

KIC 005807415

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})
005807415-01	OBS	No	0.986796	132.077994	12.6	6.221	9.1	8.3	1.66	7296	0.61	14483.00
005807415-02	OBS	No	0.652072	131.773952	38.9	1.450	12.7	11.7	1.66	7296	1.18	25163.30
005807415-03	OBS	No	63.056865	134.310089	233.2	2.377	9.6	8.5	1.66	7296	2.65	56.69
005807415-04	OBS	No	14.119915	136.319897	43.6	13.225	9.8	6.0	1.66	7296	1.27	416.92
005807415-05	OBS	No	42.001665	164.738285	296.0	2.000	9.6	-1.0	1.66	7296	2.91	97.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005807415-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005807415-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005807415-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005807415-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
005807415-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

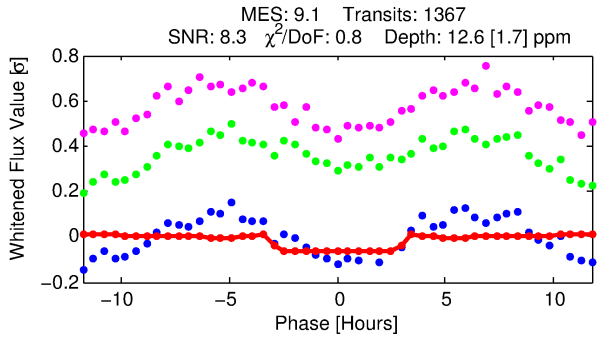
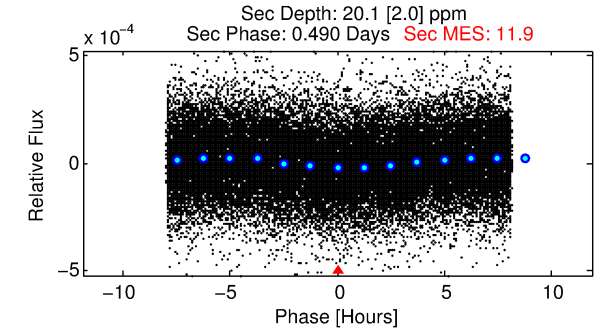
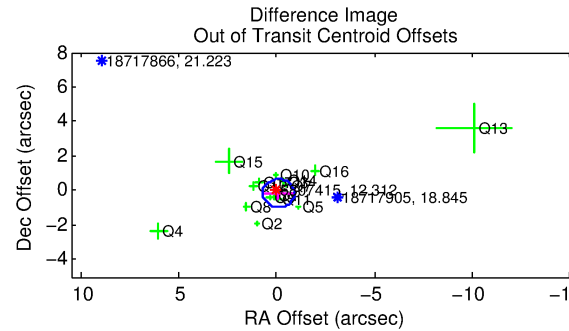
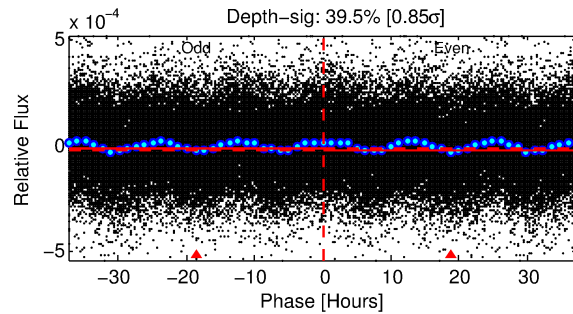
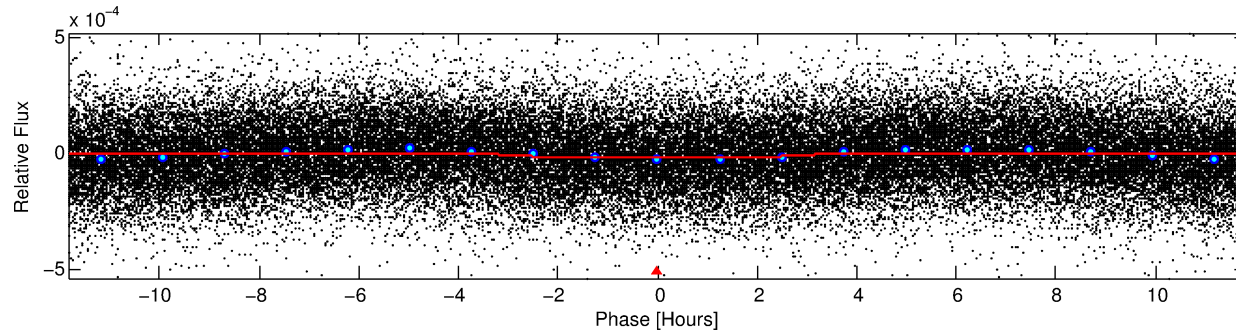
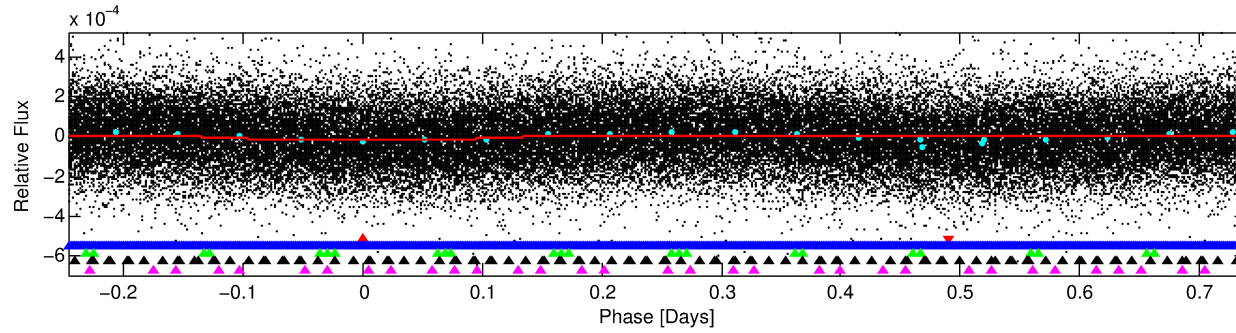
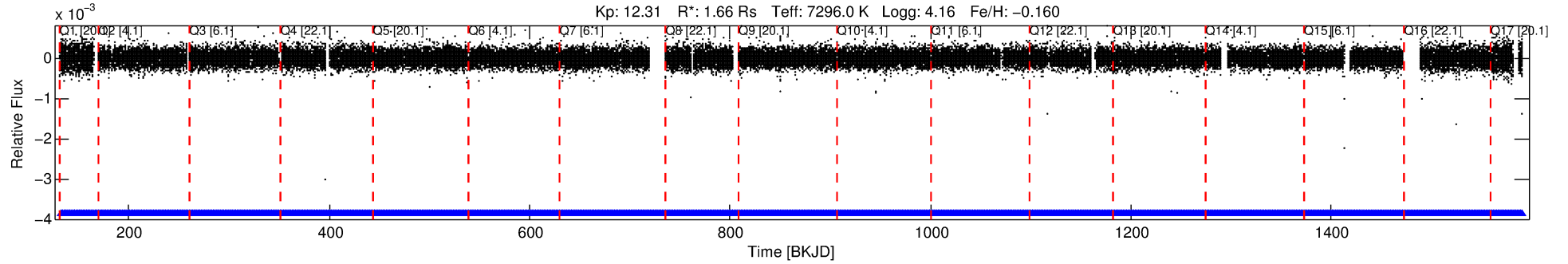
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005807415-01

No Significant Match Found

DV One-Page Summary

KIC: 5807415 Candidate: 1 of 5 Period: 0.987 d



DV Fit Results:

Period = 0.98680 [0.00002] d
Epoch = 132.0780 [0.0059] BKJD
Rp/R* = 0.0034 [0.0017]
a/R* = 1.30 [1.62]
b = 0.45 [5.38]
Seff = 14483.00 [5734.47]
Teq = 2797 [277] K
Rp = 0.61 [0.36] Re
a = 0.0220 [0.0056] AU
Ag = 14.37 [15.48] [0.86 σ]
Teffp = 8421 [2167] K [2.57 σ]

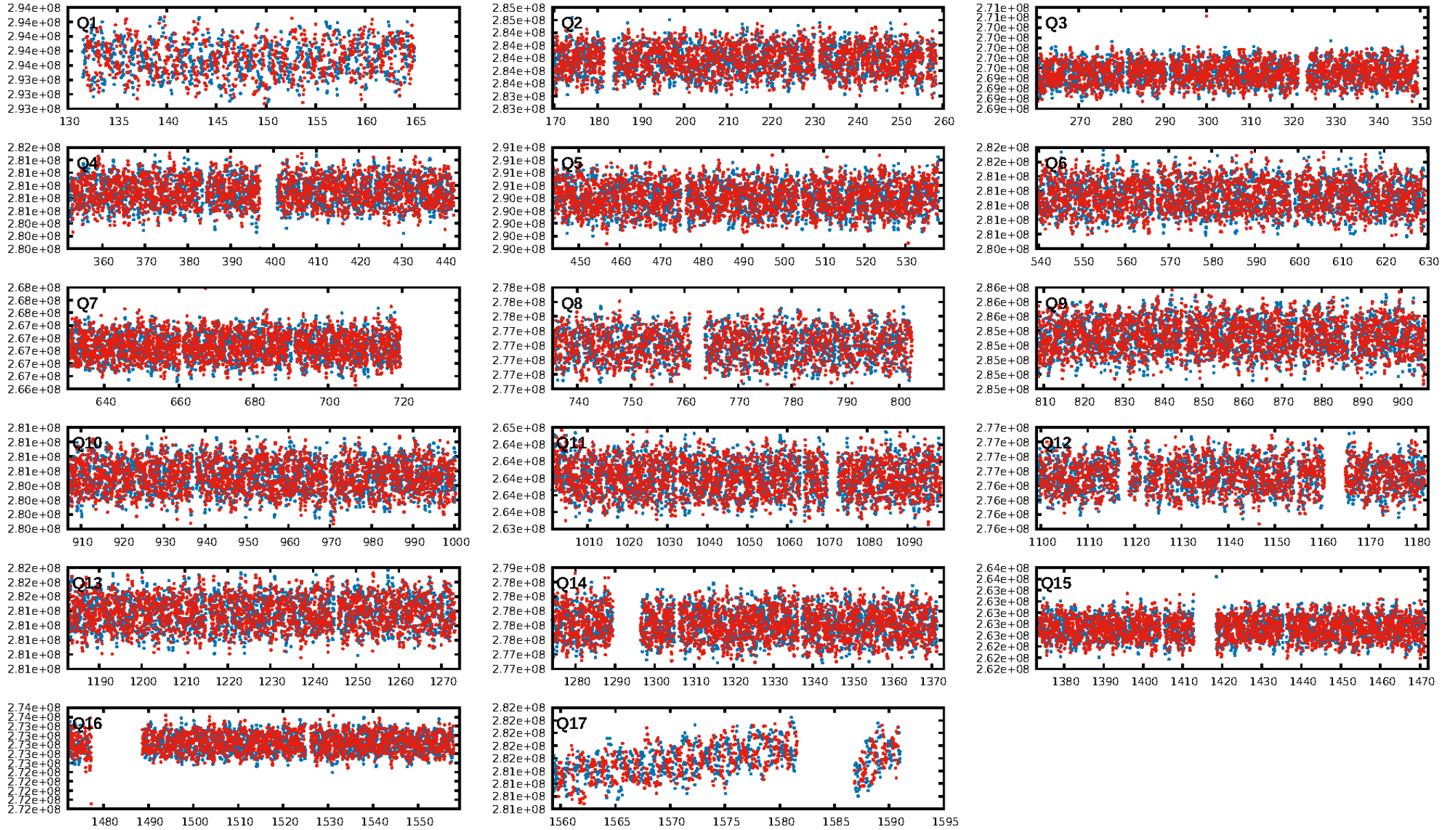
DV Diagnostic Results:

ShortPeriod-sig: 79.1% [1.26 σ]
LongPeriod-sig: 100.0% [21.57 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1306/1306]
GhostDiagnostic-chr: 4.043
Centroid-sig: 19.9%
Centroid-so: 0.688 arcsec [0.86 σ]
OotOffset-rm: 0.188 arcsec [0.69 σ]
KicOffset-rm: 0.246 arcsec [1.18 σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 0.00 [0/17]

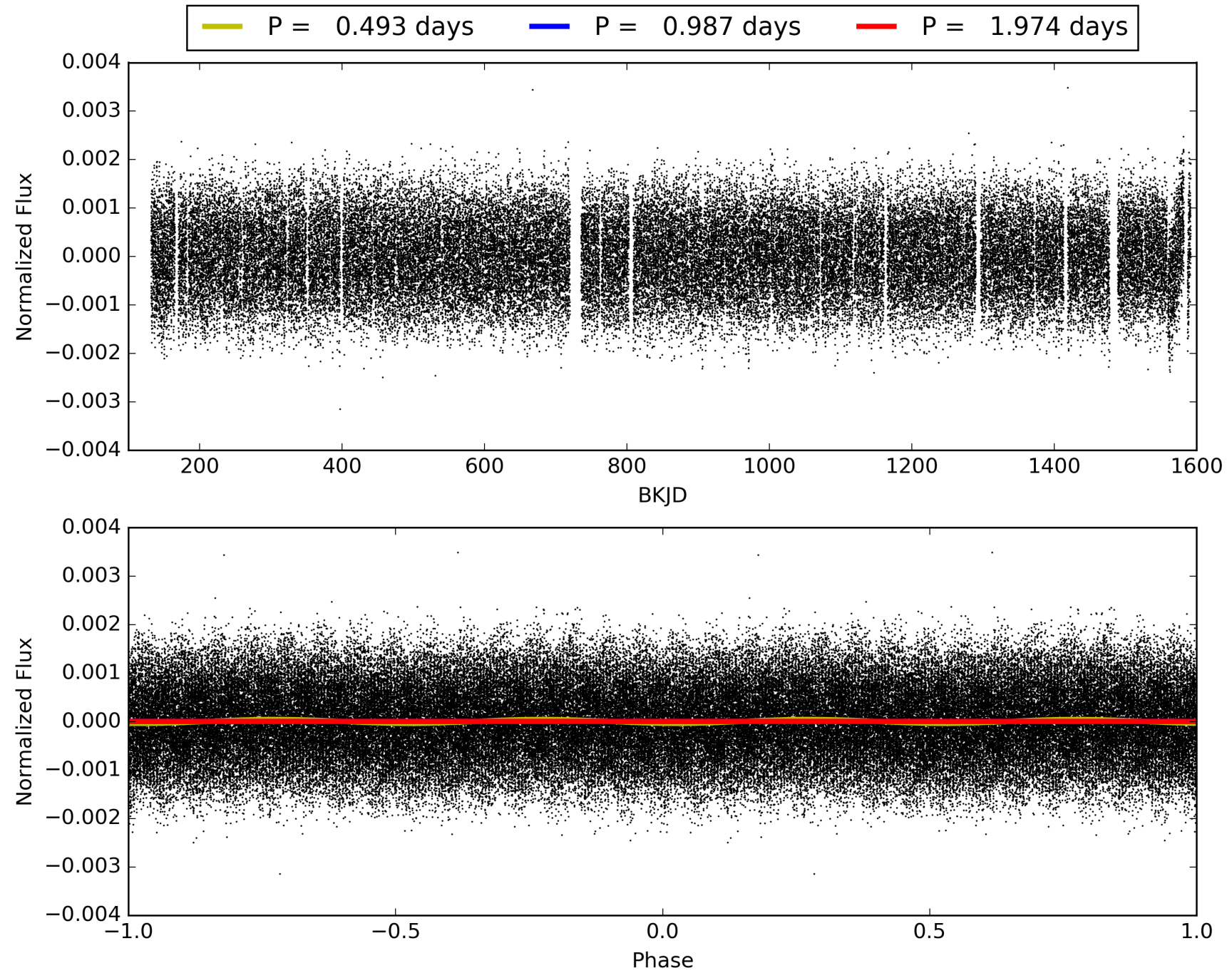
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:49:39 Z

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

TCE 005807415-01, PDC Light Curves

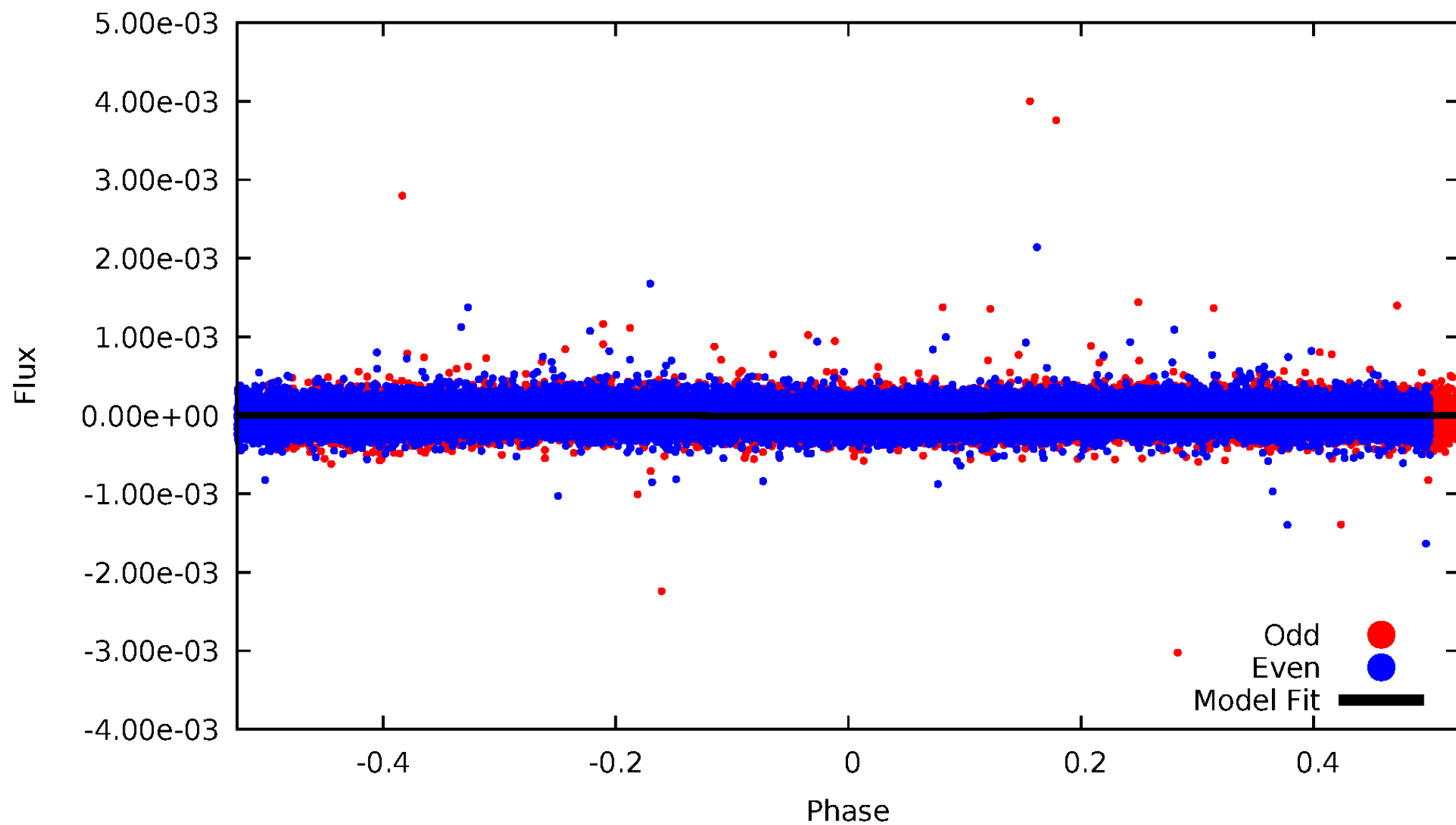


TCE 005807415-01



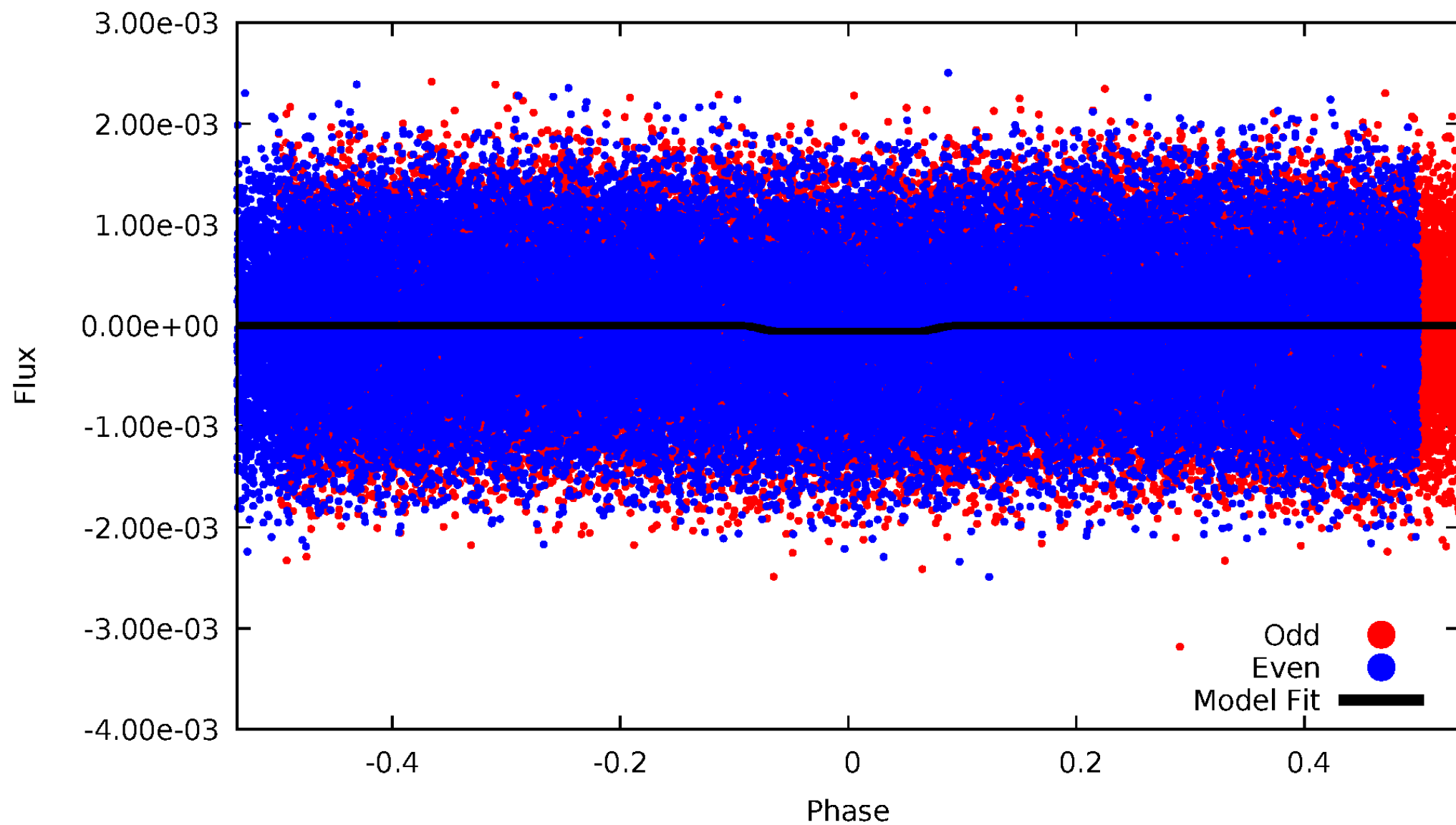
DV Odd/Even

TCE 005807415-01



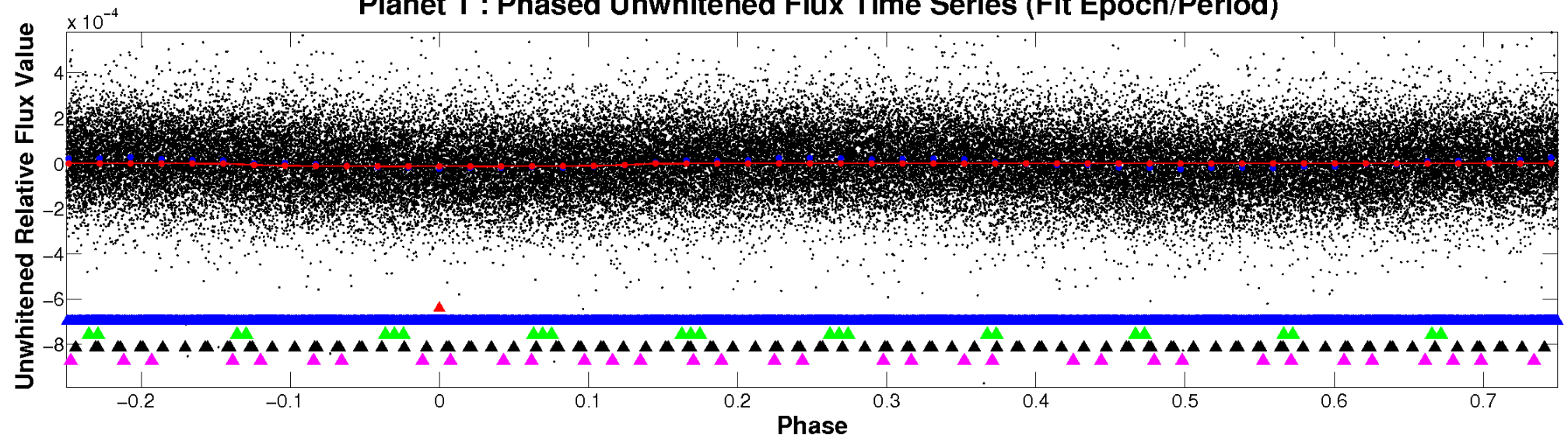
ALT Odd/Even

TCE 005807415-01

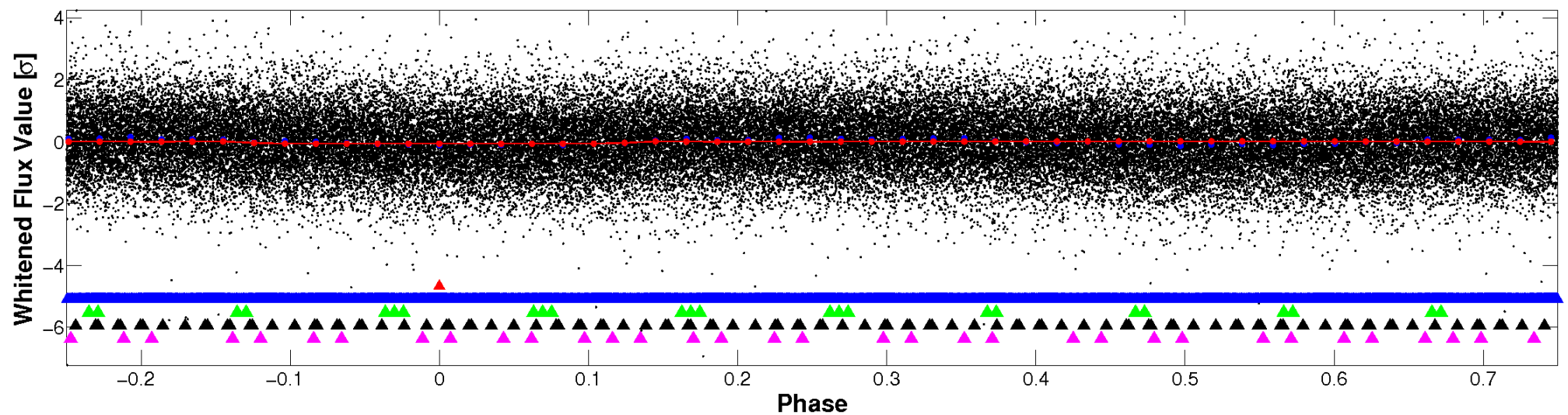


Non-Whitened Vs. Whitened Light Curve

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

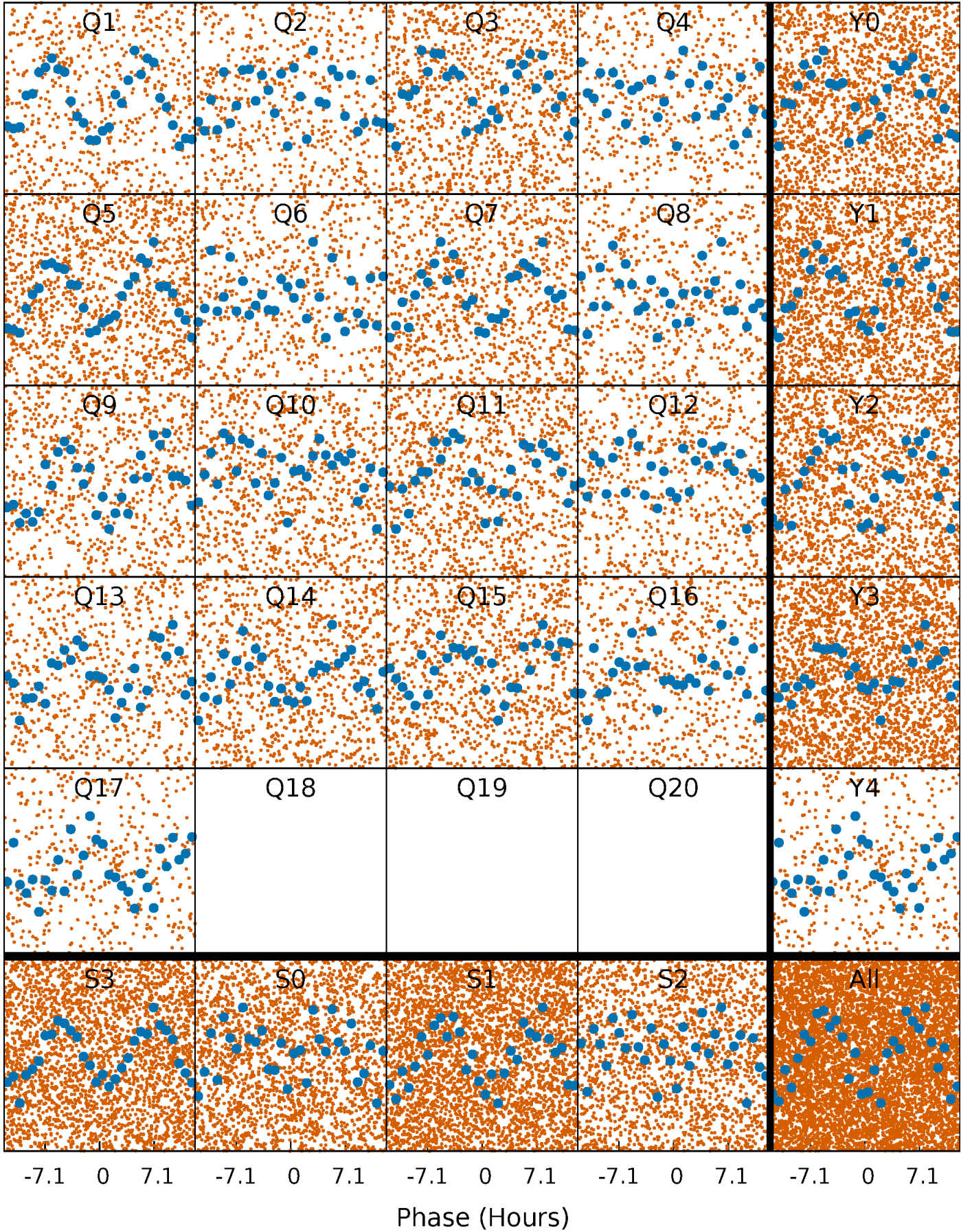


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



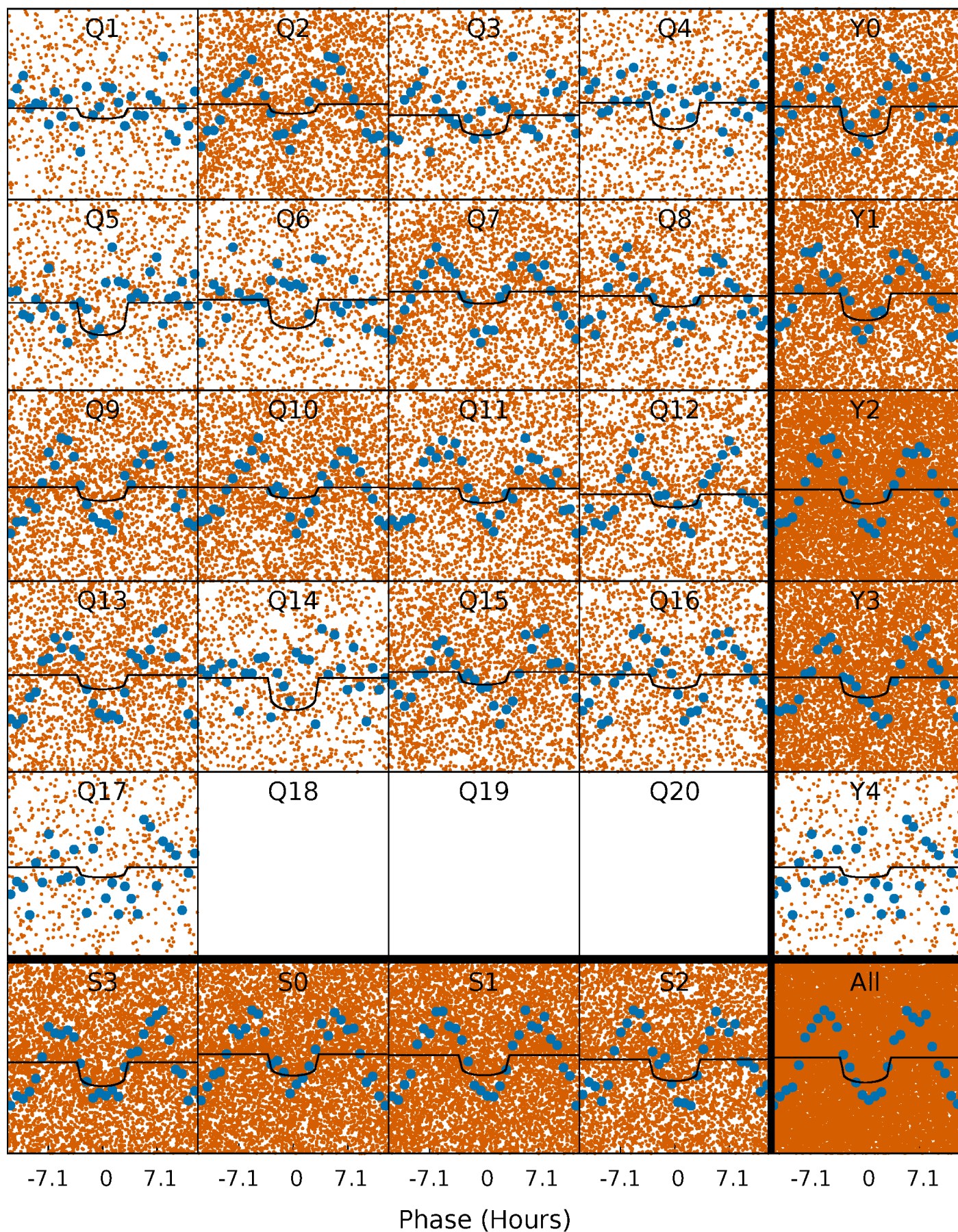
PDC Quarter-Phased Transit Curves

TCE 005807415-01 P= 0.986796 Days $T_0=132.077994$ (BKJD)



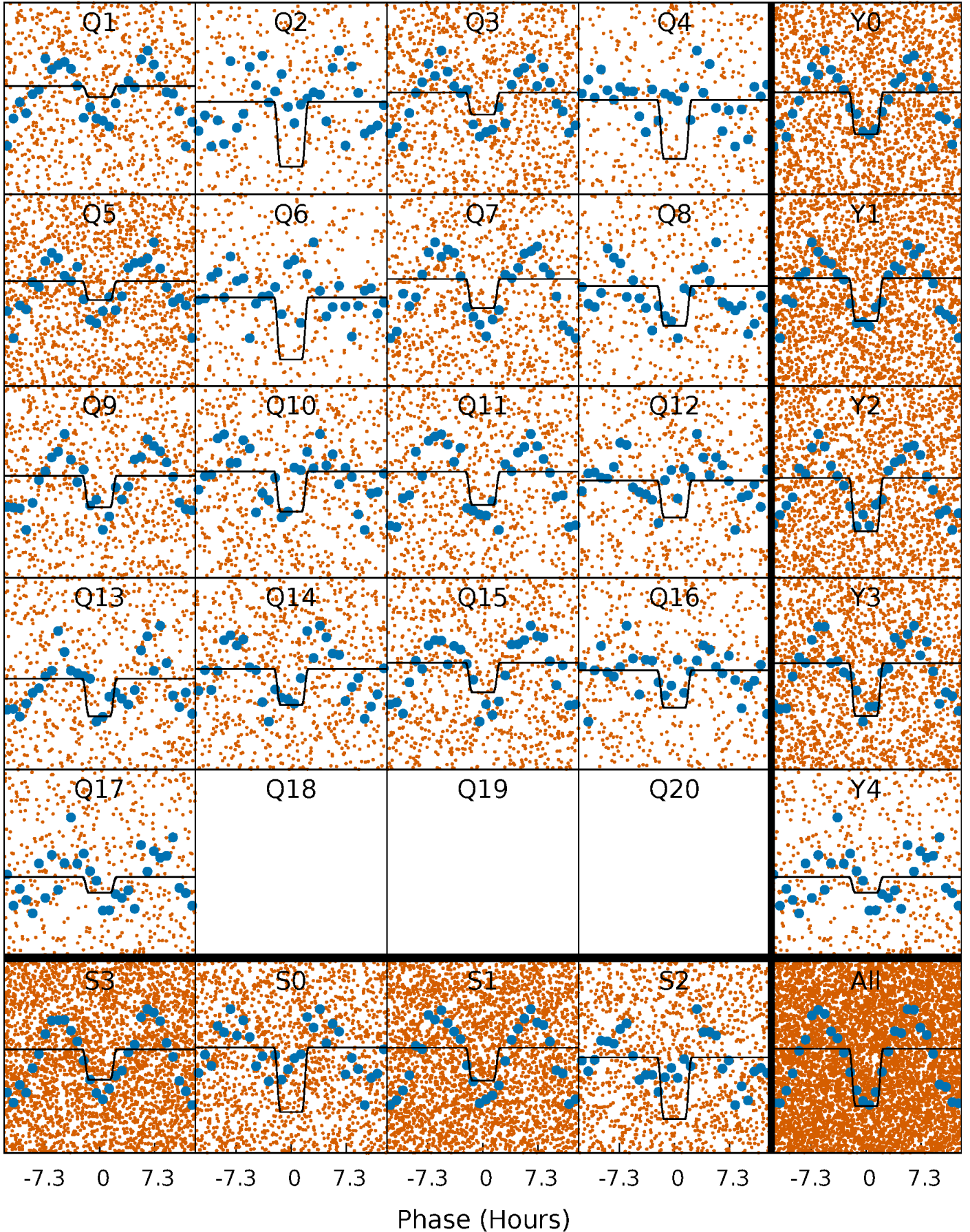
DV Quarter-Phased Transit Curves

TCE 005807415-01 P= 0.986796 Days $T_0=132.077994$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

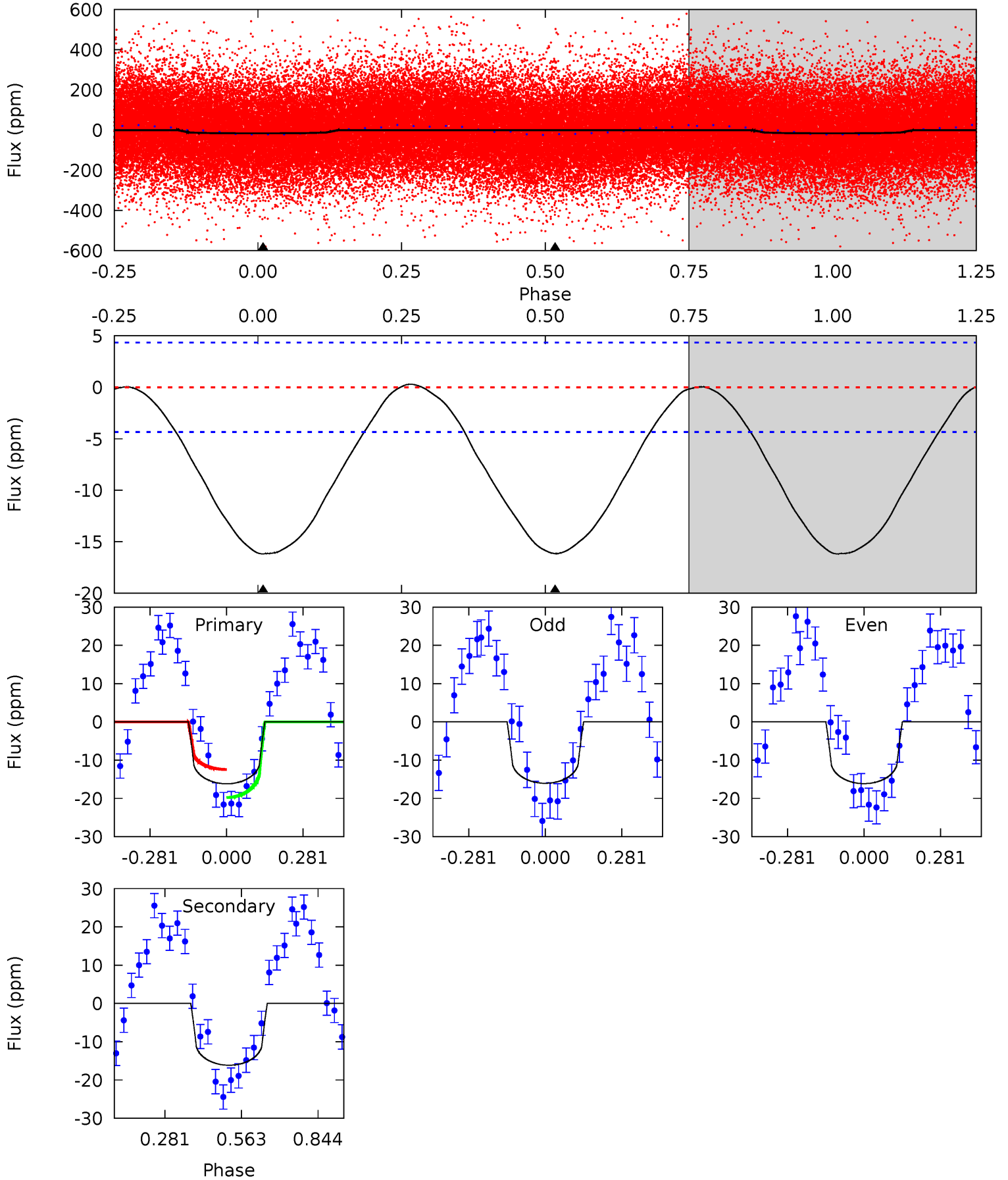
TCE 005807415-01 P= 0.986887 Days $T_0=132.046138$ (BKJD)



DV Model-Shift Uniqueness Test

005807415-01, P = 0.986796 Days, E = 131.091198 Days

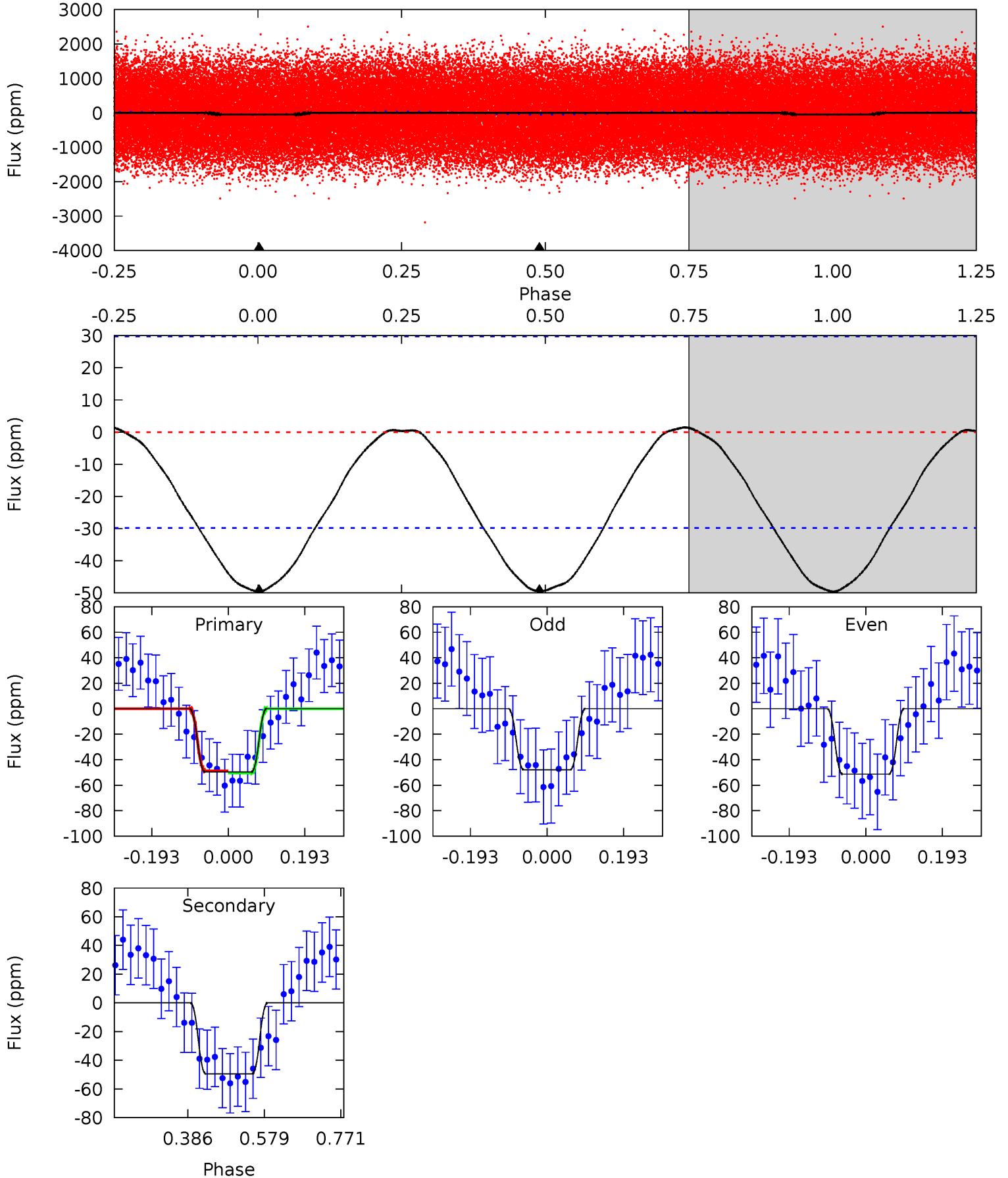
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	16.1	0	0	4.34	1.08	0.19	16.2	16.2	16.1	16.1	0.05	1.01	0.02	3.67



Alt Model-Shift Uniqueness Test

005807415-01, P = 0.986887 Days, E = 131.059251 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.37	7.35	0	0	4.43	1.30	0.26	7.37	7.37	7.35	7.35	0.25	1.10	0.03	0.12



Stellar Parameters For KIC 005807415

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7296^{+228}_{-304}	$4.161^{+0.128}_{-0.192}$	$-0.160^{+0.250}_{-0.350}$	$1.663^{+0.512}_{-0.341}$	$1.460^{+0.211}_{-0.234}$	$0.447^{+0.286}_{-0.236}$
	+3%/-4%	+3%/-5%	+156%/-219%	+31%/-21%	+14%/-16%	+64%/-53%
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 005807415-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 1	$0.63^{+0.36}_{-0.29}$	3934^{+292}_{-256}	7937^{+4537}_{-1697}	11^{+25}_{-6}
Alt.	-49 ± 7	$1.39^{+0.36}_{-0.35}$	3919^{+294}_{-253}	6905^{+1217}_{-827}	$6.709^{+5.760}_{-2.517}$

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

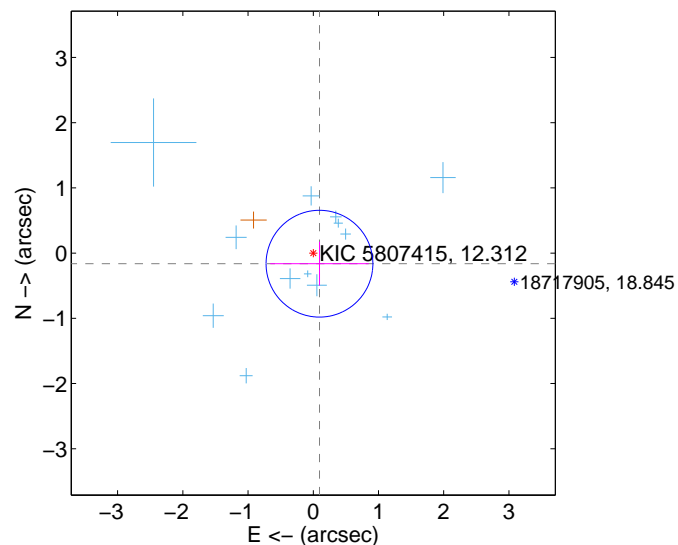
Supplemental centroid analysis for 005807415-01. Kepler magnitude: 12.31. Transit SNR 8.29

There are 13 quarters with good PRF difference image offsets

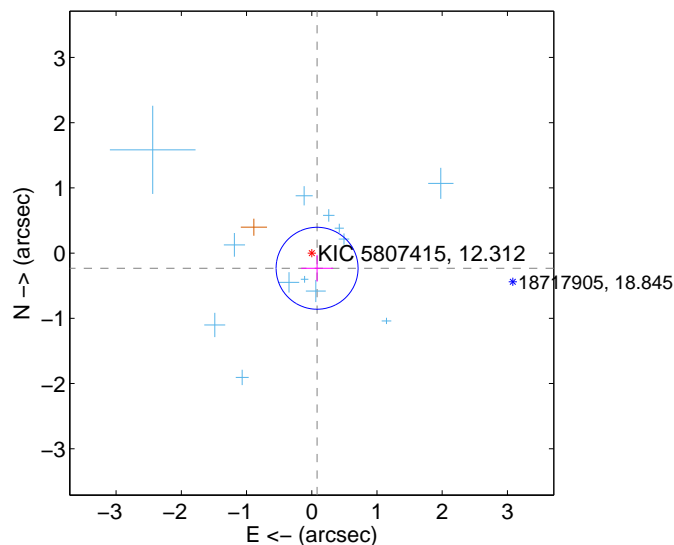
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.188 ± 0.273	0.69	-0.095 ± 0.755	-0.163 ± 0.335
PRF-fit source offset from KIC position	0.246 ± 0.209	1.18	-0.082 ± 0.245	-0.232 ± 0.205
photometric centroid source offset	0.69 ± 0.80	0.86	0.07 ± 0.84	0.68 ± 0.80

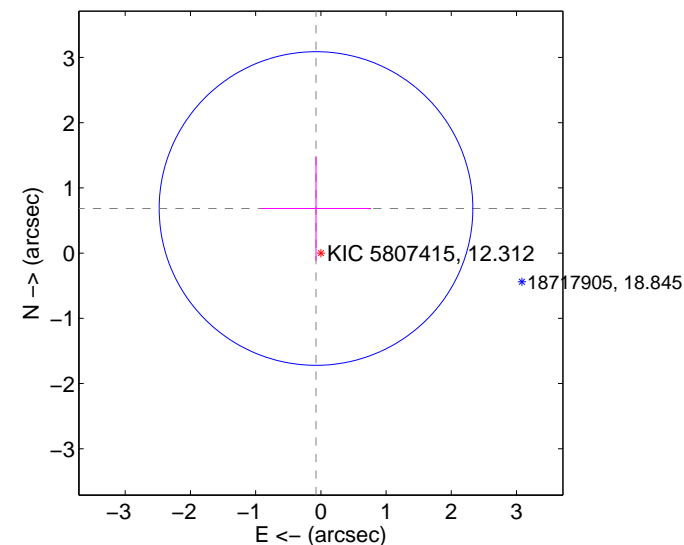
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

