

KIC 007839003

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})
007839003-01	OBS	No	1.015440	131.969349	47.2	3.736	9.1	6.2	1.75	7359	1.39	14950.64
007839003-02	OBS	No	1.015395	132.517099	86.1	3.585	11.6	10.2	1.75	7359	1.78	14951.53
007839003-03	OBS	No	7.091636	133.117009	435.7	10.545	10.8	5.3	1.75	7359	4.23	1119.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007839003-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007839003-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007839003-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

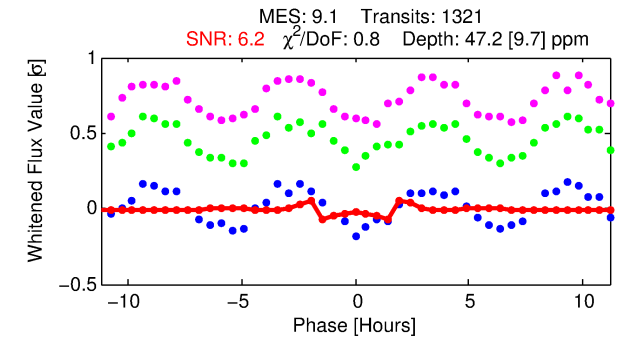
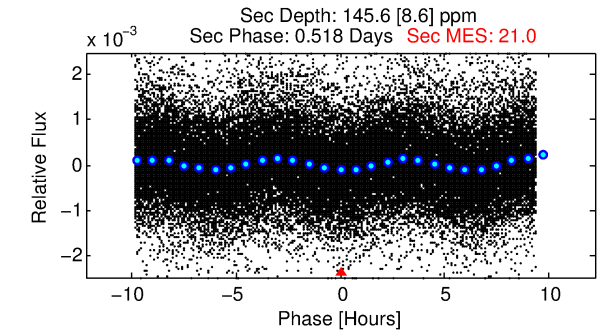
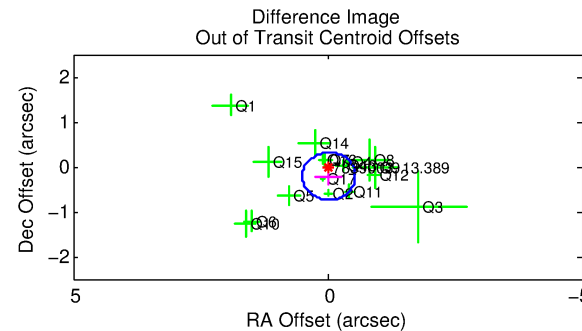
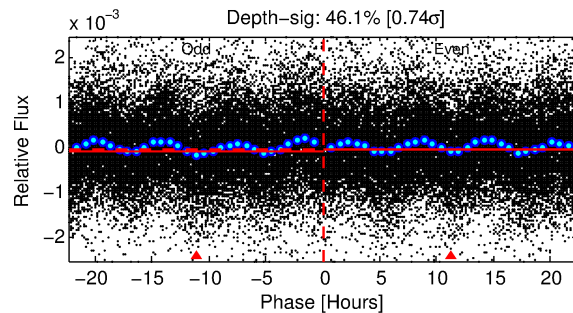
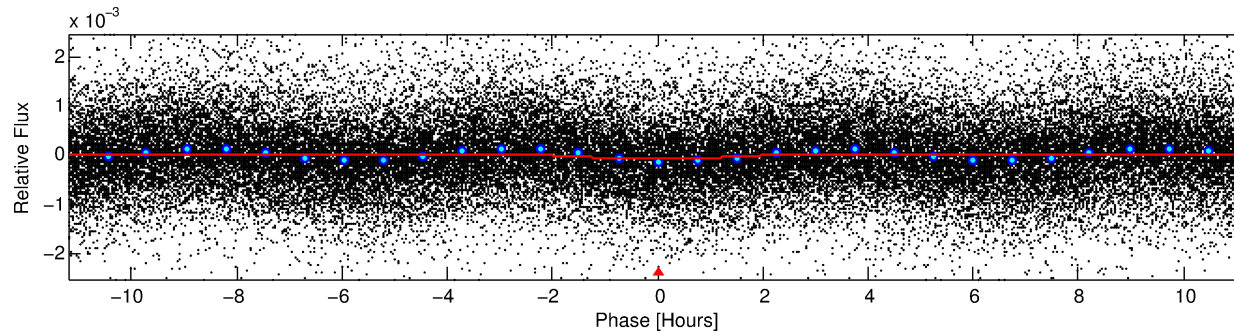
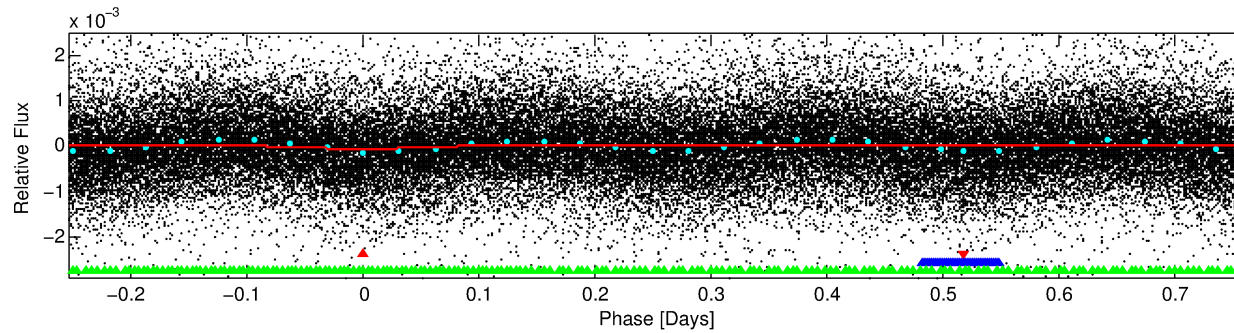
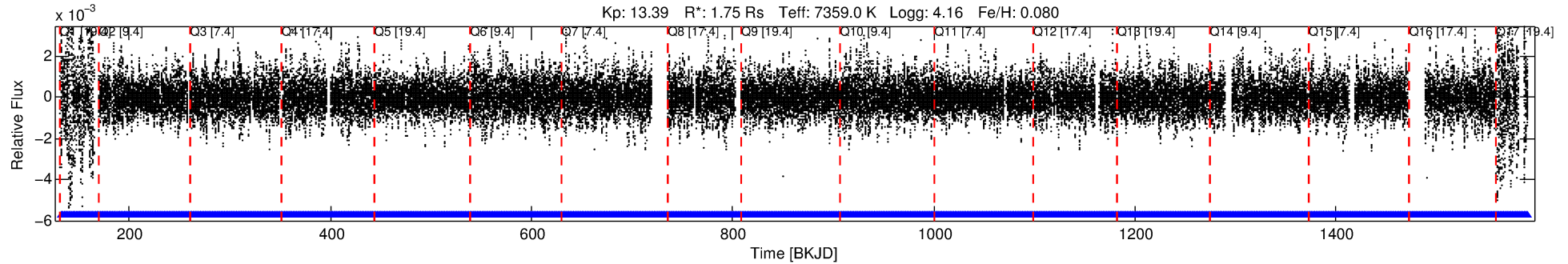
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007839003-01

No Significant Match Found

DV One-Page Summary

KIC: 7839003 Candidate: 1 of 3 Period: 1.015 d



DV Fit Results:

Period = 1.01544 [0.00002] d
Epoch = 131.9693 [0.0021] BKJD
Rp/R* = 0.0073 [0.0017]
a/R* = 1.33 [0.74]
b = 0.90 [0.28]
Seff = 14950.64 [6268.01]
Teq = 2820 [296] K
Rp = 1.39 [0.57] Re
a = 0.0231 [0.0063] AU
Ag = 22.29 [13.54] [1.57 σ]
Teff = 9473 [1192] K [5.42 σ]

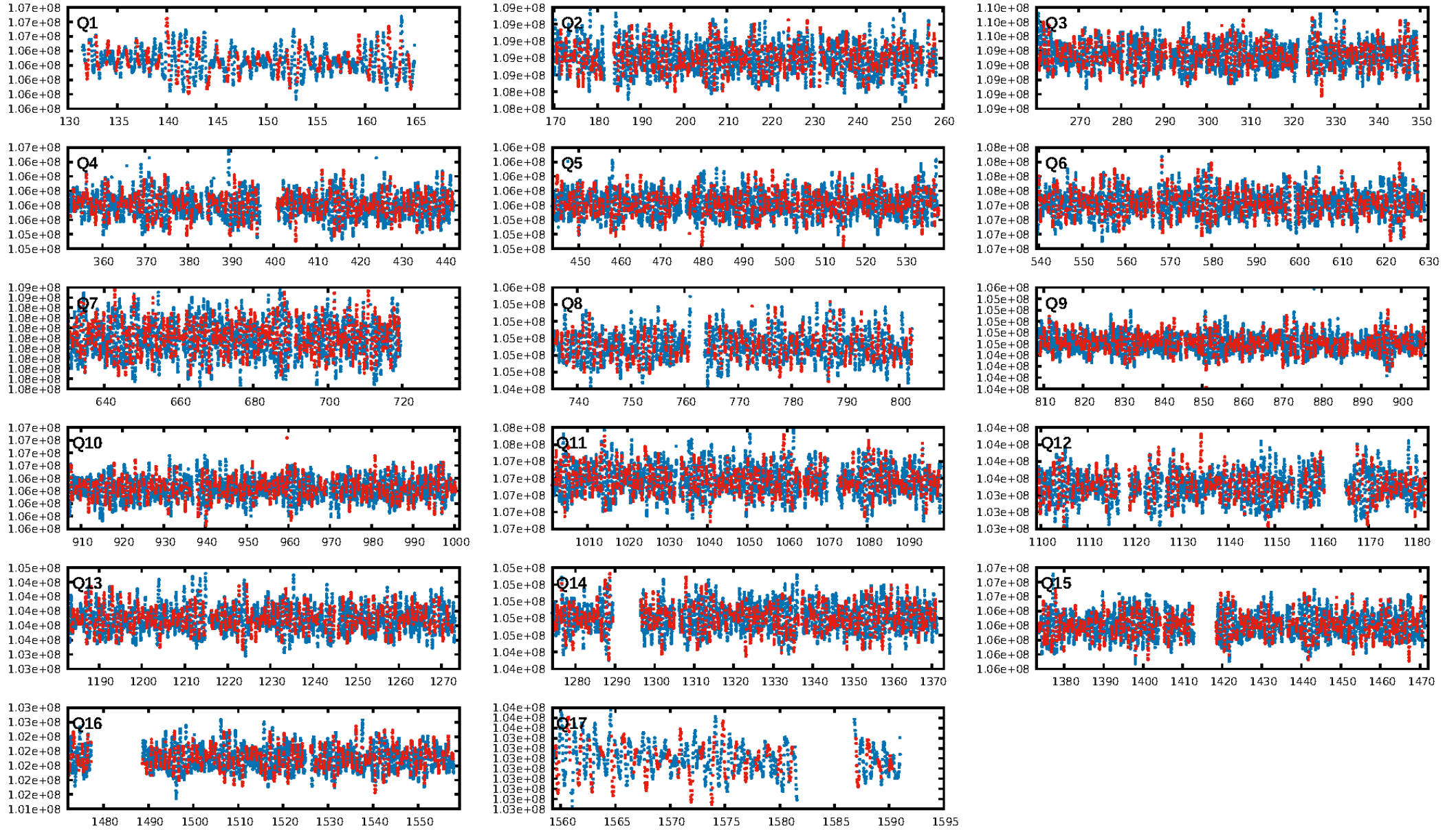
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 100.0% [13.04 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1262/1262]
GhostDiagnostic-chr: 0.6079
Centroid-sig: 0.0%
Centroid-so: 1.293 arcsec [1.64 σ]
OotOffset-rm: 0.214 arcsec [1.22 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.159 arcsec [0.91 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 1.00 [17/17]

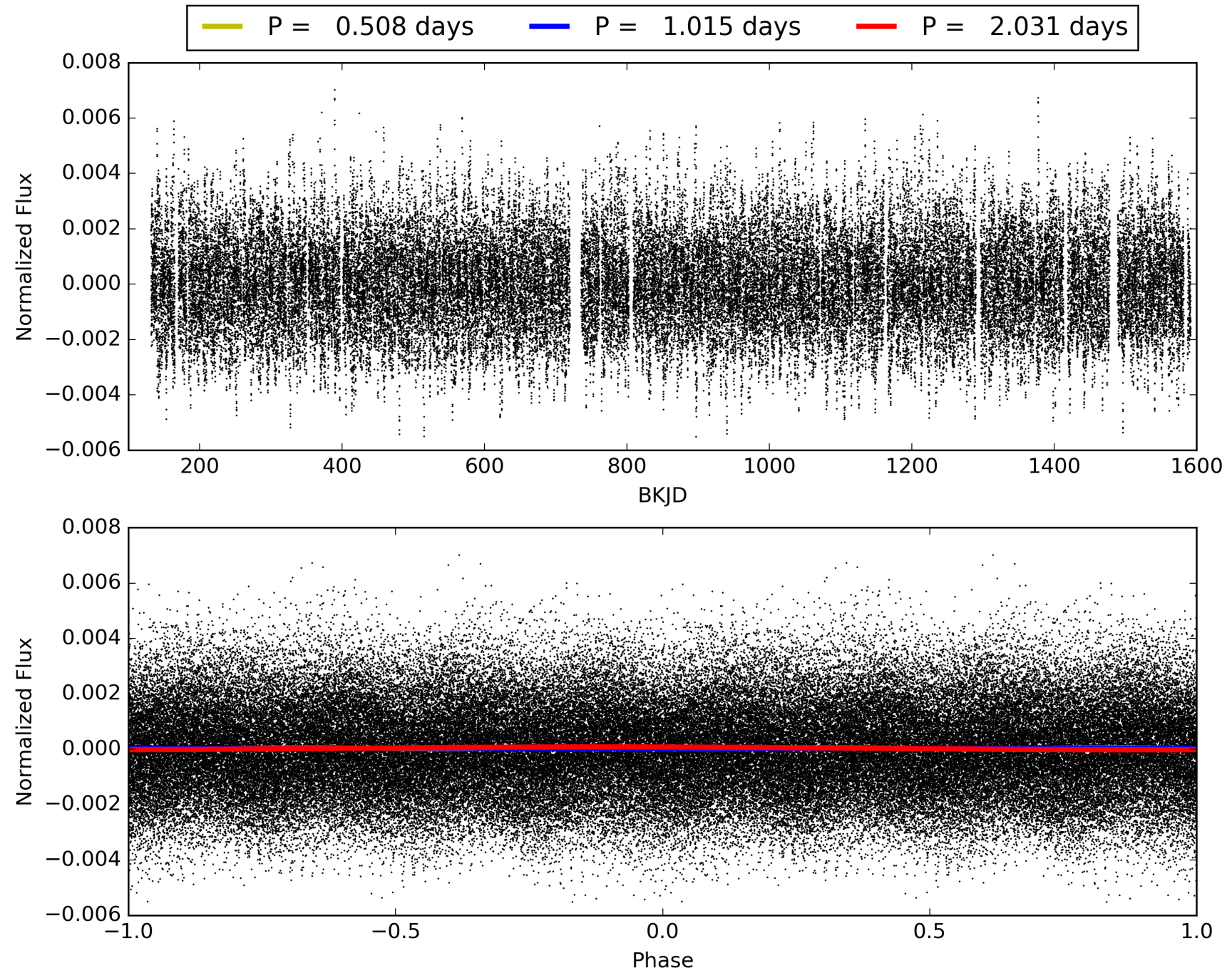
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:43:00 Z

