

KIC 007957708

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})
007957708-01	OBS	No	0.646753	131.978645	3.8	4.527	11.7	1.1	0.90	5984	0.18	5358.29
007957708-03	OBS	No	32.464345	162.045037	532.5	2.304	11.9	10.4	0.90	5984	2.23	28.94
007957708-04	OBS	No	34.640738	161.806532	345.6	2.958	9.6	8.1	0.90	5984	1.69	26.54
007957708-05	OBS	No	51.388031	161.358819	440.2	4.139	9.5	8.8	0.90	5984	2.25	15.69
007957708-06	OBS	No	46.313611	173.246015	439.0	2.044	9.4	8.3	0.90	5984	2.03	18.02
007957708-07	OBS	No	14.680477	144.060247	54.5	6.867	9.0	2.9	0.90	5984	0.71	83.37
007957708-08	OBS	No	12.885472	140.729696	221.6	2.324	9.8	7.9	0.90	5984	1.35	99.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007957708-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

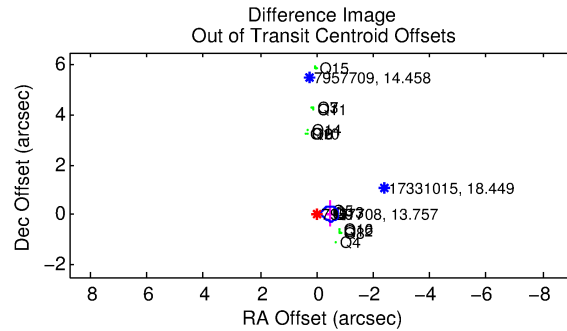
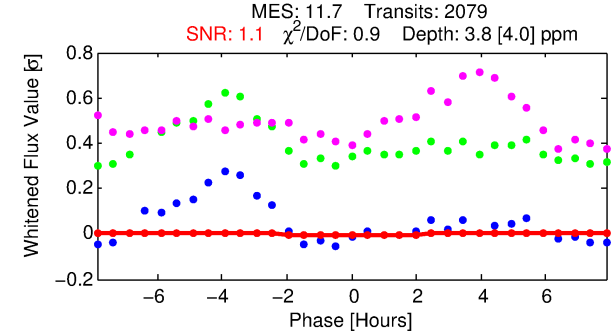
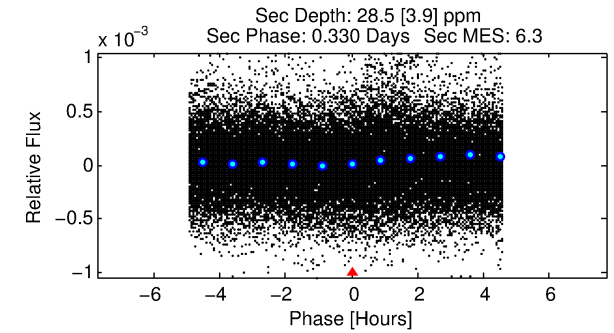
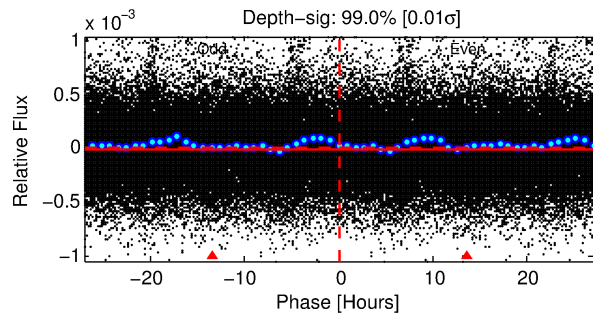
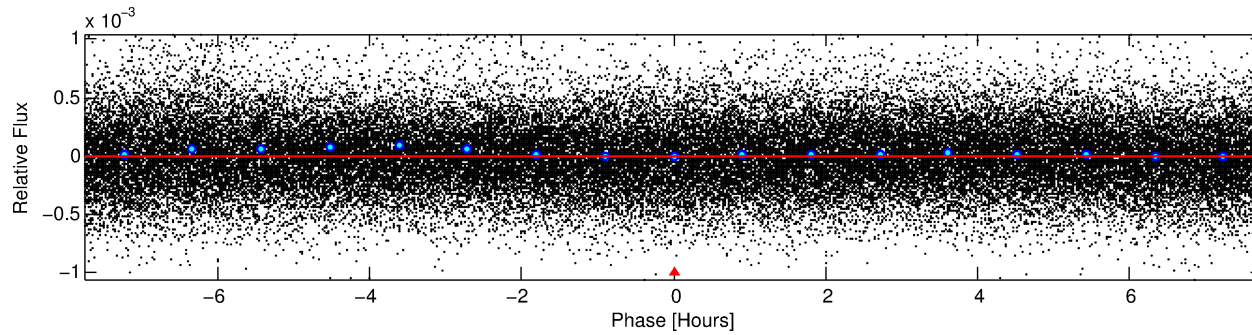
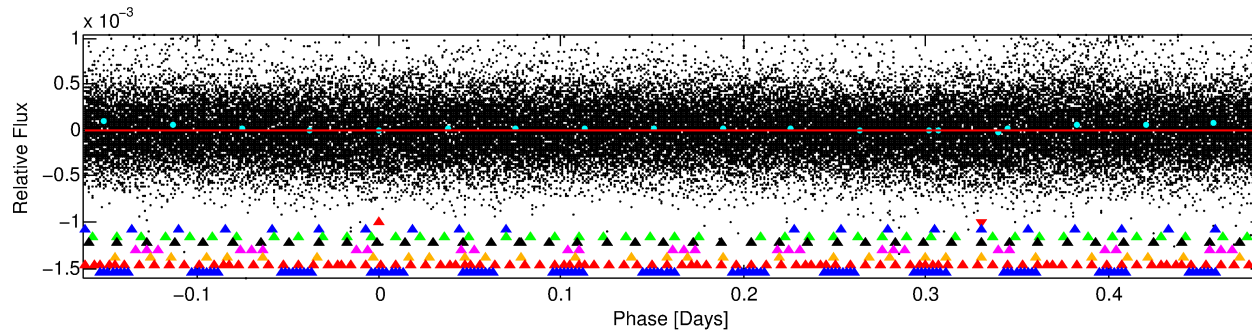
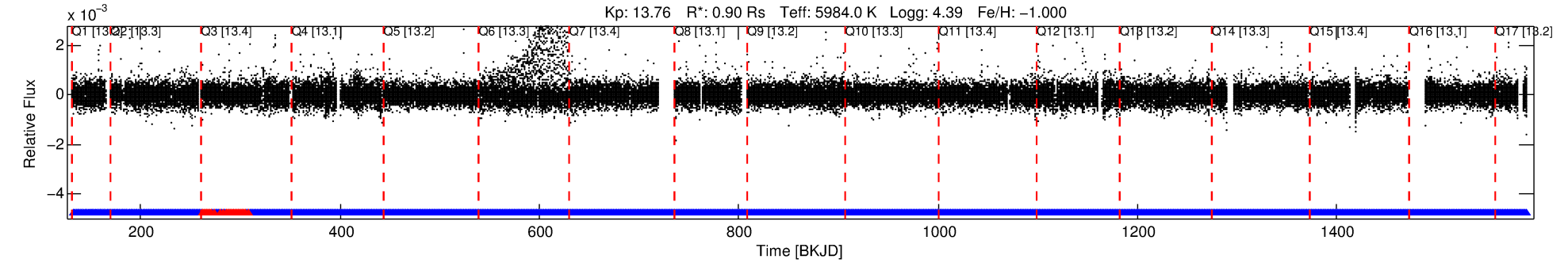
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-01

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 1 of 8 Period: 0.647 d



DV Fit Results:

Period = 0.64675 [0.00009] d
Epoch = 131.9786 [0.0282] BKJD
Rp/R* = 0.0018 [0.0041]
a/R* = 1.20 [4.29]
b = 0.51 [17.10]
Seff = 5358.29 [1816.57]
Teq = 2182 [185] K
Rp = 0.18 [0.40] Re
a = 0.0132 [0.0027] AU
Ag = 83.81 [373.84] [0.22 σ]
Teffp = 10206 [11354] K [0.71 σ]

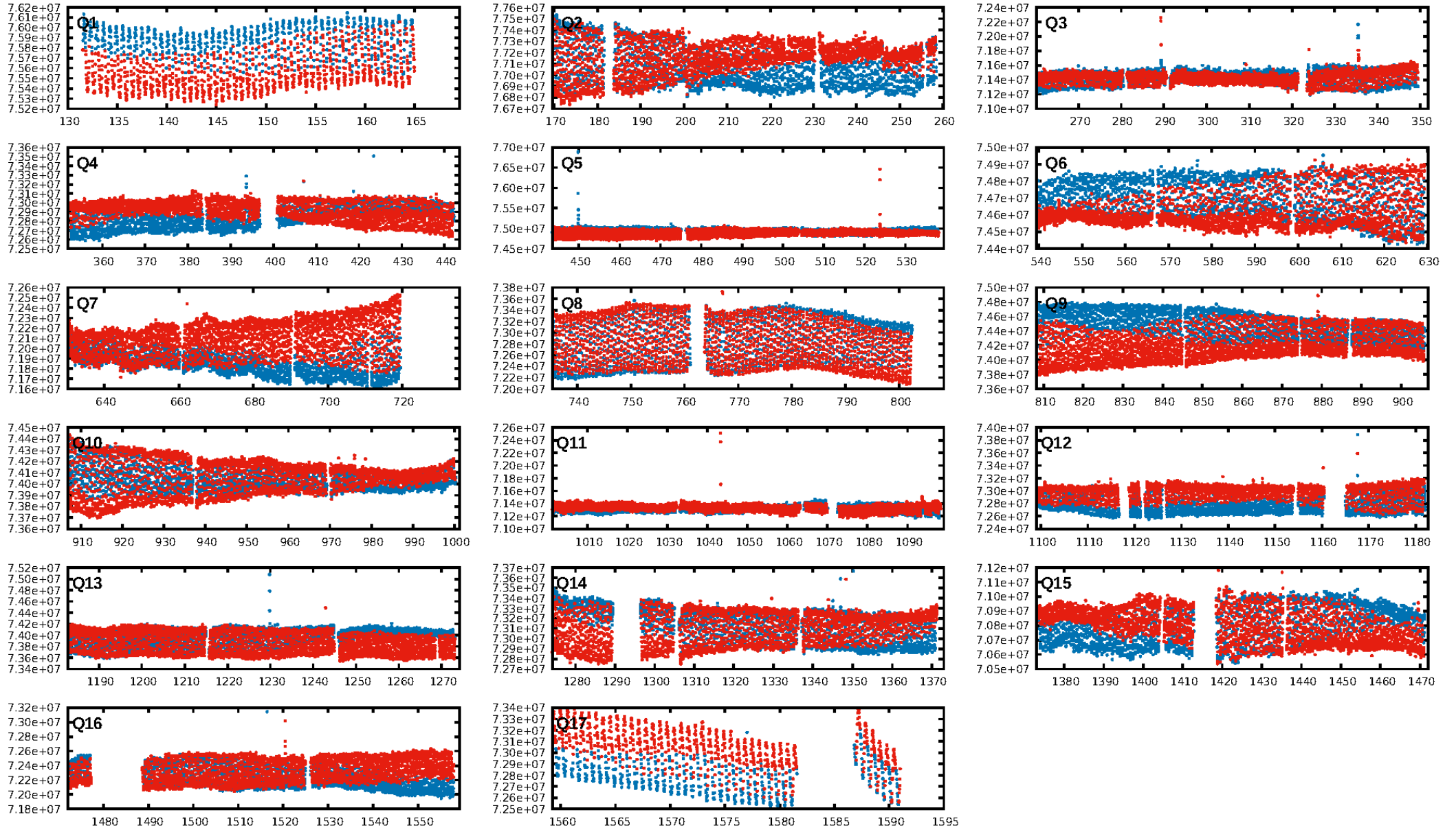
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [57.73 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.83e-14
RollingBand-fgt: 0.98 [1939/1985]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.465 arcsec [4.86 σ]
KicOffset-rm: 5.369 arcsec [44.89 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

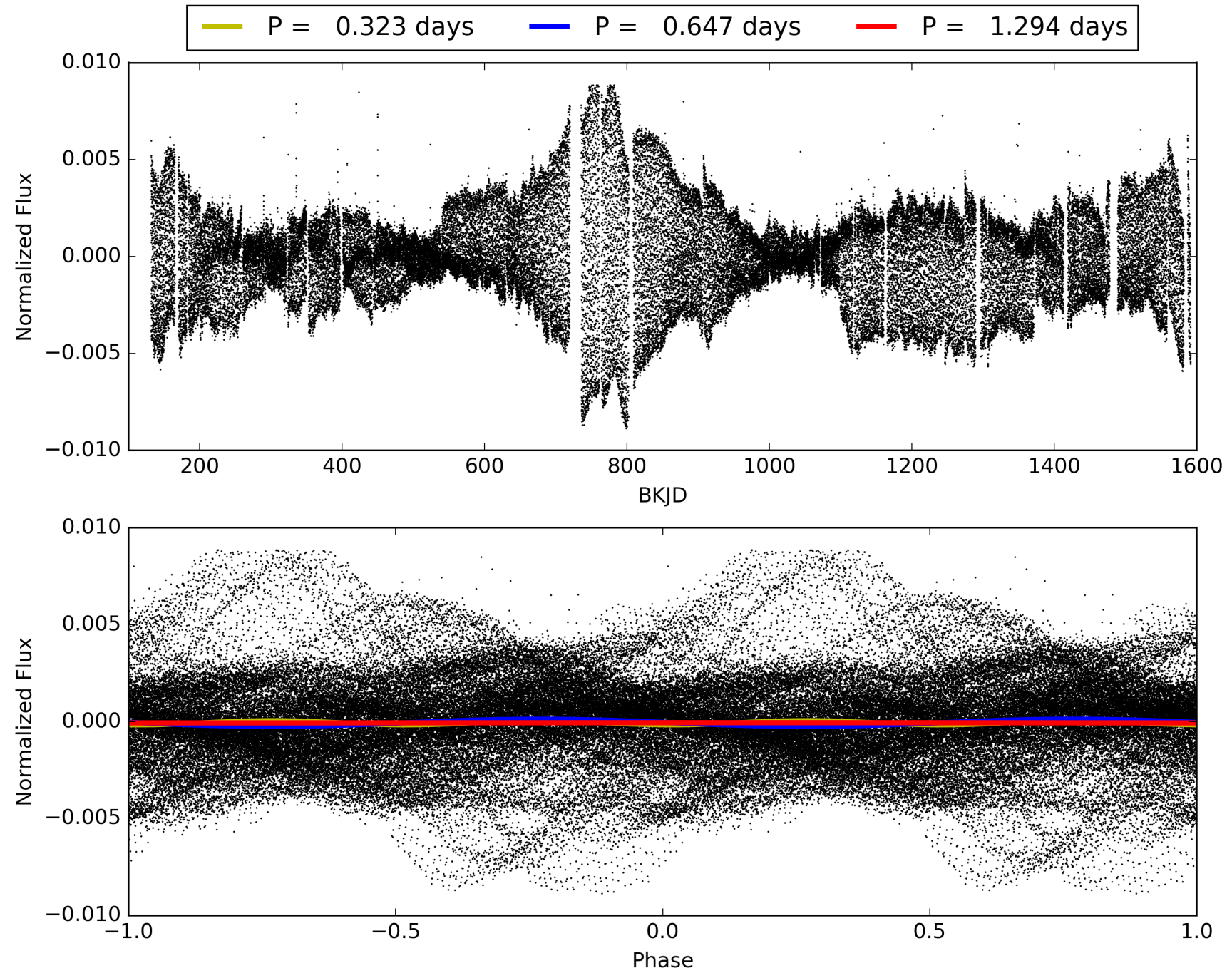
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:06 Z

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

TCE 007957708-01, PDC Light Curves

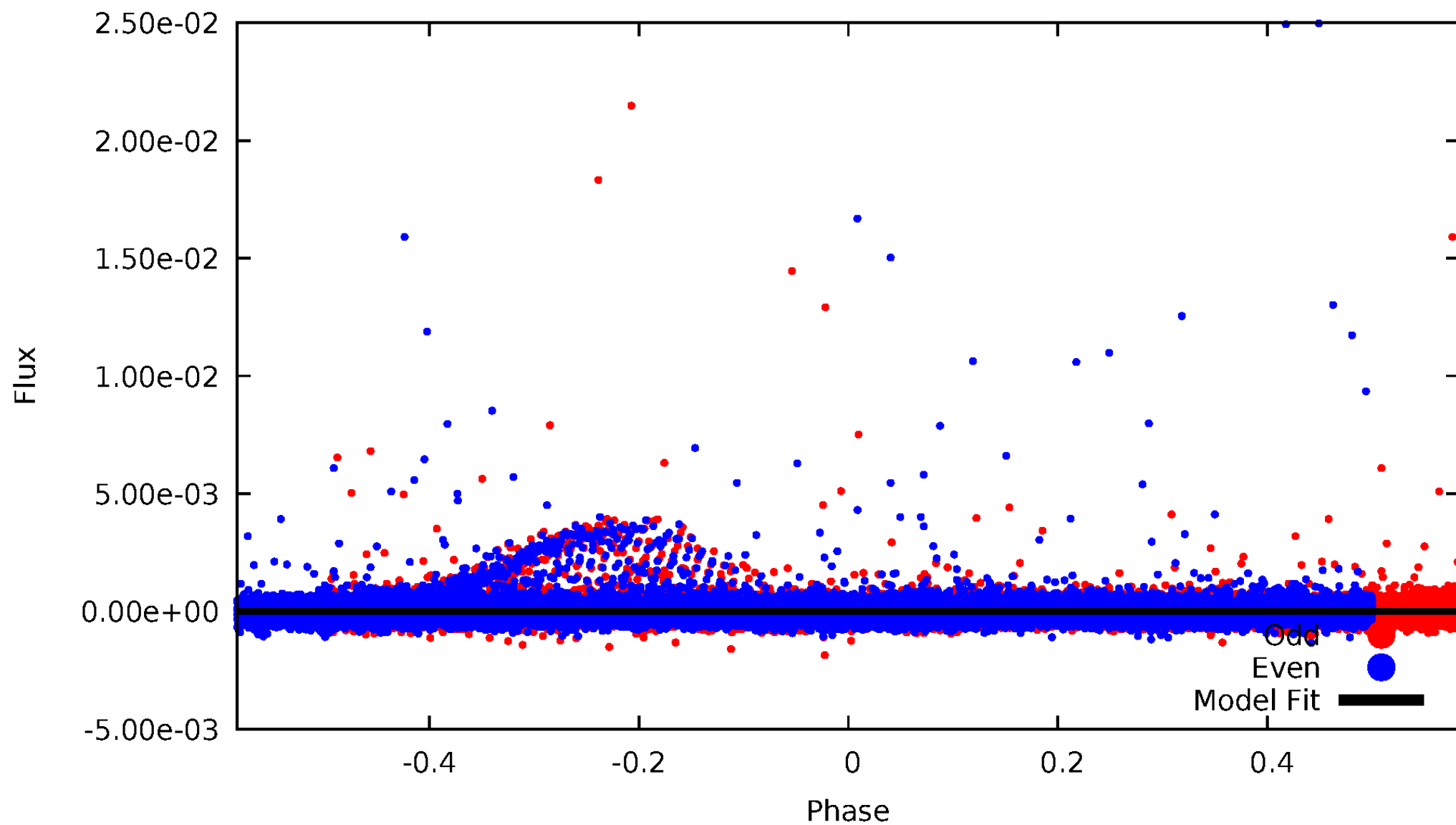


TCE 007957708-01



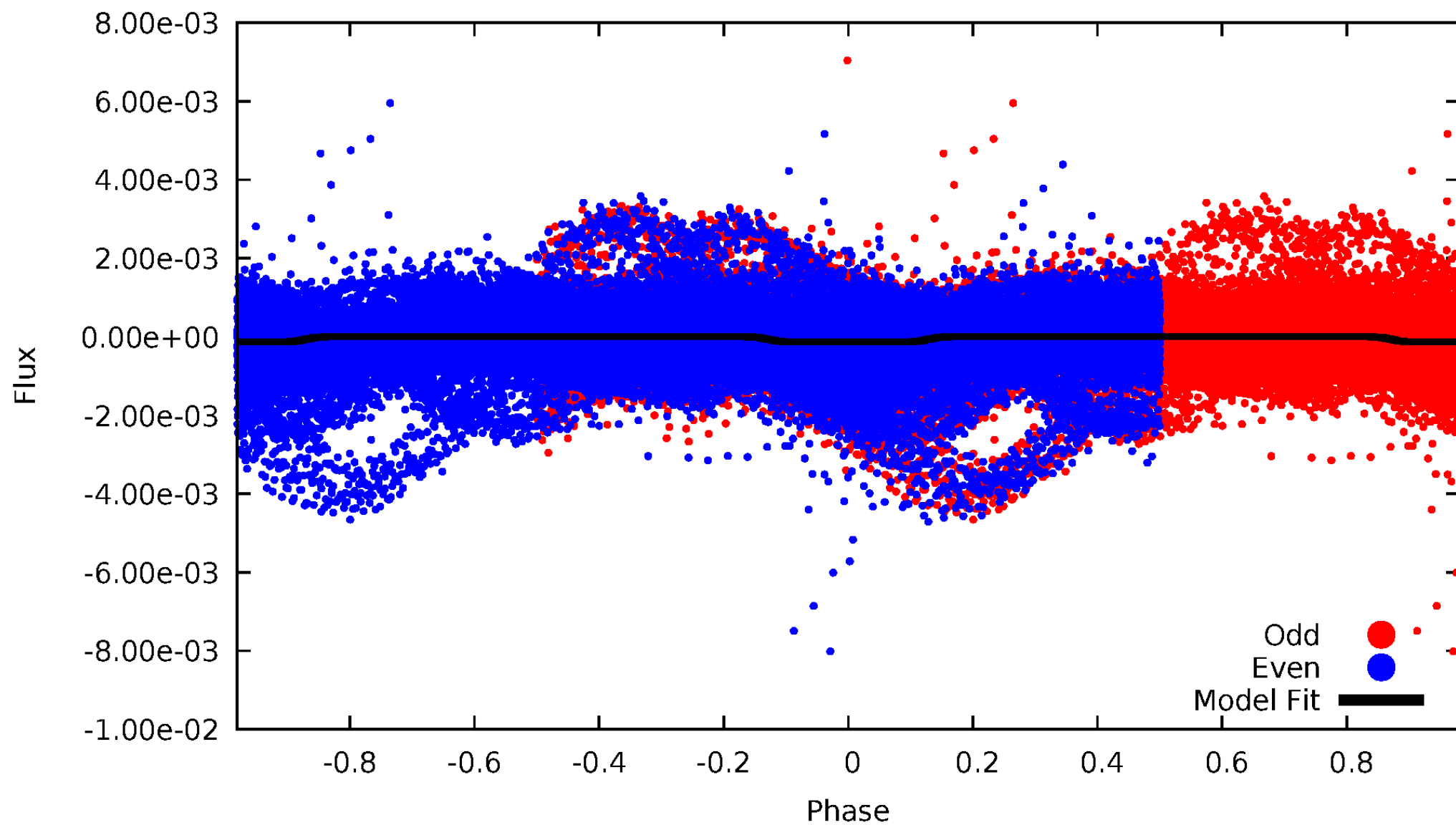
DV Odd/Even

TCE 007957708-01



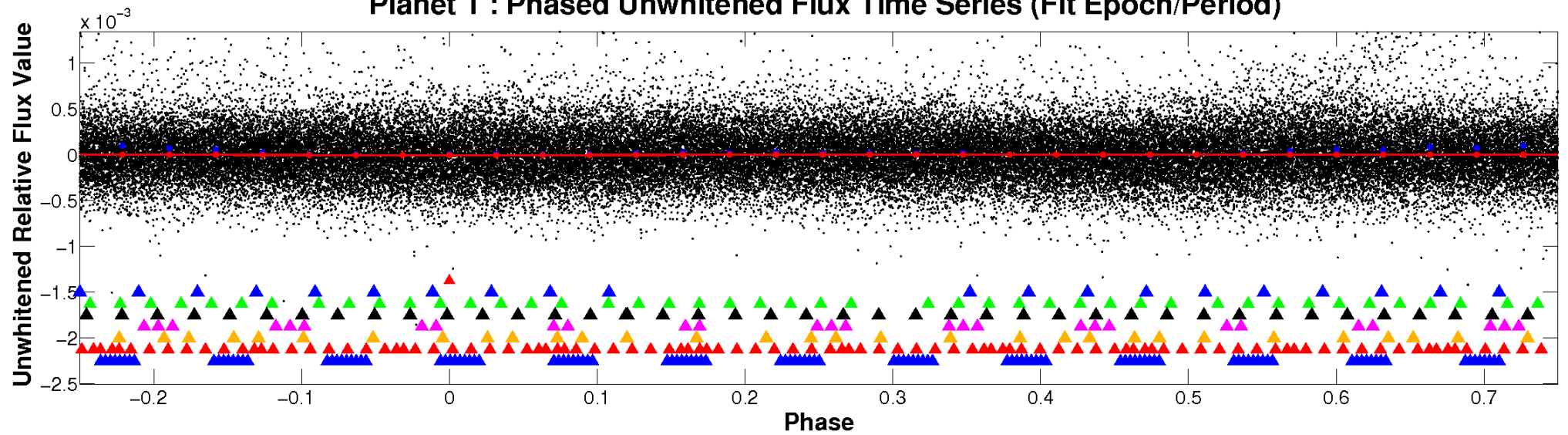
ALT Odd/Even

TCE 007957708-01

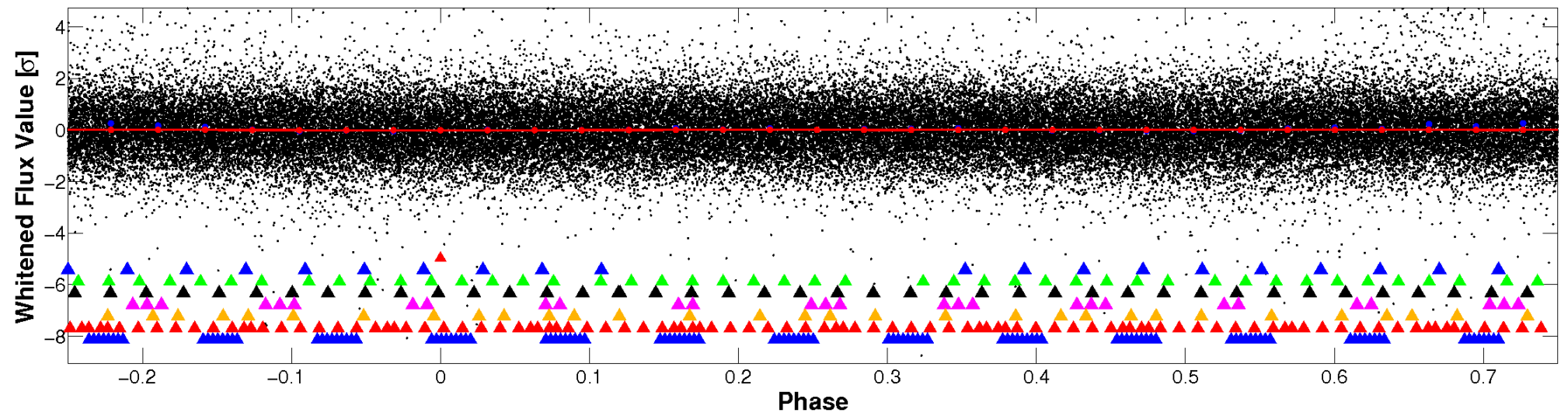


Non-Whitened Vs. Whitened Light Curve

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

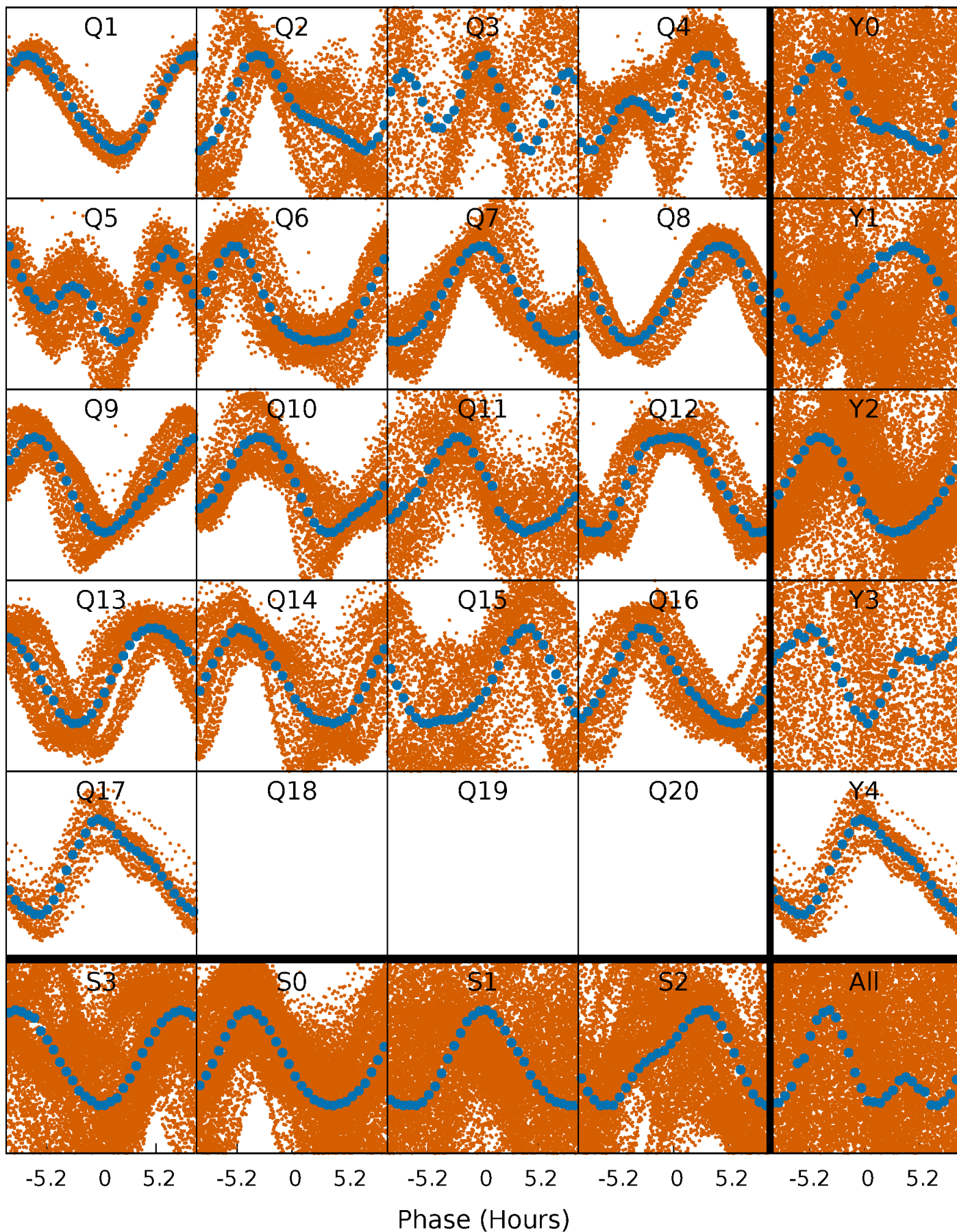


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



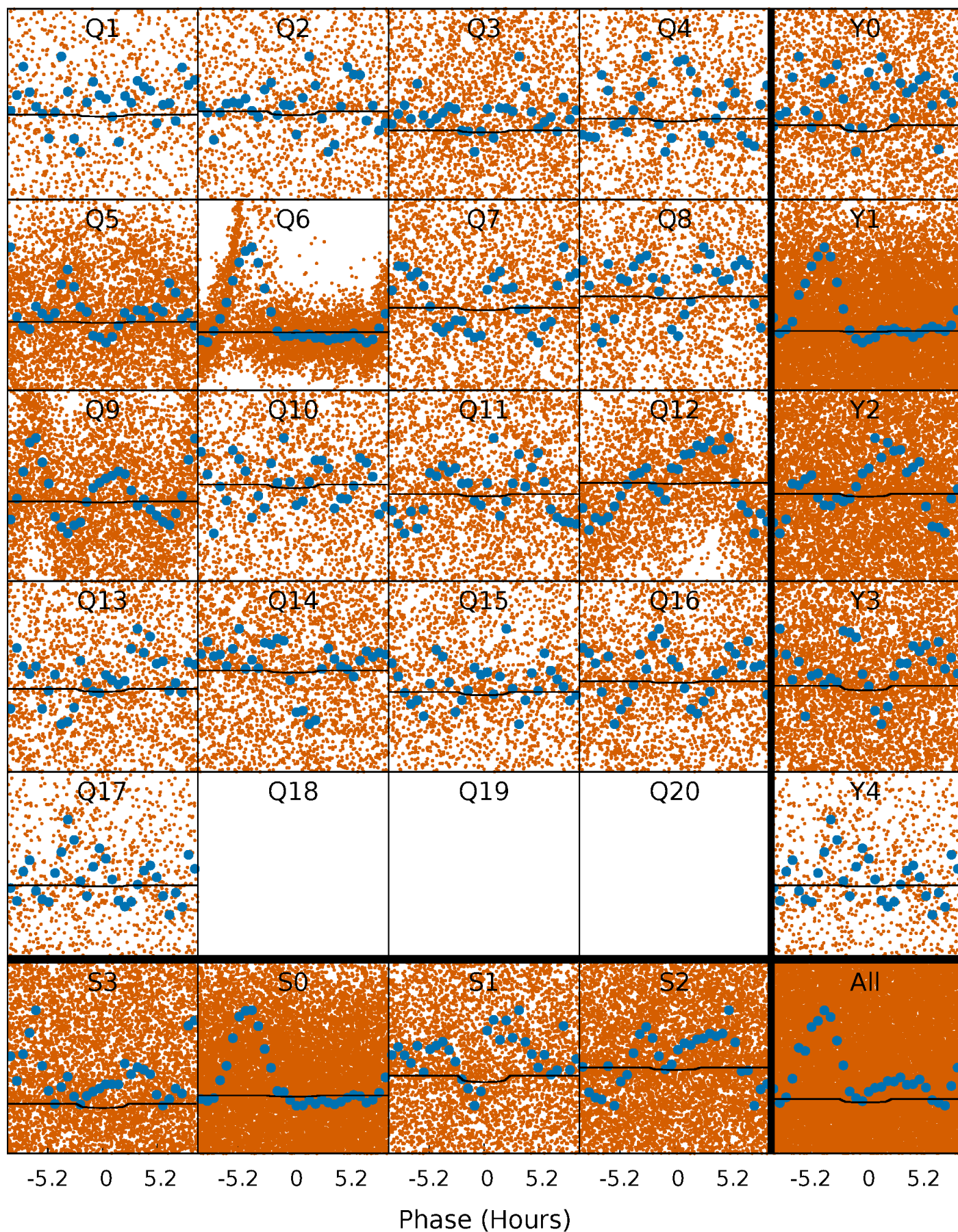
PDC Quarter-Phased Transit Curves

TCE 007957708-01 P= 0.646753 Days $T_0=131.978645$ (BKJD)



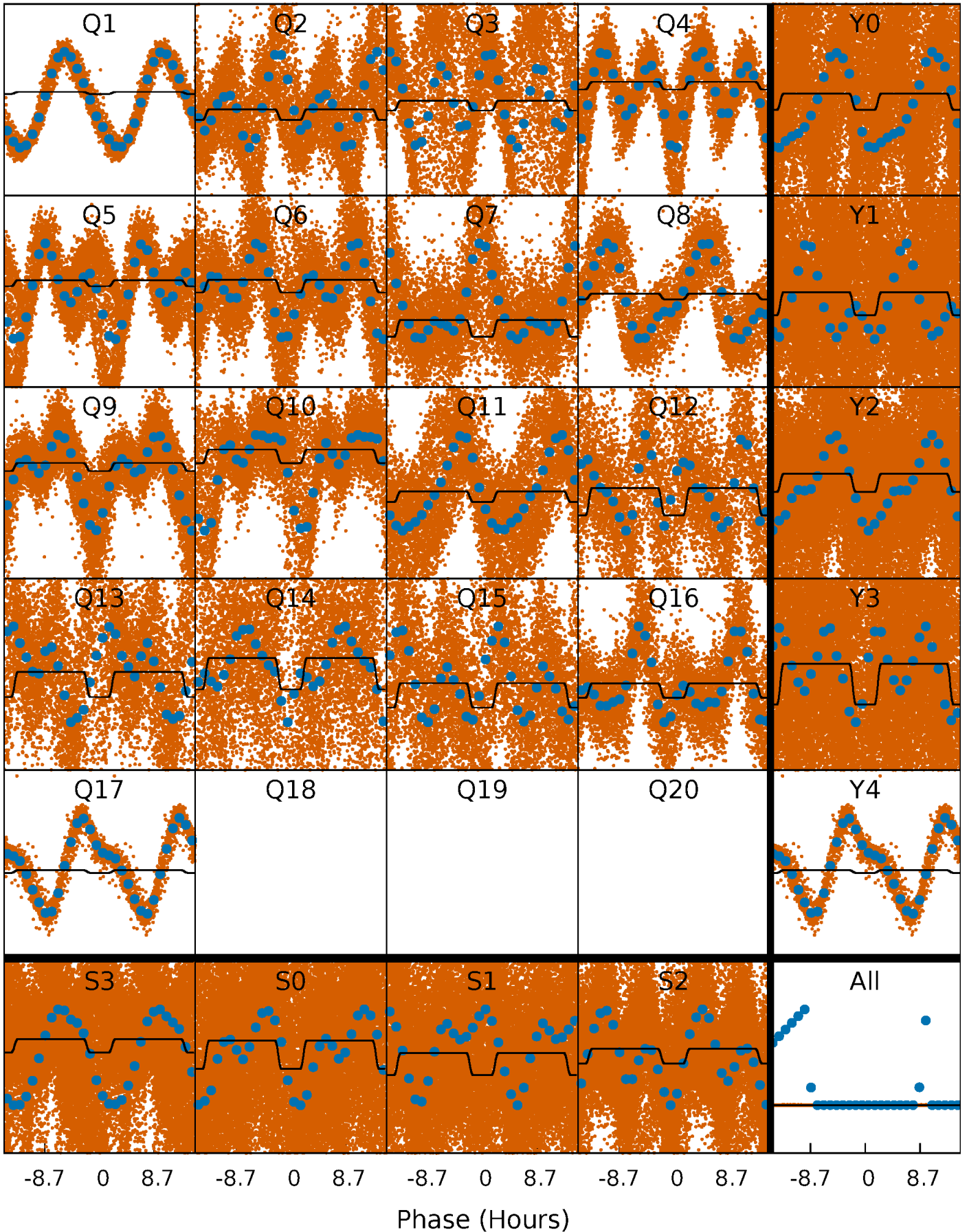
DV Quarter-Phased Transit Curves

TCE 007957708-01 P= 0.646753 Days $T_0=131.978645$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

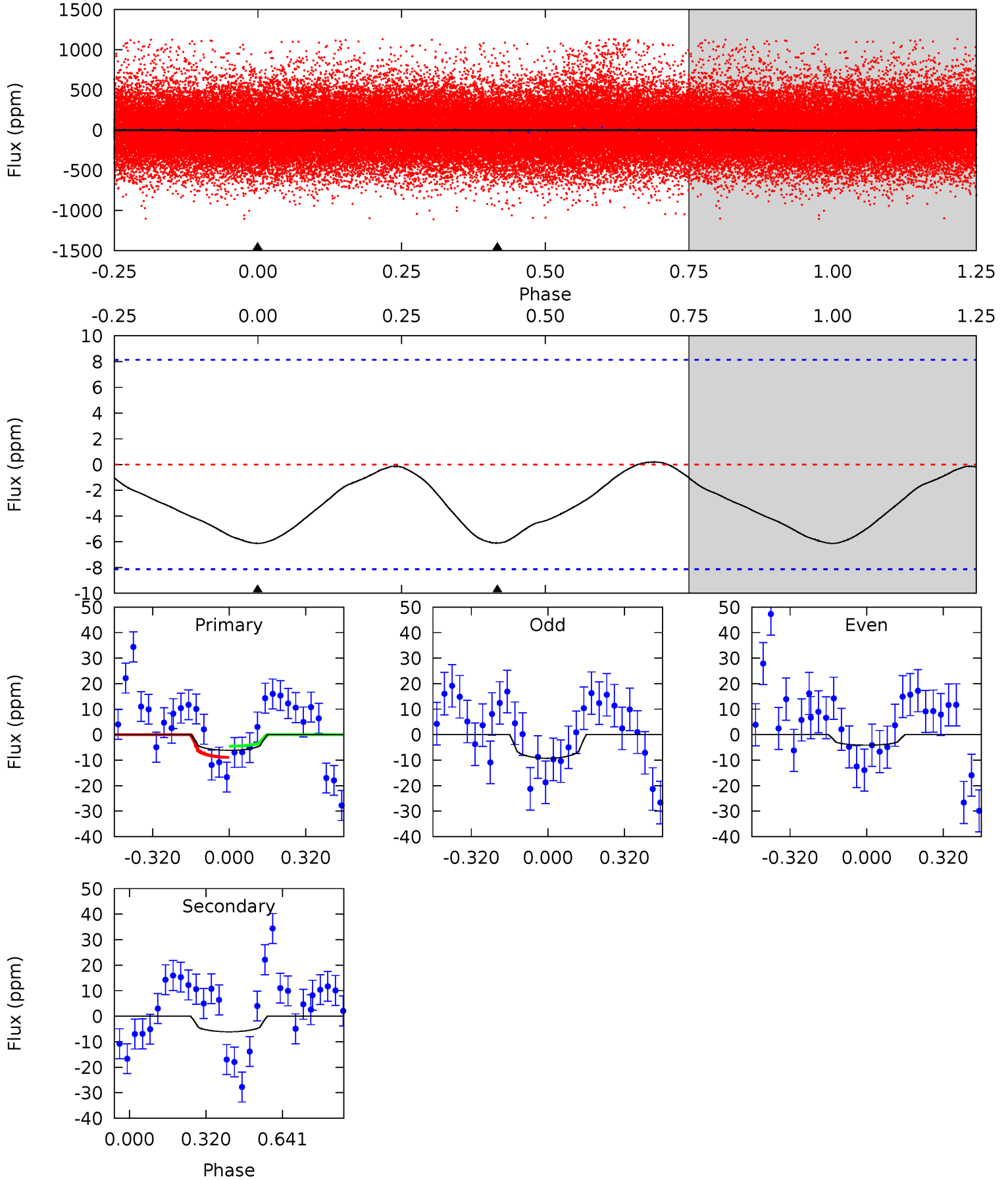
TCE 007957708-01 P= 0.646828 Days $T_0=131.912419$ (BKJD)



DV Model-Shift Uniqueness Test

007957708-01, P = 0.646753 Days, E = 131.331892 Days

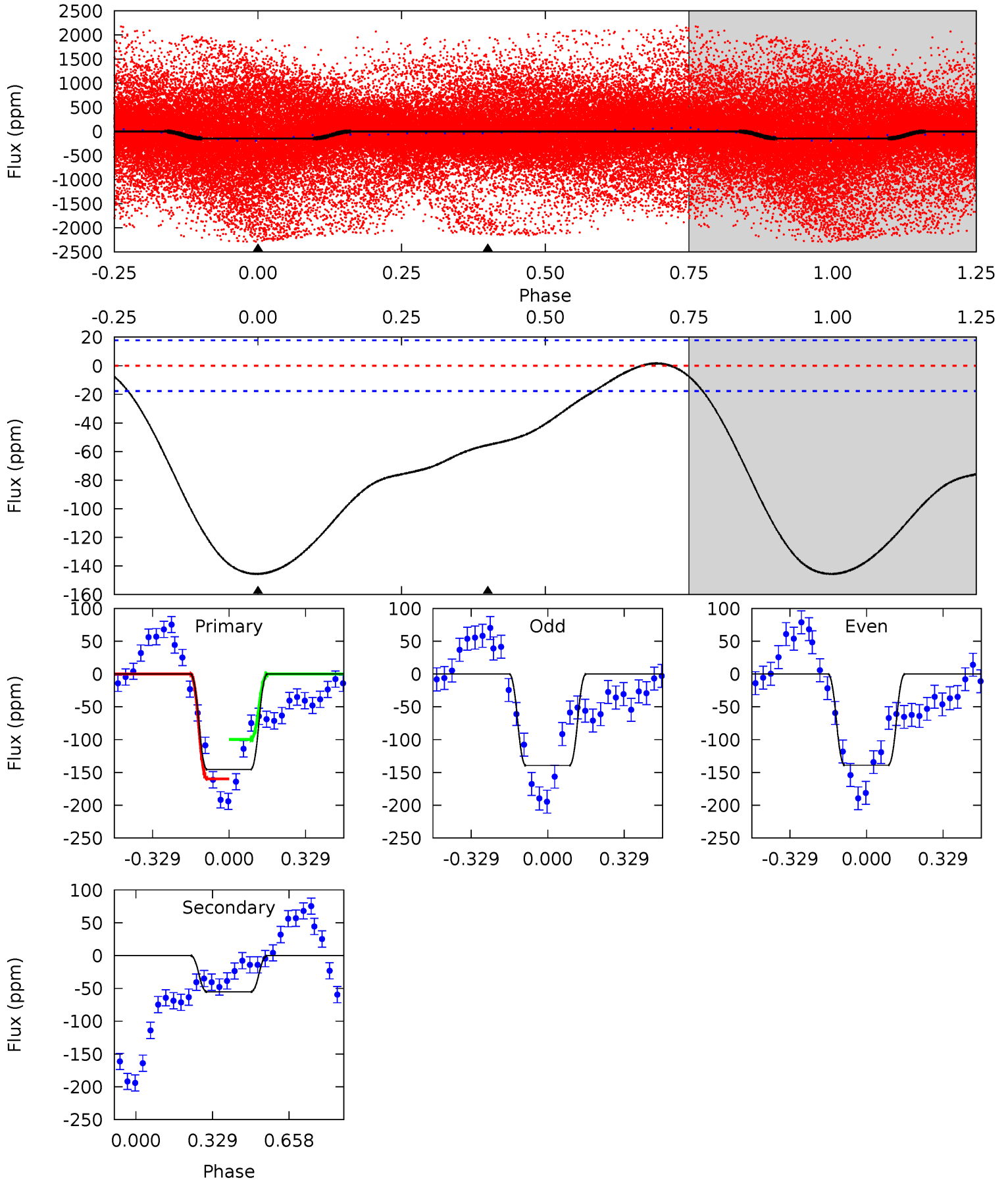
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.26	3.24	0	0	4.31	0.99	0.25	3.26	3.26	3.24	3.24	1.37	9.25	0.03	1.14



Alt Model-Shift Uniqueness Test

007957708-01, P = 0.646828 Days, E = 131.265591 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.4	13.5	0	0	4.31	0.98	0.57	35.4	35.4	13.5	13.5	0.06	1.28	0.01	6.47



Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6 ± 2	$0.34^{+0.36}_{-0.24}$	3054^{+213}_{-190}	5038^{+5509}_{-1401}	$4.869^{+55.008}_{-3.773}$
Alt.	-55 ± 4	$1.13^{+0.44}_{-0.41}$	3044^{+228}_{-190}	4862^{+1095}_{-619}	$4.264^{+6.086}_{-2.118}$

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

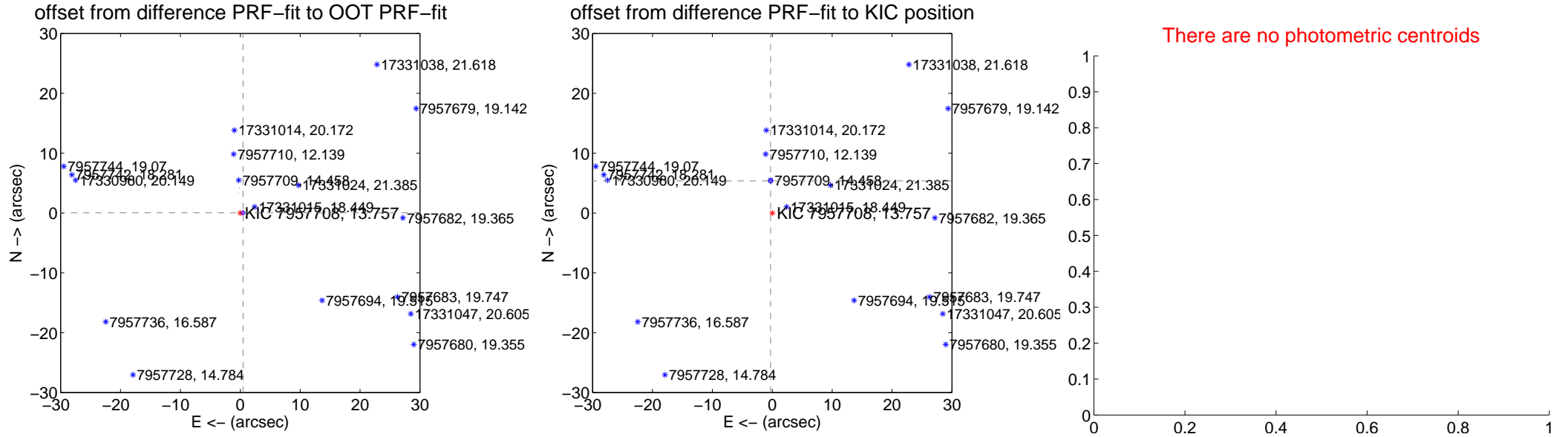
DV Centroid Data

Supplemental centroid analysis for 007957708-01. Kepler magnitude: 13.76. Transit SNR 1.13

There are 8 quarters with good PRF difference image offsets

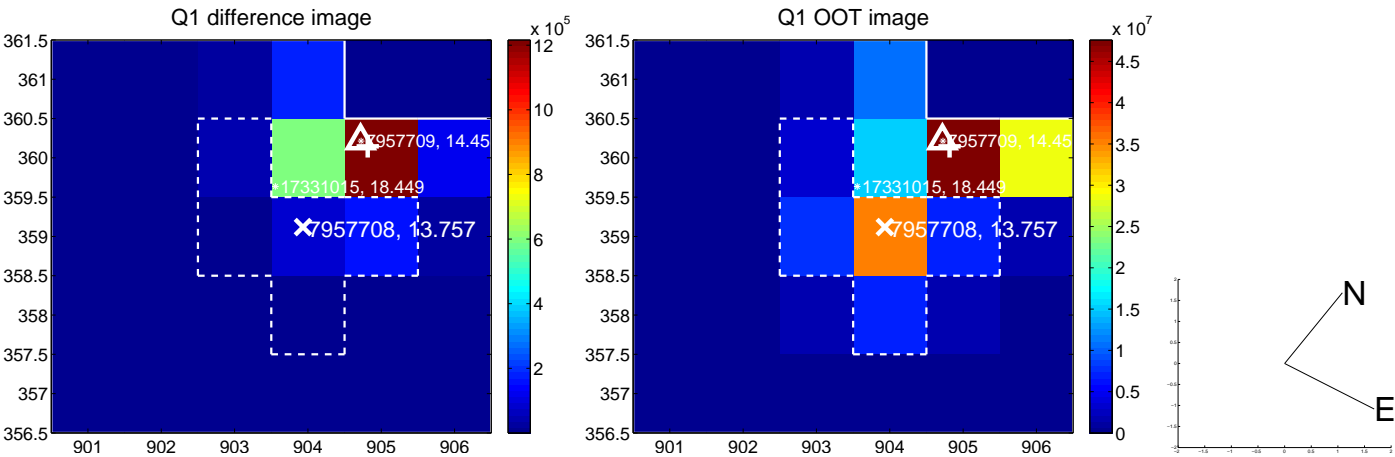
The OOT PRF centroid is offset from the target star catalog position by about 5.42 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.465 ± 0.096	4.86	-0.464 ± 0.116	0.032 ± 0.482
PRF-fit source offset from KIC position	5.369 ± 0.120	44.89	0.273 ± 0.069	5.362 ± 0.120
photometric centroid source offset	—	—	—	—

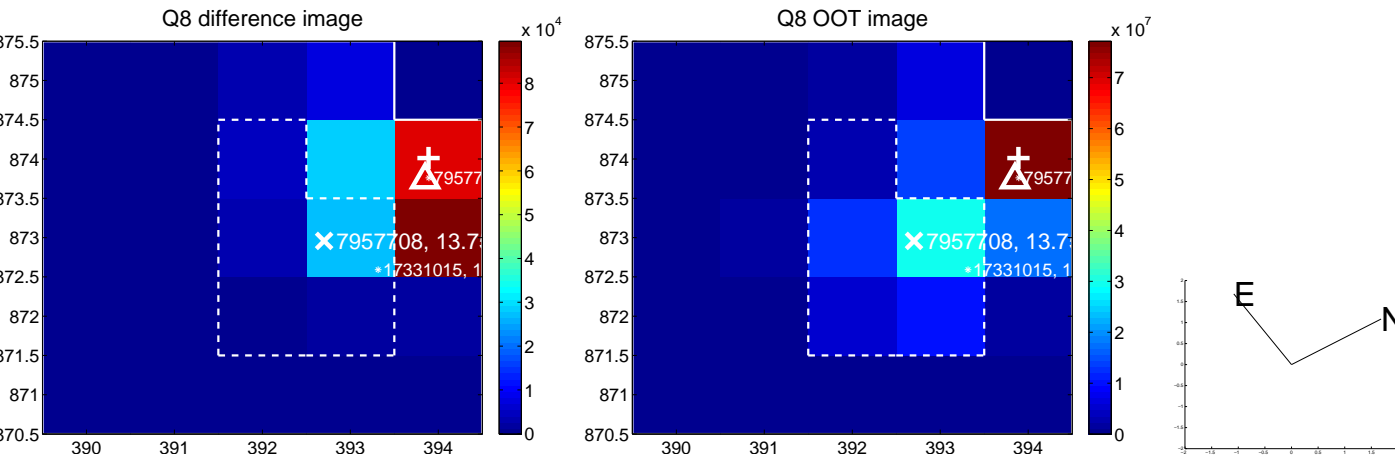
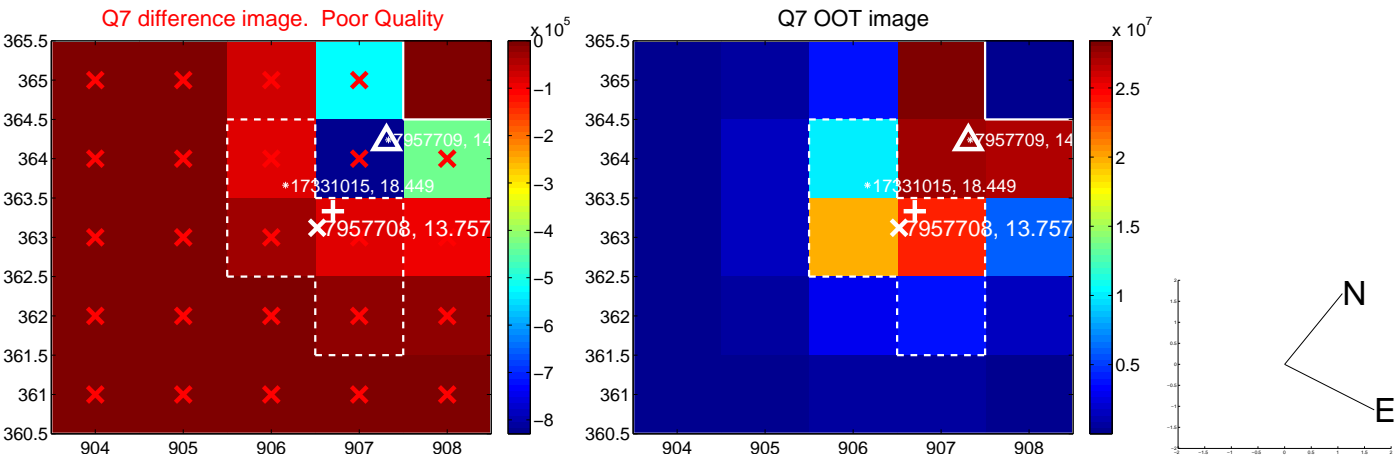
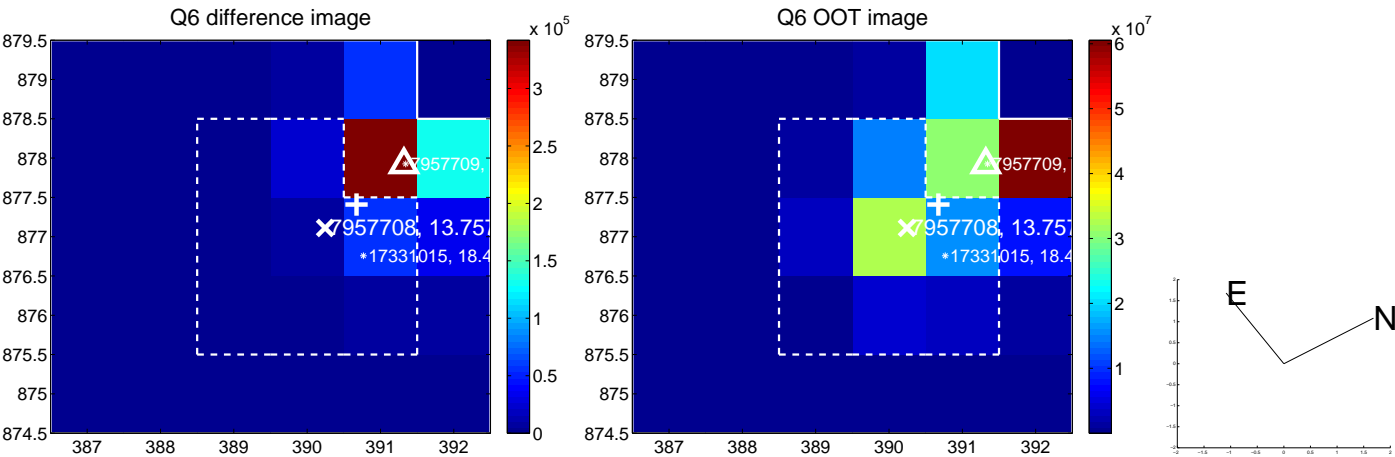
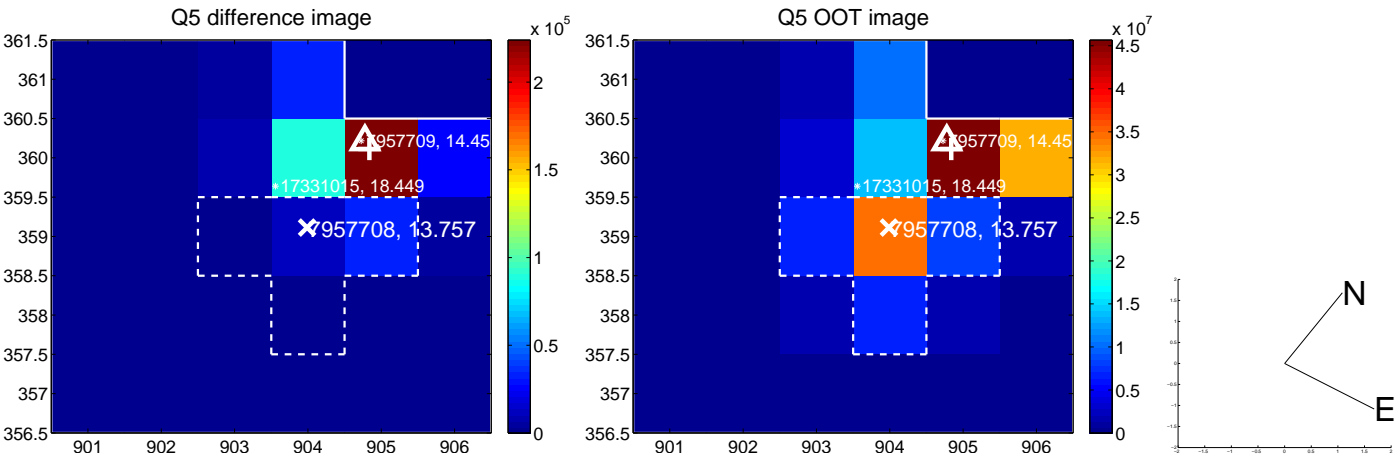


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

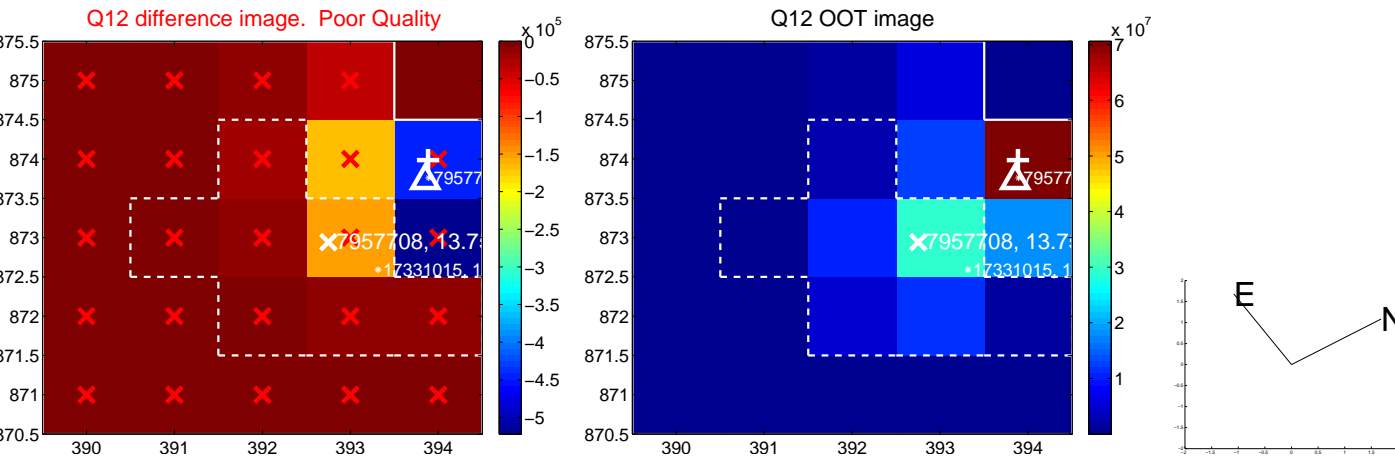
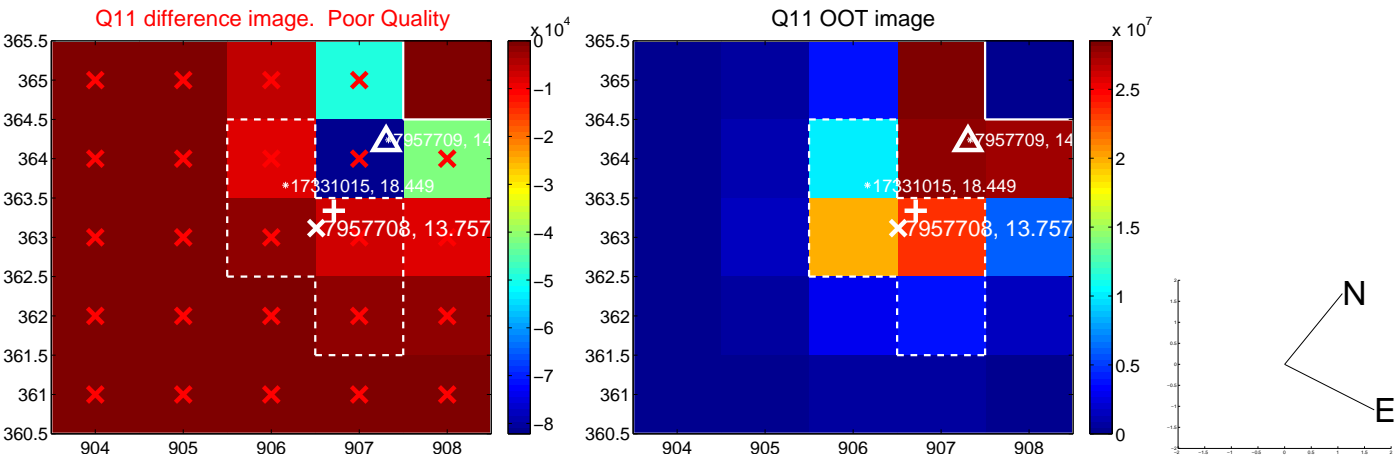
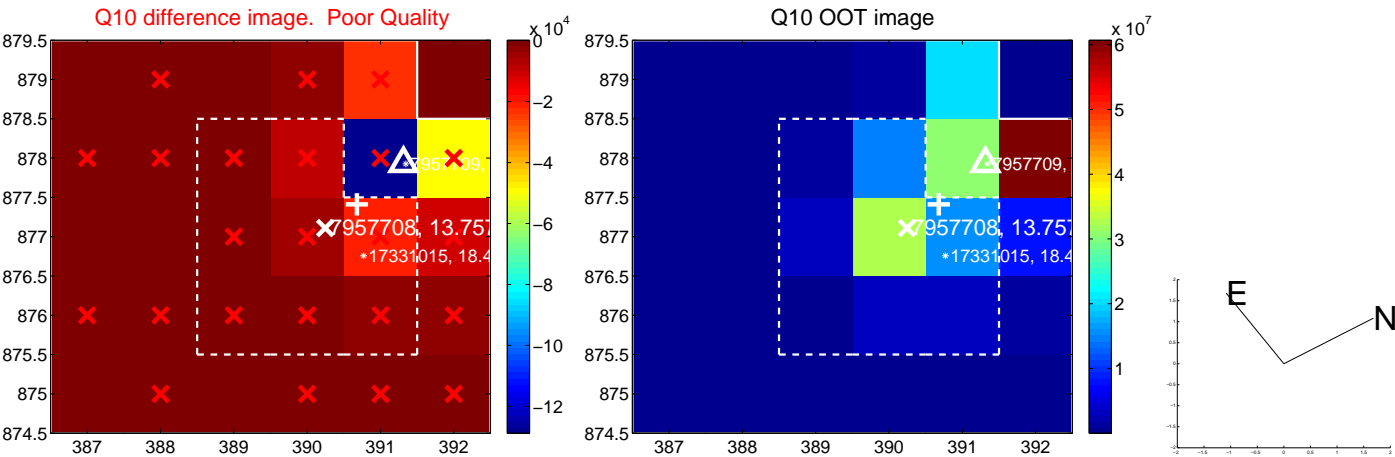
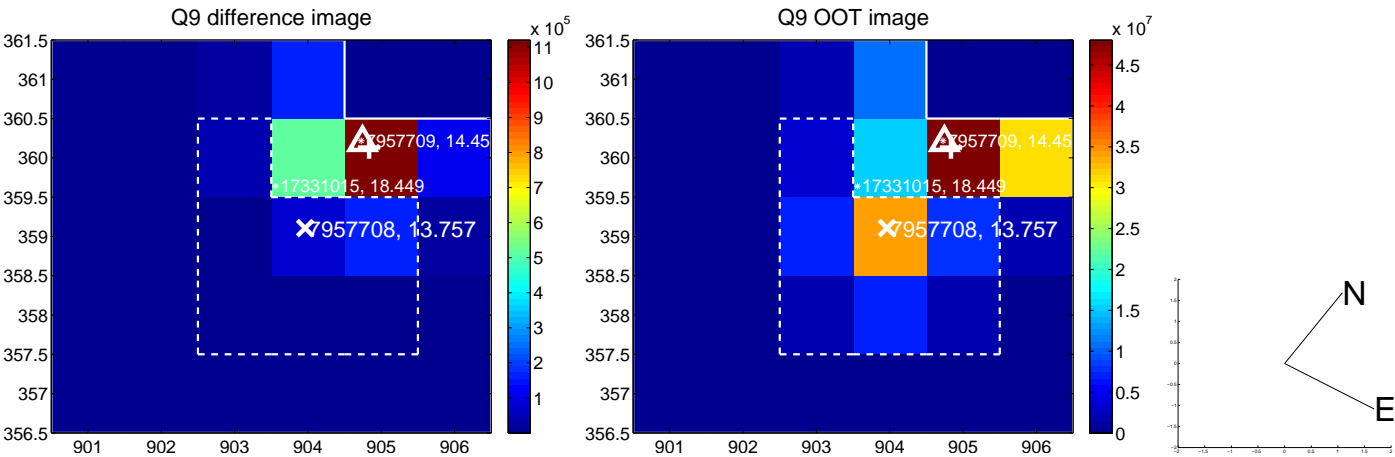
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



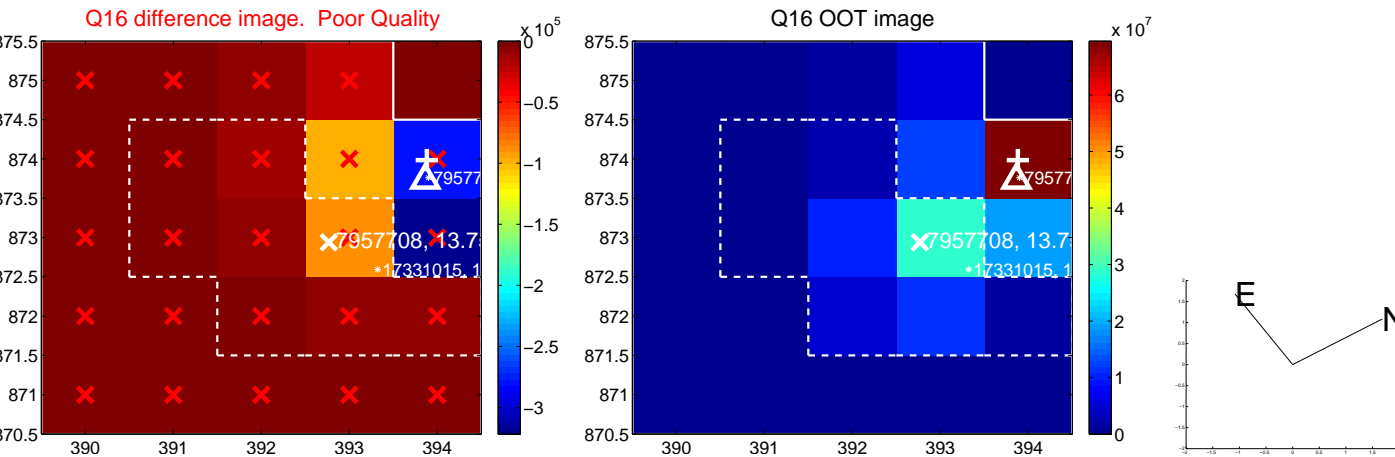
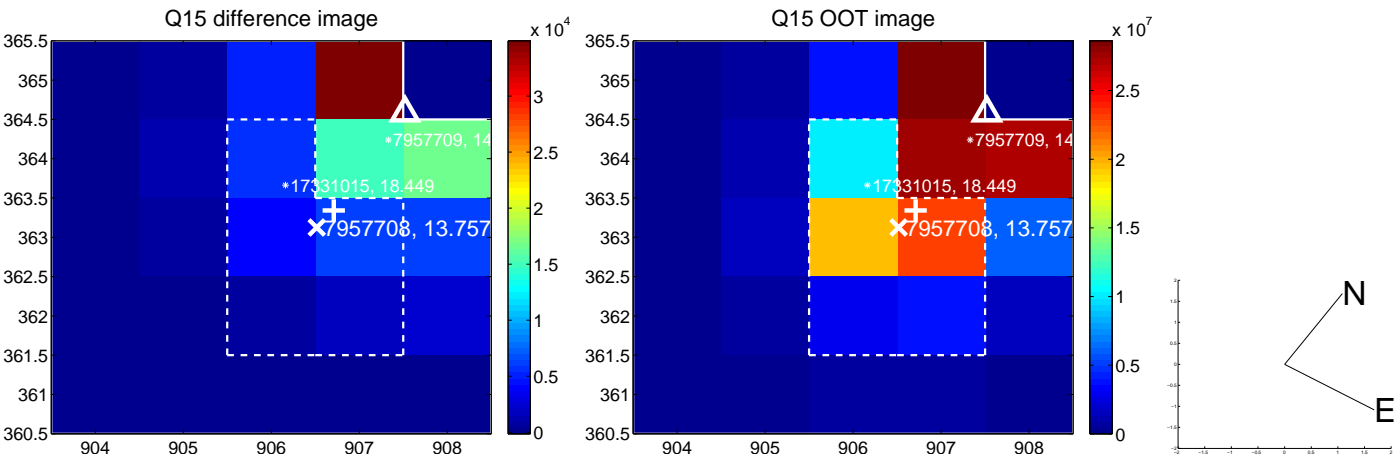
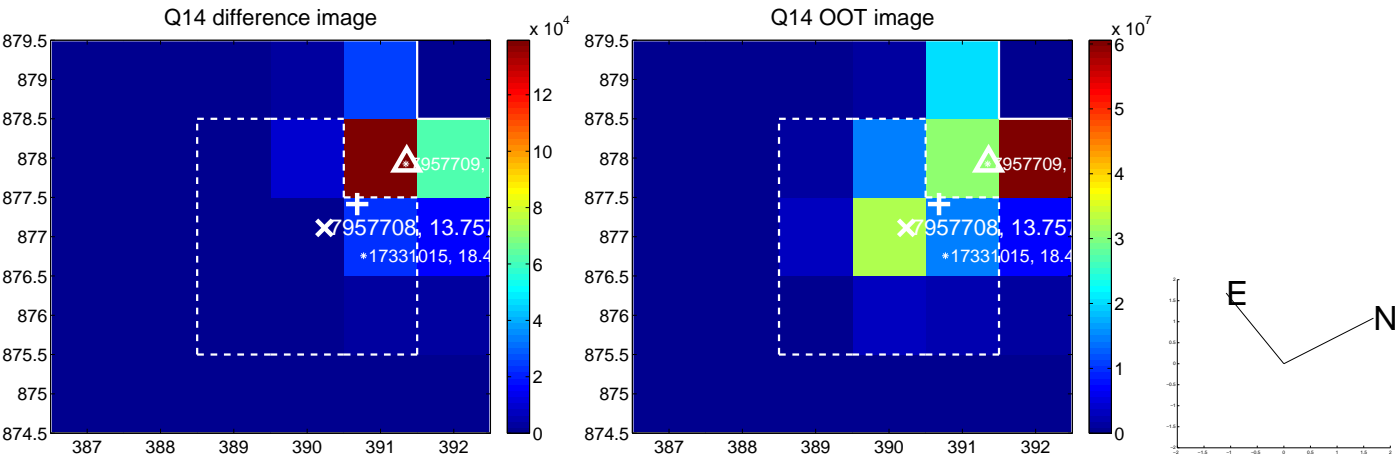
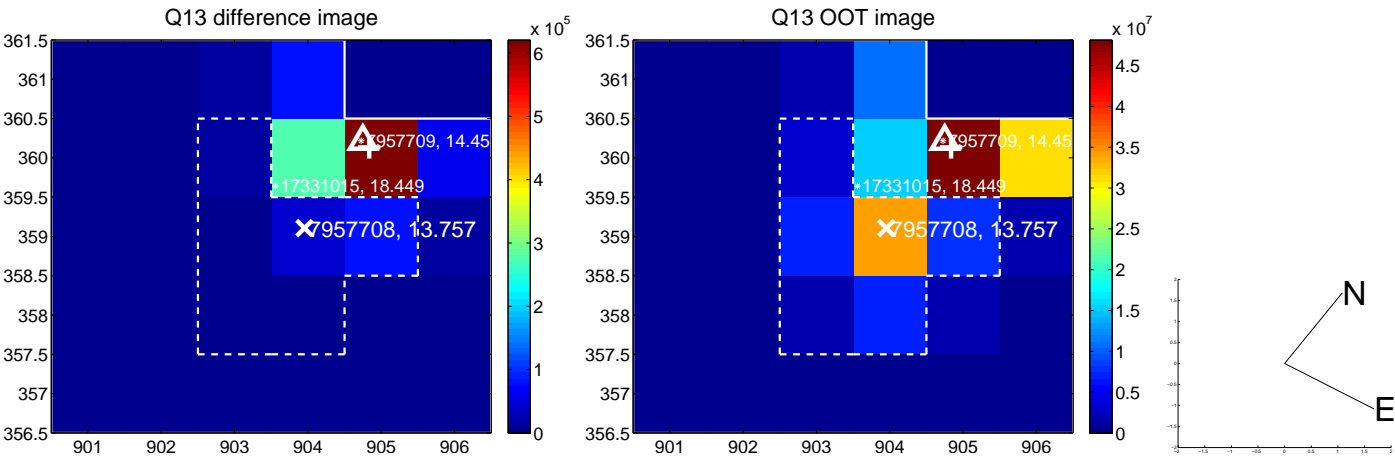
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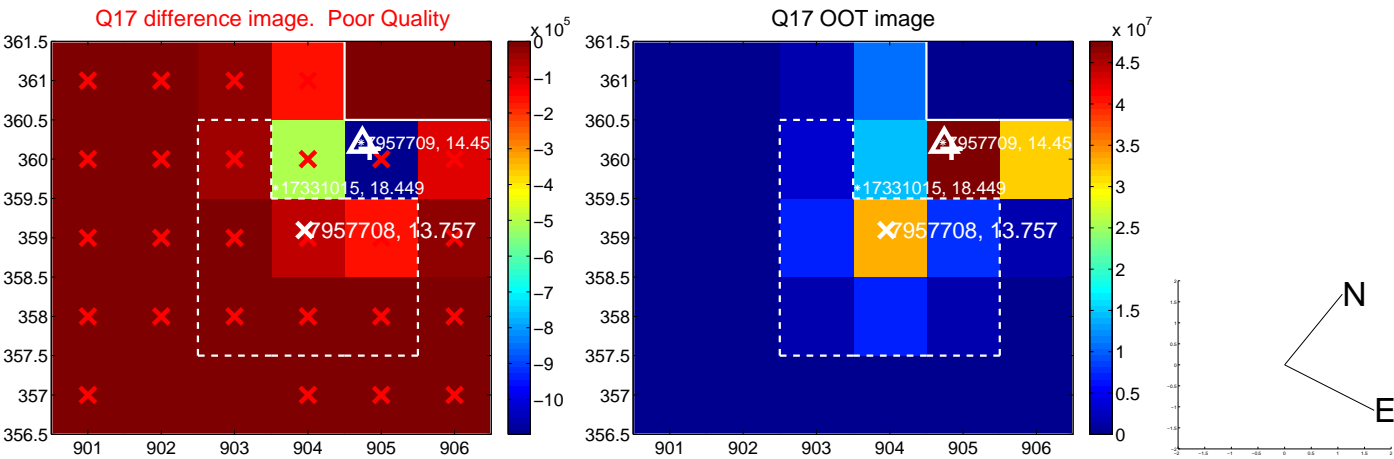
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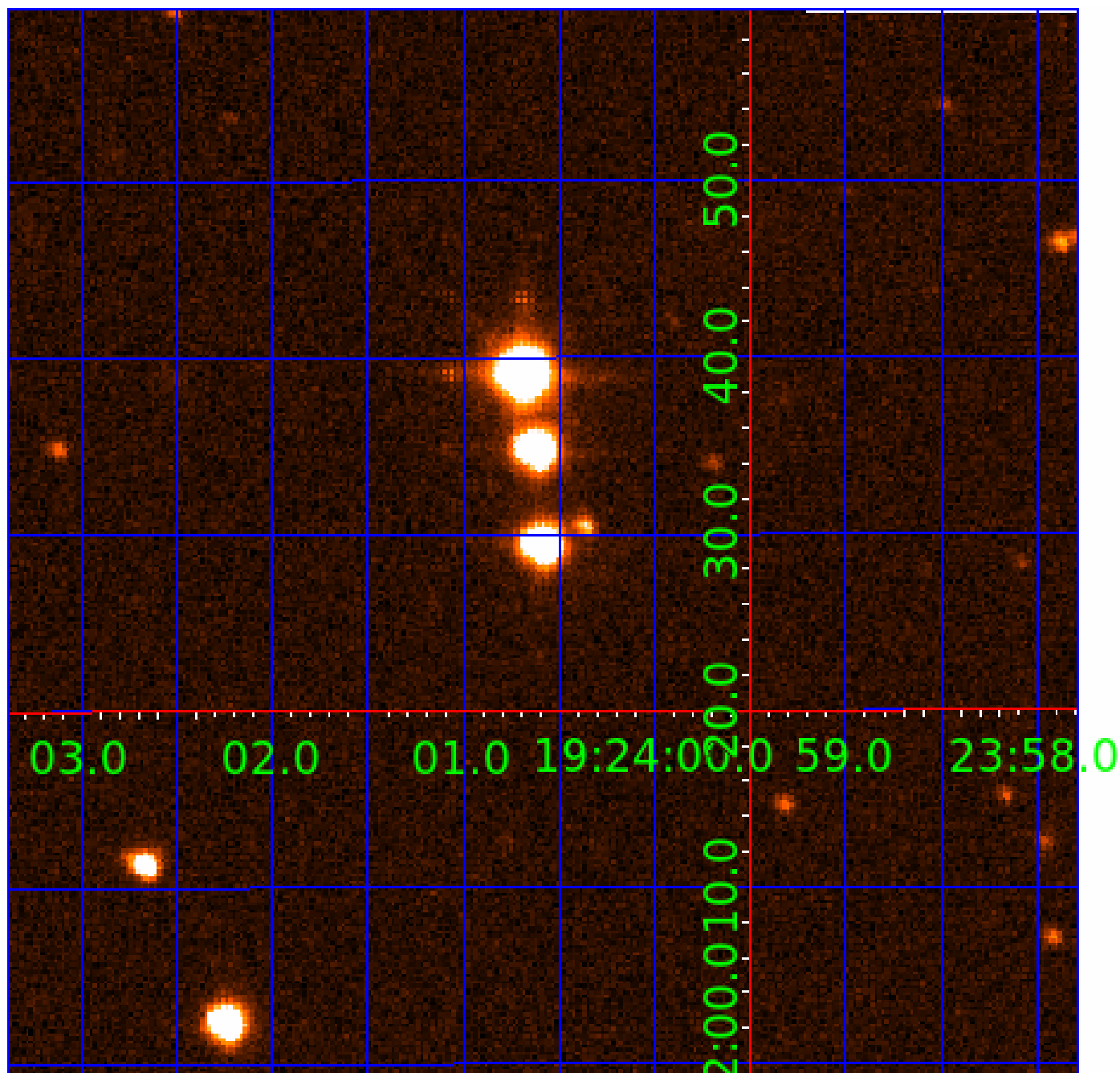
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 007957708