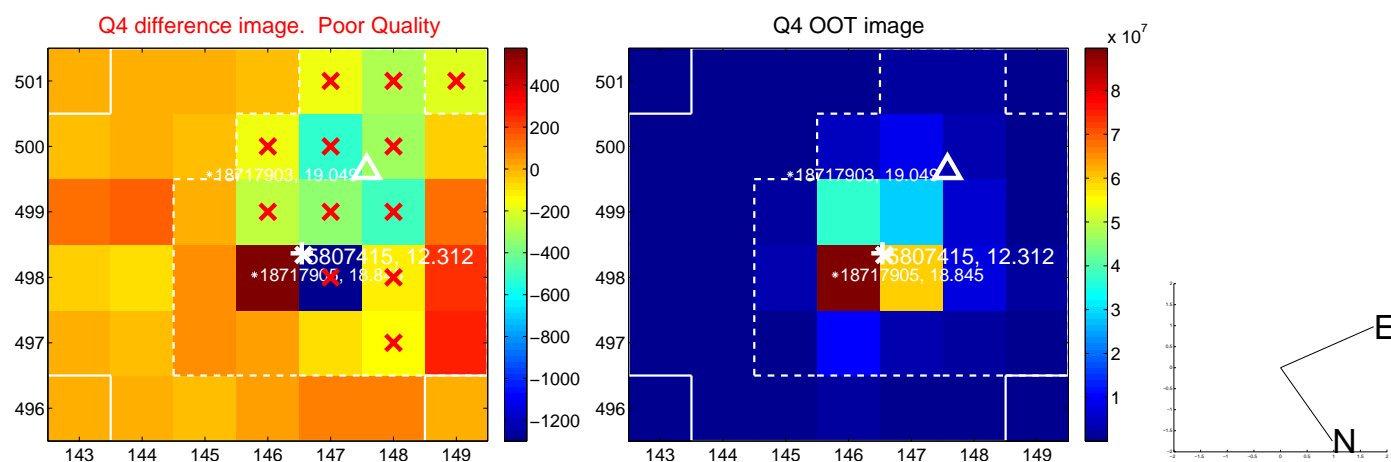
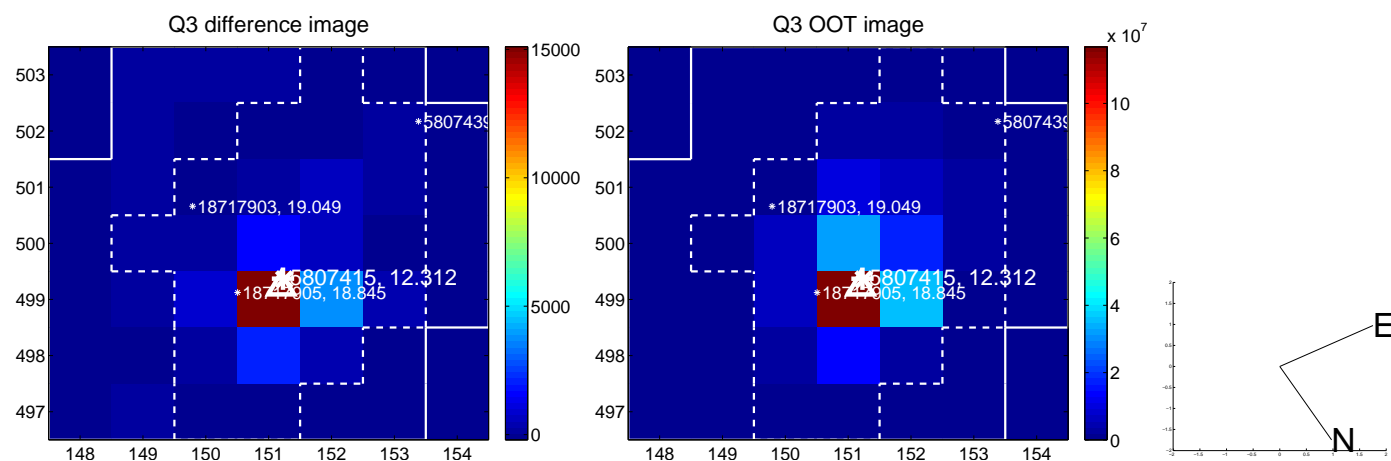
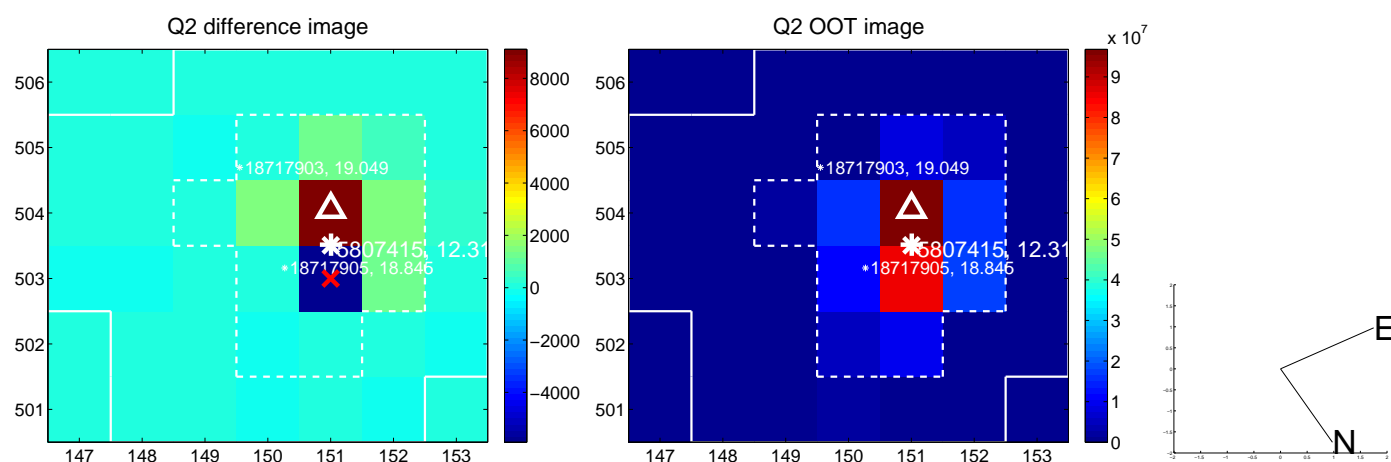
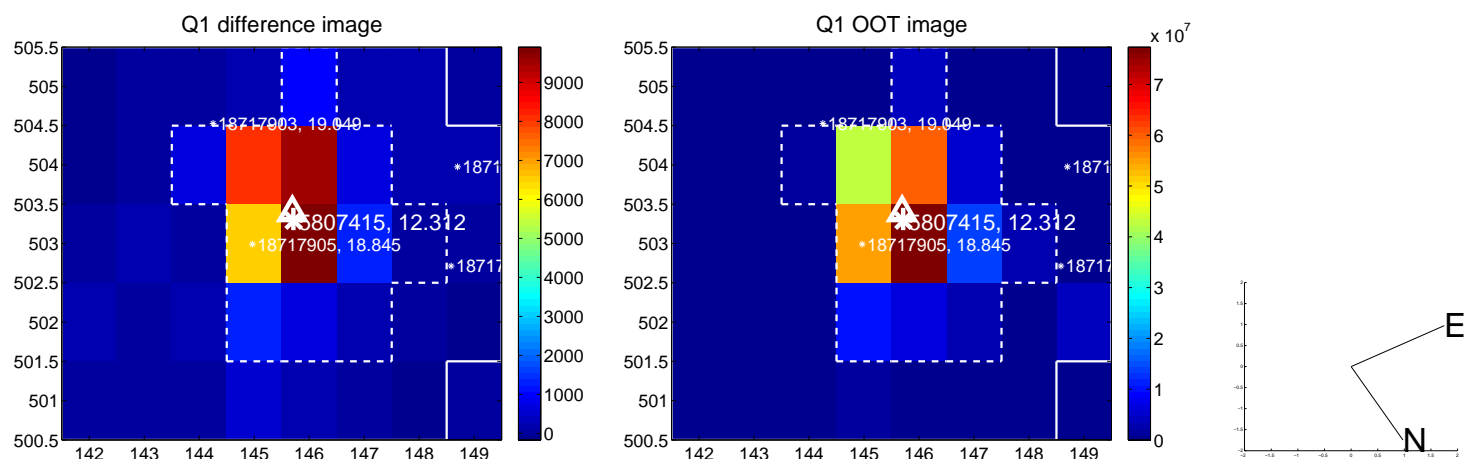


offset from photometric centroids

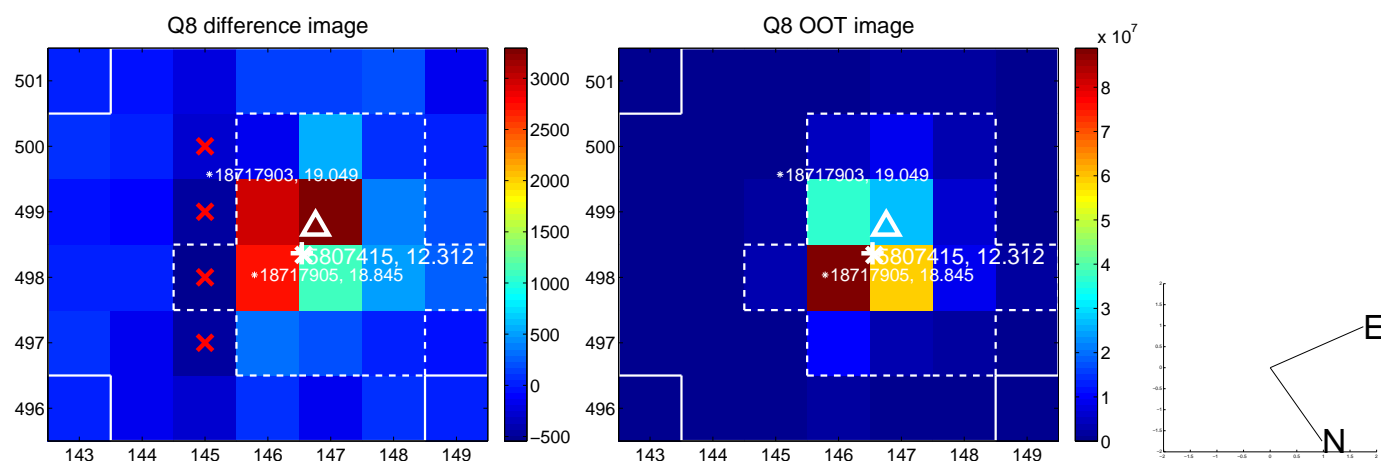
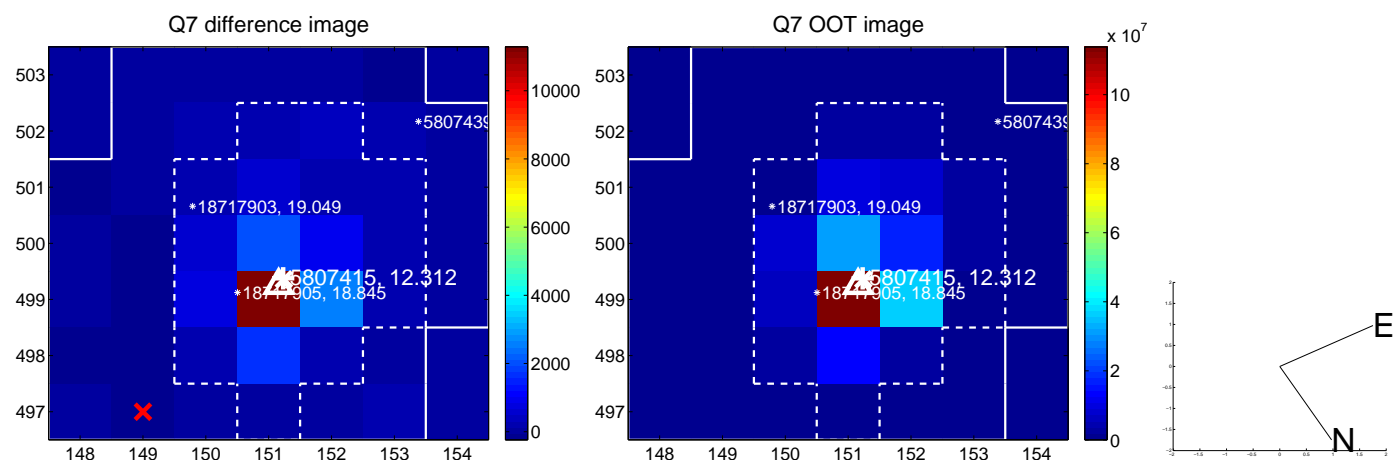
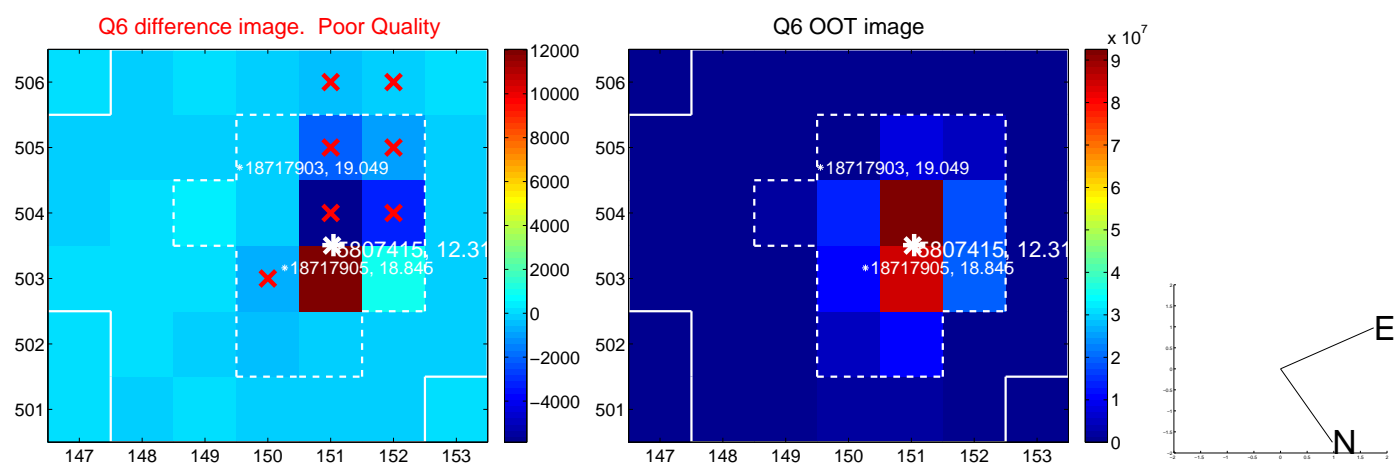
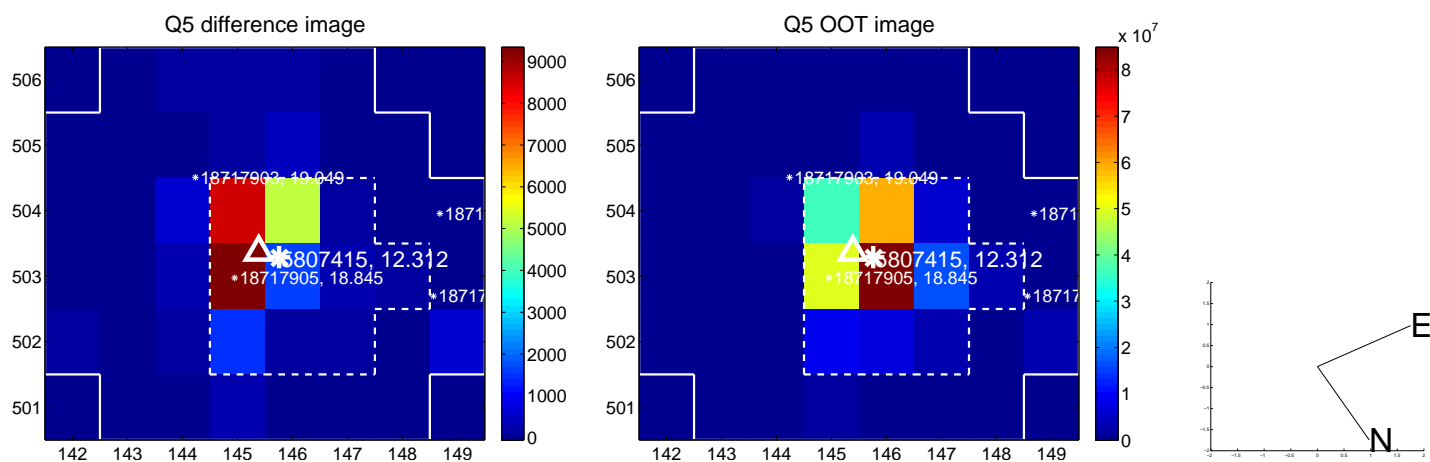


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

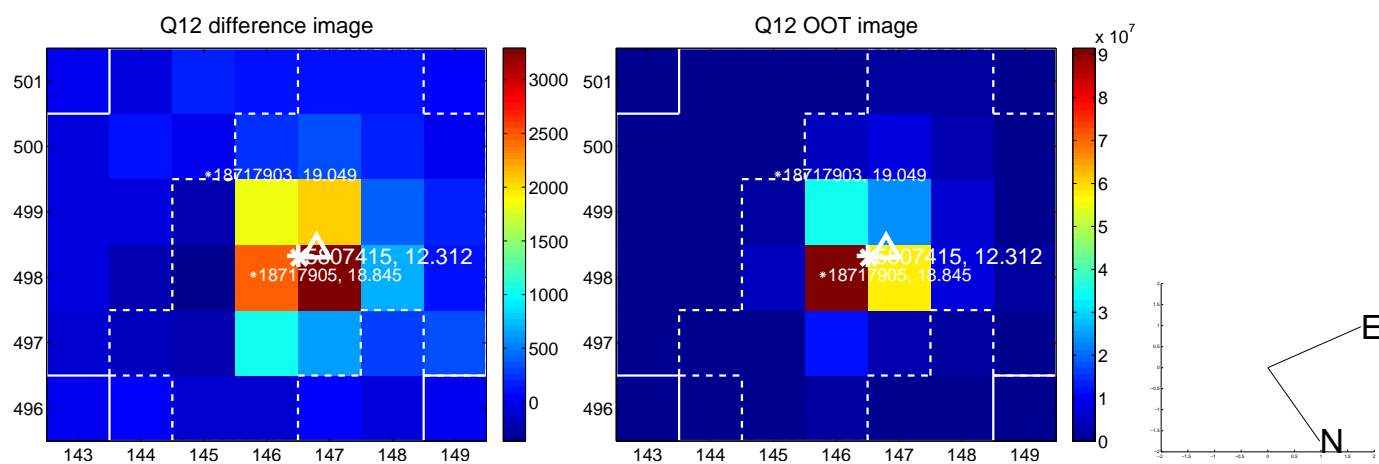
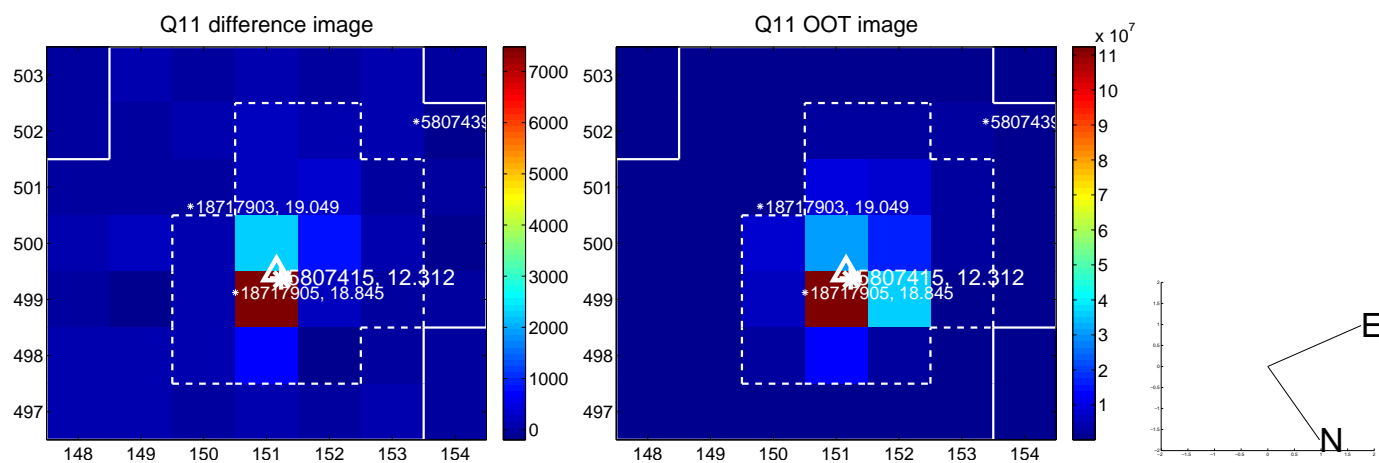
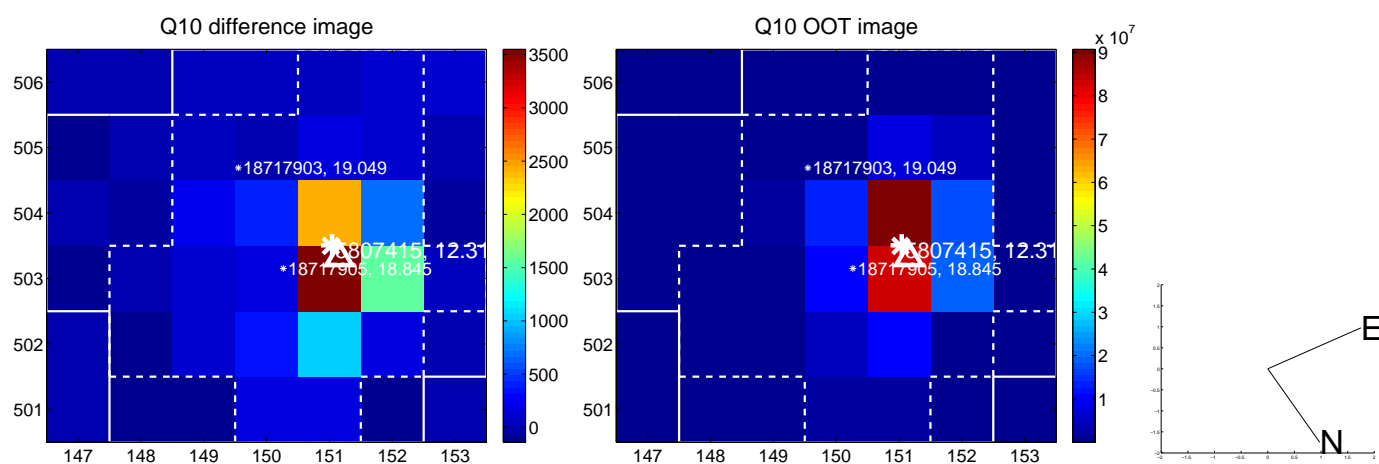
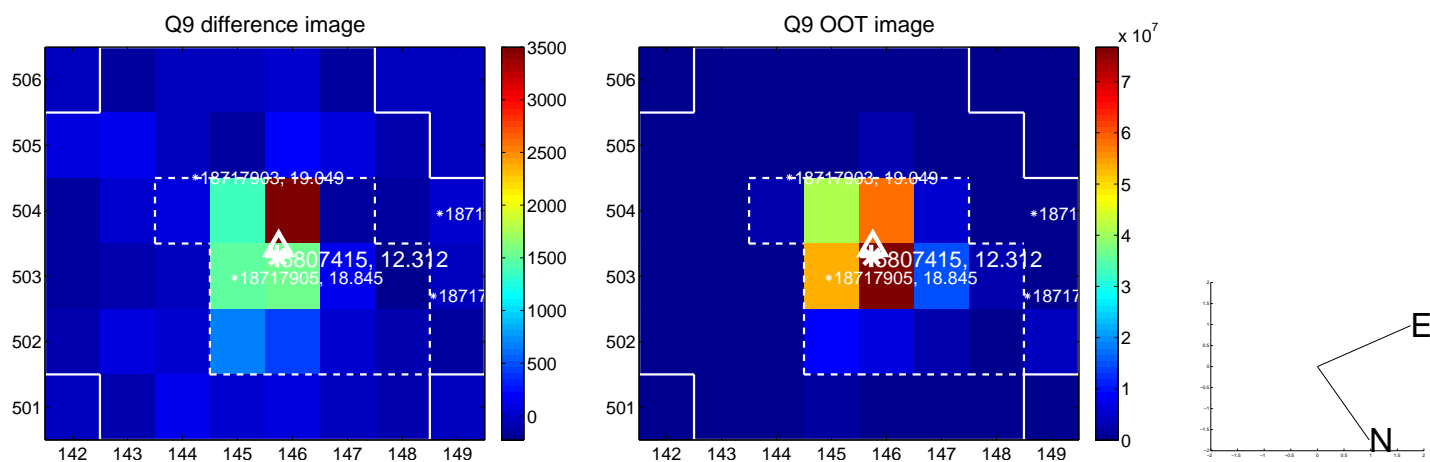
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



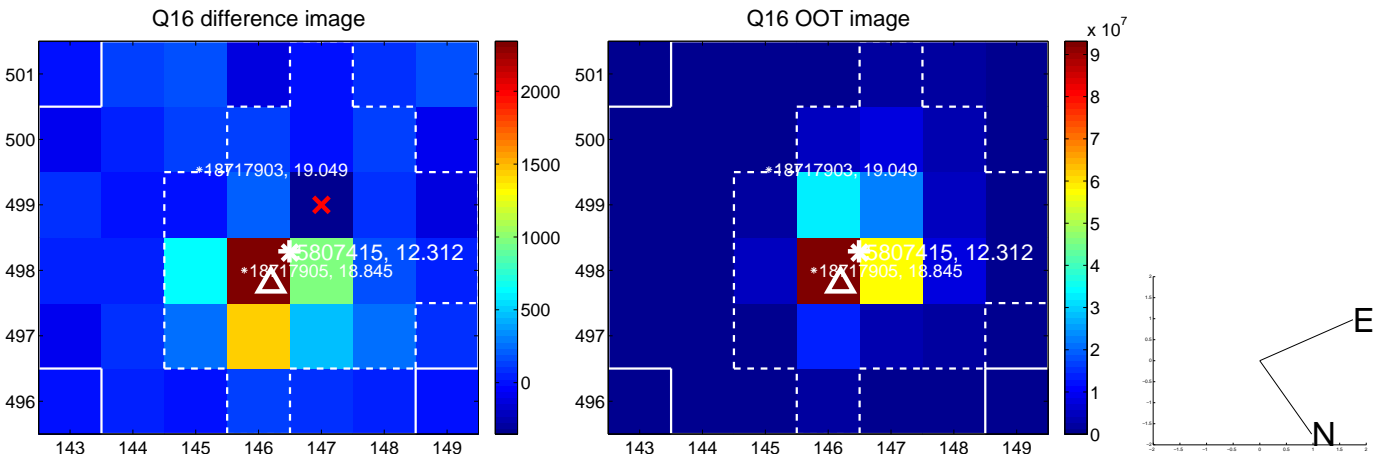
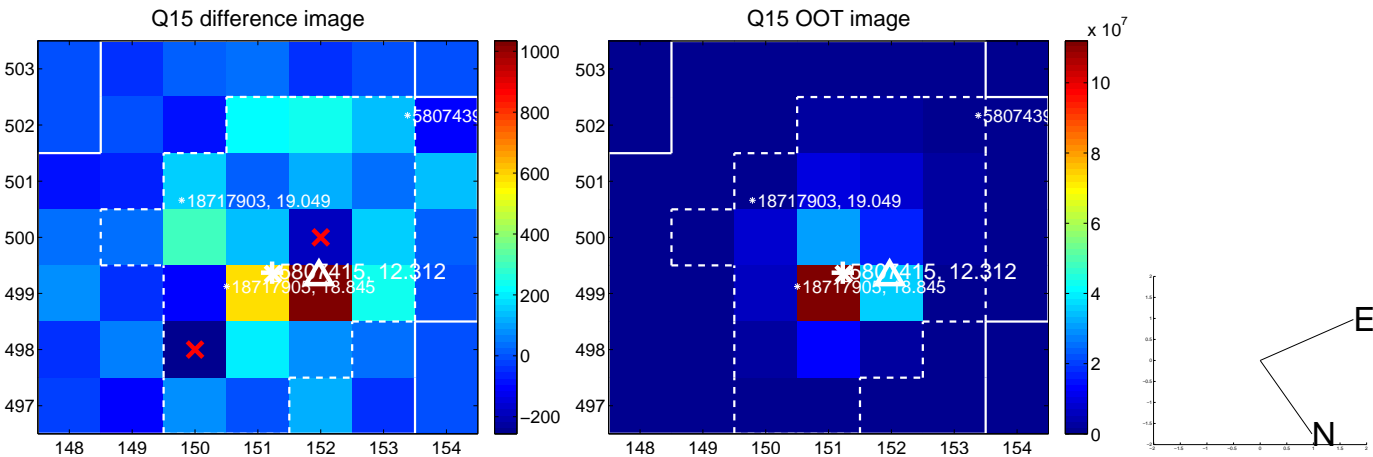
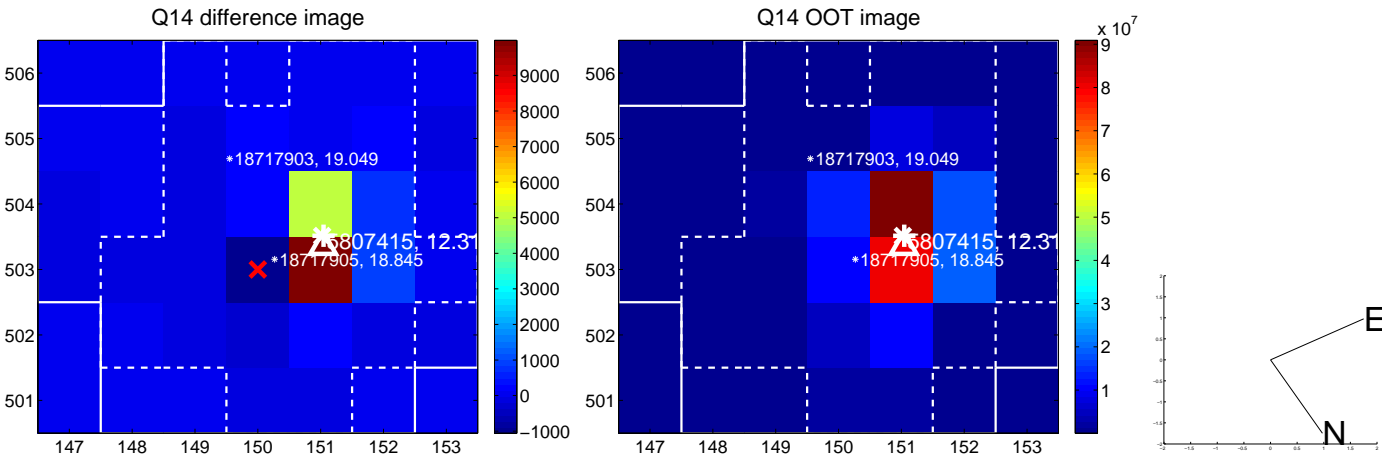
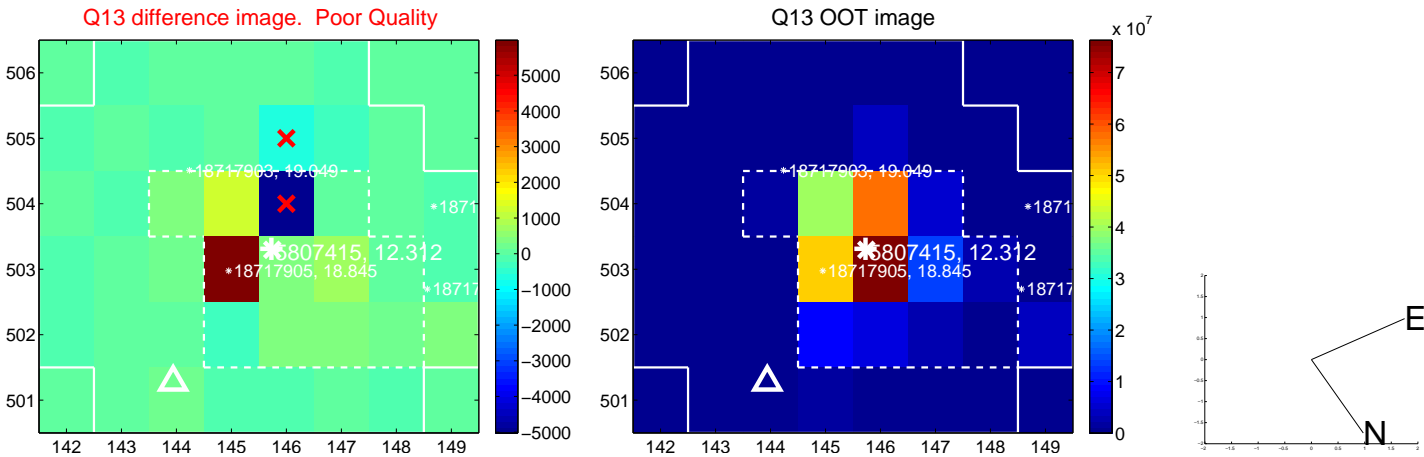
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

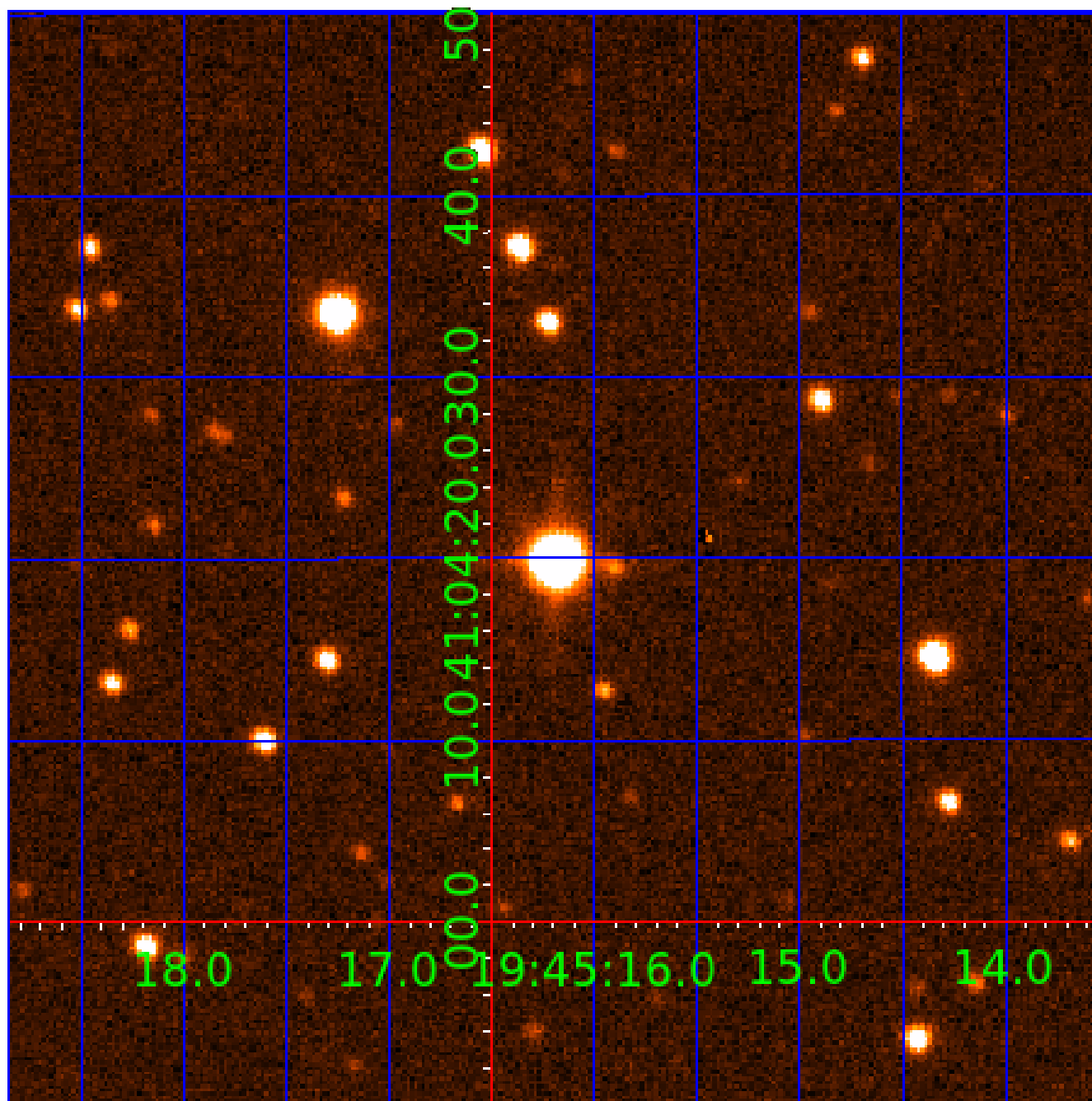


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005807415

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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Robovetter Results

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005807415-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005807415-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005807415-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
005807415-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

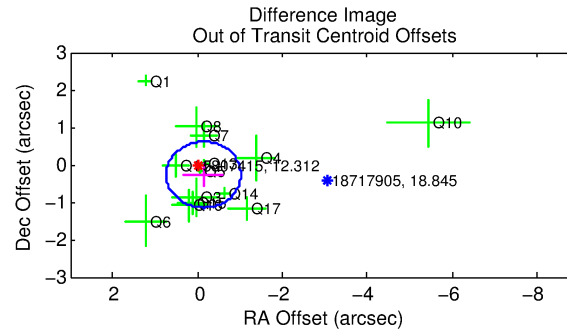
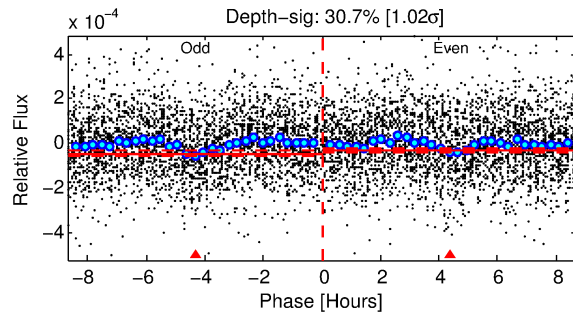
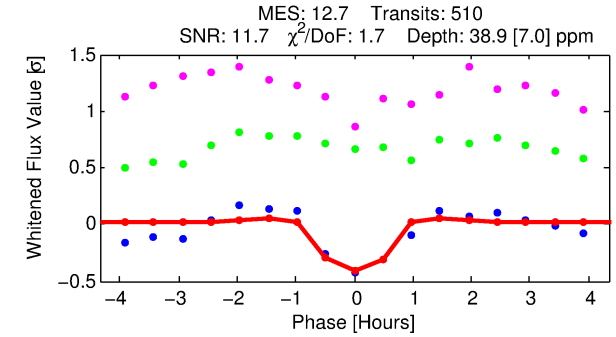
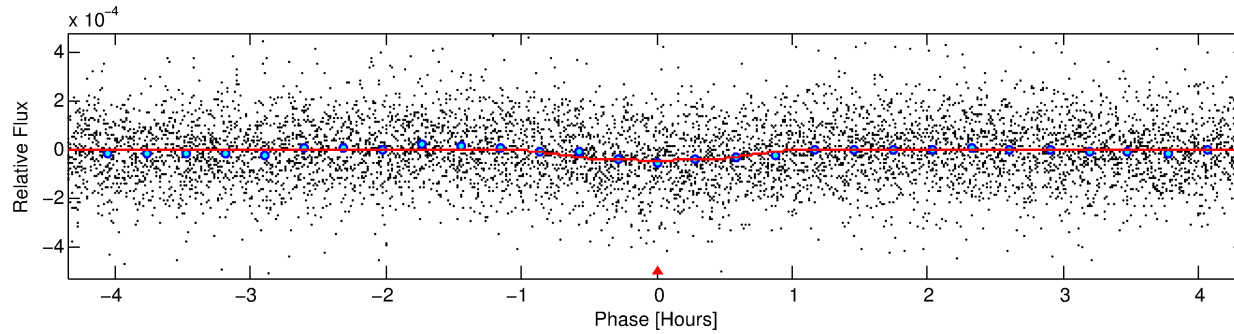
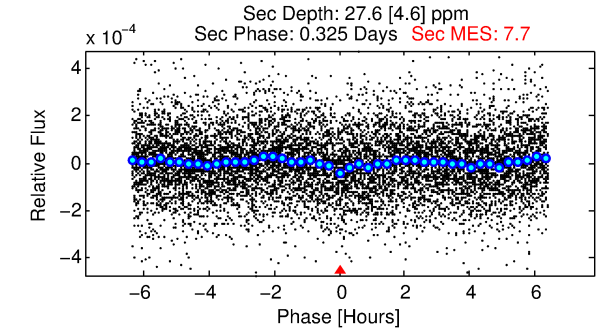
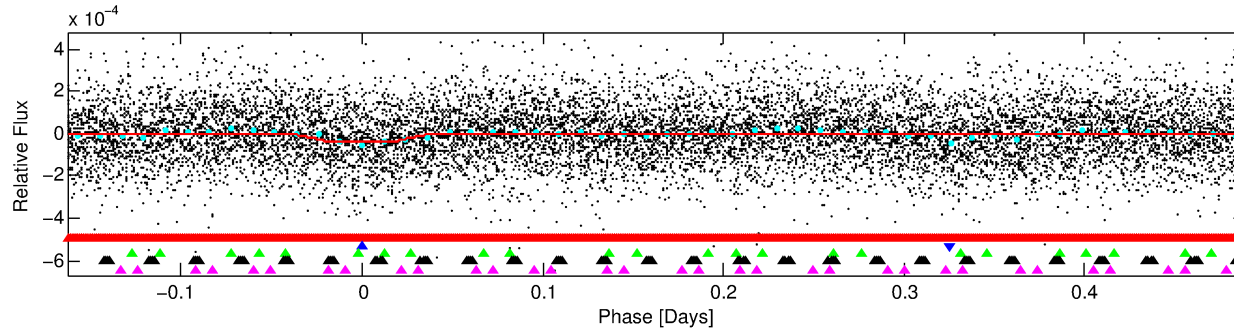
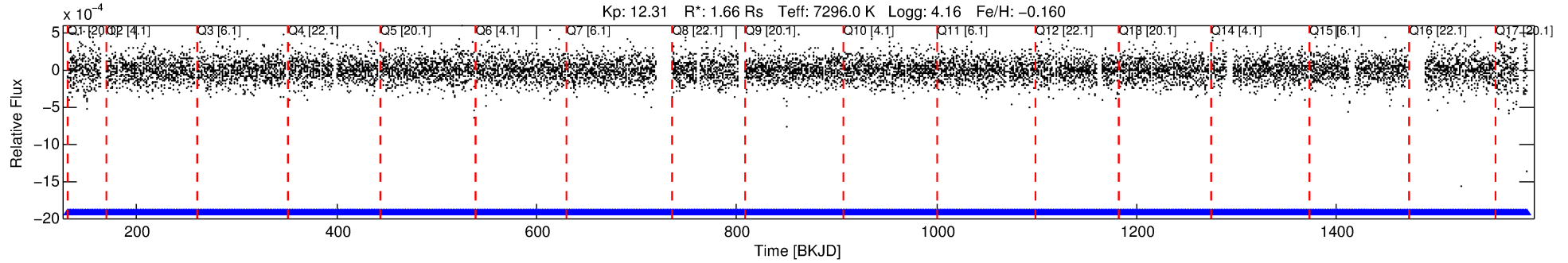
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005807415-02

No Significant Match Found

DV One-Page Summary

KIC: 5807415 Candidate: 2 of 5 Period: 0.652 d



DV Fit Results:

Period = 0.65207 [0.00001] d
Epoch = 131.7740 [0.0026] BKJD
Rp/R* = 0.0065 [0.0019]
a/R* = 1.97 [2.61]
b = 0.87 [0.51]
Seff = 25163.30 [9963.28]
Teq = 3212 [318] K
Rp = 1.18 [0.51] Re
a = 0.0167 [0.0042] AU
Ag = 3.04 [2.17] [0.94σ]
Teffp = 6554 [1047] K [3.06σ]

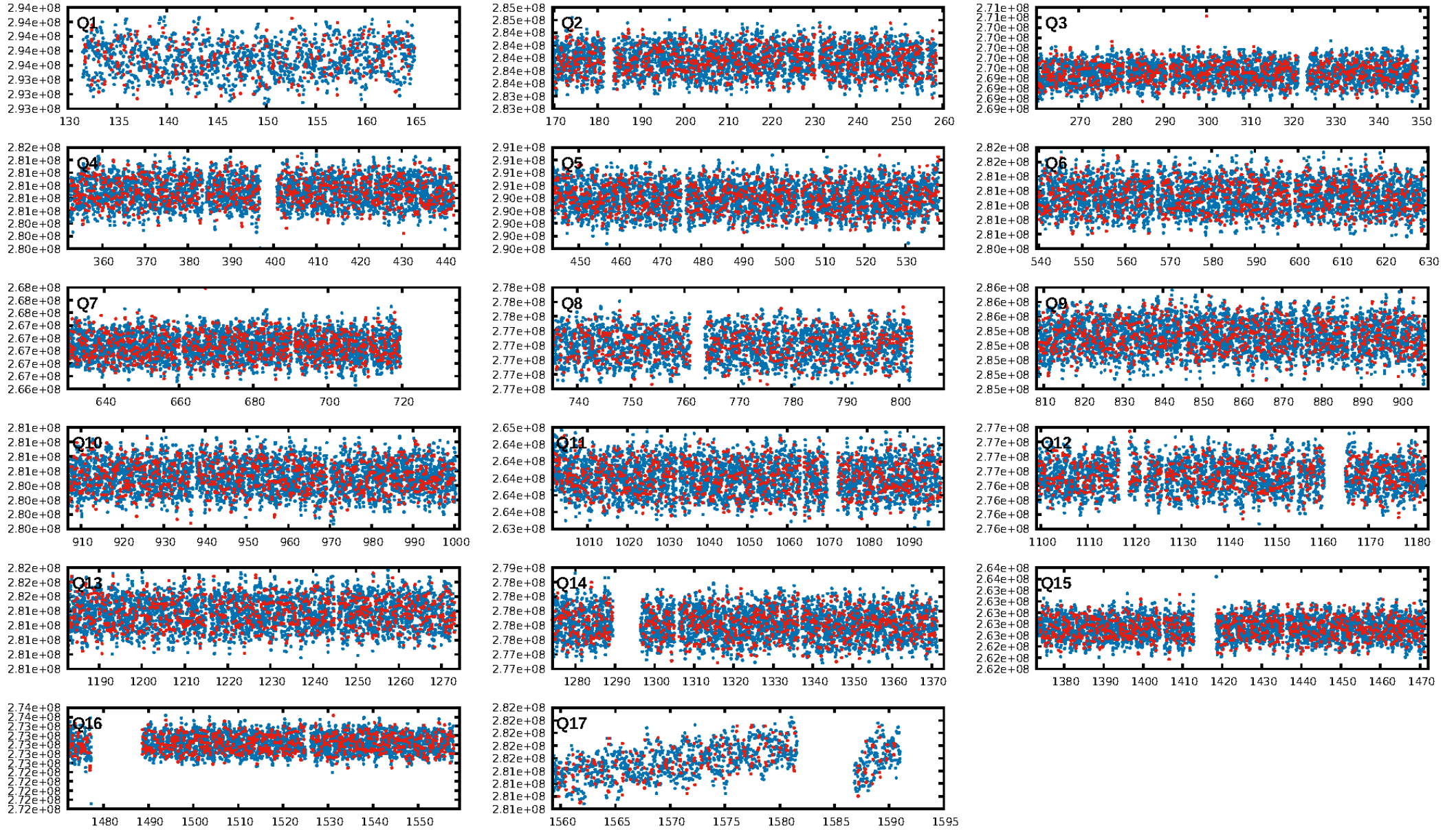
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 79.1% [1.26σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [488/488]
GhostDiagnostic-chr: -1.448
Centroid-sig: 1.0%
Centroid-so: 0.599 arcsec [1.45σ]
OotOffset-rm: 0.304 arcsec [1.03σ]
KicOffset-rm: 0.362 arcsec [1.18σ]
OotOffset-st: 3/4/3/4 [14]
KicOffset-st: 3/4/3/4 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [17/17]

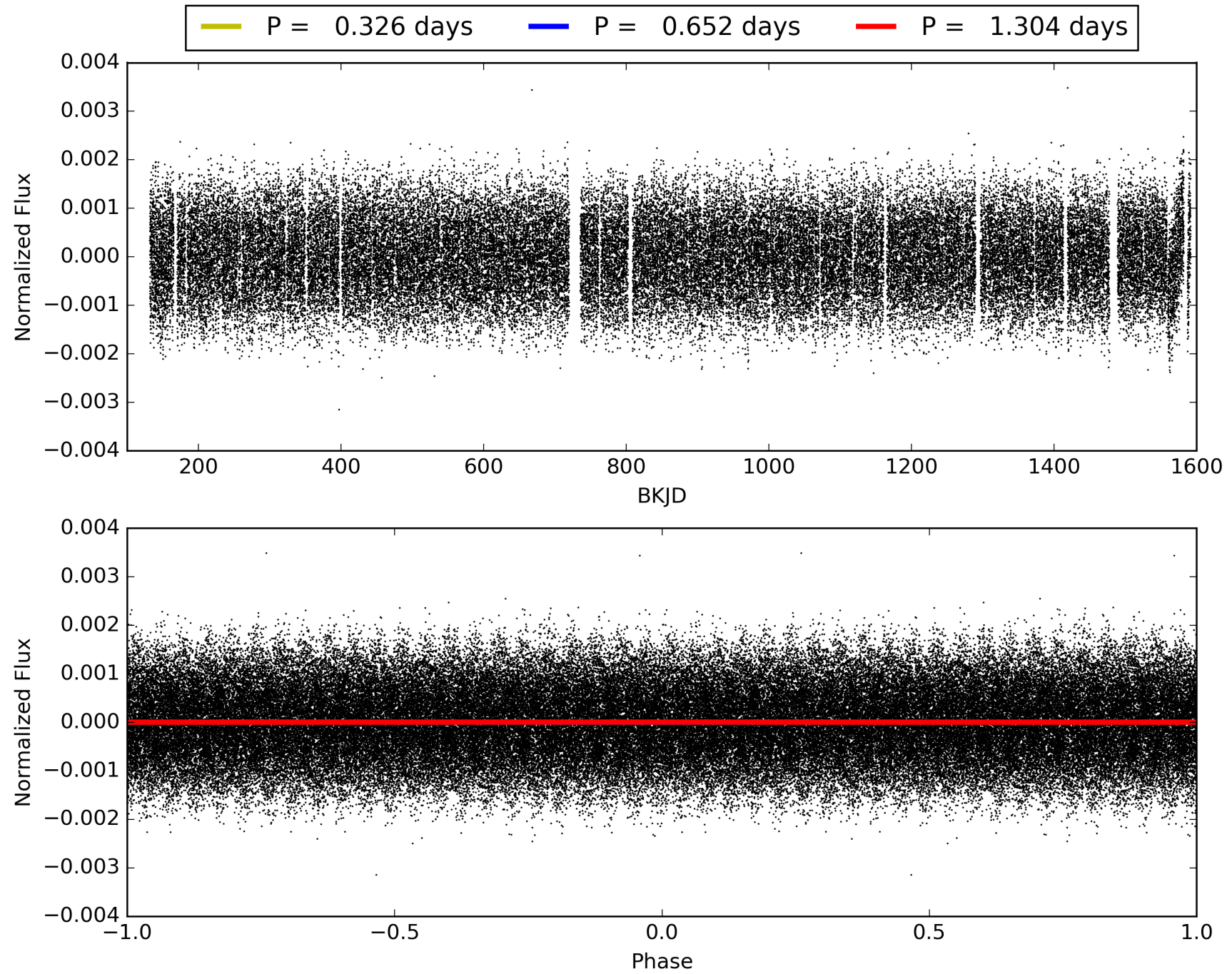
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:49:51 Z

