

KIC 010583089

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})
010583089-01	OBS	No	1.449244	132.917425	54.1	4.854	13.0	14.0	0.68	4264	0.48	282.44
010583089-02	OBS	No	389.763346	364.542123	428.5	12.500	19.0	-1.0	0.68	4264	1.34	0.16
010583089-03	OBS	No	319.411342	243.152164	385.4	4.864	13.3	6.7	0.68	4264	1.40	0.21
010583089-04	OBS	No	508.858352	192.796324	474.1	10.544	11.8	7.0	0.68	4264	1.53	0.11
010583089-05	OBS	No	115.214443	158.950662	445.2	2.401	10.8	9.3	0.68	4264	1.51	0.83
010583089-06	OBS	No	211.027609	341.369333	381.0	4.868	9.9	7.1	0.68	4264	1.32	0.37
010583089-08	OBS	No	198.130003	228.353107	305.9	19.597	13.0	4.4	0.68	4264	1.42	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583089-01	OBS	FP	0.01	1	0	0	0	LPP_DV
010583089-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_NOFITS
010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

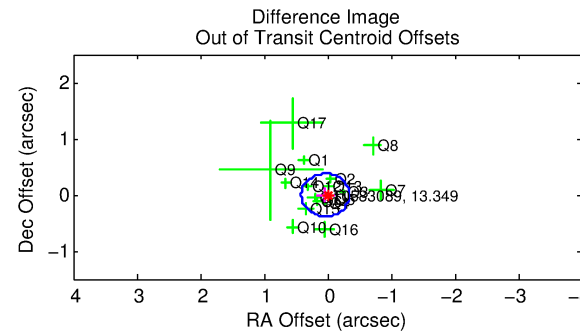
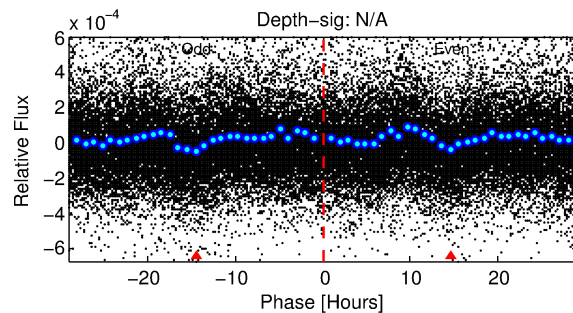
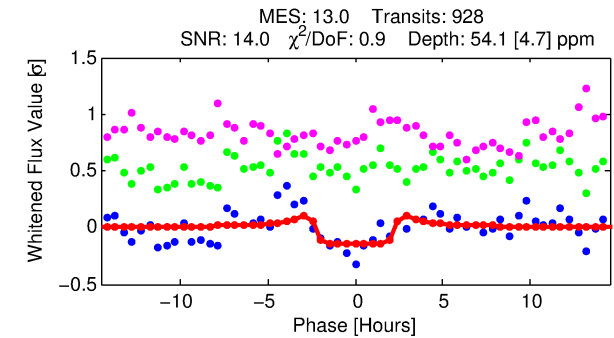
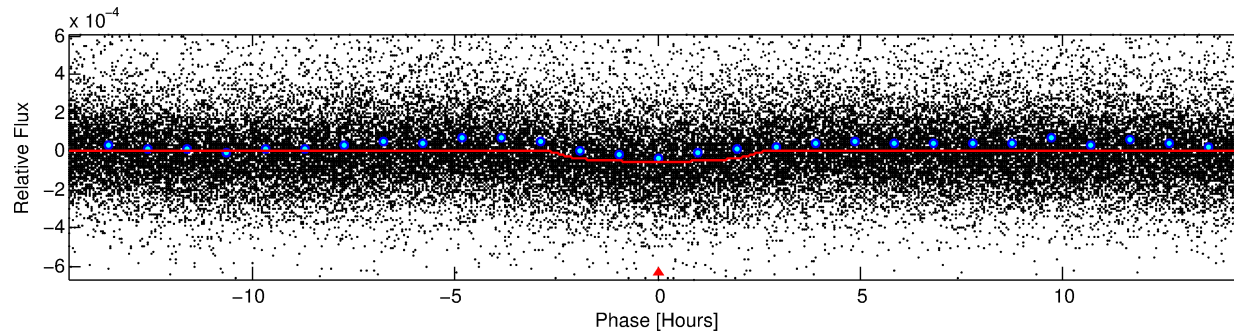
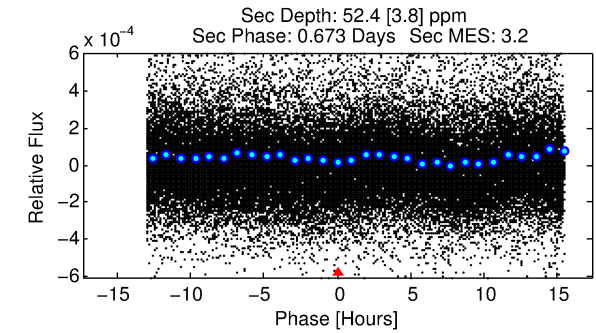
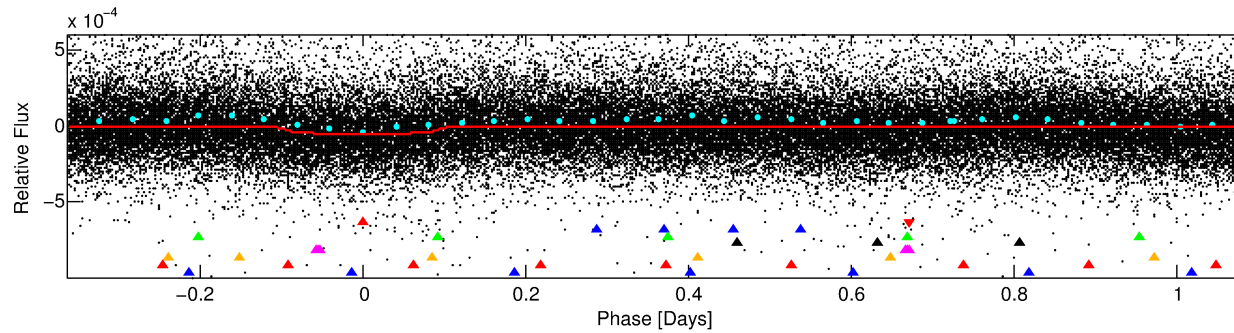
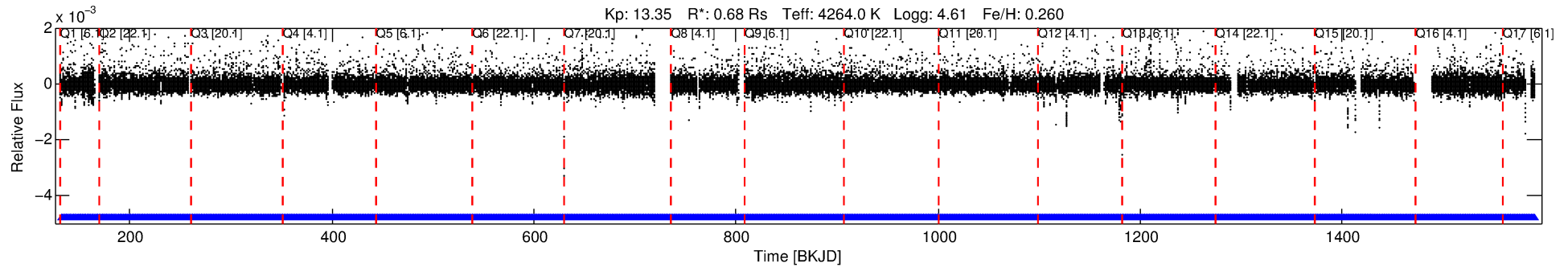
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-01

No Significant Match Found

DV One-Page Summary

KIC: 10583089 Candidate: 1 of 8 Period: 1.449 d



DV Fit Results:

Period = 1.44924 [0.00001] d
Epoch = 132.9174 [0.0025] BKJD
Rp/R* = 0.0064 [0.0023]
a/R* = 2.37 [1.91]
b = 0.01 [120.50]
Seff = 282.44 [51.08]
Teq = 1045 [47] K
Rp = 0.48 [0.17] Re
a = 0.0221 [0.0015] AU
Ag = 62.05 [44.49] [1.37σ]
Teffp = 4536 [825] K [4.22σ]

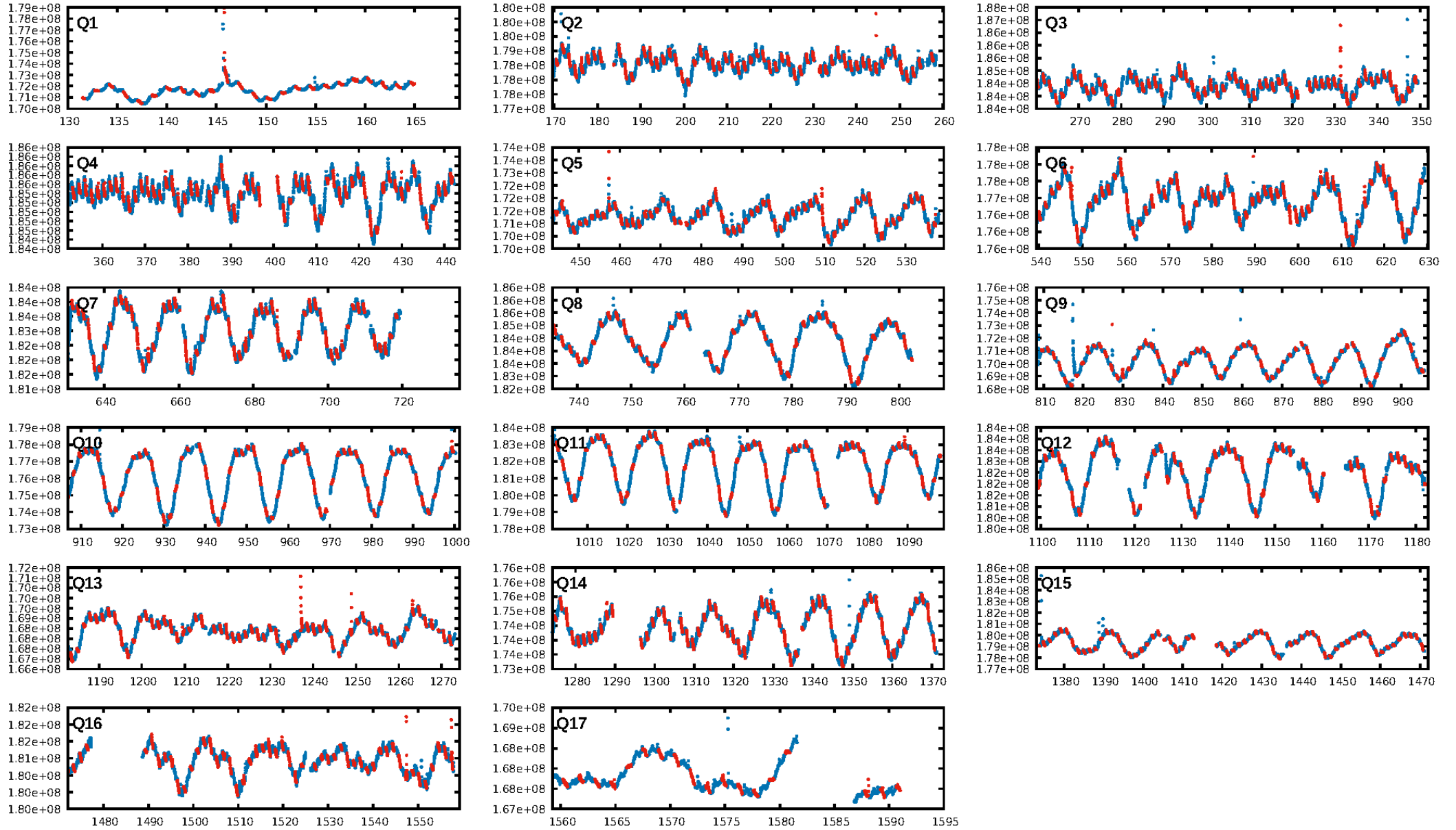
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [504.24σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.22e-20
RollingBand-fgt: 1.00 [886/886]
GhostDiagnostic-chr: 1.05
Centroid-sig: 0.0%
Centroid-so: 1.021 arcsec [3.14σ]
OotOffset-rm: 0.037 arcsec [0.29σ]
KicOffset-rm: 0.108 arcsec [0.79σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

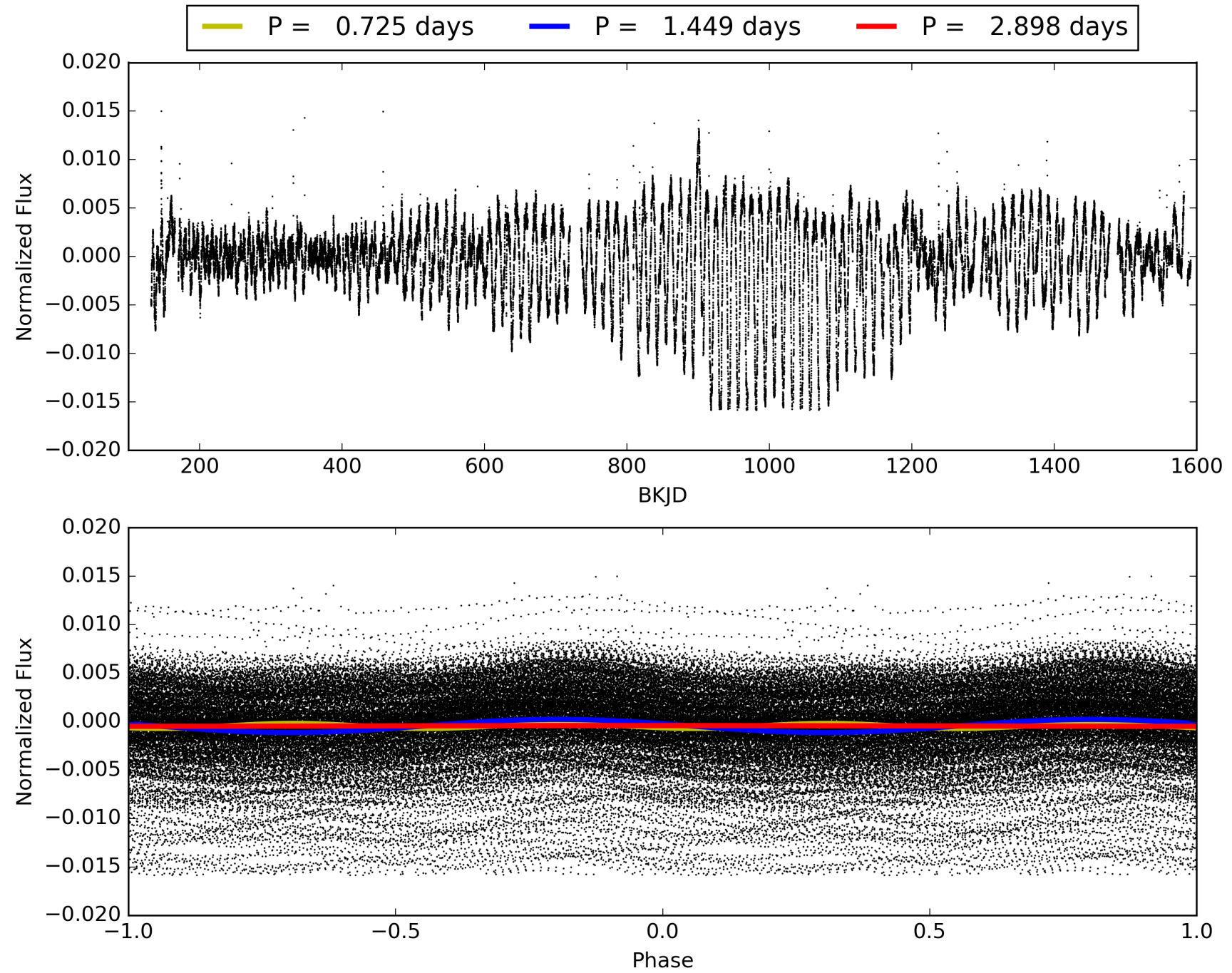
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010583089-01, PDC Light Curves

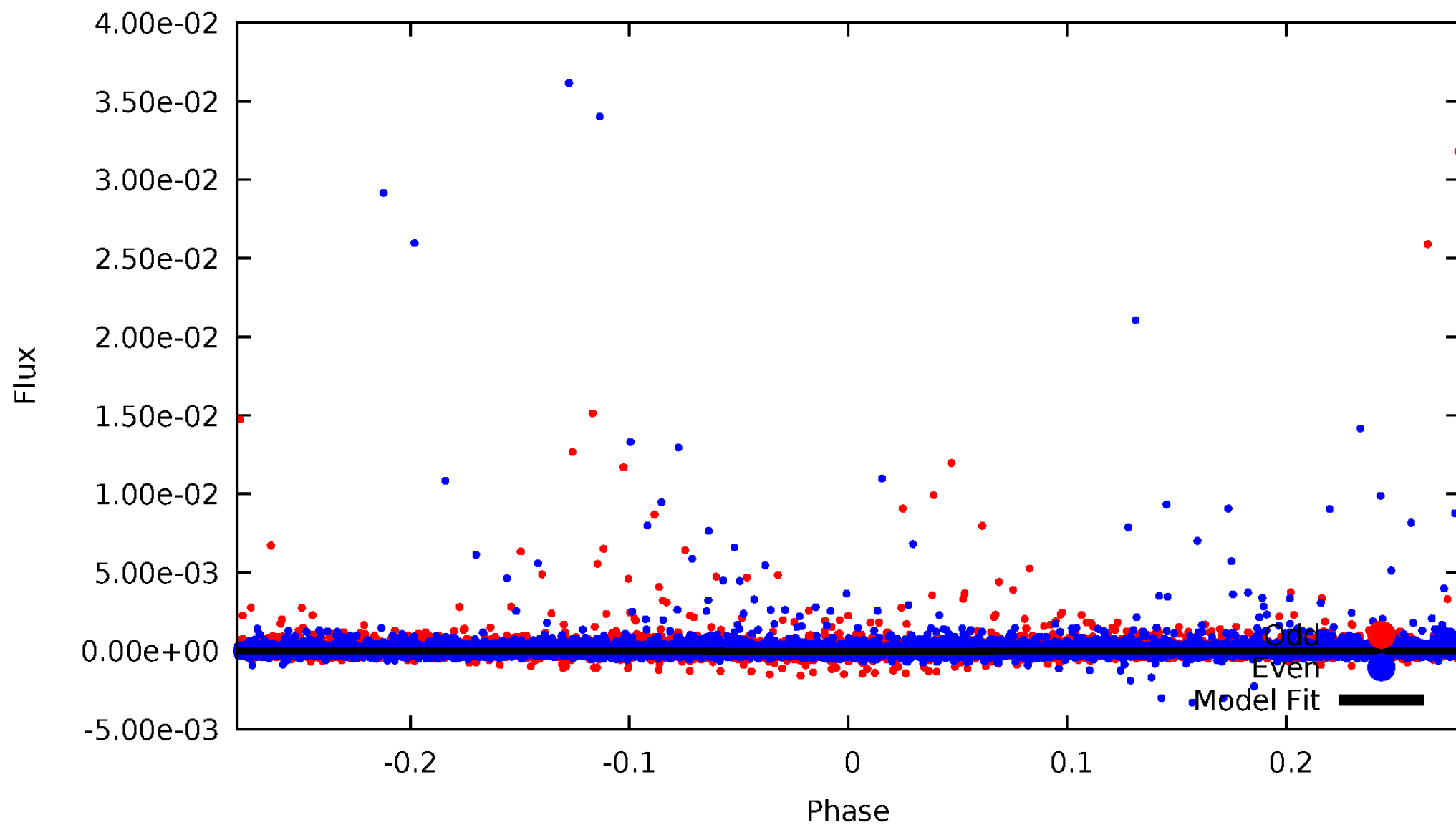


TCE 010583089-01



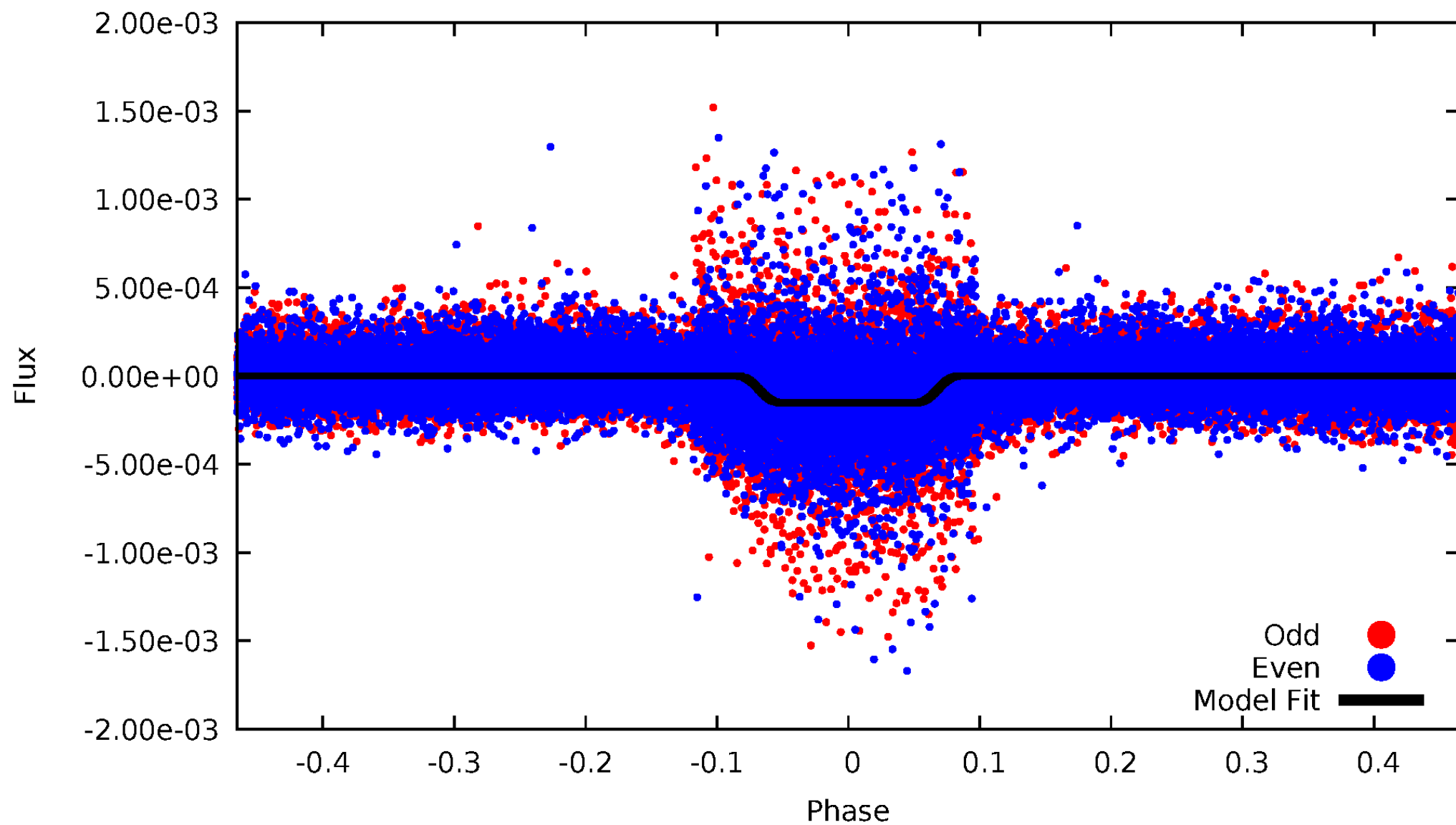
DV Odd/Even

TCE 010583089-01



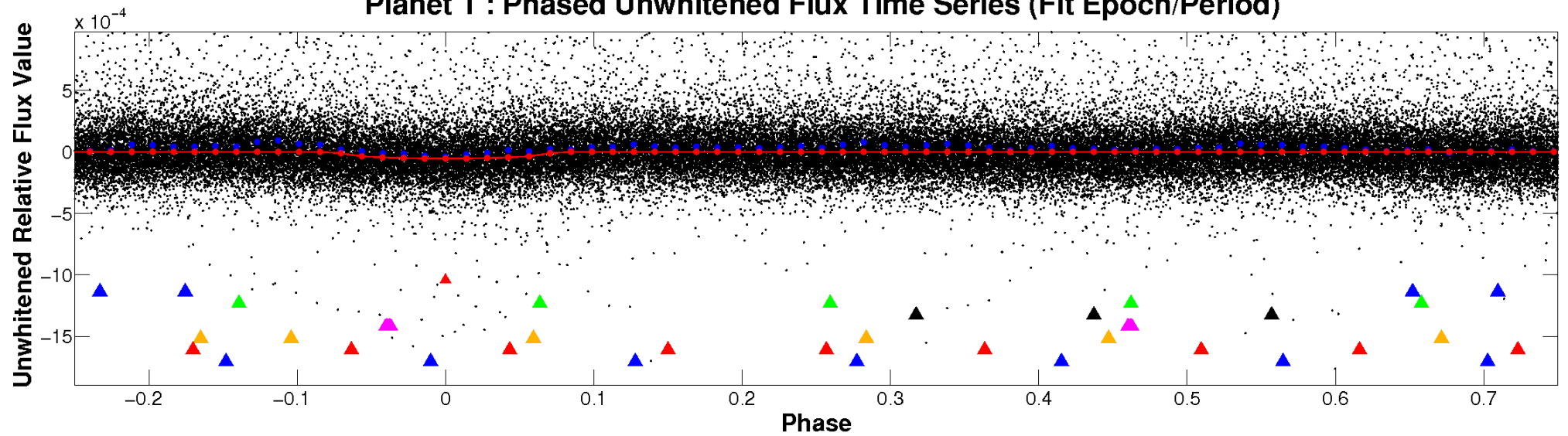
ALT Odd/Even

TCE 010583089-01

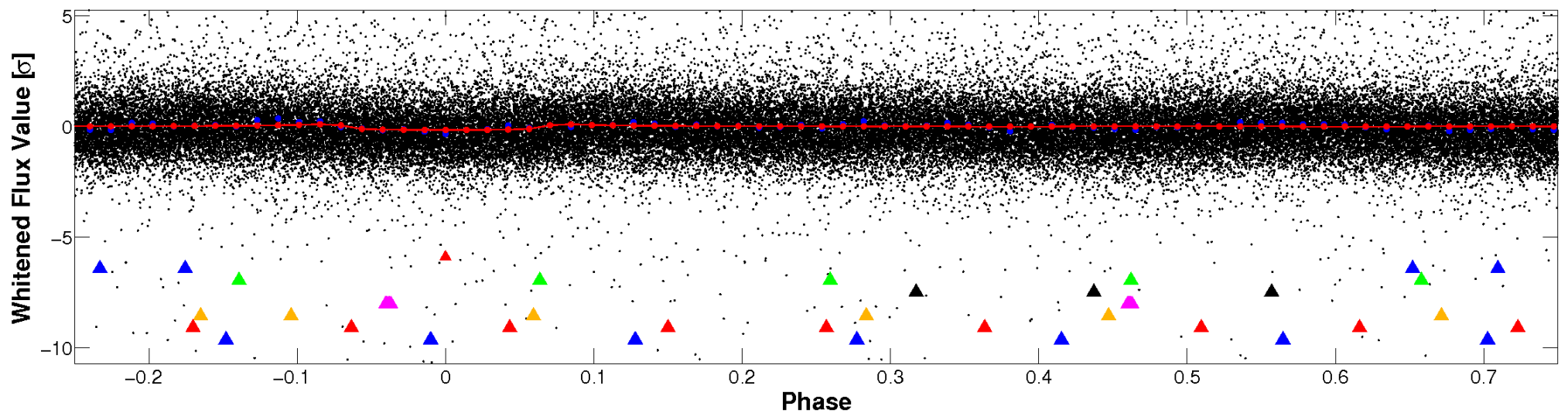


Non-Whitened Vs. Whitened Light Curve

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

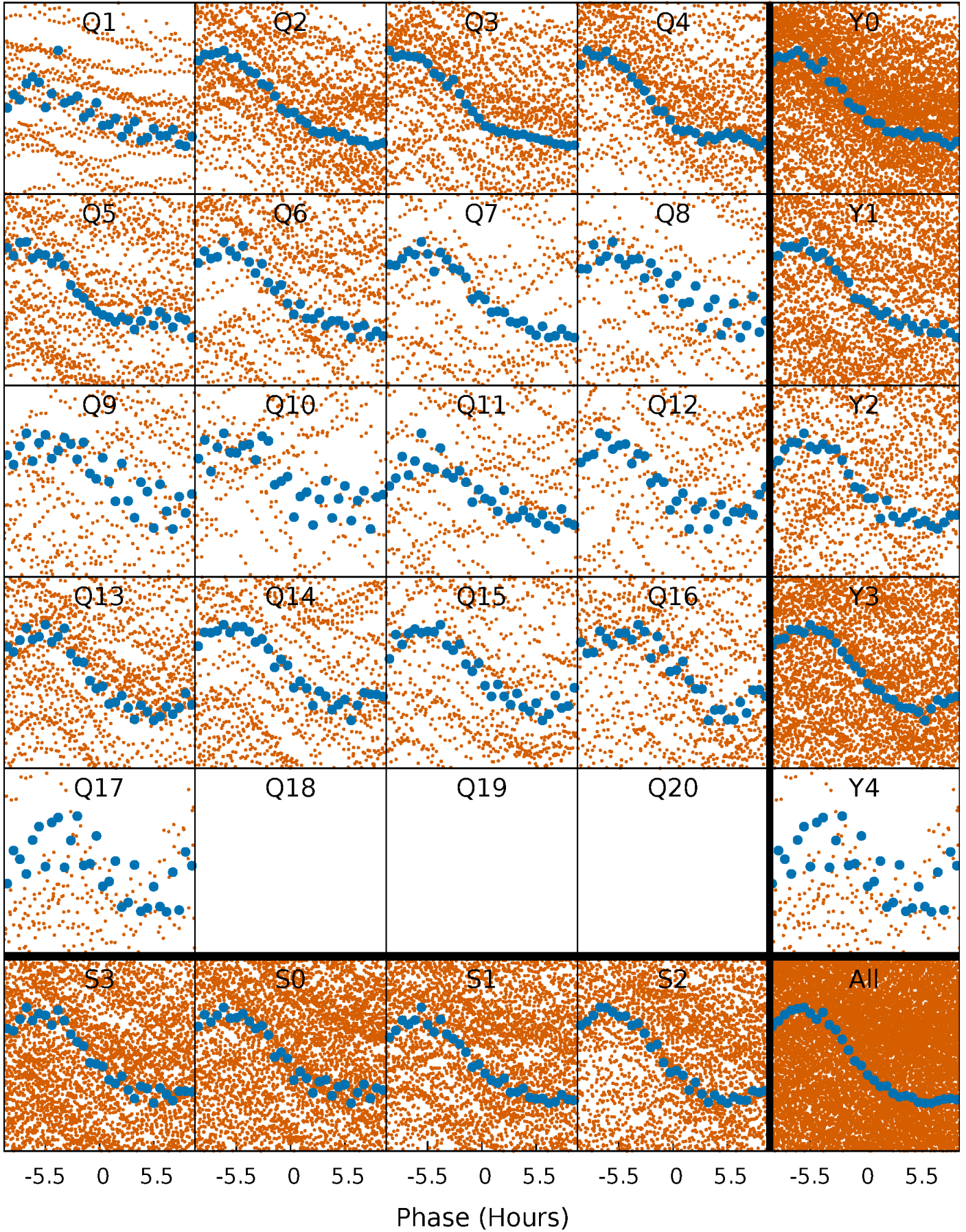


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



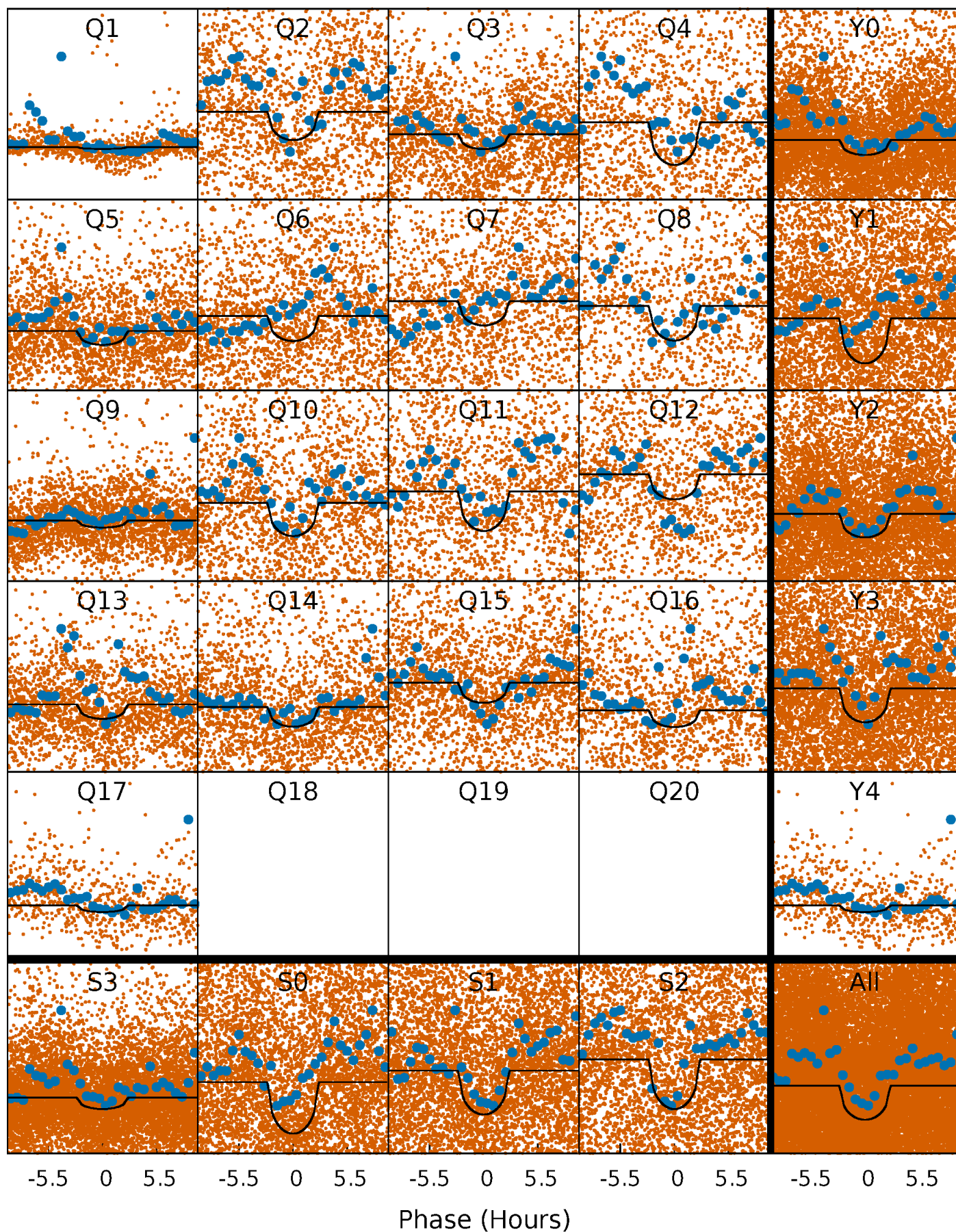
PDC Quarter-Phased Transit Curves

TCE 010583089-01 P= 1.449244 Days $T_0=132.917425$ (BKJD)



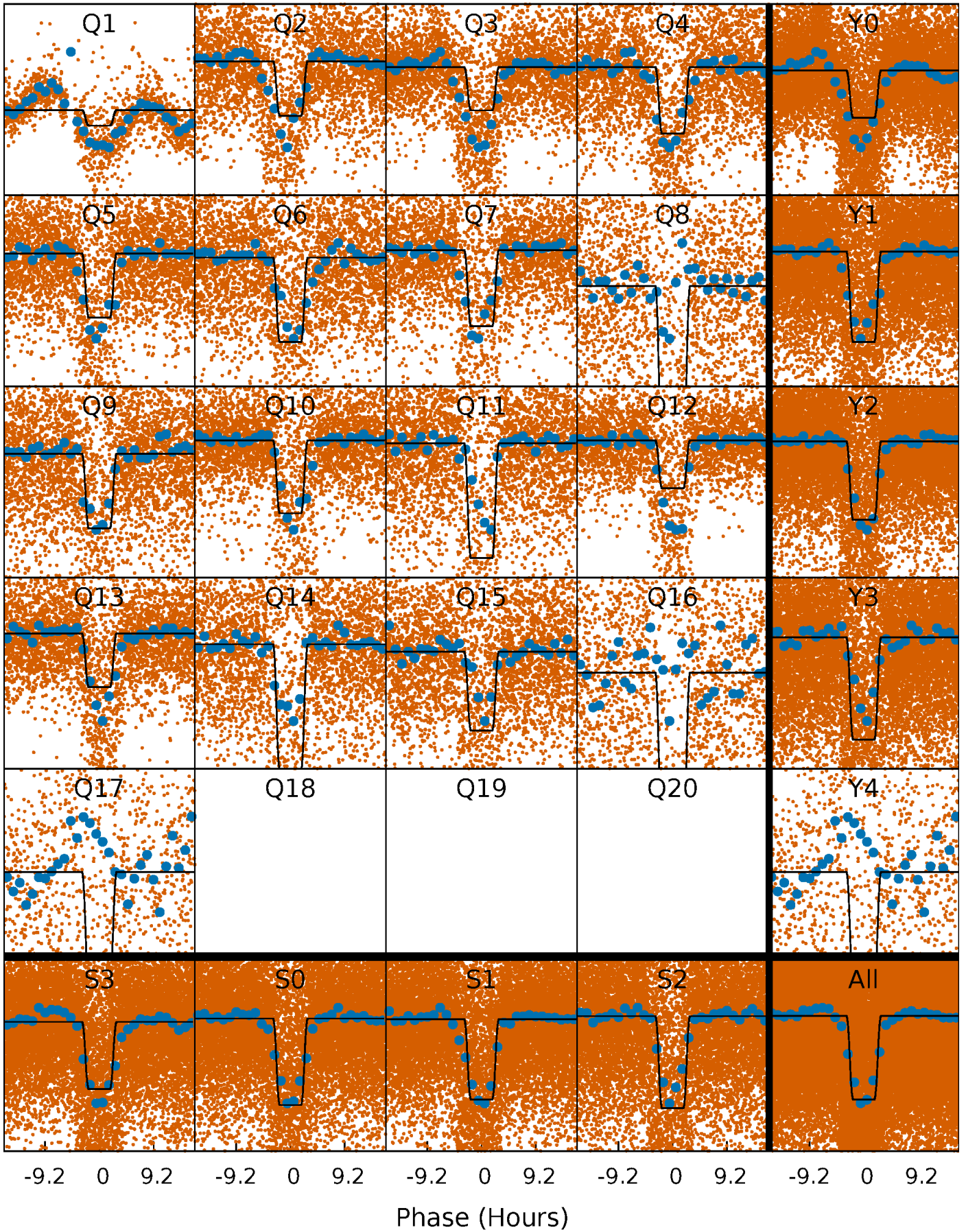
DV Quarter-Phased Transit Curves

TCE 010583089-01 P= 1.449244 Days $T_0=132.917425$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

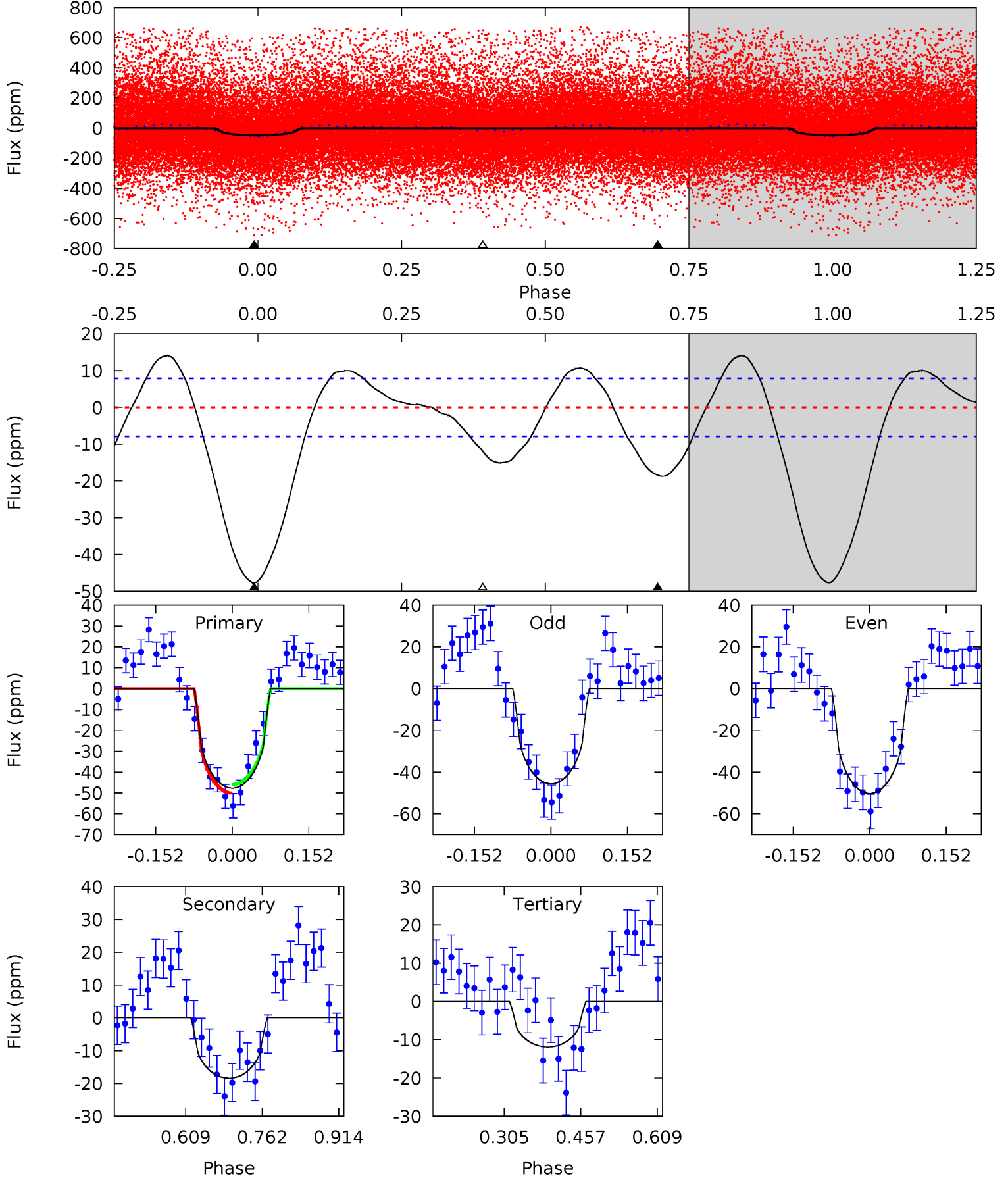
TCE 010583089-01 P= 1.449223 Days $T_0=132.937156$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-01, P = 1.449244 Days, E = 131.468181 Days

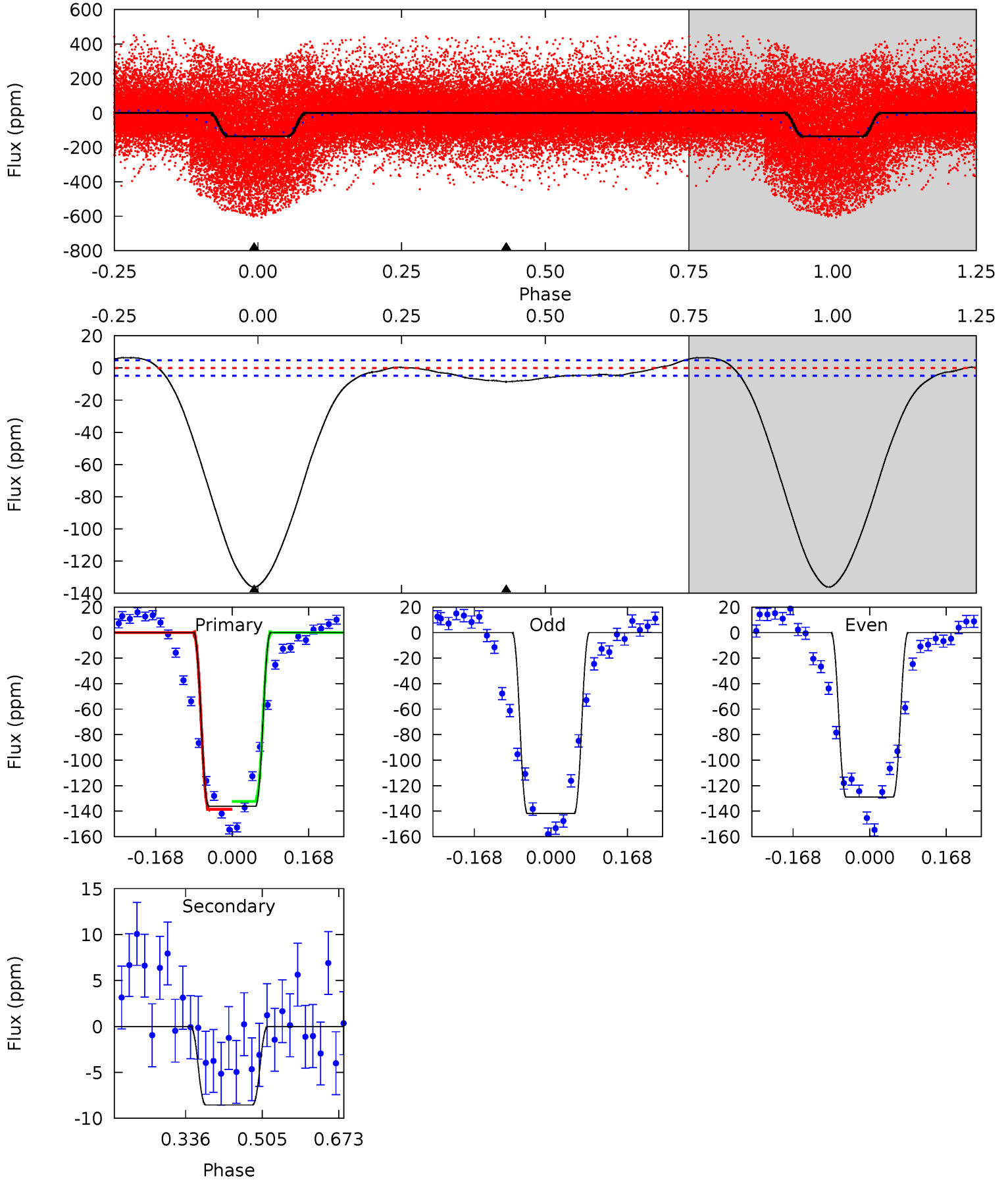
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.0	10.4	6.76	0	4.48	1.43	4.35	20.3	27.0	3.69	10.4	1.33	0.33	0.23	1.18



Alt Model-Shift Uniqueness Test

010583089-01, P = 1.449223 Days, E = 131.487933 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
126.6	7.95	0	0	4.45	1.38	3.63	126.6	126.6	7.95	7.95	6.00	1.16	0.05	2.85



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-18 ± 2	$0.46^{+0.17}_{-0.17}$	1455^{+50}_{-64}	3740^{+659}_{-401}	24^{+33}_{-11}
Alt.	-9 ± 1	$0.91^{+0.17}_{-0.17}$	1454^{+54}_{-58}	2697^{+182}_{-152}	$2.846^{+1.408}_{-0.886}$

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

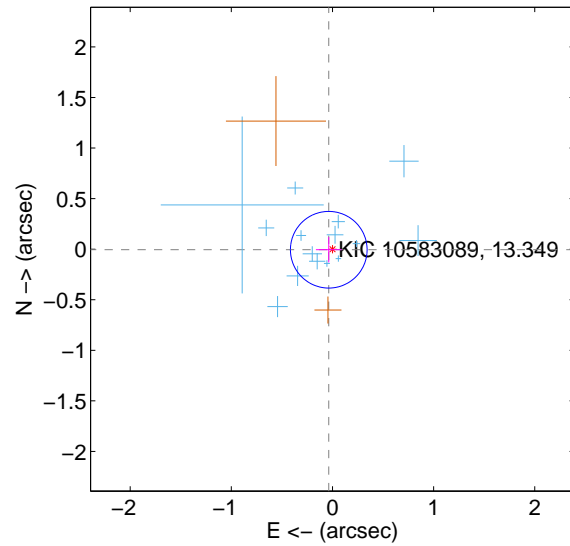
Supplemental centroid analysis for 010583089-01. Kepler magnitude: 13.35. Transit SNR 14.03

There are 15 quarters with good PRF difference image offsets

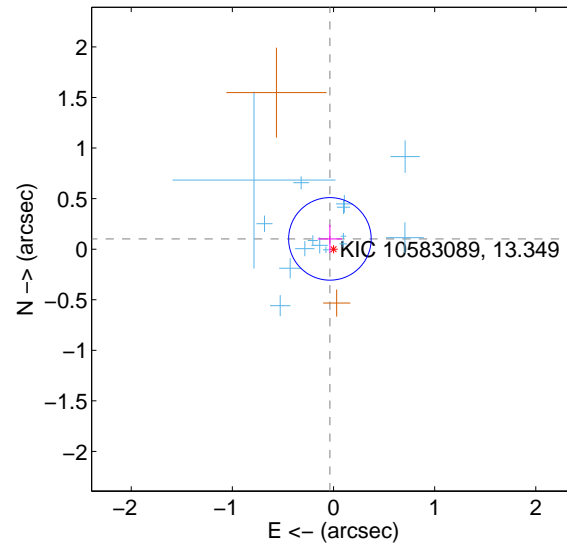
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.037 ± 0.126	0.29	0.037 ± 0.127	-0.006 ± 0.126
PRF-fit source offset from KIC position	0.108 ± 0.136	0.79	0.036 ± 0.118	0.102 ± 0.140
photometric centroid source offset	1.02 ± 0.32	3.14	-0.52 ± 0.35	0.88 ± 0.32

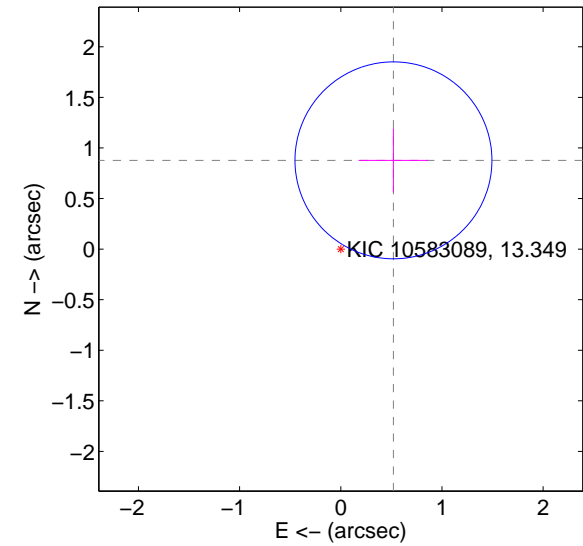
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

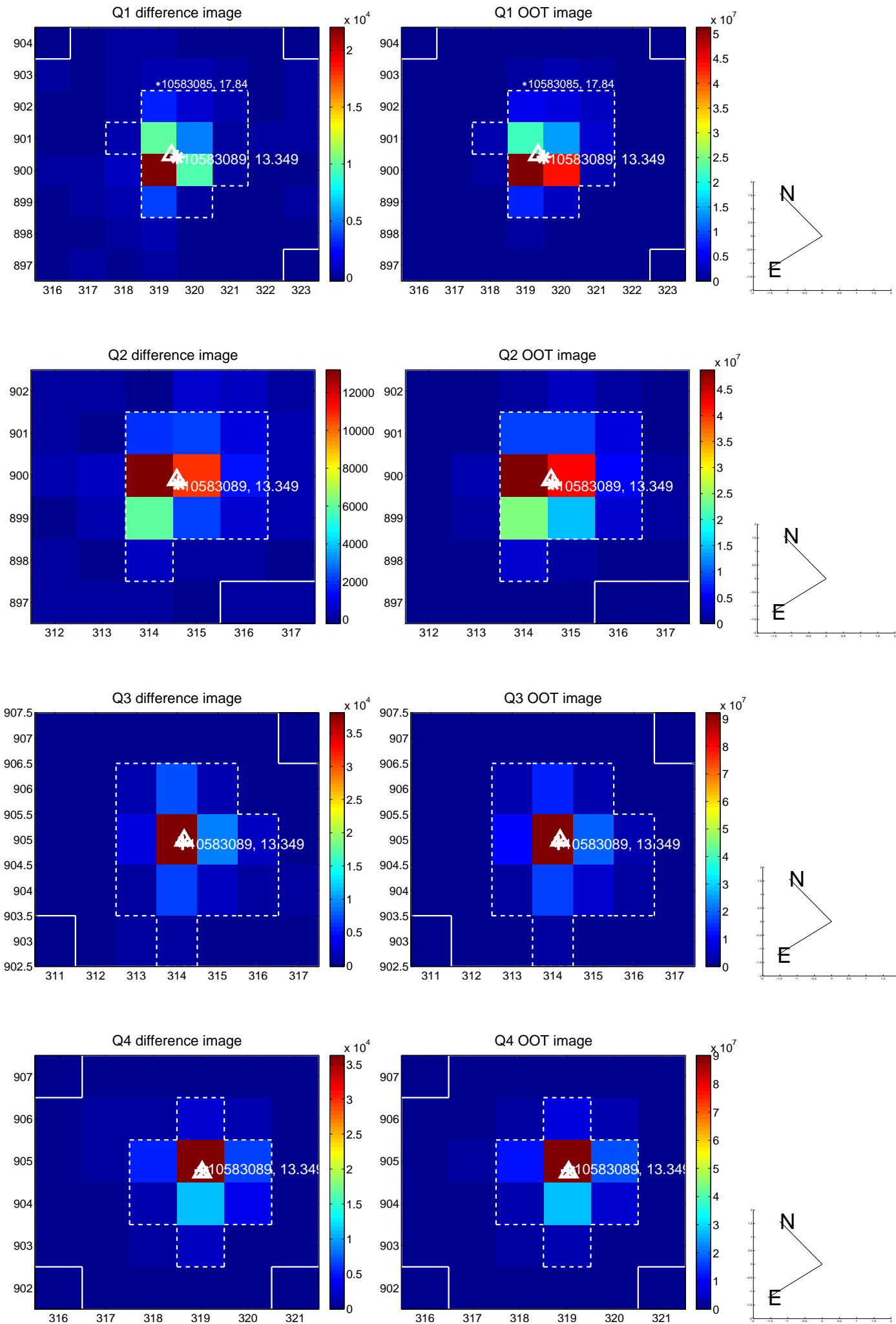


offset from photometric centroids

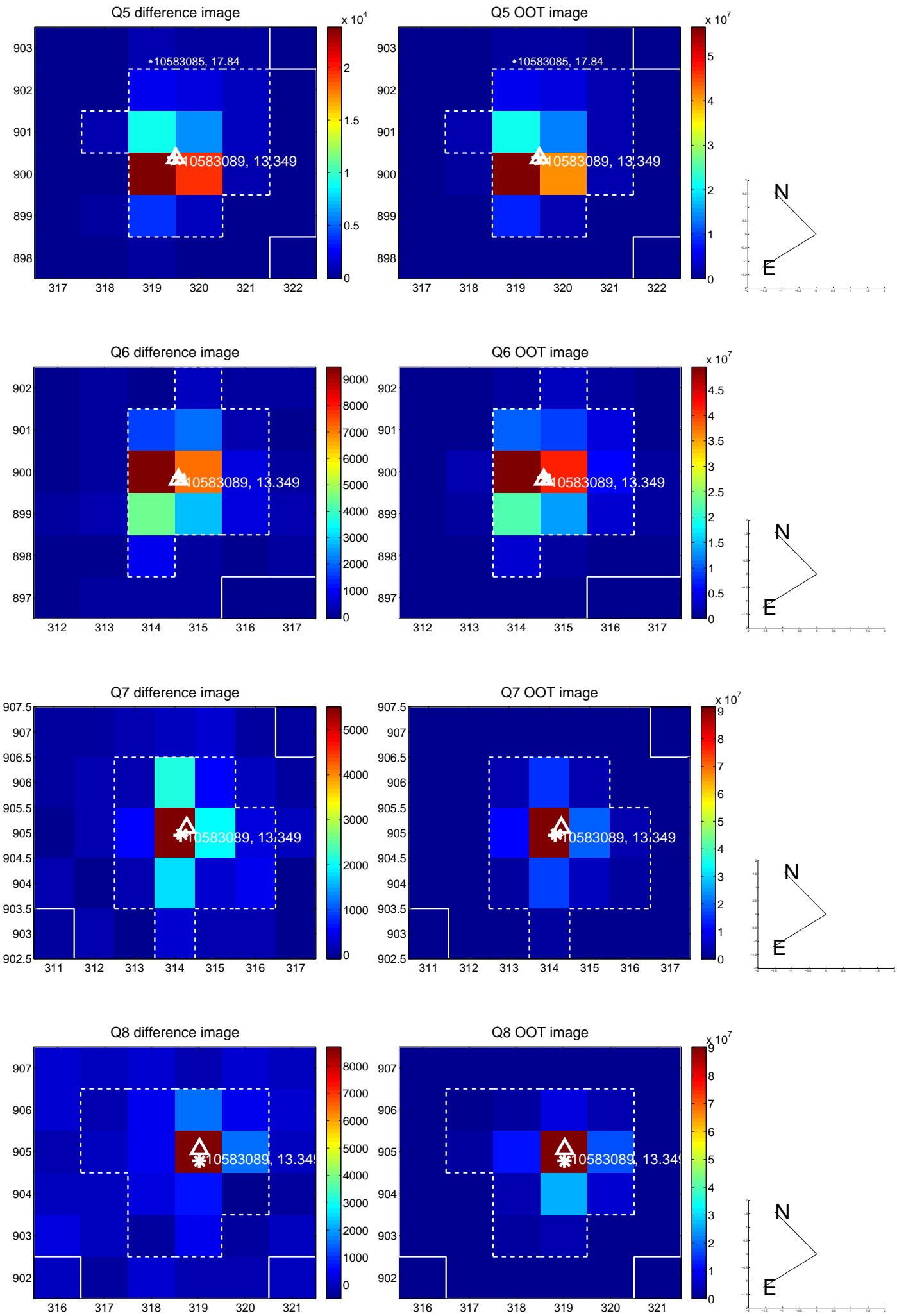


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

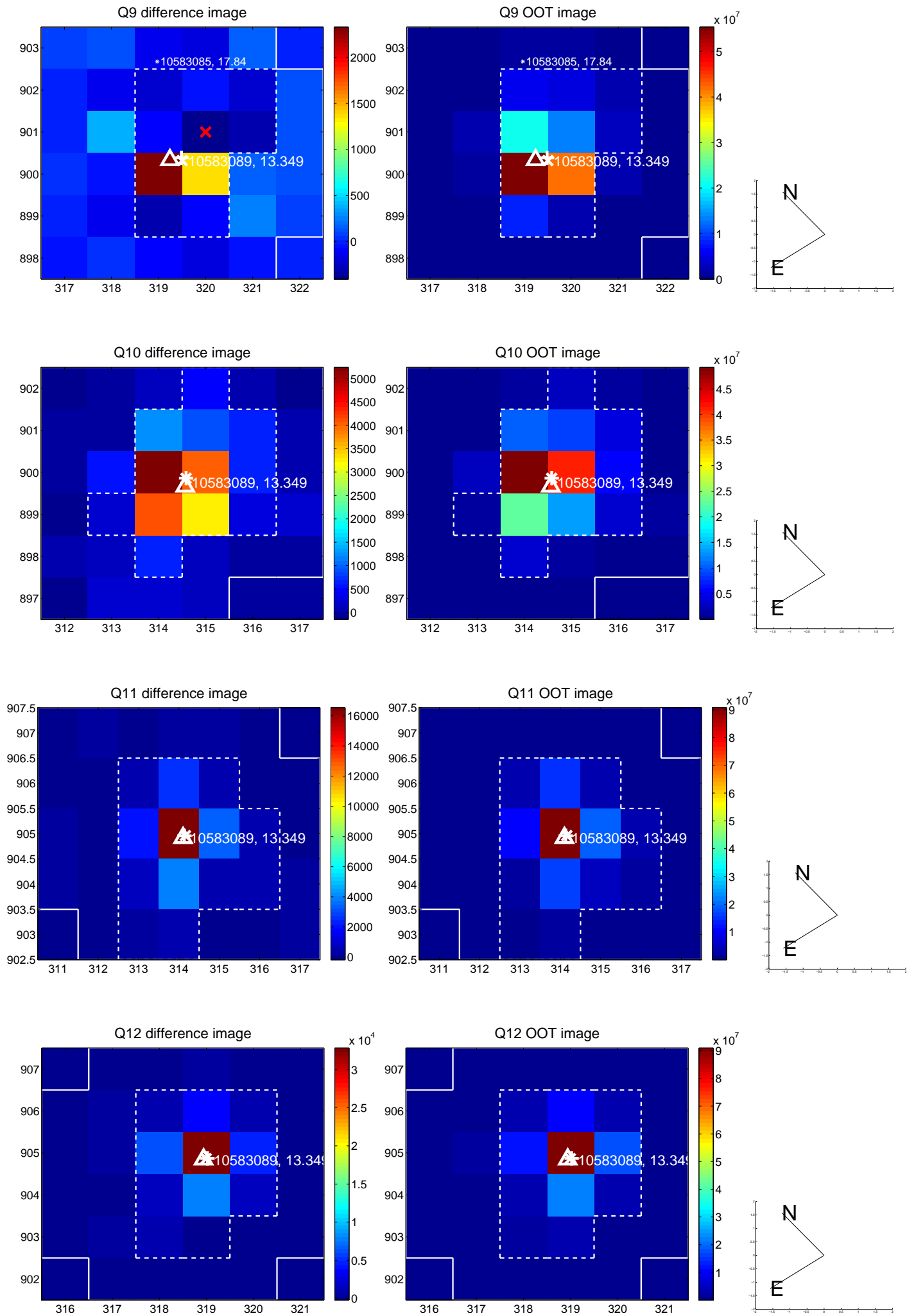
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



