

KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

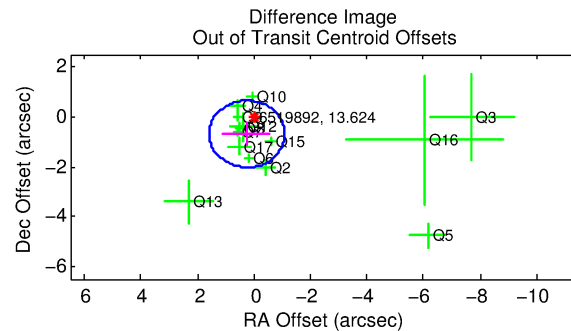
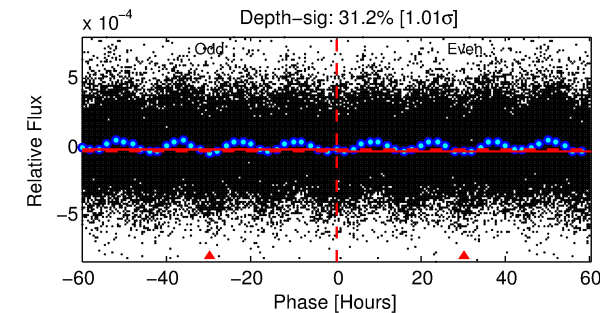
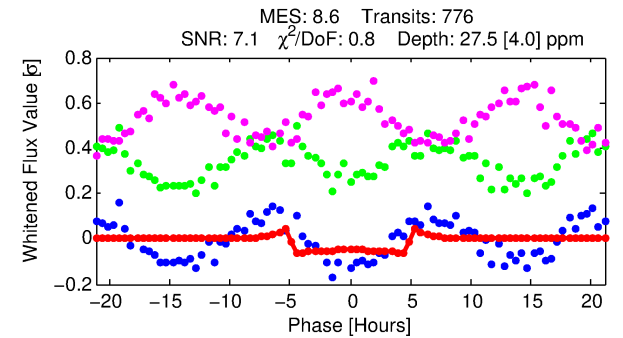
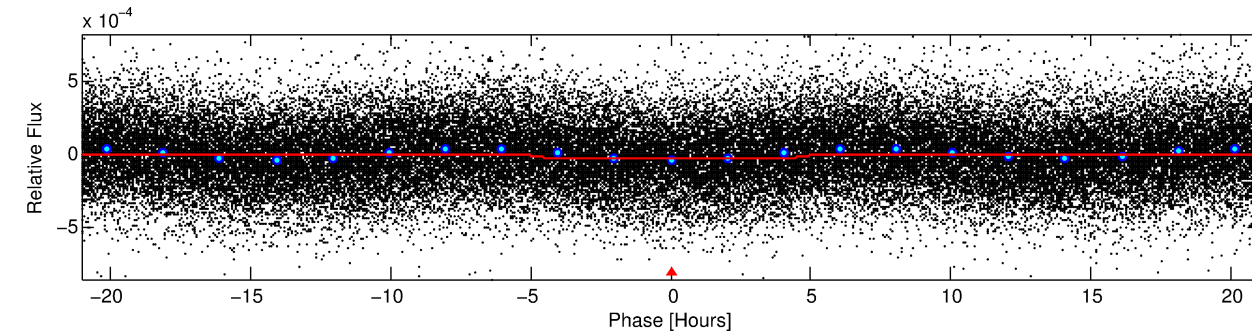
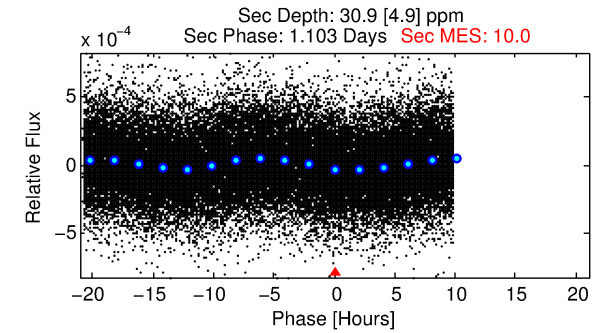
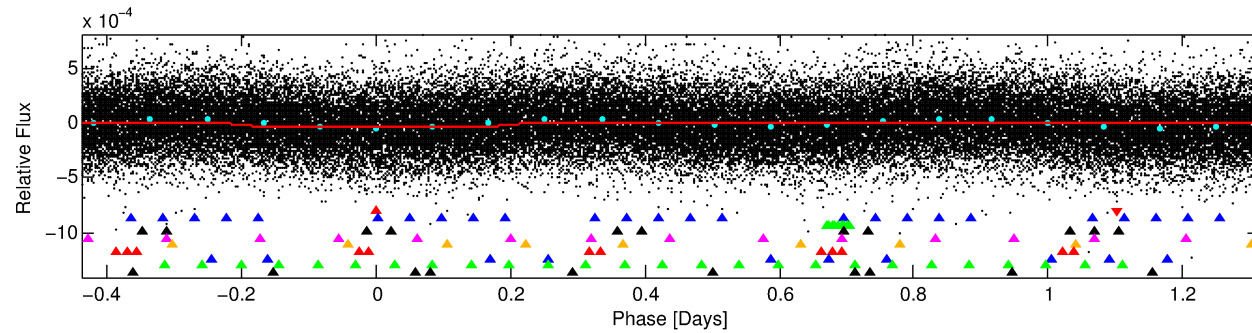
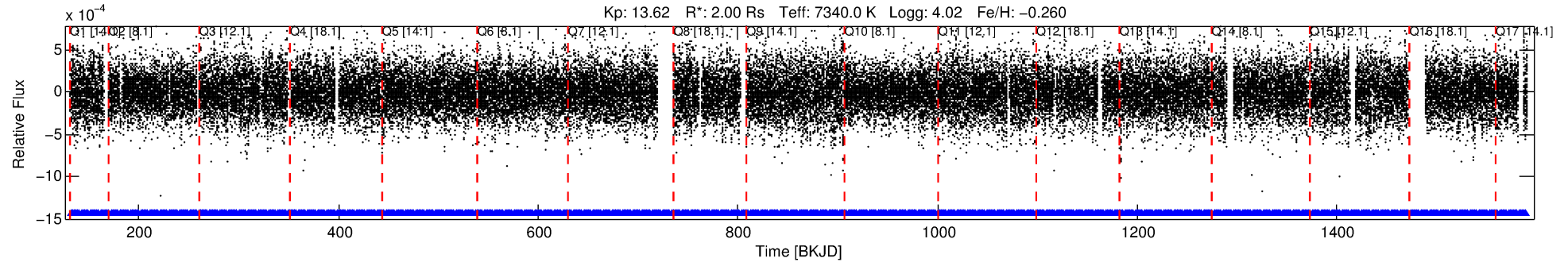
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-01

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 1 of 10 Period: 1.754 d



DV Fit Results:

Period = 1.75360 [0.00002] d
Epoch = 132.0407 [0.0053] BKJD
Rp/R* = 0.0050 [0.0023]
a/R* = 1.33 [1.51]
b = 0.59 [2.94]
Seff = 9753.94 [4423.50]
Teq = 2534 [287] K
Rp = 1.10 [0.60] Re
a = 0.0327 [0.0090] AU
Ag = 15.01 [15.18] [0.92σ]
Teffp = 7711 [1802] K [2.84σ]

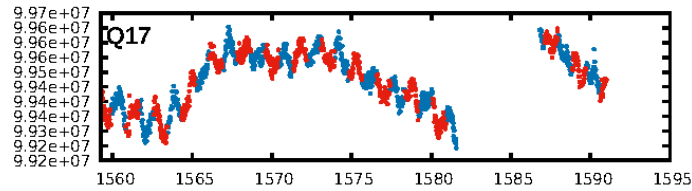
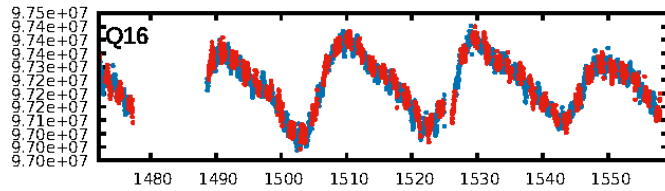
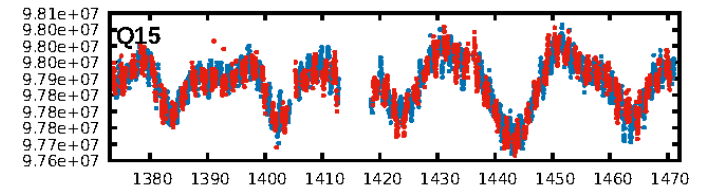
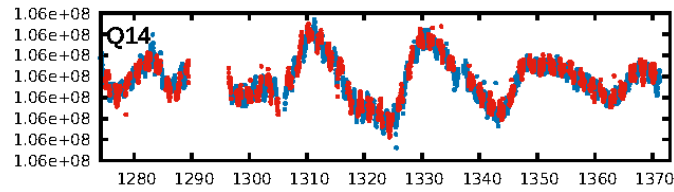
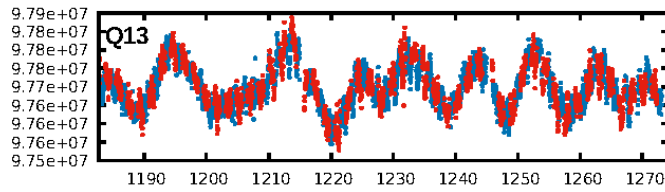
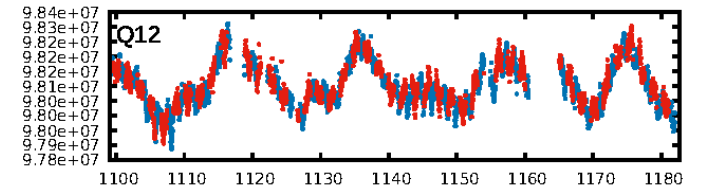
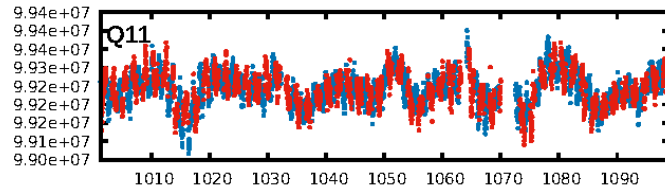
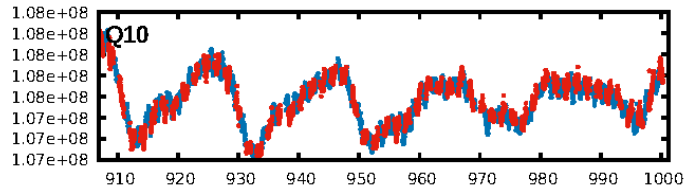
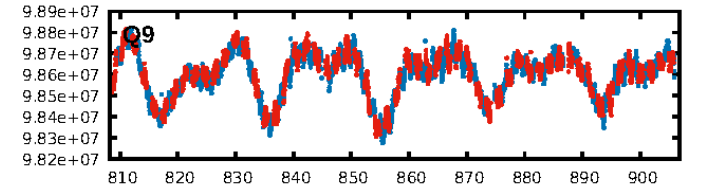
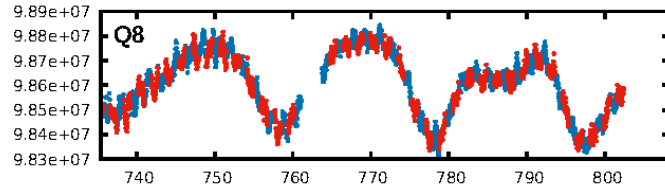
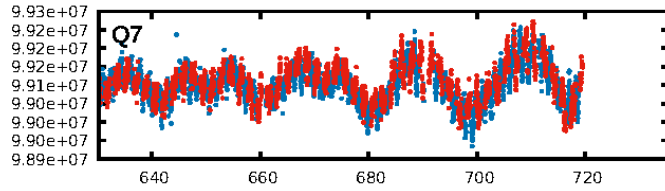
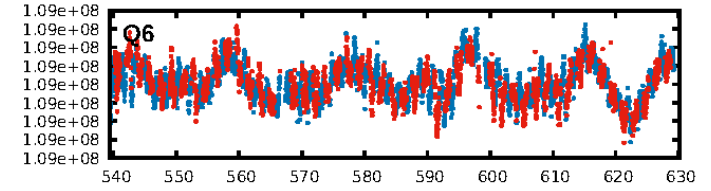
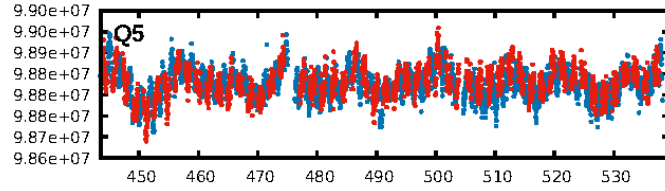
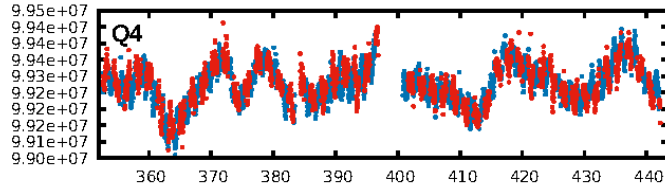
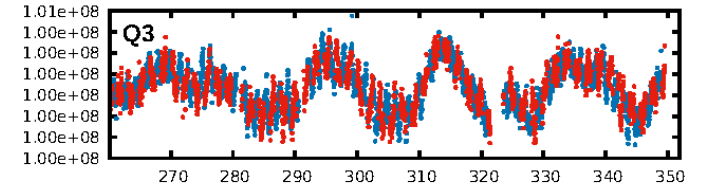
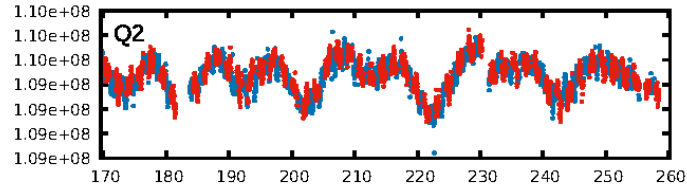
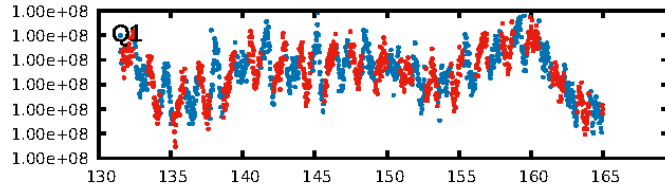
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [67.34σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [741/741]
GhostDiagnostic-chr: -2.601
Centroid-sig: 29.5%
Centroid-so: 0.615 arcsec [0.81σ]
OotOffset-rm: 0.737 arcsec [1.65σ]
KicOffset-rm: 0.494 arcsec [1.17σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.43 [6/14]
DiffImageOverlap-fno: 1.00 [17/17]

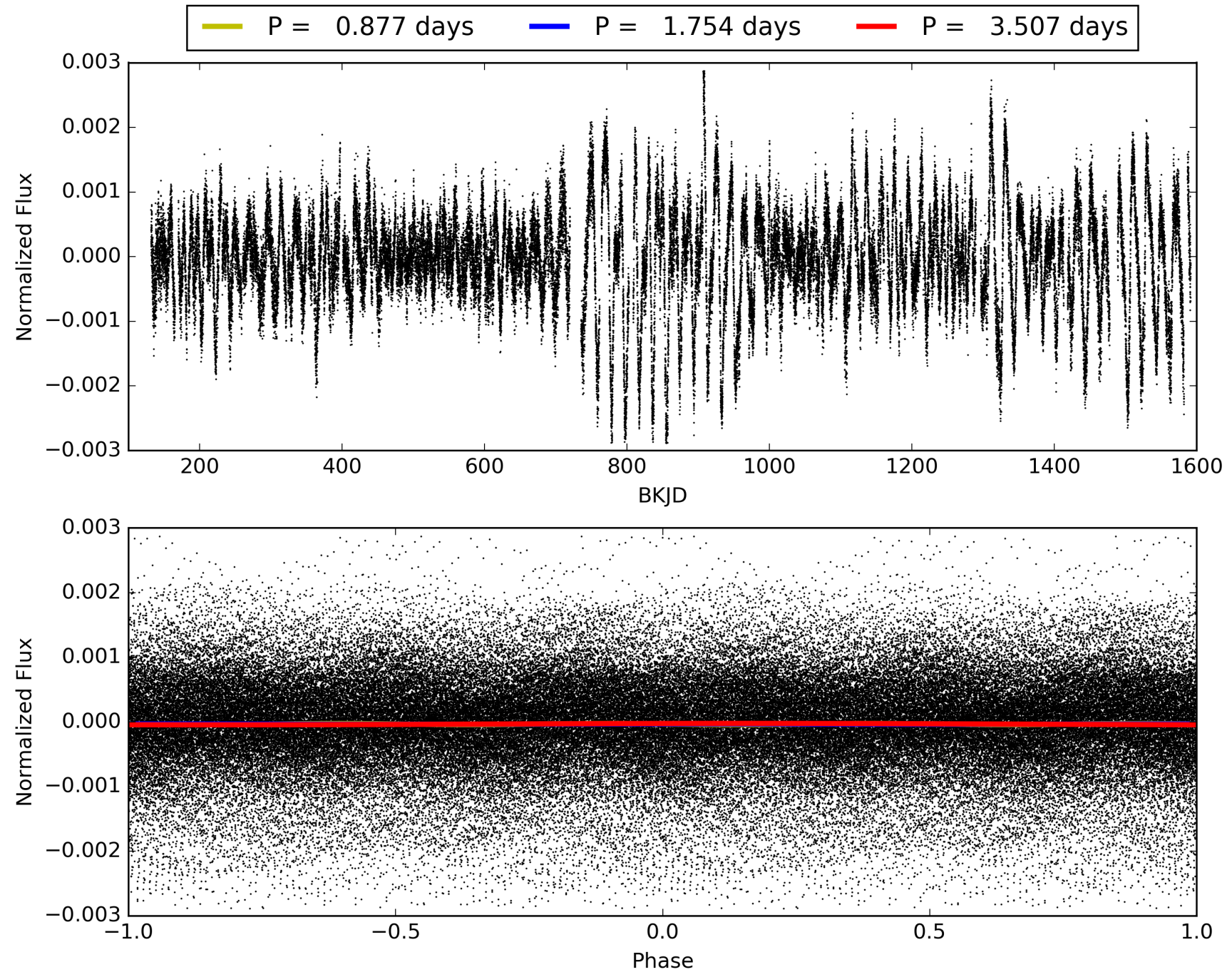
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:56:43 Z

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

TCE 006519892-01, PDC Light Curves

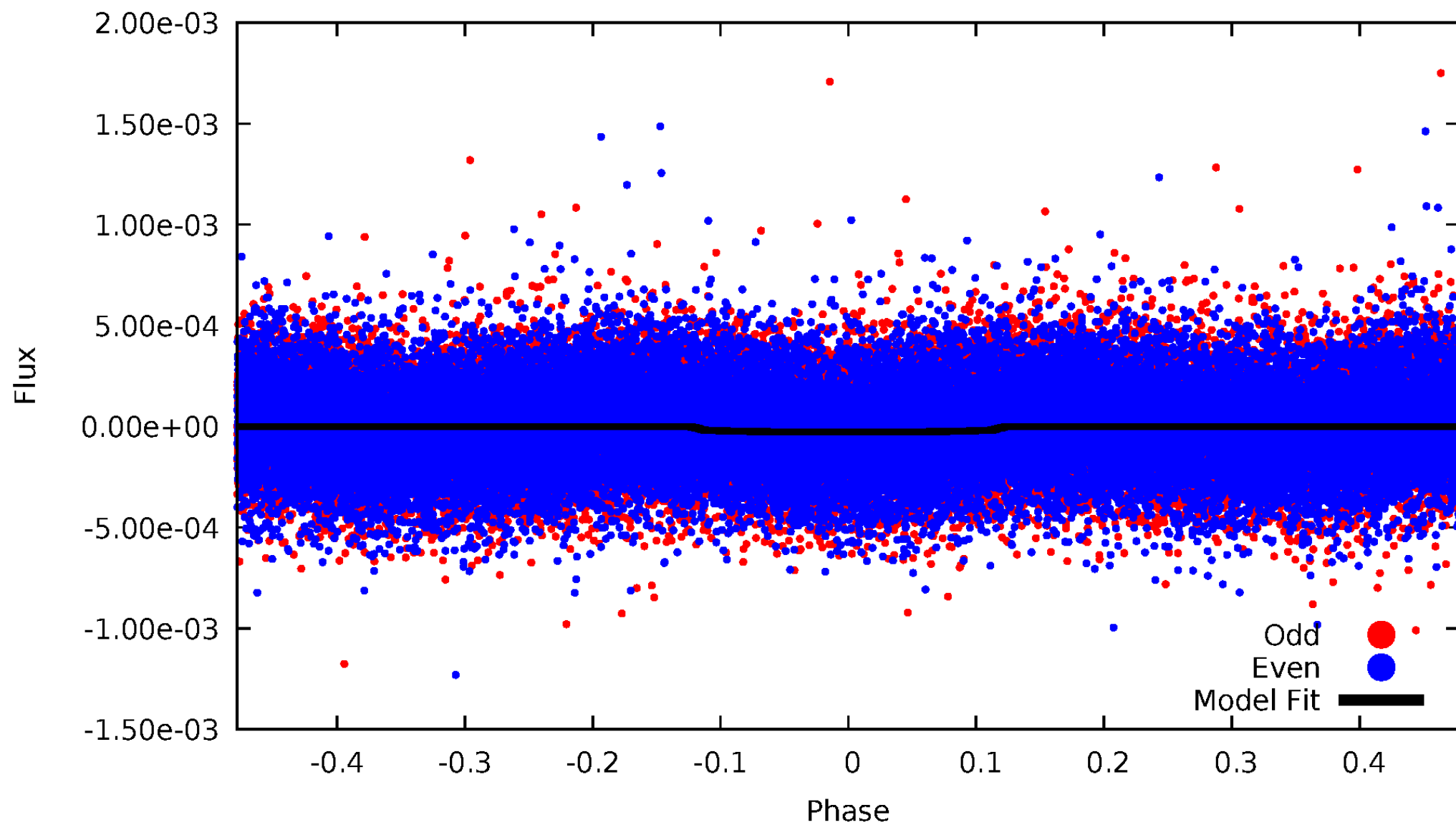


TCE 006519892-01



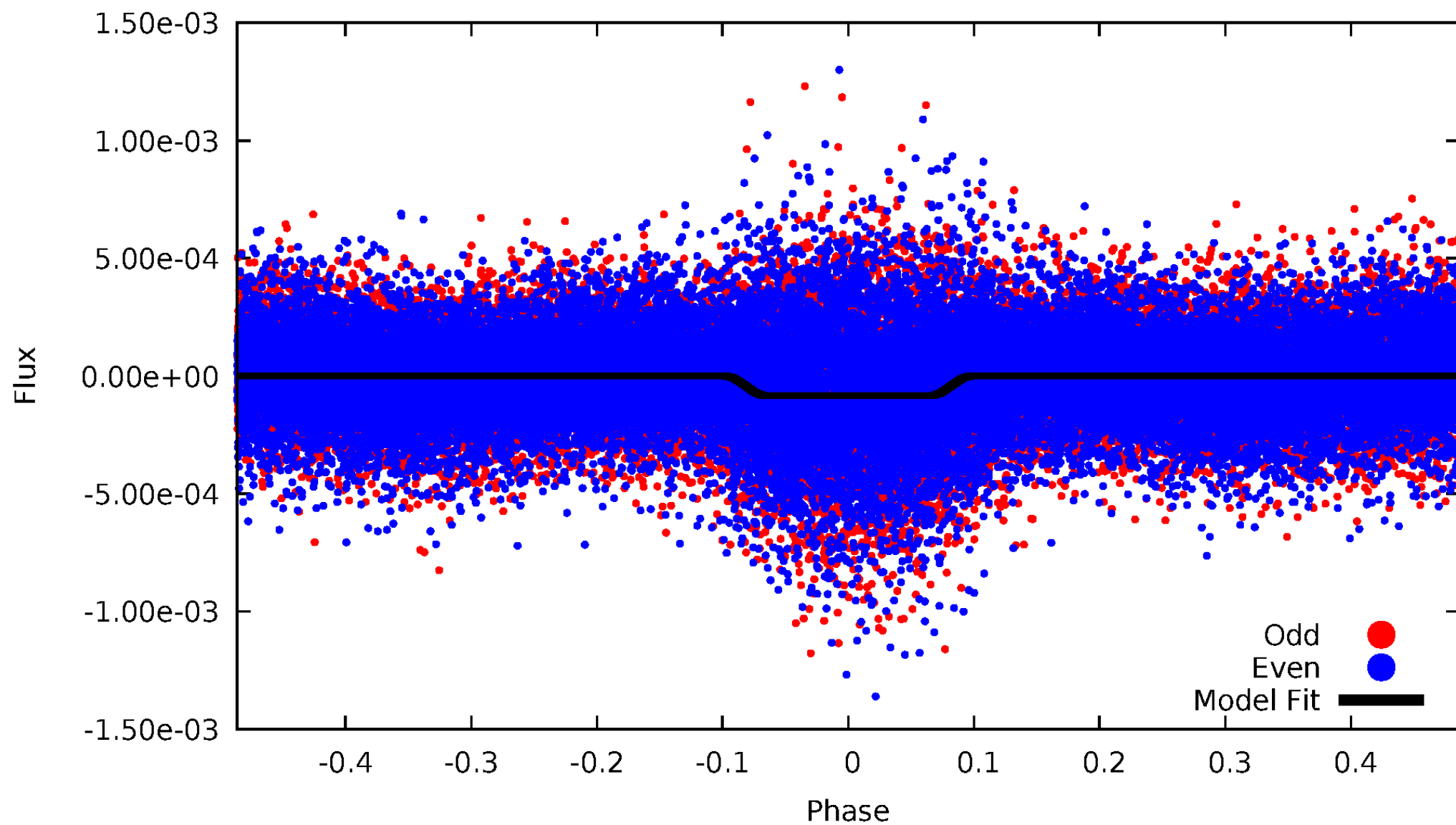
DV Odd/Even

TCE 006519892-01



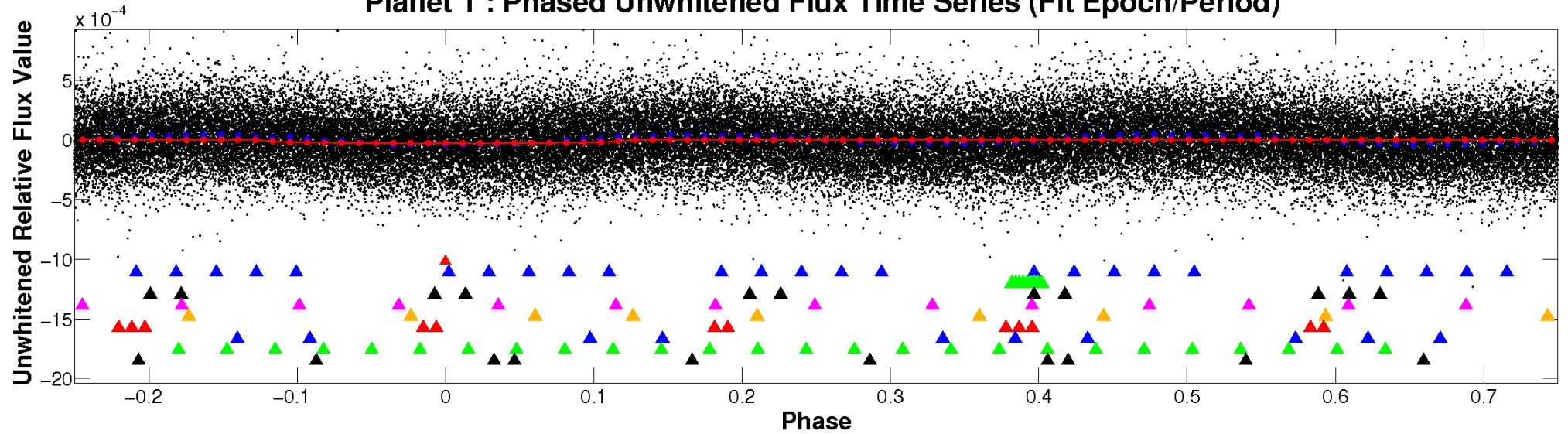
ALT Odd/Even

TCE 006519892-01

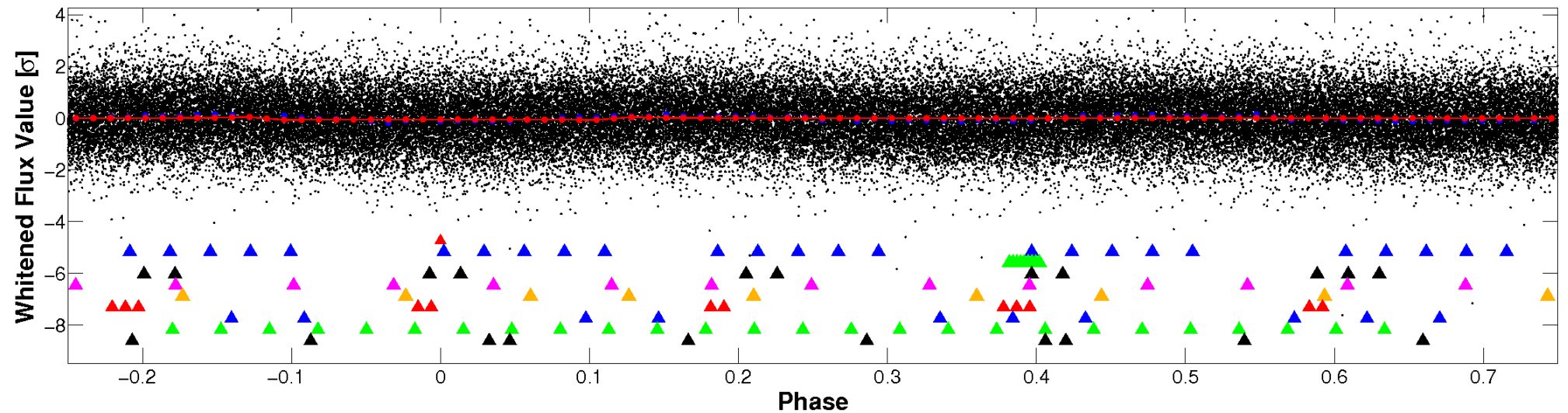


Non-Whitened Vs. Whitened Light Curve

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

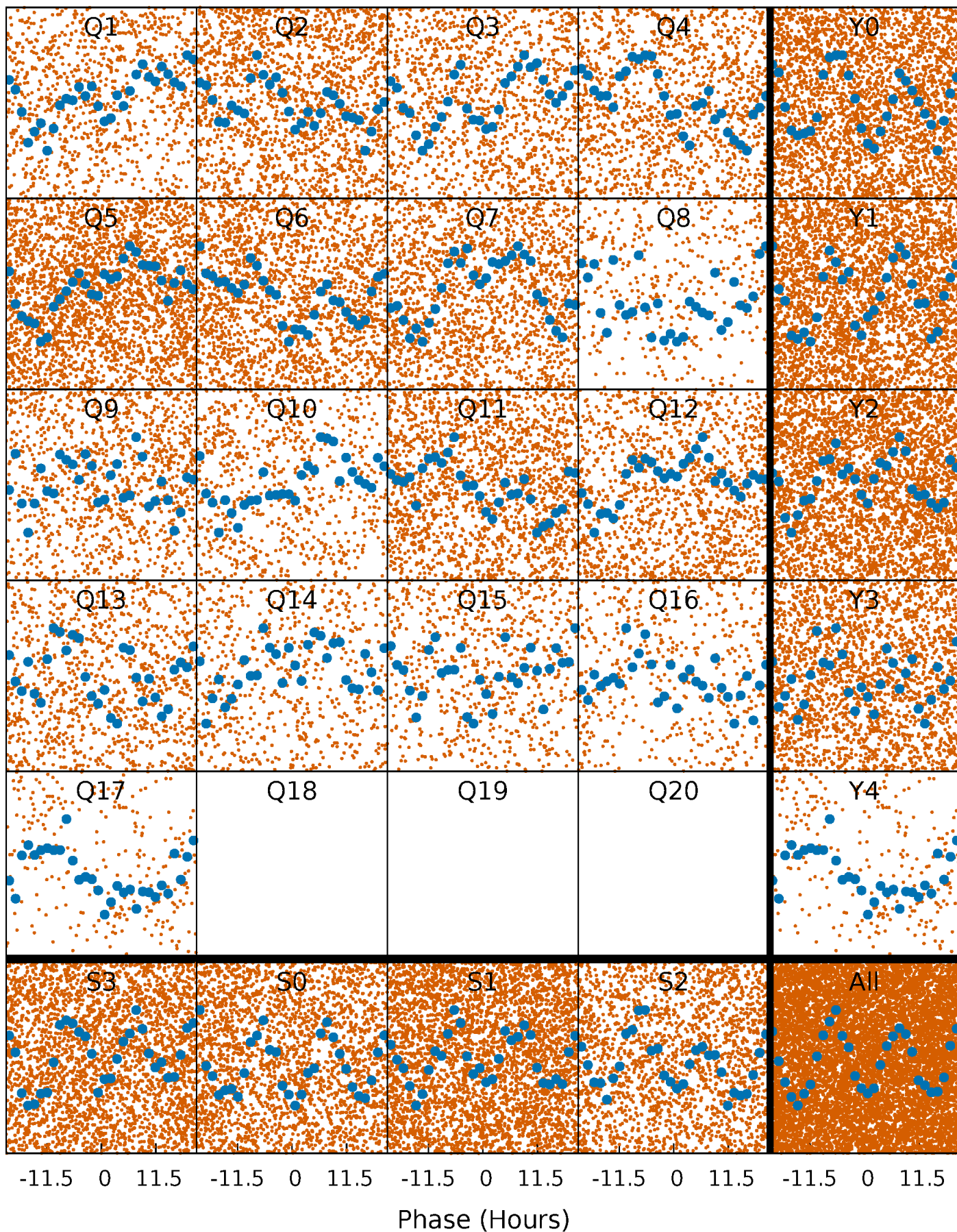


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



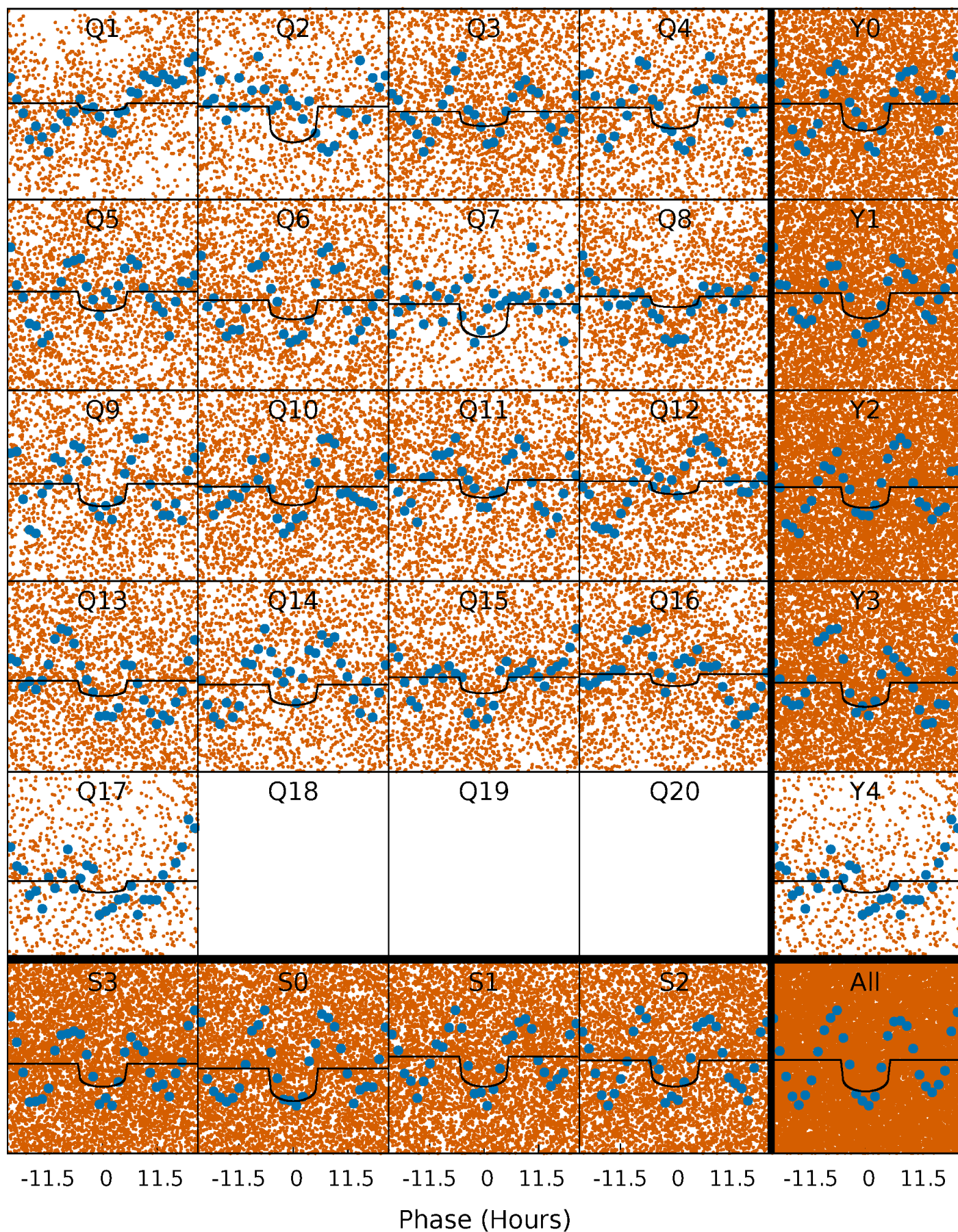
PDC Quarter-Phased Transit Curves

TCE 006519892-01 P= 1.753602 Days $T_0=132.040742$ (BKJD)



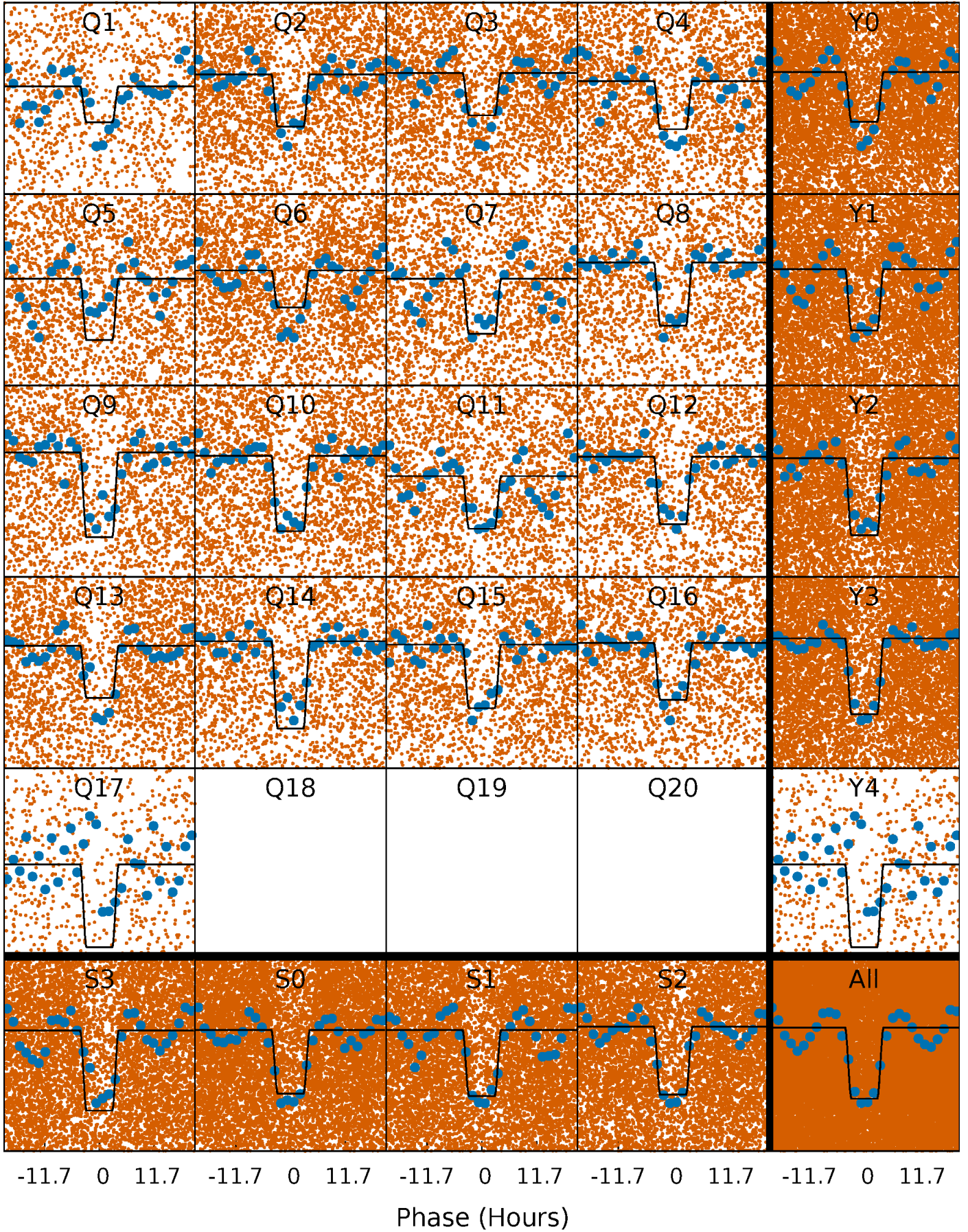
DV Quarter-Phased Transit Curves

TCE 006519892-01 P= 1.753602 Days $T_0=132.040742$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

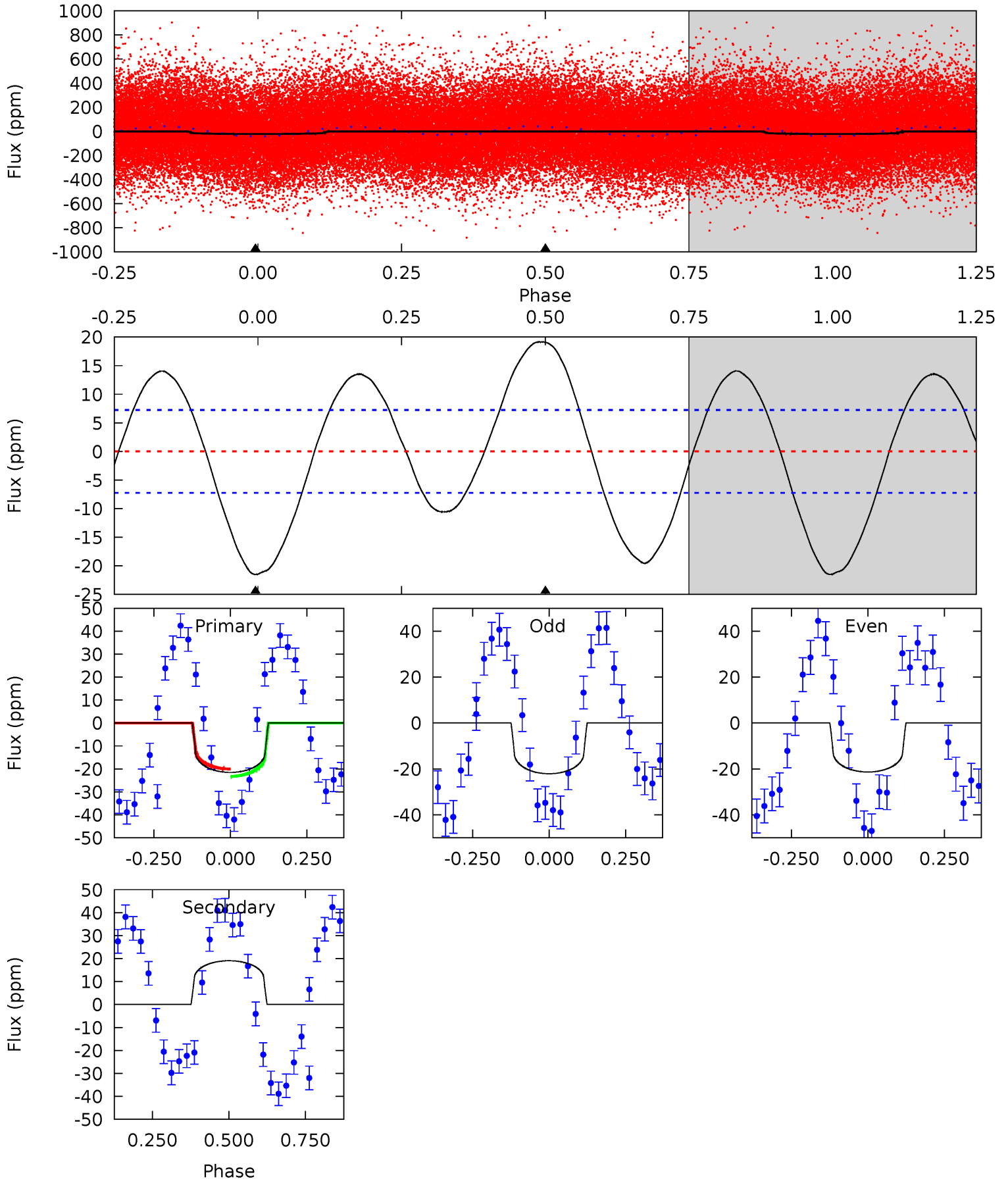
TCE 006519892-01 P= 1.753478 Days $T_0=132.096446$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-01, P = 1.753602 Days, E = 130.287140 Days

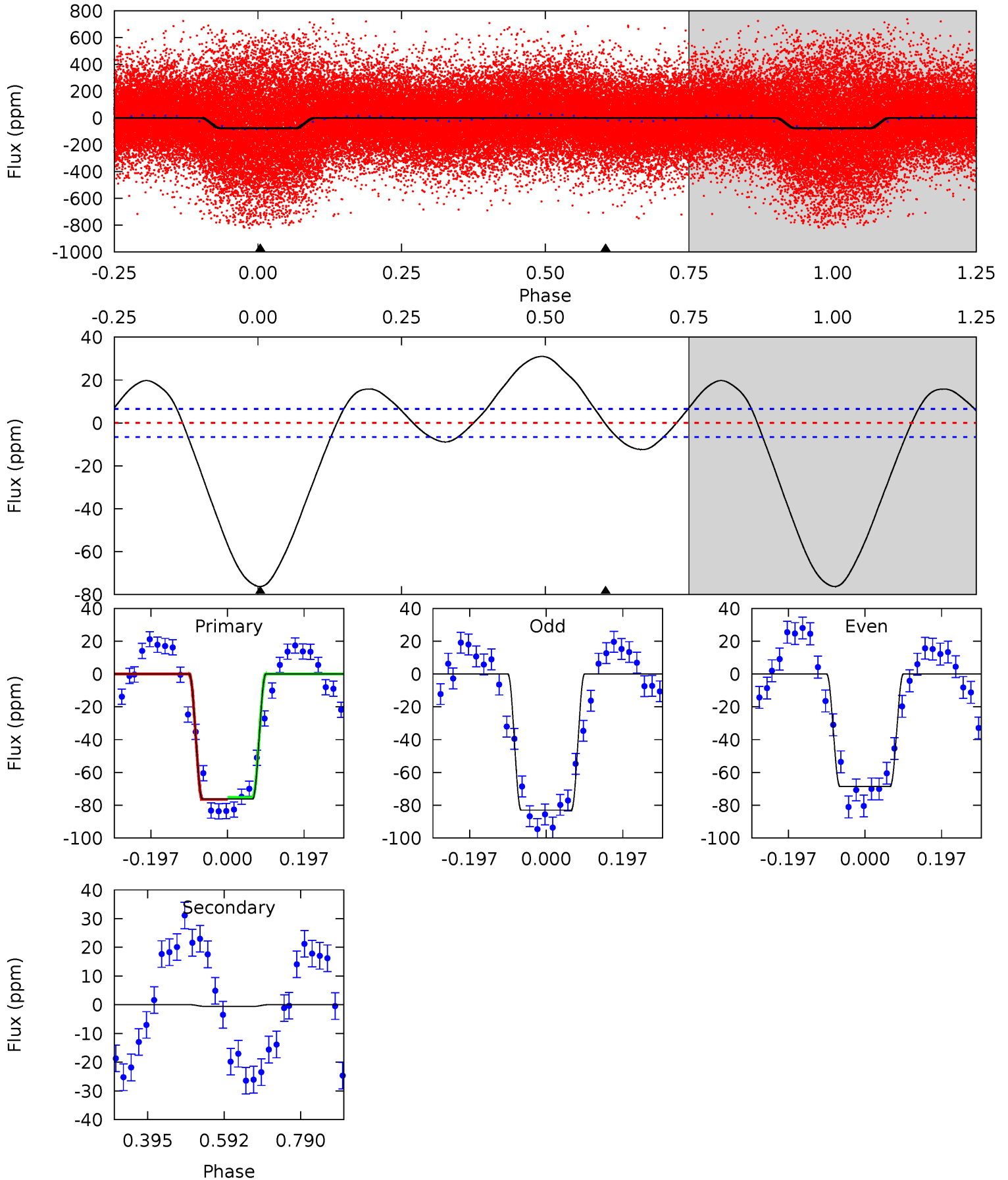
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	-11.5	0	0	4.37	1.15	2.94	13.0	13.0	-11.5	-11.5	0.23	1.02	0.47	0.97



Alt Model-Shift Uniqueness Test

006519892-01, P = 1.753478 Days, E = 130.342968 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.4	0.37	0	0	4.42	1.29	5.35	51.4	51.4	0.37	0.37	4.86	0.95	0.29	0.44



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	19 ± 2	$1.06^{+0.53}_{-0.50}$	3488^{+301}_{-296}	-6818^{+1147}_{-2924}	$-9.816^{+5.406}_{-25.013}$
Alt.	-1 ± 1	$1.95^{+0.63}_{-0.62}$	3516^{+269}_{-279}	-3208^{+5873}_{-430}	$0.084^{+0.288}_{-0.245}$

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

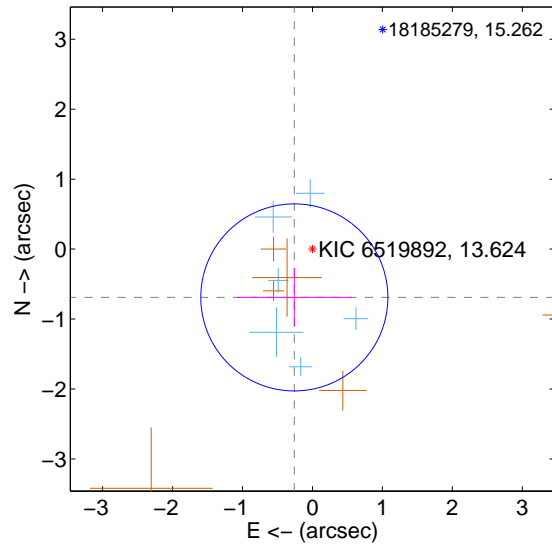
Supplemental centroid analysis for 006519892-01. Kepler magnitude: 13.62. Transit SNR 7.12

There are 6 quarters with good PRF difference image offsets

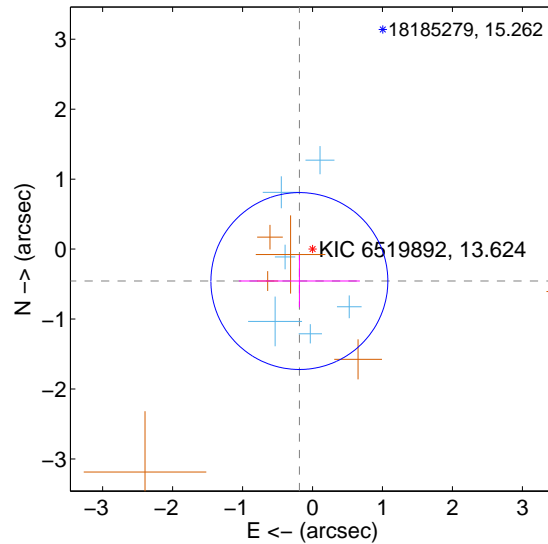
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.737 ± 0.446	1.65	0.259 ± 0.824	-0.690 ± 0.419
PRF-fit source offset from KIC position	0.494 ± 0.421	1.17	0.188 ± 0.865	-0.456 ± 0.375
photometric centroid source offset	0.62 ± 0.76	0.81	0.60 ± 0.74	0.11 ± 1.19

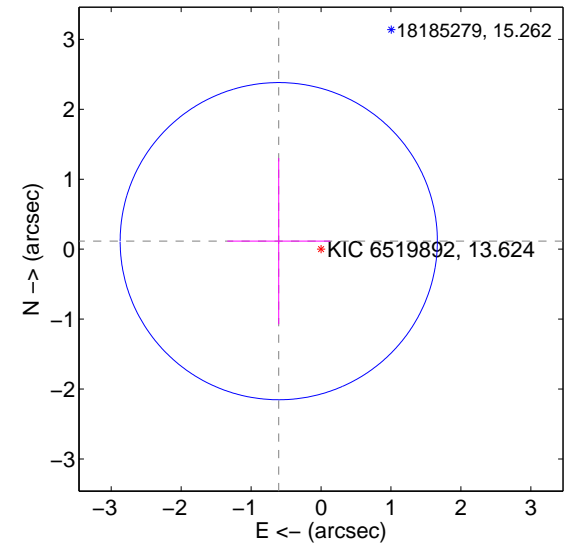
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

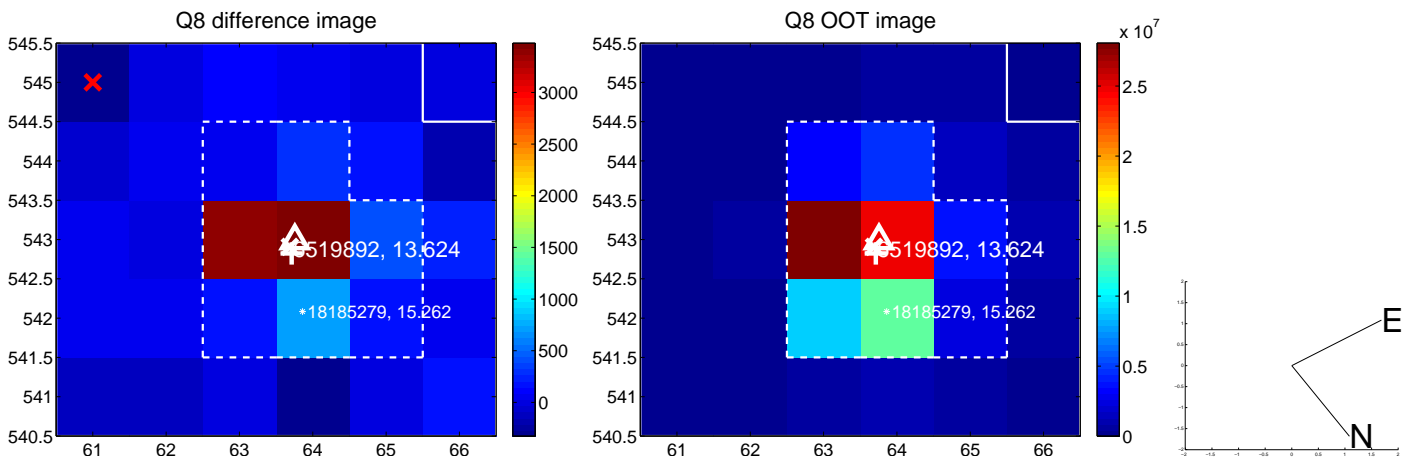
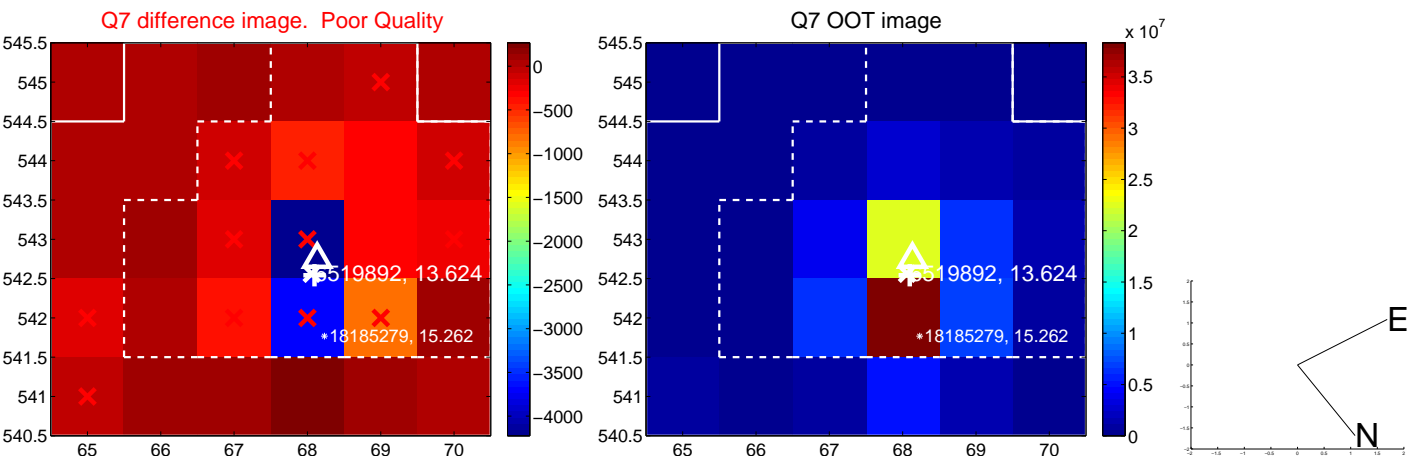
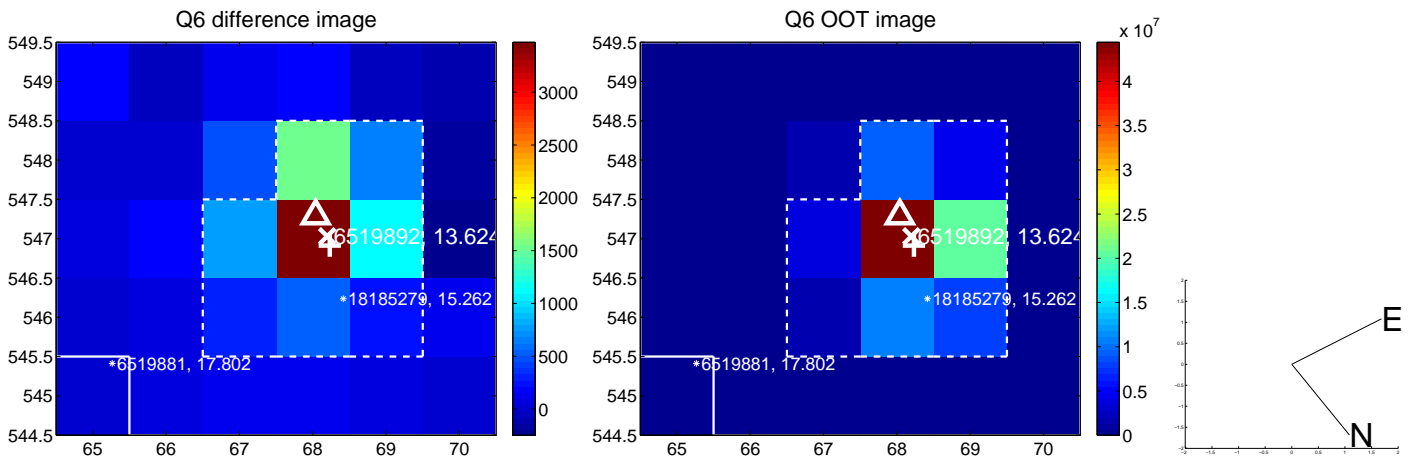
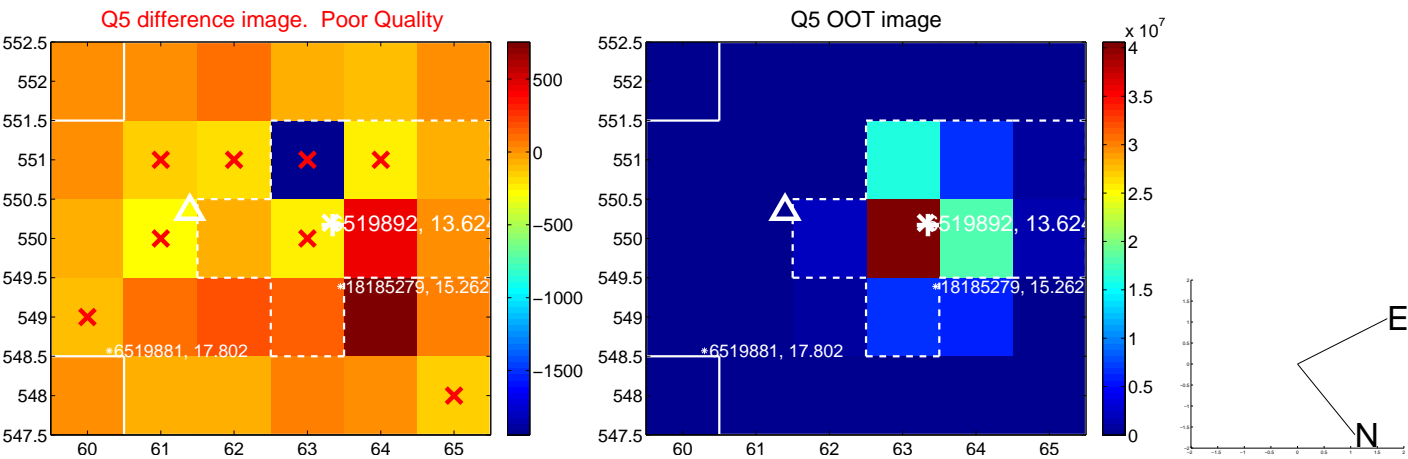


offset from photometric centroids

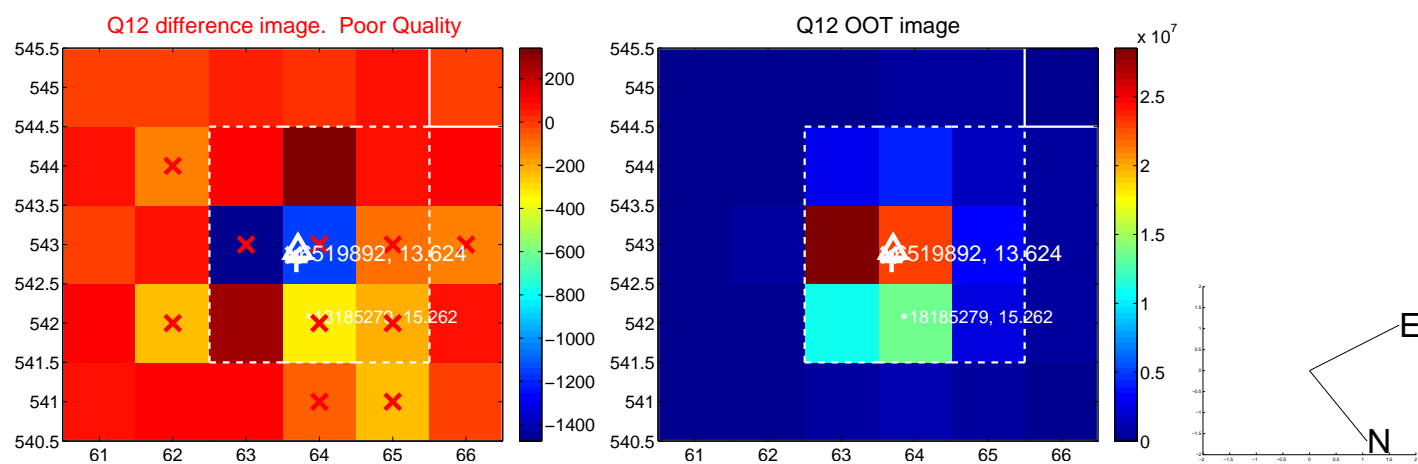
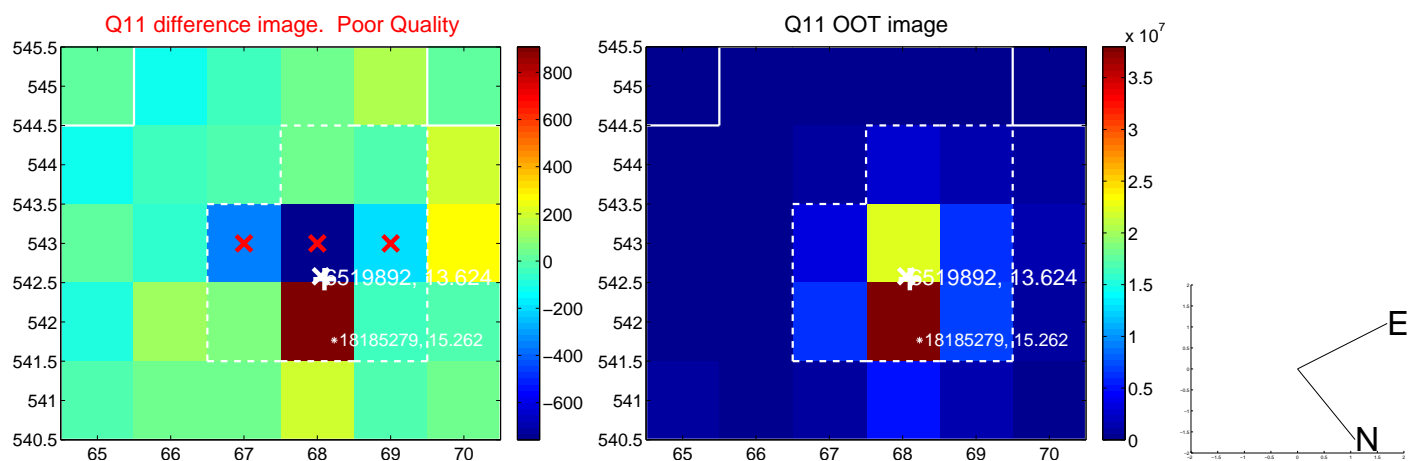
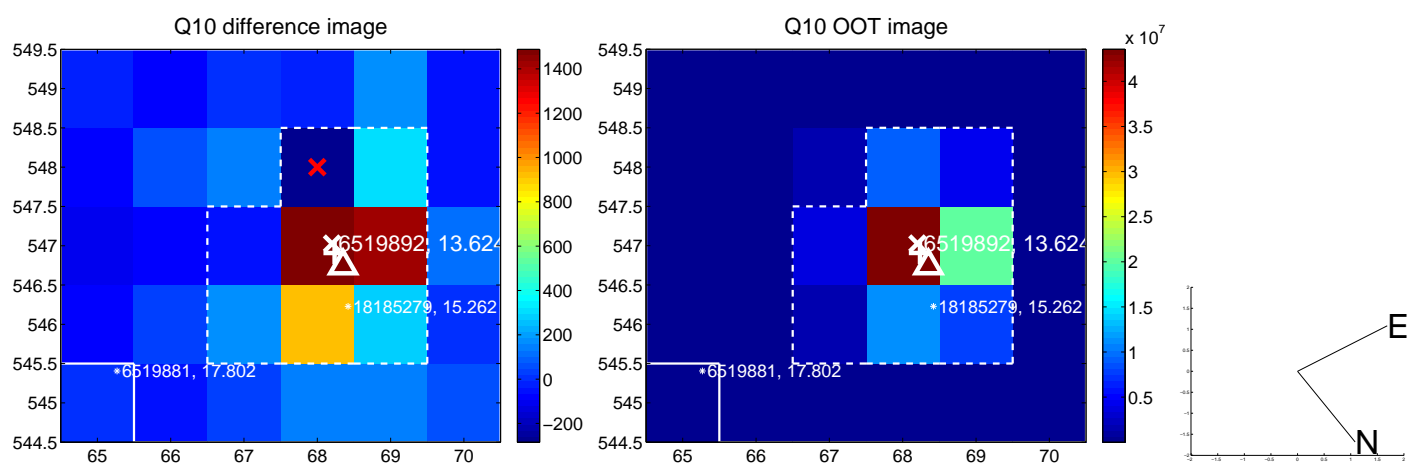
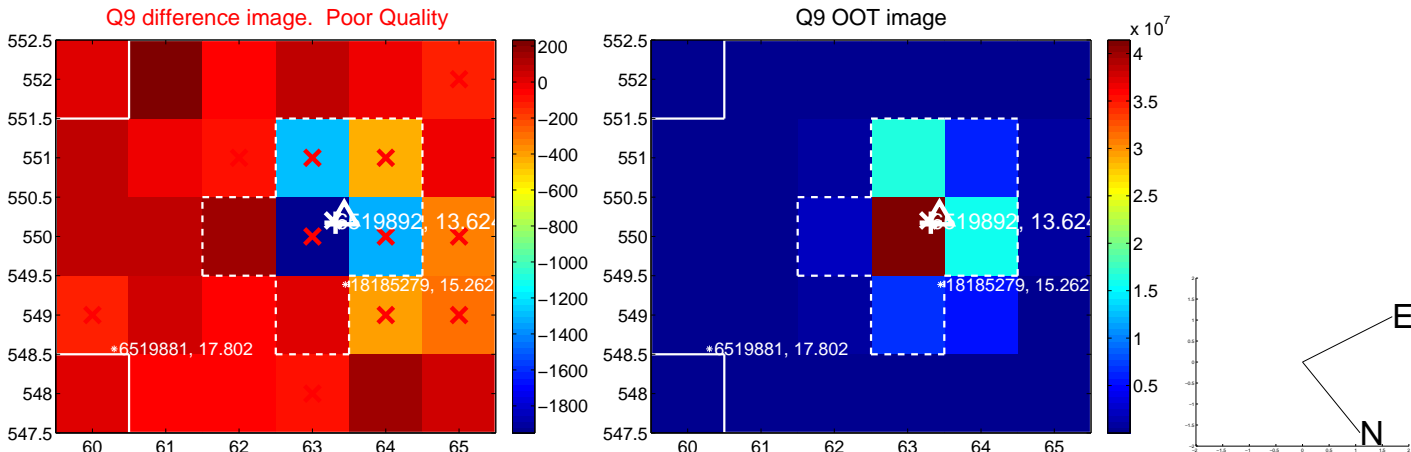


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

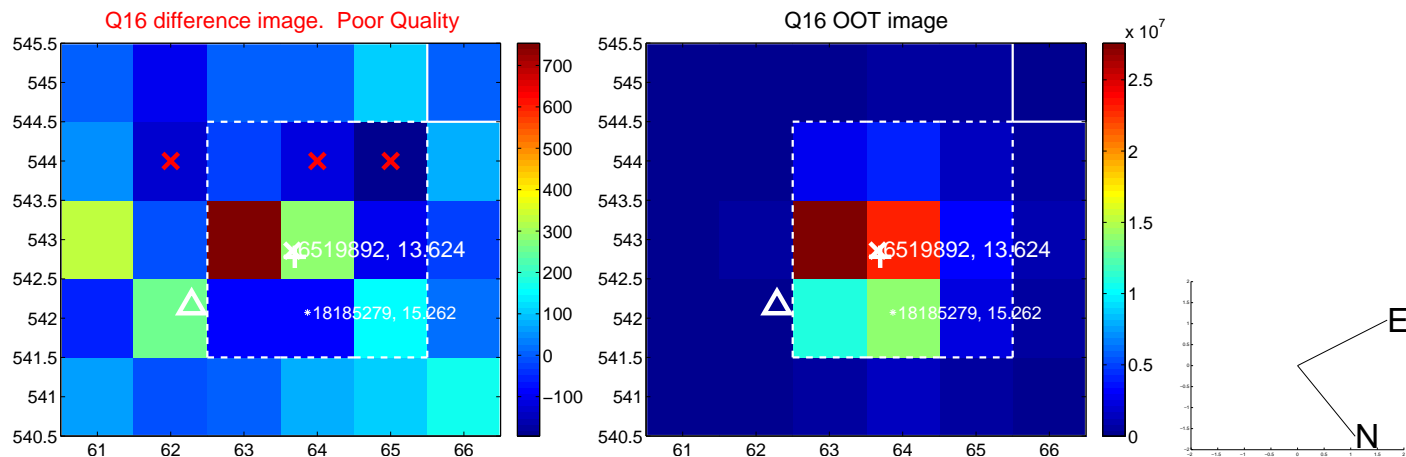
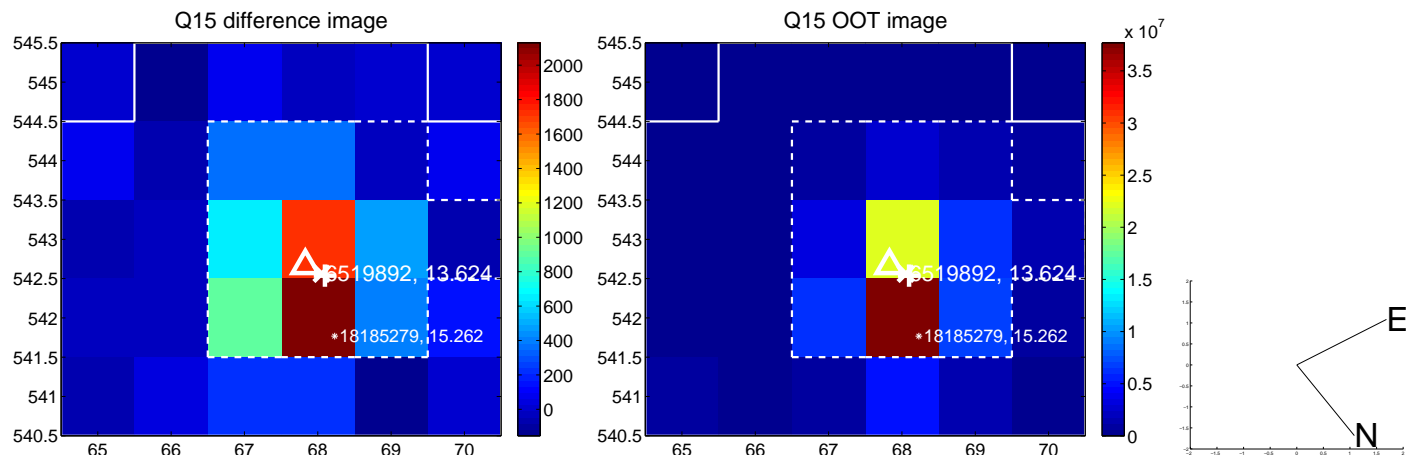
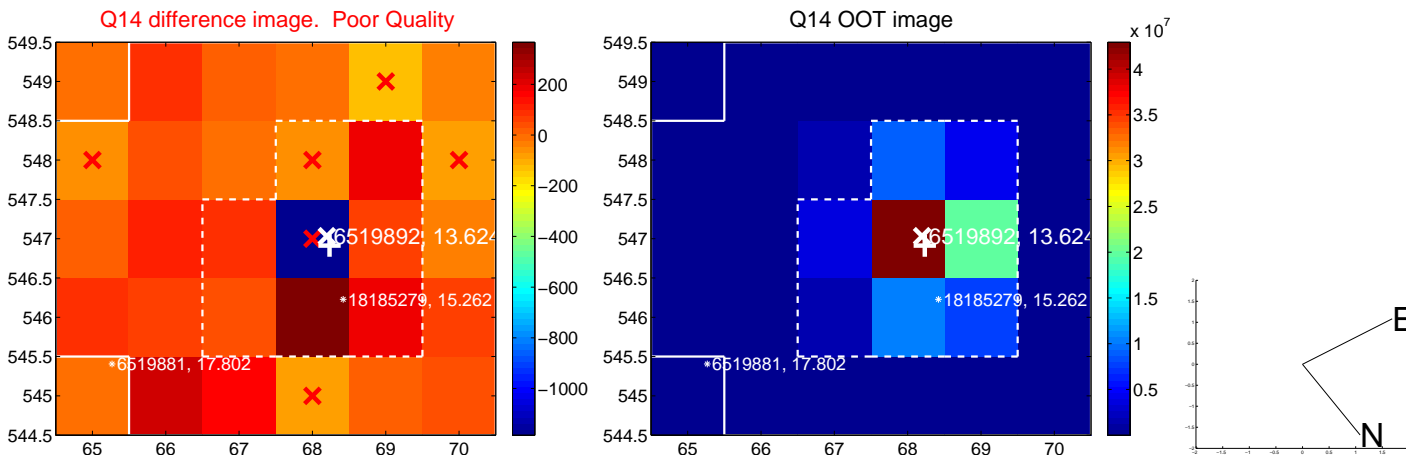
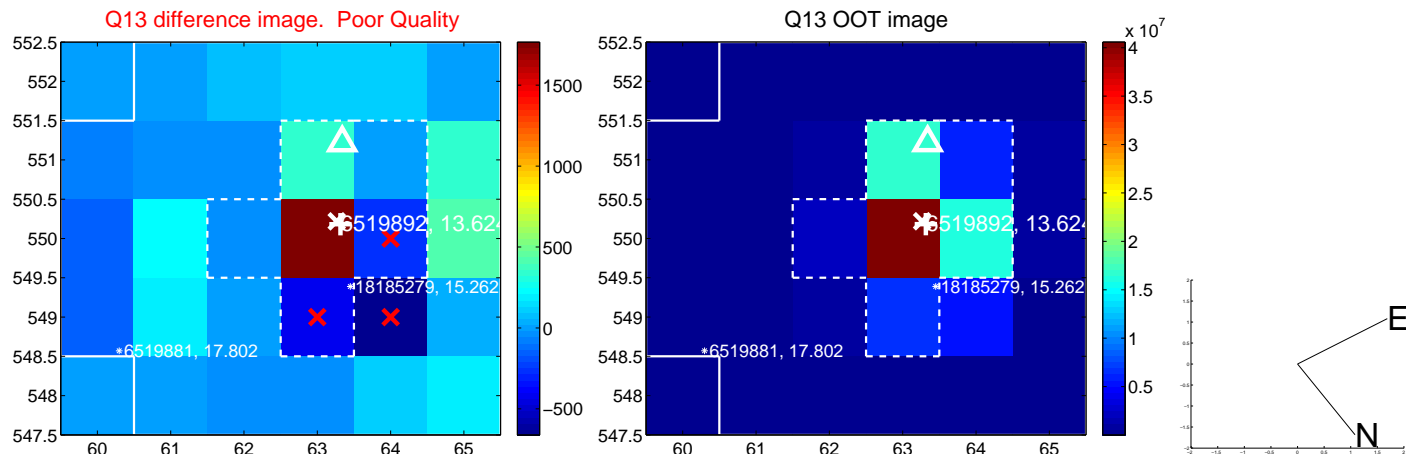
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



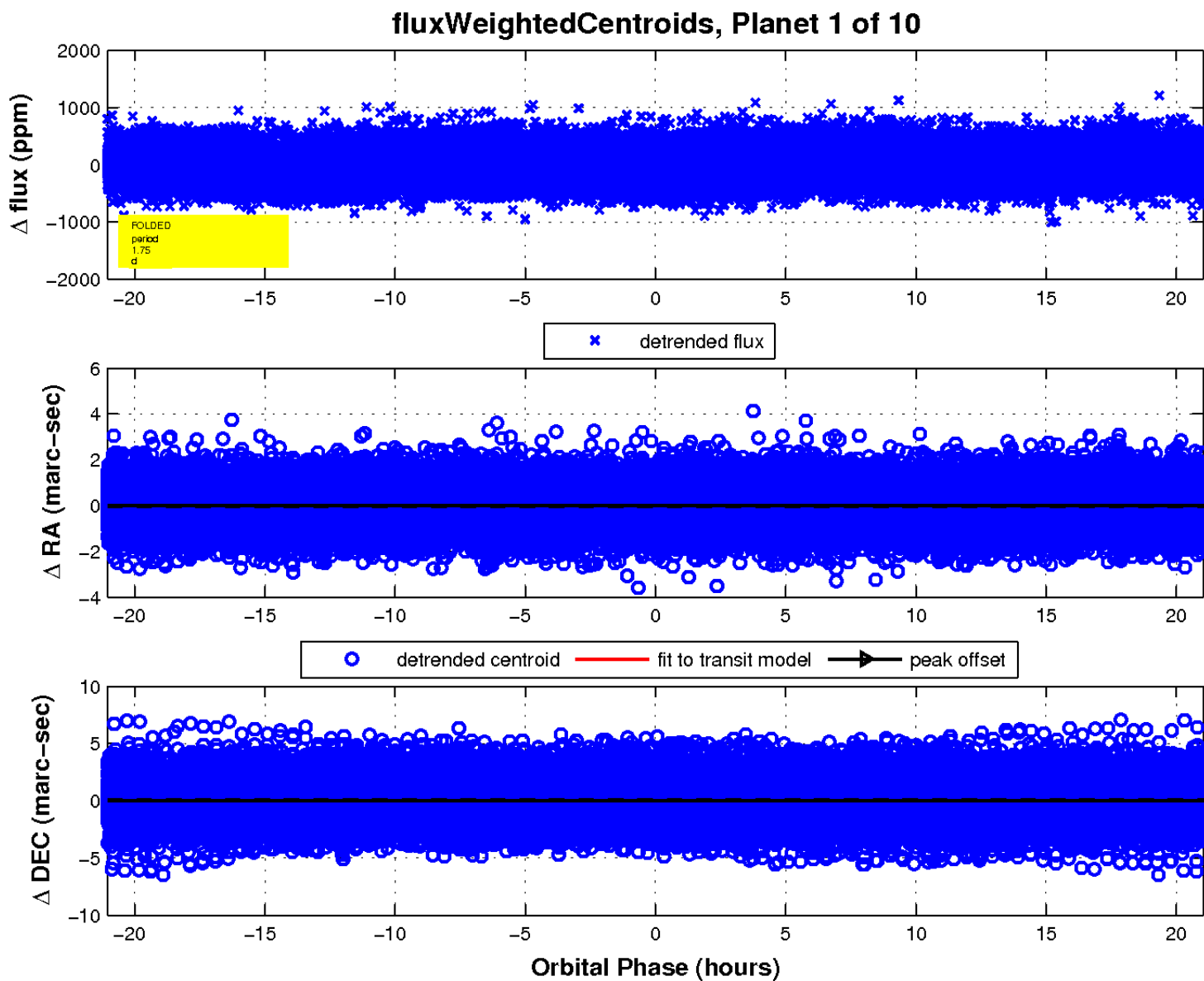
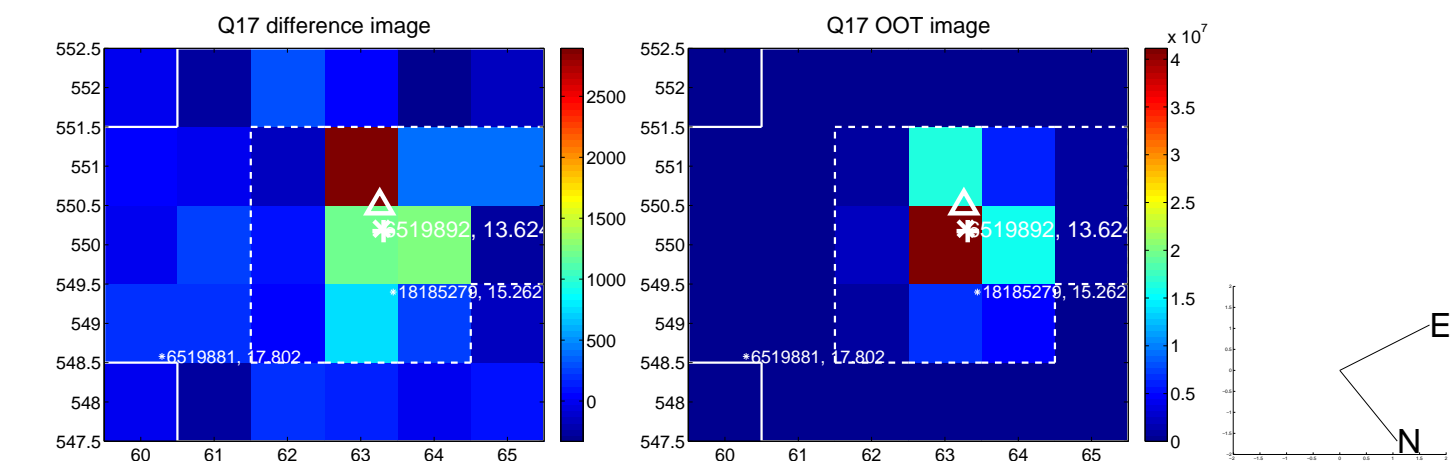
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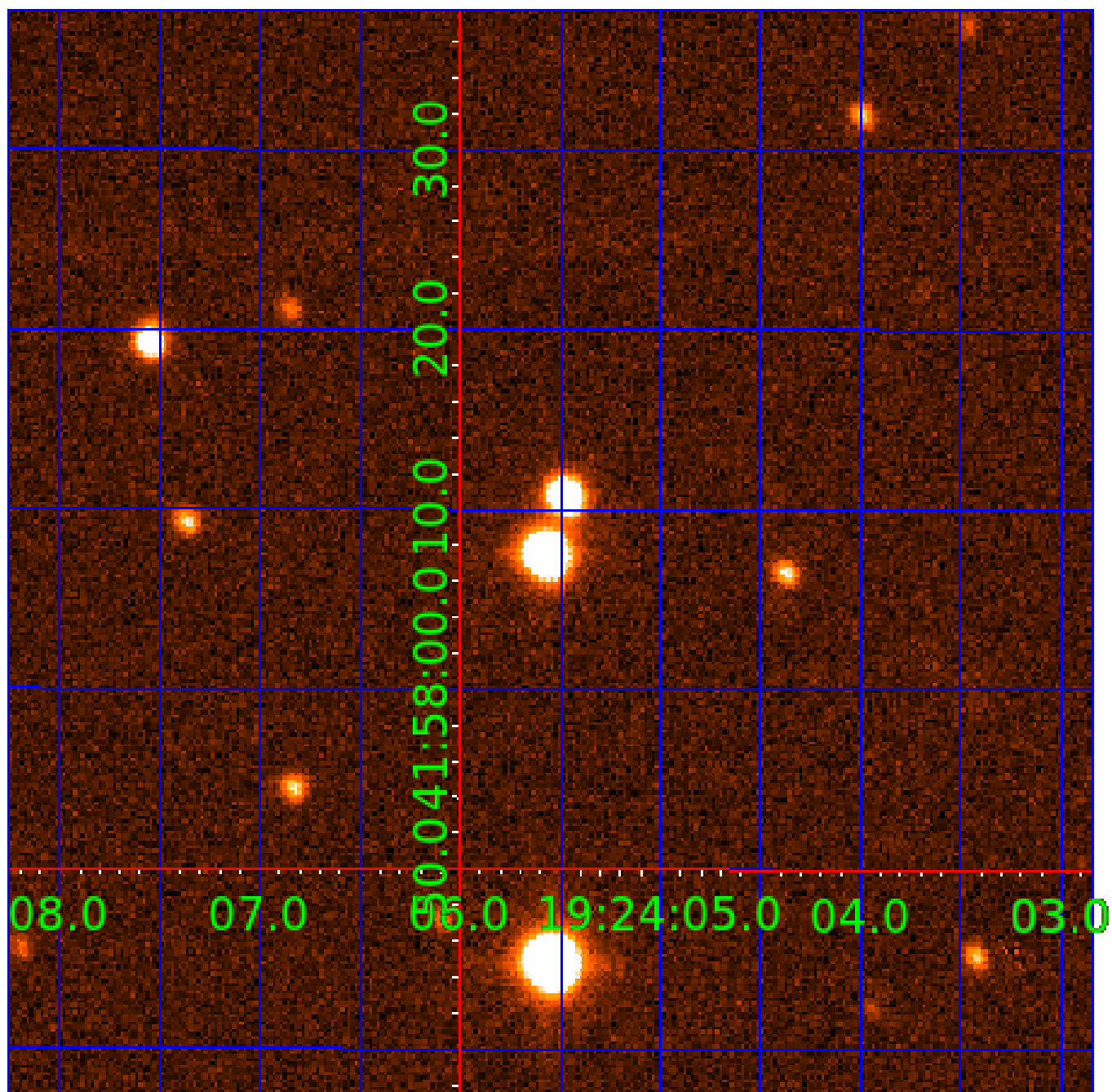


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006519892

Q1-17 DR25 TCE Parameters

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006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

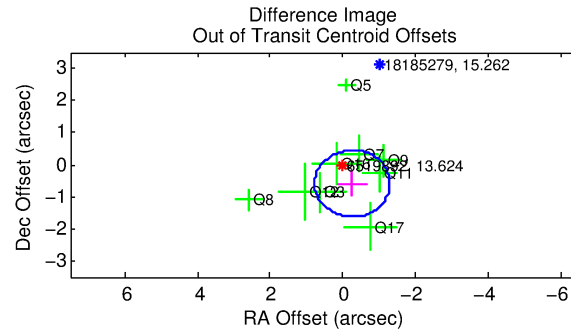
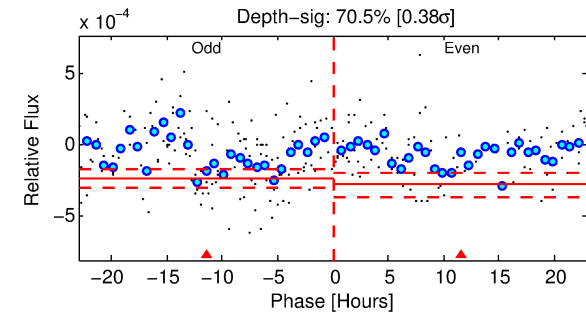
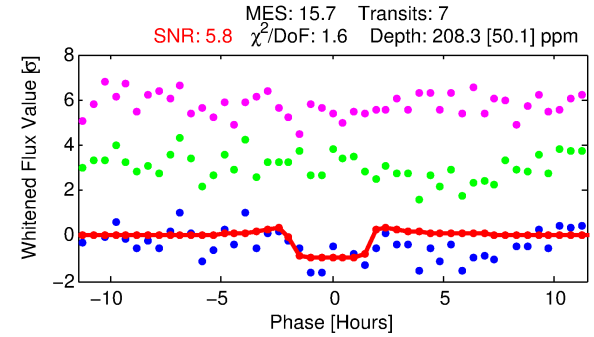
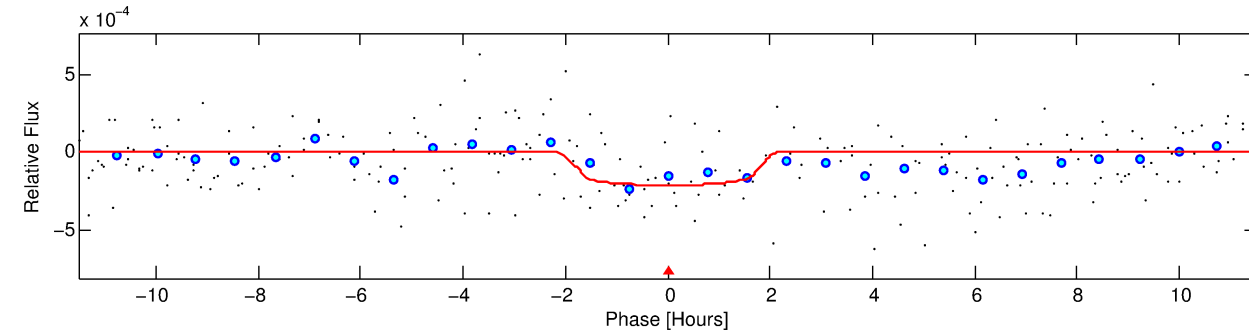
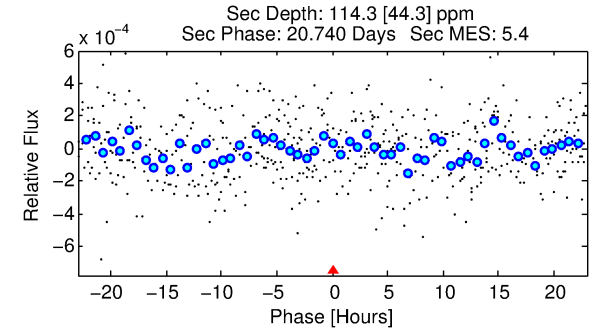
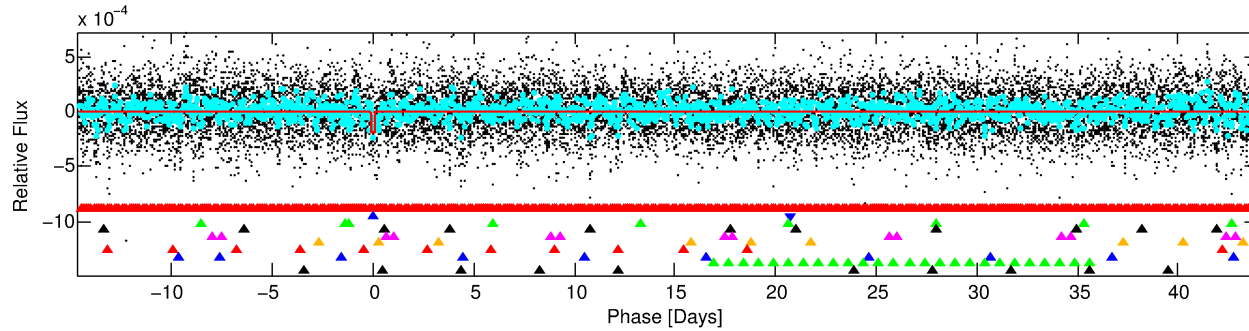
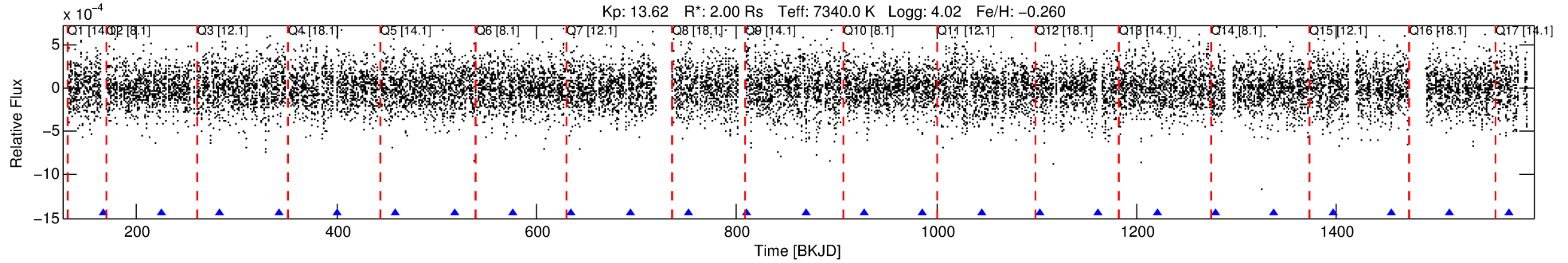
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-02