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

TCE 007839003-01, PDC Light Curves

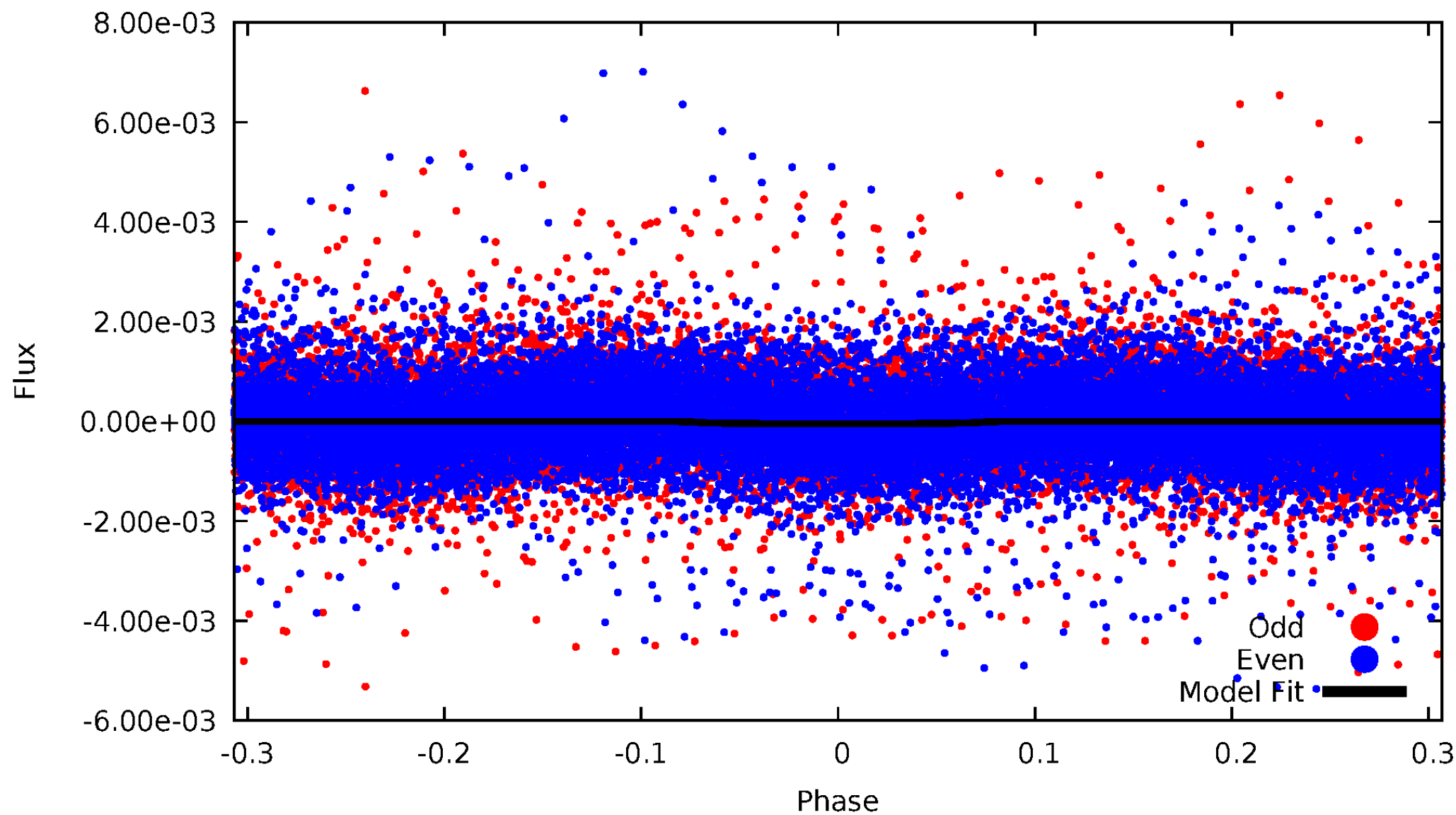


TCE 007839003-01



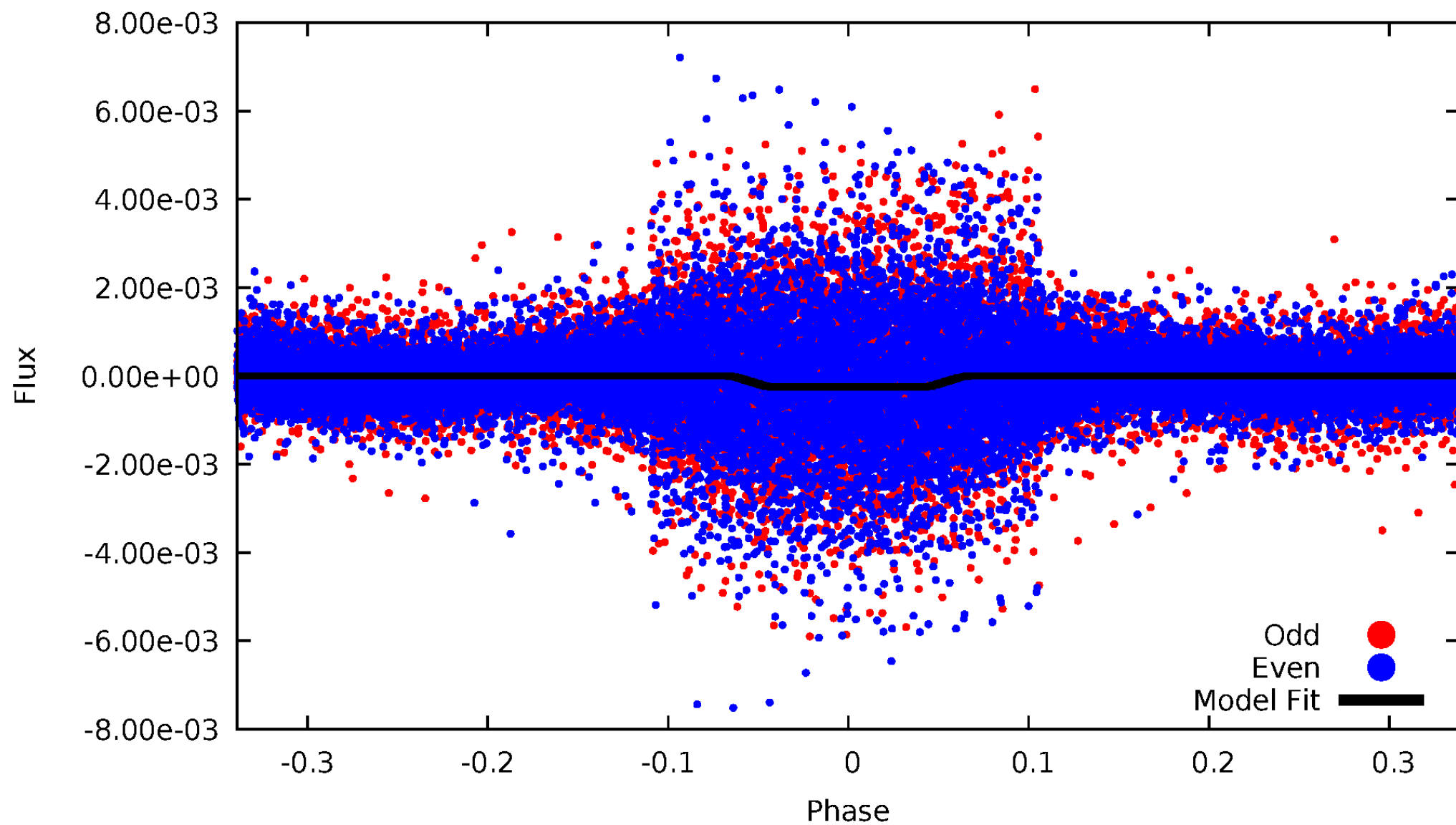
DV Odd/Even

TCE 007839003-01



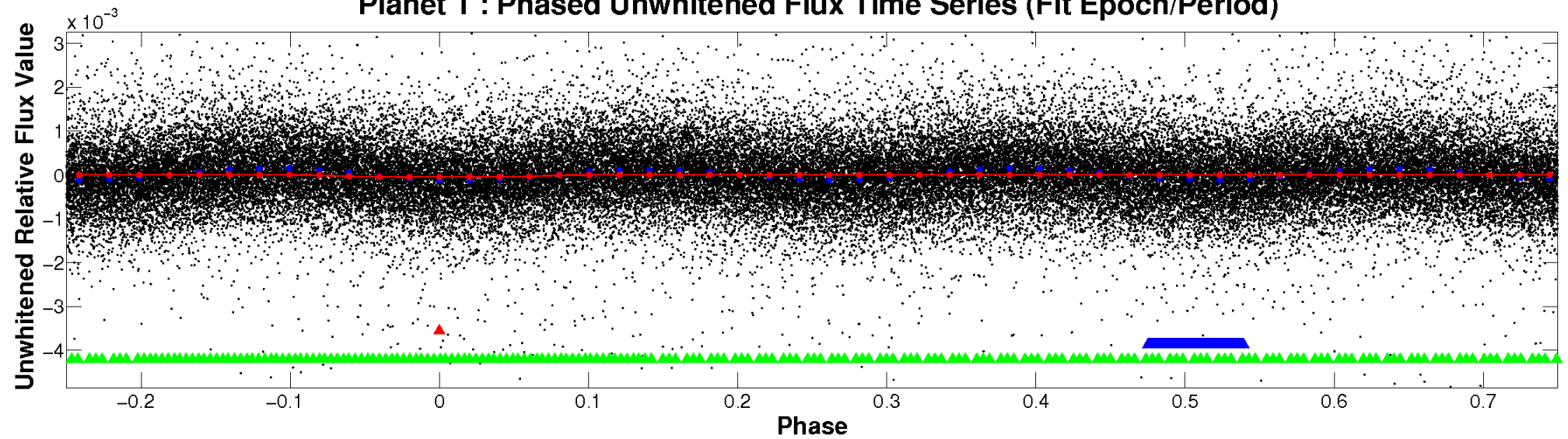
ALT Odd/Even

TCE 007839003-01

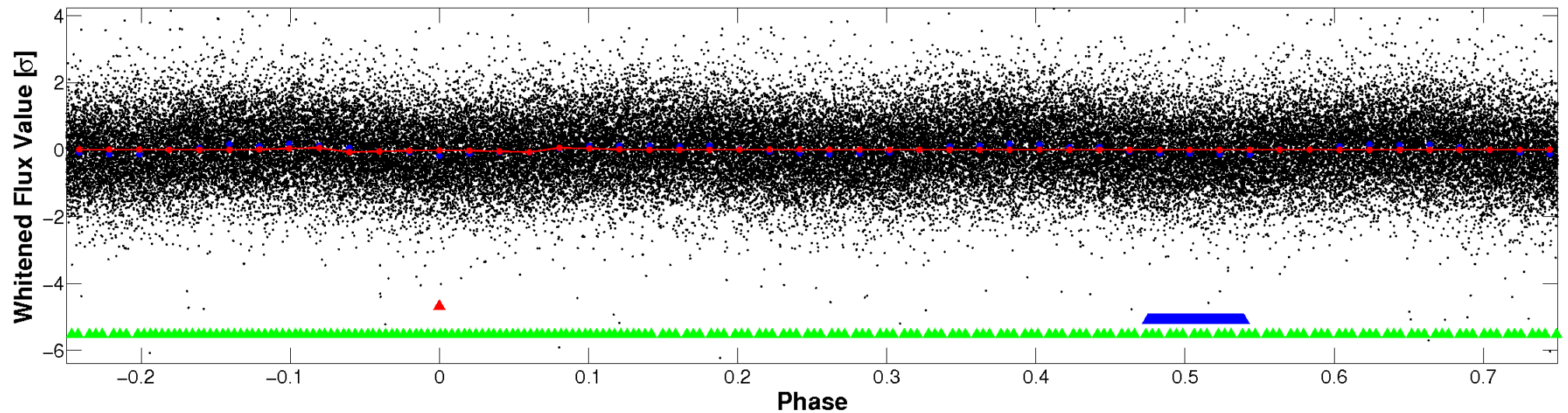


Non-Whitened Vs. Whitened Light Curve

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

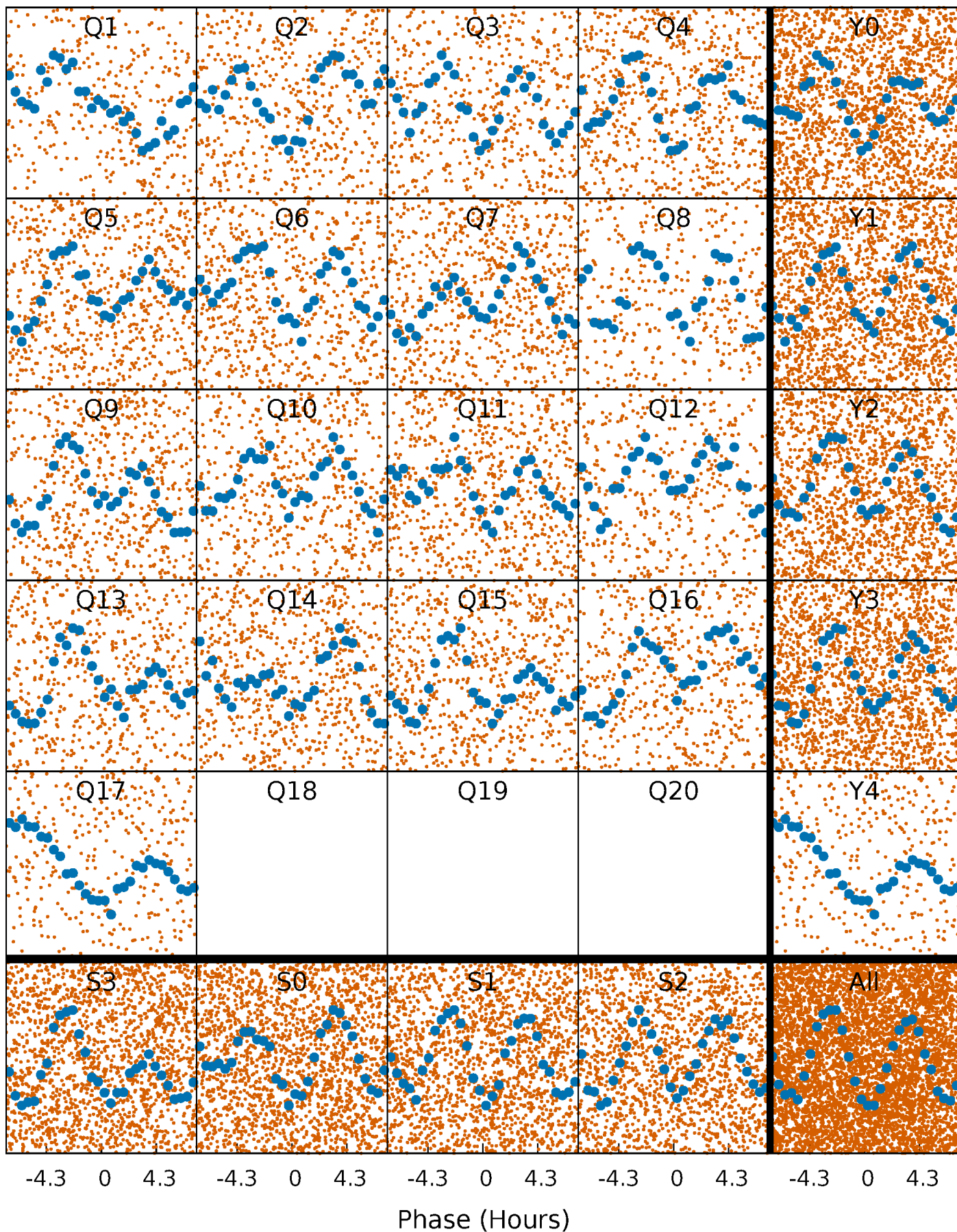


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



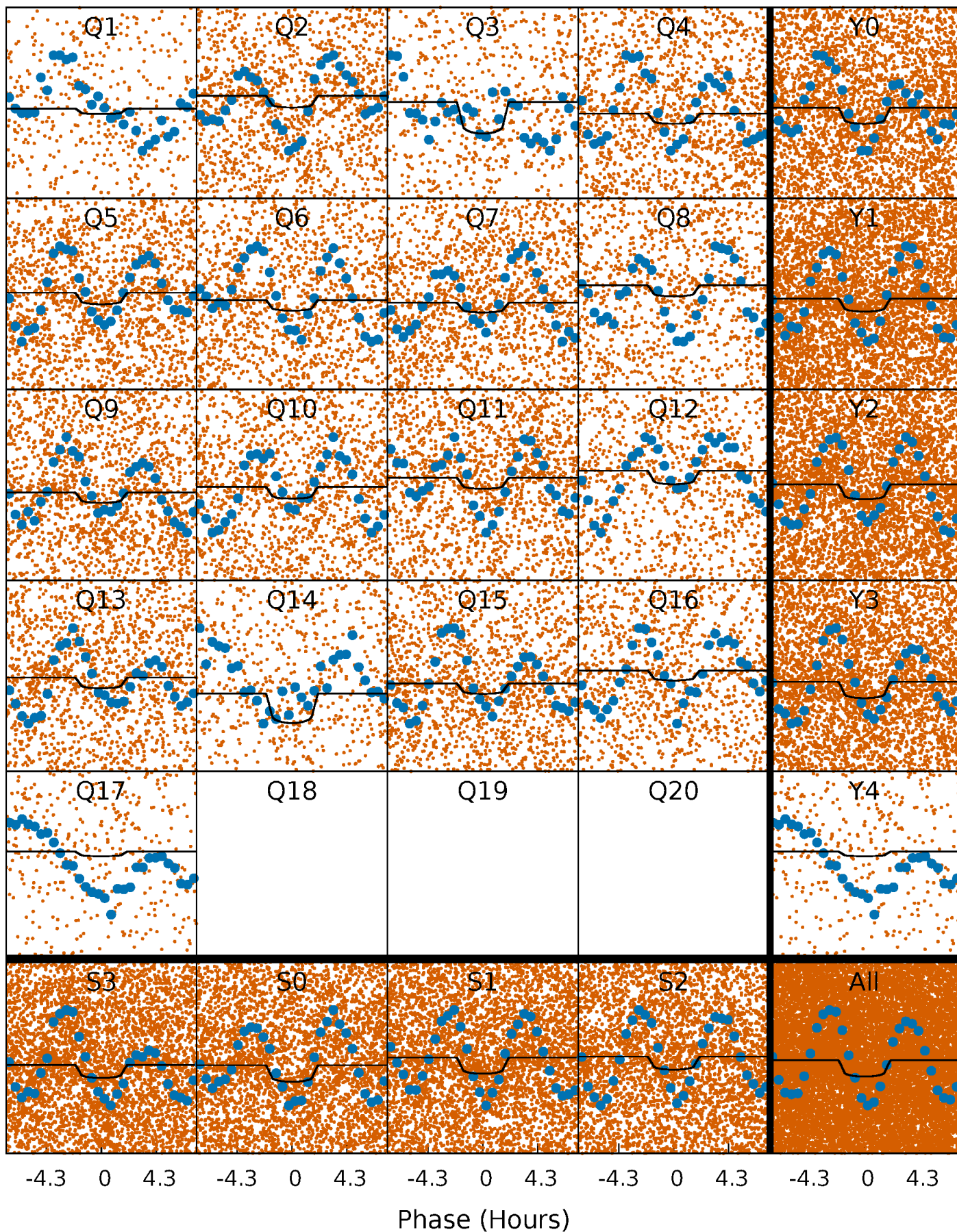
PDC Quarter-Phased Transit Curves

TCE 007839003-01 P= 1.015440 Days $T_0=131.969349$ (BKJD)



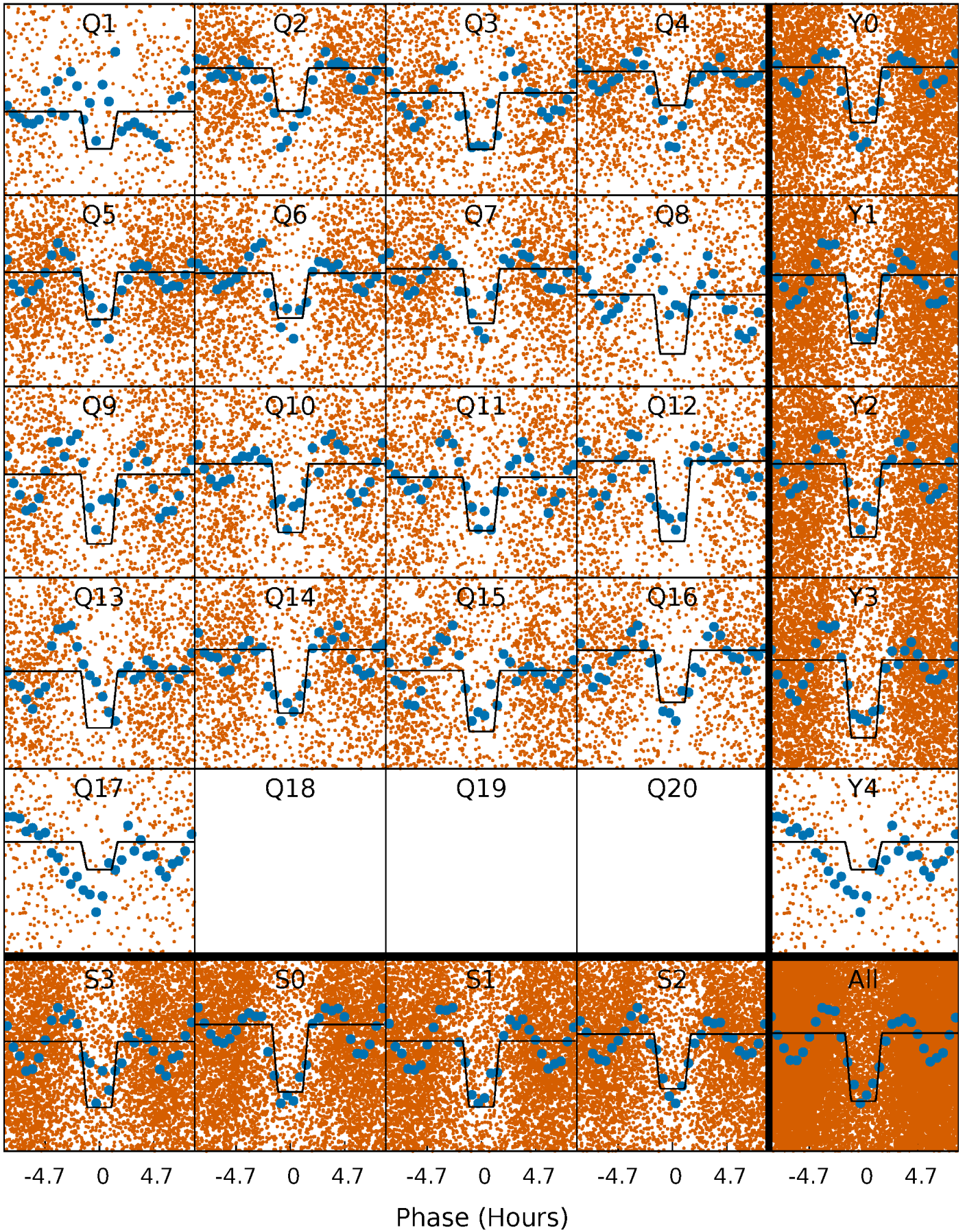
DV Quarter-Phased Transit Curves

TCE 007839003-01 P= 1.015440 Days $T_0=131.969349$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

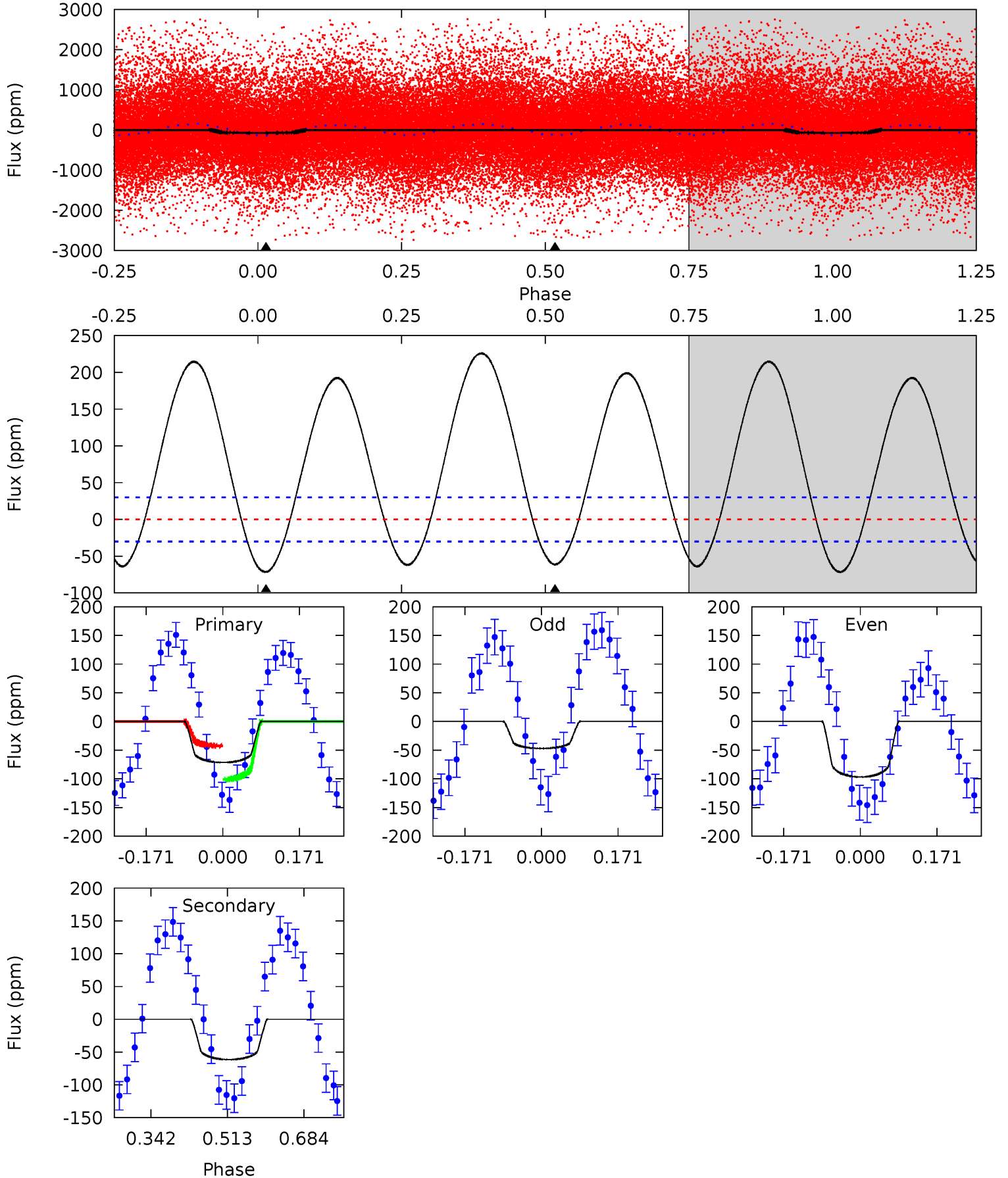
TCE 007839003-01 P= 1.015465 Days $T_0=131.963457$ (BKJD)



DV Model-Shift Uniqueness Test

007839003-01, P = 1.015440 Days, E = 130.953909 Days

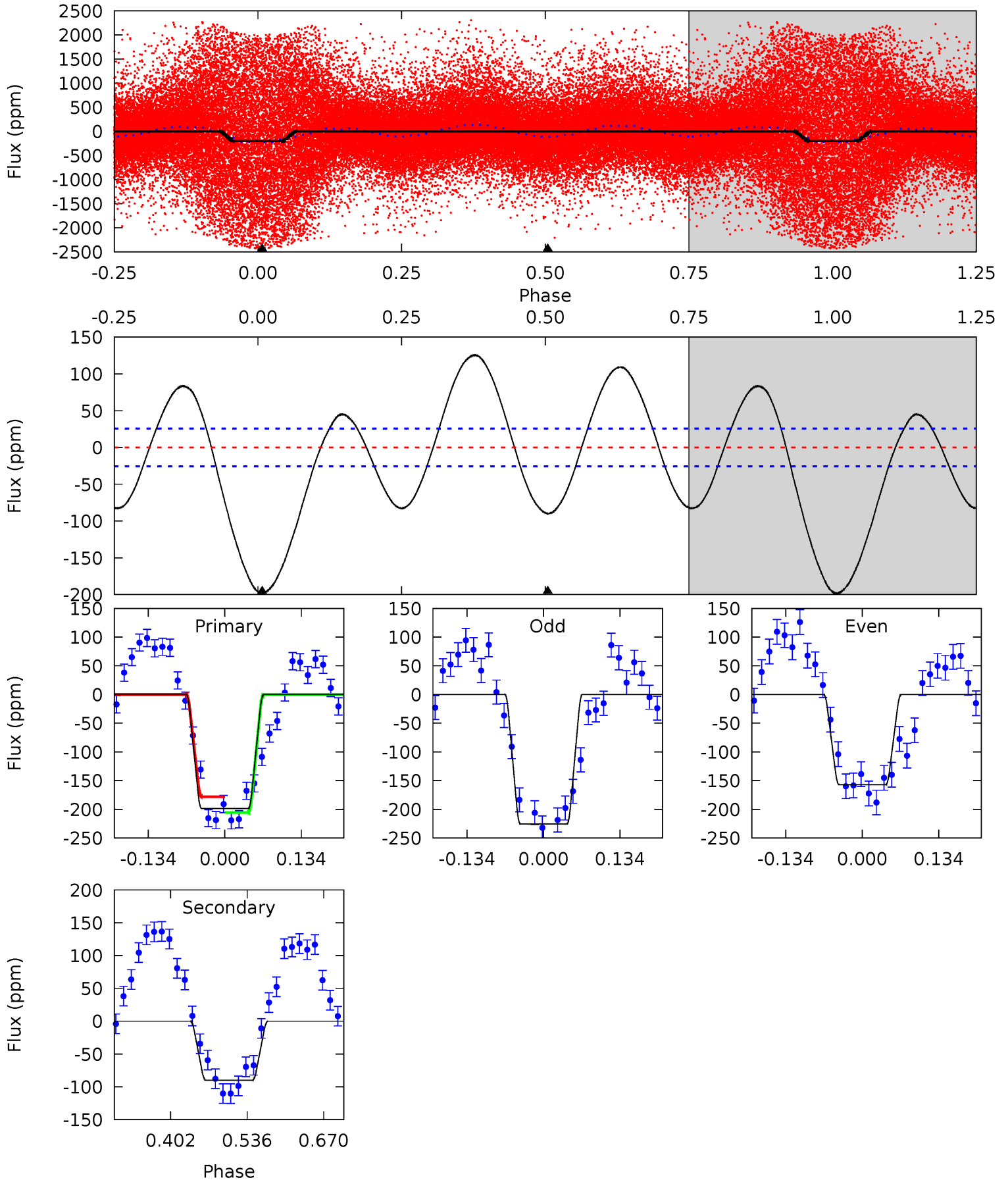
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	9.11	0	0	4.45	1.37	9.01	10.6	10.6	9.11	9.11	3.76	0.90	0.76	0



Alt Model-Shift Uniqueness Test

007839003-01, P = 1.015465 Days, E = 130.947992 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.7	15.7	0	0	4.50	1.50	10.9	34.7	34.7	15.7	15.7	5.95	1.15	0.39	2.40



Stellar Parameters For KIC 007839003

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7359^{+203}_{-319}	$4.159^{+0.093}_{-0.202}$	$0.080^{+0.200}_{-0.350}$	$1.746^{+0.583}_{-0.314}$	$1.603^{+0.226}_{-0.226}$	$0.424^{+0.209}_{-0.220}$
	+3%/-4%	+2%/-5%	+250%/-438%	+33%/-18%	+14%/-14%	+49%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007839003-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-61 ± 7	$1.44^{+0.40}_{-0.36}$	3995^{+316}_{-258}	7518^{+1503}_{-907}	$8.592^{+6.516}_{-3.331}$
Alt.	-90 ± 6	$3.13^{+0.62}_{-0.49}$	4001^{+307}_{-237}	5458^{+368}_{-346}	$2.638^{+0.999}_{-0.718}$

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 $A_{obs} \gg 1.0$

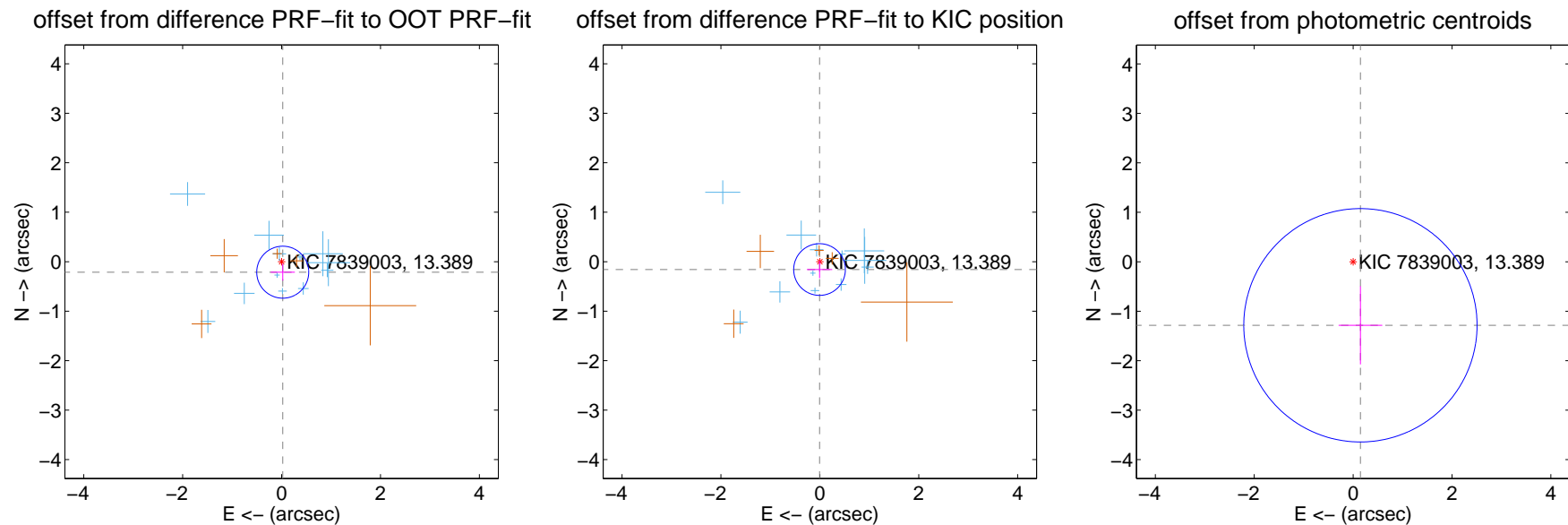
DV Centroid Data

Supplemental centroid analysis for 007839003-01. Kepler magnitude: 13.39. Transit SNR 6.21

There are 12 quarters with good PRF difference image offsets

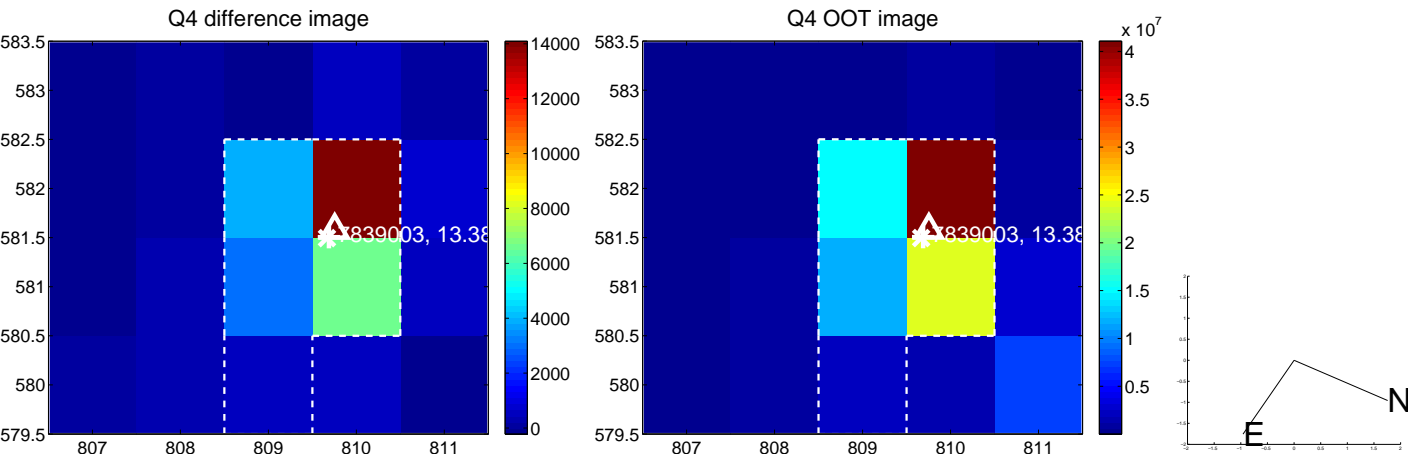
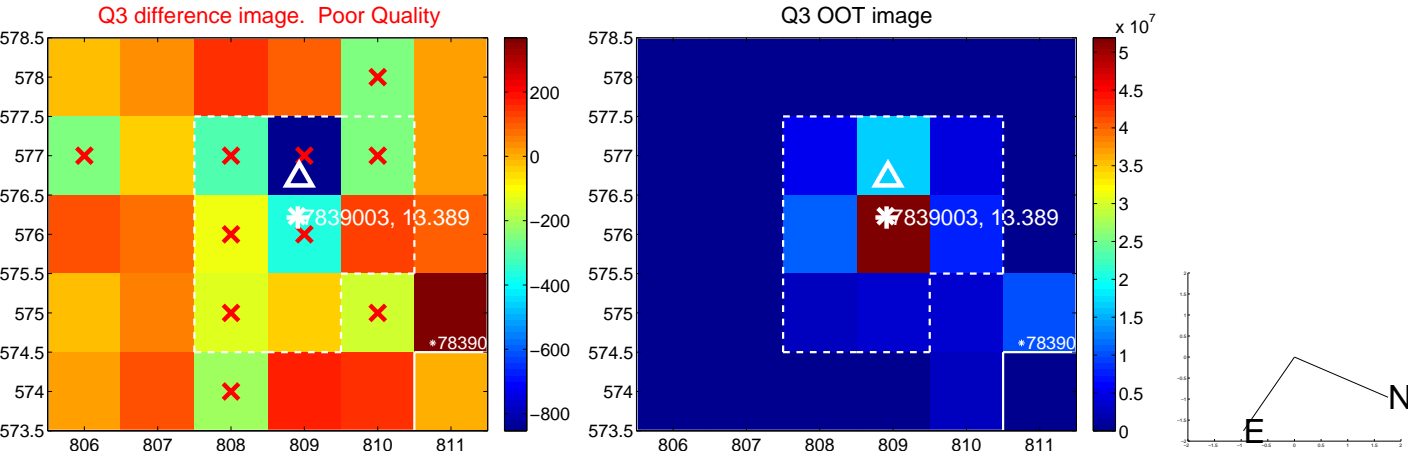
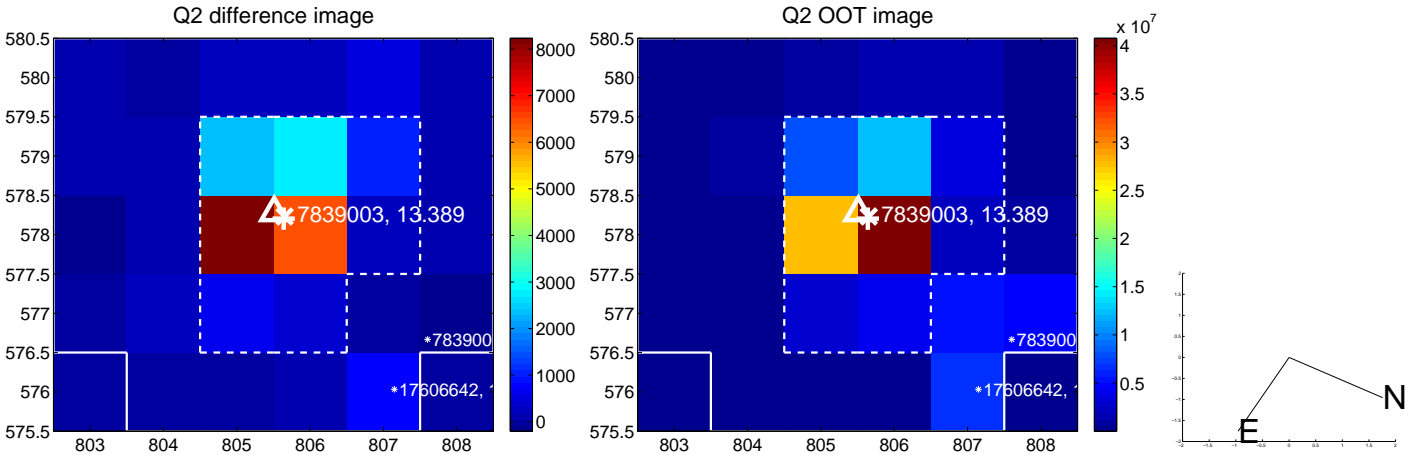
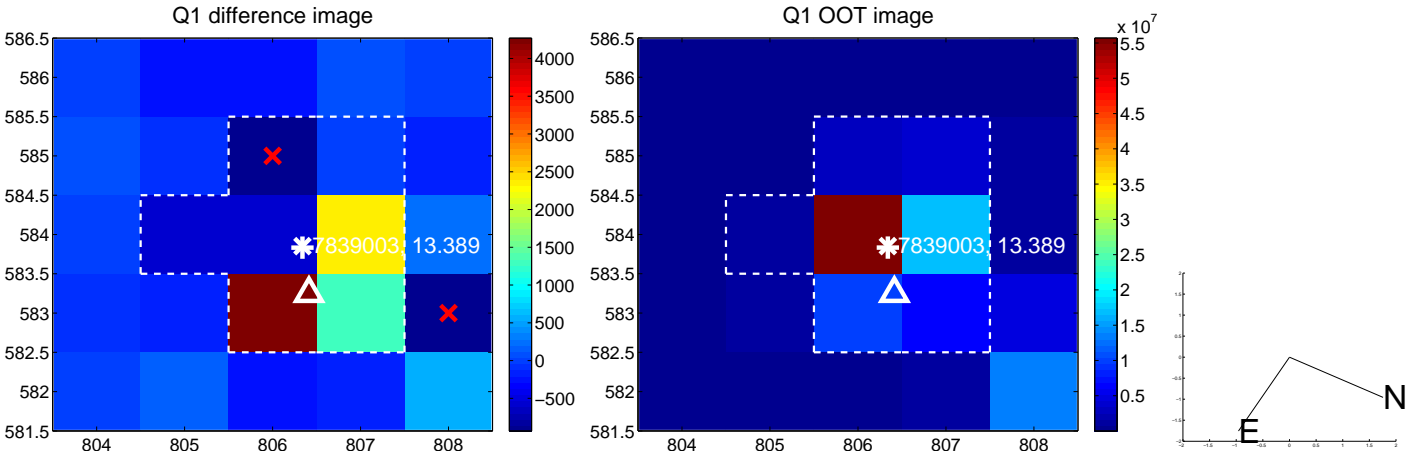
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.214 ± 0.175	1.22	-0.023 ± 0.245	-0.212 ± 0.170
PRF-fit source offset from KIC position	0.159 ± 0.174	0.91	0.006 ± 0.256	-0.158 ± 0.175
photometric centroid source offset	1.29 ± 0.79	1.64	-0.15 ± 0.44	-1.28 ± 0.79

