

KIC 007362592

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})
007362592-01	OBS	No	0.566746	131.900637	12.3	4.024	11.2	8.3	1.65	6074	0.60	17455.46
007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
007362592-04	OBS	No	21.426313	136.707386	240.1	1.377	9.6	10.4	1.65	6074	2.95	137.57
007362592-05	OBS	No	24.735451	153.925806	227.8	1.635	9.7	10.0	1.65	6074	2.50	113.59
007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
007362592-08	OBS	No	43.940671	137.929737	373.2	1.471	9.6	10.7	1.65	6074	3.30	52.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362592-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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.

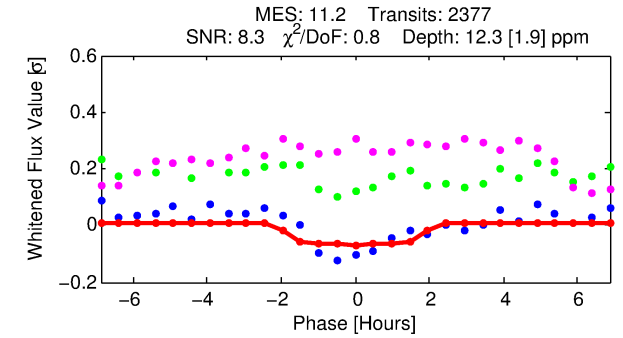
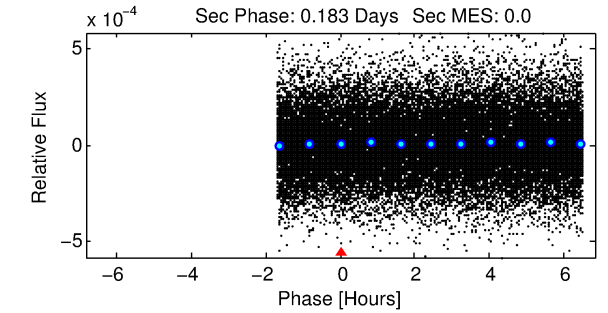
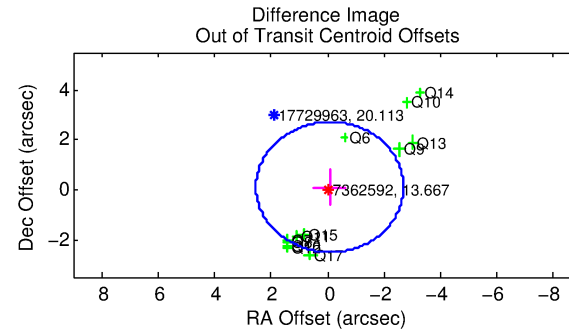
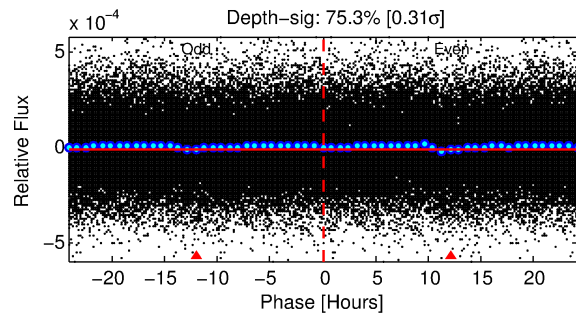
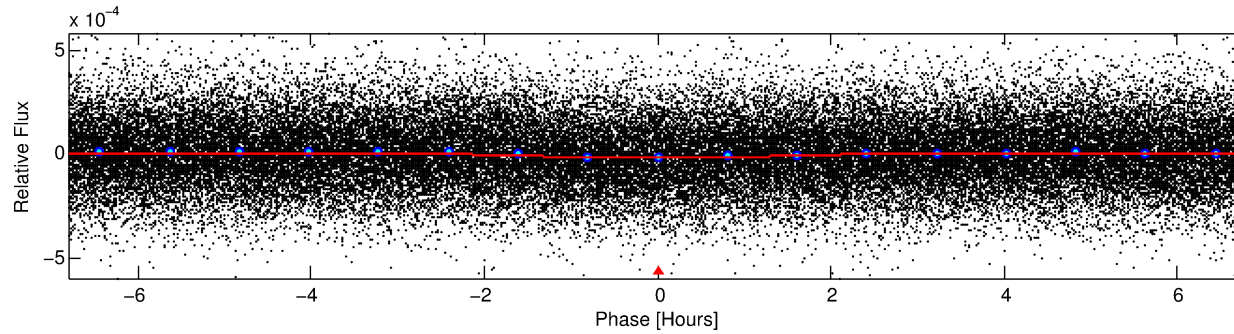
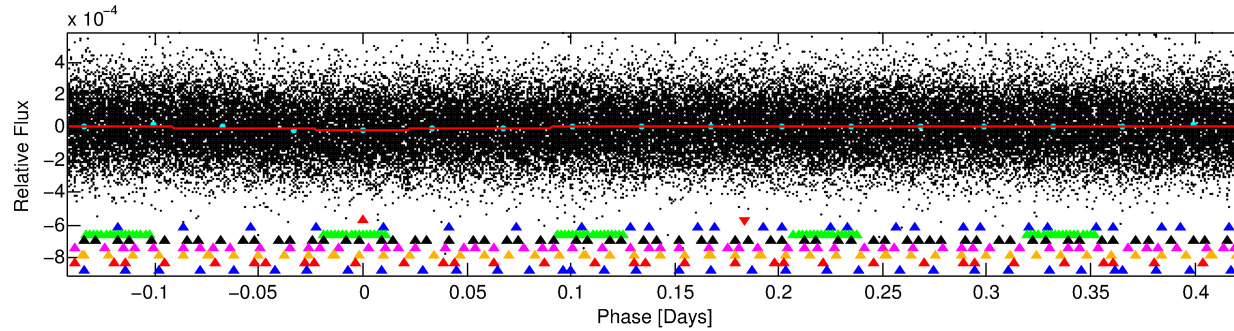
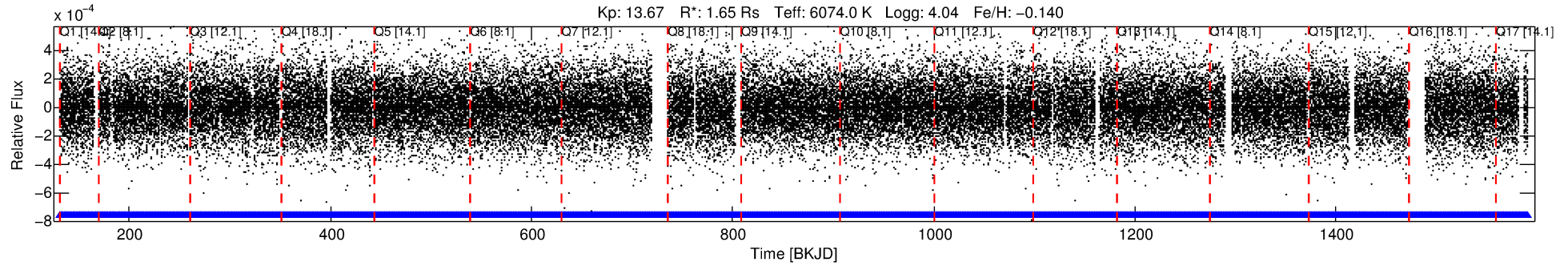
Ephemeris Match Information For 007362592-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (μ)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007362592-01	7362592	RR-Lyr-pri	7198959	1:1	1122.7	3	282	7.86	13.66	51941.00	Direct-PRF	0	0.31	18.72

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7362592 Candidate: 1 of 8 Period: 0.567 d



DV Fit Results:

Period = 0.56675 [0.00001] d
Epoch = 131.9006 [0.0052] BKJD
Rp/R* = 0.0033 [0.0027]
a/R* = 1.19 [1.40]
b = 0.53 [5.57]
Seff = 17455.46 [10421.77]
Teq = 2931 [437] K
Rp = 0.60 [0.54] Re
a = 0.0138 [0.0050] AU
Ag = N/A
Teffp = N/A

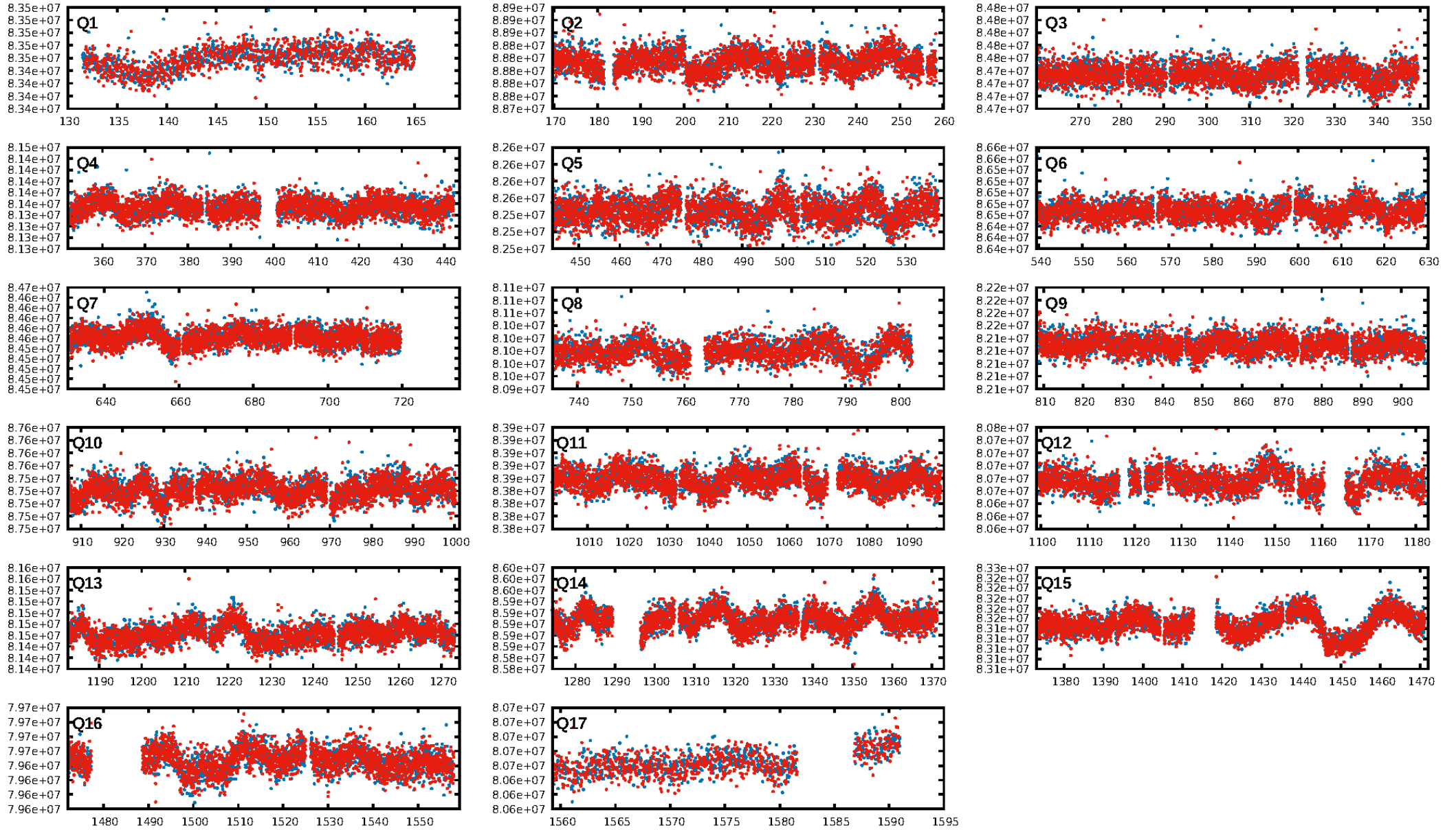
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [75.08 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.30e-21
RollingBand-fgt: 1.00 [2271/2271]
GhostDiagnostic-chr: 0.07152
Centroid-sig: 0.0%
Centroid-so: 4.505 arcsec [3.55 σ]
OotOffset-rm: 0.125 arcsec [0.14 σ]
KicOffset-rm: 0.119 arcsec [0.18 σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

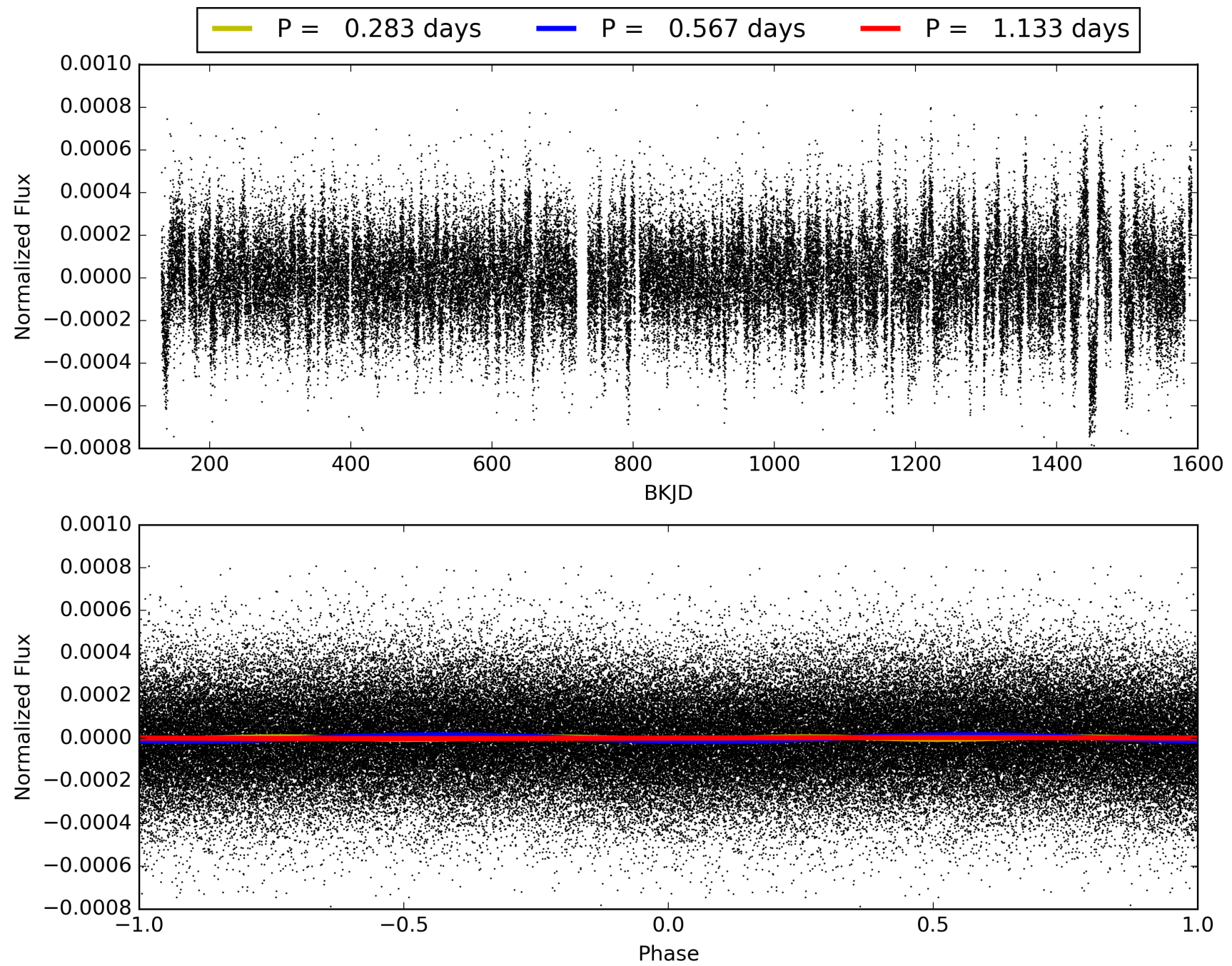
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:16 Z

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

TCE 007362592-01, PDC Light Curves

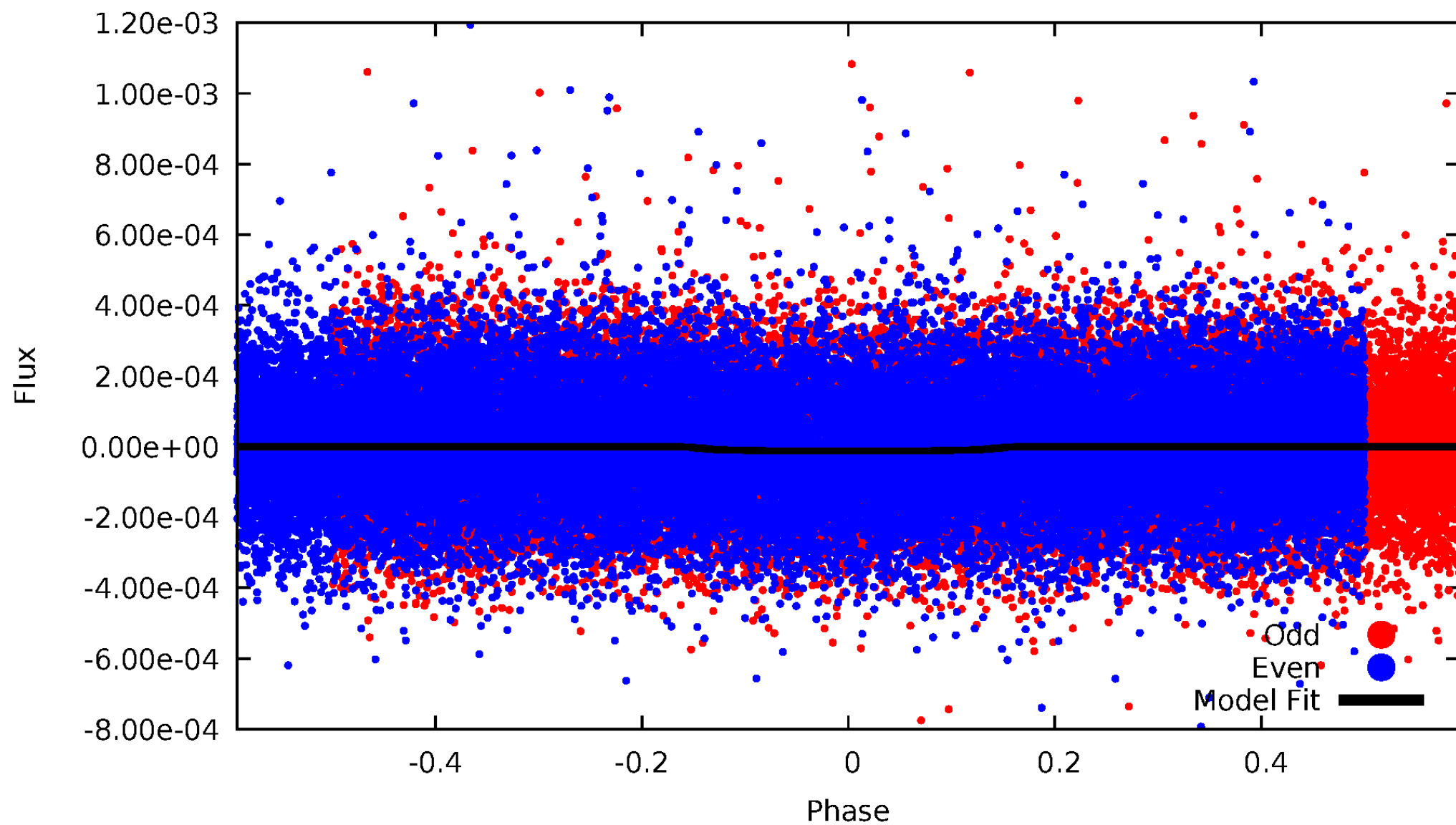


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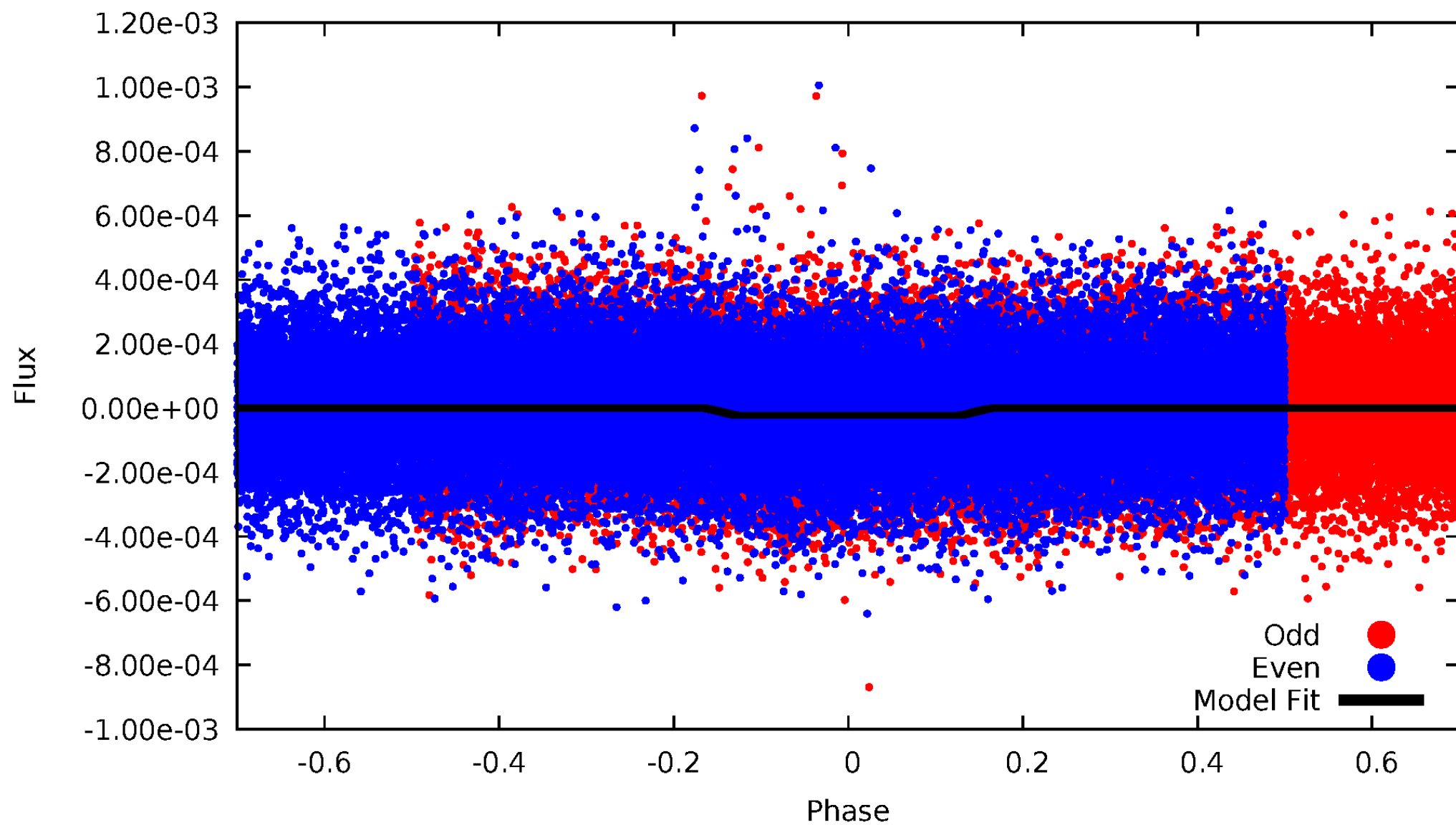
DV Odd/Even

TCE 007362592-01



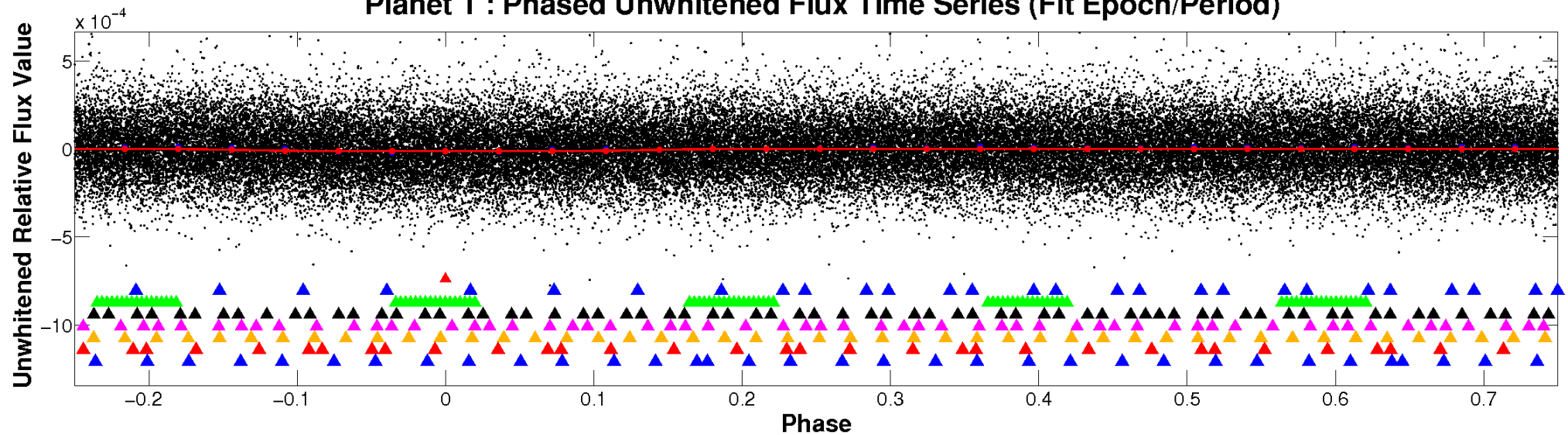
ALT Odd/Even

TCE 007362592-01

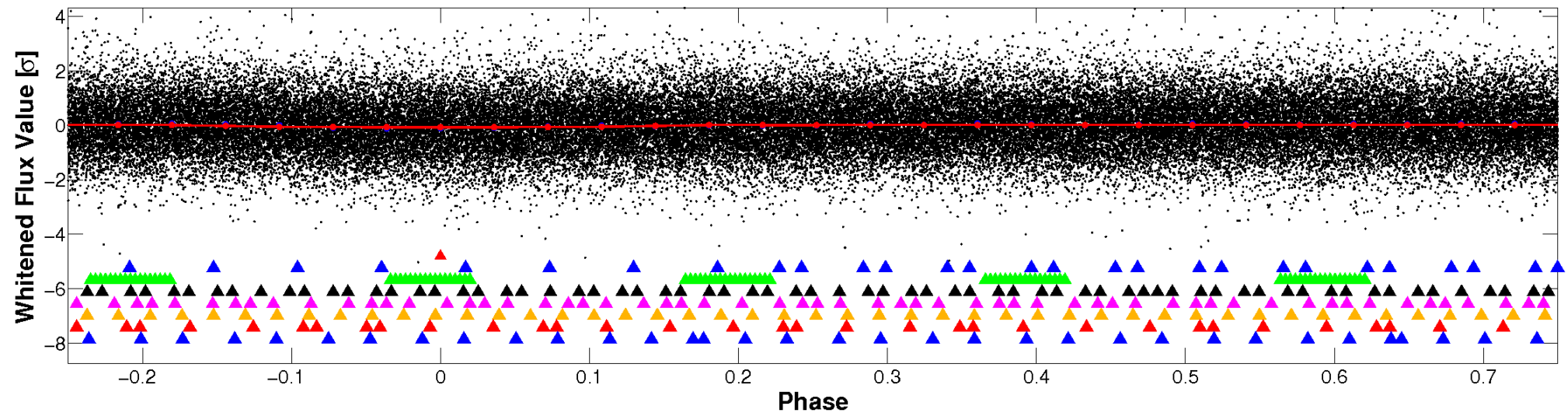


Non-Whitened Vs. Whitened Light Curve

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

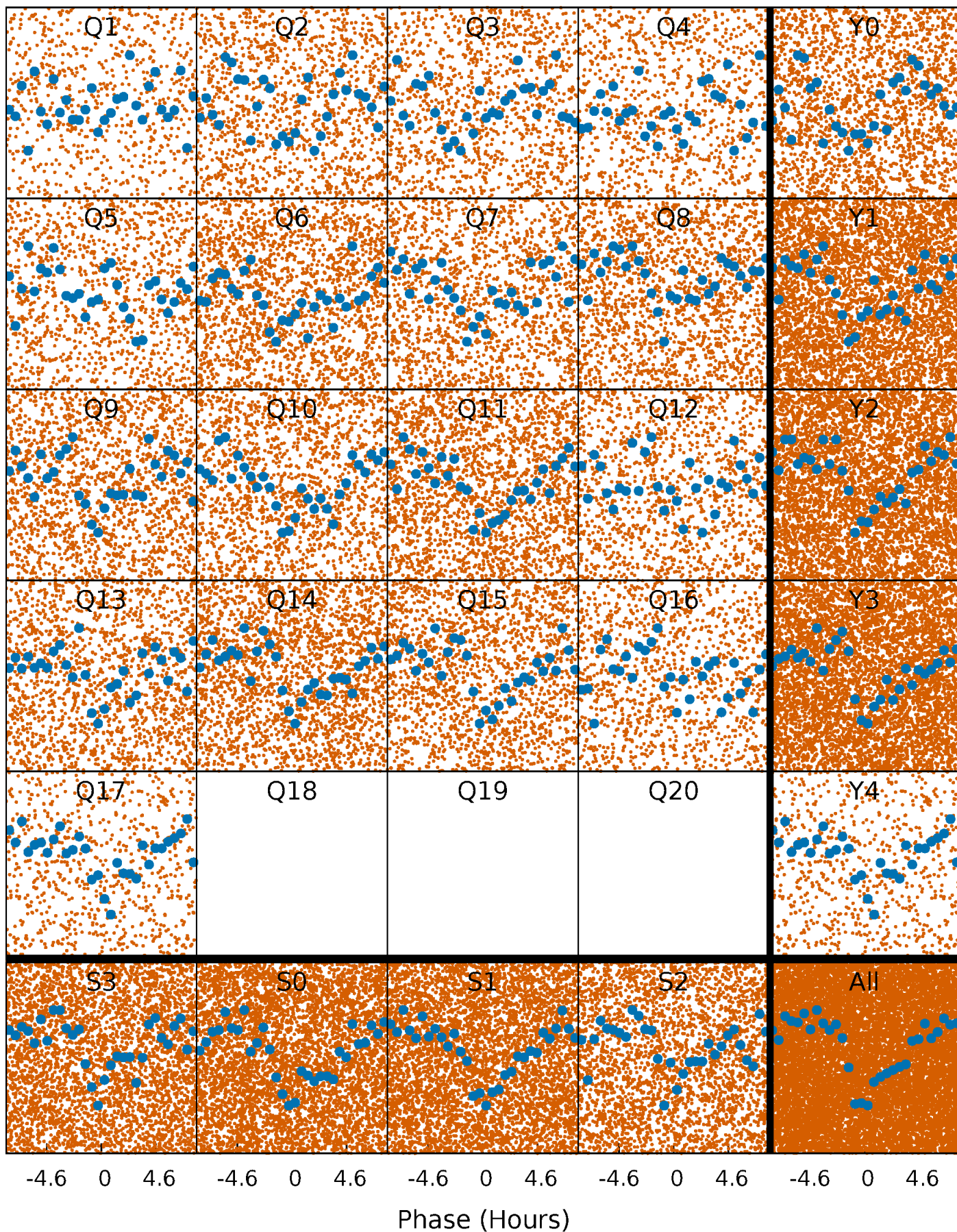


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



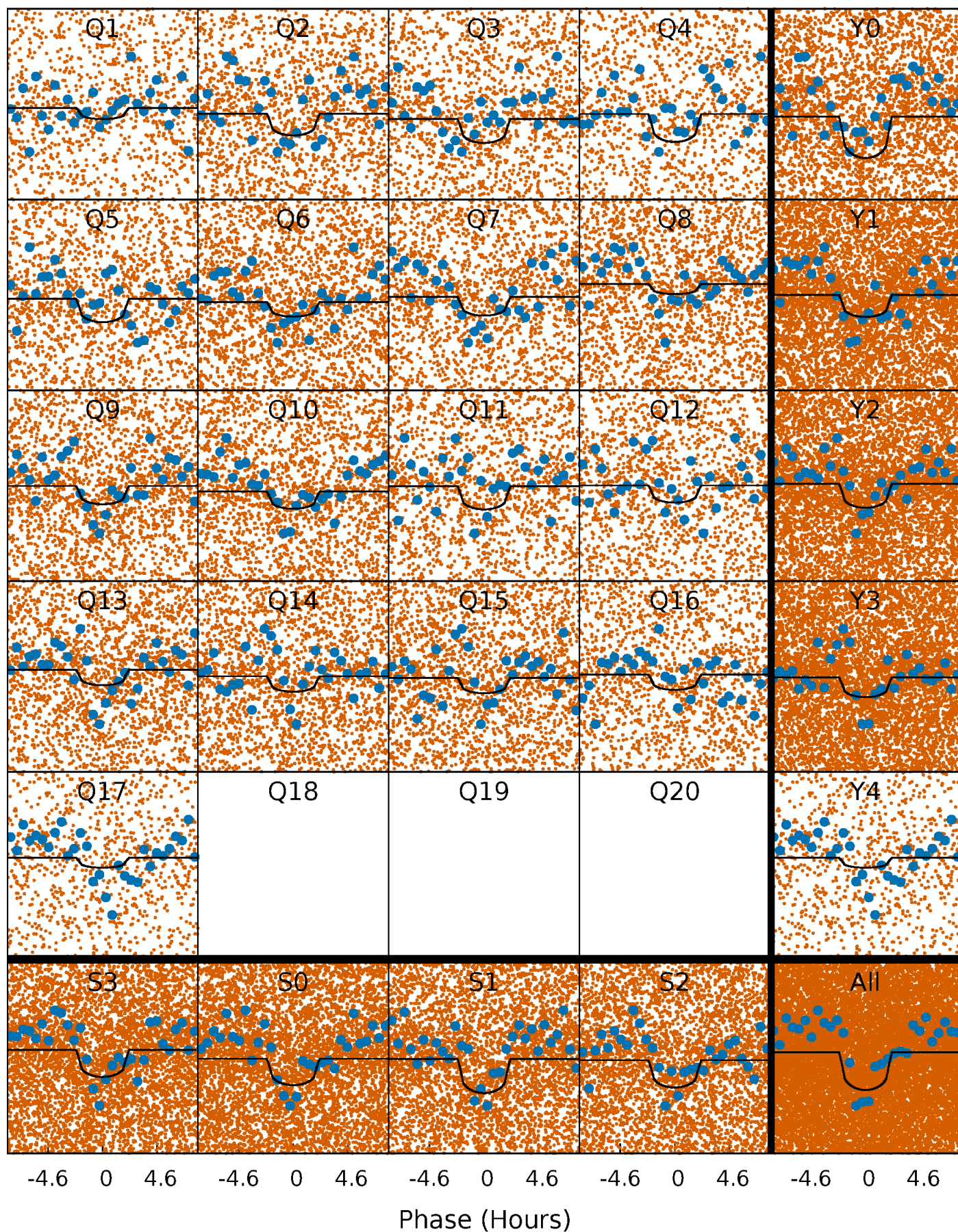
PDC Quarter-Phased Transit Curves

TCE 007362592-01 P= 0.566746 Days $T_0=131.900637$ (BKJD)



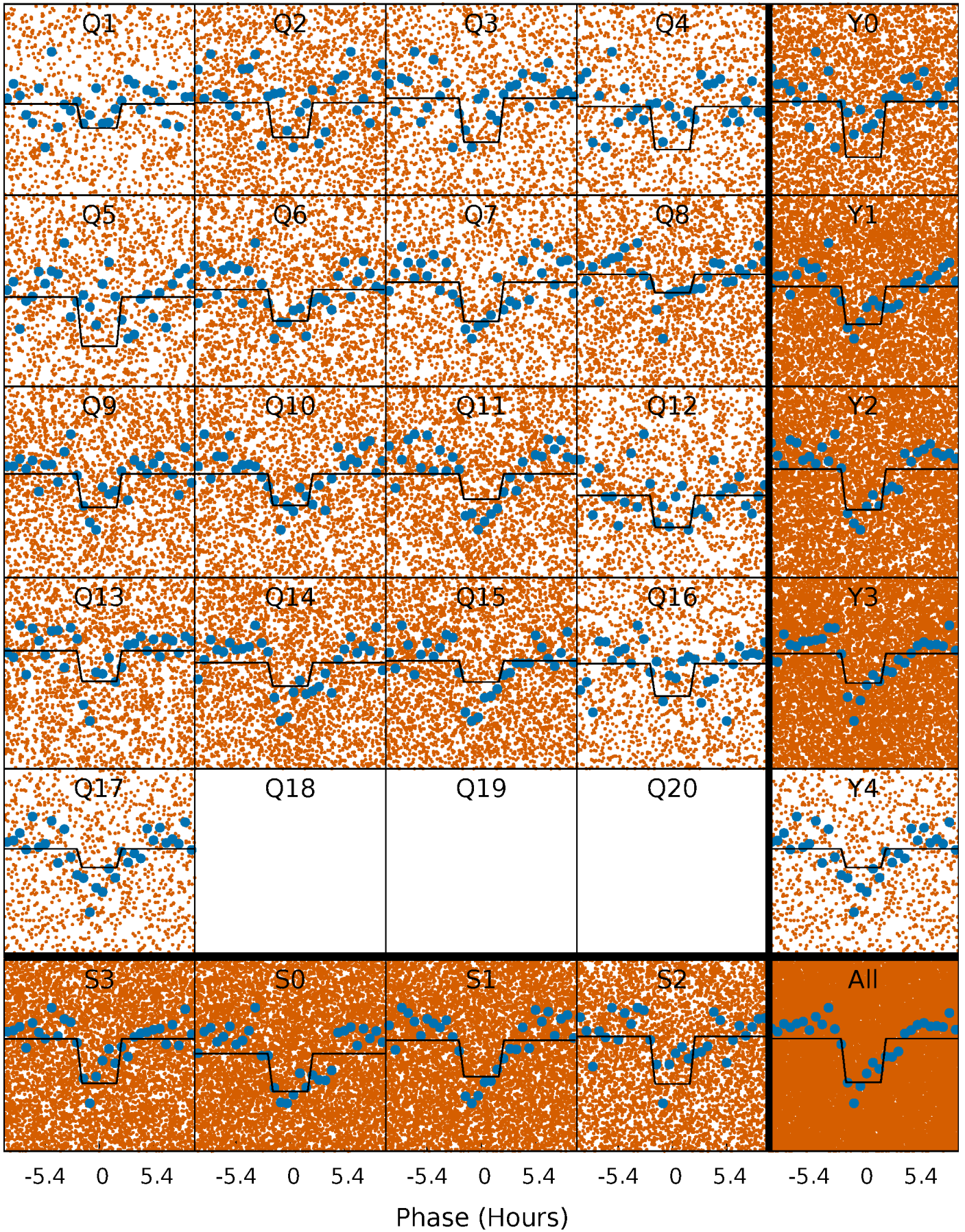
DV Quarter-Phased Transit Curves

TCE 007362592-01 P= 0.566746 Days $T_0=131.900637$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

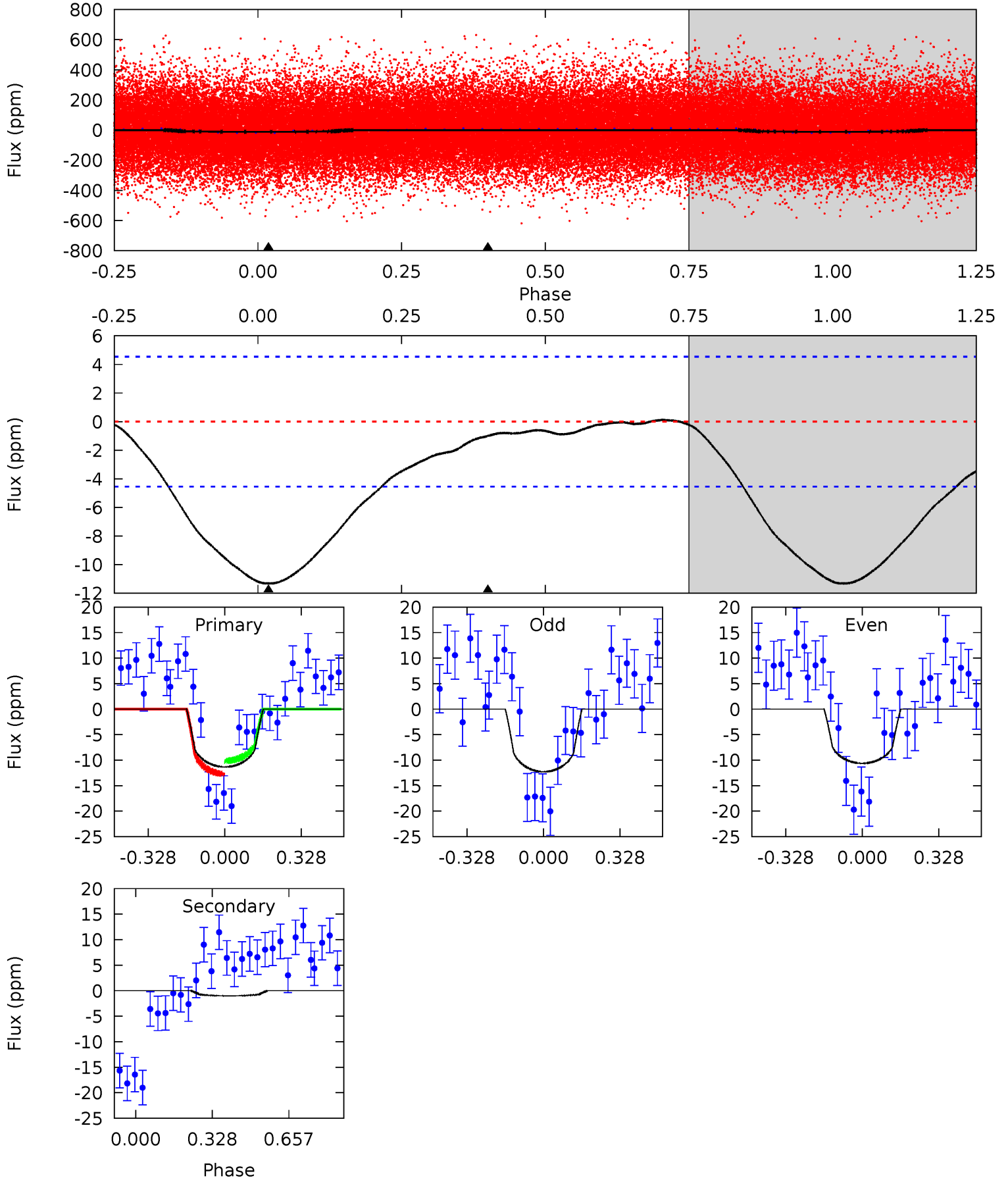
TCE 007362592-01 P= 0.566782 Days $T_0=131.865745$ (BKJD)



DV Model-Shift Uniqueness Test

007362592-01, P = 0.566746 Days, E = 131.333891 Days

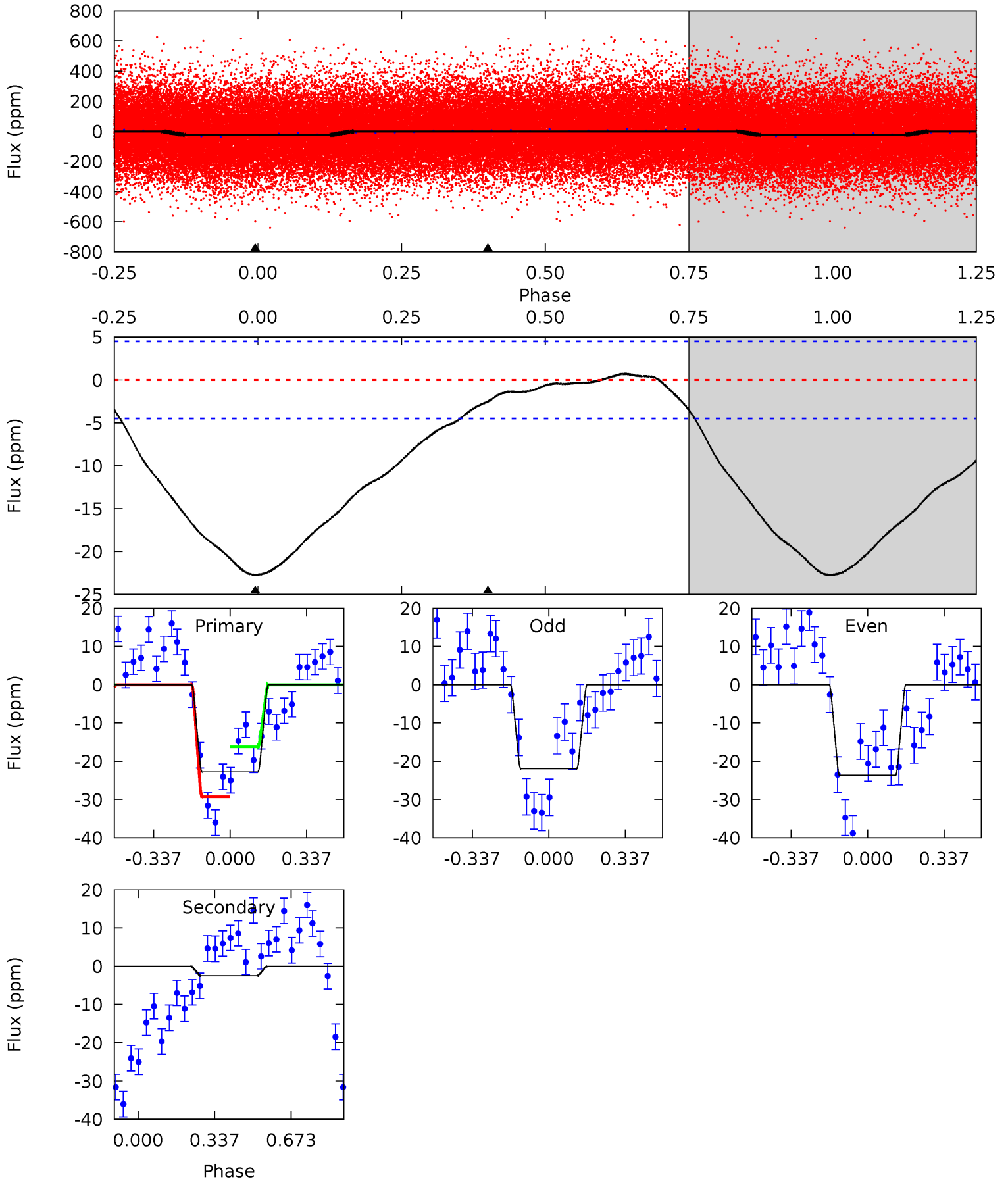
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	0.96	0	0	4.31	0.98	0.13	10.7	10.7	0.96	0.96	0.78	0.94	0.01	1.23



Alt Model-Shift Uniqueness Test

007362592-01, P = 0.566782 Days, E = 131.298963 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	2.42	0	0	4.30	0.96	1.15	21.8	21.8	2.42	2.42	0.81	1.03	0.03	6.20



Stellar Parameters For KIC 007362592

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 1	$0.63^{+0.48}_{-0.37}$	4037^{+315}_{-392}	-3095^{+7738}_{-735}	$0.197^{+1.287}_{-0.208}$
Alt.	-3 ± 1	$0.85^{+0.51}_{-0.40}$	4029^{+318}_{-394}	2884^{+1533}_{-6340}	$0.357^{+0.863}_{-0.234}$

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

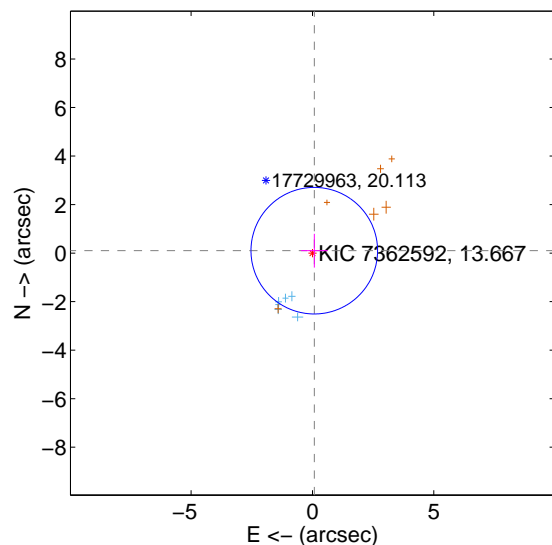
Supplemental centroid analysis for 007362592-01. Kepler magnitude: 13.67. Transit SNR 8.27

There are 6 quarters with good PRF difference image offsets

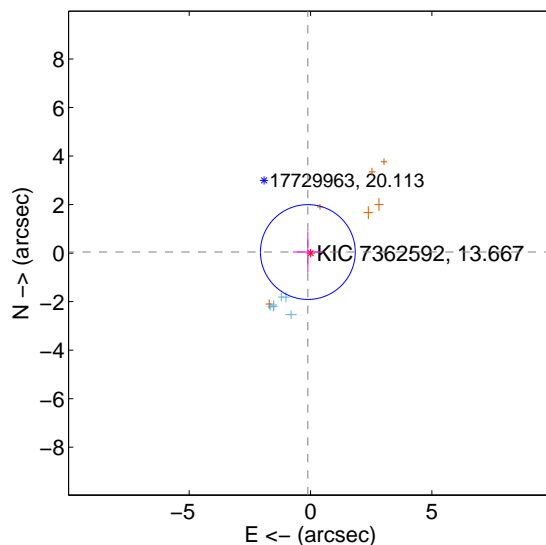
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.125 ± 0.869	0.14	-0.076 ± 0.548	0.100 ± 0.697
PRF-fit source offset from KIC position	0.119 ± 0.651	0.18	0.111 ± 0.617	0.044 ± 0.841
photometric centroid source offset	4.51 ± 1.27	3.55	-2.10 ± 1.49	-3.99 ± 1.20

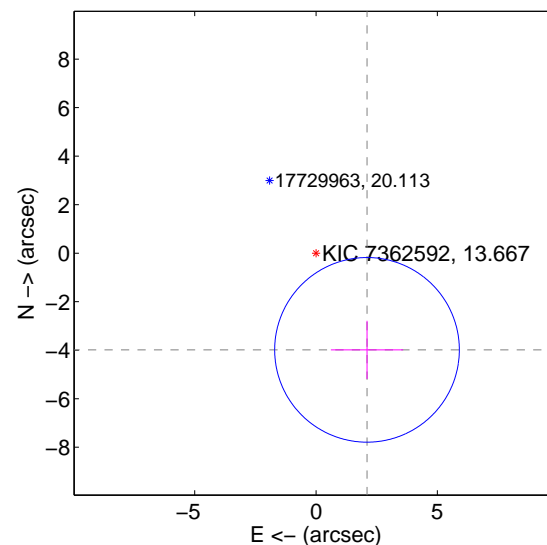
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

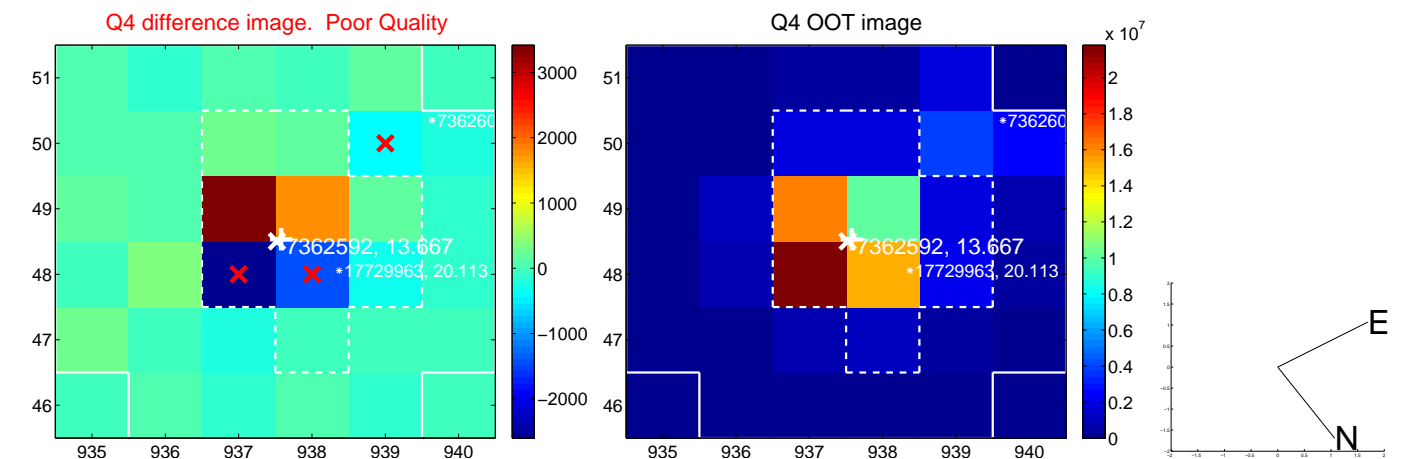
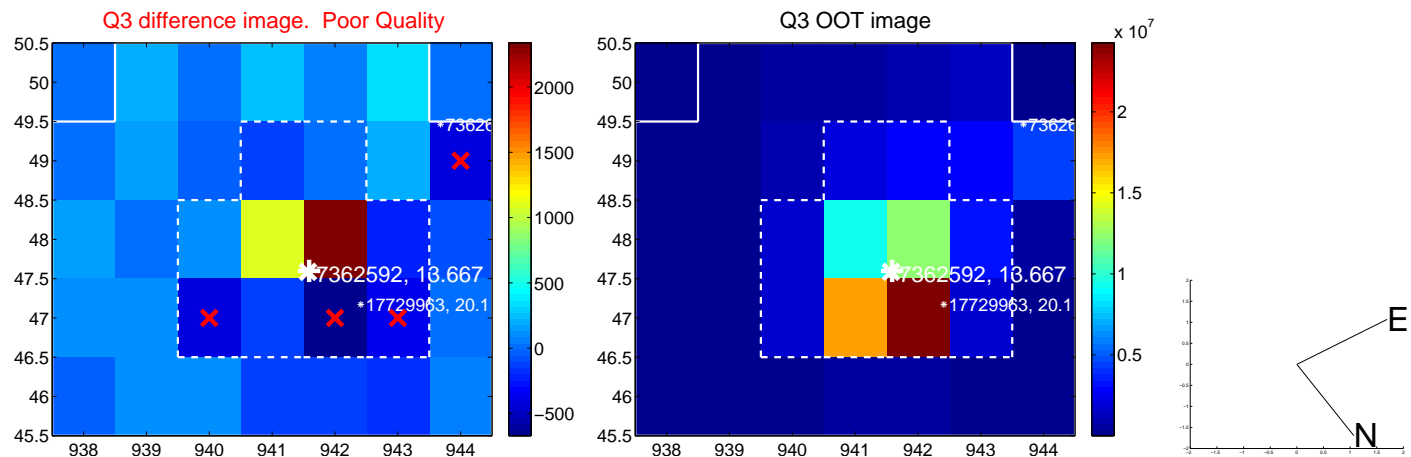
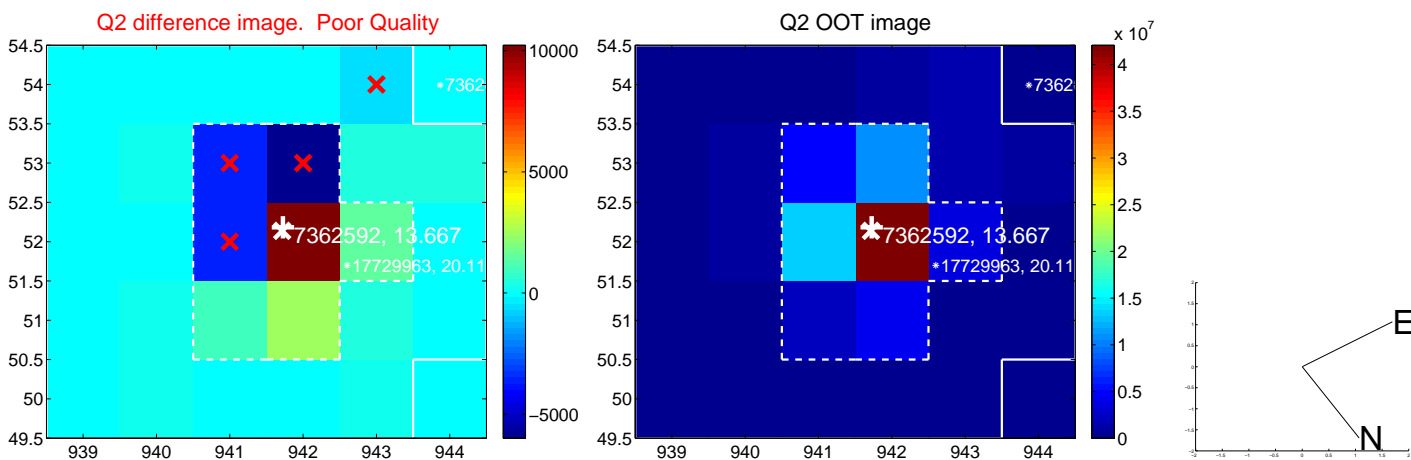
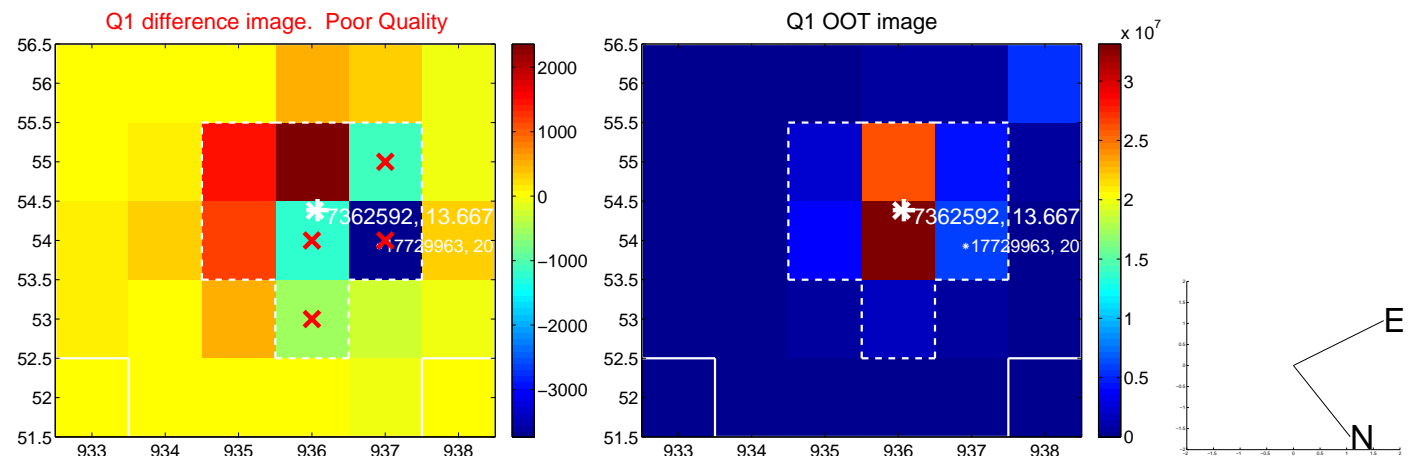


offset from photometric centroids

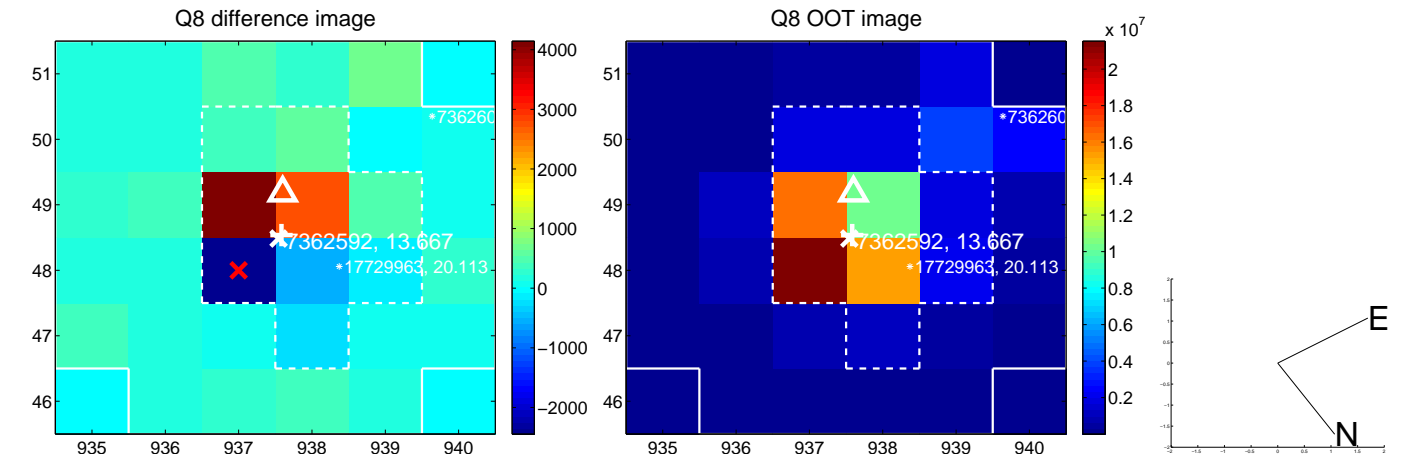
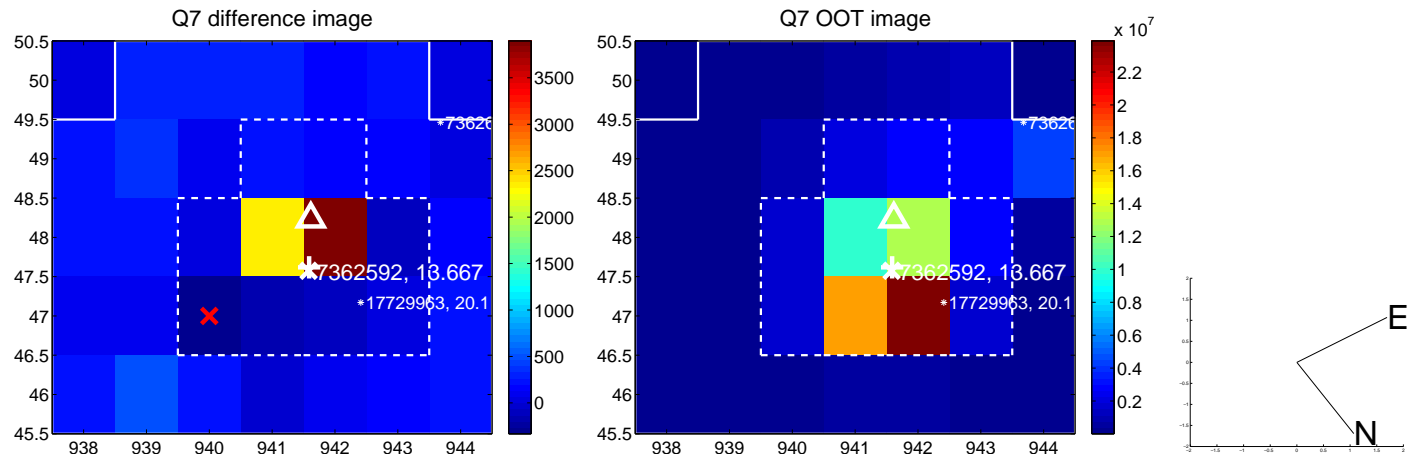
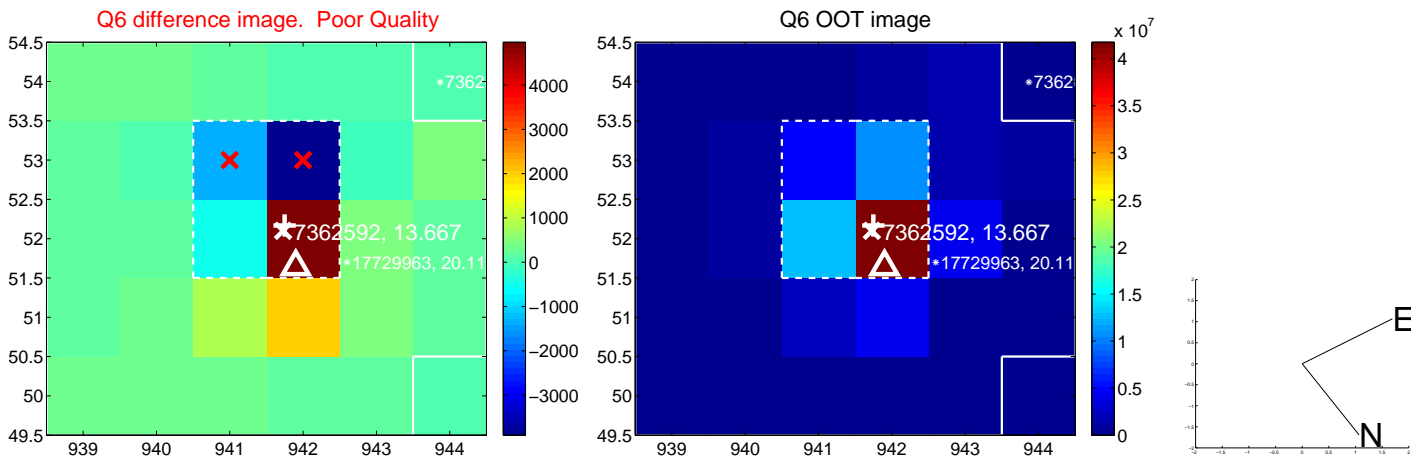
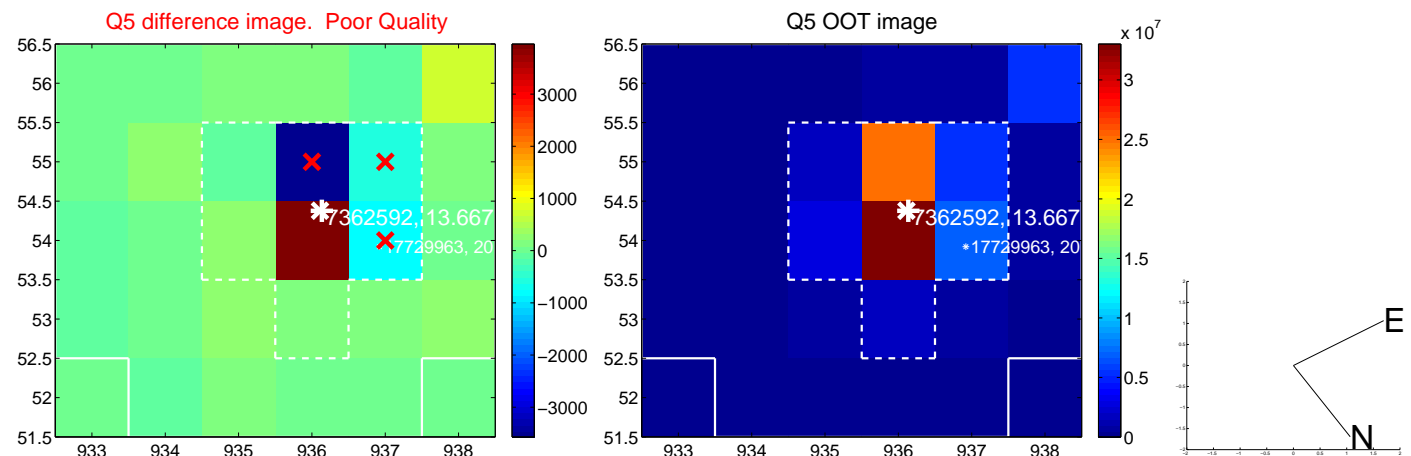


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

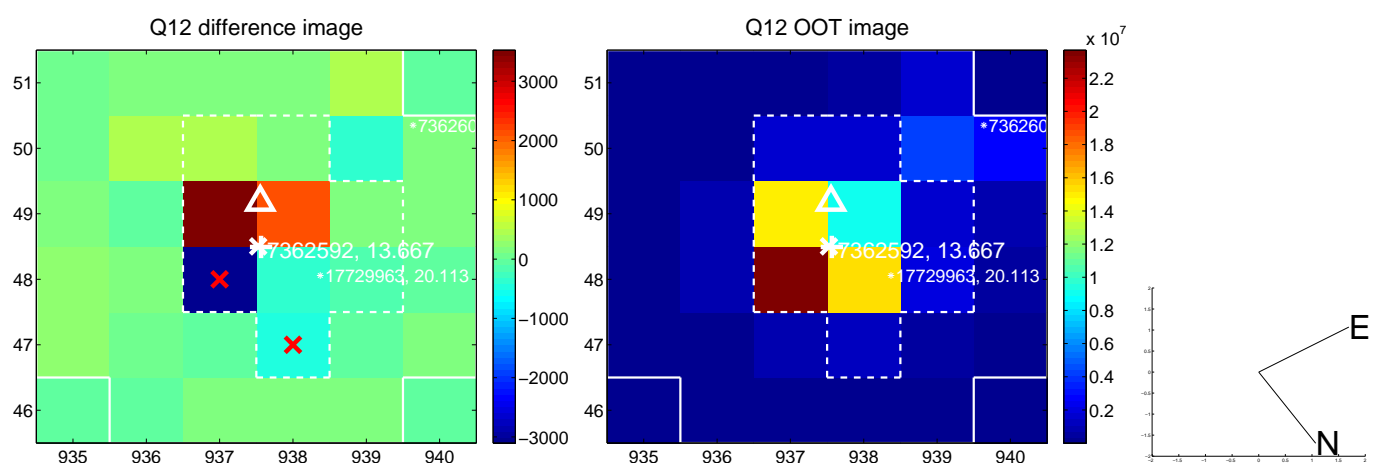
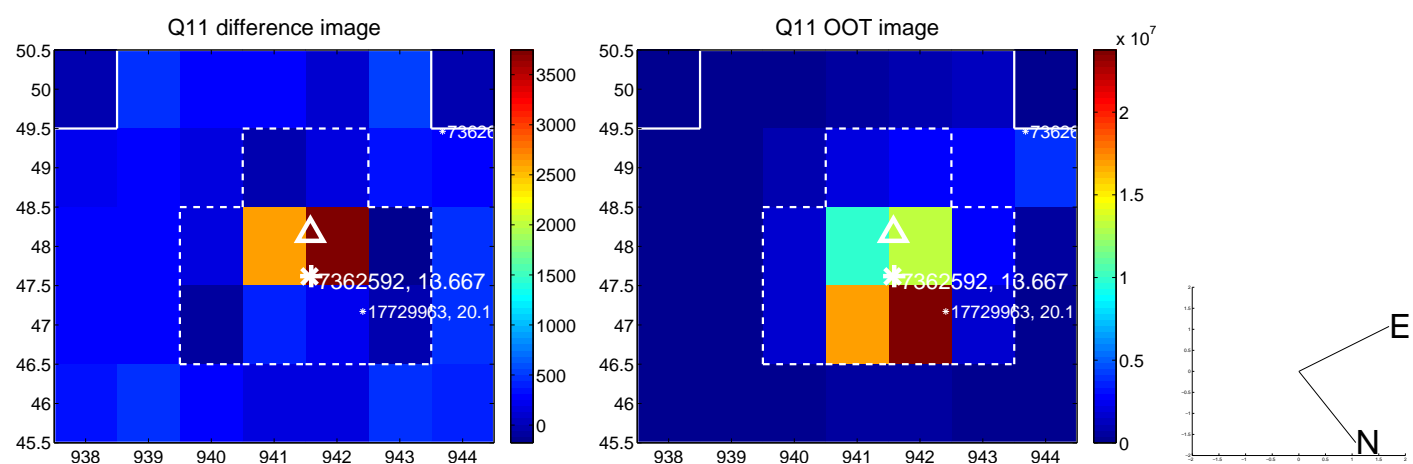
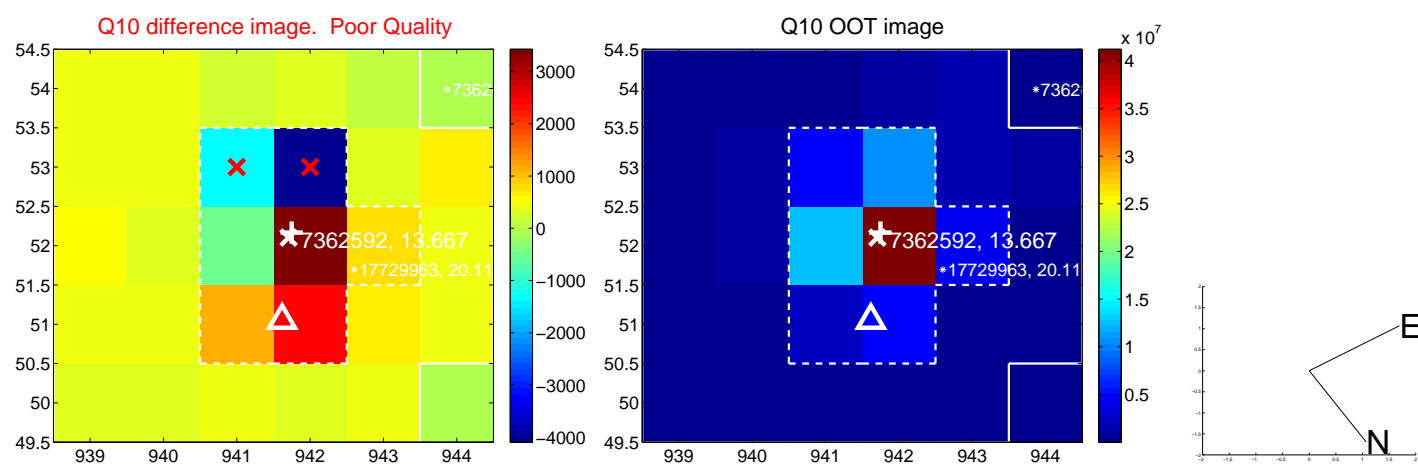
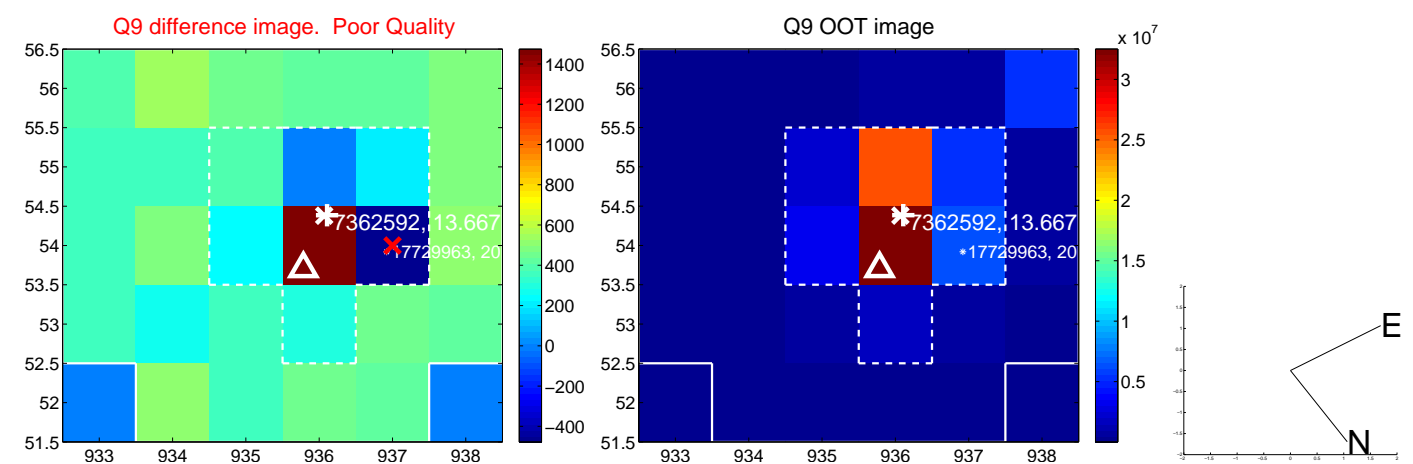
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



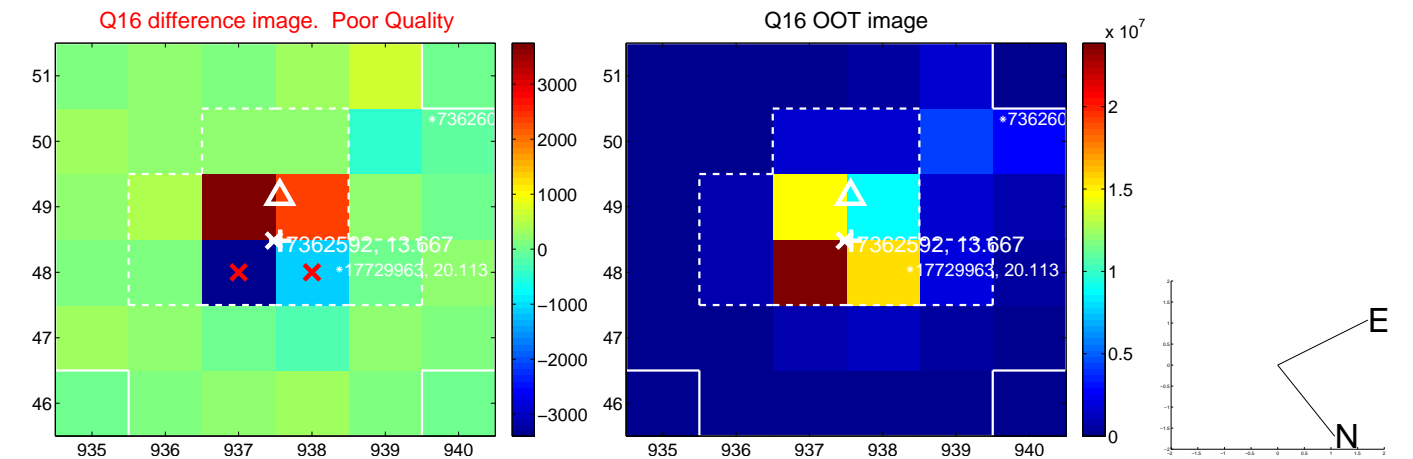
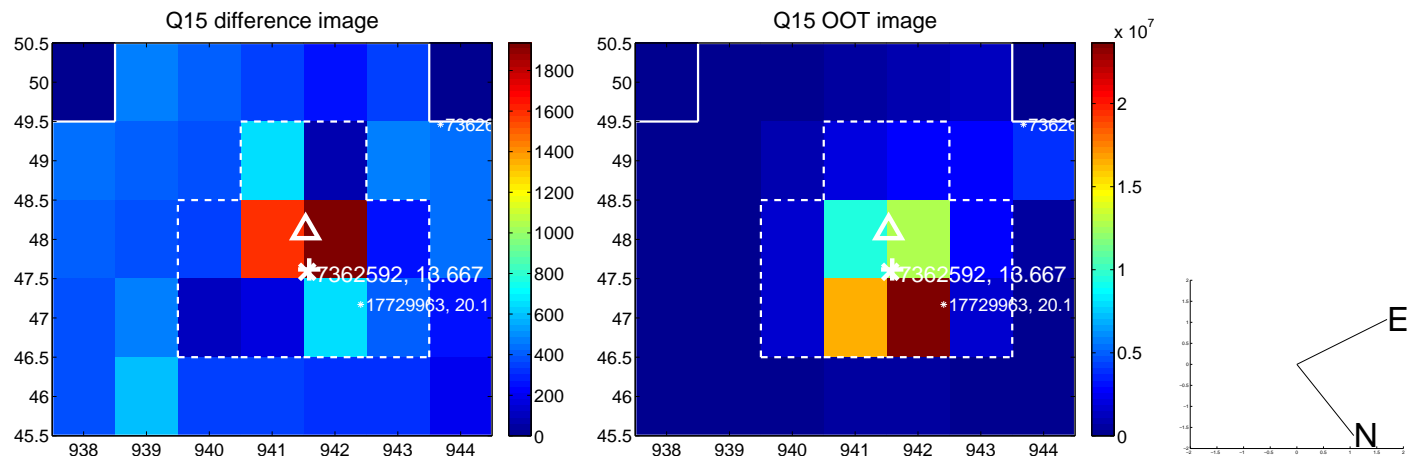
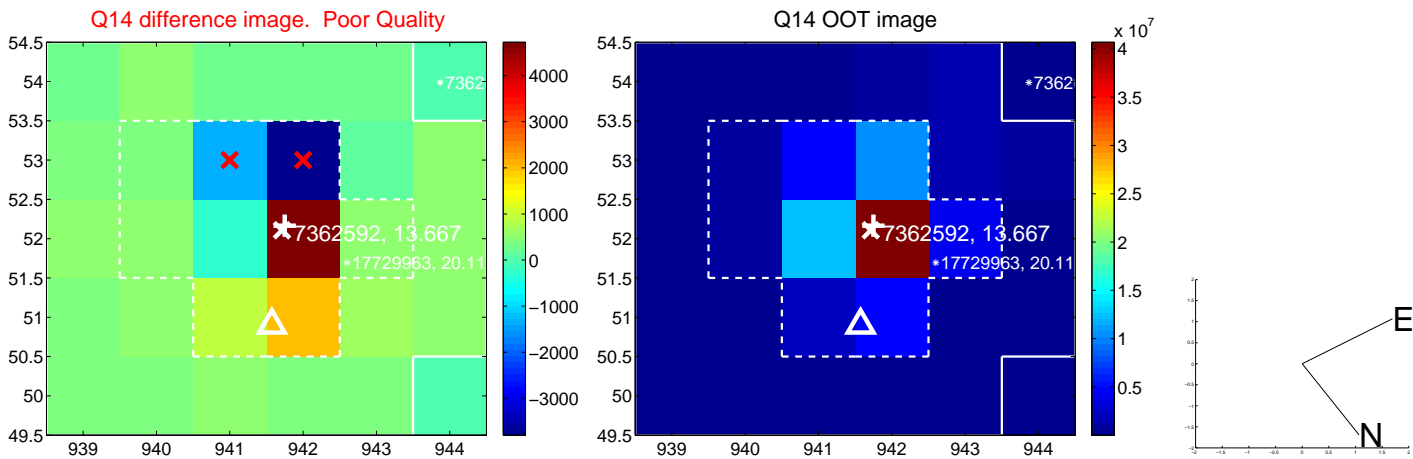
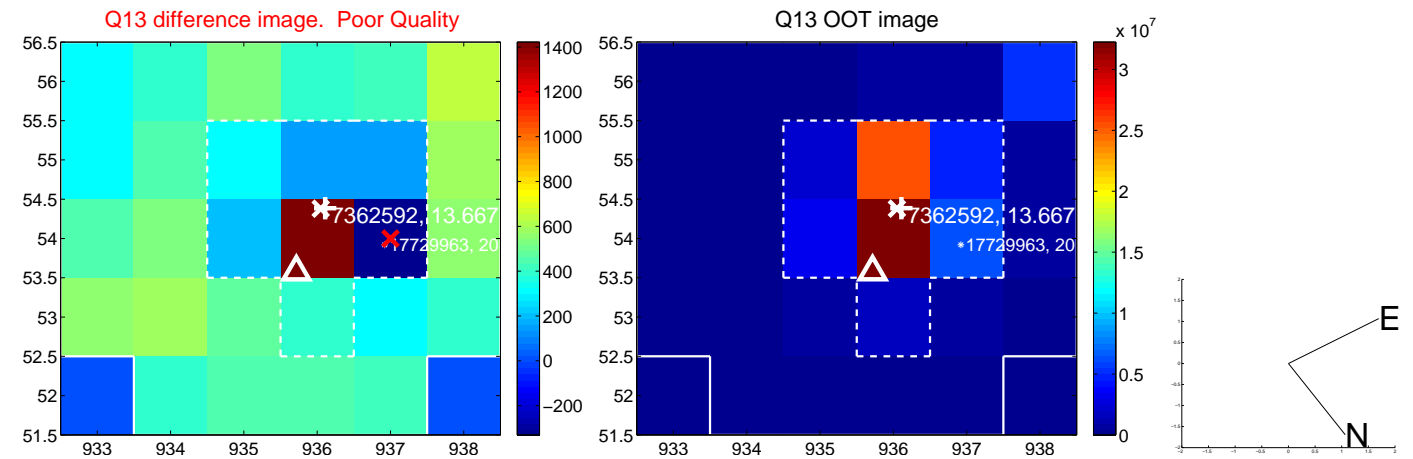
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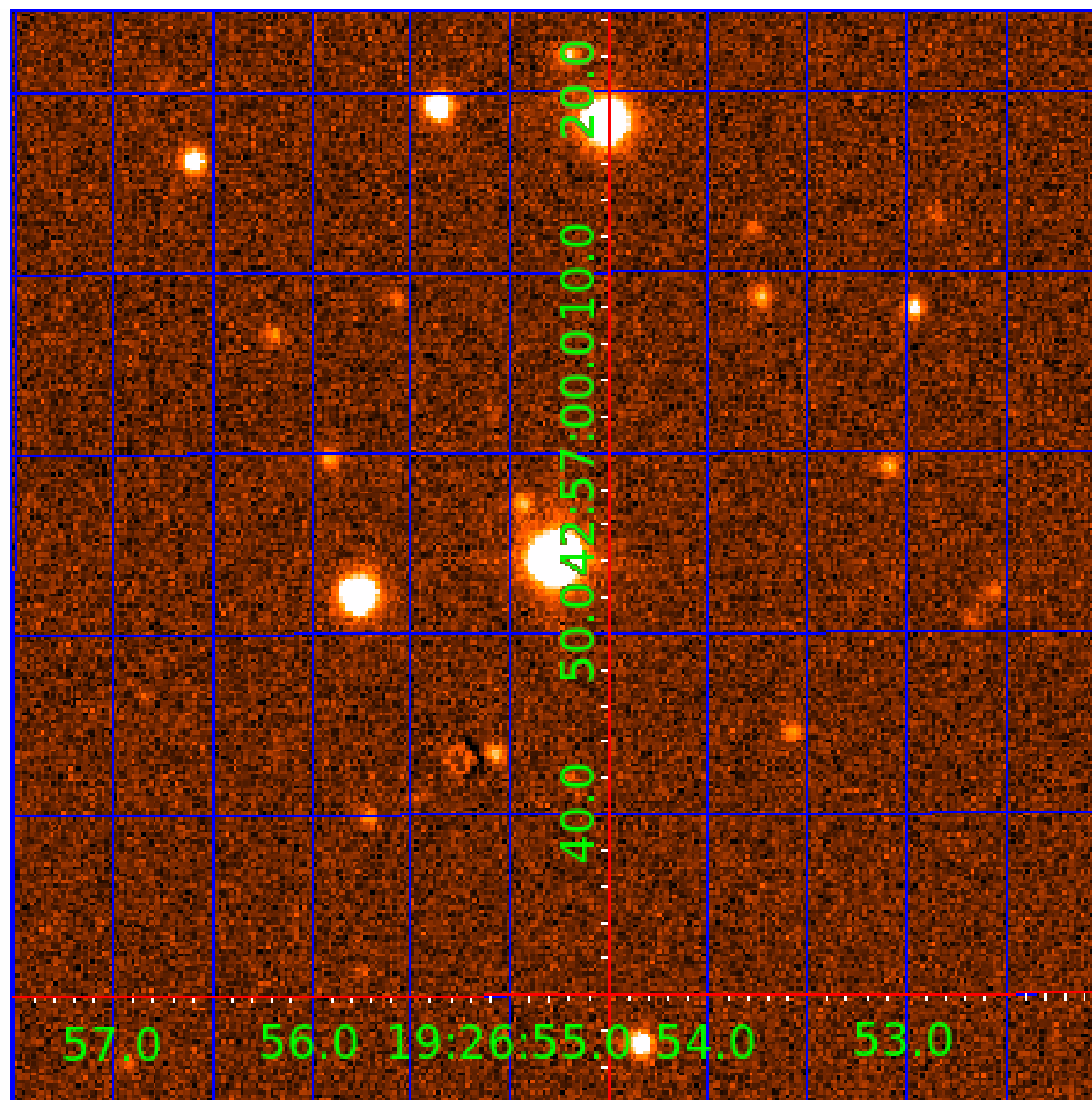


