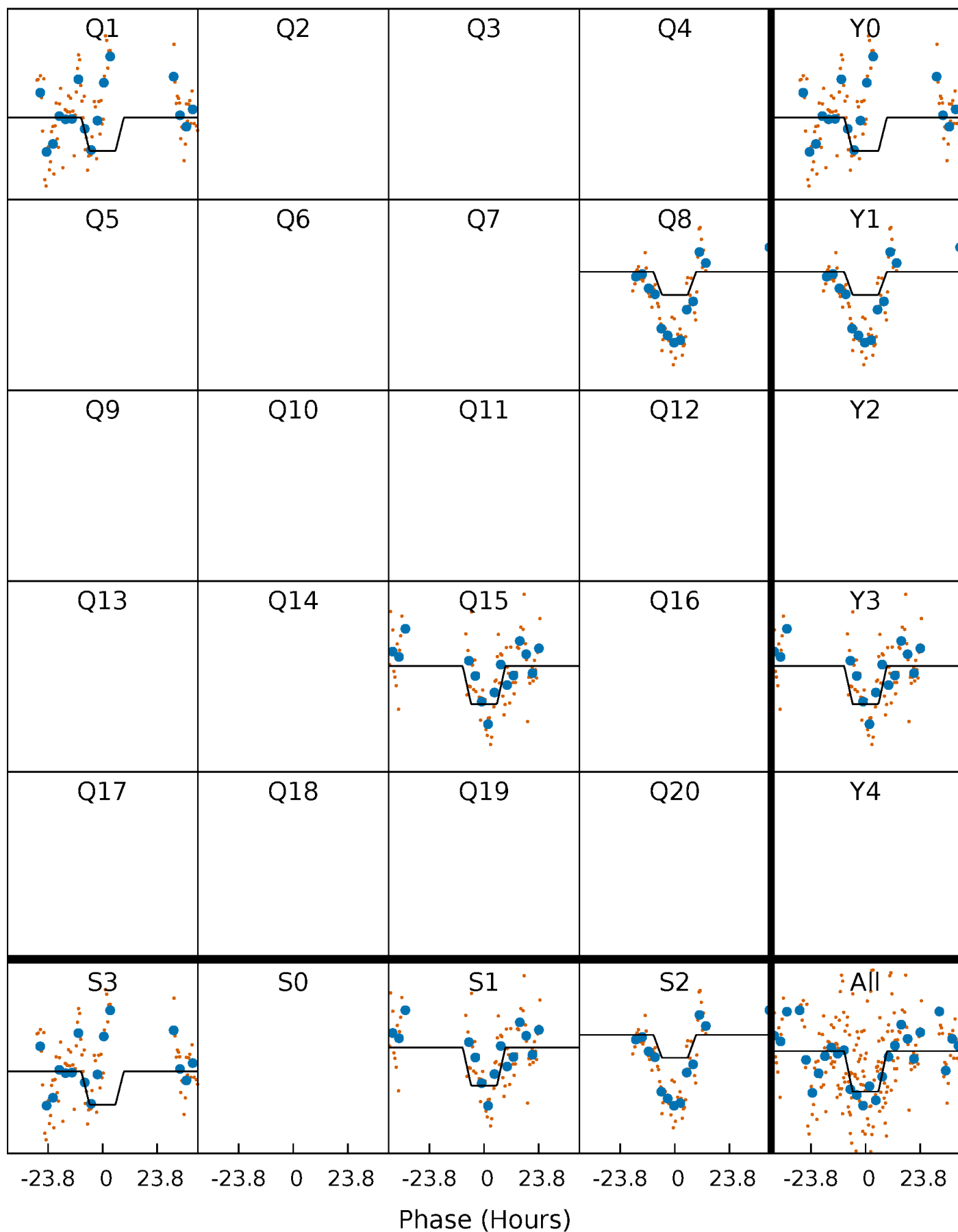
DV Quarter-Phased Transit Curves

TCE 008692983-02 $P=630.403607$ Days $T_0=139.292001$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

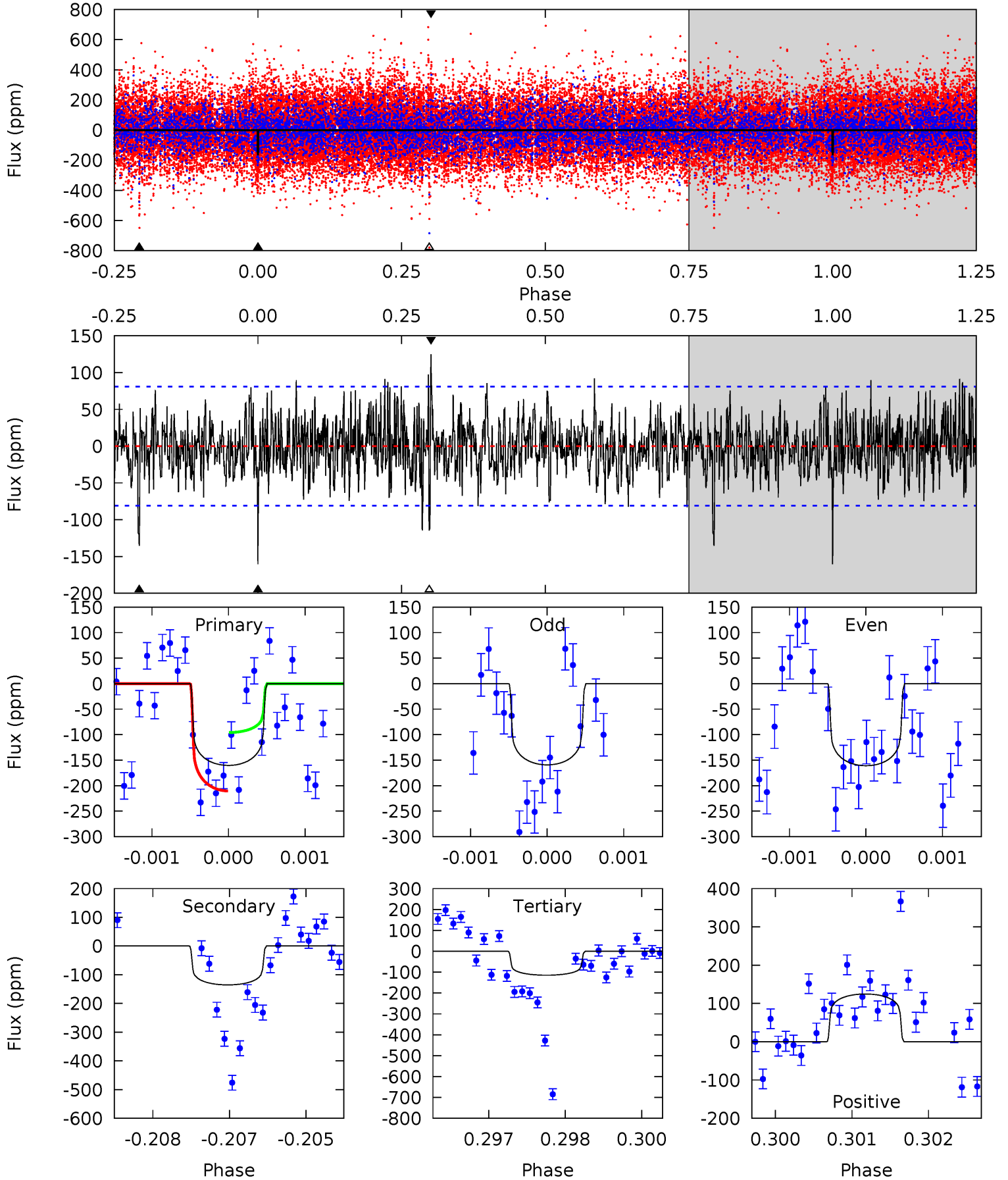
TCE 008692983-02 $P=630.416193$ Days $T_0=139.243648$ (BKJD)



DV Model-Shift Uniqueness Test

008692983-02, P = 630.403607 Days, E = 139.292001 Days

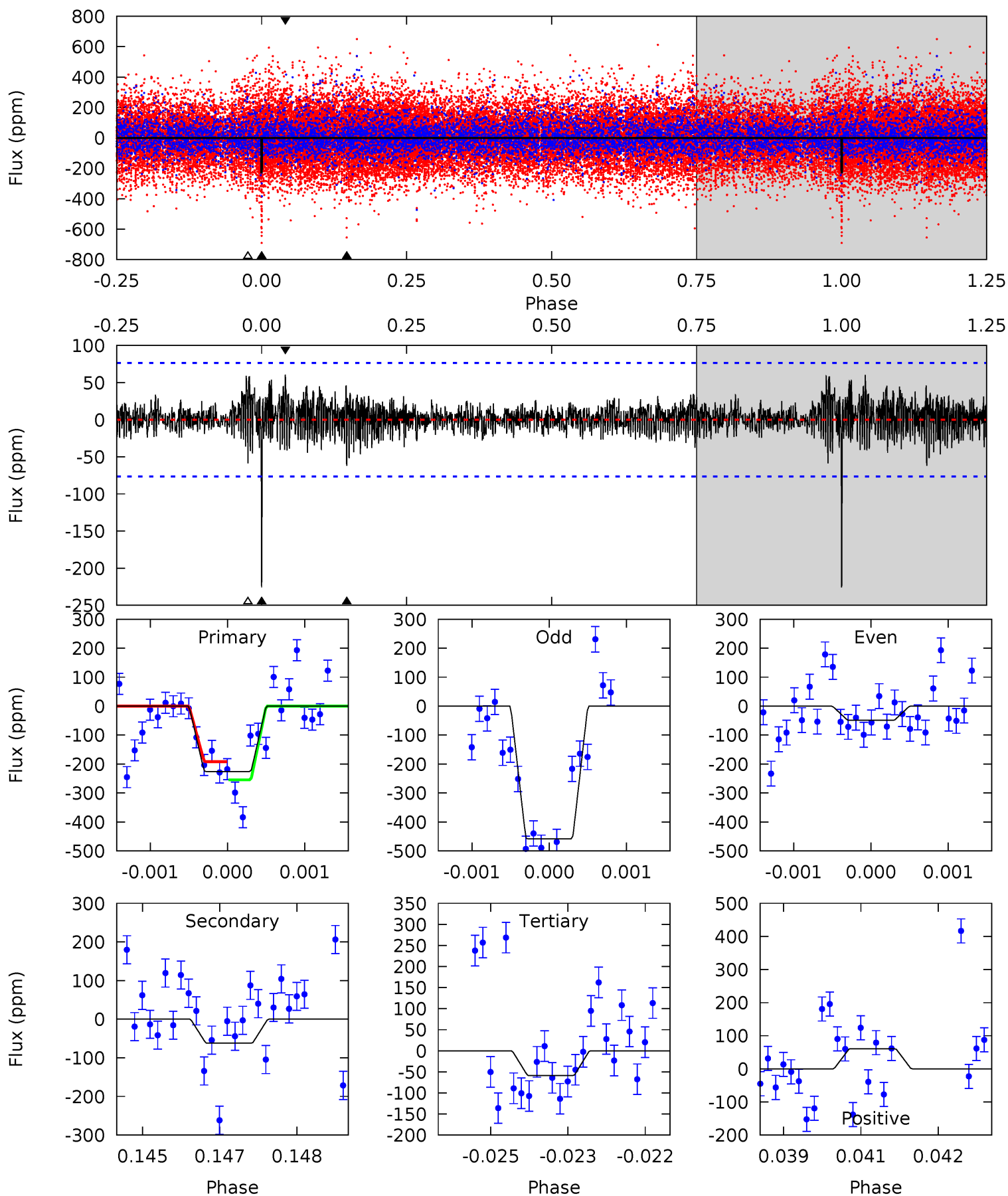
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	9.05	7.67	8.34	5.41	3.23	1.99	3.05	2.38	1.38	0.72	0.05	1.01	0.44	3.81



Alt Model-Shift Uniqueness Test

008692983-02, P = 630.416193 Days, E = 139.243648 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	4.39	4.15	4.28	5.41	3.23	1.00	11.8	11.7	0.24	0.11	14.2	1.55	0.21	2.19



Stellar Parameters For KIC 008692983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7136^{+197}_{-272}	$3.602^{+0.289}_{-0.051}$	$-0.060^{+0.250}_{-0.250}$	$3.614^{+0.303}_{-1.214}$	$1.906^{+0.167}_{-0.310}$	$0.057^{+0.111}_{-0.010}$
	+3%/-4%	+8%/-1%	+417%/-417%	+8%/-34%	+9%/-16%	+196%/-17%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008692983-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-135 ± 15	$6.19^{+1.17}_{-1.22}$	609^{+31}_{-47}	5888^{+437}_{-421}	6226^{+3072}_{-1850}
Alt.	-62 ± 14	$4.92^{+1.04}_{-1.04}$	610^{+32}_{-50}	5457^{+622}_{-492}	4508^{+3097}_{-1785}

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 $A_{obs} \gg 1.0$

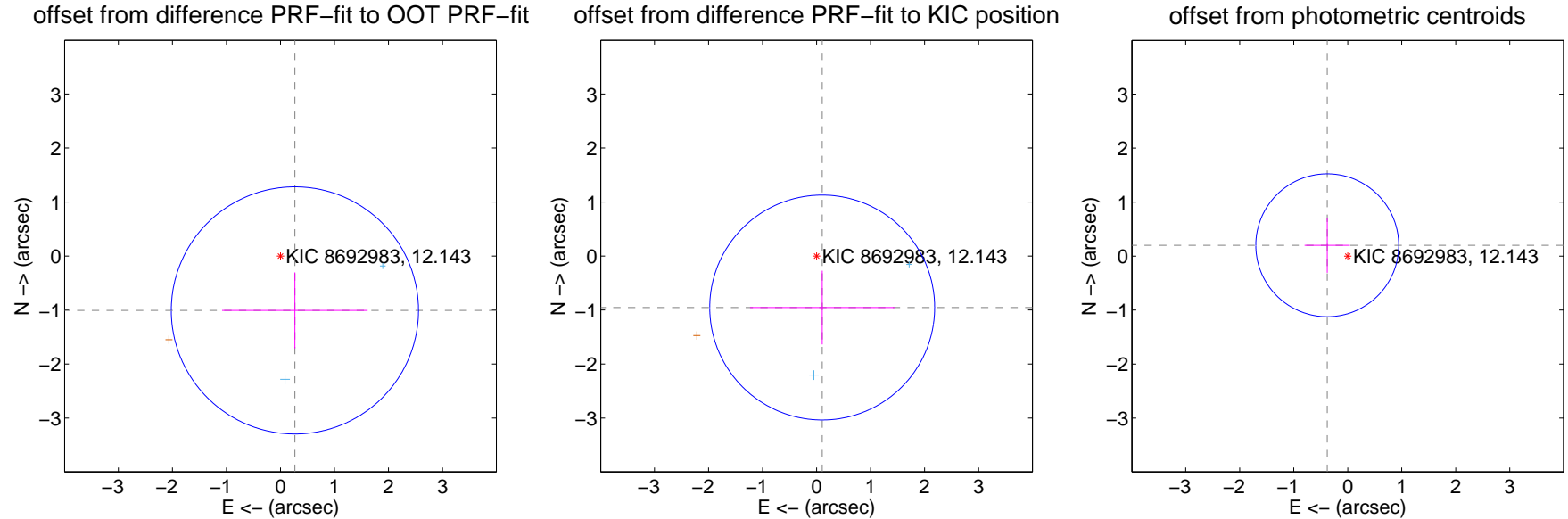
DV Centroid Data

Supplemental centroid analysis for 008692983-02. Kepler magnitude: 12.14. Transit SNR 8.88

There are 2 quarters with good PRF difference image offsets

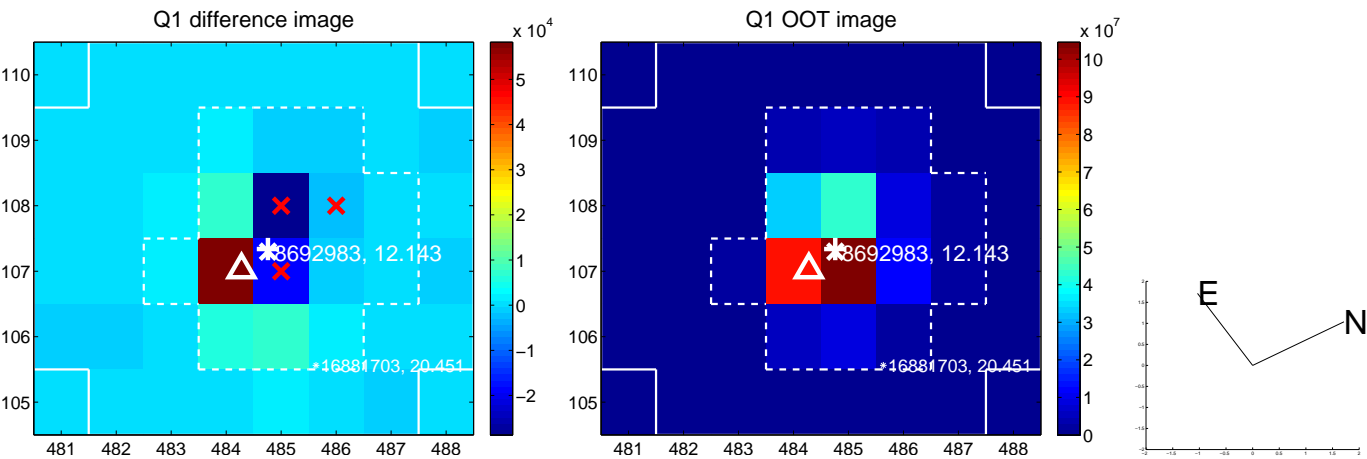
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.042 ± 0.763	1.37	-0.267 ± 1.347	-1.007 ± 0.704
PRF-fit source offset from KIC position	0.959 ± 0.694	1.38	-0.104 ± 1.337	-0.954 ± 0.683
photometric centroid source offset	0.43 ± 0.44	0.97	0.38 ± 0.42	0.20 ± 0.51

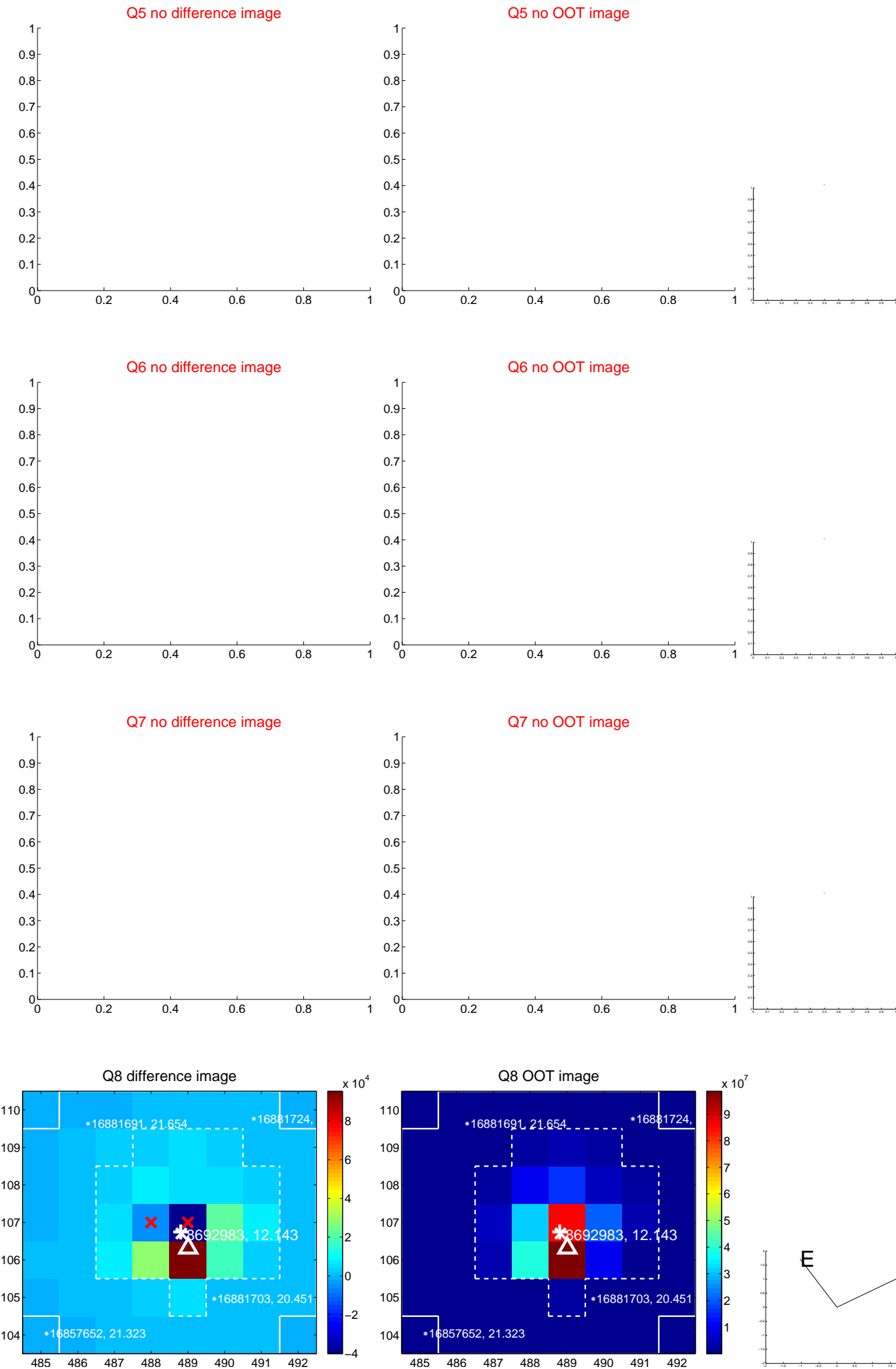


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



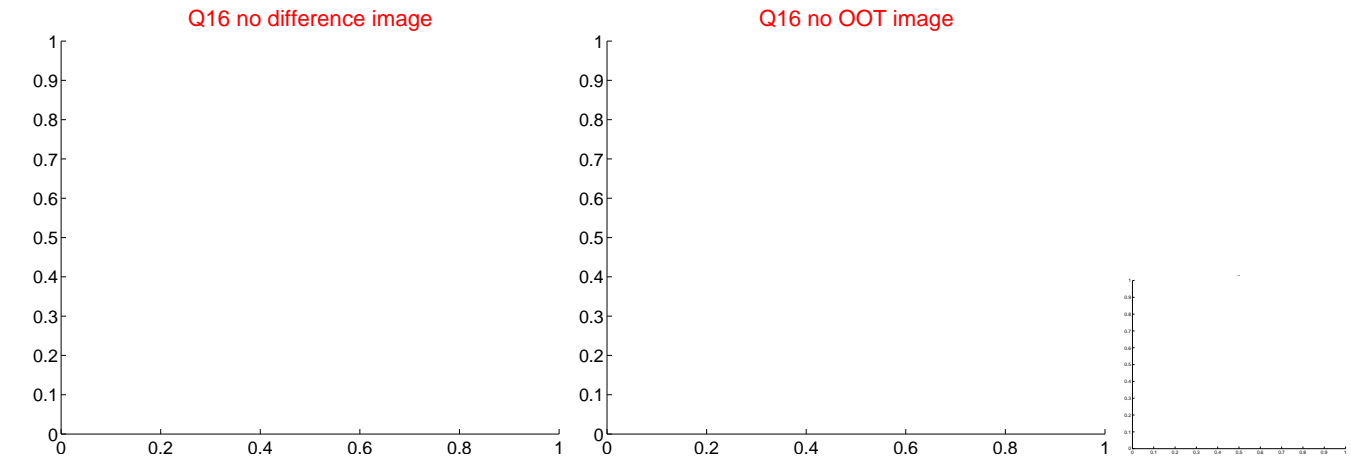
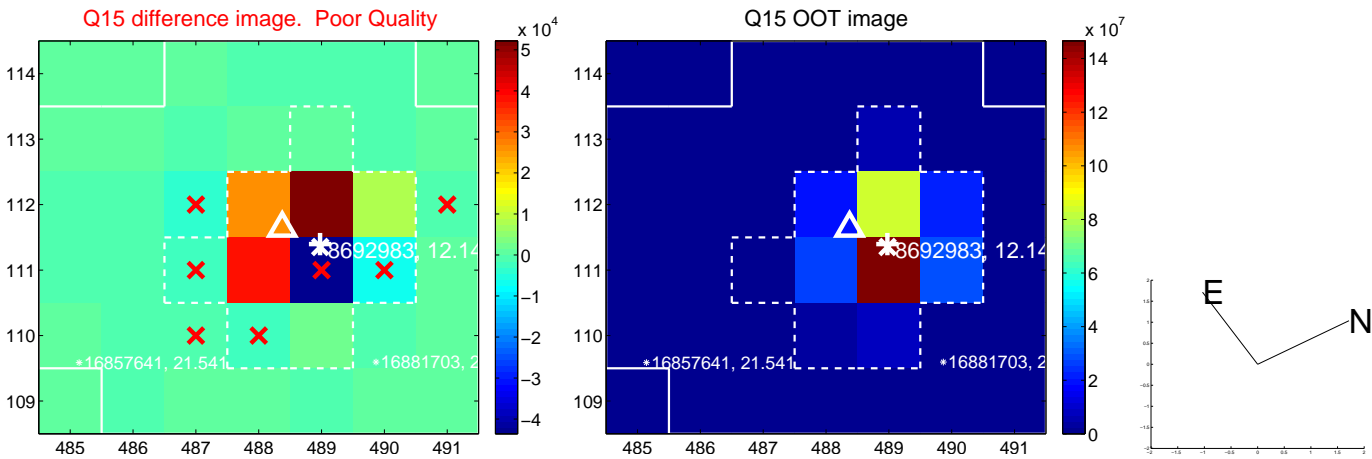
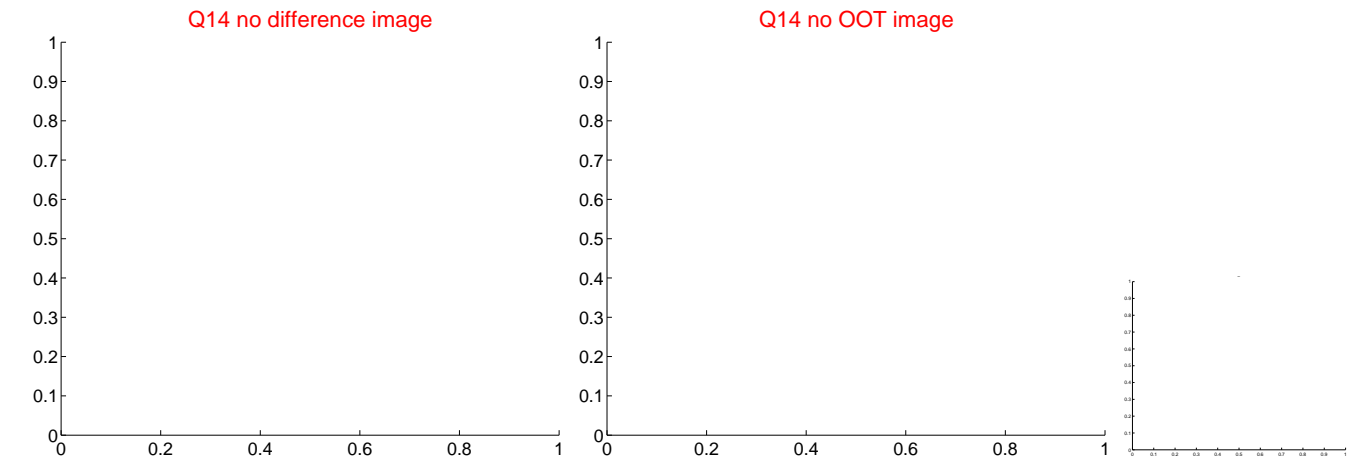
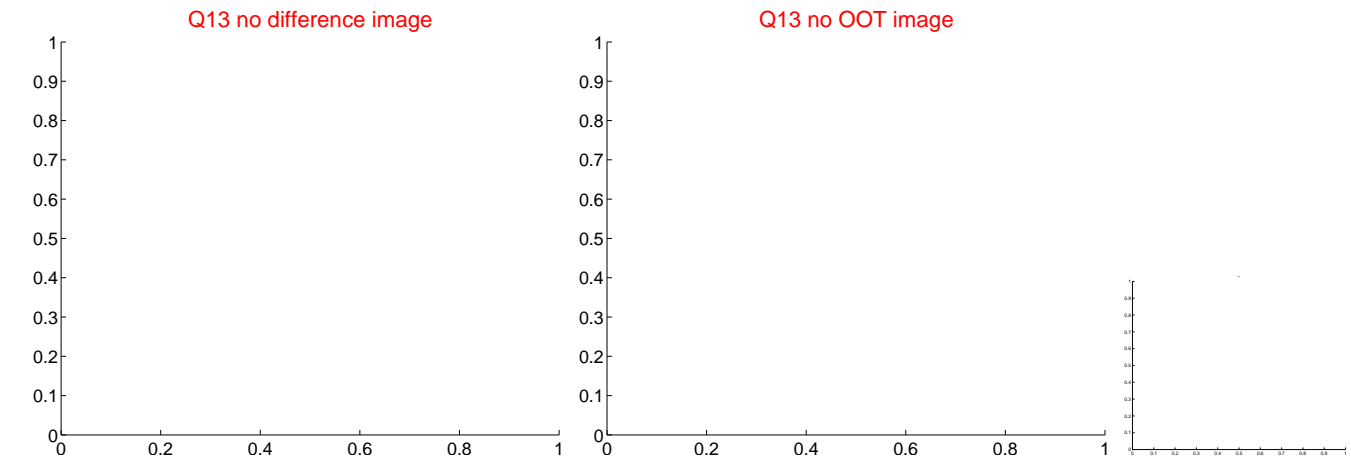
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



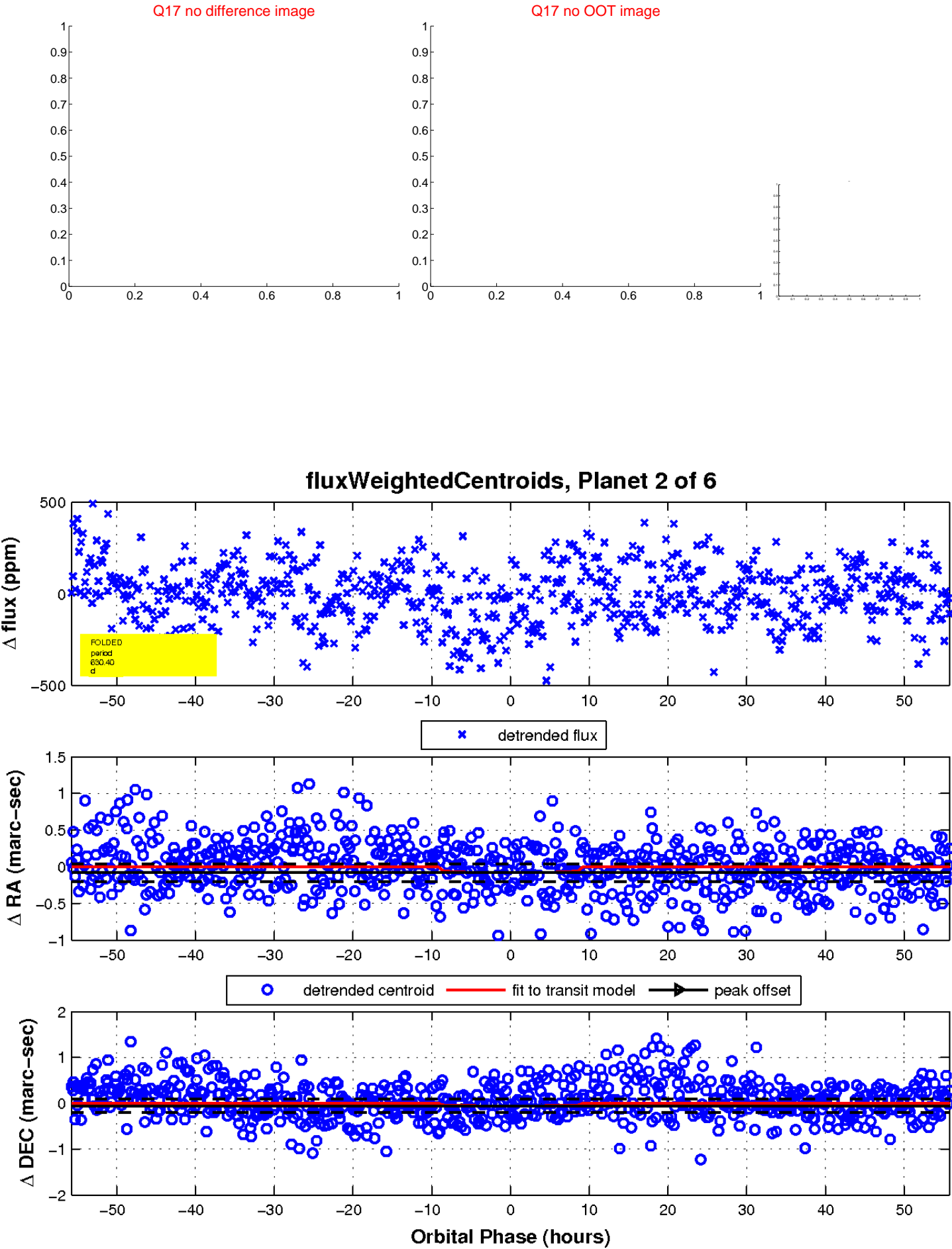
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

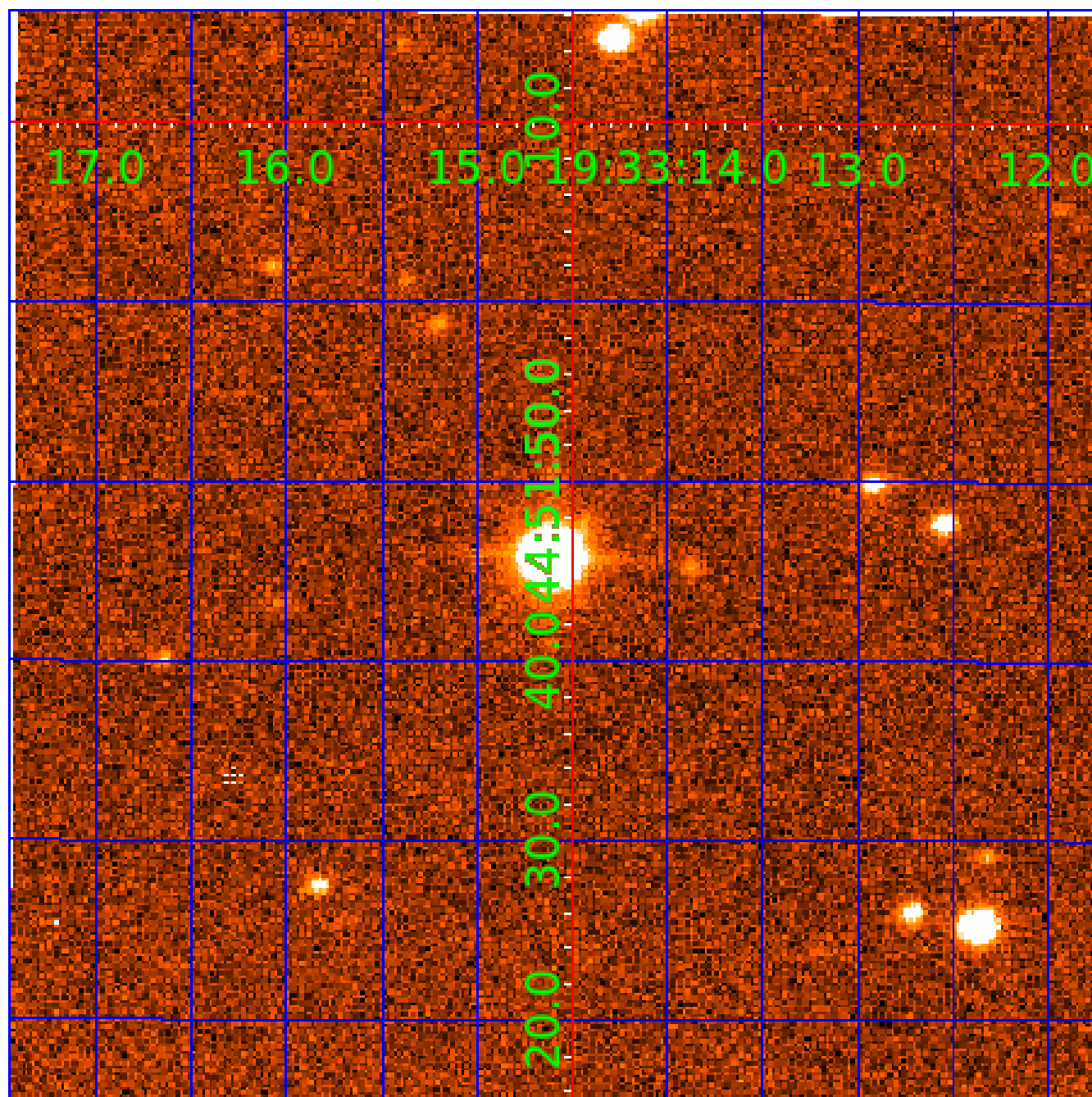


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008692983

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})
008692983-01	OBS	No	2.493485	132.482096	27.5	8.865	10.1	9.0	3.61	7136	2.31	15239.25
008692983-02	OBS	No	630.403607	139.292001	284.6	18.590	12.8	8.9	3.61	7136	6.60	9.53
008692983-03	OBS	No	392.089197	389.414588	230.9	15.175	10.1	5.9	3.61	7136	5.96	17.95
008692983-04	OBS	No	184.774659	188.331750	220.7	6.192	7.8	7.7	3.61	7136	6.64	48.96
008692983-05	OBS	No	303.071579	307.883020	326.2	3.422	7.7	7.9	3.61	7136	7.36	25.31
008692983-06	OBS	No	112.671803	240.046636	140.0	2.000	7.1	-1.0	3.61	7136	4.33	94.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008692983-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008692983-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008692983-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008692983-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

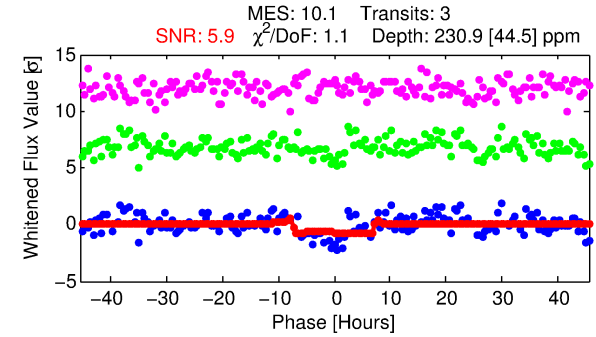
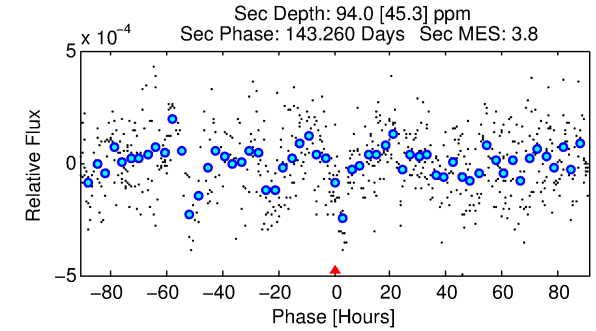
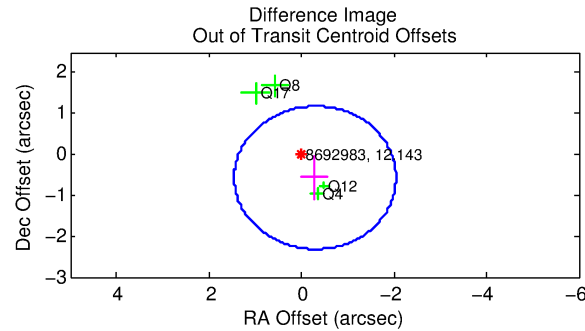
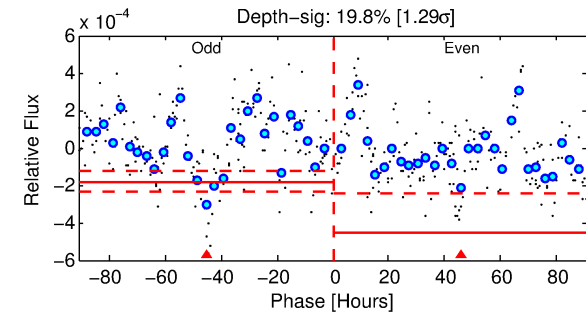
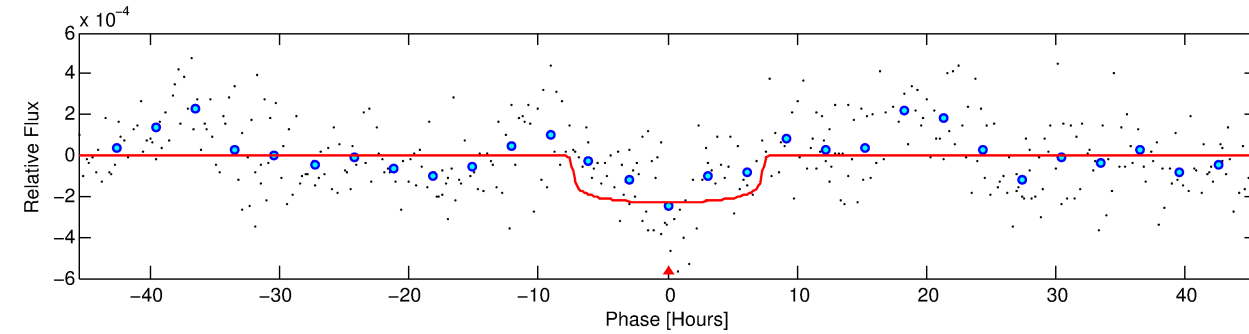
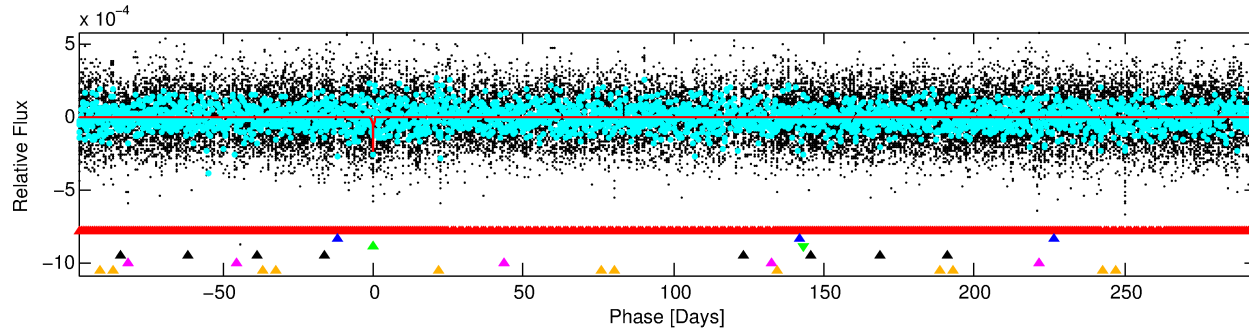
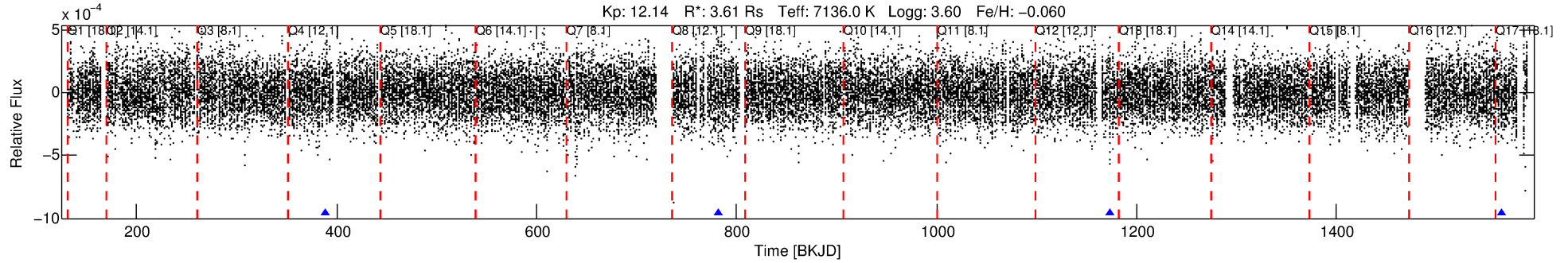
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008692983-03

No Significant Match Found

DV One-Page Summary

KIC: 8692983 Candidate: 3 of 6 Period: 392.089 d



DV Fit Results:

Period = 392.08920 [0.02316] d
Epoch = 389.4146 [0.0485] BKJD
Rp/R* = 0.0151 [0.0043]
a/R* = 134.21 [224.42]
b = 0.75 [0.94]
Seff = 17.96 [9.33]
Teff = 525 [68] K
Rp = 5.96 [2.63] Re
a = 1.3000 [0.4098] AU
Ag = 2457.60 [2208.70] [1.11 σ]
Teffp = 5714 [1092] K [4.74 σ]