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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007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

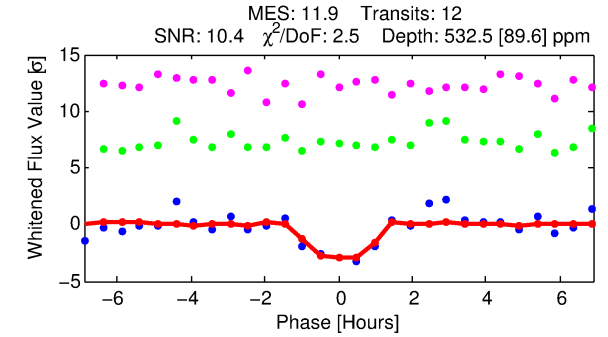
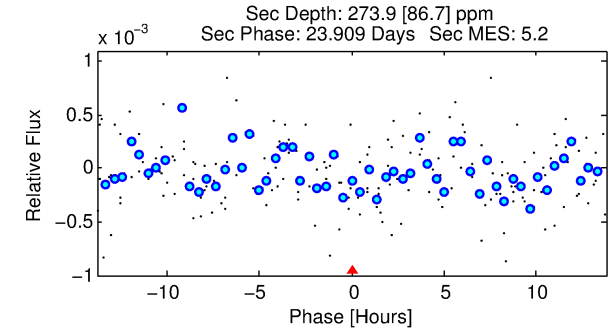
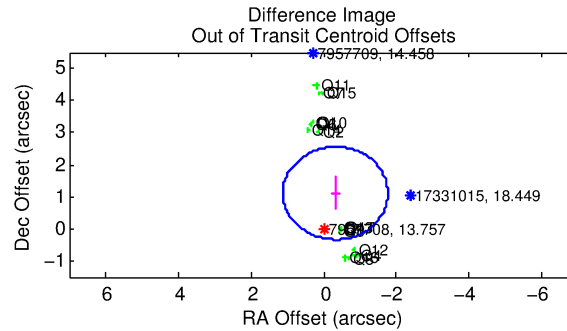
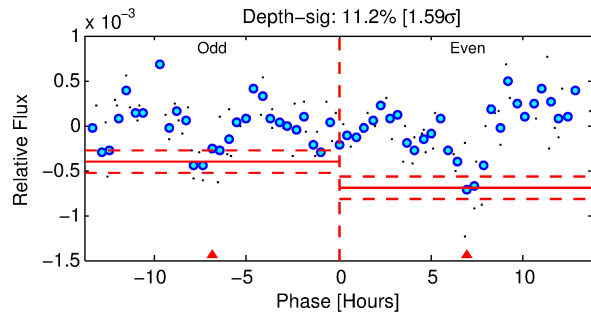
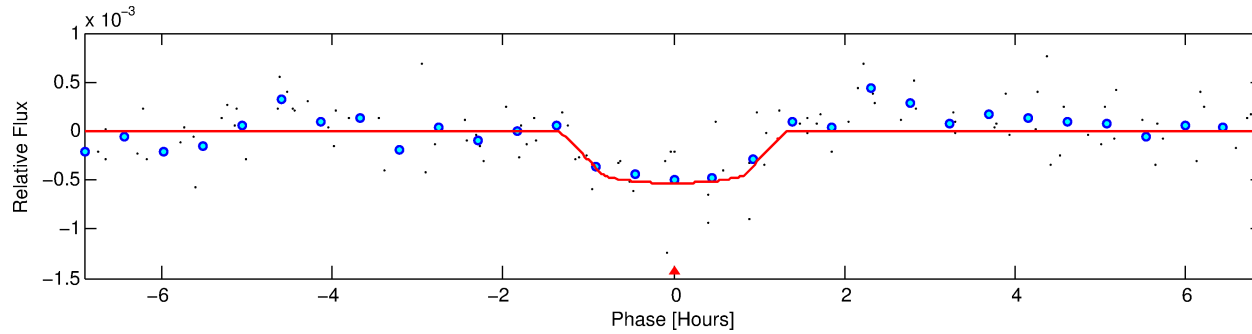
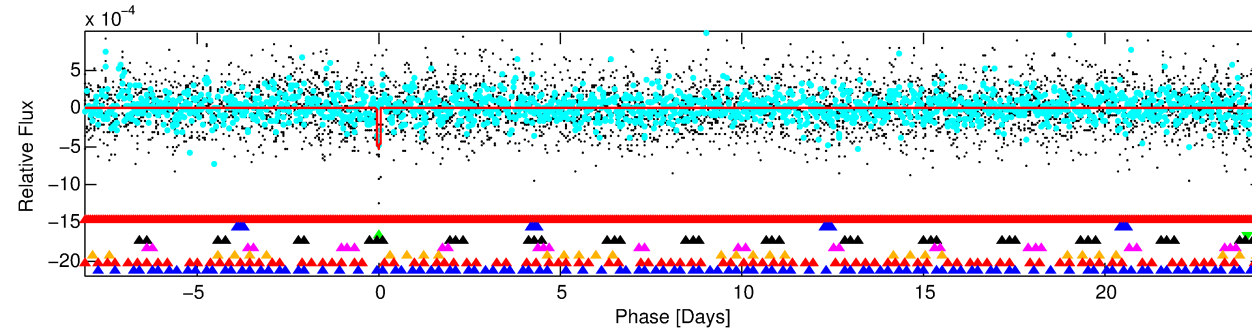
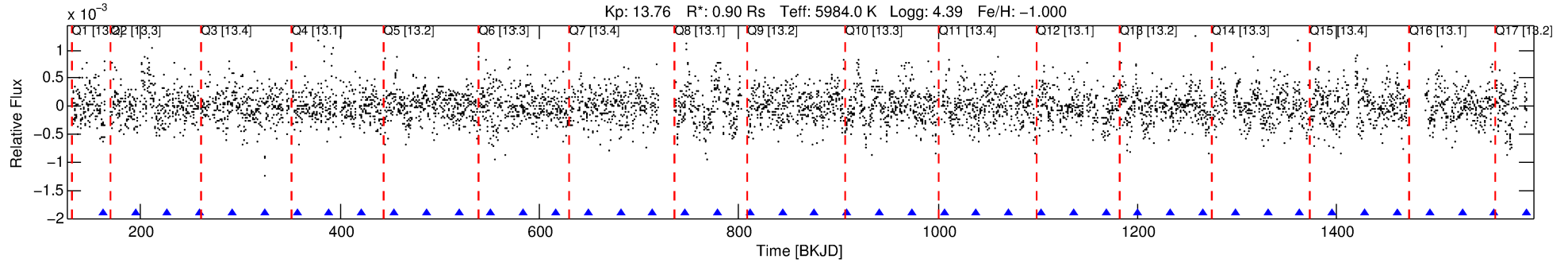
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-03

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 3 of 8 Period: 32.464 d



DV Fit Results:

Period = 32.46435 [0.00063] d
Epoch = 162.0450 [0.0149] BKJD
Rp/R* = 0.0227 [0.0515]
a/R* = 80.21 [988.39]
b = 0.70 [8.98]
Seff = 28.94 [9.81]
Teq = 591 [50] K
Rp = 2.23 [5.09] Re
a = 0.1795 [0.0371] AU
Ag = 978.31 [4466.54] [0.22σ]
Teffp = 5114 [5824] K [0.78σ]

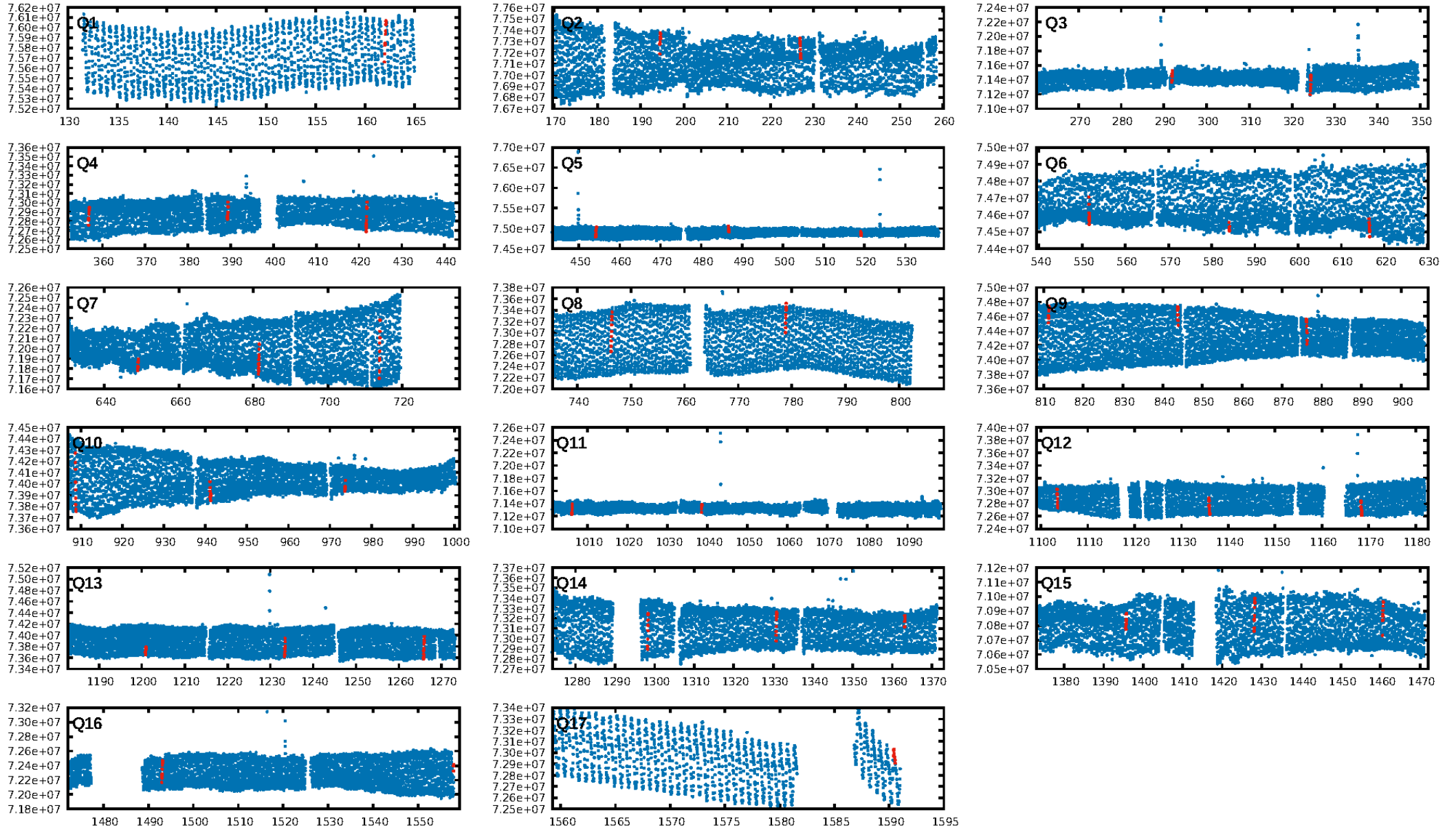
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [58.93σ]
LongPeriod-sig: 100.0% [13.93σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 2.85e-13
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: -0.7246
Centroid-sig: 12.4%
Centroid-so: 2.960 arcsec [6.88σ]
OotOffset-rm: 1.154 arcsec [2.39σ]
KicOffset-rm: 5.358 arcsec [71.91σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.38 [6/16]
DiffImageOverlap-fno: 0.00 [0/16]

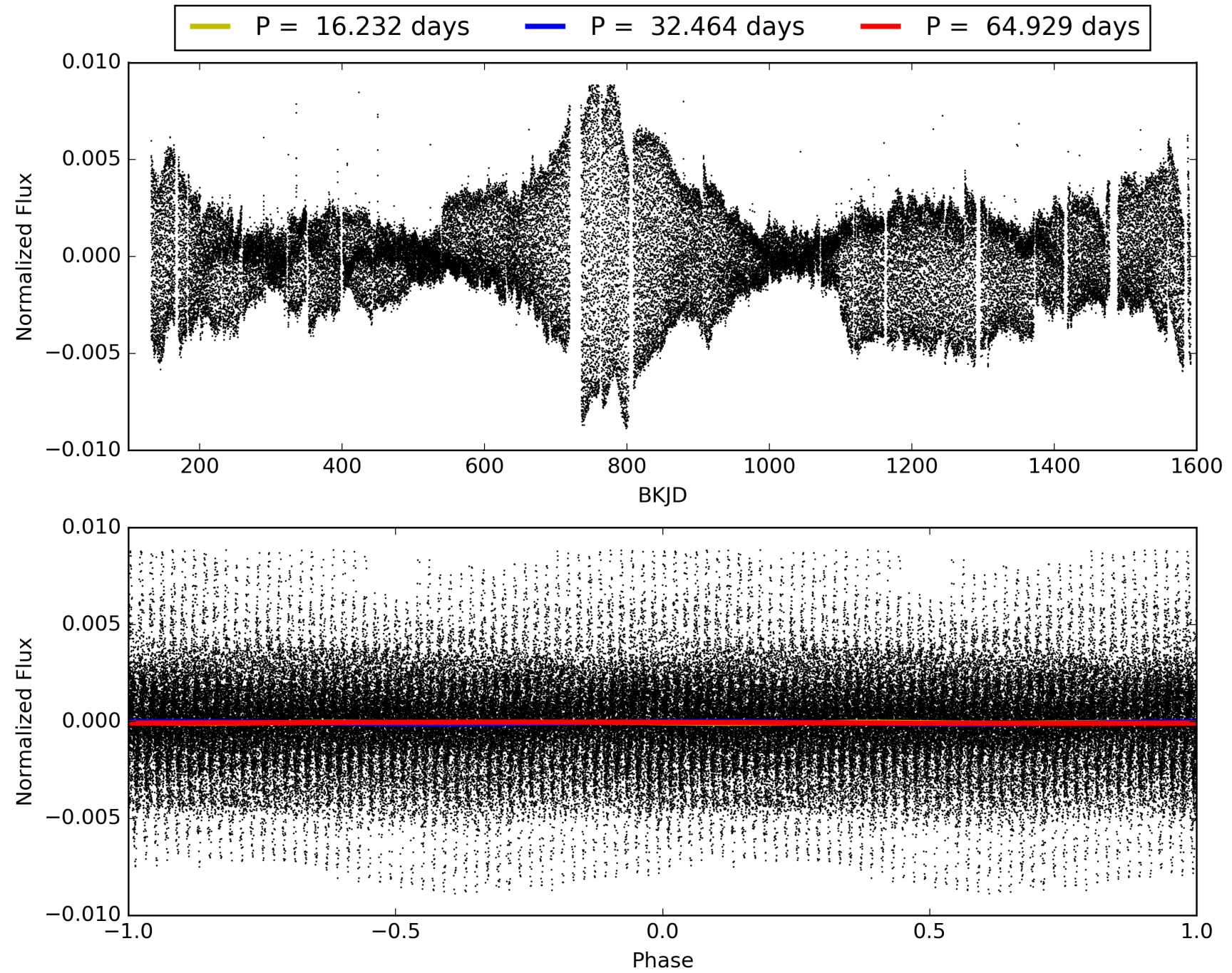
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:20 Z

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

TCE 007957708-03, PDC Light Curves

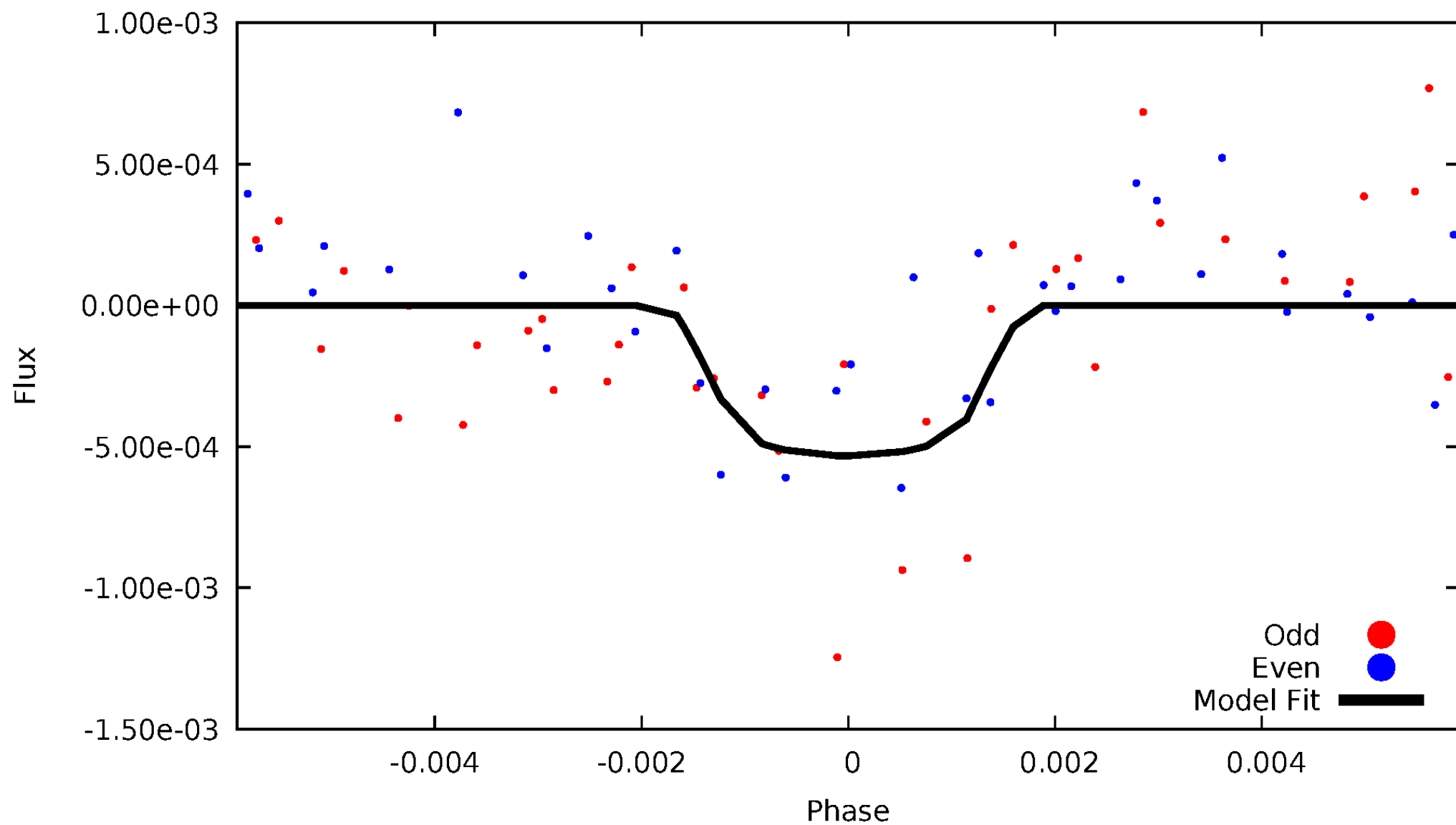


TCE 007957708-03



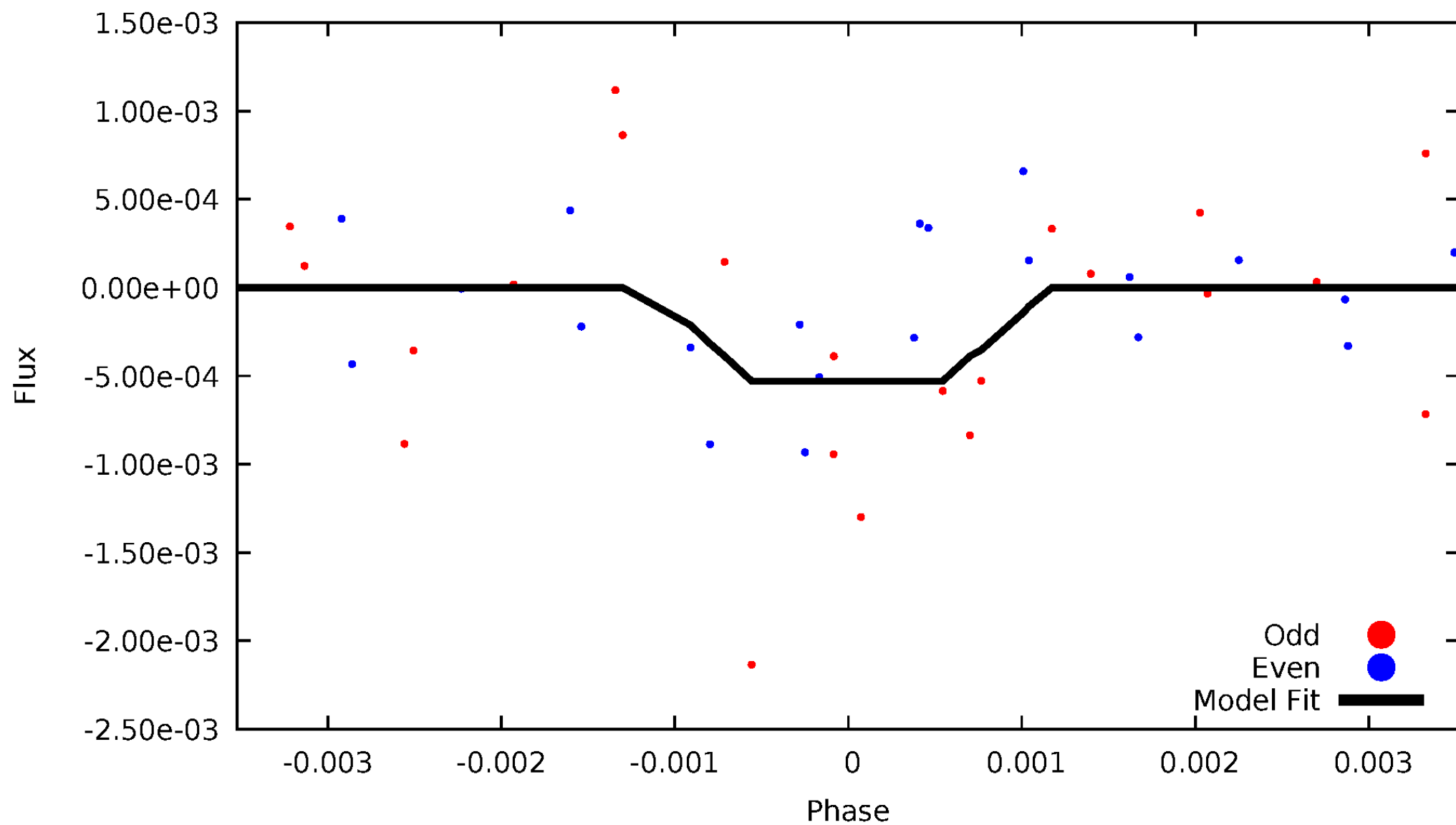
DV Odd/Even

TCE 007957708-03



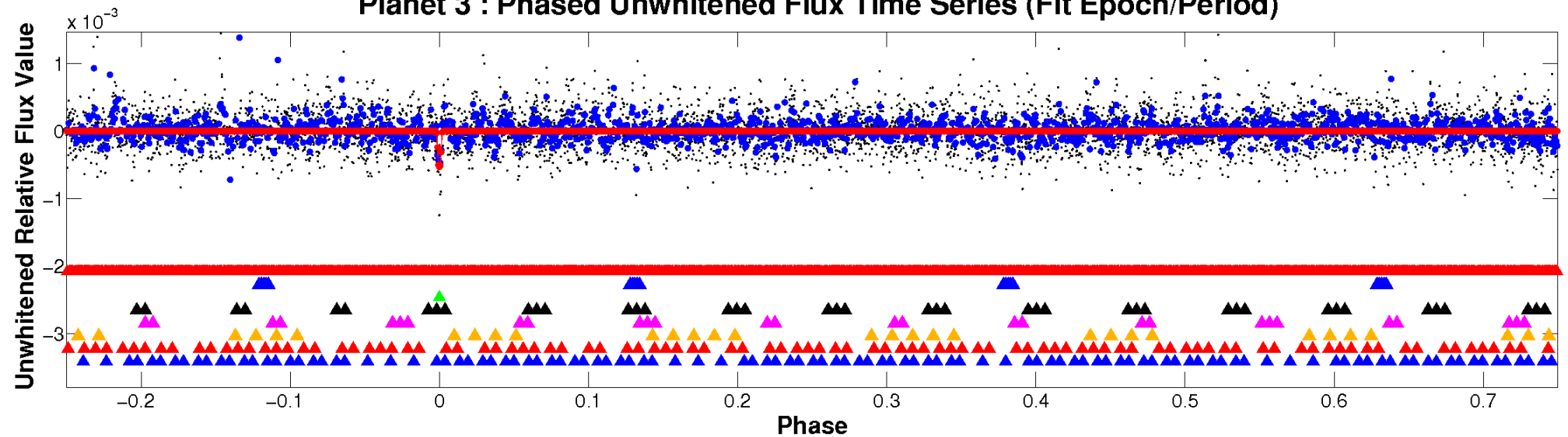
ALT Odd/Even

TCE 007957708-03

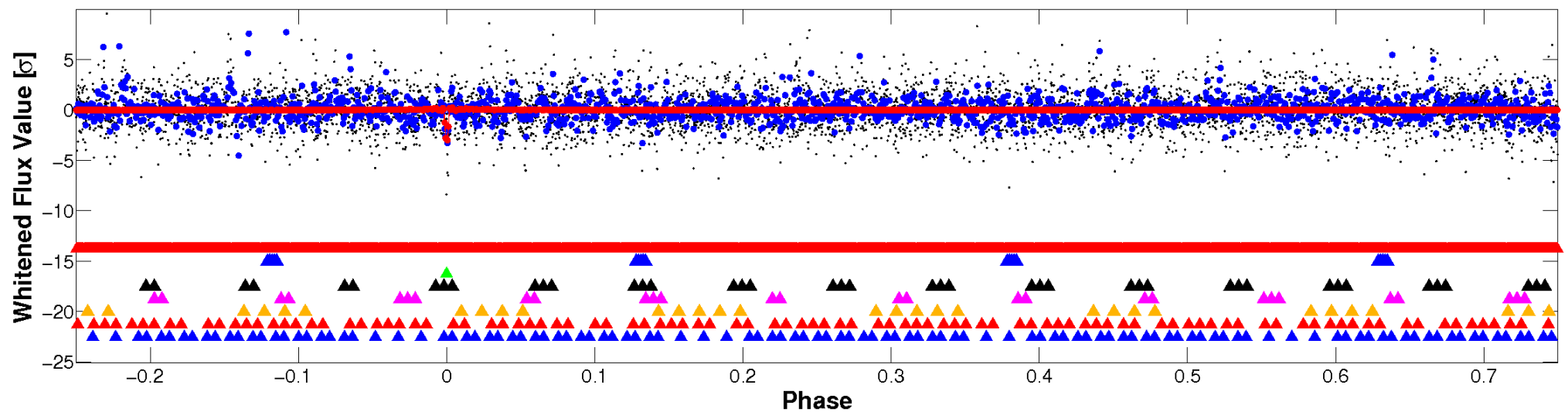


Non-Whitened Vs. Whitened Light Curve

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

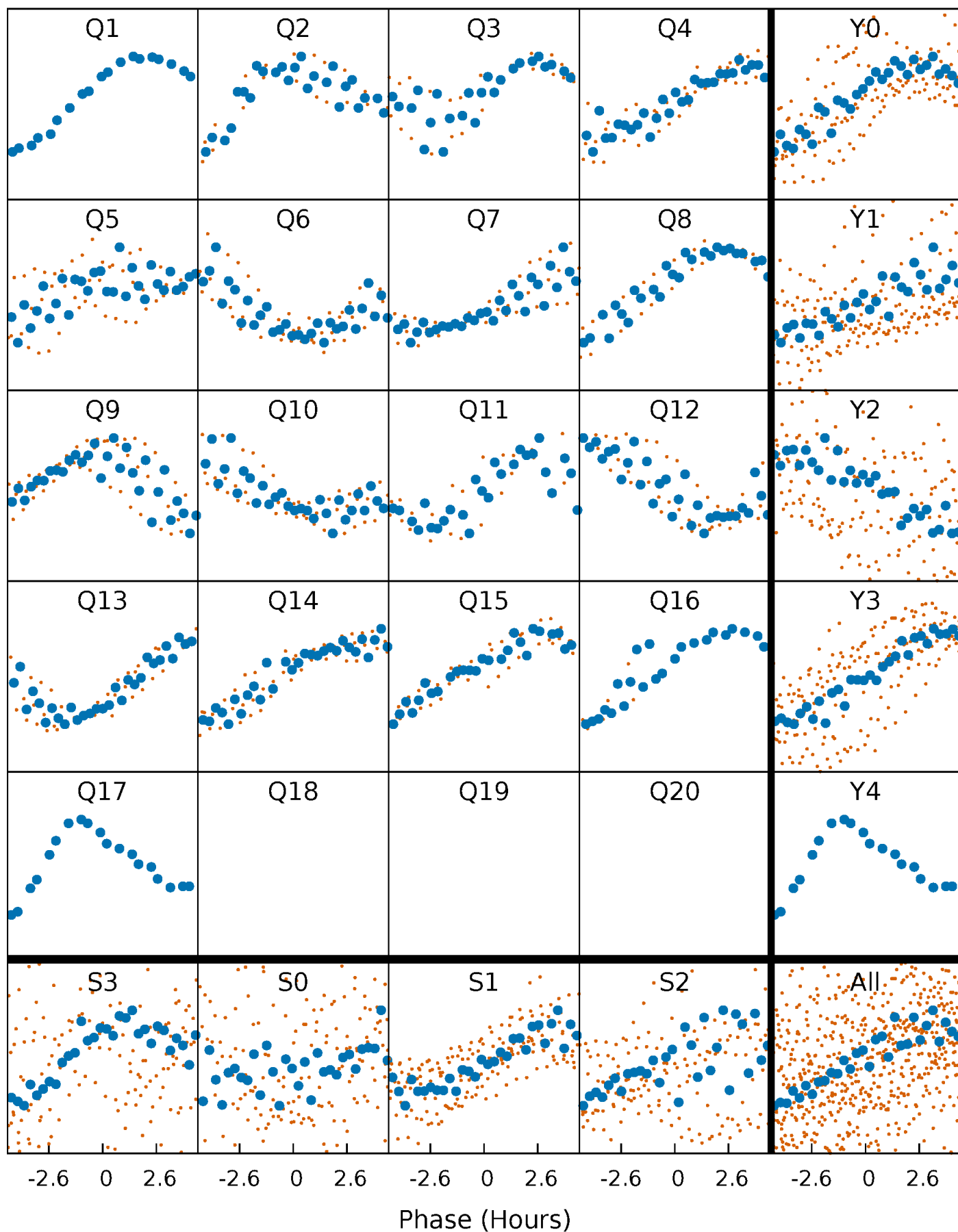


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



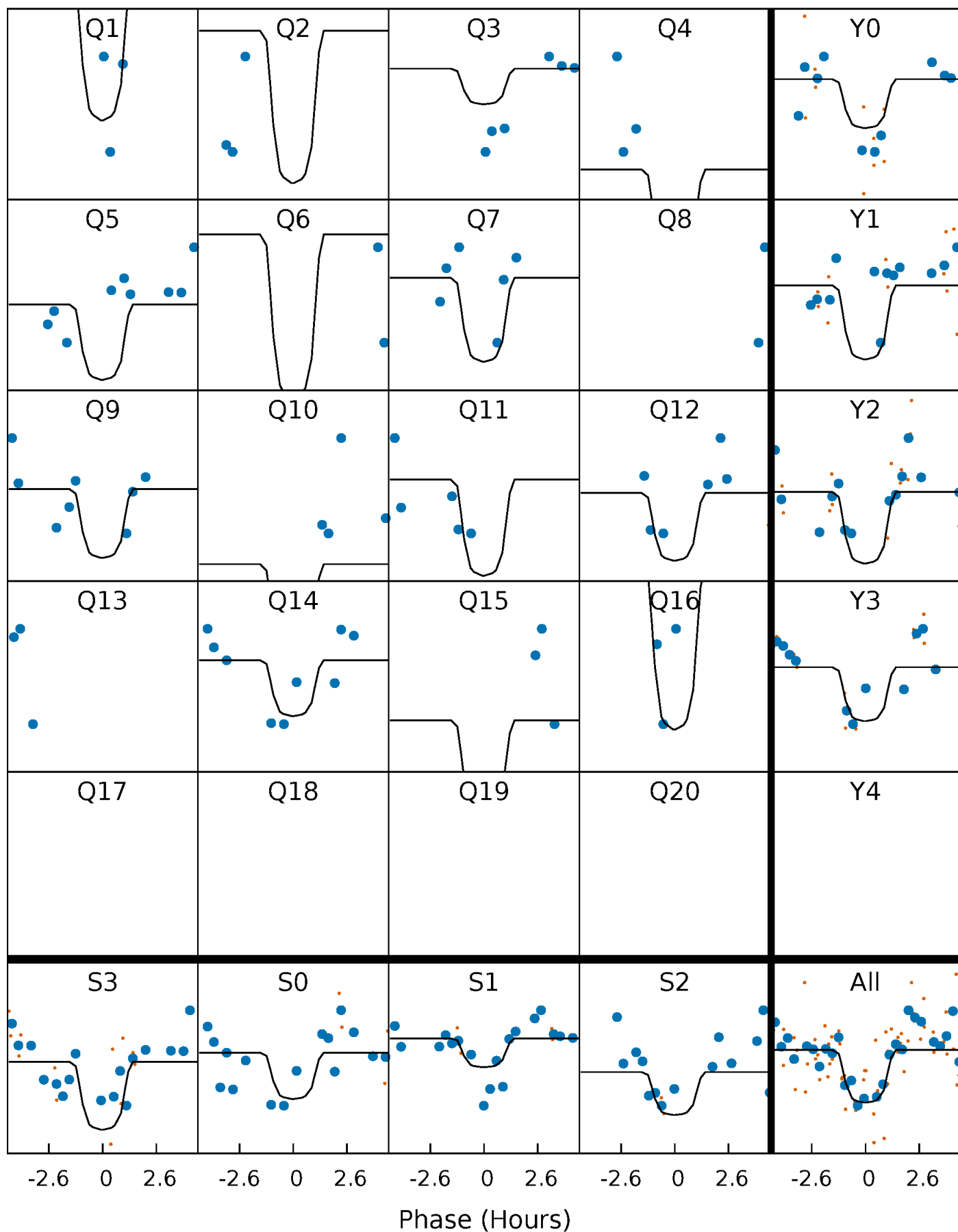
PDC Quarter-Phased Transit Curves

TCE 007957708-03 P= 32.464345 Days $T_0=162.045037$ (BKJD)



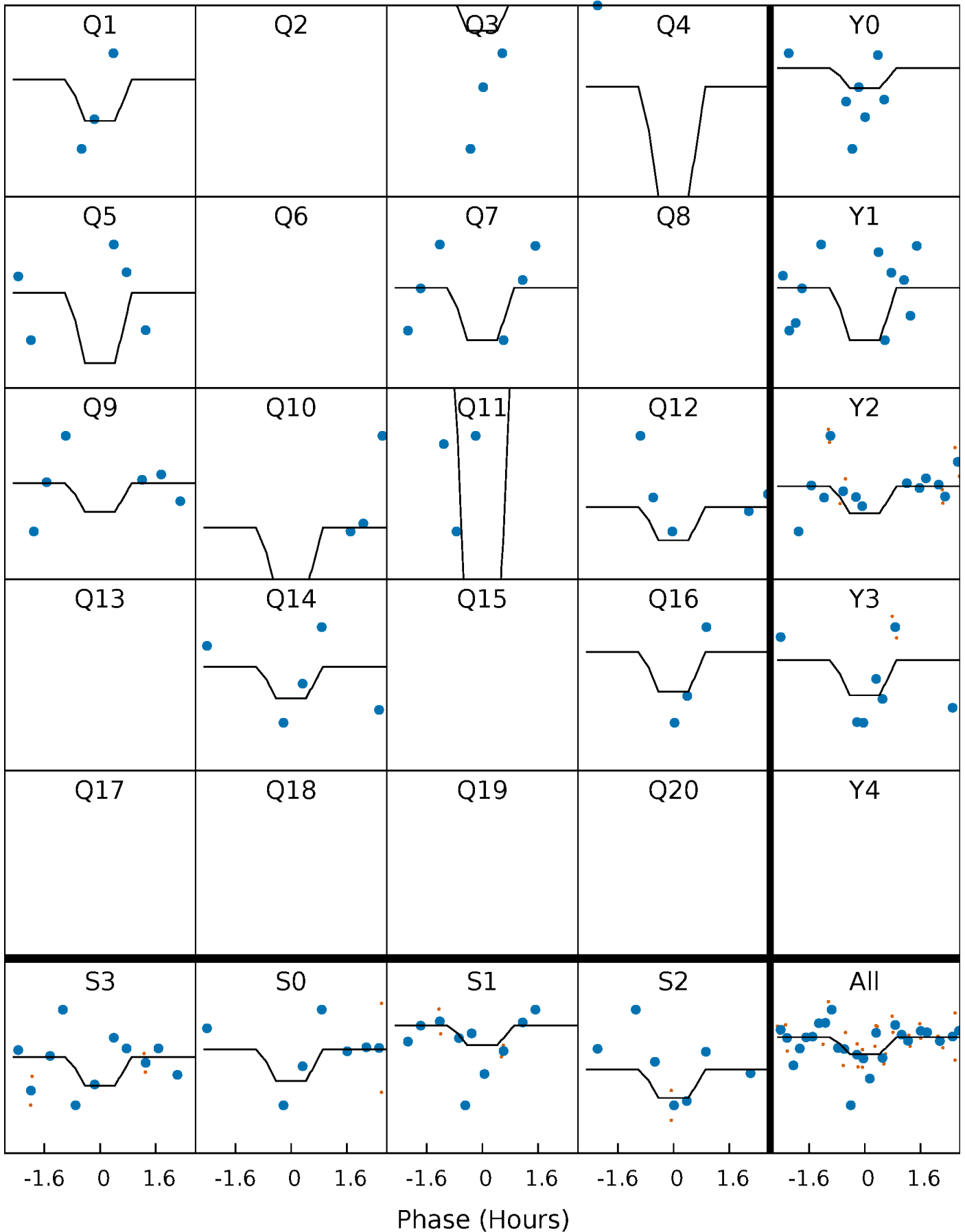
DV Quarter-Phased Transit Curves

TCE 007957708-03 P= 32.464345 Days $T_0=162.045037$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

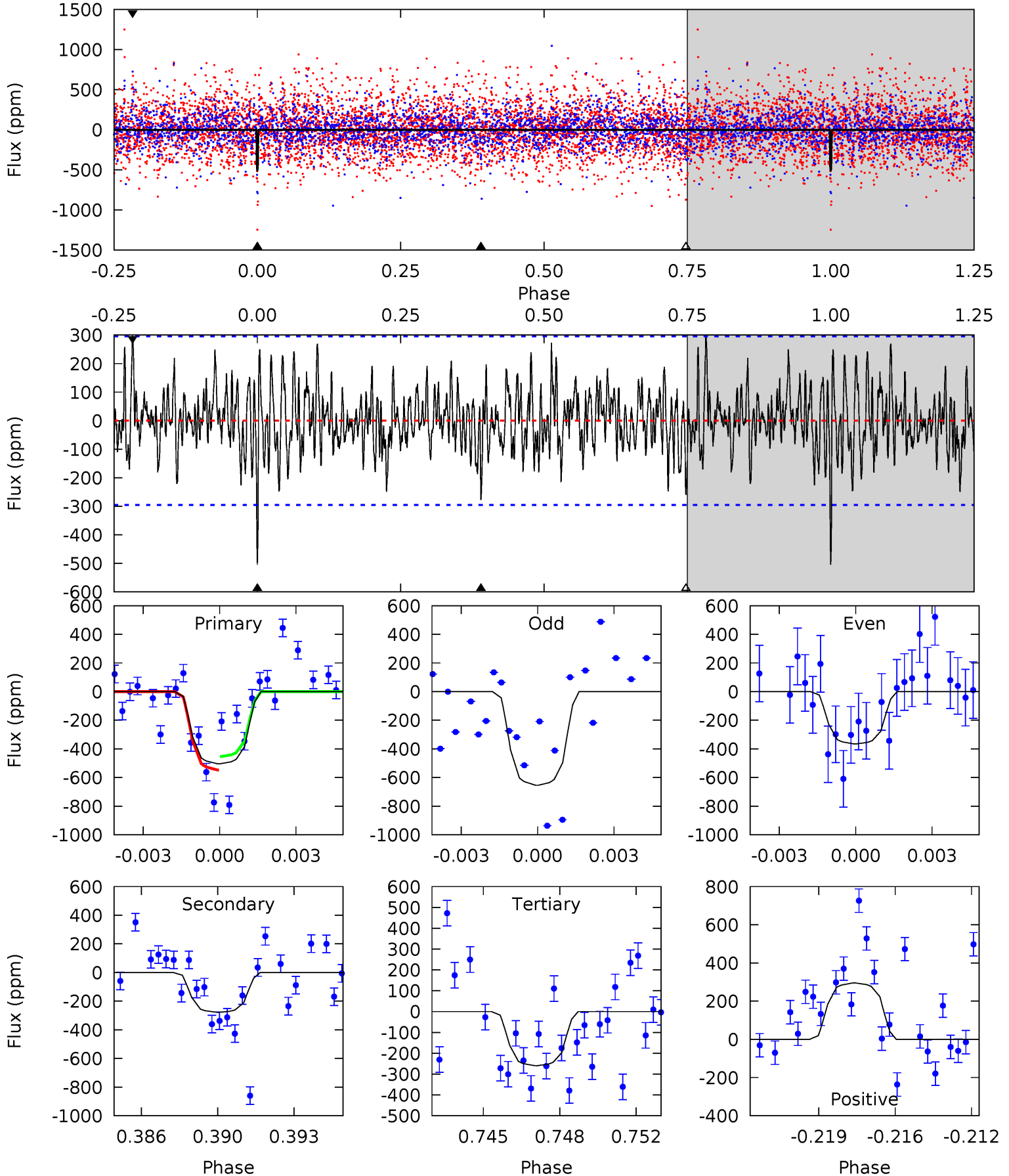
TCE 007957708-03 P= 32.462842 Days $T_0=162.067159$ (BKJD)



DV Model-Shift Uniqueness Test

007957708-03, P = 32.464345 Days, E = 129.580692 Days

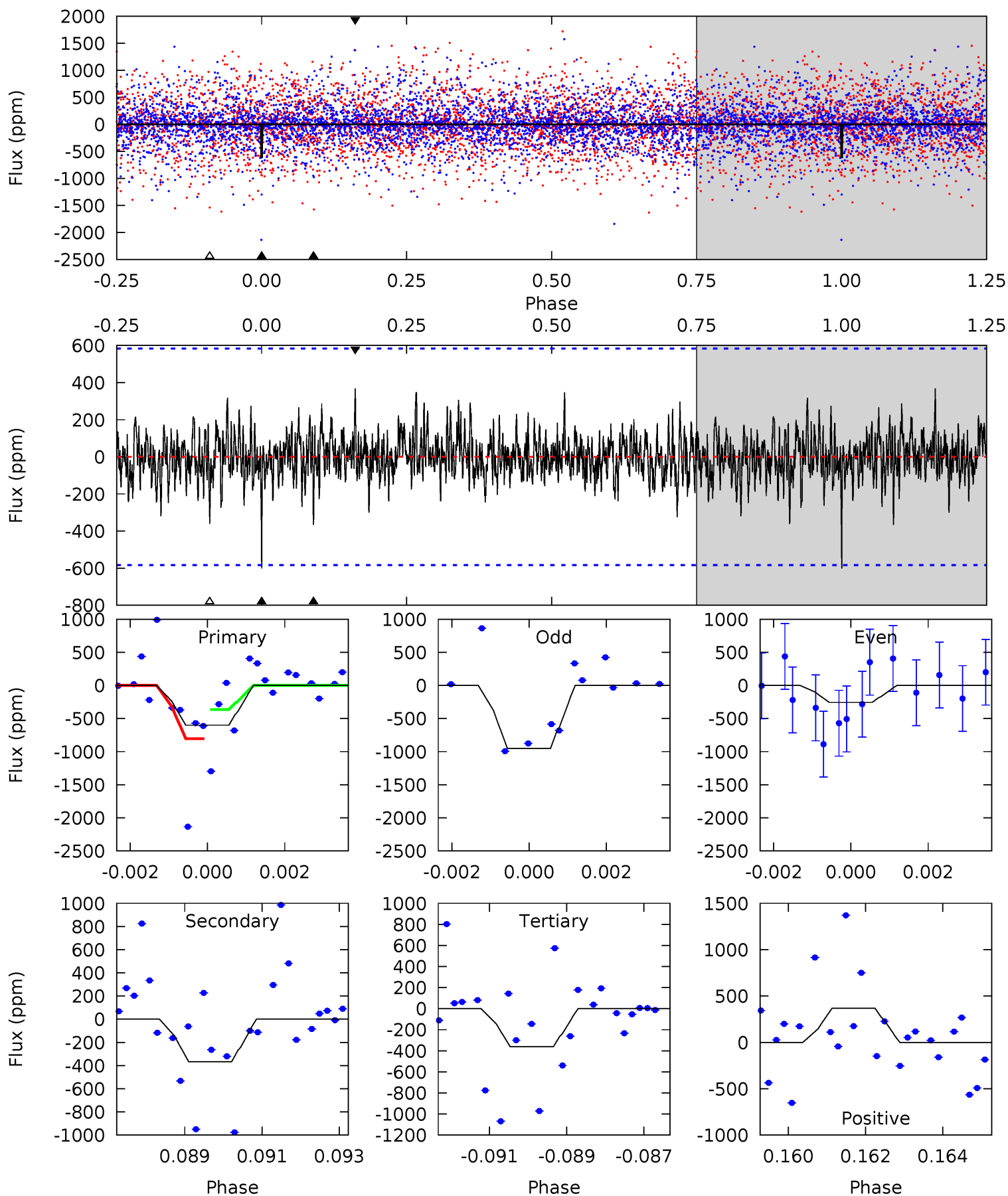
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.92	4.91	4.59	5.23	5.23	2.92	1.63	4.32	3.69	0.32	-0.31	2.38	1.10	0.37	0.83



Alt Model-Shift Uniqueness Test

007957708-03, P = 32.462842 Days, E = 129.604317 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.48	3.35	3.31	3.35	5.33	3.09	0.92	2.18	2.13	0.04	-0.01	3.06	1.57	0.38	2.01



Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-278 ± 57	$4.40^{+4.70}_{-2.98}$	833^{+58}_{-51}	4004^{+2534}_{-809}	254^{+2254}_{-191}
Alt.	-367 ± 110	$4.57^{+4.04}_{-3.04}$	828^{+58}_{-54}	4107^{+2500}_{-766}	302^{+2306}_{-215}

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

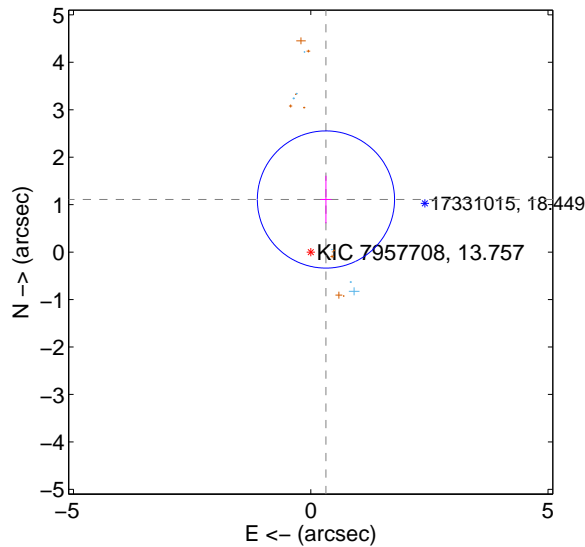
Supplemental centroid analysis for 007957708-03. Kepler magnitude: 13.76. Transit SNR 10.45

There are 6 quarters with good PRF difference image offsets

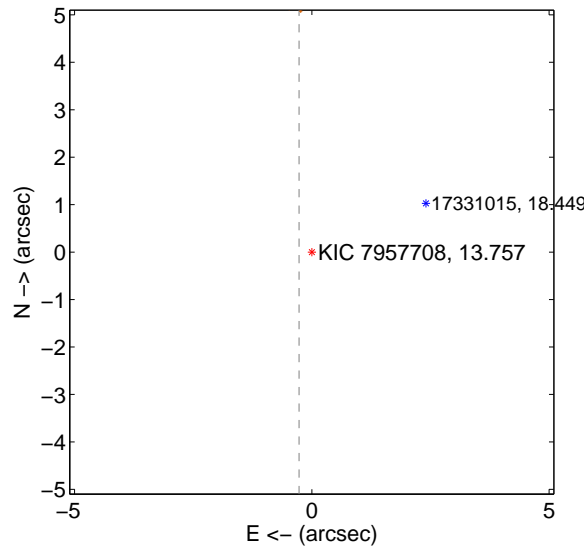
The OOT PRF centroid is offset from the target star catalog position by about 5.40 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.154 ± 0.482	2.39	-0.320 ± 0.114	1.109 ± 0.500
PRF-fit source offset from KIC position	5.358 ± 0.075	71.91	0.269 ± 0.072	5.351 ± 0.075
photometric centroid source offset	2.96 ± 0.43	6.88	0.67 ± 0.23	2.88 ± 0.44

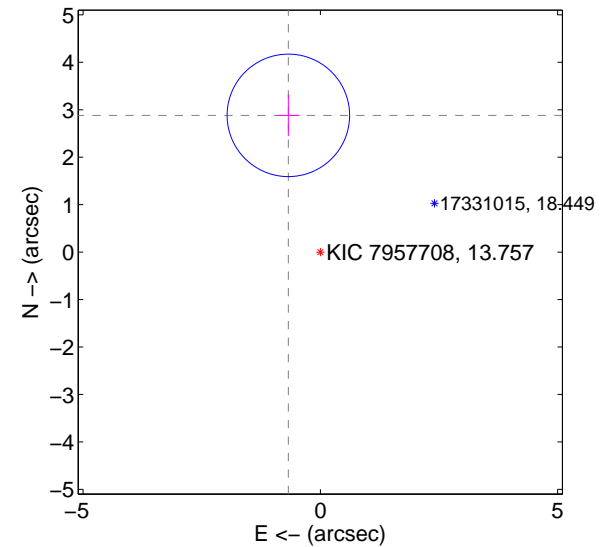
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

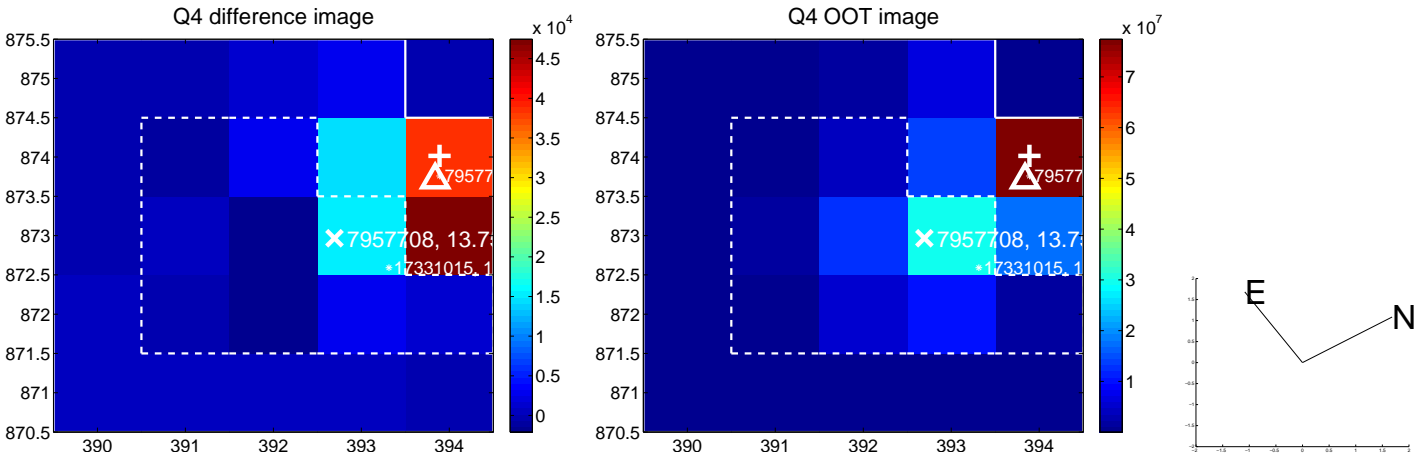
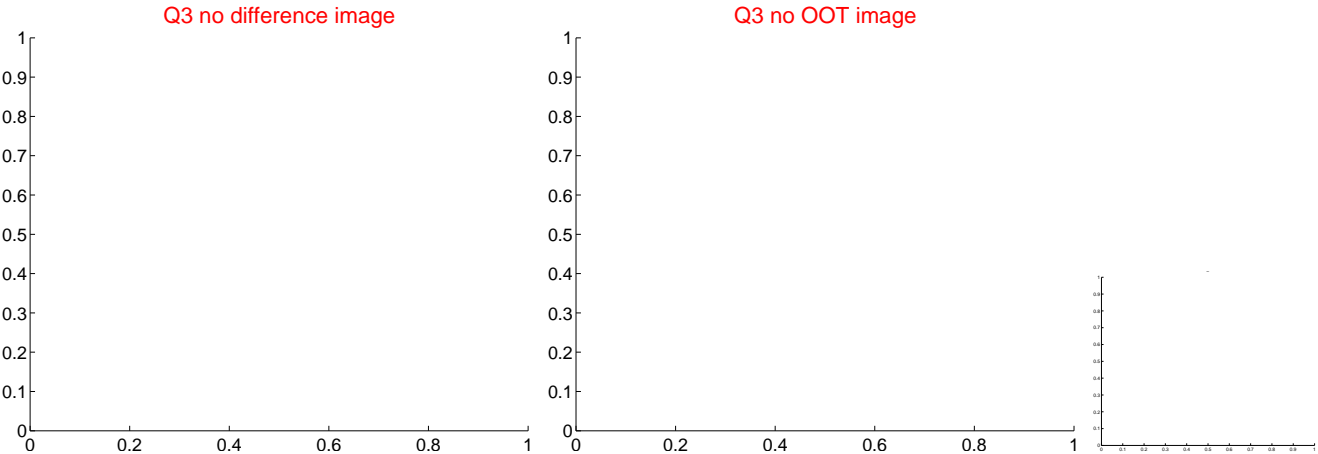
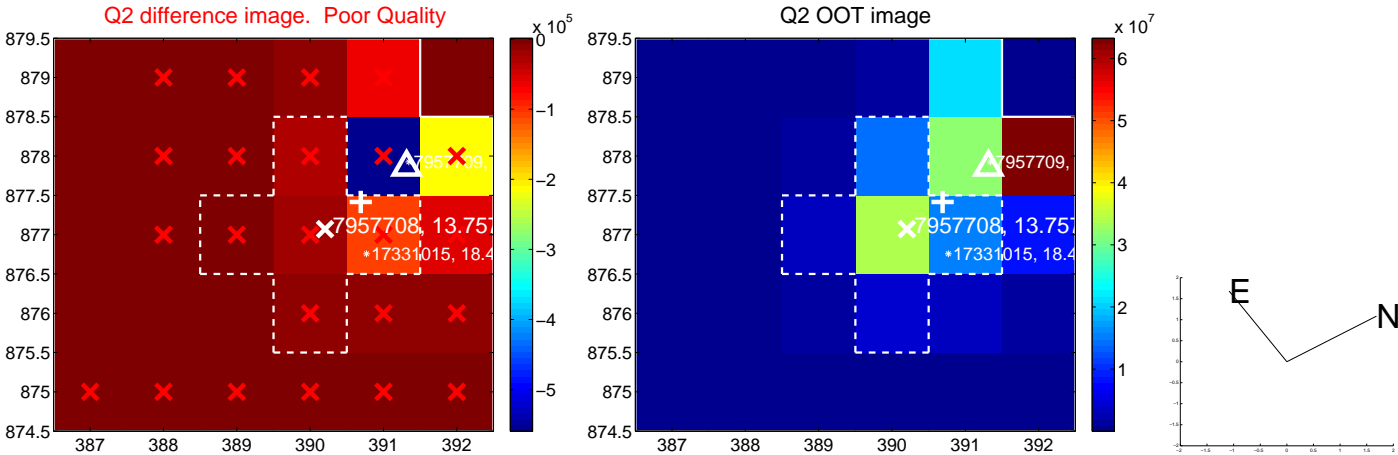
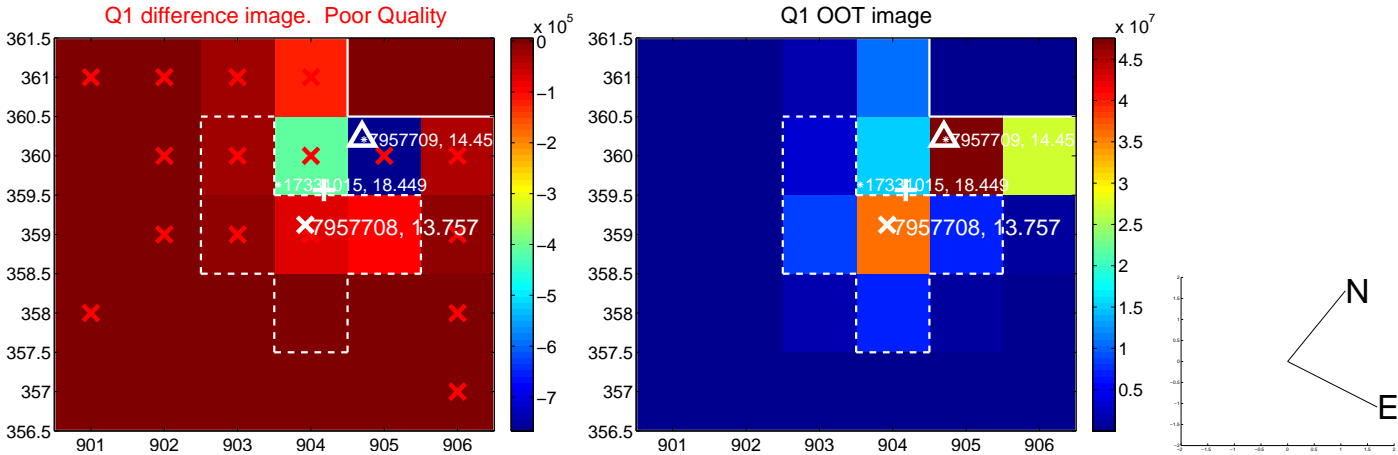


offset from photometric centroids

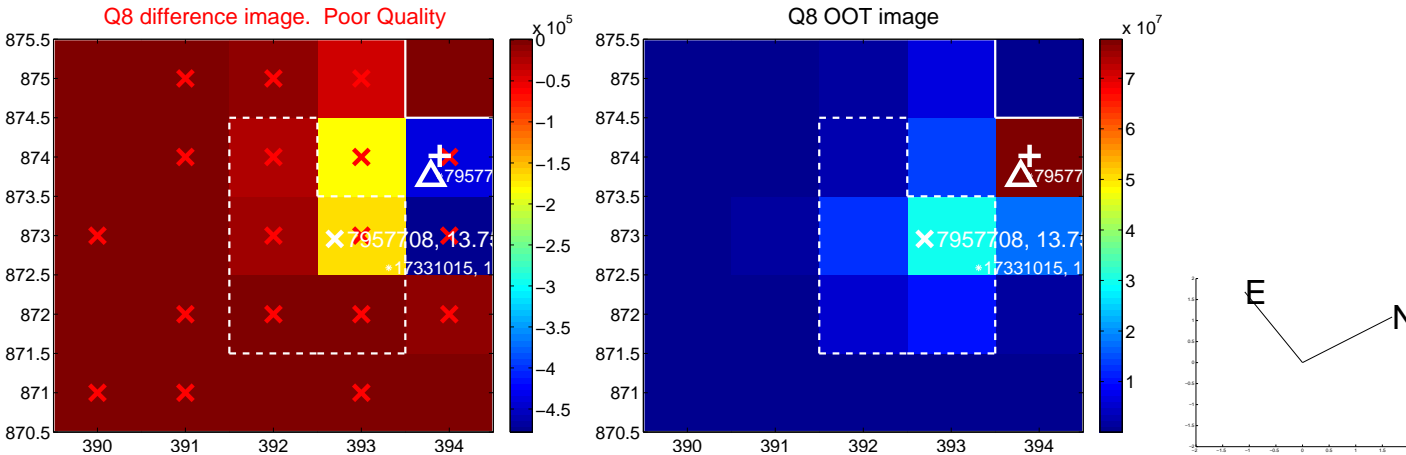
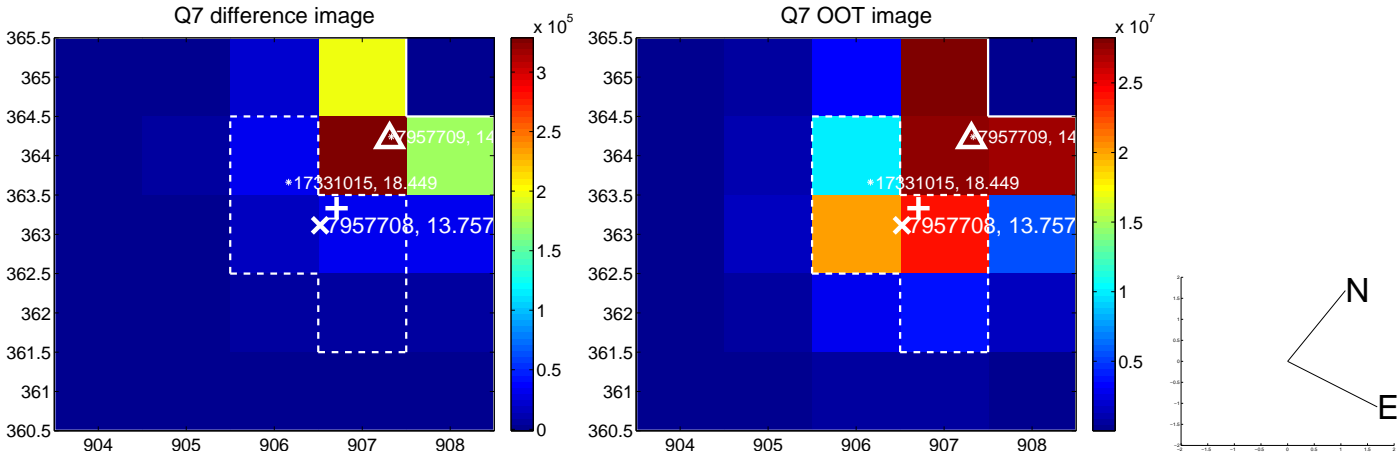
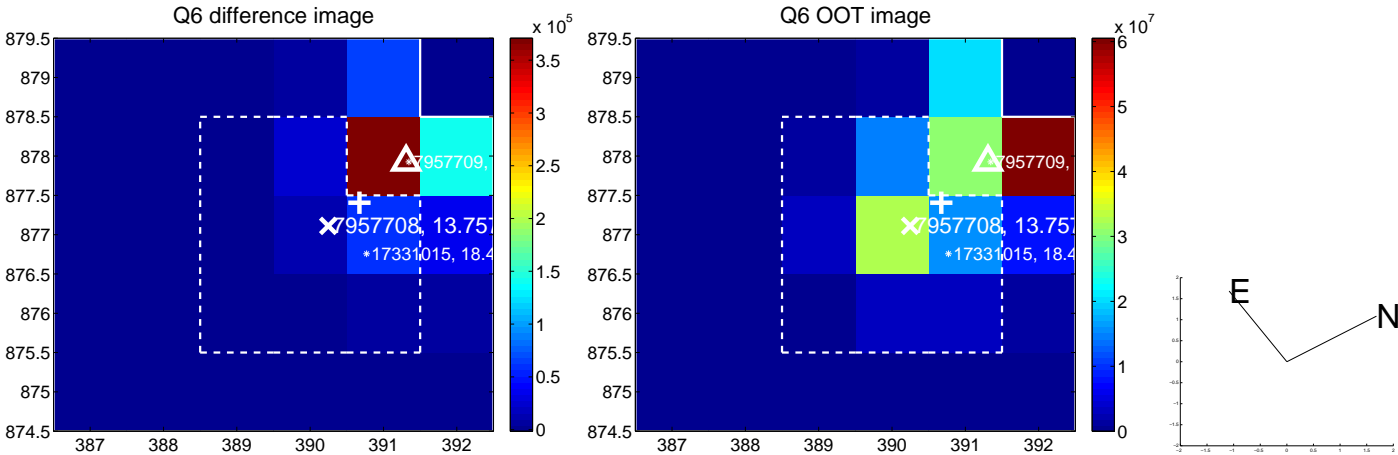
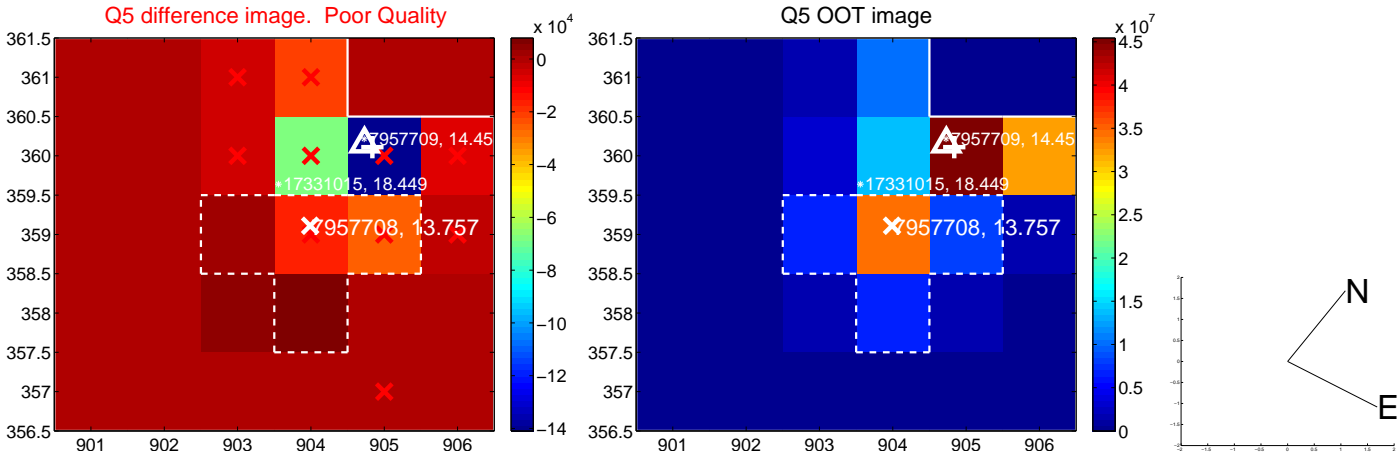