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 2 of 10 Period: 58.561 d



DV Fit Results:

Period = 58.56083 [0.00128] d
Epoch = 166.6141 [0.0171] BKJD
Rp/R* = 0.0146 [0.0200]
a/R* = 73.36 [586.97]
b = 0.80 [3.72]
Seff = 90.70 [41.13]
Teq = 787 [89] K
Rp = 3.19 [4.49] Re
a = 0.3395 [0.0935] AU
Ag = 712.32 [1997.91] [0.36σ]
Teffp = 6285 [4365] K [1.26σ]

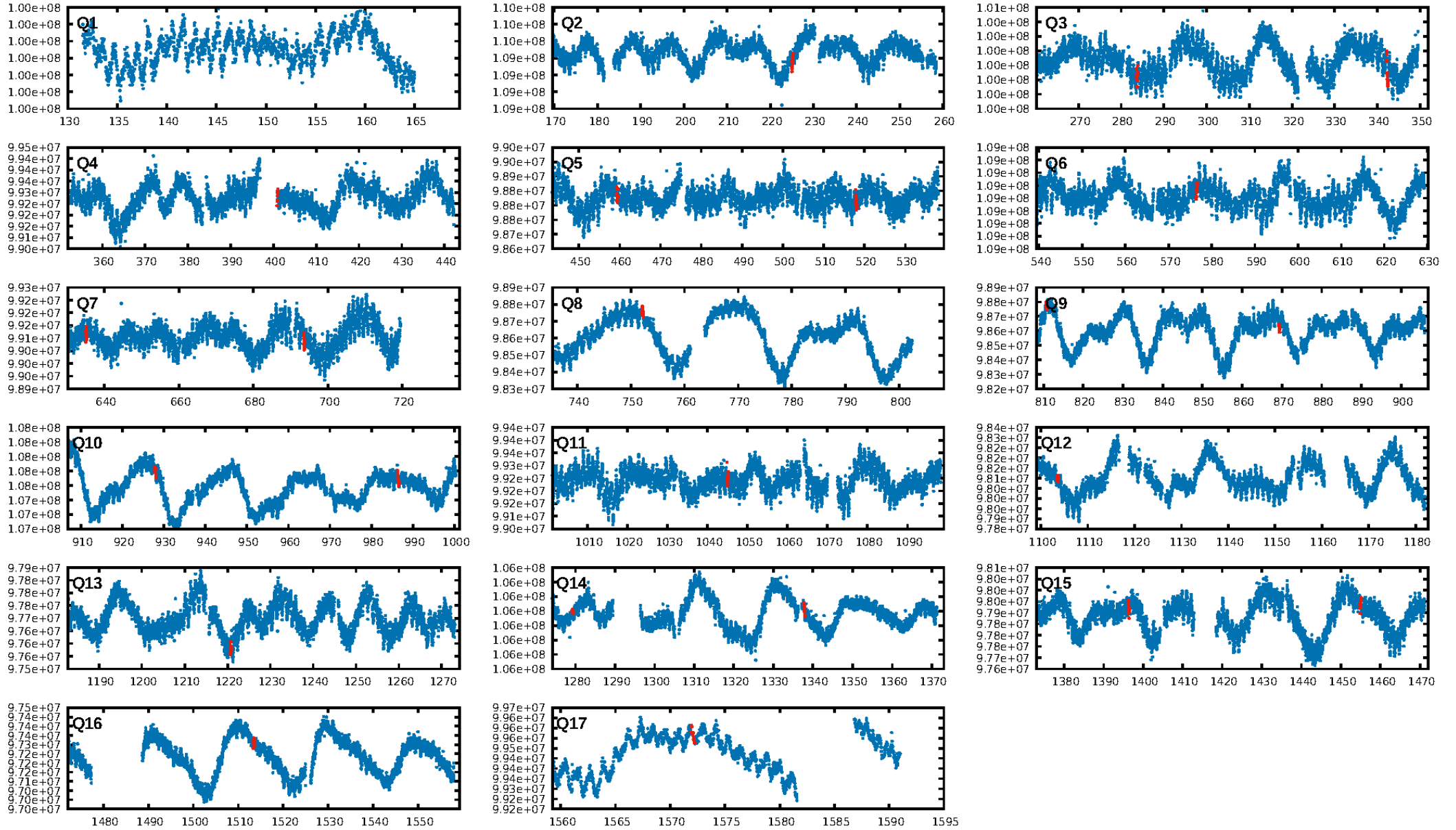
DV Diagnostic Results:

ShortPeriod-sig: 69.1% [1.02σ]
LongPeriod-sig: 100.0% [237.65σ]
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 85.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -4.067
Centroid-sig: 94.1%
Centroid-so: 0.261 arcsec [0.26σ]
OotOffset-rm: 0.643 arcsec [1.86σ]
OotOffset-st: 0.3/3/3 [9]
KicOffset-rm: 0.371 arcsec [0.96σ]
KicOffset-st: 0/3/3/3 [9]
DiffImageQuality-fgm: 0.67 [6/9]
DiffImageOverlap-fno: 0.38 [5/13]

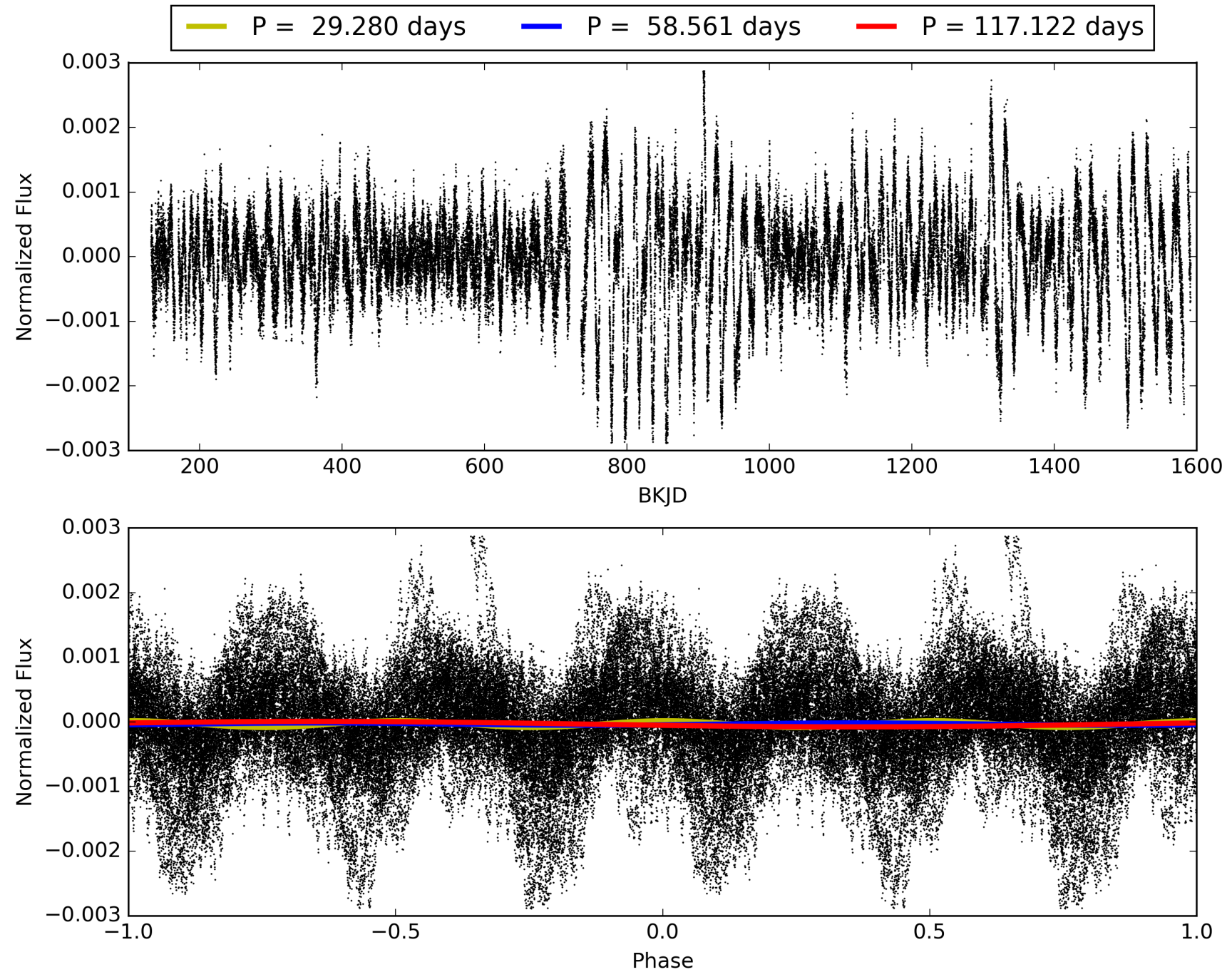
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006519892-02, PDC Light Curves

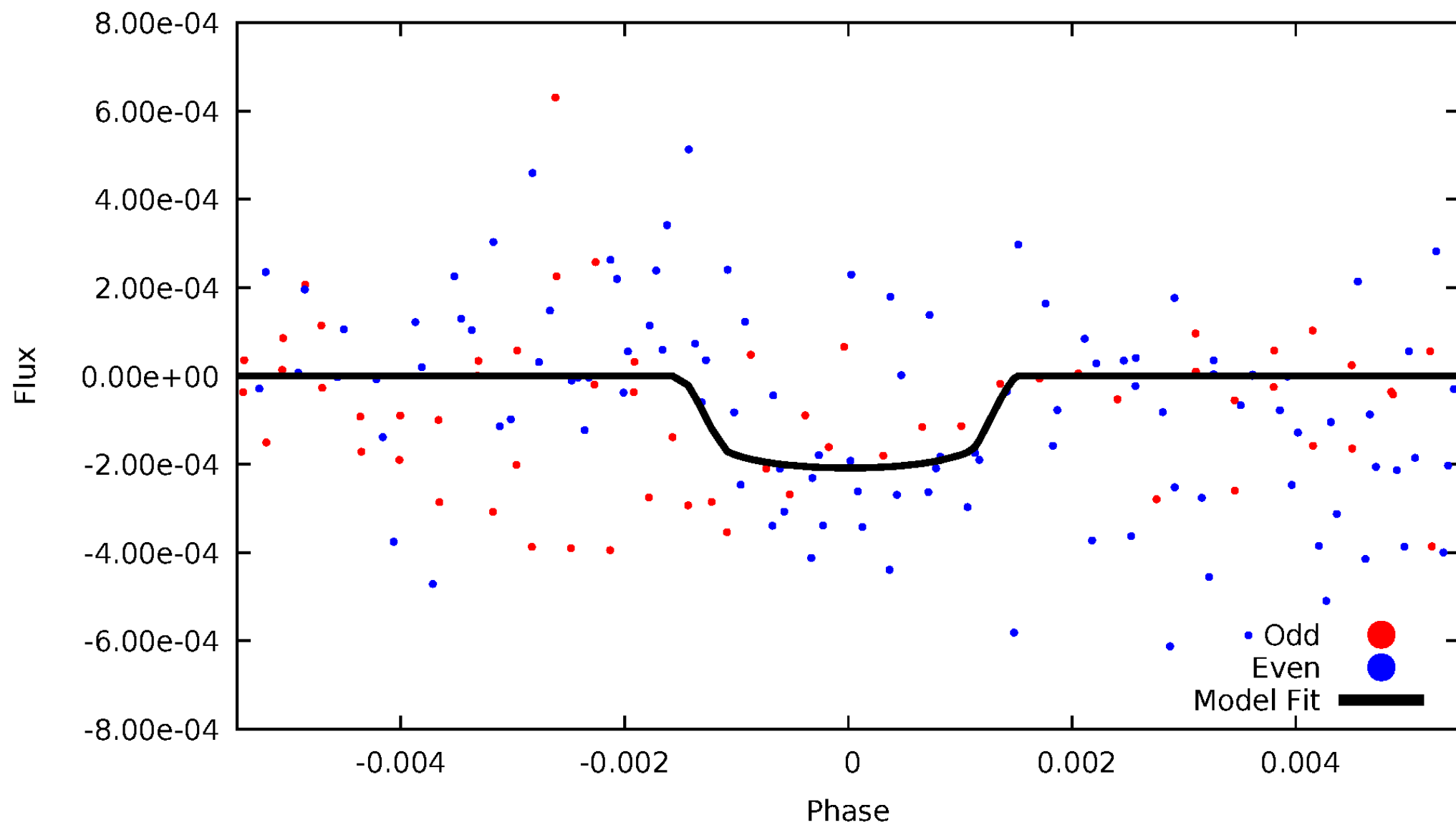


TCE 006519892-02



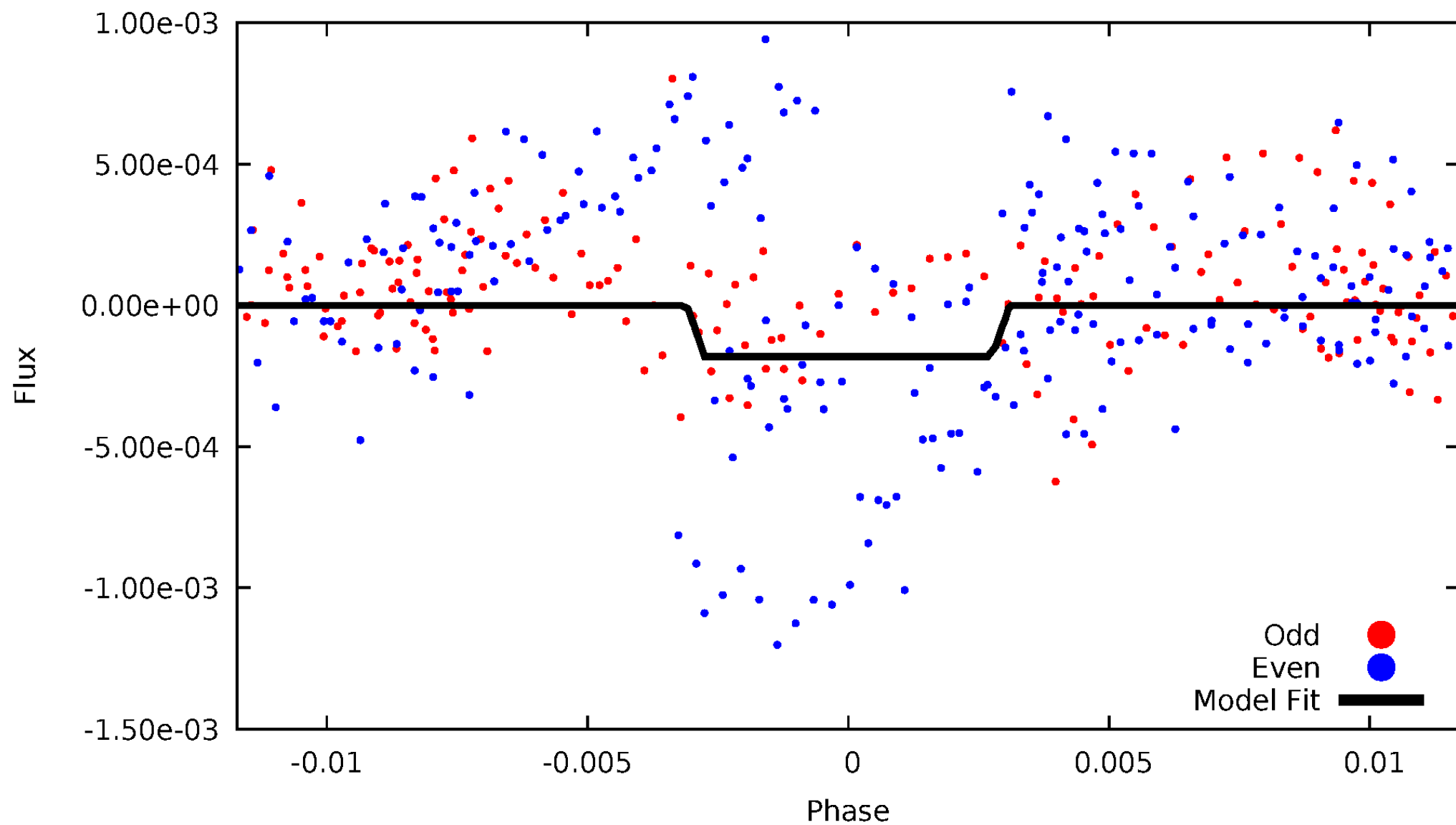
DV Odd/Even

TCE 006519892-02



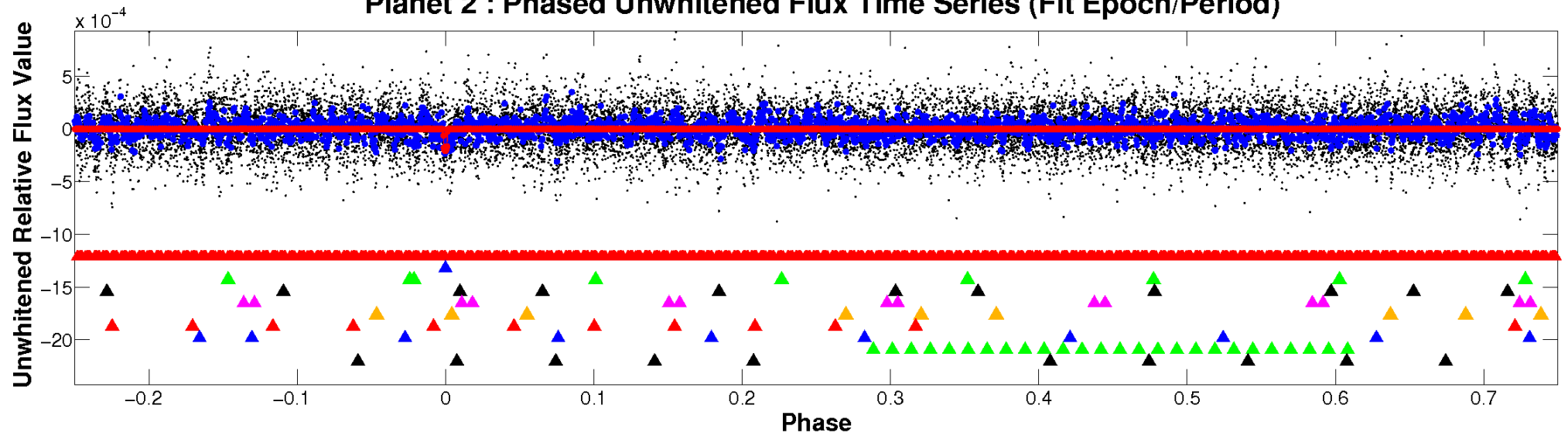
ALT Odd/Even

TCE 006519892-02

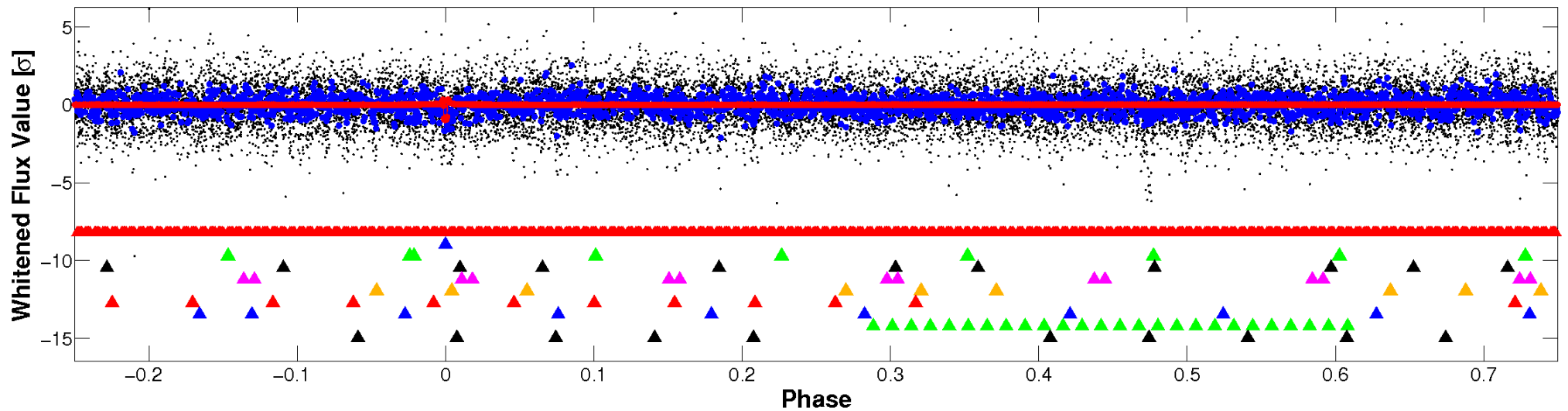


Non-Whitened Vs. Whitened Light Curve

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

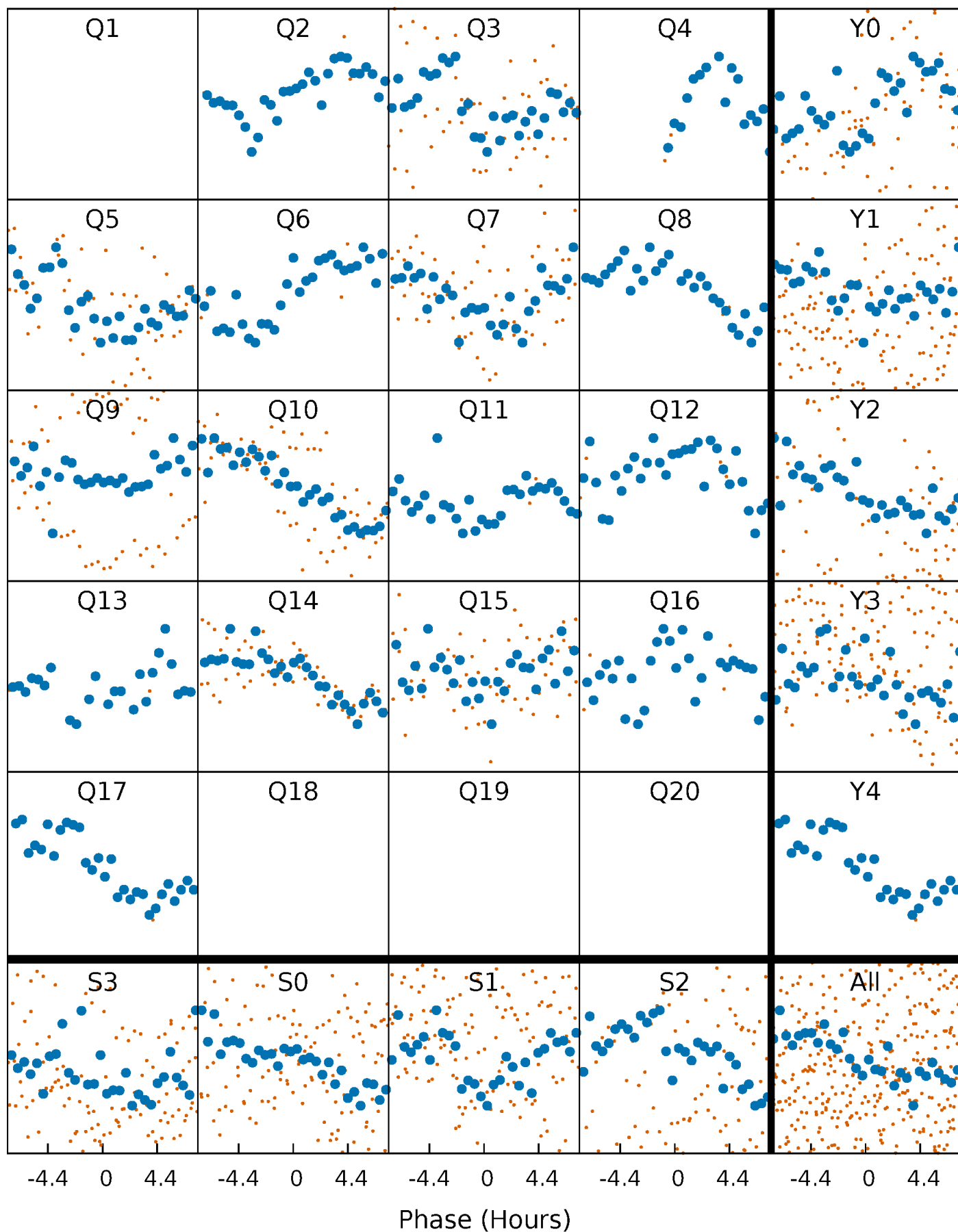


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



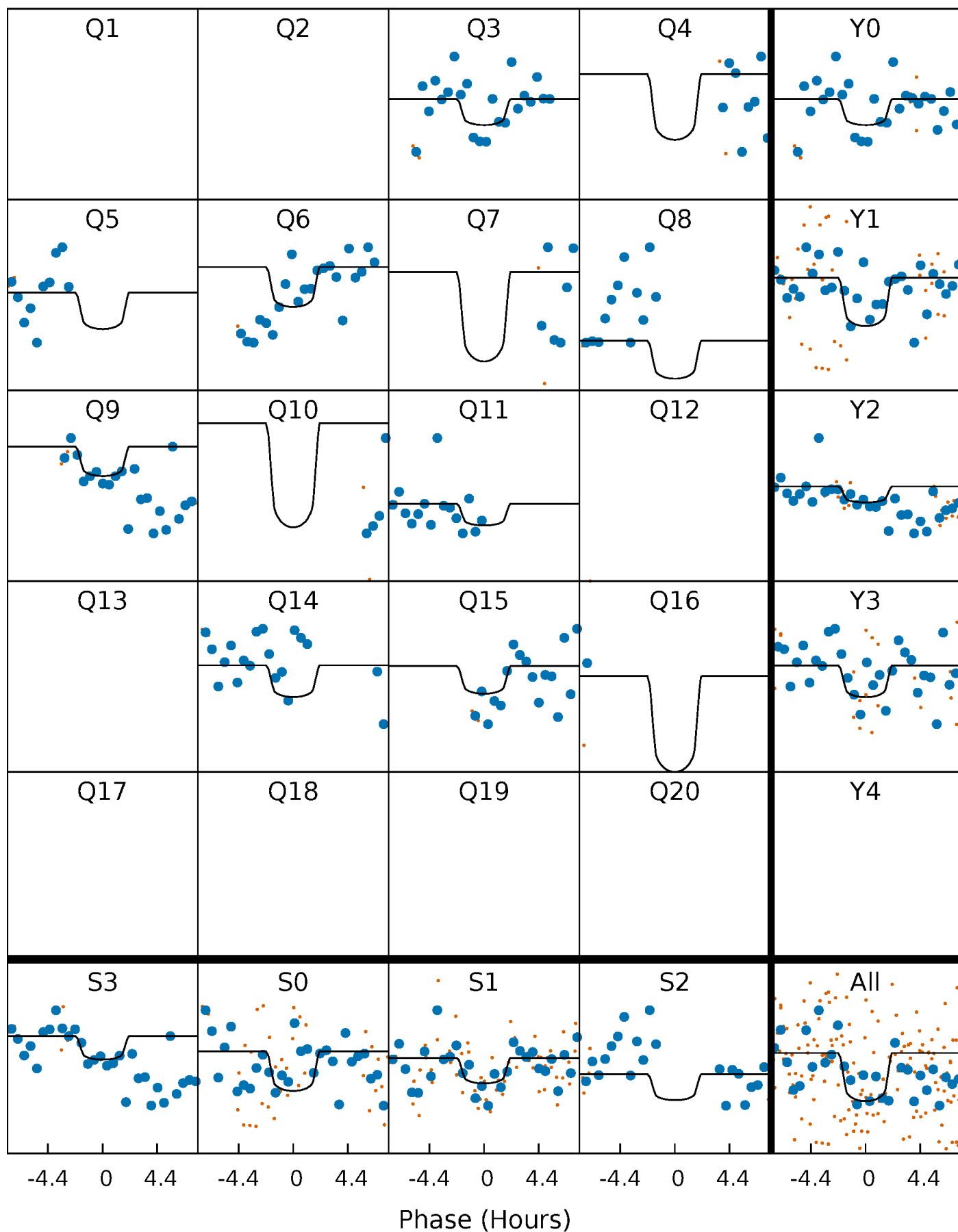
PDC Quarter-Phased Transit Curves

TCE 006519892-02 P= 58.560835 Days $T_0=166.614113$ (BKJD)



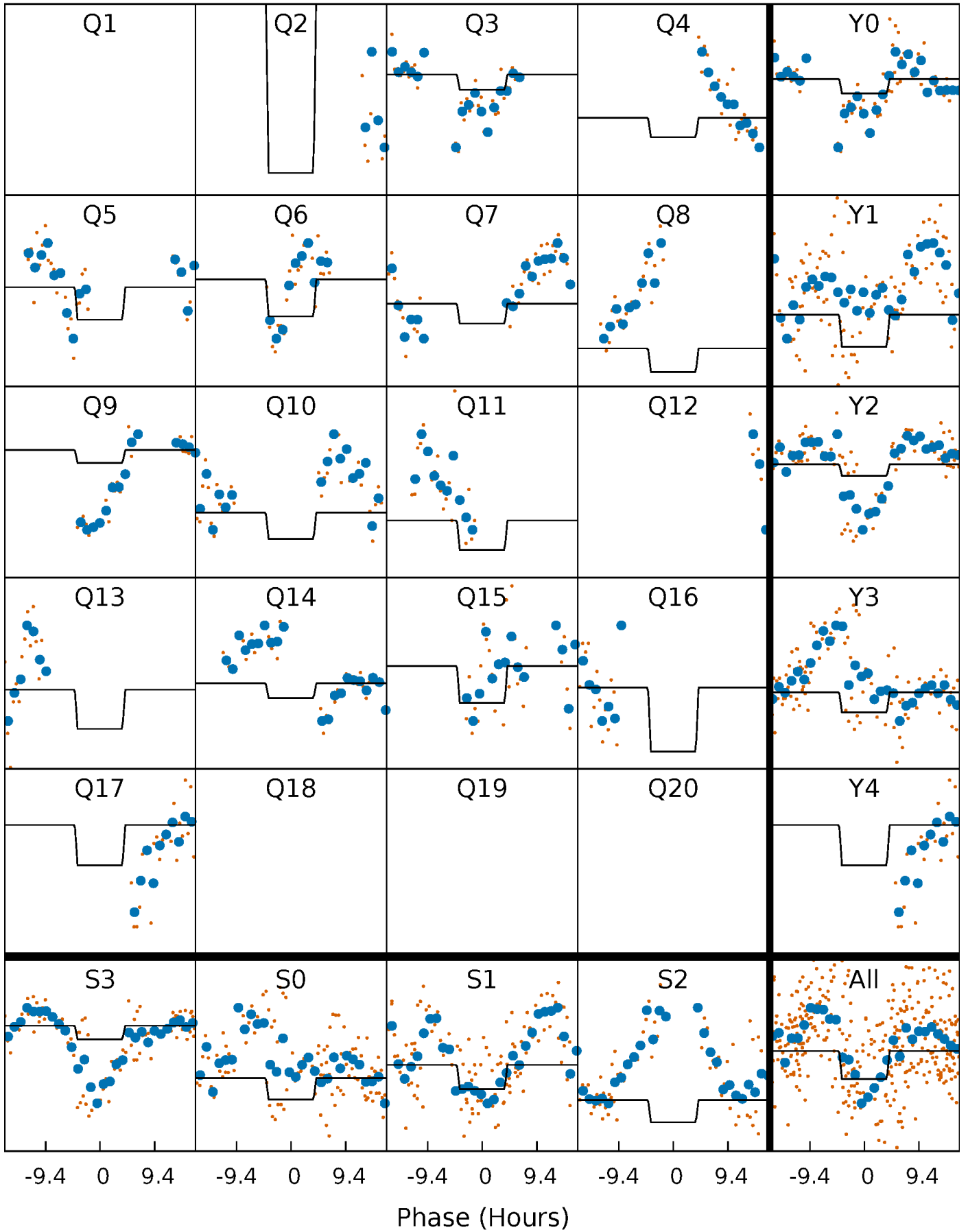
DV Quarter-Phased Transit Curves

TCE 006519892-02 P= 58.560835 Days $T_0=166.614113$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

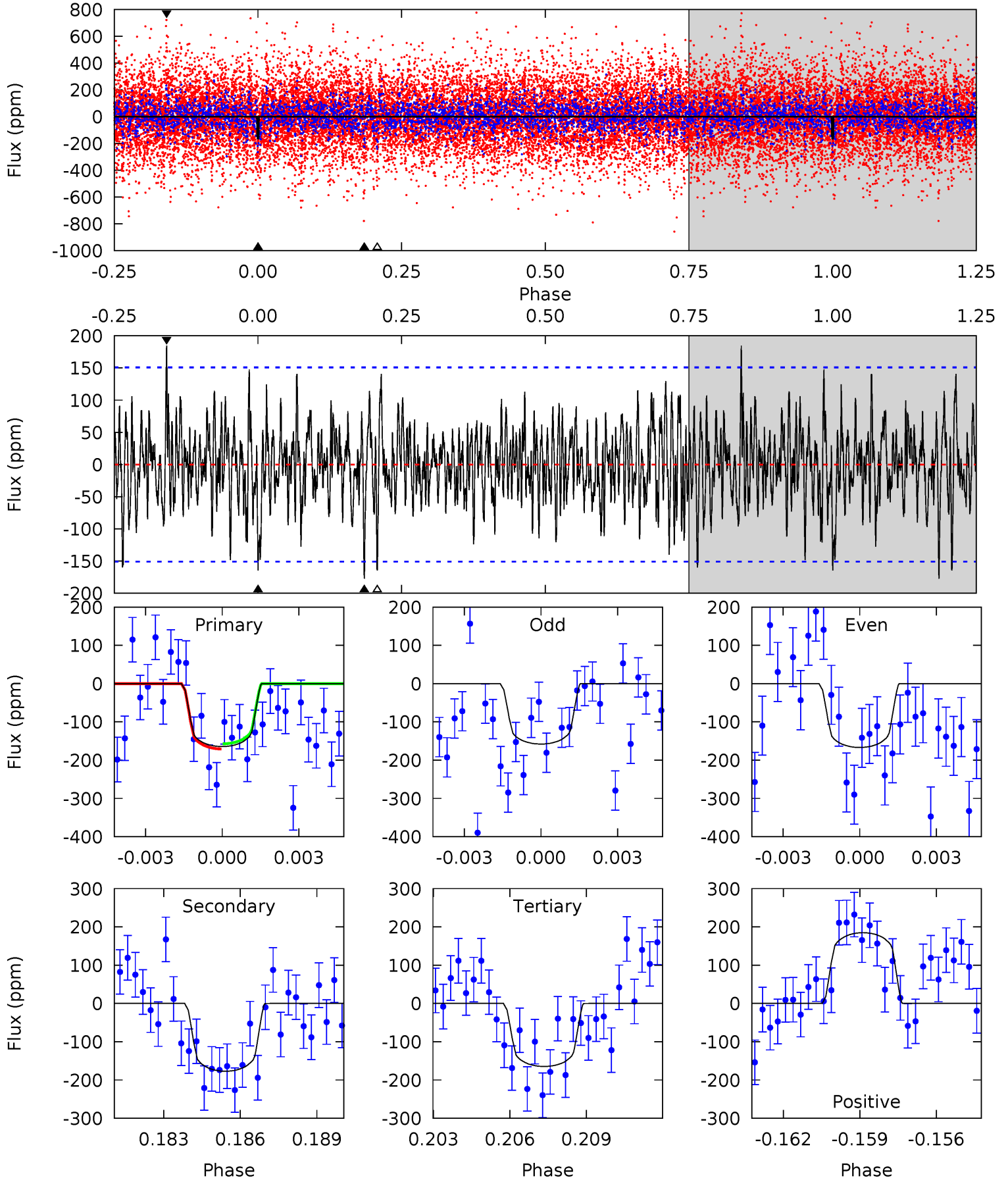
TCE 006519892-02 P= 58.567863 Days $T_0=166.553207$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-02, $P = 58.560835$ Days, $E = 108.053278$ Days

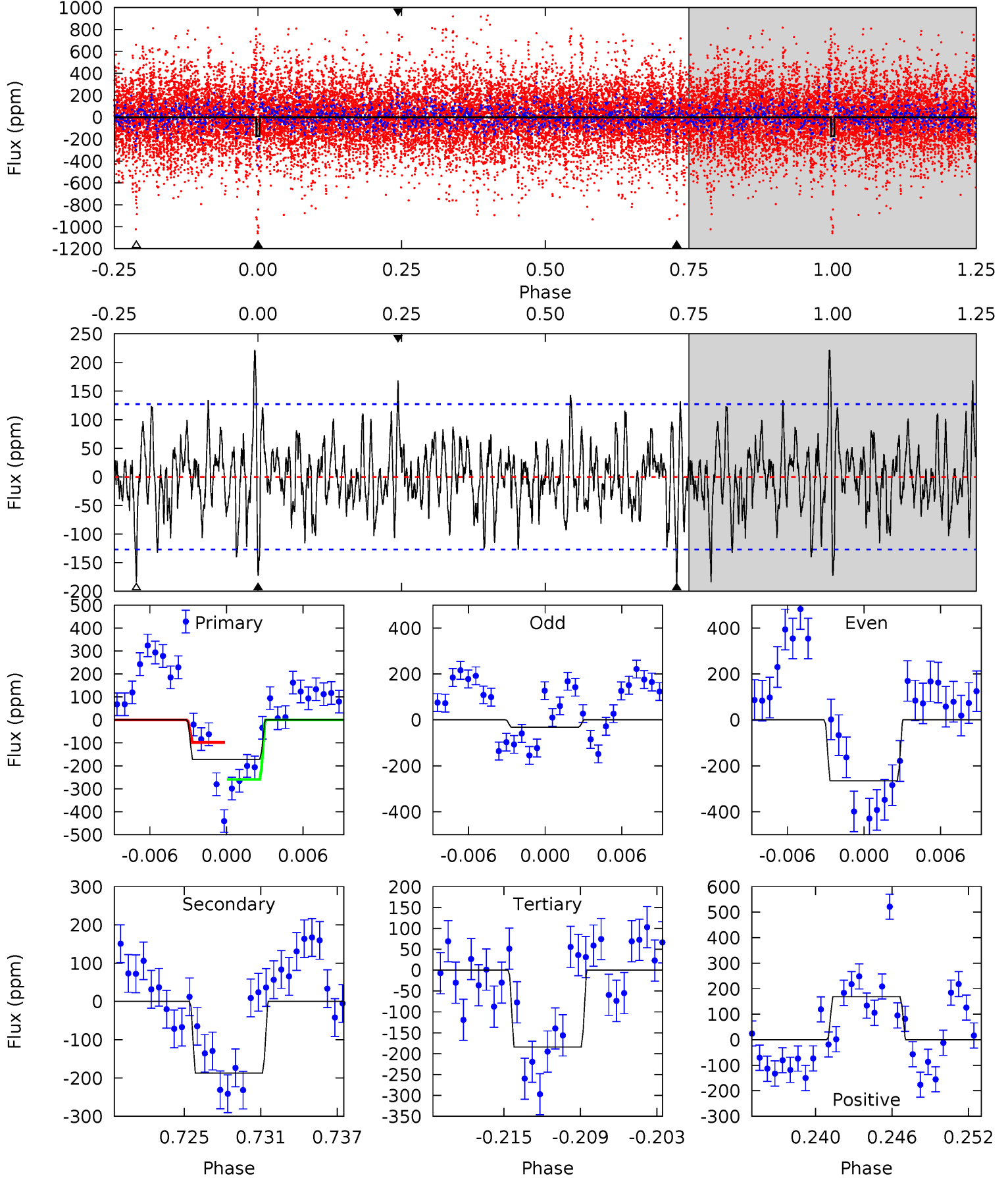
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.73	6.18	5.74	6.44	5.26	2.97	1.74	-0.01	-0.71	0.44	-0.27	0.14	0.55	0.51	0.24



Alt Model-Shift Uniqueness Test

006519892-02, P = 58.567863 Days, E = 107.985344 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.94	7.53	7.42	6.78	5.12	2.74	2.04	-0.47	0.16	0.11	0.75	4.56	0.59	0.54	3.20



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-177 ± 29	$4.37^{+3.94}_{-2.74}$	1094^{+86}_{-96}	5810^{+4530}_{-1319}	588^{+3336}_{-427}
Alt.	-187 ± 25	$4.03^{+3.94}_{-2.75}$	1084^{+94}_{-96}	6083^{+6855}_{-1489}	730^{+6327}_{-540}

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 $A_{obs} \gg 1.0$

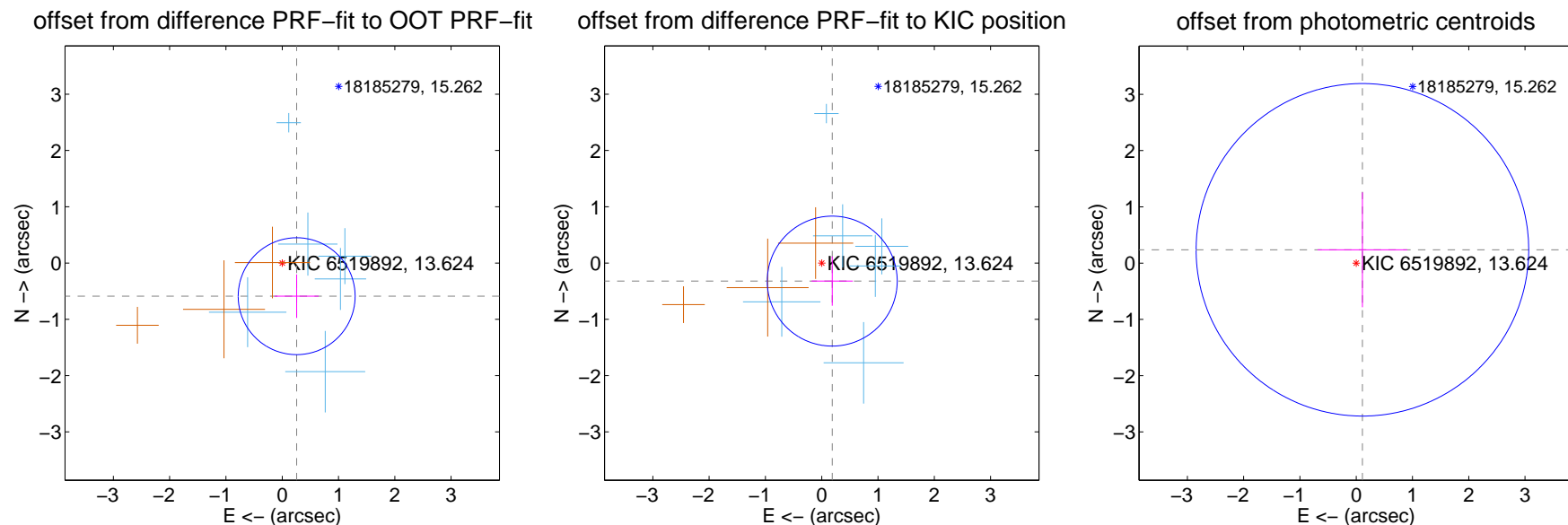
DV Centroid Data

Supplemental centroid analysis for 006519892-02. Kepler magnitude: 13.62. Transit SNR 5.78

There are 6 quarters with good PRF difference image offsets

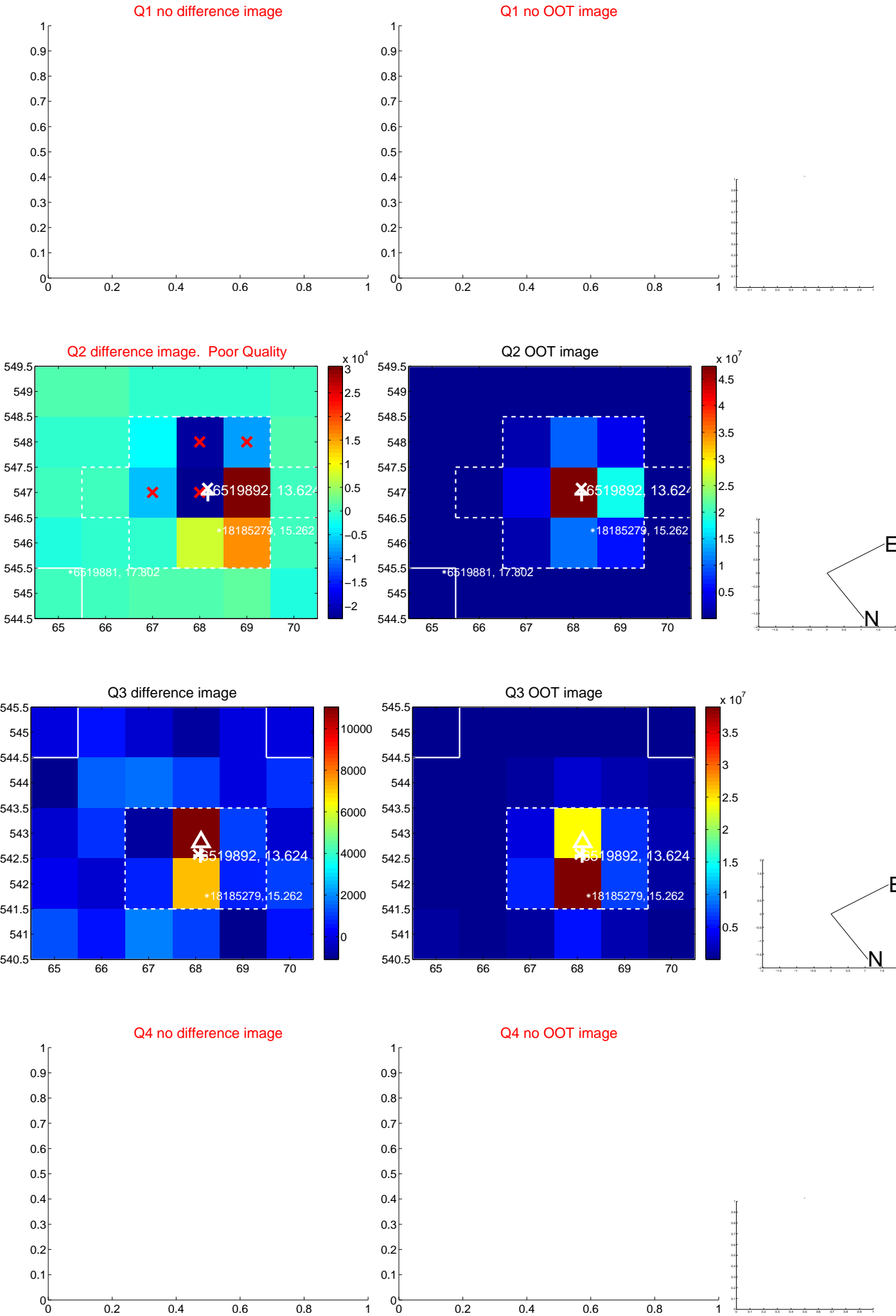
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.643 ± 0.346	1.86	-0.256 ± 0.392	-0.589 ± 0.388
PRF-fit source offset from KIC position	0.371 ± 0.385	0.96	-0.187 ± 0.366	-0.321 ± 0.438
photometric centroid source offset	0.26 ± 0.98	0.26	-0.11 ± 0.80	0.24 ± 1.02

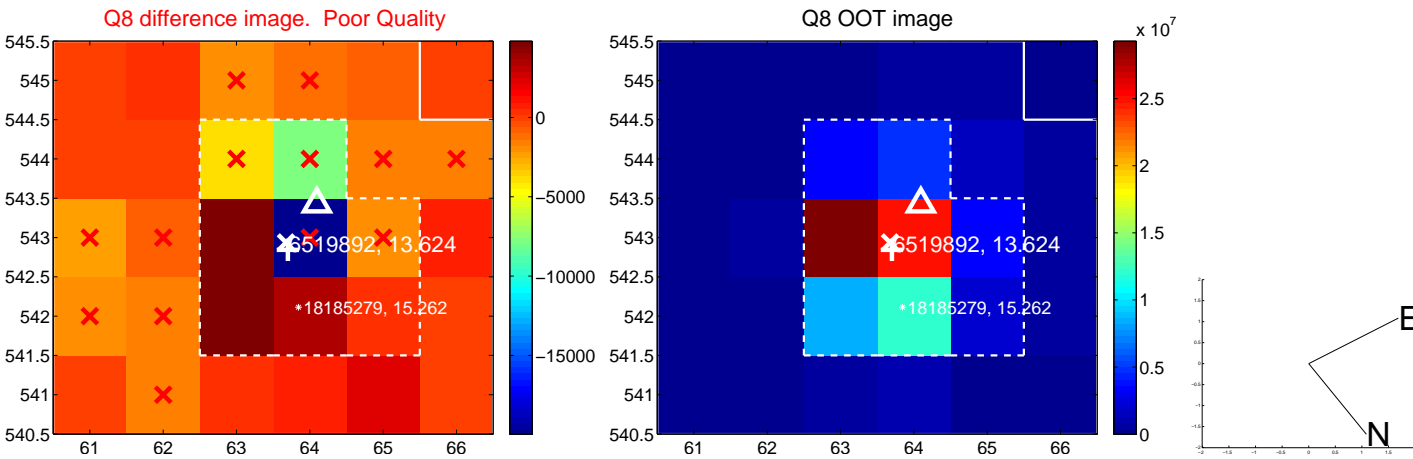
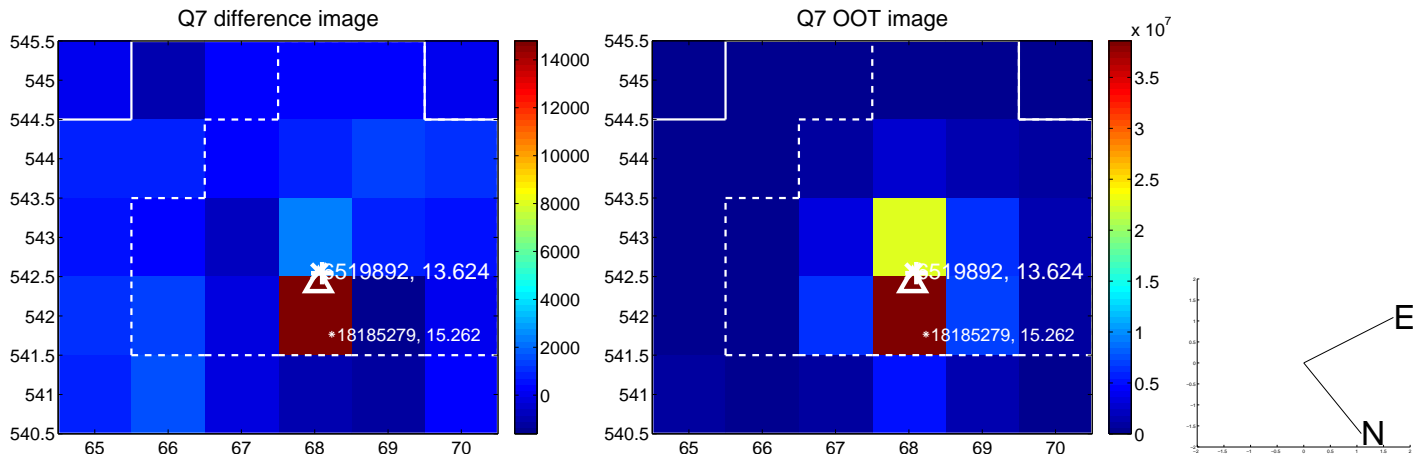
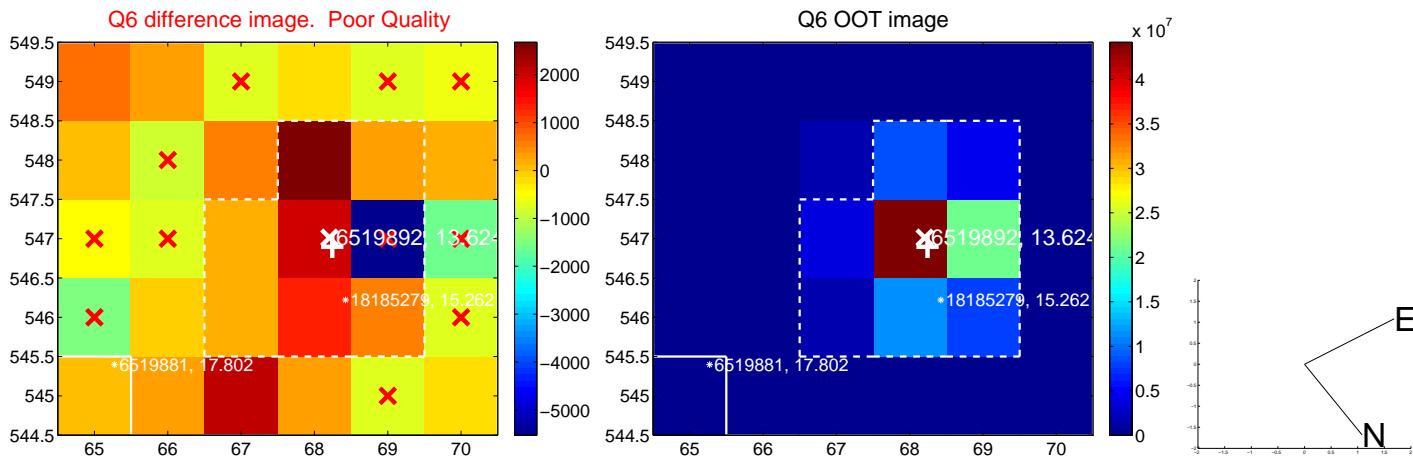
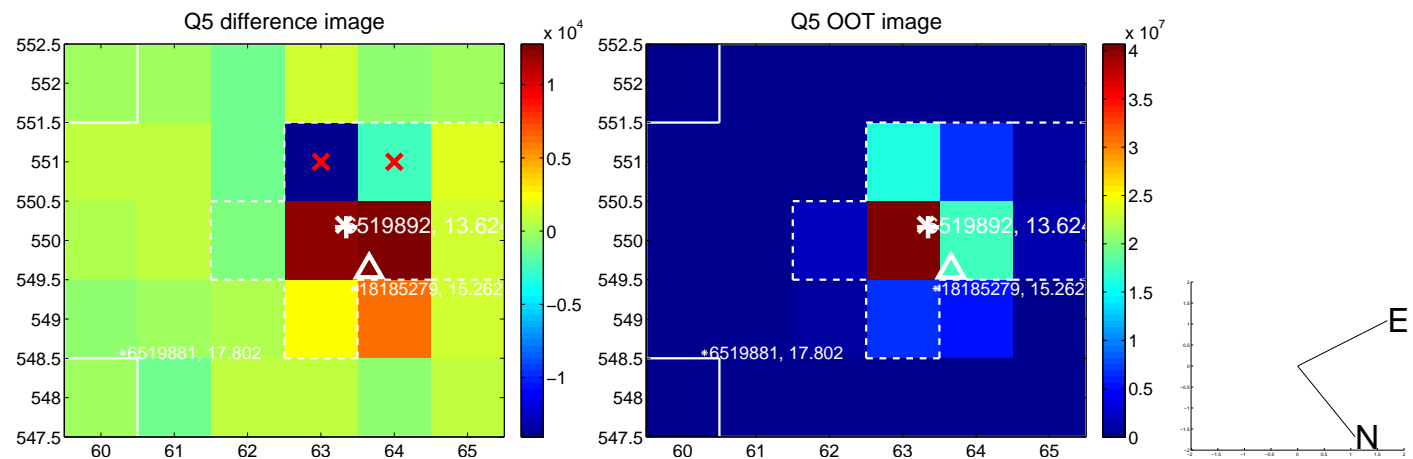


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

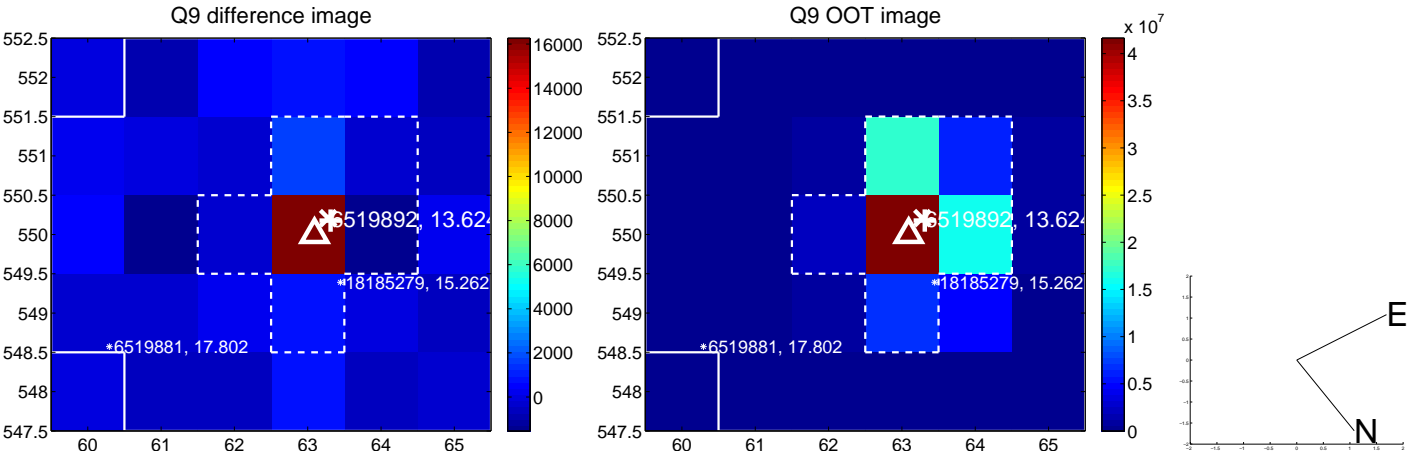
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



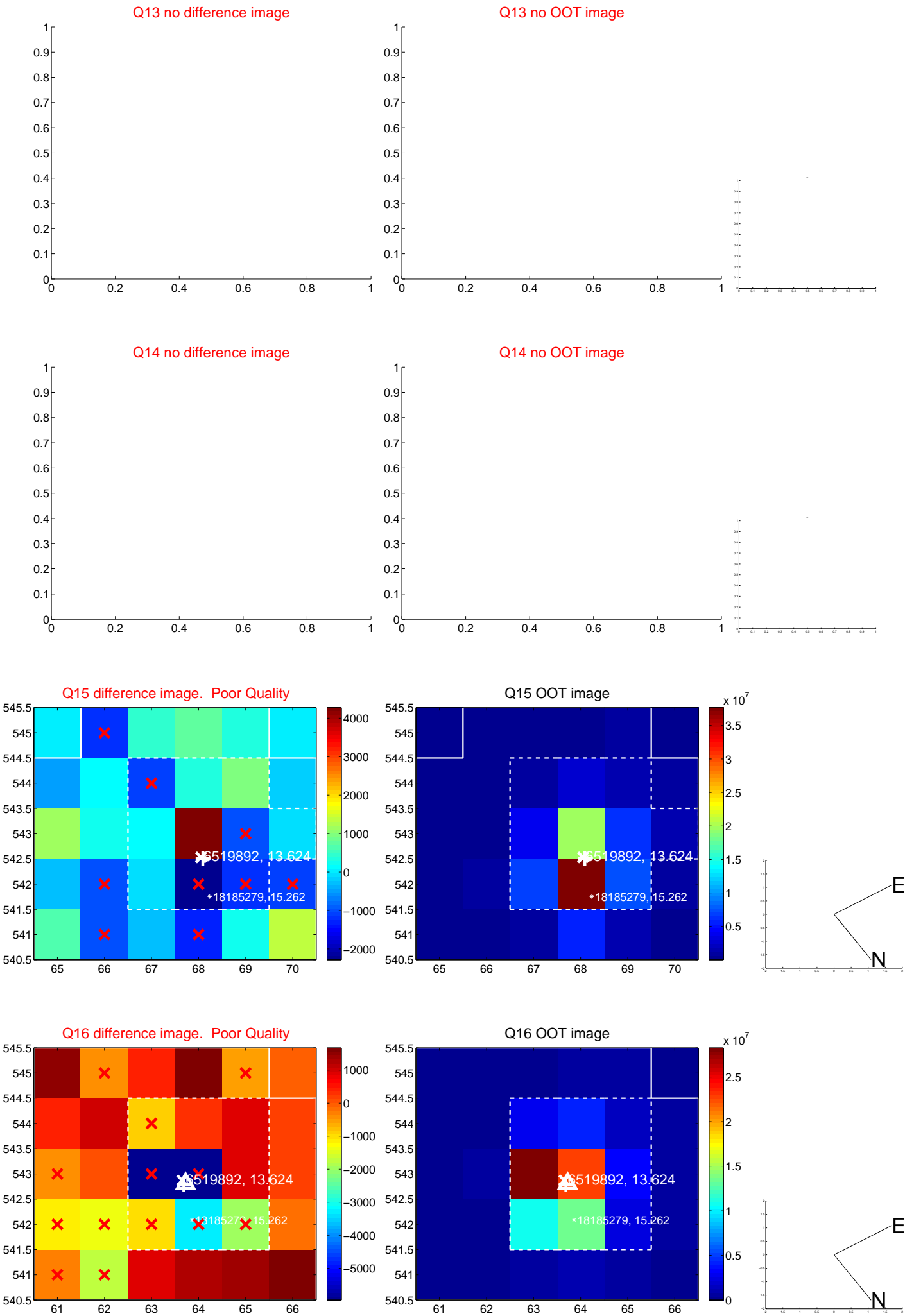
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

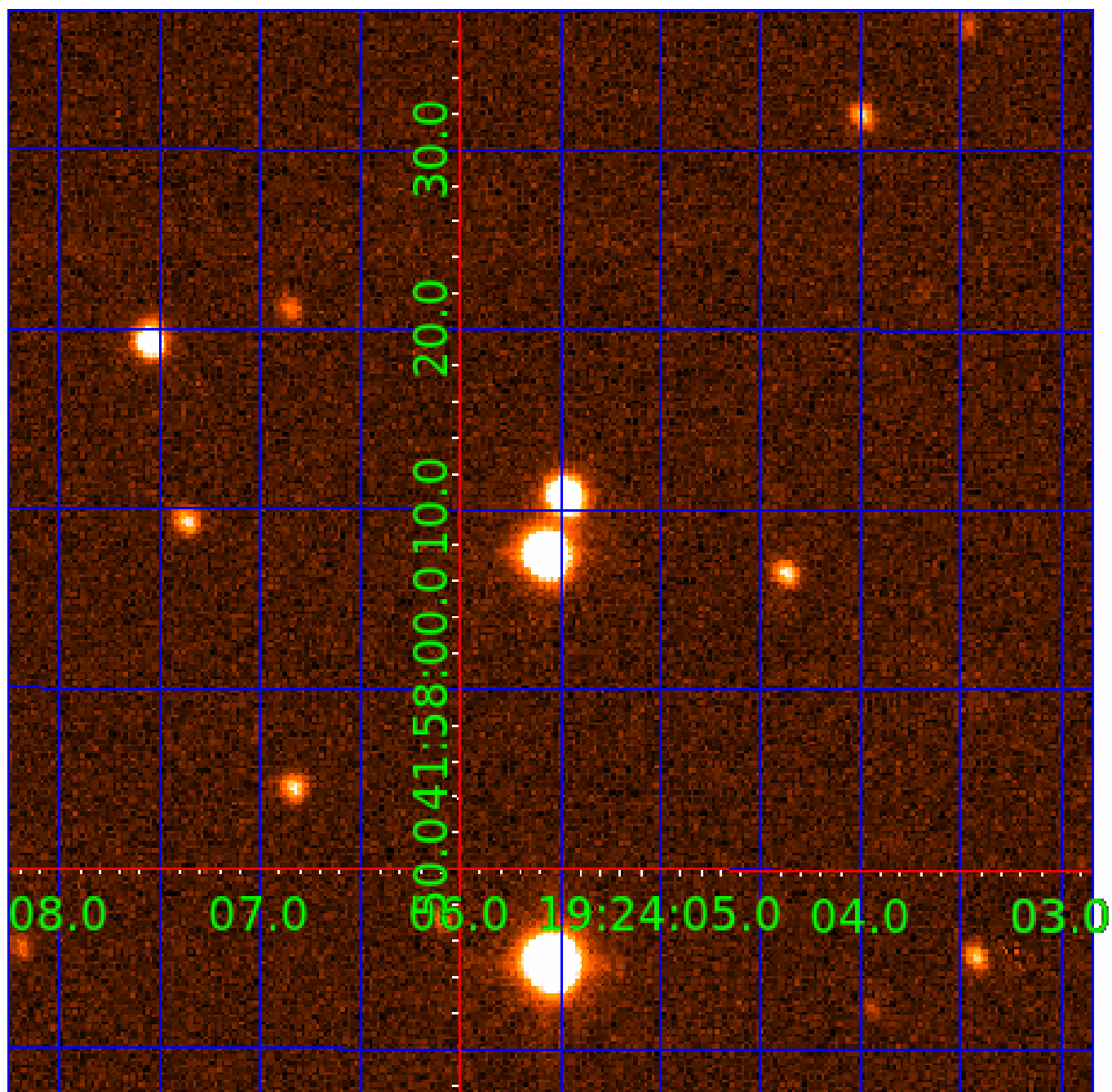


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

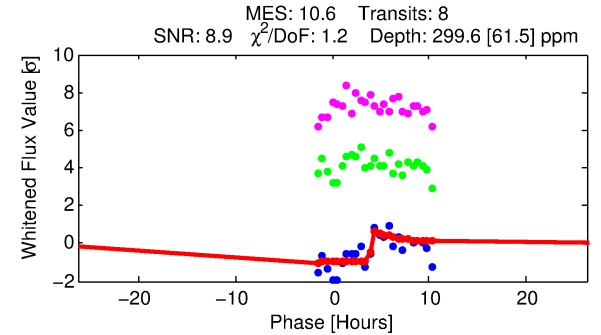
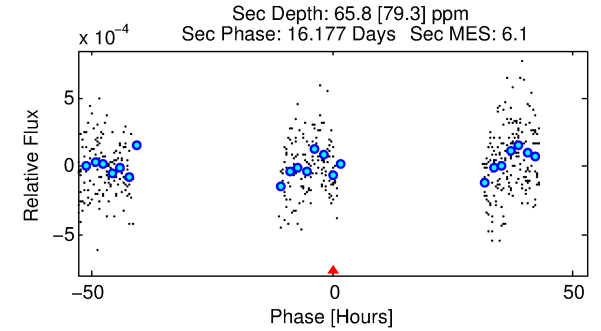
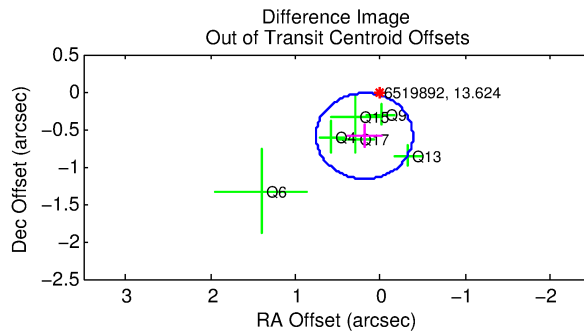
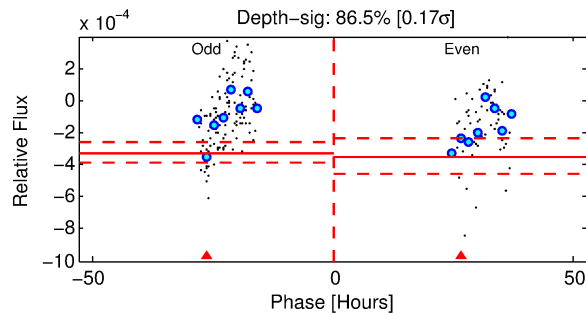
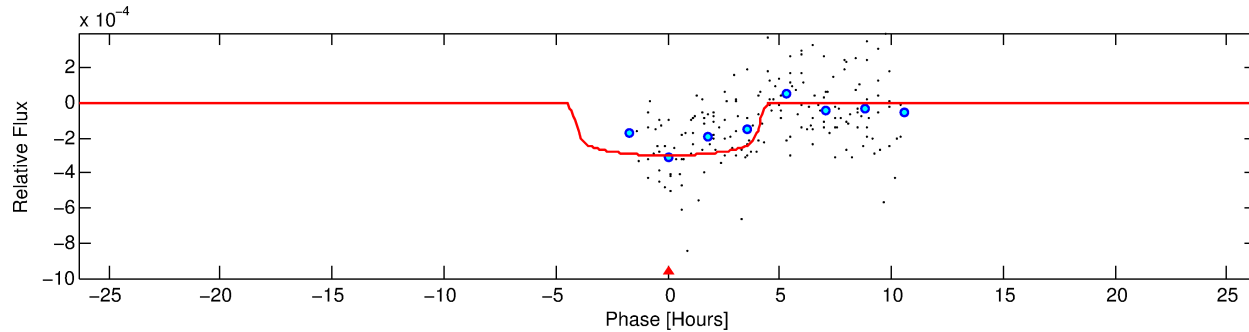
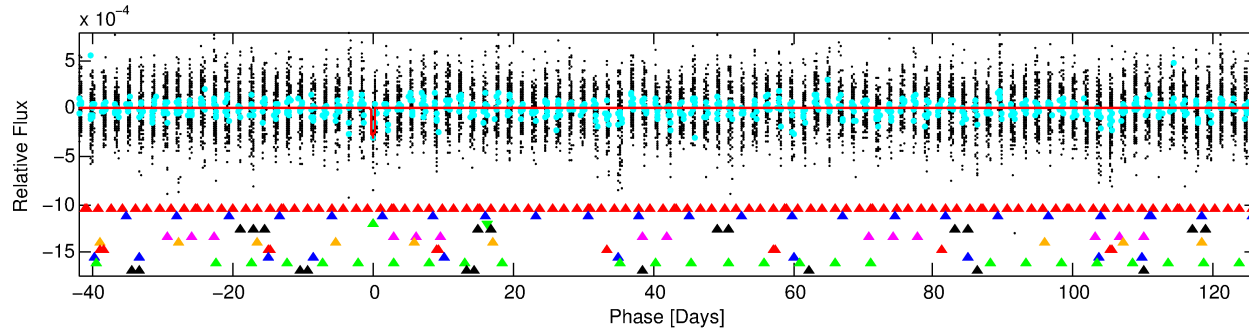
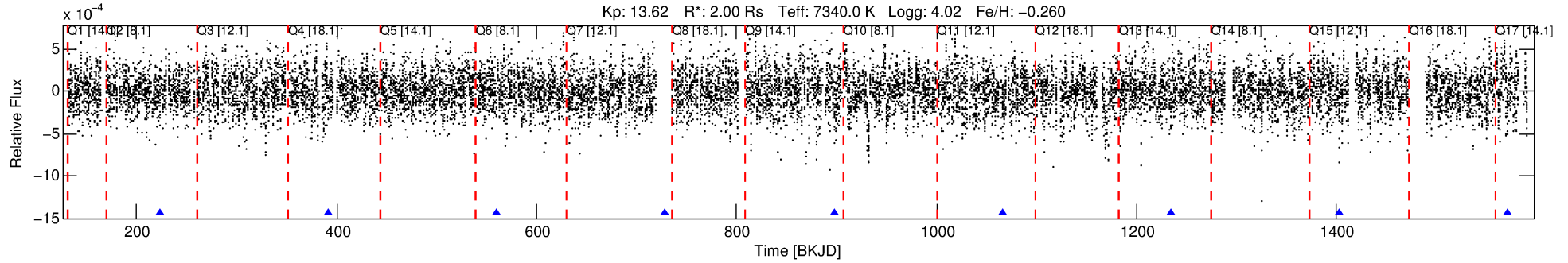
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-03

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 3 of 10 Period: 168.341 d



DV Fit Results:

Period = 168.34137 [0.00247] d
Epoch = 223.9330 [0.0663] BKJD
Rp/R* = 0.0177 [0.0080]
a/R* = 85.95 [219.02]
b = 0.83 [0.83]
Seff = 22.19 [10.06]
Teq = 553 [63] K
Rp = 3.88 [2.11] Re
a = 0.6864 [0.1891] AU
Ag = 1133.05 [1770.80] [0.64 σ]
Teffp = 4964 [1879] K [2.35 σ]

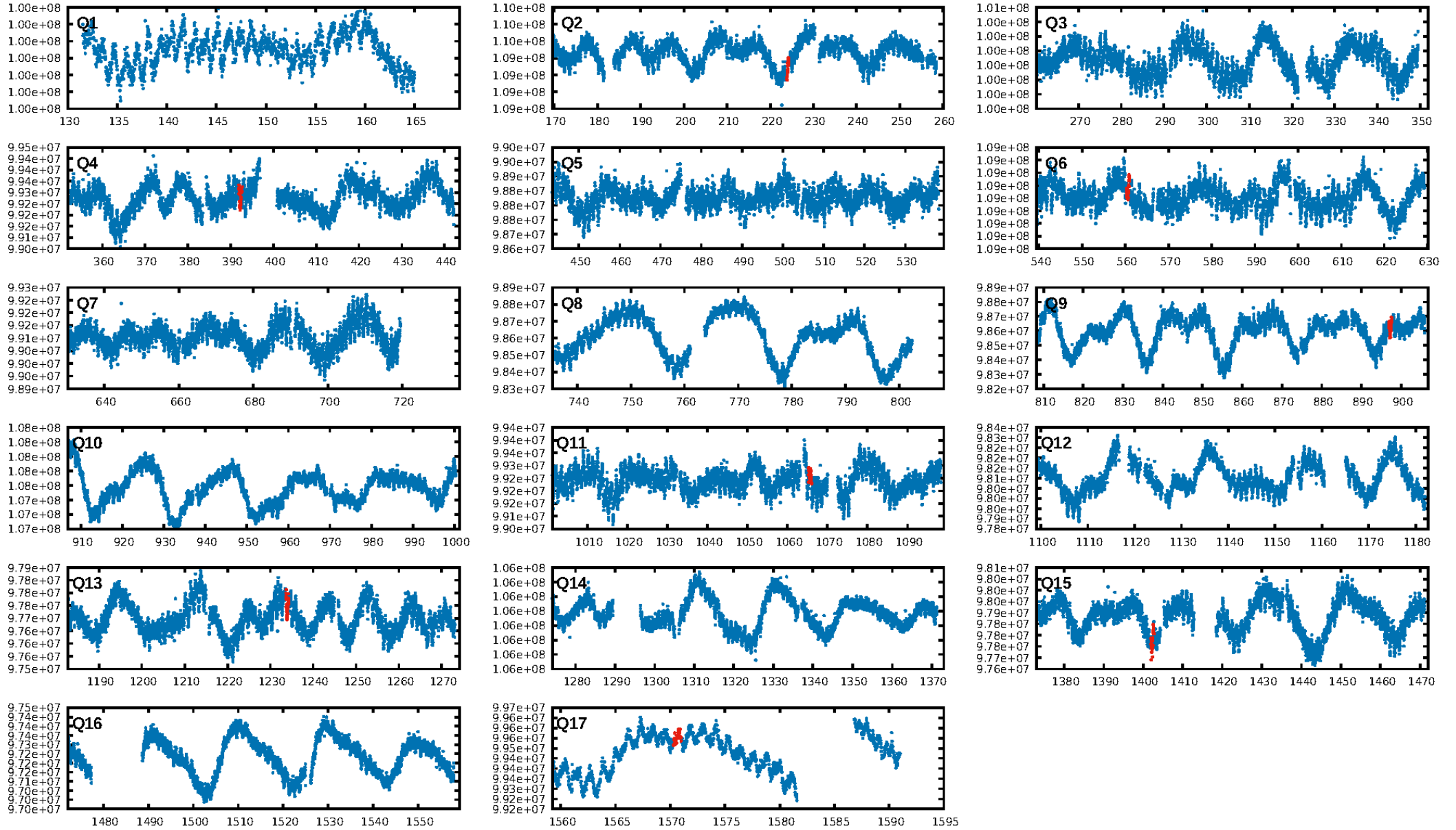
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [28.18 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 0.9591
Centroid-sig: 9.0%
Centroid-so: 0.915 arcsec [0.88 σ]
OotOffset-rm: 0.619 arcsec [3.25 σ]
OotOffset-st: 1/1/1/3 [6]
KicOffset-rm: 0.427 arcsec [2.37 σ]
KicOffset-st: 1/1/1/3 [6]
DiffImageQuality-fgm: 0.83 [5/6]
DiffImageOverlap-fno: 0.00 [0/6]

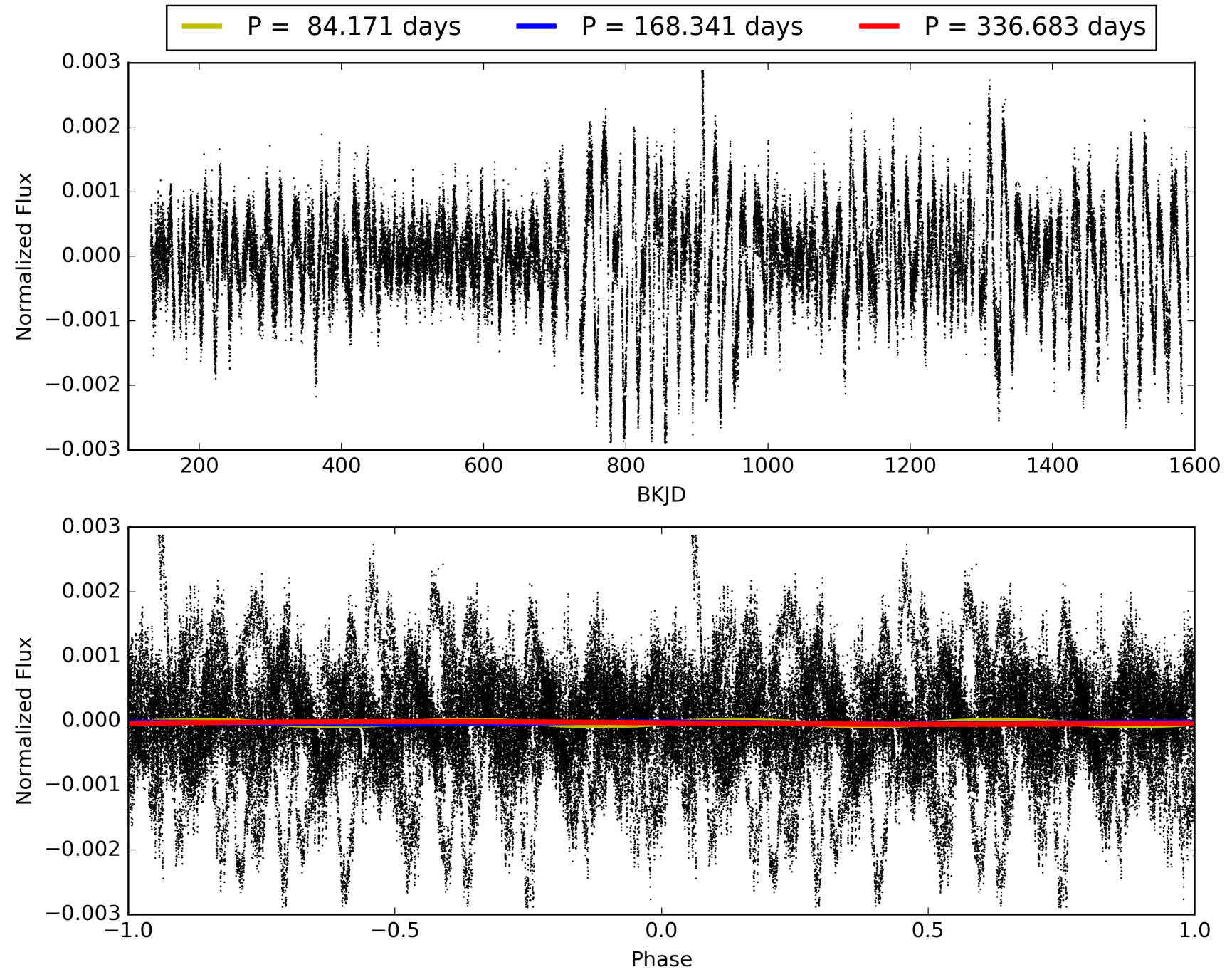
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:56:59 Z

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

TCE 006519892-03, PDC Light Curves

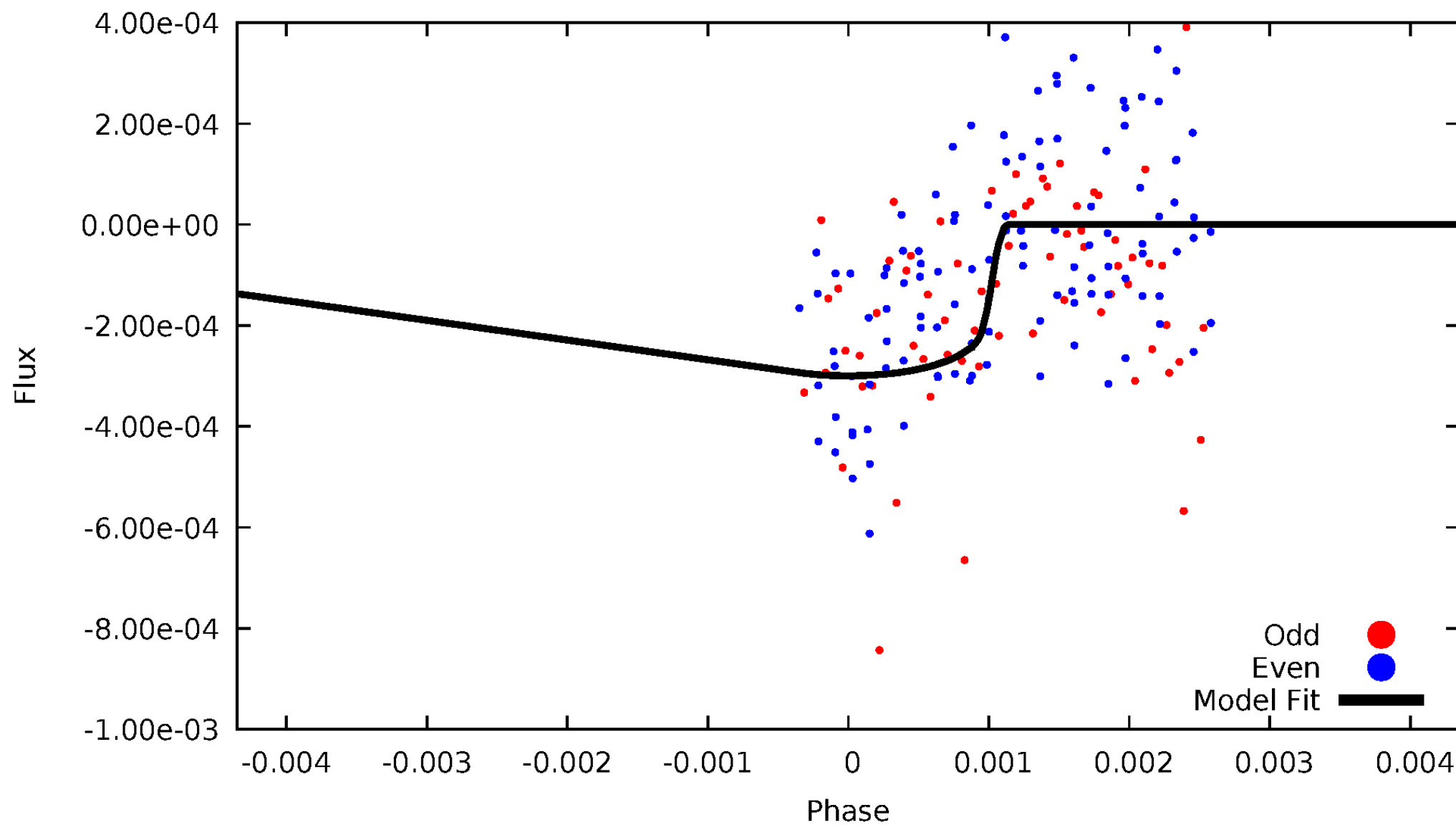


TCE 006519892-03



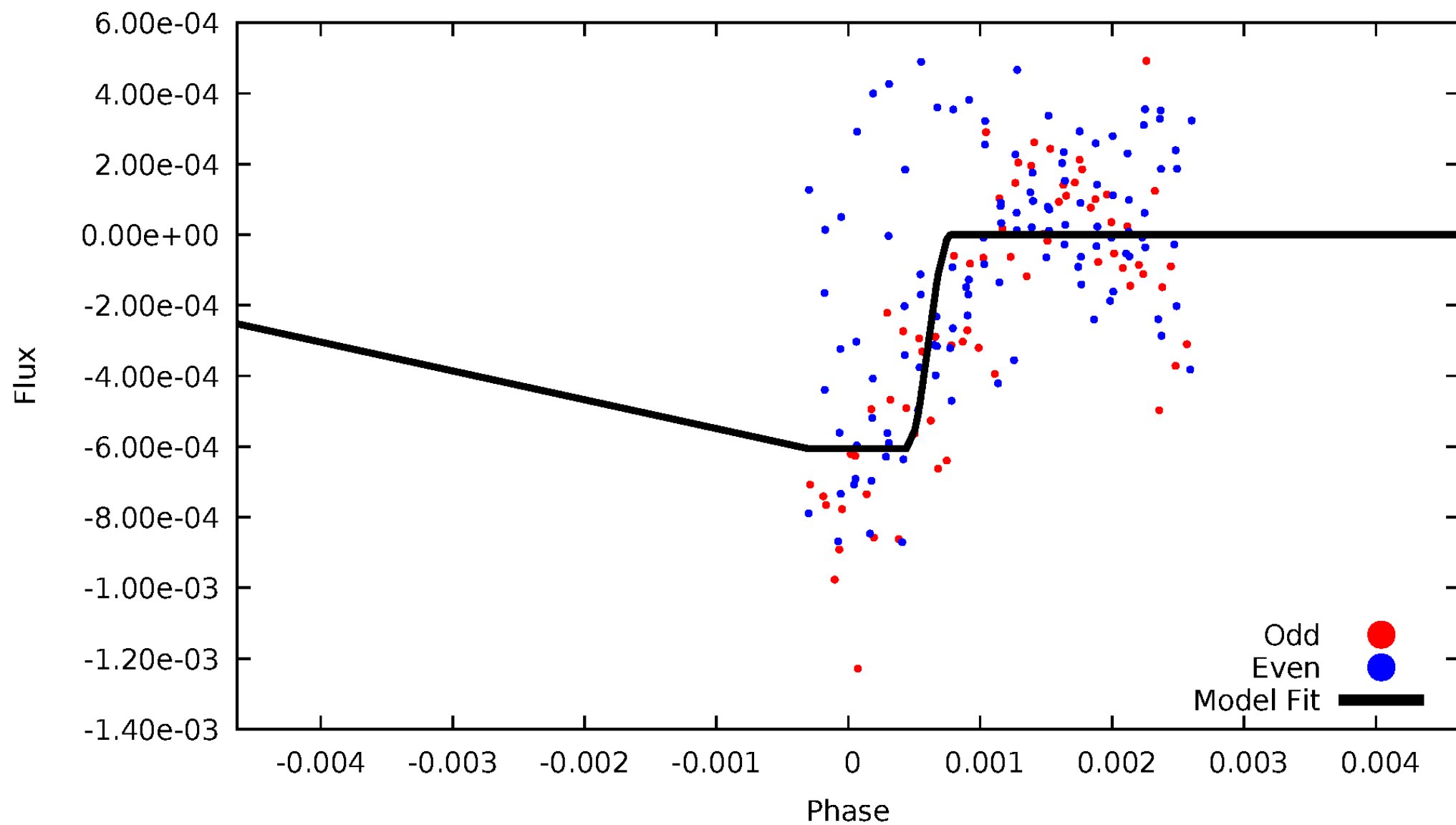
DV Odd/Even

TCE 006519892-03



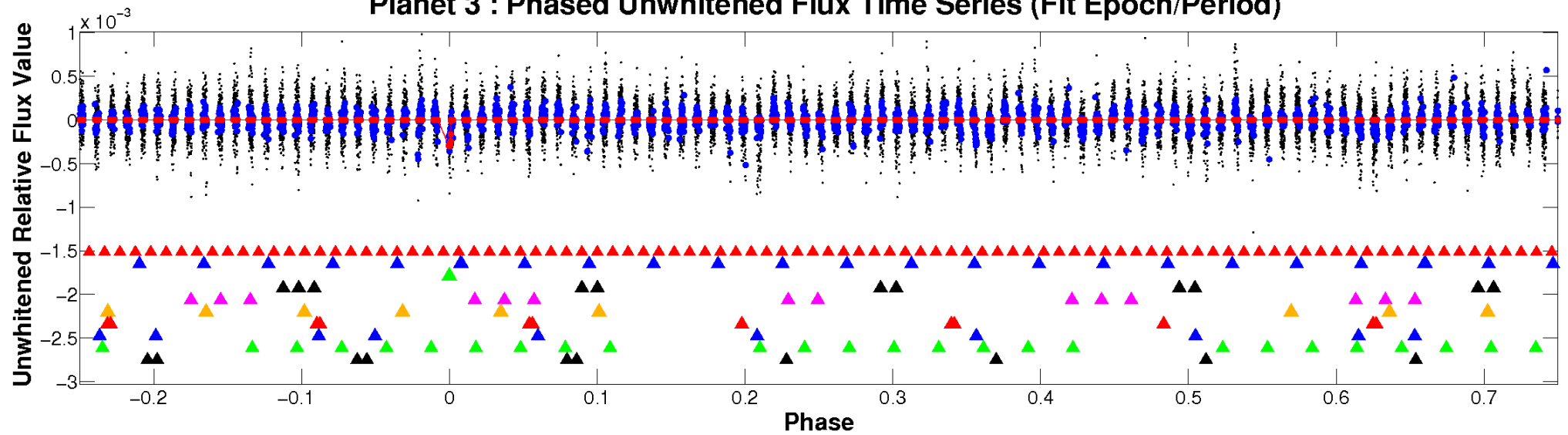
ALT Odd/Even

TCE 006519892-03

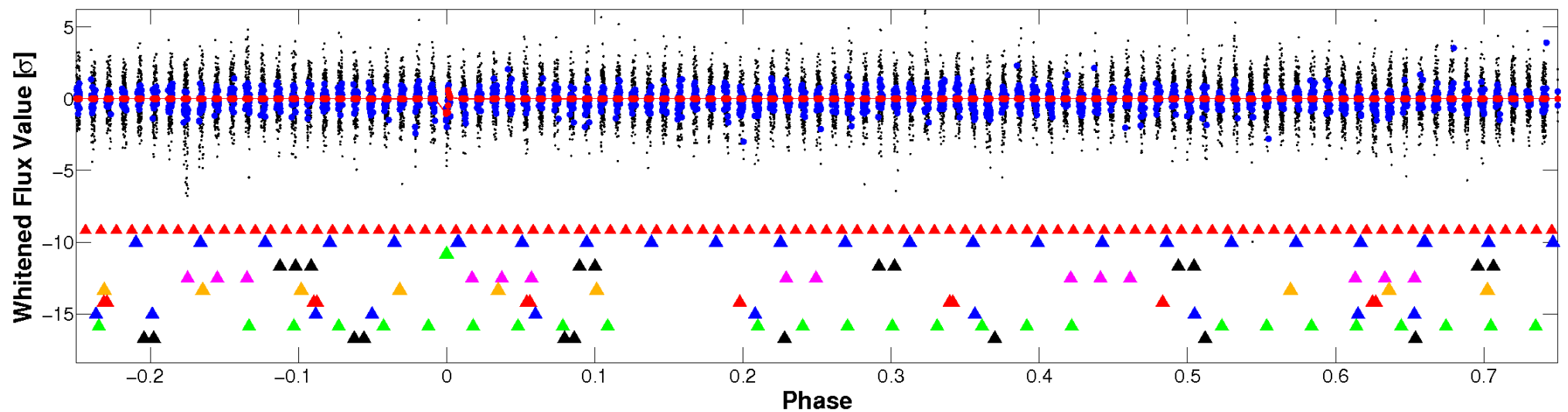


Non-Whitened Vs. Whitened Light Curve

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

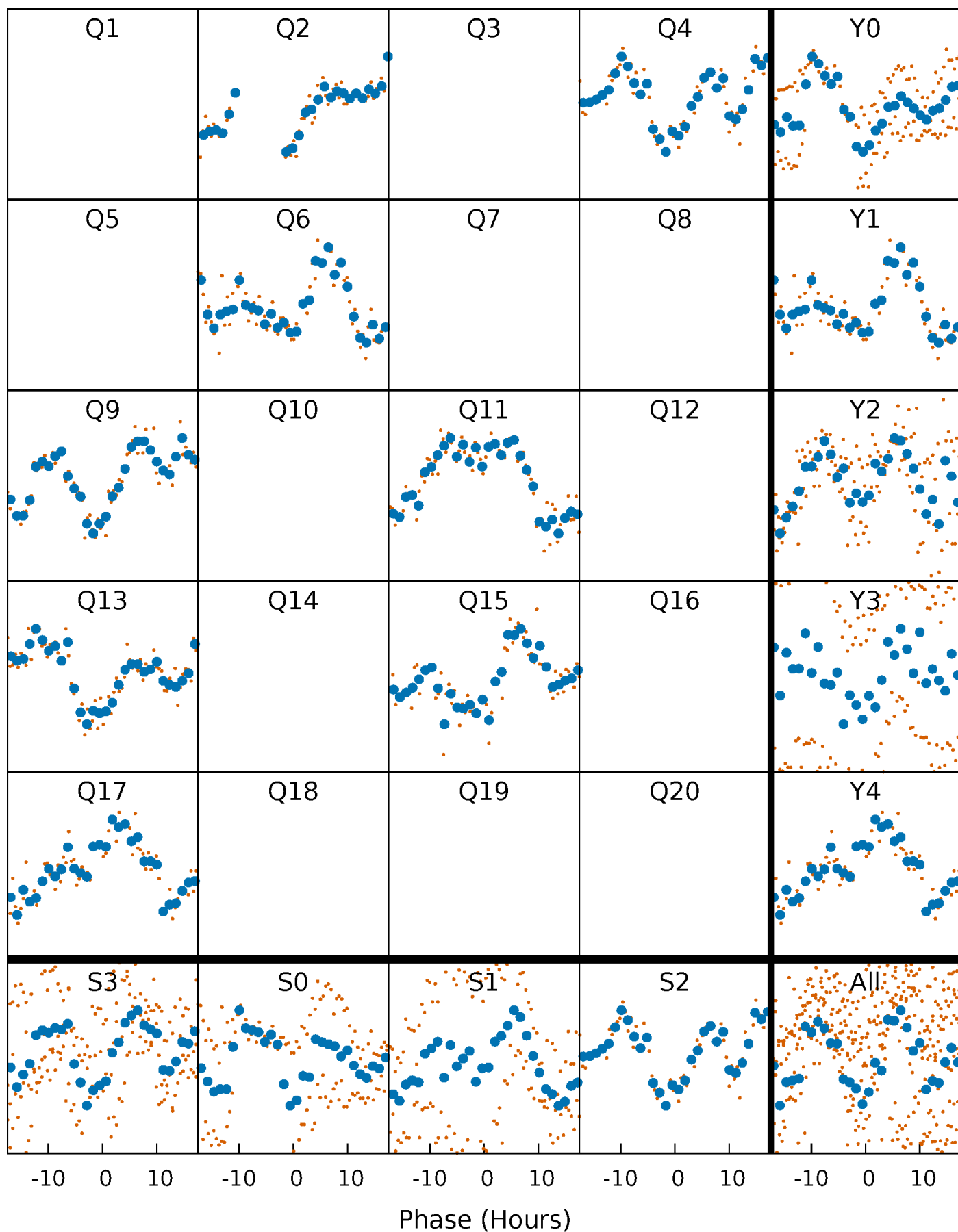


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



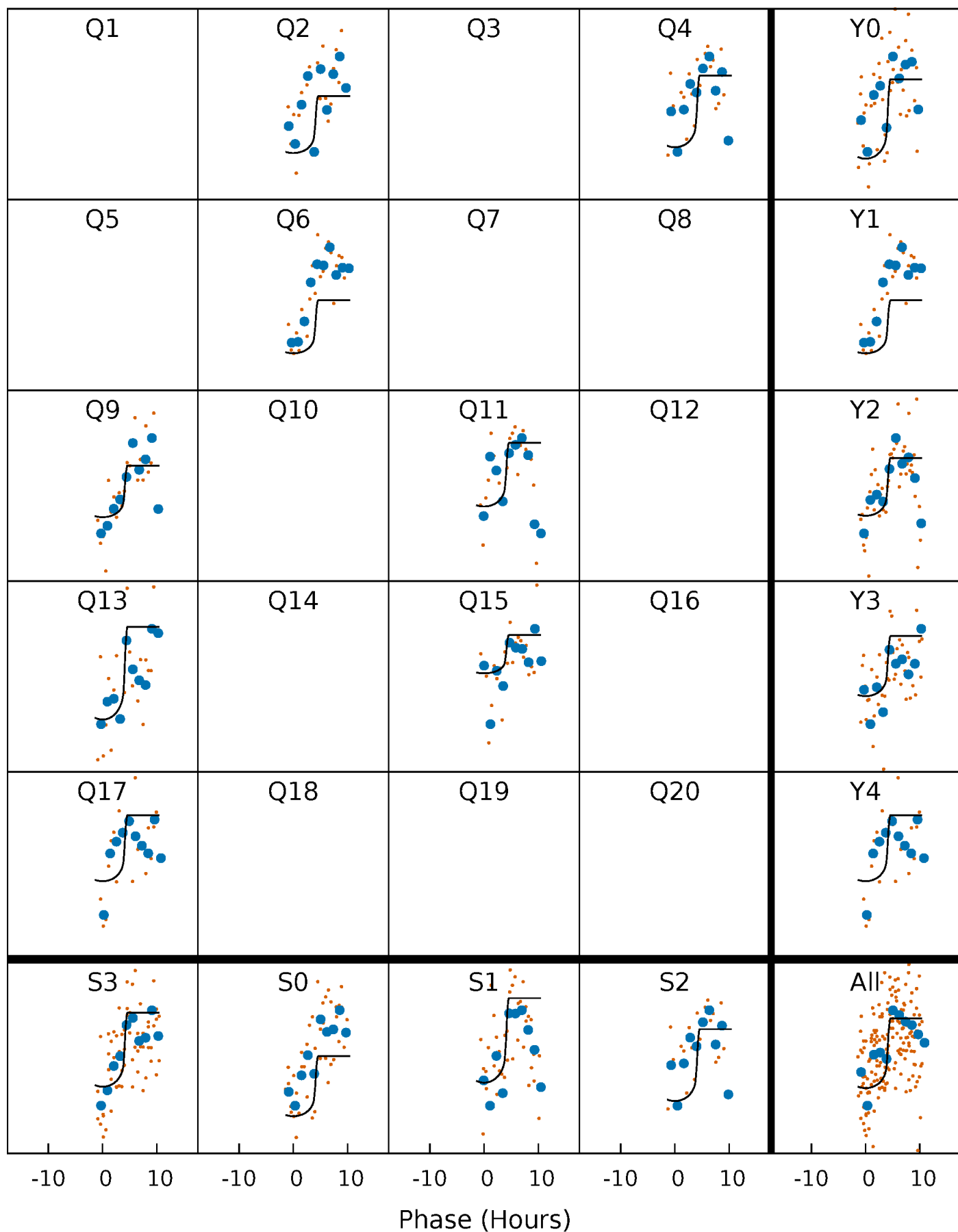
PDC Quarter-Phased Transit Curves

TCE 006519892-03 P=168.341367 Days $T_0=223.933020$ (BKJD)