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

TCE 005807415-02, PDC Light Curves

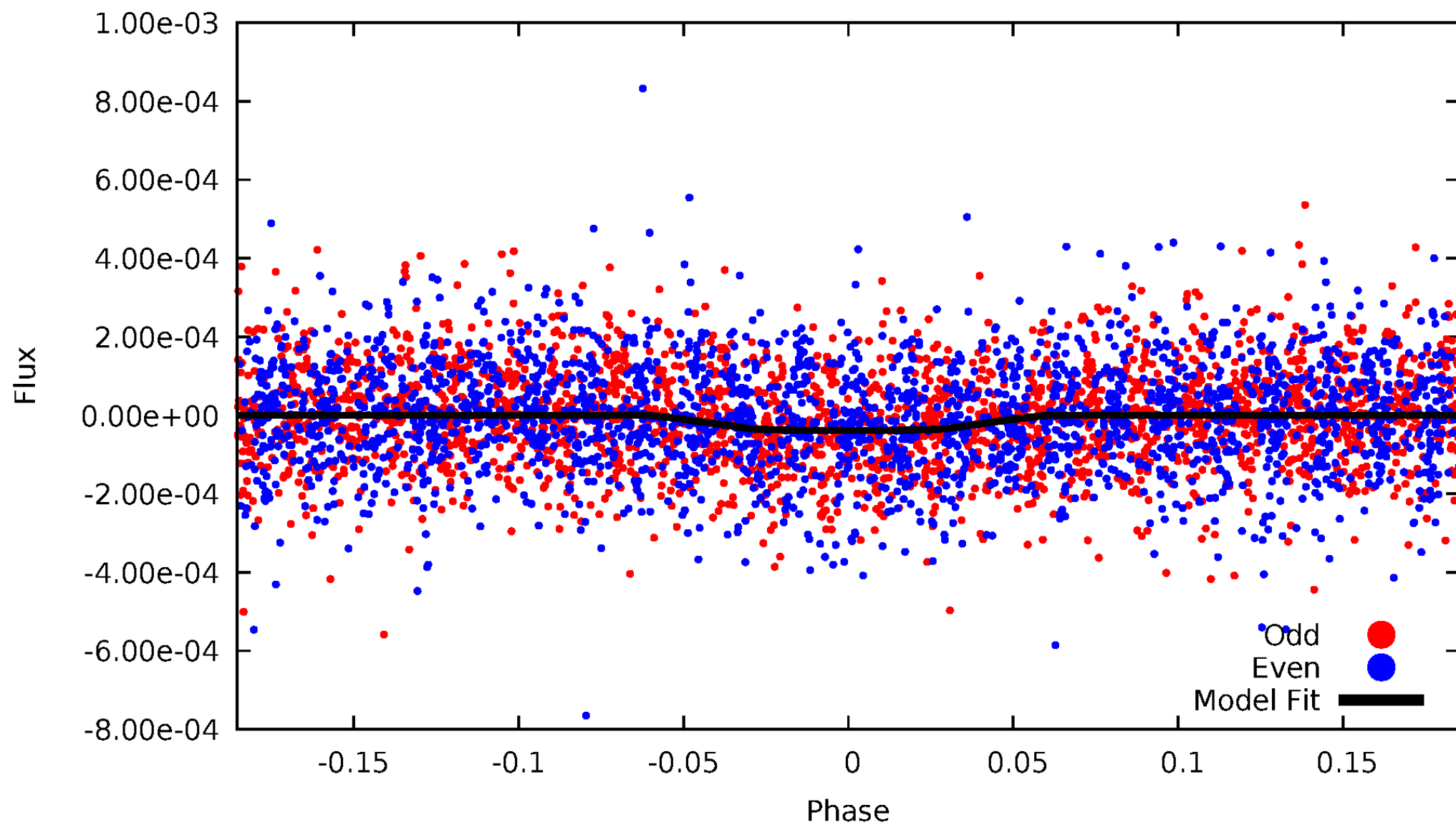


TCE 005807415-02



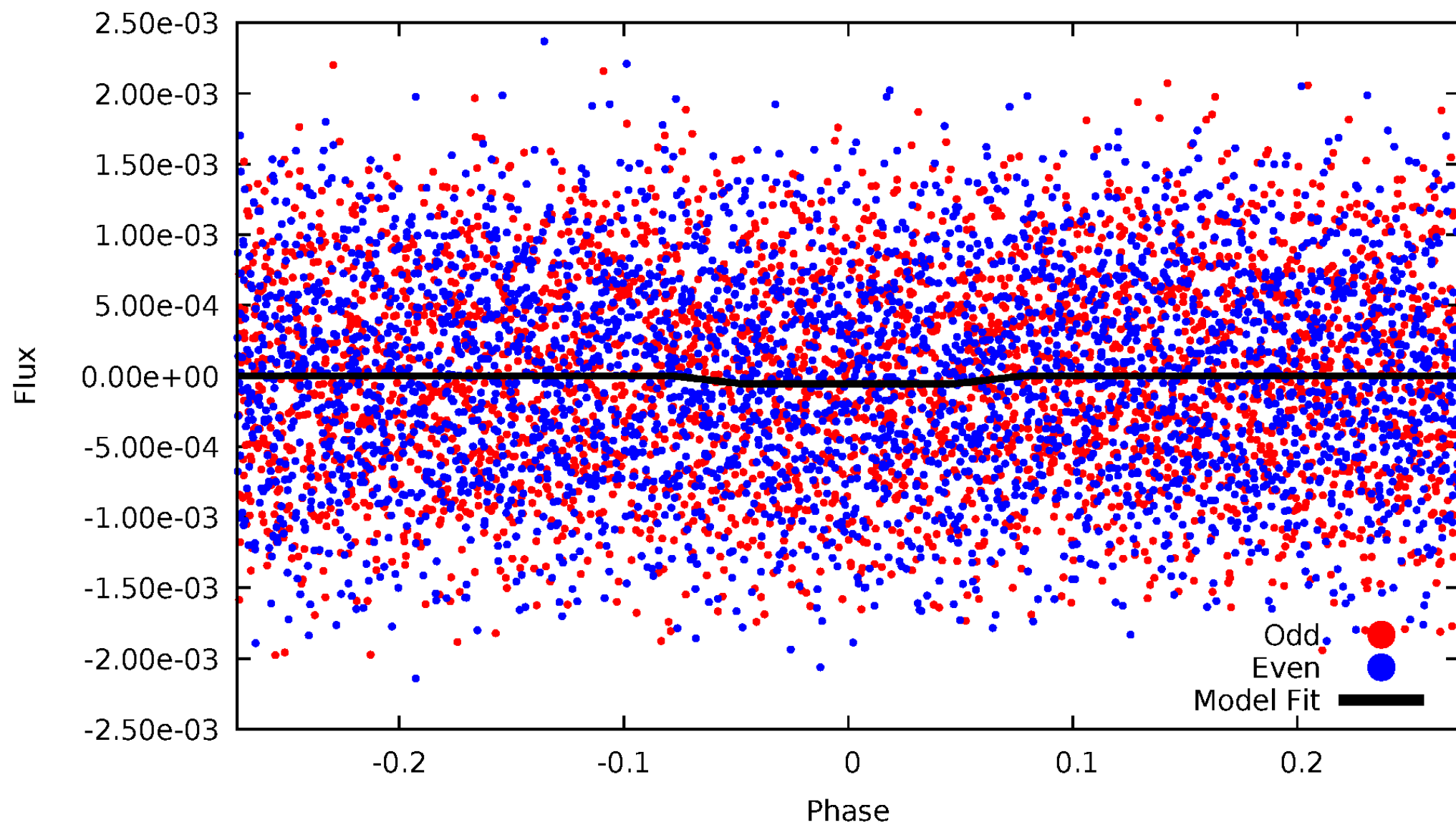
DV Odd/Even

TCE 005807415-02



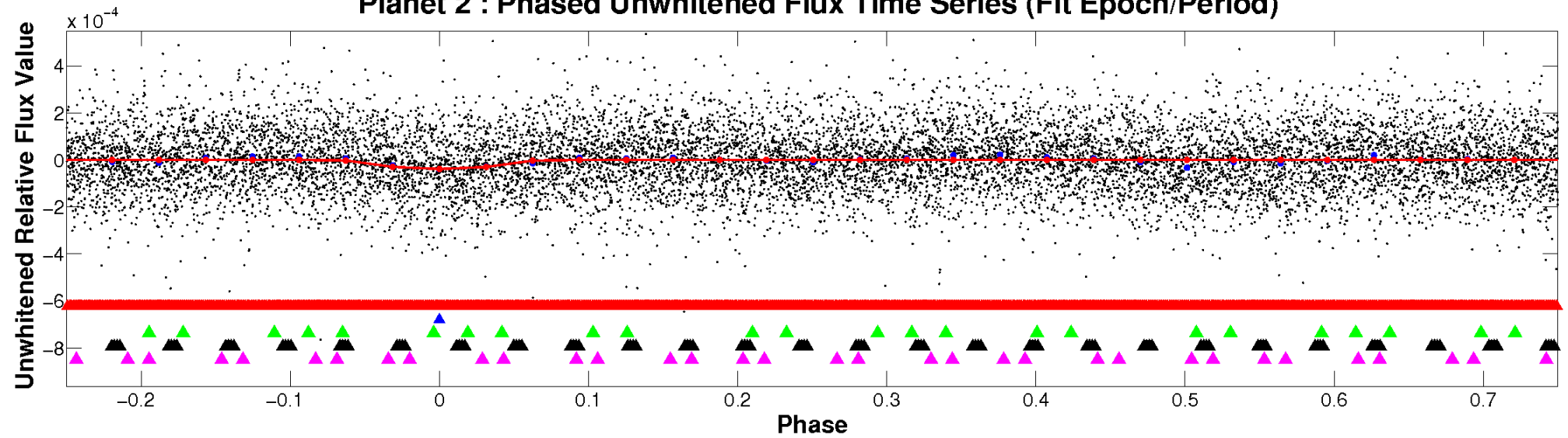
ALT Odd/Even

TCE 005807415-02

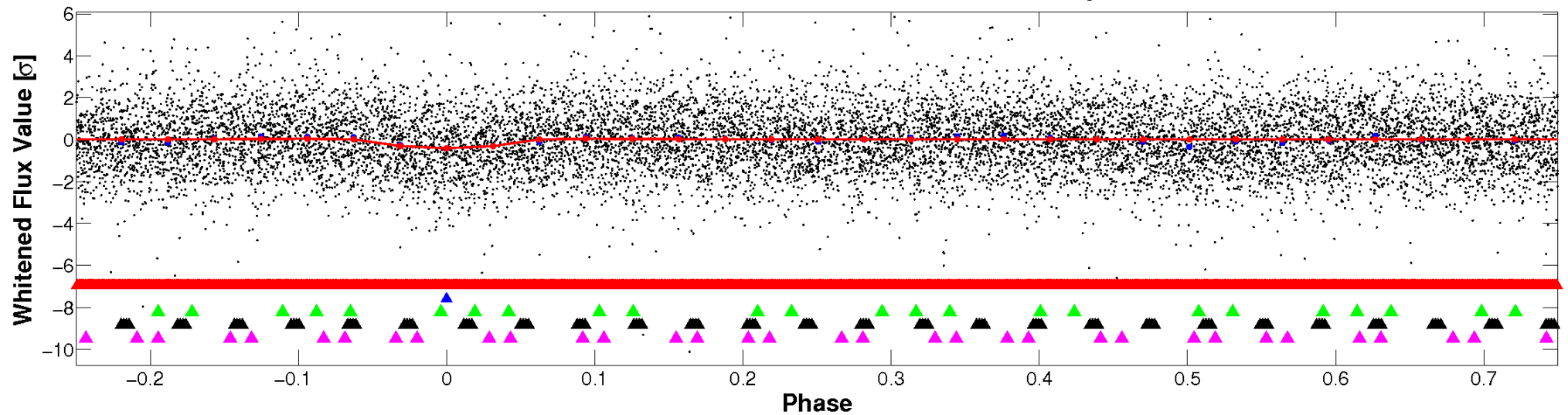


Non-Whitened Vs. Whitened Light Curve

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

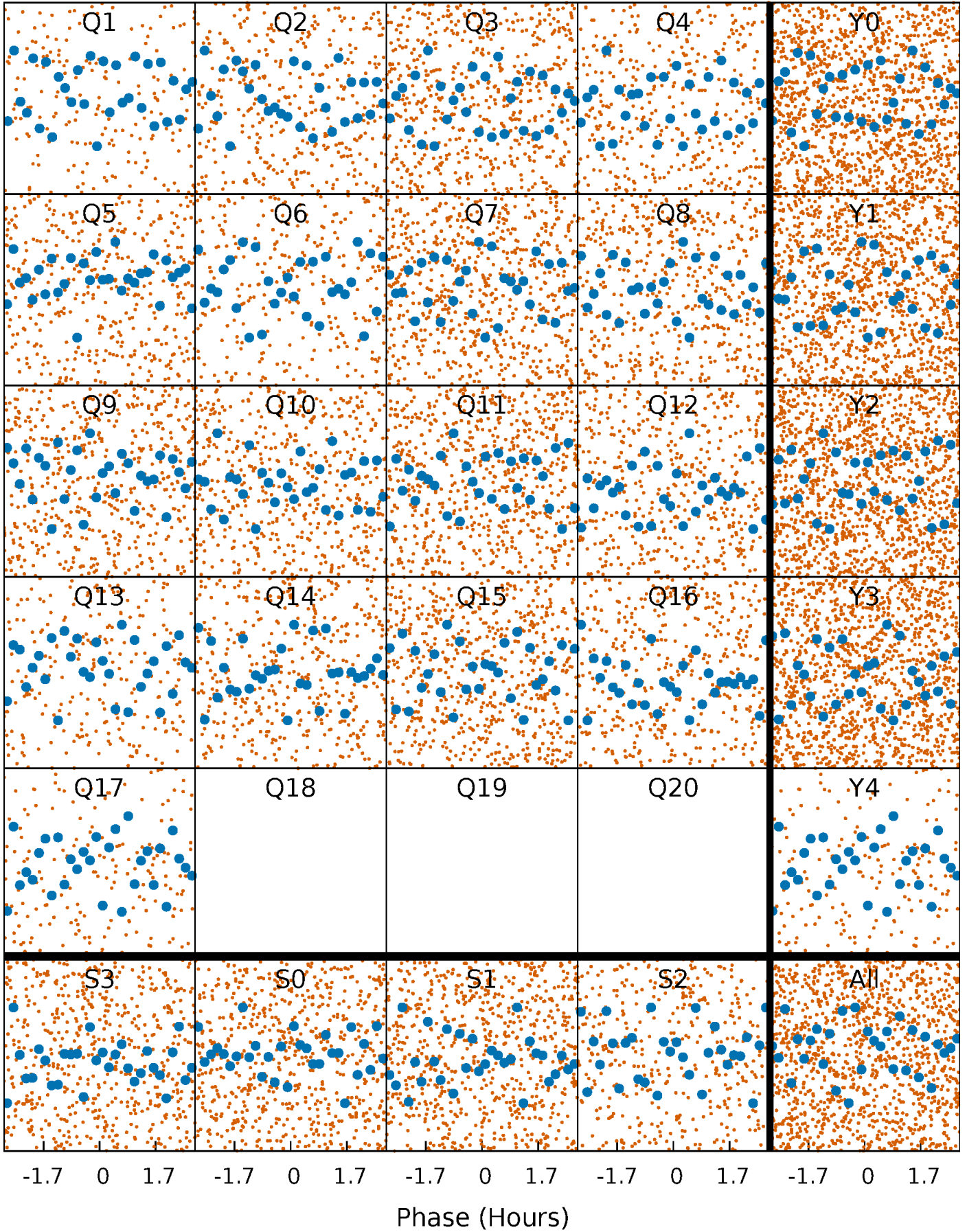


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



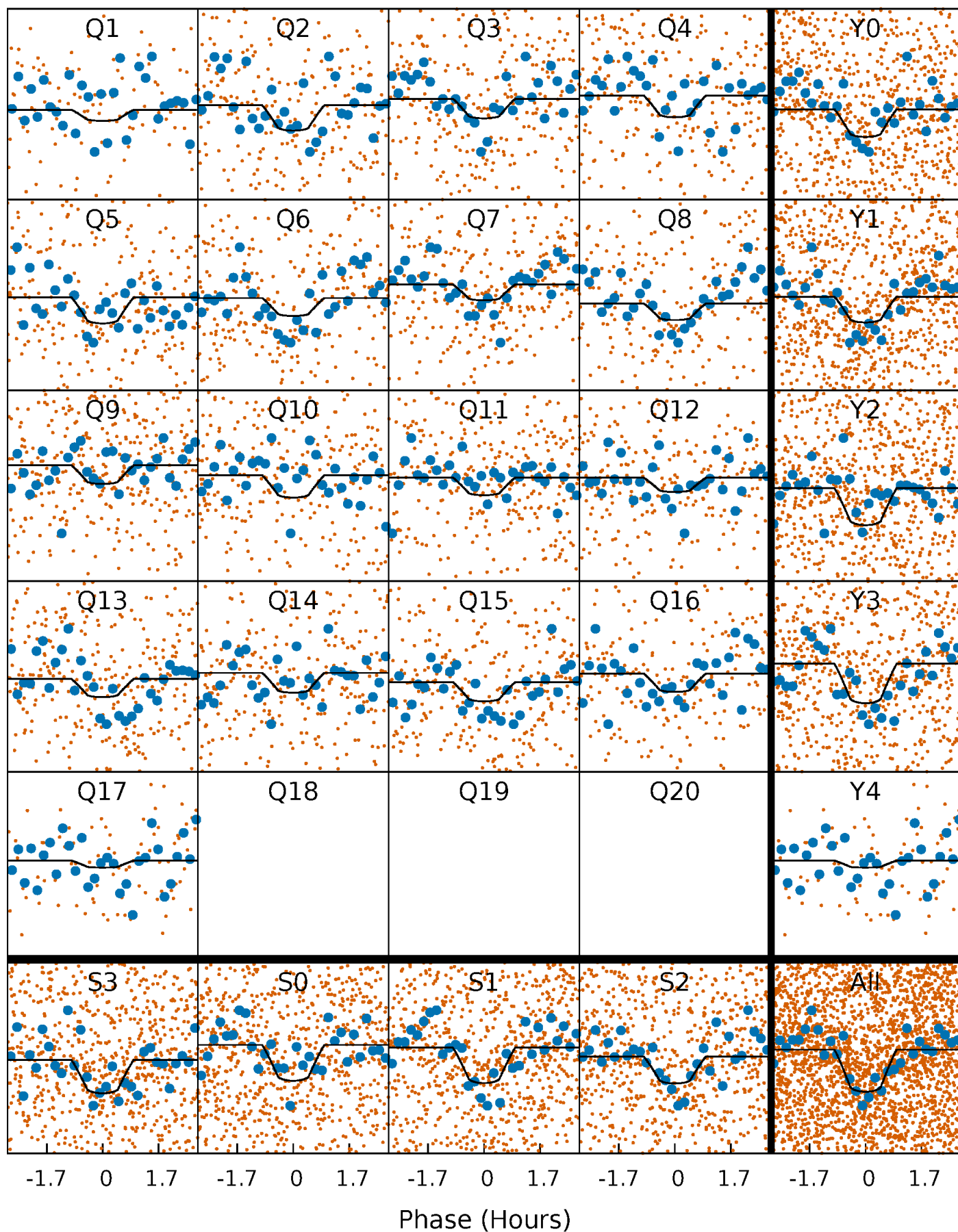
PDC Quarter-Phased Transit Curves

TCE 005807415-02 P= 0.652072 Days $T_0=131.773952$ (BKJD)



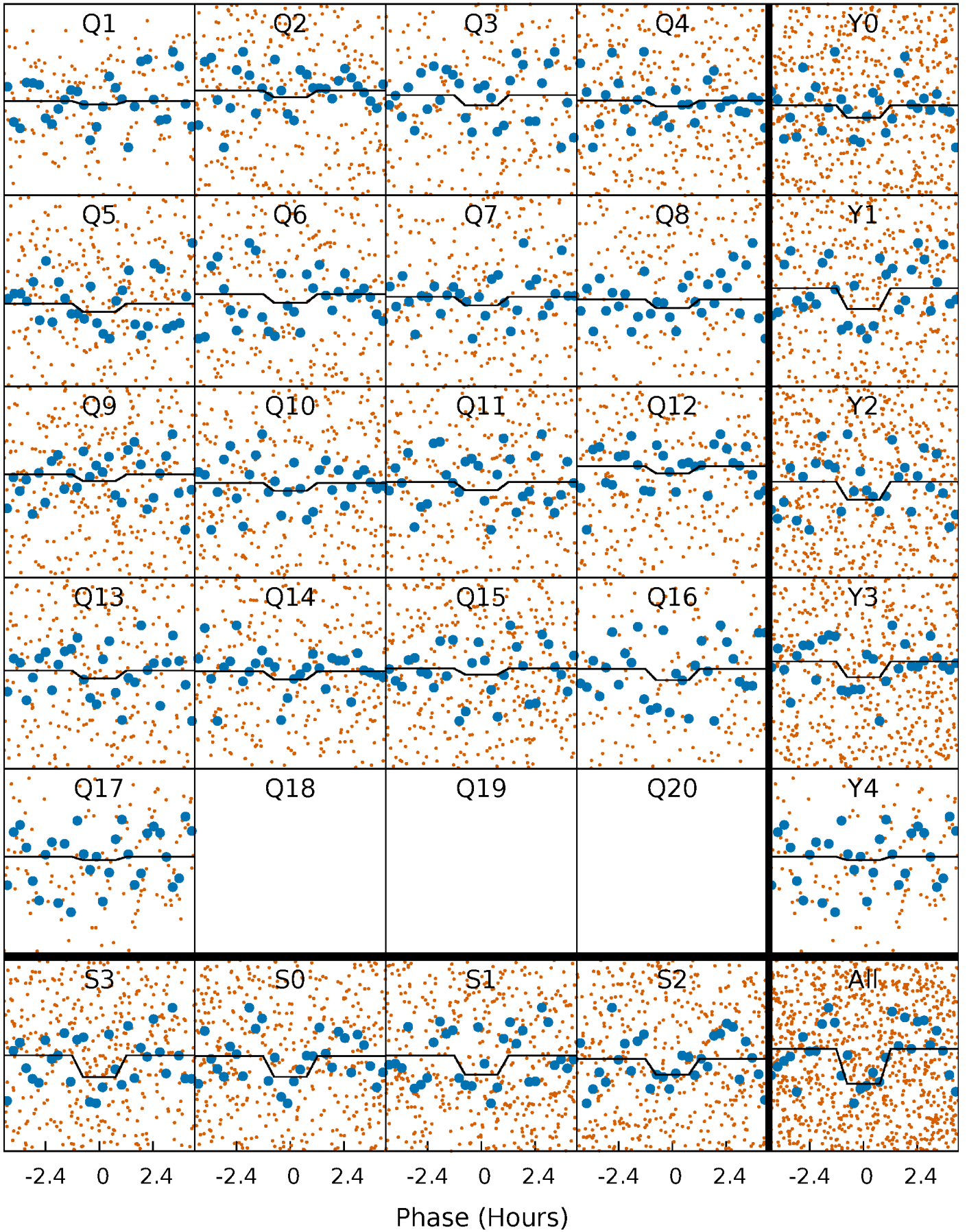
DV Quarter-Phased Transit Curves

TCE 005807415-02 P= 0.652072 Days $T_0=131.773952$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

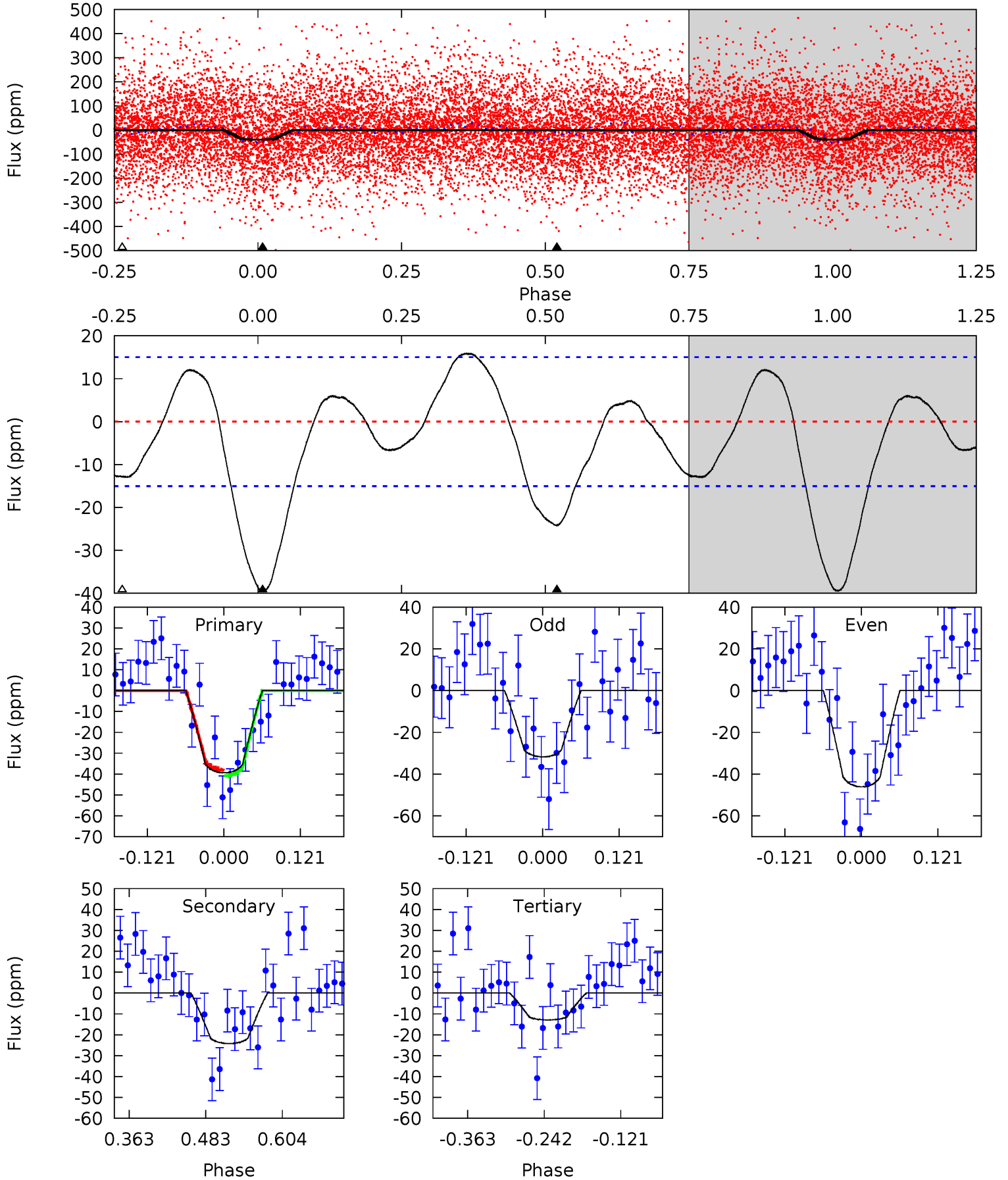
TCE 005807415-02 P= 0.652085 Days $T_0=131.759411$ (BKJD)



DV Model-Shift Uniqueness Test

005807415-02, P = 0.652072 Days, E = 131.121880 Days

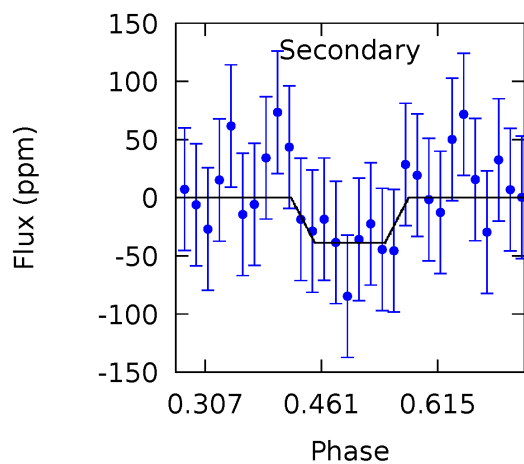
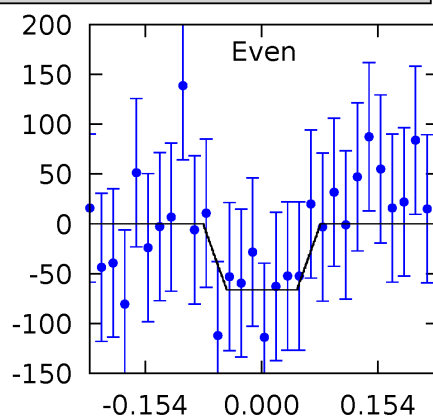
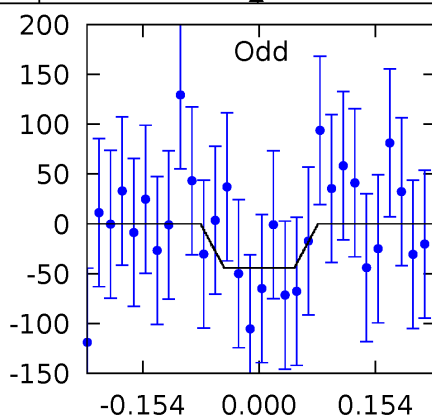
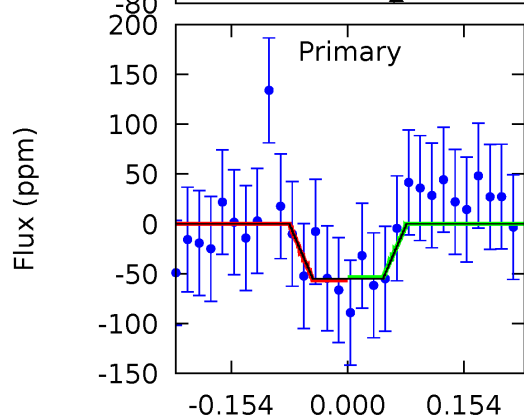
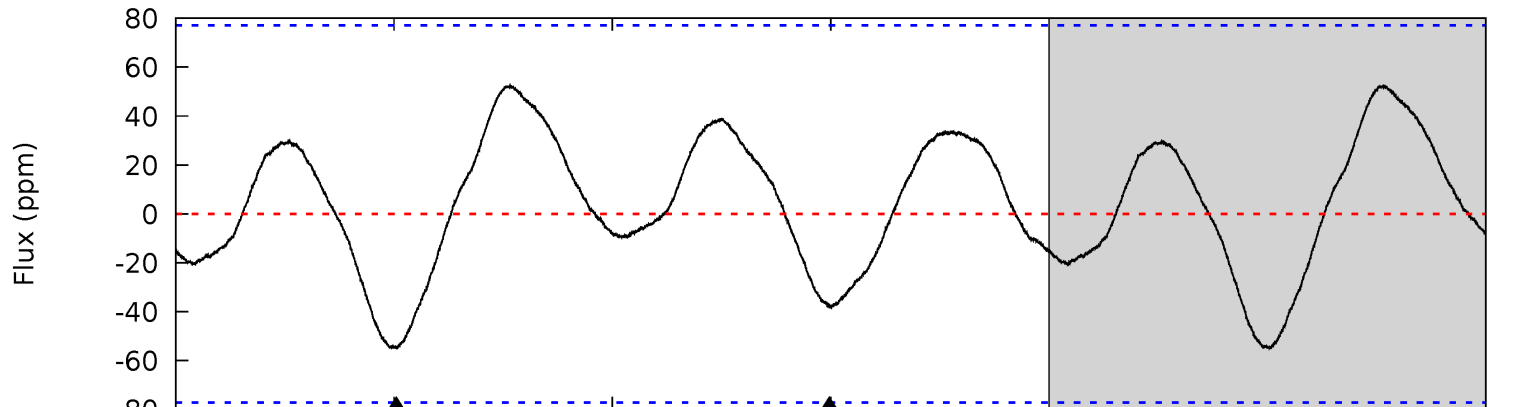
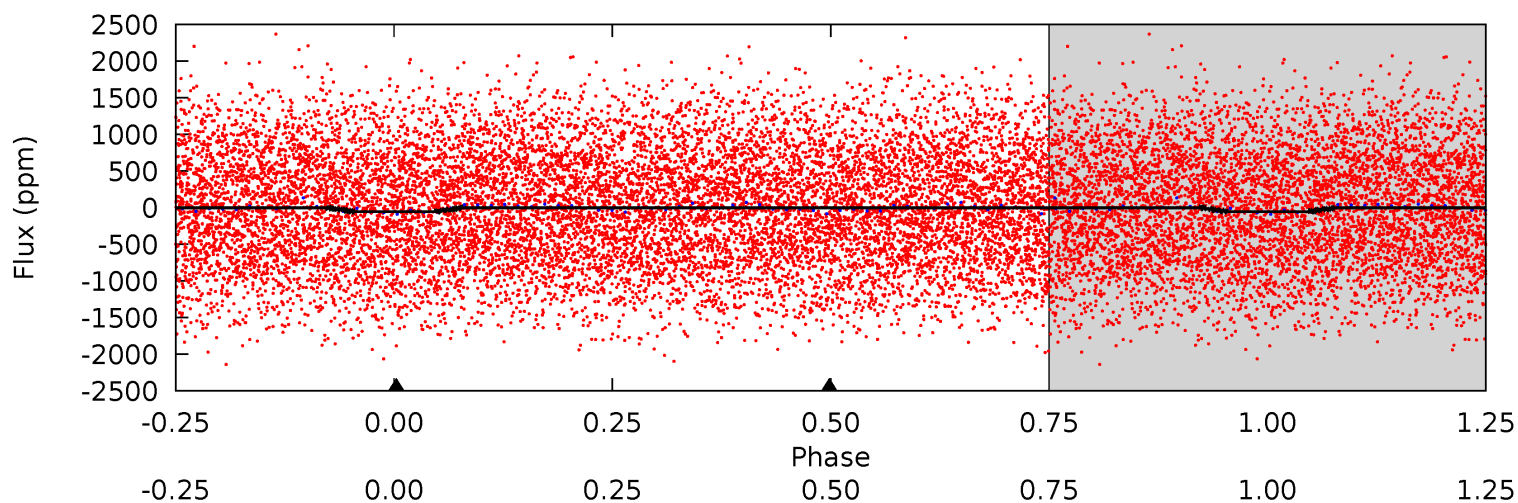
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	7.28	3.88	0	4.52	1.55	2.53	7.98	11.9	3.41	7.28	2.16	1.05	0.29	0.40



Alt Model-Shift Uniqueness Test

005807415-02, P = 0.652085 Days, E = 131.107326 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.20	2.24	0	0	4.47	1.43	1.01	3.20	3.20	2.24	2.24	0.64	0.93	0.49	0.08



Stellar Parameters For KIC 005807415

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7296^{+228}_{-304}	$4.161^{+0.128}_{-0.192}$	$-0.160^{+0.250}_{-0.350}$	$1.663^{+0.512}_{-0.341}$	$1.460^{+0.211}_{-0.234}$	$0.447^{+0.286}_{-0.236}$
	+3%/-4%	+3%/-5%	+156%/-219%	+31%/-21%	+14%/-16%	+64%/-53%
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 005807415-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24±3	$1.20^{+0.42}_{-0.36}$	4526^{+360}_{-294}	6019^{+1493}_{-845}	$2.538^{+2.588}_{-1.157}$
Alt.	-39±17	$1.42^{+0.42}_{-0.38}$	4518^{+340}_{-283}	6300^{+1391}_{-1209}	$2.989^{+2.798}_{-1.752}$

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 $A_{obs} \gg 1.0$

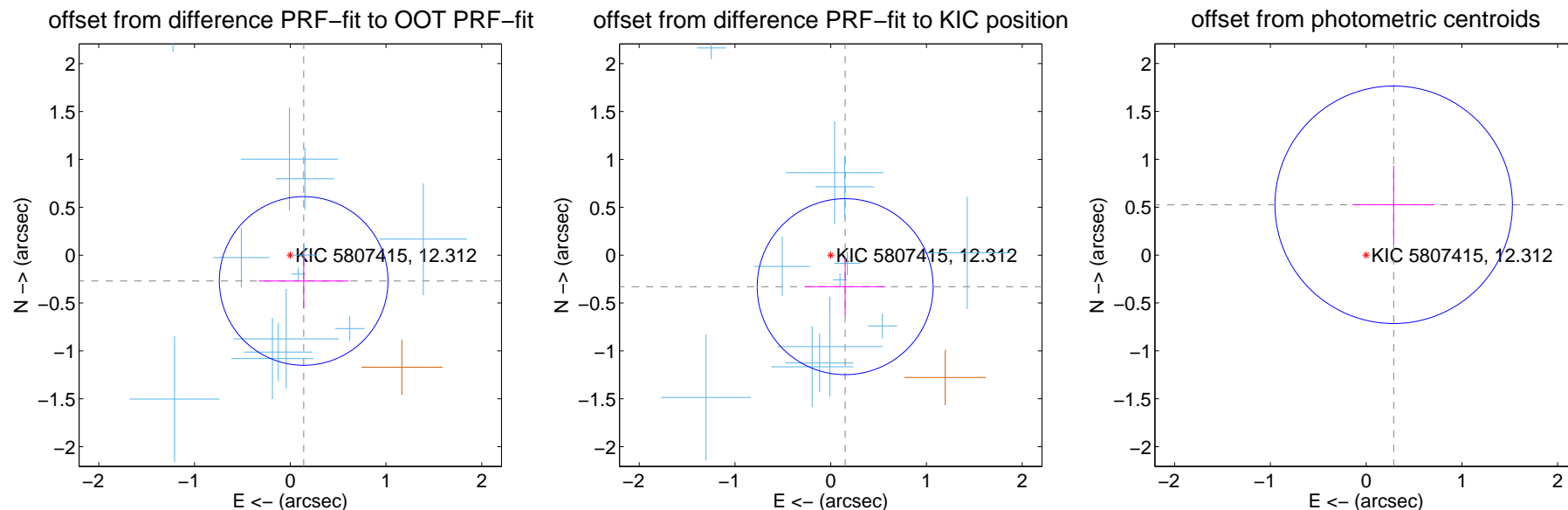
DV Centroid Data

Supplemental centroid analysis for 005807415-02. Kepler magnitude: 12.31. Transit SNR 11.71

There are 12 quarters with good PRF difference image offsets

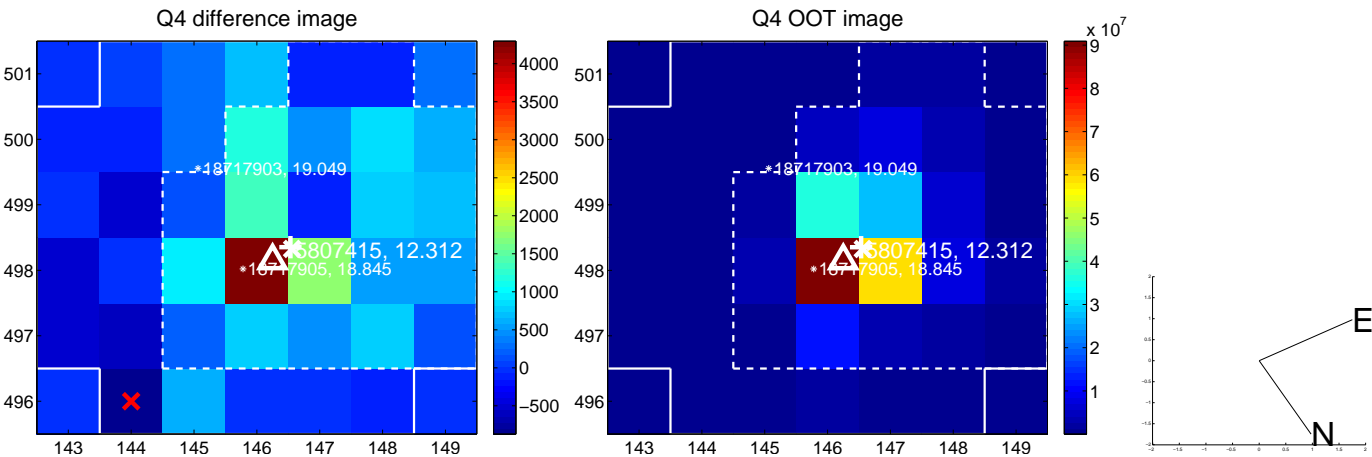
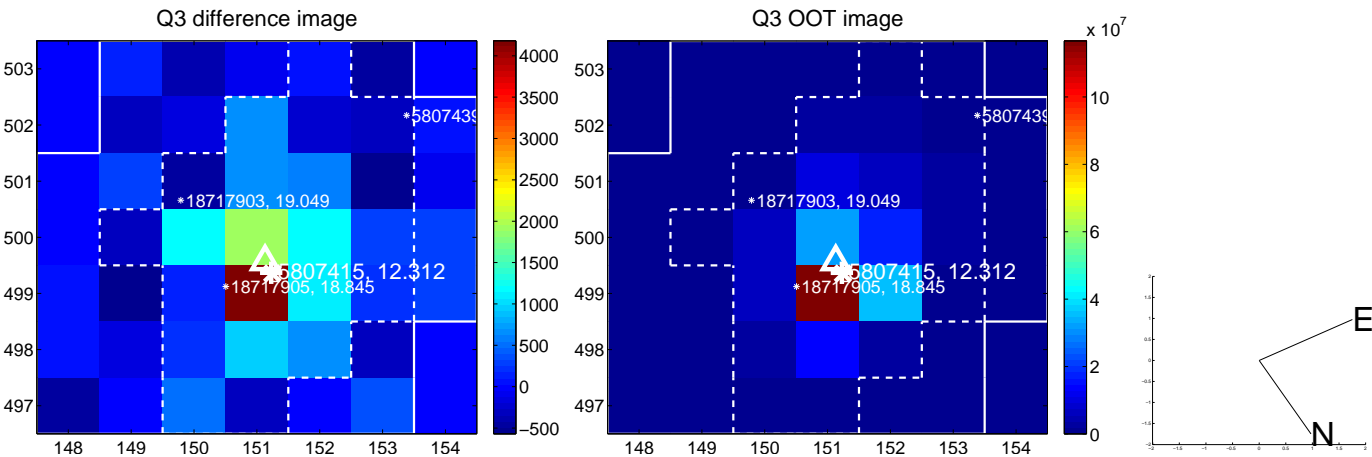
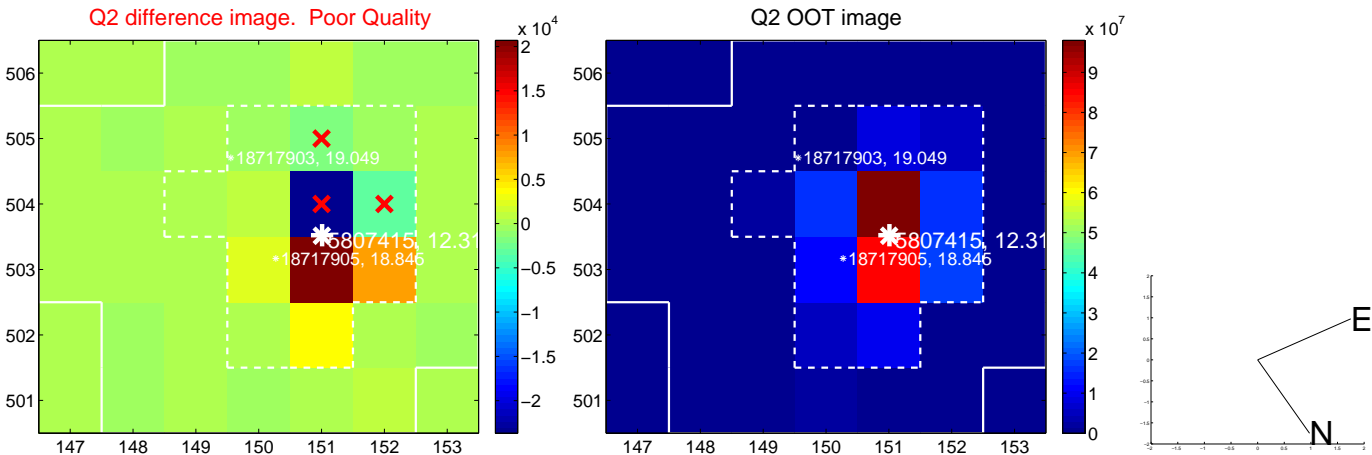
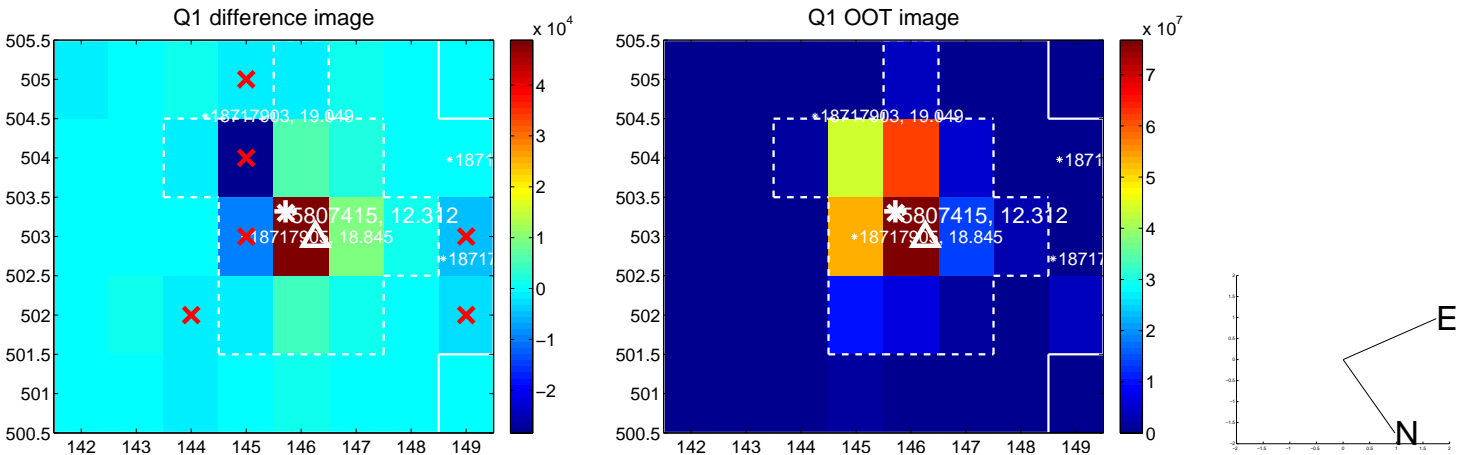
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.304 ± 0.294	1.03	-0.140 ± 0.469	-0.270 ± 0.289
PRF-fit source offset from KIC position	0.362 ± 0.306	1.18	-0.151 ± 0.423	-0.329 ± 0.305
photometric centroid source offset	0.60 ± 0.41	1.45	-0.29 ± 0.43	0.53 ± 0.41

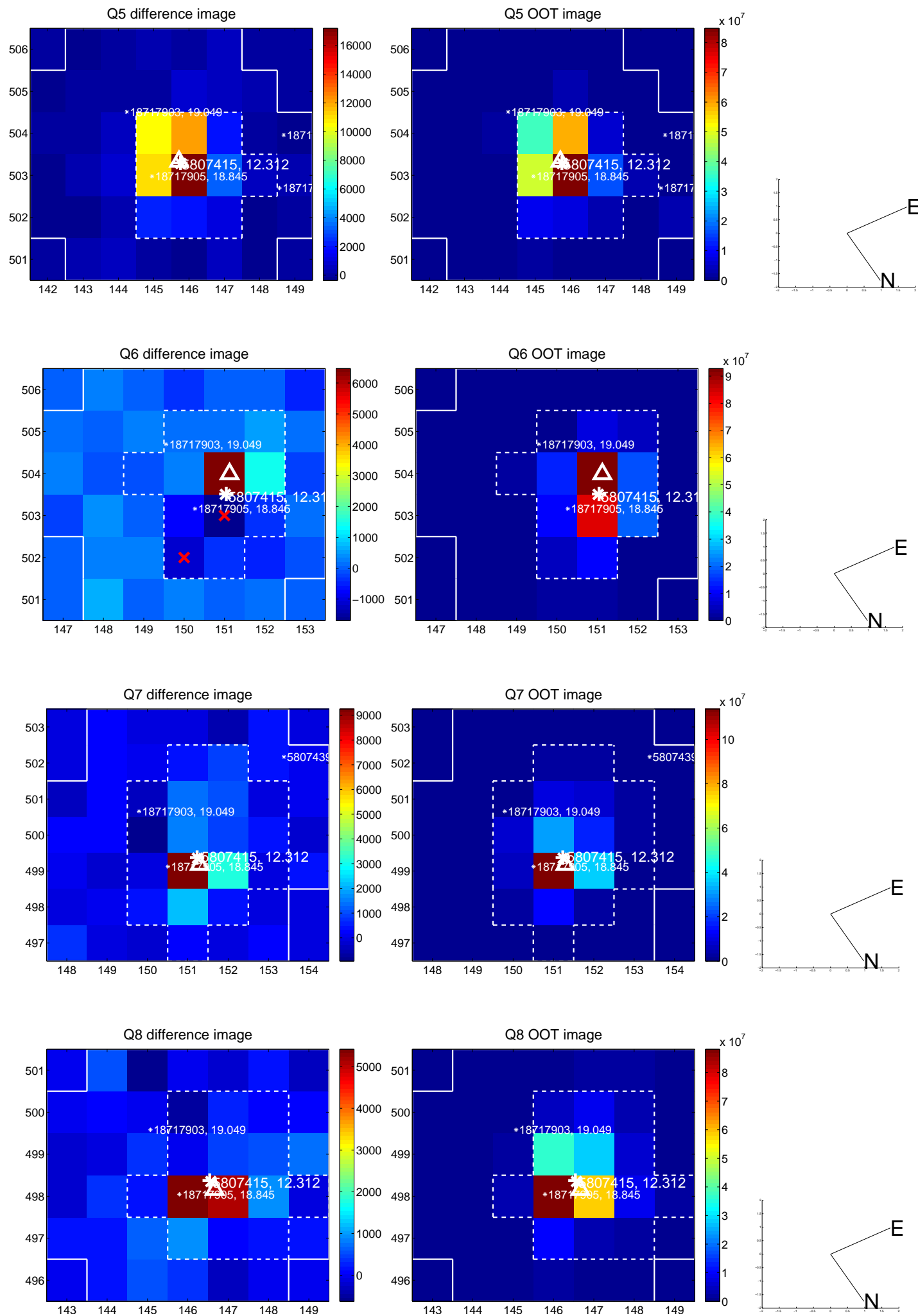


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

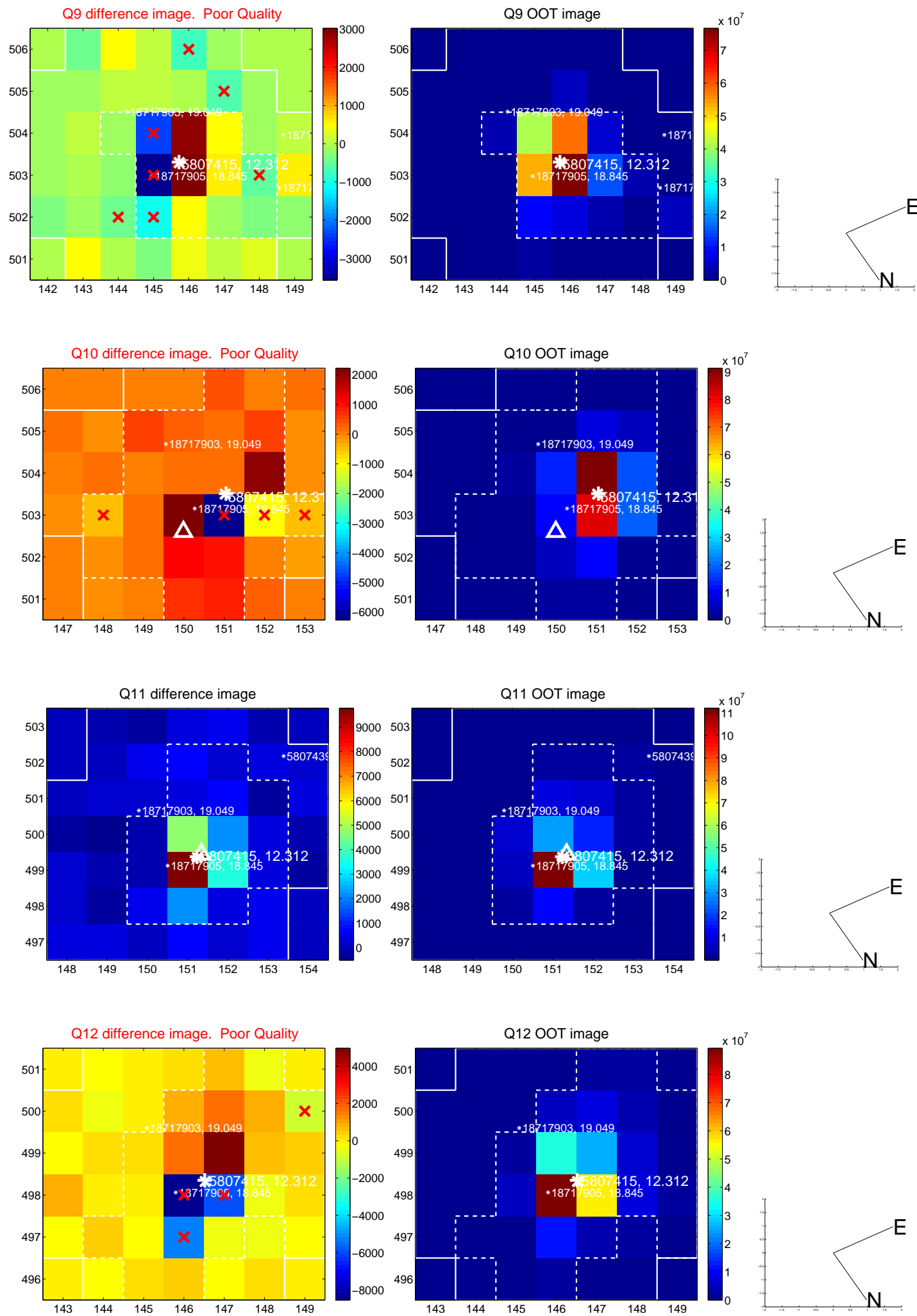
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