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

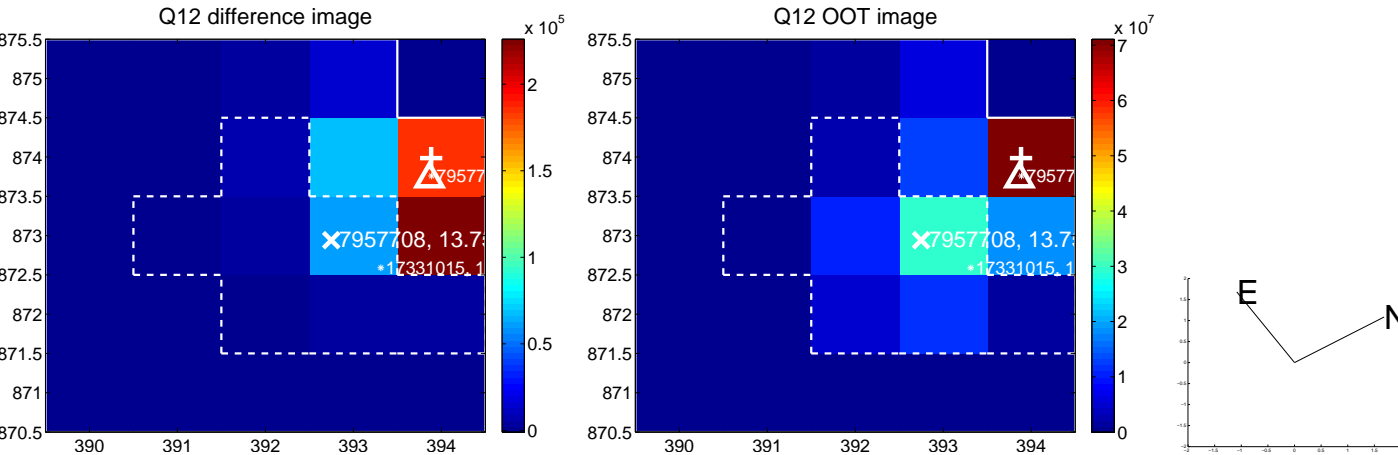
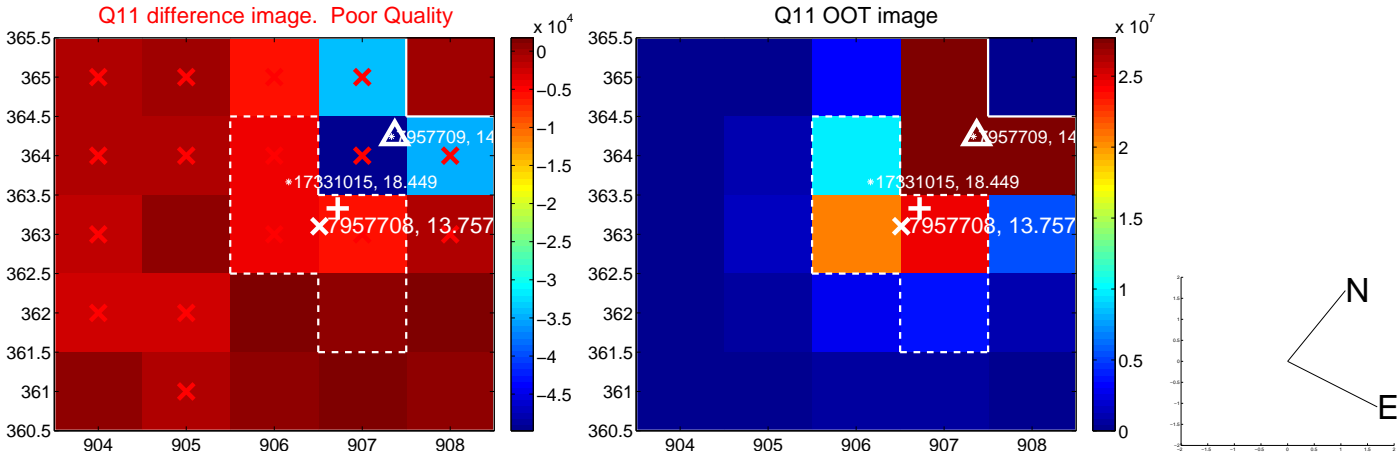
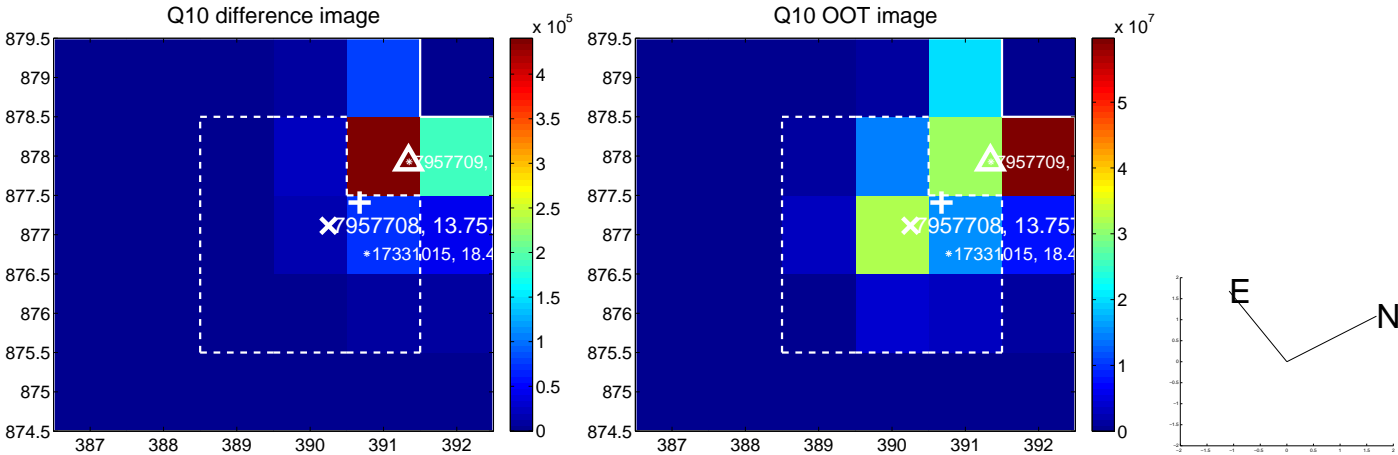
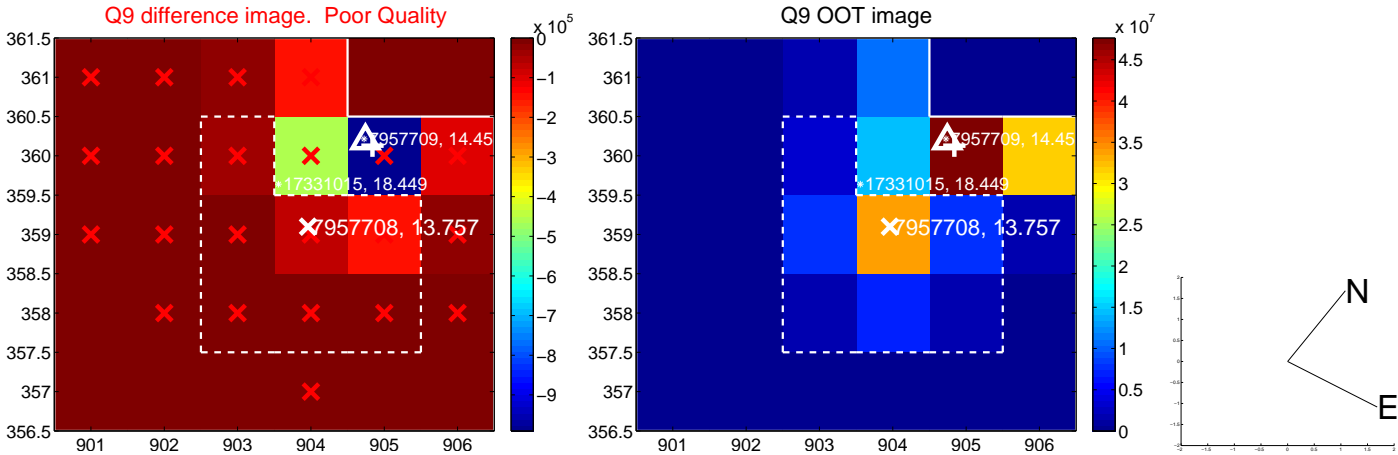
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



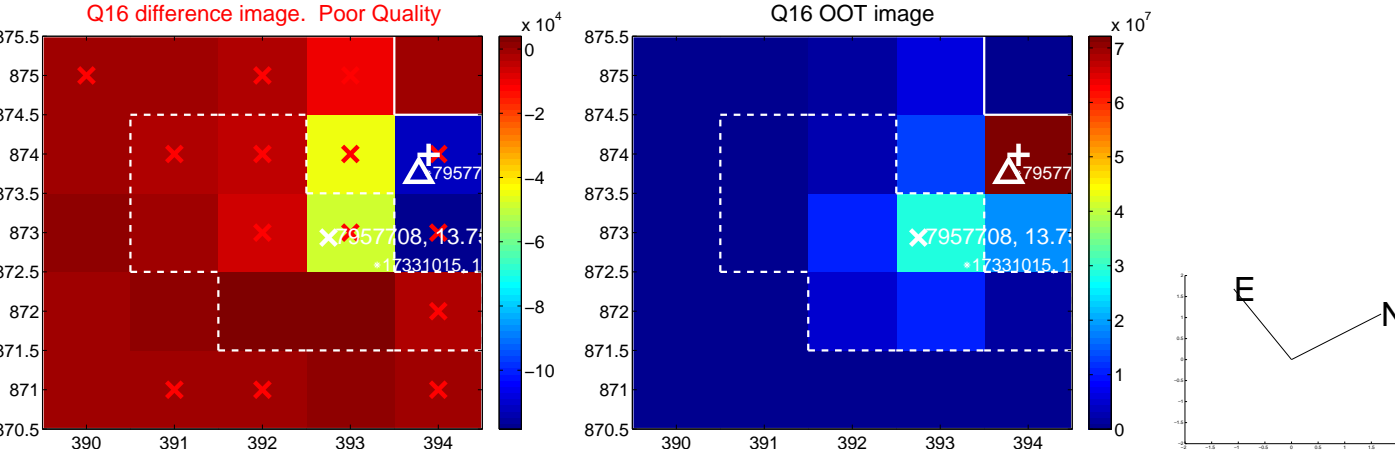
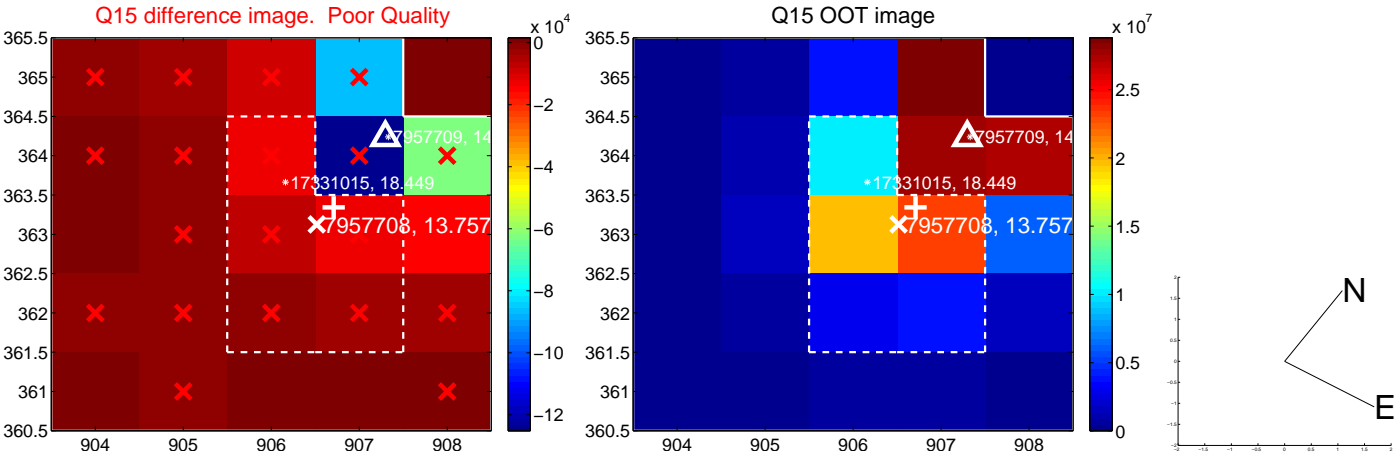
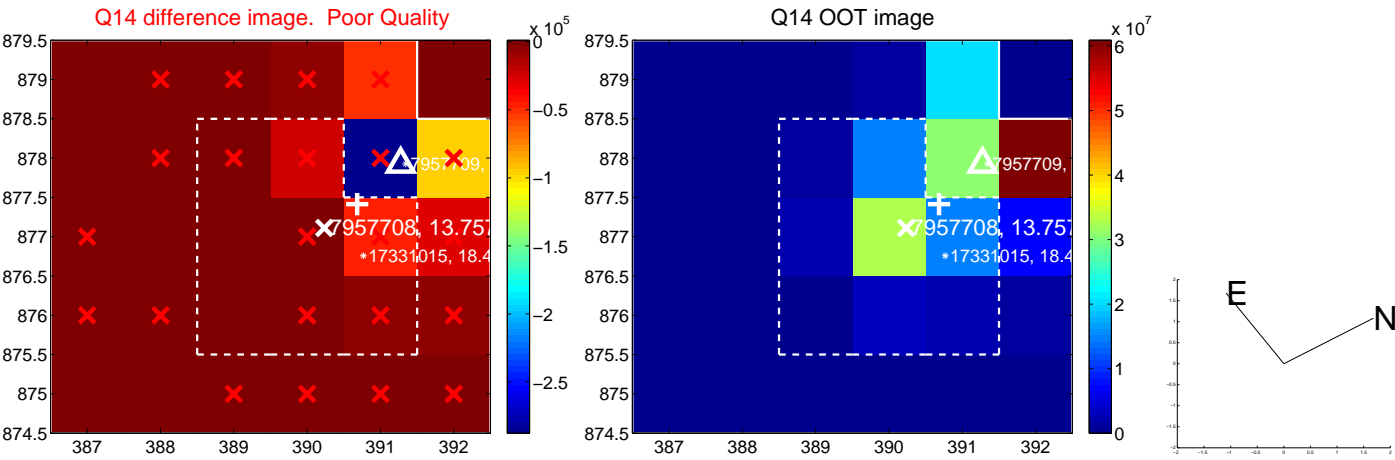
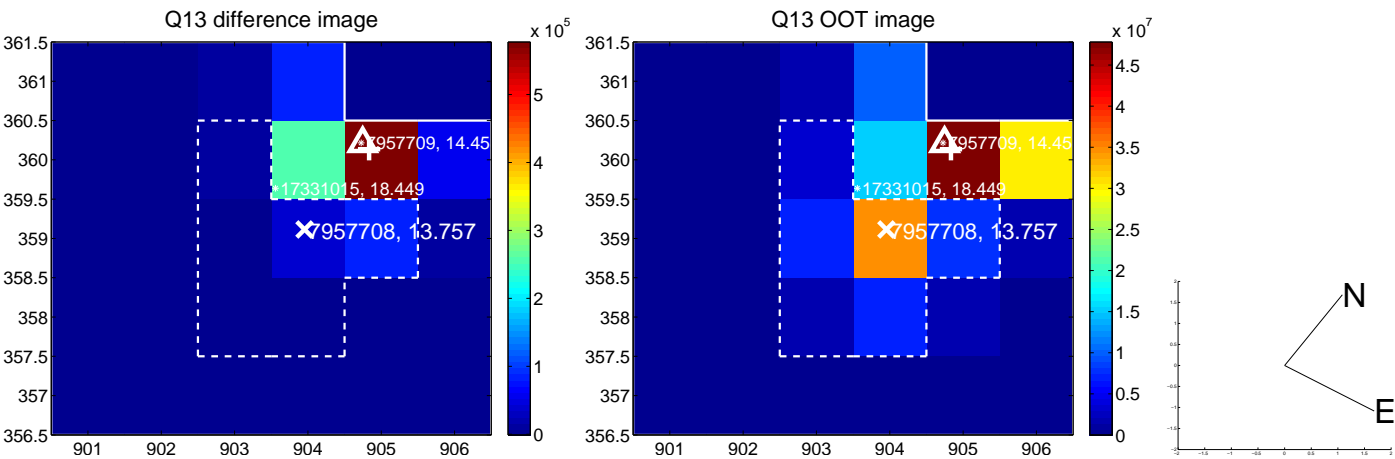
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



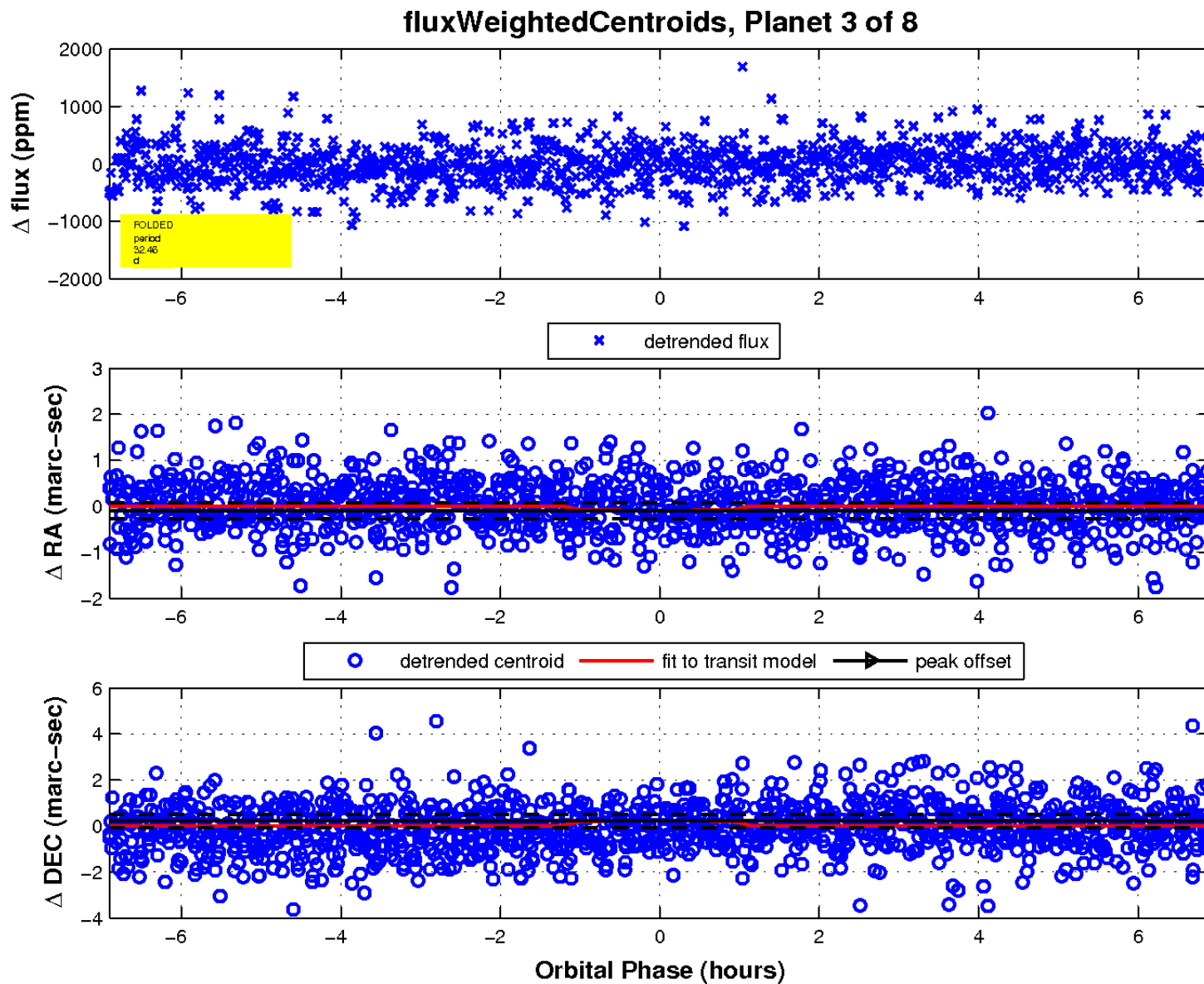
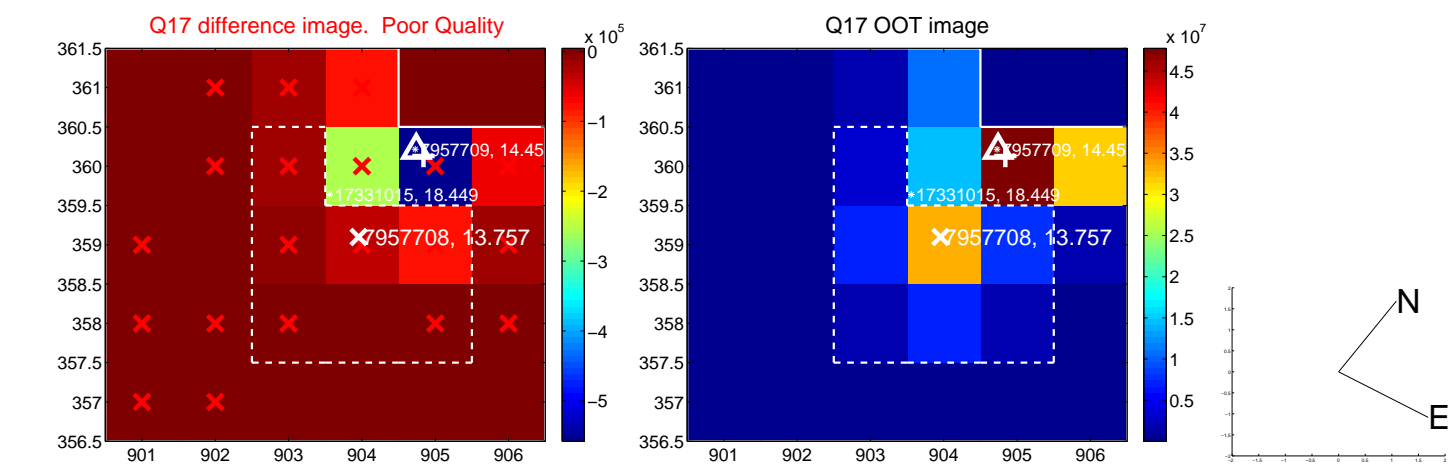
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

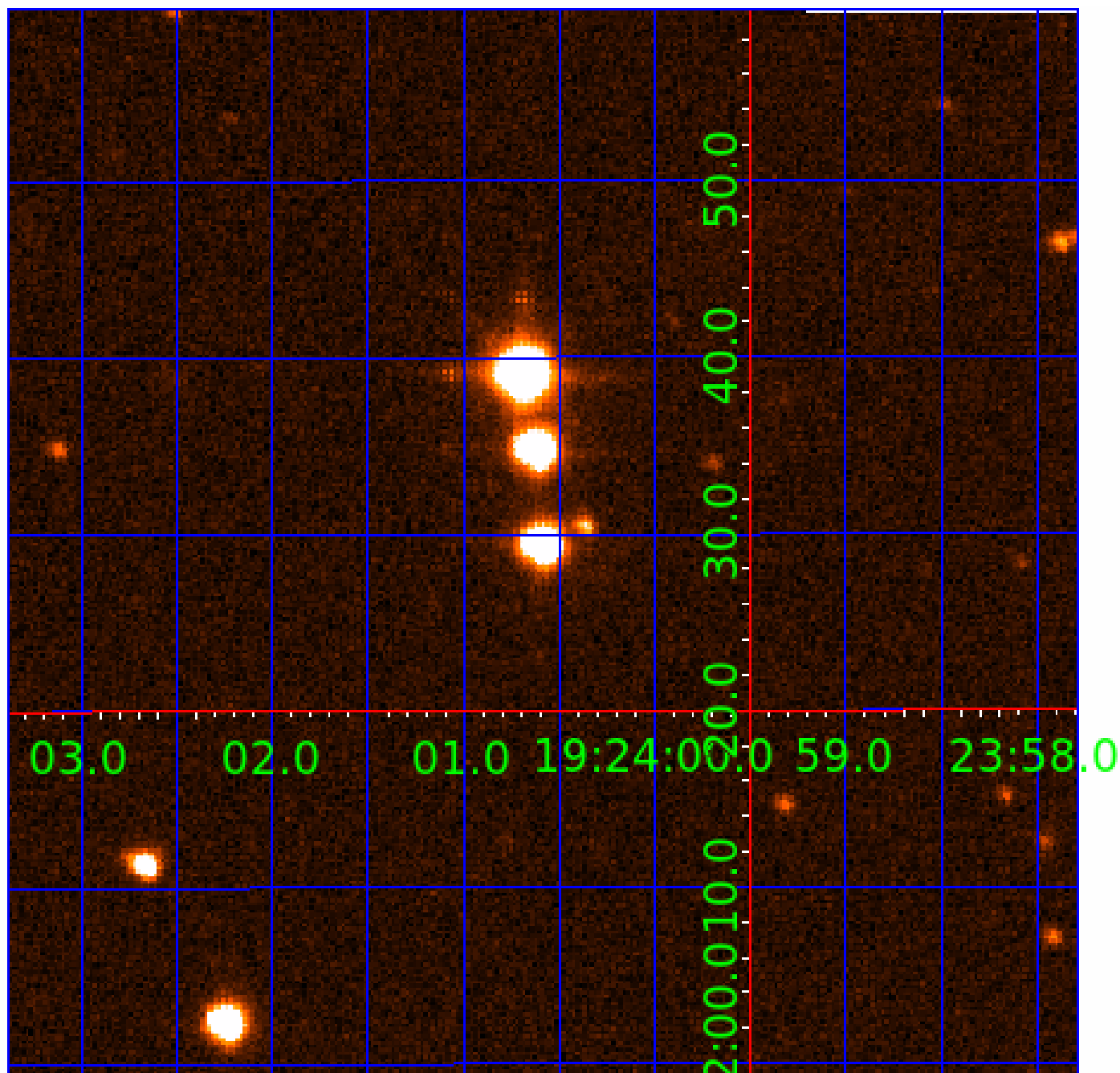


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007957708

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})
007957708-01	OBS	No	0.646753	131.978645	3.8	4.527	11.7	1.1	0.90	5984	0.18	5358.29
007957708-03	OBS	No	32.464345	162.045037	532.5	2.304	11.9	10.4	0.90	5984	2.23	28.94
007957708-04	OBS	No	34.640738	161.806532	345.6	2.958	9.6	8.1	0.90	5984	1.69	26.54
007957708-05	OBS	No	51.388031	161.358819	440.2	4.139	9.5	8.8	0.90	5984	2.25	15.69
007957708-06	OBS	No	46.313611	173.246015	439.0	2.044	9.4	8.3	0.90	5984	2.03	18.02
007957708-07	OBS	No	14.680477	144.060247	54.5	6.867	9.0	2.9	0.90	5984	0.71	83.37
007957708-08	OBS	No	12.885472	140.729696	221.6	2.324	9.8	7.9	0.90	5984	1.35	99.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007957708-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

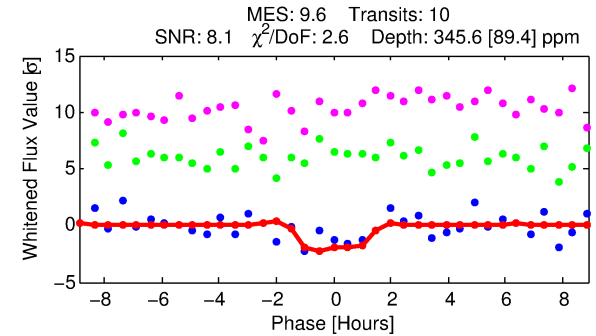
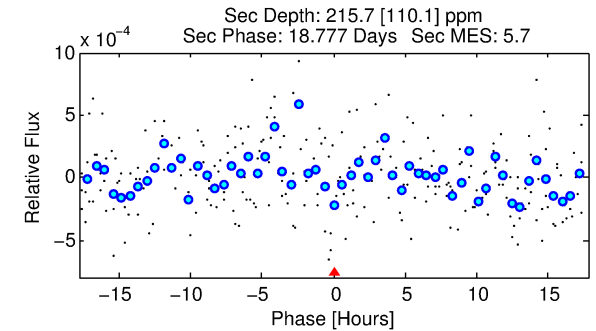
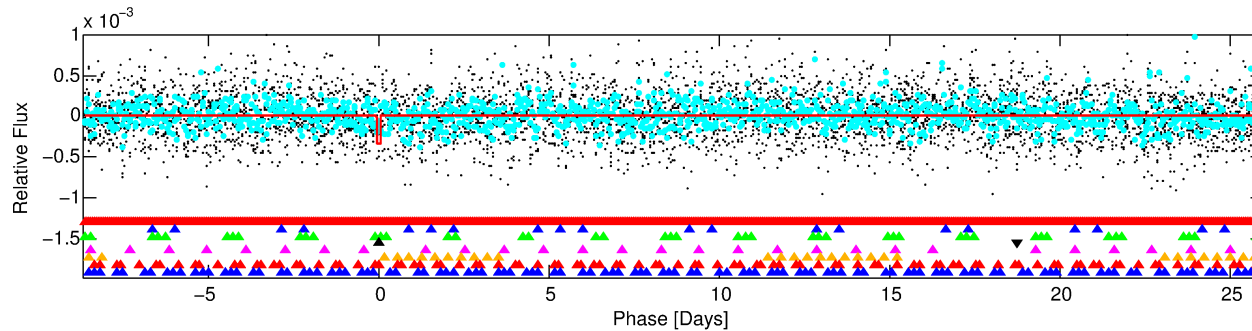
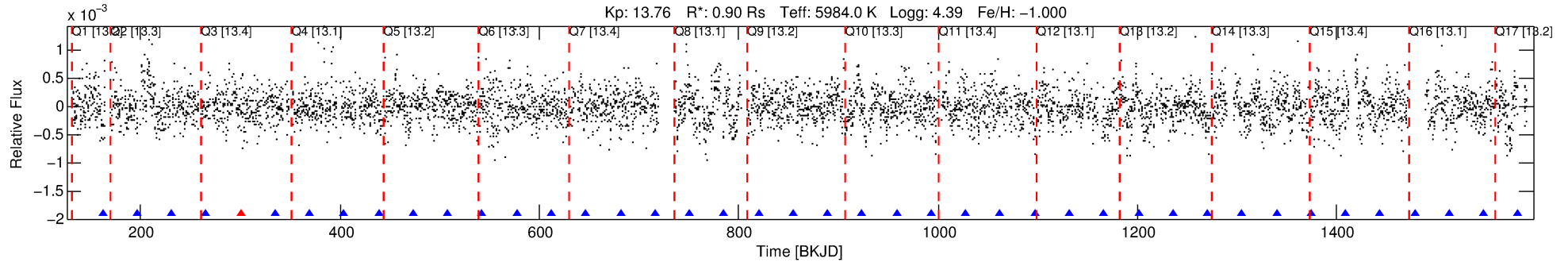
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-04

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 4 of 8 Period: 34.641 d

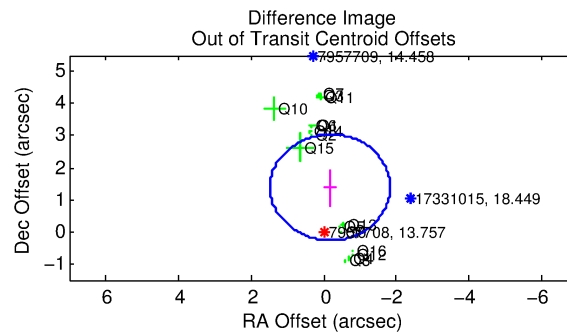
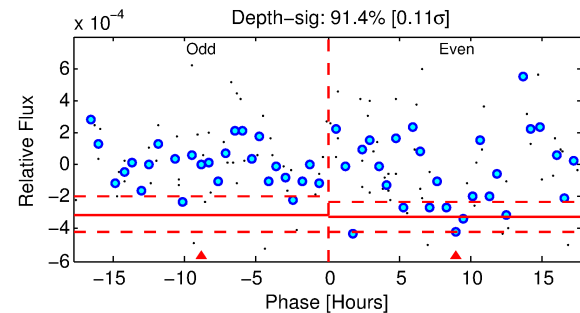
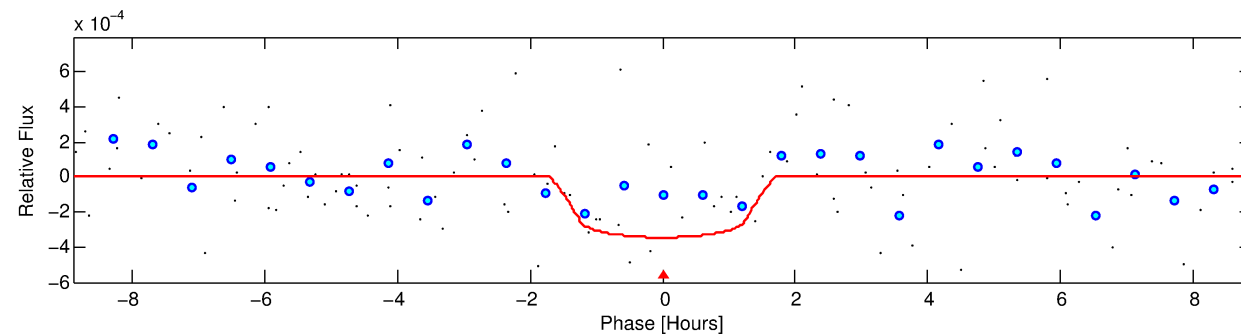


DV Fit Results:

Period = 34.64074 [0.00067] d
Epoch = 161.8065 [0.0145] BKJD
Rp/R* = 0.0172 [0.0427]
a/R* = 89.37 [1159.12]
b = 0.19 [65.71]
Seff = 26.54 [9.00]
Teq = 579 [49] K
Rp = 1.69 [4.22] Re
a = 0.1875 [0.0387] AU
Ag = 1463.32 [7336.09] [0.20σ]
Teffp = 5534 [6924] K [0.72σ]

DV Diagnostic Results:

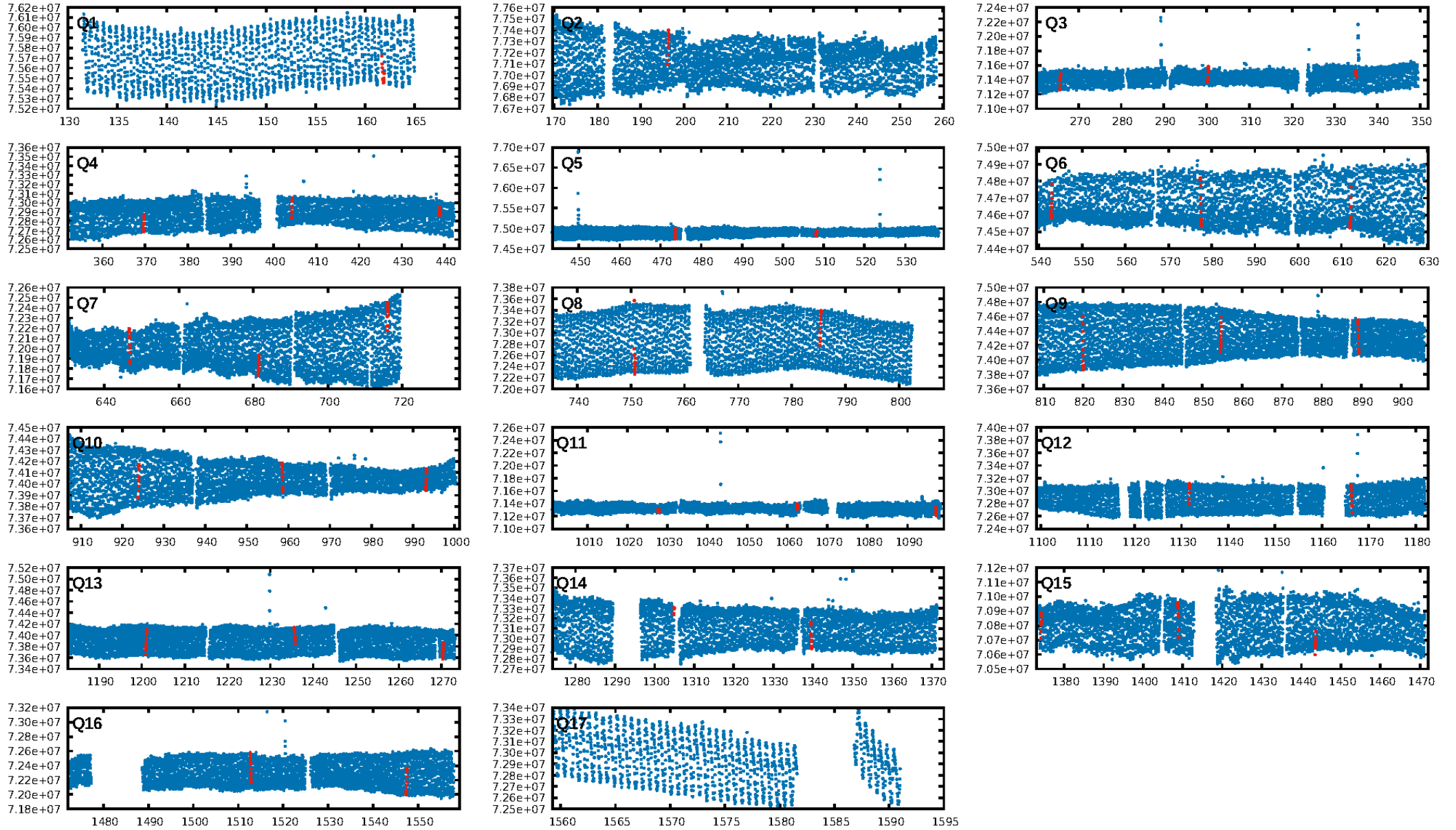
ShortPeriod-sig: 100.0% [13.93σ]
LongPeriod-sig: 100.0% [77.90σ]
ModelChiSquare2-sig: 43.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.62e-14
RollingBand-fgt: 0.90 [9/10]
GhostDiagnostic-chr: -0.4928
Centroid-sig: 0.1%
Centroid-so: 4.811 arcsec [7.32σ]
OotOffset-rm: 1.395 arcsec [2.54σ]
KicOffset-rm: 5.361 arcsec [44.76σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 0.00 [0/16]



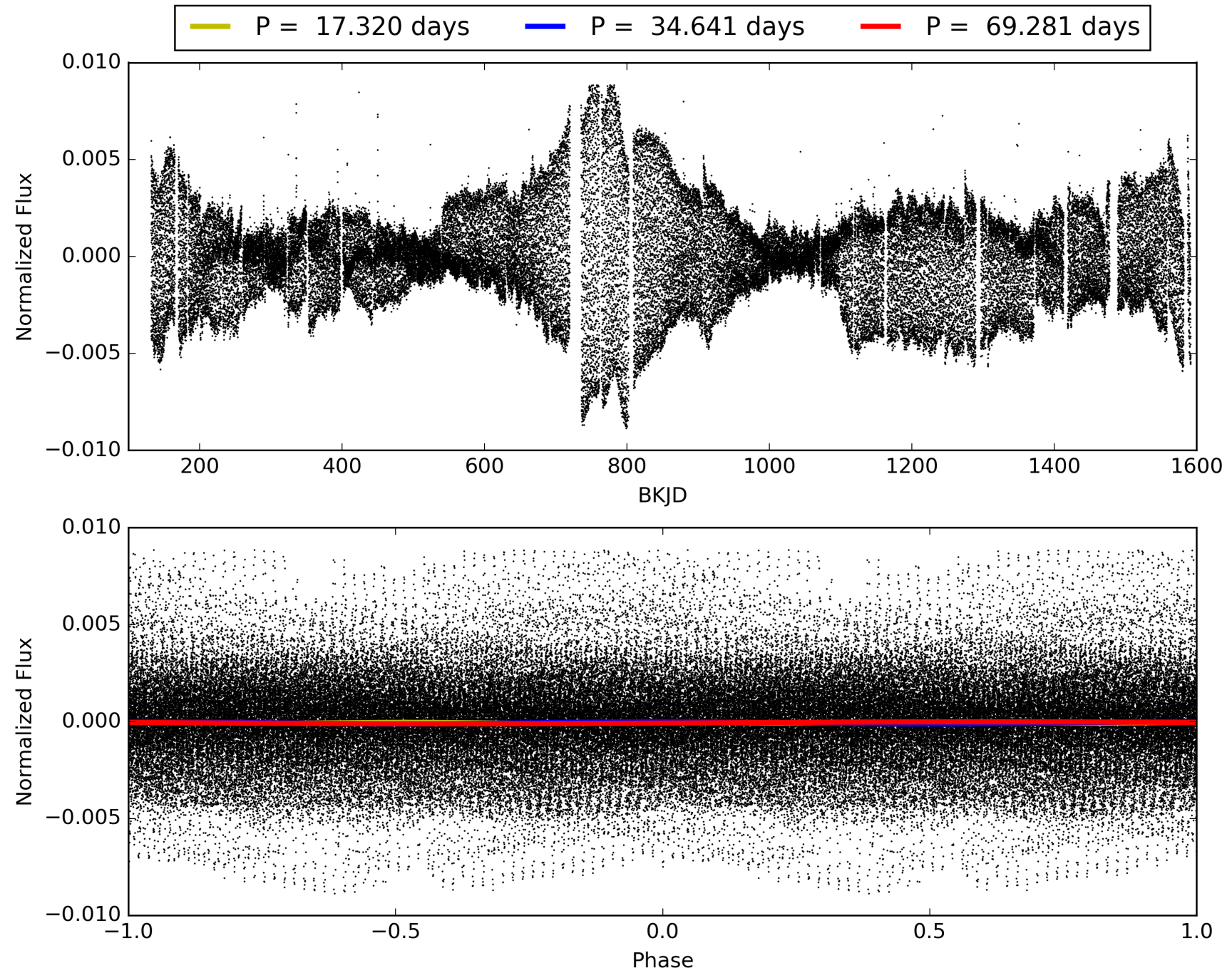
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:23 Z

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

TCE 007957708-04, PDC Light Curves

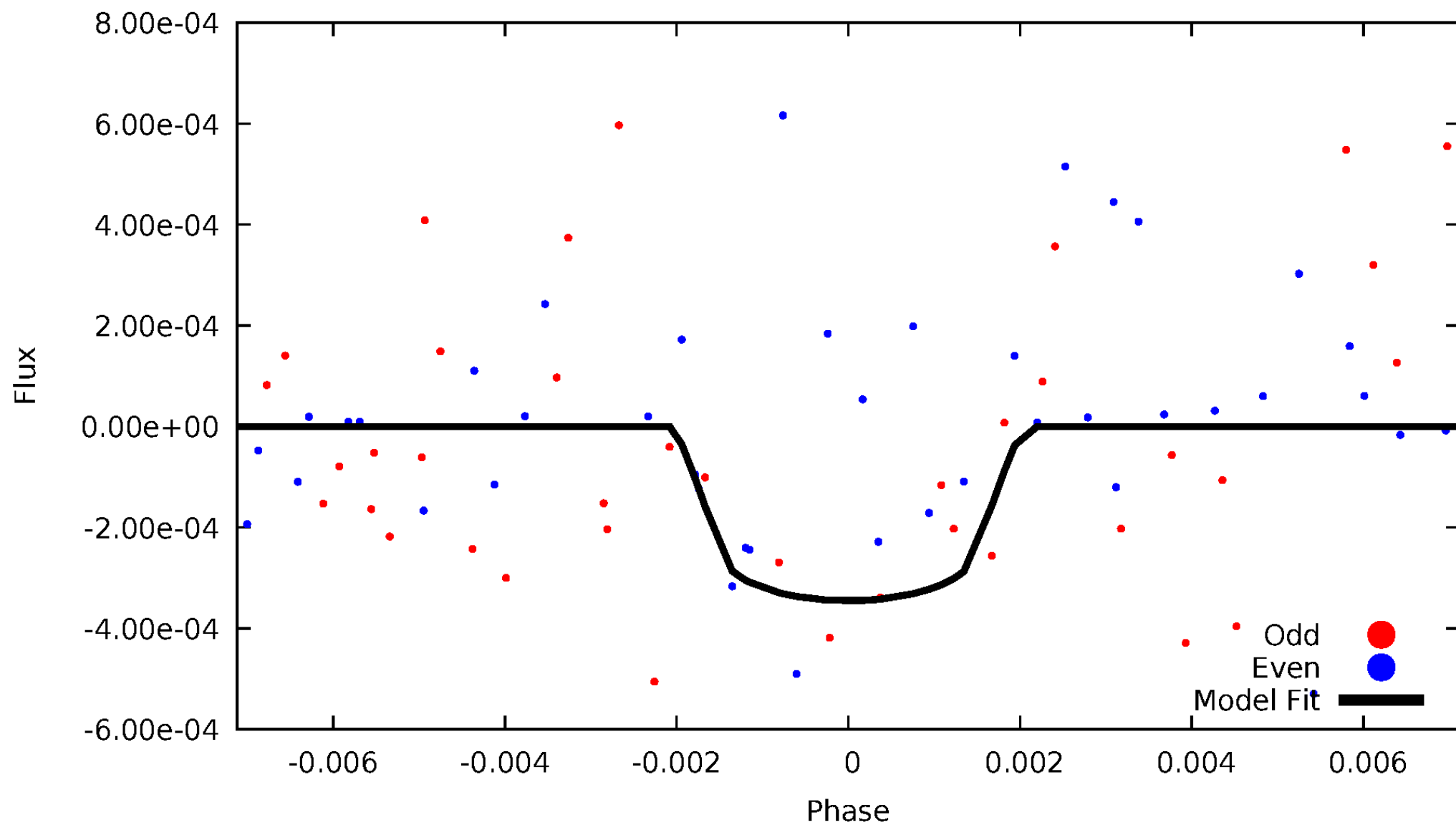


TCE 007957708-04



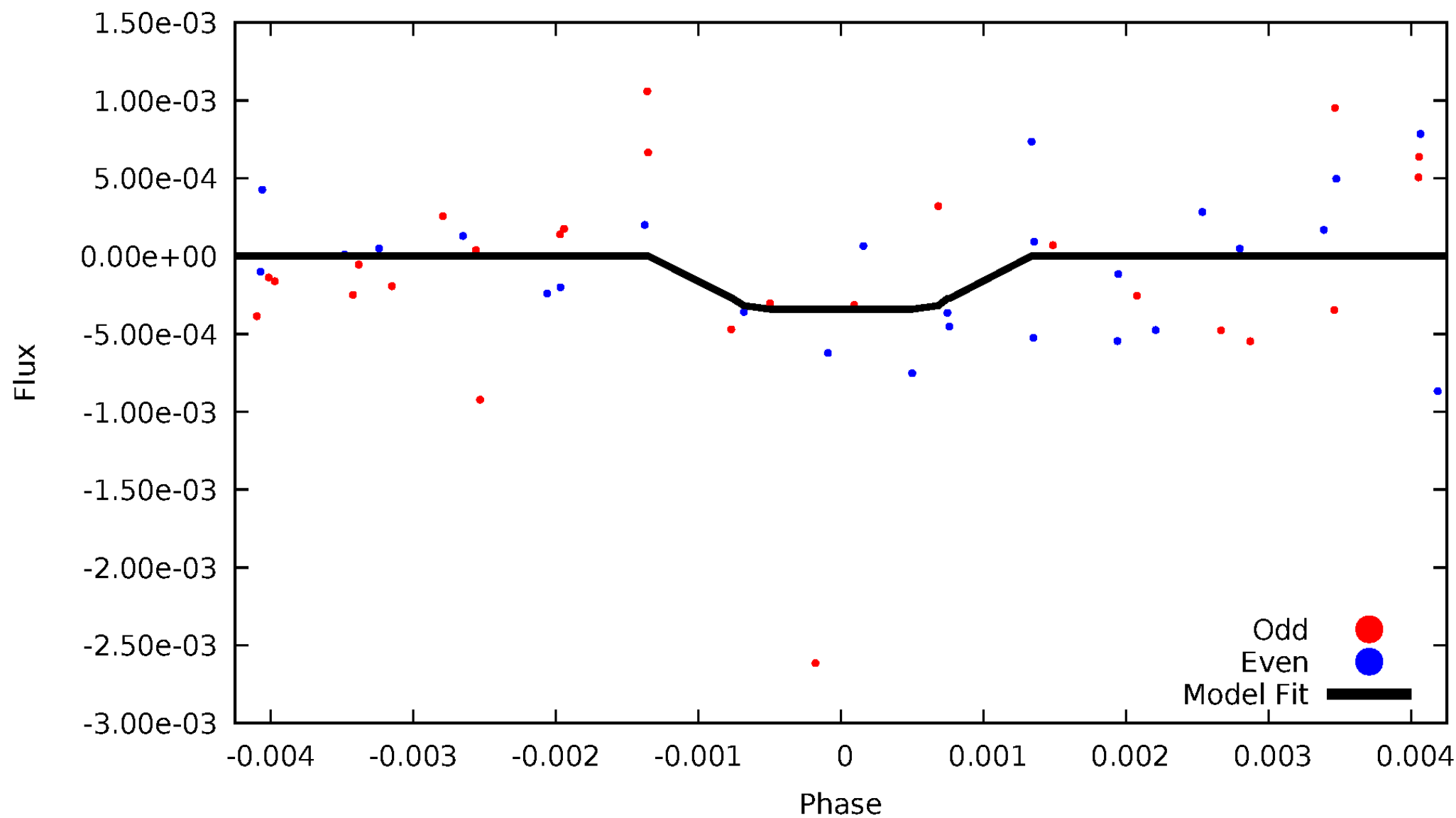
DV Odd/Even

TCE 007957708-04



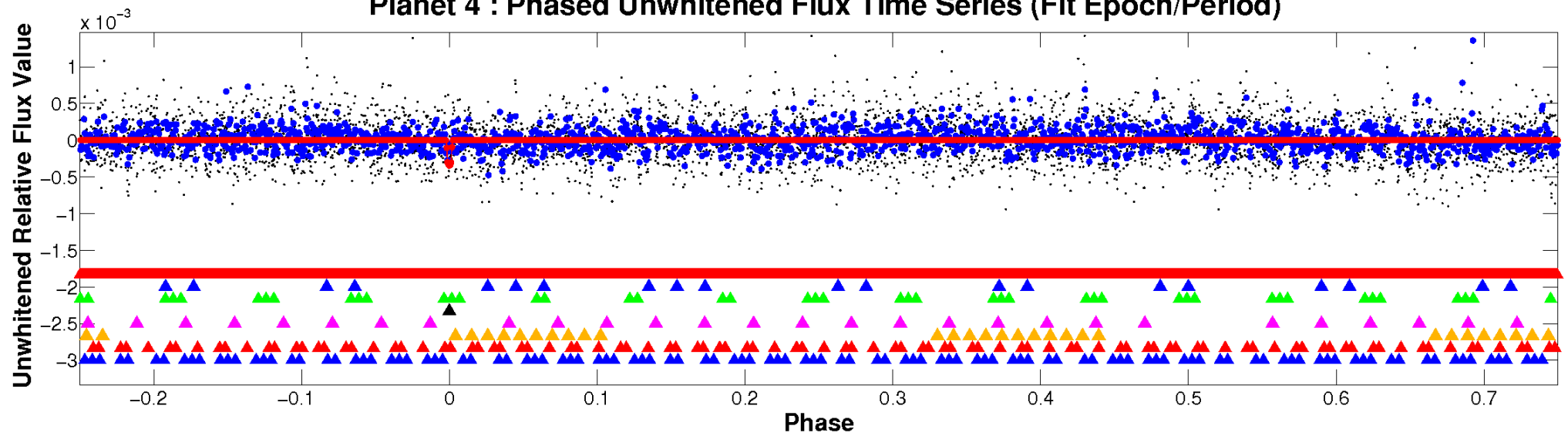
ALT Odd/Even

TCE 007957708-04

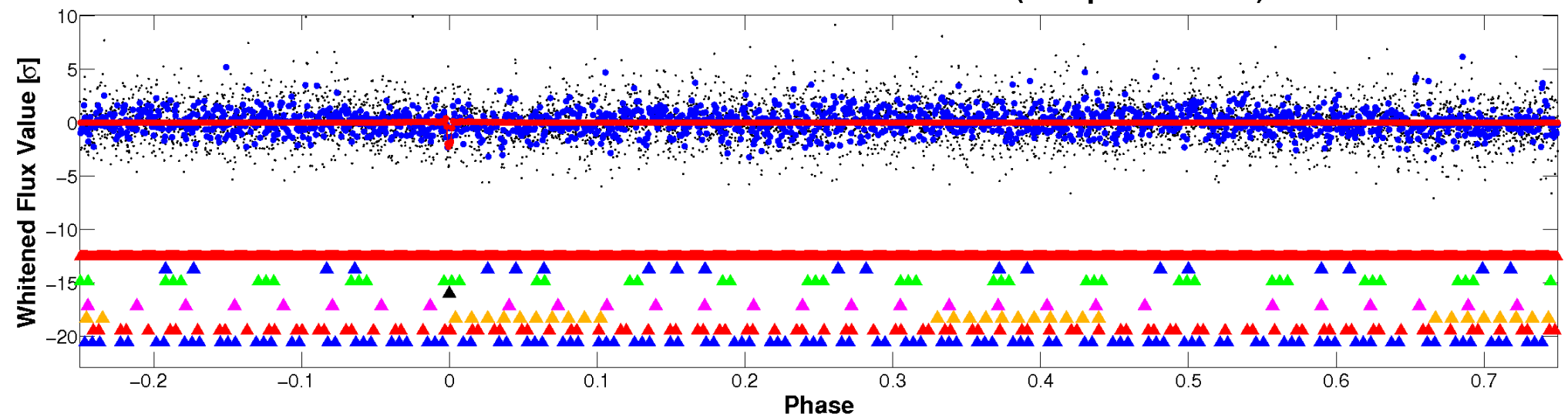


Non-Whitened Vs. Whitened Light Curve

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

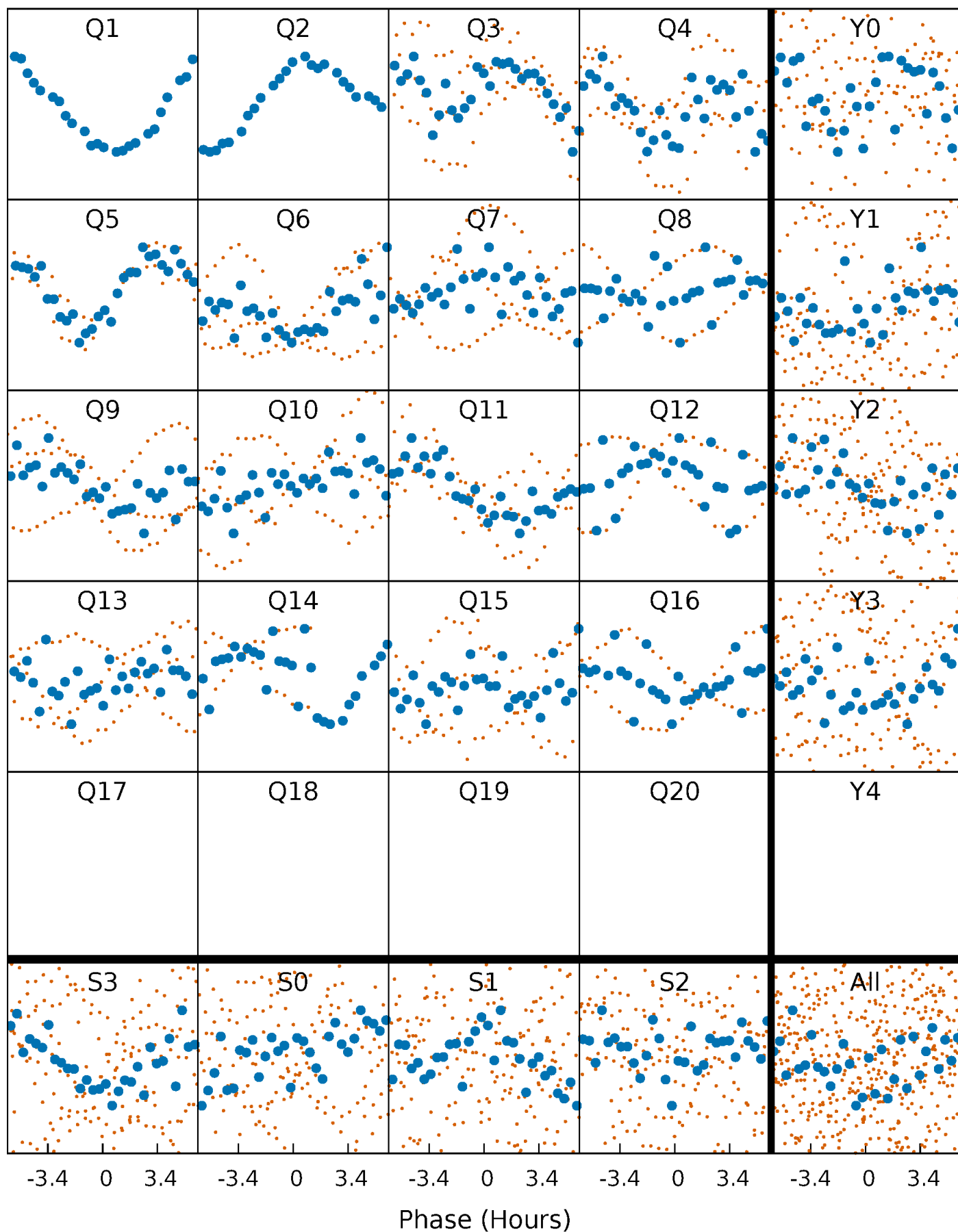


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



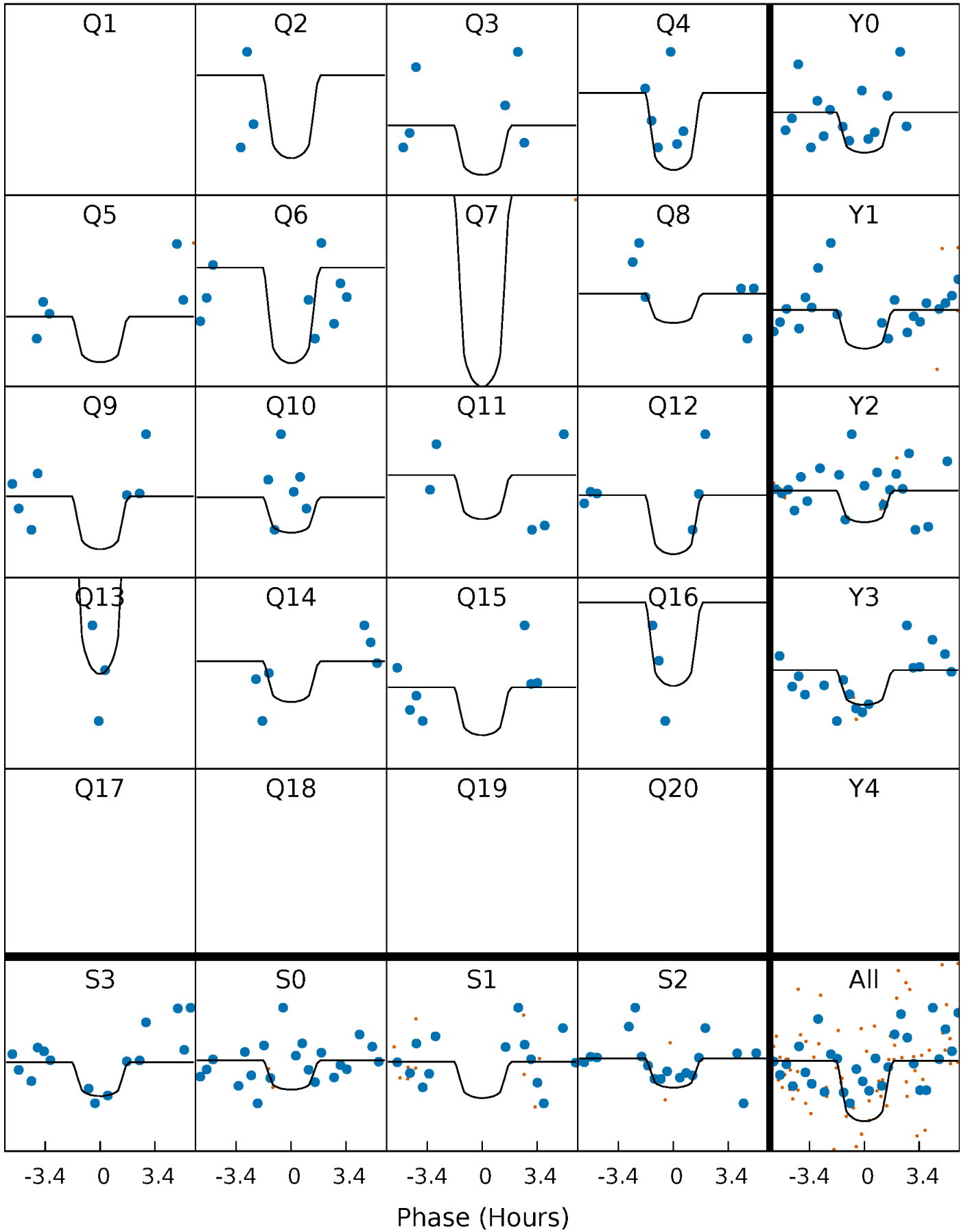
PDC Quarter-Phased Transit Curves

TCE 007957708-04 P= 34.640738 Days $T_0=161.806532$ (BKJD)



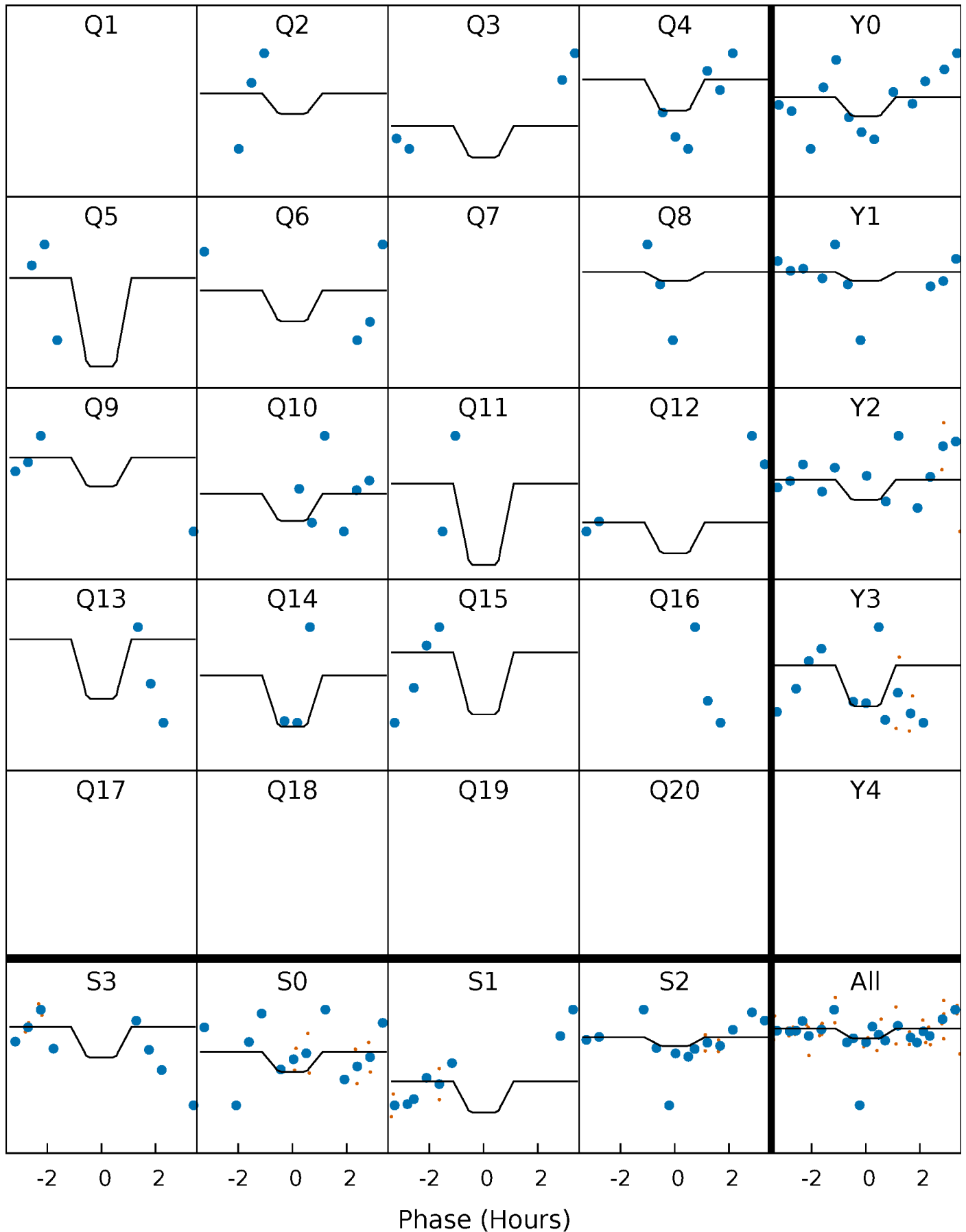
DV Quarter-Phased Transit Curves

TCE 007957708-04 P= 34.640738 Days $T_0=161.806532$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

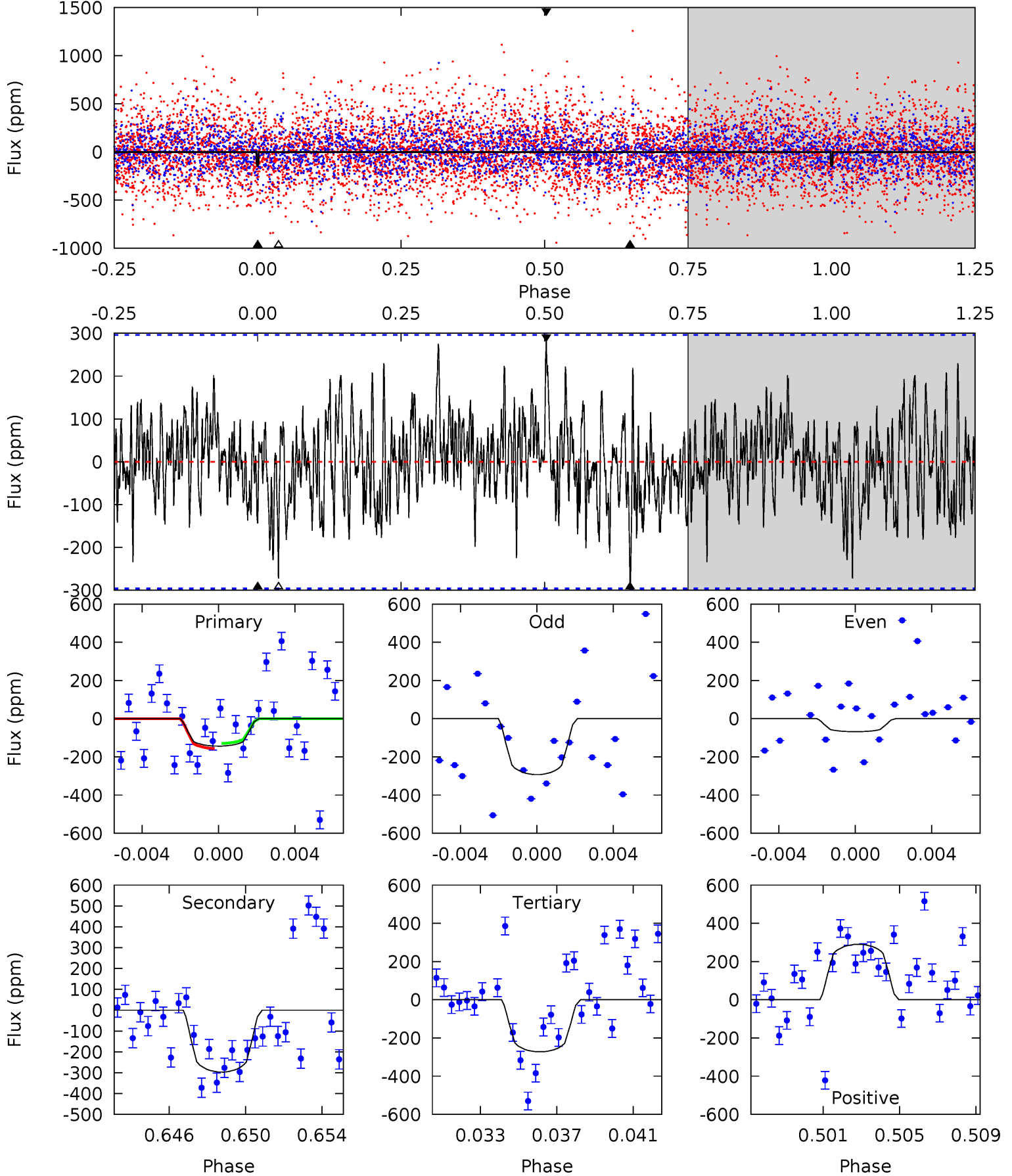
TCE 007957708-04 P= 34.639769 Days $T_0=161.757086$ (BKJD)



DV Model-Shift Uniqueness Test

007957708-04, P = 34.640738 Days, E = 127.165794 Days

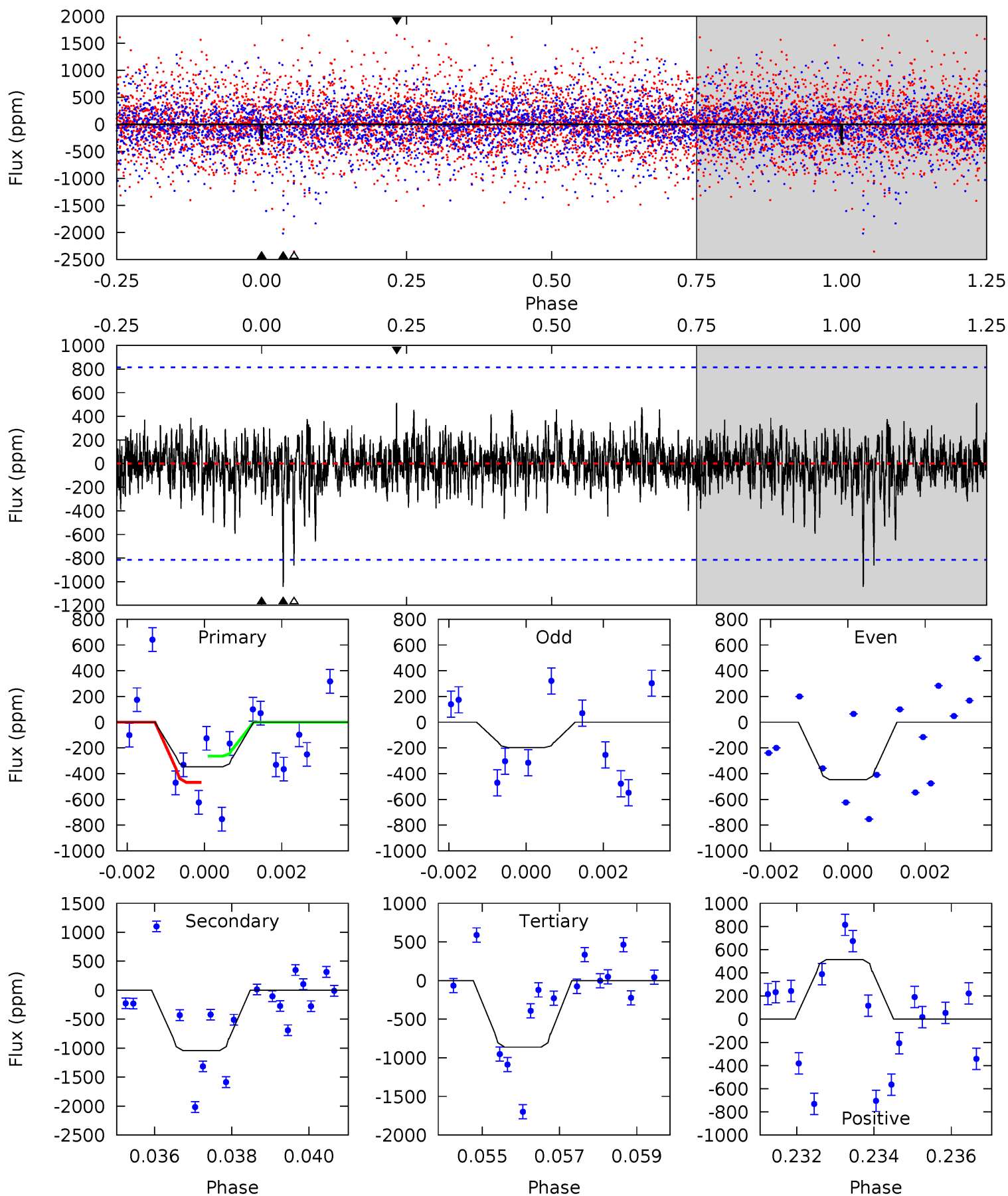
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.52	5.20	4.78	5.08	5.19	2.87	1.48	-2.26	-2.57	0.43	0.12	1.69	0.74	0.49	0.24



Alt Model-Shift Uniqueness Test

007957708-04, P = 34.639769 Days, E = 127.117317 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.26	6.80	5.62	3.35	5.32	3.07	0.97	-3.37	-1.09	1.18	3.45	0.75	1.83	0.33	0.64



Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-297 ± 57	$3.53^{+3.41}_{-2.35}$	813^{+54}_{-51}	4365^{+2832}_{-871}	454^{+3756}_{-332}
Alt.	-1043 ± 153	$3.49^{+3.43}_{-2.32}$	809^{+58}_{-48}	5696^{+5136}_{-1405}	1616^{+12153}_{-1183}

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

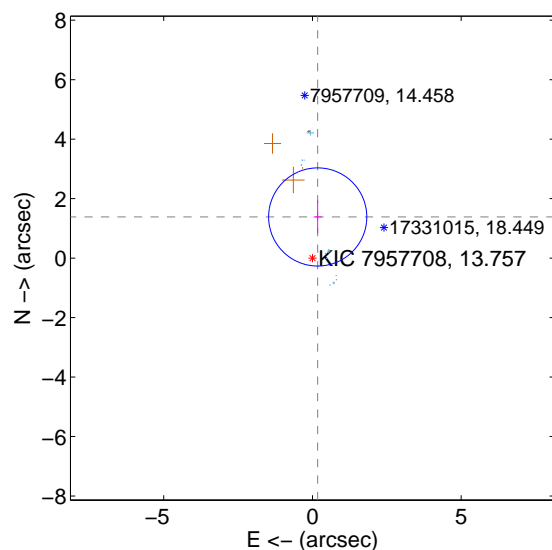
Supplemental centroid analysis for 007957708-04. Kepler magnitude: 13.76. Transit SNR 8.06

There are 10 quarters with good PRF difference image offsets

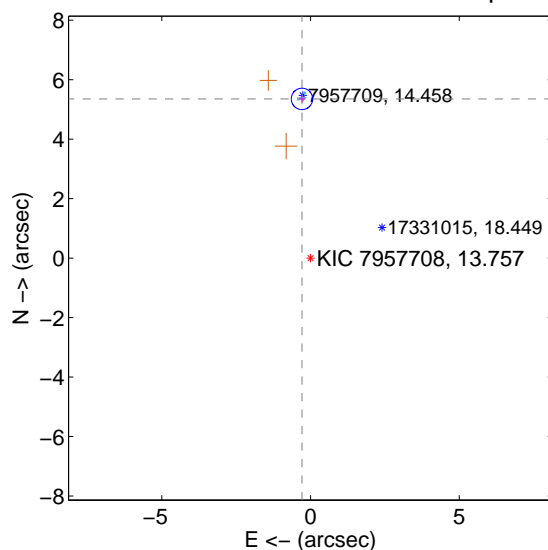
The OOT PRF centroid is offset from the target star catalog position by about 6.05 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.395 ± 0.550	2.54	-0.177 ± 0.135	1.383 ± 0.554
PRF-fit source offset from KIC position	5.361 ± 0.120	44.76	0.288 ± 0.098	5.353 ± 0.120
photometric centroid source offset	4.81 ± 0.66	7.32	0.53 ± 0.33	4.78 ± 0.66

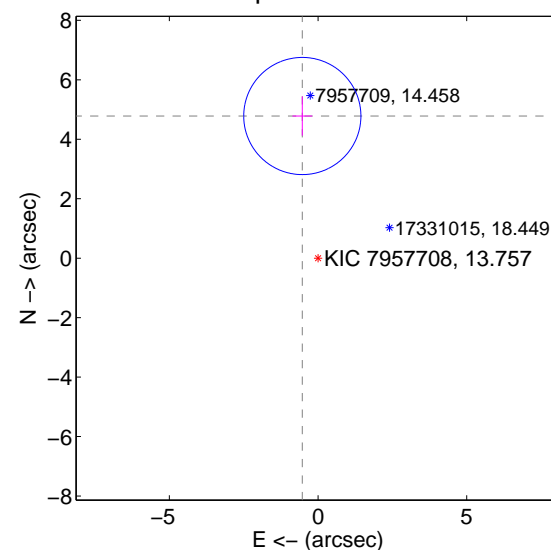
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