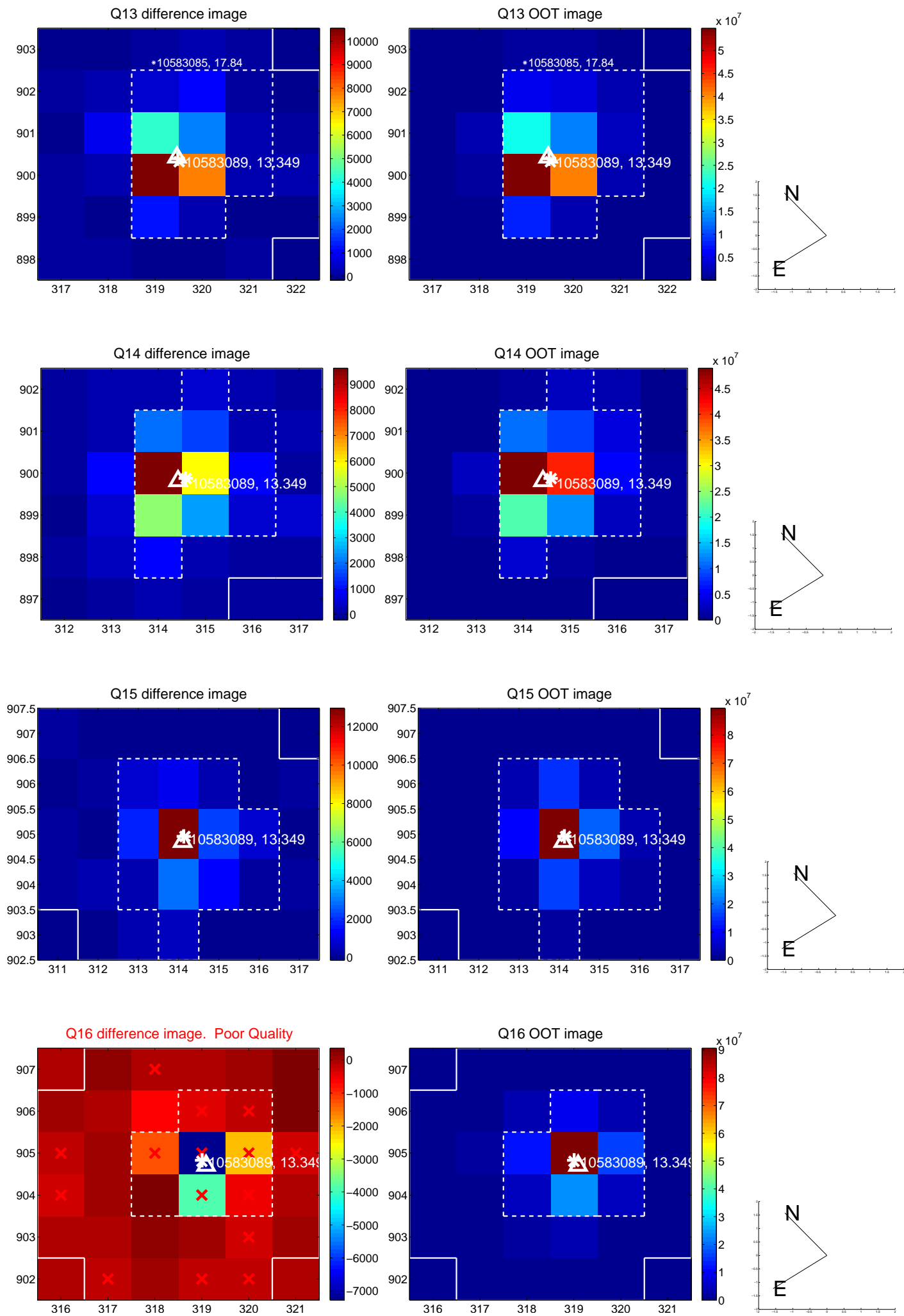
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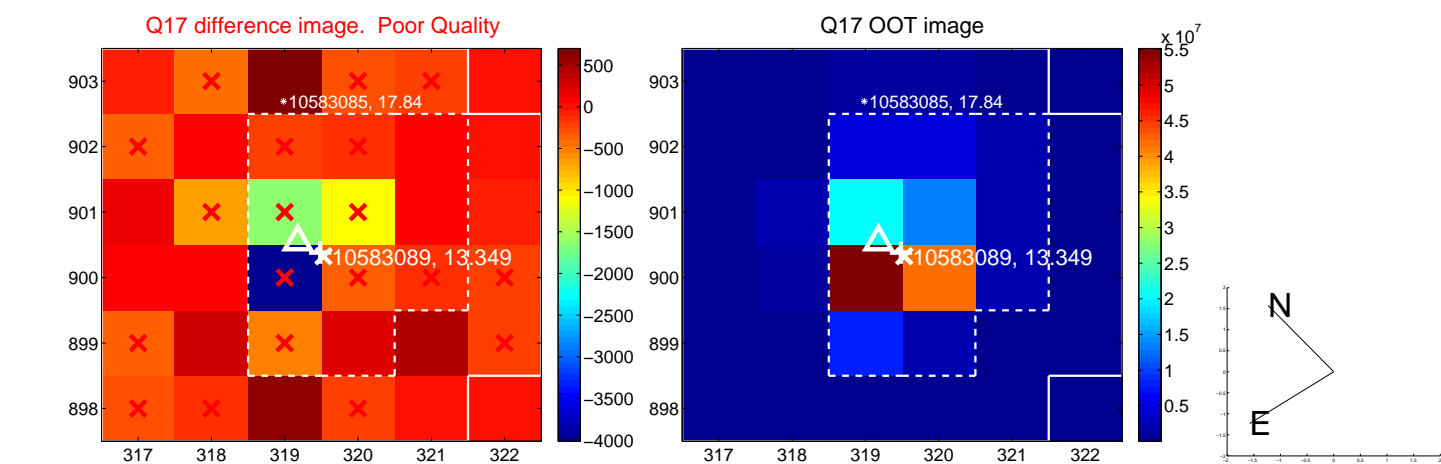
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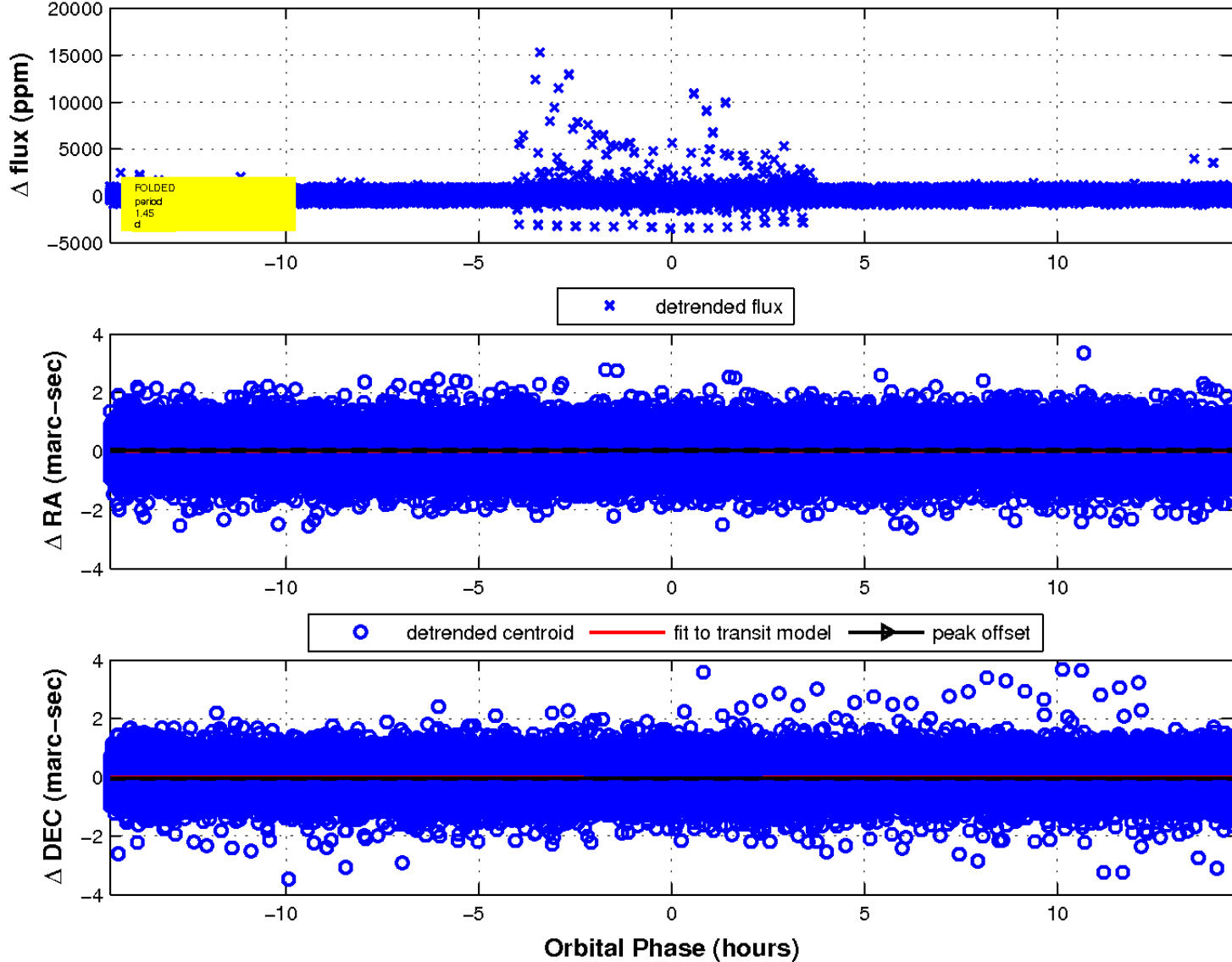
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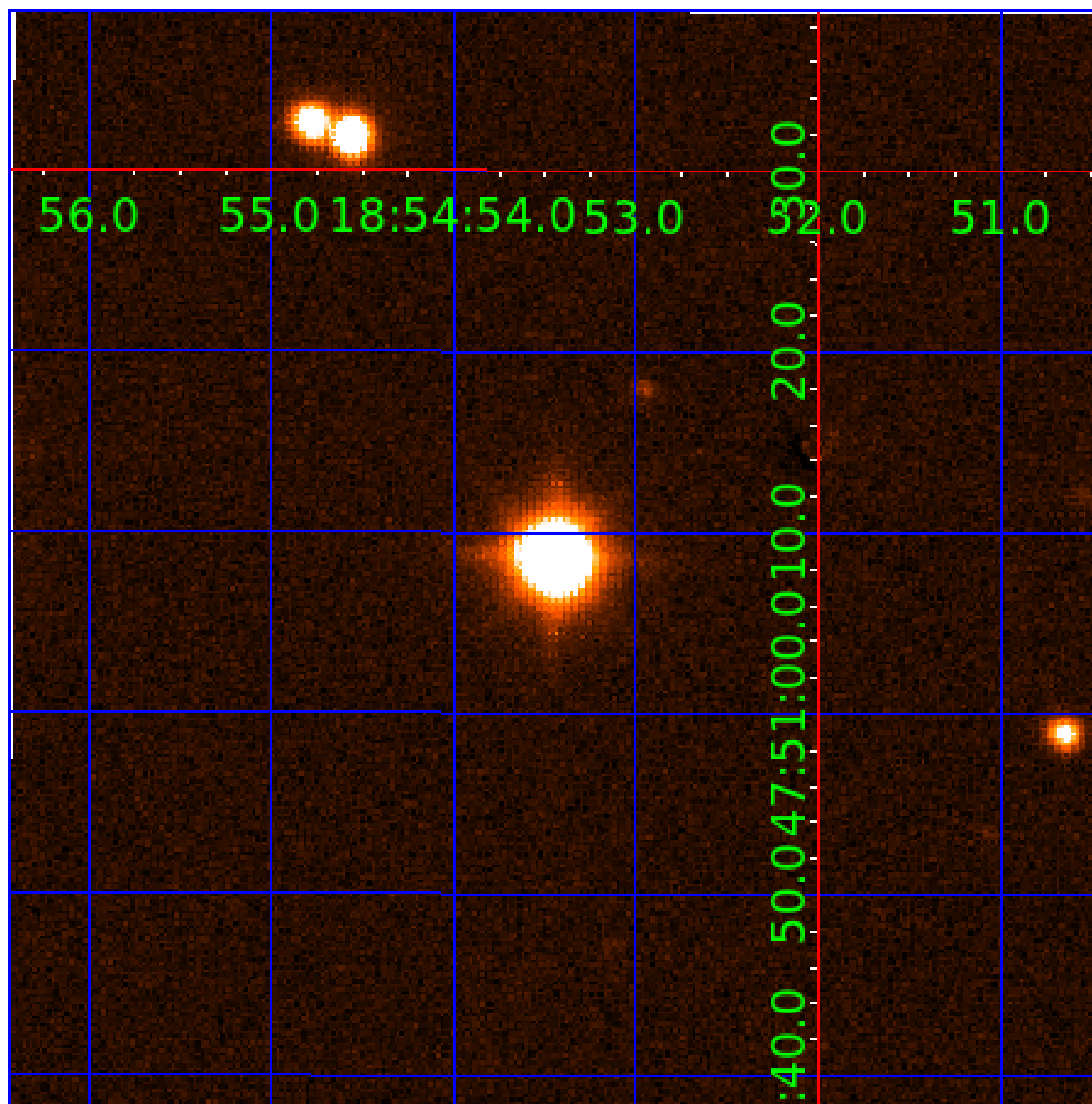


fluxWeightedCentroids, Planet 1 of 8



UKIRT Image

Declination



KIC 010583089

Q1-17 DR25 TCE Parameters

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Robovetter Results

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010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

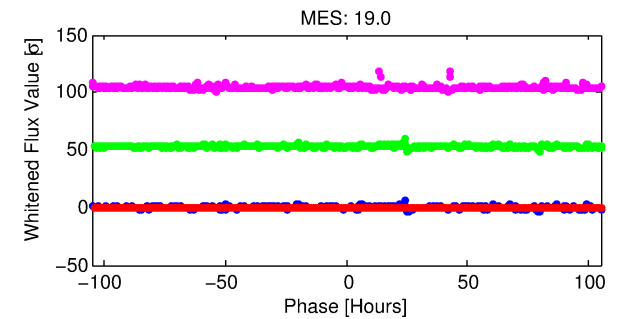
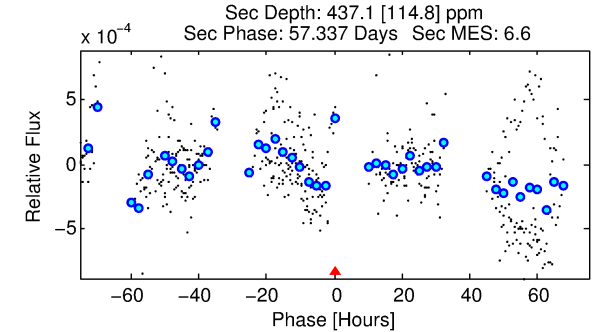
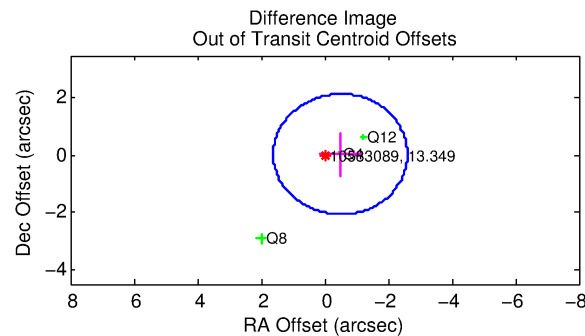
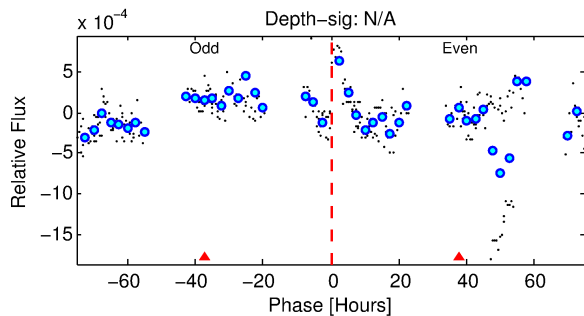
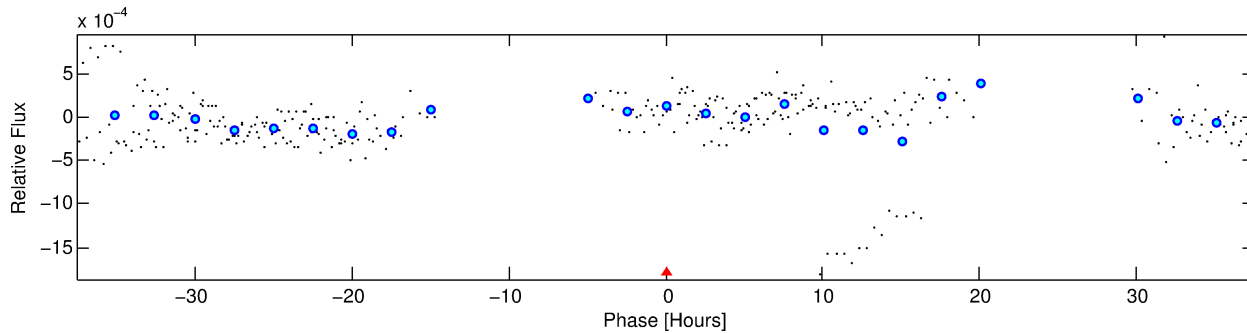
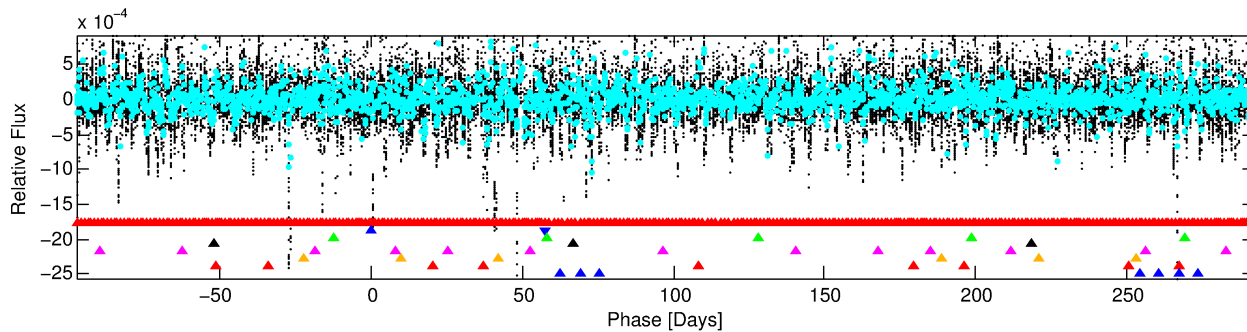
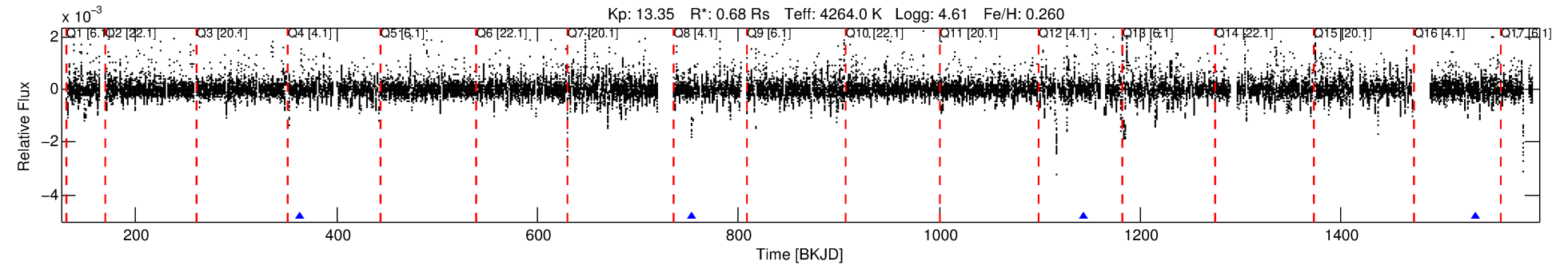
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-02

No Significant Match Found

DV One-Page Summary

KIC: 10583089 Candidate: 2 of 8 Period: 389.763 d



TPS TCE Results:

Period = 389.76335 d
Epoch = 364.5421 BKJD

DV fit results are unavailable

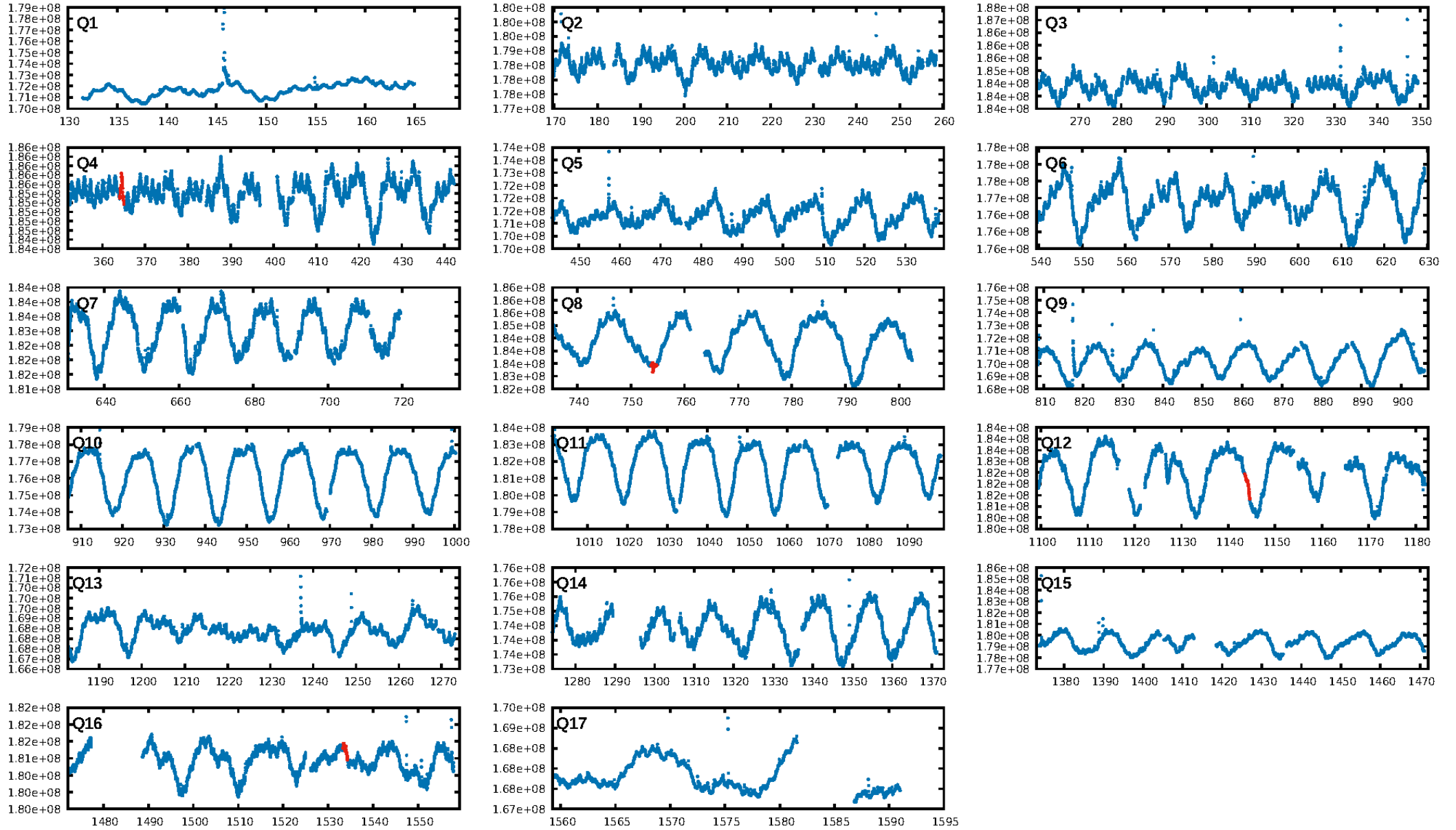
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [125.88σ]
LongPeriod-sig: 100.0% [174.78σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.00e-24
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 8.128
Centroid-sig: 0.3%
Centroid-so: 0.358 arcsec [1.47σ]
OotOffset-rm: 0.498 arcsec [0.71σ]
KicOffset-rm: 0.536 arcsec [0.45σ]
OotOffset-st: 0/0/3/0 [3]
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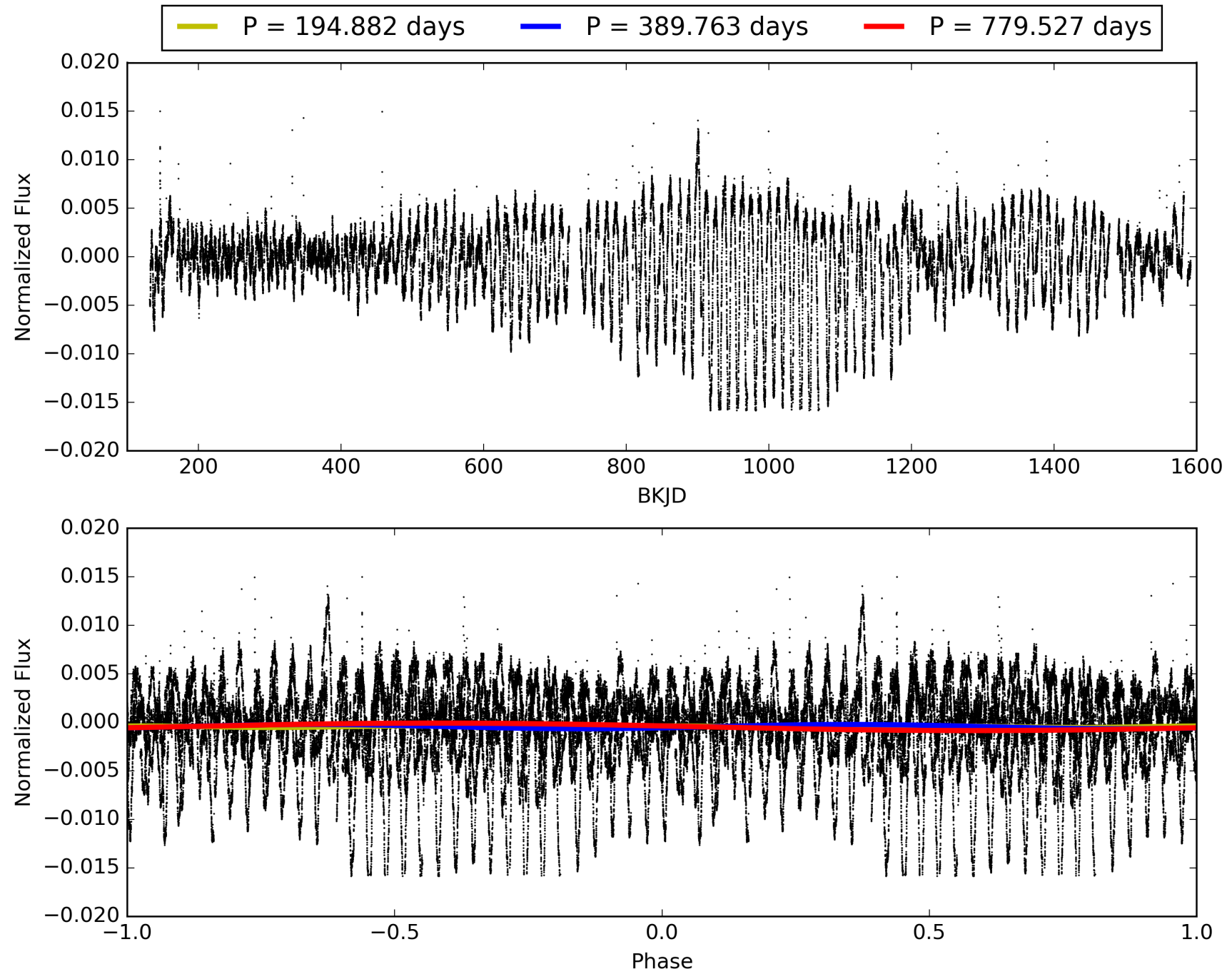
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010583089-02, PDC Light Curves

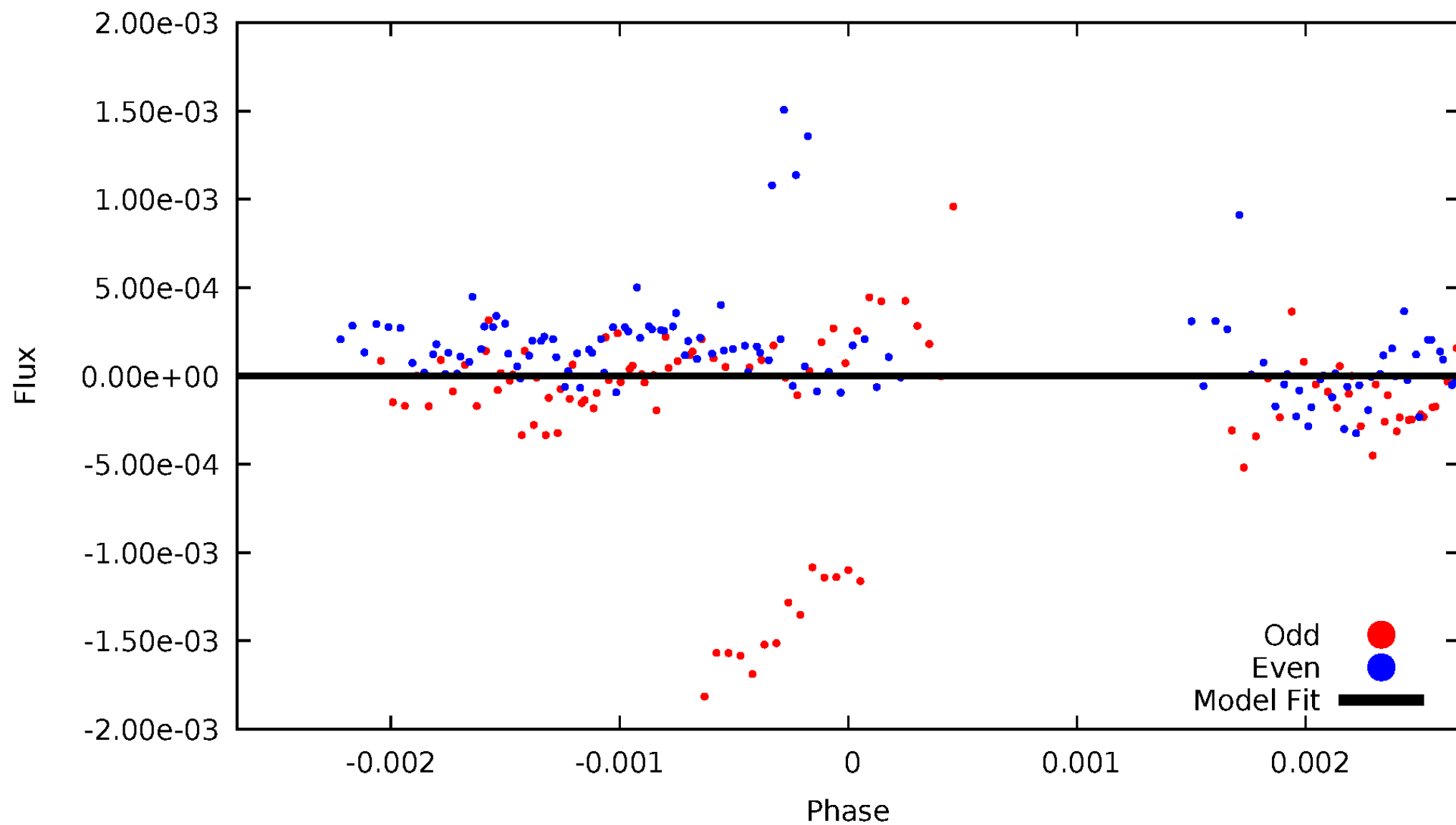


TCE 010583089-02



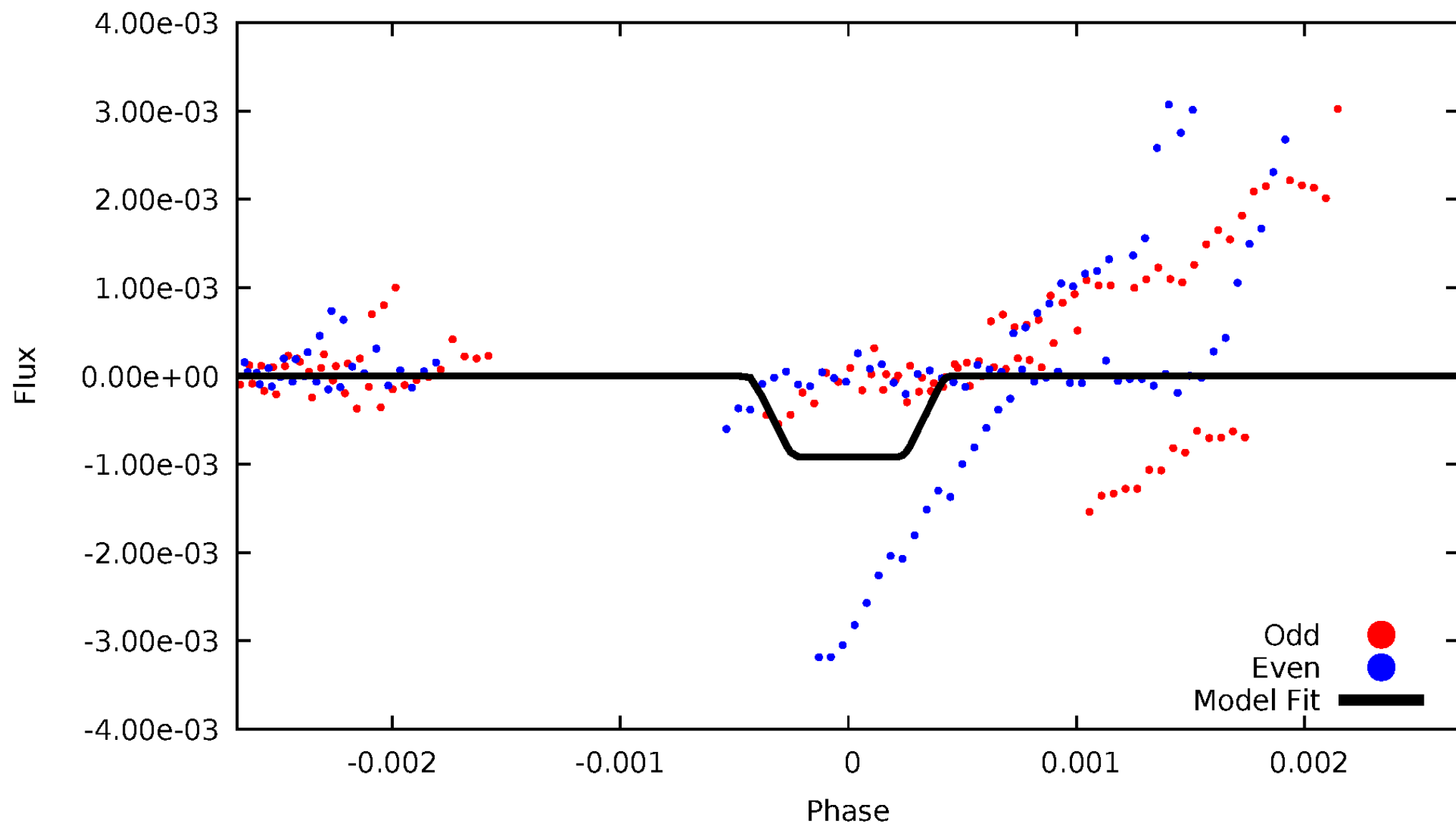
DV Odd/Even

TCE 010583089-02



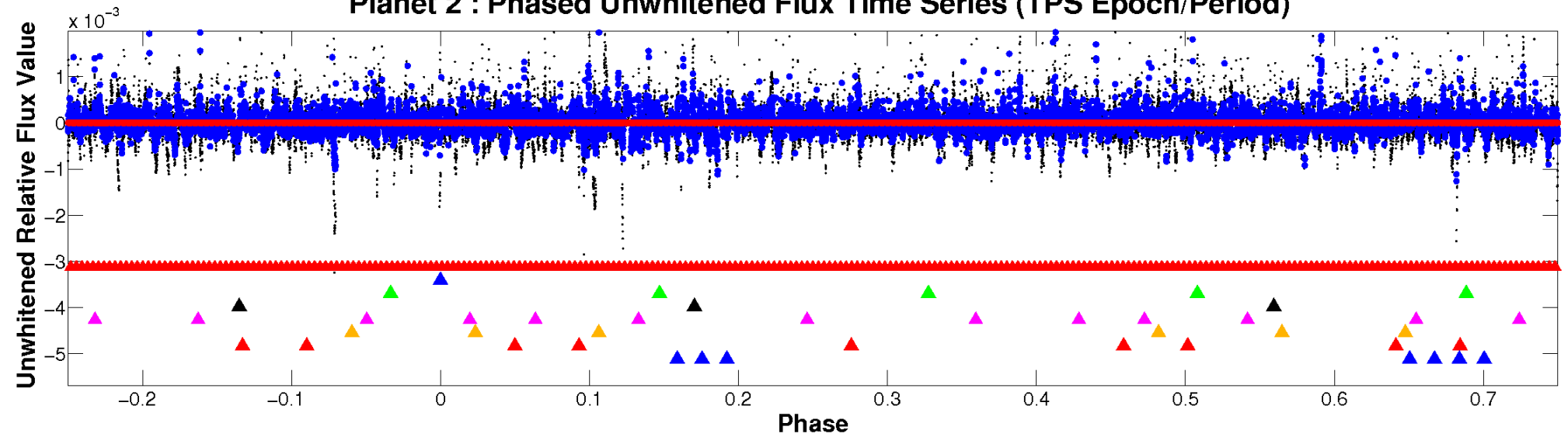
ALT Odd/Even

TCE 010583089-02

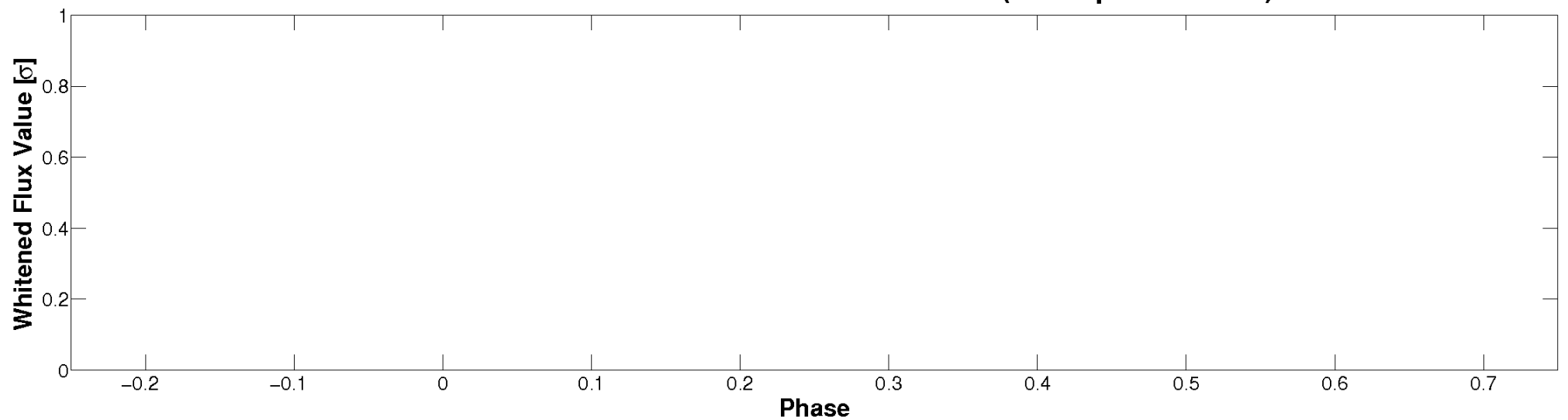


Non-Whitened Vs. Whitened Light Curve

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

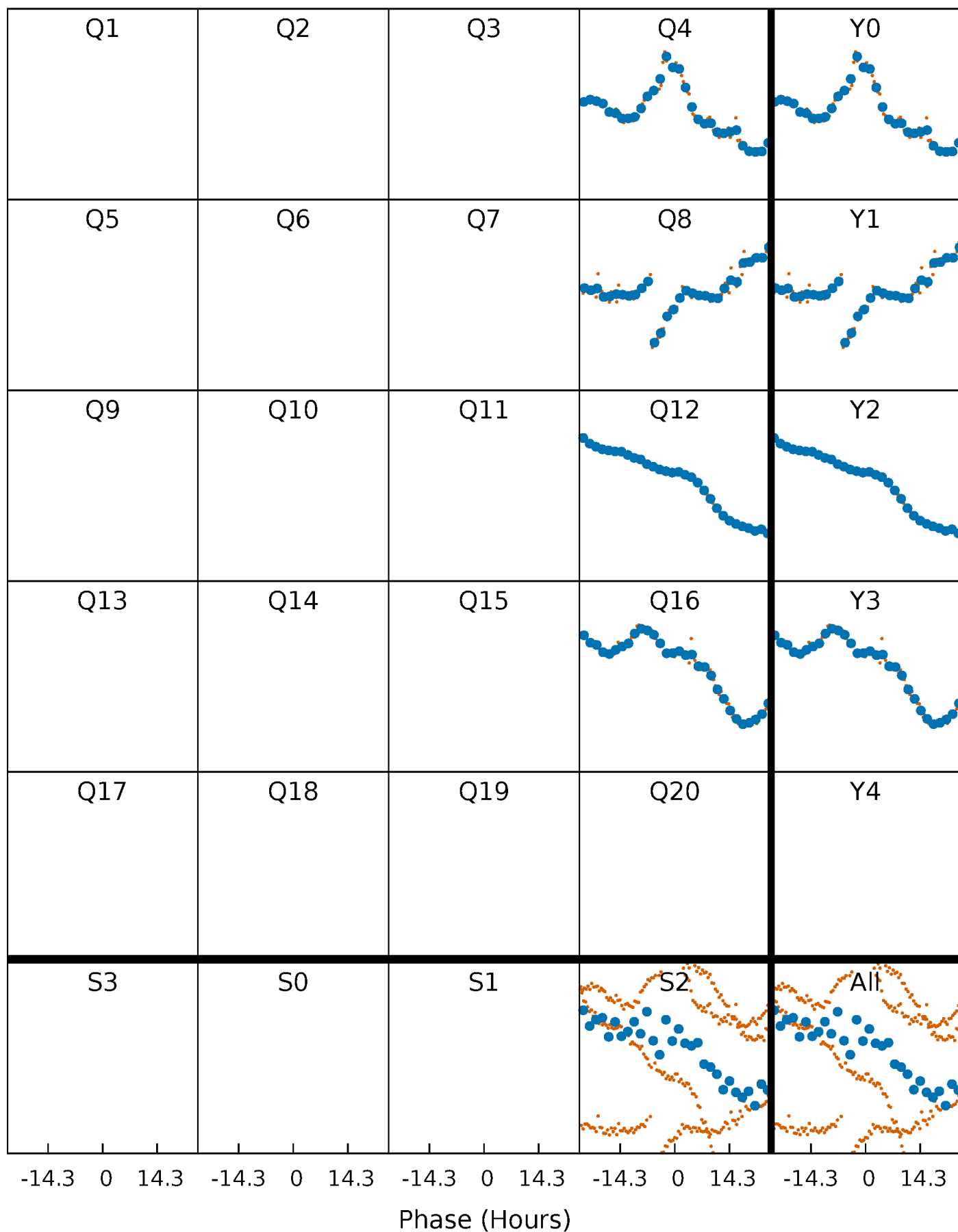


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



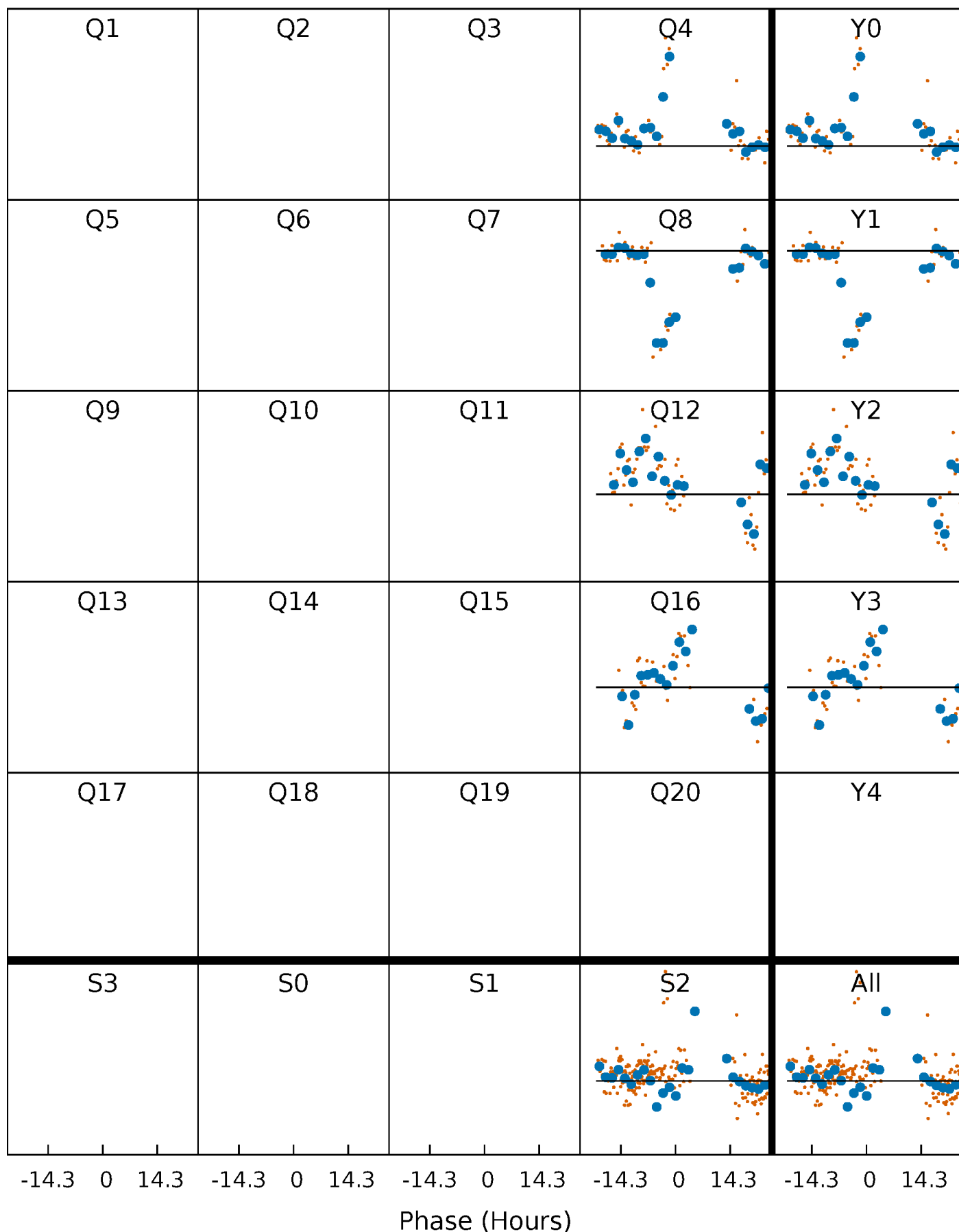
PDC Quarter-Phased Transit Curves

TCE 010583089-02 $P=389.763346$ Days $T_0=364.542123$ (BKJD)



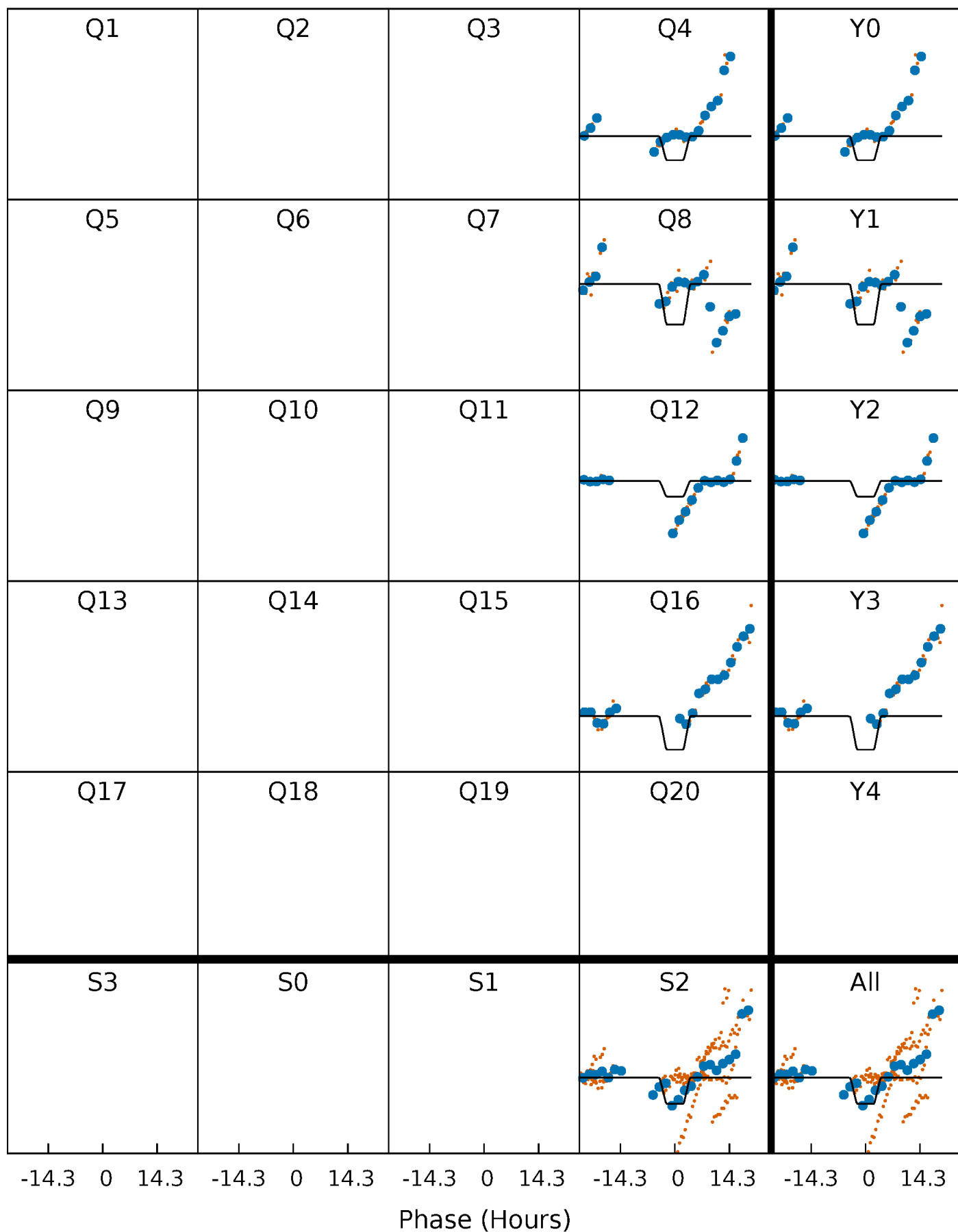
DV Quarter-Phased Transit Curves

TCE 010583089-02 $P=389.763346$ Days $T_0=364.542123$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

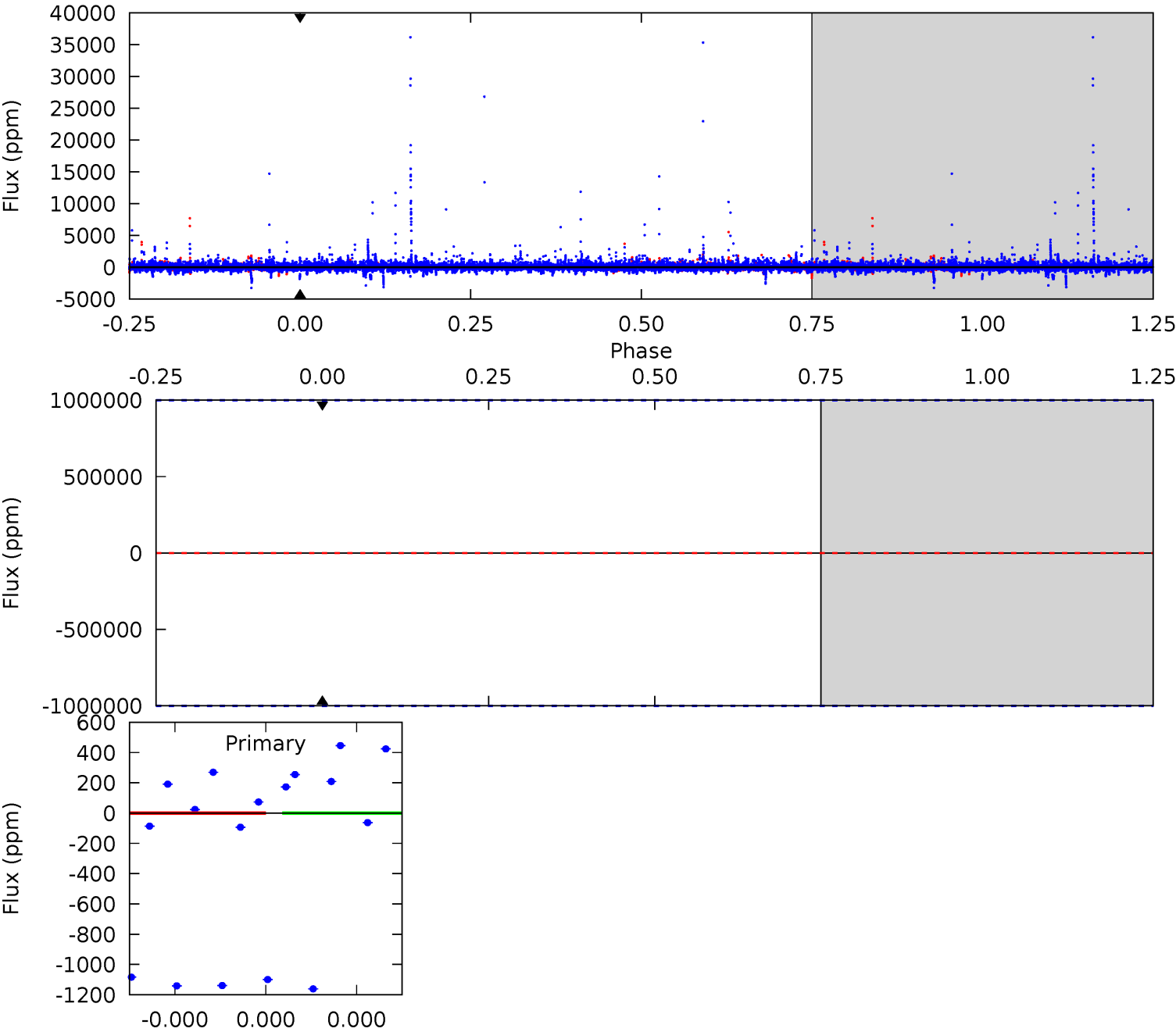
TCE 010583089-02 P=389.763346 Days $T_0=363.884915$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-02, P = 389.763346 Days, E = 364.542123 Days

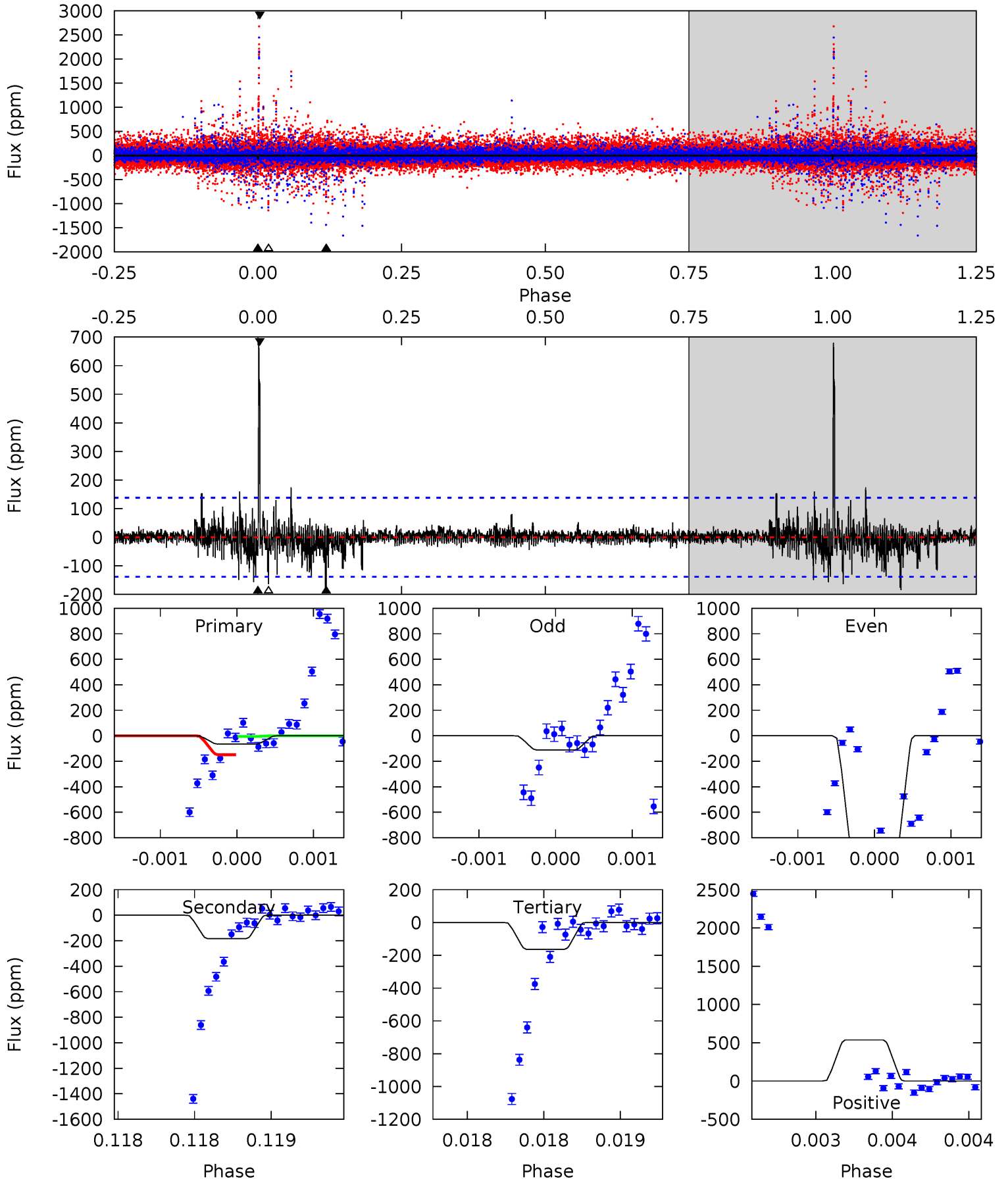
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010583089-02, P = 389.763346 Days, E = 363.884915 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.58	7.32	6.49	21.3	5.47	3.33	1.18	-3.91	-18.7	0.83	-14.0	18.6	5.95	0.79	2.86



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$5.68^{+5.91}_{-4.00}$	225^{+9}_{-9}	3901^{+8226}_{-13651}	$58108^{+3641736}_{-2018519}$
Alt.	-185 ± 25	$5.62^{+5.72}_{-3.77}$	224^{+9}_{-9}	2539^{+886}_{-386}	2729^{+23174}_{-2071}

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

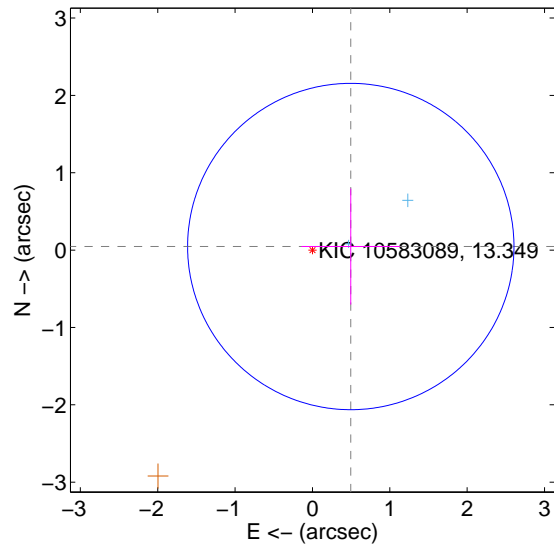
Supplemental centroid analysis for 010583089-02. Kepler magnitude: 13.35. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

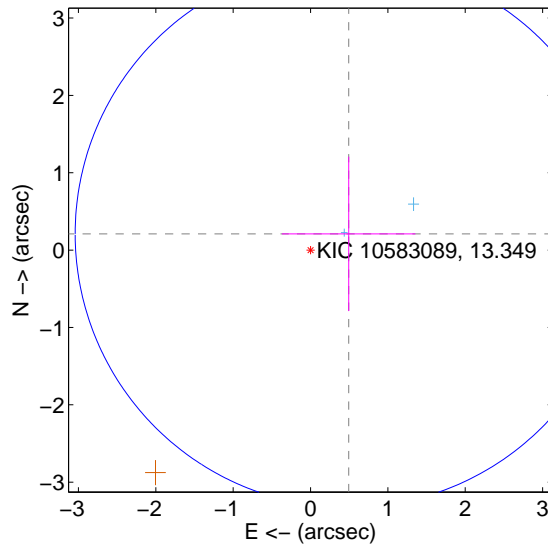
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.498 ± 0.703	0.71	-0.496 ± 0.637	0.046 ± 0.750
PRF-fit source offset from KIC position	0.536 ± 1.179	0.45	-0.493 ± 0.862	0.210 ± 0.998
photometric centroid source offset	0.36 ± 0.24	1.47	0.17 ± 0.25	-0.31 ± 0.24

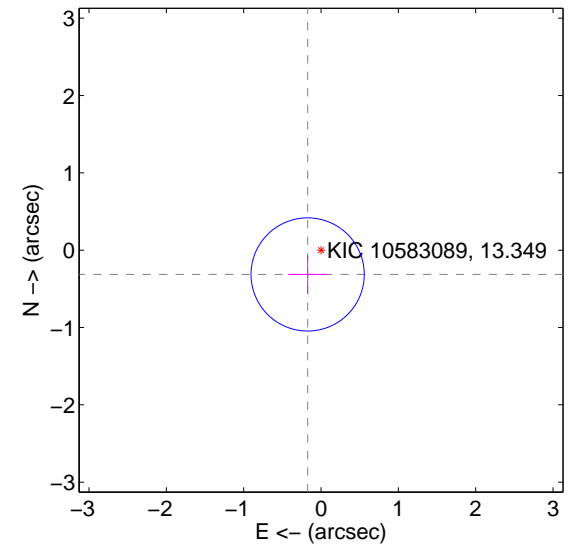
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