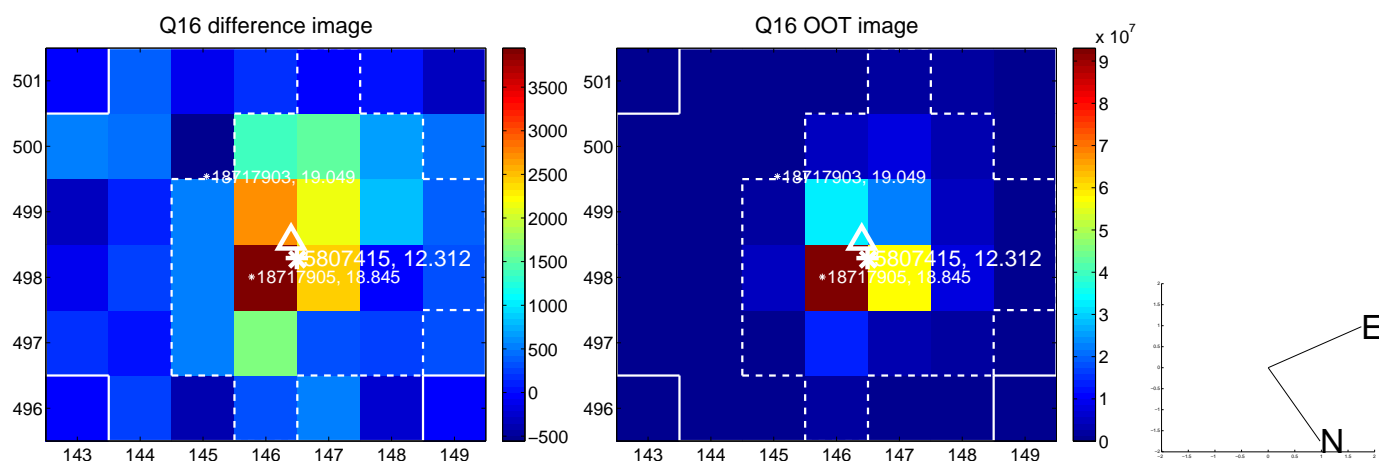
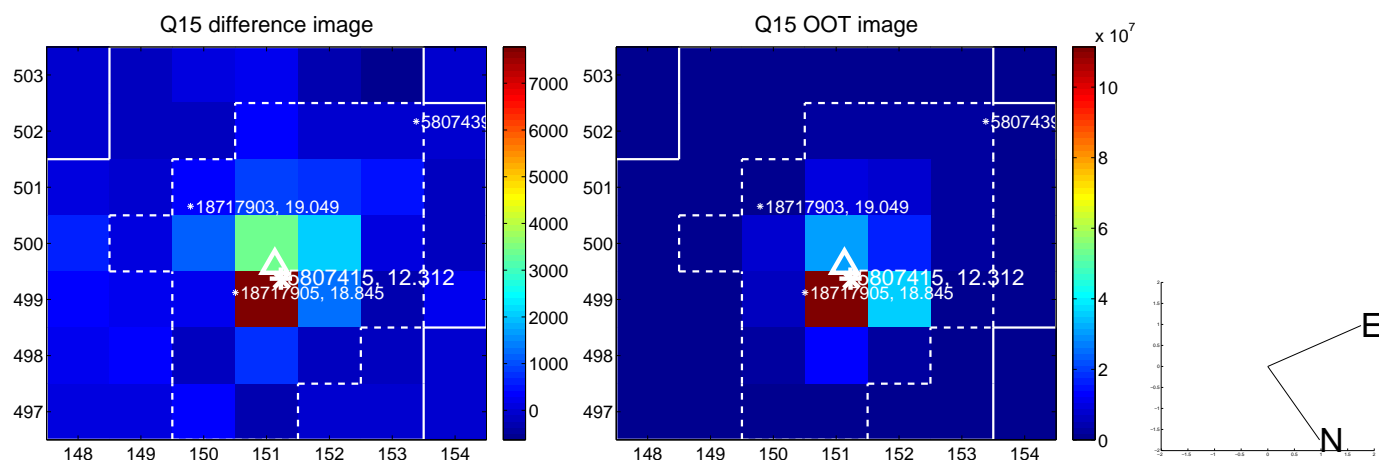
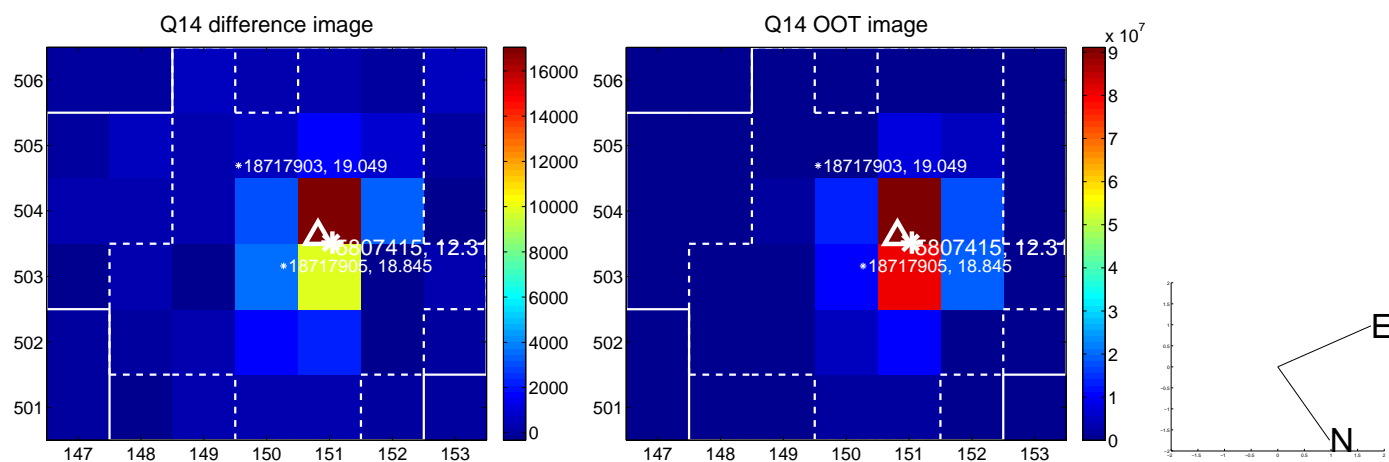
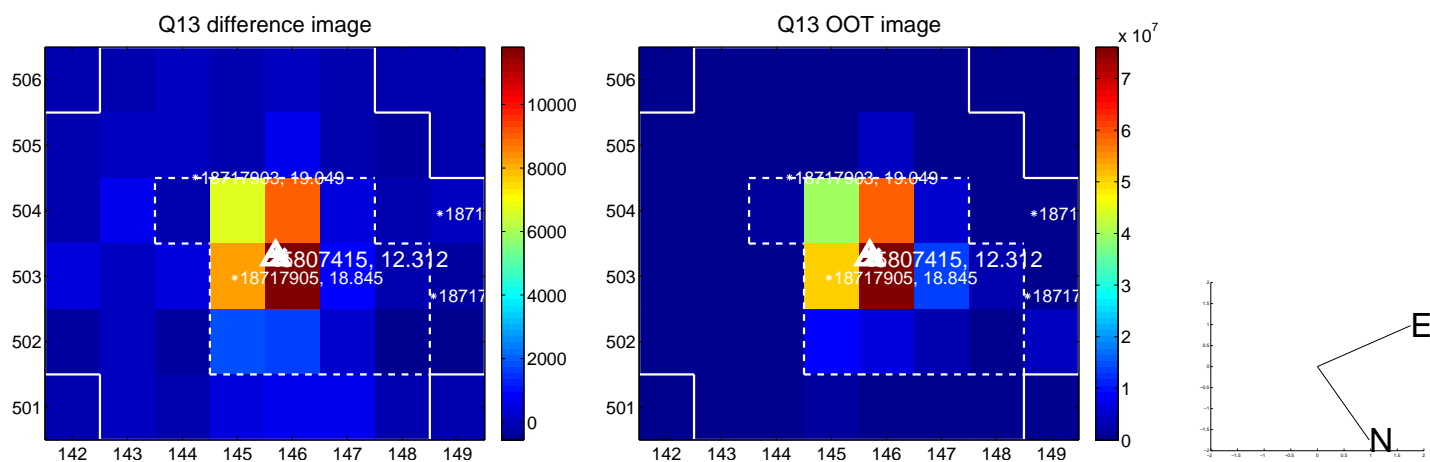
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

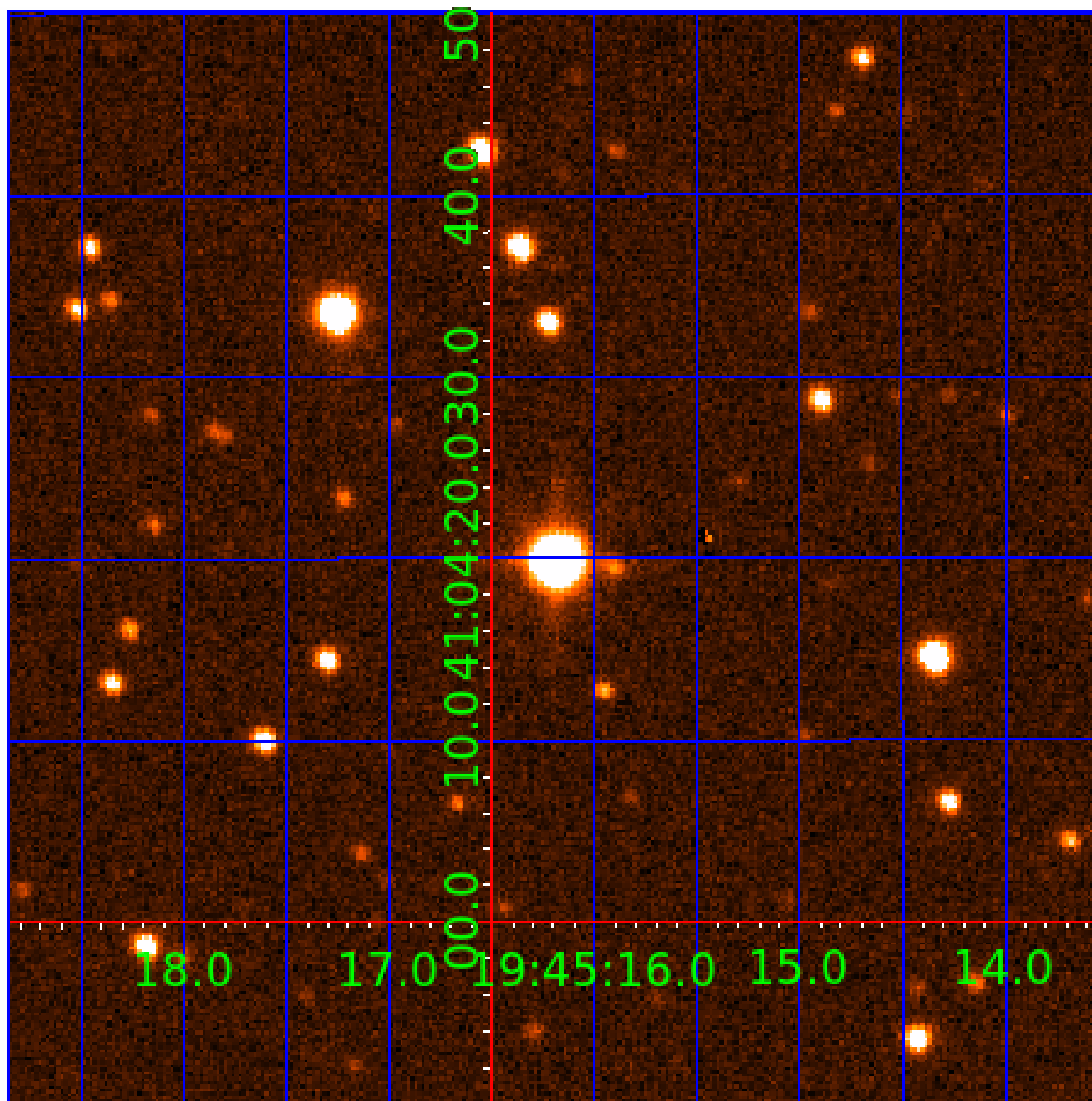


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005807415

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})
005807415-01	OBS	No	0.986796	132.077994	12.6	6.221	9.1	8.3	1.66	7296	0.61	14483.00
005807415-02	OBS	No	0.652072	131.773952	38.9	1.450	12.7	11.7	1.66	7296	1.18	25163.30
005807415-03	OBS	No	63.056865	134.310089	233.2	2.377	9.6	8.5	1.66	7296	2.65	56.69
005807415-04	OBS	No	14.119915	136.319897	43.6	13.225	9.8	6.0	1.66	7296	1.27	416.92
005807415-05	OBS	No	42.001665	164.738285	296.0	2.000	9.6	-1.0	1.66	7296	2.91	97.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005807415-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005807415-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005807415-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005807415-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
005807415-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

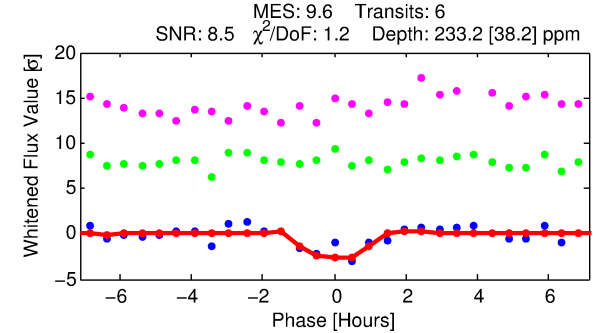
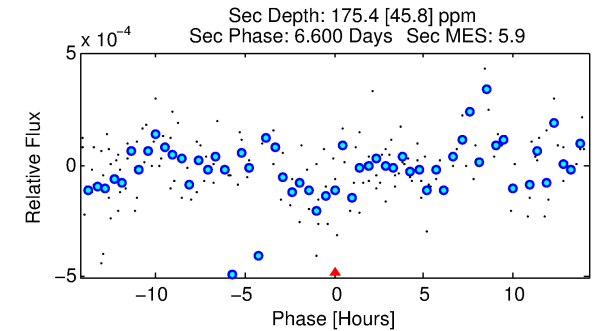
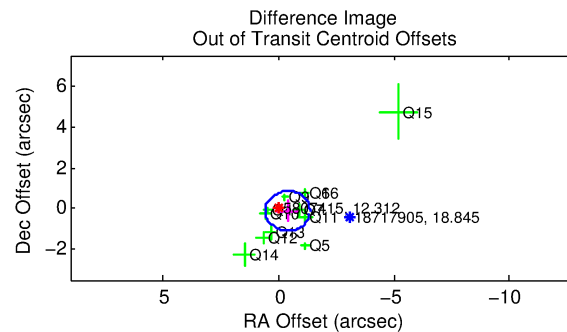
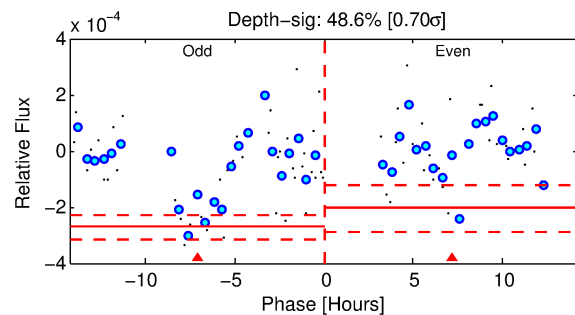
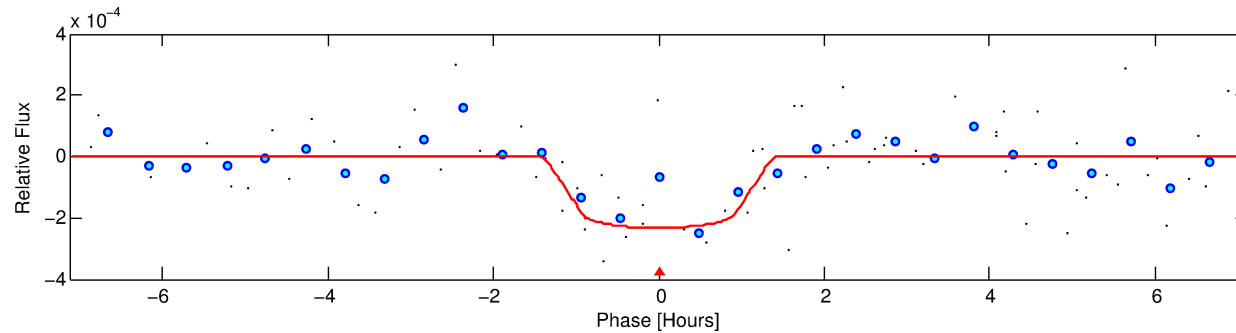
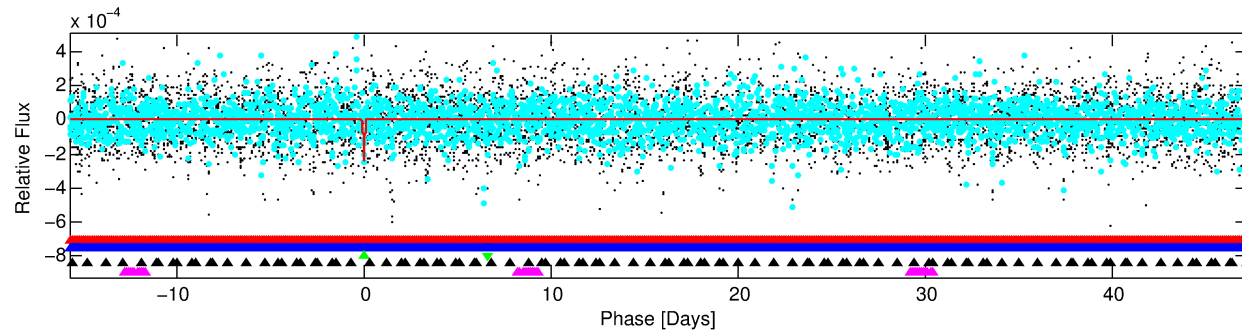
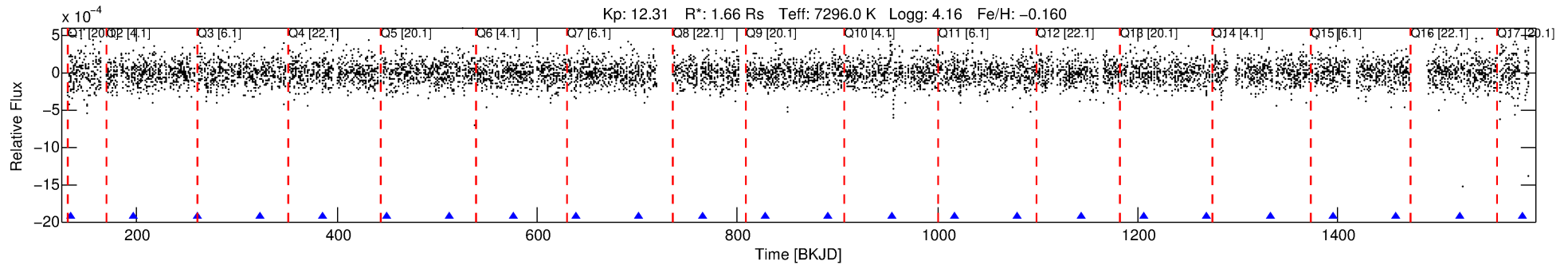
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005807415-03

No Significant Match Found

DV One-Page Summary

KIC: 5807415 Candidate: 3 of 5 Period: 63.057 d



DV Fit Results:

Period = 63.05687 [0.00148] d
Epoch = 134.3101 [0.0204] BKJD
Rp/R* = 0.0146 [0.0361]
a/R* = 173.72 [2608.00]
b = 0.54 [19.58]
Seff = 56.69 [22.45]
Teq = 700 [69] K
Rp = 2.65 [6.60] Re
a = 0.3519 [0.0889] AU
Ag = 1698.45 [8418.17] [0.20 σ]
Teffp = 6945 [8587] K [0.73 σ]

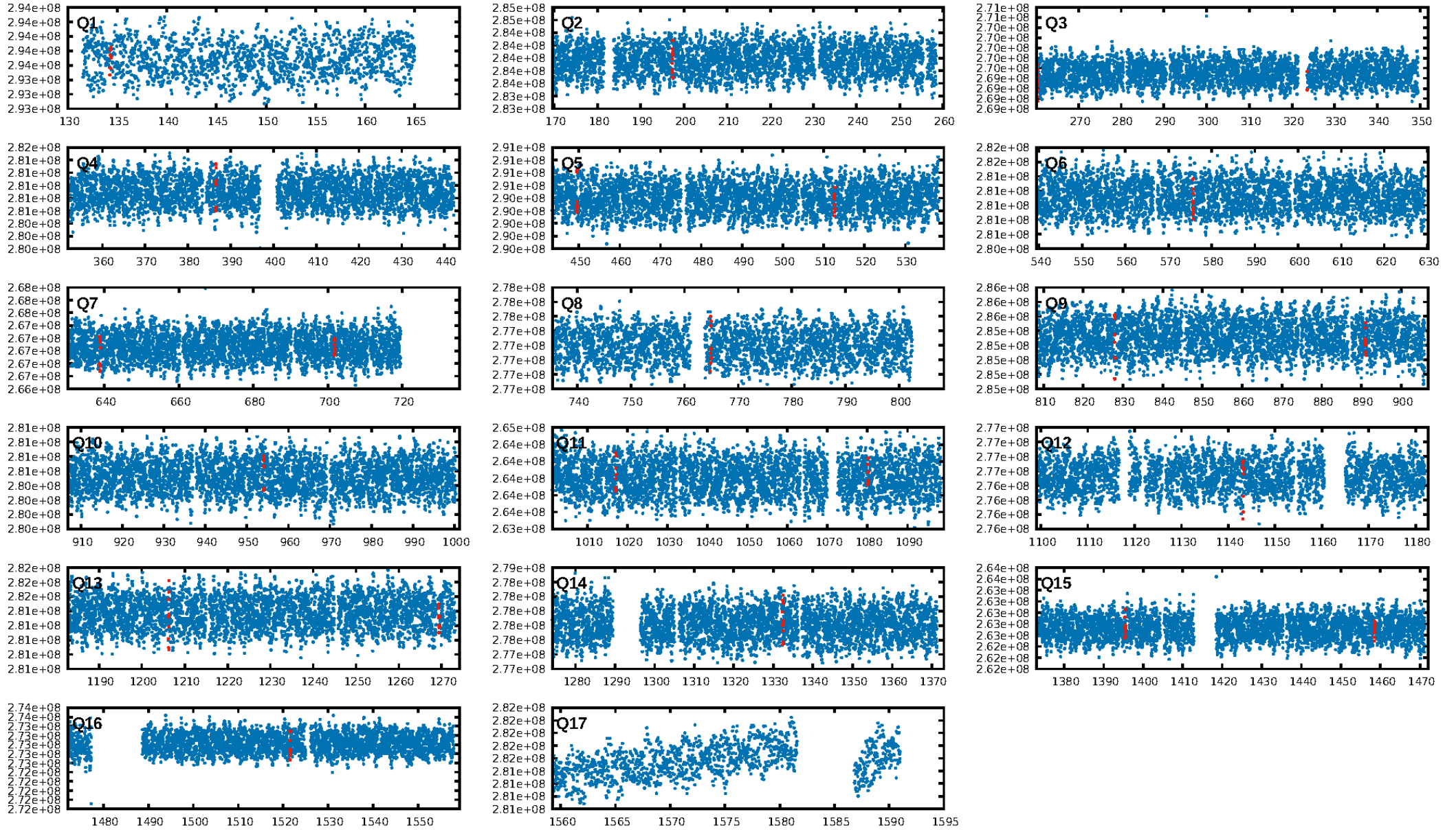
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [162.67 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 19.7%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -6.198
Centroid-sig: 3.1%
Centroid-so: 0.690 arcsec [1.29 σ]
OotOffset-rm: 0.410 arcsec [1.27 σ]
OotOffset-st: 3/3/3 [12]
KicOffset-rm: 0.429 arcsec [1.56 σ]
KicOffset-st: 3/3/3 [12]
DiffImageQuality-fgm: 0.67 [8/12]
DiffImageOverlap-fno: 0.07 [1/14]

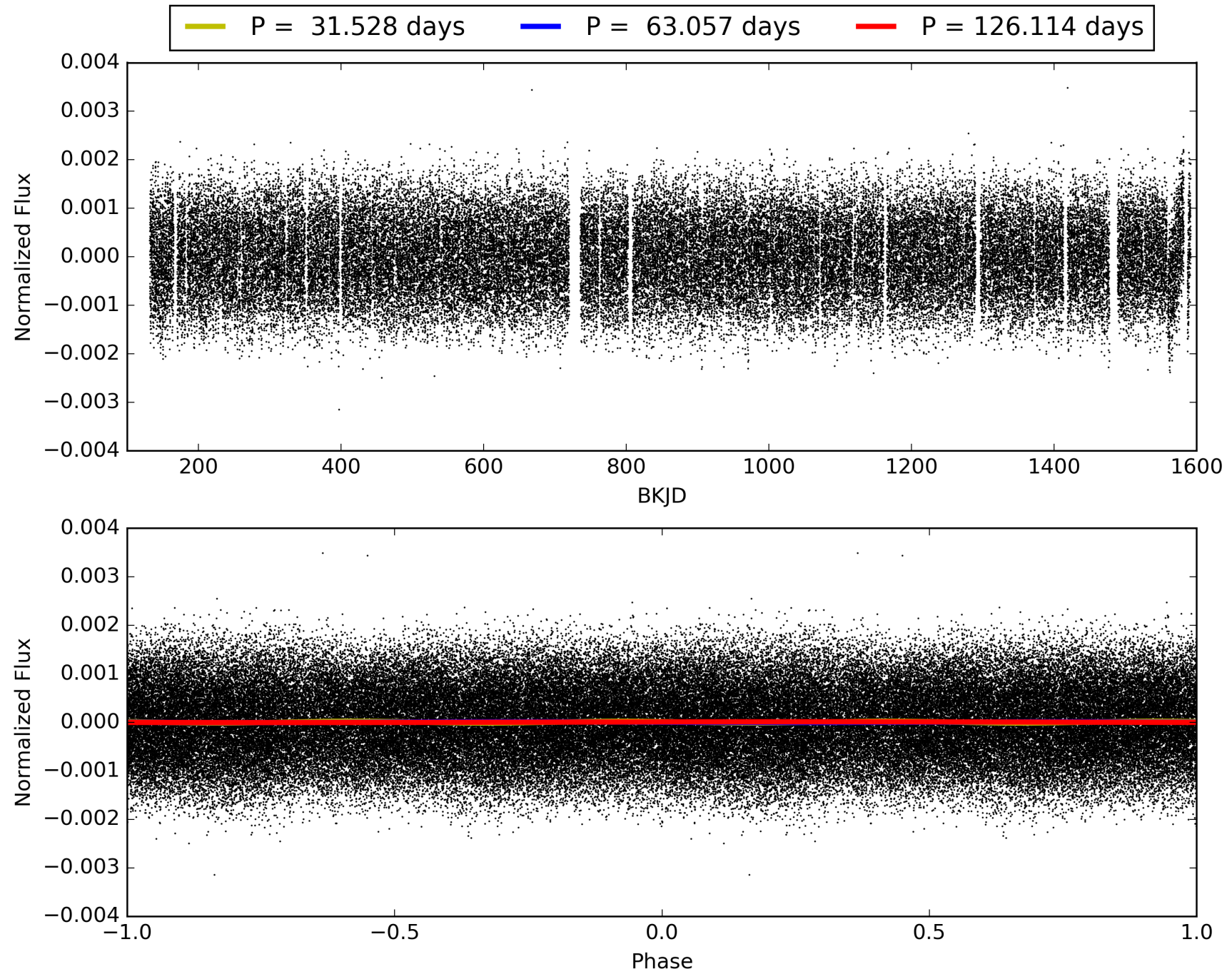
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:49:55 Z

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

TCE 005807415-03, PDC Light Curves

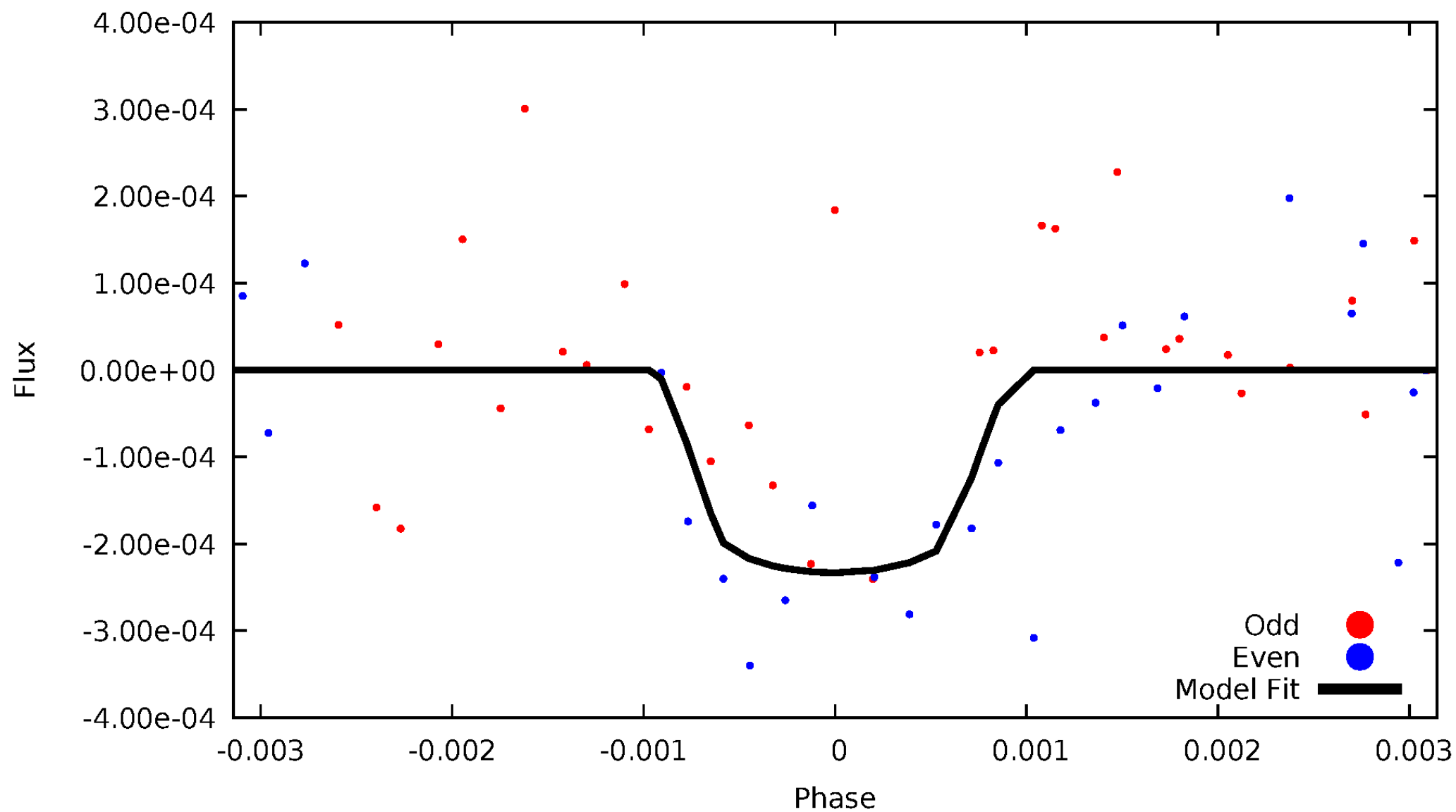


TCE 005807415-03



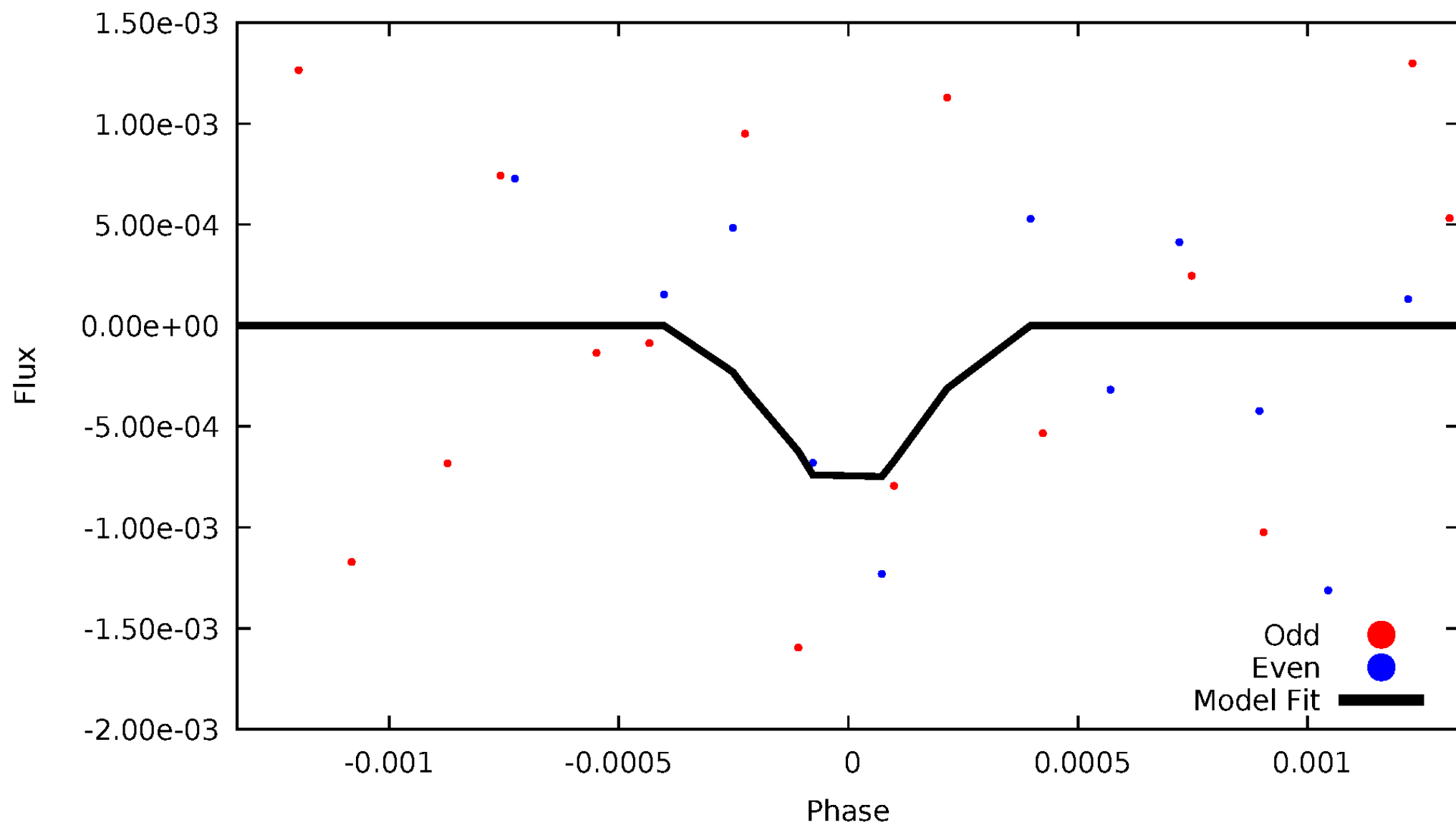
DV Odd/Even

TCE 005807415-03



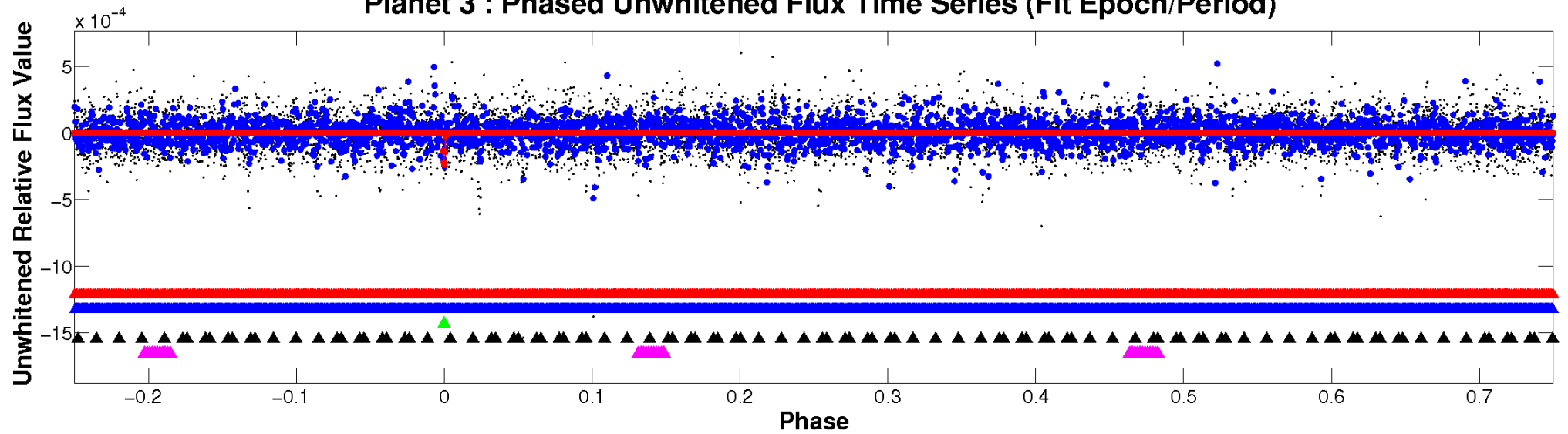
ALT Odd/Even

TCE 005807415-03

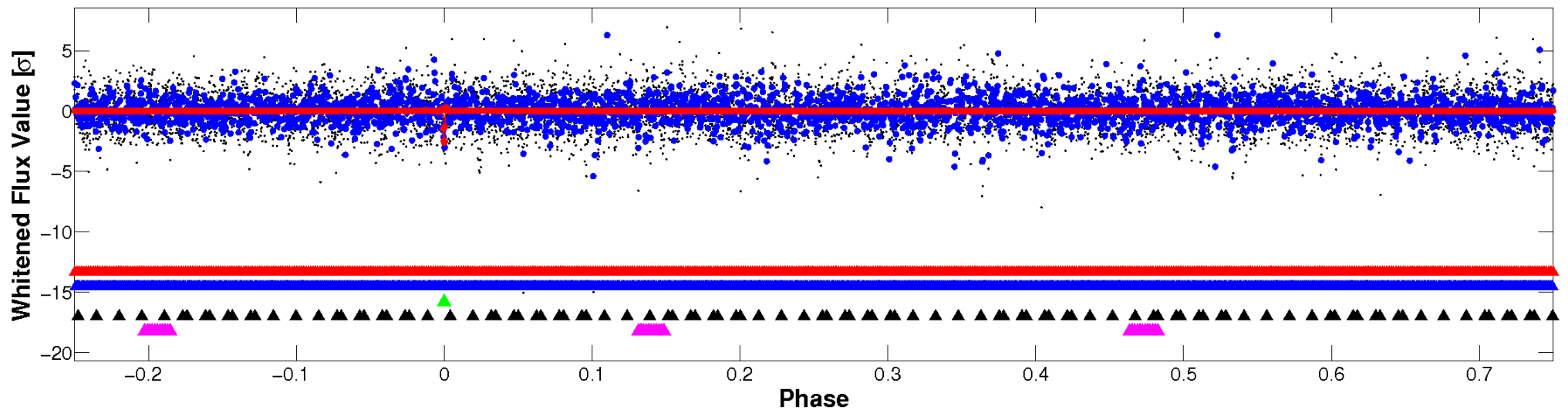


Non-Whitened Vs. Whitened Light Curve

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

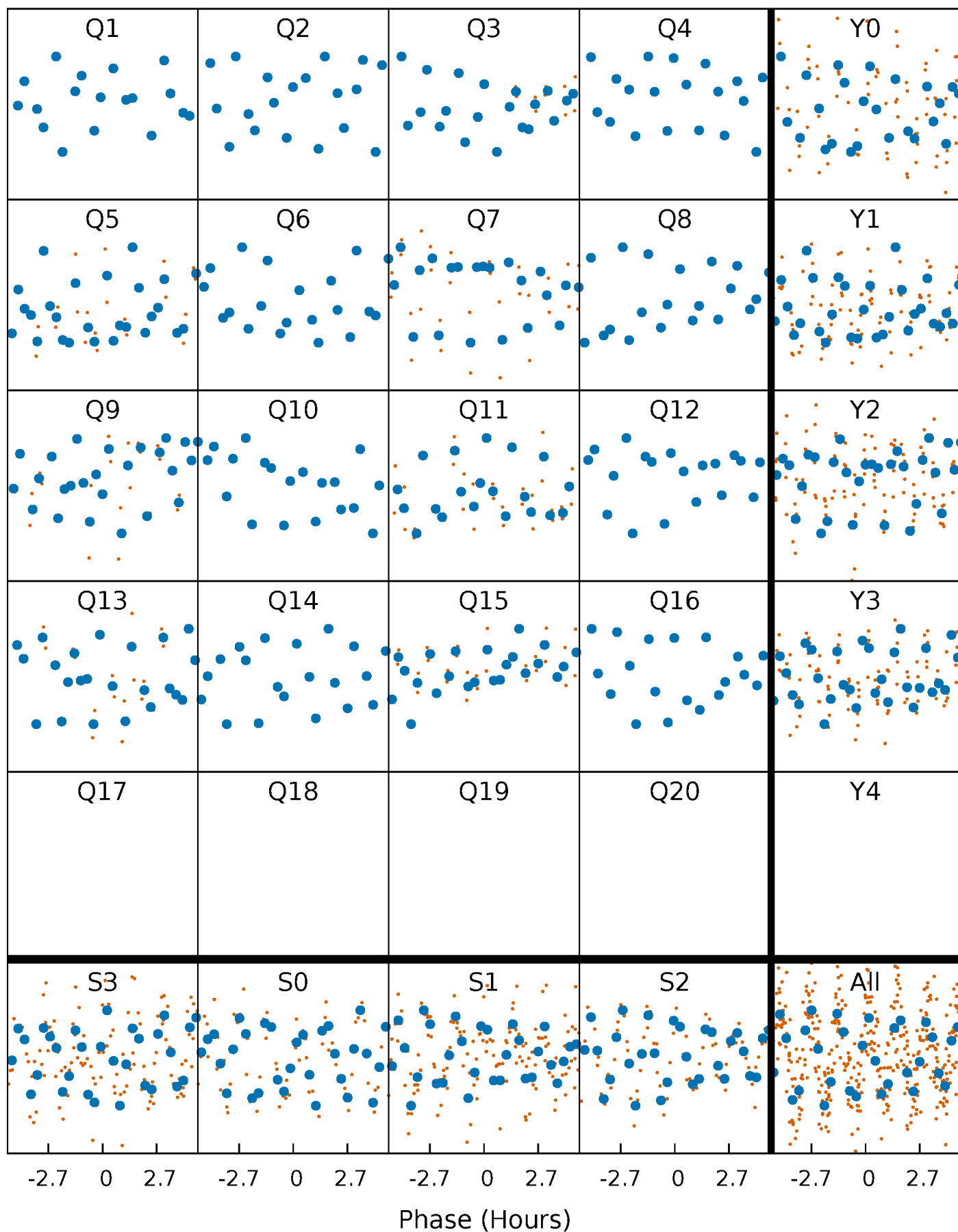


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



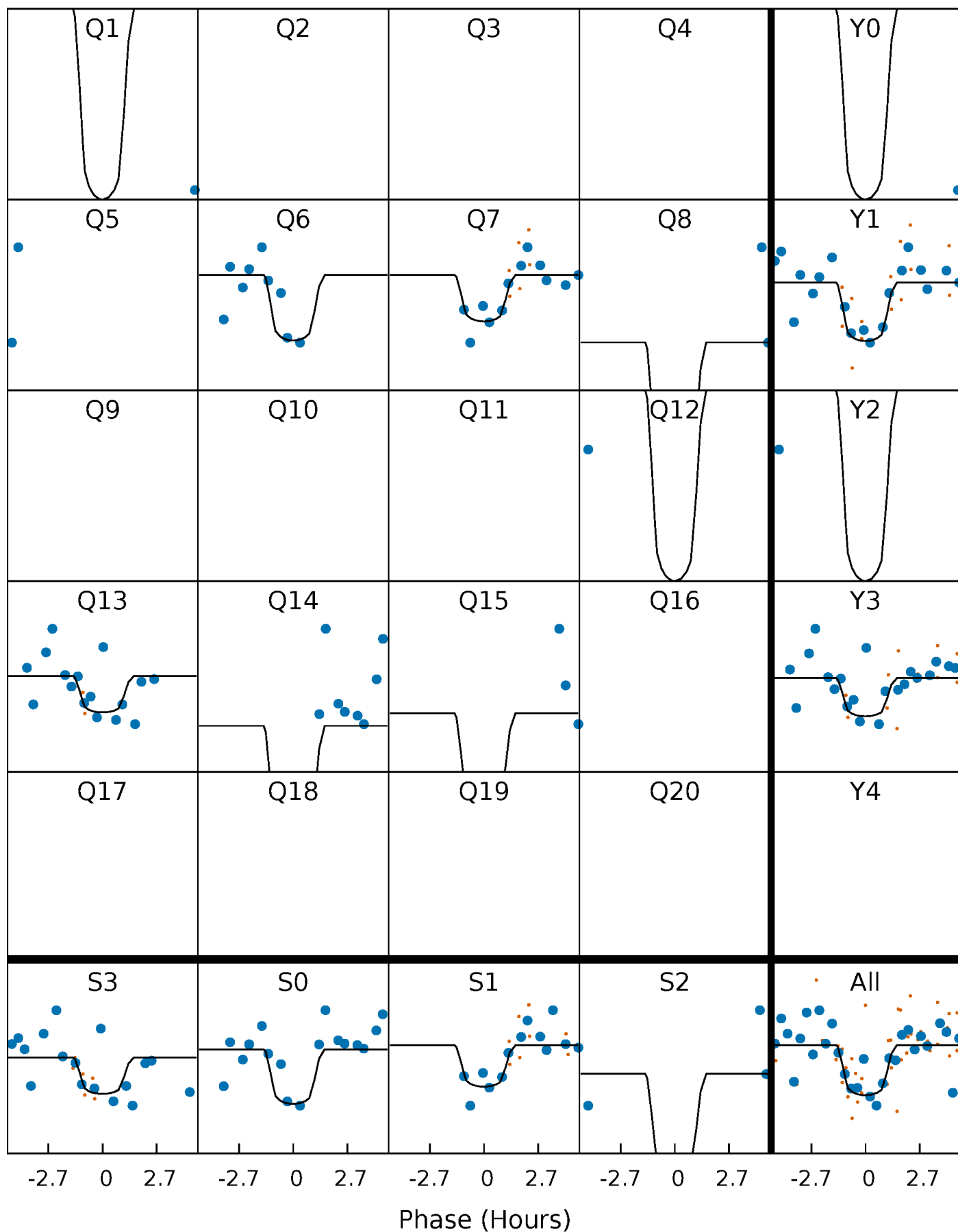
PDC Quarter-Phased Transit Curves

TCE 005807415-03 P= 63.056865 Days $T_0=134.310089$ (BKJD)



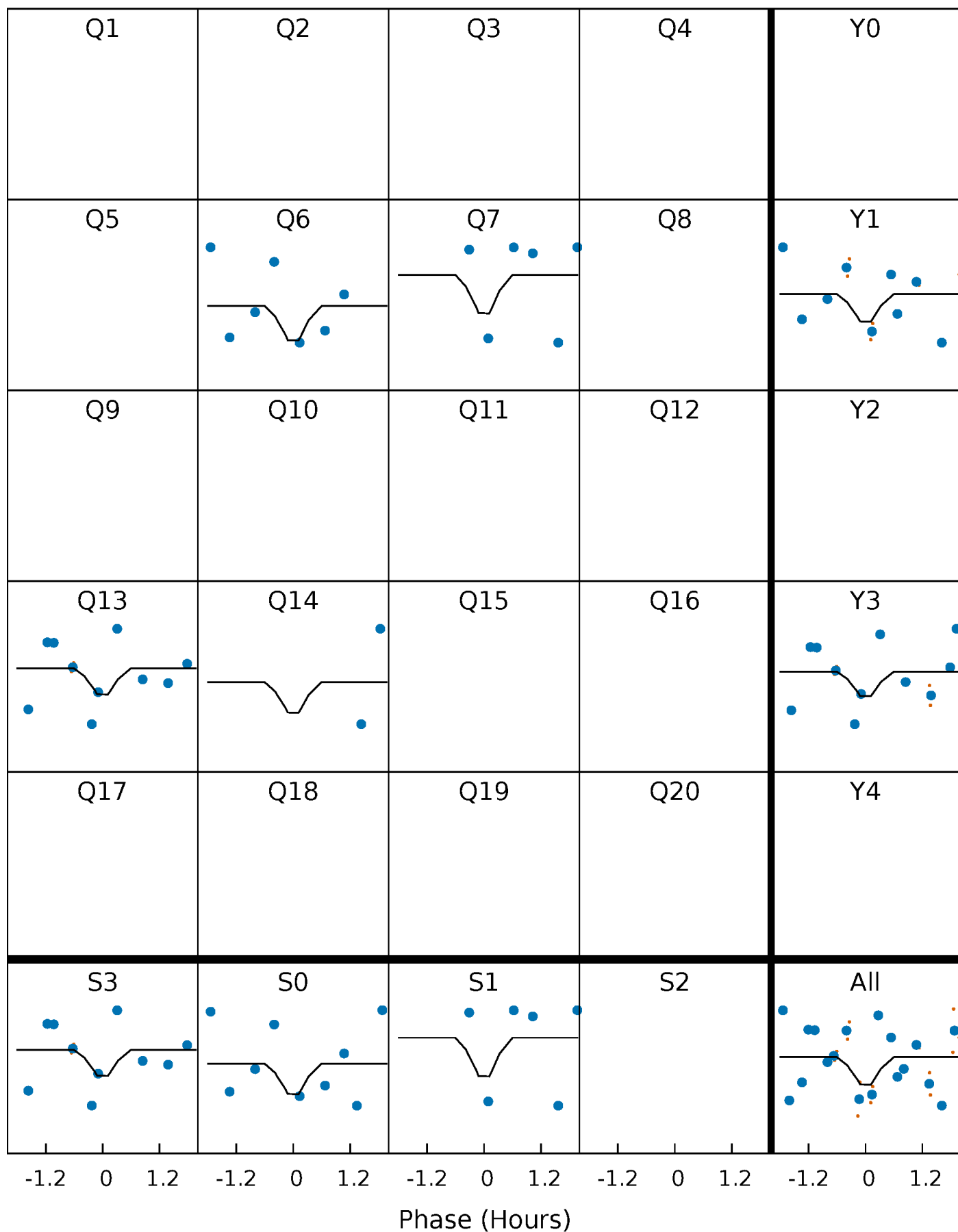
DV Quarter-Phased Transit Curves

TCE 005807415-03 P= 63.056865 Days $T_0=134.310089$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

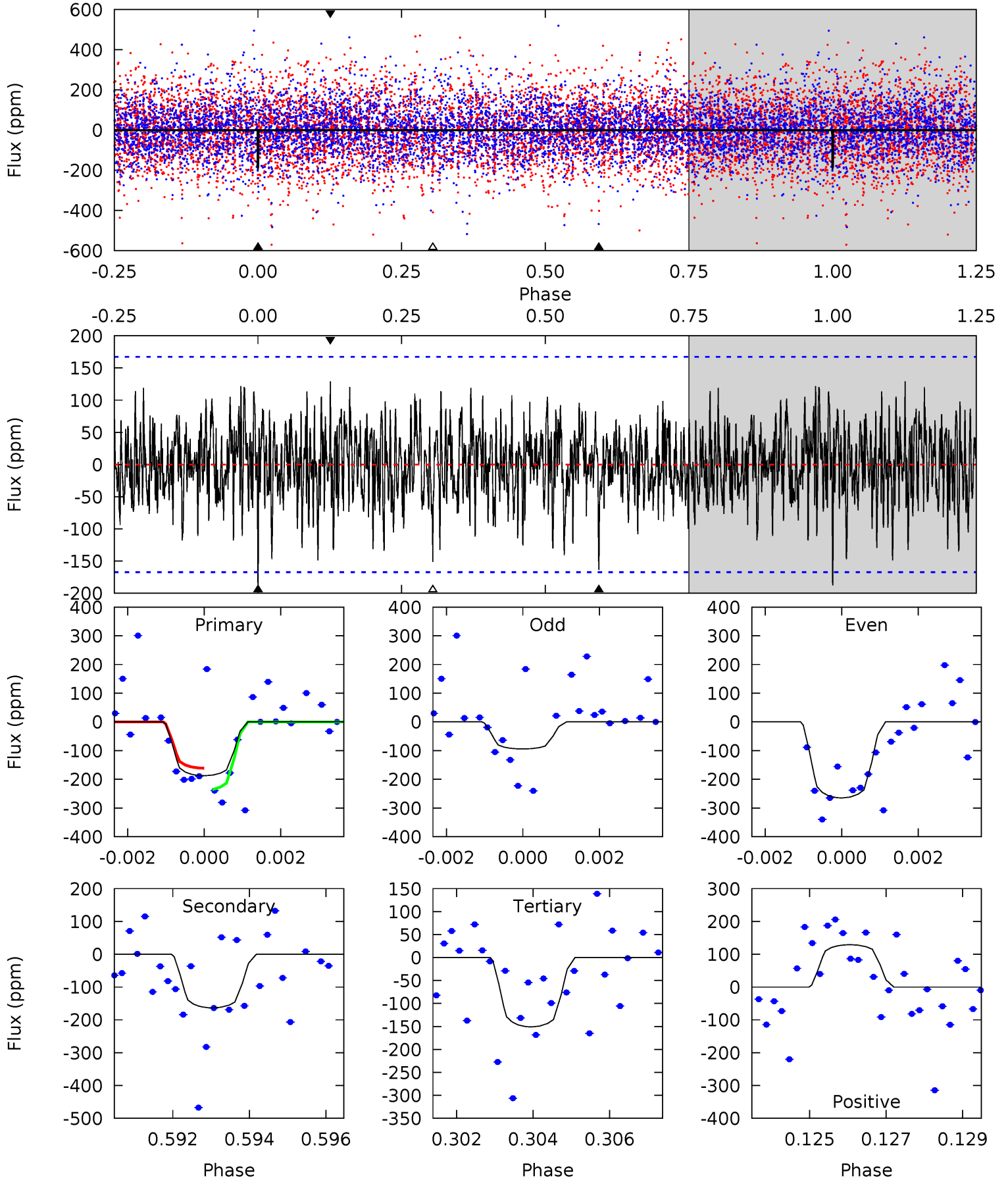
TCE 005807415-03 P= 63.058973 Days $T_0=134.260629$ (BKJD)