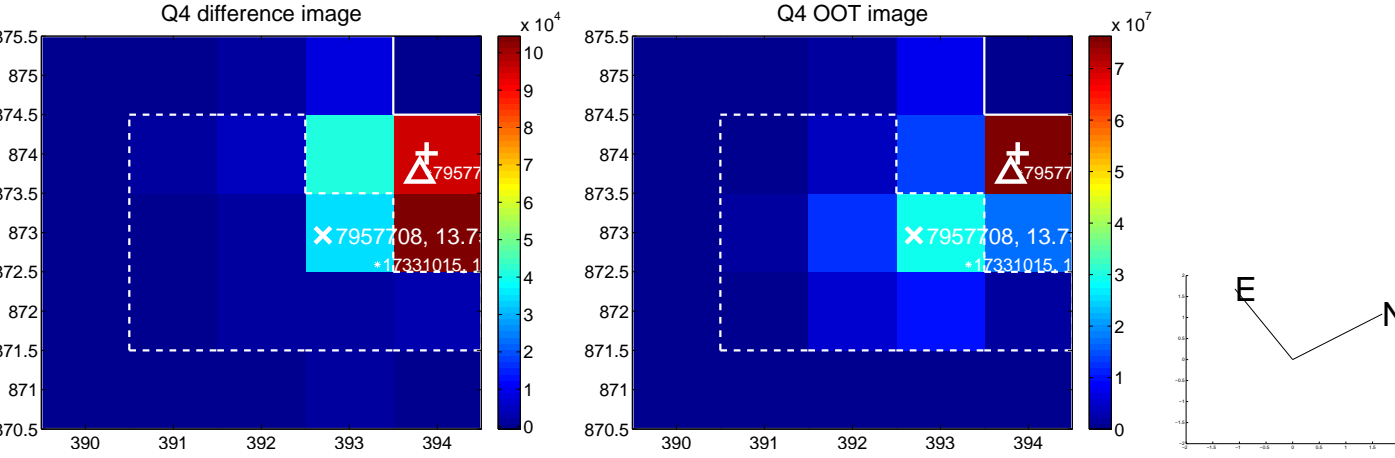
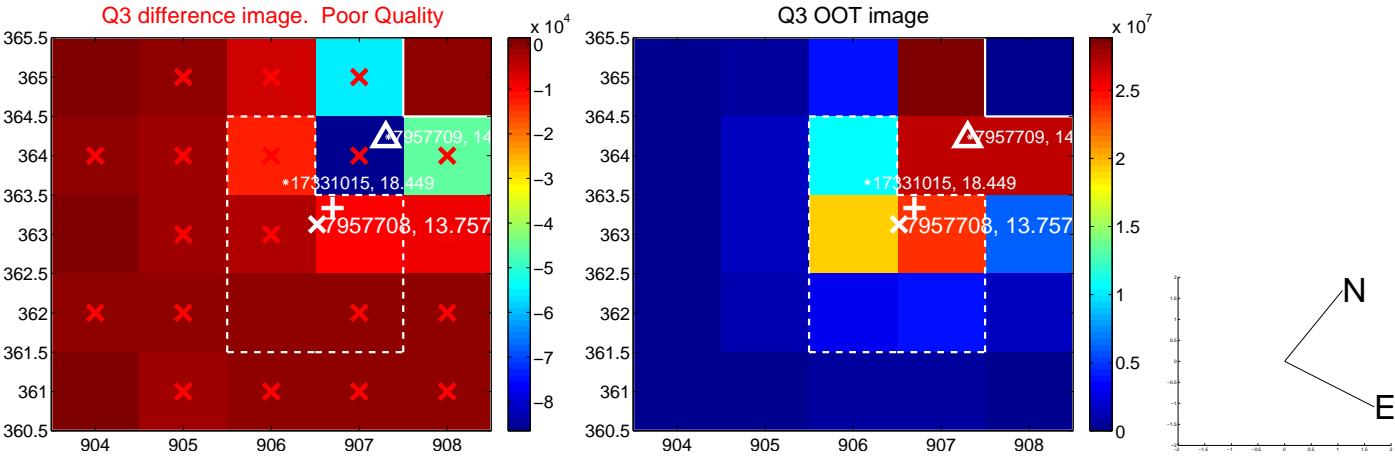
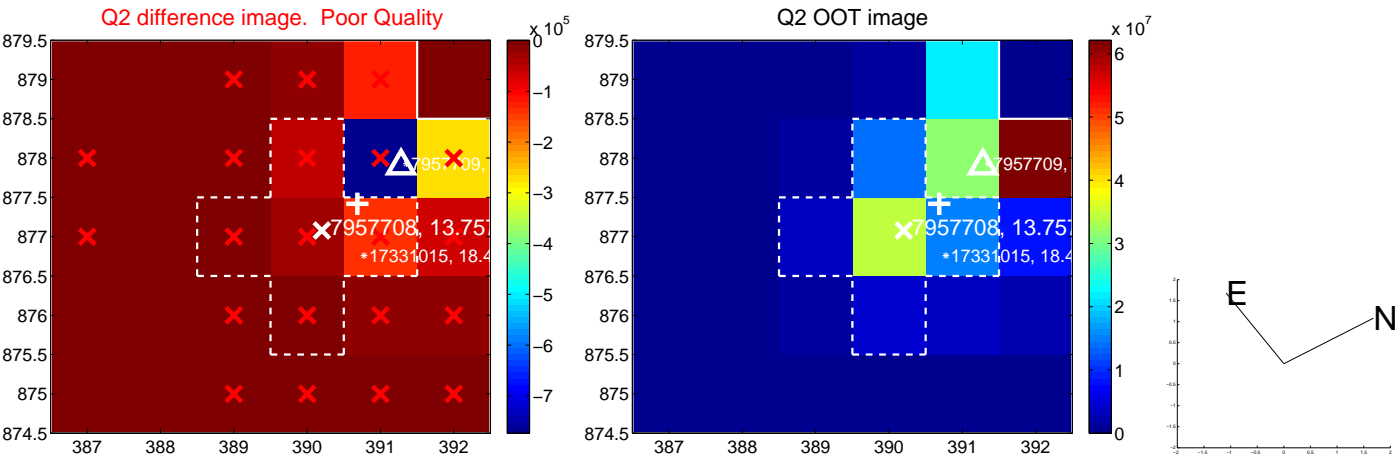
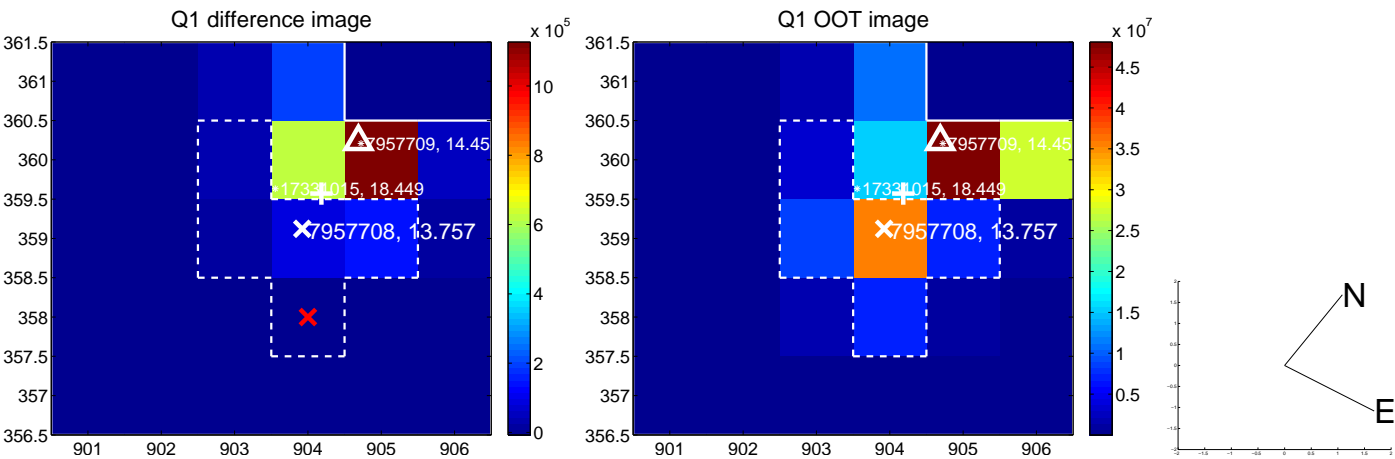


offset from photometric centroids

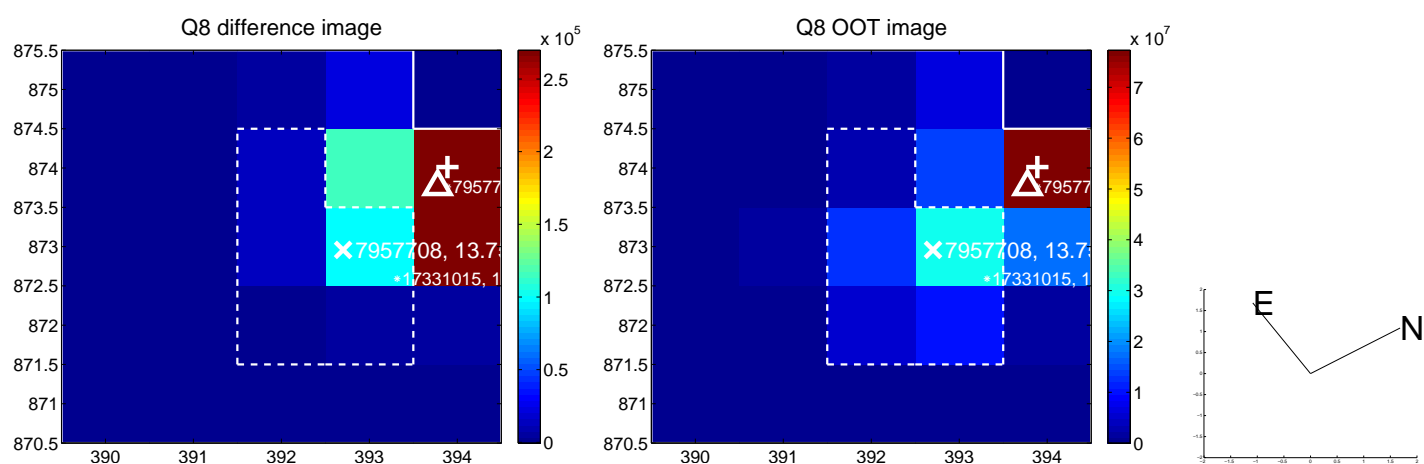
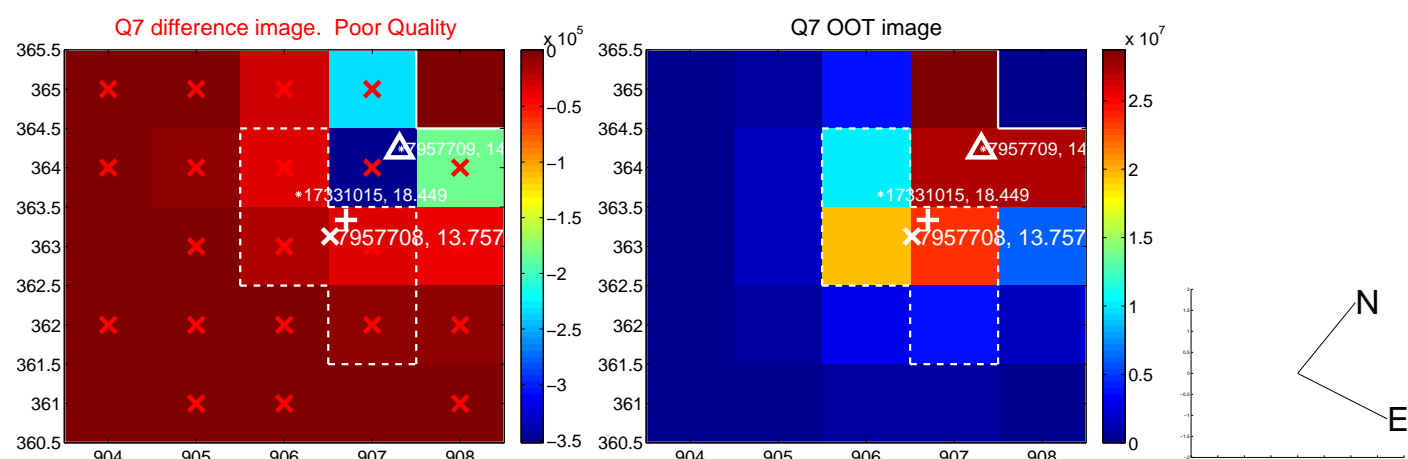
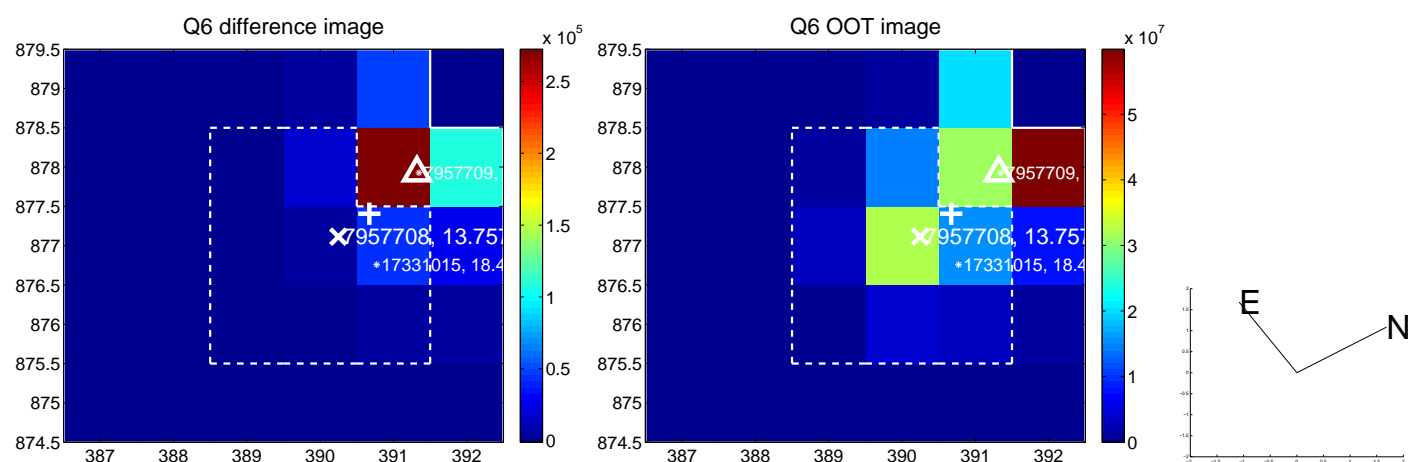
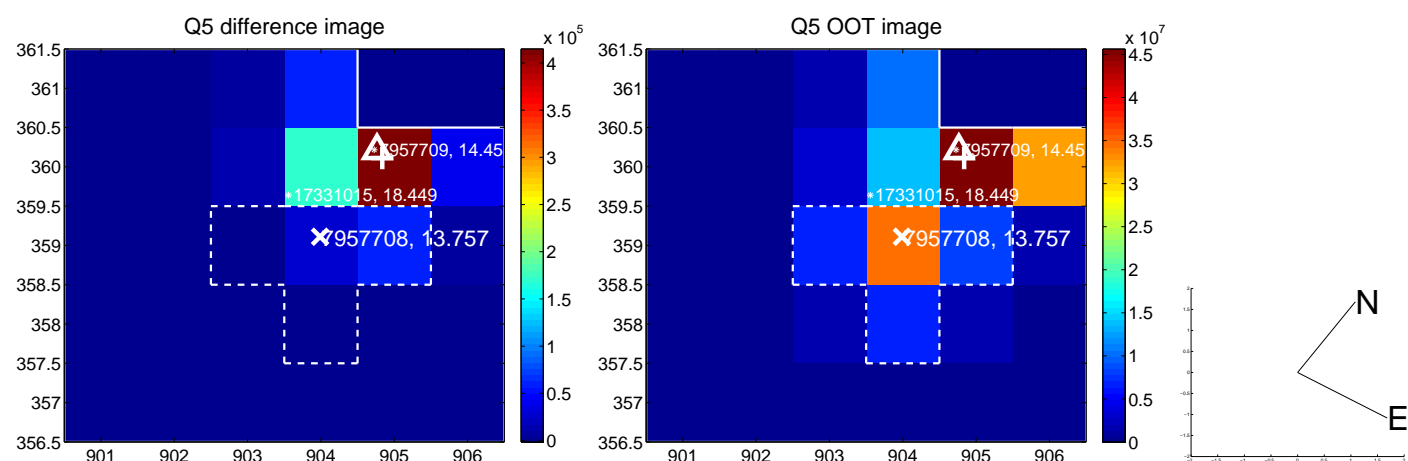


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

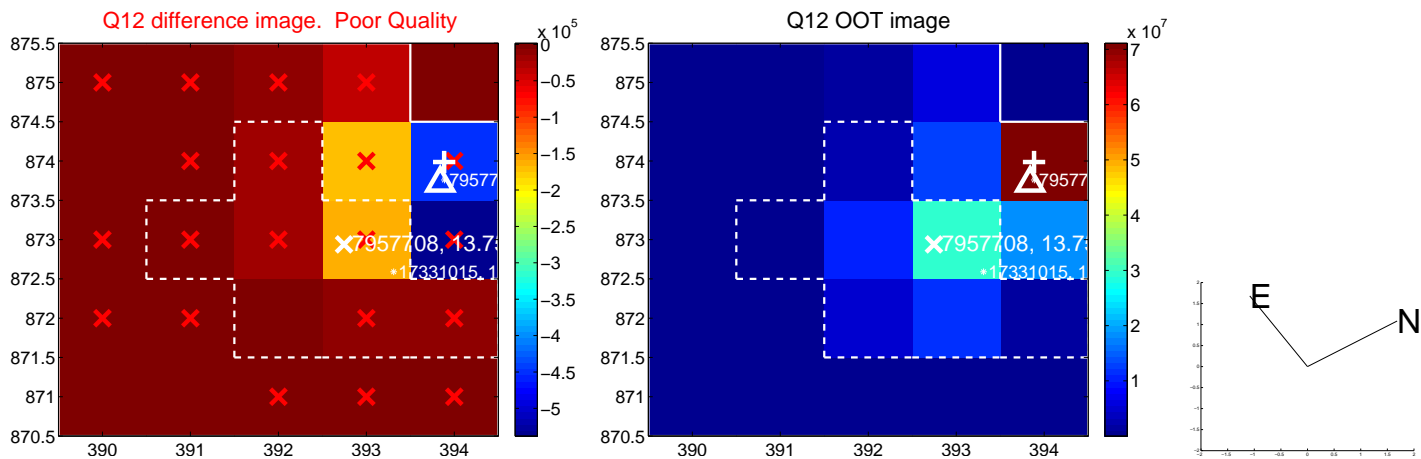
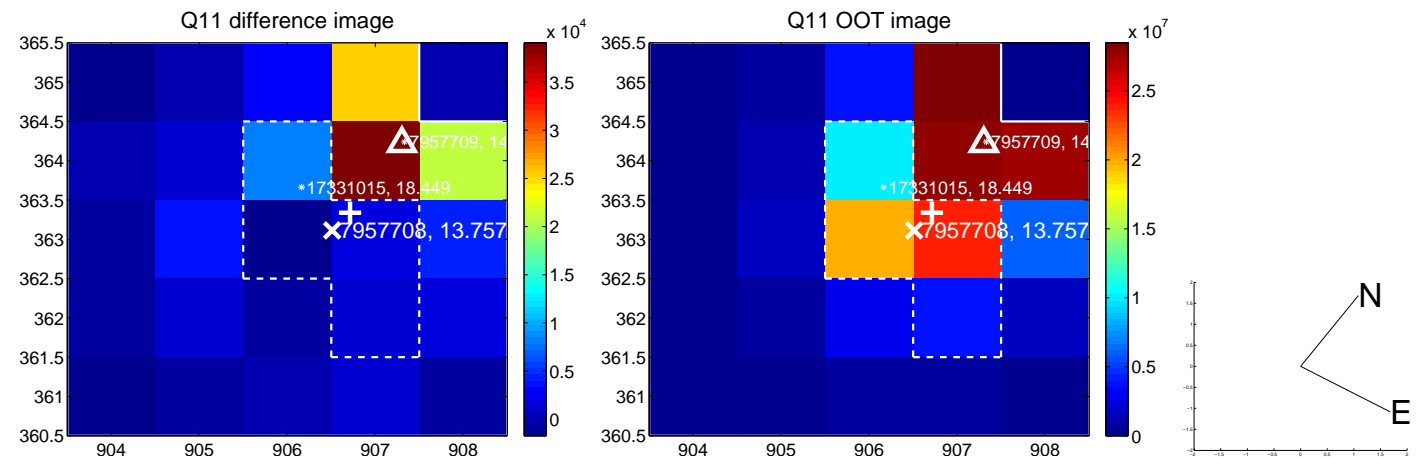
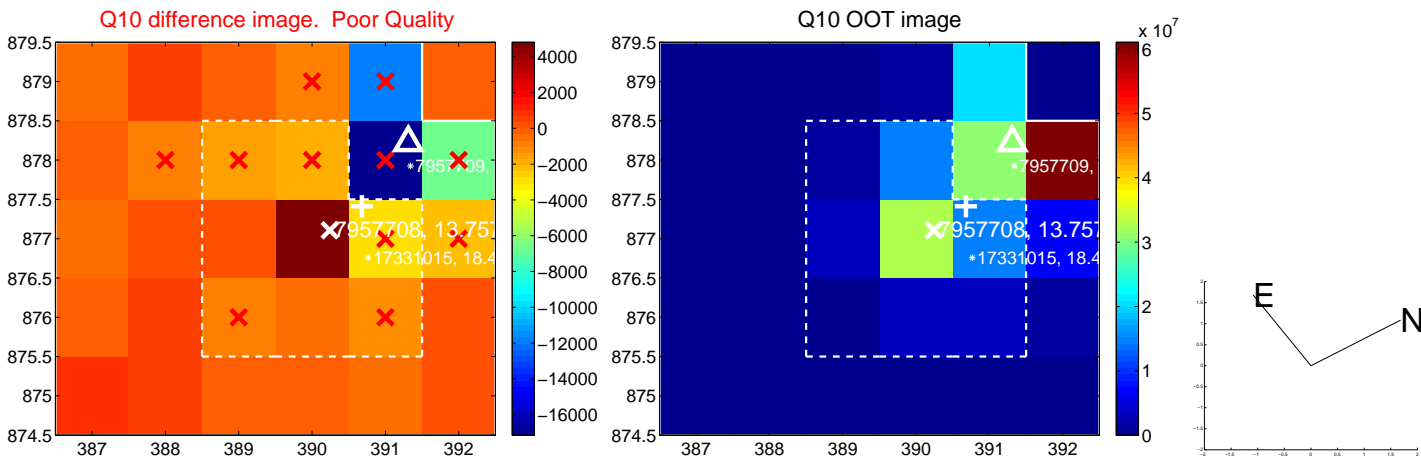
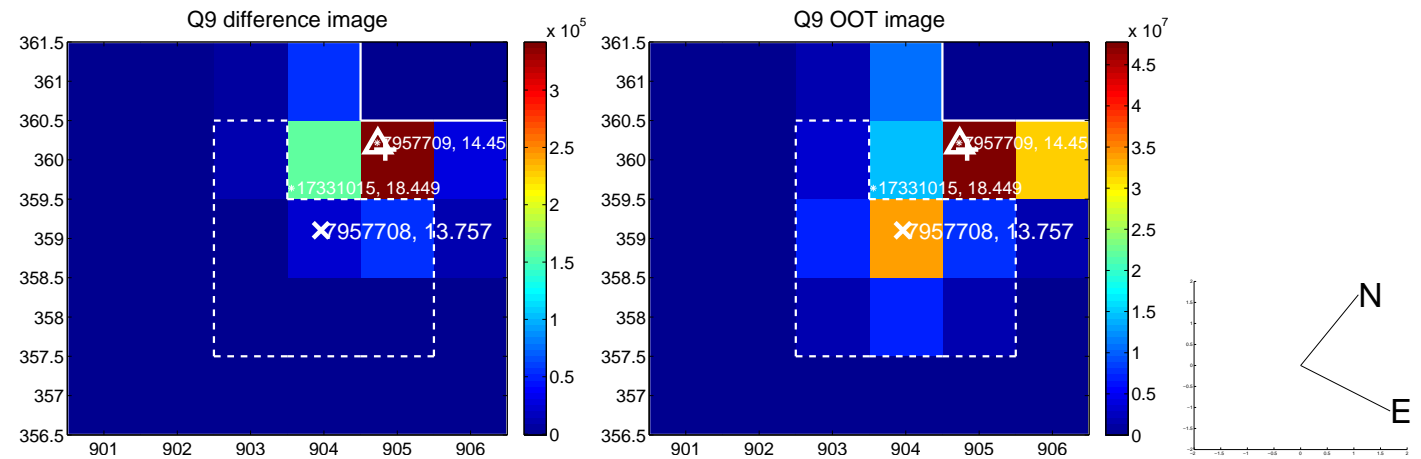
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



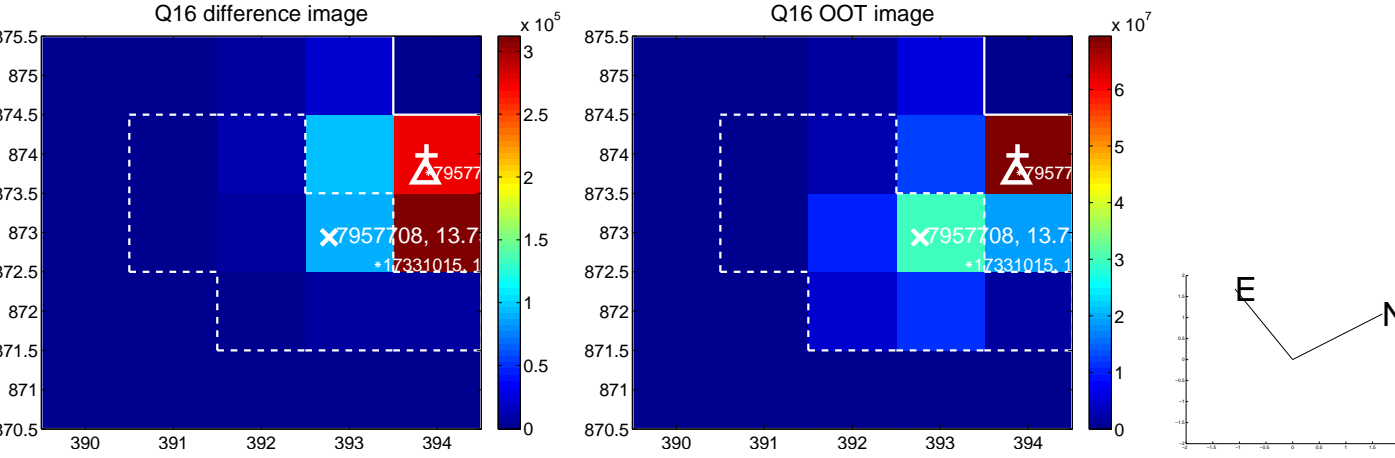
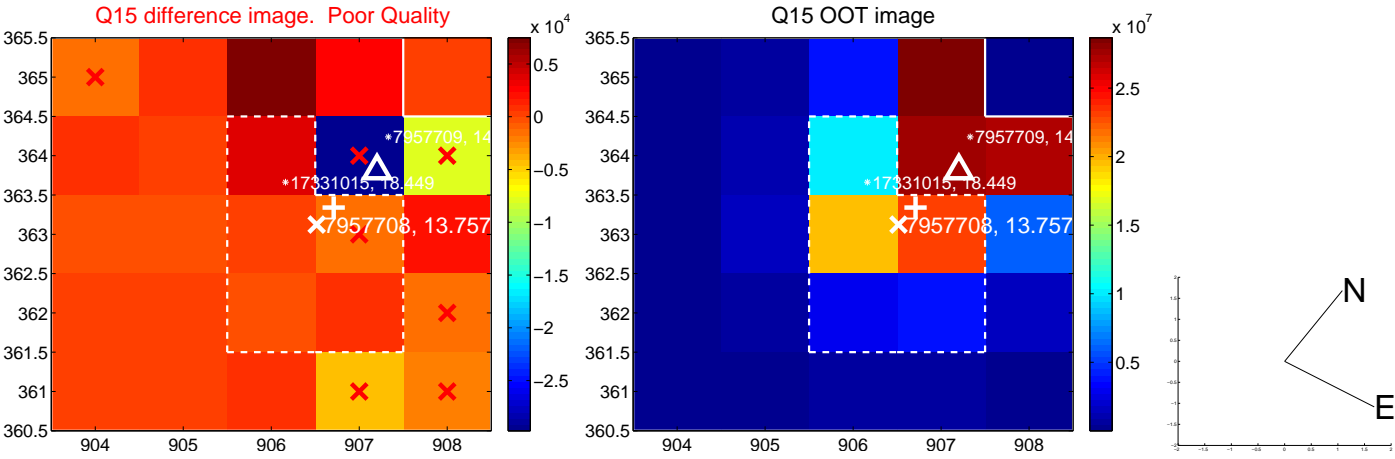
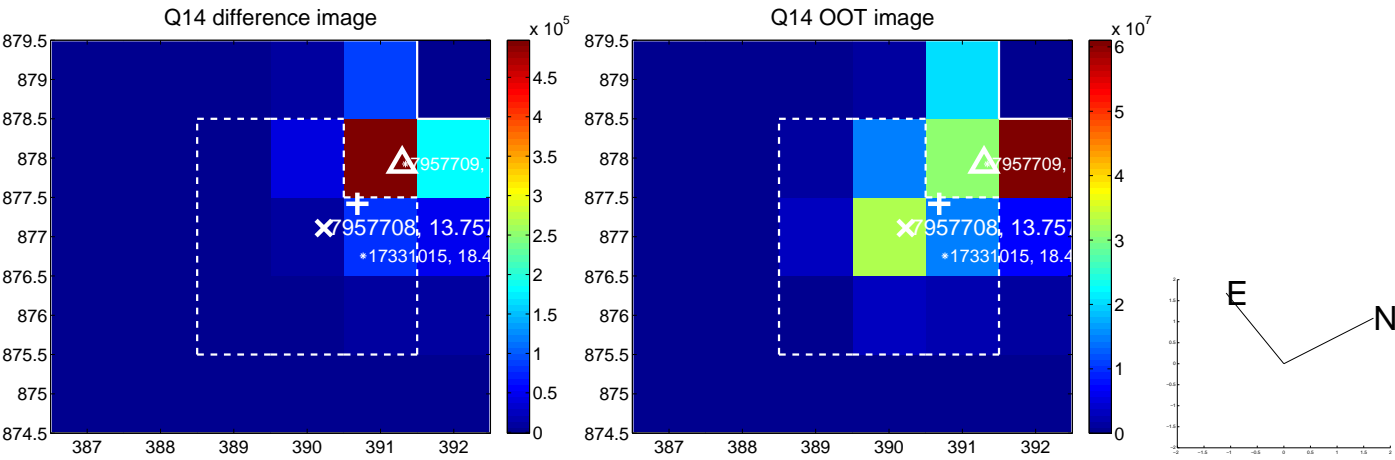
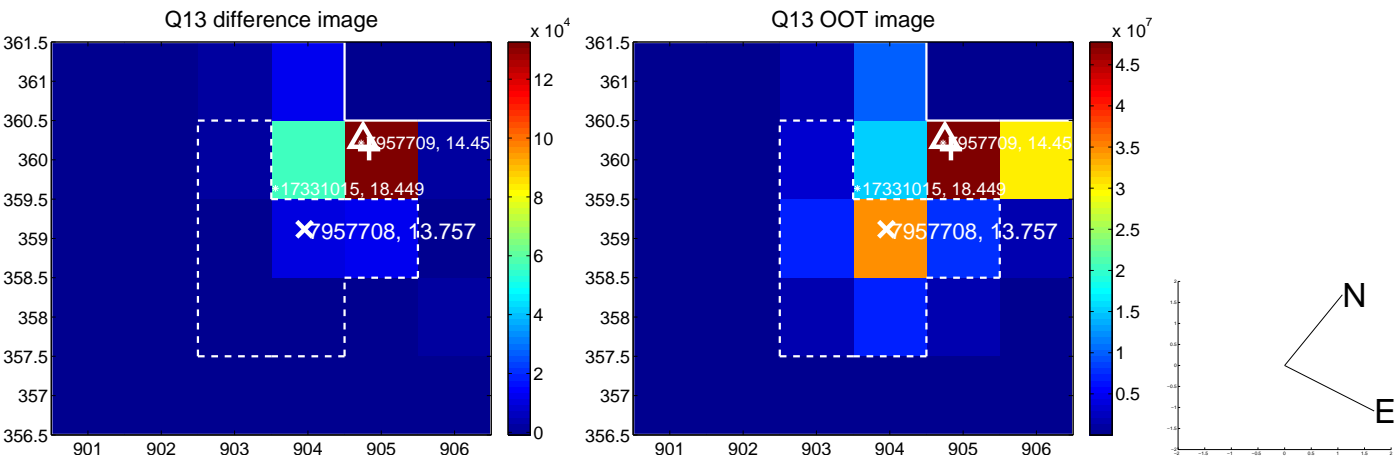
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



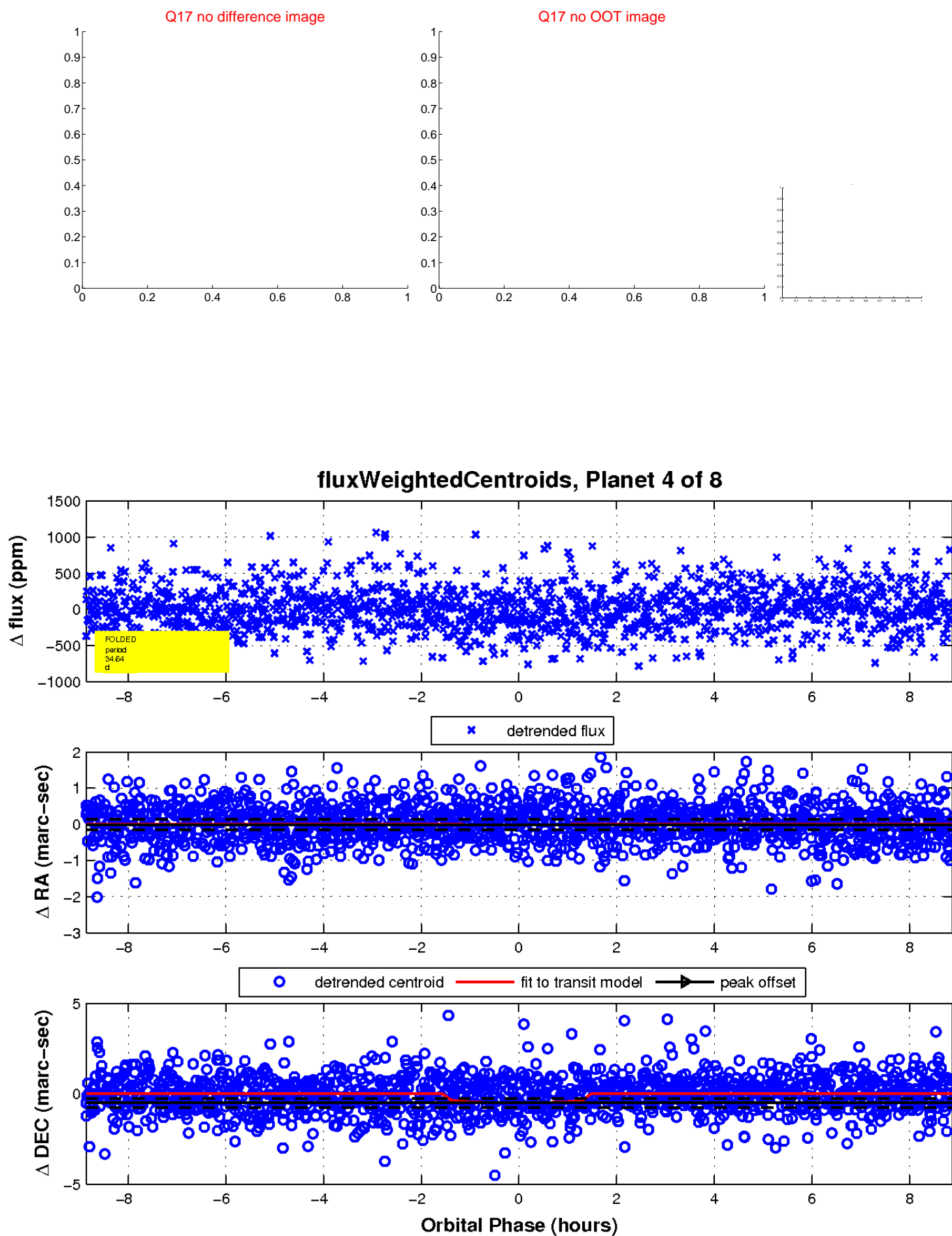
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

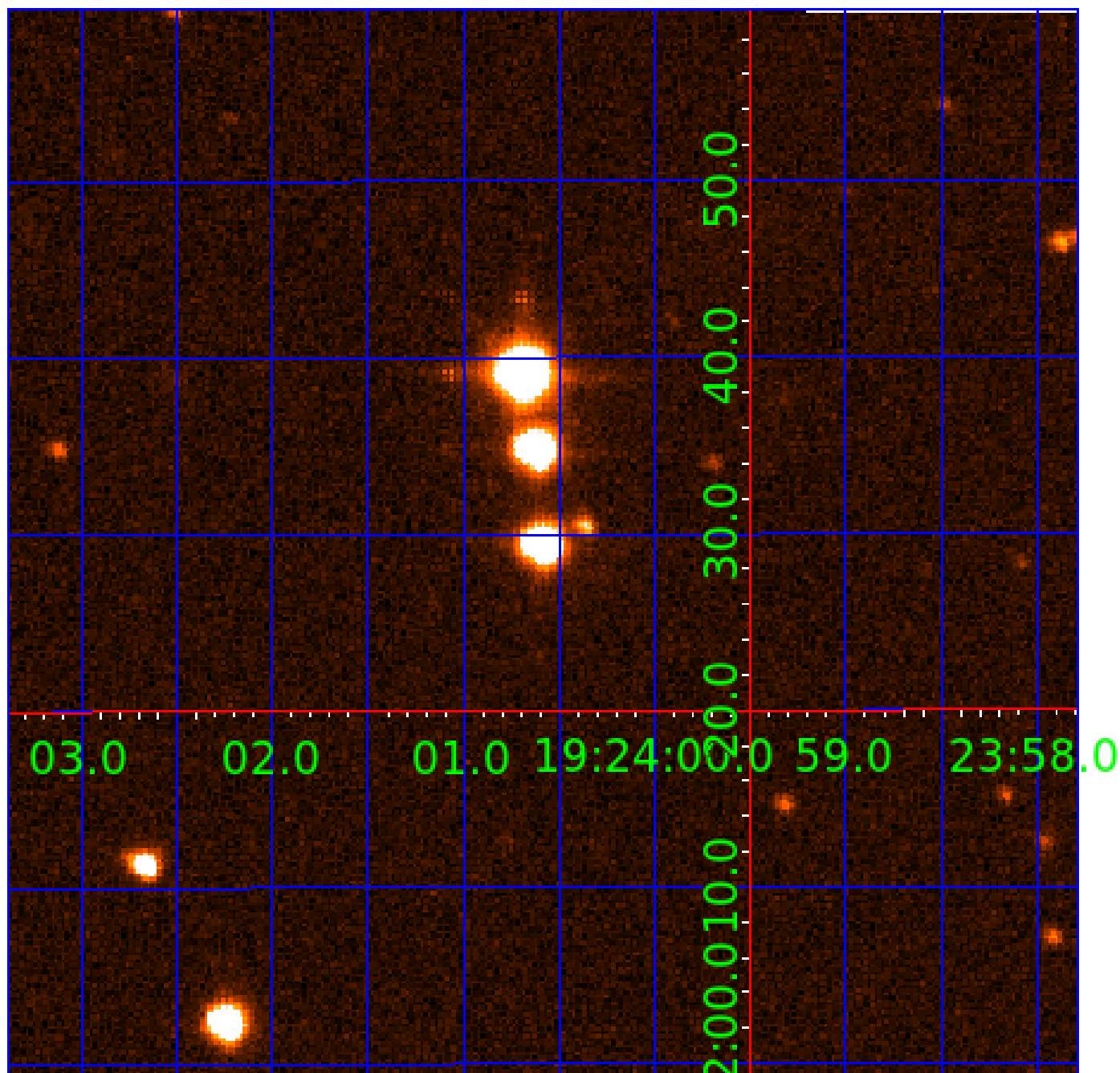


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007957708

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})
007957708-01	OBS	No	0.646753	131.978645	3.8	4.527	11.7	1.1	0.90	5984	0.18	5358.29
007957708-03	OBS	No	32.464345	162.045037	532.5	2.304	11.9	10.4	0.90	5984	2.23	28.94
007957708-04	OBS	No	34.640738	161.806532	345.6	2.958	9.6	8.1	0.90	5984	1.69	26.54
007957708-05	OBS	No	51.388031	161.358819	440.2	4.139	9.5	8.8	0.90	5984	2.25	15.69
007957708-06	OBS	No	46.313611	173.246015	439.0	2.044	9.4	8.3	0.90	5984	2.03	18.02
007957708-07	OBS	No	14.680477	144.060247	54.5	6.867	9.0	2.9	0.90	5984	0.71	83.37
007957708-08	OBS	No	12.885472	140.729696	221.6	2.324	9.8	7.9	0.90	5984	1.35	99.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007957708-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

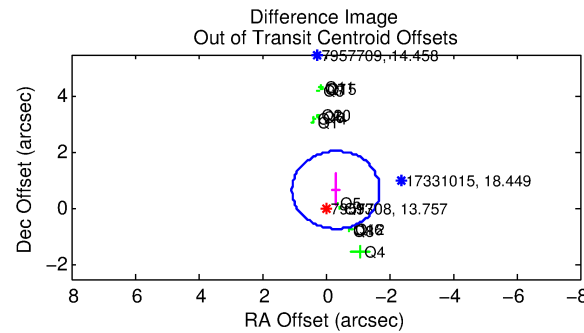
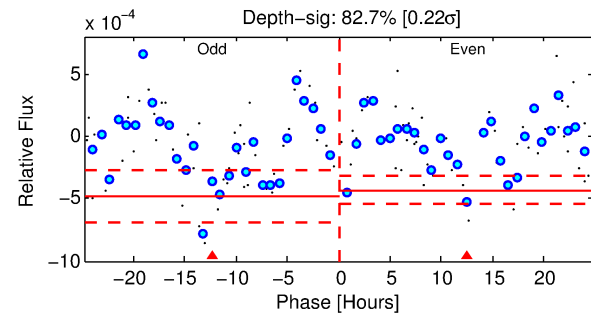
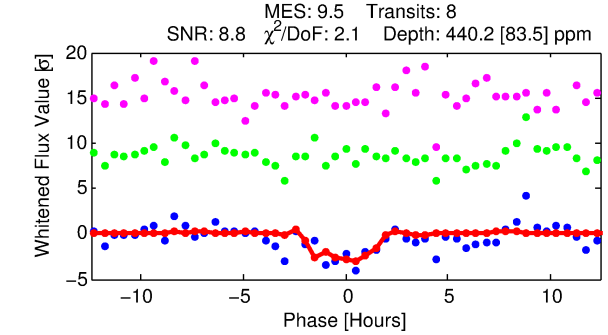
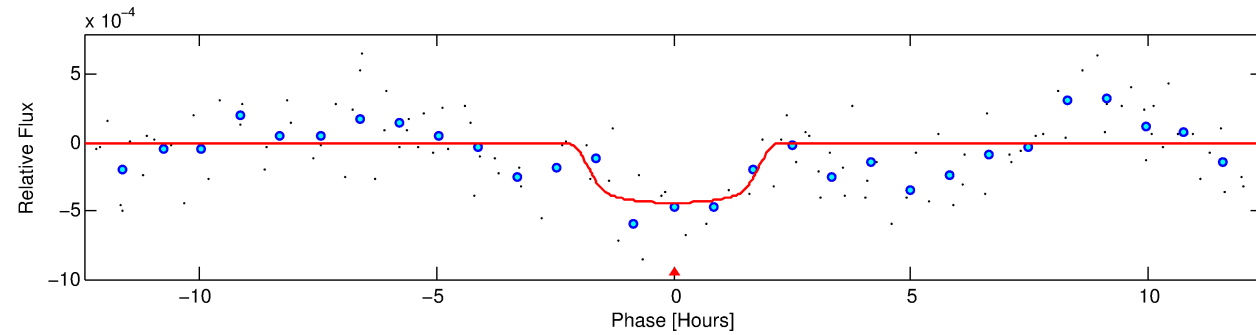
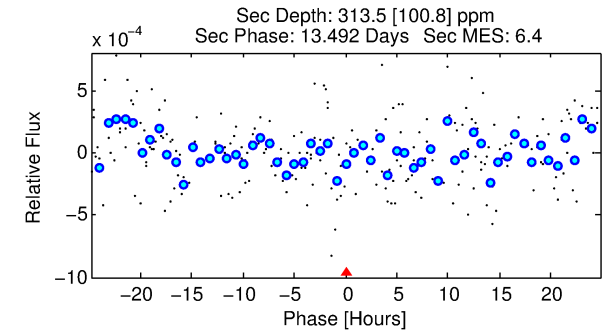
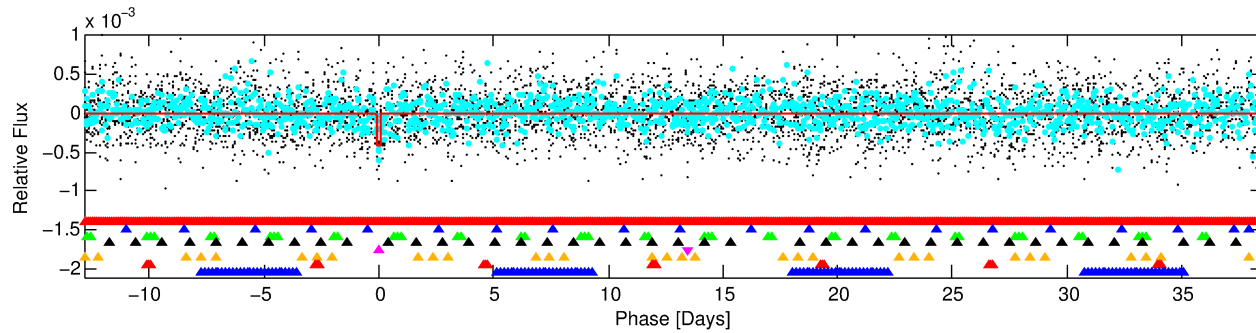
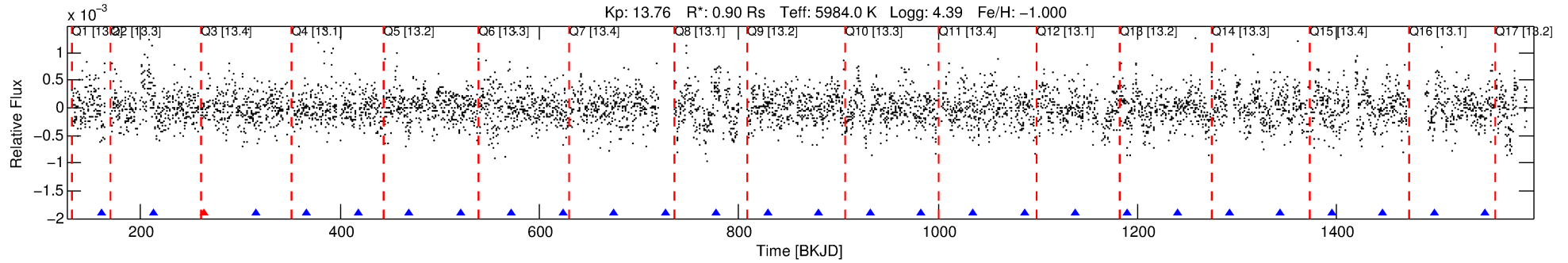
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-05

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 5 of 8 Period: 51.388 d



DV Fit Results:

Period = 51.38803 [0.00090] d
Epoch = 161.3588 [0.0131] BKJD
Rp/R* = 0.0229 [0.0059]
a/R* = 42.83 [52.73]
b = 0.92 [0.21]
Seff = 15.69 [5.32]
Teq = 507 [43] K
Rp = 2.25 [0.77] Re
a = 0.2438 [0.0504] AU
Ag = 2028.85 [1388.86] [1.46σ]
Teffp = 5266 [808] K [5.88σ]

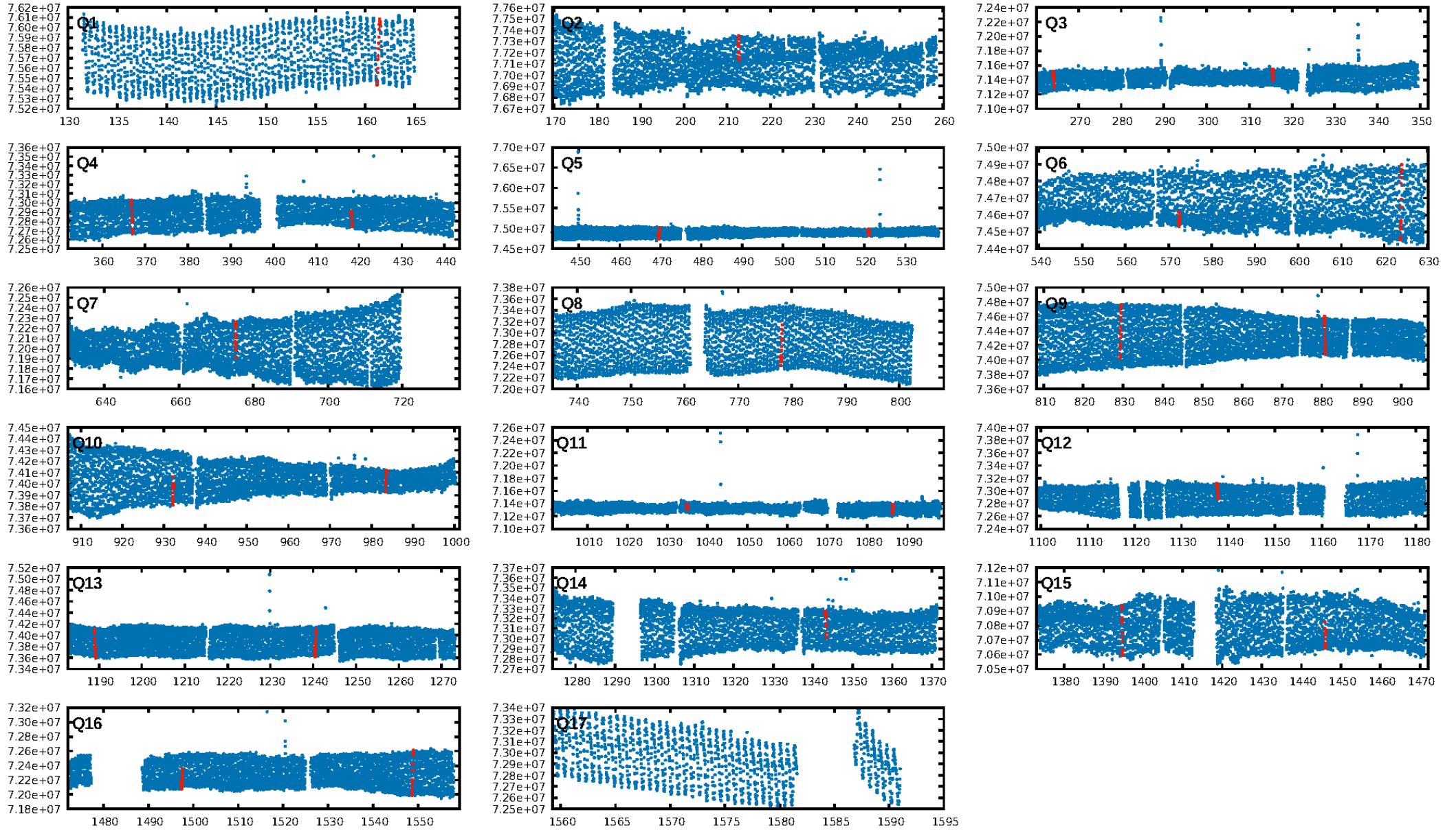
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [26.38σ]
LongPeriod-sig: 100.0% [26.15σ]
ModelChiSquare2-sig: 44.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.00e-09
RollingBand-fgt: 0.86 [6/7]
GhostDiagnostic-chr: 6.916
Centroid-sig: 2.6%
Centroid-so: 3.070 arcsec [5.15σ]
OotOffset-rm: 0.741 arcsec [1.61σ]
KicOffset-rm: 5.359 arcsec [64.30σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.50 [8/16]
DiffImageOverlap-fno: 0.00 [0/16]

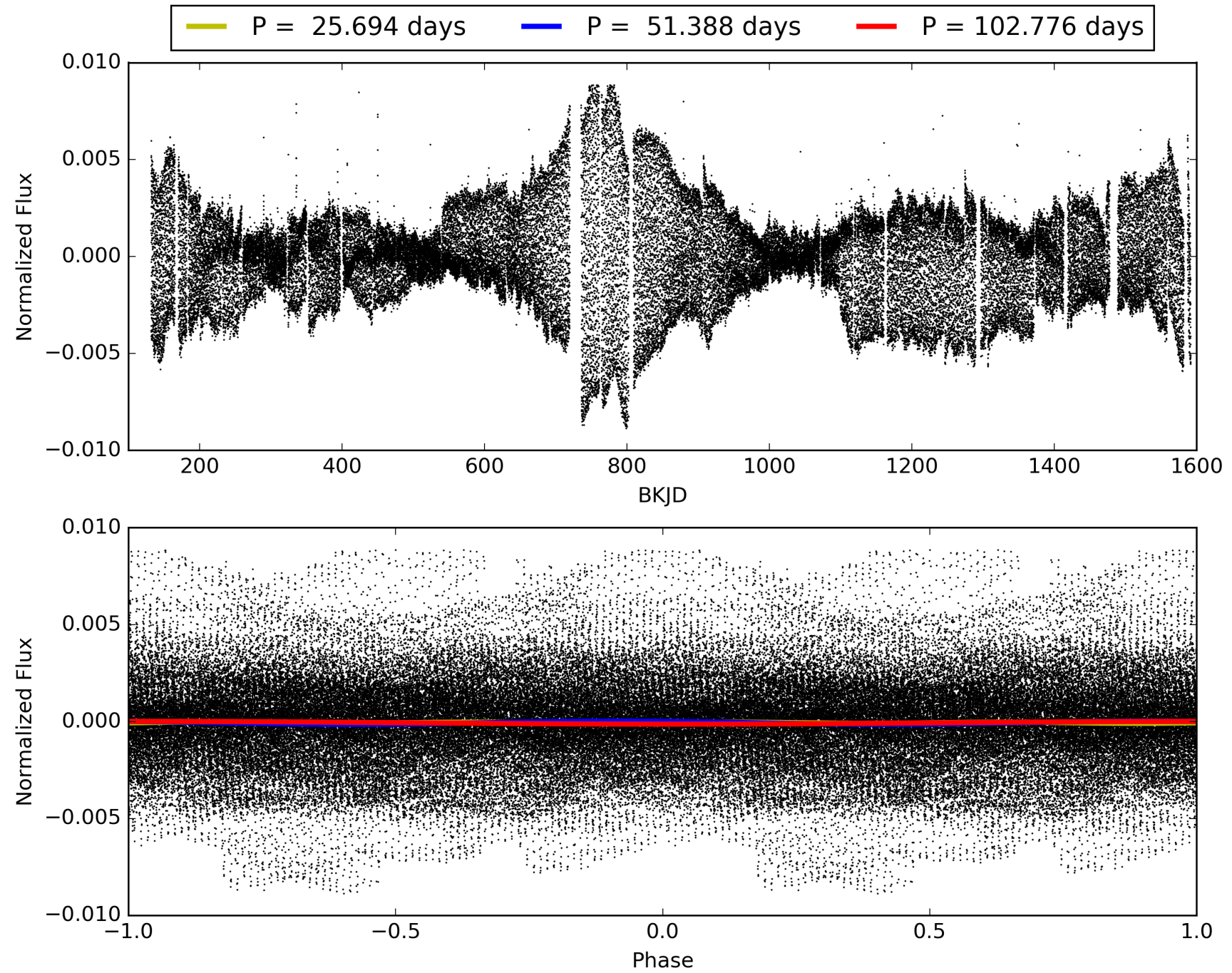
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:27 Z

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

TCE 007957708-05, PDC Light Curves

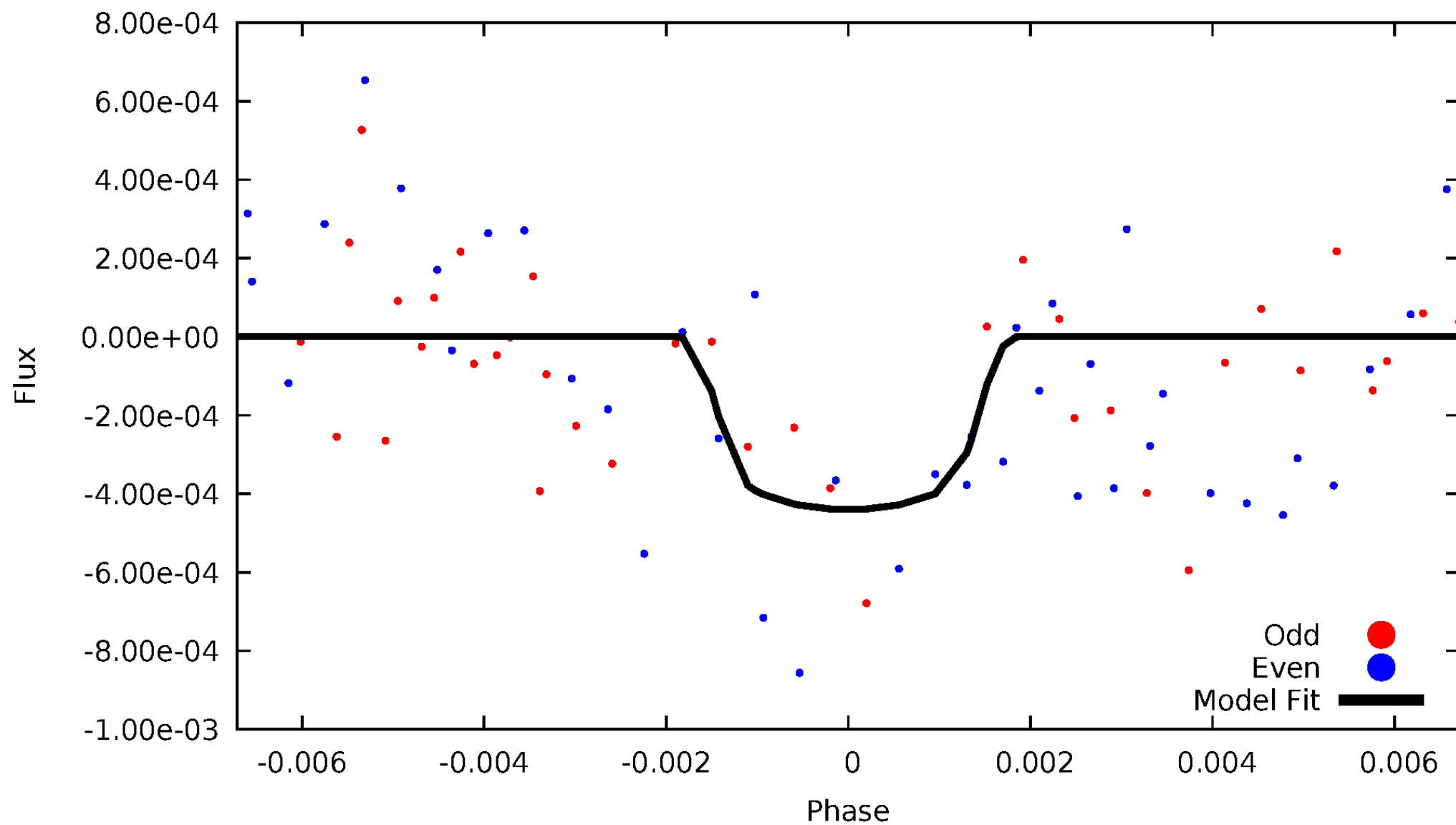


TCE 007957708-05



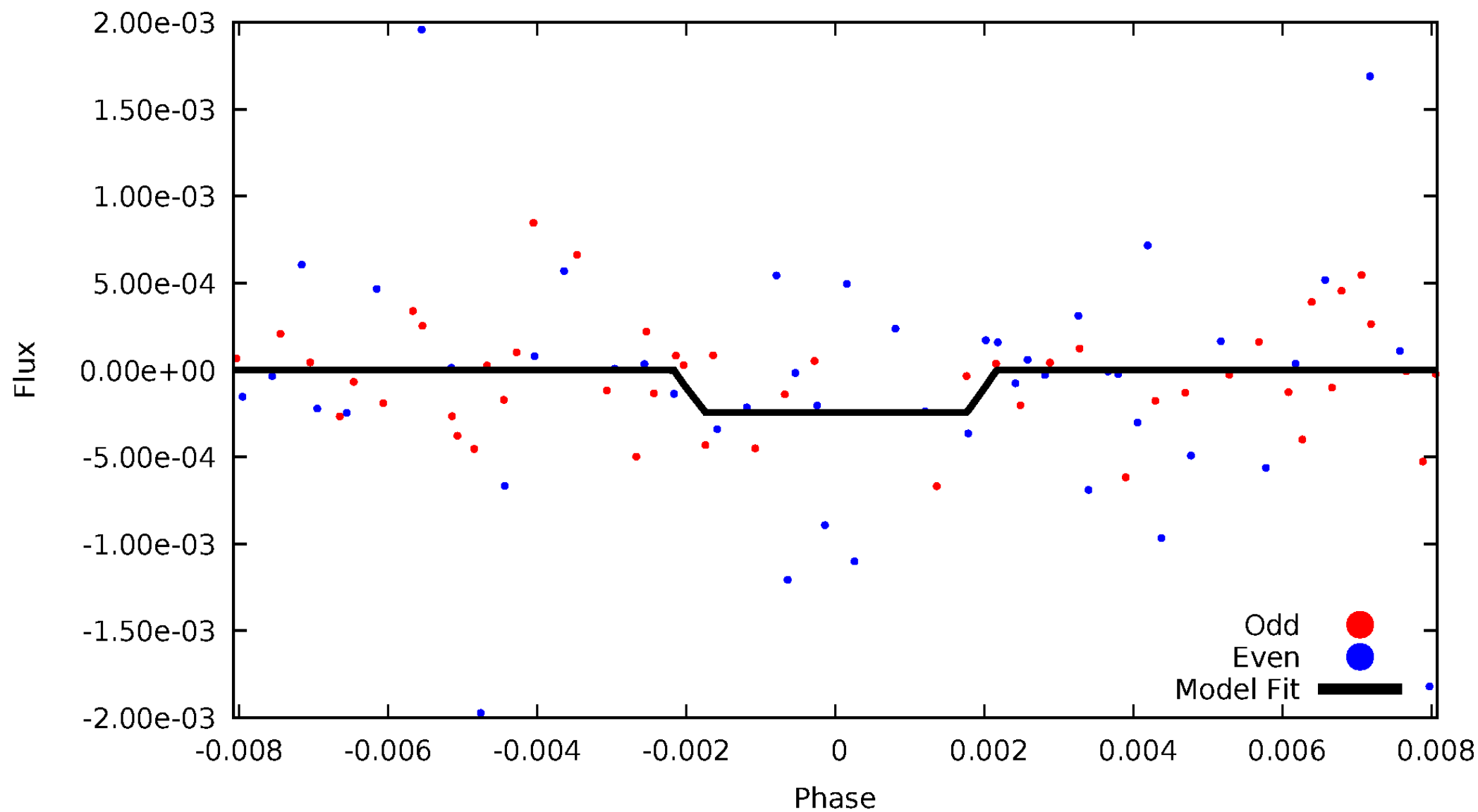
DV Odd/Even

TCE 007957708-05



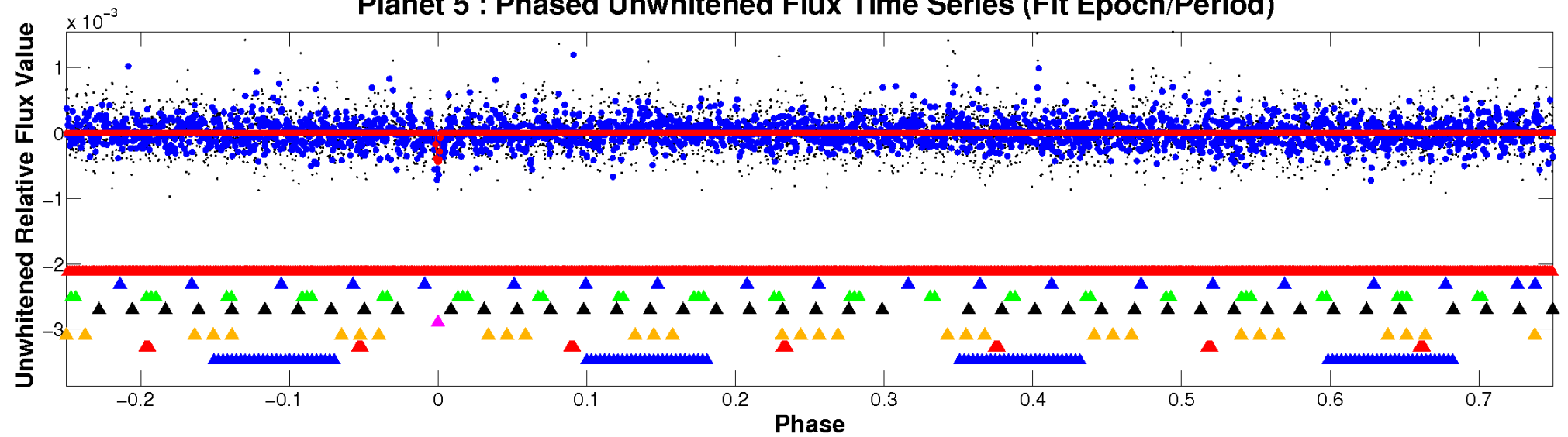
ALT Odd/Even

TCE 007957708-05

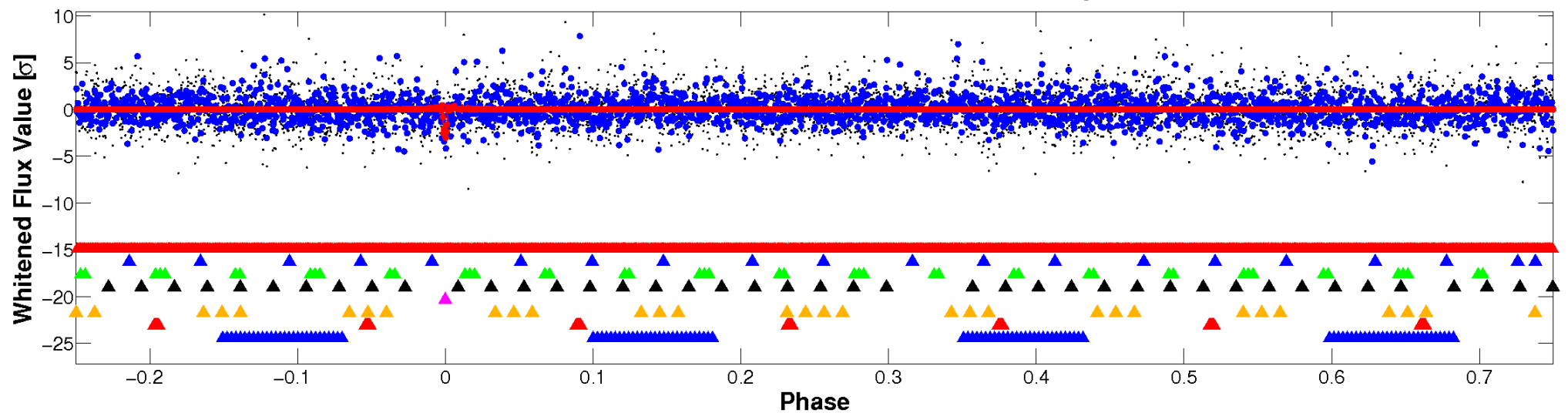


Non-Whitened Vs. Whitened Light Curve

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

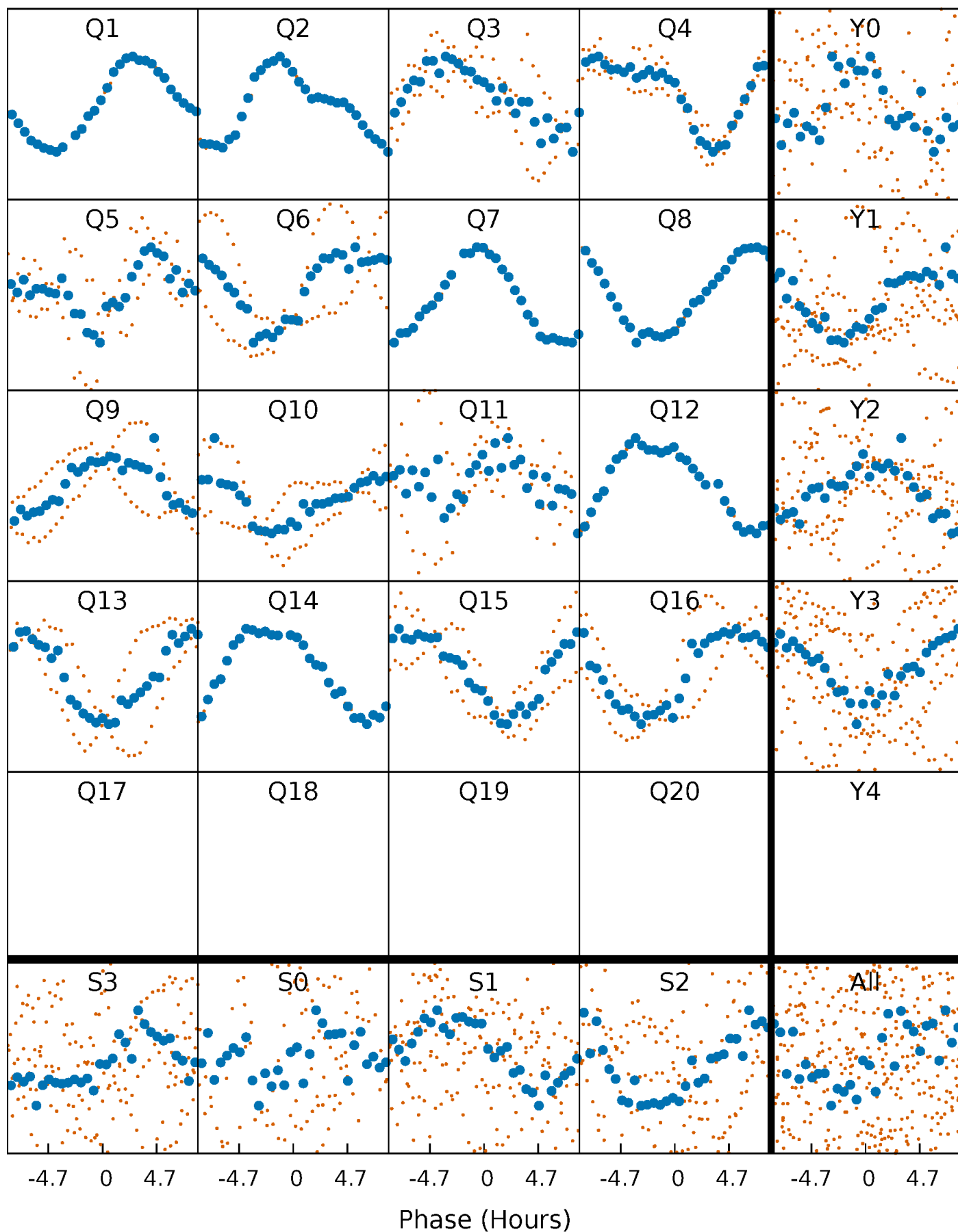


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



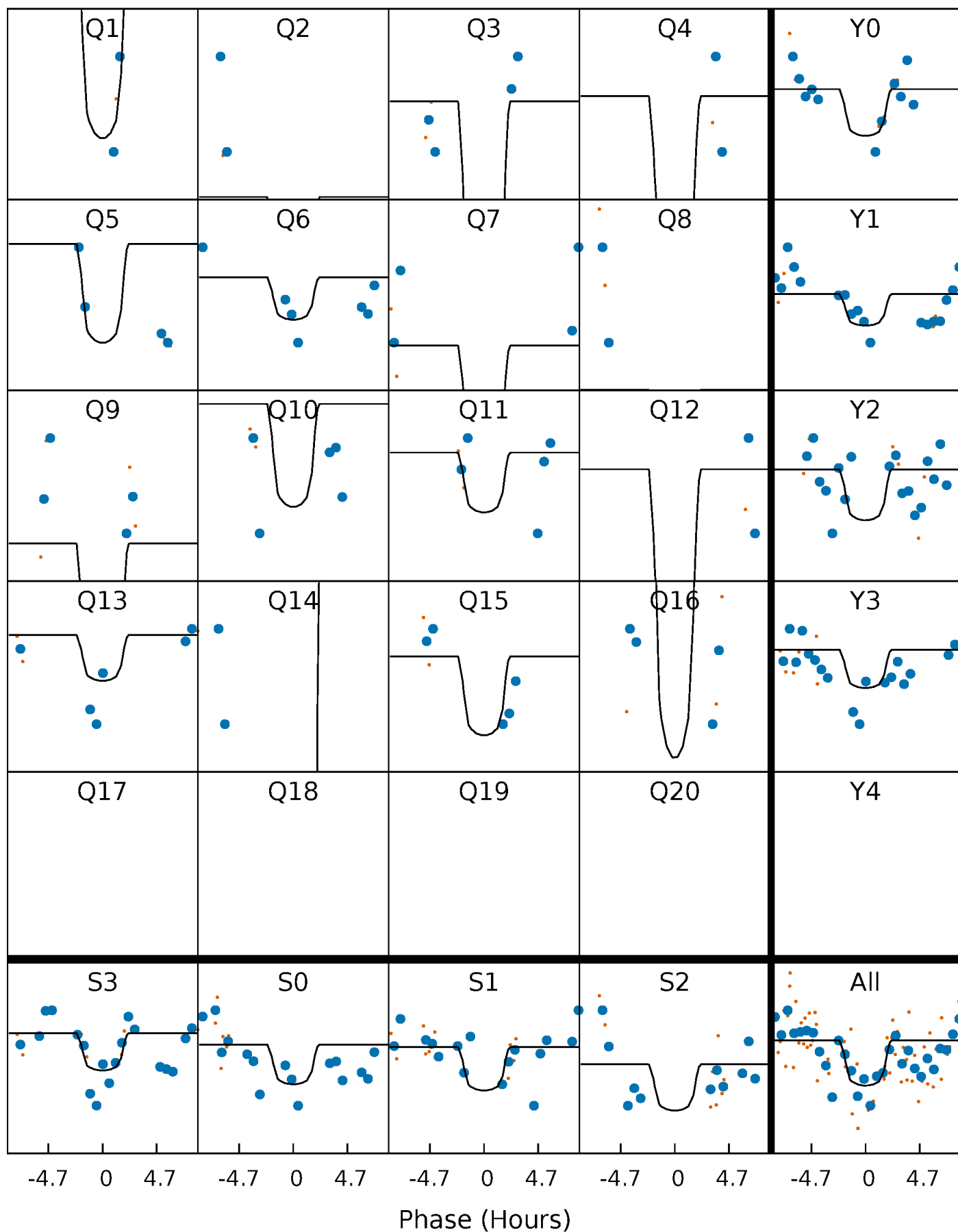
PDC Quarter-Phased Transit Curves

TCE 007957708-05 P= 51.388031 Days $T_0=161.358819$ (BKJD)



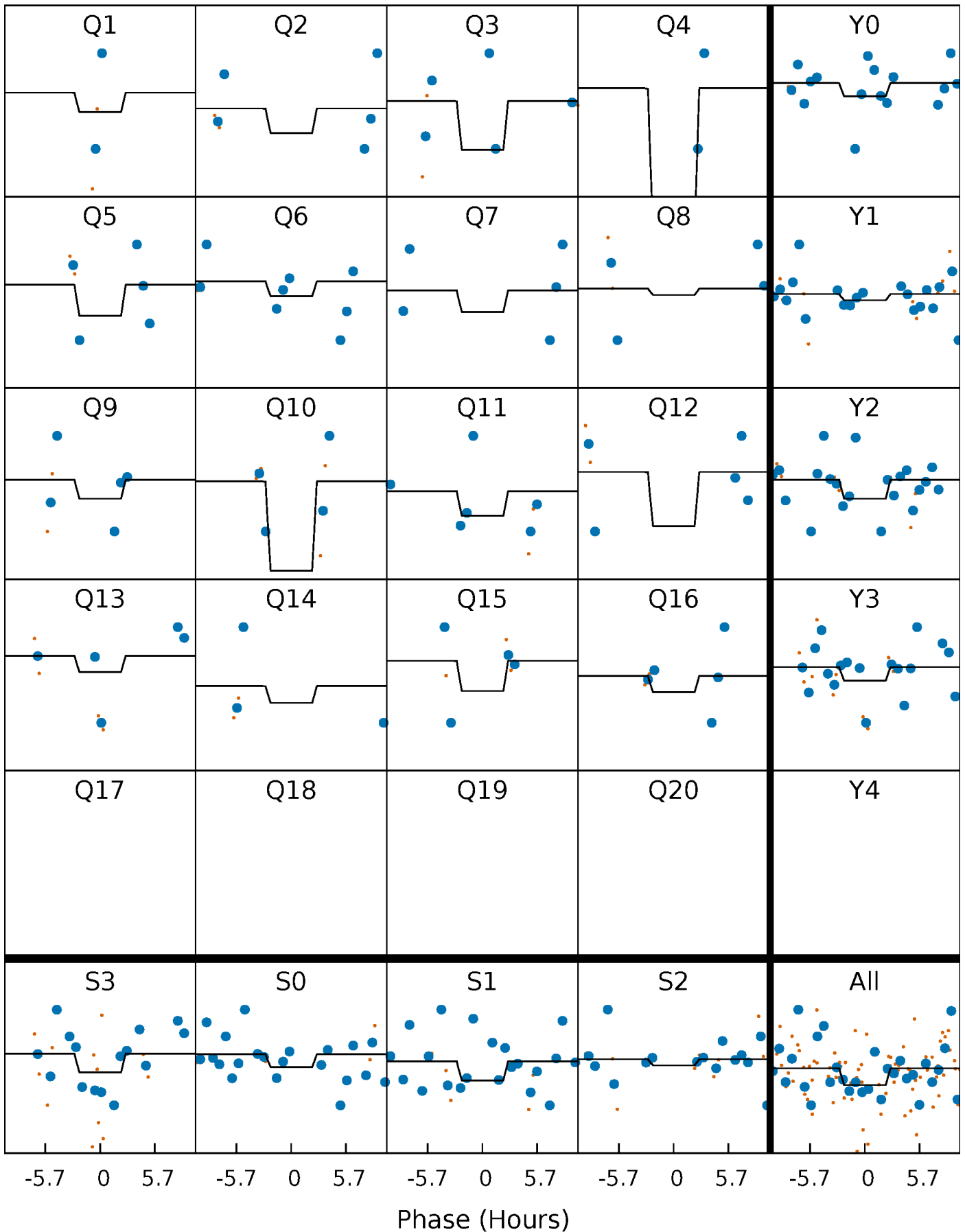
DV Quarter-Phased Transit Curves

TCE 007957708-05 P= 51.388031 Days $T_0=161.358819$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