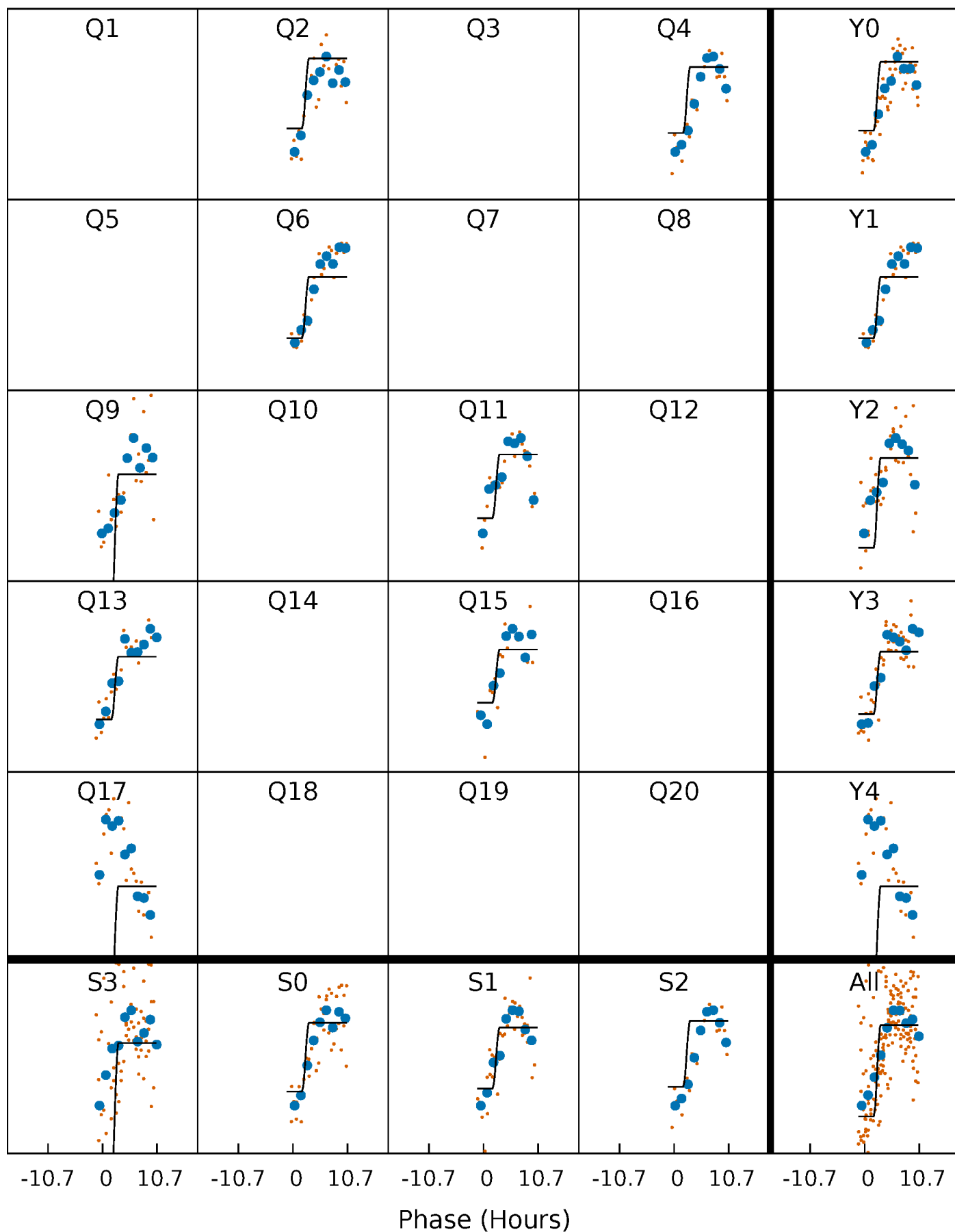
DV Quarter-Phased Transit Curves

TCE 006519892-03 P=168.341367 Days $T_0=223.933020$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

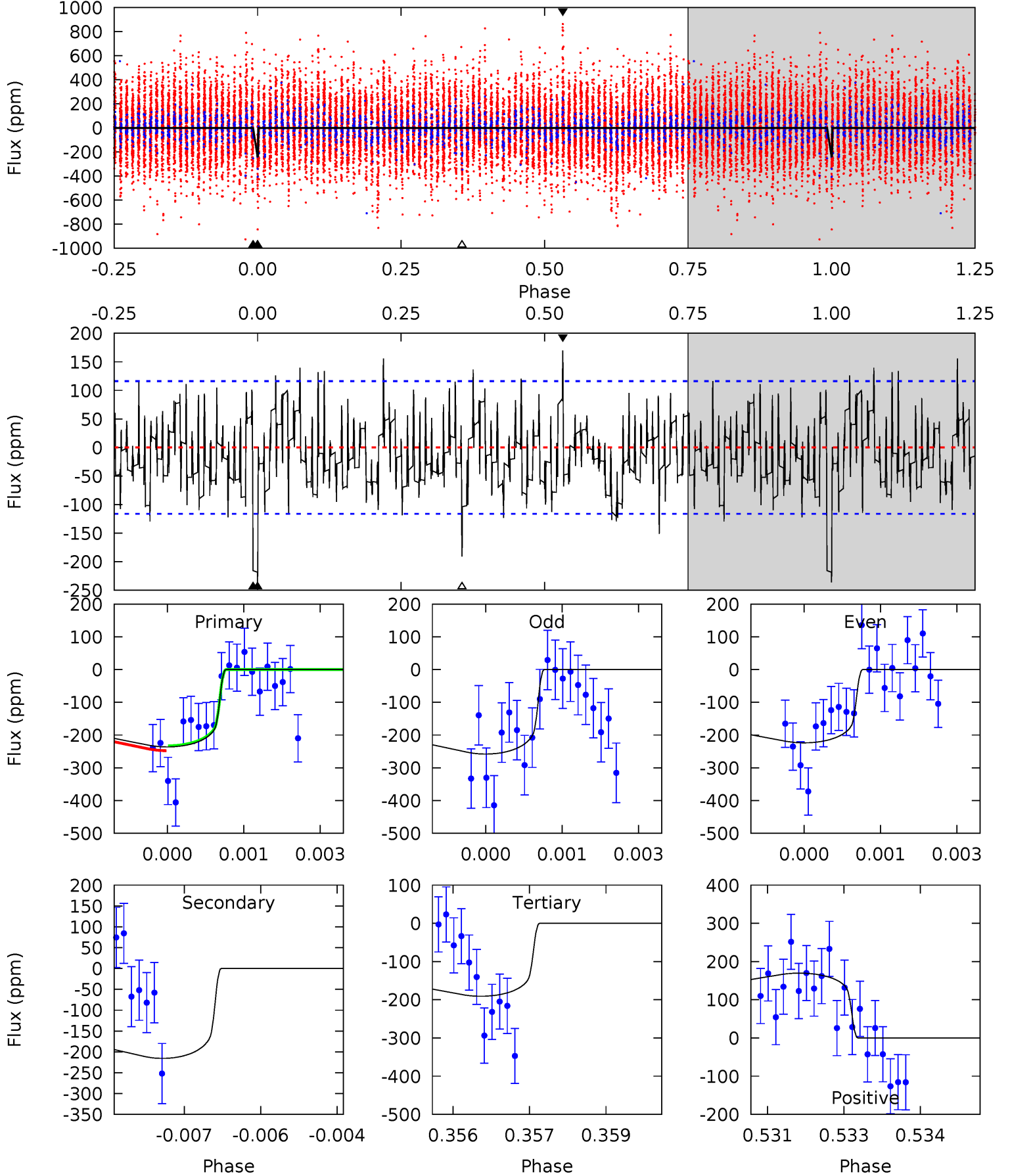
TCE 006519892-03 P=168.351425 Days $T_0=223.887435$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-03, P = 168.341367 Days, E = 55.591653 Days

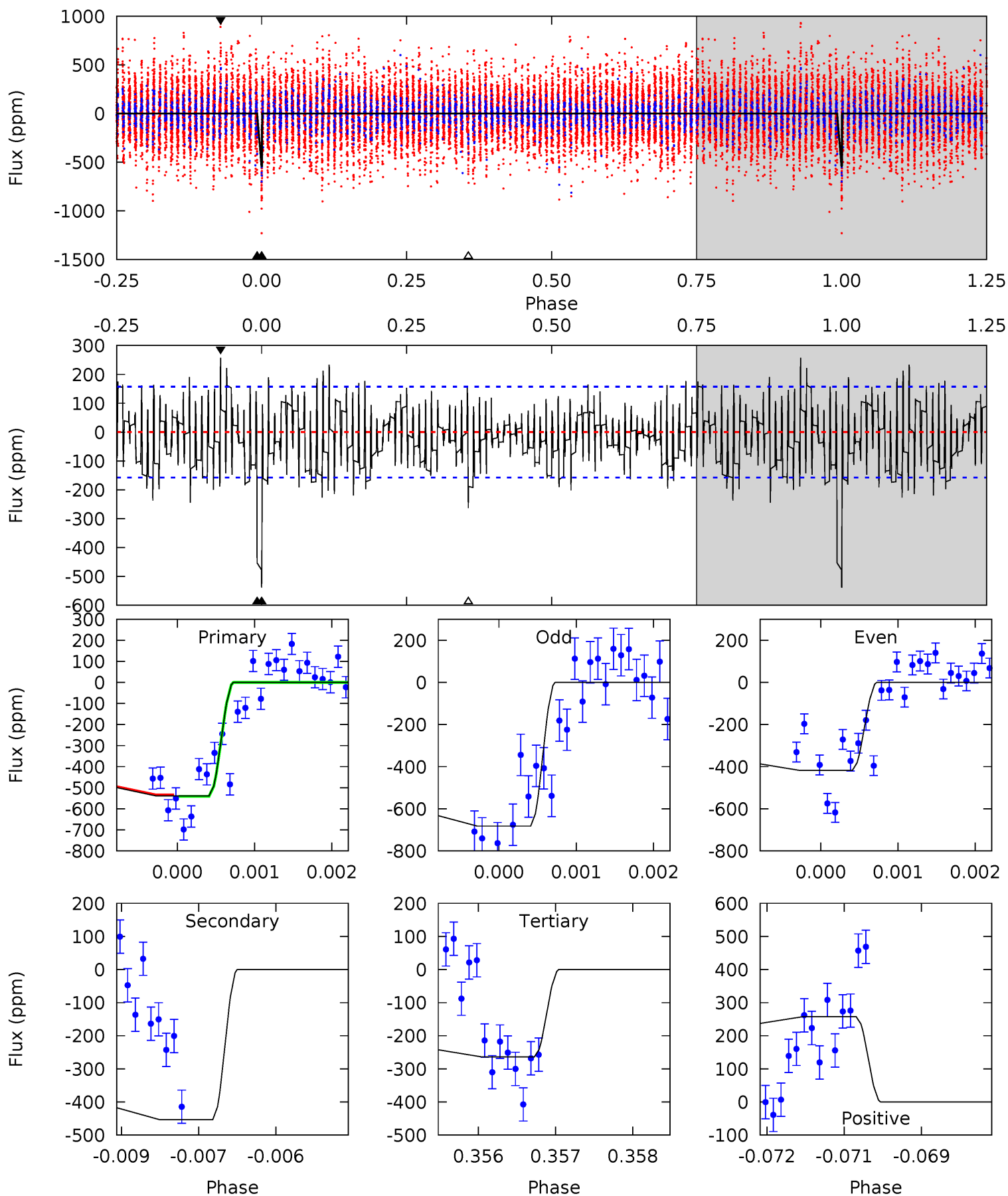
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	9.98	8.83	7.85	5.38	3.18	2.47	2.10	3.09	1.15	2.13	0.77	1.00	0.42	0.26



Alt Model-Shift Uniqueness Test

006519892-03, P = 168.351425 Days, E = 55.536010 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	15.7	9.10	8.90	5.44	3.27	2.85	9.50	9.70	6.56	6.77	4.58	0.86	0.32	0.10



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-216 ± 22	$3.72^{+1.92}_{-1.73}$	762^{+61}_{-65}	6616^{+2858}_{-1155}	4060^{+10439}_{-2283}
Alt.	-454 ± 29	$5.24^{+2.02}_{-1.73}$	766^{+57}_{-65}	6687^{+1725}_{-896}	4215^{+5343}_{-1998}

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

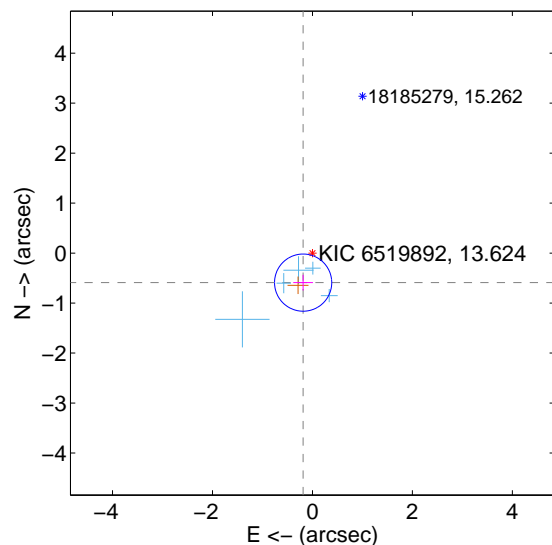
Supplemental centroid analysis for 006519892-03. Kepler magnitude: 13.62. Transit SNR 8.86

There are 5 quarters with good PRF difference image offsets

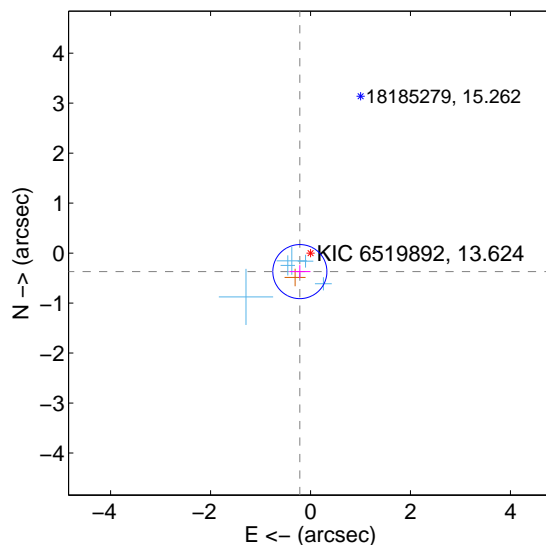
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.619 ± 0.191	3.25	0.186 ± 0.197	-0.591 ± 0.157
PRF-fit source offset from KIC position	0.427 ± 0.180	2.37	0.213 ± 0.211	-0.370 ± 0.129
photometric centroid source offset	0.92 ± 1.04	0.88	-0.24 ± 0.71	-0.88 ± 1.06

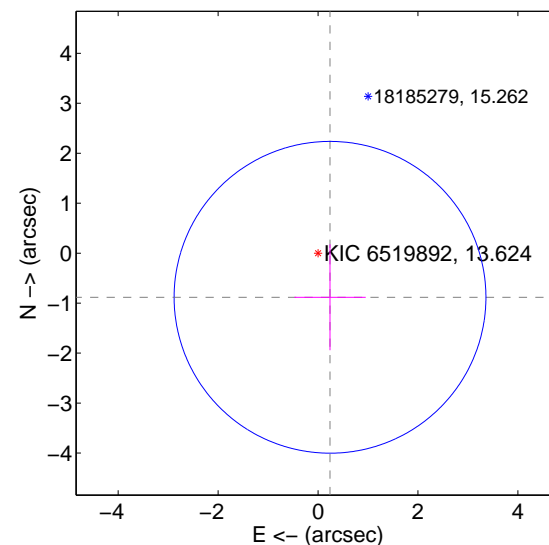
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

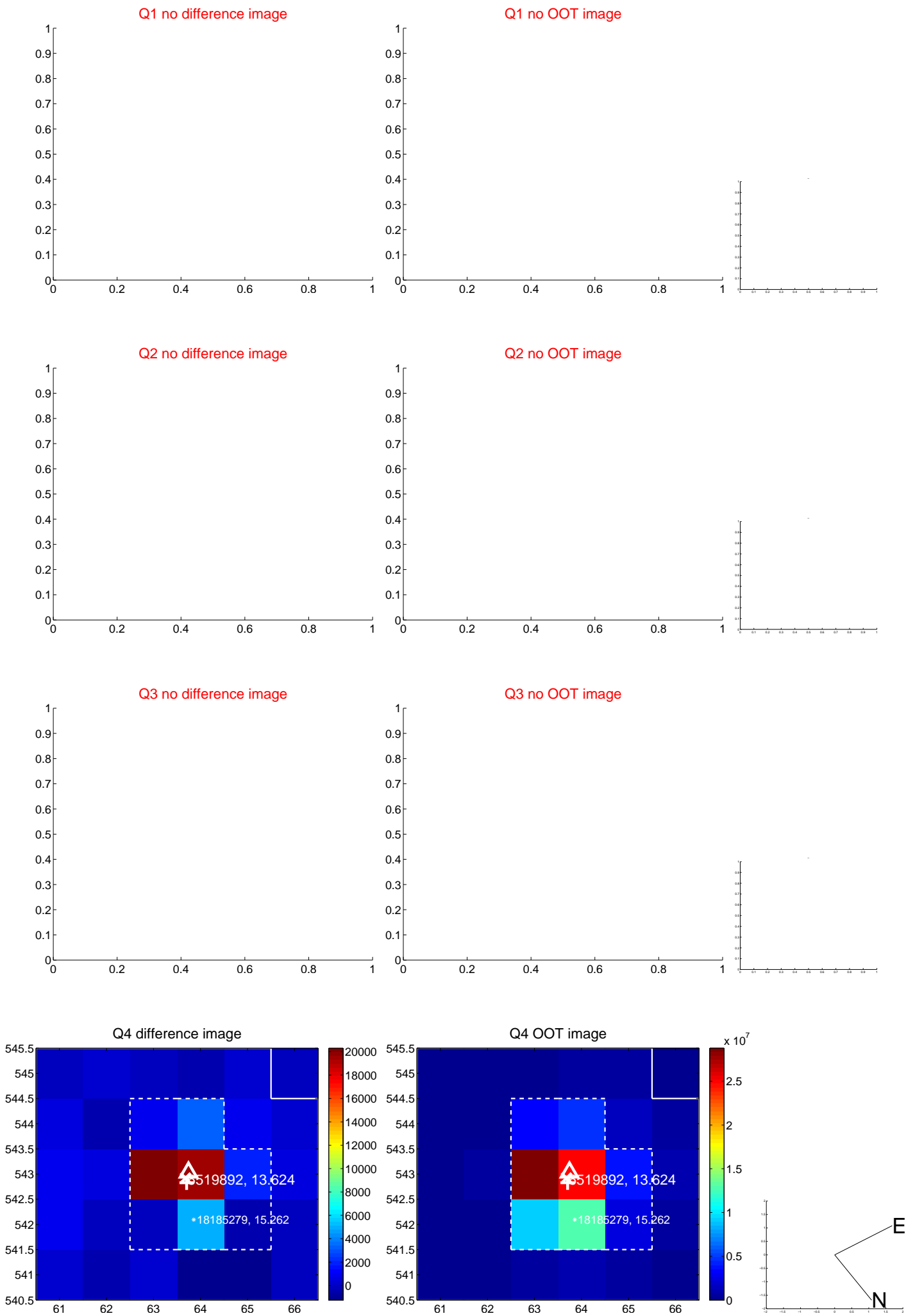


offset from photometric centroids



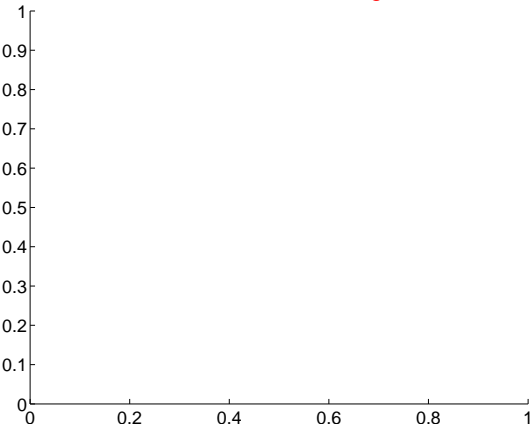
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

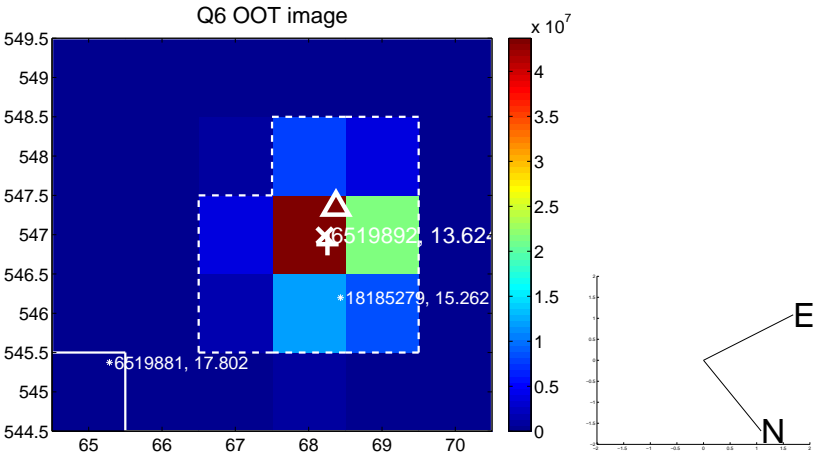
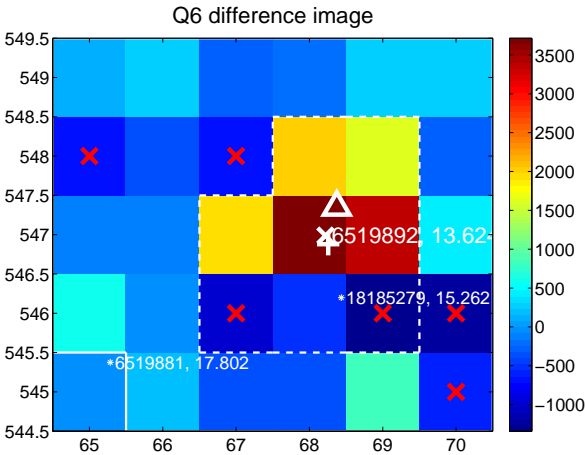
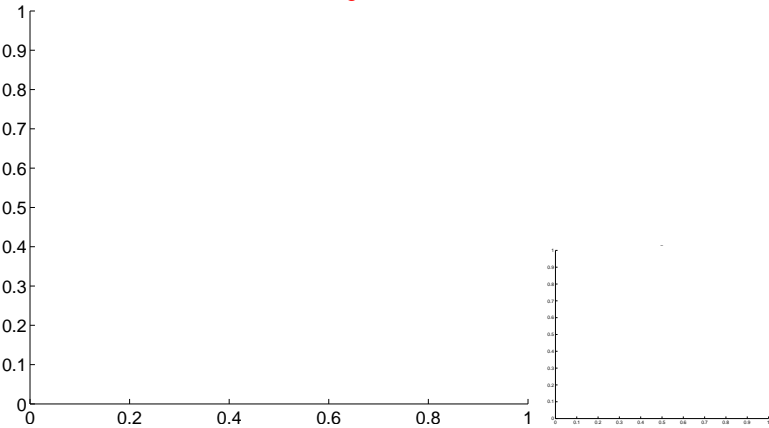


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

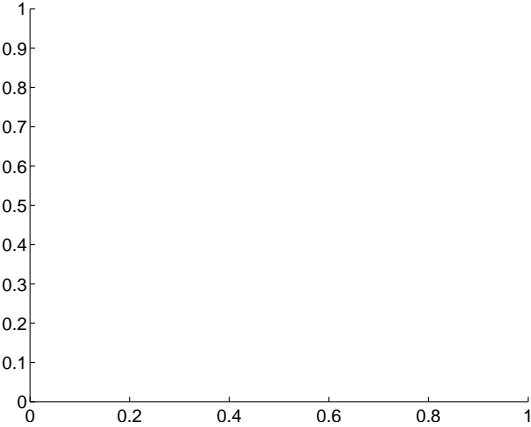
Q5 no difference image



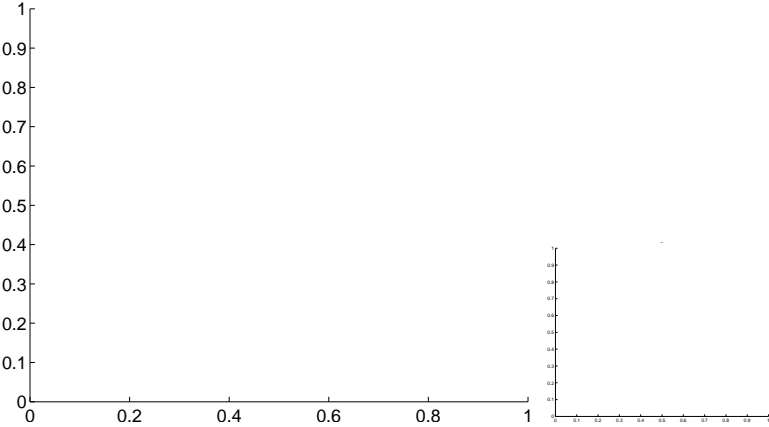
Q5 no OOT image



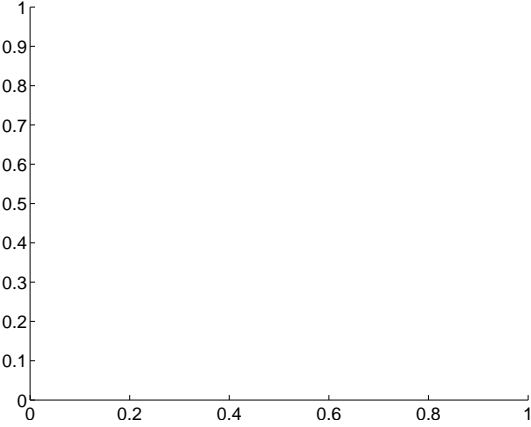
Q7 no difference image



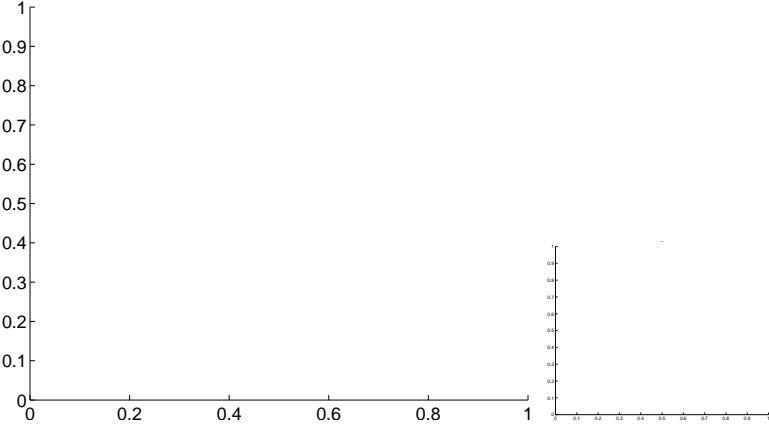
Q7 no OOT image



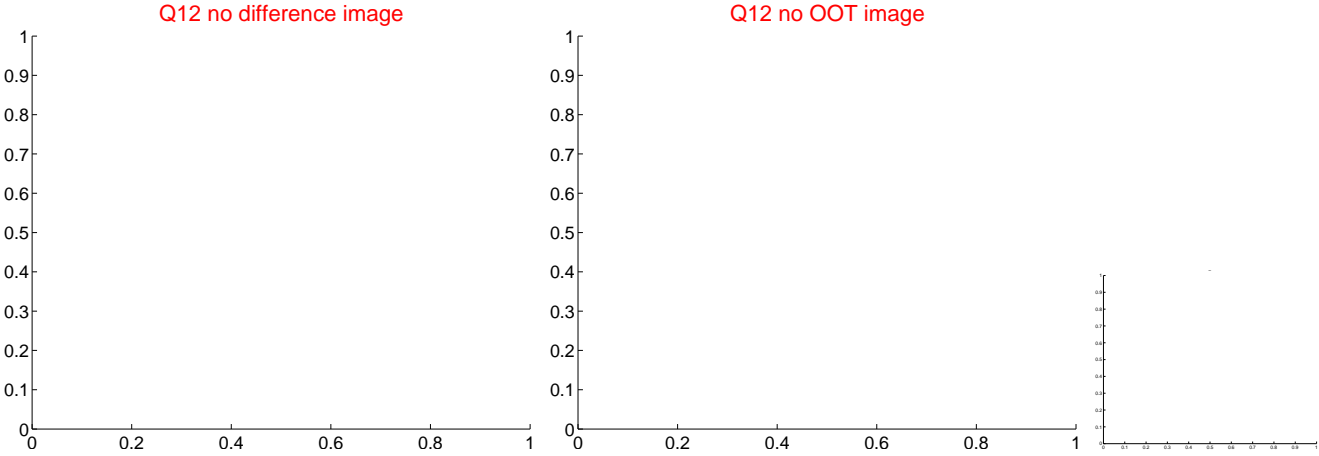
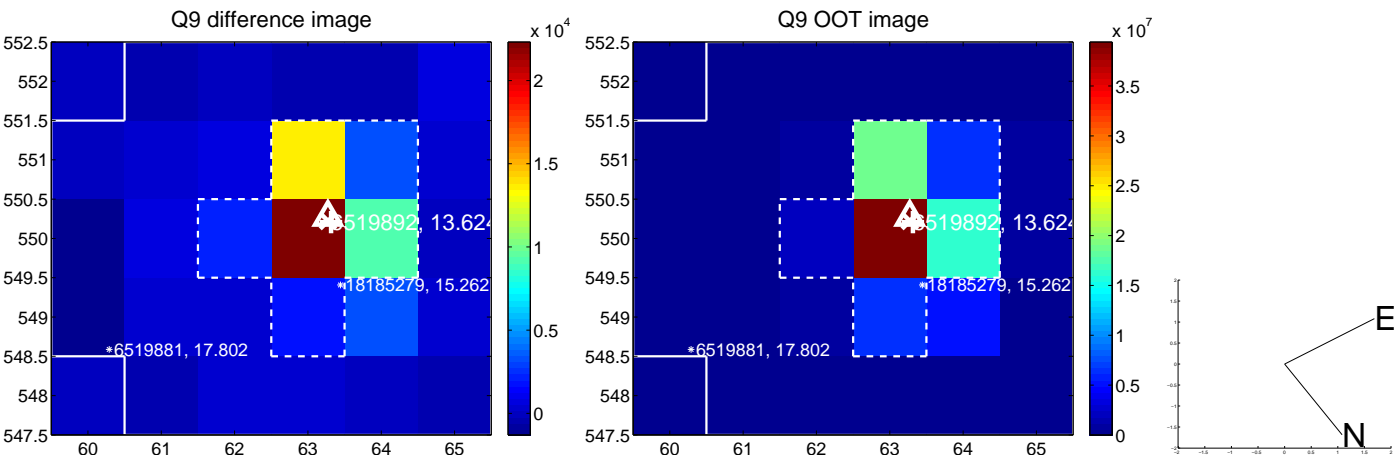
Q8 no difference image



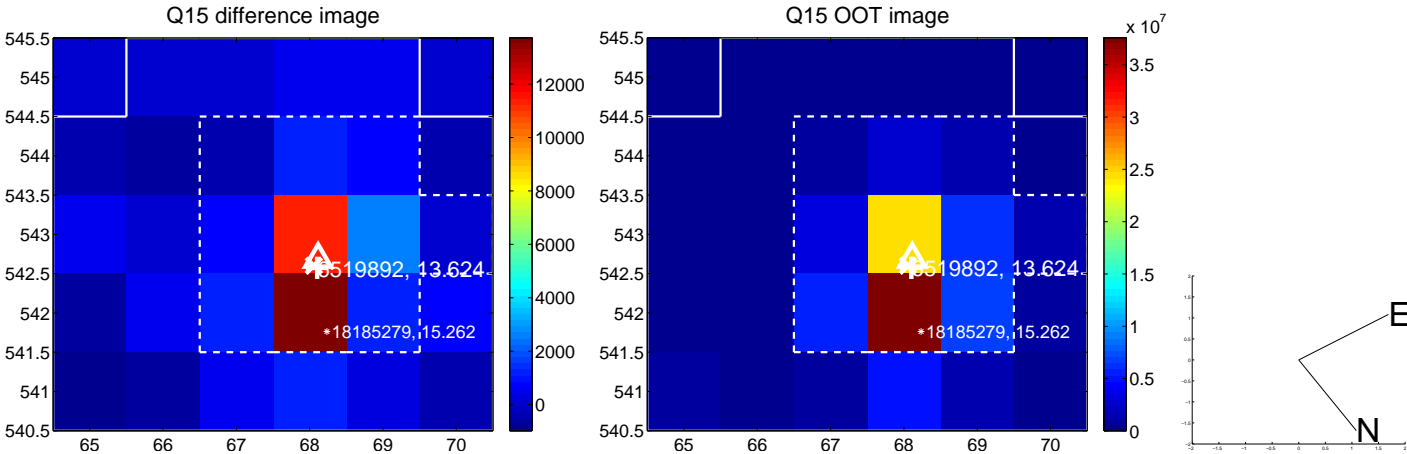
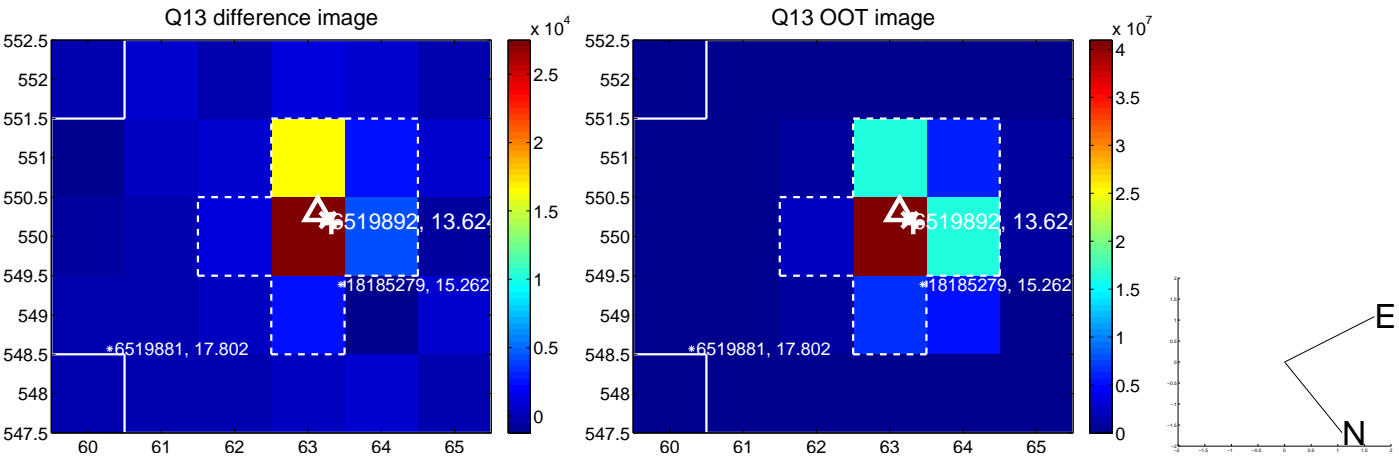
Q8 no OOT image



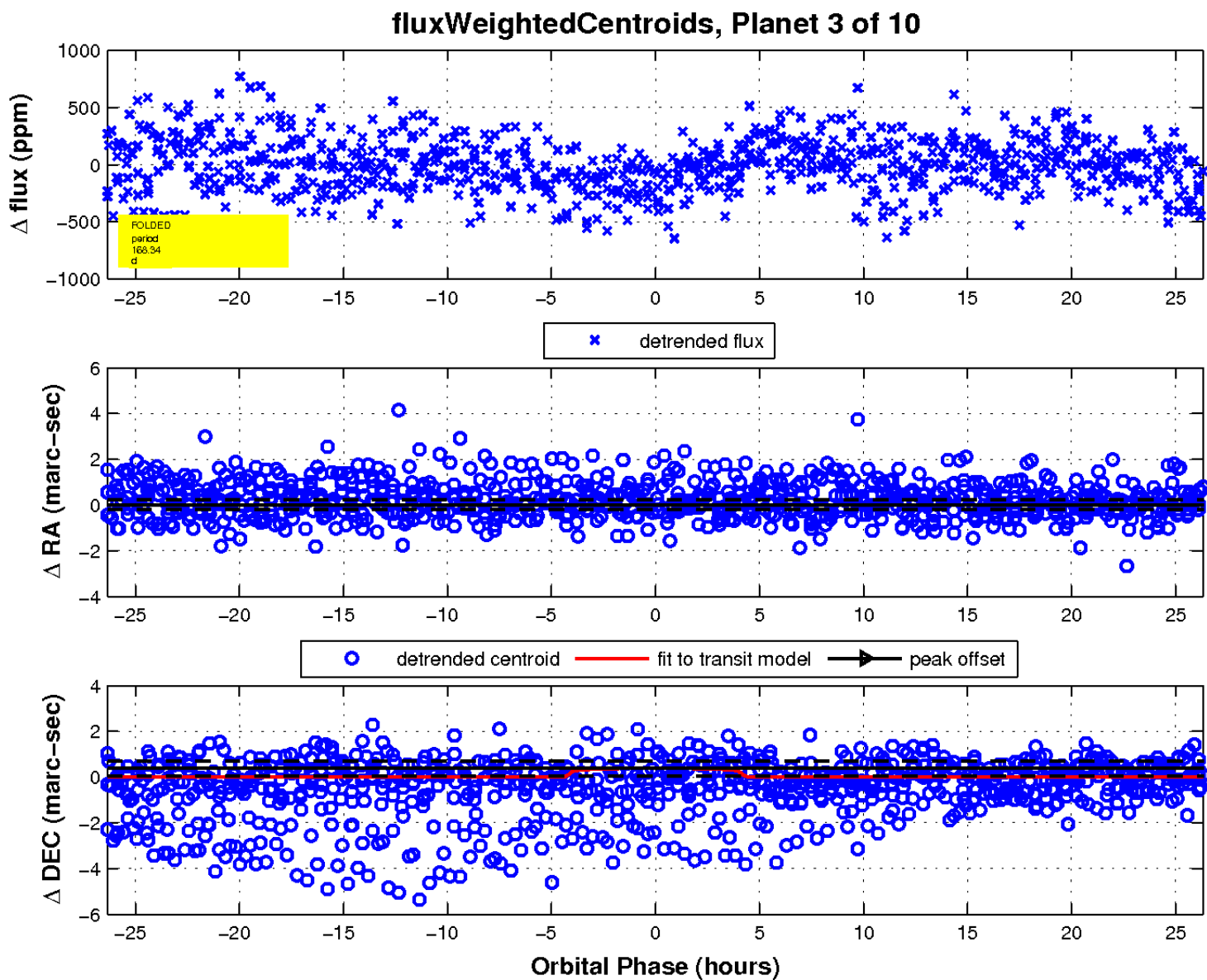
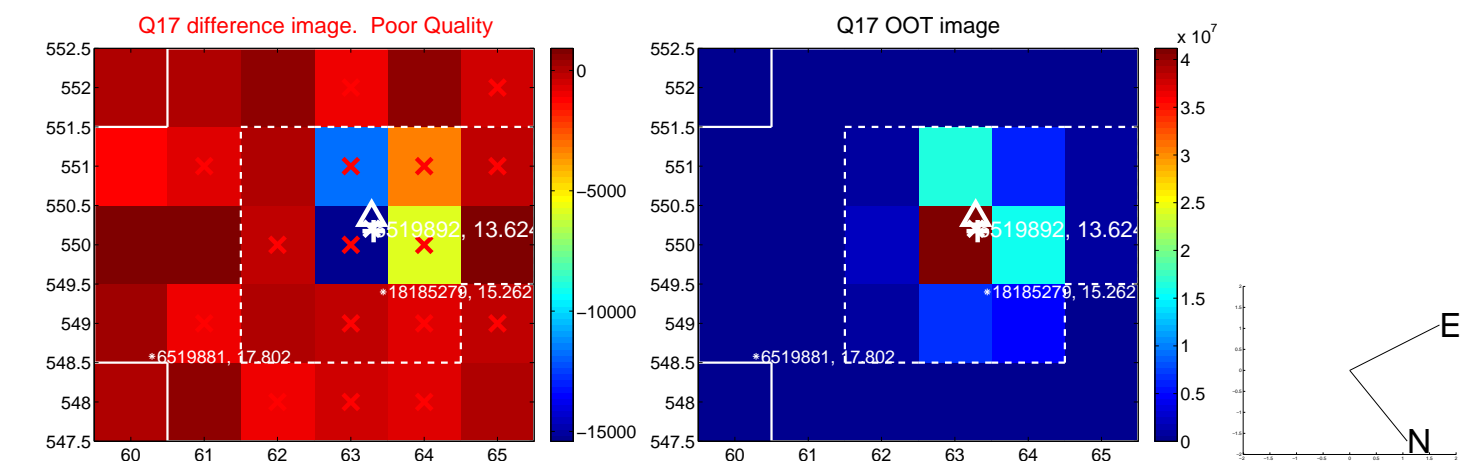
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

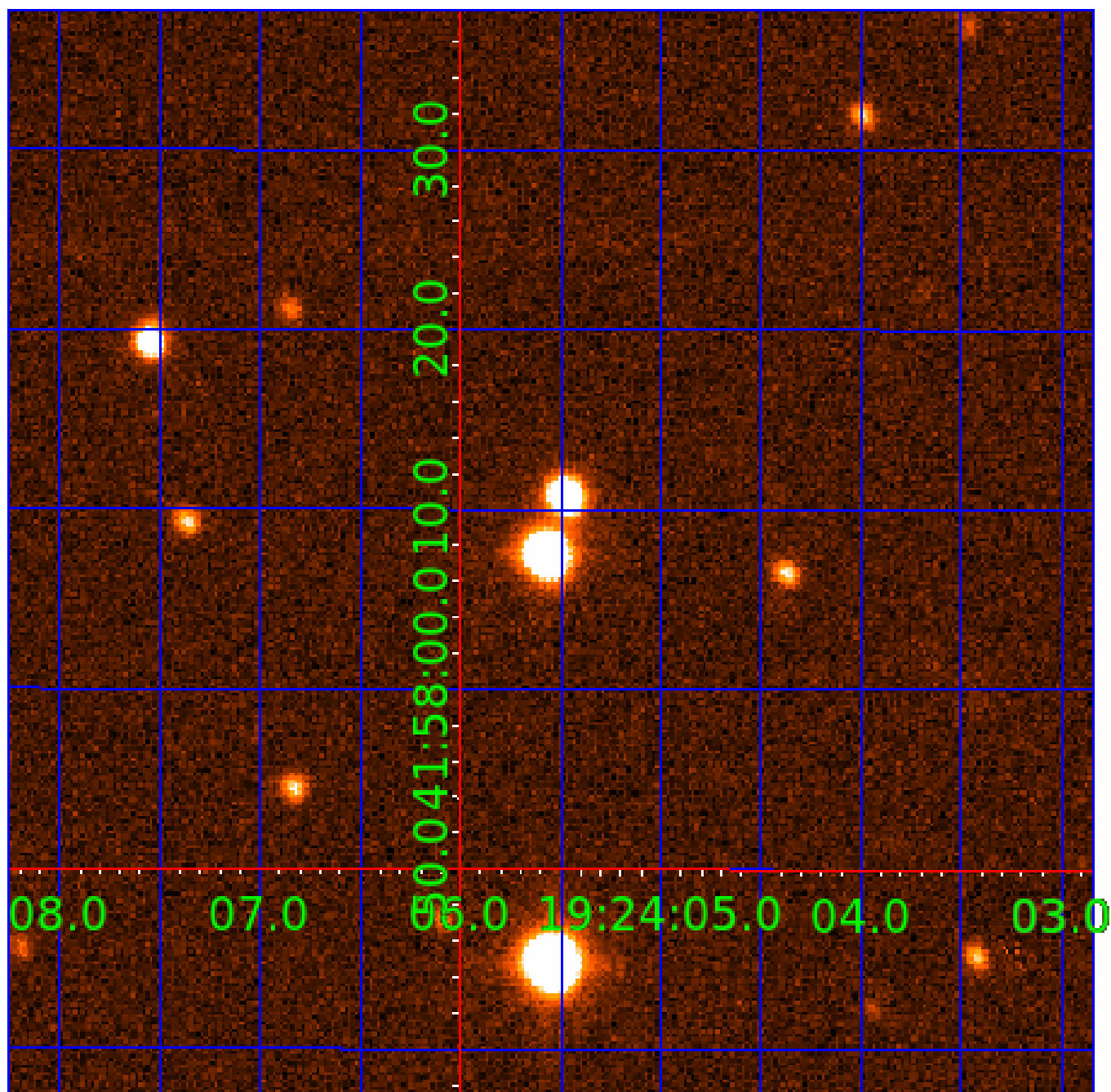


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

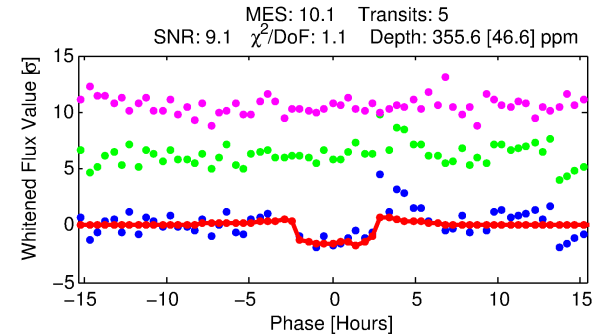
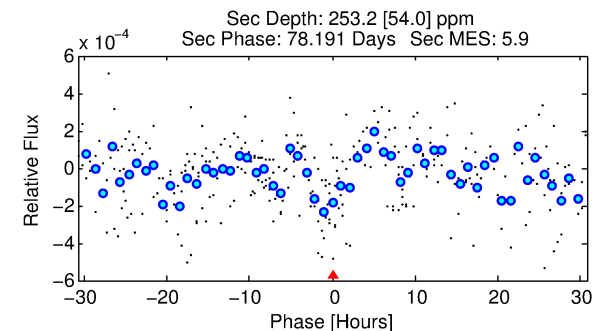
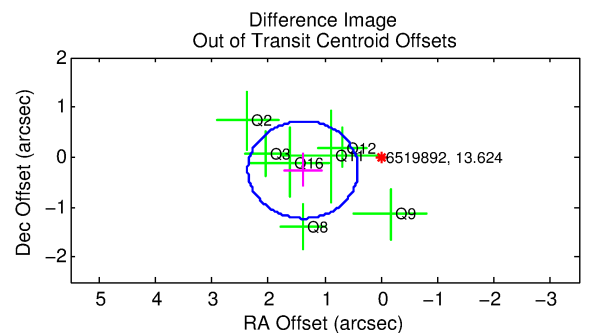
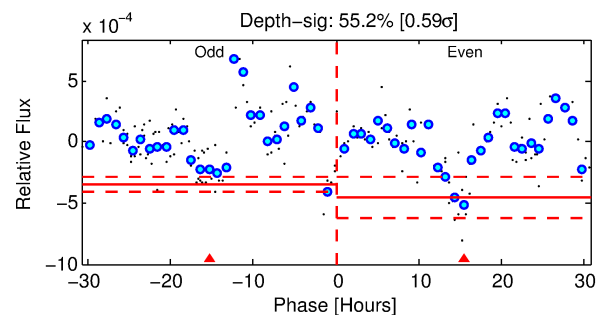
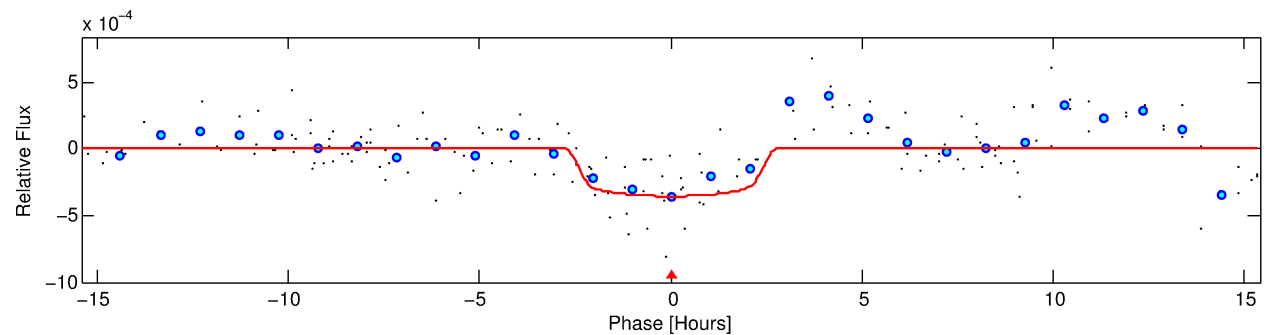
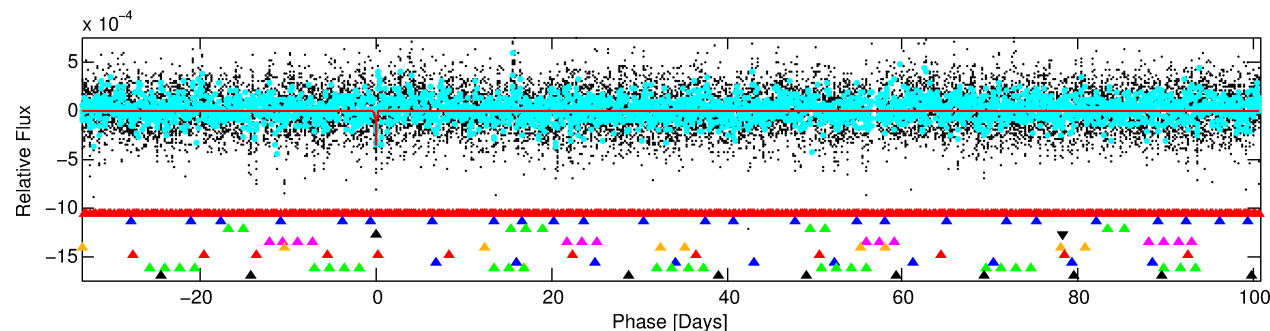
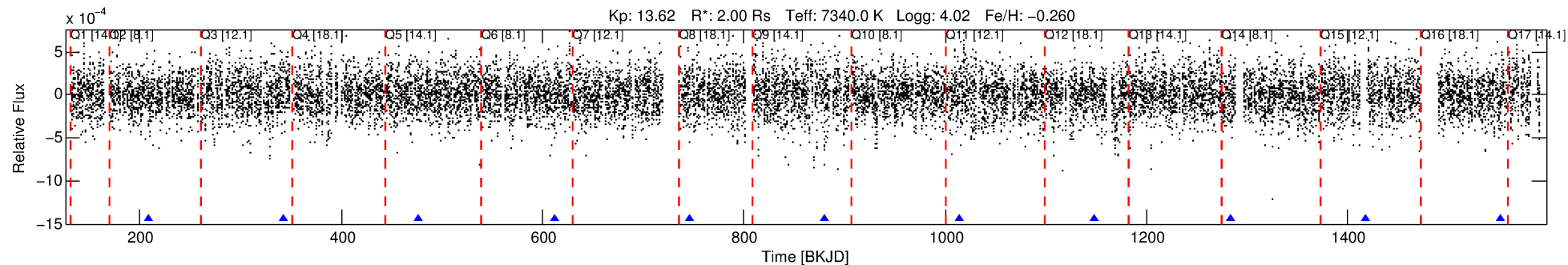
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-04

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 4 of 10 Period: 134.319 d



DV Fit Results:

Period = 134.31860 [0.00183] d
Epoch = 208.5506 [0.0109] BKJD
Rp/R* = 0.0191 [0.0082]
a/R* = 124.01 [303.24]
b = 0.81 [1.05]
Seff = 29.99 [13.60]
Teq = 597 [68] K
Rp = 4.19 [2.21] Re
a = 0.5905 [0.1627] AU
Ag = 2772.63 [2724.19] [1.02 σ]
Teffp = 6694 [1512] K [4.03 σ]

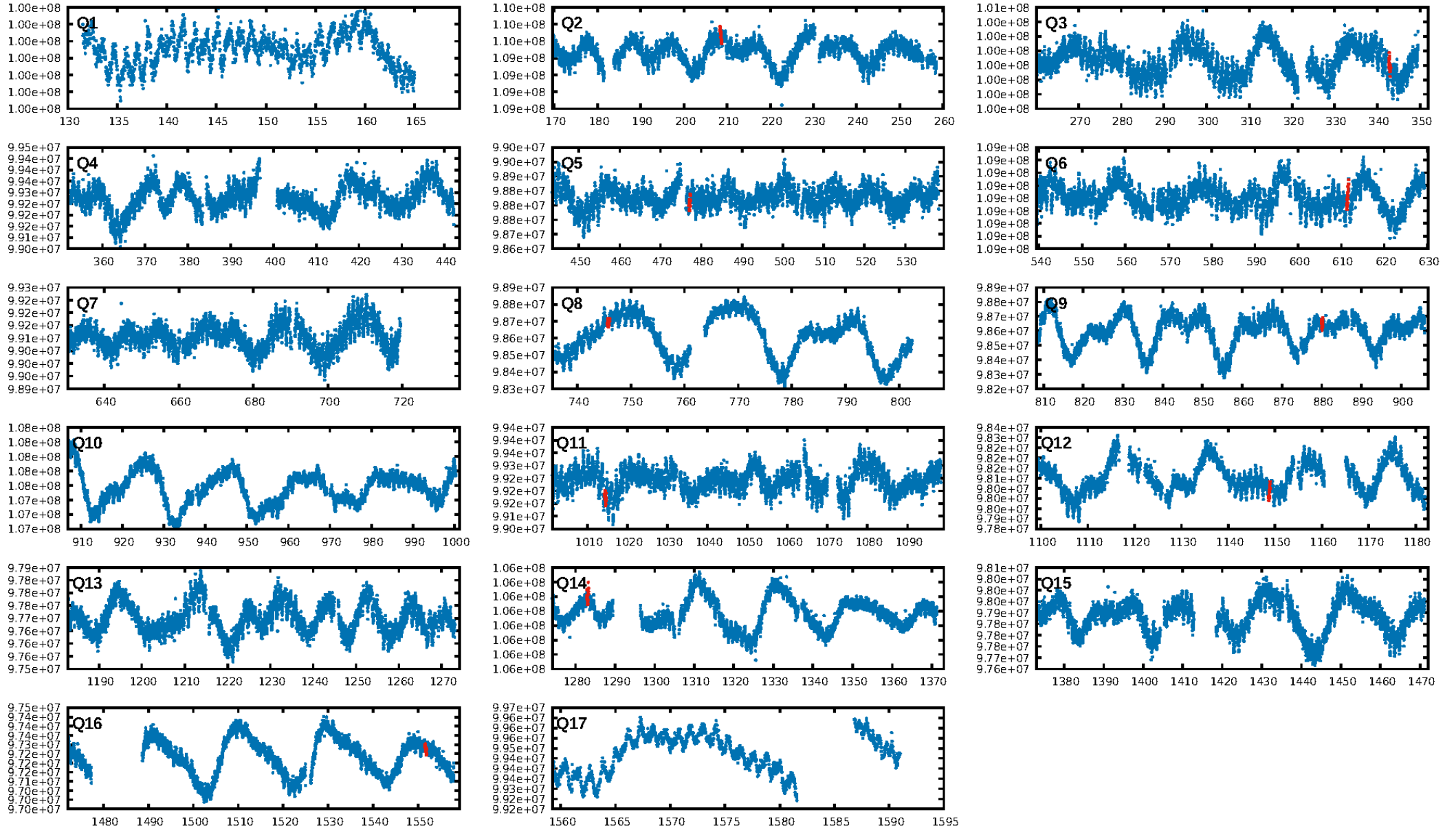
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [43.07 σ]
LongPeriod-sig: 100.0% [26.34 σ]
ModelChiSquare2-sig: 13.5%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.7471
Centroid-sig: 85.7%
Centroid-so: 0.641 arcsec [0.76 σ]
OotOffset-rm: 1.408 arcsec [4.33 σ]
KicOffset-rm: 1.344 arcsec [4.22 σ]
OotOffset-st: 1/2/3/1 [7]
KicOffset-st: 1/2/3/1 [7]
DiffImageQuality-fgm: 0.71 [5/7]
DiffImageOverlap-fno: 0.38 [3/8]

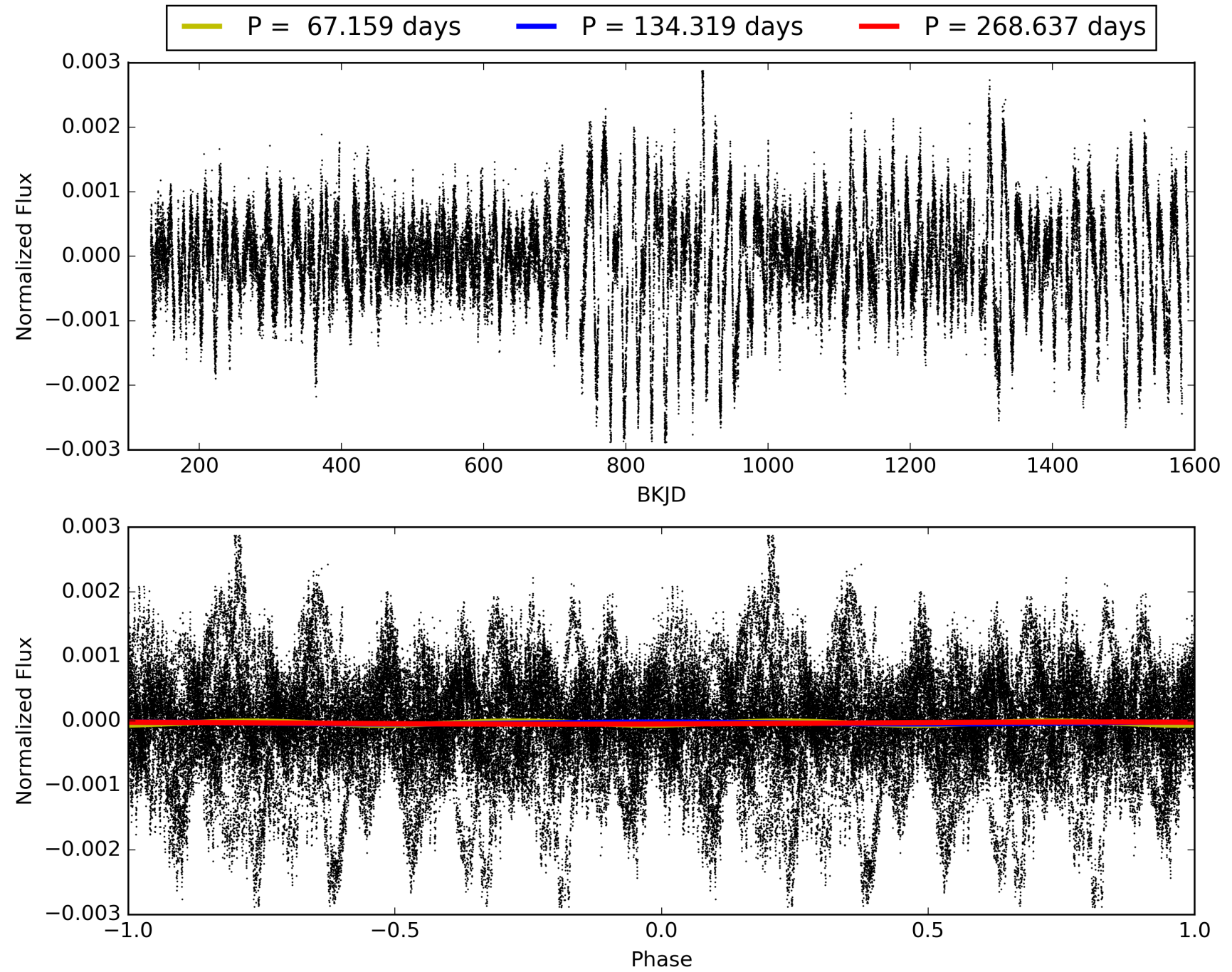
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:57:03 Z

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

TCE 006519892-04, PDC Light Curves

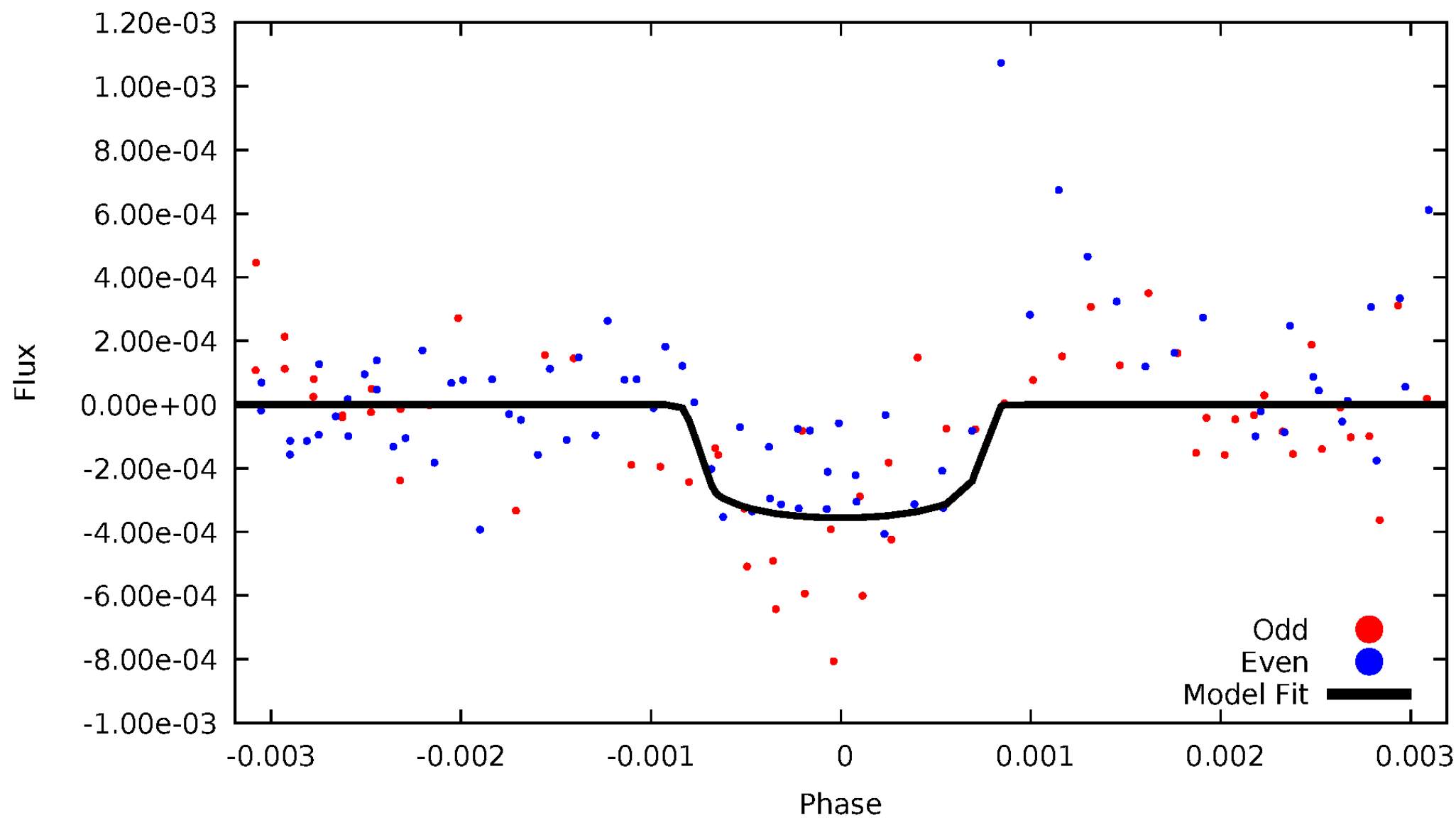


TCE 006519892-04



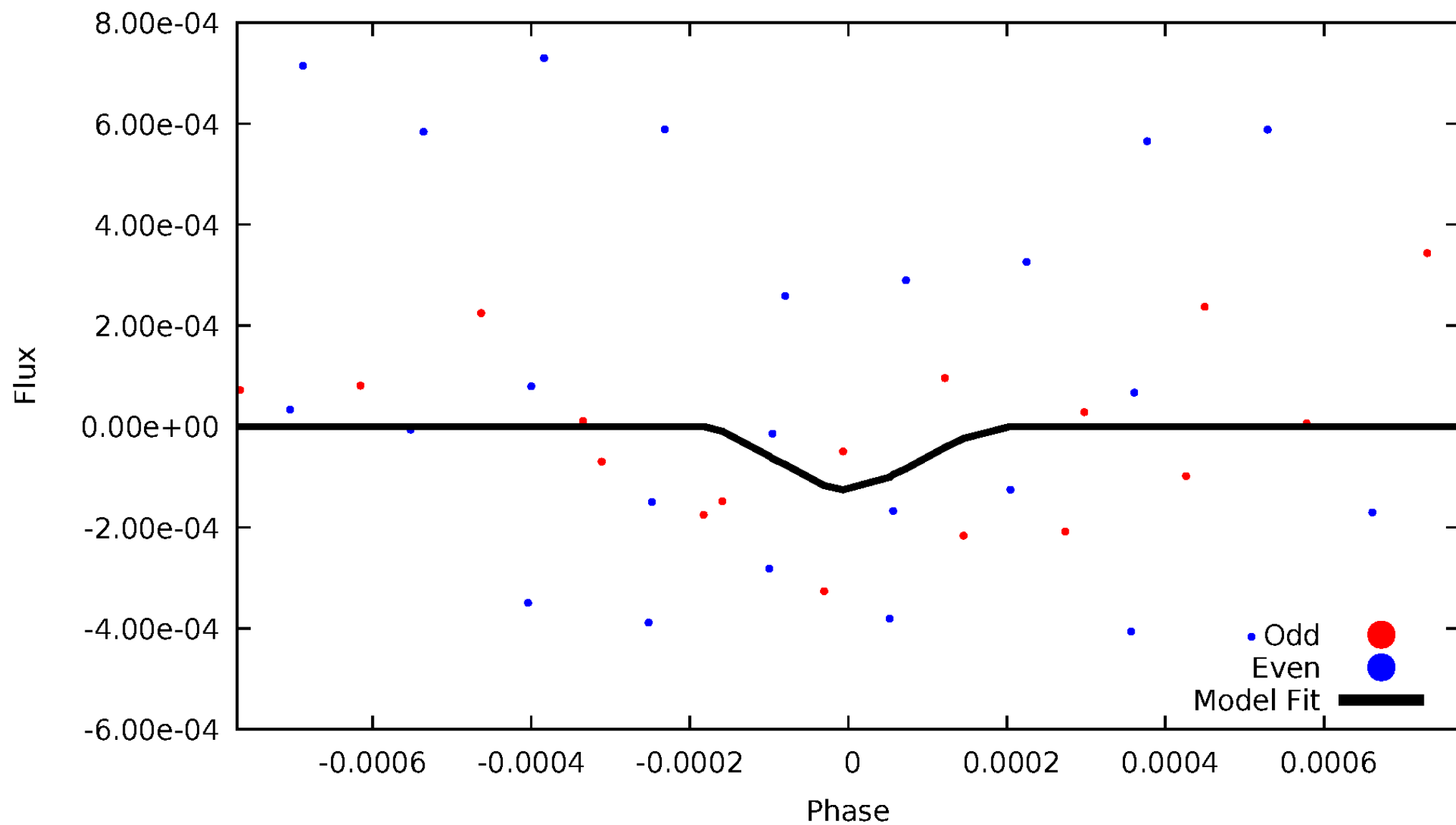
DV Odd/Even

TCE 006519892-04



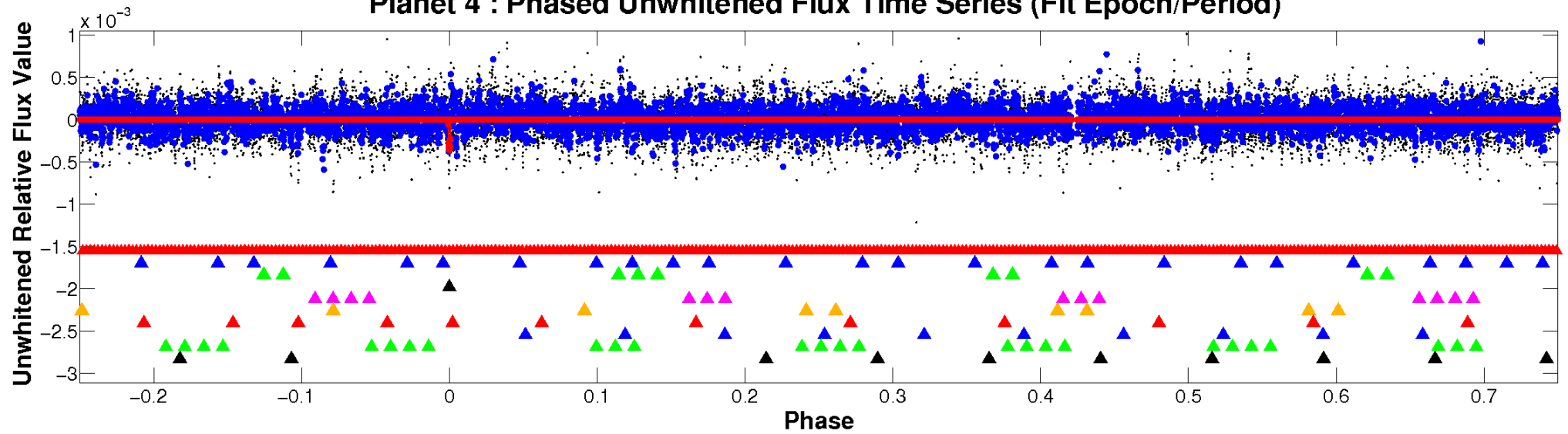
ALT Odd/Even

TCE 006519892-04

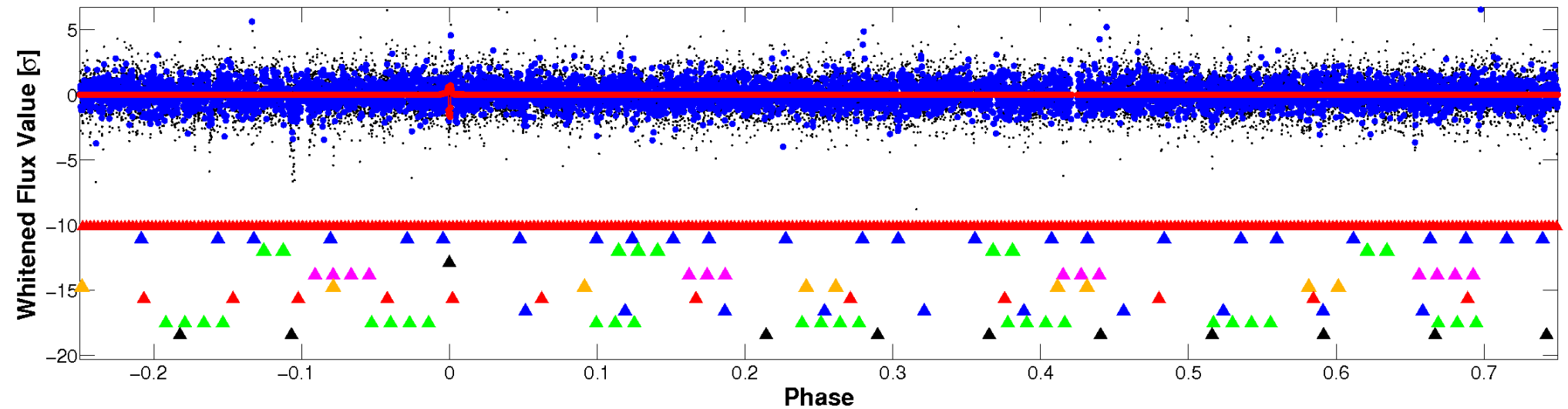


Non-Whitened Vs. Whitened Light Curve

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

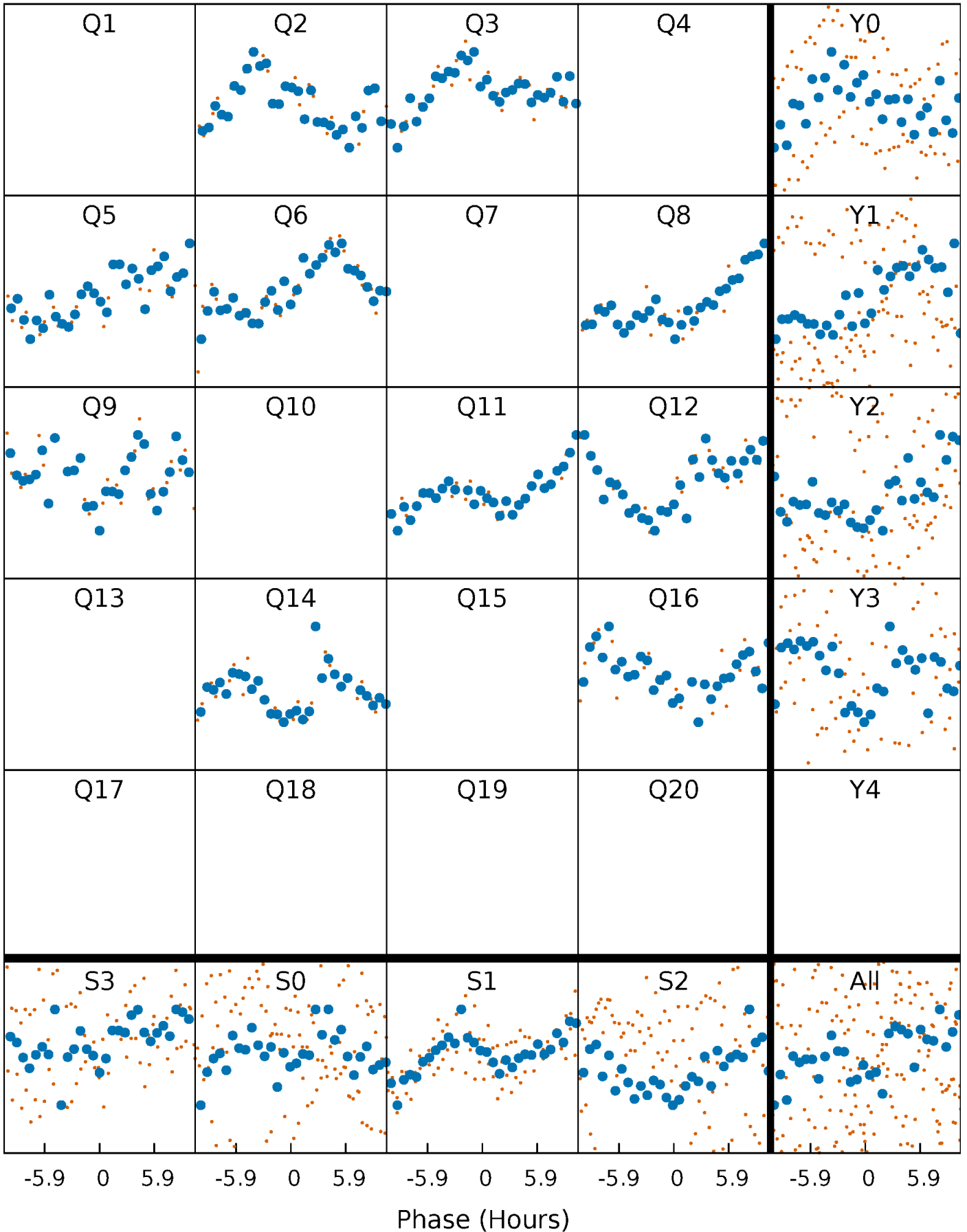


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



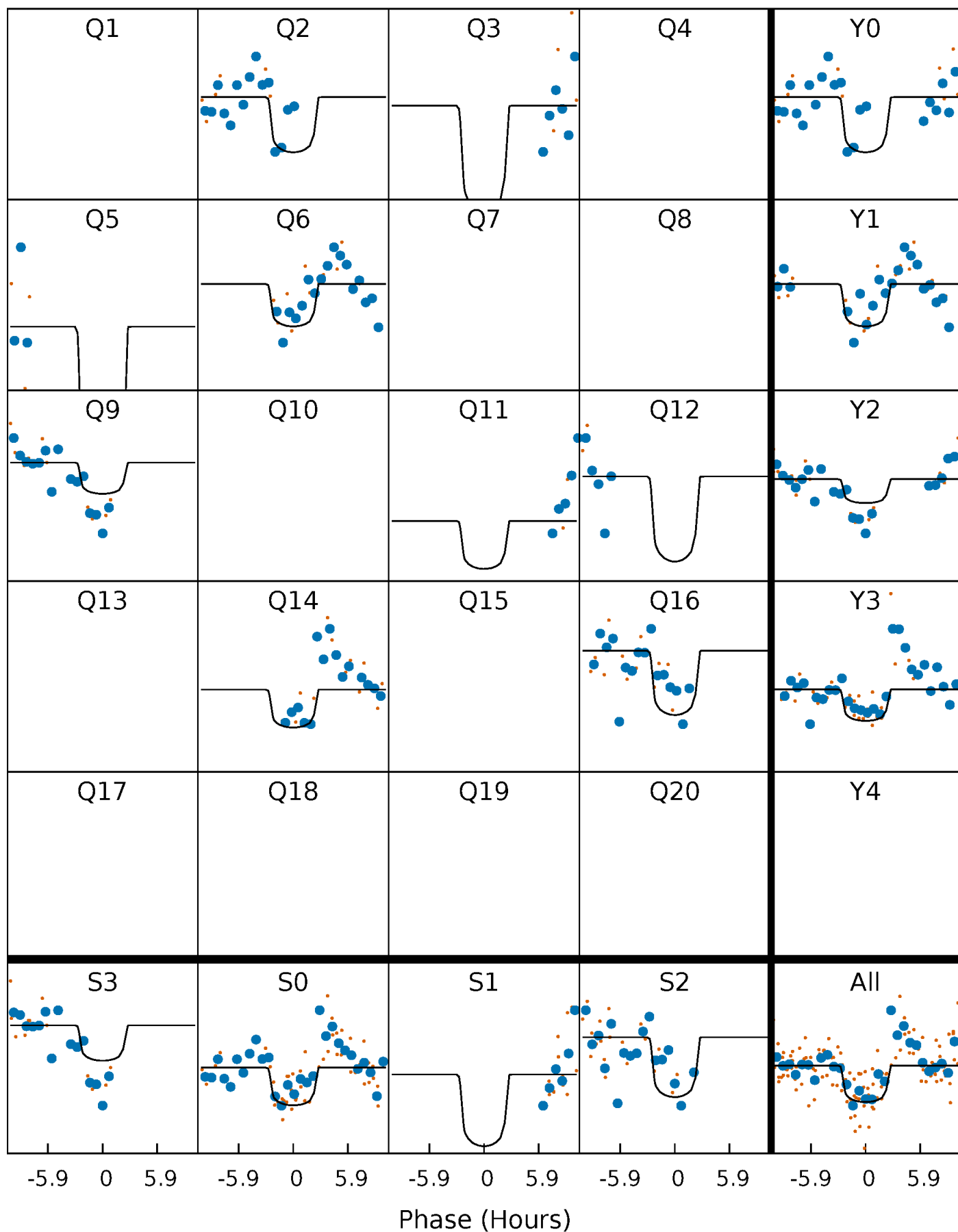
PDC Quarter-Phased Transit Curves

TCE 006519892-04 $P=134.318598$ Days $T_0=208.550643$ (BKJD)



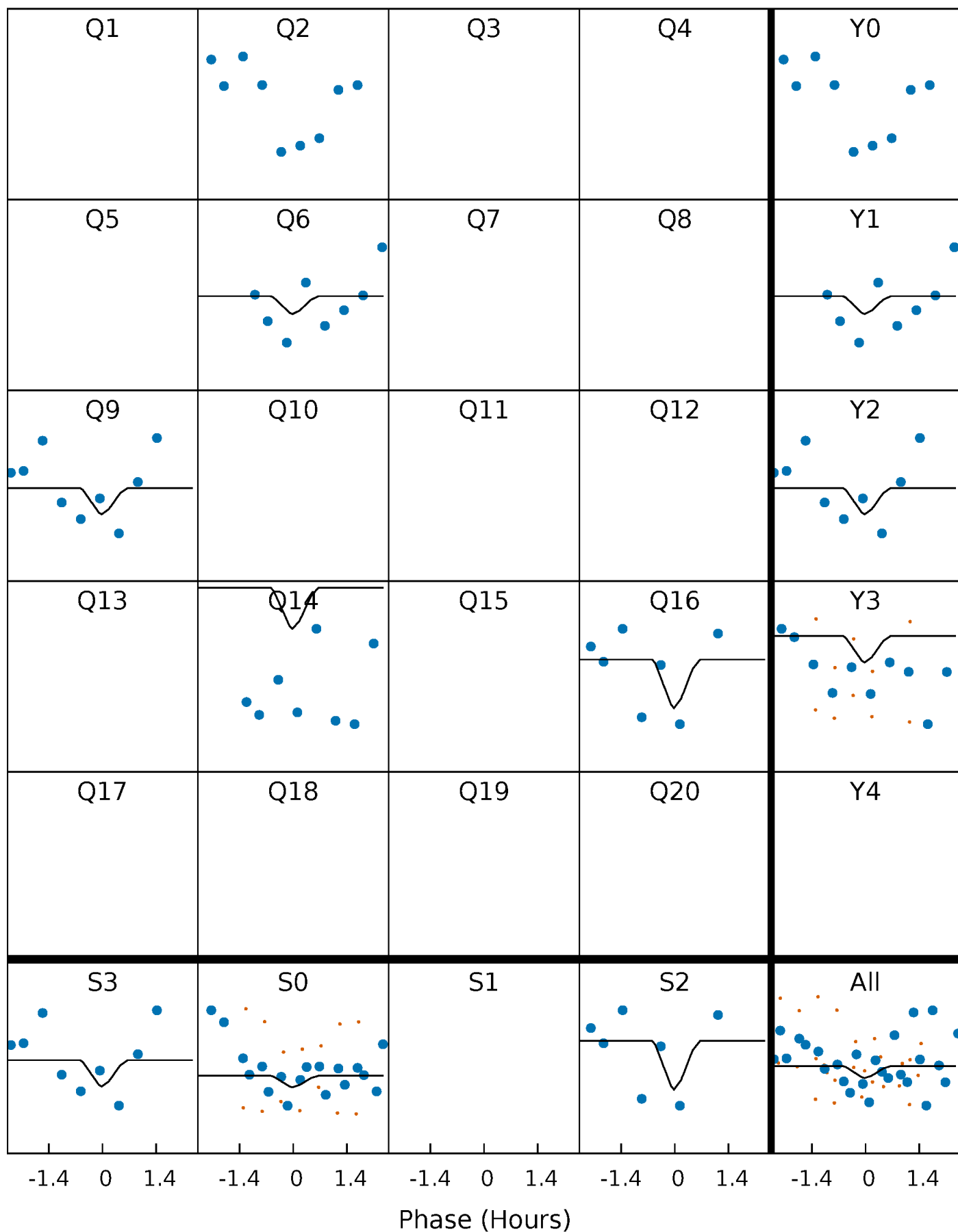
DV Quarter-Phased Transit Curves

TCE 006519892-04 P=134.318598 Days $T_0=208.550643$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