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UKIRT Image

Declination



KIC 007362592

Q1-17 DR25 TCE Parameters

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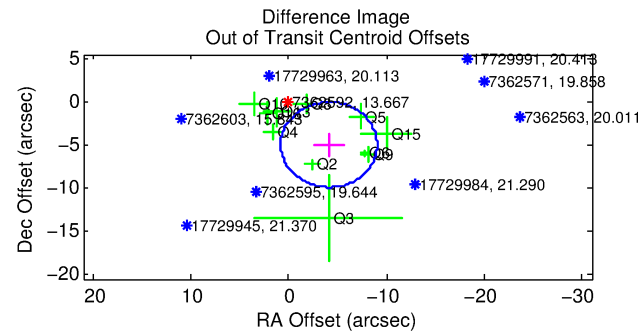
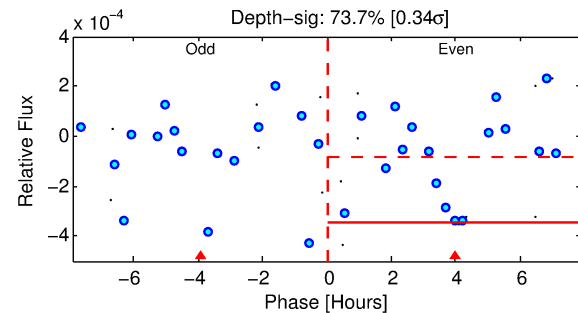
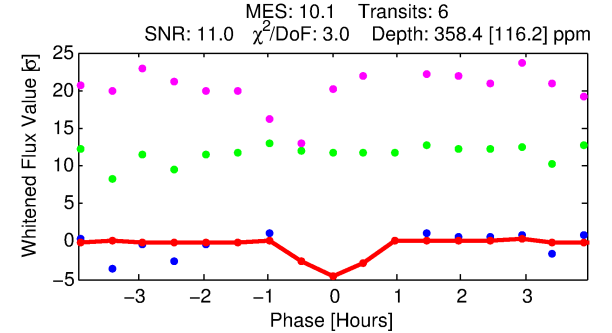
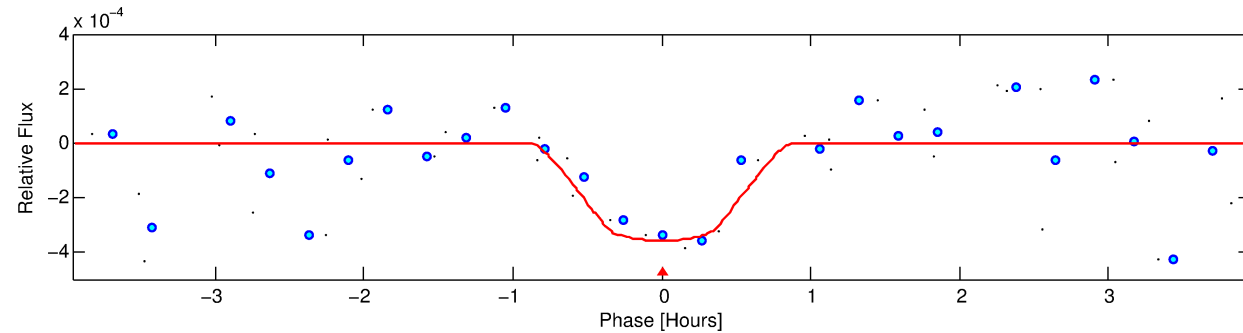
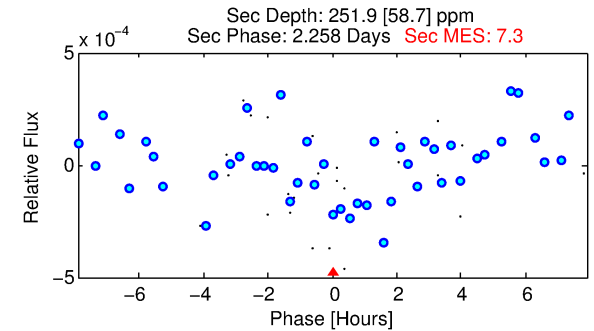
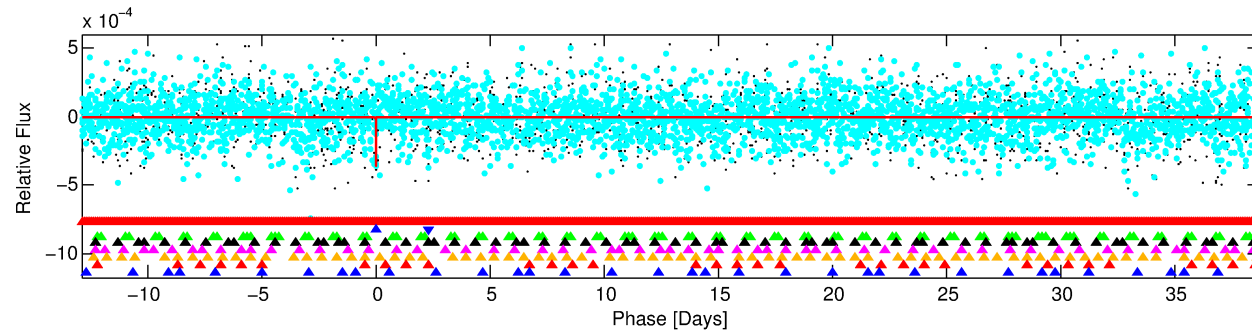
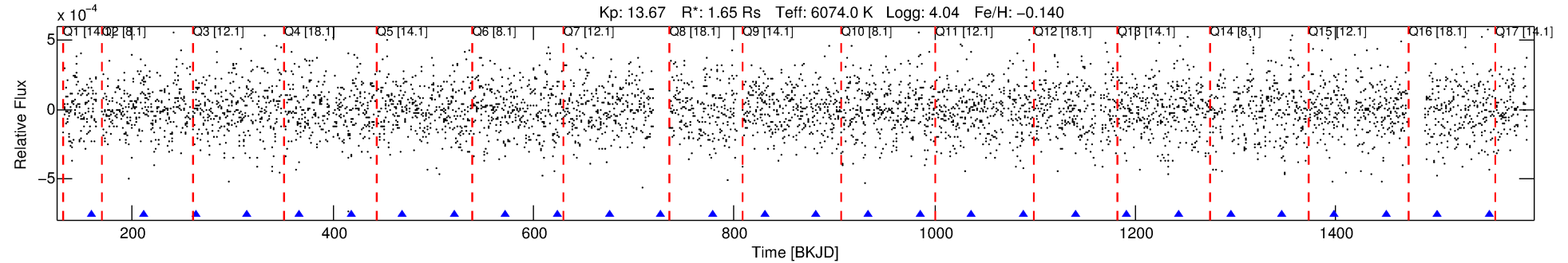
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-02

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 2 of 8 Period: 51.606 d



DV Fit Results:

Period = 51.60586 [0.00054] d
Epoch = 159.8001 [0.0081] BKJD
Rp/R* = 0.0202 [0.0281]
a/R* = 152.66 [1020.92]
b = 0.88 [1.72]
Seff = 42.61 [25.44]
Teff = 651 [97] K
Rp = 3.64 [5.24] Re
a = 0.2791 [0.1010] AU
Ag = 813.32 [2317.67] [0.35σ]
Teffp = 5379 [3756] K [1.26σ]

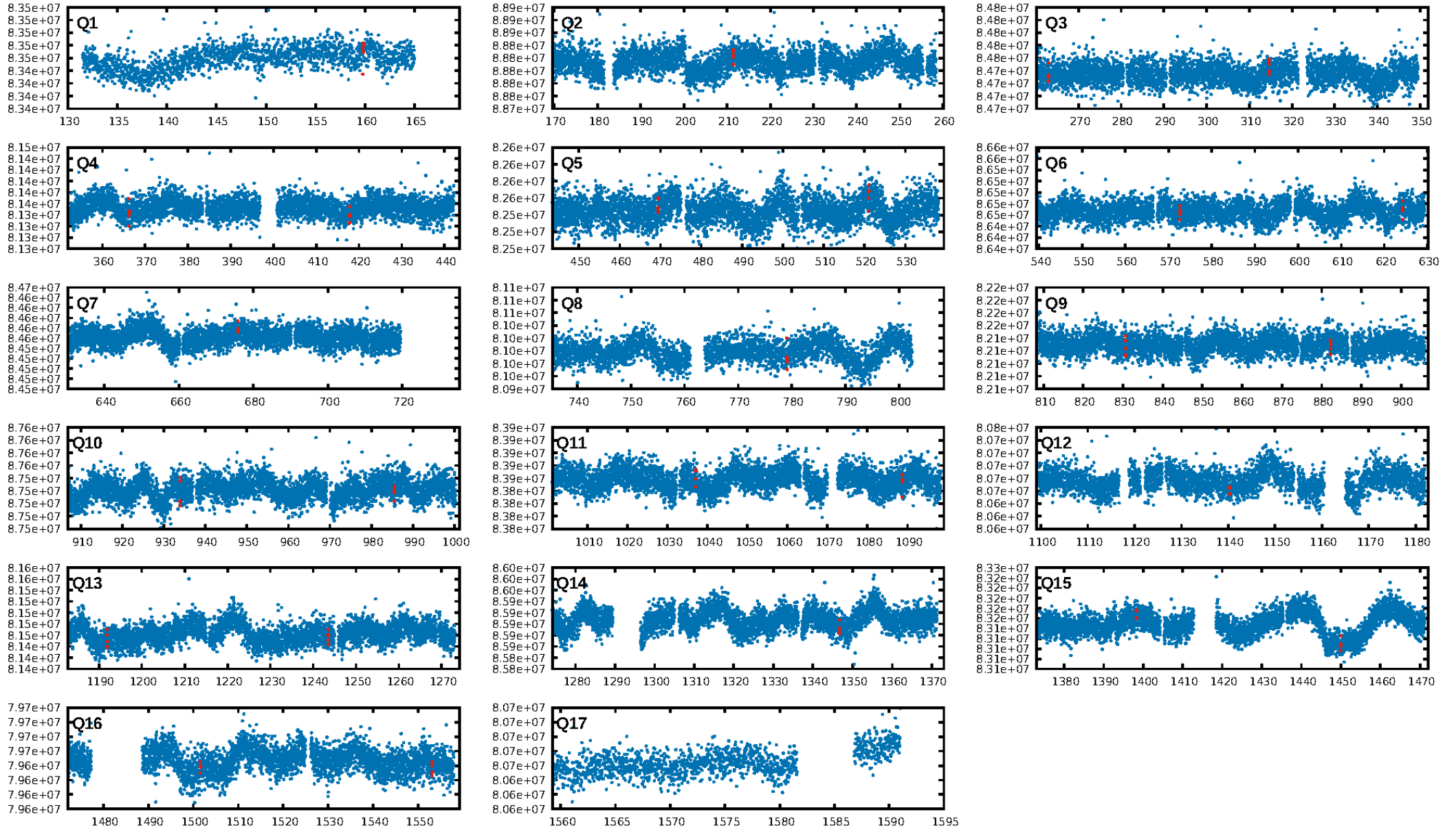
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [98.62σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.35e-11
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 12.62
Centroid-sig: 16.2%
Centroid-so: 1.026 arcsec [1.34σ]
OotOffset-rm: 6.444 arcsec [3.92σ]
KicOffset-rm: 6.400 arcsec [4.40σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 0.00 [0/16]

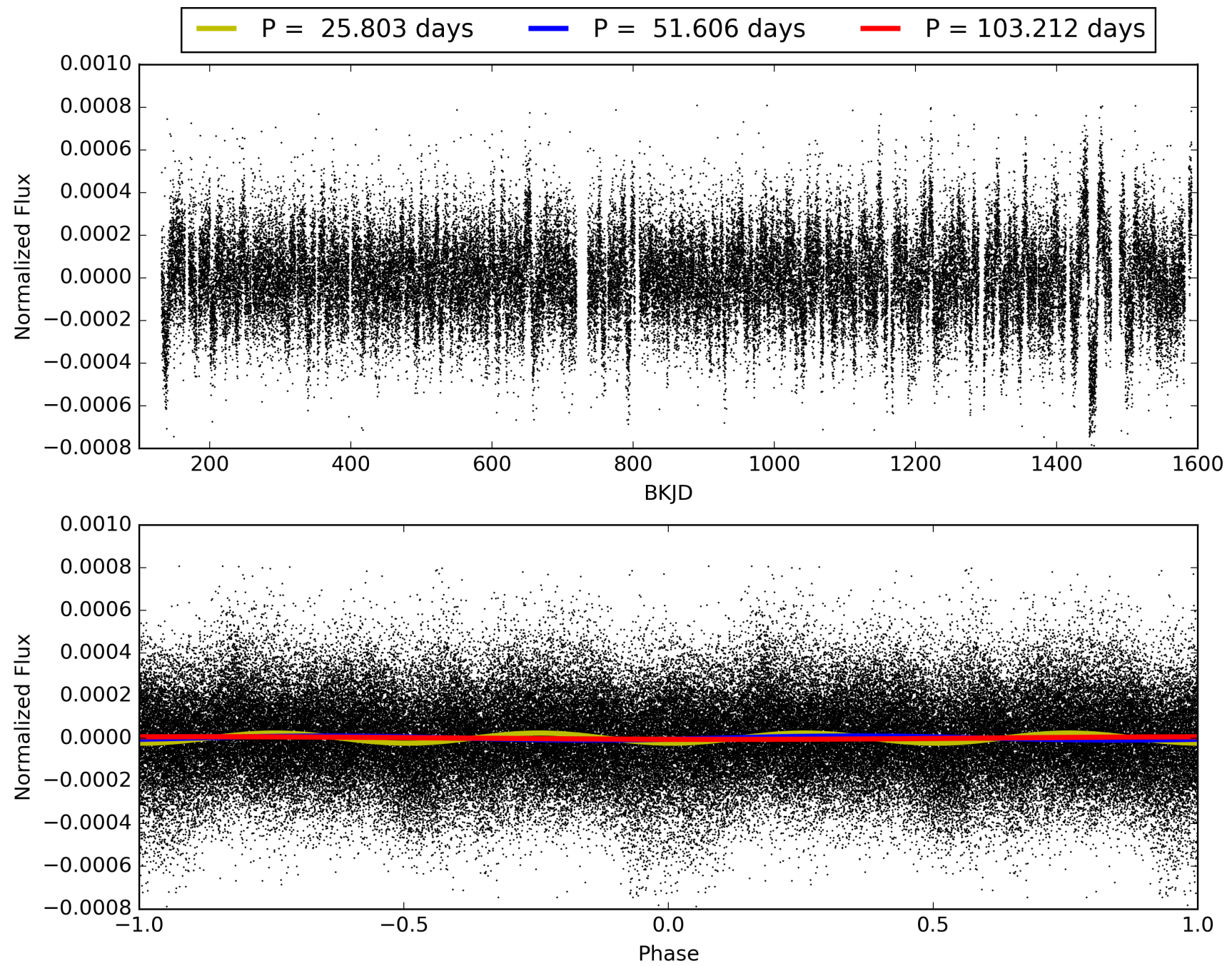
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:28 Z

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

TCE 007362592-02, PDC Light Curves

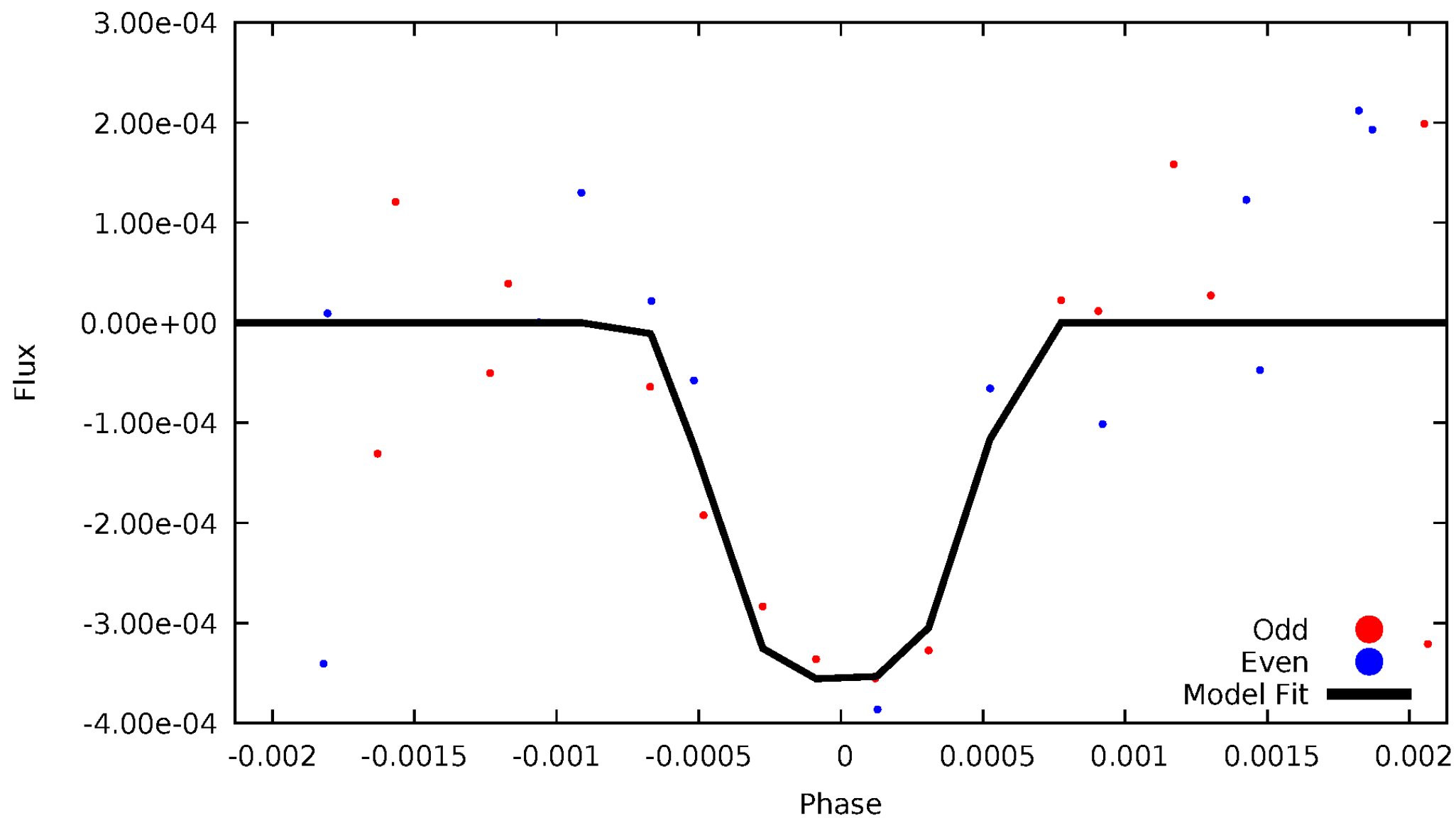


TCE 007362592-02



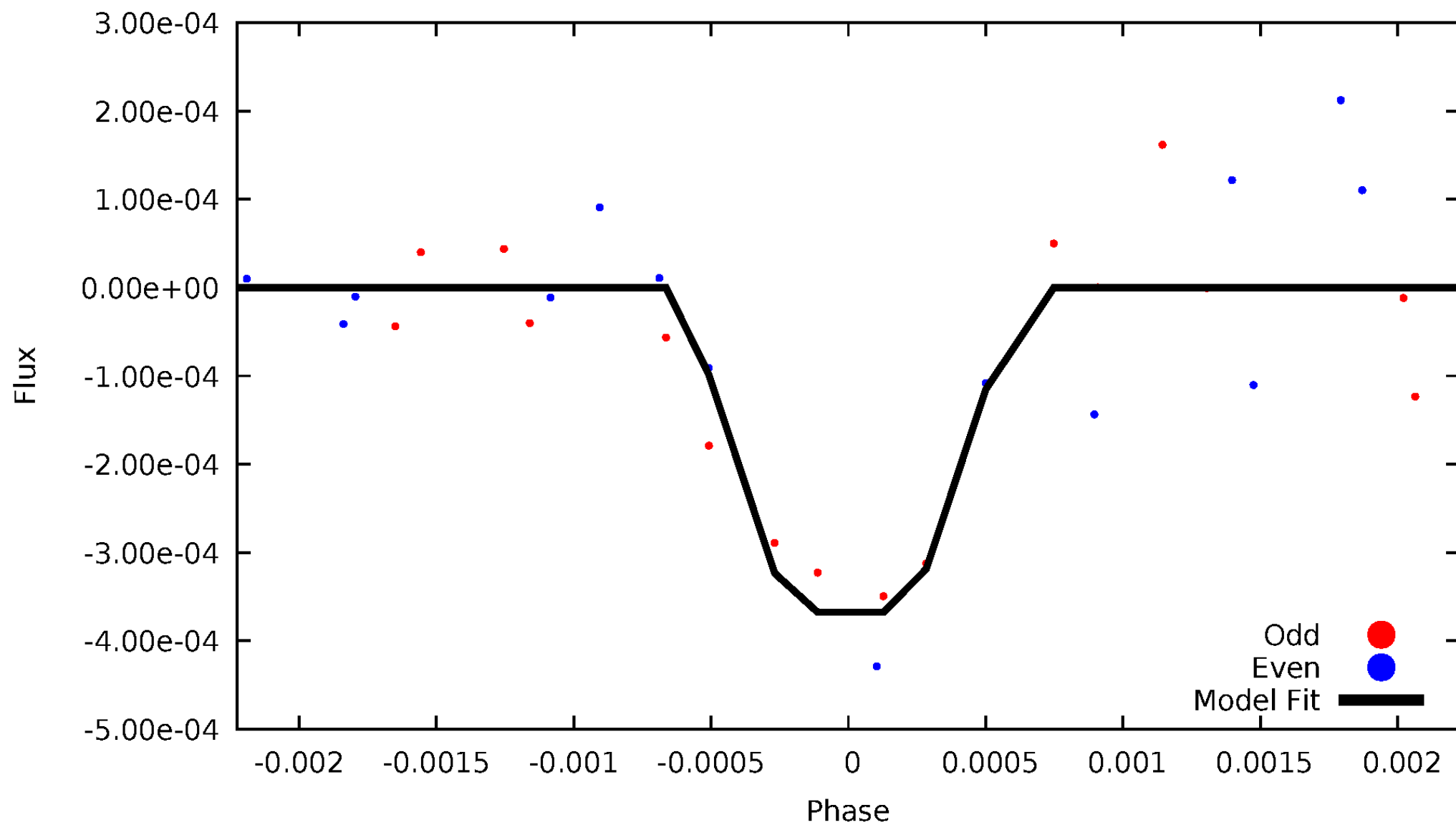
DV Odd/Even

TCE 007362592-02



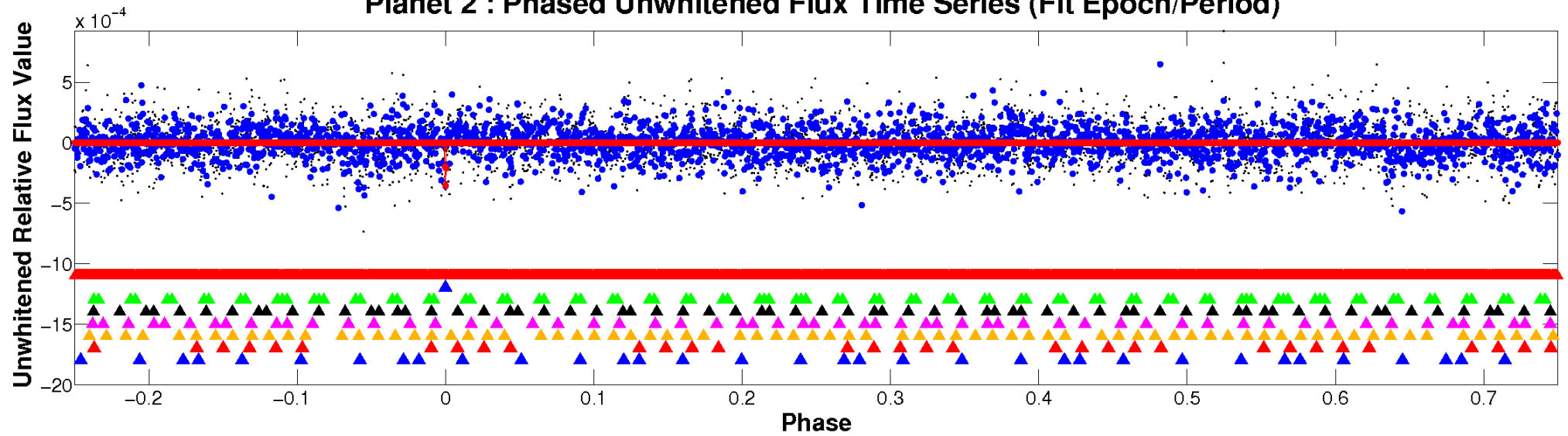
ALT Odd/Even

TCE 007362592-02

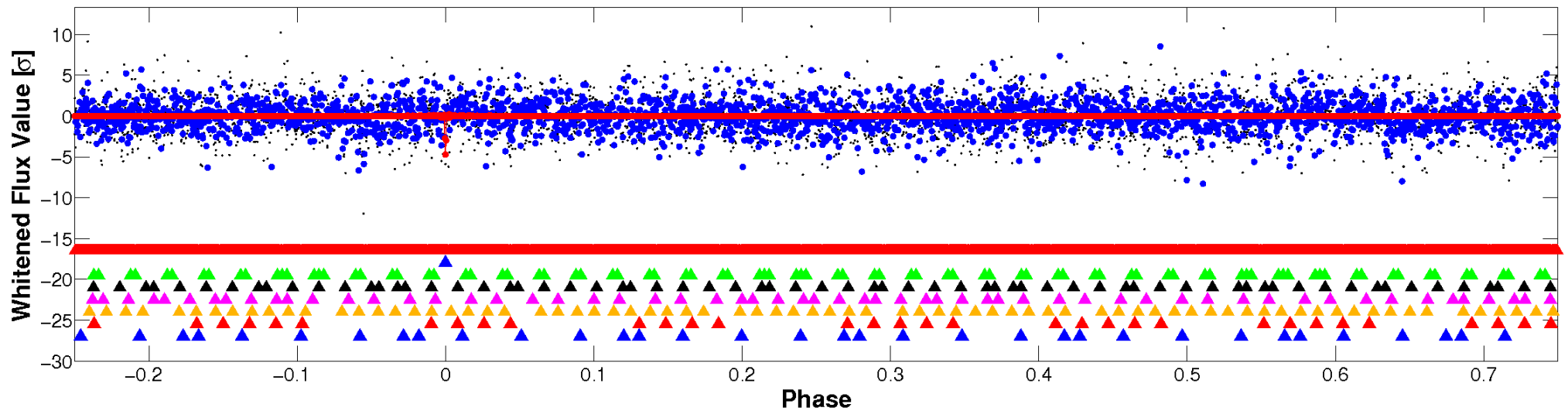


Non-Whitened Vs. Whitened Light Curve

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

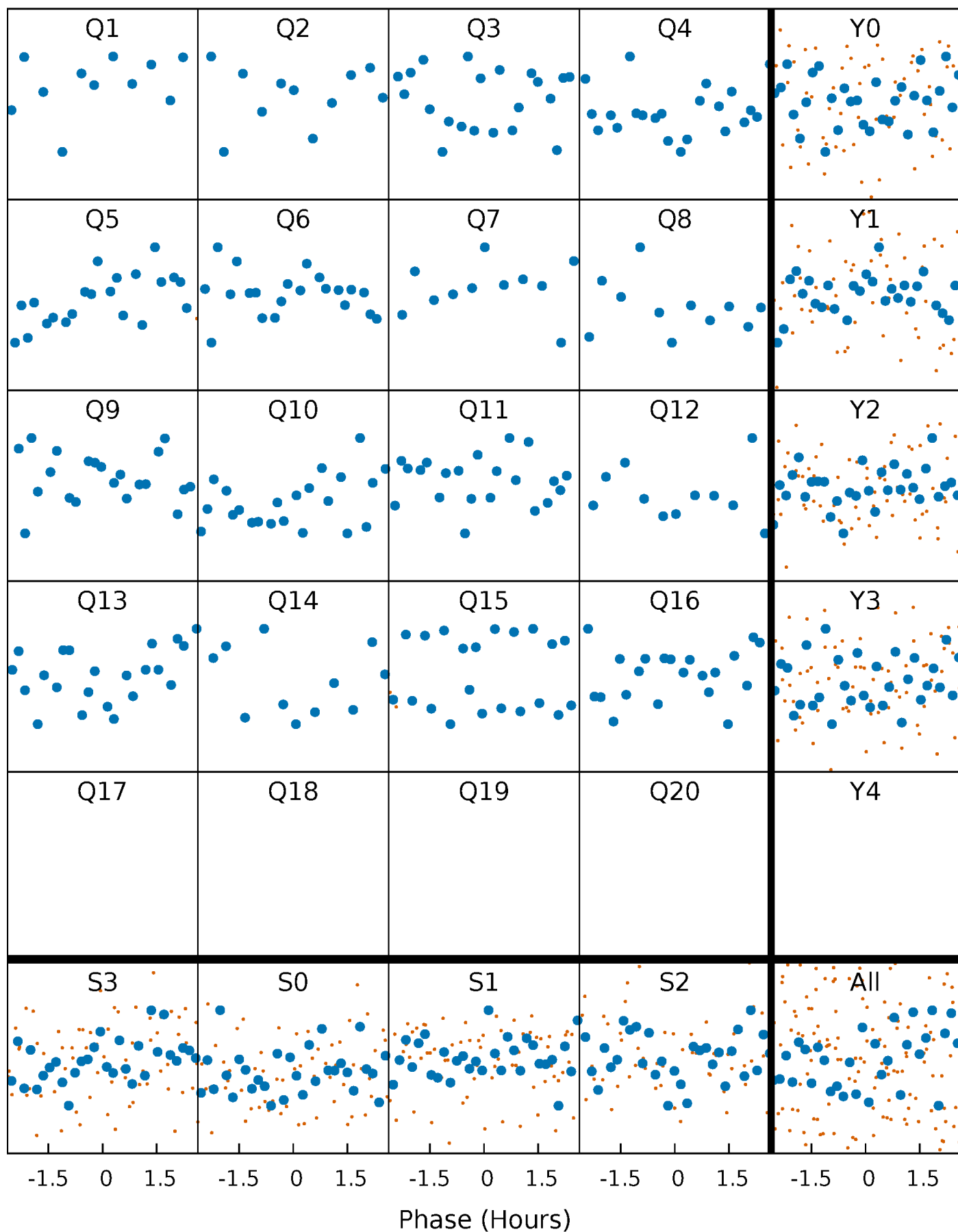


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



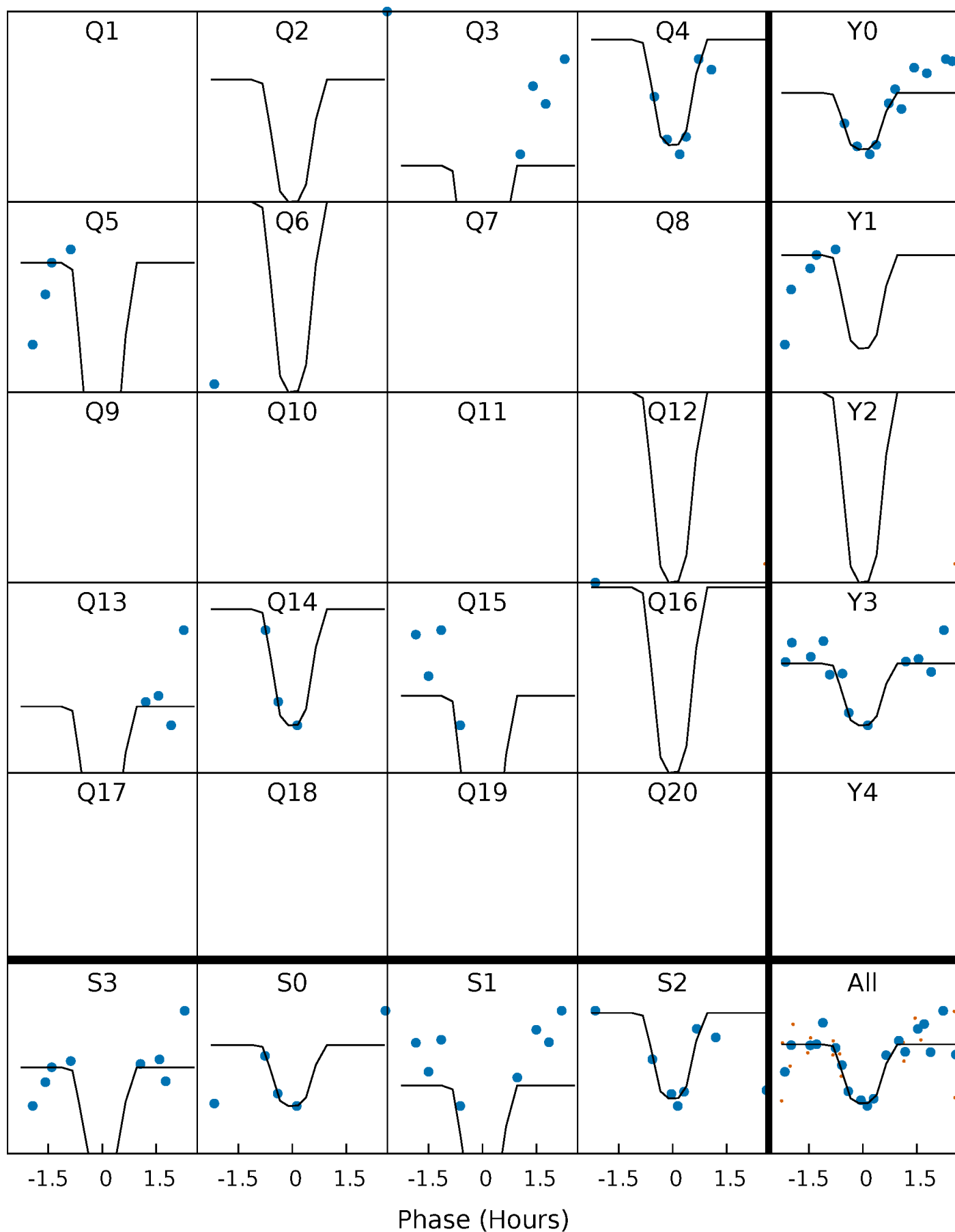
PDC Quarter-Phased Transit Curves

TCE 007362592-02 P= 51.605865 Days $T_0=159.800135$ (BKJD)



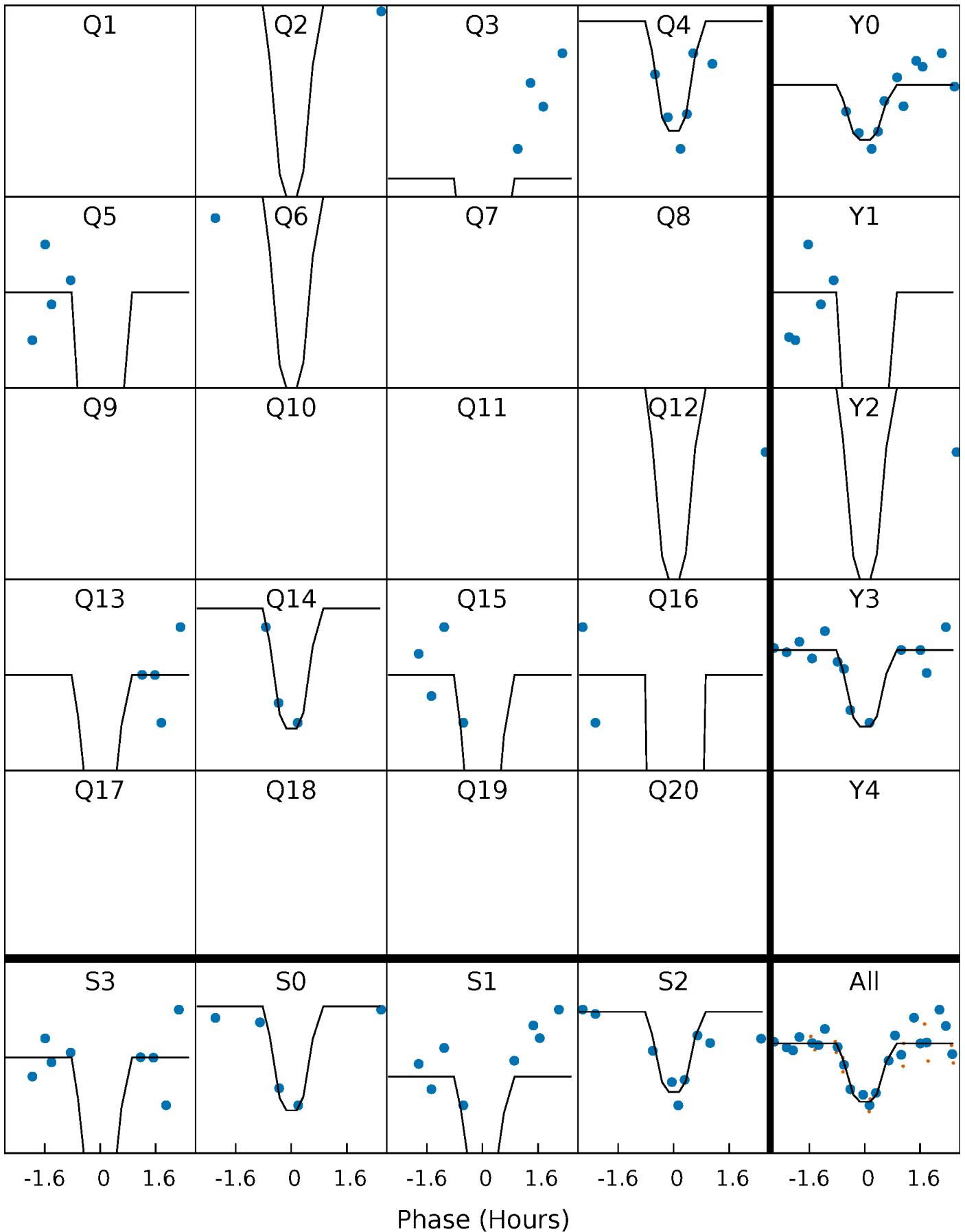
DV Quarter-Phased Transit Curves

TCE 007362592-02 P= 51.605865 Days $T_0=159.800135$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

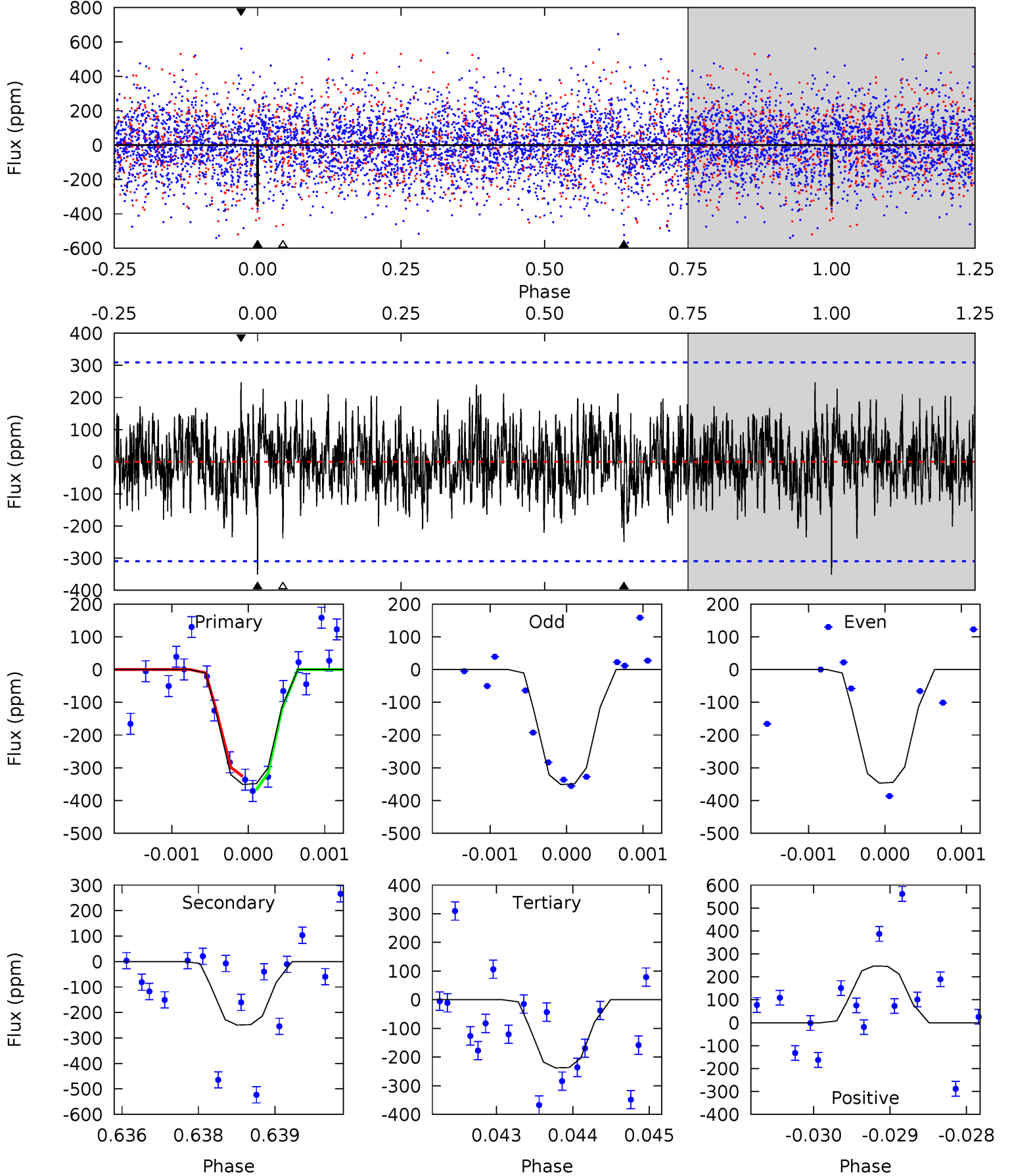
TCE 007362592-02 P= 51.605777 Days $T_0=159.801815$ (BKJD)



DV Model-Shift Uniqueness Test

007362592-02, P = 51.605865 Days, E = 108.194270 Days

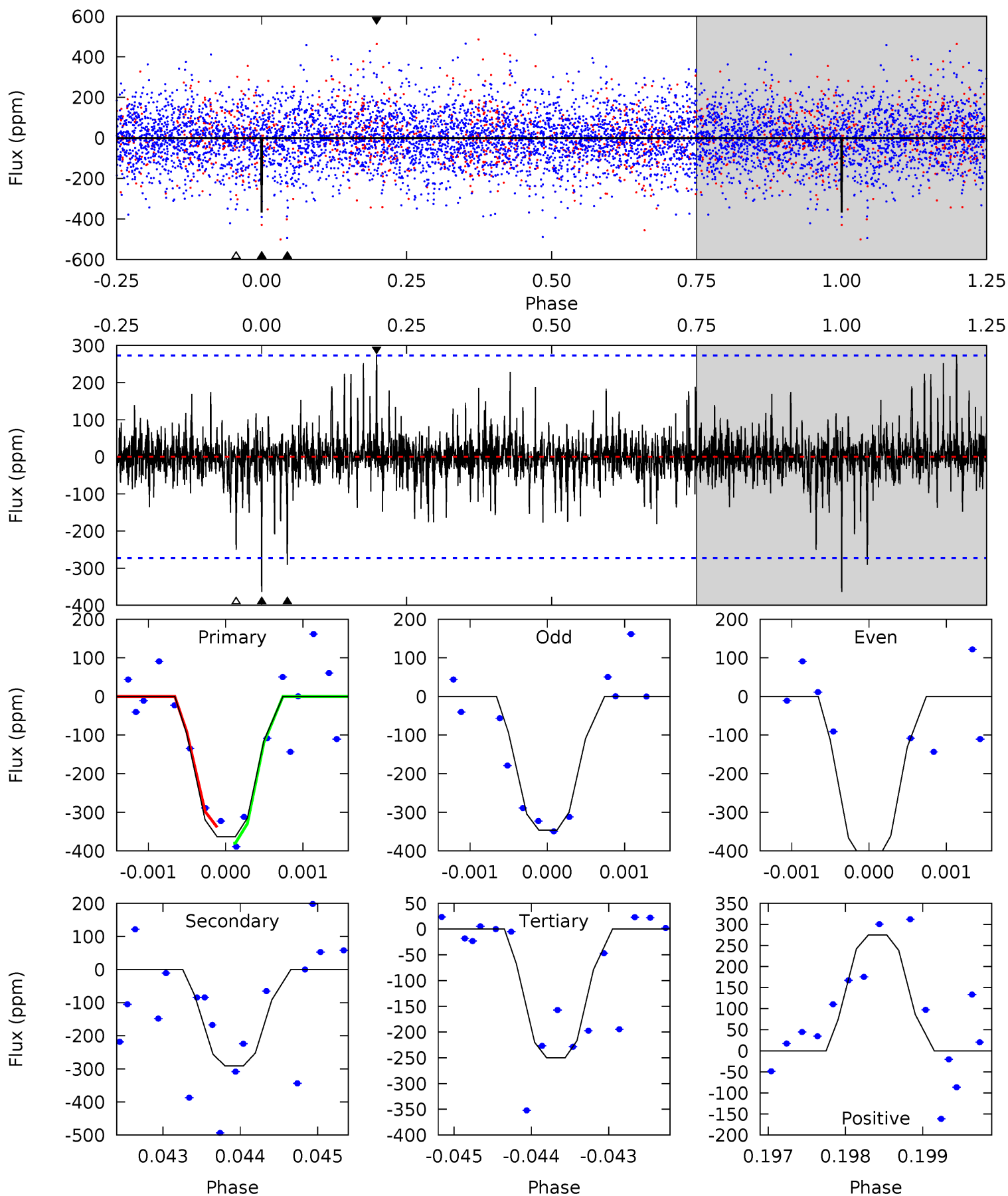
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.15	4.37	4.17	4.33	5.42	3.24	1.35	1.98	1.81	0.20	0.03	0.04	0.98	0.41	0.35



Alt Model-Shift Uniqueness Test

007362592-02, P = 51.605777 Days, E = 108.196038 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.25	5.81	4.99	5.49	5.45	3.29	0.99	2.26	1.76	0.82	0.32	0.53	1.06	0.43	0.42



Stellar Parameters For KIC 007362592

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-249 ± 57	$4.70^{+4.65}_{-3.15}$	898^{+68}_{-91}	4737^{+3469}_{-1053}	490^{+4164}_{-367}
Alt.	-291 ± 50	$4.72^{+4.77}_{-3.12}$	896^{+71}_{-90}	4756^{+3547}_{-947}	533^{+4385}_{-388}

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

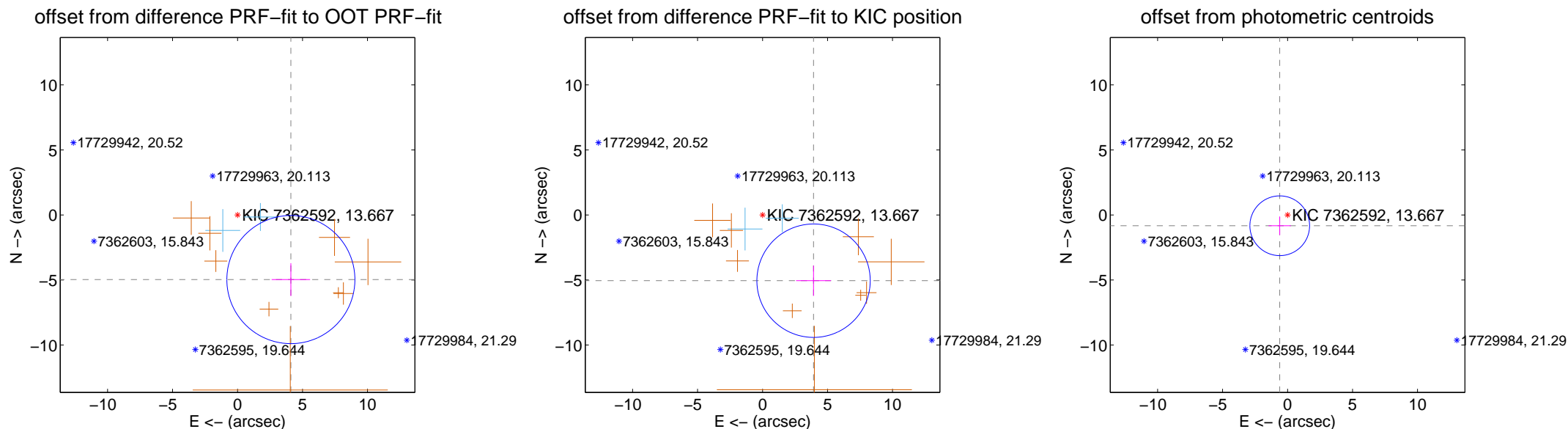
DV Centroid Data

Supplemental centroid analysis for 007362592-02. Kepler magnitude: 13.67. Transit SNR 11.05

There are 2 quarters with good PRF difference image offsets

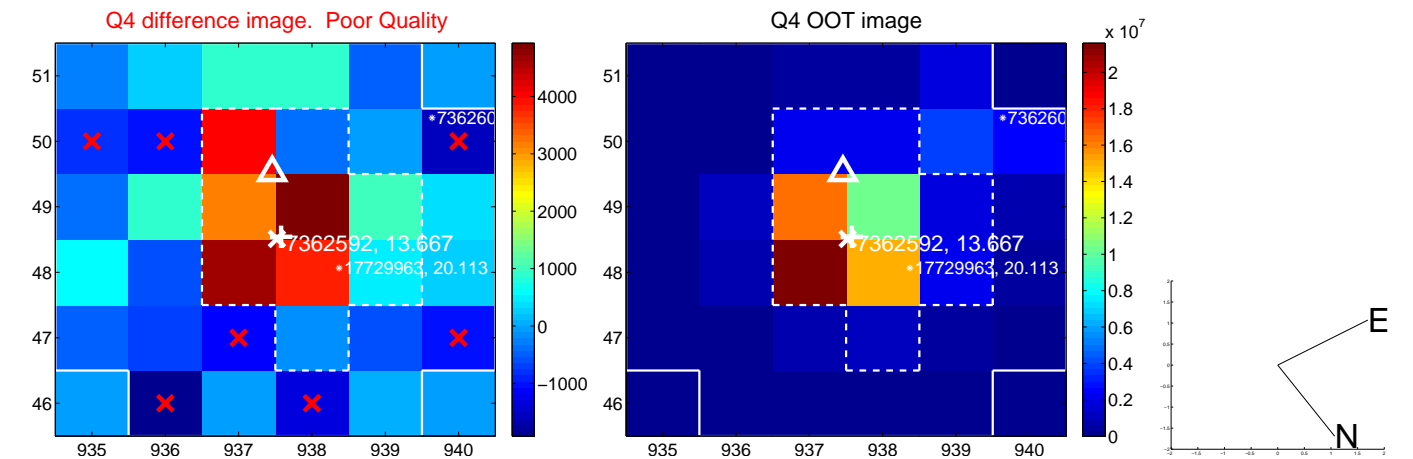
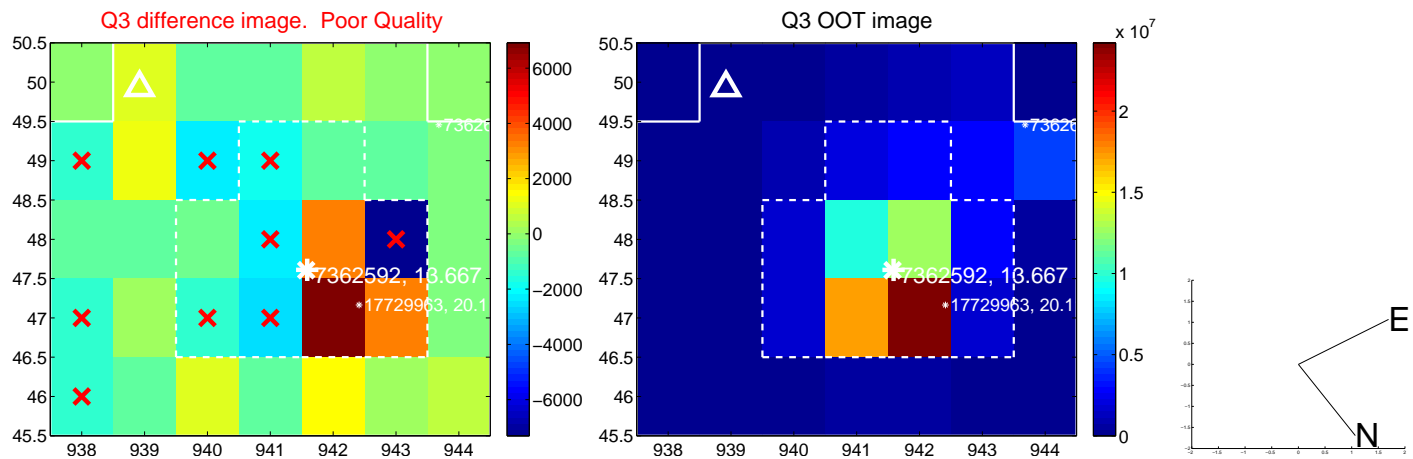
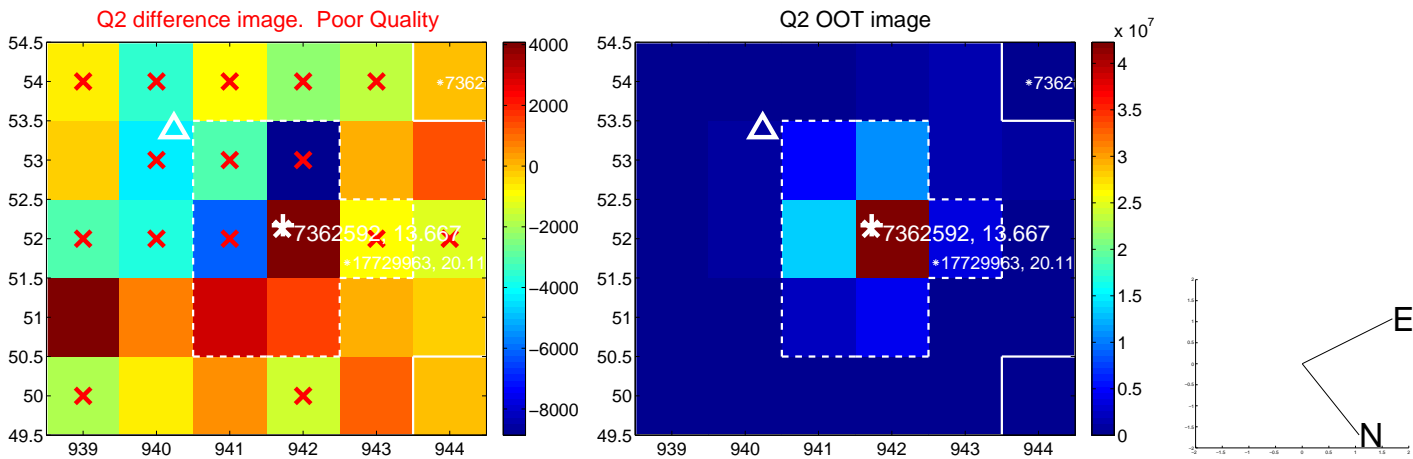
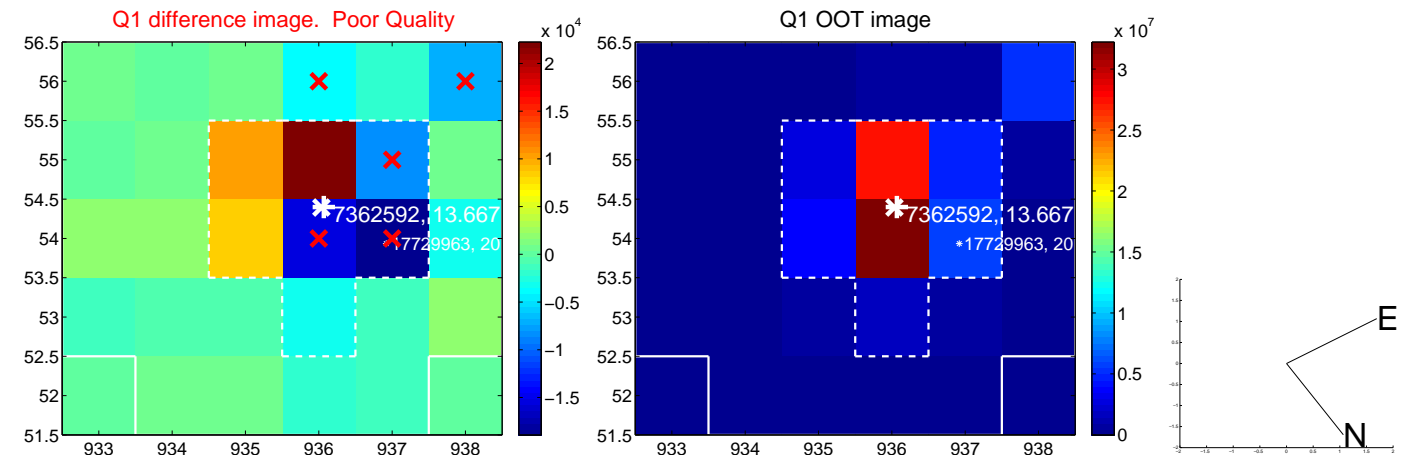
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.444 ± 1.642	3.92	-4.104 ± 1.481	-4.968 ± 1.261
PRF-fit source offset from KIC position	6.400 ± 1.453	4.40	-3.925 ± 1.343	-5.055 ± 1.159
photometric centroid source offset	1.03 ± 0.77	1.34	0.60 ± 0.86	-0.83 ± 0.71

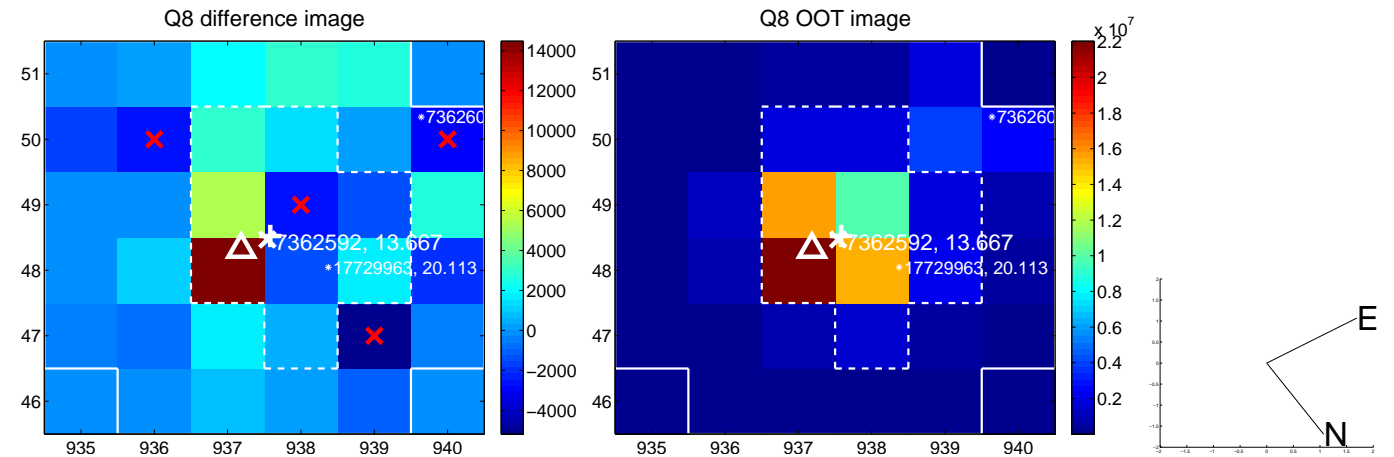
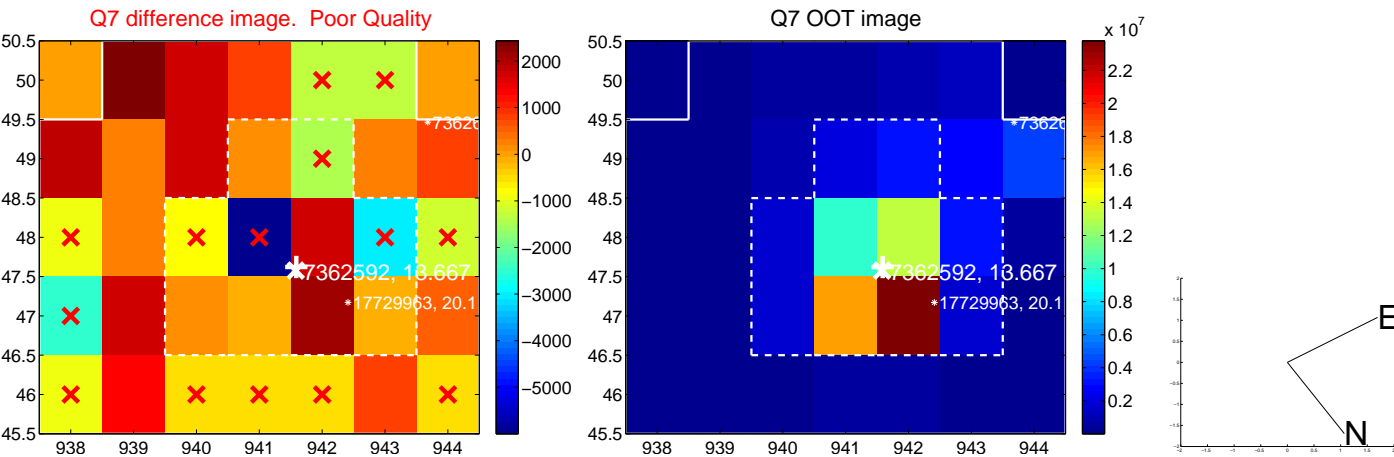
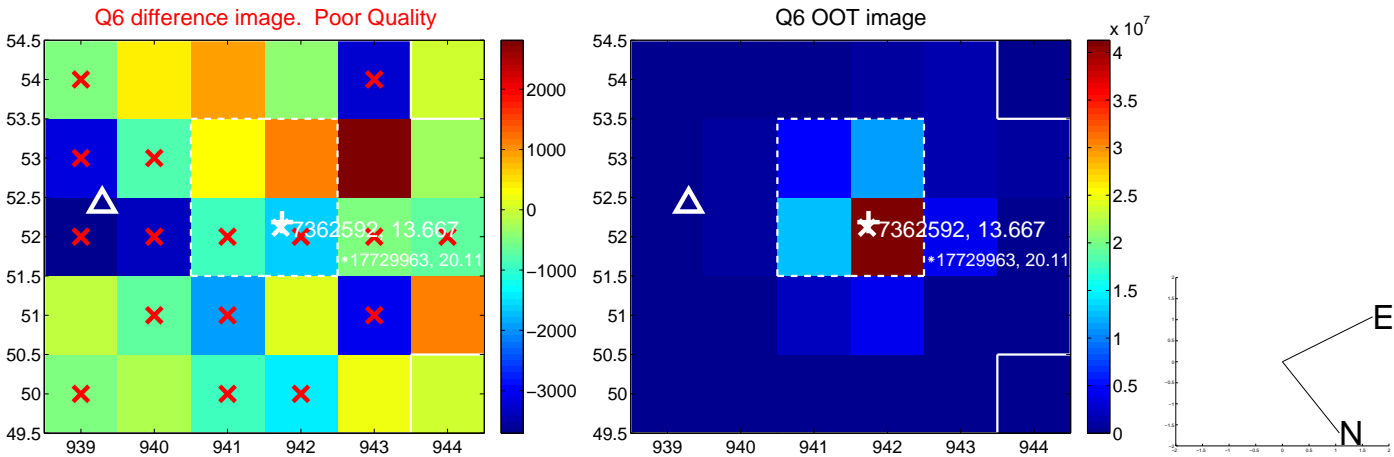
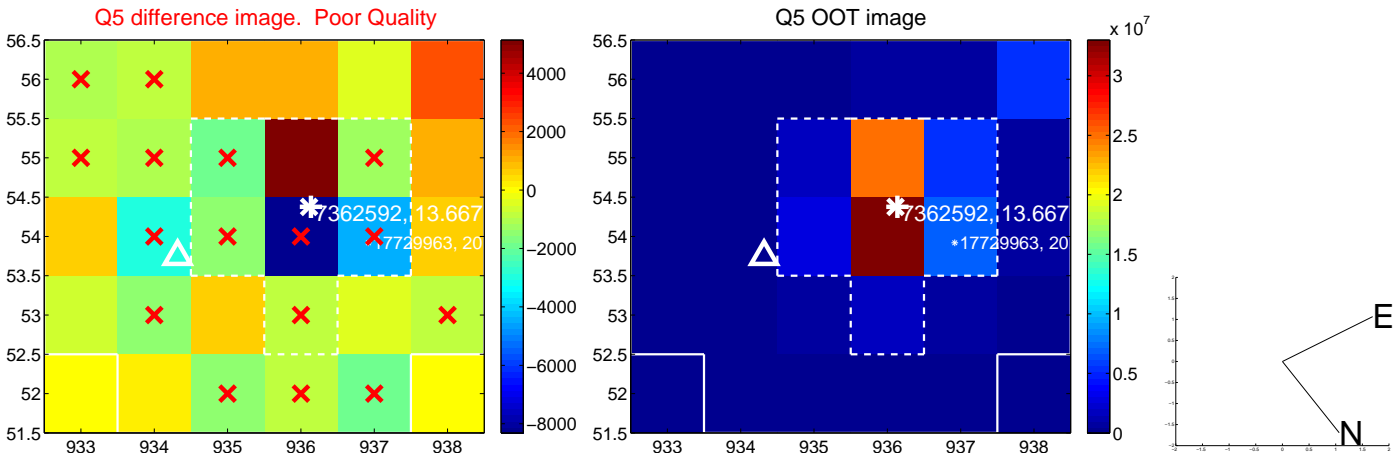


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

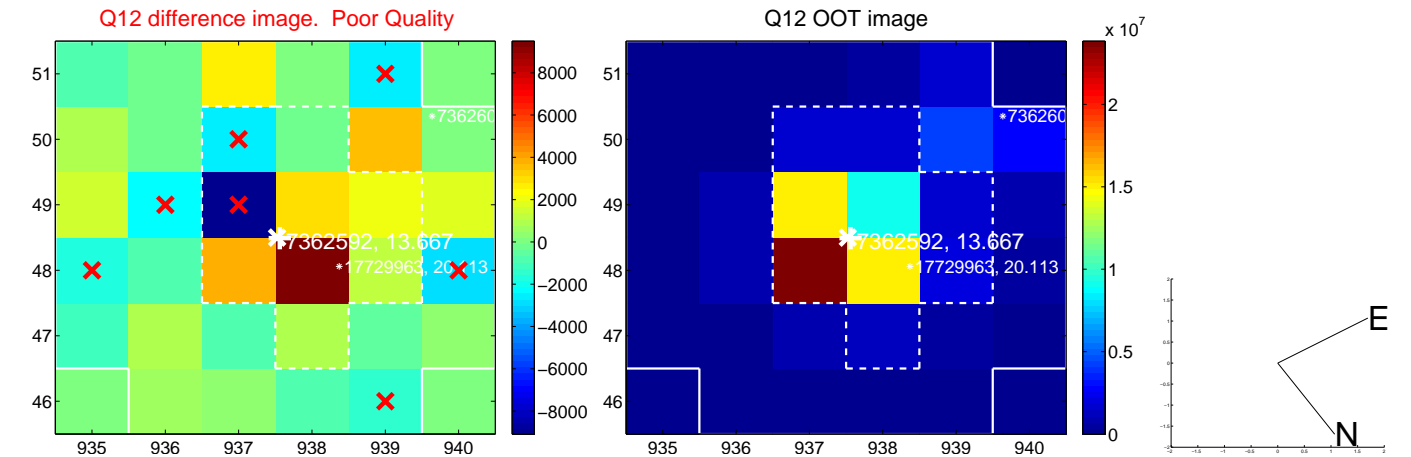
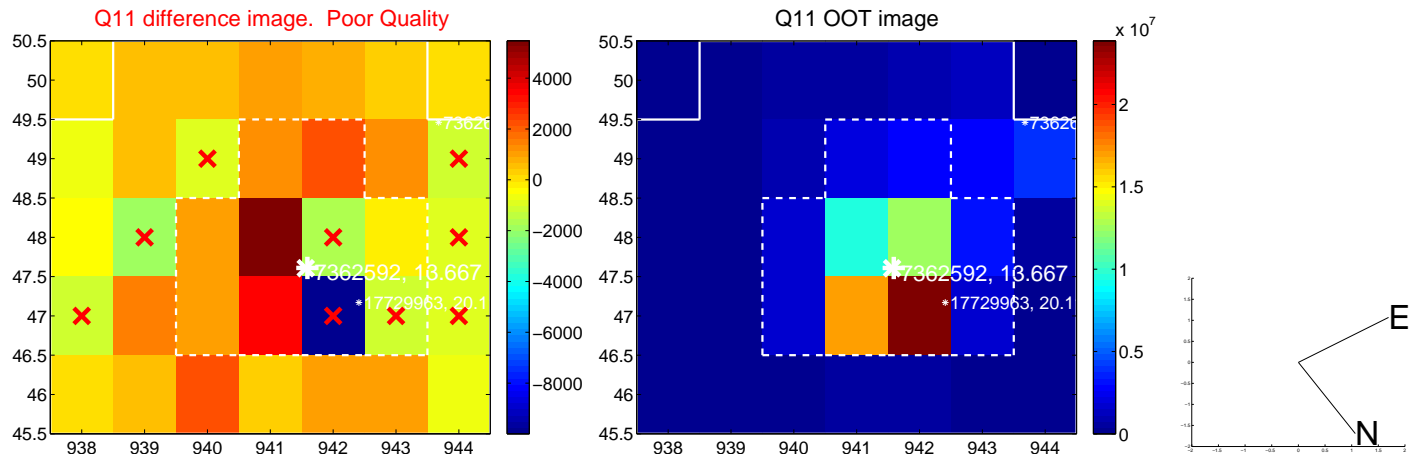
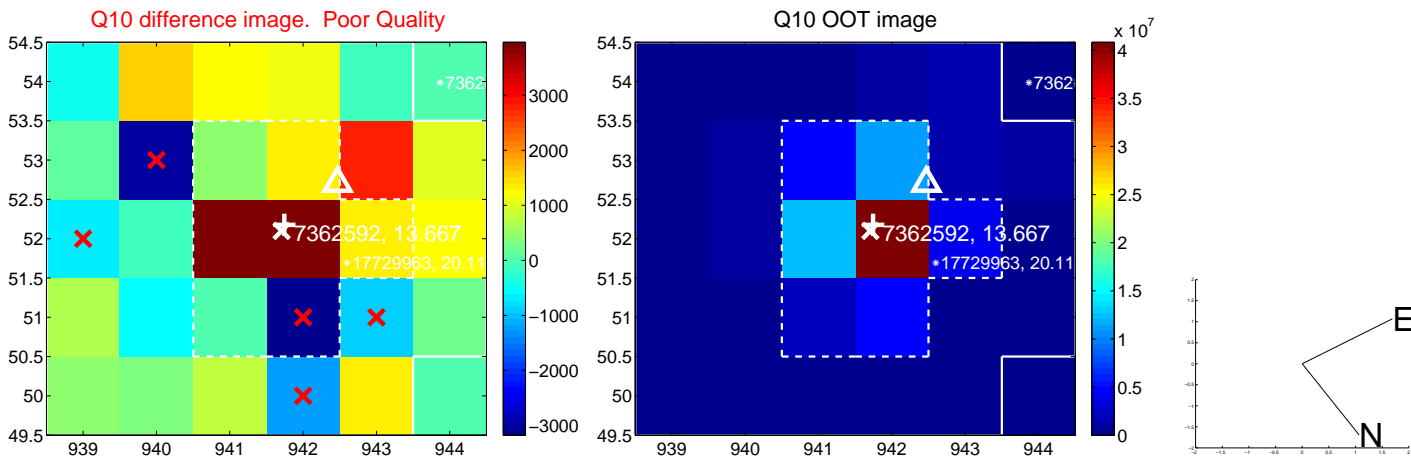
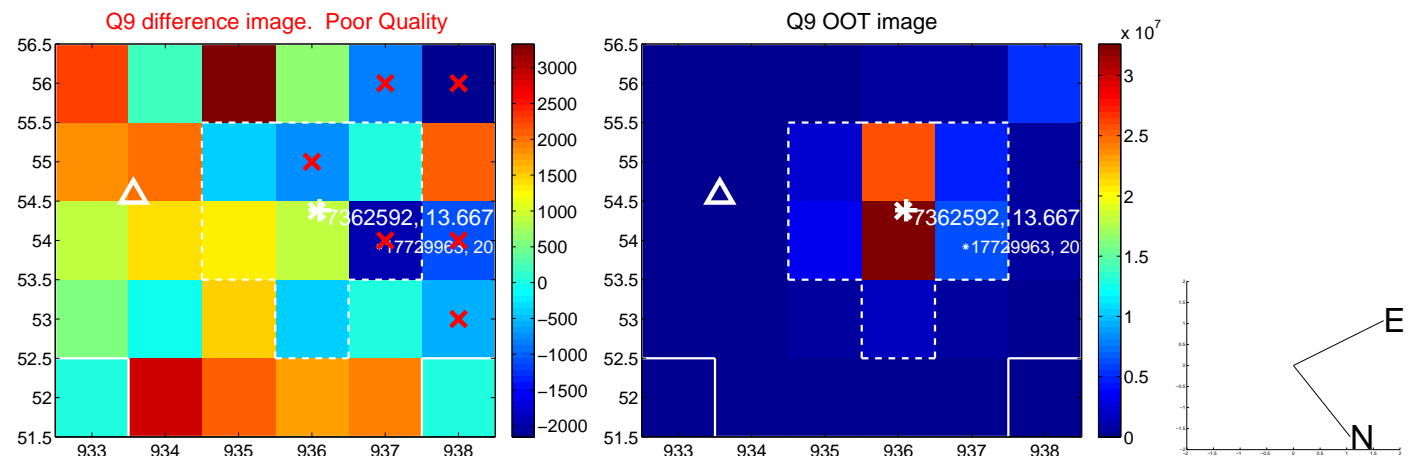
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



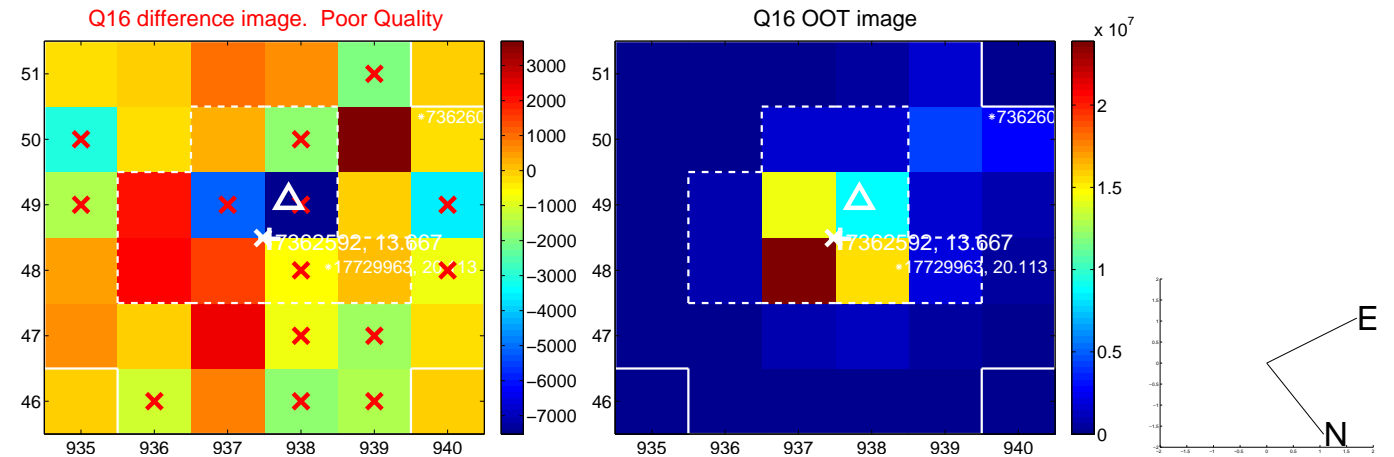
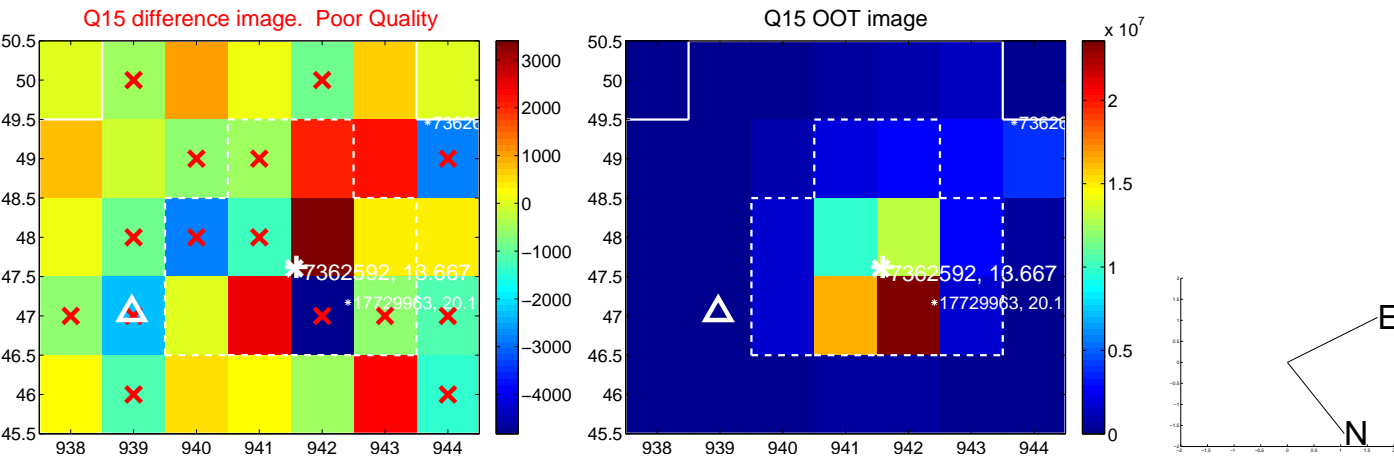
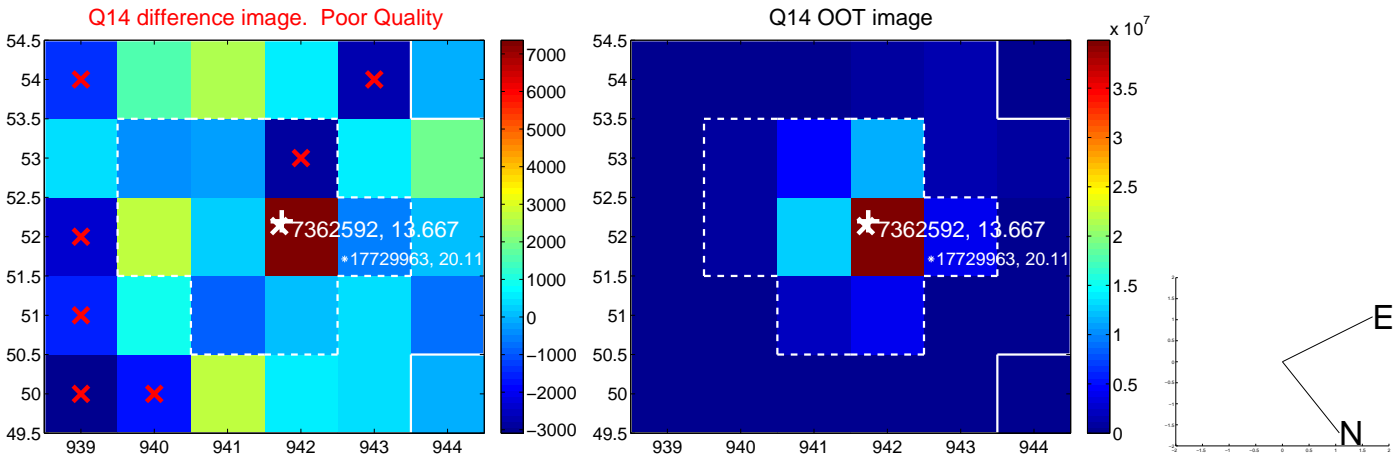
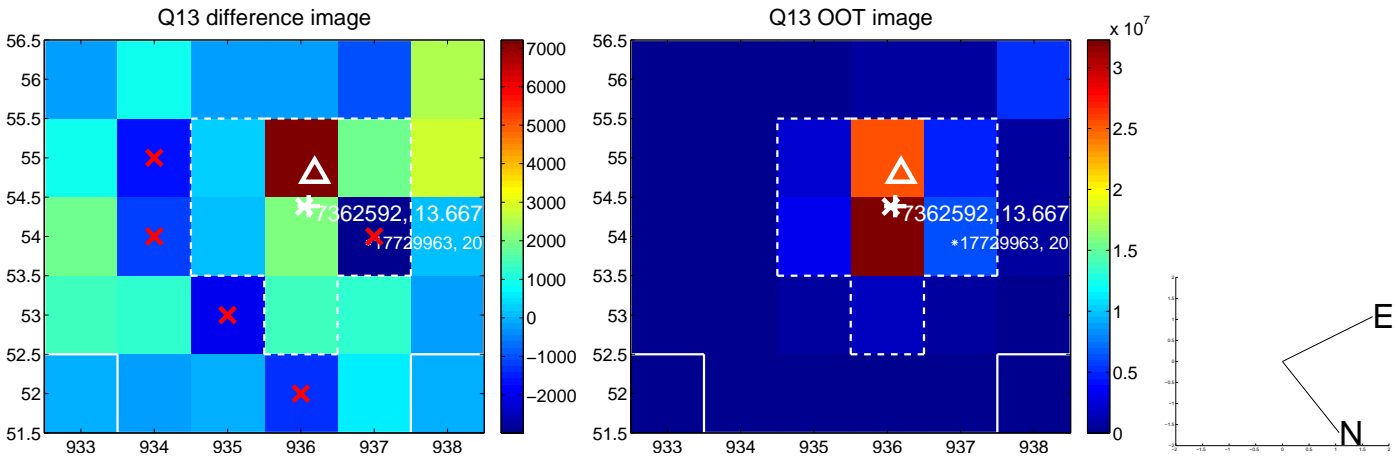
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