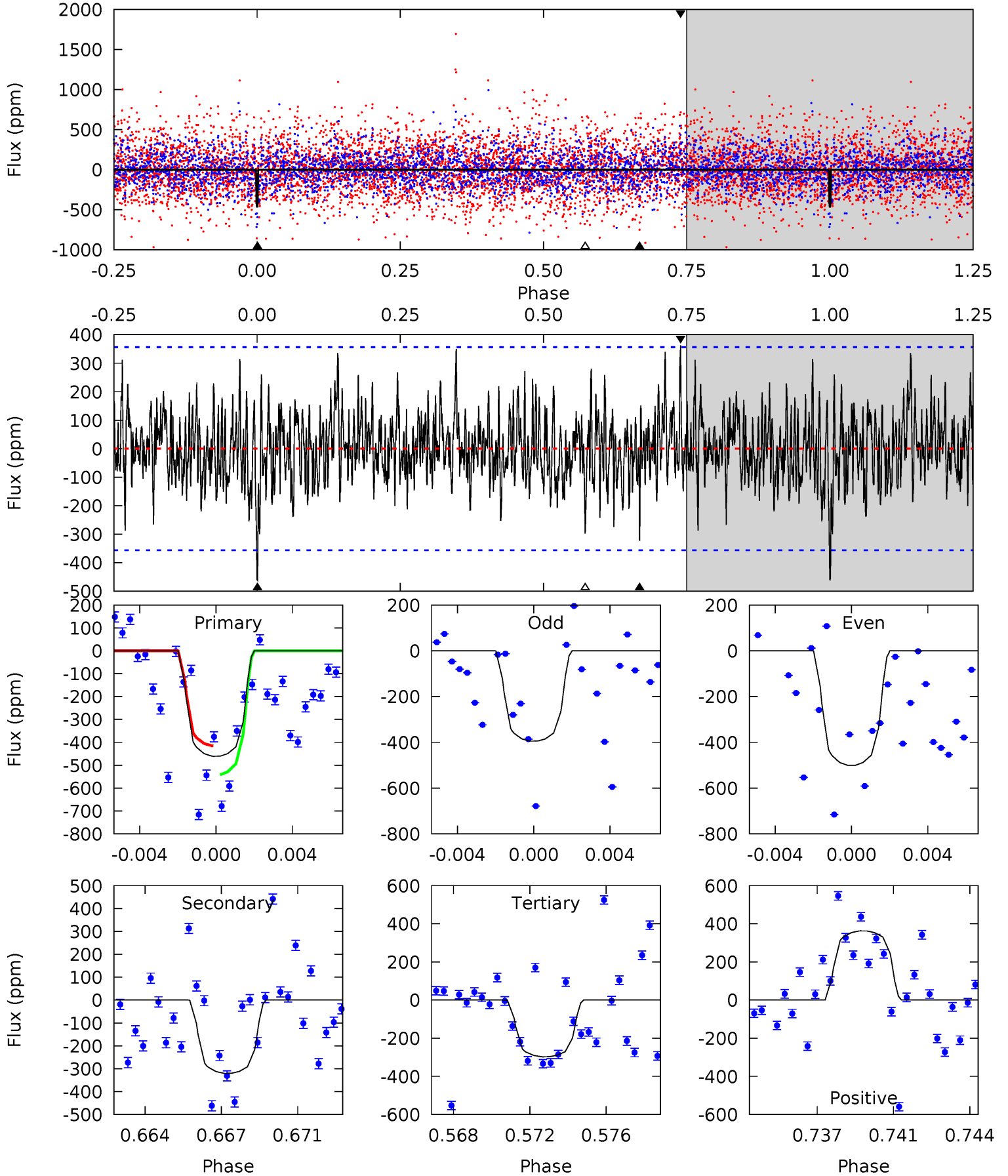
TCE 007957708-05 $P = 51.383938$ Days $T_0 = 161.420235$ (BKJD)



DV Model-Shift Uniqueness Test

007957708-05, P = 51.388031 Days, E = 109.970788 Days

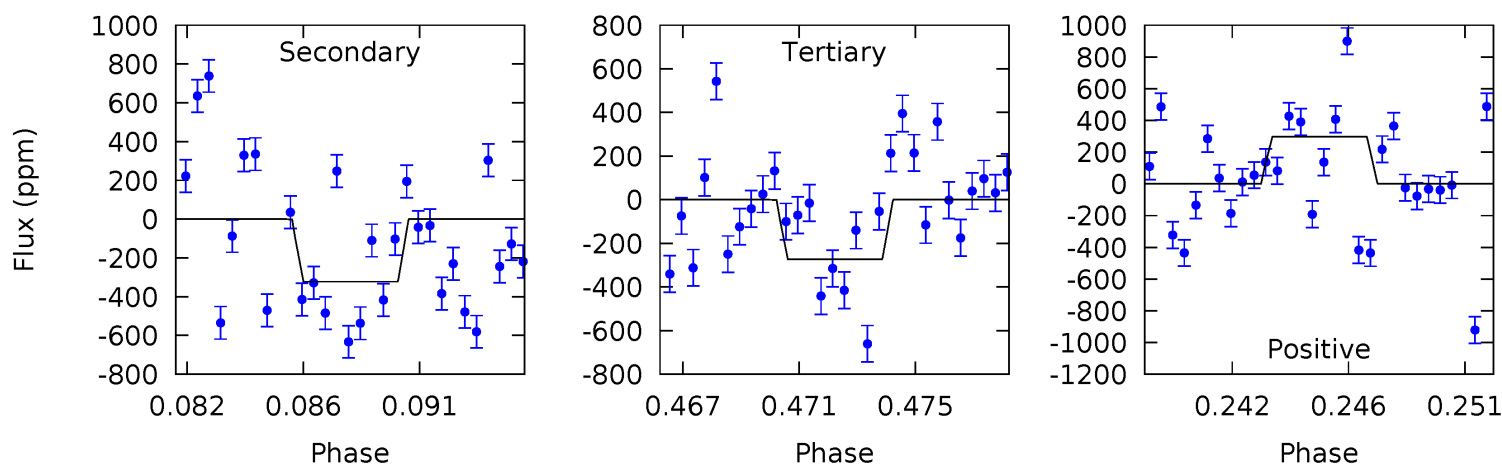
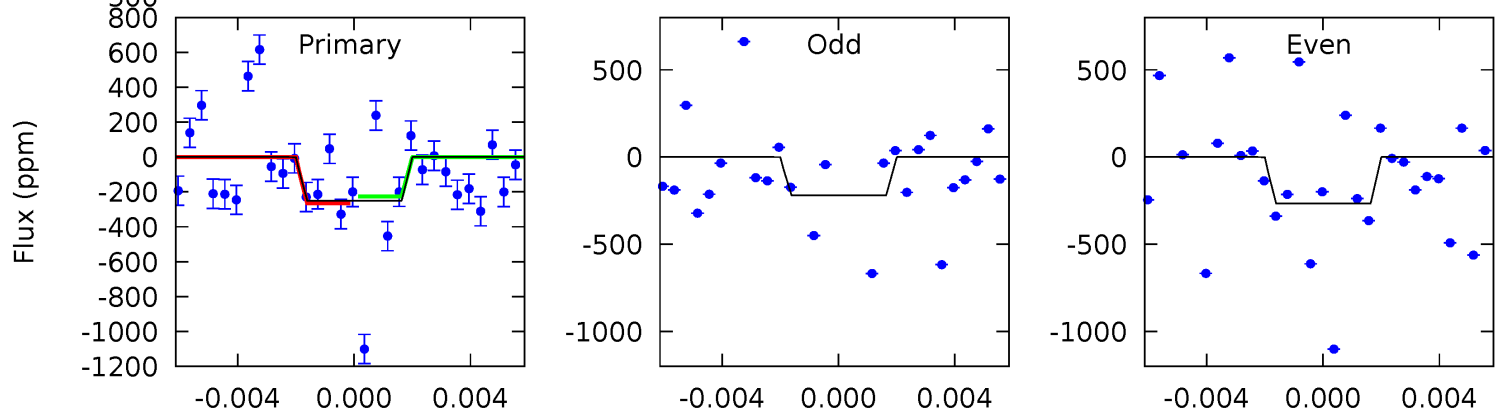
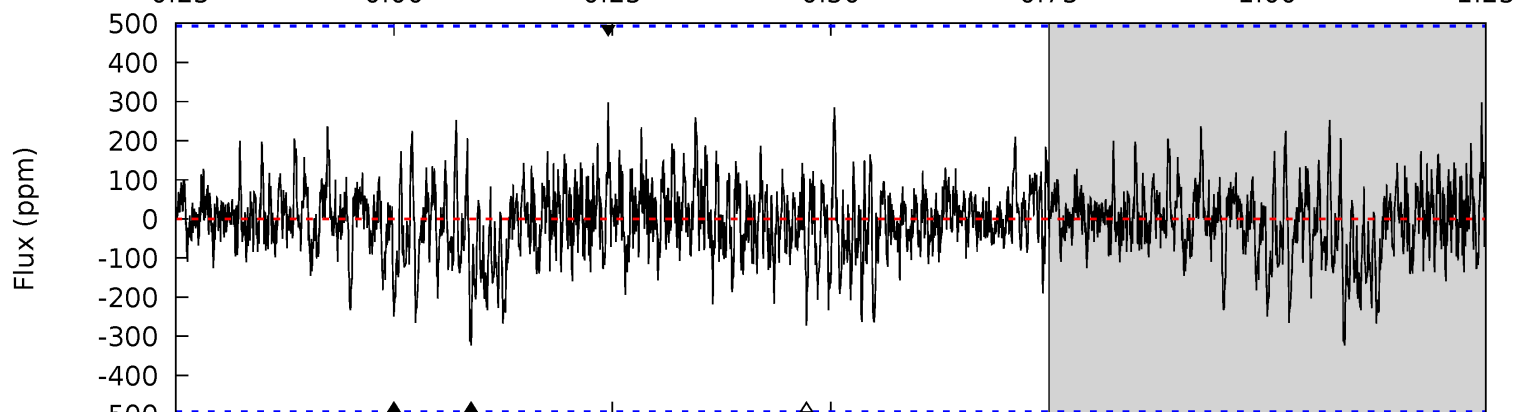
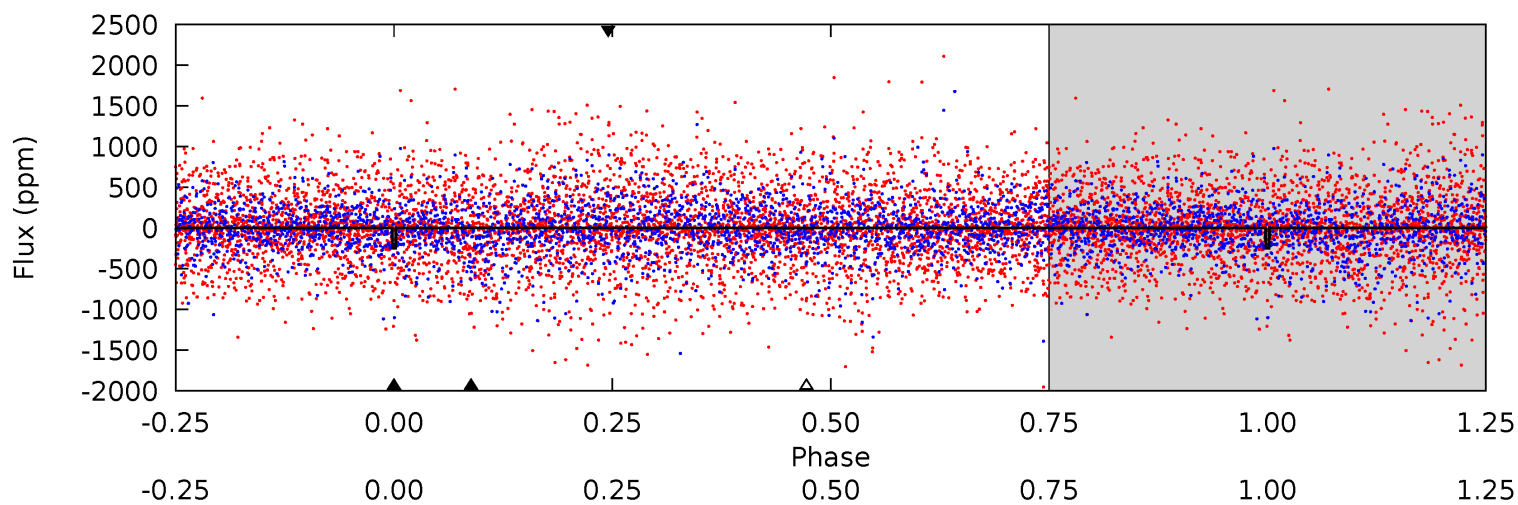
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.76	4.69	4.36	5.31	5.22	2.91	1.51	2.40	1.45	0.33	-0.62	0.61	0.90	0.44	0.92



Alt Model-Shift Uniqueness Test

007957708-05, P = 51.383938 Days, E = 110.036297 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.63	3.40	2.87	3.13	5.19	2.85	0.84	-0.24	-0.51	0.53	0.26	0.22	0.96	0.48	0.20



Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-320 ± 68	$2.30^{+0.64}_{-0.62}$	710^{+49}_{-43}	5282^{+860}_{-539}	1977^{+1823}_{-806}
Alt.	-323 ± 95	$1.49^{+0.63}_{-0.61}$	708^{+46}_{-45}	6463^{+2253}_{-1124}	4736^{+8349}_{-2669}

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

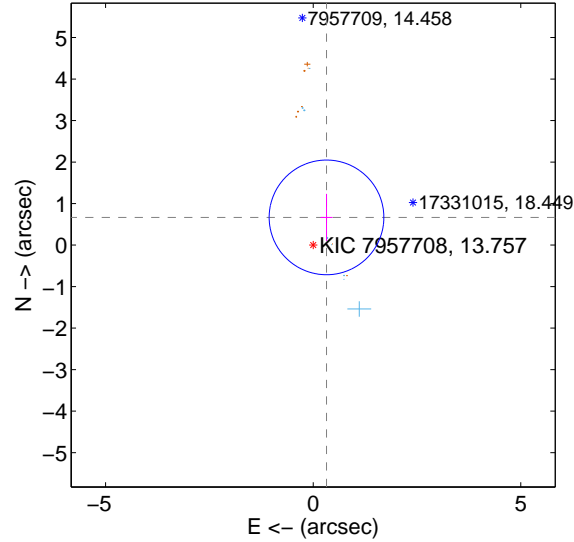
Supplemental centroid analysis for 007957708-05. Kepler magnitude: 13.76. Transit SNR 8.76

There are 8 quarters with good PRF difference image offsets

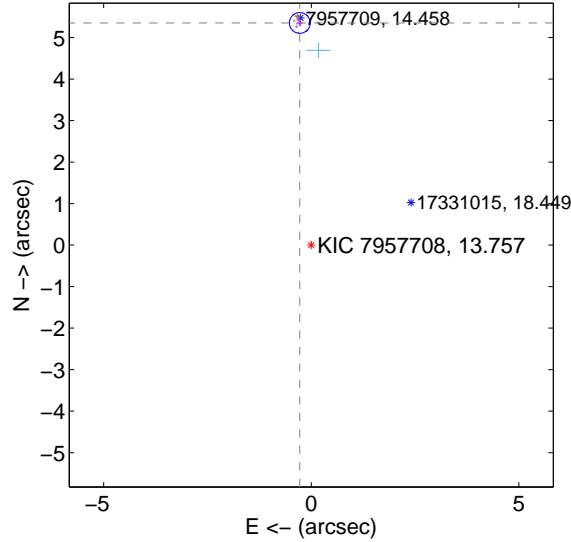
The OOT PRF centroid is offset from the target star catalog position by about 6.08 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.741 ± 0.460	1.61	-0.321 ± 0.143	0.667 ± 0.566
PRF-fit source offset from KIC position	5.359 ± 0.083	64.30	0.276 ± 0.075	5.352 ± 0.083
photometric centroid source offset	3.07 ± 0.60	5.15	-0.13 ± 0.30	3.07 ± 0.60

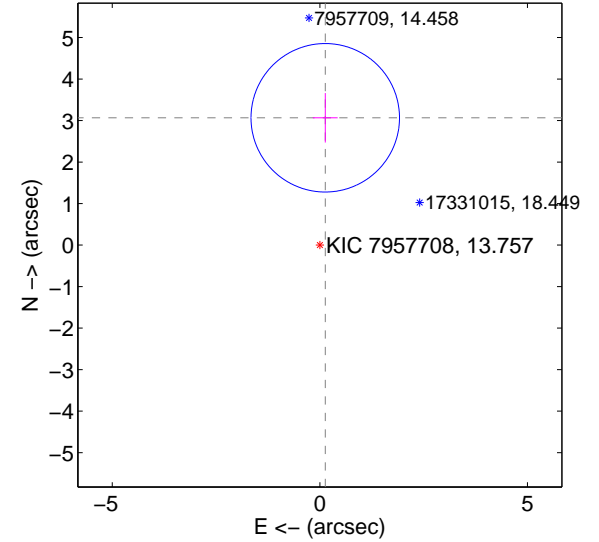
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

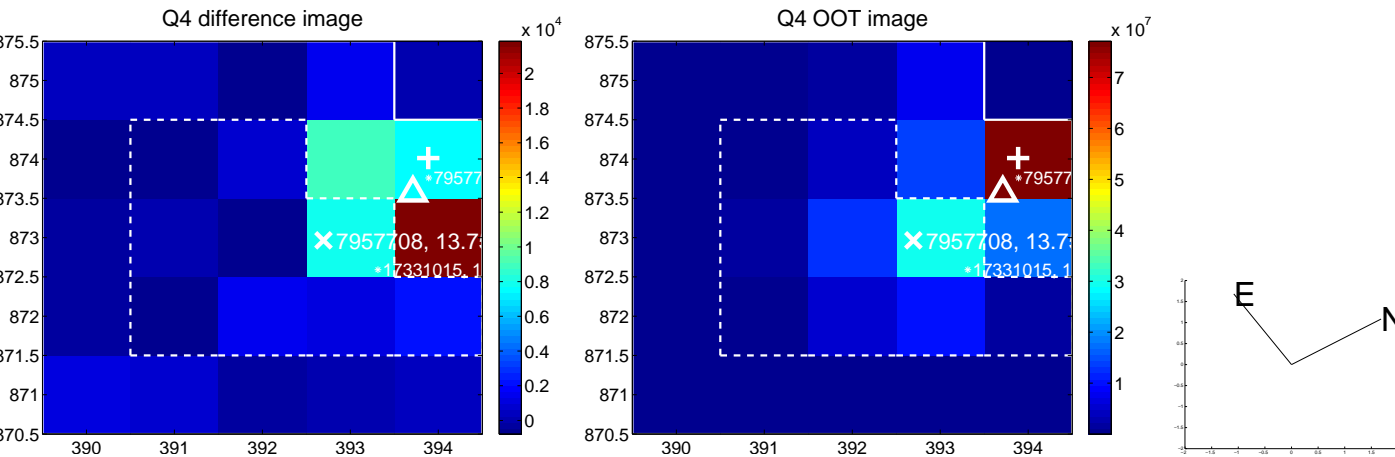
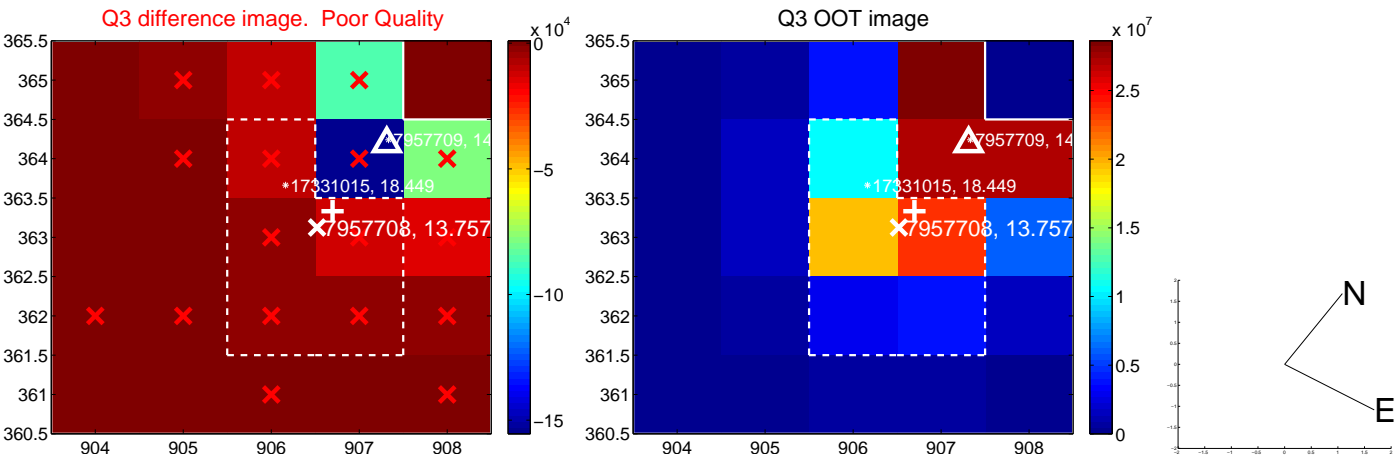
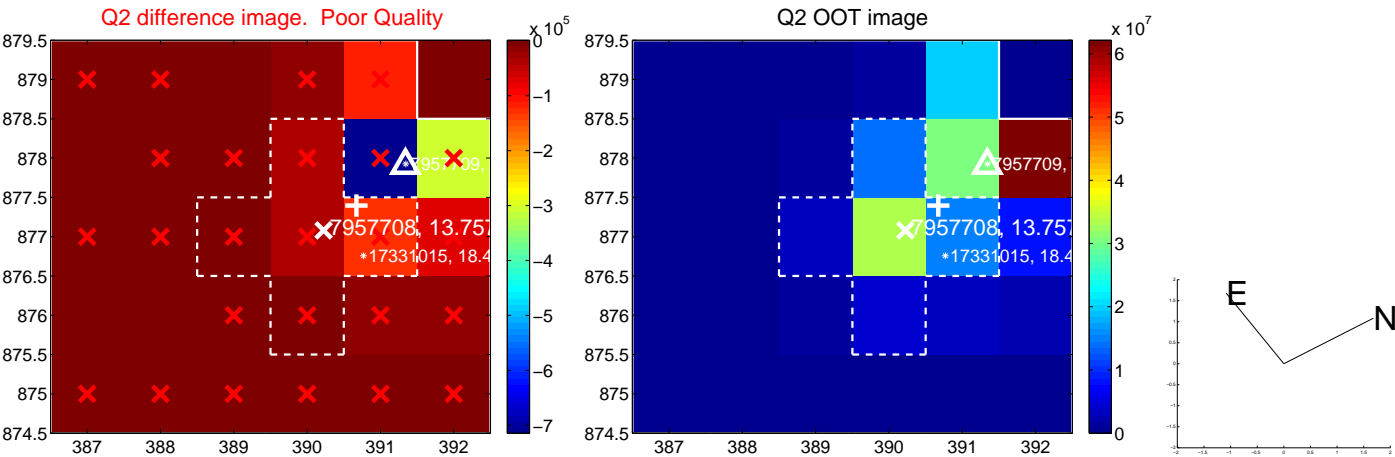
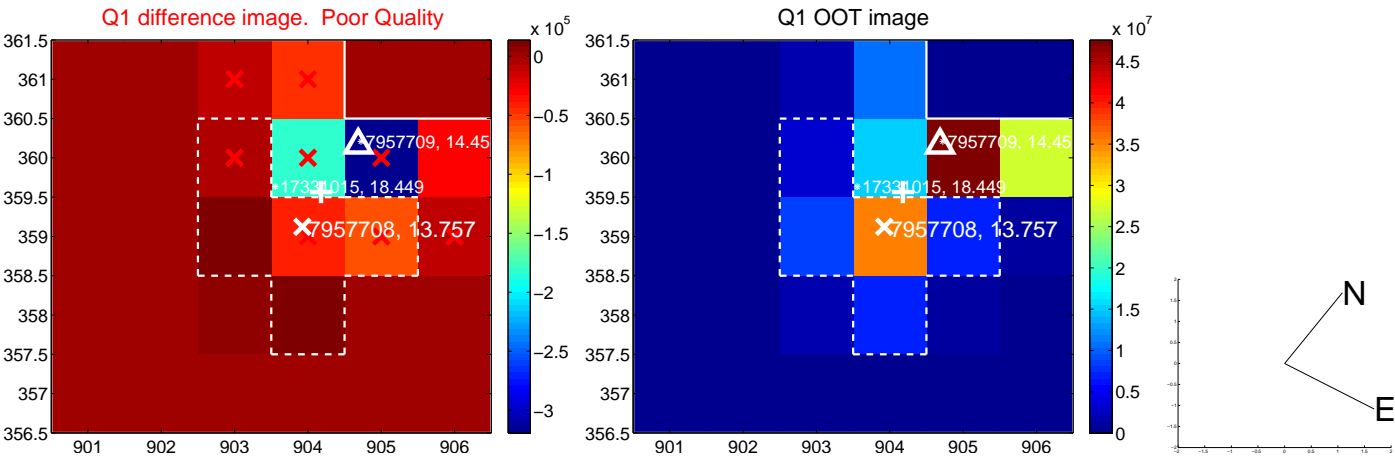


offset from photometric centroids

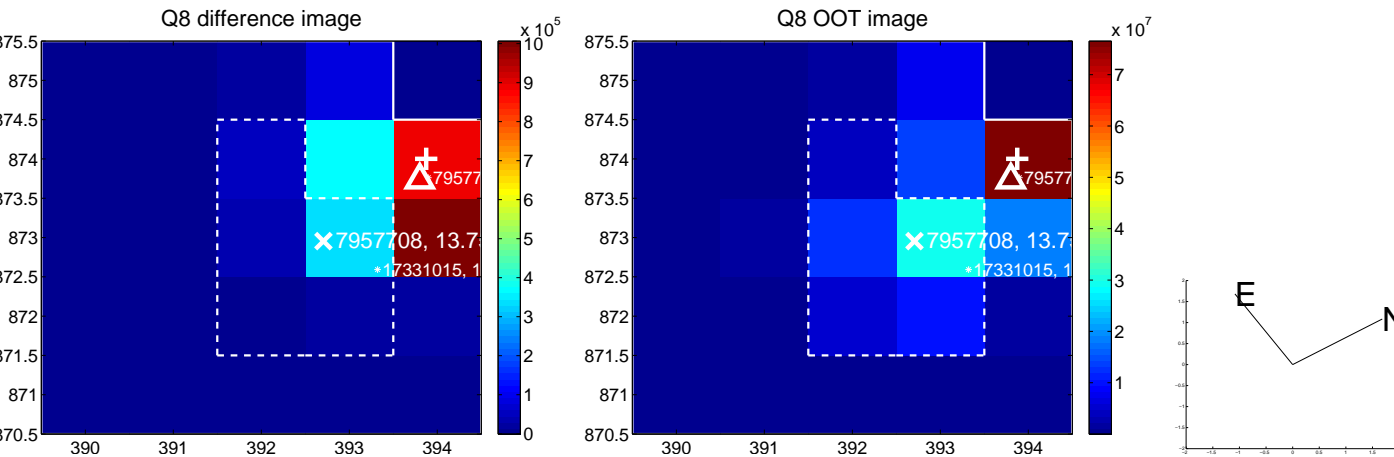
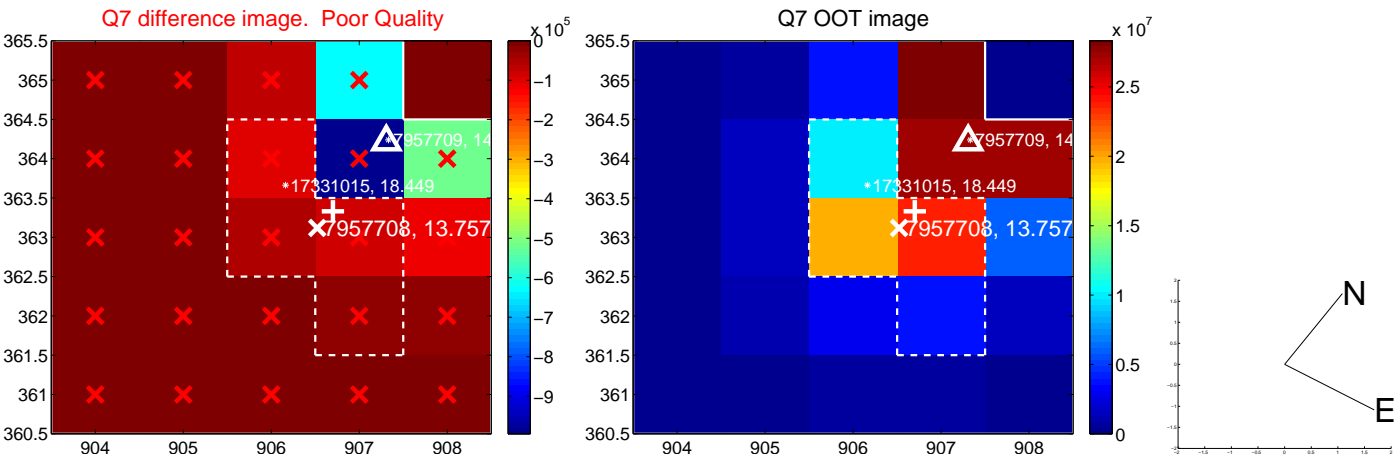
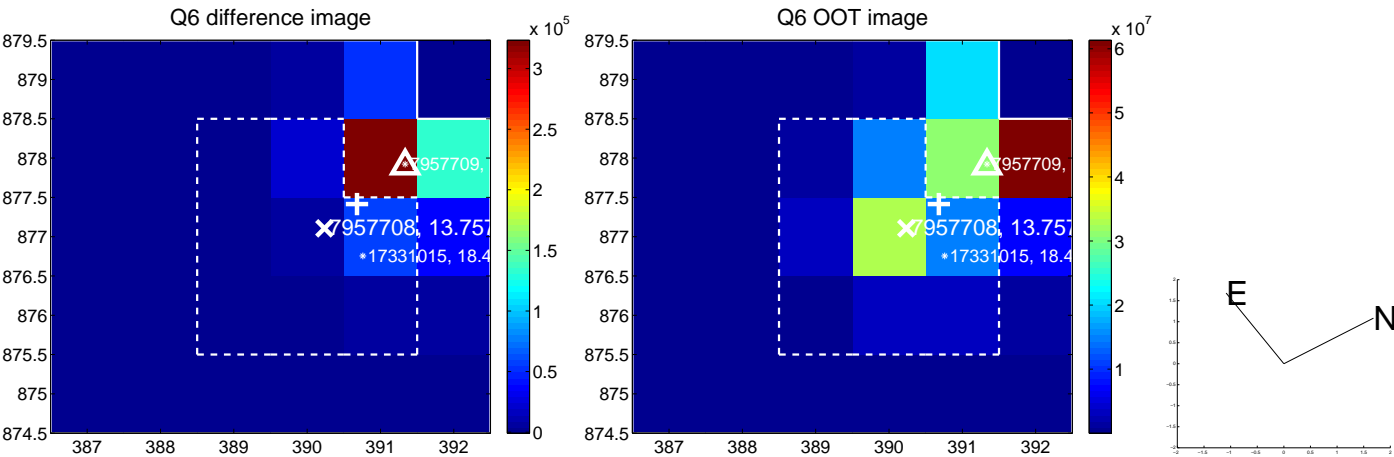
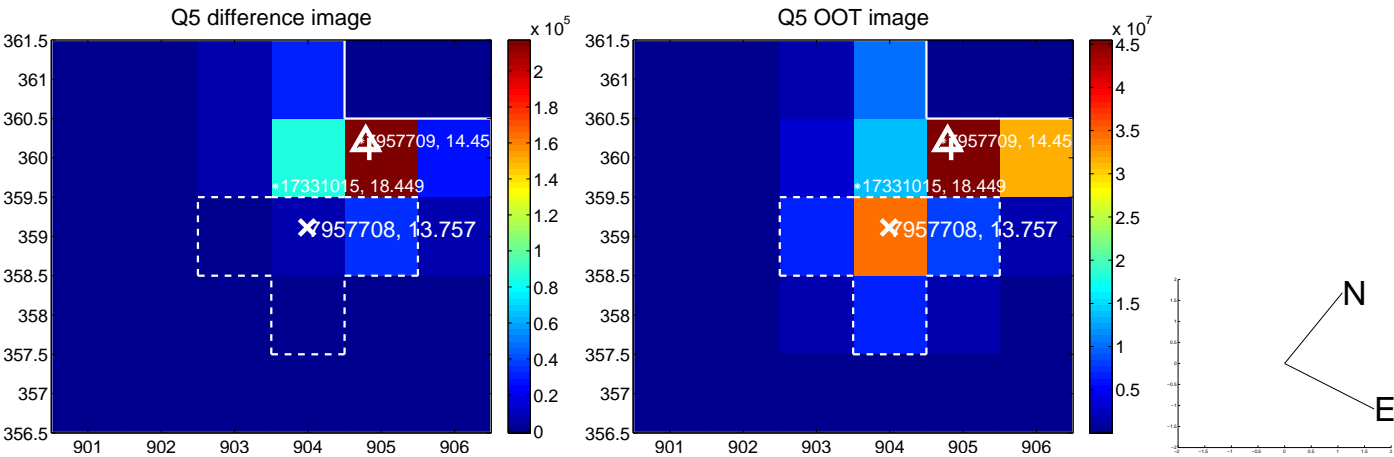


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

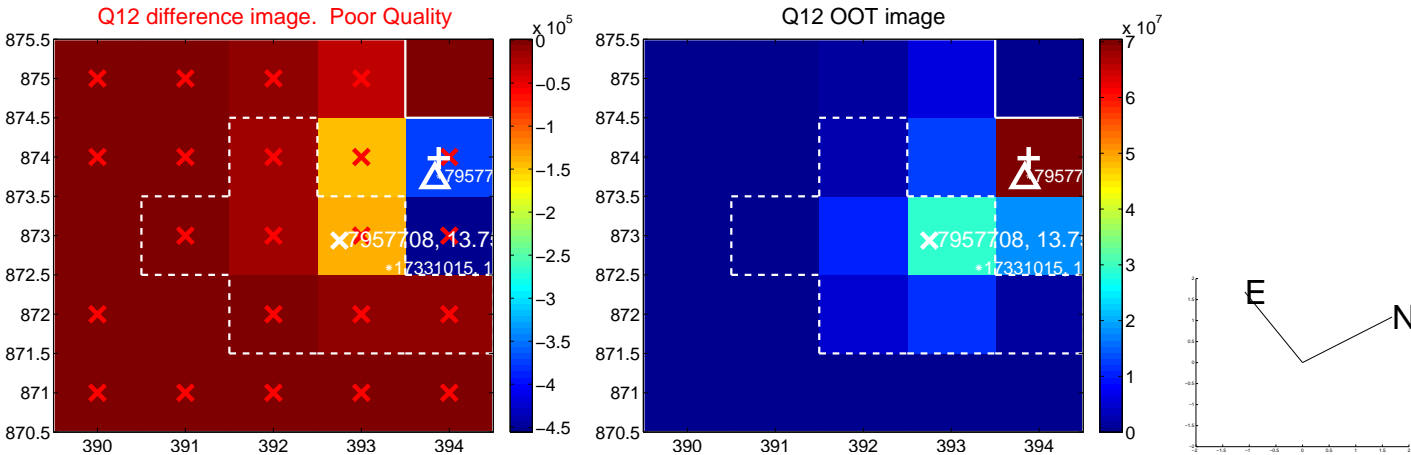
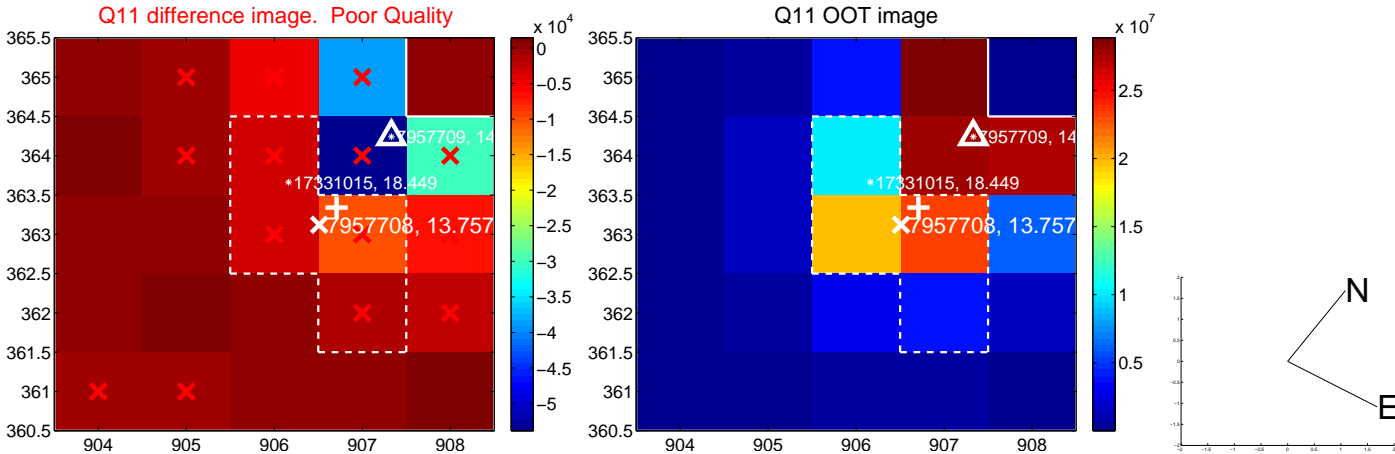
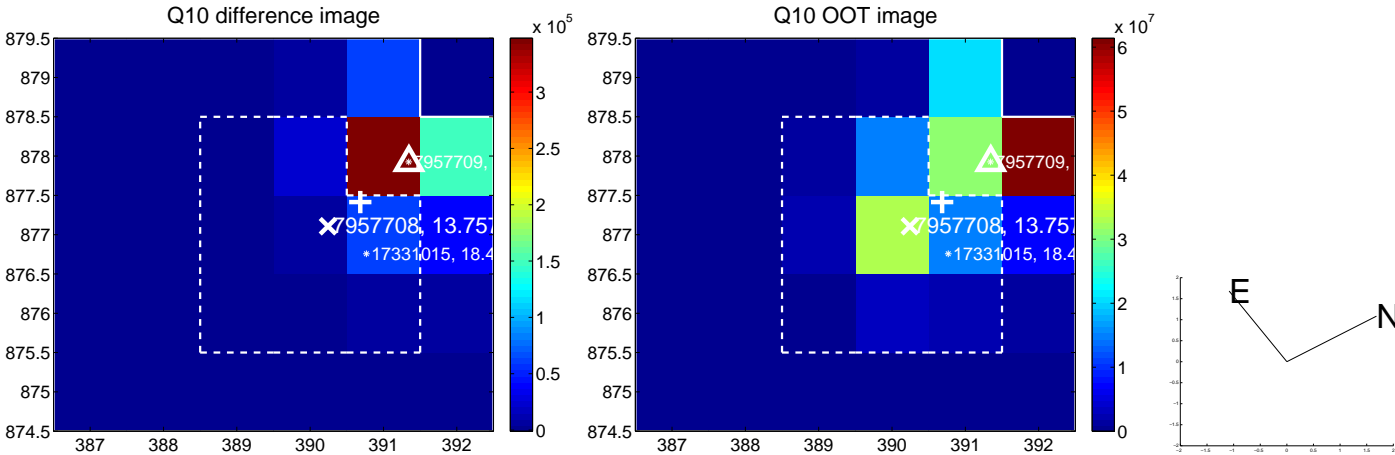
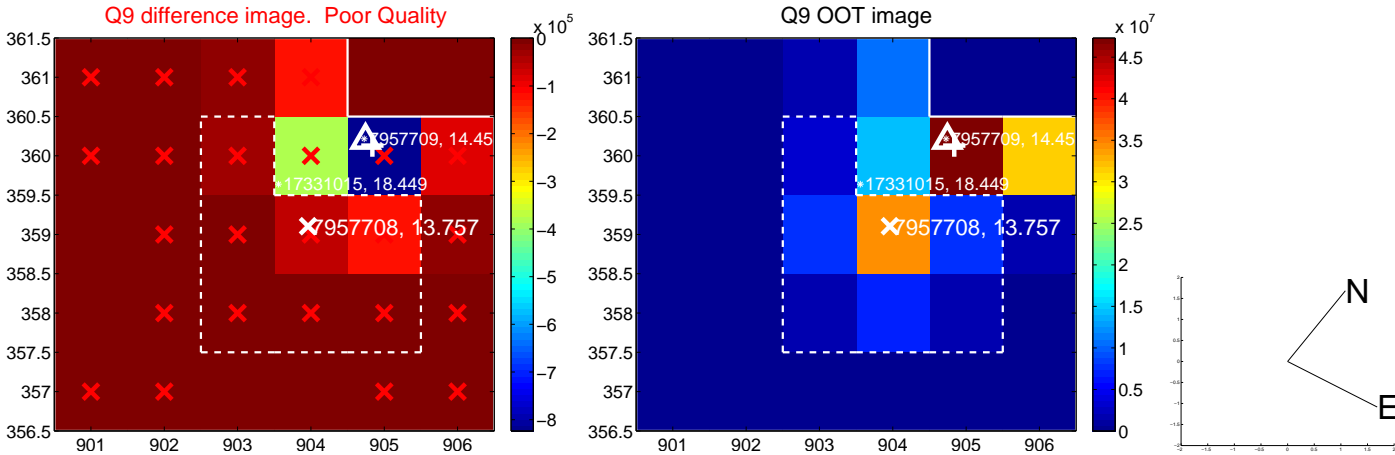
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



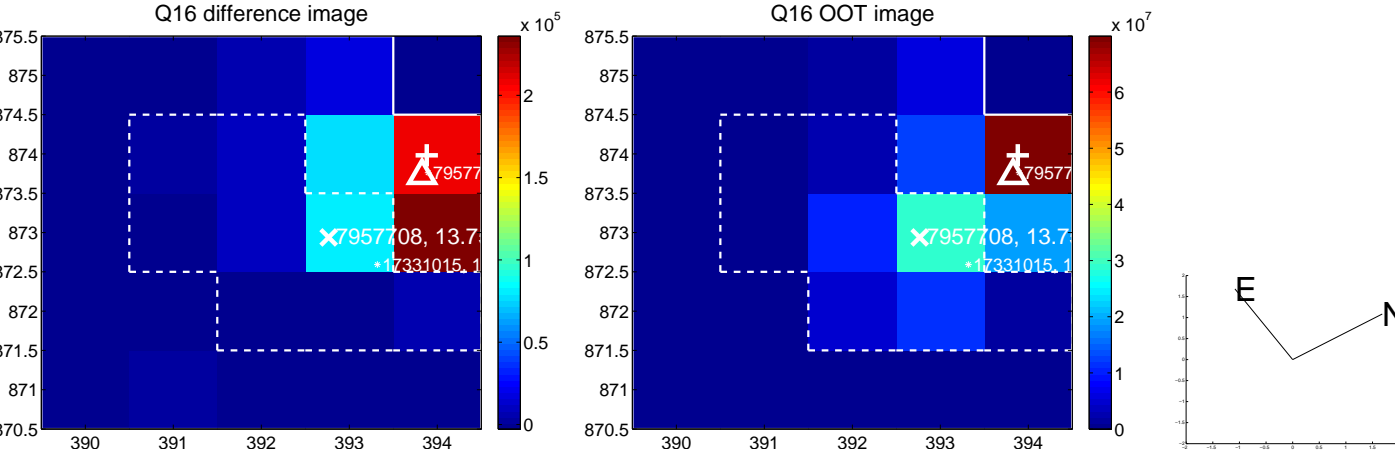
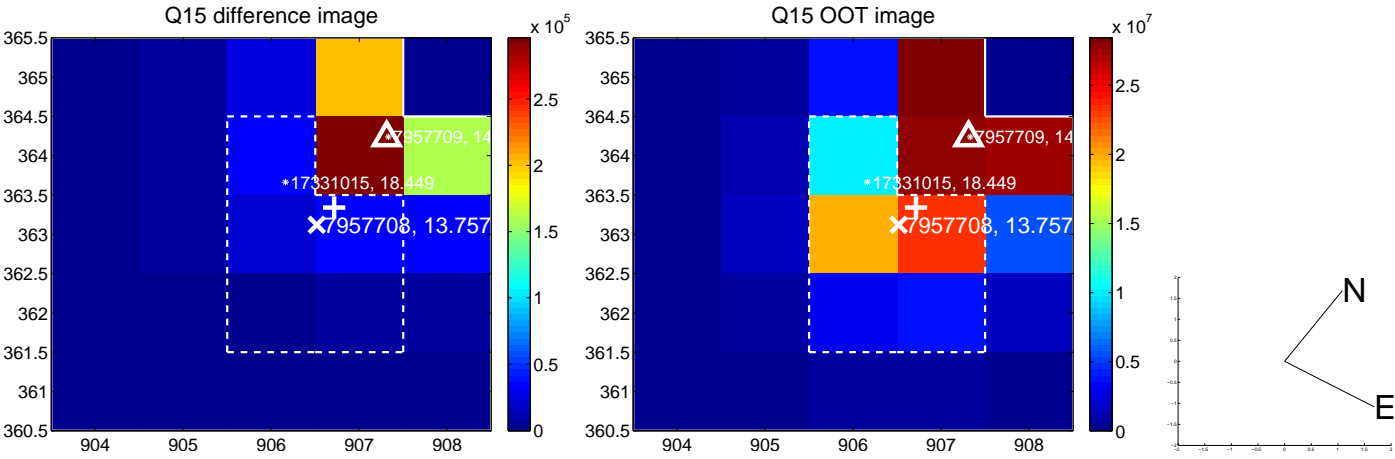
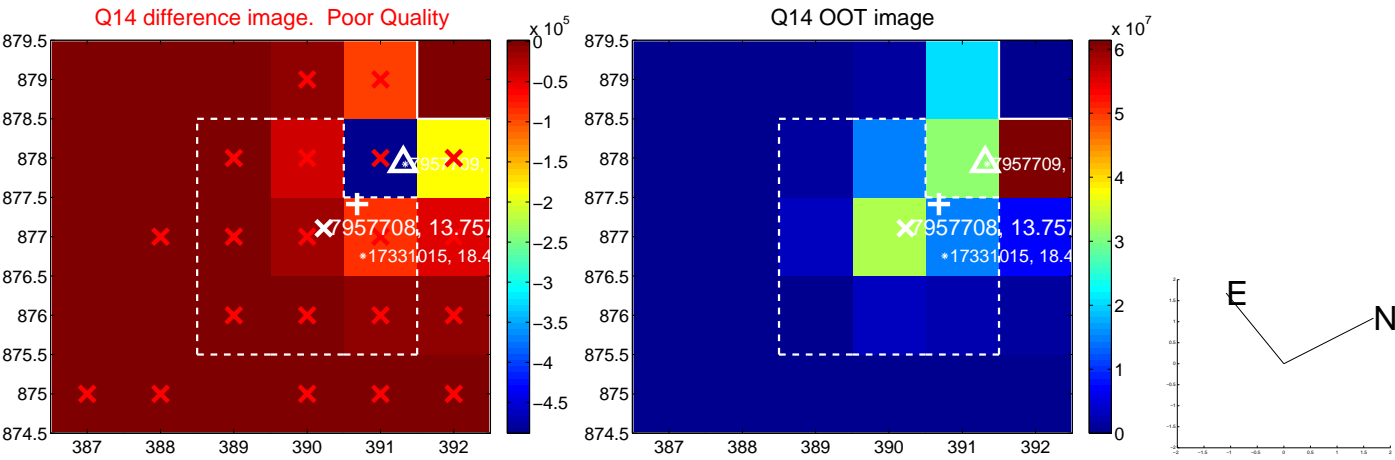
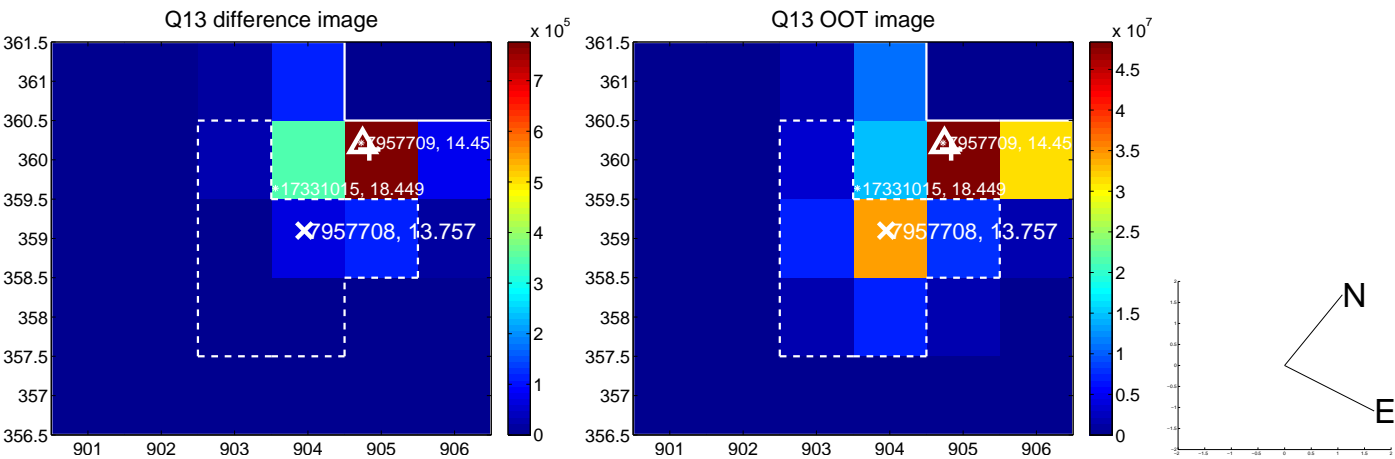
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



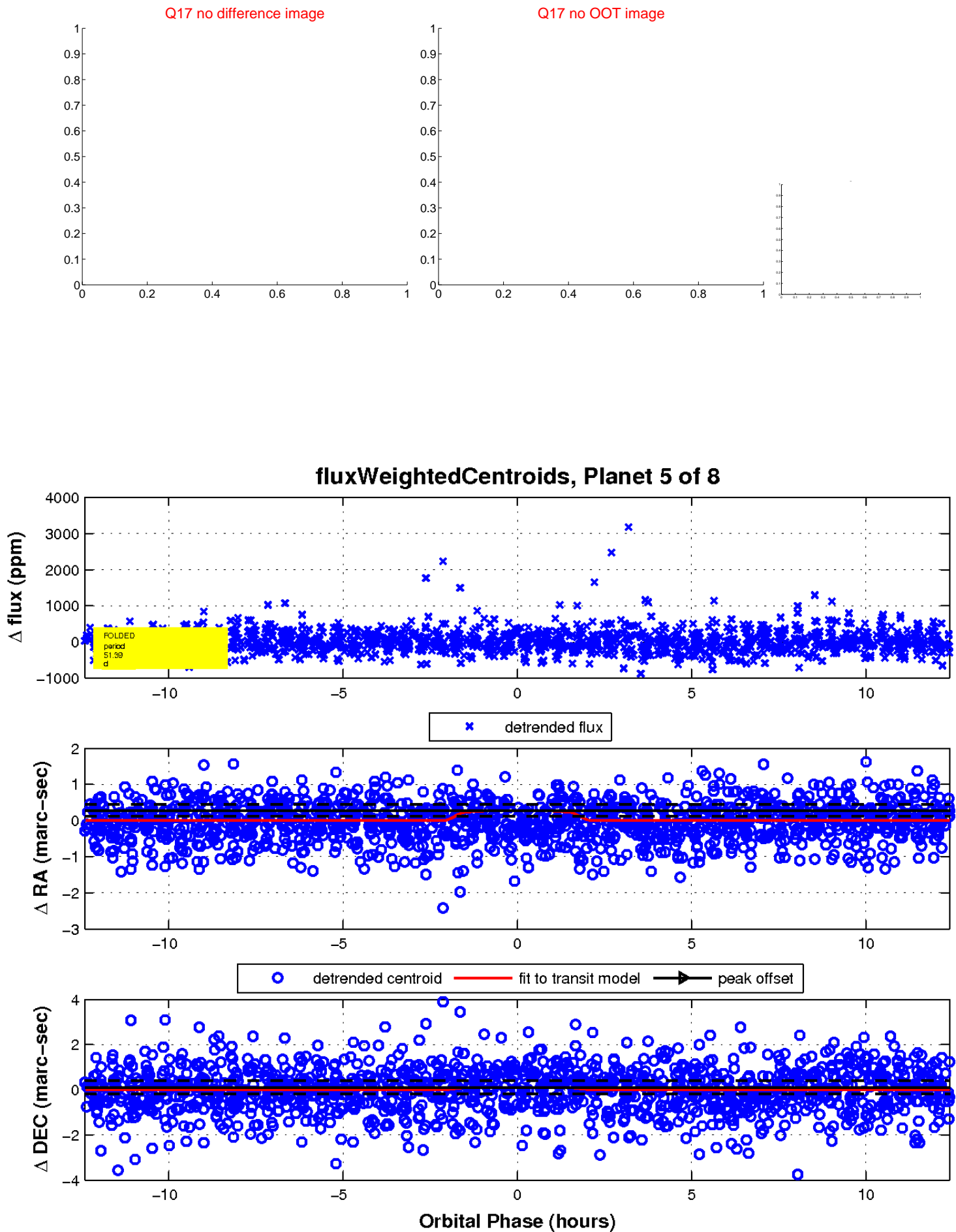
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

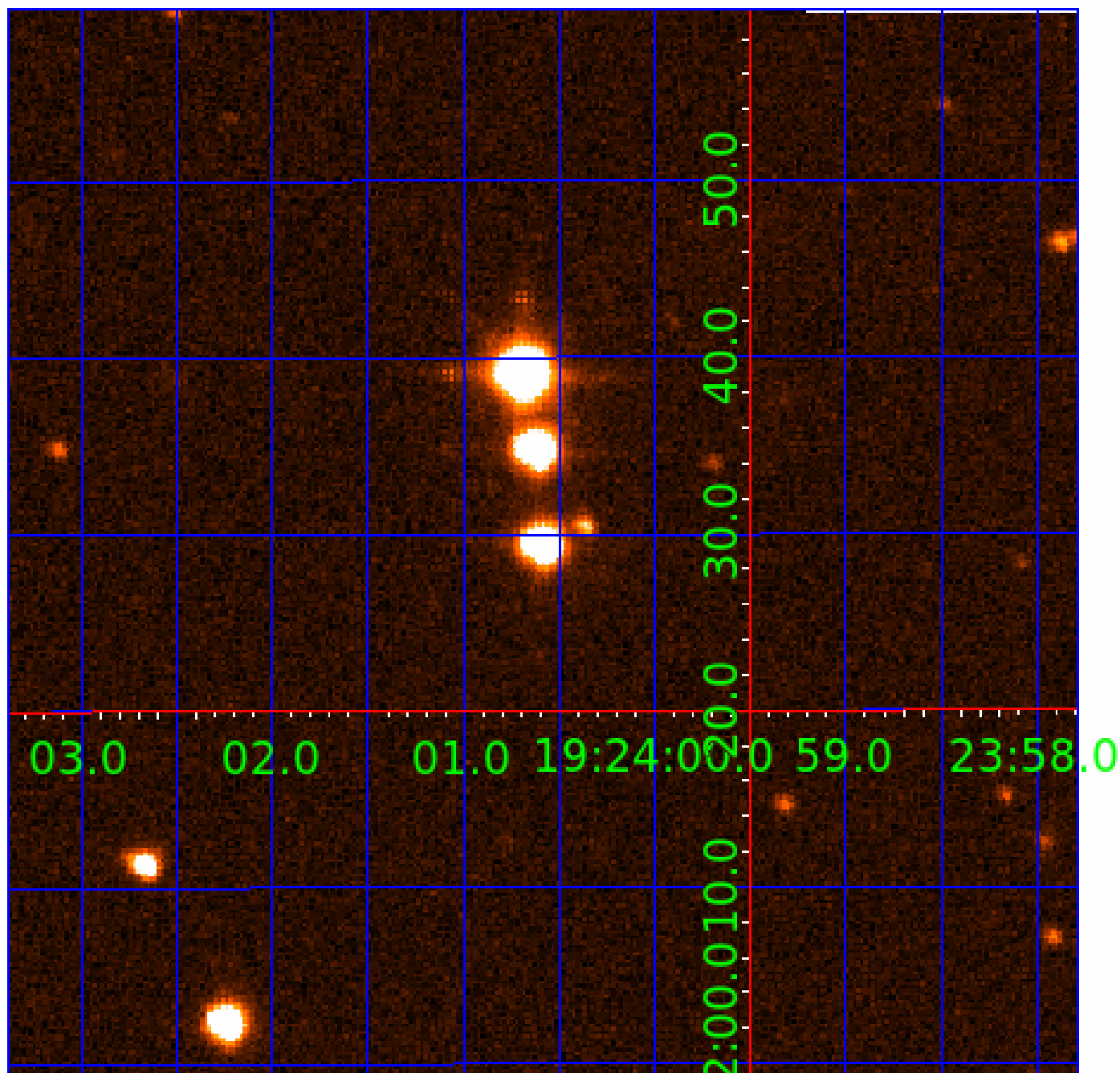


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007957708

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})
007957708-01	OBS	No	0.646753	131.978645	3.8	4.527	11.7	1.1	0.90	5984	0.18	5358.29
007957708-03	OBS	No	32.464345	162.045037	532.5	2.304	11.9	10.4	0.90	5984	2.23	28.94
007957708-04	OBS	No	34.640738	161.806532	345.6	2.958	9.6	8.1	0.90	5984	1.69	26.54
007957708-05	OBS	No	51.388031	161.358819	440.2	4.139	9.5	8.8	0.90	5984	2.25	15.69
007957708-06	OBS	No	46.313611	173.246015	439.0	2.044	9.4	8.3	0.90	5984	2.03	18.02
007957708-07	OBS	No	14.680477	144.060247	54.5	6.867	9.0	2.9	0.90	5984	0.71	83.37
007957708-08	OBS	No	12.885472	140.729696	221.6	2.324	9.8	7.9	0.90	5984	1.35	99.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007957708-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

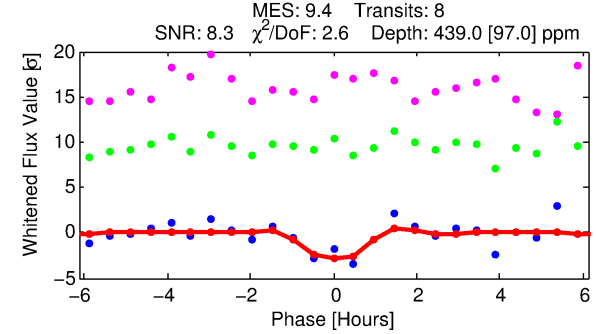
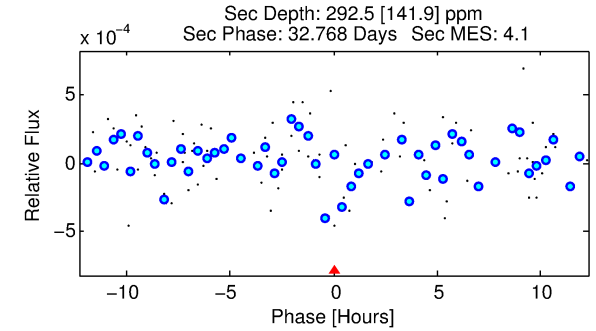
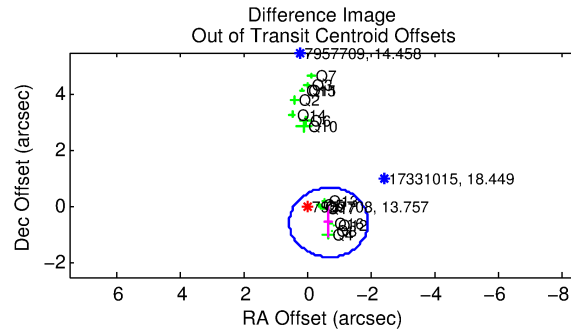
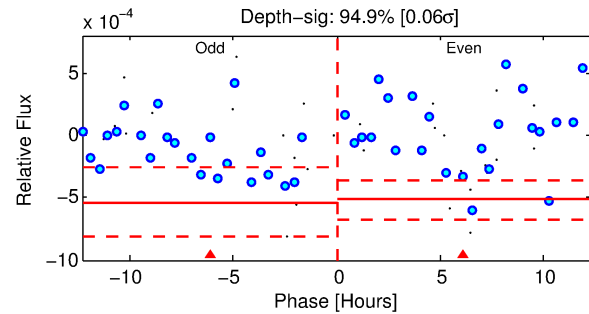
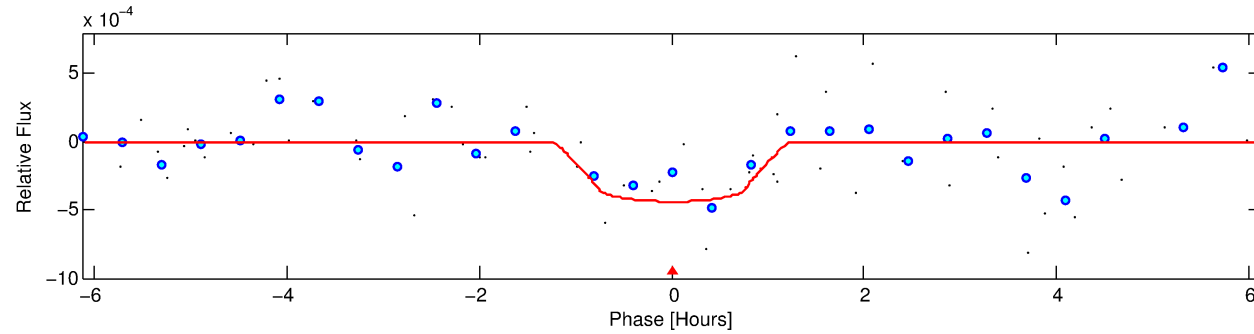
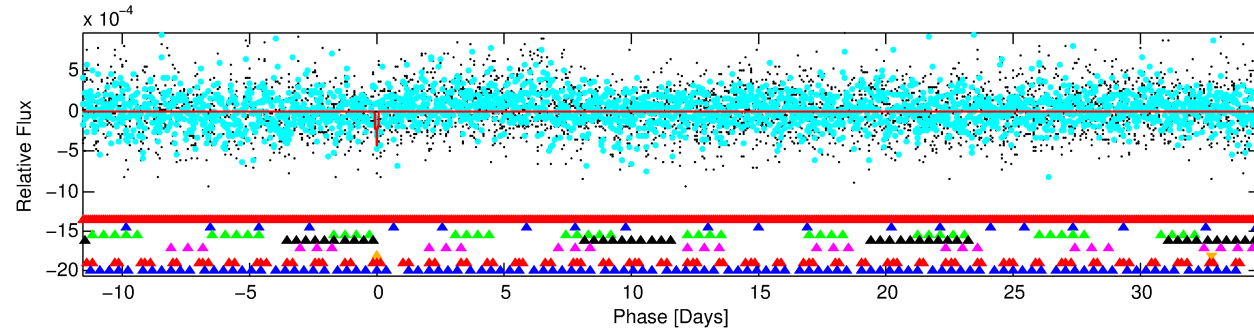
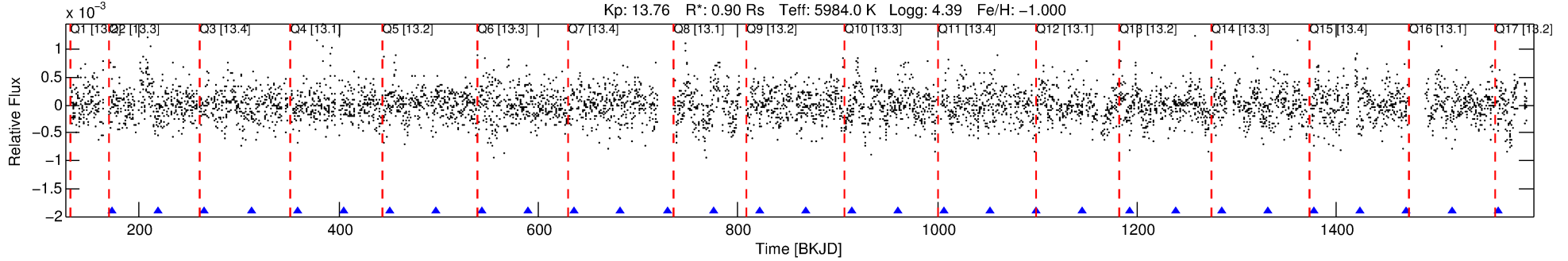
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-06

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 6 of 8 Period: 46.314 d



DV Fit Results:

Period = 46.31361 [0.00056] d
Epoch = 173.2460 [0.0124] BKJD
Rp/R* = 0.0206 [0.0605]
a/R* = 127.49 [2019.35]
b = 0.71 [11.32]
Seff = 18.02 [6.11]
Teq = 525 [45] K
Rp = 2.03 [5.96] Re
a = 0.2275 [0.0470] AU
Ag = 2027.54 [11954.99] [0.17σ]
Teffp = 5451 [8024] K [0.61σ]

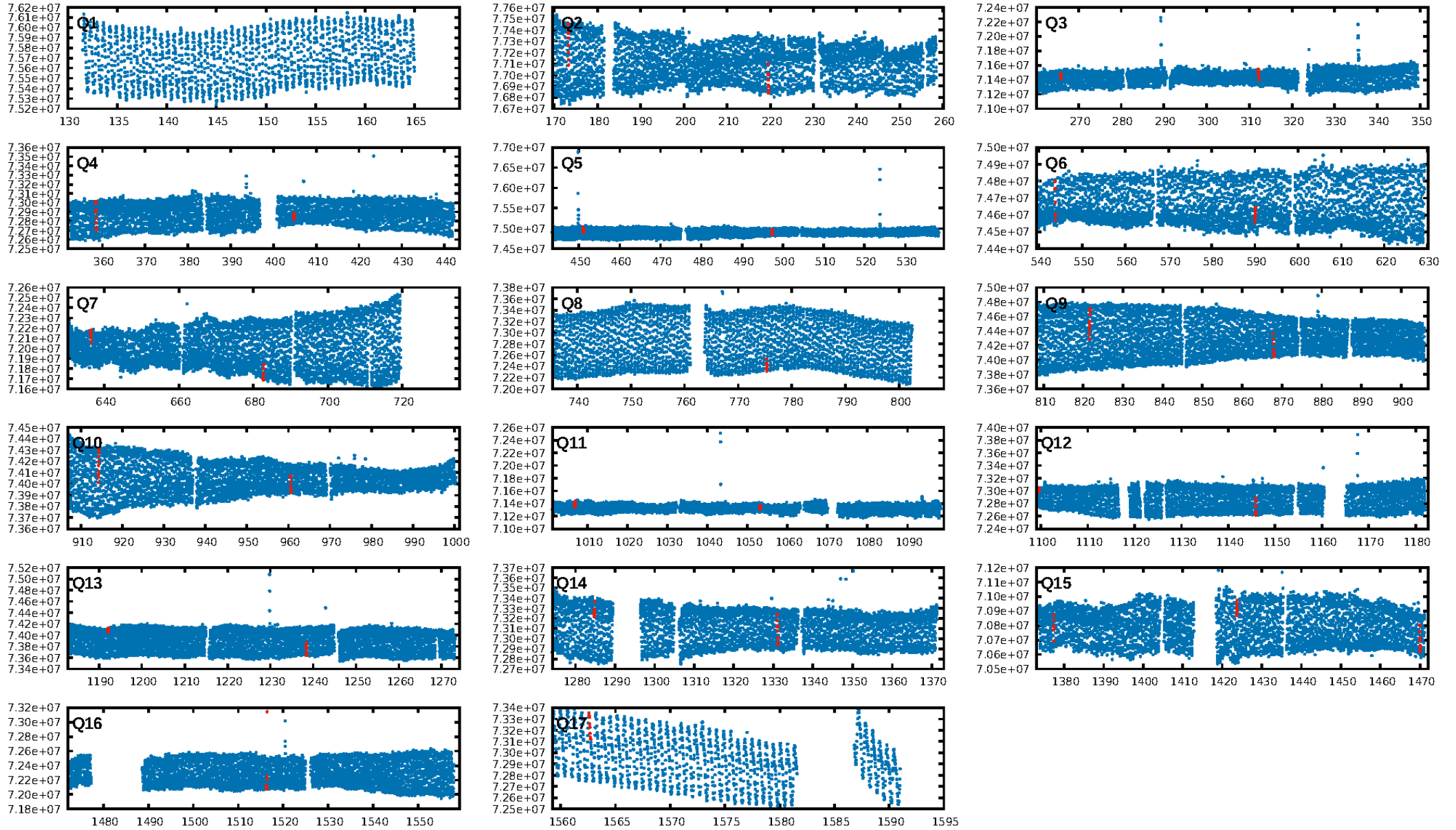
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [77.90σ]
LongPeriod-sig: 100.0% [26.38σ]
ModelChiSquare2-sig: 85.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.31e-09
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: -0.857
Centroid-sig: 7.9%
Centroid-so: 3.041 arcsec [5.04σ]
OotOffset-rm: 0.864 arcsec [2.10σ]
KicOffset-rm: 5.349 arcsec [59.95σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 0.00 [0/16]

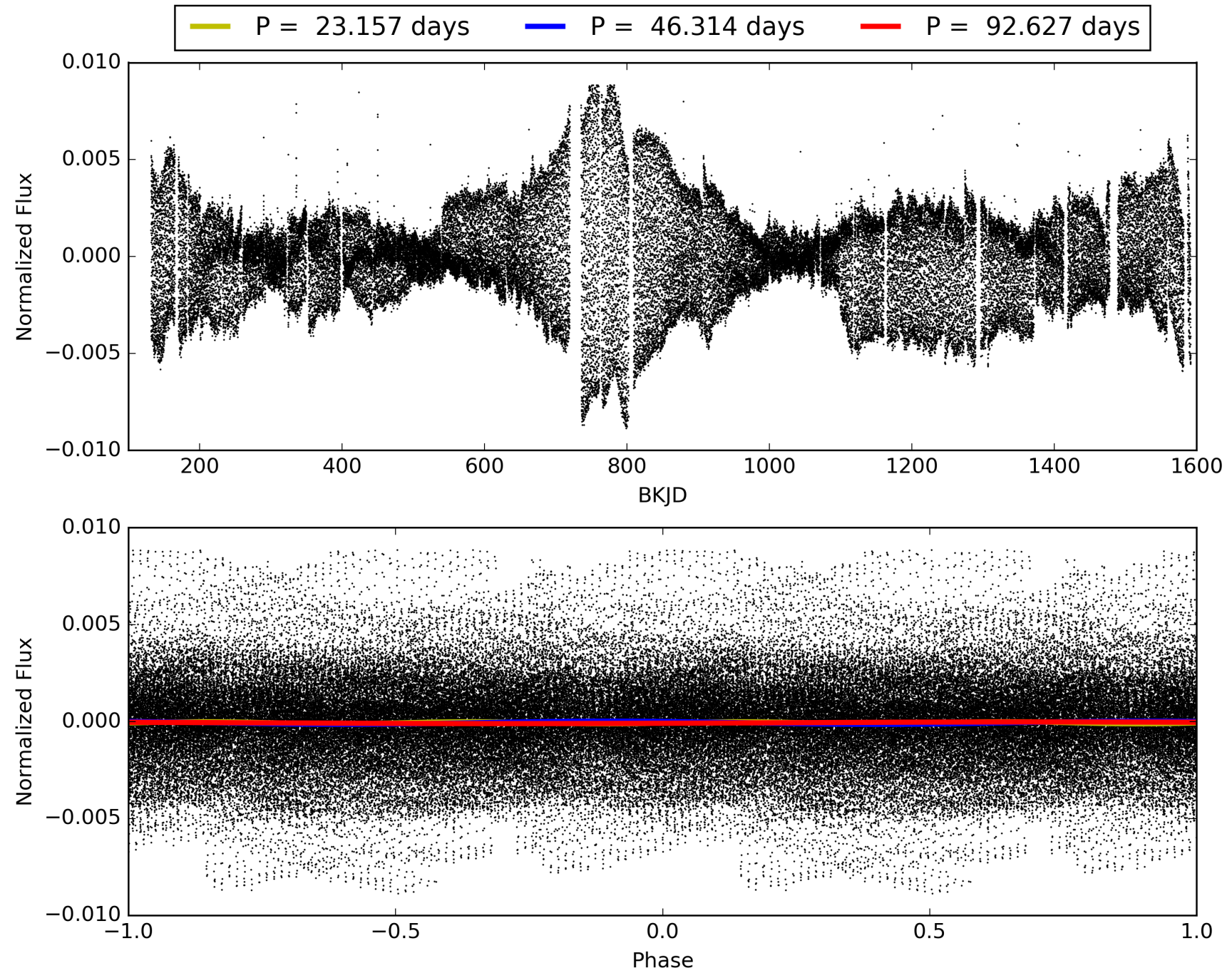
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:30 Z