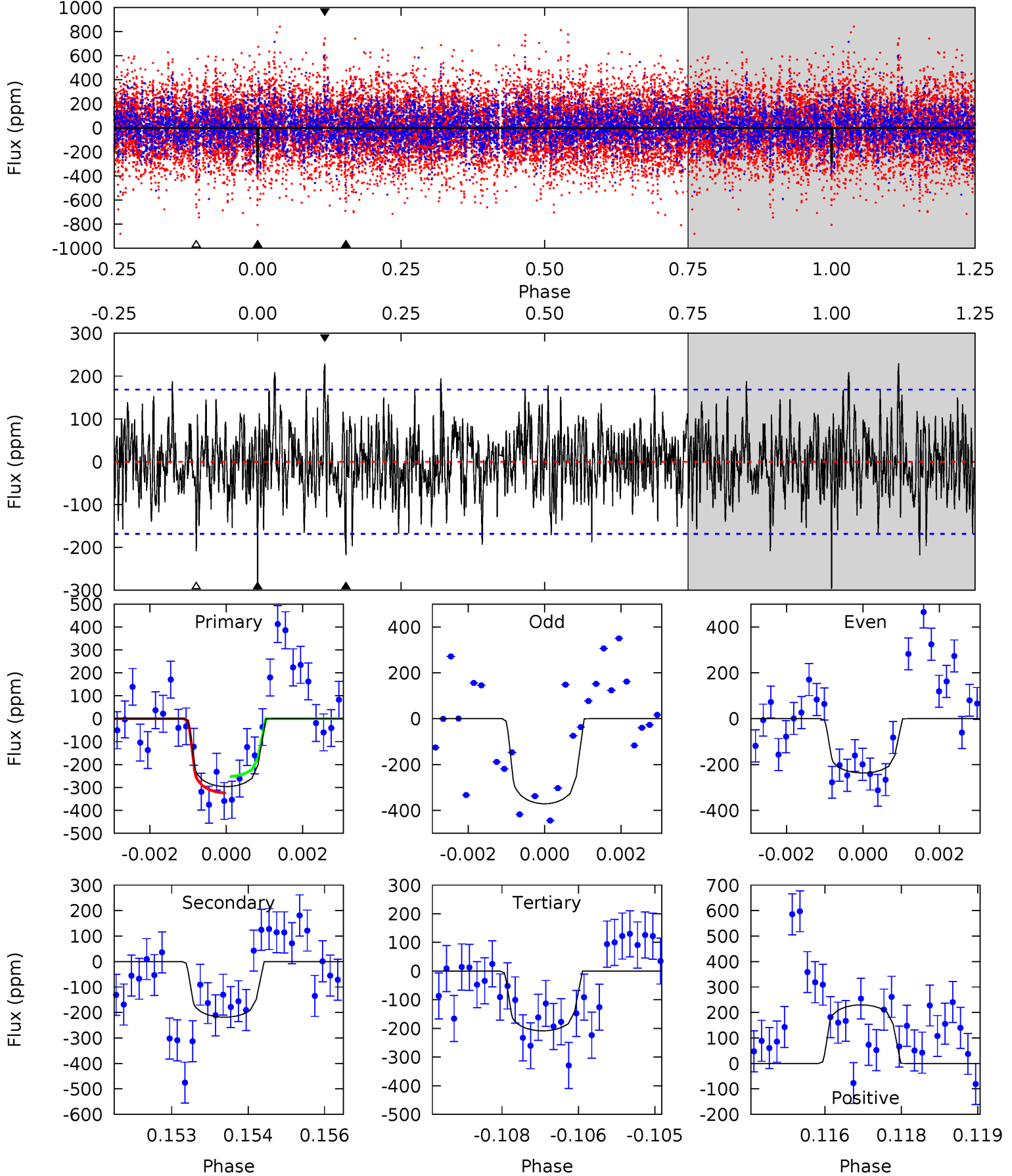
TCE 006519892-04 P=134.328182 Days $T_0=208.478066$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-04, P = 134.318598 Days, E = 74.232045 Days

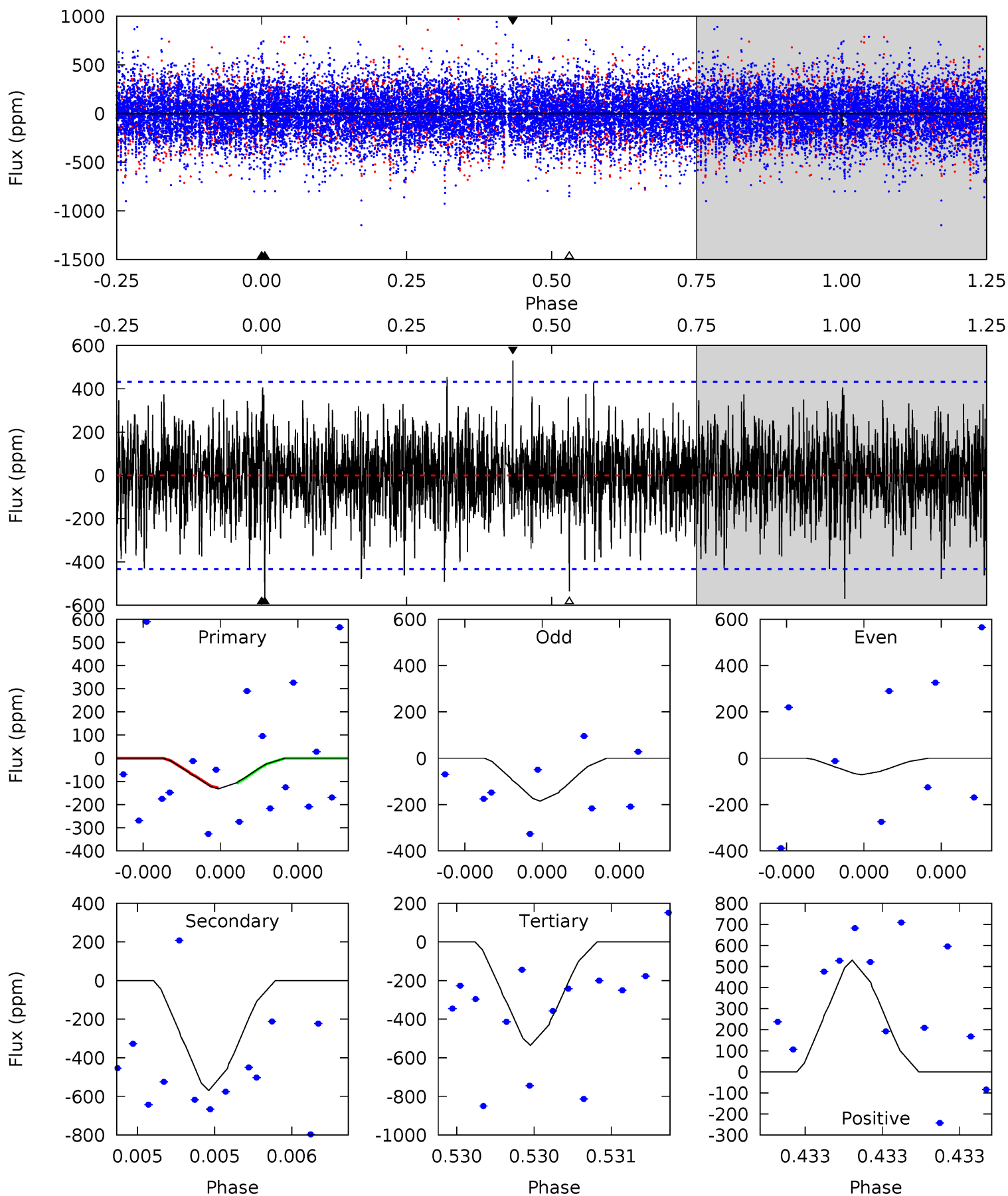
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.43	6.95	6.63	7.31	5.36	3.15	2.01	2.80	2.12	0.32	-0.37	2.10	1.30	0.44	1.10



Alt Model-Shift Uniqueness Test

006519892-04, P = 134.328182 Days, E = 74.149884 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.74	7.51	7.06	6.99	5.70	3.67	1.70	-5.32	-5.25	0.44	0.52	0.73	0.76	0.48	0.13



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-218 ± 31	$4.11^{+1.95}_{-1.87}$	827^{+66}_{-72}	6313^{+2643}_{-1004}	2467^{+5785}_{-1385}
Alt.	-569 ± 76	$2.55^{+1.97}_{-1.44}$	820^{+69}_{-67}	11307^{+15917}_{-3354}	16029^{+72771}_{-10651}

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

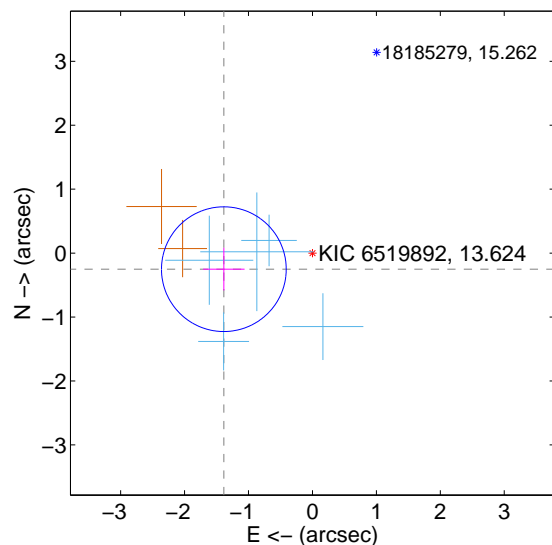
Supplemental centroid analysis for 006519892-04. Kepler magnitude: 13.62. Transit SNR 9.10

There are 5 quarters with good PRF difference image offsets

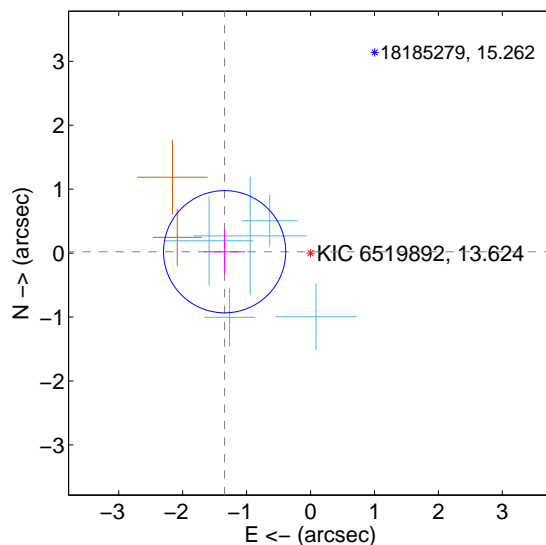
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.408 ± 0.325	4.33	1.385 ± 0.325	-0.252 ± 0.334
PRF-fit source offset from KIC position	1.344 ± 0.318	4.22	1.343 ± 0.318	0.021 ± 0.344
photometric centroid source offset	0.64 ± 0.84	0.76	-0.15 ± 0.63	0.62 ± 0.85

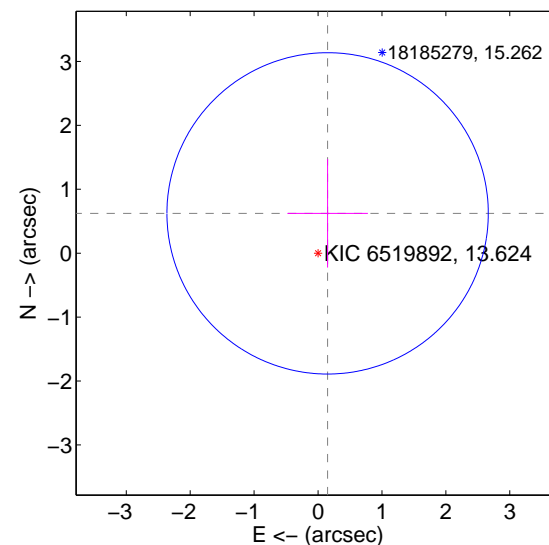
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



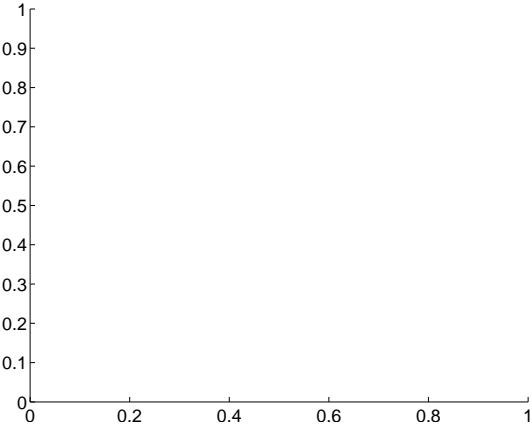
offset from photometric centroids



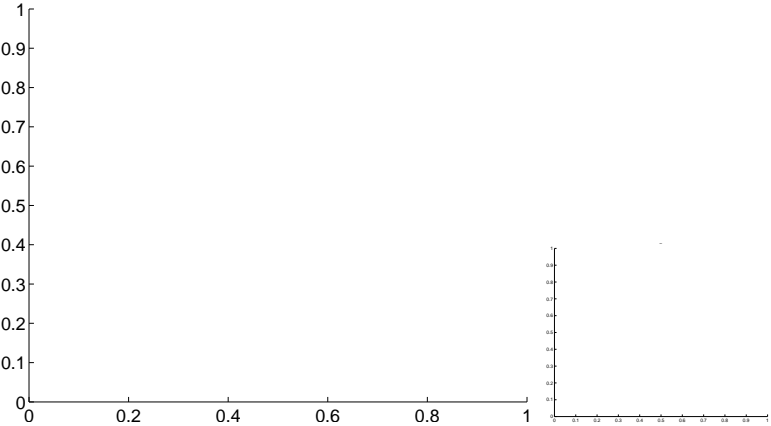
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

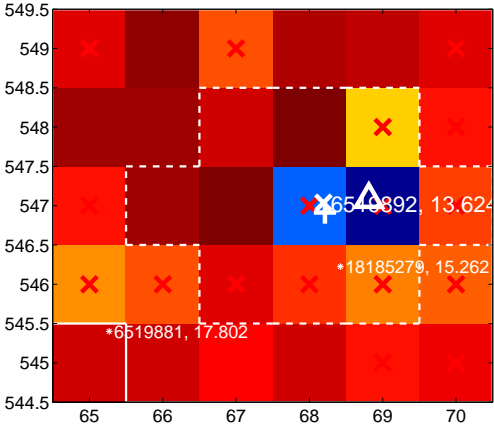
Q1 no difference image



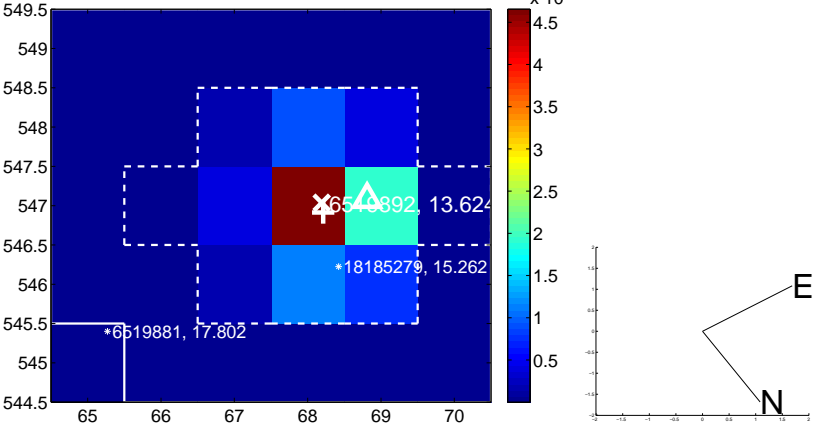
Q1 no OOT image



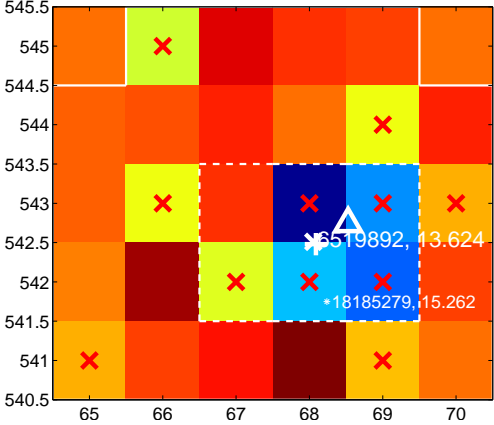
Q2 difference image. Poor Quality



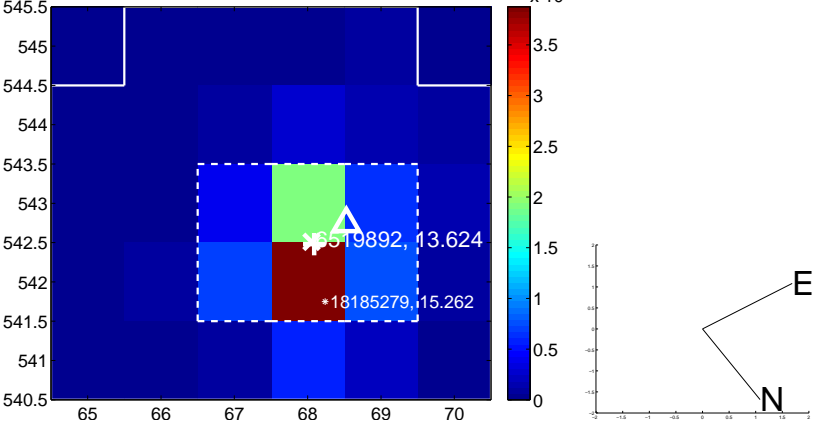
Q2 OOT image



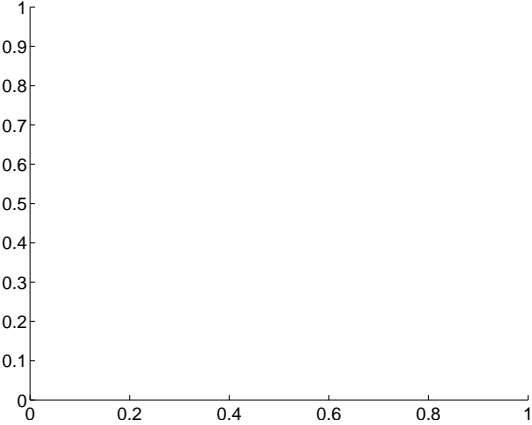
Q3 difference image. Poor Quality



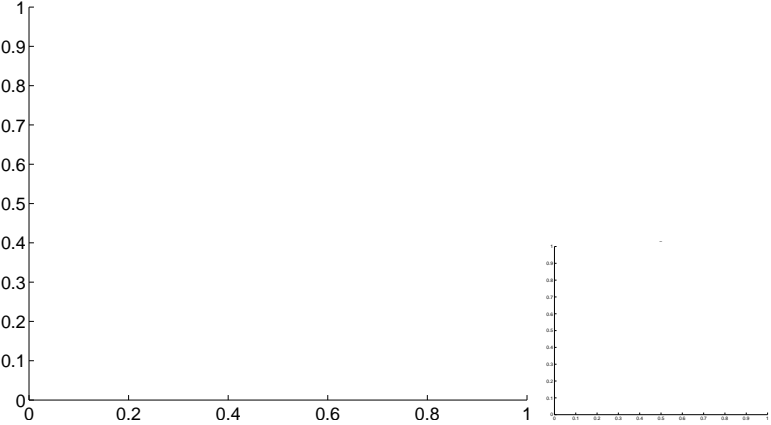
Q3 OOT image



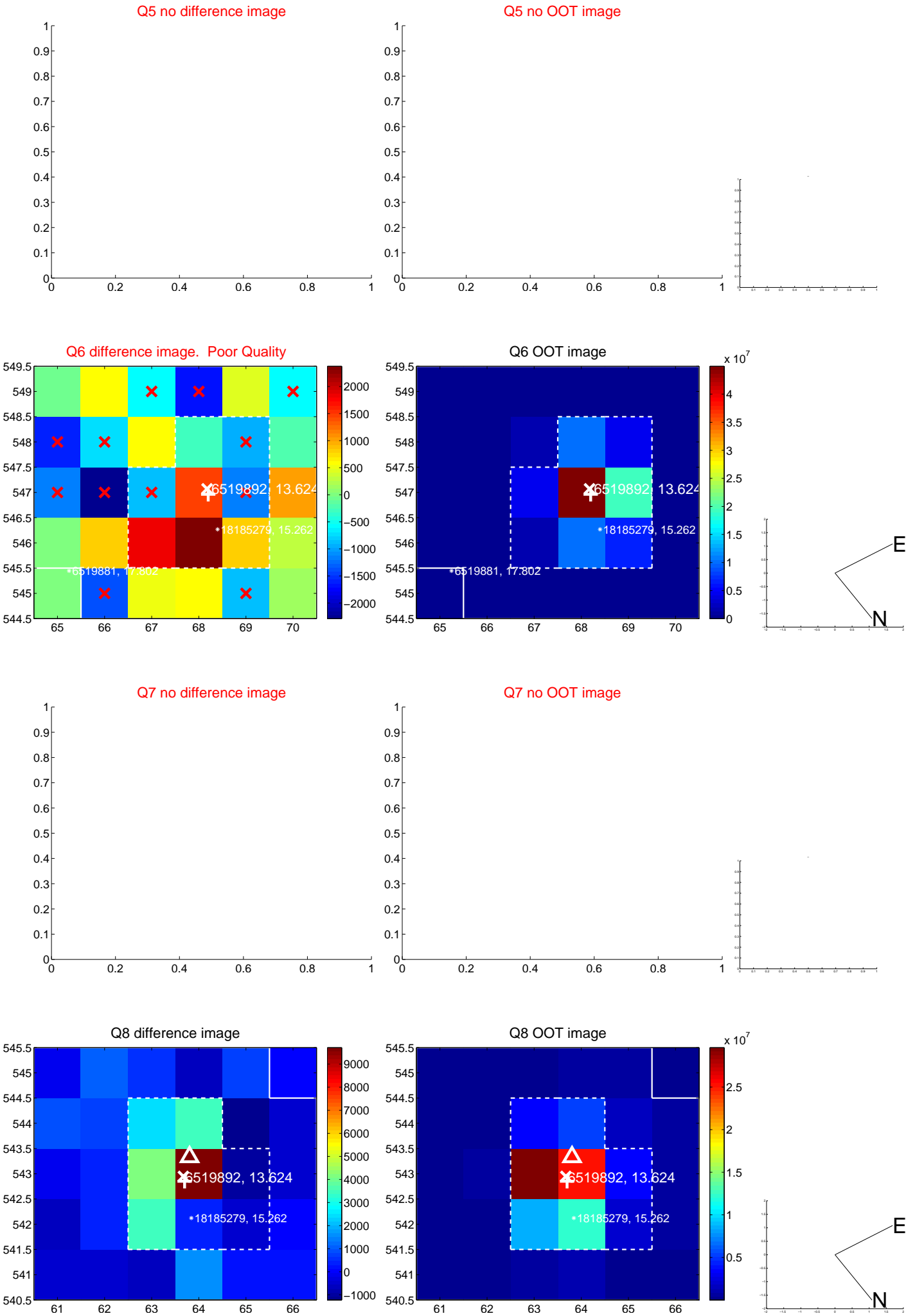
Q4 no difference image



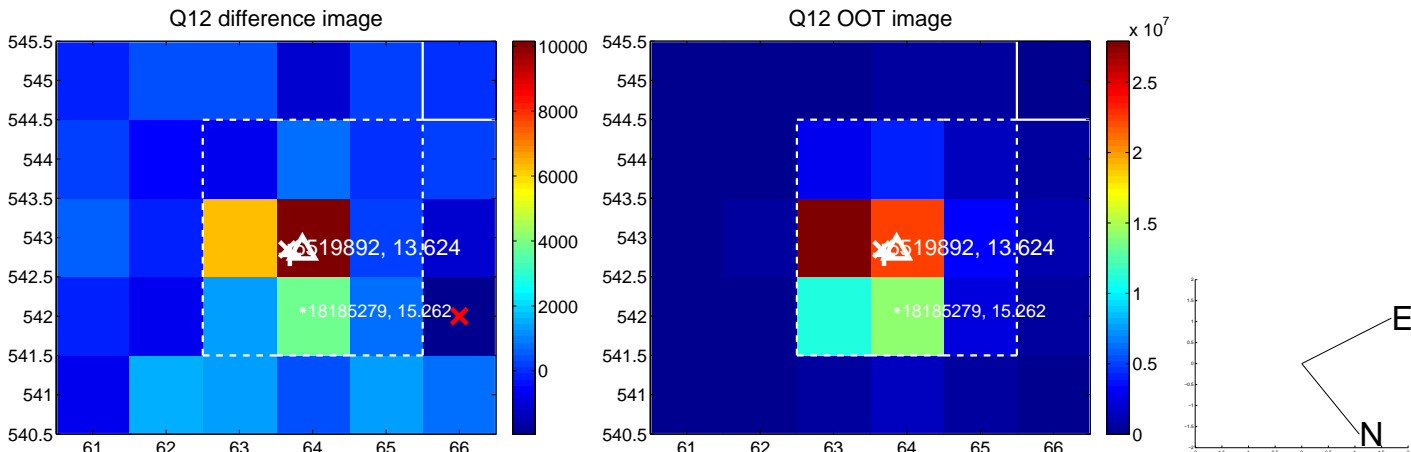
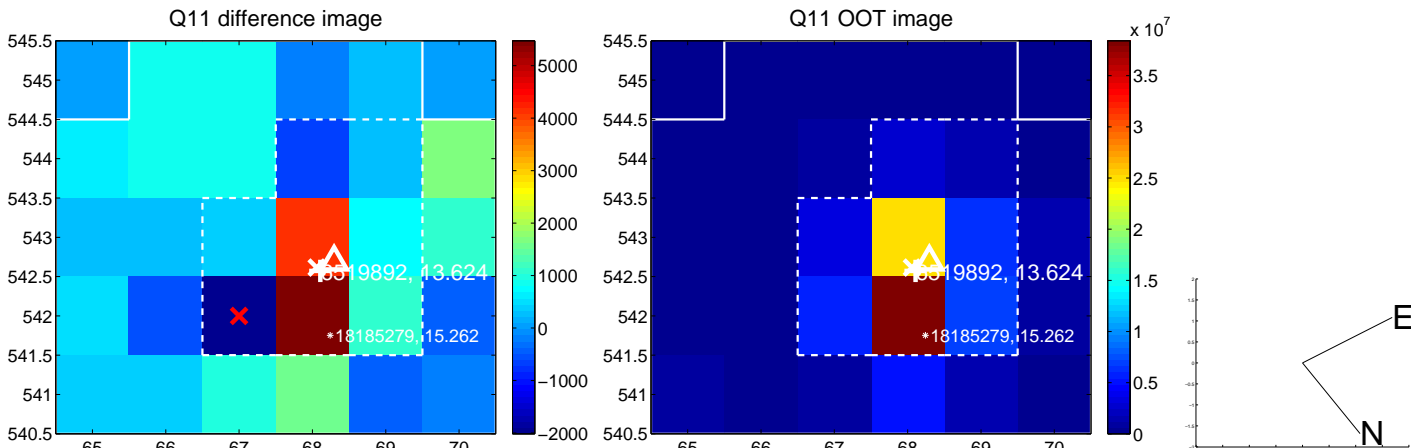
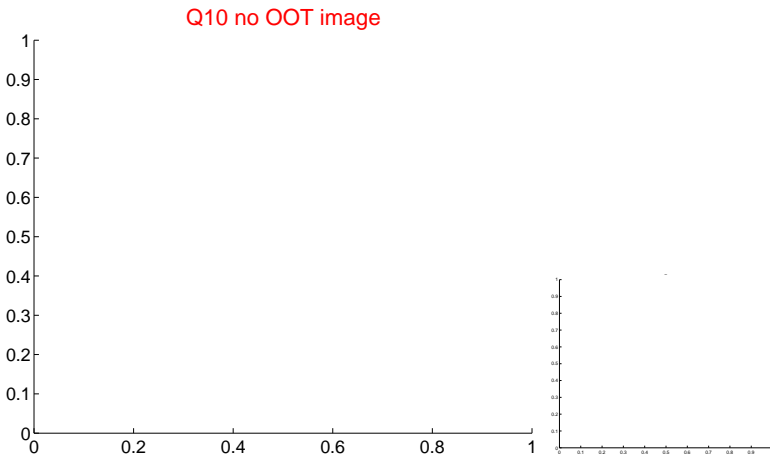
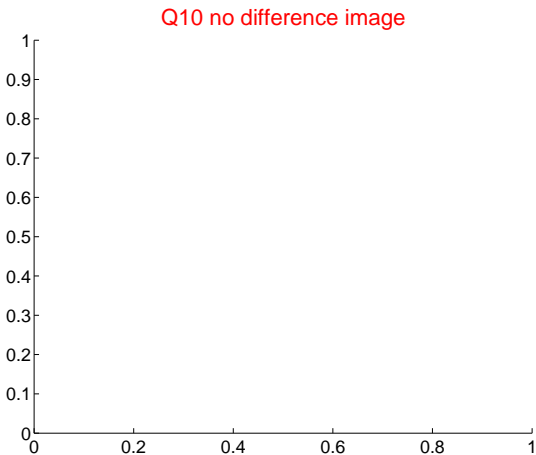
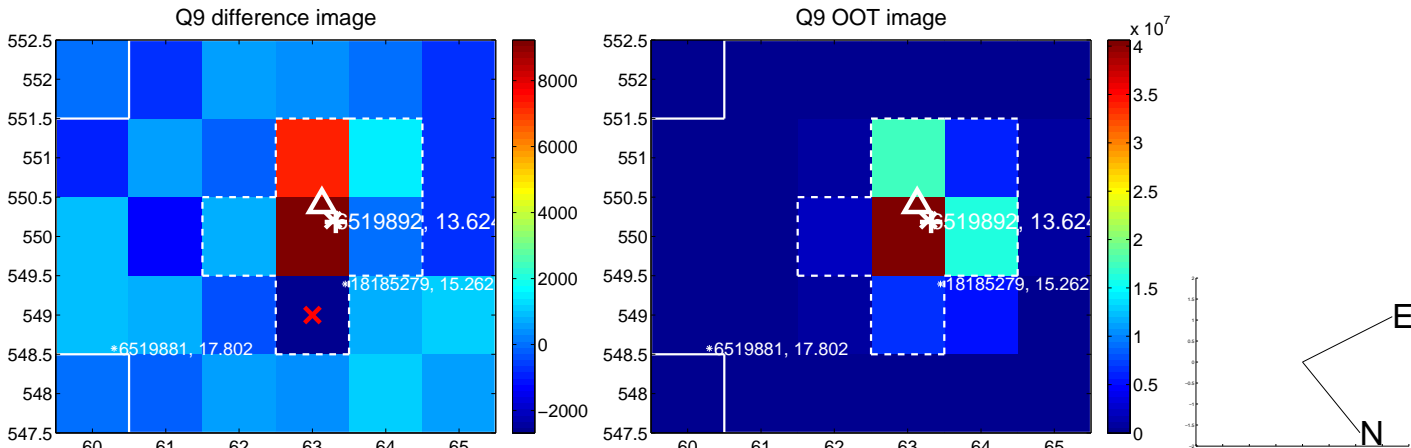
Q4 no OOT image



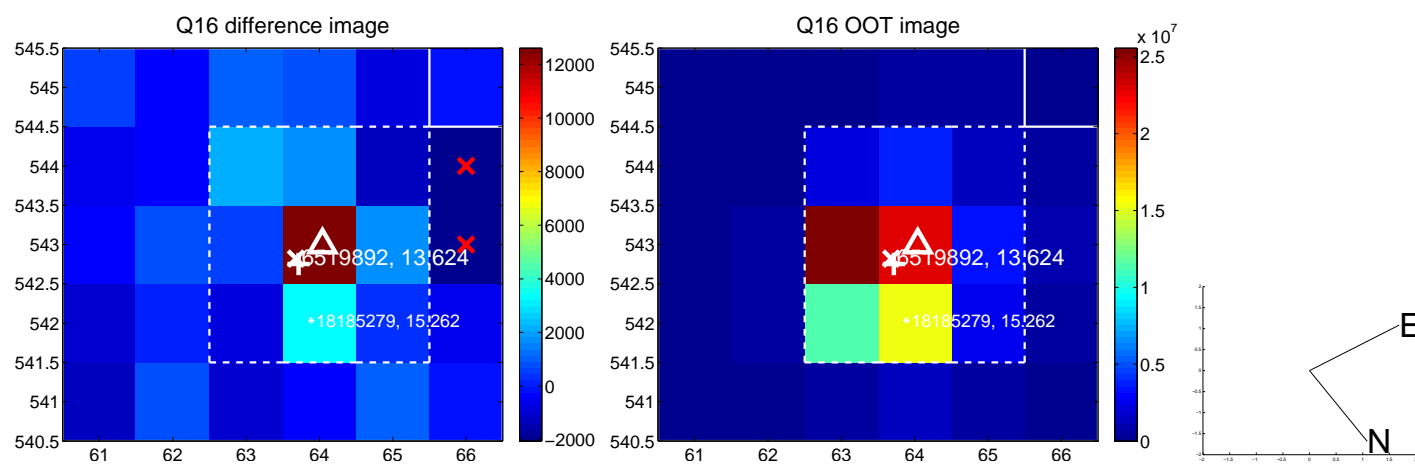
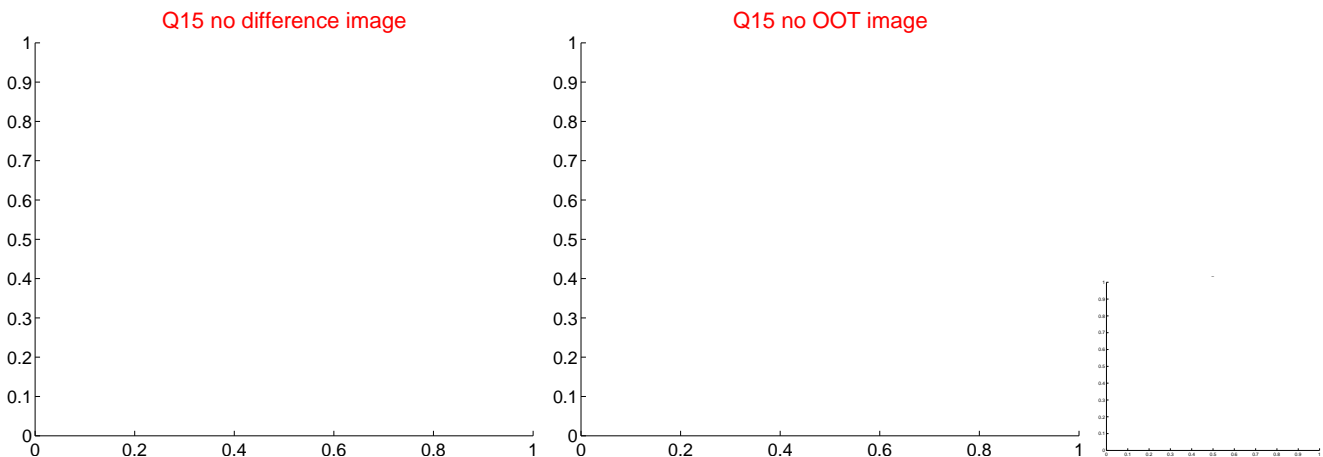
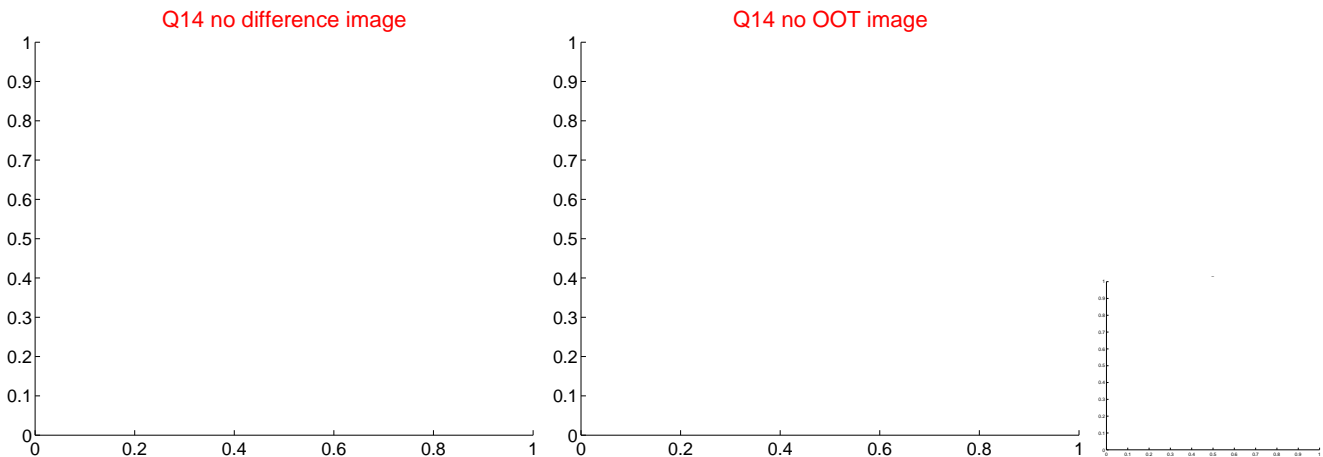
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



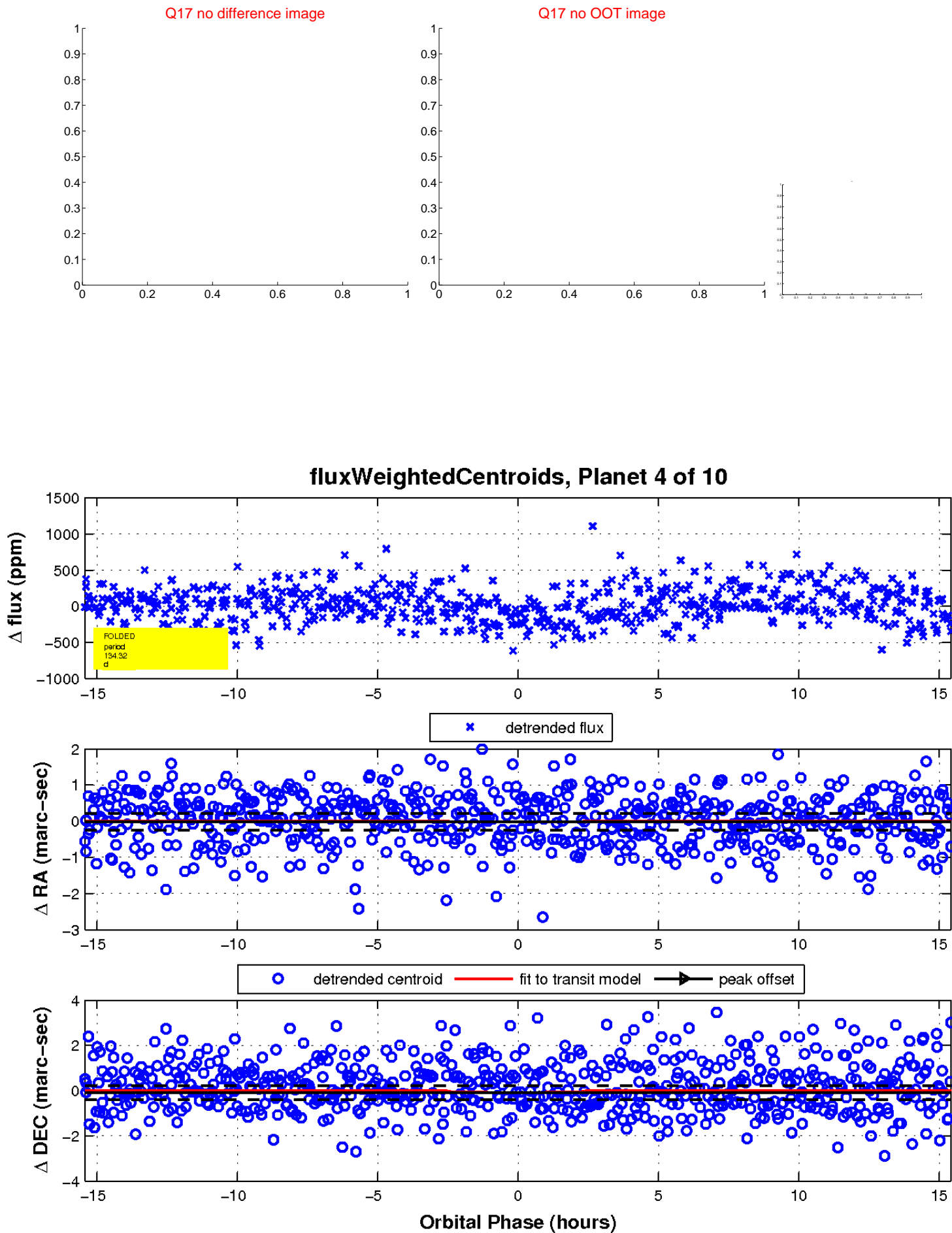
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

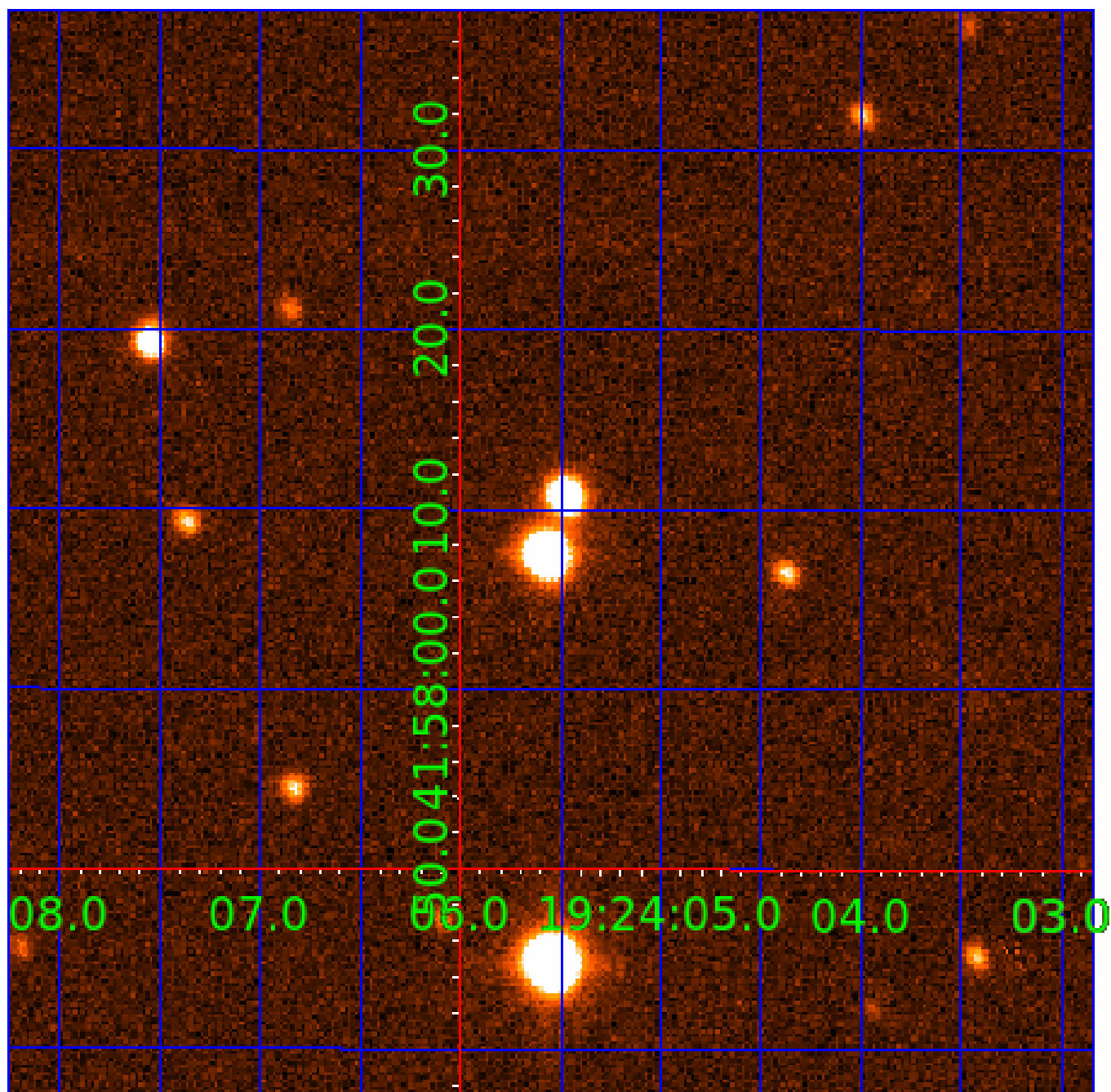


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

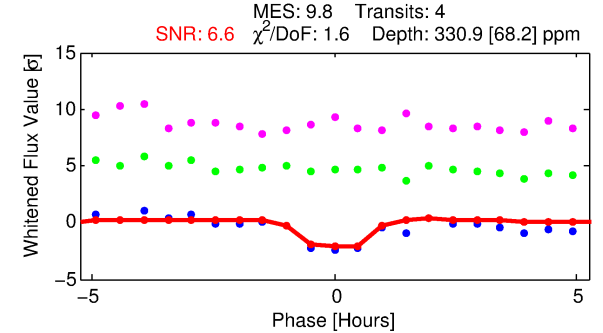
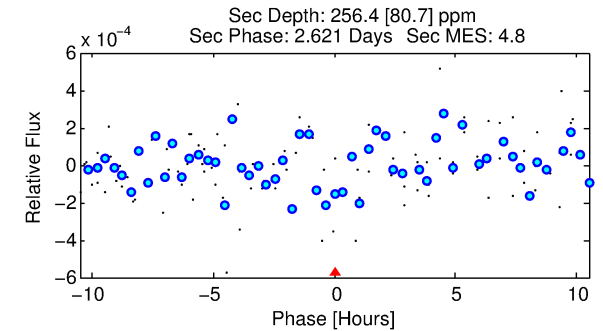
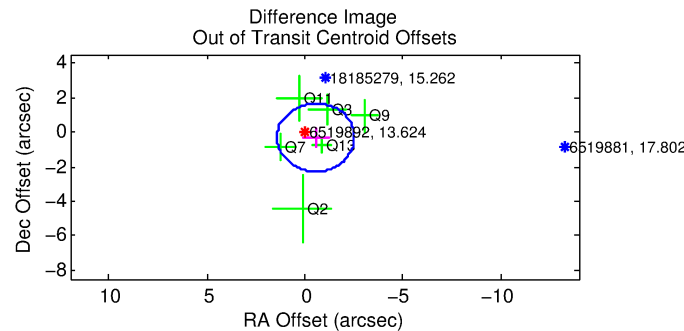
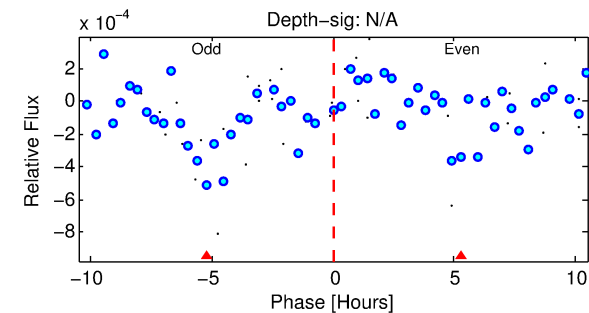
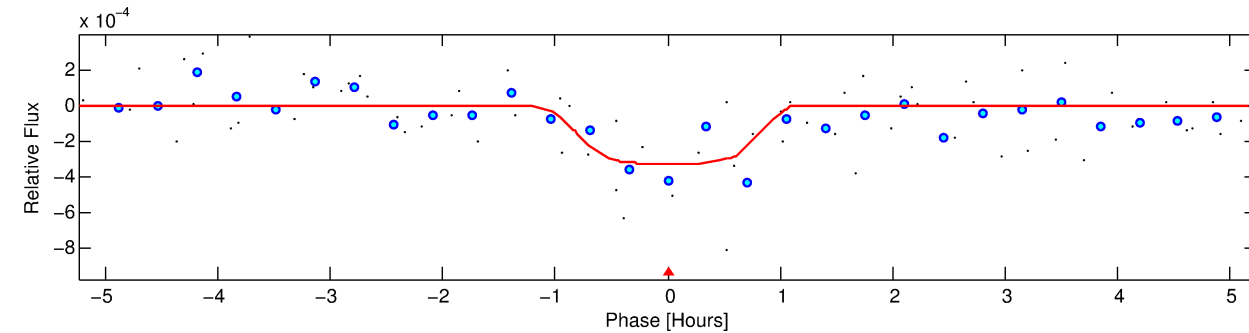
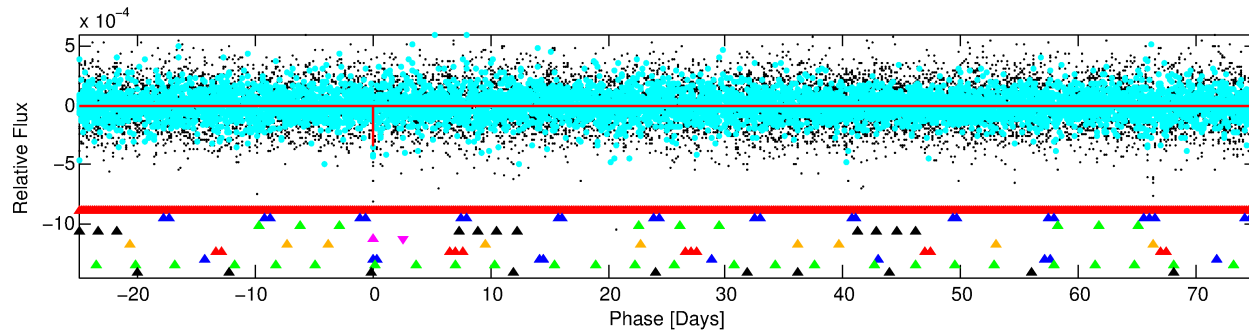
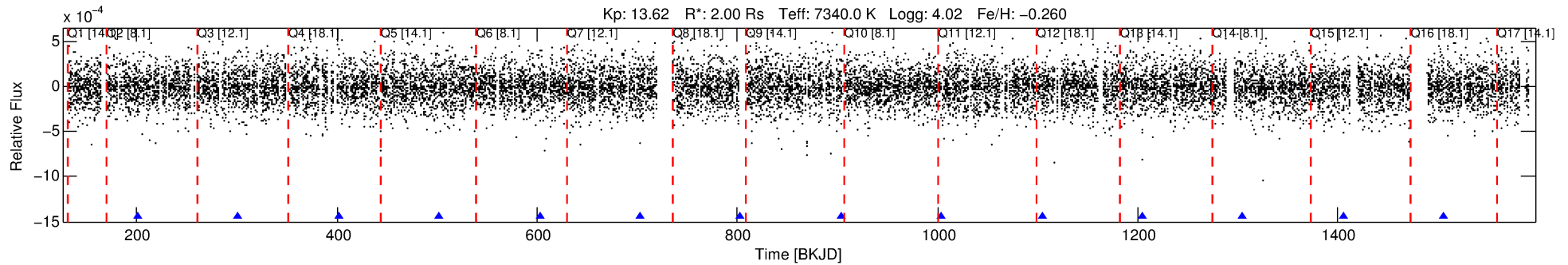
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-05

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 5 of 10 Period: 100.330 d



DV Fit Results:

Period = 100.32955 [0.00125] d
Epoch = 201.2635 [0.0084] BKJD
Rp/R* = 0.0170 [0.0279]
a/R* = 422.60 [3909.30]
b = 0.32 [25.85]
Seff = 44.24 [20.06]
Teff = 658 [75] K
Rp = 3.73 [6.21] Re
a = 0.4861 [0.1339] AU
Ag = 2401.67 [7970.32] [0.30σ]
Teffp = 7118 [5865] K [1.10σ]

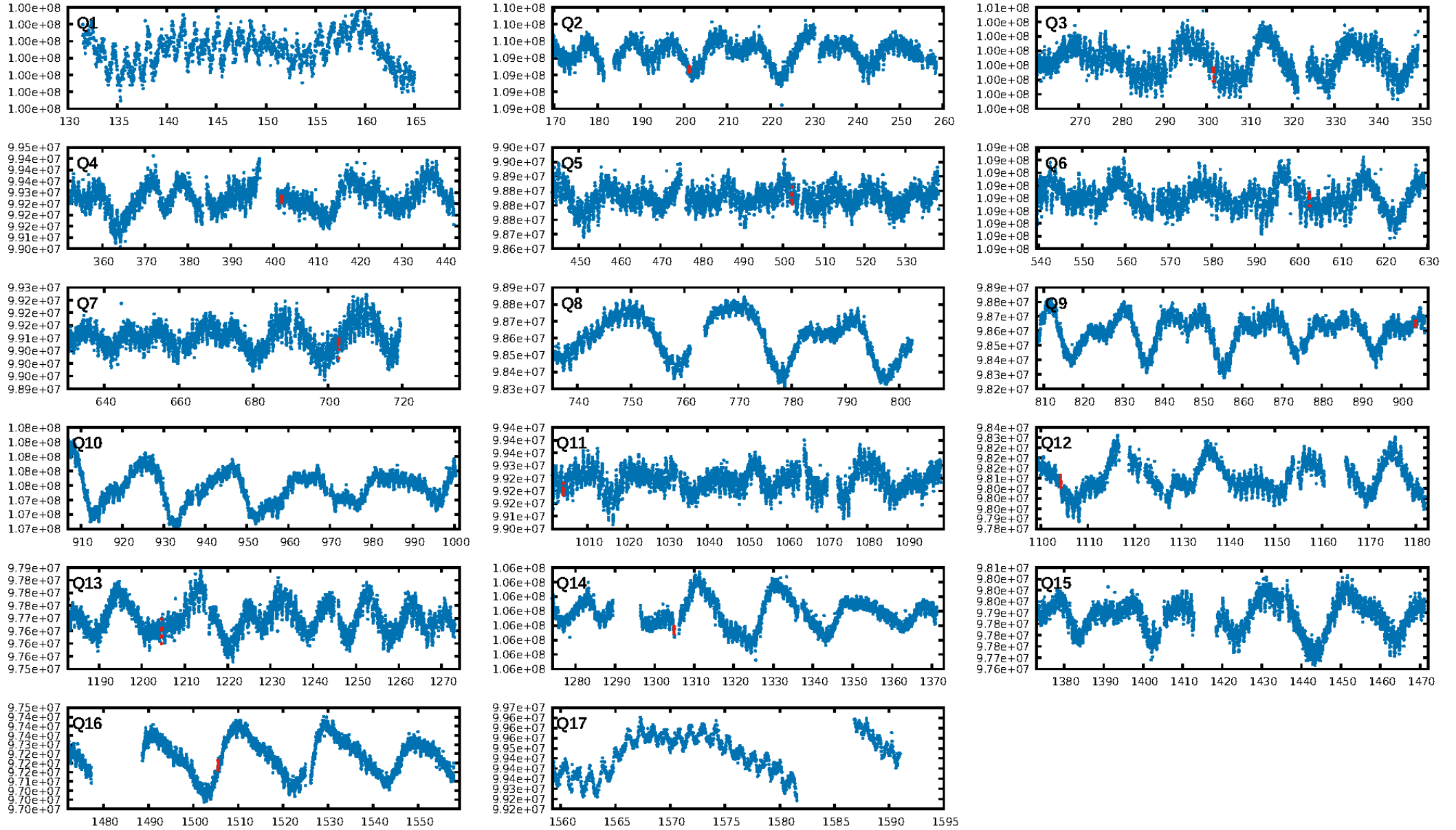
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [237.65σ]
LongPeriod-sig: 100.0% [78.03σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 37.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -8.45
Centroid-sig: 47.5%
Centroid-so: 1.157 arcsec [1.05σ]
OotOffset-rm: 0.630 arcsec [0.96σ]
KicOffset-rm: 0.512 arcsec [0.77σ]
OotOffset-st: 1/3/0/2 [6]
KicOffset-st: 1/3/0/2 [6]
DiffImageQuality-fgm: 0.67 [4/6]
DiffImageOverlap-fno: 0.50 [4/8]

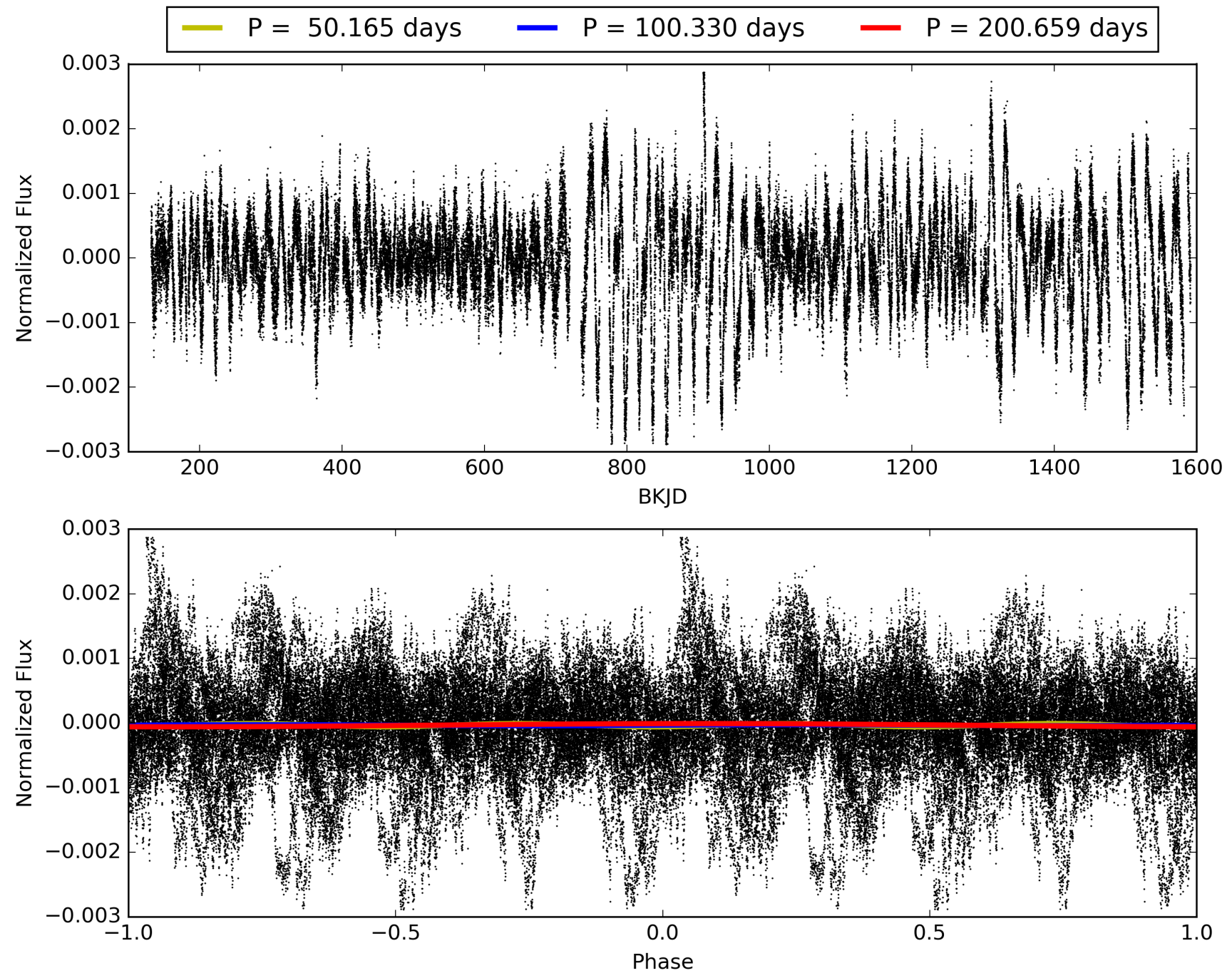
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:57:08 Z

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

TCE 006519892-05, PDC Light Curves

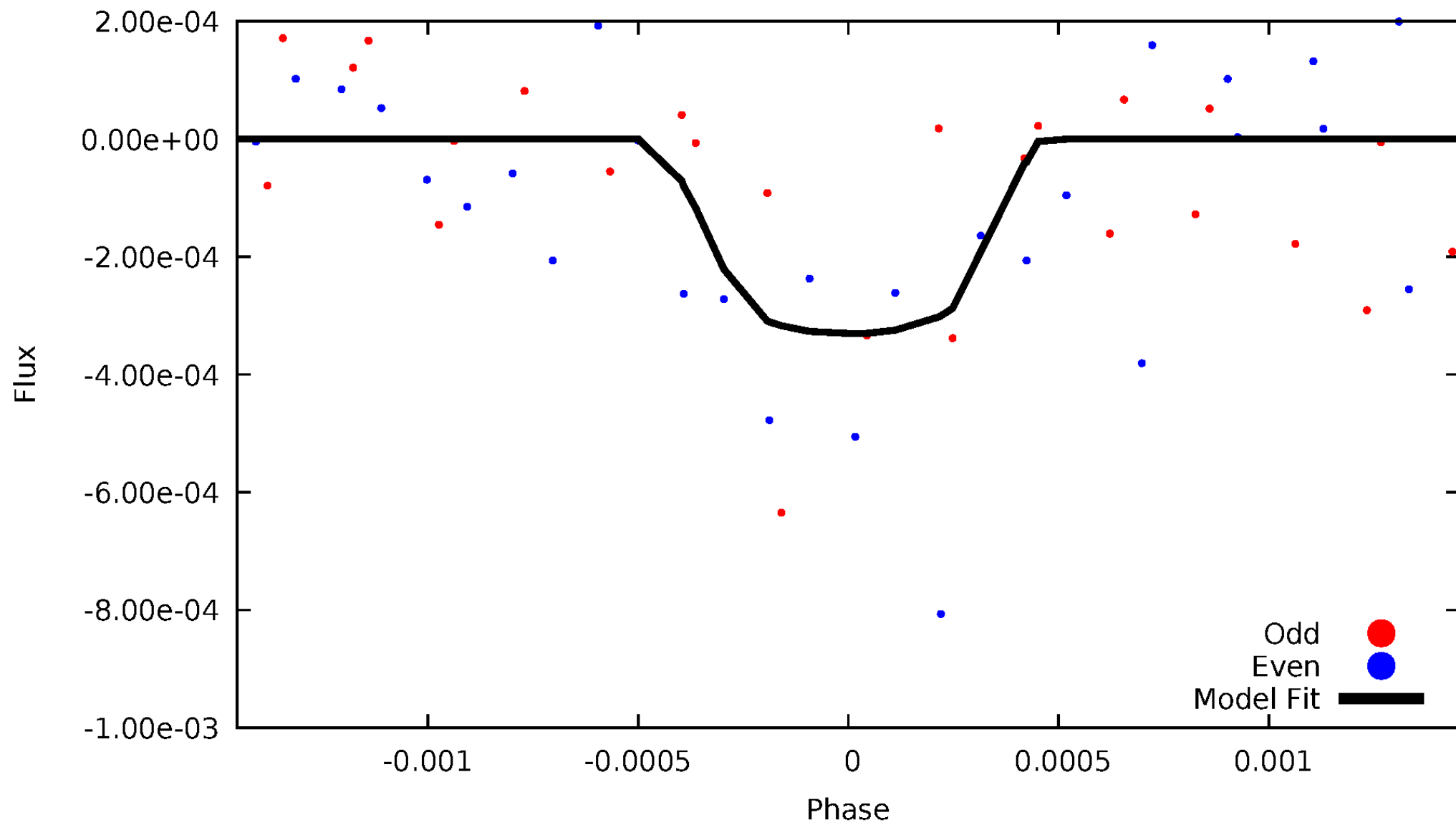


TCE 006519892-05



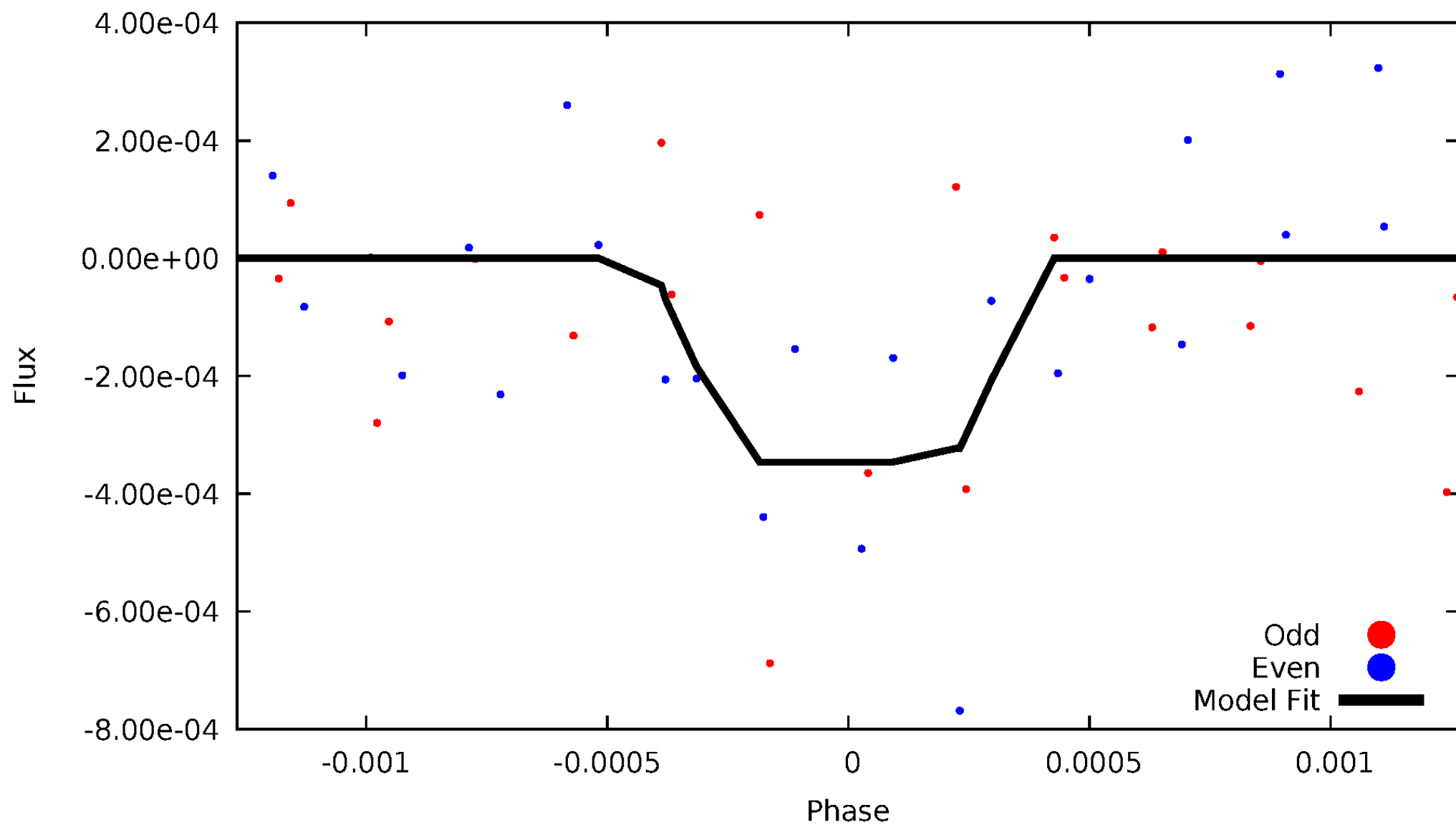
DV Odd/Even

TCE 006519892-05

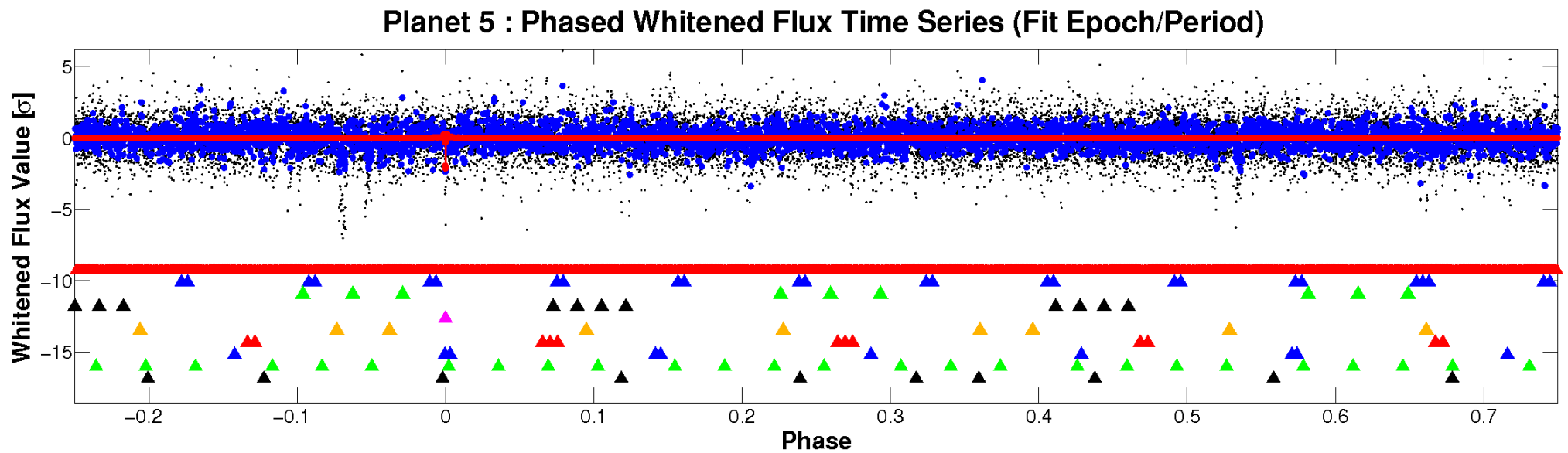
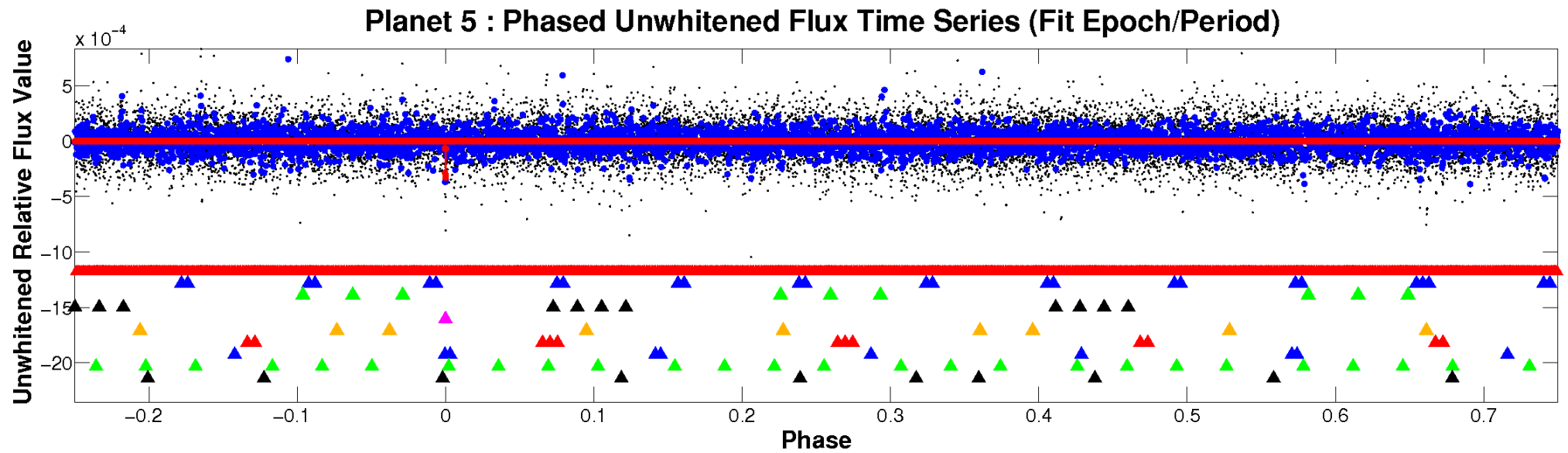


ALT Odd/Even

TCE 006519892-05

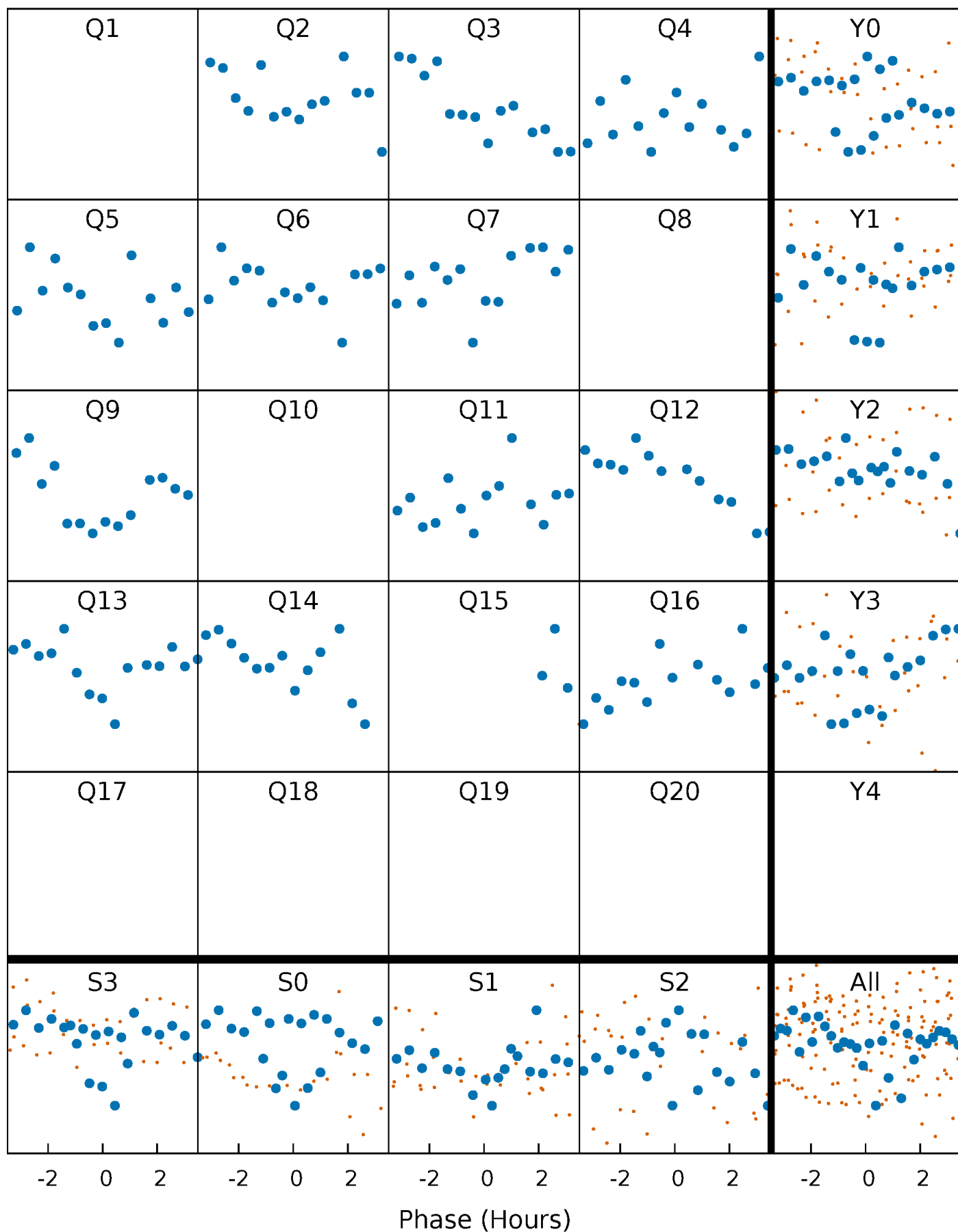


Non-Whitened Vs. Whitened Light Curve



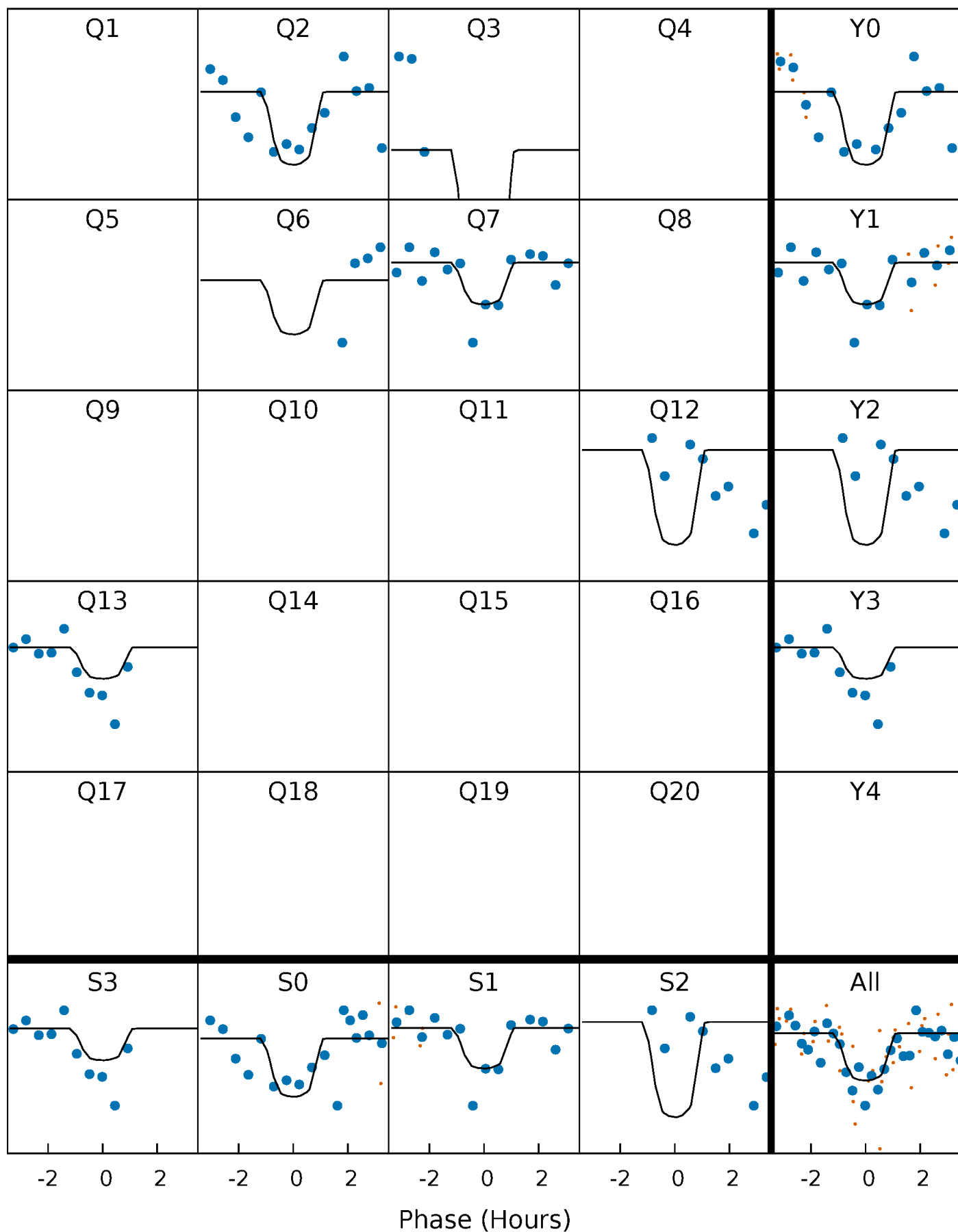
PDC Quarter-Phased Transit Curves

TCE 006519892-05 P=100.329547 Days $T_0=201.263544$ (BKJD)



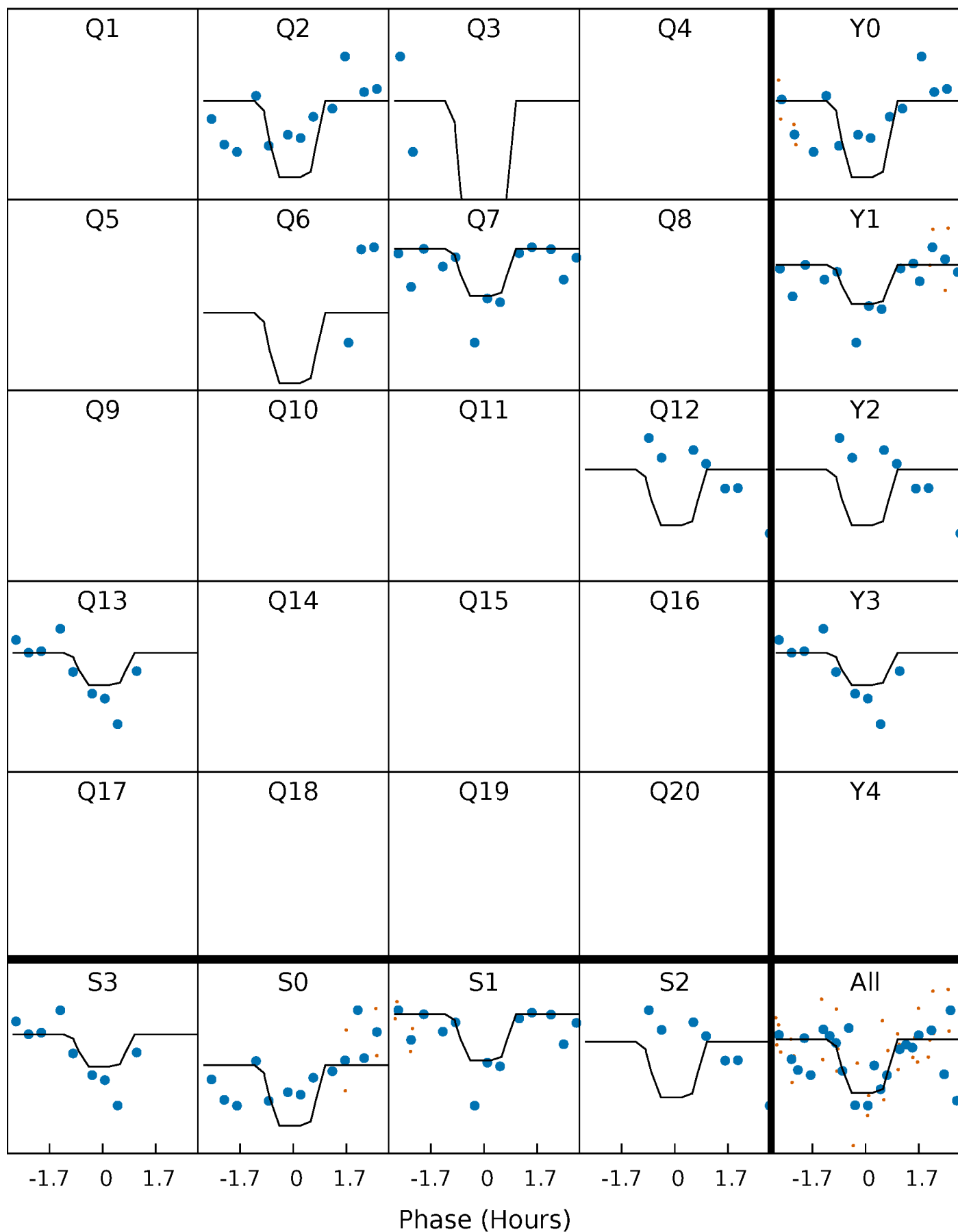
DV Quarter-Phased Transit Curves

TCE 006519892-05 $P=100.329547$ Days $T_0=201.263544$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

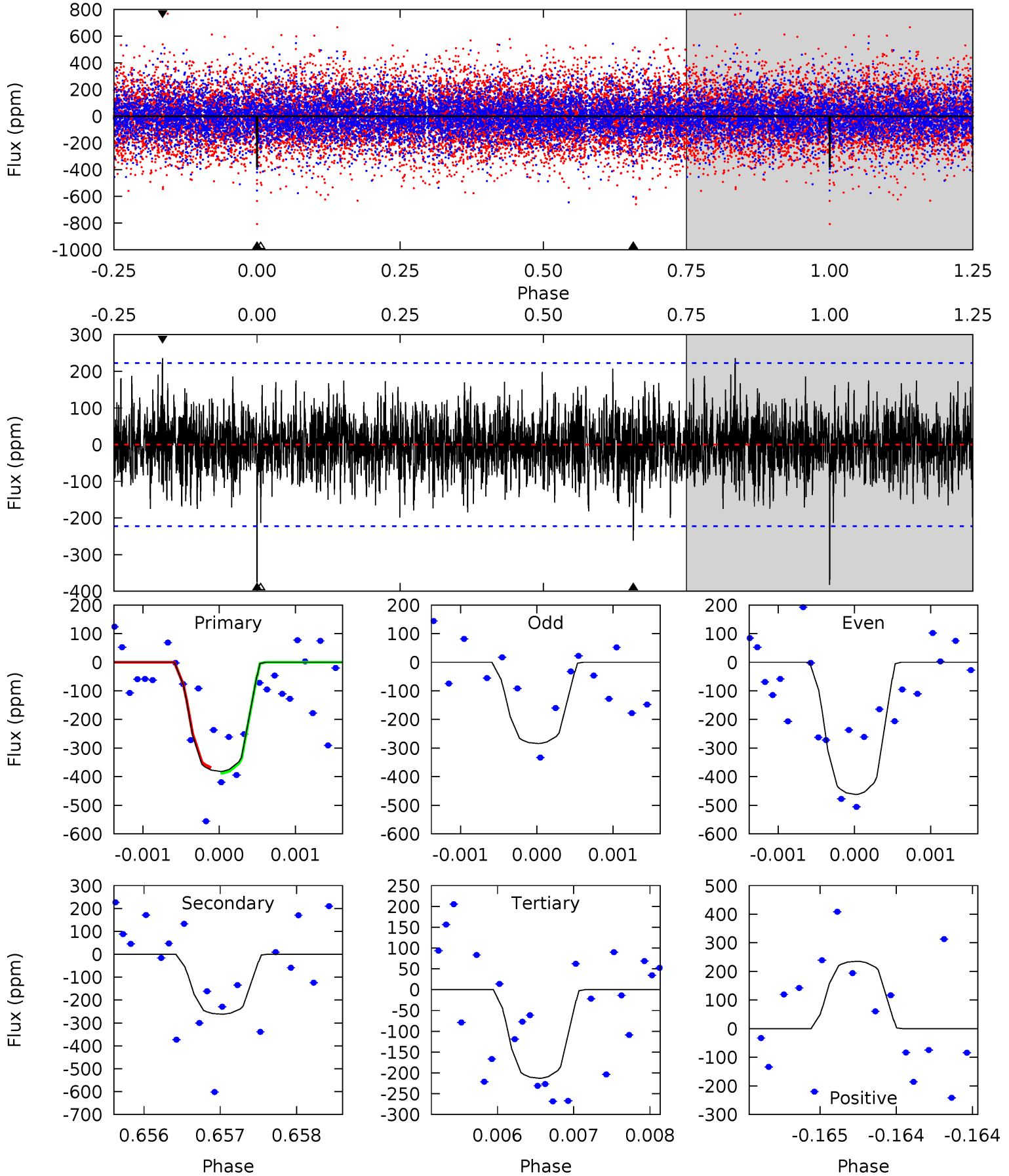
TCE 006519892-05 $P=100.329249$ Days $T_0=201.265398$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-05, P = 100.329547 Days, E = 100.933997 Days

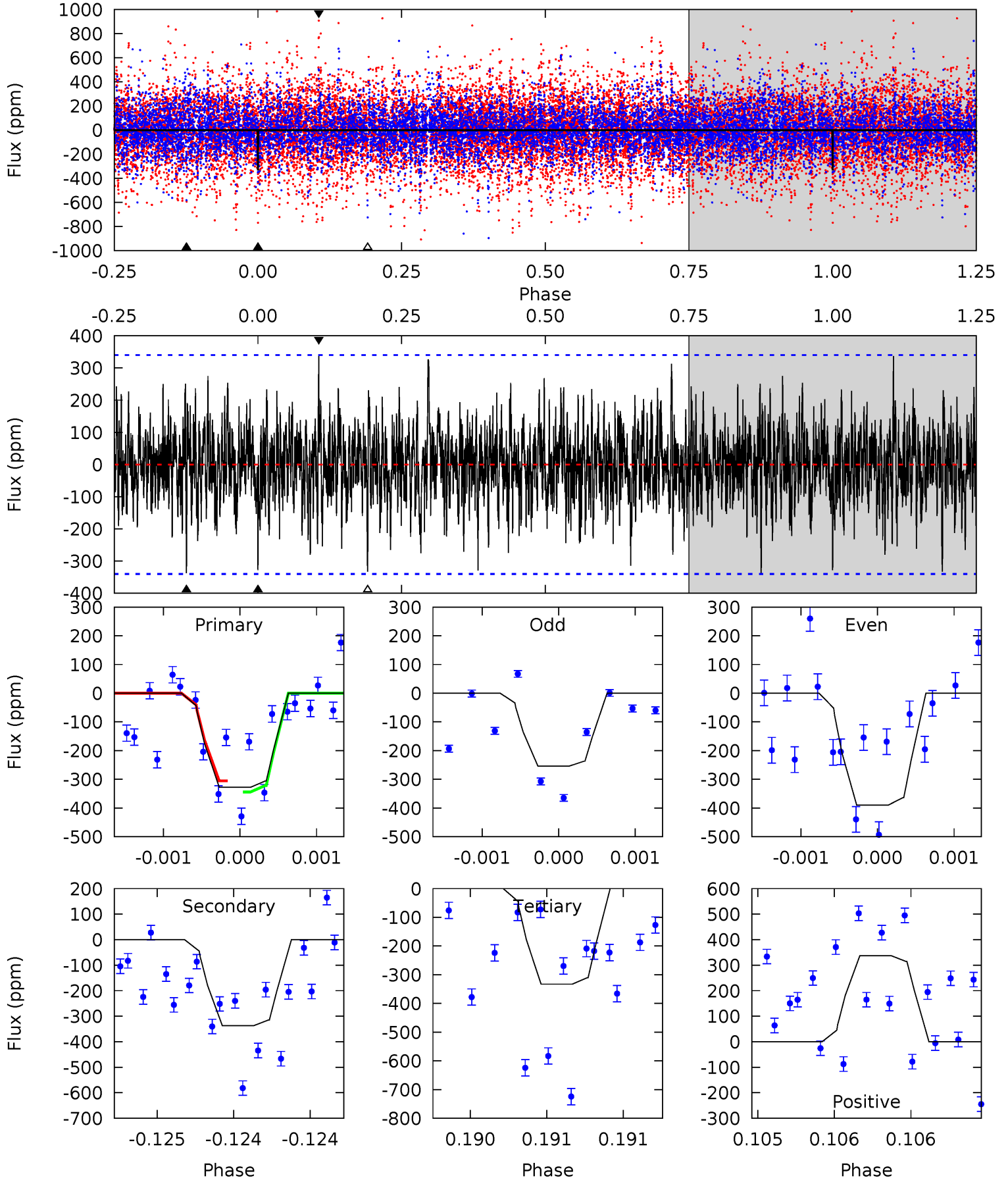
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.40	6.44	5.24	5.80	5.48	3.34	1.48	4.16	3.60	1.20	0.65	2.17	0.97	0.38	0.24



Alt Model-Shift Uniqueness Test

006519892-05, P = 100.329249 Days, E = 100.936149 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.32	5.47	5.40	5.47	5.52	3.40	1.49	-0.08	-0.15	0.07	0.00	1.10	0.84	0.50	0.31



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-262 ± 41	$5.56^{+5.37}_{-3.59}$	907^{+69}_{-80}	5615^{+4879}_{-1284}	1067^{+8027}_{-777}
Alt.	-337 ± 62	$6.05^{+5.18}_{-4.28}$	909^{+66}_{-72}	5832^{+6082}_{-1365}	1160^{+12121}_{-824}

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 $A_{obs} \gg 1.0$

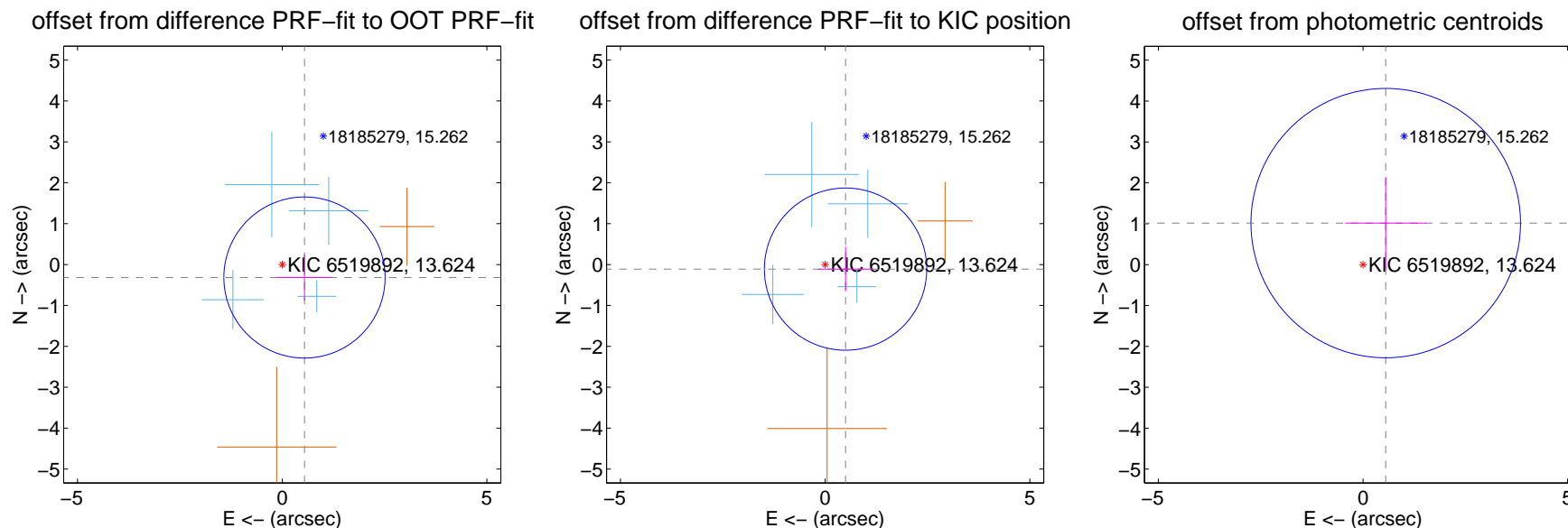
DV Centroid Data

Supplemental centroid analysis for 006519892-05. Kepler magnitude: 13.62. Transit SNR 6.57