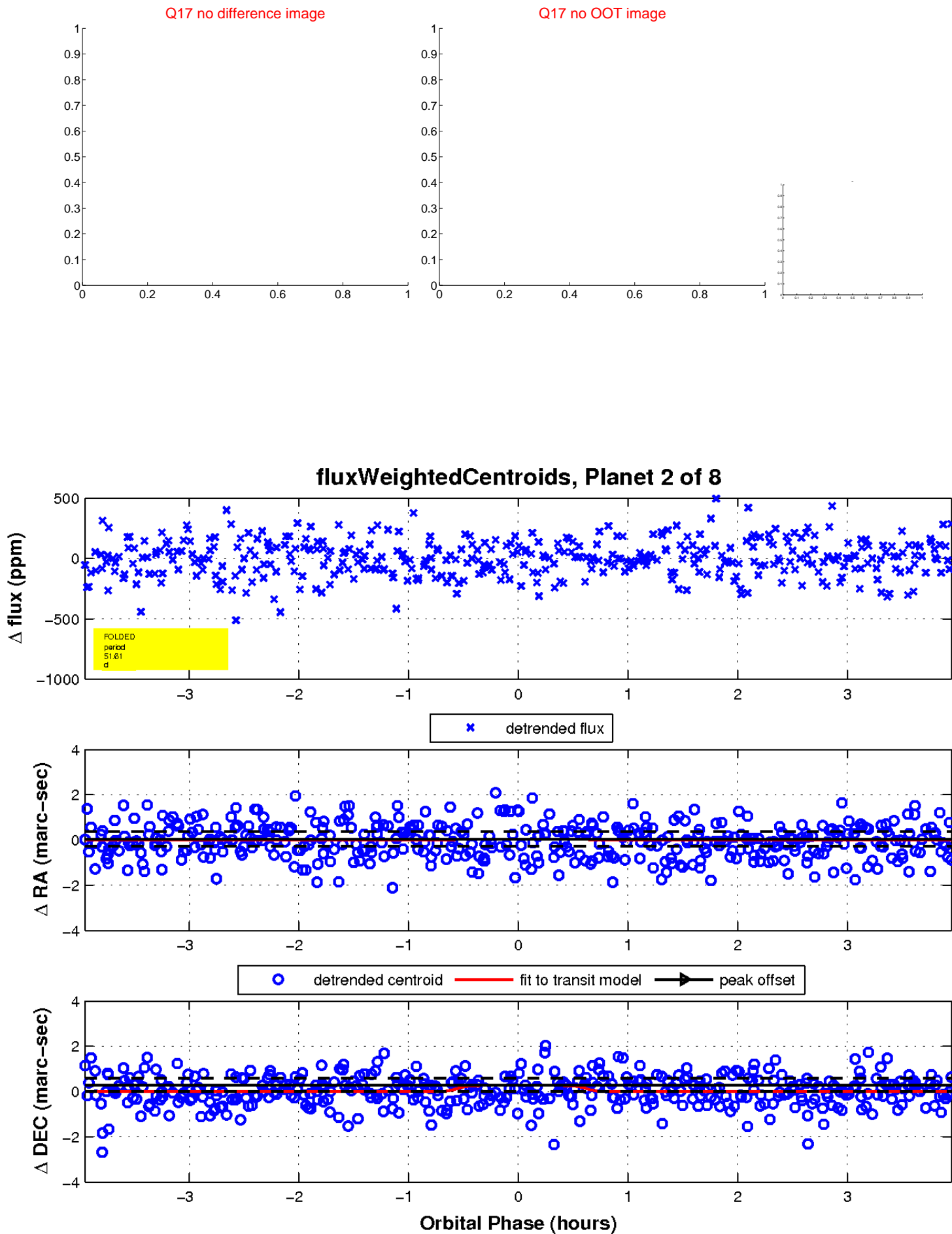
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

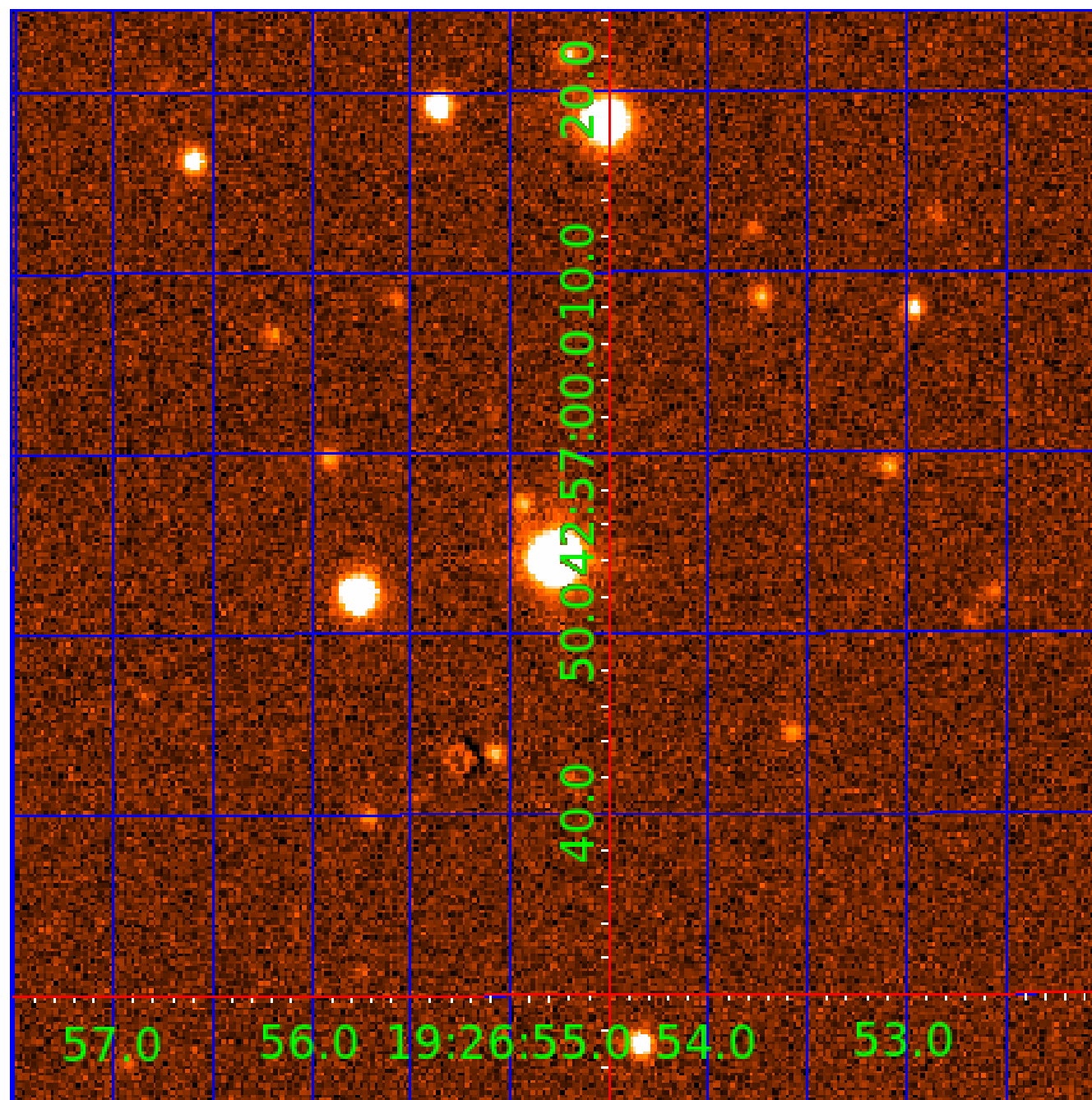


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007362592

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})
007362592-01	OBS	No	0.566746	131.900637	12.3	4.024	11.2	8.3	1.65	6074	0.60	17455.46
007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
007362592-04	OBS	No	21.426313	136.707386	240.1	1.377	9.6	10.4	1.65	6074	2.95	137.57
007362592-05	OBS	No	24.735451	153.925806	227.8	1.635	9.7	10.0	1.65	6074	2.50	113.59
007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
007362592-08	OBS	No	43.940671	137.929737	373.2	1.471	9.6	10.7	1.65	6074	3.30	52.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362592-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

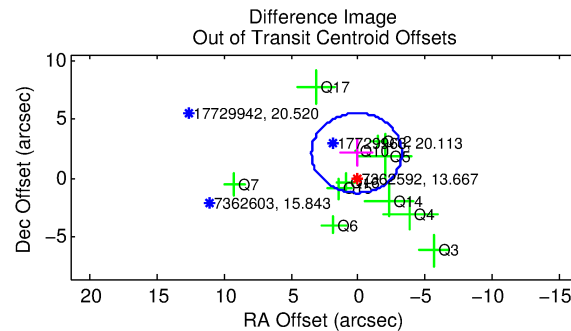
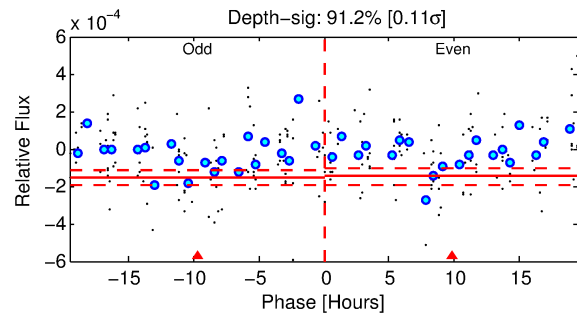
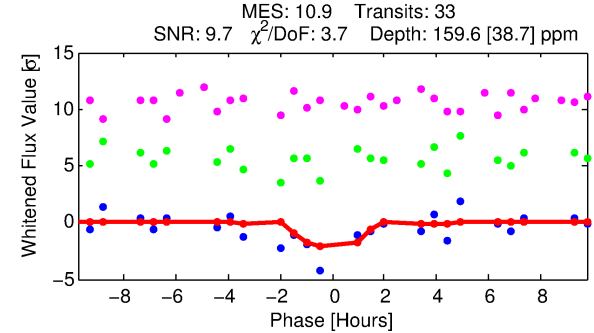
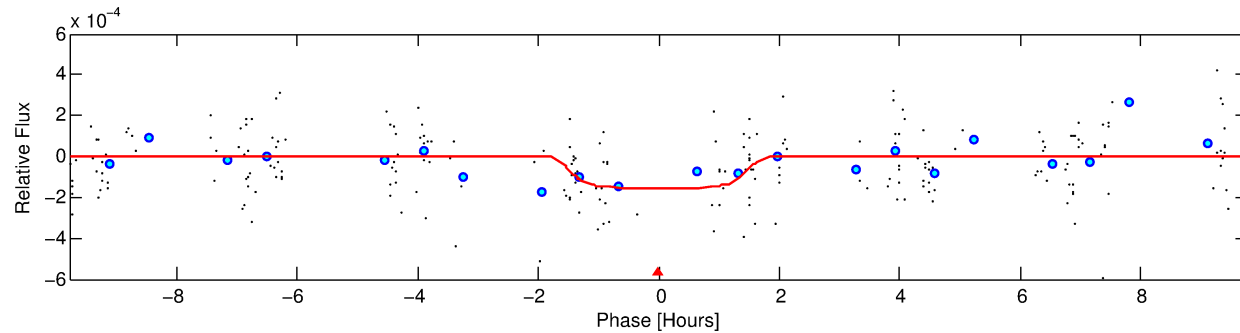
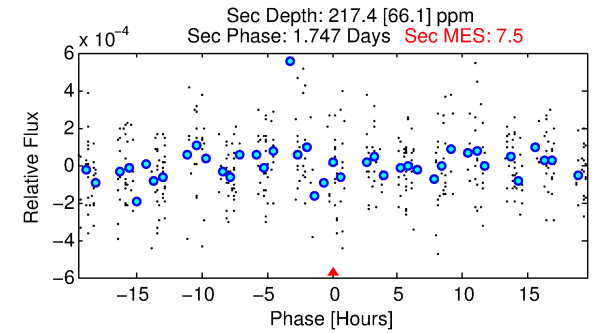
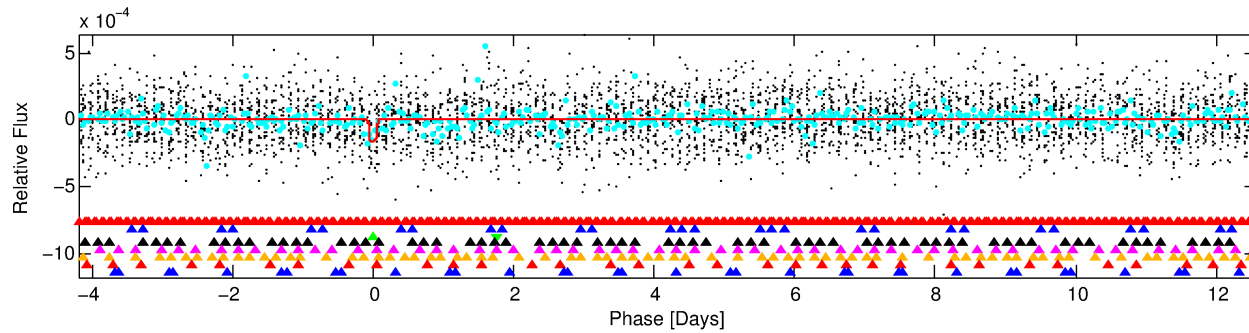
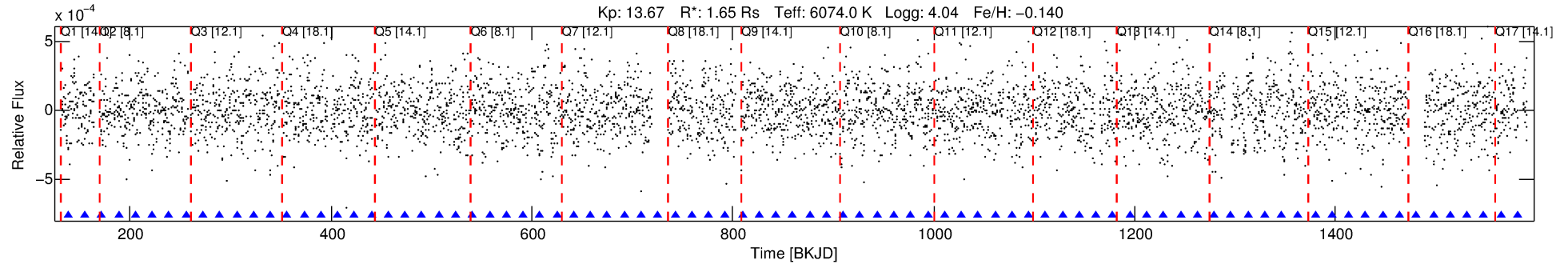
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-03

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 3 of 8 Period: 16.776 d



DV Fit Results:

Period = 16.77607 [0.00018] d
Epoch = 138.4544 [0.0085] BKJD
Rp/R* = 0.0138 [0.0199]
a/R* = 17.57 [139.30]
b = 0.91 [1.52]
Seff = 190.63 [113.82]
Teq = 947 [141] K
Rp = 2.48 [3.70] Re
a = 0.1320 [0.0477] AU
Ag = 339.44 [1006.50] [0.34σ]
Teffp = 6288 [4575] K [1.17σ]

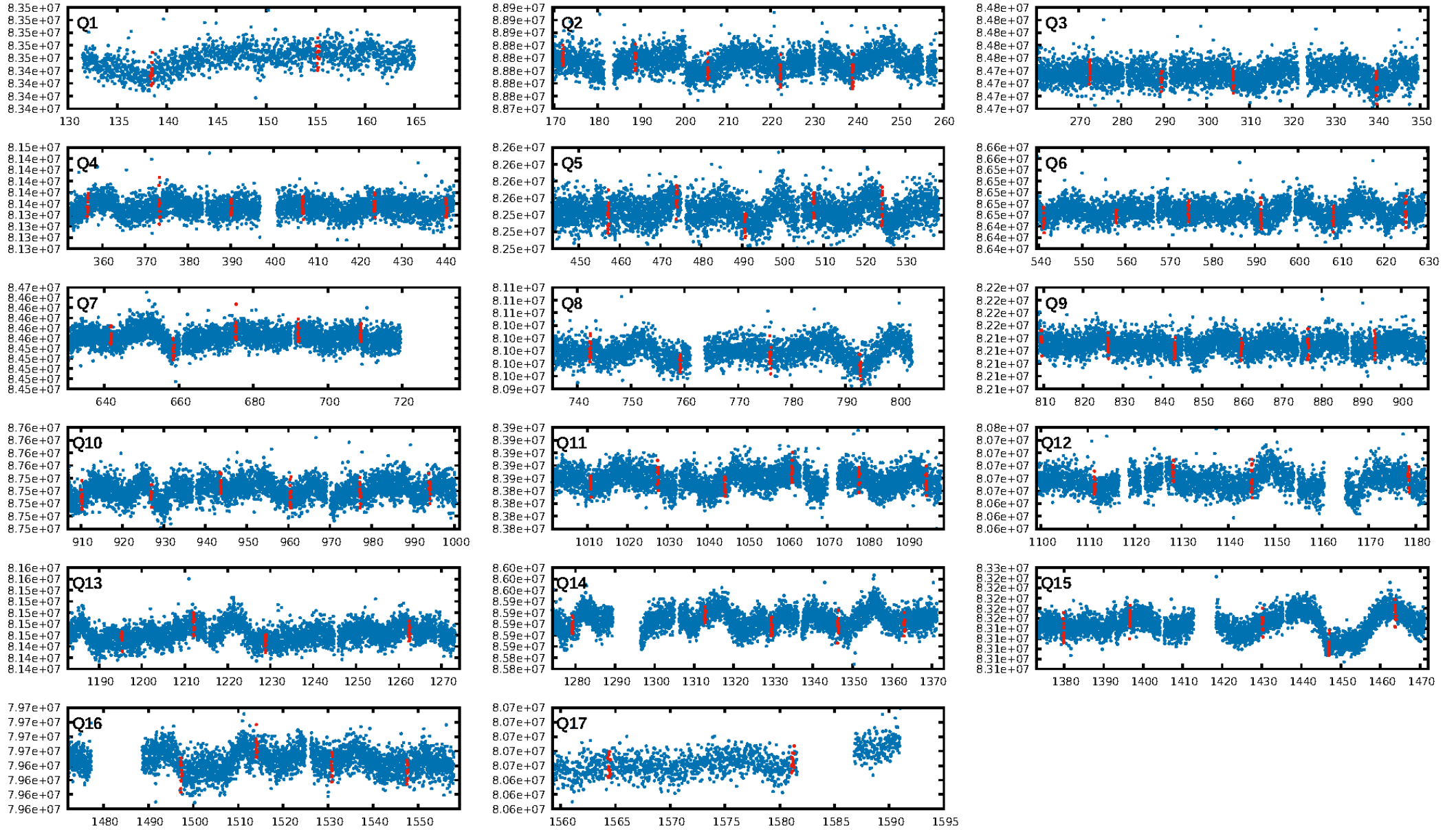
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [75.08σ]
LongPeriod-sig: 100.0% [18.69σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 7.28e-11
RollingBand-fgt: 1.00 [31/31]
GhostDiagnostic-chr: 0.1303
Centroid-sig: 0.0%
Centroid-so: 2.057 arcsec [3.20σ]
OotOffset-rm: 2.151 arcsec [1.91σ]
KicOffset-rm: 2.075 arcsec [1.82σ]
OotOffset-st: 3/3/3/2 [11]
KicOffset-st: 3/3/3/2 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 0.00 [0/17]

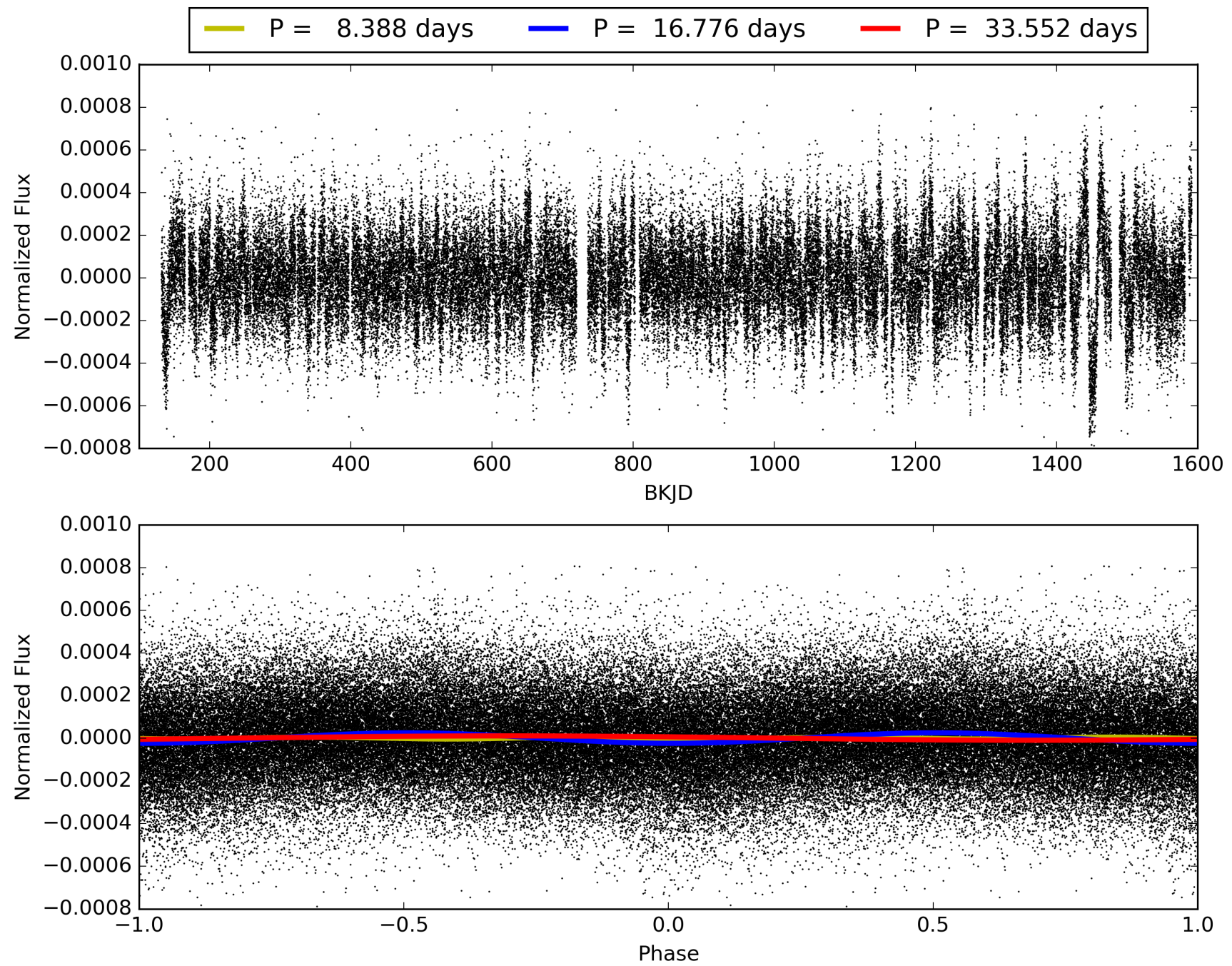
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:31 Z

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

TCE 007362592-03, PDC Light Curves

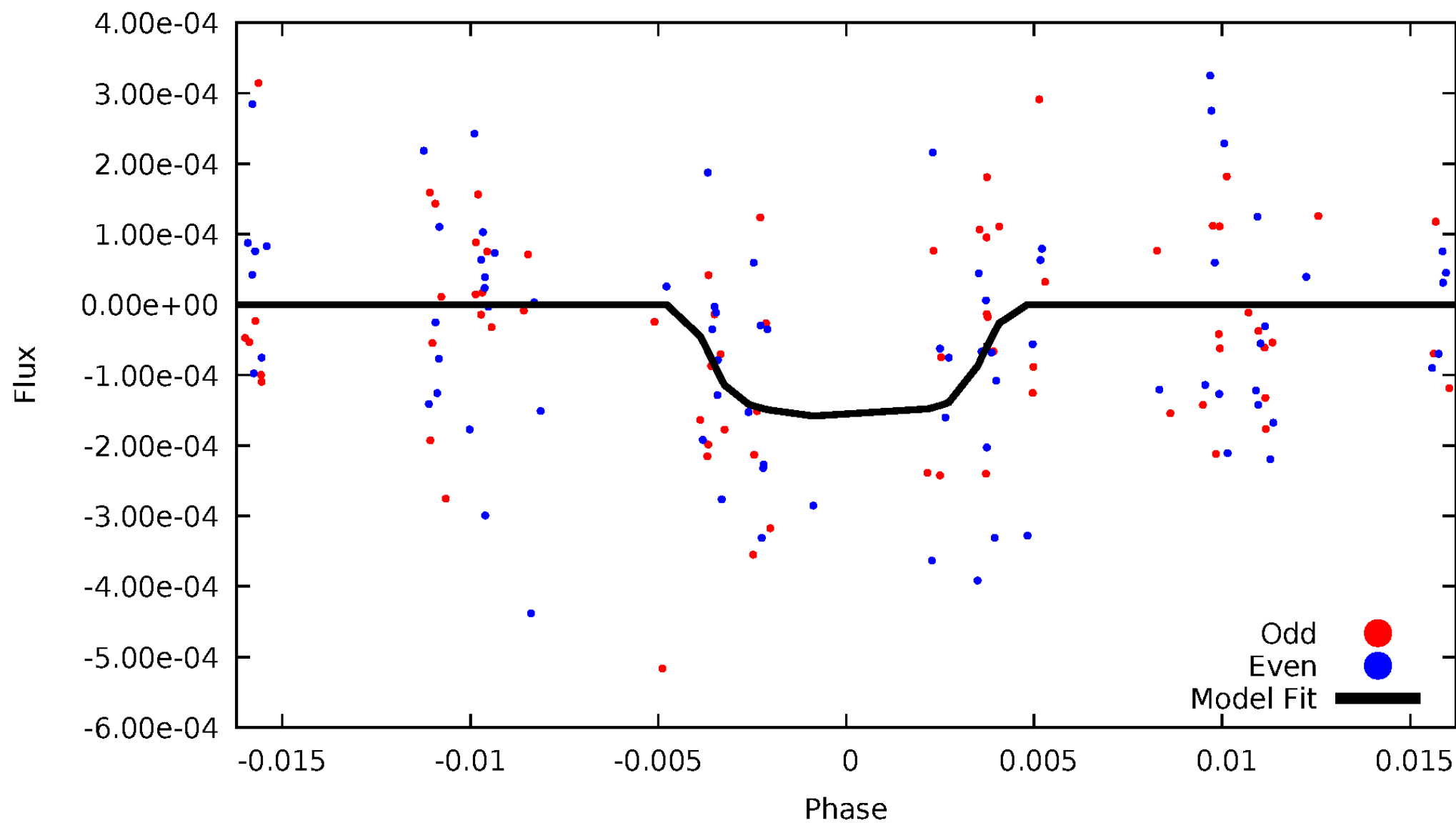


TCE 007362592-03



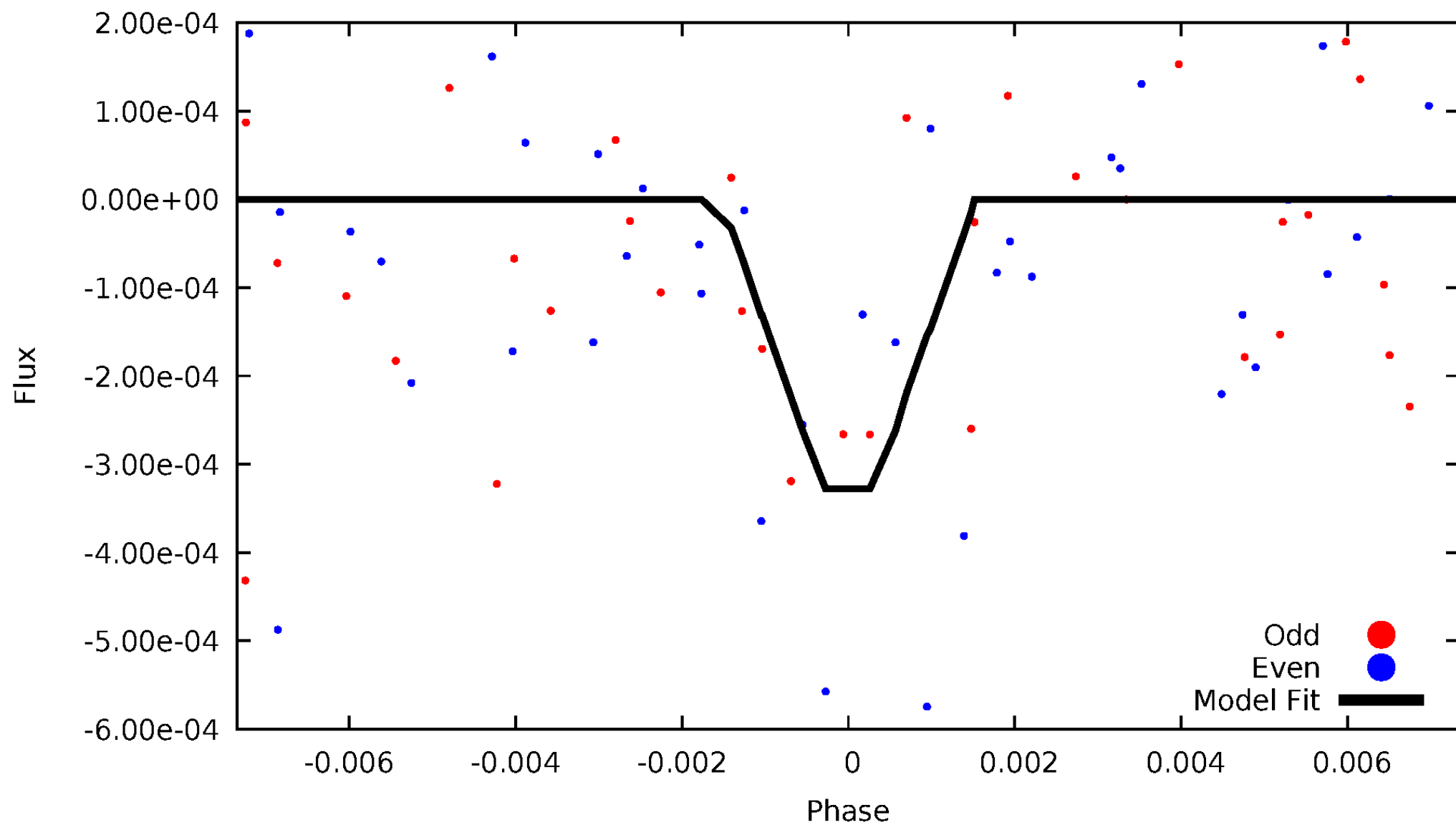
DV Odd/Even

TCE 007362592-03



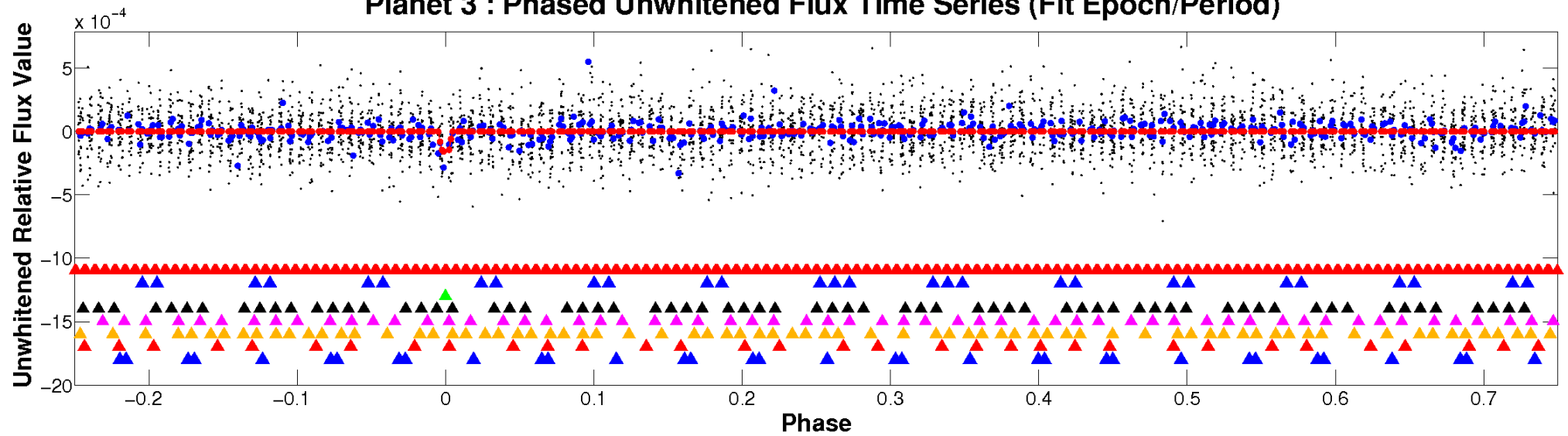
ALT Odd/Even

TCE 007362592-03

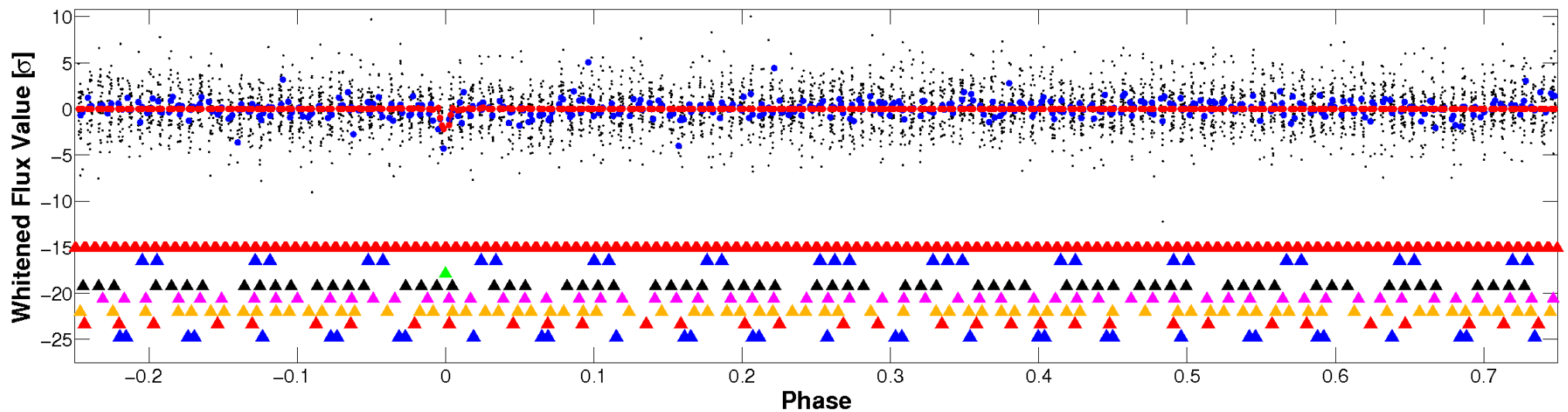


Non-Whitened Vs. Whitened Light Curve

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

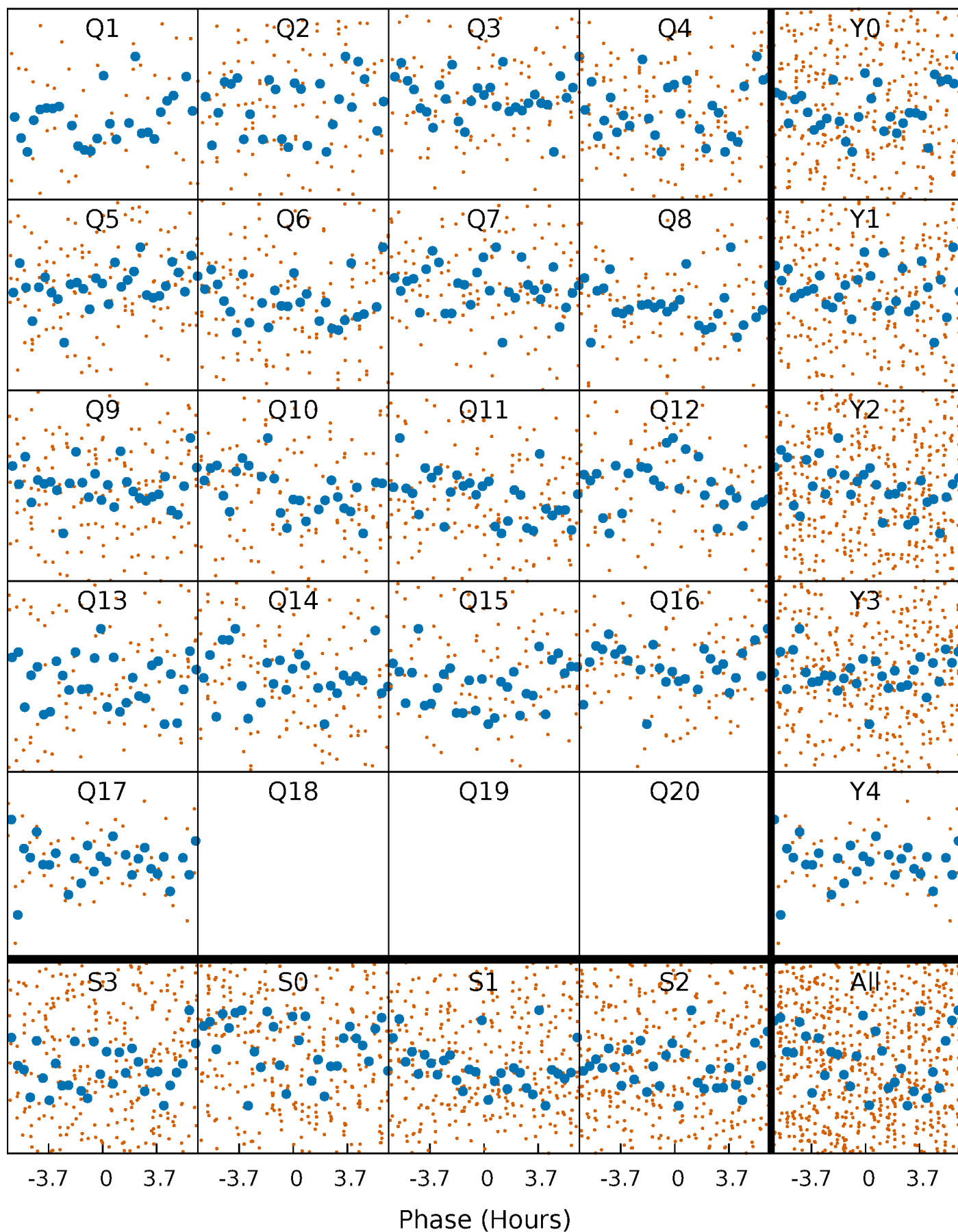


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



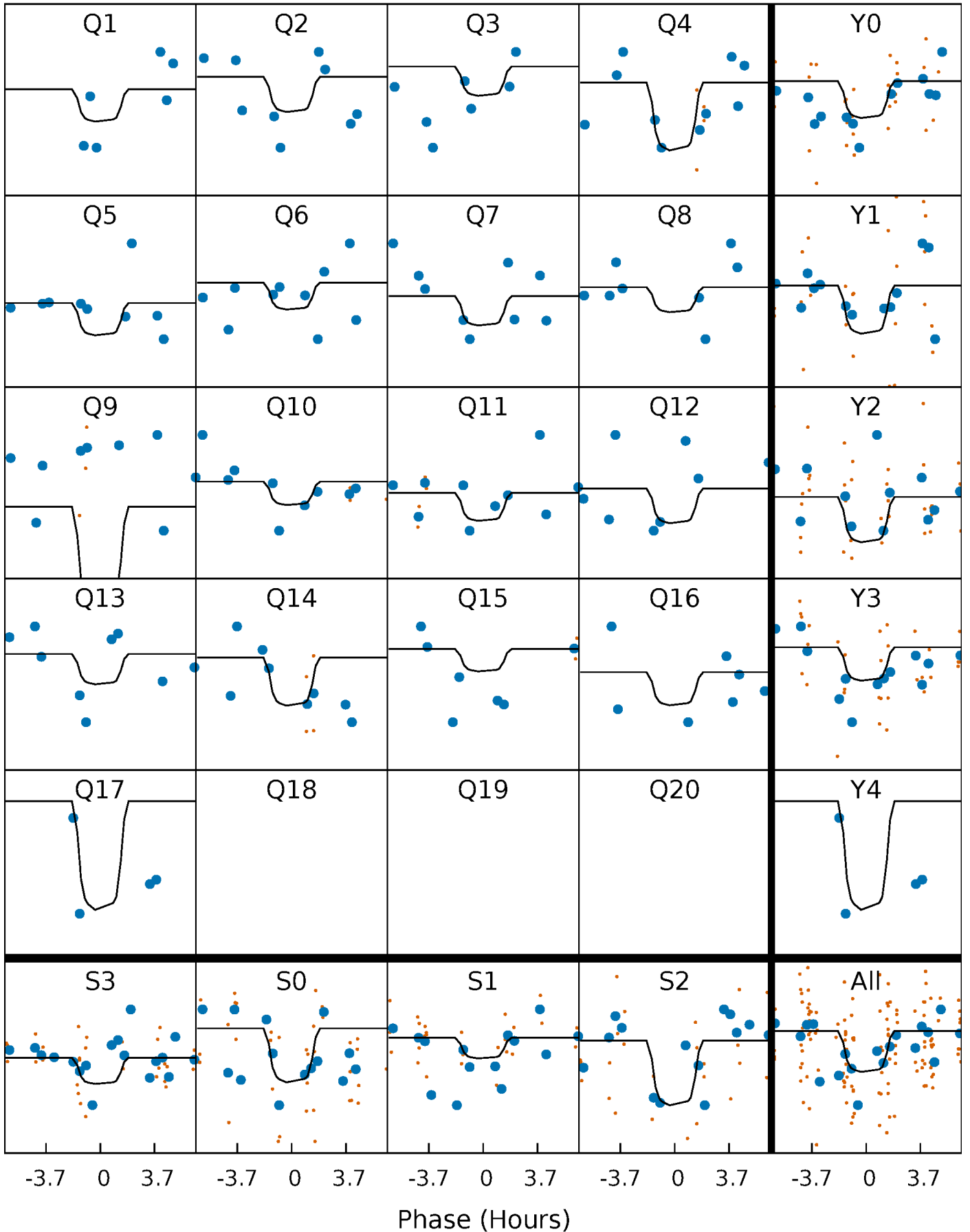
PDC Quarter-Phased Transit Curves

TCE 007362592-03 P= 16.776067 Days $T_0=138.454382$ (BKJD)



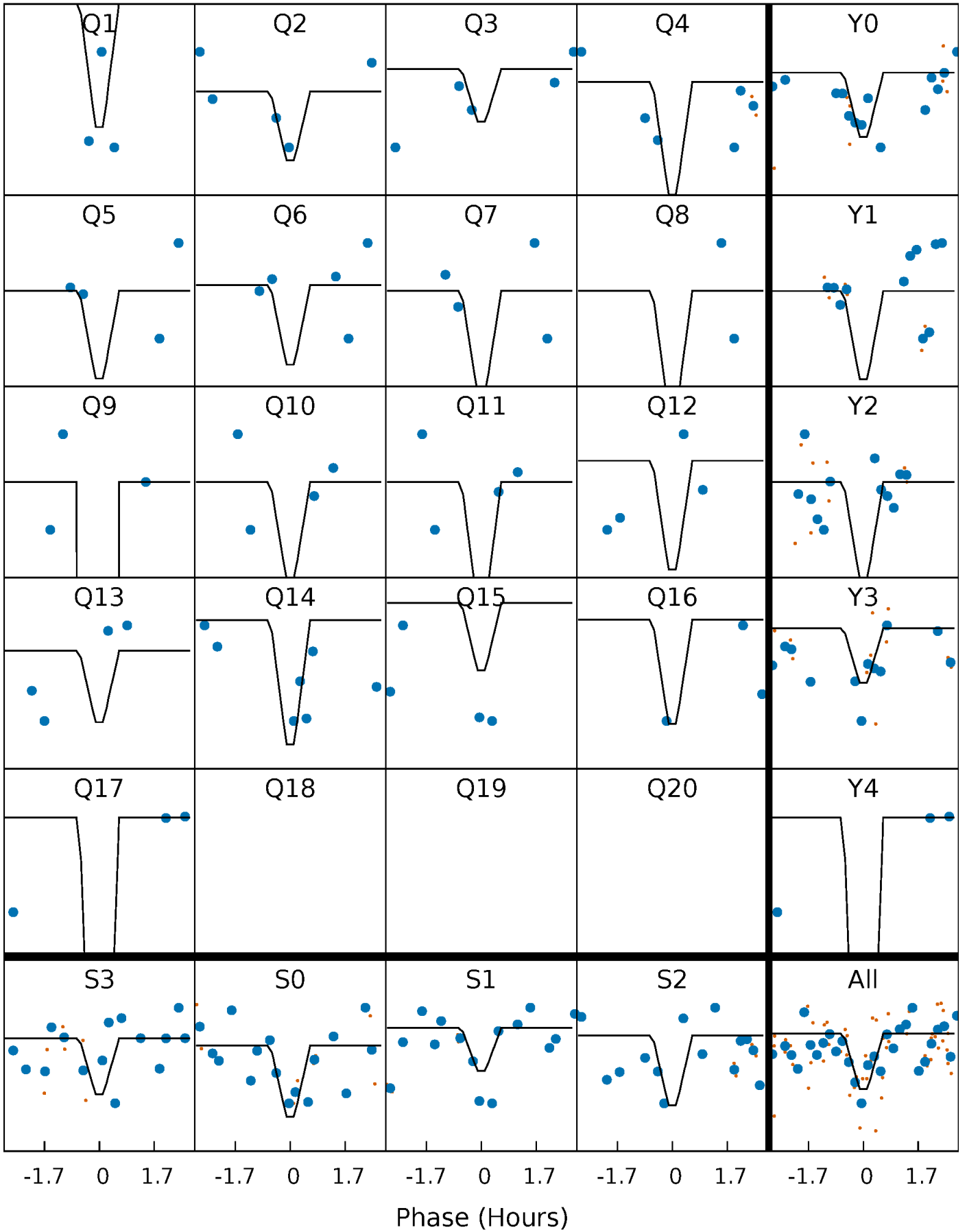
DV Quarter-Phased Transit Curves

TCE 007362592-03 P= 16.776067 Days $T_0=138.454382$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

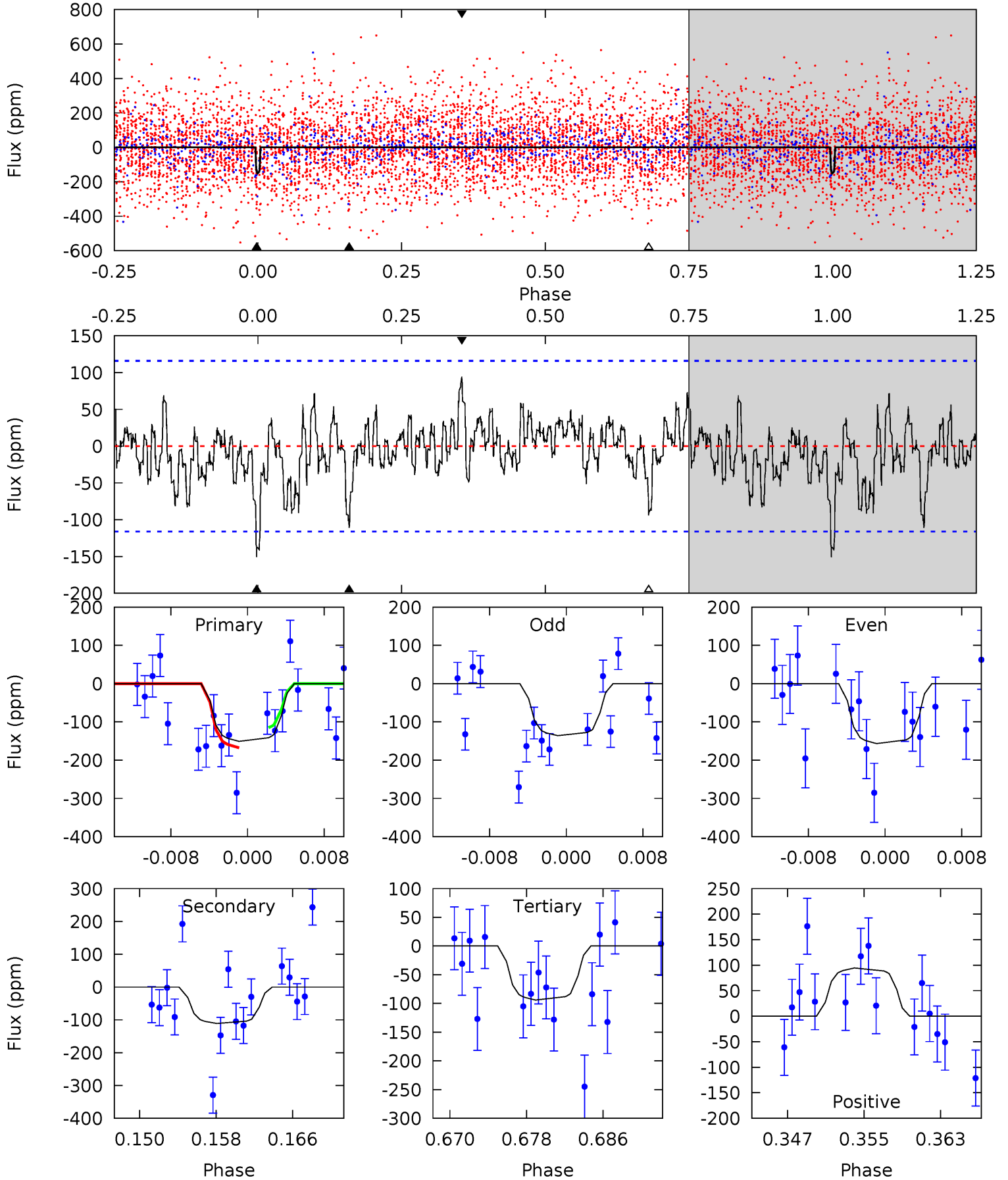
TCE 007362592-03 P= 16.777103 Days $T_0=138.416343$ (BKJD)



DV Model-Shift Uniqueness Test

007362592-03, $P = 16.776067$ Days, $E = 121.678315$ Days

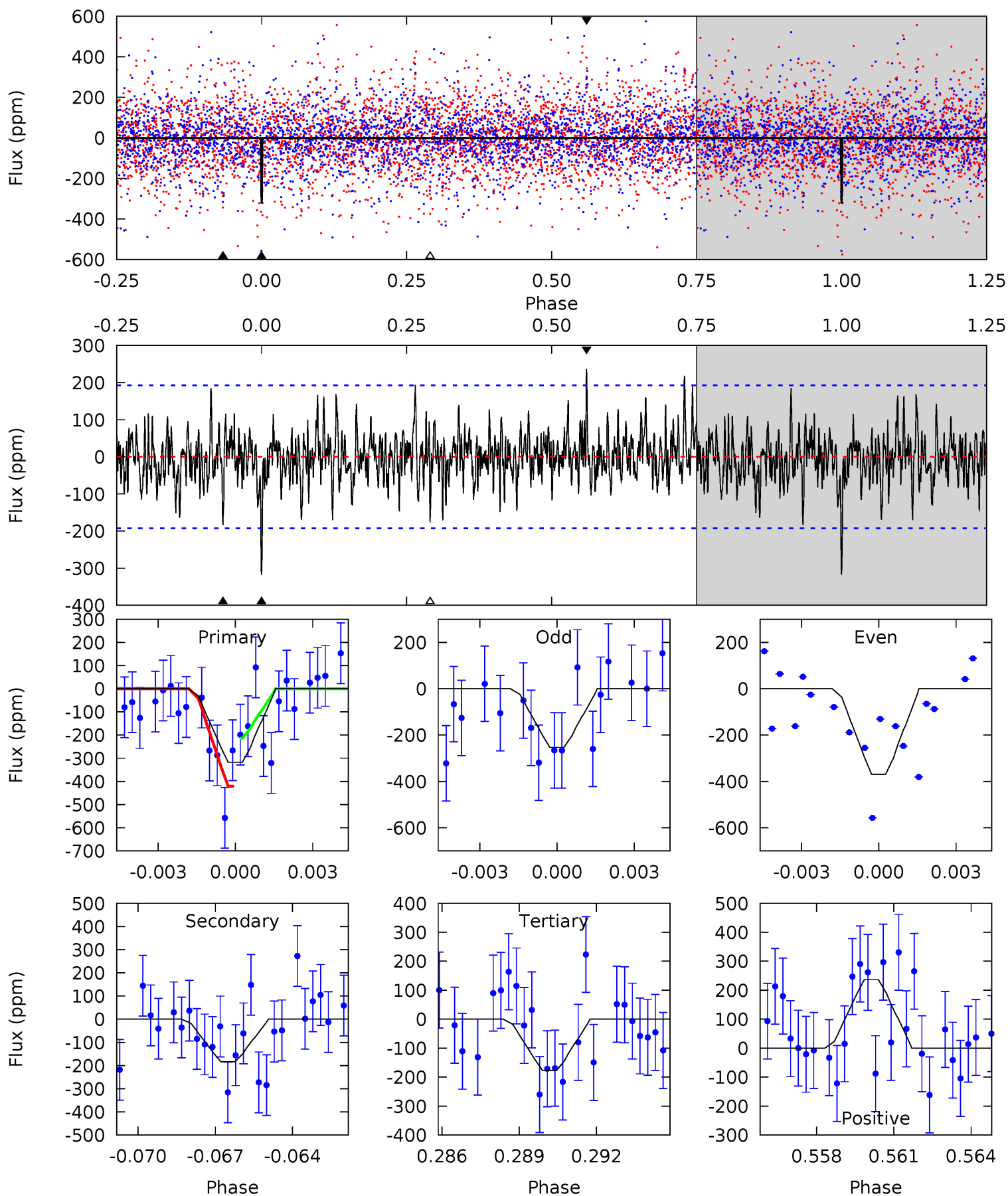
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.59	4.84	4.11	4.13	5.07	2.66	1.31	2.48	2.46	0.73	0.71	0.46	0.82	0.39	1.16



Alt Model-Shift Uniqueness Test

007362592-03, P = 16.777103 Days, E = 121.639240 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.68	5.03	4.84	6.47	5.26	2.98	1.53	3.84	2.21	0.19	-1.44	1.59	1.35	0.43	2.85



Stellar Parameters For KIC 007362592

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-111 ± 23	$3.37^{+2.95}_{-2.20}$	1308^{+102}_{-138}	4531^{+3190}_{-878}	89^{+748}_{-63}
Alt.	-184 ± 37	$3.67^{+3.38}_{-2.32}$	1303^{+102}_{-122}	4886^{+3150}_{-1024}	128^{+821}_{-93}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

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

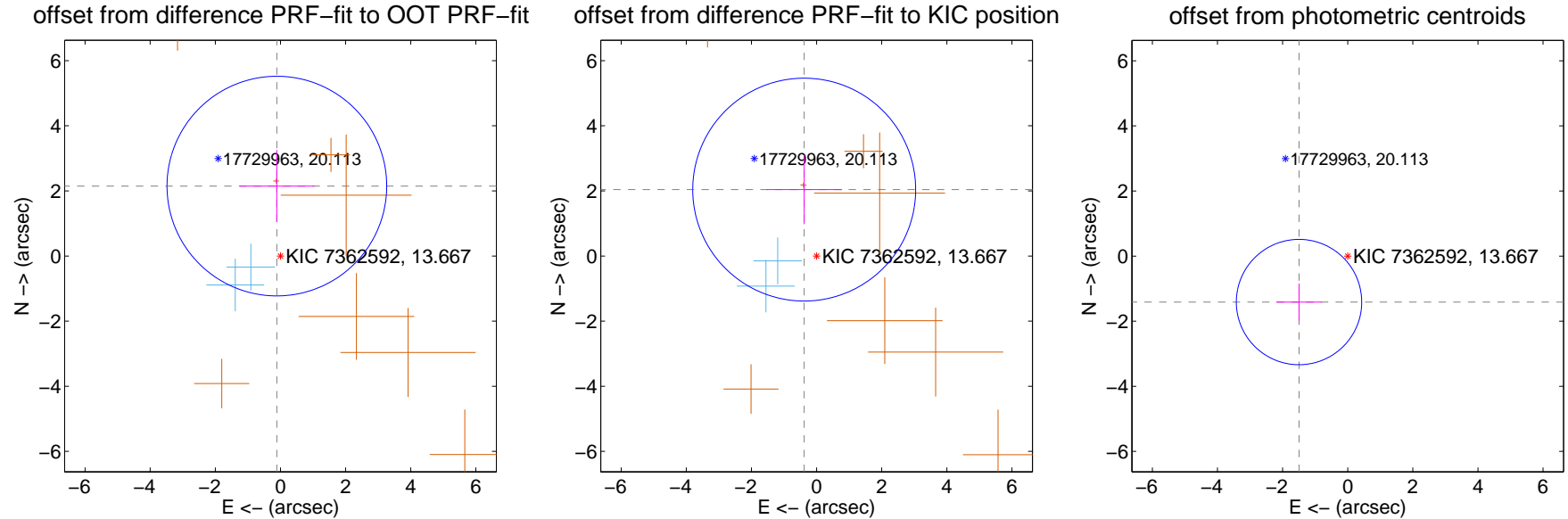
DV Centroid Data

Supplemental centroid analysis for 007362592-03. Kepler magnitude: 13.67. Transit SNR 9.69

There are 2 quarters with good PRF difference image offsets

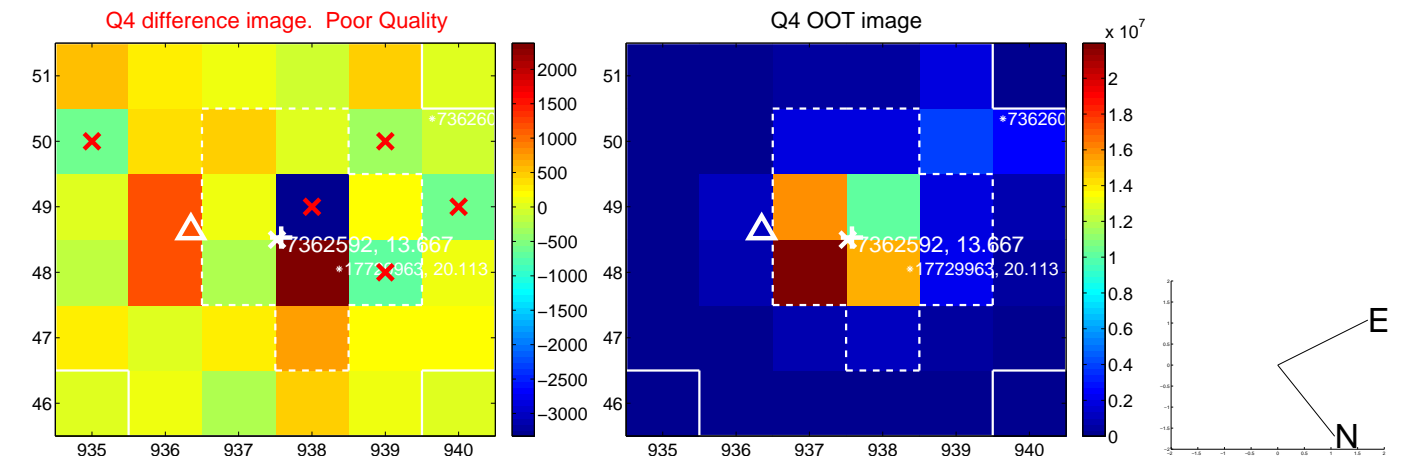
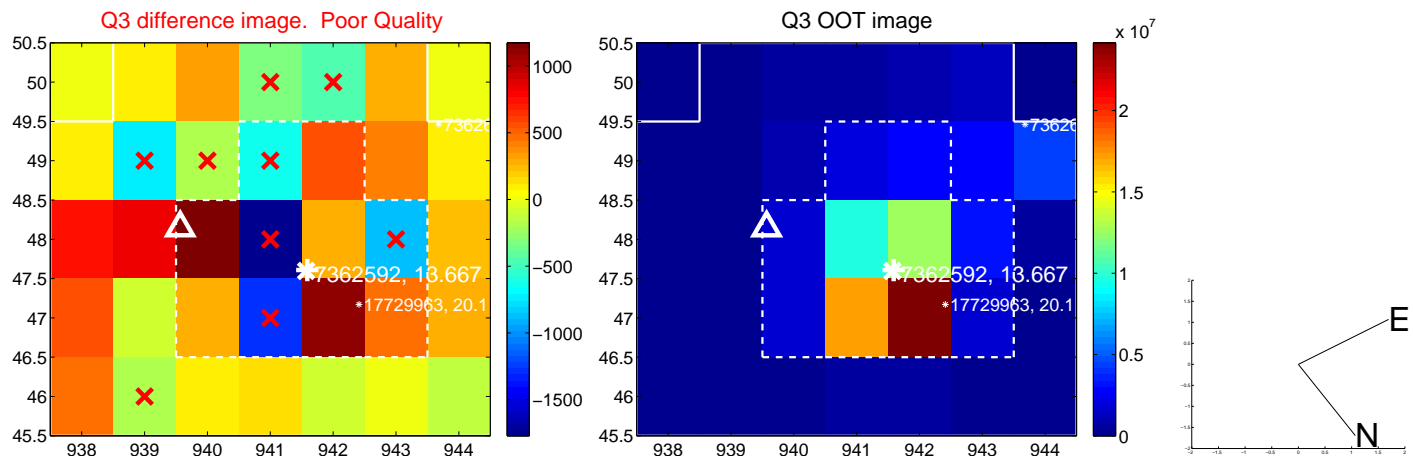
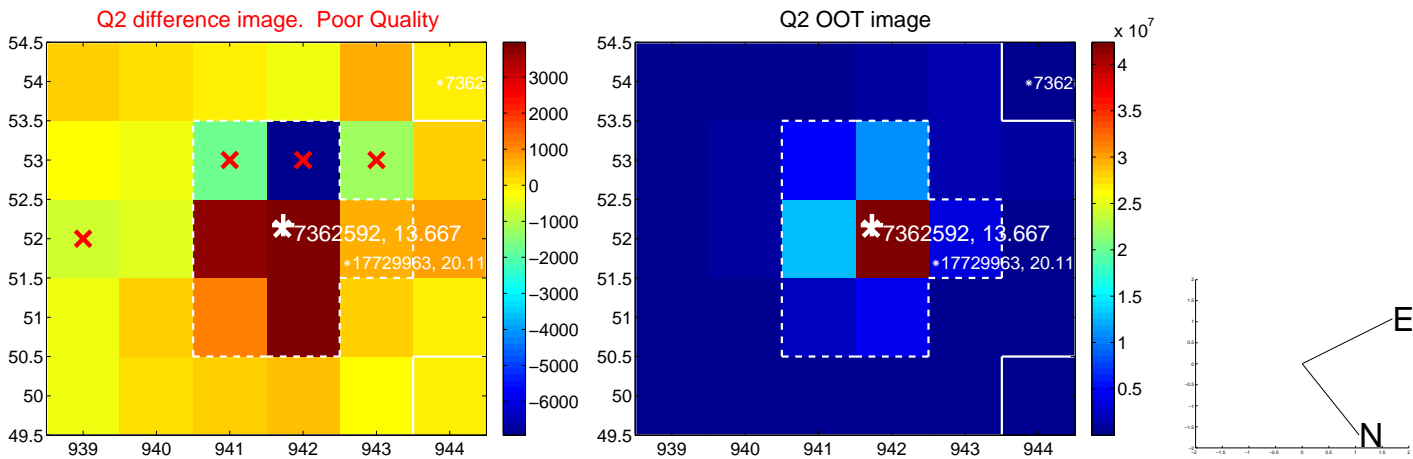
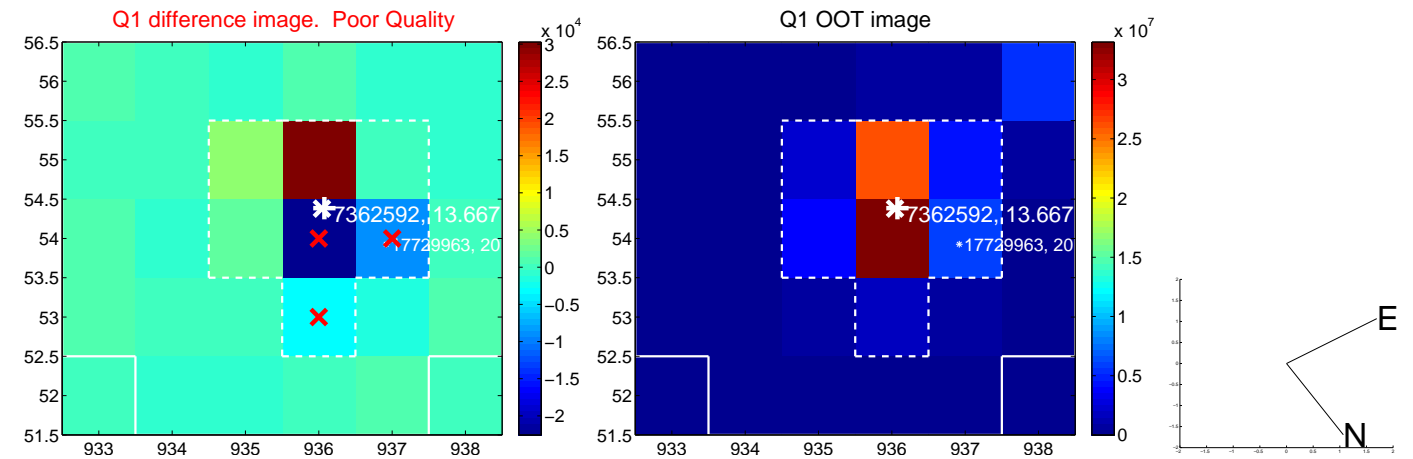
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.151 ± 1.124	1.91	0.110 ± 1.149	2.148 ± 1.106
PRF-fit source offset from KIC position	2.075 ± 1.141	1.82	0.380 ± 1.161	2.040 ± 1.063
photometric centroid source offset	2.06 ± 0.64	3.20	1.50 ± 0.70	-1.41 ± 0.57

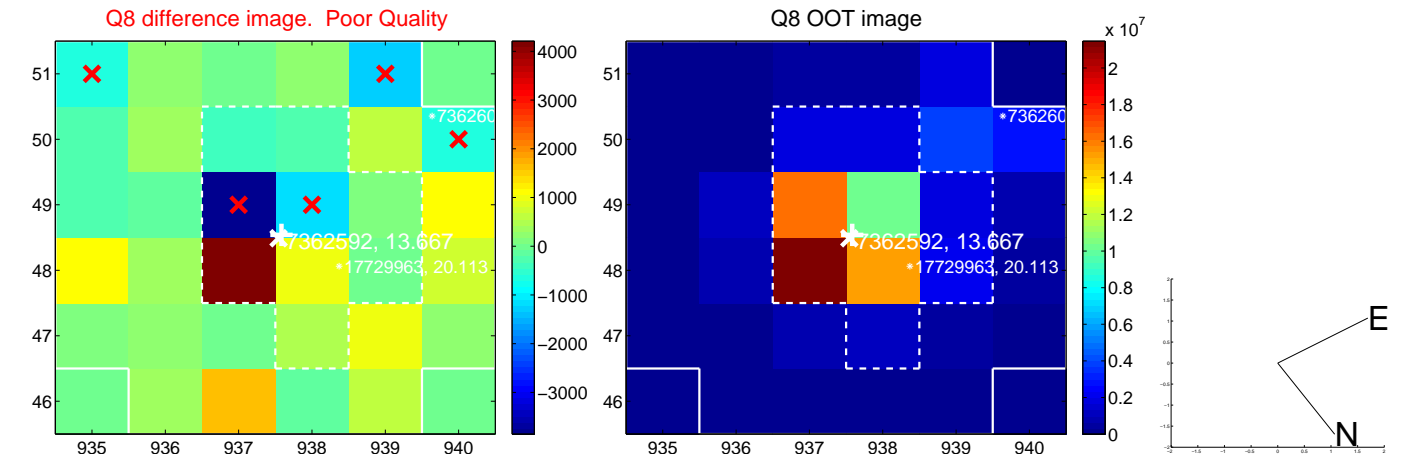
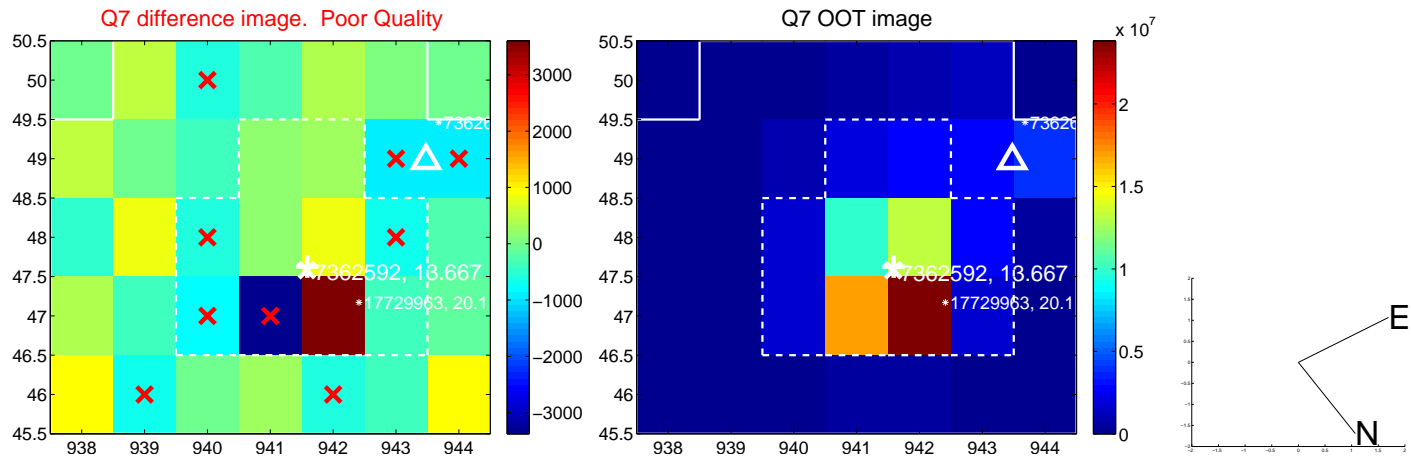
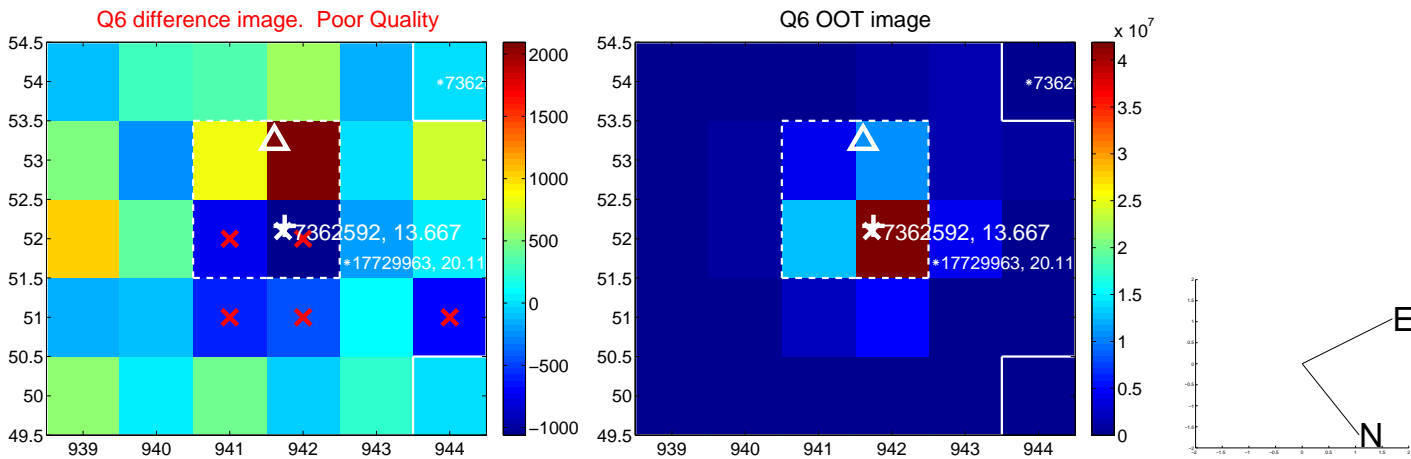
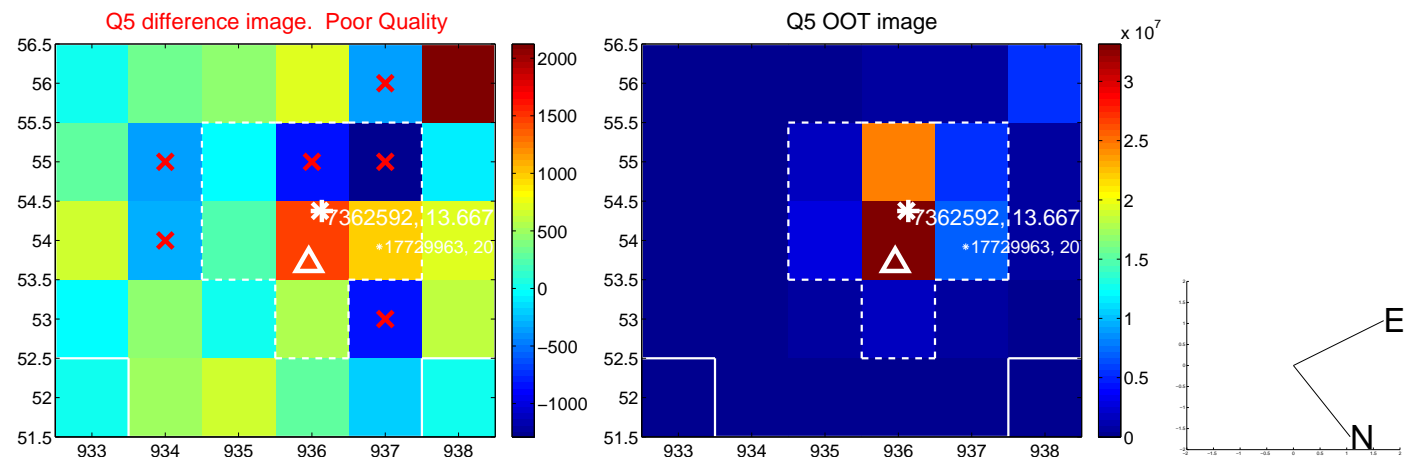


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

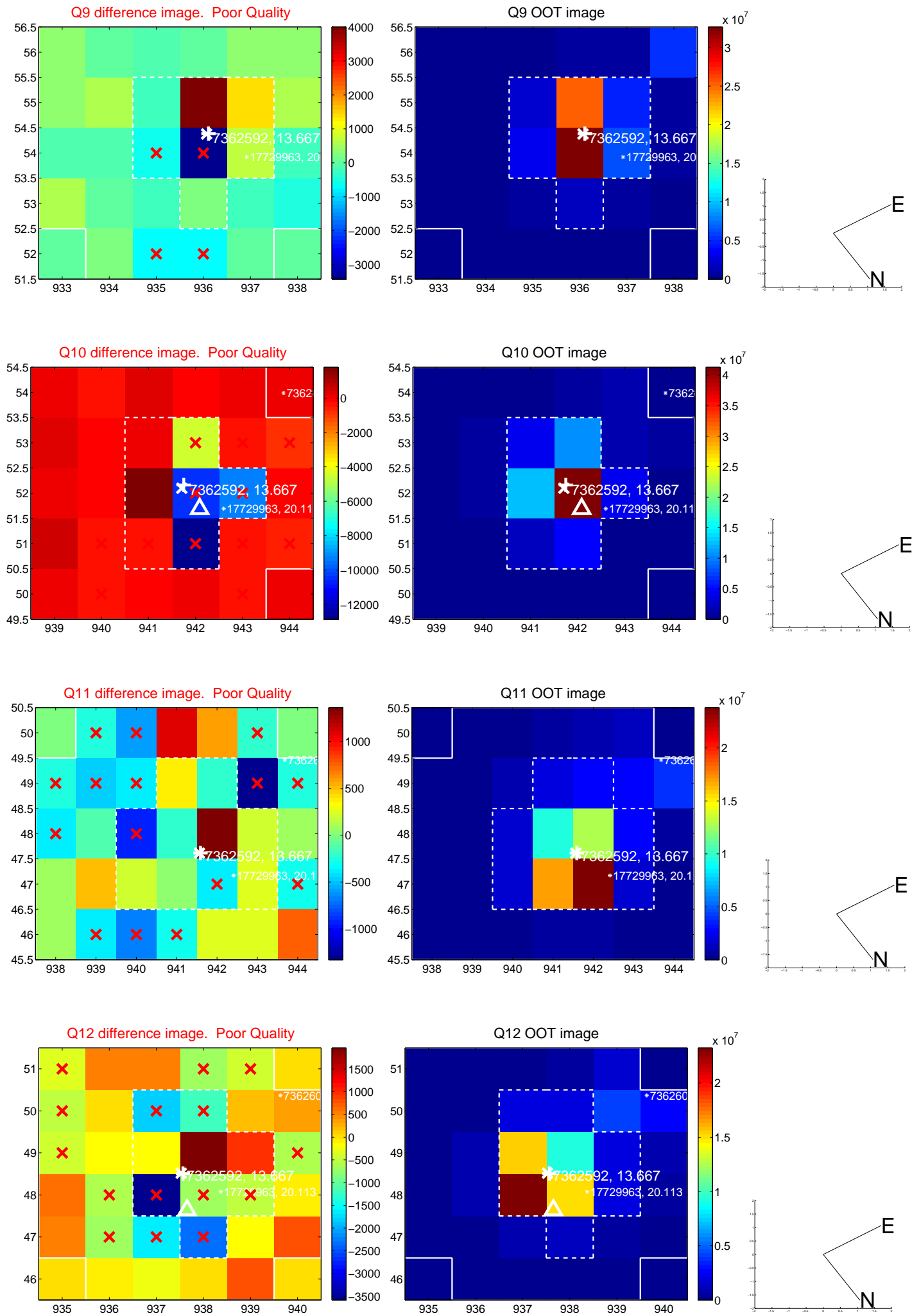
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



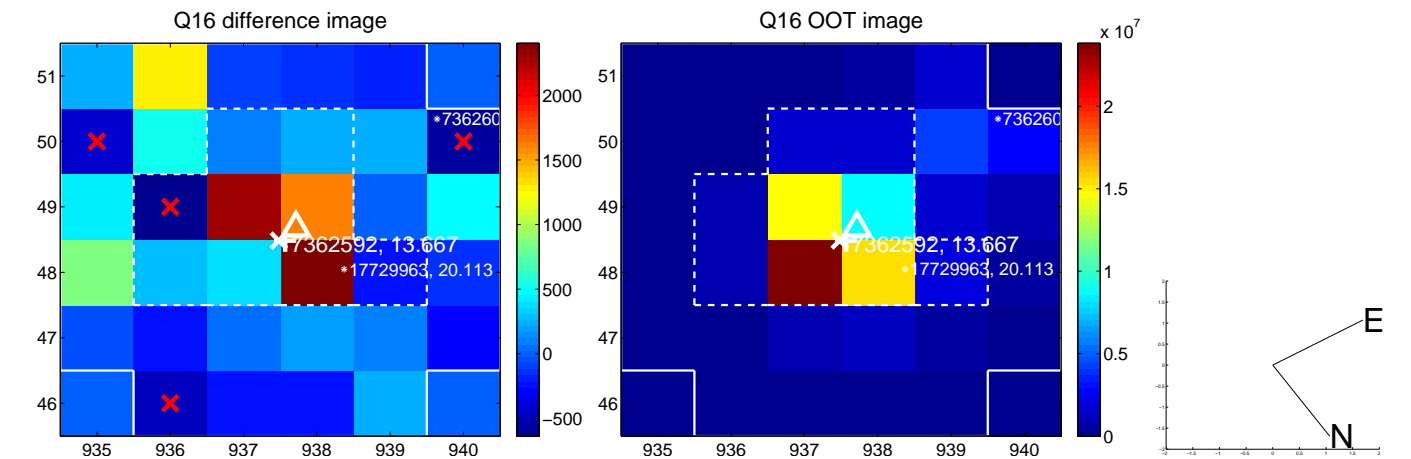
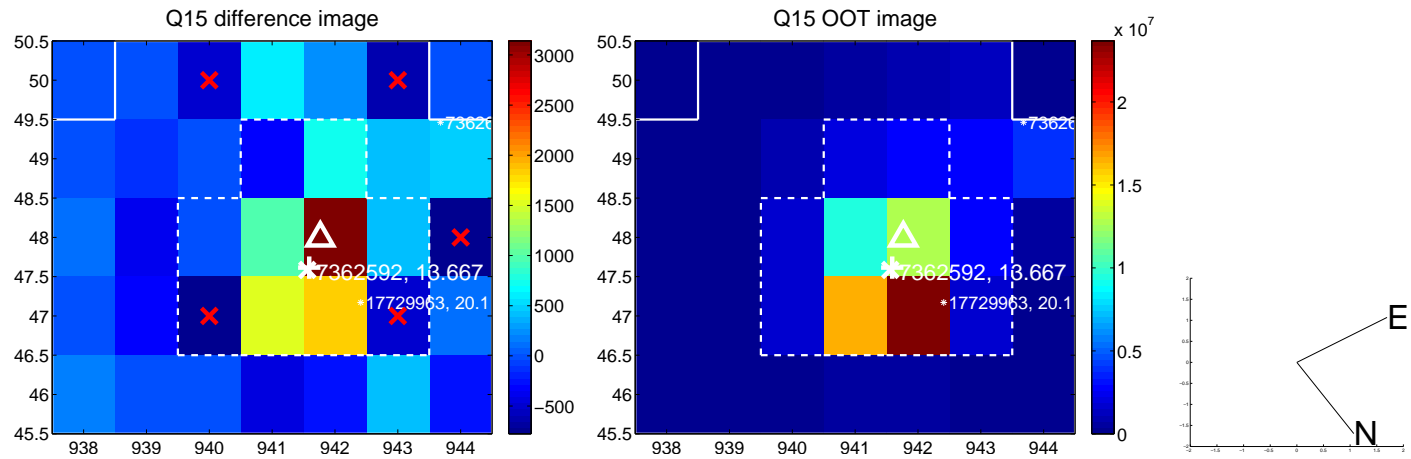
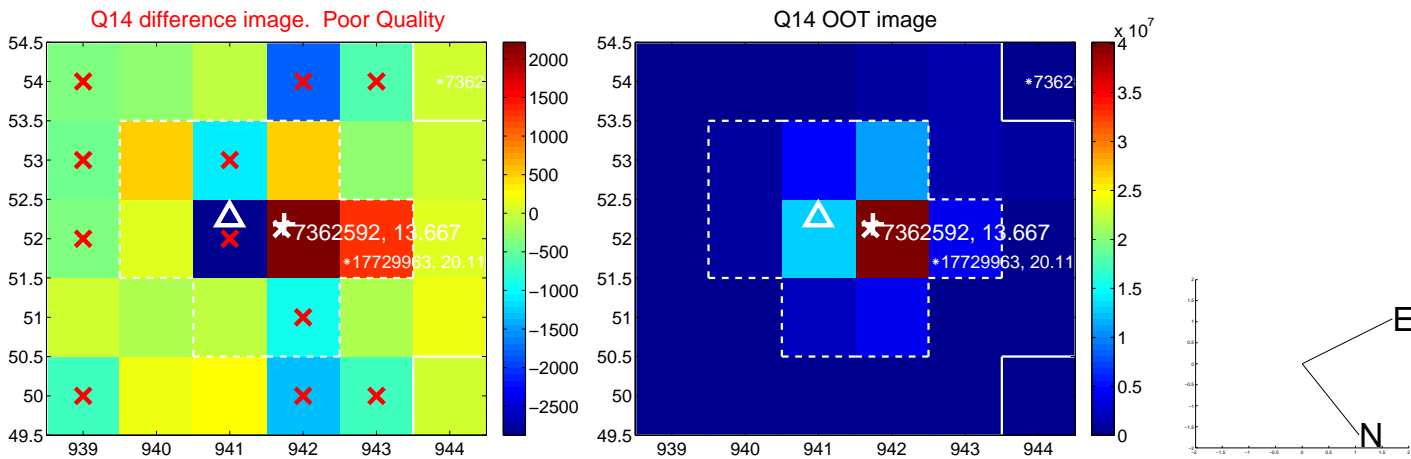
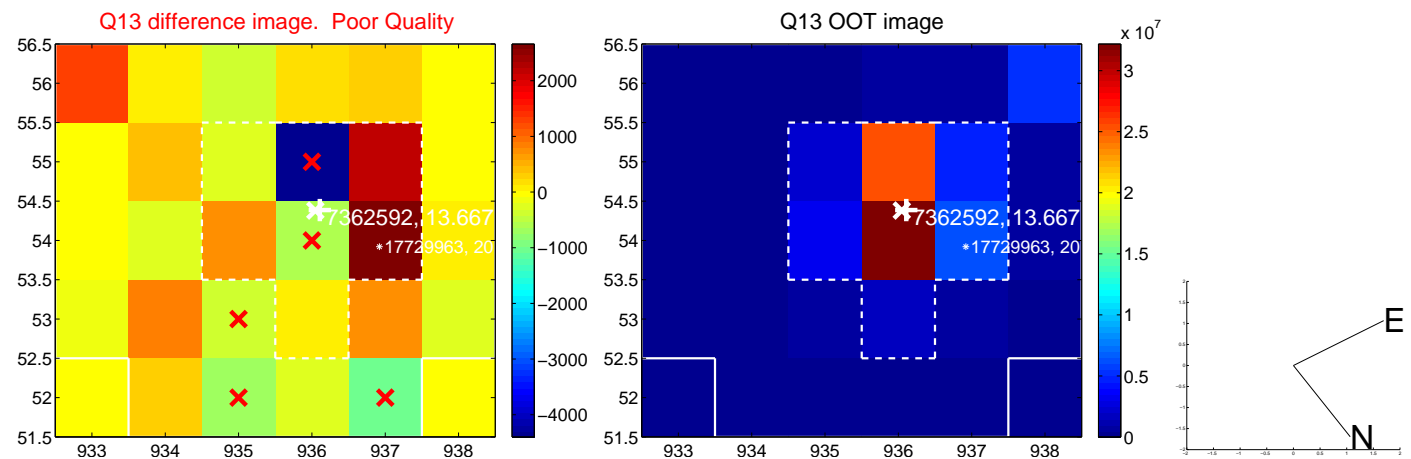
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