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

TCE 007957708-06, PDC Light Curves

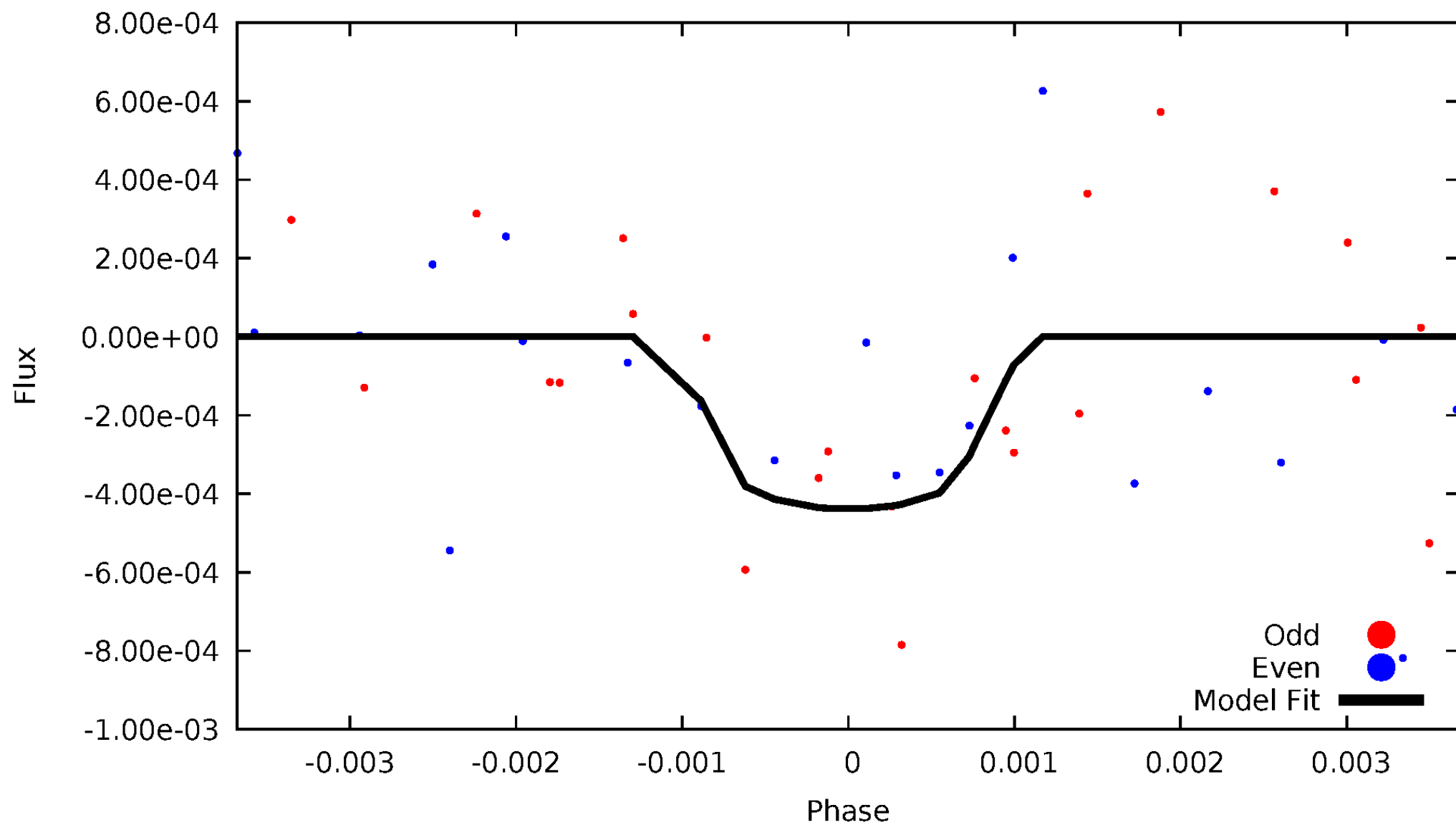


TCE 007957708-06



DV Odd/Even

TCE 007957708-06

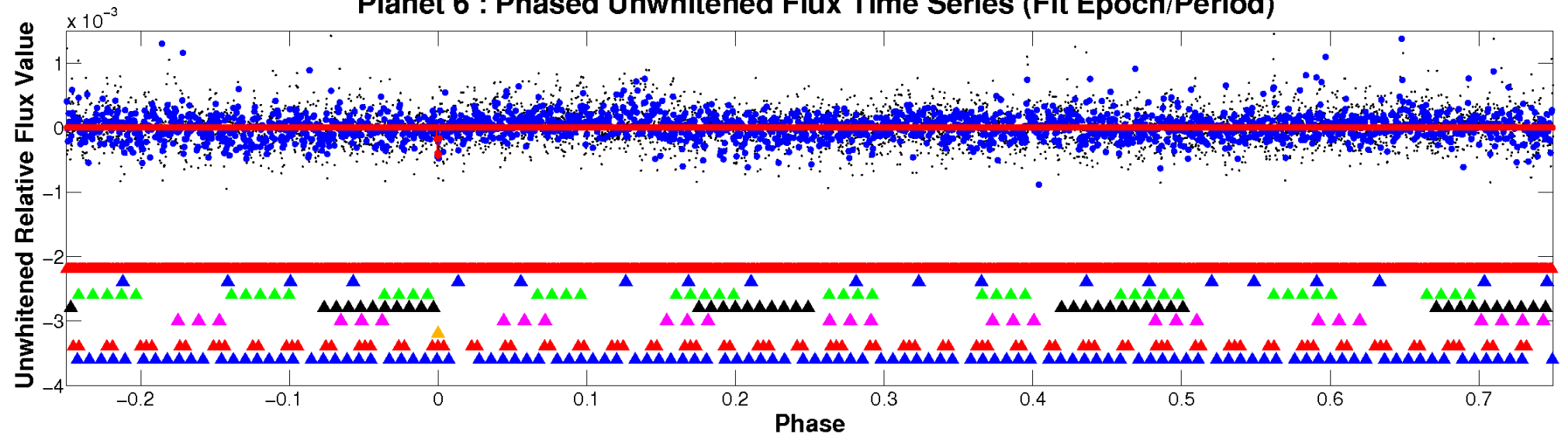


ALT Odd/Even

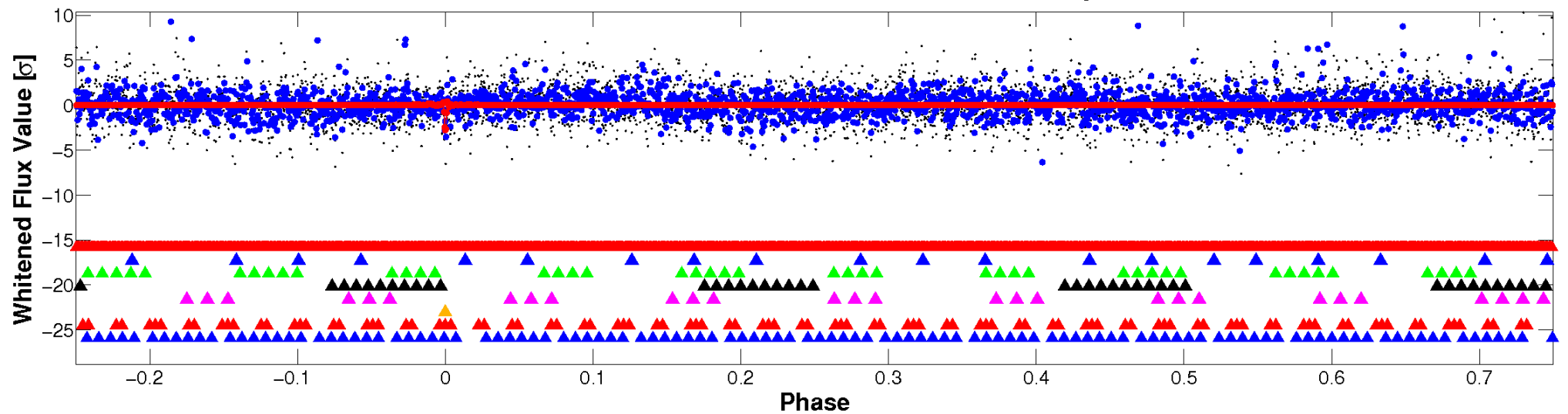
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

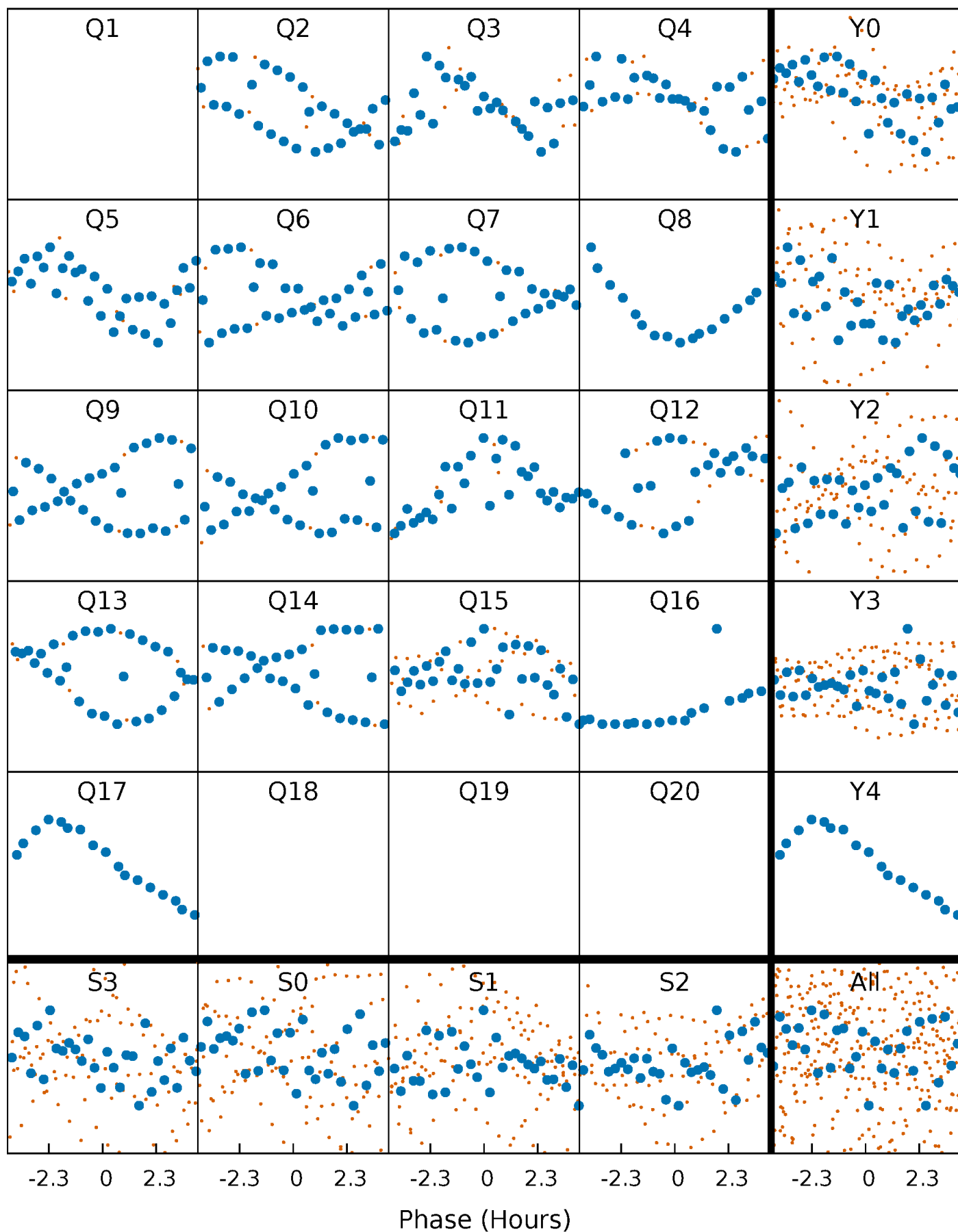


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



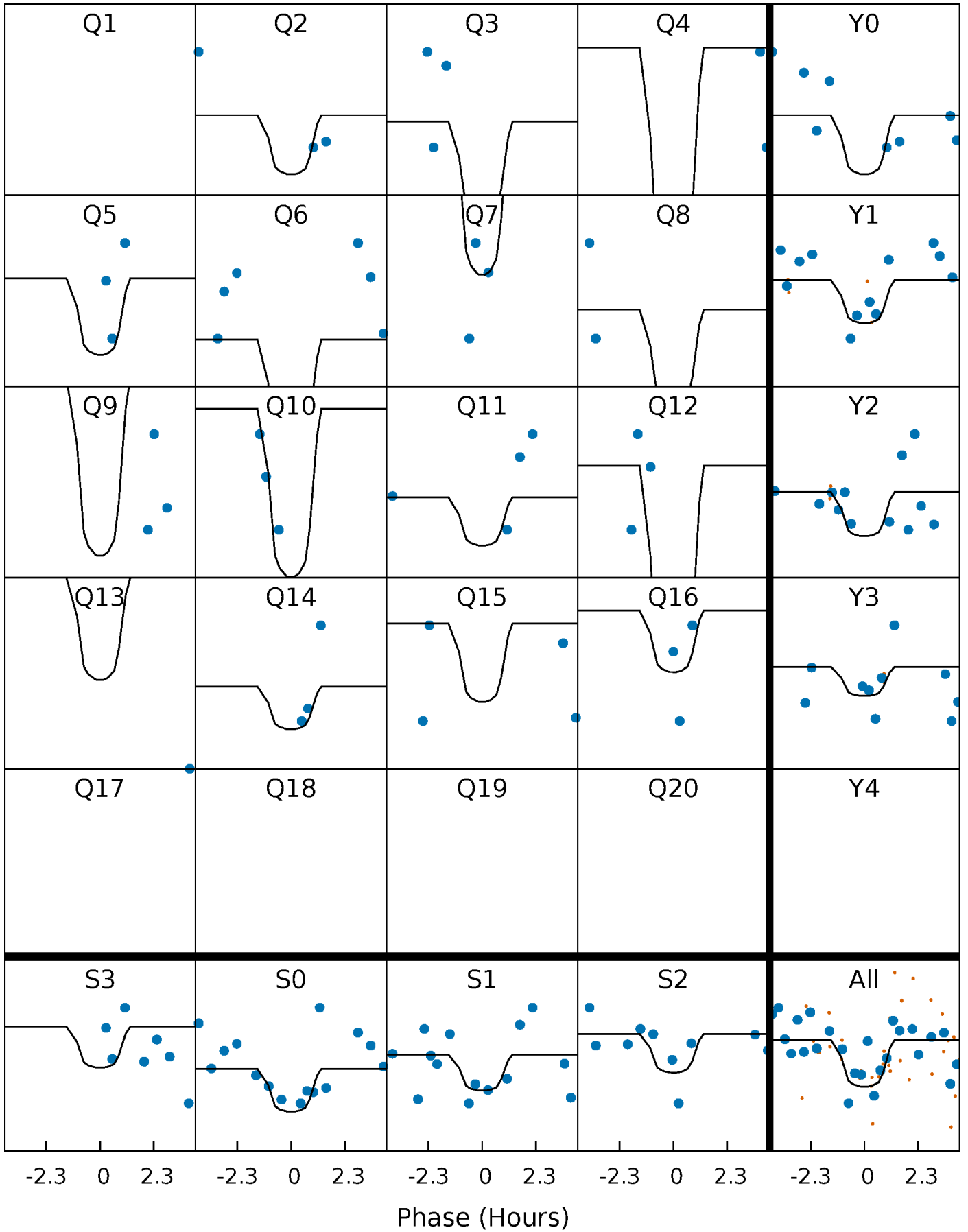
PDC Quarter-Phased Transit Curves

TCE 007957708-06 P= 46.313611 Days $T_0=173.246015$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007957708-06 P= 46.313611 Days $T_0=173.246015$ (BKJD)

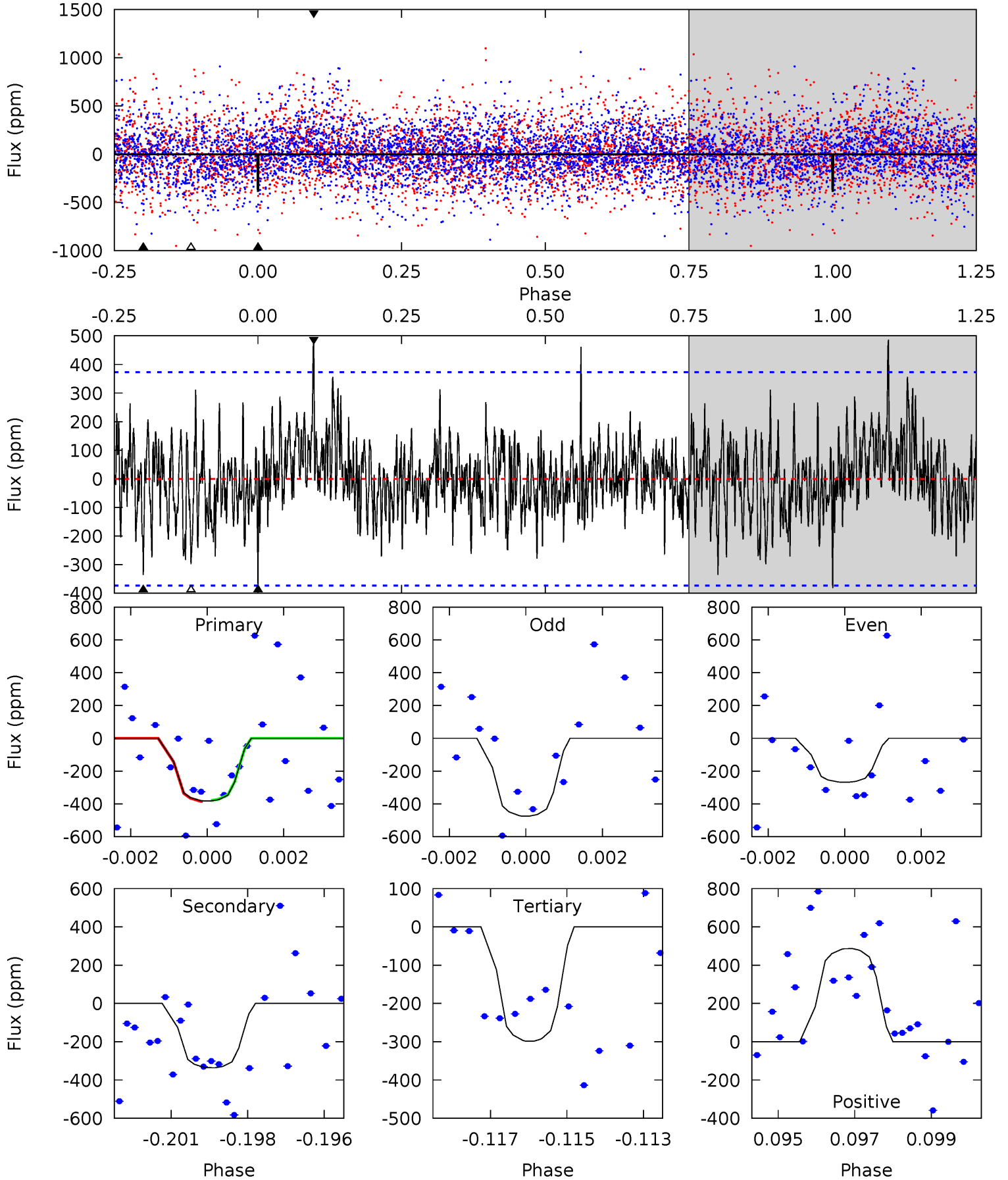


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007957708-06, P = 46.313611 Days, E = 126.932404 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.45	4.79	4.26	6.94	5.32	3.09	1.51	1.19	-1.49	0.53	-2.15	1.35	1.03	0.56	0.04



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-336 ± 70	$4.77^{+5.10}_{-3.26}$	733^{+55}_{-42}	4012^{+2526}_{-870}	409^{+3959}_{-315}
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

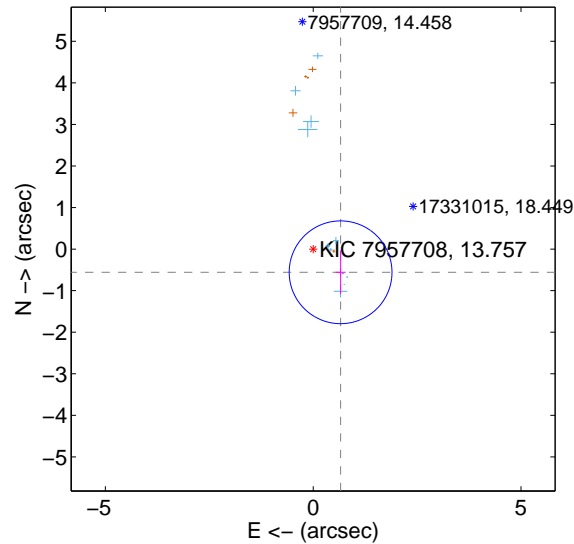
Supplemental centroid analysis for 007957708-06. Kepler magnitude: 13.76. Transit SNR 8.32

There are 11 quarters with good PRF difference image offsets

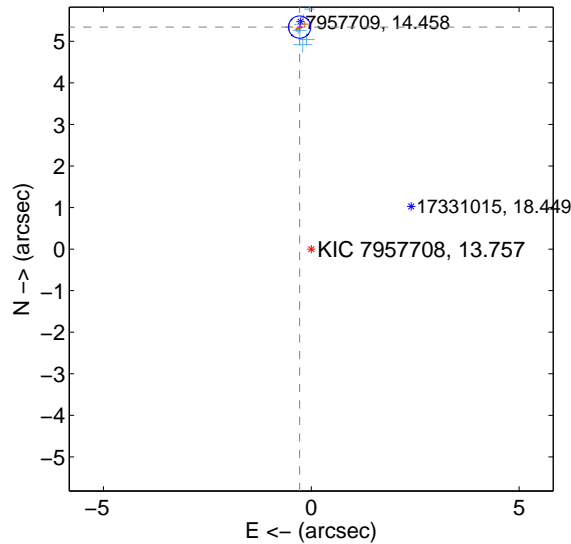
The OOT PRF centroid is offset from the target star catalog position by about 5.43 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.864 ± 0.412	2.10	-0.660 ± 0.122	-0.558 ± 0.526
PRF-fit source offset from KIC position	5.349 ± 0.089	59.95	0.280 ± 0.074	5.342 ± 0.089
photometric centroid source offset	3.04 ± 0.60	5.04	1.00 ± 0.34	2.87 ± 0.63

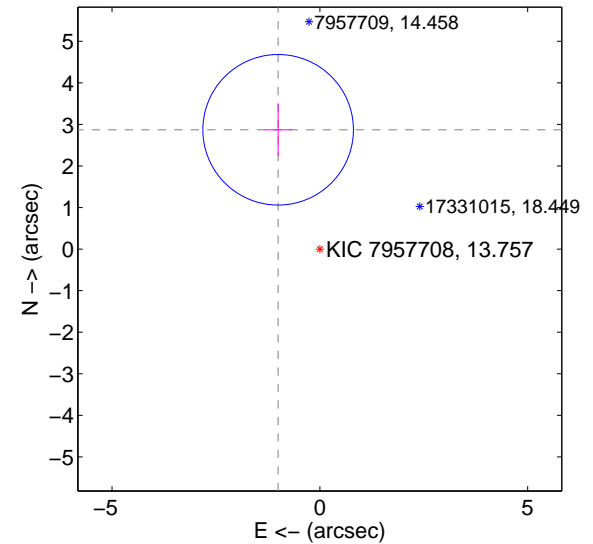
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

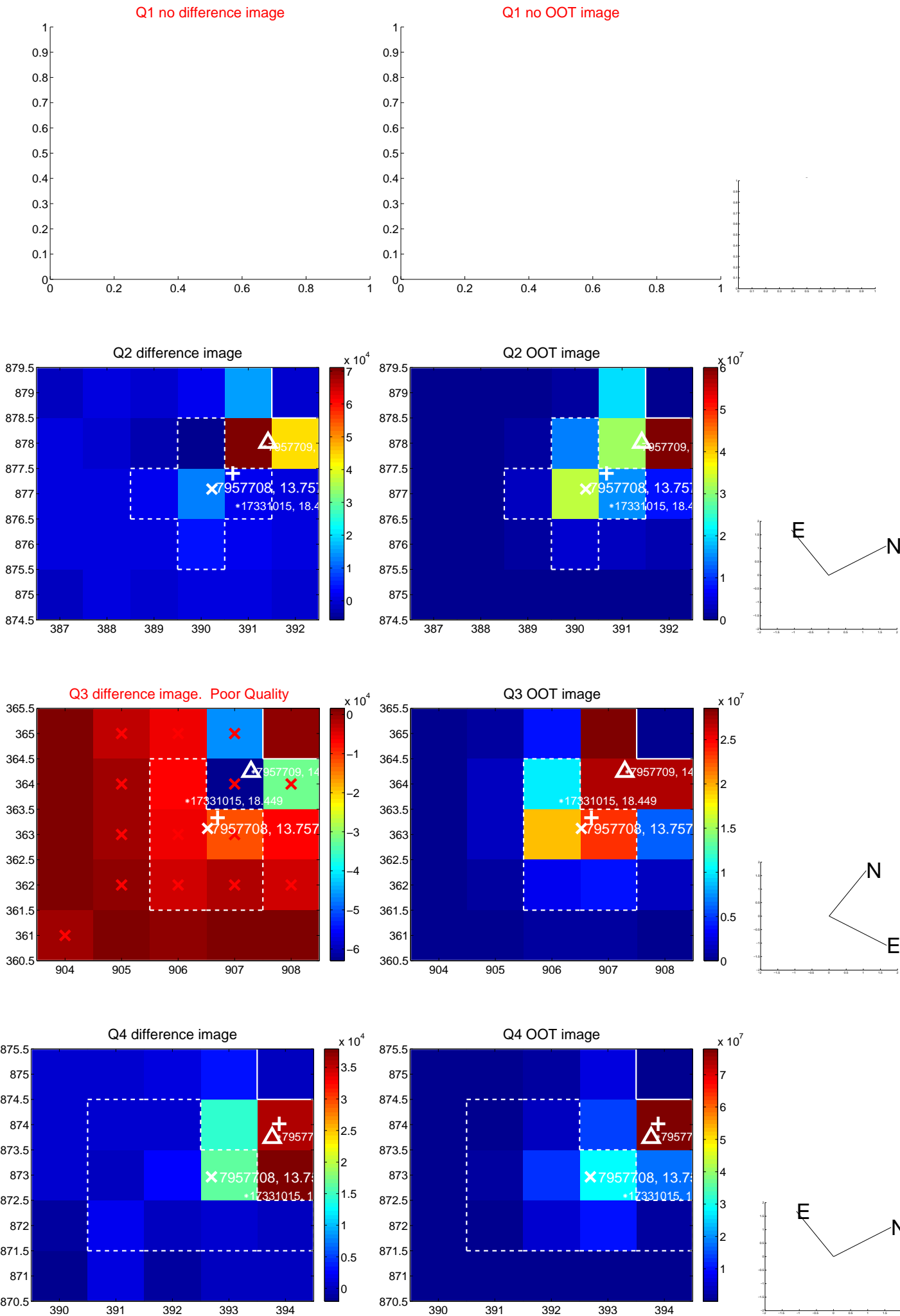


offset from photometric centroids

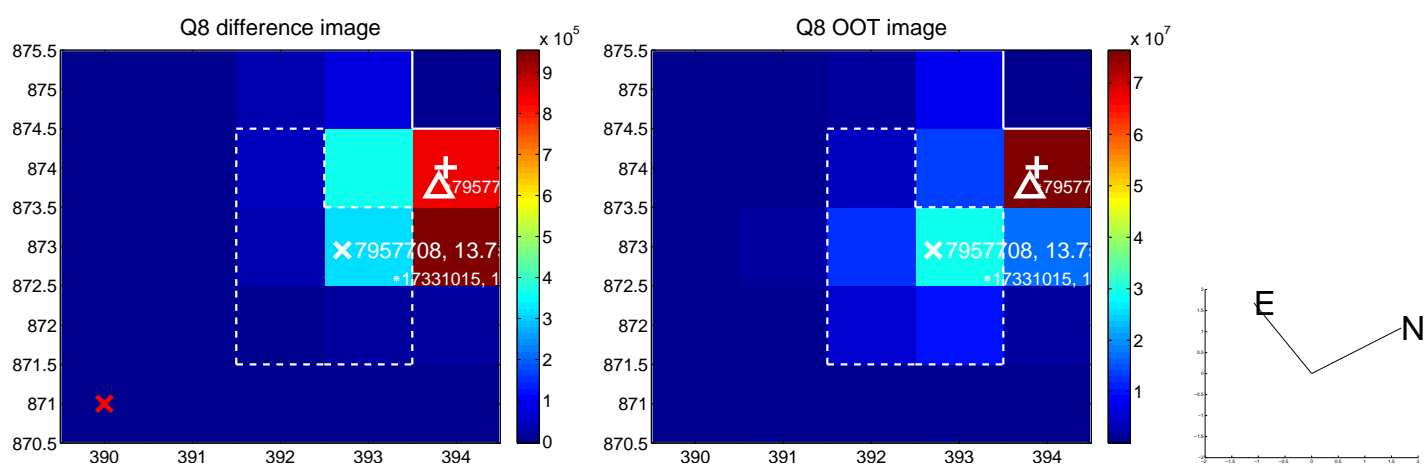
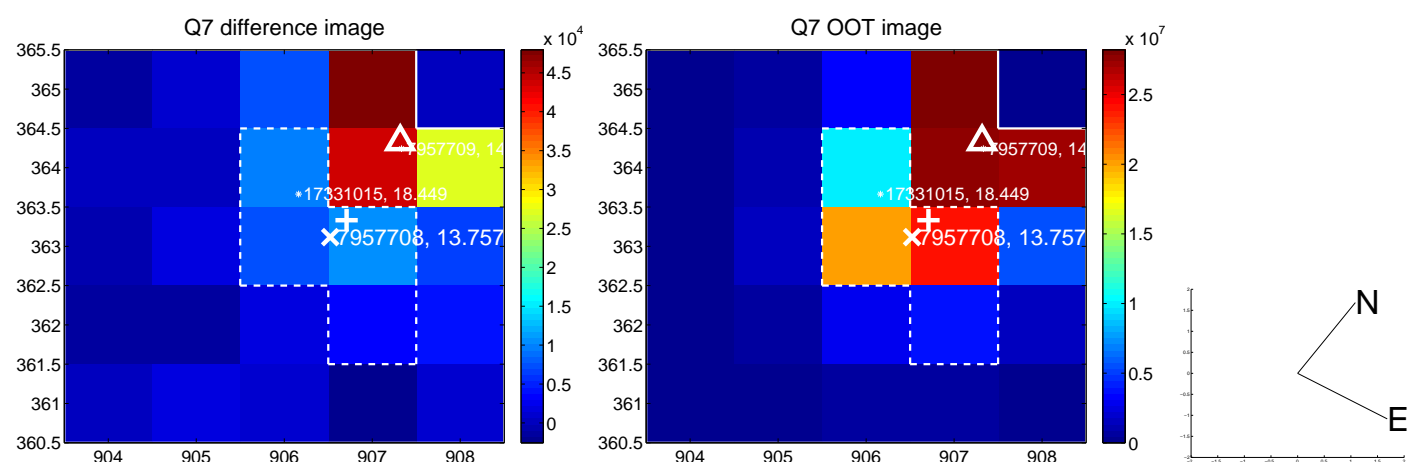
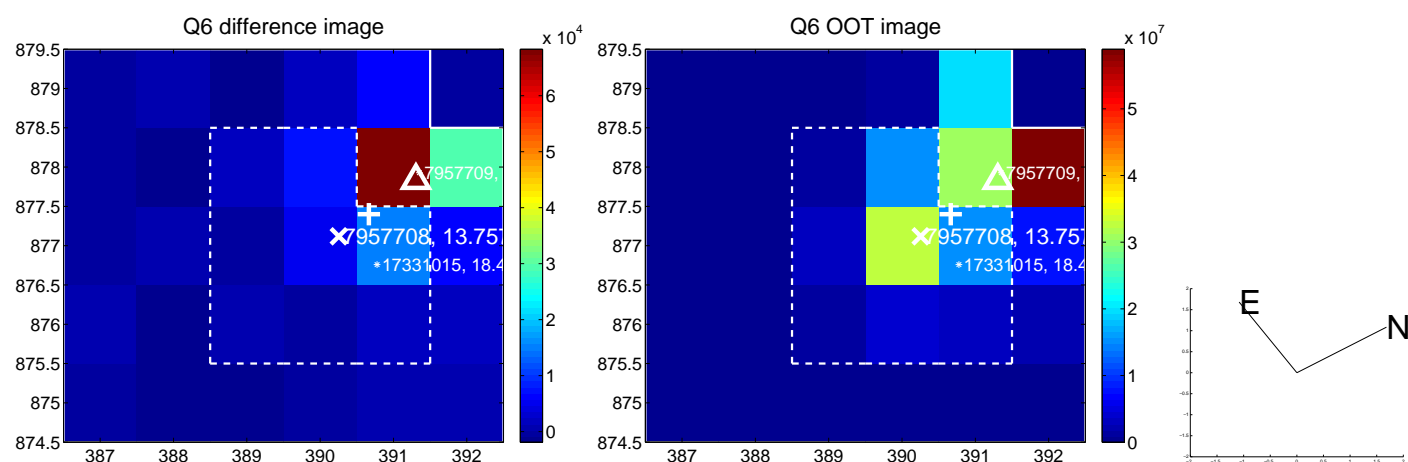
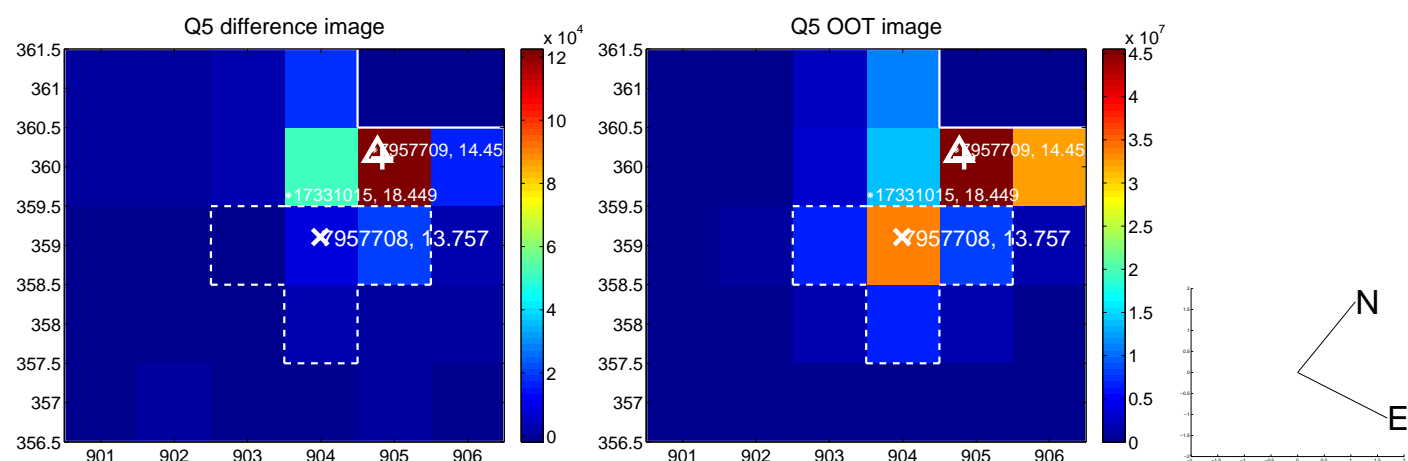


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

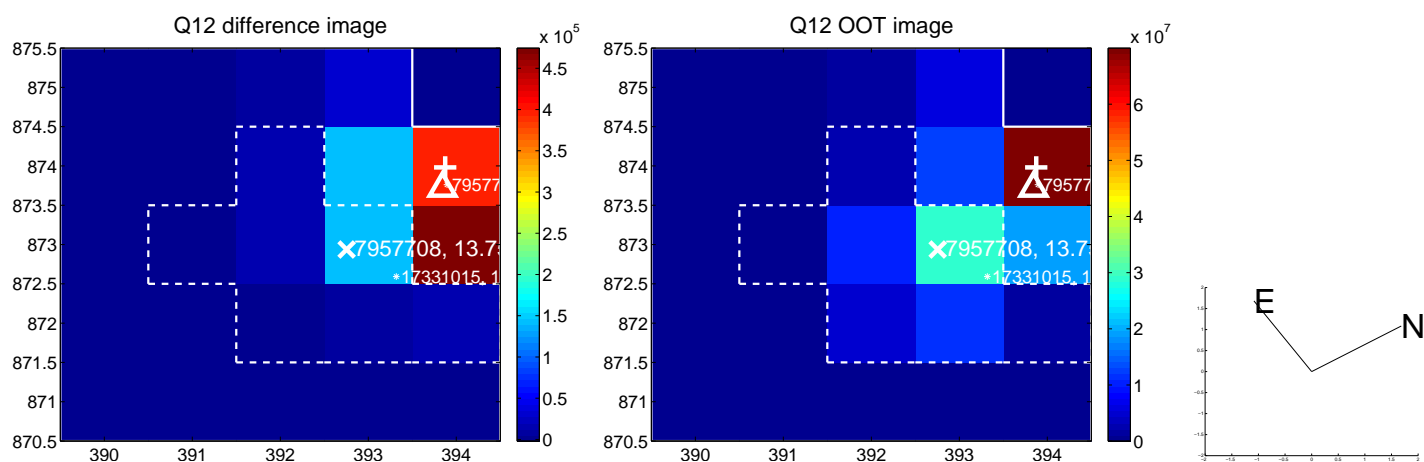
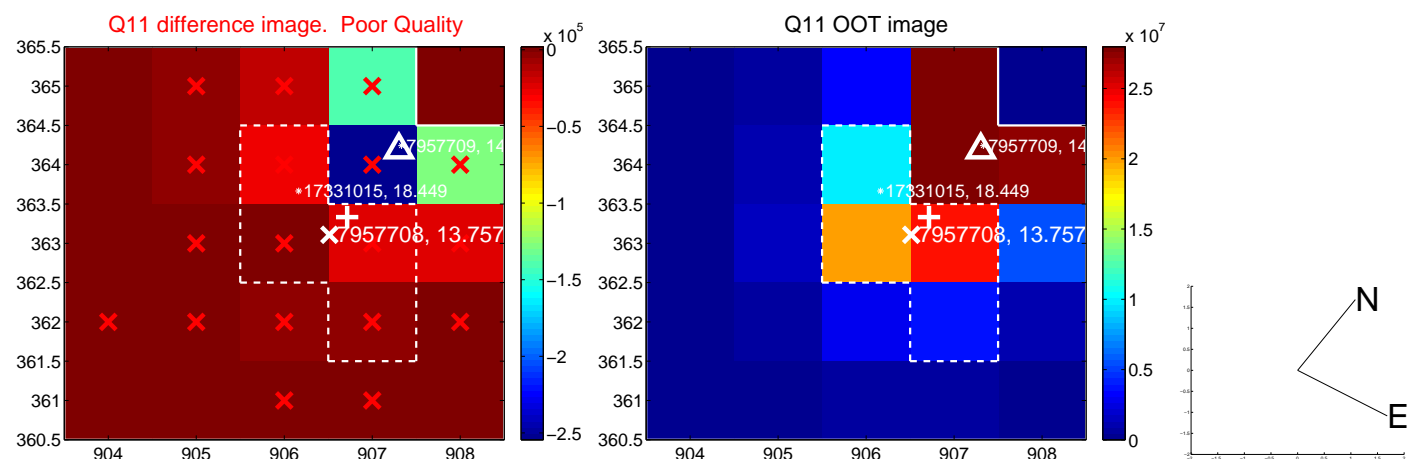
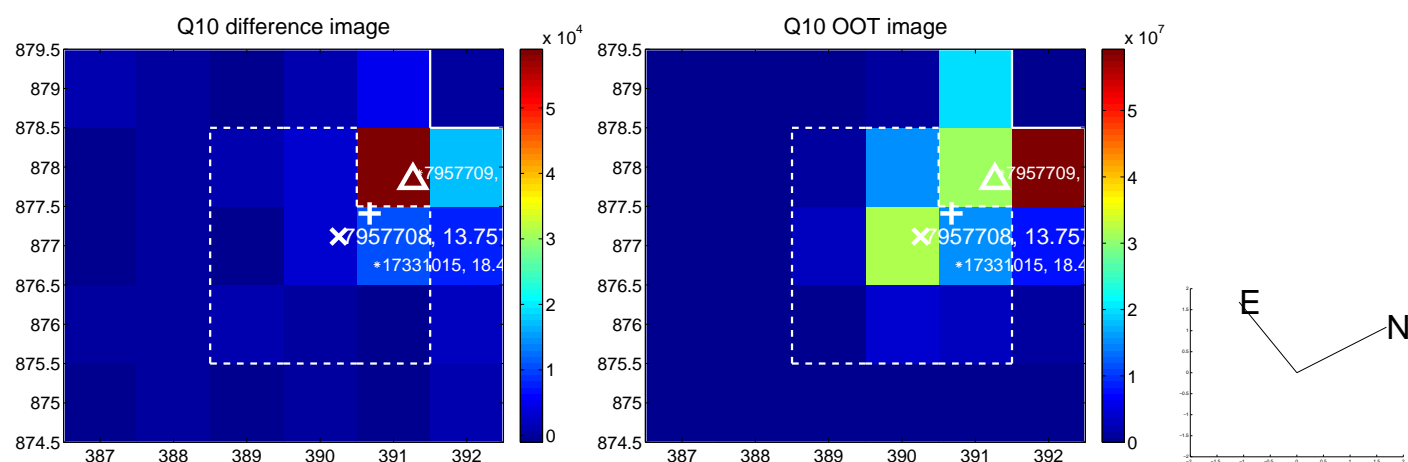
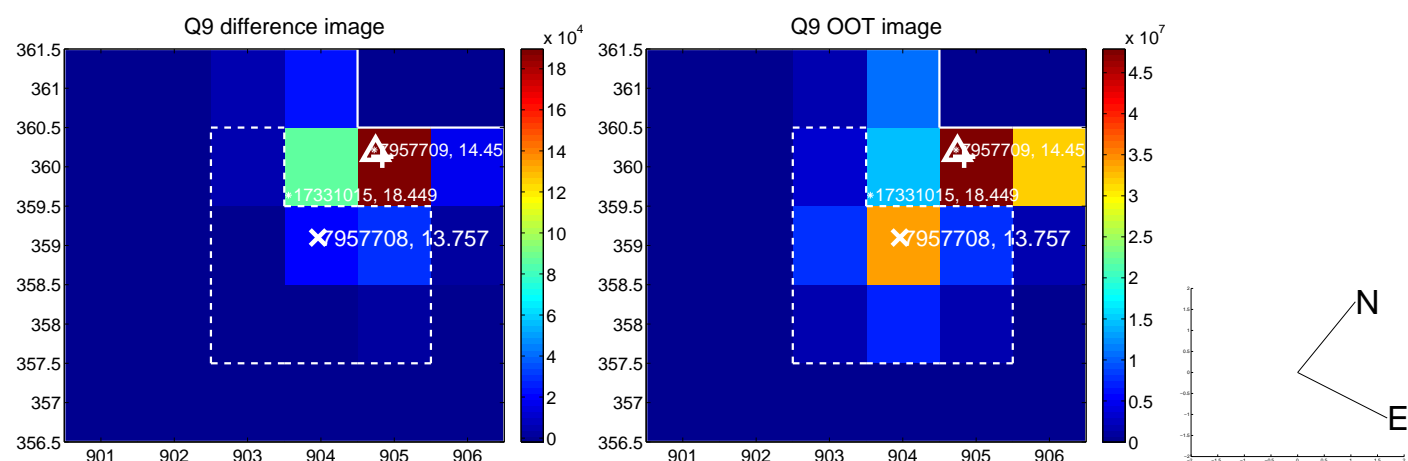
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



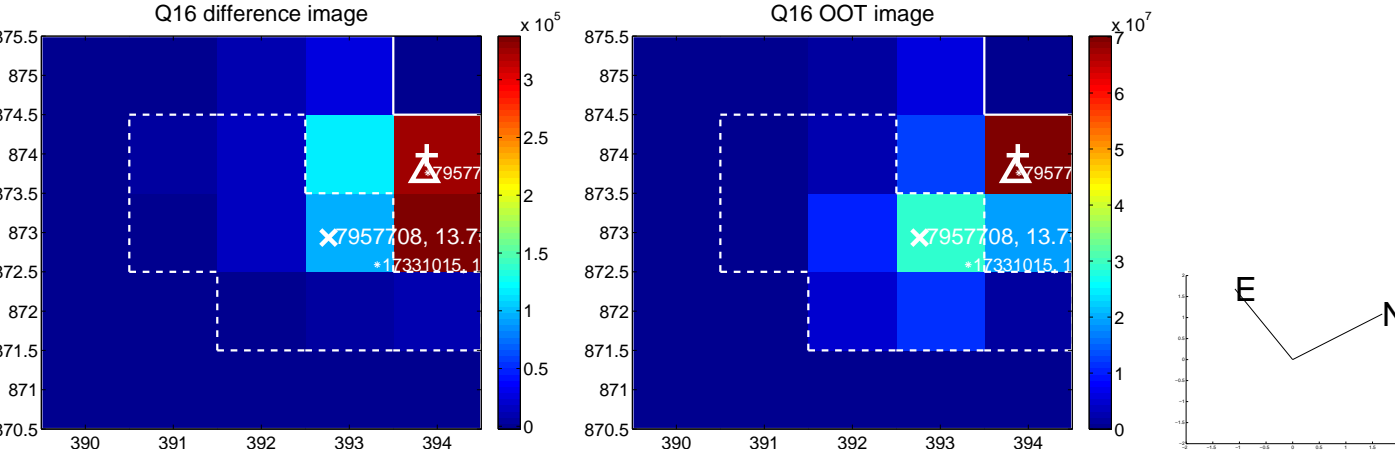
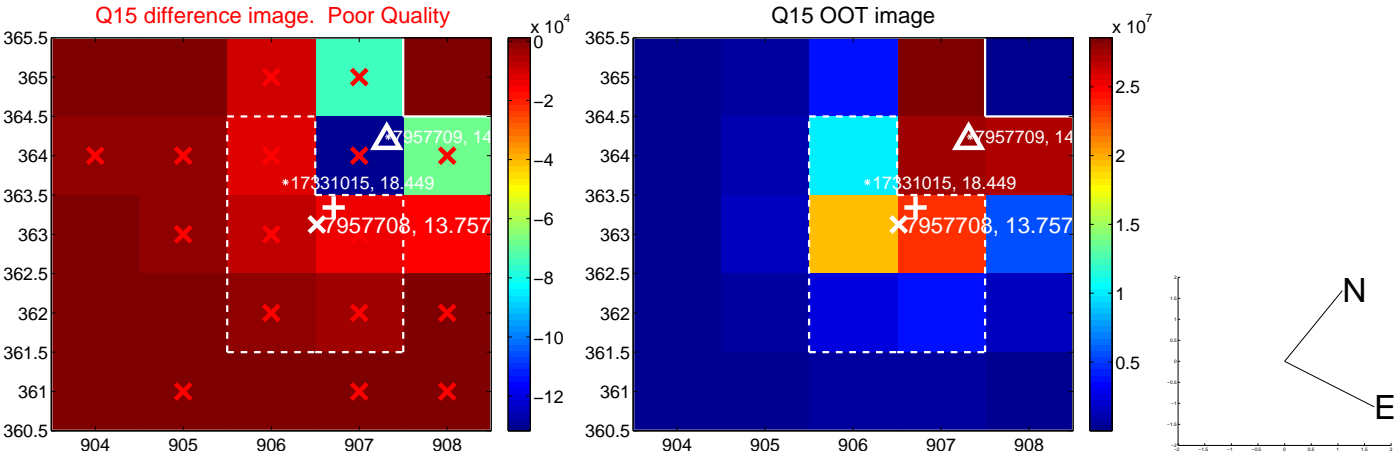
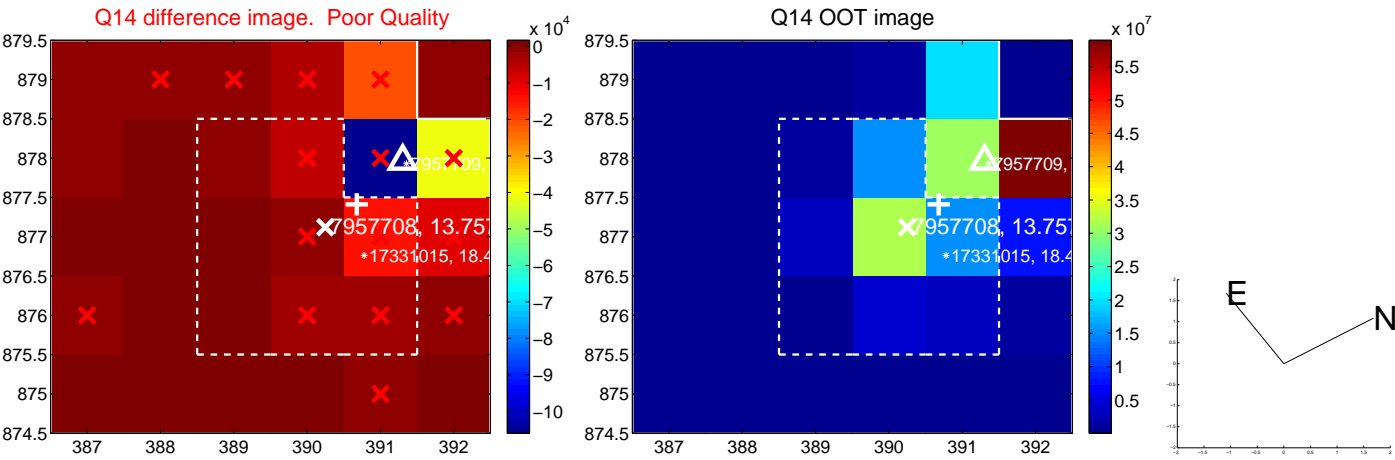
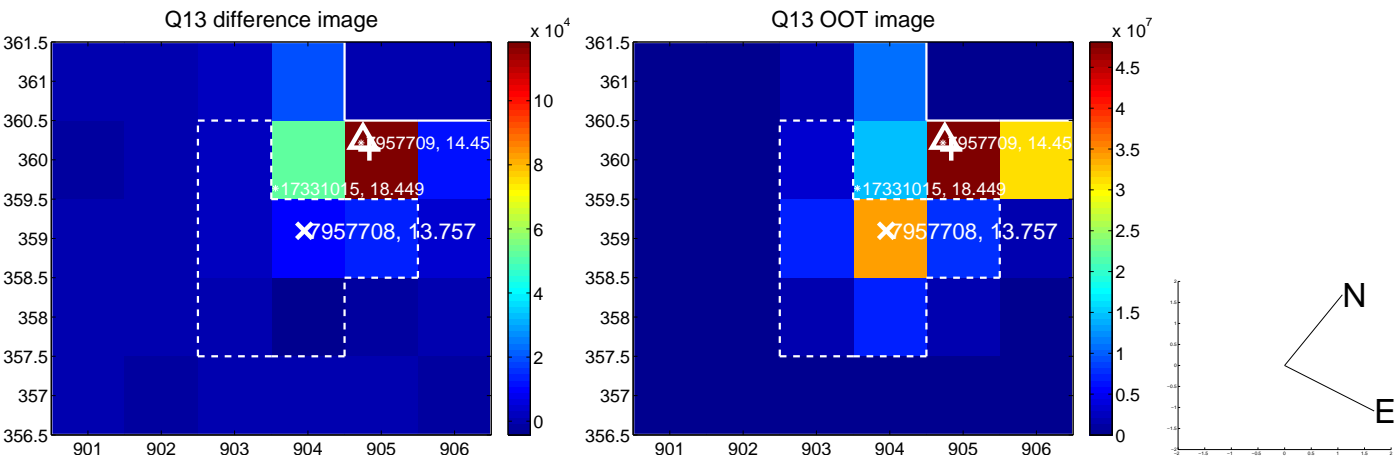
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



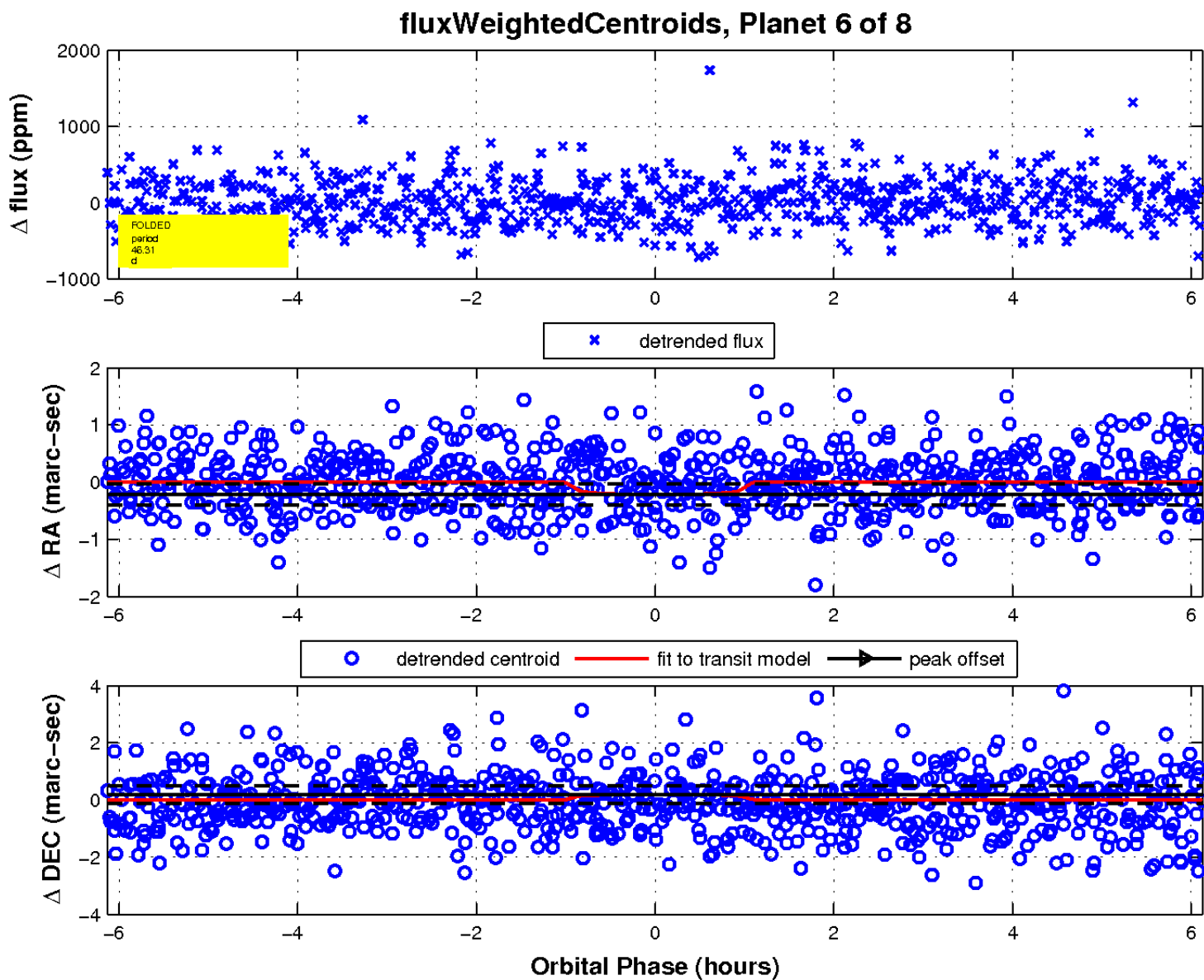
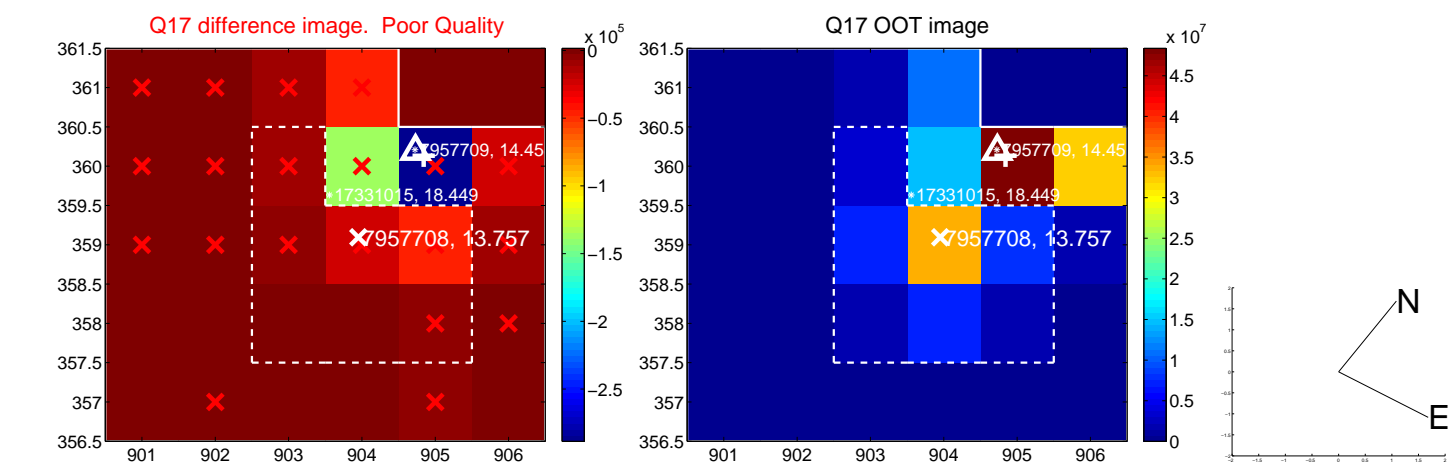
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

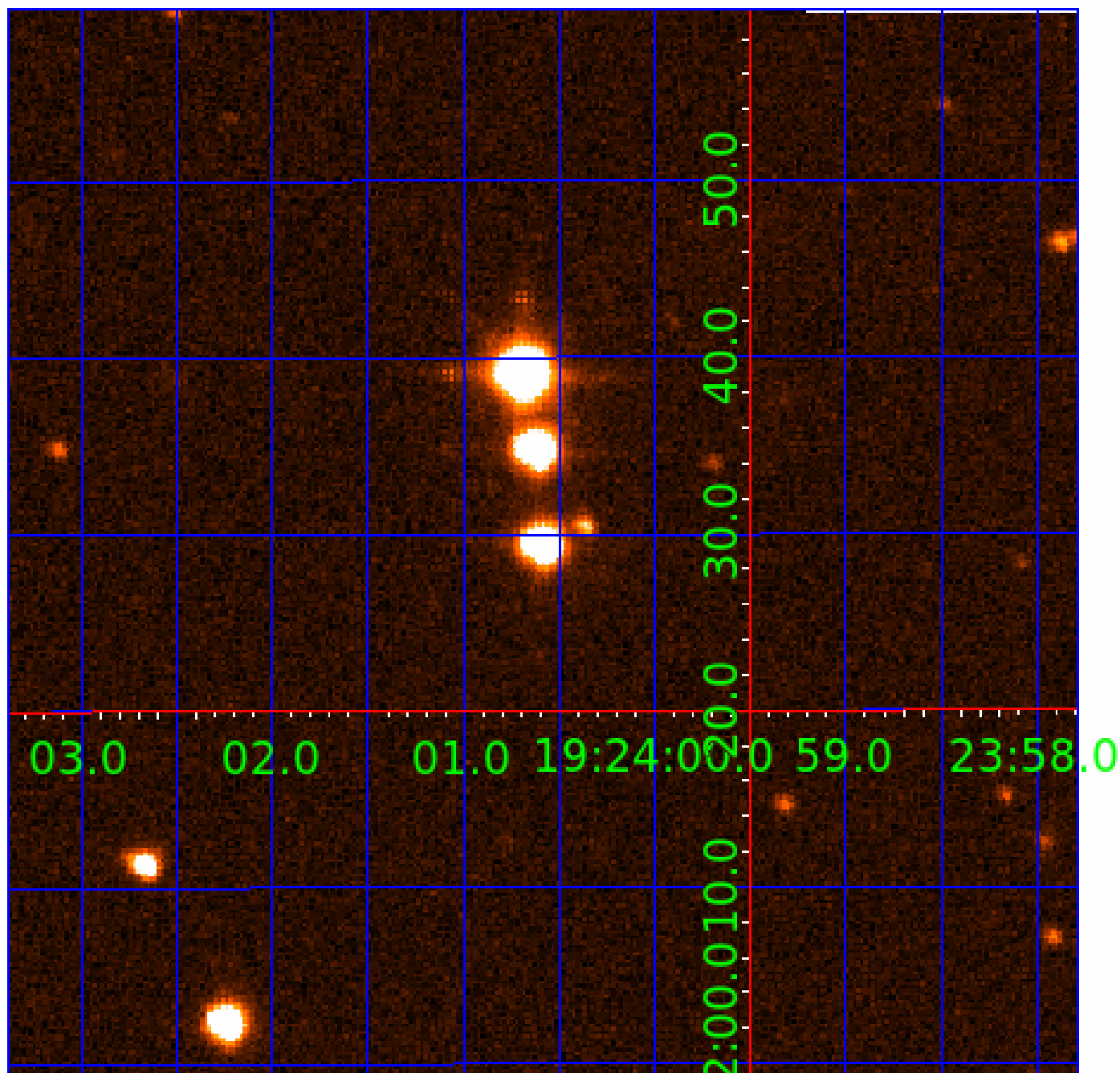


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007957708

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})
007957708-01	OBS	No	0.646753	131.978645	3.8	4.527	11.7	1.1	0.90	5984	0.18	5358.29
007957708-03	OBS	No	32.464345	162.045037	532.5	2.304	11.9	10.4	0.90	5984	2.23	28.94
007957708-04	OBS	No	34.640738	161.806532	345.6	2.958	9.6	8.1	0.90	5984	1.69	26.54
007957708-05	OBS	No	51.388031	161.358819	440.2	4.139	9.5	8.8	0.90	5984	2.25	15.69
007957708-06	OBS	No	46.313611	173.246015	439.0	2.044	9.4	8.3	0.90	5984	2.03	18.02
007957708-07	OBS	No	14.680477	144.060247	54.5	6.867	9.0	2.9	0.90	5984	0.71	83.37
007957708-08	OBS	No	12.885472	140.729696	221.6	2.324	9.8	7.9	0.90	5984	1.35	99.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007957708-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

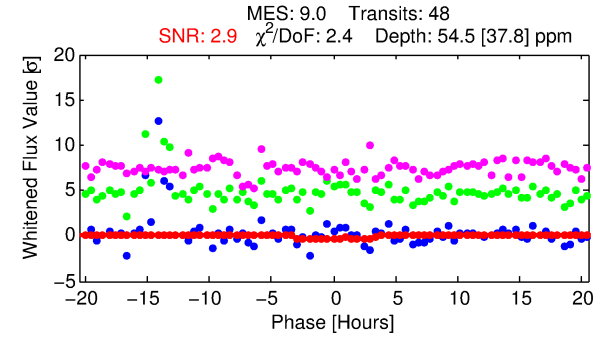
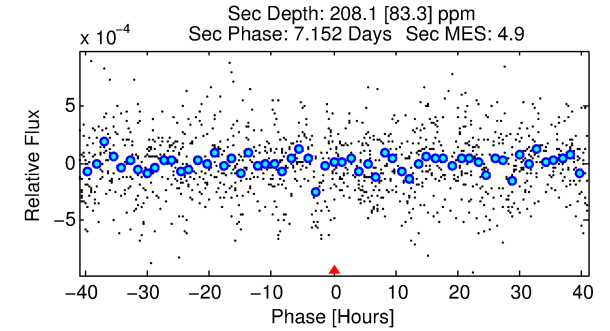
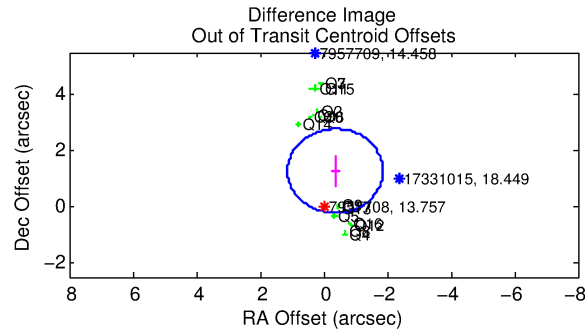
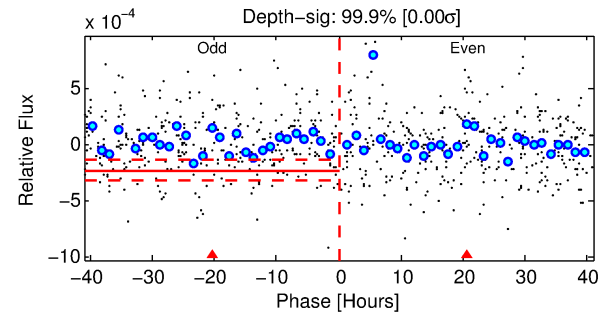
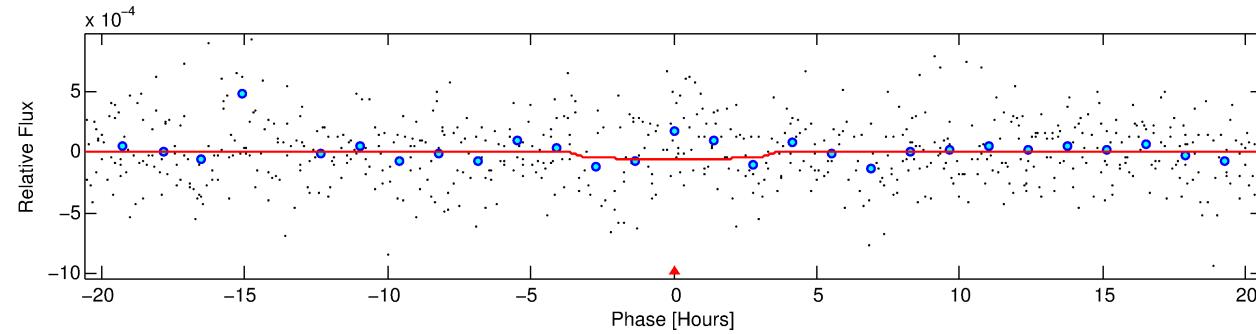
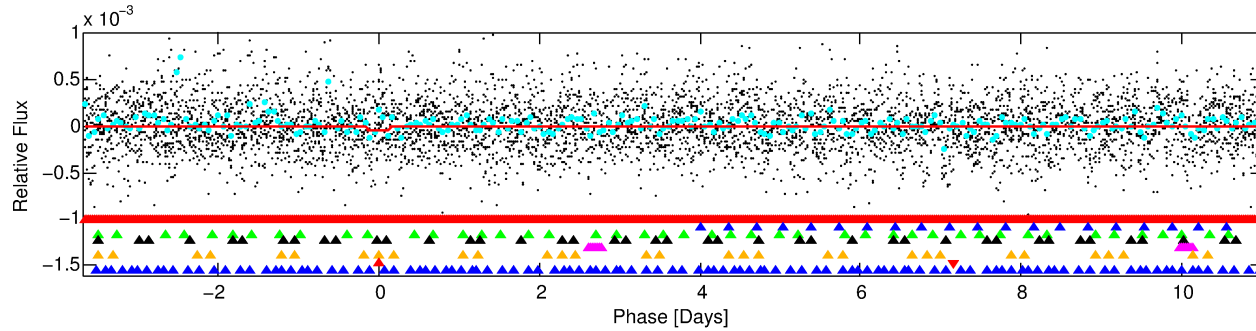
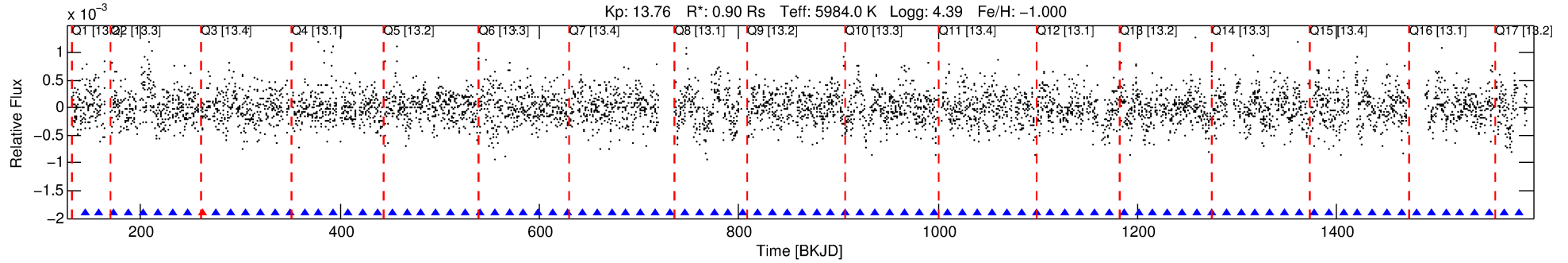
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-07

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 7 of 8 Period: 14.680 d



DV Fit Results:

Period = 14.68048 [0.00149] d
Epoch = 144.0602 [0.0694] BKJD
Rp/R* = 0.0072 [0.0167]
a/R* = 12.24 [151.33]
b = 0.67 [10.05]
Seff = 83.37 [28.27]
Teq = 771 [65] K
Rp = 0.71 [1.65] Re
a = 0.1058 [0.0219] AU
Ag = 2559.24 [11928.57] [0.21σ]
Teffp = 8473 [9853] K [0.78σ]

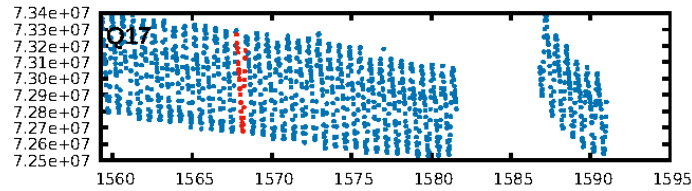
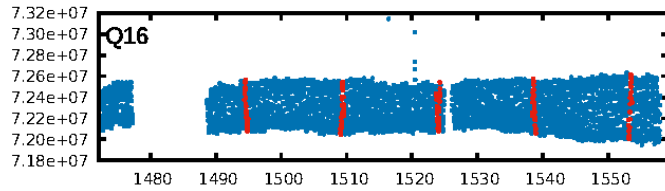
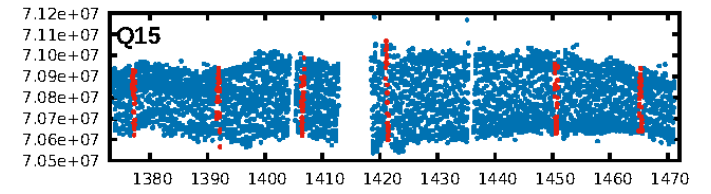
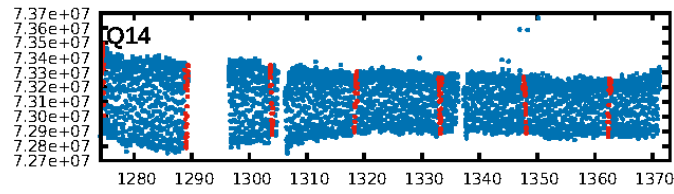
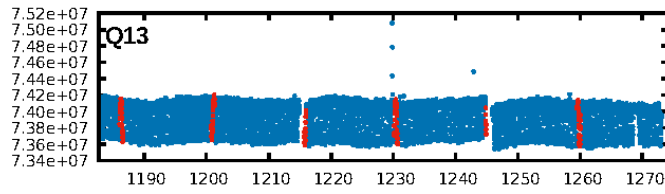
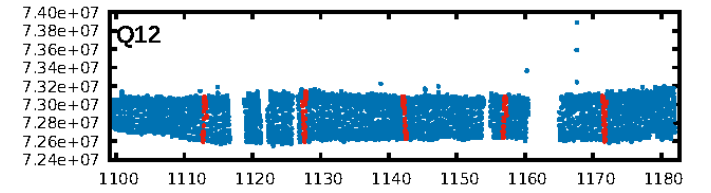
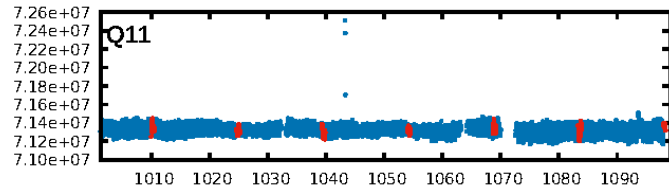
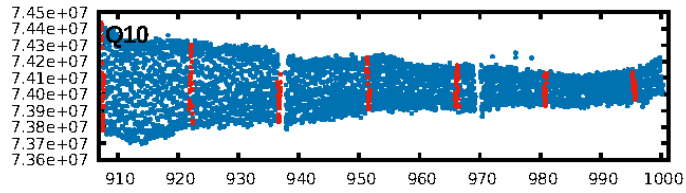
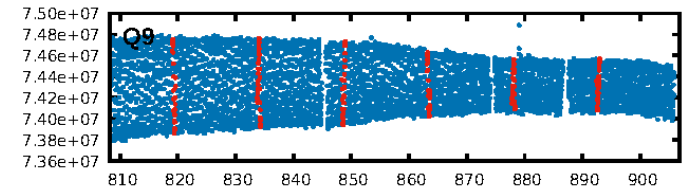
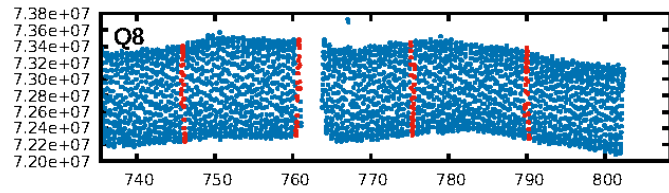
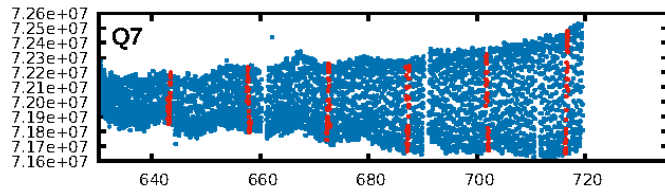
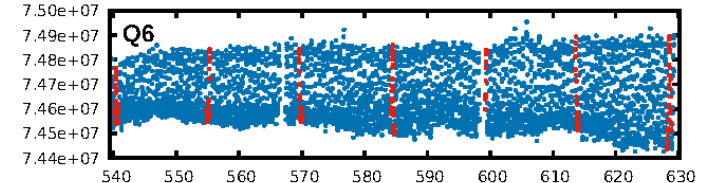
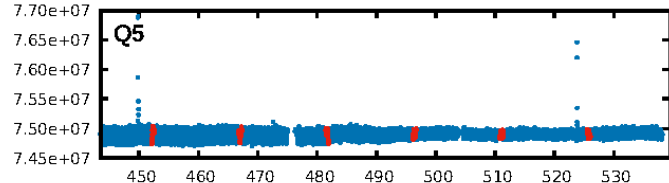
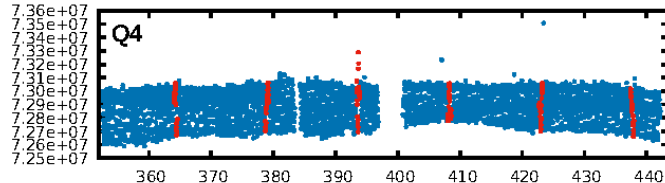
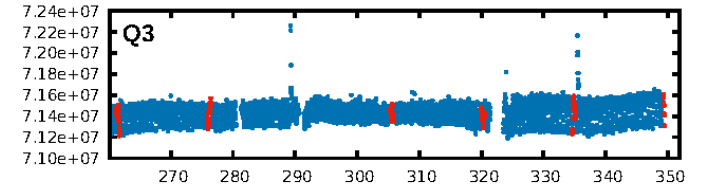
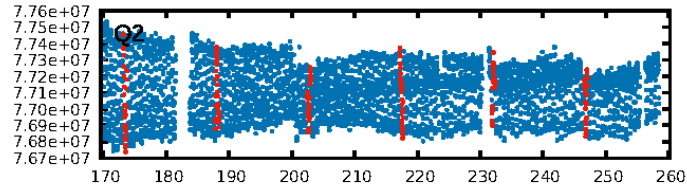
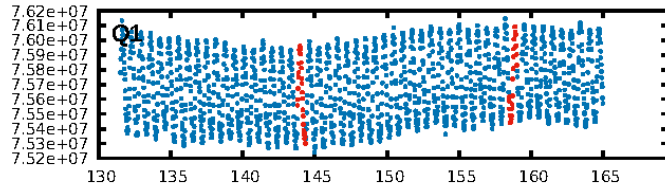
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.94σ]
LongPeriod-sig: 100.0% [58.93σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.31e-08
RollingBand-fgt: 0.98 [44/45]
GhostDiagnostic-chr: 1.015
Centroid-sig: 0.0%
Centroid-so: 2.849 arcsec [2.76σ]
OotOffset-rm: 1.325 arcsec [2.65σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 5.352 arcsec [71.83σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.18 [3/17]
DiffImageOverlap-fno: 0.00 [0/17]