There are 4 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.630 ± 0.657	0.96	-0.544 ± 0.686	-0.317 ± 0.561
PRF-fit source offset from KIC position	0.512 ± 0.661	0.77	-0.499 ± 0.666	-0.112 ± 0.547
photometric centroid source offset	1.16 ± 1.10	1.05	-0.56 ± 0.99	1.02 ± 1.13



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

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

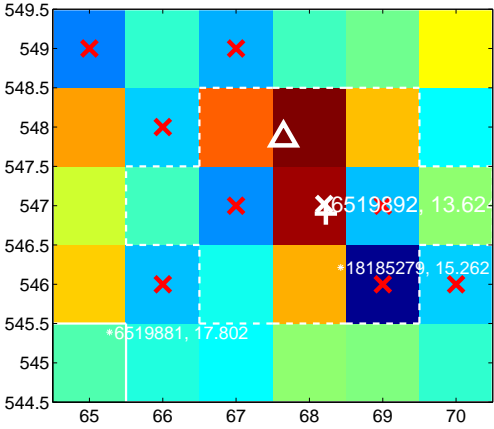
Q1 no difference image



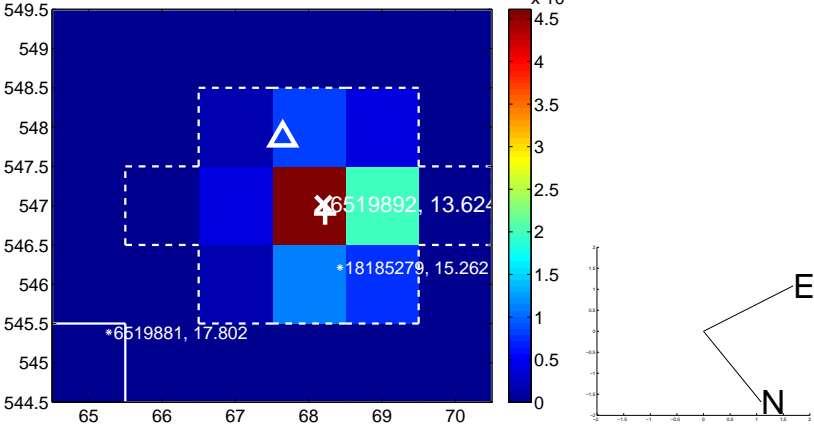
Q1 no OOT image



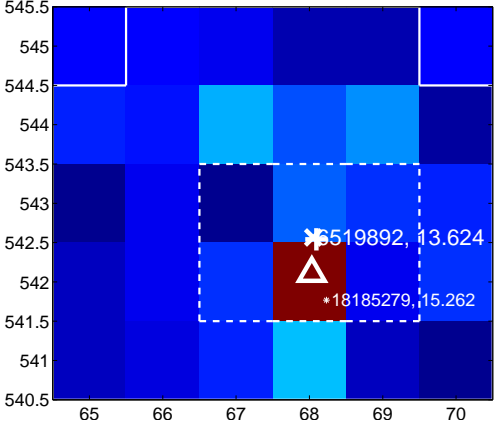
Q2 difference image. Poor Quality



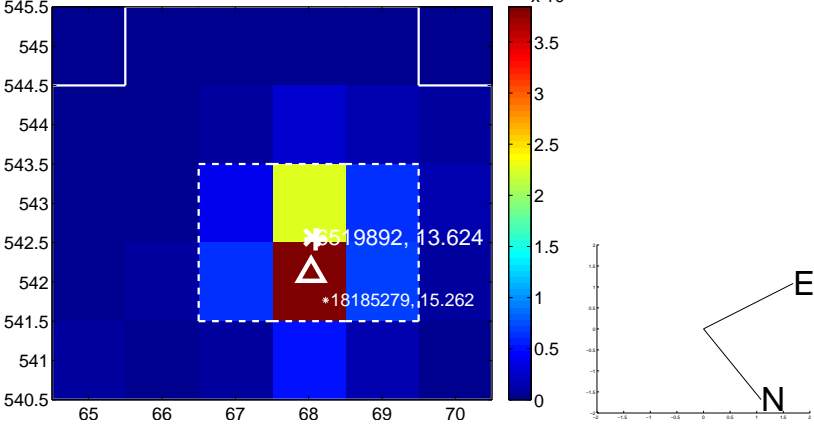
Q2 OOT image



Q3 difference image



Q3 OOT image



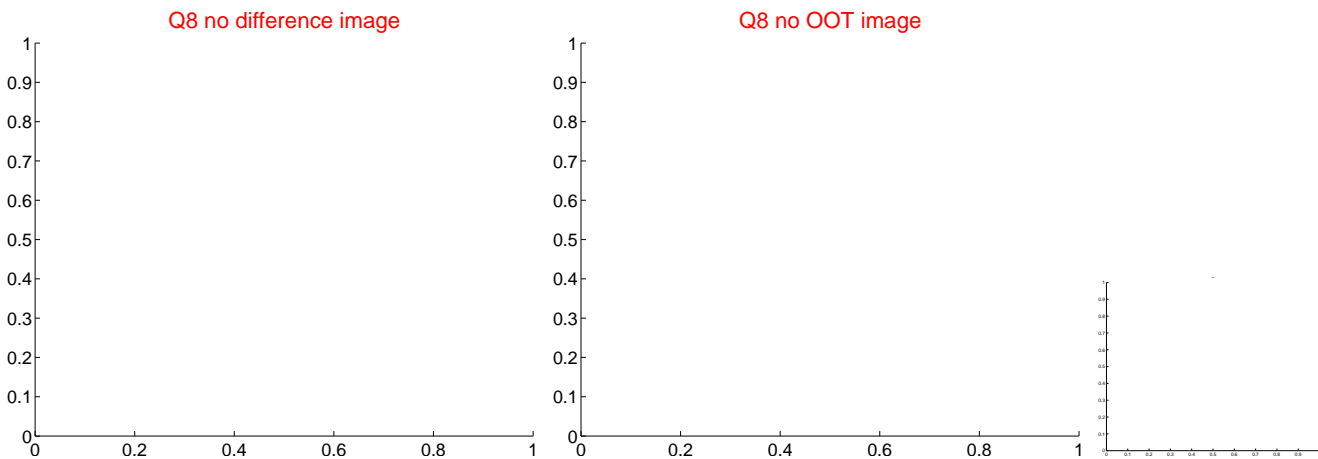
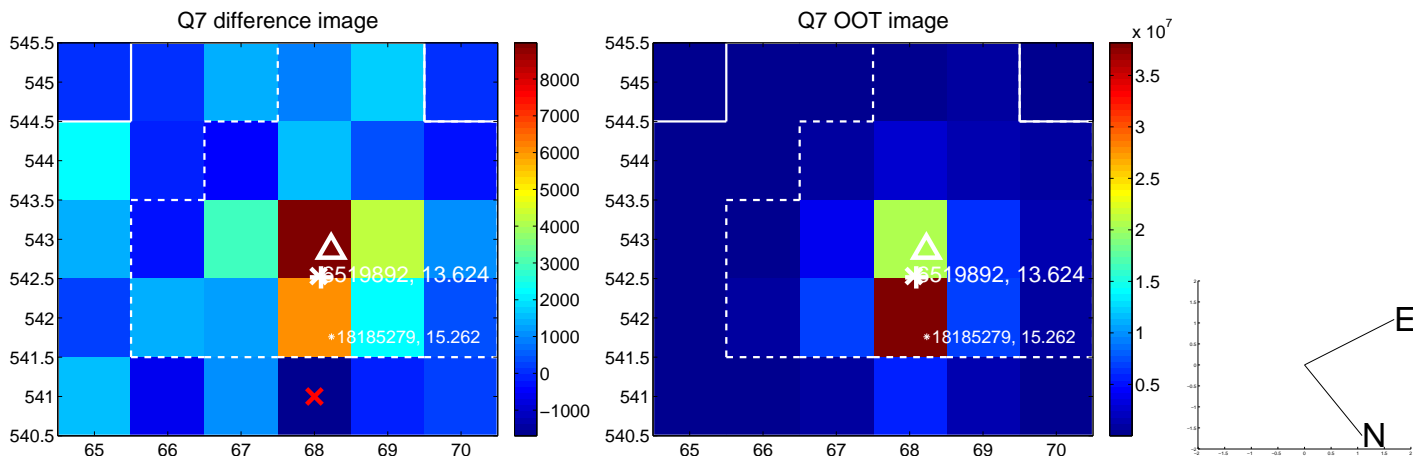
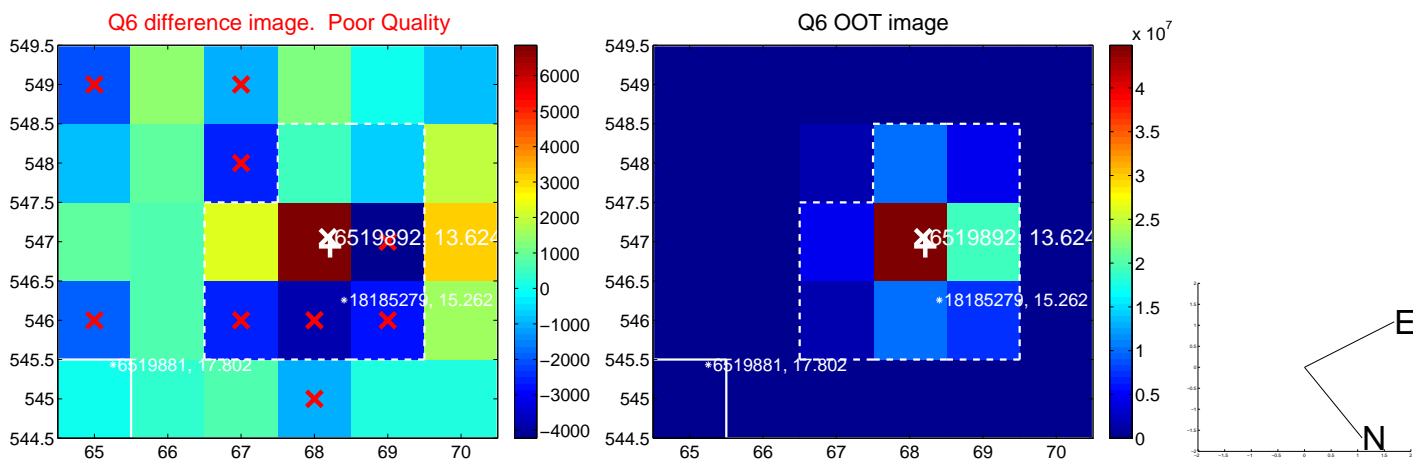
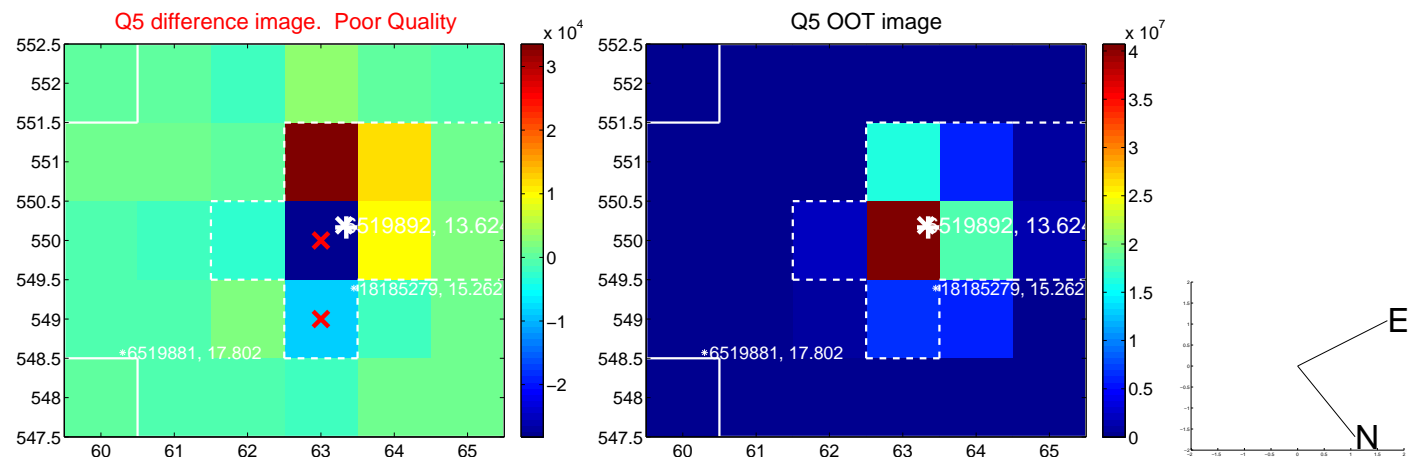
Q4 no difference image



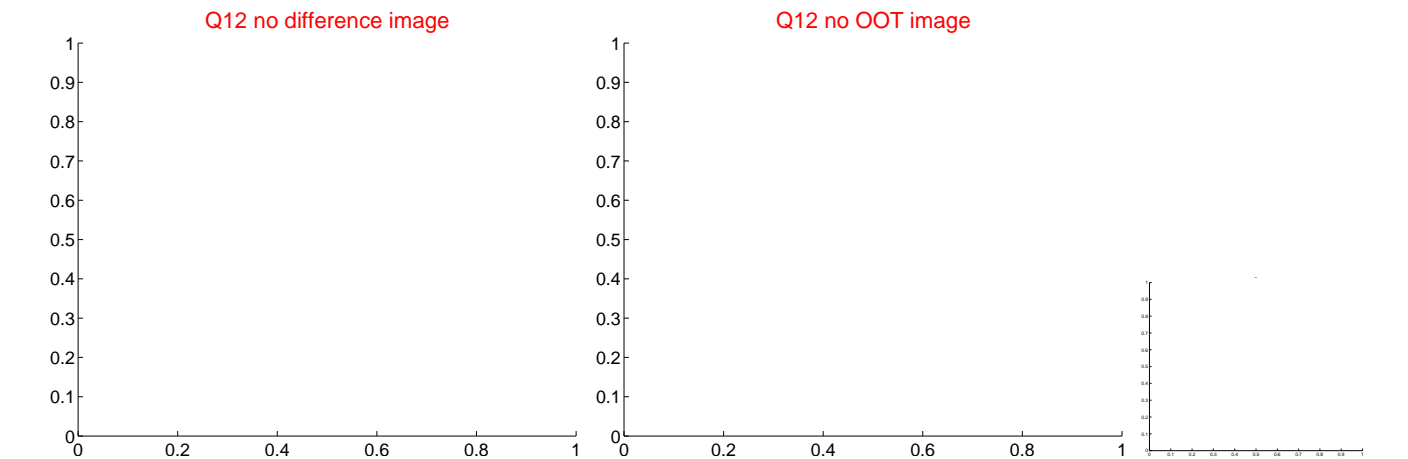
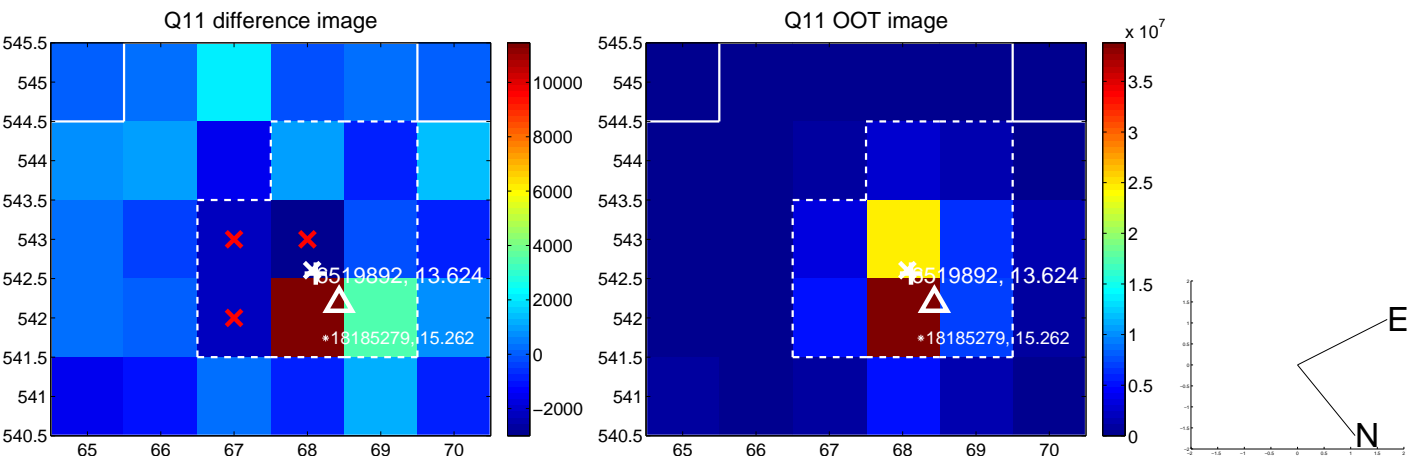
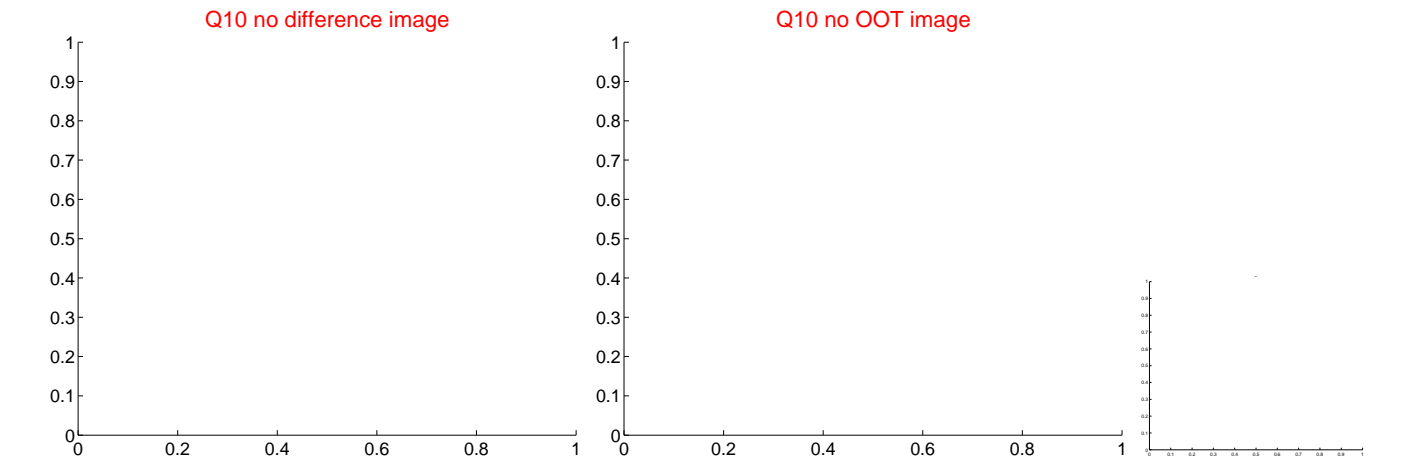
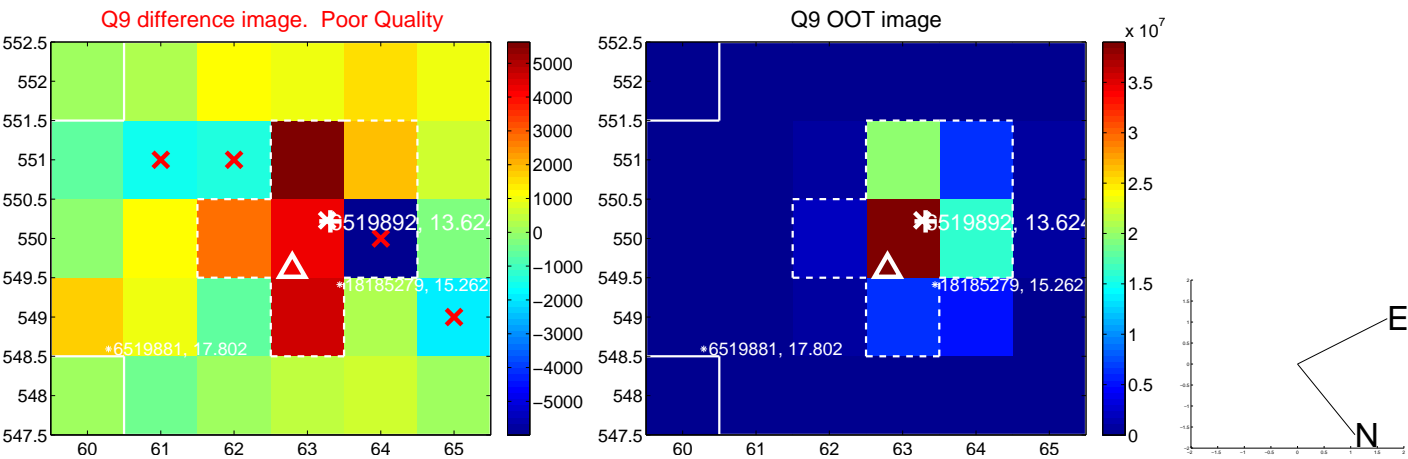
Q4 no OOT image



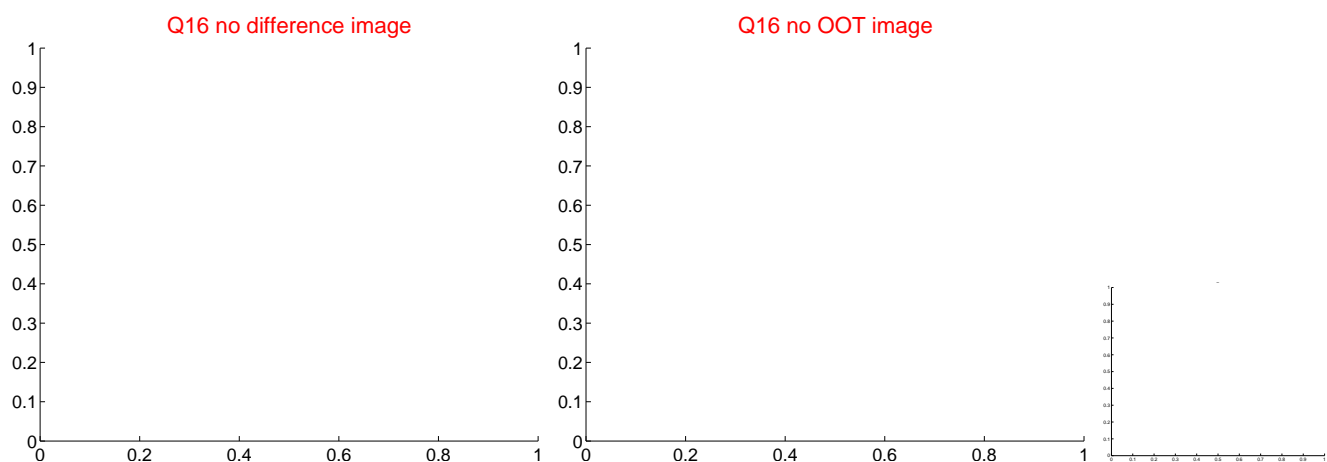
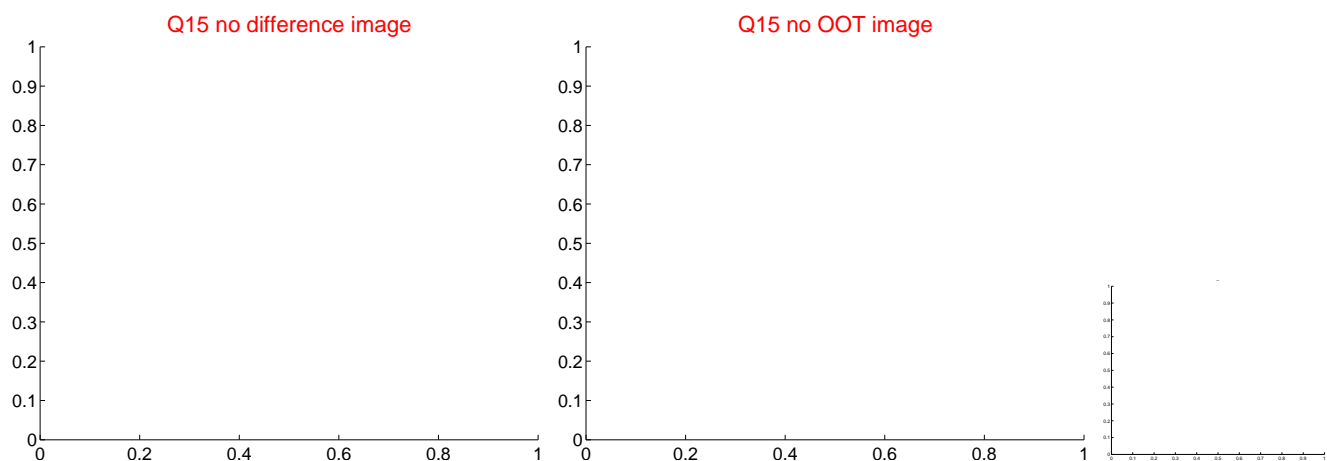
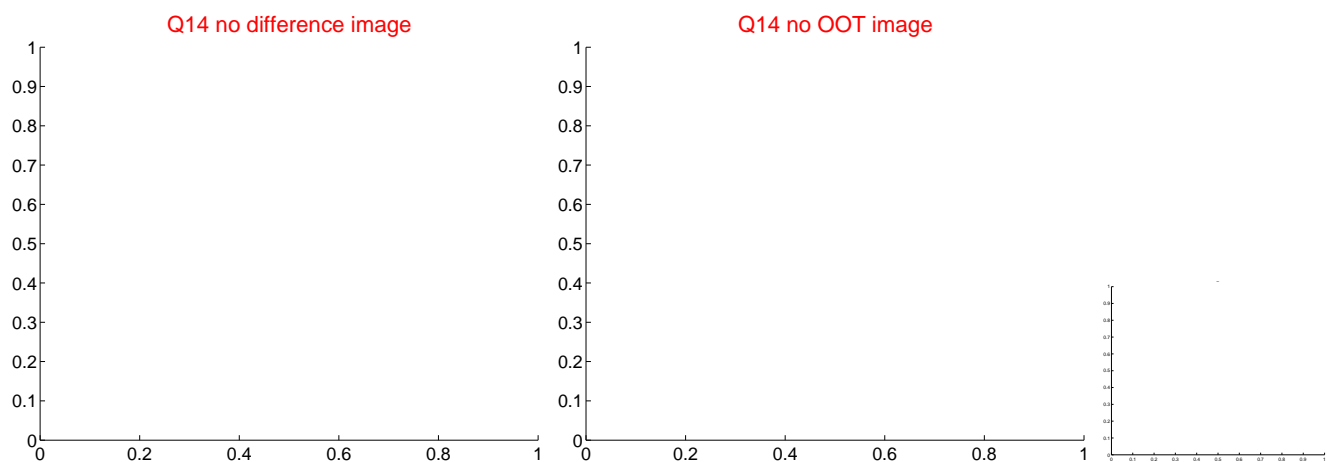
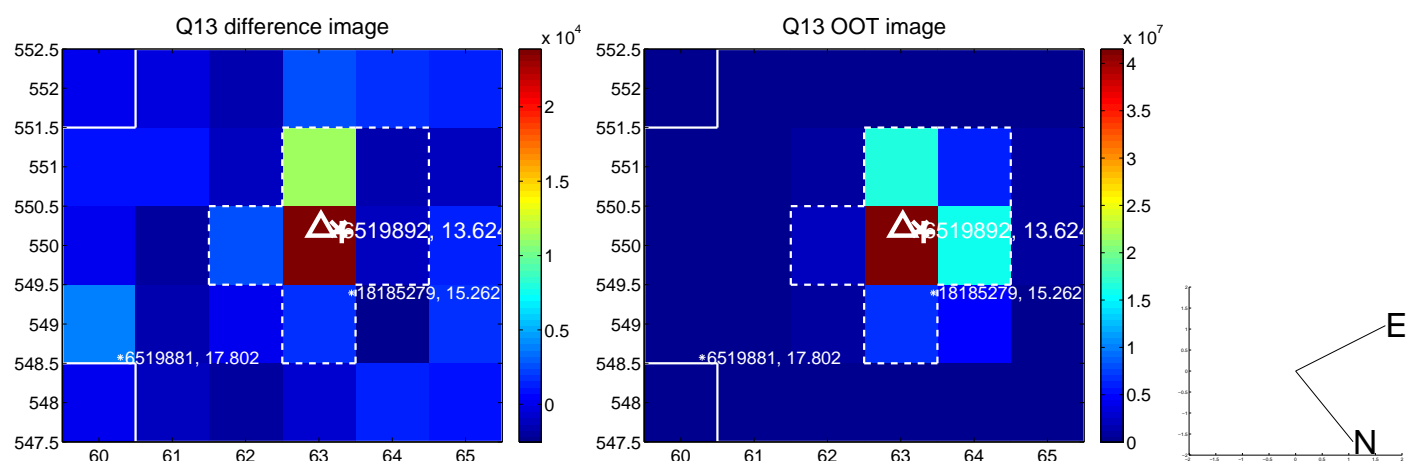
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



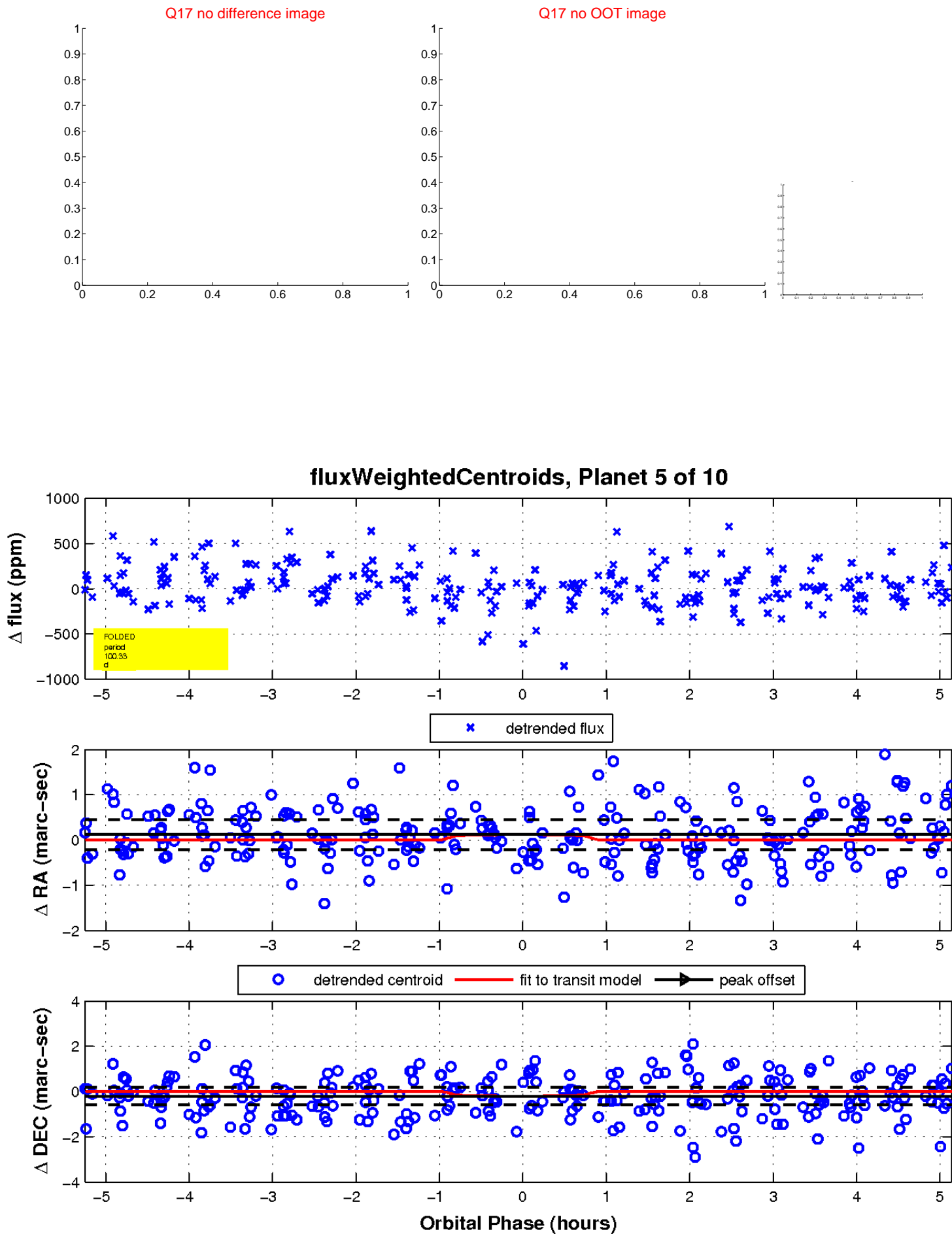
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

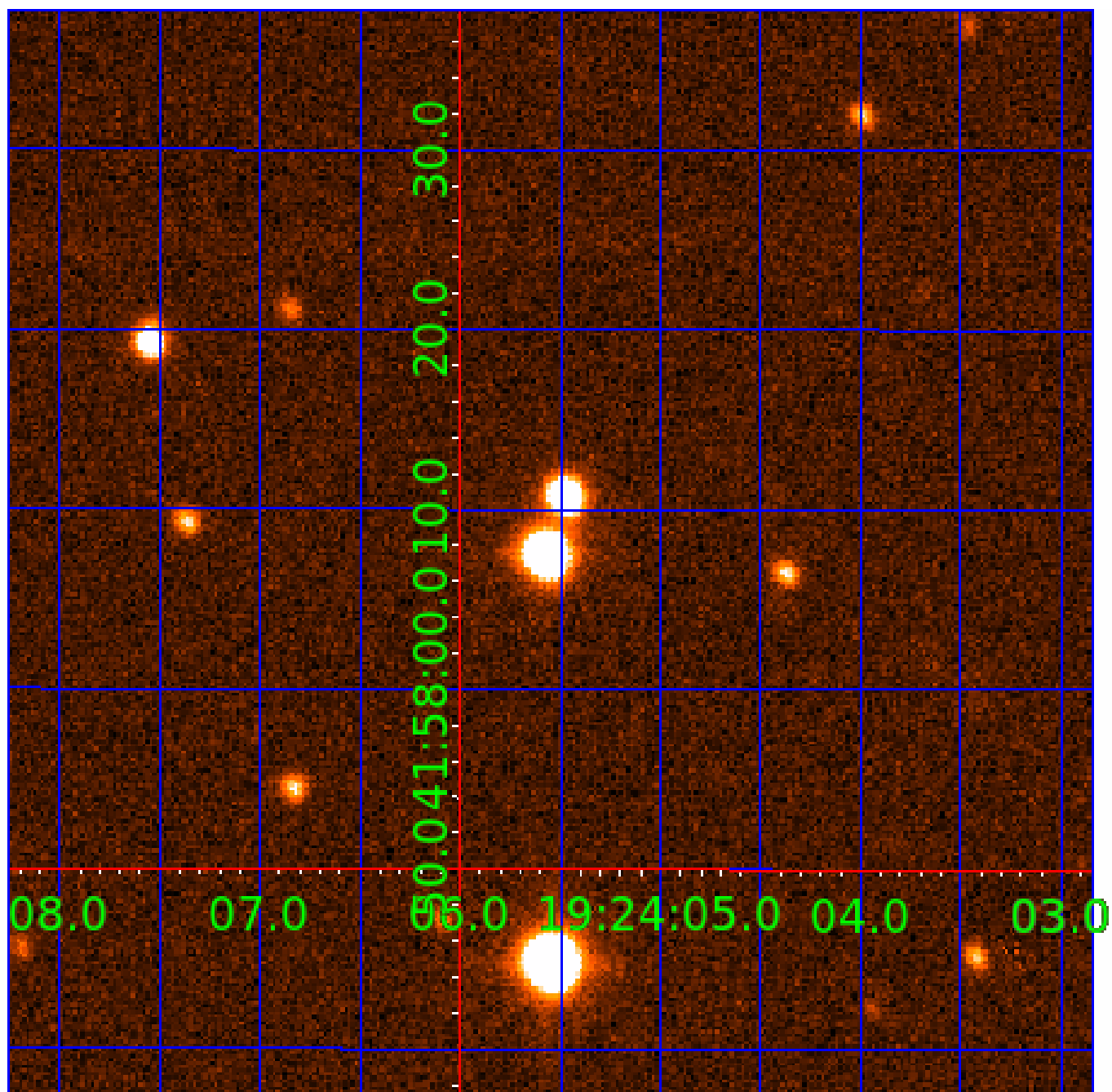


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

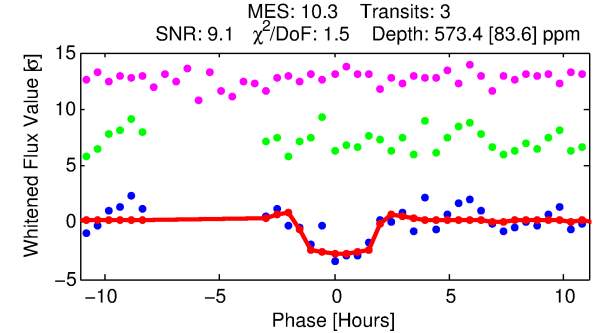
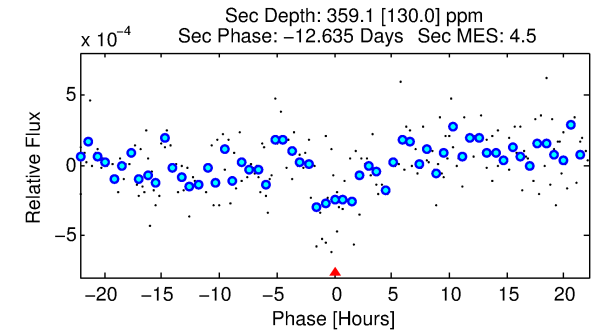
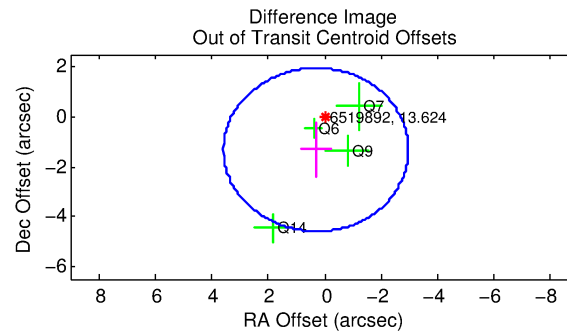
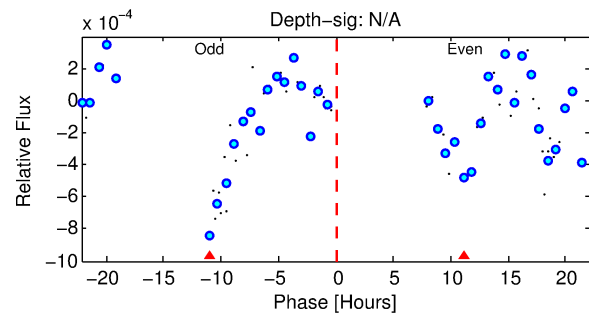
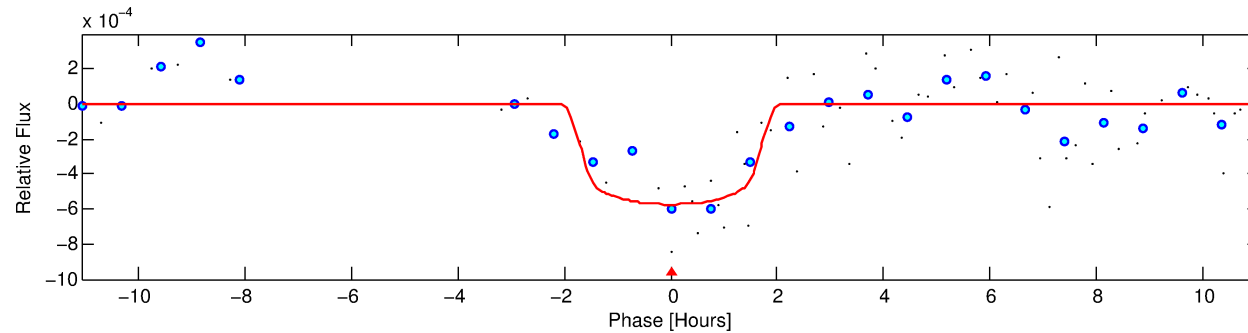
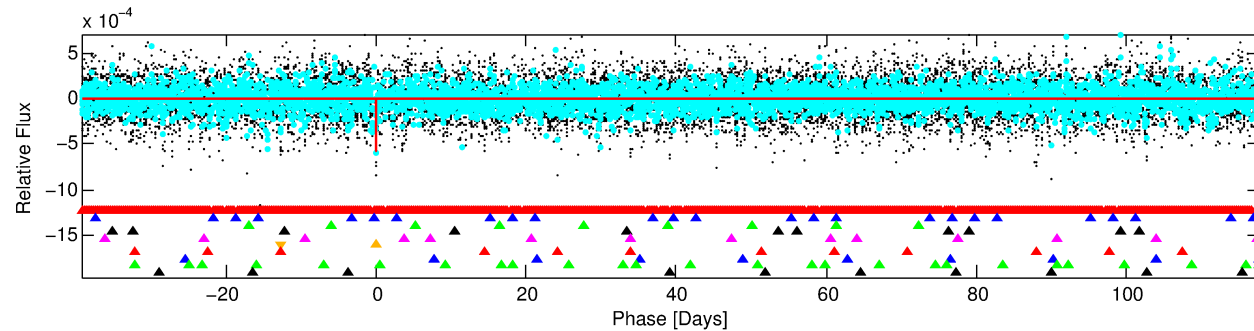
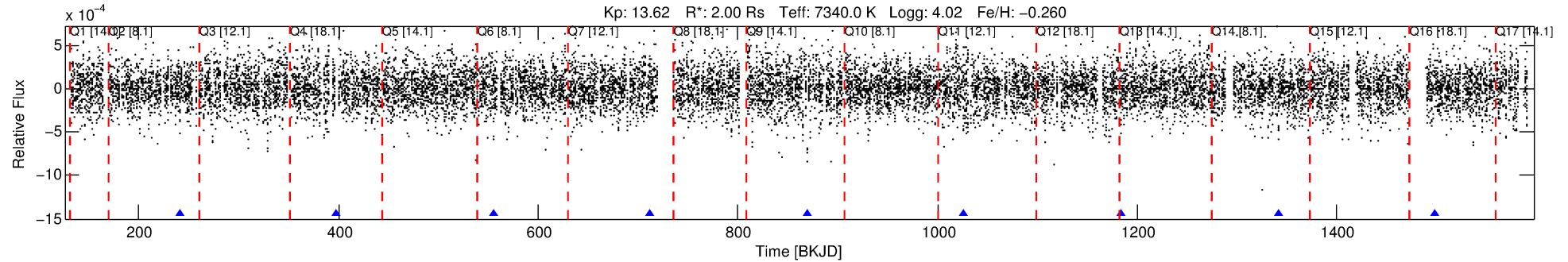
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-06

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 6 of 10 Period: 157.152 d



DV Fit Results:

Period = 157.15210 [0.00314] d
Epoch = 240.9858 [0.0188] BKJD
Rp/R* = 0.0240 [0.0245]
a/R* = 216.30 [1275.69]
b = 0.78 [2.98]
Seff = 24.32 [11.03]
Teq = 566 [64] K
Rp = 5.26 [5.60] Re
a = 0.6556 [0.1806] AU
Ag = 3068.01 [6479.93] [0.47] σ
Teffp = 6516 [3382] K [1.76] σ

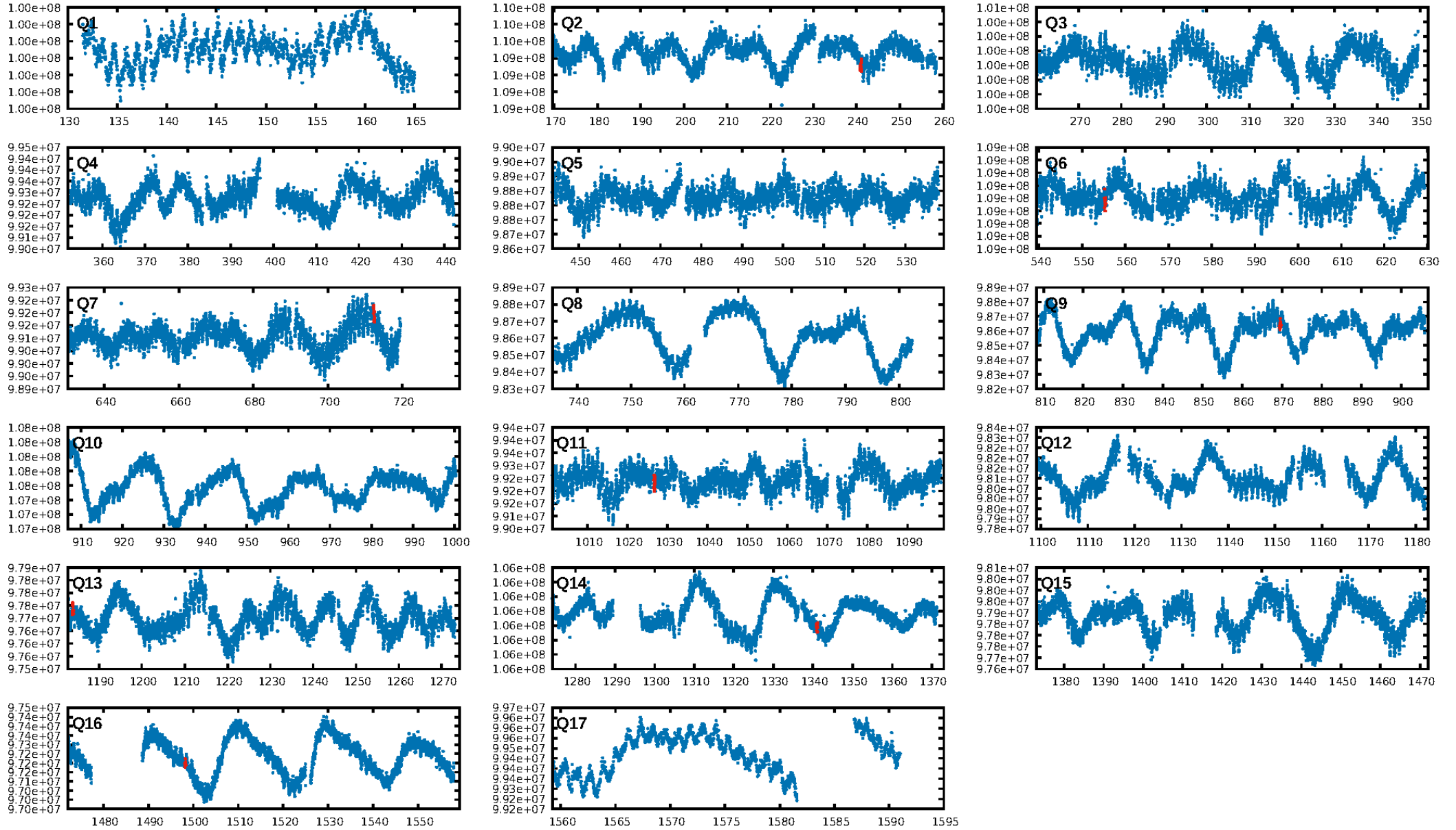
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [54.75] σ
LongPeriod-sig: 100.0% [28.18] σ
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 95.2%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.282
Centroid-sig: 85.4%
Centroid-so: 0.446 arcsec [0.70] σ
OotOffset-rm: 1.357 arcsec [1.24] σ
OotOffset-st: 2/1/0/1 [4]
KicOffset-rm: 1.016 arcsec [0.95] σ
KicOffset-st: 2/1/0/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 0.33 [2/6]

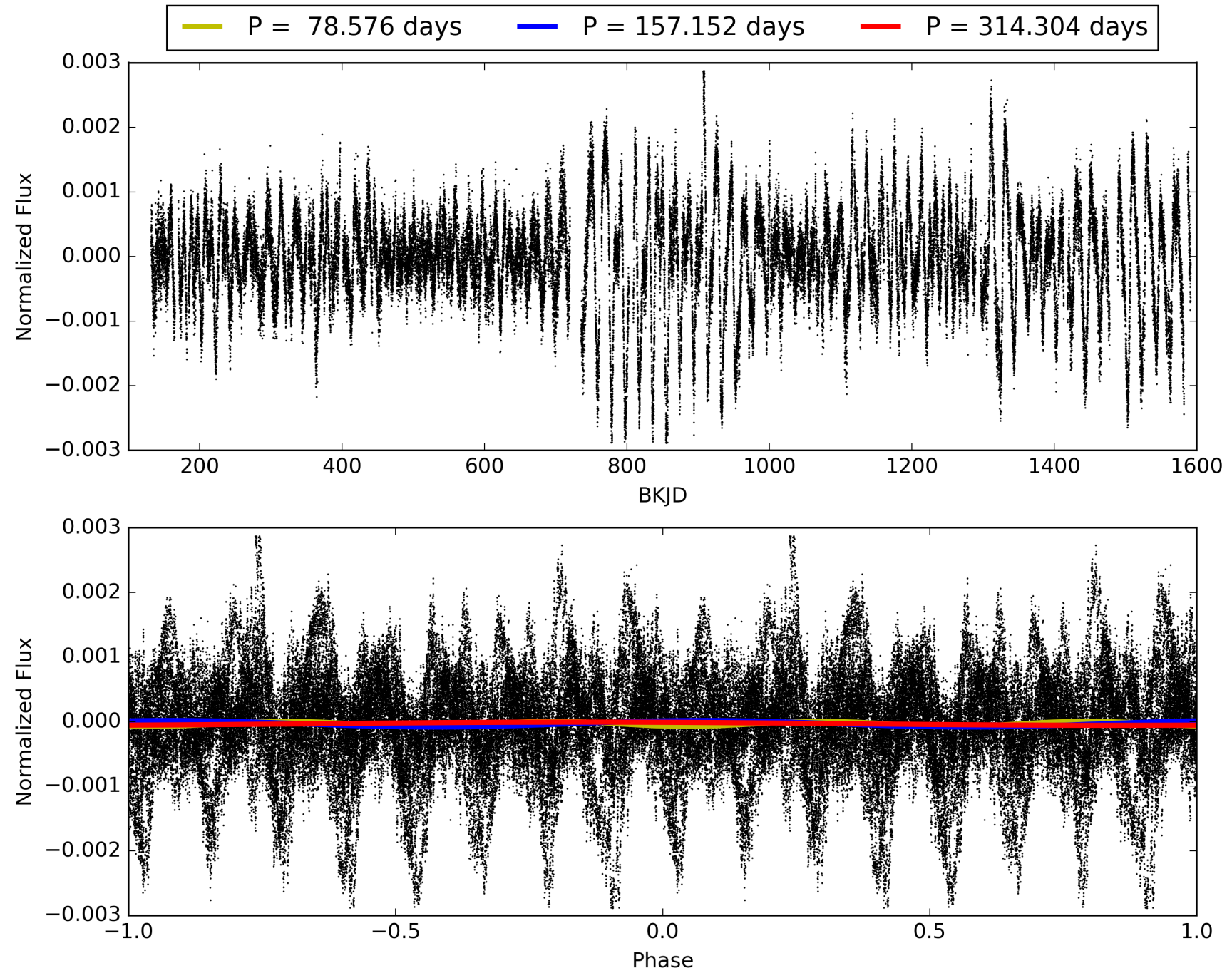
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:57:14 Z

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

TCE 006519892-06, PDC Light Curves

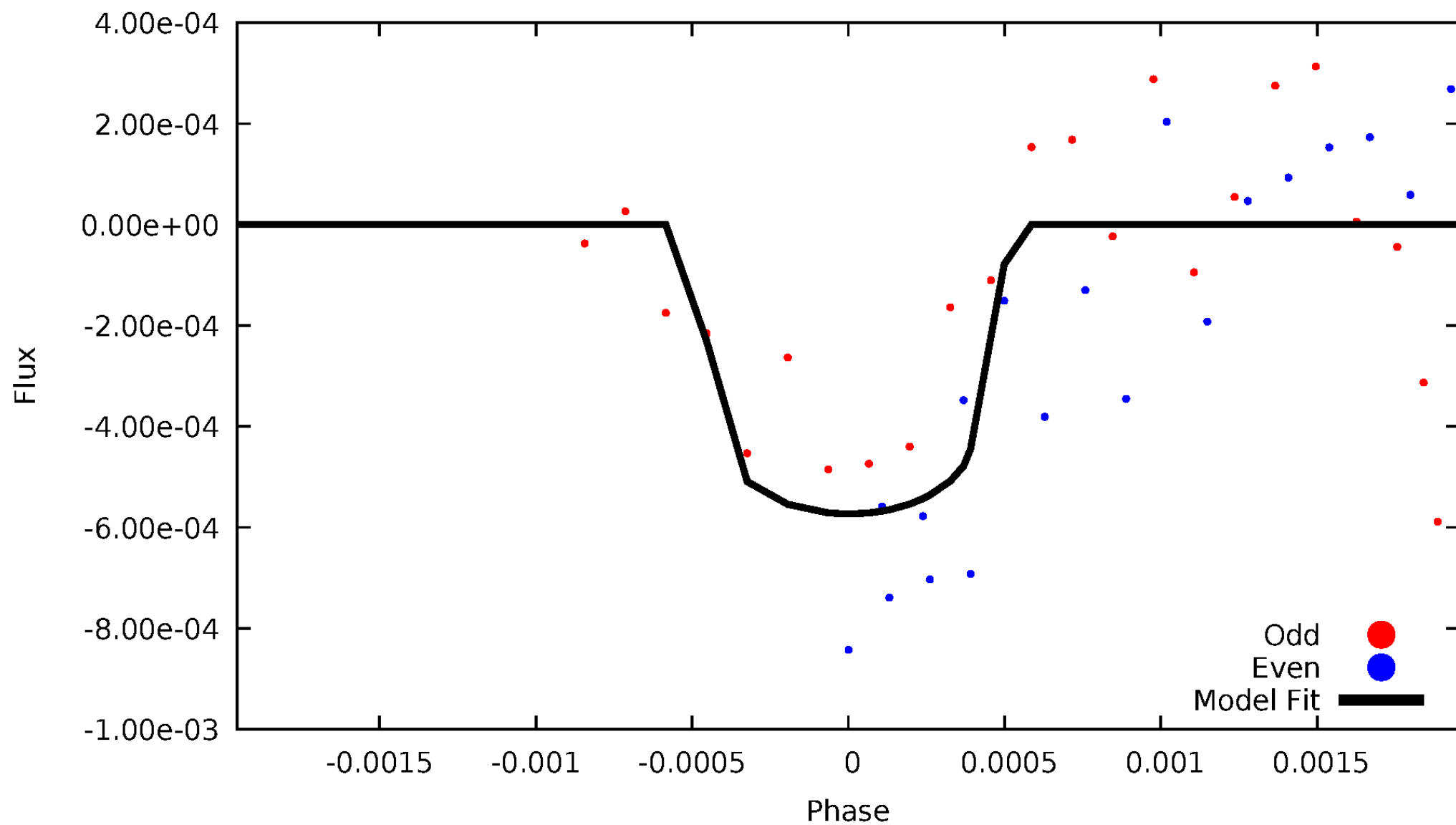


TCE 006519892-06



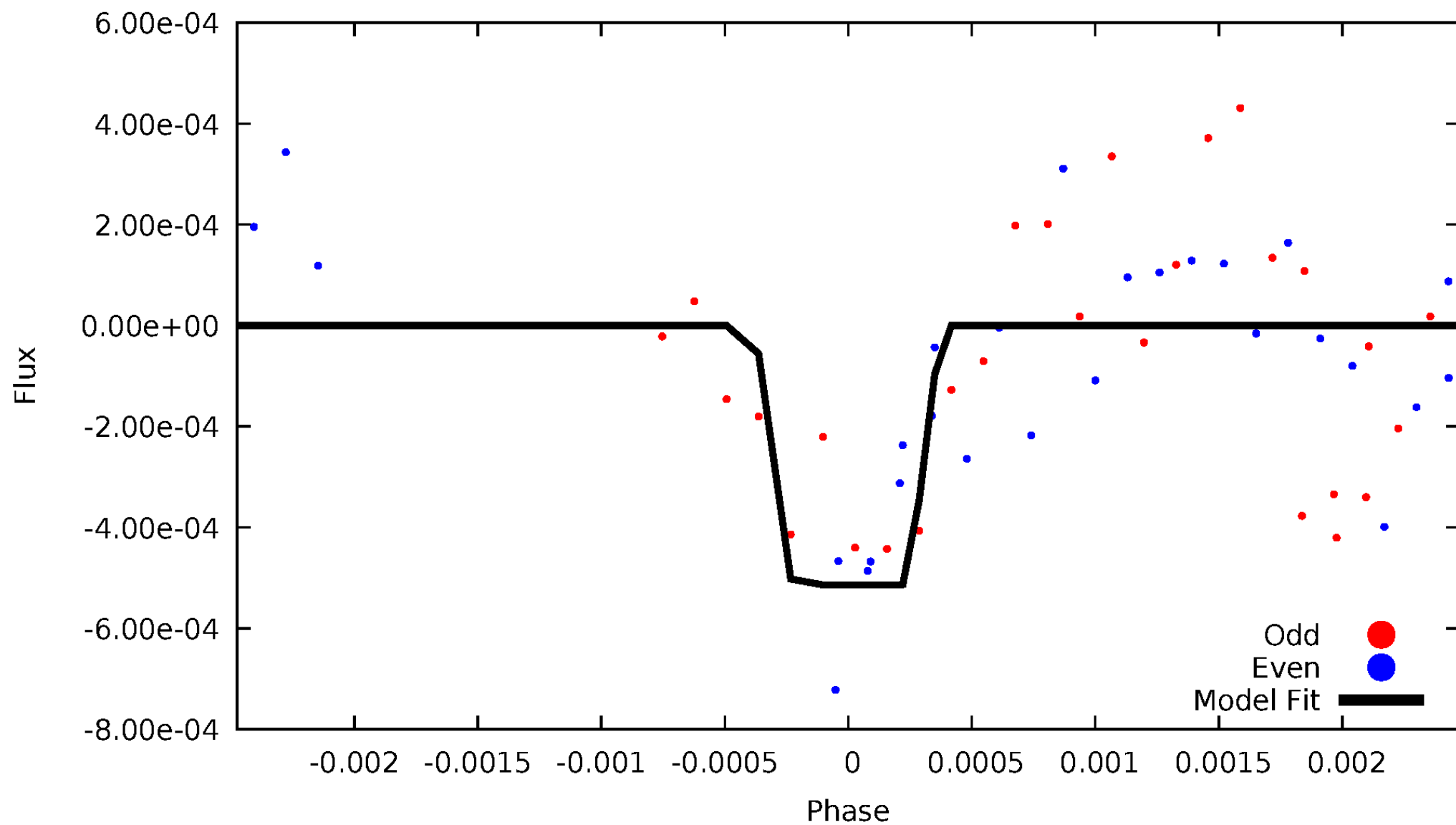
DV Odd/Even

TCE 006519892-06



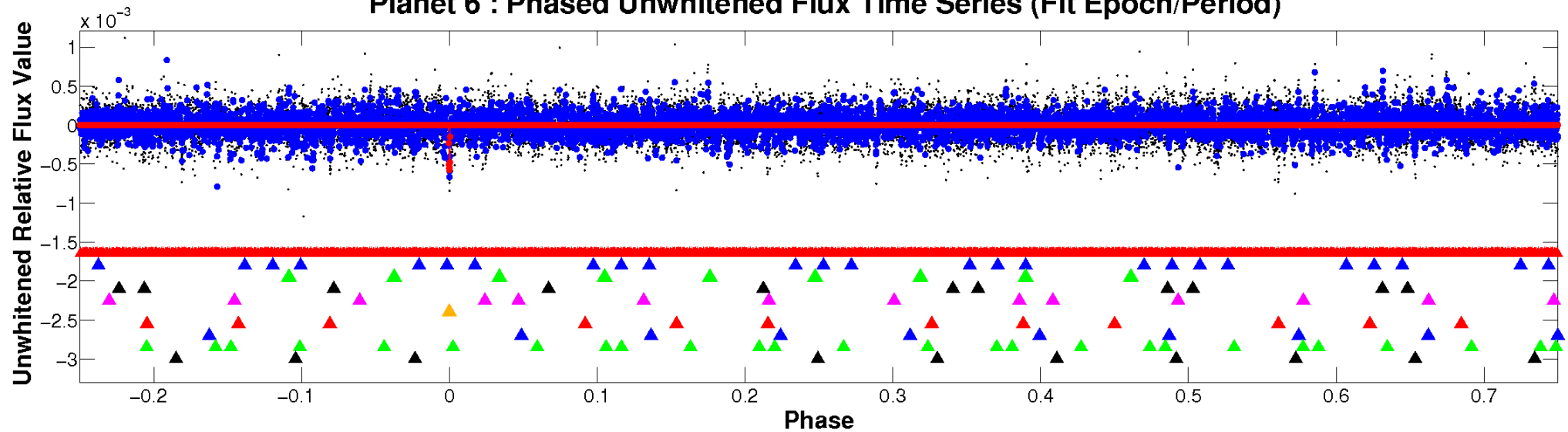
ALT Odd/Even

TCE 006519892-06

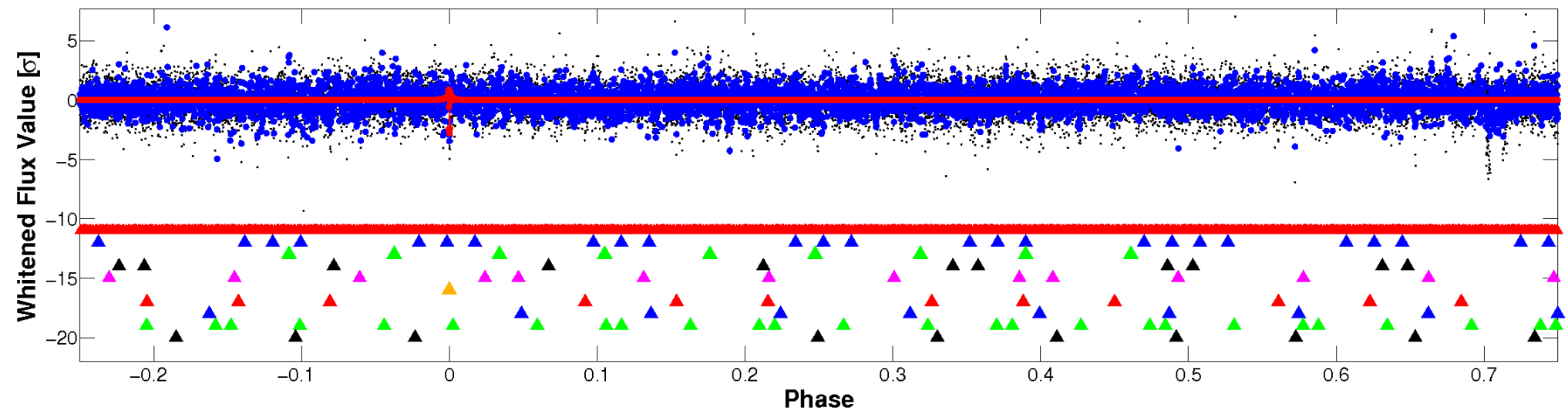


Non-Whitened Vs. Whitened Light Curve

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

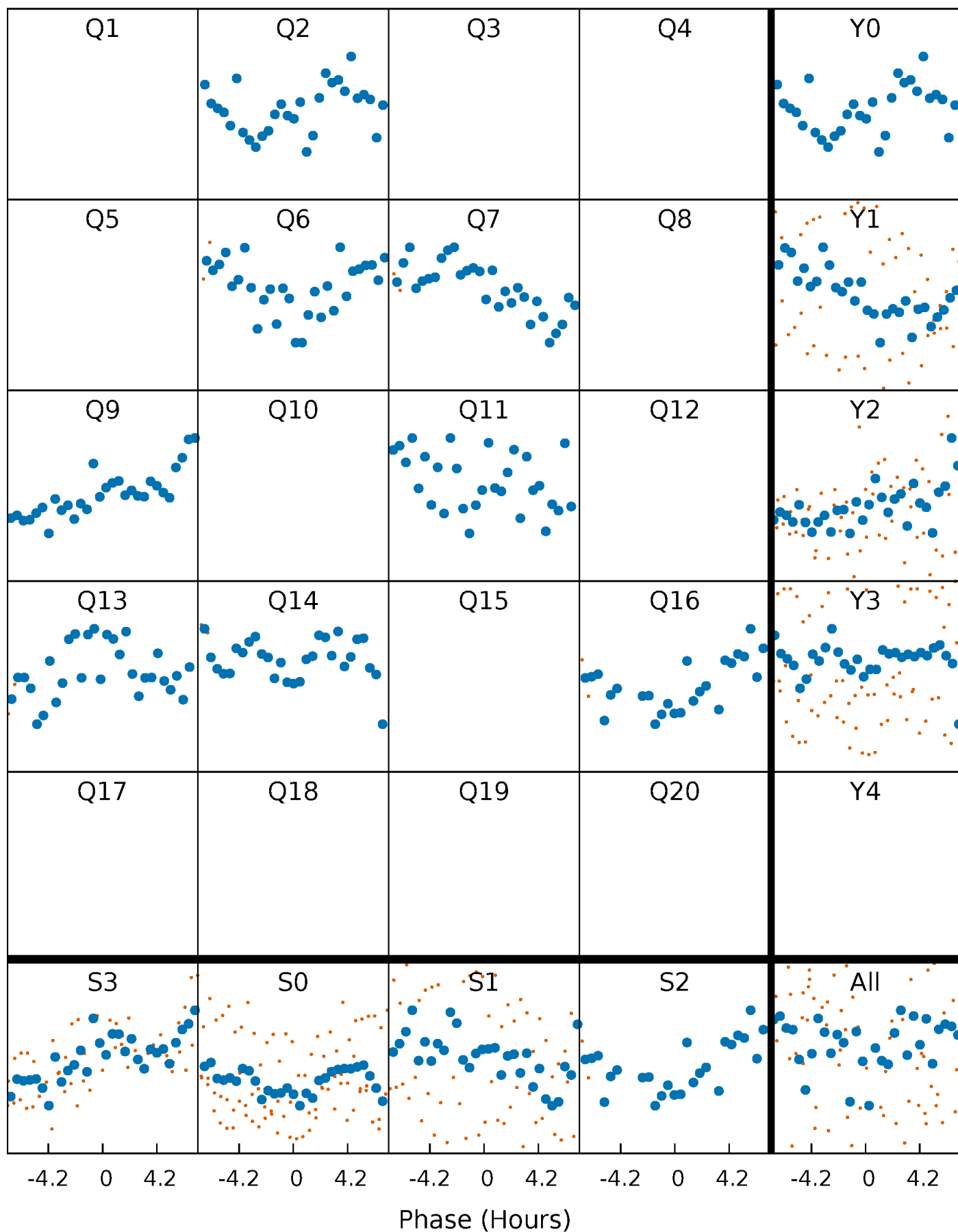


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



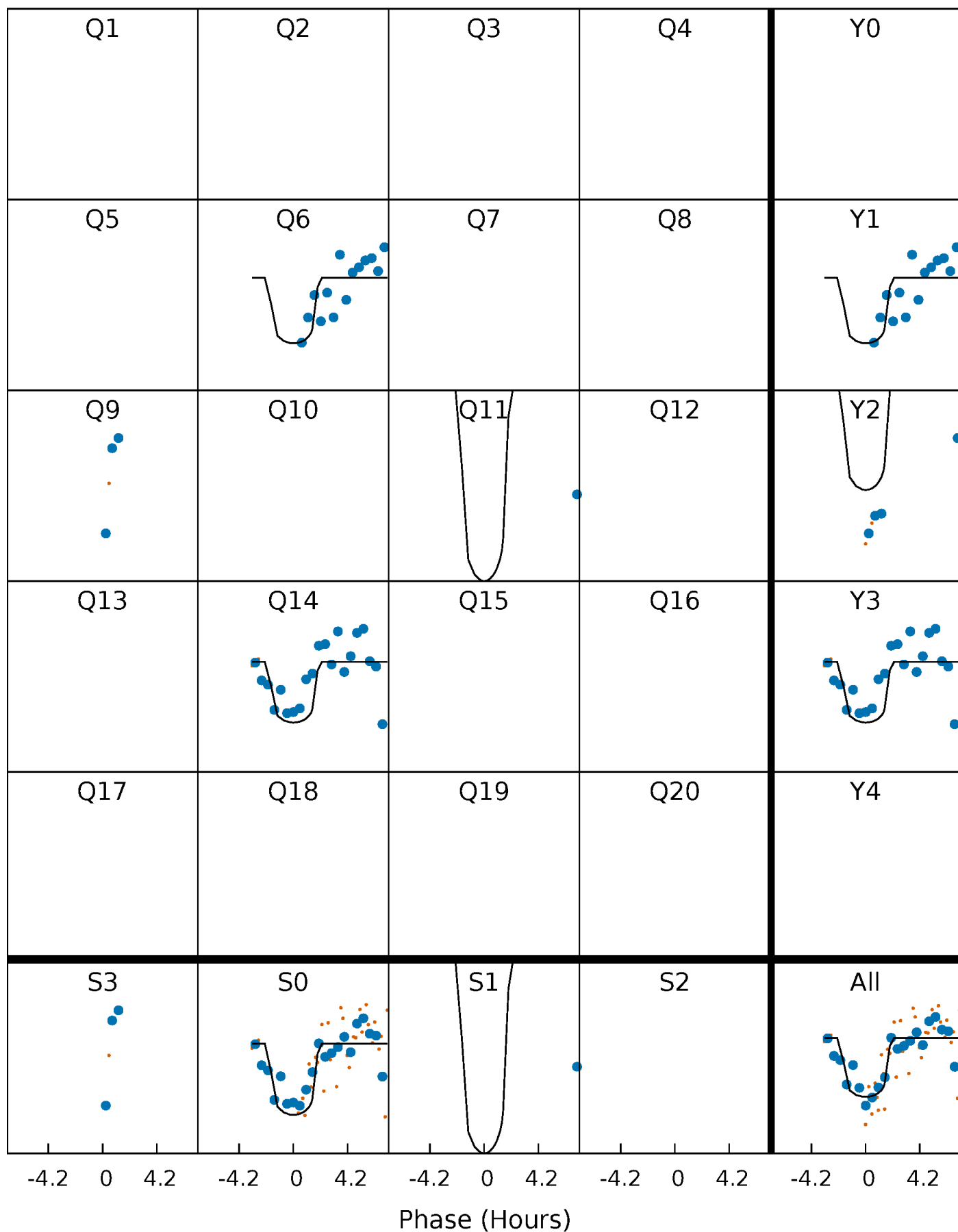
PDC Quarter-Phased Transit Curves

TCE 006519892-06 P=157.152097 Days $T_0=240.985773$ (BKJD)



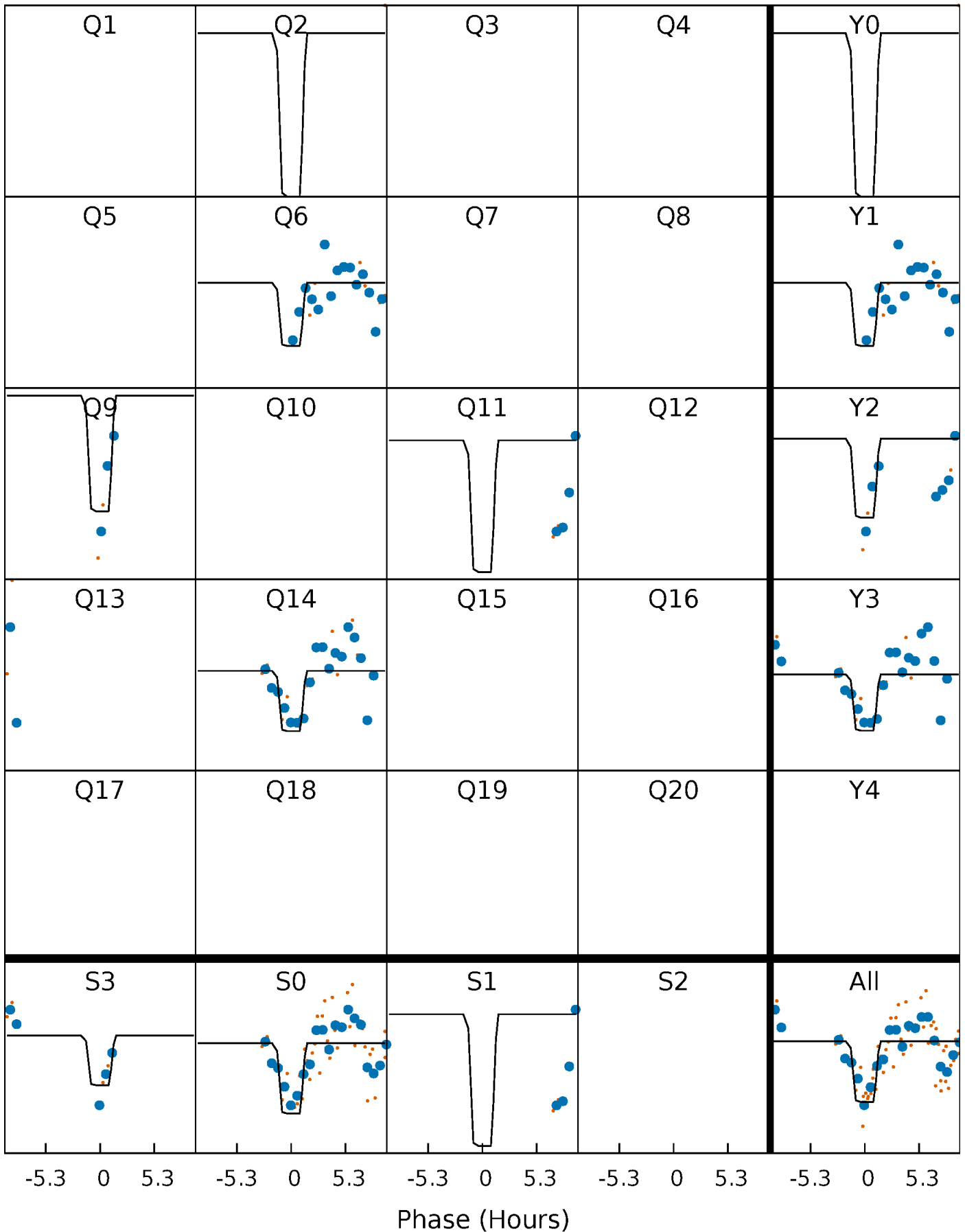
DV Quarter-Phased Transit Curves

TCE 006519892-06 P=157.152097 Days $T_0=240.985773$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

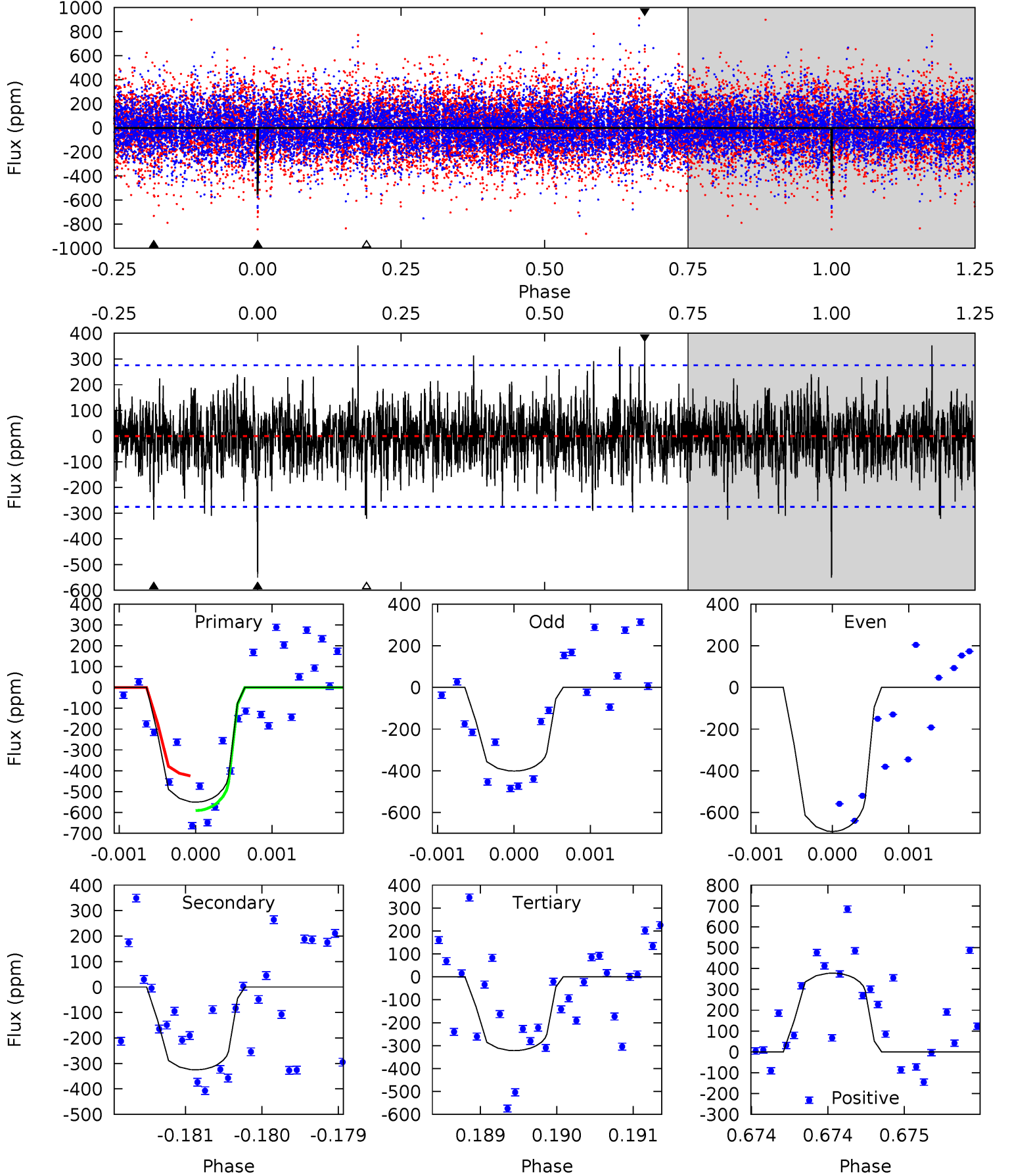
TCE 006519892-06 P=157.144585 Days $T_0=241.024103$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-06, P = 157.152097 Days, E = 83.833676 Days

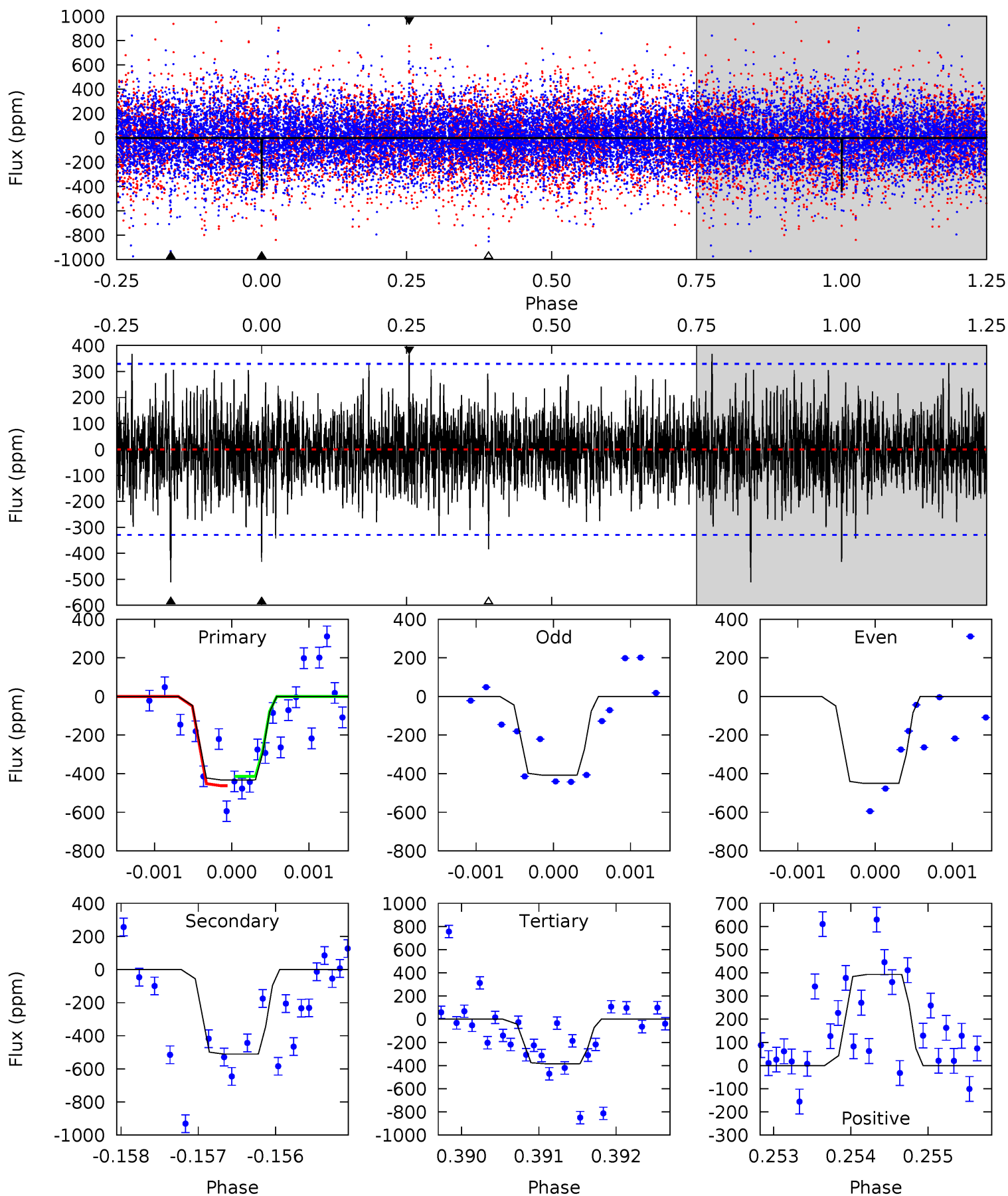
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	6.44	6.38	7.49	5.47	3.32	1.62	4.54	3.43	0.06	-1.05	2.84	1.07	0.41	1.15



Alt Model-Shift Uniqueness Test

006519892-06, P = 157.144585 Days, E = 83.879518 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.23	8.54	6.43	6.57	5.51	3.38	1.58	0.80	0.66	2.11	1.97	0.35	1.07	0.43	0.38



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-325 ± 50	$6.25^{+4.97}_{-3.81}$	783^{+64}_{-62}	5680^{+3651}_{-1233}	1885^{+10465}_{-1290}
Alt.	-511 ± 60	$5.77^{+5.00}_{-3.76}$	786^{+58}_{-67}	6614^{+6970}_{-1633}	3632^{+27845}_{-2566}

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 $A_{obs} \gg 1.0$

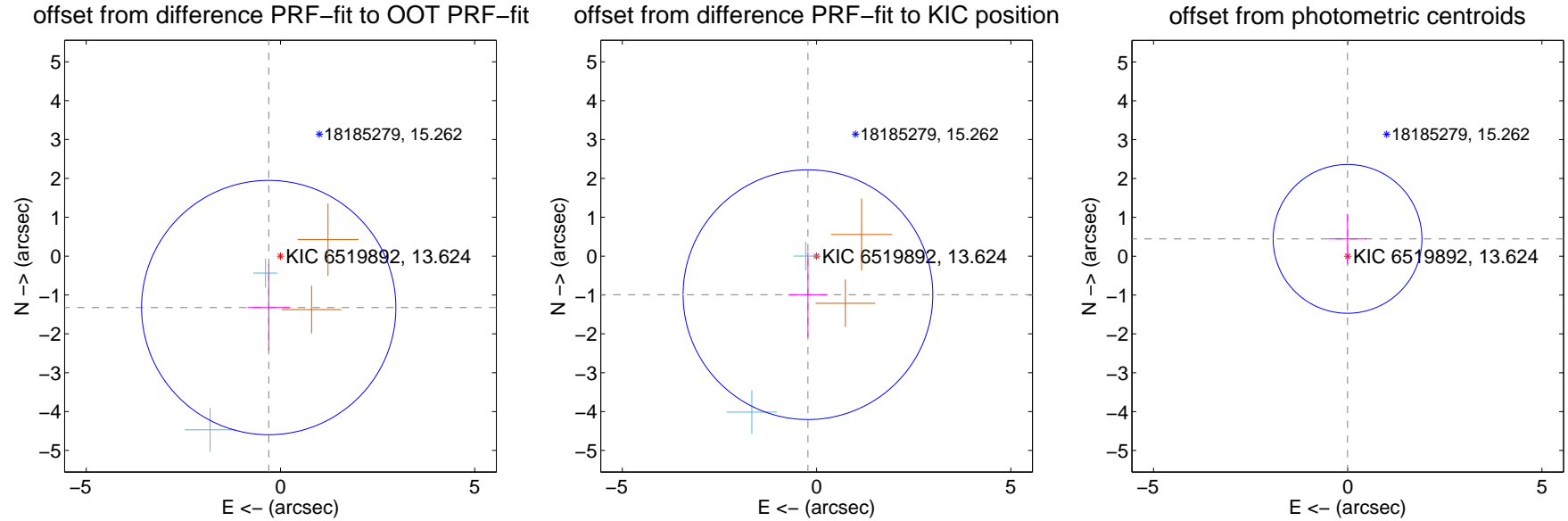
DV Centroid Data

Supplemental centroid analysis for 006519892-06. Kepler magnitude: 13.62. Transit SNR 9.14

There are 2 quarters with good PRF difference image offsets

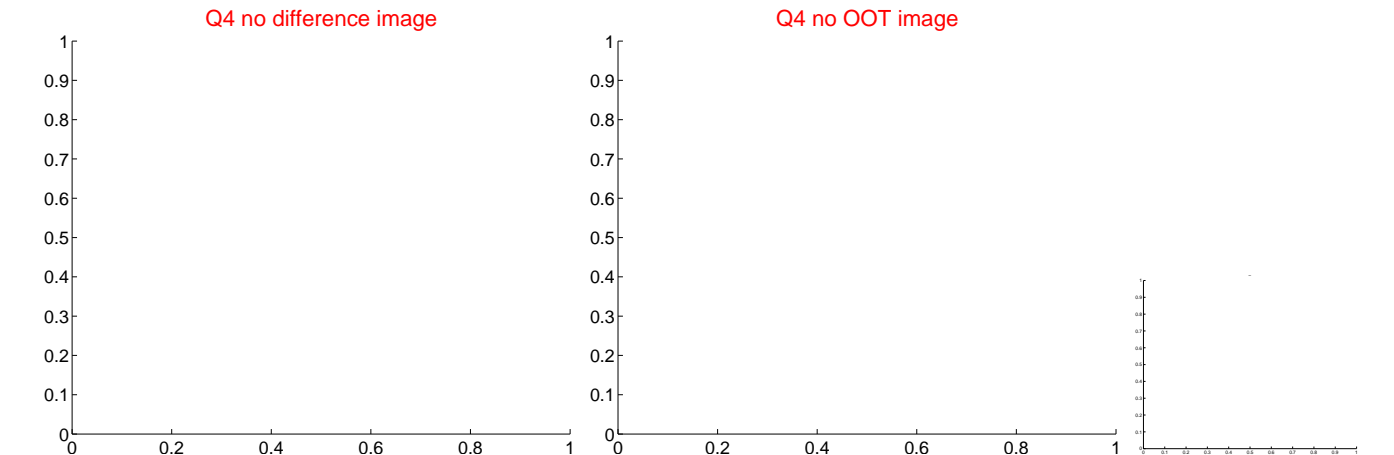
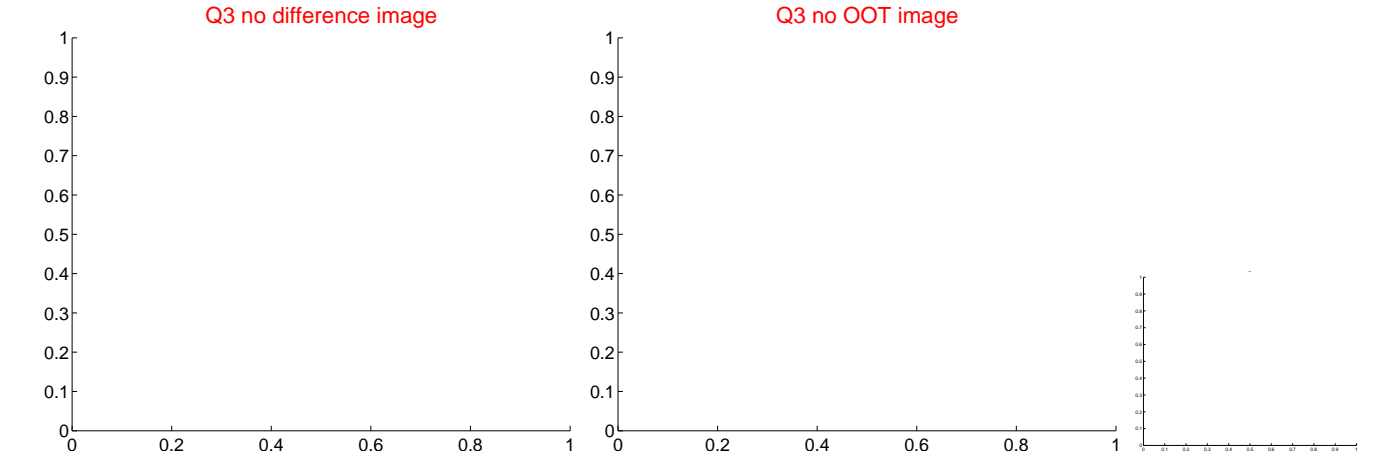
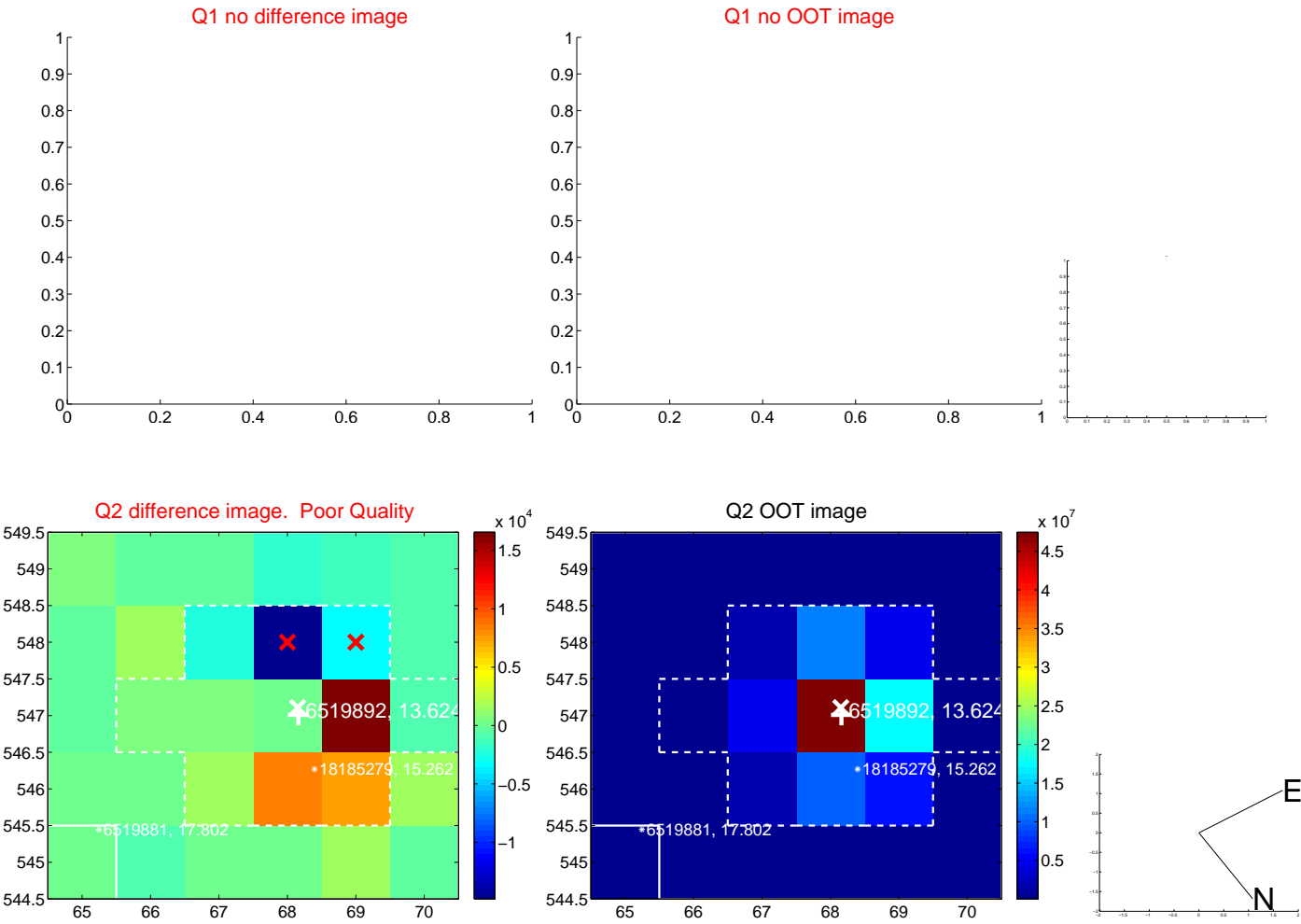
The direct PRF centroid is offset from the target star catalog position by about 0.48 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.357 ± 1.091	1.24	0.302 ± 0.543	-1.323 ± 1.112
PRF-fit source offset from KIC position	1.016 ± 1.071	0.95	0.222 ± 0.504	-0.992 ± 1.092
photometric centroid source offset	0.45 ± 0.64	0.70	0.00 ± 0.49	0.45 ± 0.64