DV Model-Shift Uniqueness Test

005807415-03, P = 63.056865 Days, E = 71.253224 Days

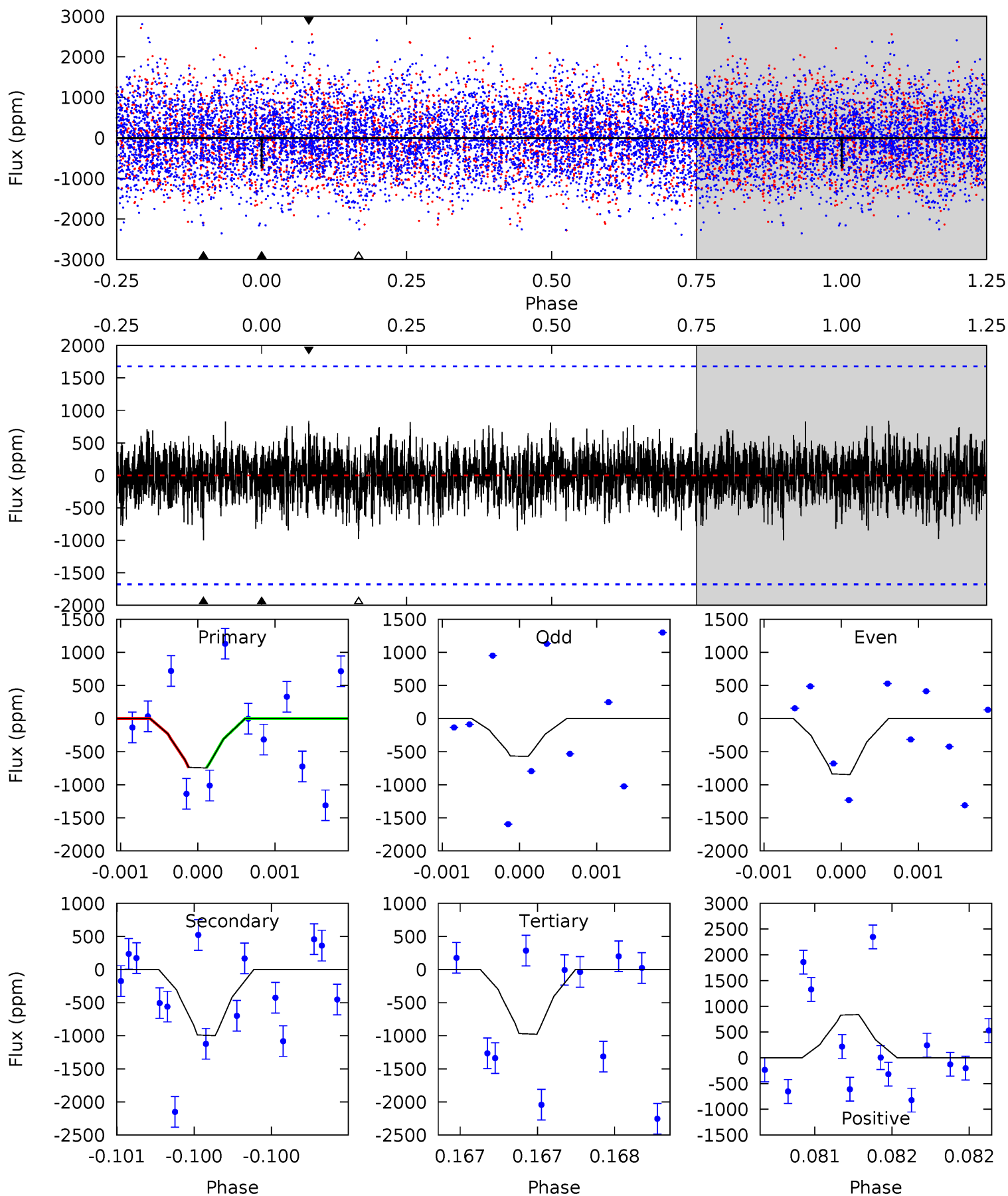
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.00	5.22	4.83	4.12	5.34	3.12	1.47	1.17	1.87	0.40	1.10	2.73	0.85	0.41	1.19



Alt Model-Shift Uniqueness Test

005807415-03, P = 63.058973 Days, E = 71.201656 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.46	3.29	3.22	2.76	5.53	3.41	0.87	-0.76	-0.30	0.07	0.53	0.48	0.78	0.46	0.00



Stellar Parameters For KIC 005807415

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7296^{+228}_{-304}	$4.161^{+0.128}_{-0.192}$	$-0.160^{+0.250}_{-0.350}$	$1.663^{+0.512}_{-0.341}$	$1.460^{+0.211}_{-0.234}$	$0.447^{+0.286}_{-0.236}$
	+3%/-4%	+3%/-5%	+156%/-219%	+31%/-21%	+14%/-16%	+64%/-53%
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 005807415-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-163 ± 31	$5.79^{+5.81}_{-3.85}$	984^{+76}_{-64}	4720^{+3585}_{-1059}	333^{+2664}_{-251}
Alt.	-999 ± 303	$7.22^{+6.75}_{-4.82}$	982^{+81}_{-65}	6483^{+7288}_{-1707}	1291^{+10687}_{-959}

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 $A_{obs} \gg 1.0$

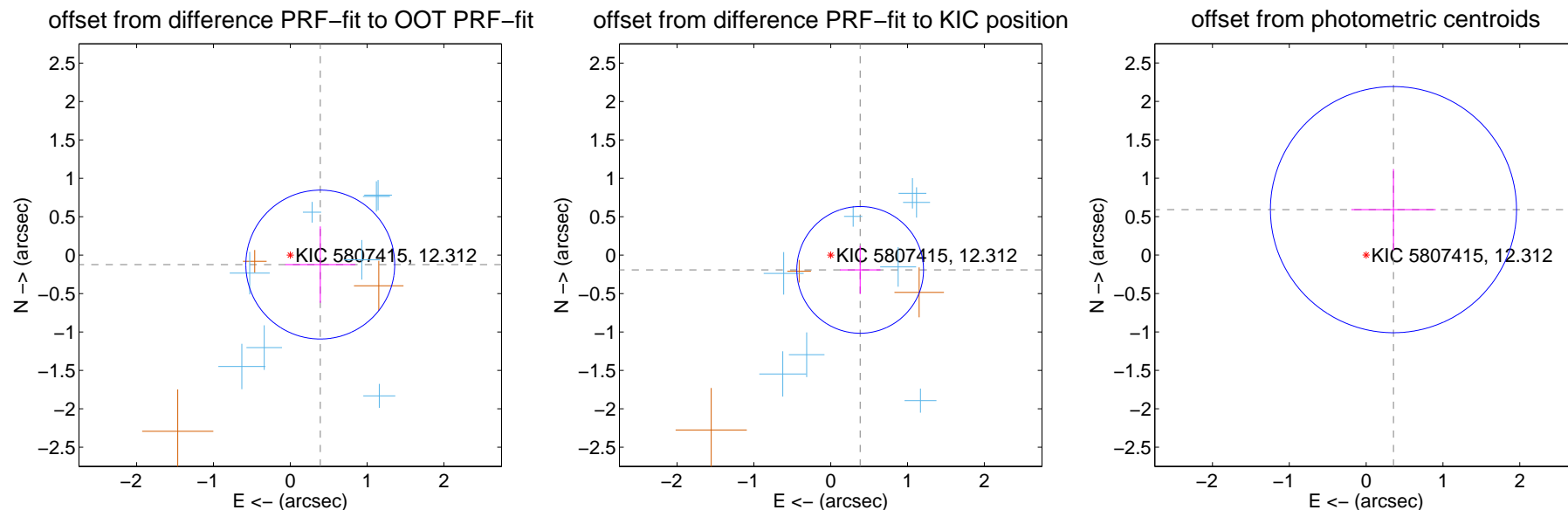
DV Centroid Data

Supplemental centroid analysis for 005807415-03. Kepler magnitude: 12.31. Transit SNR 8.51

There are 8 quarters with good PRF difference image offsets

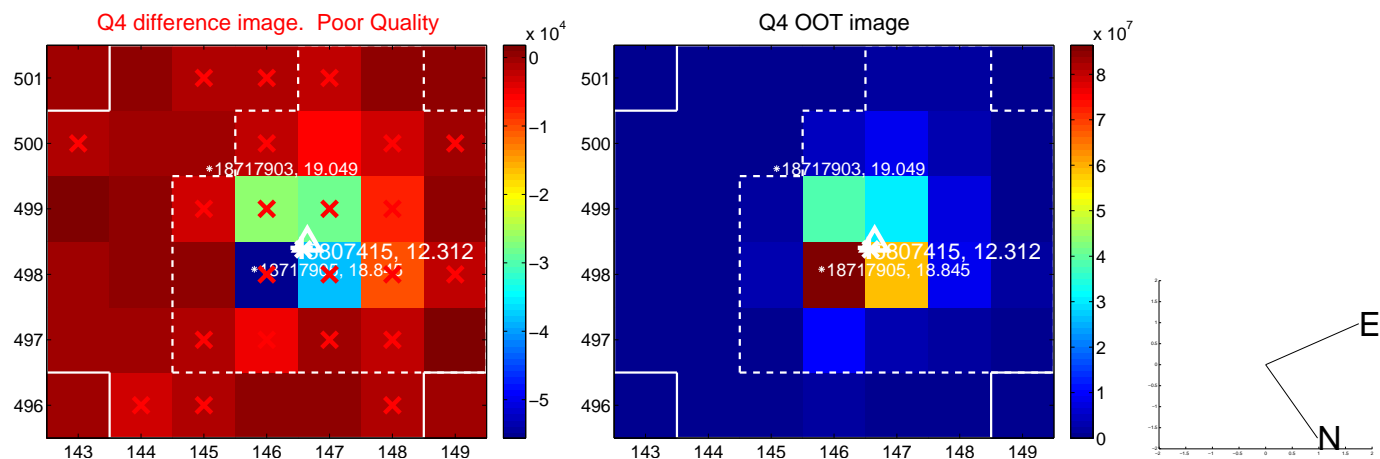
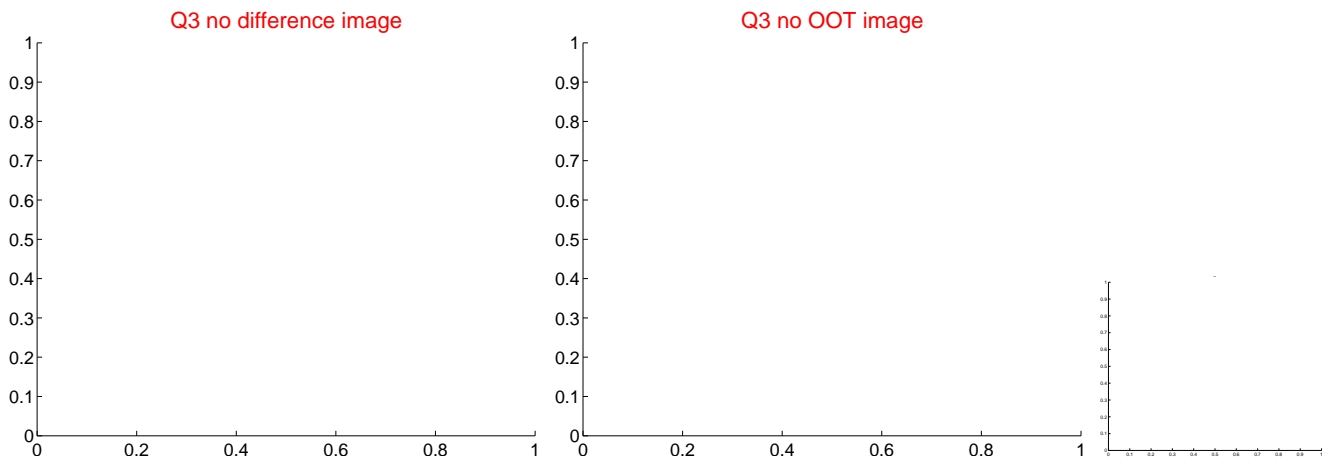
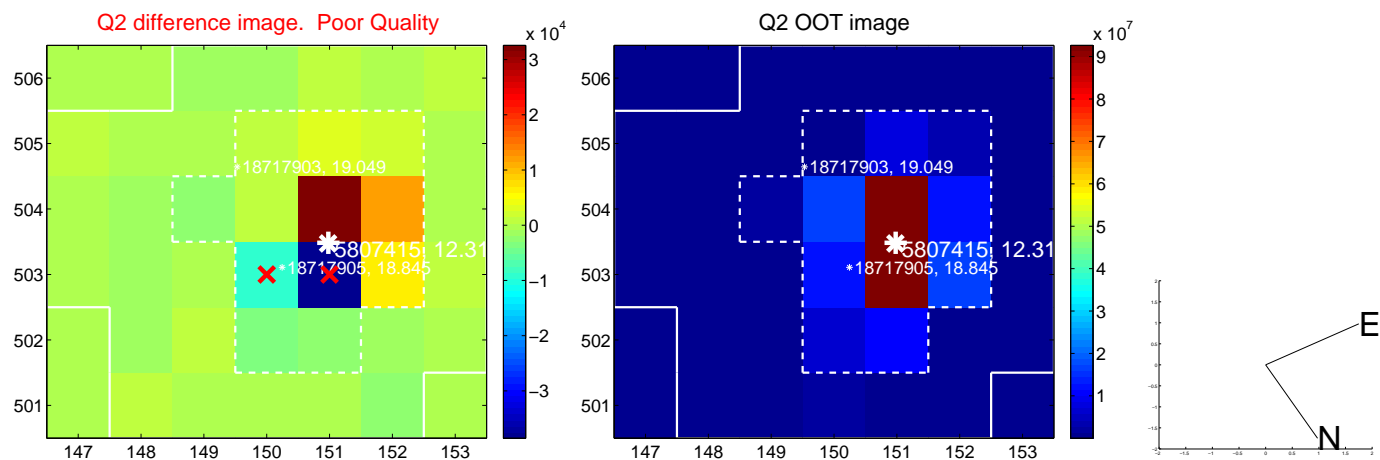
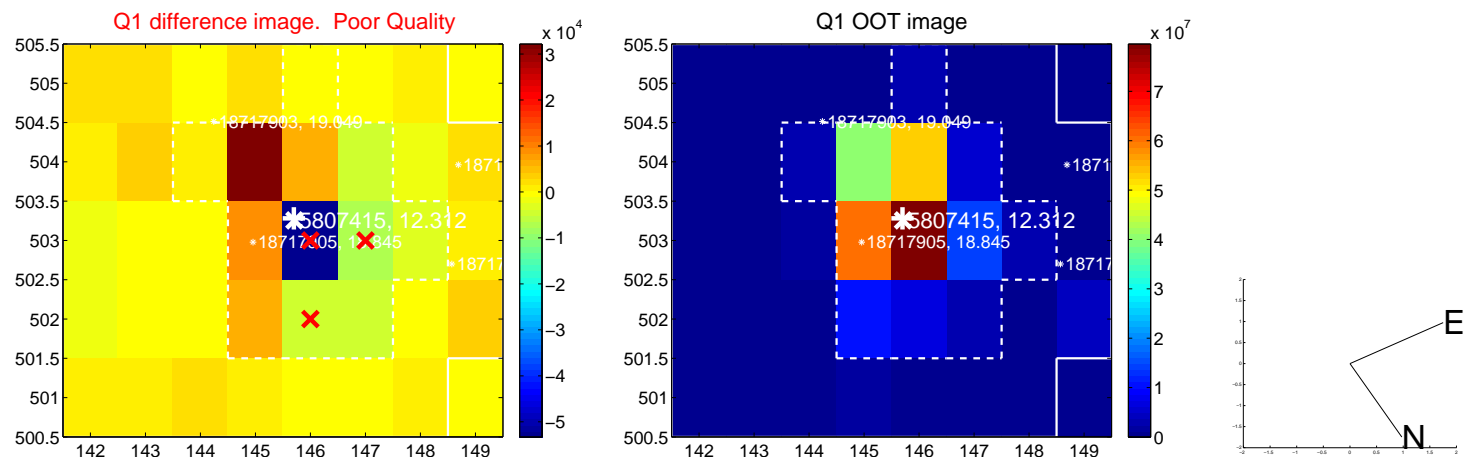
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.410 ± 0.323	1.27	-0.391 ± 0.456	-0.123 ± 0.497
PRF-fit source offset from KIC position	0.429 ± 0.275	1.56	-0.384 ± 0.265	-0.192 ± 0.312
photometric centroid source offset	0.69 ± 0.53	1.29	-0.36 ± 0.55	0.59 ± 0.53

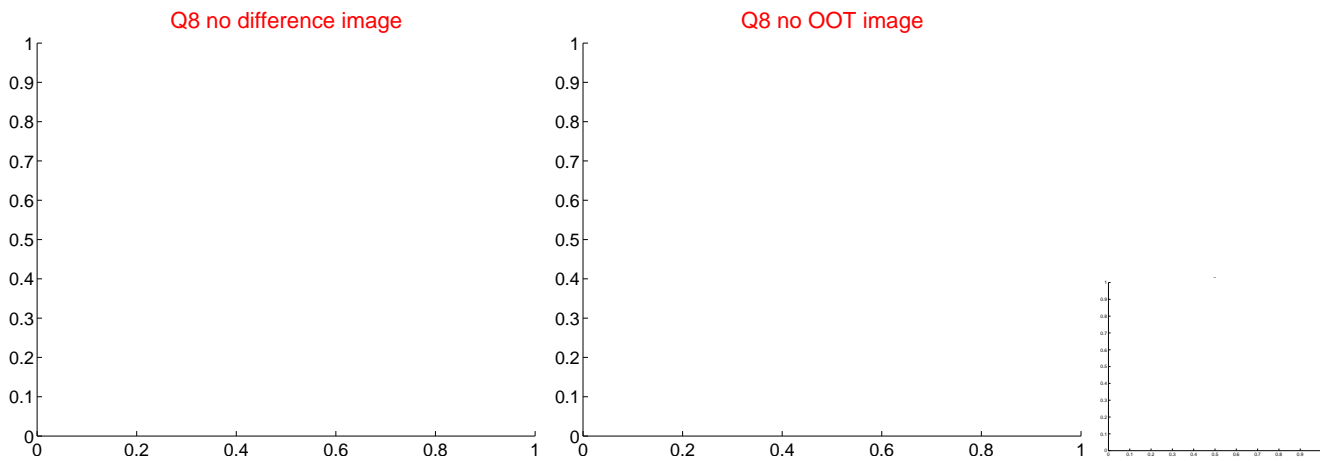
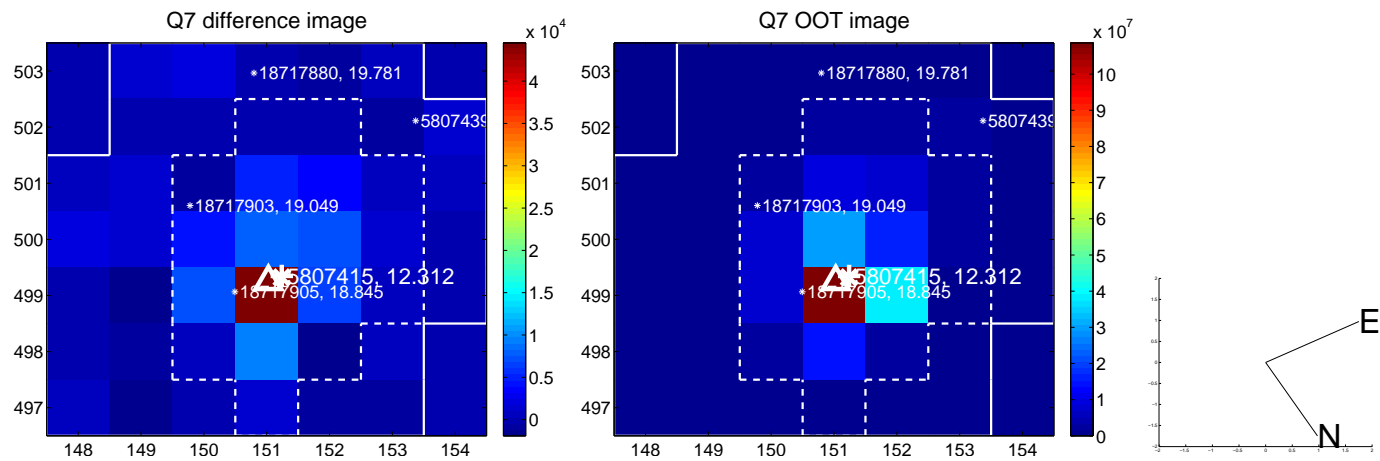
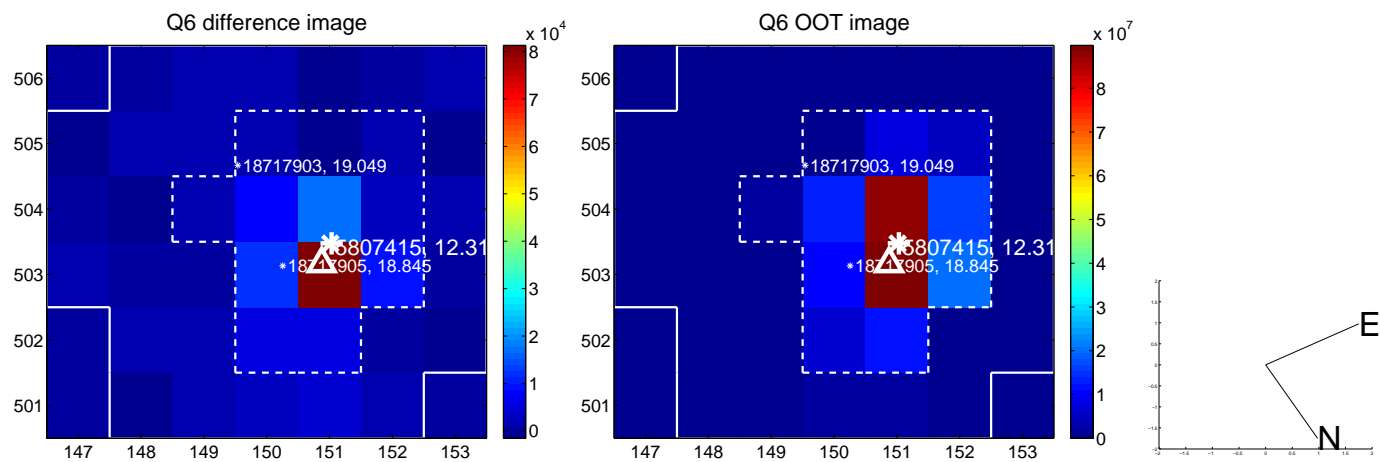
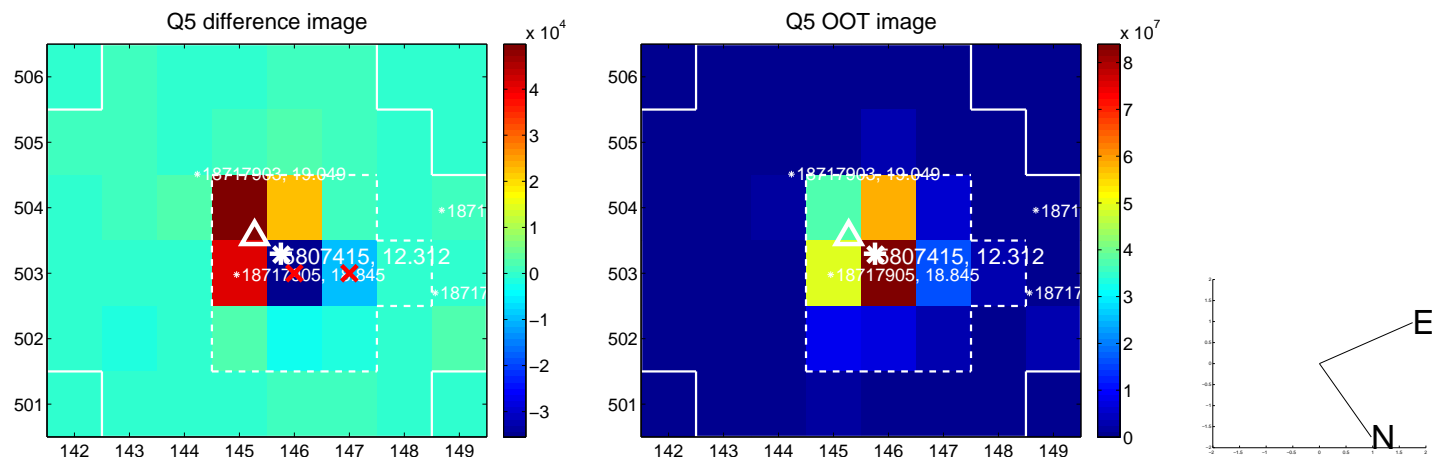


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

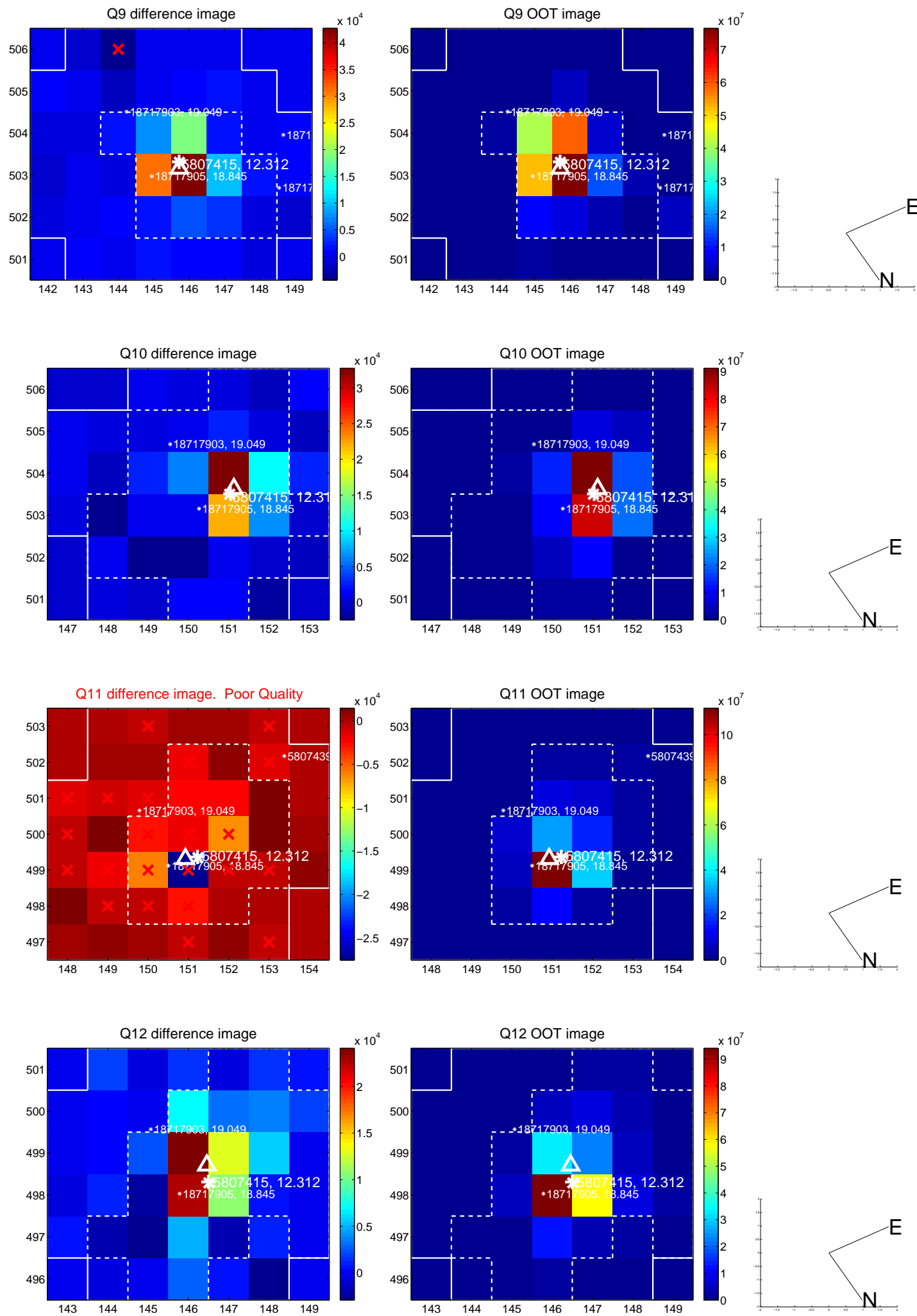
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



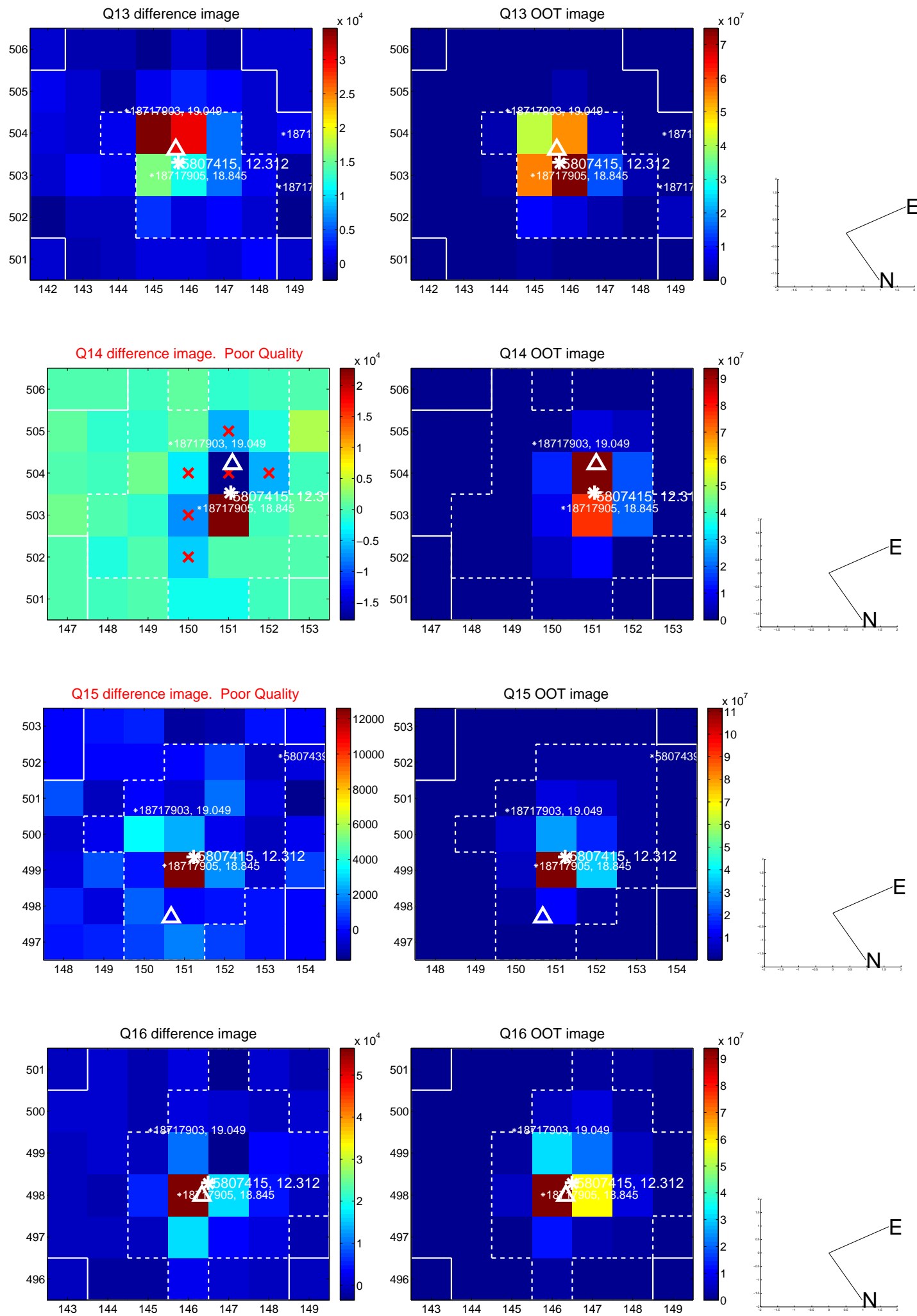
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



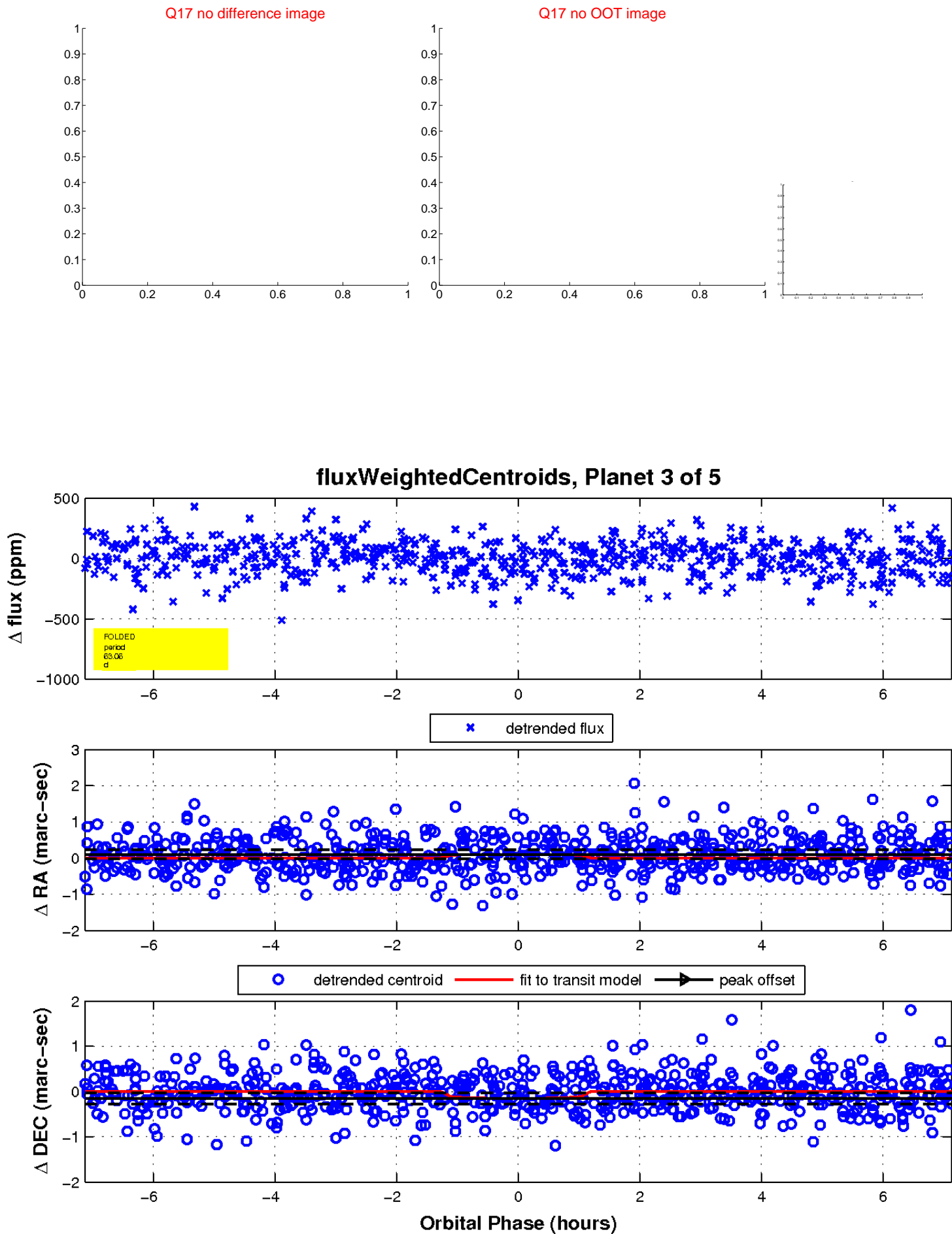
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

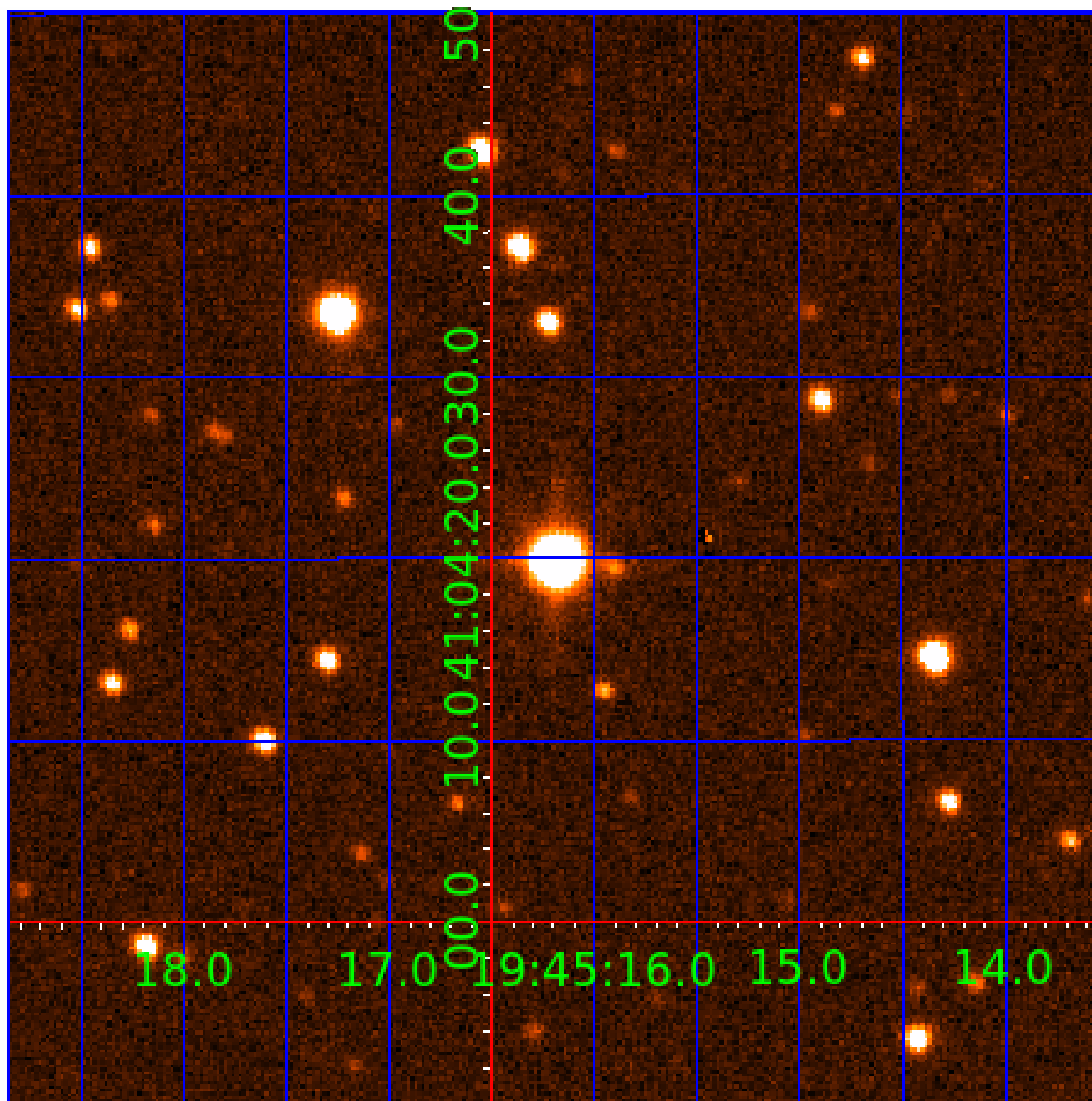


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005807415

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})
005807415-01	OBS	No	0.986796	132.077994	12.6	6.221	9.1	8.3	1.66	7296	0.61	14483.00
005807415-02	OBS	No	0.652072	131.773952	38.9	1.450	12.7	11.7	1.66	7296	1.18	25163.30
005807415-03	OBS	No	63.056865	134.310089	233.2	2.377	9.6	8.5	1.66	7296	2.65	56.69
005807415-04	OBS	No	14.119915	136.319897	43.6	13.225	9.8	6.0	1.66	7296	1.27	416.92
005807415-05	OBS	No	42.001665	164.738285	296.0	2.000	9.6	-1.0	1.66	7296	2.91	97.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005807415-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005807415-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005807415-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005807415-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
005807415-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

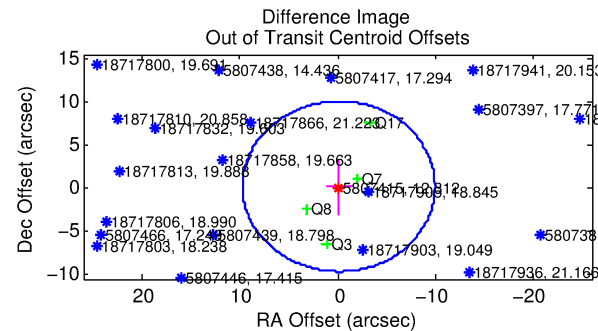
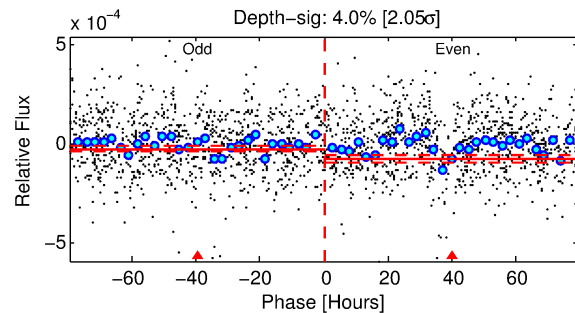
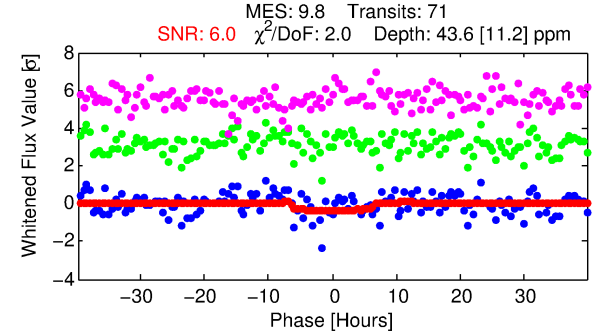
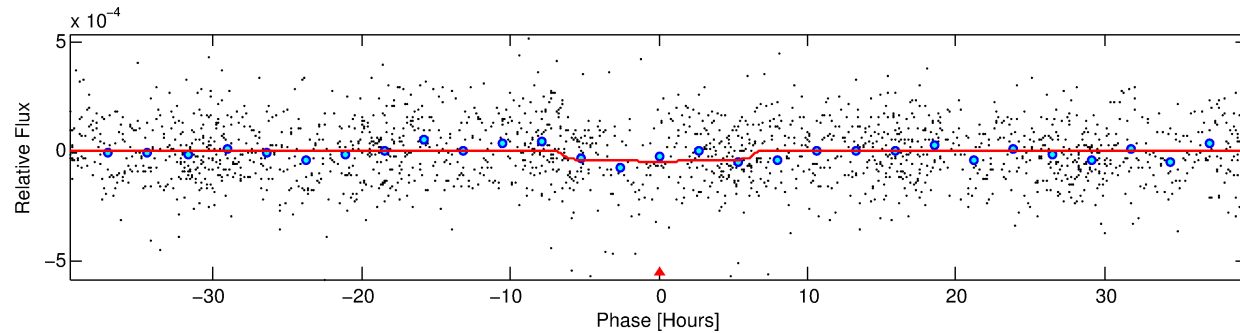
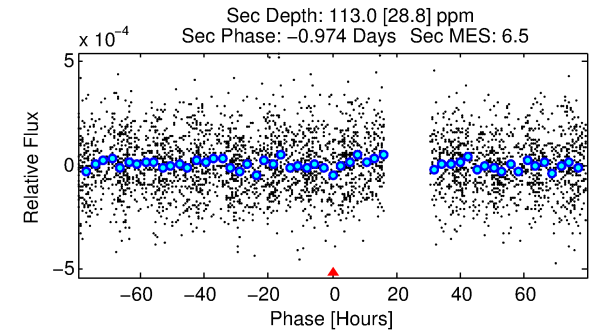
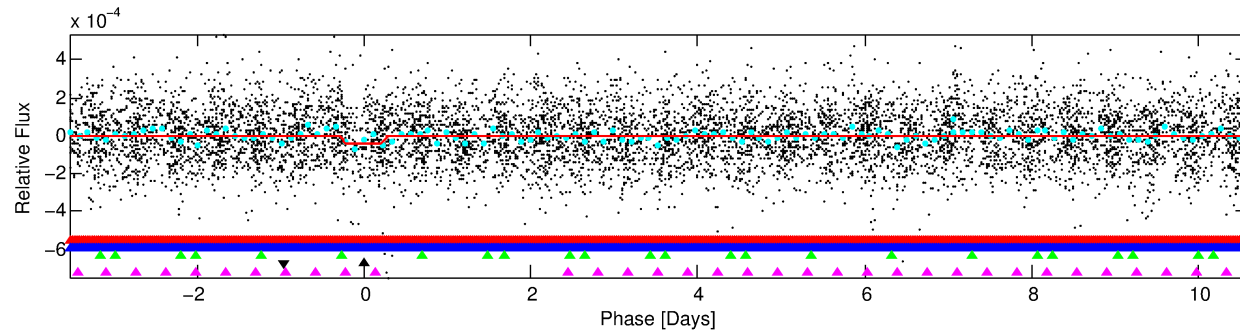
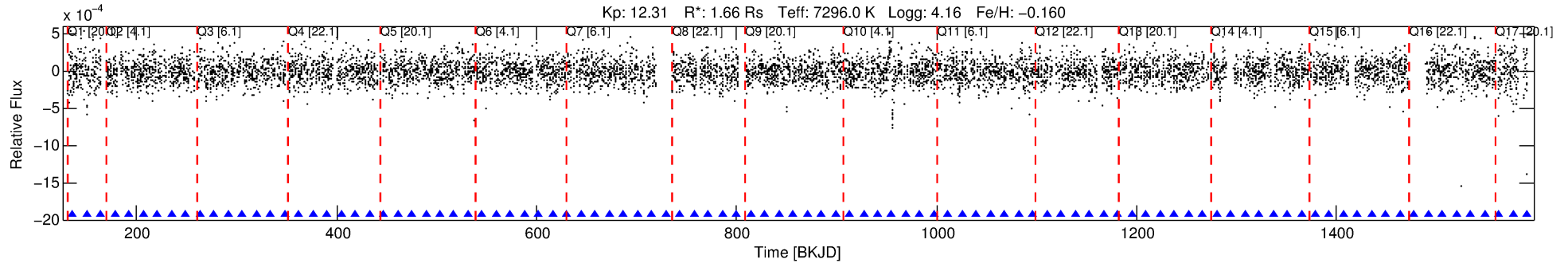
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005807415-04

No Significant Match Found

DV One-Page Summary

KIC: 5807415 Candidate: 4 of 5 Period: 14.120 d



DV Fit Results:

Period = 14.11991 [0.00062] d
Epoch = 136.3199 [0.0362] BKJD
Rp/R* = 0.0070 [0.0021]
a/R* = 3.84 [5.84]
b = 0.90 [0.36]
Seff = 416.92 [165.08]
Teq = 1152 [114] K
Rp = 1.27 [0.54] Re
a = 0.1298 [0.0328] AU
Ag = 649.57 [476.97] [1.36σ]
Teffp = 8994 [1488] K [5.25σ]

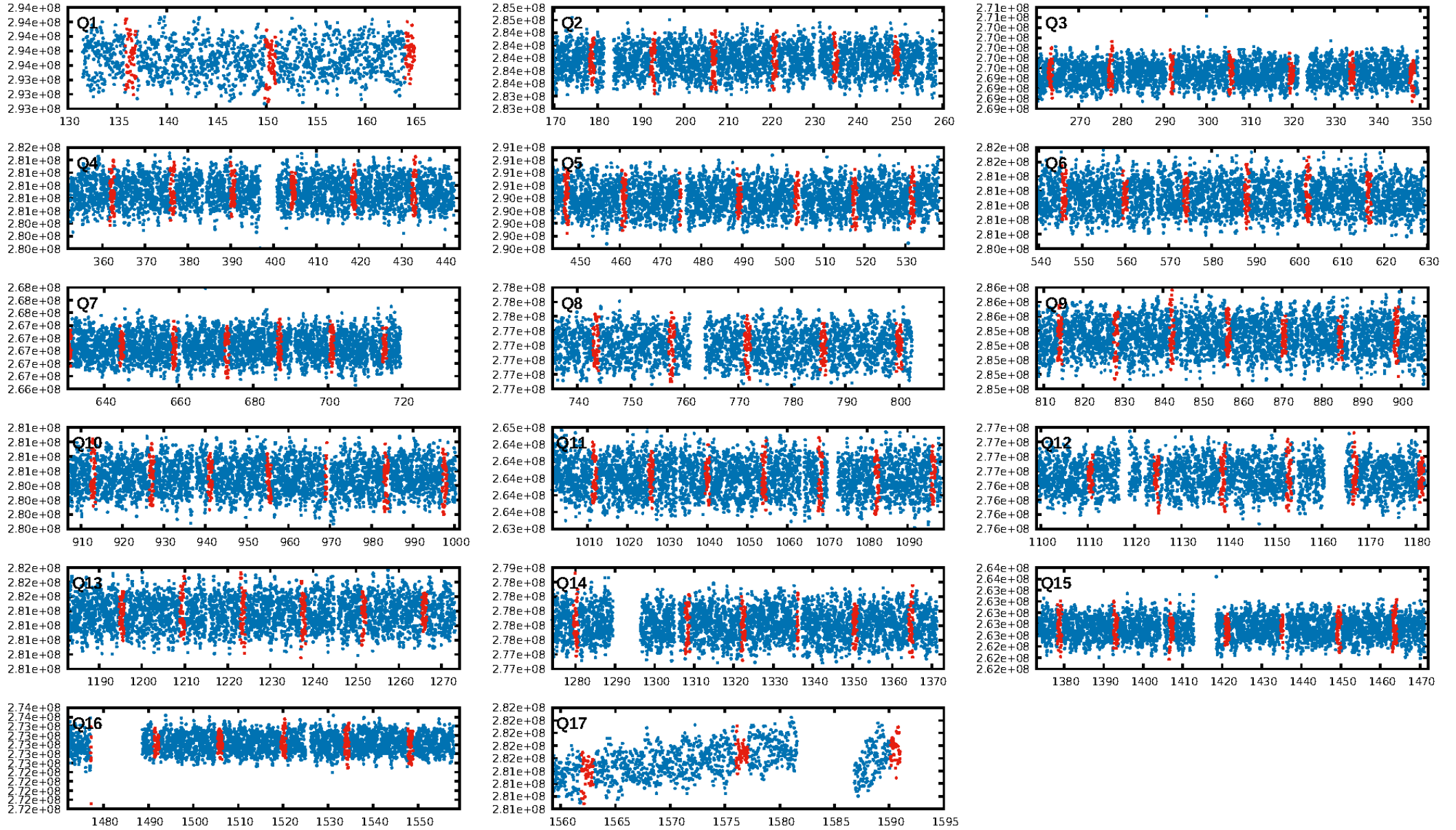
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [21.57σ]
LongPeriod-sig: 100.0% [50.03σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [68/68]
GhostDiagnostic-chr: 5.544
Centroid-sig: 0.0%
Centroid-so: 1.482 arcsec [2.02σ]
OotOffset-rm: 0.237 arcsec [0.07σ]
KicOffset-rm: 0.182 arcsec [0.07σ]
OotOffset-st: 0/2/1/1 [4]
KicOffset-st: 0/2/1/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.00 [0/17]