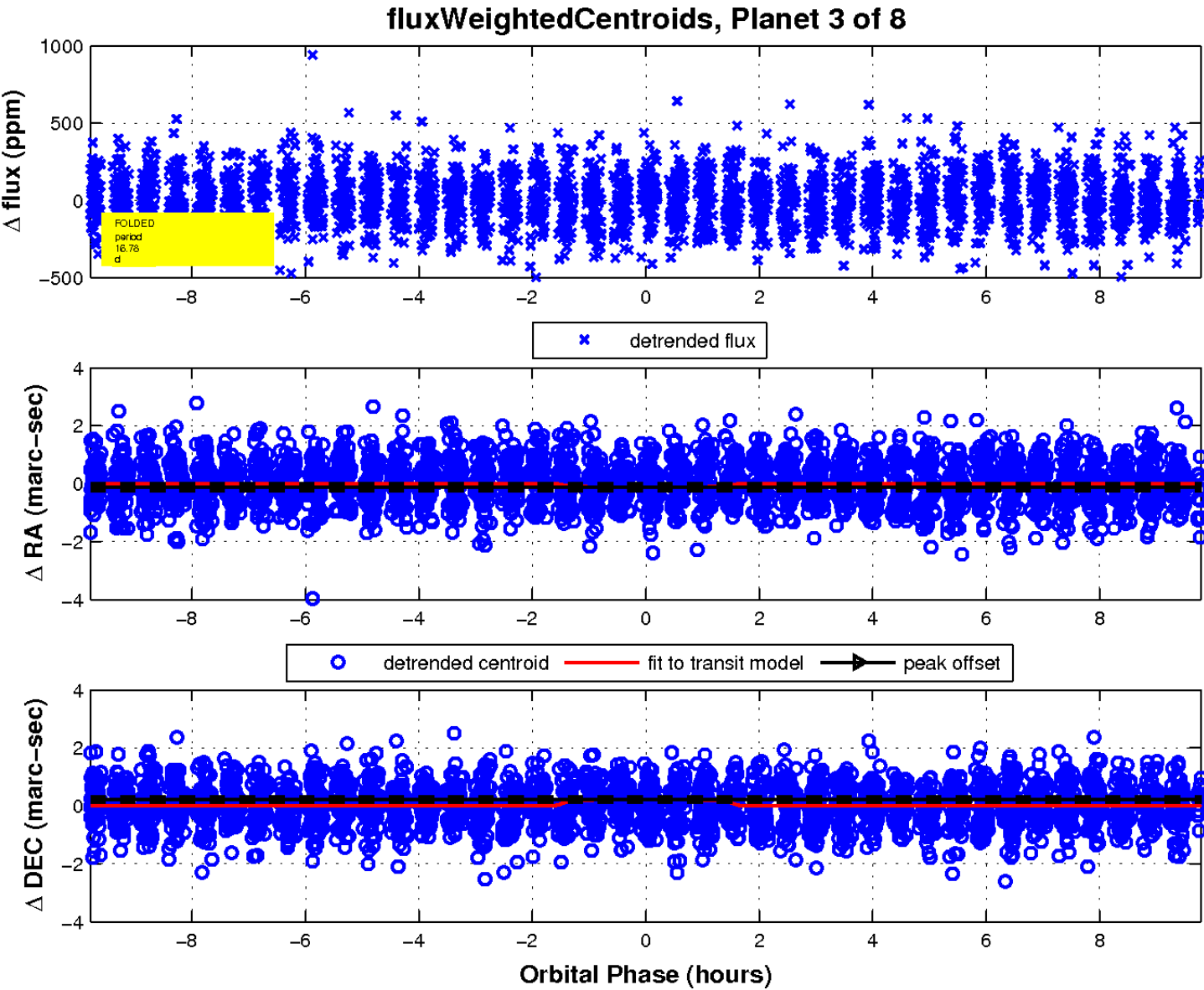
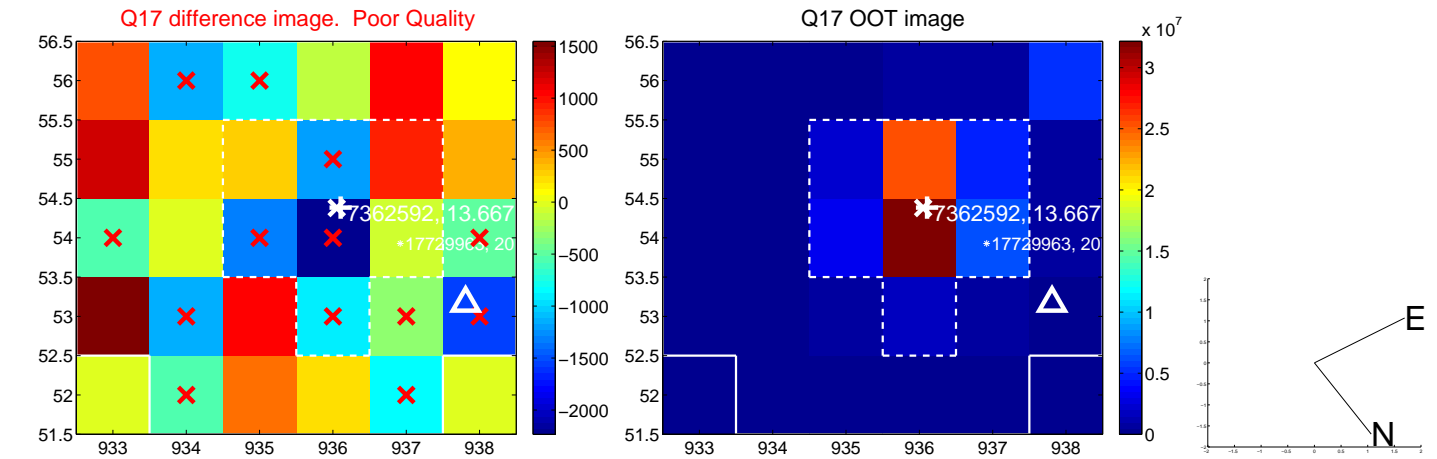
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

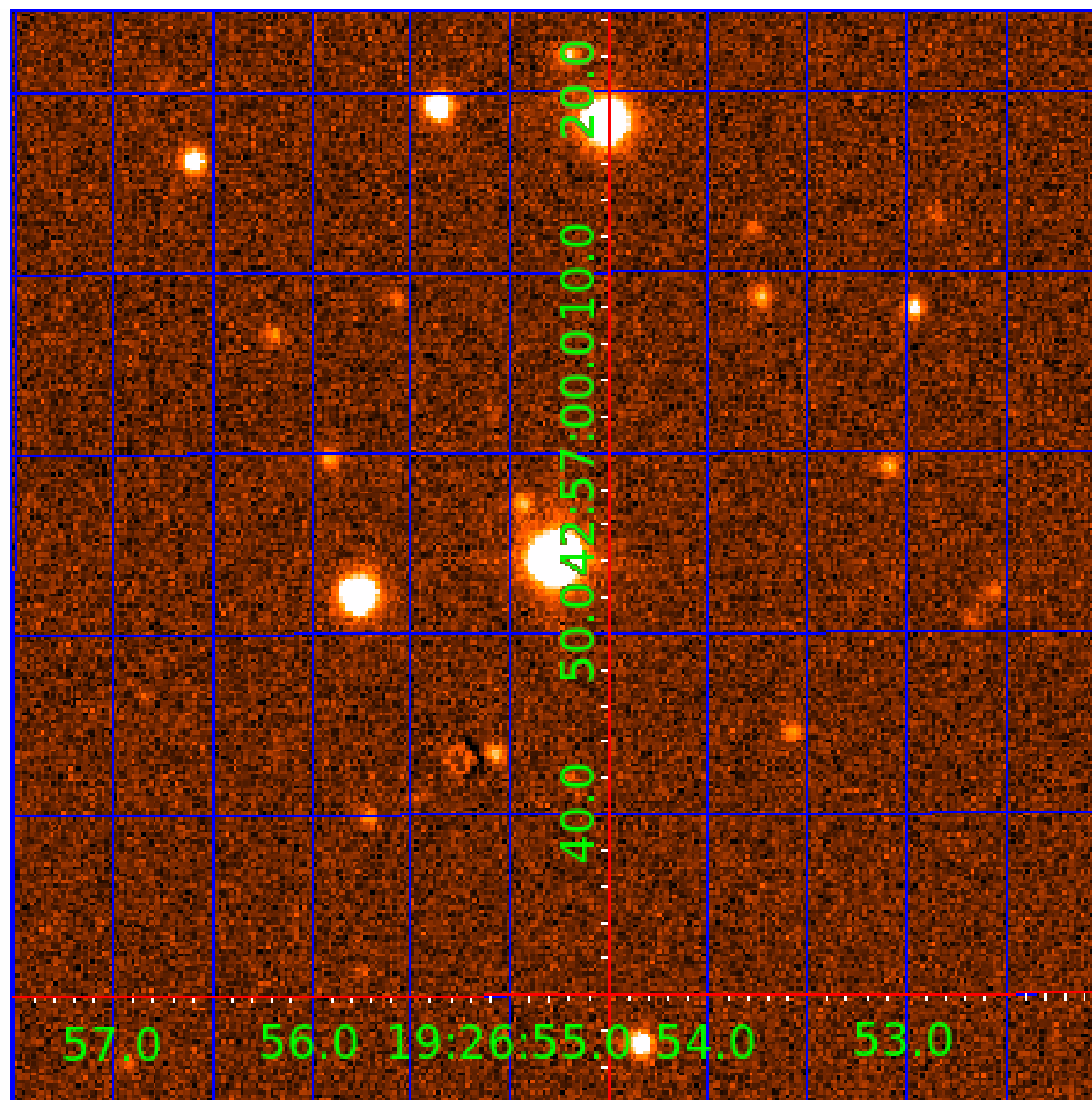


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007362592

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})
007362592-01	OBS	No	0.566746	131.900637	12.3	4.024	11.2	8.3	1.65	6074	0.60	17455.46
007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
007362592-04	OBS	No	21.426313	136.707386	240.1	1.377	9.6	10.4	1.65	6074	2.95	137.57
007362592-05	OBS	No	24.735451	153.925806	227.8	1.635	9.7	10.0	1.65	6074	2.50	113.59
007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
007362592-08	OBS	No	43.940671	137.929737	373.2	1.471	9.6	10.7	1.65	6074	3.30	52.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362592-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

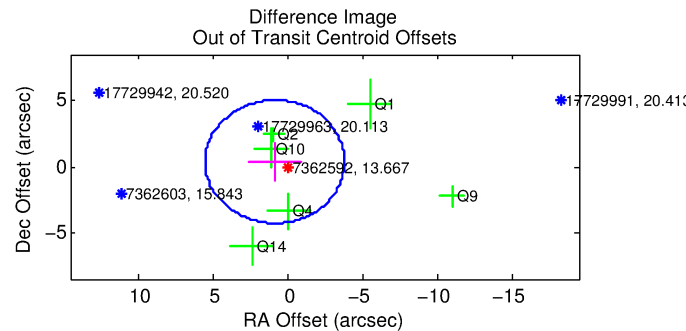
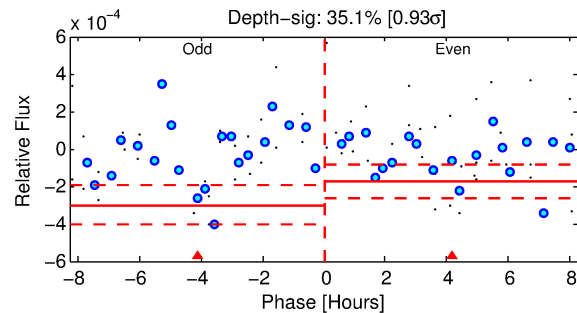
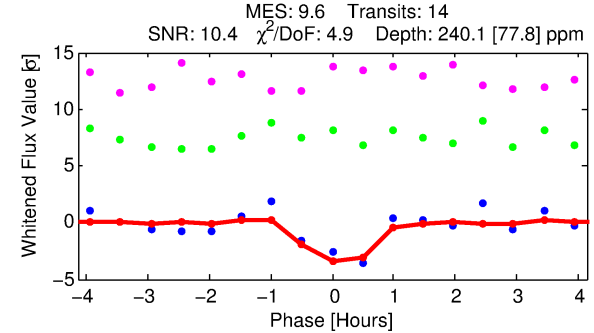
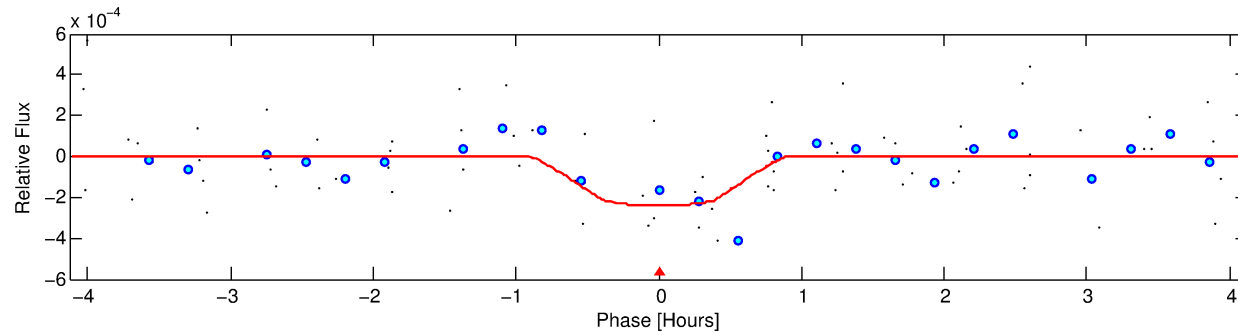
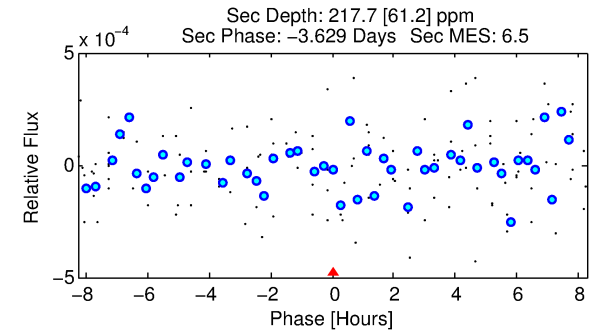
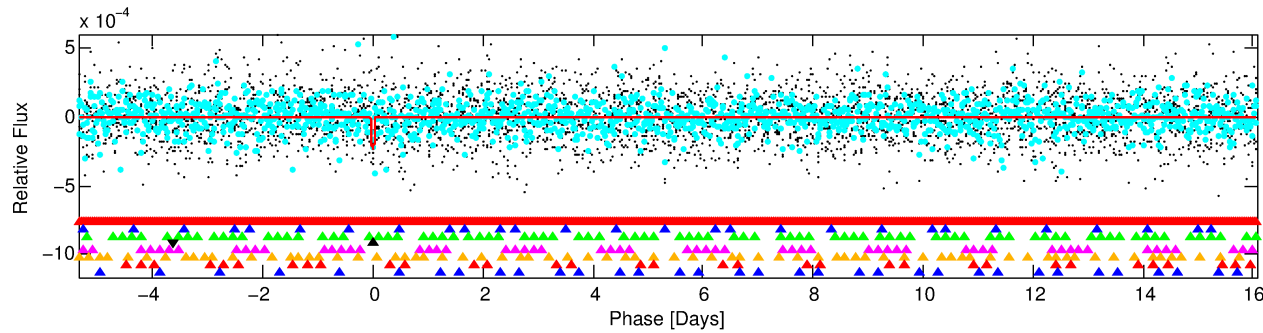
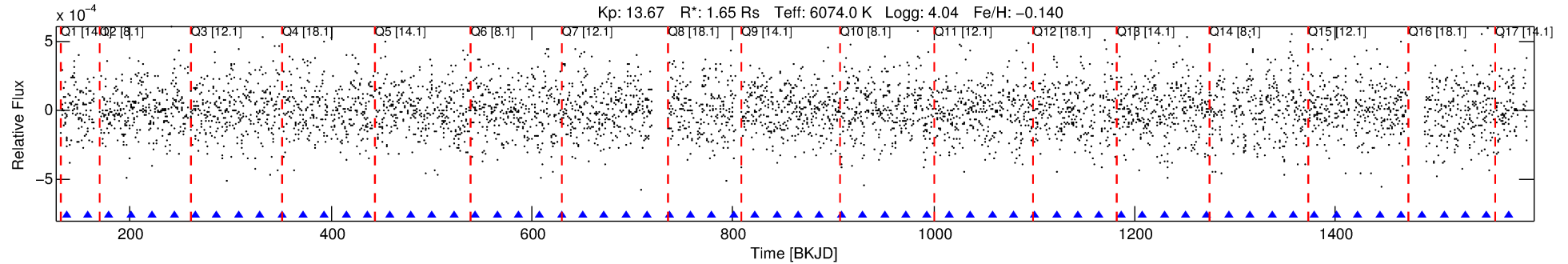
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-04

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 4 of 8 Period: 21.426 d



DV Fit Results:

Period = 21.42631 [0.00030] d
Epoch = 136.7074 [0.0117] BKJD
Rp/R* = 0.0164 [0.0376]
a/R* = 62.51 [726.21]
b = 0.87 [3.31]
Seff = 137.57 [82.14]
Teff = 873 [130] K
Rp = 2.95 [6.87] Re
a = 0.1554 [0.0562] AU
Ag = 331.60 [1537.52] [0.22 σ]
Teffp = 5762 [6629] K [0.74 σ]

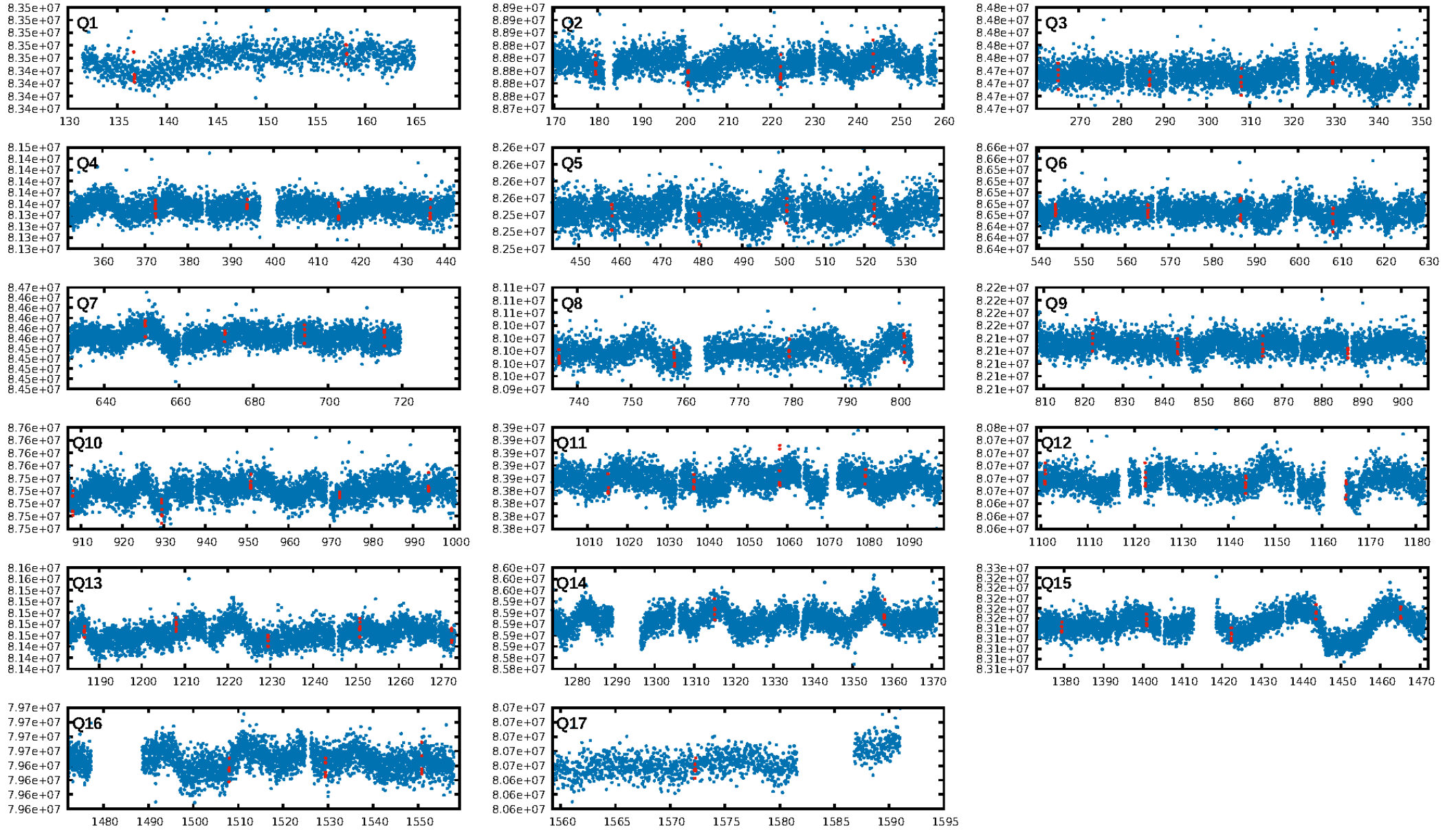
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [24.34 σ]
LongPeriod-sig: 100.0% [37.16 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 25.3%
Bootstrap-pfa: 1.81e-11
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 0.8243
Centroid-sig: 0.0%
Centroid-so: 2.884 arcsec [3.98 σ]
OotOffset-rm: 0.917 arcsec [0.59 σ]
KicOffset-rm: 1.076 arcsec [0.62 σ]
OotOffset-st: 3/0/1/2 [6]
KicOffset-st: 3/0/1/2 [6]
DiffImageQuality-fgm: 0.00 [0/6]
DiffImageOverlap-fno: 0.00 [0/17]

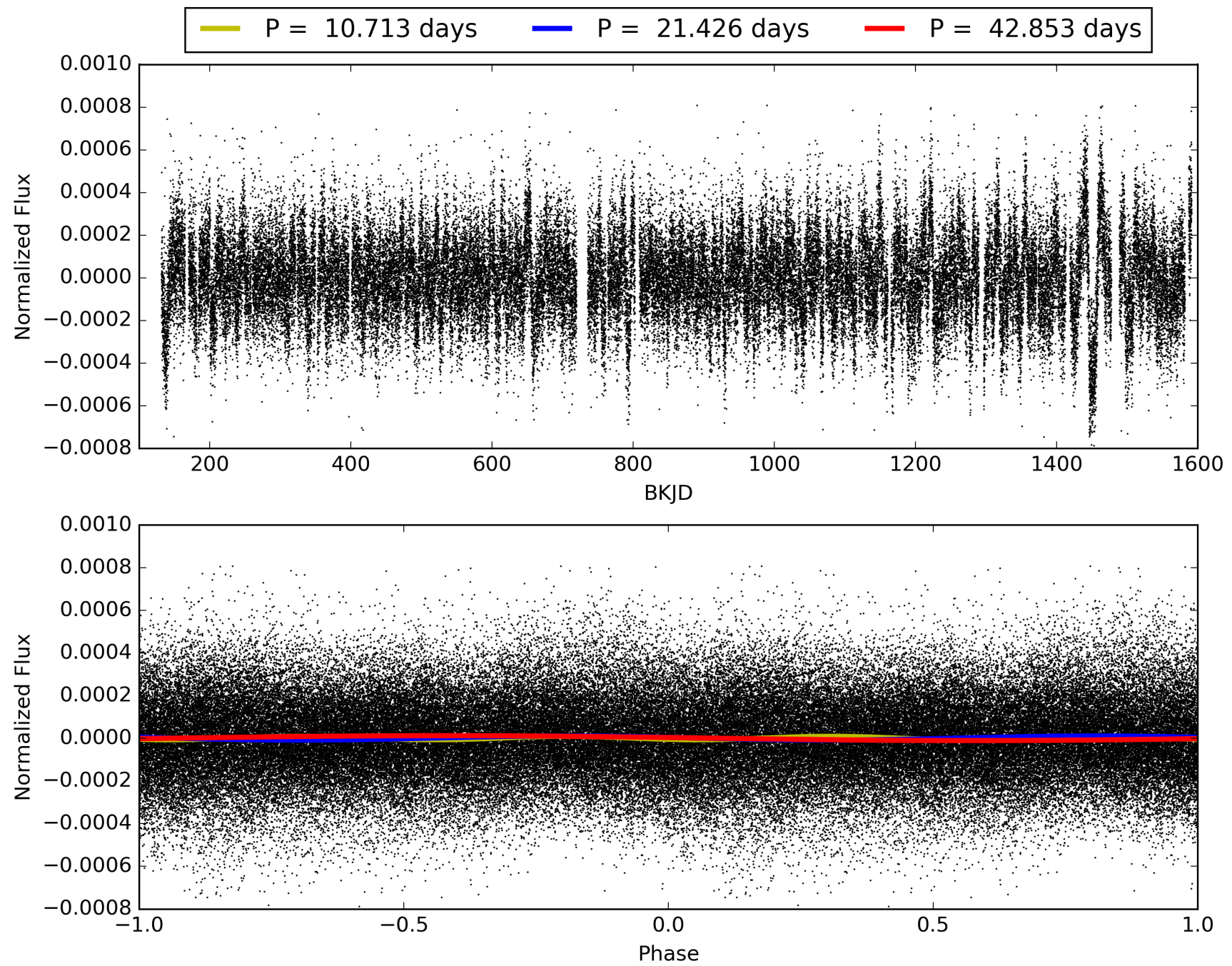
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:34 Z

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

TCE 007362592-04, PDC Light Curves

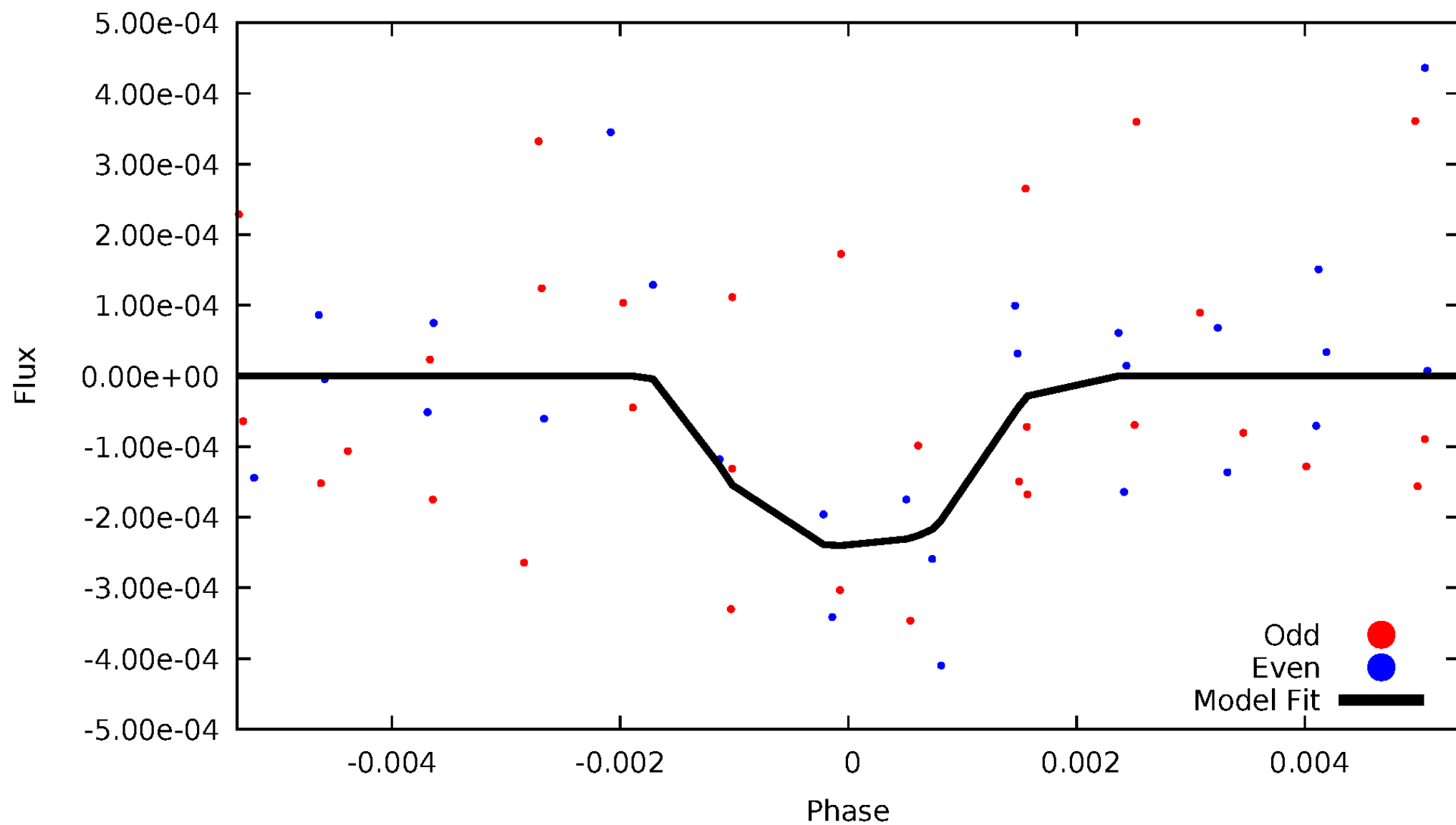


TCE 007362592-04



DV Odd/Even

TCE 007362592-04

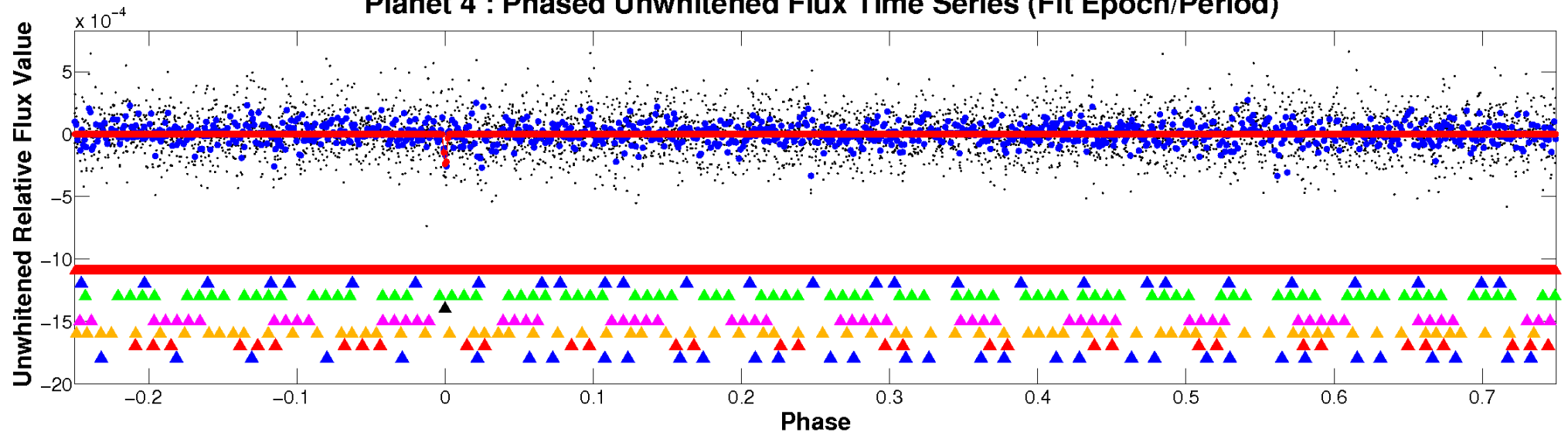


ALT Odd/Even

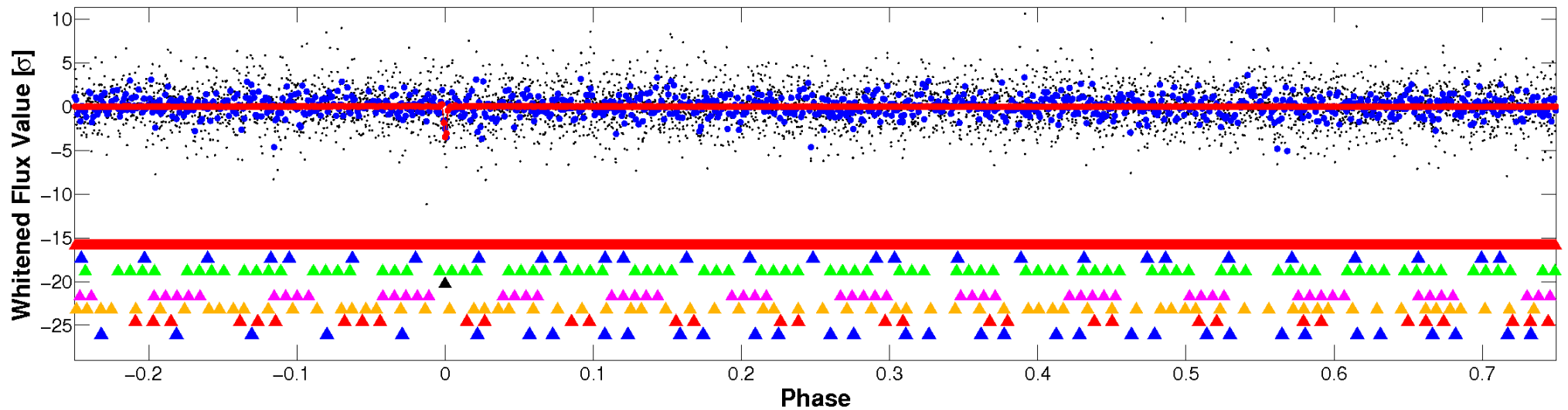
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

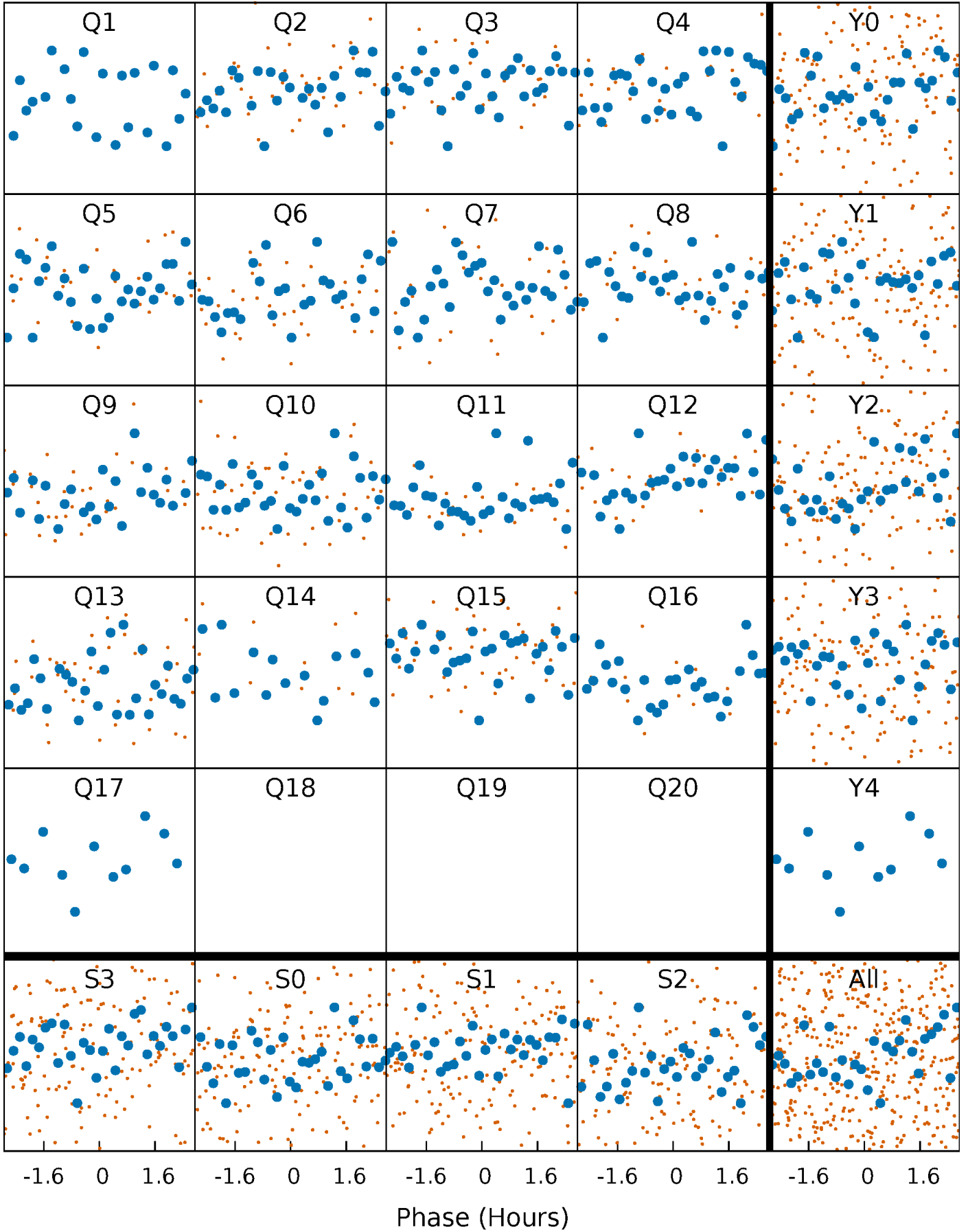


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



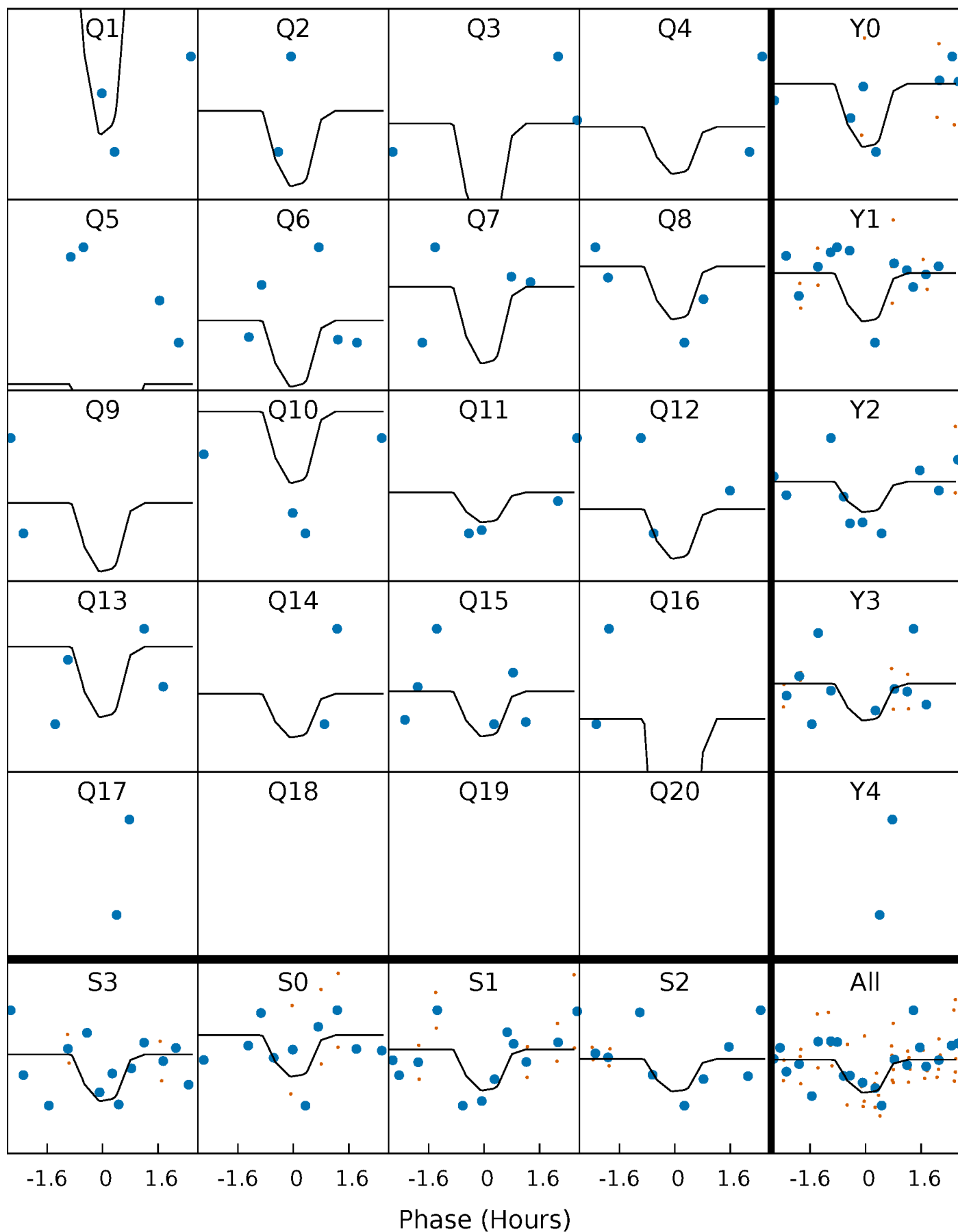
PDC Quarter-Phased Transit Curves

TCE 007362592-04 P= 21.426313 Days $T_0=136.707386$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007362592-04 P= 21.426313 Days $T_0=136.707386$ (BKJD)

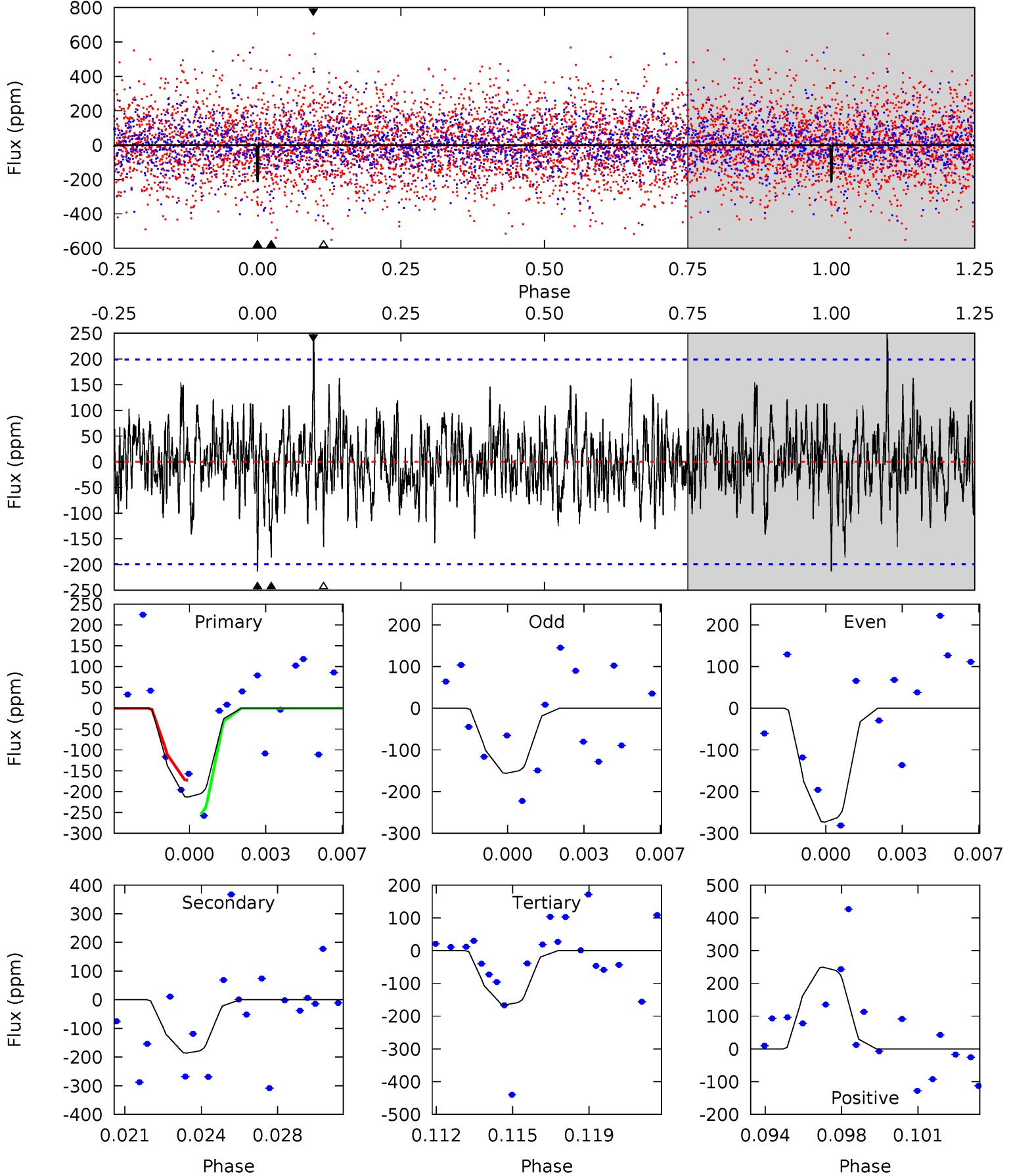


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007362592-04, P = 21.426313 Days, E = 115.281073 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.60	4.88	4.34	6.54	5.22	2.92	1.38	1.25	-0.94	0.54	-1.66	1.50	0.95	0.54	1.04



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007362592

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-186 ± 38	$5.30^{+5.79}_{-3.52}$	1201^{+91}_{-114}	4259^{+2515}_{-927}	89^{+671}_{-70}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

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

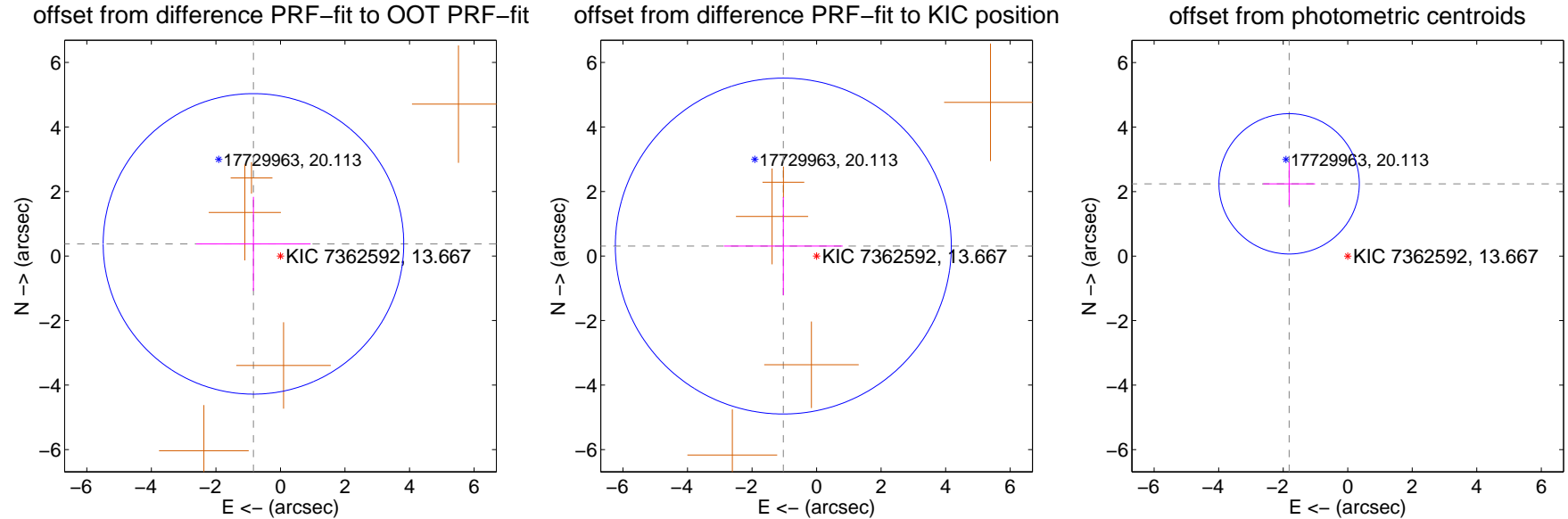
DV Centroid Data

Supplemental centroid analysis for 007362592-04. Kepler magnitude: 13.67. Transit SNR 10.41

There are 0 quarters with good PRF difference image offsets

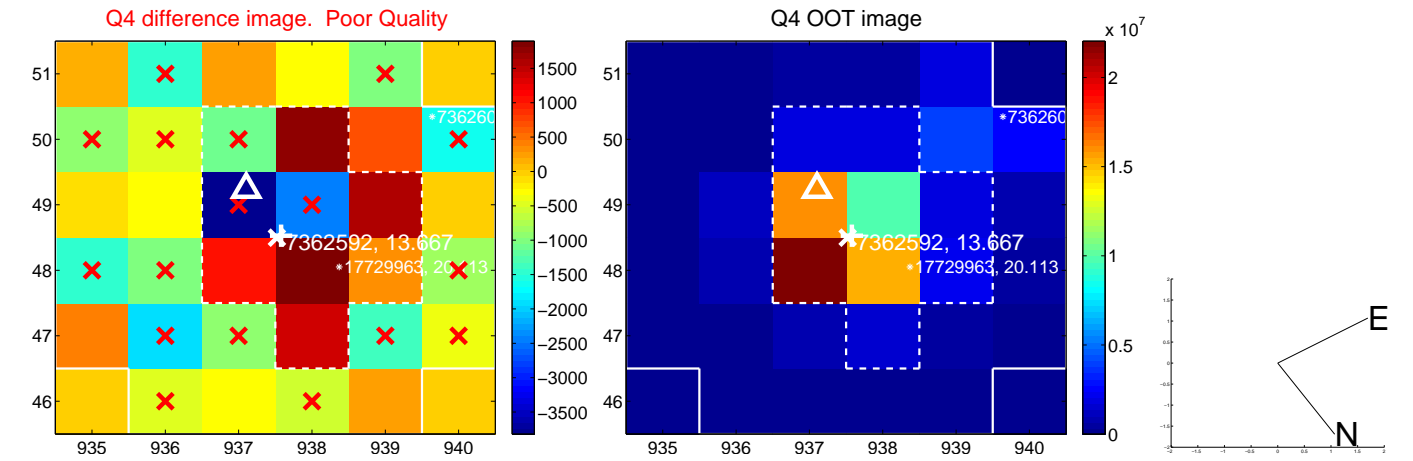
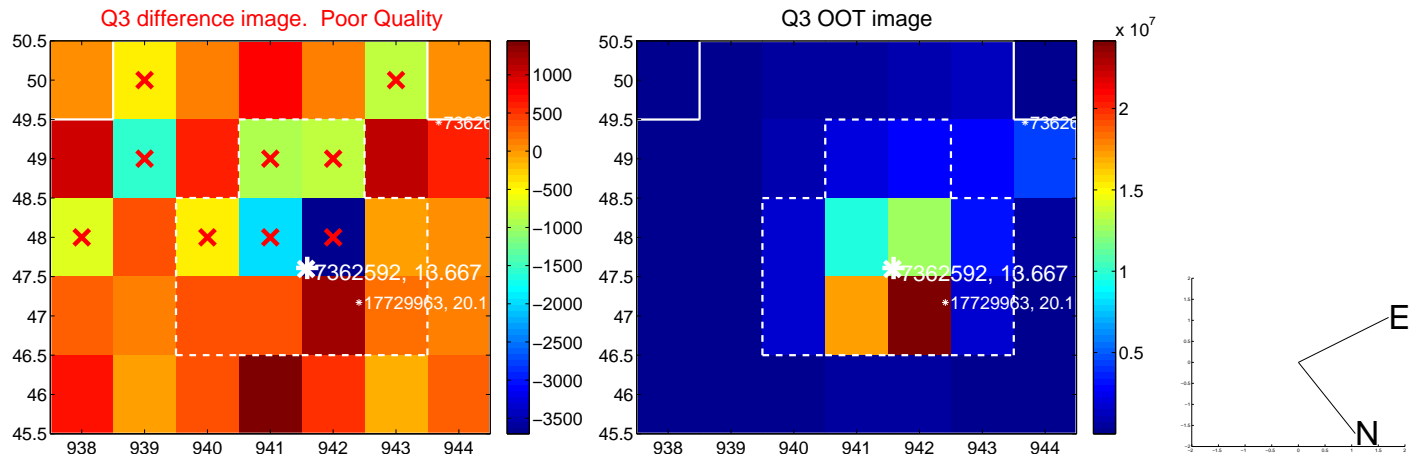
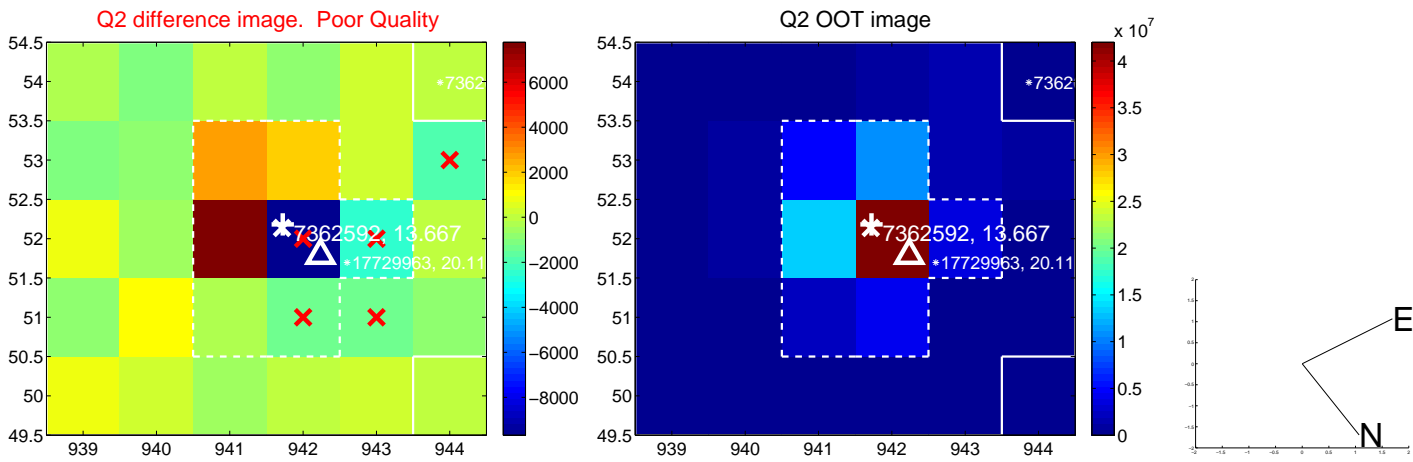
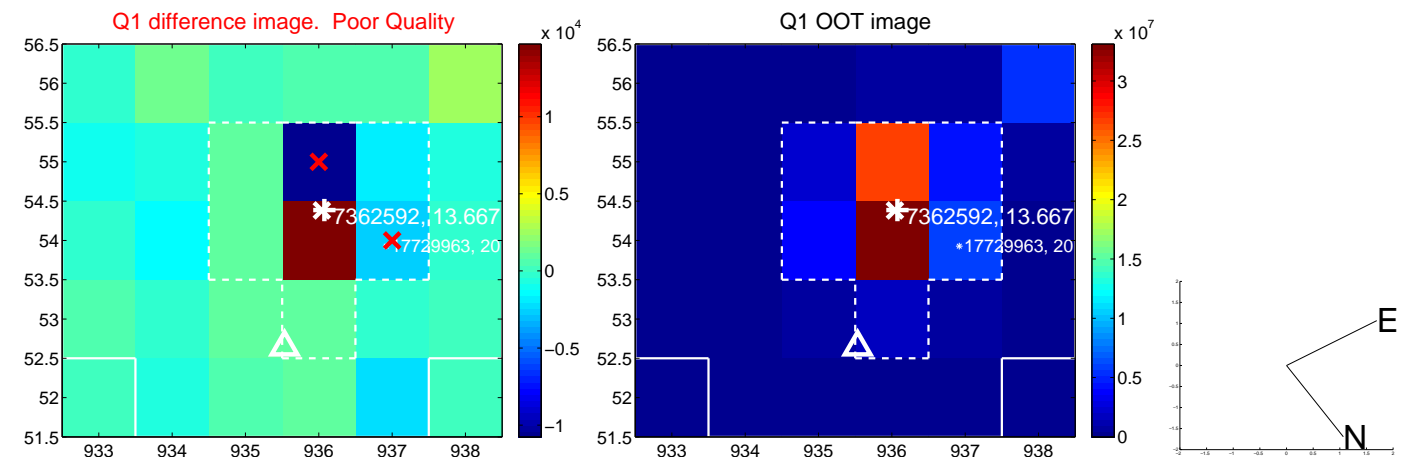
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.917 ± 1.552	0.59	0.837 ± 1.772	0.376 ± 1.458
PRF-fit source offset from KIC position	1.076 ± 1.735	0.62	1.031 ± 1.840	0.309 ± 1.523
photometric centroid source offset	2.88 ± 0.73	3.98	1.82 ± 0.81	2.24 ± 0.67

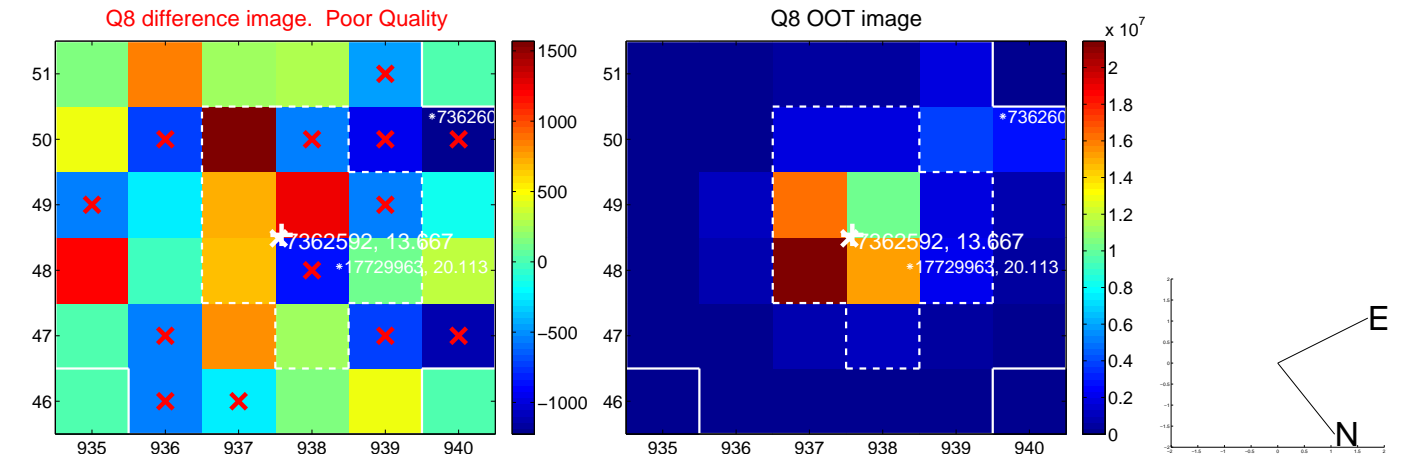
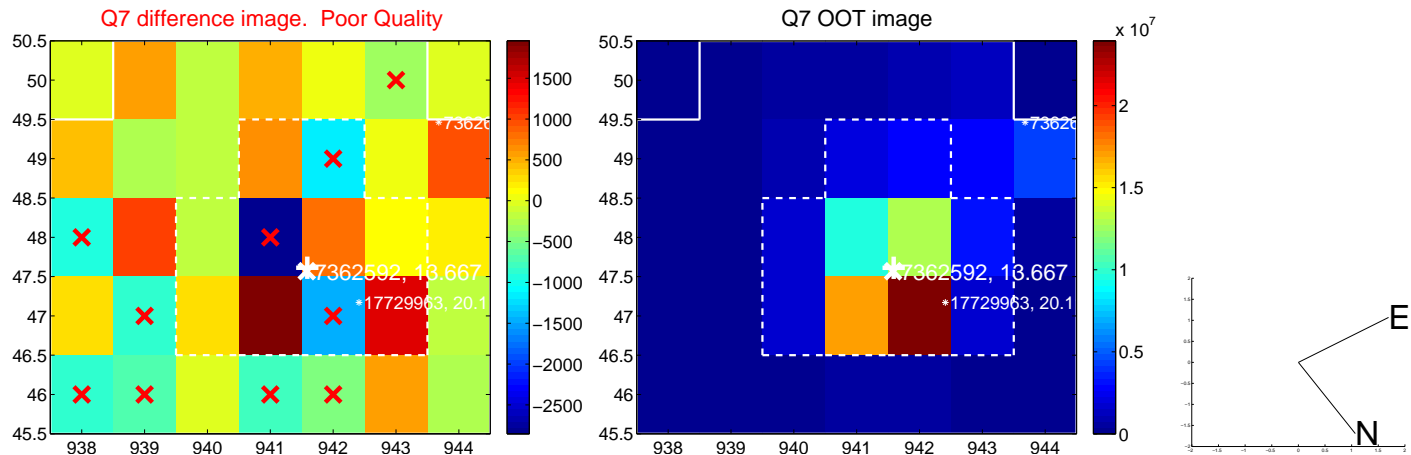
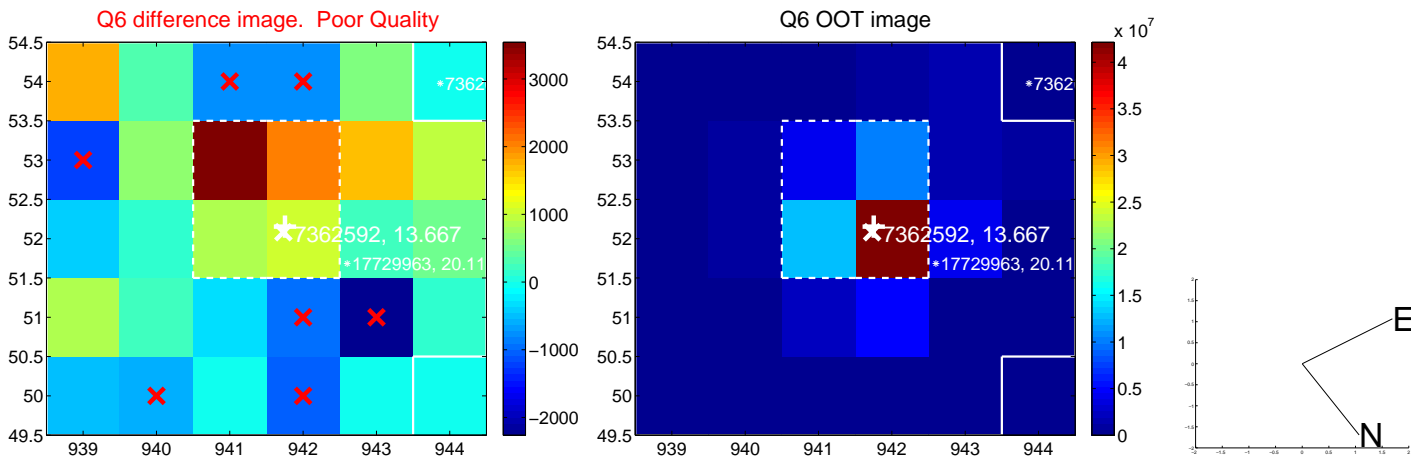
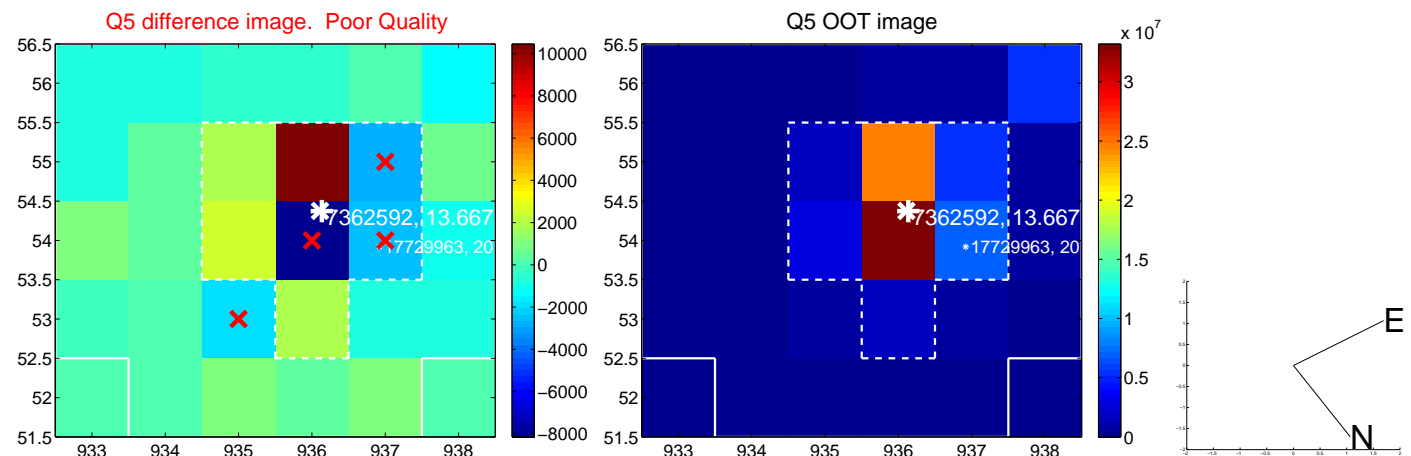


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

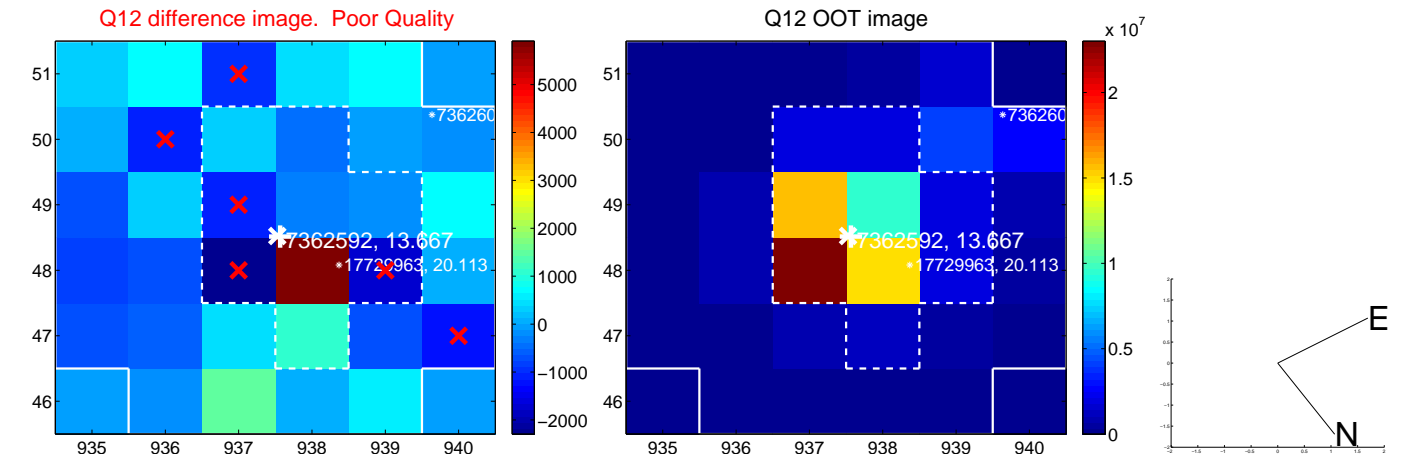
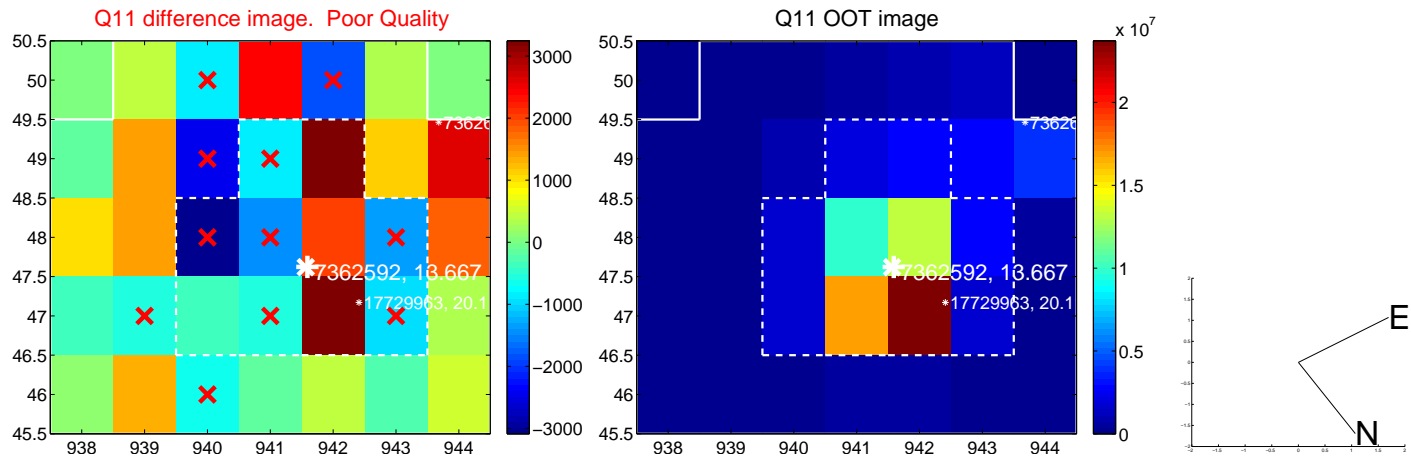
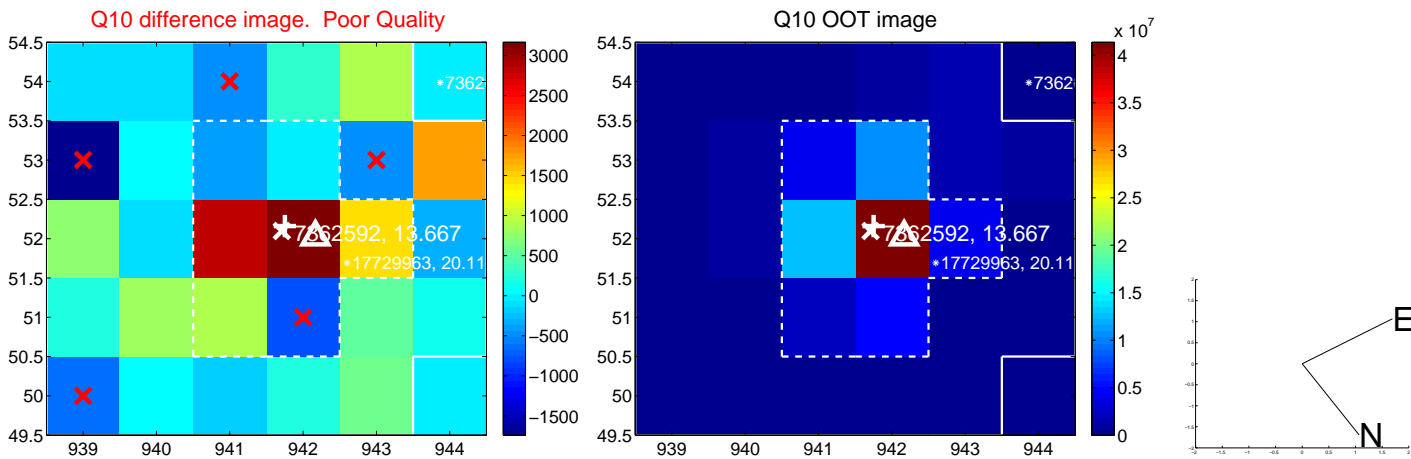
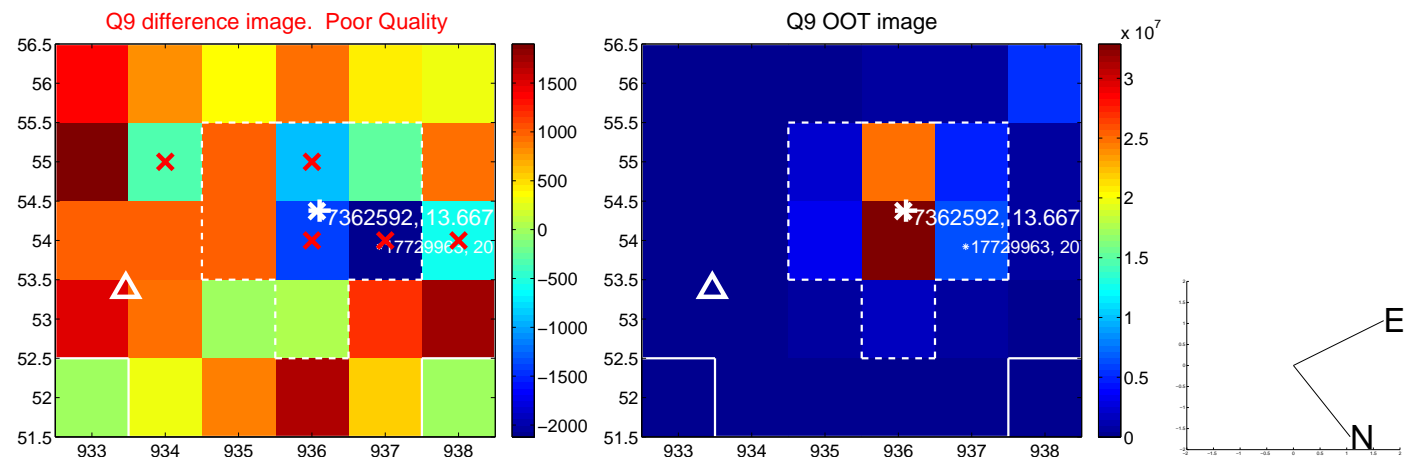
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



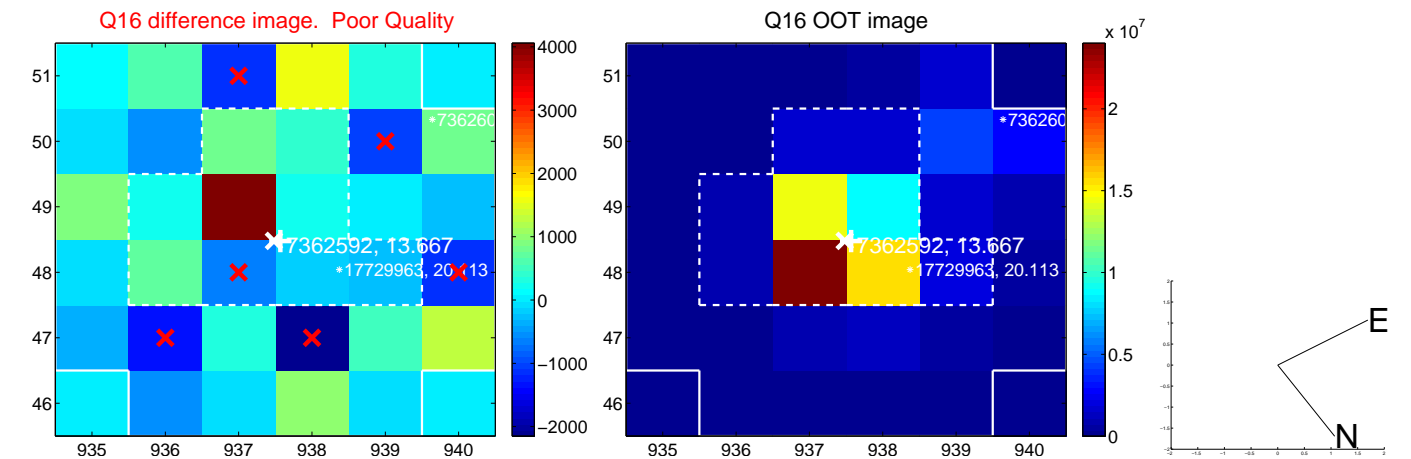
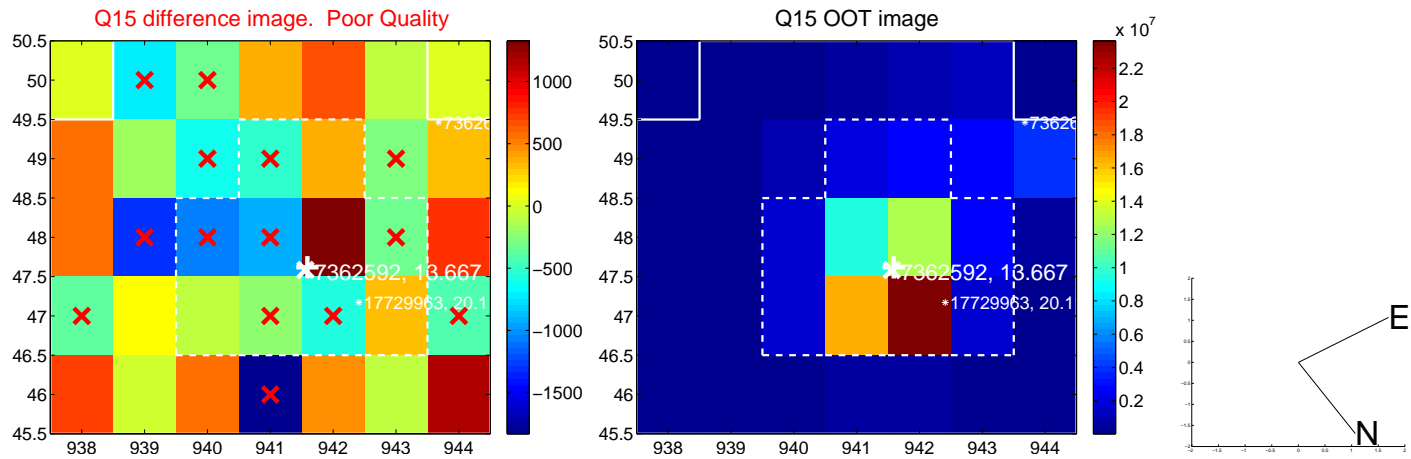
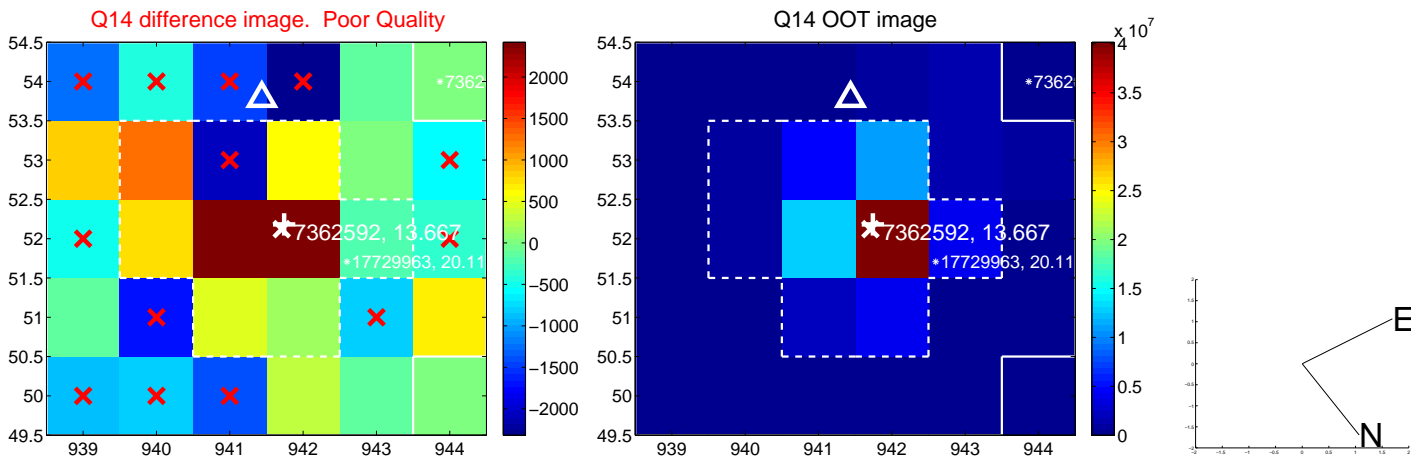
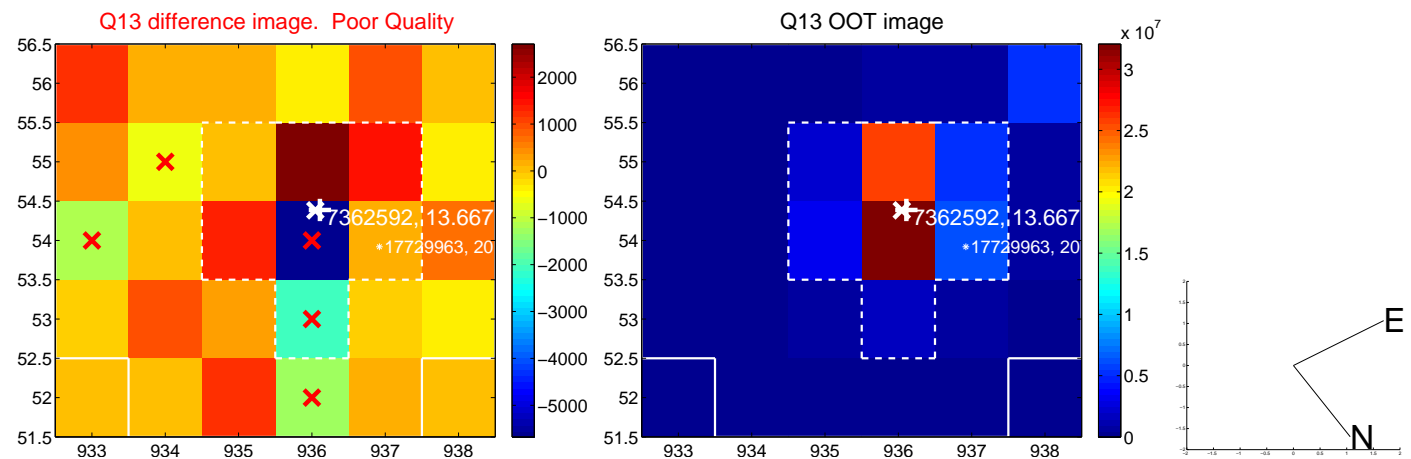
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