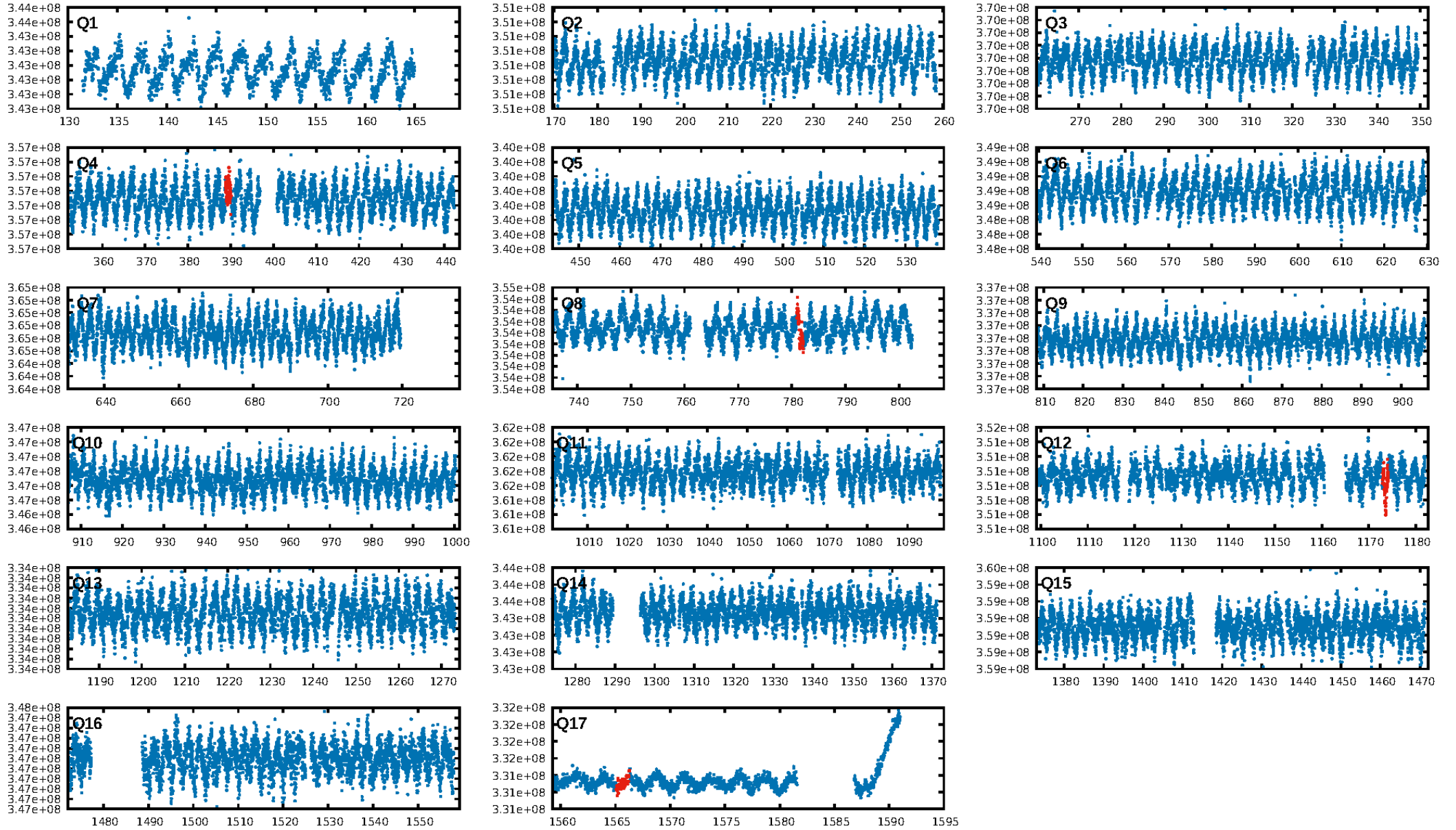
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [137.34 σ]
LongPeriod-sig: 100.0% [238.34 σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1.365
Centroid-sig: 13.3%
Centroid-so: 0.711 arcsec [1.10 σ]
OotOffset-rm: 0.641 arcsec [1.10 σ]
KicOffset-rm: 0.523 arcsec [0.83 σ]
OotOffset-st: 0/0/3/1 [4]
KicOffset-st: 0/0/3/1 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 0.00 [0/4]

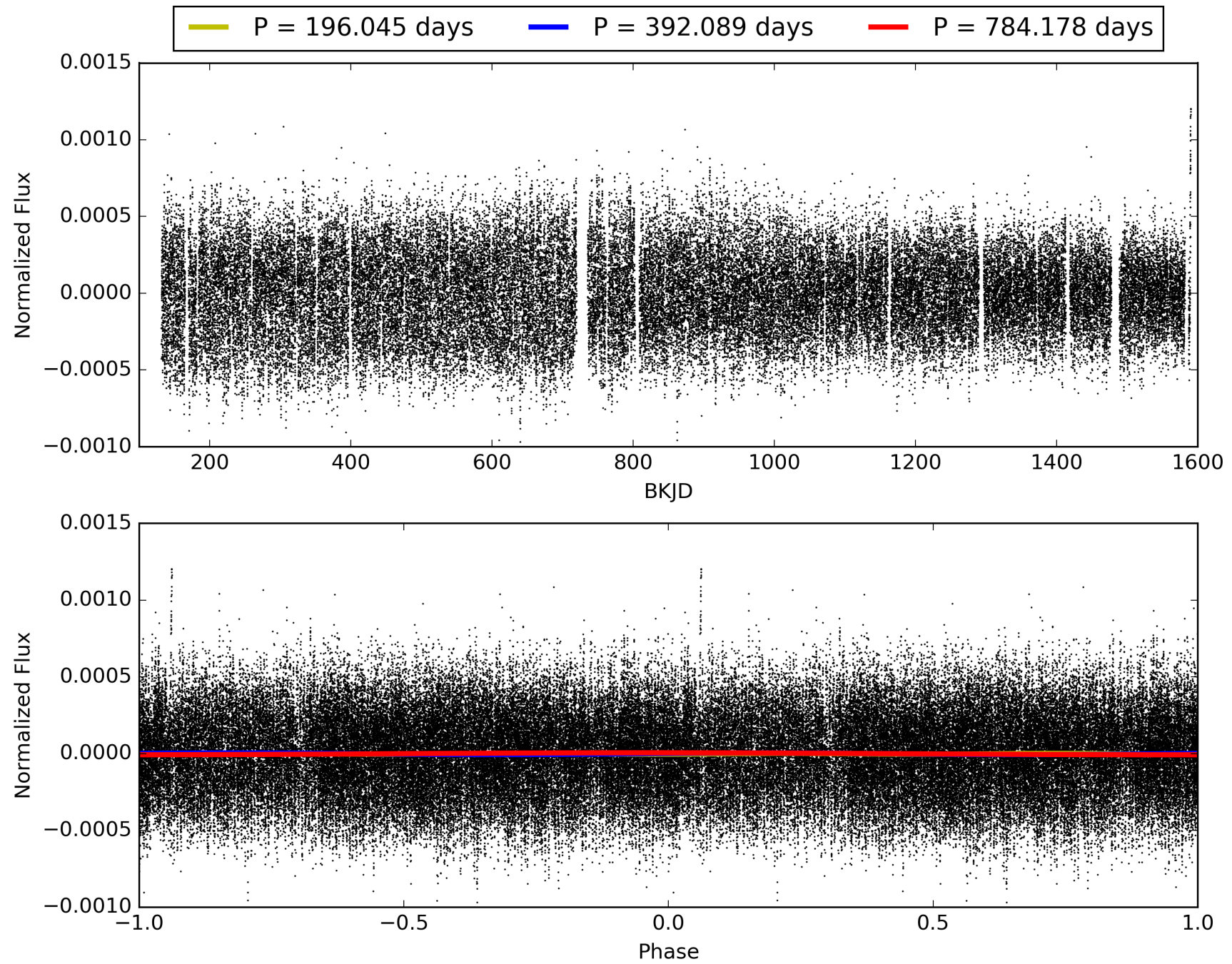
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:25:44 Z

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

TCE 008692983-03, PDC Light Curves

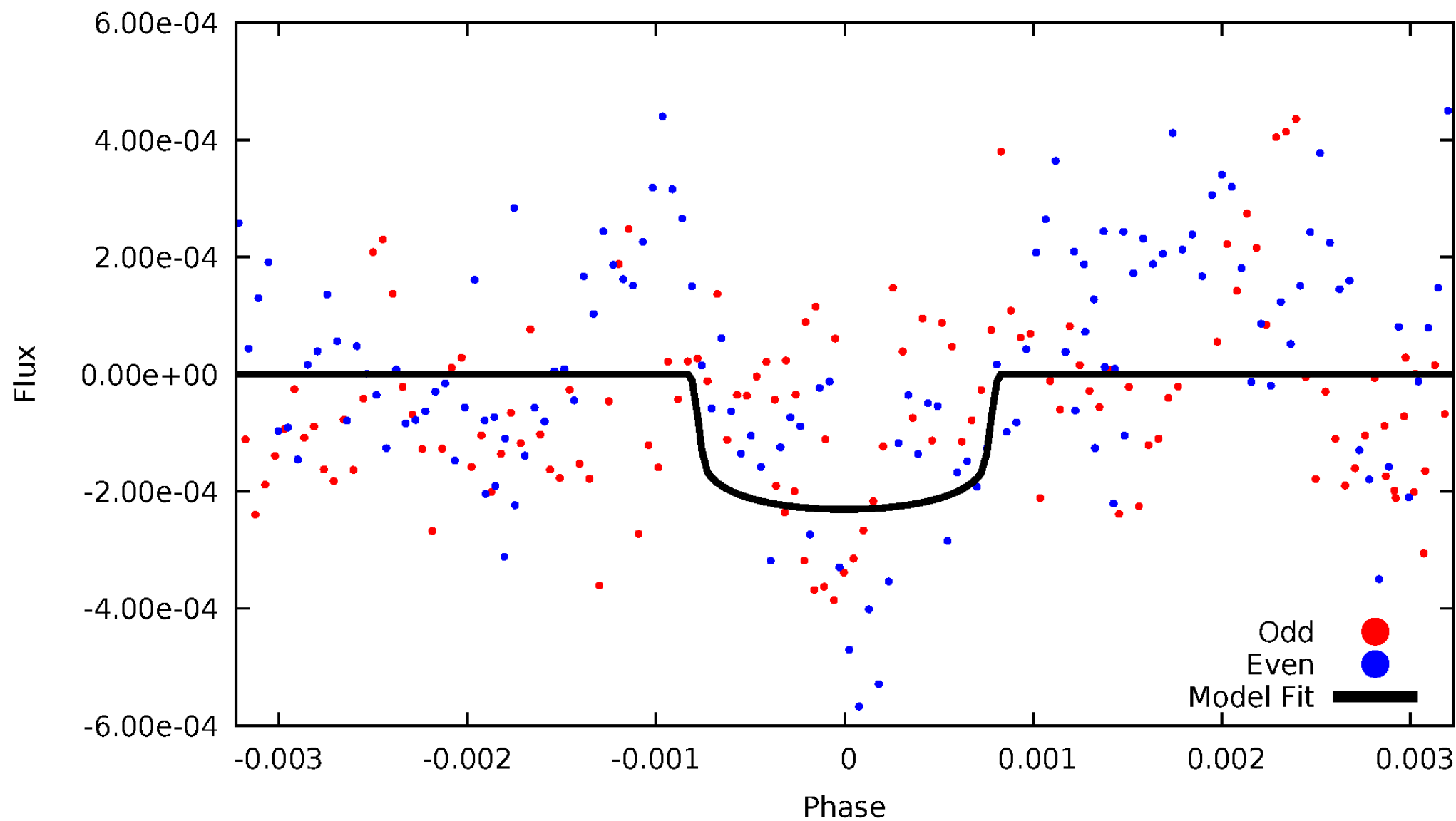


TCE 008692983-03



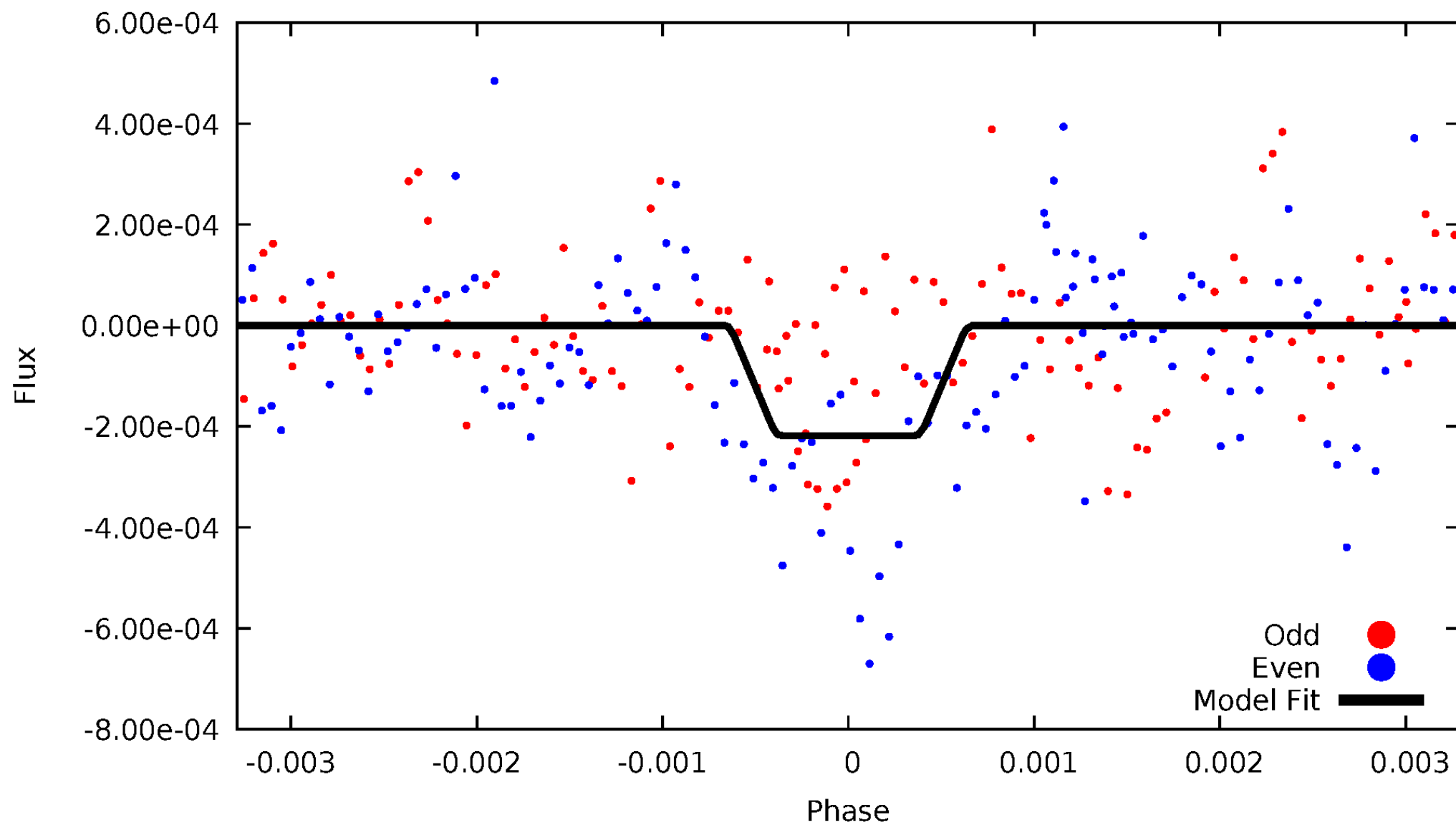
DV Odd/Even

TCE 008692983-03



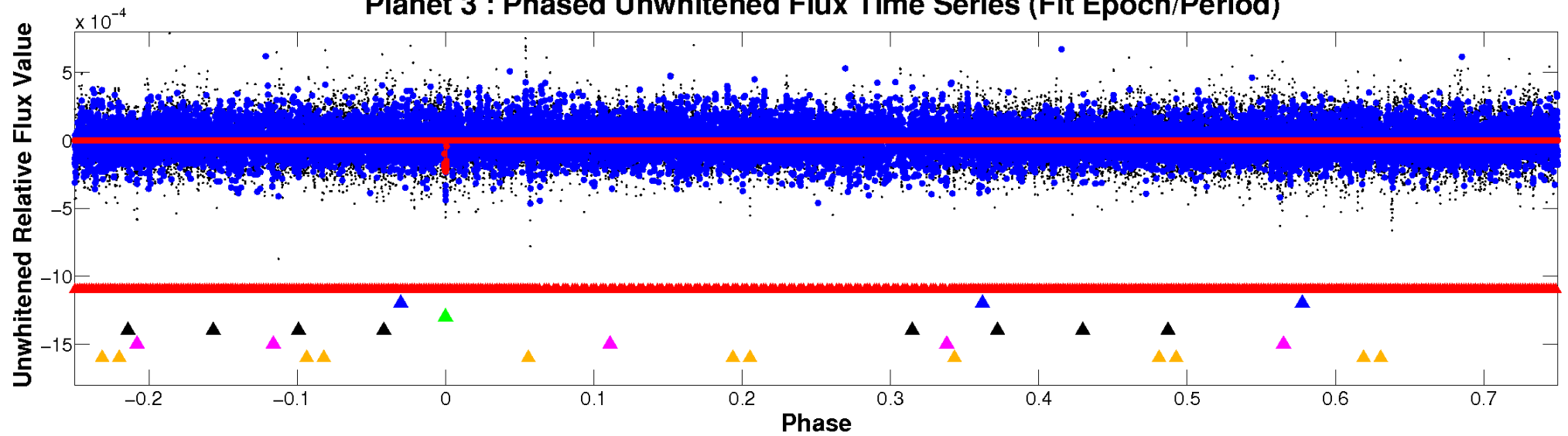
ALT Odd/Even

TCE 008692983-03

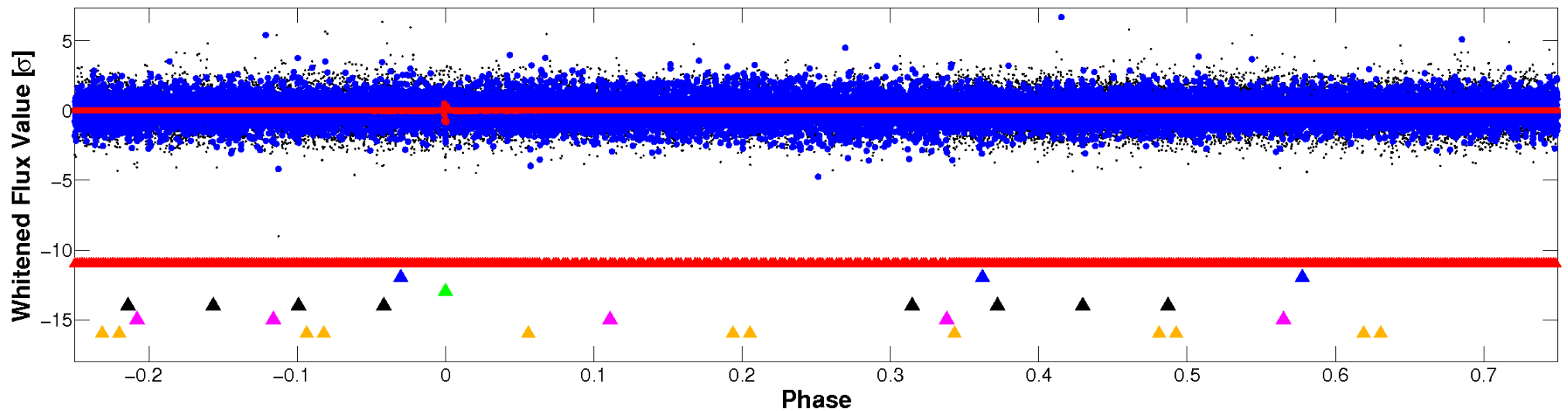


Non-Whitened Vs. Whitened Light Curve

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



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



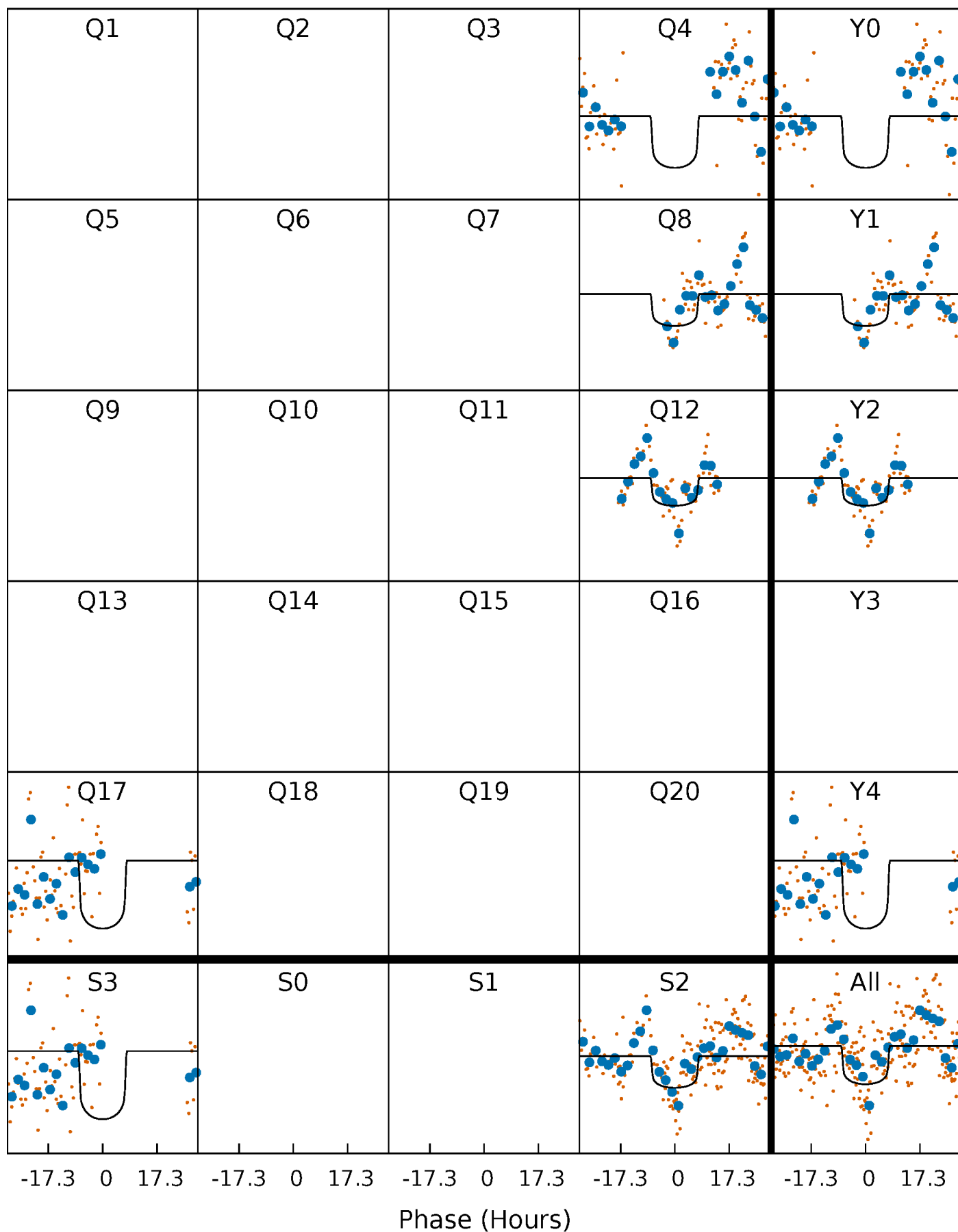
PDC Quarter-Phased Transit Curves

TCE 008692983-03 $P=392.089197$ Days $T_0=389.414588$ (BKJD)



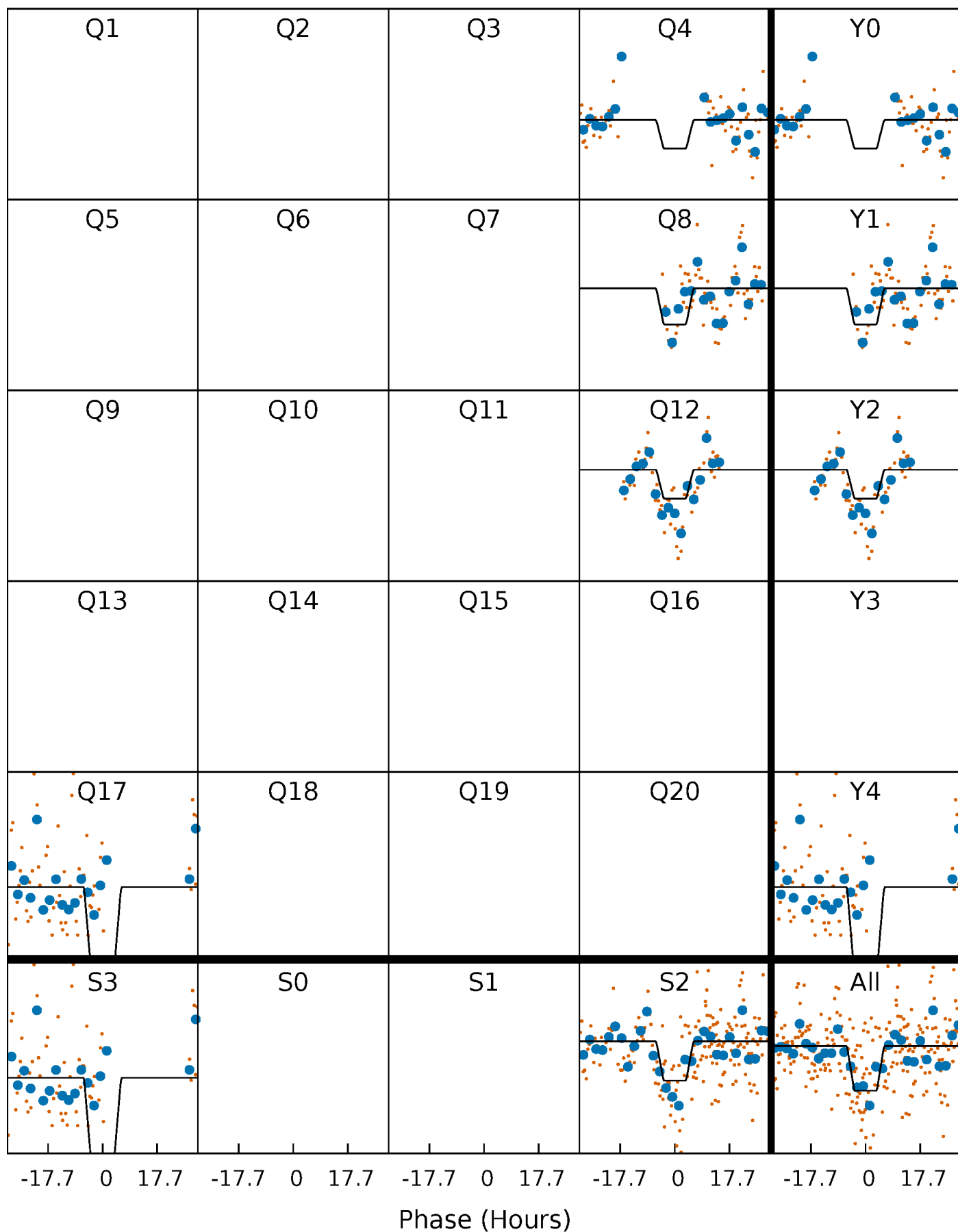
DV Quarter-Phased Transit Curves

TCE 008692983-03 $P=392.089197$ Days $T_0=389.414588$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

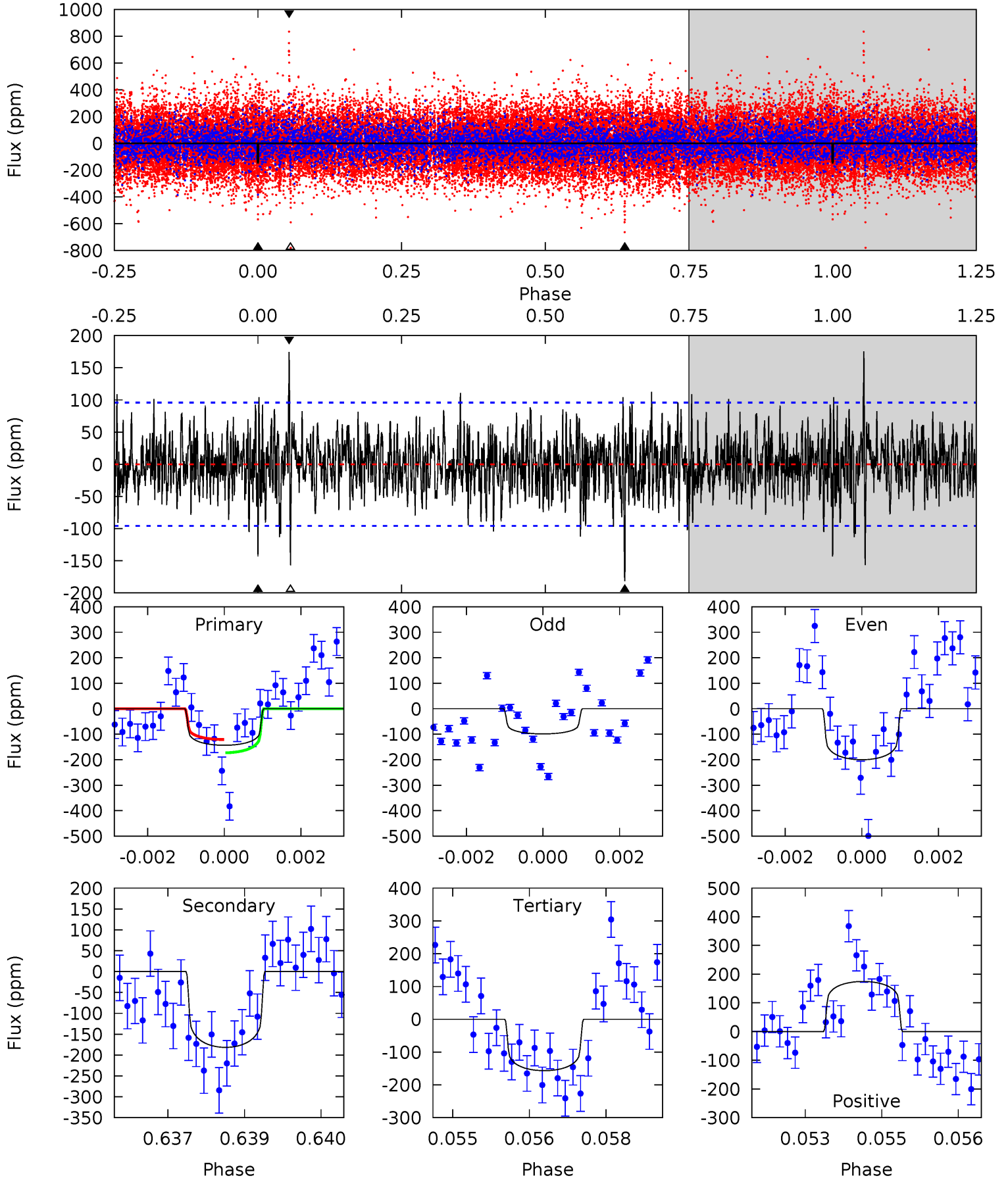
TCE 008692983-03 $P=392.051904$ Days $T_0=389.474315$ (BKJD)



DV Model-Shift Uniqueness Test

008692983-03, P = 392.089197 Days, E = 389.414588 Days

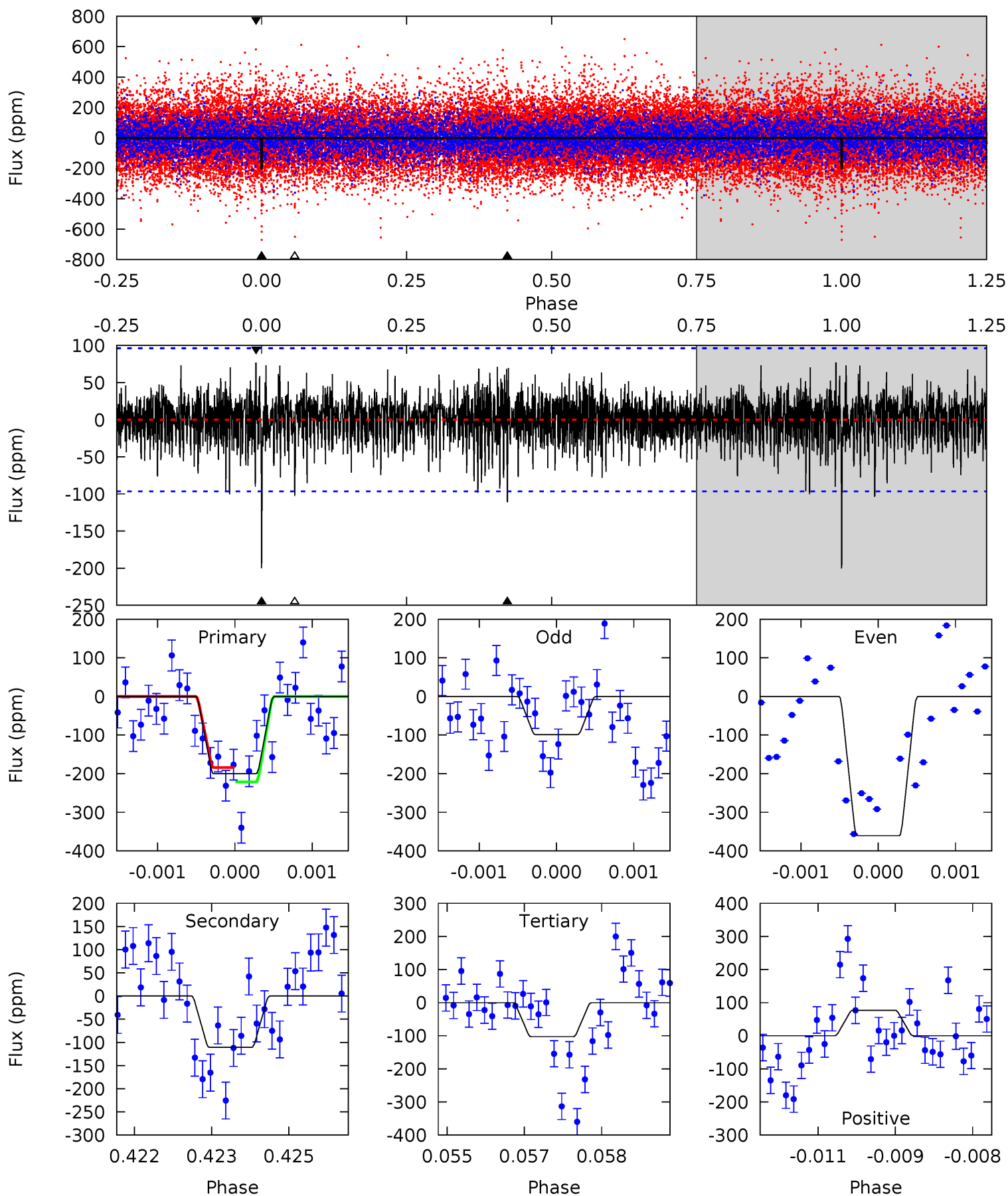
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.02	10.2	8.78	9.77	5.37	3.15	2.00	-0.75	-1.75	1.40	0.40	2.83	0.78	0.49	1.45



Alt Model-Shift Uniqueness Test

008692983-03, P = 392.051904 Days, E = 389.474315 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	6.21	5.76	4.31	5.40	3.21	1.39	5.45	6.90	0.45	1.90	7.25	1.20	0.28	1.04



Stellar Parameters For KIC 008692983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7136^{+197}_{-272}	$3.602^{+0.289}_{-0.051}$	$-0.060^{+0.250}_{-0.250}$	$3.614^{+0.303}_{-1.214}$	$1.906^{+0.167}_{-0.310}$	$0.057^{+0.111}_{-0.010}$
	+3%/-4%	+8%/-1%	+417%/-417%	+8%/-34%	+9%/-16%	+196%/-17%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008692983-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-182 ± 18	$5.64^{+1.72}_{-1.86}$	713^{+35}_{-55}	6695^{+1438}_{-873}	5297^{+6799}_{-2210}
Alt.	-111 ± 18	$5.40^{+1.84}_{-1.68}$	716^{+37}_{-62}	5914^{+1212}_{-663}	3399^{+4066}_{-1390}

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

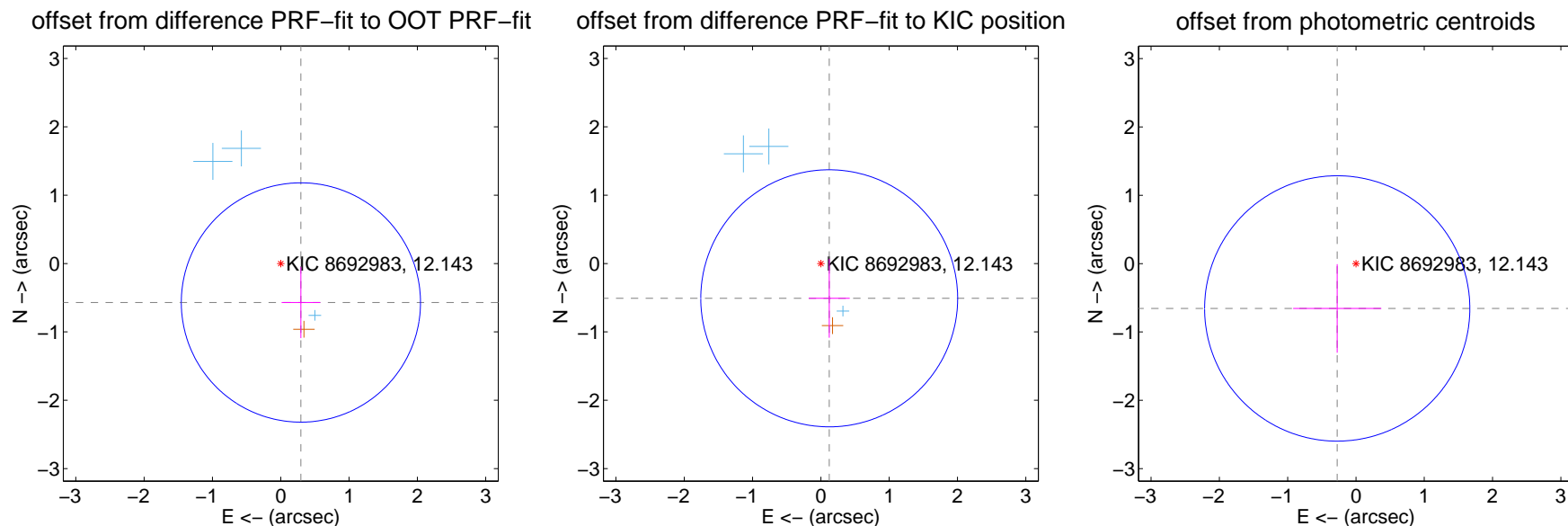
DV Centroid Data

Supplemental centroid analysis for 008692983-03. Kepler magnitude: 12.14. Transit SNR 5.94

There are 3 quarters with good PRF difference image offsets

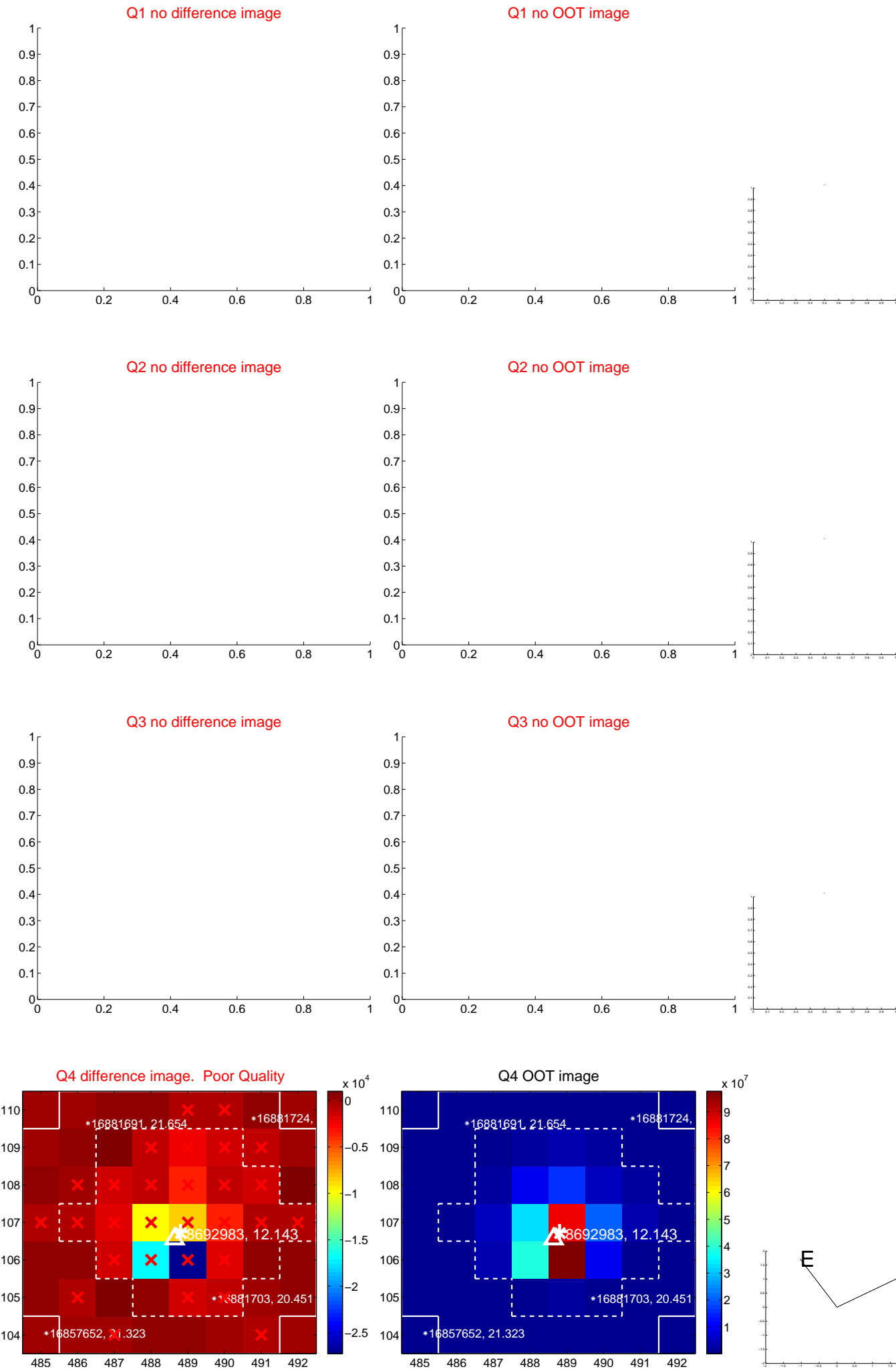
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.641 ± 0.583	1.10	-0.295 ± 0.282	-0.570 ± 0.521
PRF-fit source offset from KIC position	0.523 ± 0.627	0.83	-0.122 ± 0.300	-0.509 ± 0.577
photometric centroid source offset	0.71 ± 0.65	1.10	0.27 ± 0.65	-0.66 ± 0.65