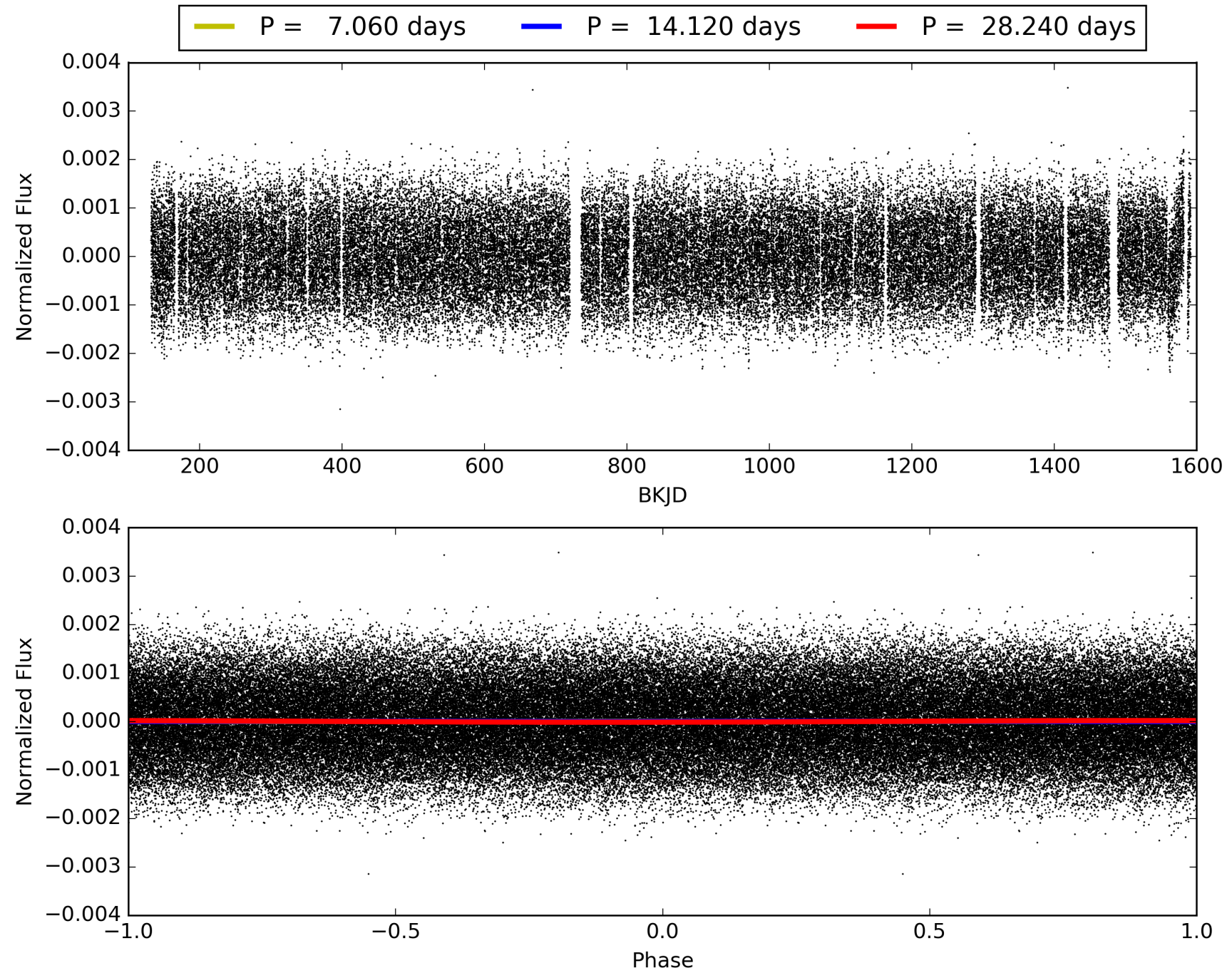
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:49:59 Z

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

TCE 005807415-04, PDC Light Curves

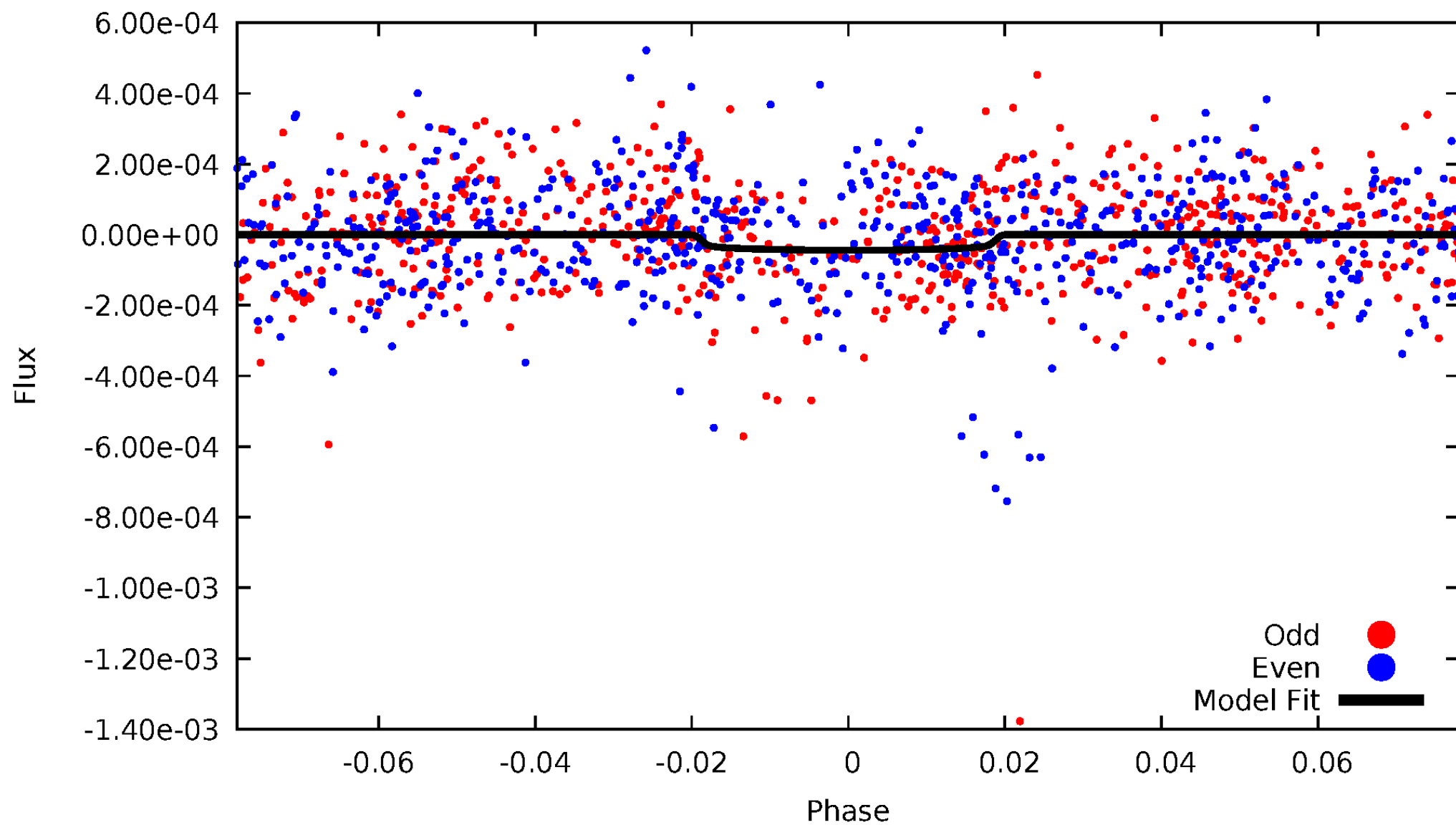


TCE 005807415-04



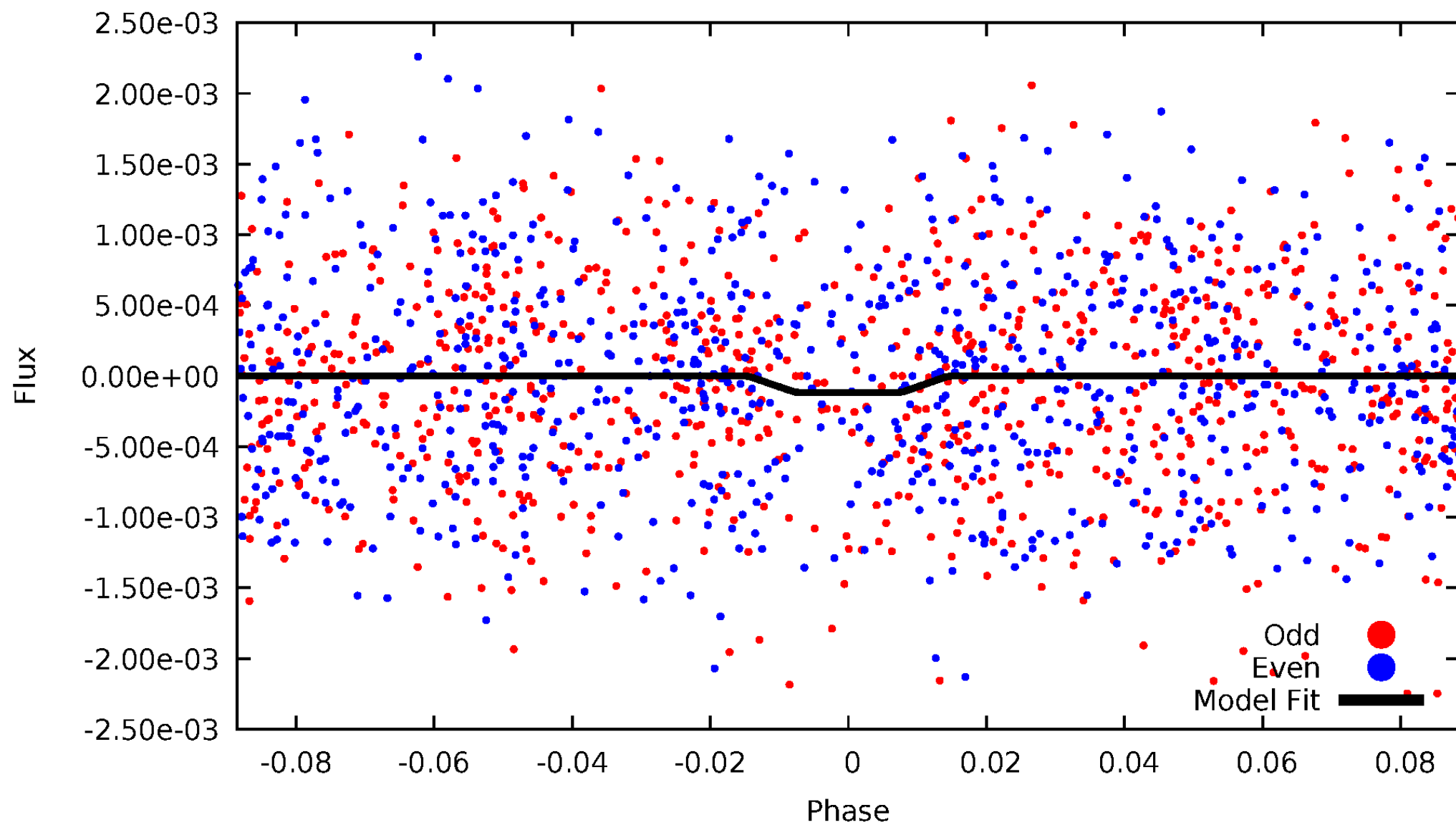
DV Odd/Even

TCE 005807415-04



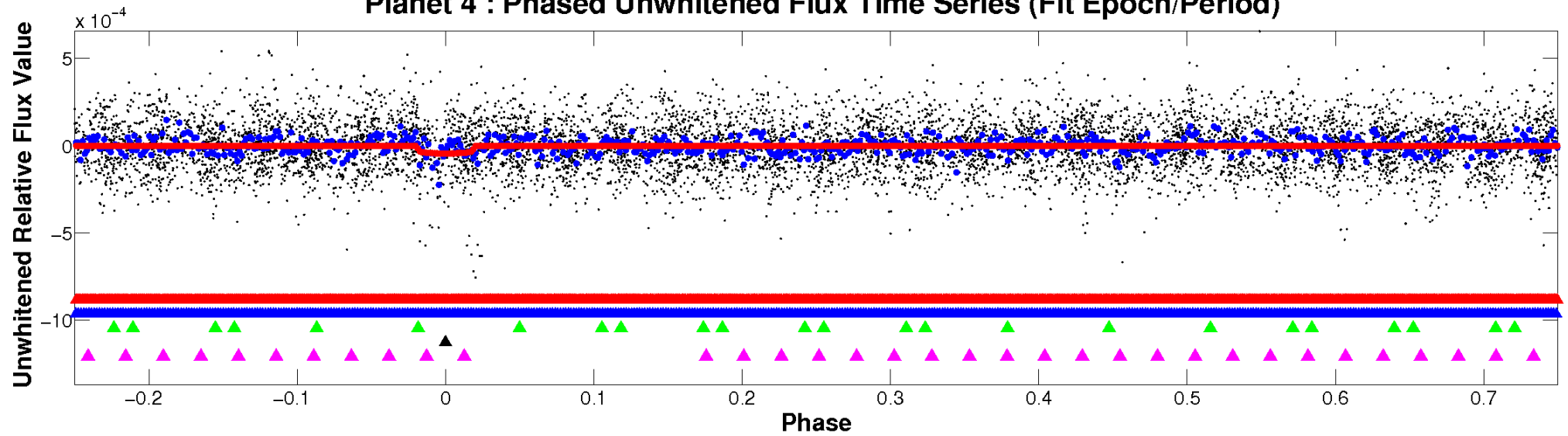
ALT Odd/Even

TCE 005807415-04

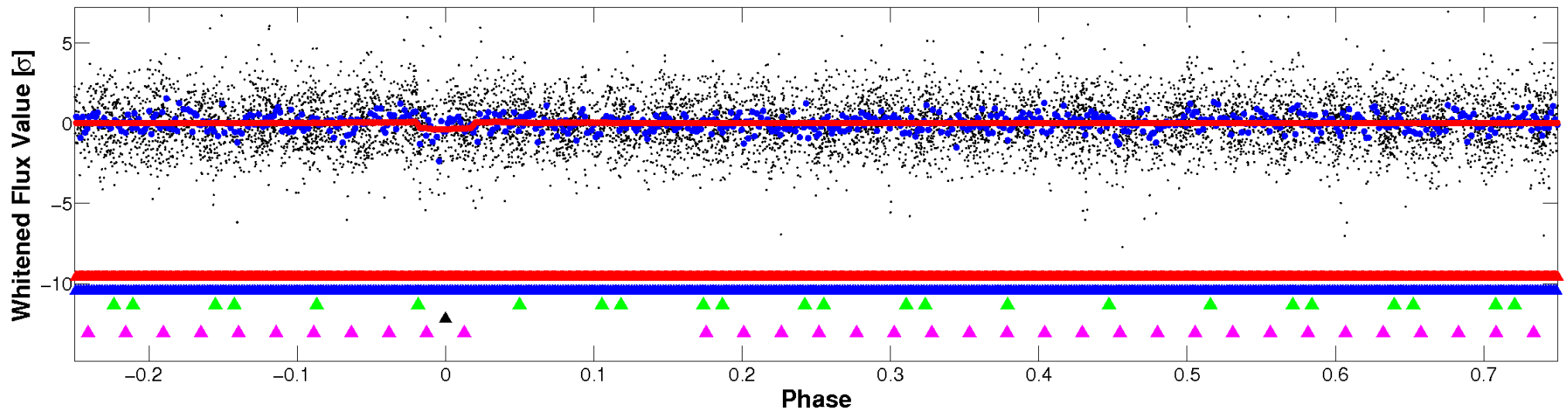


Non-Whitened Vs. Whitened Light Curve

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

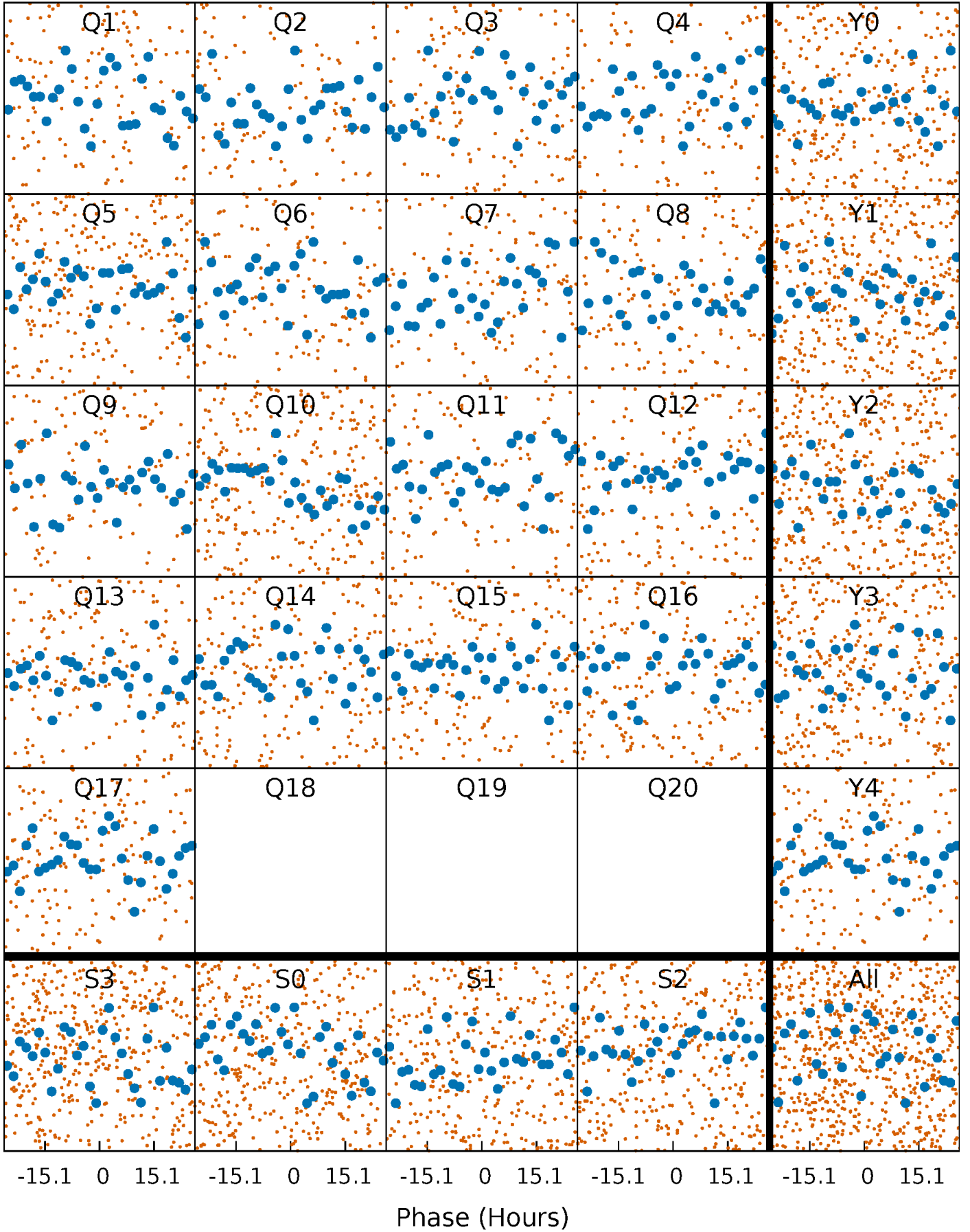


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



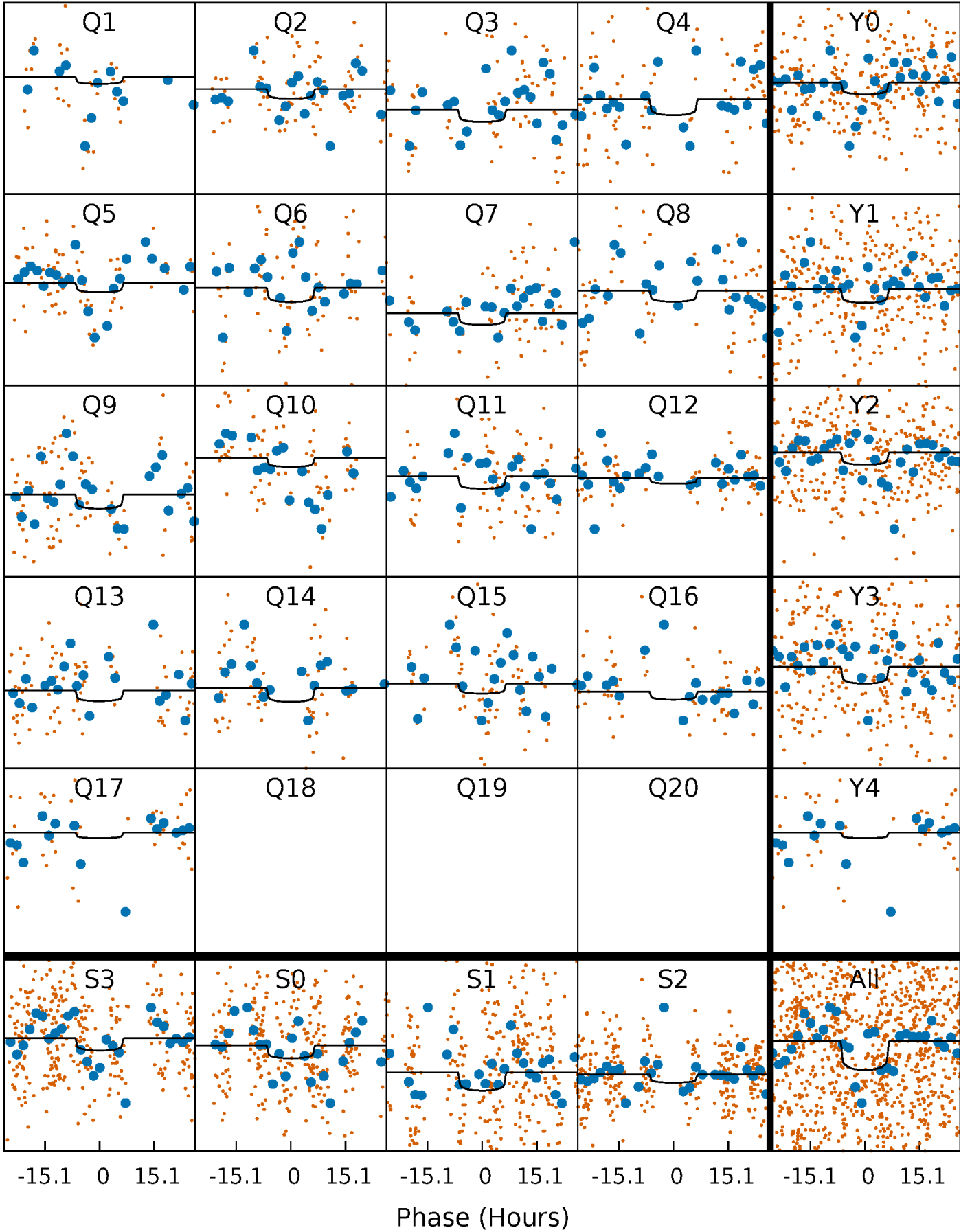
PDC Quarter-Phased Transit Curves

TCE 005807415-04 P= 14.119915 Days $T_0=136.319897$ (BKJD)



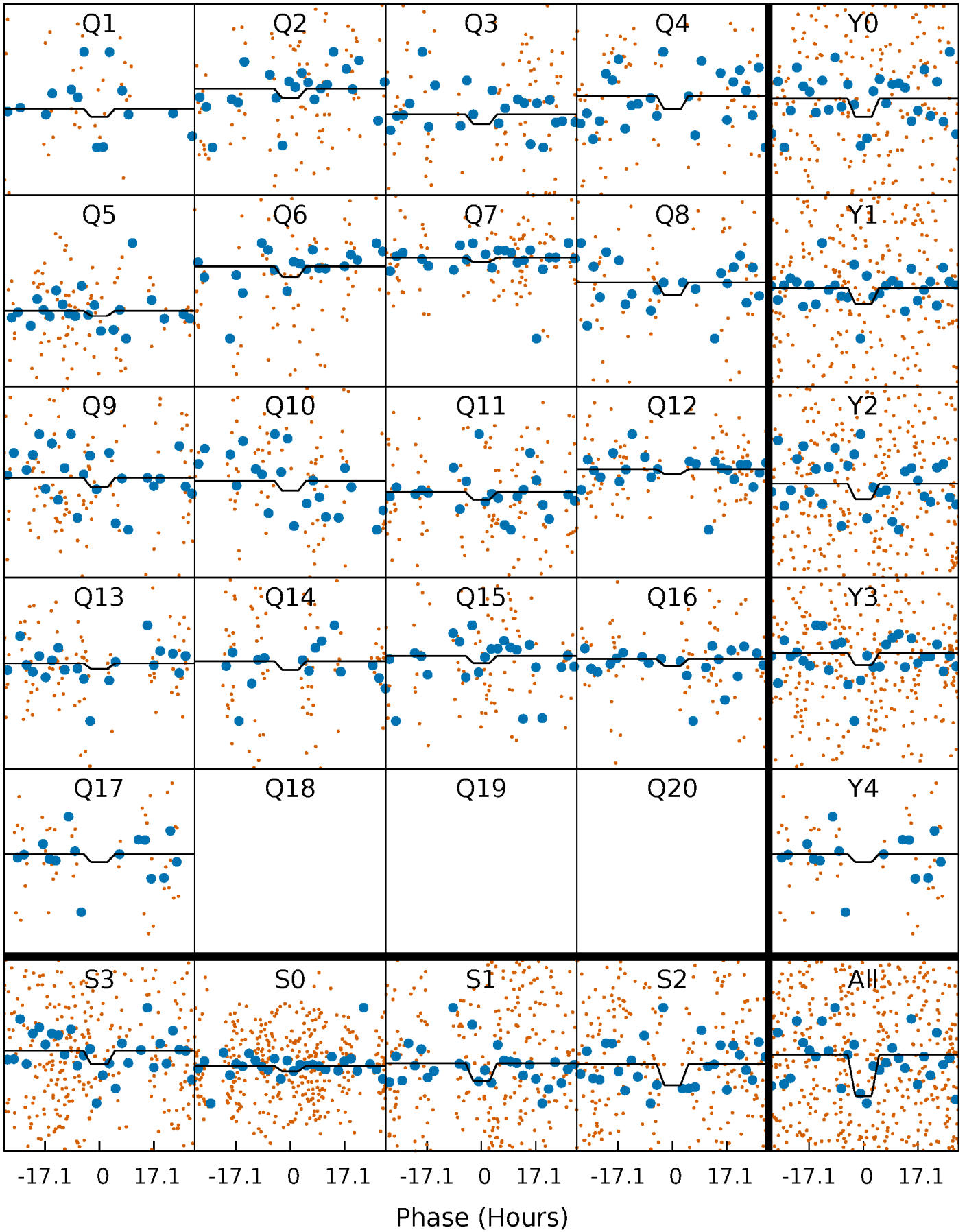
DV Quarter-Phased Transit Curves

TCE 005807415-04 P= 14.119915 Days $T_0=136.319897$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

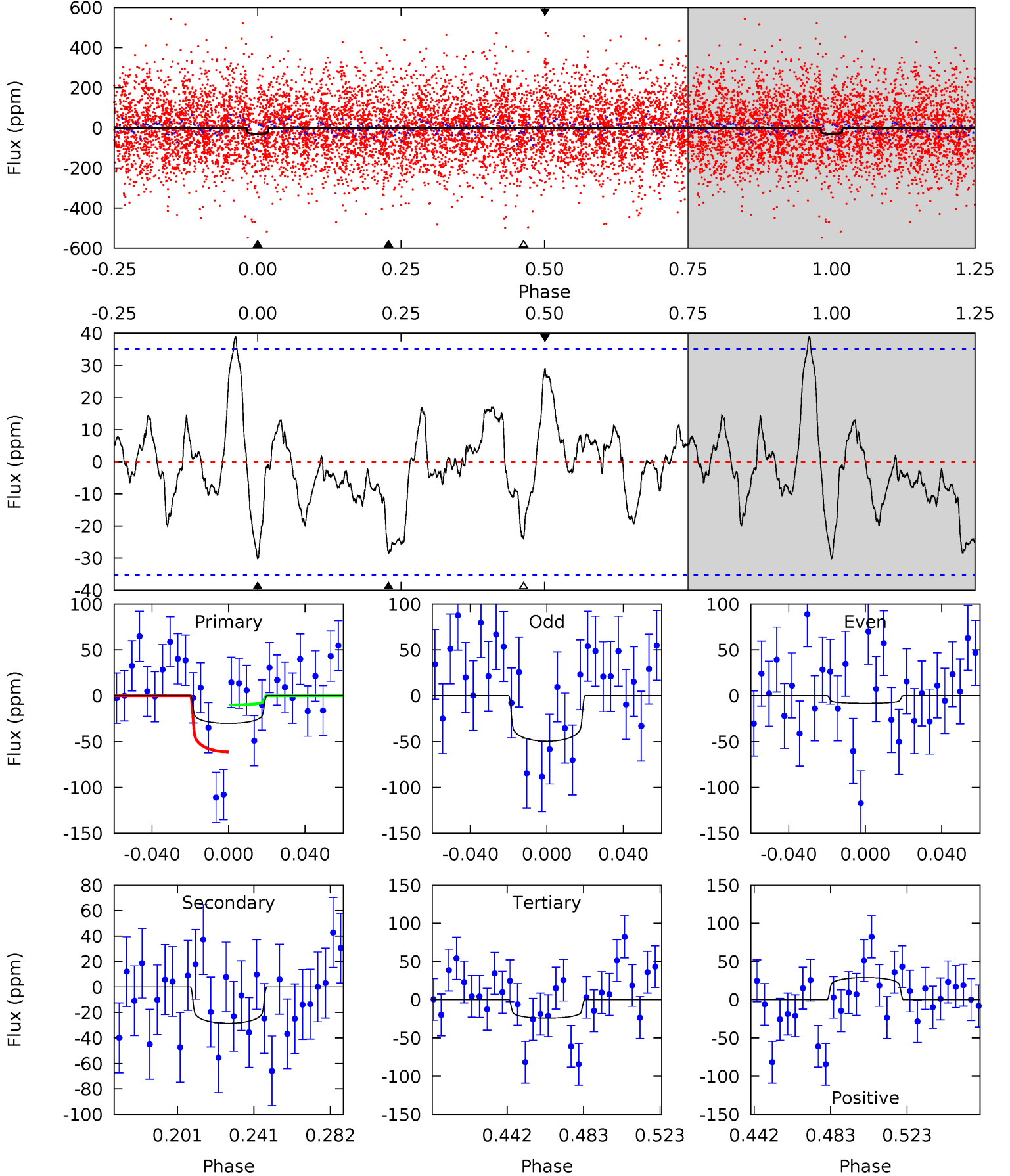
TCE 005807415-04 P= 14.121771 Days $T_0=136.182940$ (BKJD)



DV Model-Shift Uniqueness Test

005807415-04, P = 14.119915 Days, E = 122.199982 Days

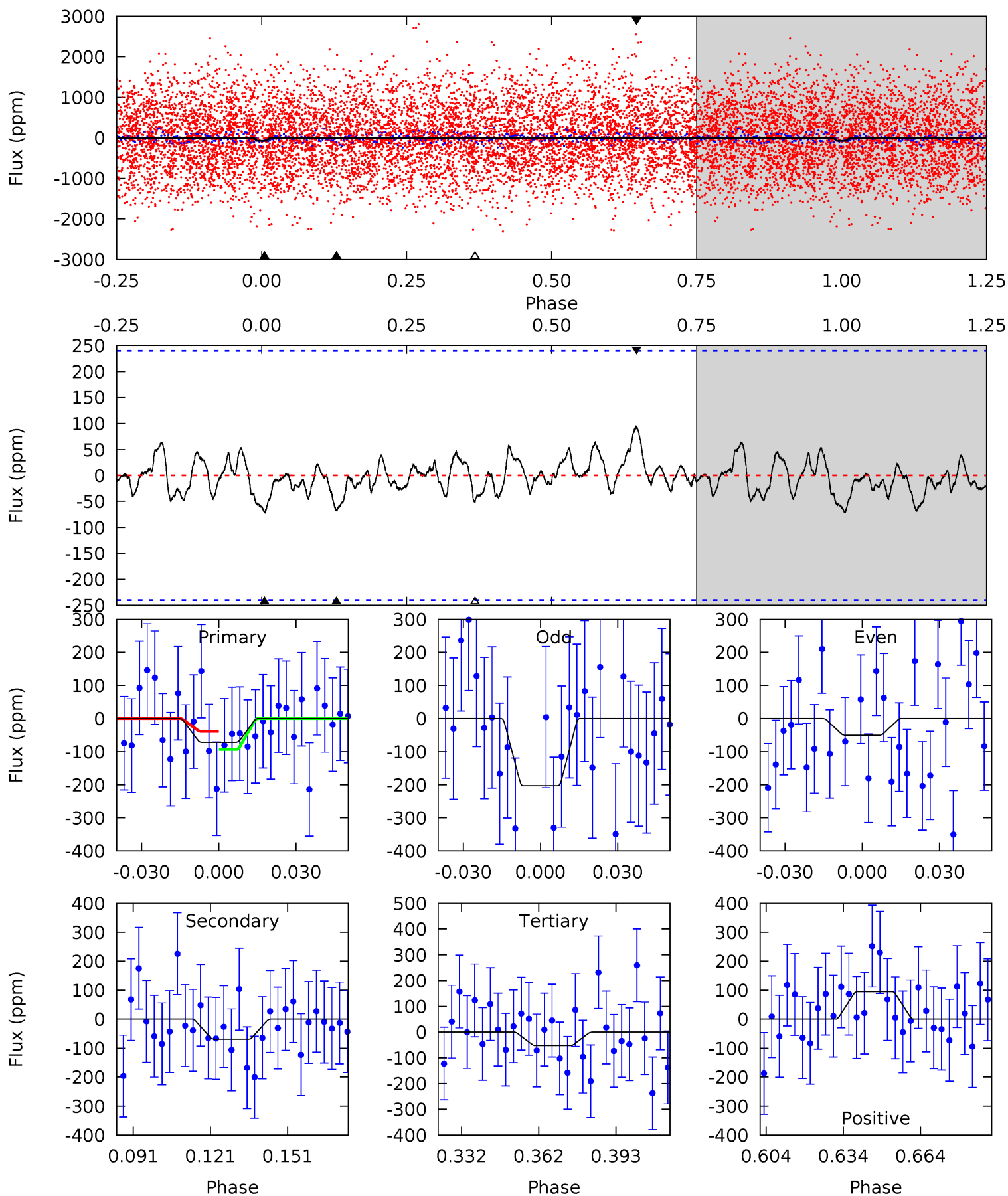
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.08	3.85	3.25	3.93	4.75	2.05	1.40	0.83	0.15	0.60	-0.08	2.82	1.22	0.56	3.42



Alt Model-Shift Uniqueness Test

005807415-04, P = 14.121771 Days, E = 122.061169 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.44	1.38	1.05	1.89	4.81	2.17	0.56	0.40	-0.45	0.33	-0.52	1.53	-32.0	0.57	0.54



Stellar Parameters For KIC 005807415

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7296^{+228}_{-304}	$4.161^{+0.128}_{-0.192}$	$-0.160^{+0.250}_{-0.350}$	$1.663^{+0.512}_{-0.341}$	$1.460^{+0.211}_{-0.234}$	$0.447^{+0.286}_{-0.236}$
	+3%/-4%	+3%/-5%	+156%/-219%	+31%/-21%	+14%/-16%	+64%/-53%
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 005807415-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-28 ± 7	$1.28^{+0.47}_{-0.41}$	1621^{+121}_{-97}	6248^{+1595}_{-909}	155^{+196}_{-79}
Alt.	-69 ± 50	$2.00^{+0.53}_{-0.43}$	1621^{+139}_{-110}	6202^{+1302}_{-1648}	144^{+160}_{-107}

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

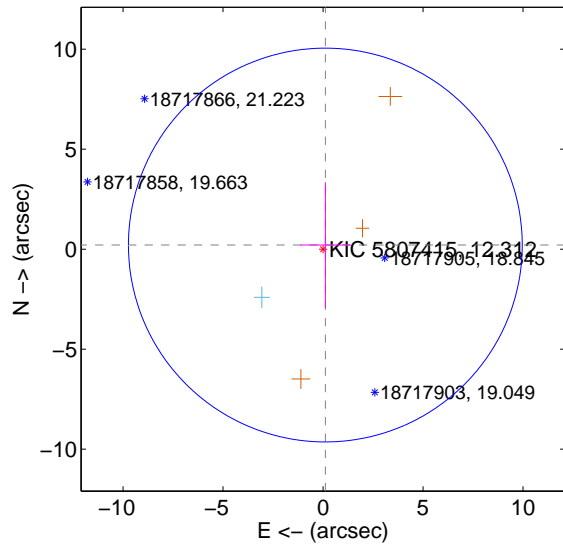
Supplemental centroid analysis for 005807415-04. Kepler magnitude: 12.31. Transit SNR 5.96

There are 1 quarters with good PRF difference image offsets

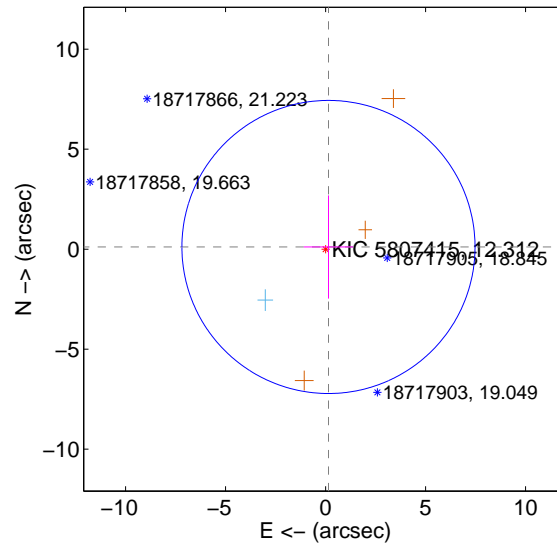
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.237 ± 3.283	0.07	-0.115 ± 1.259	0.207 ± 3.138
PRF-fit source offset from KIC position	0.182 ± 2.443	0.07	-0.144 ± 1.238	0.110 ± 2.581
photometric centroid source offset	1.48 ± 0.73	2.02	-0.62 ± 0.78	1.35 ± 0.72

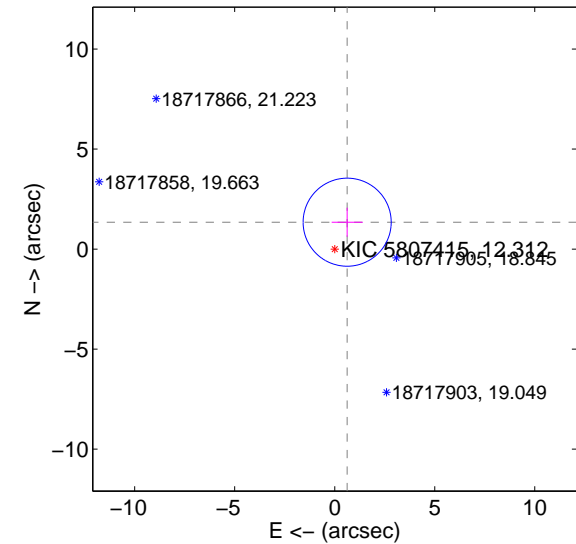
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

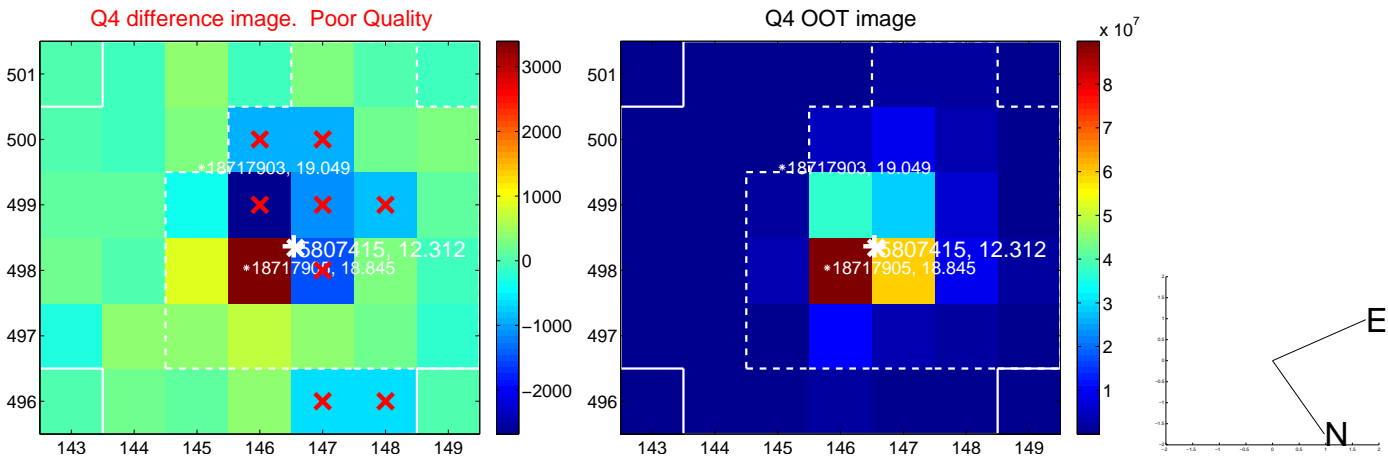
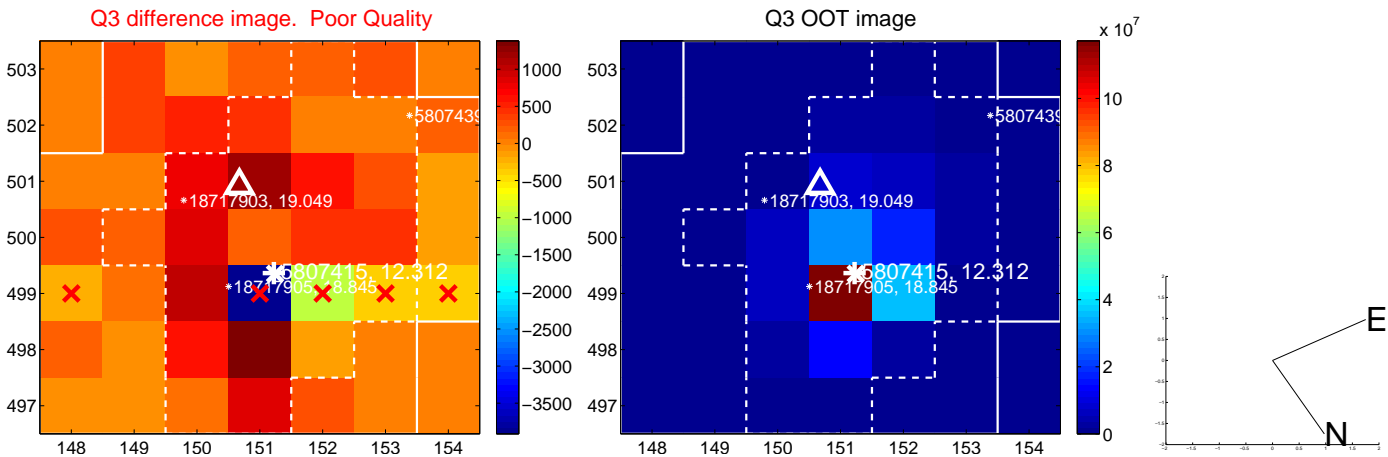
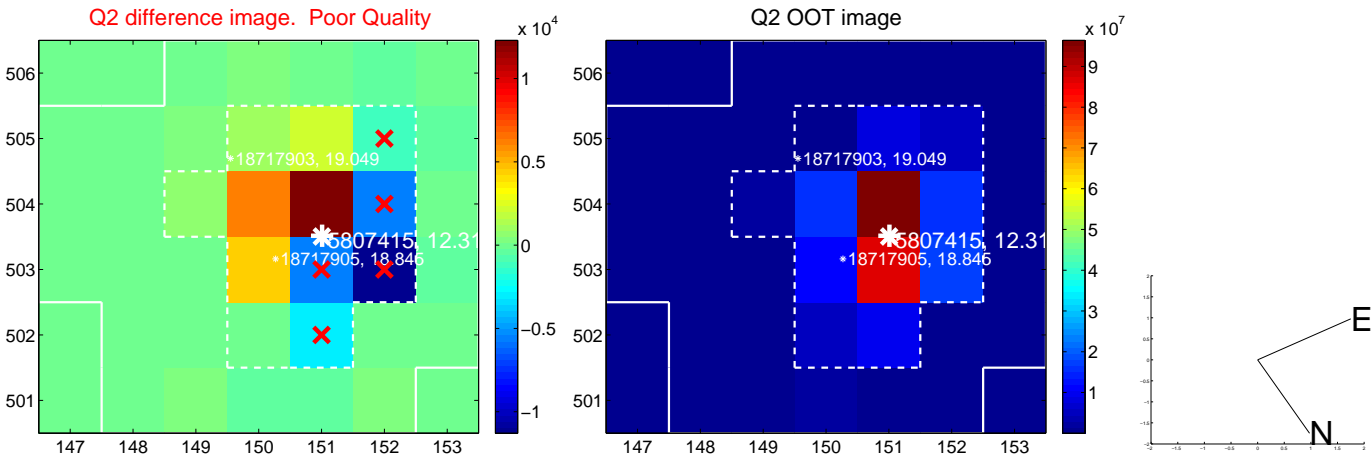
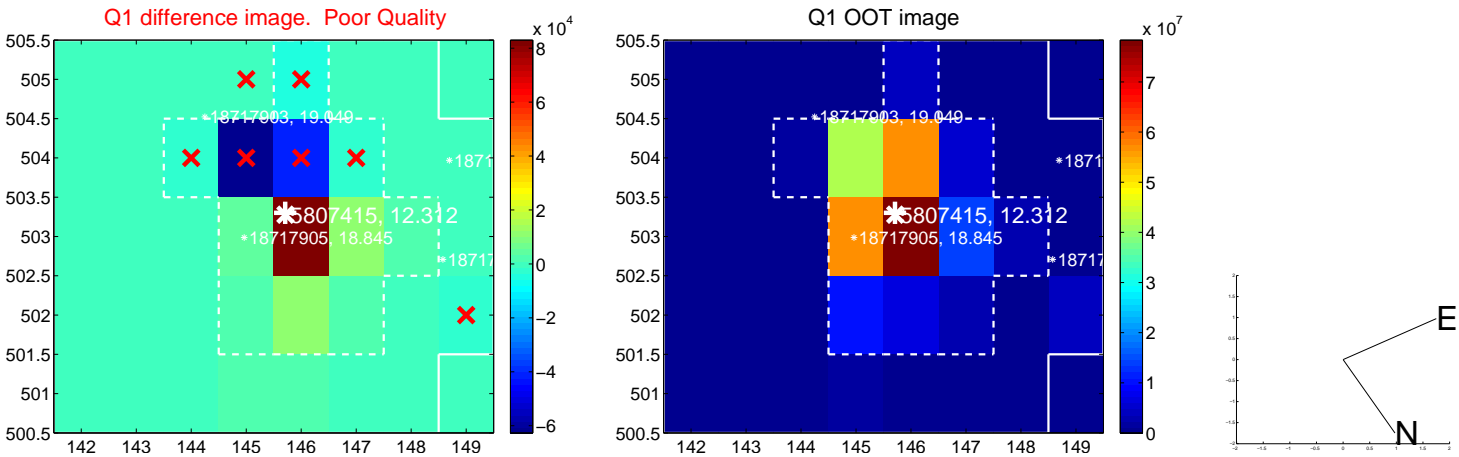


offset from photometric centroids

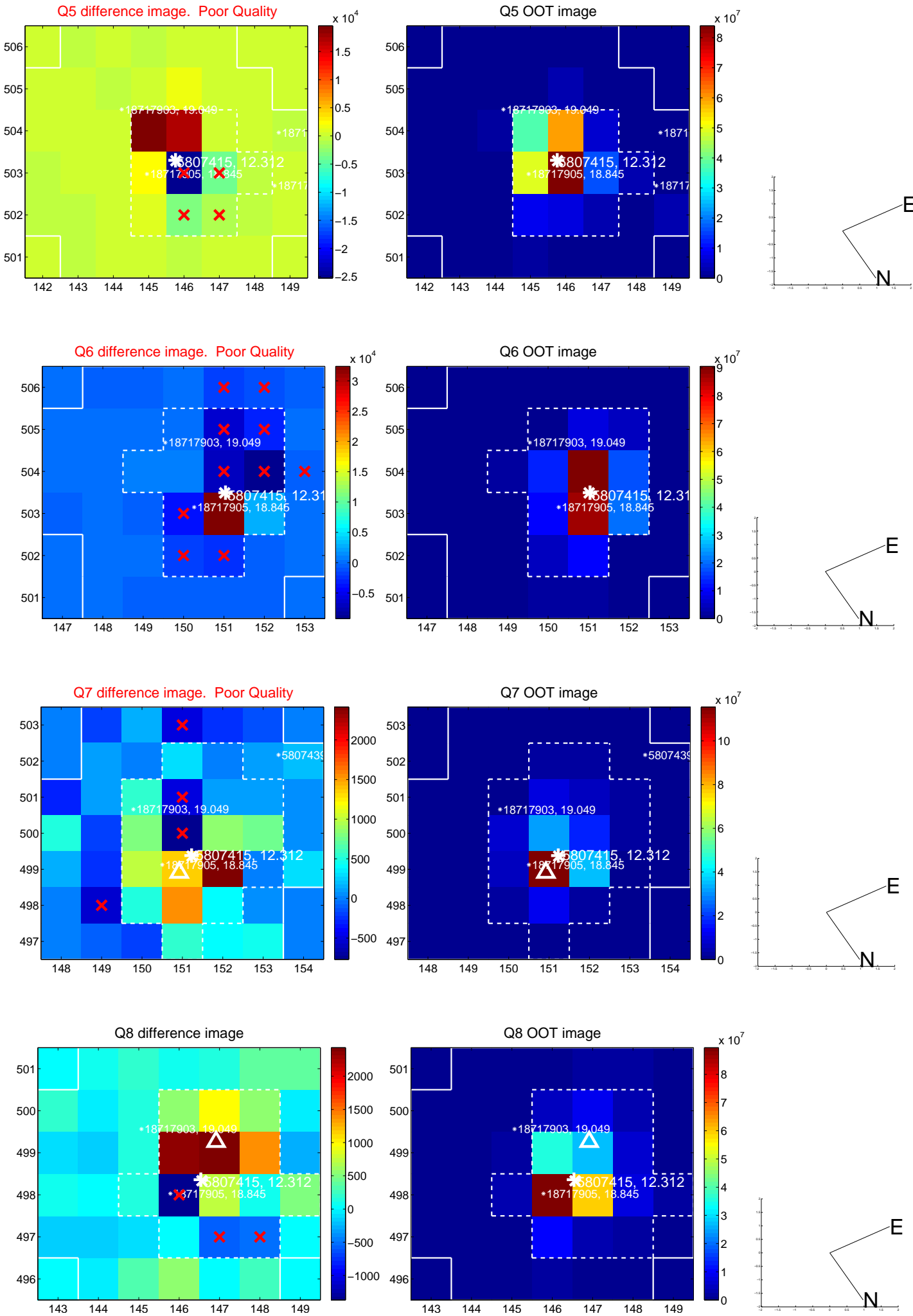


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

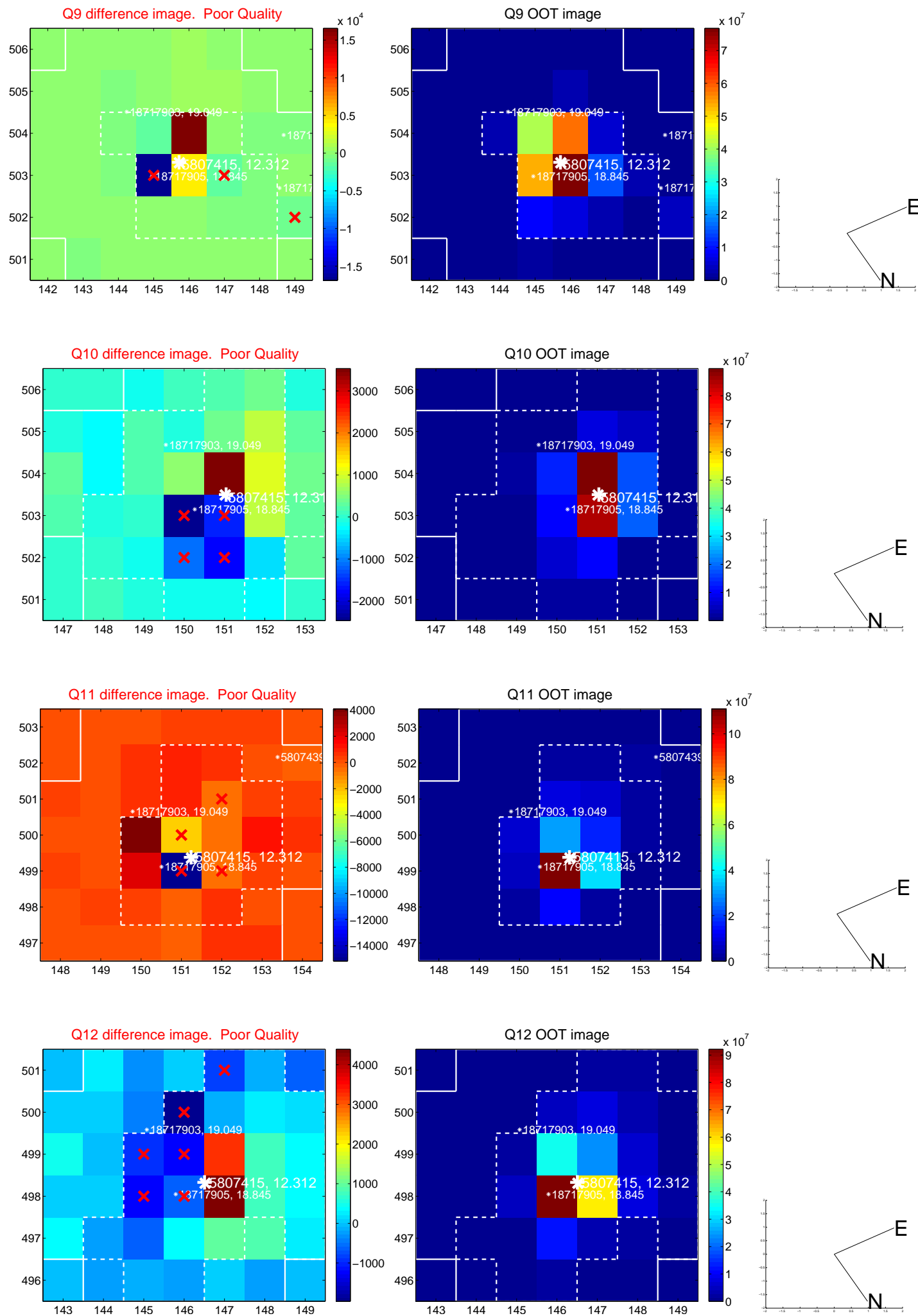
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