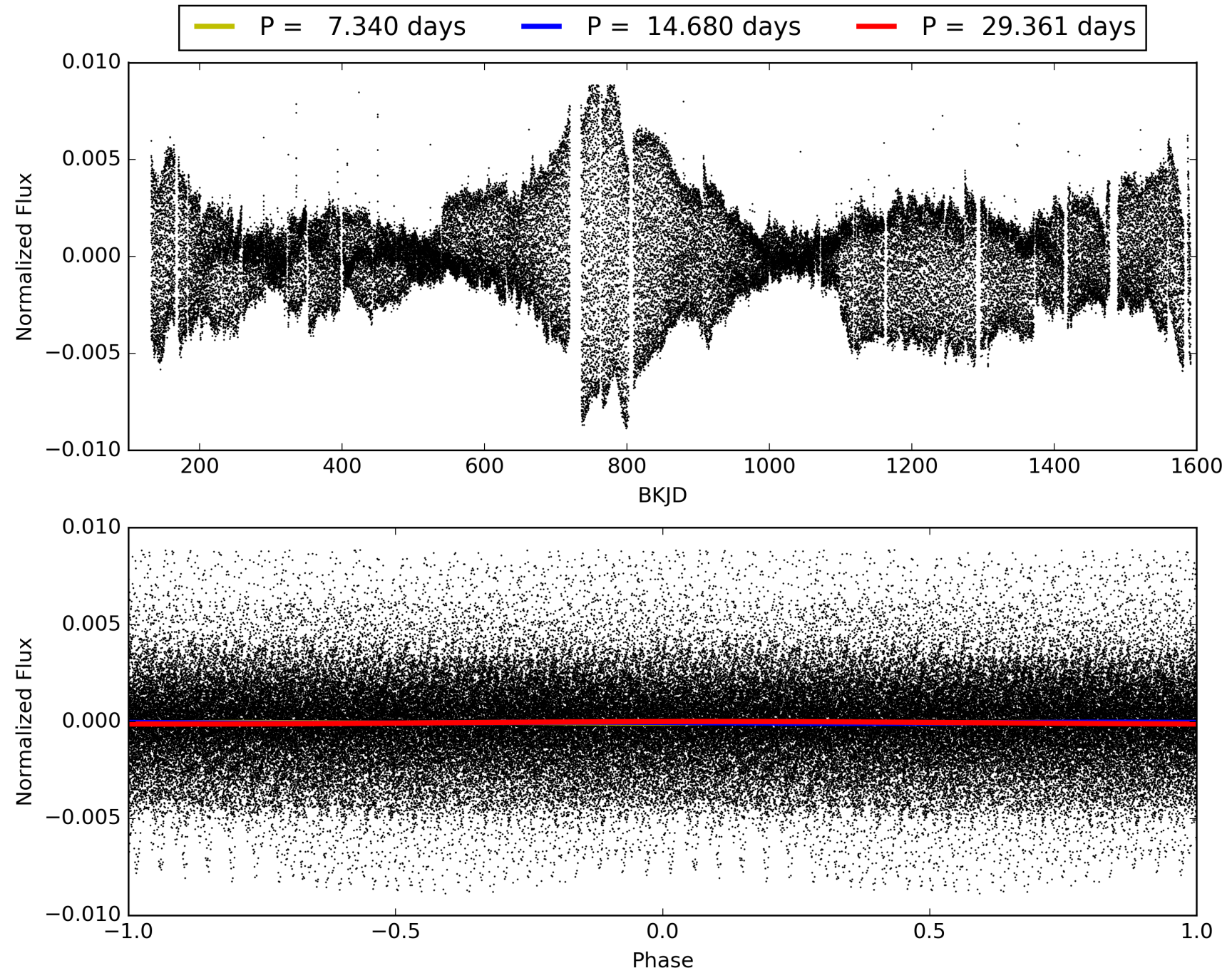
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:34 Z

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

TCE 007957708-07, PDC Light Curves

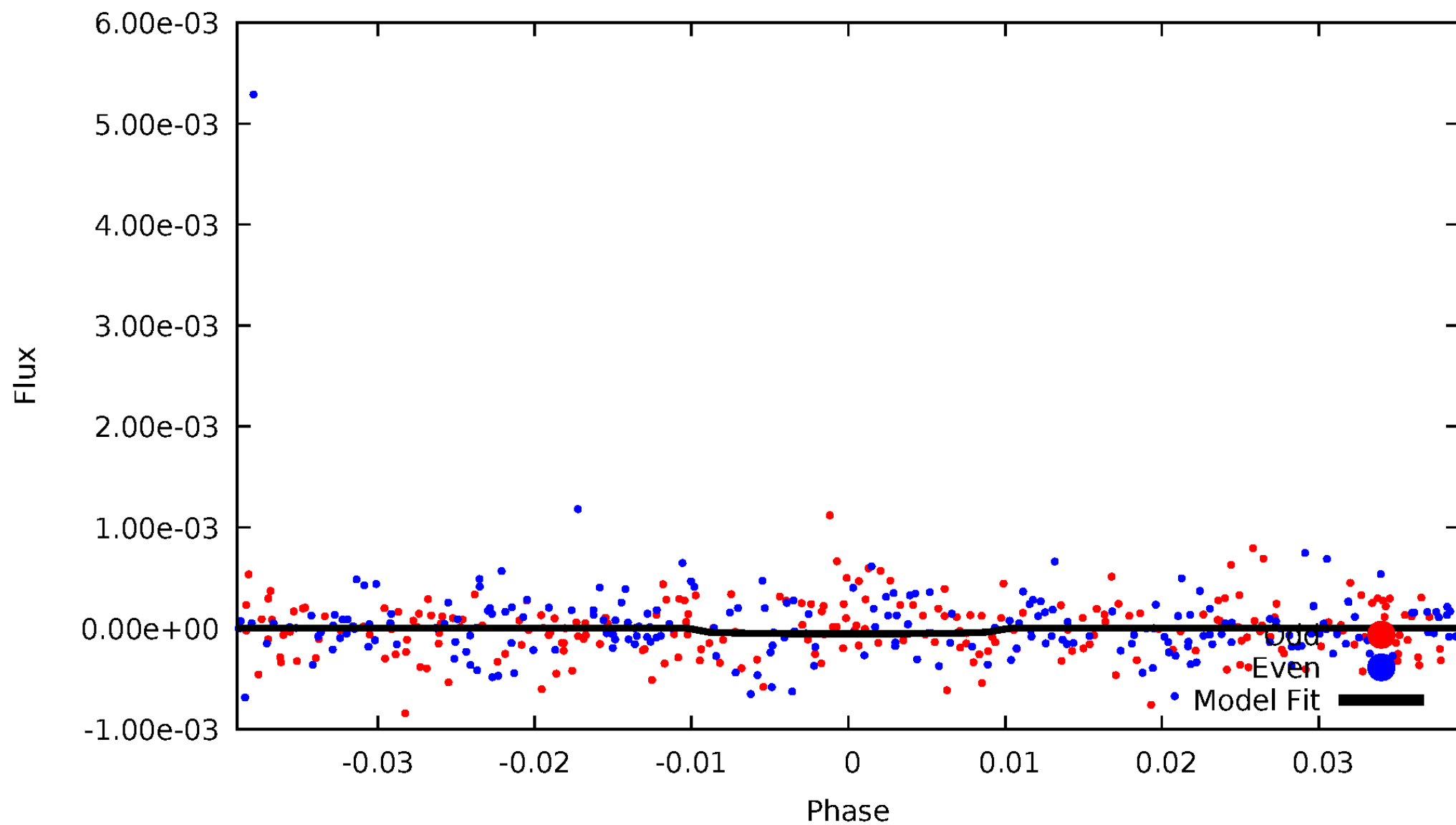


TCE 007957708-07



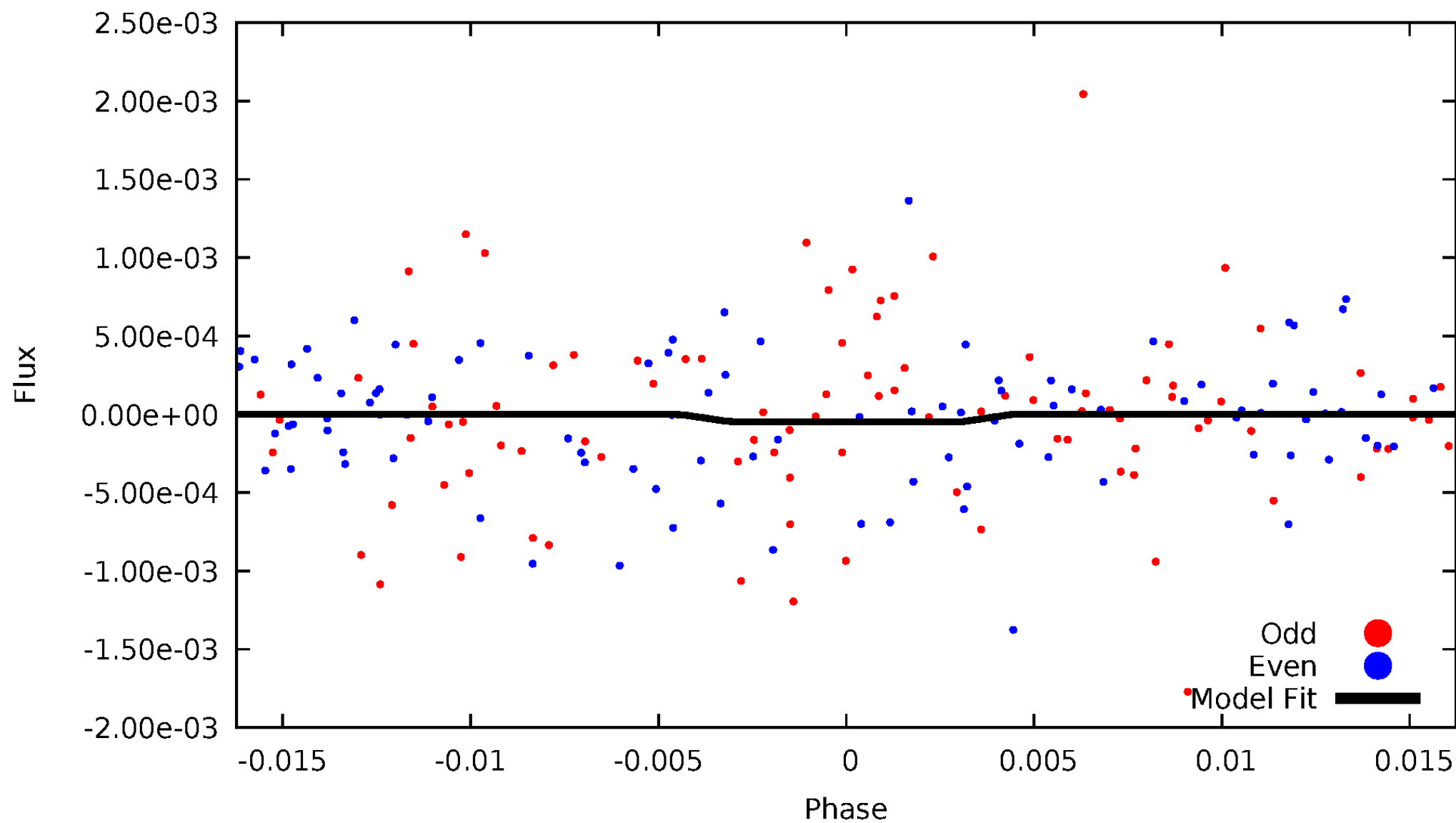
DV Odd/Even

TCE 007957708-07



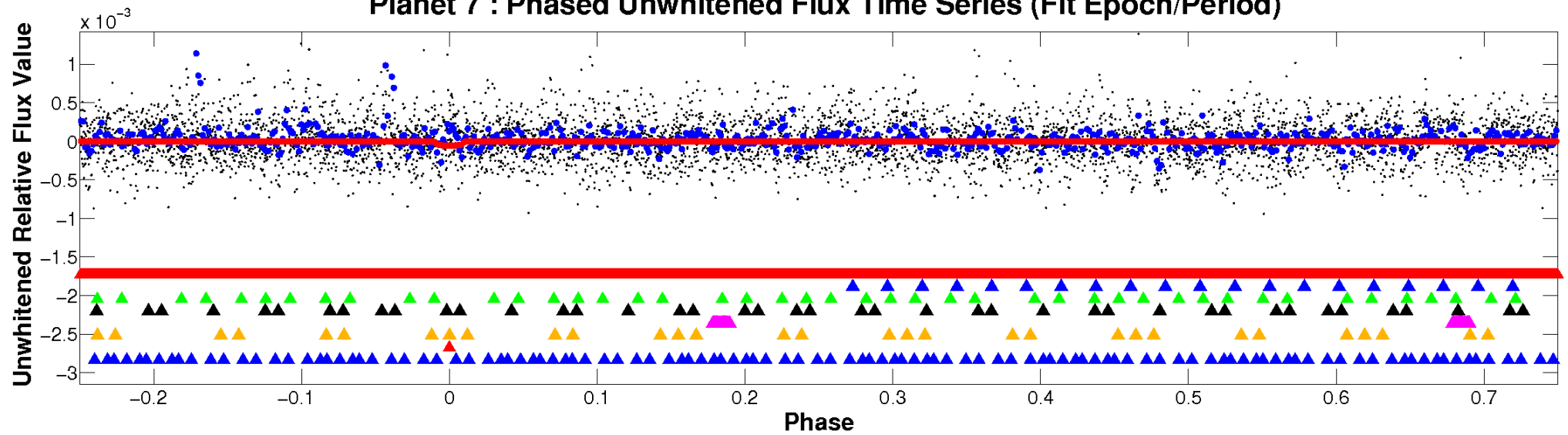
ALT Odd/Even

TCE 007957708-07

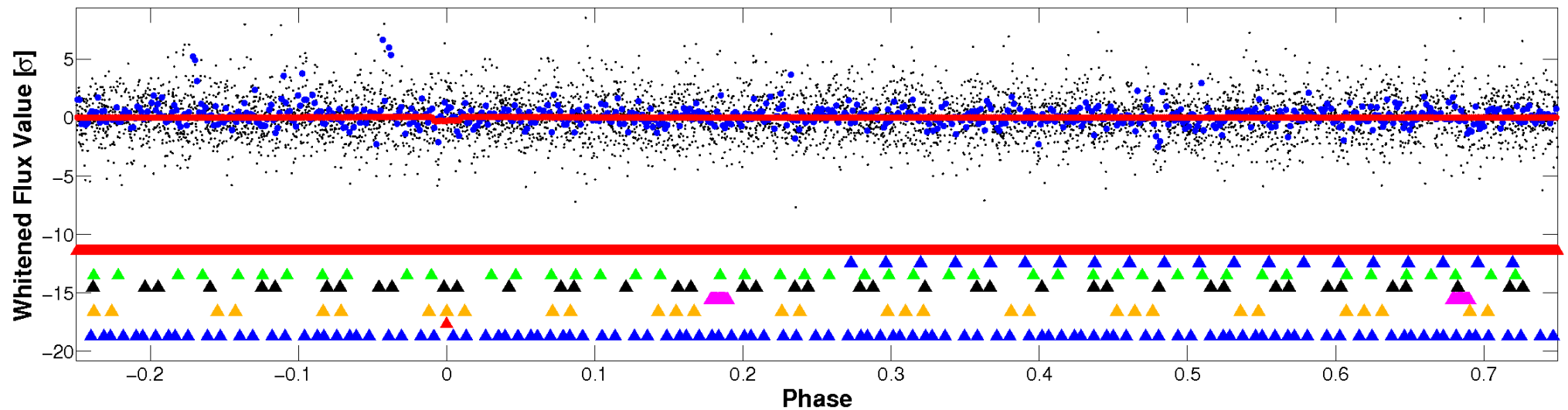


Non-Whitened Vs. Whitened Light Curve

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

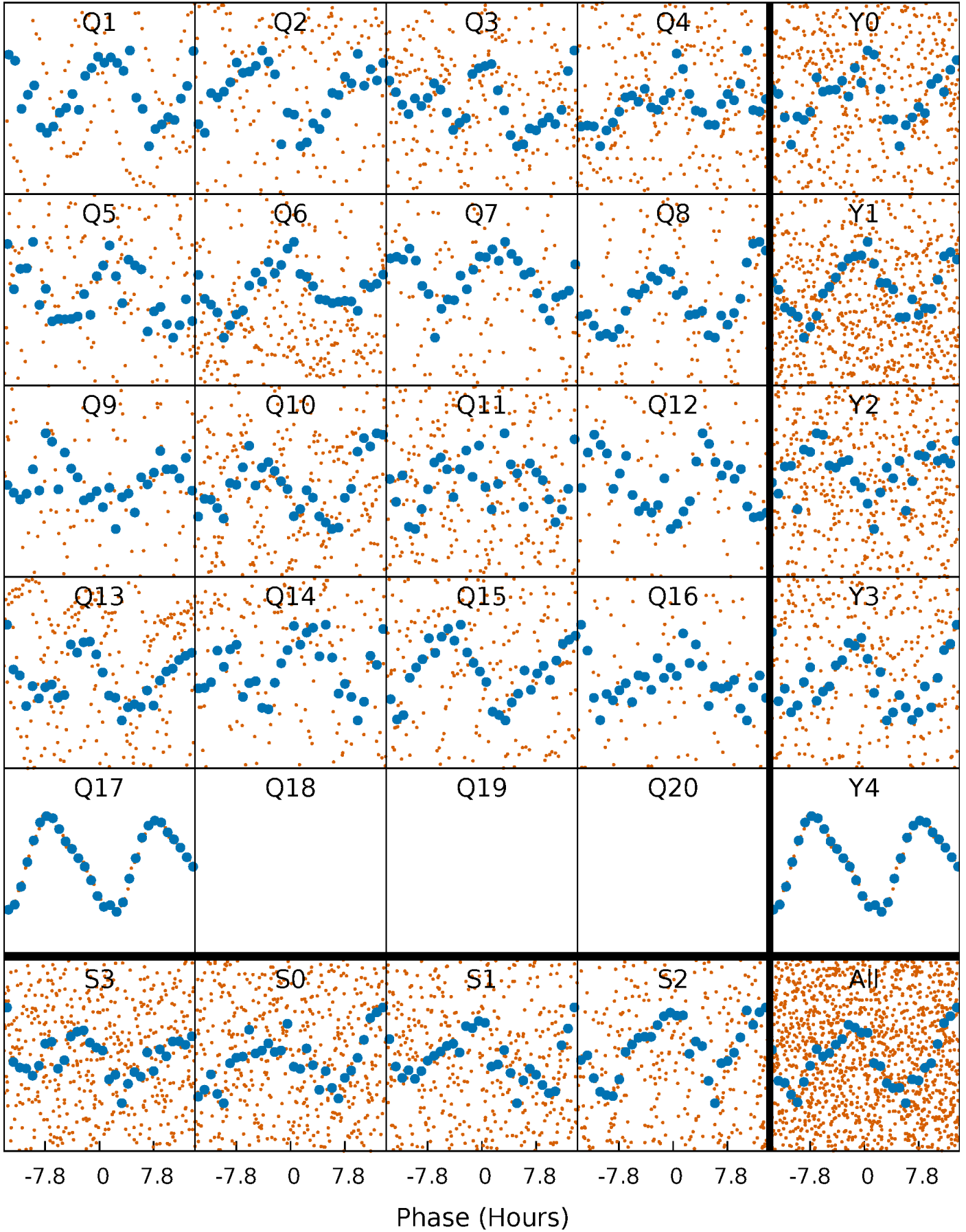


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



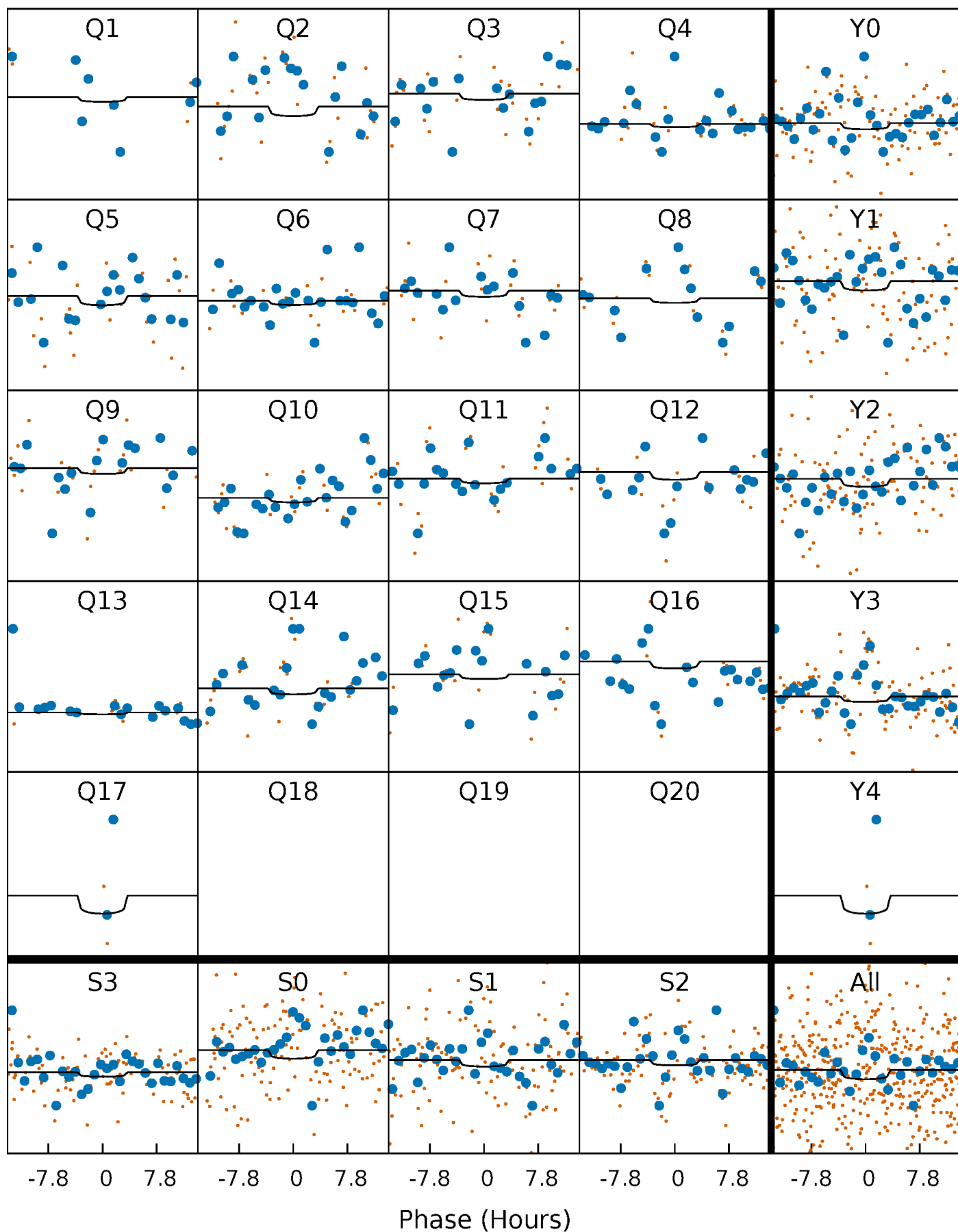
PDC Quarter-Phased Transit Curves

TCE 007957708-07 $P = 14.680477$ Days $T_0 = 144.060247$ (BKJD)



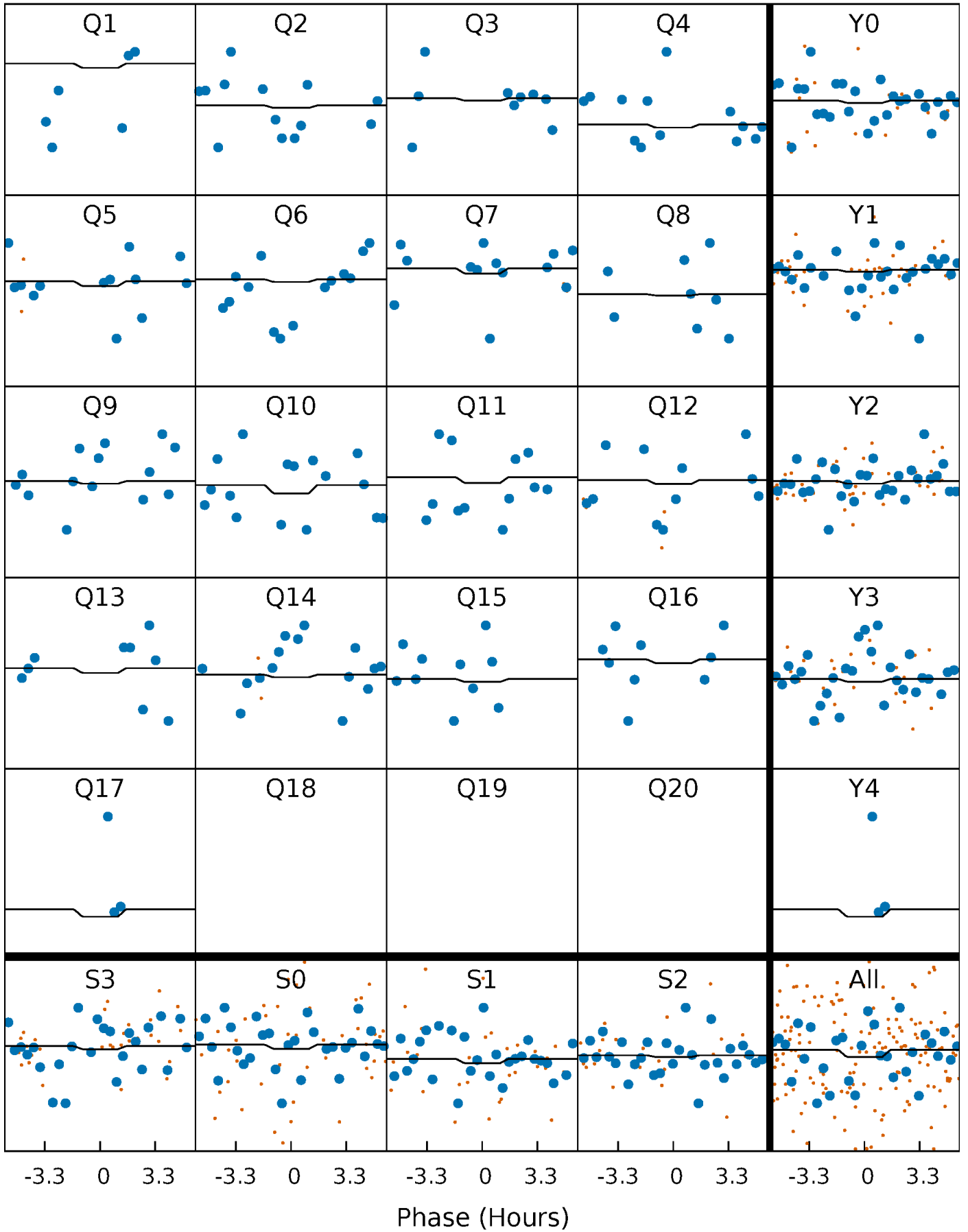
DV Quarter-Phased Transit Curves

TCE 007957708-07 P= 14.680477 Days $T_0=144.060247$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

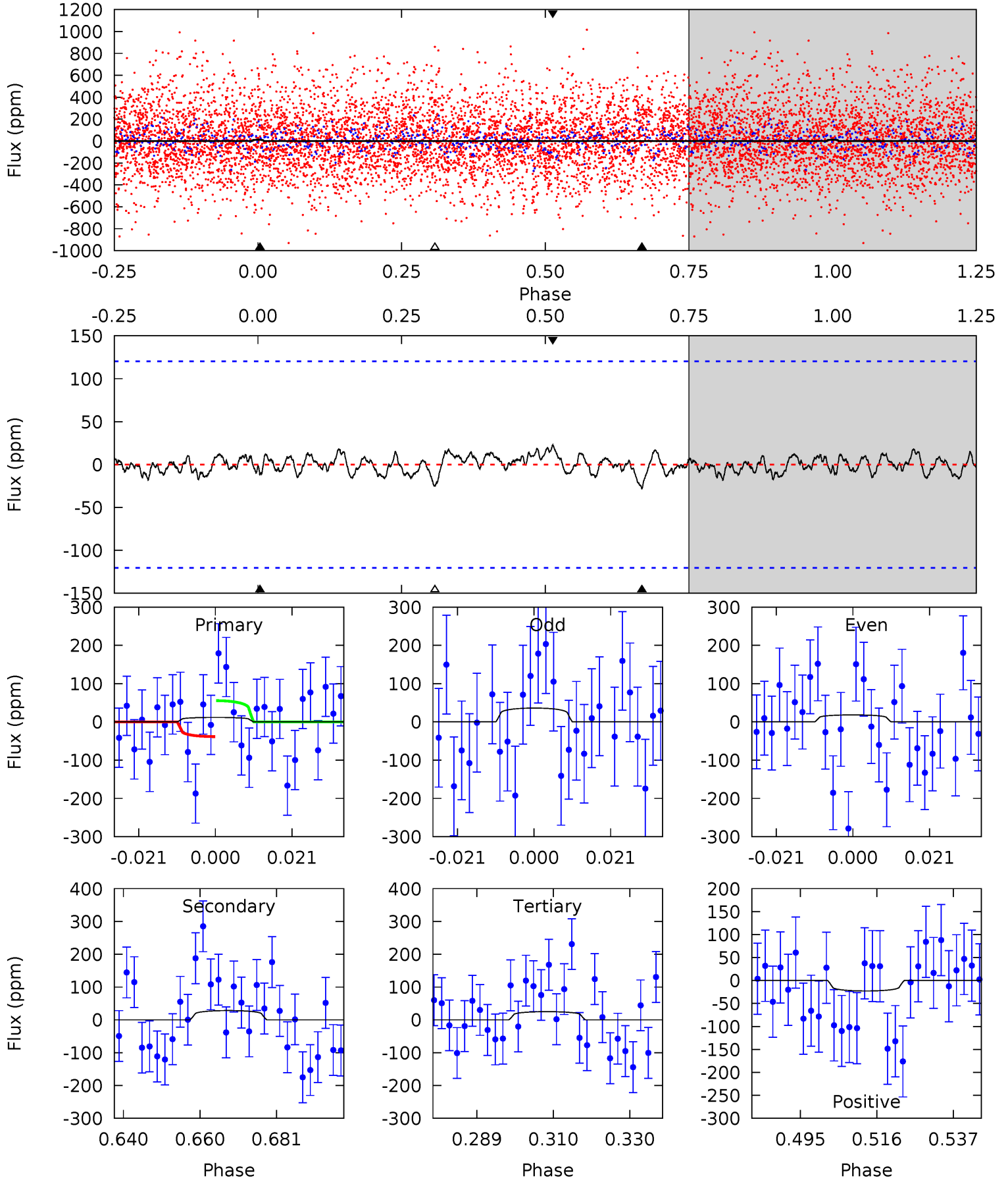
TCE 007957708-07 $P = 14.680445$ Days $T_0 = 144.059070$ (BKJD)



DV Model-Shift Uniqueness Test

007957708-07, $P = 14.680477$ Days, $E = 129.379770$ Days

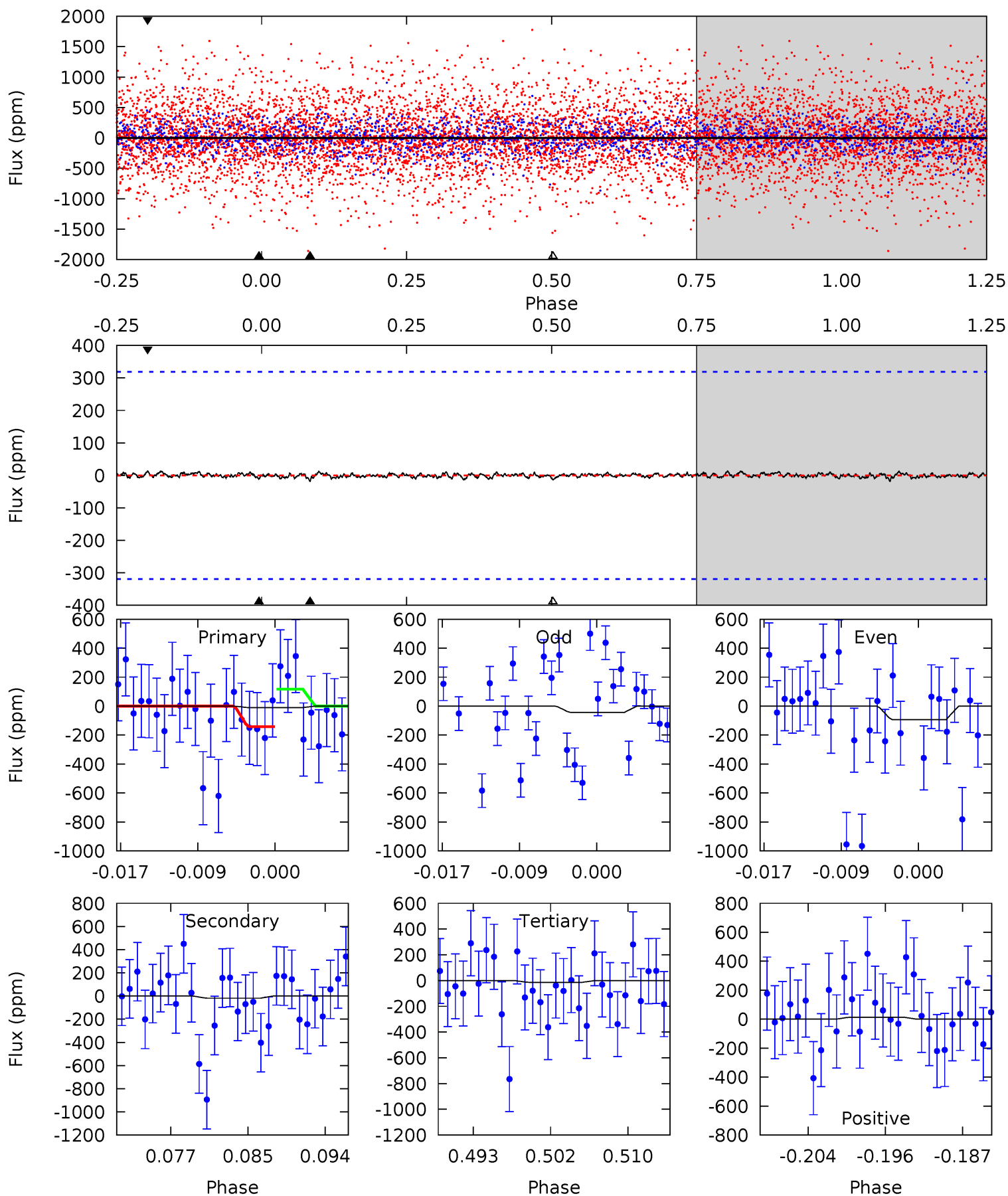
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.47	1.15	1.01	0.93	4.89	2.31	0.36	-0.54	-0.46	0.13	0.22	0.36	-0.30	0.45	0.35



Alt Model-Shift Uniqueness Test

007957708-07, $P = 14.680445$ Days, $E = 129.378625$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.17	0.29	0.22	0.21	5.06	2.63	0.07	-0.05	-0.05	0.07	0.08	0.40	0	0.42	0.20



Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 25	$1.47^{+1.38}_{-1.03}$	1070^{+88}_{-63}	3727^{+2351}_{-1154}	62^{+592}_{-57}
Alt.	-18 ± 63	$1.40^{+1.30}_{-0.96}$	1078^{+72}_{-72}	3511^{+2324}_{-7798}	42^{+592}_{-165}

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

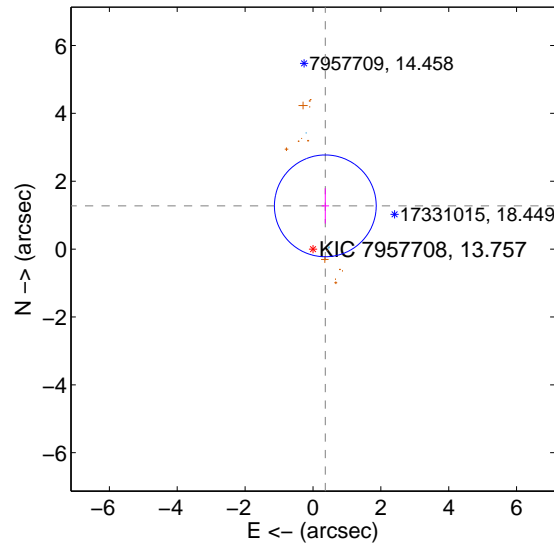
Supplemental centroid analysis for 007957708-07. Kepler magnitude: 13.76. Transit SNR 2.87

There are 3 quarters with good PRF difference image offsets

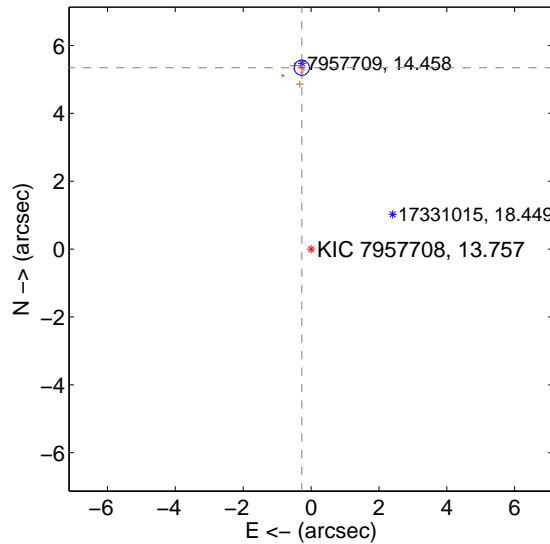
The OOT PRF centroid is offset from the target star catalog position by about 5.42 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.325 ± 0.500	2.65	-0.364 ± 0.109	1.274 ± 0.519
PRF-fit source offset from KIC position	5.352 ± 0.075	71.83	0.273 ± 0.076	5.345 ± 0.075
photometric centroid source offset	2.85 ± 1.03	2.76	2.85 ± 1.03	0.08 ± 2.13

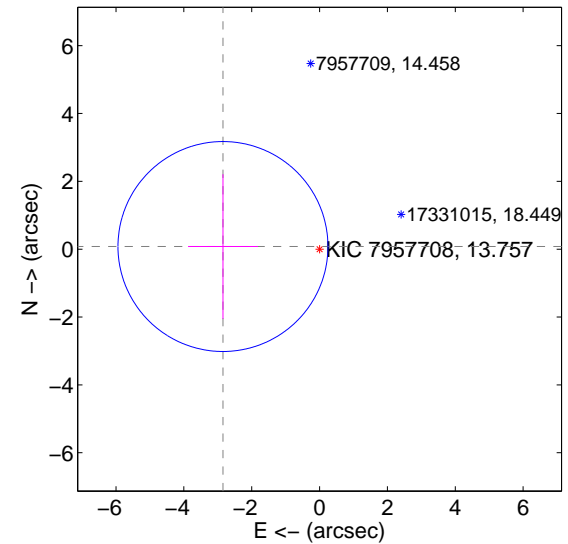
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

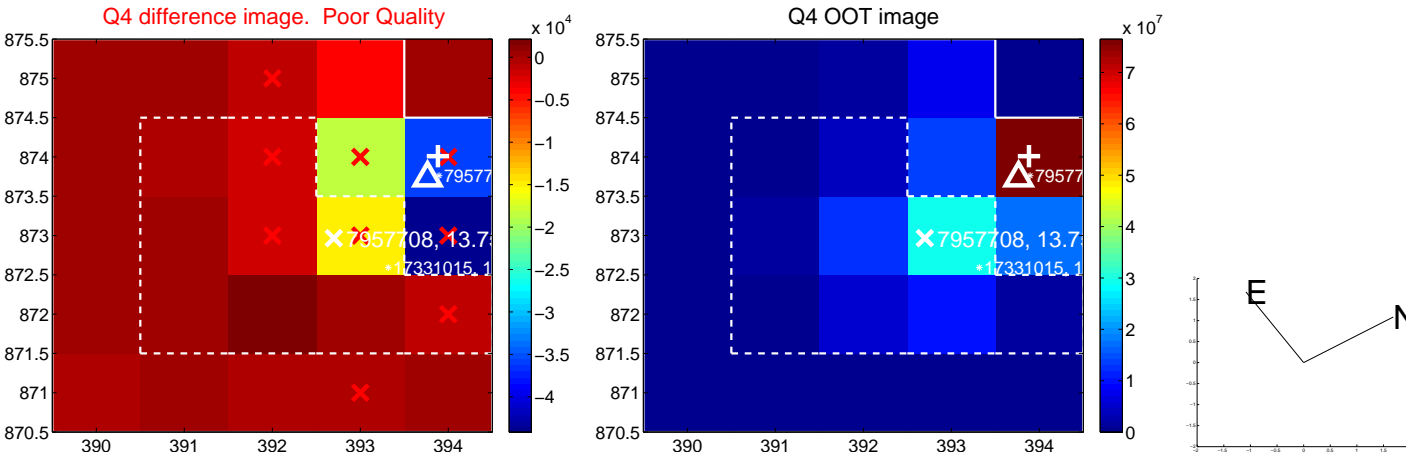
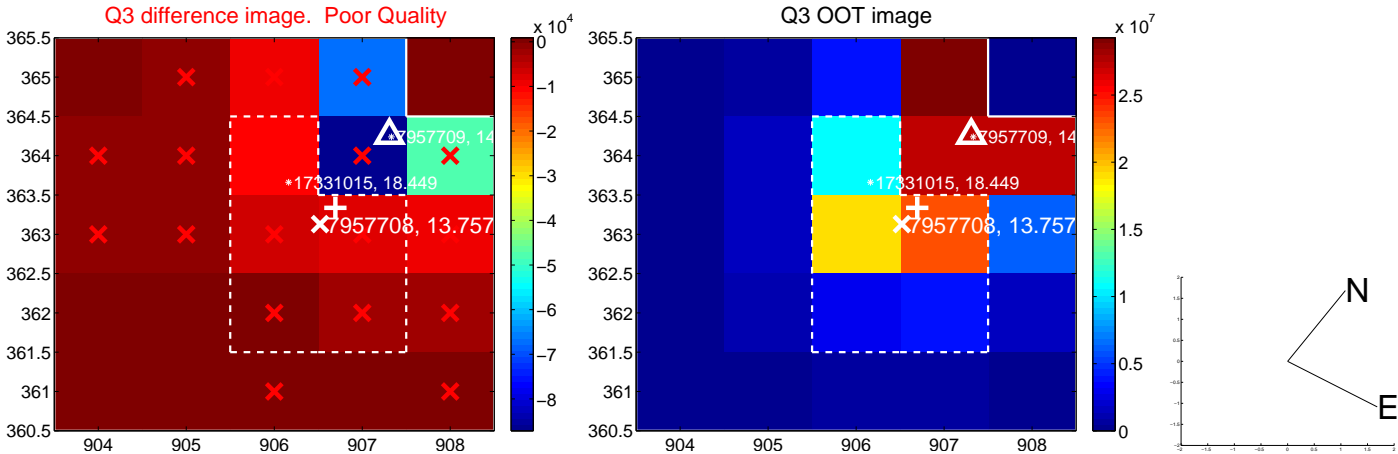
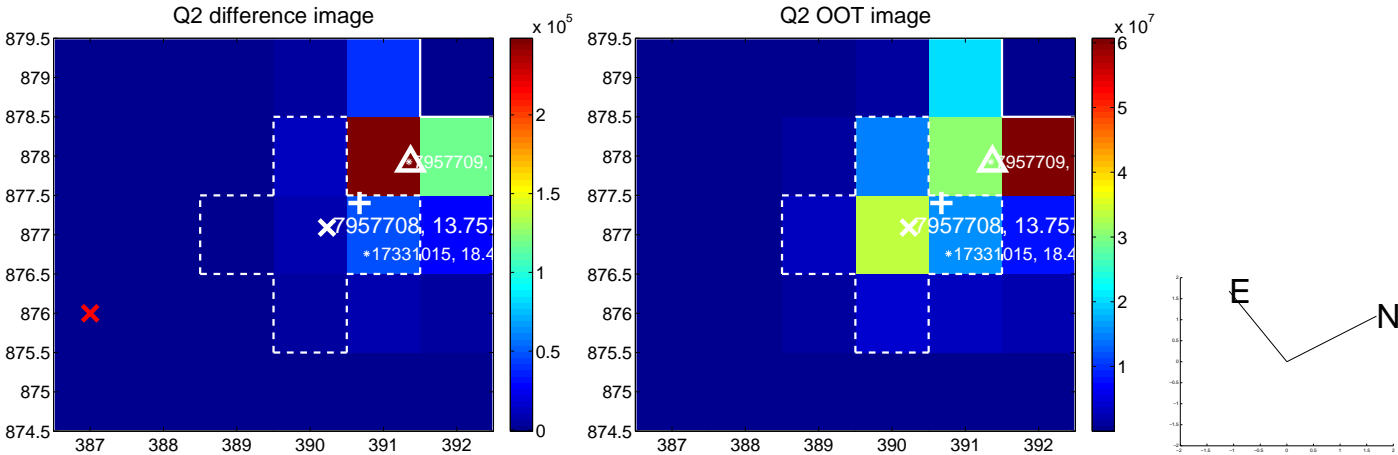
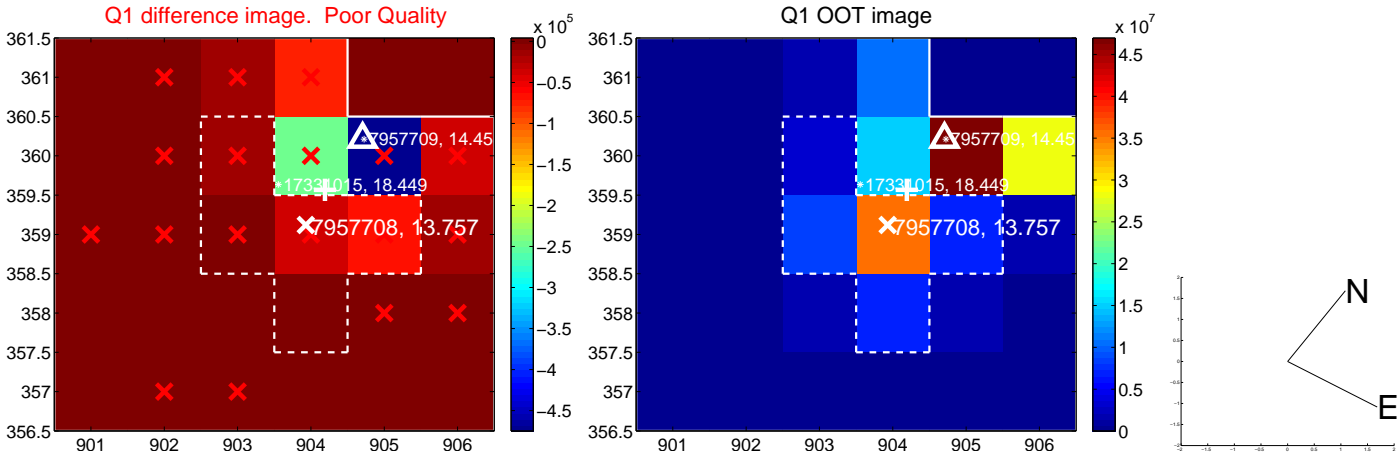


offset from photometric centroids

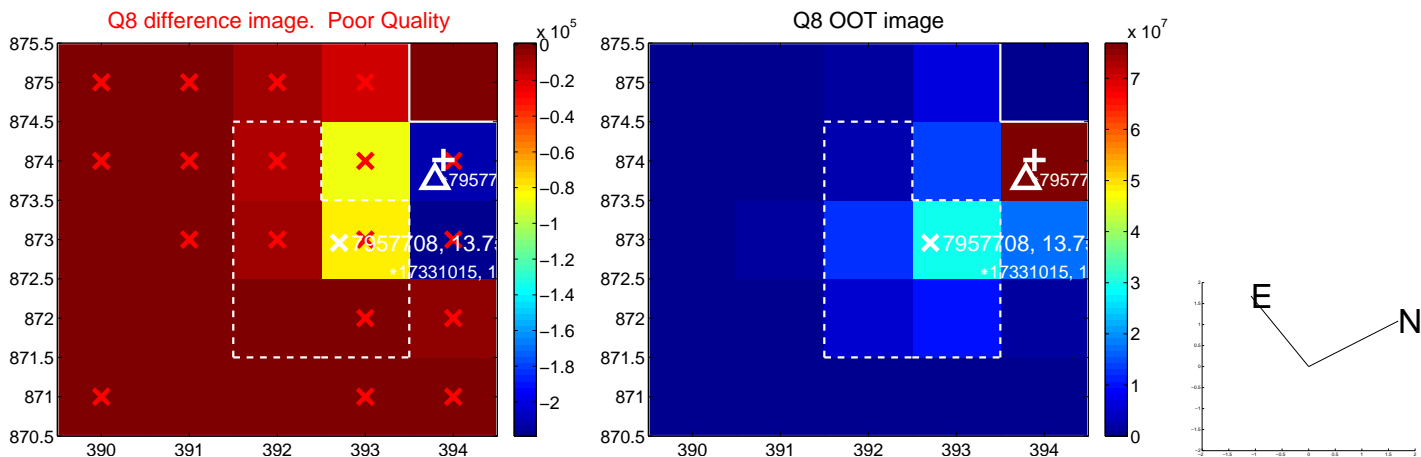
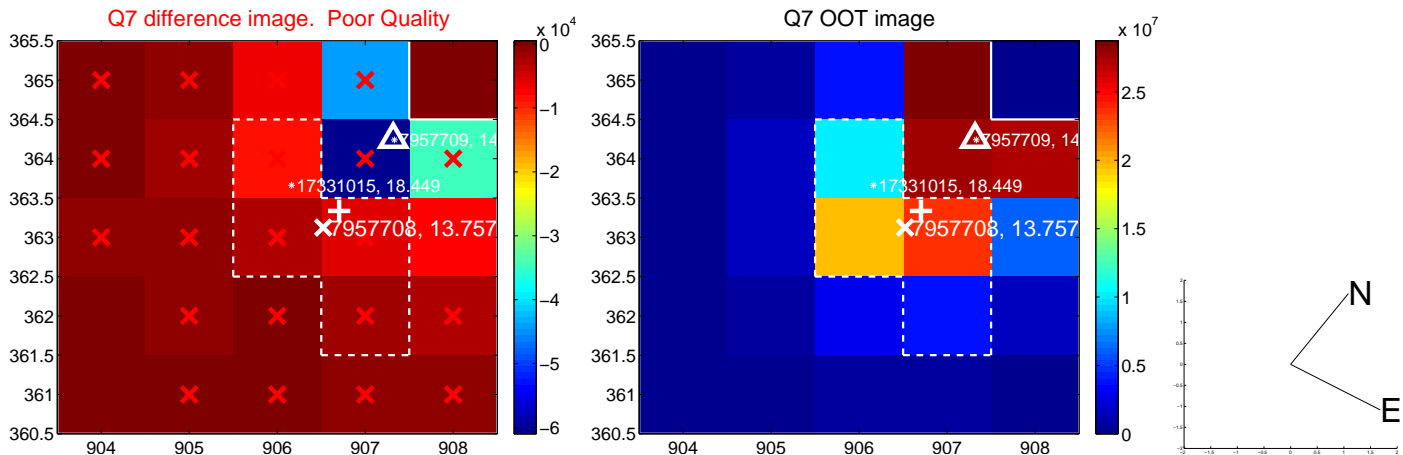
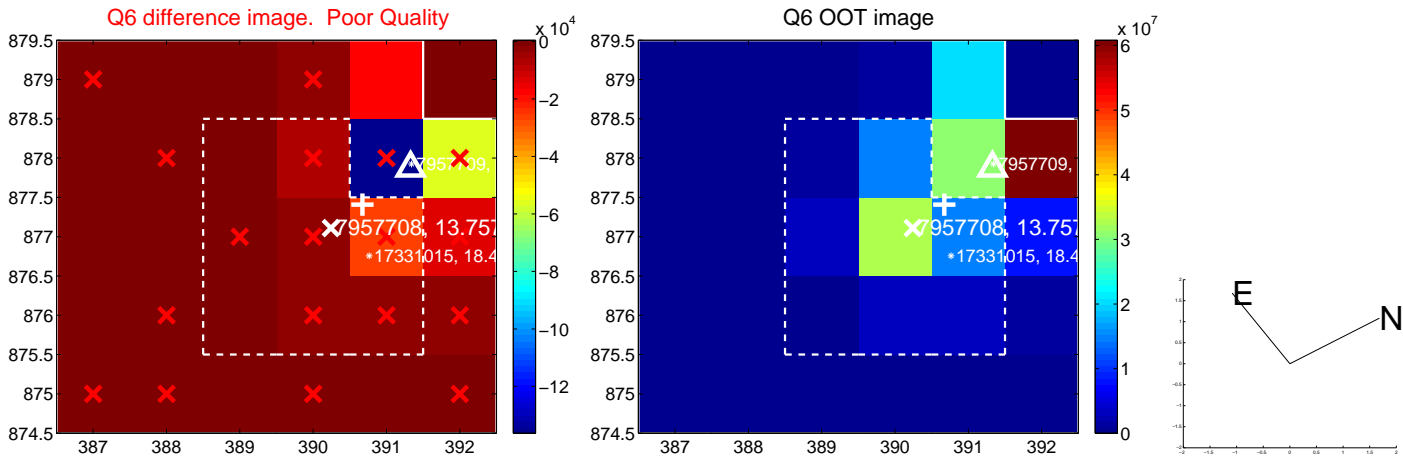
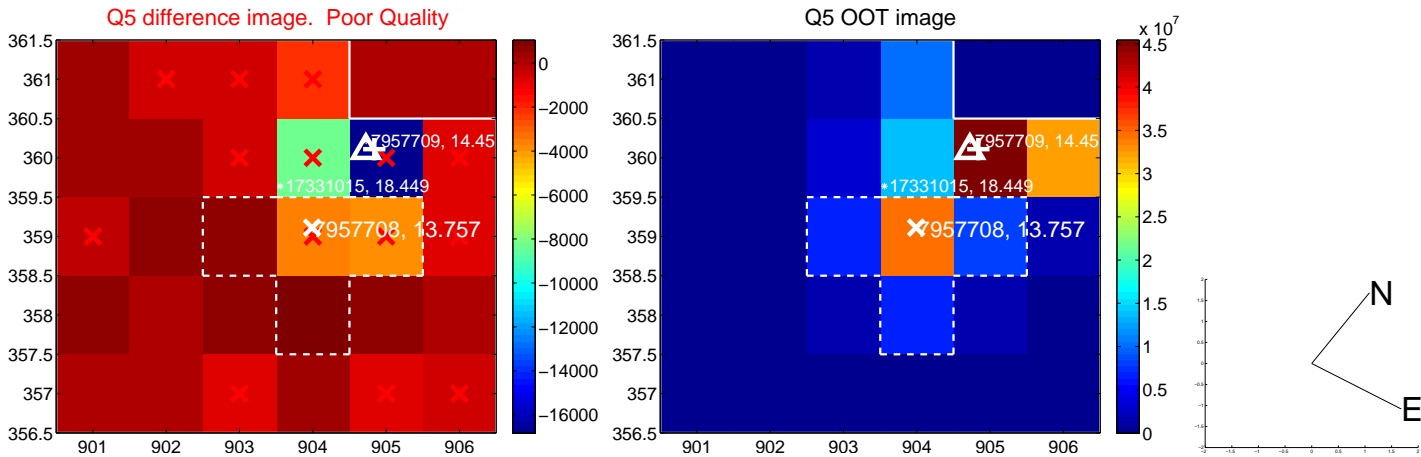


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

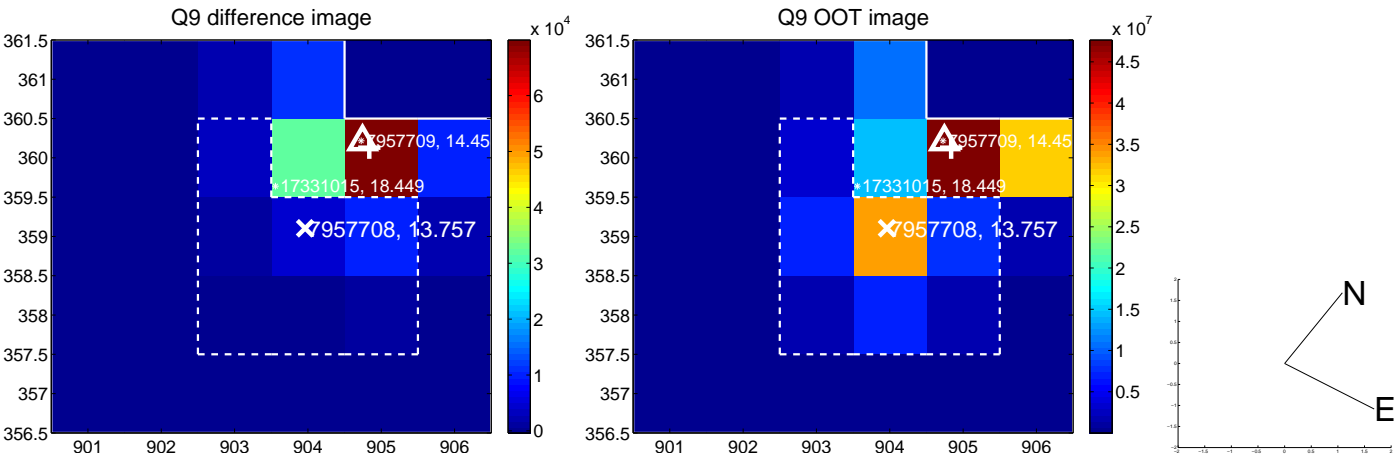
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



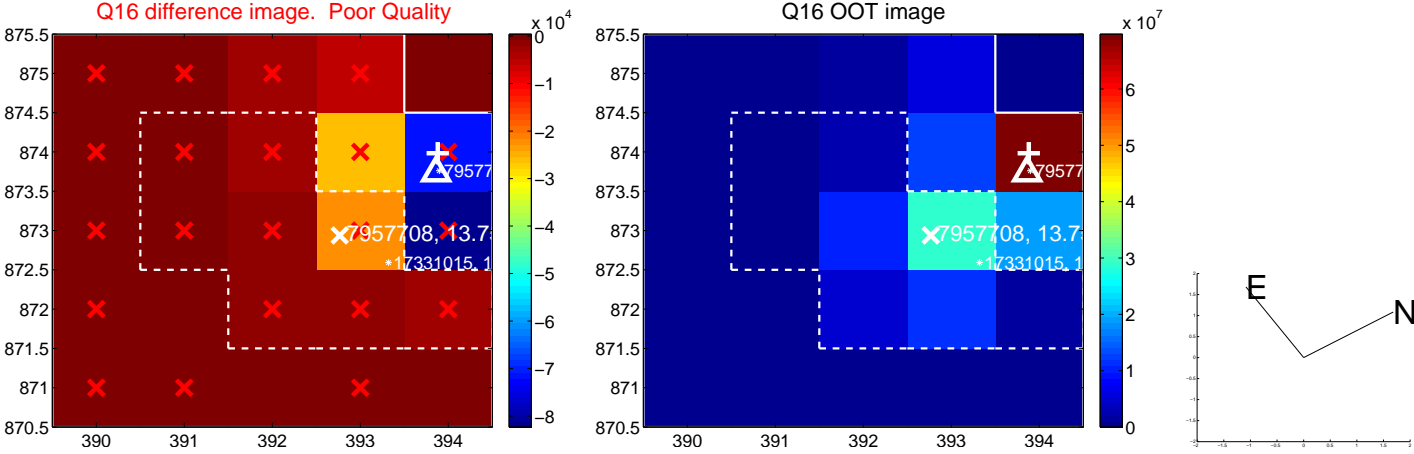
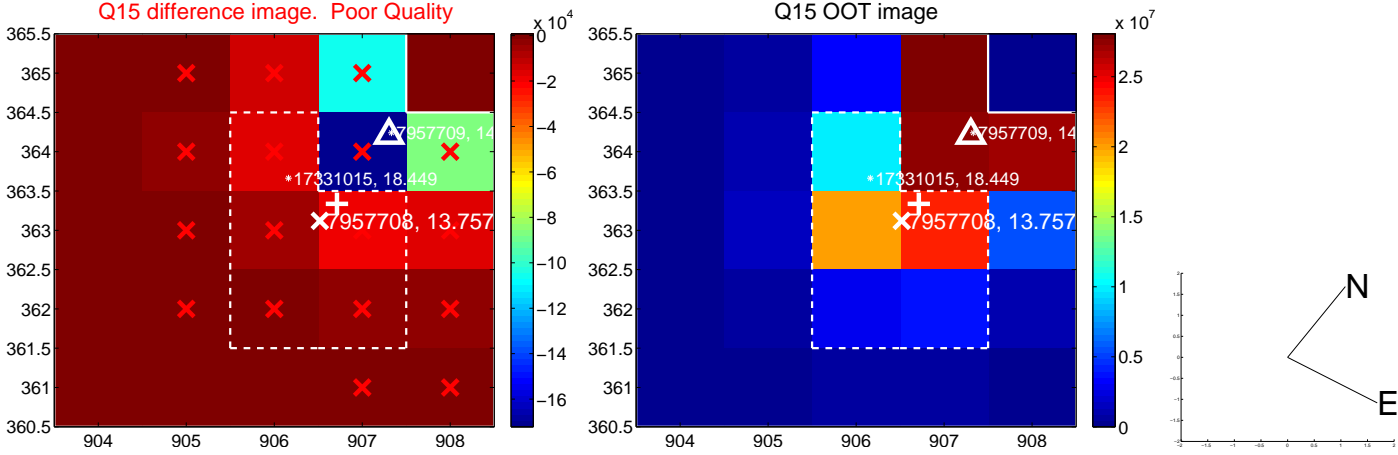
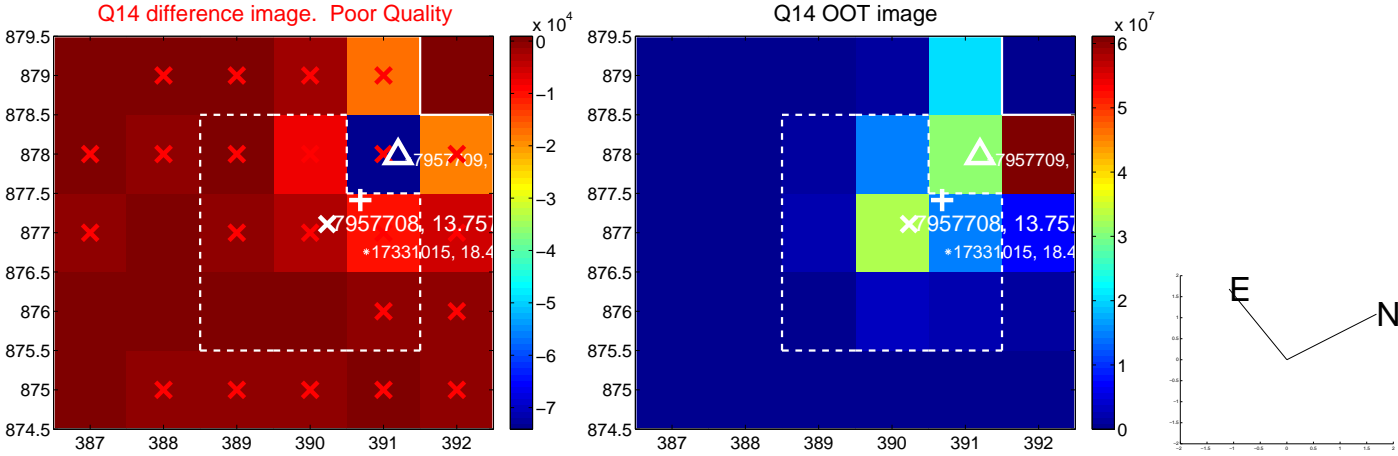
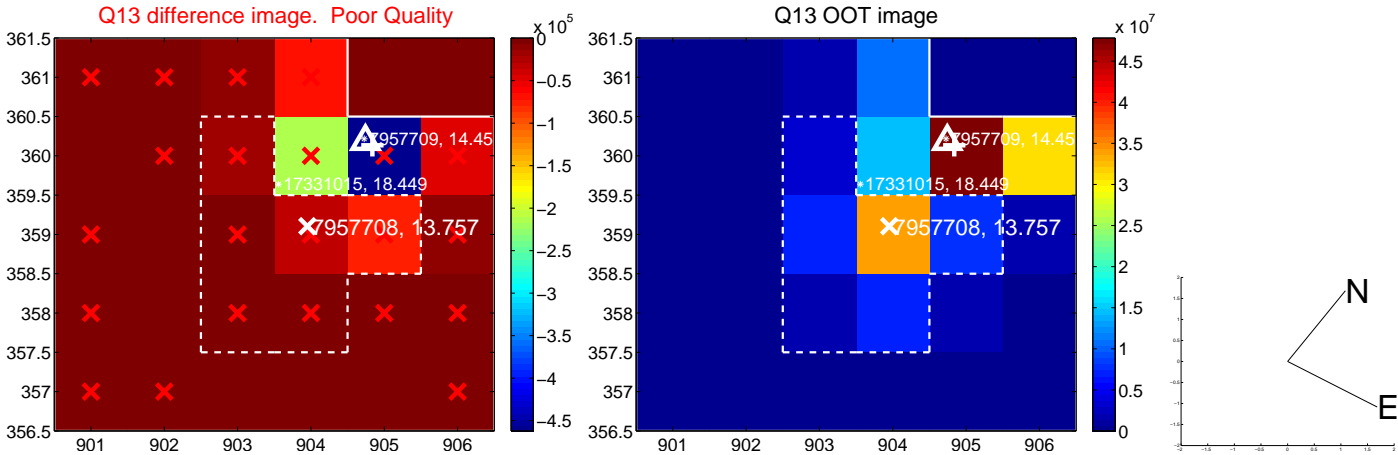
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



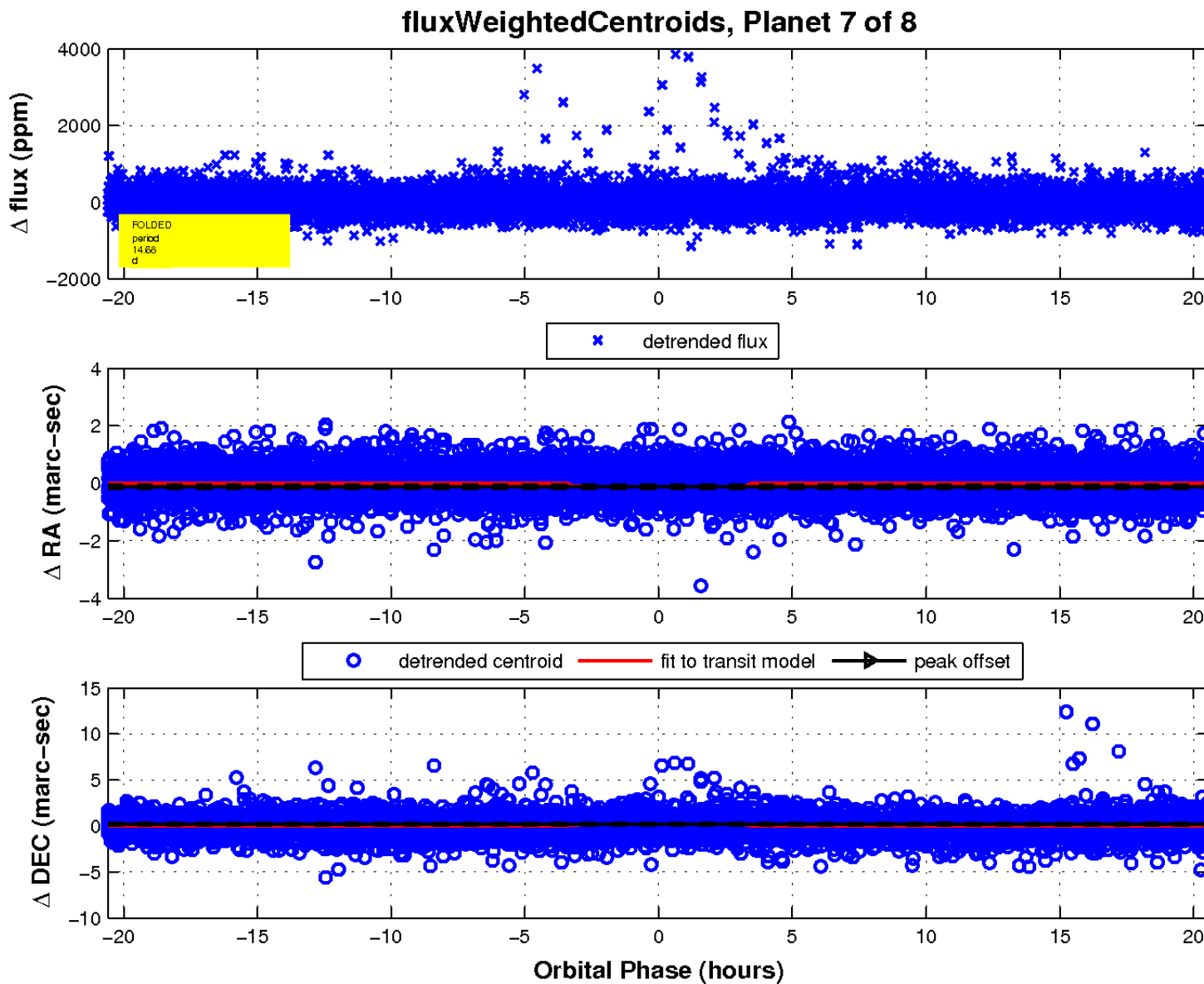
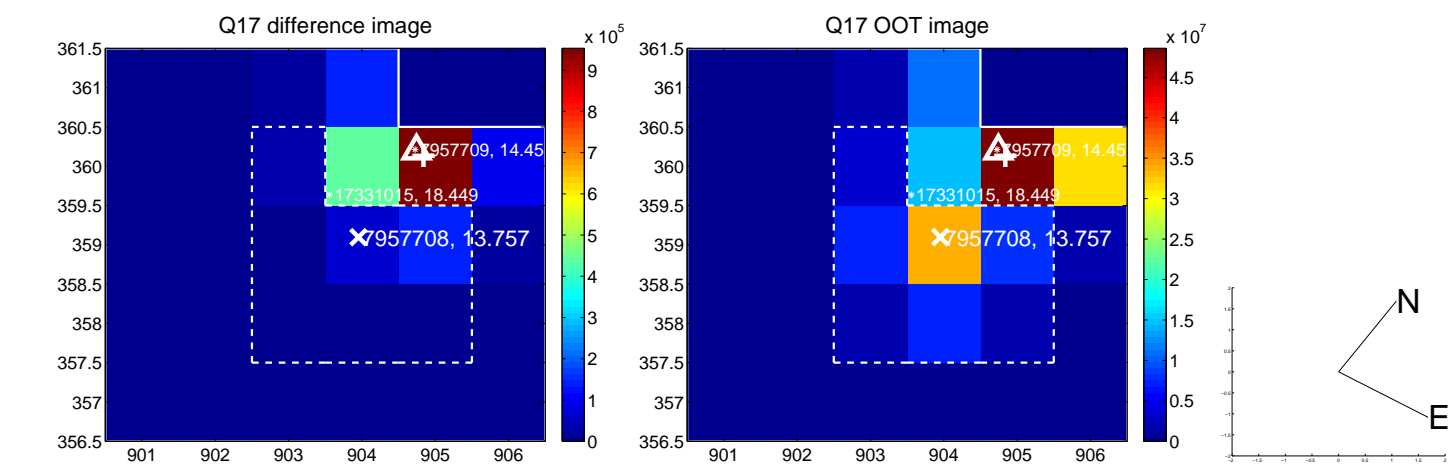
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

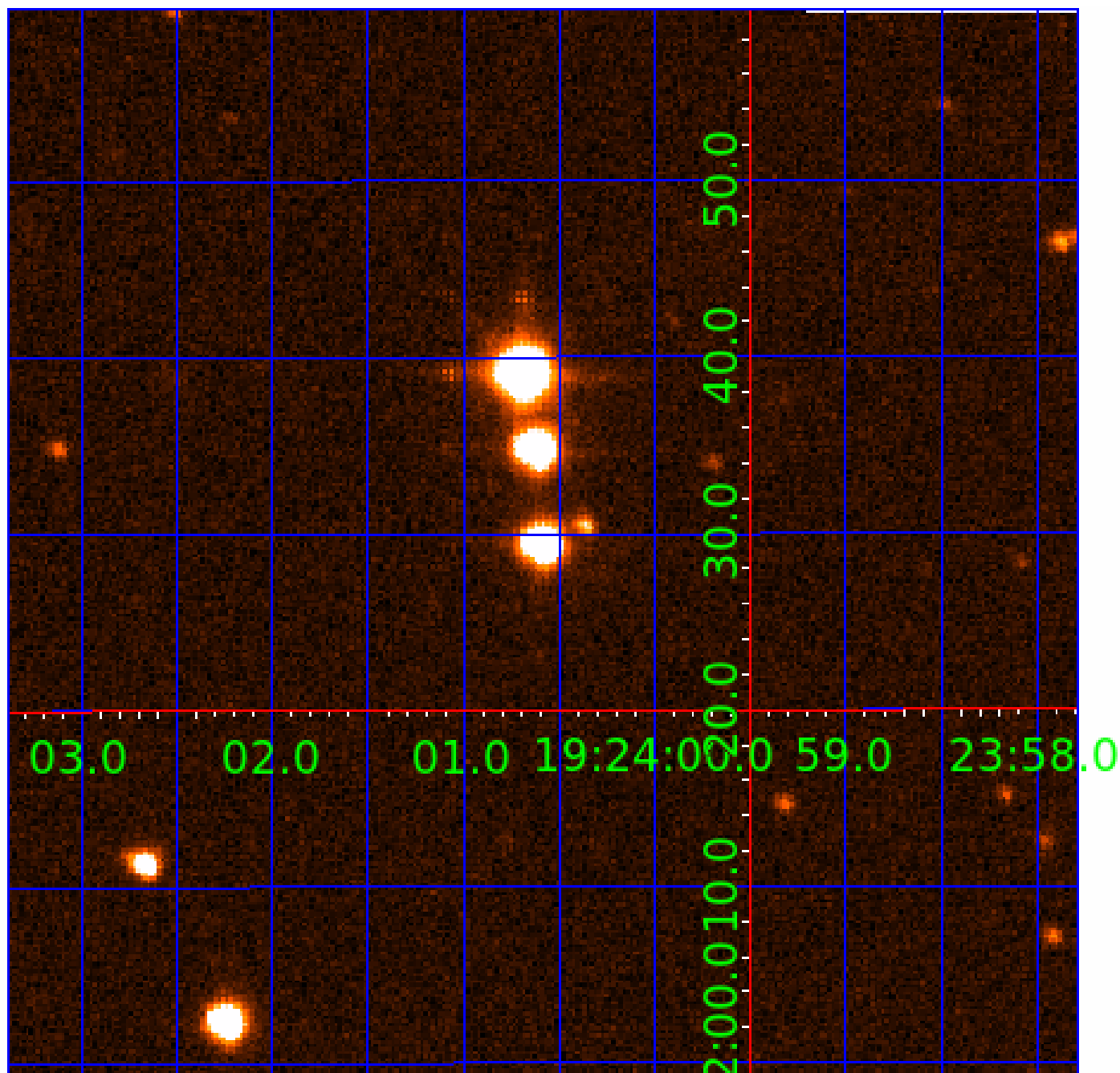


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007957708

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})
007957708-01	OBS	No	0.646753	131.978645	3.8	4.527	11.7	1.1	0.90	5984	0.18	5358.29
007957708-03	OBS	No	32.464345	162.045037	532.5	2.304	11.9	10.4	0.90	5984	2.23	28.94
007957708-04	OBS	No	34.640738	161.806532	345.6	2.958	9.6	8.1	0.90	5984	1.69	26.54
007957708-05	OBS	No	51.388031	161.358819	440.2	4.139	9.5	8.8	0.90	5984	2.25	15.69
007957708-06	OBS	No	46.313611	173.246015	439.0	2.044	9.4	8.3	0.90	5984	2.03	18.02
007957708-07	OBS	No	14.680477	144.060247	54.5	6.867	9.0	2.9	0.90	5984	0.71	83.37
007957708-08	OBS	No	12.885472	140.729696	221.6	2.324	9.8	7.9	0.90	5984	1.35	99.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007957708-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
007957708-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_KIC_POS
007957708-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_KIC_POS
007957708-05	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—CENT_KIC_POS
007957708-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV—CENT_KIC_POS
007957708-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
007957708-08	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—CENT_KIC_POS