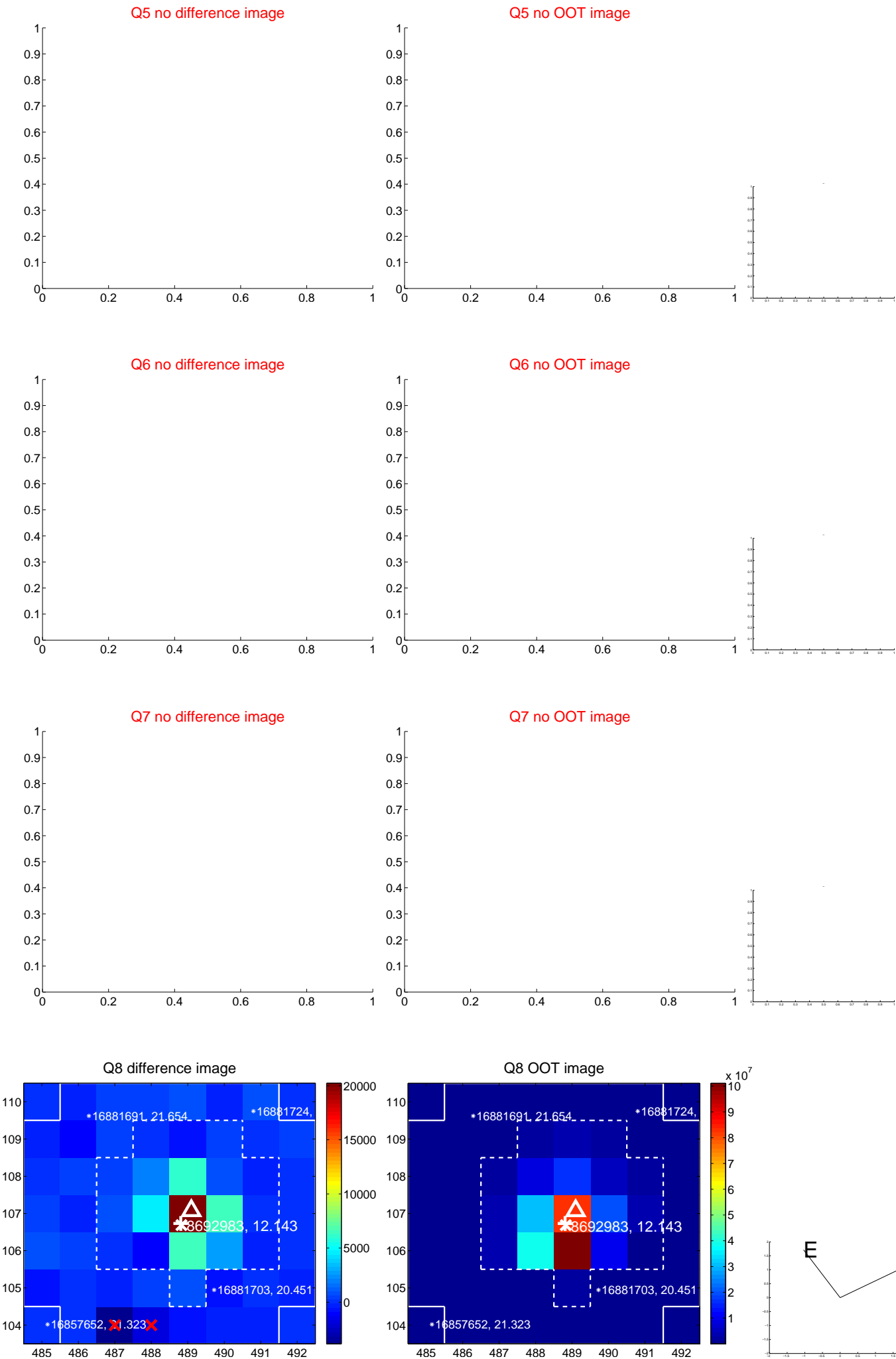


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

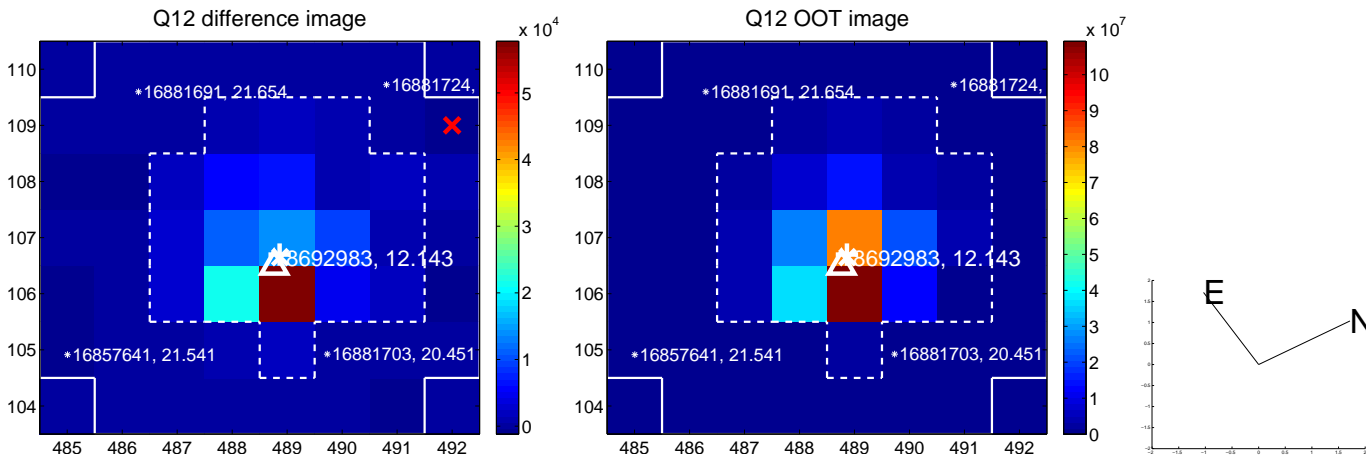
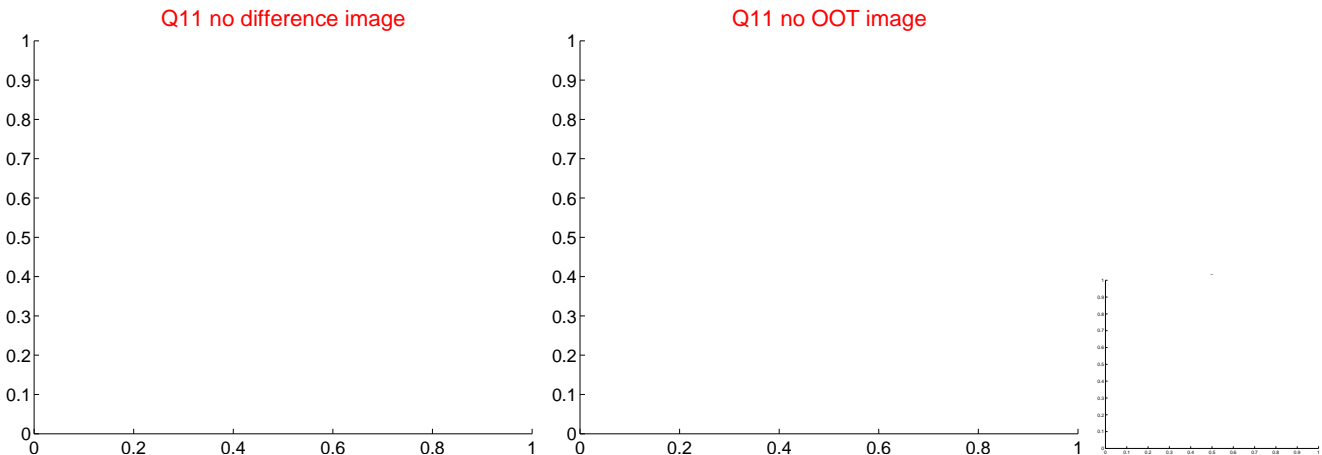
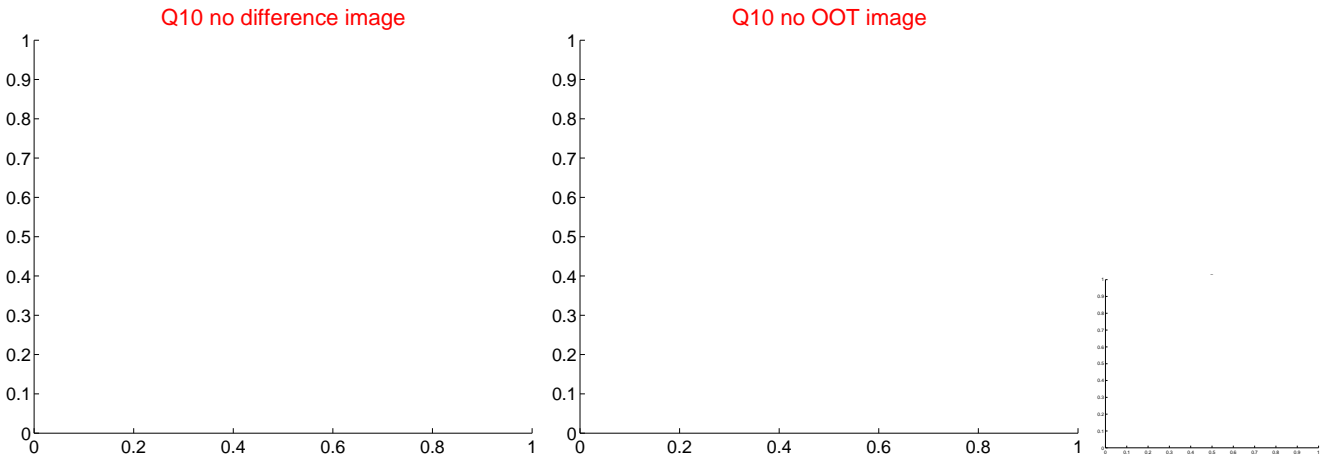
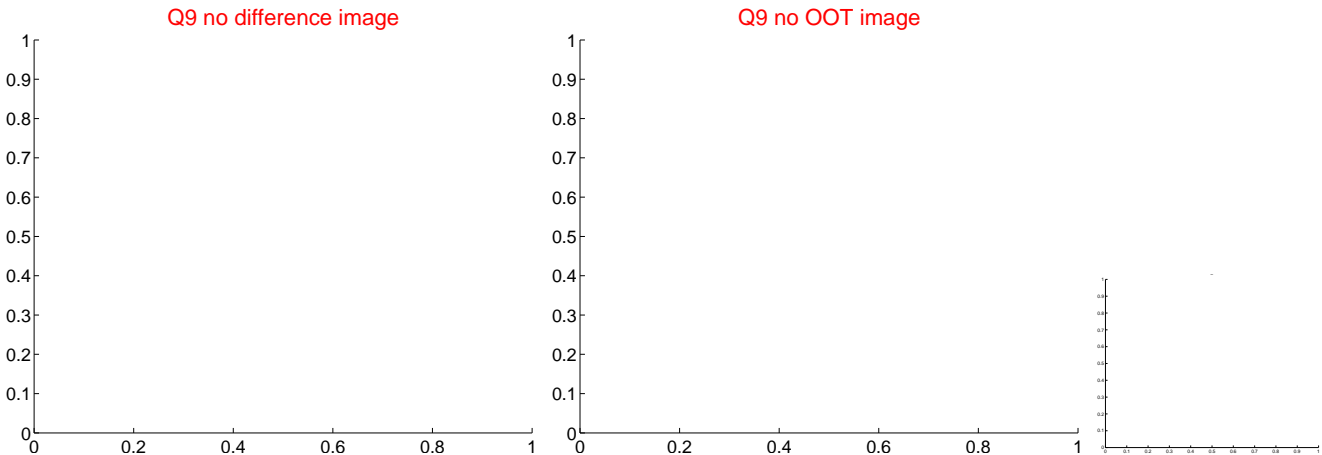
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



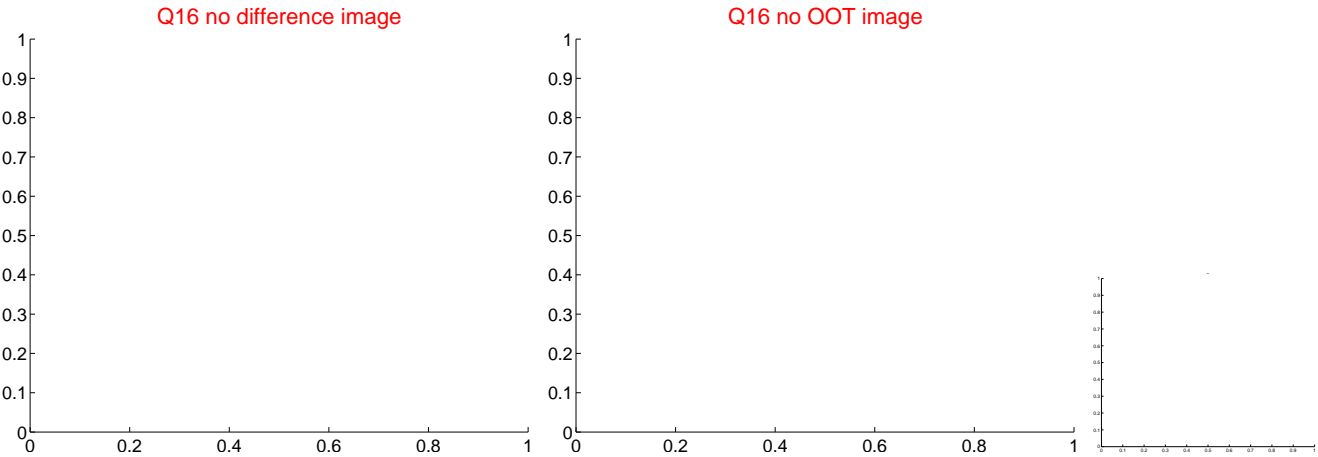
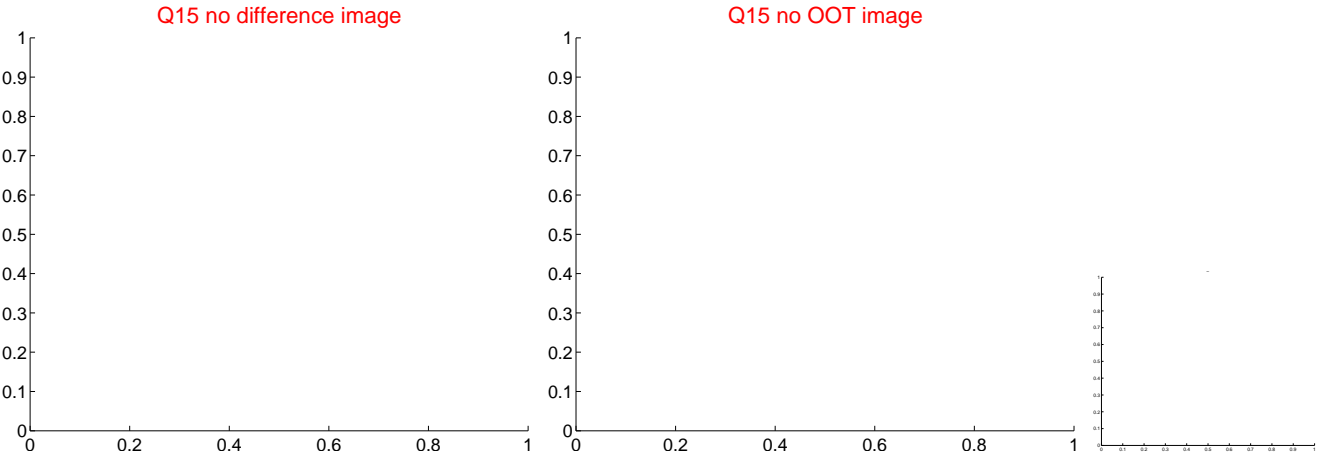
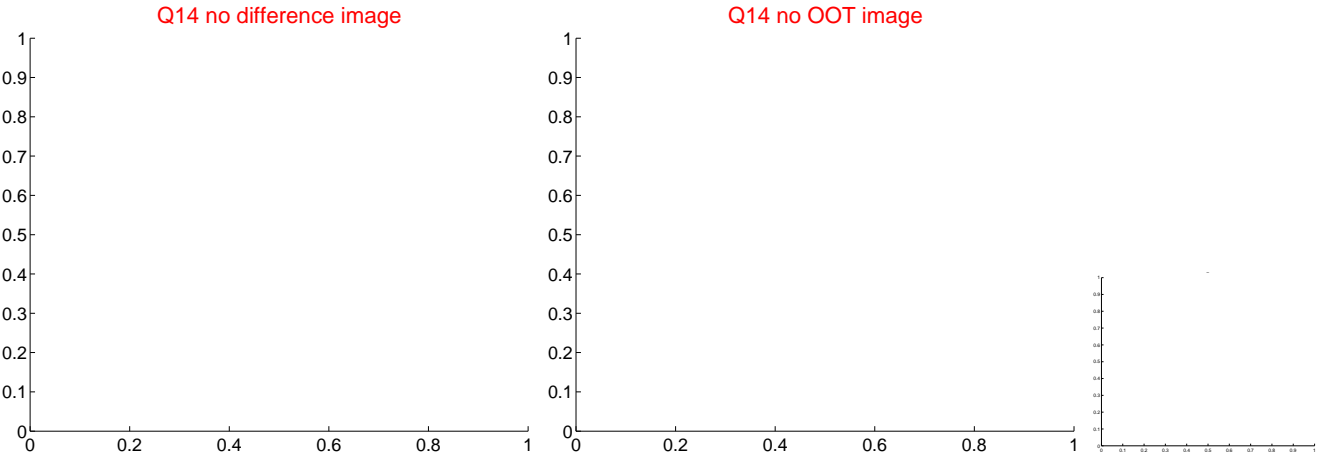
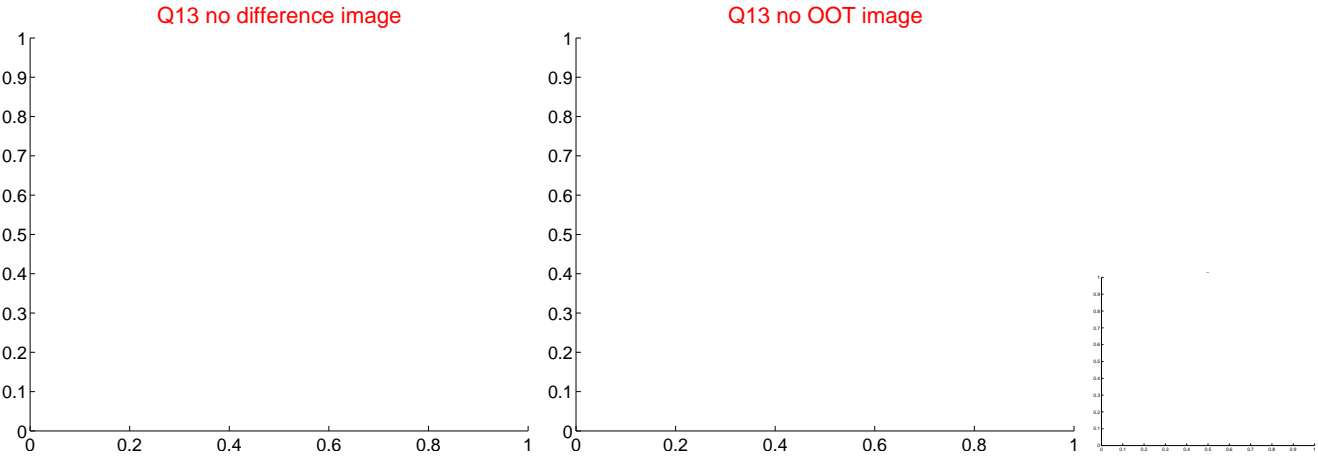
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



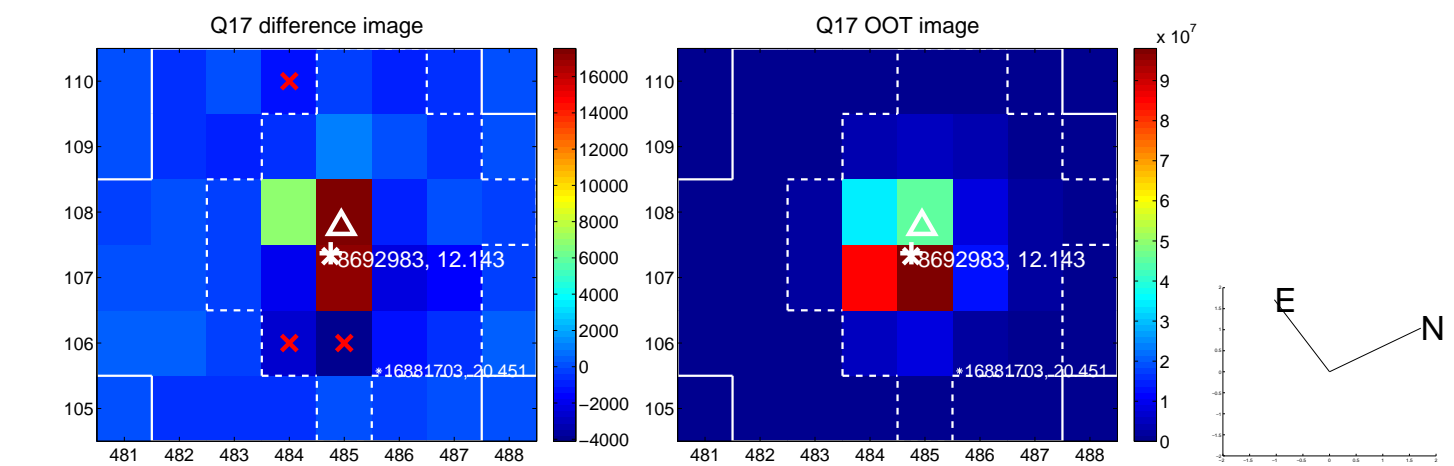
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



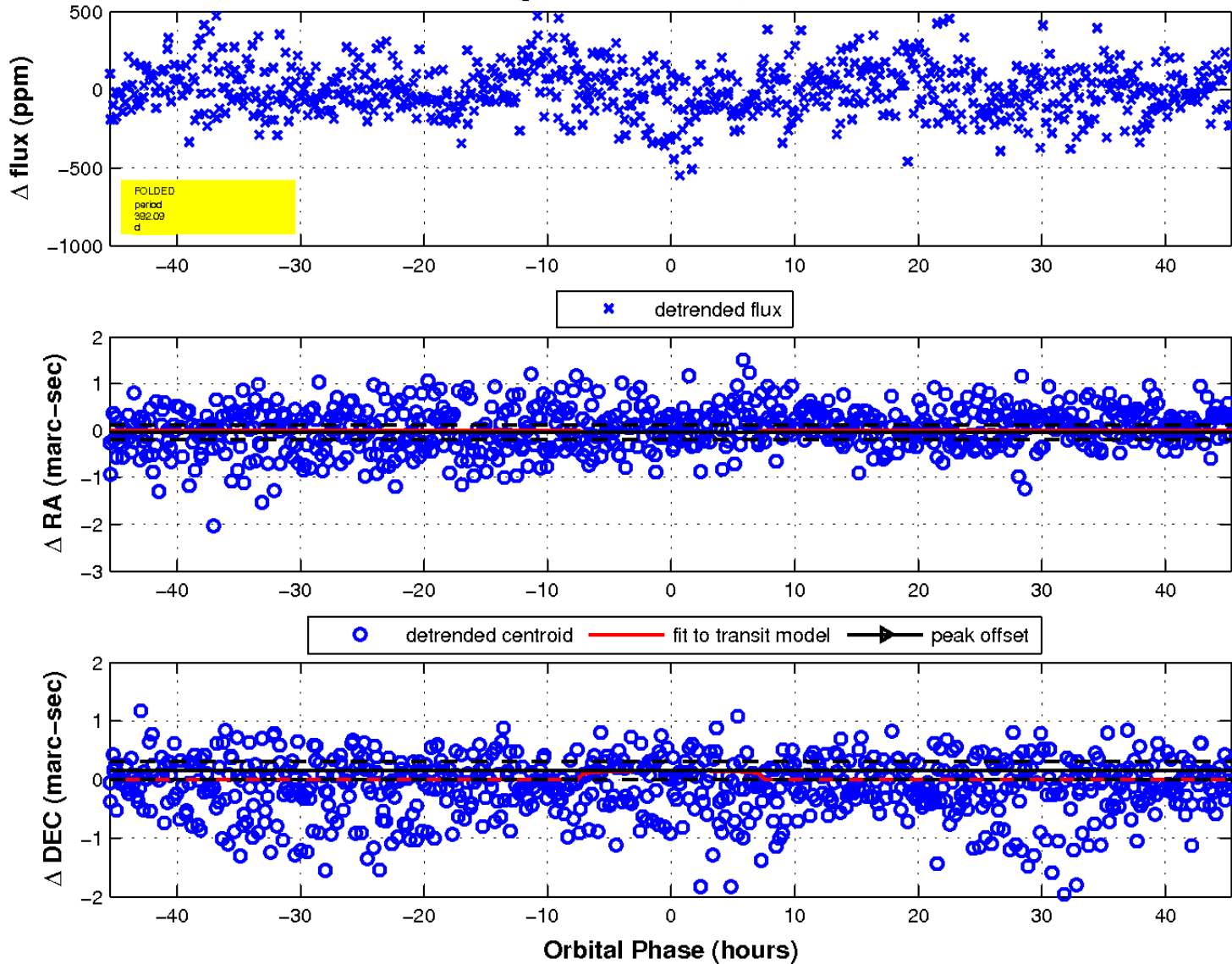
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

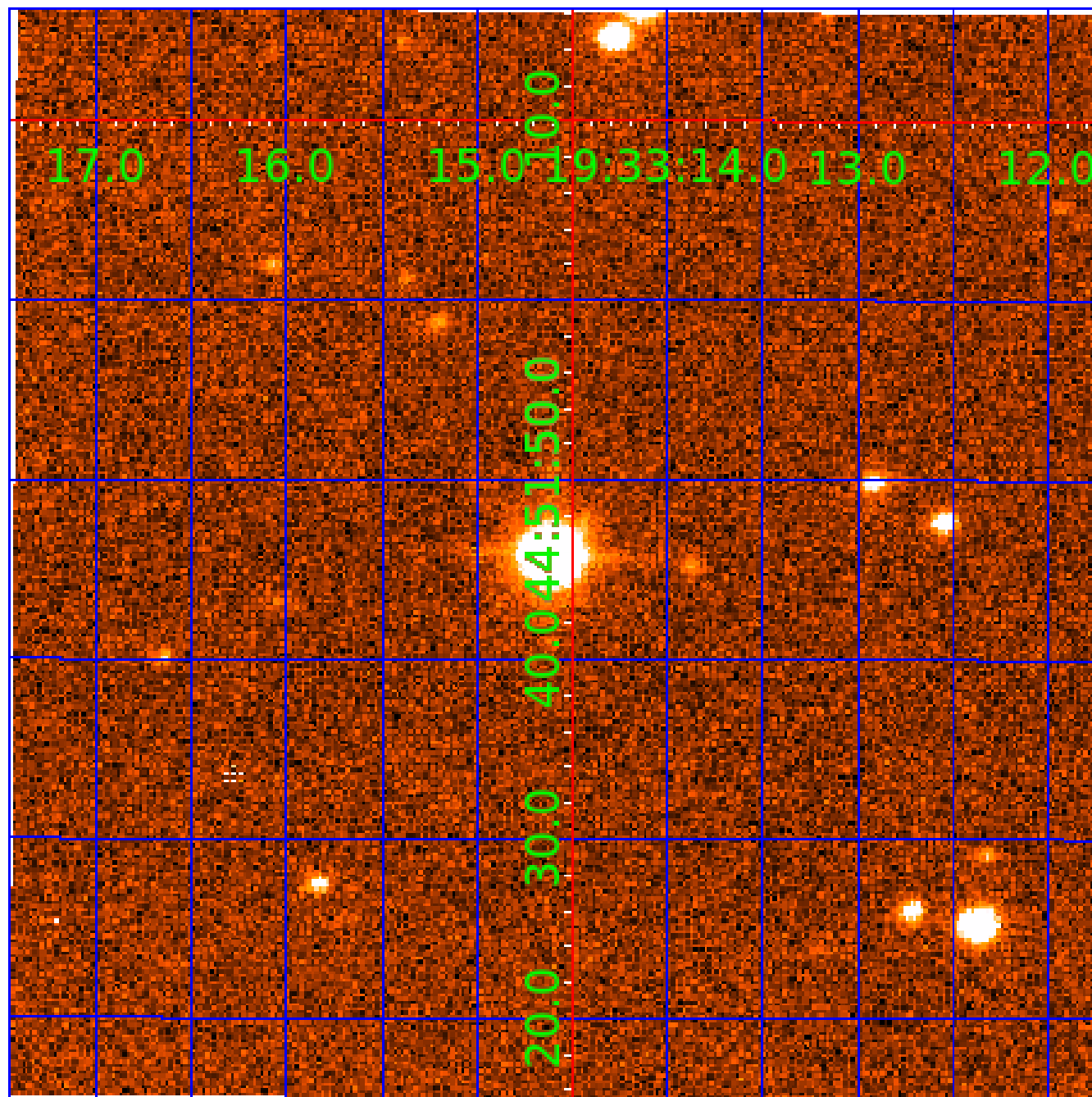


fluxWeightedCentroids, Planet 3 of 6



UKIRT Image

Declination



KIC 008692983

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})
008692983-01	OBS	No	2.493485	132.482096	27.5	8.865	10.1	9.0	3.61	7136	2.31	15239.25
008692983-02	OBS	No	630.403607	139.292001	284.6	18.590	12.8	8.9	3.61	7136	6.60	9.53
008692983-03	OBS	No	392.089197	389.414588	230.9	15.175	10.1	5.9	3.61	7136	5.96	17.95
008692983-04	OBS	No	184.774659	188.331750	220.7	6.192	7.8	7.7	3.61	7136	6.64	48.96
008692983-05	OBS	No	303.071579	307.883020	326.2	3.422	7.7	7.9	3.61	7136	7.36	25.31
008692983-06	OBS	No	112.671803	240.046636	140.0	2.000	7.1	-1.0	3.61	7136	4.33	94.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008692983-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008692983-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008692983-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008692983-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

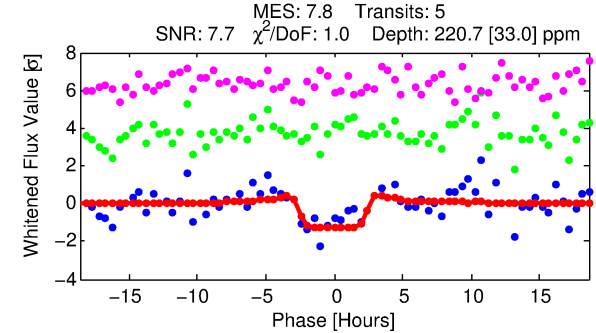
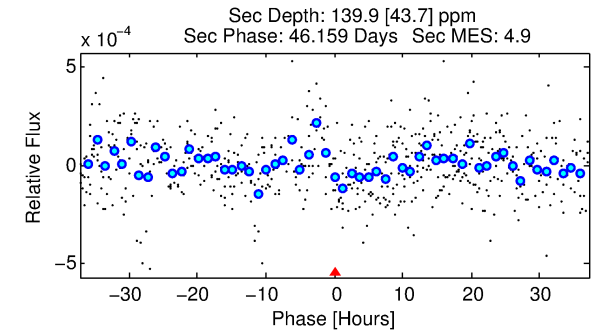
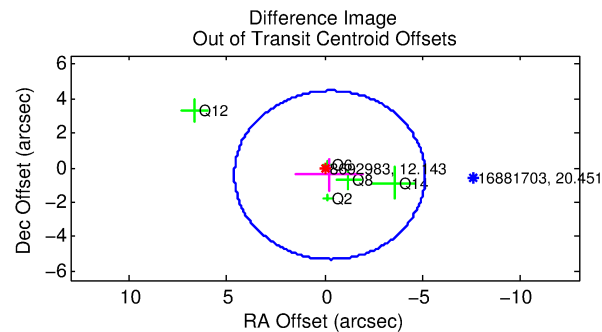
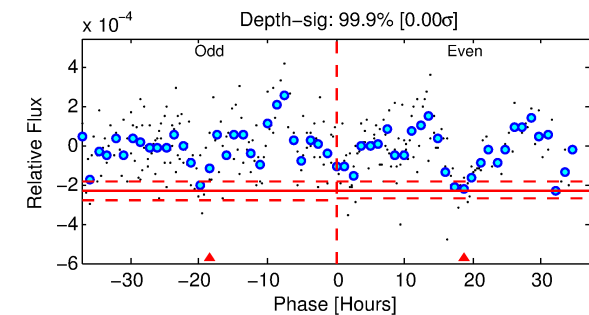
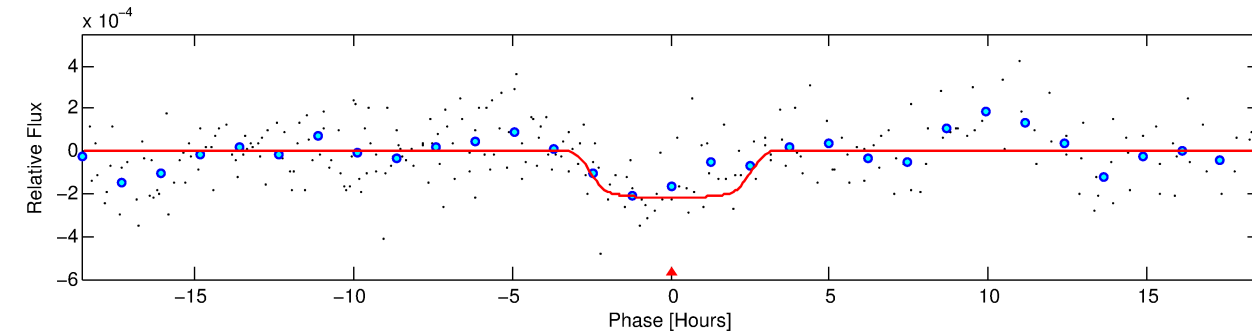
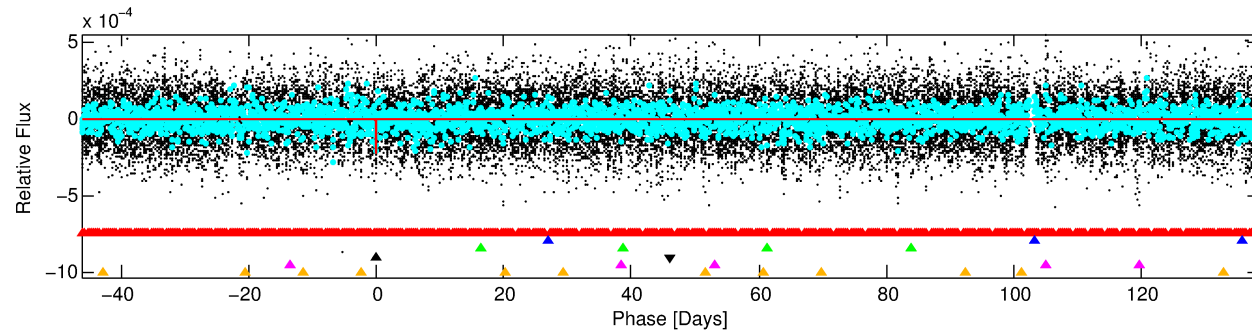
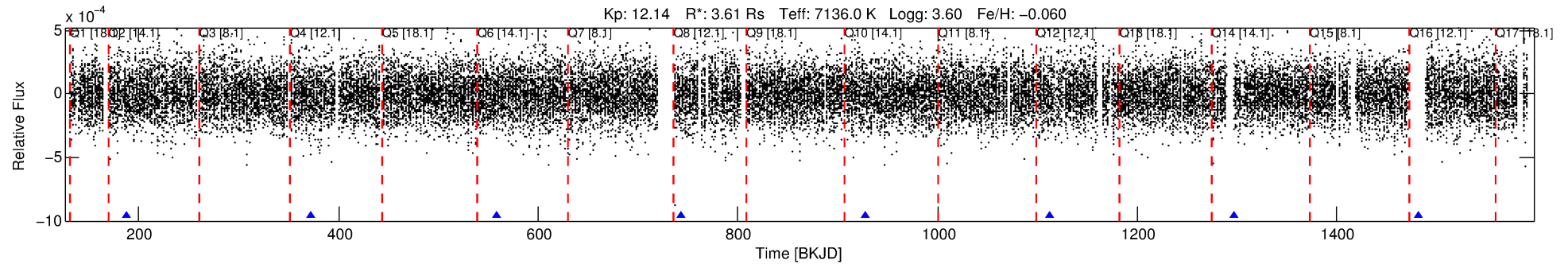
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008692983-04

No Significant Match Found

DV One-Page Summary

KIC: 8692983 Candidate: 4 of 6 Period: 184.775 d



DV Fit Results:

Period = 184.77466 [0.00622] d
Epoch = 188.3318 [0.0139] BKJD
Rp/R* = 0.0168 [0.0017]
a/R* = 77.54 [27.62]
b = 0.96 [0.03]
Seff = 48.96 [25.45]
Teq = 675 [88] K
Rp = 6.64 [2.33] Re
a = 0.7873 [0.2481] AU
Ag = 1081.19 [671.25] [1.61σ]
Teffp = 5980 [601] K [8.73σ]

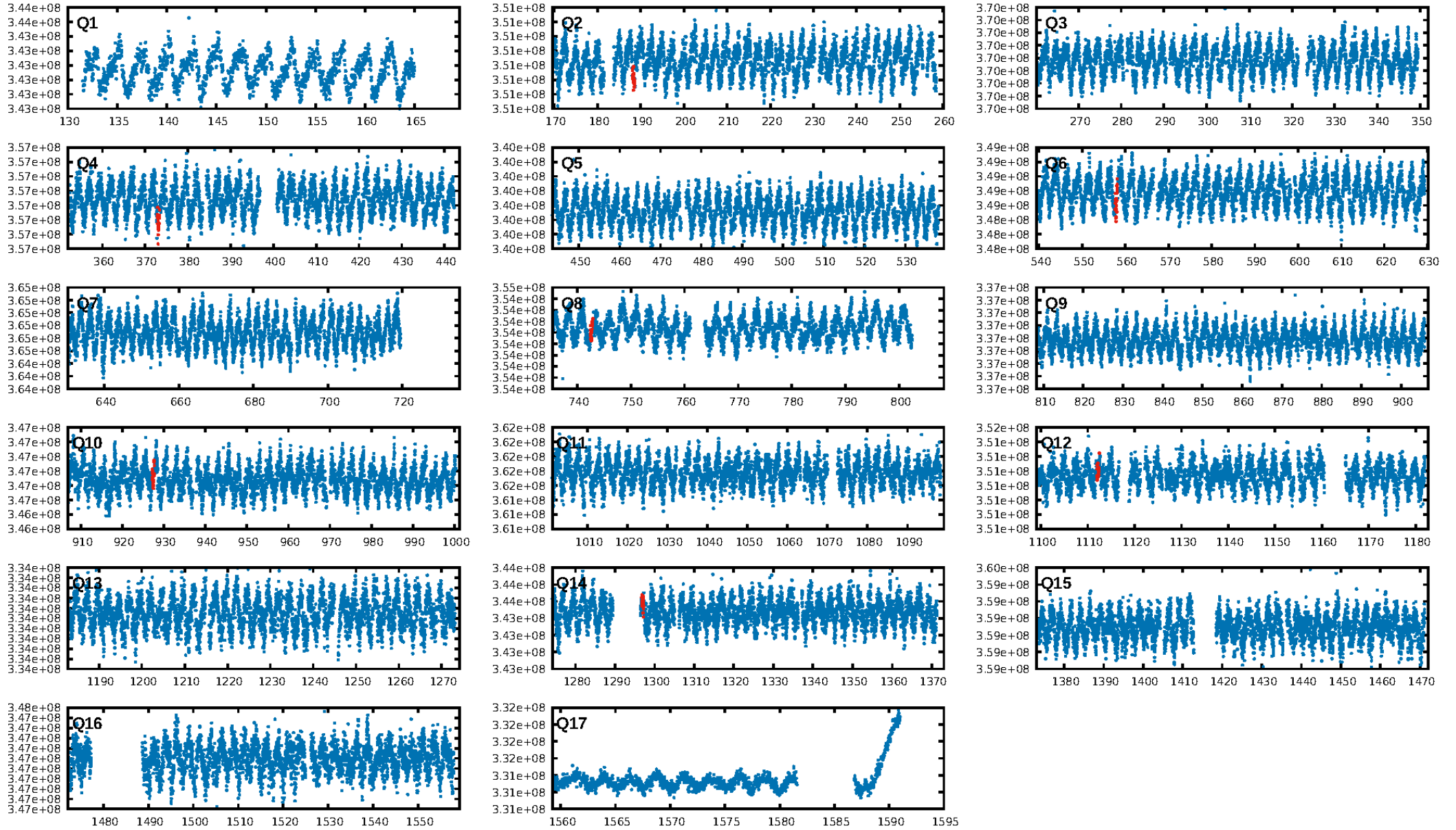
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [265.95σ]
LongPeriod-sig: 100.0% [401.33σ]
ModelChiSquare2-sig: 22.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.5262
Centroid-sig: 13.0%
Centroid-so: 0.770 arcsec [1.29σ]
OotOffset-rm: 0.505 arcsec [0.31σ]
OotOffset-st: 3/0/2/0 [5]
KicOffset-rm: 0.357 arcsec [0.38σ]
KicOffset-st: 3/0/2/0 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 0.50 [3/6]

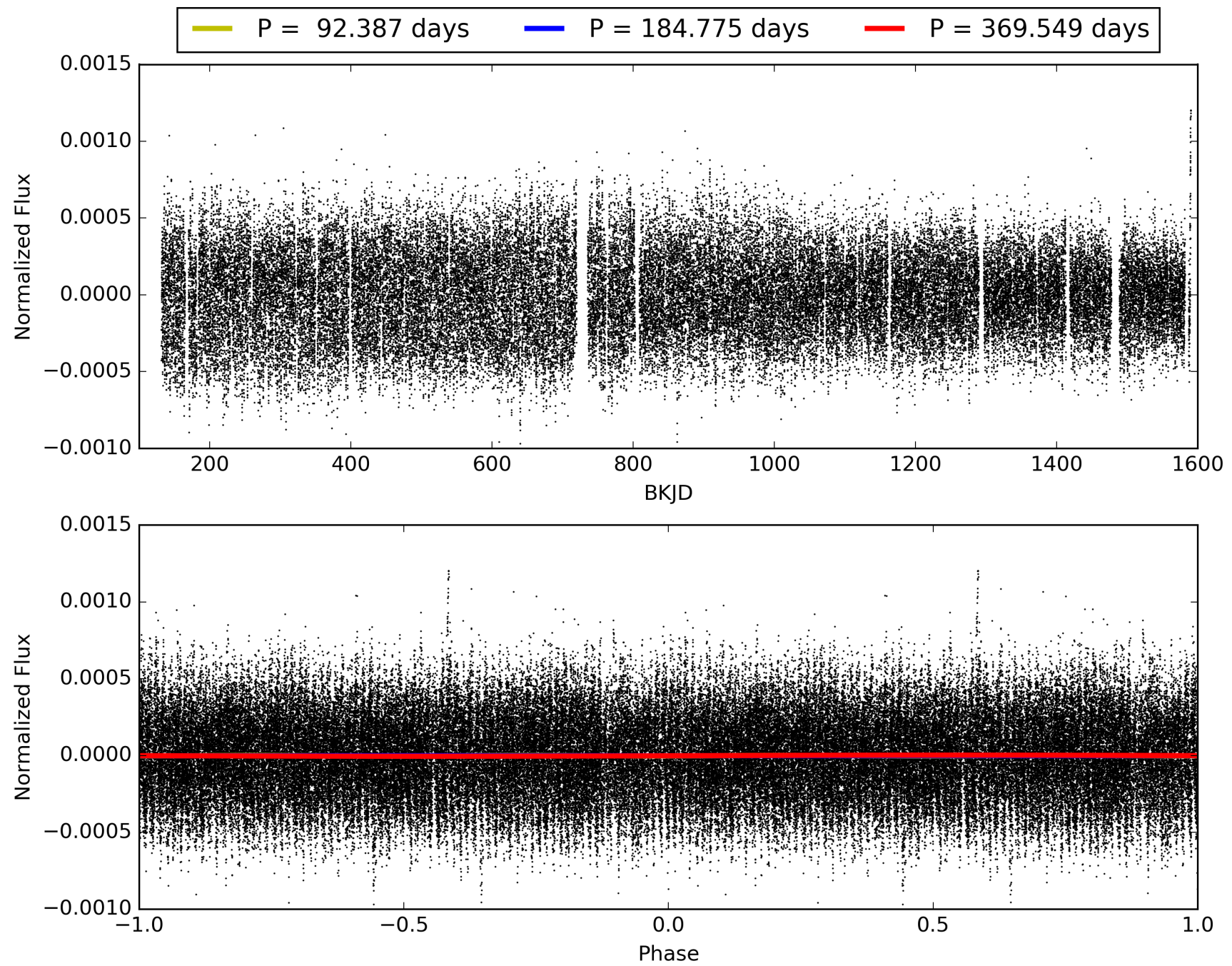
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:25:50 Z