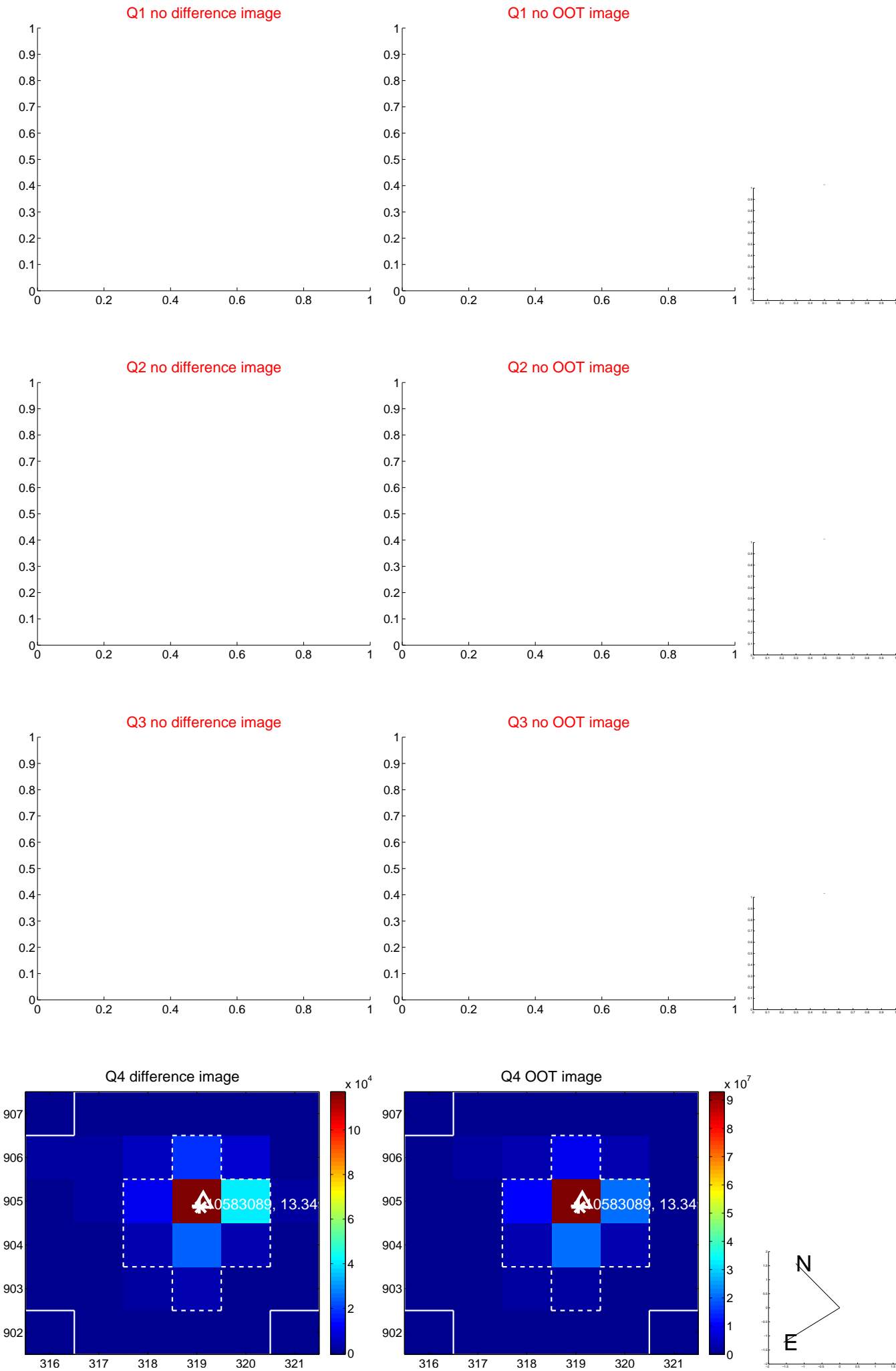


offset from photometric centroids

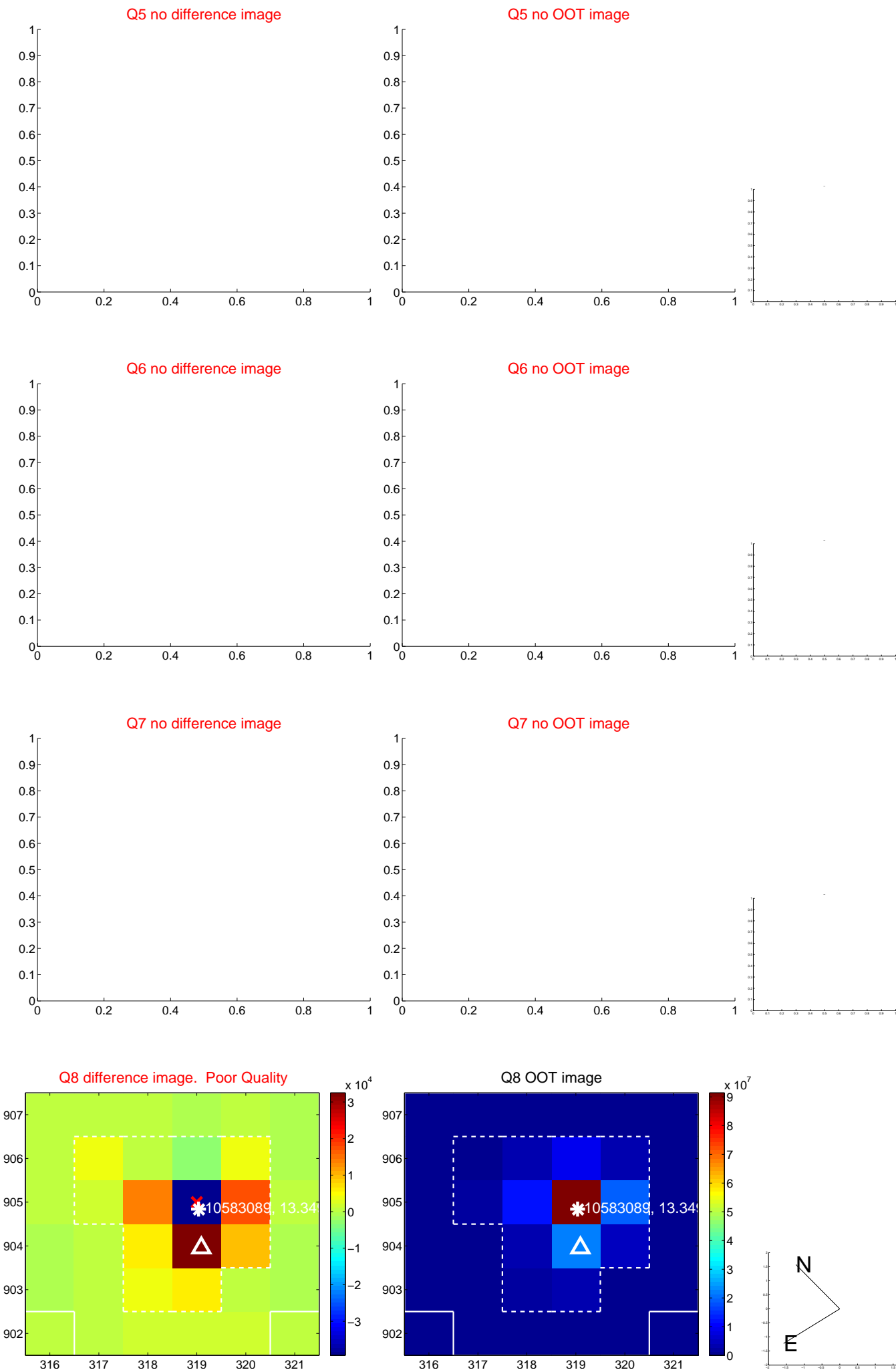


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

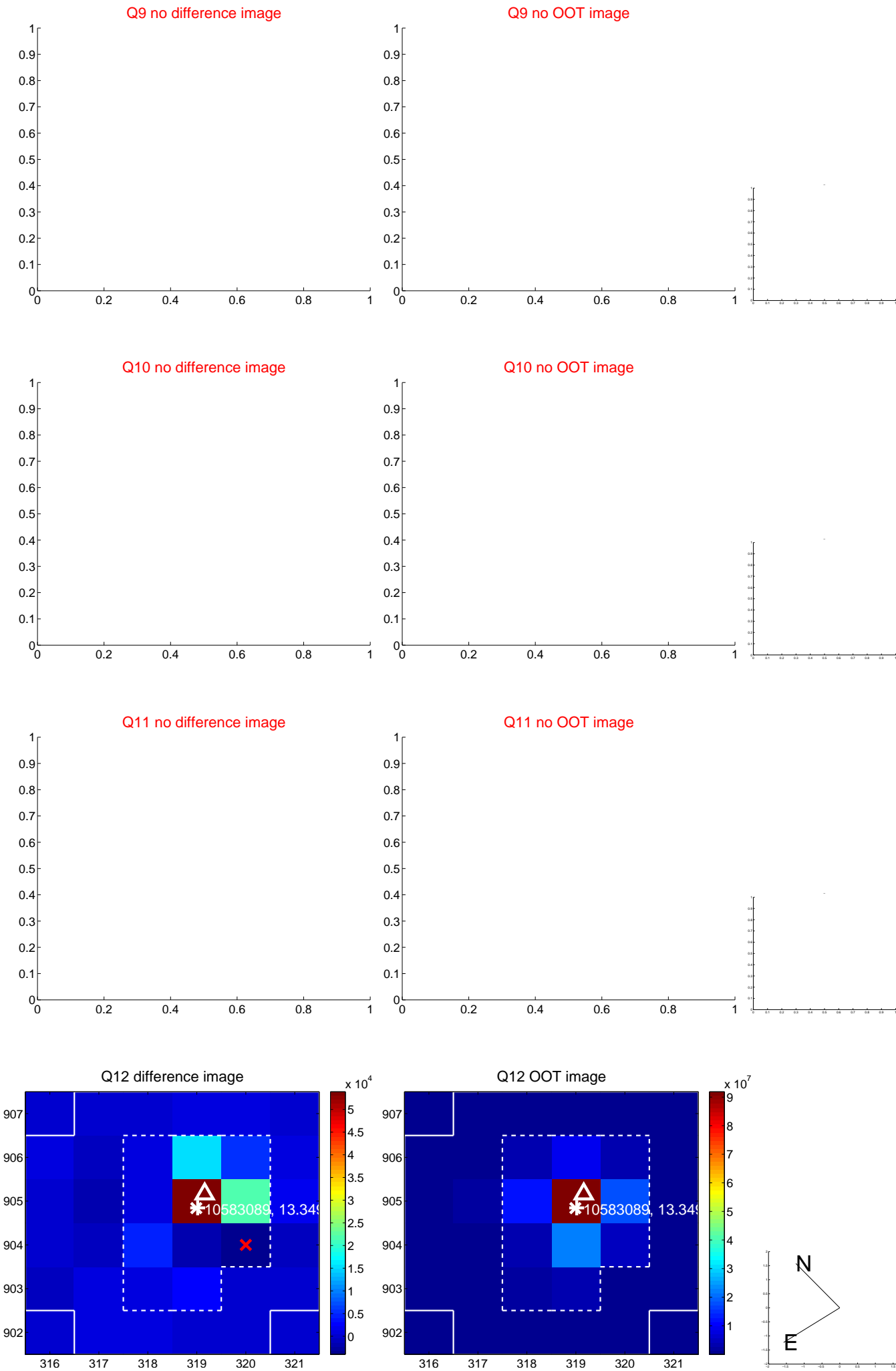
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



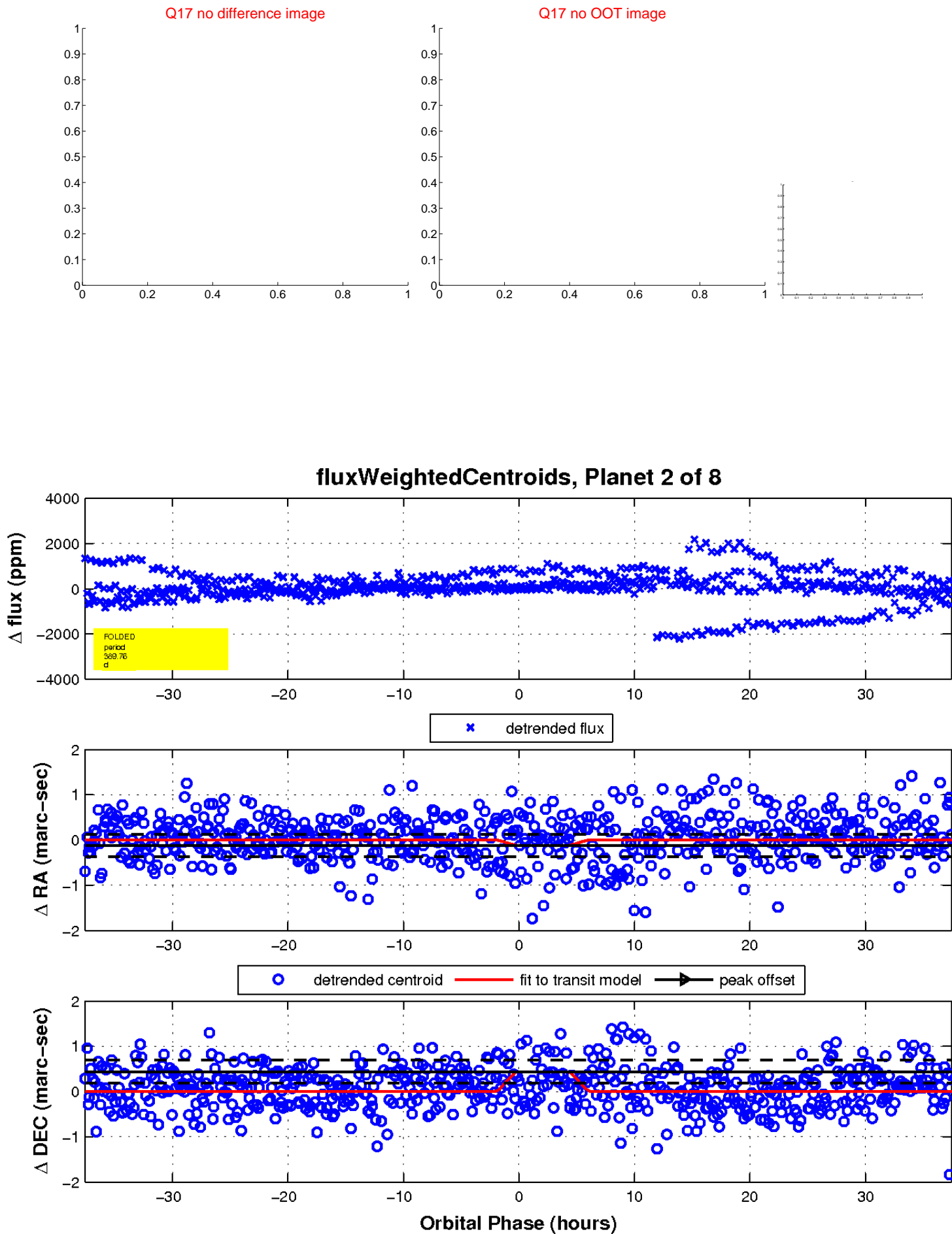
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

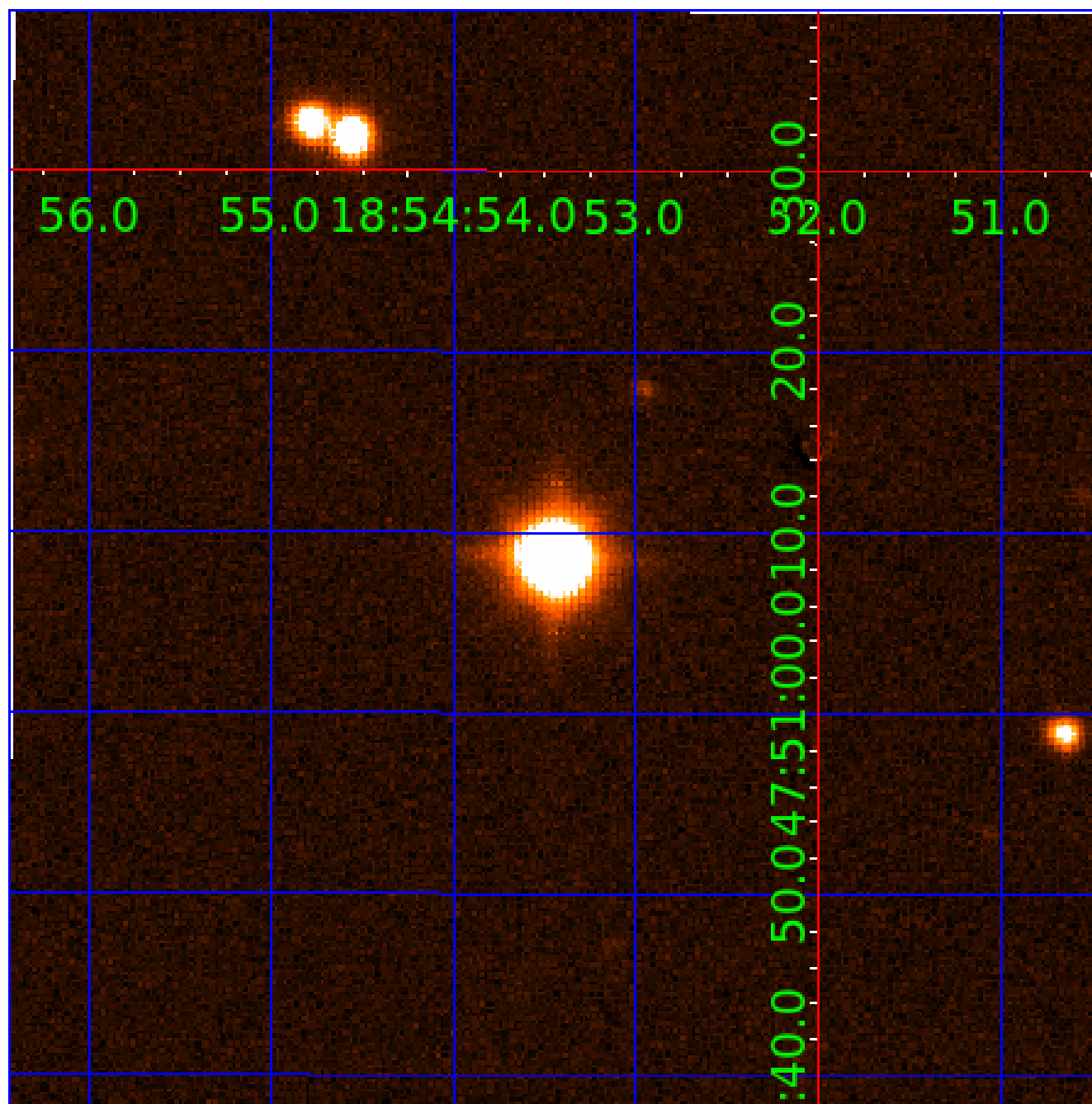


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010583089

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})
010583089-01	OBS	No	1.449244	132.917425	54.1	4.854	13.0	14.0	0.68	4264	0.48	282.44
010583089-02	OBS	No	389.763346	364.542123	428.5	12.500	19.0	-1.0	0.68	4264	1.34	0.16
010583089-03	OBS	No	319.411342	243.152164	385.4	4.864	13.3	6.7	0.68	4264	1.40	0.21
010583089-04	OBS	No	508.858352	192.796324	474.1	10.544	11.8	7.0	0.68	4264	1.53	0.11
010583089-05	OBS	No	115.214443	158.950662	445.2	2.401	10.8	9.3	0.68	4264	1.51	0.83
010583089-06	OBS	No	211.027609	341.369333	381.0	4.868	9.9	7.1	0.68	4264	1.32	0.37
010583089-08	OBS	No	198.130003	228.353107	305.9	19.597	13.0	4.4	0.68	4264	1.42	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583089-01	OBS	FP	0.01	1	0	0	0	LPP_DV
010583089-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_NOFITS
010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

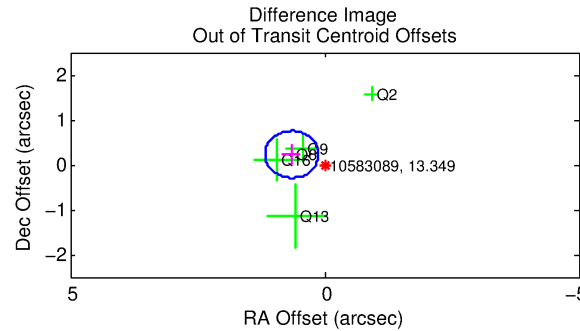
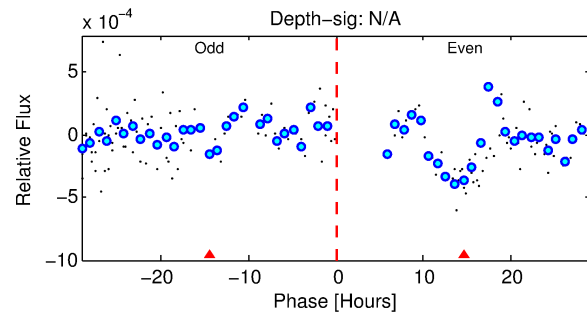
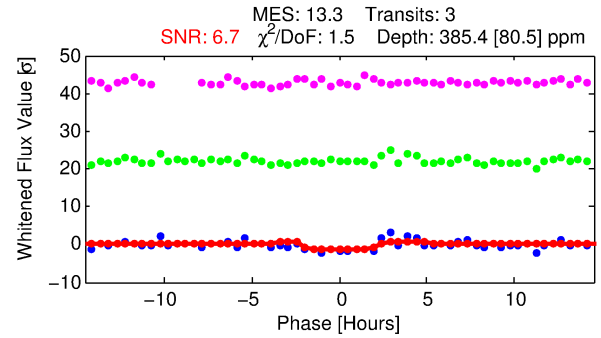
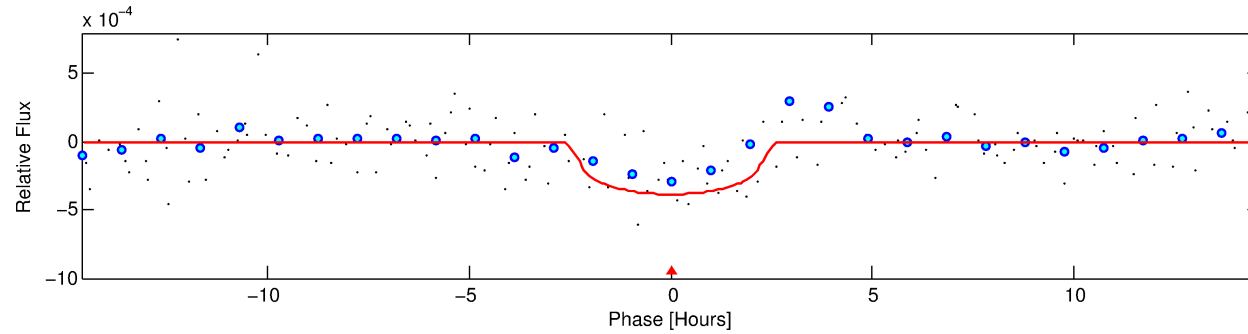
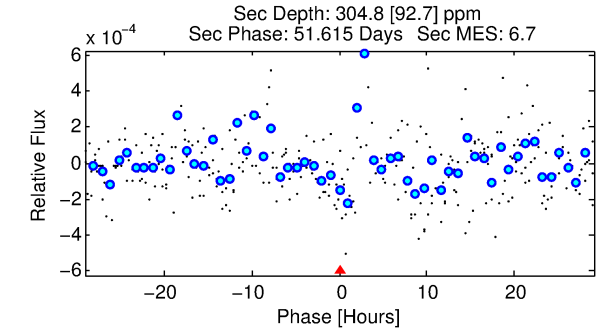
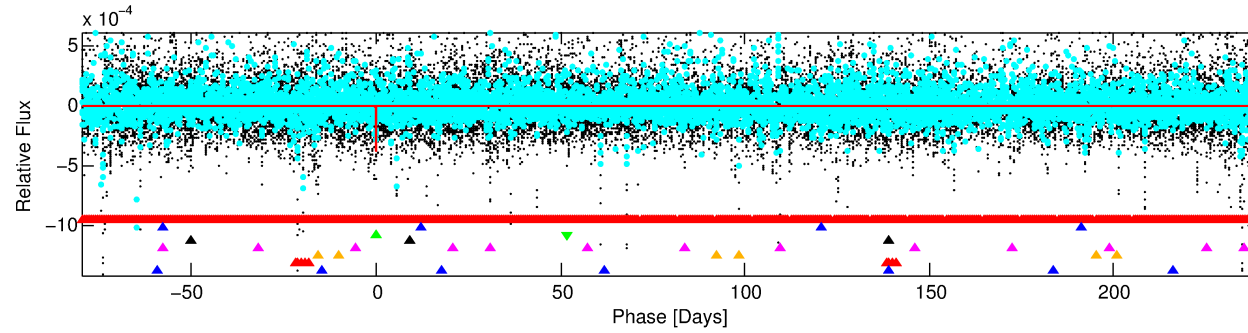
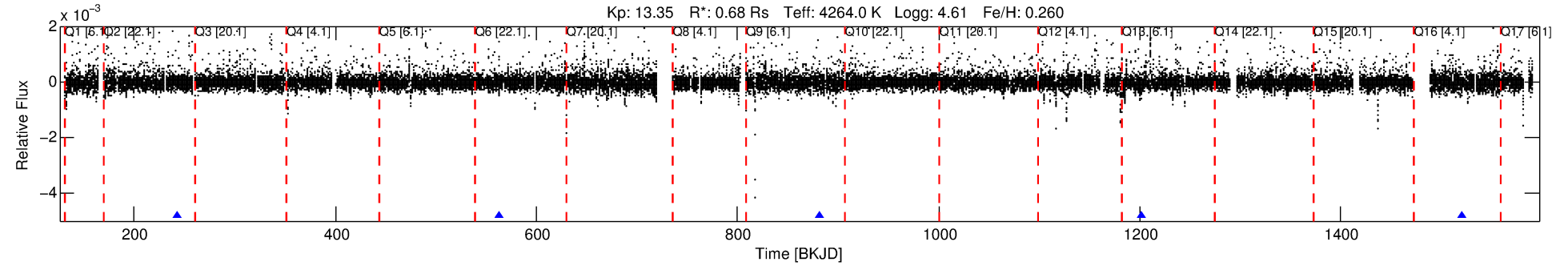
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-03

No Significant Match Found

DV One-Page Summary

KIC: 10583089 Candidate: 3 of 8 Period: 319.411 d



DV Fit Results:

Period = 319.41134 [0.00547] d
Epoch = 243.1522 [0.0159] BKJD
Rp/R* = 0.0188 [0.0240]
a/R* = 396.59 [1498.75]
b = 0.64 [3.55]
Seff = 0.21 [0.04]
Teff = 173 [8] K
Rp = 1.40 [1.80] Re
a = 0.8070 [0.0542] AU
Ag = 55904.34 [144401.85] [0.39%]
Teffp = 4114 [2660] K [1.48%]

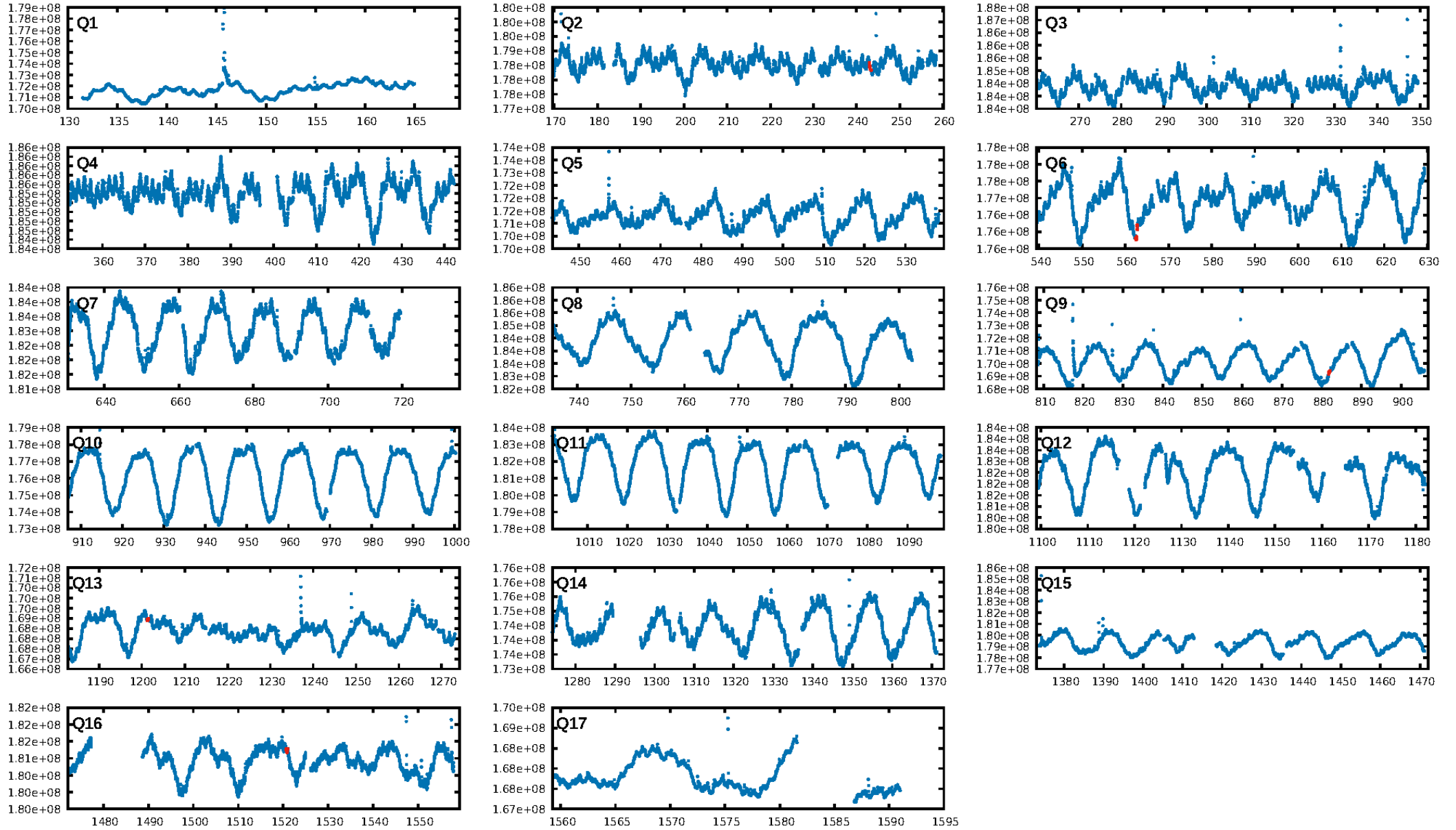
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [377.98%]
LongPeriod-sig: 100.0% [125.88%]
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 53.4%
Bootstrap-pfa: 2.24e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.843
Centroid-sig: 13.8%
Centroid-so: 1.022 arcsec [1.44%]
OotOffset-rm: 0.691 arcsec [3.96%]
KicOffset-rm: 0.736 arcsec [3.13%]
OotOffset-st: 2/0/1/2 [5]
KicOffset-st: 2/0/1/2 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 0.20 [1/5]

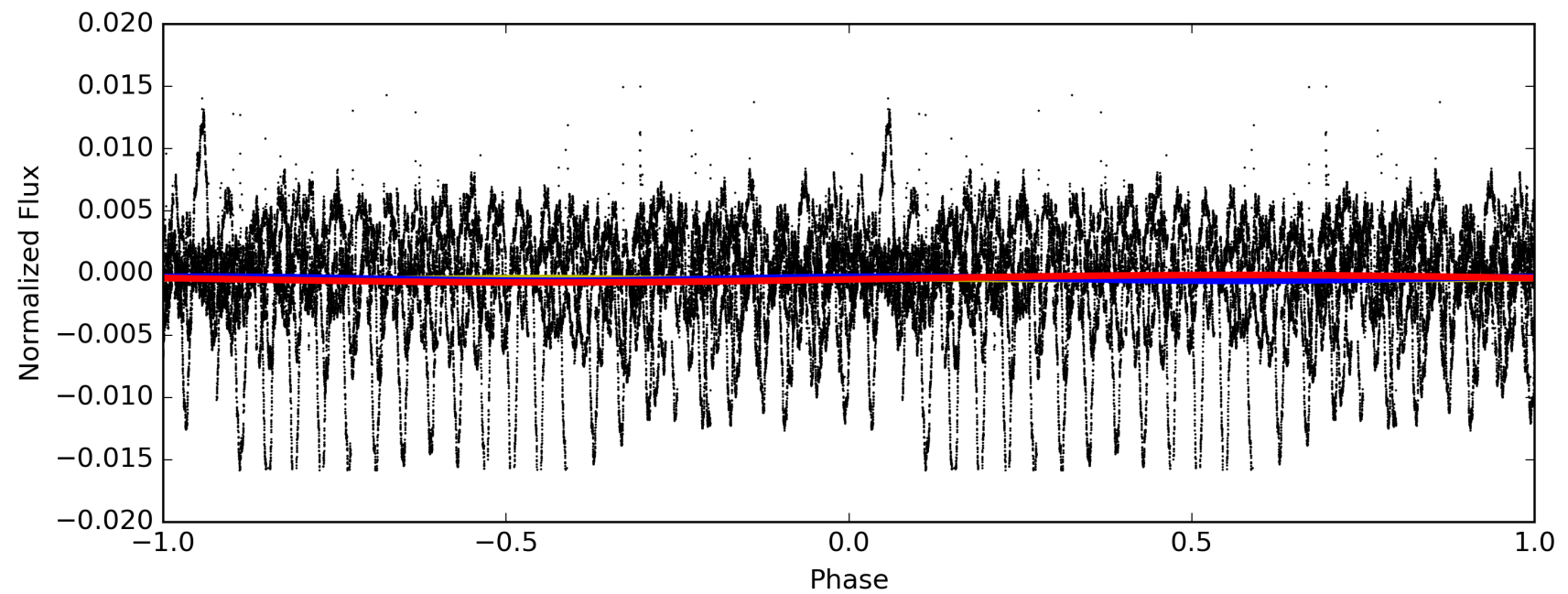
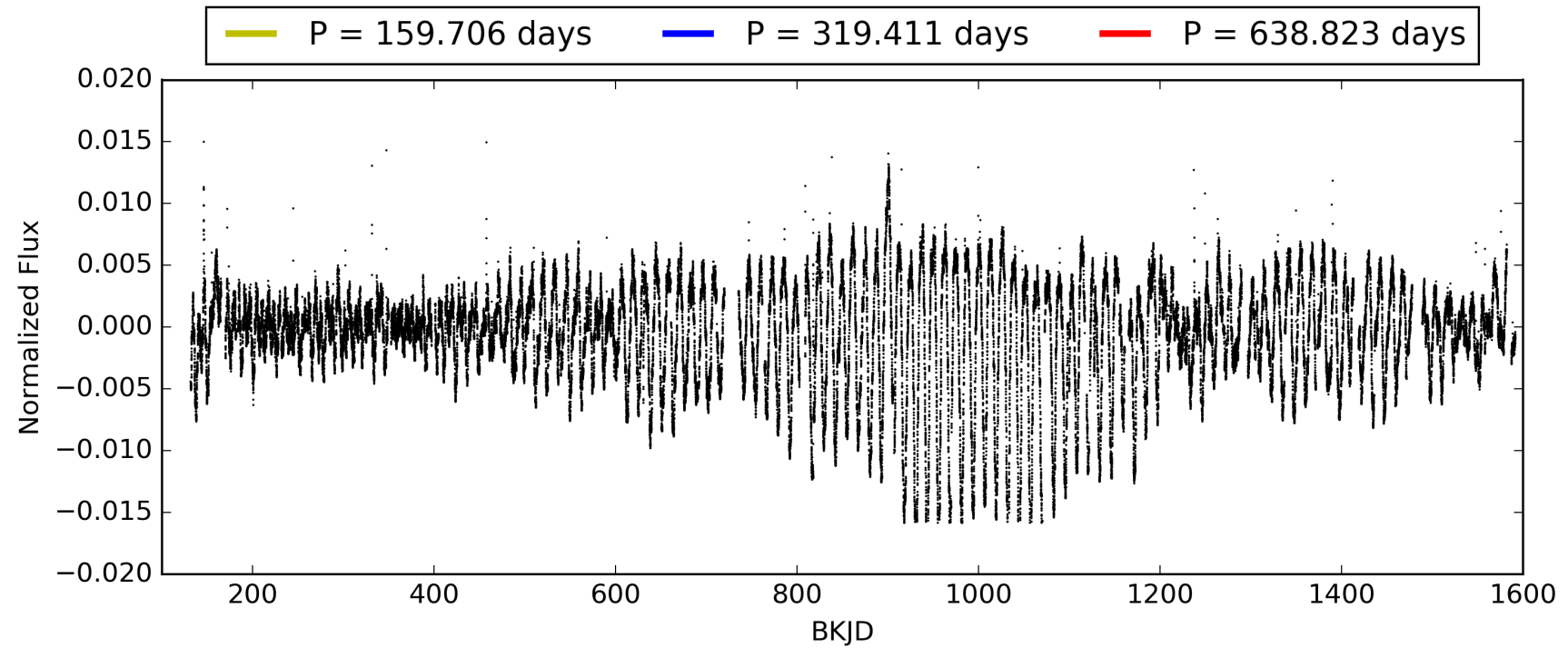
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:22:23 Z

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

TCE 010583089-03, PDC Light Curves

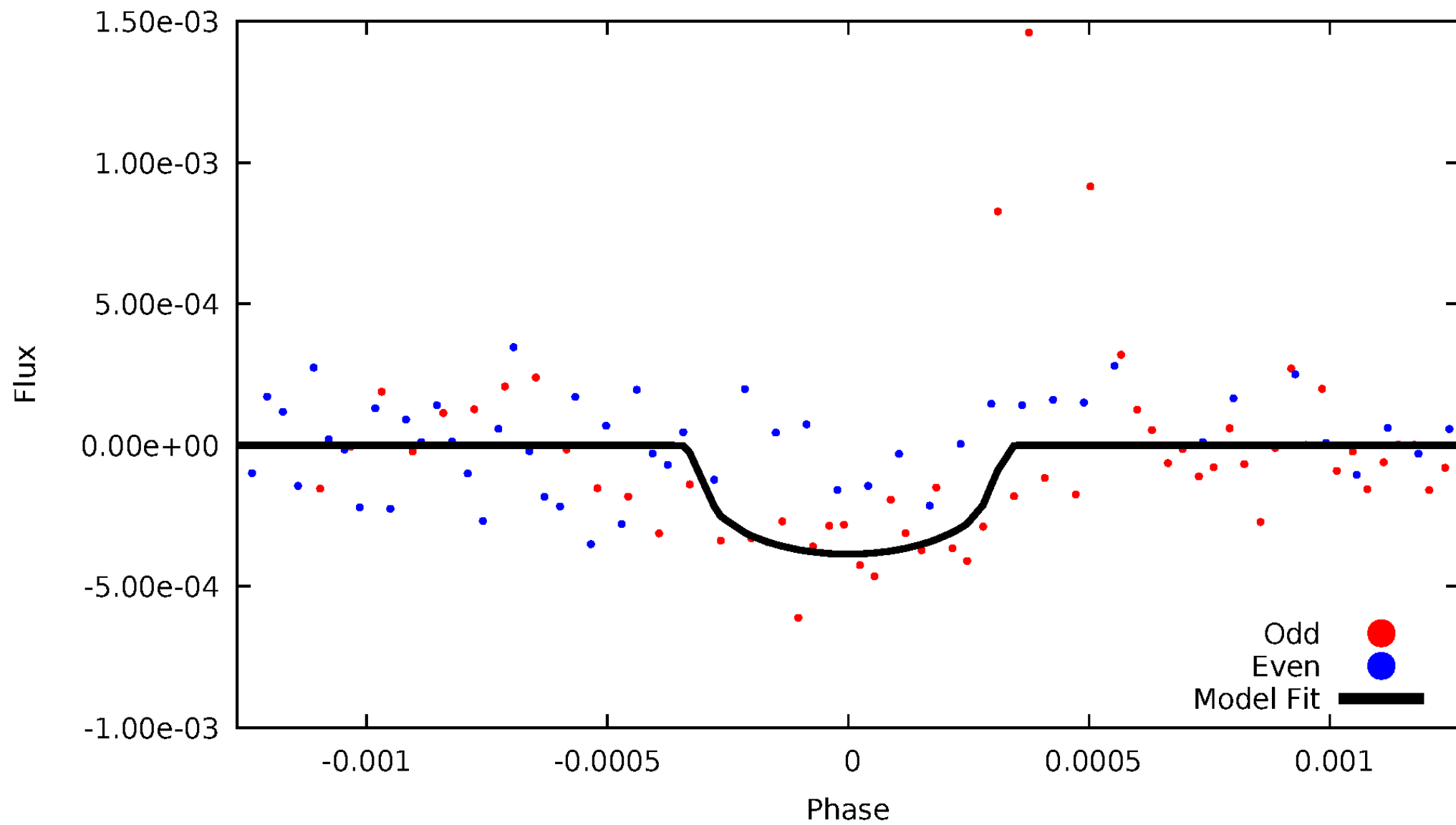


TCE 010583089-03



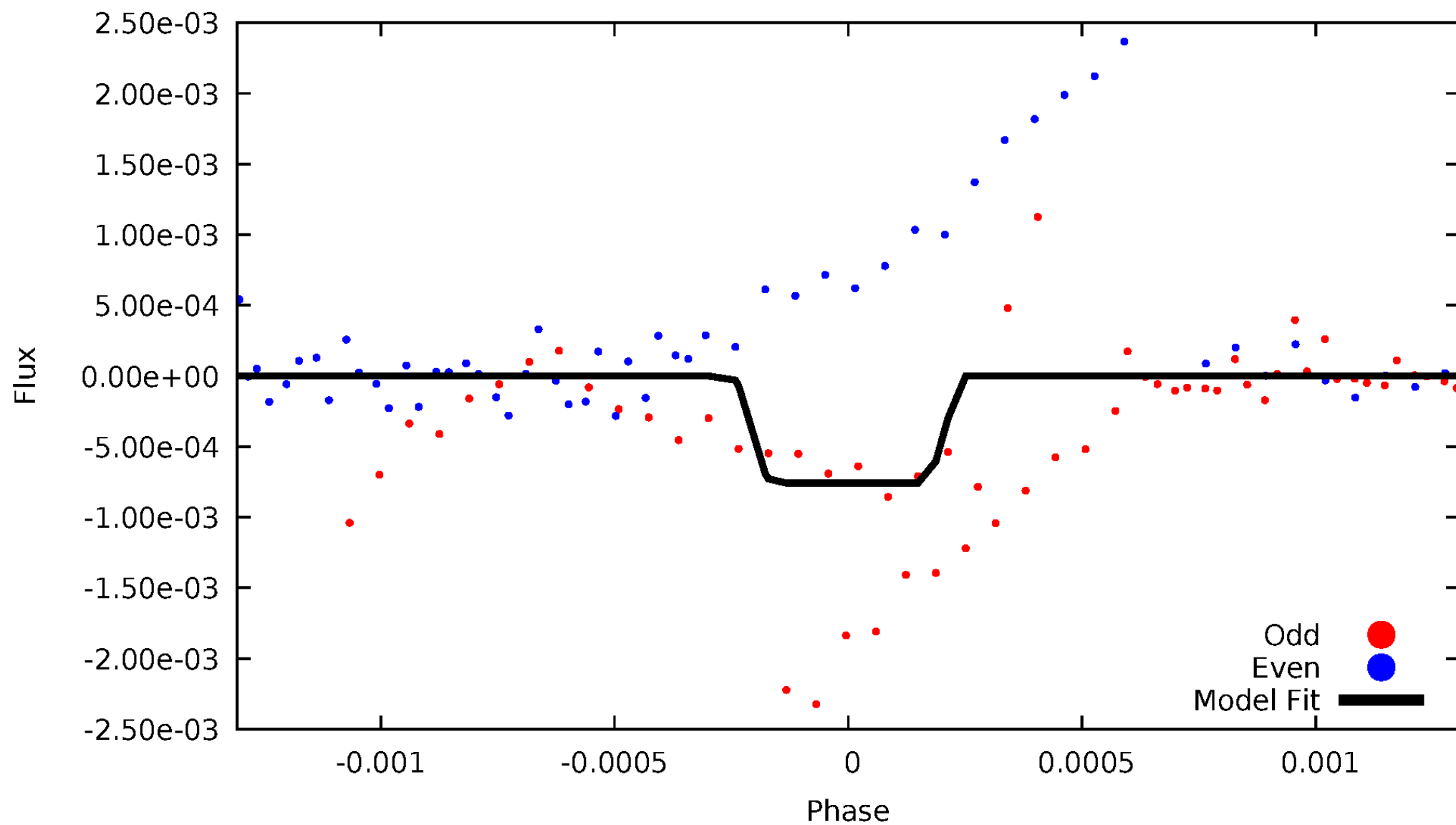
DV Odd/Even

TCE 010583089-03



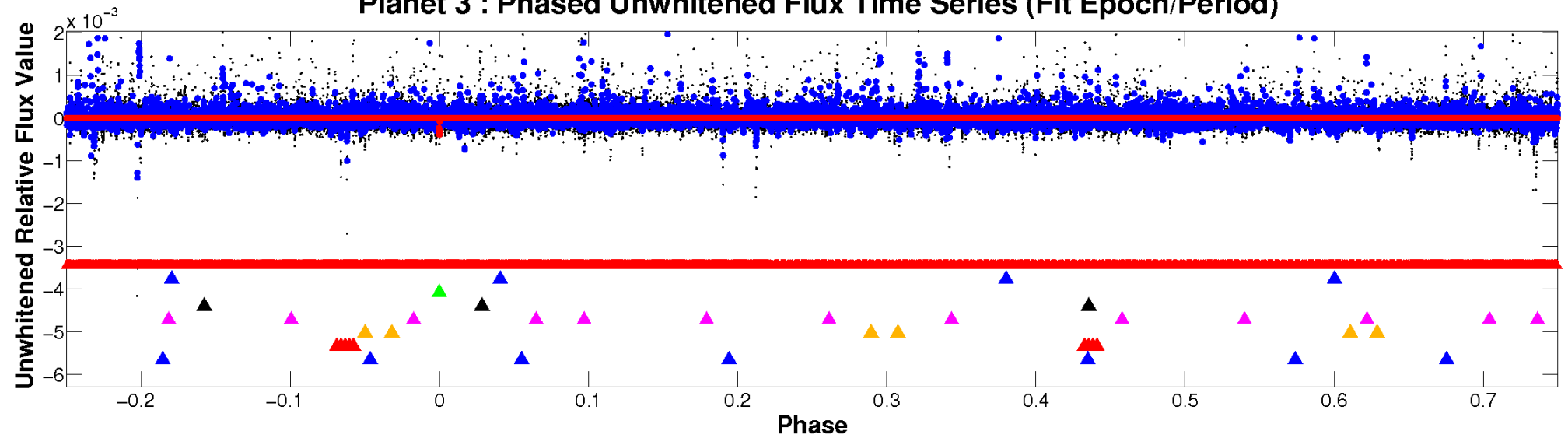
ALT Odd/Even

TCE 010583089-03

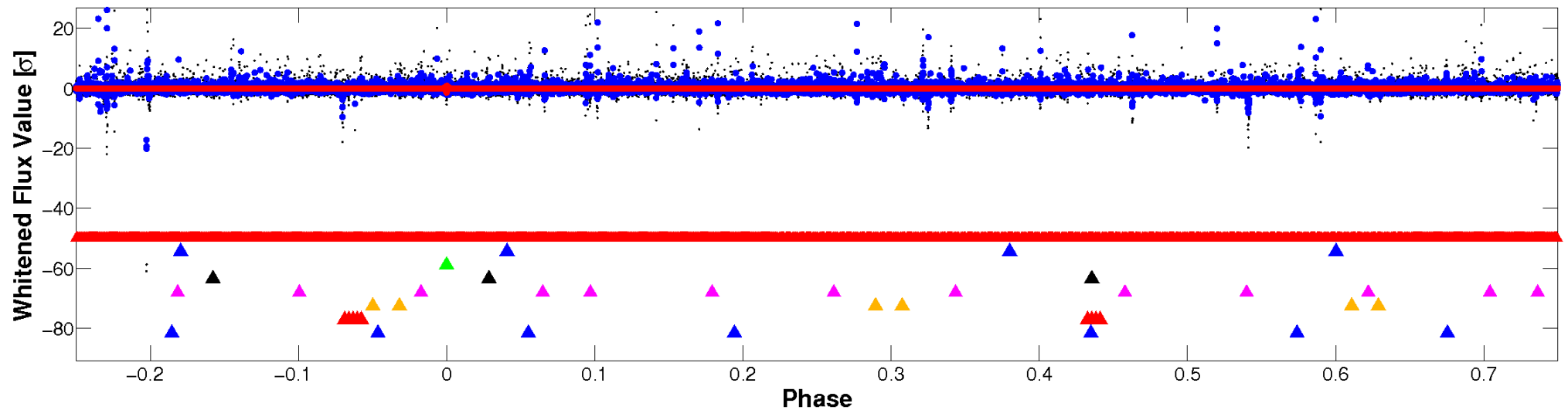


Non-Whitened Vs. Whitened Light Curve

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

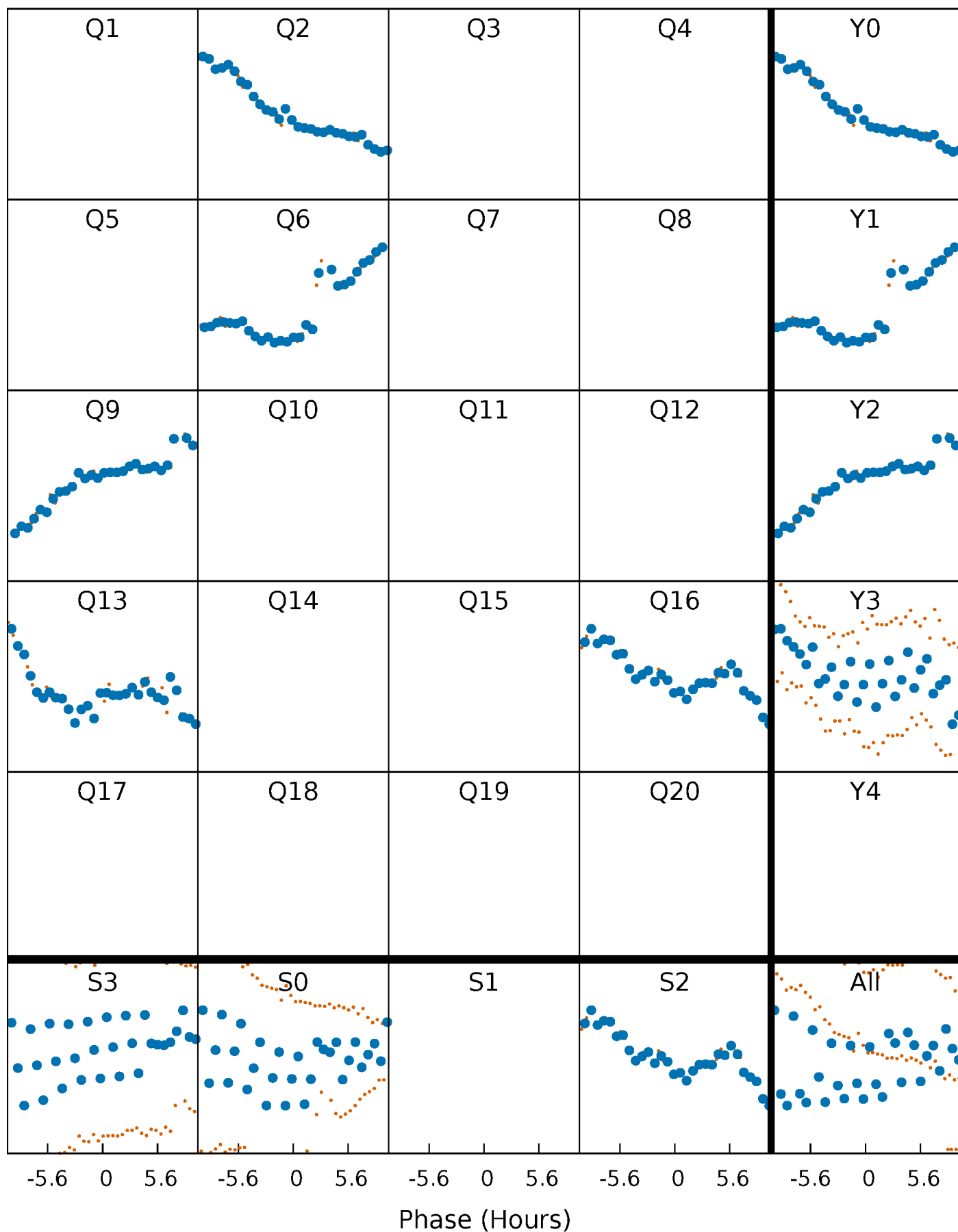


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



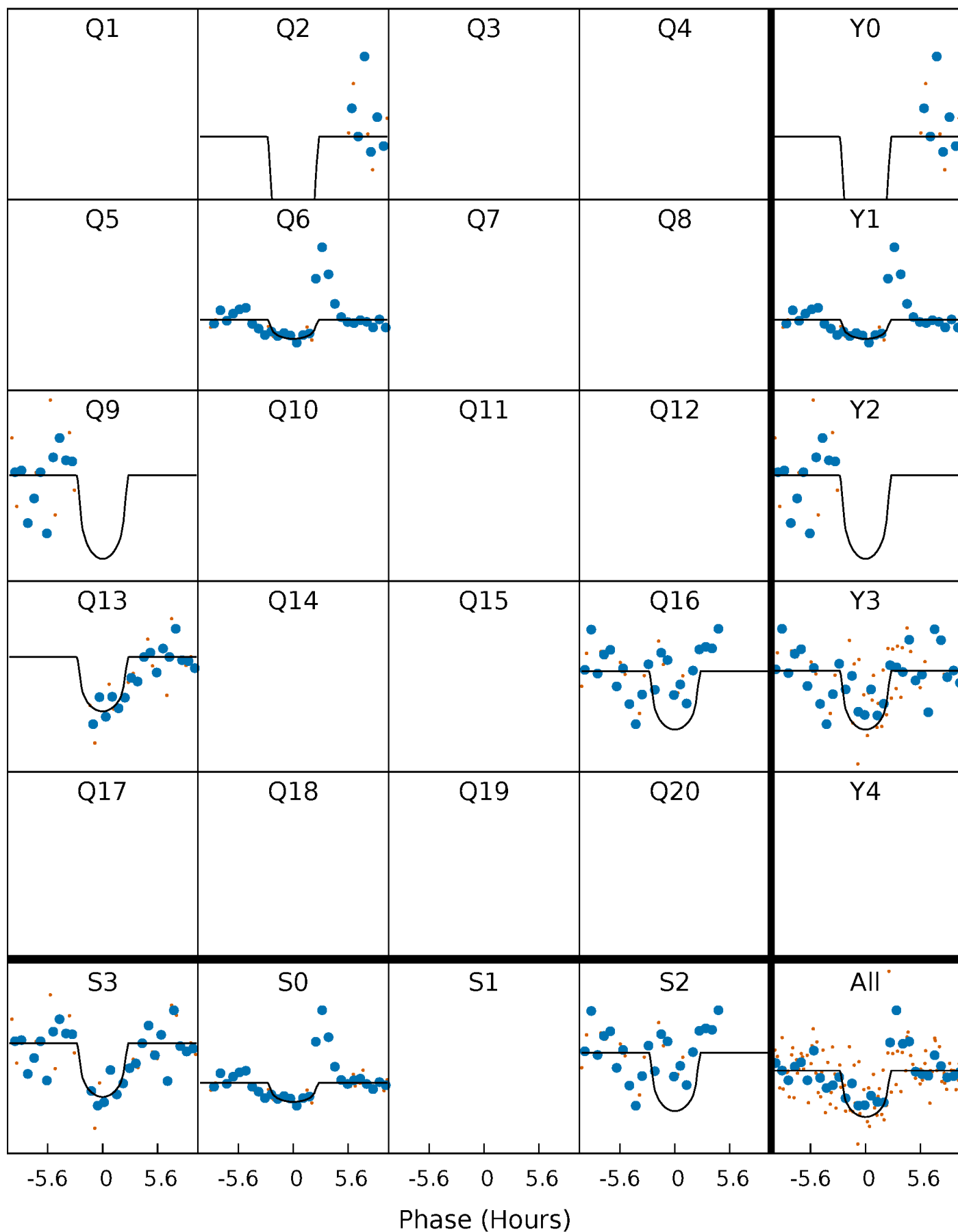
PDC Quarter-Phased Transit Curves

TCE 010583089-03 P=319.411342 Days $T_0=243.152164$ (BKJD)



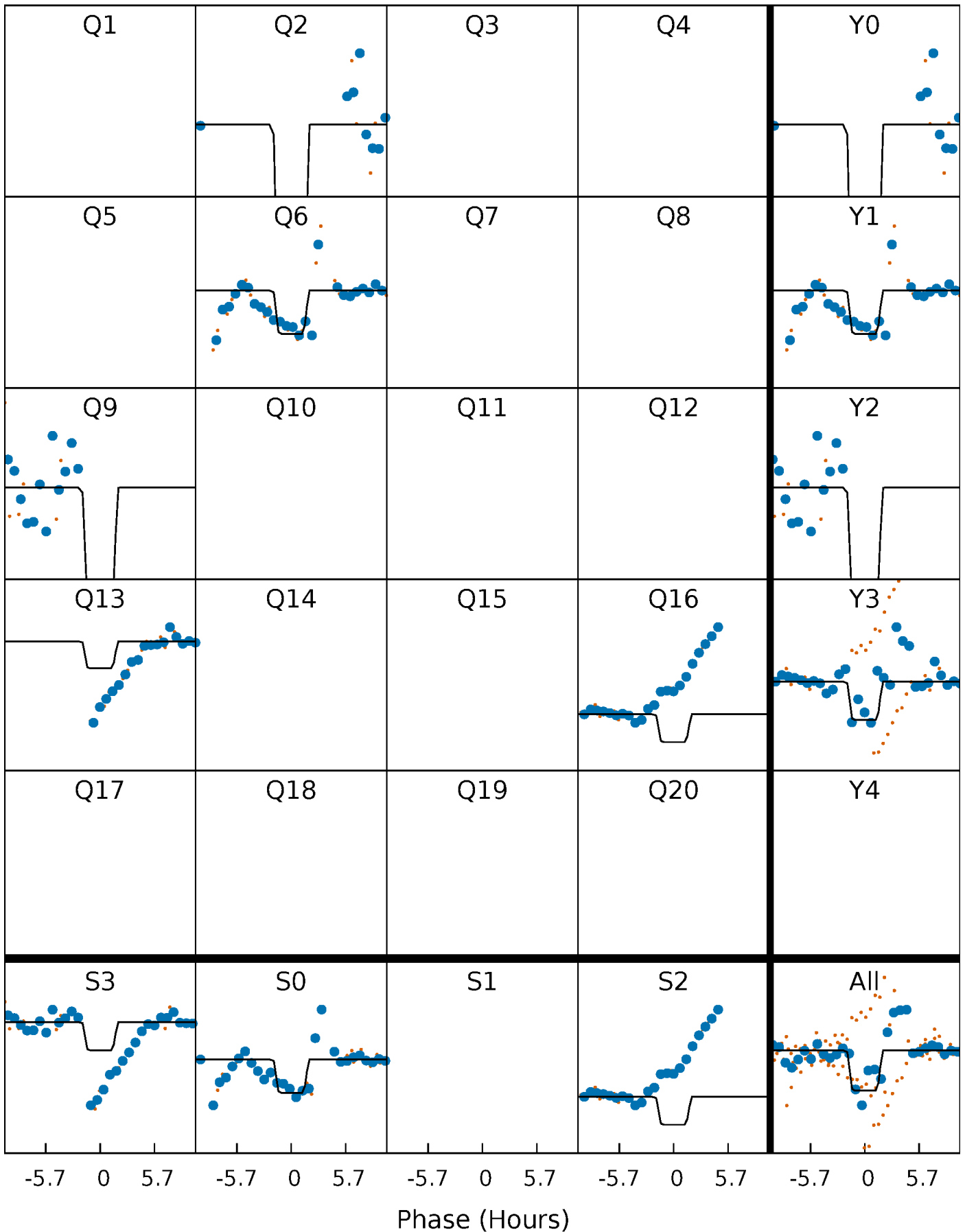
DV Quarter-Phased Transit Curves

TCE 010583089-03 $P=319.411342$ Days $T_0=243.152164$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

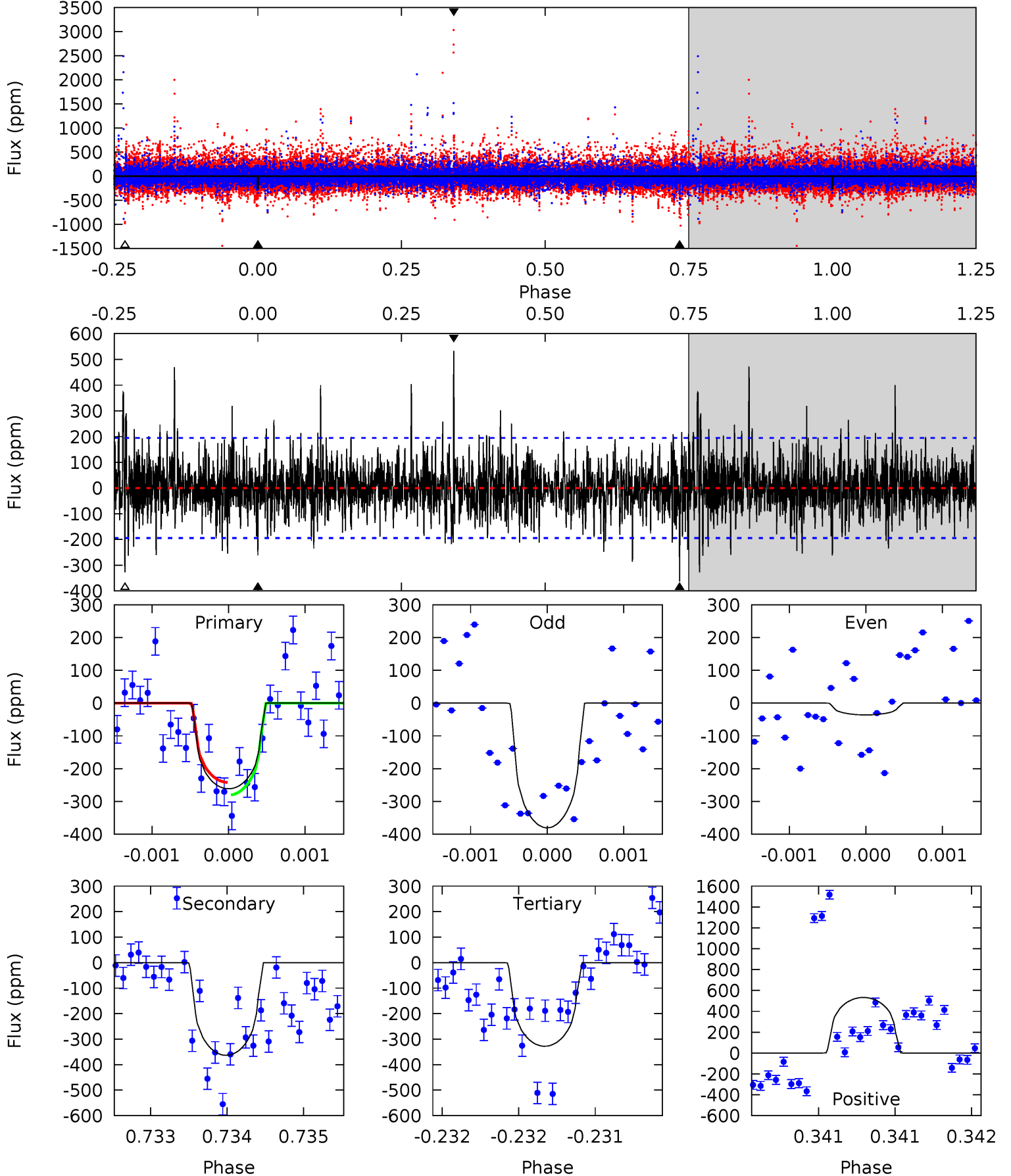
TCE 010583089-03 $P=319.410599$ Days $T_0=243.143205$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-03, P = 319.411342 Days, E = 243.152164 Days