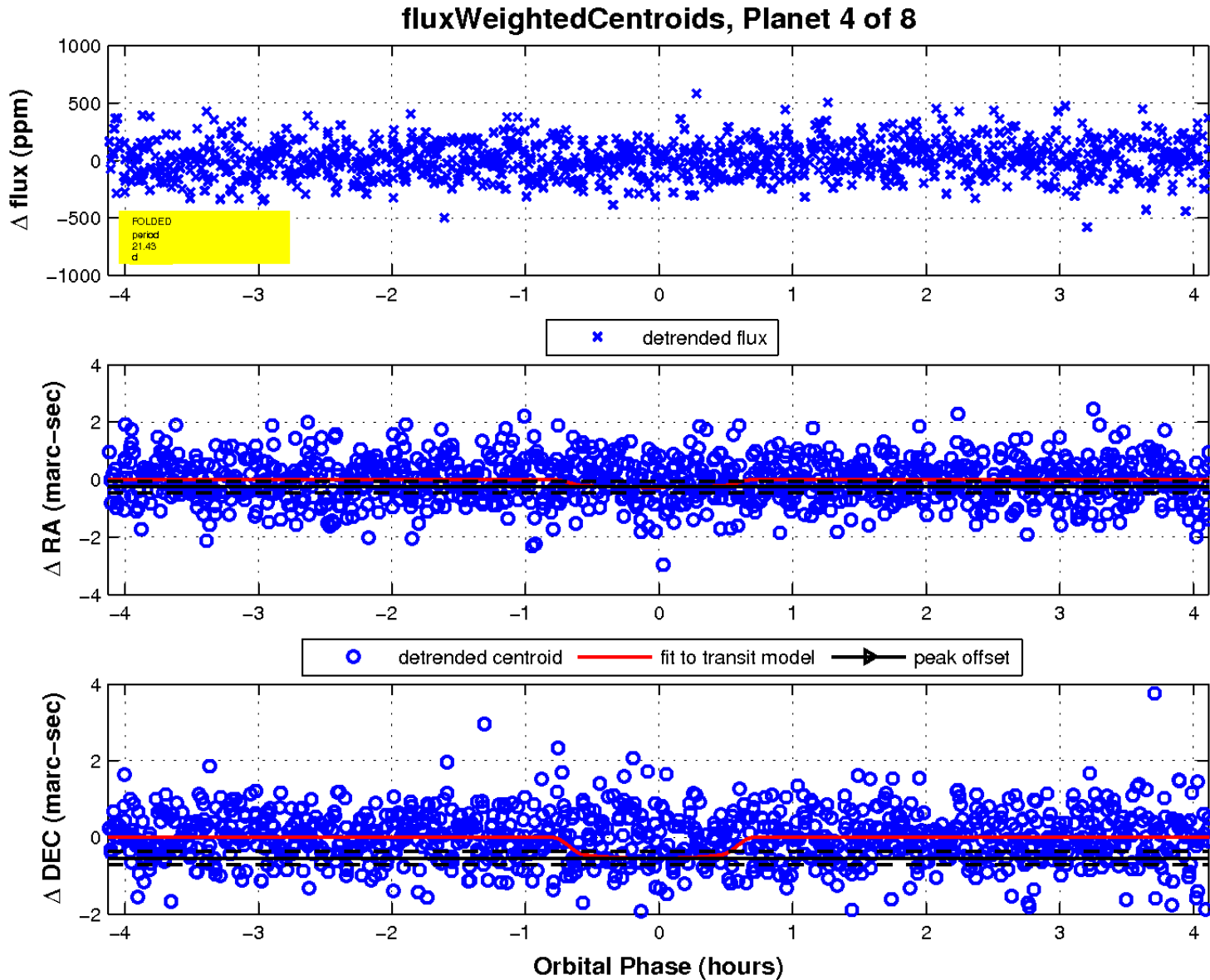
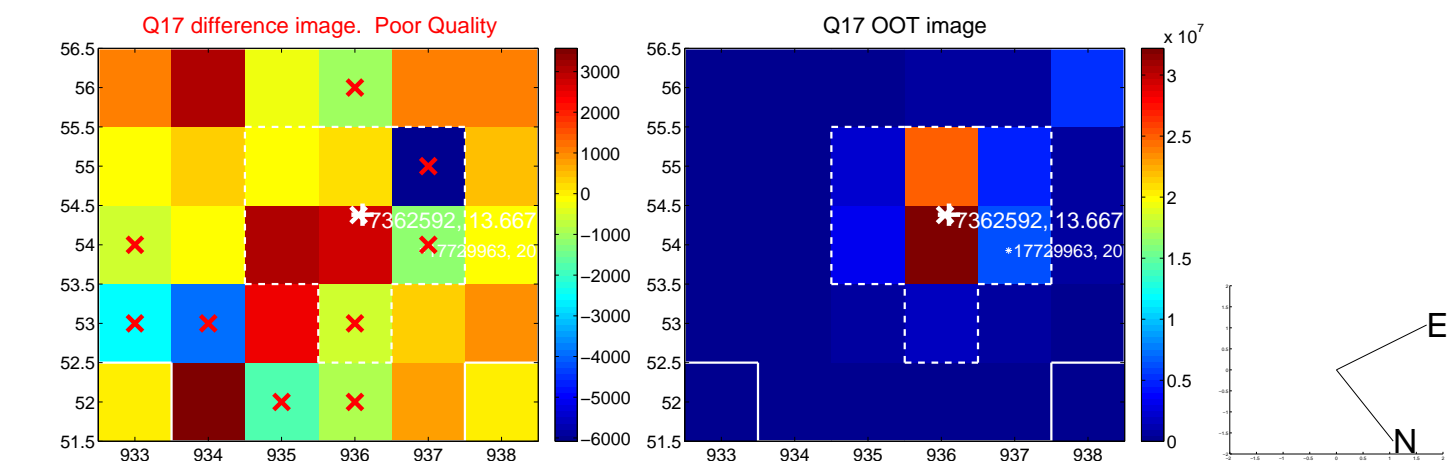
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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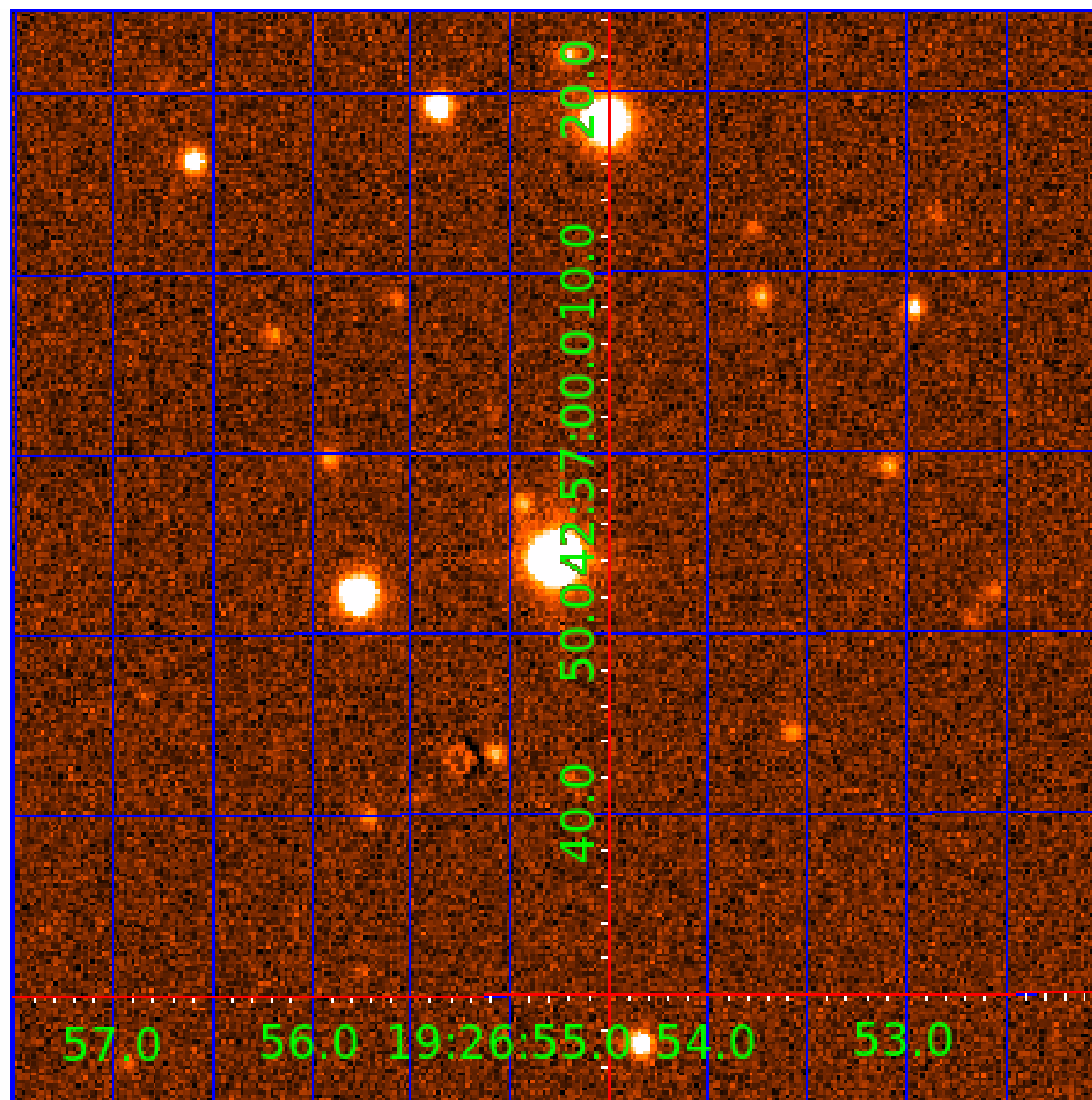


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007362592

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})
007362592-01	OBS	No	0.566746	131.900637	12.3	4.024	11.2	8.3	1.65	6074	0.60	17455.46
007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
007362592-04	OBS	No	21.426313	136.707386	240.1	1.377	9.6	10.4	1.65	6074	2.95	137.57
007362592-05	OBS	No	24.735451	153.925806	227.8	1.635	9.7	10.0	1.65	6074	2.50	113.59
007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
007362592-08	OBS	No	43.940671	137.929737	373.2	1.471	9.6	10.7	1.65	6074	3.30	52.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362592-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

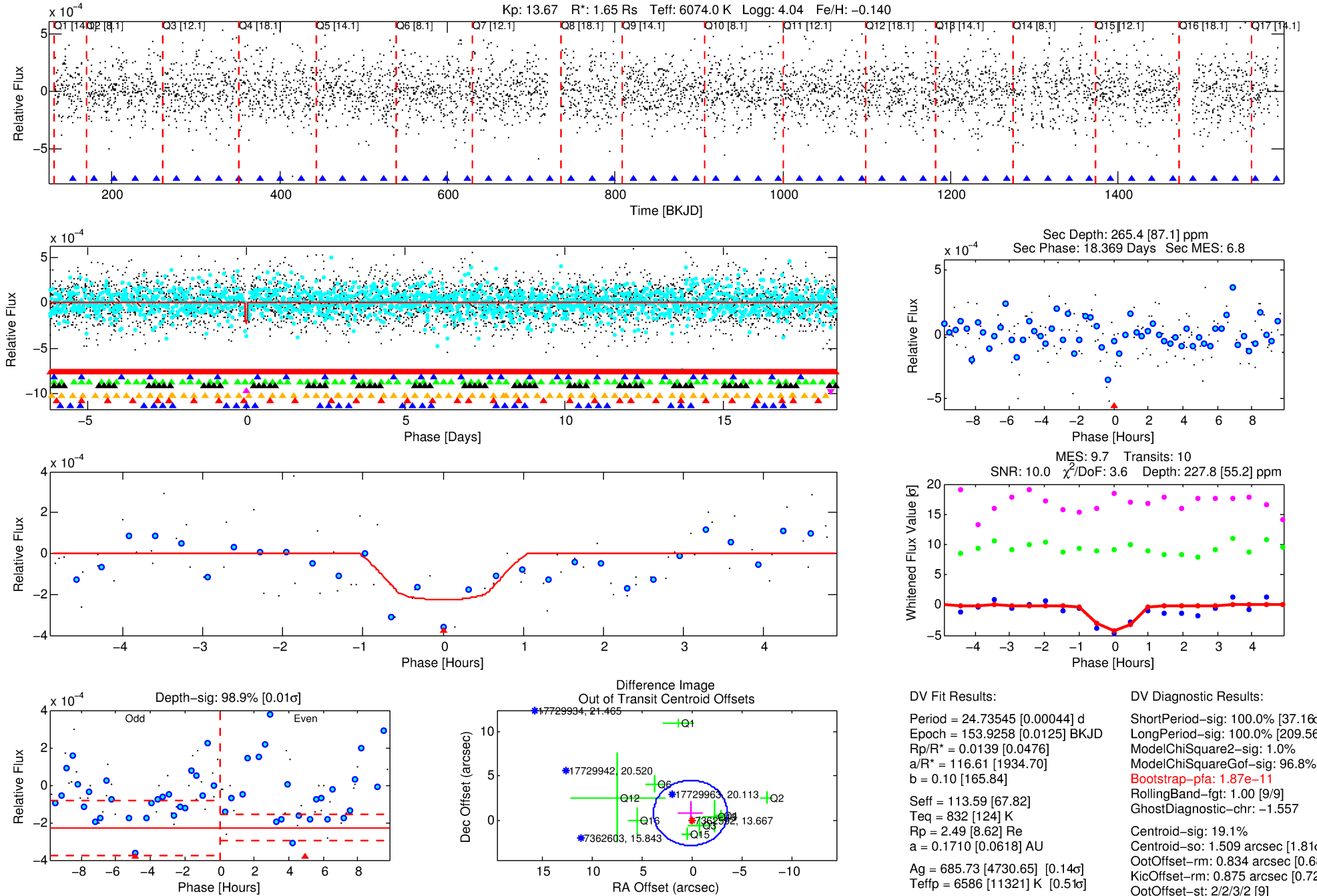
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-05

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 5 of 8 Period: 24.735 d



DV Fit Results:

Period = 24.73545 [0.00044] d
Epoch = 153.9258 [0.0125] BKJD
Rp/R* = 0.0139 [0.0476]
a/R* = 116.61 [1934.70]
b = 0.10 [165.84]
Seff = 113.59 [67.82]
Teq = 832 [124] K
Rp = 2.49 [8.62] Re
a = 0.1710 [0.0618] AU
Ag = 685.73 [4730.65] [0.14 σ]
Teffp = 6586 [11321] K [0.51 σ]

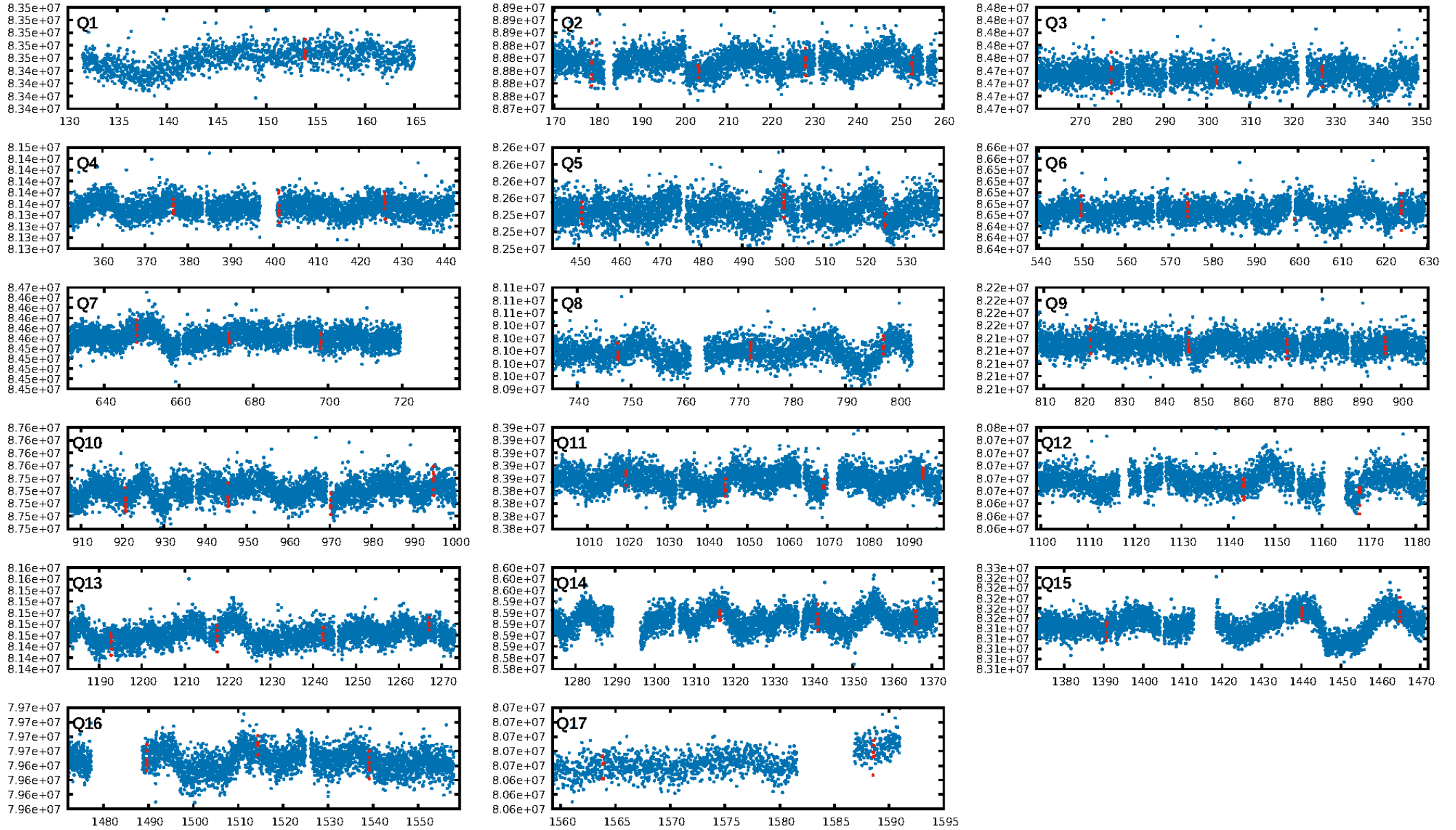
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [37.16 σ]
LongPeriod-sig: 100.0% [209.56 σ]
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 96.8%
Bootstrap-pfa: 1.87e-11
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -1.557
Centroid-sig: 19.1%
Centroid-so: 1.509 arcsec [1.81 σ]
OotOffset-rm: 0.834 arcsec [0.68 σ]
KicOffset-rm: 0.875 arcsec [0.72 σ]
OotOffset-st: 2/2/3/2 [9]
KicOffset-st: 2/2/3/2 [9]
DiffImageQuality-fgm: 0.00 [0/9]
DiffImageOverlap-fno: 0.00 [0/17]

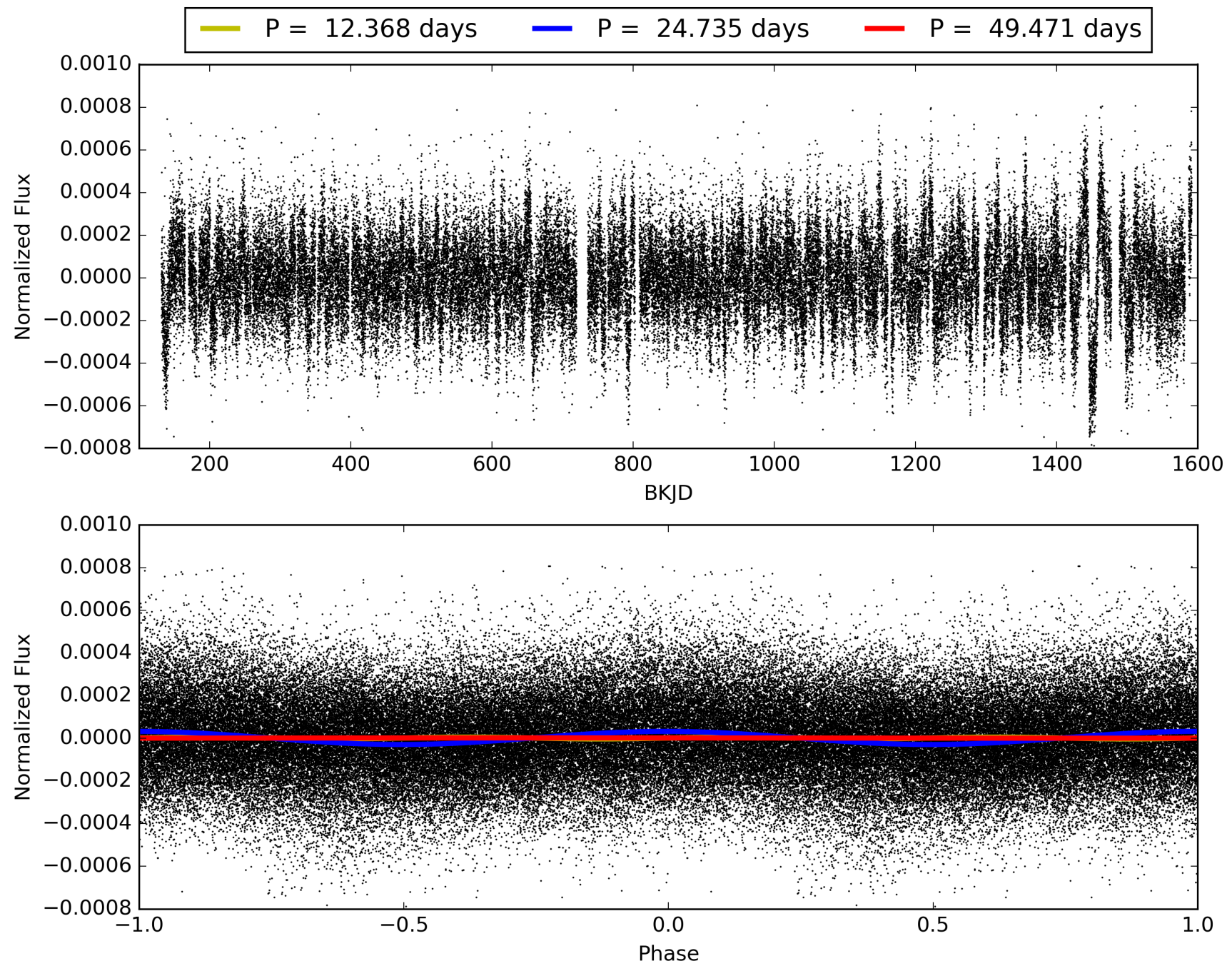
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:37 Z

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

TCE 007362592-05, PDC Light Curves

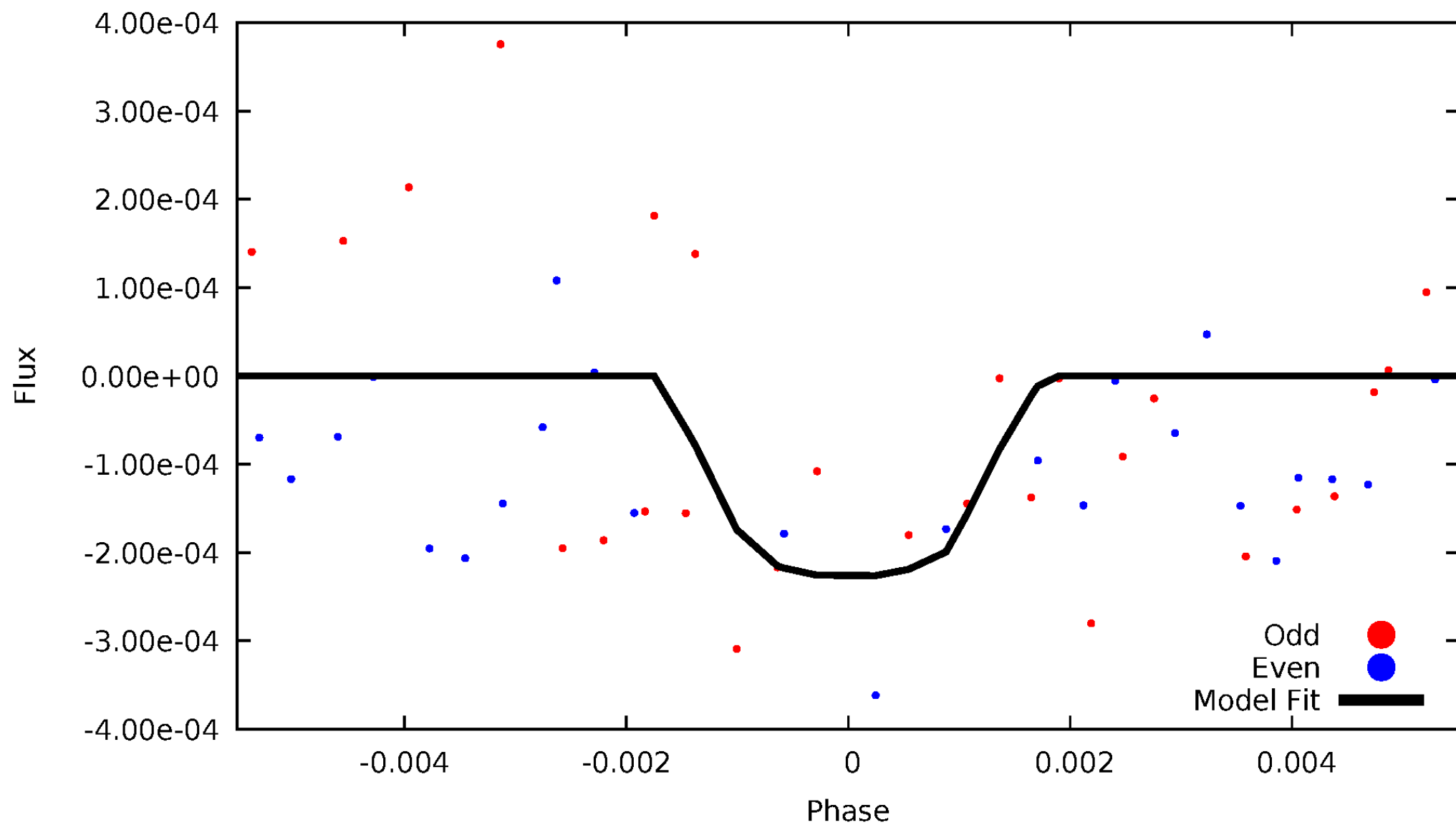


TCE 007362592-05



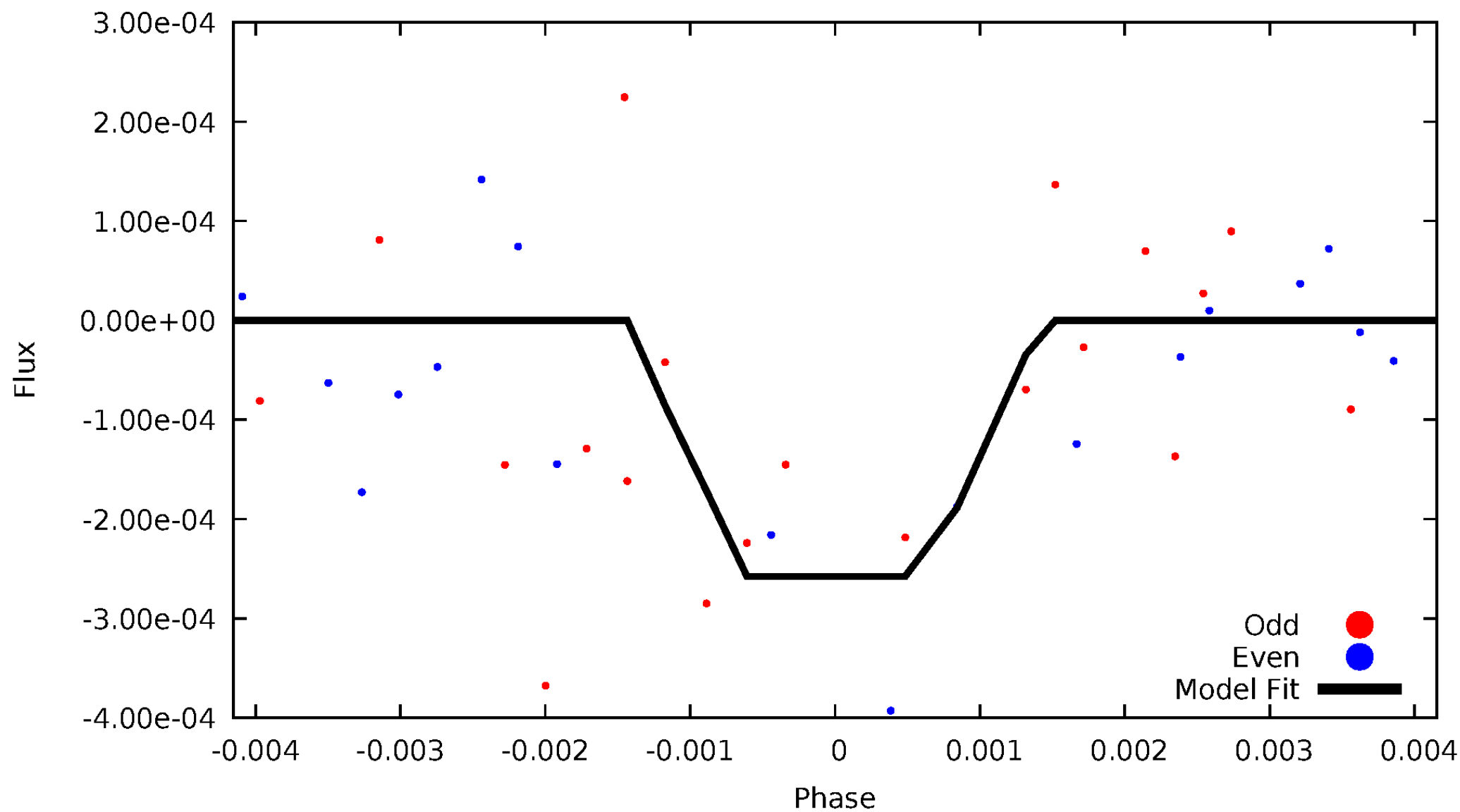
DV Odd/Even

TCE 007362592-05



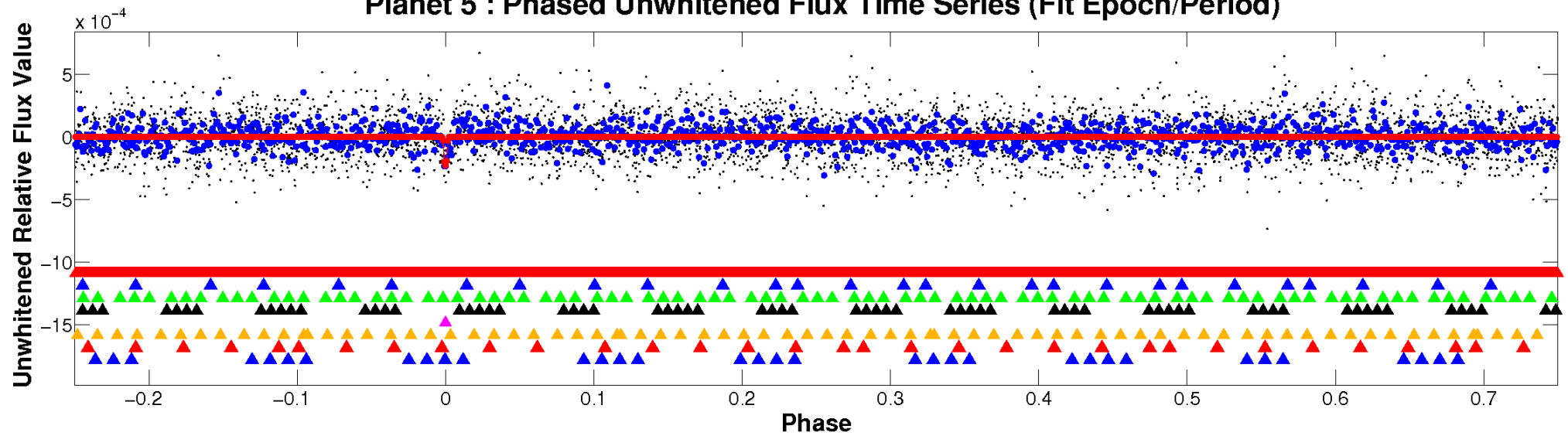
ALT Odd/Even

TCE 007362592-05

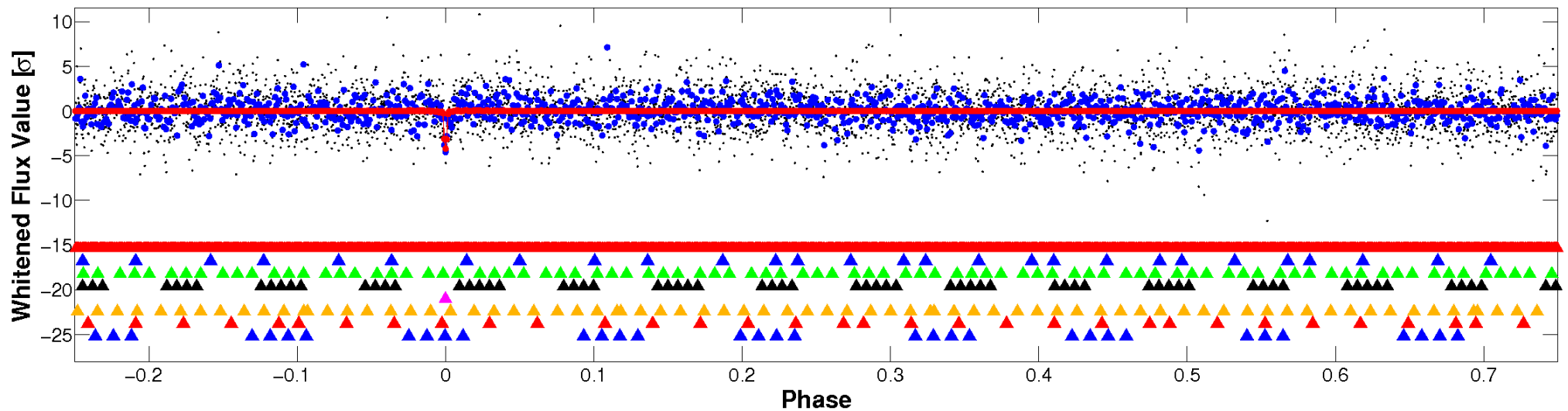


Non-Whitened Vs. Whitened Light Curve

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

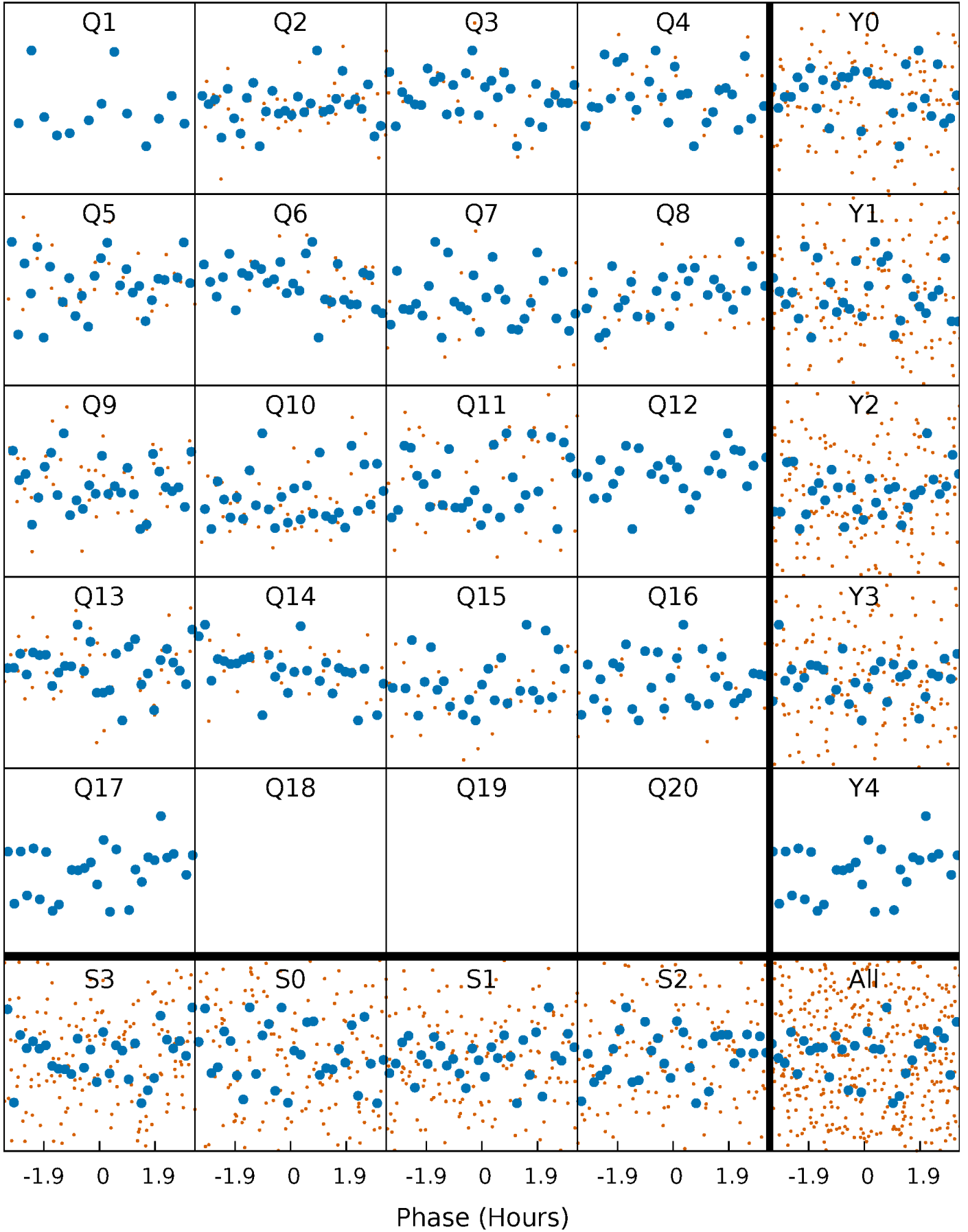


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



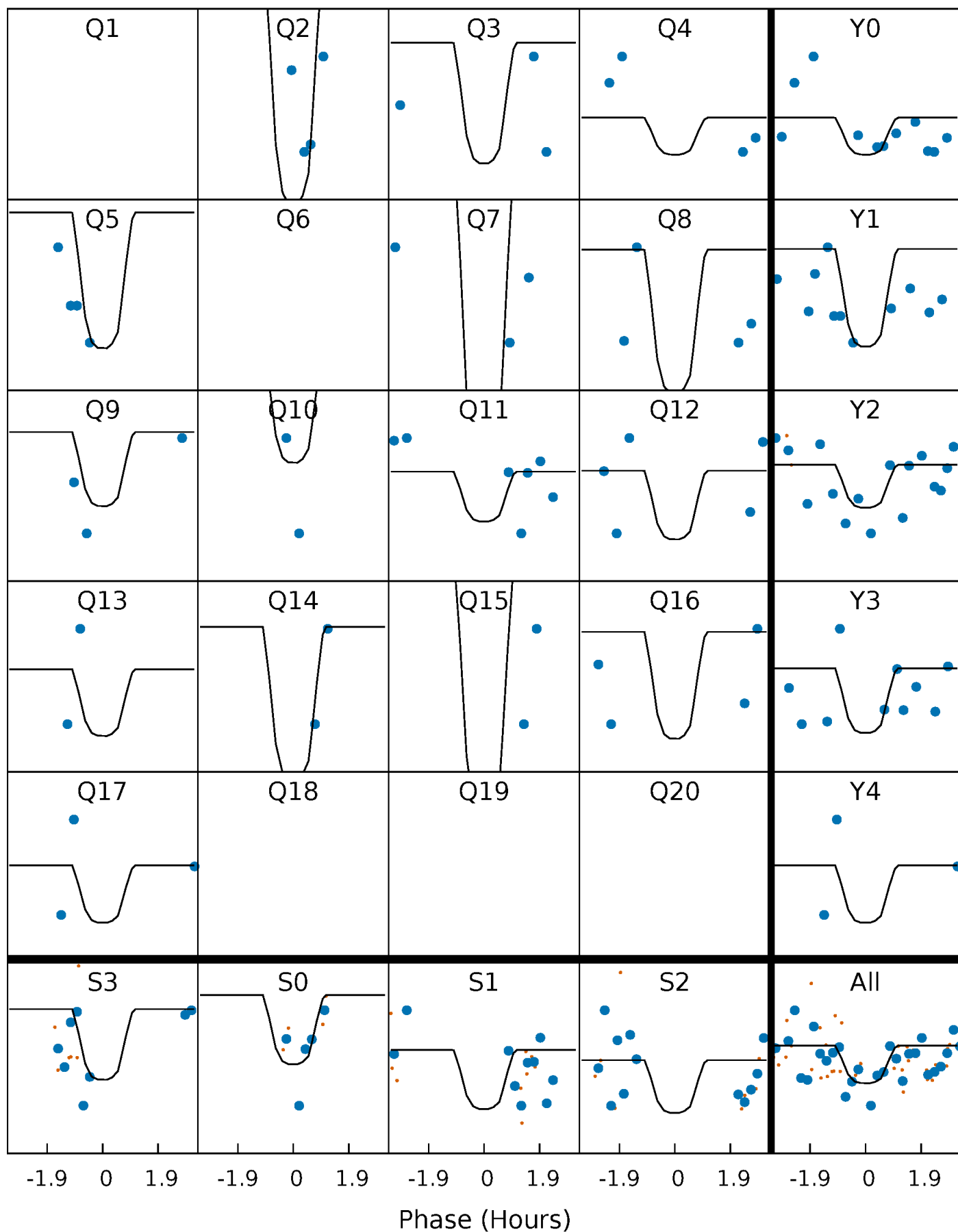
PDC Quarter-Phased Transit Curves

TCE 007362592-05 $P = 24.735451$ Days $T_0 = 153.925806$ (BKJD)



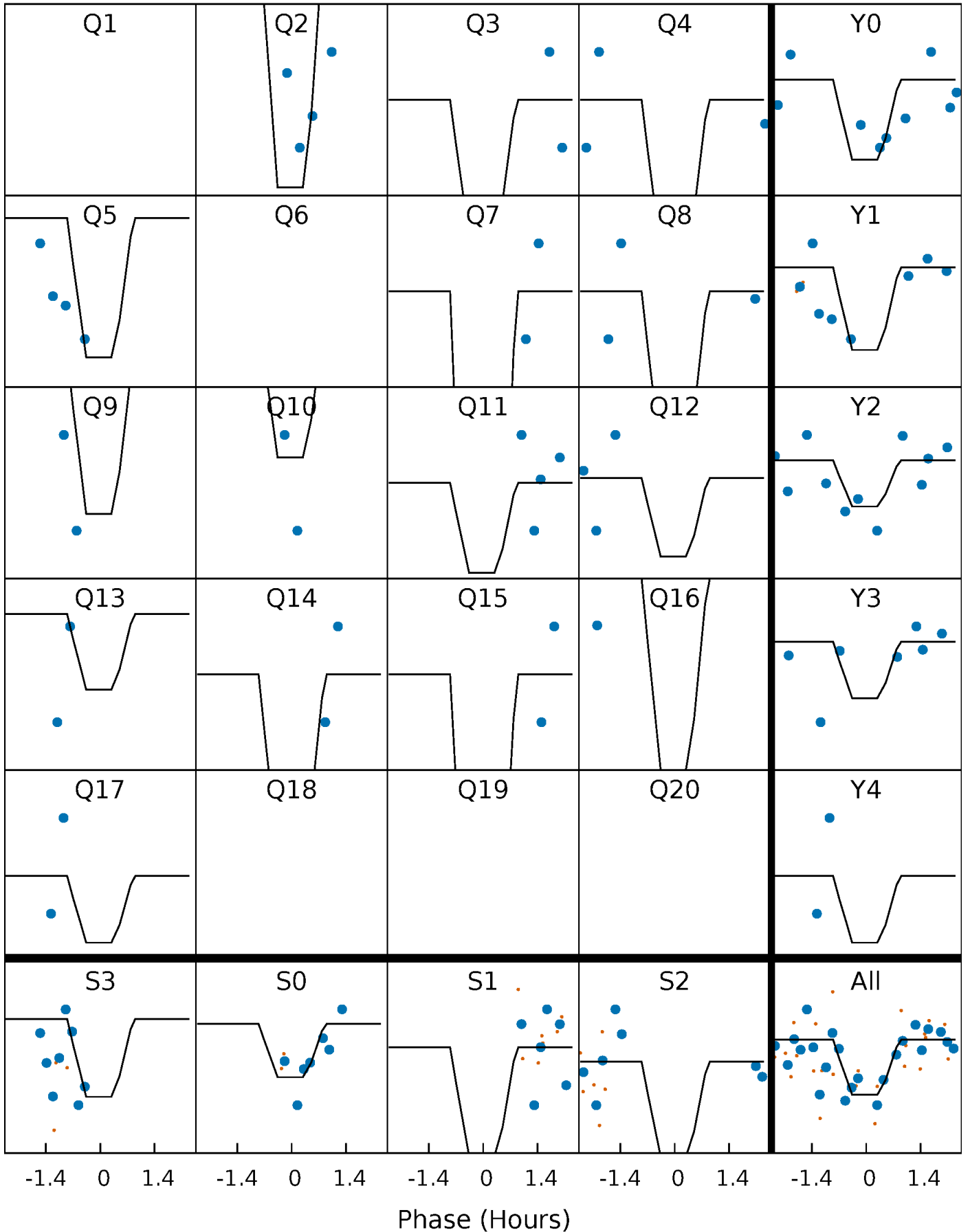
DV Quarter-Phased Transit Curves

TCE 007362592-05 $P = 24.735451$ Days $T_0 = 153.925806$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

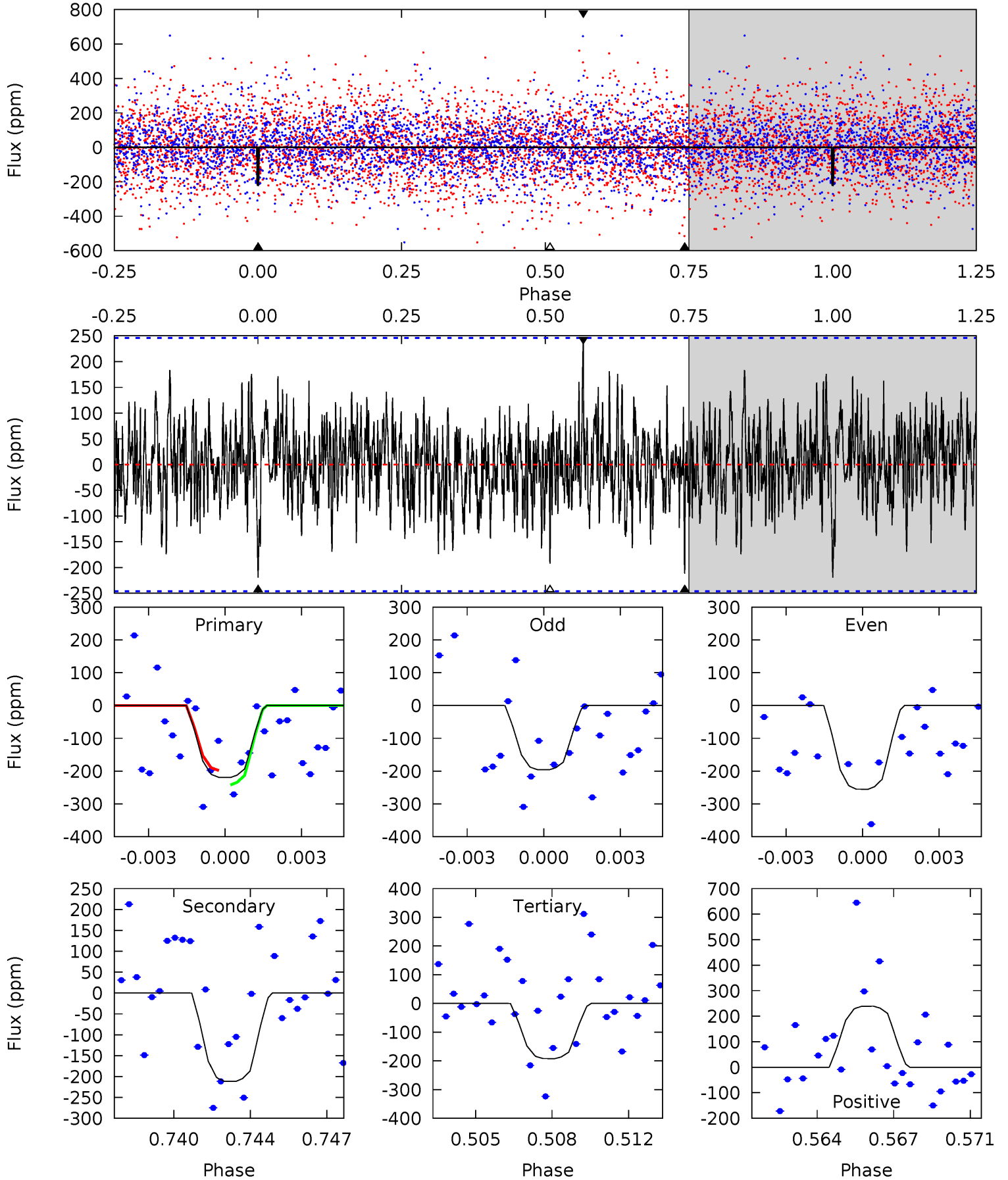
TCE 007362592-05 $P = 24.735293$ Days $T_0 = 153.927431$ (BKJD)



DV Model-Shift Uniqueness Test

007362592-05, P = 24.735451 Days, E = 129.190355 Days

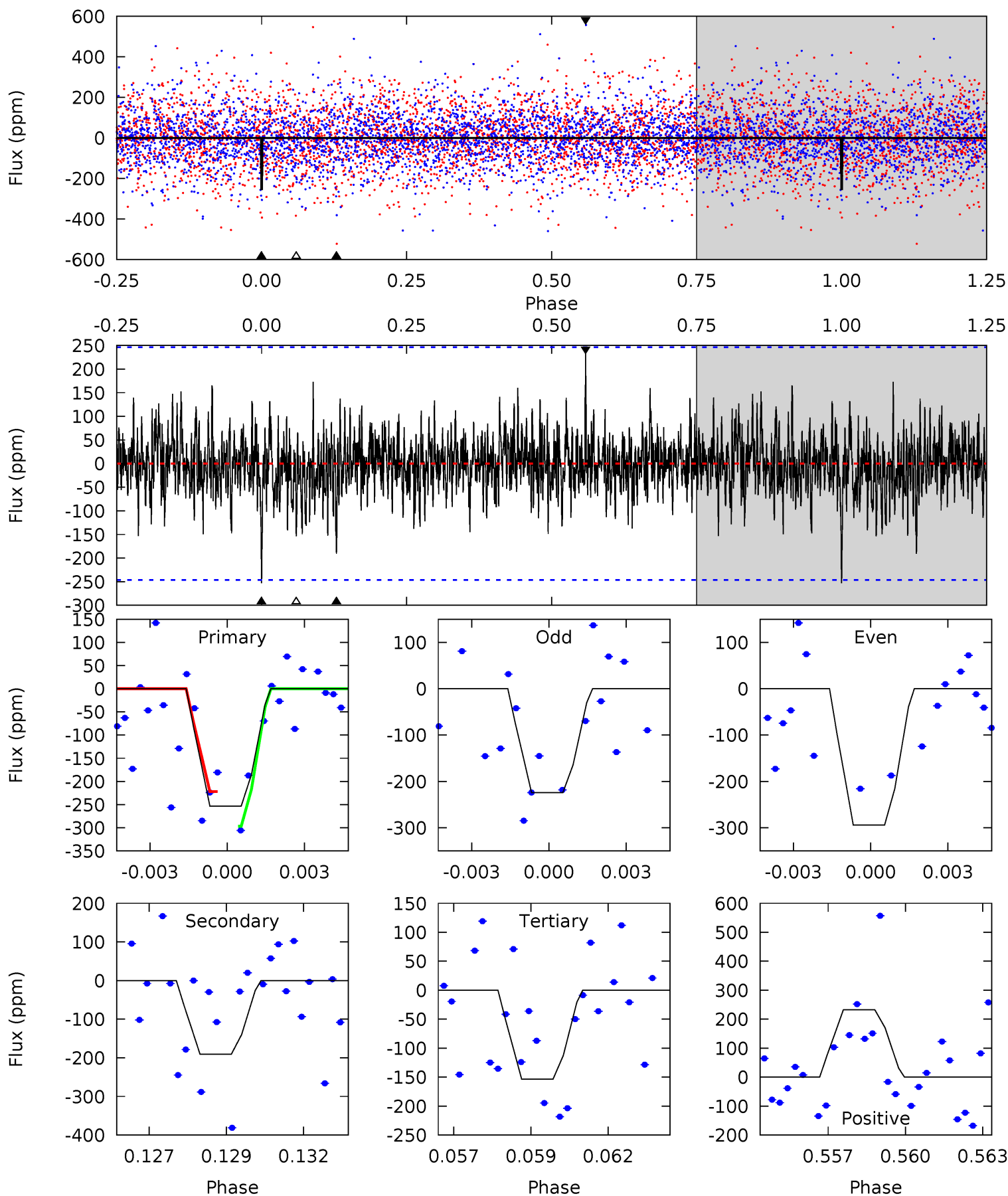
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.66	4.50	4.08	5.09	5.23	2.92	1.34	0.58	-0.42	0.41	-0.59	0.54	0.96	0.52	0.47



Alt Model-Shift Uniqueness Test

007362592-05, P = 24.735293 Days, E = 129.192138 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.42	4.08	3.29	4.98	5.27	3.00	1.08	2.13	0.44	0.79	-0.90	0.72	1.00	0.48	0.81



Stellar Parameters For KIC 007362592

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-212 ± 47	$6.30^{+6.89}_{-4.20}$	1152^{+89}_{-114}	4096^{+2499}_{-904}	83^{+755}_{-65}
Alt.	-191 ± 47	$6.60^{+6.49}_{-4.54}$	1151^{+88}_{-111}	3975^{+2448}_{-786}	70^{+667}_{-53}

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

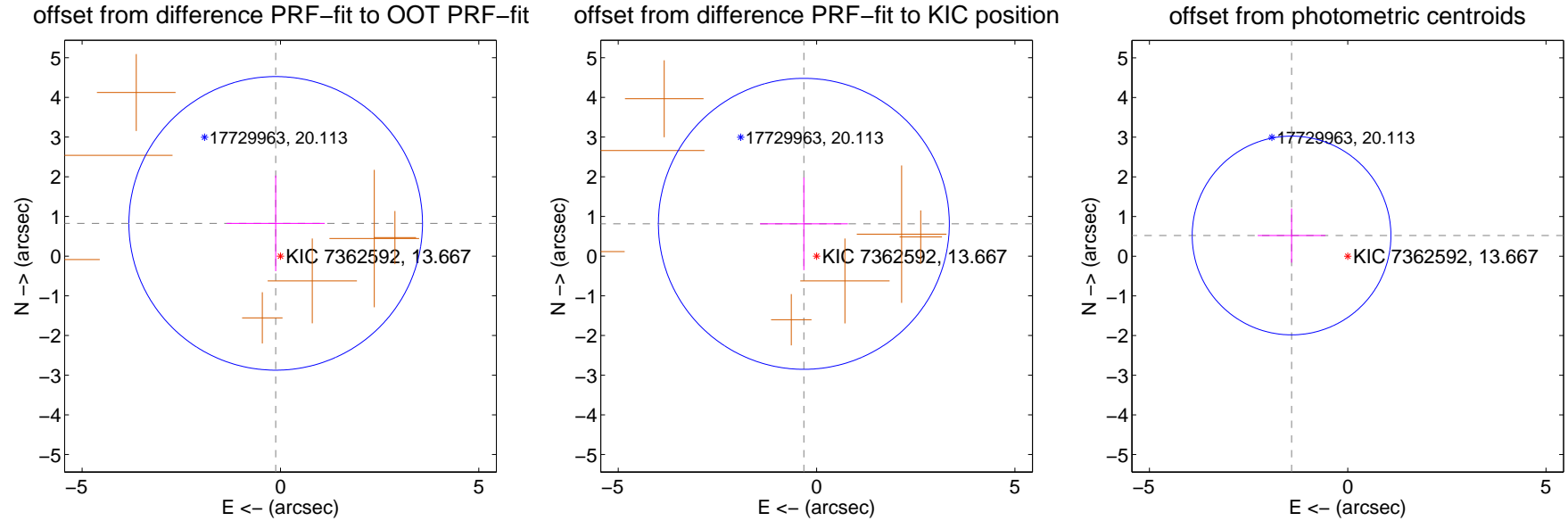
DV Centroid Data

Supplemental centroid analysis for 007362592-05. Kepler magnitude: 13.67. Transit SNR 10.03

There are 0 quarters with good PRF difference image offsets

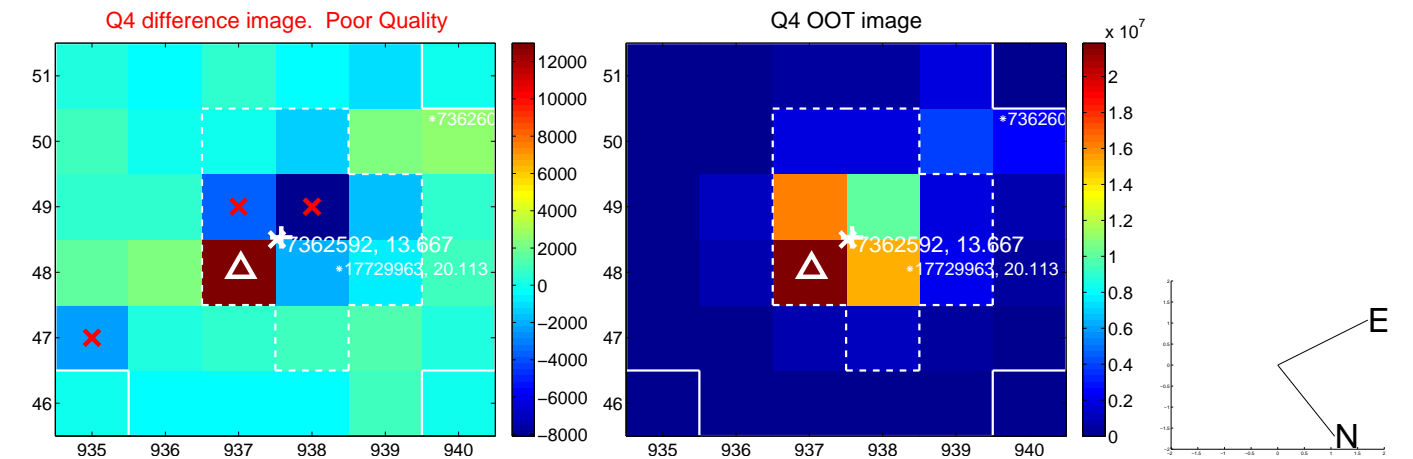
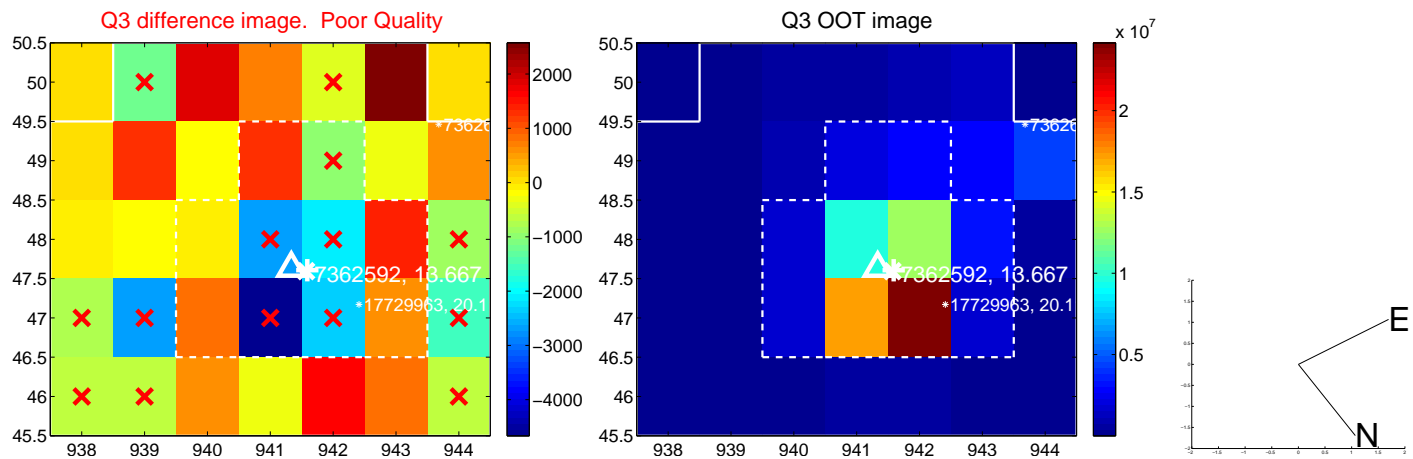
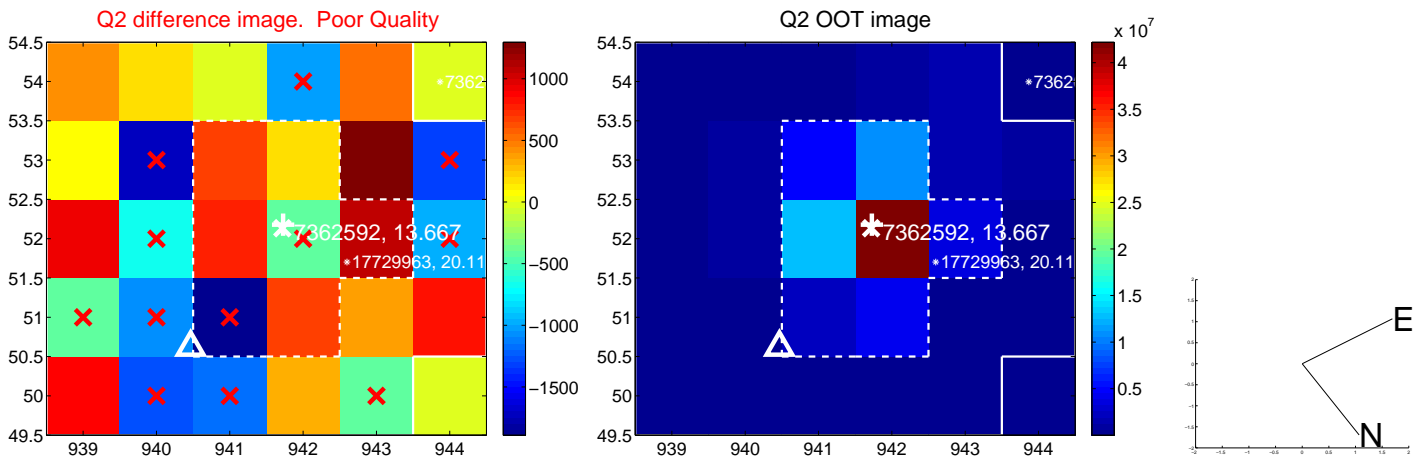
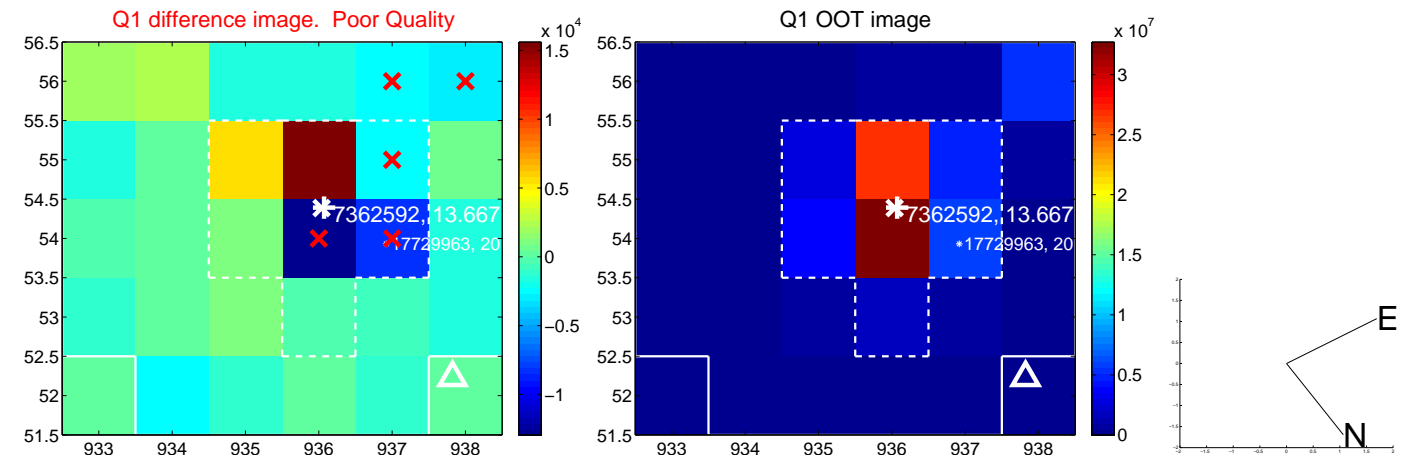
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.834 ± 1.233	0.68	0.120 ± 1.237	0.826 ± 1.204
PRF-fit source offset from KIC position	0.875 ± 1.222	0.72	0.320 ± 1.109	0.814 ± 1.167
photometric centroid source offset	1.51 ± 0.83	1.81	1.42 ± 0.85	0.52 ± 0.68

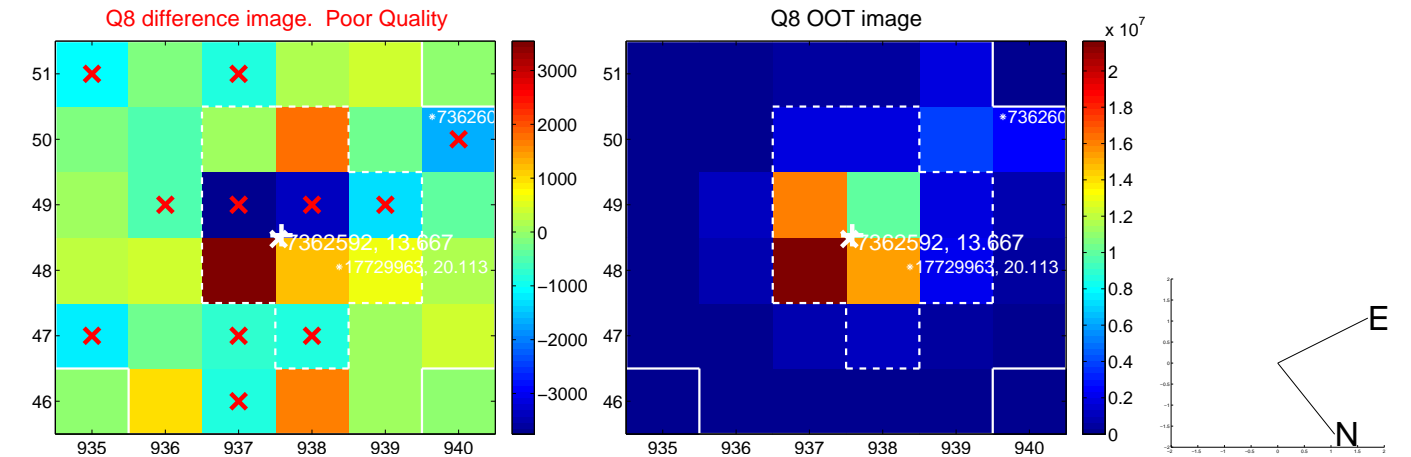
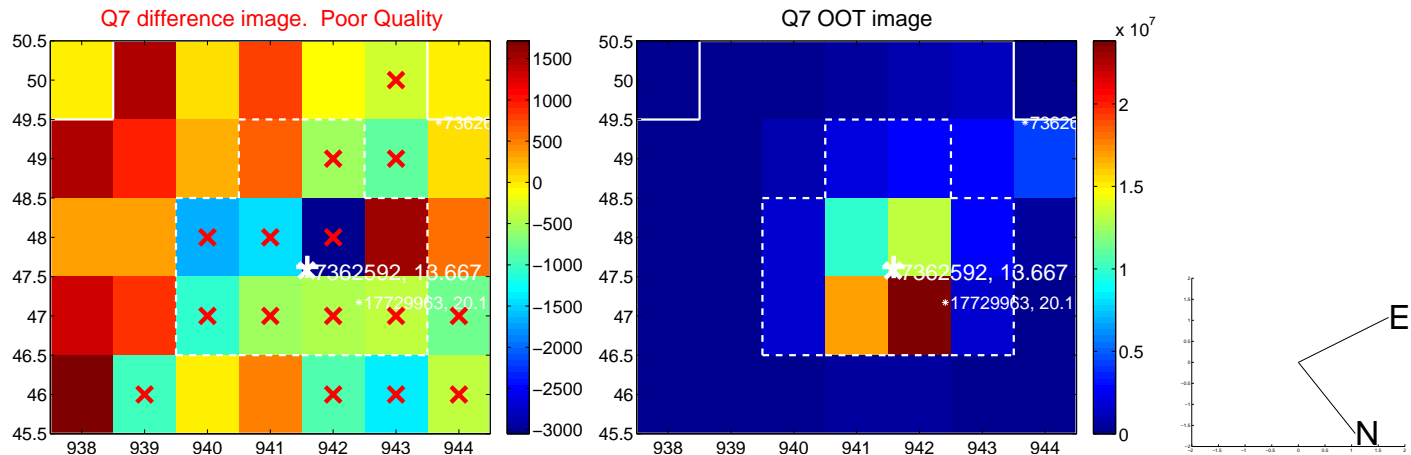
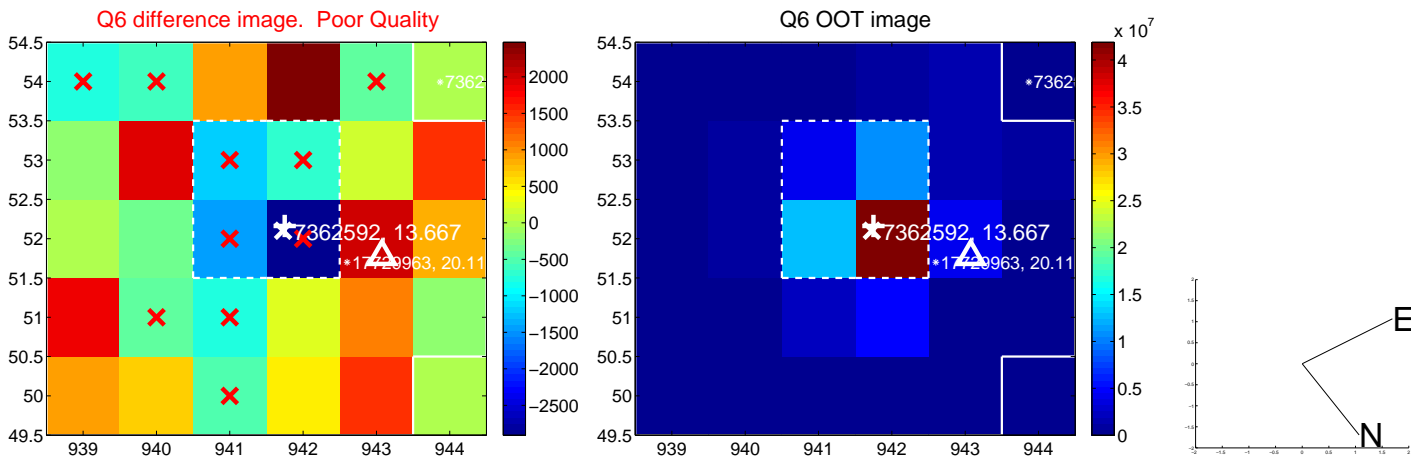
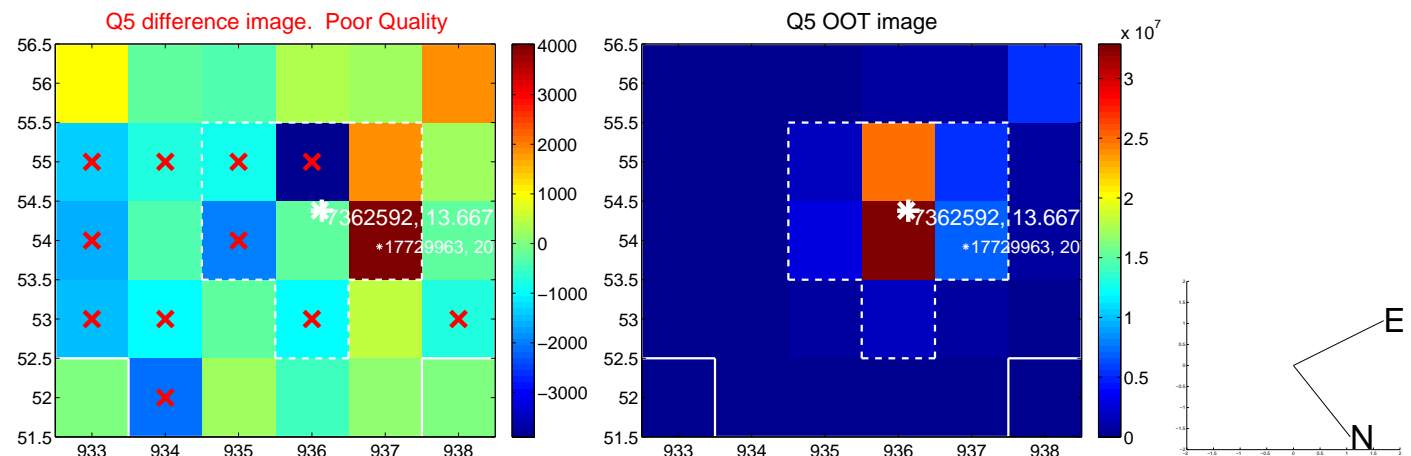


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

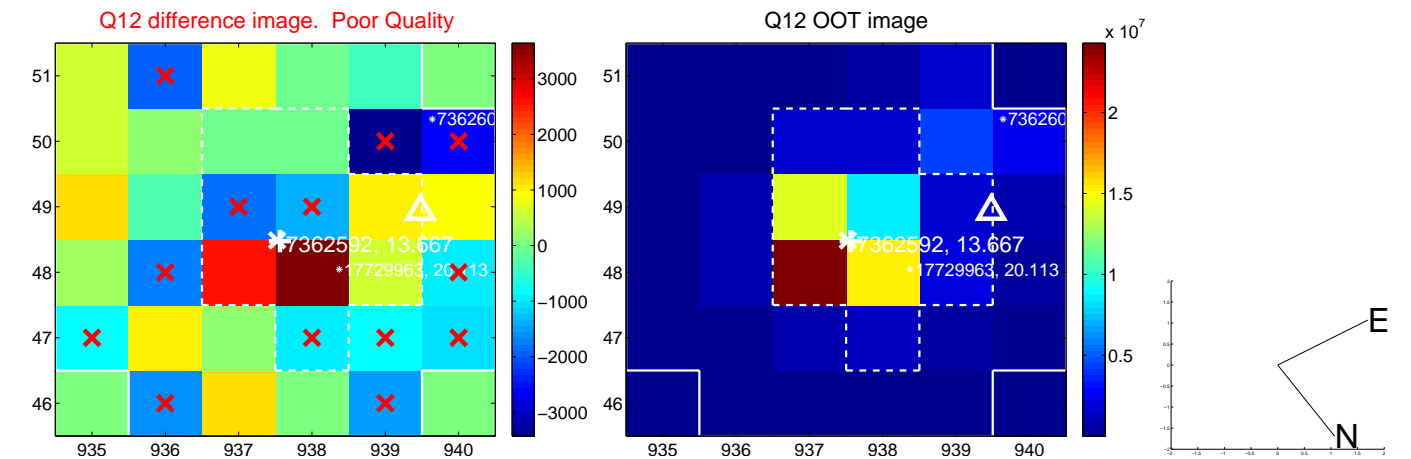
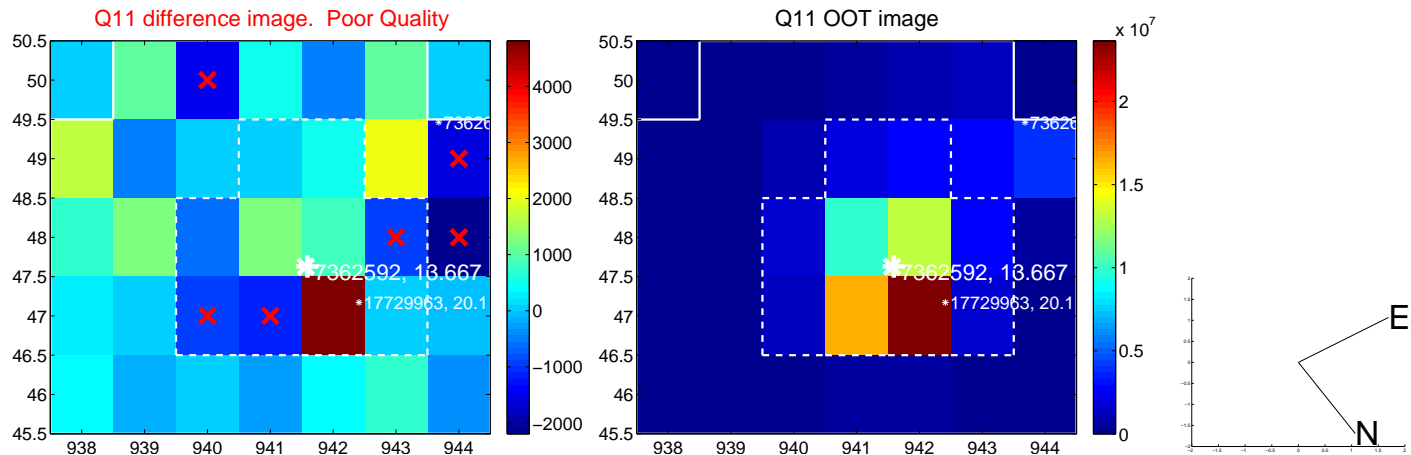
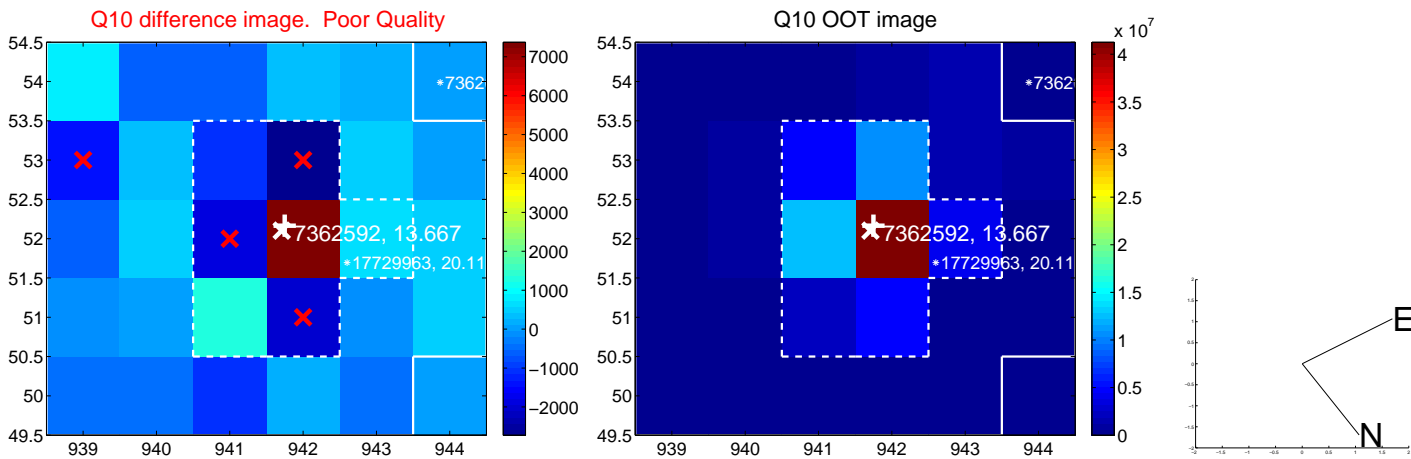
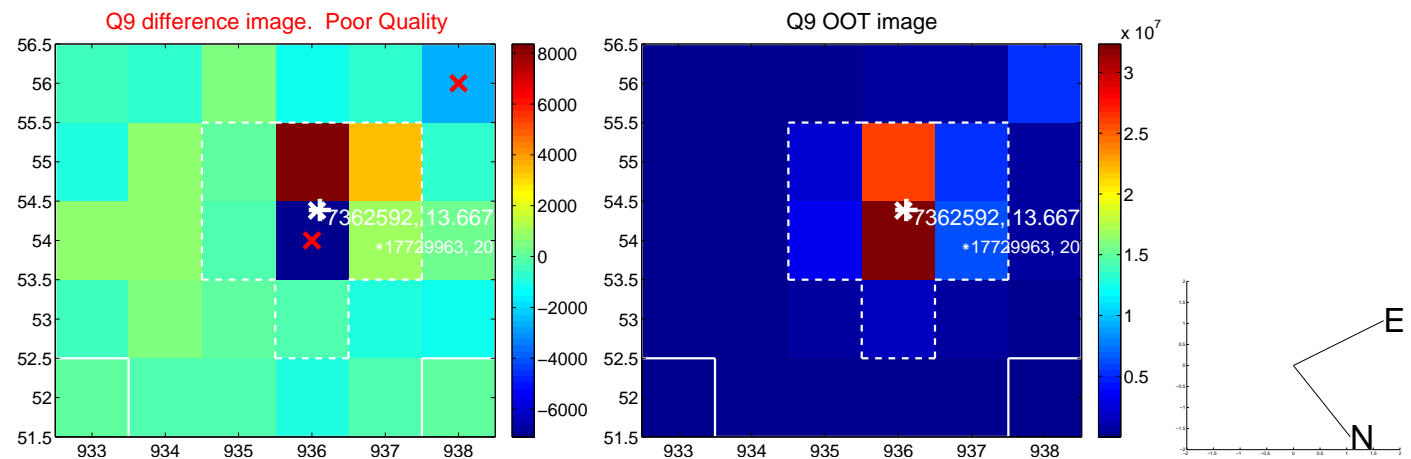
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