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

TCE 008692983-04, PDC Light Curves

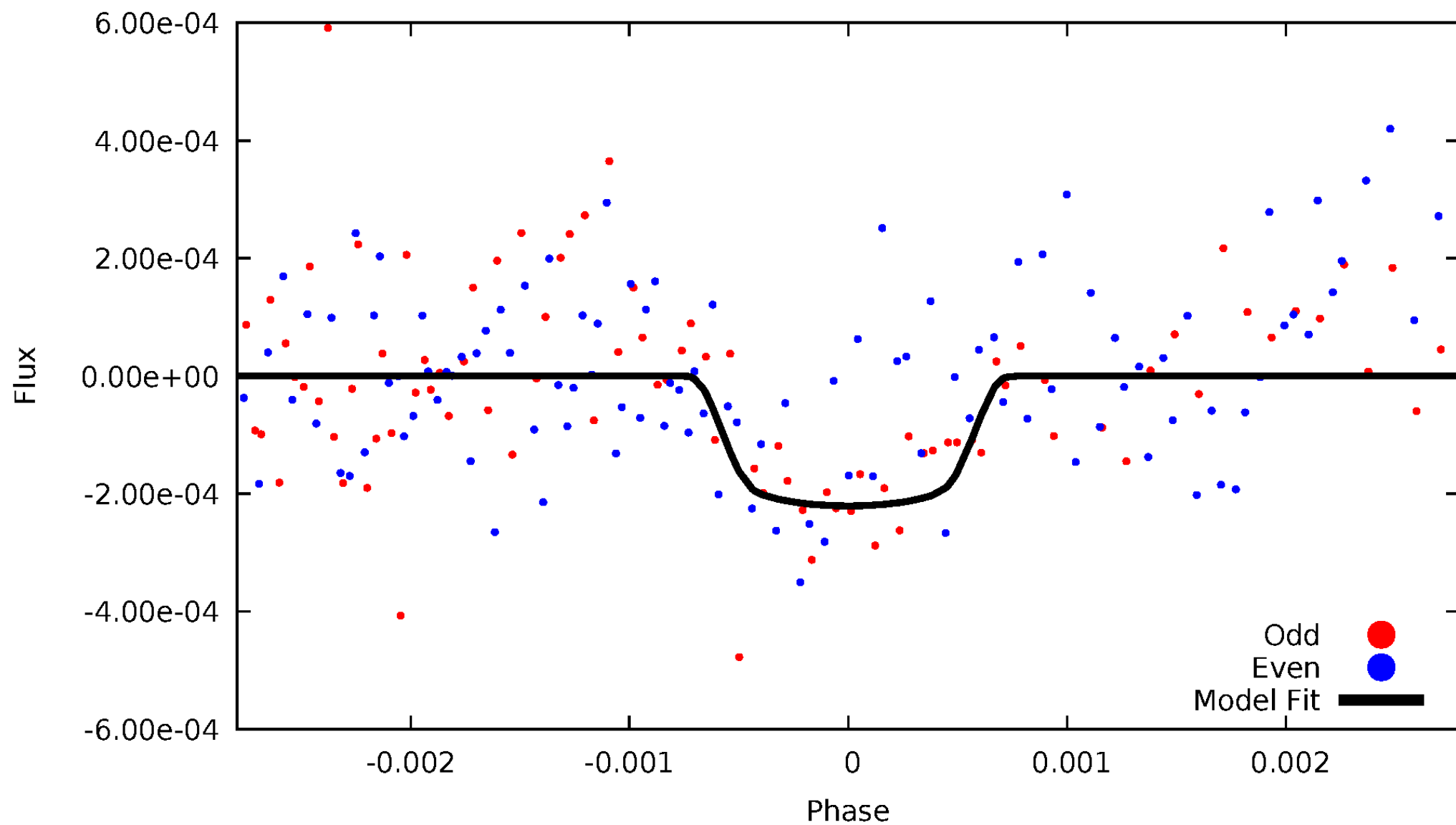


TCE 008692983-04



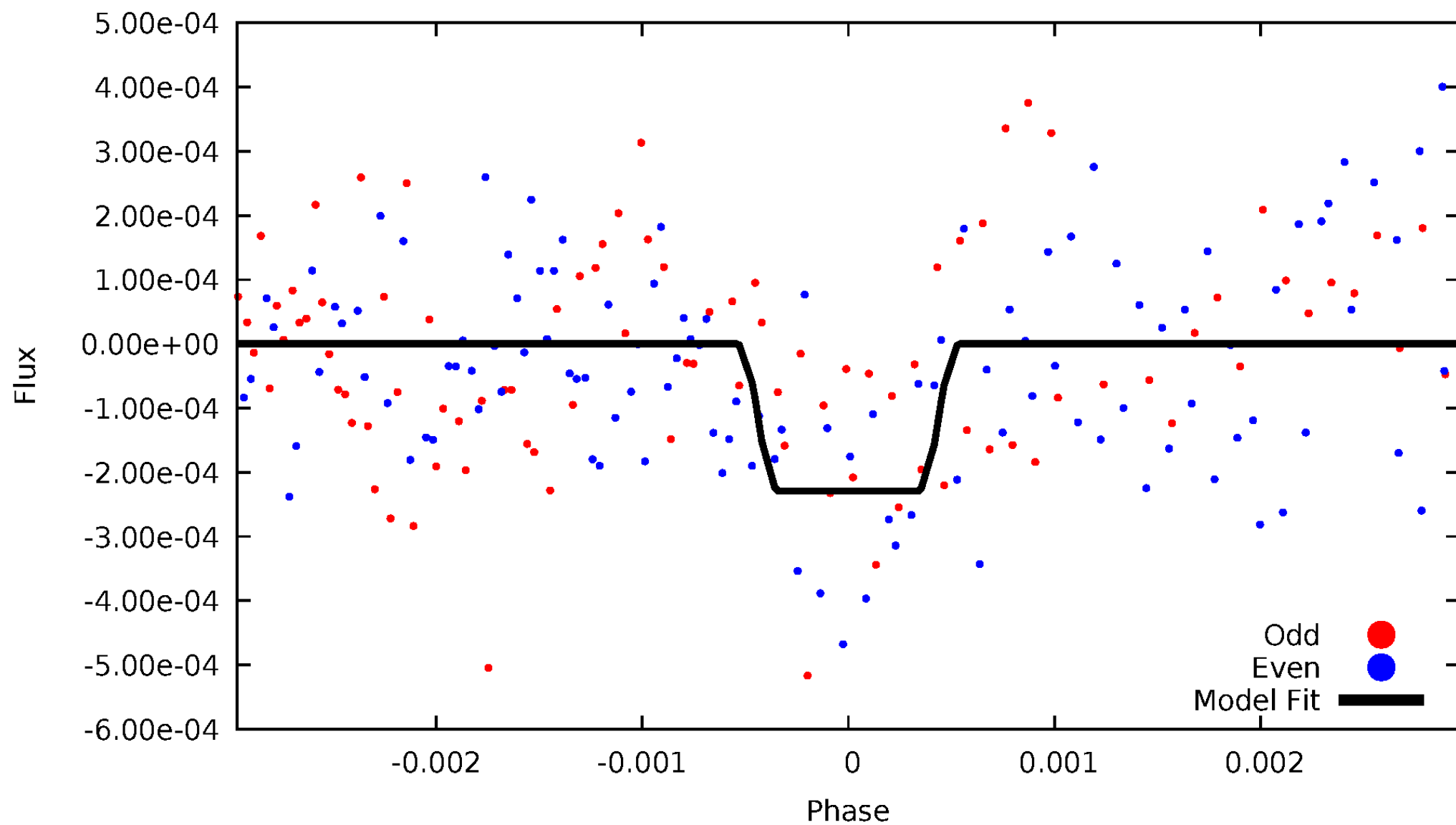
DV Odd/Even

TCE 008692983-04



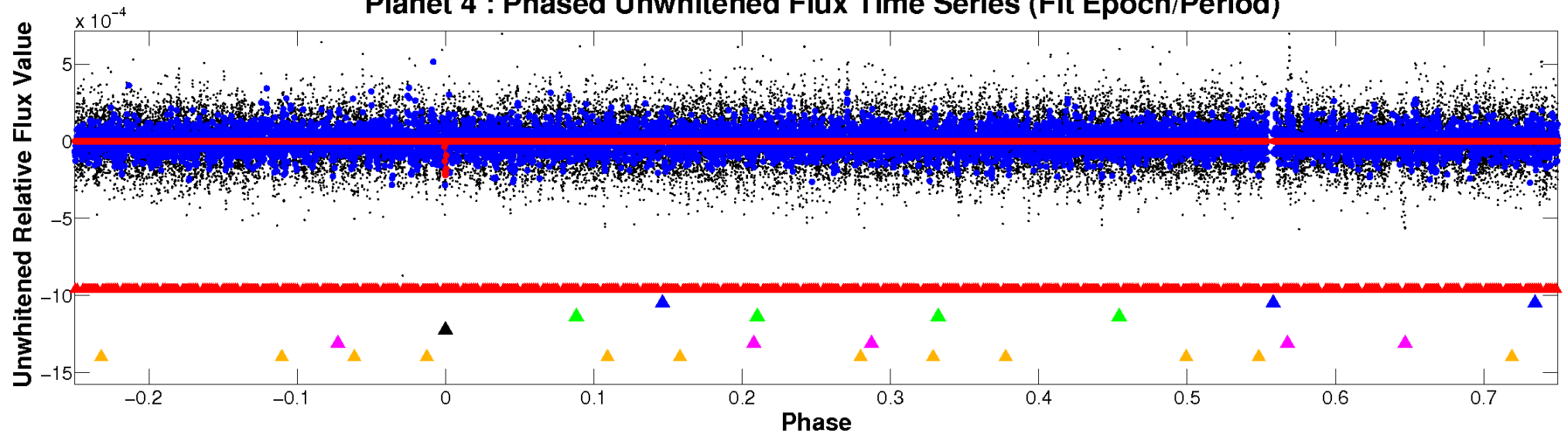
ALT Odd/Even

TCE 008692983-04

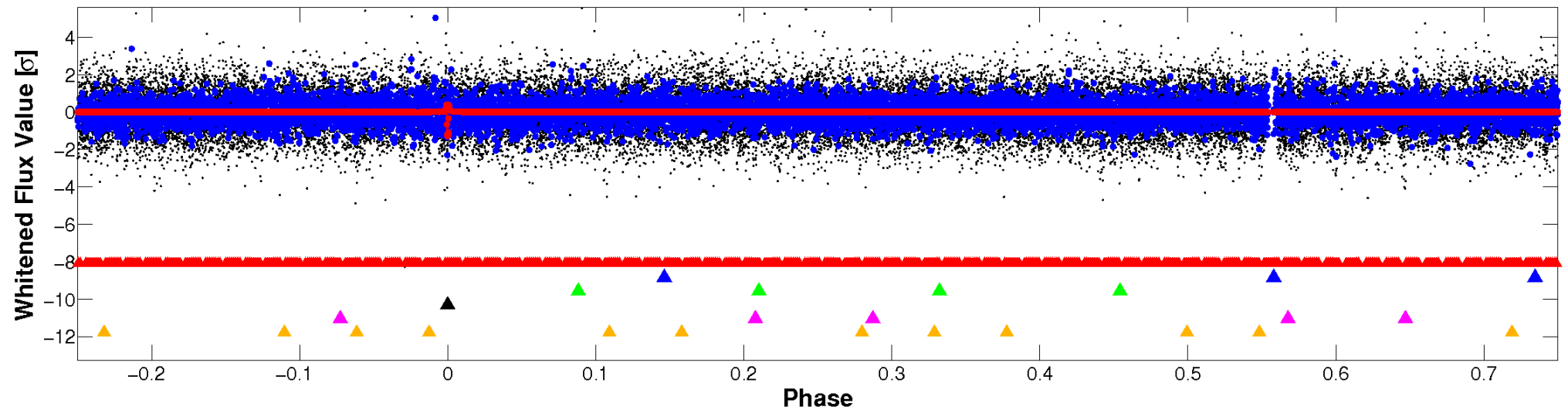


Non-Whitened Vs. Whitened Light Curve

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

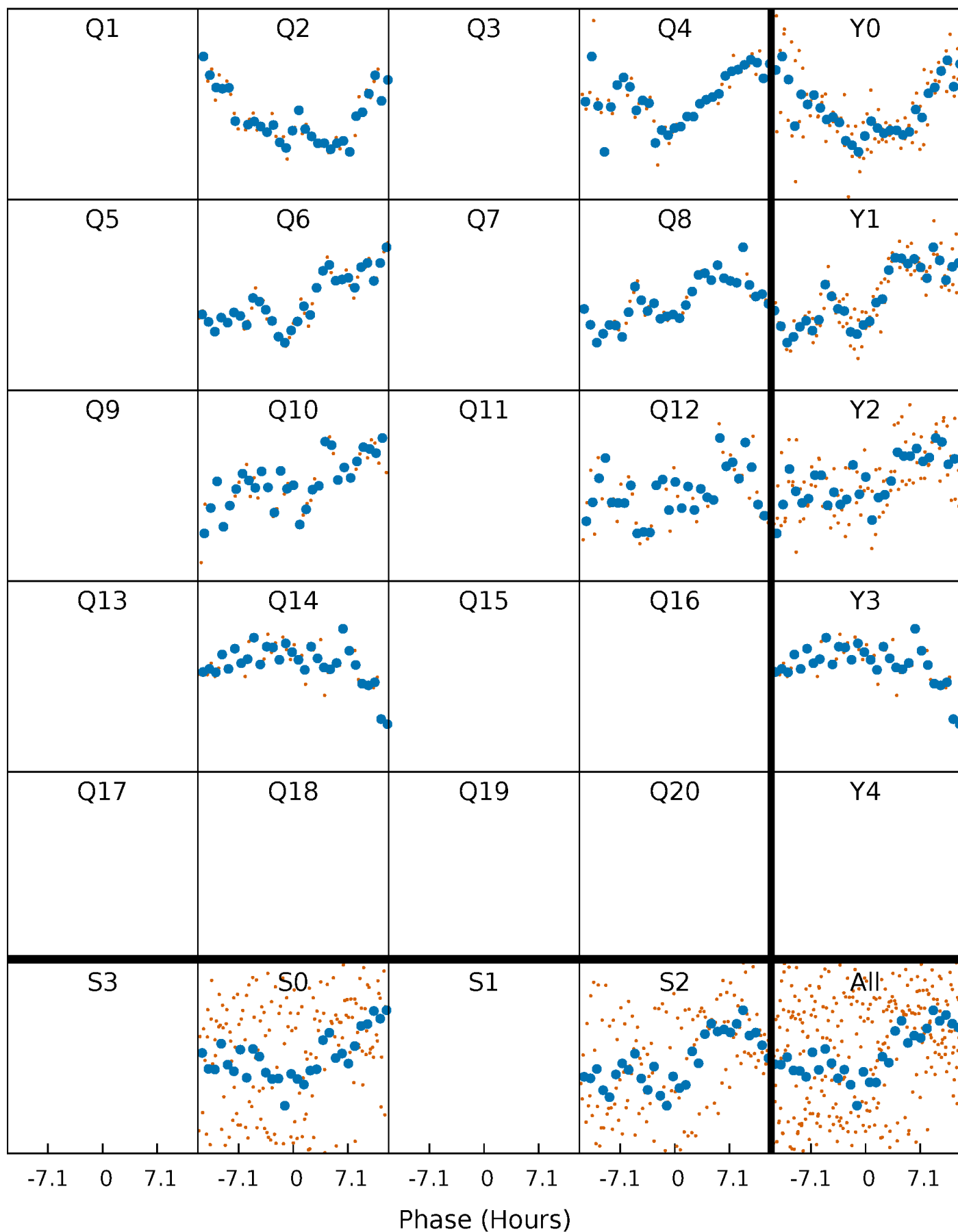


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



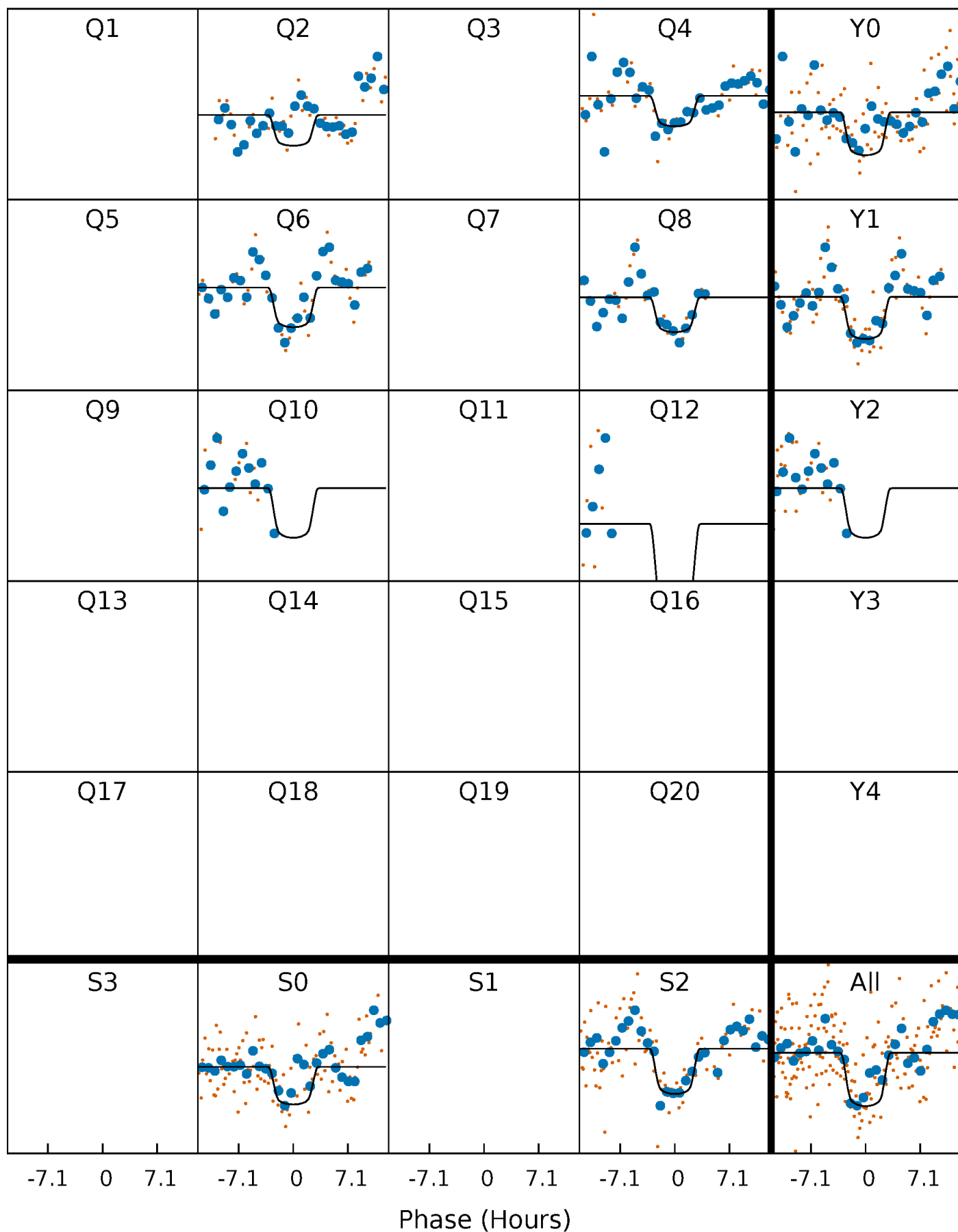
PDC Quarter-Phased Transit Curves

TCE 008692983-04 P=184.774659 Days $T_0=188.331750$ (BKJD)



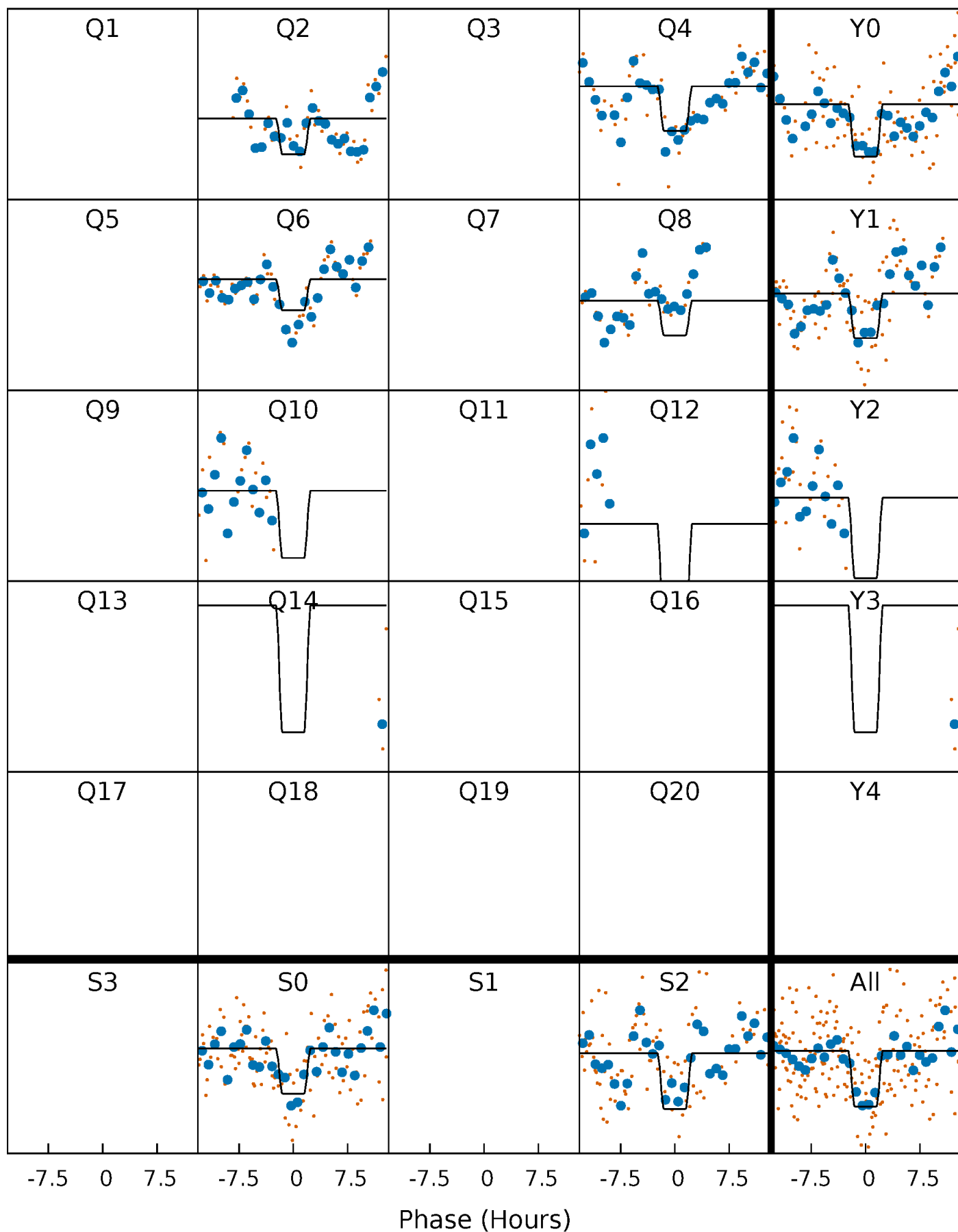
DV Quarter-Phased Transit Curves

TCE 008692983-04 P=184.774659 Days $T_0=188.331750$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

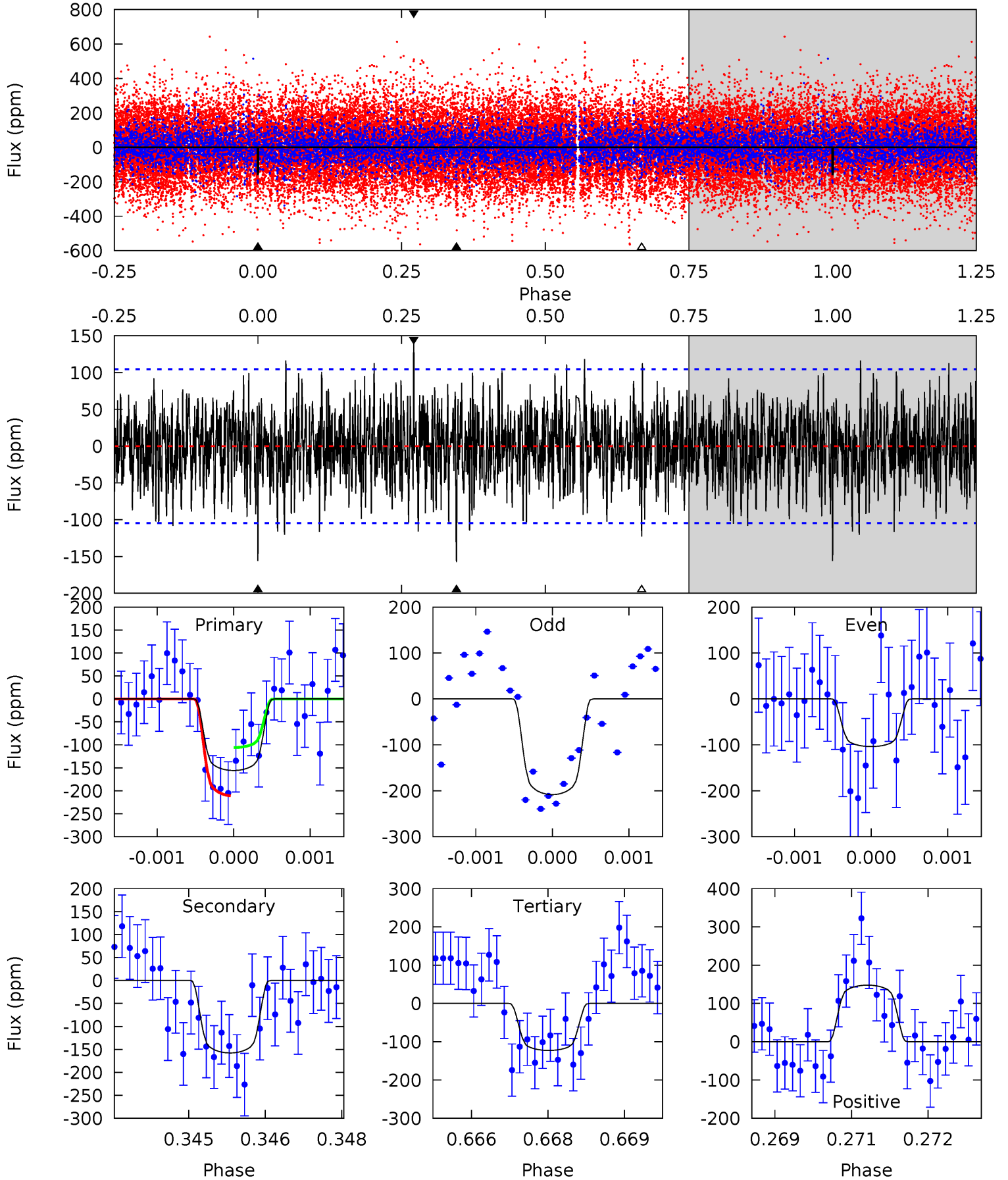
TCE 008692983-04 P=184.794350 Days $T_0=188.256531$ (BKJD)



DV Model-Shift Uniqueness Test

008692983-04, P = 184.774659 Days, E = 3.557091 Days

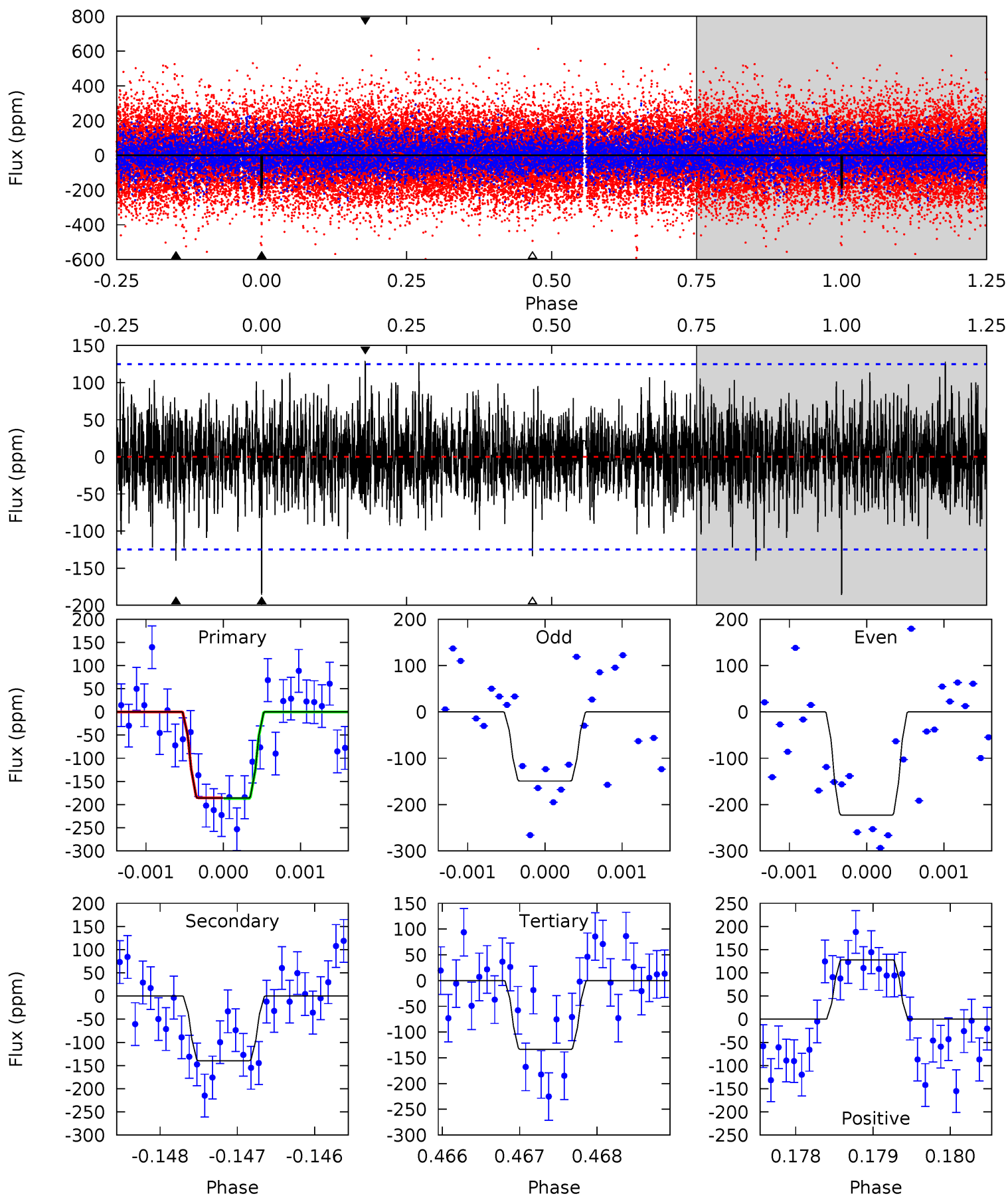
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.03	8.12	6.32	7.61	5.39	3.18	2.01	1.70	0.41	1.80	0.51	2.69	1.14	0.48	2.71



Alt Model-Shift Uniqueness Test

008692983-04, P = 184.794350 Days, E = 3.462181 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.12	6.10	5.84	5.59	5.45	3.29	1.54	2.28	2.53	0.26	0.51	1.60	0.97	0.41	0.03



Stellar Parameters For KIC 008692983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7136^{+197}_{-272}	$3.602^{+0.289}_{-0.051}$	$-0.060^{+0.250}_{-0.250}$	$3.614^{+0.303}_{-1.214}$	$1.906^{+0.167}_{-0.310}$	$0.057^{+0.111}_{-0.010}$
	+3%/-4%	+8%/-1%	+417%/-417%	+8%/-34%	+9%/-16%	+196%/-17%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008692983-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-158 ± 19	$6.35^{+0.99}_{-1.11}$	919^{+49}_{-71}	6082^{+413}_{-372}	1355^{+564}_{-343}
Alt.	-140 ± 23	$5.68^{+1.00}_{-1.14}$	923^{+47}_{-81}	6244^{+487}_{-485}	1470^{+719}_{-432}

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

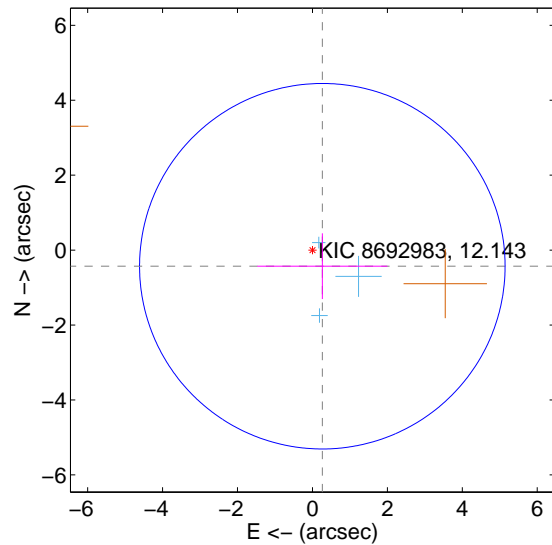
Supplemental centroid analysis for 008692983-04. Kepler magnitude: 12.14. Transit SNR 7.73

There are 3 quarters with good PRF difference image offsets

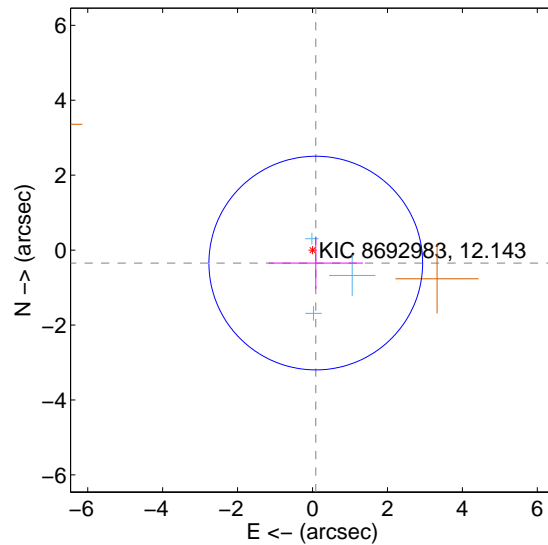
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.505 ± 1.626	0.31	-0.264 ± 1.737	-0.430 ± 0.878
PRF-fit source offset from KIC position	0.357 ± 0.951	0.38	-0.087 ± 1.261	-0.346 ± 0.692
photometric centroid source offset	0.77 ± 0.60	1.29	0.61 ± 0.60	-0.47 ± 0.58

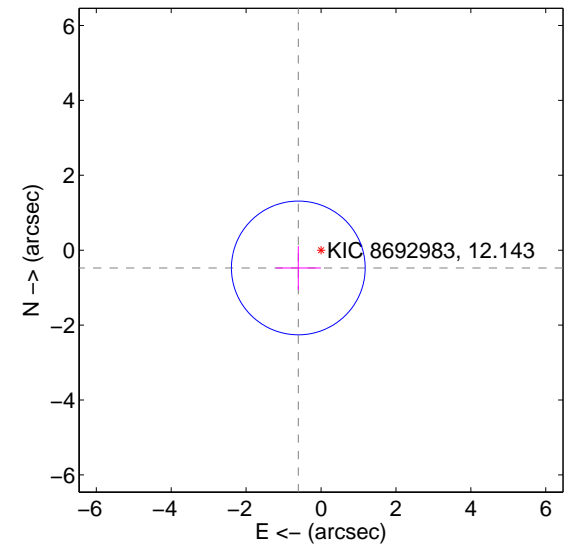
offset from difference PRF-fit to OOT PRF-fit



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.

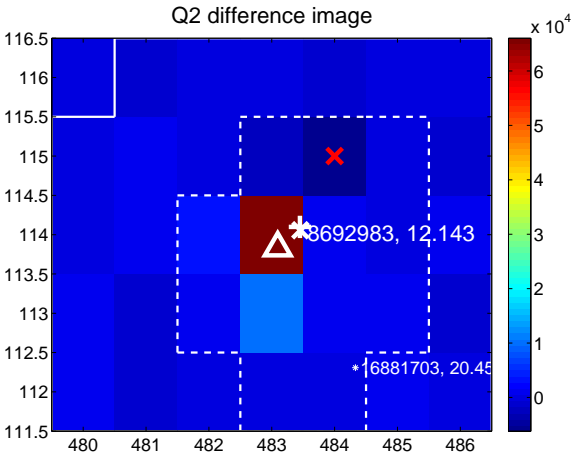
Q1 no difference image



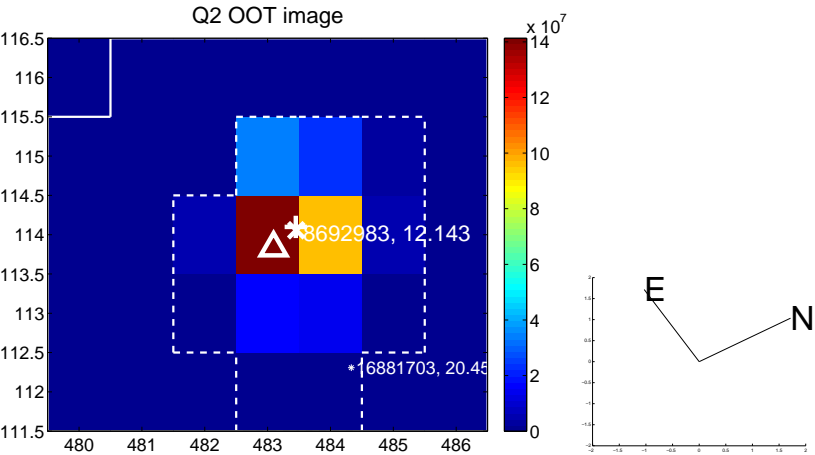
Q1 no OOT image



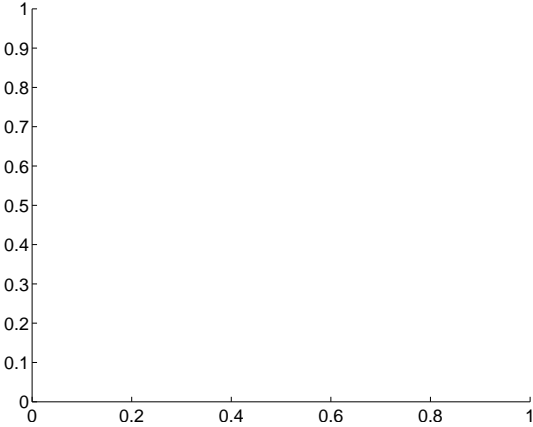
Q2 difference image



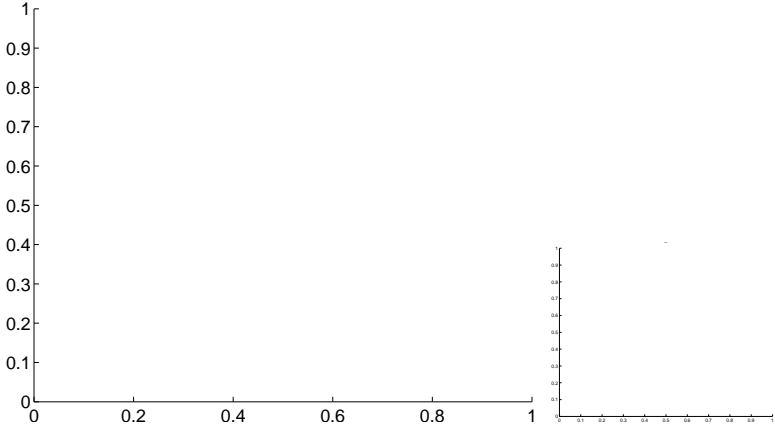
Q2 OOT image



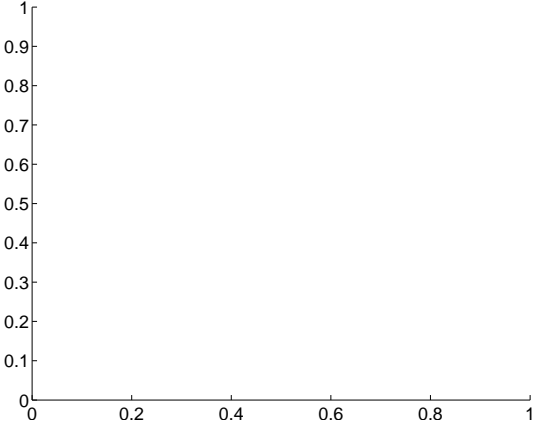
Q3 no difference image



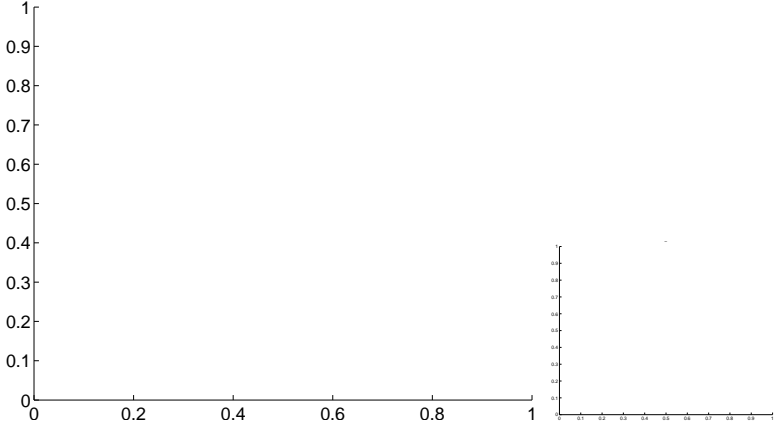
Q3 no OOT image



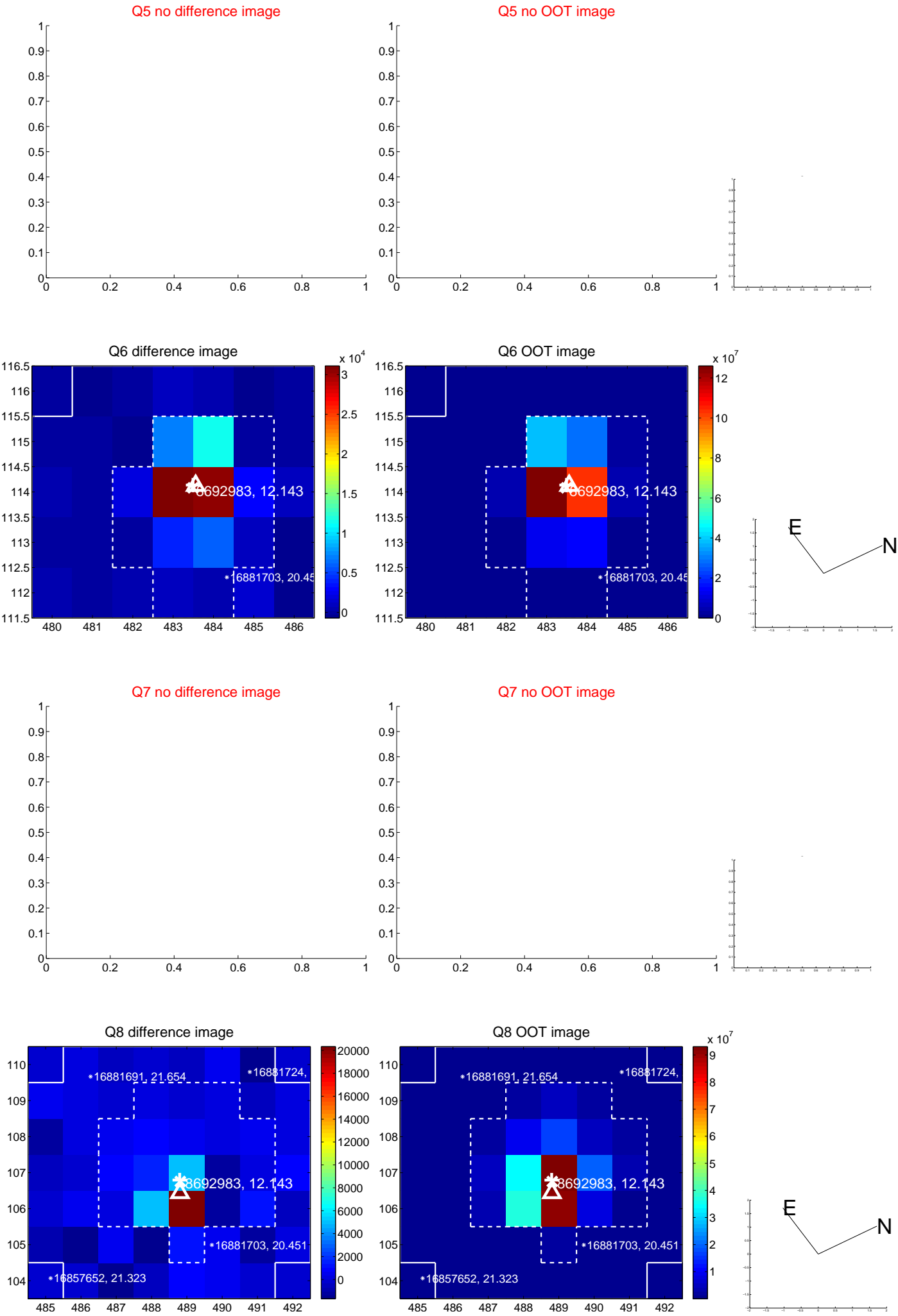
Q4 no difference image



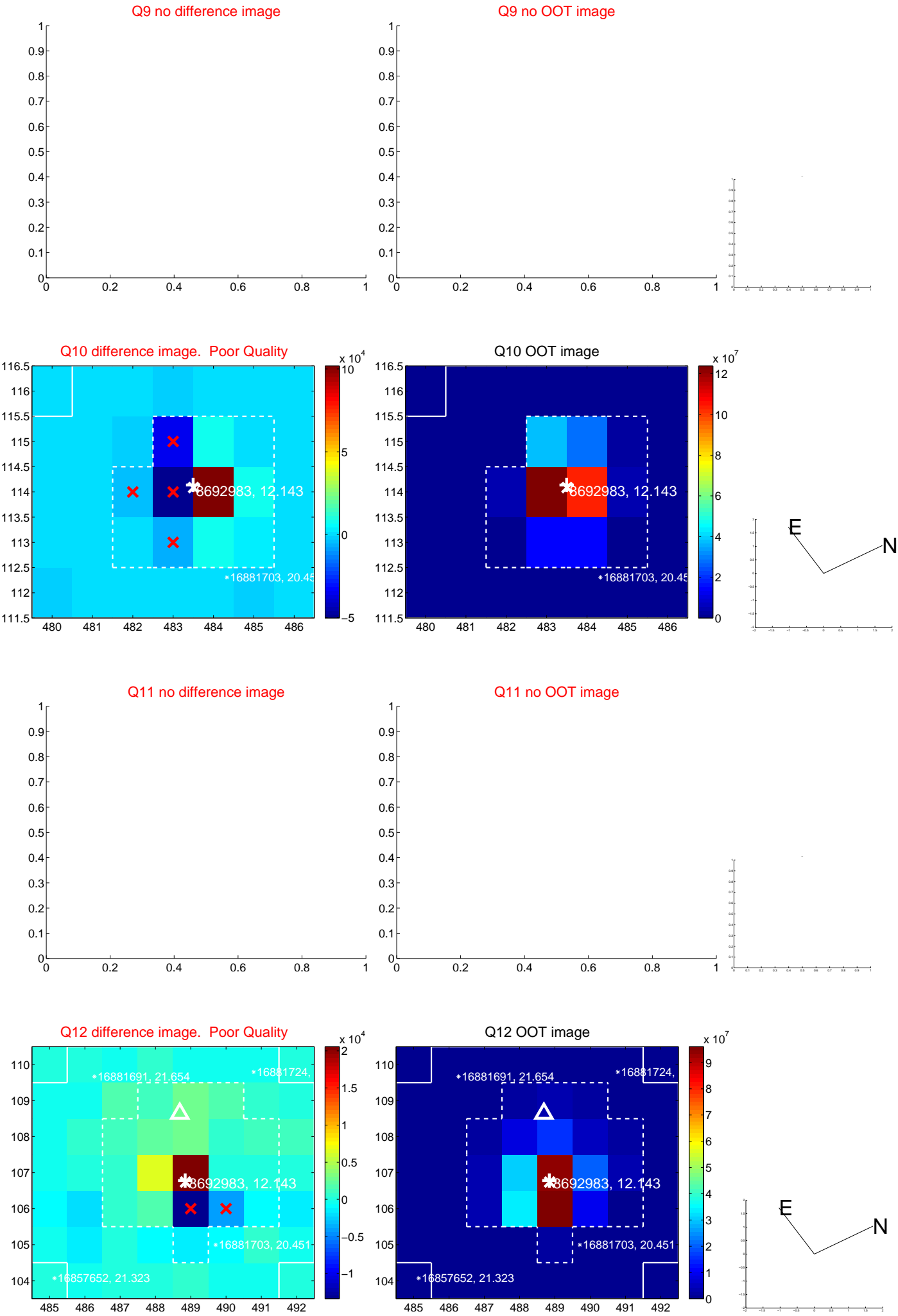
Q4 no OOT image



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

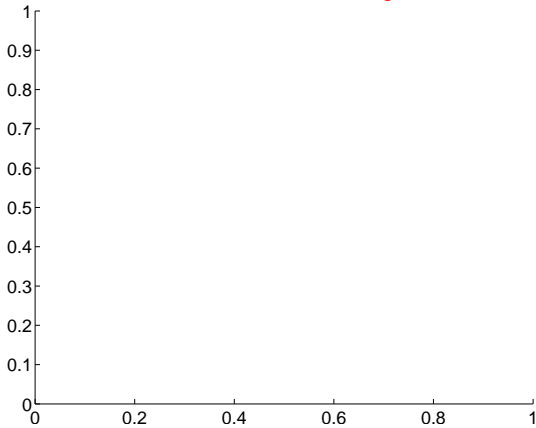


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

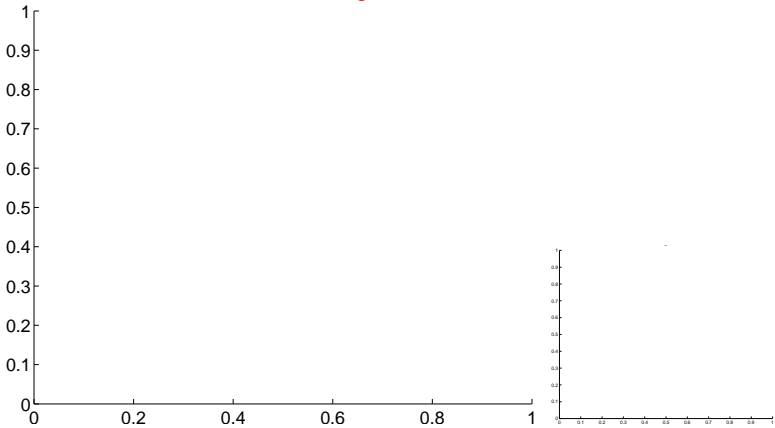


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

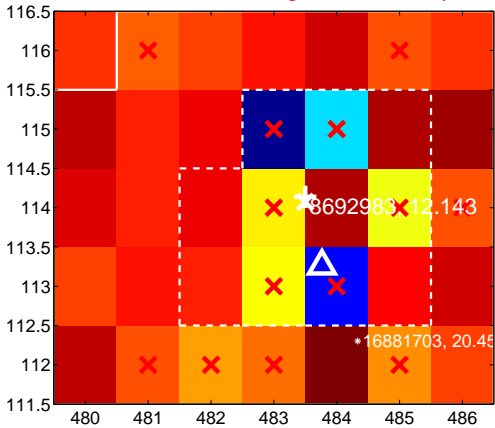
Q13 no difference image



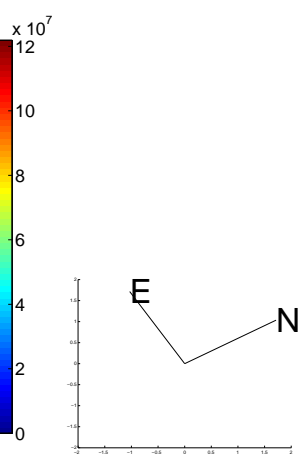
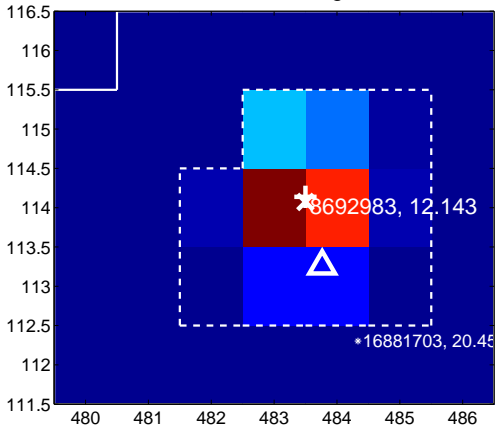
Q13 no OOT image