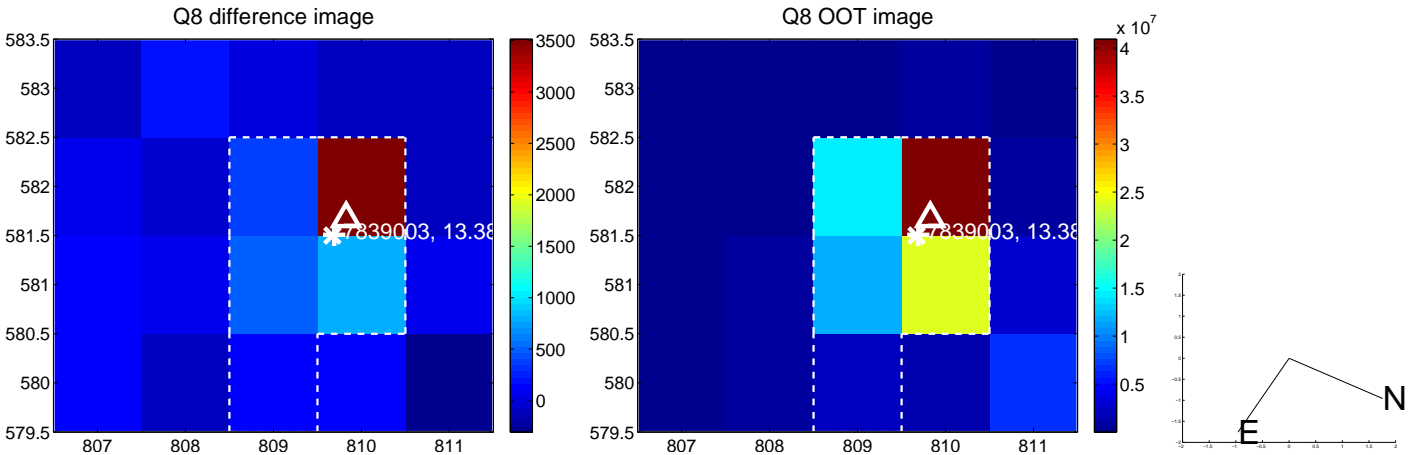
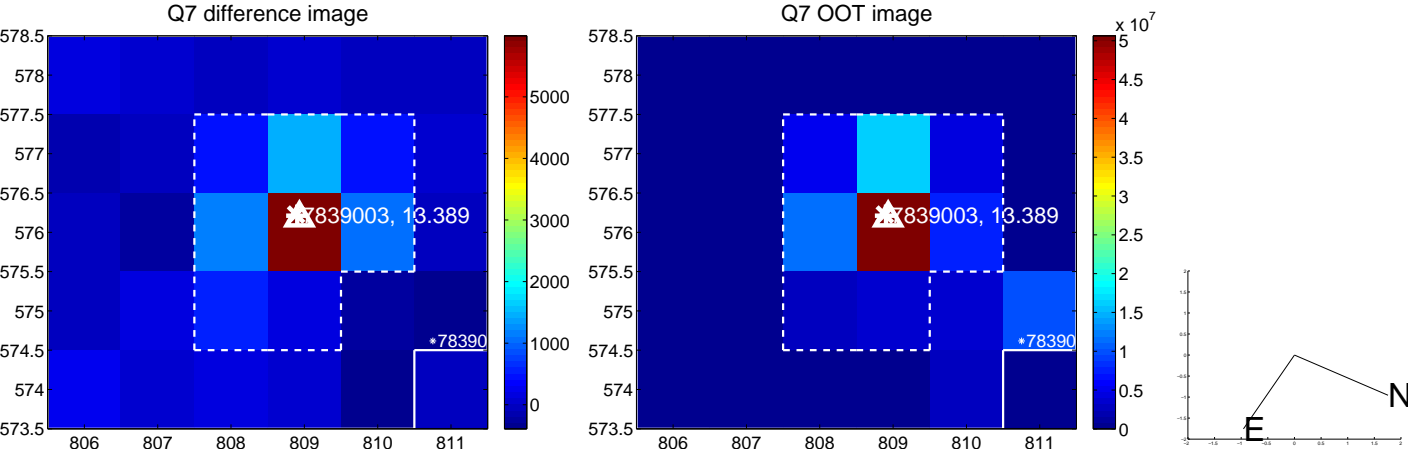
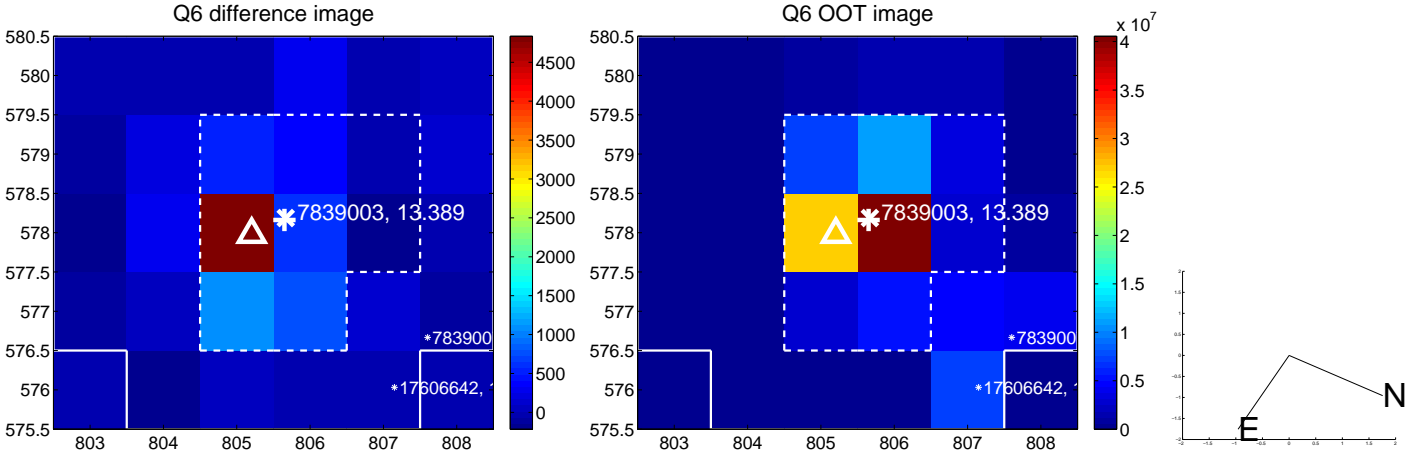
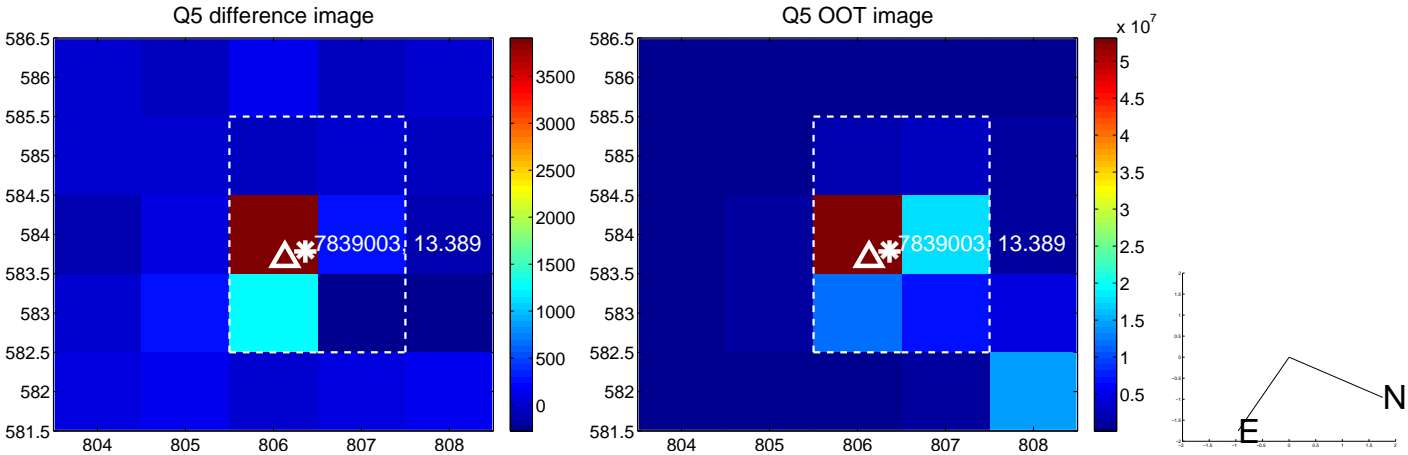


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

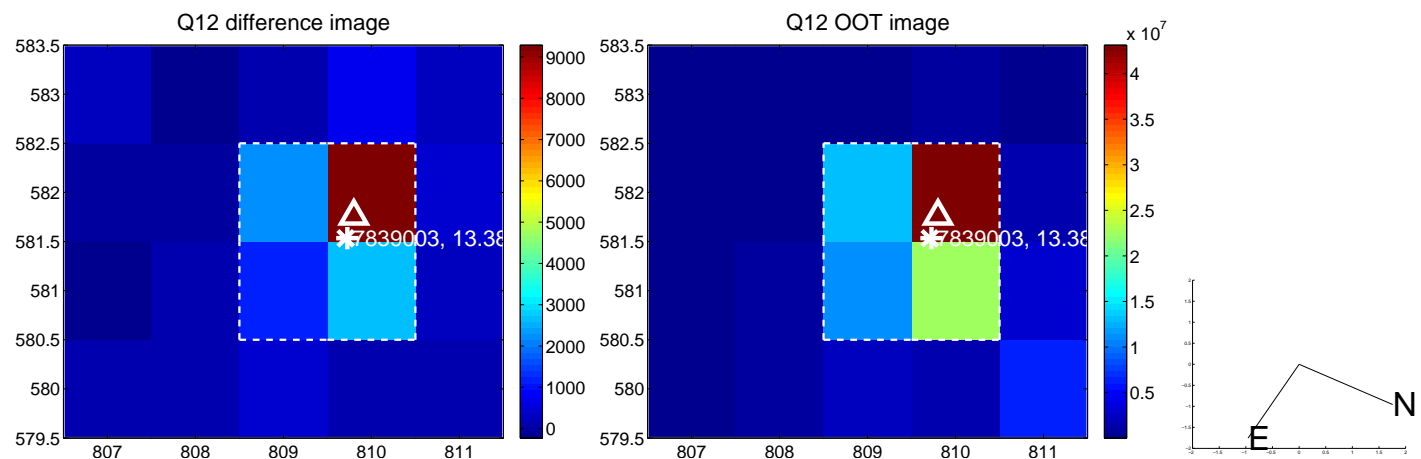
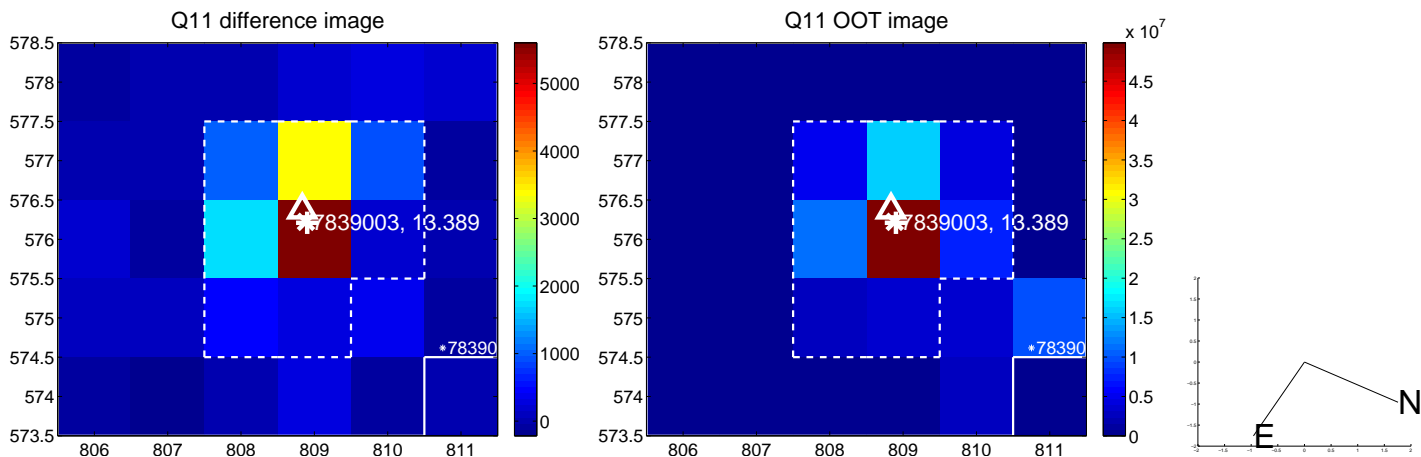
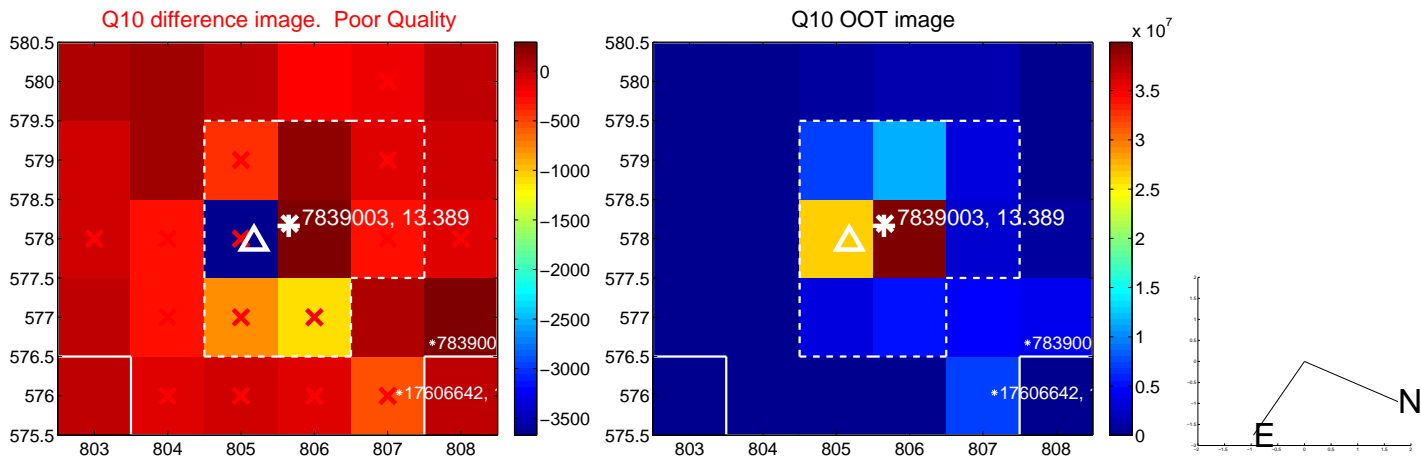
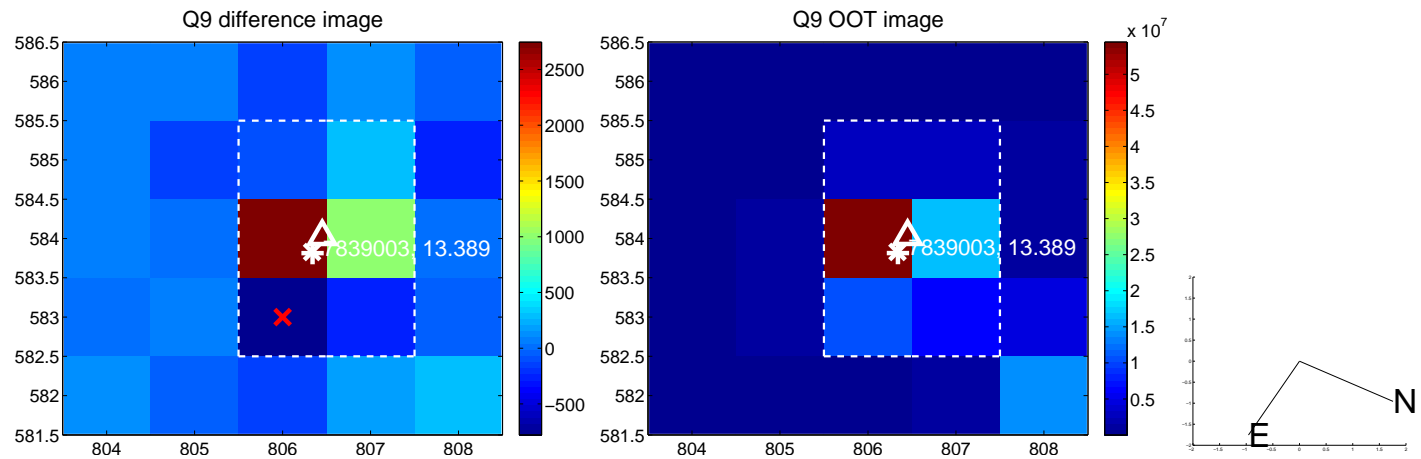
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



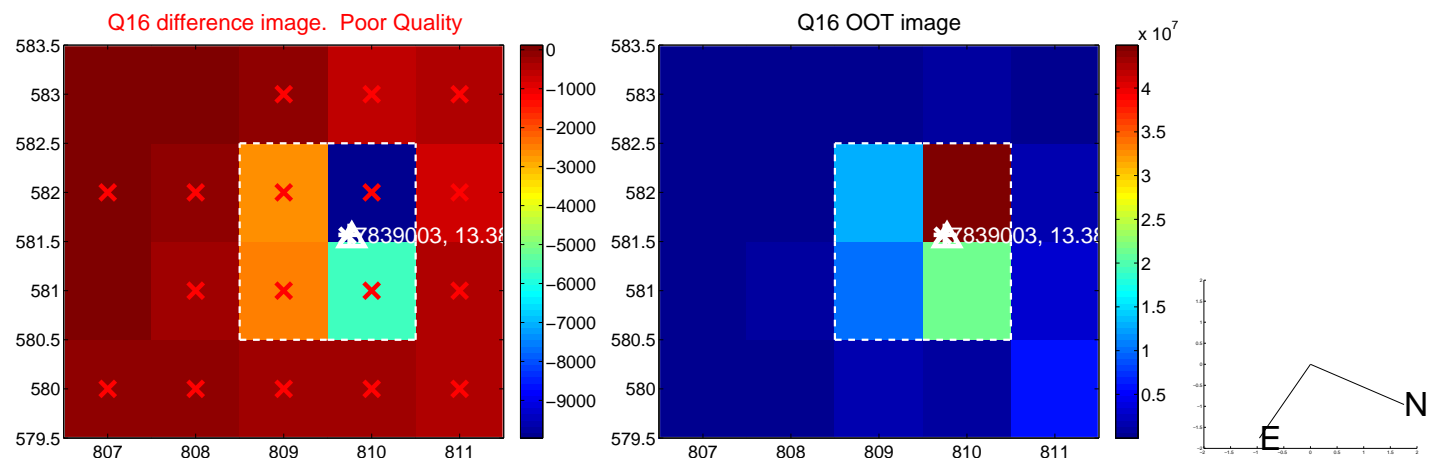
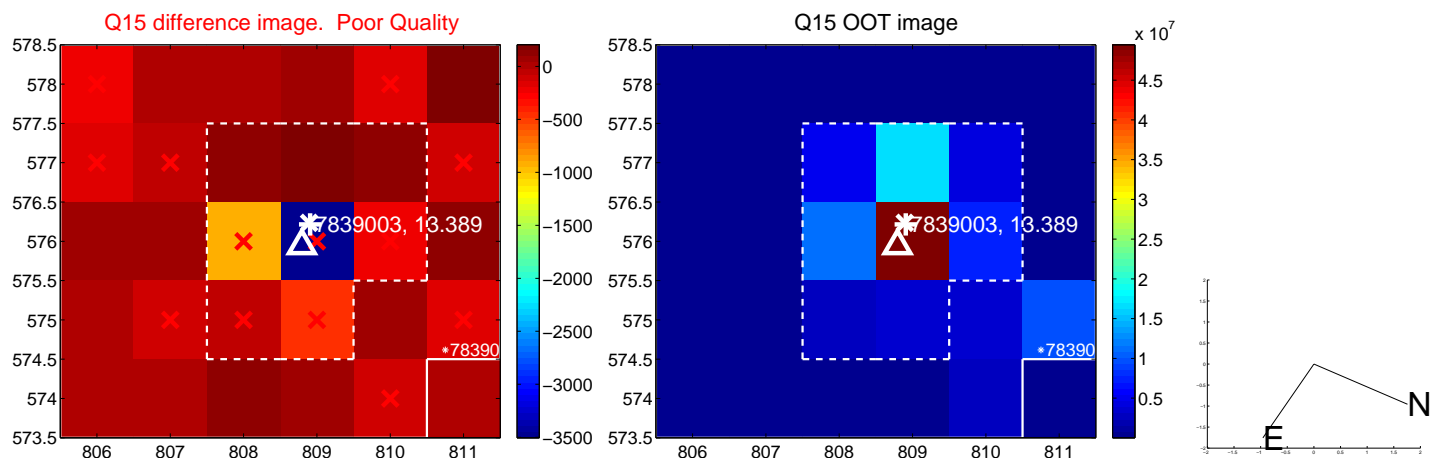
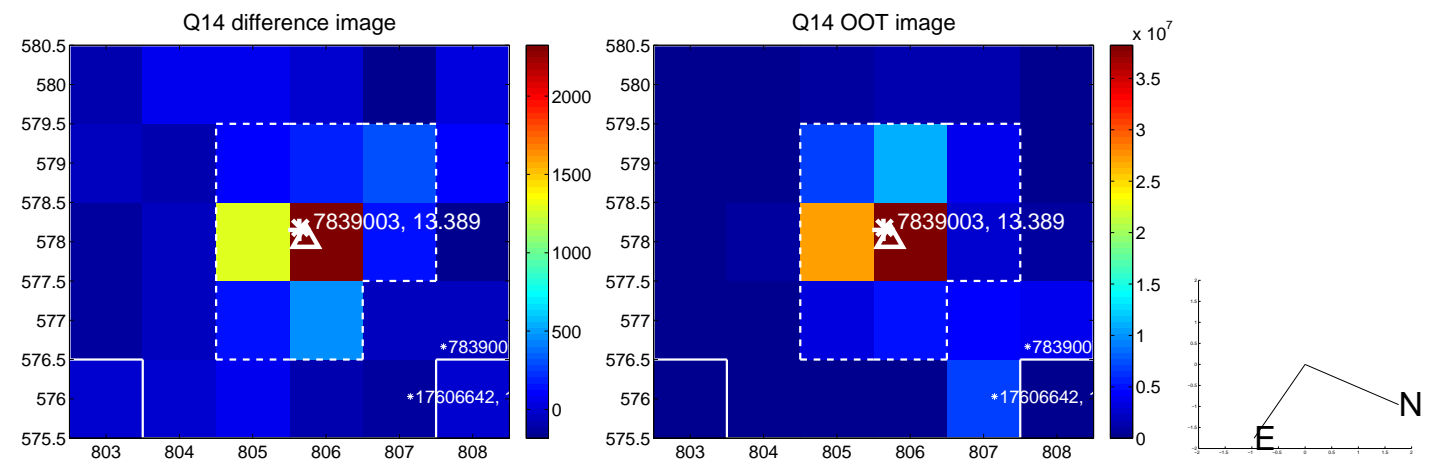
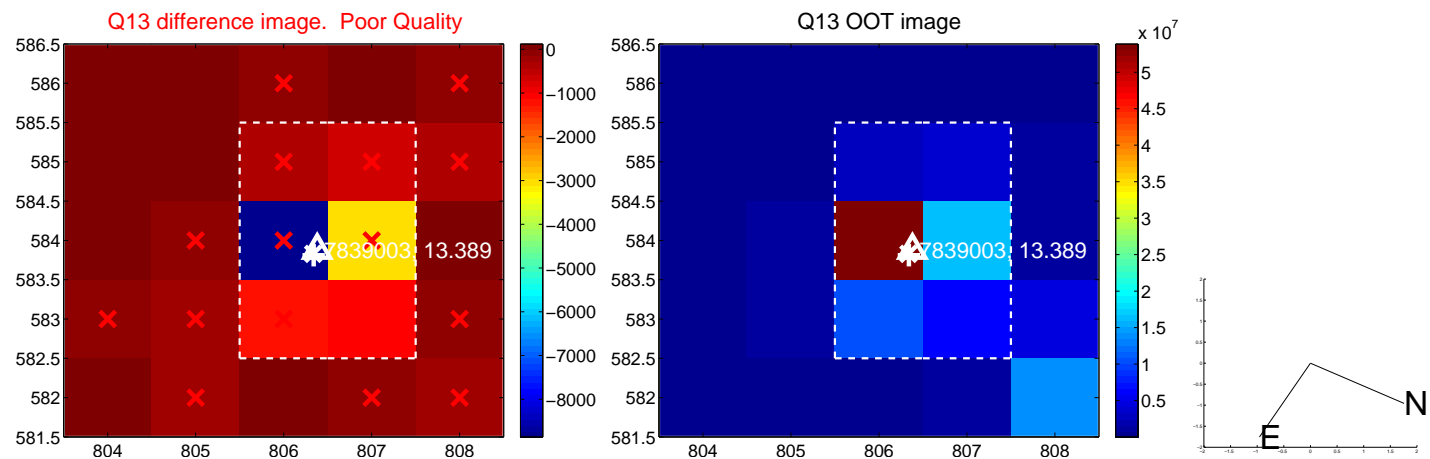
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



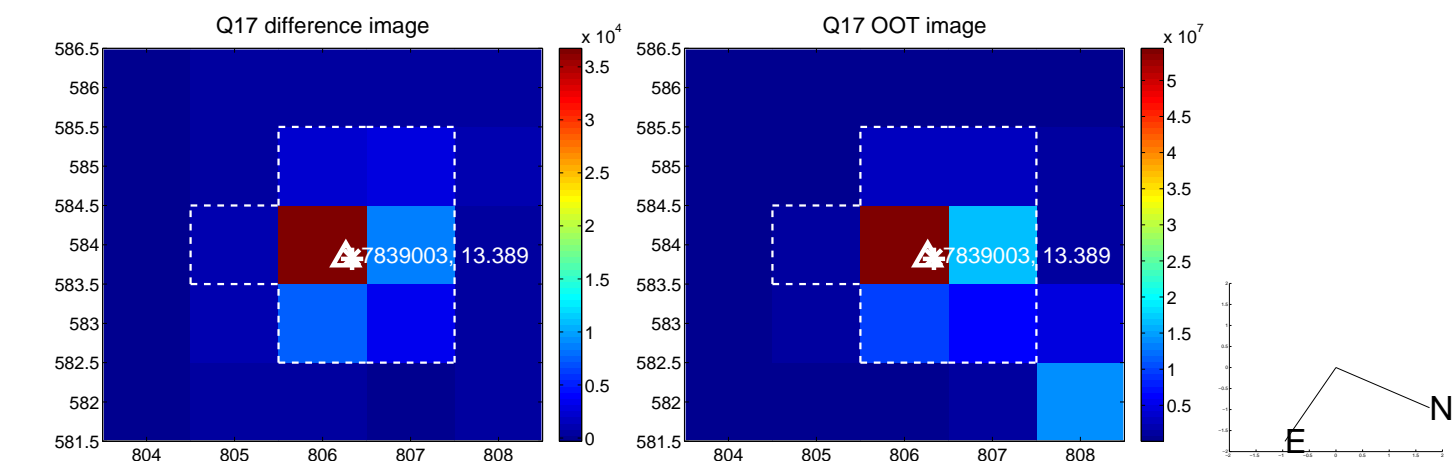
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