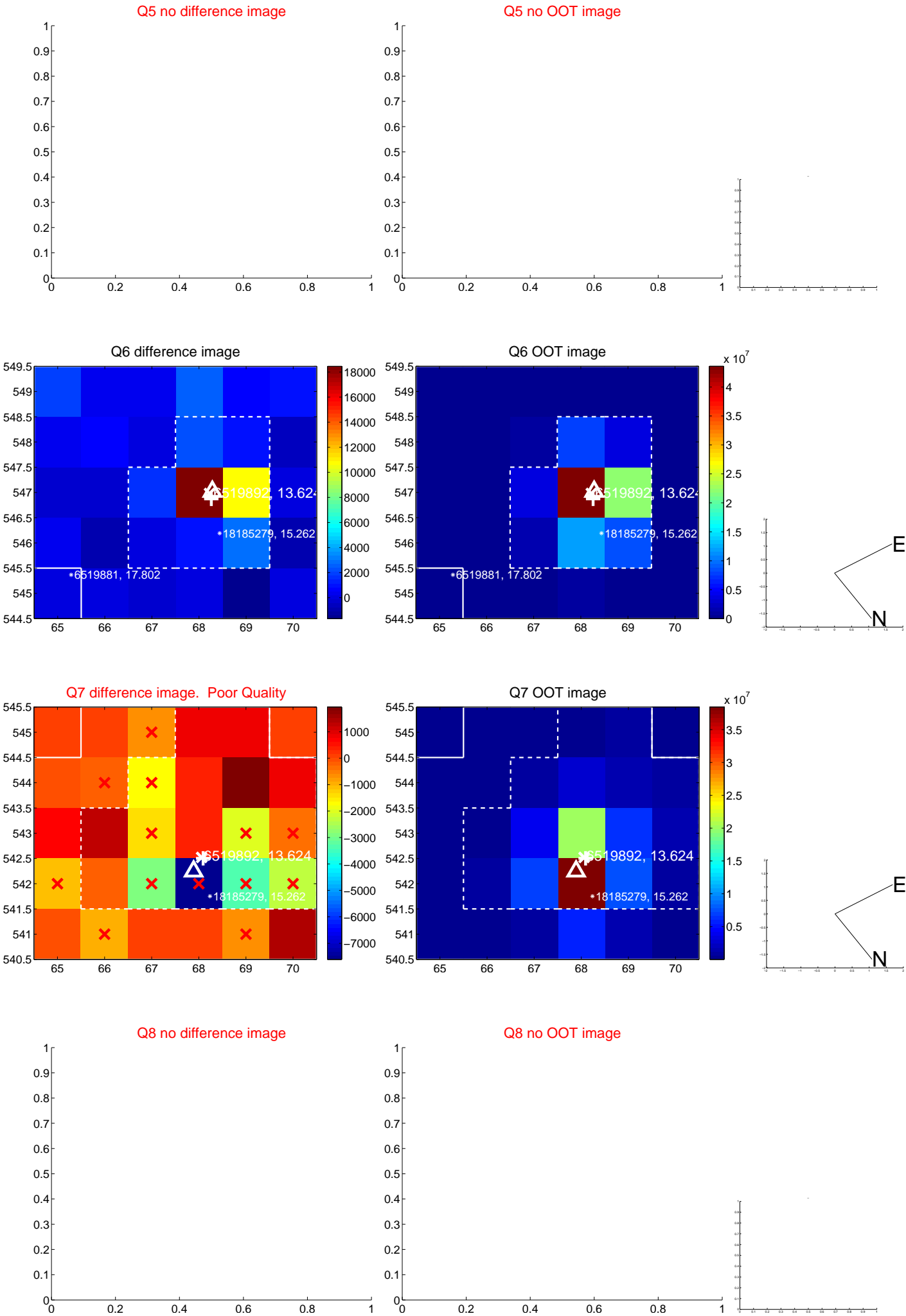


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

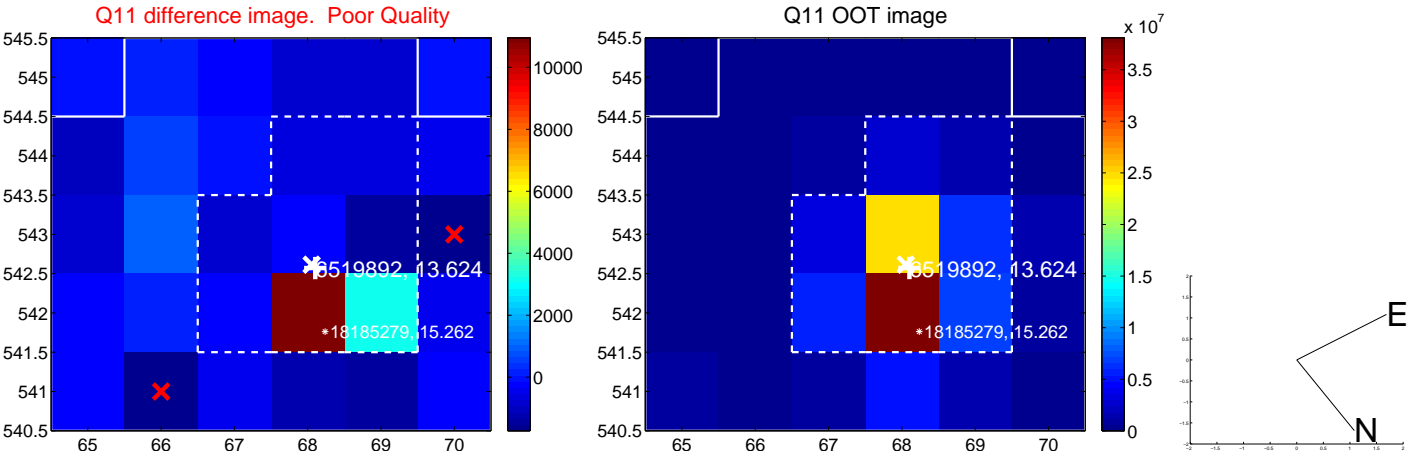
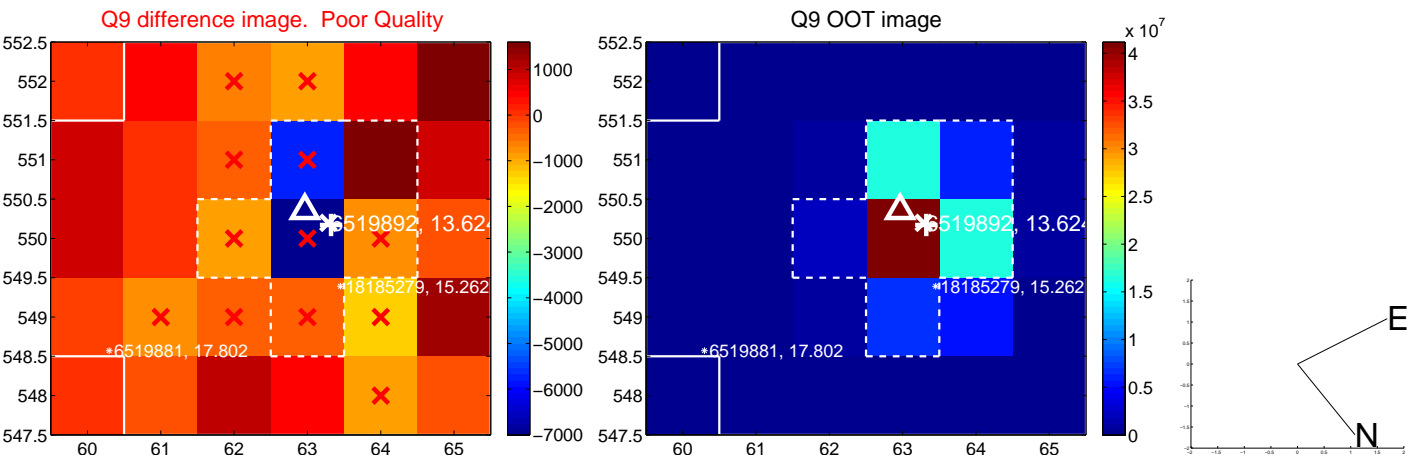
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



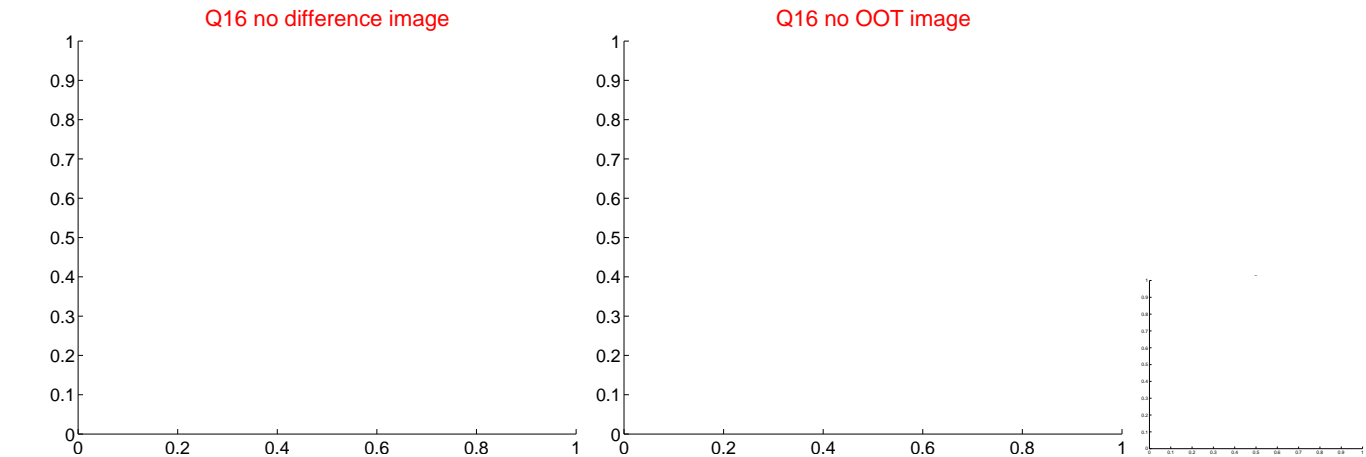
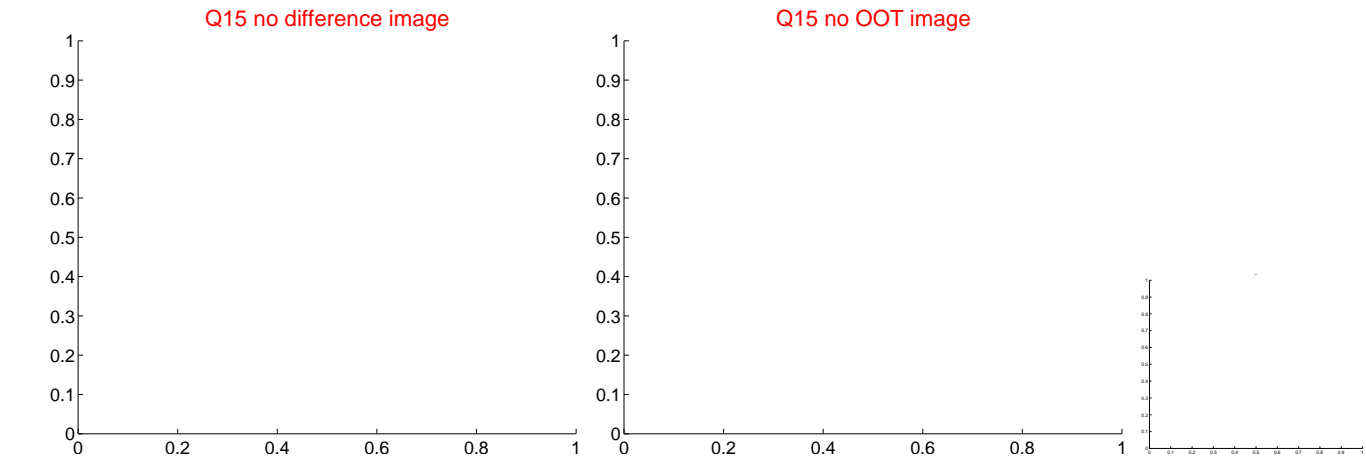
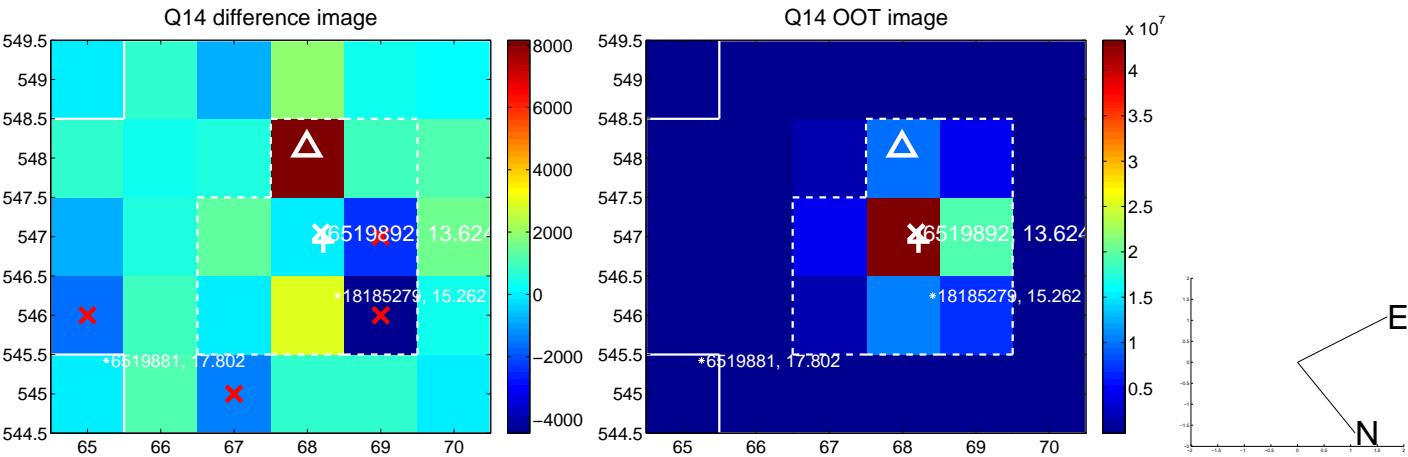
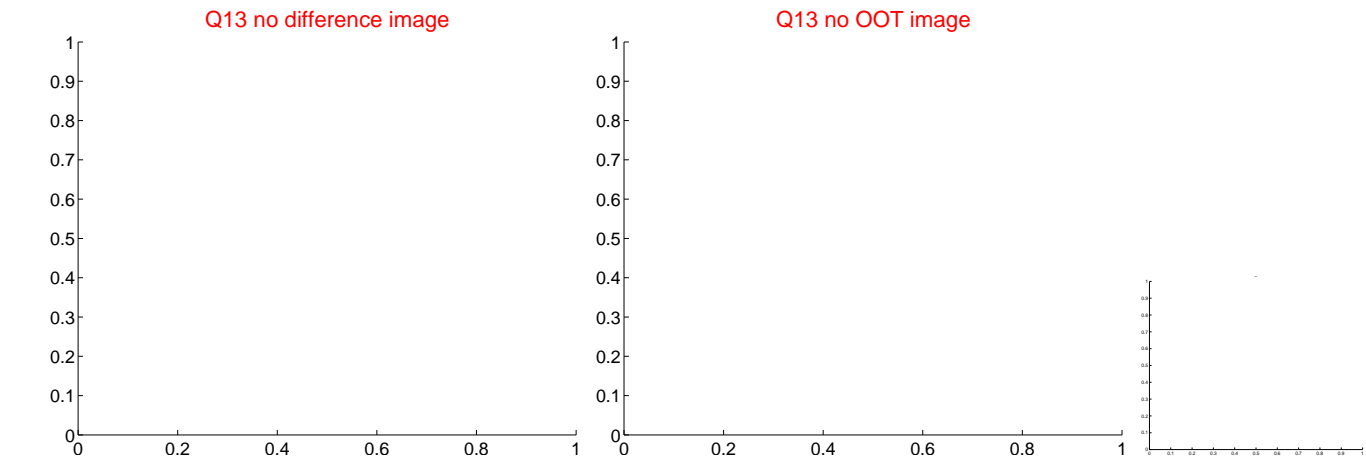
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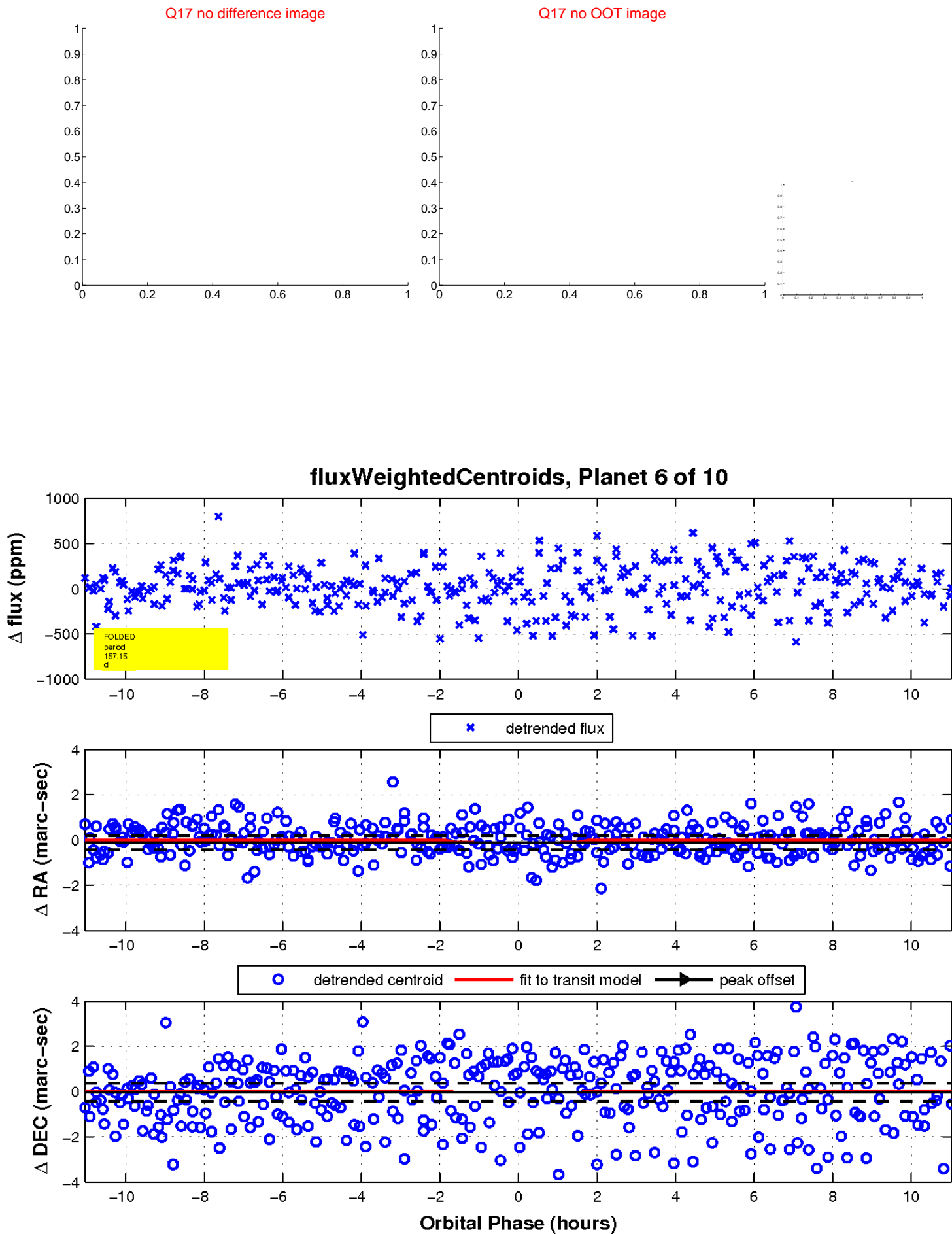
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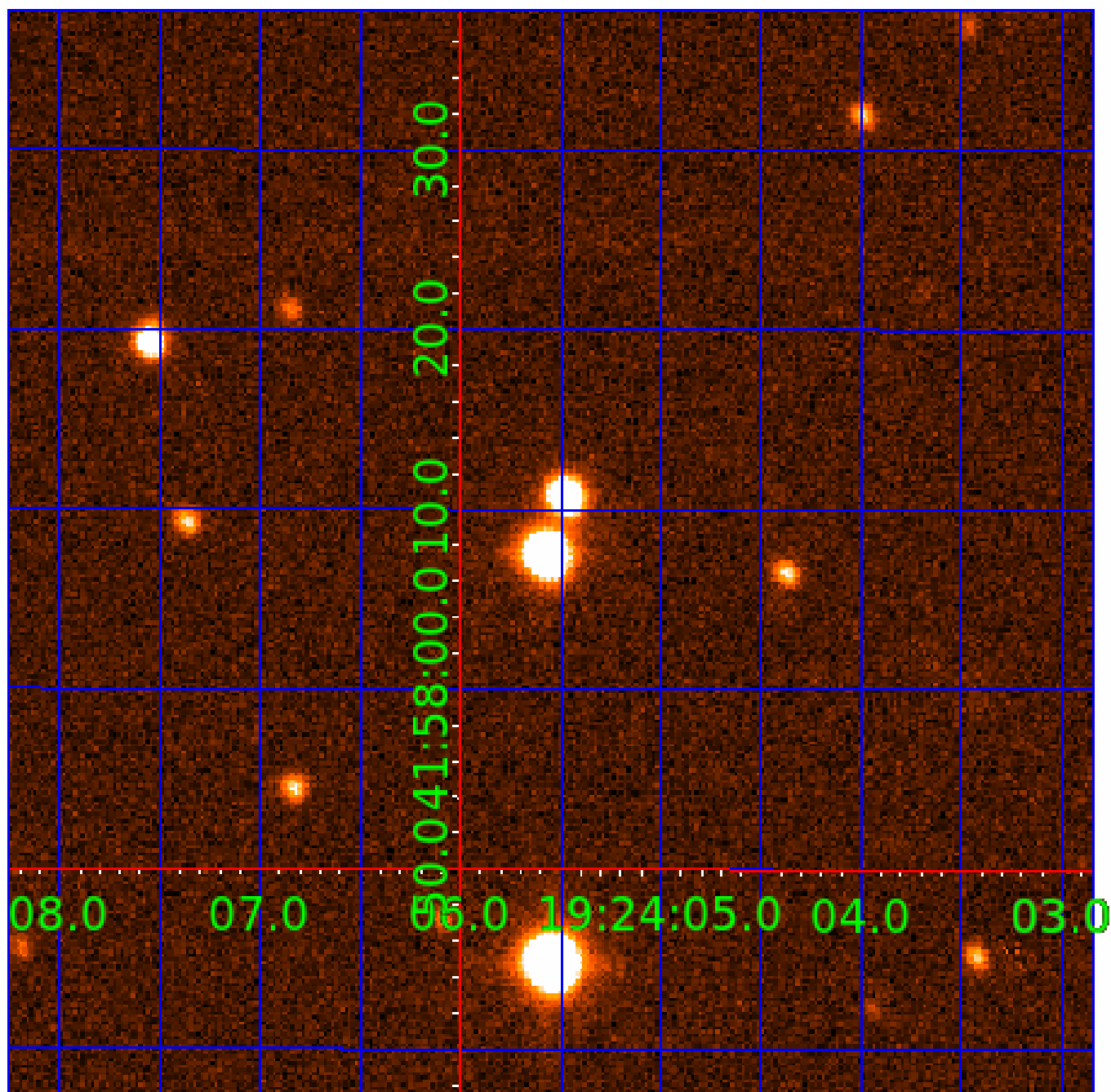


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UKIRT Image

Declination



KIC 006519892

Q1-17 DR25 TCE Parameters

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006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

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006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

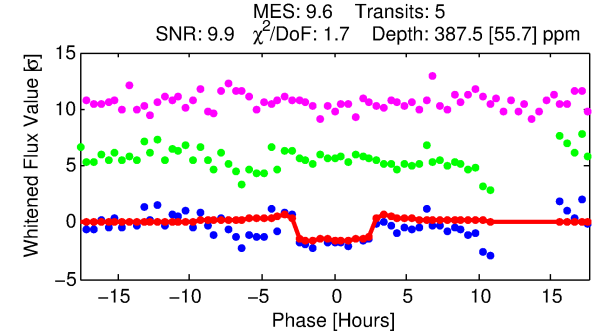
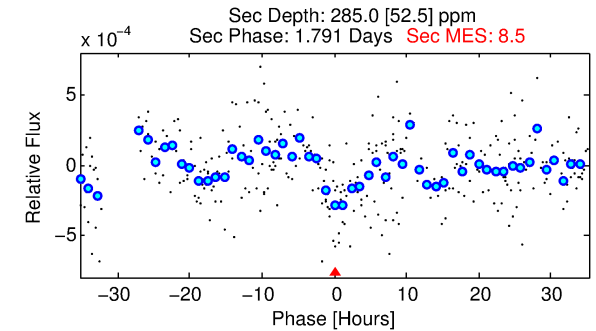
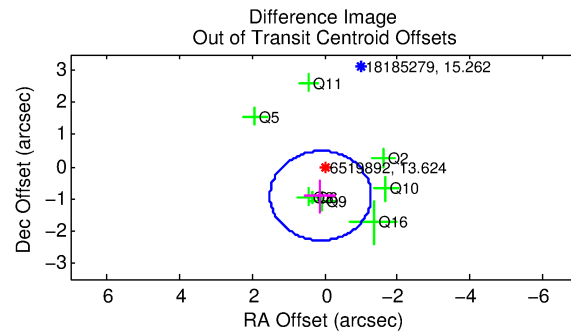
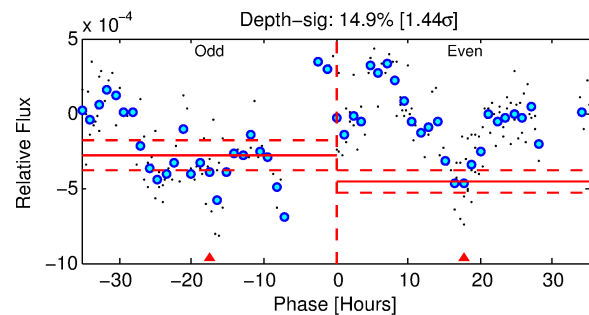
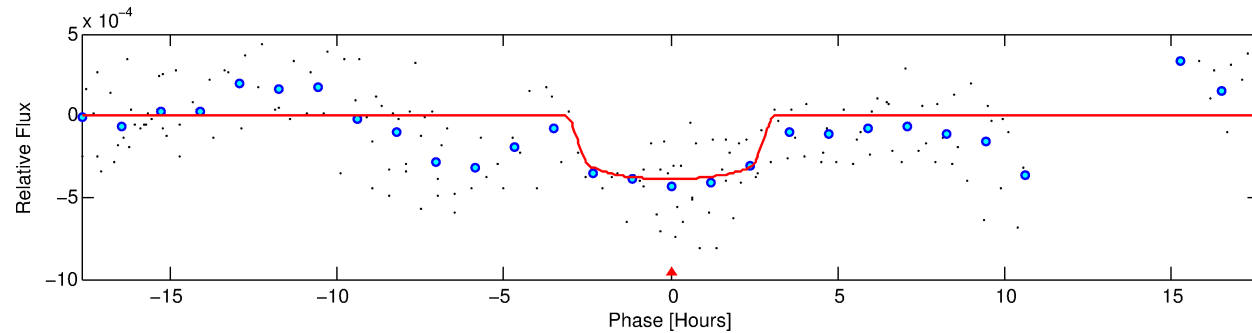
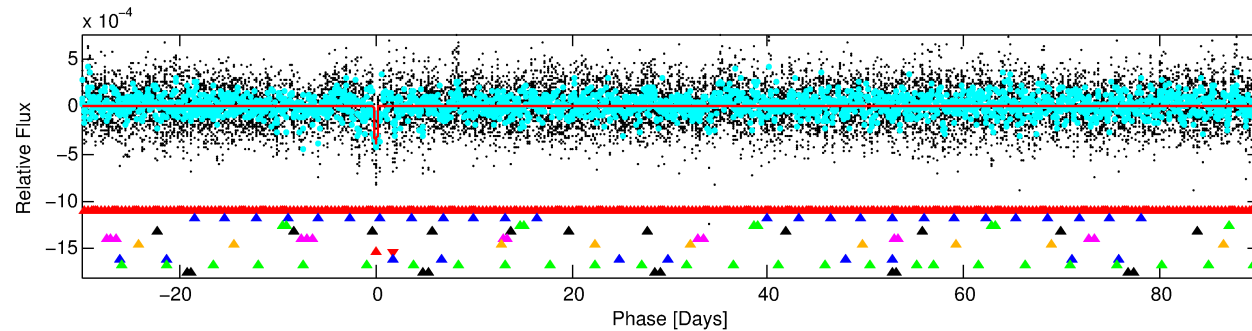
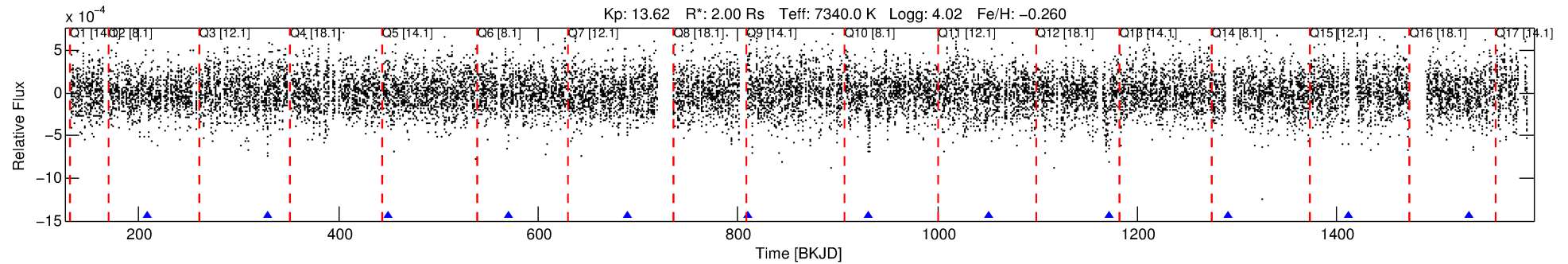
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-07

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 7 of 10 Period: 120.294 d



DV Fit Results:

Period = 120.29399 [0.00180] d
Epoch = 208.8439 [0.0130] BKJD
Rp/R* = 0.0195 [0.0073]
a/R* = 108.86 [223.05]
b = 0.74 [1.24]
Seff = 34.73 [15.75]
Teq = 619 [70] K
Rp = 4.28 [2.07] Re
a = 0.5486 [0.1511] AU
Ag = 2581.42 [2261.04] [1.14 σ]
Teffp = 6822 [1340] K [4.62 σ]

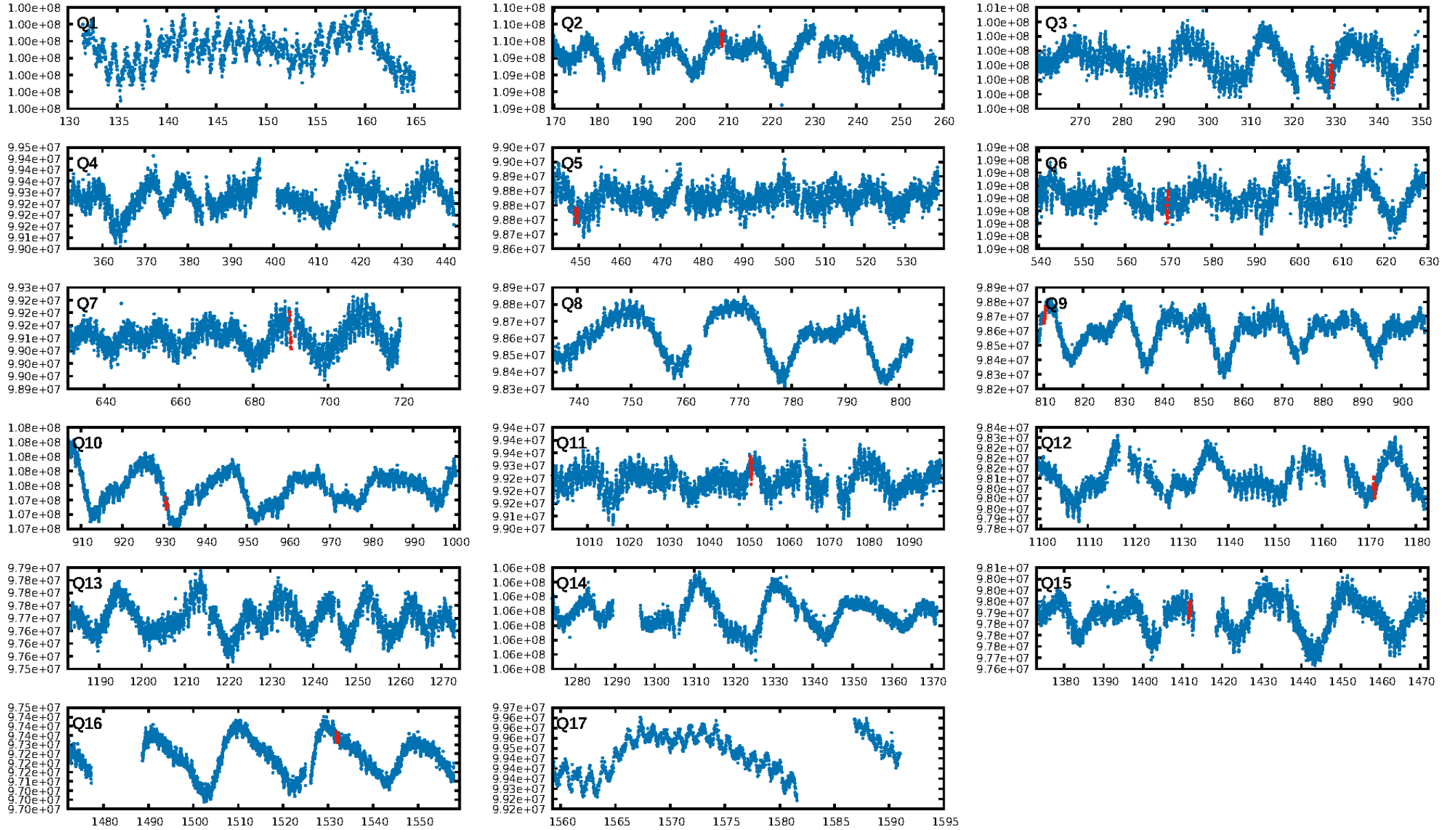
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [78.03 σ]
LongPeriod-sig: 100.0% [43.07 σ]
ModelChiSquare2-sig: 4.0%
ModelChiSquareGof-sig: 90.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 2.02
Centroid-sig: 15.2%
Centroid-so: 0.270 arcsec [0.37 σ]
OotOffset-rm: 0.914 arcsec [1.97 σ]
OotOffset-st: 3/2/1/2 [8]
KicOffset-rm: 0.222 arcsec [0.41 σ]
KicOffset-st: 3/2/1/2 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 0.10 [1/10]

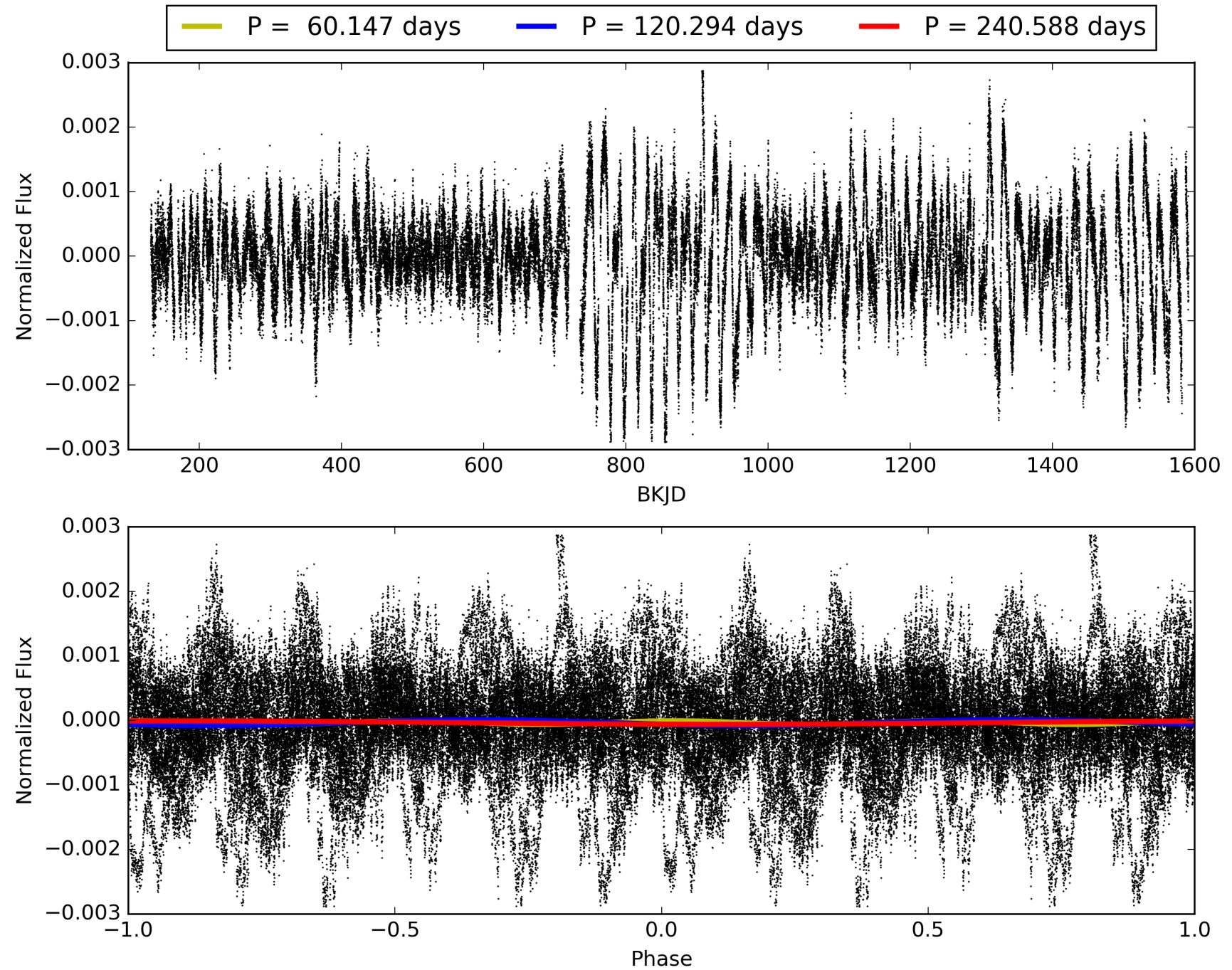
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:57:19 Z

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

TCE 006519892-07, PDC Light Curves

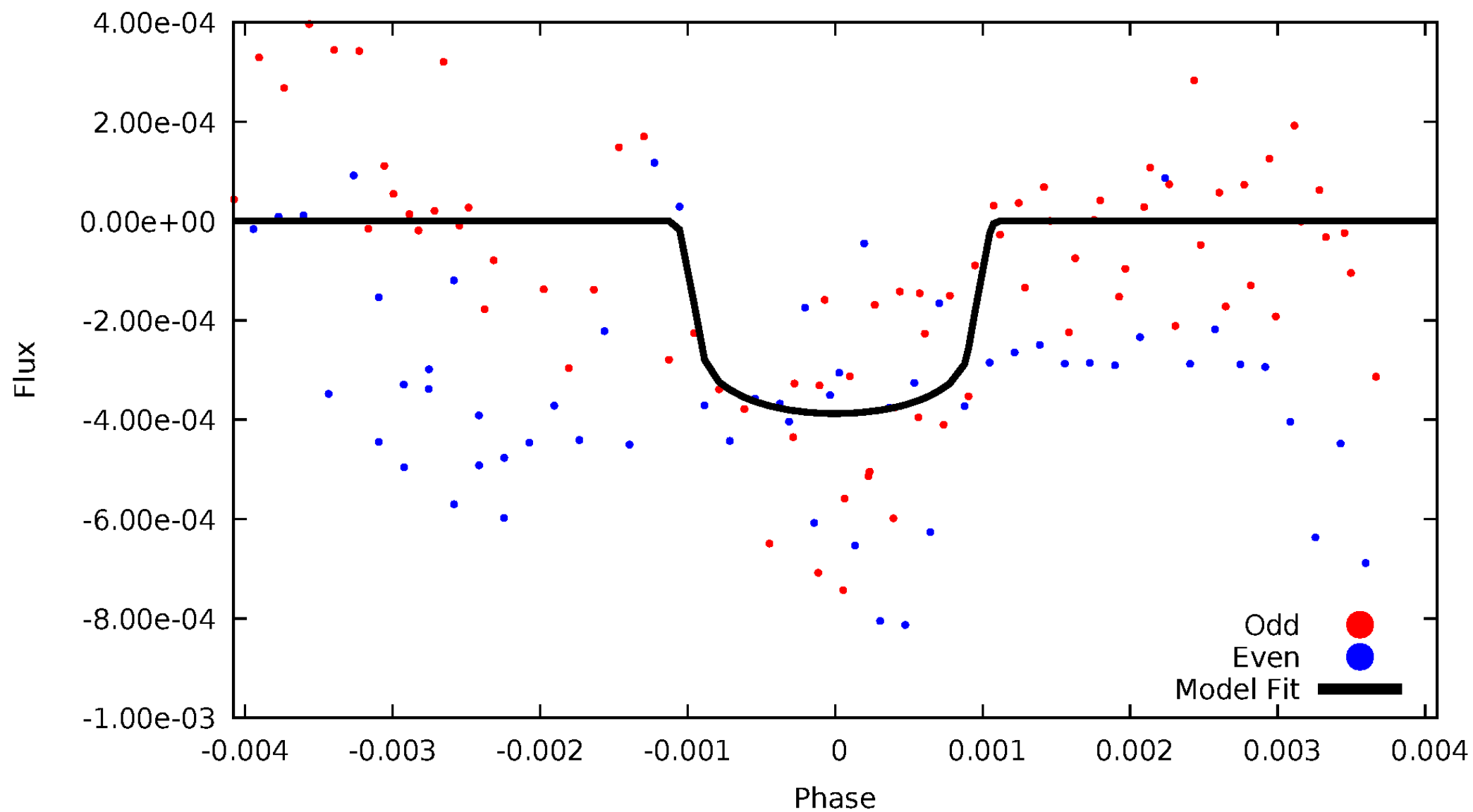


TCE 006519892-07



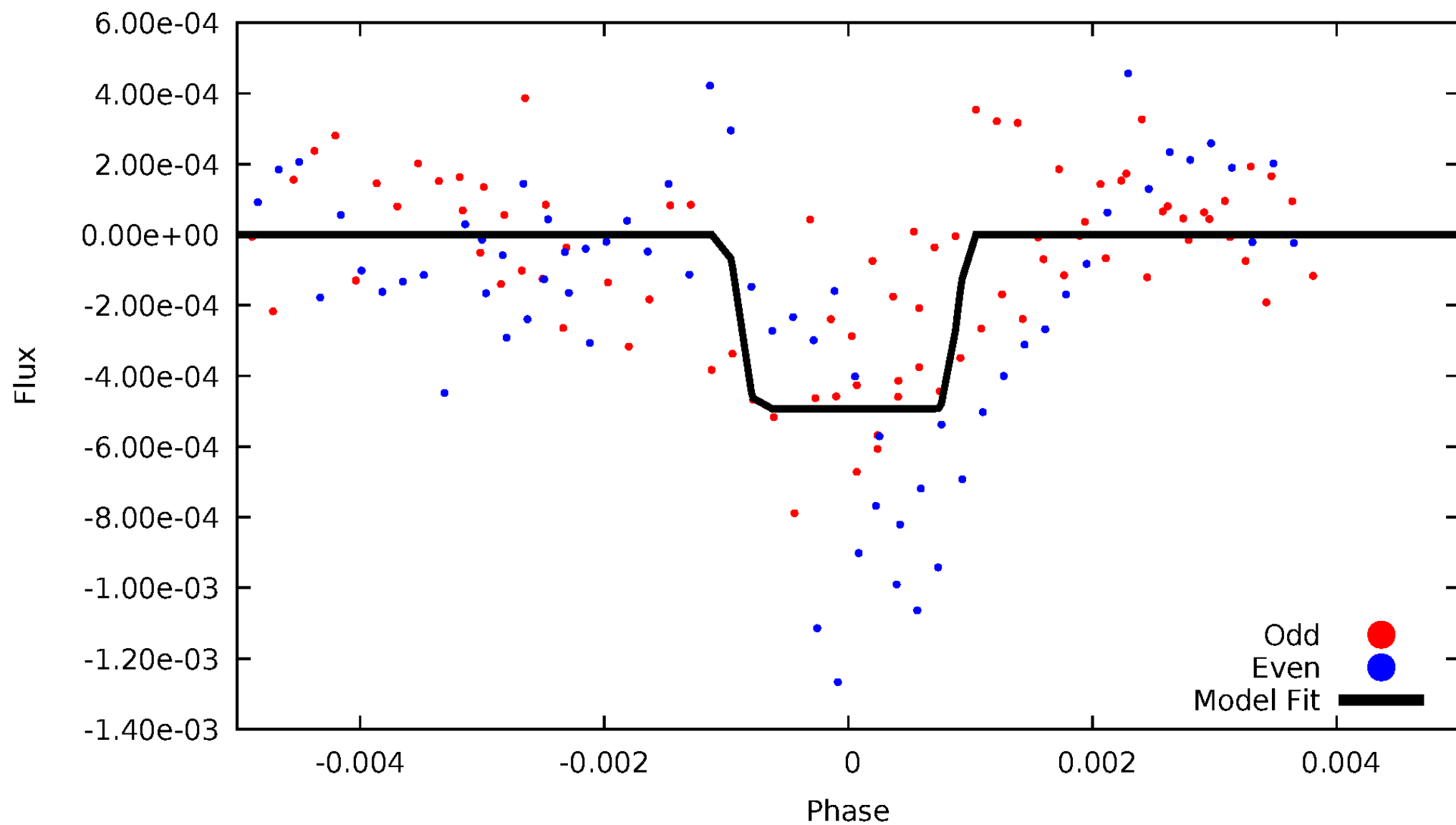
DV Odd/Even

TCE 006519892-07



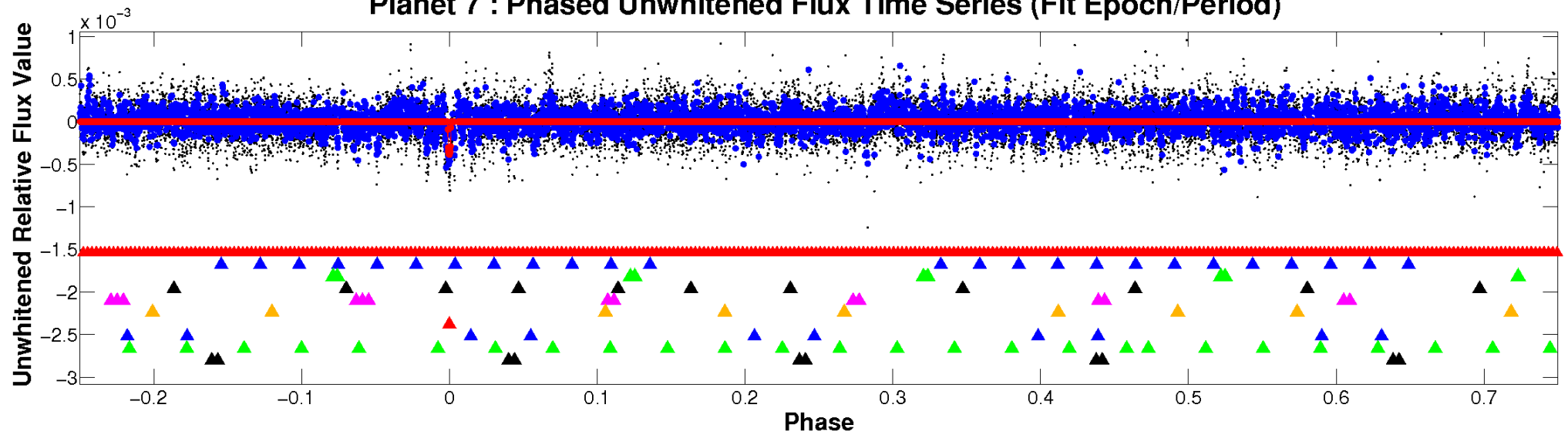
ALT Odd/Even

TCE 006519892-07

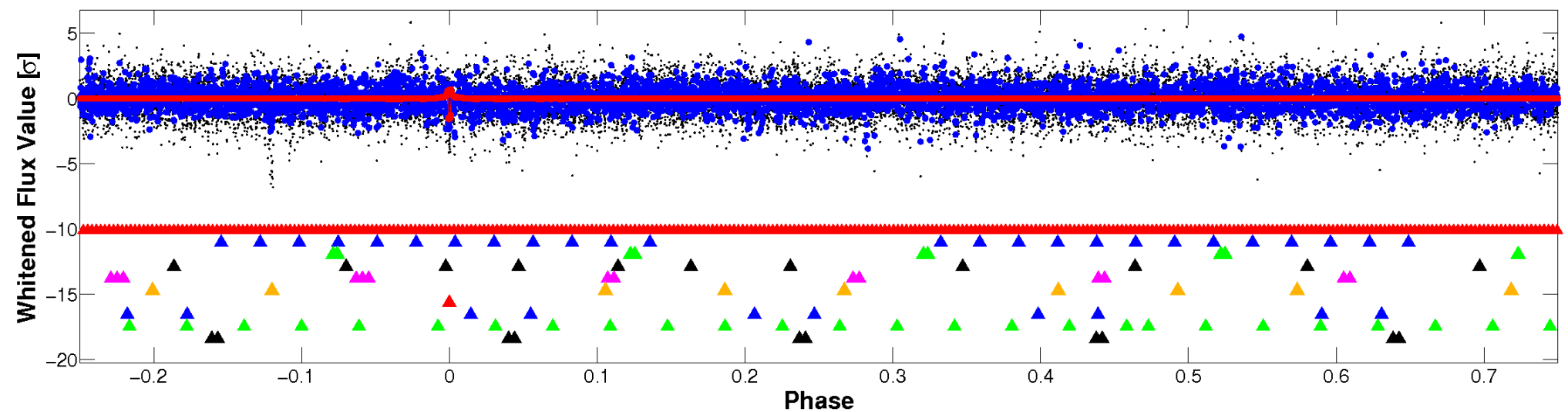


Non-Whitened Vs. Whitened Light Curve

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

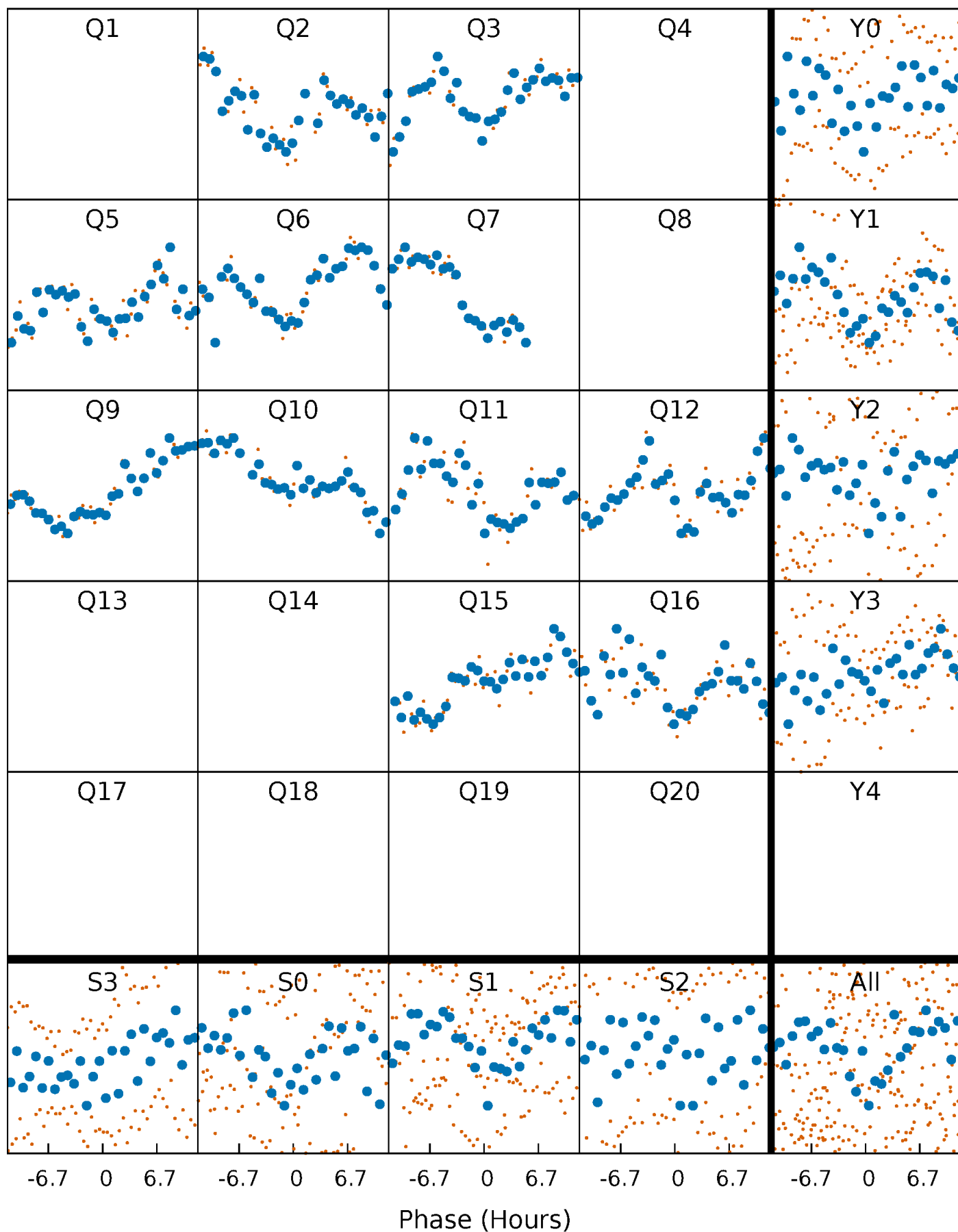


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



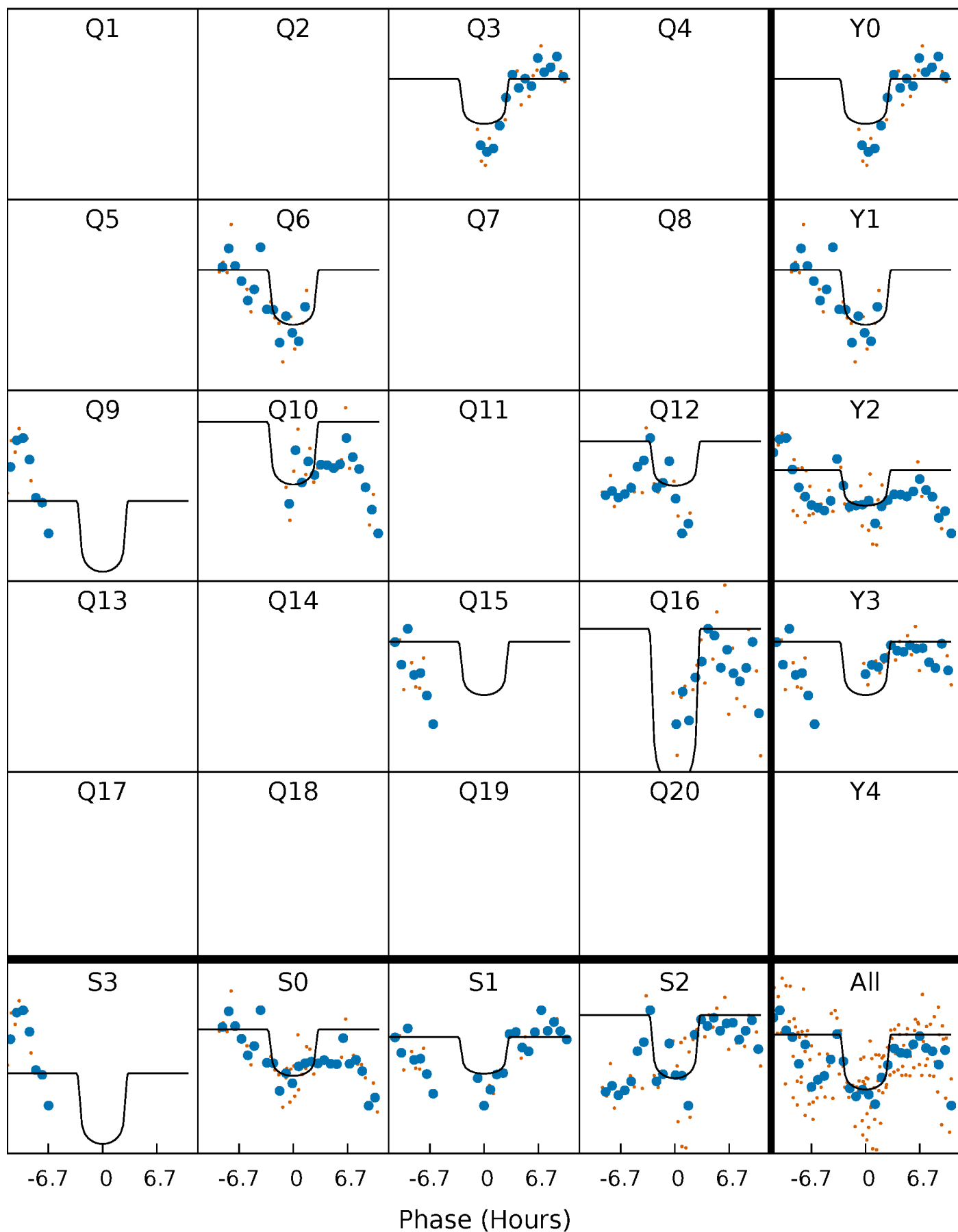
PDC Quarter-Phased Transit Curves

TCE 006519892-07 $P=120.293986$ Days $T_0=208.843850$ (BKJD)



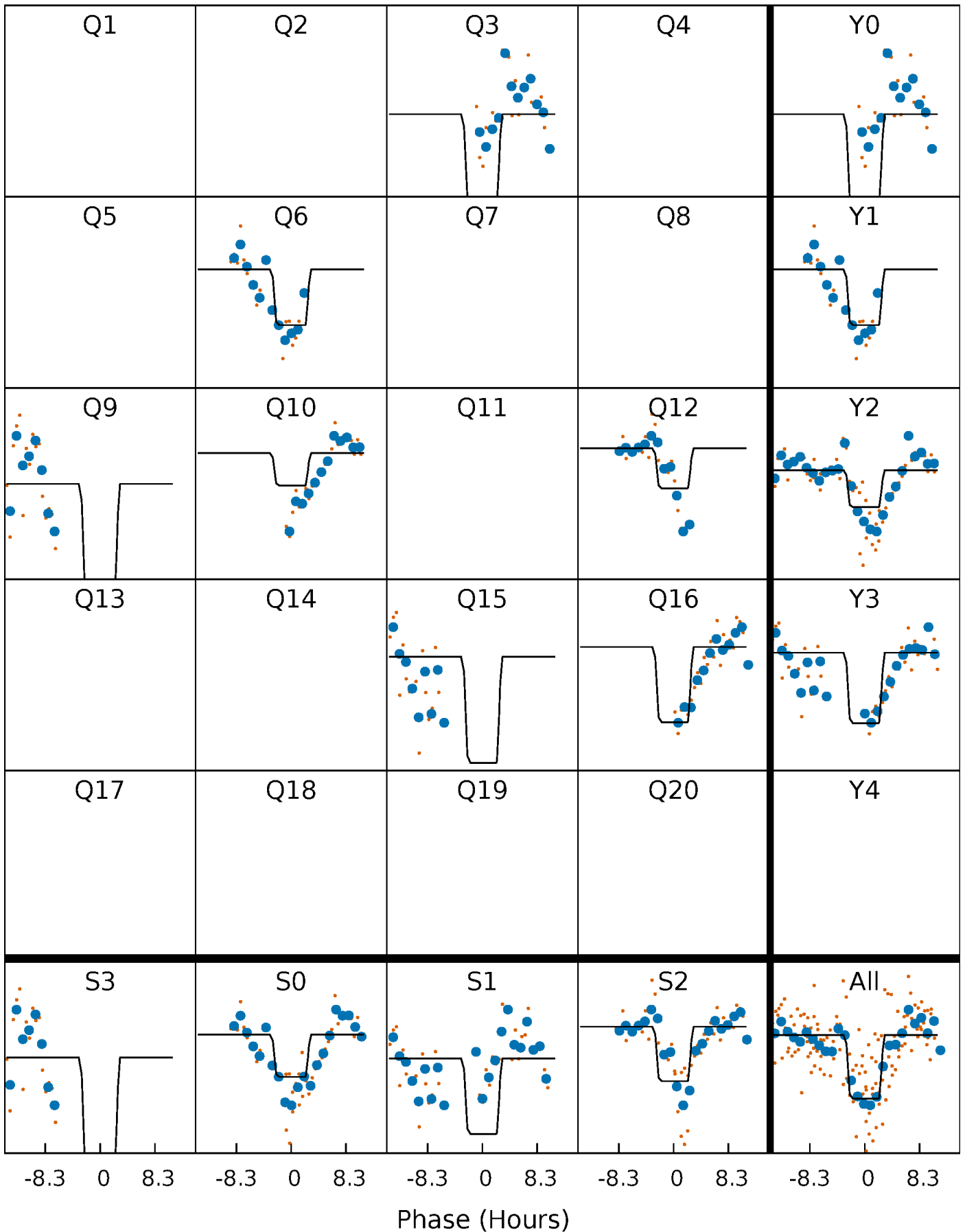
DV Quarter-Phased Transit Curves

TCE 006519892-07 $P=120.293986$ Days $T_0=208.843850$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

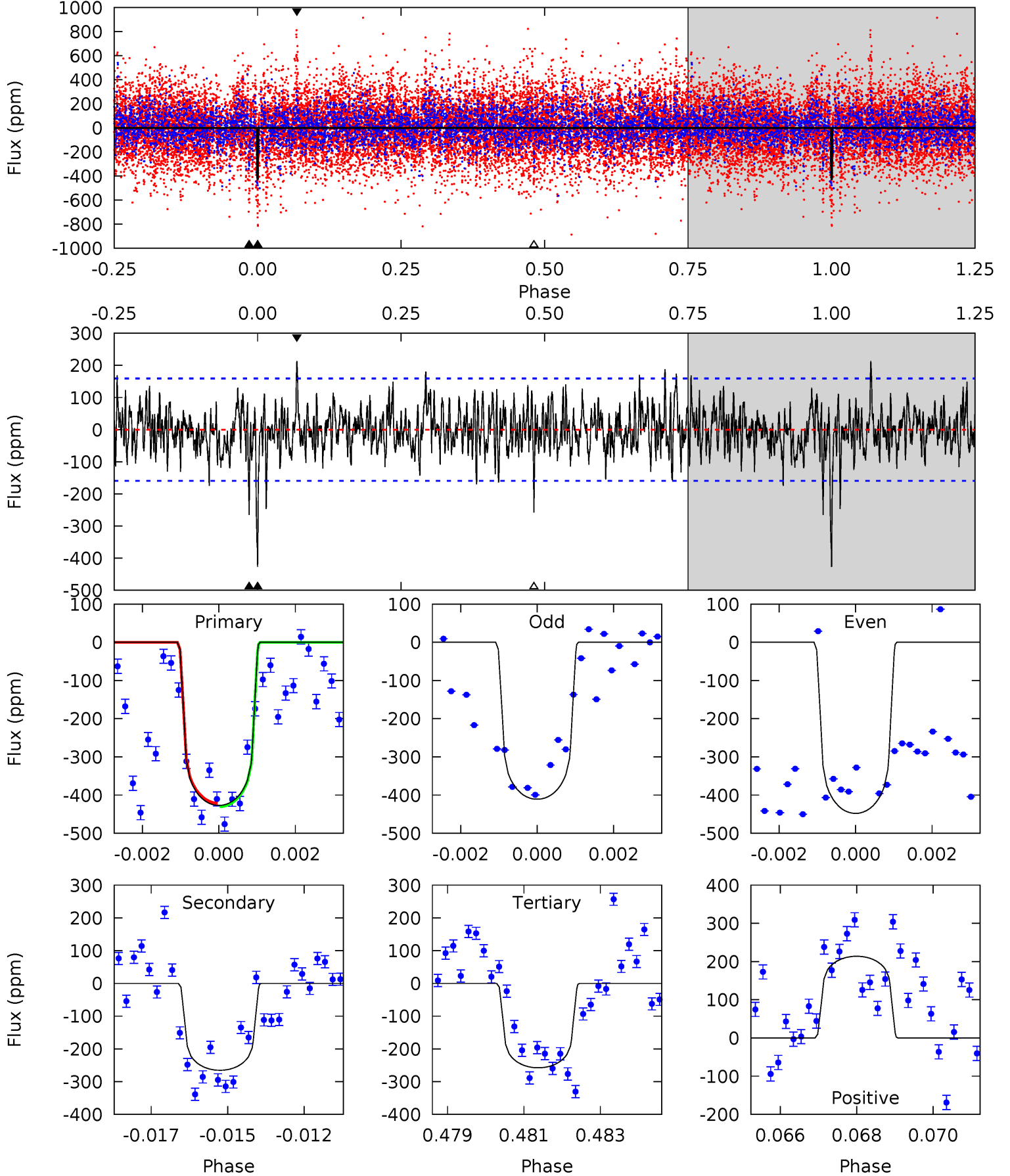
TCE 006519892-07 $P=120.291950$ Days $T_0=208.849176$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-07, $P = 120.293986$ Days, $E = 88.549864$ Days

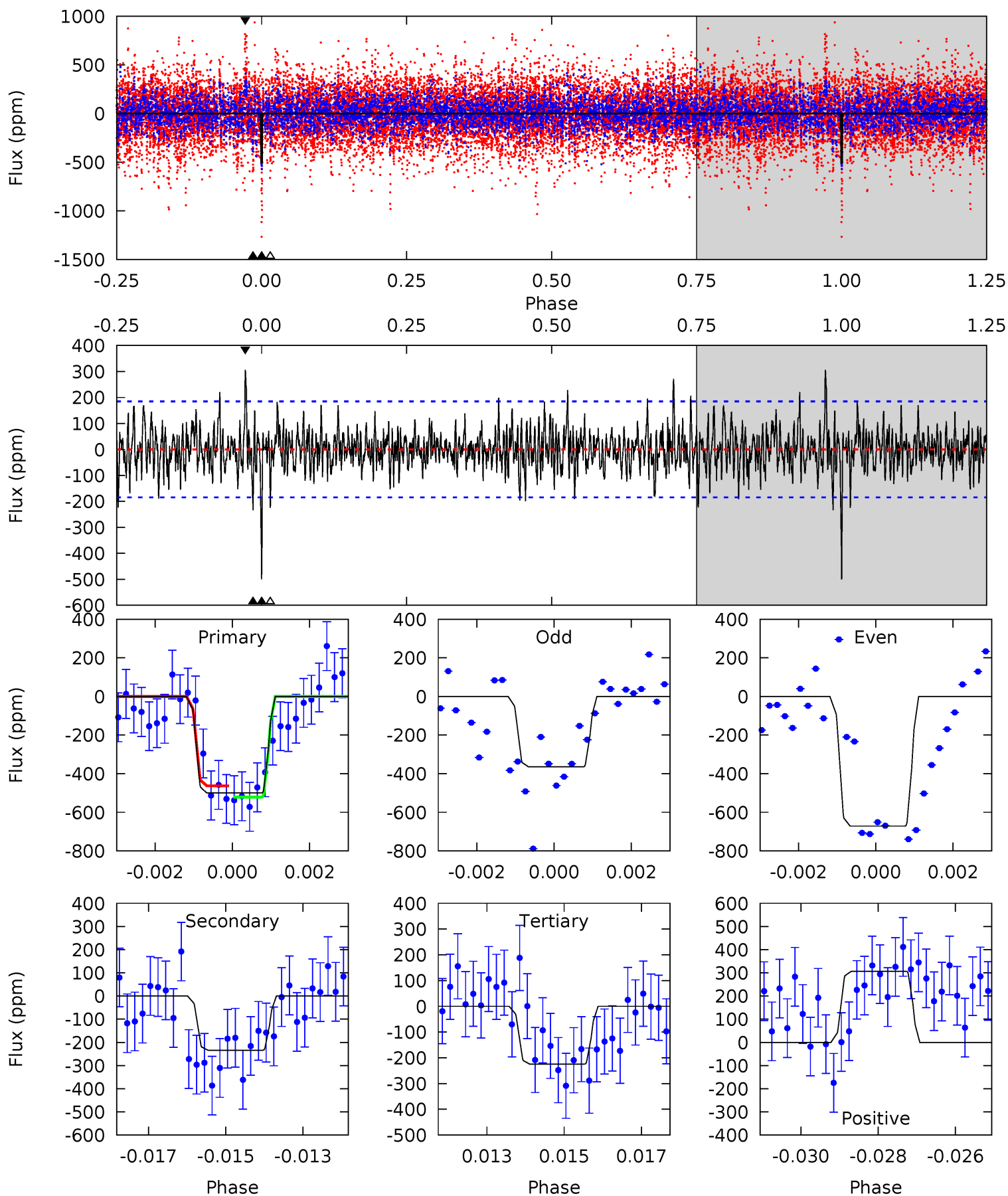
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	8.86	8.61	7.14	5.32	3.08	1.99	5.65	7.12	0.25	1.72	0.61	0.98	0.33	0.15



Alt Model-Shift Uniqueness Test

006519892-07, P = 120.291950 Days, E = 88.557226 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	6.75	6.48	8.85	5.34	3.11	1.91	7.96	5.59	0.27	-2.10	4.38	0.95	0.38	0.81



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-265 ± 30	$4.10^{+1.84}_{-1.64}$	858^{+63}_{-69}	6722^{+2180}_{-1120}	2646^{+4418}_{-1406}
Alt.	-234 ± 35	$4.59^{+1.83}_{-1.68}$	854^{+67}_{-70}	6047^{+1615}_{-800}	1819^{+2863}_{-923}

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 $A_{obs} \gg 1.0$

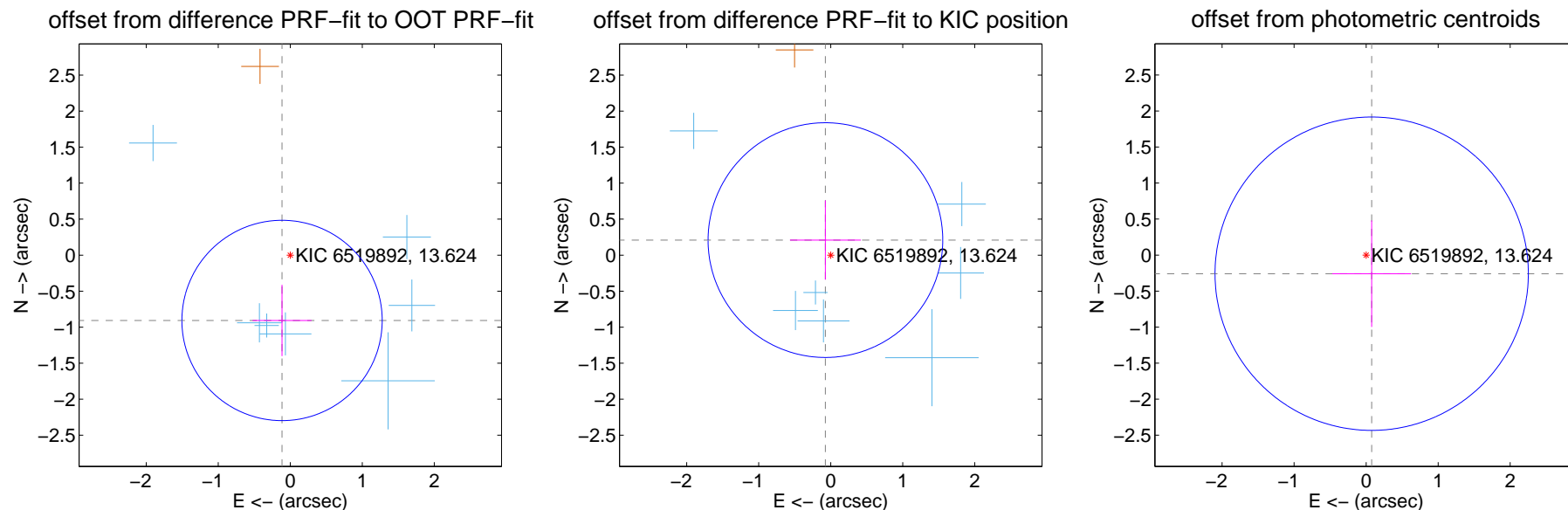
DV Centroid Data

Supplemental centroid analysis for 006519892-07. Kepler magnitude: 13.62. Transit SNR 9.92

There are 7 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.914 ± 0.464	1.97	0.114 ± 0.410	-0.907 ± 0.495
PRF-fit source offset from KIC position	0.222 ± 0.543	0.41	0.074 ± 0.492	0.209 ± 0.549
photometric centroid source offset	0.27 ± 0.73	0.37	-0.08 ± 0.55	-0.26 ± 0.74



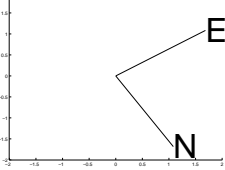
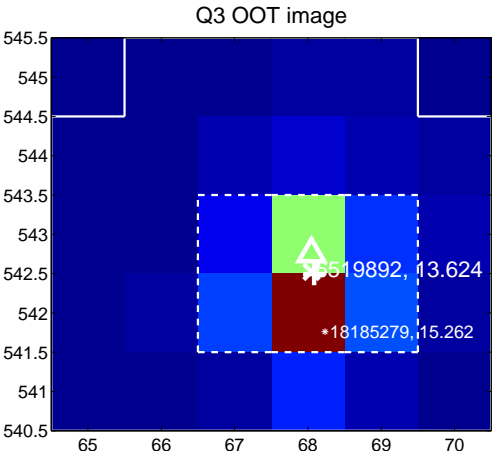
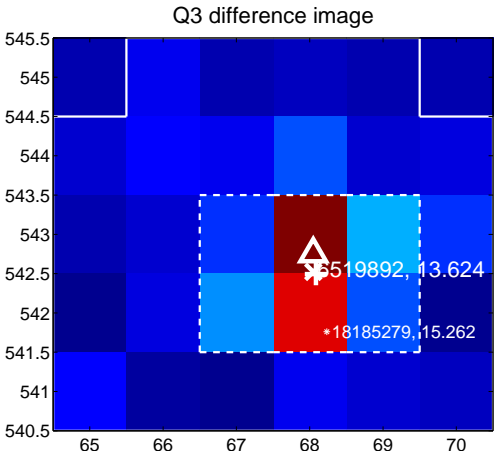
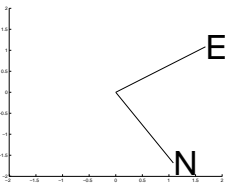
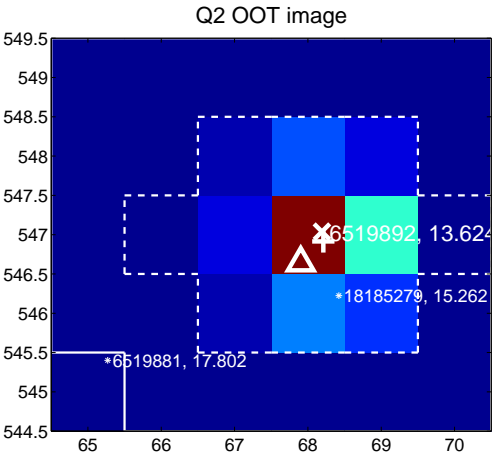
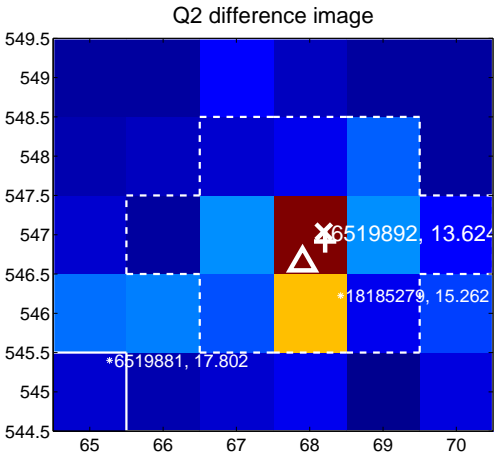
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

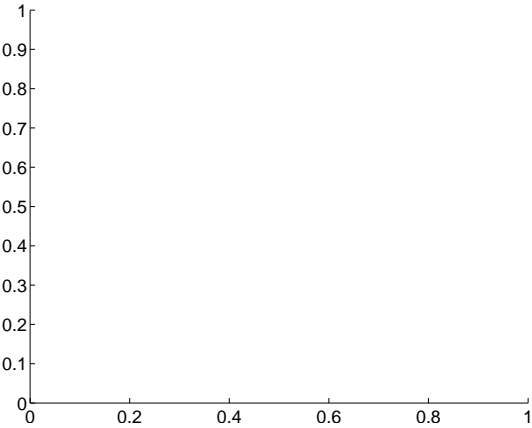
Q1 no difference image



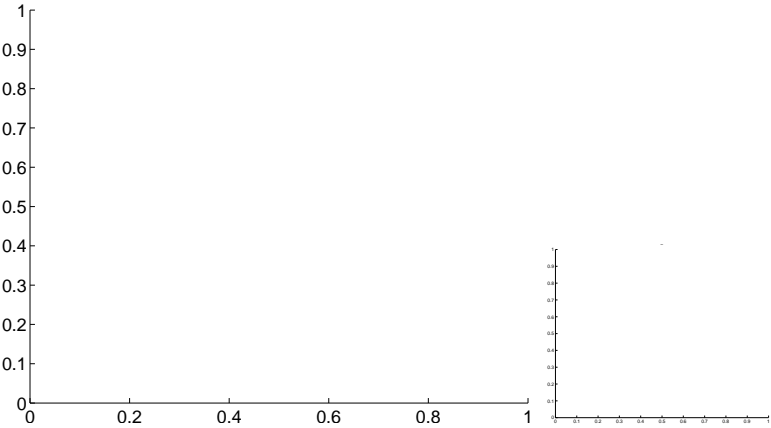
Q1 no OOT image



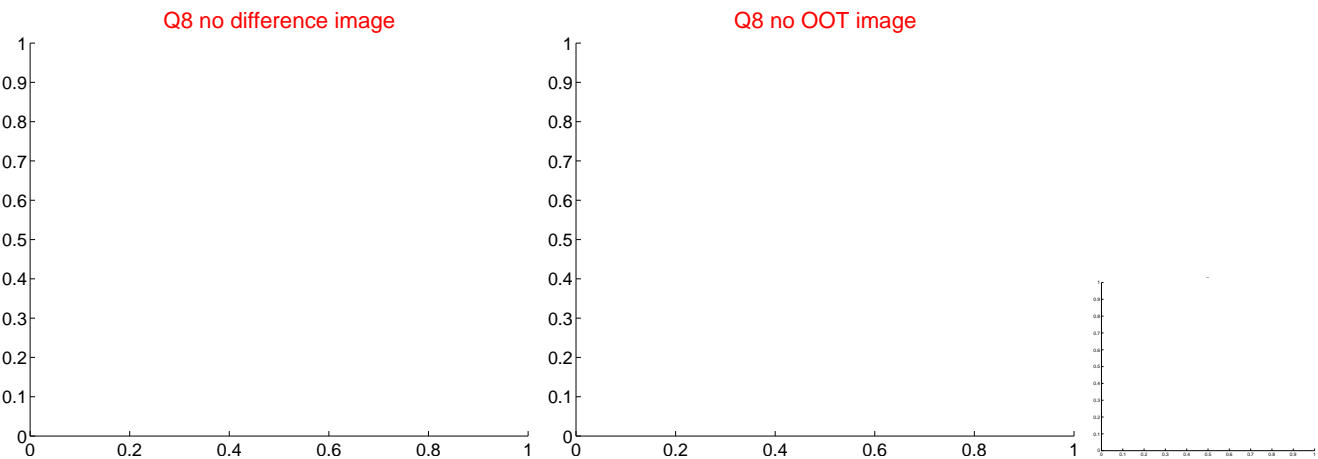
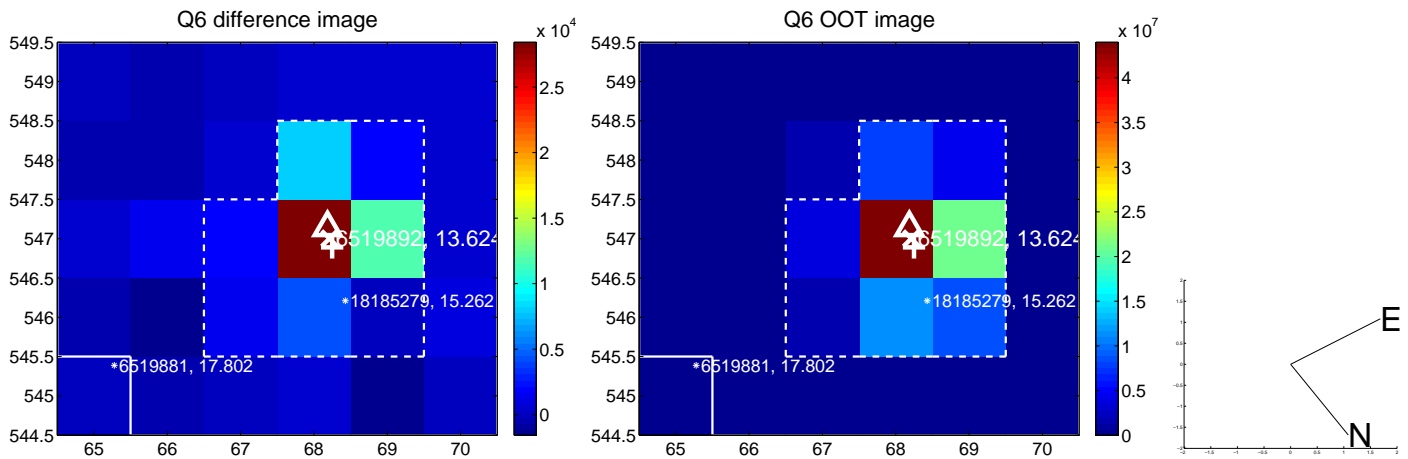
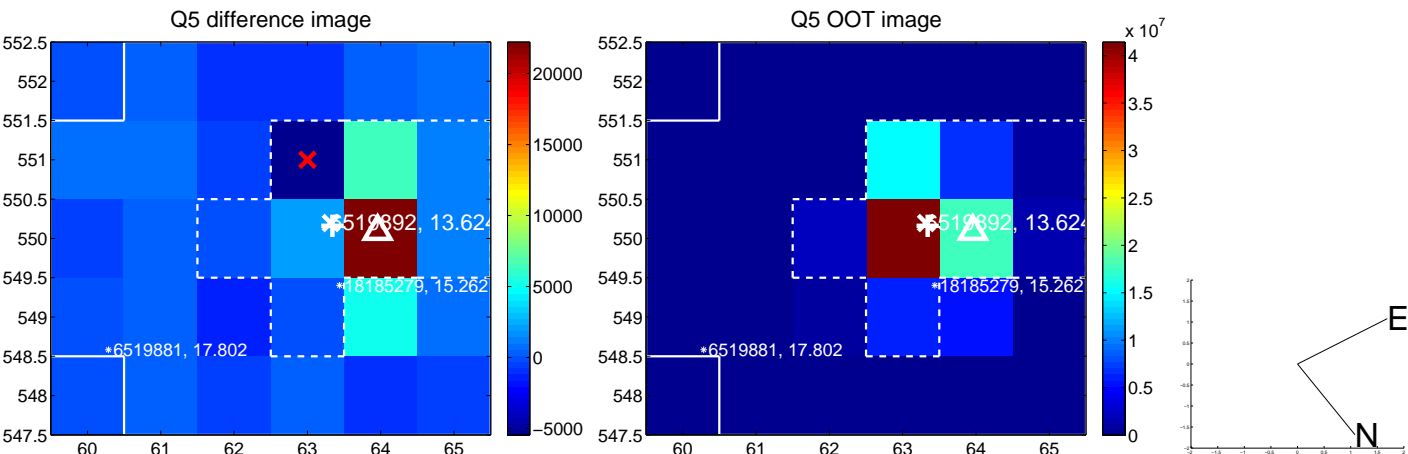
Q4 no difference image



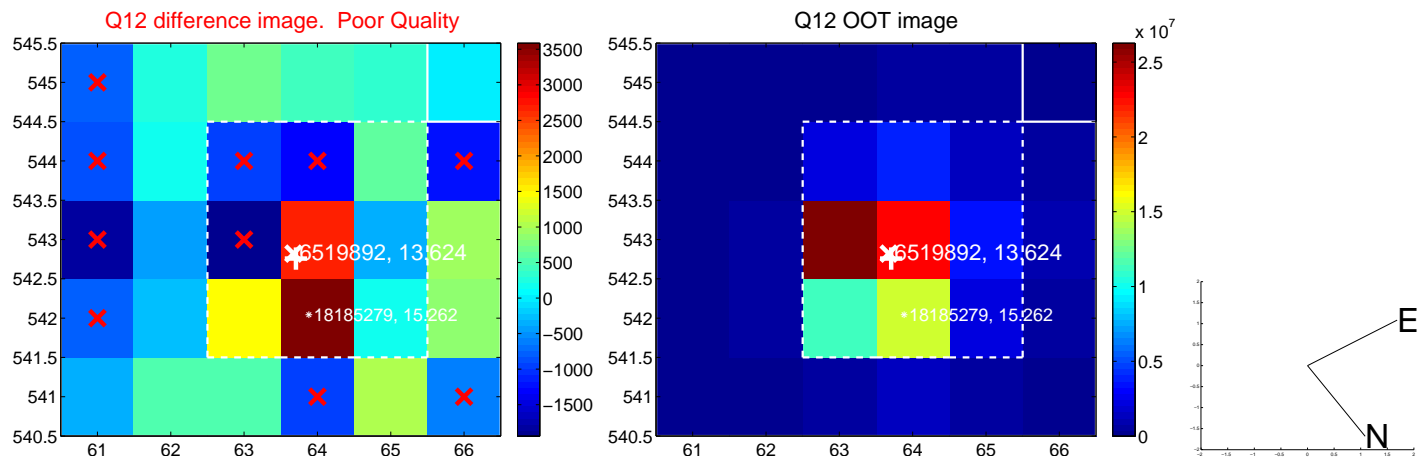
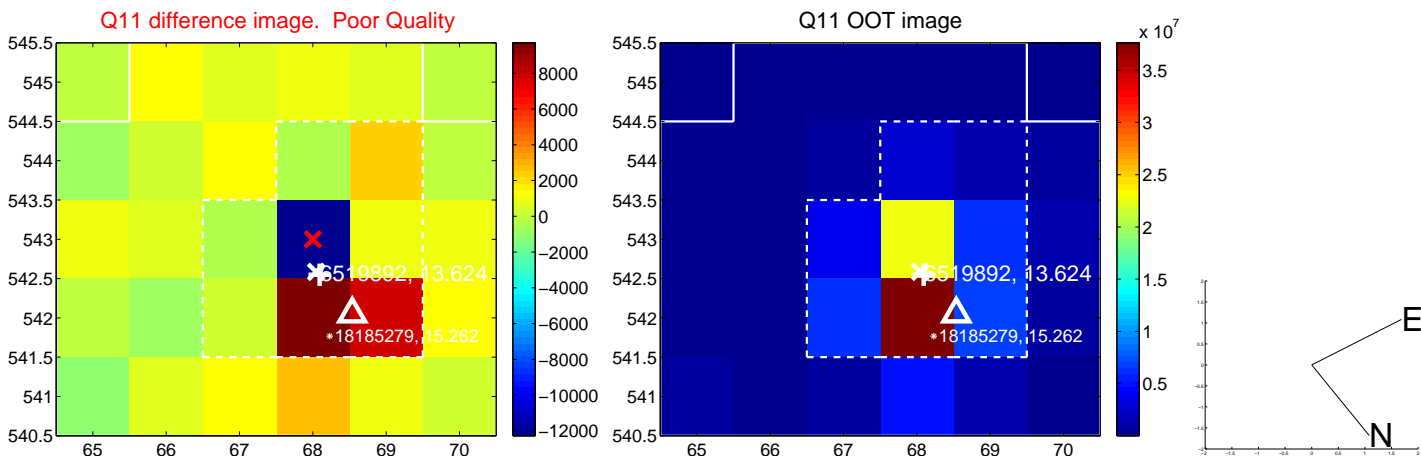
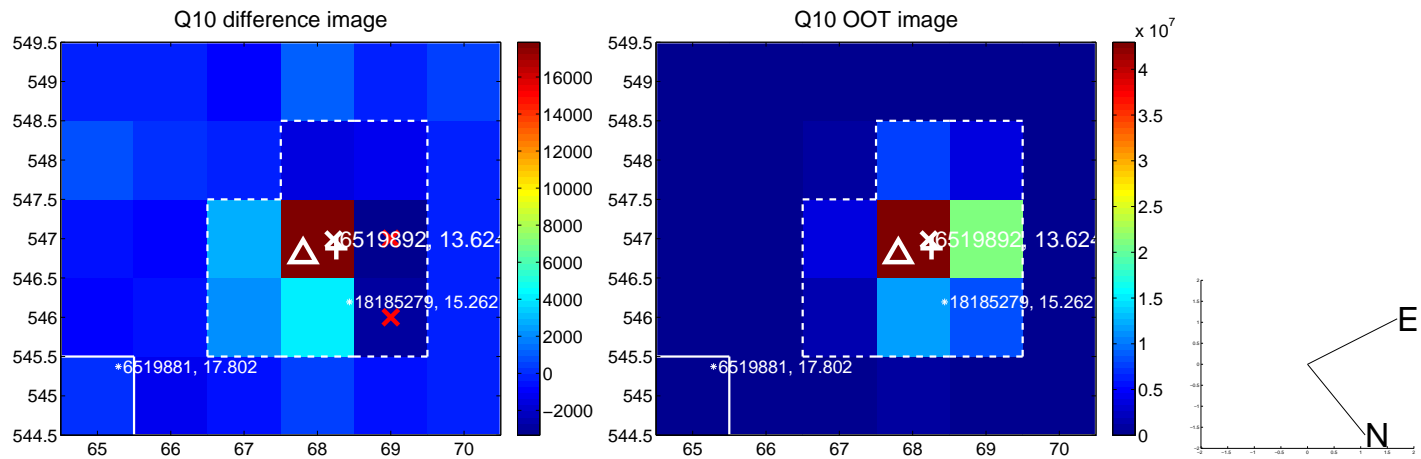
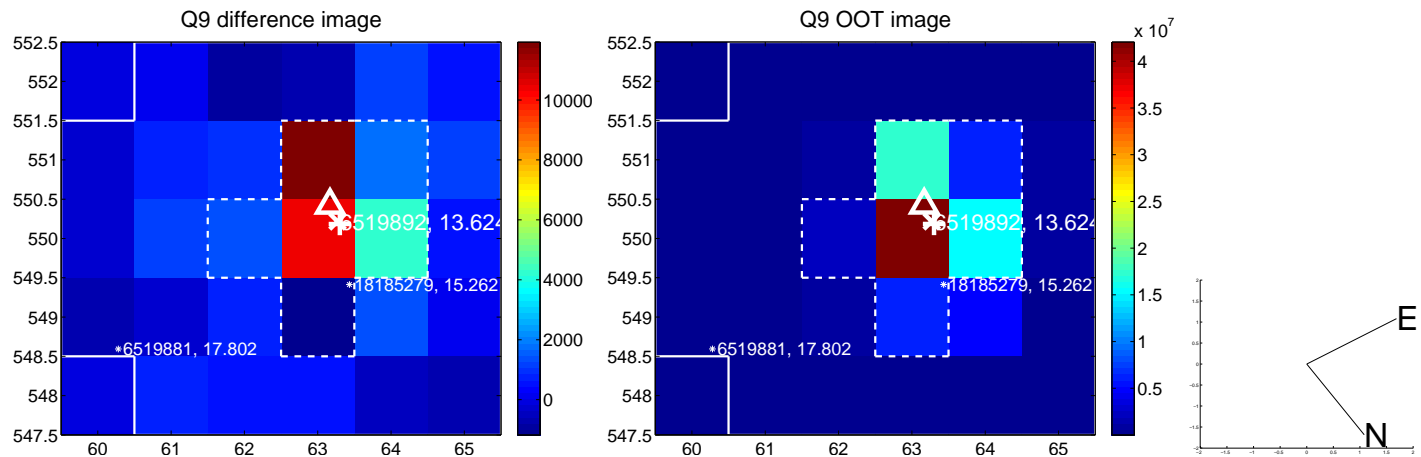
Q4 no OOT image