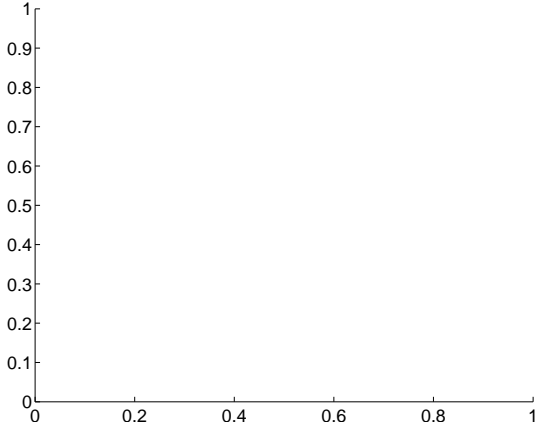
Q14 difference image. Poor Quality



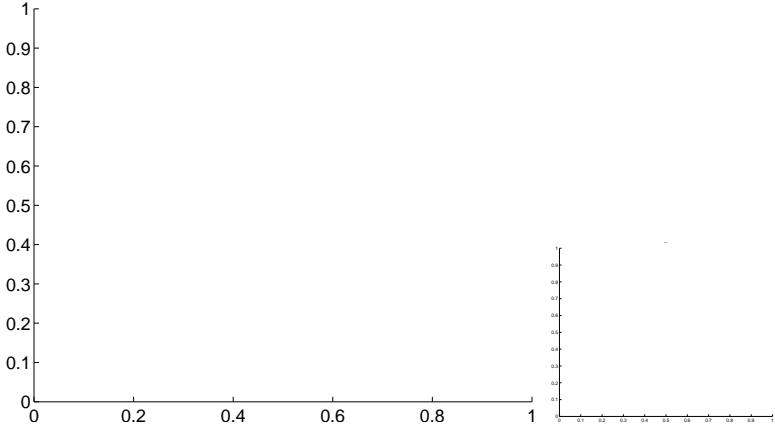
Q14 OOT image



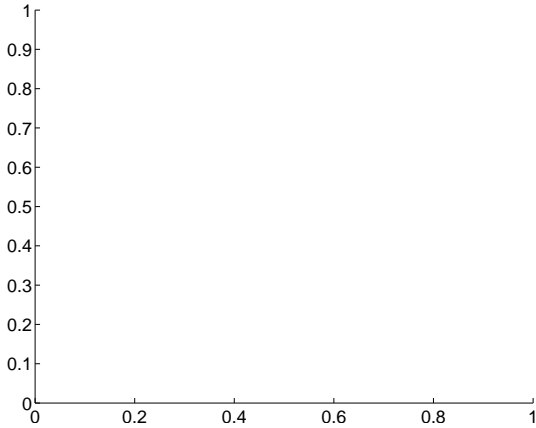
Q15 no difference image



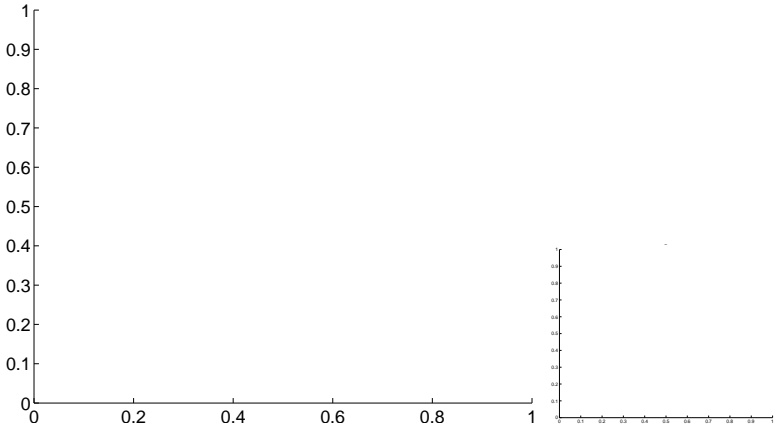
Q15 no OOT image



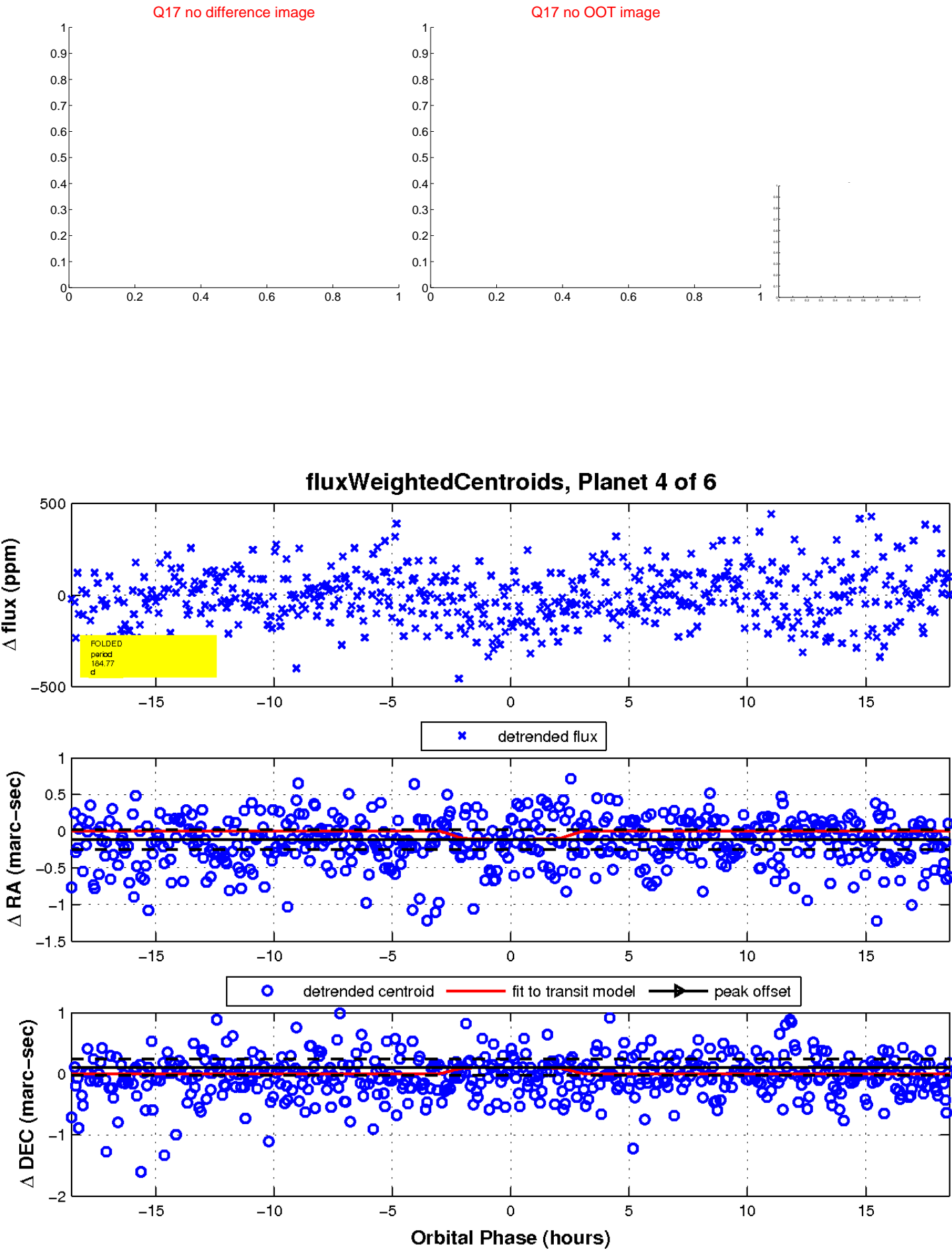
Q16 no difference image



Q16 no OOT image

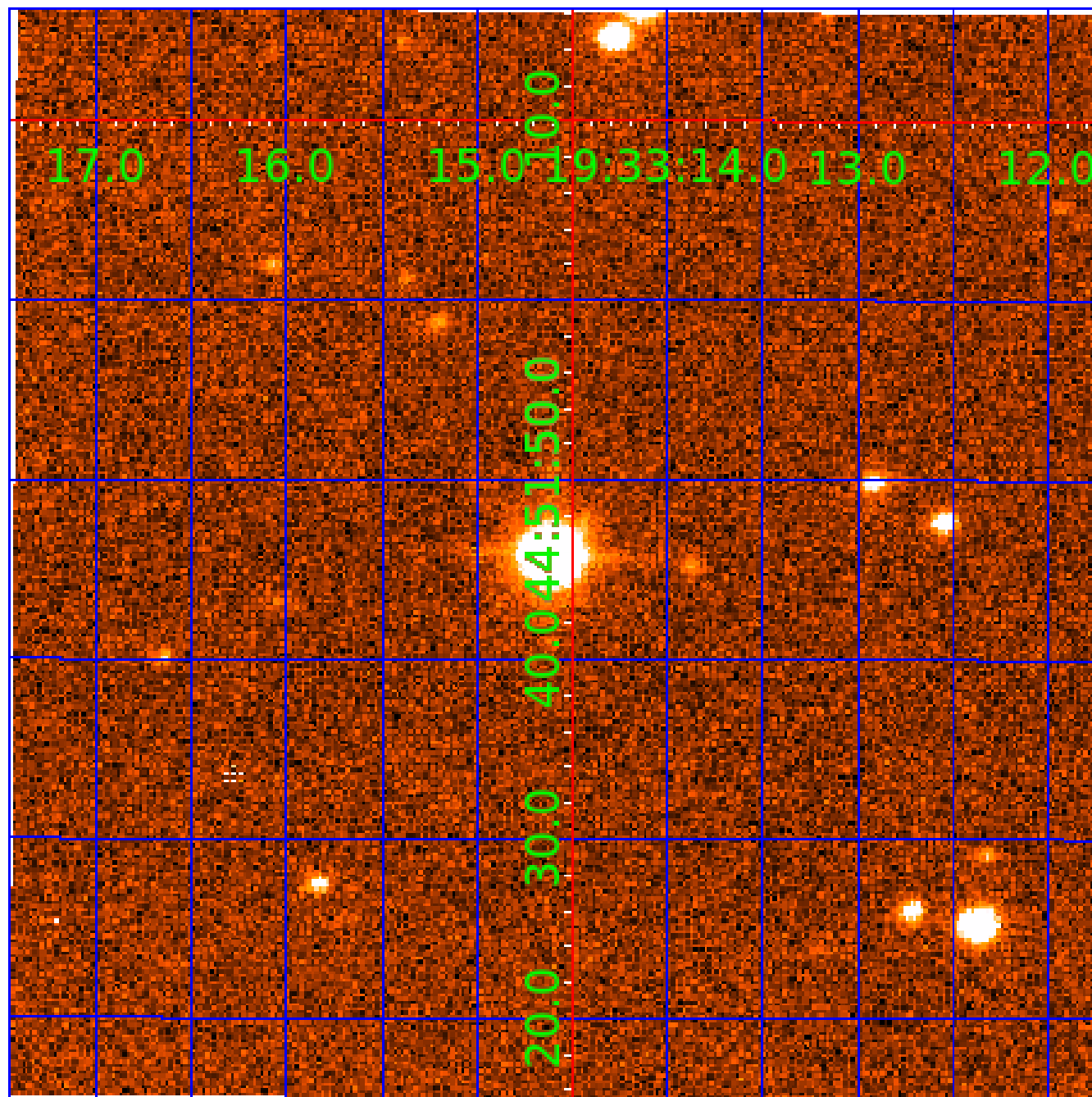


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008692983

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})
008692983-01	OBS	No	2.493485	132.482096	27.5	8.865	10.1	9.0	3.61	7136	2.31	15239.25
008692983-02	OBS	No	630.403607	139.292001	284.6	18.590	12.8	8.9	3.61	7136	6.60	9.53
008692983-03	OBS	No	392.089197	389.414588	230.9	15.175	10.1	5.9	3.61	7136	5.96	17.95
008692983-04	OBS	No	184.774659	188.331750	220.7	6.192	7.8	7.7	3.61	7136	6.64	48.96
008692983-05	OBS	No	303.071579	307.883020	326.2	3.422	7.7	7.9	3.61	7136	7.36	25.31
008692983-06	OBS	No	112.671803	240.046636	140.0	2.000	7.1	-1.0	3.61	7136	4.33	94.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008692983-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008692983-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008692983-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008692983-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

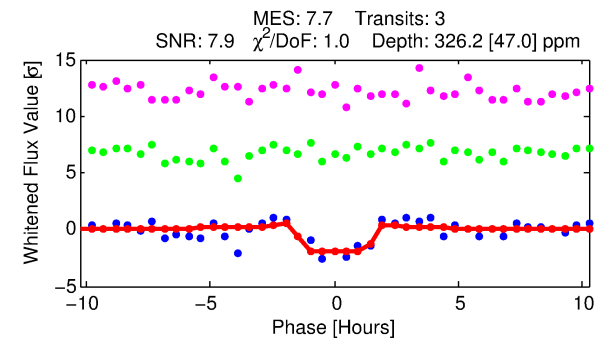
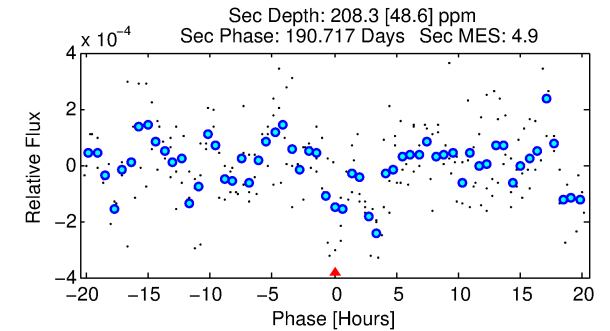
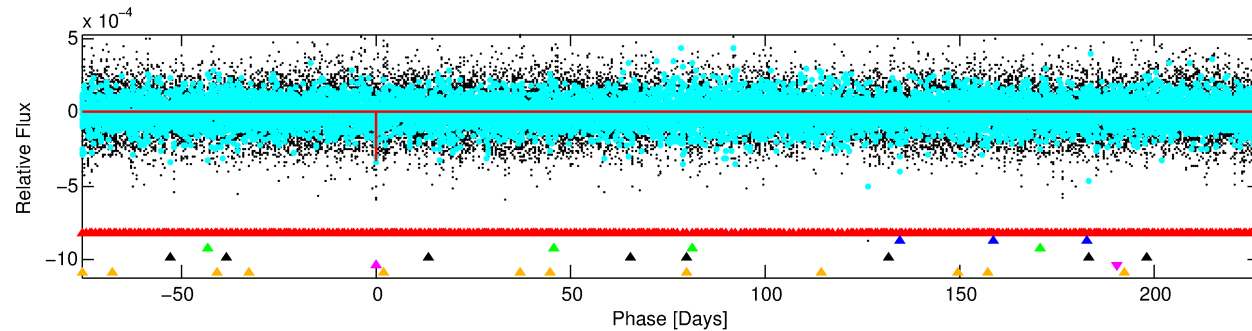
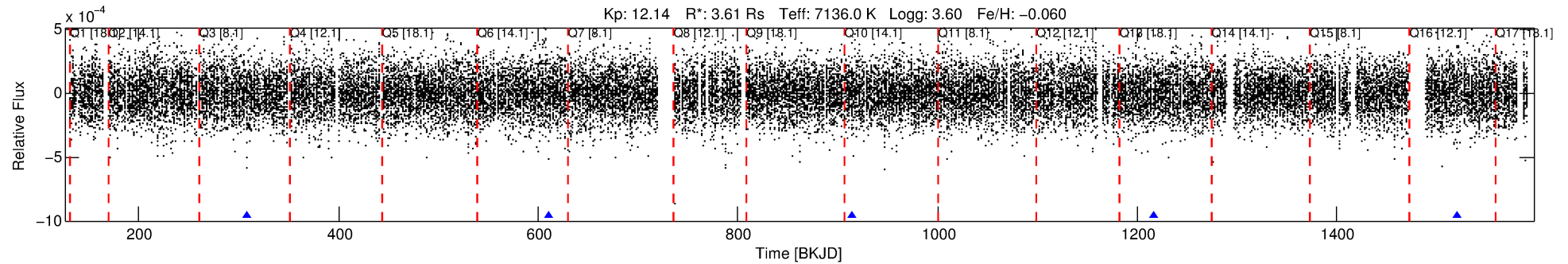
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008692983-05

No Significant Match Found

DV One-Page Summary

KIC: 8692983 Candidate: 5 of 6 Period: 303.072 d

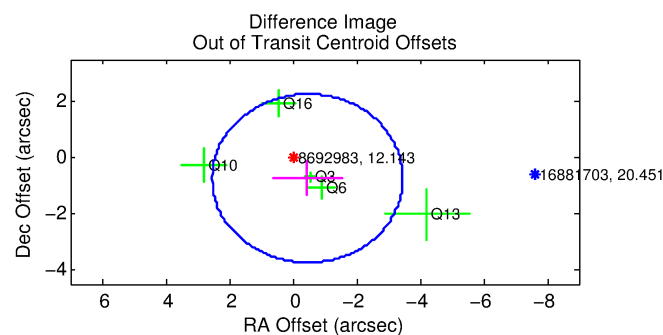
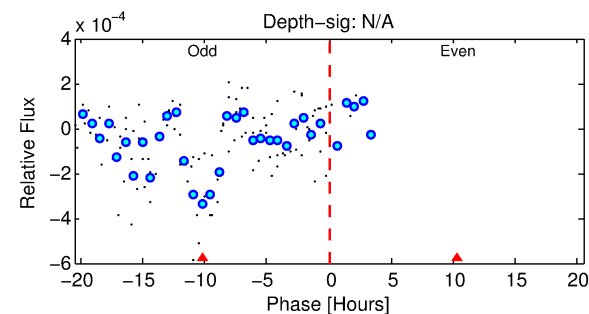
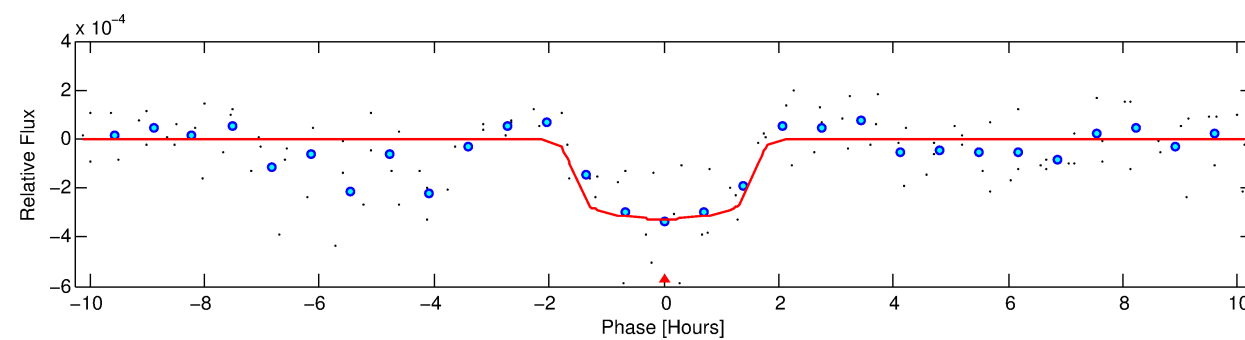


DV Fit Results:

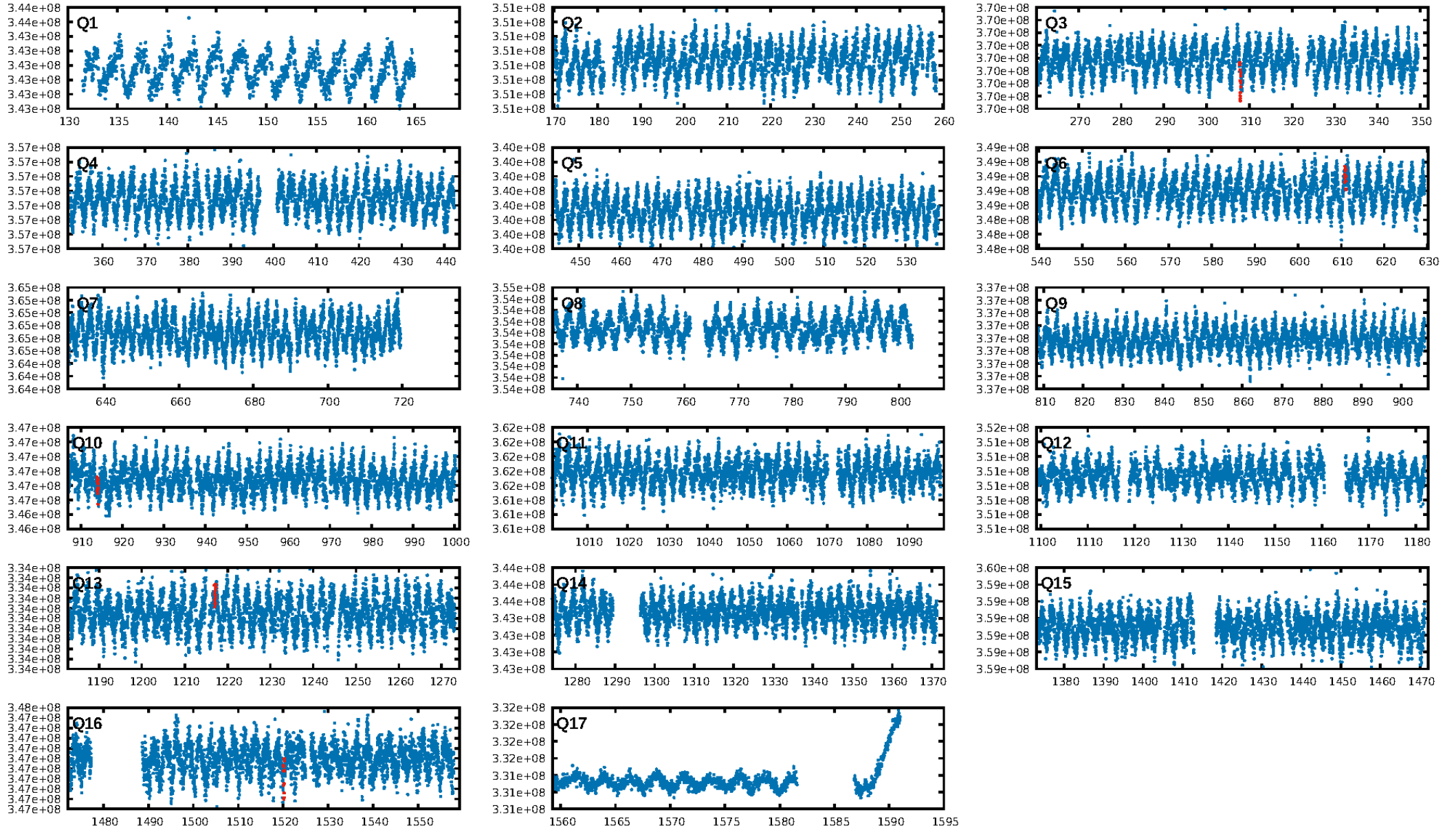
Period = 303.07158 [0.00299] d
Epoch = 307.8830 [0.0073] BKJD
Rp/R* = 0.0187 [0.0123]
a/R* = 380.40 [1510.07]
b = 0.85 [1.32]
Seff = 25.31 [13.16]
Teq = 572 [74] K
Rp = 7.36 [5.44] Re
a = 1.0949 [0.3451] AU
Ag = 2537.93 [3623.74] [0.70σ]
Teffp = 6276 [2114] K [2.70σ]

DV Diagnostic Results:

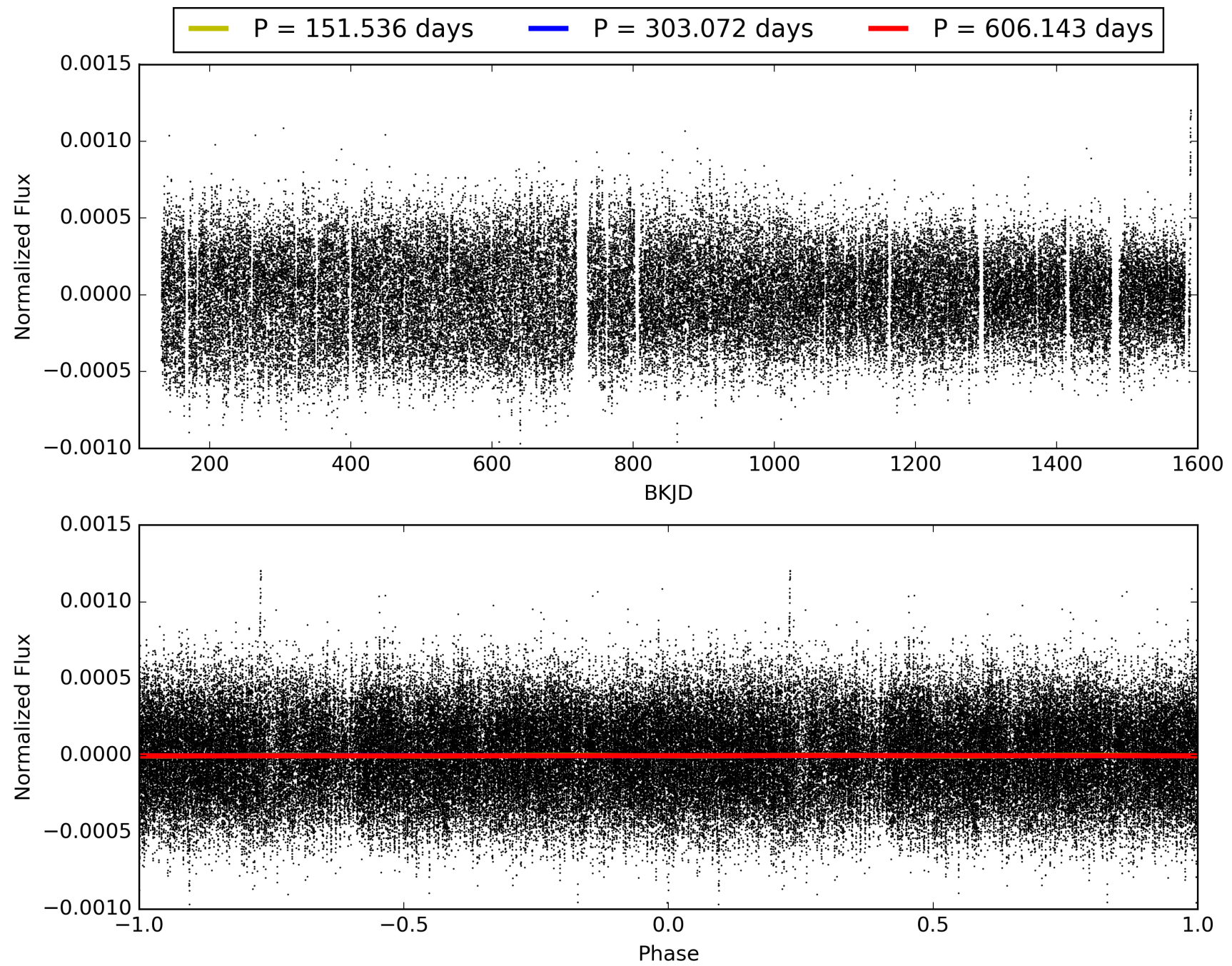
ShortPeriod-sig: 100.0% [401.33σ]
LongPeriod-sig: 100.0% [137.34σ]
ModelChiSquare2-sig: 8.0%
ModelChiSquareGof-sig: 72.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.433
Centroid-sig: 21.0%
Centroid-so: 0.502 arcsec [1.00σ]
OotOffset-rm: 0.872 arcsec [0.87σ]
KicOffset-rm: 0.763 arcsec [0.70σ]
OotOffset-st: 2/1/1/1 [5]
KicOffset-st: 2/1/1/1 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.60 [3/5]



TCE 008692983-05, PDC Light Curves

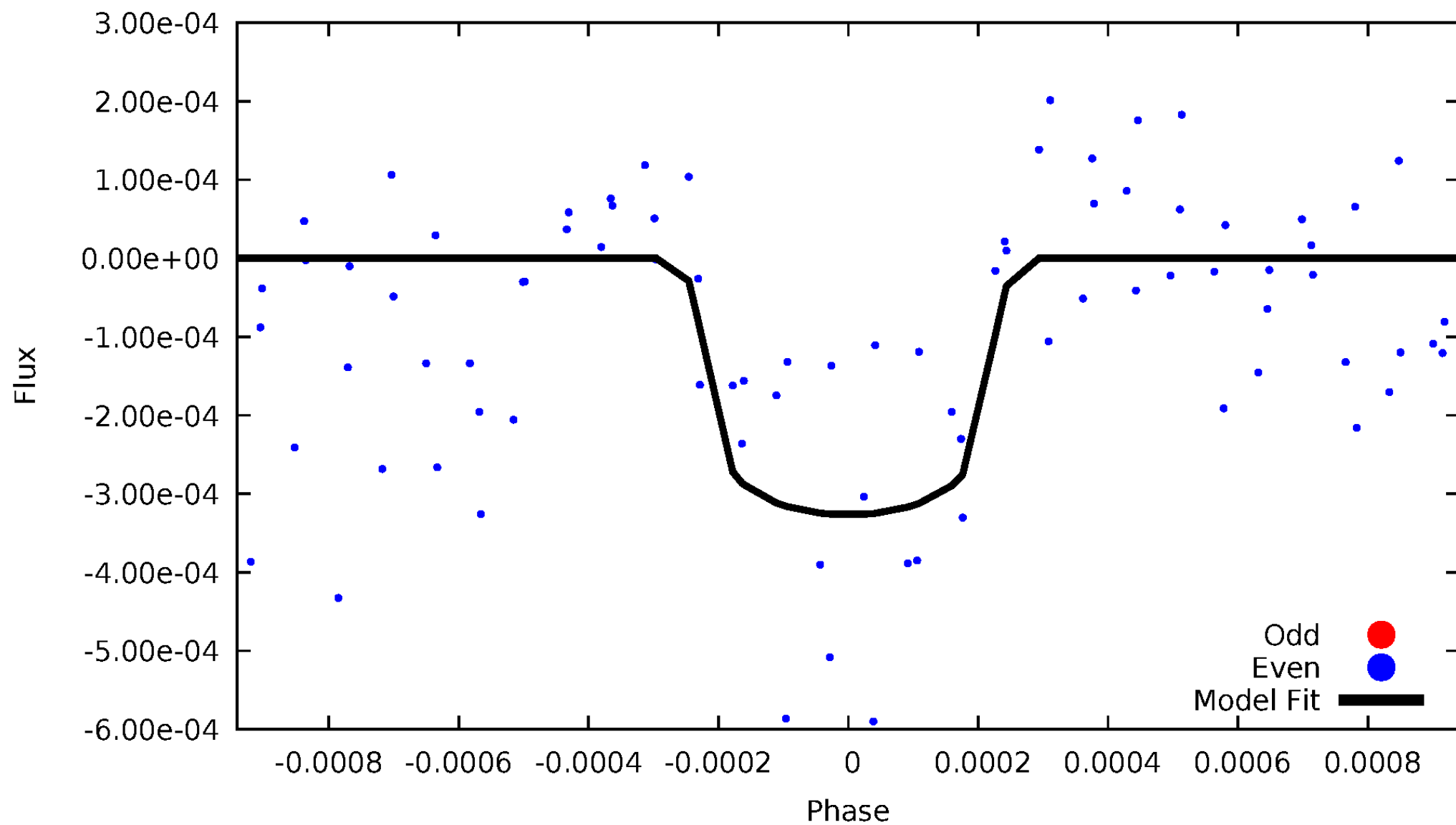


TCE 008692983-05



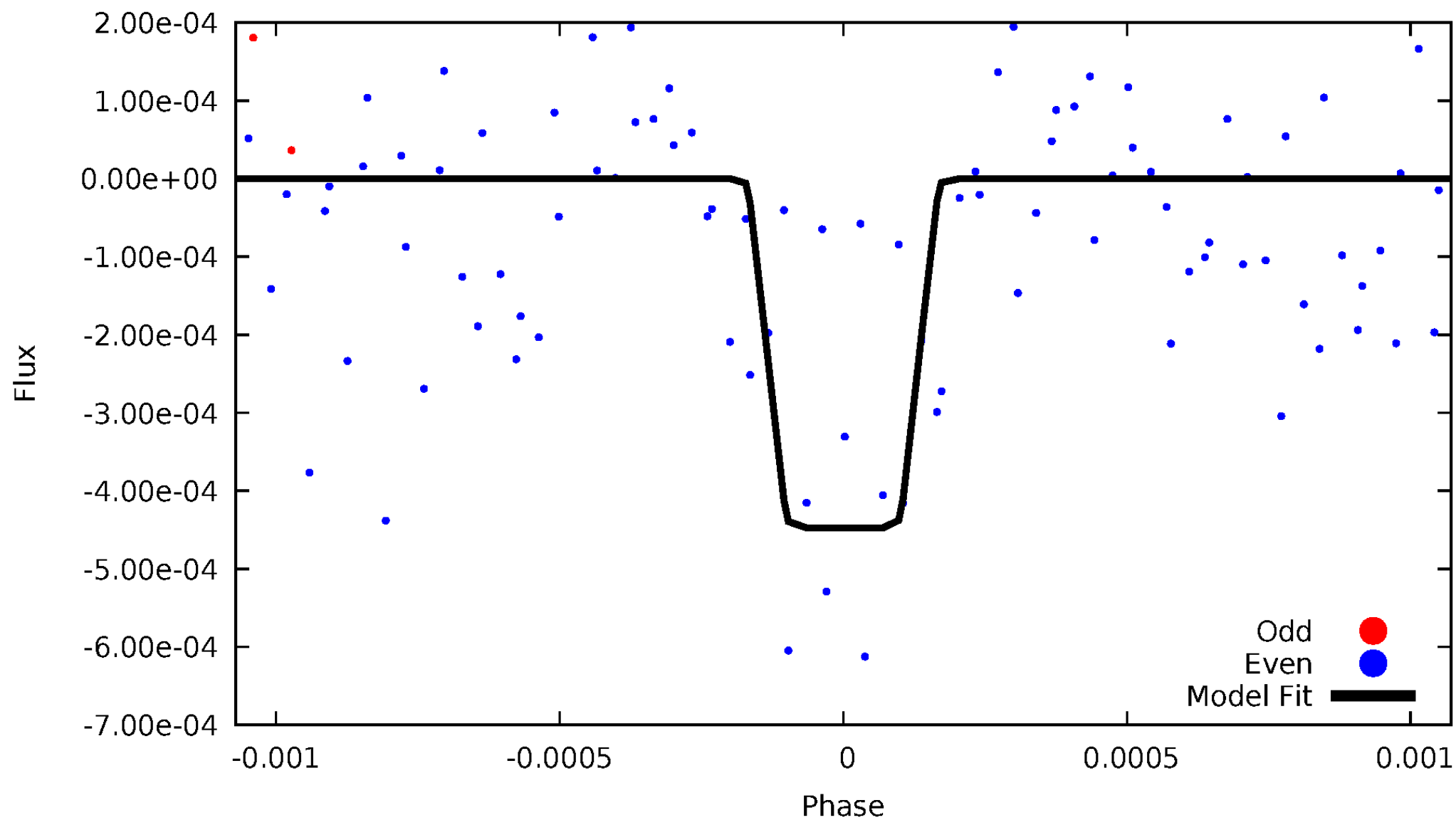
DV Odd/Even

TCE 008692983-05



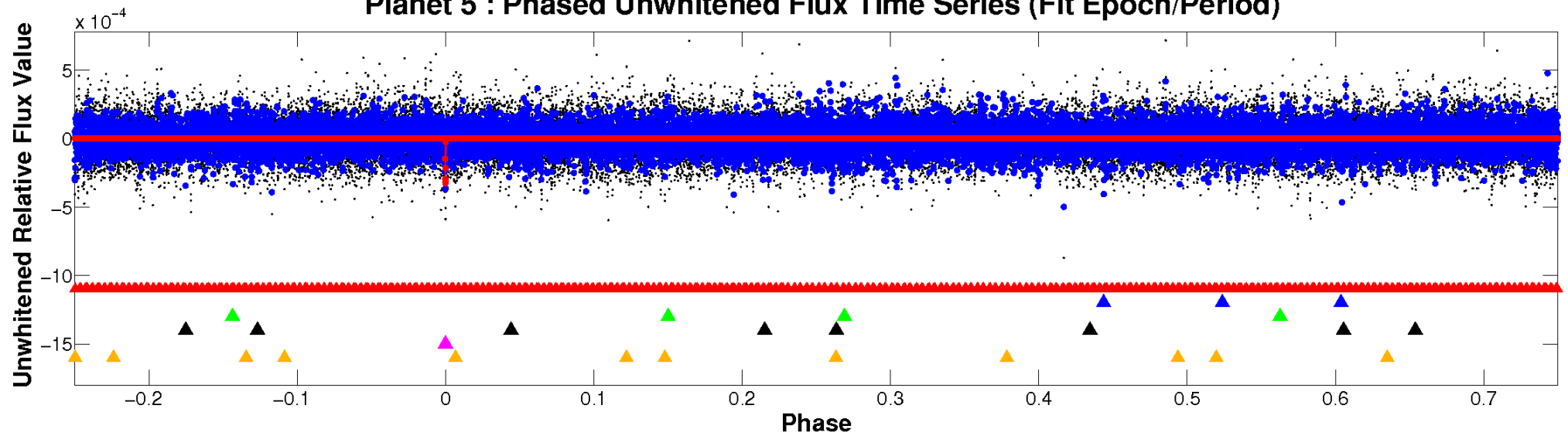
ALT Odd/Even

TCE 008692983-05

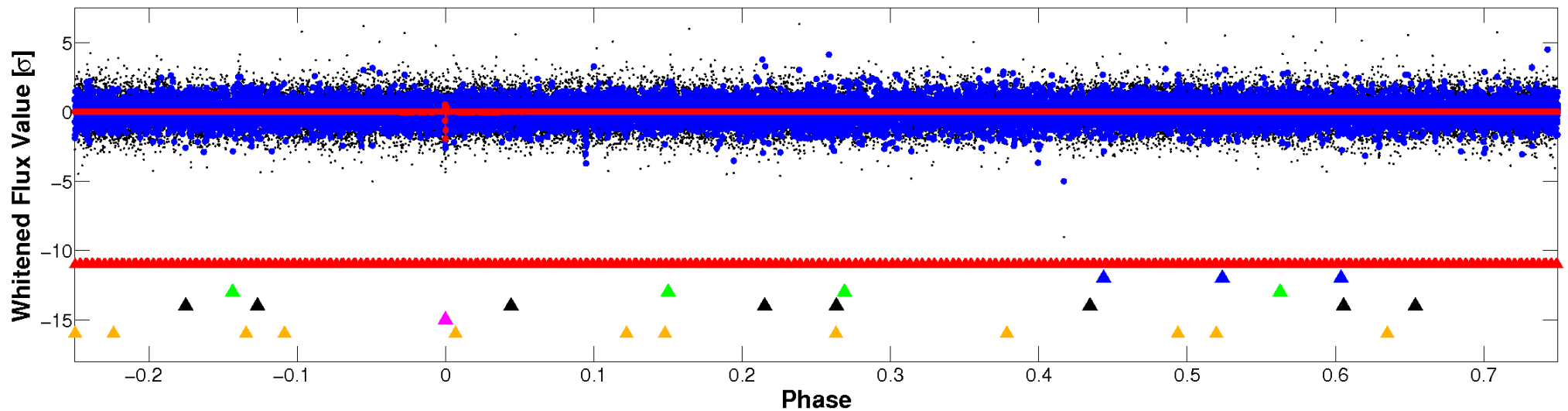


Non-Whitened Vs. Whitened Light Curve

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

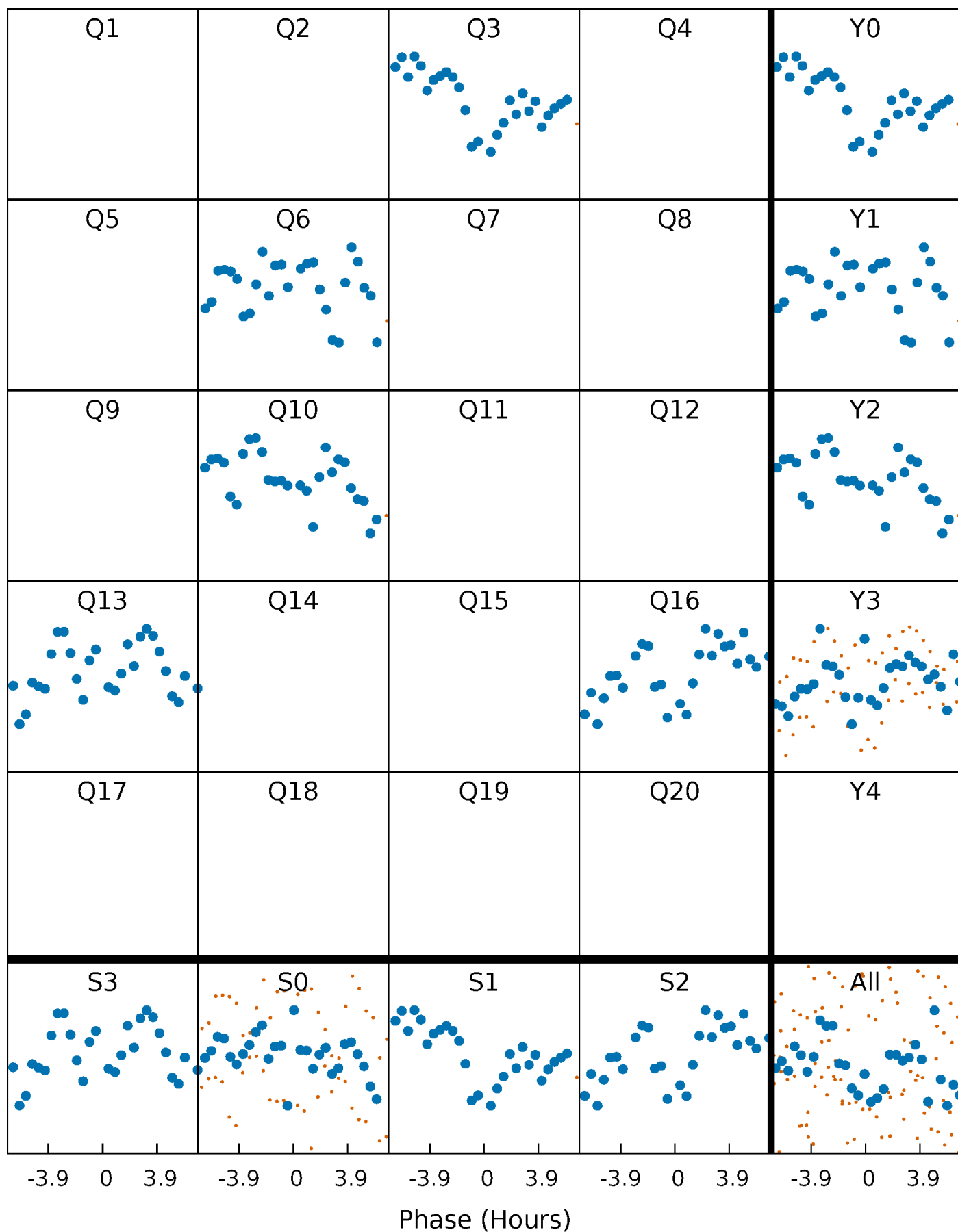


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



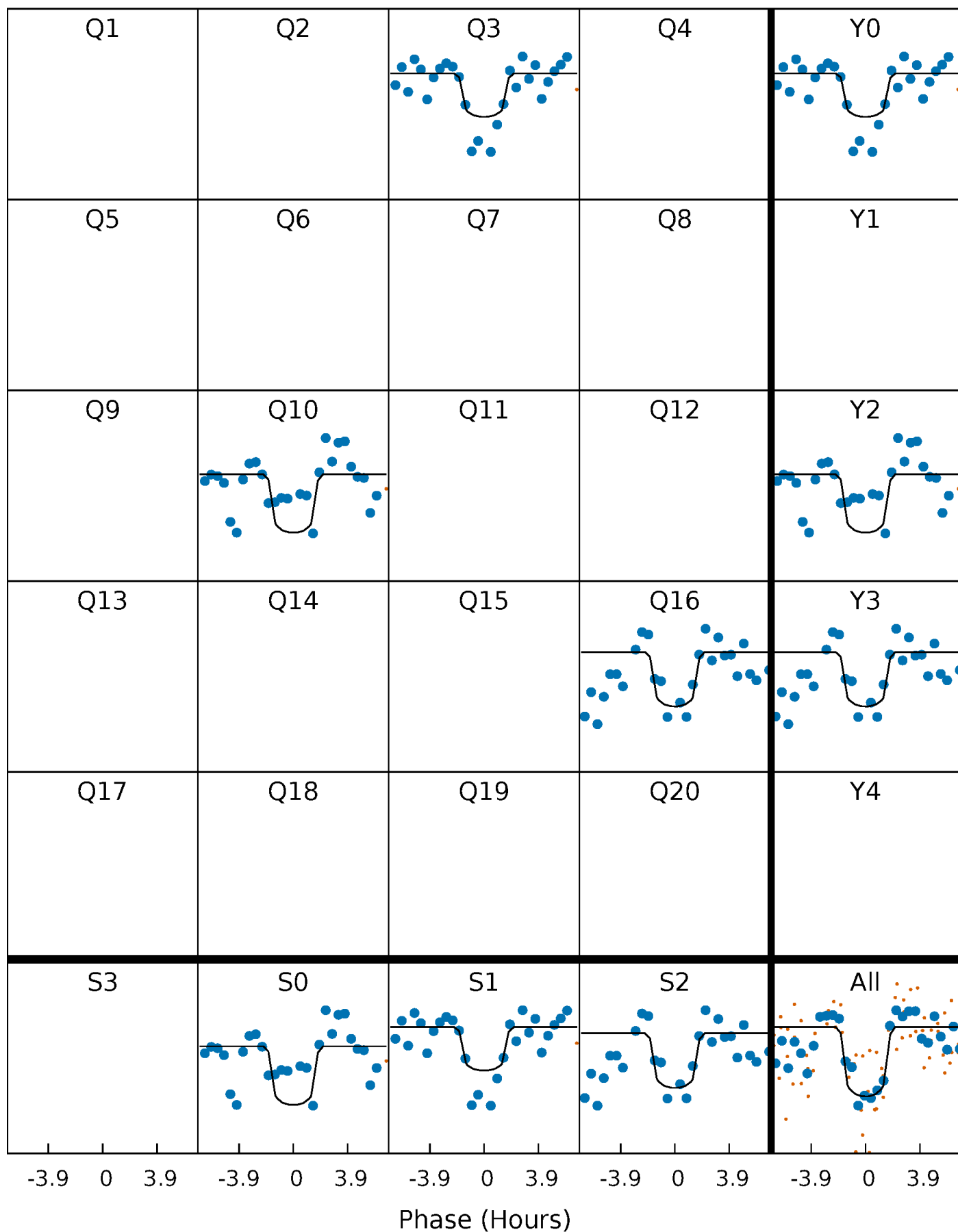
PDC Quarter-Phased Transit Curves

TCE 008692983-05 $P=303.071579$ Days $T_0=307.883020$ (BKJD)