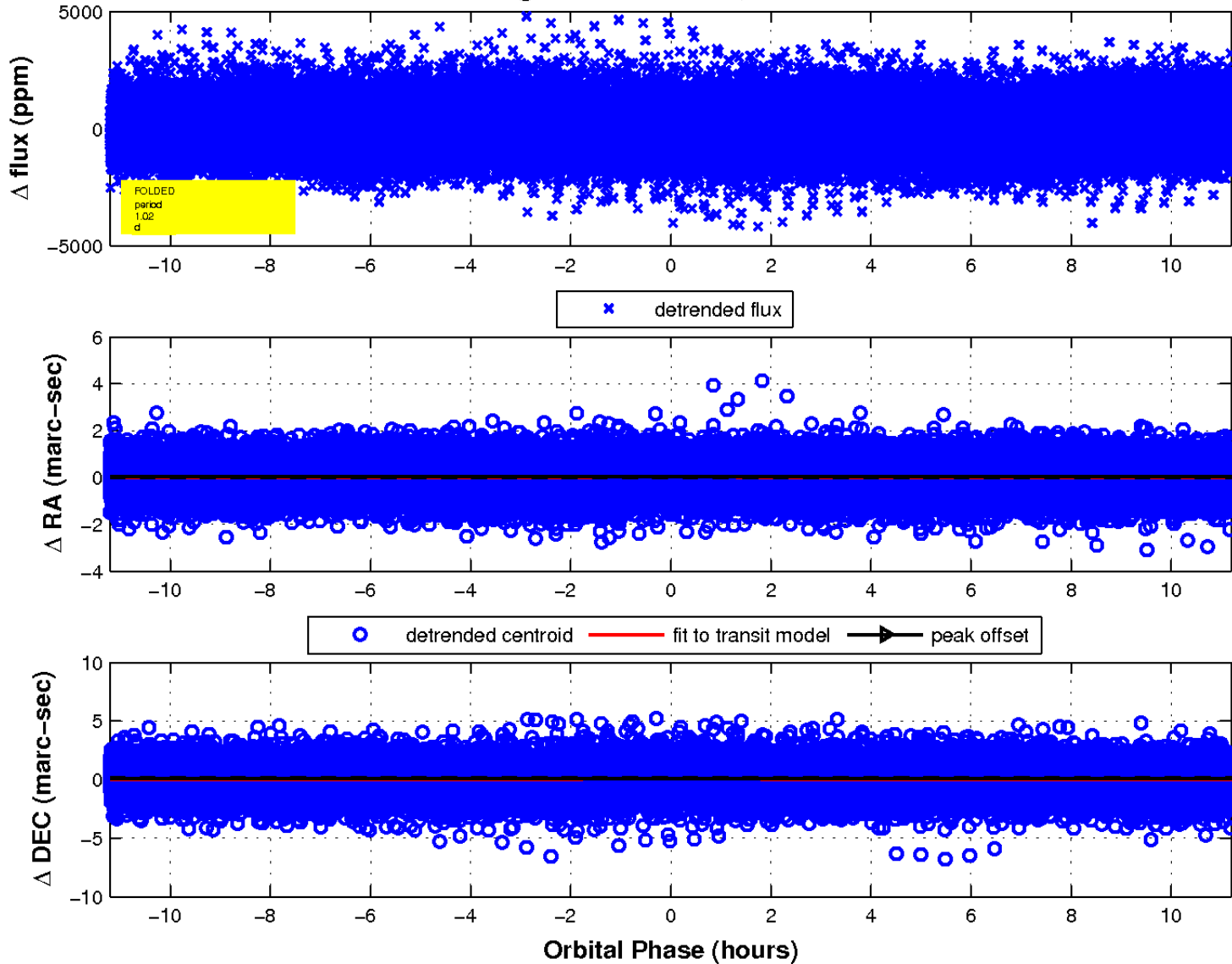
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

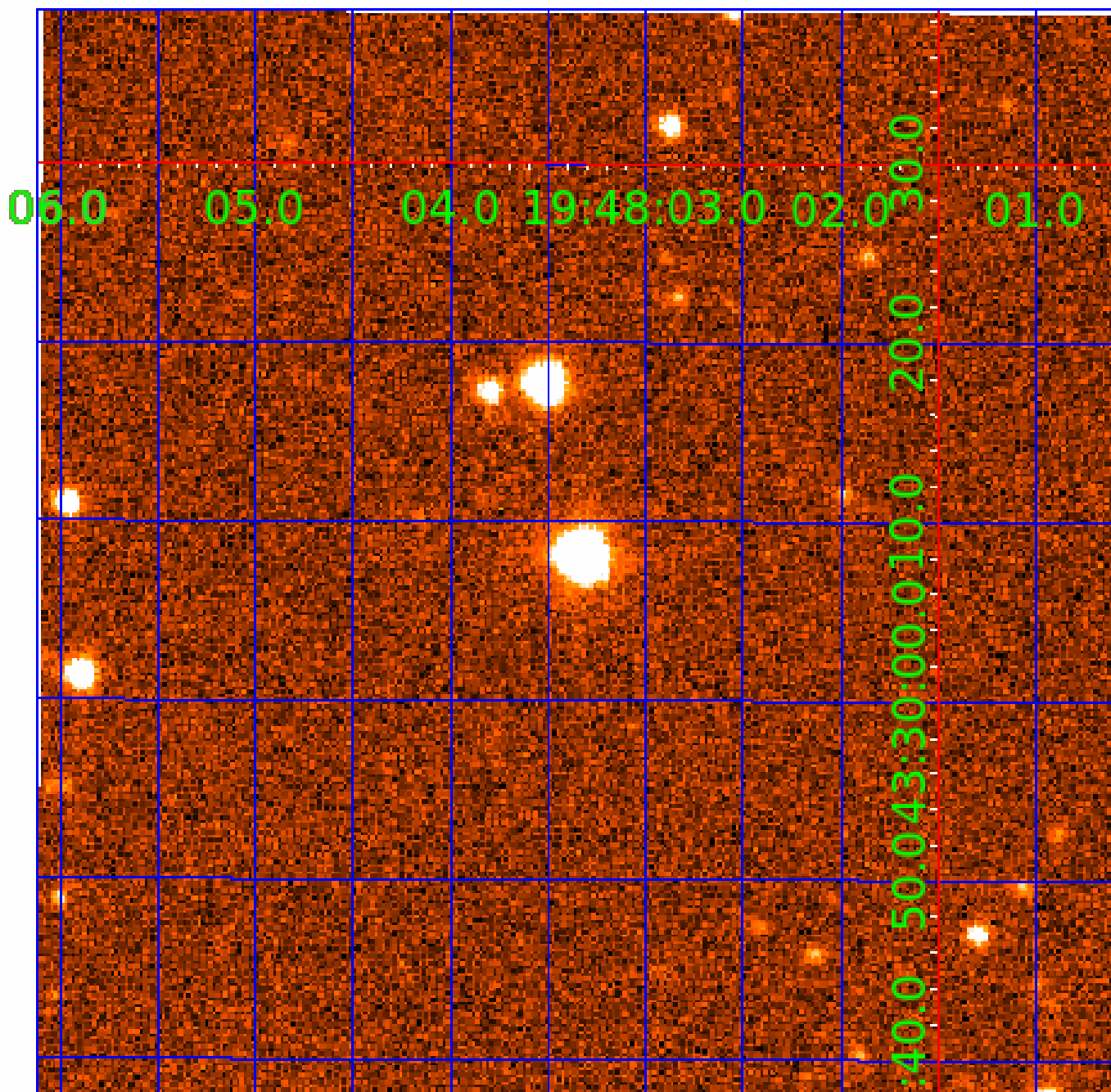


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007839003

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})
007839003-01	OBS	No	1.015440	131.969349	47.2	3.736	9.1	6.2	1.75	7359	1.39	14950.64
007839003-02	OBS	No	1.015395	132.517099	86.1	3.585	11.6	10.2	1.75	7359	1.78	14951.53
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007839003-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007839003-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007839003-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

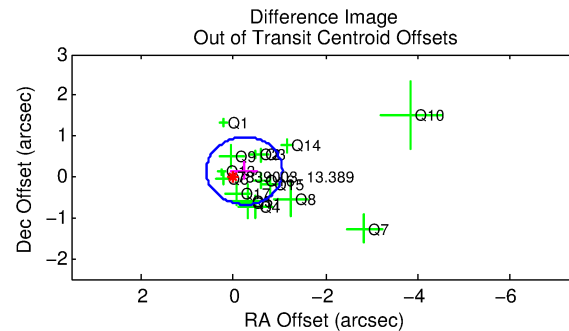
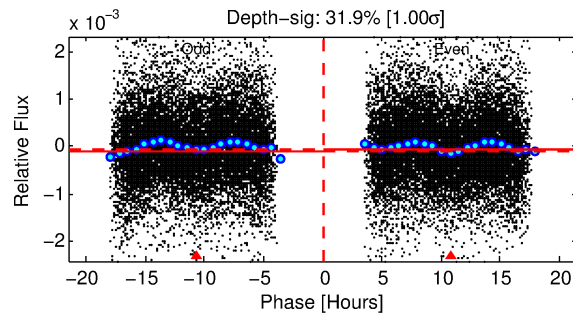
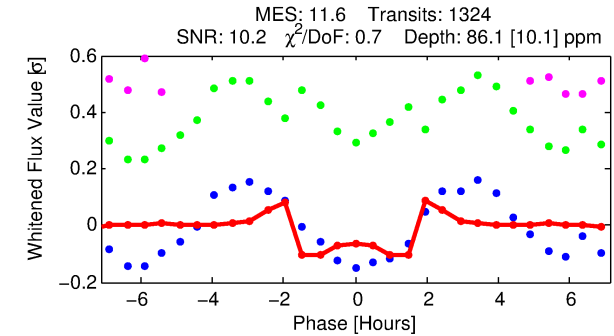
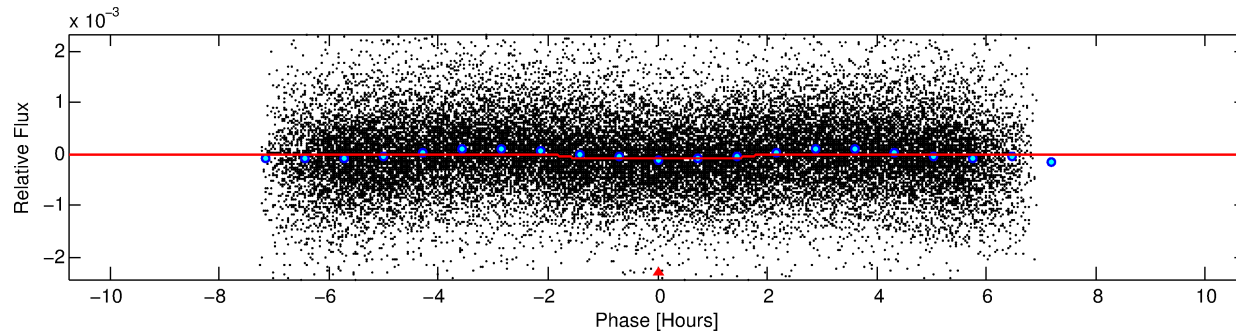
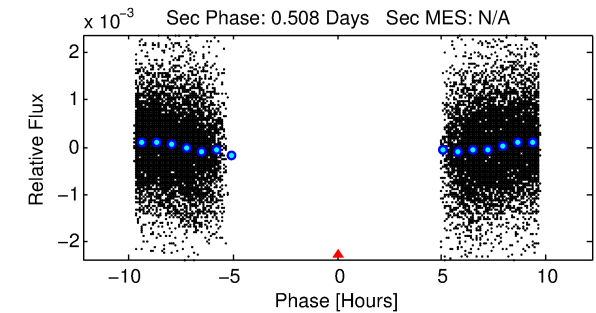
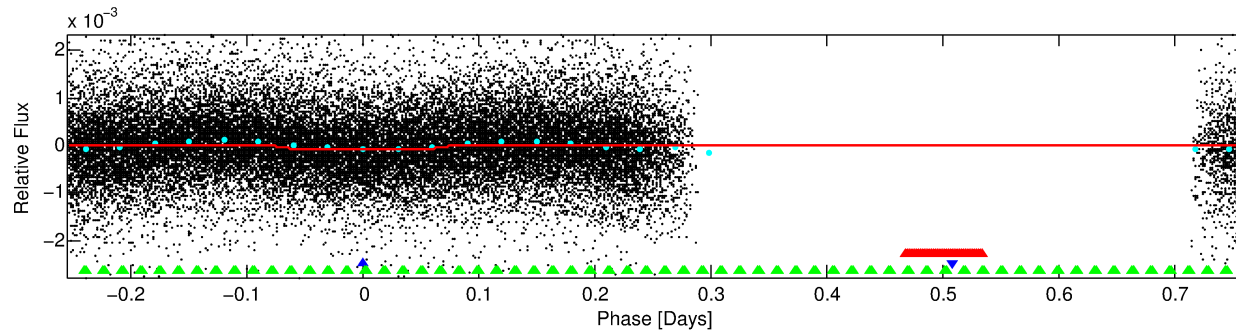
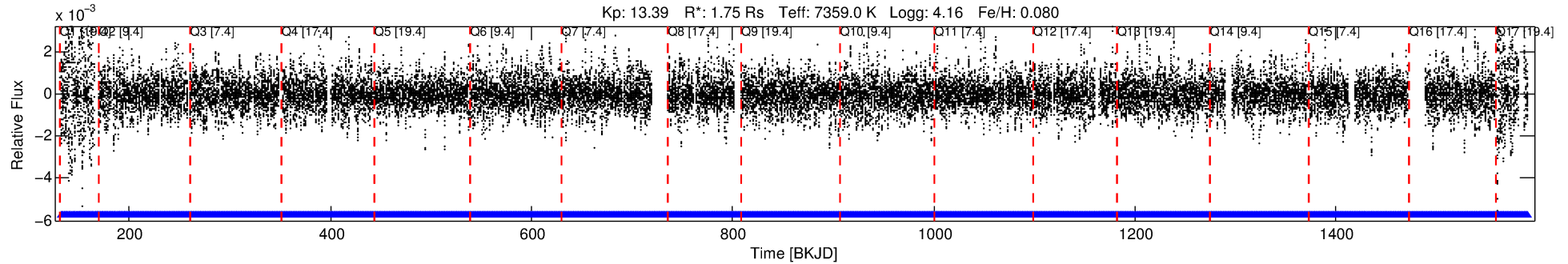
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007839003-02

No Significant Match Found

DV One-Page Summary

KIC: 7839003 Candidate: 2 of 3 Period: 1.015 d



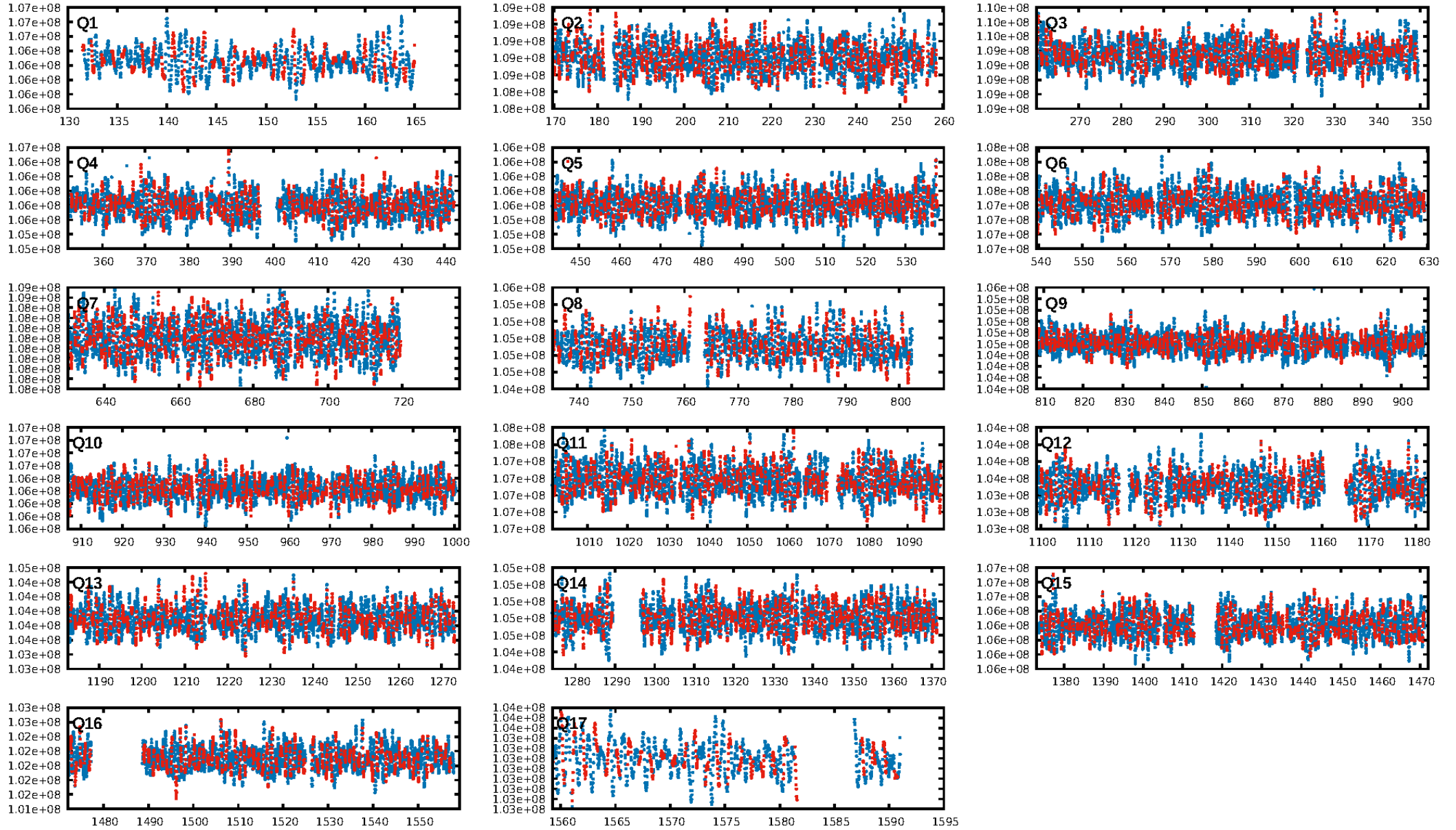
DV Fit Results:

Period = 1.01540 [0.00001] d
Epoch = 132.5171 [0.0014] BKJD
Rp/R* = 0.0093 [0.0017]
a/R* = 1.61 [1.08]
b = 0.79 [0.52]
Seff = 14951.53 [6268.39]
Teq = 2820 [296] K
Rp = 1.78 [0.68] Re
a = 0.0231 [0.0063] AU

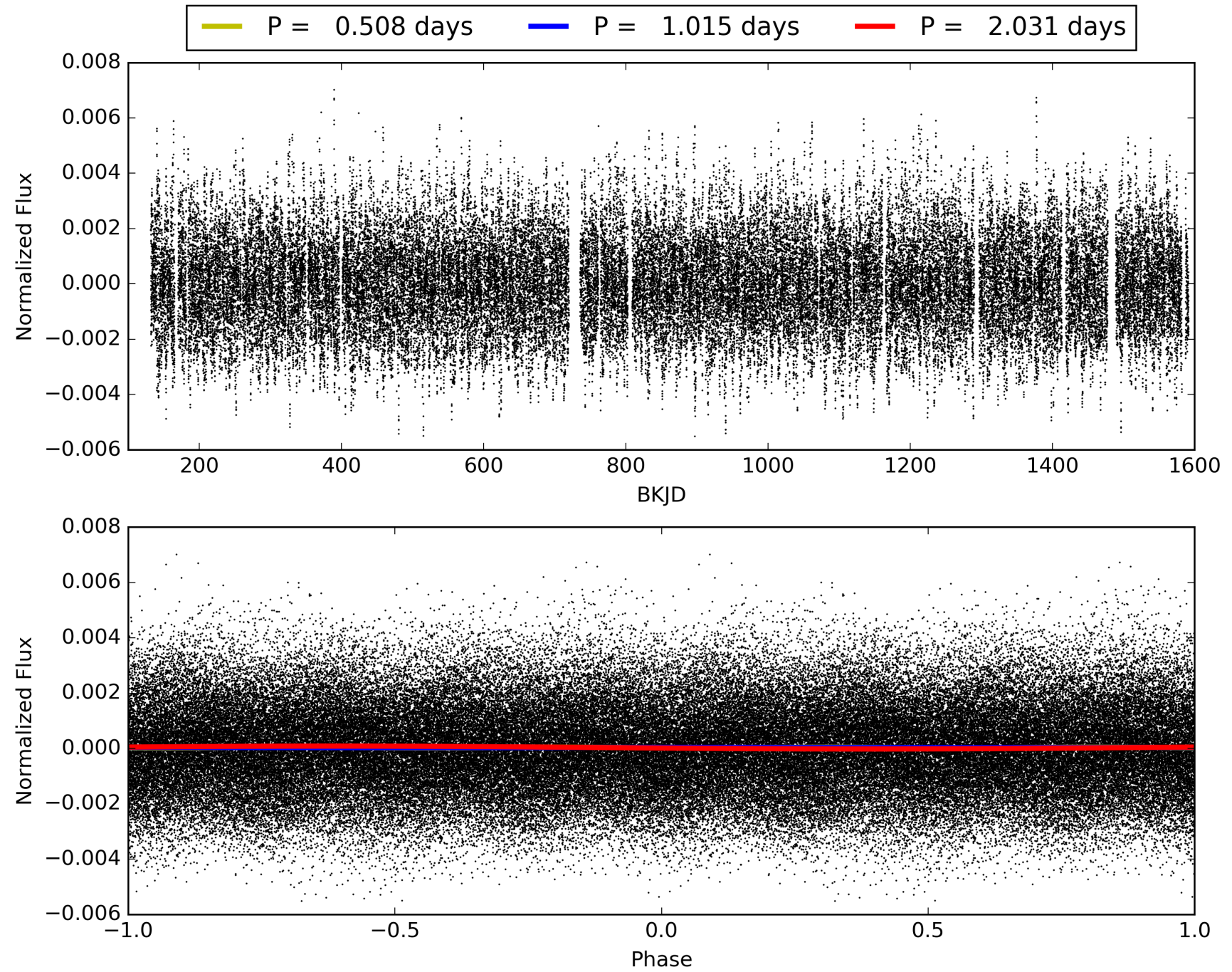
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1264/1264]
GhostDiagnostic-chr: -222.5
Centroid-sig: 2.9%
Centroid-so: 1.585 arcsec [3.66σ]
OotOffset-rm: 0.287 arcsec [1.04σ]
KicOffset-rm: 0.256 arcsec [1.05σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007839003-02, PDC Light Curves