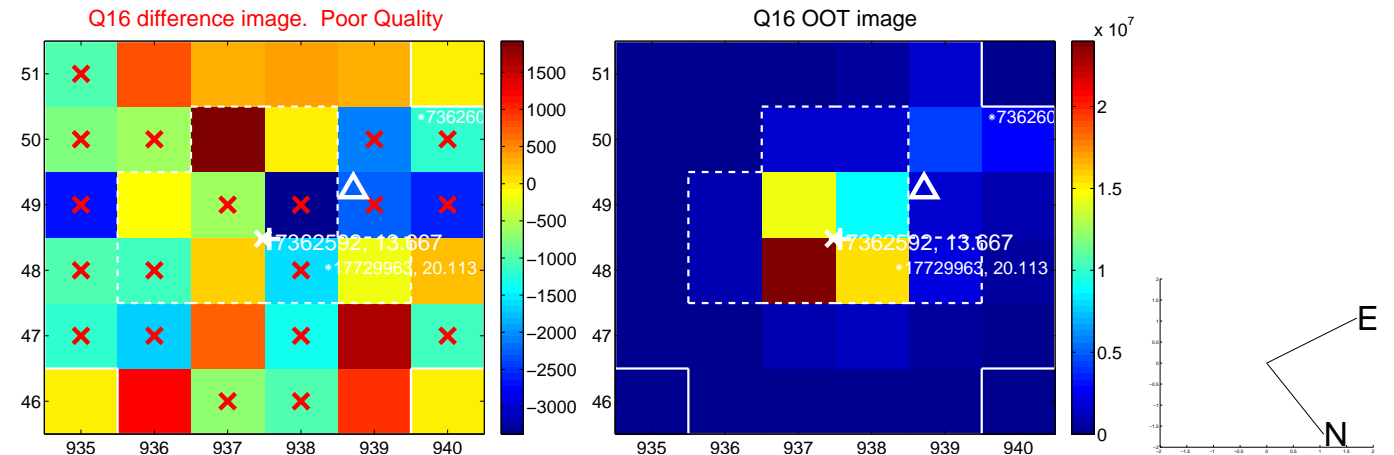
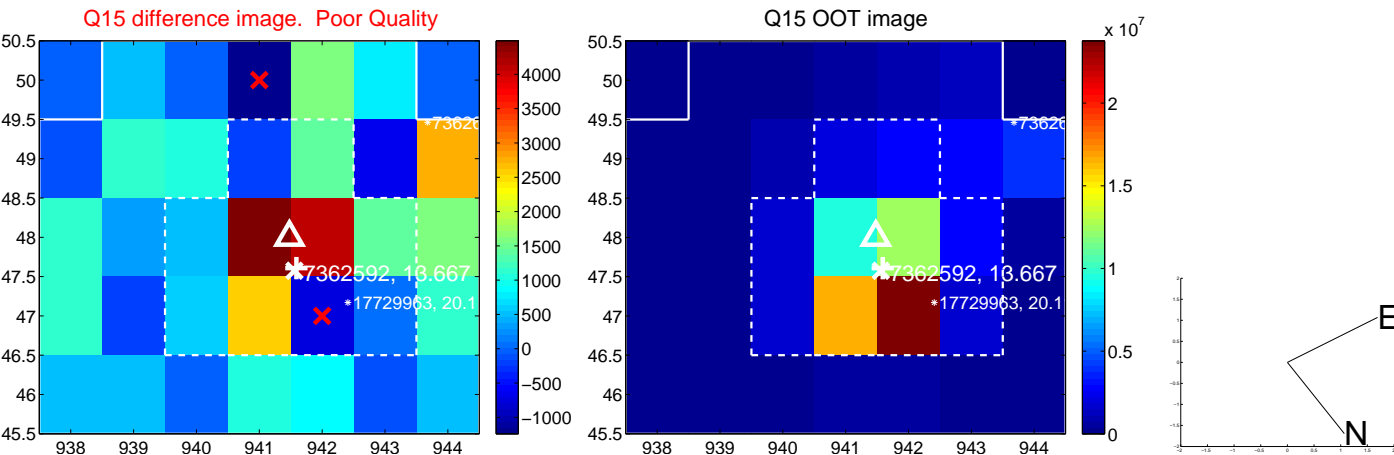
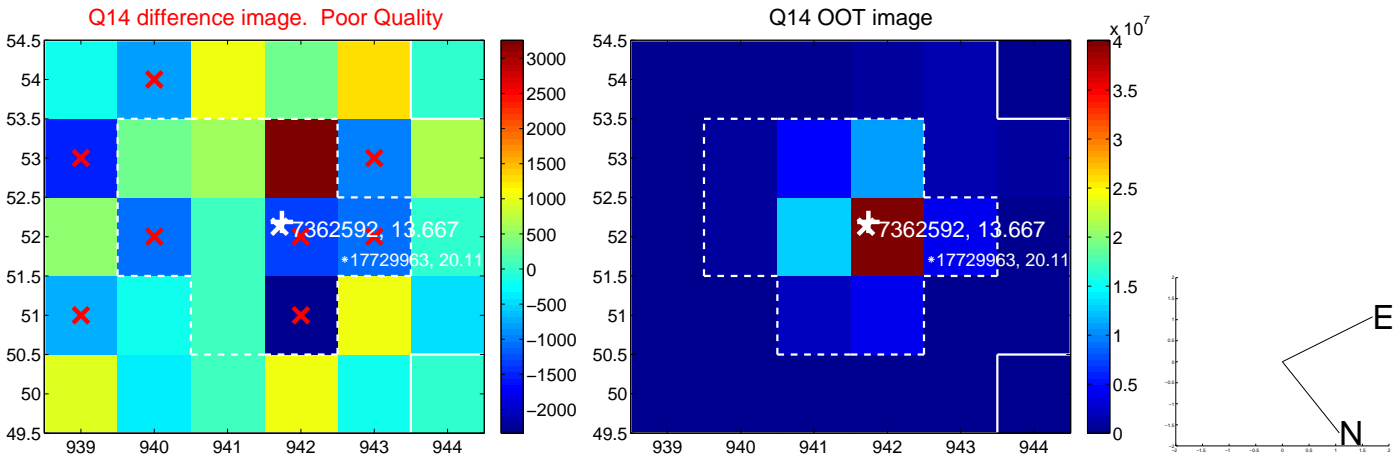
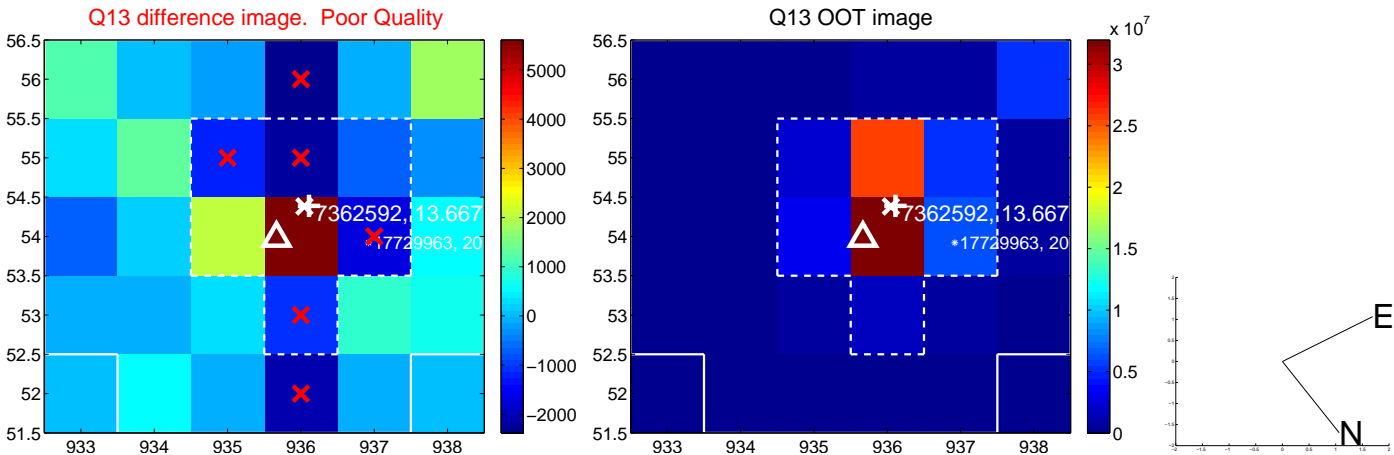
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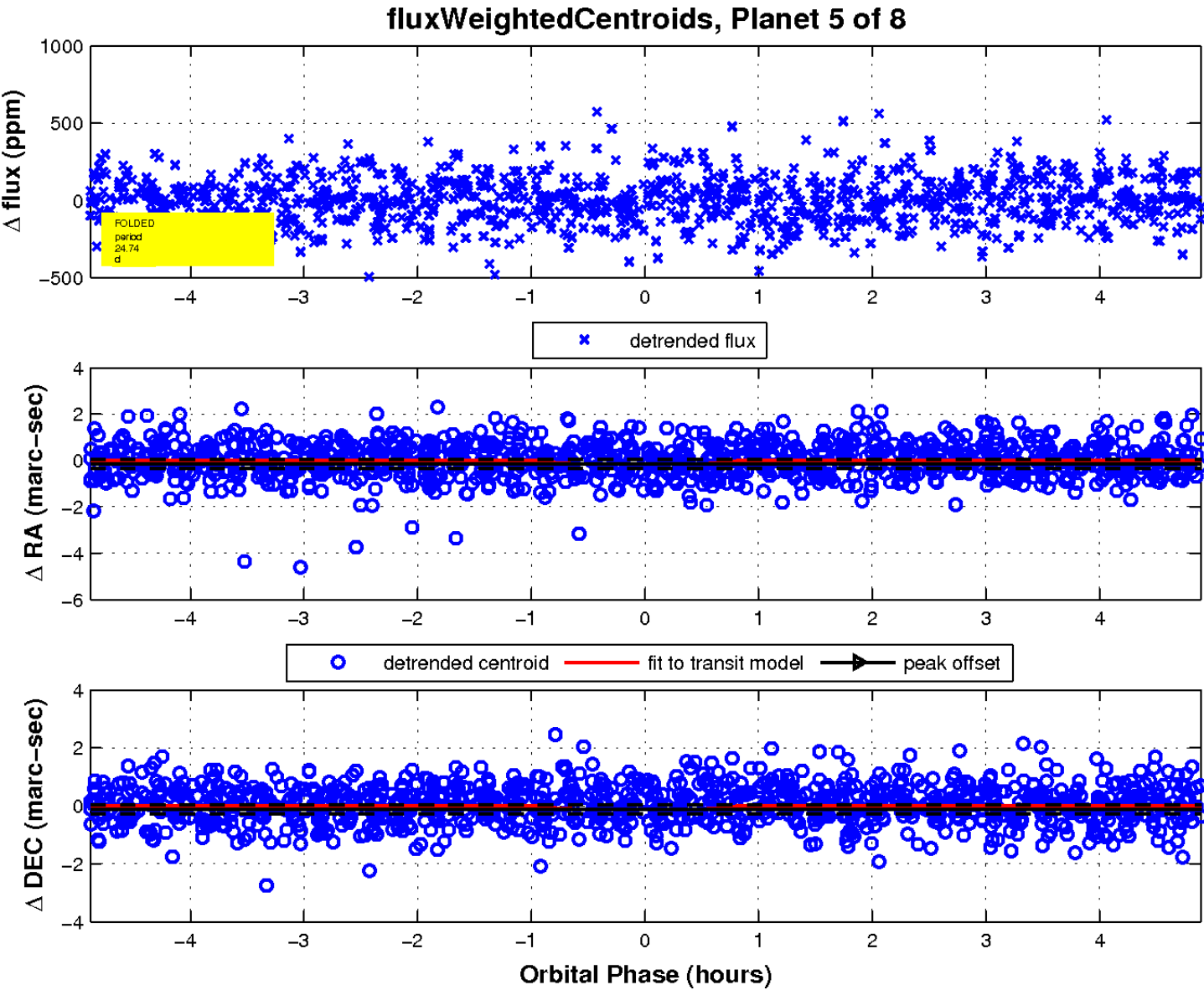
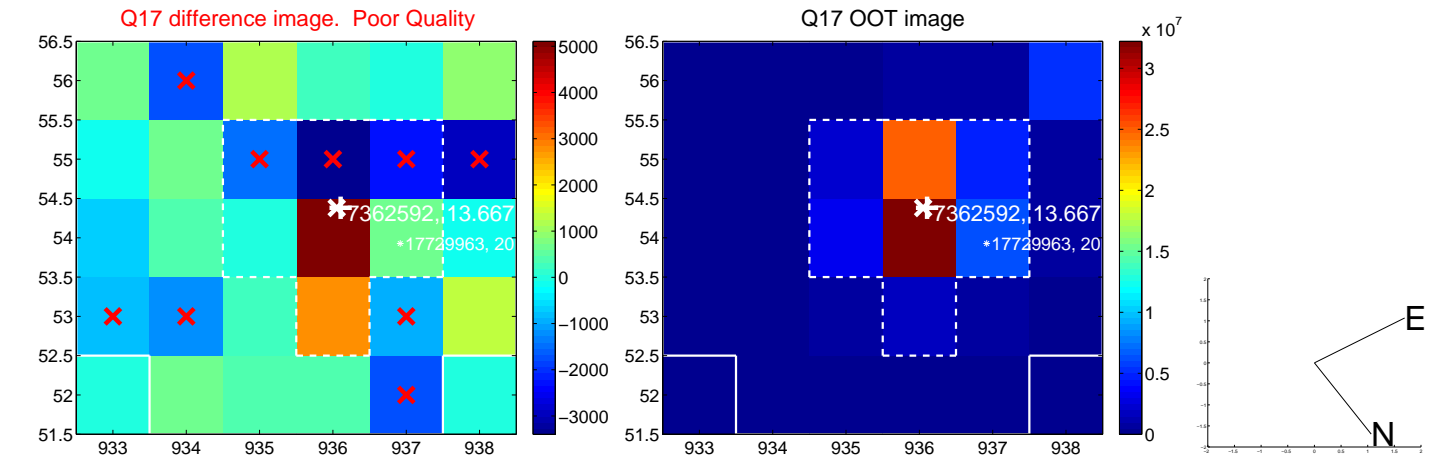
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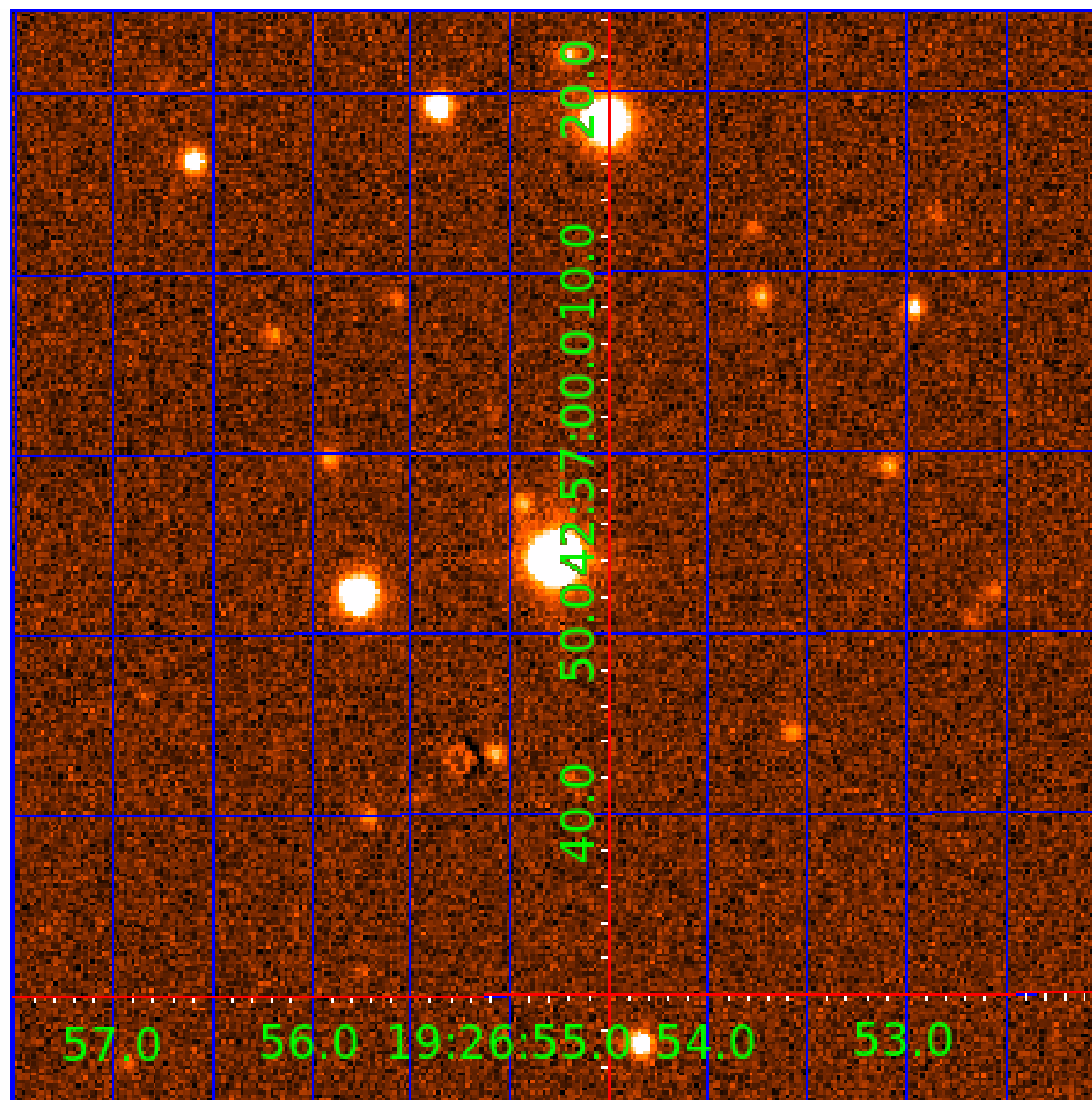


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007362592

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
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007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
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Robovetter Results

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007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

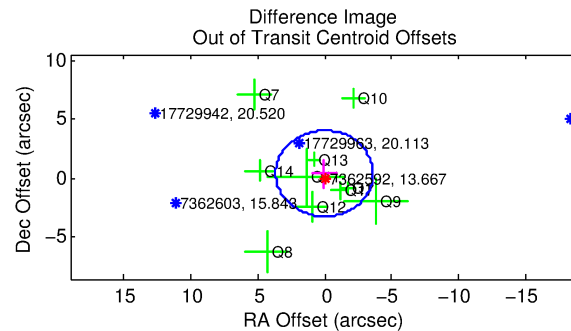
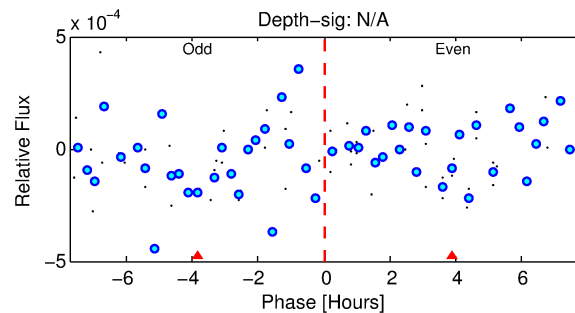
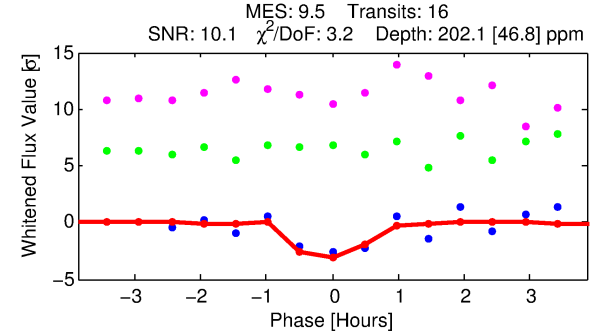
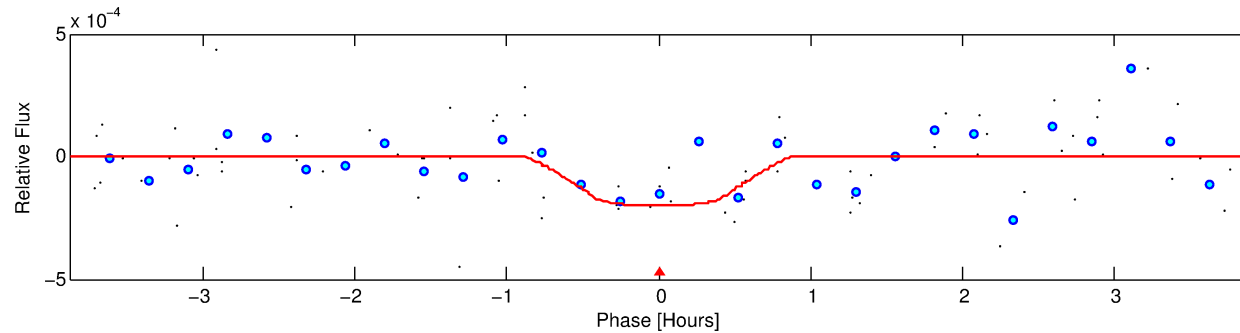
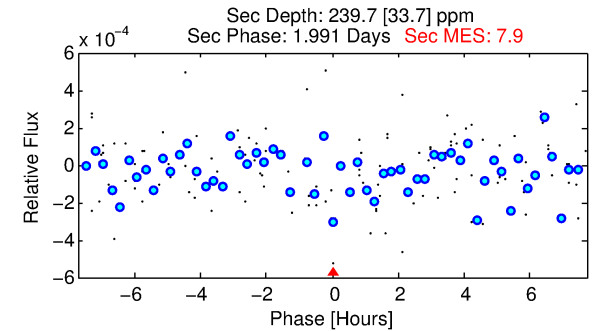
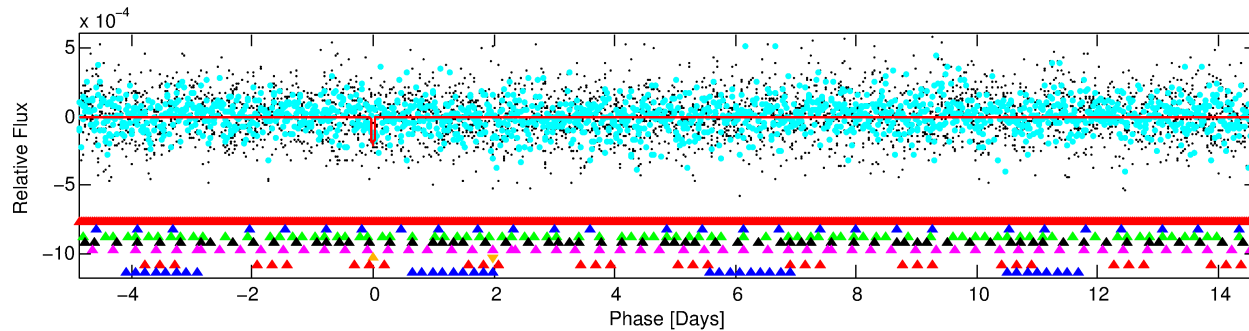
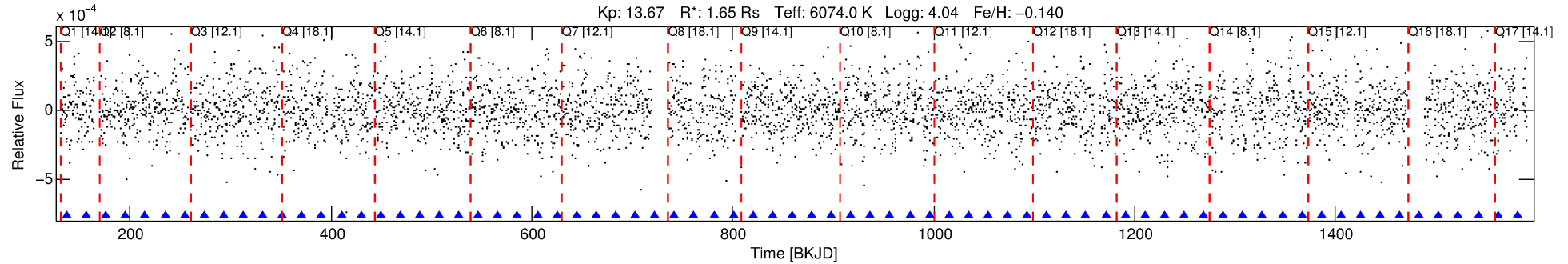
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-06

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 6 of 8 Period: 19.511 d



DV Fit Results:

Period = 19.51054 [0.00022] d
Epoch = 137.2770 [0.0097] BKJD
Rp/R* = 0.0131 [0.0754]
a/R* = 116.61 [3234.15]
b = 0.04 [704.97]
Seff = 155.87 [93.06]
Teq = 901 [134] K
Rp = 2.35 [13.61] Re
a = 0.1459 [0.0528] AU
Ag = 507.31 [5865.21] [0.09σ]
Teffp = 6611 [19086] K [0.30σ]

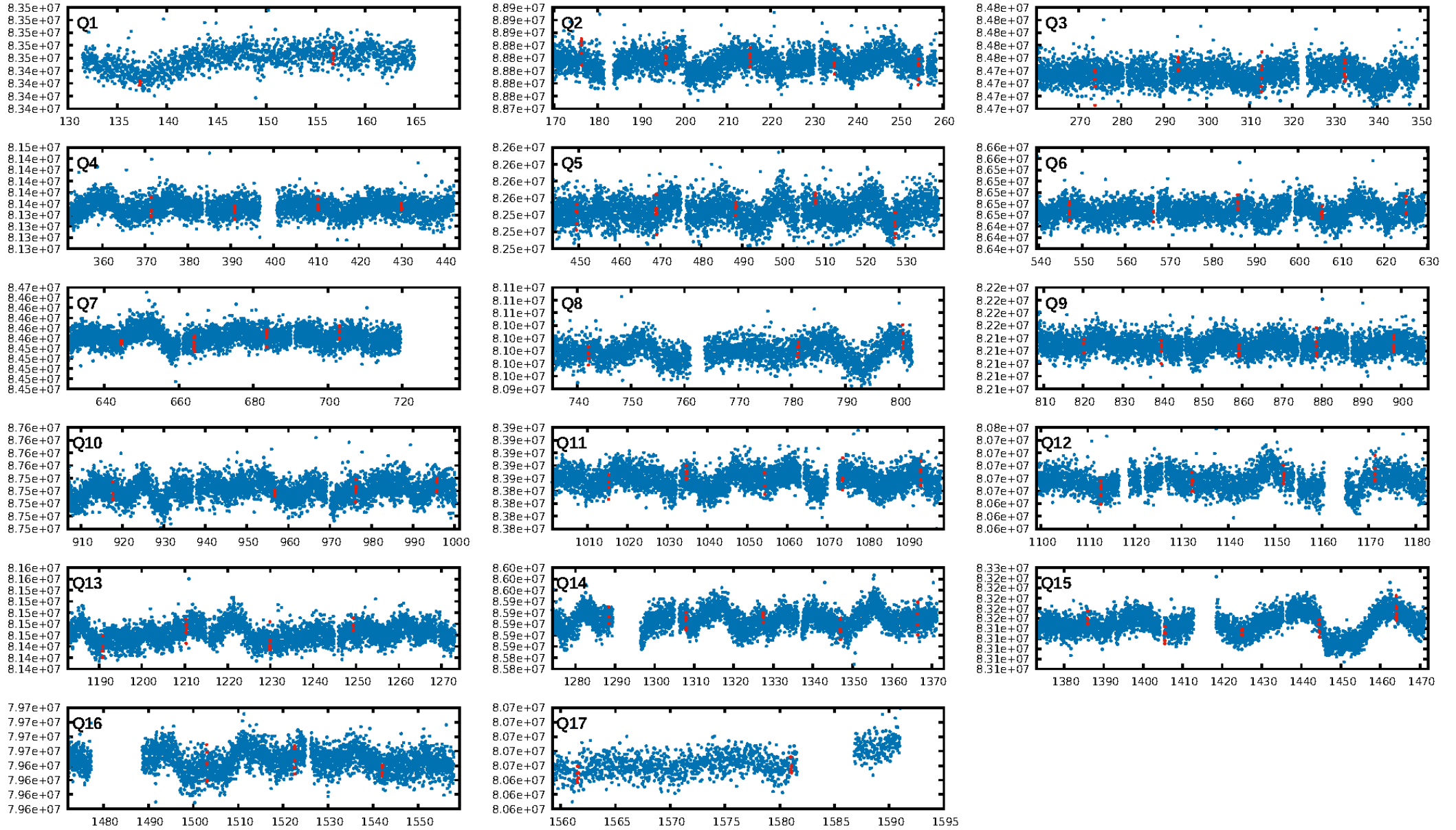
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [18.69σ]
LongPeriod-sig: 100.0% [24.34σ]
ModelChiSquare2-sig: 4.5%
ModelChiSquareGof-sig: 94.6%
Bootstrap-pfa: 6.88e-09
RollingBand-fgt: 1.00 [14/14]
GhostDiagnostic-chr: -12.5
Centroid-sig: 2.2%
Centroid-so: 1.689 arcsec [1.97σ]
OotOffset-rm: 0.418 arcsec [0.35σ]
KicOffset-rm: 0.528 arcsec [0.47σ]
OotOffset-st: 2/2/2/4 [10]
KicOffset-st: 2/2/2/4 [10]
DiffImageQuality-fgm: 0.10 [1/10]
DiffImageOverlap-fno: 0.00 [0/17]

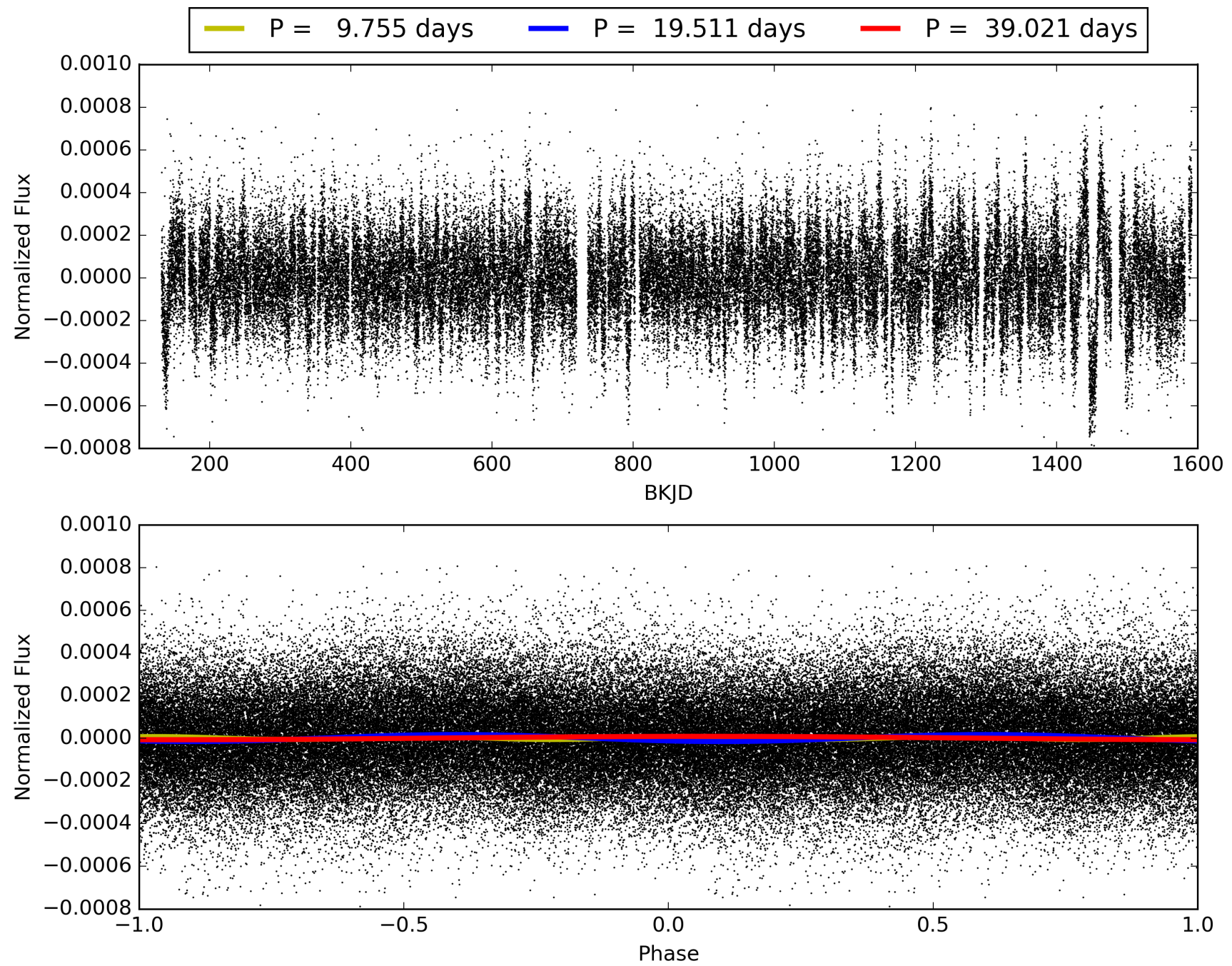
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:41 Z

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

TCE 007362592-06, PDC Light Curves

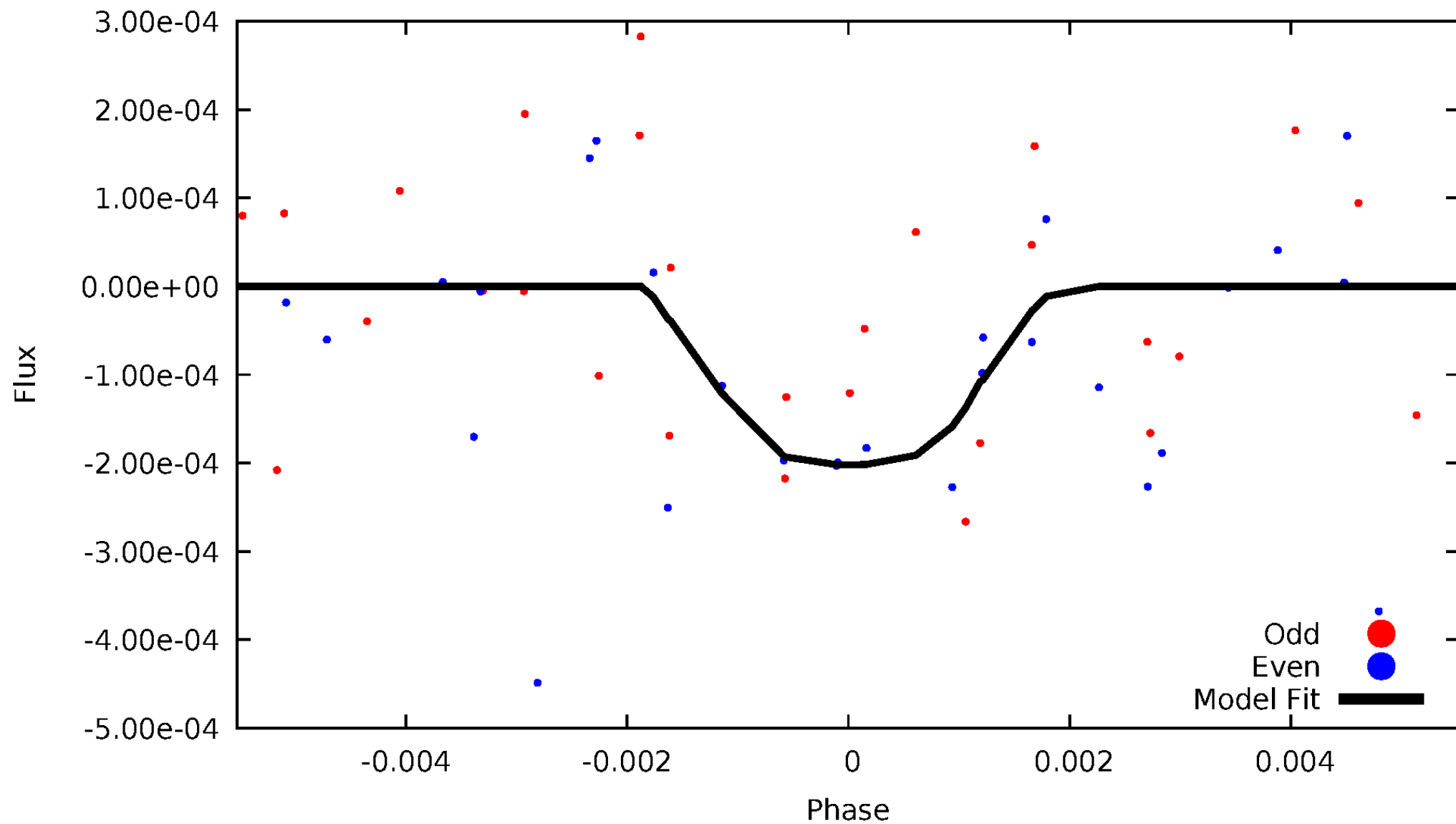


TCE 007362592-06



DV Odd/Even

TCE 007362592-06

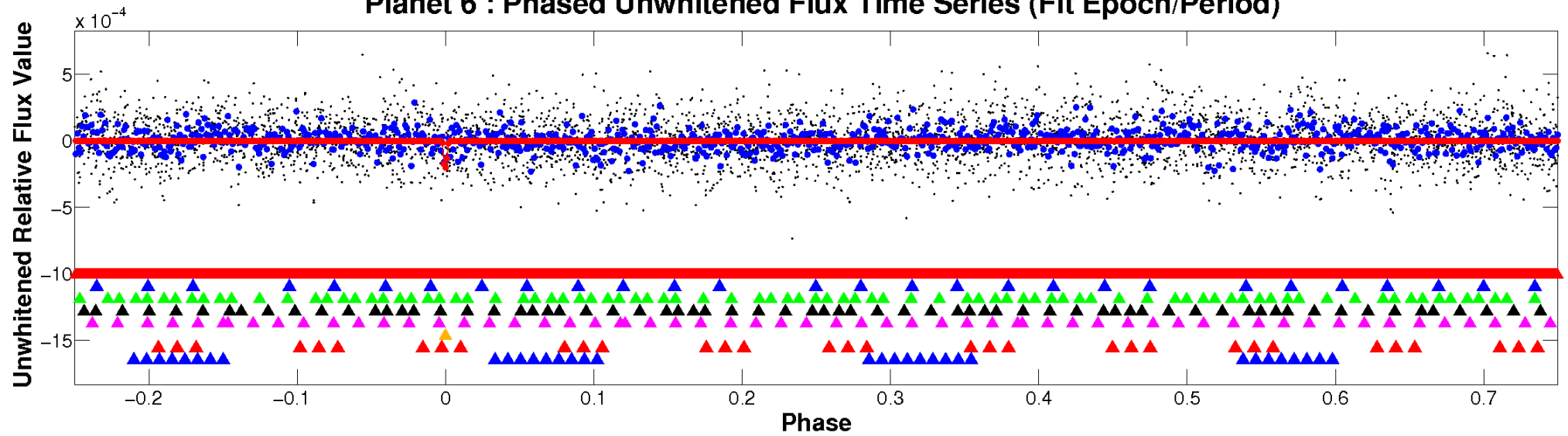


ALT Odd/Even

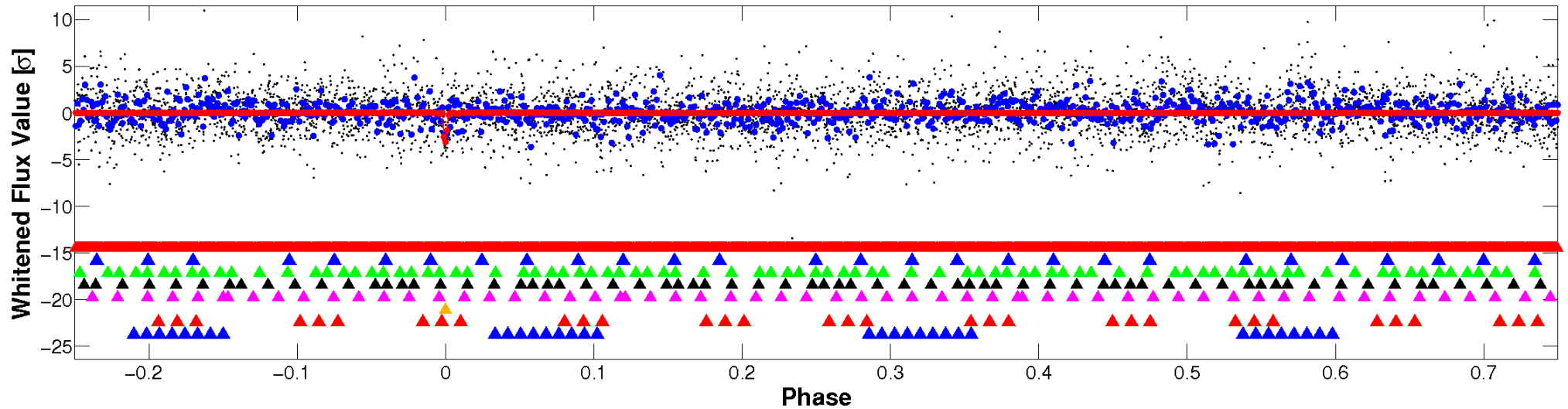
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

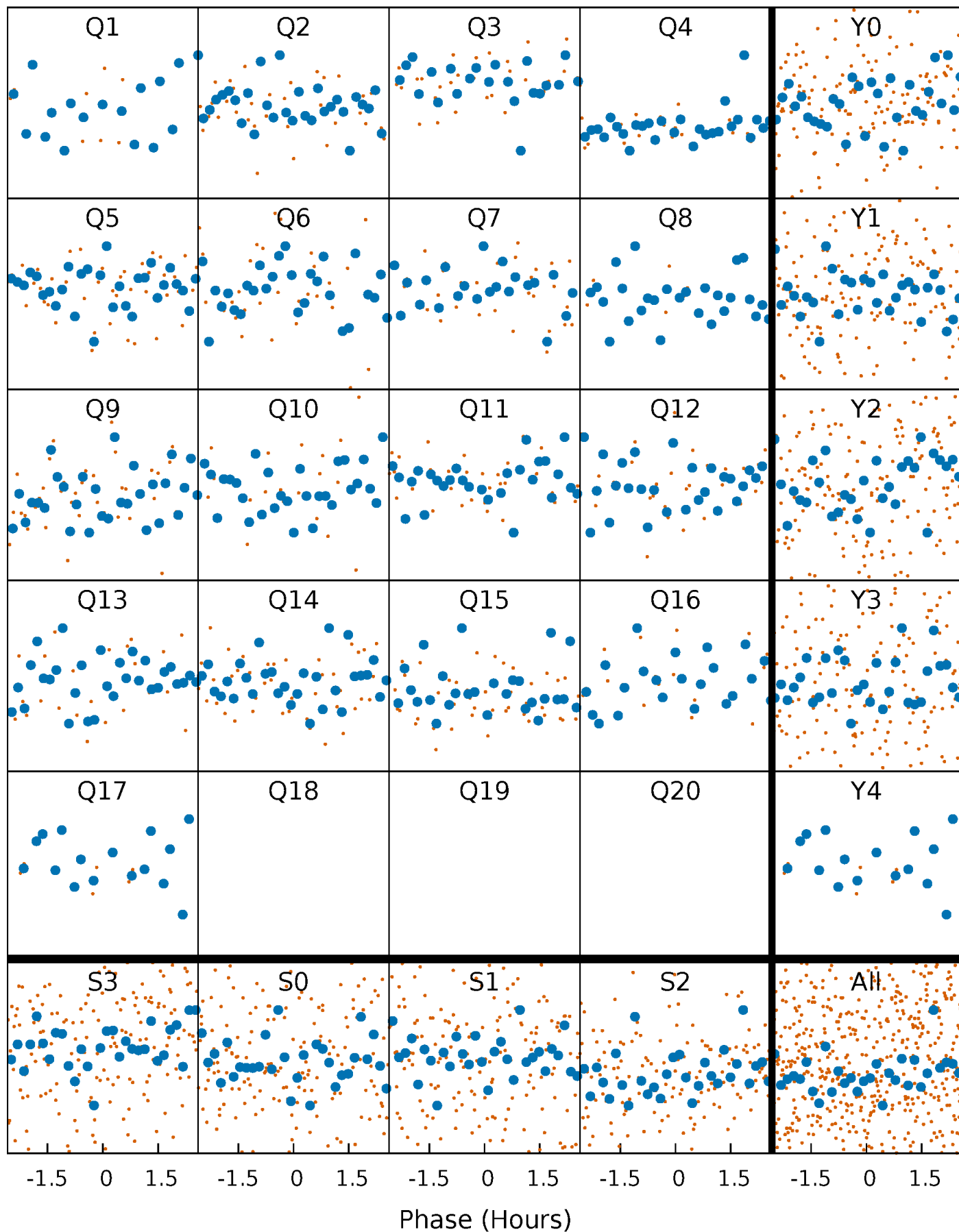


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



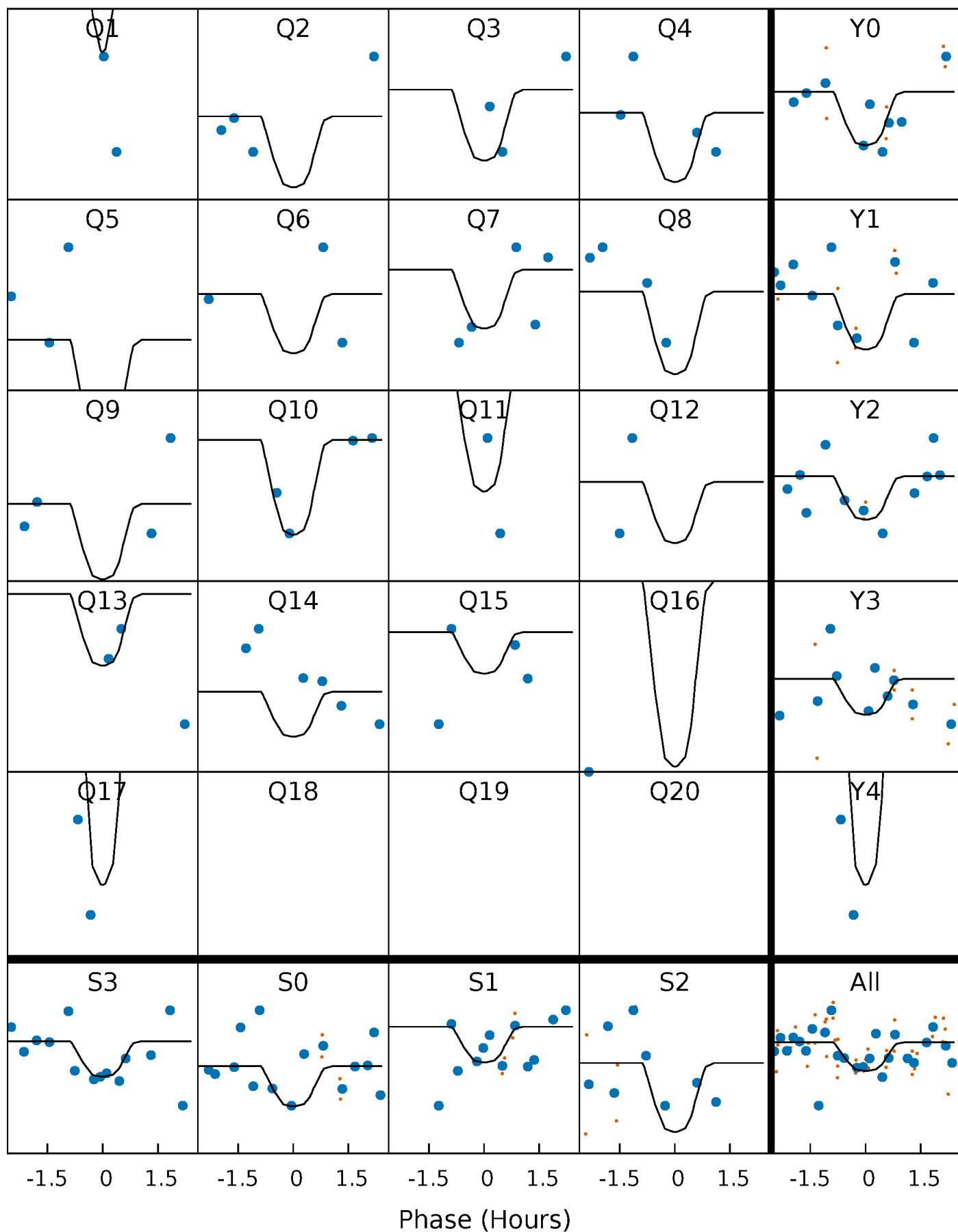
PDC Quarter-Phased Transit Curves

TCE 007362592-06 P= 19.510536 Days $T_0=137.277007$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007362592-06 P= 19.510536 Days $T_0=137.277007$ (BKJD)

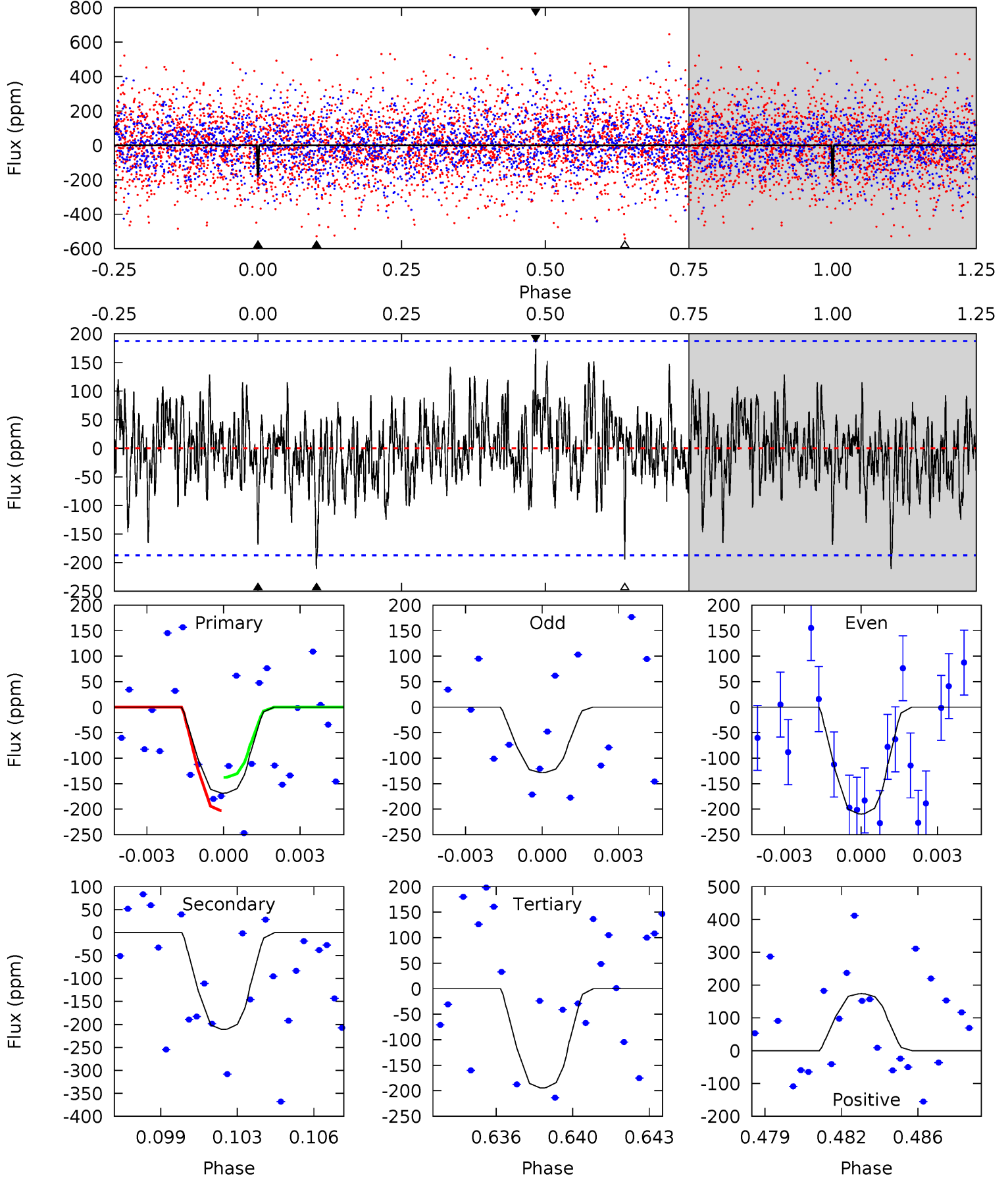


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007362592-06, P = 19.510536 Days, E = 117.766471 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.71	5.89	5.43	4.85	5.23	2.93	1.42	-0.72	-0.14	0.46	1.04	1.13	0.84	0.45	0.90



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007362592

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-211 ± 36	$10.05^{+11.18}_{-7.23}$	1241^{+96}_{-129}	3487^{+2035}_{-671}	25^{+266}_{-19}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

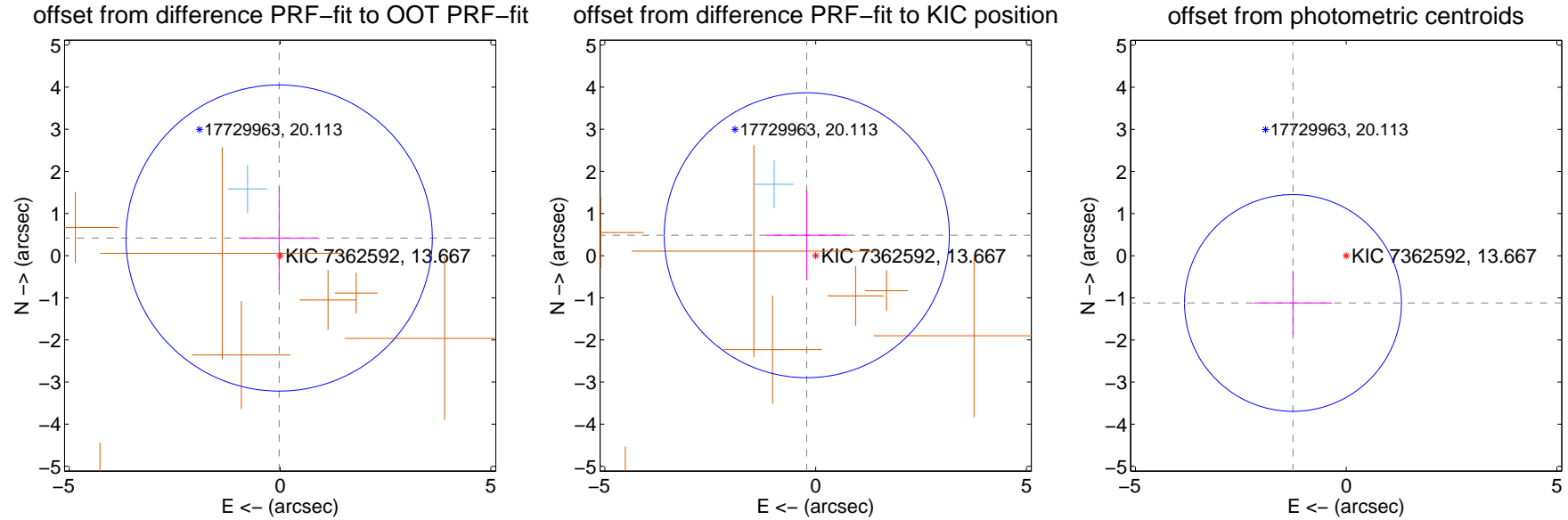
DV Centroid Data

Supplemental centroid analysis for 007362592-06. Kepler magnitude: 13.67. Transit SNR 10.06

There are 1 quarters with good PRF difference image offsets

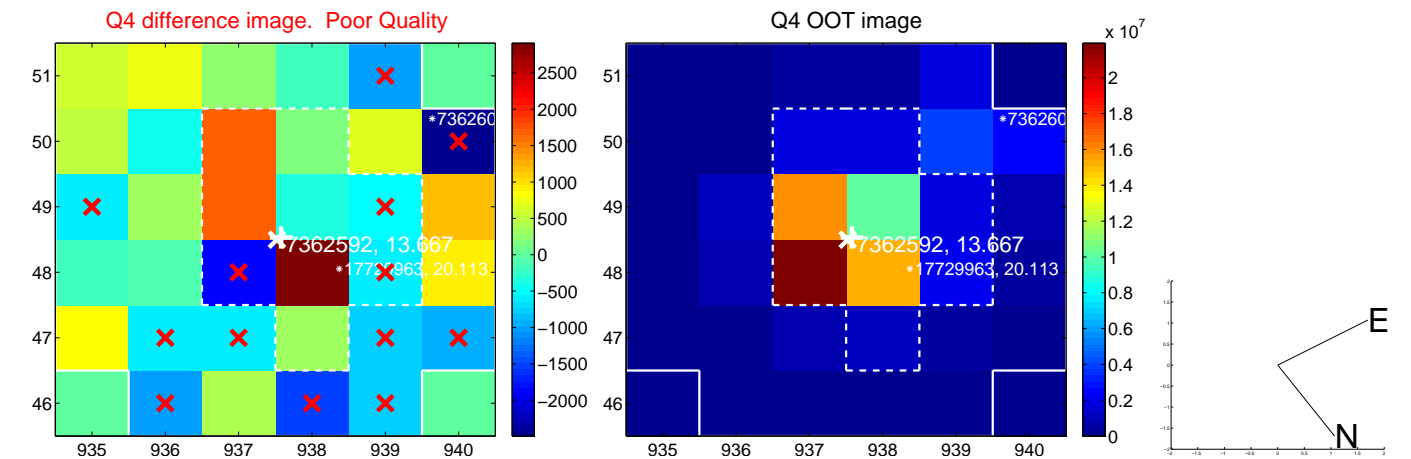
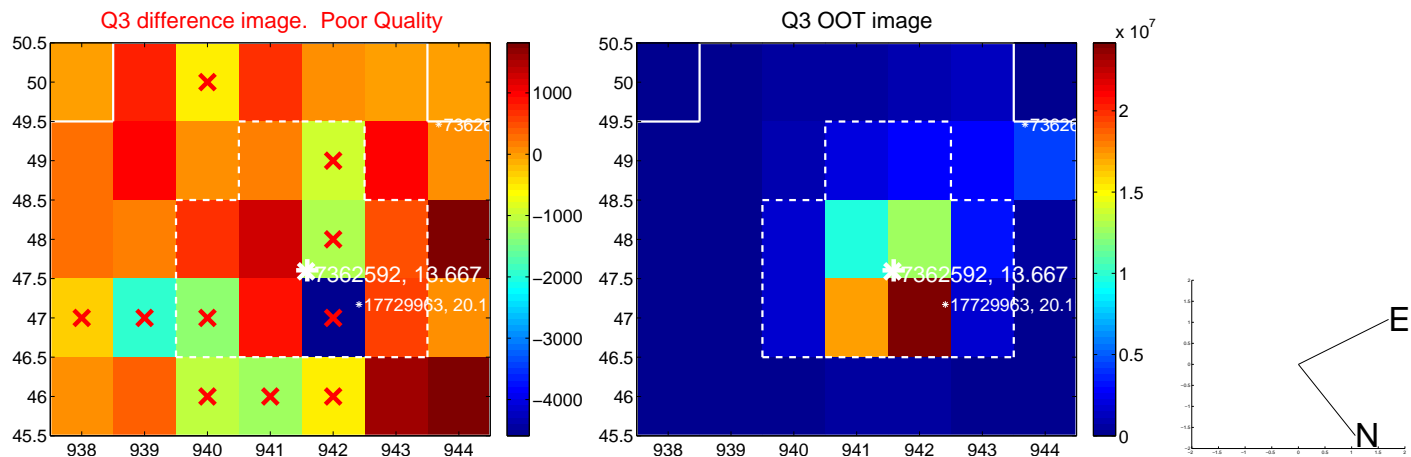
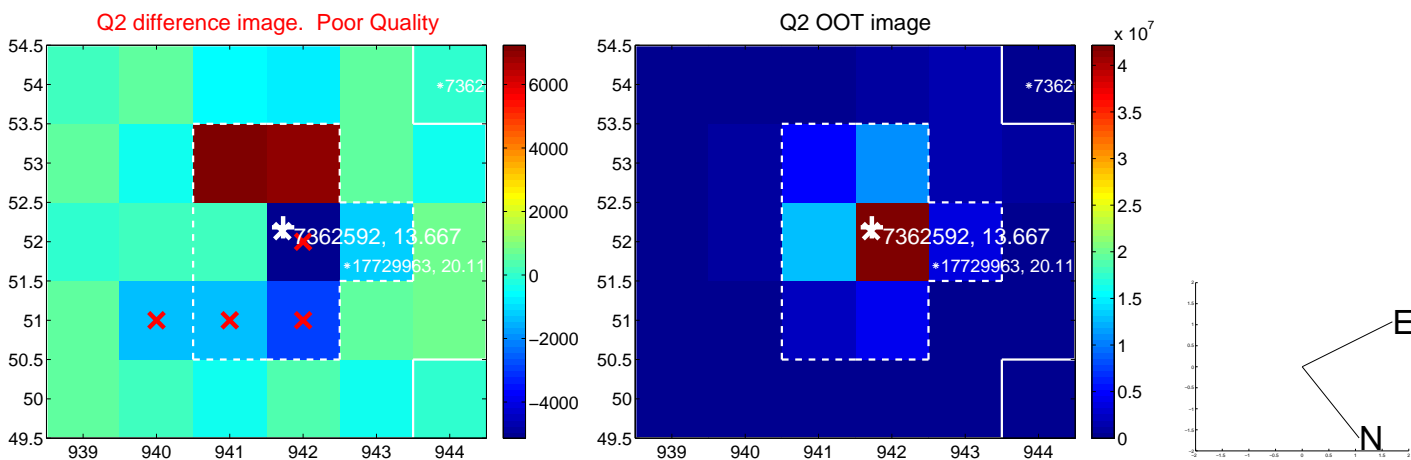
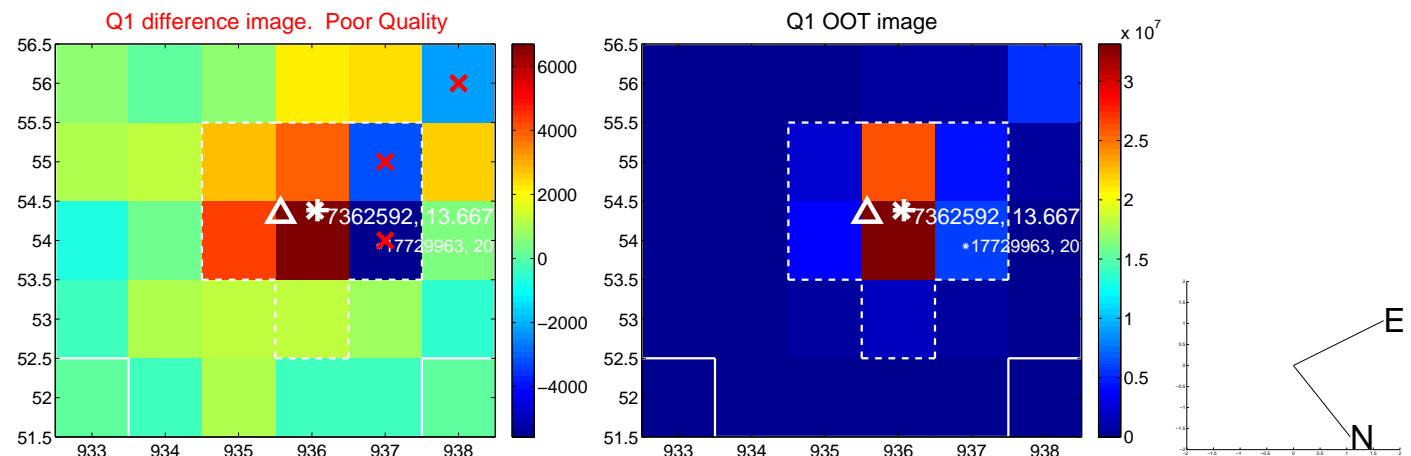
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.418 ± 1.211	0.35	0.023 ± 0.919	0.418 ± 1.211
PRF-fit source offset from KIC position	0.528 ± 1.127	0.47	0.211 ± 0.958	0.485 ± 1.069
photometric centroid source offset	1.69 ± 0.86	1.97	1.26 ± 0.93	-1.12 ± 0.76

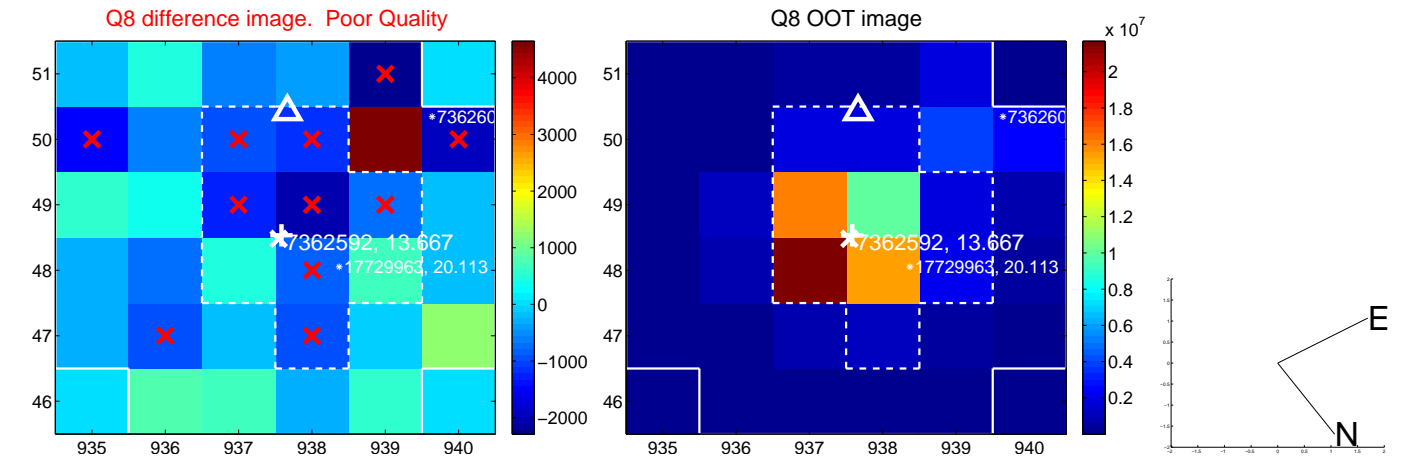
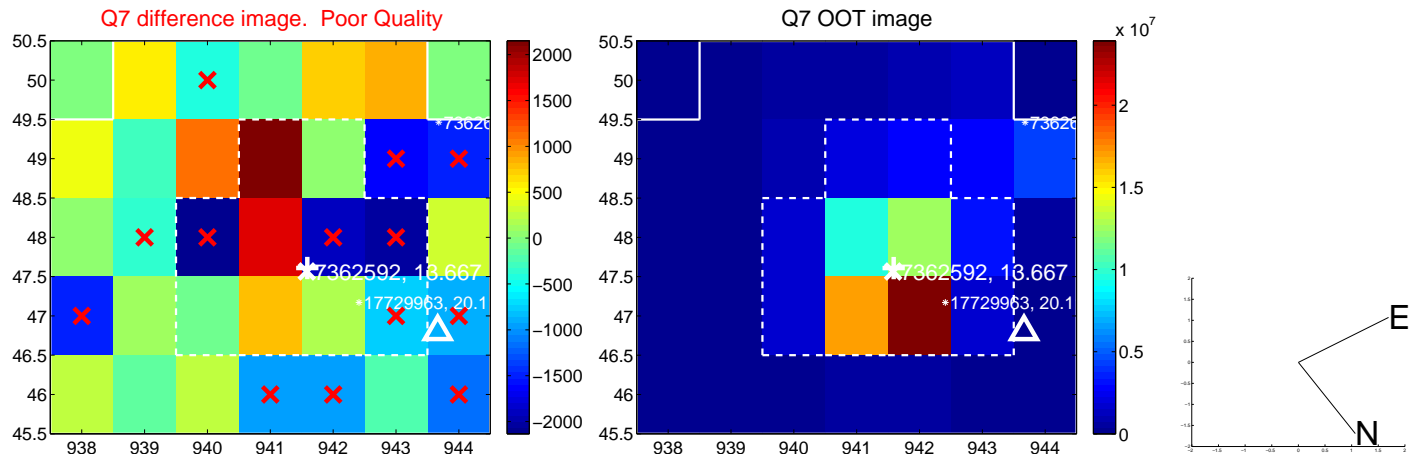
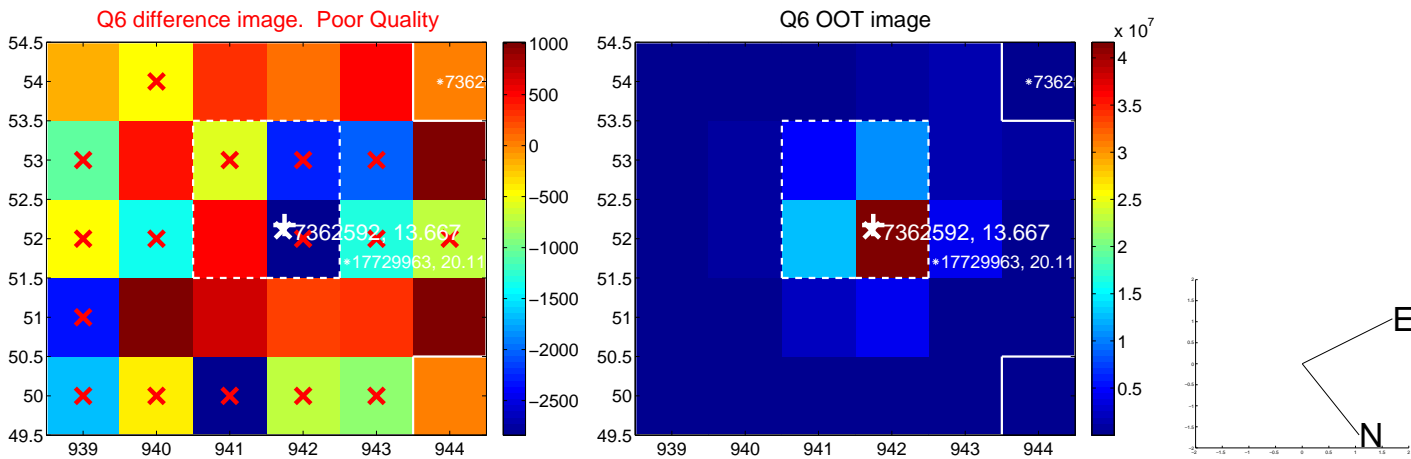
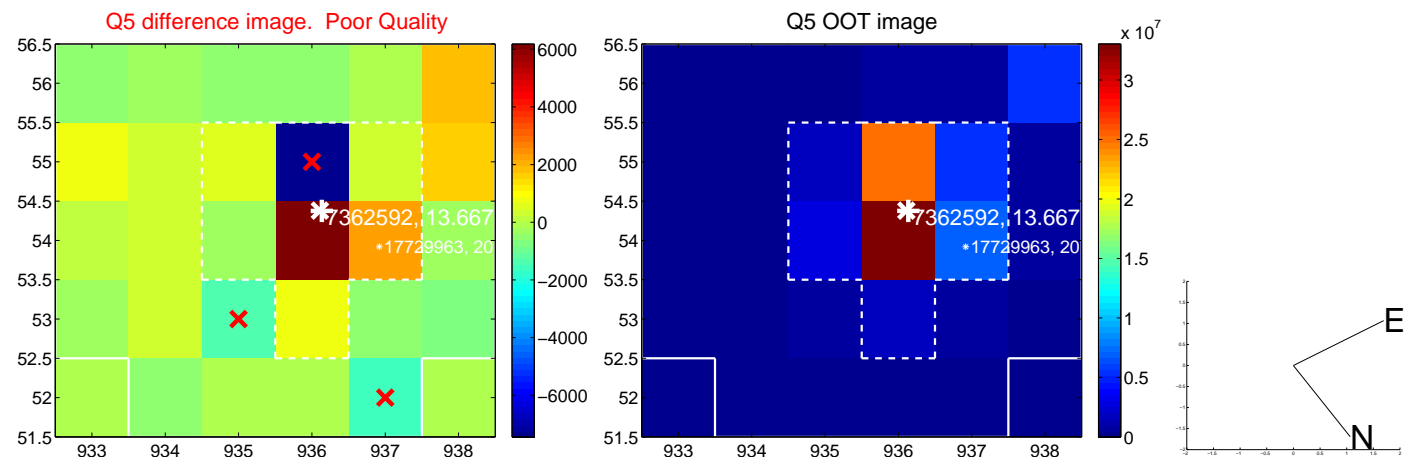


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

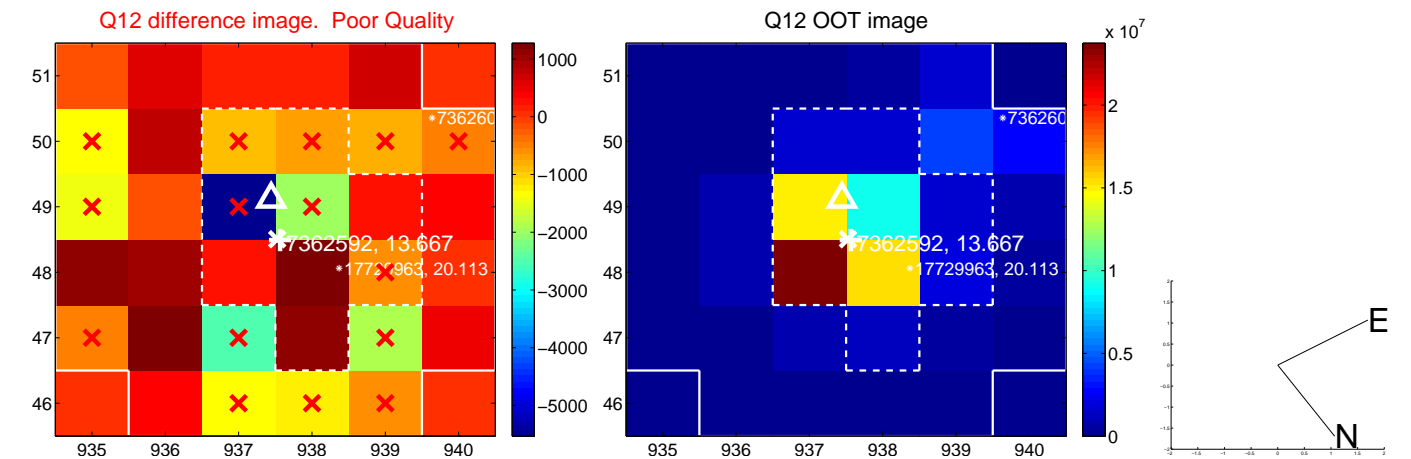
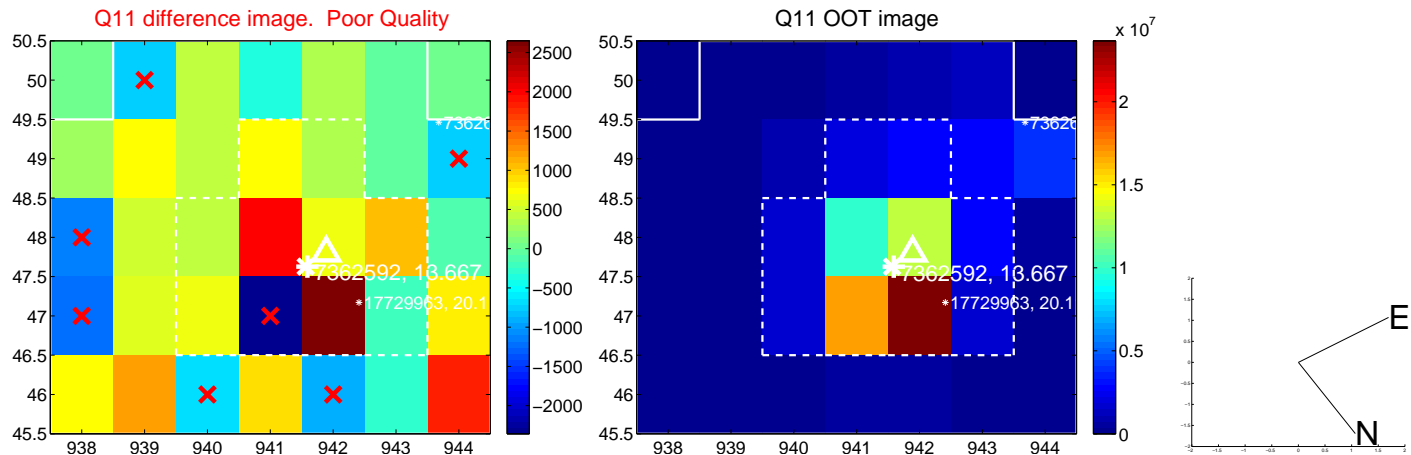
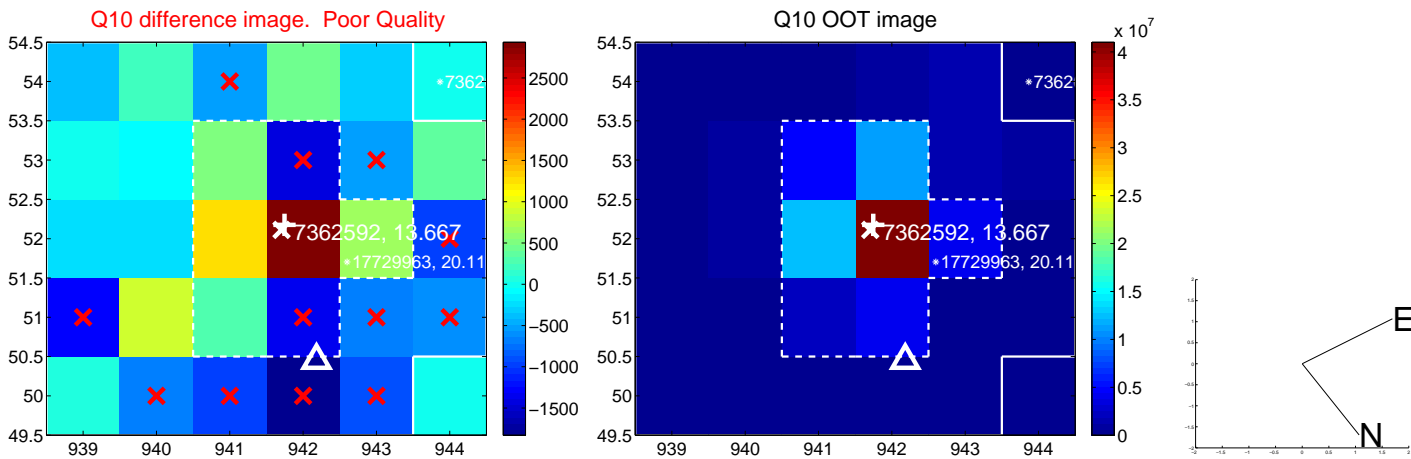
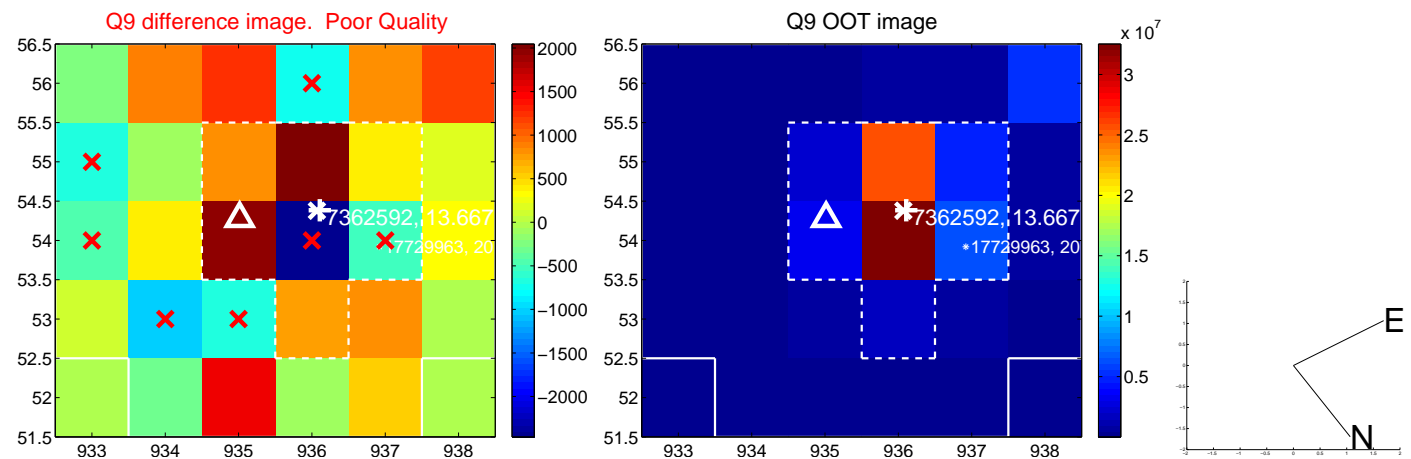
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



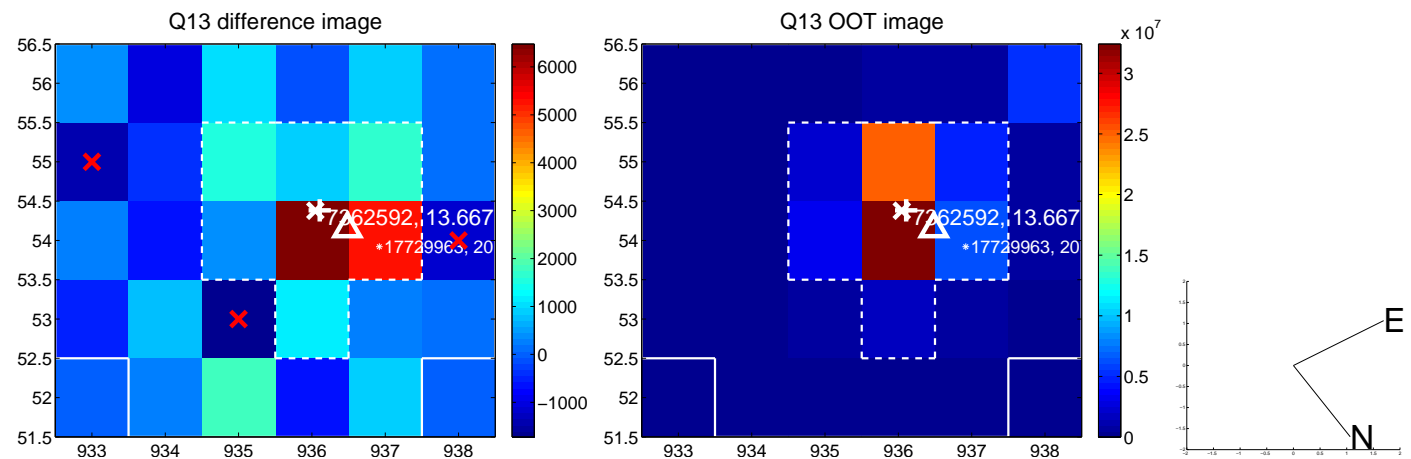
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



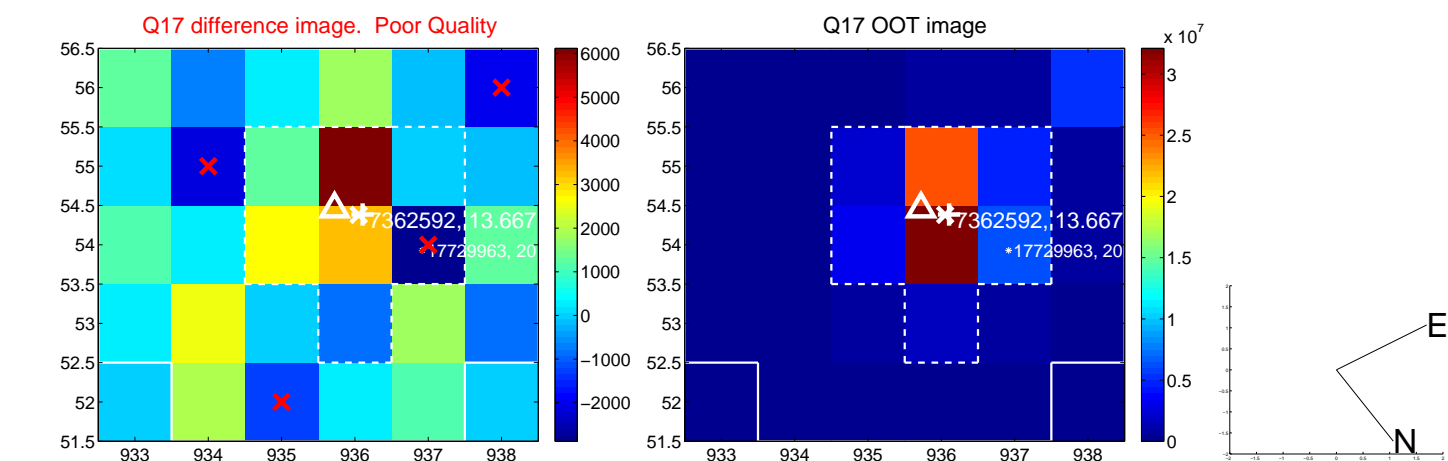
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



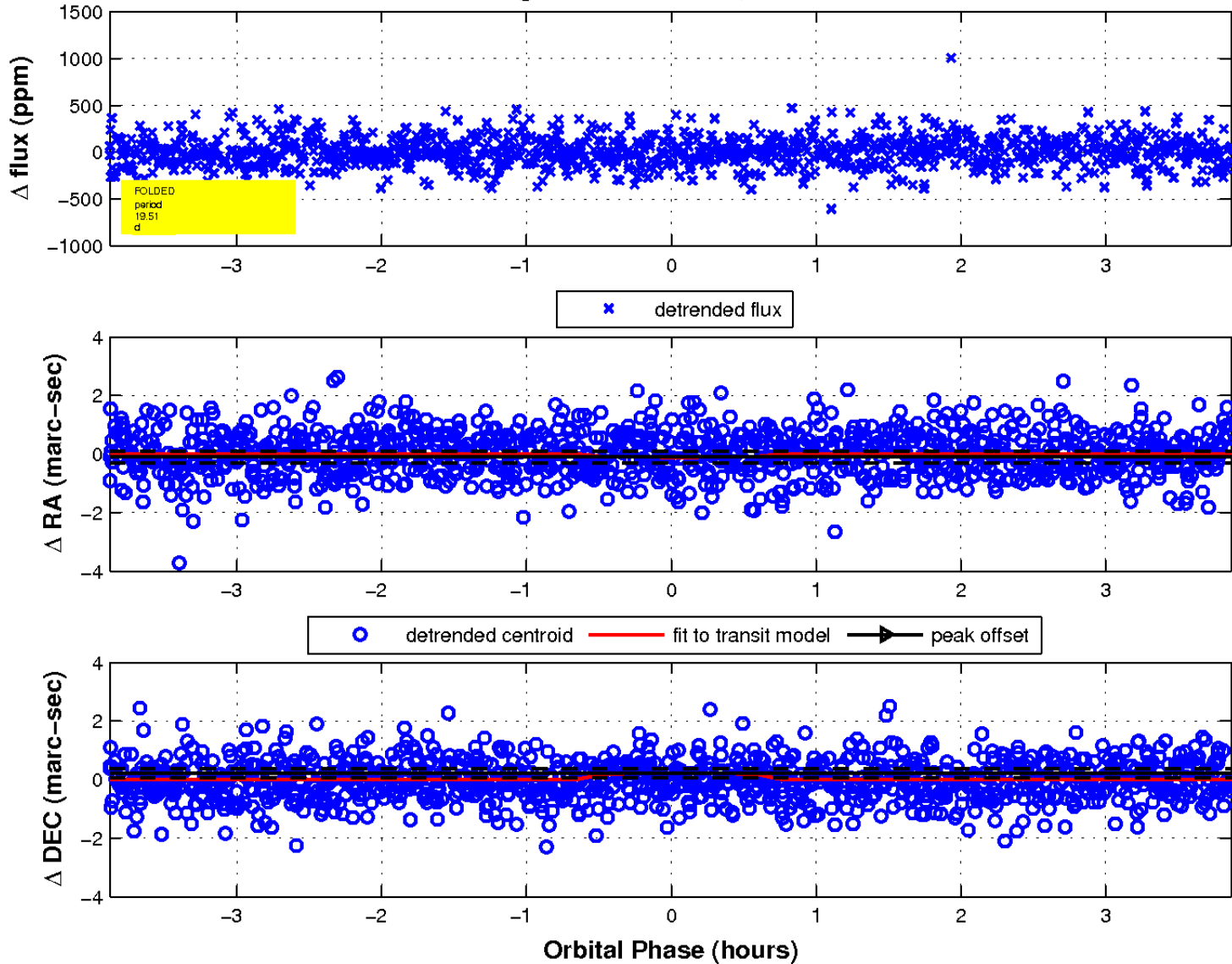
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