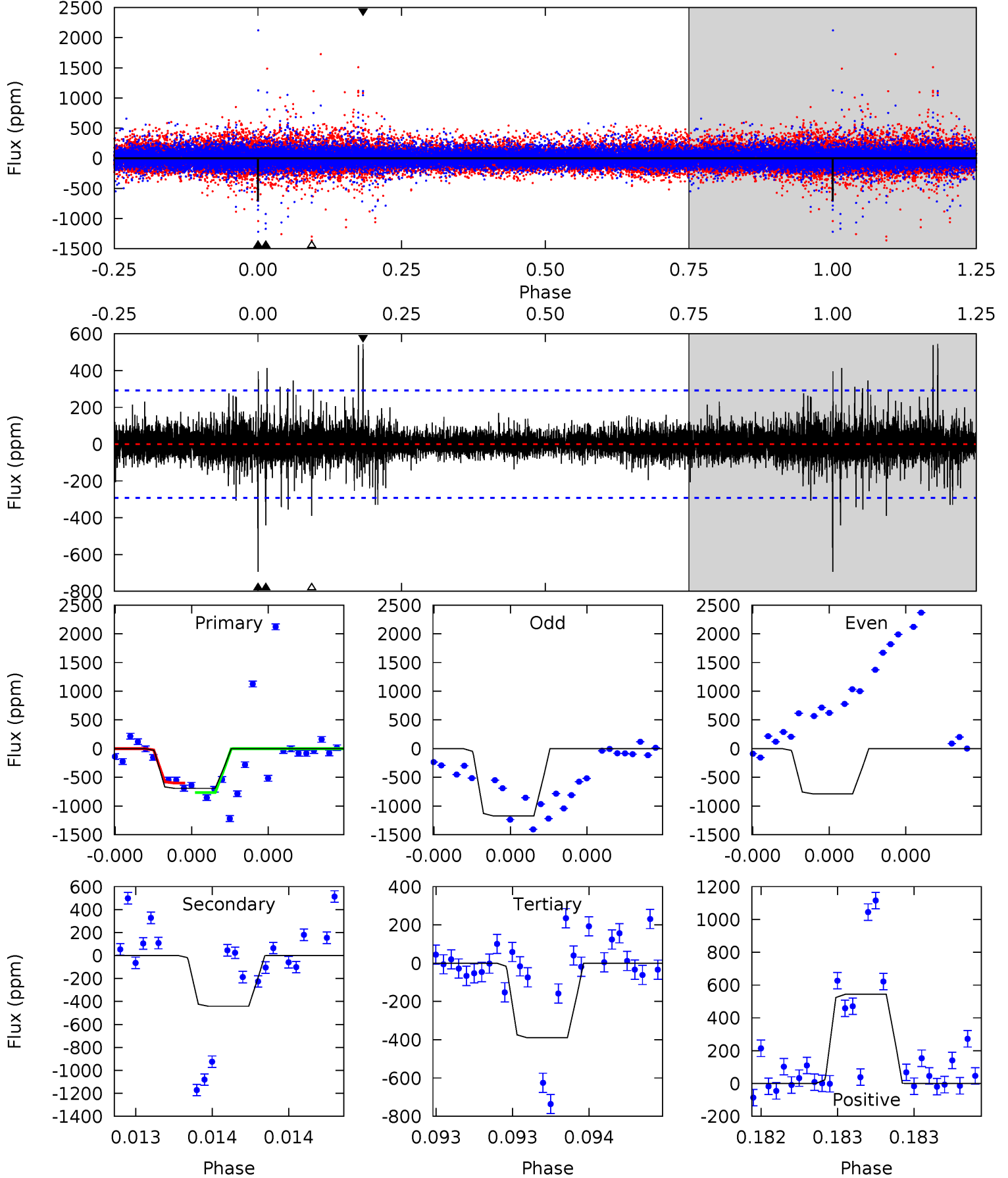
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.41	10.3	9.30	15.1	5.51	3.39	2.17	-1.88	-7.70	1.01	-4.80	3.84	0.77	0.59	0.54



Alt Model-Shift Uniqueness Test

010583089-03, P = 319.410599 Days, E = 243.143205 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	8.44	7.45	10.4	5.58	3.49	0.99	5.81	2.84	0.99	-1.98	4.84	0.87	0.44	0



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-364 ± 35	$1.95^{+1.60}_{-1.21}$	241^{+8}_{-10}	3781^{+1799}_{-652}	$33361^{+204739}_{-22840}$
Alt.	-441 ± 52	$2.35^{+1.65}_{-1.35}$	239^{+10}_{-10}	3638^{+1445}_{-535}	$28425^{+128400}_{-18631}$

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

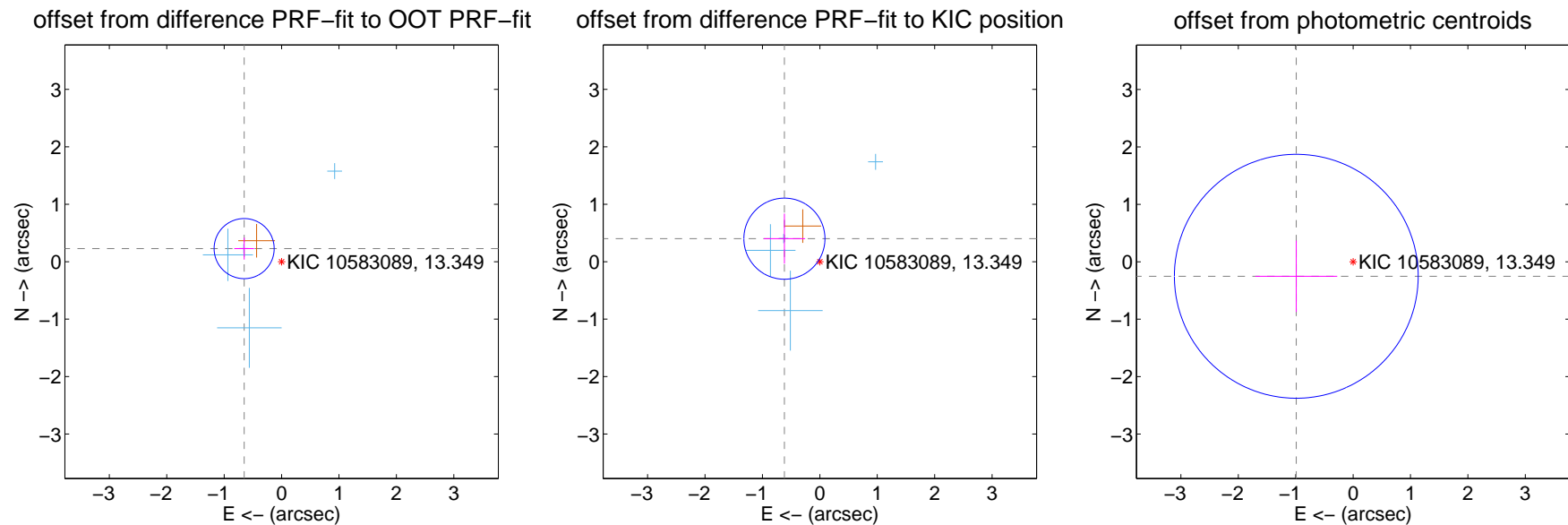
DV Centroid Data

Supplemental centroid analysis for 010583089-03. Kepler magnitude: 13.35. Transit SNR 6.71

There are 4 quarters with good PRF difference image offsets

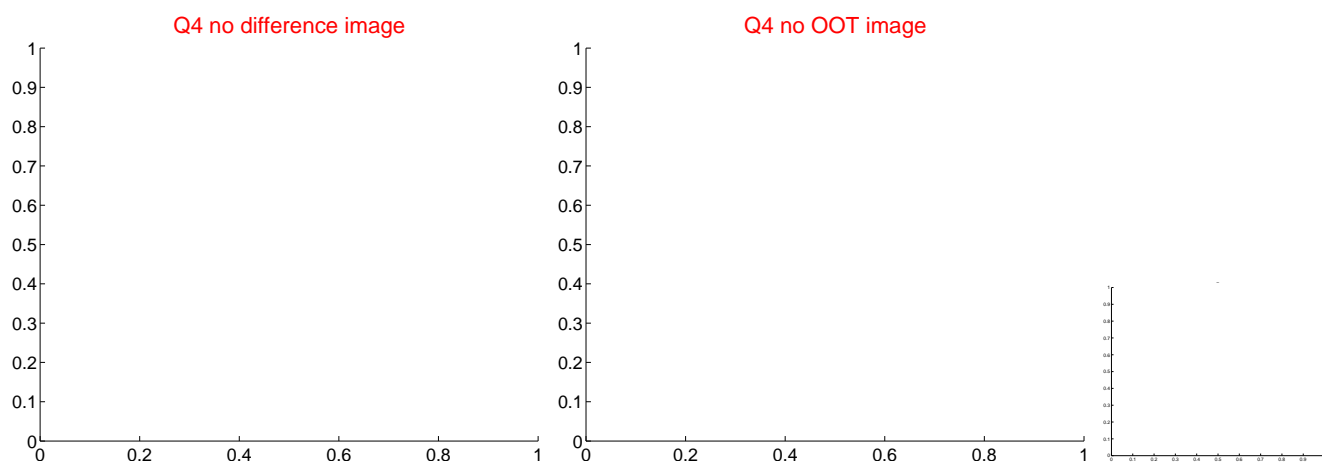
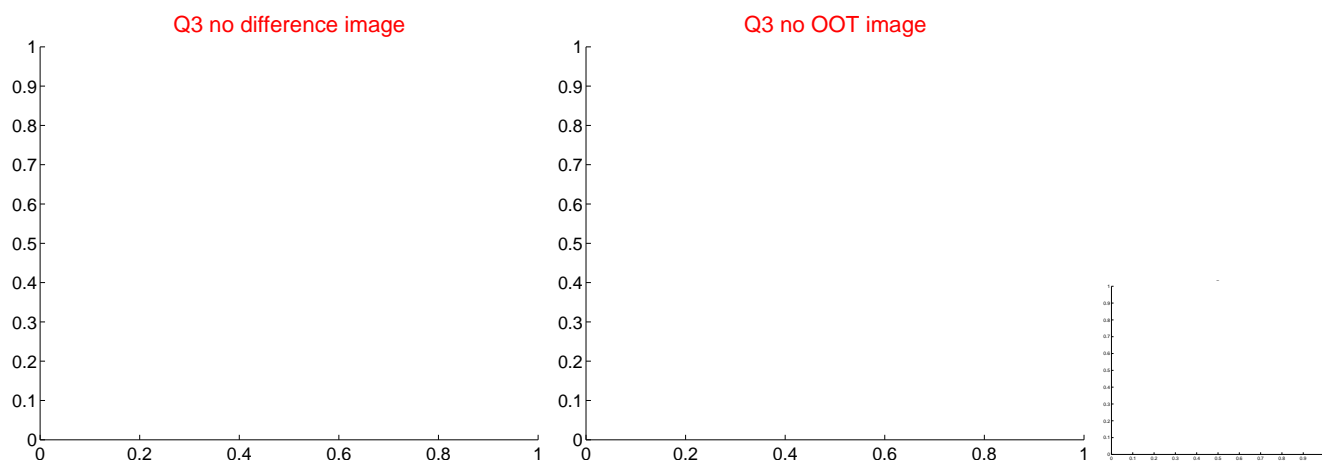
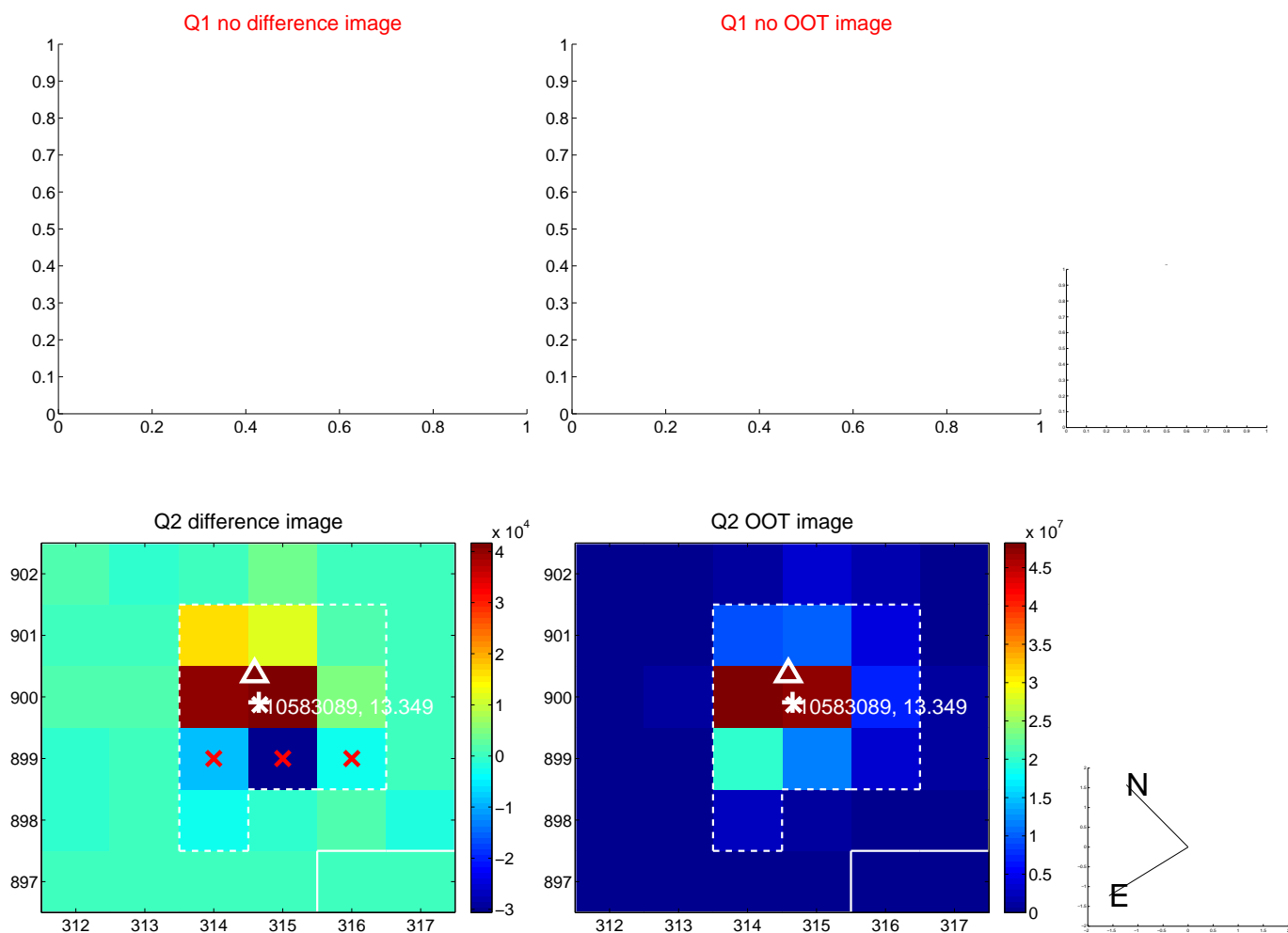
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.691 ± 0.174	3.96	0.652 ± 0.172	0.228 ± 0.191
PRF-fit source offset from KIC position	0.736 ± 0.235	3.13	0.617 ± 0.362	0.400 ± 0.436
photometric centroid source offset	1.02 ± 0.71	1.44	0.99 ± 0.71	-0.25 ± 0.62

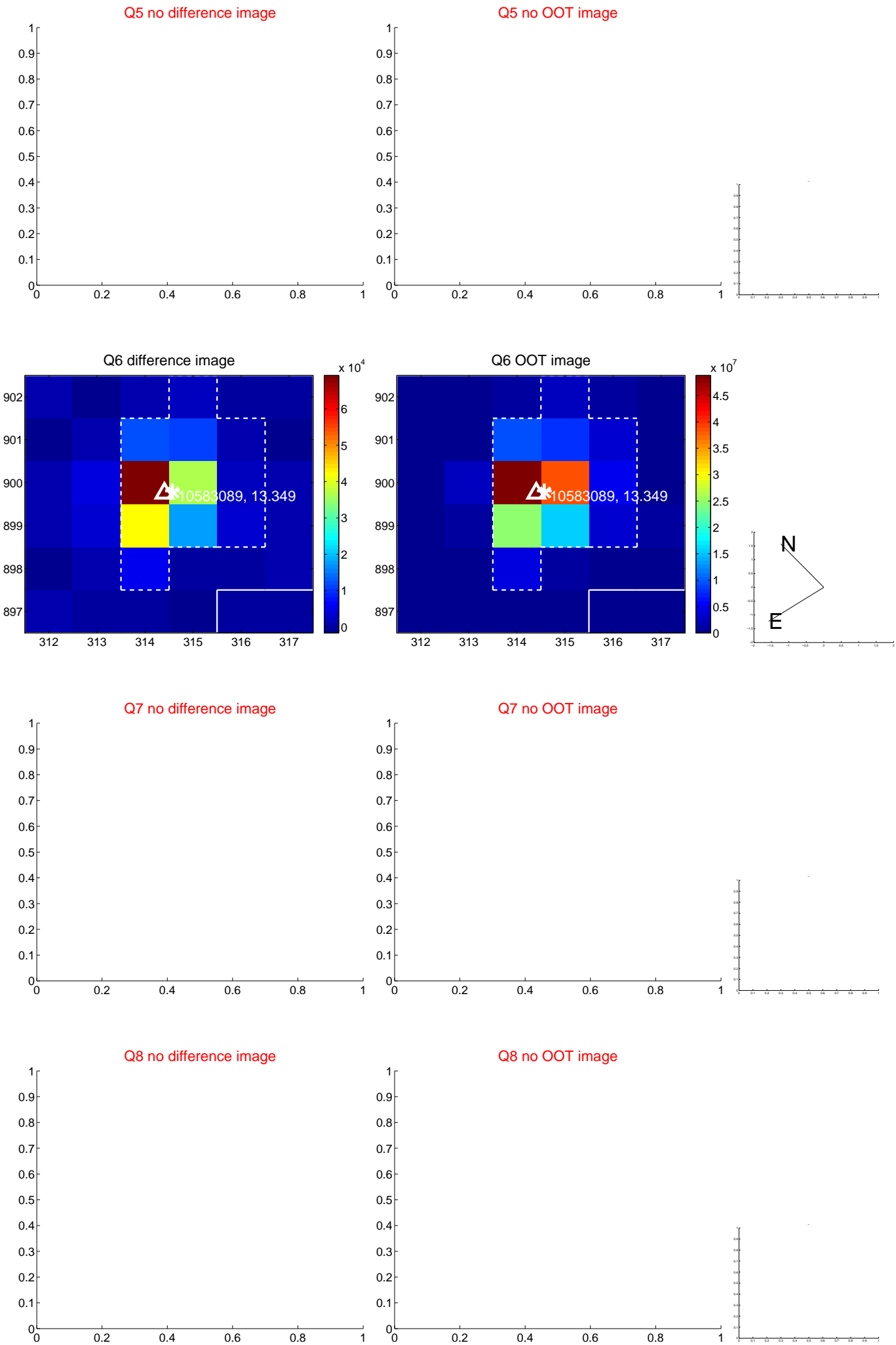


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

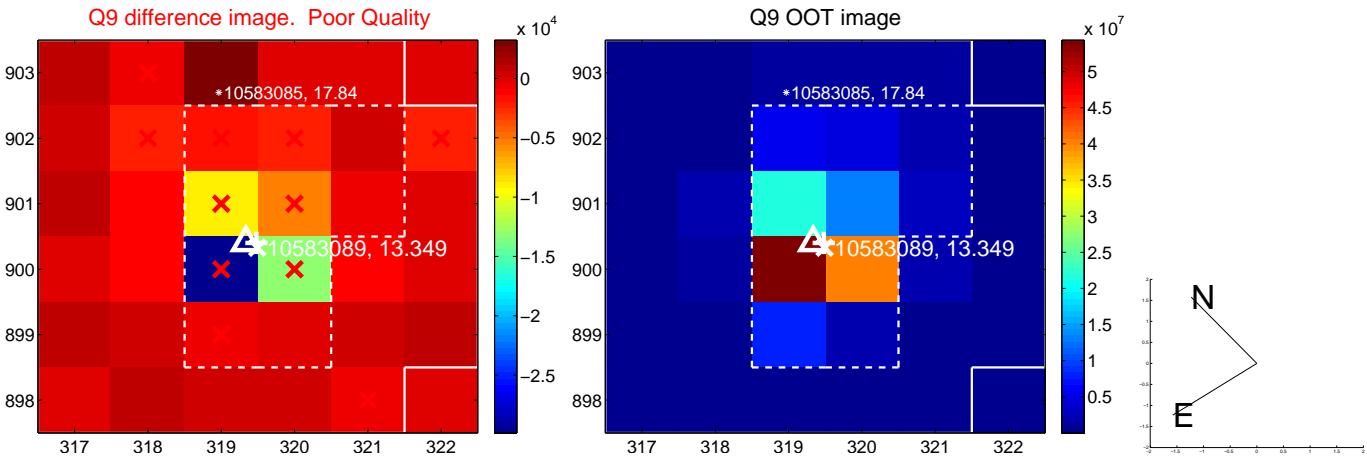
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



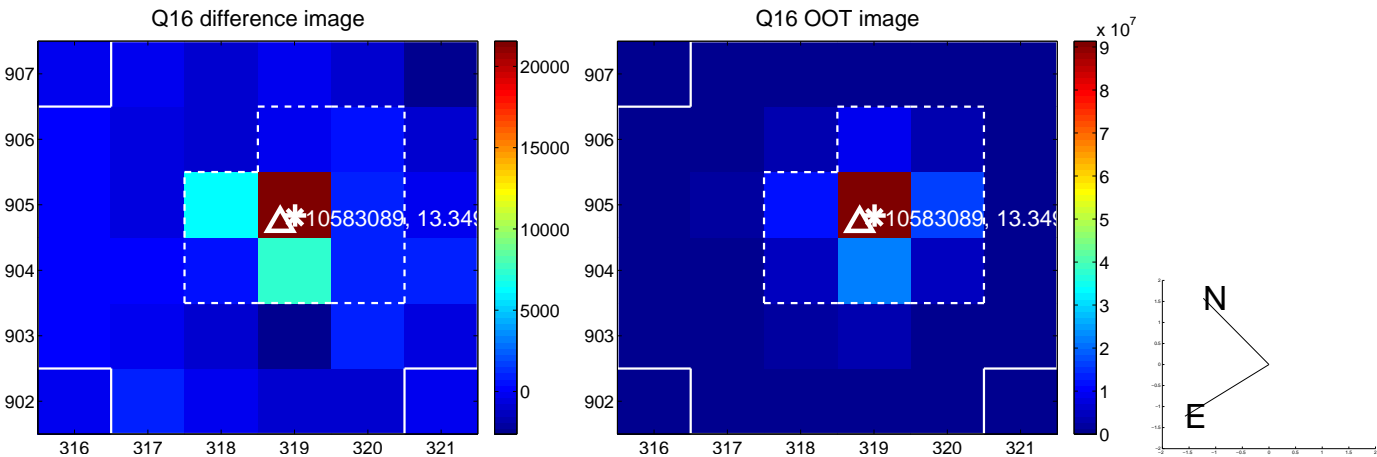
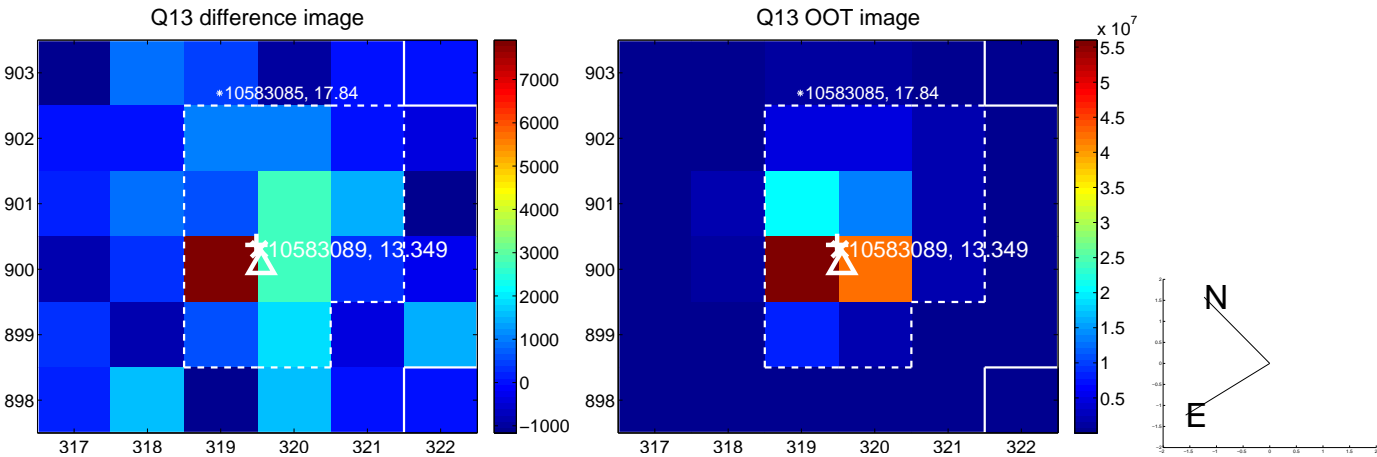
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



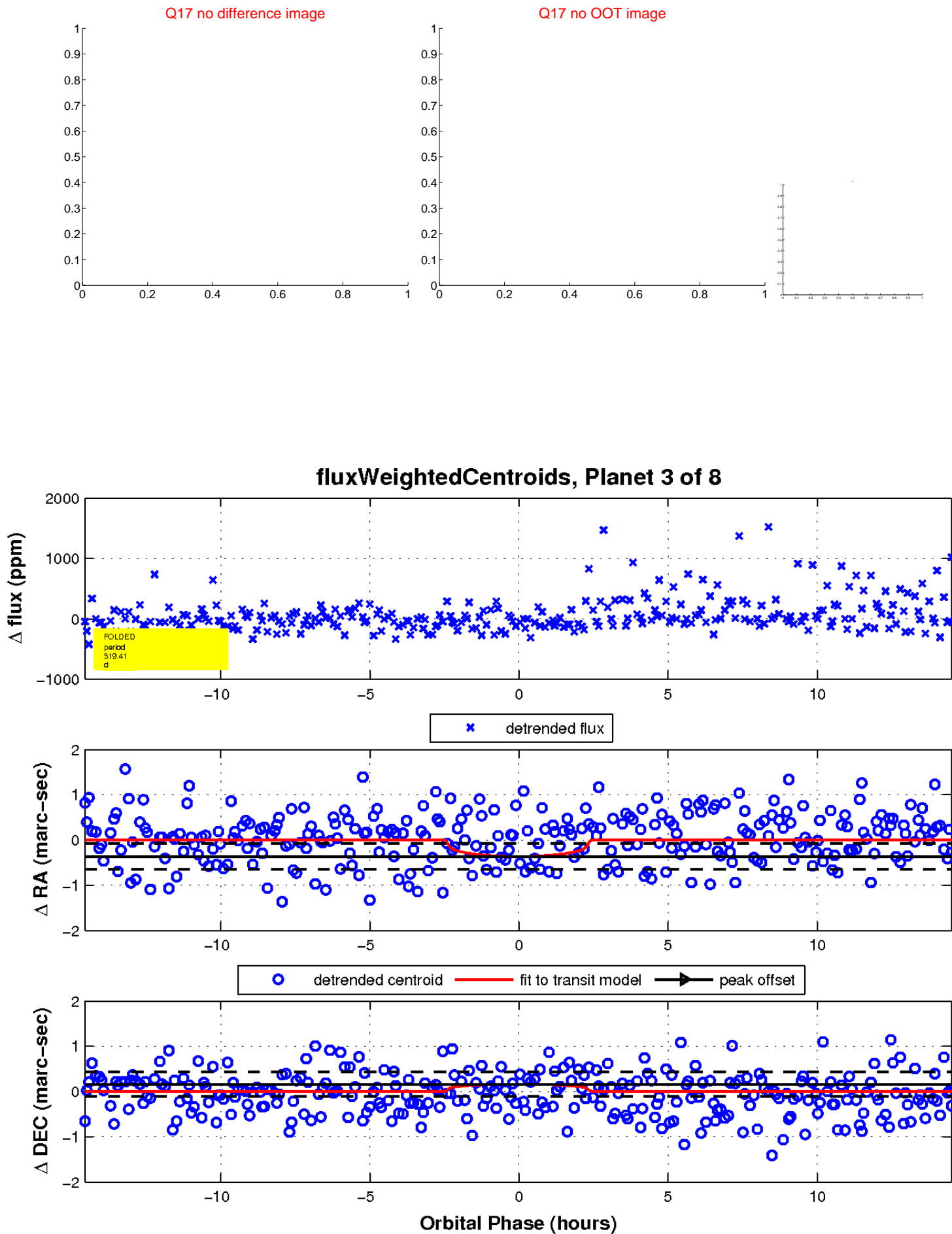
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

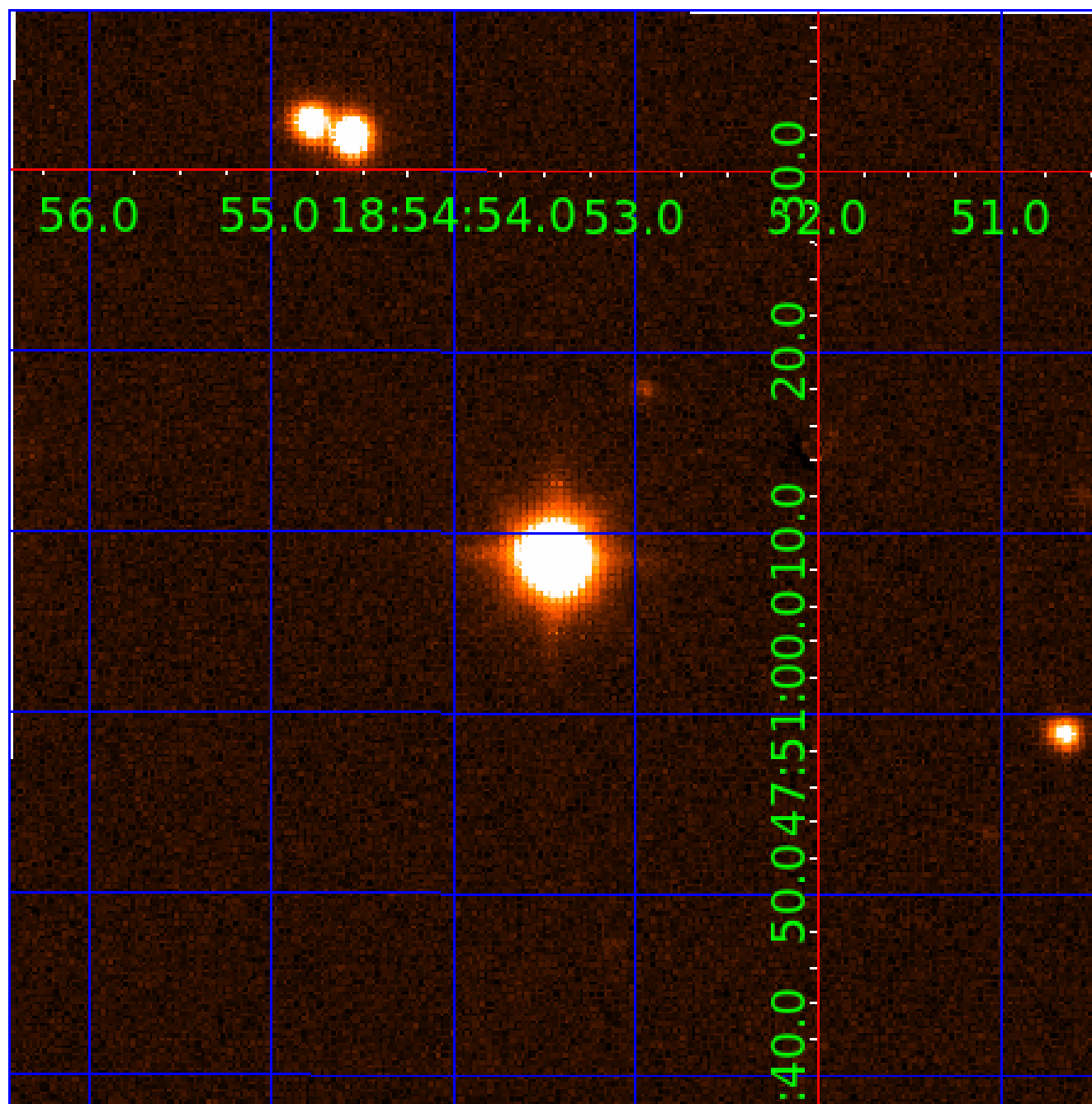


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010583089

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})
010583089-01	OBS	No	1.449244	132.917425	54.1	4.854	13.0	14.0	0.68	4264	0.48	282.44
010583089-02	OBS	No	389.763346	364.542123	428.5	12.500	19.0	-1.0	0.68	4264	1.34	0.16
010583089-03	OBS	No	319.411342	243.152164	385.4	4.864	13.3	6.7	0.68	4264	1.40	0.21
010583089-04	OBS	No	508.858352	192.796324	474.1	10.544	11.8	7.0	0.68	4264	1.53	0.11
010583089-05	OBS	No	115.214443	158.950662	445.2	2.401	10.8	9.3	0.68	4264	1.51	0.83
010583089-06	OBS	No	211.027609	341.369333	381.0	4.868	9.9	7.1	0.68	4264	1.32	0.37
010583089-08	OBS	No	198.130003	228.353107	305.9	19.597	13.0	4.4	0.68	4264	1.42	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583089-01	OBS	FP	0.01	1	0	0	0	LPP_DV
010583089-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_NOFITS
010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

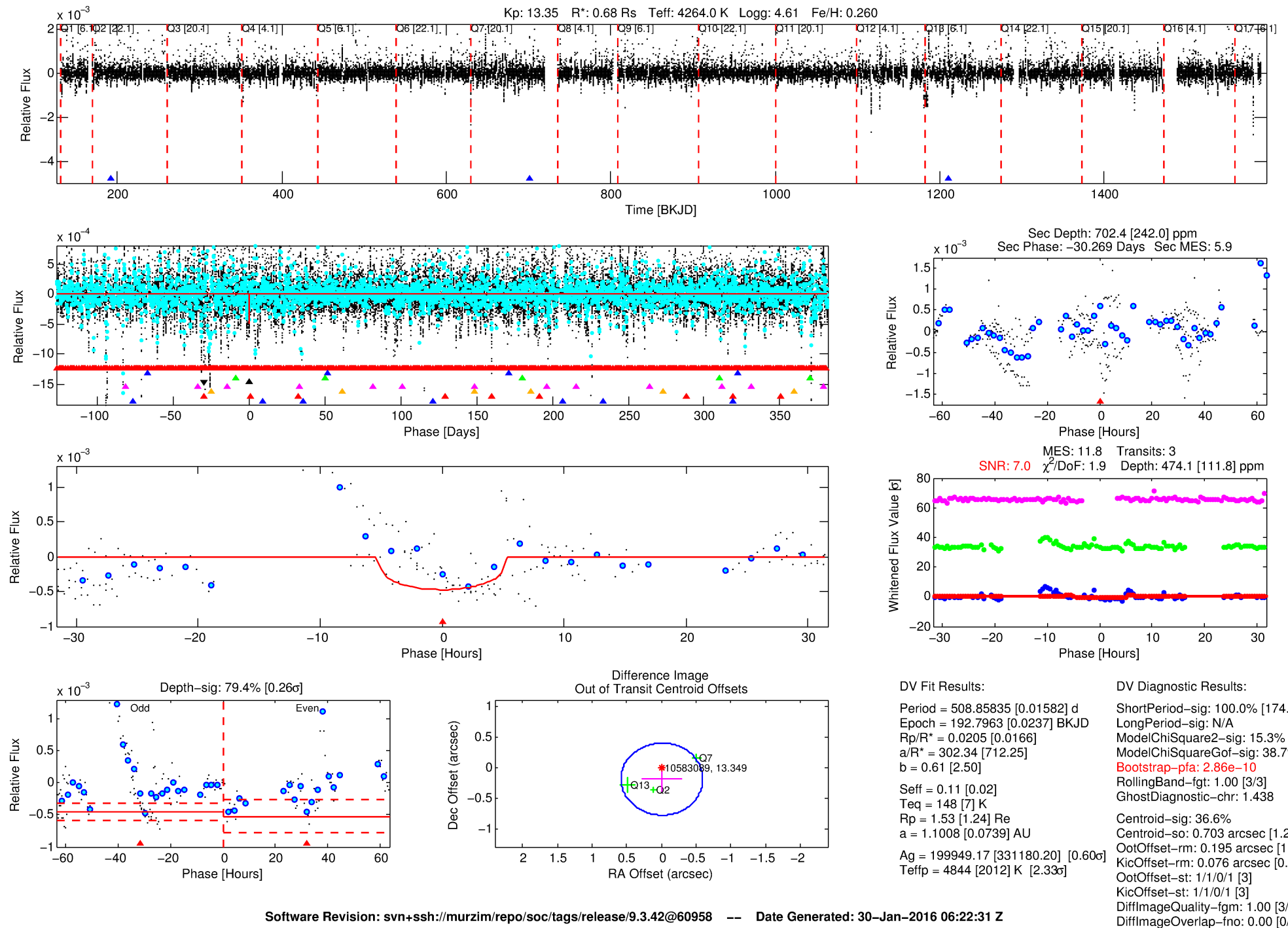
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-04

No Significant Match Found

DV One-Page Summary

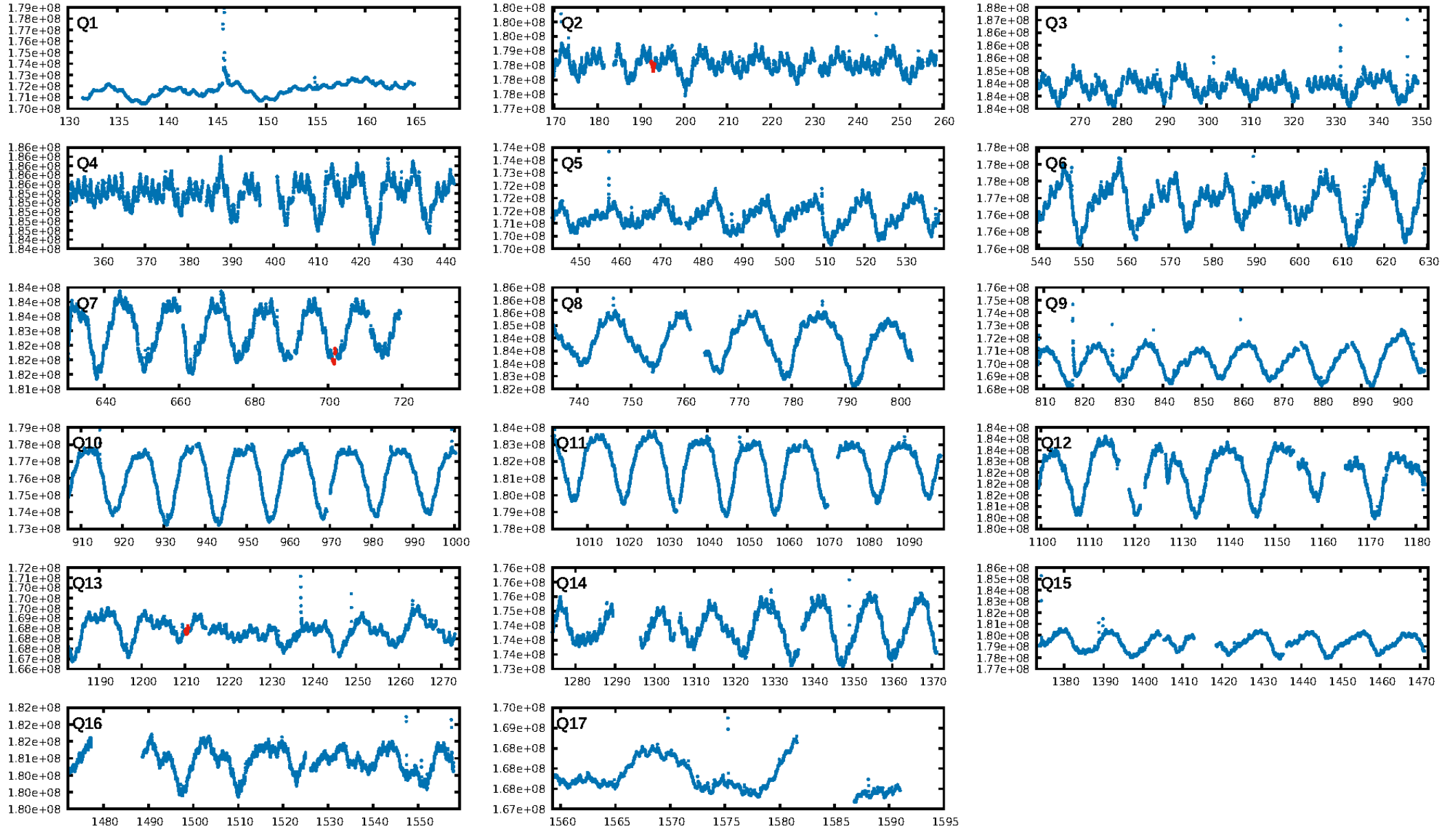
KIC: 10583089 Candidate: 4 of 8 Period: 508.858 d



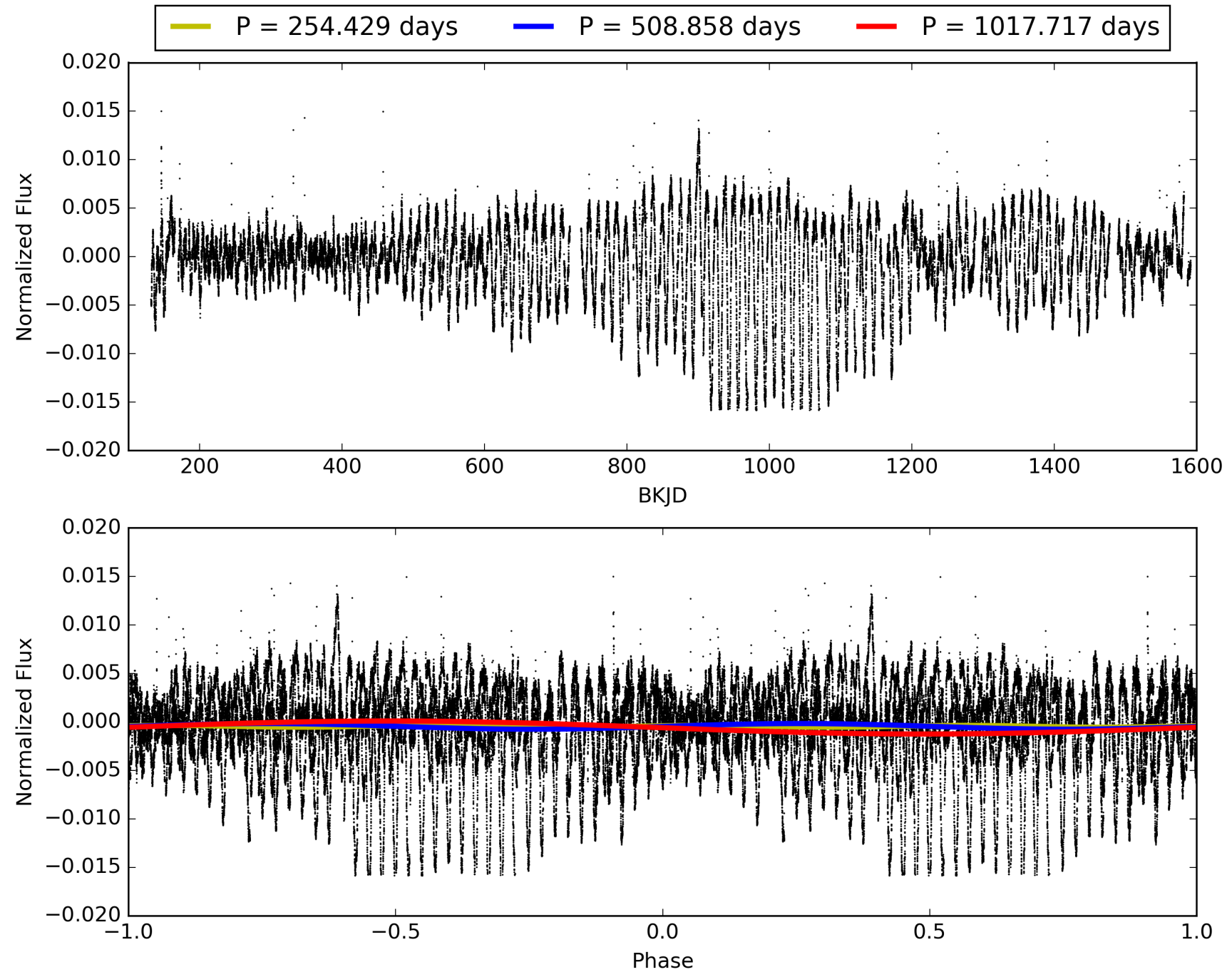
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:22:31 Z

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

TCE 010583089-04, PDC Light Curves

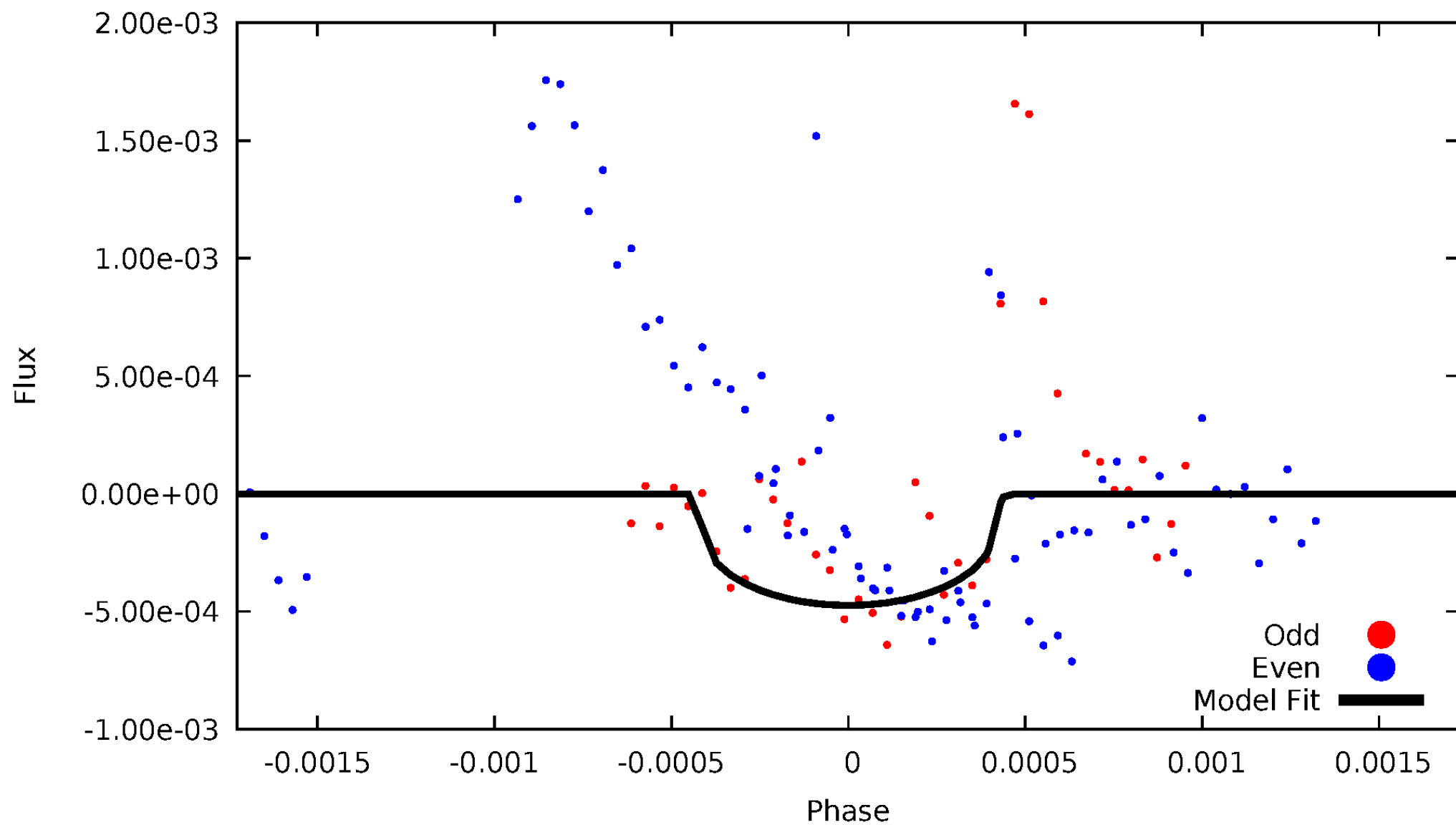


TCE 010583089-04



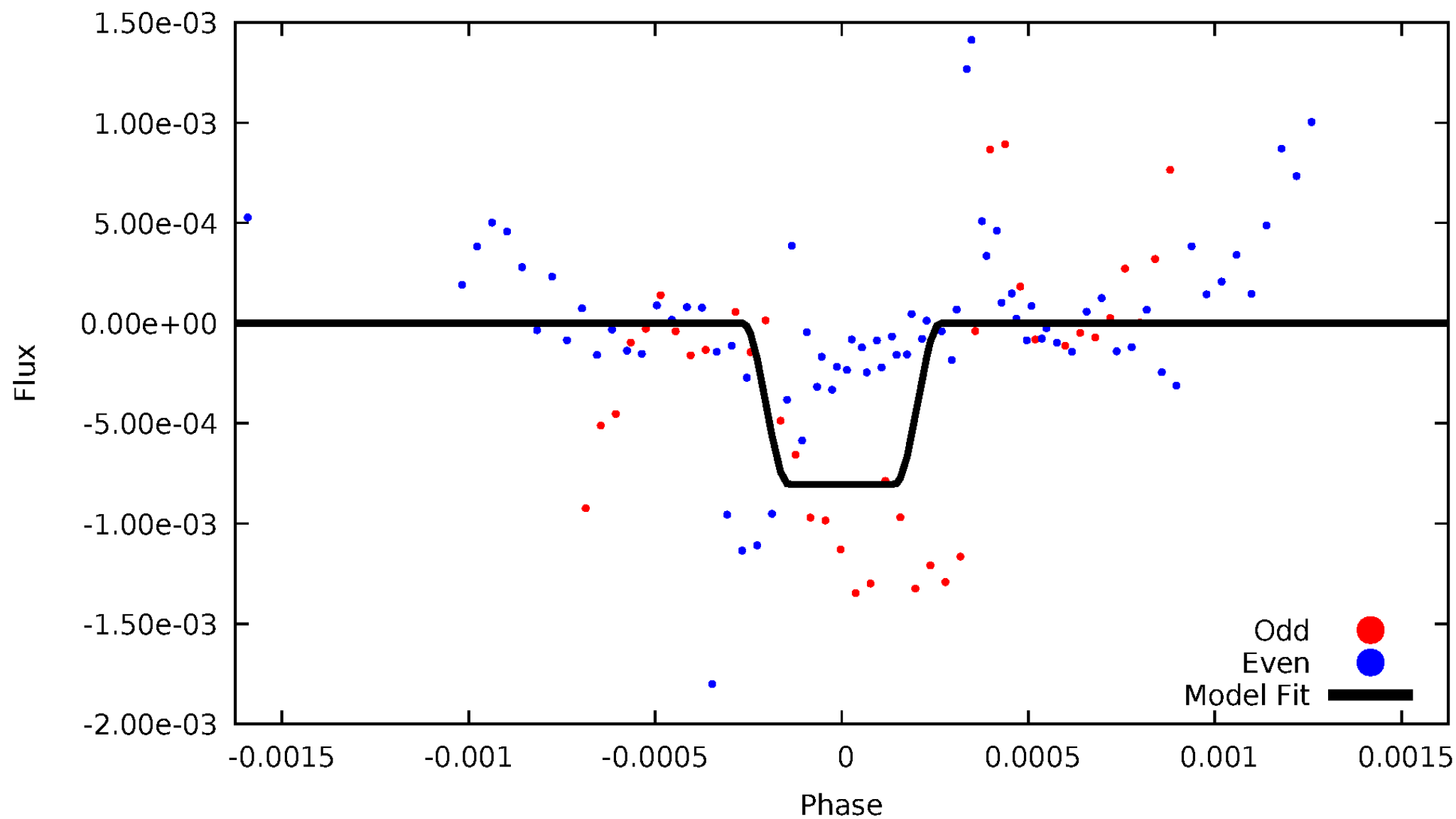
DV Odd/Even

TCE 010583089-04



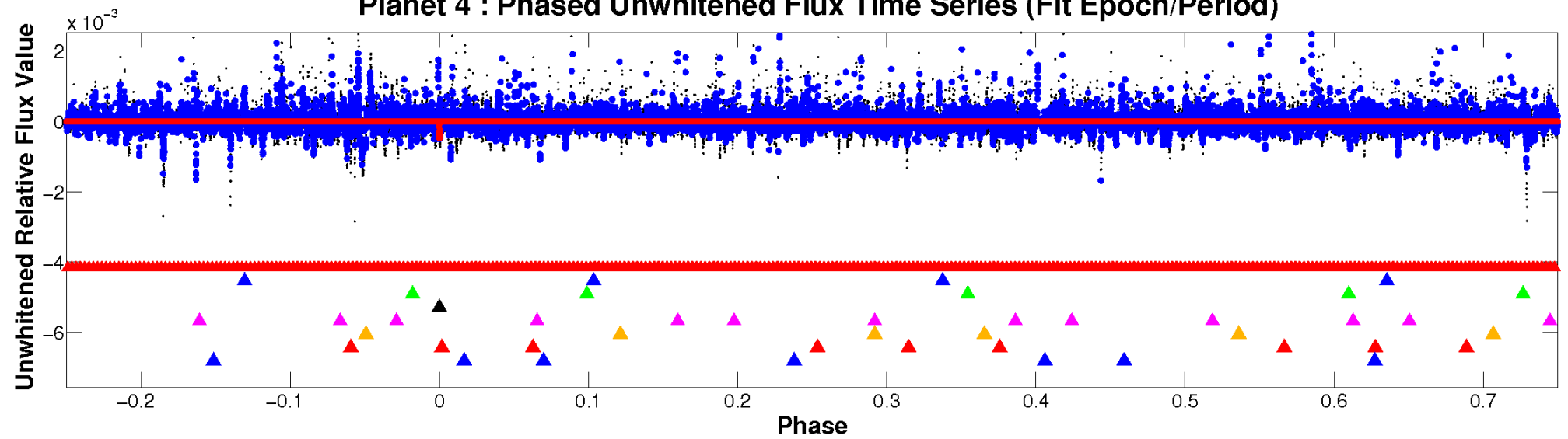
ALT Odd/Even

TCE 010583089-04

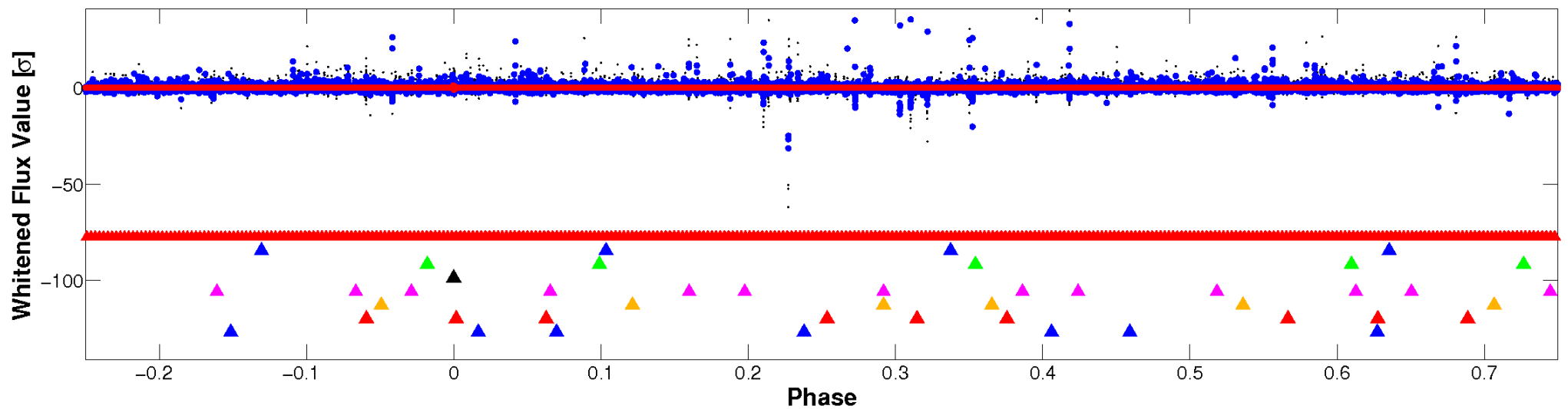


Non-Whitened Vs. Whitened Light Curve

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

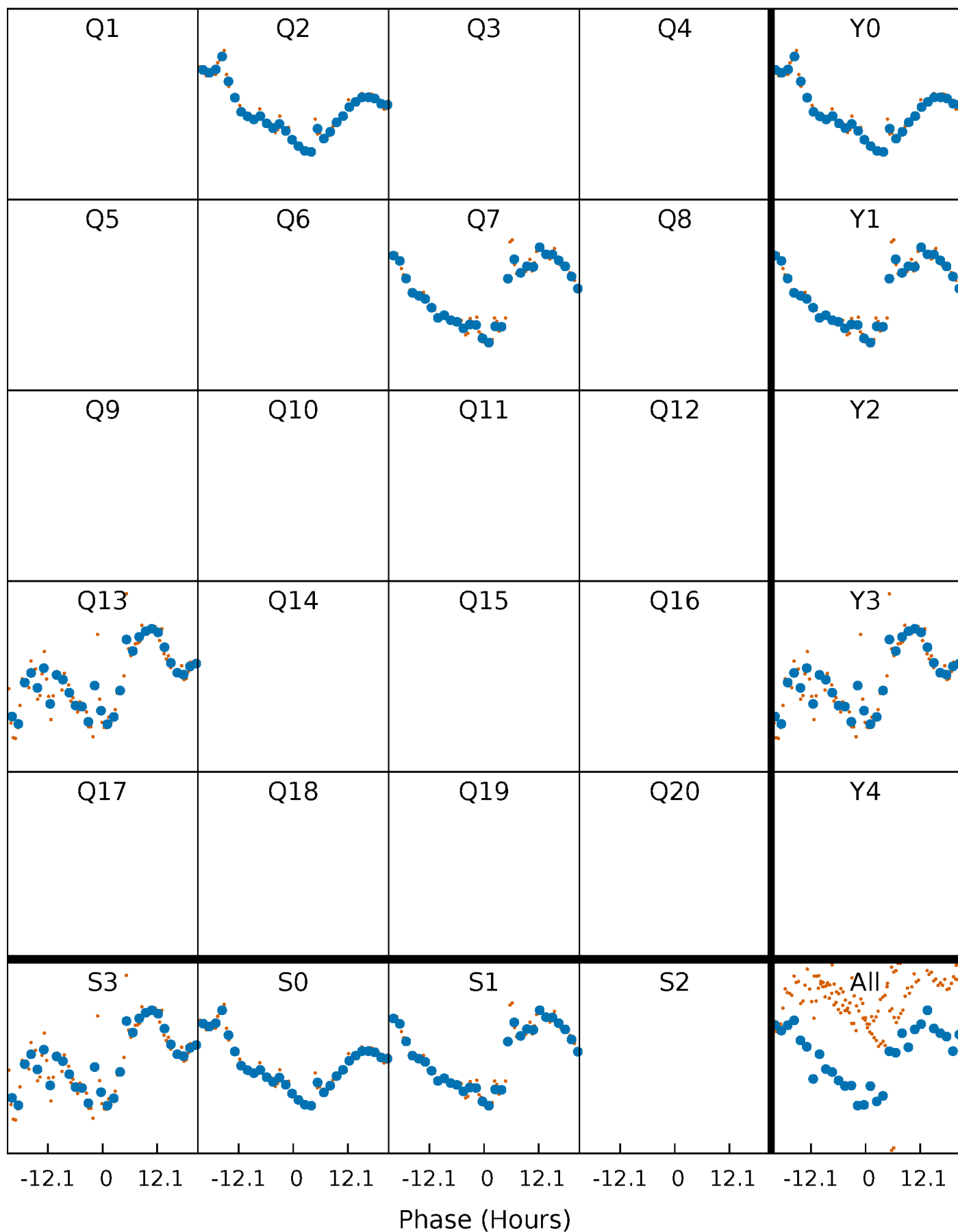


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



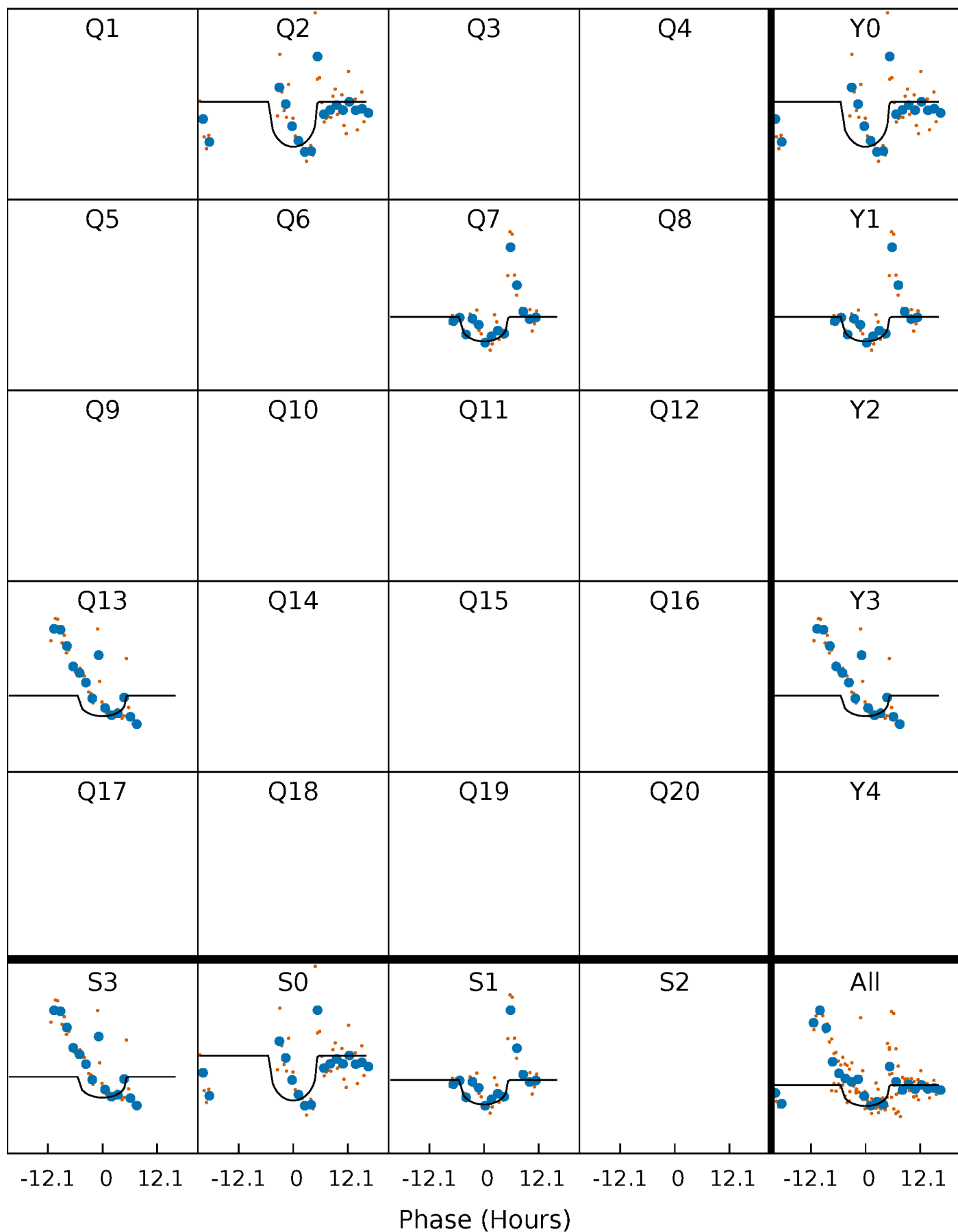
PDC Quarter-Phased Transit Curves

TCE 010583089-04 $P=508.858352$ Days $T_0=192.796324$ (BKJD)