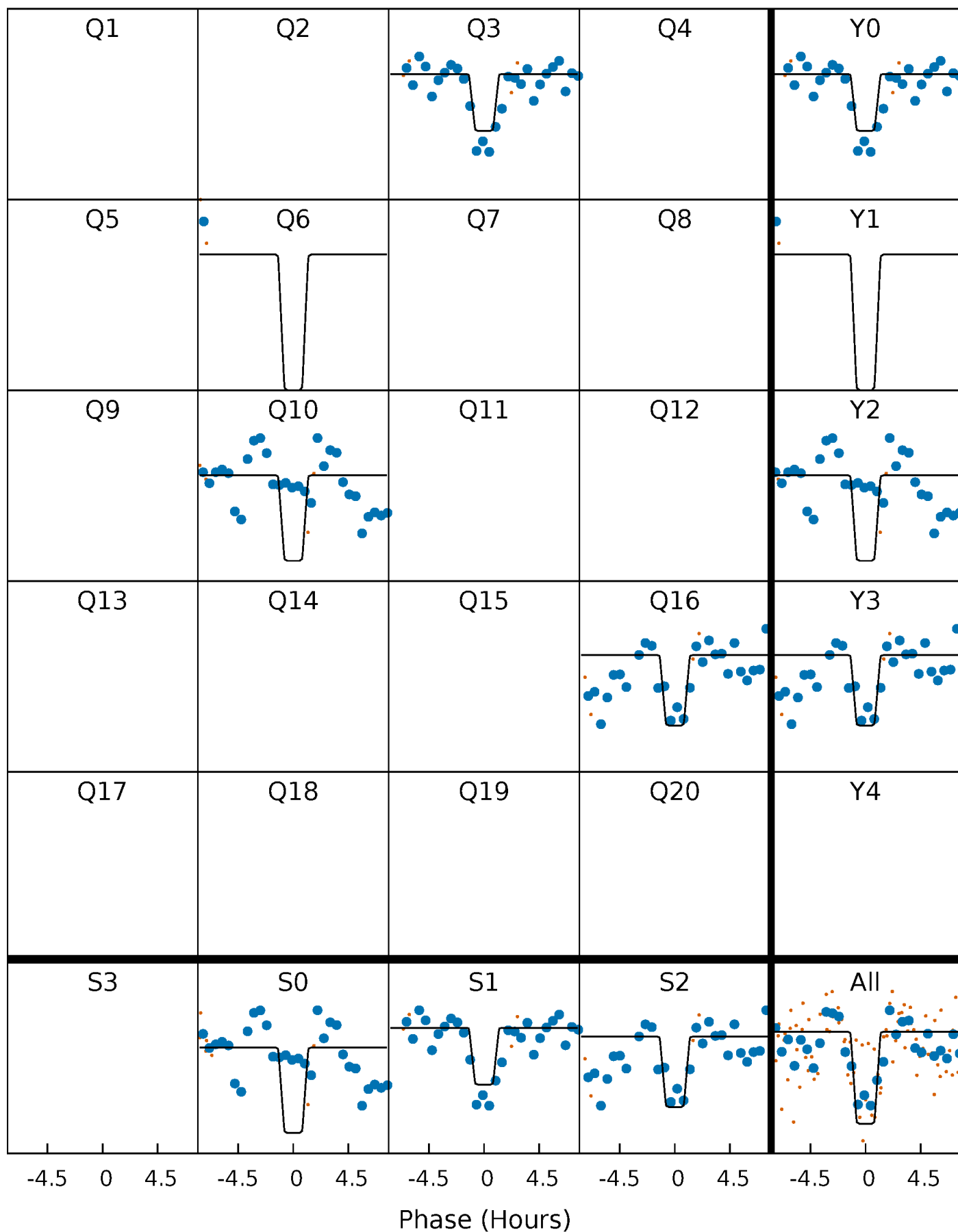
DV Quarter-Phased Transit Curves

TCE 008692983-05 $P=303.071579$ Days $T_0=307.883020$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

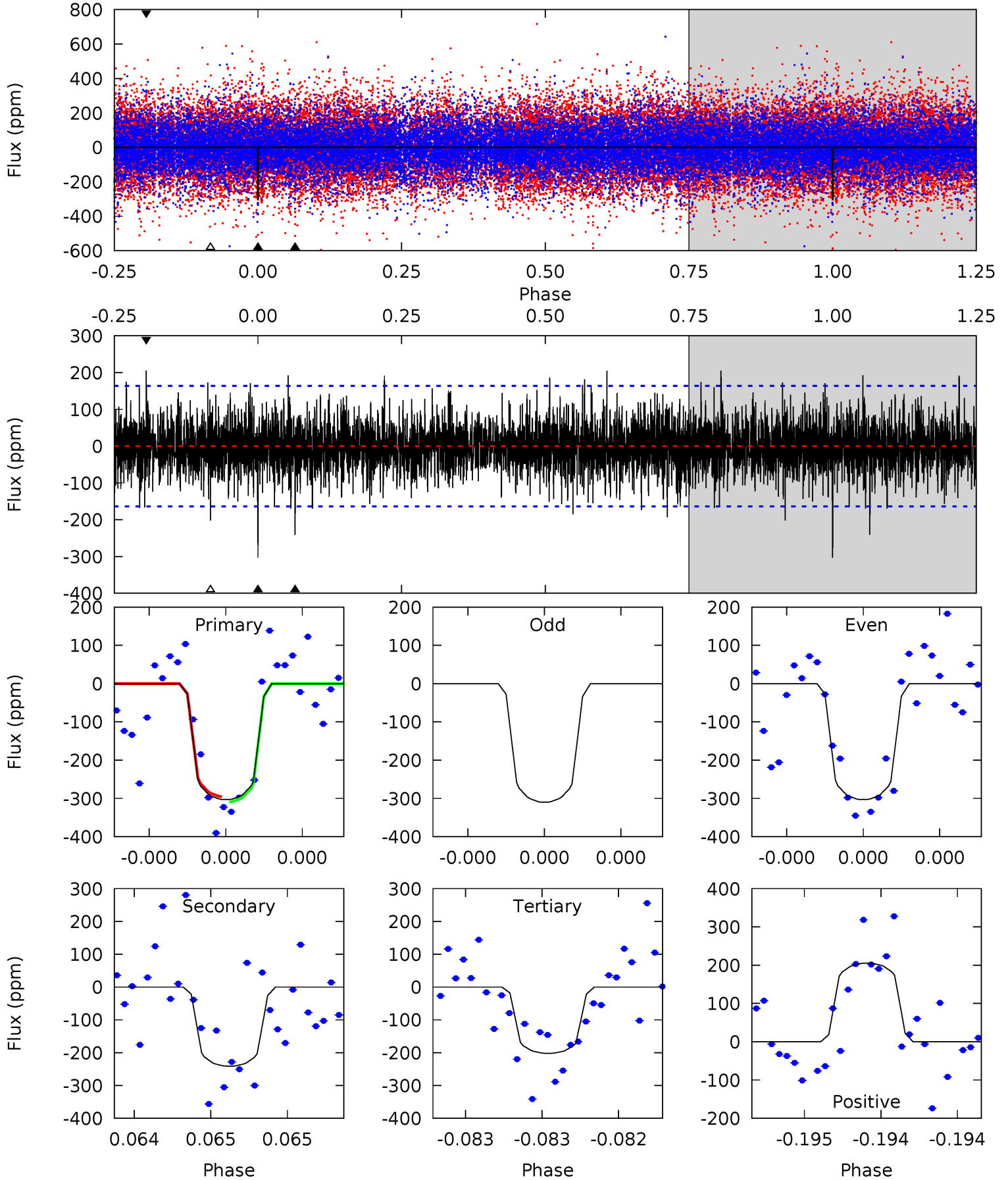
TCE 008692983-05 $P=303.073172$ Days $T_0=307.883204$ (BKJD)



DV Model-Shift Uniqueness Test

008692983-05, P = 303.071579 Days, E = 4.811441 Days

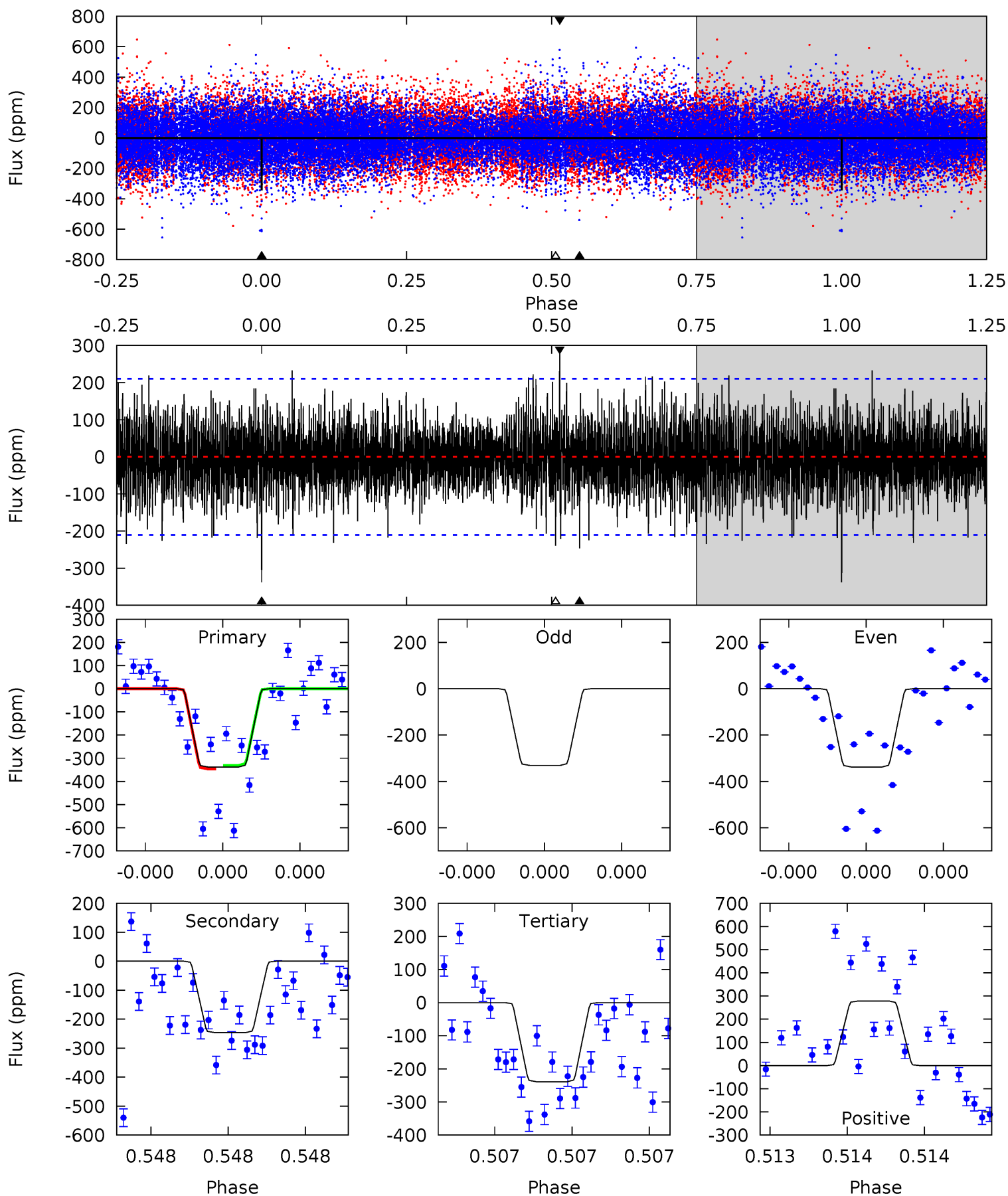
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	8.21	6.87	6.99	5.58	3.49	1.80	3.44	3.33	1.34	1.22	0.14	1.07	0.40	0.24



Alt Model-Shift Uniqueness Test

008692983-05, P = 303.073172 Days, E = 4.810032 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.05	6.60	6.41	7.46	5.64	3.58	1.72	2.65	1.59	0.20	-0.85	0.12	0.88	0.45	0.20



Stellar Parameters For KIC 008692983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7136^{+197}_{-272}	$3.602^{+0.289}_{-0.051}$	$-0.060^{+0.250}_{-0.250}$	$3.614^{+0.303}_{-1.214}$	$1.906^{+0.167}_{-0.310}$	$0.057^{+0.111}_{-0.010}$
	+3%/-4%	+8%/-1%	+417%/-417%	+8%/-34%	+9%/-16%	+196%/-17%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008692983-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-241 ± 29	$7.32^{+4.54}_{-4.22}$	779^{+42}_{-64}	6244^{+4042}_{-1233}	2920^{+13684}_{-1785}
Alt.	-246 ± 37	$7.94^{+4.49}_{-4.33}$	776^{+43}_{-59}	5960^{+3422}_{-1111}	2500^{+9641}_{-1485}

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

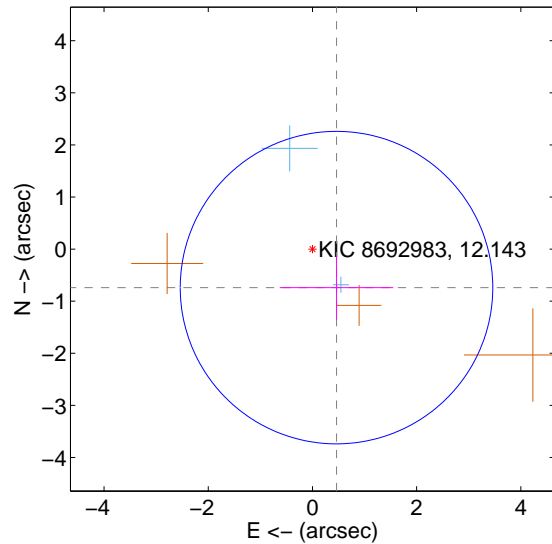
Supplemental centroid analysis for 008692983-05. Kepler magnitude: 12.14. Transit SNR 7.90

There are 2 quarters with good PRF difference image offsets

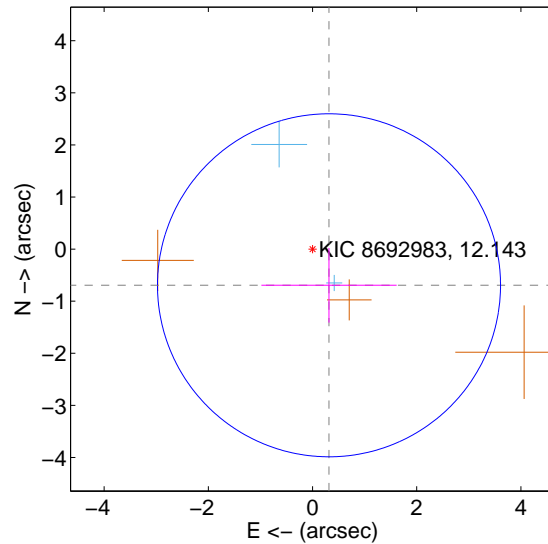
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.872 ± 1.000	0.87	-0.462 ± 1.090	-0.739 ± 0.609
PRF-fit source offset from KIC position	0.763 ± 1.098	0.70	-0.316 ± 1.298	-0.695 ± 0.716
photometric centroid source offset	0.50 ± 0.50	1.00	-0.50 ± 0.50	0.00 ± 0.52

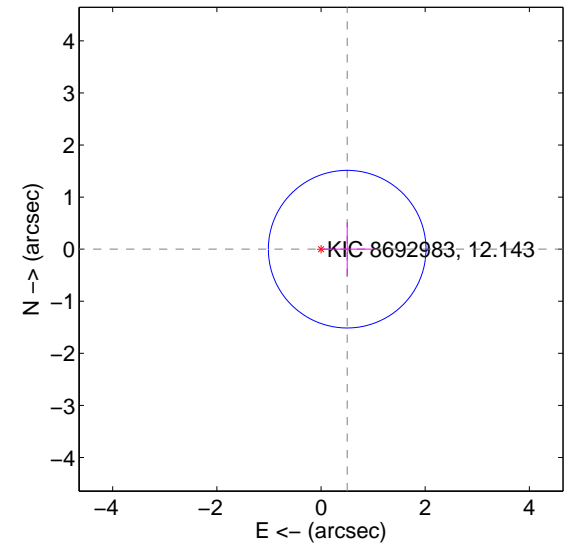
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

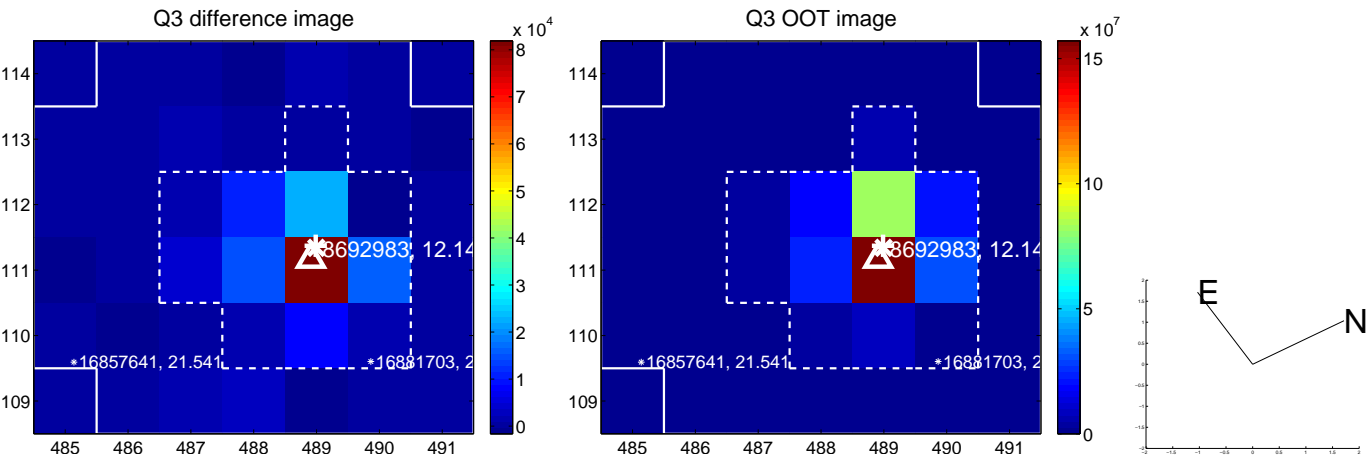
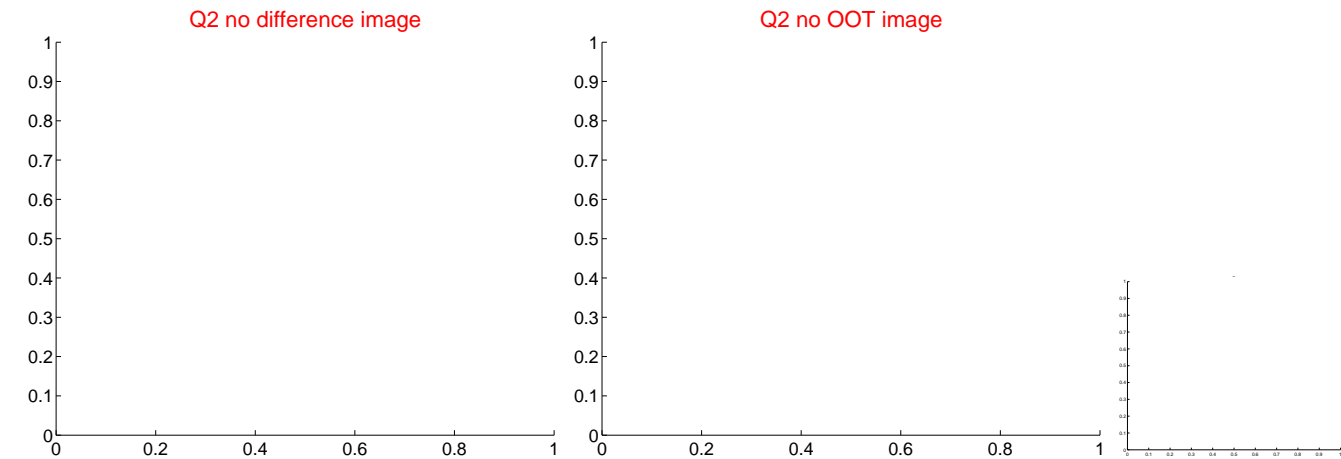


offset from photometric centroids

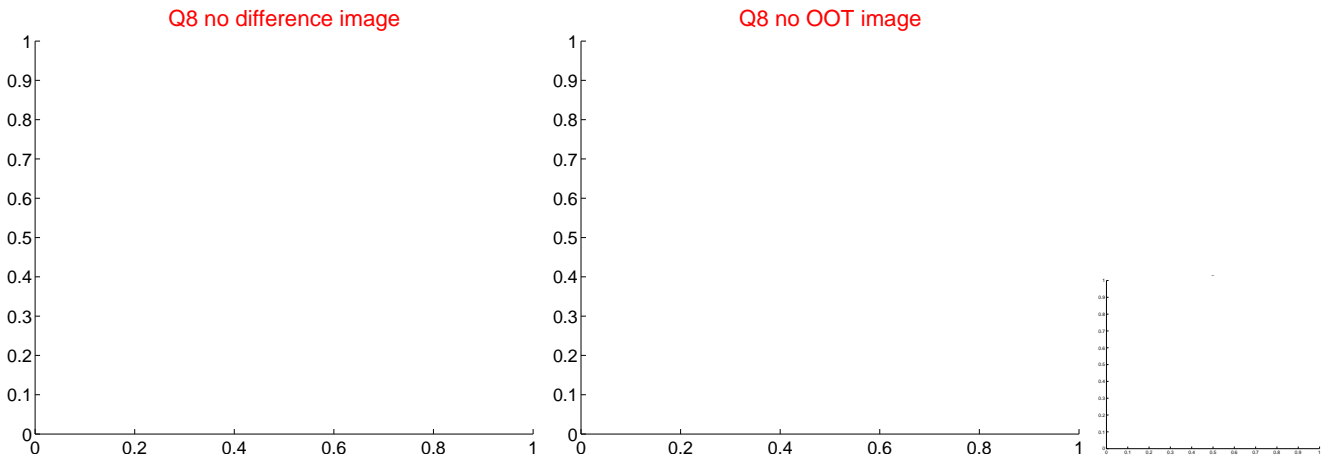
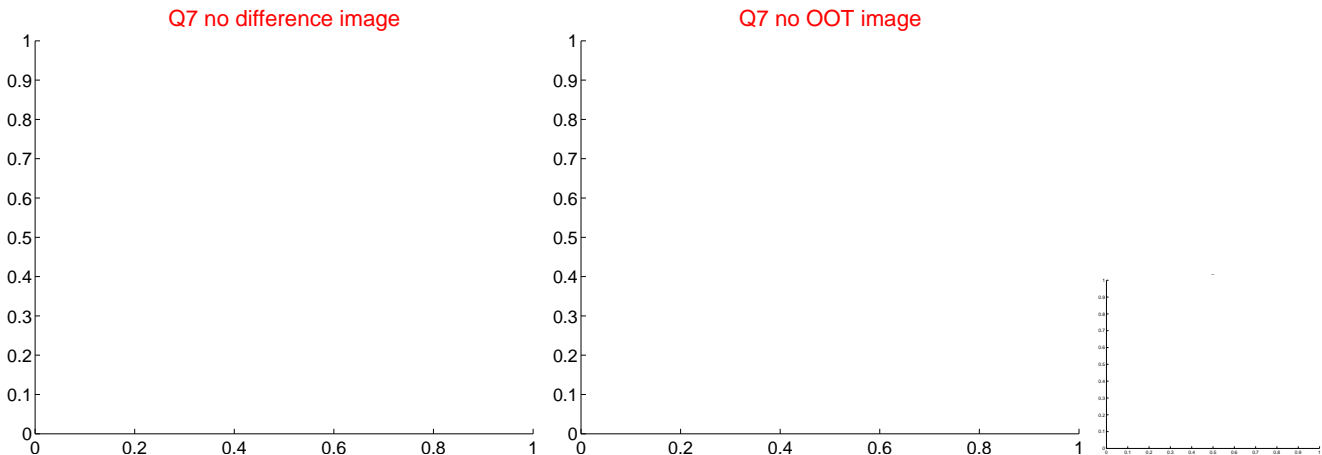
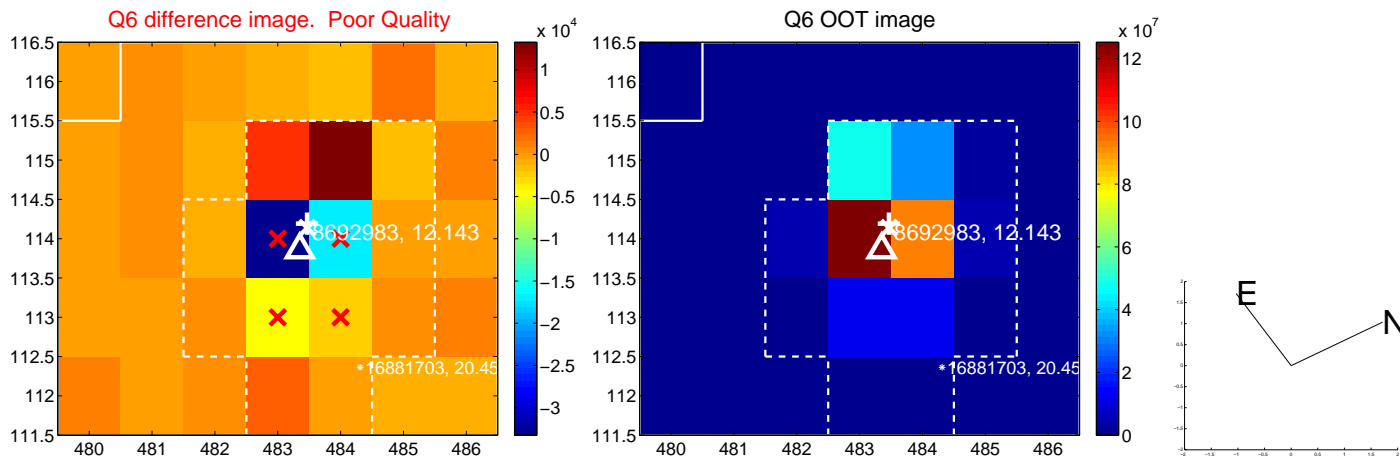
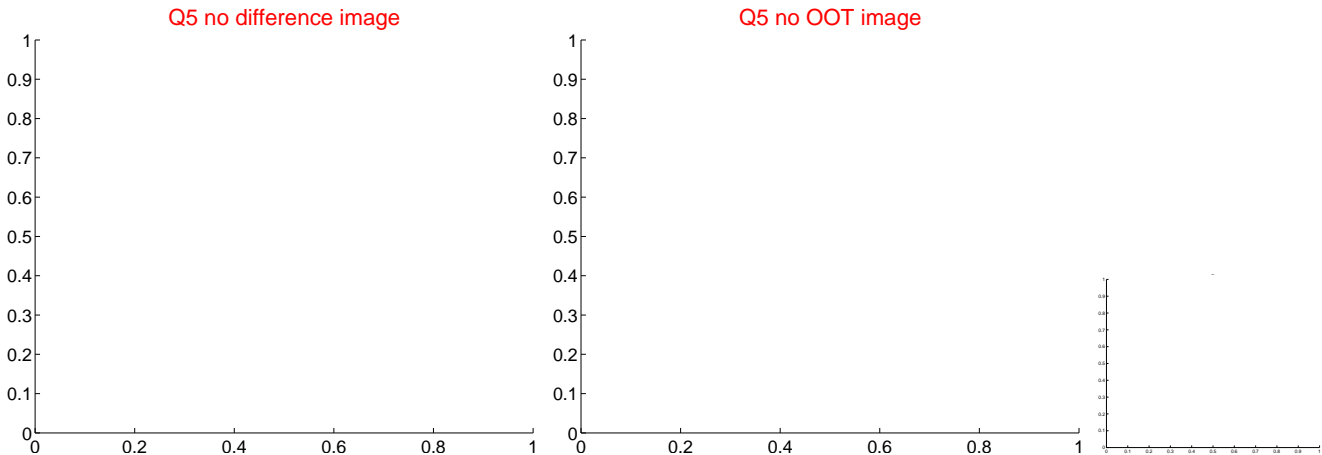


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

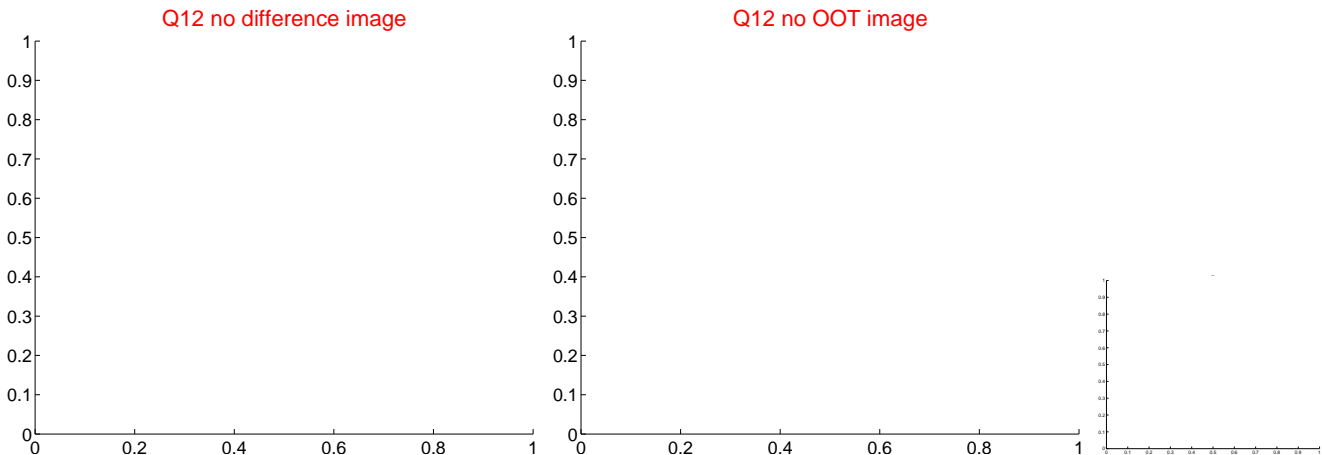
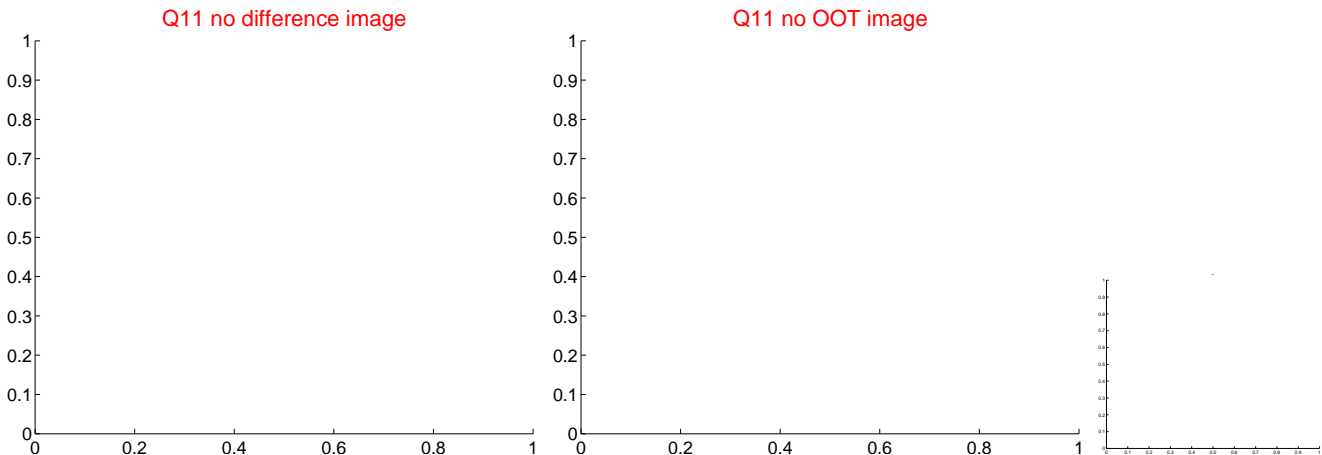
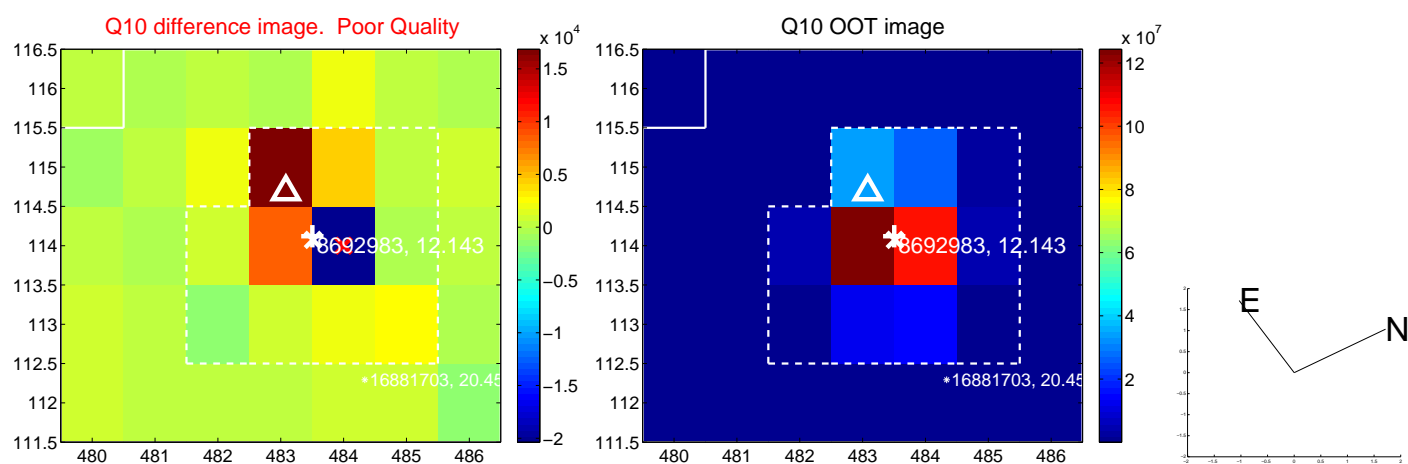
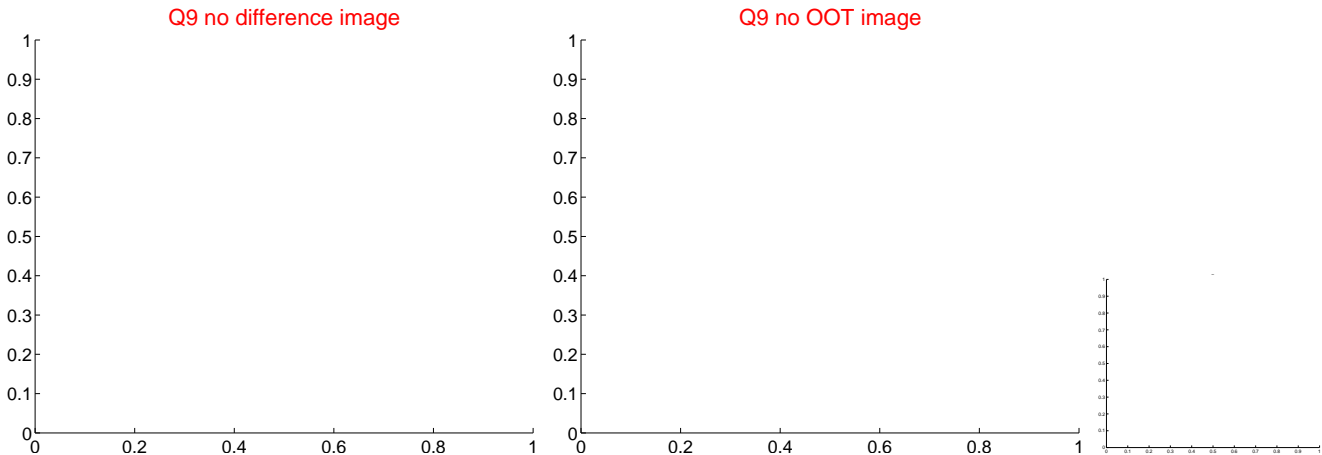
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



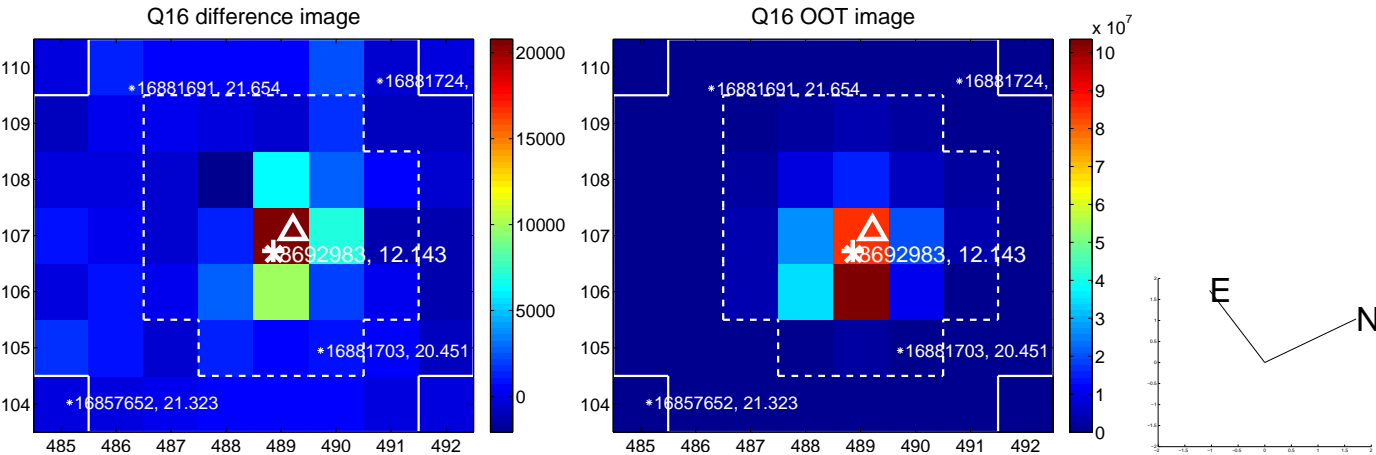
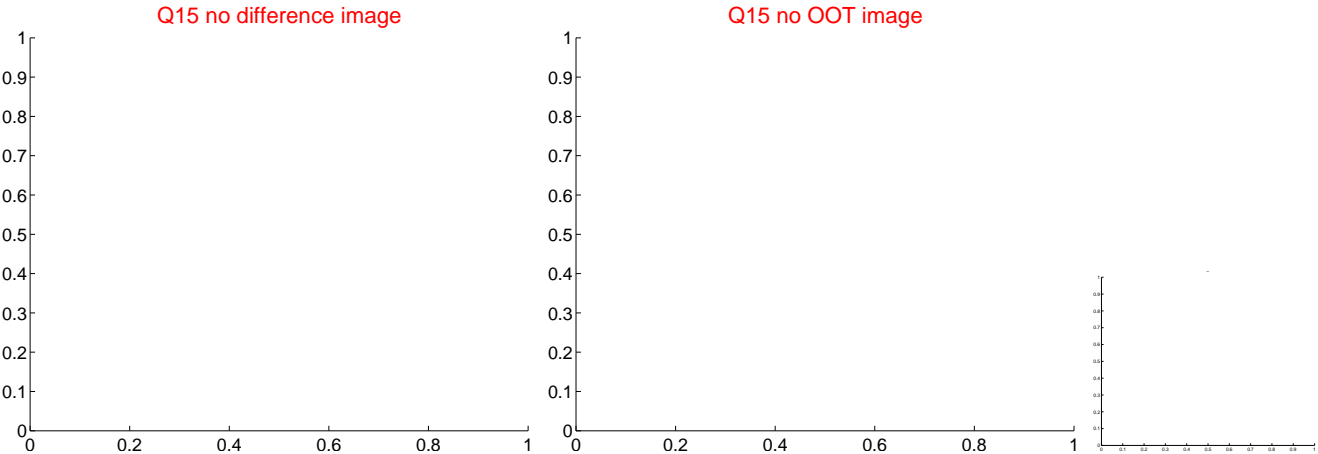
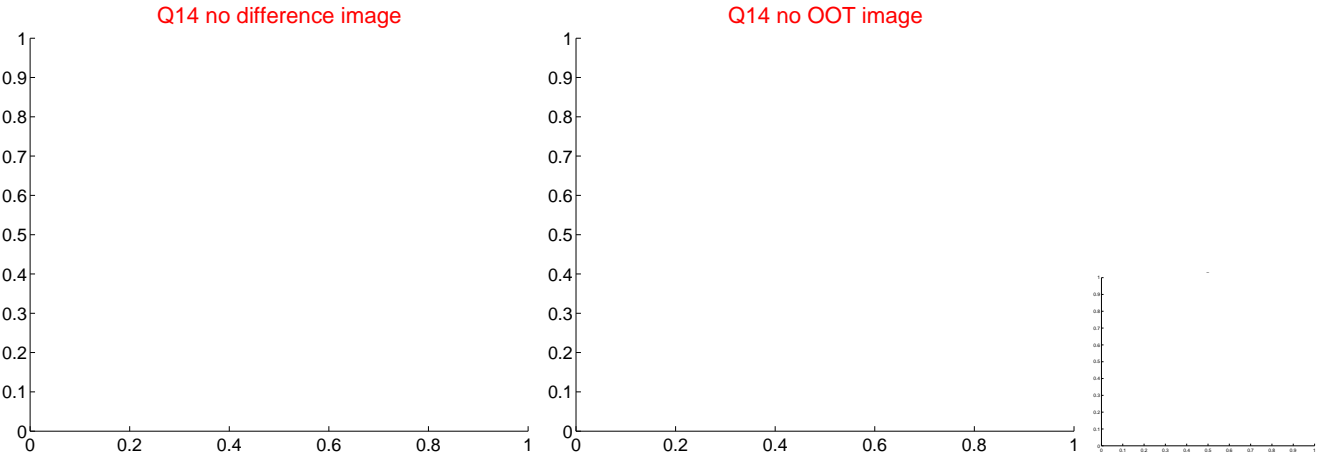
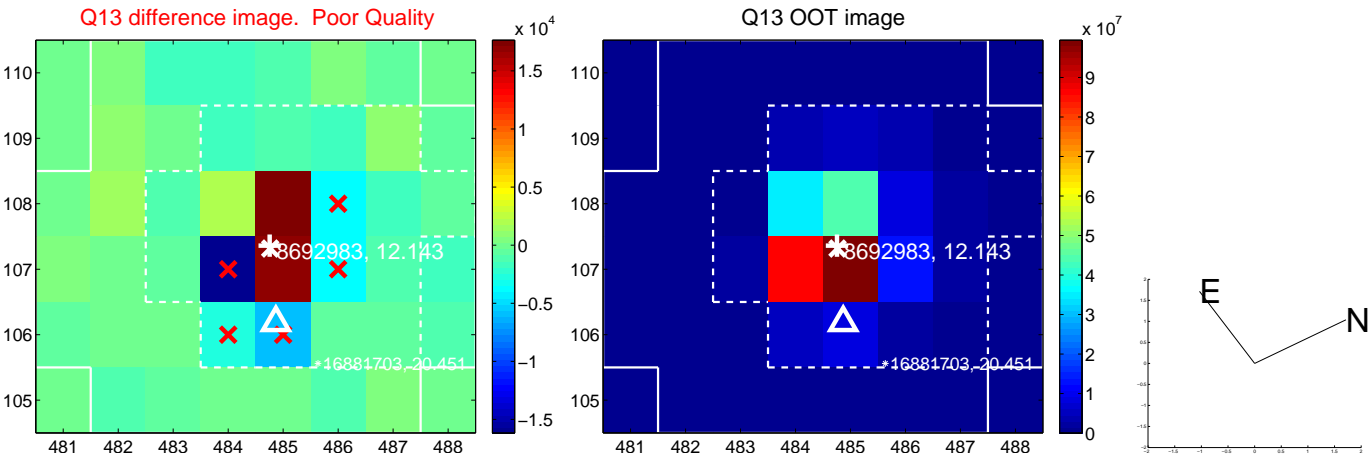
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