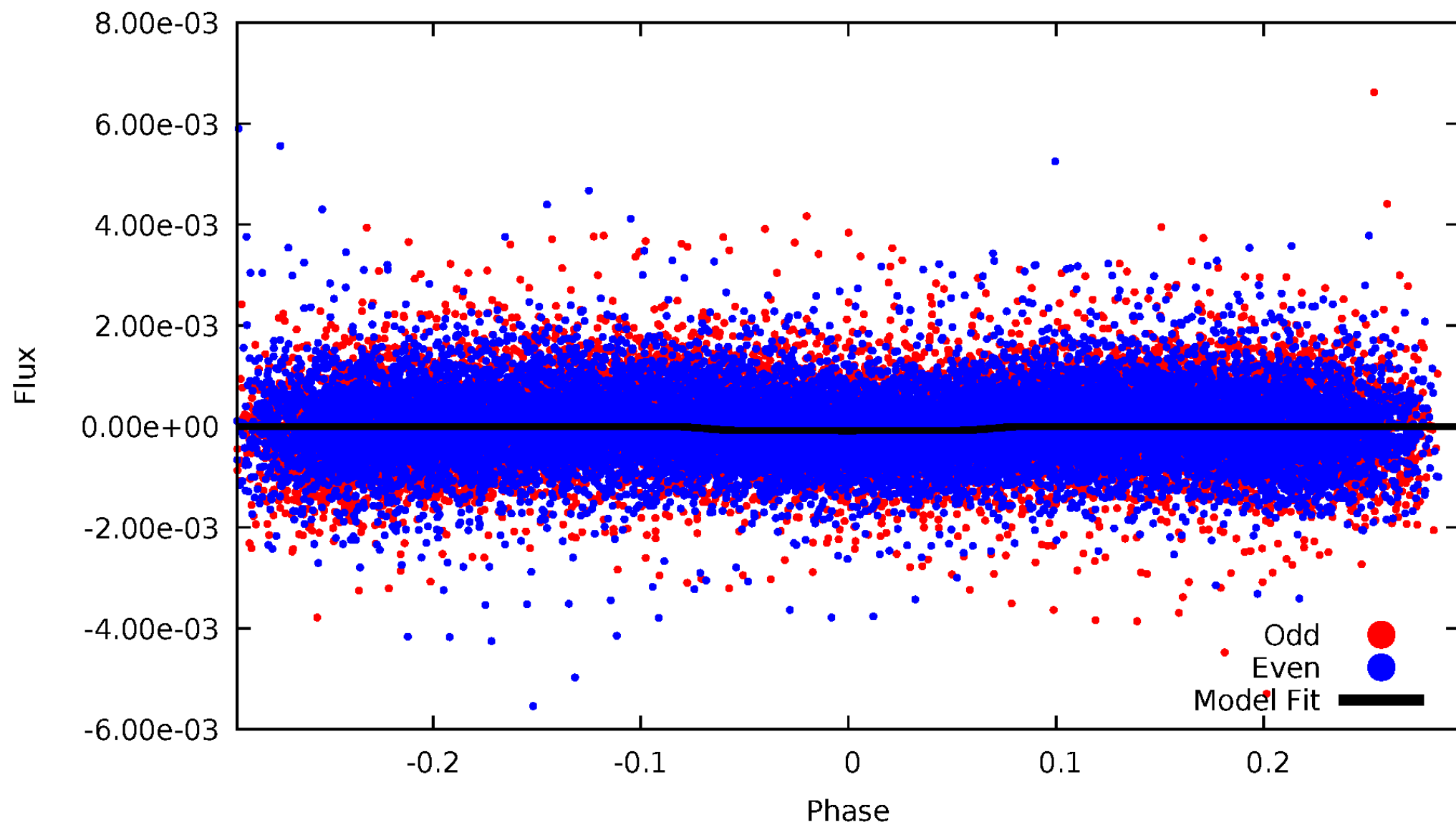


TCE 007839003-02



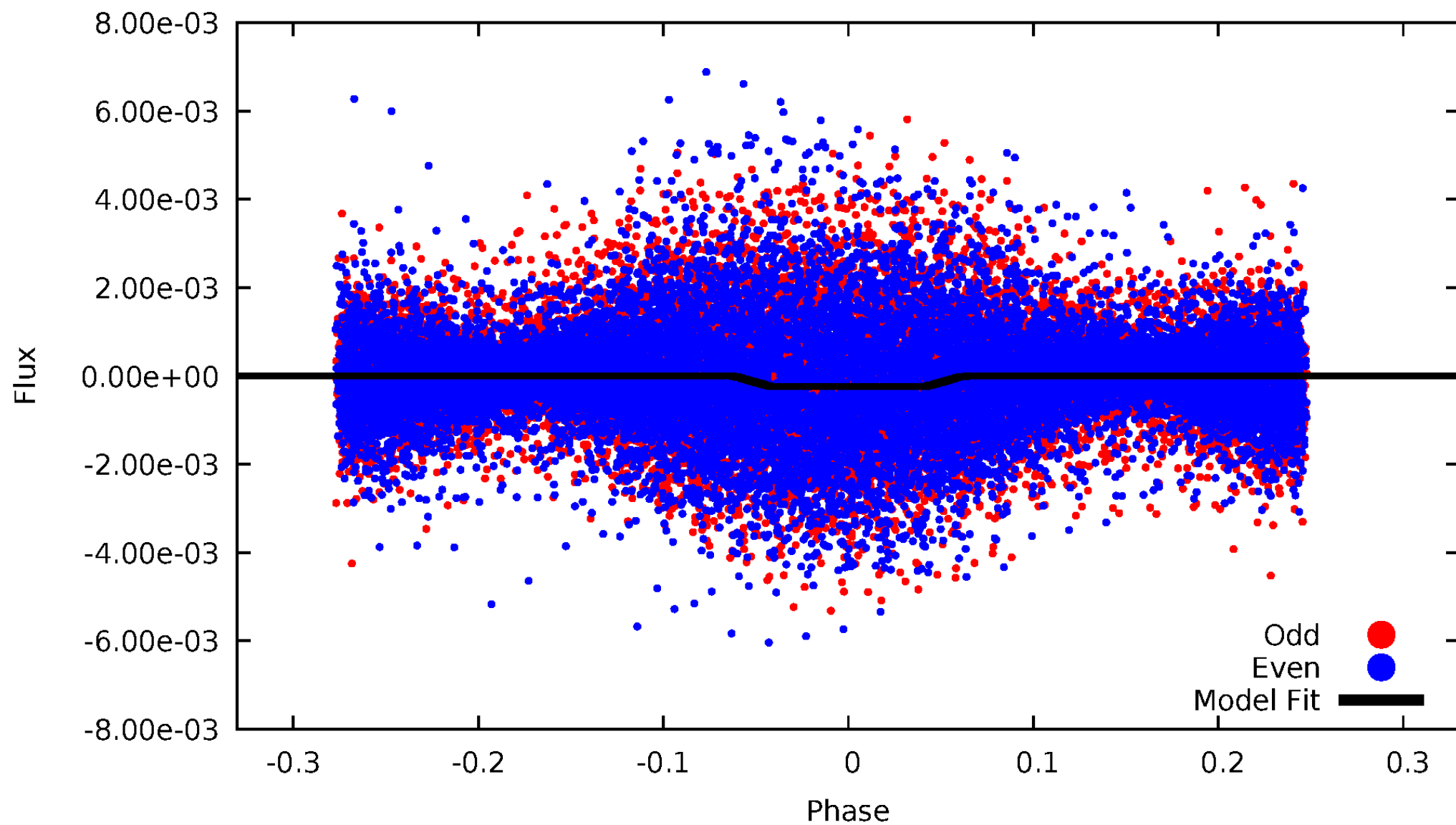
DV Odd/Even

TCE 007839003-02



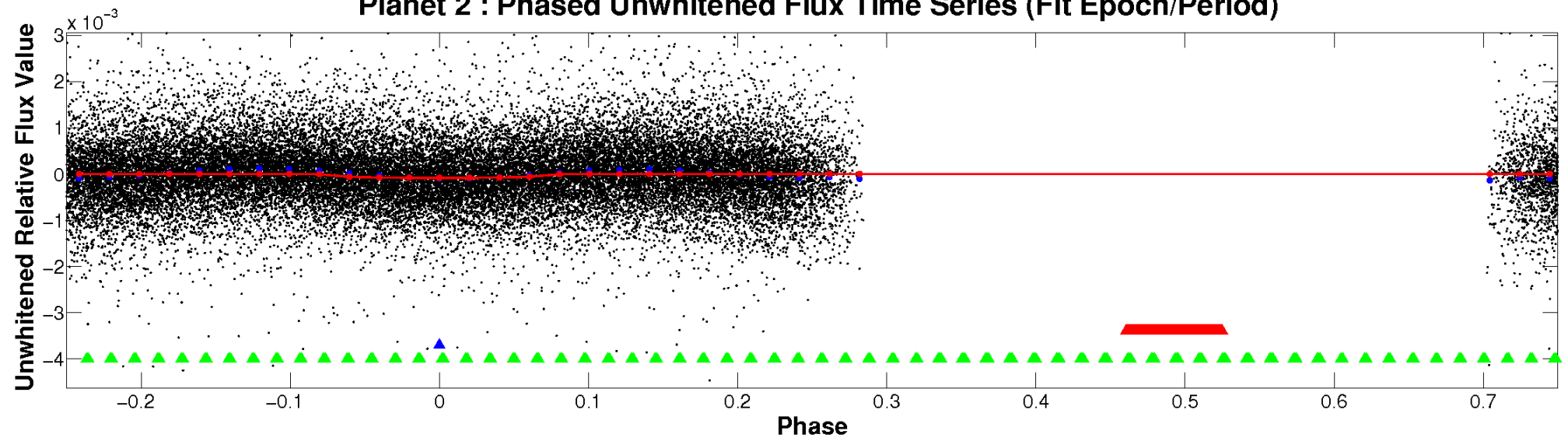
ALT Odd/Even

TCE 007839003-02

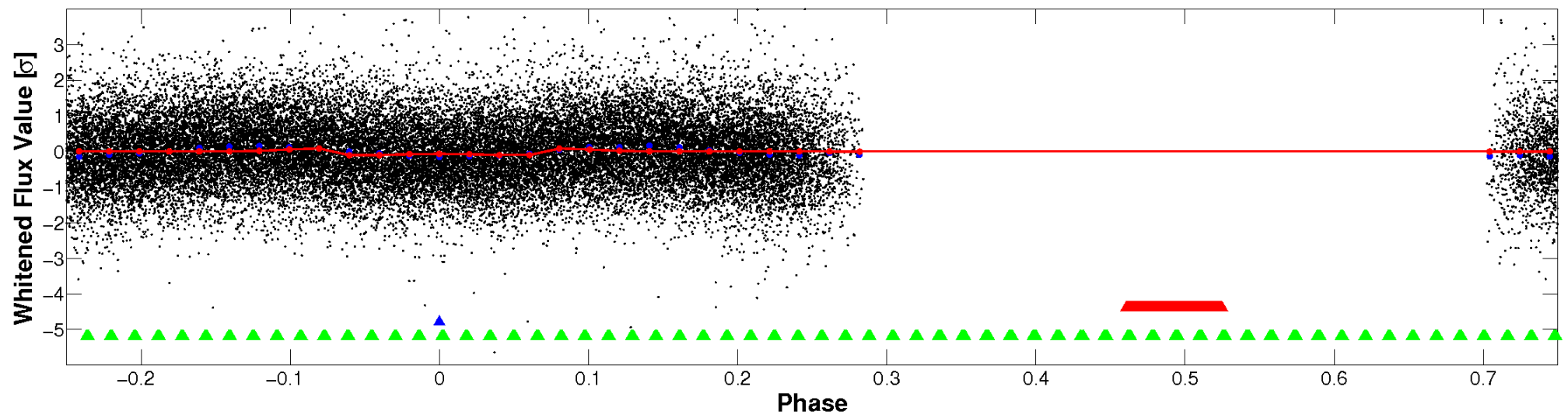


Non-Whitened Vs. Whitened Light Curve

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

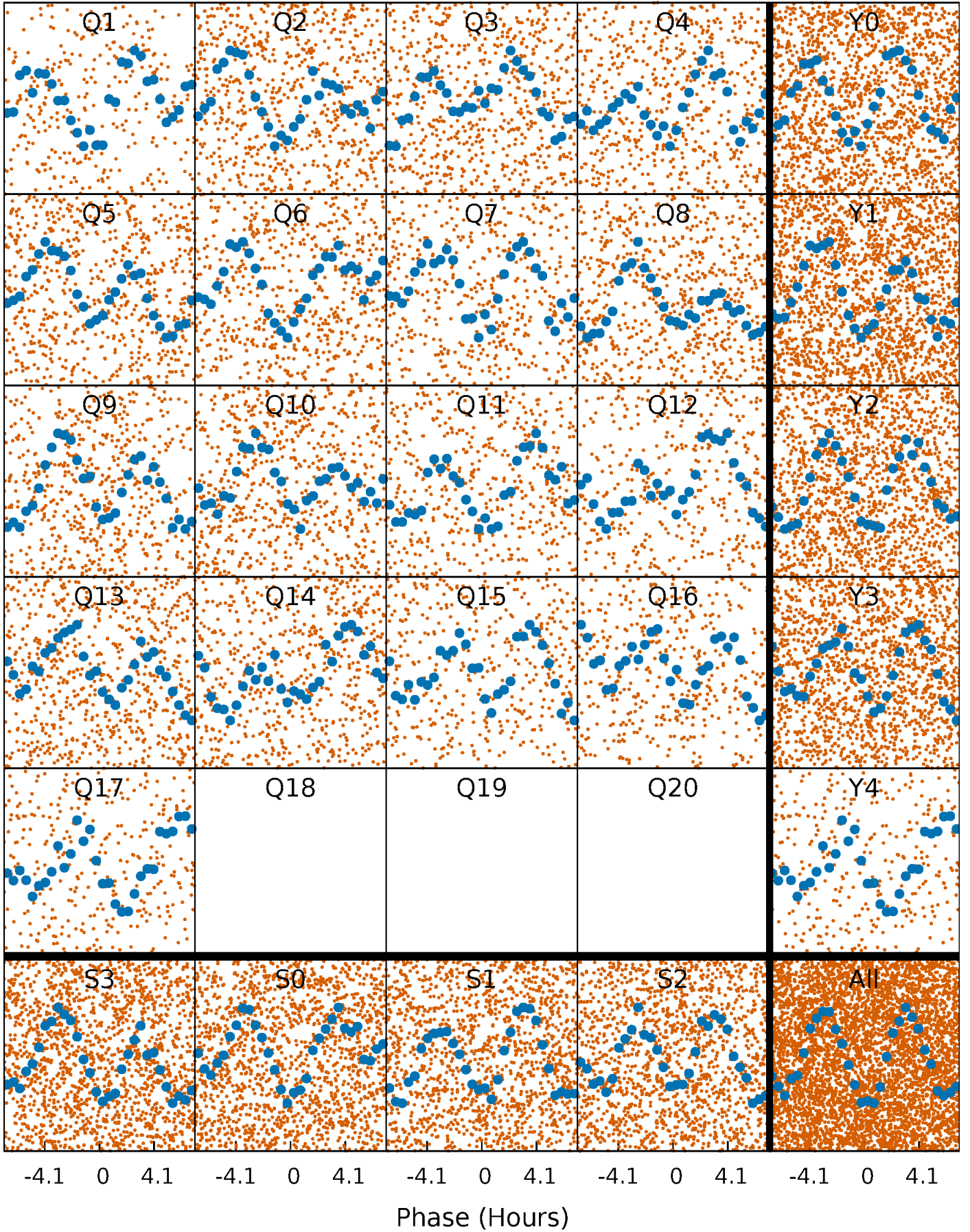


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



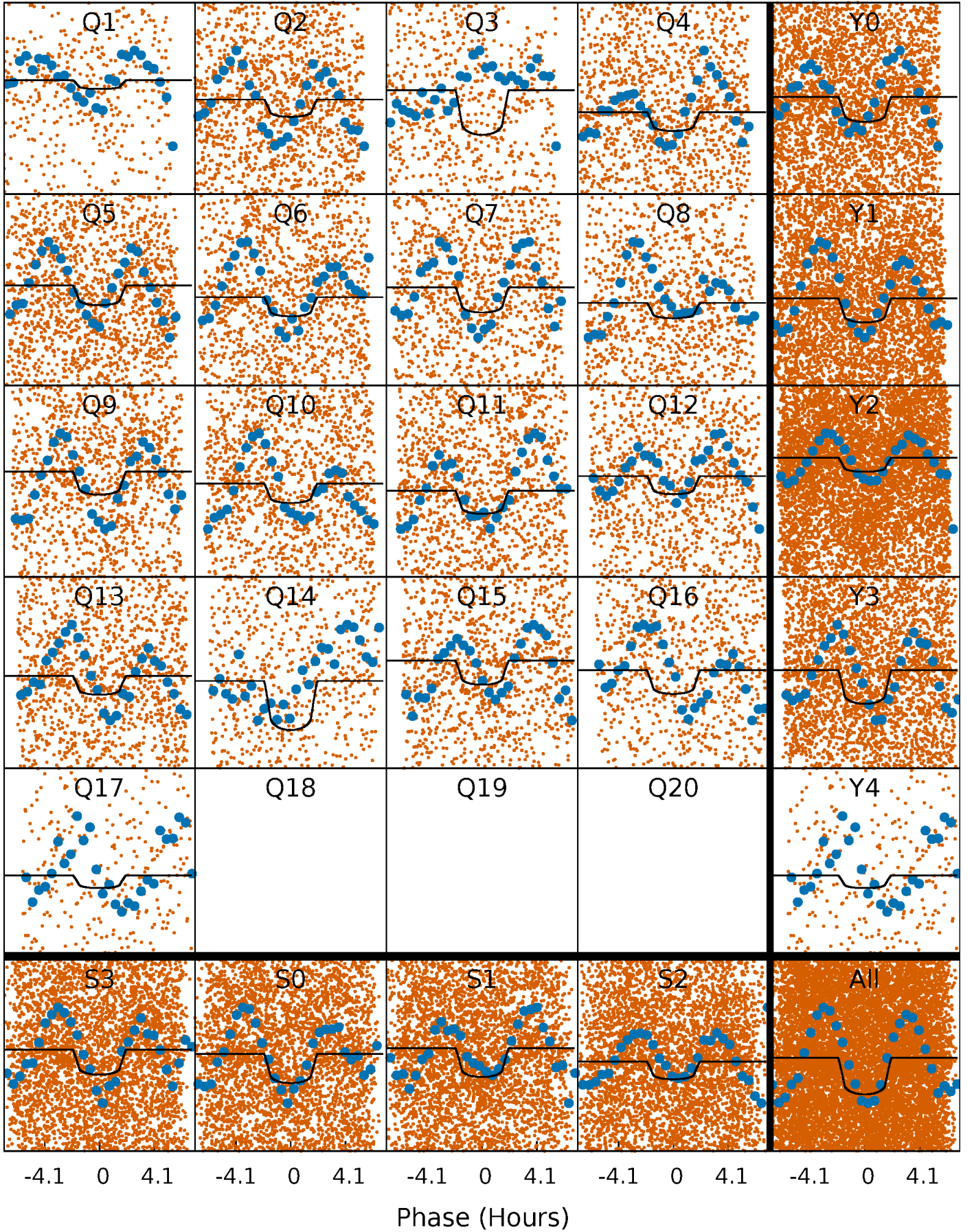
PDC Quarter-Phased Transit Curves

TCE 007839003-02 P= 1.015395 Days $T_0=132.517099$ (BKJD)



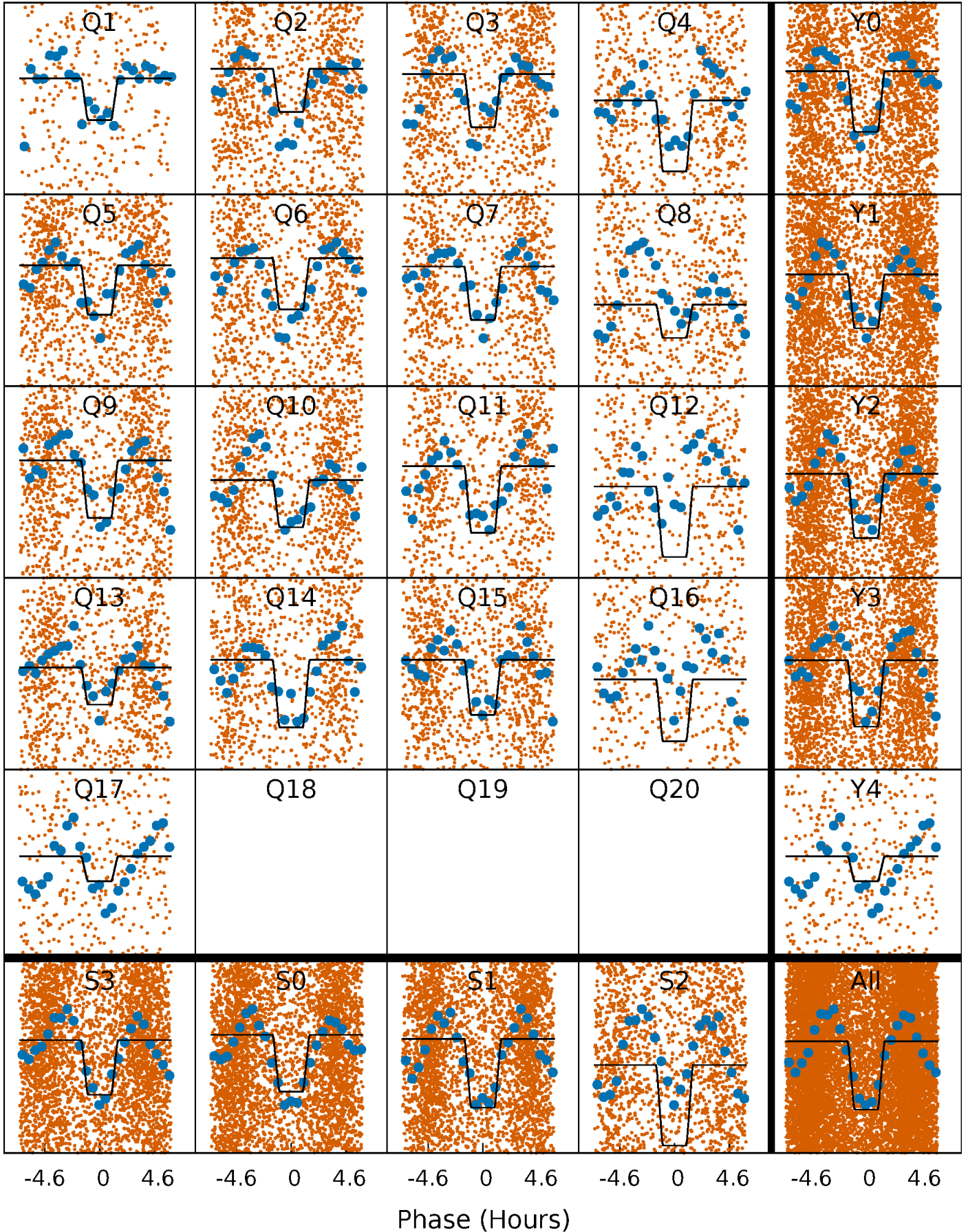
DV Quarter-Phased Transit Curves

TCE 007839003-02 $P = 1.015395$ Days $T_0 = 132.517099$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

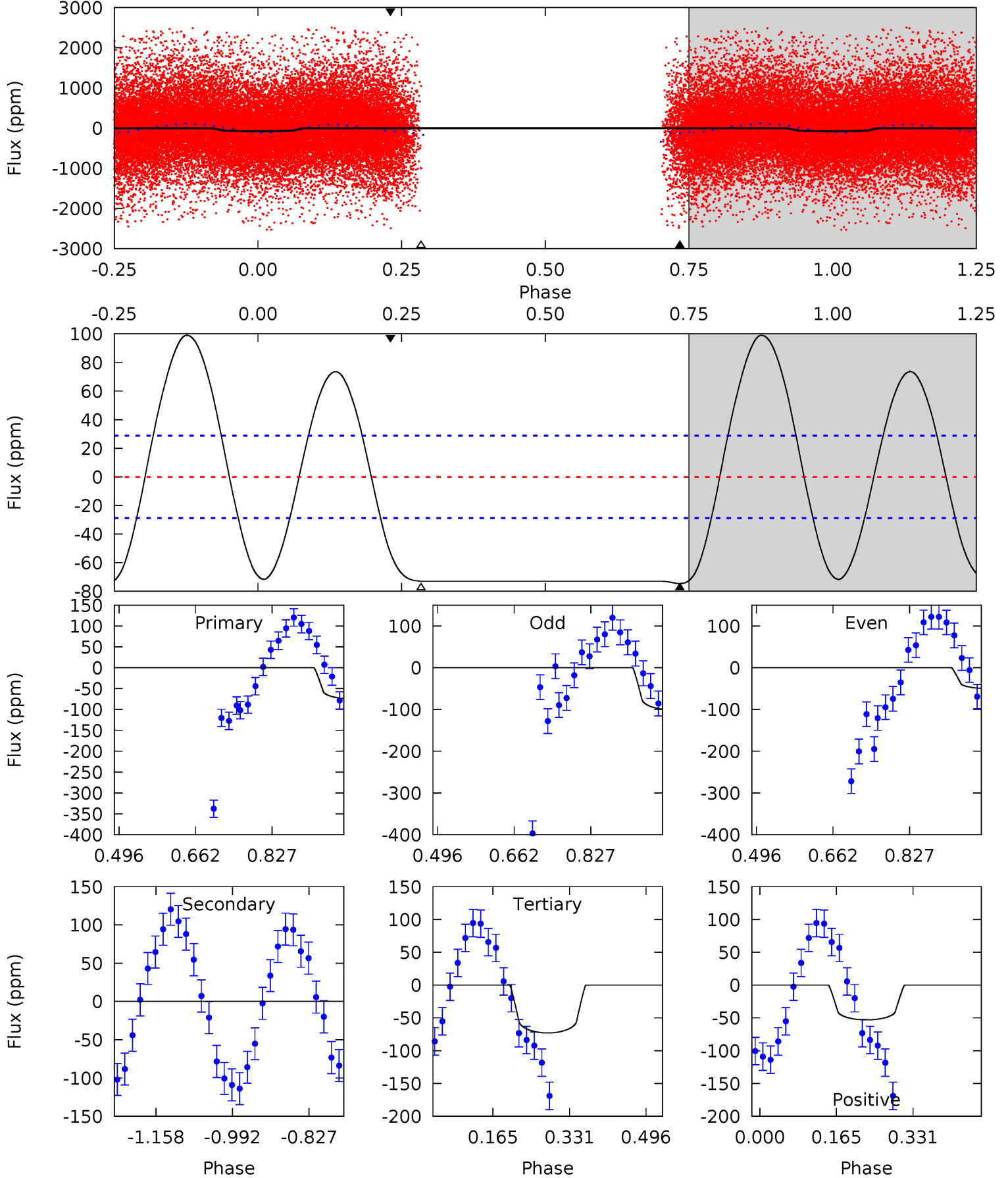
TCE 007839003-02 P= 1.015445 Days $T_0=132.488650$ (BKJD)



DV Model-Shift Uniqueness Test

007839003-02, P = 1.015395 Days, E = 131.501704 Days

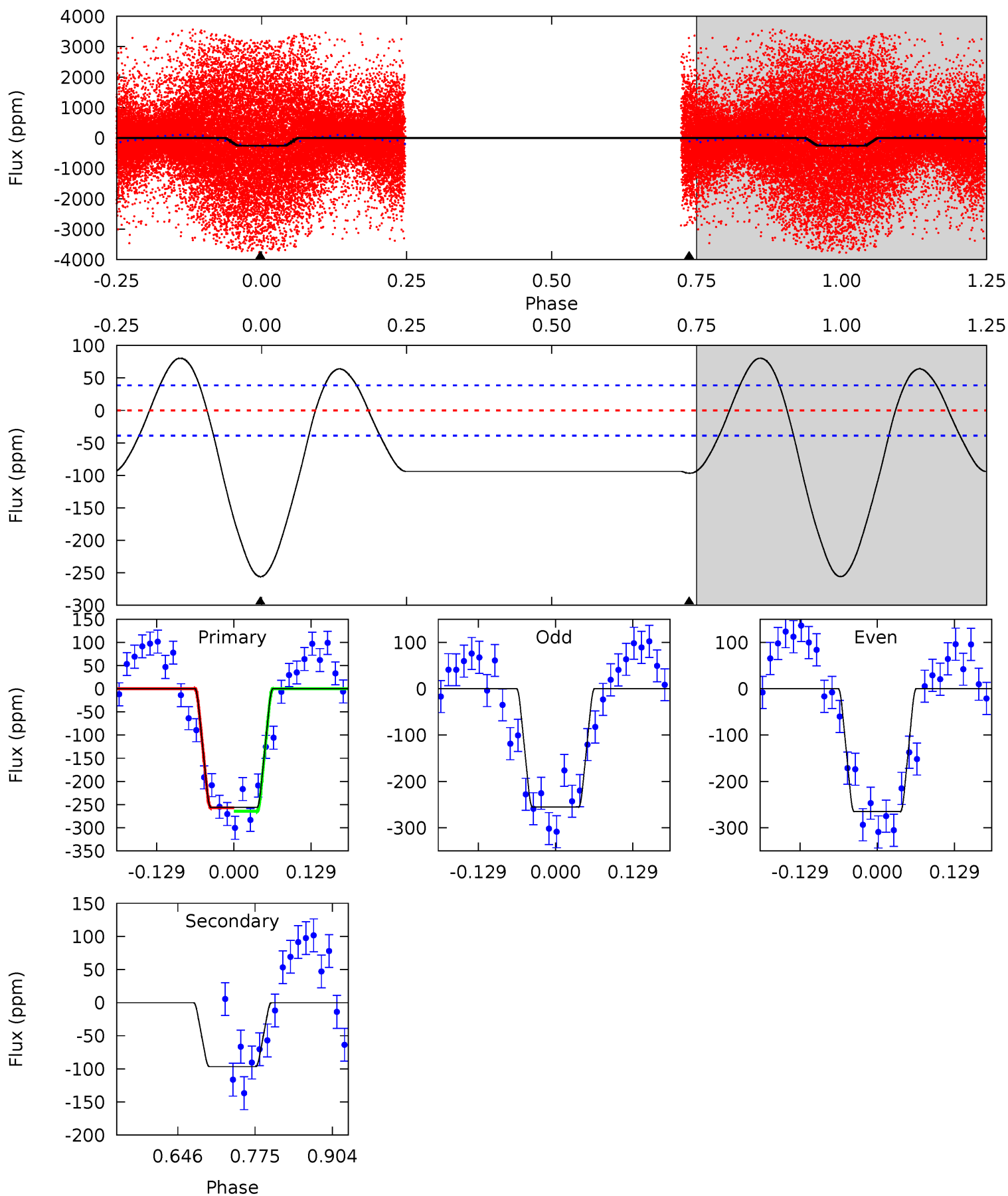
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	0	11.3	-8.20	4.46	1.39	7.95	0.26	19.7	-11.3	8.20	3.81	0.94	0.57	3.10



Alt Model-Shift Uniqueness Test

007839003-02, P = 1.015445 Days, E = 131.473205 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.8	11.3	0	0	4.51	1.52	6.42	29.8	29.8	11.3	11.3	0.57	0.70	0.24	0.41



Stellar Parameters For KIC 007839003

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7359^{+203}_{-319}	$4.159^{+0.093}_{-0.202}$	$0.080^{+0.200}_{-0.350}$	$1.746^{+0.583}_{-0.314}$	$1.603^{+0.226}_{-0.226}$	$0.424^{+0.209}_{-0.220}$
	+3%/-4%	+2%/-5%	+250%/-438%	+33%/-18%	+14%/-14%	+49%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007839003-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 6	$1.84^{+0.46}_{-0.37}$	3984^{+305}_{-223}	-3649^{+7186}_{-839}	$-0.001^{+0.543}_{-0.593}$
Alt.	-97 ± 9	$3.03^{+0.57}_{-0.51}$	3986^{+294}_{-251}	5641^{+421}_{-404}	$3.045^{+1.224}_{-0.885}$

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 $A_{obs} \gg 1.0$

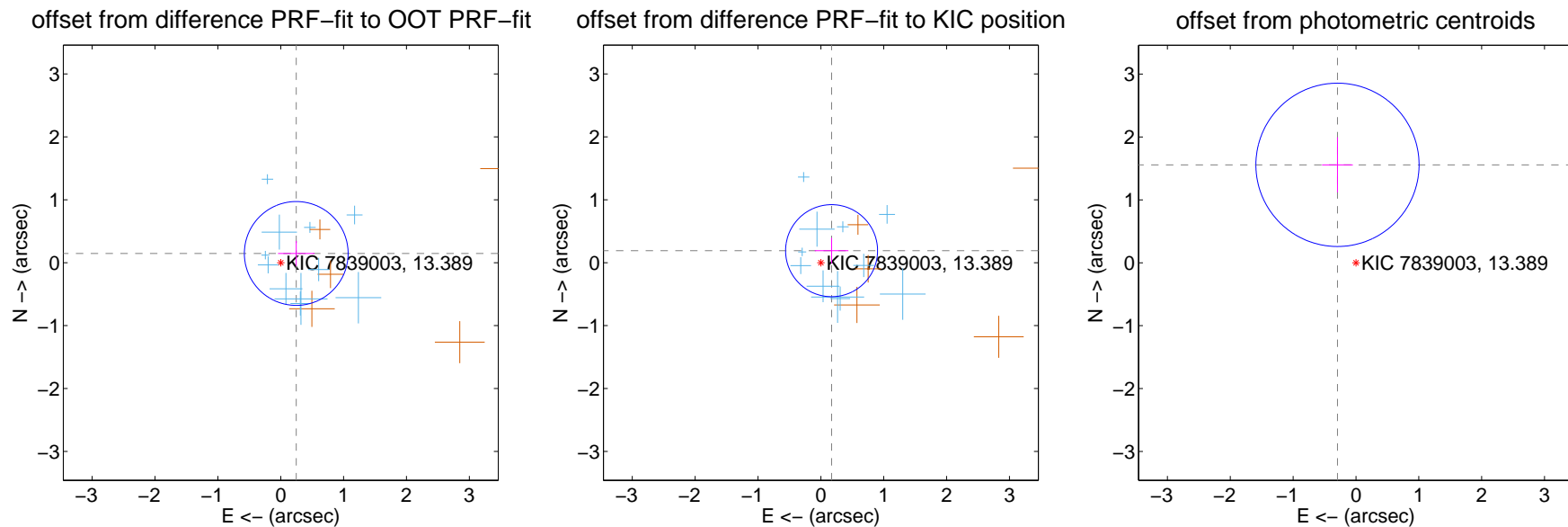
DV Centroid Data

Supplemental centroid analysis for 007839003-02. Kepler magnitude: 13.39. Transit SNR 10.25