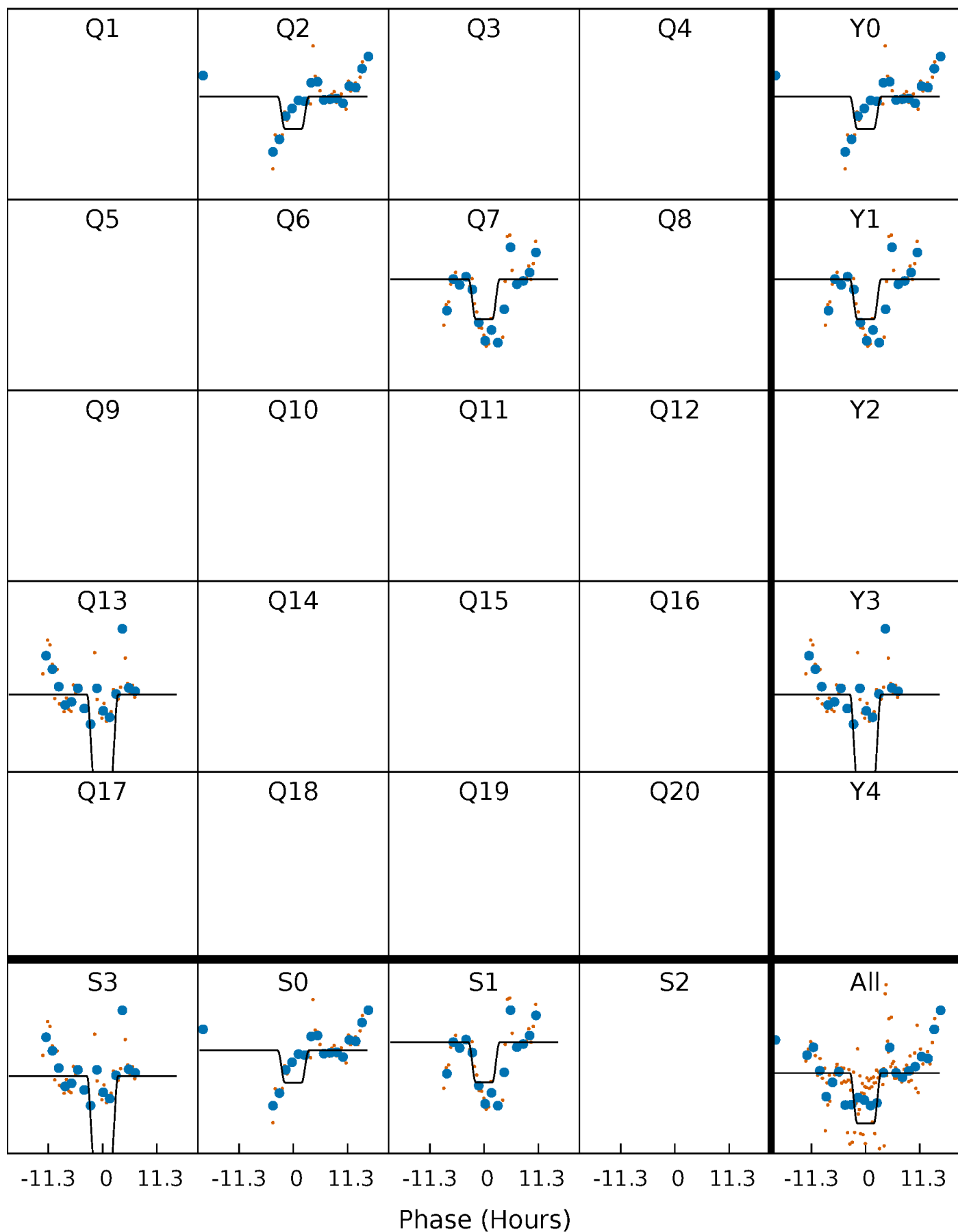
DV Quarter-Phased Transit Curves

TCE 010583089-04 $P=508.858352$ Days $T_0=192.796324$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

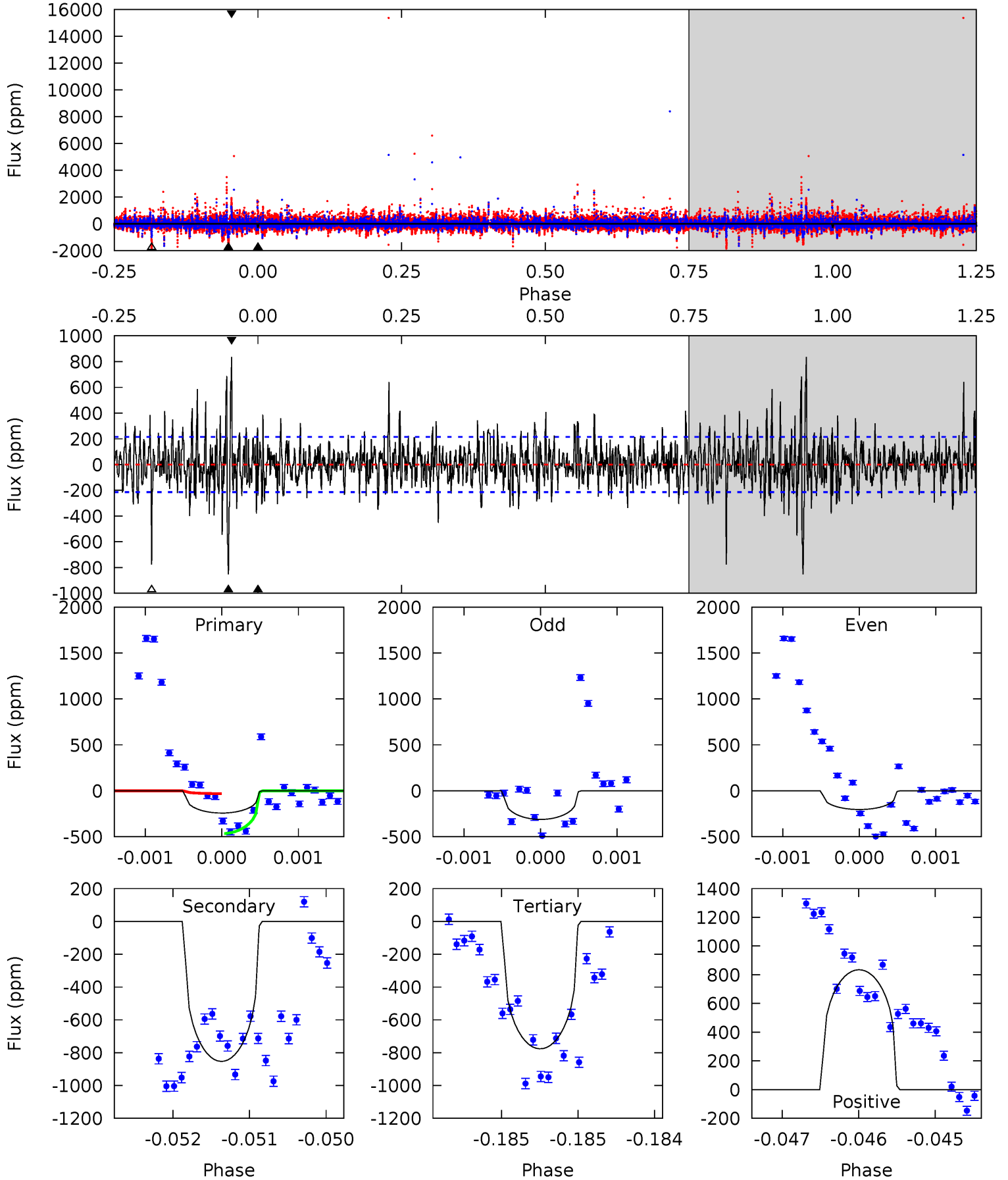
TCE 010583089-04 P=508.863756 Days $T_0=192.827747$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-04, P = 508.858352 Days, E = 192.796324 Days

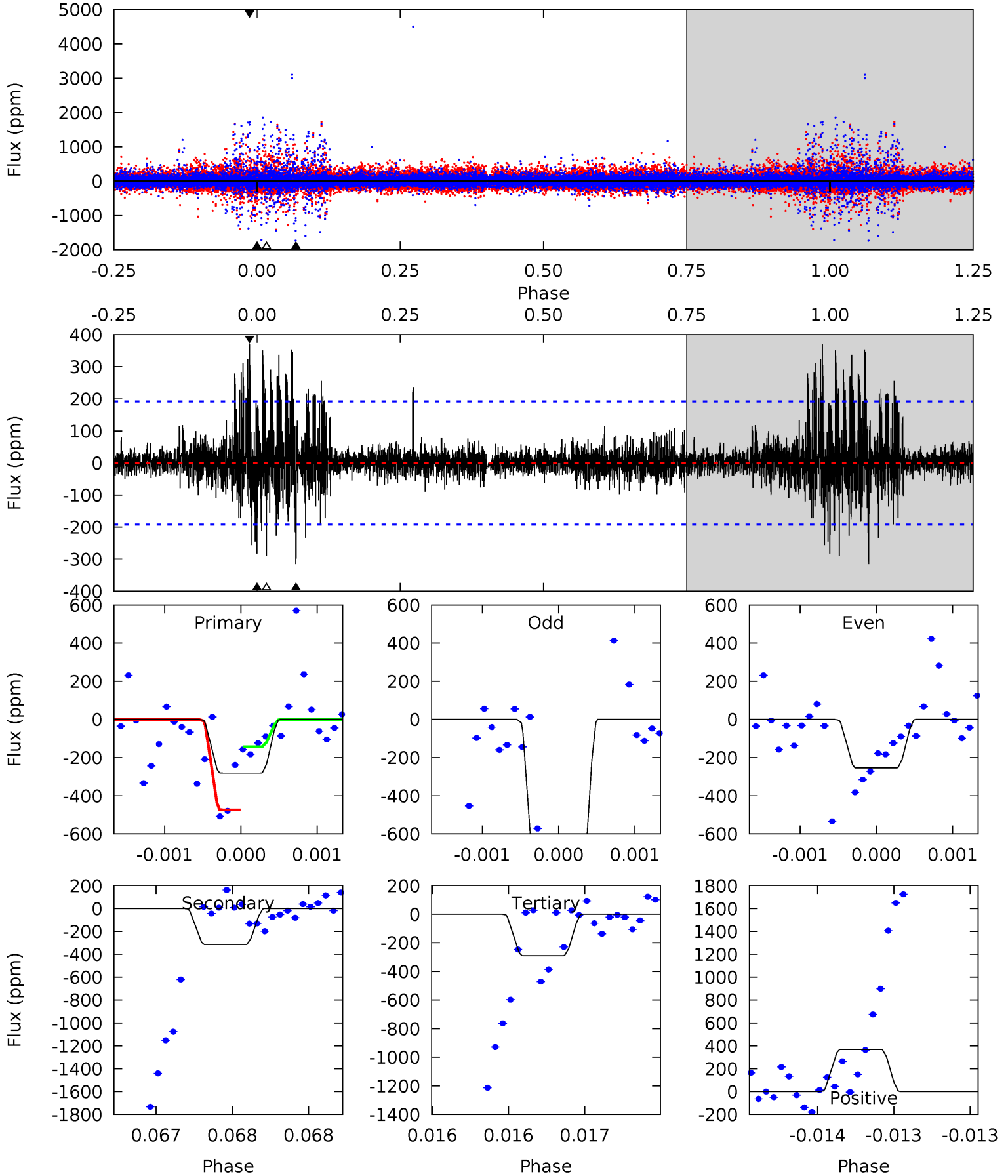
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.20	21.8	19.8	21.3	5.47	3.33	3.46	-13.6	-15.1	1.96	0.47	0.81	0.86	0.49	5.47



Alt Model-Shift Uniqueness Test

010583089-04, P = 508.863756 Days, E = 192.827747 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.16	9.13	8.41	10.7	5.57	3.47	1.24	-0.25	-2.54	0.72	-1.57	12.5	1.40	0.54	4.93



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-853 ± 39	$1.70^{+1.24}_{-0.95}$	206^{+8}_{-8}	4646^{+2366}_{-833}	$199046^{+830519}_{-132900}$
Alt.	-315 ± 34	$2.15^{+1.20}_{-1.12}$	205^{+7}_{-8}	3600^{+1093}_{-479}	$46367^{+160994}_{-27576}$

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

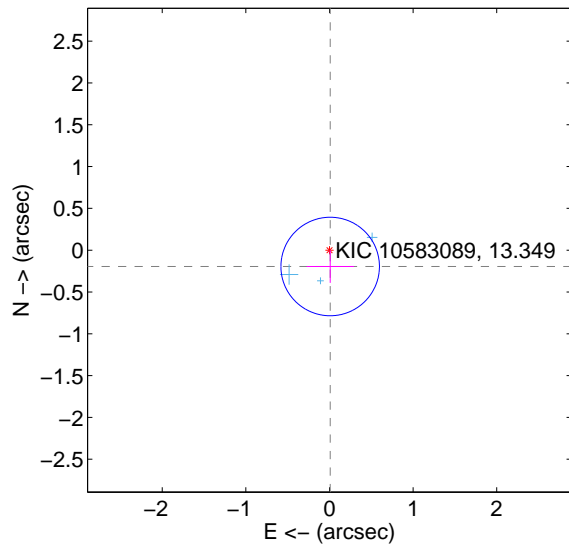
Supplemental centroid analysis for 010583089-04. Kepler magnitude: 13.35. Transit SNR 6.96

There are 3 quarters with good PRF difference image offsets

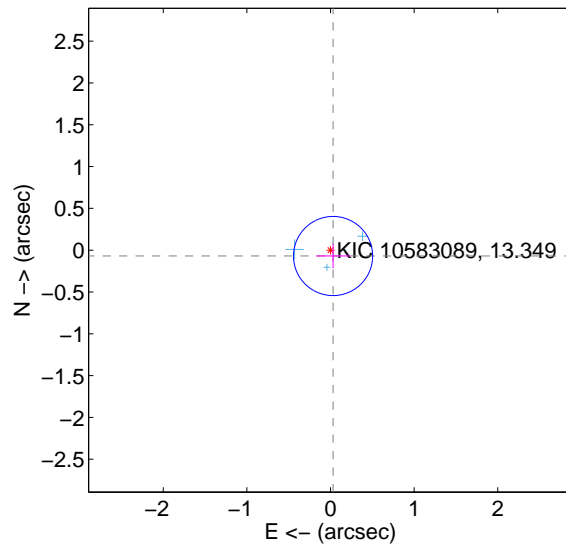
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.195 ± 0.196	1.00	-0.008 ± 0.282	-0.195 ± 0.196
PRF-fit source offset from KIC position	0.076 ± 0.158	0.48	-0.031 ± 0.203	-0.070 ± 0.148
photometric centroid source offset	0.70 ± 0.57	1.23	0.62 ± 0.58	0.33 ± 0.51

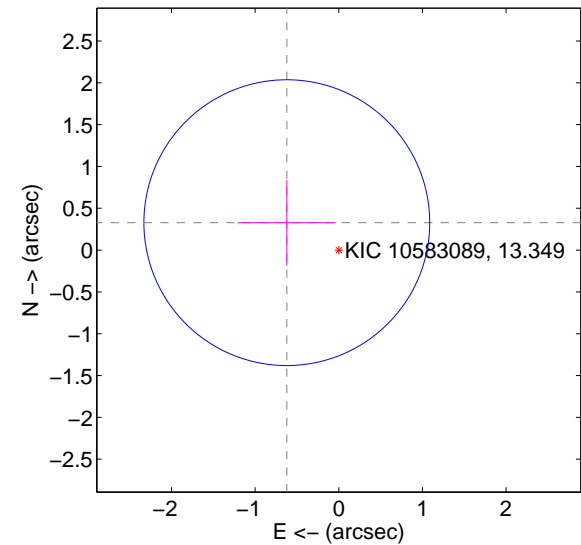
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

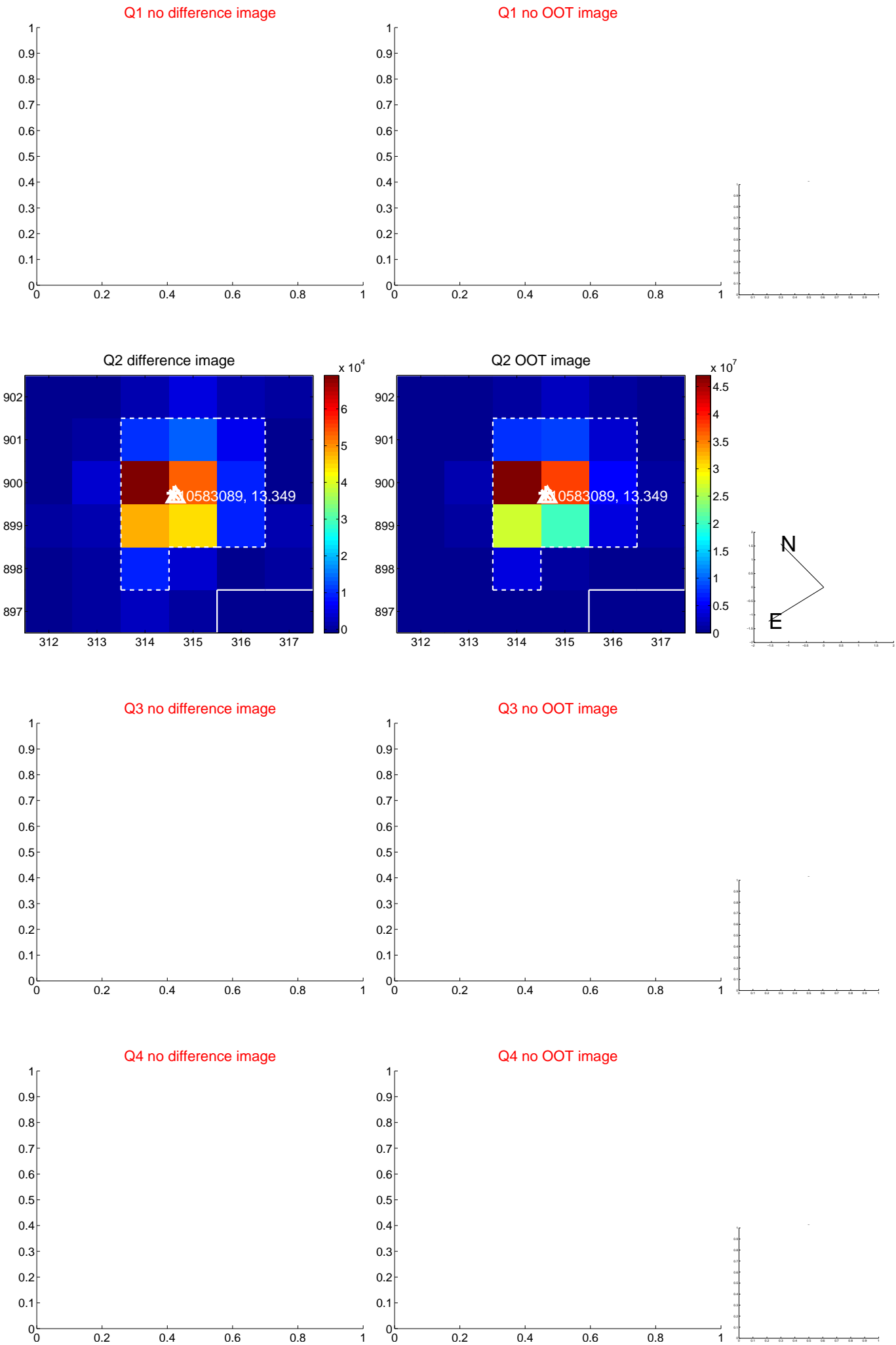


offset from photometric centroids



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.

Q5 no difference image



Q5 no OOT image



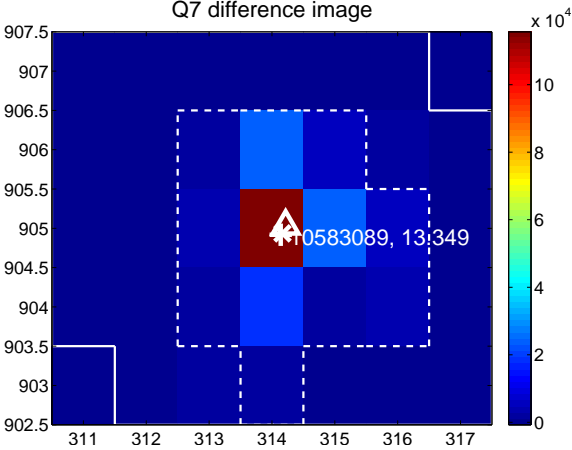
Q6 no difference image



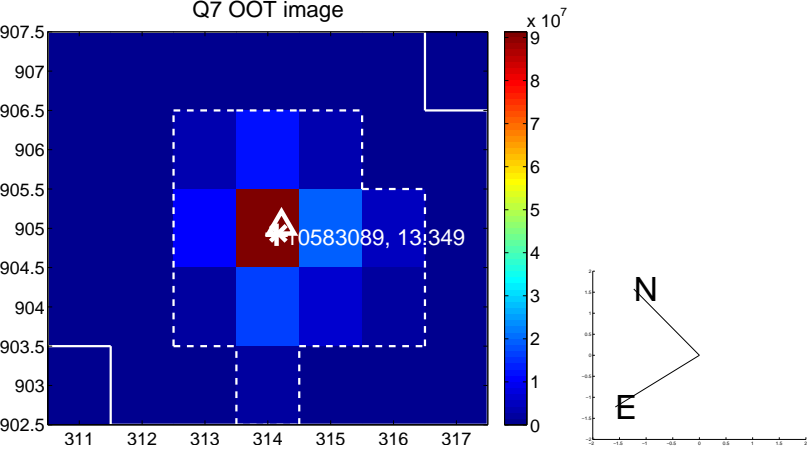
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image



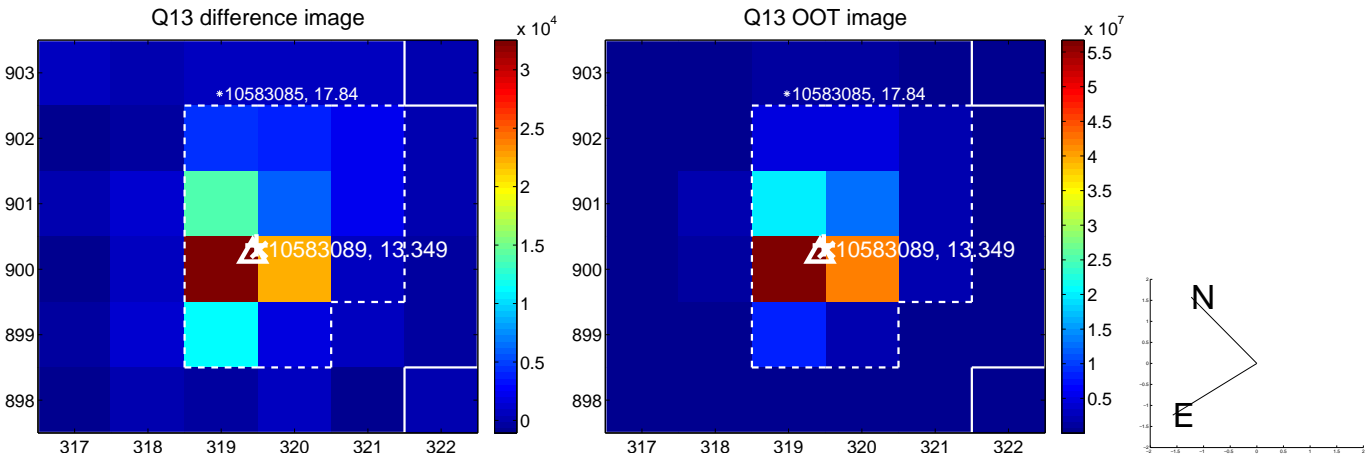
Q8 no OOT image



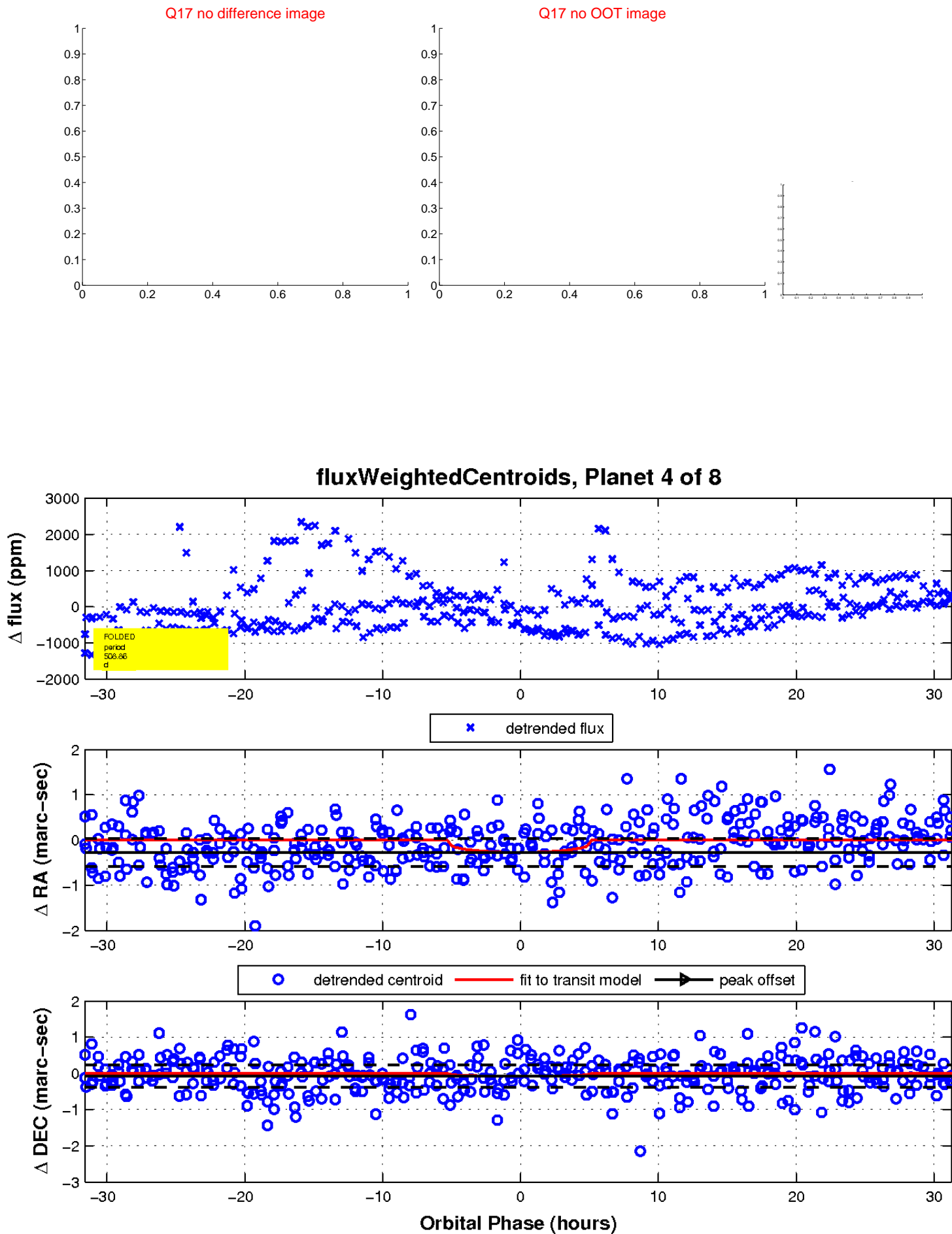
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

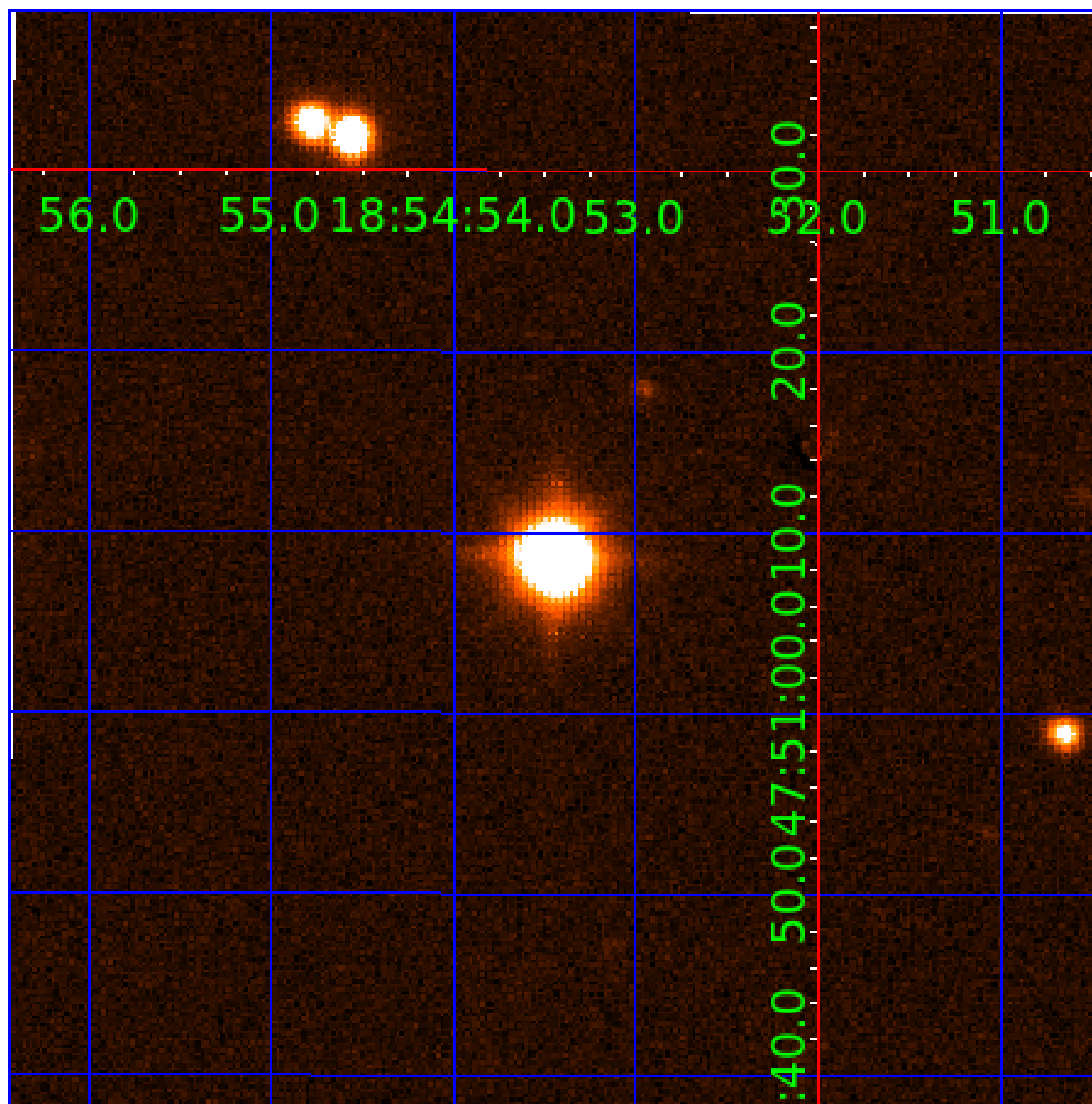


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010583089

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})
010583089-01	OBS	No	1.449244	132.917425	54.1	4.854	13.0	14.0	0.68	4264	0.48	282.44
010583089-02	OBS	No	389.763346	364.542123	428.5	12.500	19.0	-1.0	0.68	4264	1.34	0.16
010583089-03	OBS	No	319.411342	243.152164	385.4	4.864	13.3	6.7	0.68	4264	1.40	0.21
010583089-04	OBS	No	508.858352	192.796324	474.1	10.544	11.8	7.0	0.68	4264	1.53	0.11
010583089-05	OBS	No	115.214443	158.950662	445.2	2.401	10.8	9.3	0.68	4264	1.51	0.83
010583089-06	OBS	No	211.027609	341.369333	381.0	4.868	9.9	7.1	0.68	4264	1.32	0.37
010583089-08	OBS	No	198.130003	228.353107	305.9	19.597	13.0	4.4	0.68	4264	1.42	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583089-01	OBS	FP	0.01	1	0	0	0	LPP_DV
010583089-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_NOFITS
010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

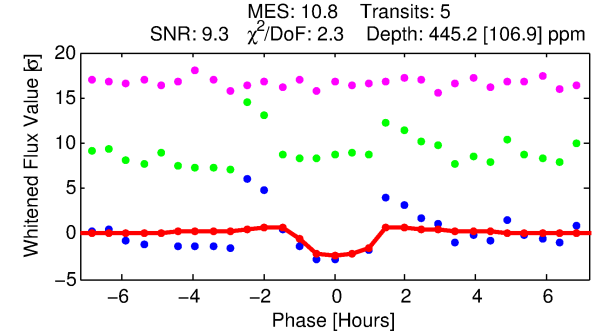
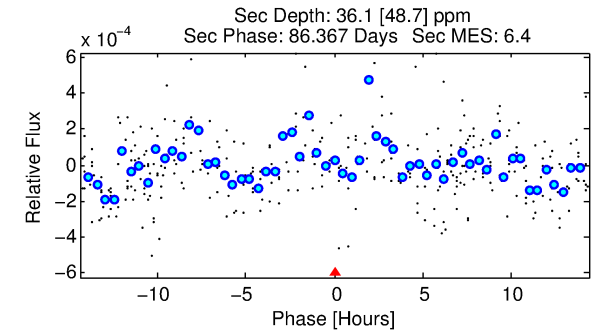
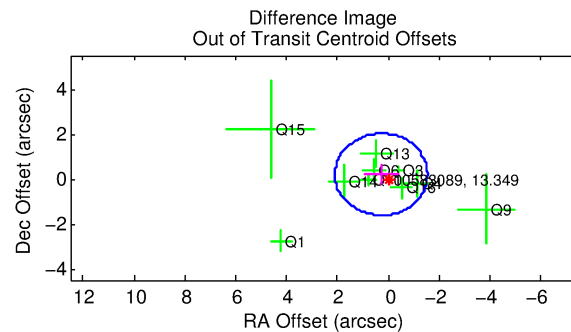
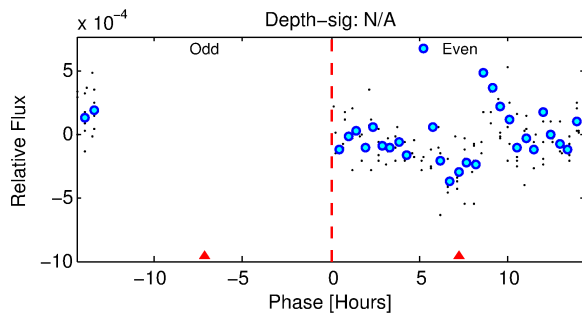
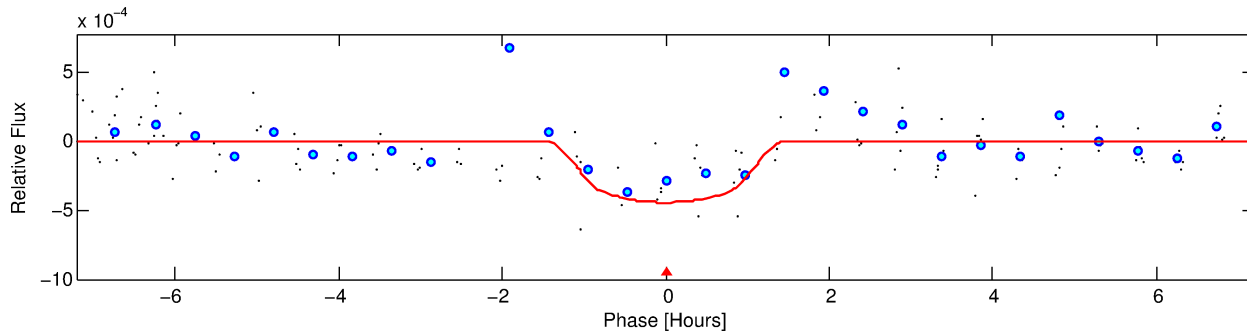
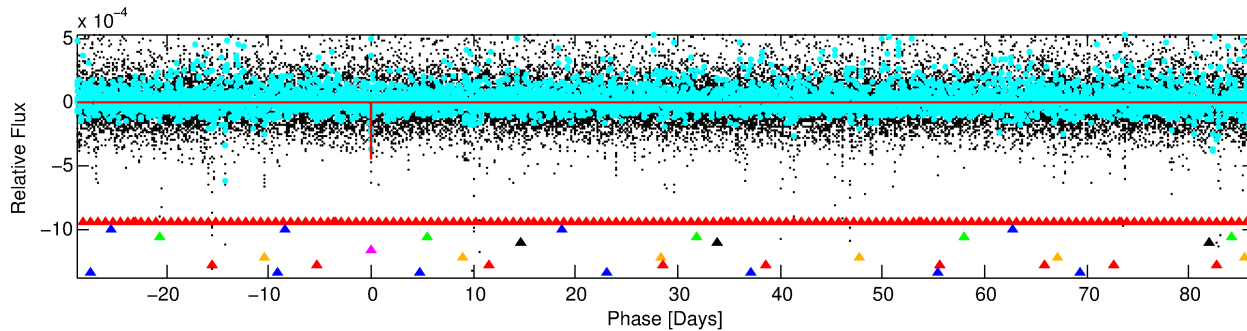
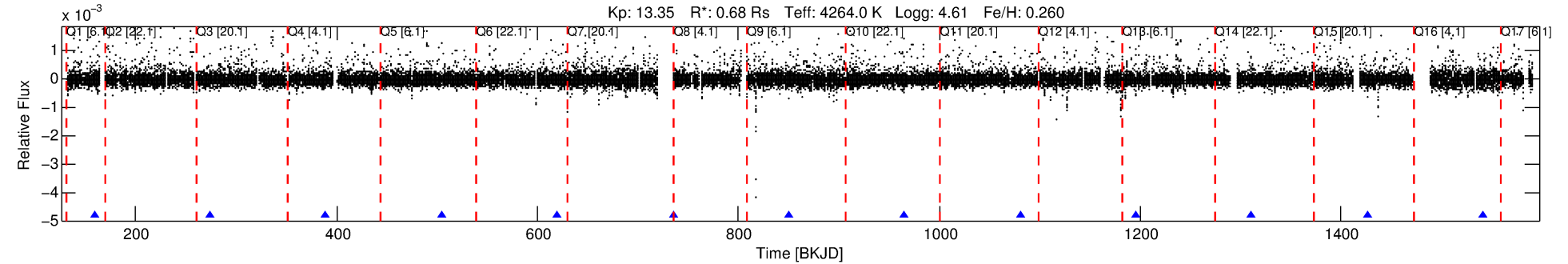
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-05

No Significant Match Found

DV One-Page Summary

KIC: 10583089 Candidate: 5 of 8 Period: 115.214 d



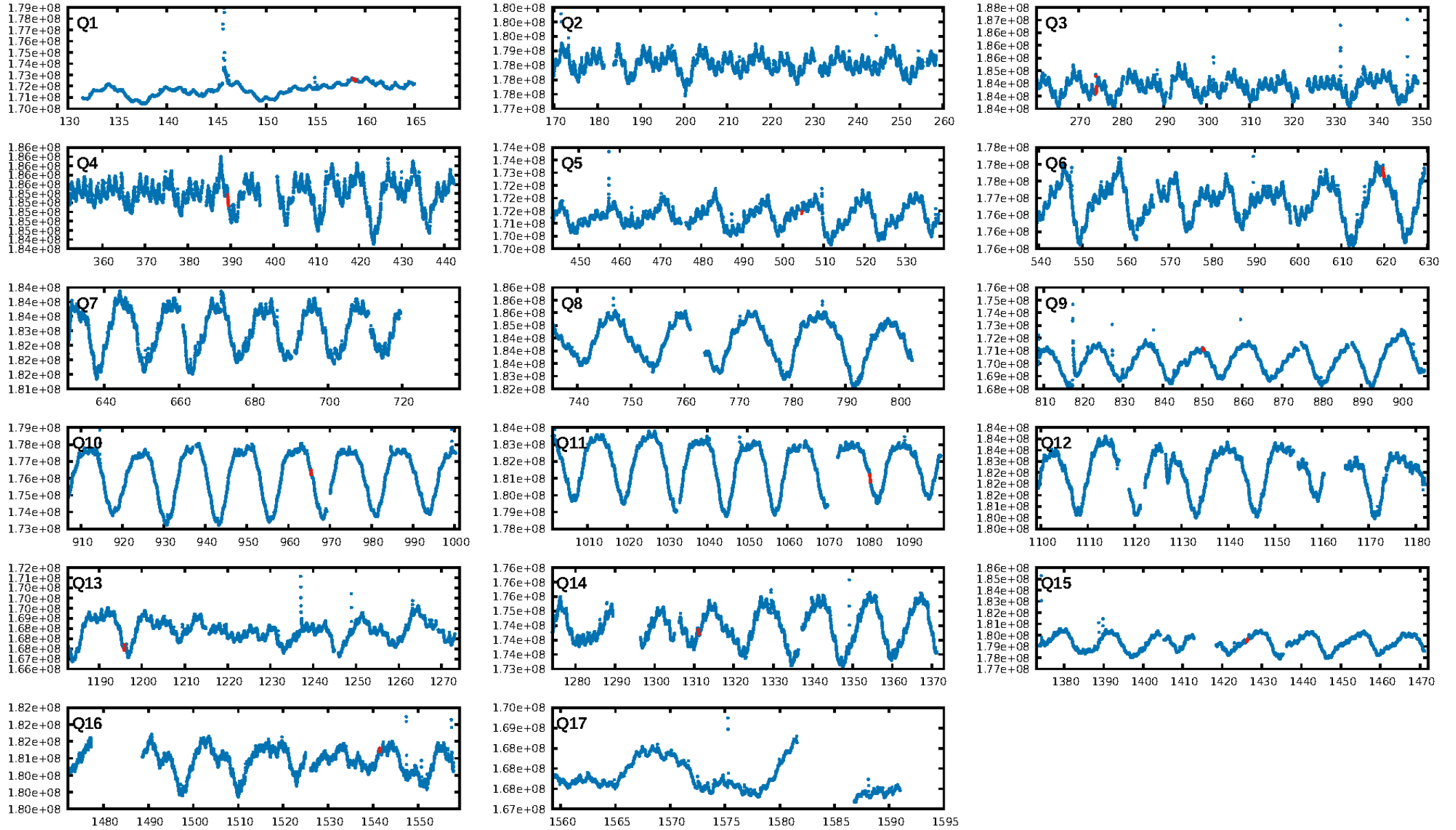
DV Fit Results:

Period = 115.21444 [0.00157] d
Epoch = 158.9507 [0.0125] BKJD
Rp/R* = 0.0203 [0.0480]
a/R* = 286.91 [1976.16]
b = 0.65 [6.24]
Seff = 0.83 [0.15]
Teq = 243 [11] K
Rp = 1.51 [3.58] Re
a = 0.4089 [0.0275] AU
Ag = 1450.69 [7143.68] [0.20σ]
Teffp = 2320 [2857] K [0.73σ]

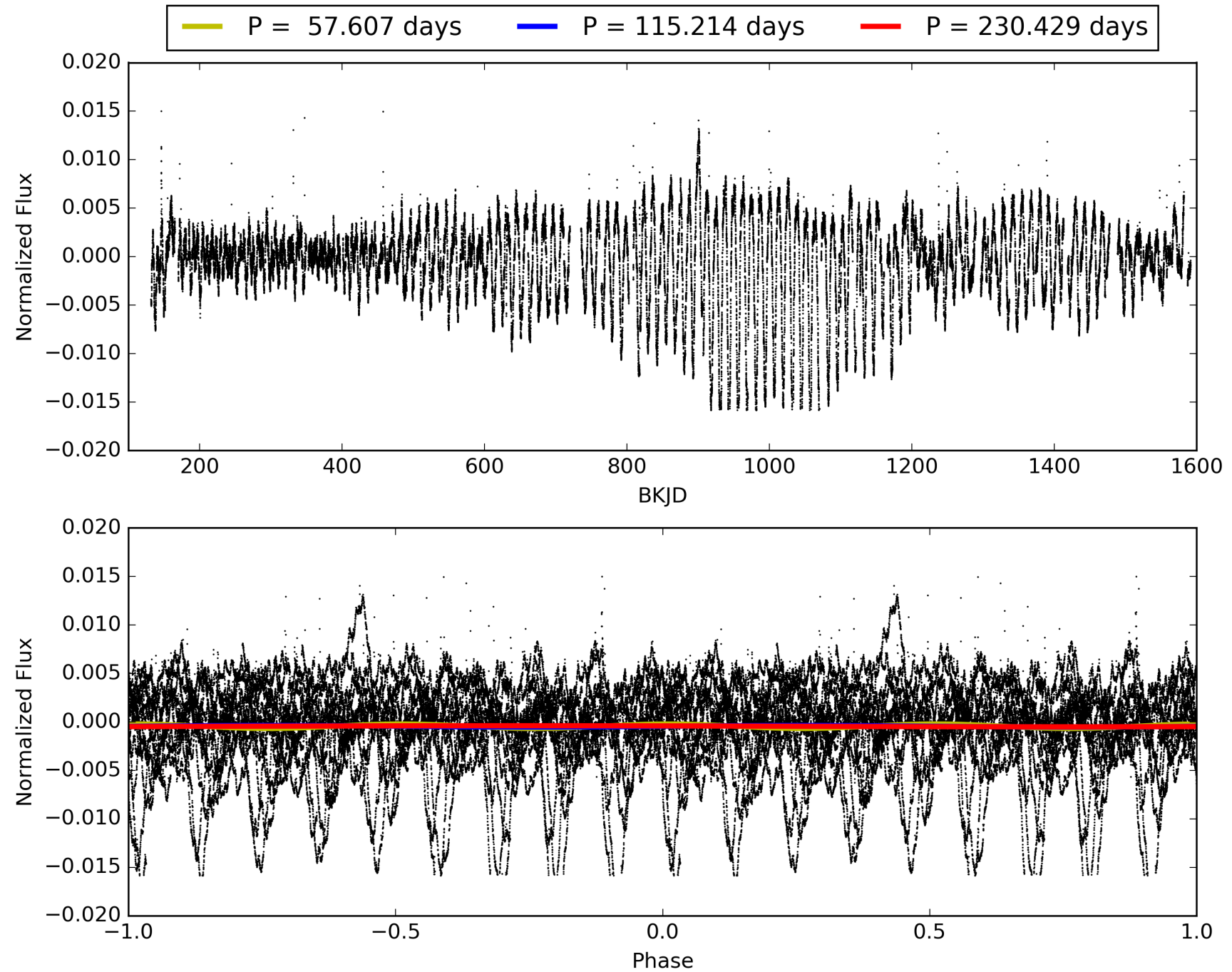
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [504.24σ]
LongPeriod-sig: 100.0% [212.37σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 11.6%
Bootstrap-pfa: 5.71e-11
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.4191
Centroid-sig: 36.8%
Centroid-so: 0.292 arcsec [0.59σ]
OotOffset-rm: 0.339 arcsec [0.56σ]
KicOffset-rm: 0.393 arcsec [0.60σ]
OotOffset-st: 3/2/2/3 [10]
KicOffset-st: 3/2/2/3 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 0.36 [4/11]

TCE 010583089-05, PDC Light Curves

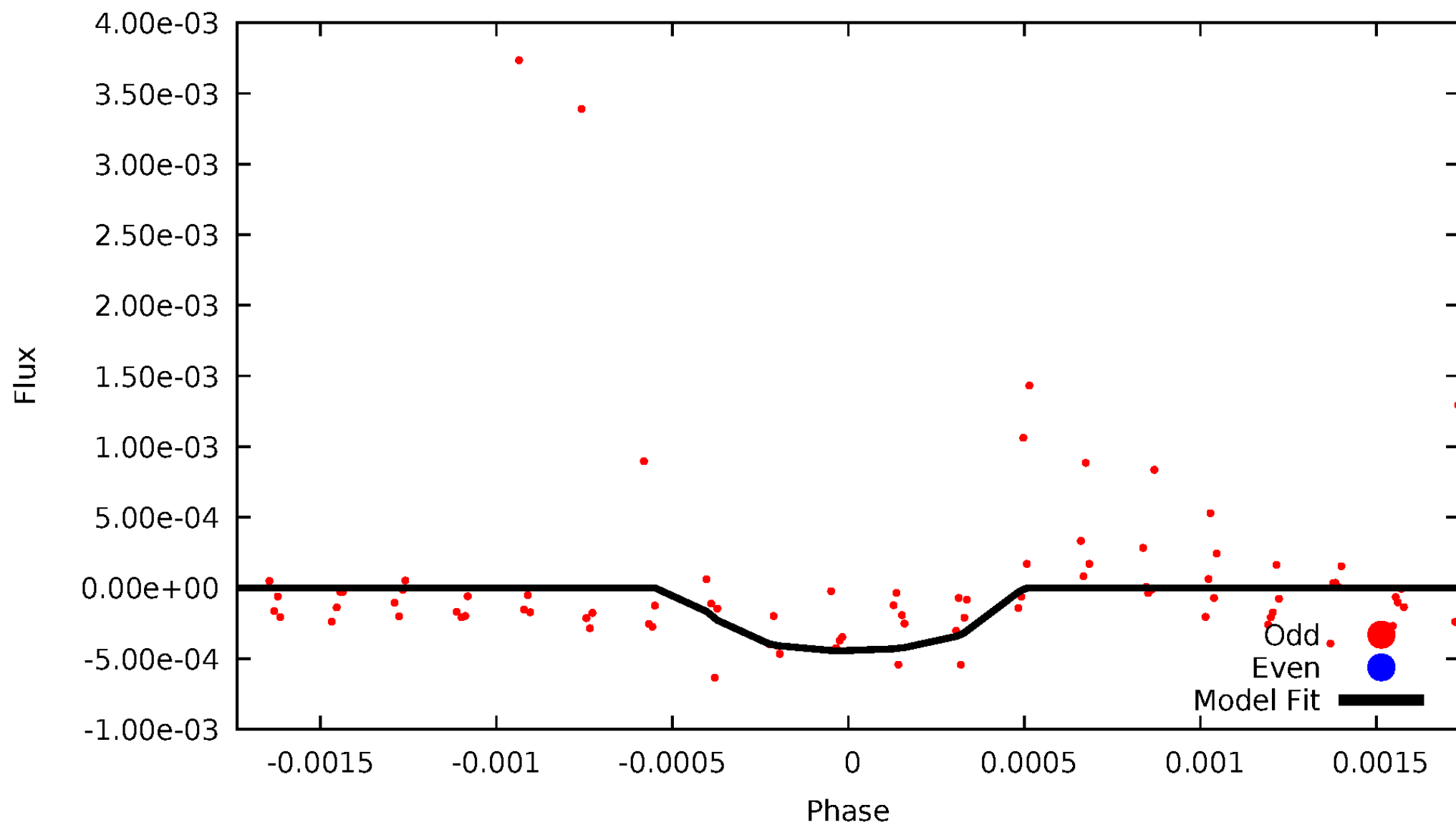


TCE 010583089-05



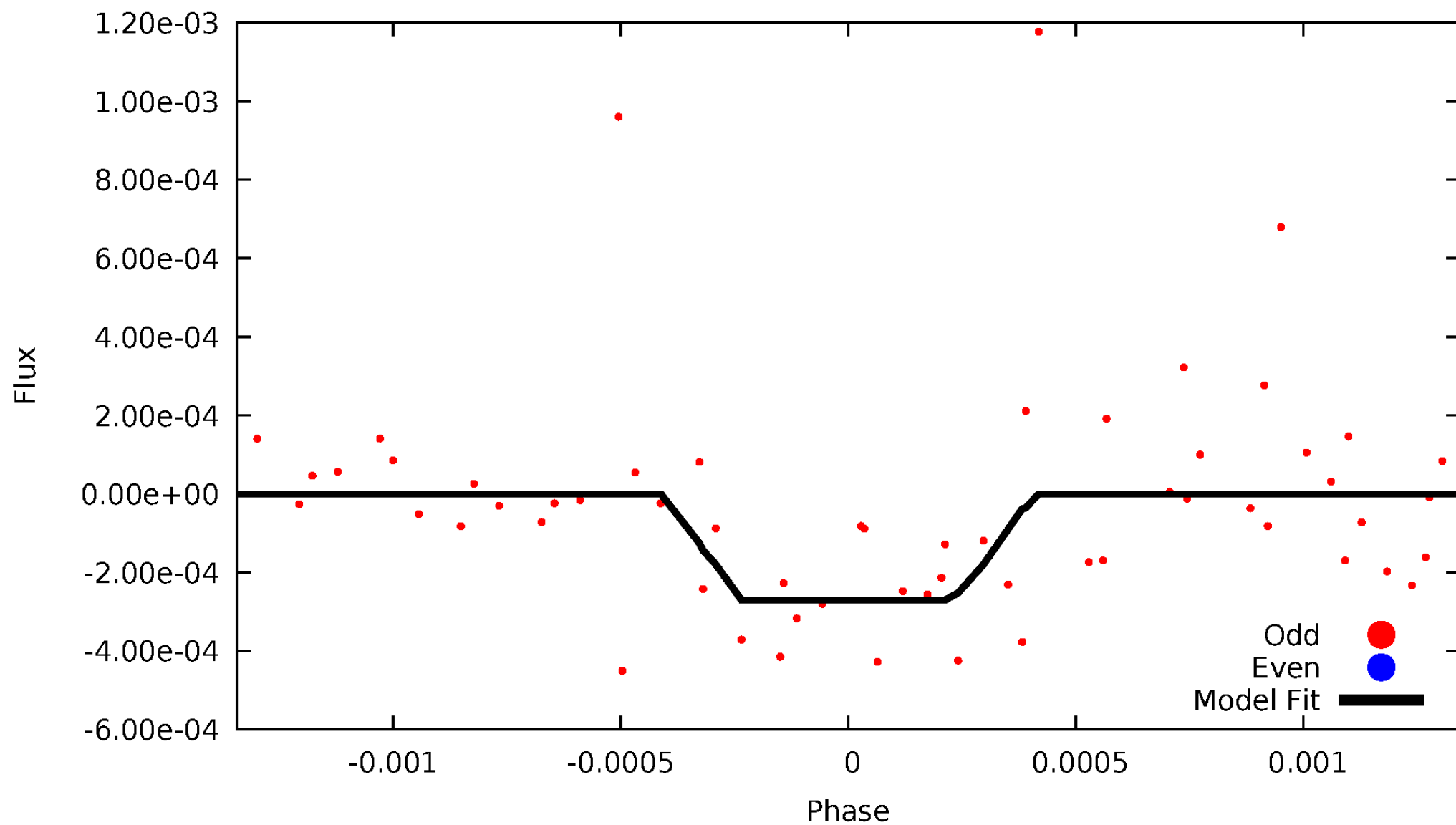
DV Odd/Even

TCE 010583089-05



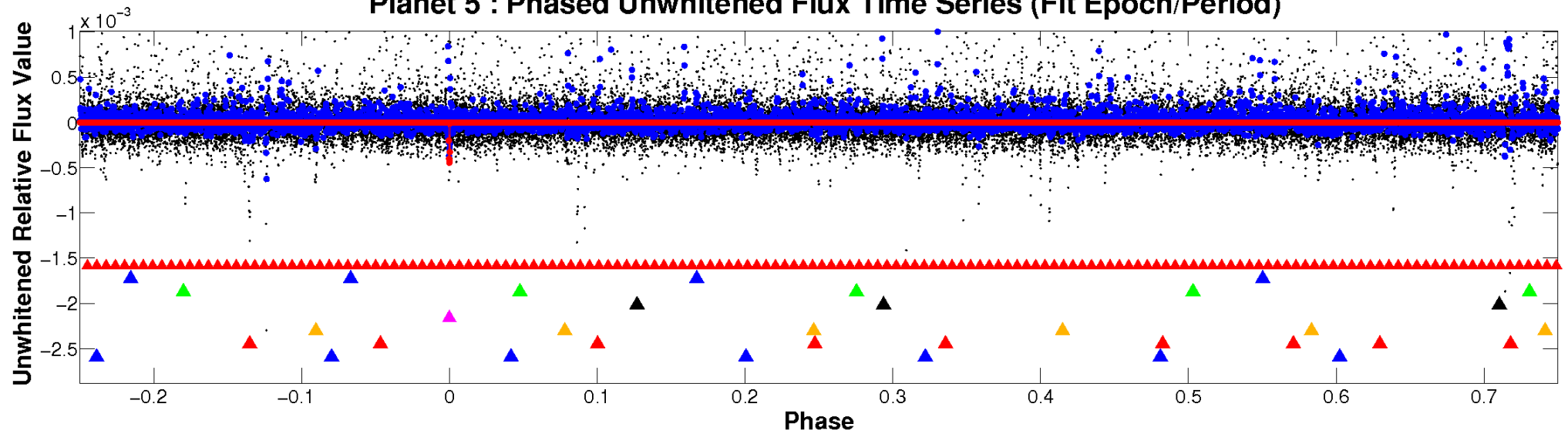
ALT Odd/Even

TCE 010583089-05

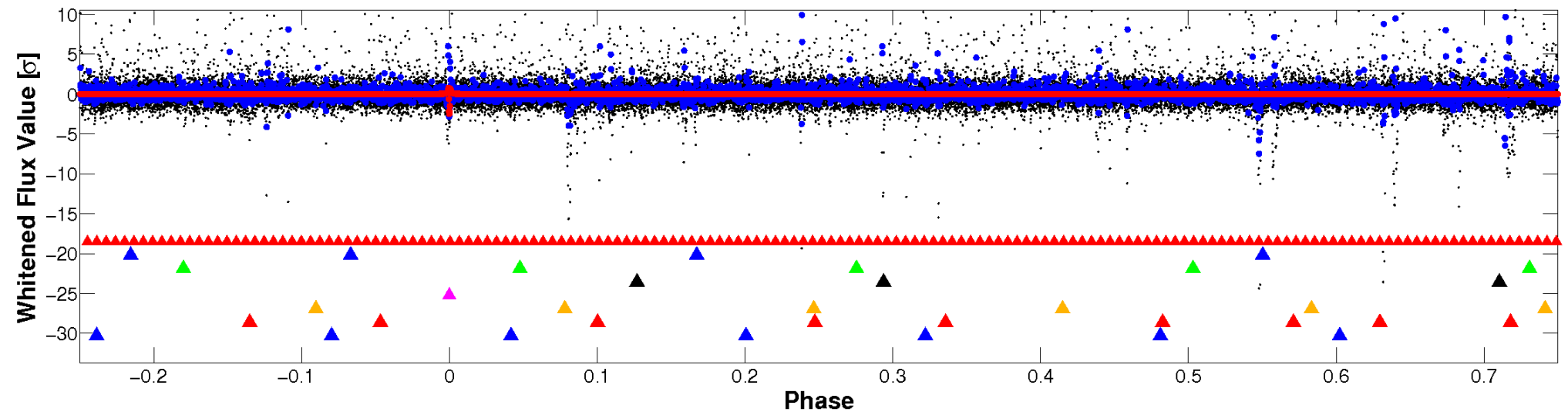


Non-Whitened Vs. Whitened Light Curve

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

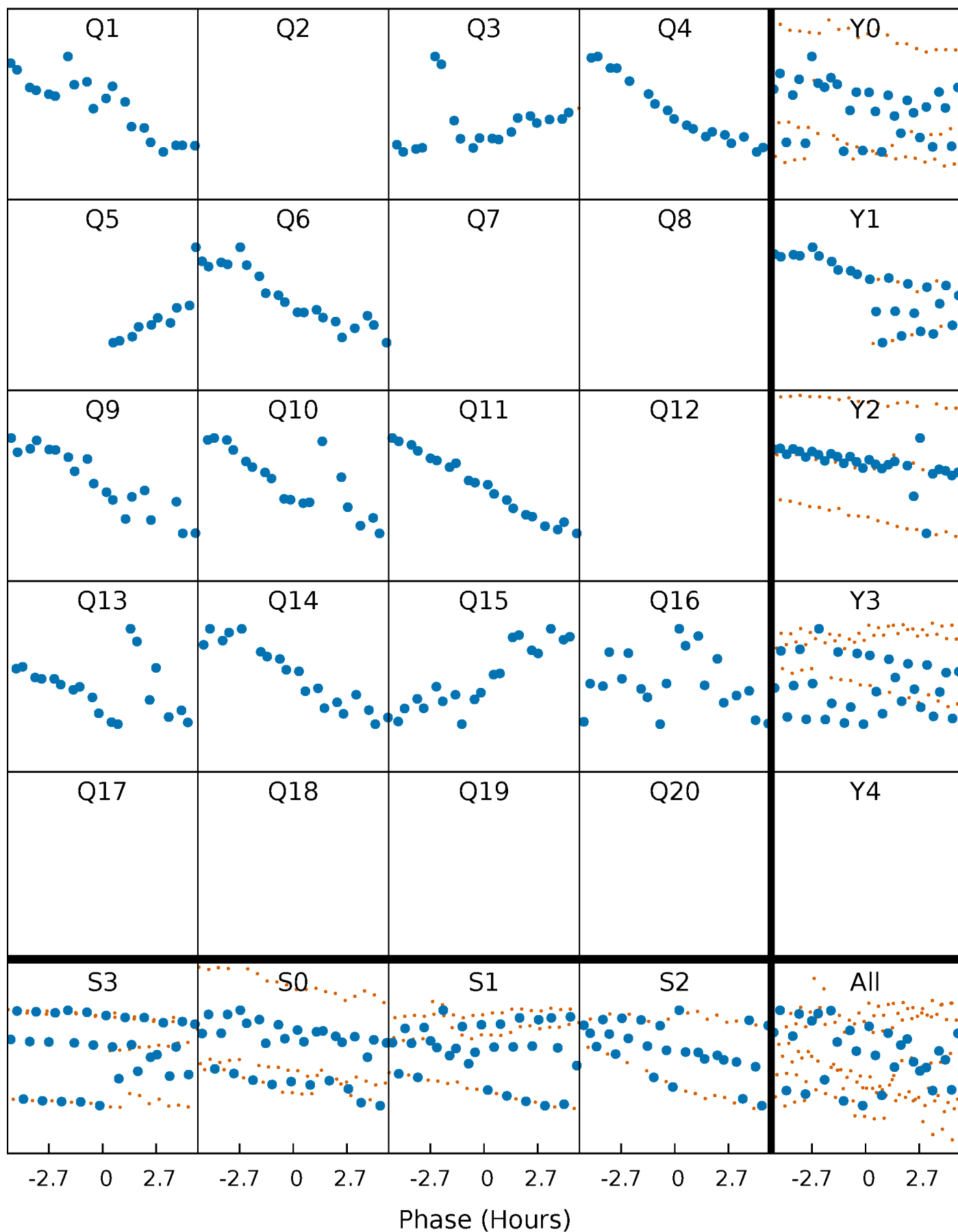


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



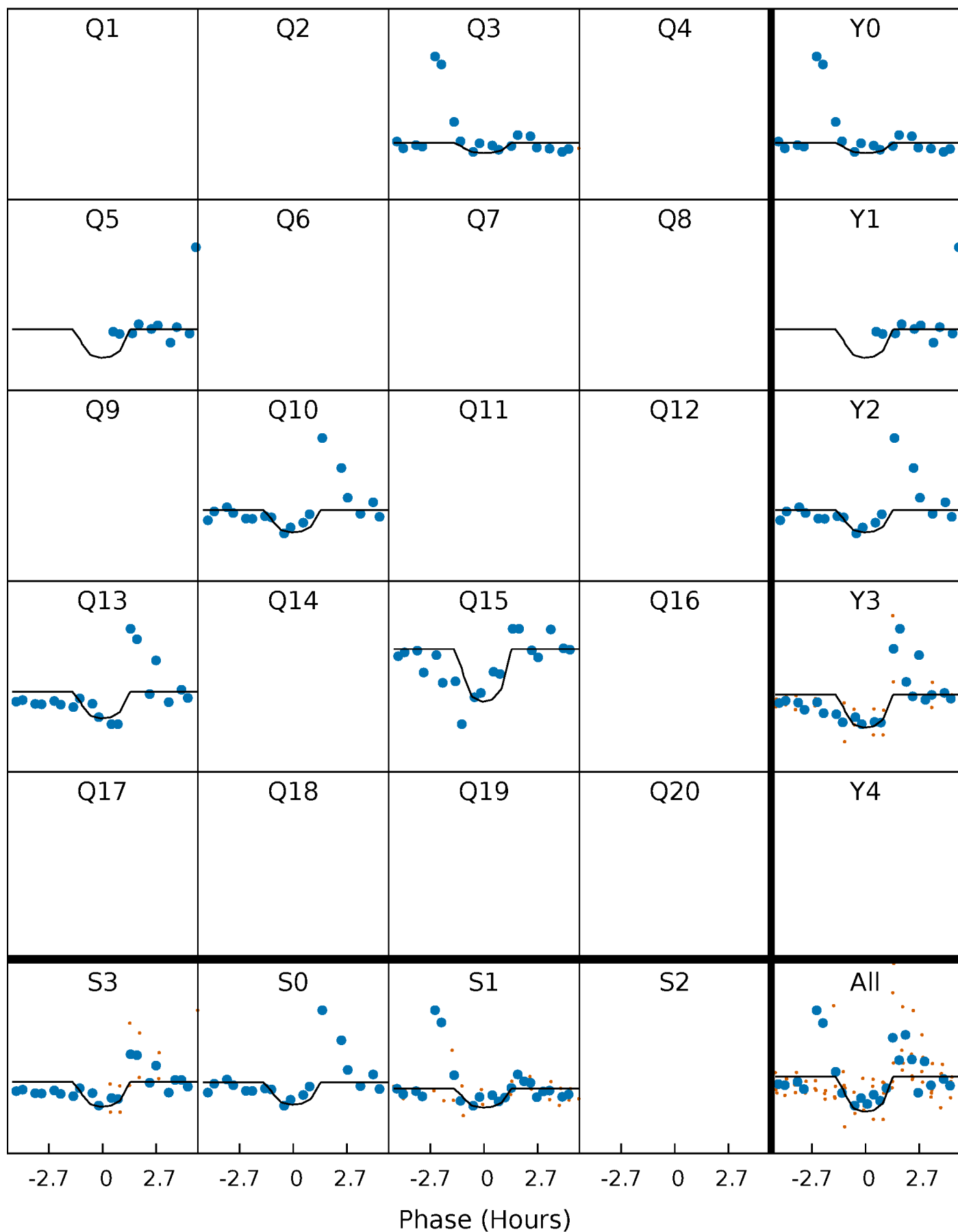
PDC Quarter-Phased Transit Curves

TCE 010583089-05 $P=115.214443$ Days $T_0=158.950662$ (BKJD)