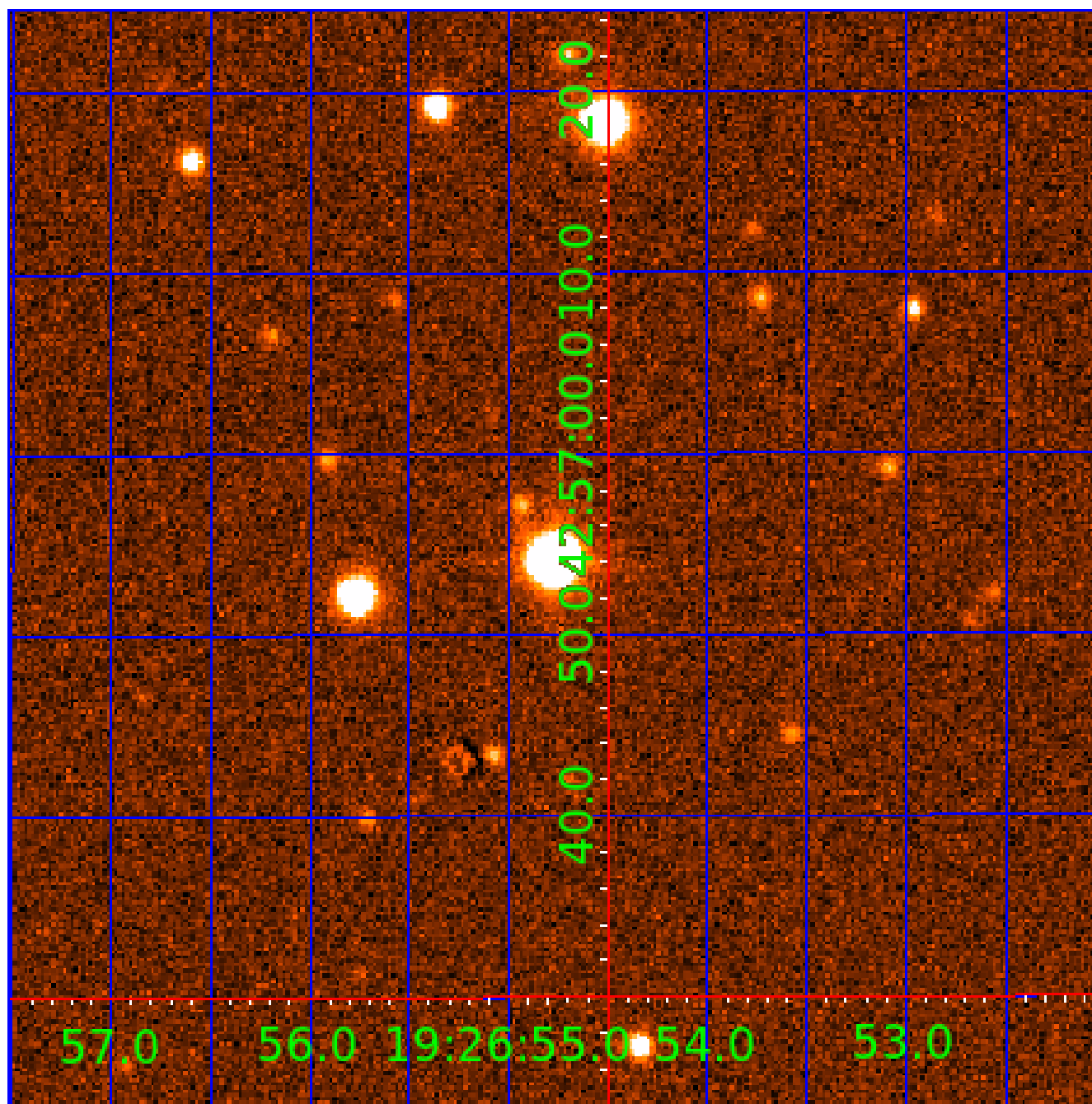


fluxWeightedCentroids, Planet 6 of 8



UKIRT Image

Declination



KIC 007362592

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})
007362592-01	OBS	No	0.566746	131.900637	12.3	4.024	11.2	8.3	1.65	6074	0.60	17455.46
007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
007362592-04	OBS	No	21.426313	136.707386	240.1	1.377	9.6	10.4	1.65	6074	2.95	137.57
007362592-05	OBS	No	24.735451	153.925806	227.8	1.635	9.7	10.0	1.65	6074	2.50	113.59
007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
007362592-08	OBS	No	43.940671	137.929737	373.2	1.471	9.6	10.7	1.65	6074	3.30	52.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362592-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

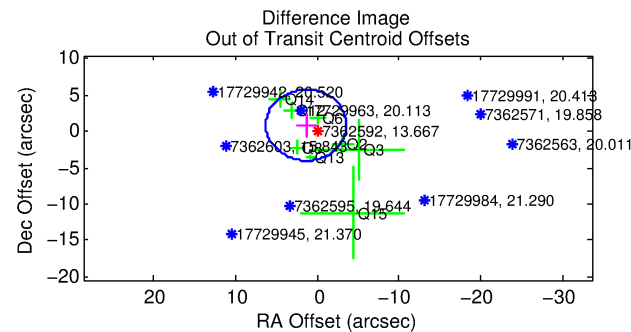
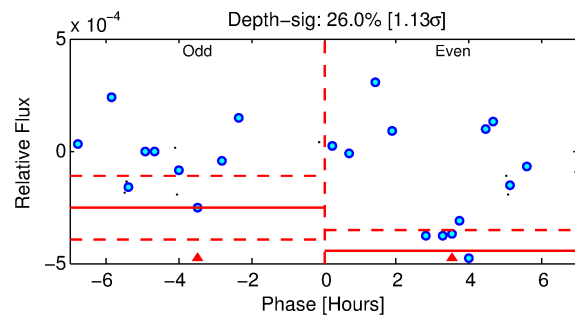
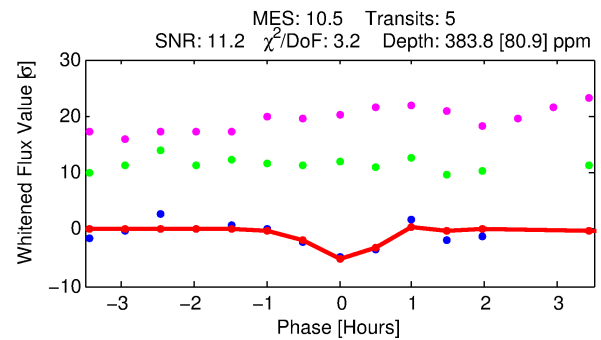
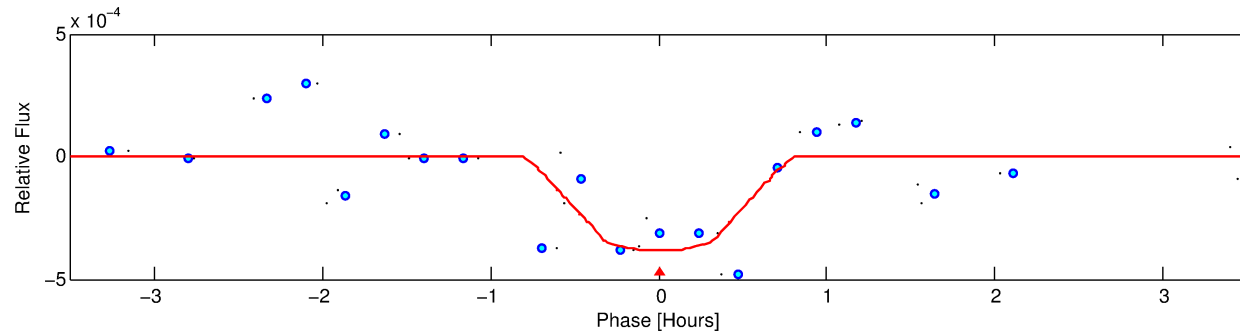
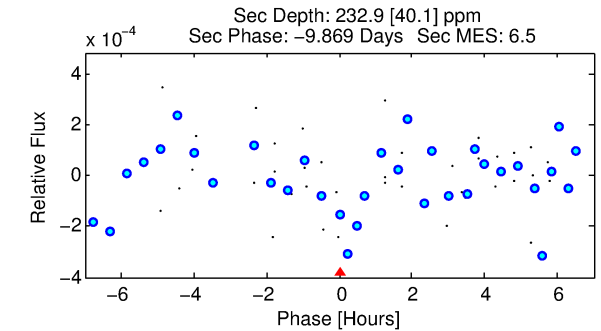
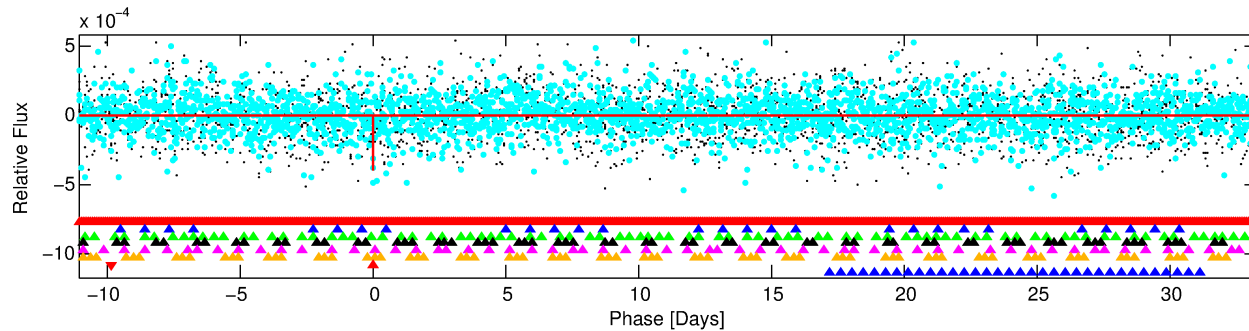
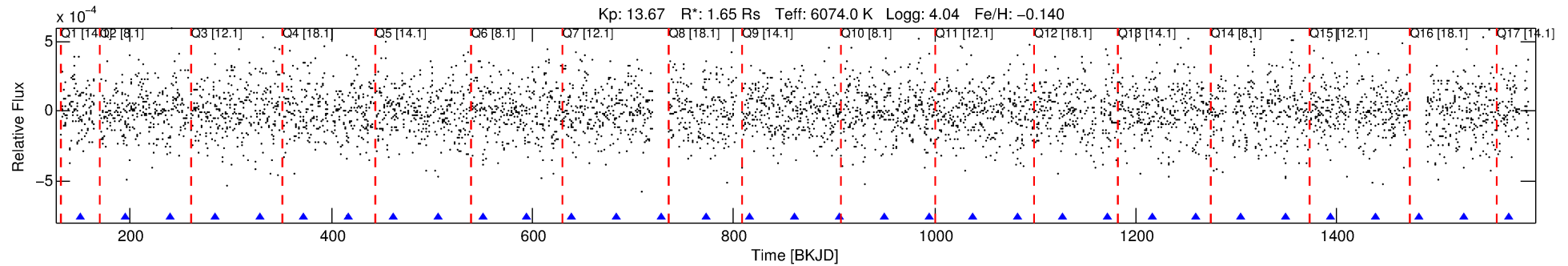
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-07

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 7 of 8 Period: 44.365 d



DV Fit Results:

Period = 44.36469 [0.00031] d
Epoch = 151.1470 [0.0060] BKJD
Rp/R* = 0.0182 [0.0278]
a/R* = 282.38 [2044.11]
b = 0.30 [22.20]
Seff = 52.13 [31.12]
Teq = 685 [102] K
Rp = 3.28 [5.15] Re
a = 0.2524 [0.0913] AU
Ag = 759.35 [2363.97] [0.32 σ]
Teffp = 5561 [4256] K [1.15 σ]

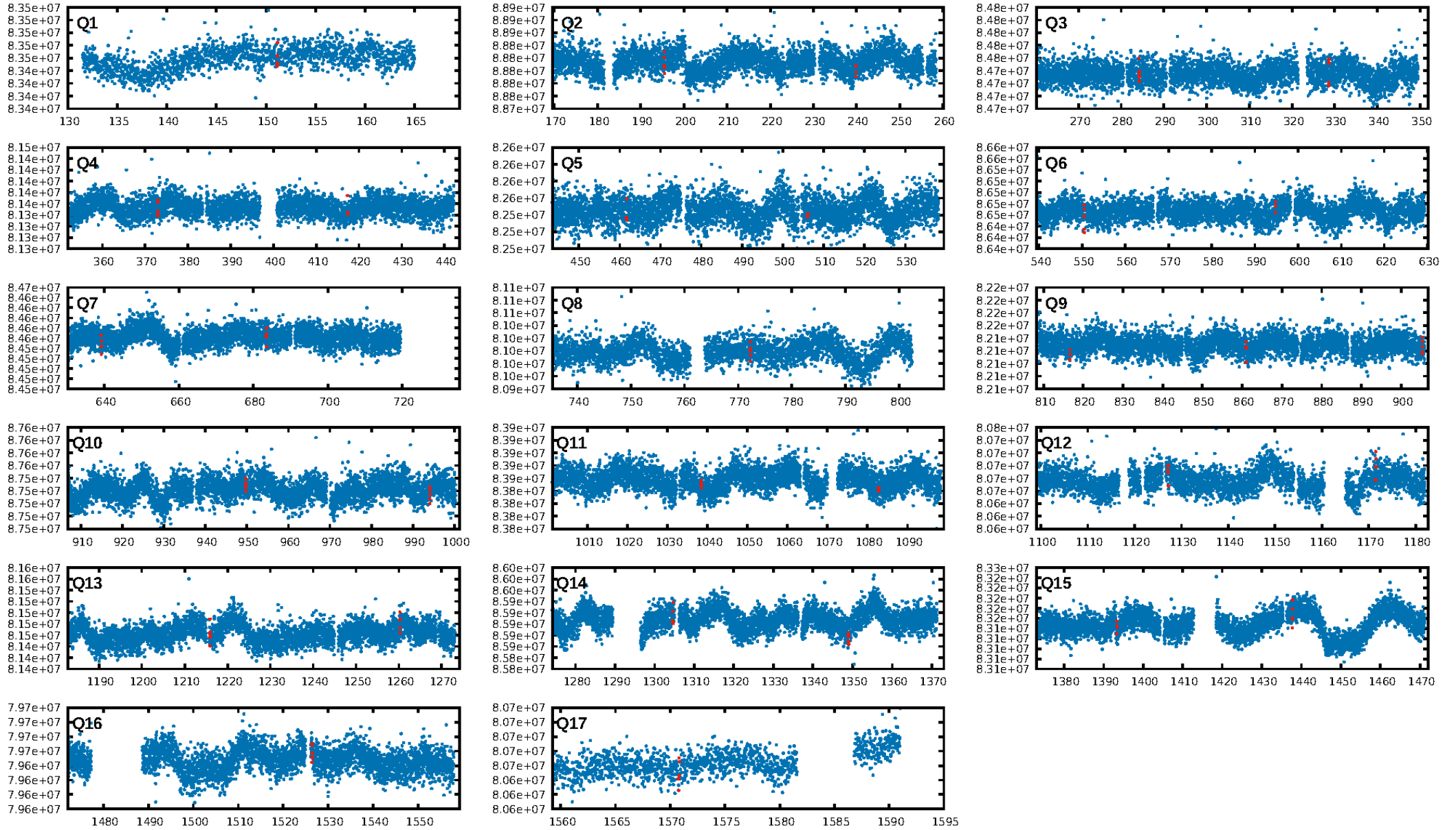
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.42 σ]
LongPeriod-sig: 100.0% [98.62 σ]
ModelChiSquare2-sig: 4.8%
ModelChiSquareGof-sig: 55.9%
Bootstrap-pfa: 5.20e-10
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.619
Centroid-sig: 0.4%
Centroid-so: 1.404 arcsec [2.10 σ]
OotOffset-rm: 1.614 arcsec [0.99 σ]
KicOffset-rm: 2.032 arcsec [1.93 σ]
OotOffset-st: 3/2/2/1 [8]
KicOffset-st: 3/2/2/1 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 0.00 [0/15]

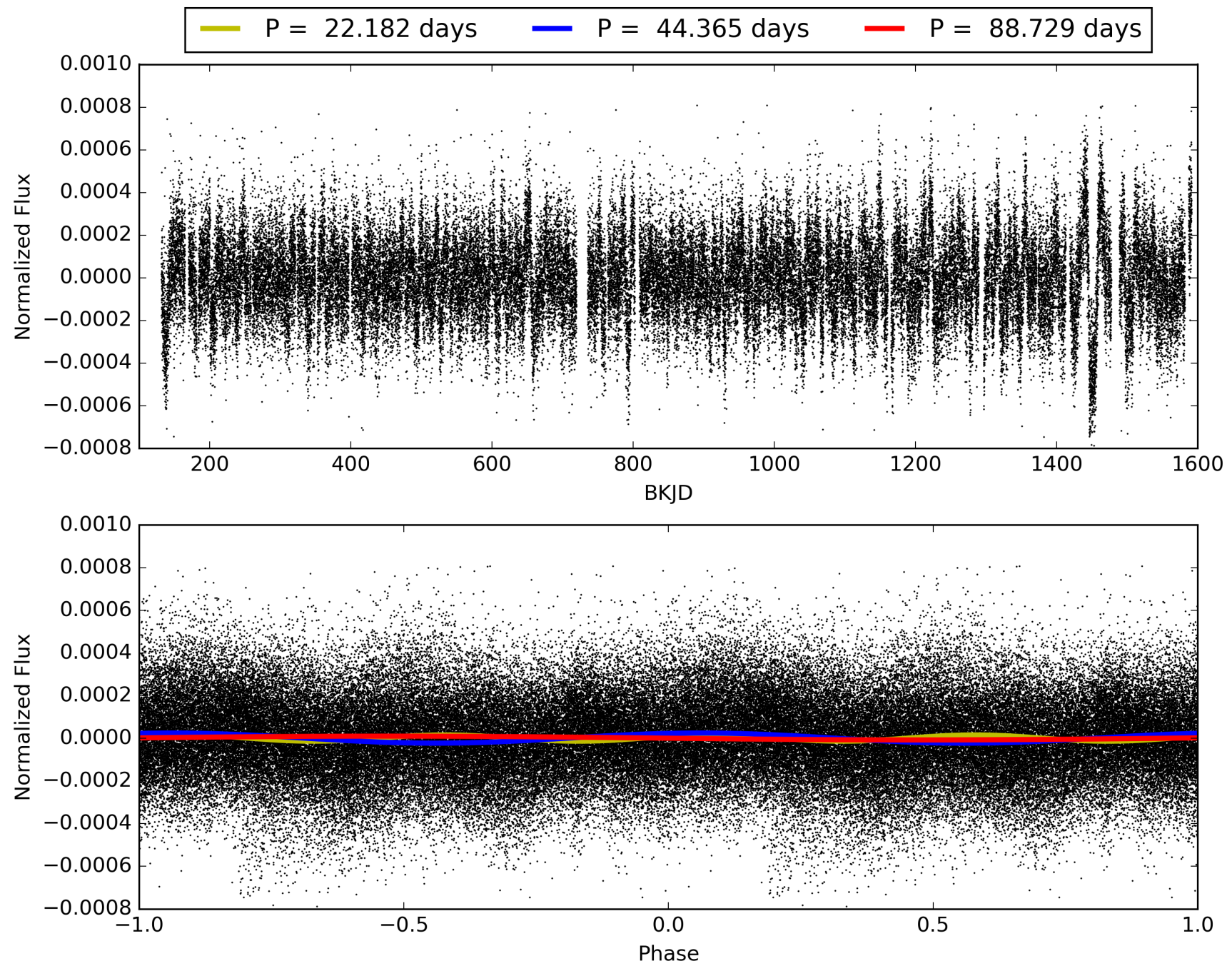
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:44 Z

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

TCE 007362592-07, PDC Light Curves

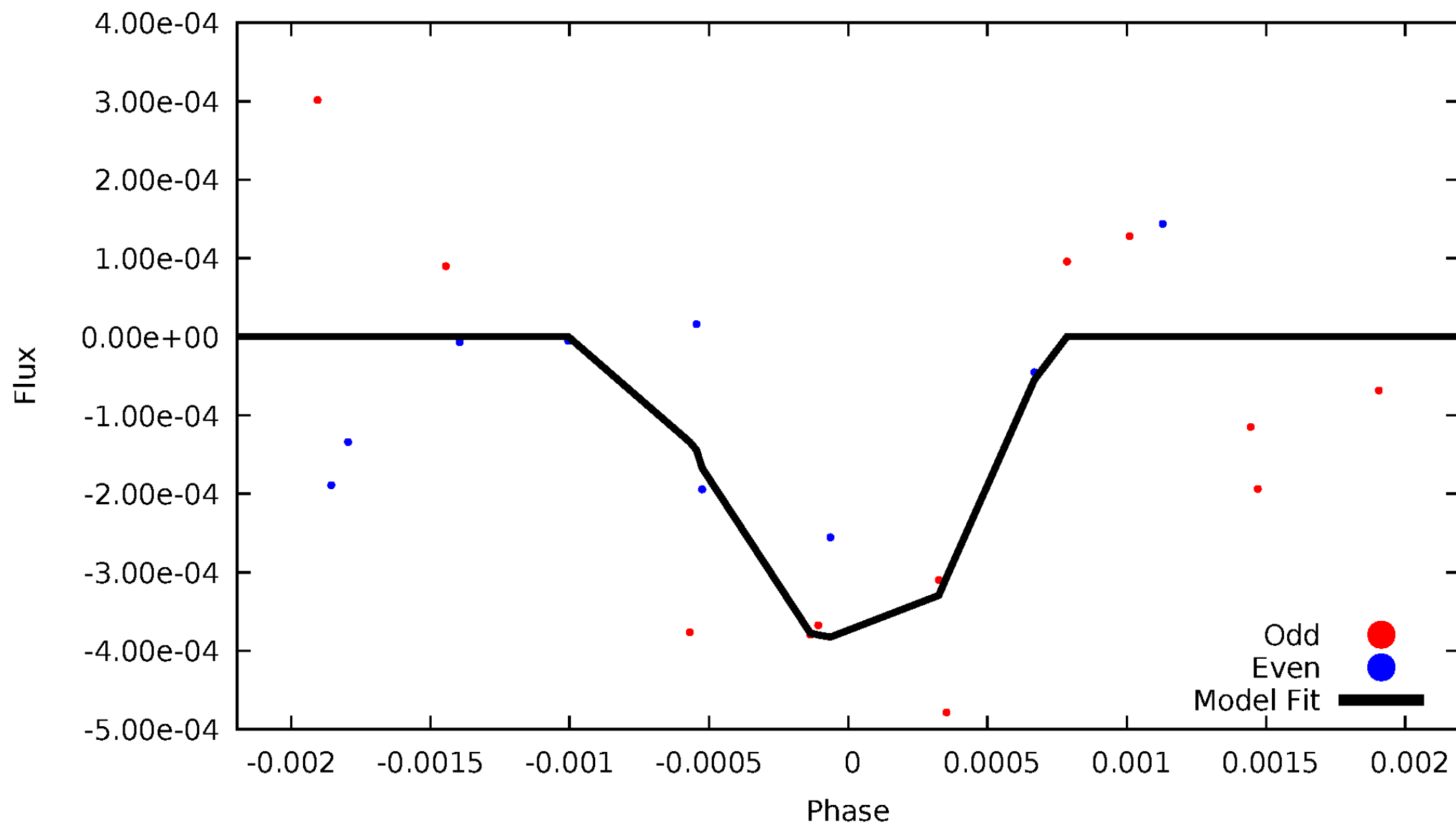


TCE 007362592-07



DV Odd/Even

TCE 007362592-07

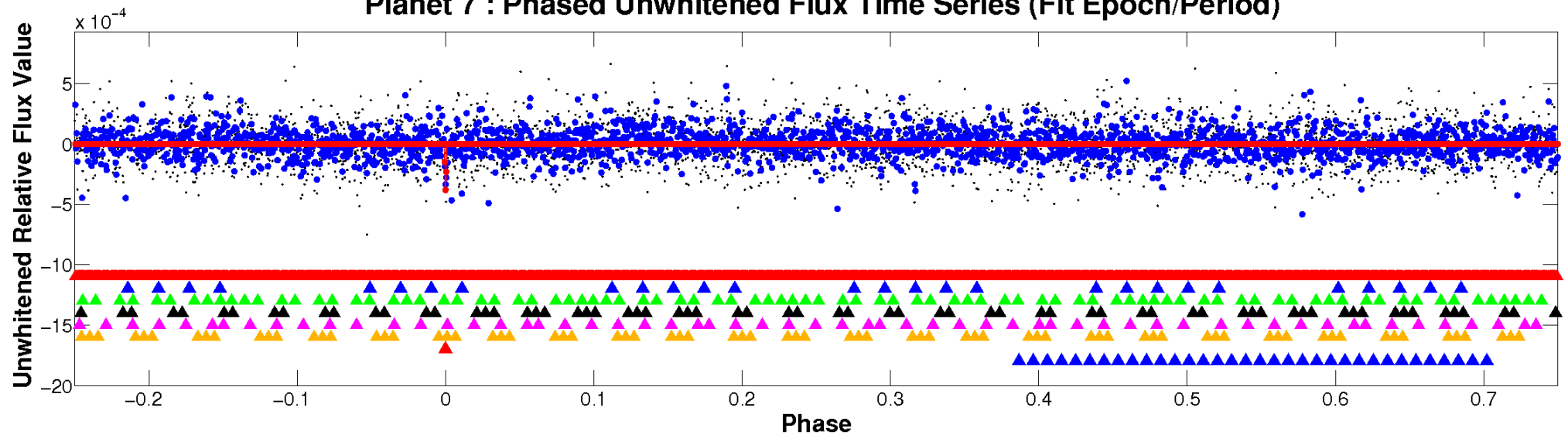


ALT Odd/Even

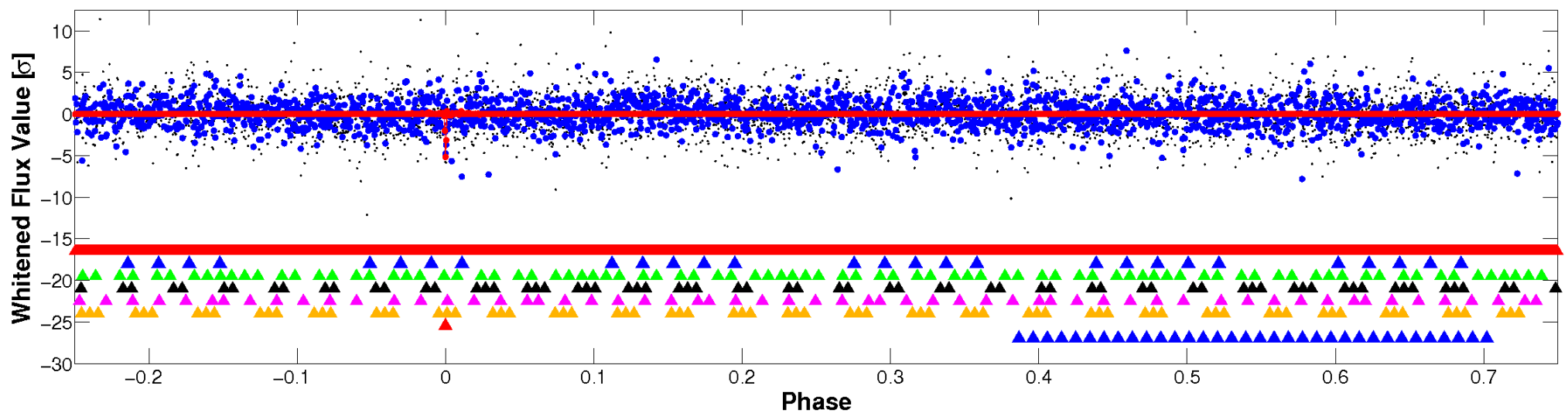
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

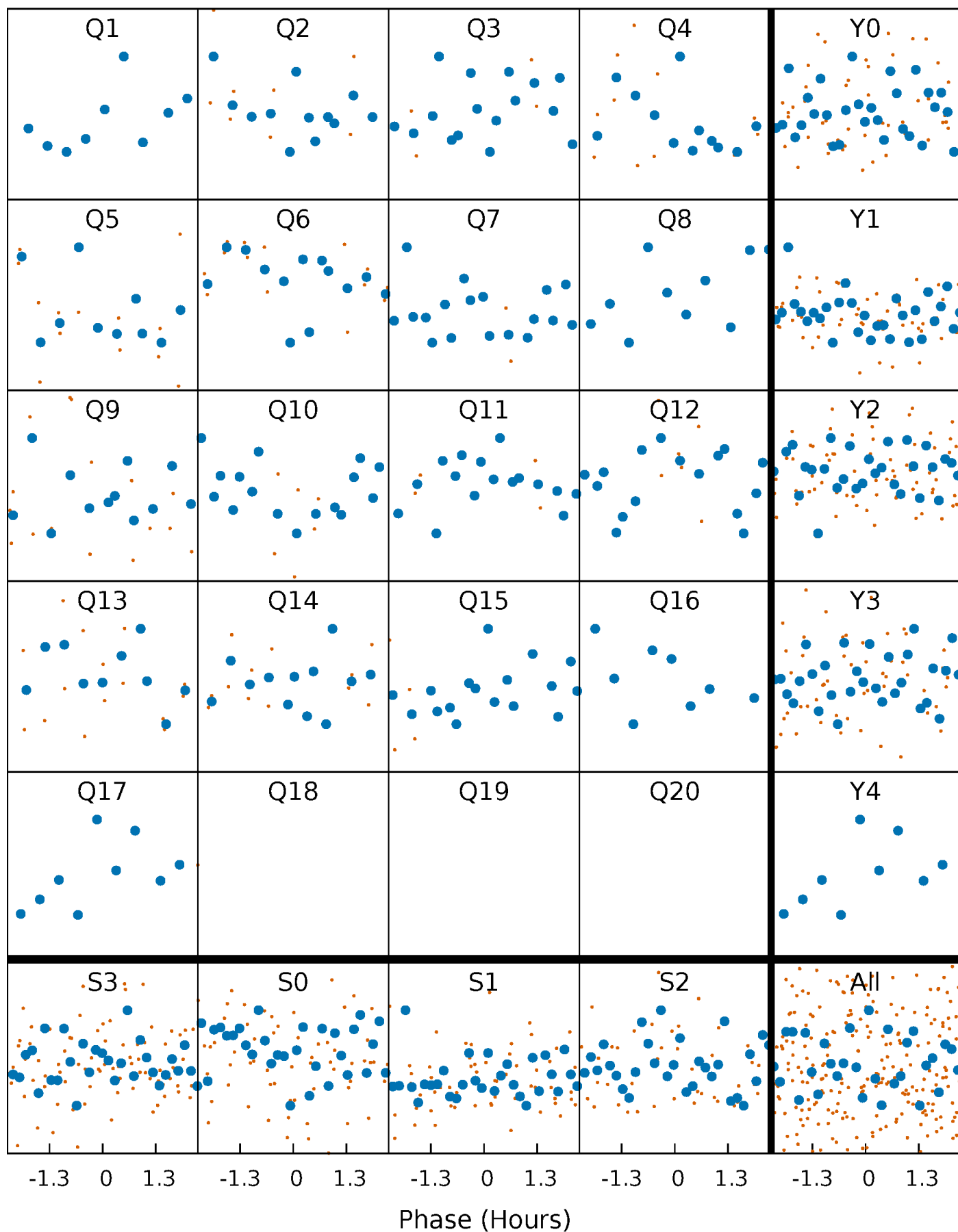


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



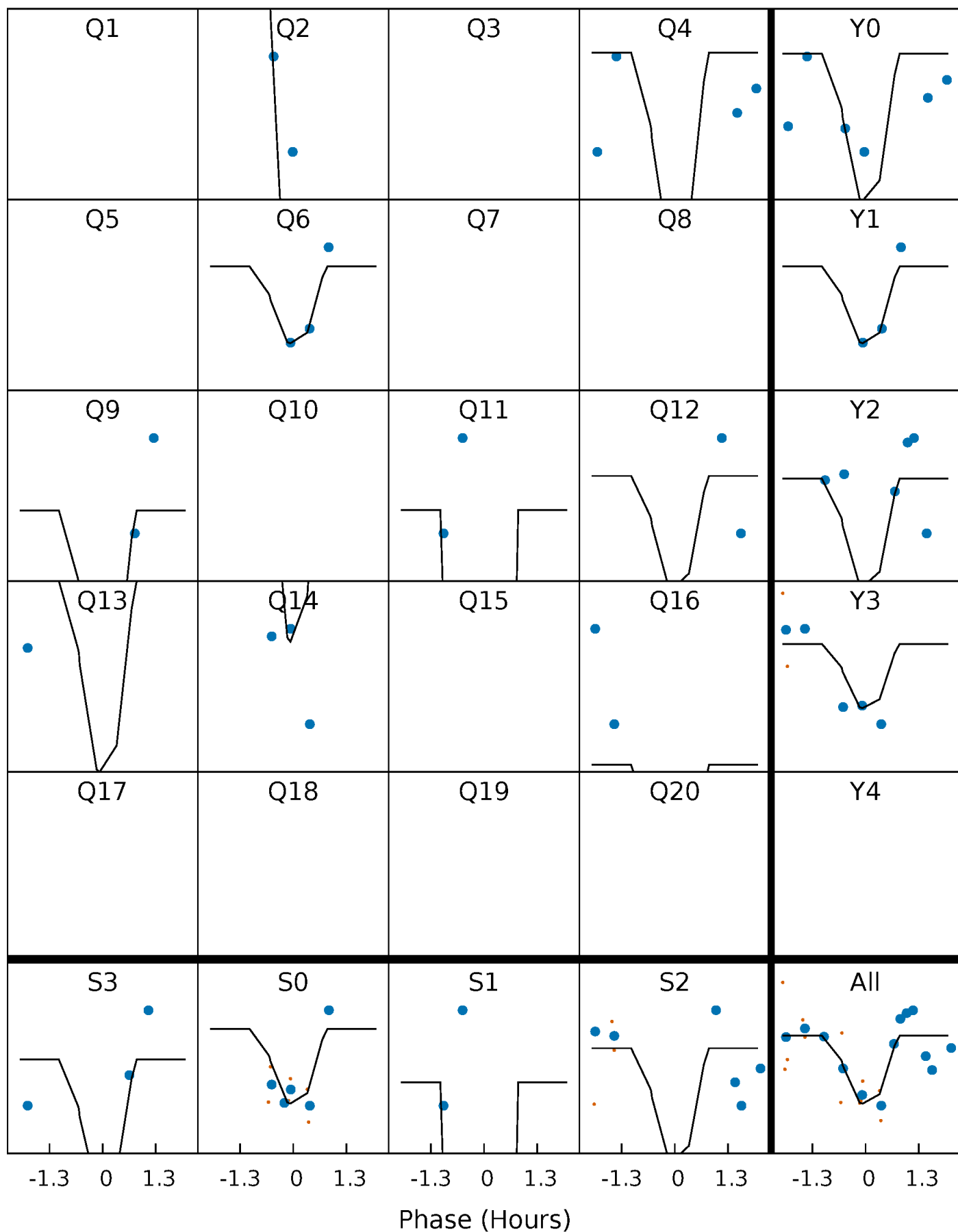
PDC Quarter-Phased Transit Curves

TCE 007362592-07 $P = 44.364695$ Days $T_0 = 151.146987$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007362592-07 $P = 44.364695$ Days $T_0 = 151.146987$ (BKJD)

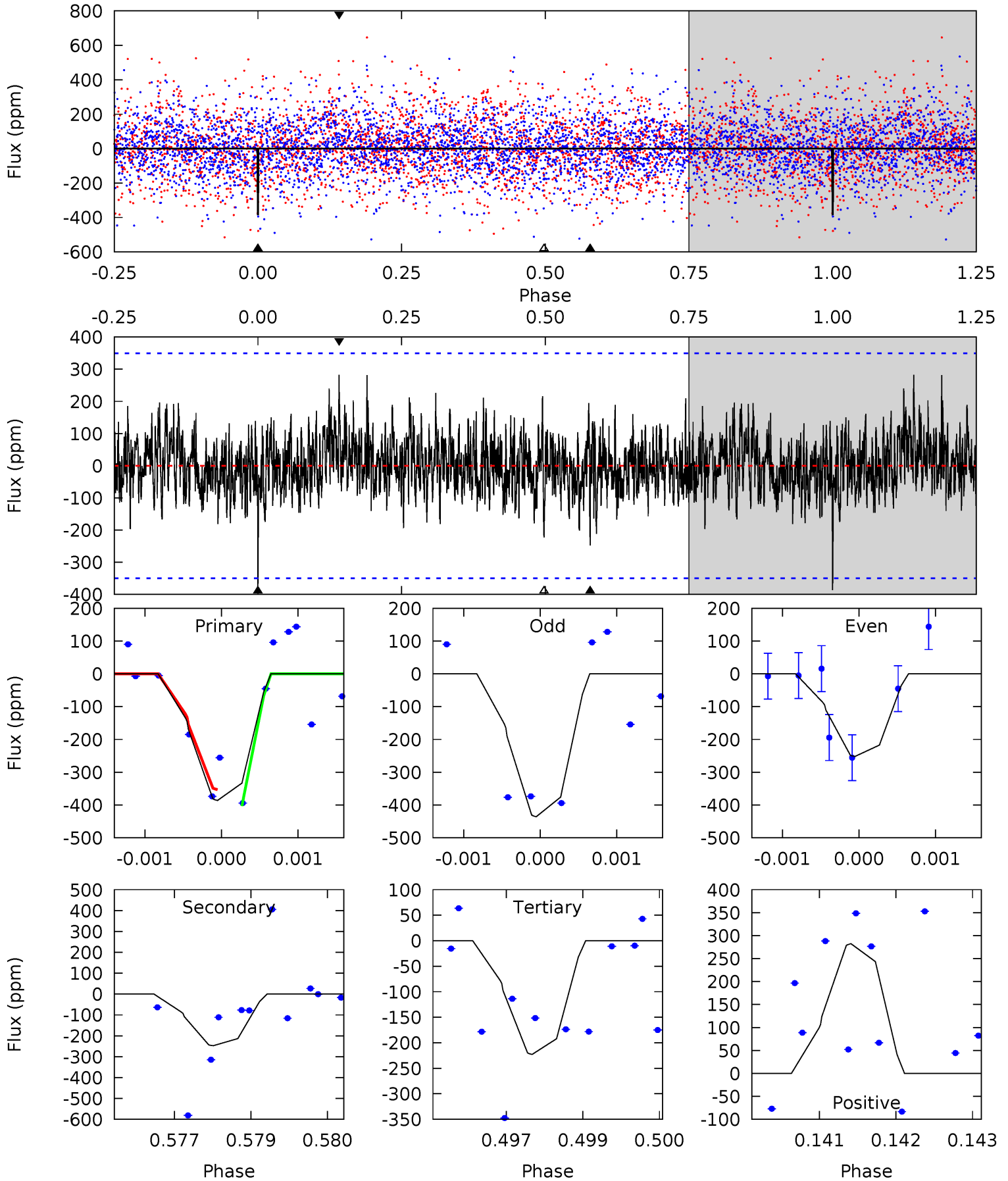


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007362592-07, P = 44.364695 Days, E = 106.782292 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.98	3.83	3.45	4.37	5.42	3.24	1.12	2.53	1.61	0.38	-0.55	1.34	1.04	0.42	0.36



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007362592

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-247 ± 65	$4.72^{+4.14}_{-3.12}$	941^{+70}_{-97}	4681^{+3160}_{-929}	397^{+3313}_{-288}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

DV Centroid Data

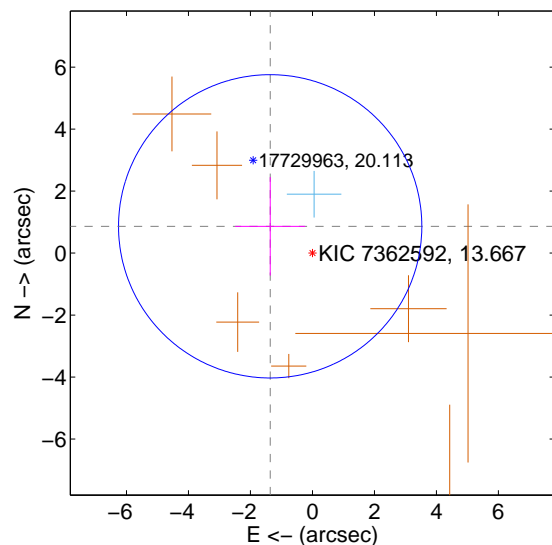
Supplemental centroid analysis for 007362592-07. Kepler magnitude: 13.67. Transit SNR 11.22

There are 1 quarters with good PRF difference image offsets

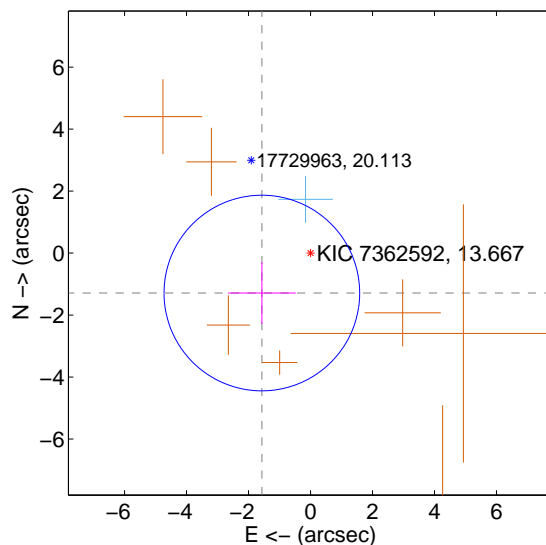
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.614 ± 1.631	0.99	1.364 ± 1.131	0.864 ± 1.587
PRF-fit source offset from KIC position	2.032 ± 1.052	1.93	1.571 ± 1.090	-1.289 ± 0.993
photometric centroid source offset	1.40 ± 0.67	2.10	0.75 ± 0.76	1.19 ± 0.63

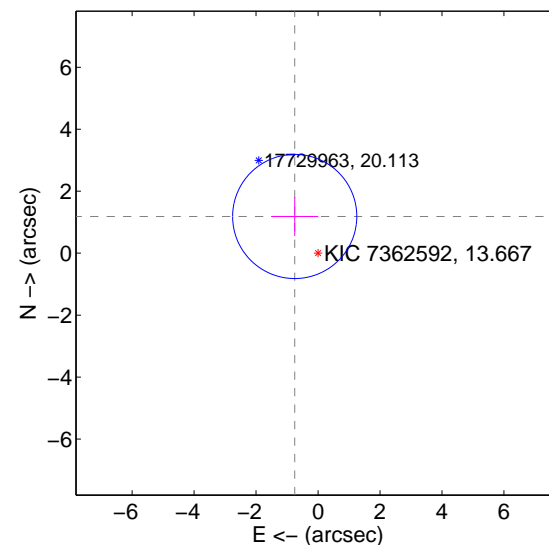
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

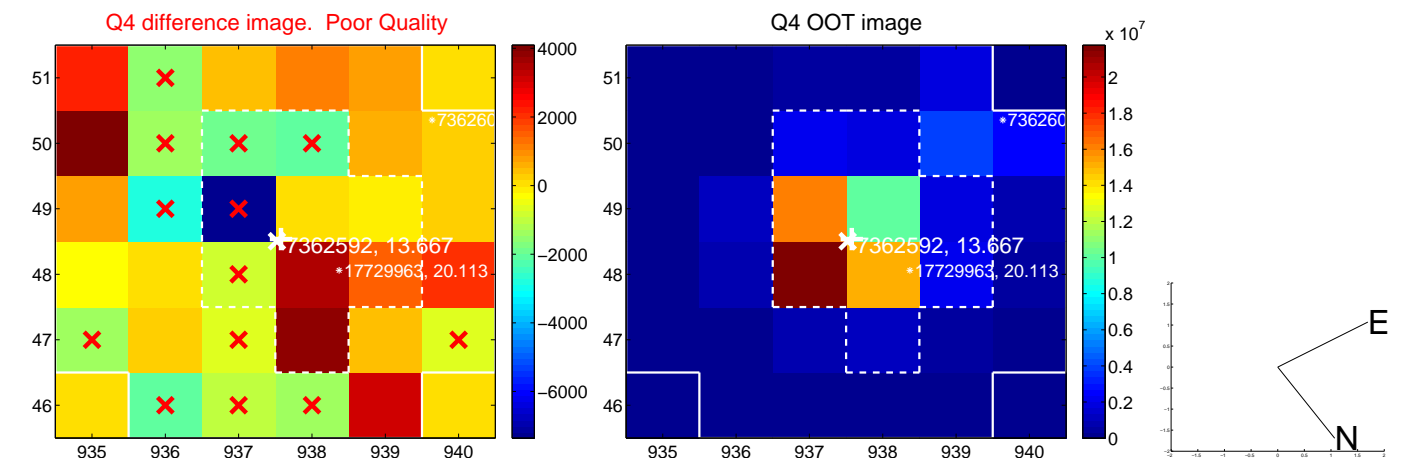
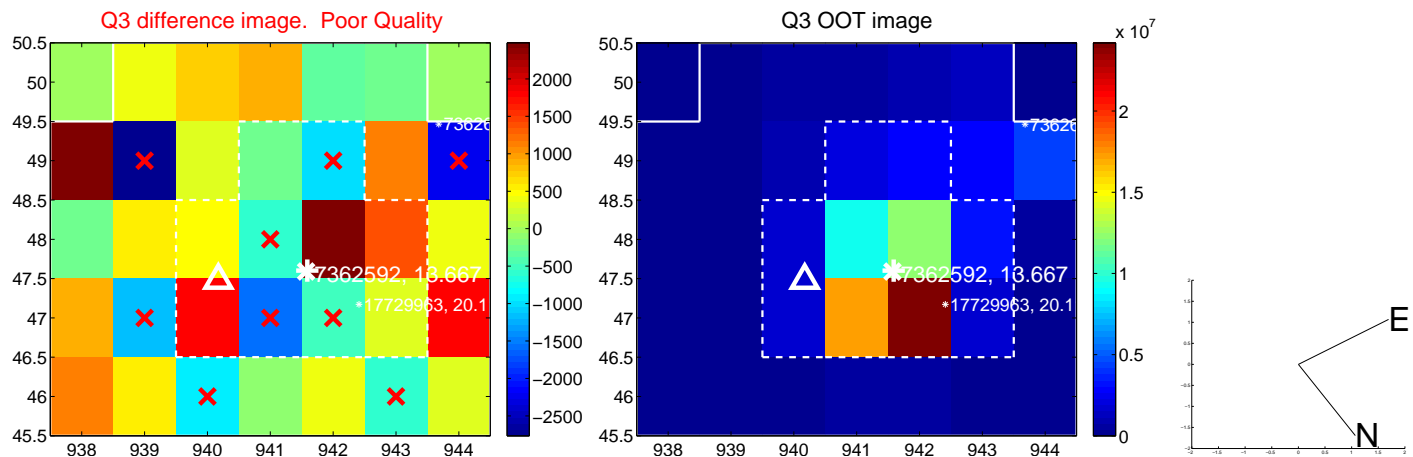
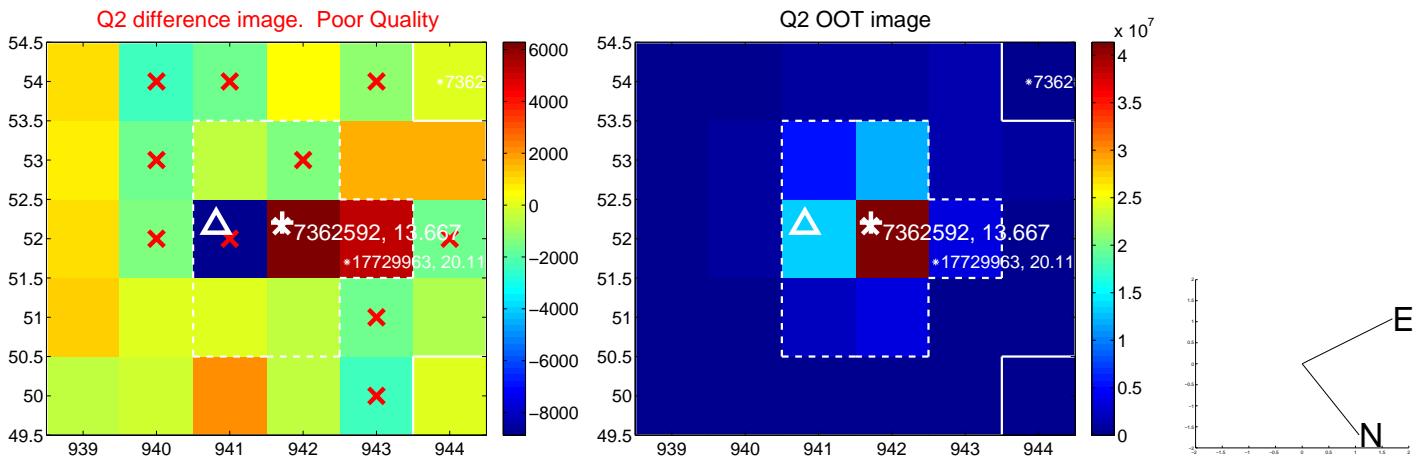
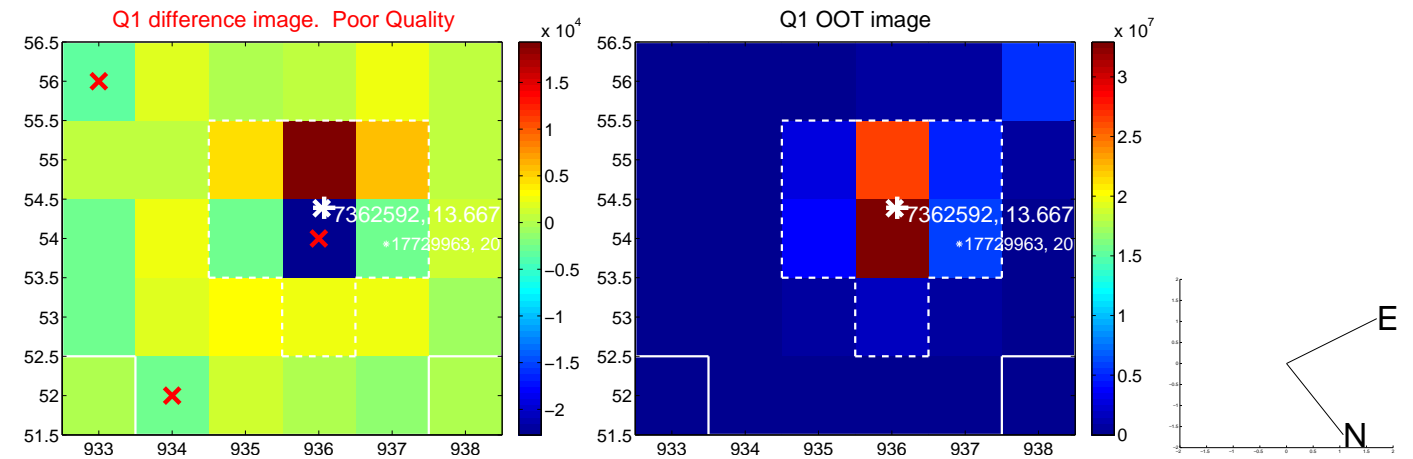


offset from photometric centroids

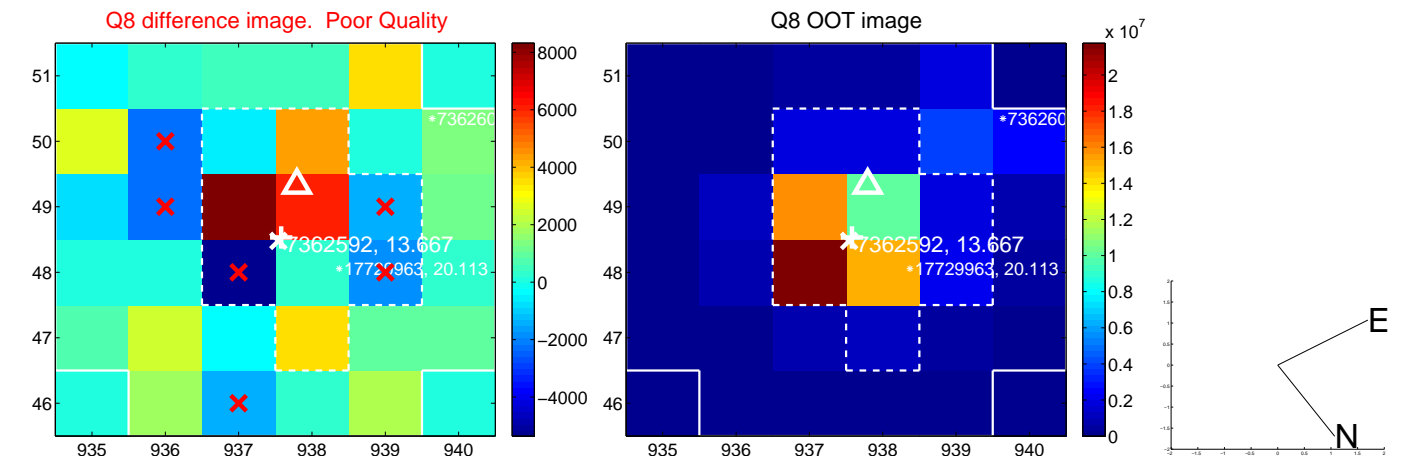
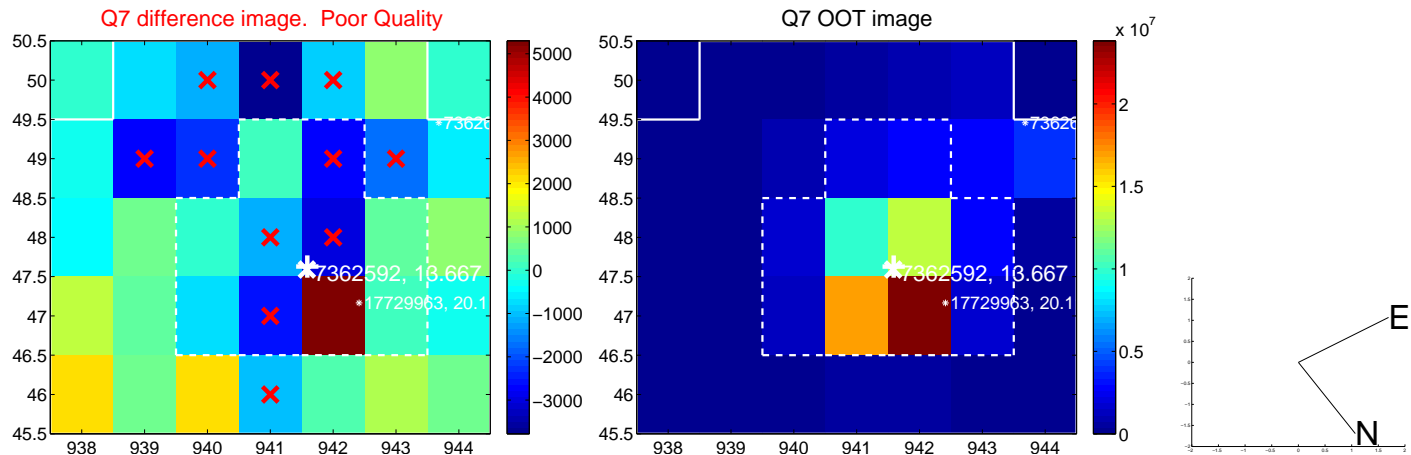
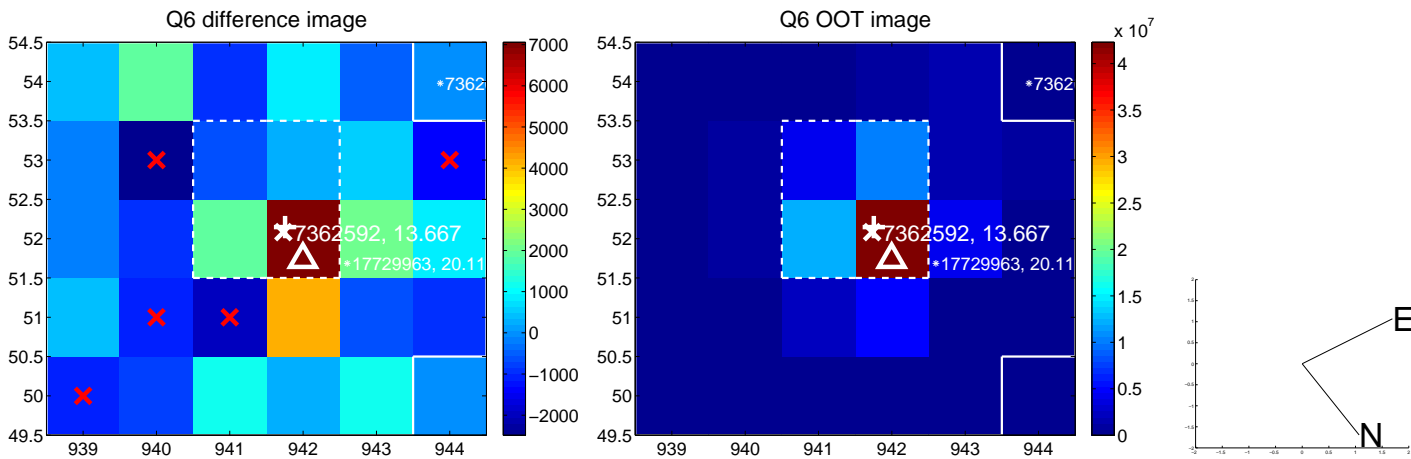
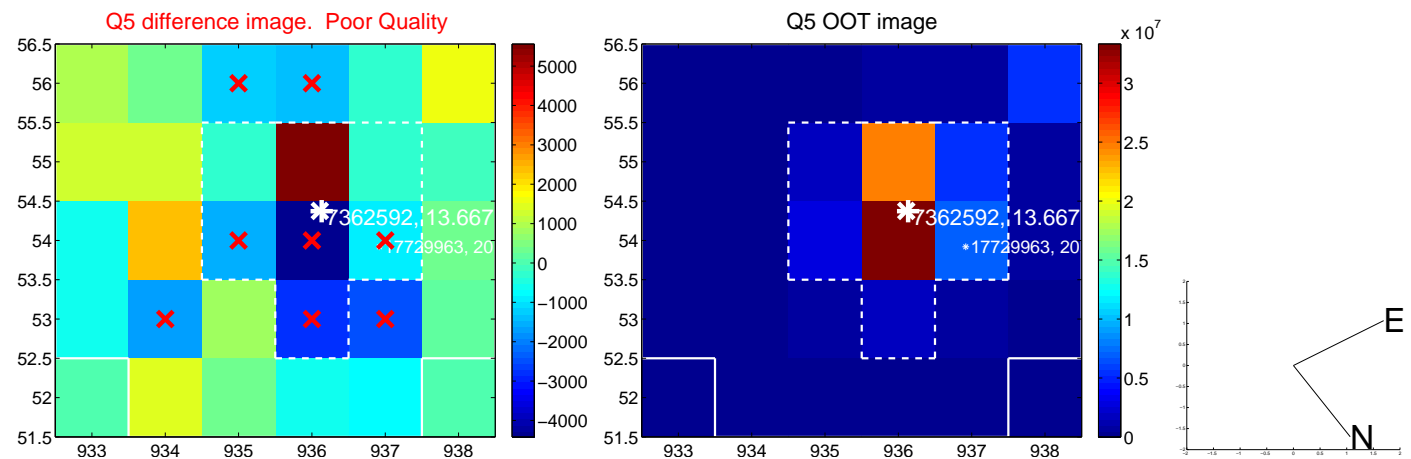


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

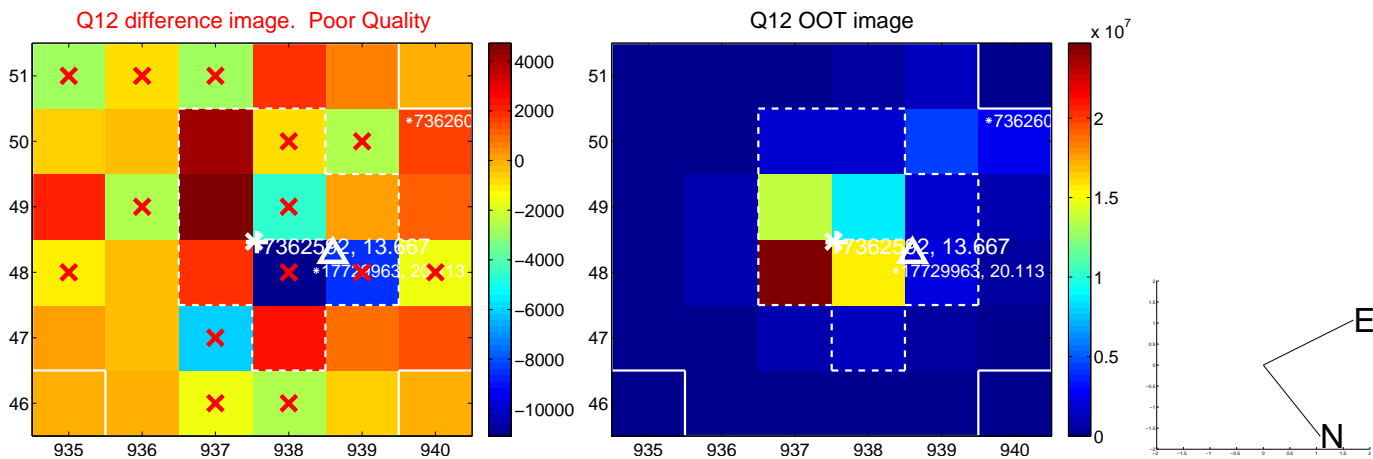
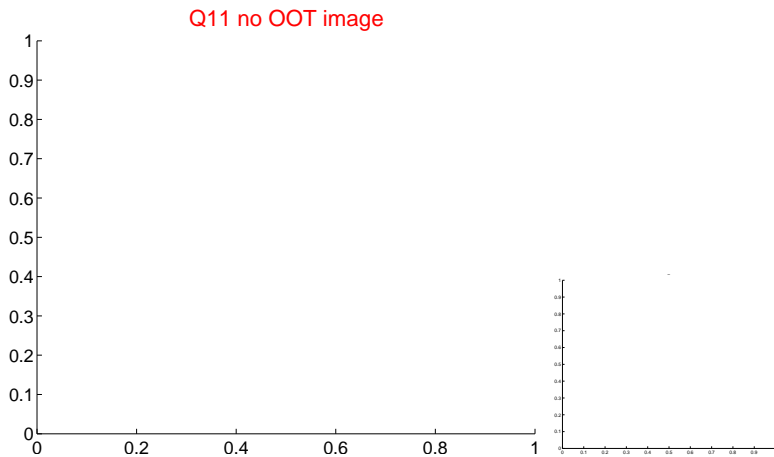
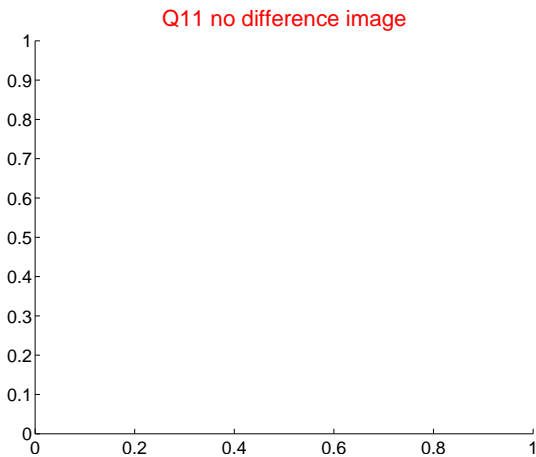
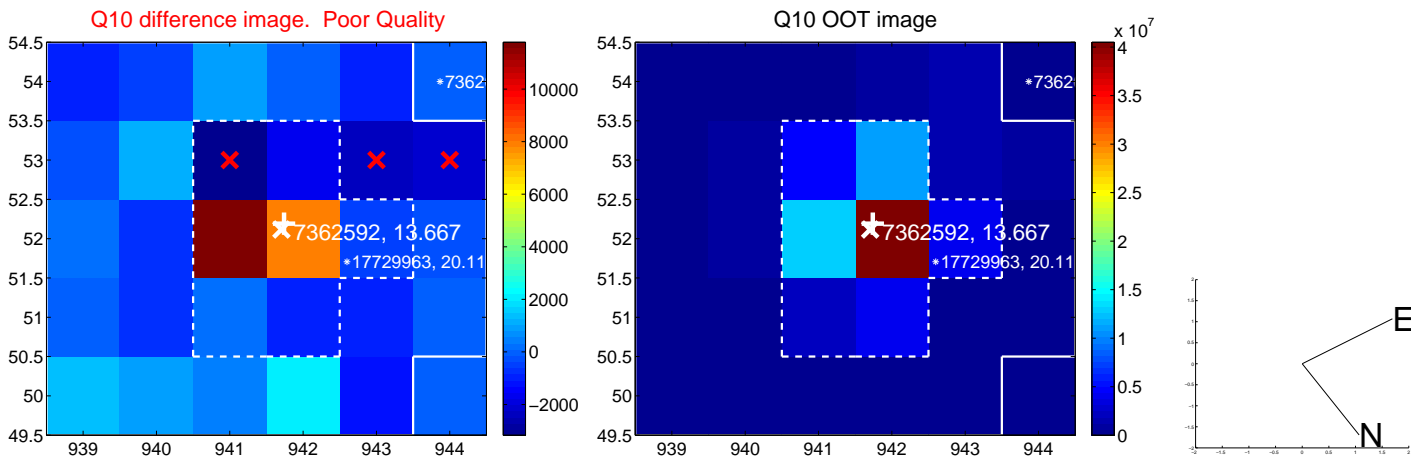
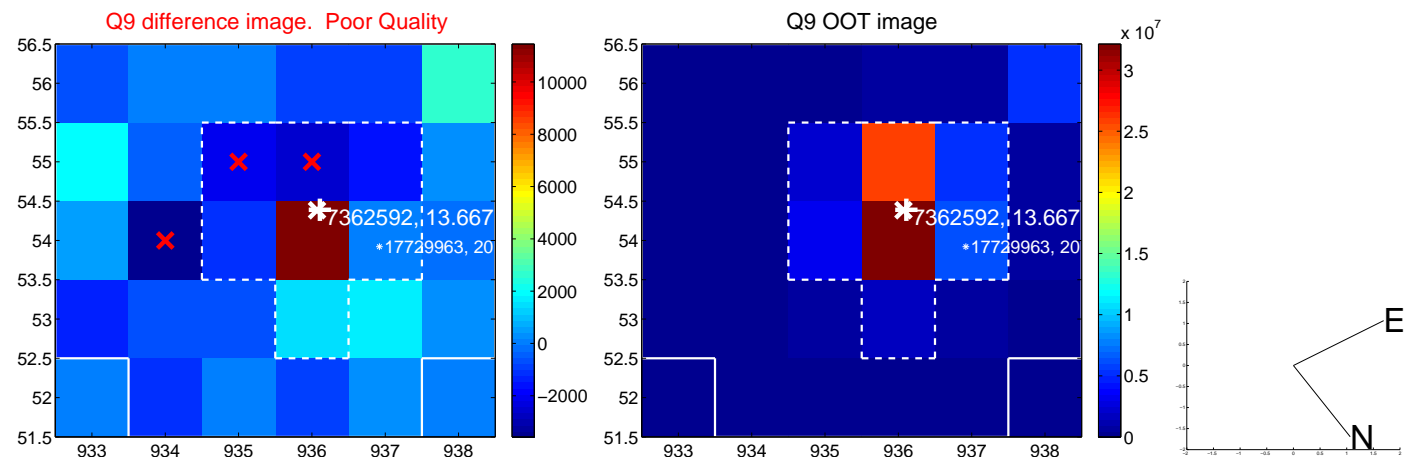
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



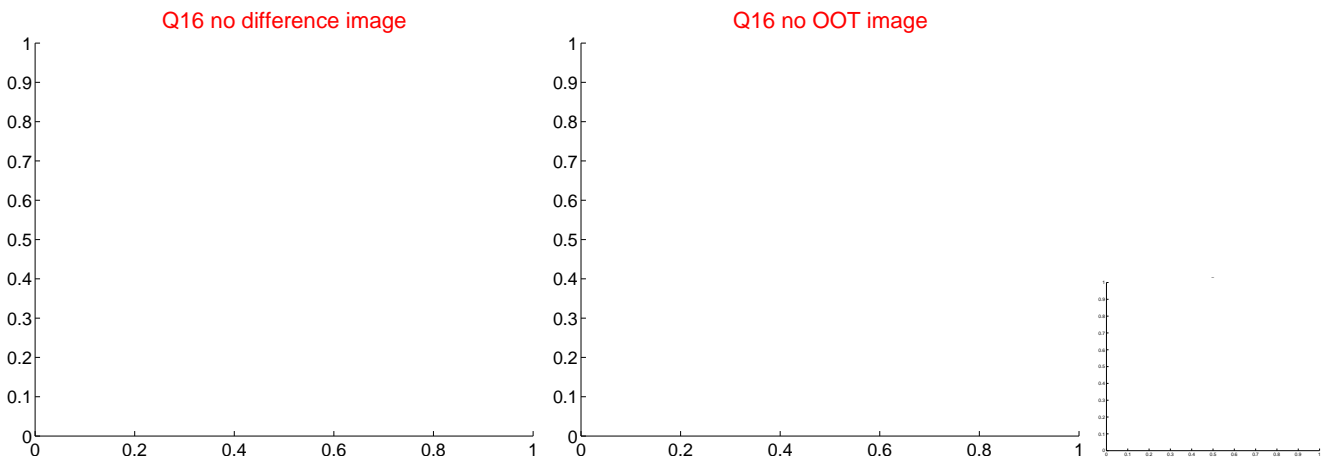
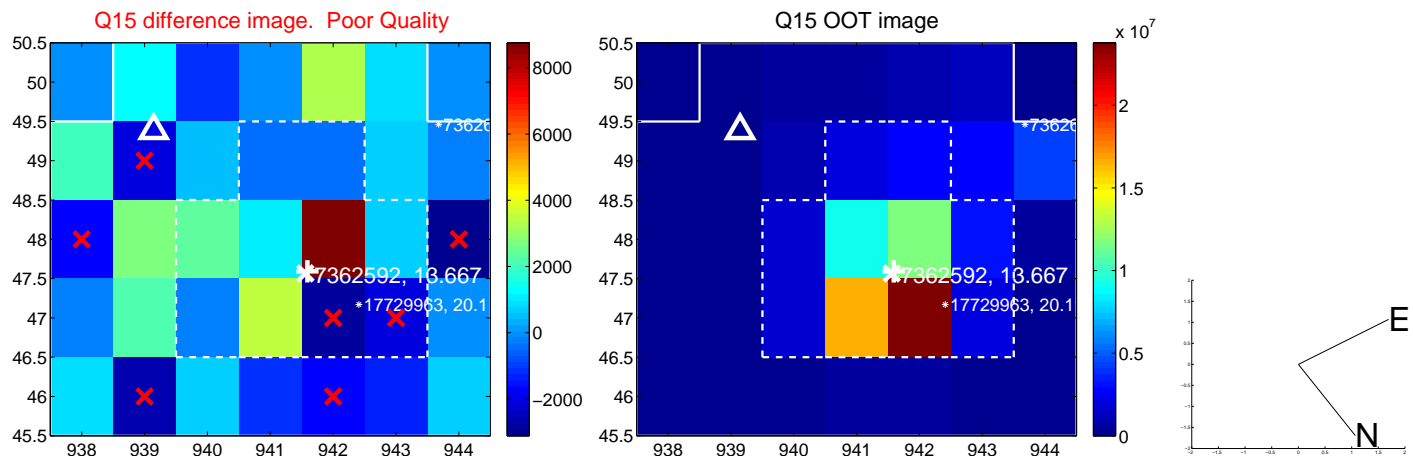
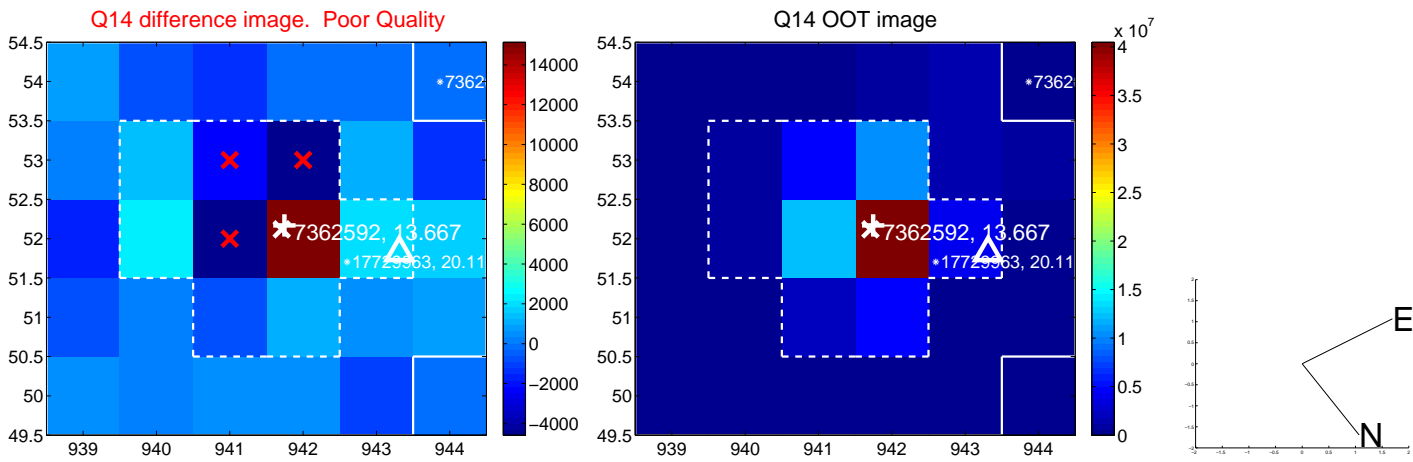
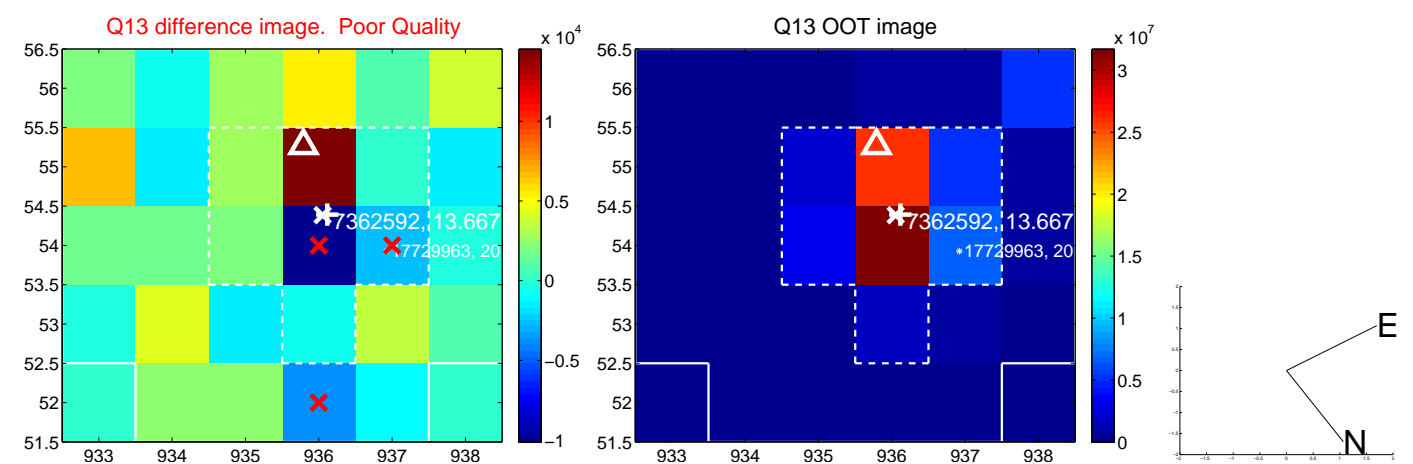
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



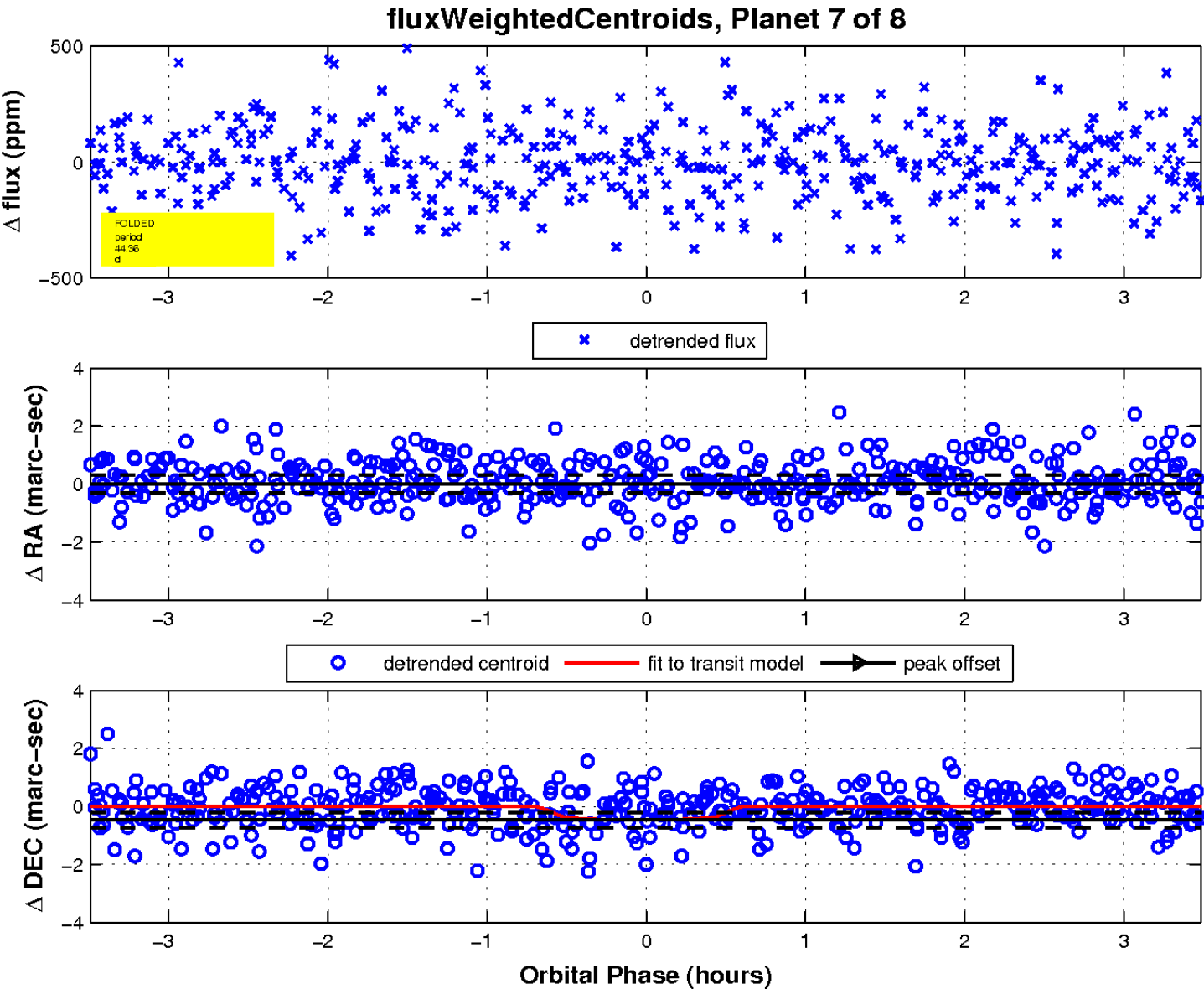
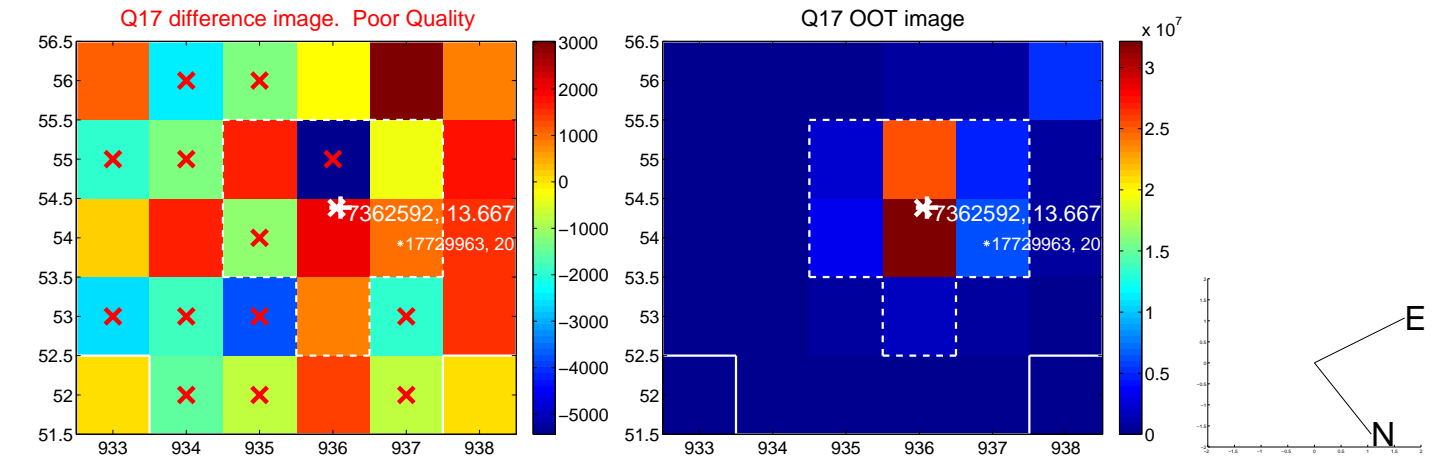
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

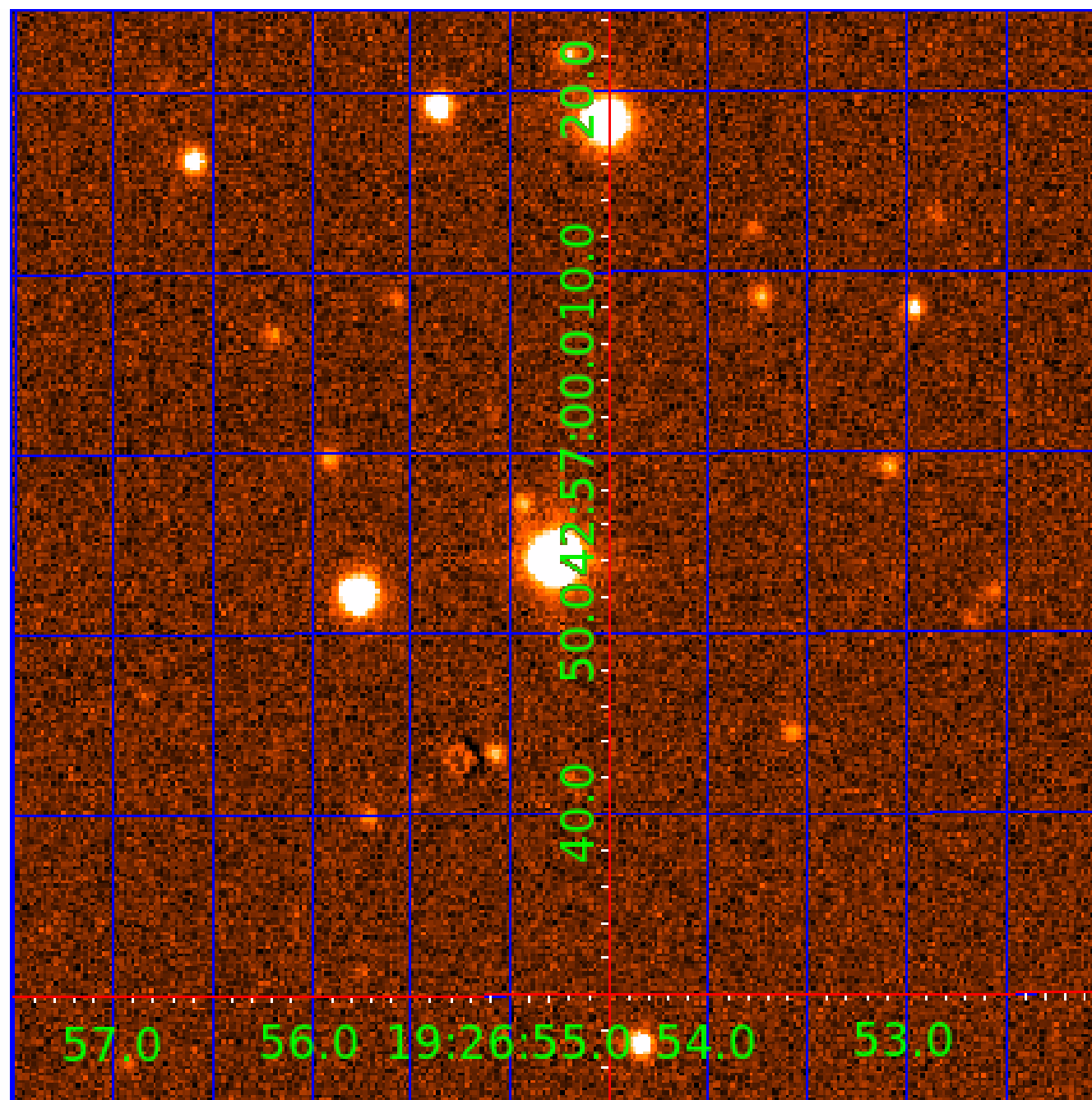


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007362592

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})
007362592-01	OBS	No	0.566746	131.900637	12.3	4.024	11.2	8.3	1.65	6074	0.60	17455.46
007362592-02	OBS	No	51.605865	159.800135	358.4	1.320	10.1	11.0	1.65	6074	3.64	42.61
007362592-03	OBS	No	16.776067	138.454382	159.6	3.264	10.9	9.7	1.65	6074	2.48	190.63
007362592-04	OBS	No	21.426313	136.707386	240.1	1.377	9.6	10.4	1.65	6074	2.95	137.57
007362592-05	OBS	No	24.735451	153.925806	227.8	1.635	9.7	10.0	1.65	6074	2.50	113.59
007362592-06	OBS	No	19.510536	137.277007	202.1	1.294	9.5	10.1	1.65	6074	2.35	155.87
007362592-07	OBS	No	44.364695	151.146987	383.8	1.168	10.5	11.2	1.65	6074	3.28	52.13
007362592-08	OBS	No	43.940671	137.929737	373.2	1.471	9.6	10.7	1.65	6074	3.30	52.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362592-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007362592-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007362592-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS—HALO_GHOST
007362592-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007362592-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007362592-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV
007362592-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_FEW_MEAS
007362592-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