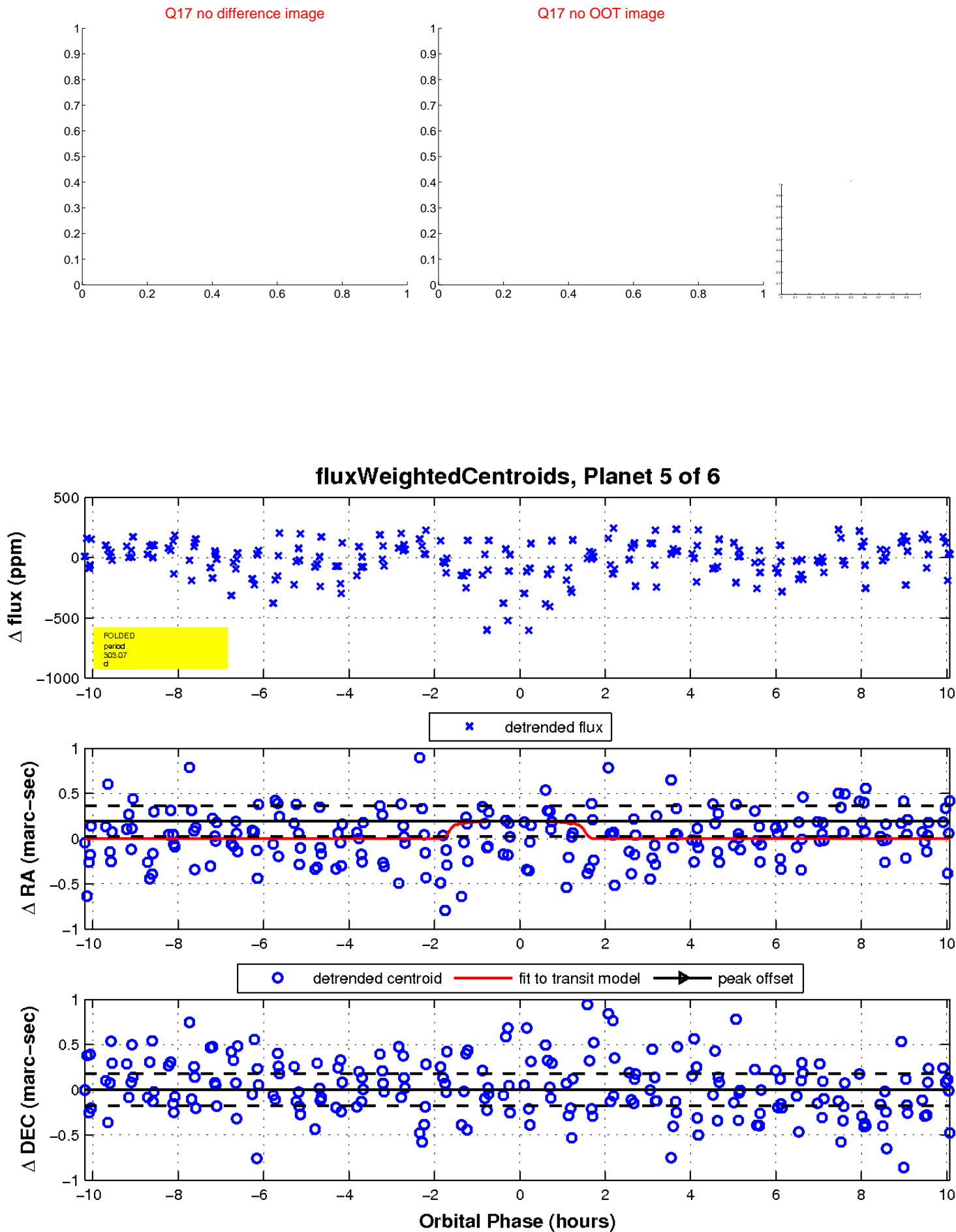
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

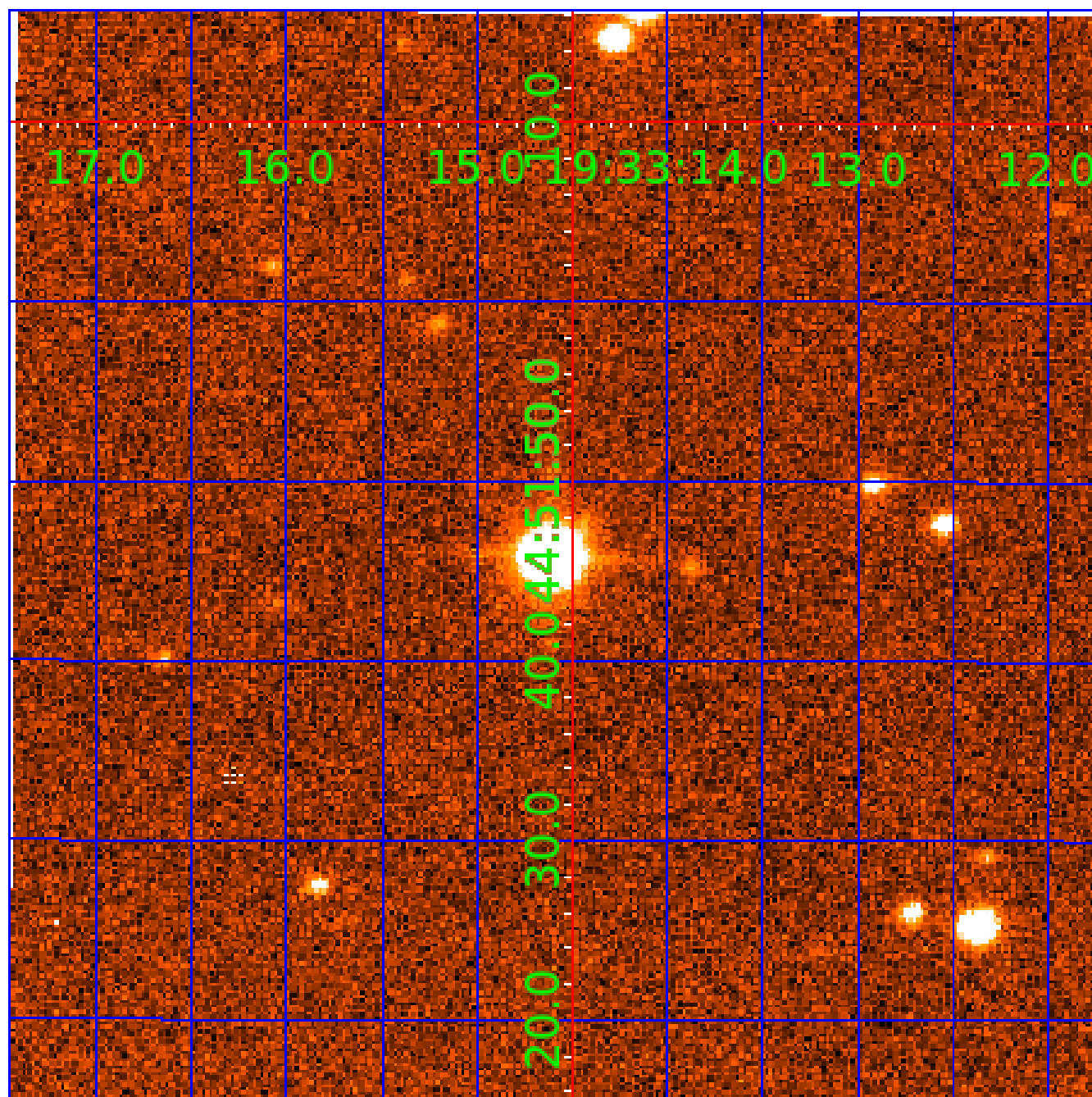


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008692983

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})
008692983-01	OBS	No	2.493485	132.482096	27.5	8.865	10.1	9.0	3.61	7136	2.31	15239.25
008692983-02	OBS	No	630.403607	139.292001	284.6	18.590	12.8	8.9	3.61	7136	6.60	9.53
008692983-03	OBS	No	392.089197	389.414588	230.9	15.175	10.1	5.9	3.61	7136	5.96	17.95
008692983-04	OBS	No	184.774659	188.331750	220.7	6.192	7.8	7.7	3.61	7136	6.64	48.96
008692983-05	OBS	No	303.071579	307.883020	326.2	3.422	7.7	7.9	3.61	7136	7.36	25.31
008692983-06	OBS	No	112.671803	240.046636	140.0	2.000	7.1	-1.0	3.61	7136	4.33	94.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008692983-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
008692983-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
008692983-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
008692983-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
008692983-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

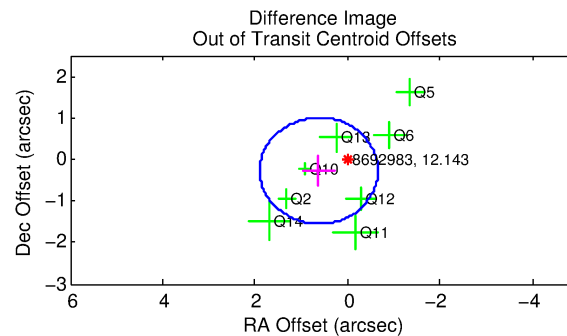
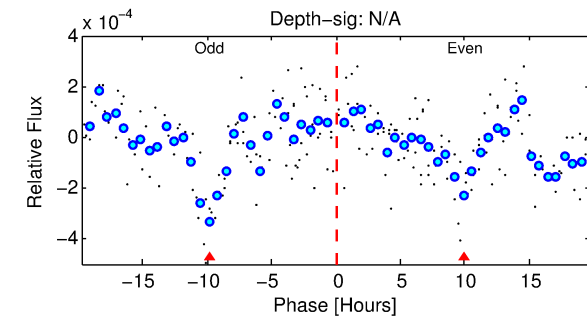
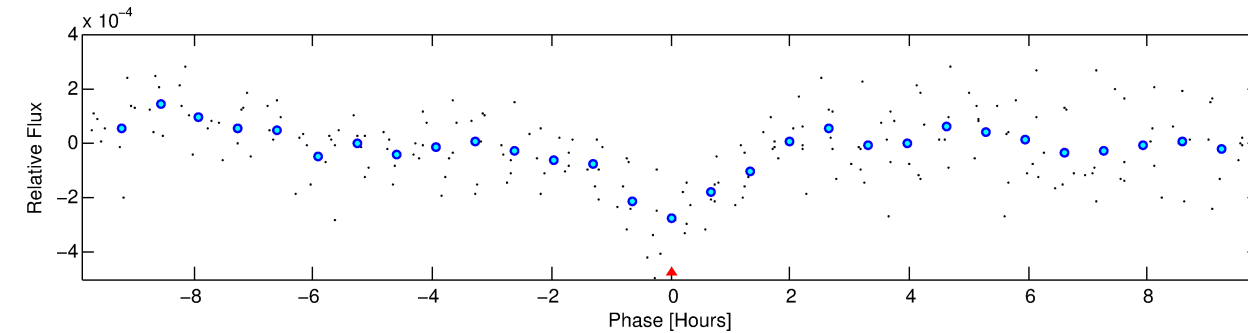
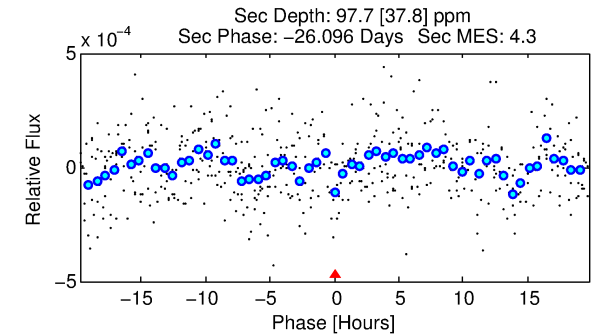
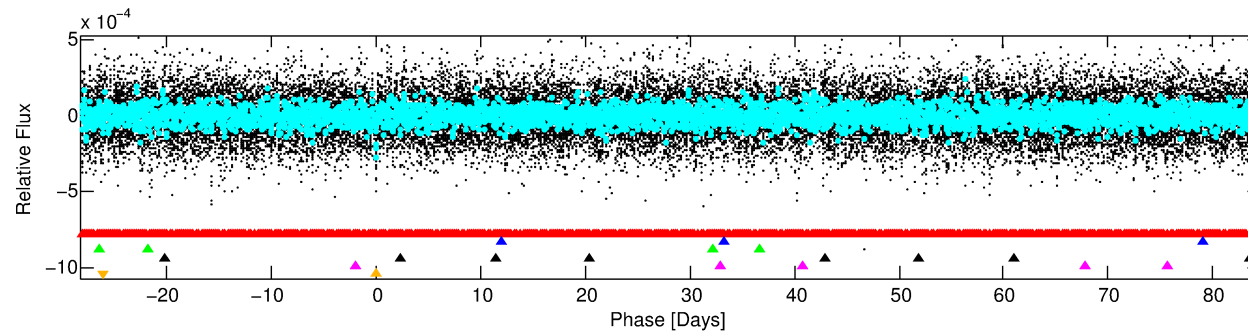
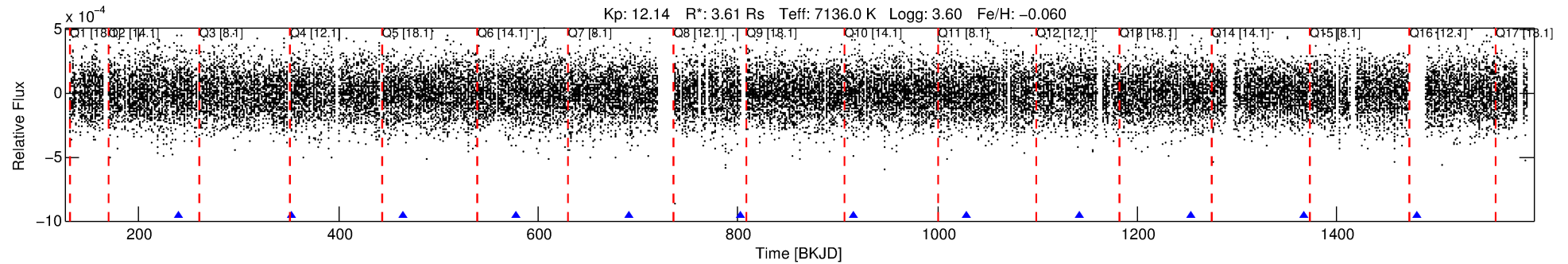
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008692983-06

No Significant Match Found

DV One-Page Summary

KIC: 8692983 Candidate: 6 of 6 Period: 112.672 d



TPS TCE Results:

Period = 112.67180 d
Epoch = 240.0466 BKJD

DV fit results are unavailable

DV Diagnostic Results:

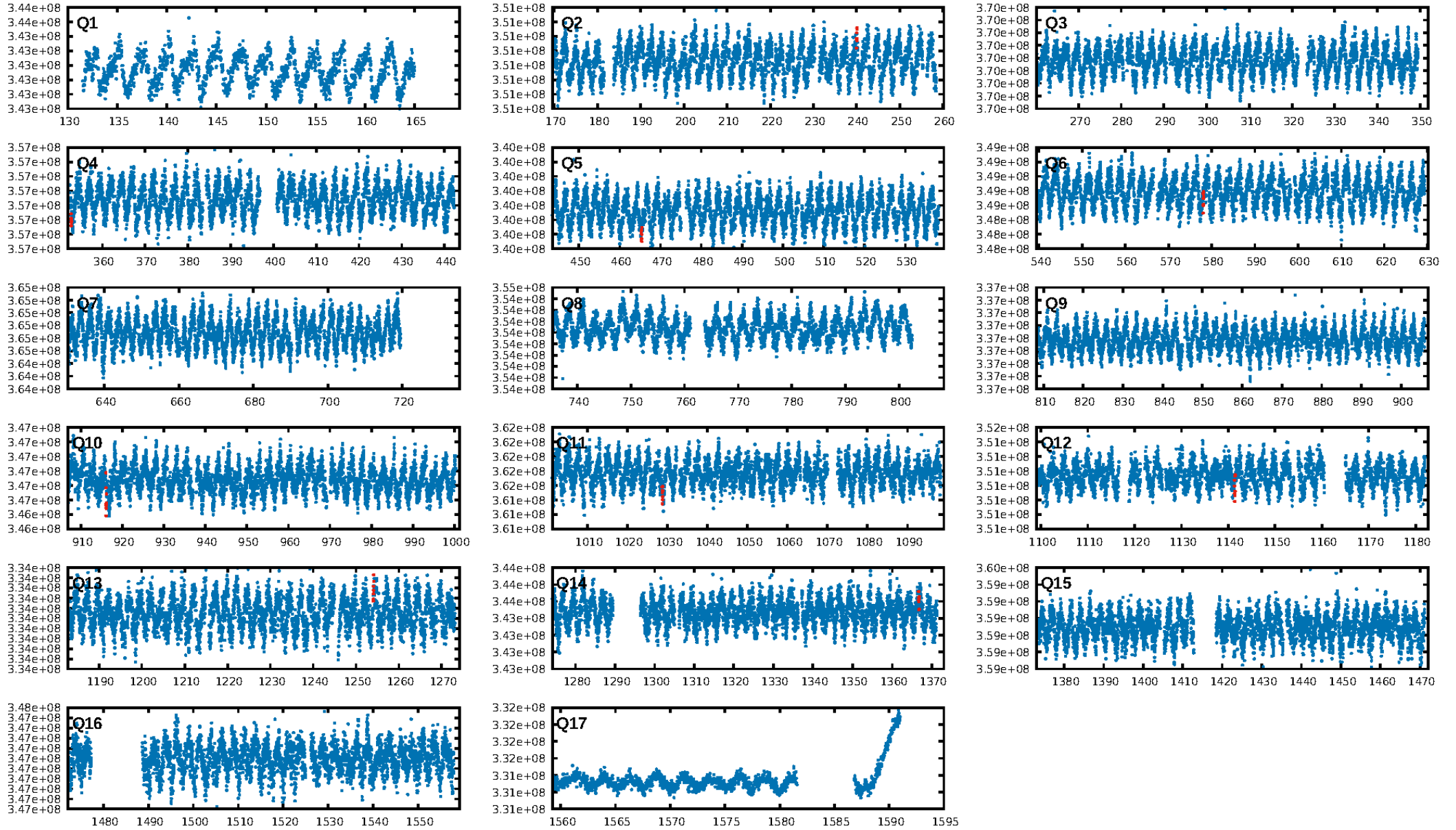
ShortPeriod-sig: 100.0% [290.97σ]
LongPeriod-sig: 100.0% [265.95σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 2.304

Centroid-sig: 46.9%
Centroid-so: 0.545 arcsec [1.00σ]
OotOffset-rm: 0.685 arcsec [1.61σ]
KicOffset-rm: 0.827 arcsec [1.70σ]
OotOffset-st: 4/1/1/2 [8]
KicOffset-st: 4/1/1/2 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 0.62 [5/8]

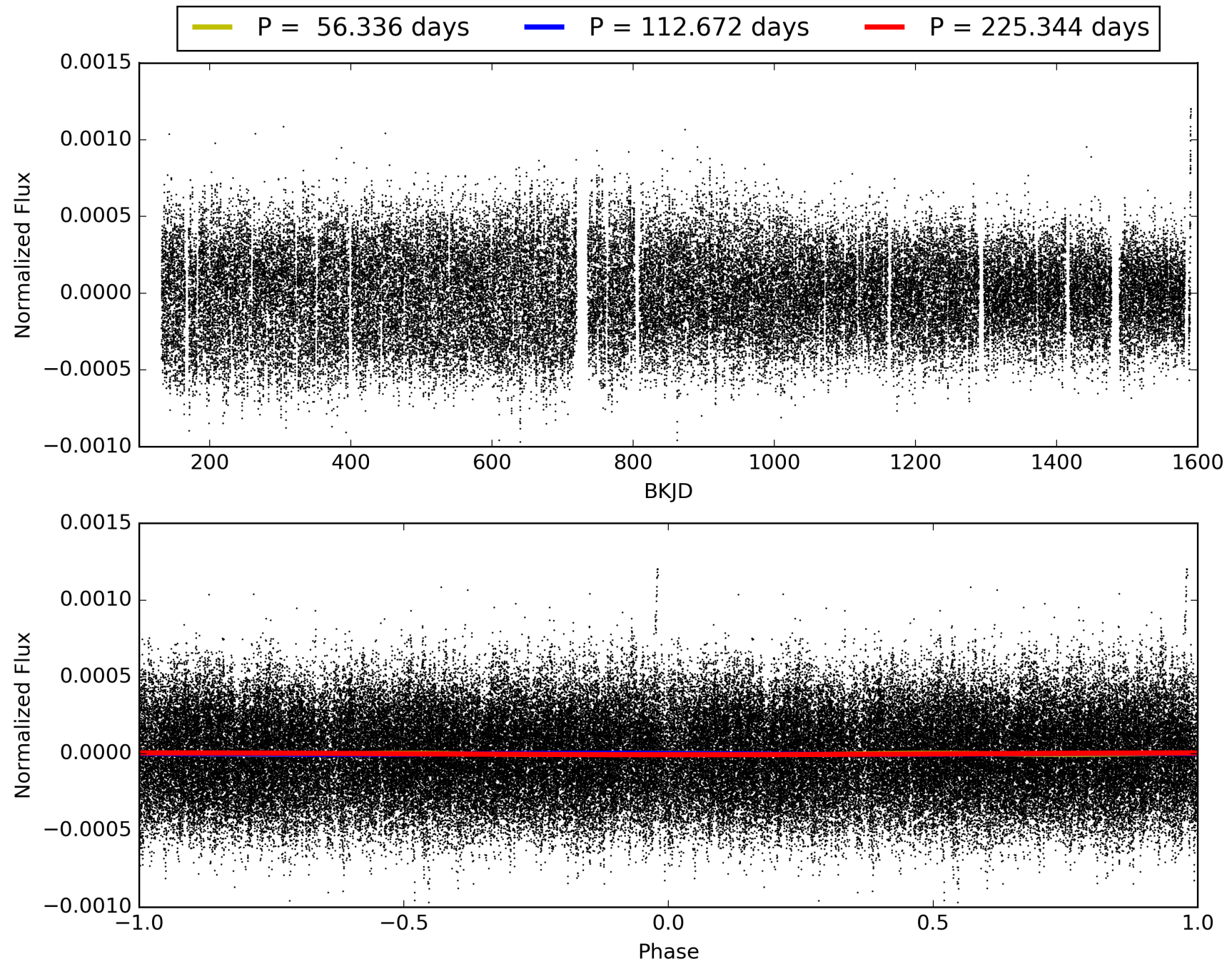
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:26:06 Z

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

TCE 008692983-06, PDC Light Curves

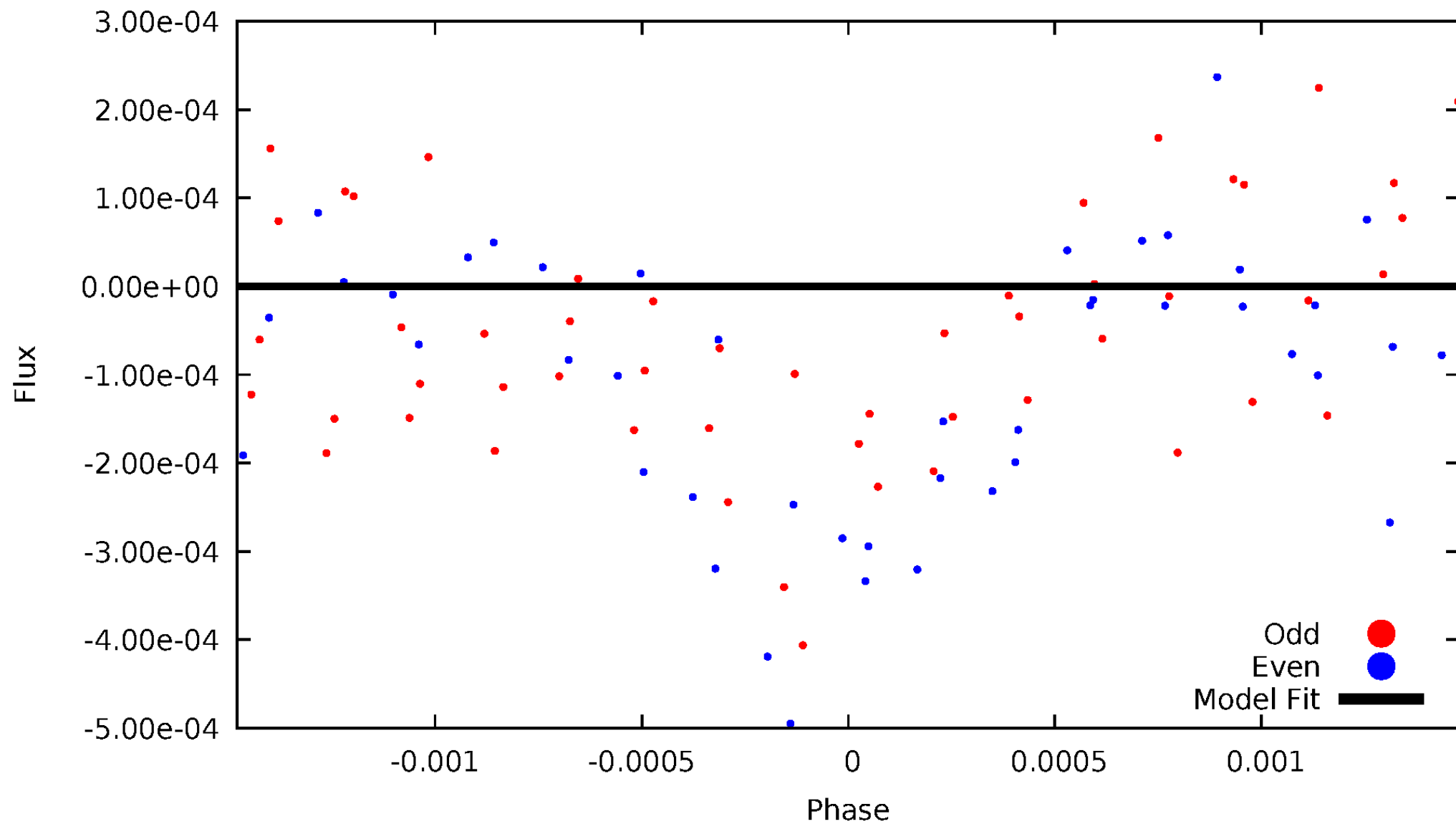


TCE 008692983-06



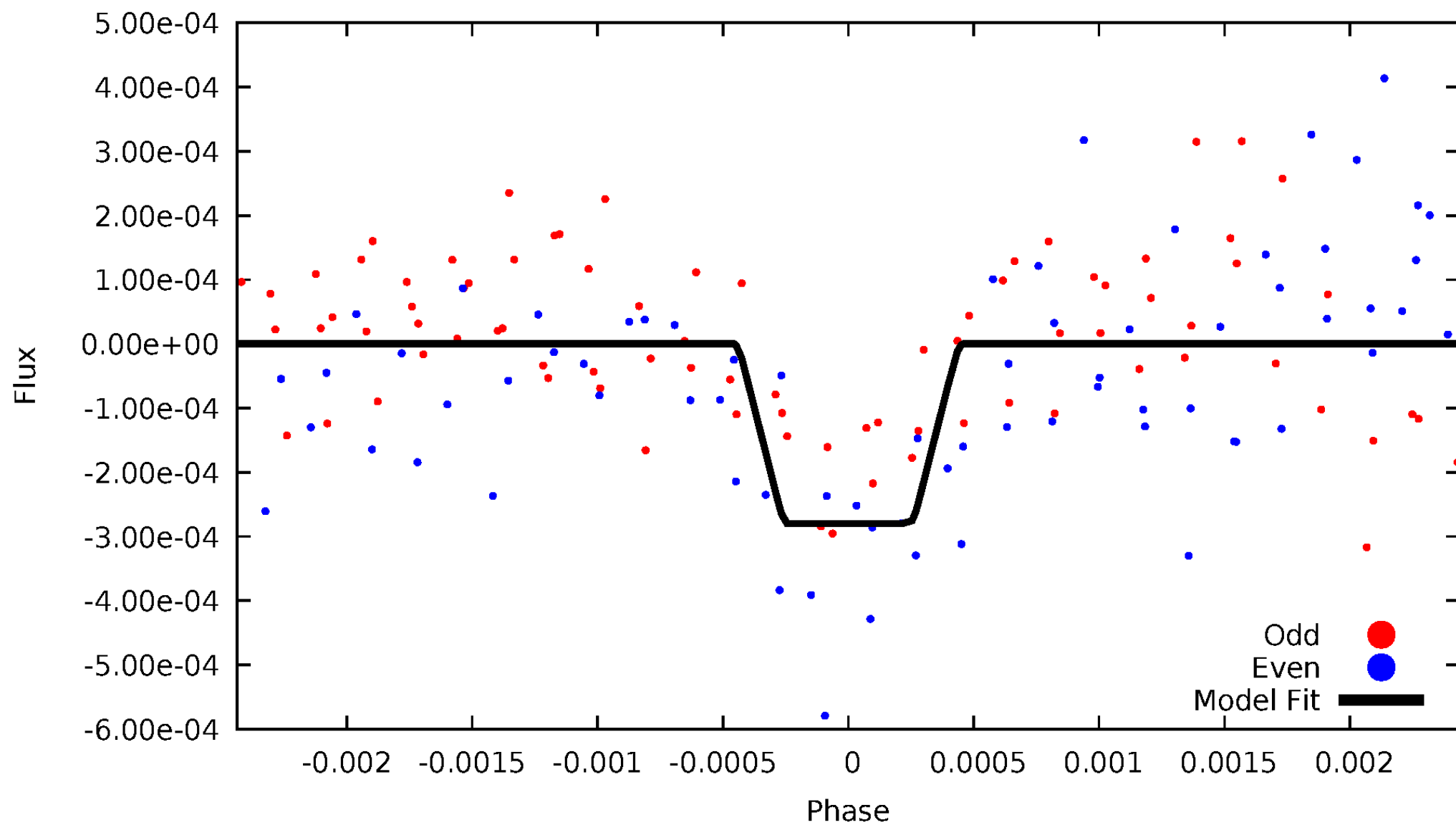
DV Odd/Even

TCE 008692983-06



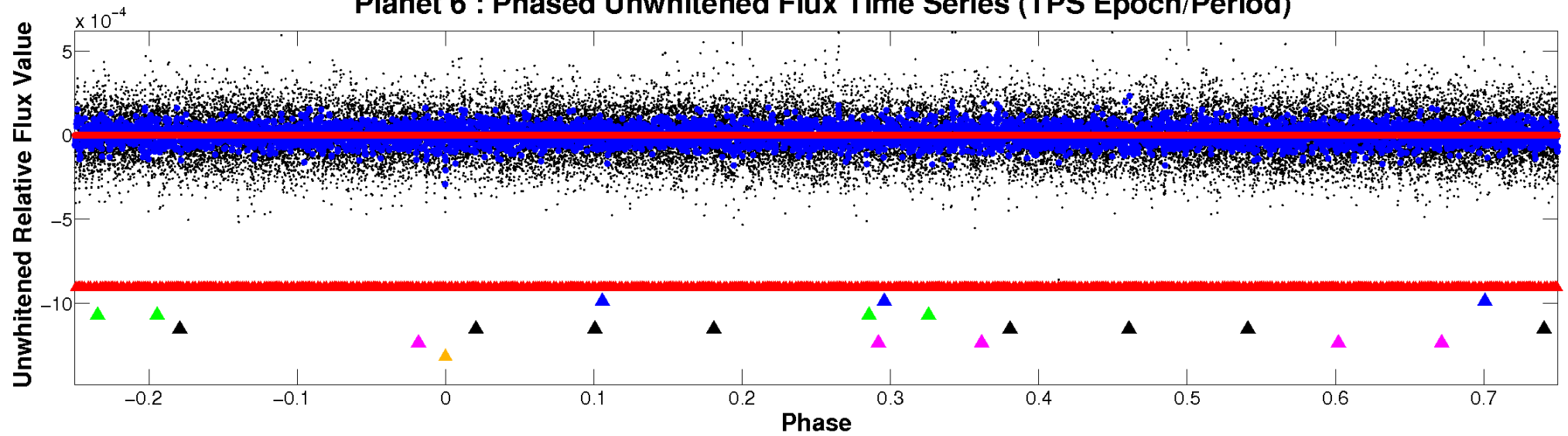
ALT Odd/Even

TCE 008692983-06

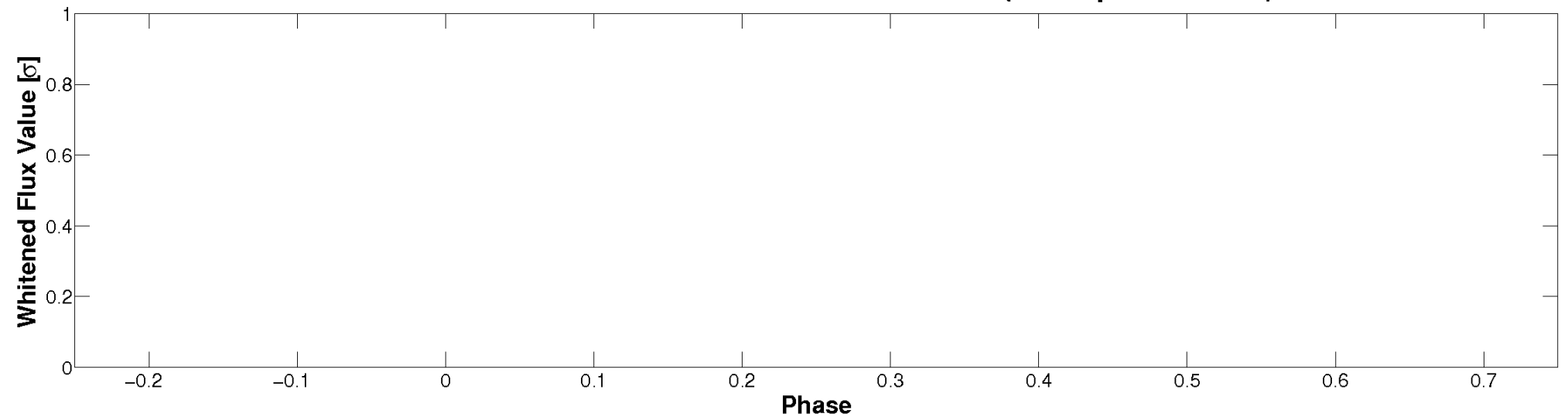


Non-Whitened Vs. Whitened Light Curve

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

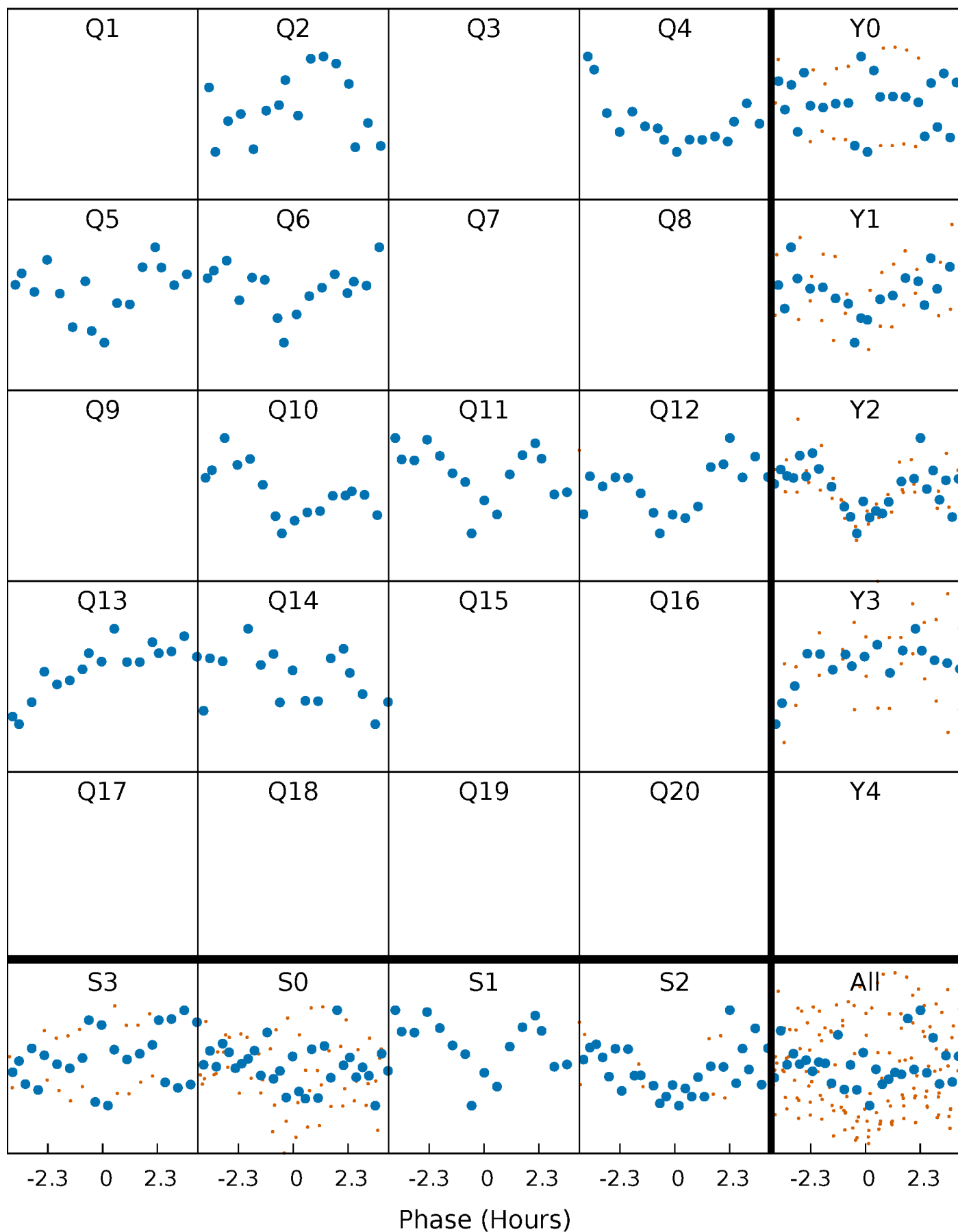


Planet 6 : Phased Whitened Flux Time Series (TPS Epoch/Period)



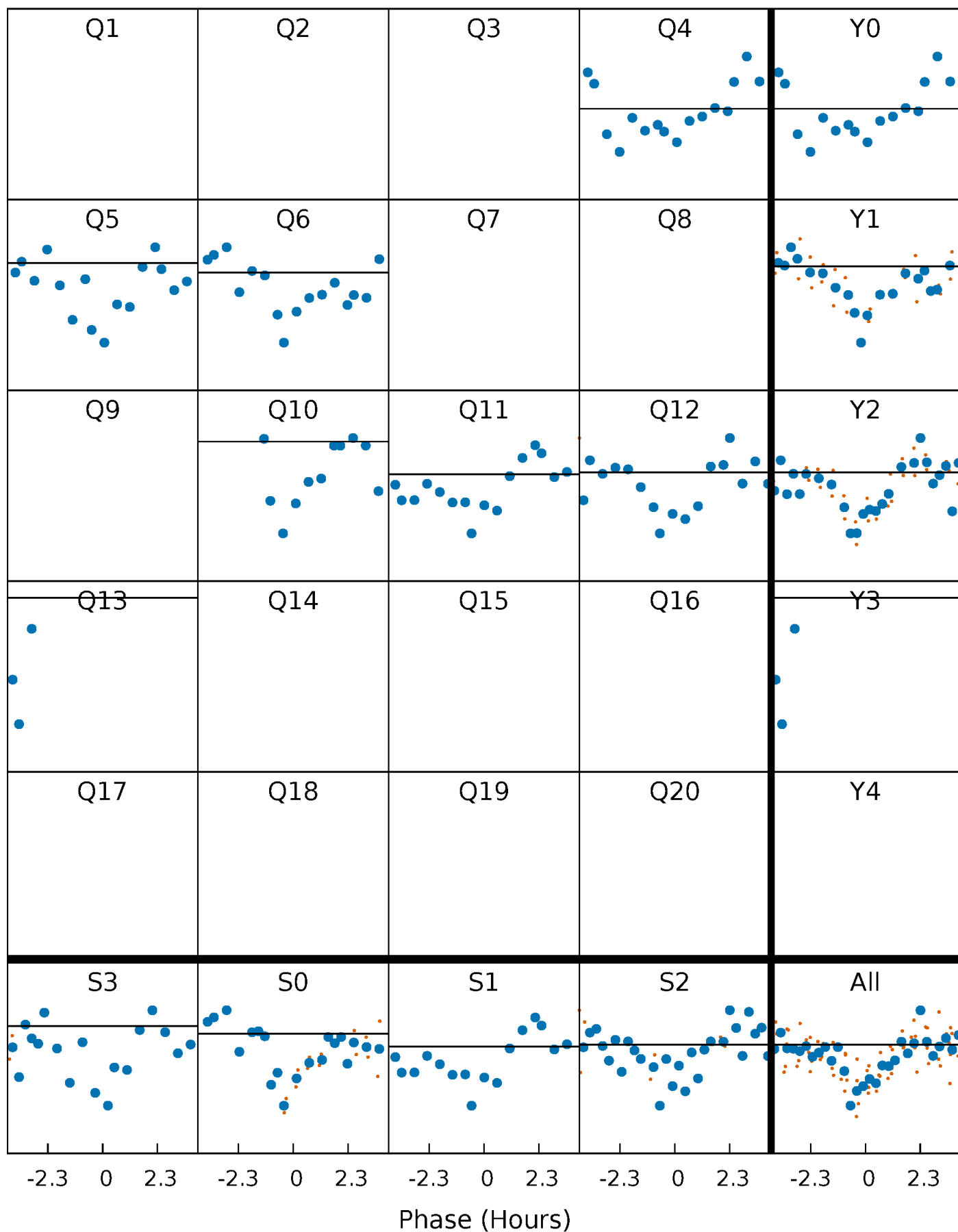
PDC Quarter-Phased Transit Curves

TCE 008692983-06 P=112.671803 Days $T_0=240.046636$ (BKJD)