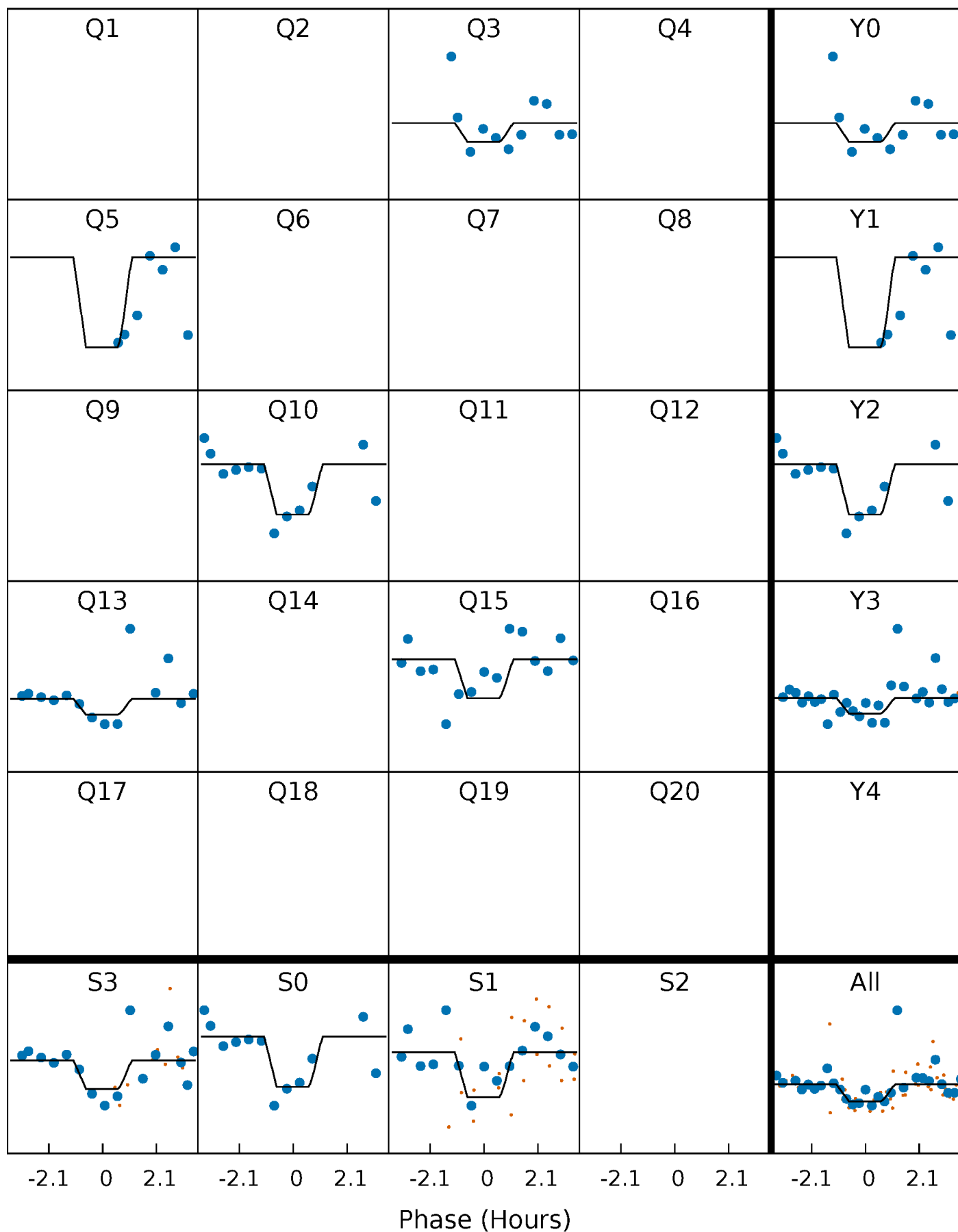
DV Quarter-Phased Transit Curves

TCE 010583089-05 $P=115.214443$ Days $T_0=158.950662$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

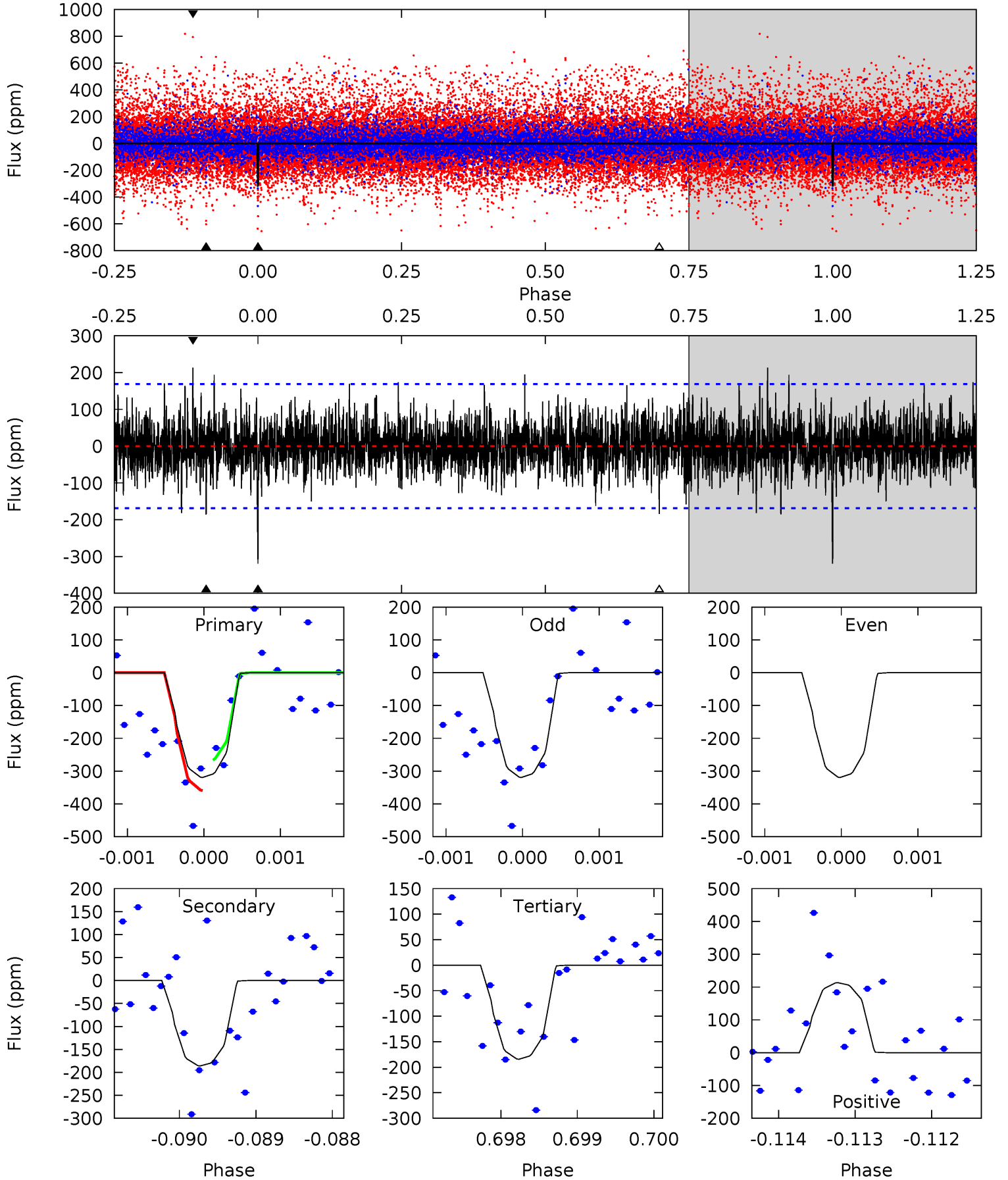
TCE 010583089-05 $P=115.216676$ Days $T_0=158.939636$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-05, $P = 115.214443$ Days, $E = 43.736219$ Days

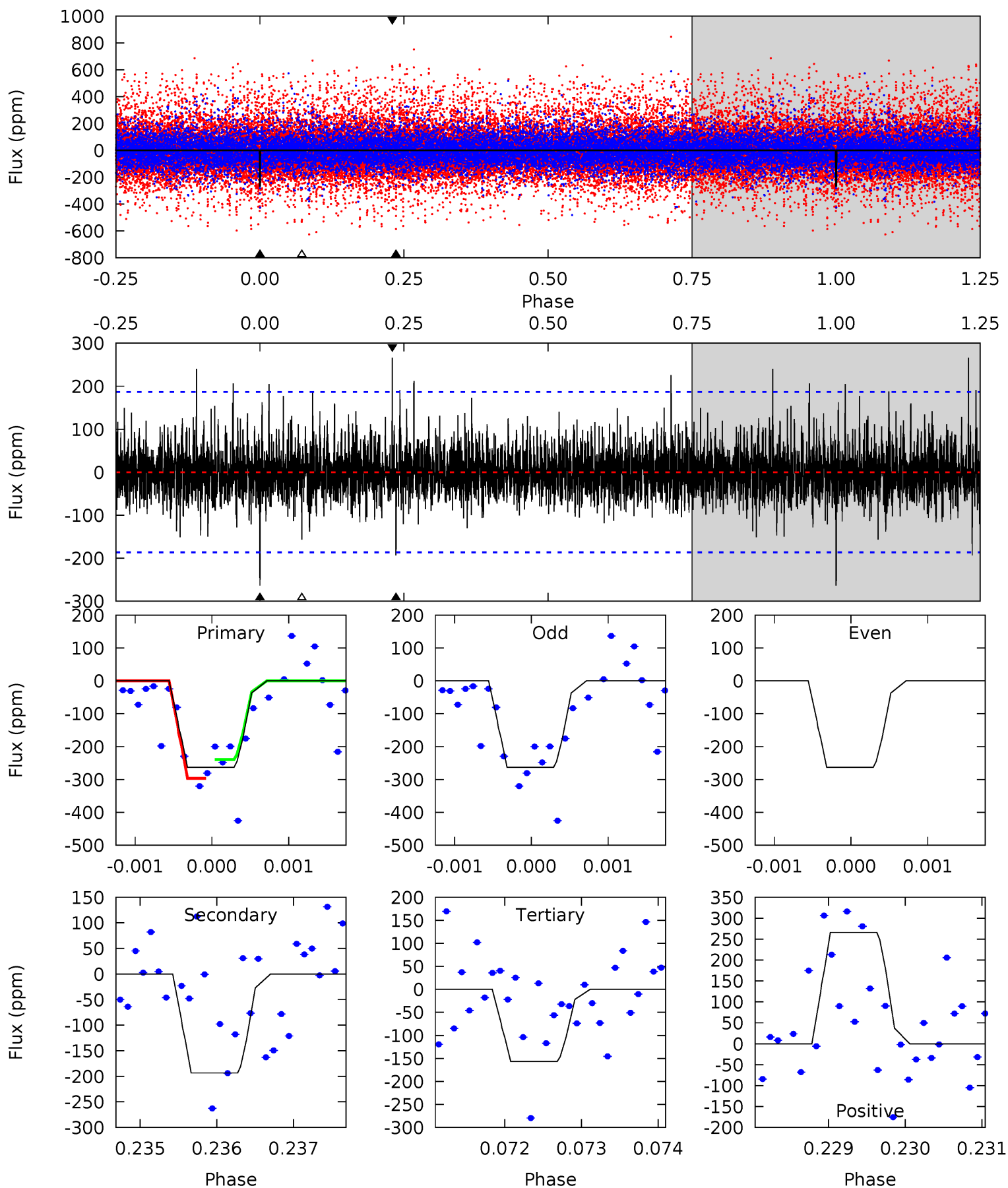
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	6.00	5.94	6.88	5.44	3.27	1.54	4.36	3.42	0.06	-0.88	0	0.87	0.40	1.50



Alt Model-Shift Uniqueness Test

010583089-05, P = 115.216676 Days, E = 43.722960 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.77	5.71	4.63	7.85	5.51	3.38	1.32	3.14	-0.08	1.08	-2.14	0	0.94	0.50	0.81



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-186 ± 31	$3.21^{+2.87}_{-2.28}$	337^{+12}_{-14}	2946^{+1453}_{-471}	1721^{+18432}_{-1235}
Alt.	-193 ± 34	$2.94^{+2.75}_{-1.99}$	338^{+14}_{-14}	3023^{+1325}_{-481}	1978^{+17482}_{-1442}

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

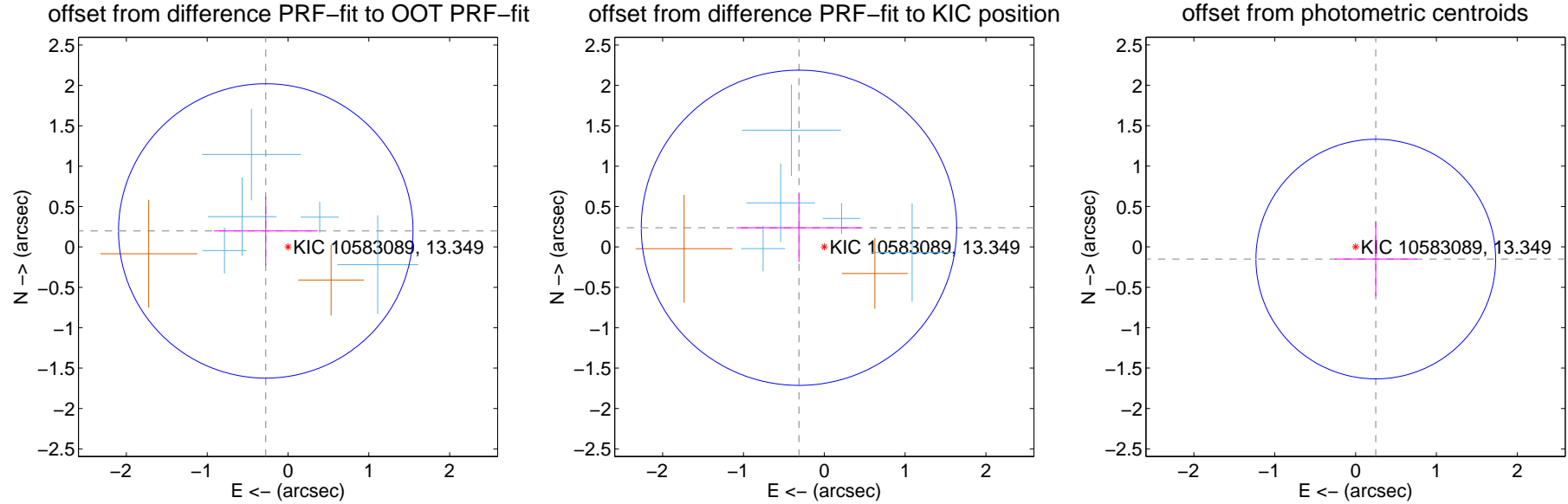
DV Centroid Data

Supplemental centroid analysis for 010583089-05. Kepler magnitude: 13.35. Transit SNR 9.33

There are 5 quarters with good PRF difference image offsets

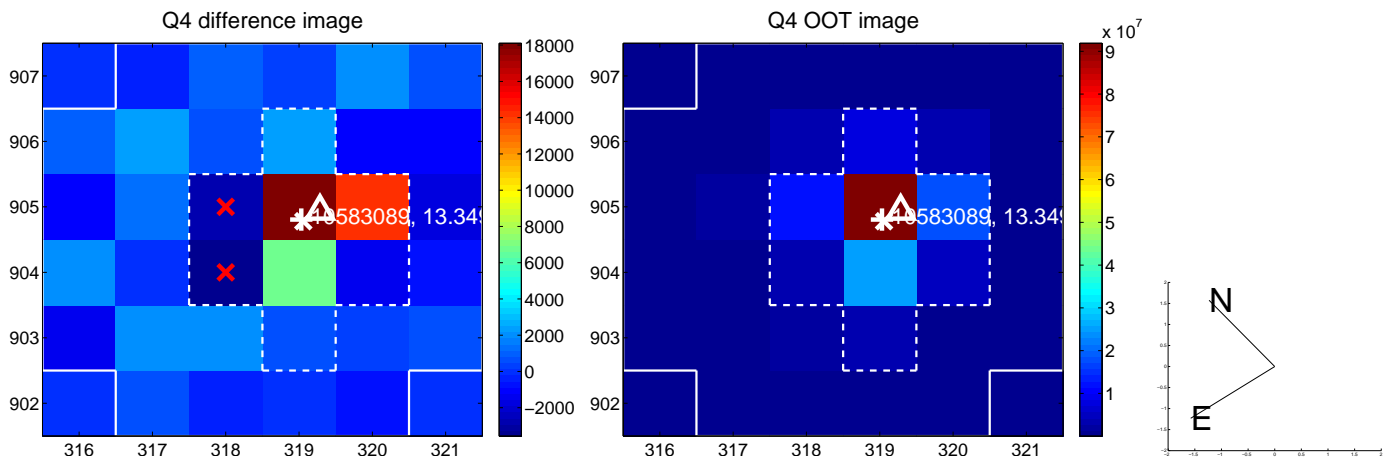
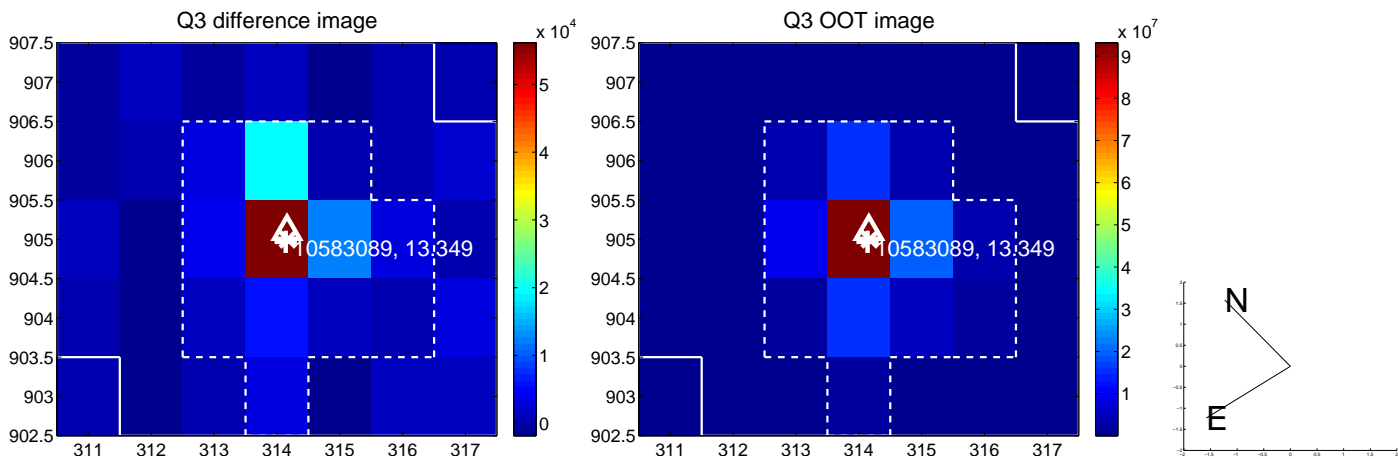
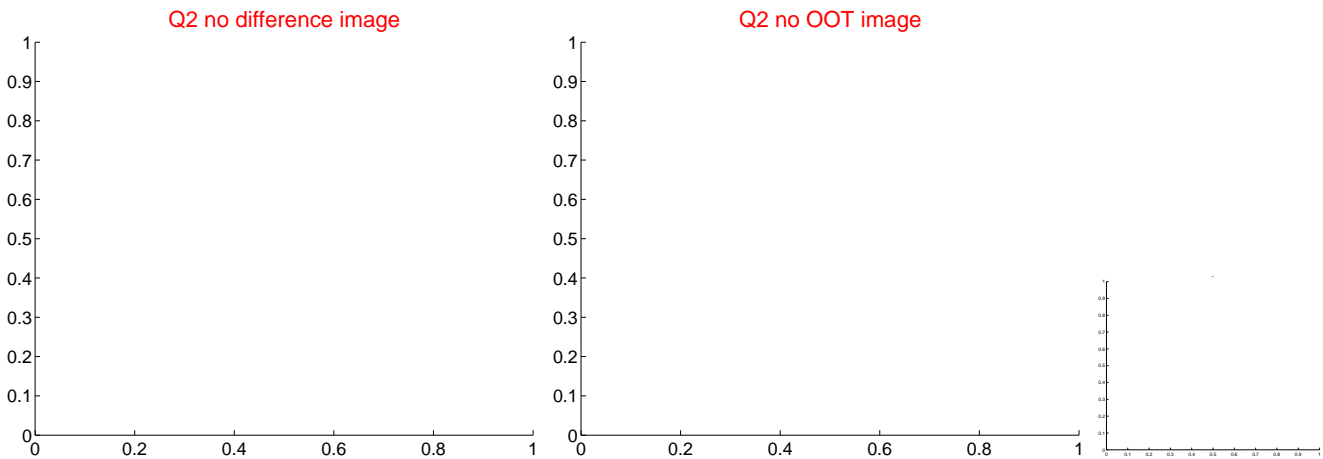
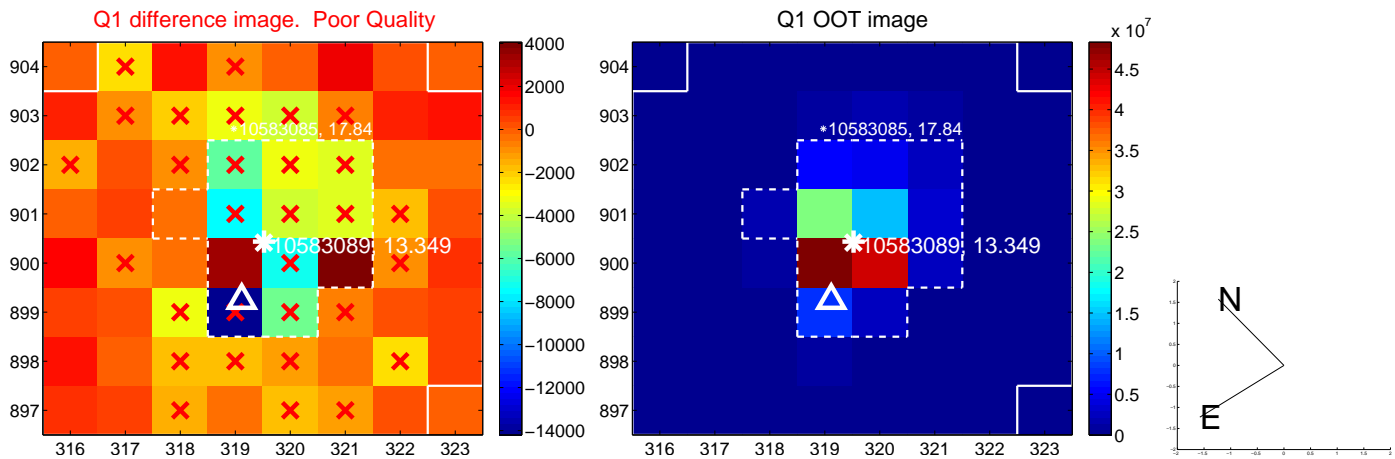
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.339 ± 0.607	0.56	0.275 ± 0.644	0.198 ± 0.424
PRF-fit source offset from KIC position	0.393 ± 0.651	0.60	0.314 ± 0.771	0.238 ± 0.424
photometric centroid source offset	0.29 ± 0.49	0.59	-0.25 ± 0.51	-0.15 ± 0.46

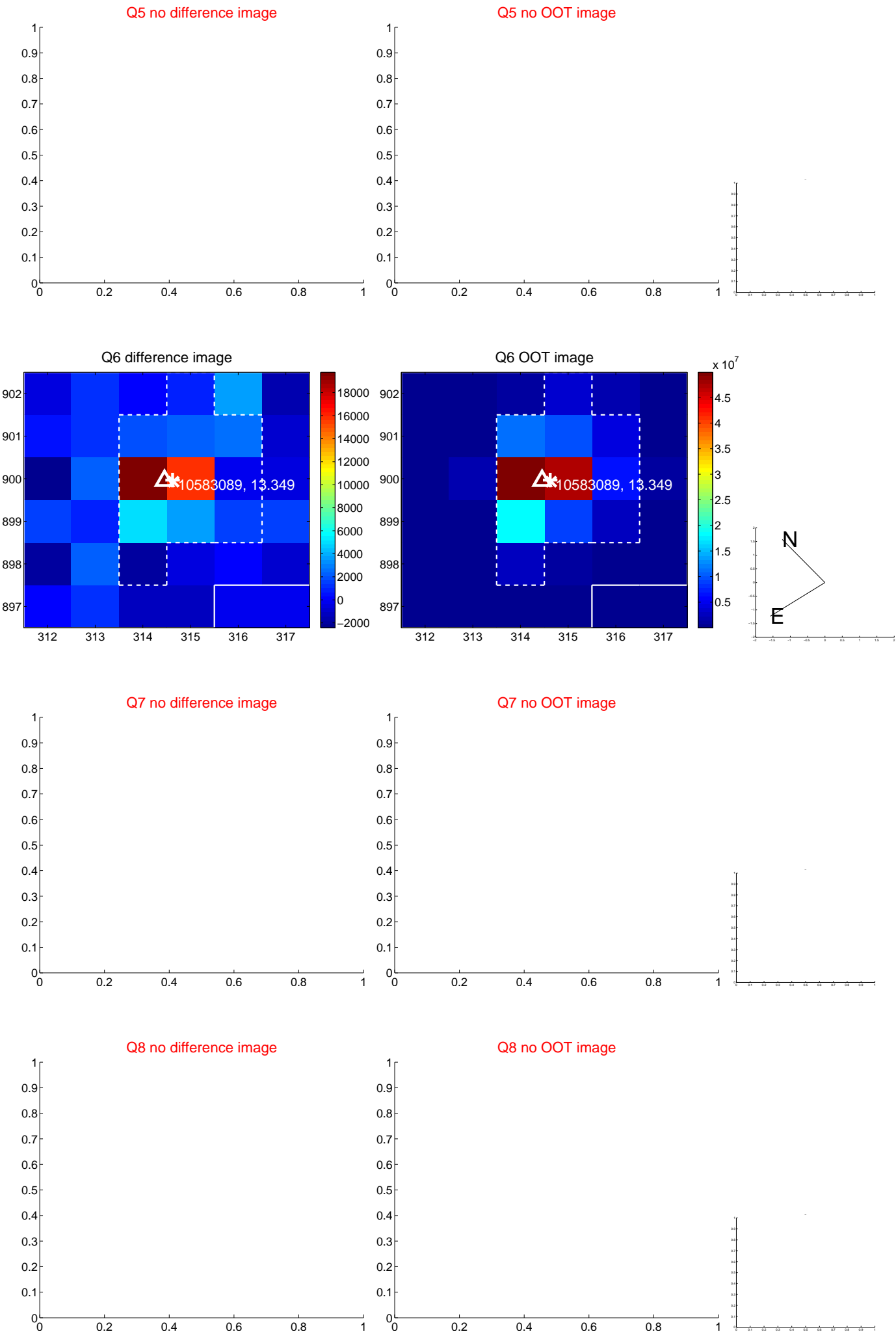


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

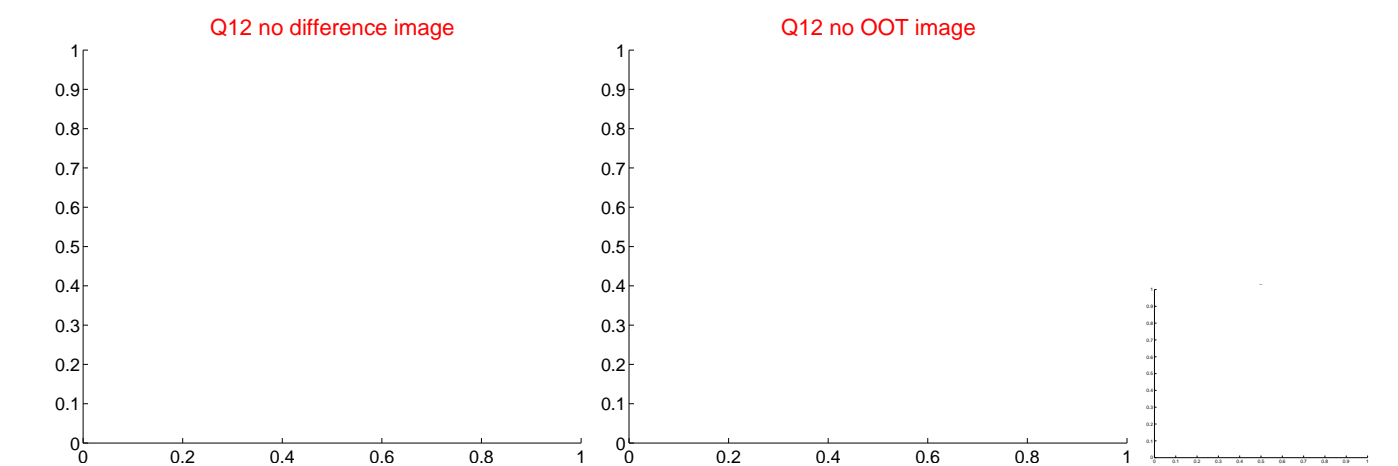
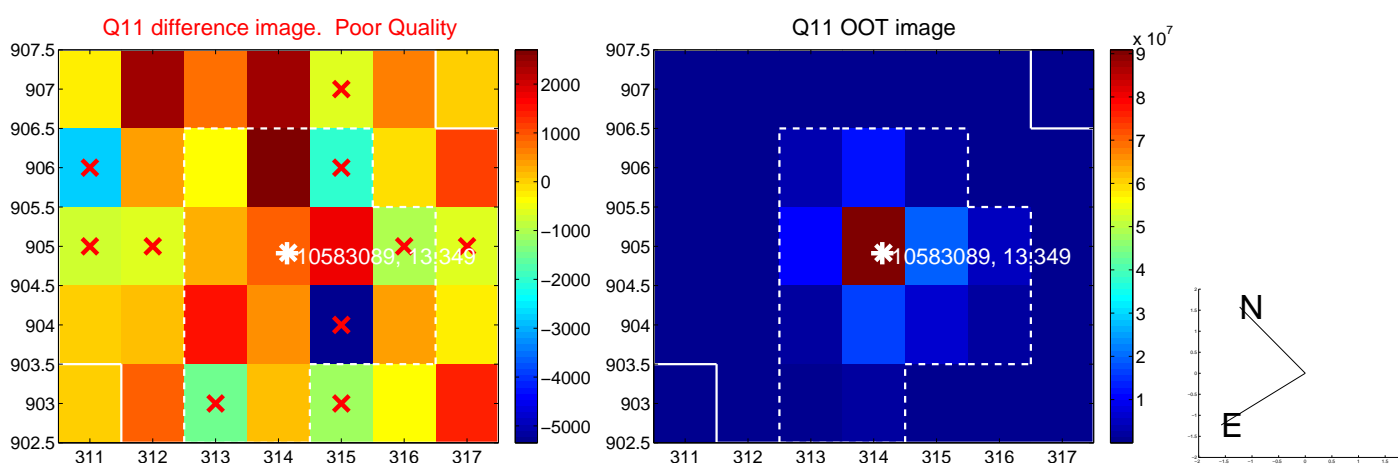
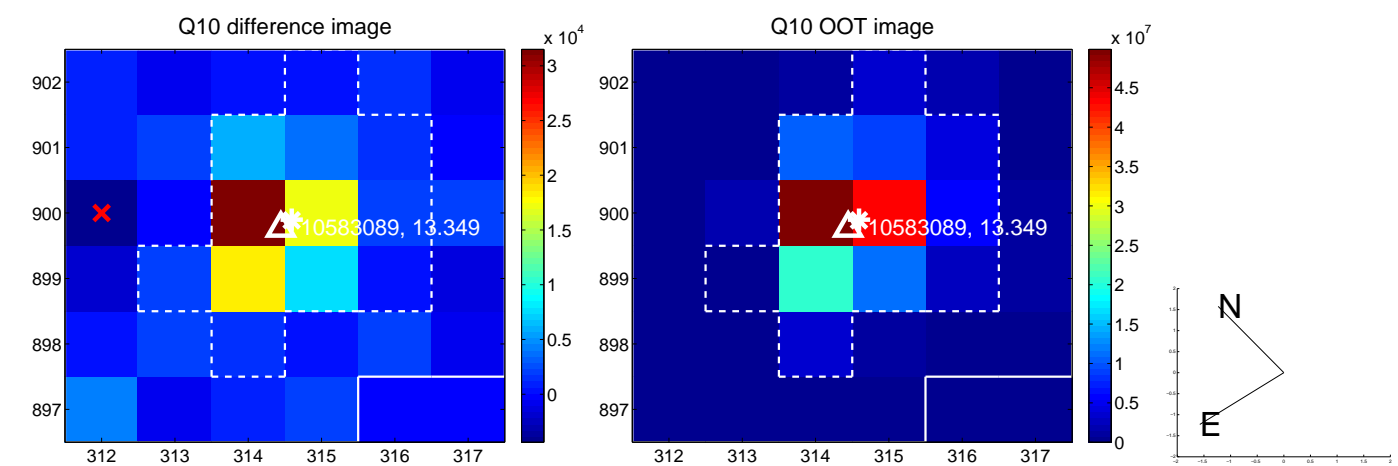
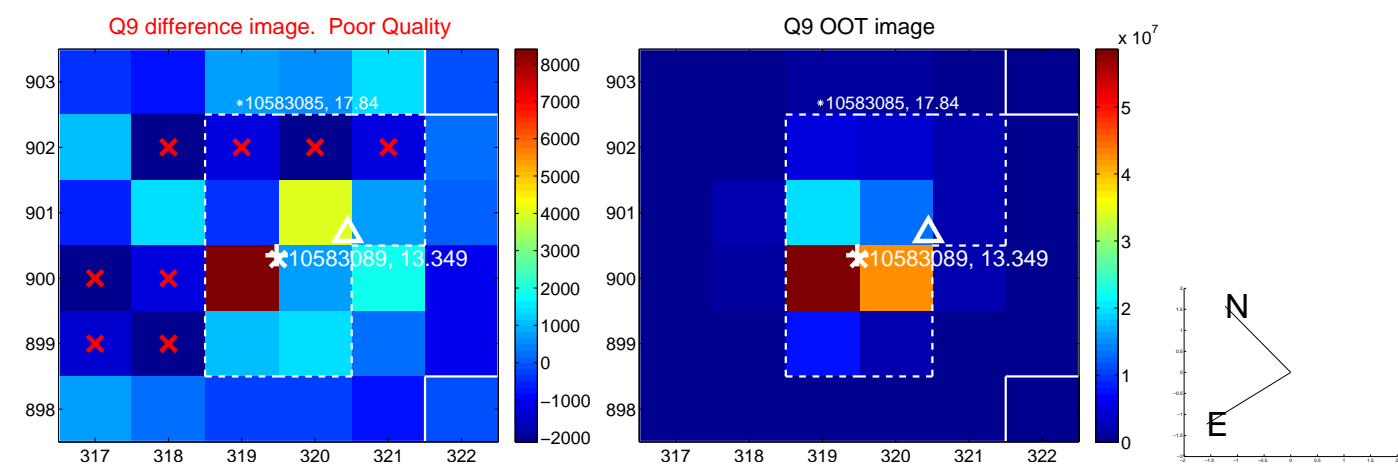
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



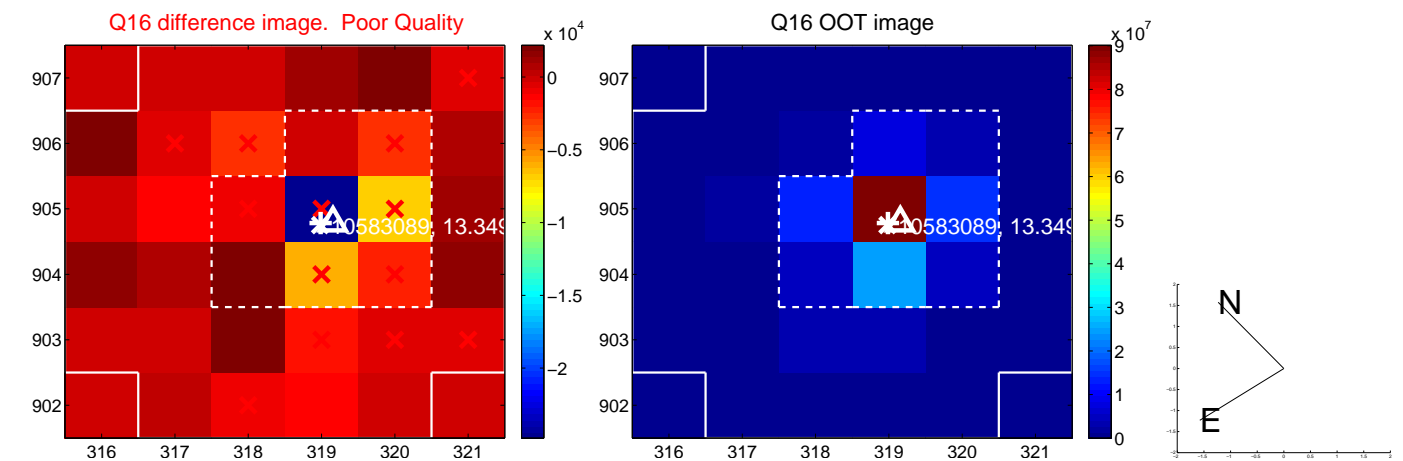
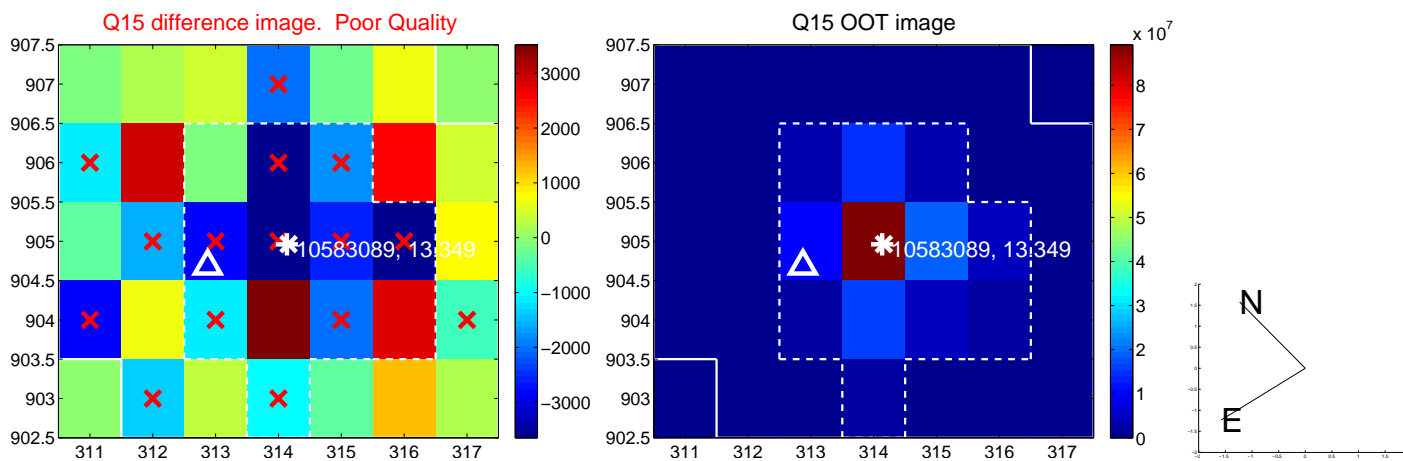
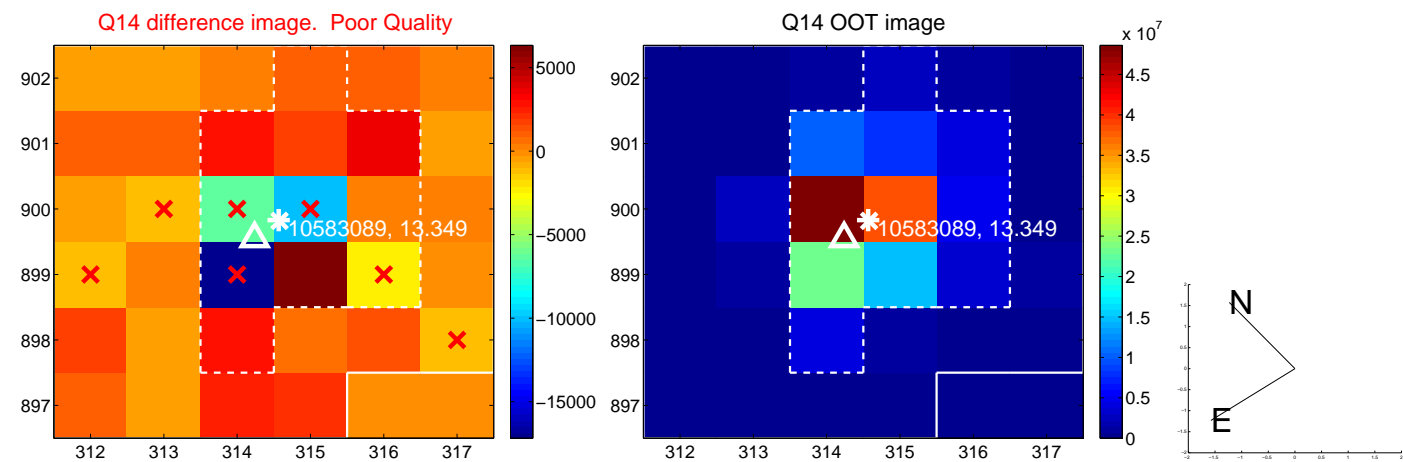
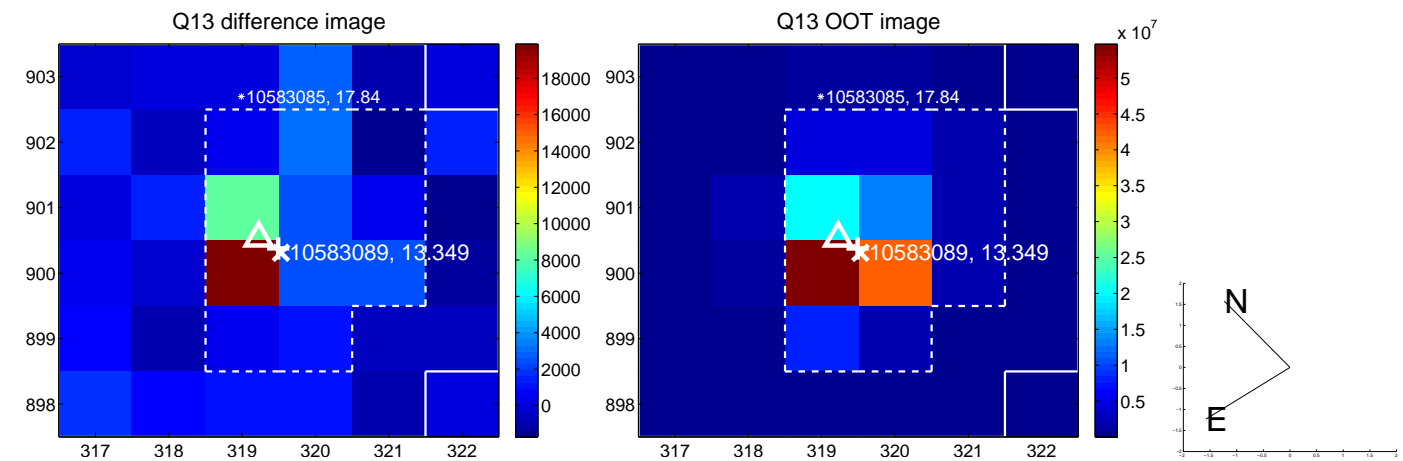
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



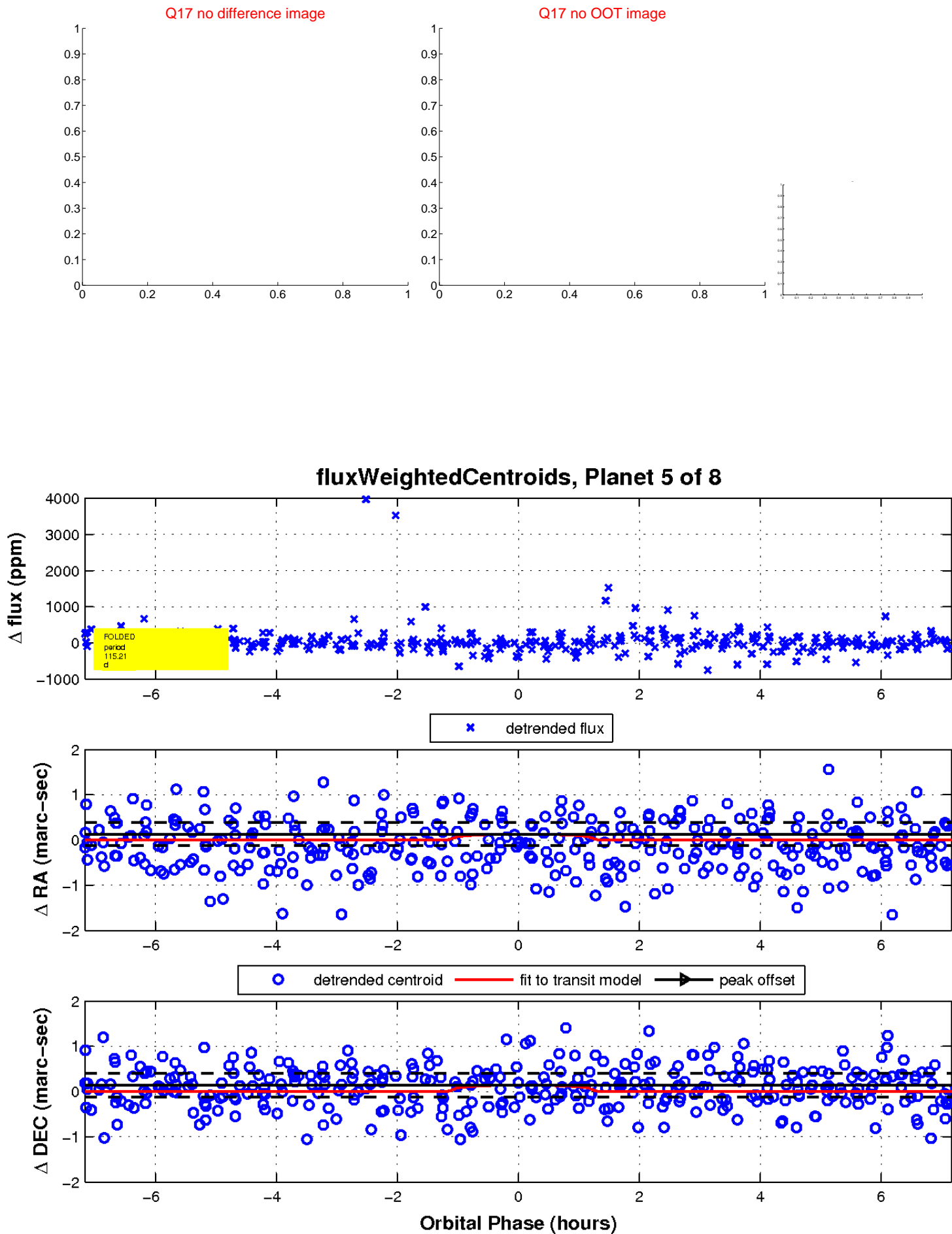
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

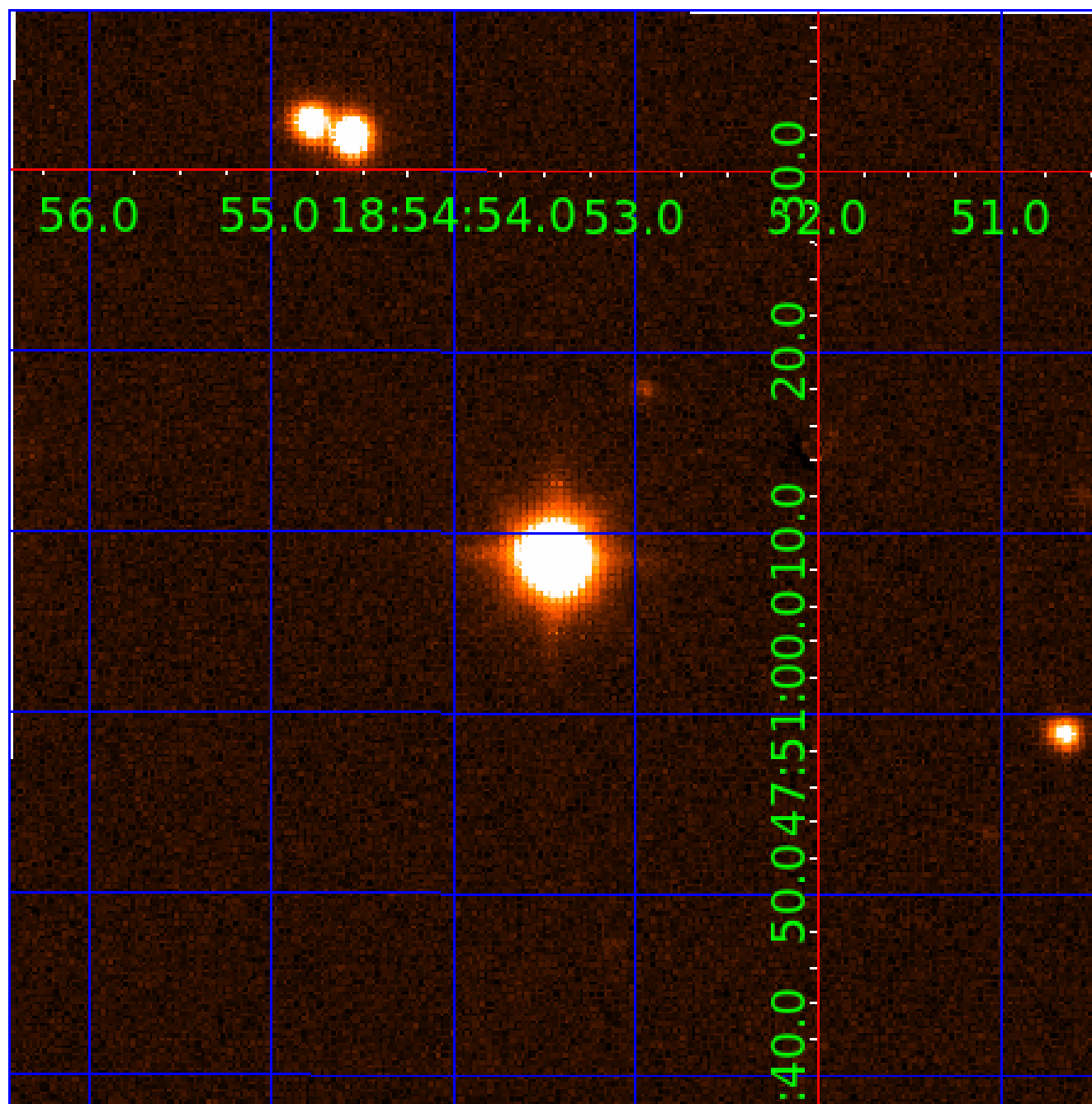


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010583089

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})
010583089-01	OBS	No	1.449244	132.917425	54.1	4.854	13.0	14.0	0.68	4264	0.48	282.44
010583089-02	OBS	No	389.763346	364.542123	428.5	12.500	19.0	-1.0	0.68	4264	1.34	0.16
010583089-03	OBS	No	319.411342	243.152164	385.4	4.864	13.3	6.7	0.68	4264	1.40	0.21
010583089-04	OBS	No	508.858352	192.796324	474.1	10.544	11.8	7.0	0.68	4264	1.53	0.11
010583089-05	OBS	No	115.214443	158.950662	445.2	2.401	10.8	9.3	0.68	4264	1.51	0.83
010583089-06	OBS	No	211.027609	341.369333	381.0	4.868	9.9	7.1	0.68	4264	1.32	0.37
010583089-08	OBS	No	198.130003	228.353107	305.9	19.597	13.0	4.4	0.68	4264	1.42	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583089-01	OBS	FP	0.01	1	0	0	0	LPP_DV
010583089-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_NOFITS
010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

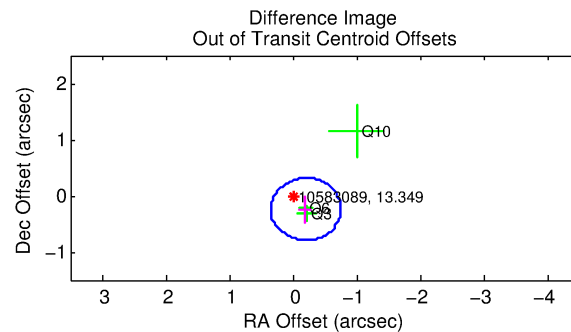
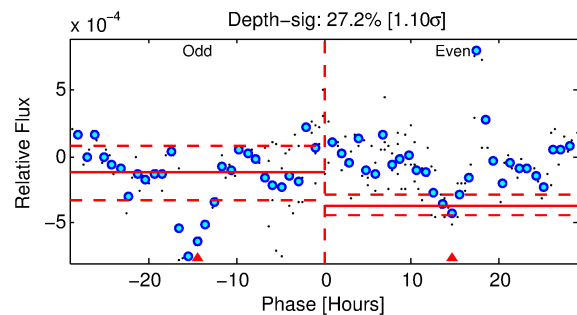
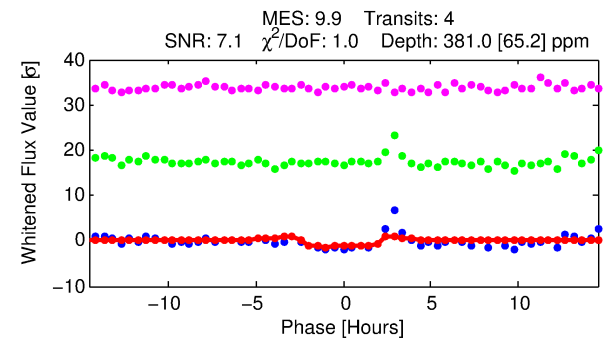
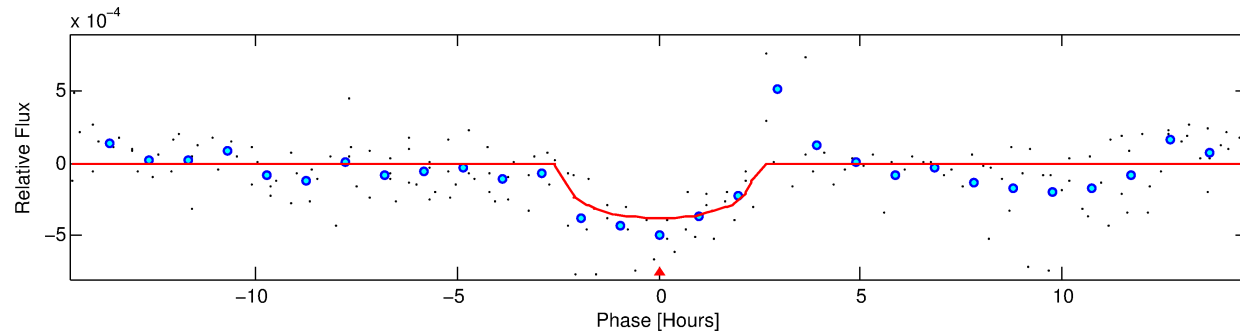
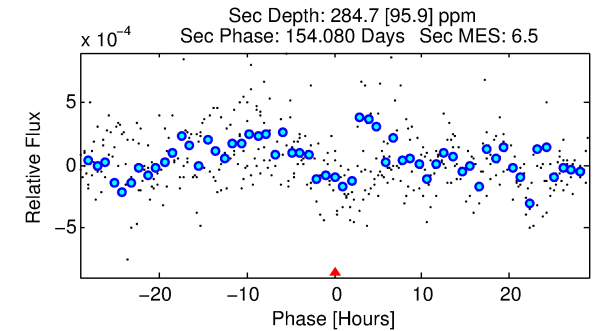
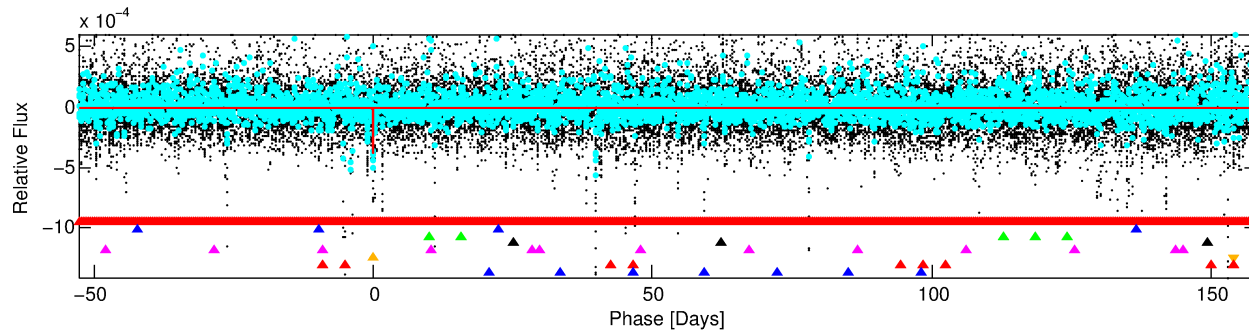
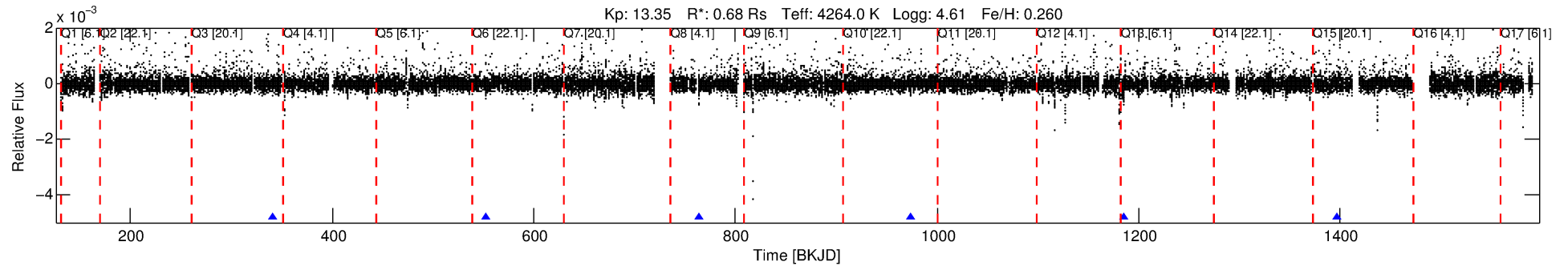
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-06