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

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

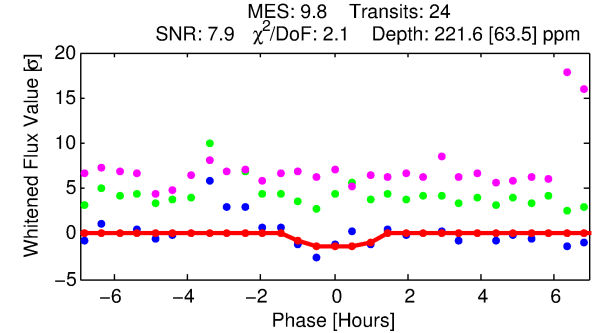
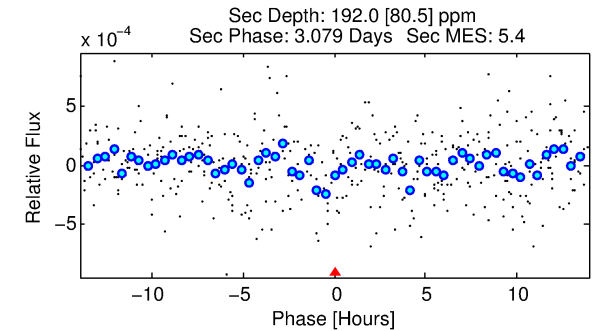
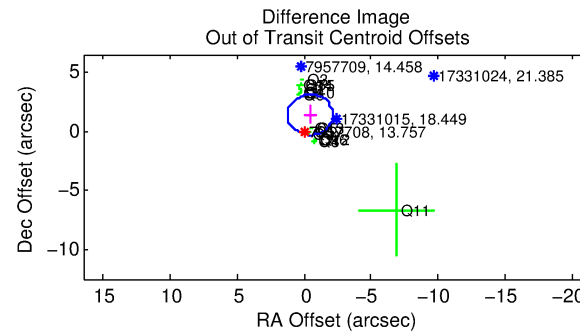
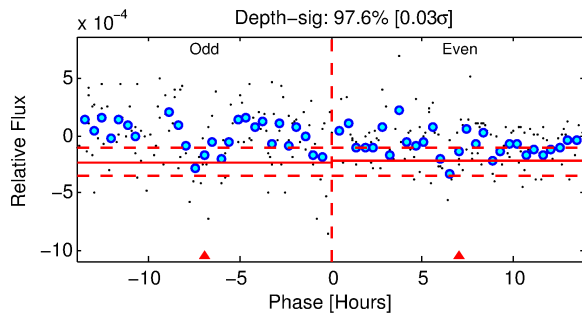
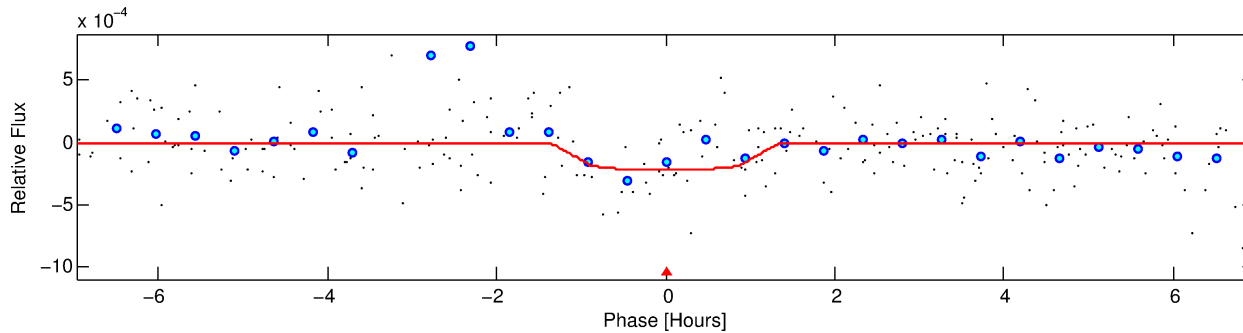
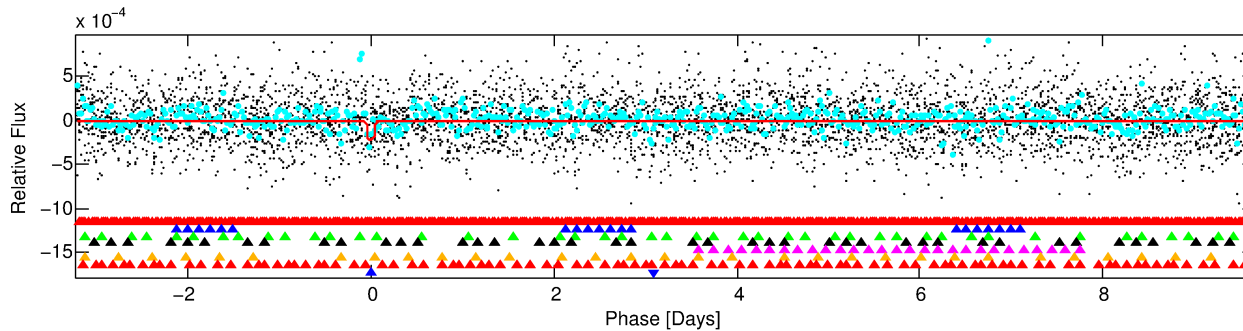
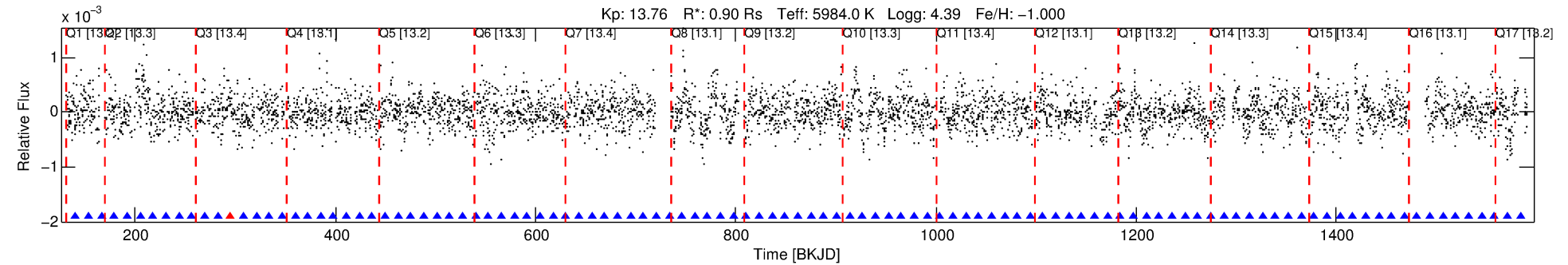
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007957708-08

No Significant Match Found

DV One-Page Summary

KIC: 7957708 Candidate: 8 of 8 Period: 12.885 d



DV Fit Results:

Period = 12.88547 [0.00022] d
Epoch = 140.7297 [0.0114] BKJD
Rp/R* = 0.0137 [0.0400]
a/R* = 42.44 [632.60]
b = 0.16 [94.62]
Seff = 99.21 [33.63]
Teq = 805 [68] K
Rp = 1.35 [3.95] Re
a = 0.0970 [0.0200] AU
Ag = 544.00 [3182.87] [0.17 σ]
Teffp = 6009 [8778] K [0.59 σ]

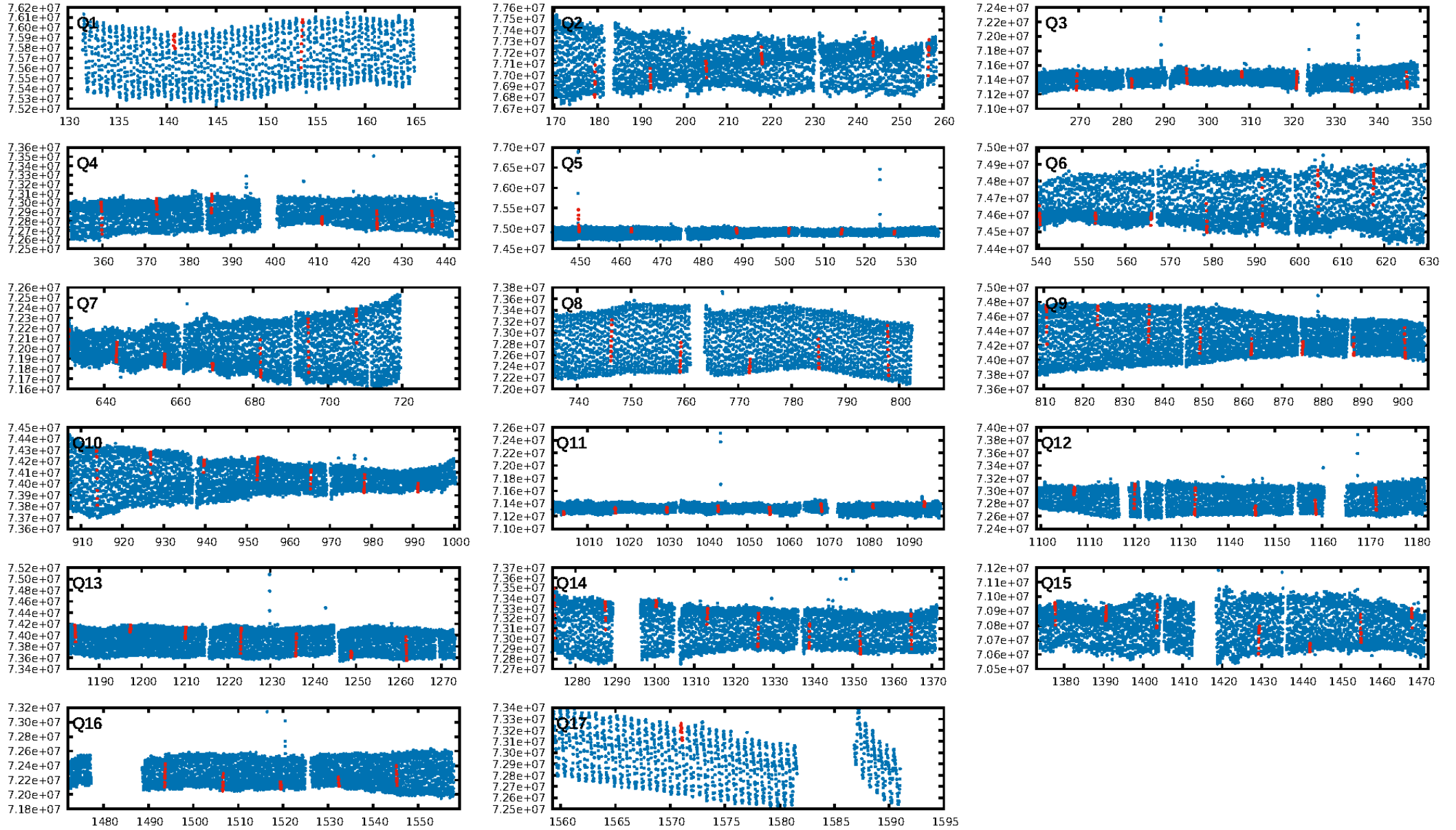
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [57.73 σ]
LongPeriod-sig: 100.0% [5.94 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.65e-10
RollingBand-fgt: 0.95 [21/22]
GhostDiagnostic-chr: -2.251
Centroid-sig: 7.9%
Centroid-so: 2.537 arcsec [3.98 σ]
OotOffset-rm: 1.459 arcsec [2.56 σ]
KicOffset-rm: 5.344 arcsec [8.19 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 0.00 [0/17]

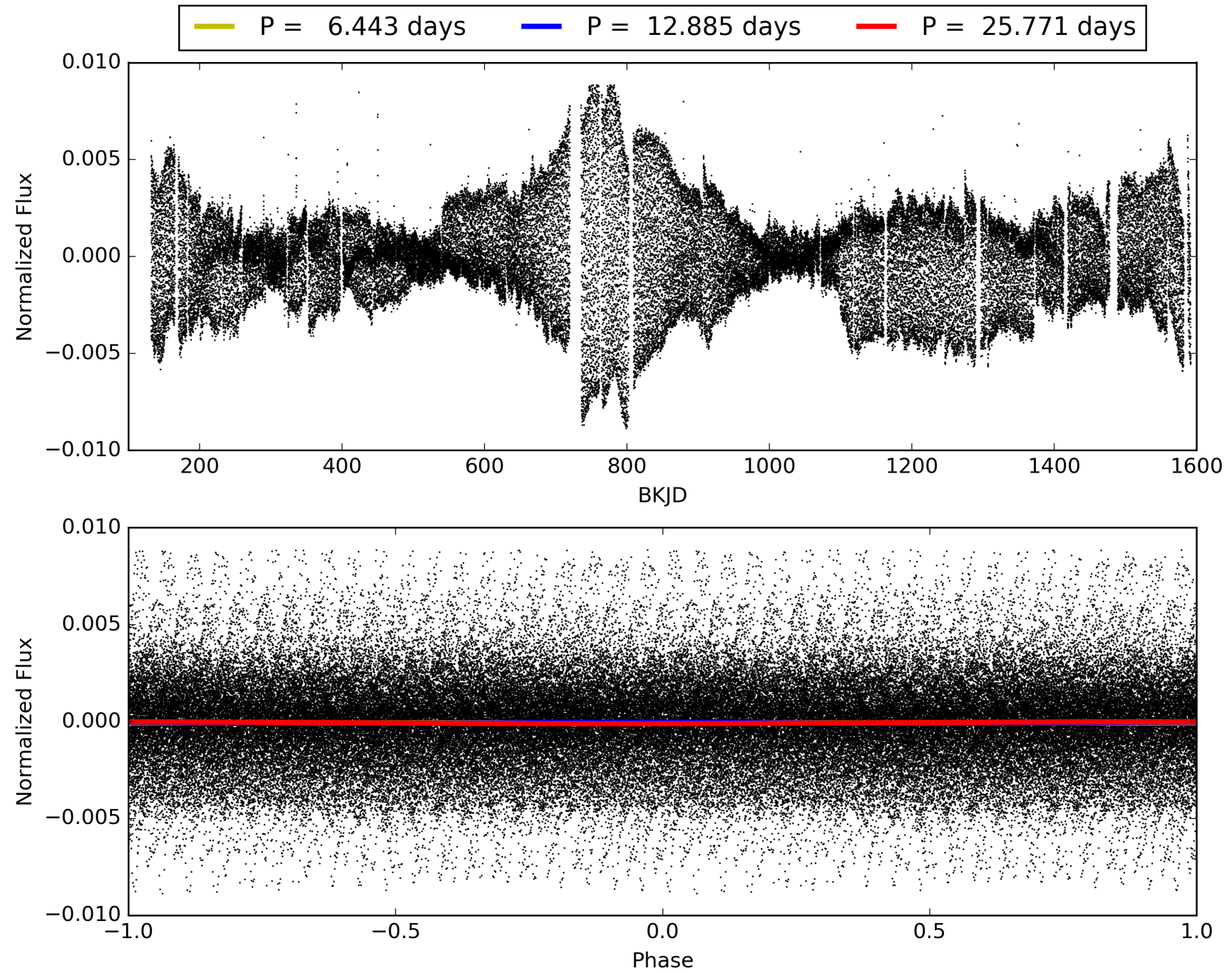
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:12:37 Z

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

TCE 007957708-08, PDC Light Curves

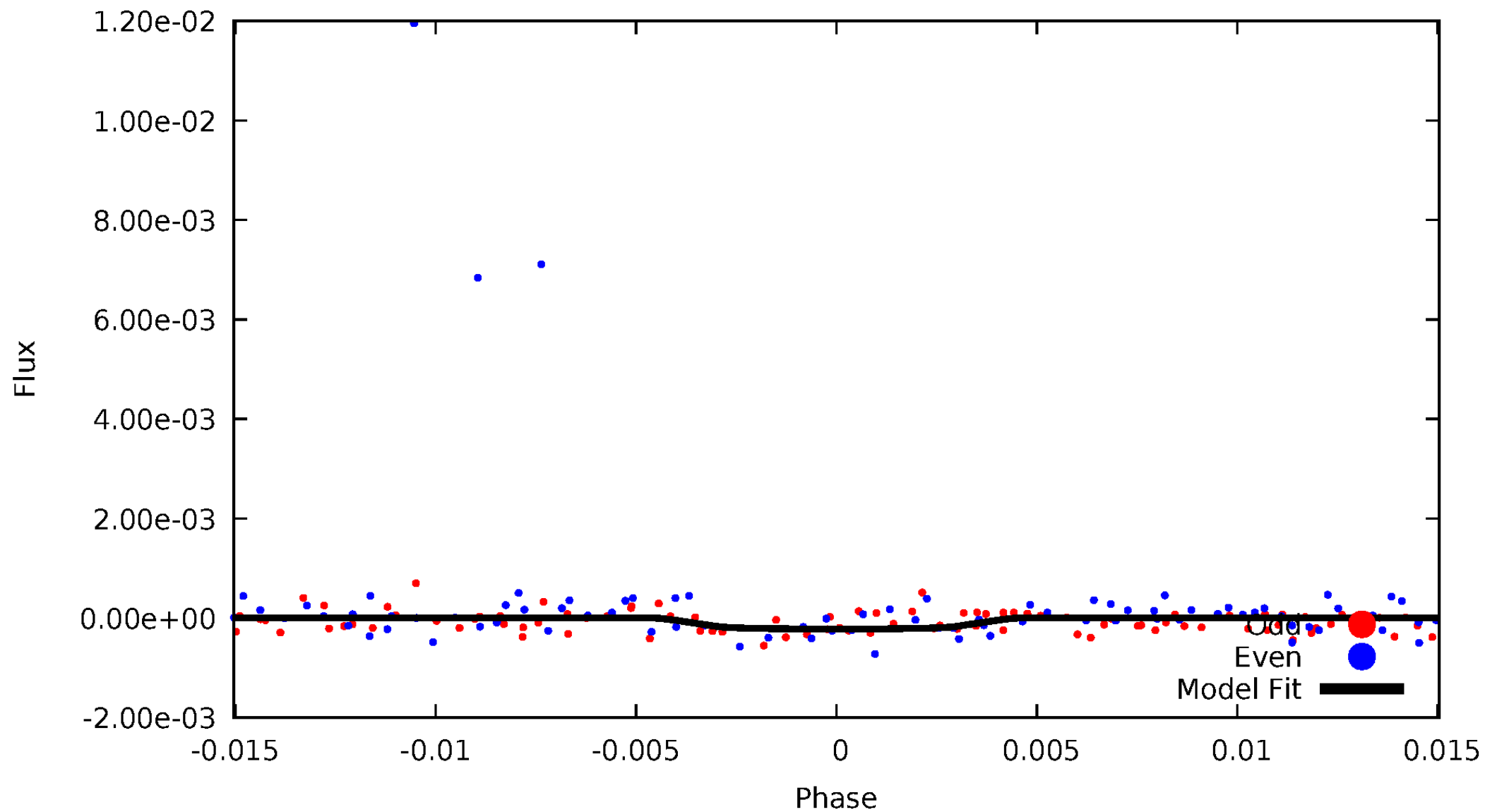


TCE 007957708-08



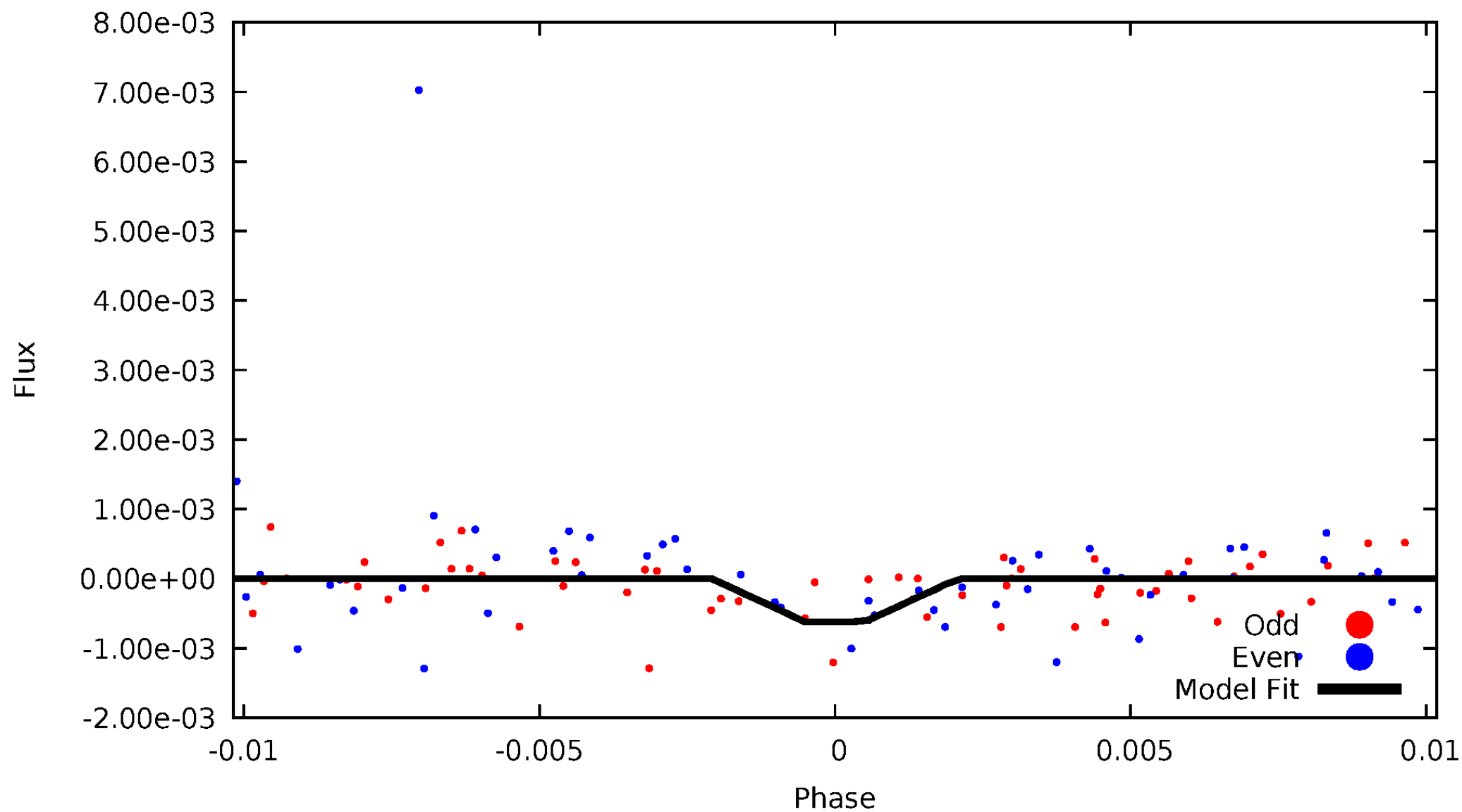
DV Odd/Even

TCE 007957708-08



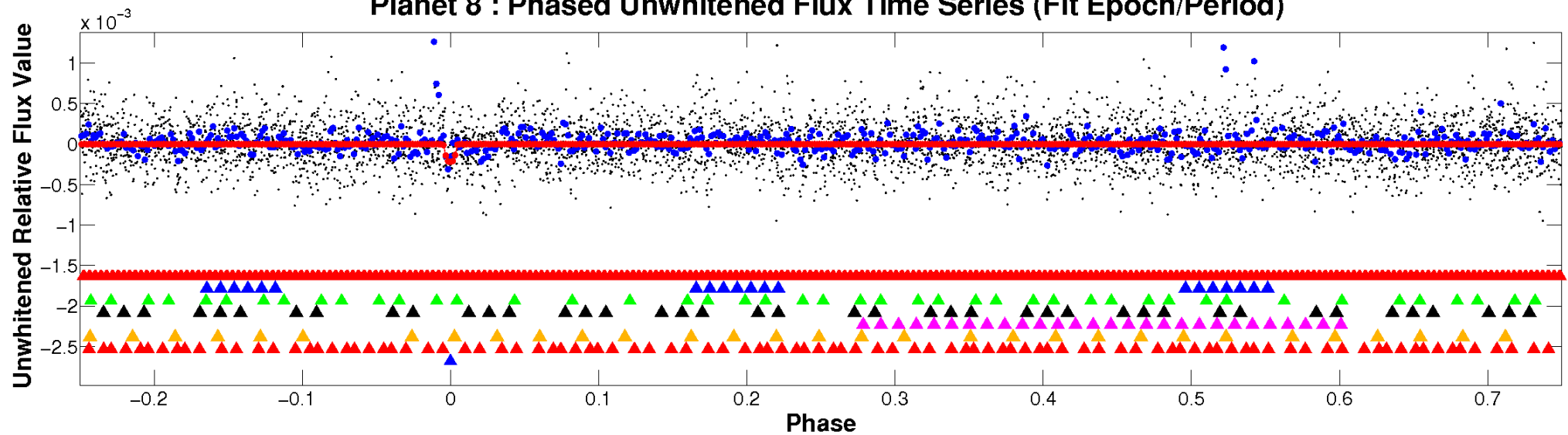
ALT Odd/Even

TCE 007957708-08

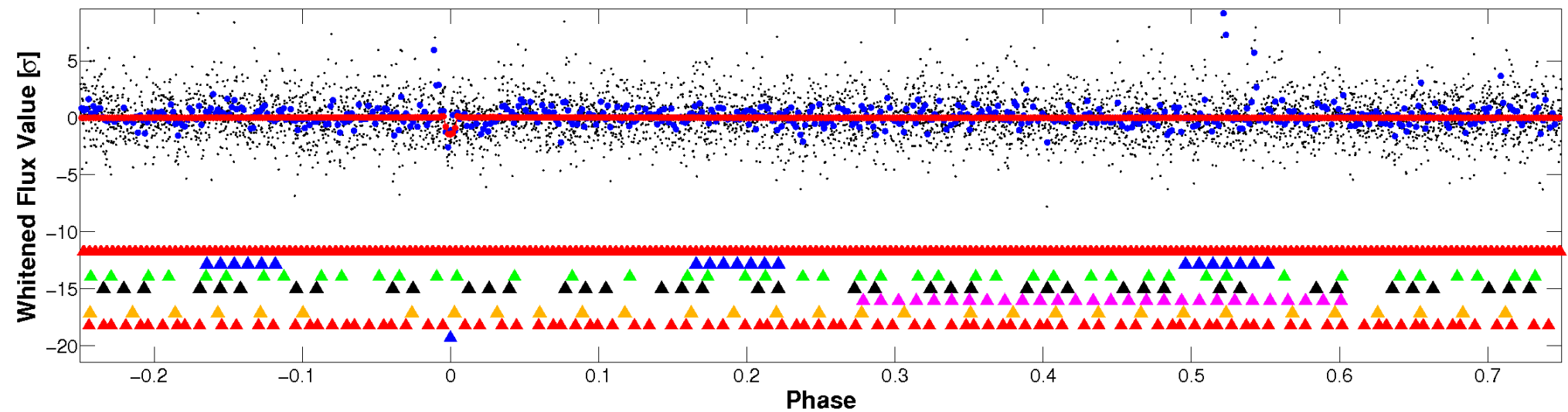


Non-Whitened Vs. Whitened Light Curve

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

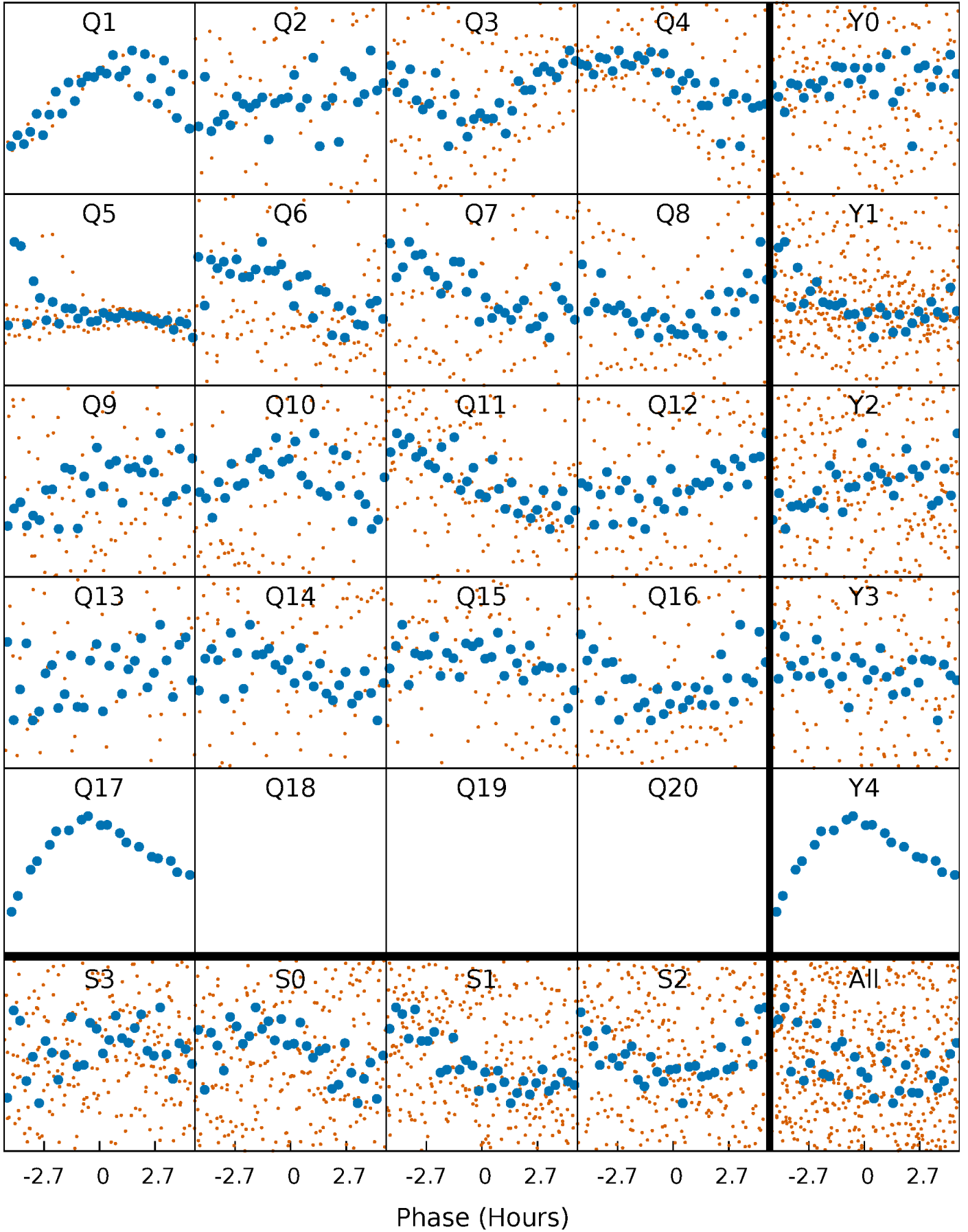


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



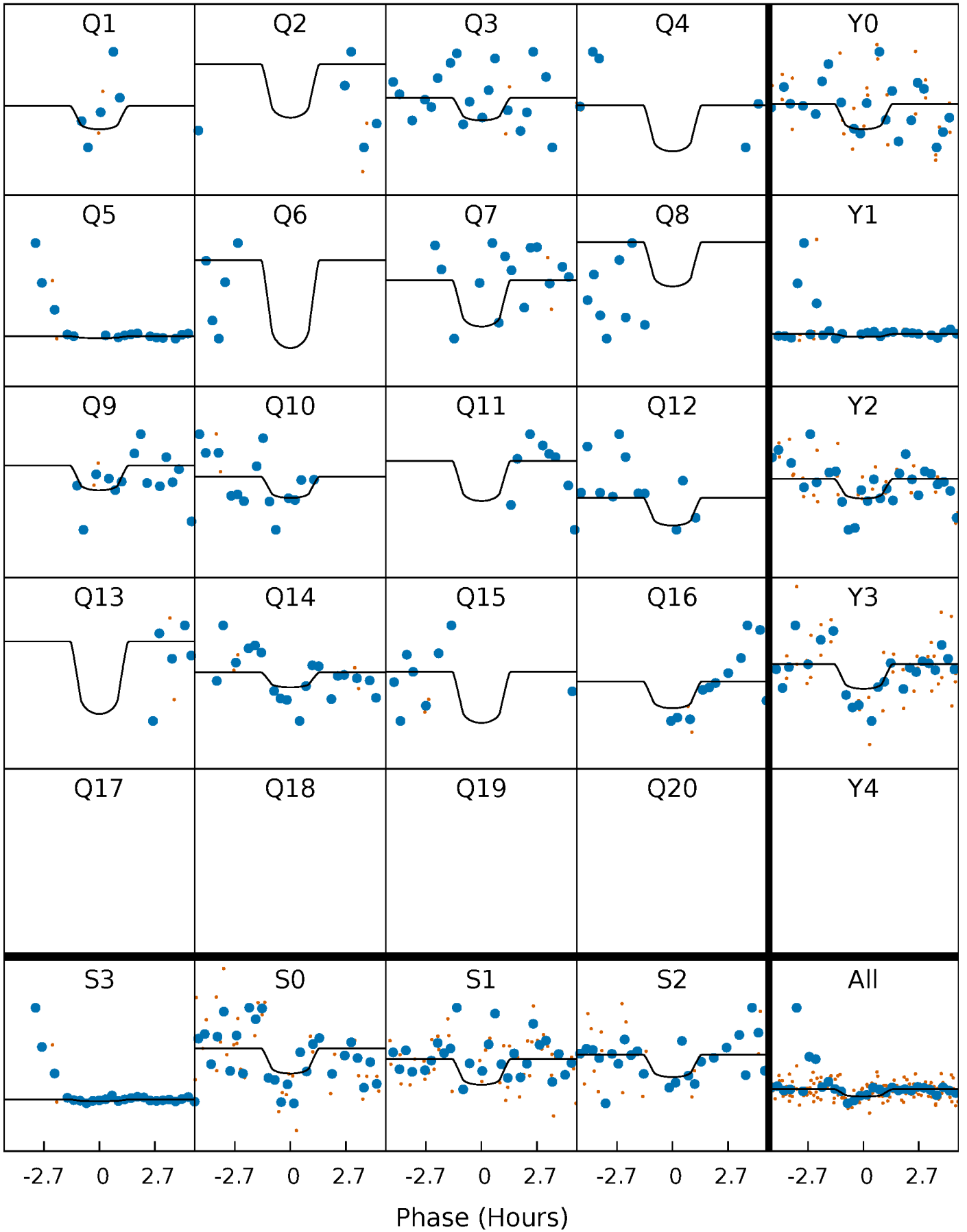
PDC Quarter-Phased Transit Curves

TCE 007957708-08 P= 12.885472 Days $T_0=140.729696$ (BKJD)



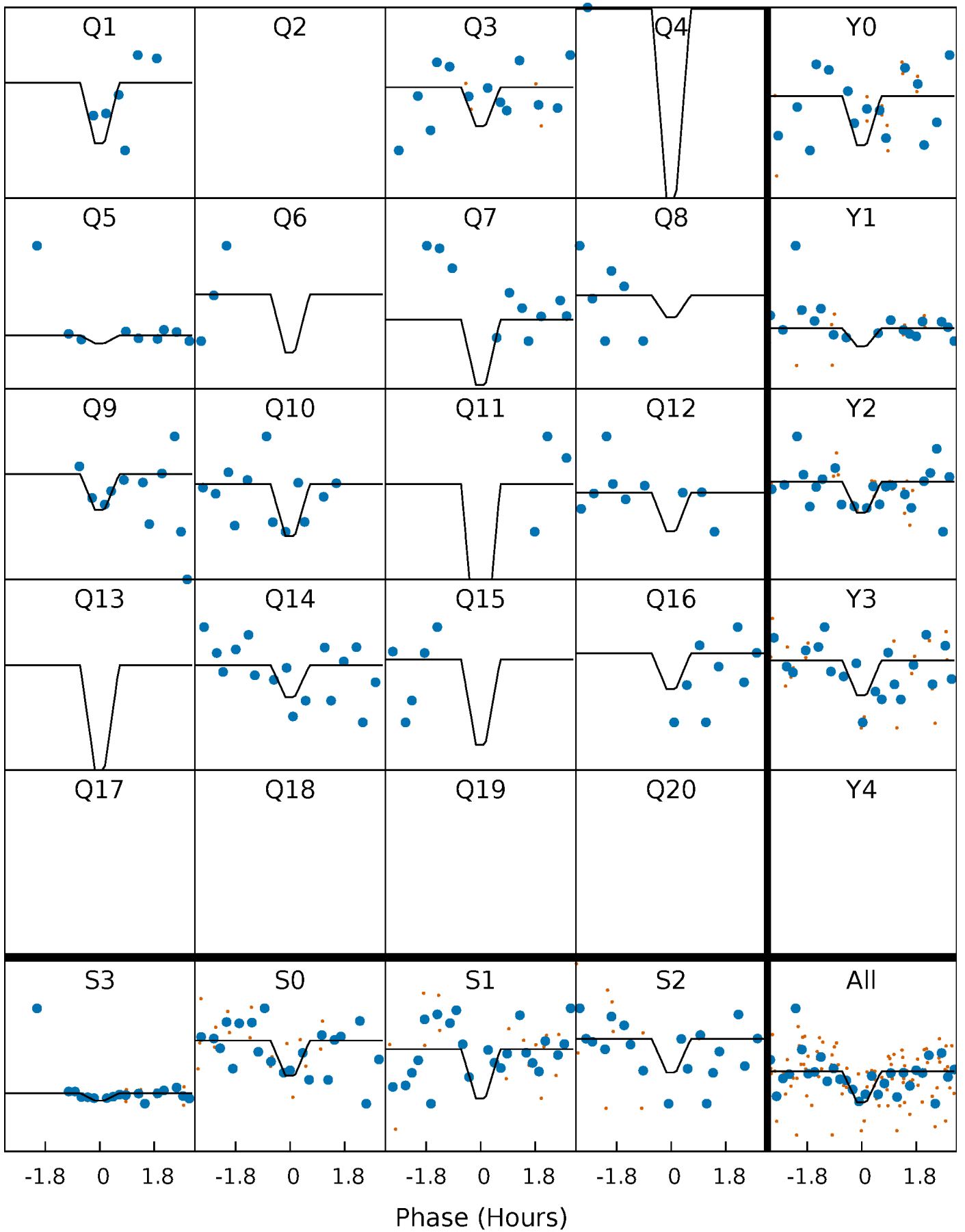
DV Quarter-Phased Transit Curves

TCE 007957708-08 P= 12.885472 Days $T_0=140.729696$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

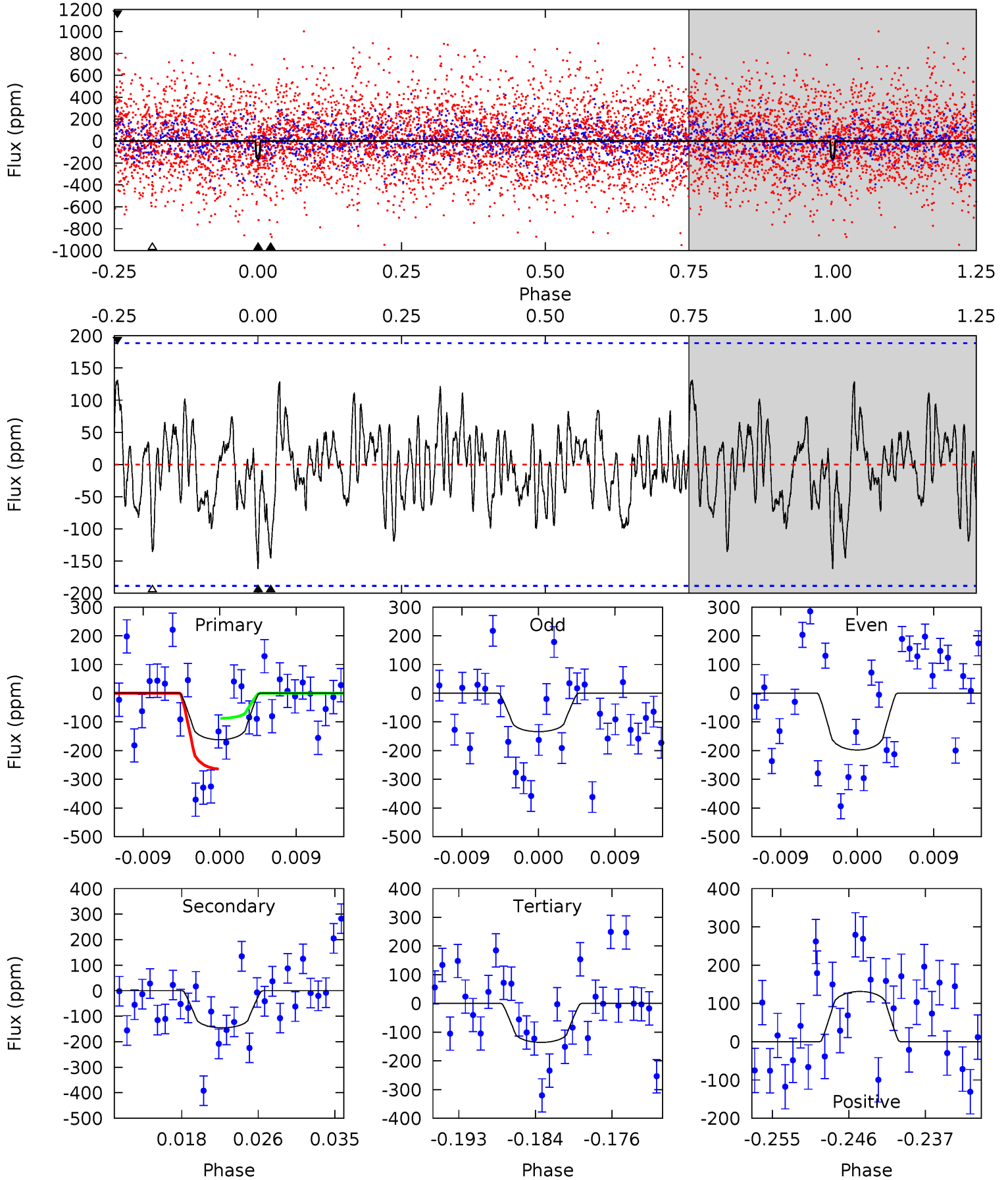
TCE 007957708-08 P= 12.885663 Days $T_0=140.700527$ (BKJD)



DV Model-Shift Uniqueness Test

007957708-08, P = 12.885472 Days, E = 127.844224 Days

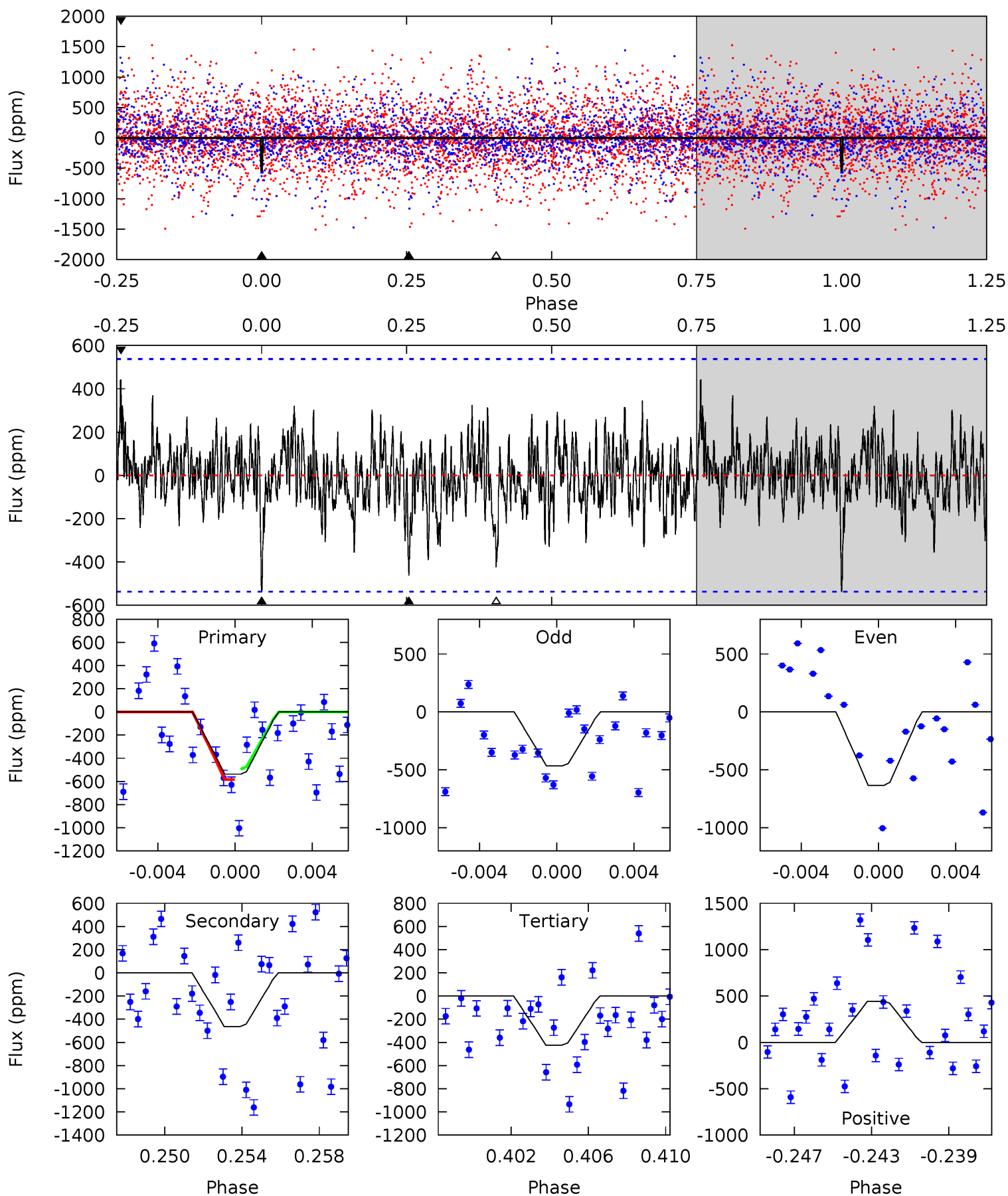
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.34	3.89	3.63	3.52	5.05	2.62	1.28	0.71	0.82	0.26	0.38	0.86	1.05	0.45	2.33



Alt Model-Shift Uniqueness Test

007957708-08, P = 12.885663 Days, E = 127.814864 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.21	4.49	4.11	4.30	5.21	2.89	1.20	1.11	0.91	0.38	0.19	0.82	1.42	0.45	0.44



Stellar Parameters For KIC 007957708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+162}_{-162}	$4.393^{+0.185}_{-0.185}$	$-1.000^{+0.300}_{-0.300}$	$0.901^{+0.203}_{-0.166}$	$0.731^{+0.087}_{-0.031}$	$1.409^{+1.256}_{-0.667}$
	+3%/-3%	+4%/-4%	+30%/-30%	+23%/-18%	+12%/-4%	+89%/-47%
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 007957708-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-145 ± 37	$3.39^{+3.15}_{-2.36}$	1120^{+89}_{-66}	3898^{+2358}_{-737}	68^{+638}_{-51}
Alt.	-463 ± 103	$3.85^{+3.16}_{-2.59}$	1123^{+85}_{-73}	4638^{+3263}_{-937}	165^{+1423}_{-118}

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

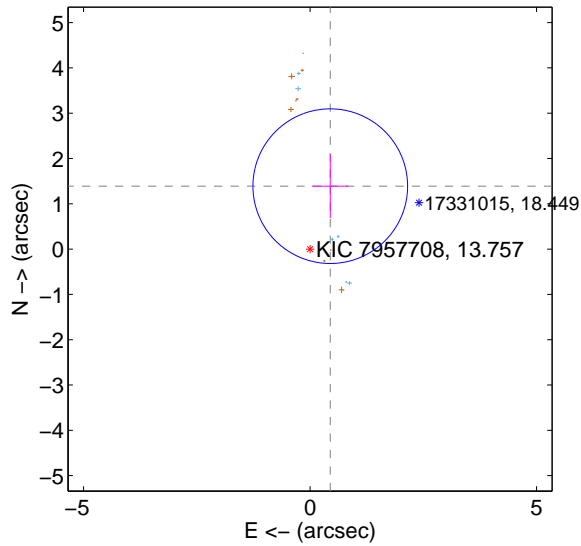
Supplemental centroid analysis for 007957708-08. Kepler magnitude: 13.76. Transit SNR 7.94

There are 8 quarters with good PRF difference image offsets

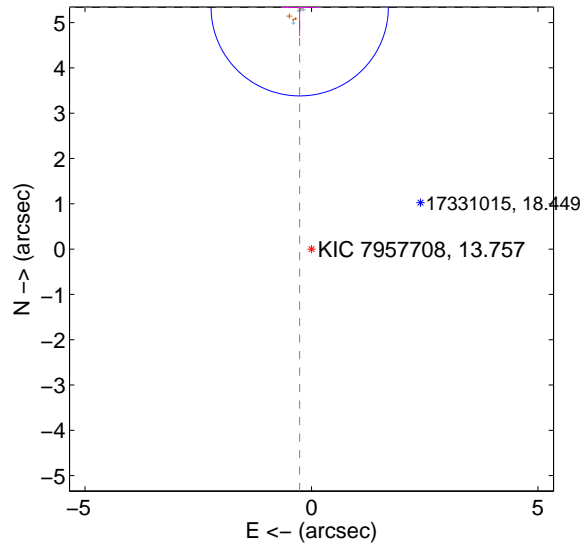
The OOT PRF centroid is offset from the target star catalog position by about 5.42 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.459 ± 0.569	2.56	-0.446 ± 0.404	1.389 ± 0.706
PRF-fit source offset from KIC position	5.344 ± 0.652	8.19	0.260 ± 0.411	5.338 ± 0.633
photometric centroid source offset	2.54 ± 0.64	3.98	0.58 ± 0.34	2.47 ± 0.65

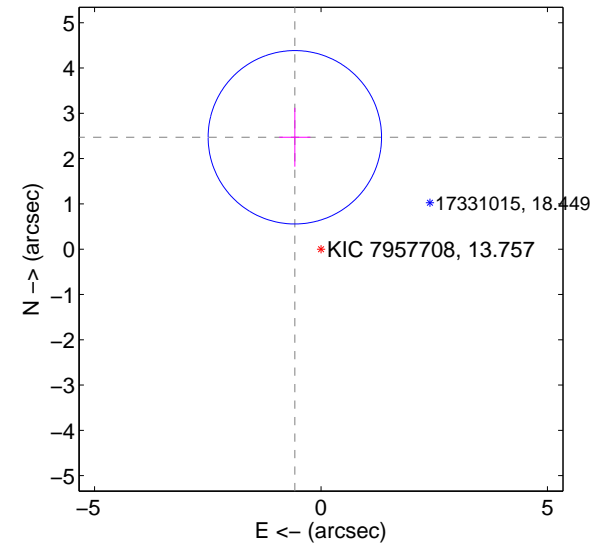
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

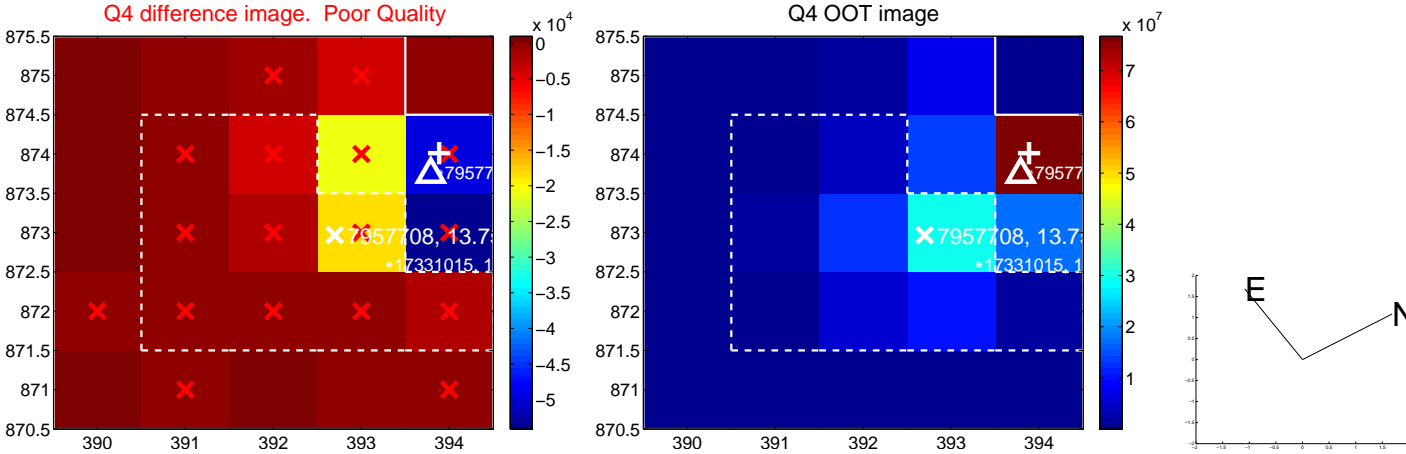
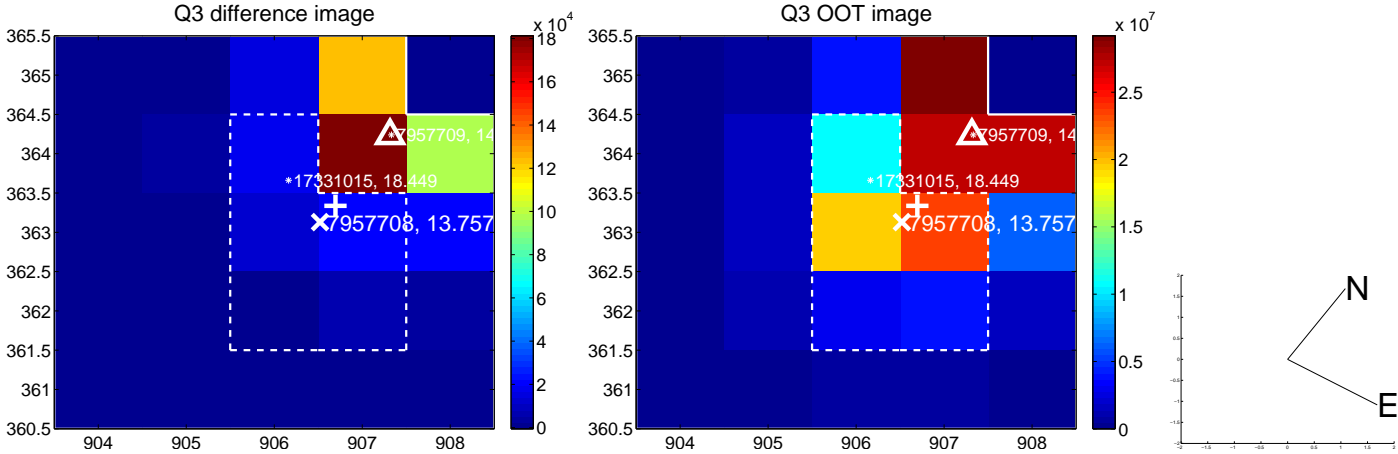
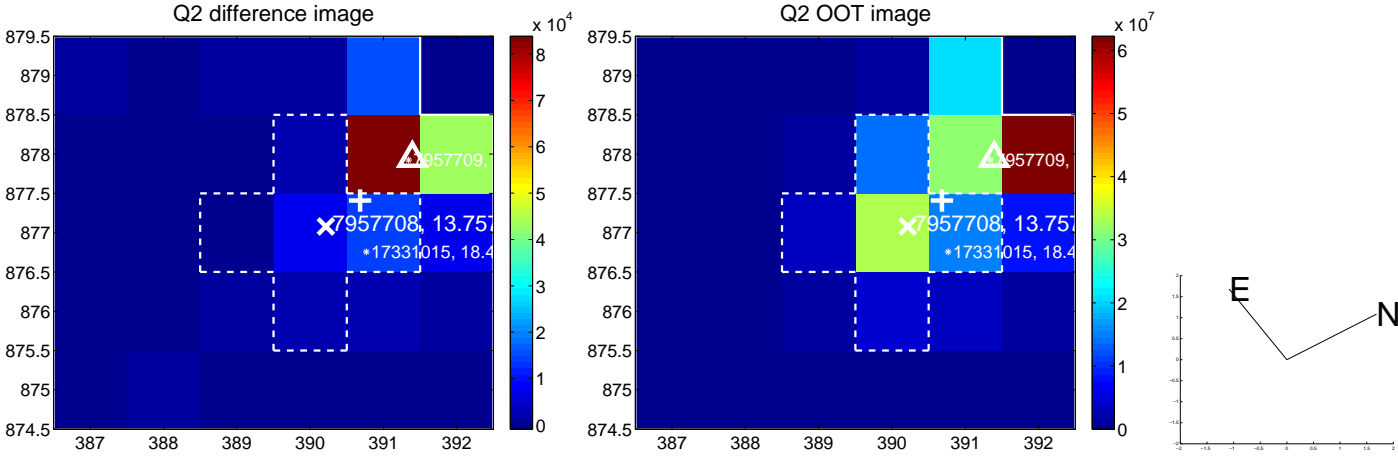
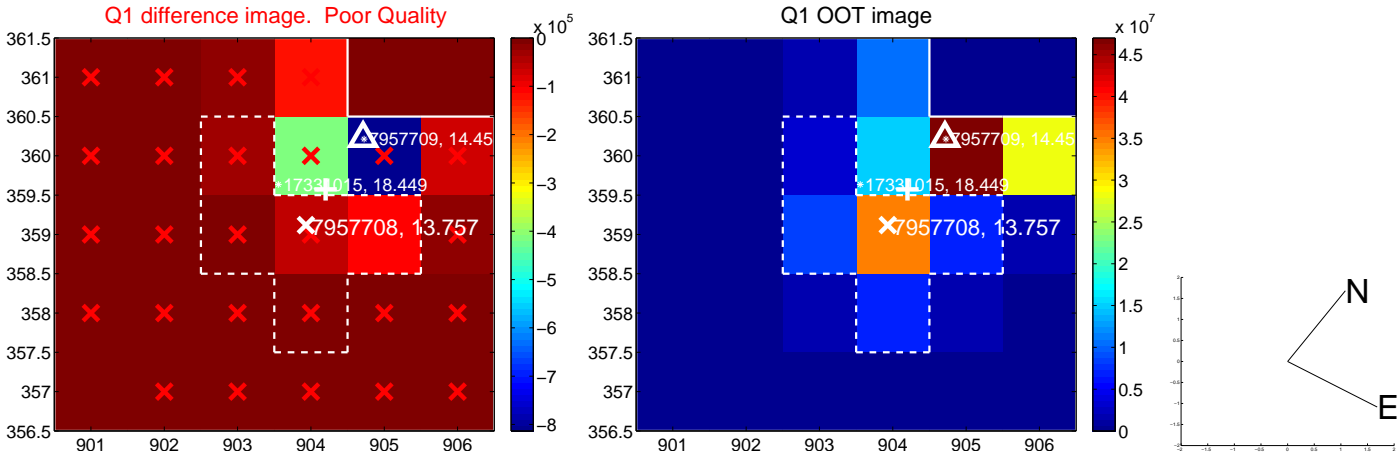


offset from photometric centroids

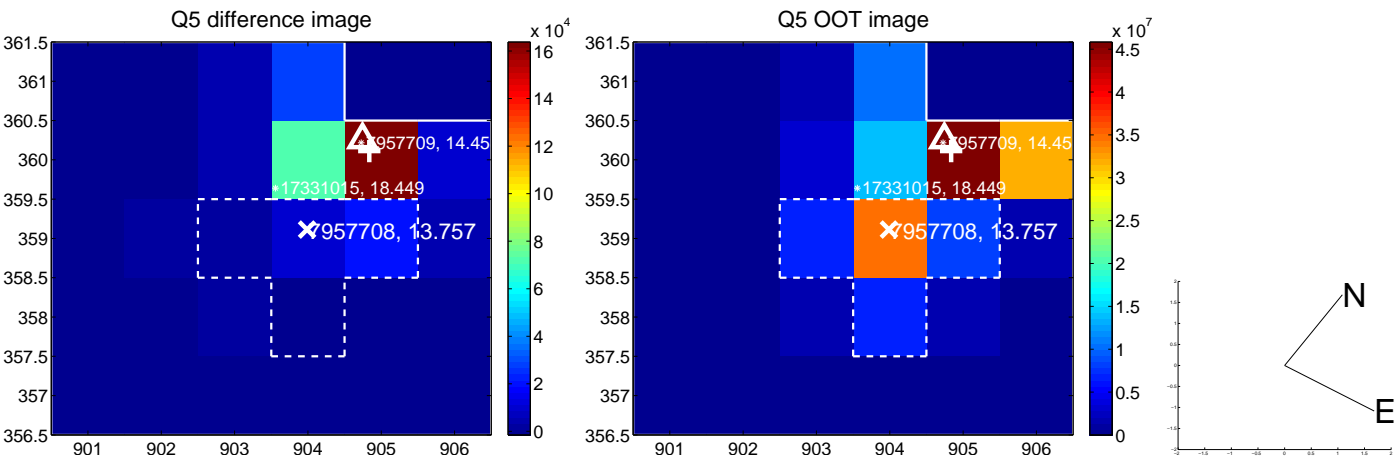


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

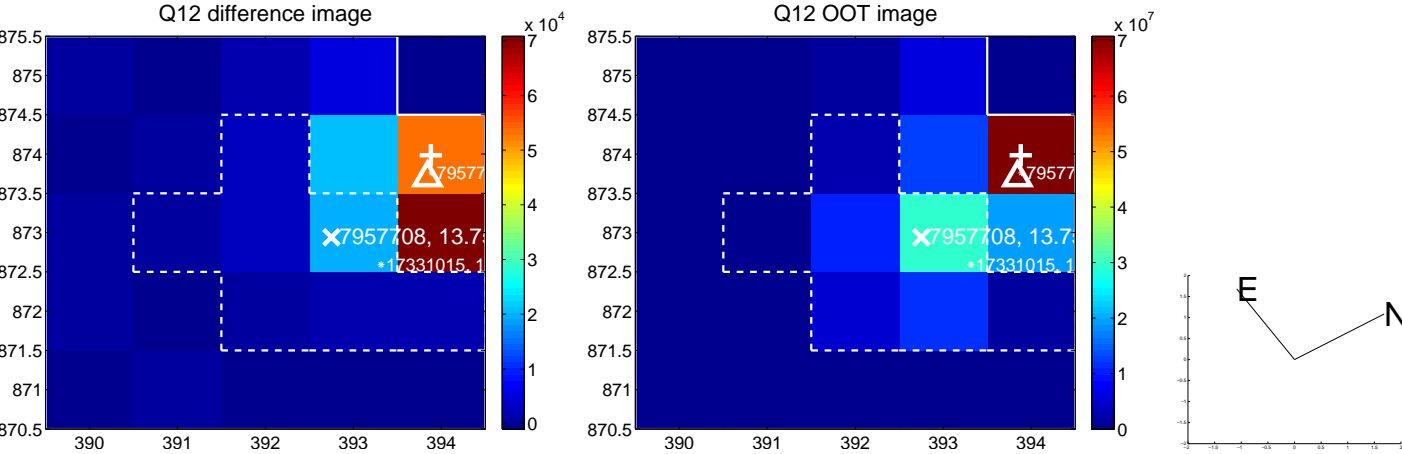
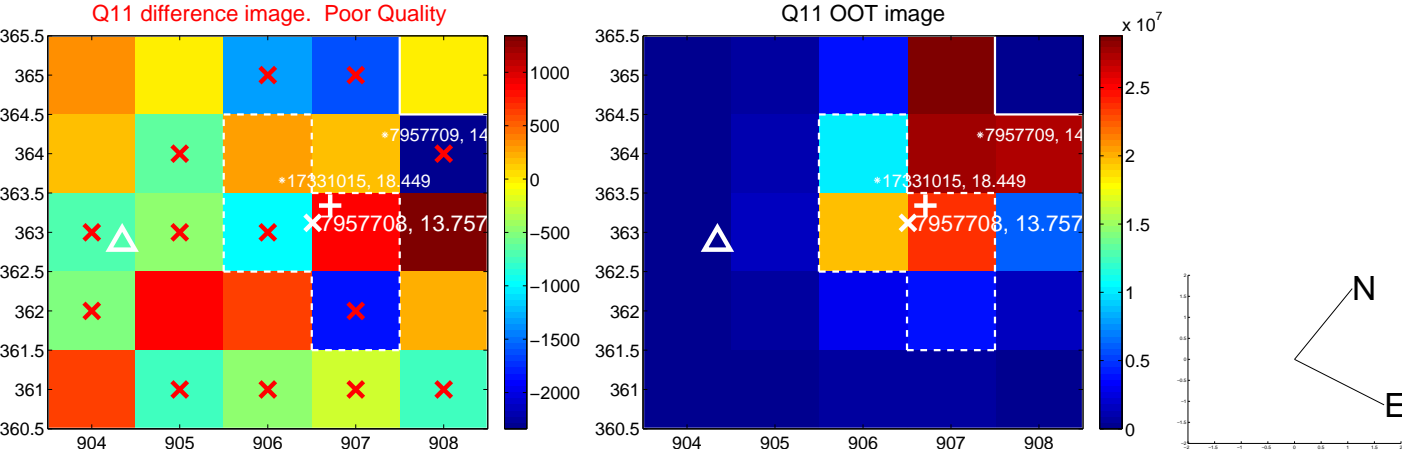
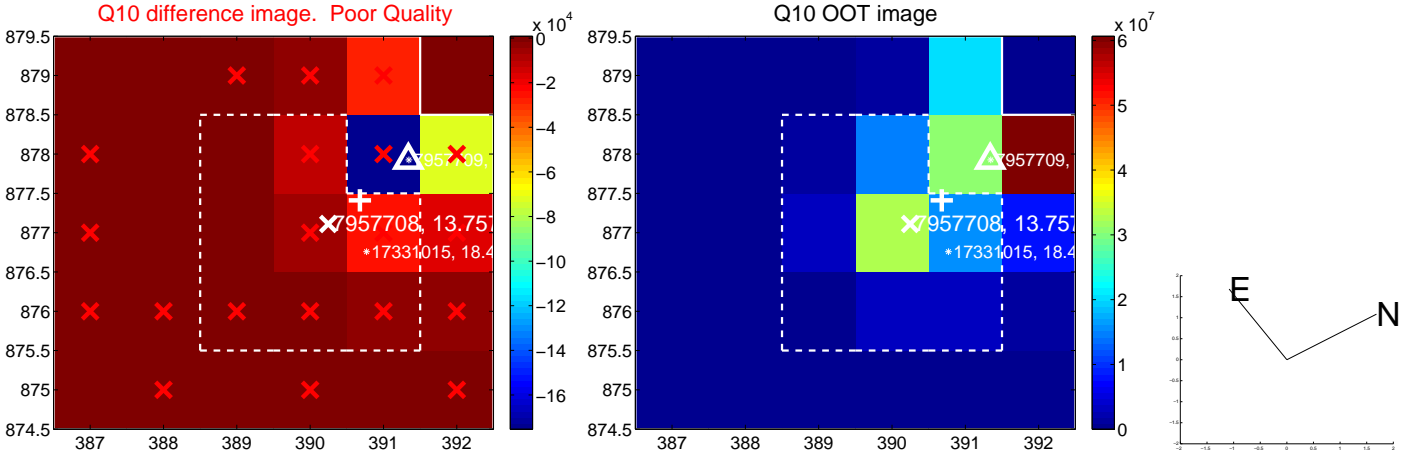
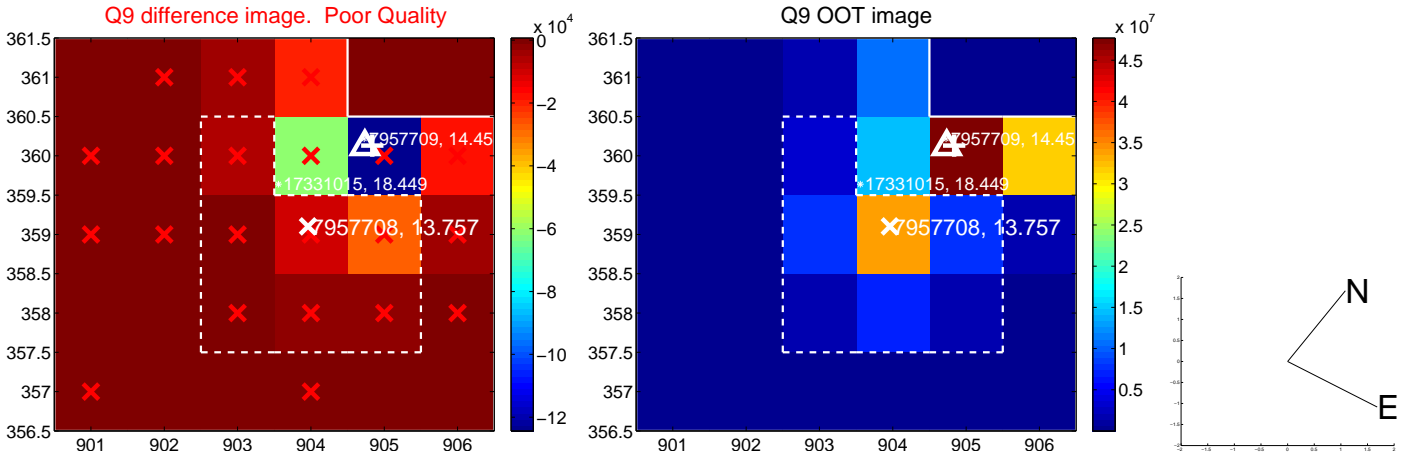
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



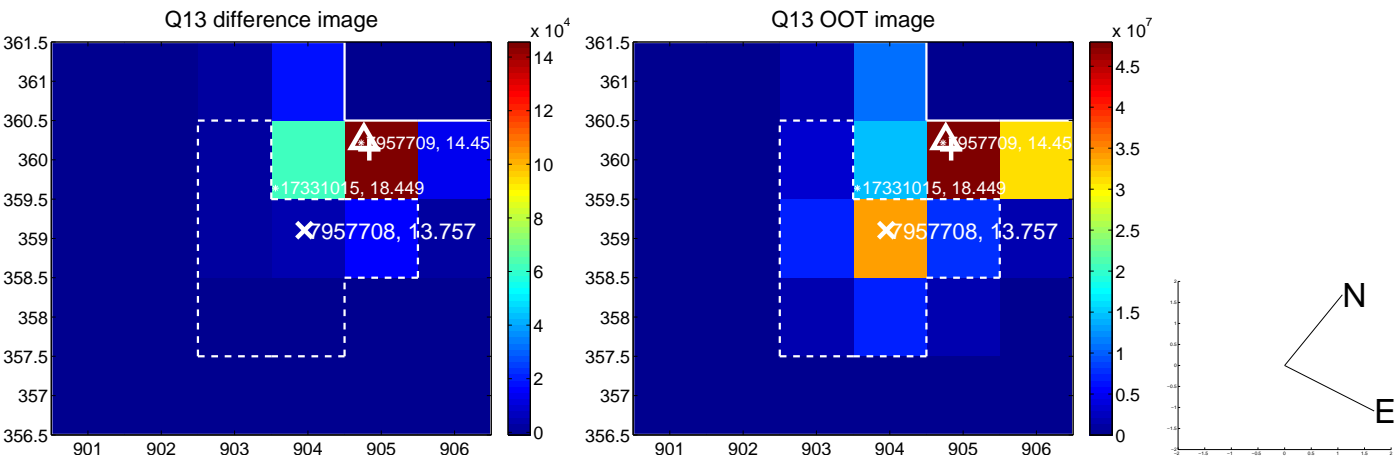
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



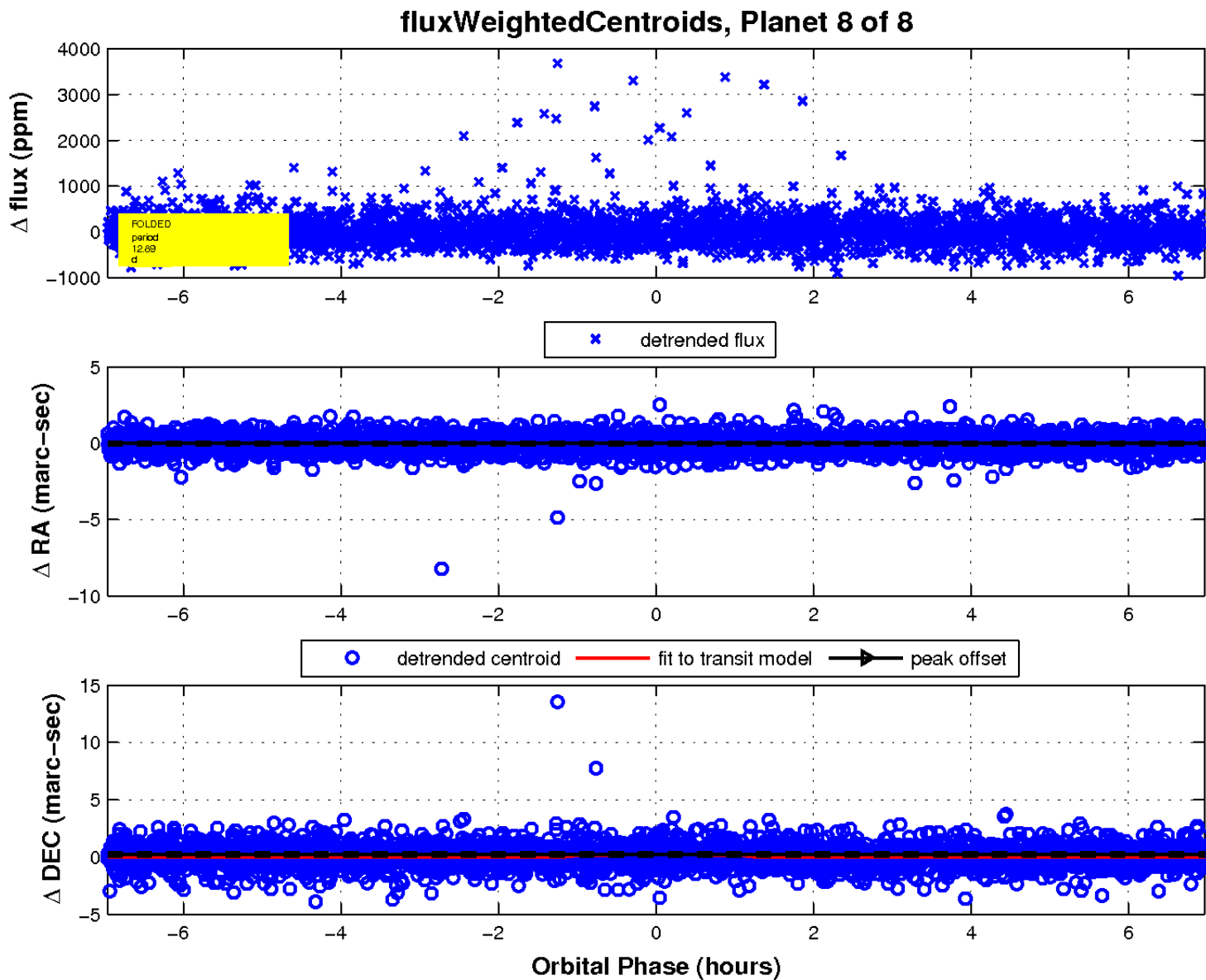
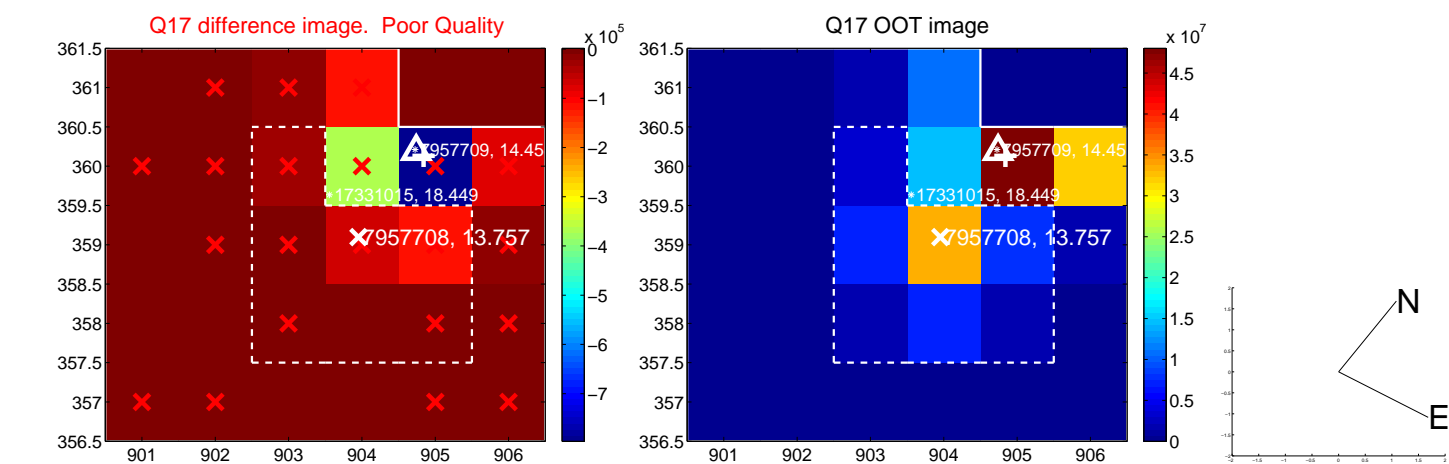
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