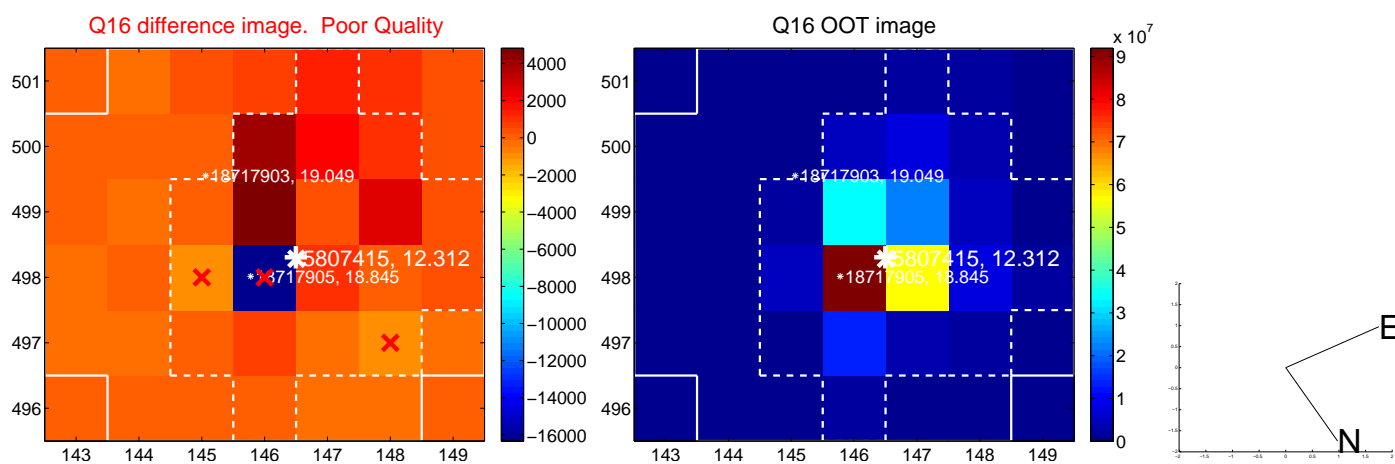
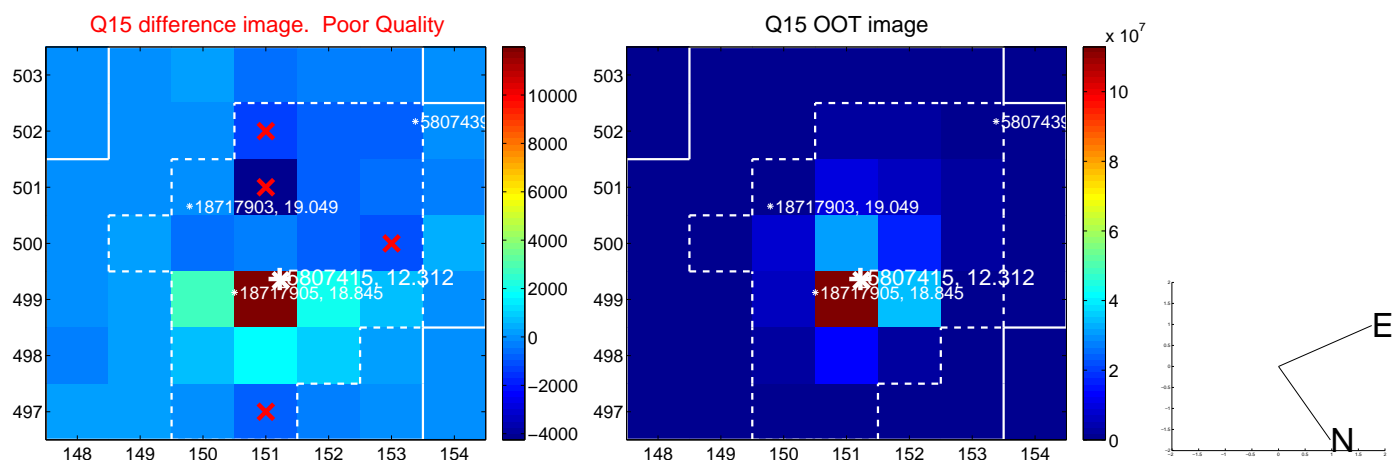
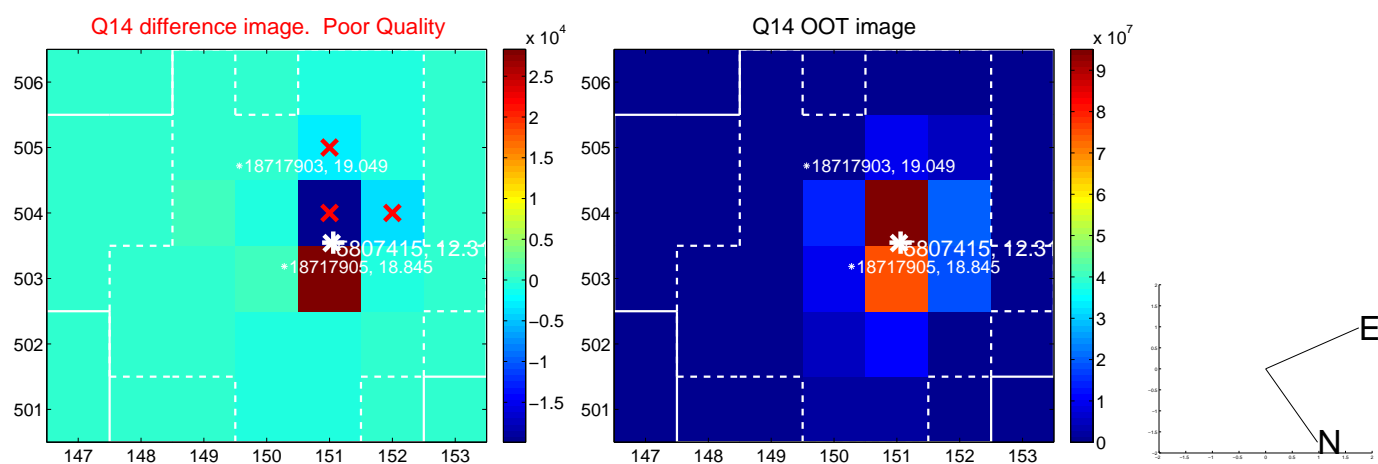
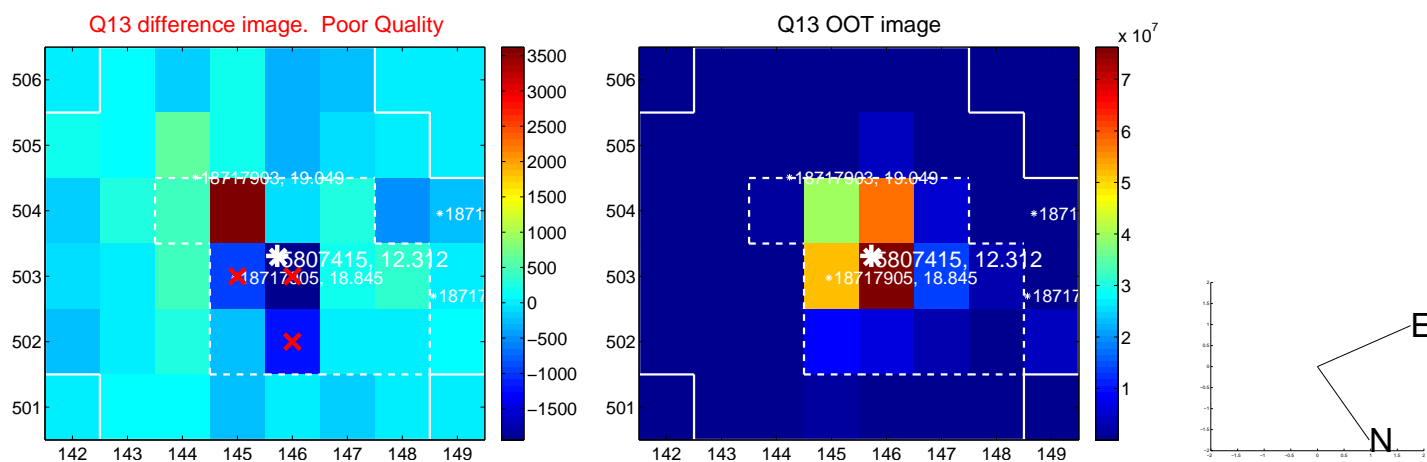
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



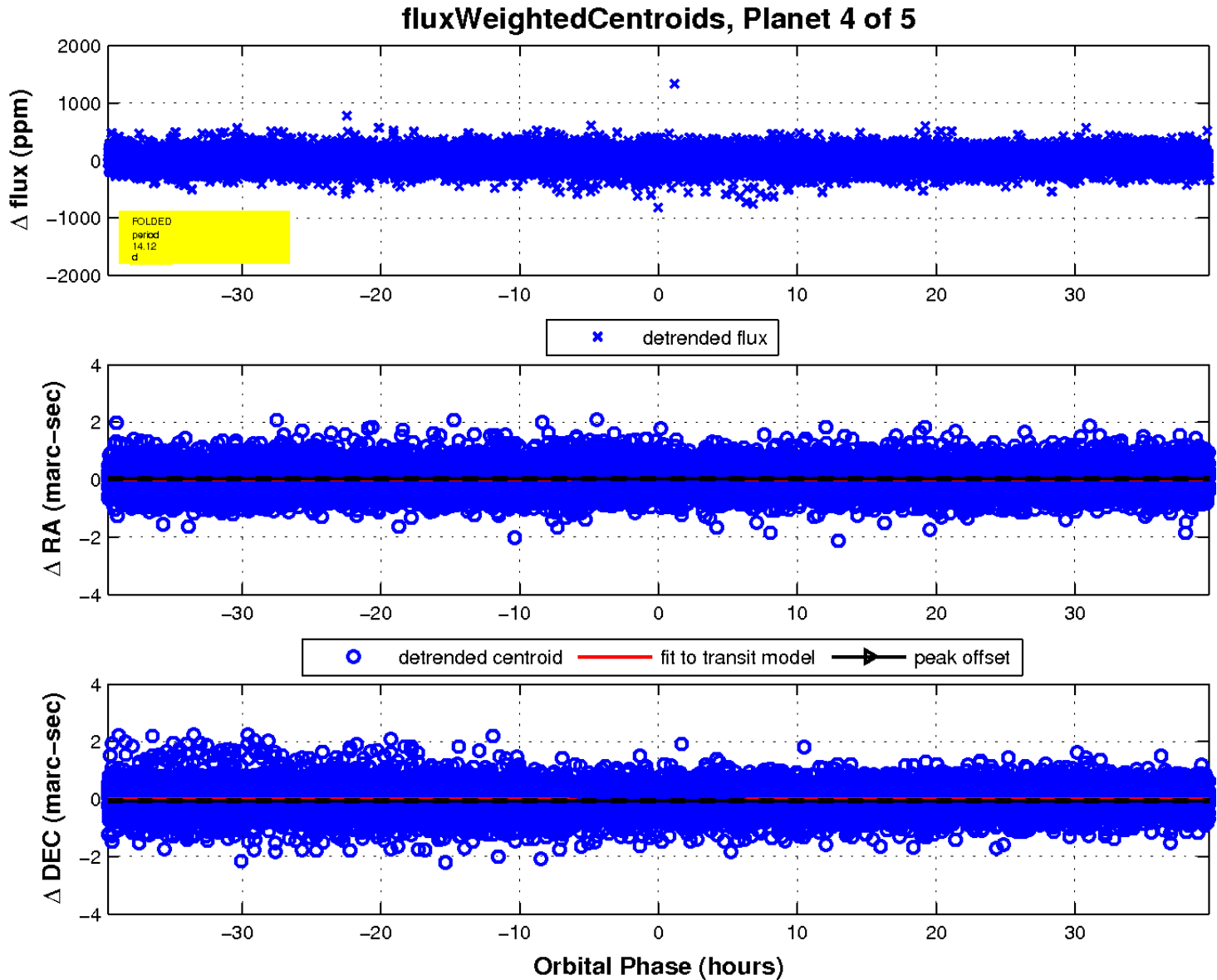
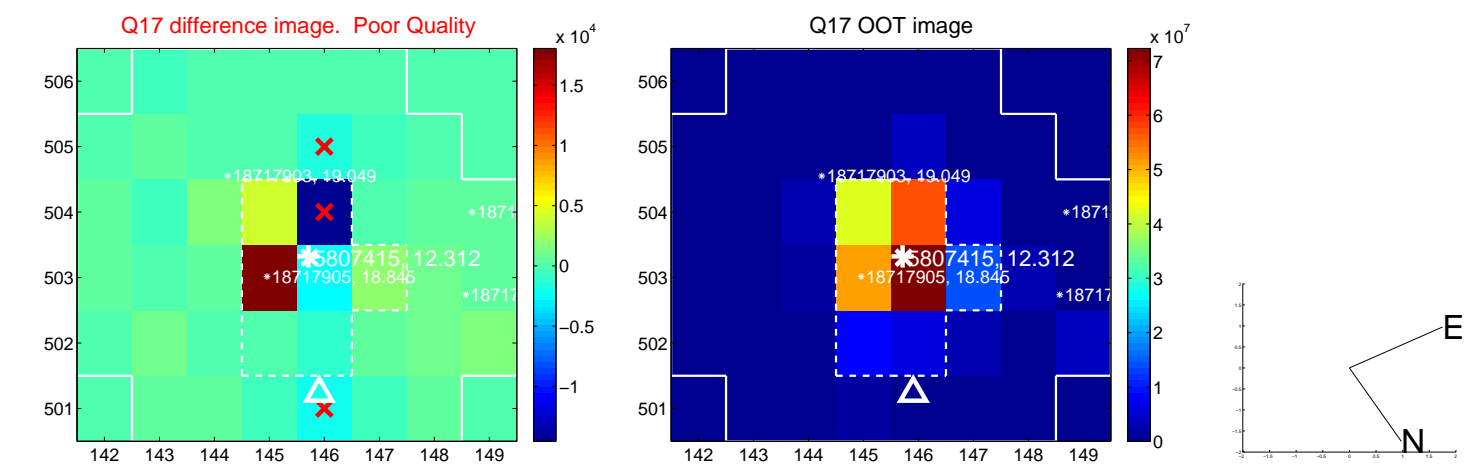
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

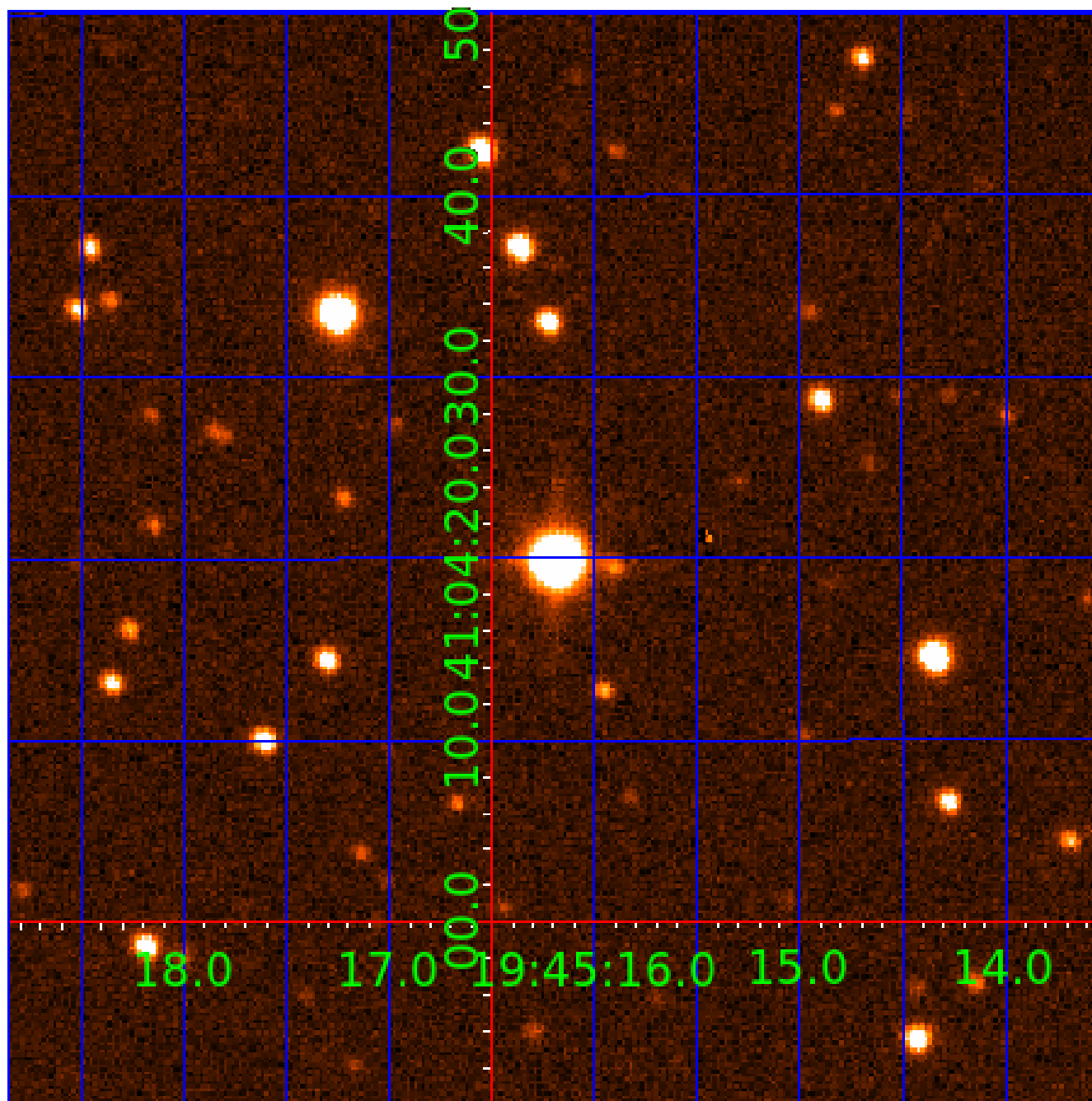


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005807415

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})
005807415-01	OBS	No	0.986796	132.077994	12.6	6.221	9.1	8.3	1.66	7296	0.61	14483.00
005807415-02	OBS	No	0.652072	131.773952	38.9	1.450	12.7	11.7	1.66	7296	1.18	25163.30
005807415-03	OBS	No	63.056865	134.310089	233.2	2.377	9.6	8.5	1.66	7296	2.65	56.69
005807415-04	OBS	No	14.119915	136.319897	43.6	13.225	9.8	6.0	1.66	7296	1.27	416.92
005807415-05	OBS	No	42.001665	164.738285	296.0	2.000	9.6	-1.0	1.66	7296	2.91	97.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005807415-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
005807415-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005807415-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005807415-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_MEAS
005807415-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS

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

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

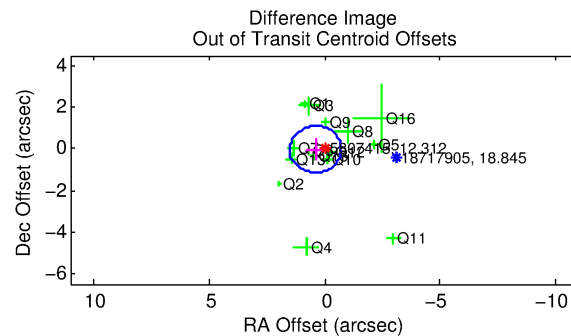
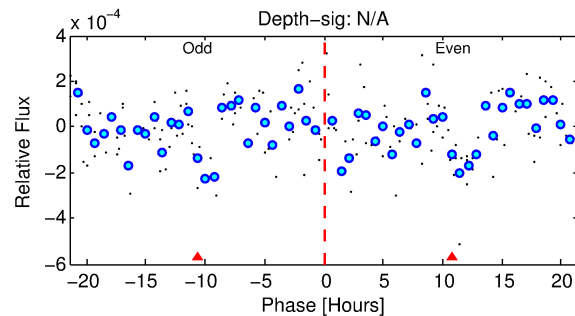
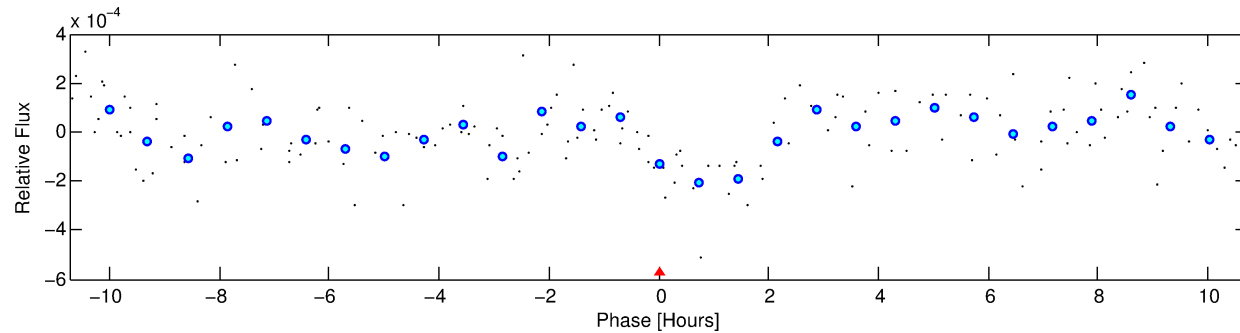
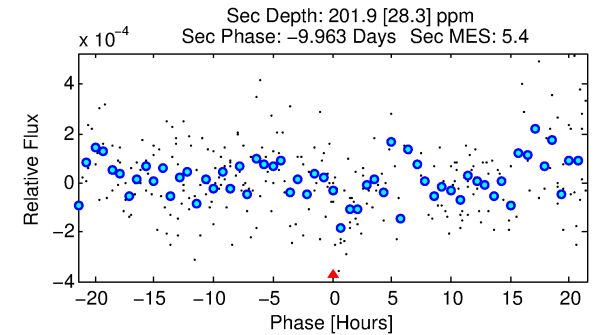
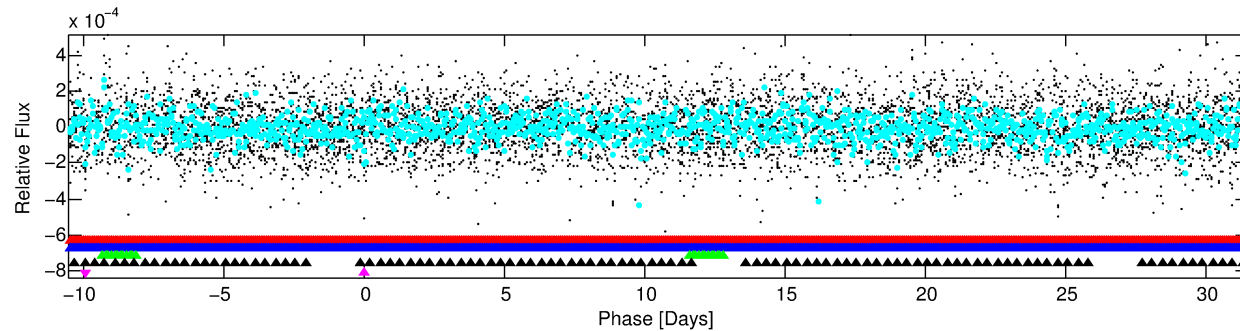
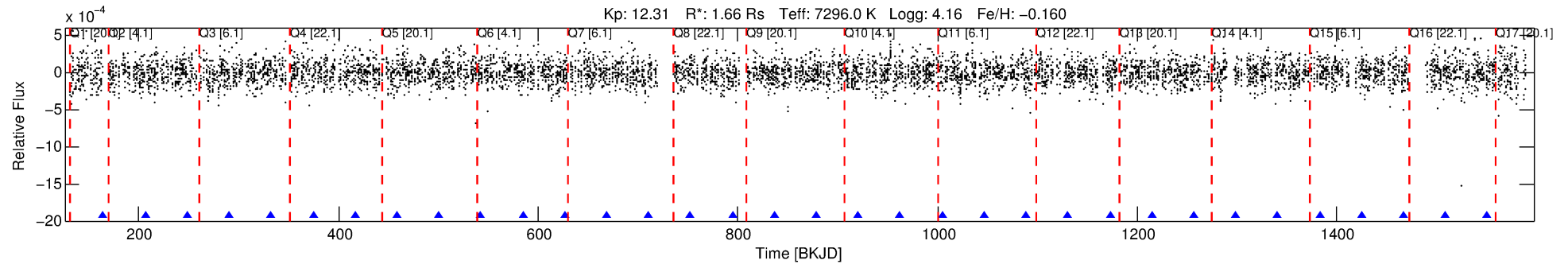
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005807415-05

No Significant Match Found

DV One-Page Summary

KIC: 5807415 Candidate: 5 of 5 Period: 42.002 d



TPS TCE Results:

Period = 42.00166 d
Epoch = 164.7383 BKJD

DV fit results are unavailable

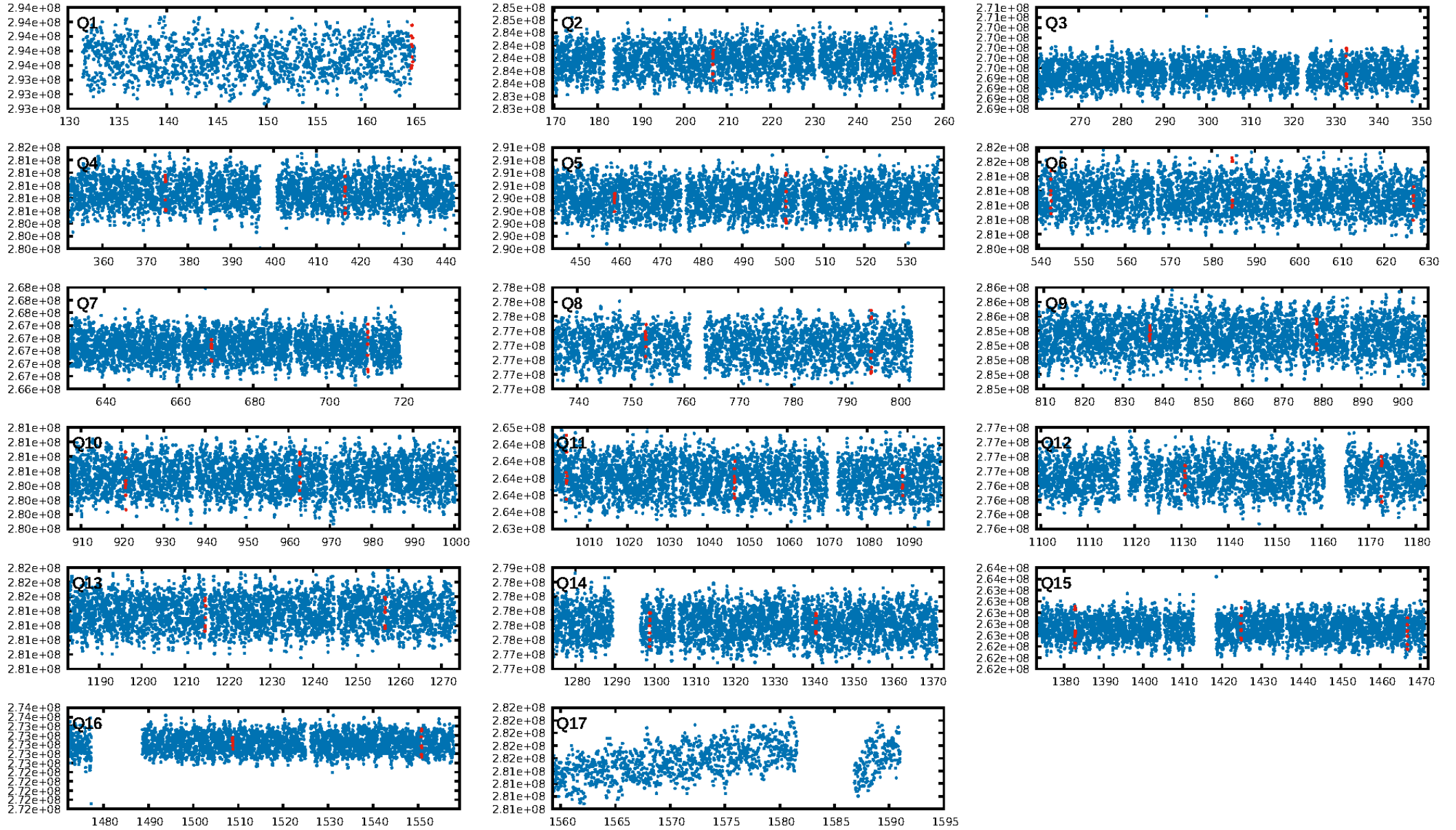
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [50.03σ]
LongPeriod-sig: 100.0% [162.67σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 249.9
Centroid-sig: 16.7%
Centroid-so: 0.740 arcsec [1.30σ]
OotOffset-rm: 0.399 arcsec [1.07σ]
KicOffset-rm: 0.409 arcsec [1.10σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.40 [6/15]
DiffImageOverlap-fno: 0.00 [0/16]

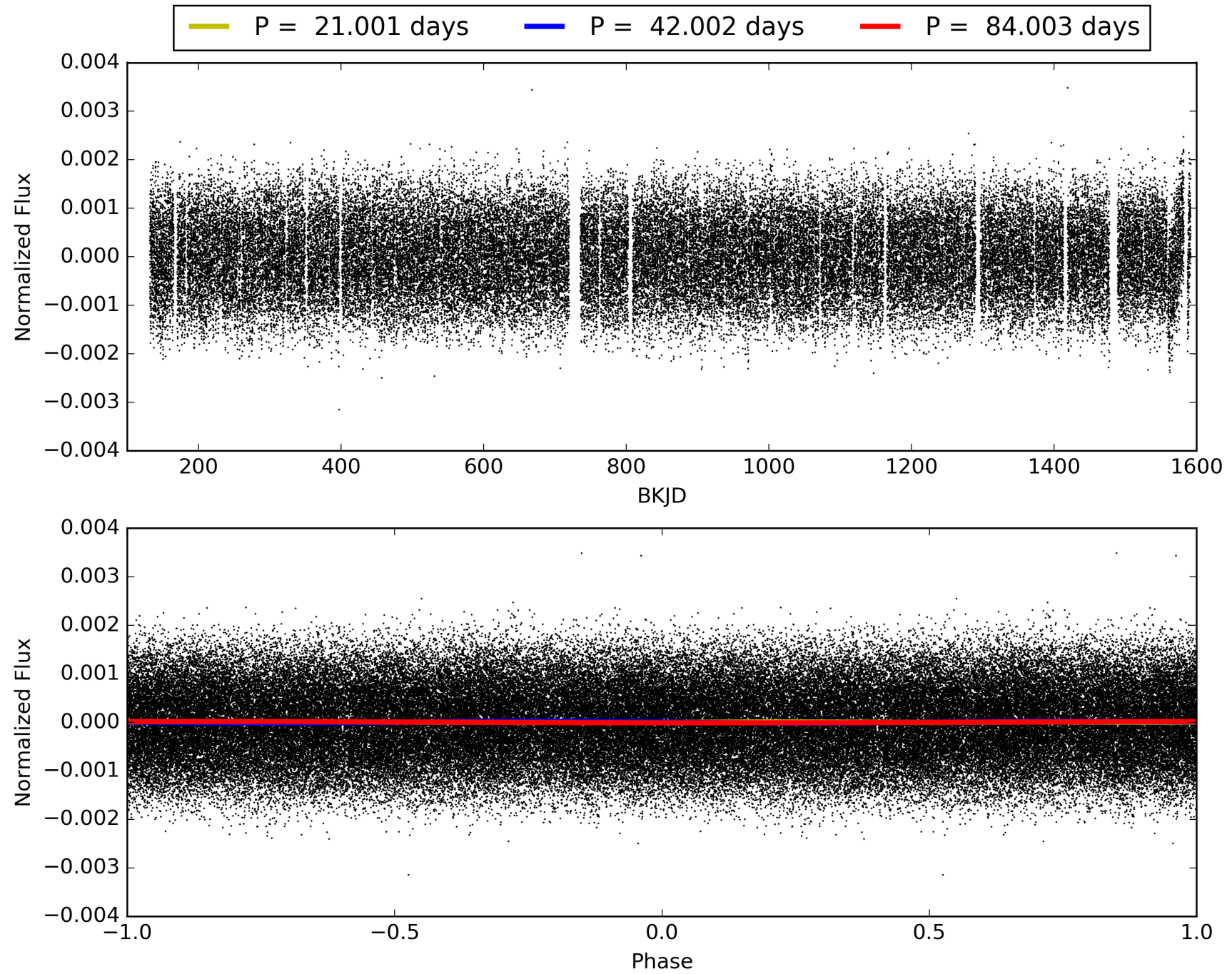
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 09:50:03 Z

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

TCE 005807415-05, PDC Light Curves

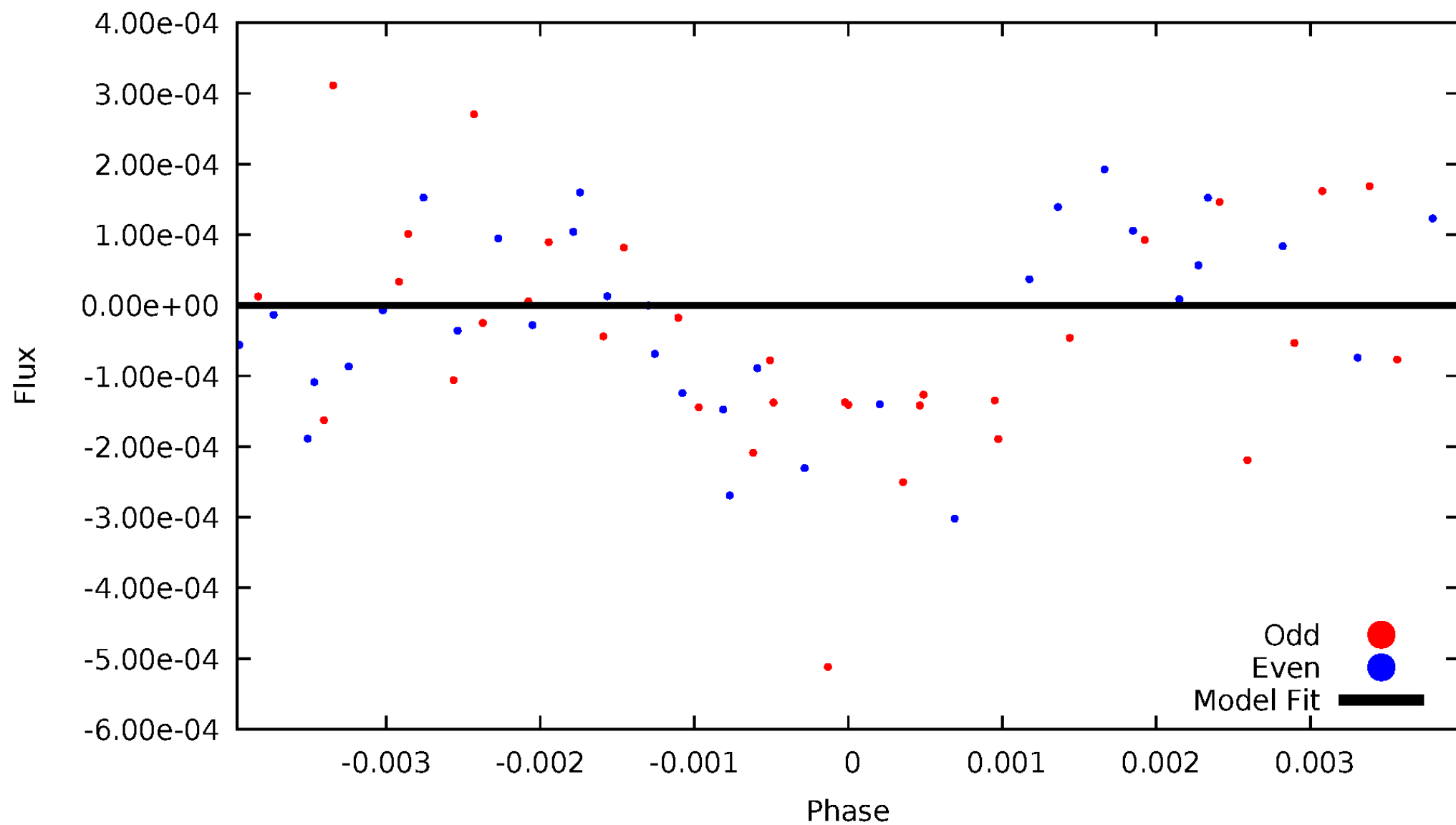


TCE 005807415-05



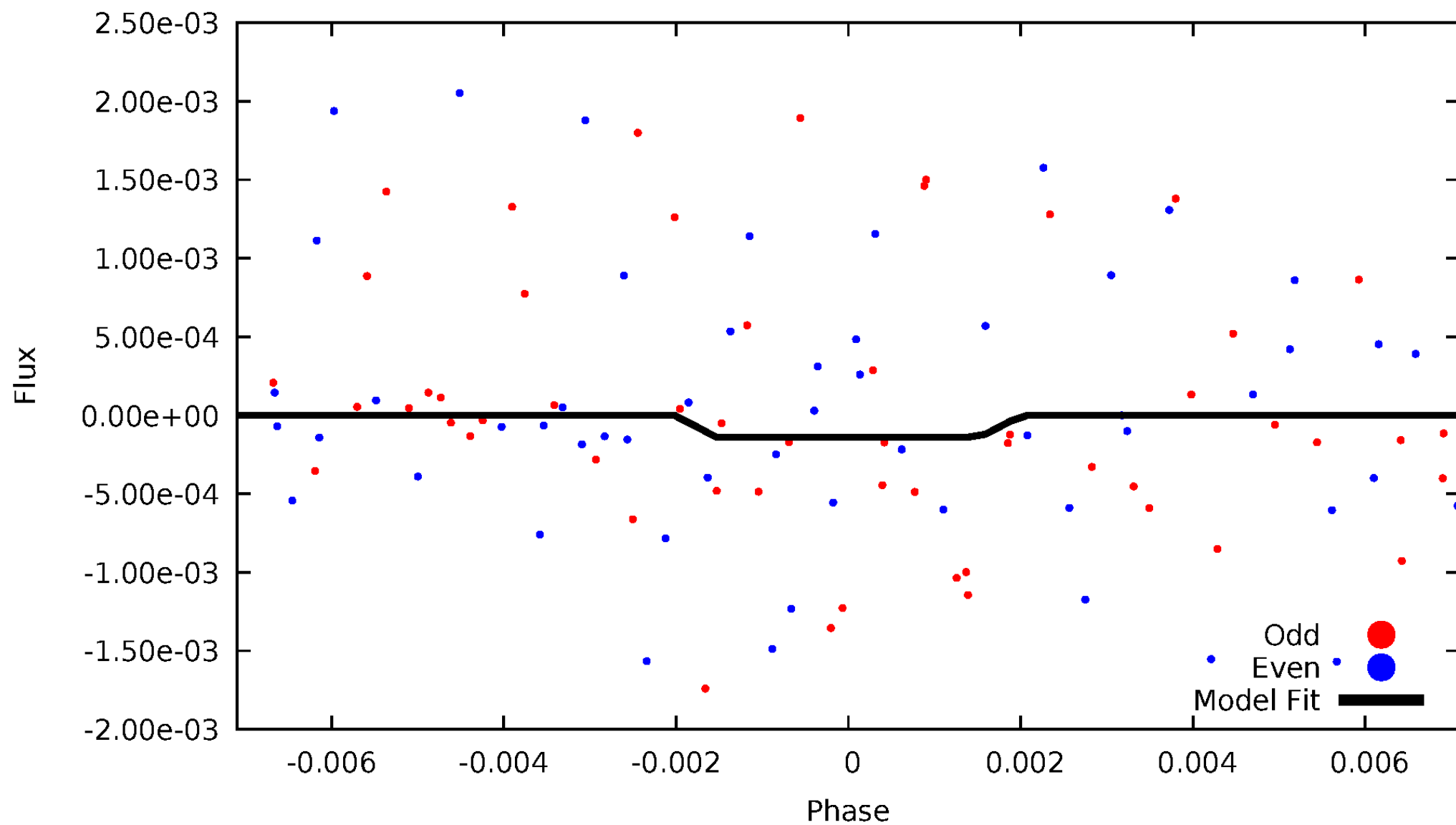
DV Odd/Even

TCE 005807415-05

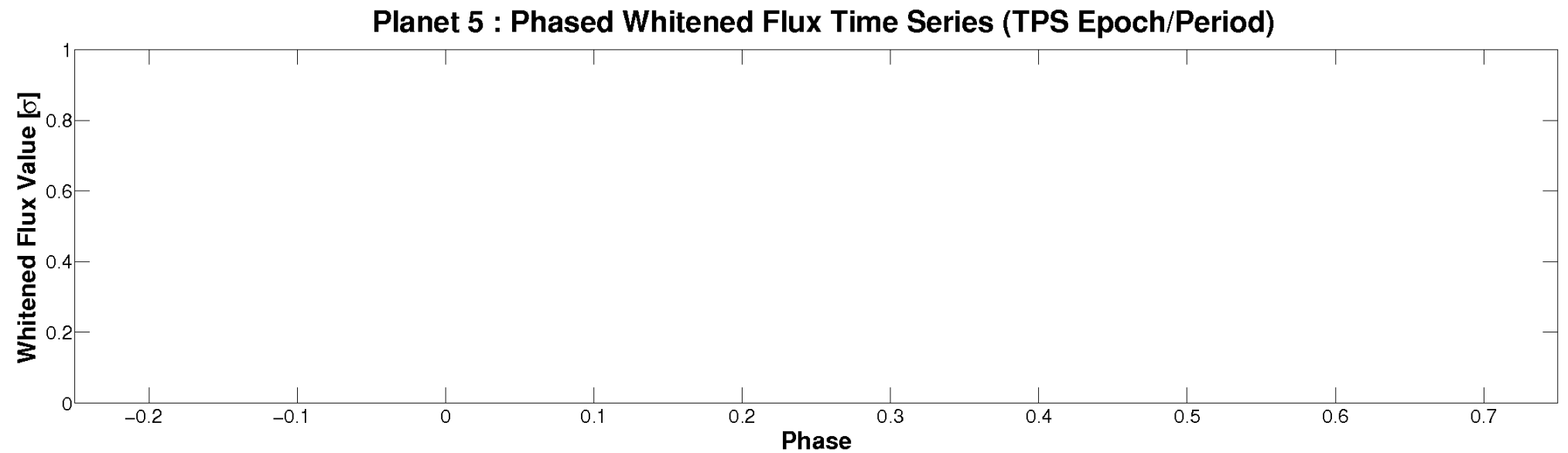
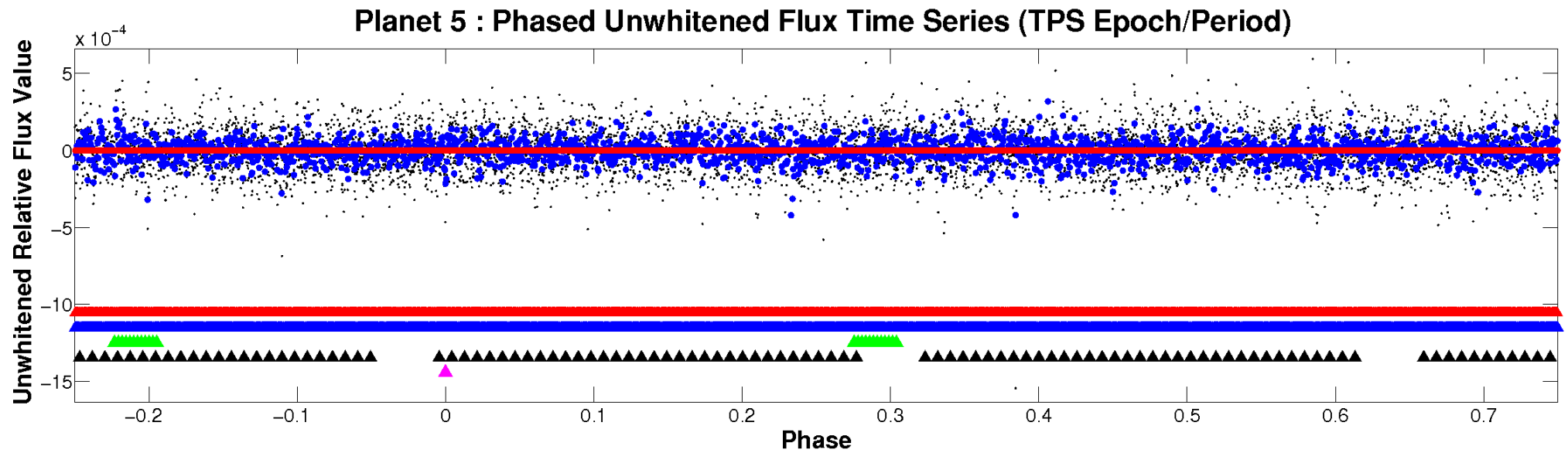


ALT Odd/Even

TCE 005807415-05

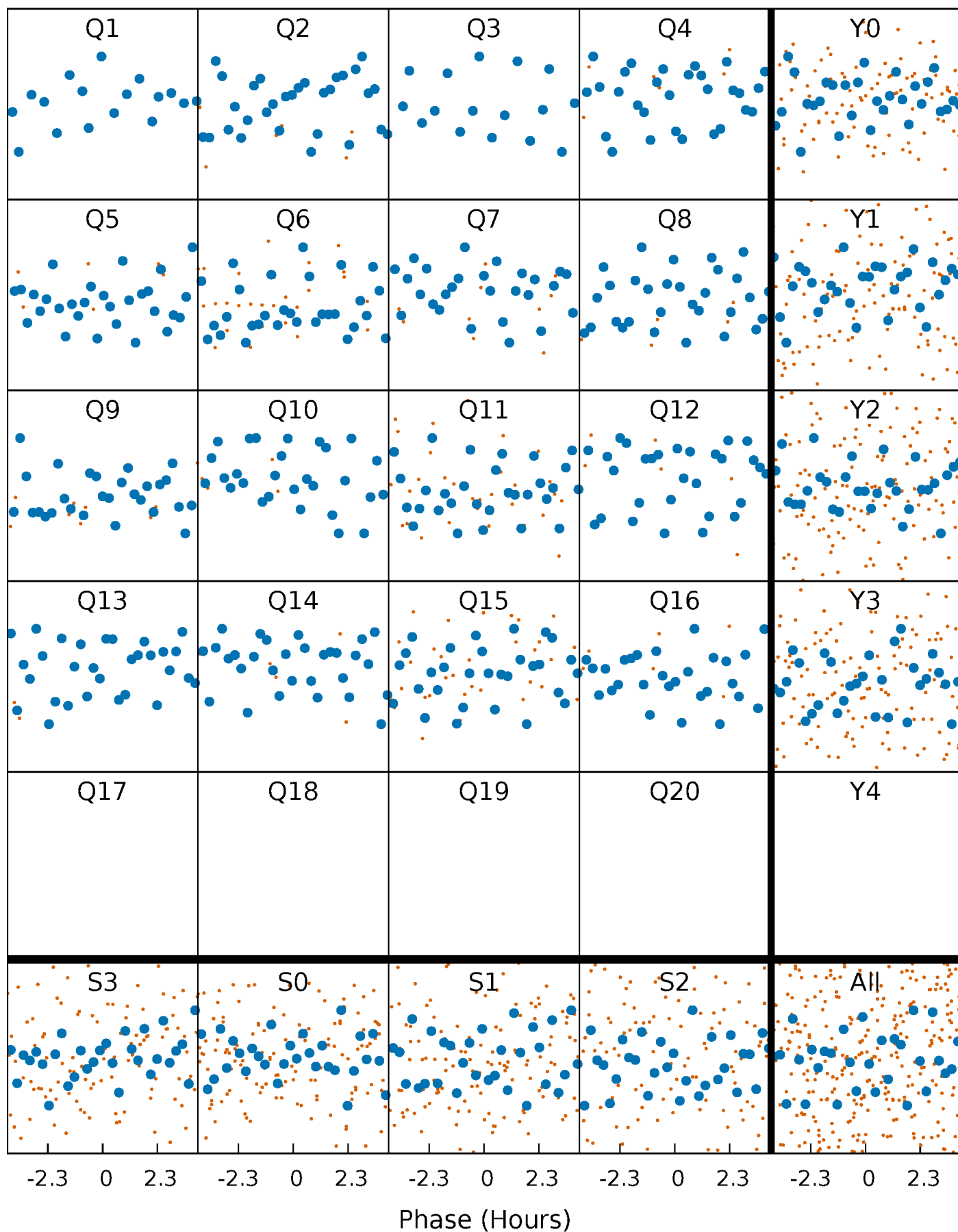


Non-Whitened Vs. Whitened Light Curve



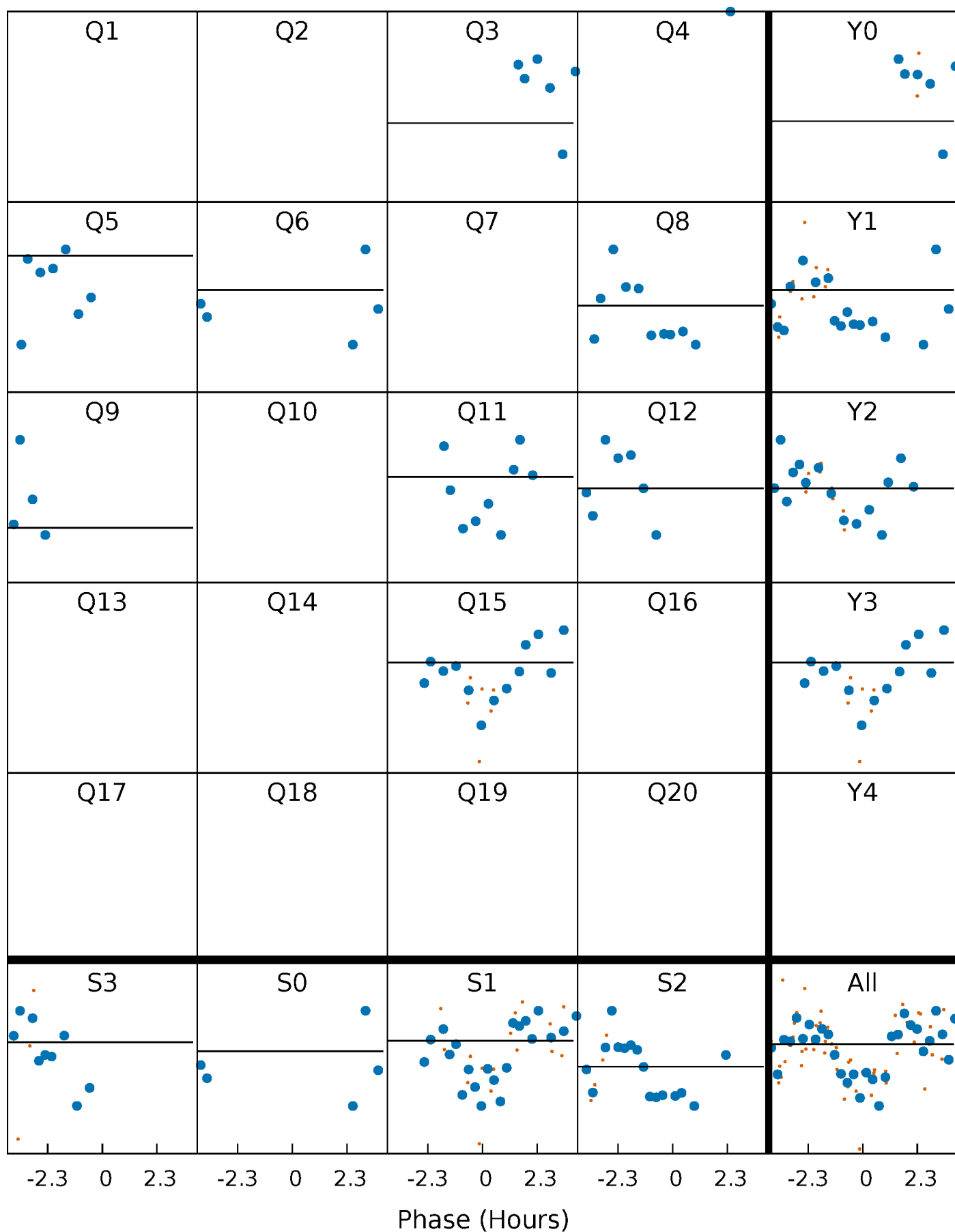
PDC Quarter-Phased Transit Curves

TCE 005807415-05 $P = 42.001665$ Days $T_0 = 164.738285$ (BKJD)