No Significant Match Found

DV One-Page Summary

KIC: 10583089 Candidate: 6 of 8 Period: 211.028 d



DV Fit Results:

Period = 211.02761 [0.00379] d
Epoch = 341.3693 [0.0094] BKJD
Rp/R* = 0.0178 [0.0207]
a/R* = 298.41 [986.68]
b = 0.47 [5.57]
Seff = 0.37 [0.07]
Teq = 199 [9] K
Rp = 1.32 [1.55] Re
a = 0.6122 [0.0411] AU
Ag = 33468.46 [79034.28] [0.42 σ]
Teffp = 4155 [2456] K [1.61 σ]

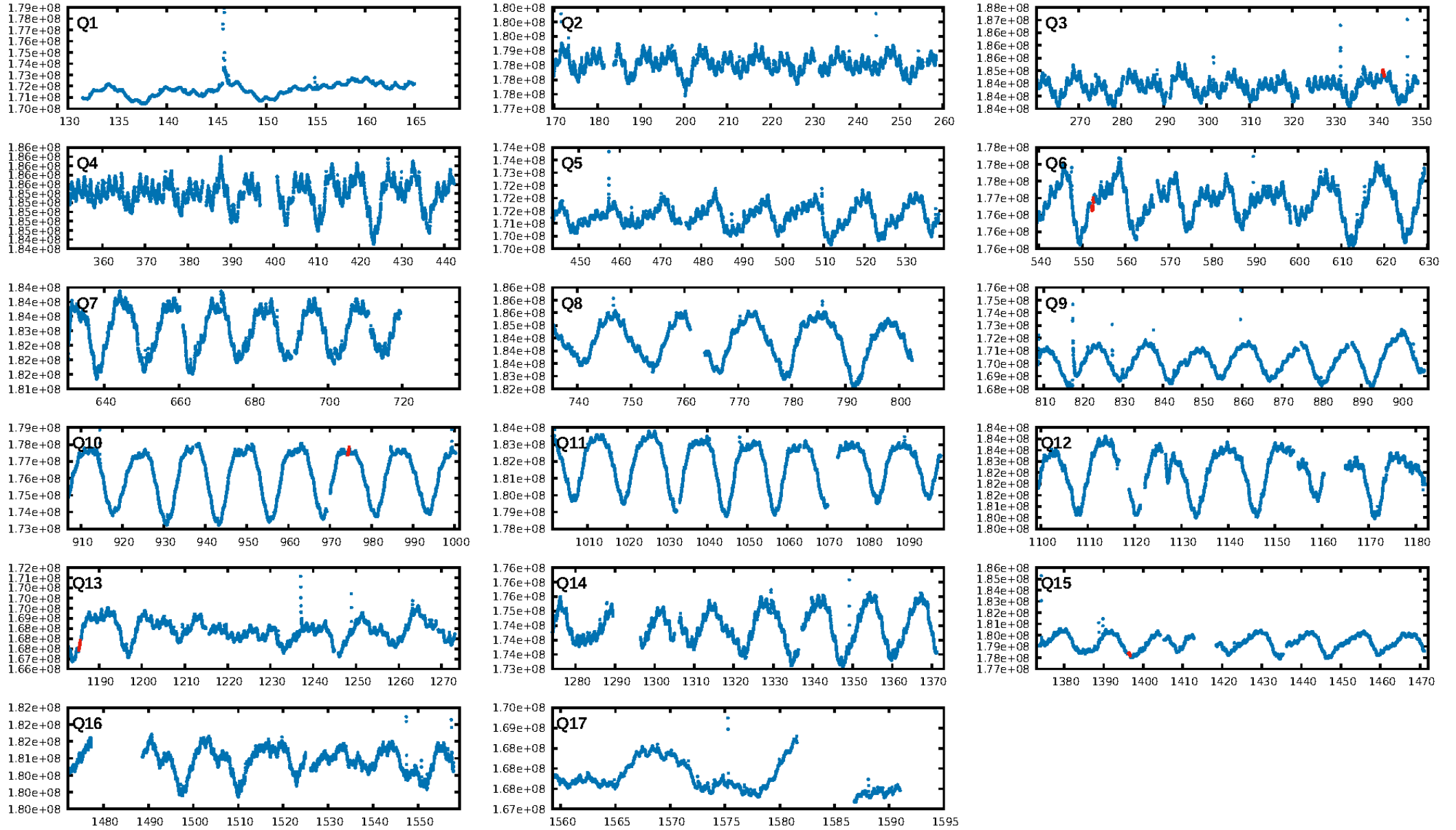
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [15.33 σ]
LongPeriod-sig: 100.0% [377.98 σ]
ModelChiSquare2-sig: 59.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.63e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.0838
Centroid-sig: 33.5%
Centroid-so: 0.698 arcsec [0.95 σ]
OotOffset-rm: 0.313 arcsec [1.70 σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-rm: 0.251 arcsec [1.46 σ]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.33 [1/3]

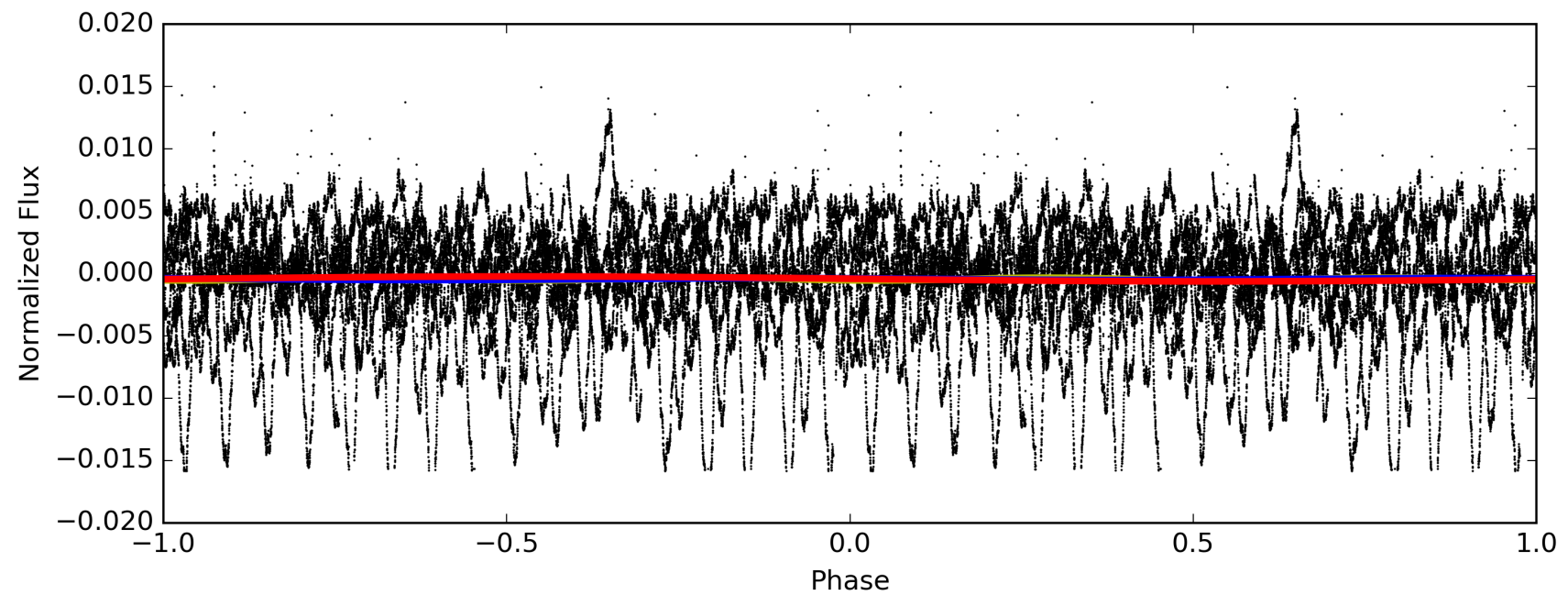
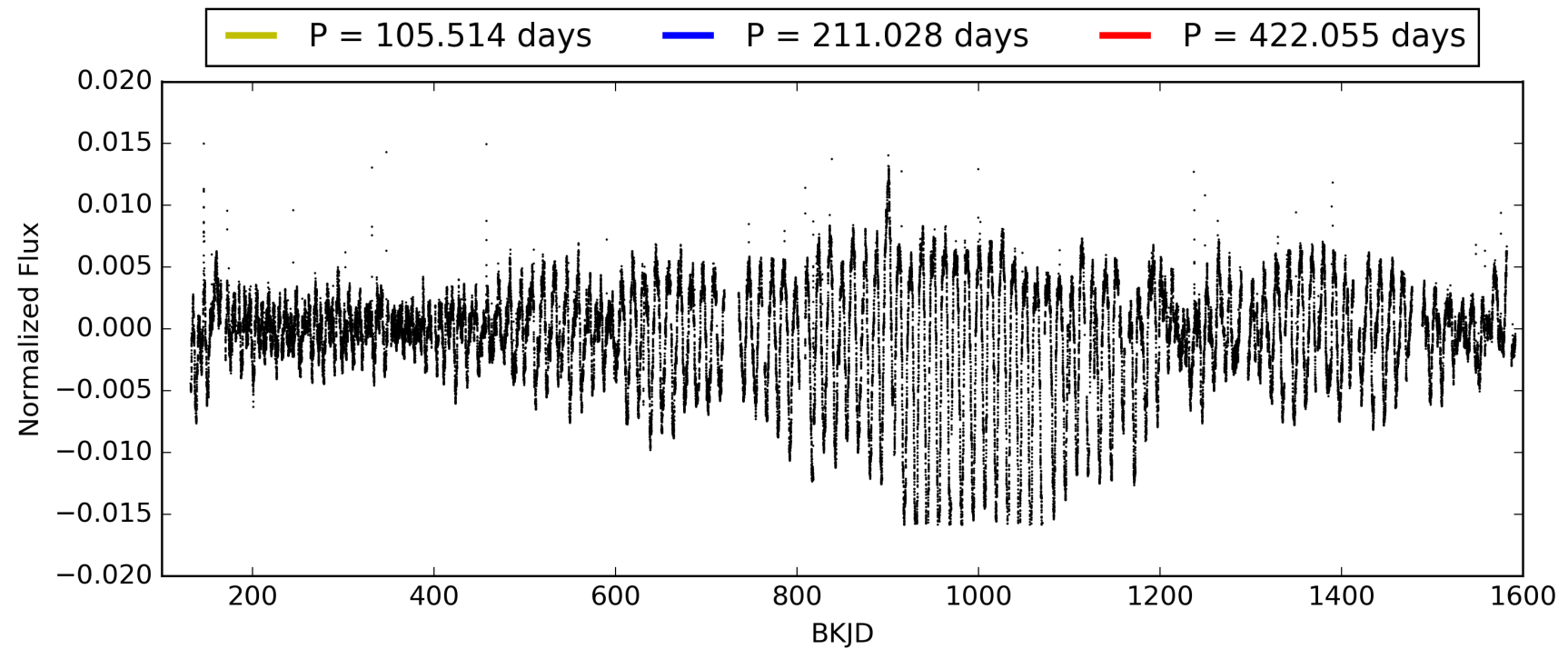
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:22:45 Z

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

TCE 010583089-06, PDC Light Curves

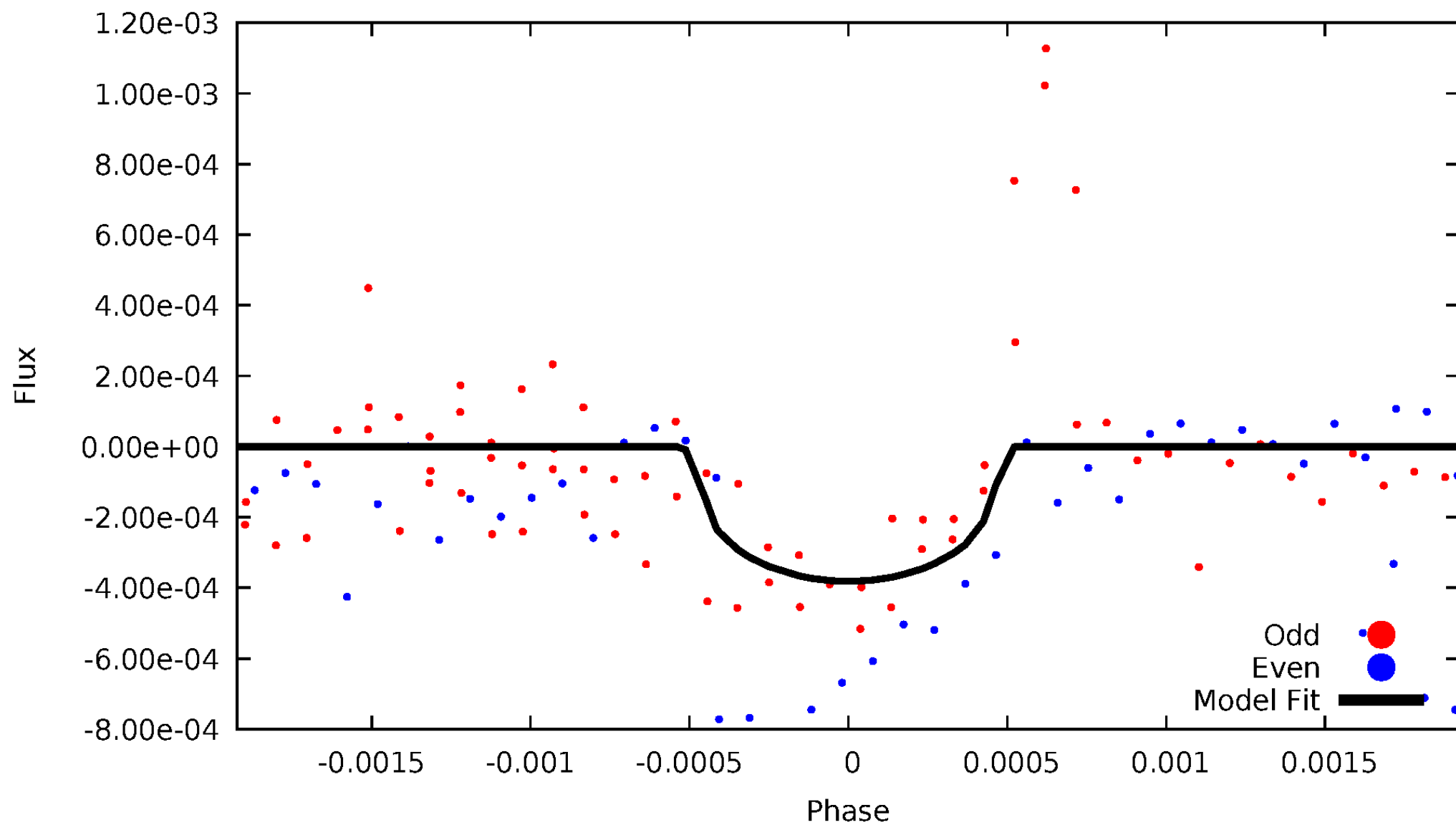


TCE 010583089-06



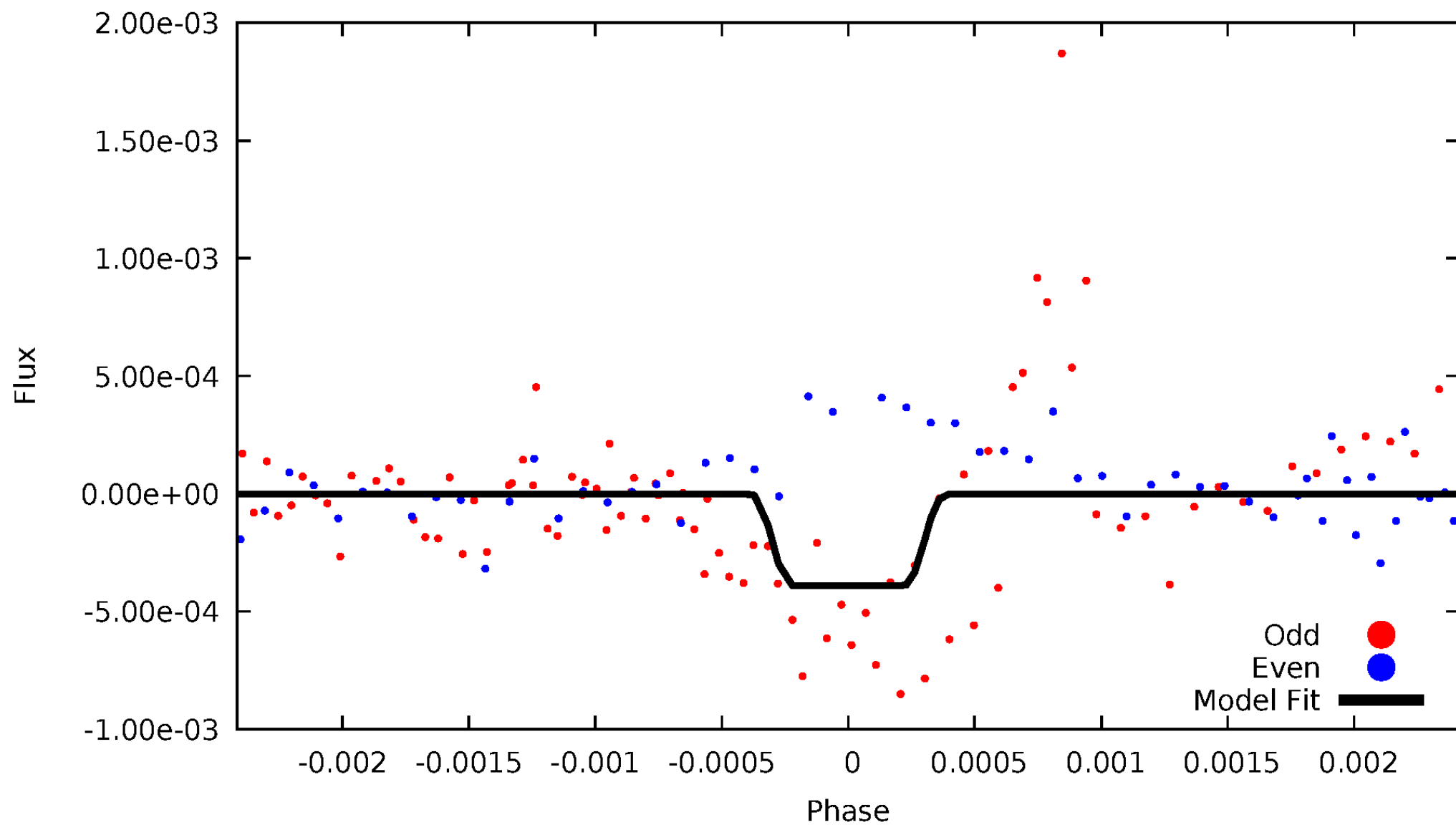
DV Odd/Even

TCE 010583089-06



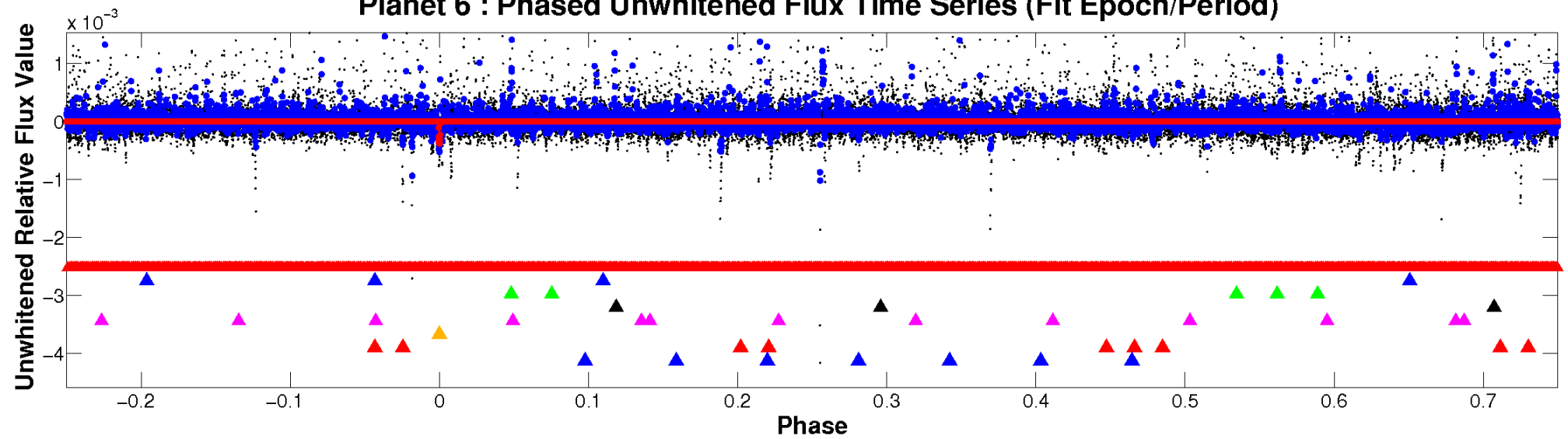
ALT Odd/Even

TCE 010583089-06

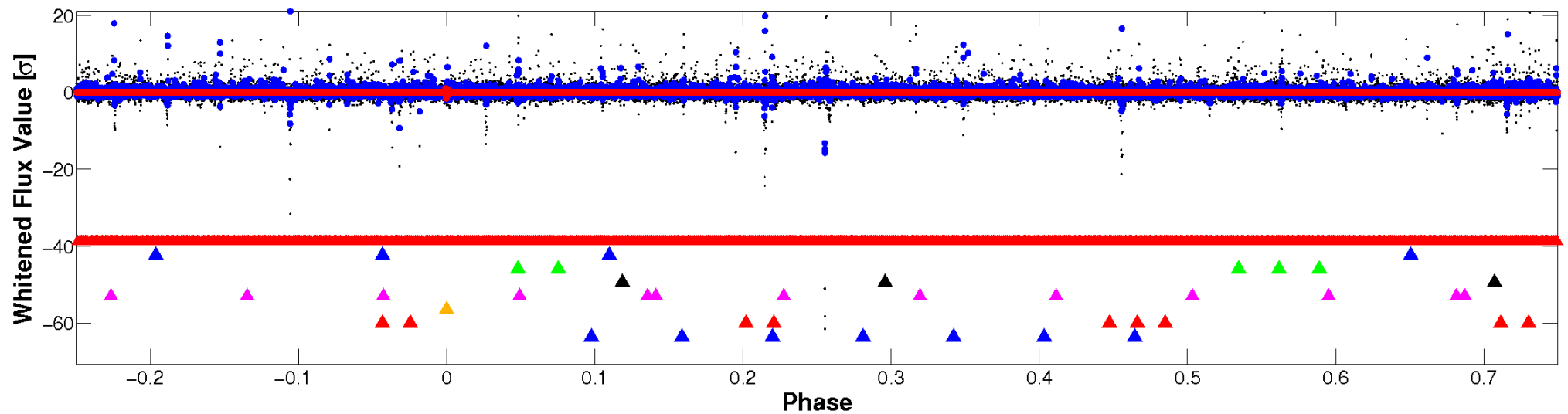


Non-Whitened Vs. Whitened Light Curve

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

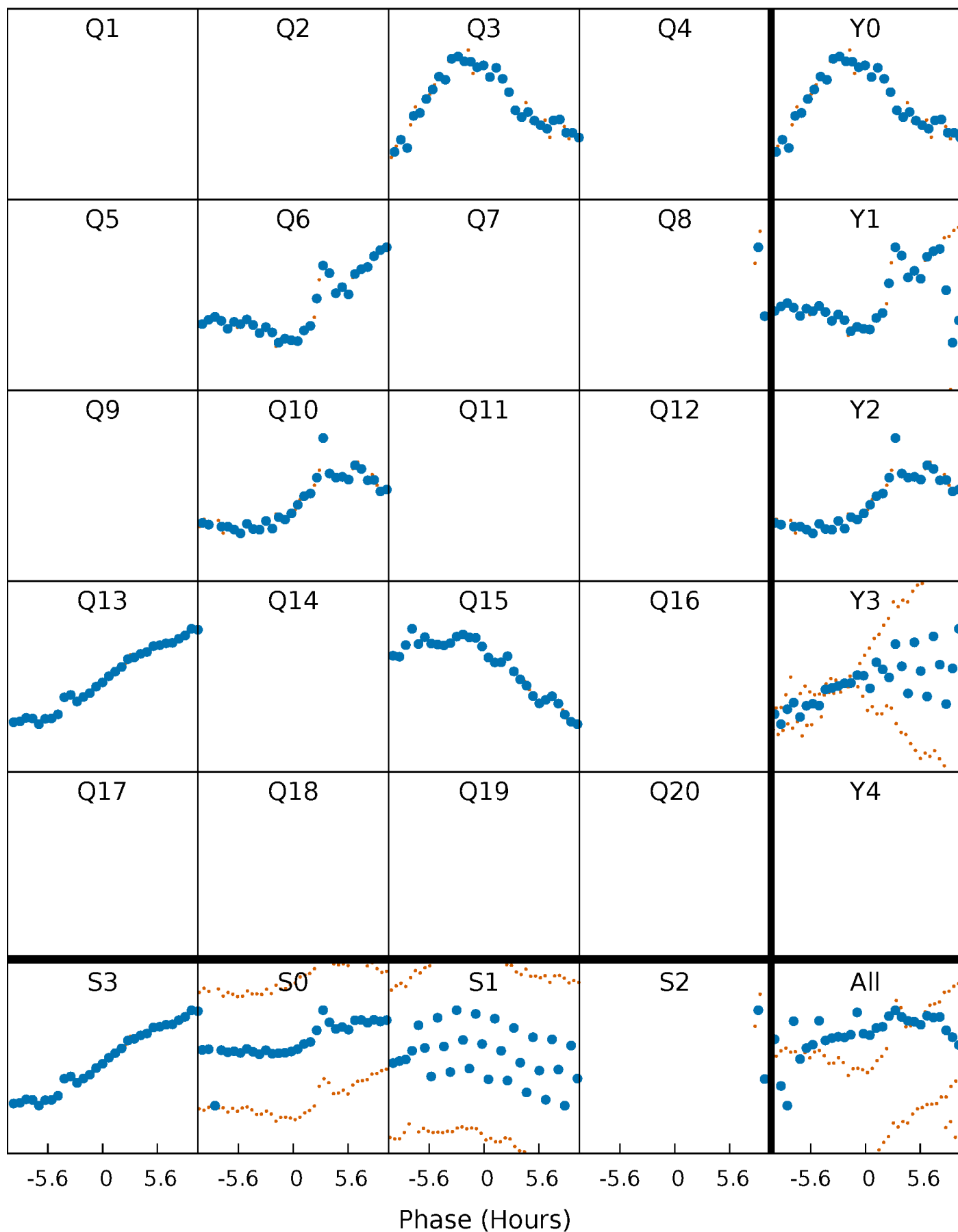


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



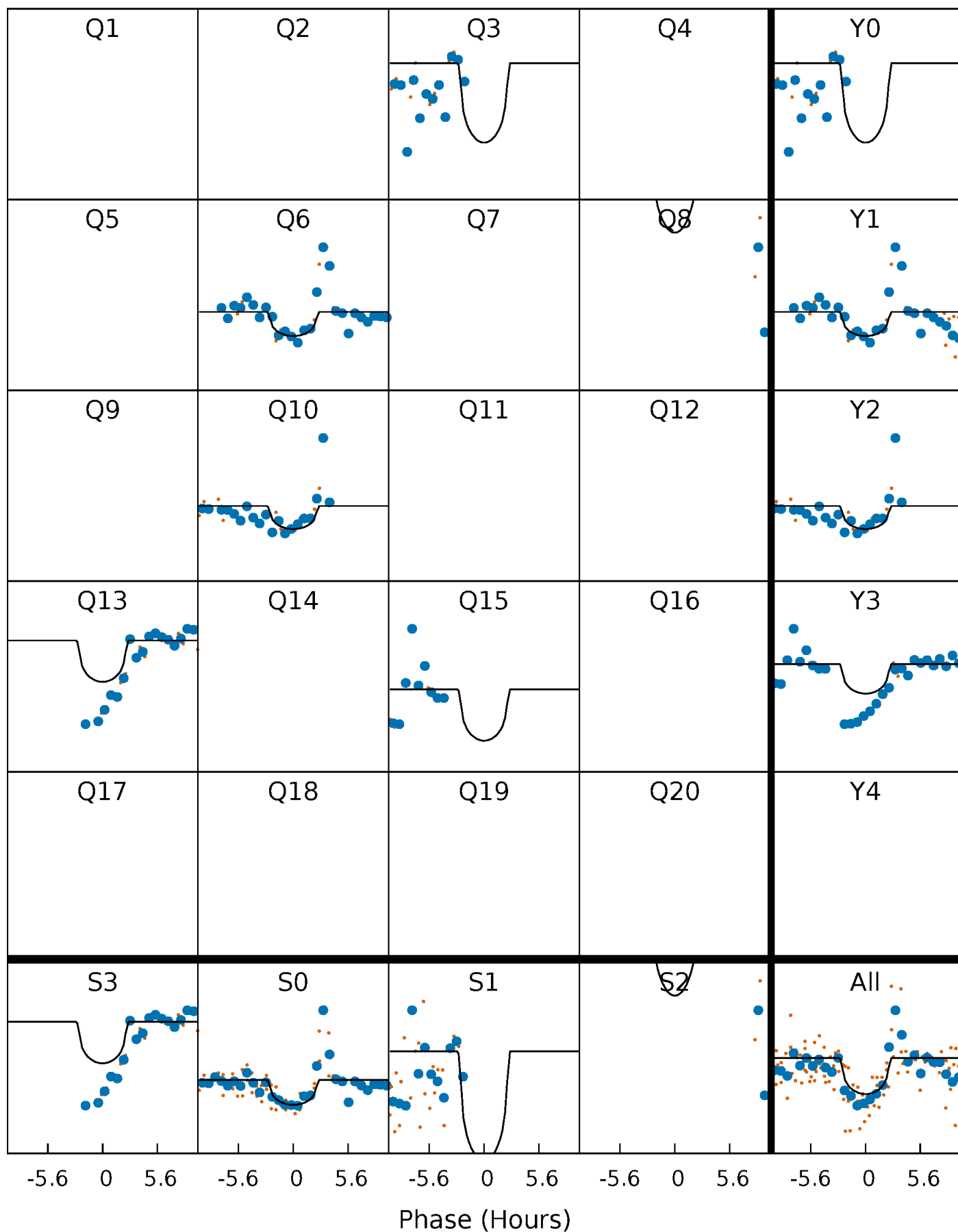
PDC Quarter-Phased Transit Curves

TCE 010583089-06 P=211.027609 Days $T_0=341.369333$ (BKJD)



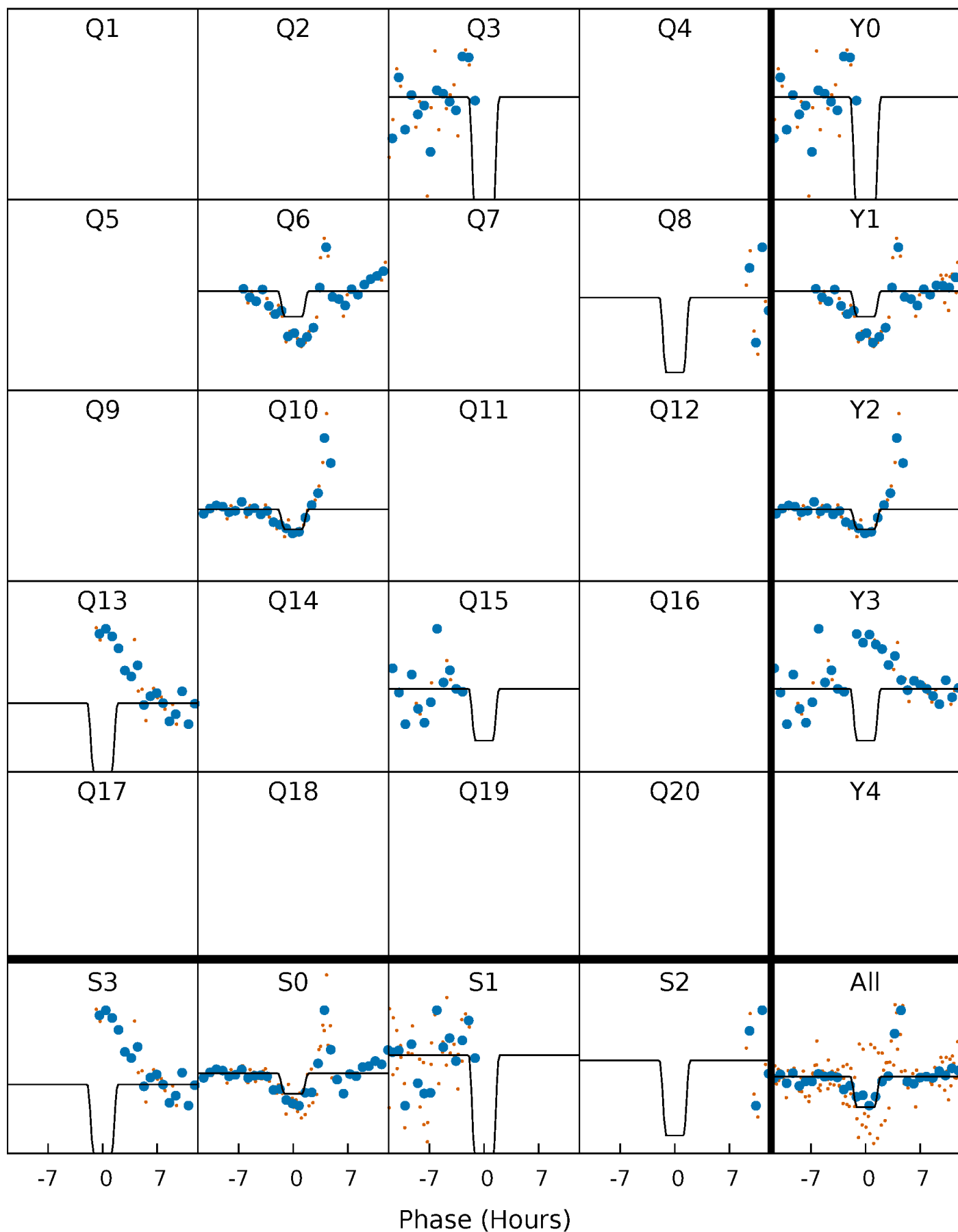
DV Quarter-Phased Transit Curves

TCE 010583089-06 P=211.027609 Days $T_0=341.369333$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

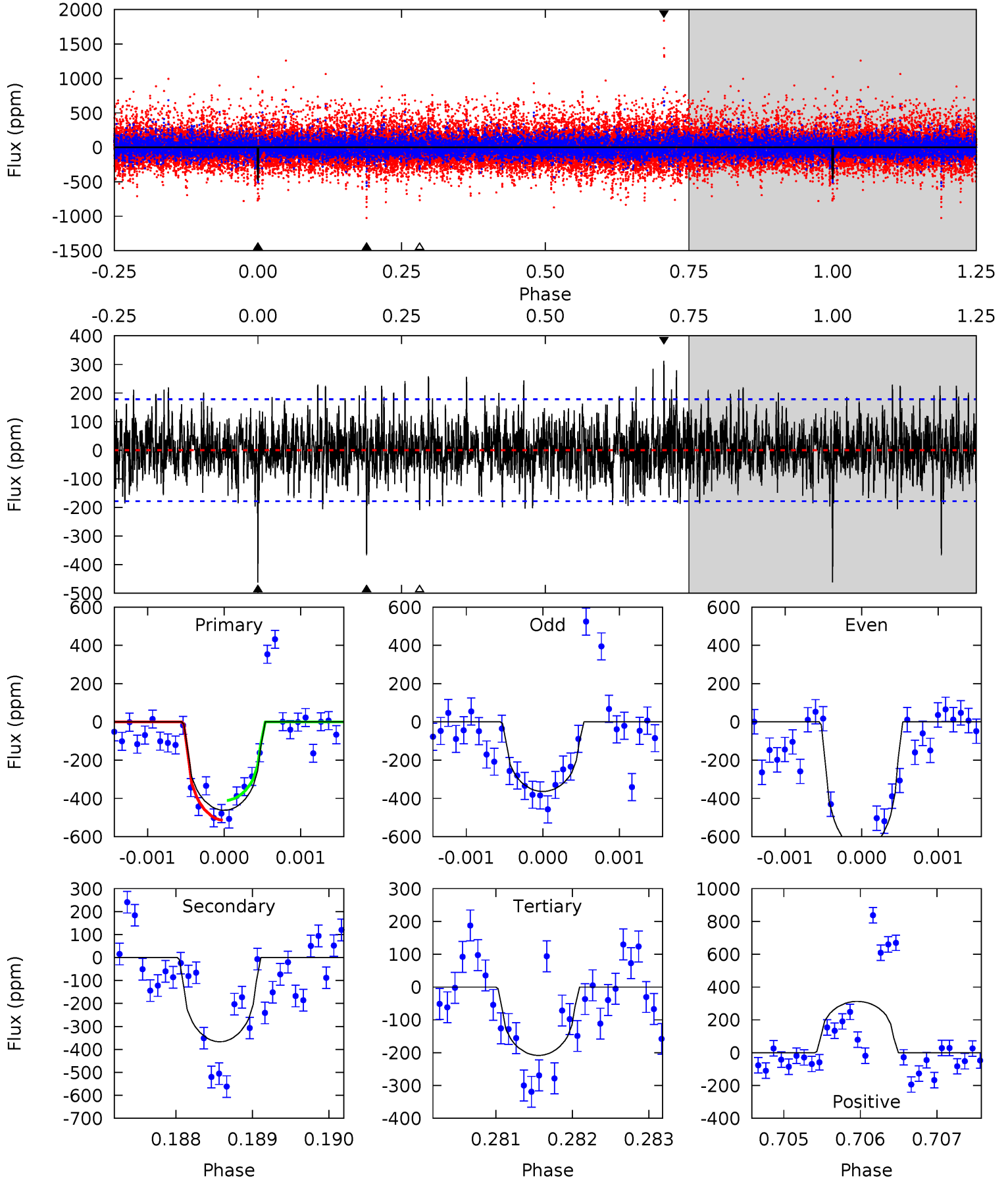
TCE 010583089-06 P=211.021929 Days $T_0=341.339545$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-06, P = 211.027609 Days, E = 130.341724 Days

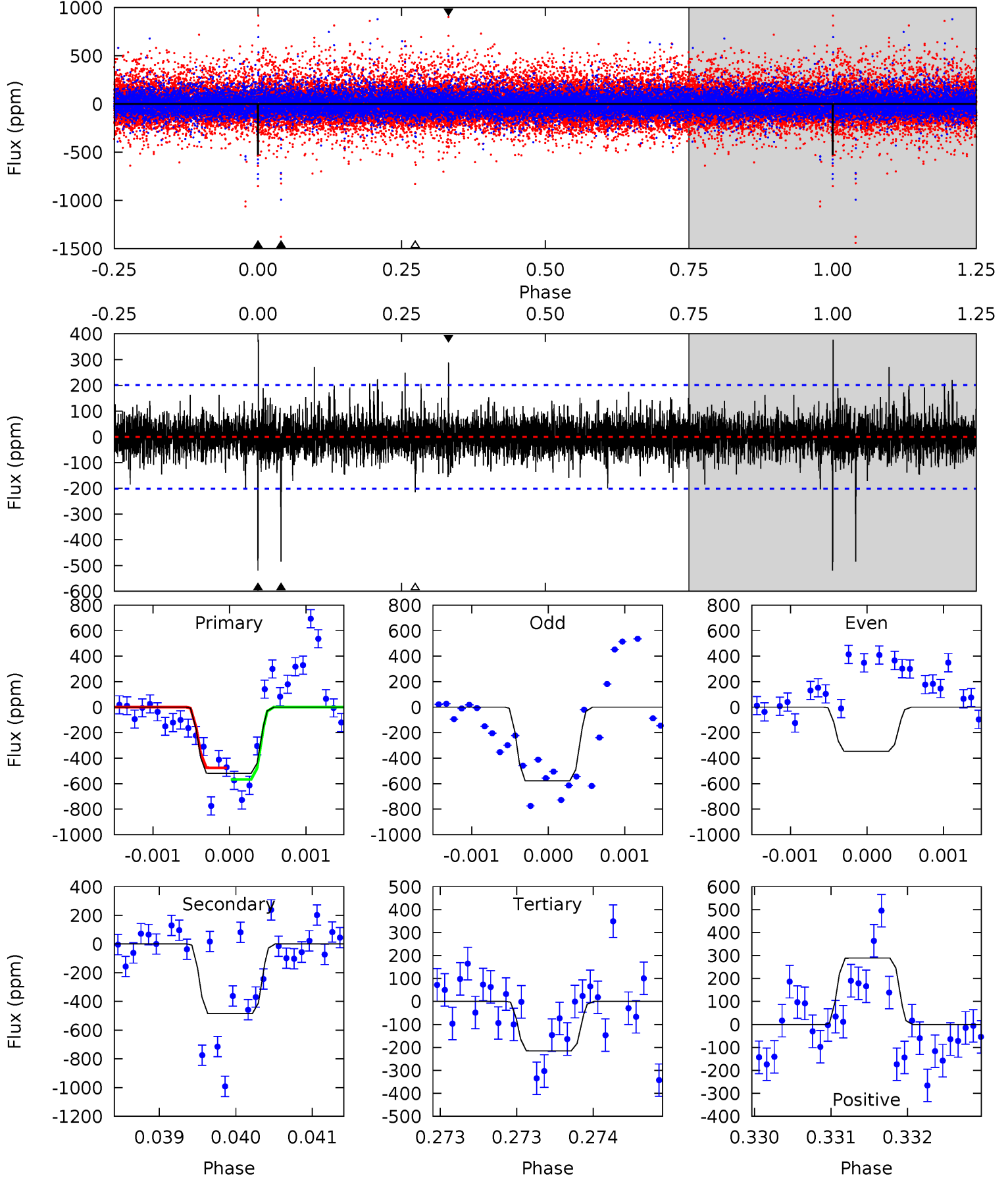
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	11.2	6.38	9.57	5.46	3.30	2.09	7.77	4.58	4.85	1.66	3.32	1.08	0.40	1.58



Alt Model-Shift Uniqueness Test

010583089-06, P = 211.021929 Days, E = 130.317616 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	13.3	5.89	7.91	5.51	3.38	1.29	8.31	6.29	7.36	5.34	2.99	0.90	0.42	1.25



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-367 ± 33	$1.70^{+1.34}_{-1.07}$	276^{+11}_{-11}	3991^{+2010}_{-696}	$26573^{+154262}_{-18654}$
Alt.	-484 ± 37	$1.79^{+1.42}_{-1.12}$	275^{+11}_{-11}	4101^{+2170}_{-724}	$31748^{+194258}_{-22056}$

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 $A_{obs} \gg 1.0$

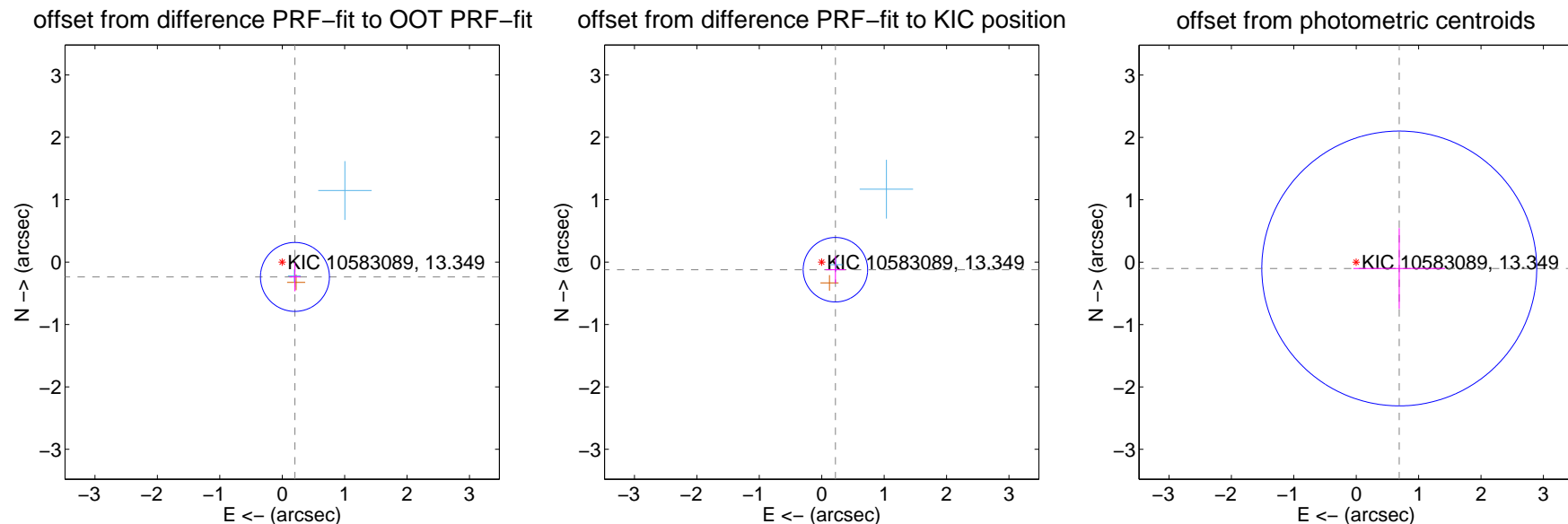
DV Centroid Data

Supplemental centroid analysis for 010583089-06. Kepler magnitude: 13.35. Transit SNR 7.12

There are 2 quarters with good PRF difference image offsets

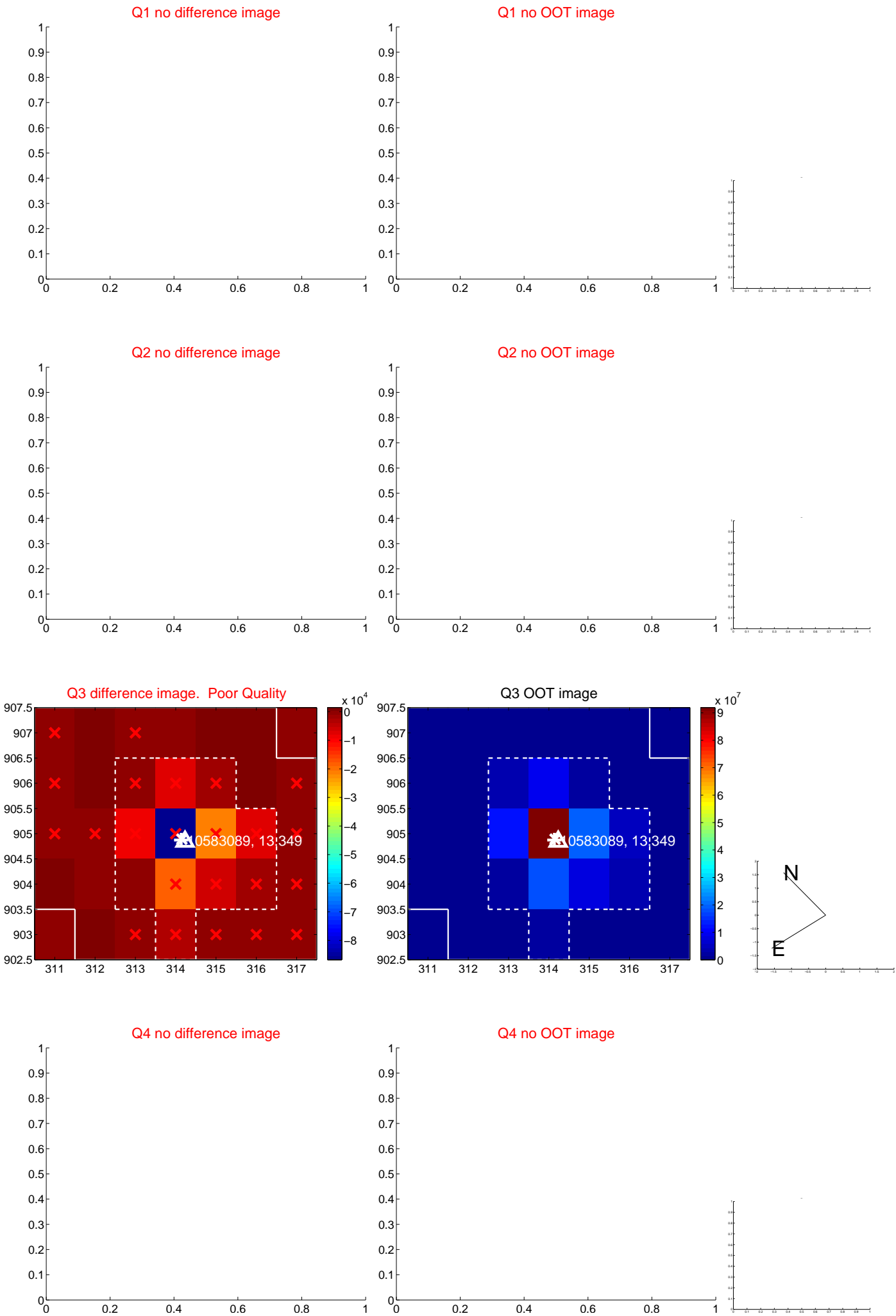
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.313 ± 0.184	1.70	-0.204 ± 0.087	-0.238 ± 0.231
PRF-fit source offset from KIC position	0.251 ± 0.172	1.46	-0.220 ± 0.156	-0.122 ± 0.216
photometric centroid source offset	0.70 ± 0.73	0.95	-0.69 ± 0.74	-0.10 ± 0.65

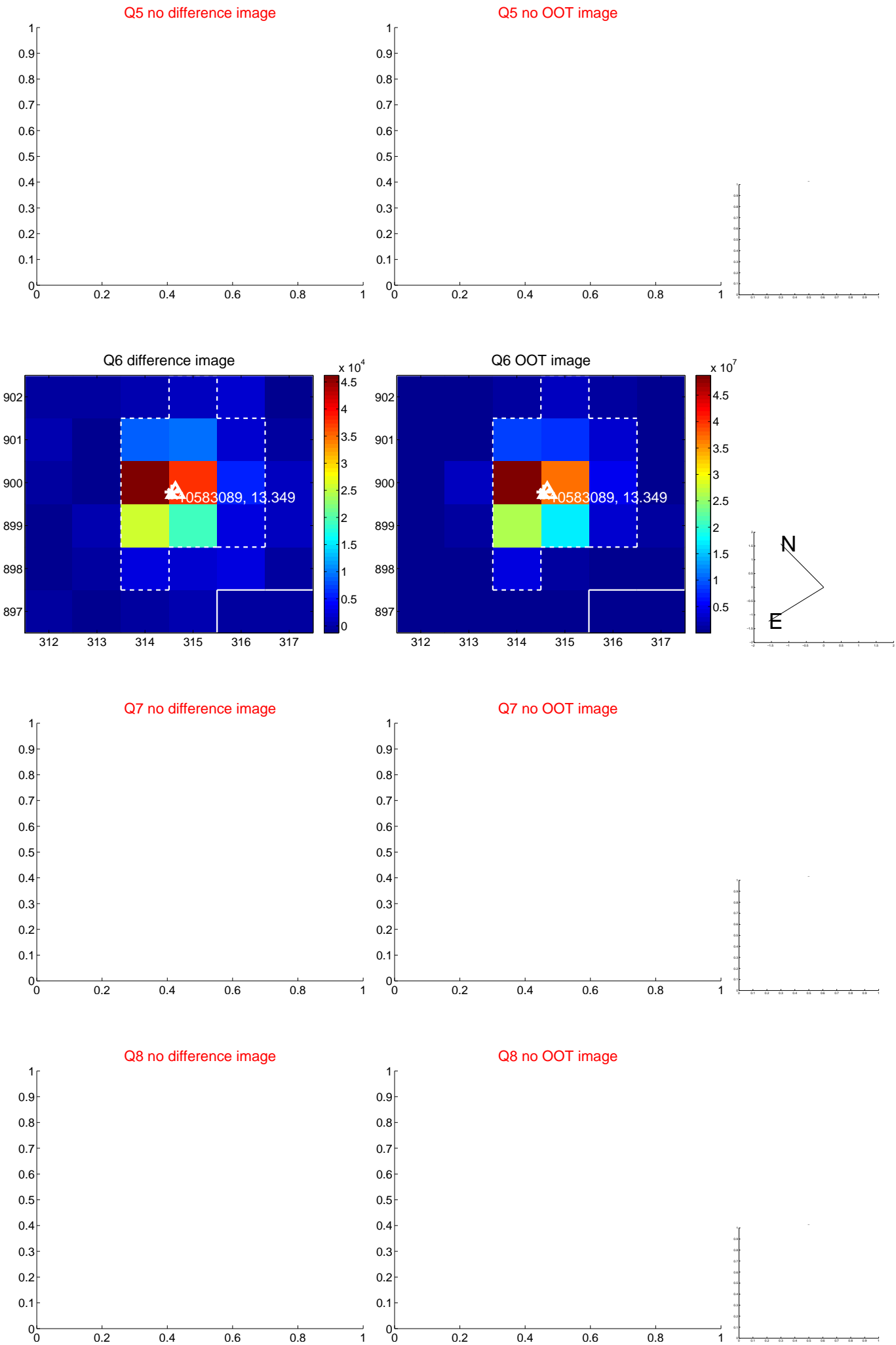


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

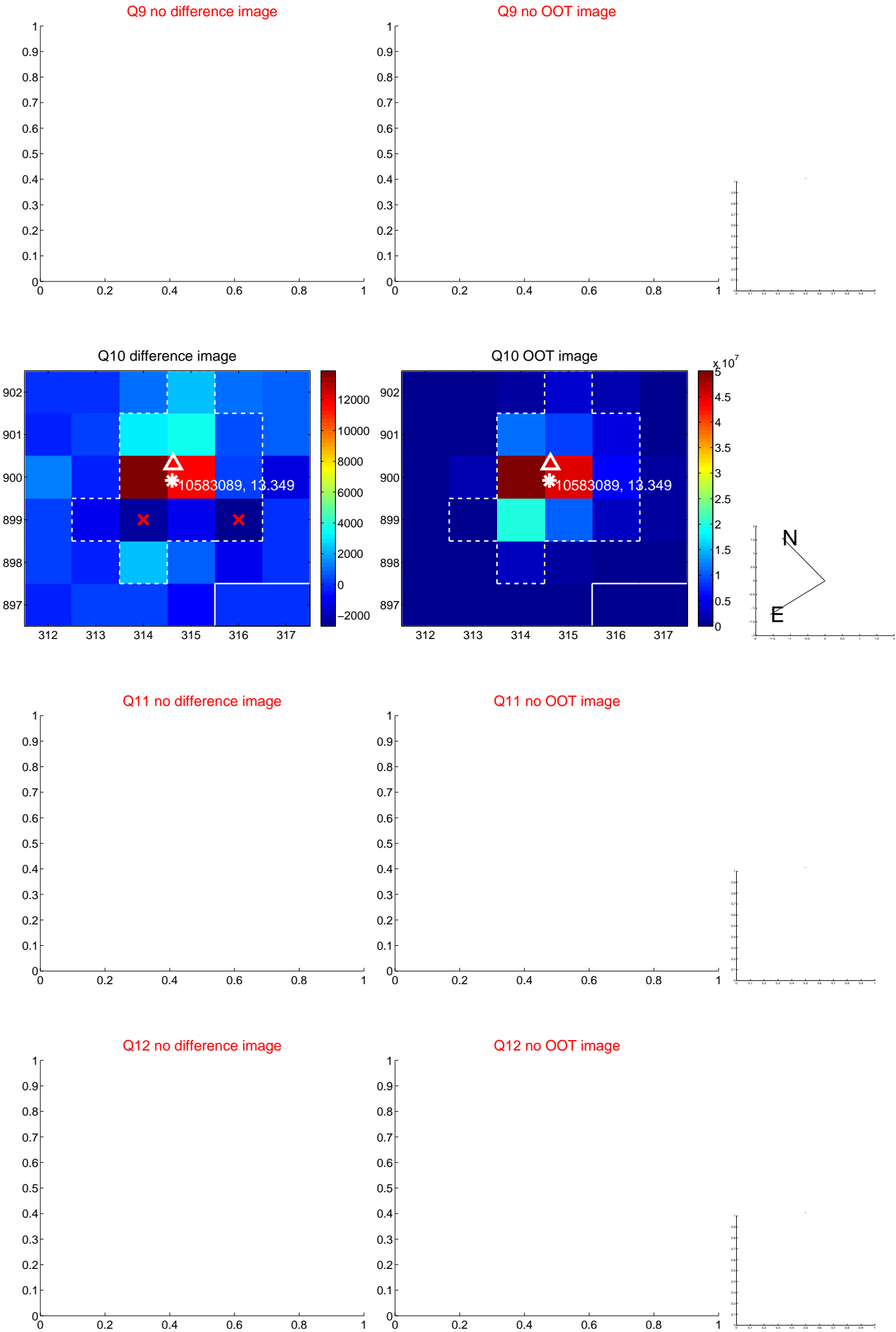
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



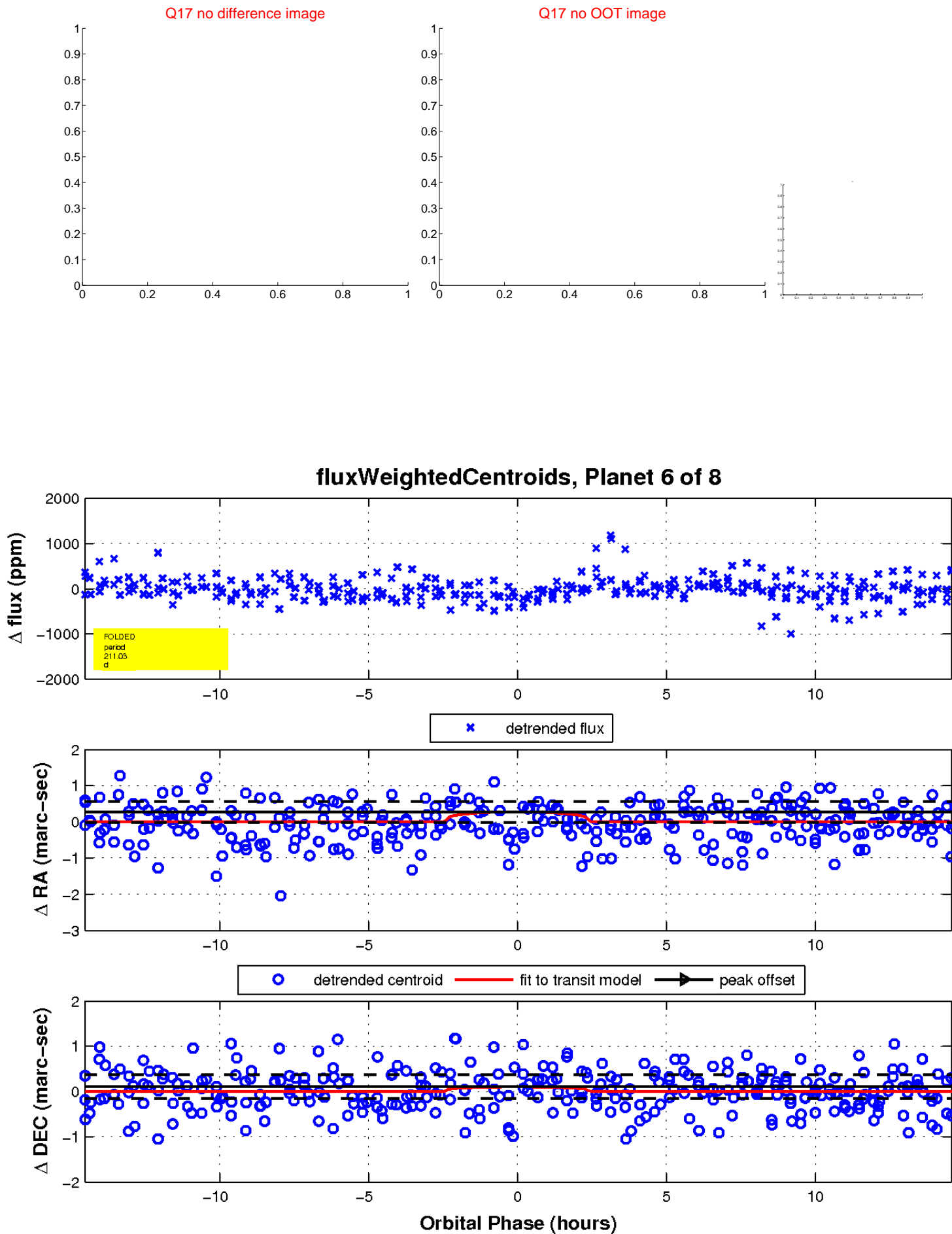
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