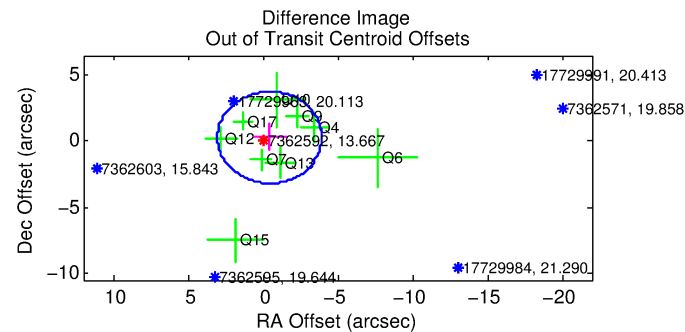
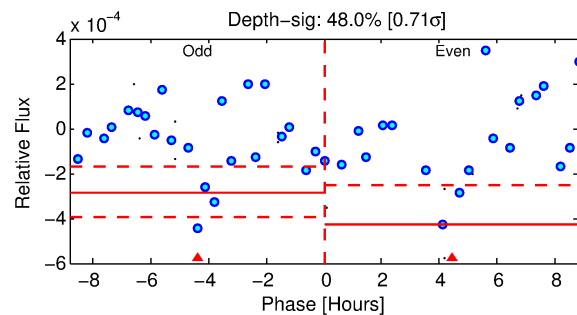
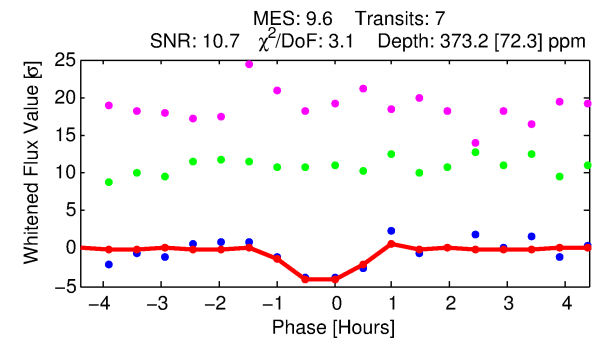
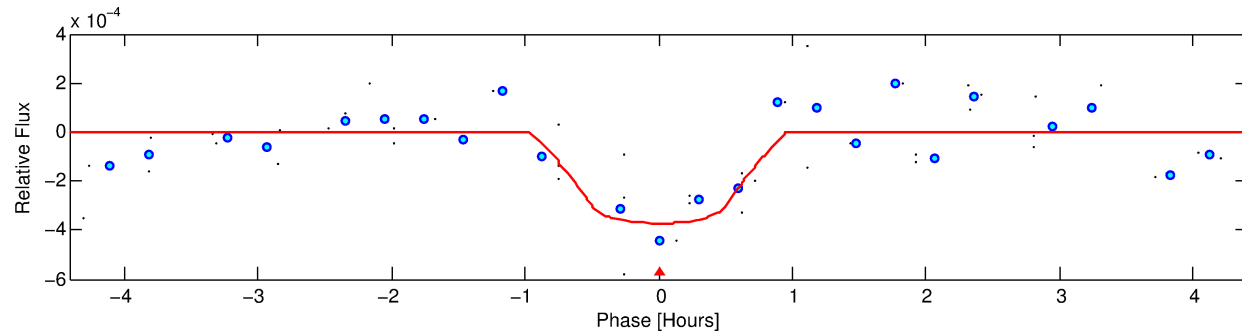
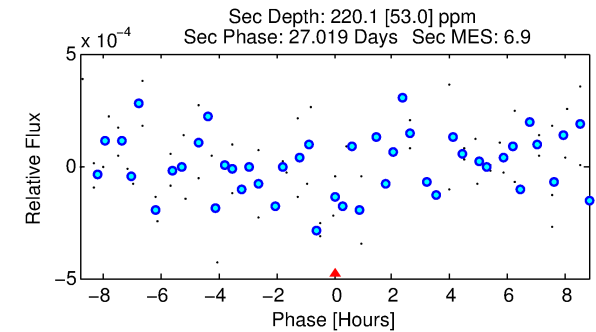
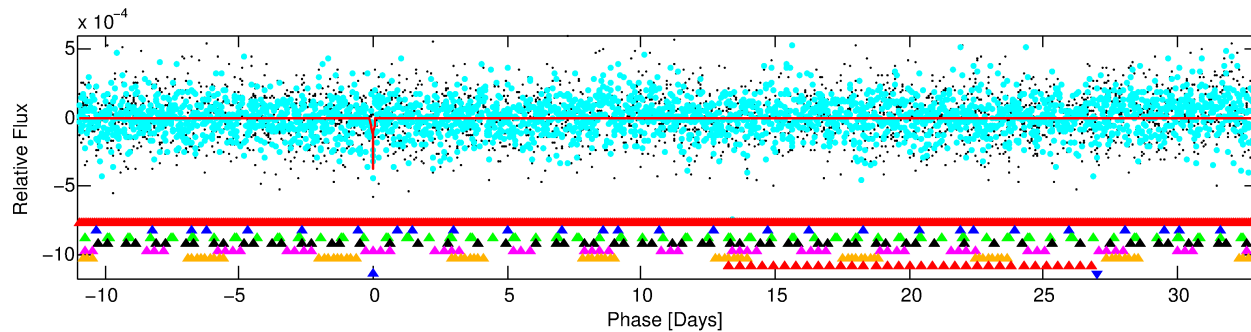
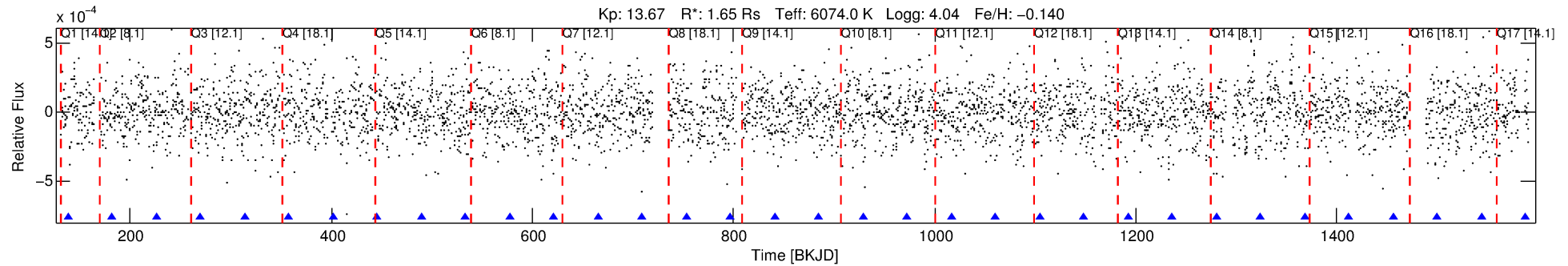
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362592-08

No Significant Match Found

DV One-Page Summary

KIC: 7362592 Candidate: 8 of 8 Period: 43.941 d



DV Fit Results:

Period = 43.94067 [0.00059] d
Epoch = 137.9297 [0.0163] BKJD
Rp/R* = 0.0183 [0.0512]
a/R* = 198.87 [2716.58]
b = 0.53 [18.77]
Seff = 52.80 [31.52]
Teq = 687 [103] K
Rp = 3.30 [9.31] Re
a = 0.2508 [0.0907] AU
Ag = 698.67 [3929.01] [0.18 σ]
Teffp = 5464 [7642] K [0.62 σ]

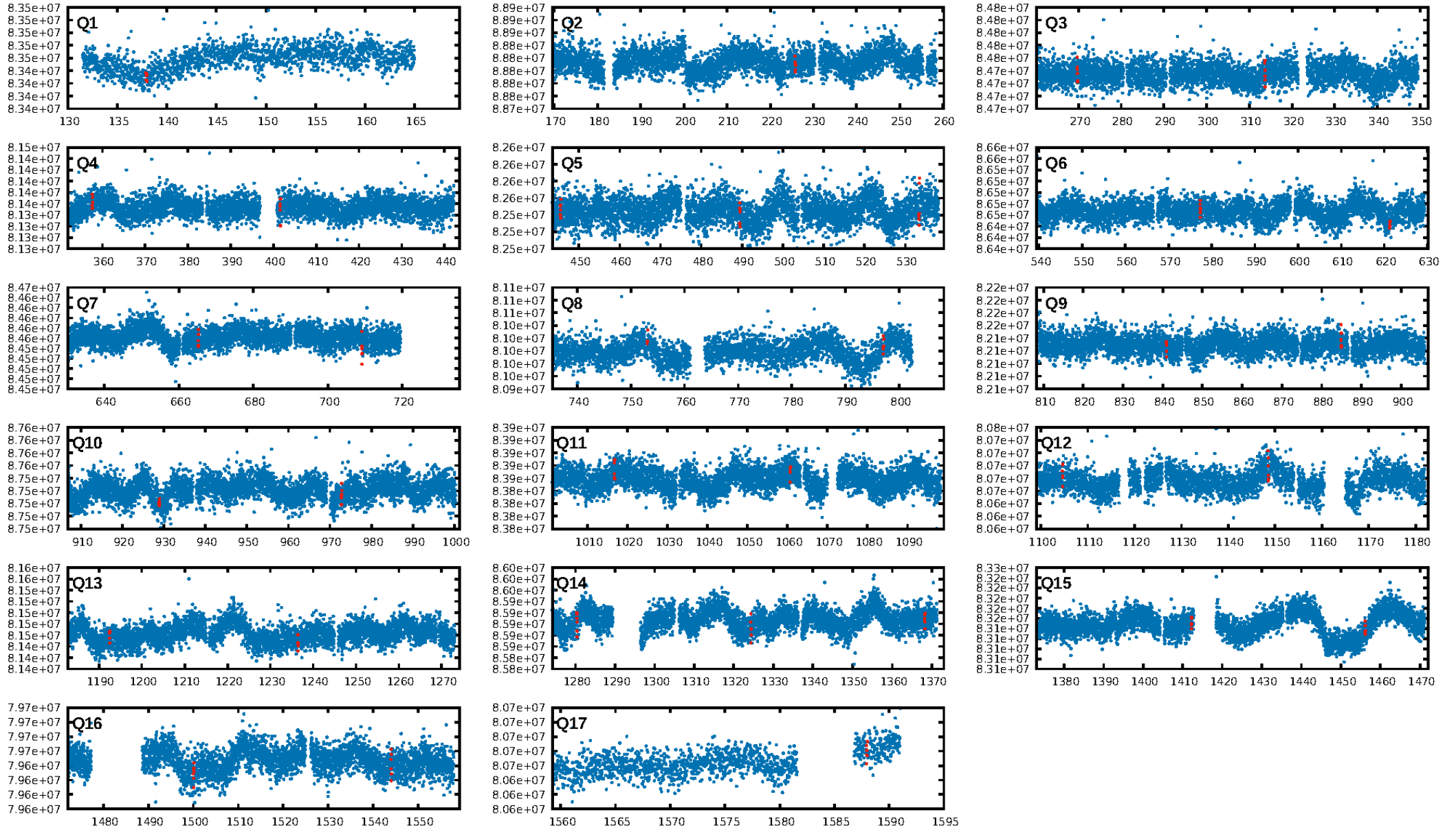
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [209.56 σ]
LongPeriod-sig: 100.0% [5.42 σ]
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 93.3%
Bootstrap-pfa: 8.84e-09
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -1.95
Centroid-sig: 11.4%
Centroid-so: 0.307 arcsec [0.48 σ]
OotOffset-rm: 0.535 arcsec [0.46 σ]
KicOffset-rm: 0.433 arcsec [0.44 σ]
OotOffset-st: 2/2/2/3 [9]
KicOffset-st: 2/2/2/3 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 0.00 [0/17]

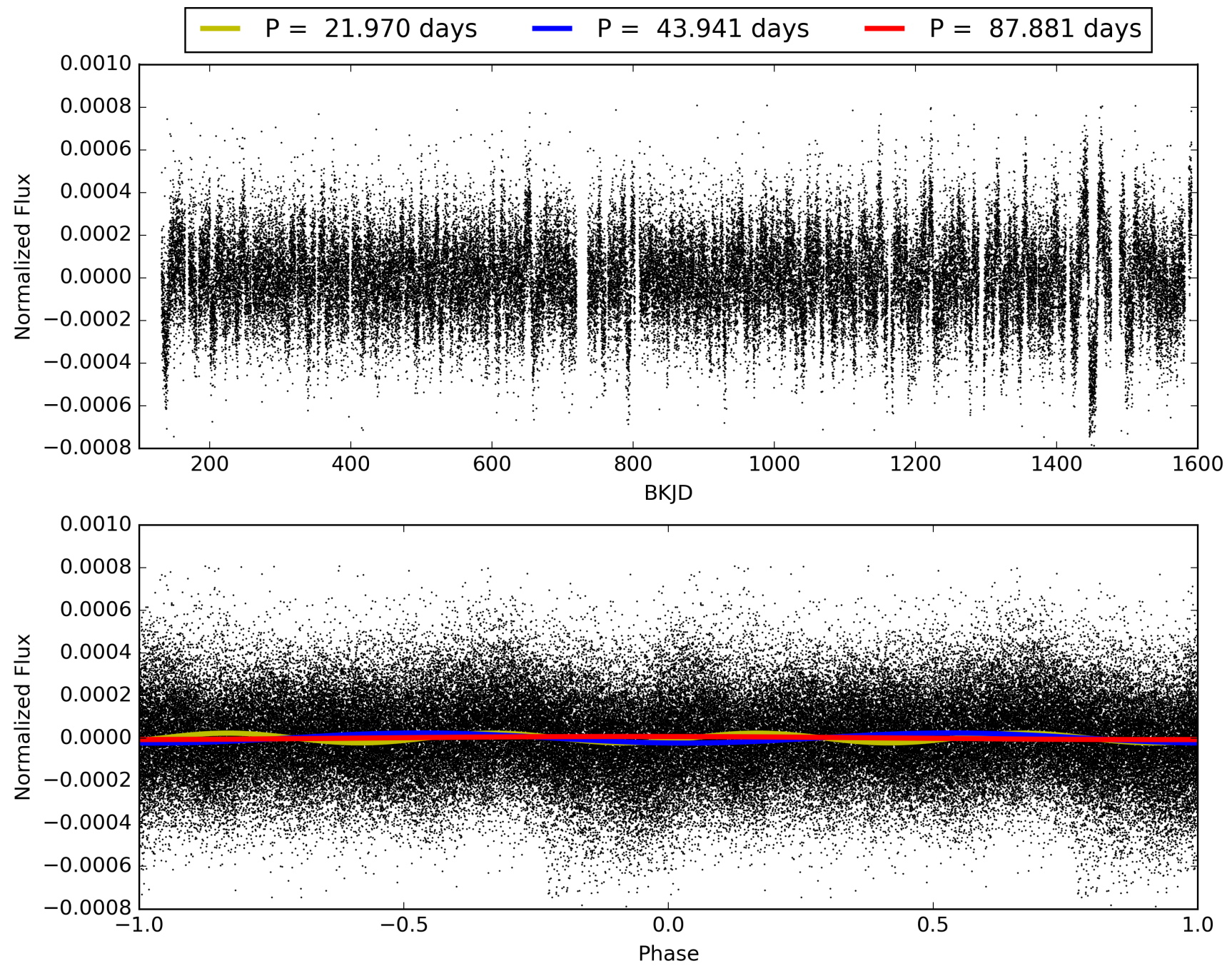
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:51:47 Z

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

TCE 007362592-08, PDC Light Curves

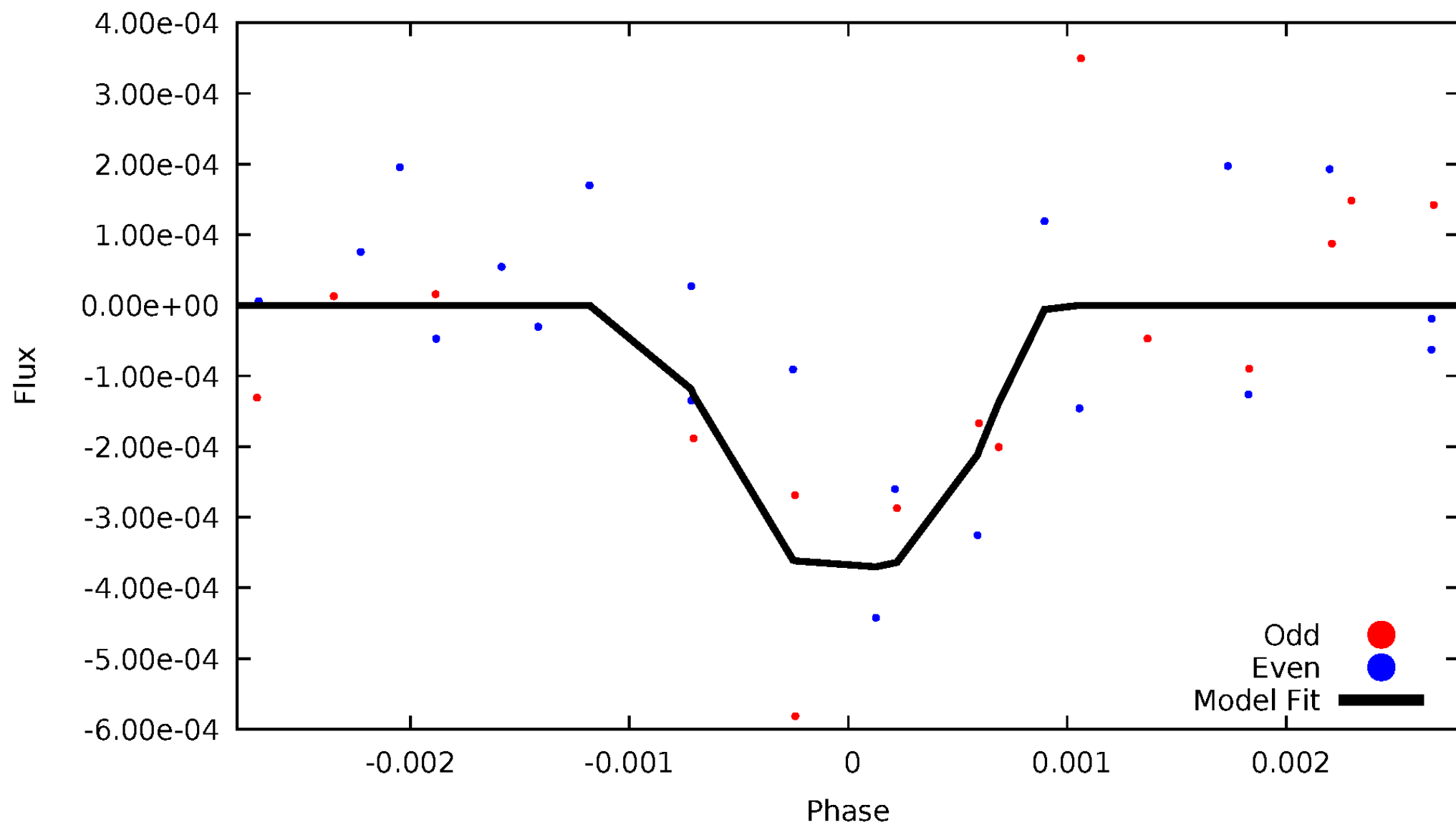


TCE 007362592-08



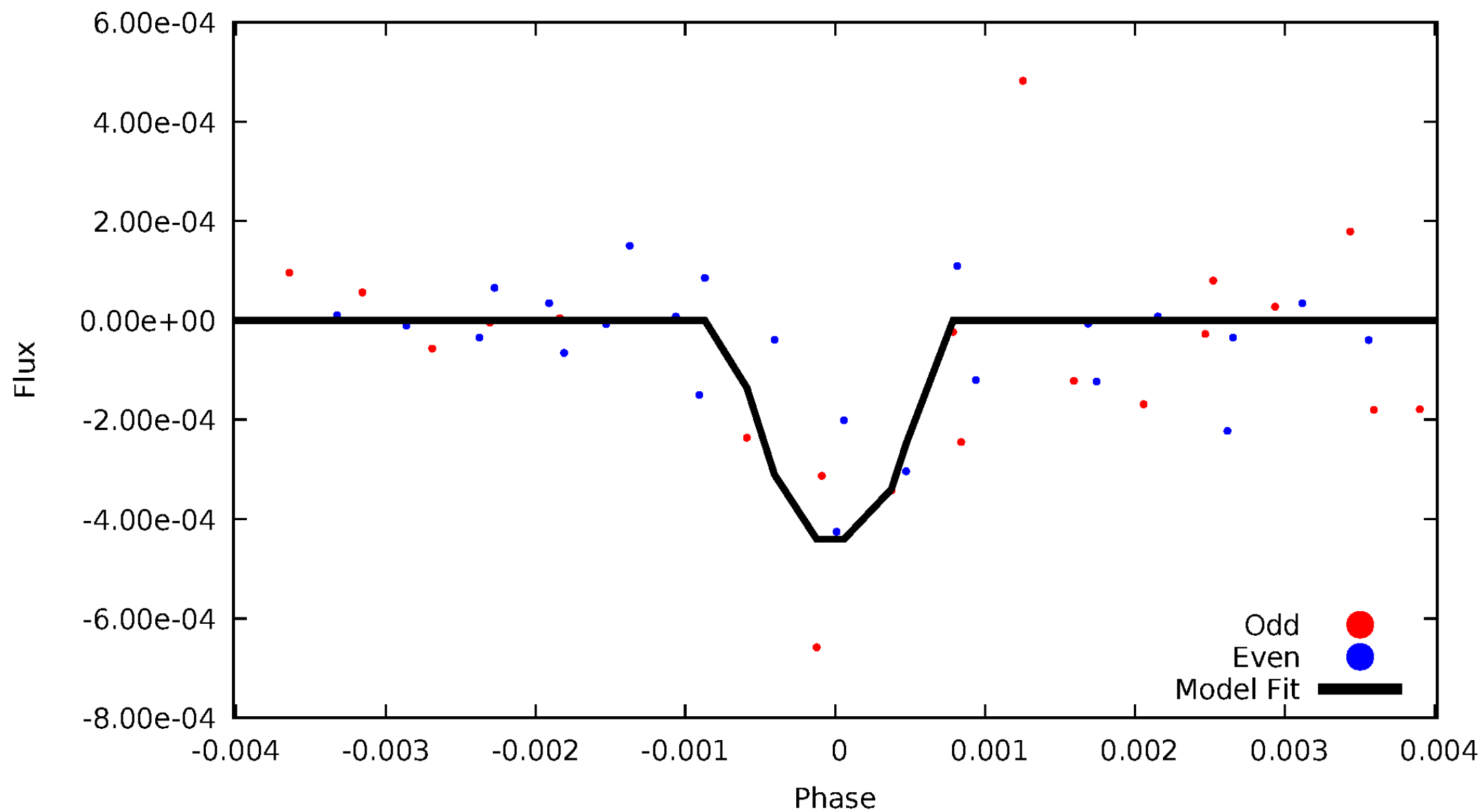
DV Odd/Even

TCE 007362592-08



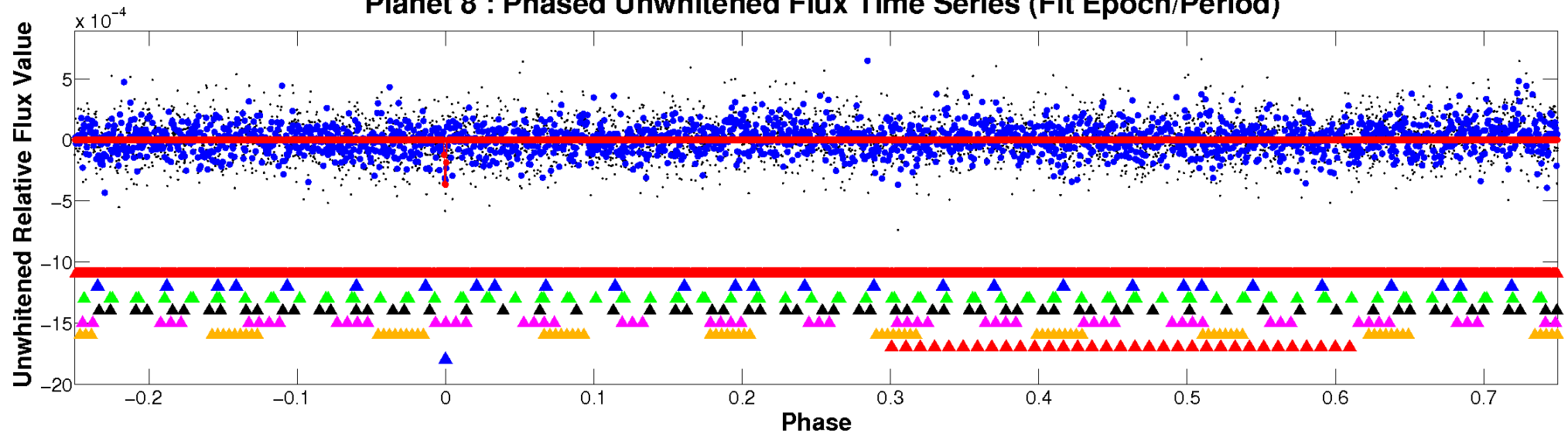
ALT Odd/Even

TCE 007362592-08

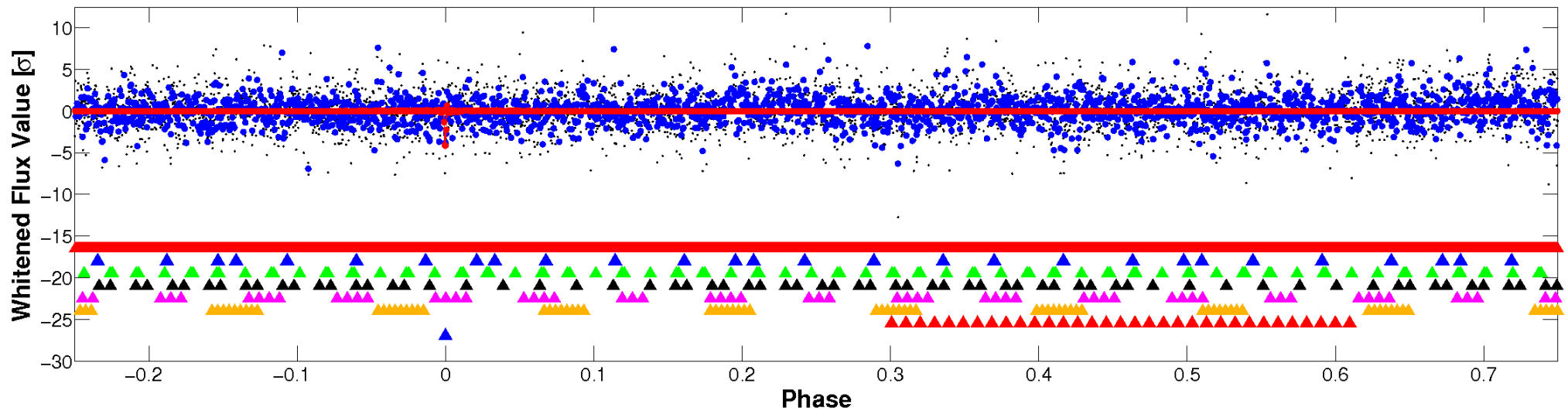


Non-Whitened Vs. Whitened Light Curve

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

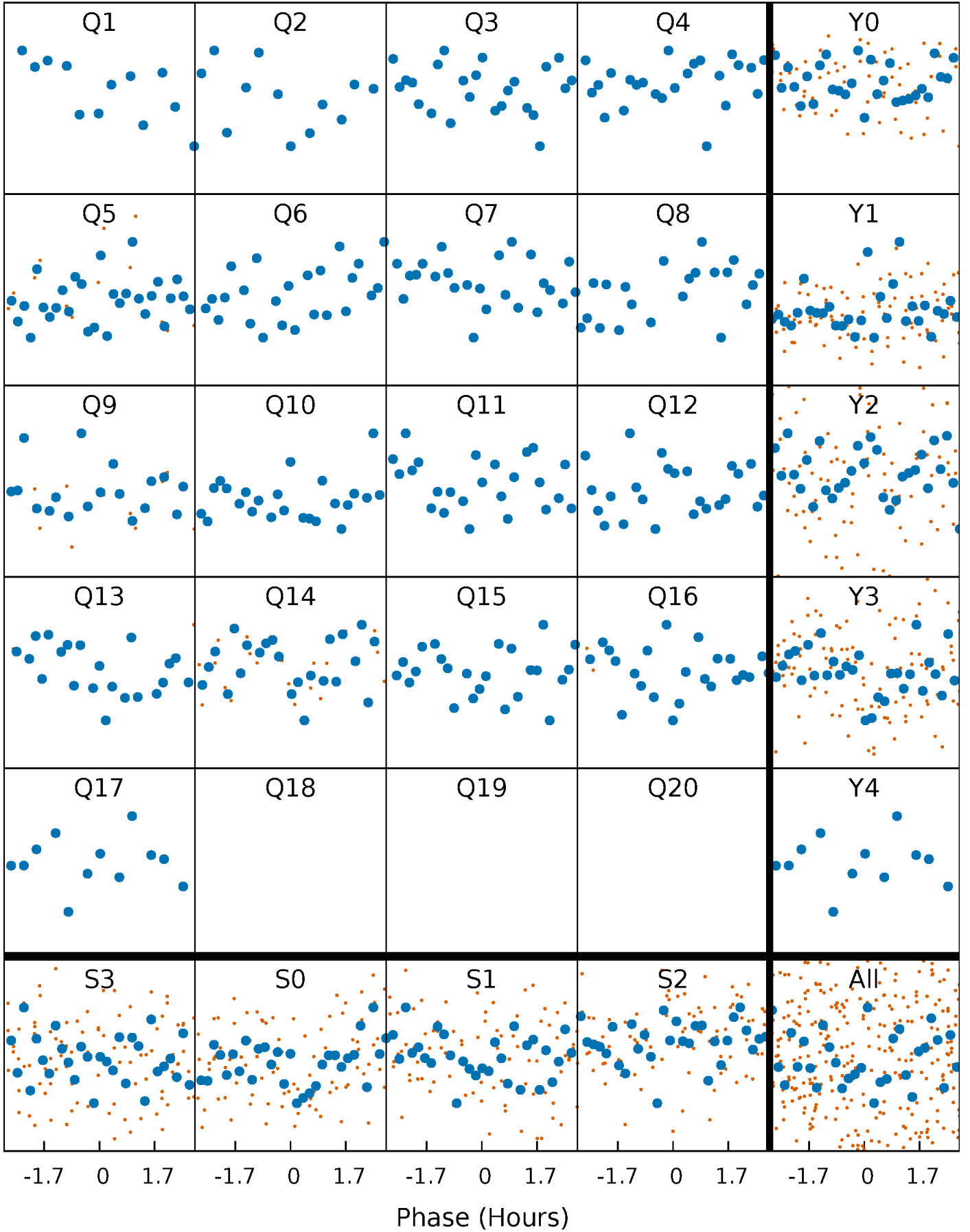


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



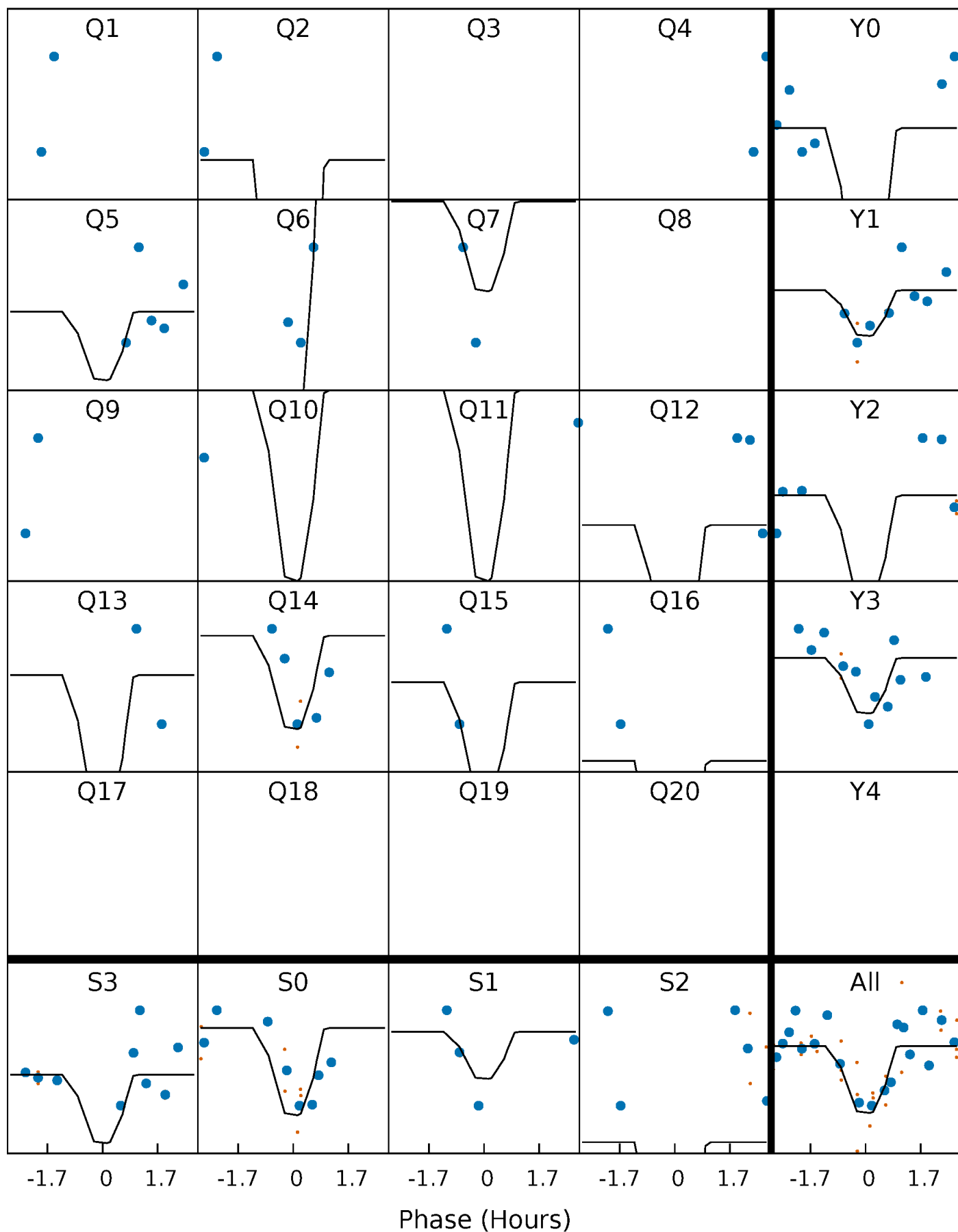
PDC Quarter-Phased Transit Curves

TCE 007362592-08 $P = 43.940671$ Days $T_0 = 137.929737$ (BKJD)



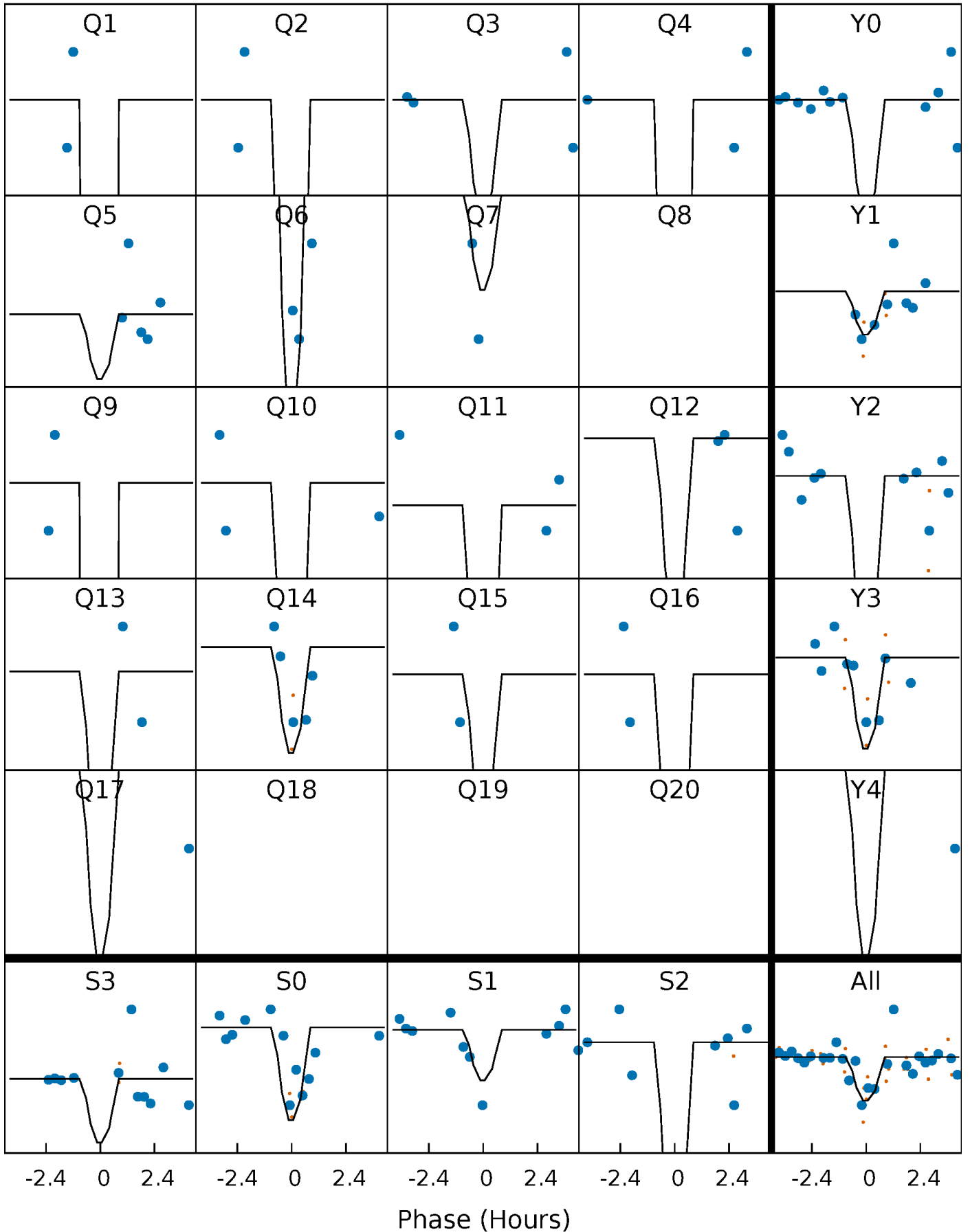
DV Quarter-Phased Transit Curves

TCE 007362592-08 P= 43.940671 Days $T_0=137.929737$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

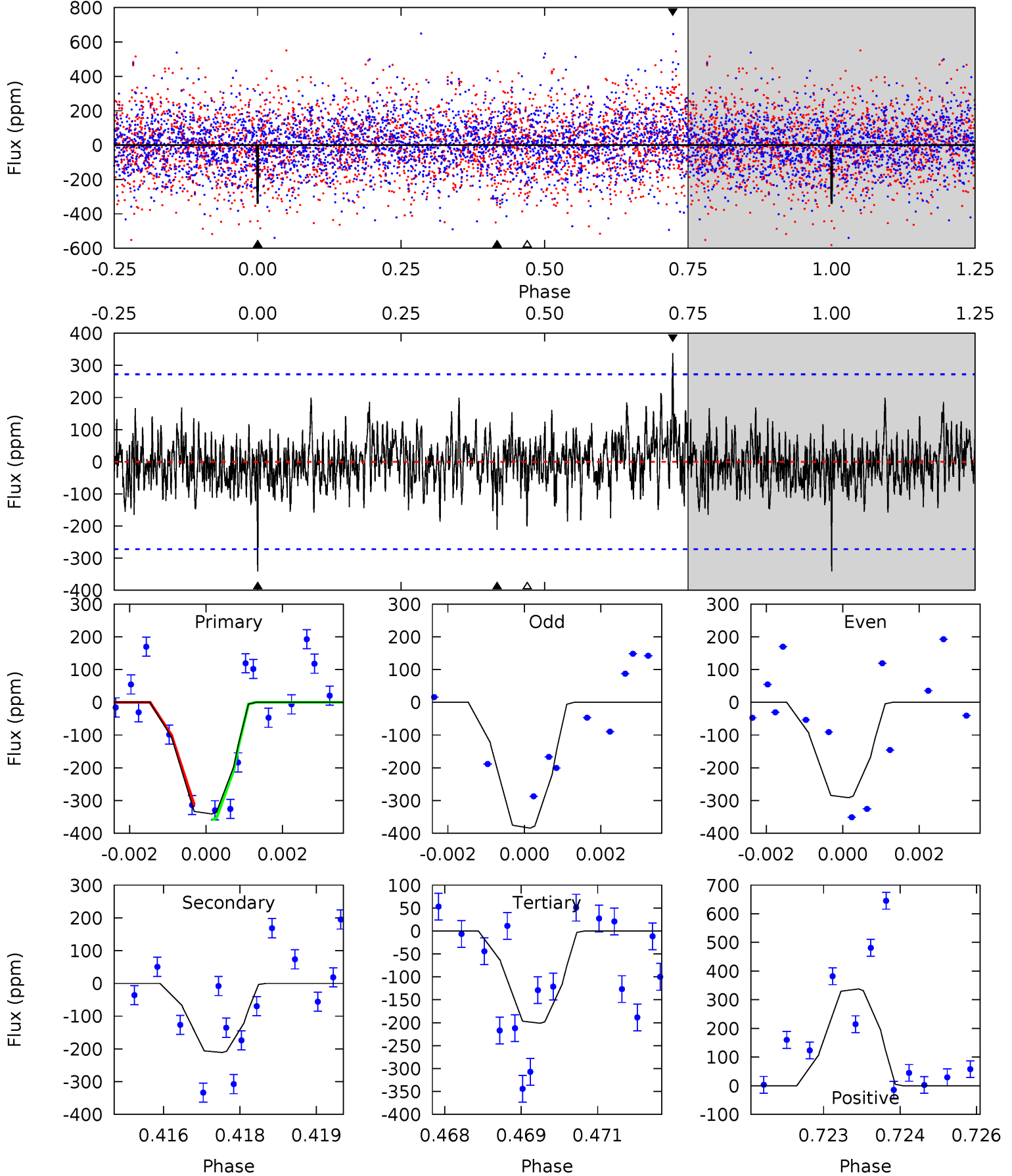
TCE 007362592-08 $P = 43.941466$ Days $T_0 = 137.914242$ (BKJD)



DV Model-Shift Uniqueness Test

007362592-08, P = 43.940671 Days, E = 93.989066 Days

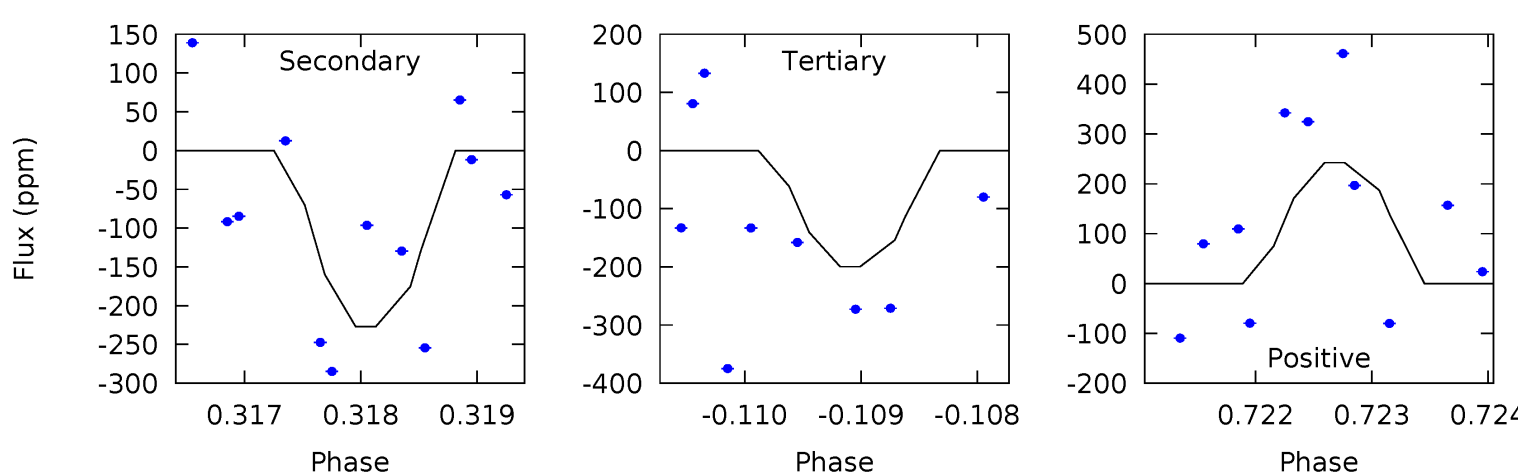
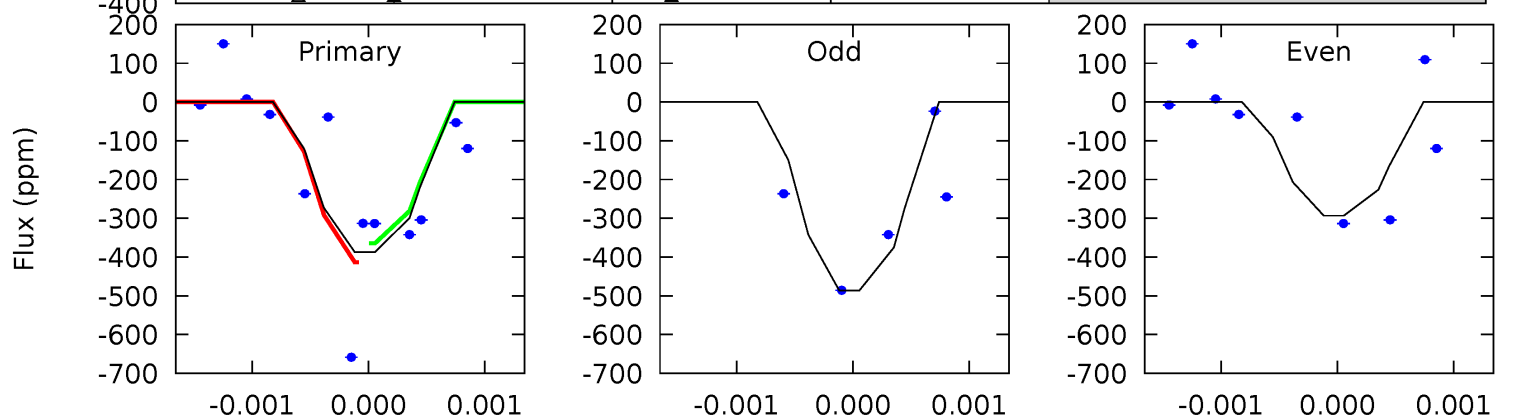
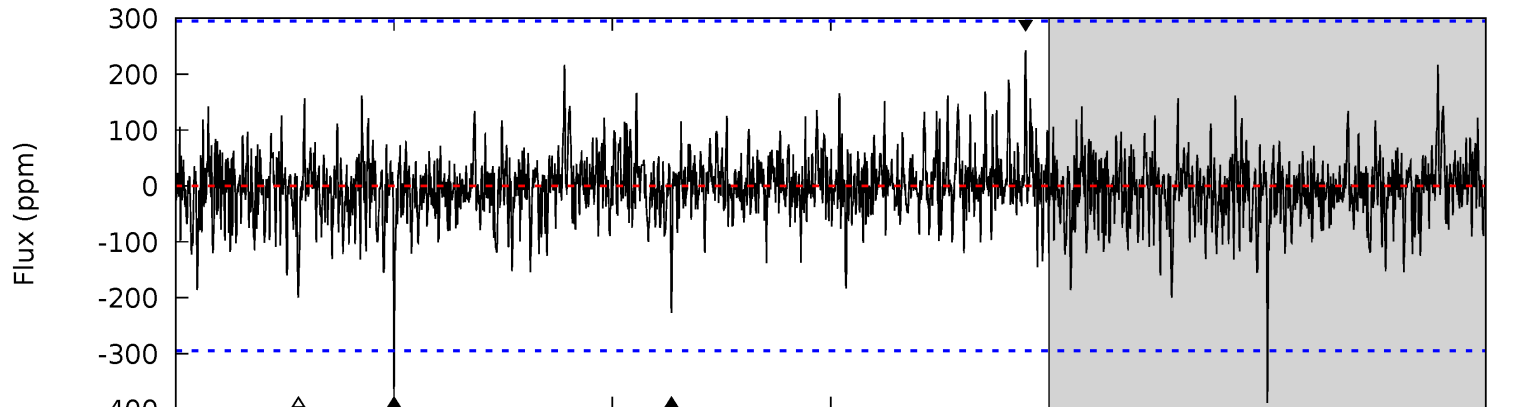
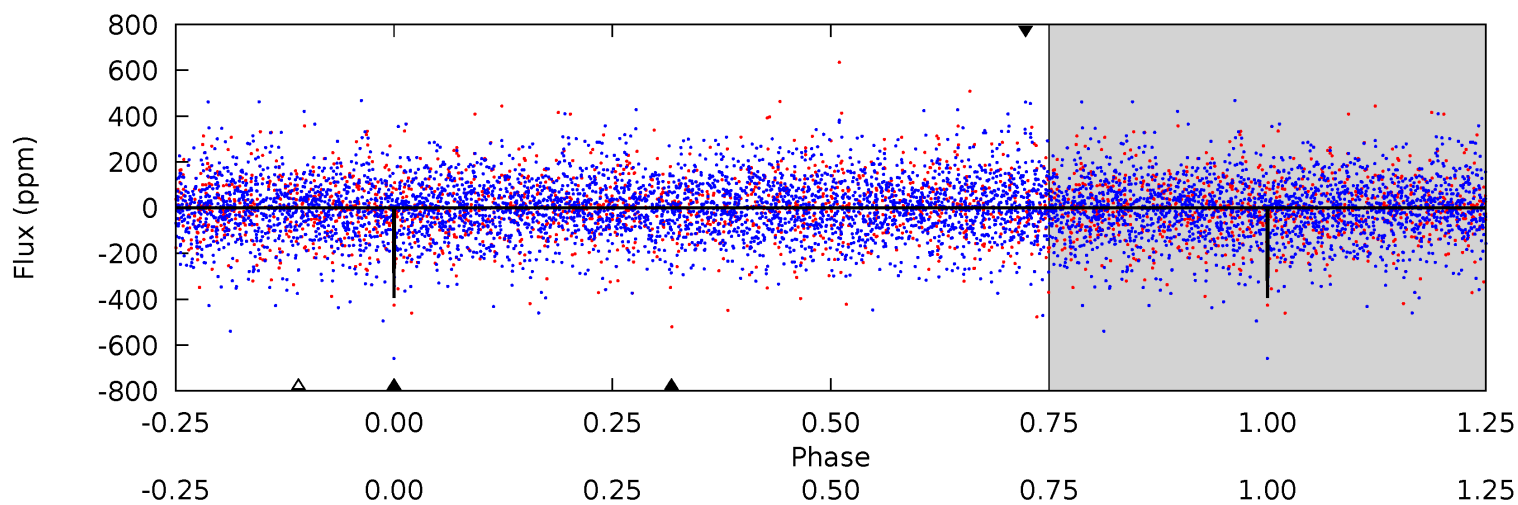
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.73	4.16	3.97	6.66	5.37	3.15	1.25	2.76	0.07	0.19	-2.50	0.95	0.99	0.50	0.45



Alt Model-Shift Uniqueness Test

007362592-08, P = 43.941466 Days, E = 93.972776 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.15	4.19	3.68	4.47	5.44	3.27	0.92	3.47	2.68	0.51	-0.28	1.77	1.00	0.38	0.46



Stellar Parameters For KIC 007362592

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6074^{+184}_{-202}	$4.040^{+0.343}_{-0.147}$	$-0.140^{+0.300}_{-0.300}$	$1.650^{+0.409}_{-0.614}$	$1.088^{+0.174}_{-0.156}$	$0.341^{+0.903}_{-0.148}$
	+3%/-3%	+8%/-4%	+214%/-214%	+25%/-37%	+16%/-14%	+265%/-43%
Source	PHO1	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 007362592-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-211 ± 51	$7.28^{+7.36}_{-4.91}$	948^{+70}_{-91}	3839^{+2433}_{-726}	126^{+1248}_{-93}
Alt.	-227 ± 54	$7.78^{+7.47}_{-5.50}$	949^{+70}_{-93}	3825^{+2465}_{-697}	127^{+1351}_{-94}

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

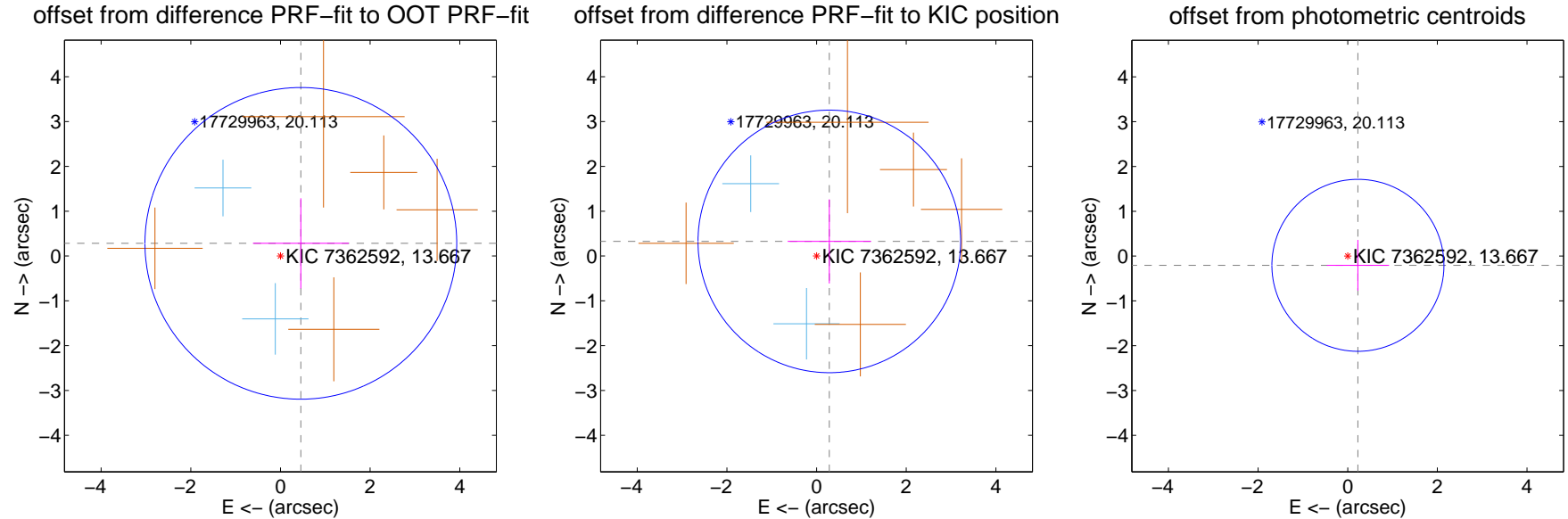
DV Centroid Data

Supplemental centroid analysis for 007362592-08. Kepler magnitude: 13.67. Transit SNR 10.75

There are 2 quarters with good PRF difference image offsets

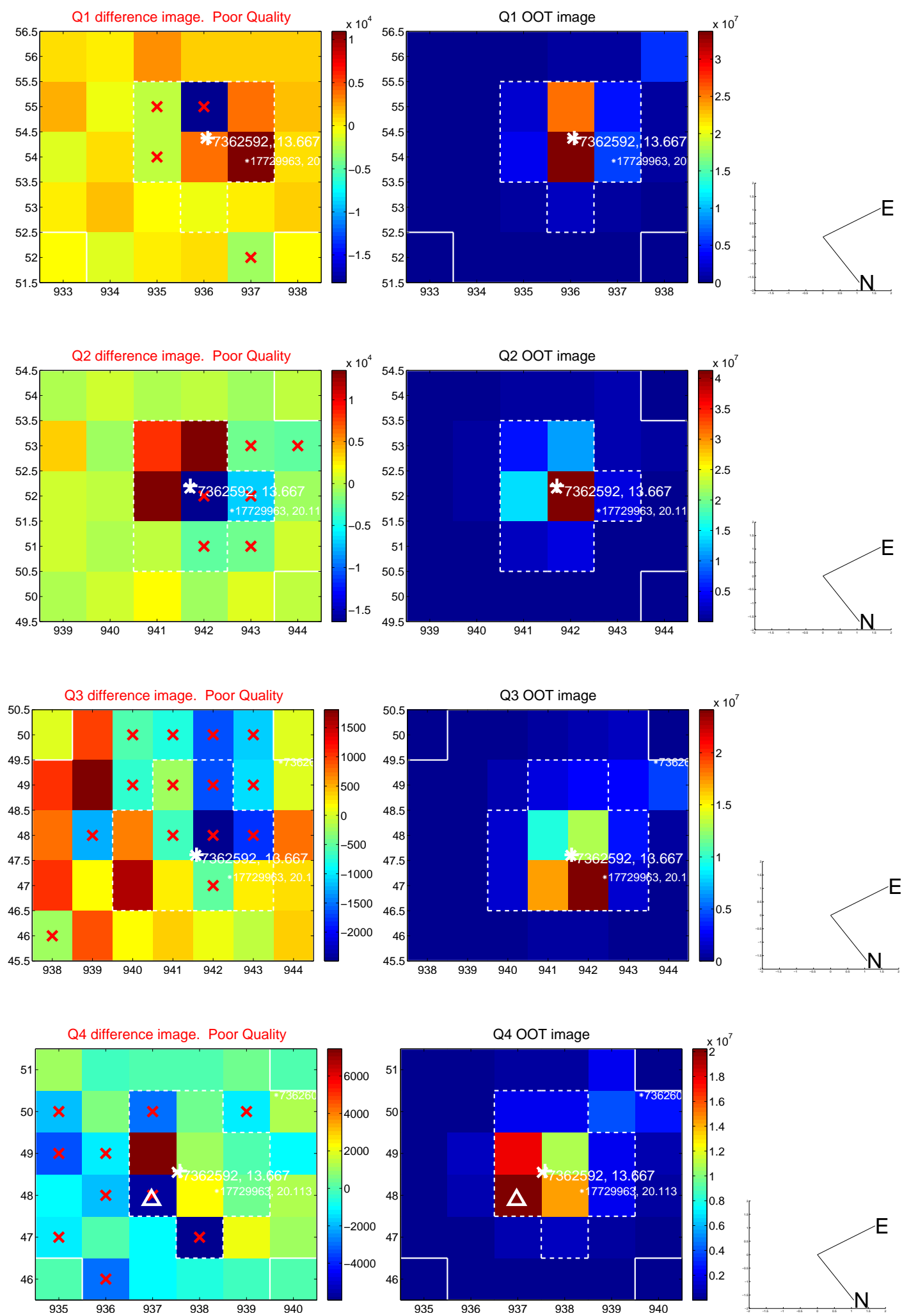
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.535 ± 1.159	0.46	-0.455 ± 1.068	0.283 ± 1.005
PRF-fit source offset from KIC position	0.433 ± 0.976	0.44	-0.285 ± 0.931	0.326 ± 0.939
photometric centroid source offset	0.31 ± 0.64	0.48	-0.23 ± 0.69	-0.21 ± 0.57

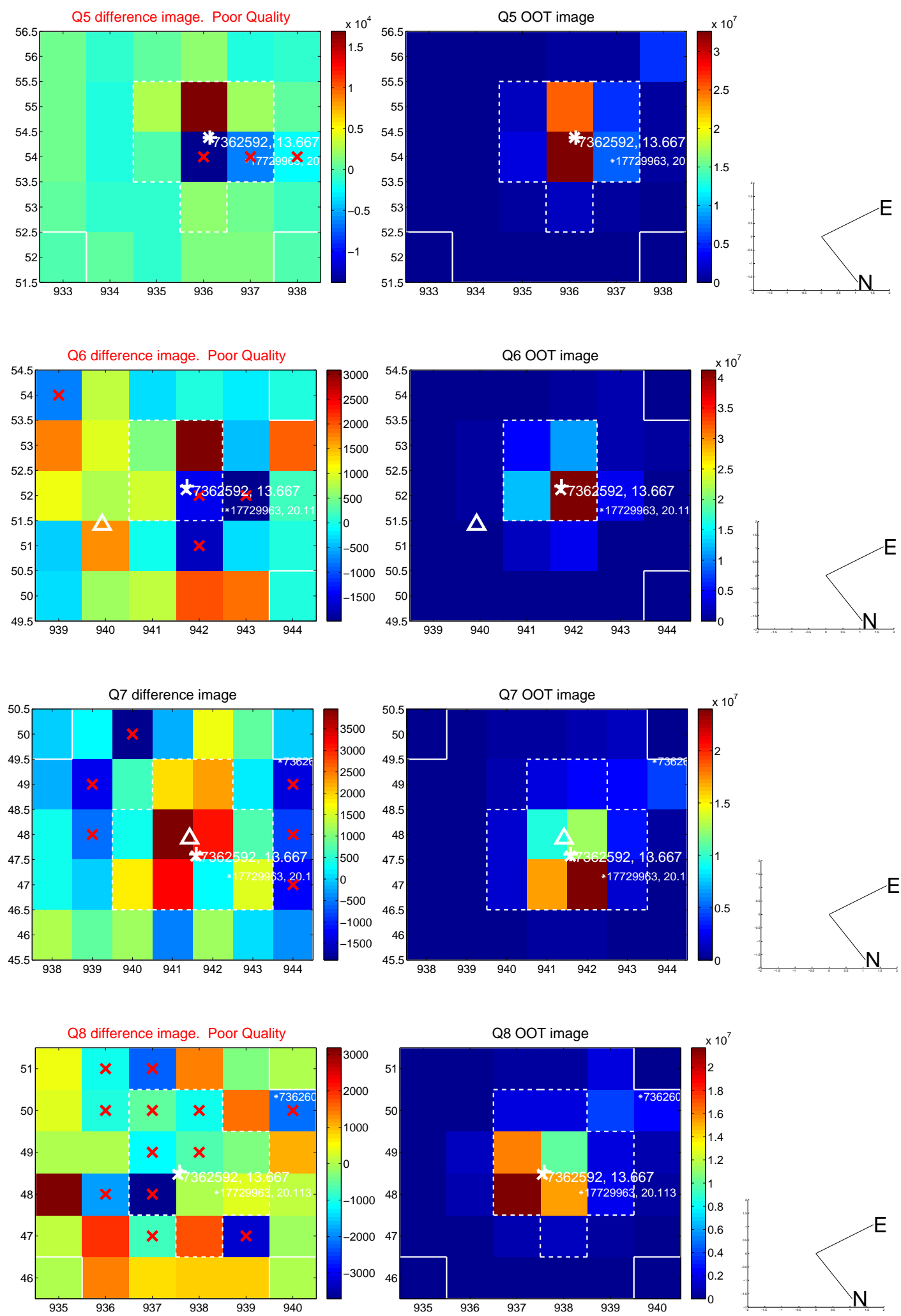


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

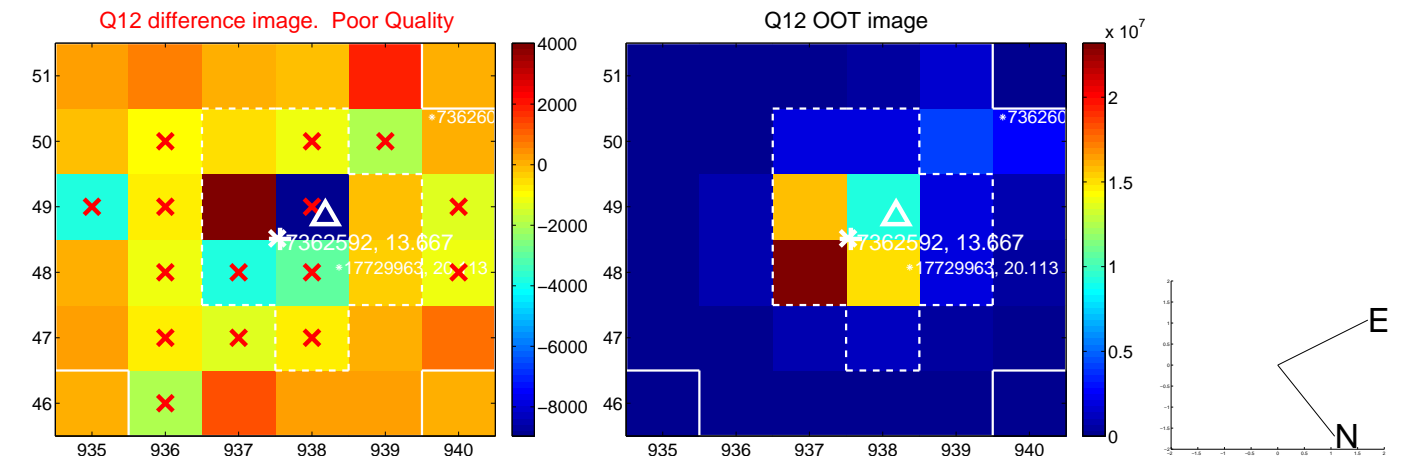
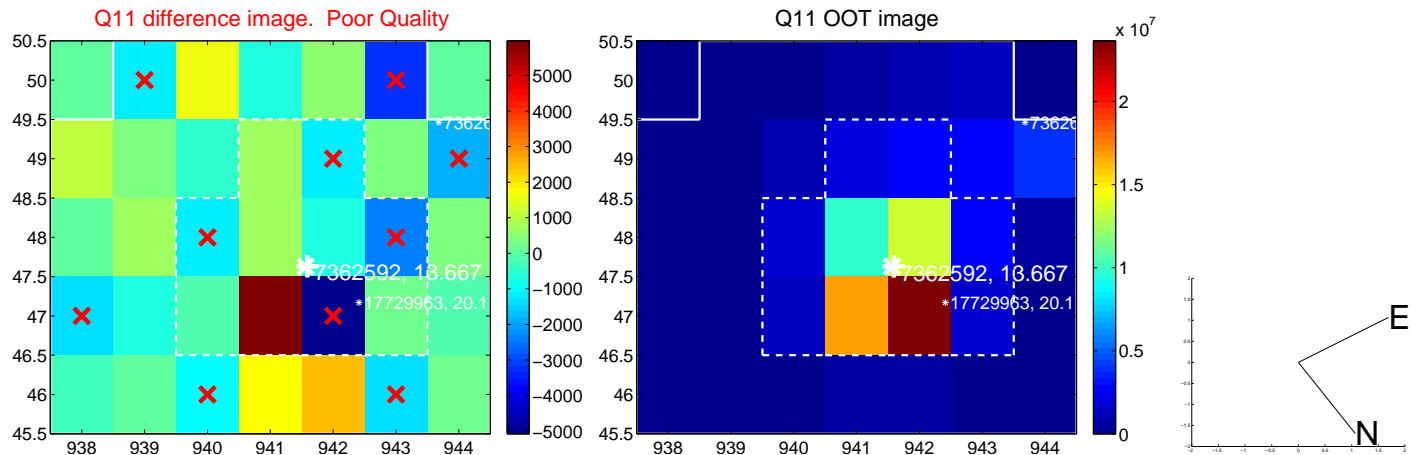
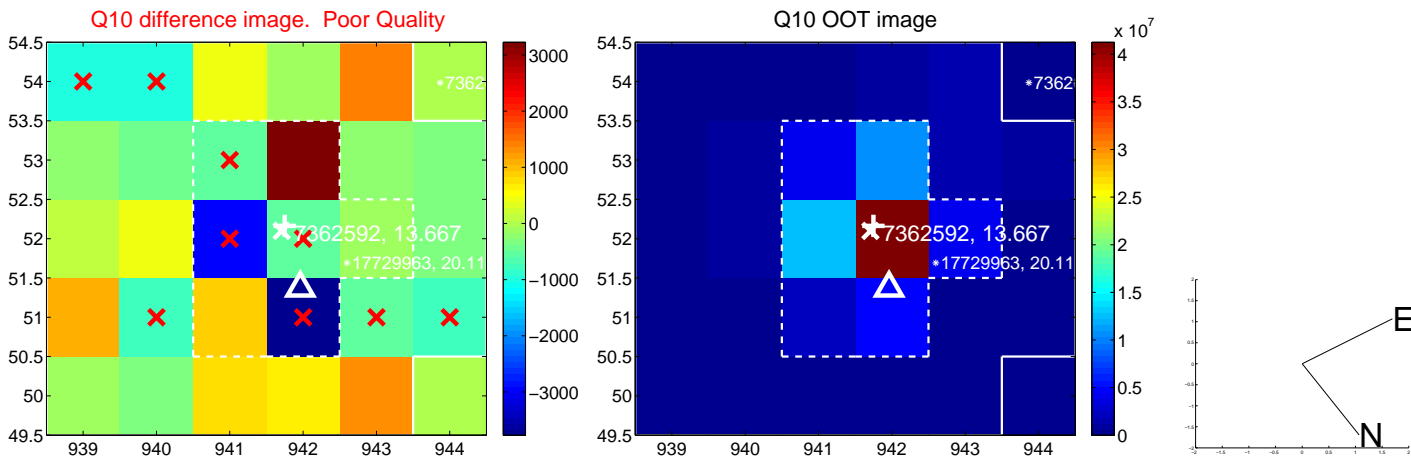
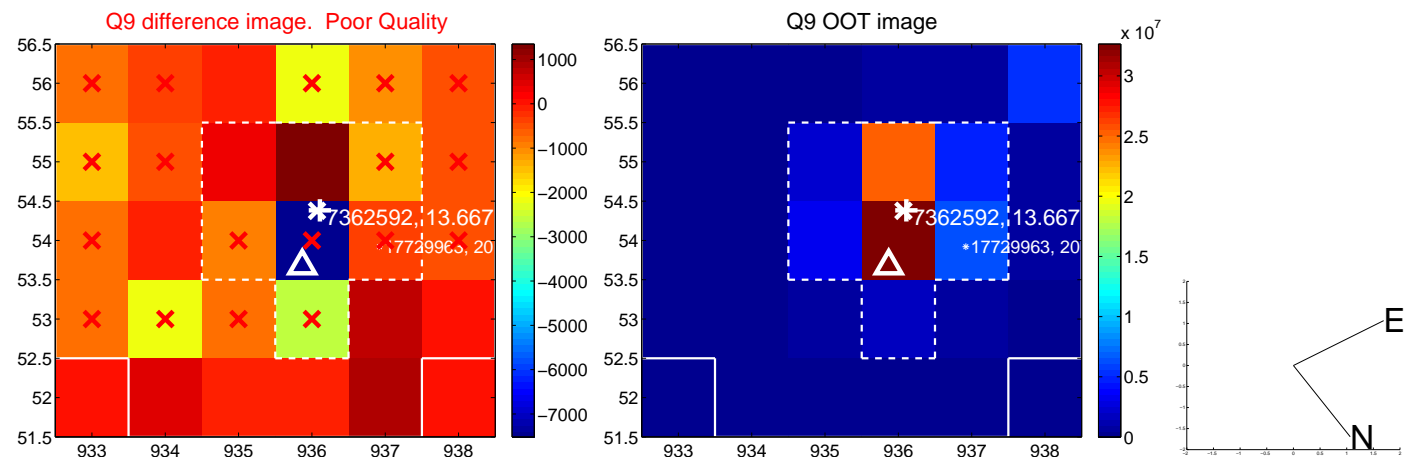
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



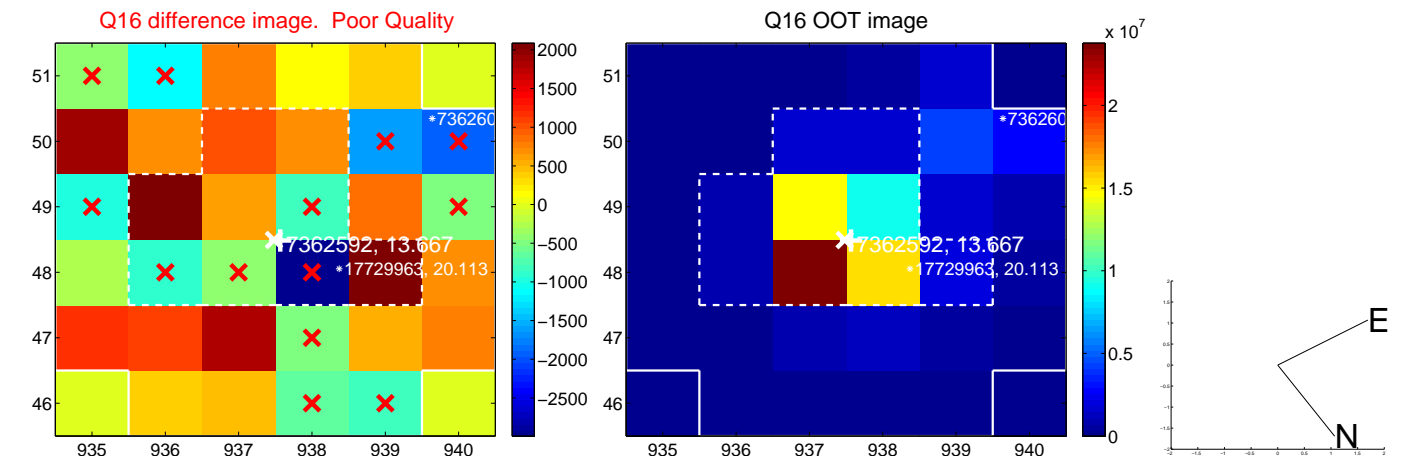
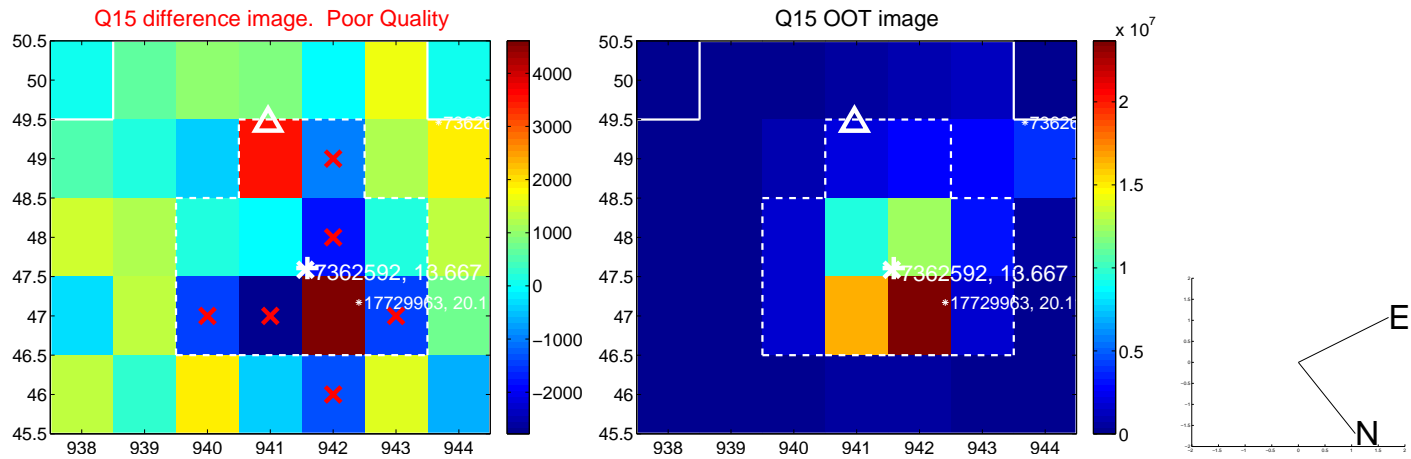
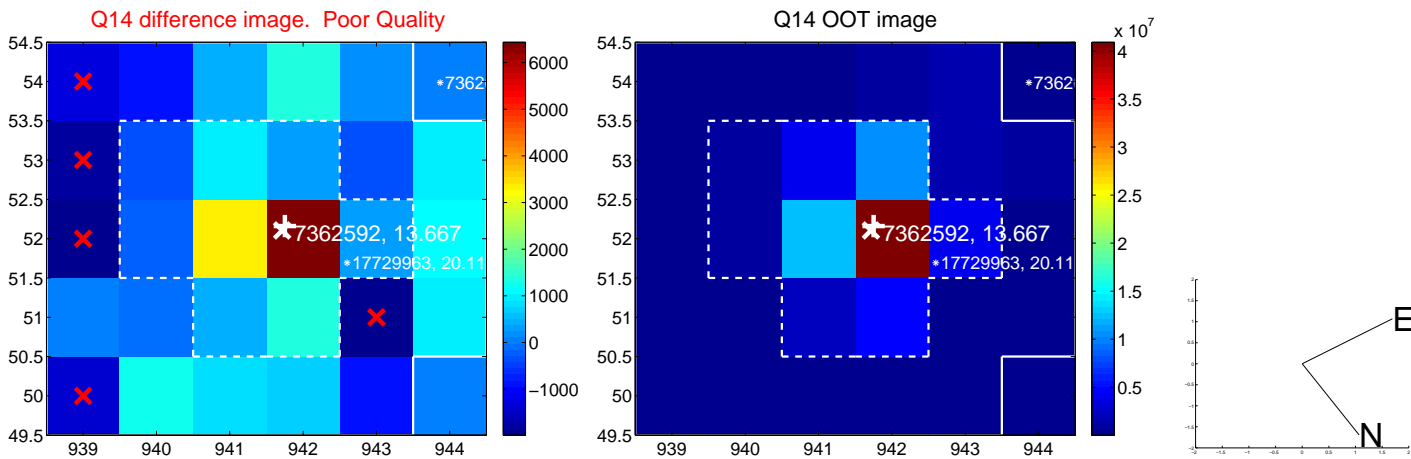
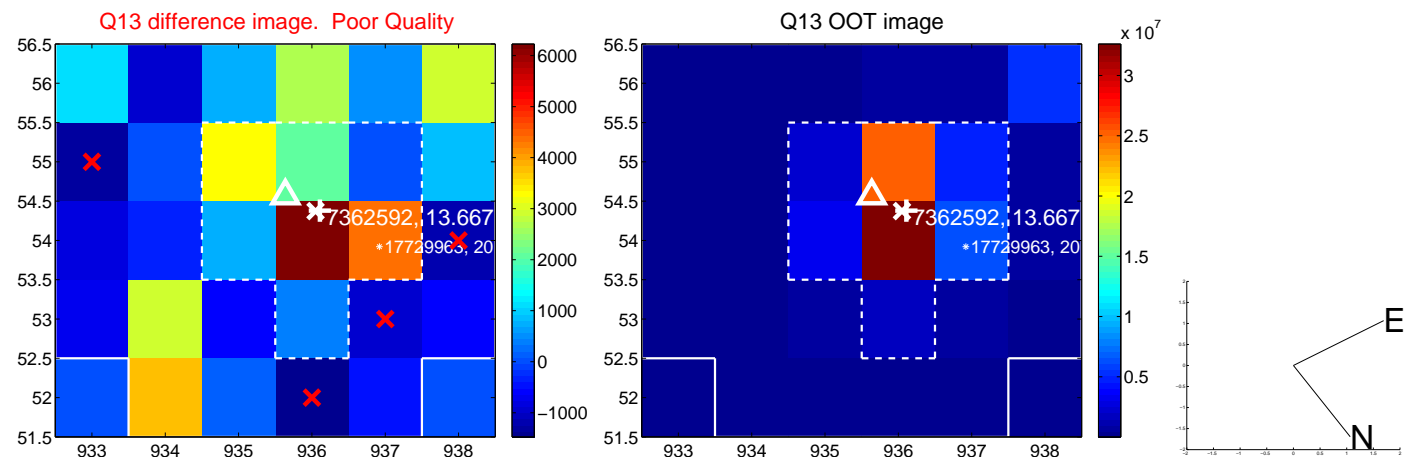
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



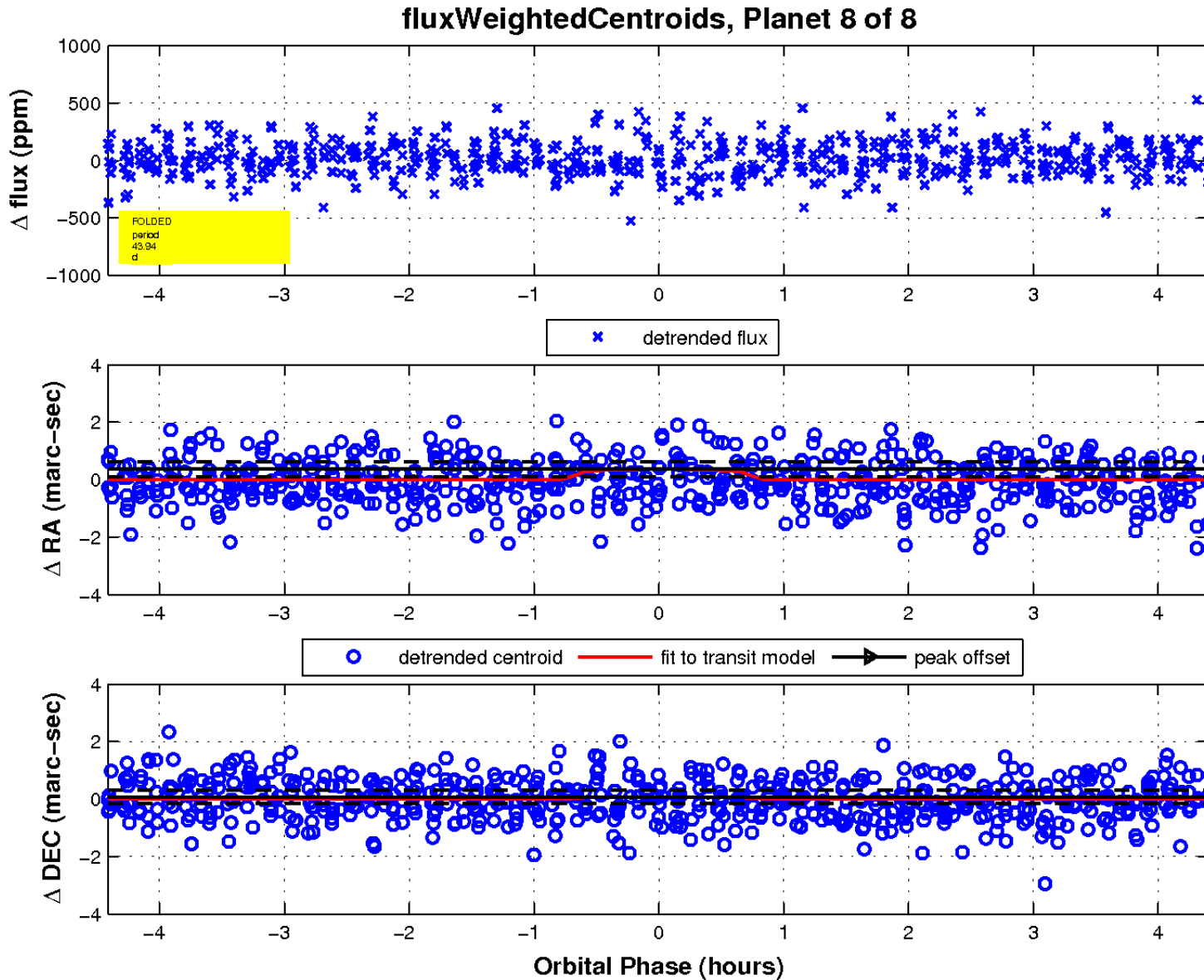
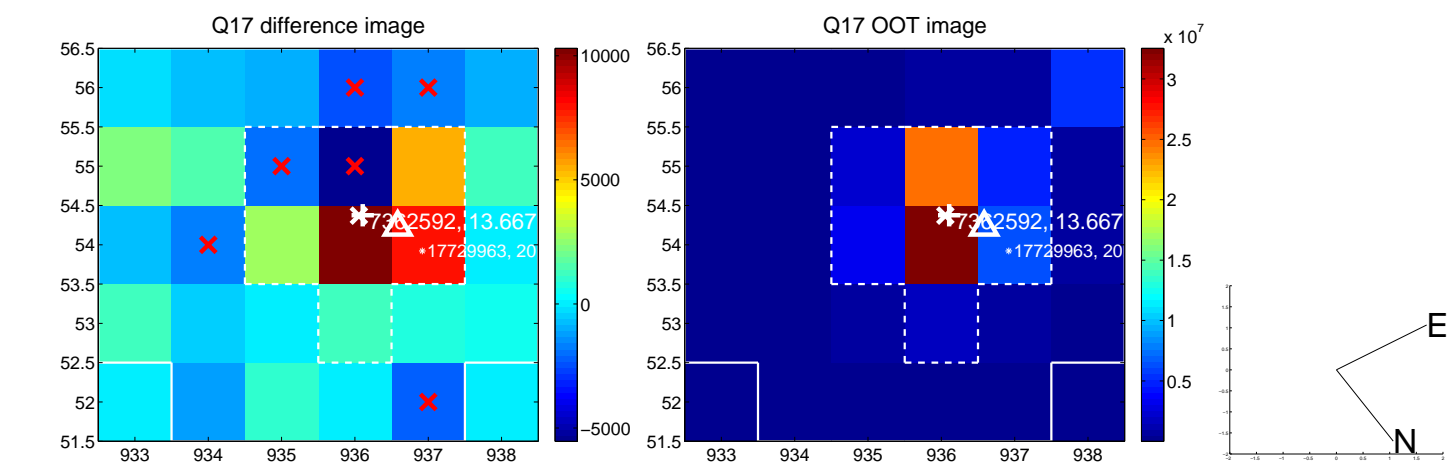
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