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

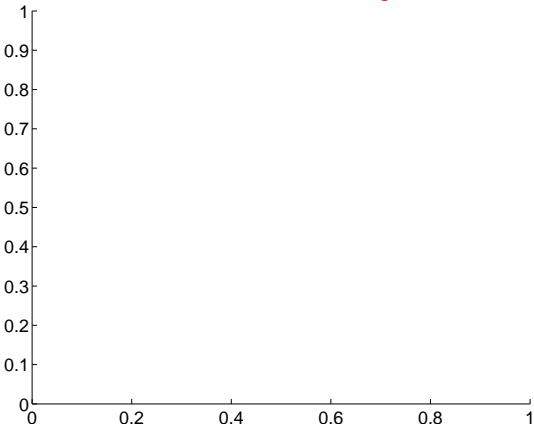


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q13 no difference image



Q13 no OOT image



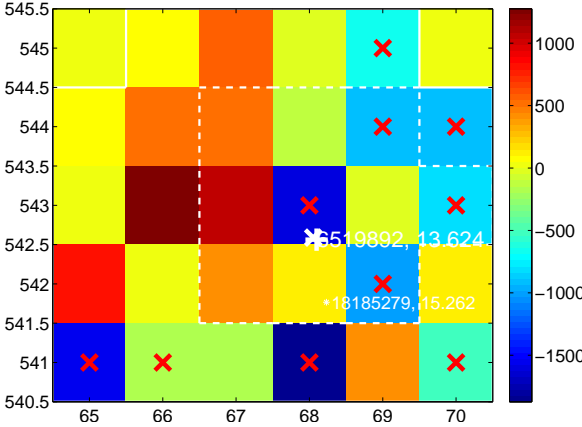
Q14 no difference image



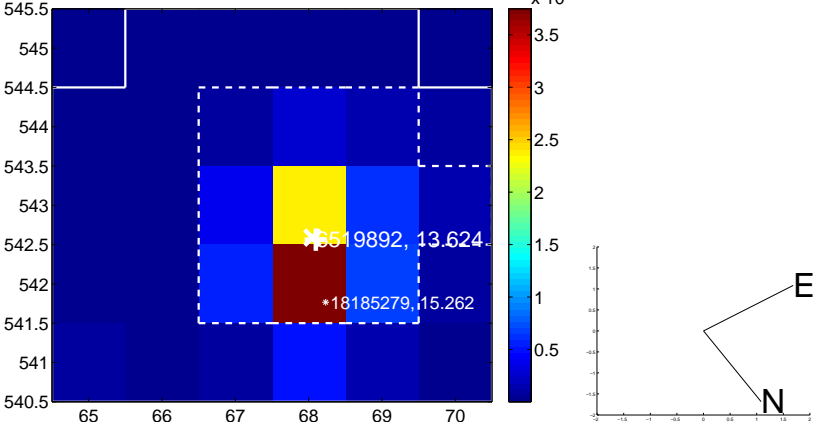
Q14 no OOT image



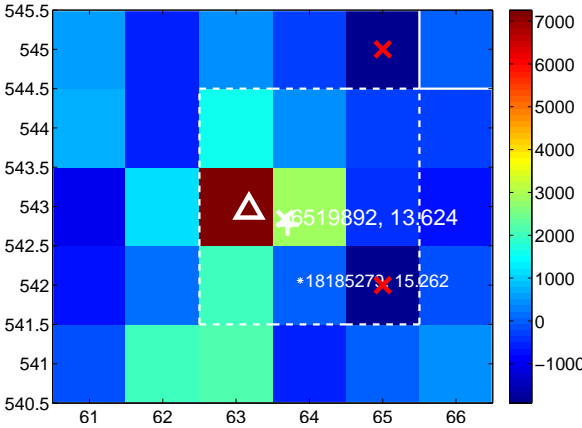
Q15 difference image. Poor Quality



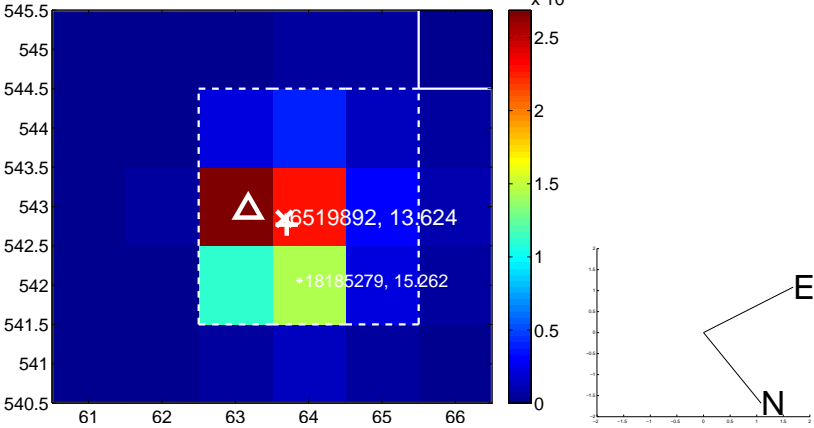
Q15 OOT image



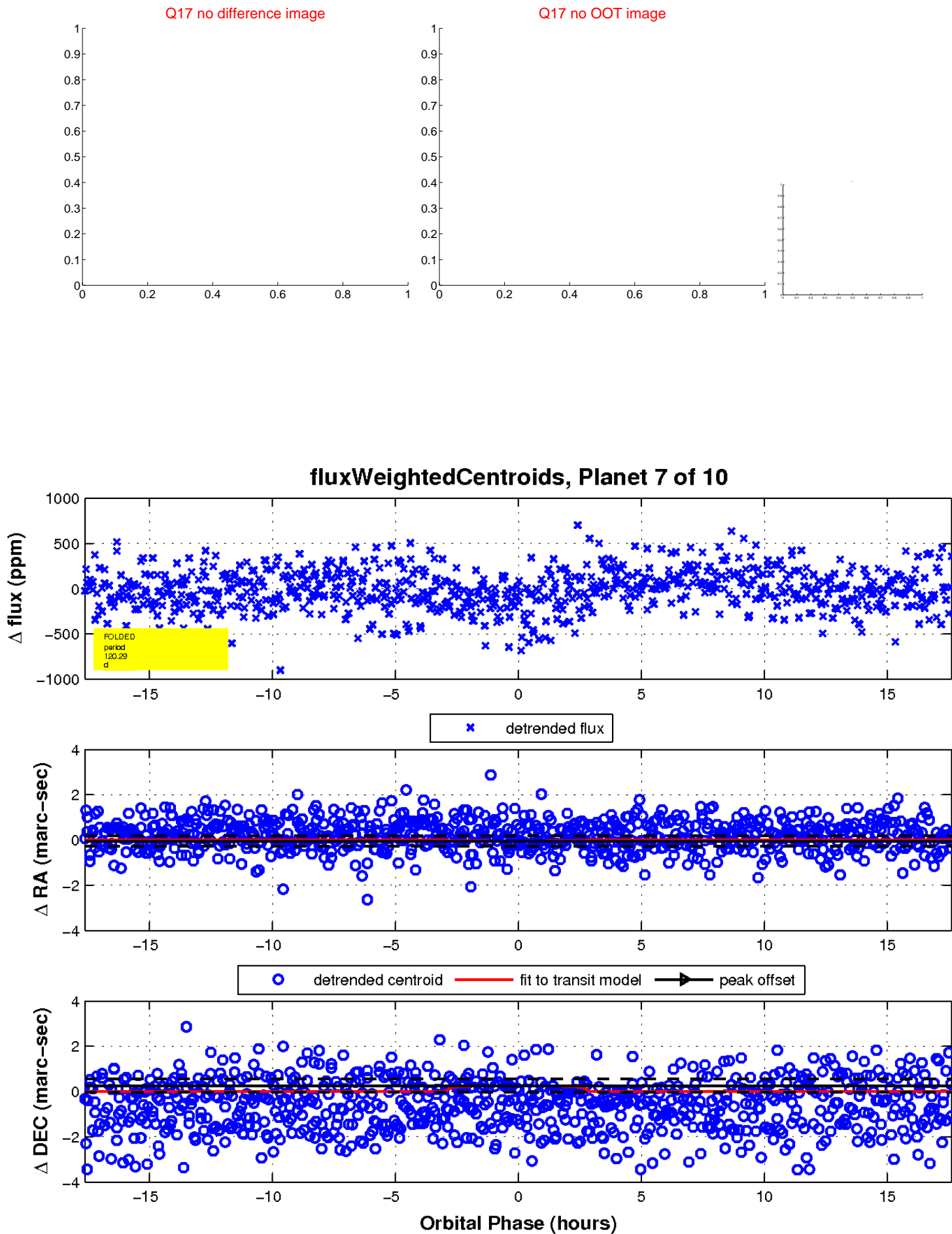
Q16 difference image



Q16 OOT image

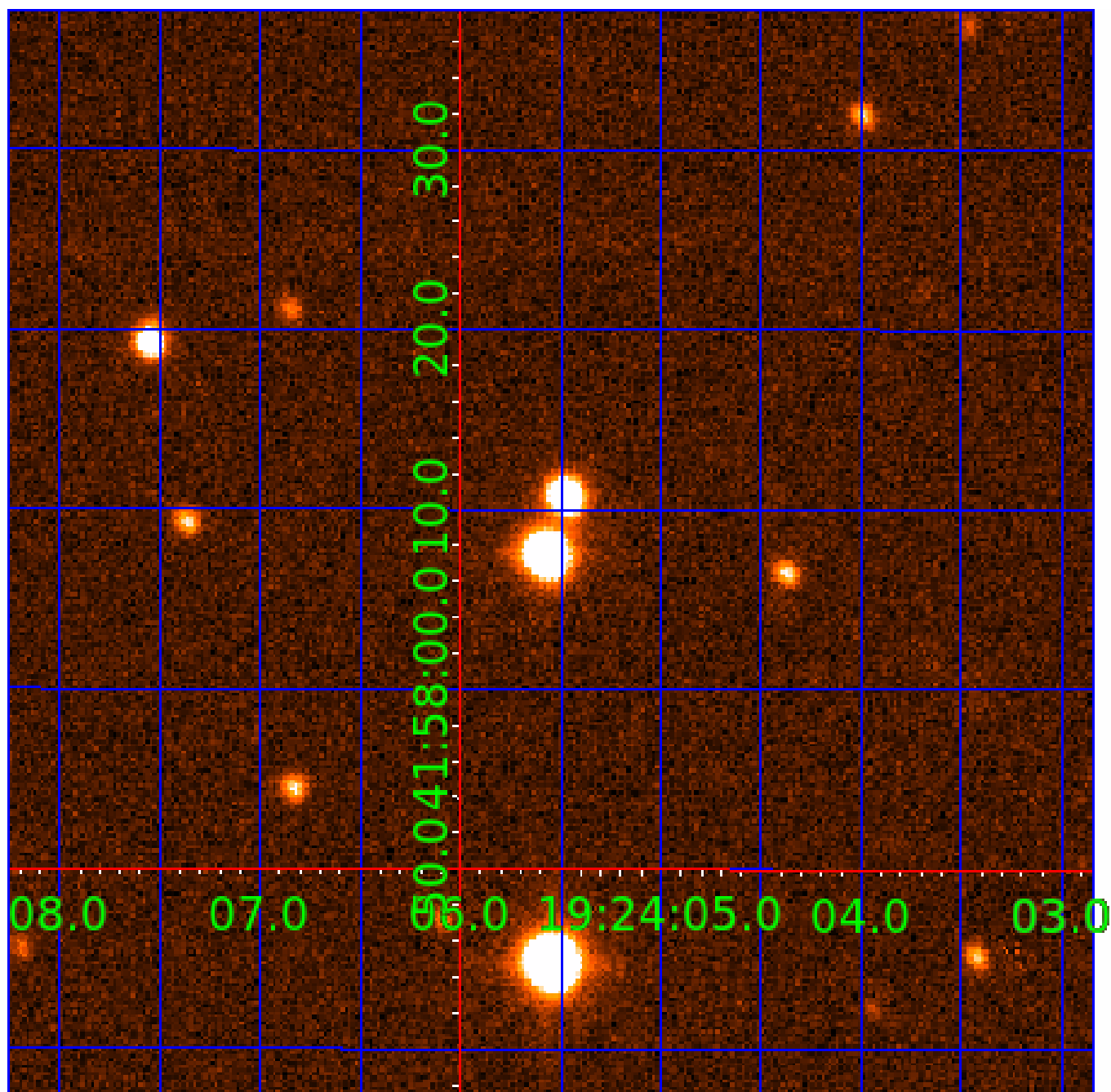


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

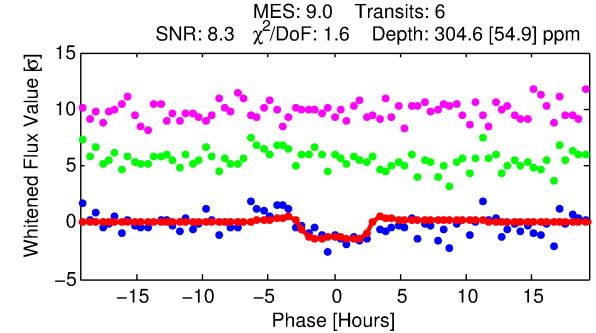
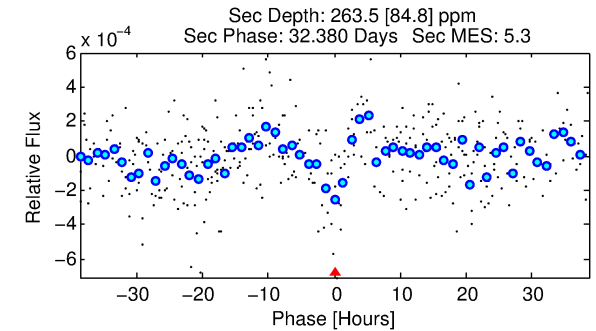
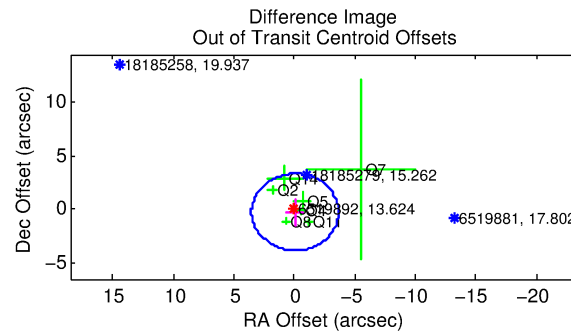
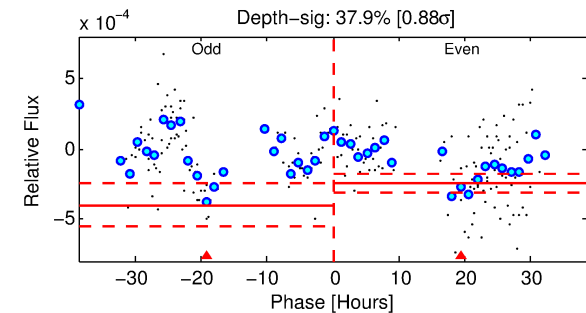
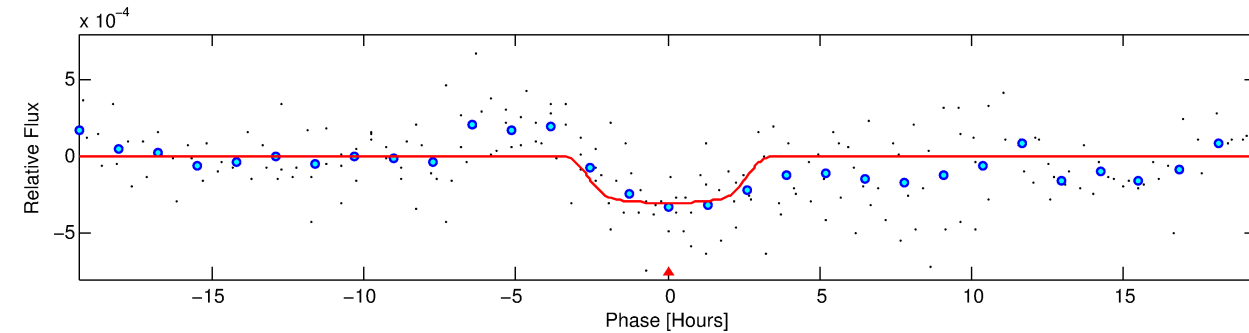
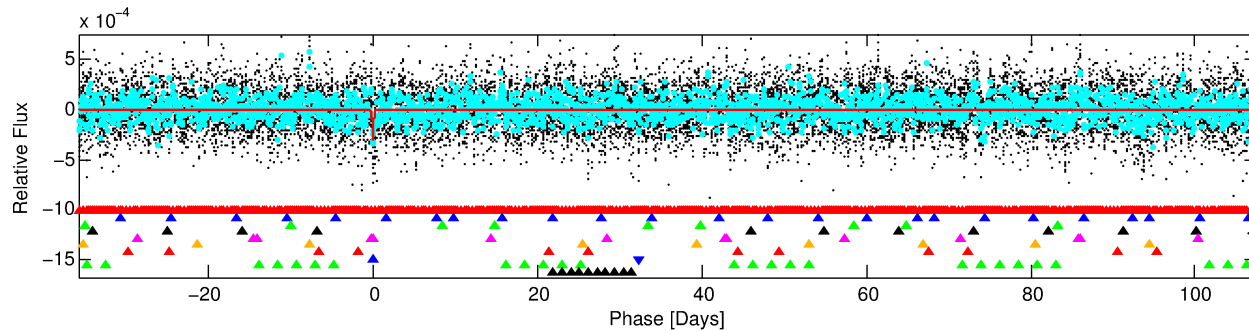
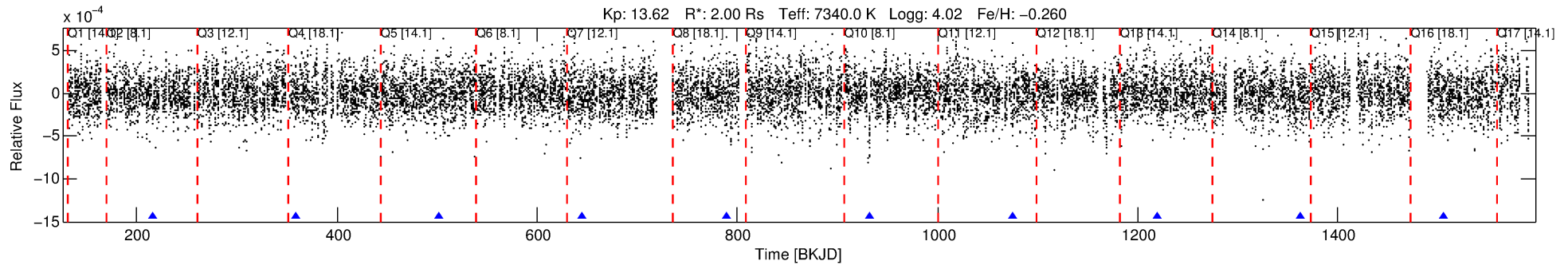
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-08

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 8 of 10 Period: 143.378 d



DV Fit Results:

Period = 143.37835 [0.00256] d
Epoch = 215.4651 [0.0152] BKJD
Rp/R* = 0.0199 [0.0024]
a/R* = 59.71 [23.50]
b = 0.96 [0.03]
Seff = 27.49 [12.47]
Teq = 584 [66] K
Rp = 4.35 [1.43] Re
a = 0.6167 [0.1699] AU
Ag = 2919.64 [1700.30] [1.72 σ]
Teffp = 6636 [722] K [8.35 σ]

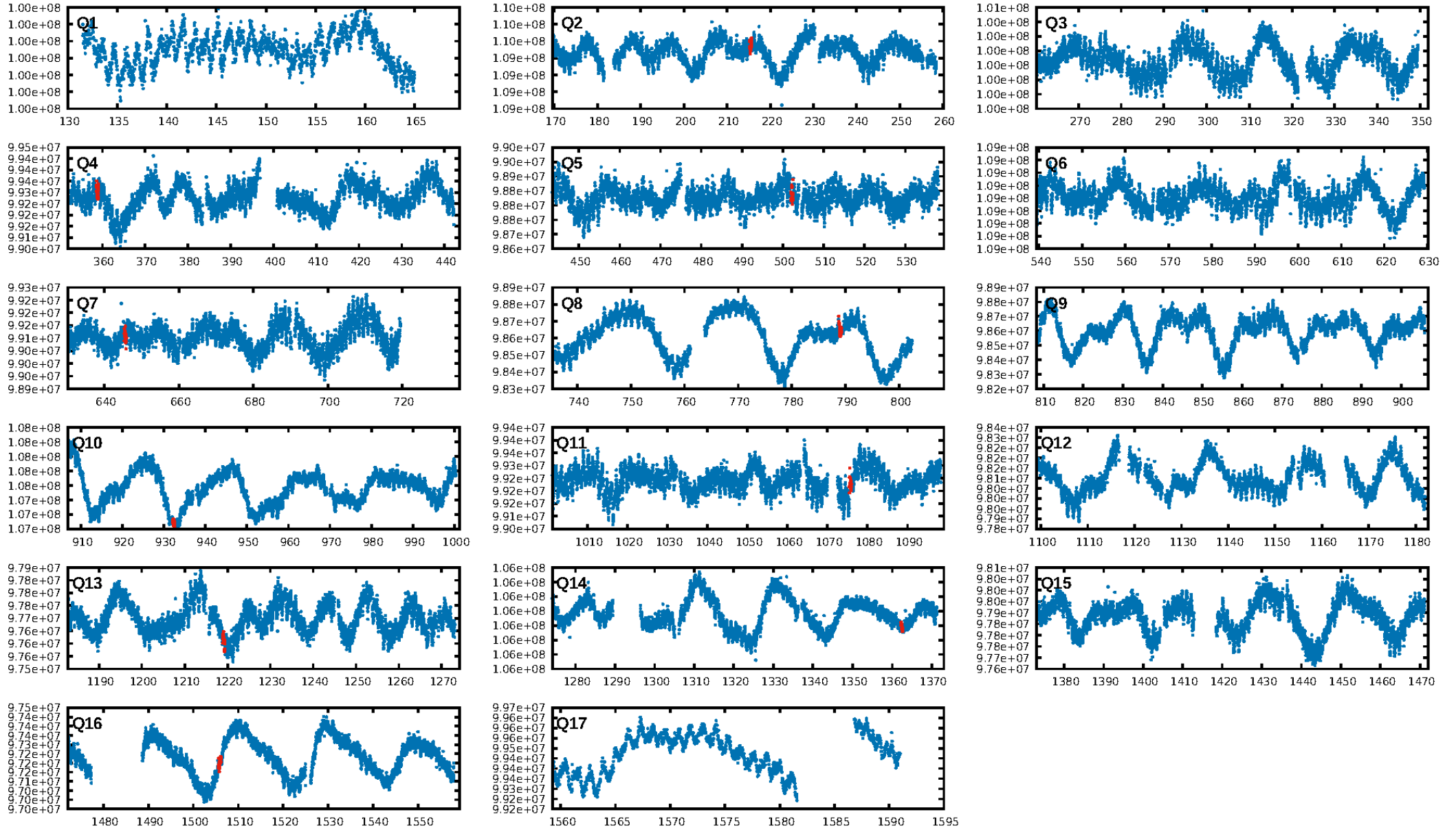
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [26.34 σ]
LongPeriod-sig: 99.9% [3.35 σ]
ModelChiSquare2-sig: 18.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -1.38
Centroid-sig: 12.1%
Centroid-so: 0.935 arcsec [1.22 σ]
OotOffset-rm: 0.246 arcsec [0.21 σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-rm: 0.164 arcsec [0.18 σ]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 0.11 [1/9]

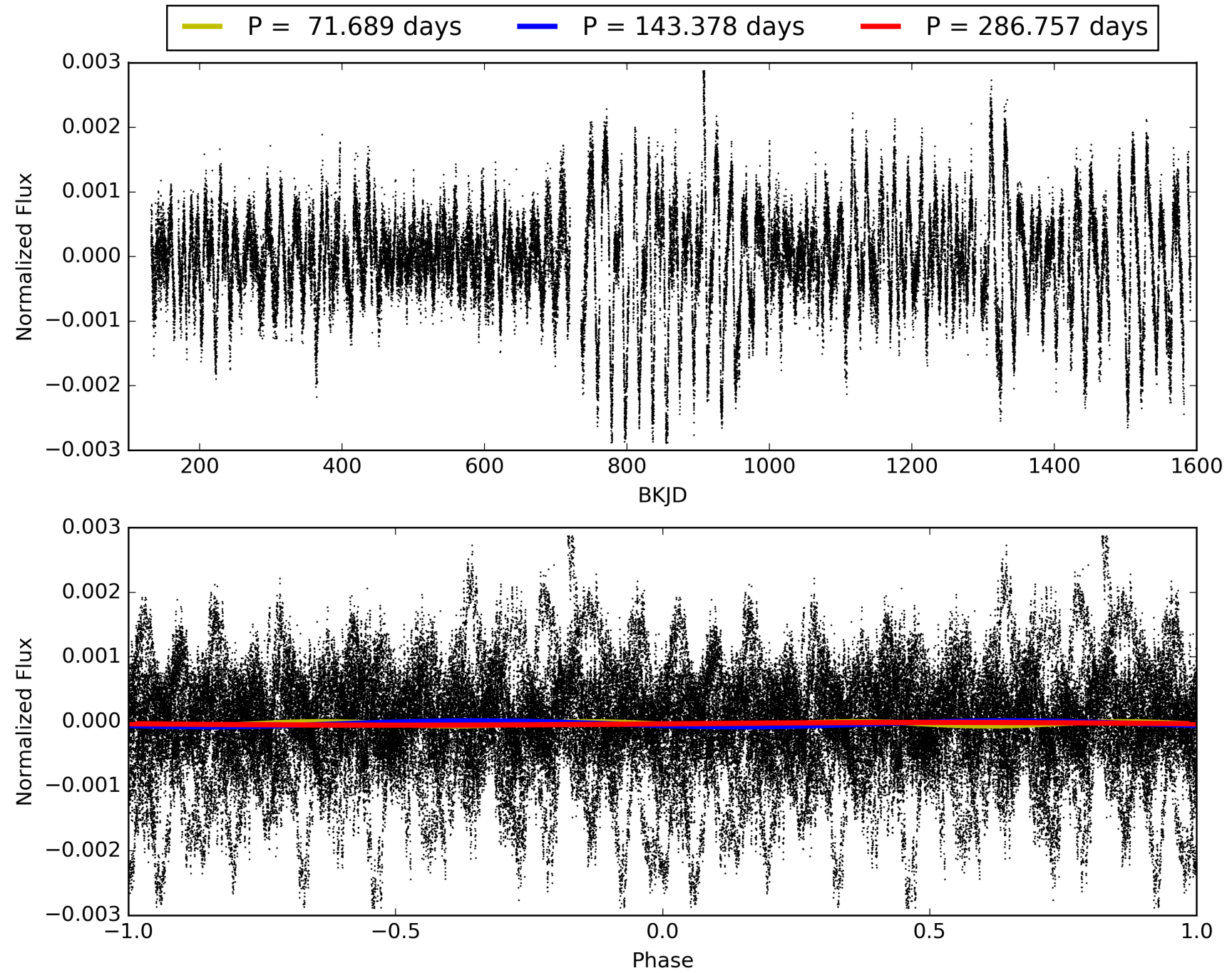
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:57:23 Z

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

TCE 006519892-08, PDC Light Curves

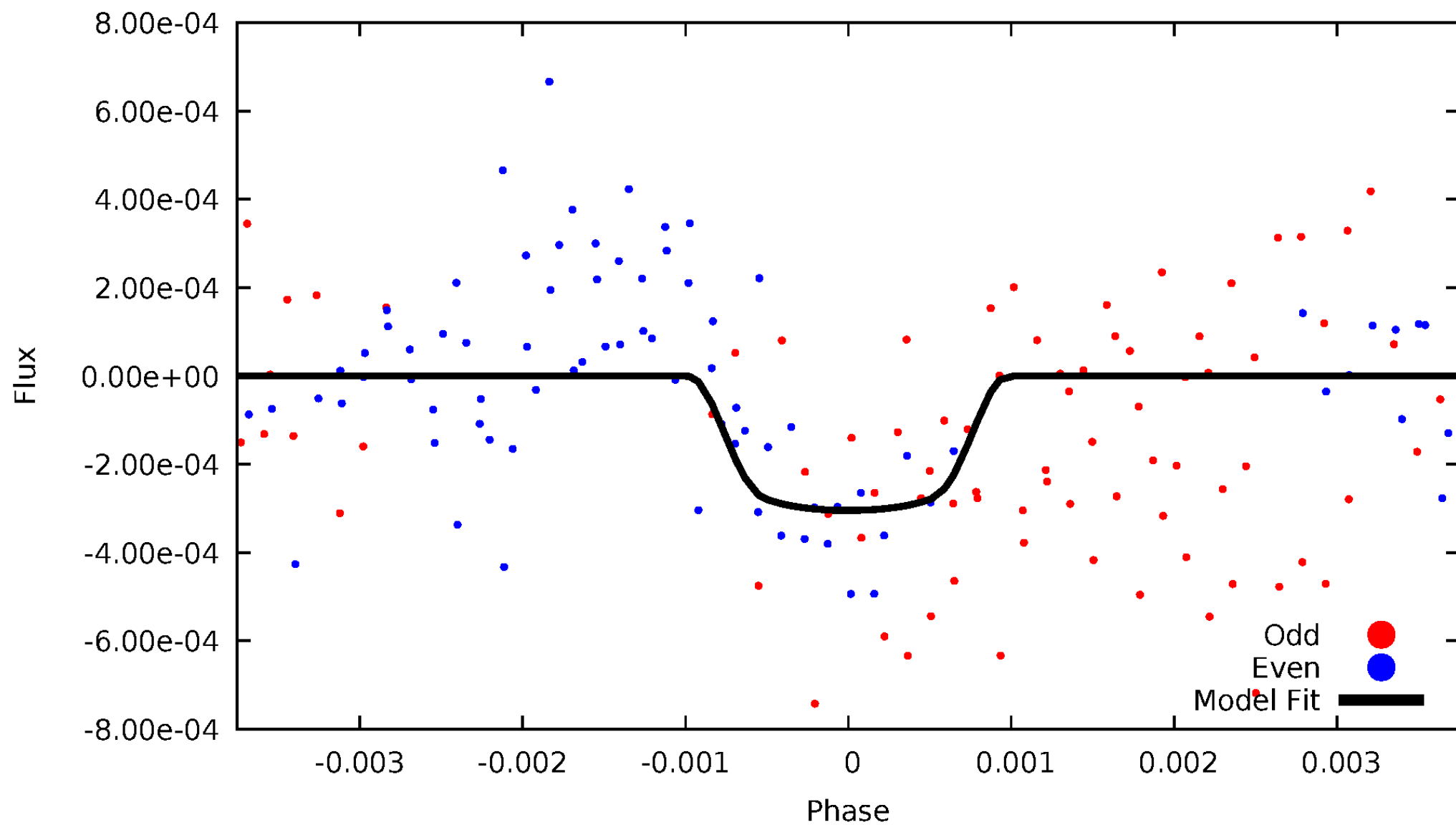


TCE 006519892-08



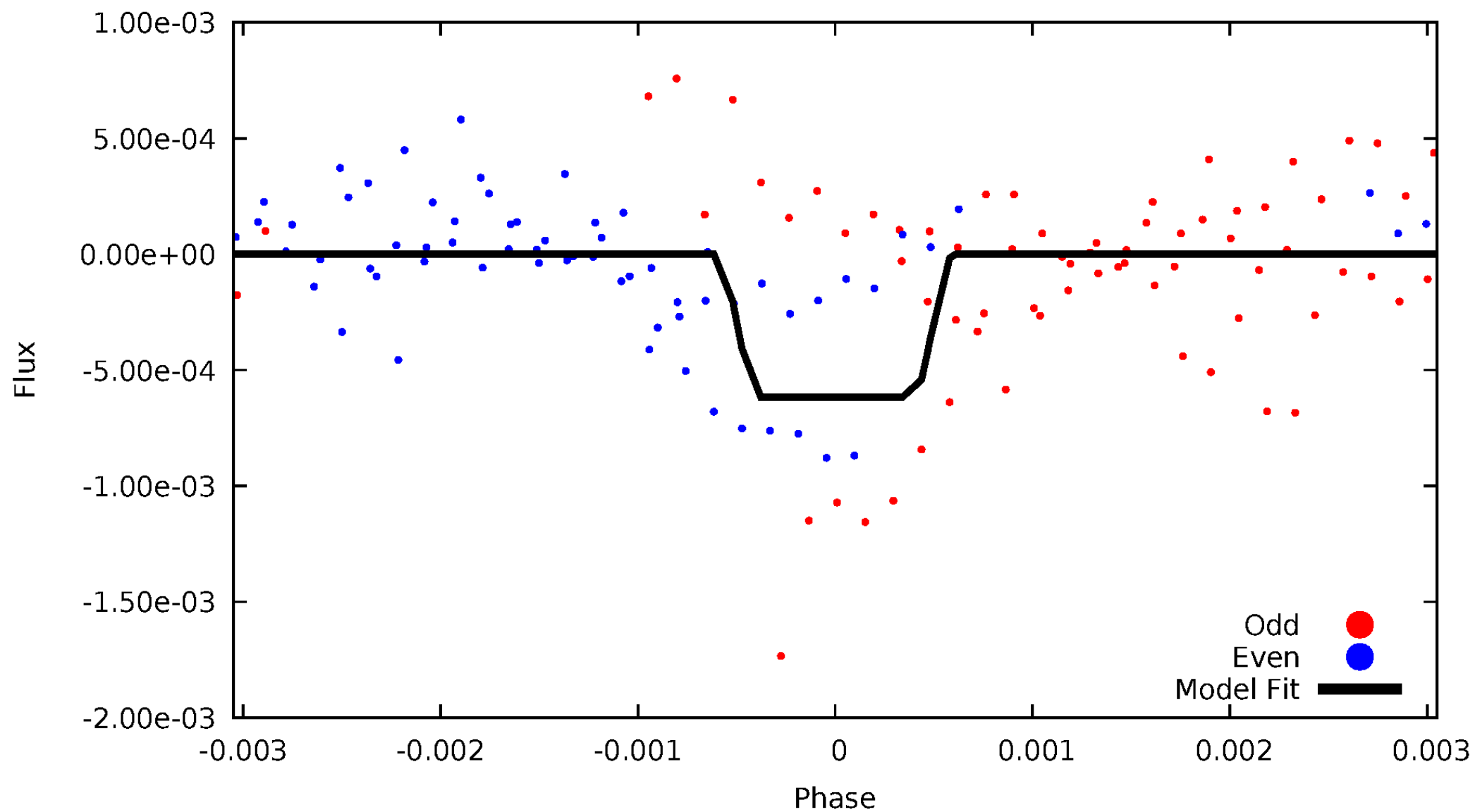
DV Odd/Even

TCE 006519892-08



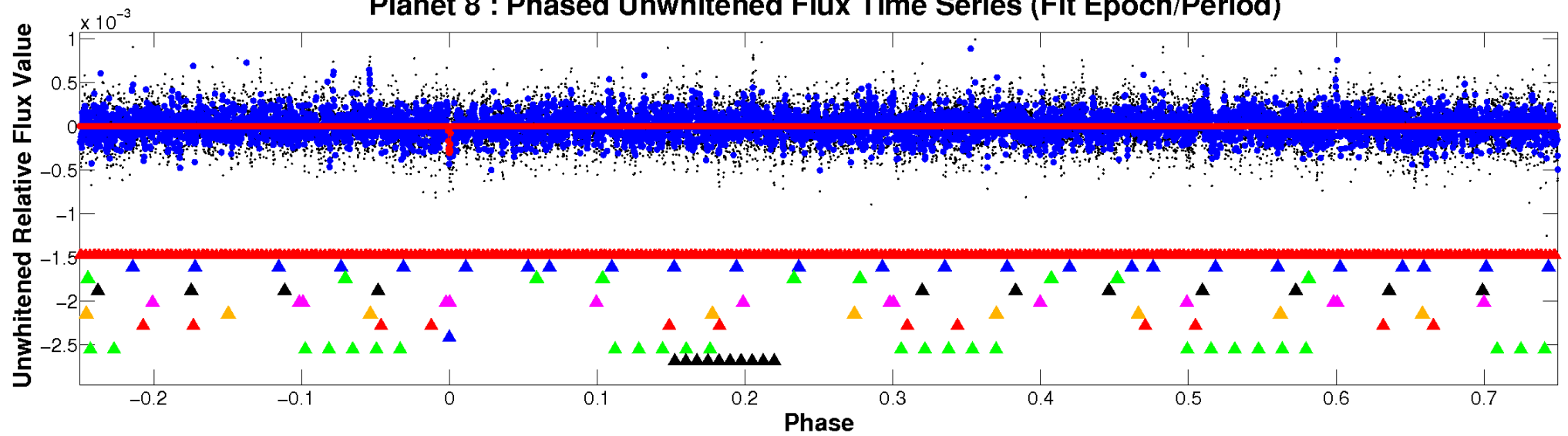
ALT Odd/Even

TCE 006519892-08

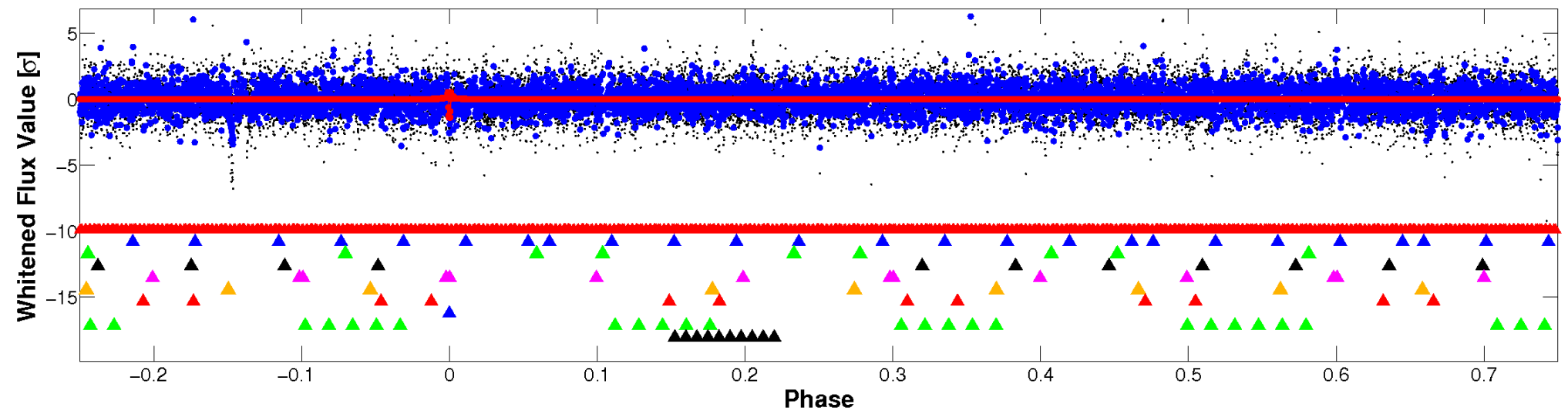


Non-Whitened Vs. Whitened Light Curve

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

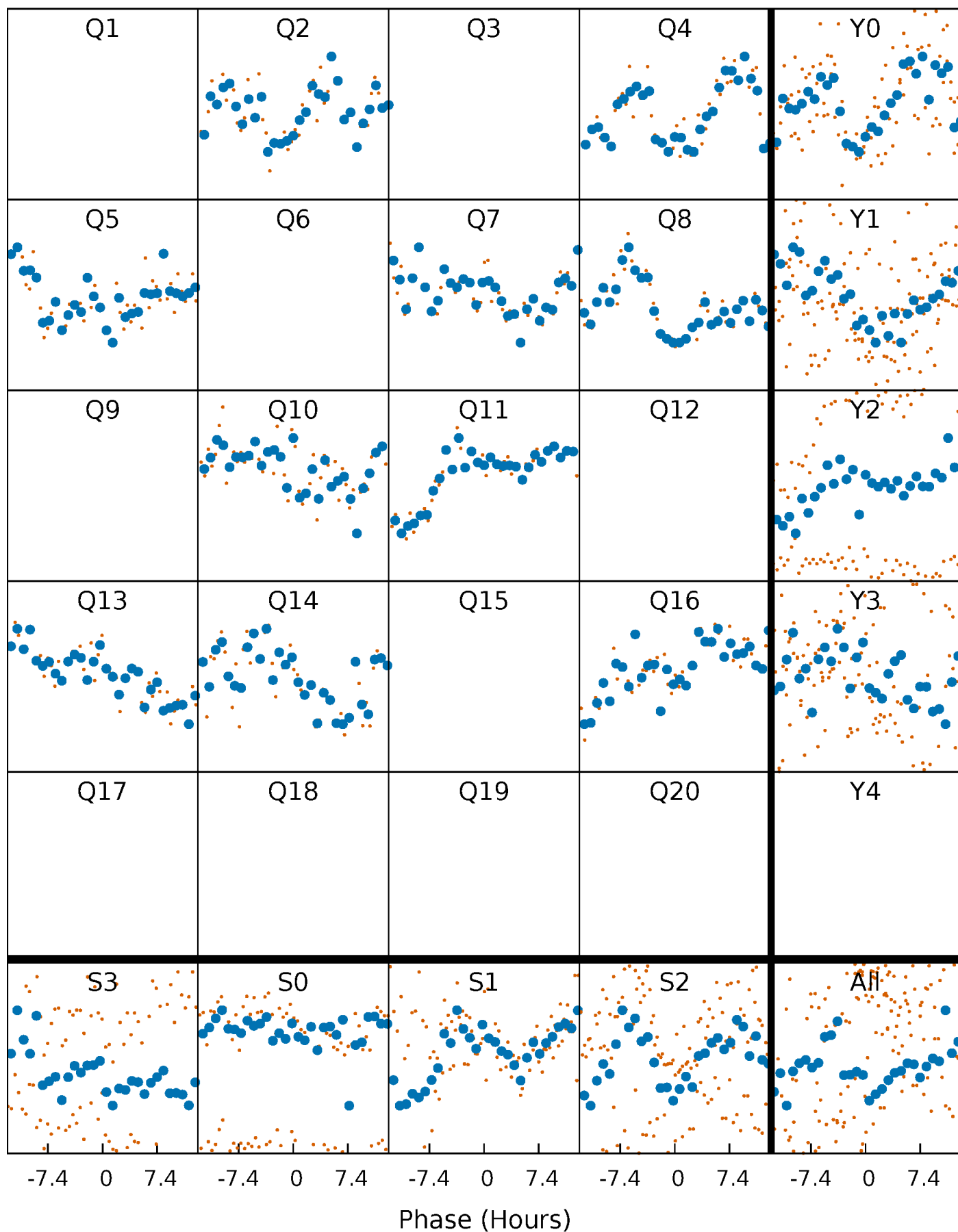


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



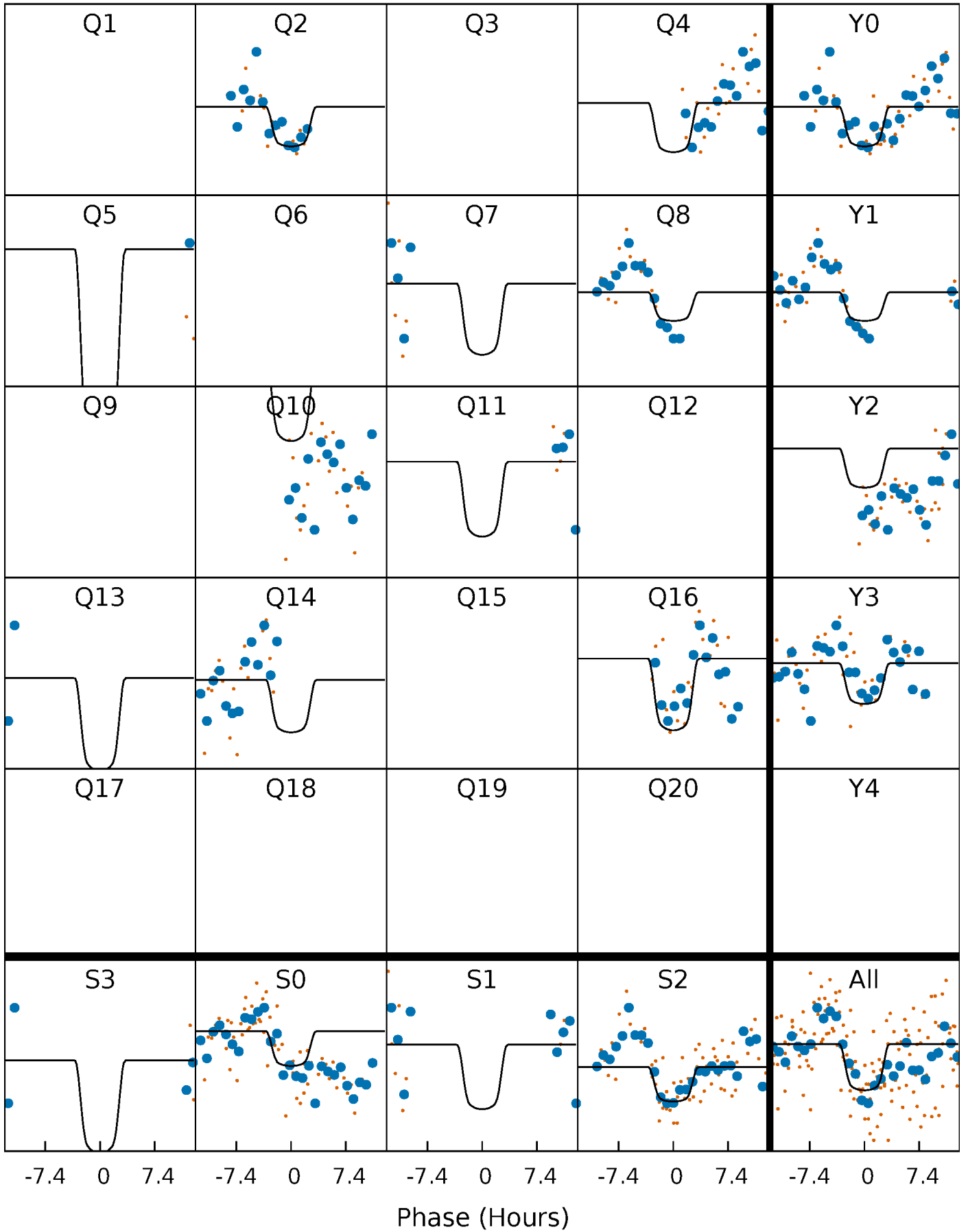
PDC Quarter-Phased Transit Curves

TCE 006519892-08 P=143.378349 Days $T_0=215.465084$ (BKJD)



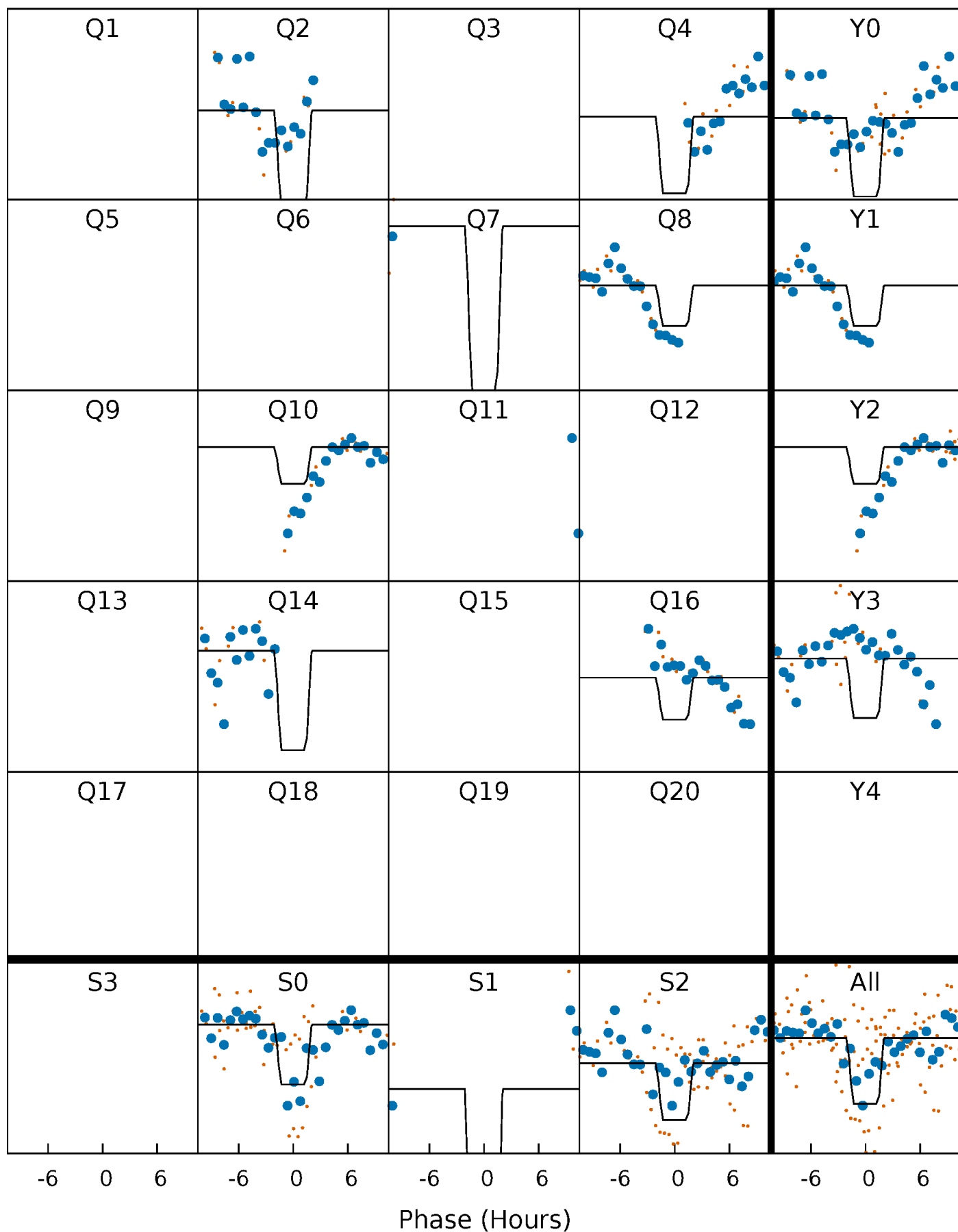
DV Quarter-Phased Transit Curves

TCE 006519892-08 $P=143.378349$ Days $T_0=215.465084$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

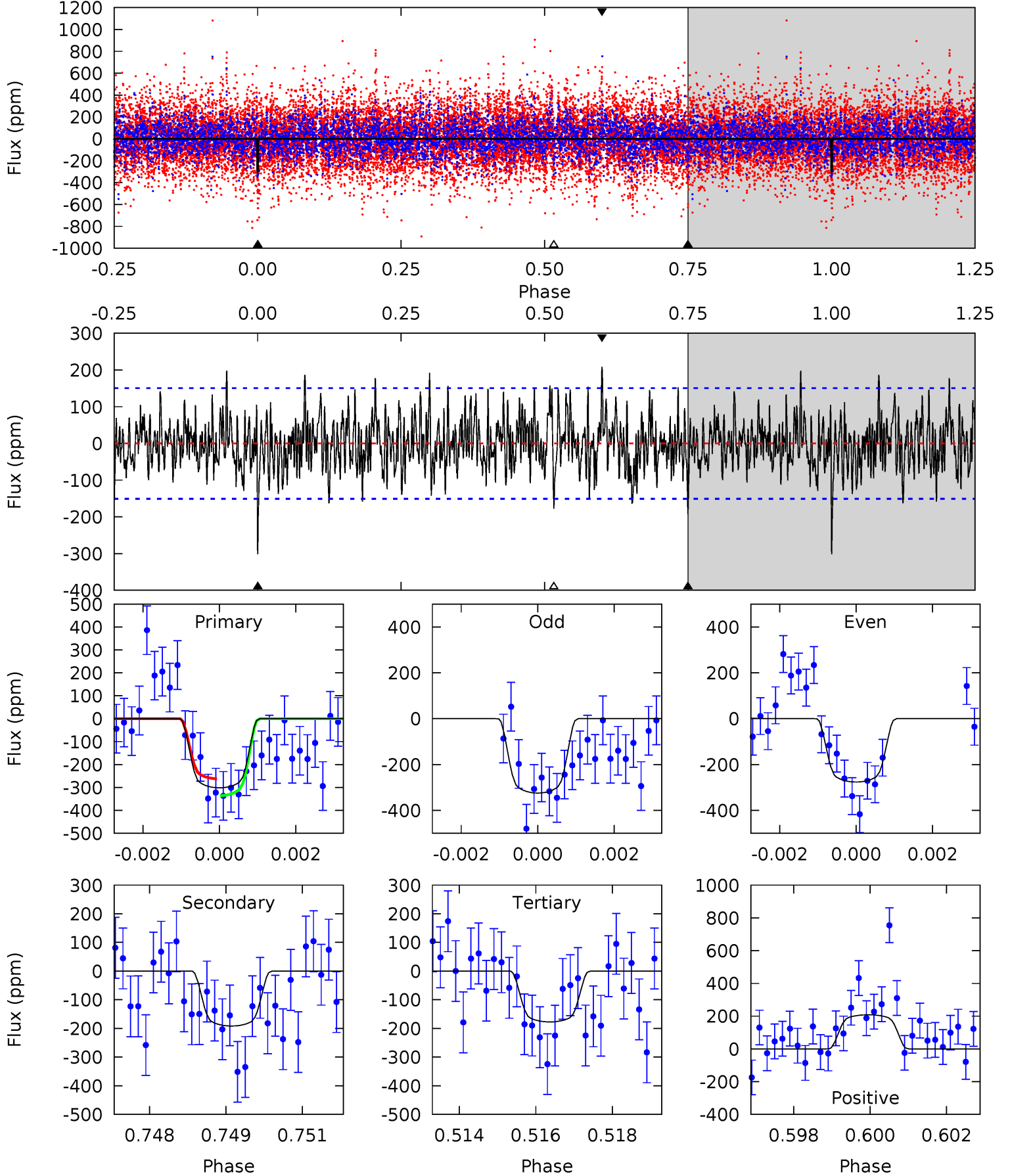
TCE 006519892-08 P=143.379772 Days $T_0=215.468085$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-08, P = 143.378349 Days, E = 72.086735 Days

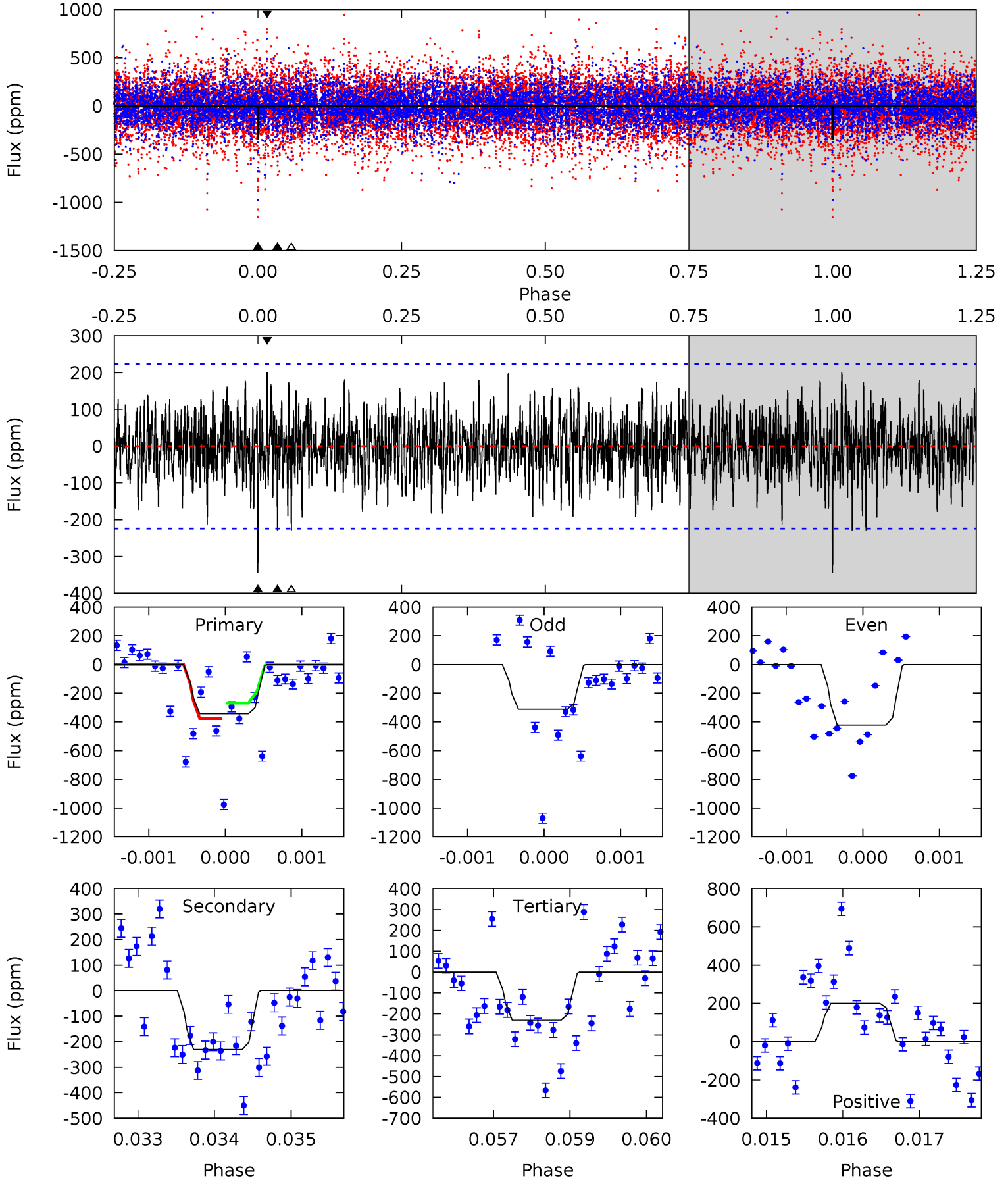
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	6.79	6.28	7.37	5.33	3.10	2.15	4.40	3.32	0.51	-0.58	0.85	1.07	0.41	1.30



Alt Model-Shift Uniqueness Test

006519892-08, P = 143.379772 Days, E = 72.088313 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.32	5.57	5.57	4.87	5.43	3.26	1.59	2.75	3.45	0.00	0.70	1.33	3.19	0.37	1.27



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-192 ± 28	$4.22^{+0.90}_{-0.84}$	808^{+58}_{-72}	6046^{+477}_{-462}	2248^{+1096}_{-751}
Alt.	-230 ± 41	$5.26^{+1.00}_{-0.98}$	802^{+64}_{-66}	5678^{+421}_{-402}	1739^{+914}_{-594}

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

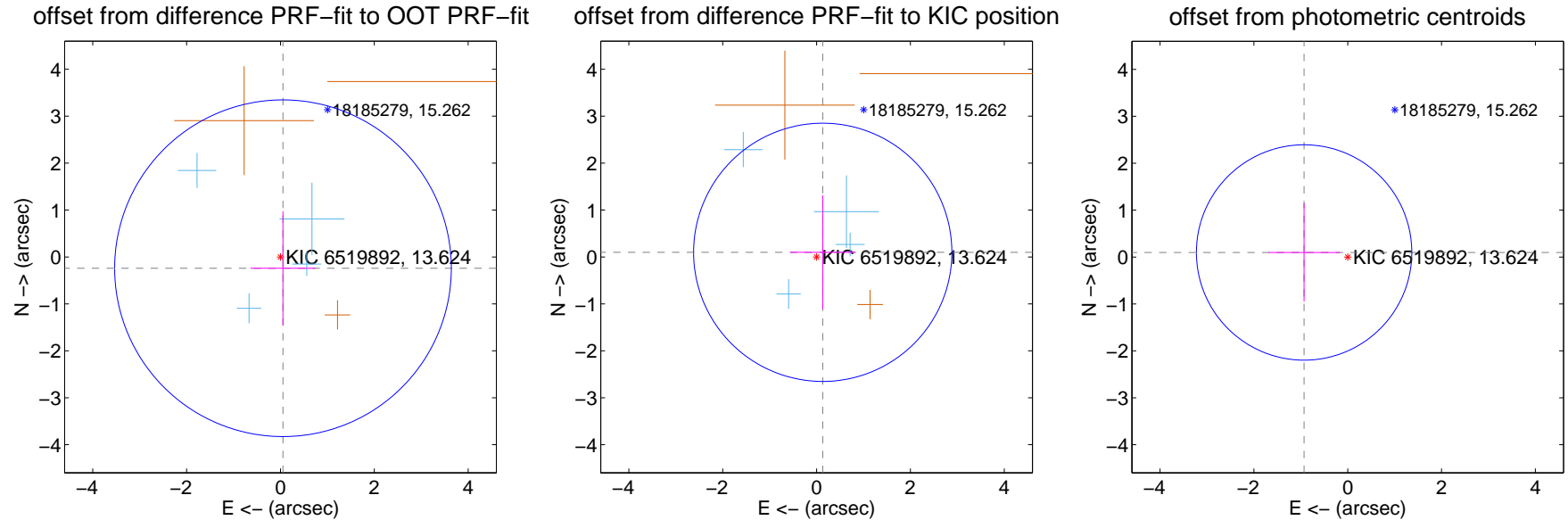
DV Centroid Data

Supplemental centroid analysis for 006519892-08. Kepler magnitude: 13.62. Transit SNR 8.26

There are 4 quarters with good PRF difference image offsets

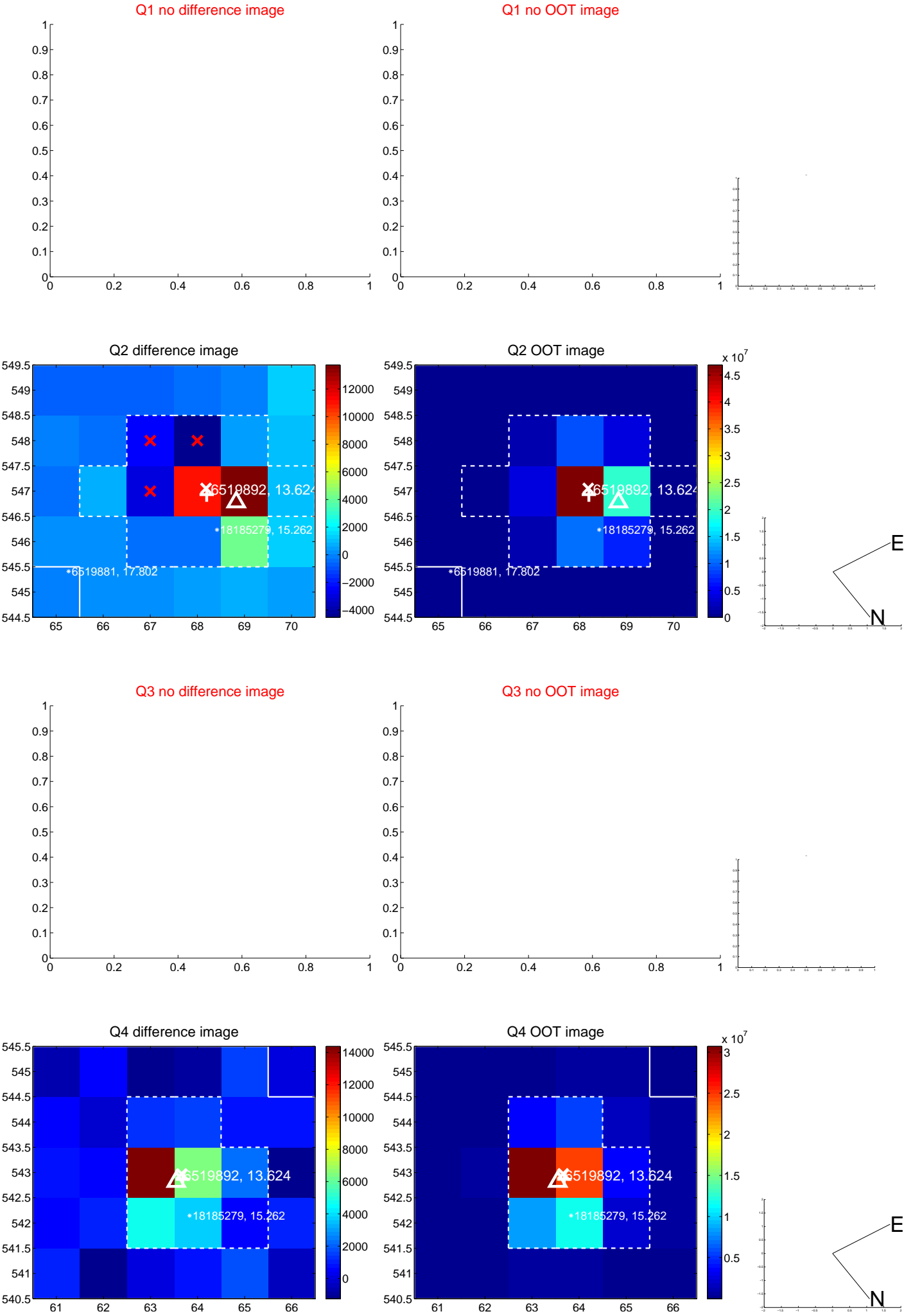
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.246 ± 1.196	0.21	-0.054 ± 0.692	-0.240 ± 1.215
PRF-fit source offset from KIC position	0.164 ± 0.917	0.18	-0.131 ± 0.692	0.099 ± 1.215
photometric centroid source offset	0.93 ± 0.77	1.22	0.93 ± 0.76	0.10 ± 1.05

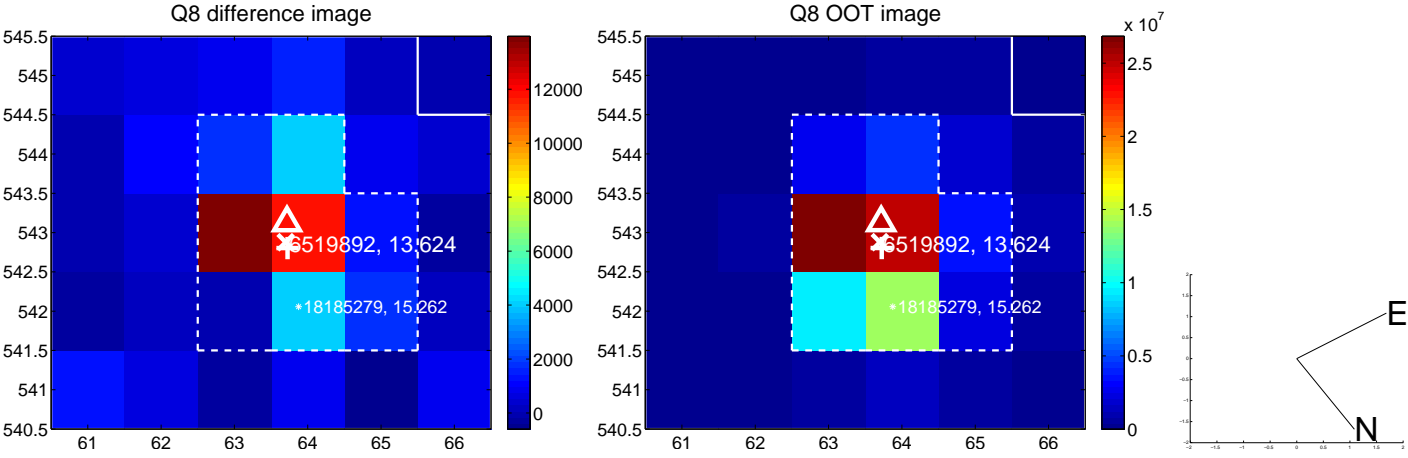
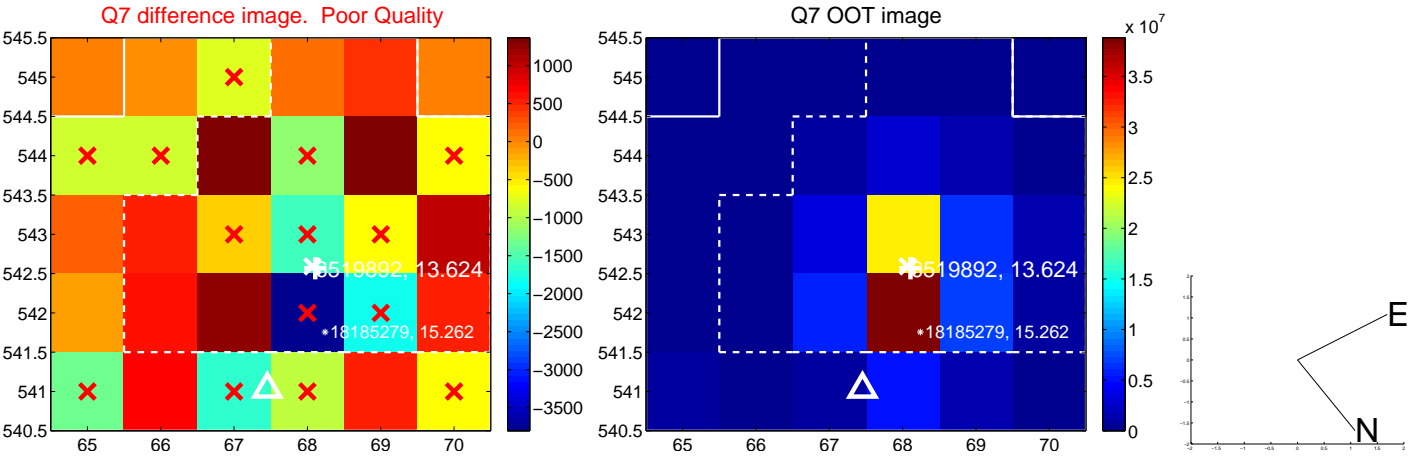
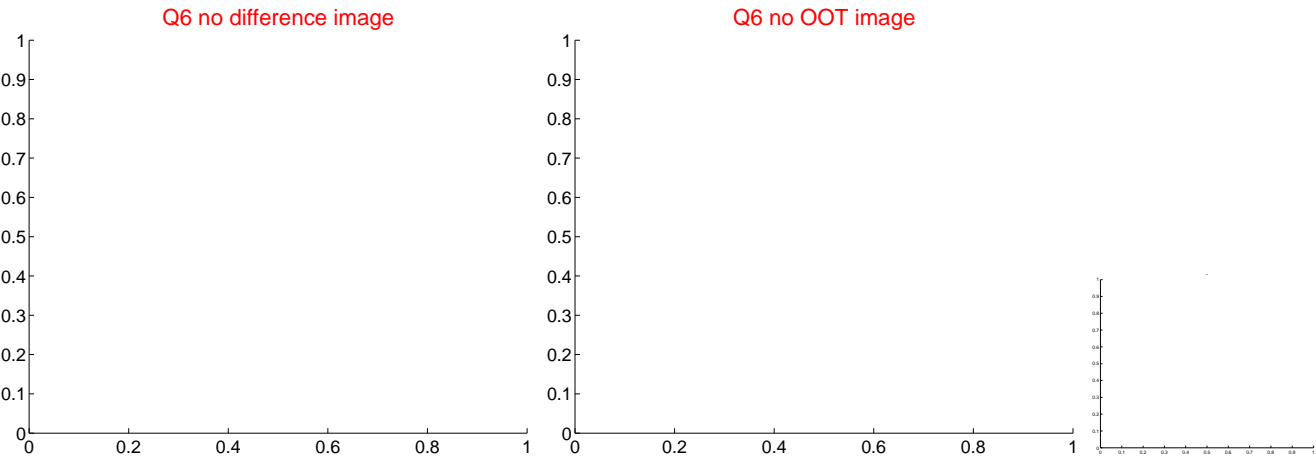
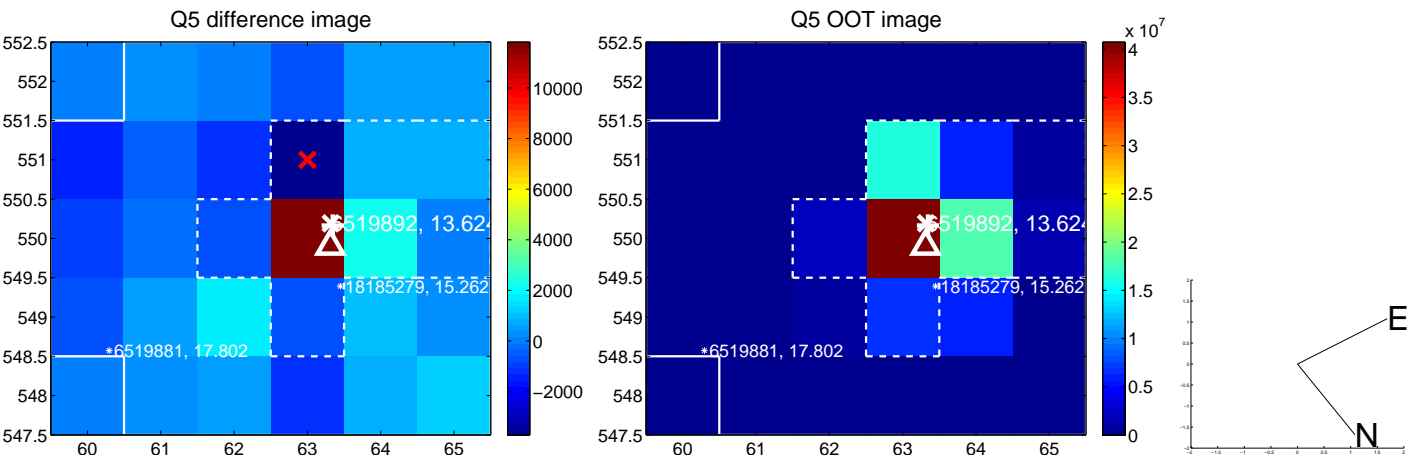


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

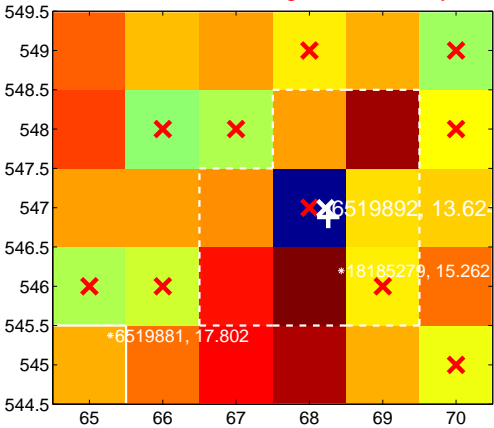
Q9 no difference image



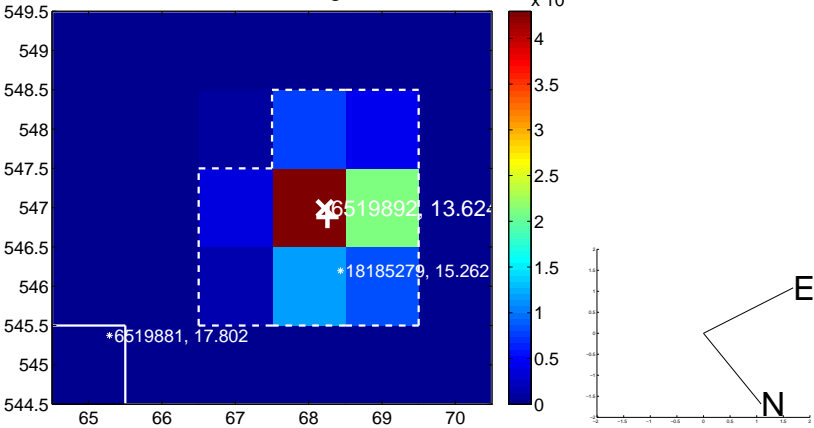
Q9 no OOT image



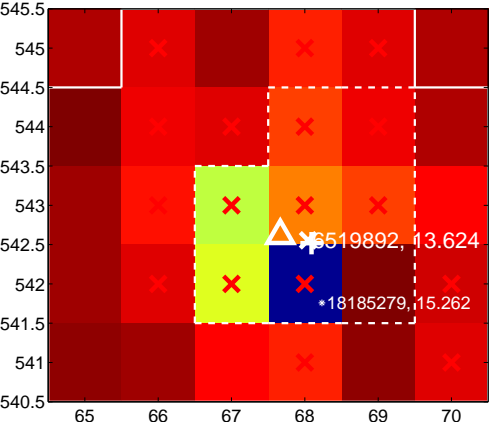
Q10 difference image. Poor Quality



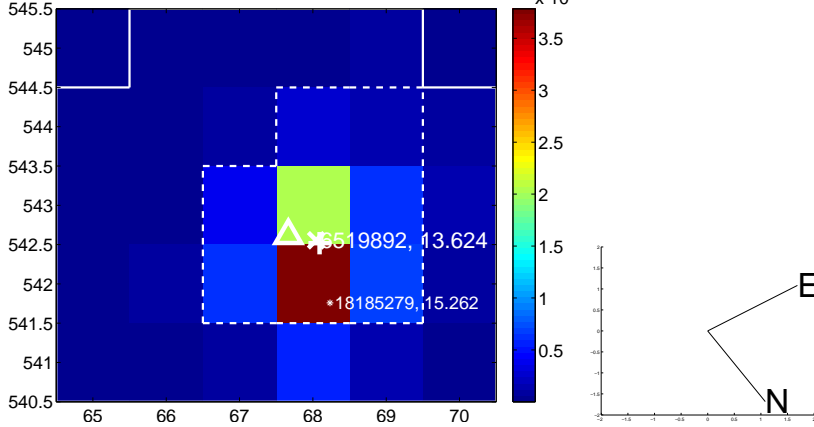
Q10 OOT image



Q11 difference image. Poor Quality



Q11 OOT image



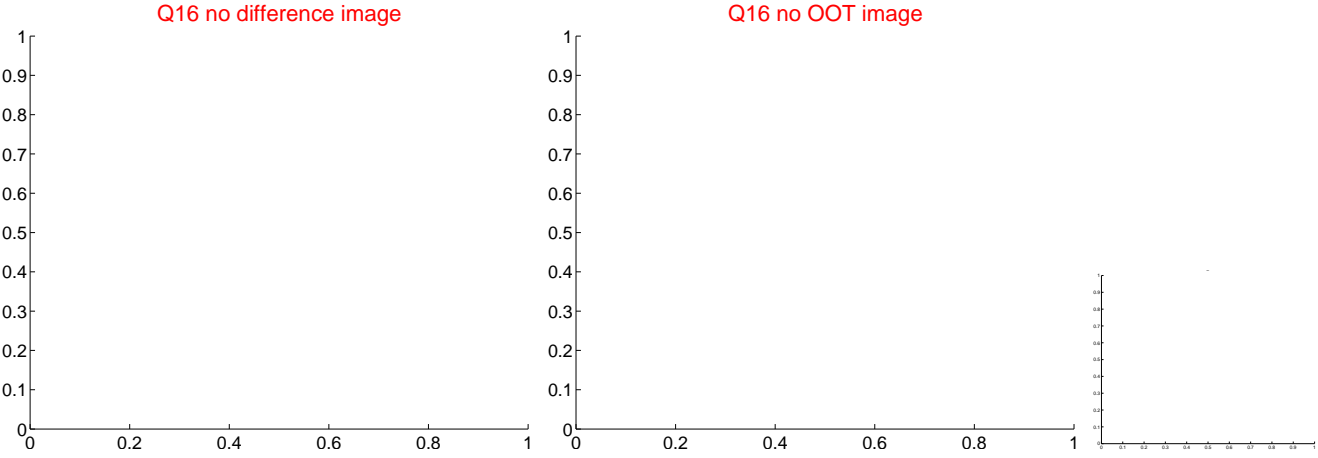
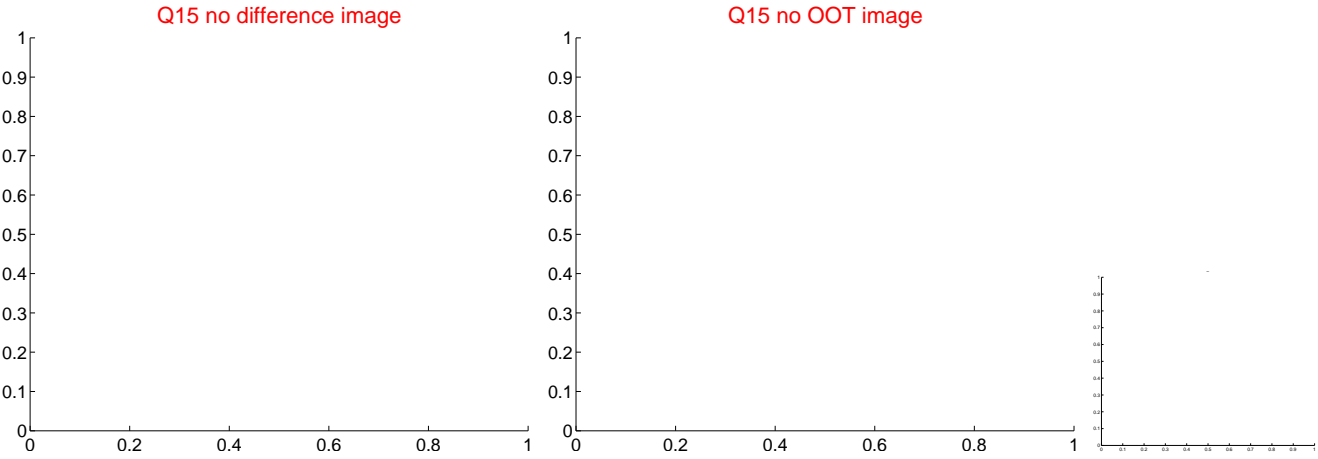
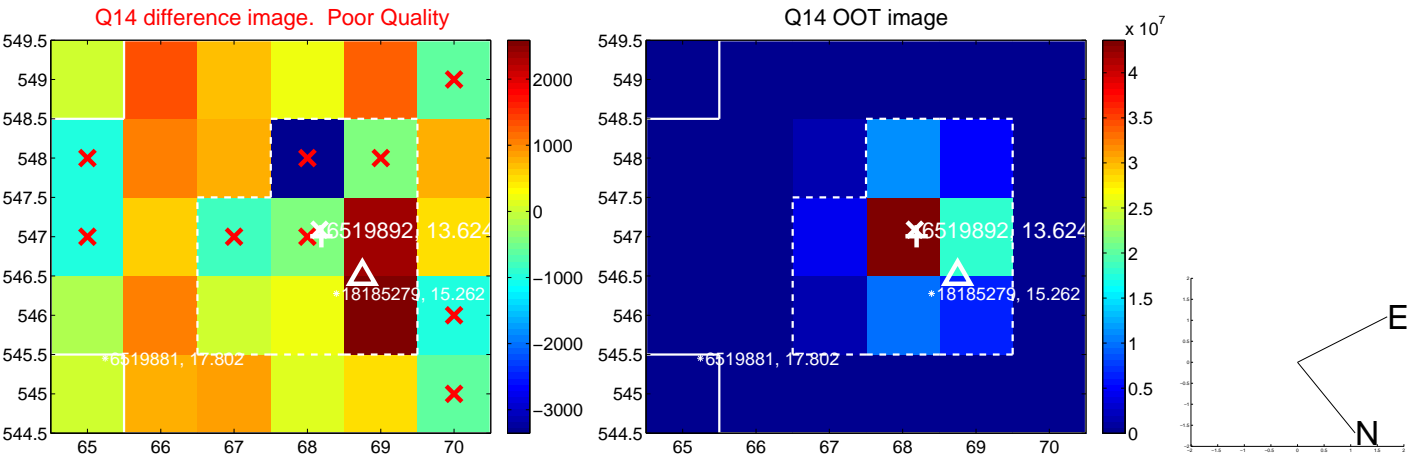
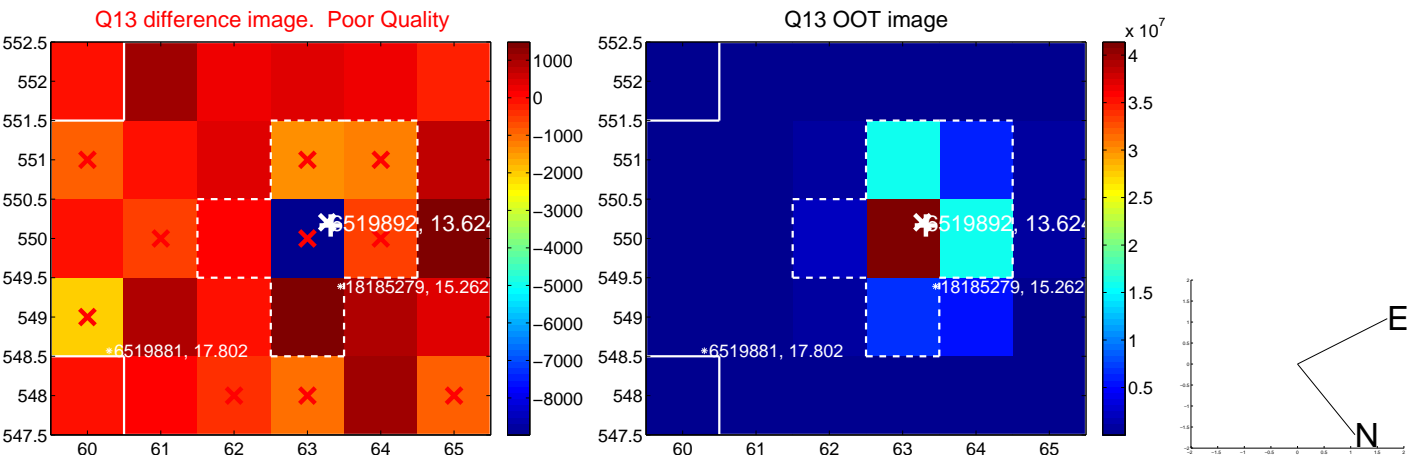
Q12 no difference image



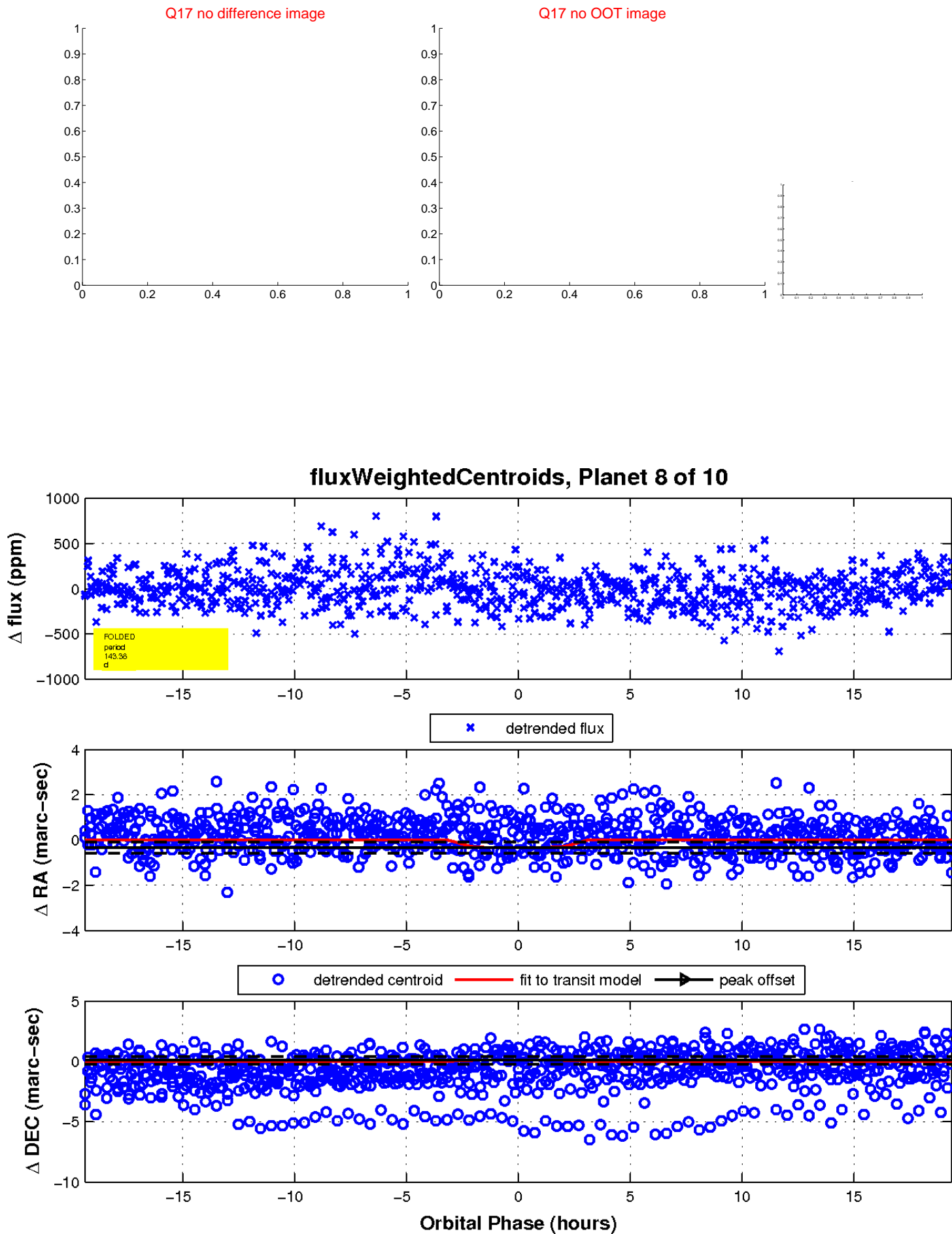
Q12 no OOT image



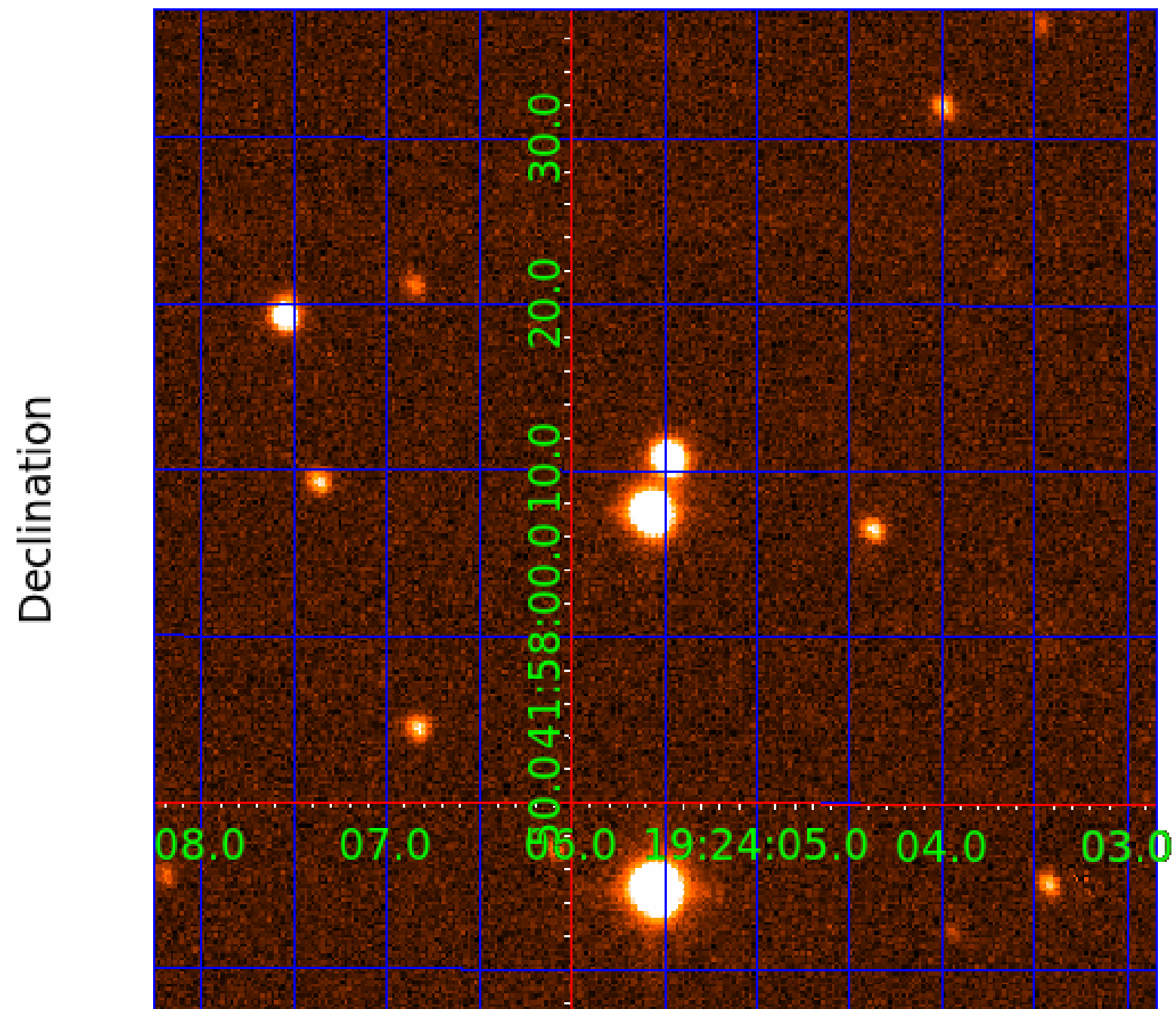
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 006519892