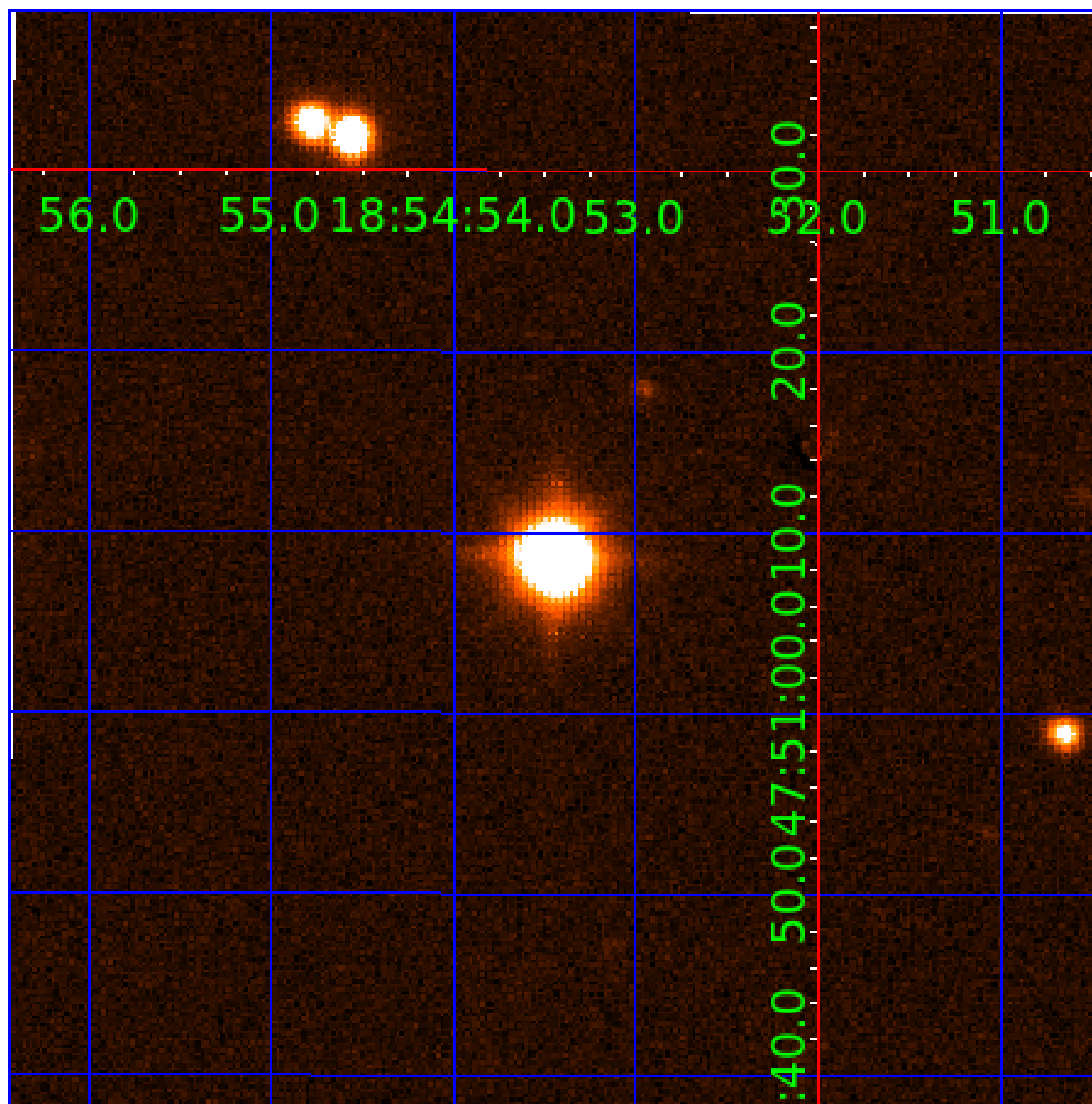


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010583089

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})
010583089-01	OBS	No	1.449244	132.917425	54.1	4.854	13.0	14.0	0.68	4264	0.48	282.44
010583089-02	OBS	No	389.763346	364.542123	428.5	12.500	19.0	-1.0	0.68	4264	1.34	0.16
010583089-03	OBS	No	319.411342	243.152164	385.4	4.864	13.3	6.7	0.68	4264	1.40	0.21
010583089-04	OBS	No	508.858352	192.796324	474.1	10.544	11.8	7.0	0.68	4264	1.53	0.11
010583089-05	OBS	No	115.214443	158.950662	445.2	2.401	10.8	9.3	0.68	4264	1.51	0.83
010583089-06	OBS	No	211.027609	341.369333	381.0	4.868	9.9	7.1	0.68	4264	1.32	0.37
010583089-08	OBS	No	198.130003	228.353107	305.9	19.597	13.0	4.4	0.68	4264	1.42	0.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010583089-01	OBS	FP	0.01	1	0	0	0	LPP_DV
010583089-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—CENT_NOFITS
010583089-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— INCONSISTENT_TRANS
010583089-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT— MOD_TER_ALT—MOD_POS_ALT
010583089-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT
010583089-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST
010583089-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

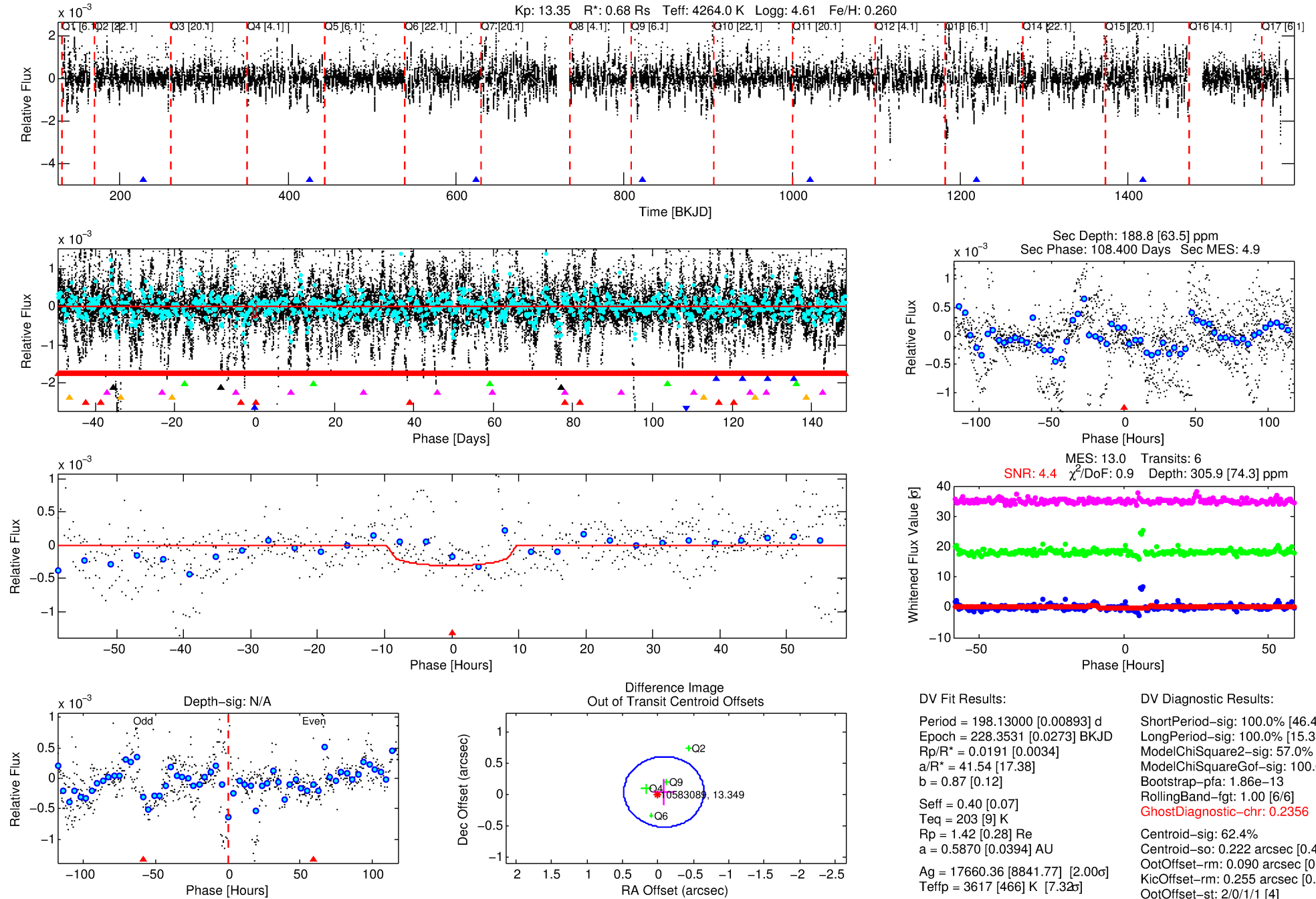
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010583089-08

No Significant Match Found

DV One-Page Summary

KIC: 10583089 Candidate: 8 of 8 Period: 198.130 d



DV Fit Results:

Period = 198.13000 [0.00893] d
Epoch = 228.3531 [0.0273] BKJD
Rp/R* = 0.0191 [0.0034]
a/R* = 41.54 [17.38]
b = 0.87 [0.12]
Seff = 0.40 [0.07]
Teq = 203 [9] K
Rp = 1.42 [0.28] Re
a = 0.5870 [0.0394] AU
Ag = 17660.36 [8841.77] [2.00σ]
Teffp = 3617 [466] K [7.32σ]

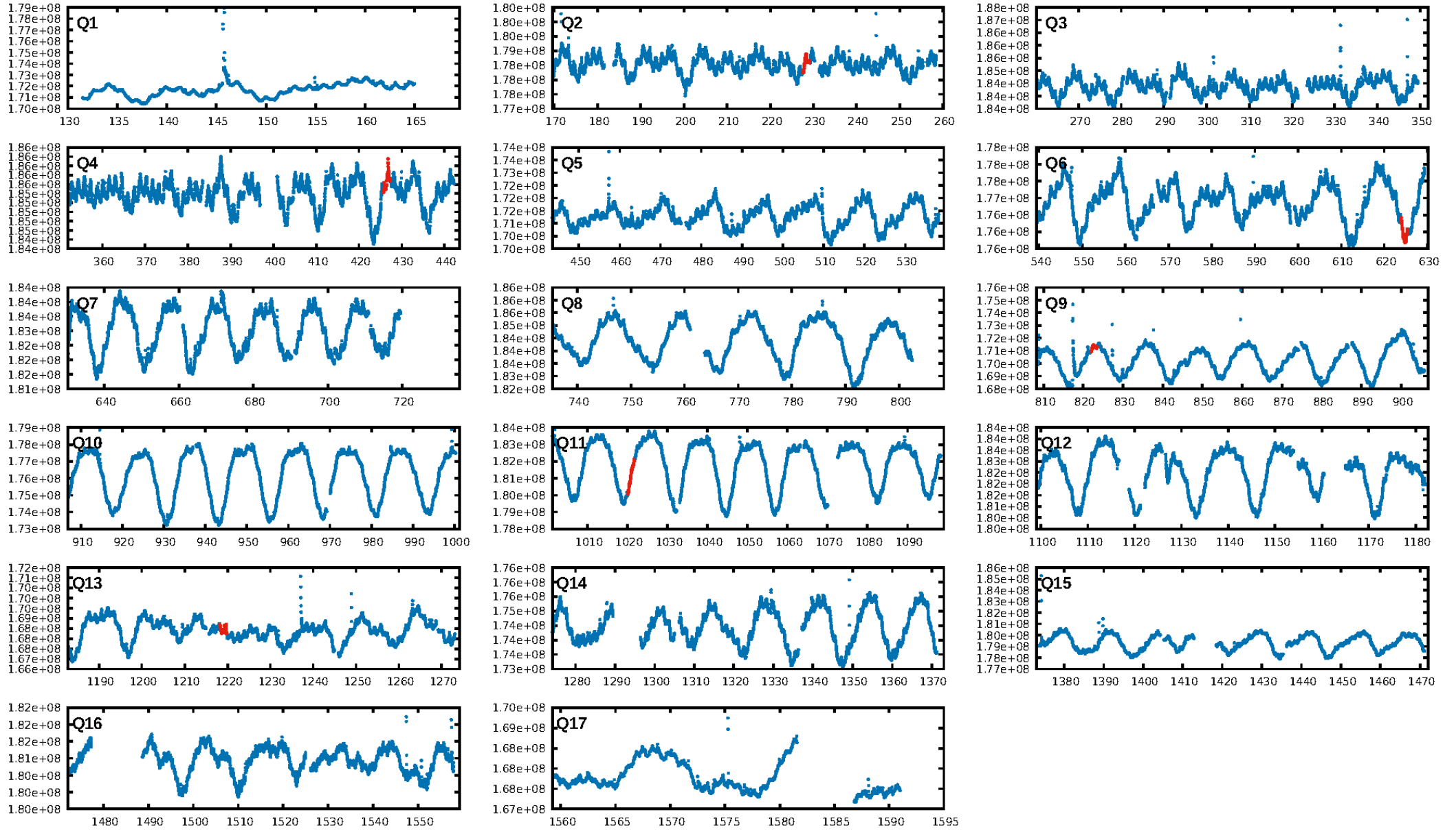
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [46.46σ]
LongPeriod-sig: 100.0% [15.33σ]
ModelChiSquare2-sig: 57.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.86e-13
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.2356
Centroid-sig: 62.4%
Centroid-so: 0.222 arcsec [0.40σ]
OotOffset-rm: 0.090 arcsec [0.48σ]
KicOffset-rm: 0.255 arcsec [0.96σ]
OotOffset-st: 2/0/1/1 [4]
KicOffset-st: 2/0/1/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.00 [0/4]

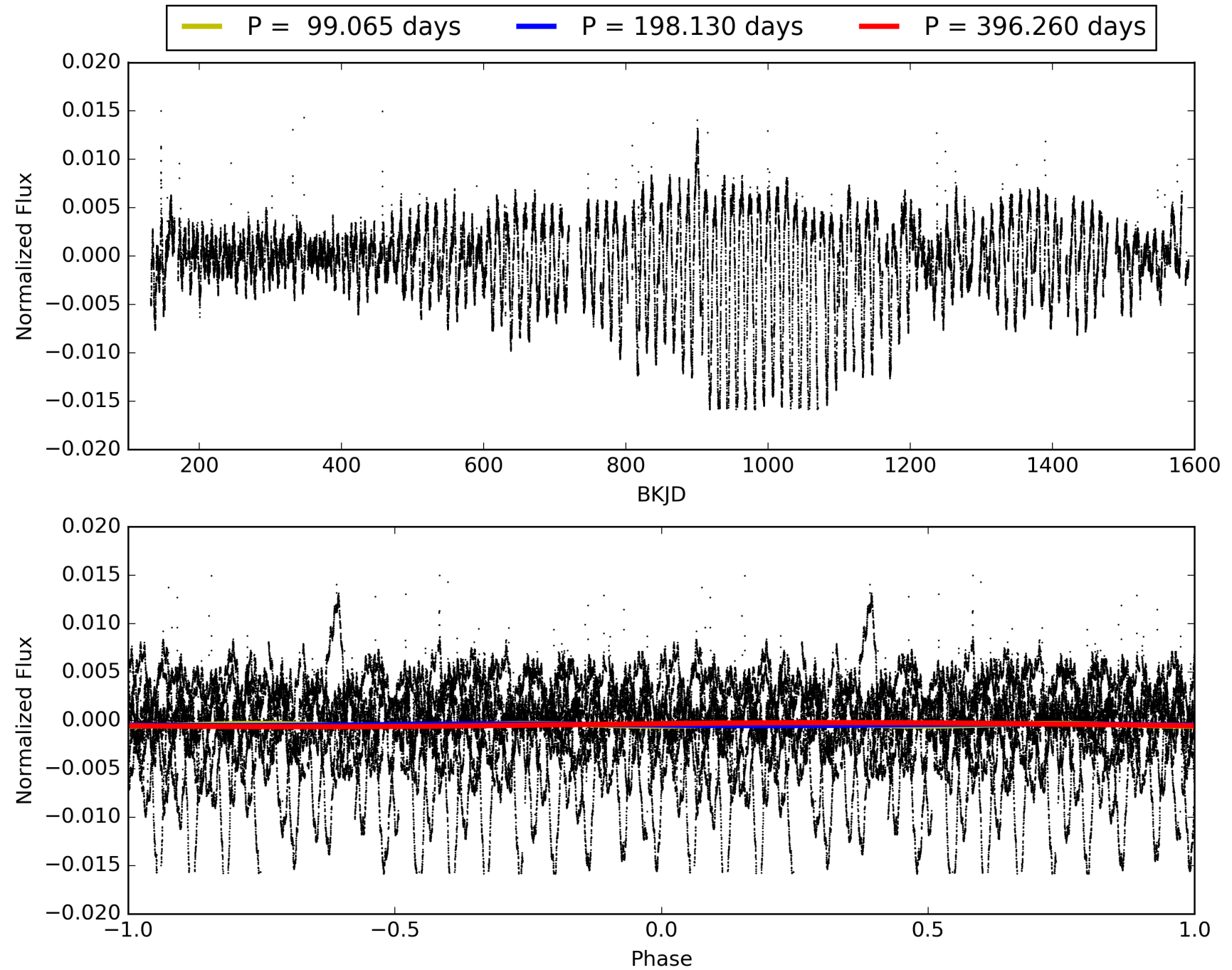
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:22:58 Z

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

TCE 010583089-08, PDC Light Curves

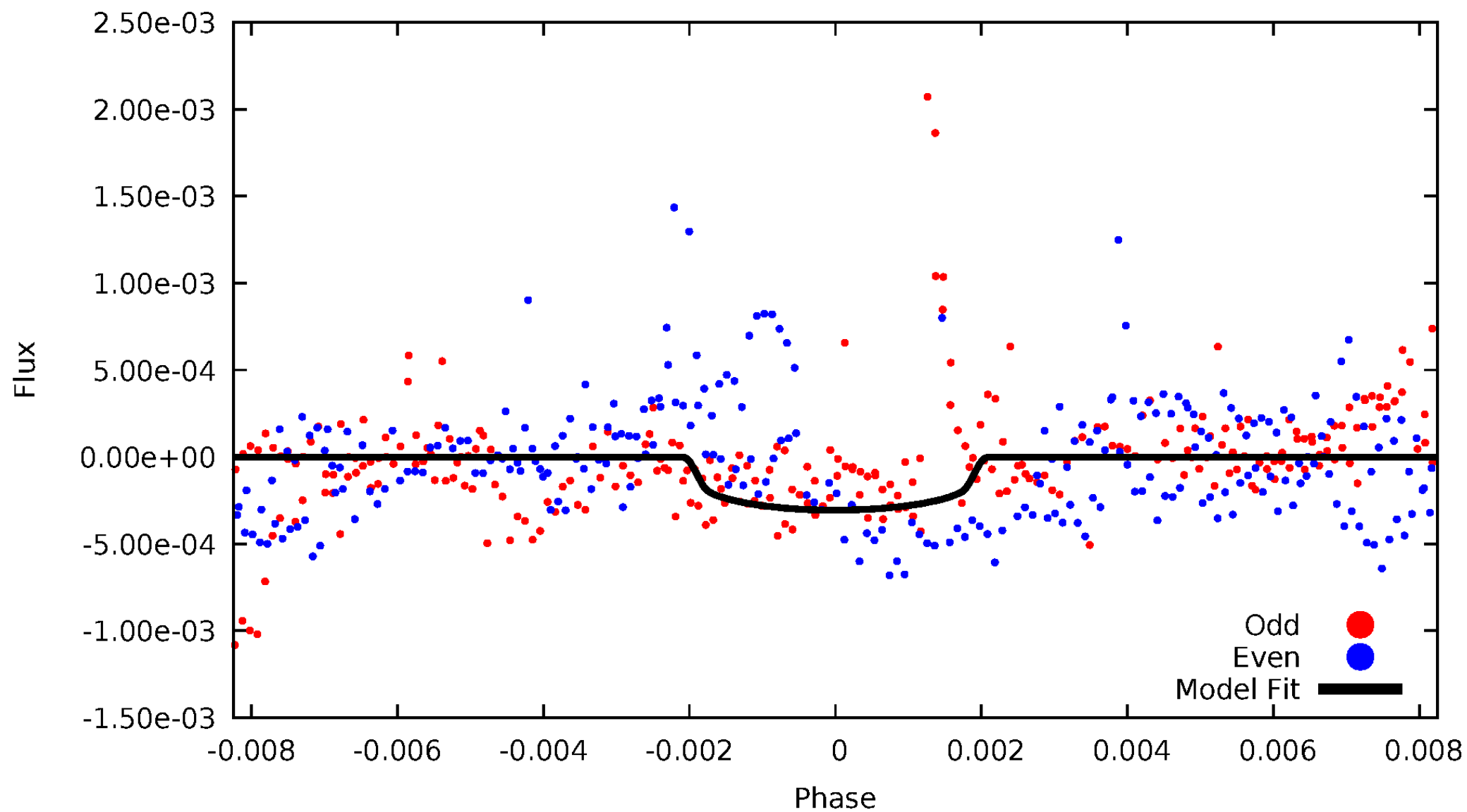


TCE 010583089-08



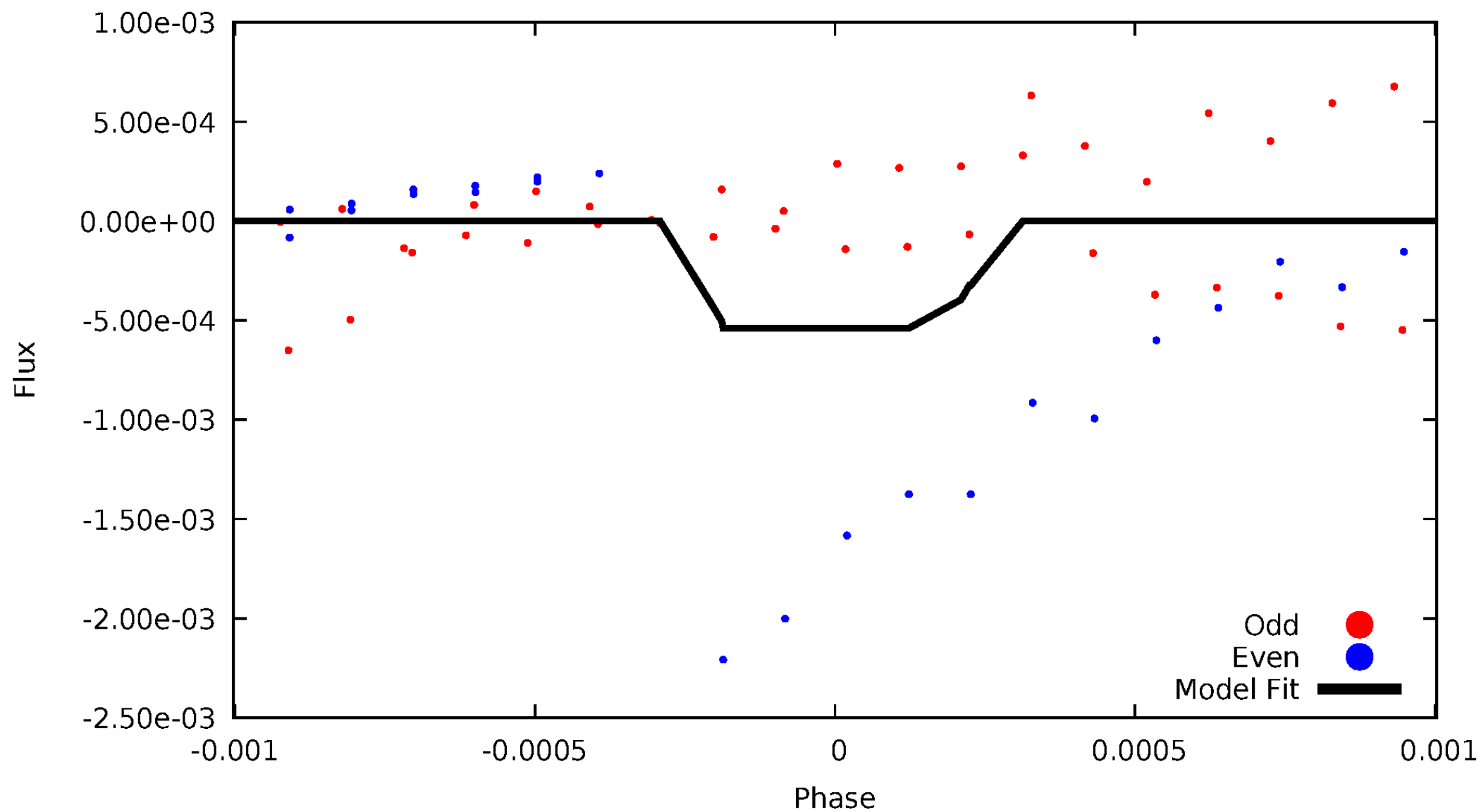
DV Odd/Even

TCE 010583089-08



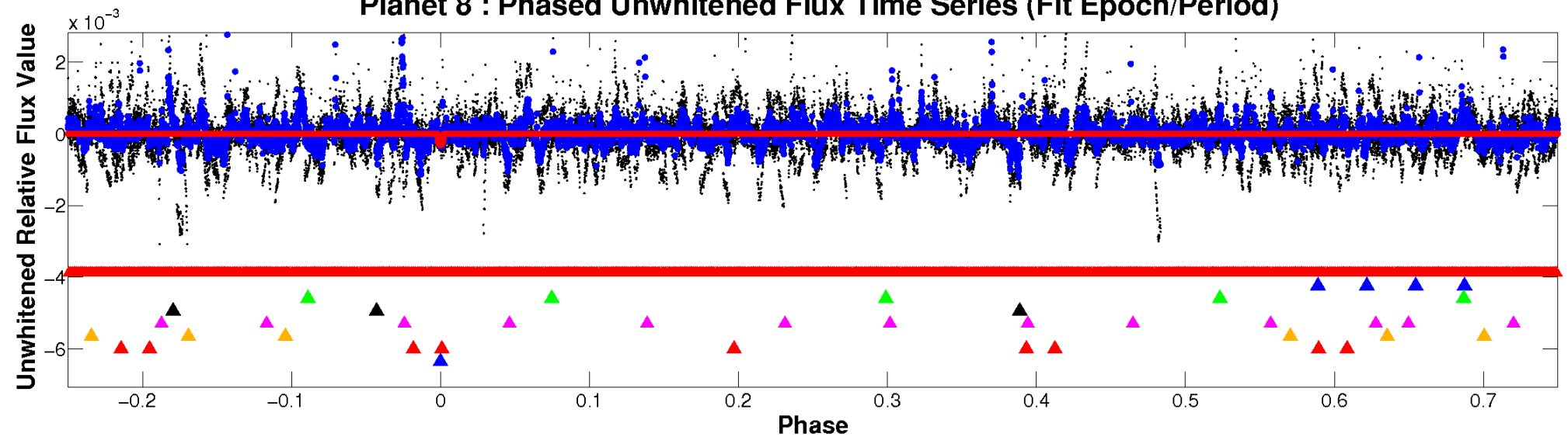
ALT Odd/Even

TCE 010583089-08

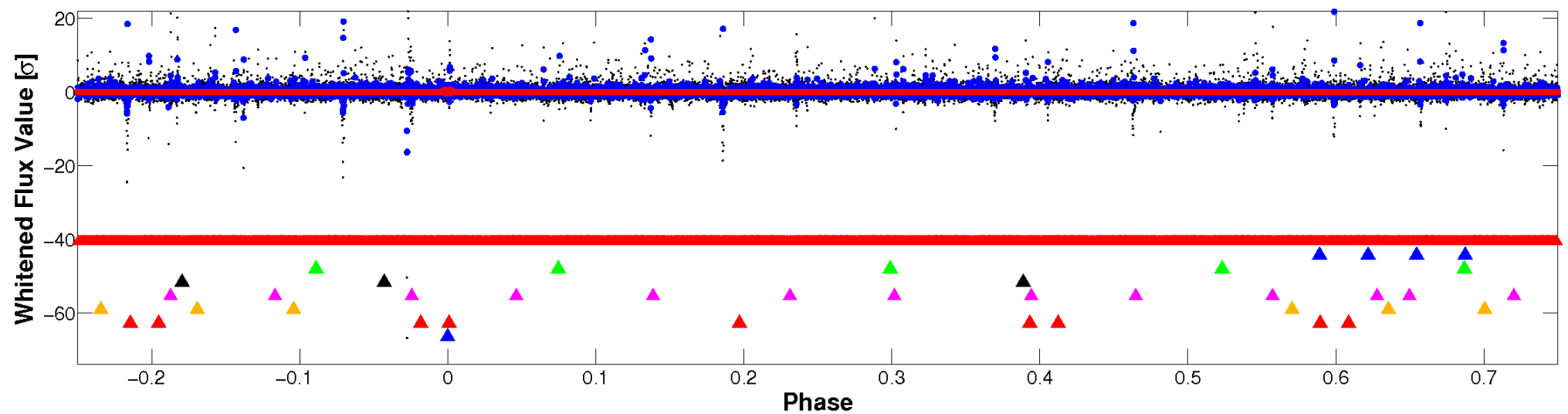


Non-Whitened Vs. Whitened Light Curve

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

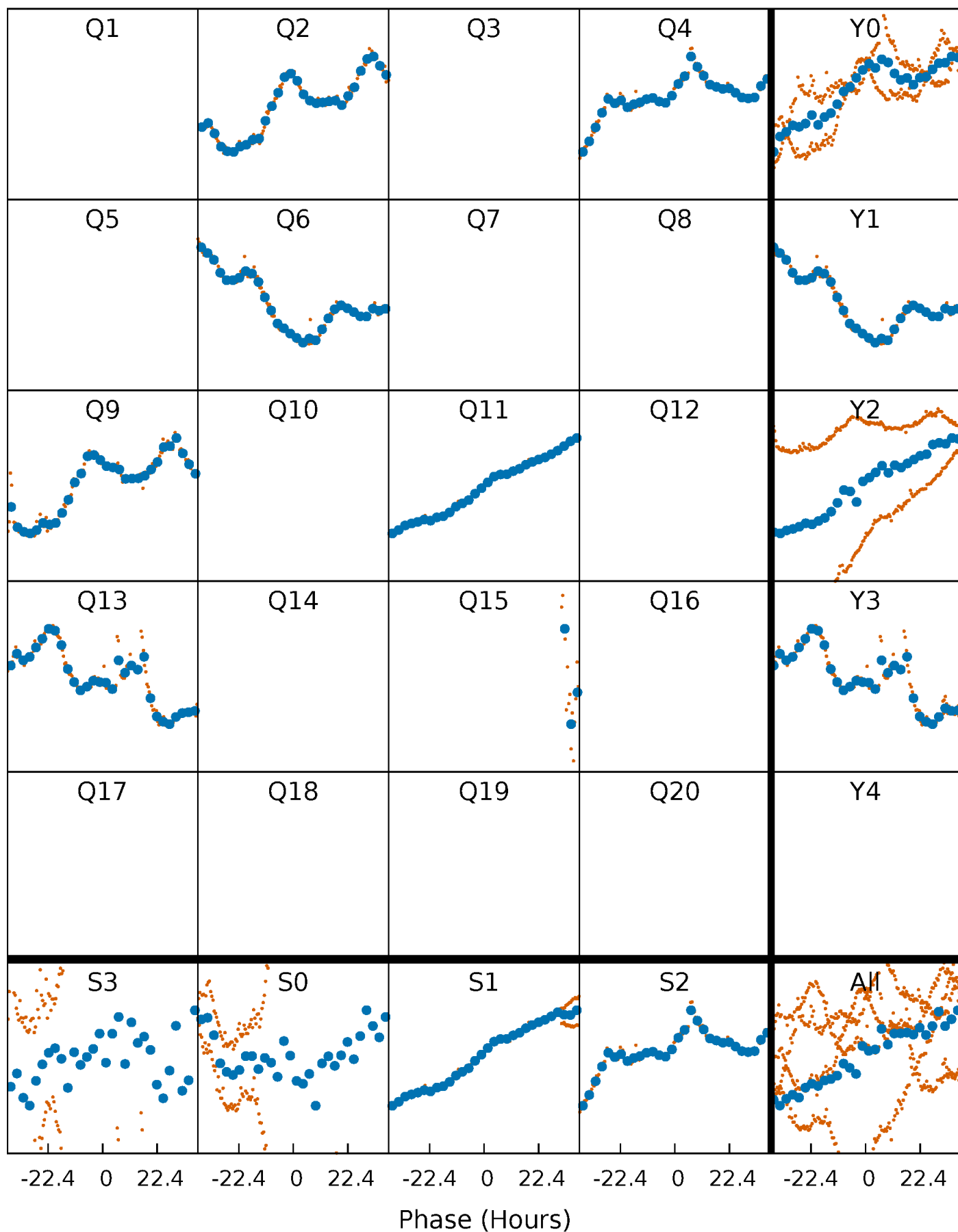


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



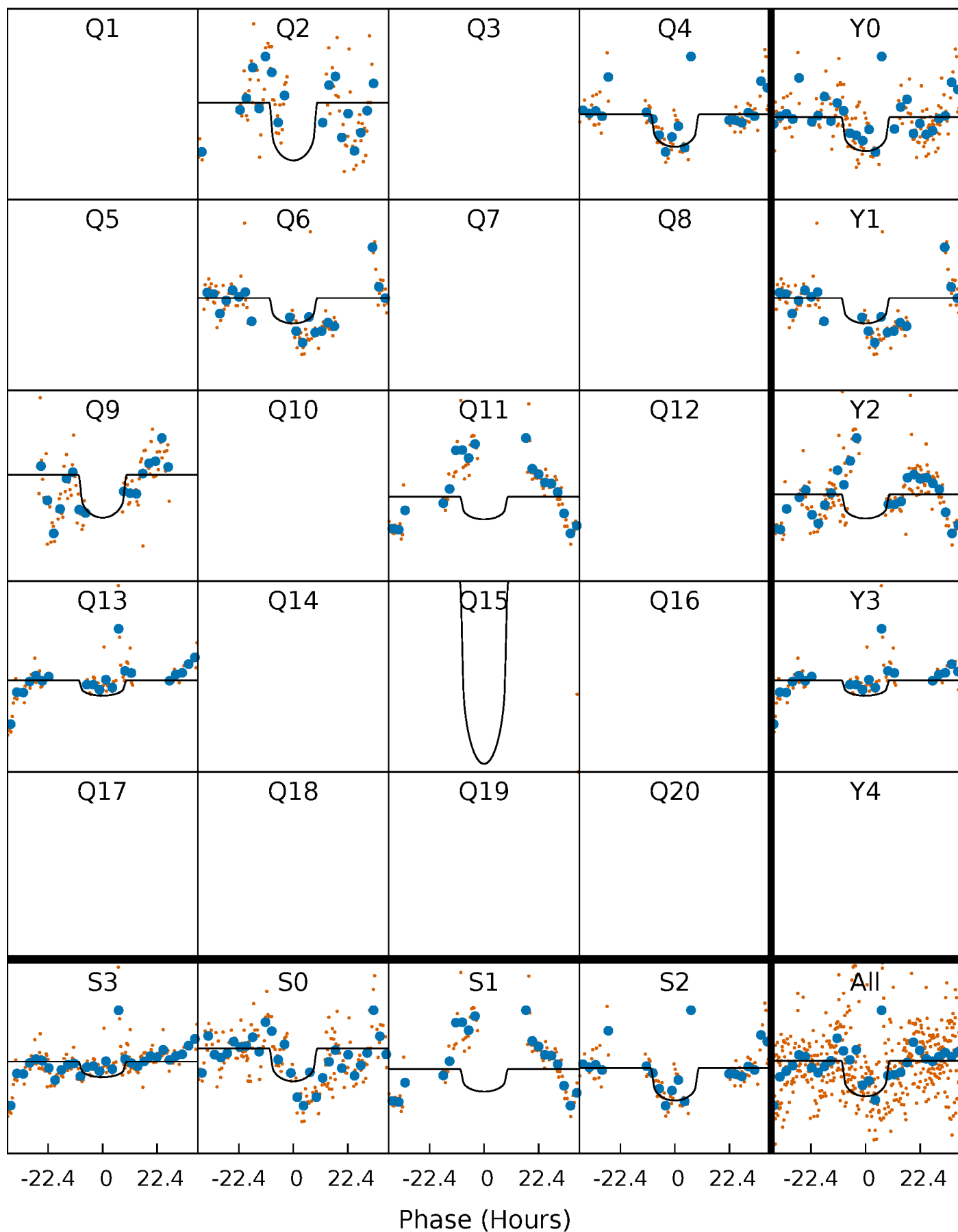
PDC Quarter-Phased Transit Curves

TCE 010583089-08 P=198.130003 Days $T_0=228.353107$ (BKJD)



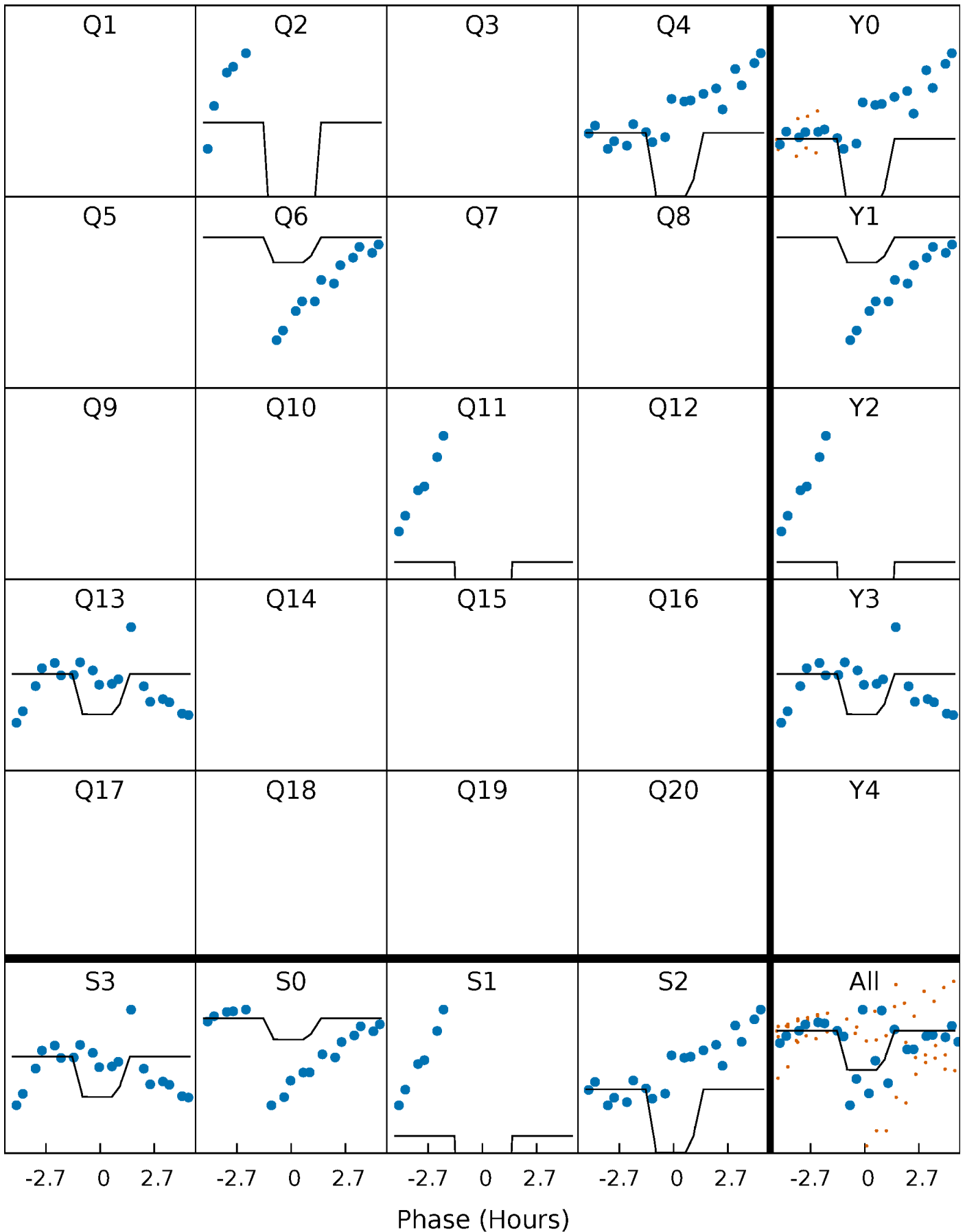
DV Quarter-Phased Transit Curves

TCE 010583089-08 $P=198.130003$ Days $T_0=228.353107$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

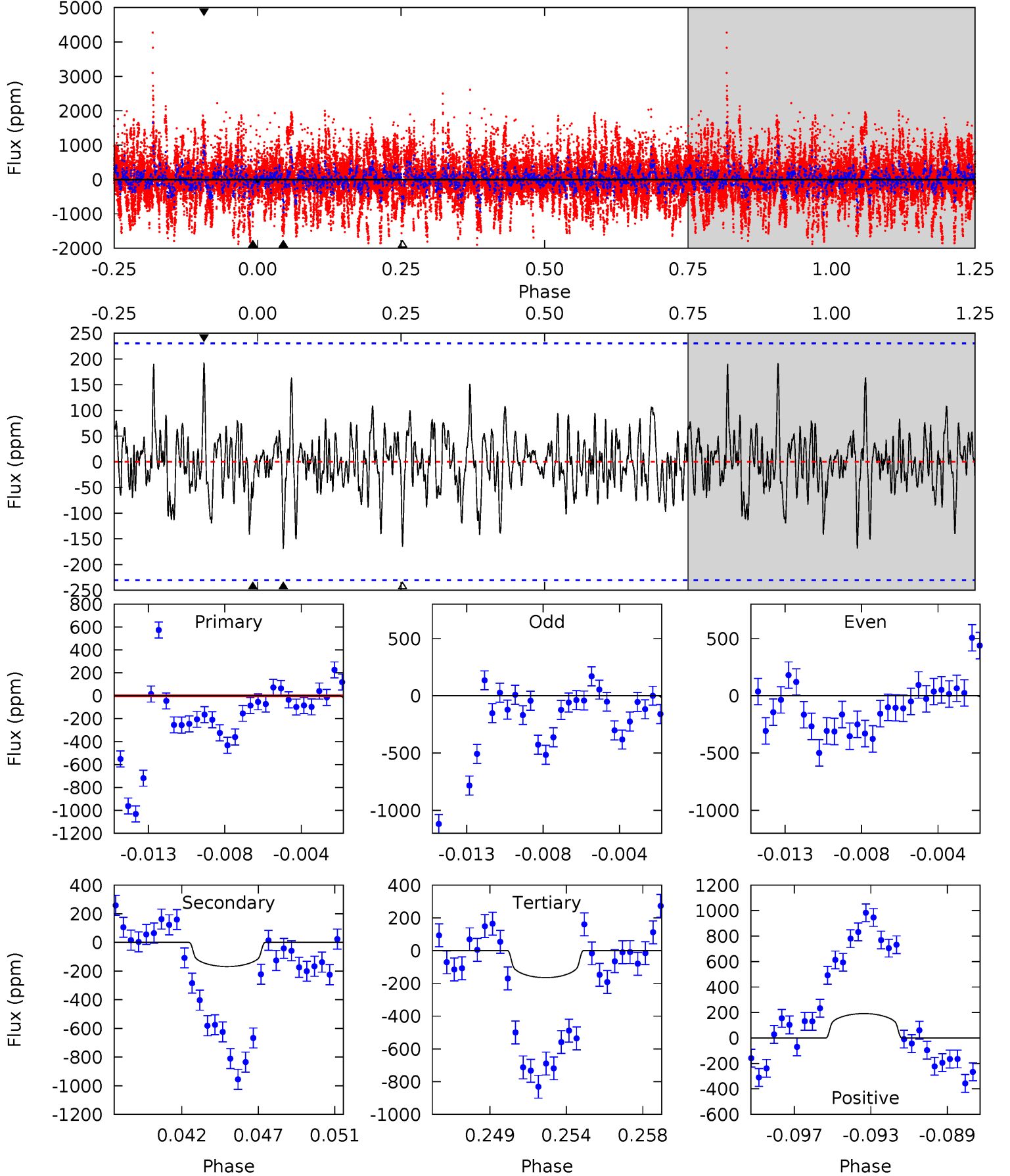
TCE 010583089-08 P=198.123861 Days $T_0=228.344592$ (BKJD)



DV Model-Shift Uniqueness Test

010583089-08, P = 198.130003 Days, E = 30.223104 Days

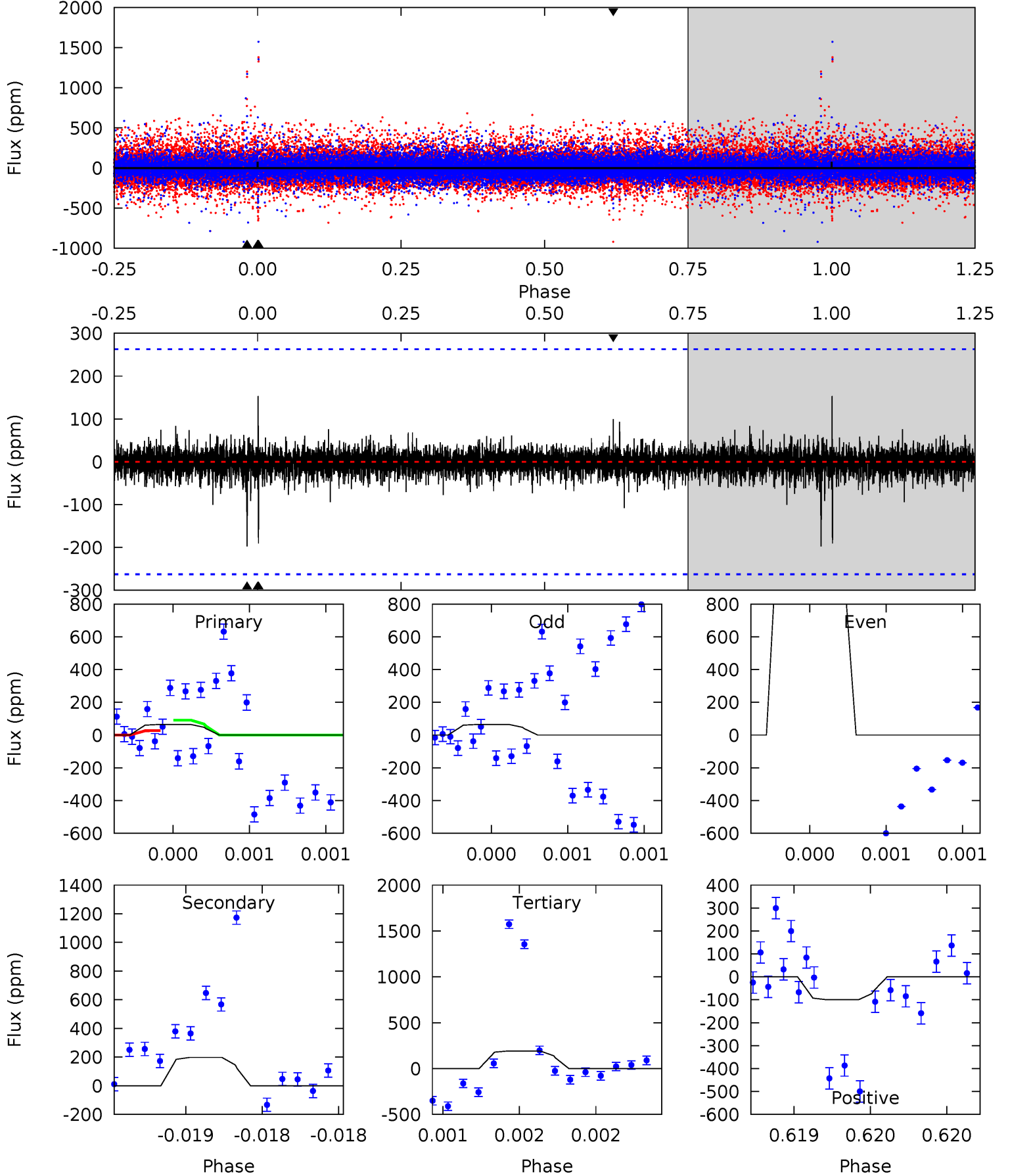
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.48	3.79	3.72	4.31	5.19	2.86	1.09	-2.24	-2.83	0.07	-0.52	0.22	0.47	0.53	1.31



Alt Model-Shift Uniqueness Test

010583089-08, P = 198.123861 Days, E = 30.220731 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.37	4.19	4.05	2.11	5.57	3.47	0.41	-2.68	-0.74	0.14	2.07	19.9	21.4	0.44	0



Stellar Parameters For KIC 010583089

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4264^{+150}_{-165}	$4.606^{+0.049}_{-0.018}$	$0.260^{+0.150}_{-0.300}$	$0.683^{+0.028}_{-0.057}$	$0.687^{+0.042}_{-0.057}$	$3.038^{+0.648}_{-0.242}$
	+4%/-4%	+1%/-0%	+58%/-115%	+4%/-8%	+6%/-8%	+21%/-8%
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 010583089-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-168 ± 44	$1.41^{+0.25}_{-0.24}$	282^{+11}_{-12}	3713^{+318}_{-300}	15780^{+9236}_{-5766}
Alt.	-197 ± 47	$1.71^{+0.24}_{-0.24}$	281^{+11}_{-12}	3565^{+244}_{-230}	12717^{+6113}_{-3884}

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

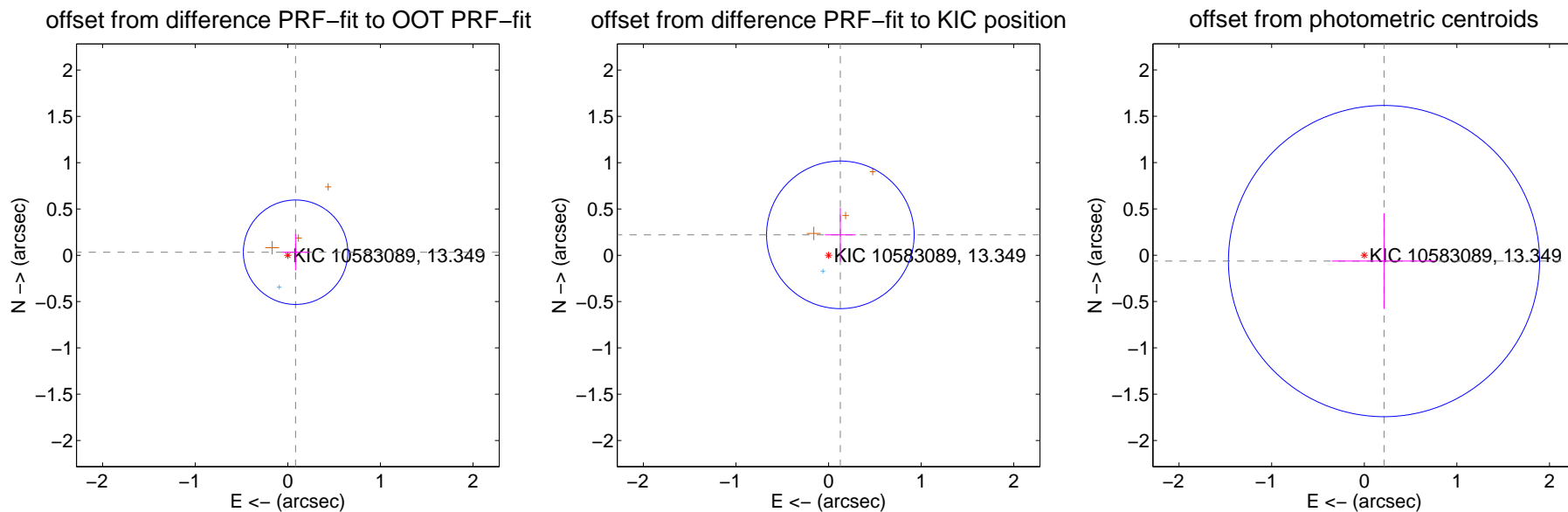
DV Centroid Data

Supplemental centroid analysis for 010583089-08. Kepler magnitude: 13.35. Transit SNR 4.36

There are 1 quarters with good PRF difference image offsets

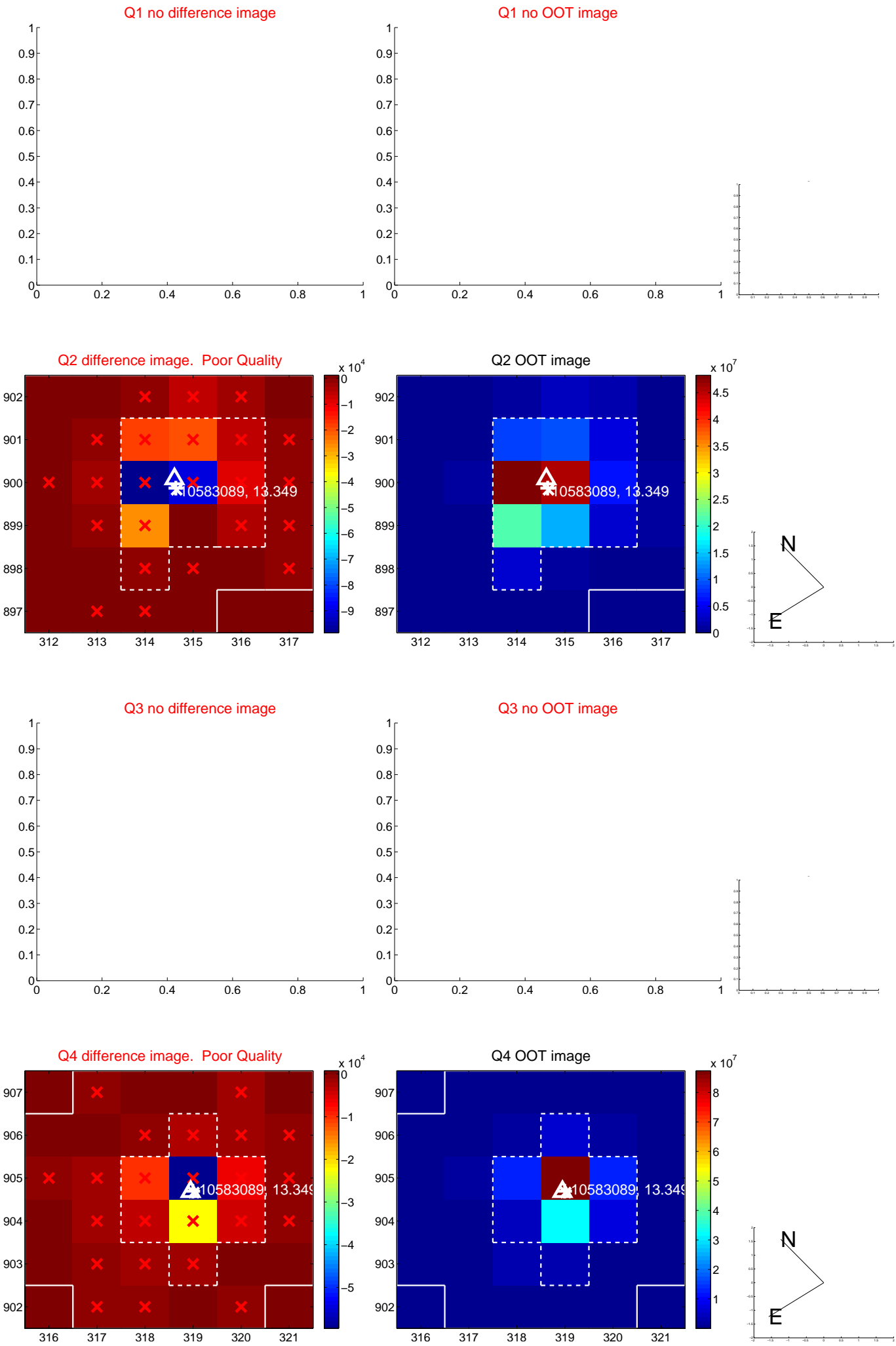
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.090 ± 0.188	0.48	-0.084 ± 0.138	0.033 ± 0.196
PRF-fit source offset from KIC position	0.255 ± 0.266	0.96	-0.127 ± 0.166	0.221 ± 0.291
photometric centroid source offset	0.22 ± 0.56	0.40	-0.21 ± 0.56	-0.06 ± 0.52

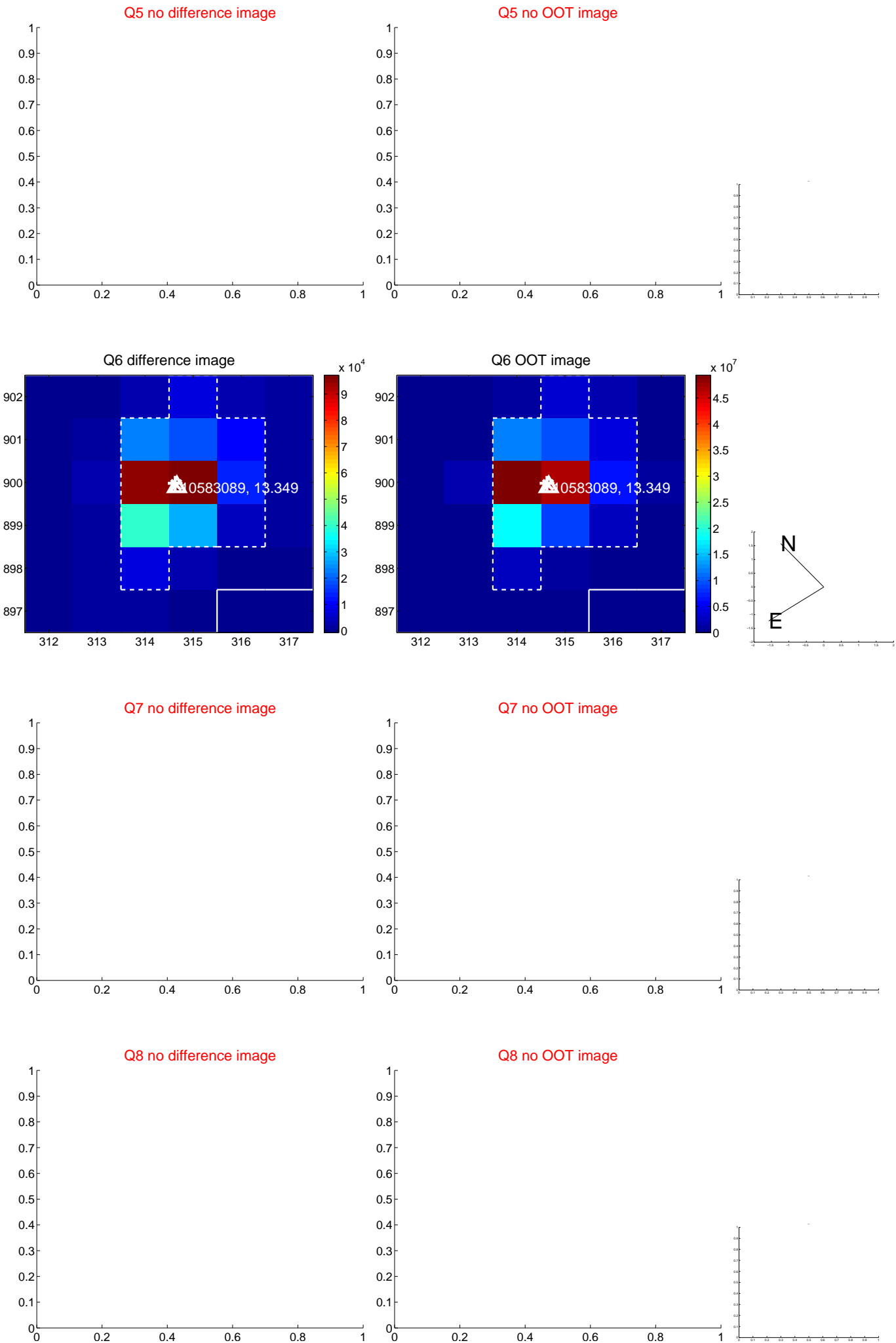


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

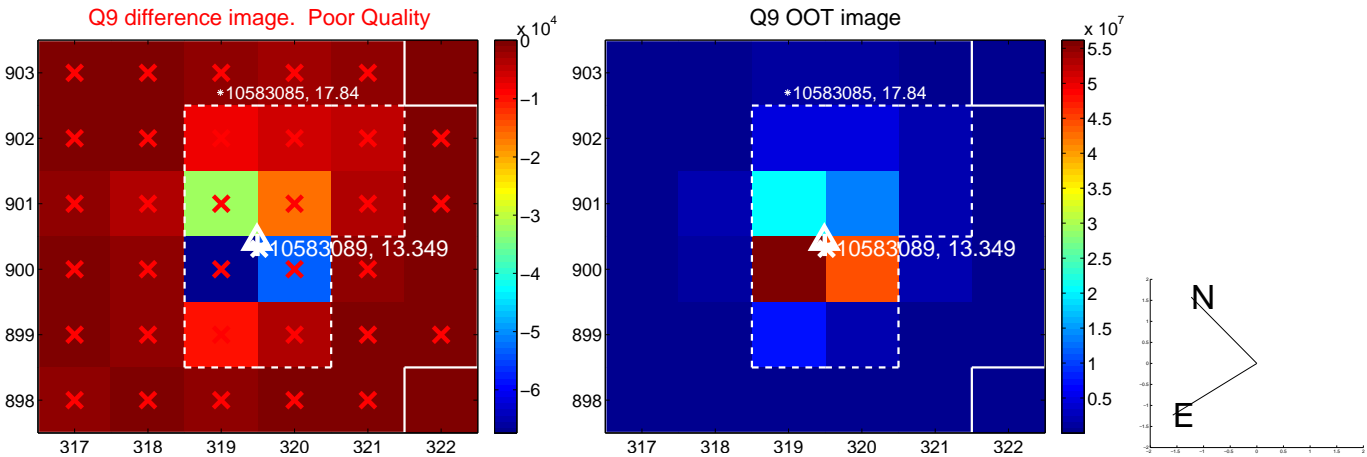
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



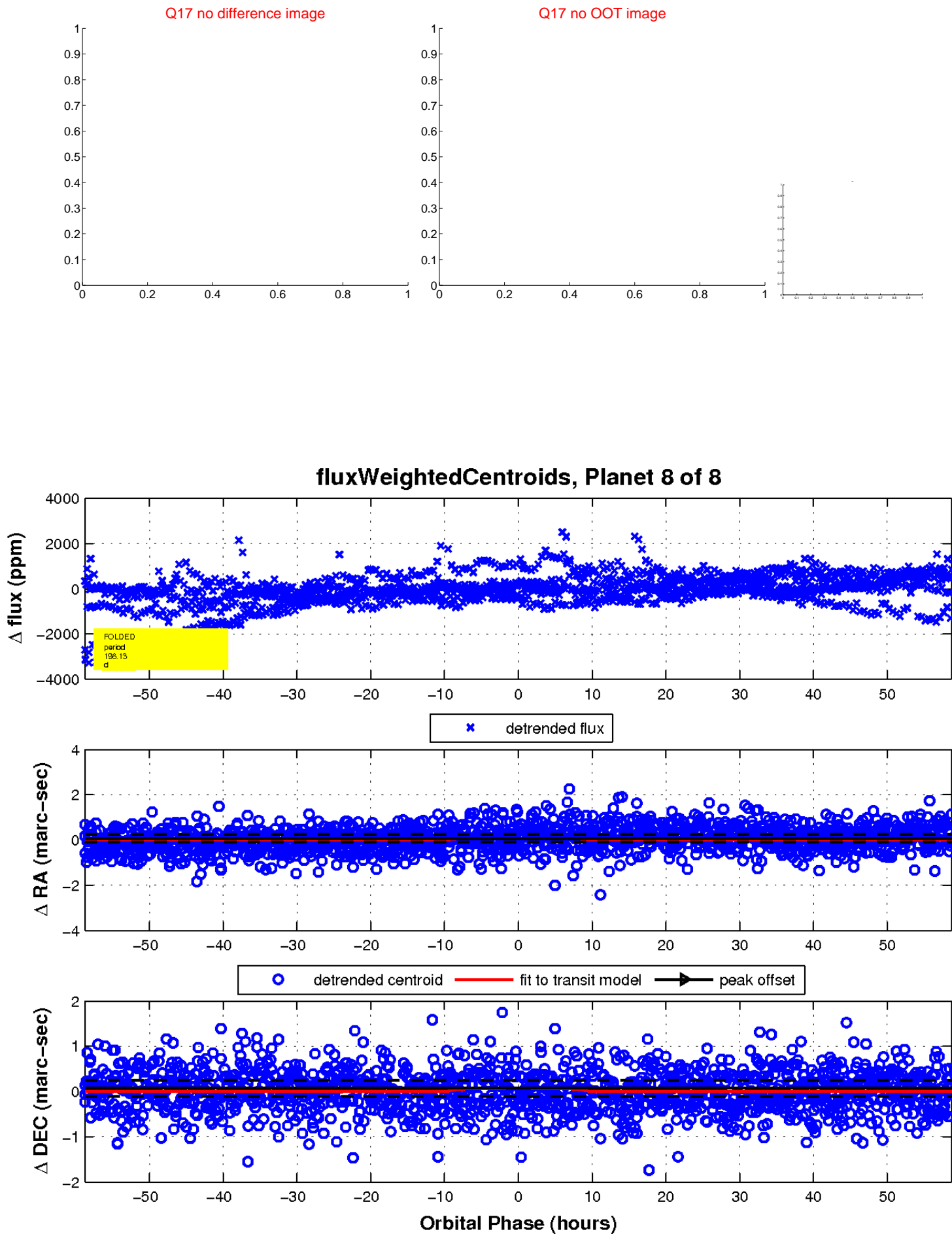
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UKIRT Image

Declination