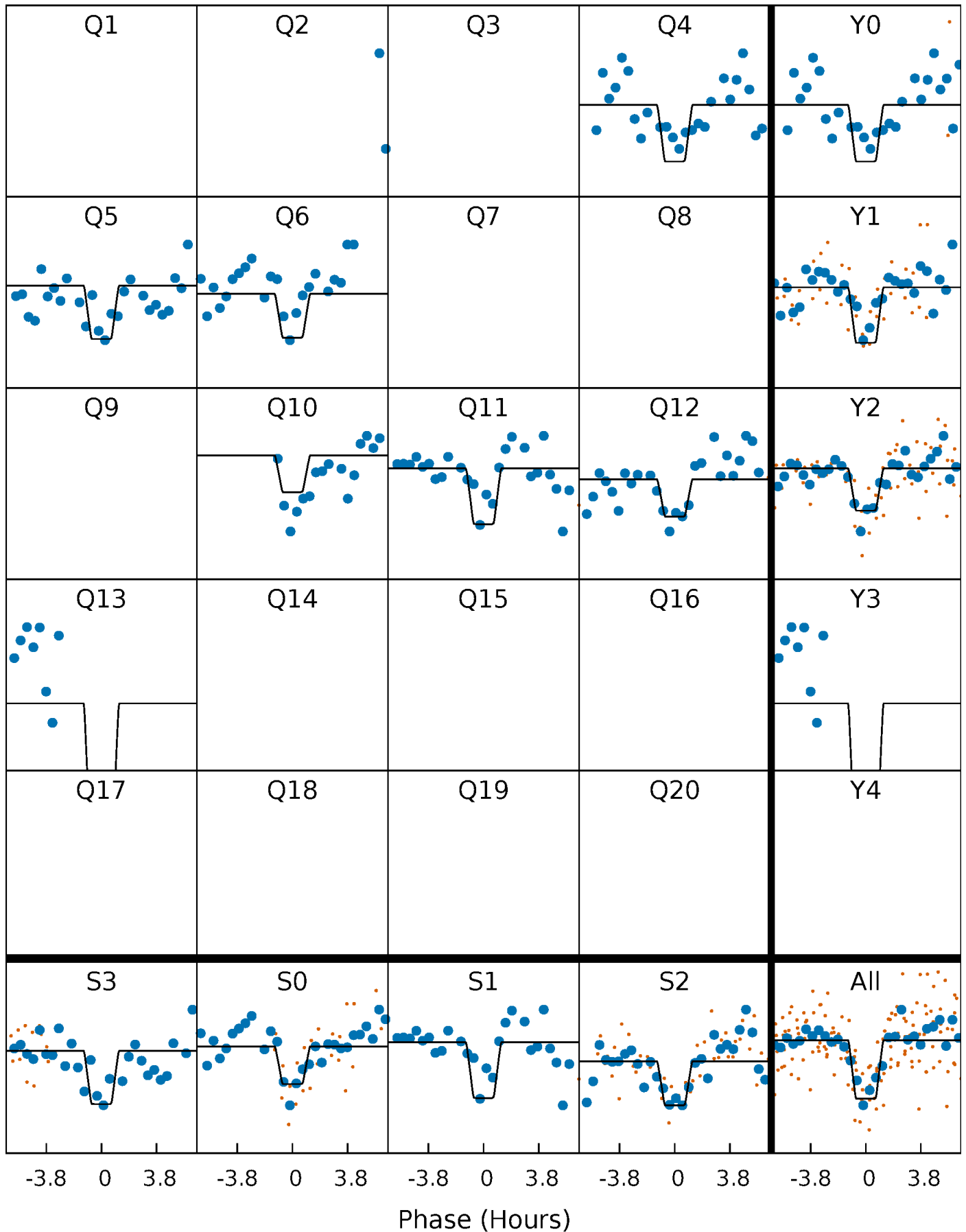
DV Quarter-Phased Transit Curves

TCE 008692983-06 $P=112.671803$ Days $T_0=240.046636$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

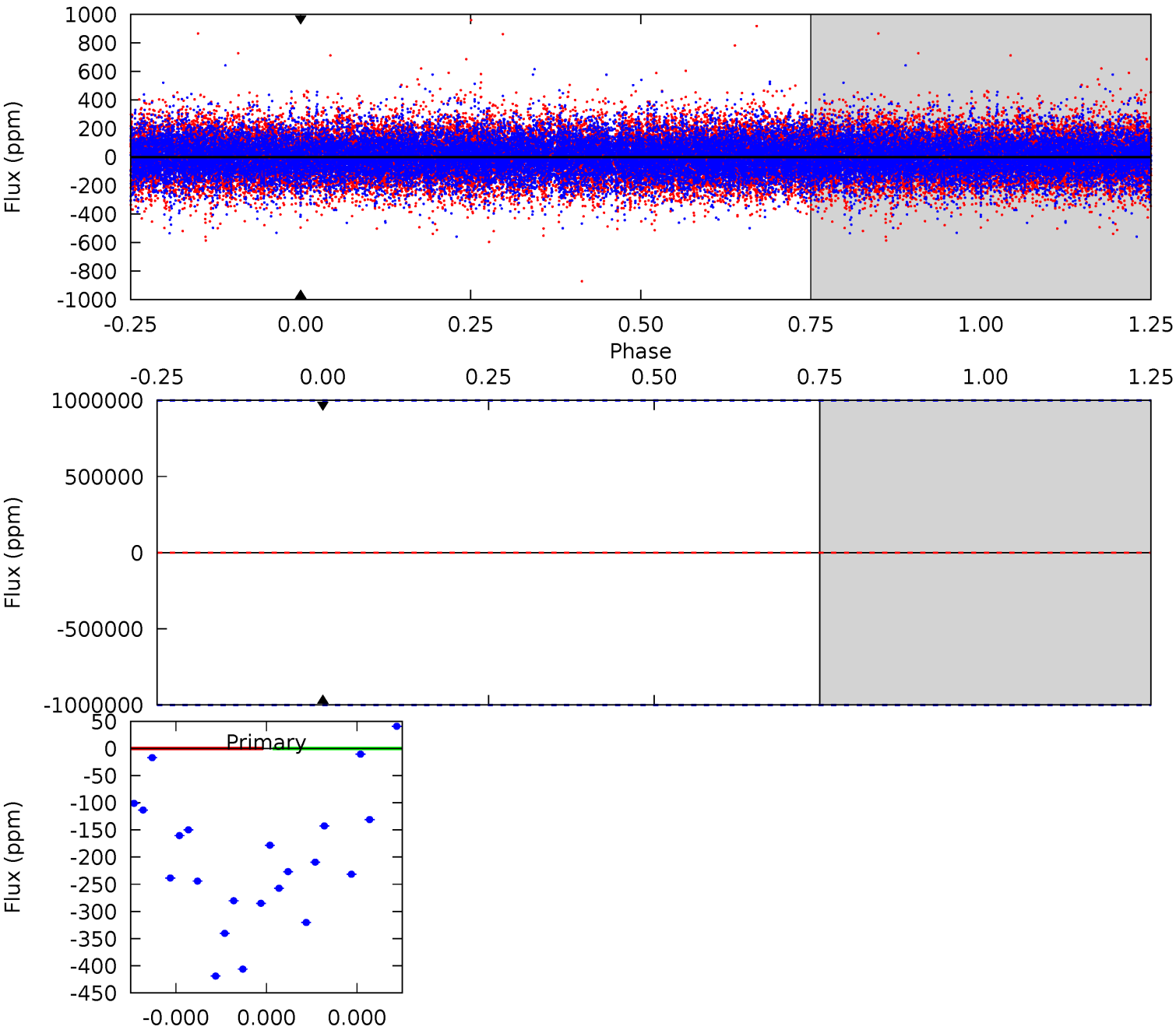
TCE 008692983-06 P=112.671803 Days $T_0=240.041342$ (BKJD)



DV Model-Shift Uniqueness Test

008692983-06, P = 112.671803 Days, E = 127.374833 Days

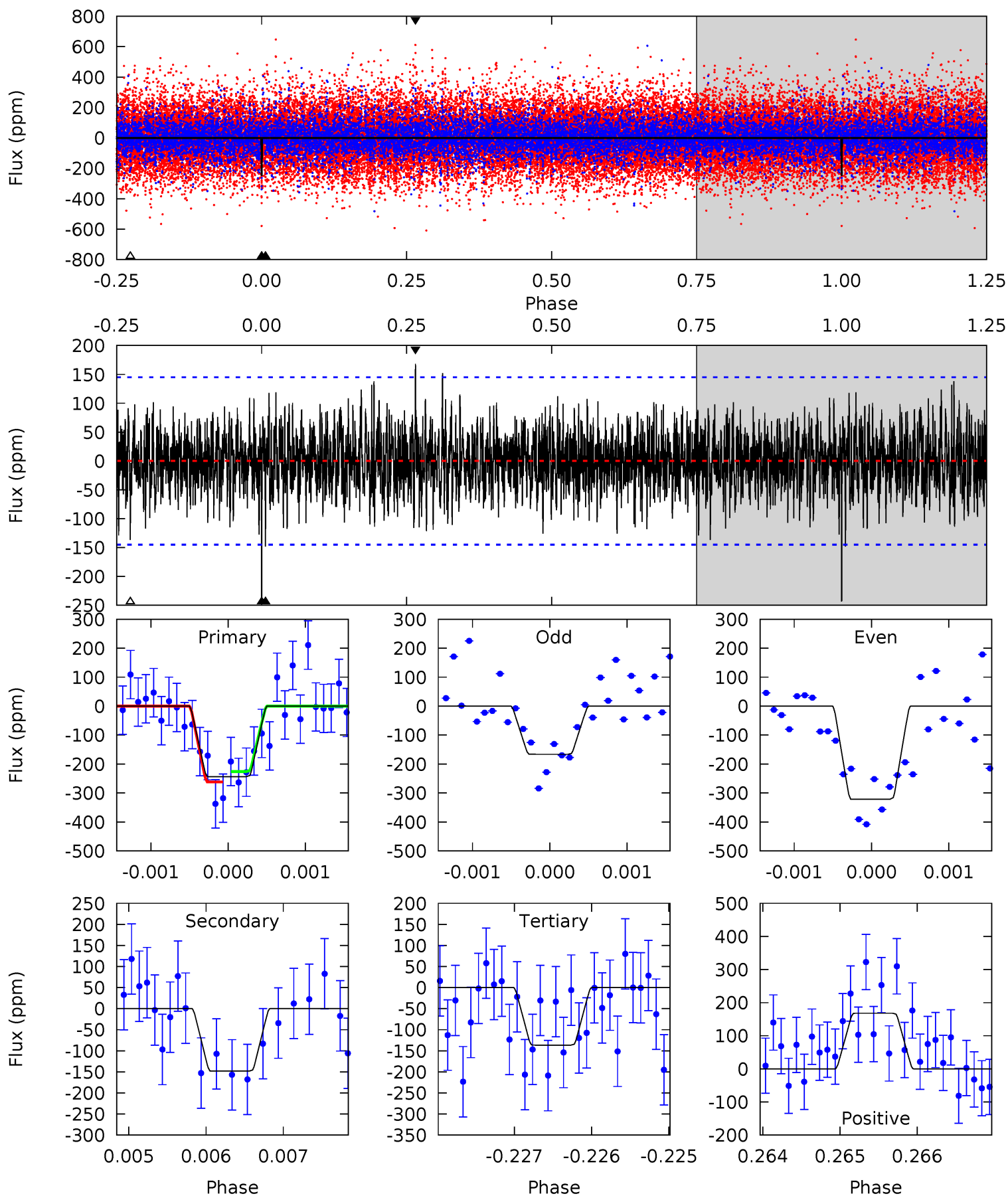
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008692983-06, P = 112.671803 Days, E = 127.369539 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.18	5.58	5.15	6.33	5.47	3.32	1.53	4.03	2.85	0.43	-0.75	2.93	1.32	0.41	0.67



Stellar Parameters For KIC 008692983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7136^{+197}_{-272}	$3.602^{+0.289}_{-0.051}$	$-0.060^{+0.250}_{-0.250}$	$3.614^{+0.303}_{-1.214}$	$1.906^{+0.167}_{-0.310}$	$0.057^{+0.111}_{-0.010}$
	+3%/-4%	+8%/-1%	+417%/-417%	+8%/-34%	+9%/-16%	+196%/-17%
Source	PHO1	FLK73	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008692983-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$28.12^{+28.31}_{-19.71}$	1086^{+53}_{-94}	-5774^{+36713}_{-25056}	$-531.505^{+37783.427}_{-36114.921}$
Alt.	-148 ± 27	$25.67^{+29.50}_{-17.60}$	1081^{+60}_{-88}	3393^{+1994}_{-636}	38^{+363}_{-30}

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

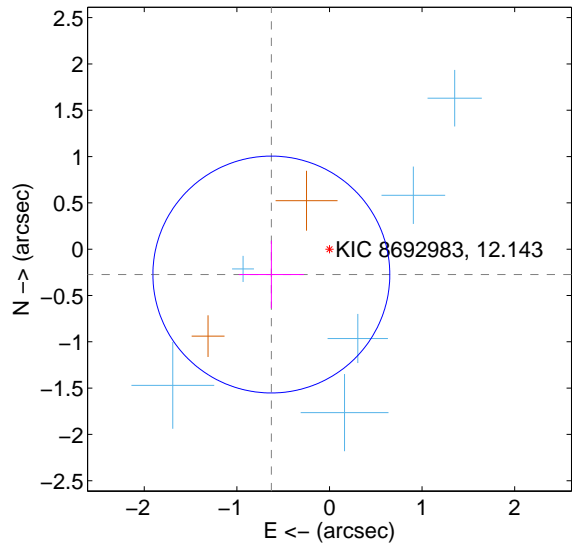
Supplemental centroid analysis for 008692983-06. Kepler magnitude: 12.14. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

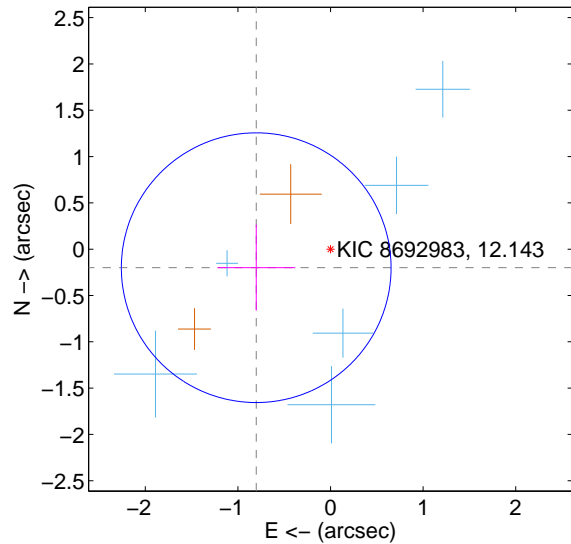
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.685 ± 0.426	1.61	0.627 ± 0.351	-0.274 ± 0.365
PRF-fit source offset from KIC position	0.827 ± 0.485	1.70	0.802 ± 0.420	-0.200 ± 0.464
photometric centroid source offset	0.54 ± 0.54	1.00	0.53 ± 0.54	-0.11 ± 0.58

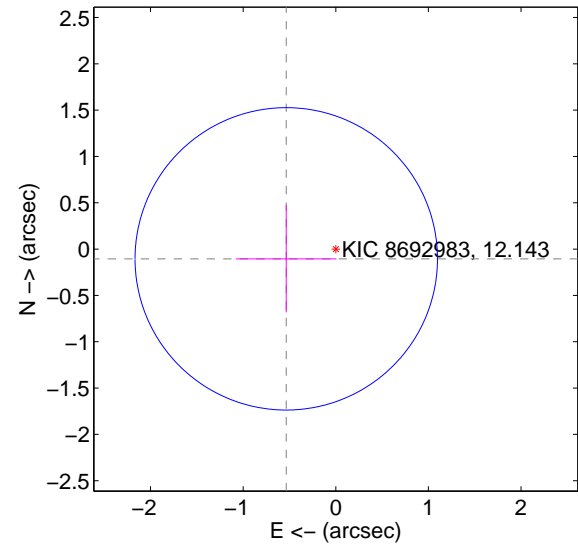
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

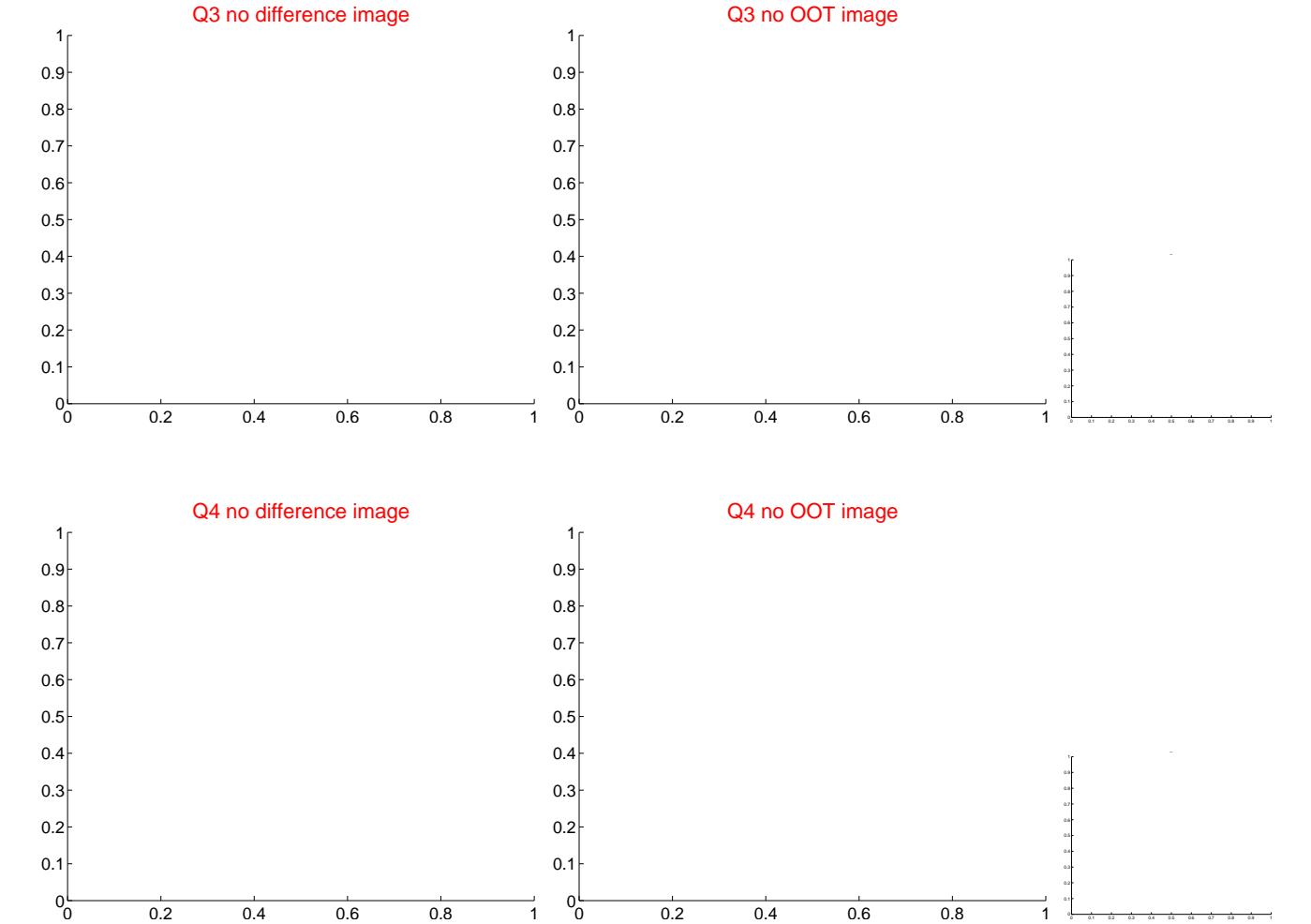
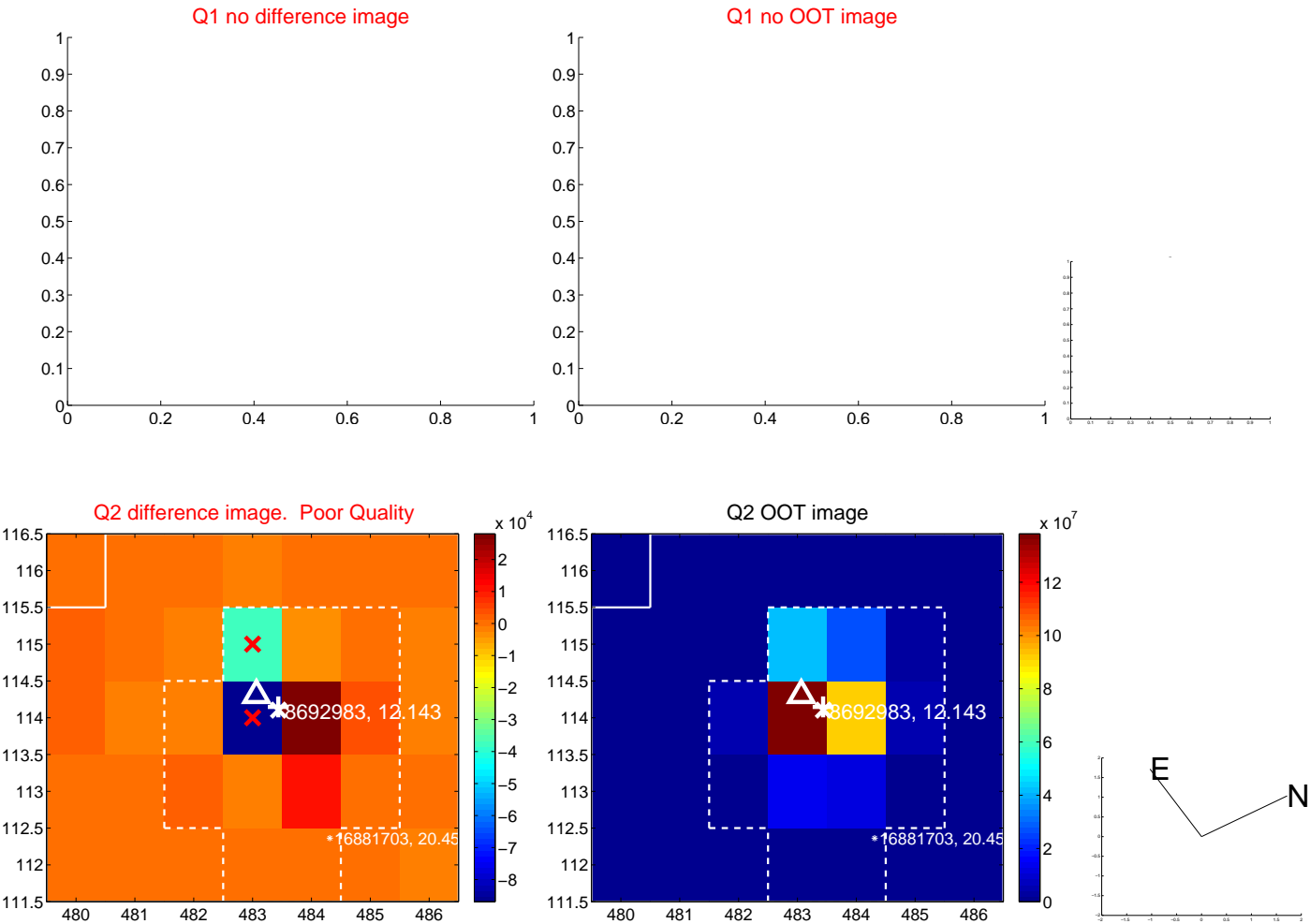


offset from photometric centroids

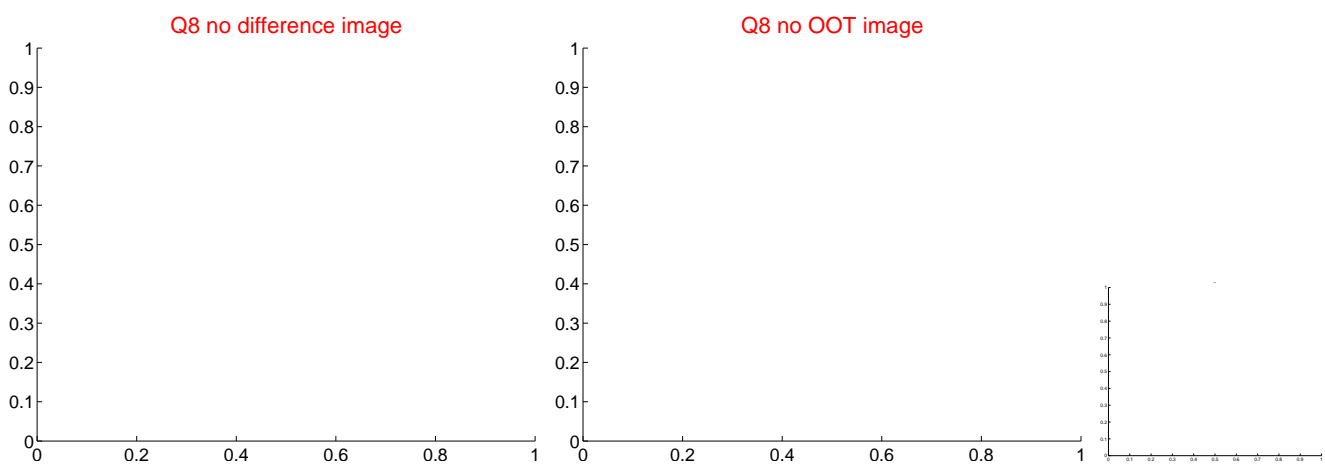
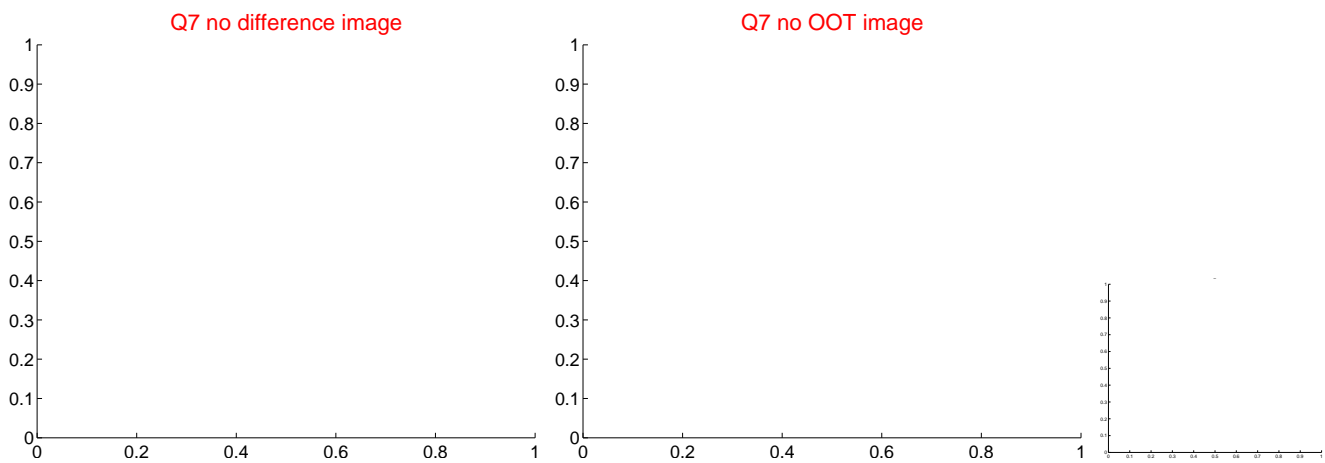
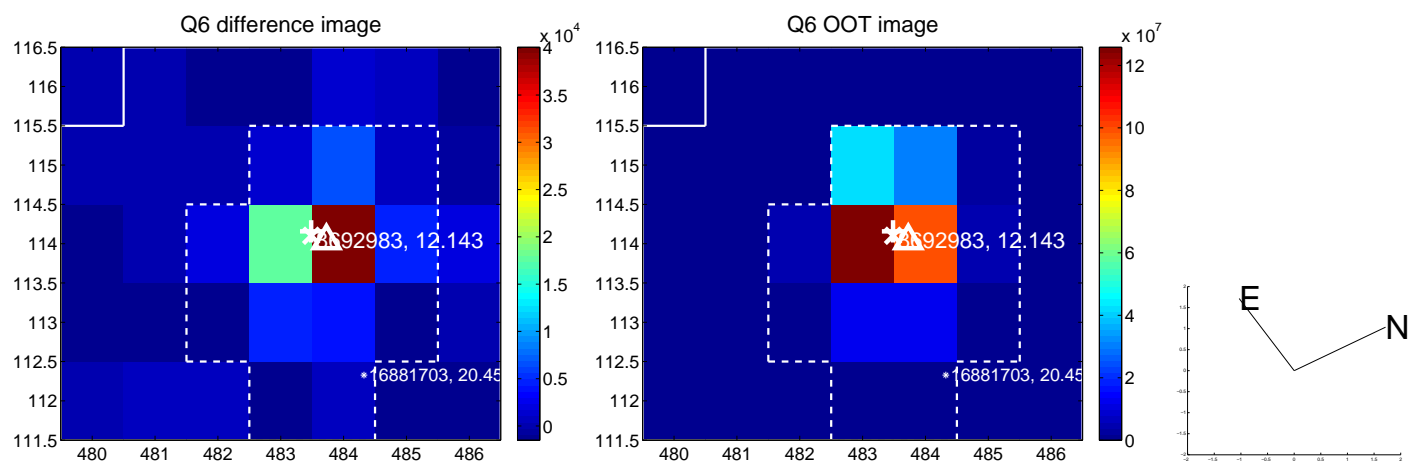
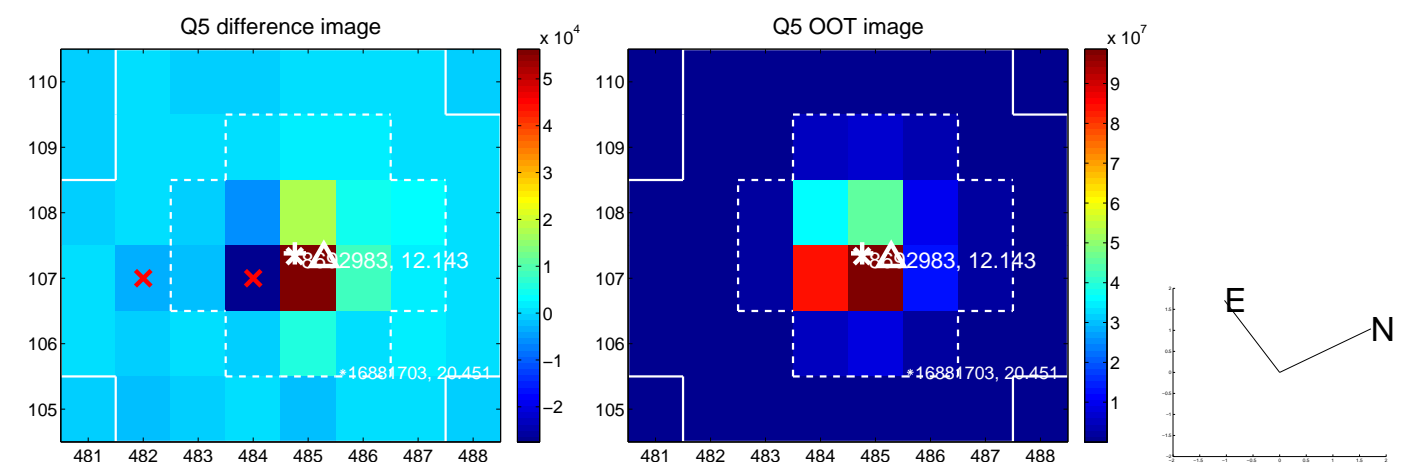


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

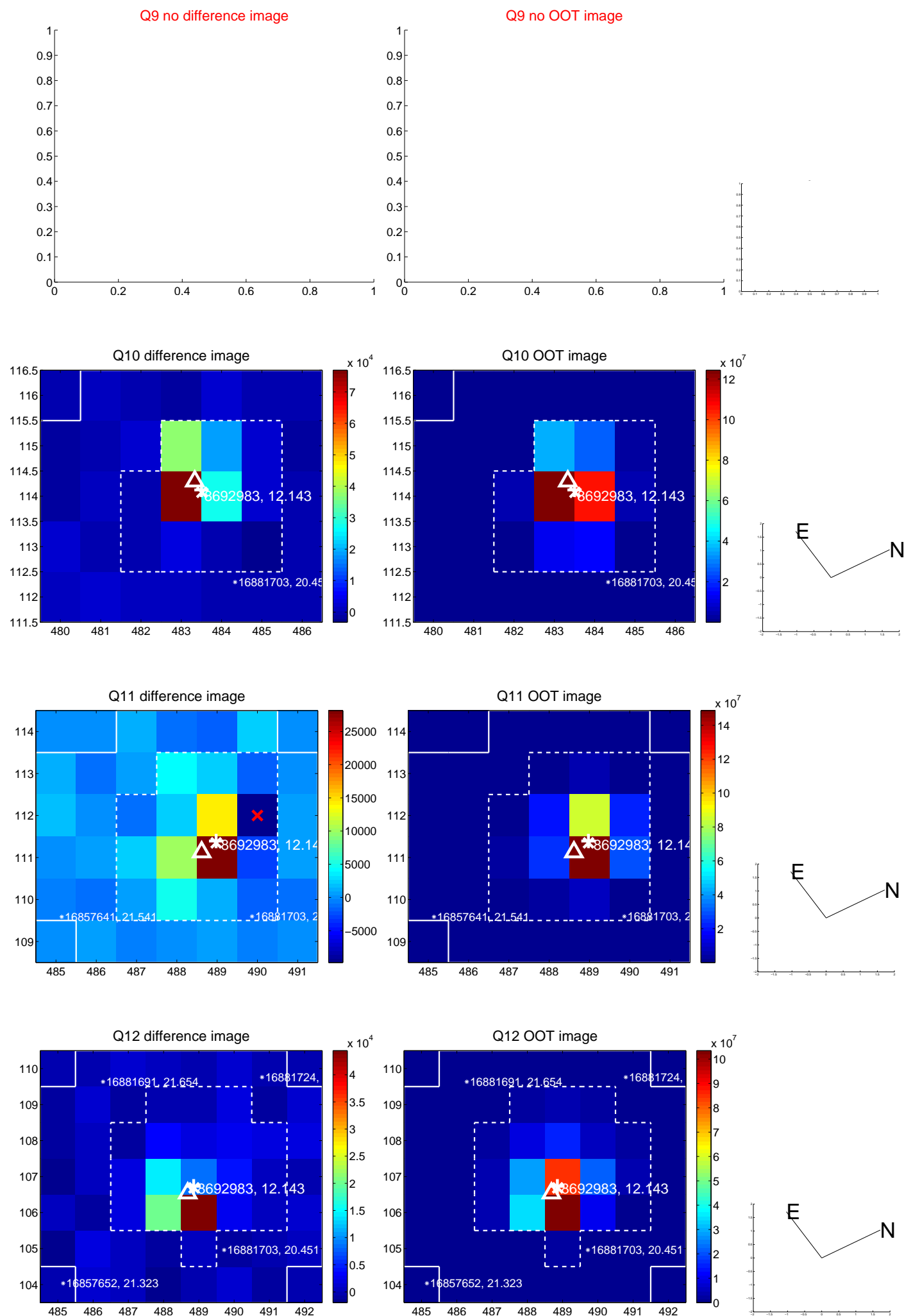
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



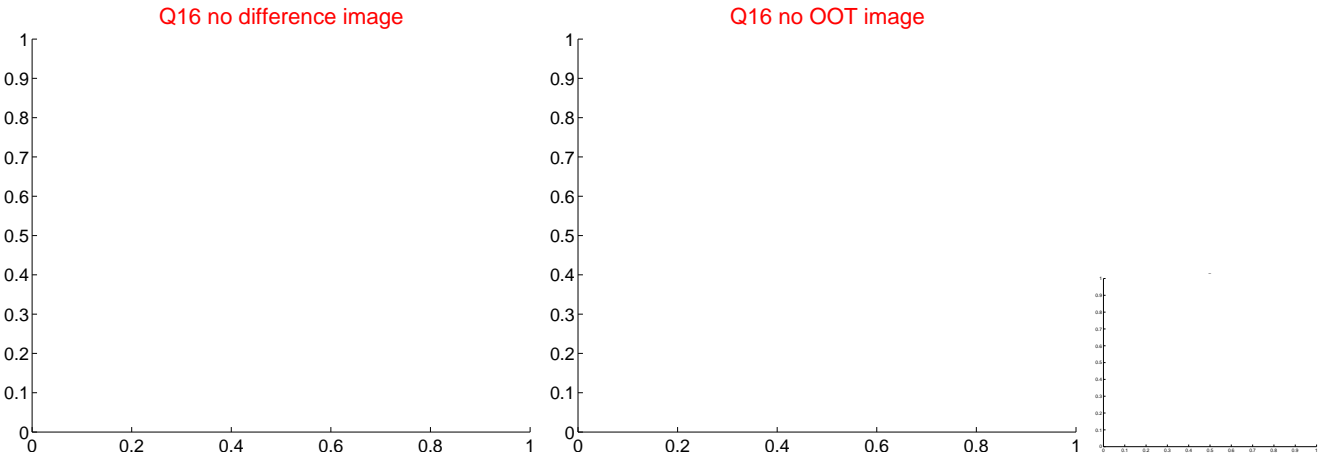
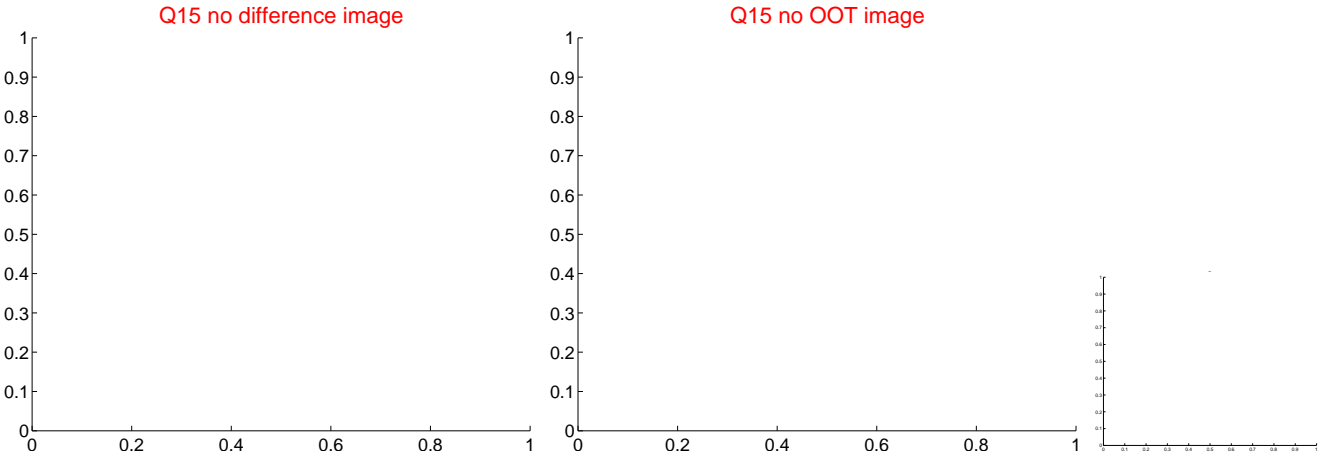
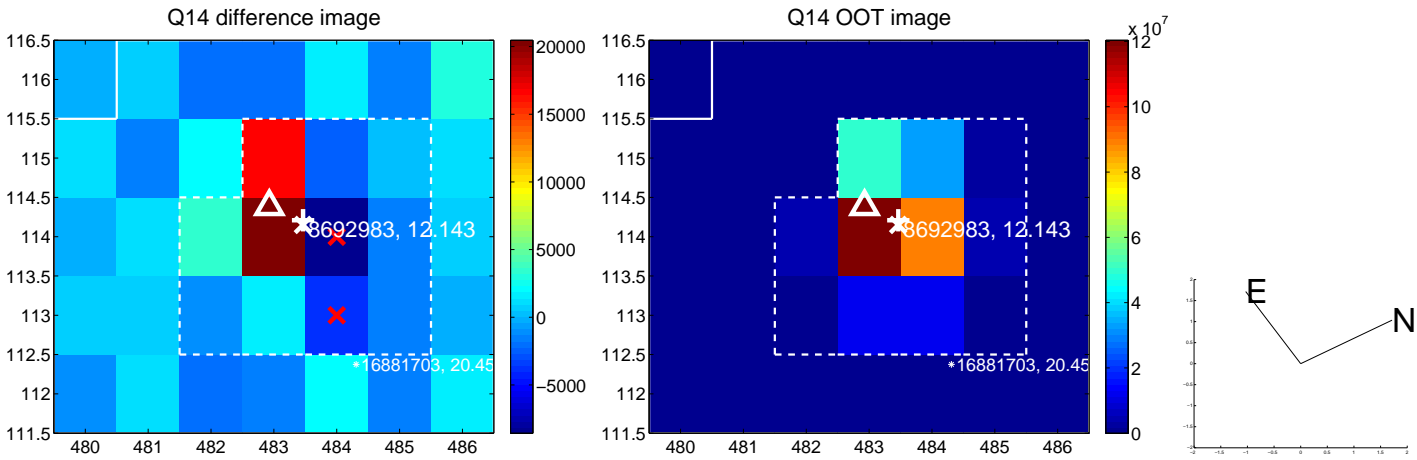
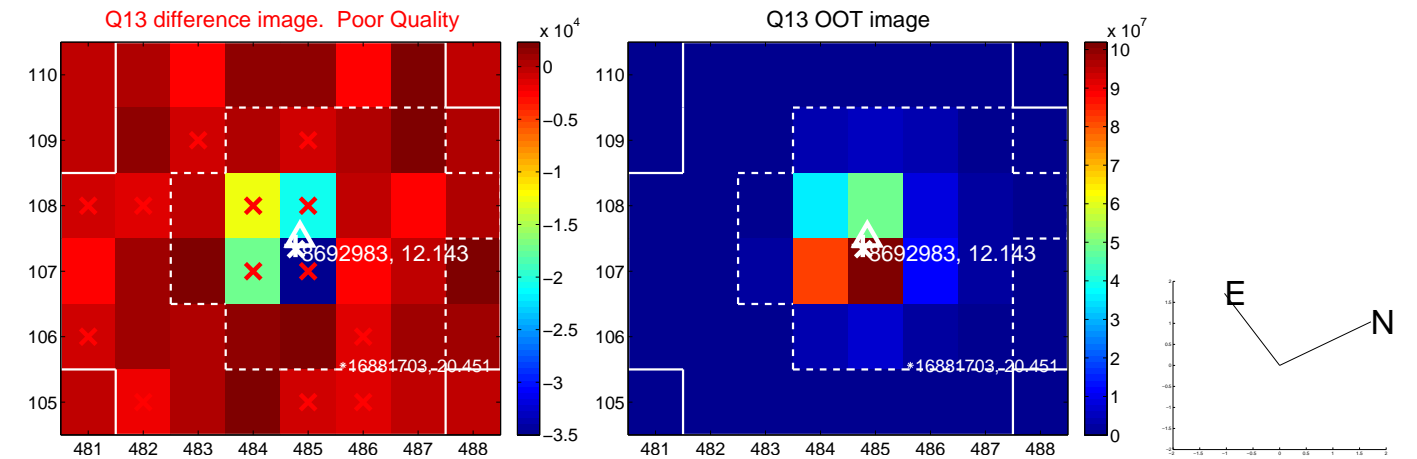
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



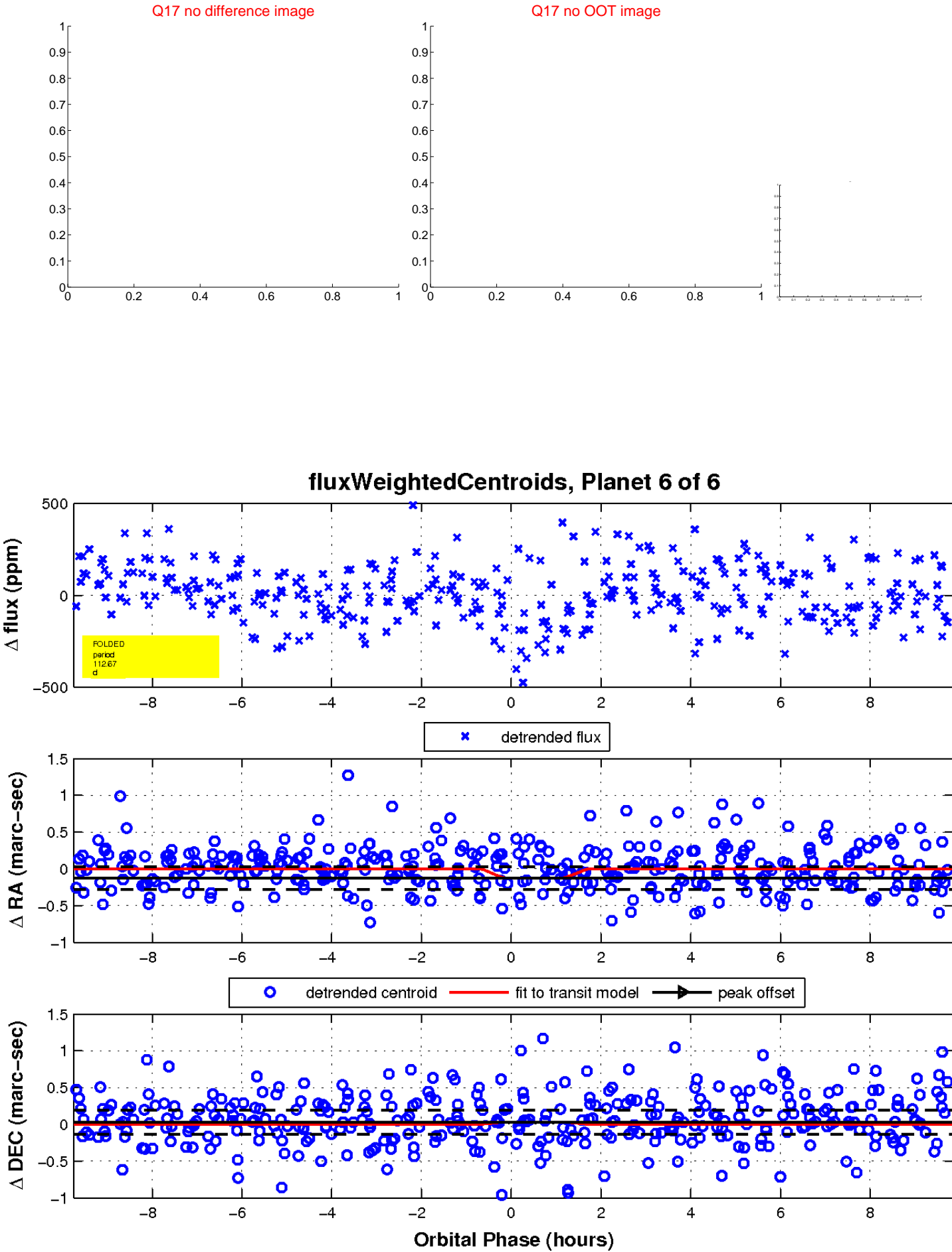
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