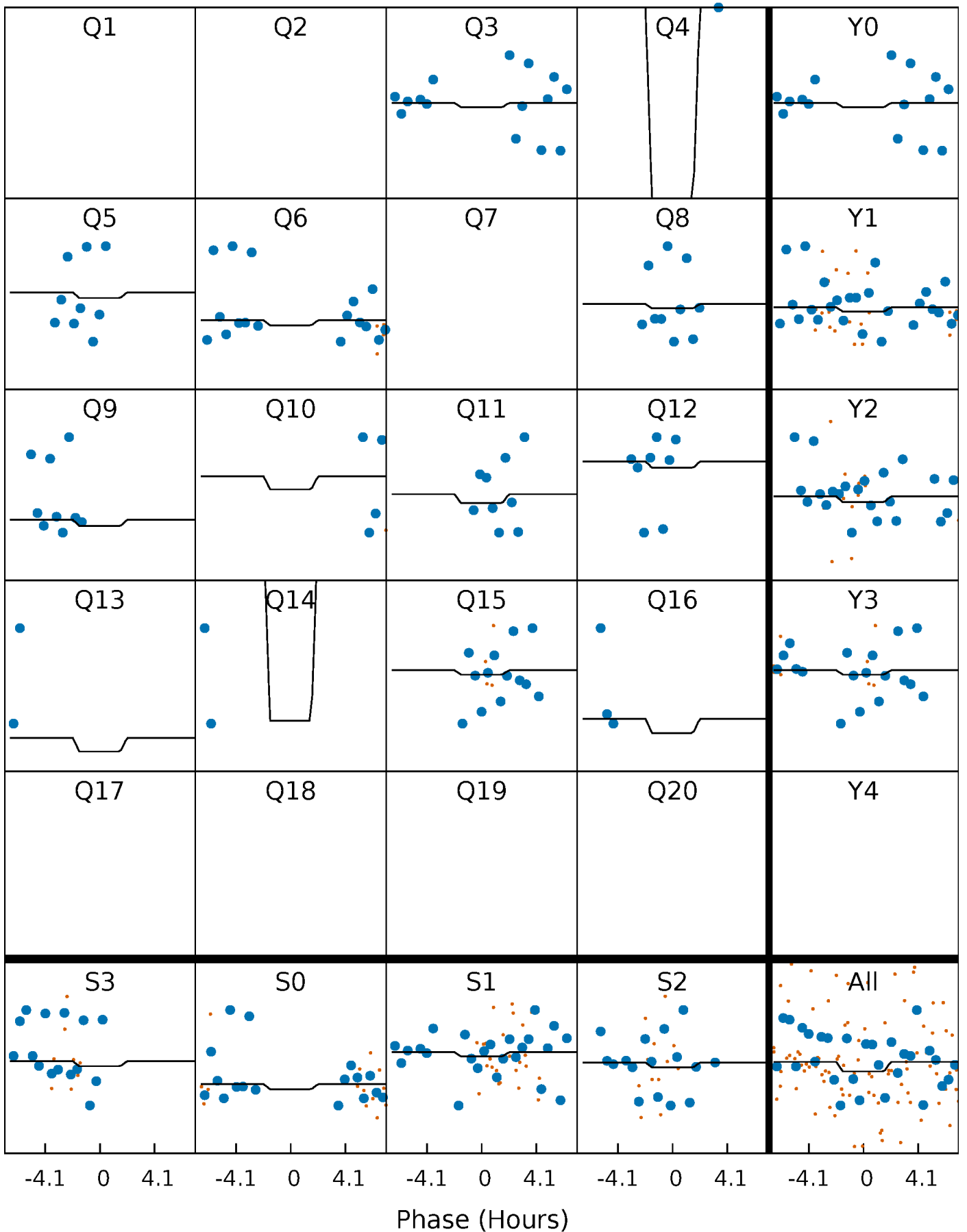
DV Quarter-Phased Transit Curves

TCE 005807415-05 $P = 42.001665$ Days $T_0 = 164.738285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

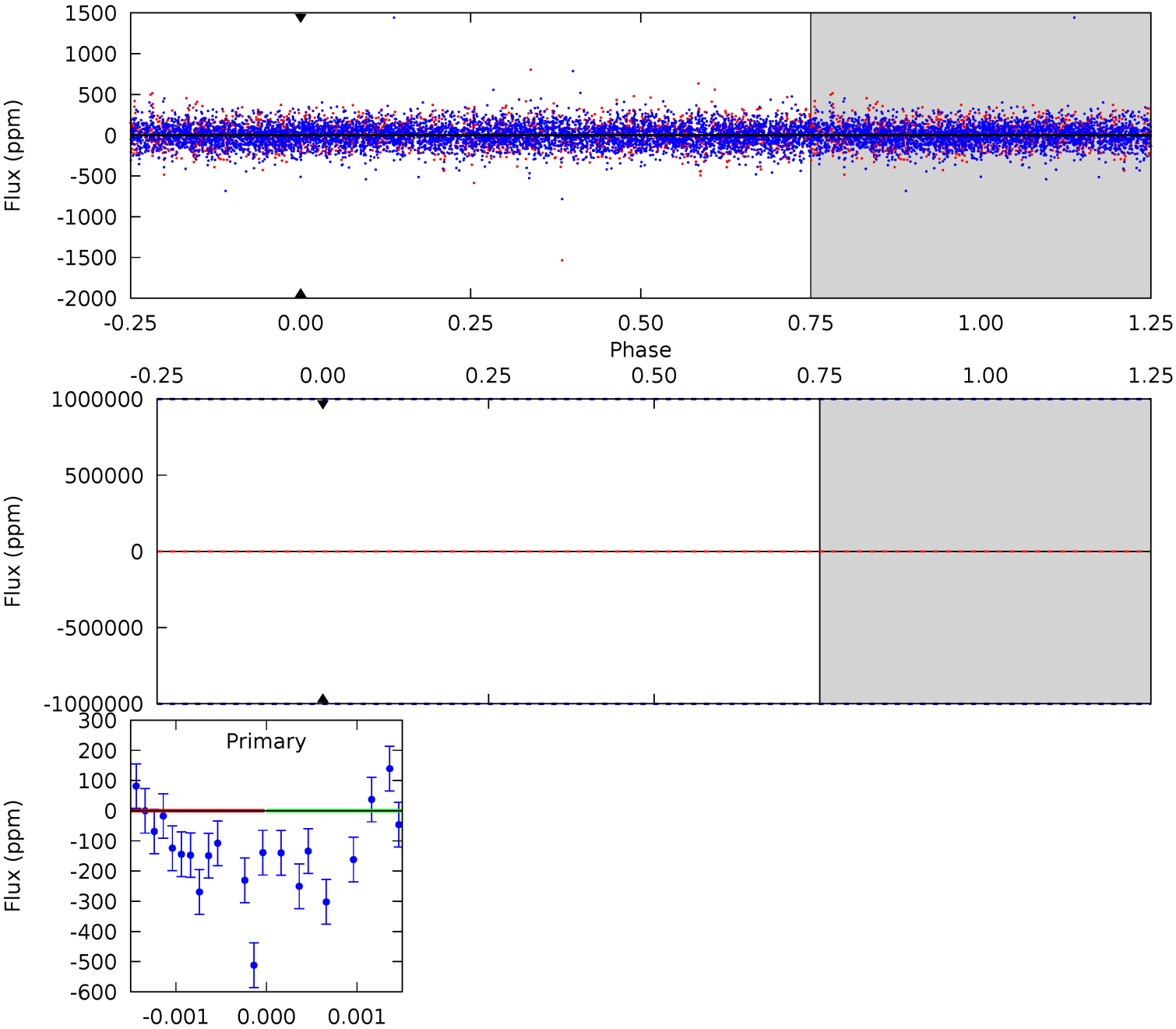
TCE 005807415-05 $P = 42.001665$ Days $T_0 = 164.700354$ (BKJD)



DV Model-Shift Uniqueness Test

005807415-05, P = 42.001665 Days, E = 122.736620 Days

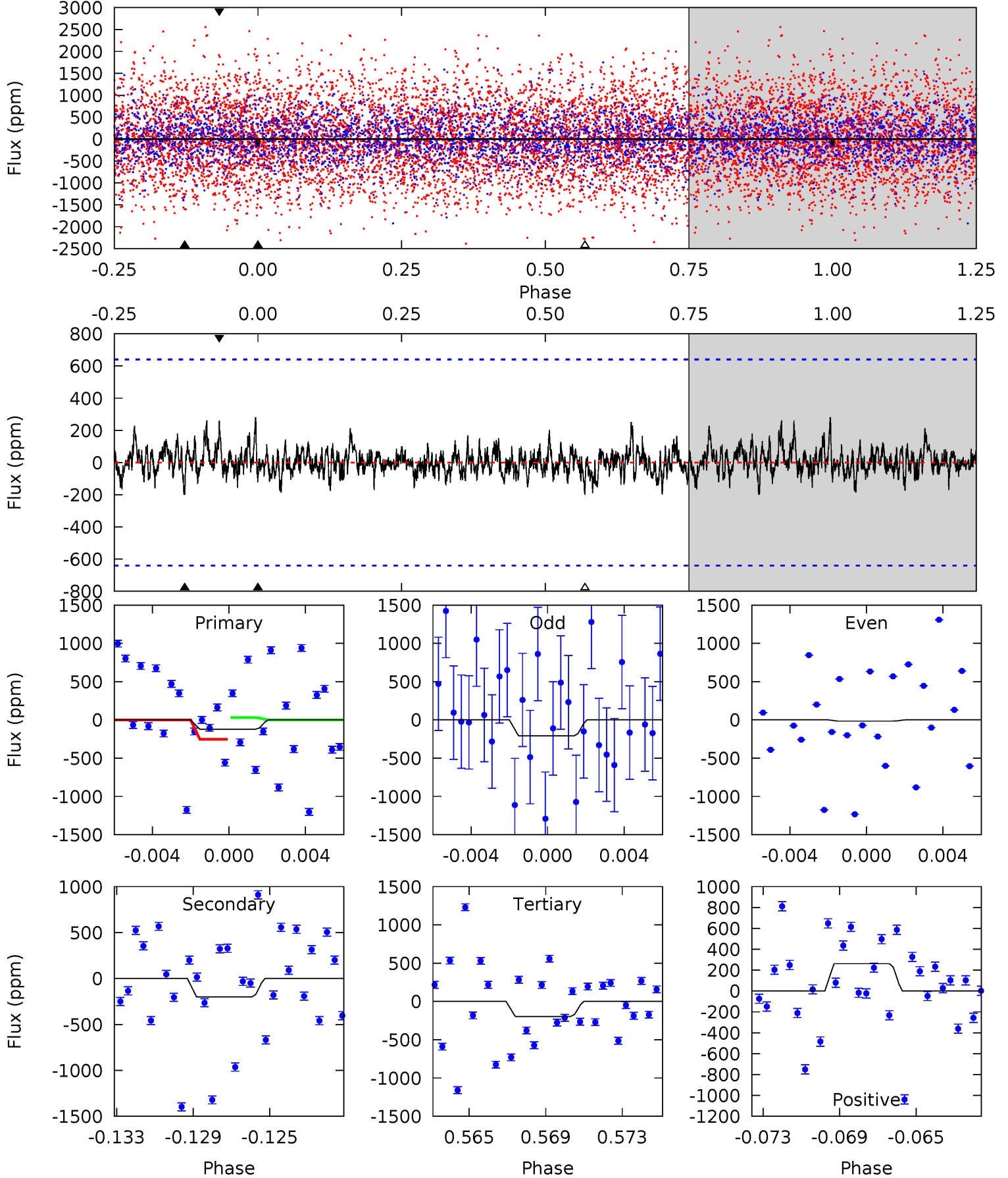
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005807415-05, P = 42.001665 Days, E = 122.698689 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.99	1.62	1.59	2.13	5.20	2.88	0.54	-0.60	-1.13	0.03	-0.50	0.78	4.40	0.58	0.91



Stellar Parameters For KIC 005807415

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7296^{+228}_{-304}	$4.161^{+0.128}_{-0.192}$	$-0.160^{+0.250}_{-0.350}$	$1.663^{+0.512}_{-0.341}$	$1.460^{+0.211}_{-0.234}$	$0.447^{+0.286}_{-0.236}$
	+3%/-4%	+3%/-5%	+156%/-219%	+31%/-21%	+14%/-16%	+64%/-53%
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 005807415-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$13.15^{+16.11}_{-8.53}$	1128^{+85}_{-77}	-4923^{+41667}_{-27942}	$-220.592^{+37071.089}_{-31329.653}$
Alt.	-200 ± 123	$13.10^{+16.16}_{-9.56}$	1122^{+95}_{-77}	3491^{+2553}_{-792}	37^{+565}_{-30}

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

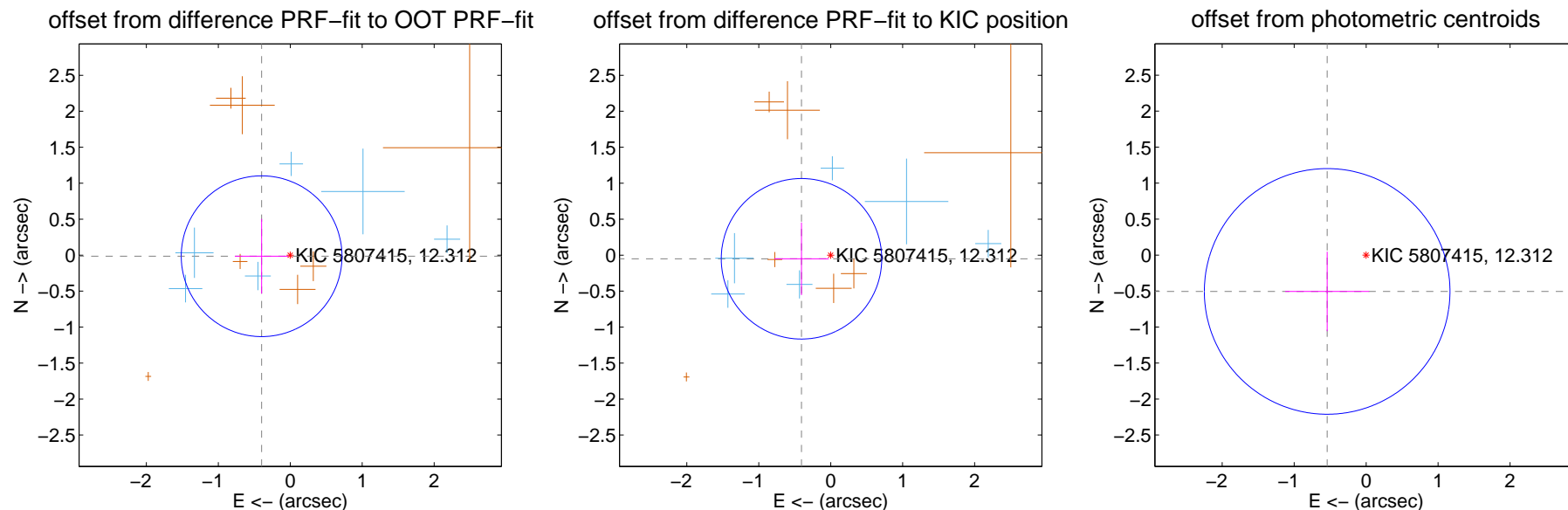
DV Centroid Data

Supplemental centroid analysis for 005807415-05. Kepler magnitude: 12.31. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

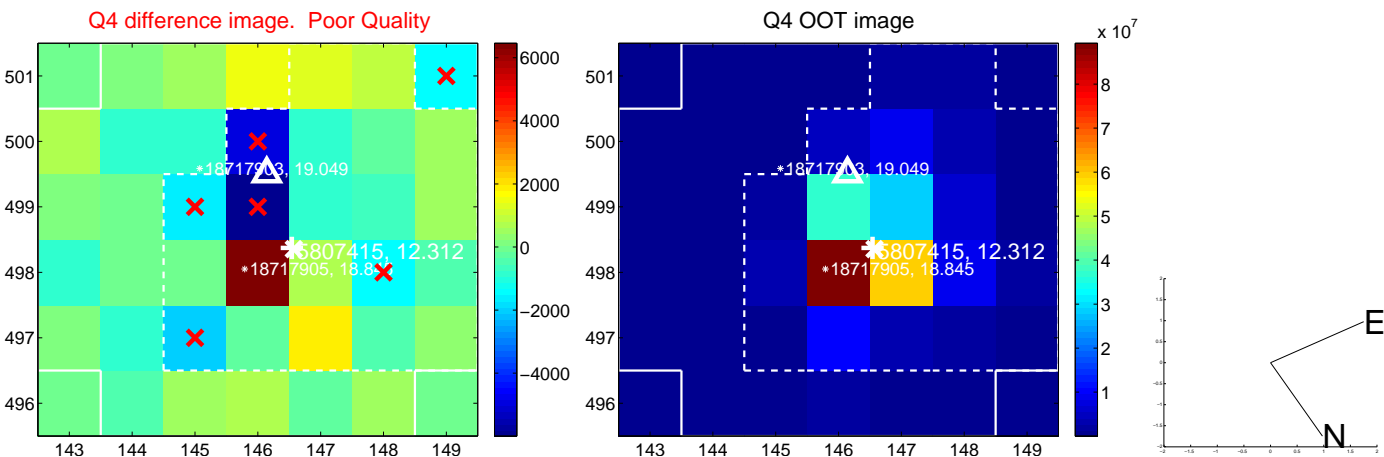
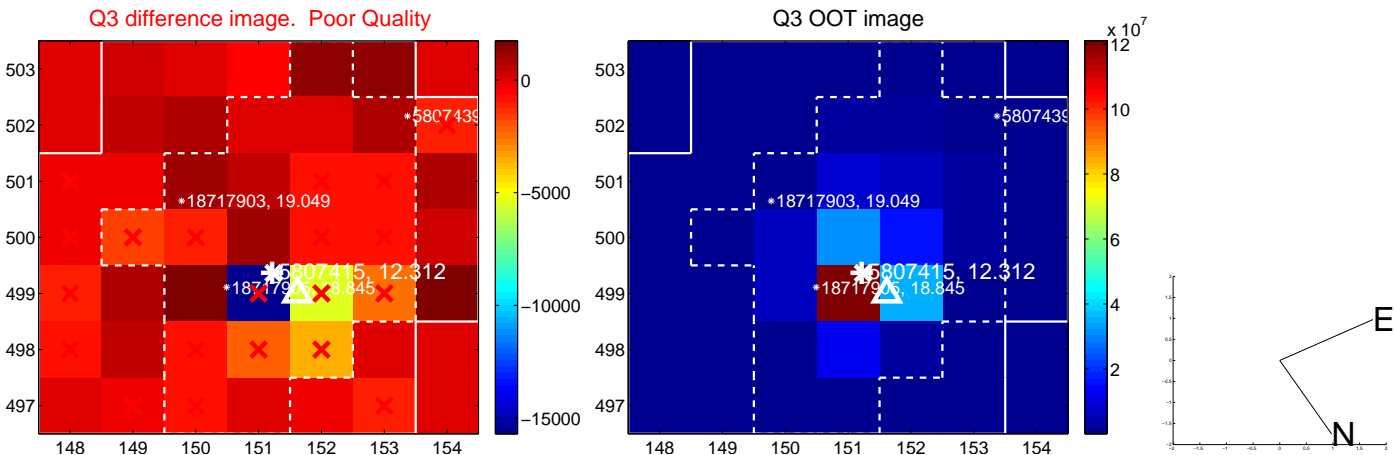
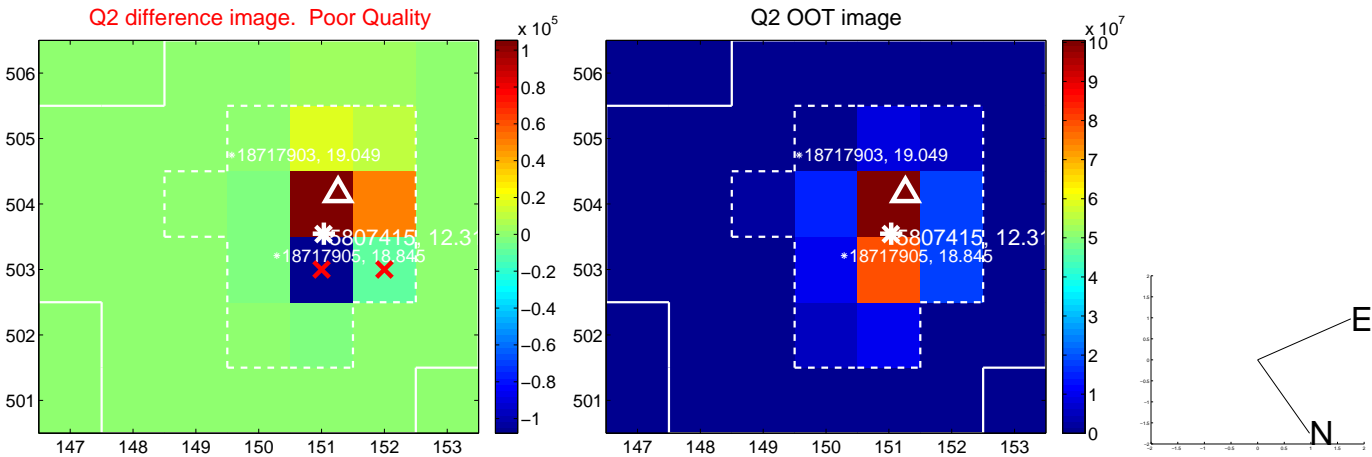
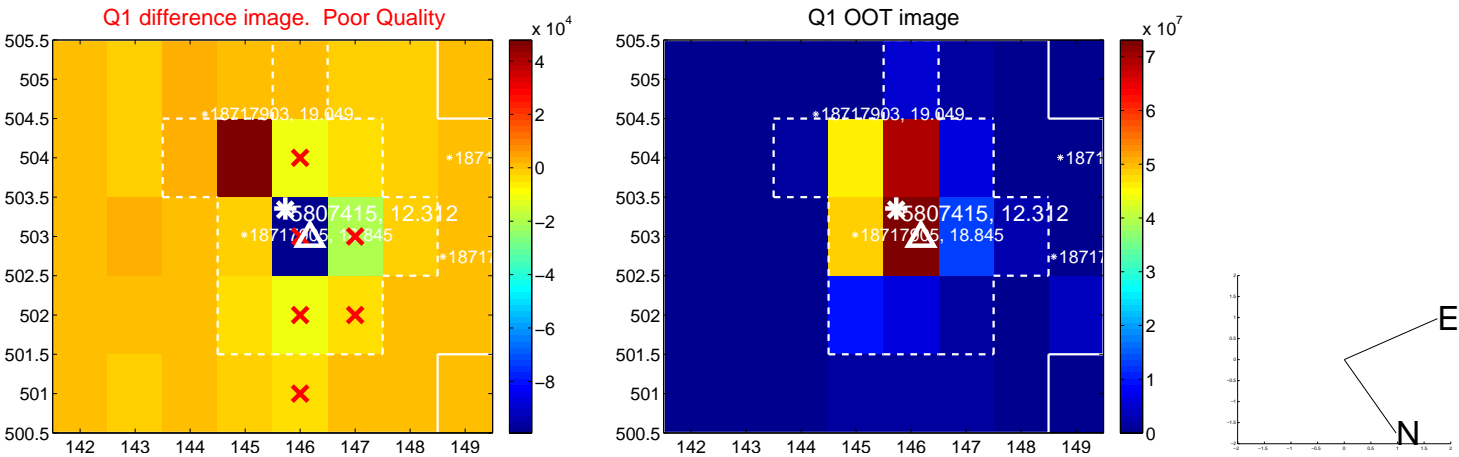
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.399 ± 0.372	1.07	0.398 ± 0.372	-0.015 ± 0.519
PRF-fit source offset from KIC position	0.409 ± 0.372	1.10	0.406 ± 0.379	-0.051 ± 0.504
photometric centroid source offset	0.74 ± 0.57	1.30	0.54 ± 0.58	-0.50 ± 0.55

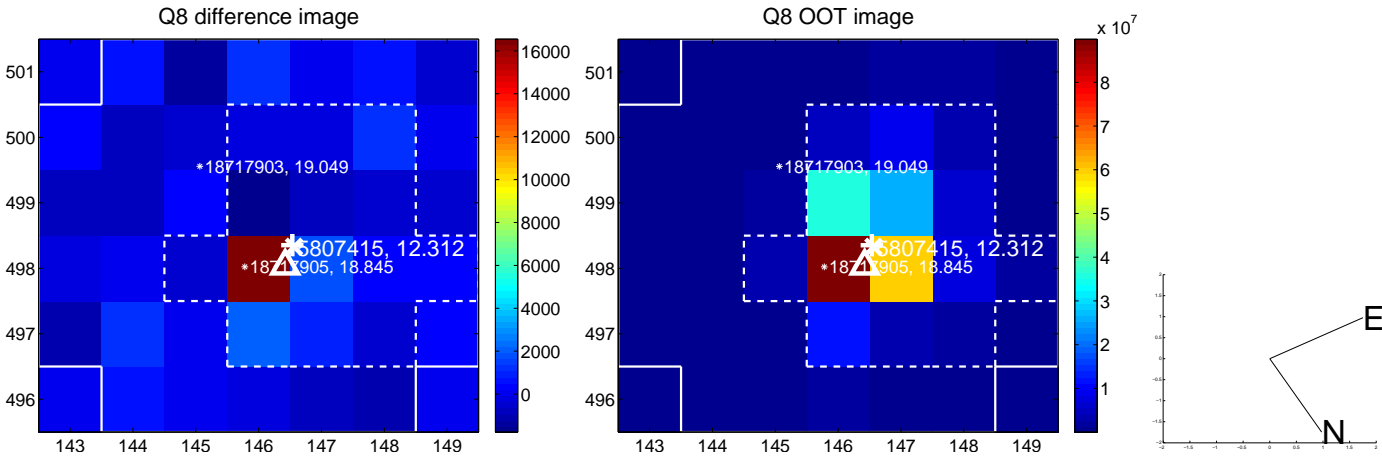
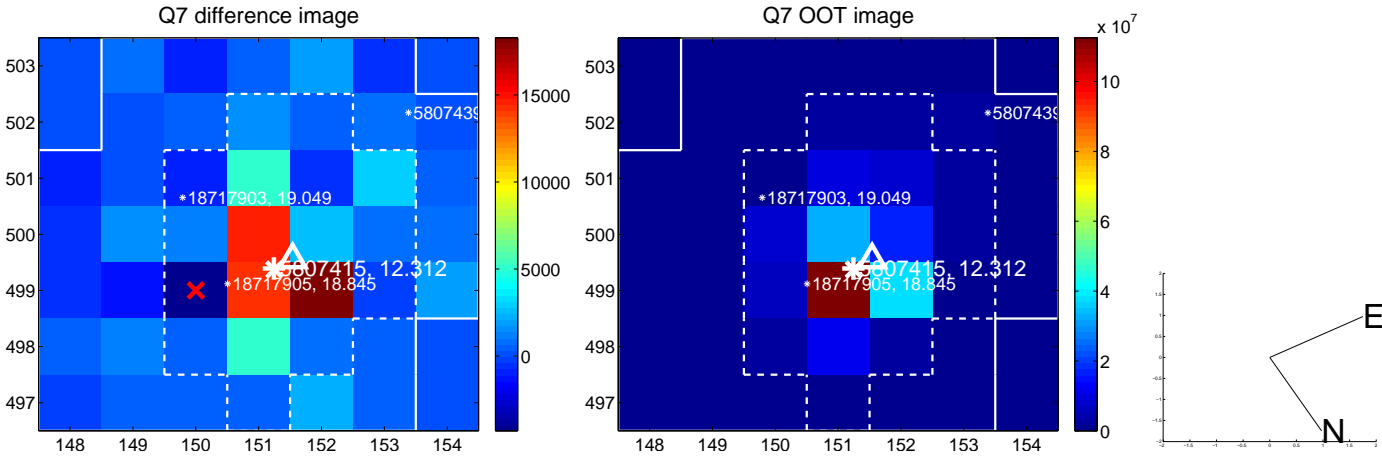
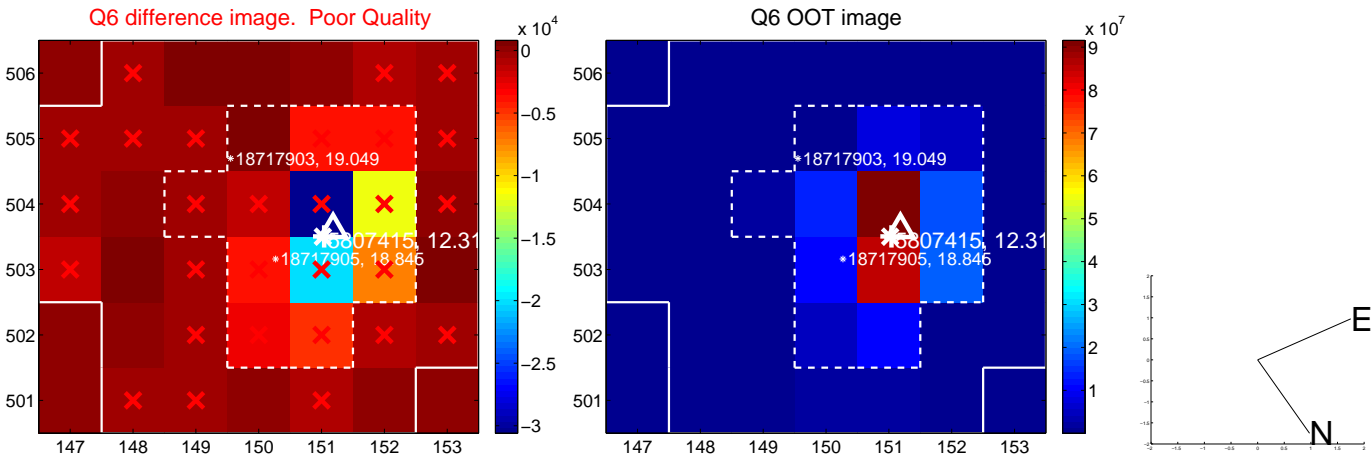
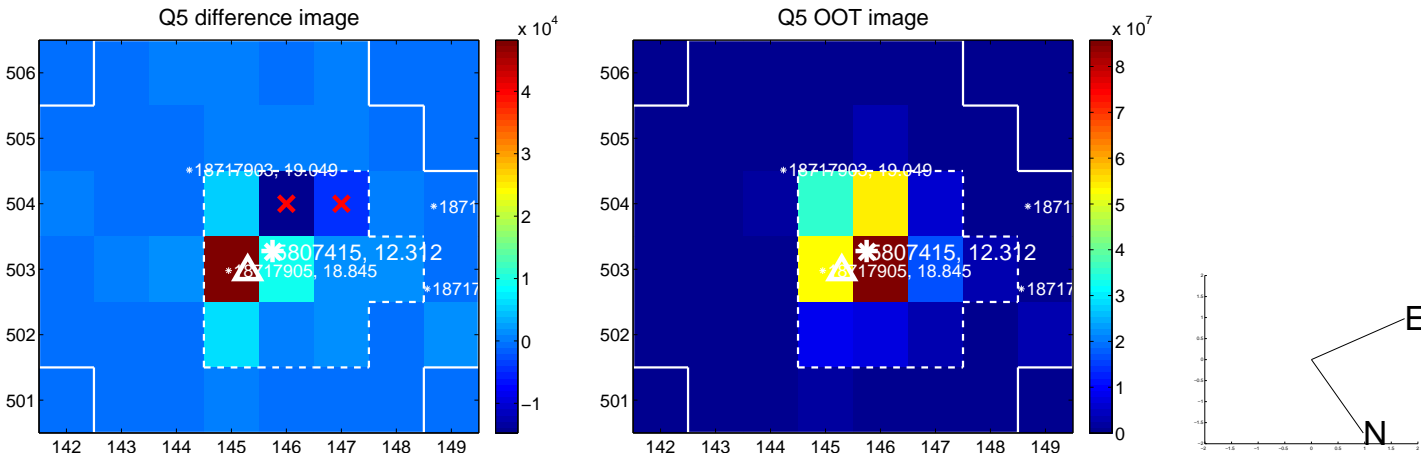


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

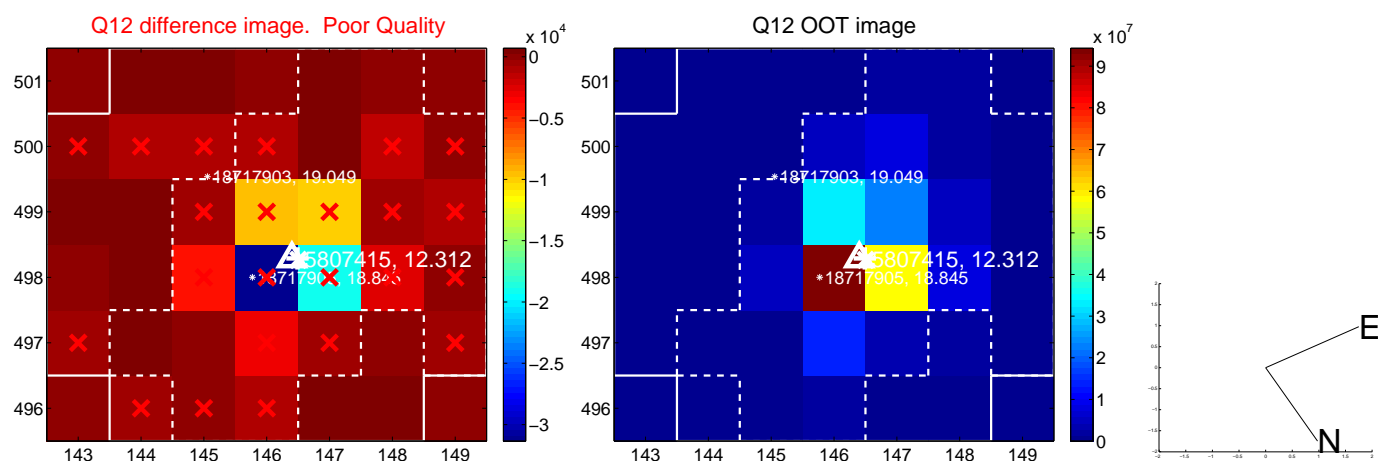
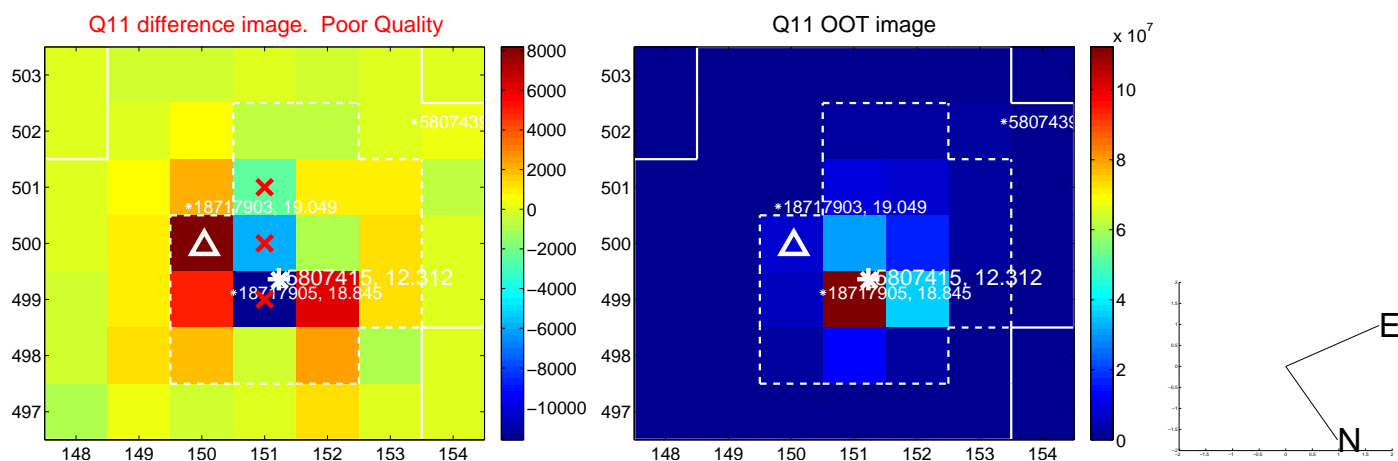
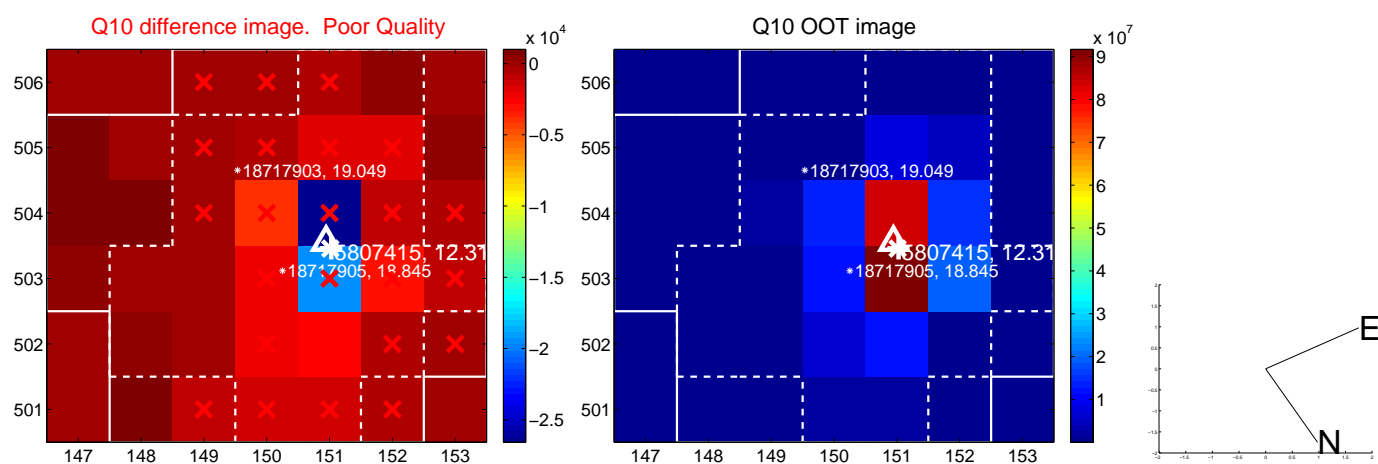
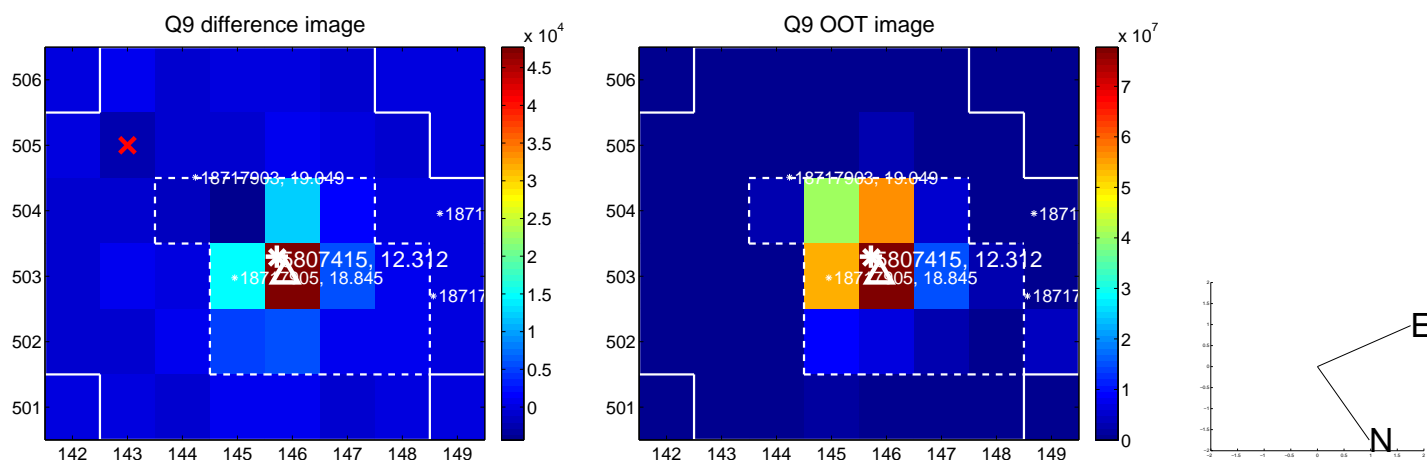
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



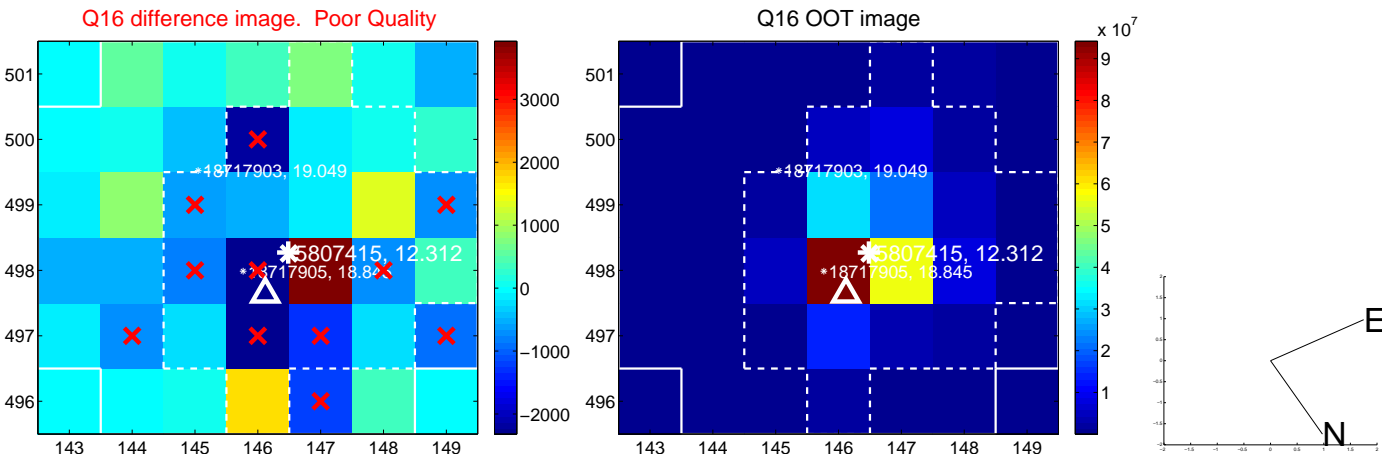
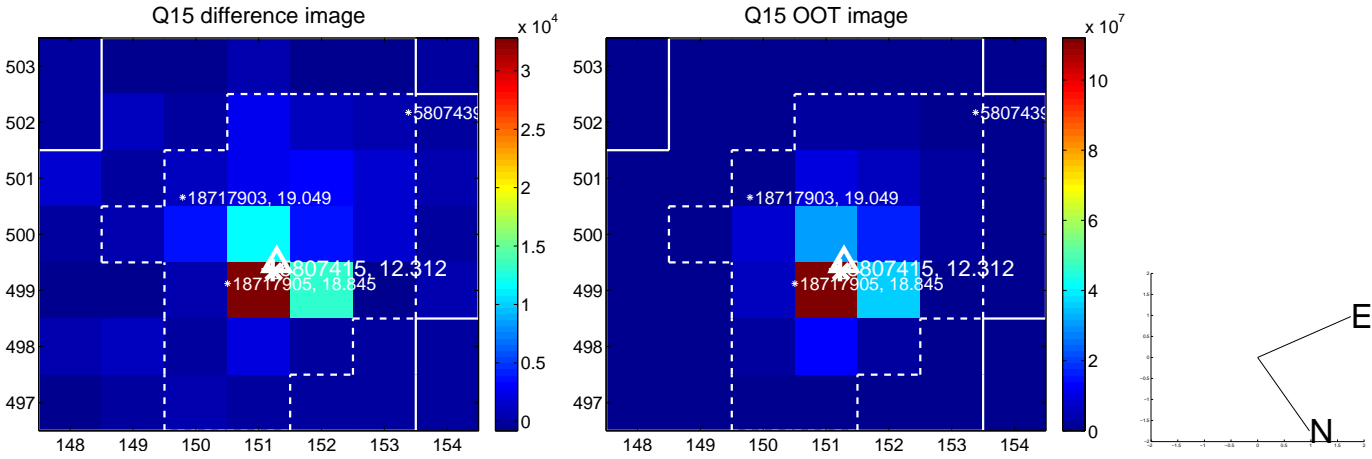
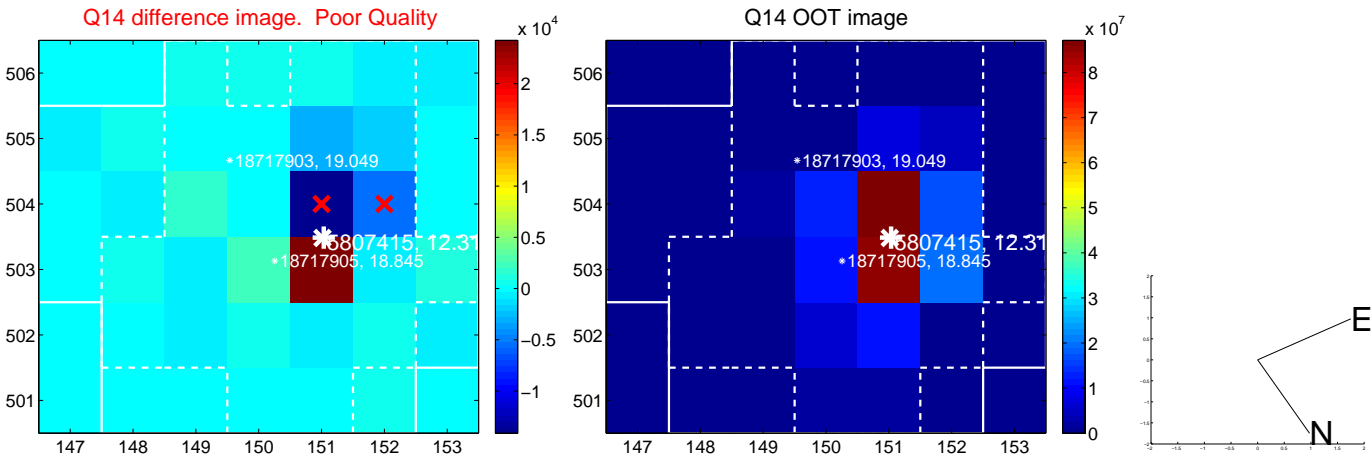
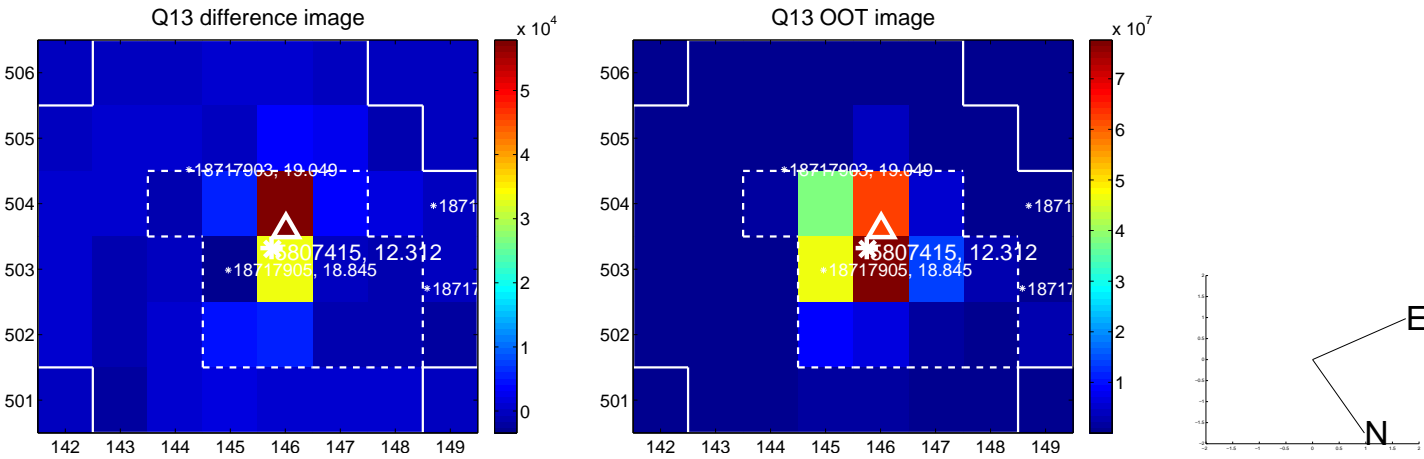
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



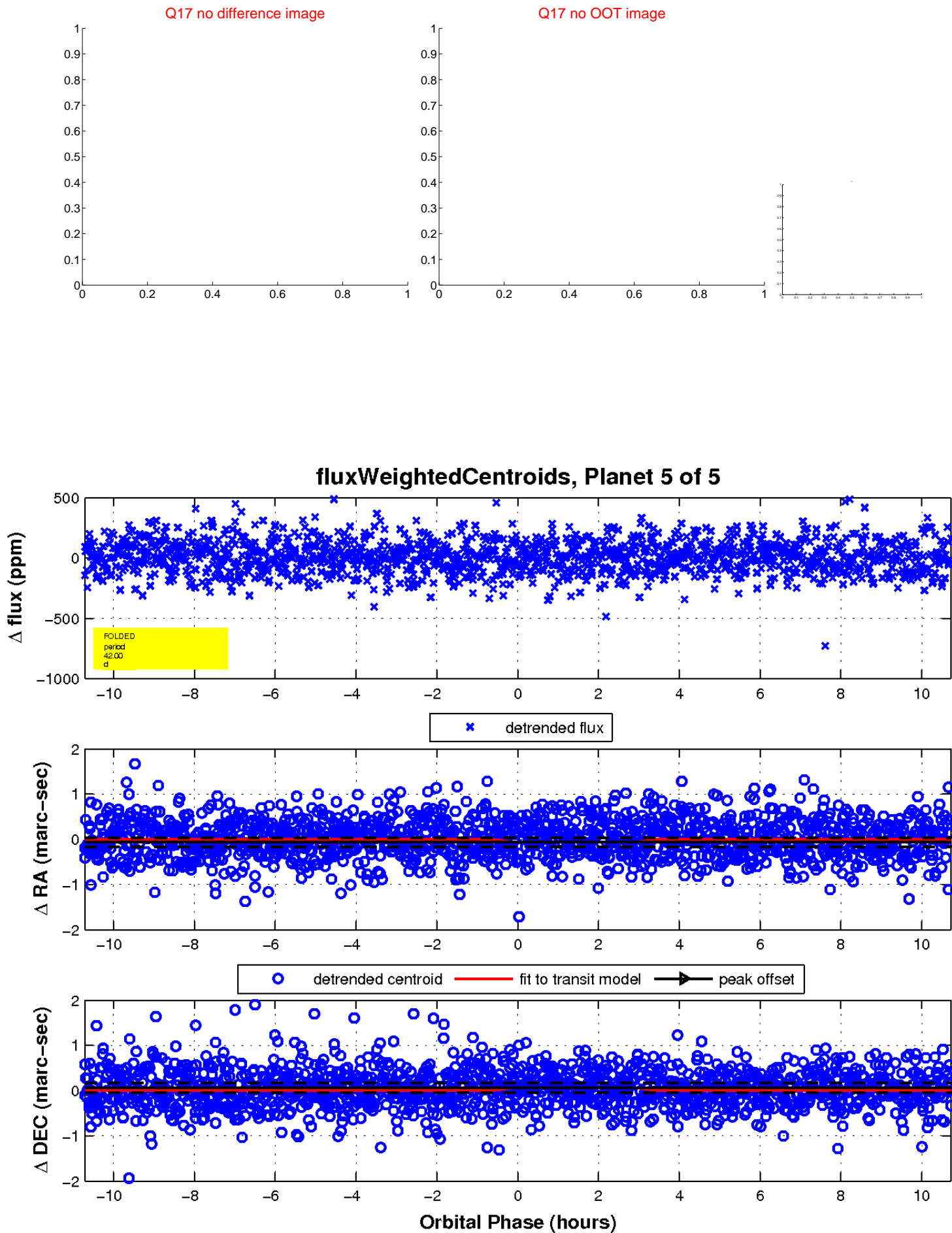
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