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})
006519892-01	OBS	No	1.753602	132.040743	27.5	10.064	8.6	7.1	2.00	7340	1.10	9753.94
006519892-02	OBS	No	58.560835	166.614113	208.3	3.838	15.7	5.8	2.00	7340	3.19	90.70
006519892-03	OBS	No	168.341367	223.933020	299.6	8.786	10.6	8.9	2.00	7340	3.88	22.19
006519892-04	OBS	No	134.318598	208.550643	355.6	5.142	10.1	9.1	2.00	7340	4.18	29.98
006519892-05	OBS	No	100.329547	201.263544	330.9	1.750	9.8	6.6	2.00	7340	3.73	44.24
006519892-06	OBS	No	157.152097	240.985773	573.4	3.688	10.3	9.1	2.00	7340	5.26	24.32
006519892-07	OBS	No	120.293986	208.843850	387.5	5.886	9.6	9.9	2.00	7340	4.28	34.73
006519892-08	OBS	No	143.378349	215.465084	304.6	6.456	9.0	8.3	2.00	7340	4.35	27.49
006519892-09	OBS	No	57.811792	143.673626	142.3	17.261	9.2	5.2	2.00	7340	2.63	92.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006519892-01	OBS	FP	0.00	1	0	0	0	LPP_DV
006519892-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
006519892-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS
006519892-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
006519892-05	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS
006519892-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006519892-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT
006519892-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
006519892-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

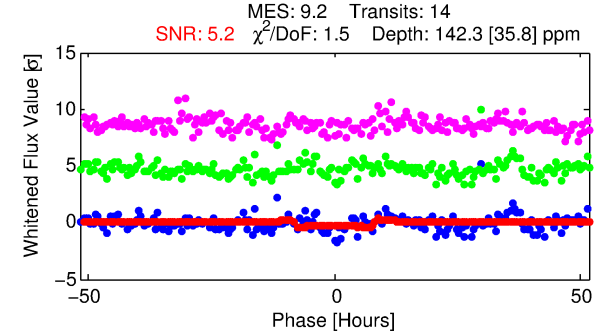
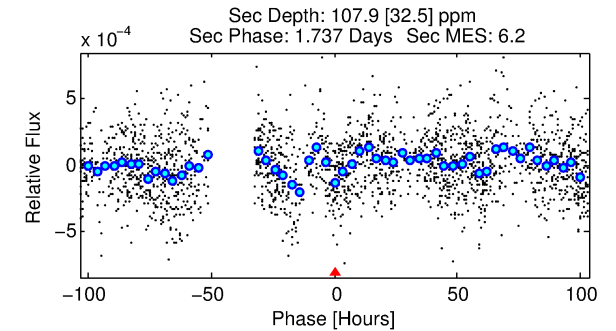
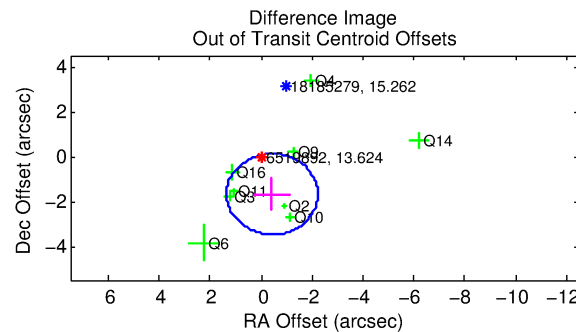
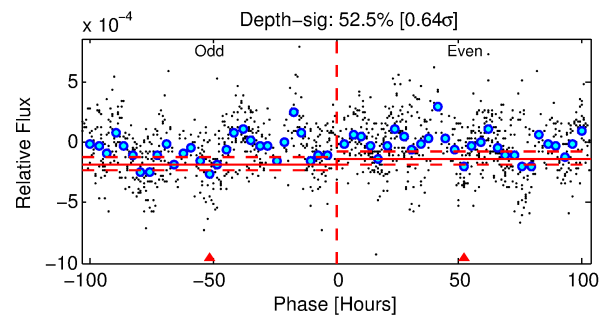
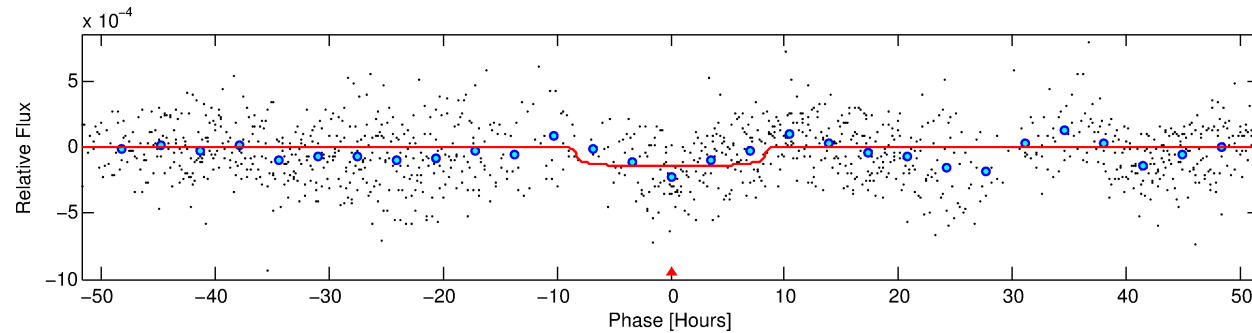
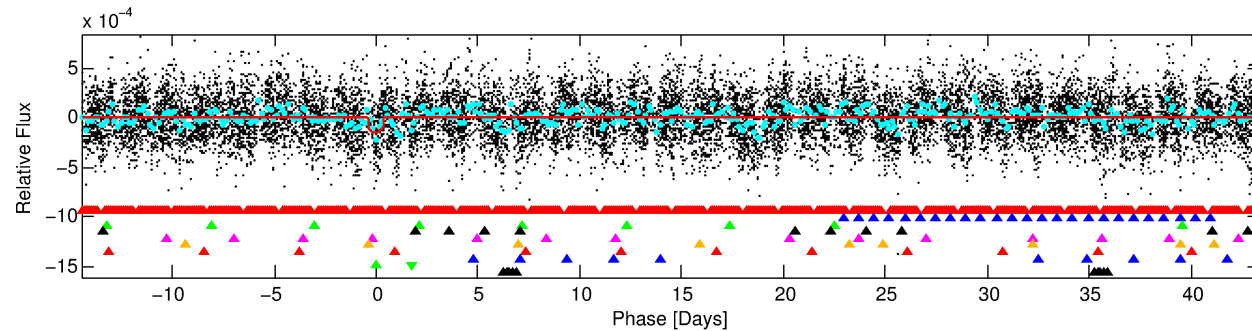
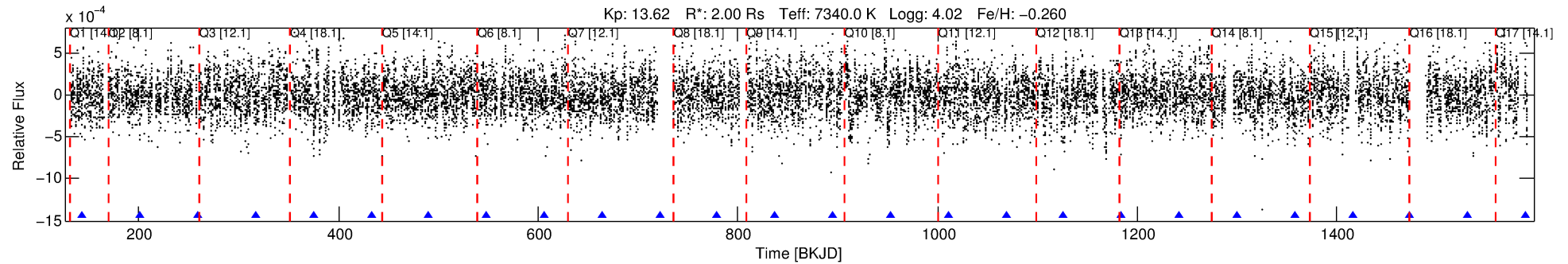
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006519892-09

No Significant Match Found

DV One-Page Summary

KIC: 6519892 Candidate: 9 of 10 Period: 57.812 d



DV Fit Results:

Period = 57.81179 [0.00274] d
Epoch = 143.6736 [0.0306] BKJD
Rp/R* = 0.0120 [0.0033]
a/R* = 16.11 [21.41]
b = 0.79 [0.63]
Seff = 92.27 [41.85]
Teq = 790 [90] K
Rp = 2.63 [1.08] Re
a = 0.3366 [0.0927] AU
Ag = 970.97 [730.88] [1.33 σ]
Teffp = 6821 [1101] K [5.46 σ]

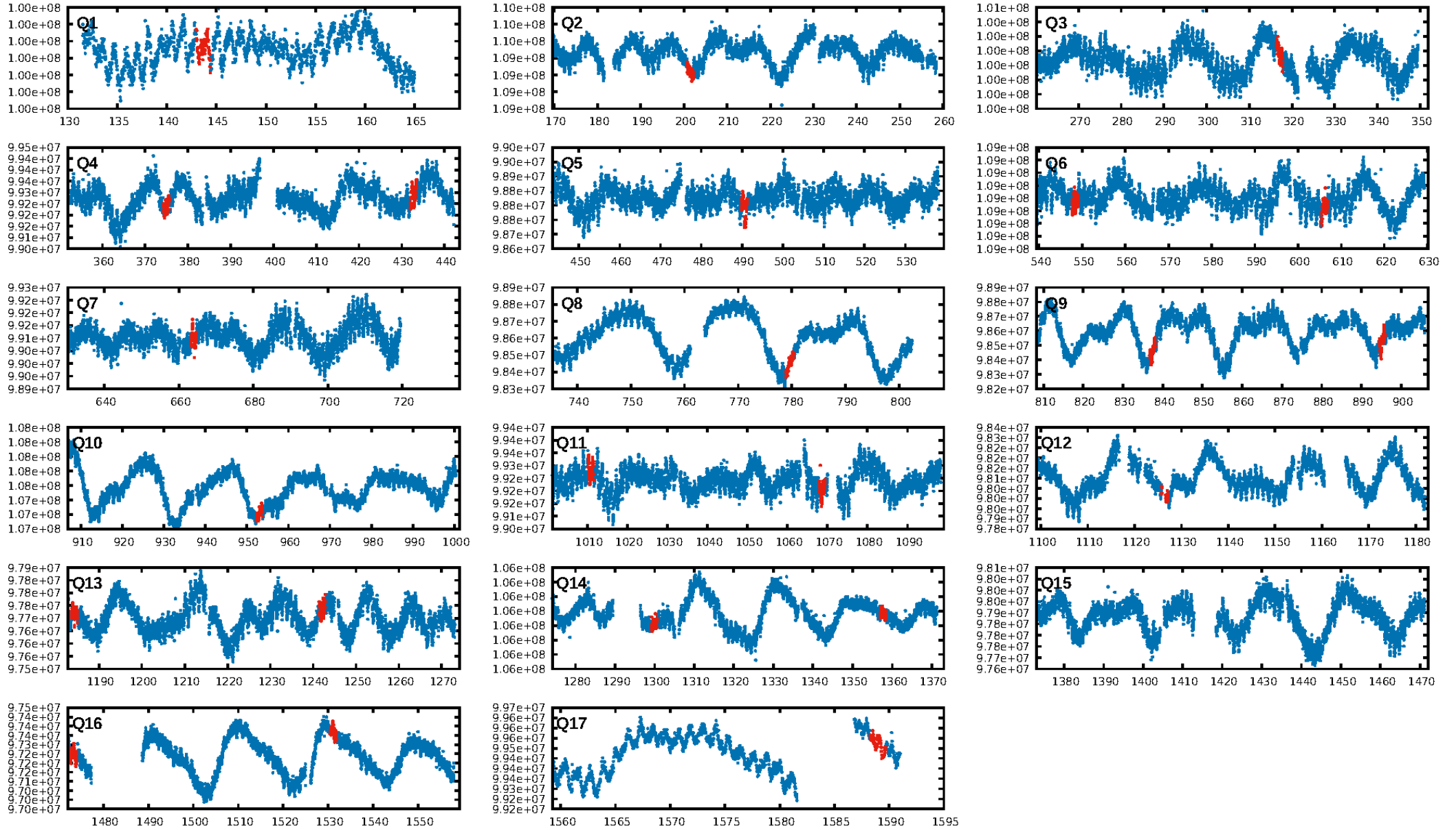
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [67.34 σ]
LongPeriod-sig: 69.1% [1.02 σ]
ModelChiSquare2-sig: 3.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -0.8184
Centroid-sig: 86.6%
Centroid-so: 0.669 arcsec [0.50 σ]
OotOffset-rm: 1.737 arcsec [2.90 σ]
OotOffset-st: 4/2/2/1 [9]
KicOffset-rm: 1.433 arcsec [2.38 σ]
KicOffset-st: 4/2/2/1 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 0.00 [0/14]

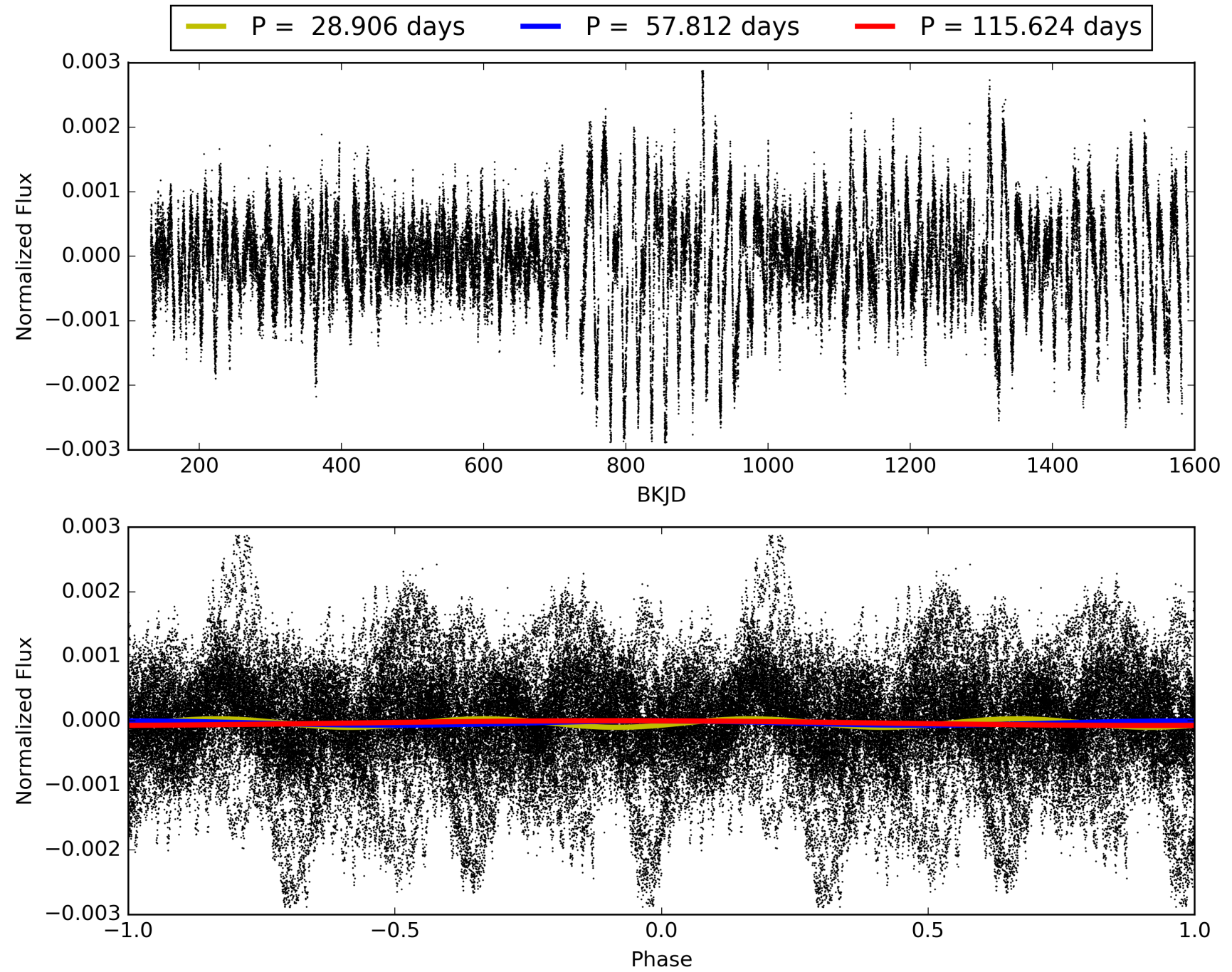
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:57:28 Z

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

TCE 006519892-09, PDC Light Curves

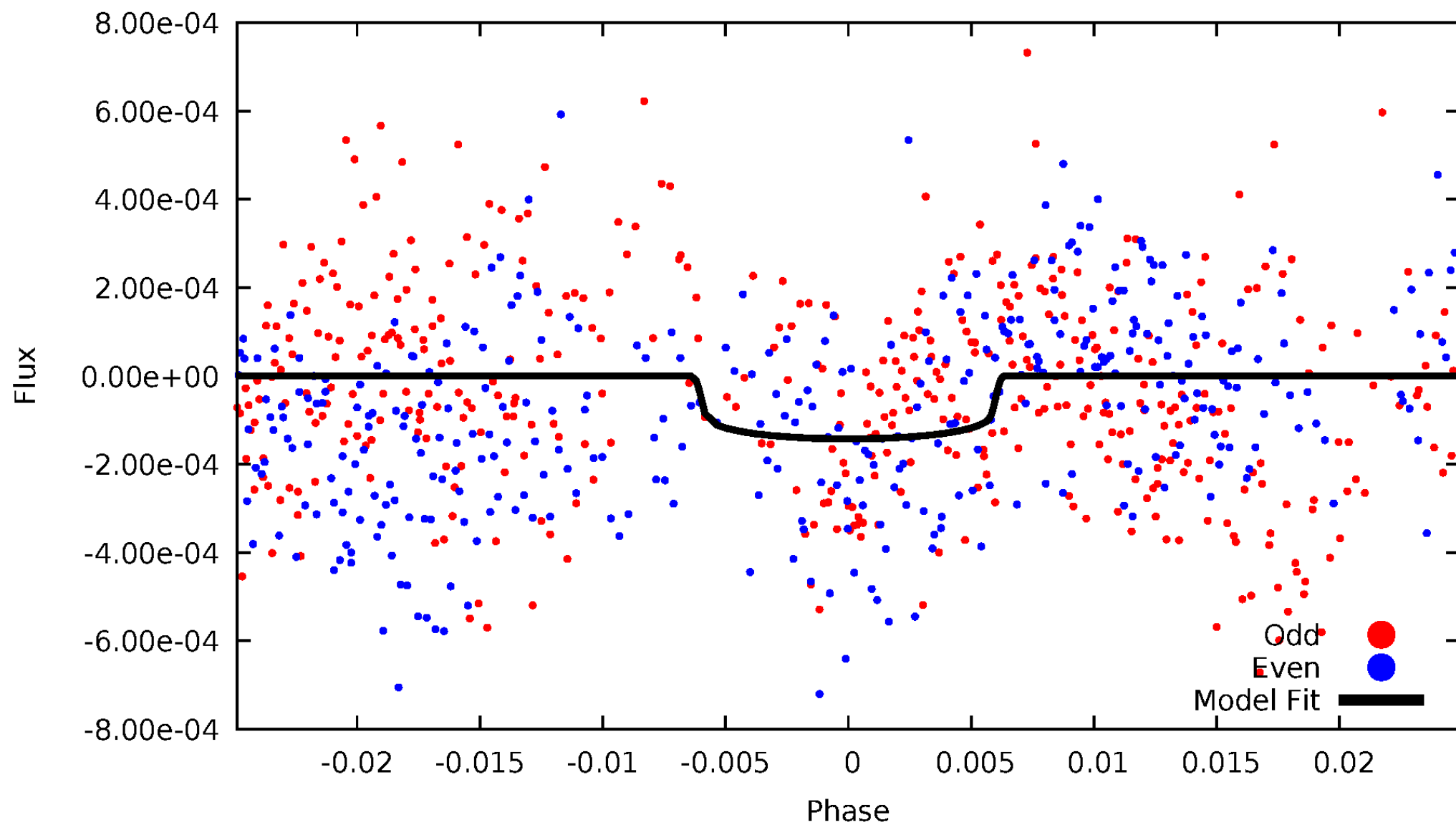


TCE 006519892-09



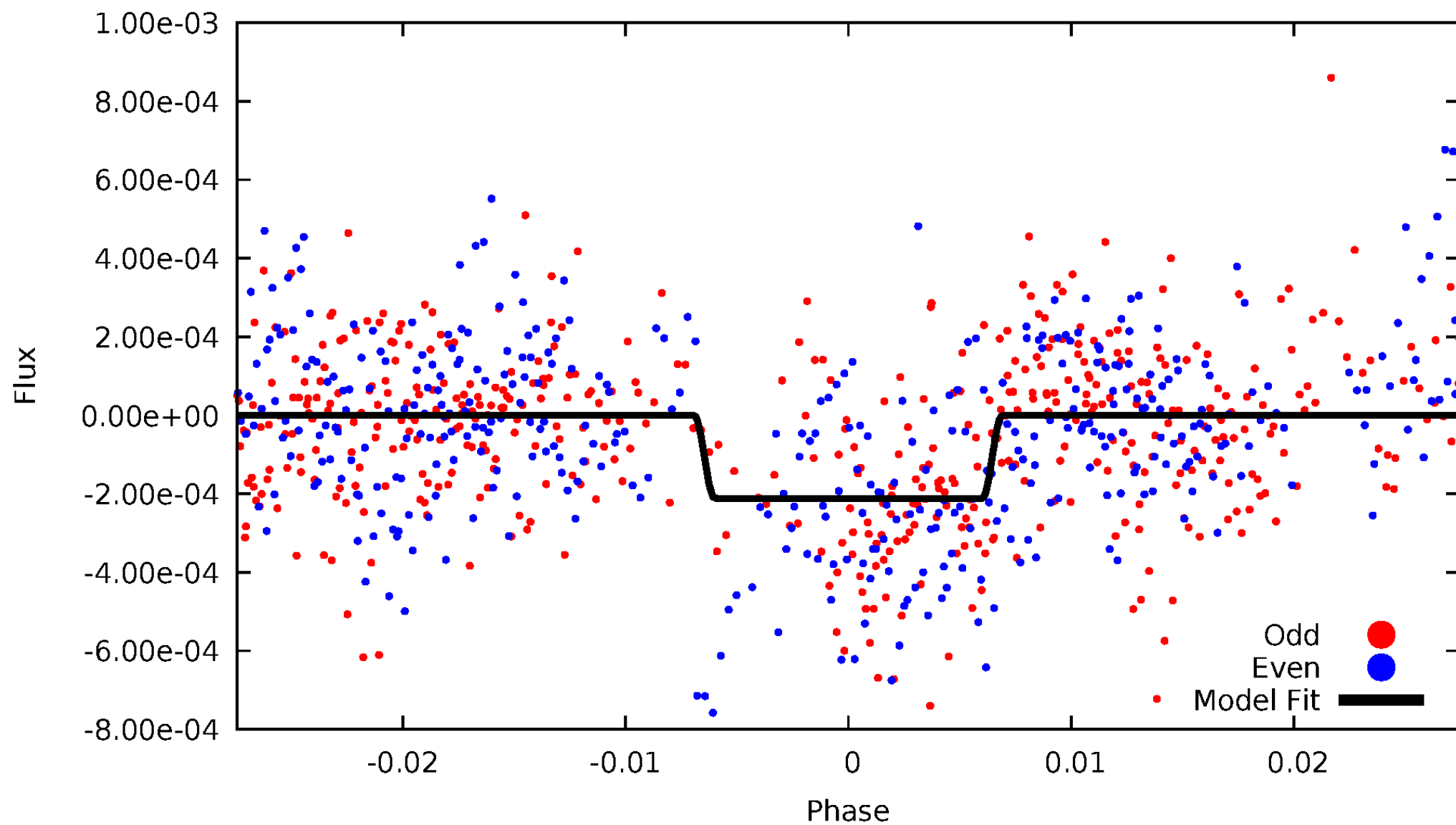
DV Odd/Even

TCE 006519892-09



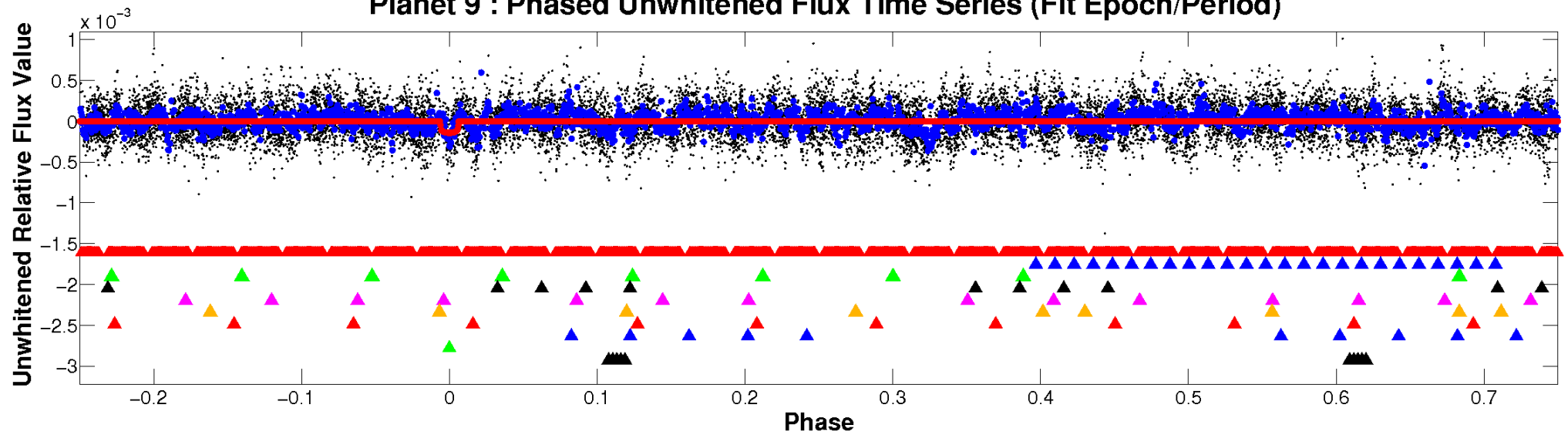
ALT Odd/Even

TCE 006519892-09

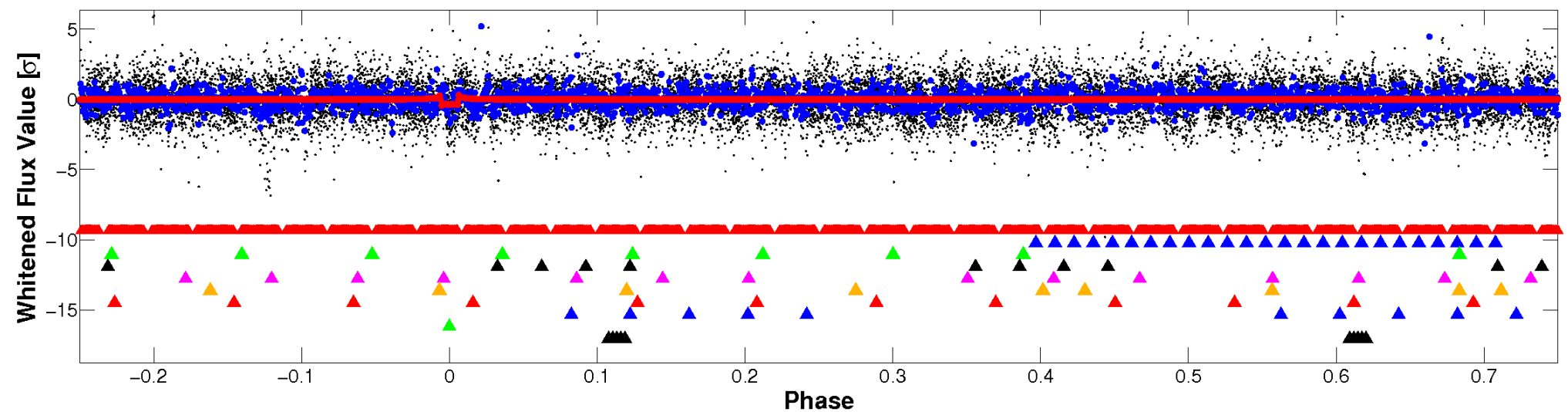


Non-Whitened Vs. Whitened Light Curve

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

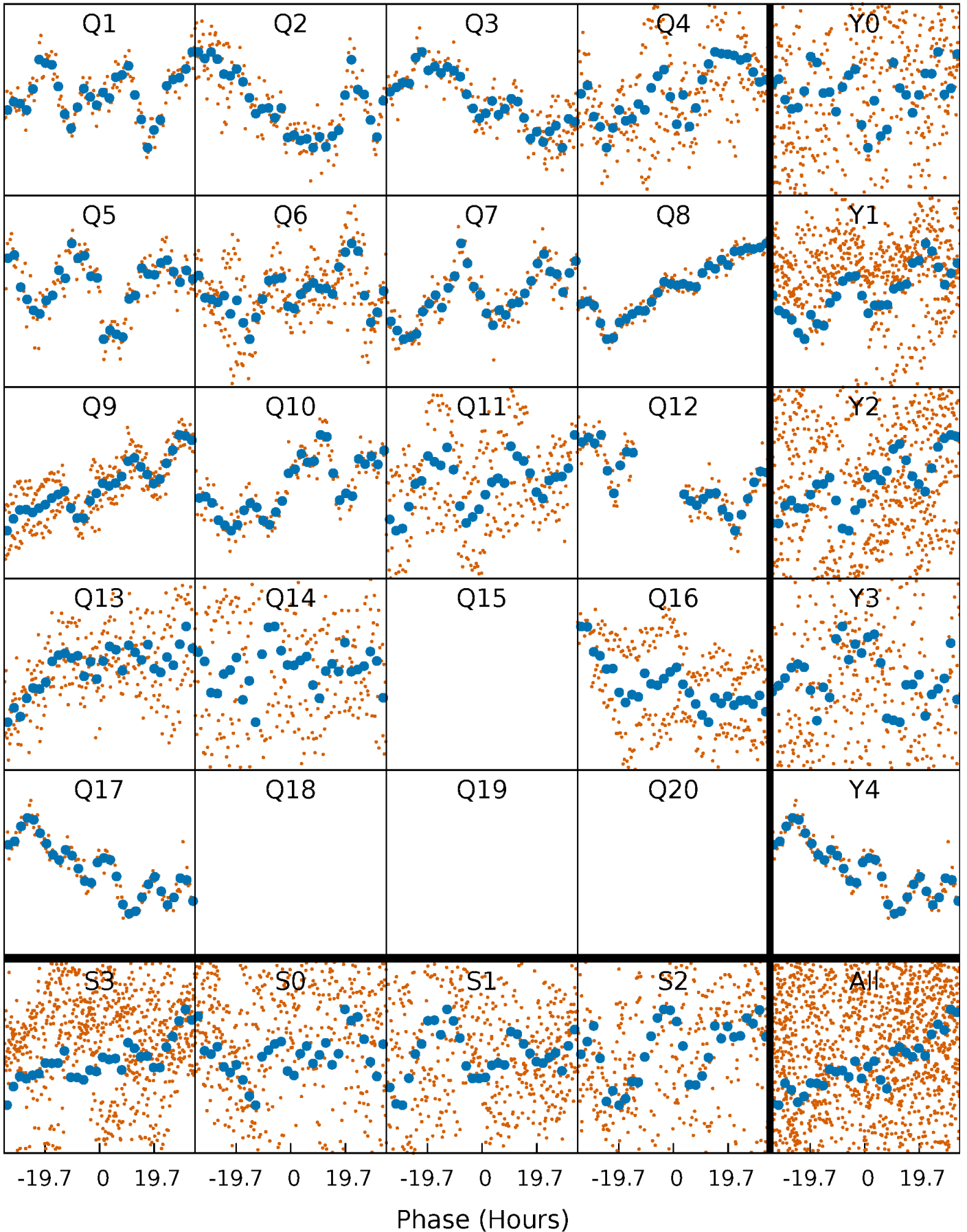


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



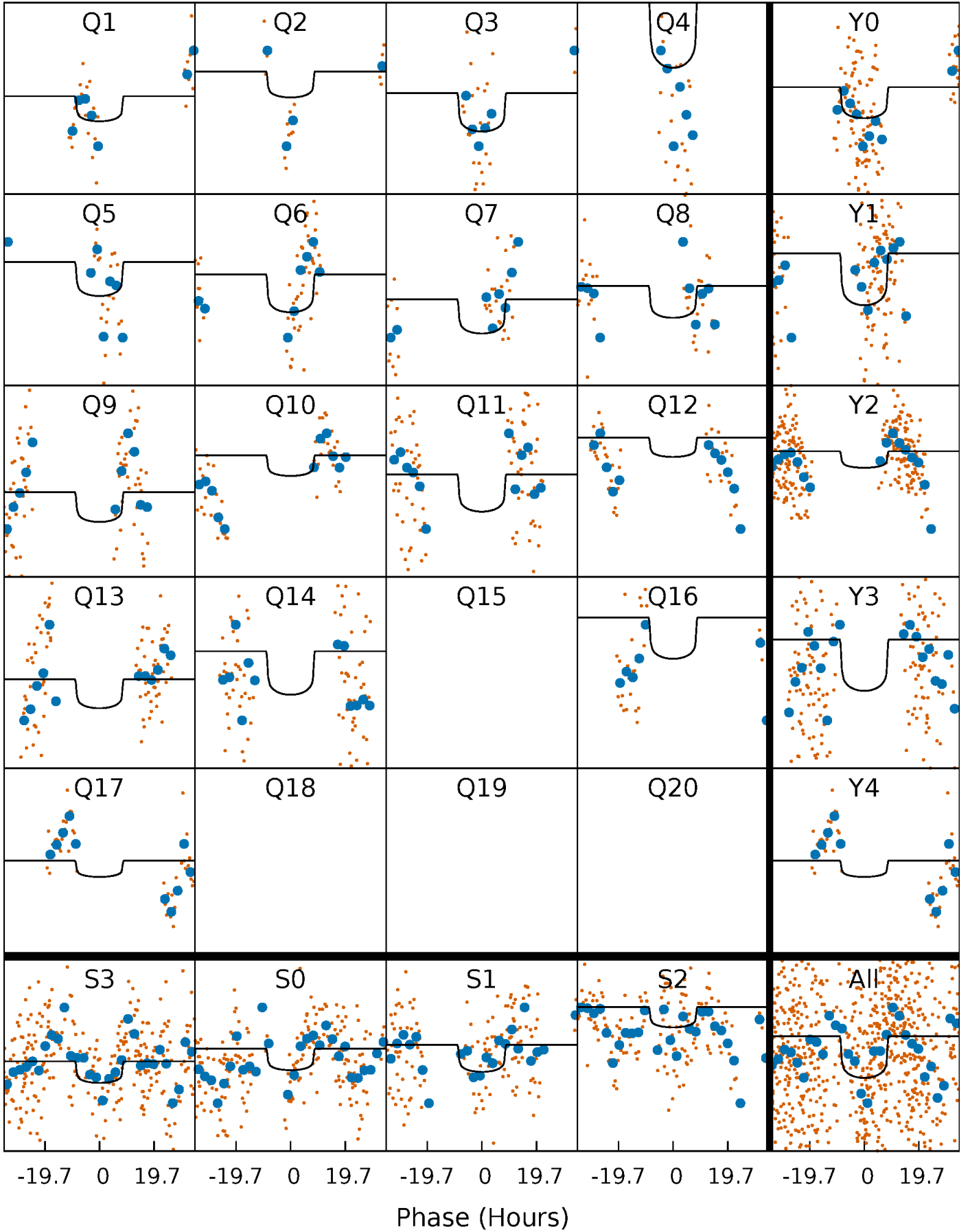
PDC Quarter-Phased Transit Curves

TCE 006519892-09 $P = 57.811792$ Days $T_0 = 143.673626$ (BKJD)



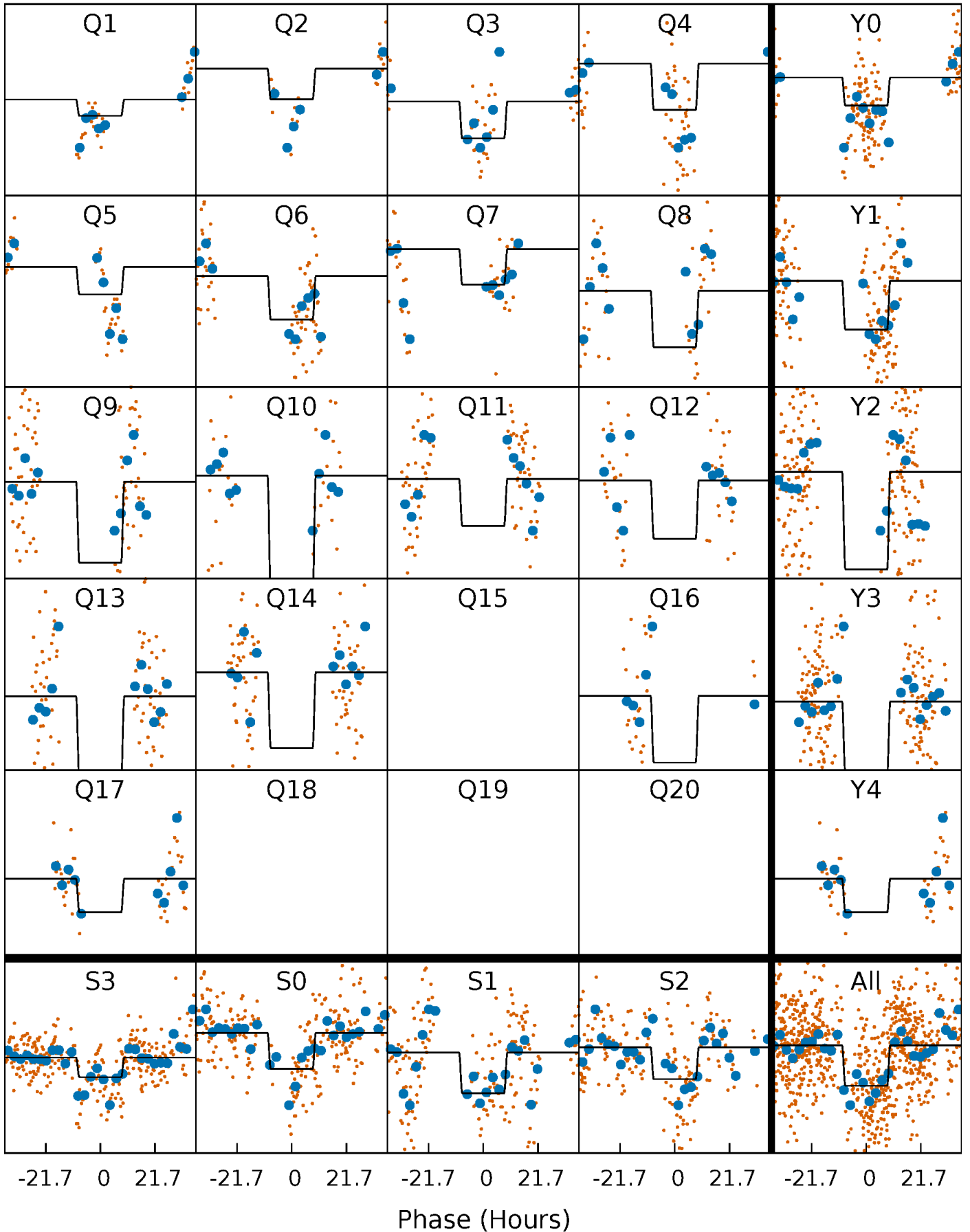
DV Quarter-Phased Transit Curves

TCE 006519892-09 P= 57.811792 Days $T_0=143.673626$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

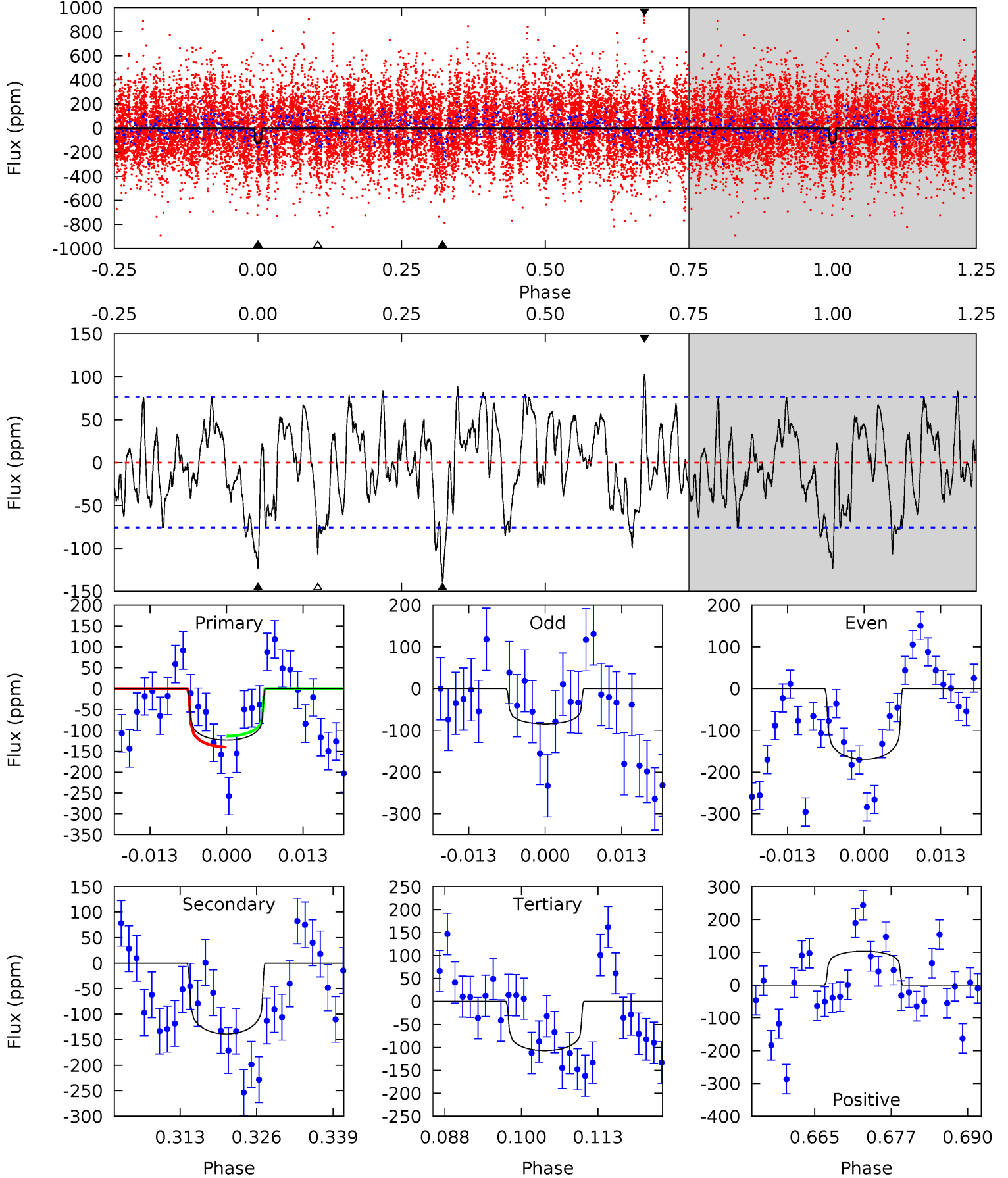
TCE 006519892-09 P= 57.814332 Days $T_0=143.613729$ (BKJD)



DV Model-Shift Uniqueness Test

006519892-09, P = 57.811792 Days, E = 85.861834 Days

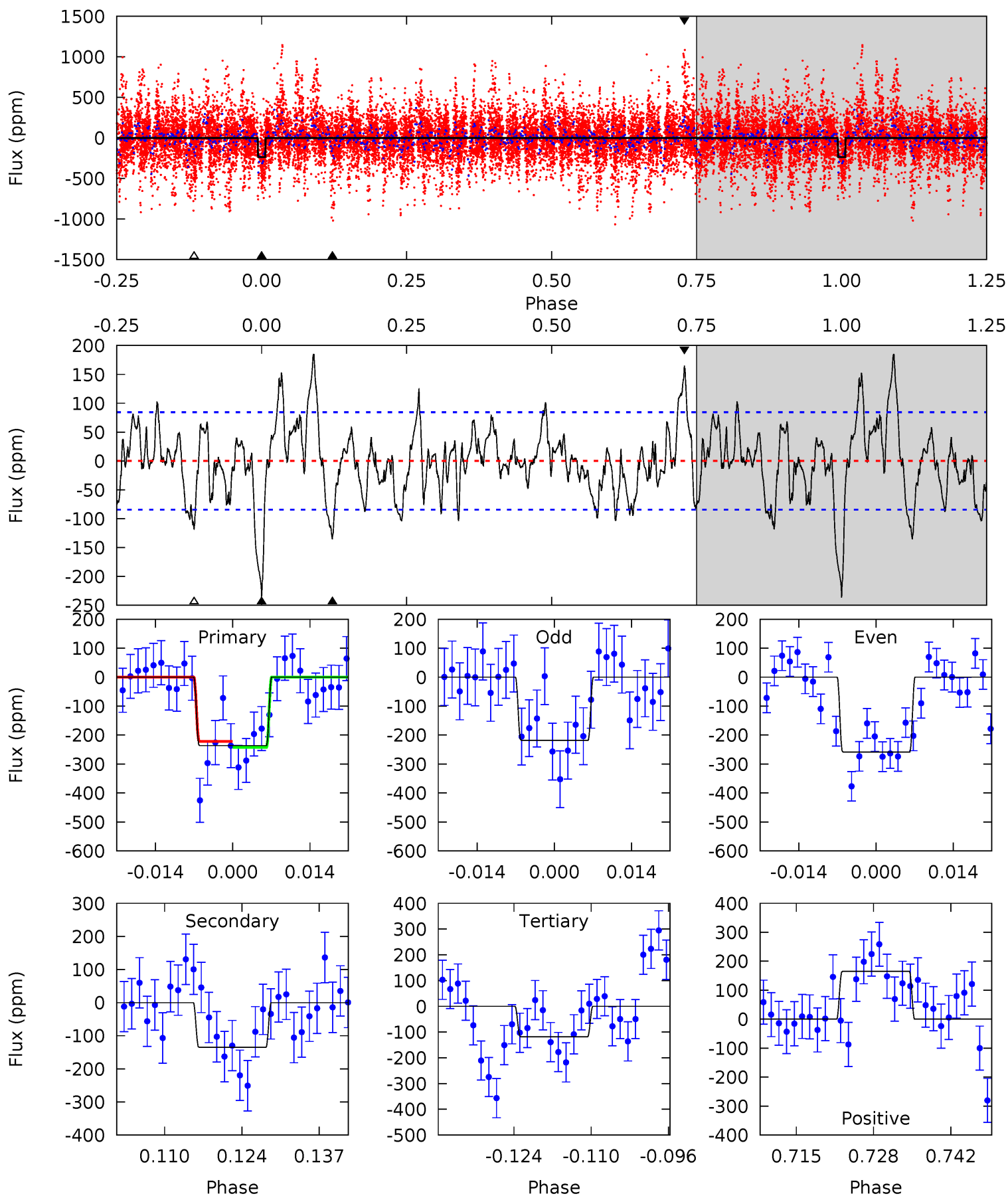
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.08	9.07	7.00	6.75	4.98	2.50	2.67	1.08	1.33	2.06	2.32	2.80	1.30	0.43	0.82



Alt Model-Shift Uniqueness Test

006519892-09, P = 57.814332 Days, E = 85.799397 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	7.93	6.94	9.72	4.96	2.46	2.95	6.97	4.20	1.00	-1.78	1.17	0.91	0.44	0.55



Stellar Parameters For KIC 006519892

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7340^{+230}_{-307}	$4.016^{+0.240}_{-0.160}$	$-0.260^{+0.250}_{-0.350}$	$2.005^{+0.560}_{-0.616}$	$1.519^{+0.222}_{-0.296}$	$0.266^{+0.373}_{-0.116}$
	+3%/-4%	+6%/-4%	+96%/-135%	+28%/-31%	+15%/-19%	+141%/-44%
Source	KIC0	KIC0	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 006519892-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-139 ± 15	$2.55^{+0.90}_{-0.75}$	1099^{+79}_{-93}	7243^{+1455}_{-963}	1305^{+1369}_{-595}
Alt.	-135 ± 17	$3.12^{+0.98}_{-0.90}$	1089^{+95}_{-89}	6429^{+1196}_{-690}	861^{+820}_{-357}

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

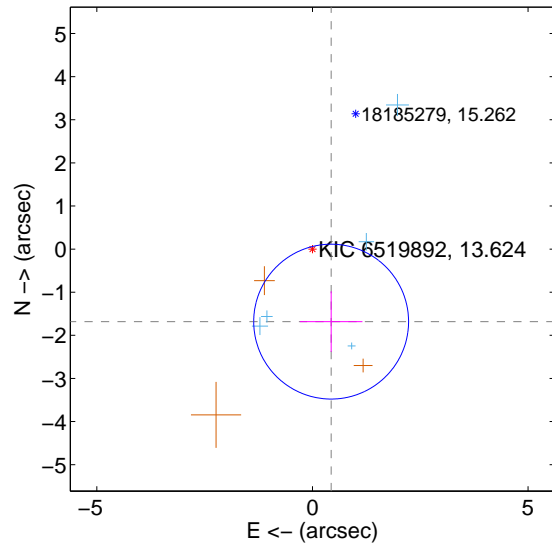
Supplemental centroid analysis for 006519892-09. Kepler magnitude: 13.62. Transit SNR 5.25

There are 5 quarters with good PRF difference image offsets

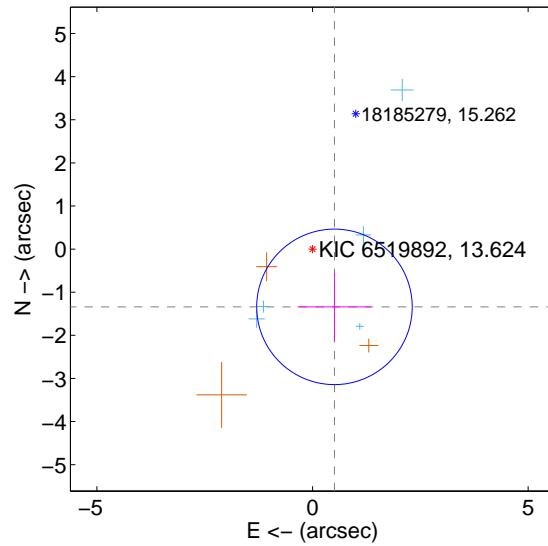
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.737 ± 0.599	2.90	-0.434 ± 0.725	-1.682 ± 0.702
PRF-fit source offset from KIC position	1.433 ± 0.601	2.38	-0.509 ± 0.854	-1.340 ± 0.788
photometric centroid source offset	0.67 ± 1.34	0.50	0.01 ± 0.77	0.67 ± 1.34

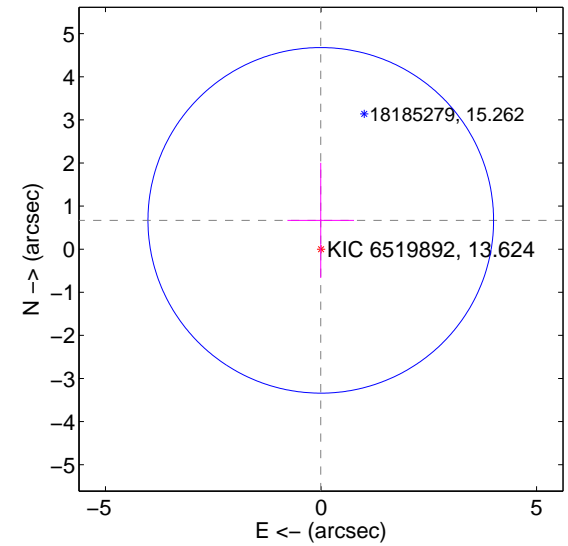
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

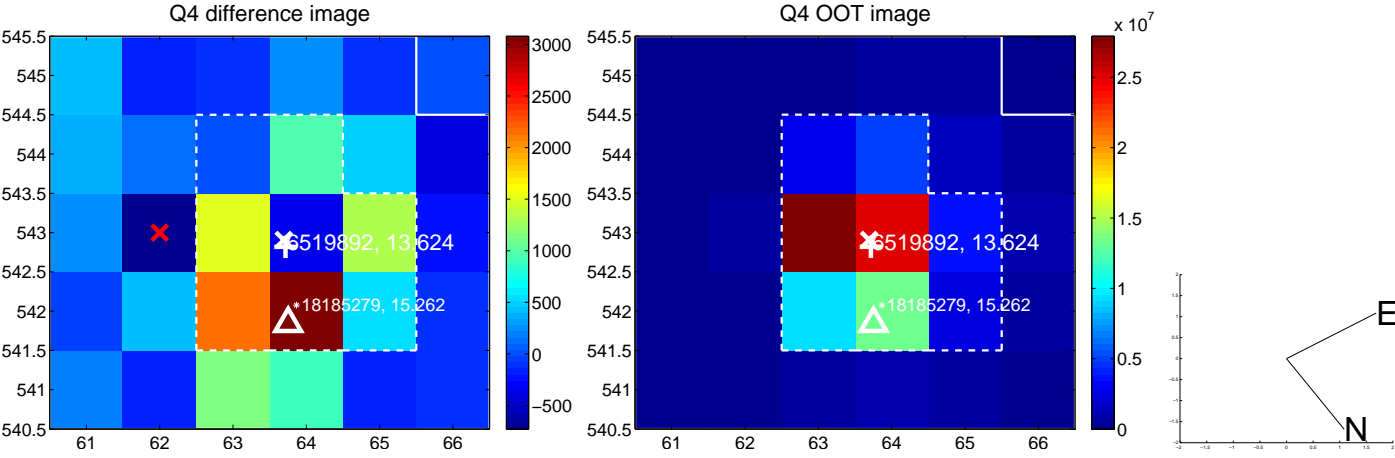
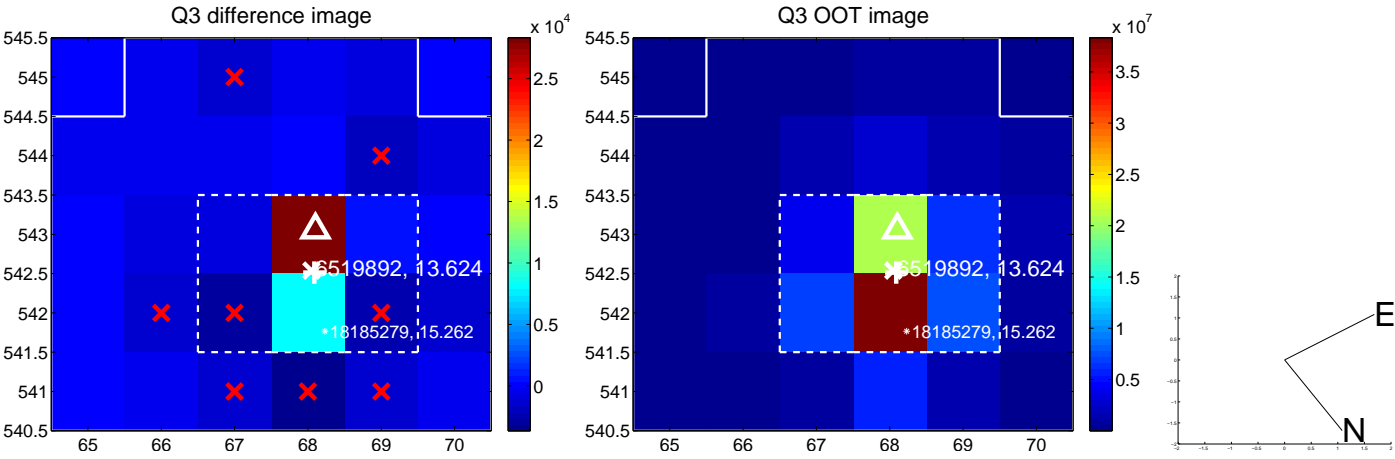
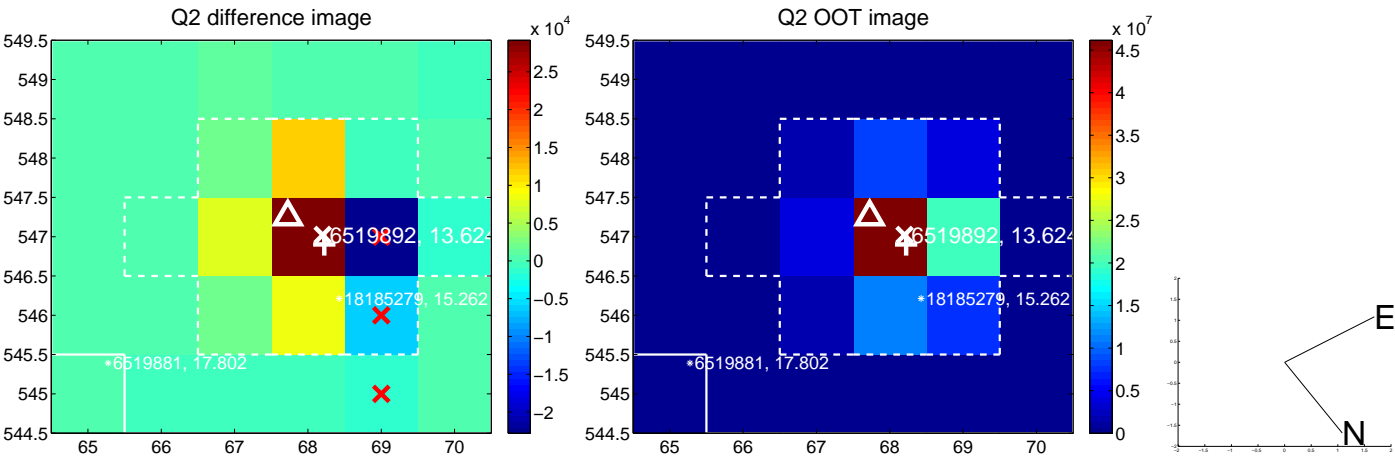
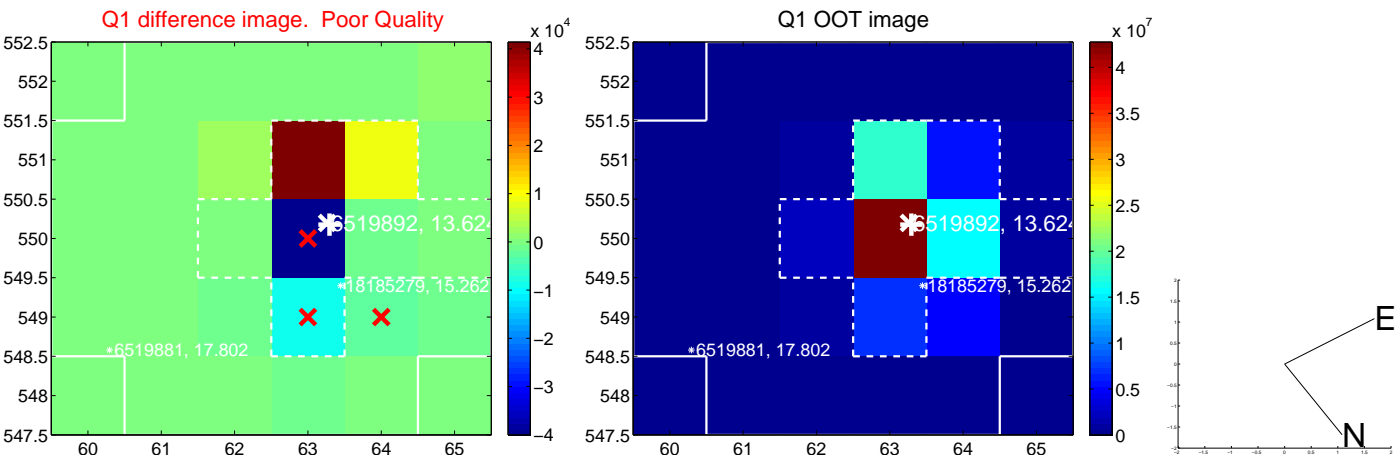


offset from photometric centroids

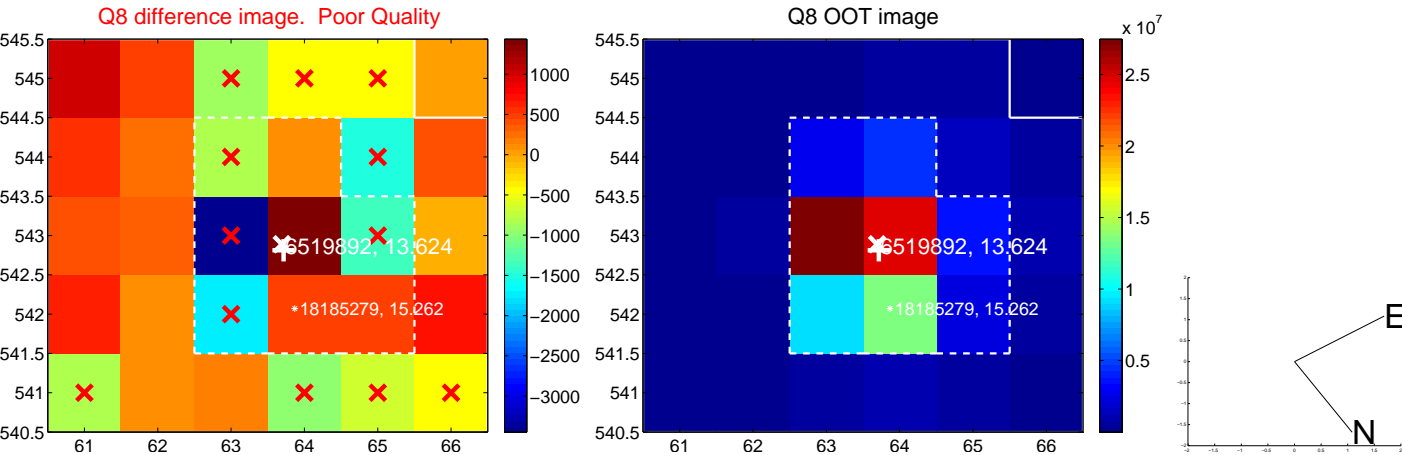
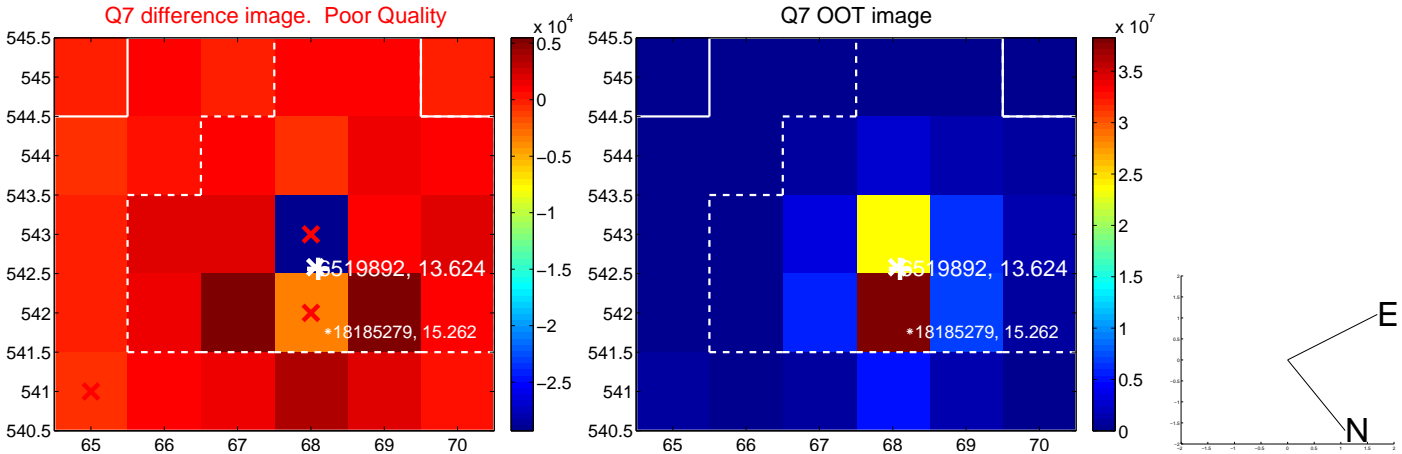
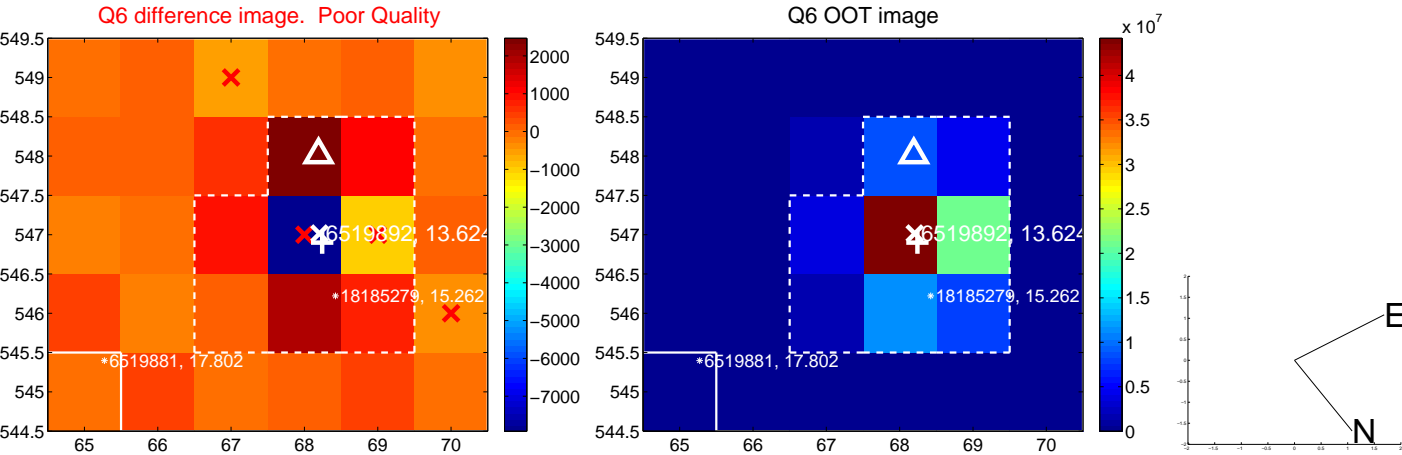
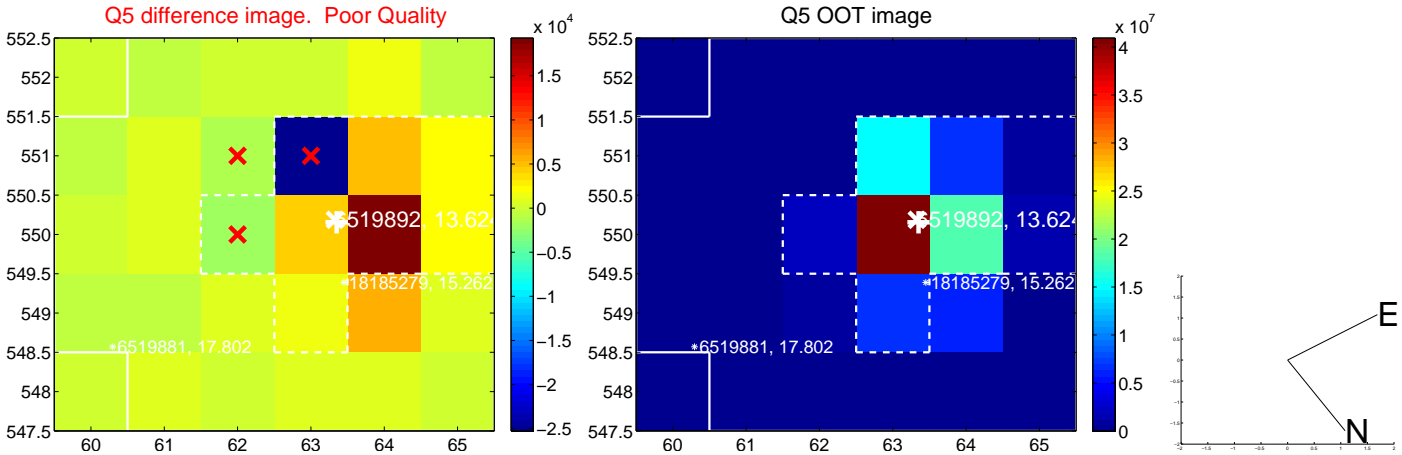


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

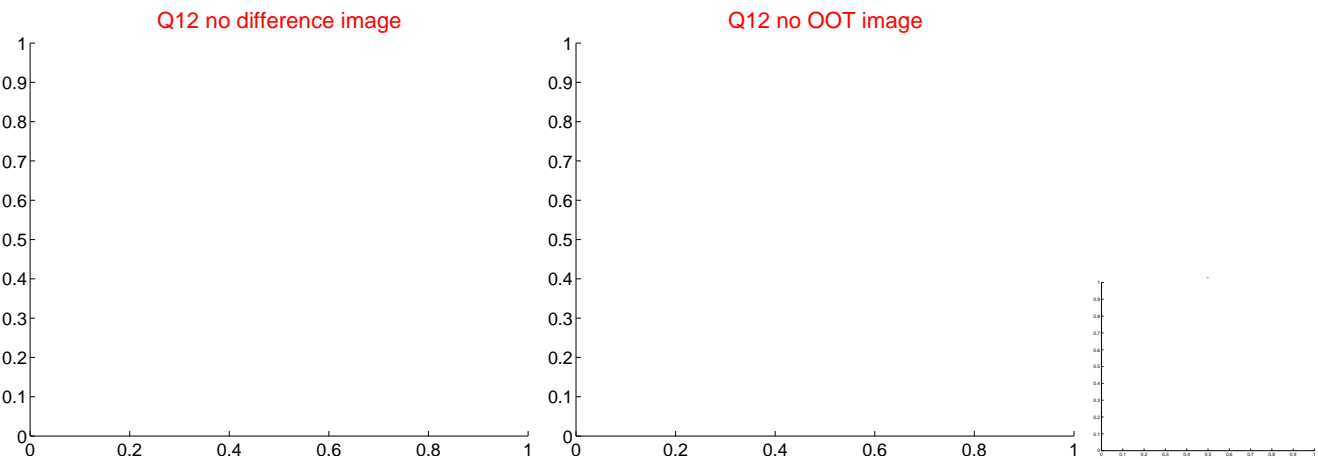
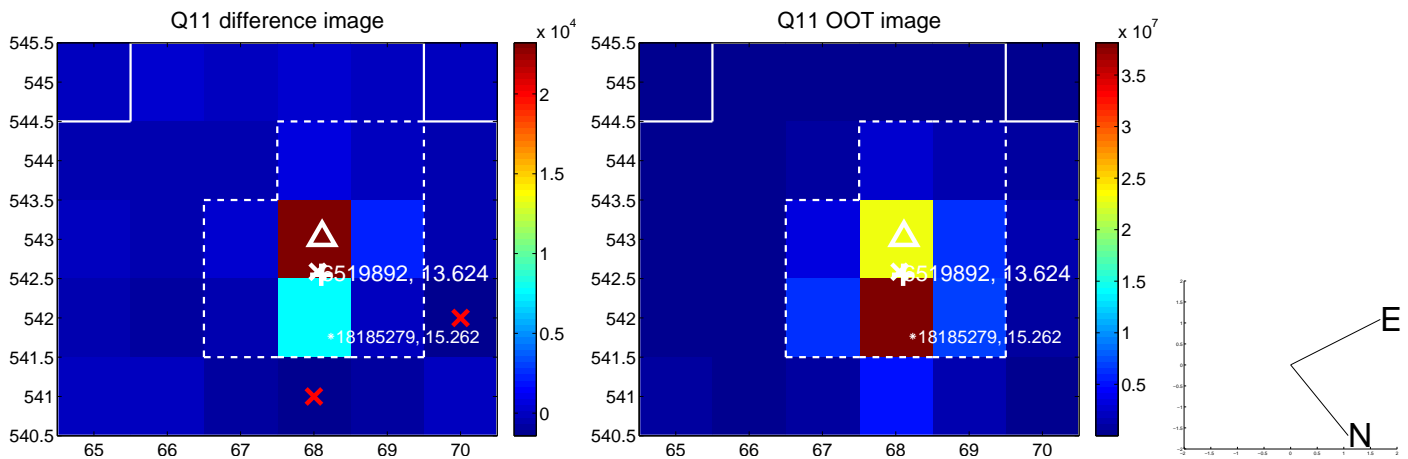
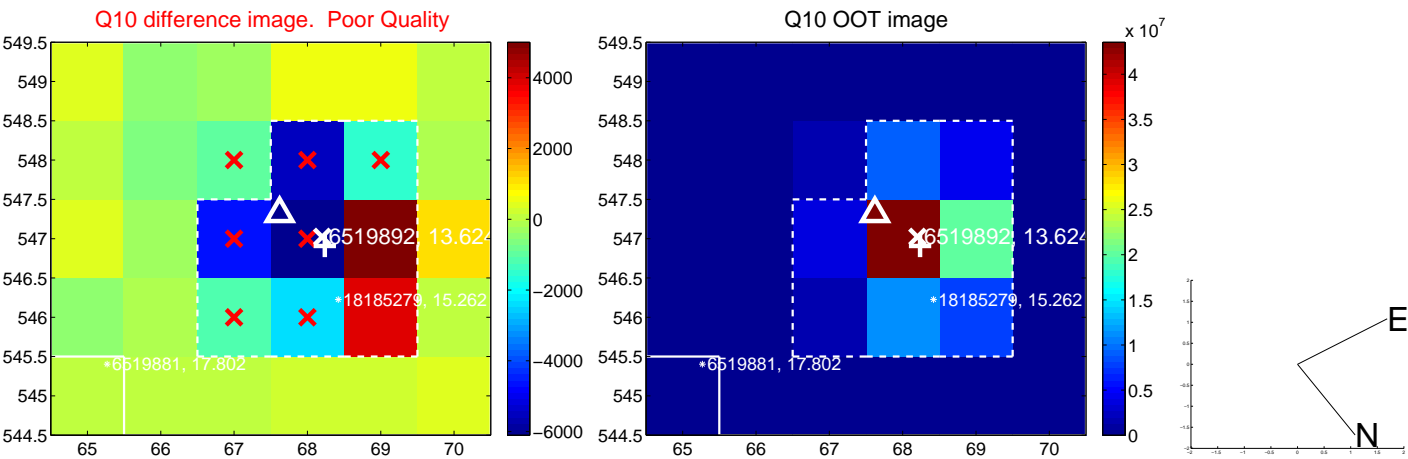
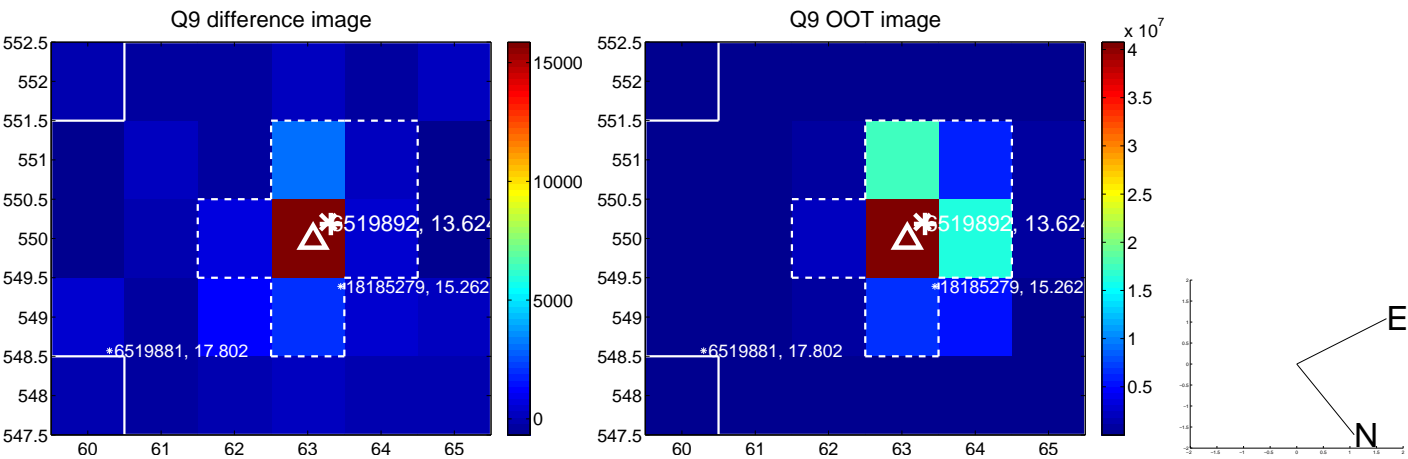
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

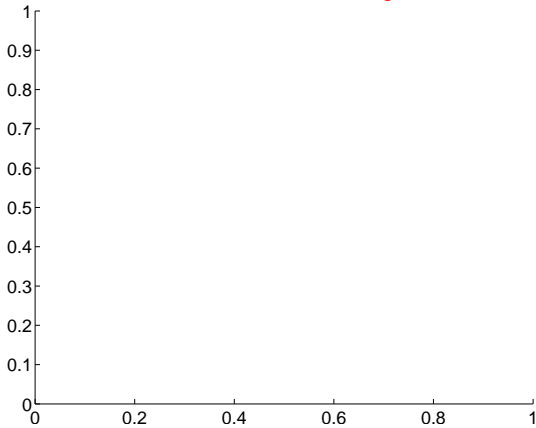


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

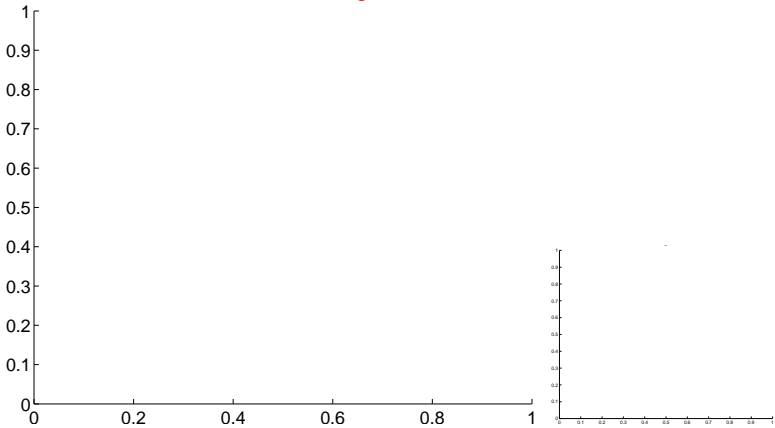


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

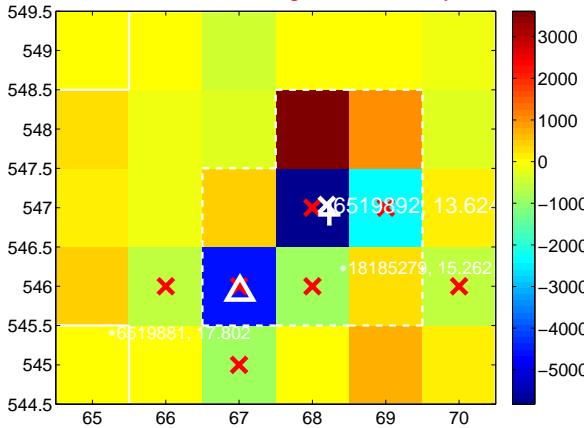
Q13 no difference image



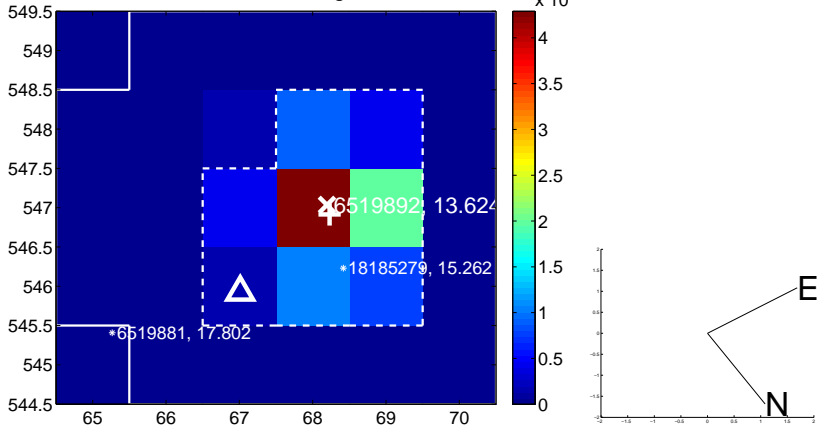
Q13 no OOT image



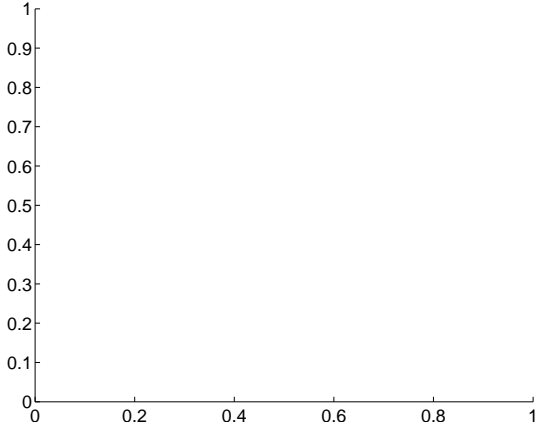
Q14 difference image. Poor Quality



Q14 OOT image



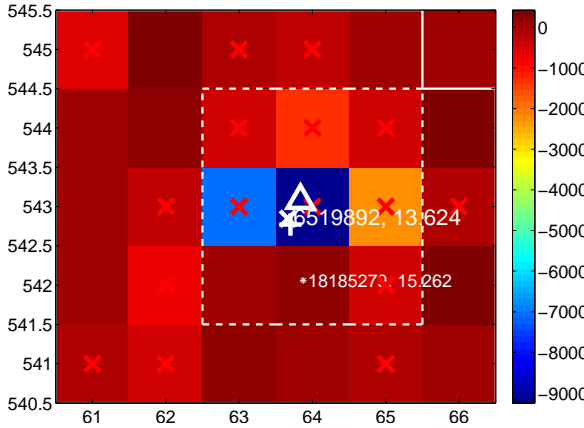
Q15 no difference image



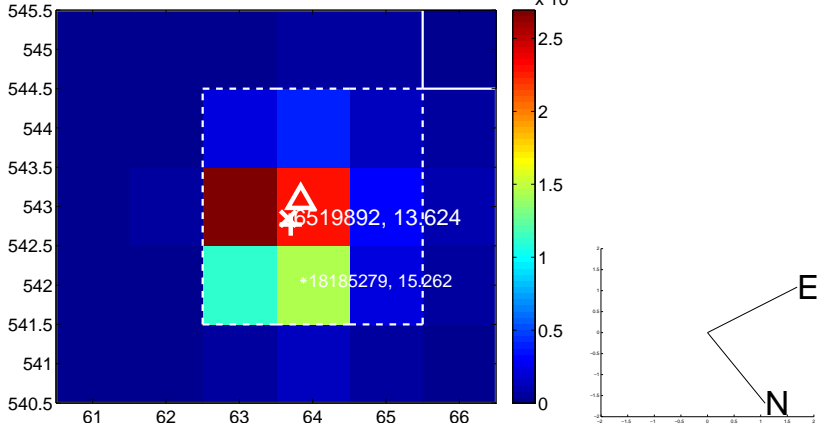
Q15 no OOT image



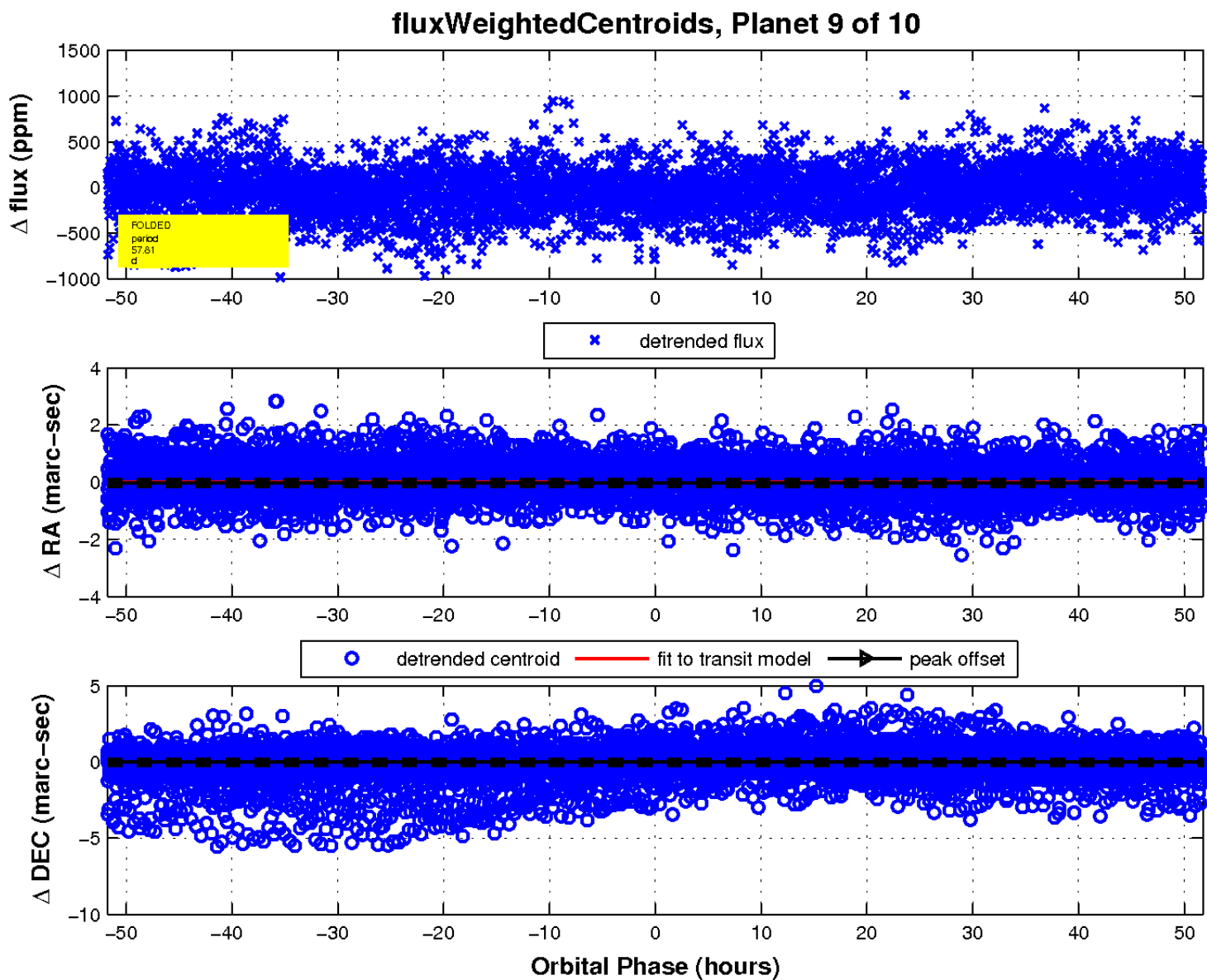
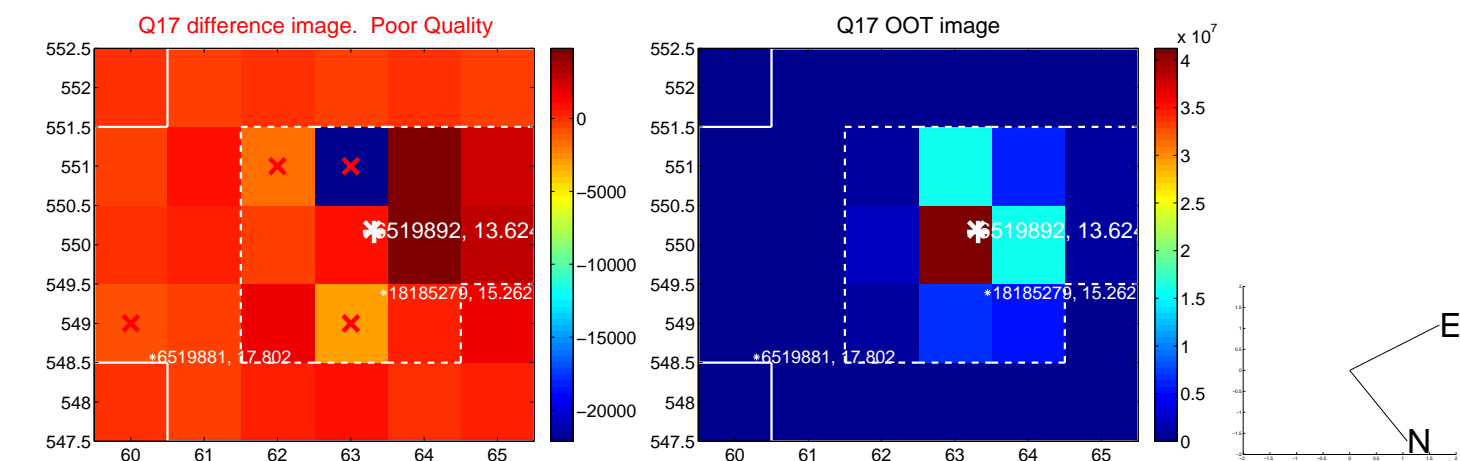
Q16 difference image. Poor Quality



Q16 OOT image



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



UKIRT Image

Declination