There are 11 quarters with good PRF difference image offsets

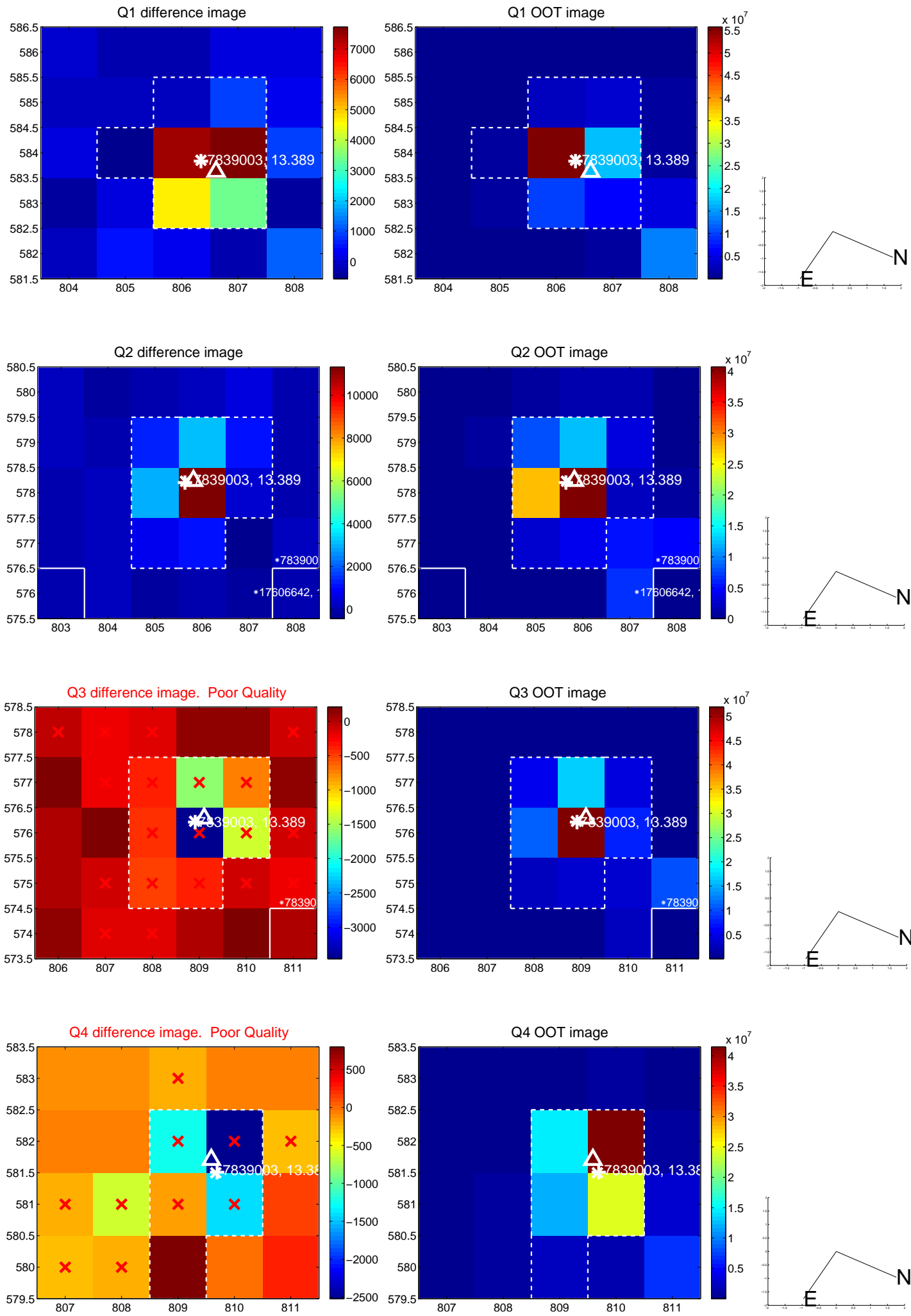
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.287 ± 0.275	1.04	-0.247 ± 0.290	0.147 ± 0.199
PRF-fit source offset from KIC position	0.256 ± 0.244	1.05	-0.170 ± 0.268	0.191 ± 0.203
photometric centroid source offset	1.58 ± 0.43	3.66	0.29 ± 0.24	1.56 ± 0.44

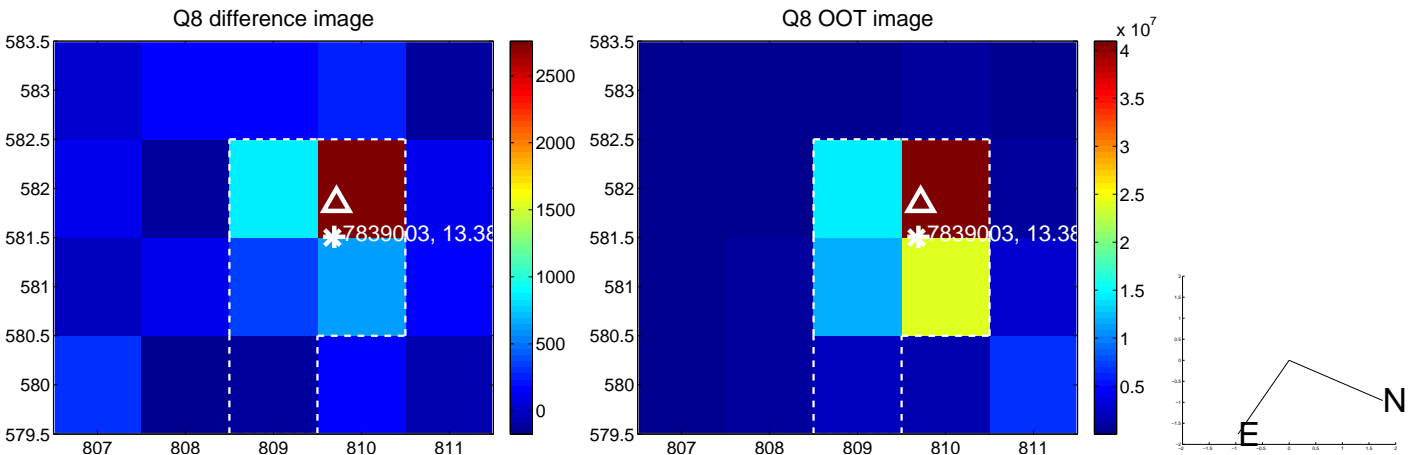
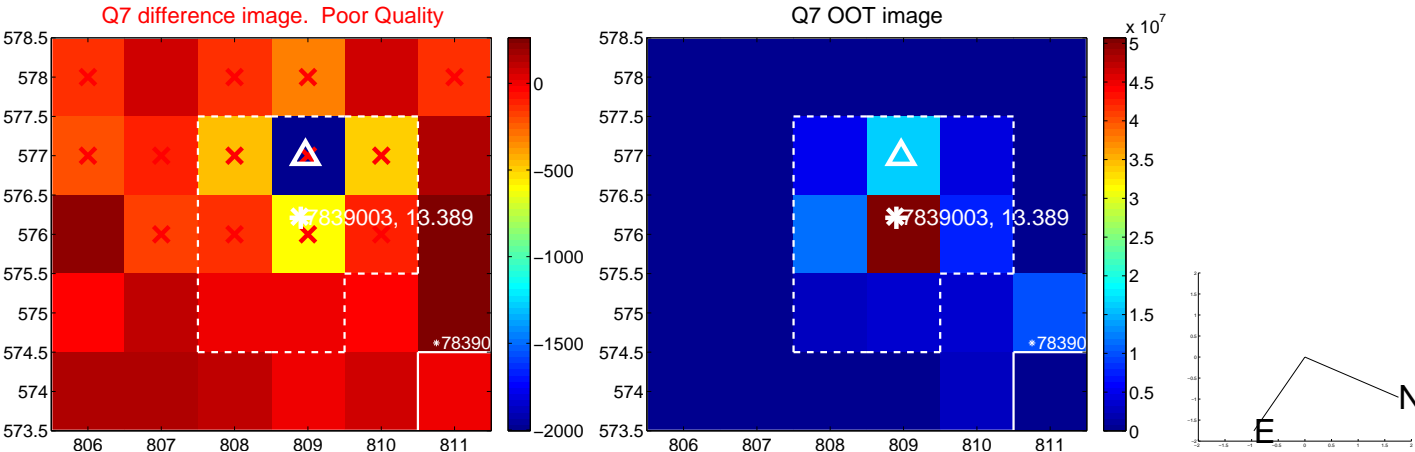
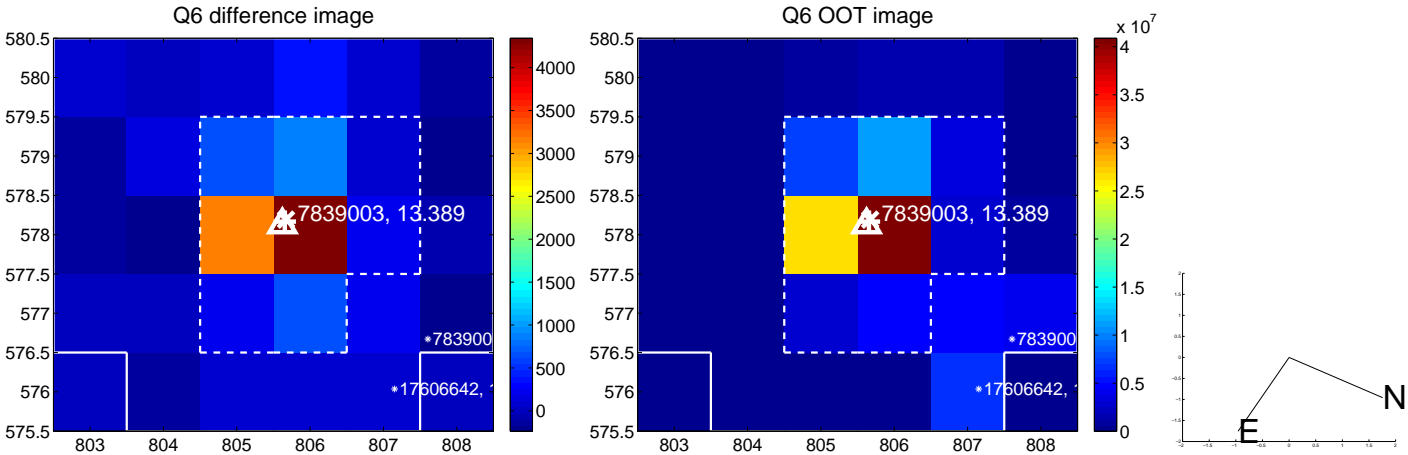
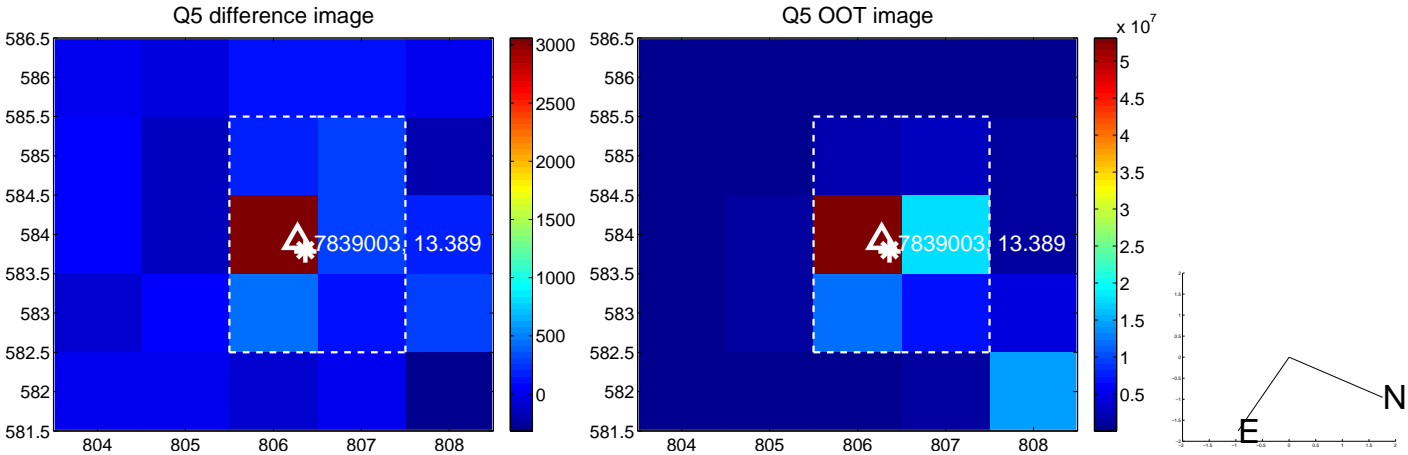


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

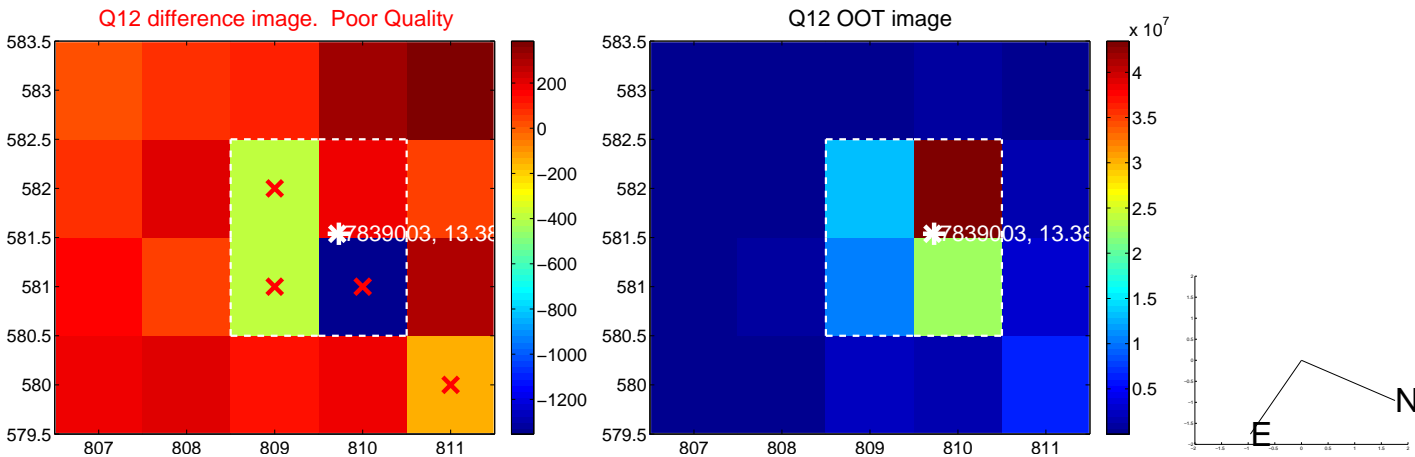
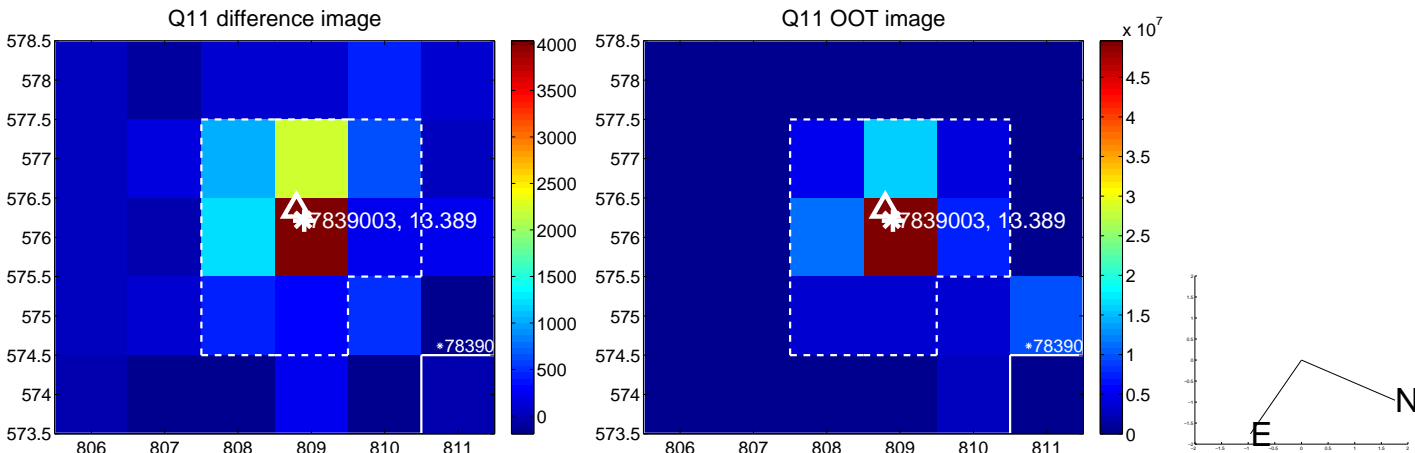
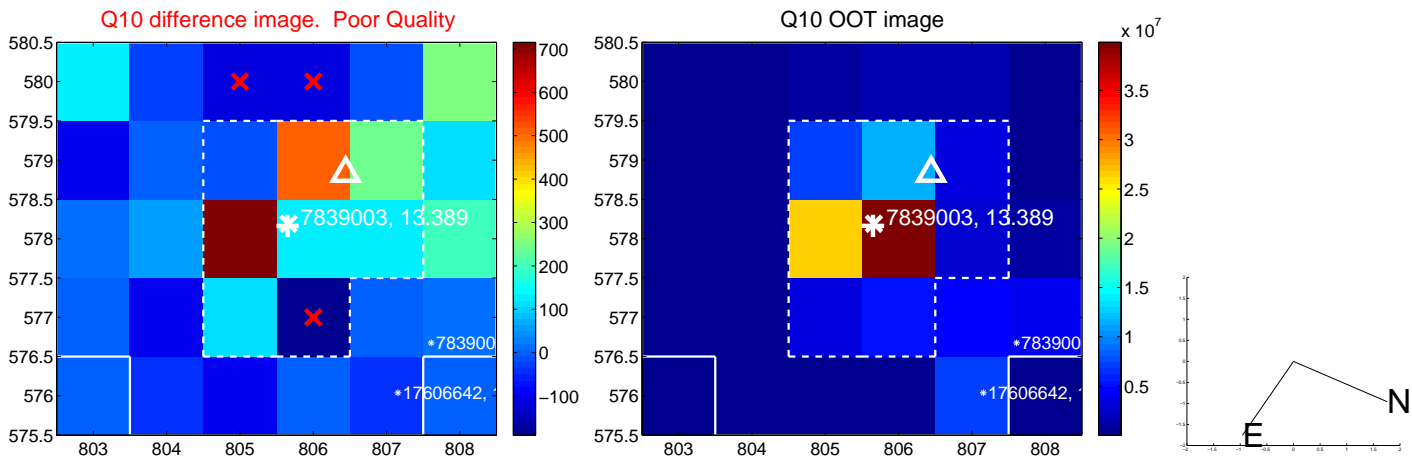
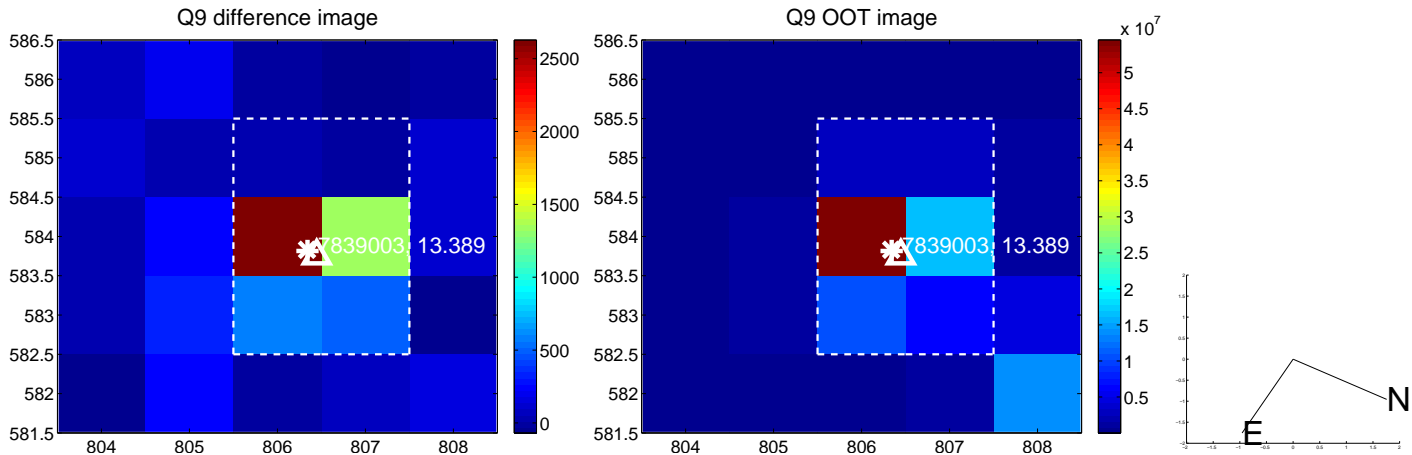
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



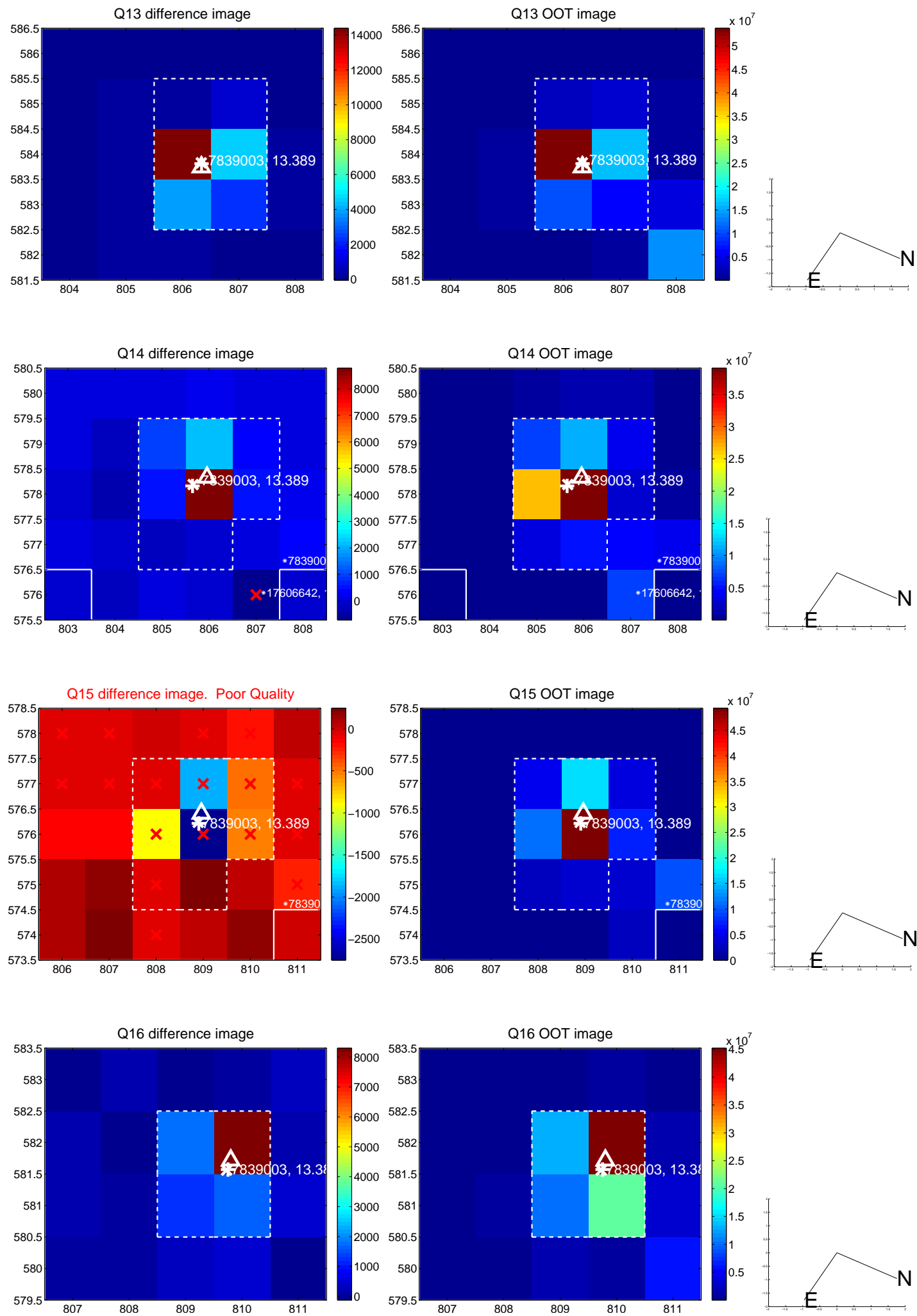
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



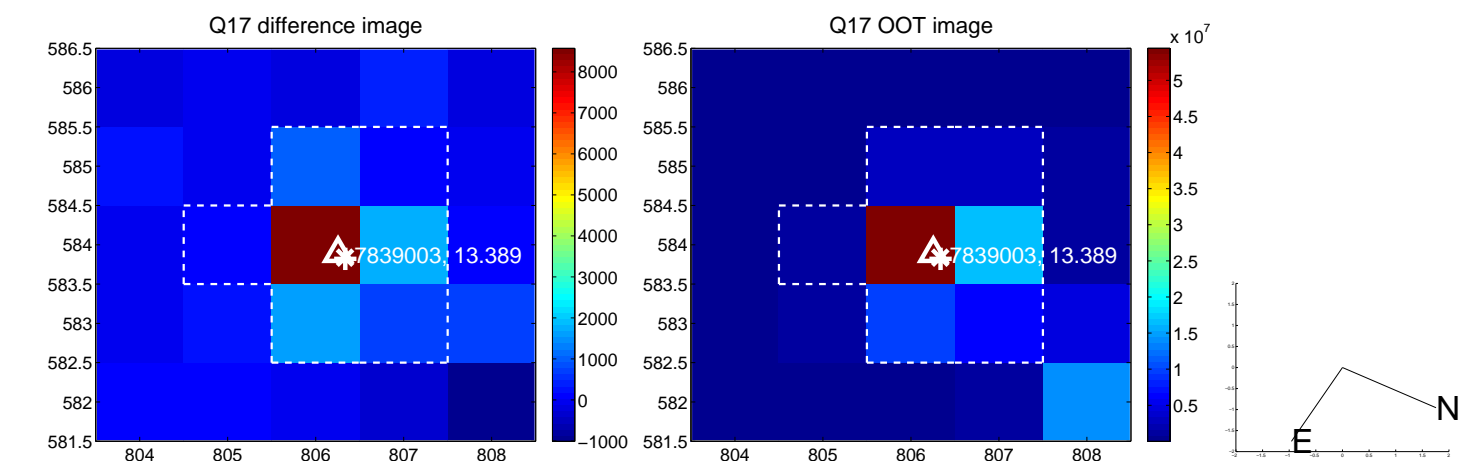
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



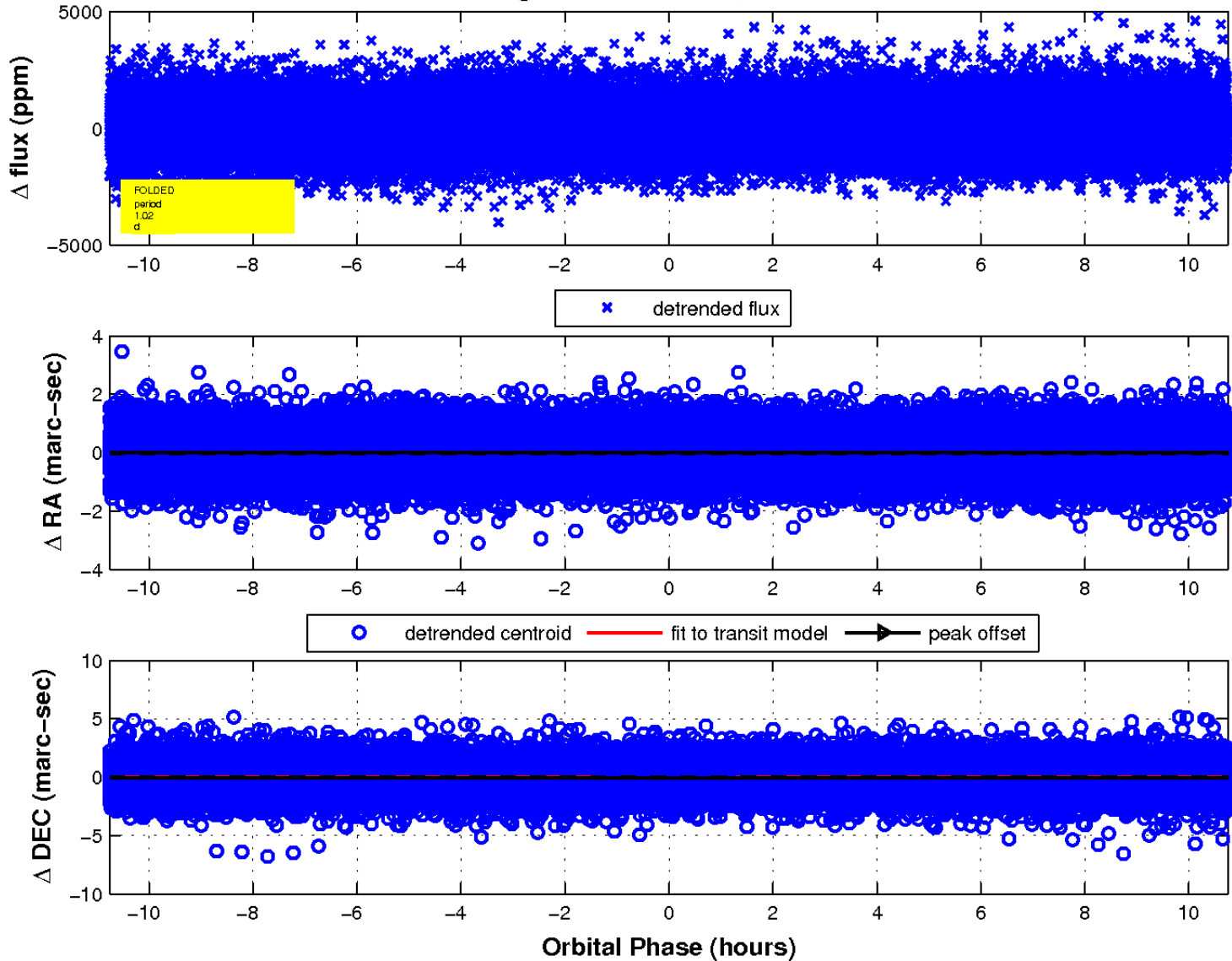
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

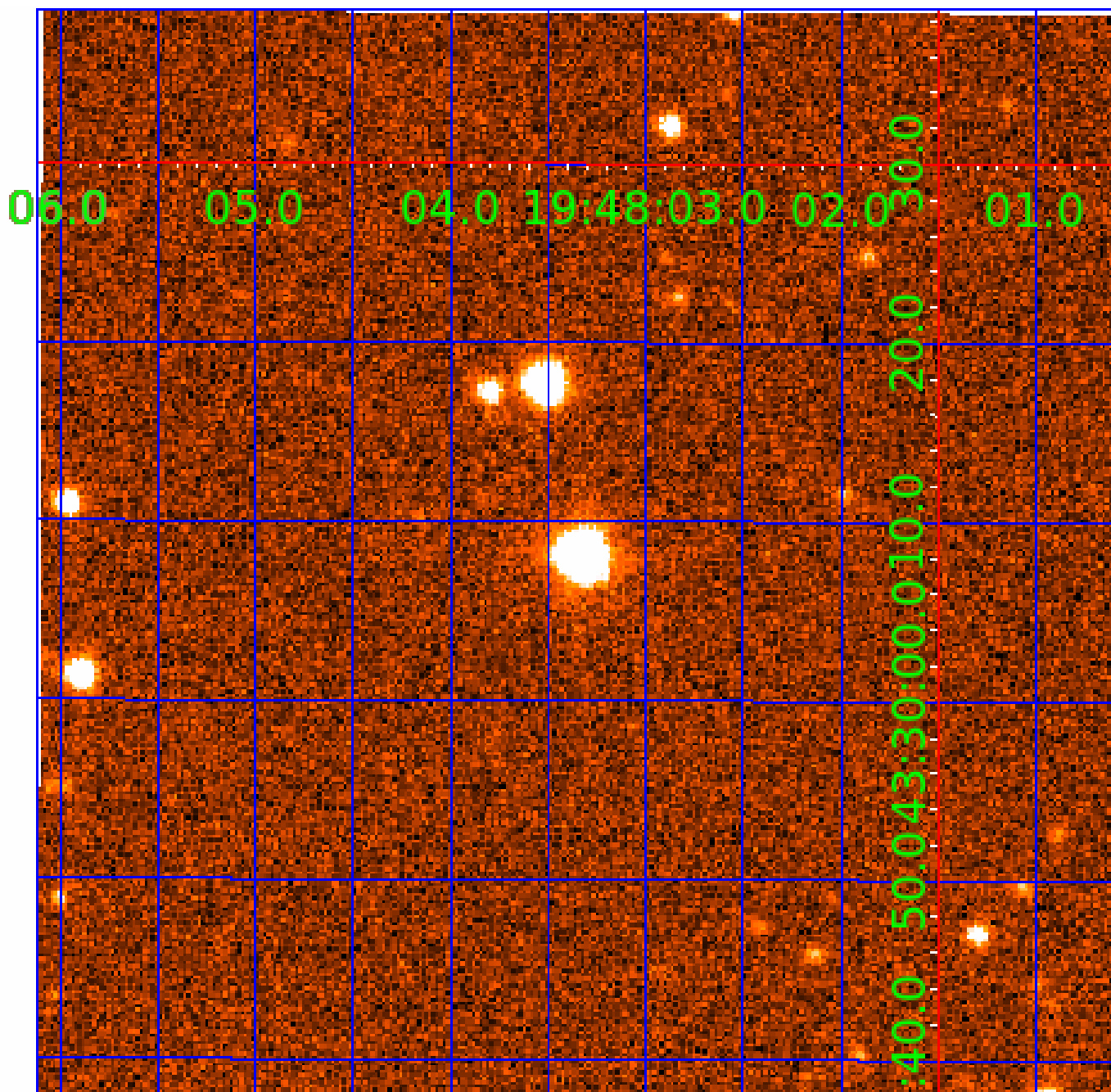


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 007839003

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})
007839003-01	OBS	No	1.015440	131.969349	47.2	3.736	9.1	6.2	1.75	7359	1.39	14950.64
007839003-02	OBS	No	1.015395	132.517099	86.1	3.585	11.6	10.2	1.75	7359	1.78	14951.53
007839003-03	OBS	No	7.091636	133.117009	435.7	10.545	10.8	5.3	1.75	7359	4.23	1119.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007839003-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007839003-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
007839003-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

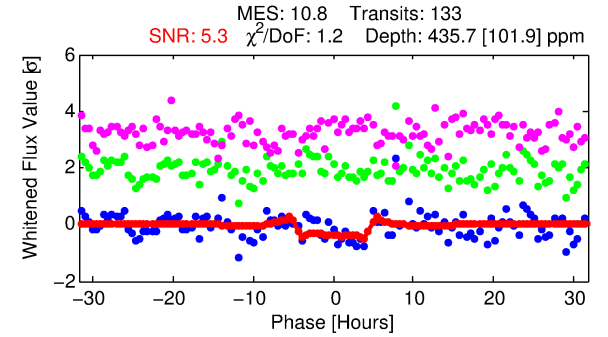
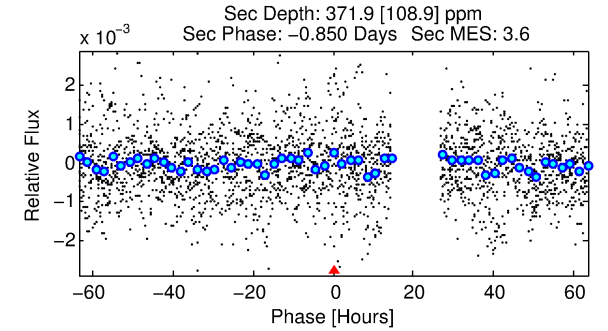
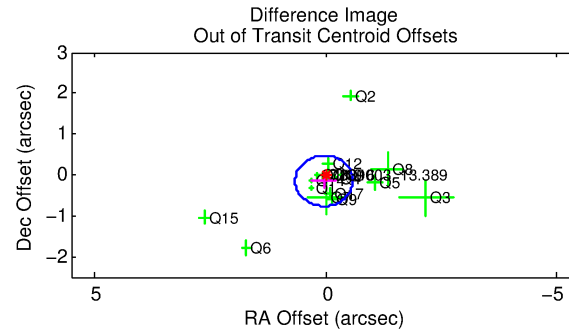
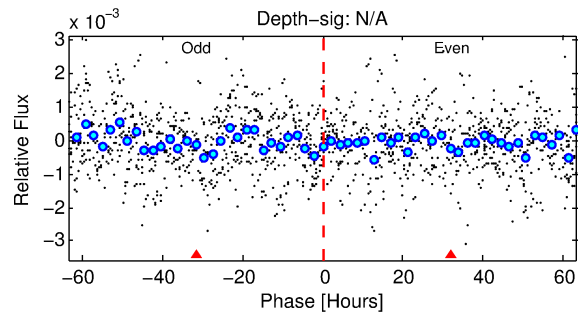
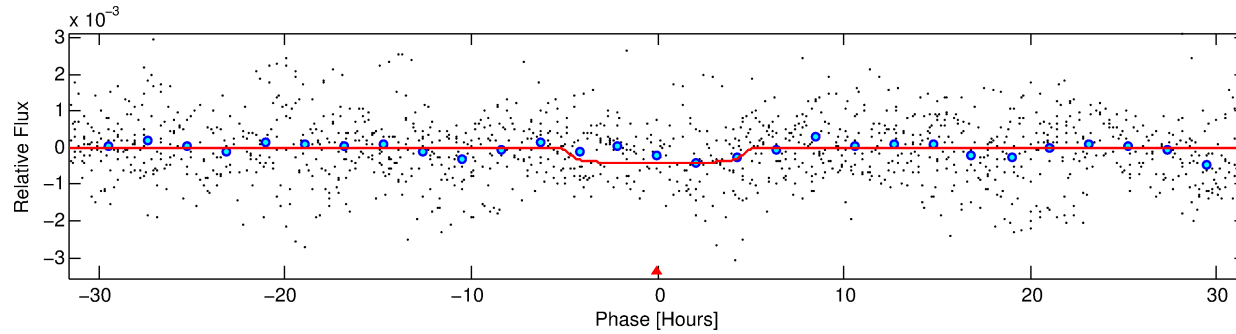
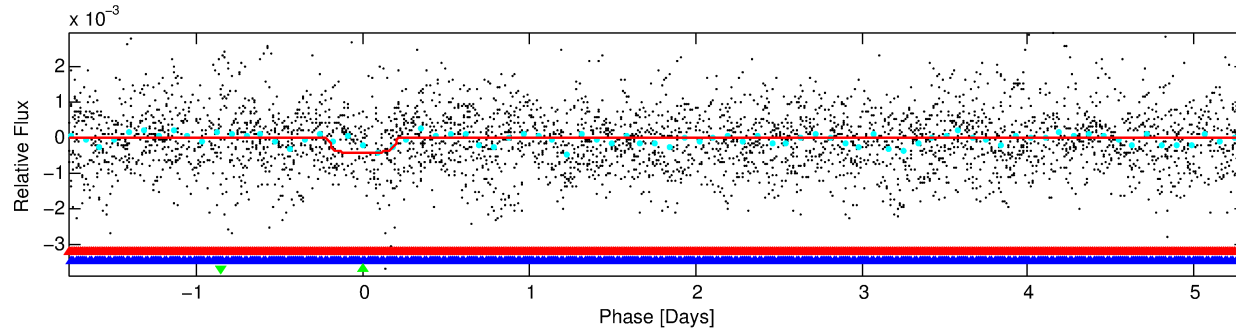
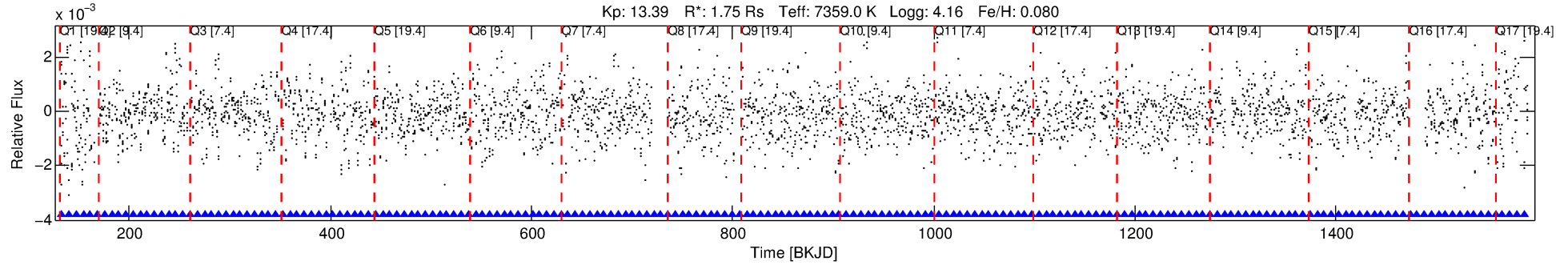
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007839003-03

No Significant Match Found

DV One-Page Summary

KIC: 7839003 Candidate: 3 of 3 Period: 7.092 d



DV Fit Results:

Period = 7.09164 [0.00016] d
Epoch = 133.1170 [0.0170] BKJD
Rp/R* = 0.0222 [0.0032]
a/R* = 2.64 [0.90]
b = 0.90 [0.08]
Seff = 1119.96 [469.54]
Teq = 1475 [155] K
Rp = 4.23 [1.54] Re
a = 0.0846 [0.0229] AU
Ag = 81.78 [45.80] [1.76σ]
Teffp = 6859 [763] K [6.92σ]

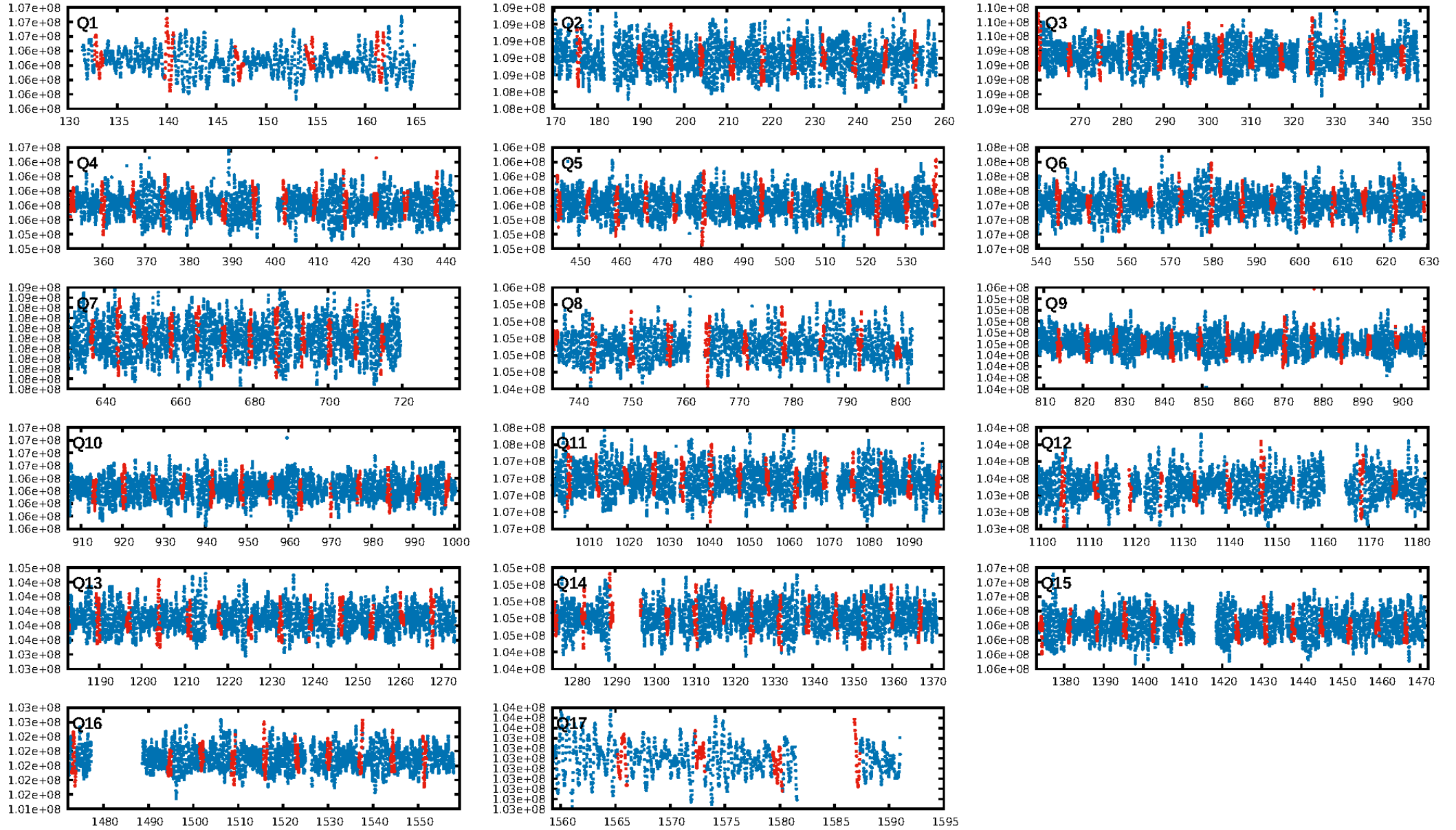
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.04σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [124/124]
GhostDiagnostic-chr: 6.015
Centroid-sig: 24.1%
Centroid-so: 0.915 arcsec [4.91σ]
OotOffset-rm: 0.151 arcsec [0.73σ]
KicOffset-rm: 0.129 arcsec [0.56σ]
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]

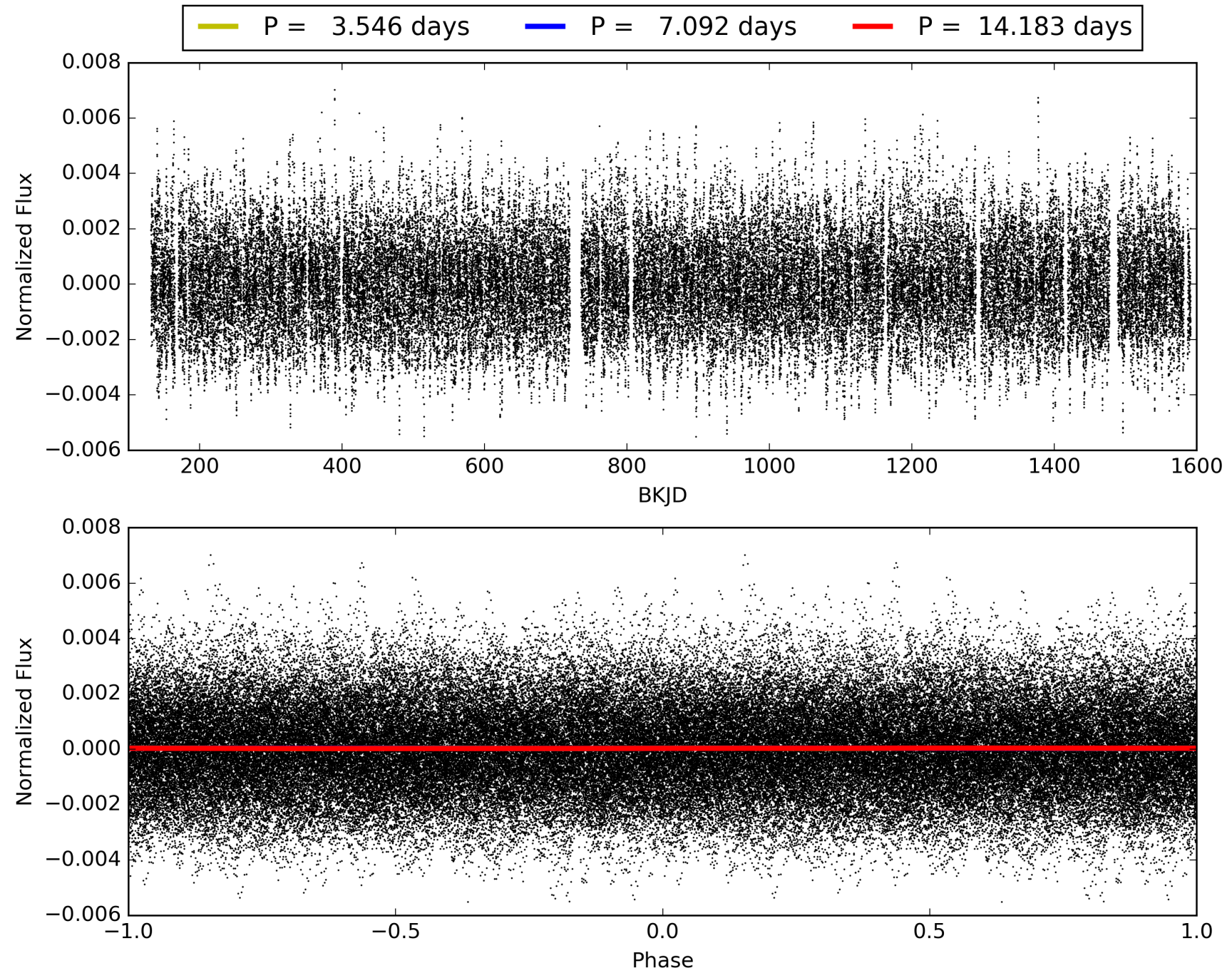
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:43:20 Z

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

TCE 007839003-03, PDC Light Curves

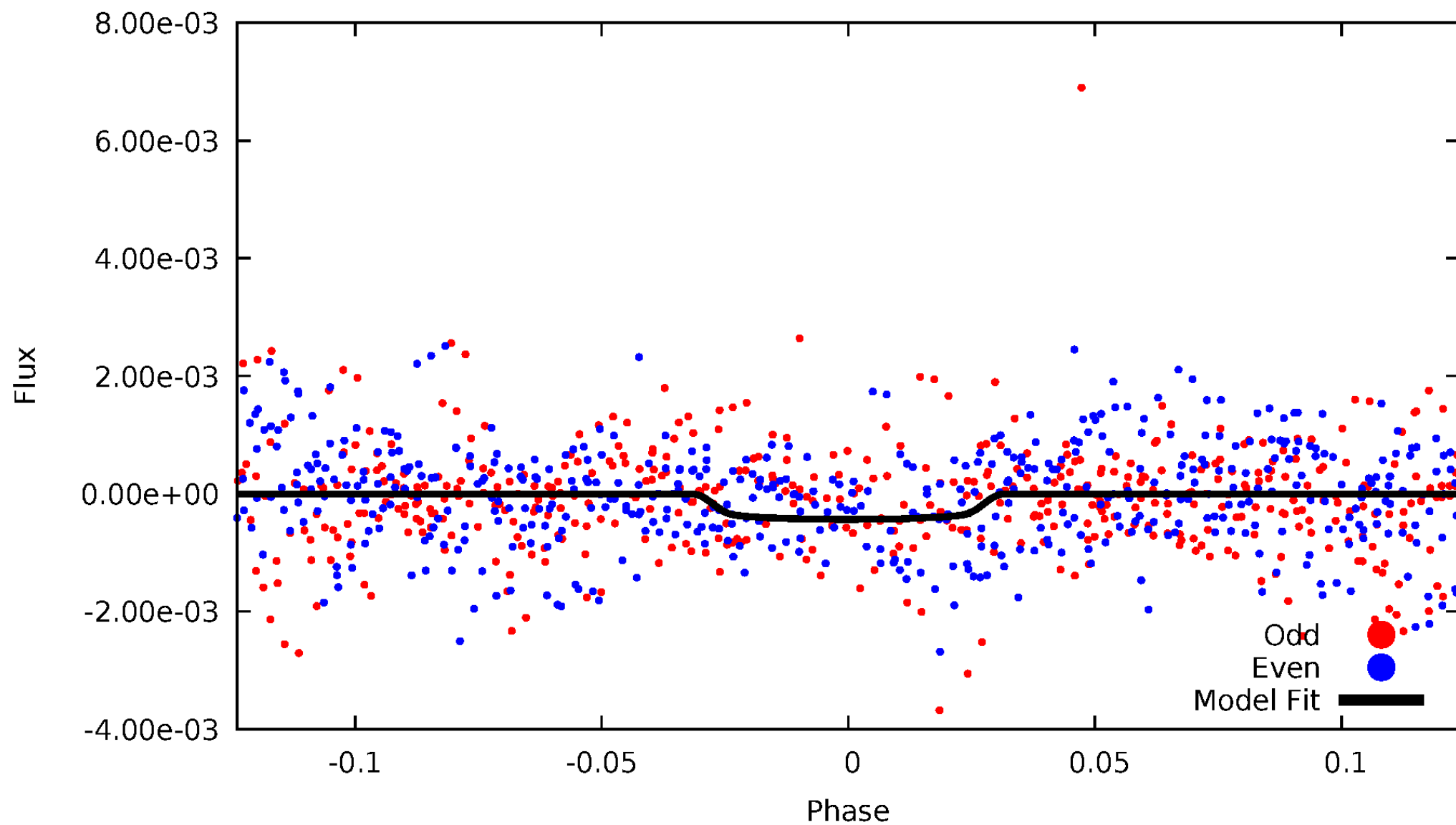


TCE 007839003-03



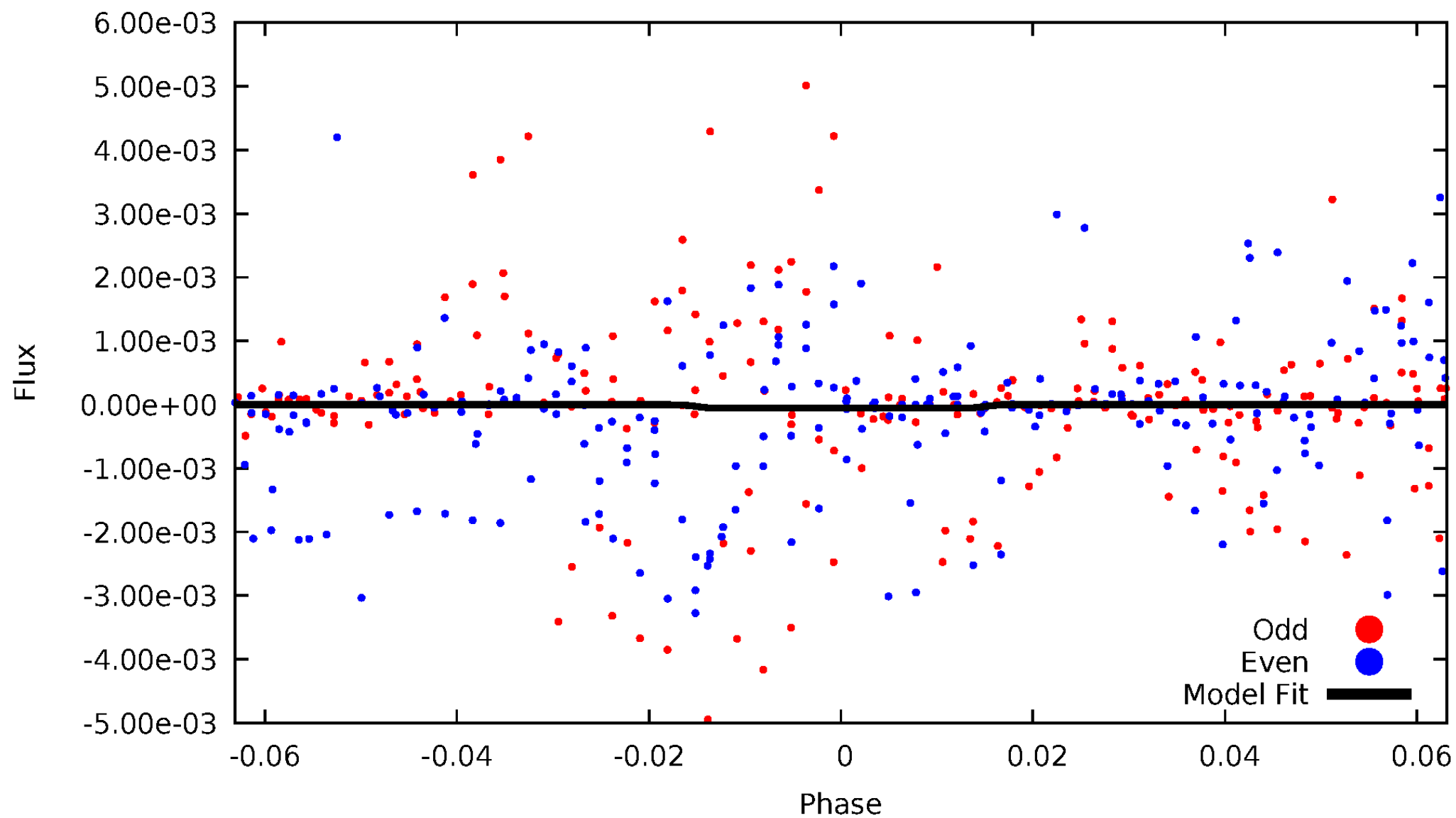
DV Odd/Even

TCE 007839003-03

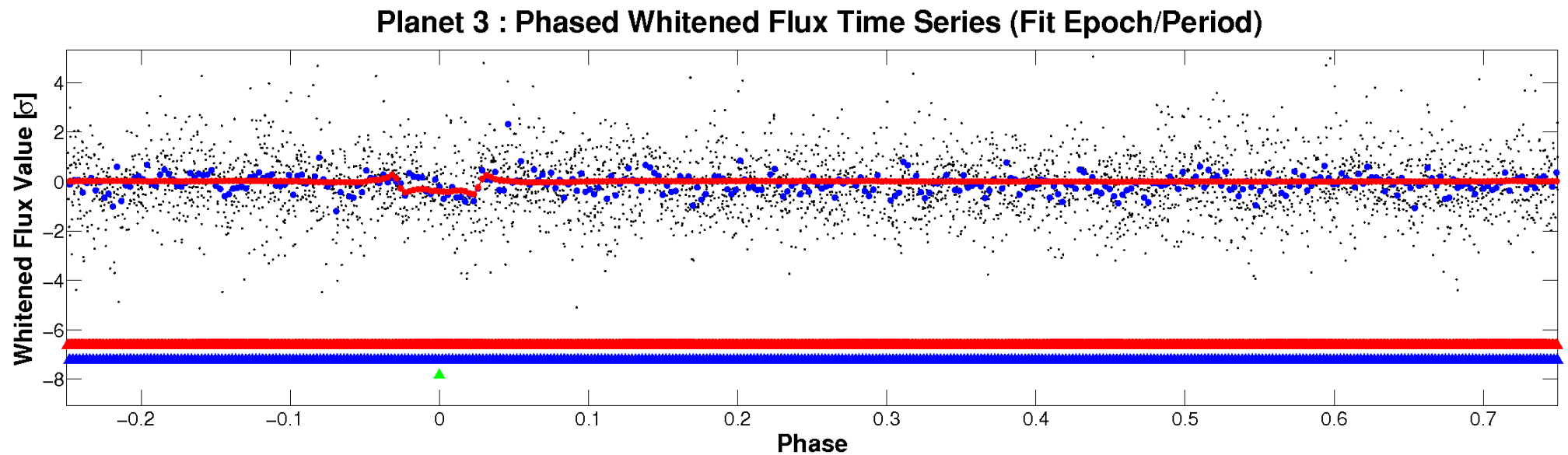
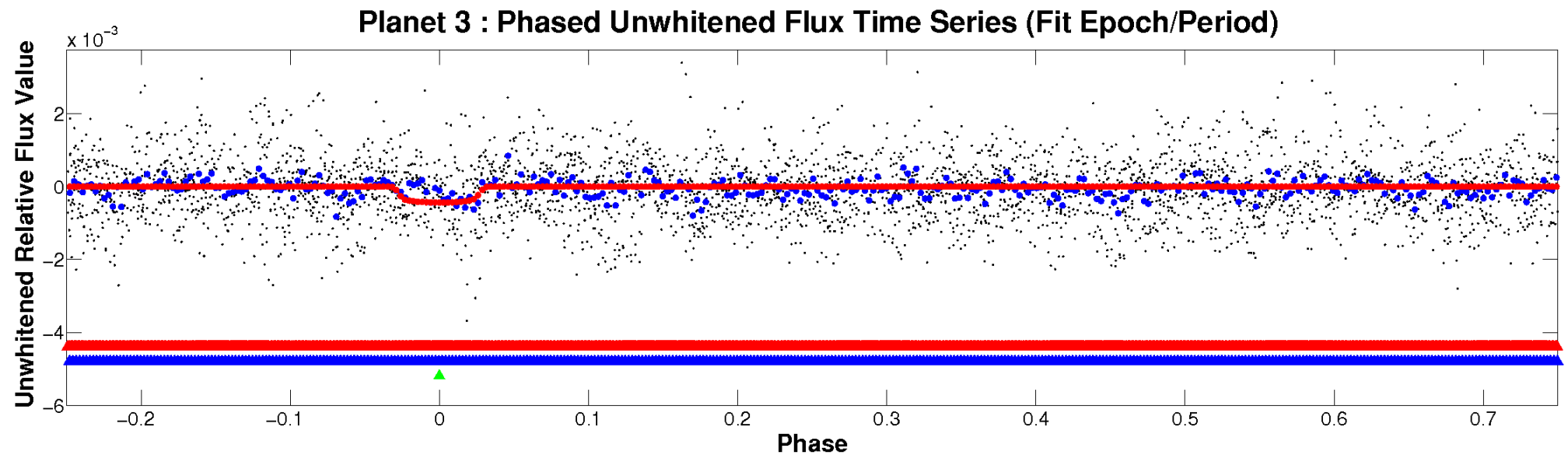


ALT Odd/Even

TCE 007839003-03

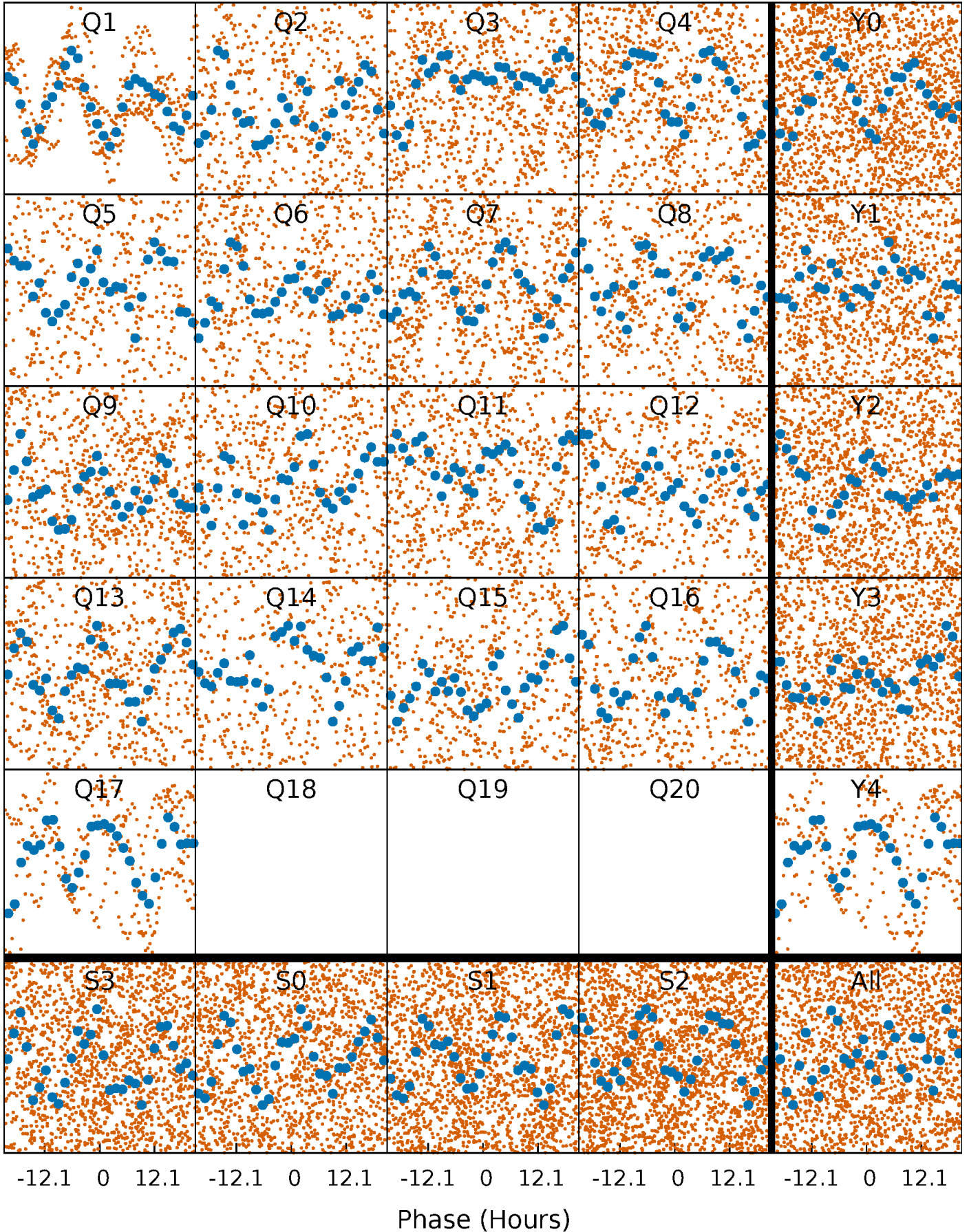


Non-Whitened Vs. Whitened Light Curve



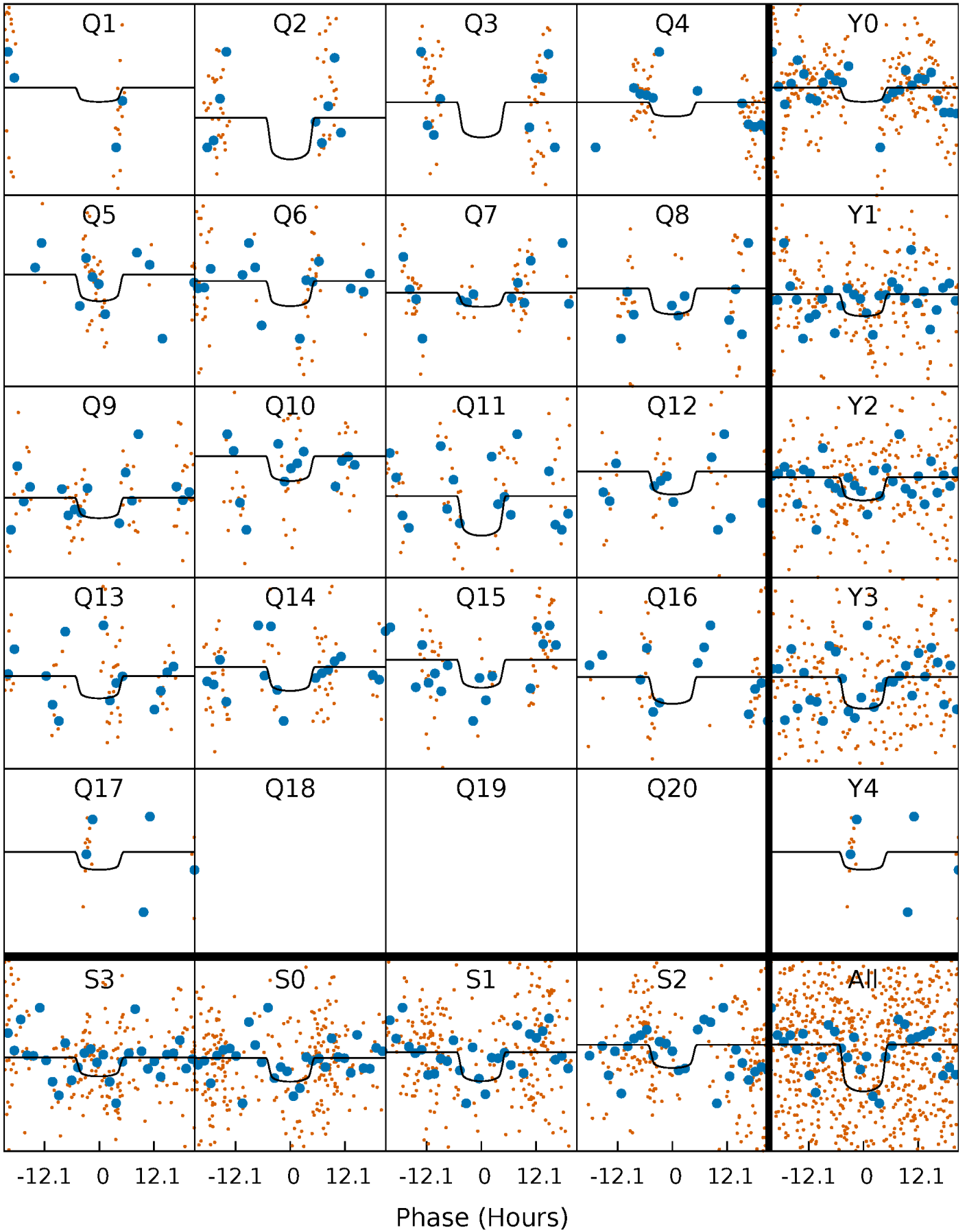
PDC Quarter-Phased Transit Curves

TCE 007839003-03 P= 7.091636 Days $T_0=133.117009$ (BKJD)



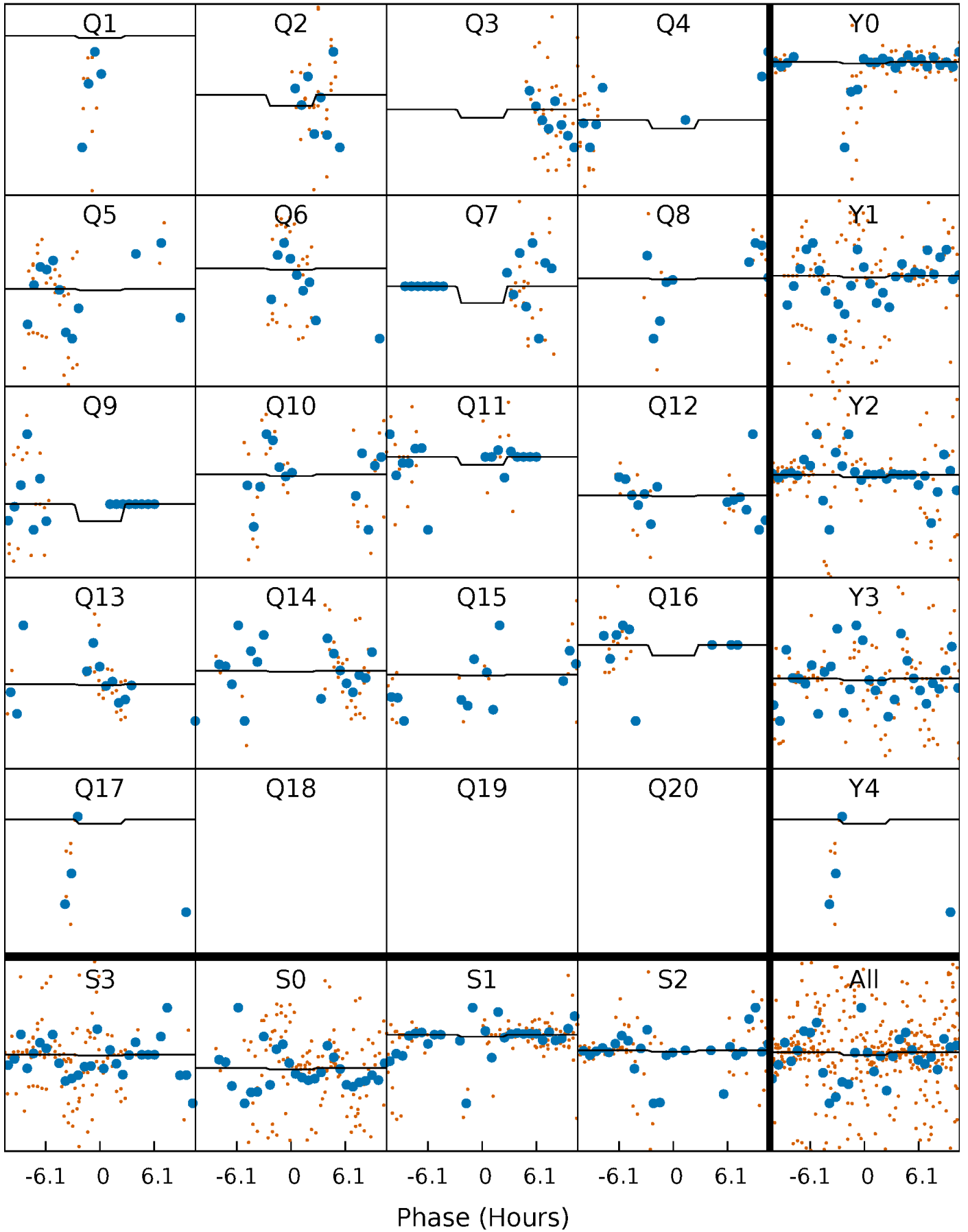
DV Quarter-Phased Transit Curves

TCE 007839003-03 P= 7.091636 Days $T_0=133.117009$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

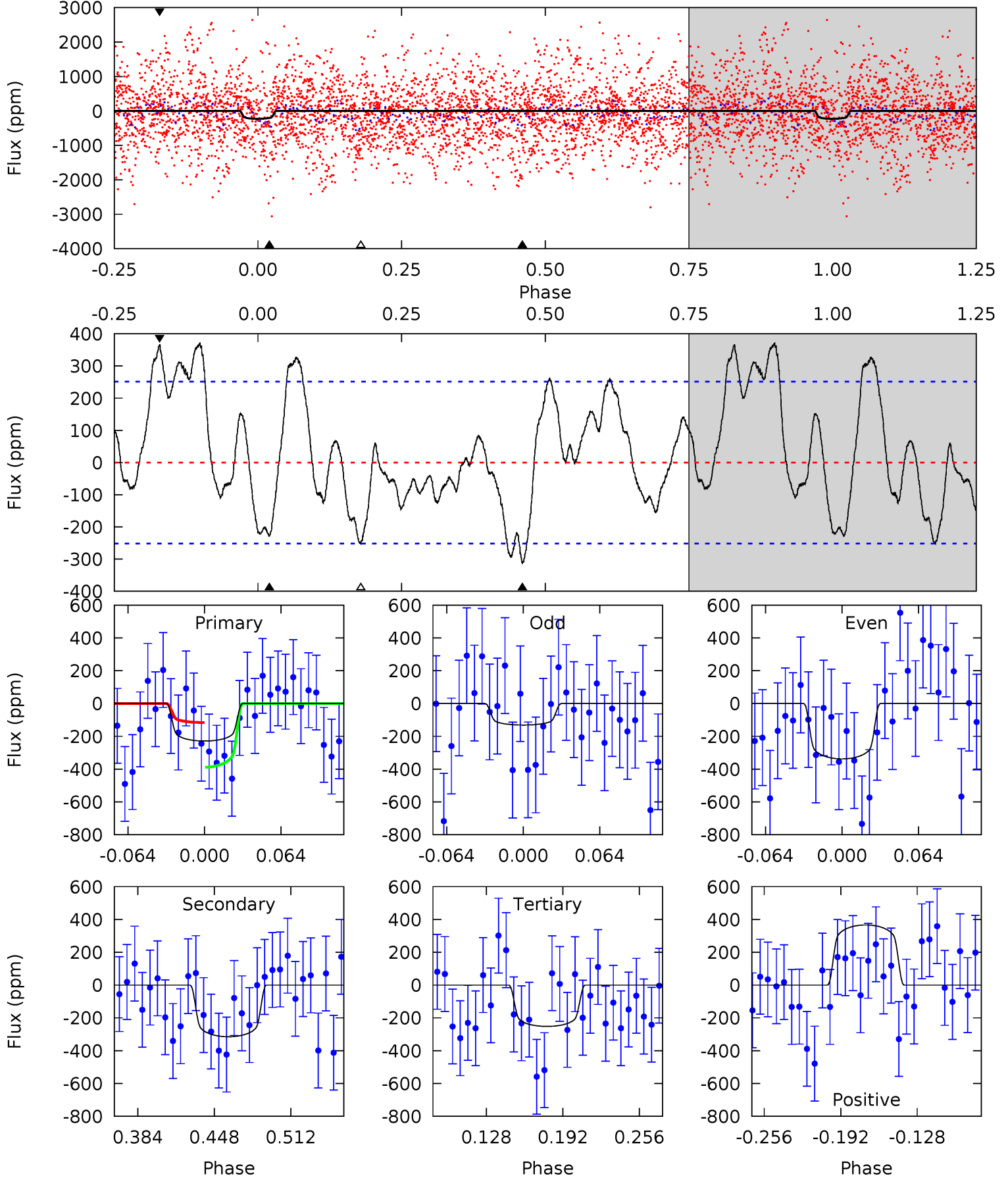
TCE 007839003-03 P= 7.090642 Days $T_0=133.347177$ (BKJD)



DV Model-Shift Uniqueness Test

007839003-03, P = 7.091636 Days, E = 126.025373 Days

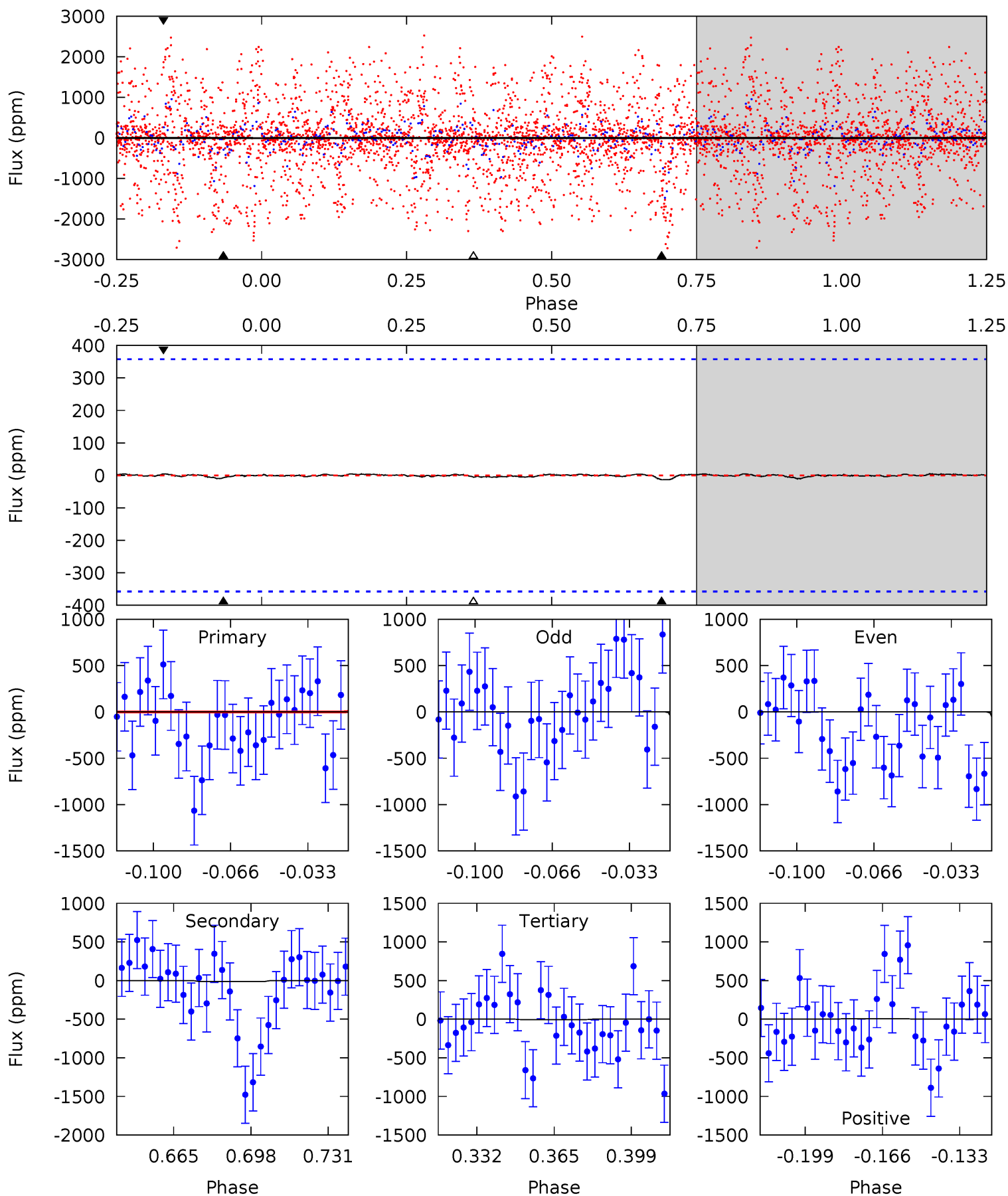
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.24	5.83	4.67	6.78	4.66	1.85	2.65	-0.43	-2.55	1.16	-0.95	1.90	2.13	0.54	2.57



Alt Model-Shift Uniqueness Test

007839003-03, P = 7.090642 Days, E = 126.256535 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.10	0.18	0.08	0.07	4.79	2.13	0.03	0.02	0.03	0.11	0.12	0.29	31.9	0.27	0.22



Stellar Parameters For KIC 007839003

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7359^{+203}_{-319}	$4.159^{+0.093}_{-0.202}$	$0.080^{+0.200}_{-0.350}$	$1.746^{+0.583}_{-0.314}$	$1.603^{+0.226}_{-0.226}$	$0.424^{+0.209}_{-0.220}$
	+3%/-4%	+2%/-5%	+250%/-438%	+33%/-18%	+14%/-14%	+49%/-52%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007839003-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-315 ± 54	$4.40^{+0.91}_{-0.79}$	2096^{+164}_{-144}	6452^{+684}_{-560}	63^{+32}_{-22}
Alt.	-14 ± 75	$1.43^{+0.67}_{-0.67}$	2080^{+154}_{-119}	4829^{+4296}_{-12932}	19^{+181}_{-163}

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 $A_{obs} \gg 1.0$

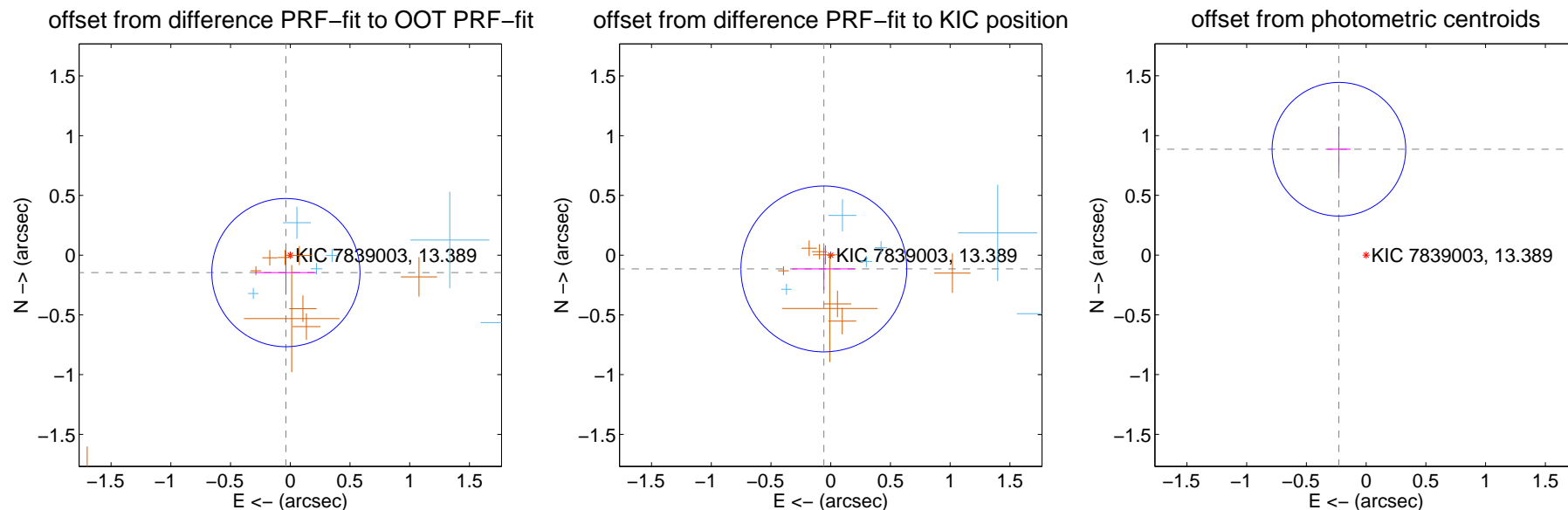
DV Centroid Data

Supplemental centroid analysis for 007839003-03. Kepler magnitude: 13.39. Transit SNR 5.35

There are 8 quarters with good PRF difference image offsets

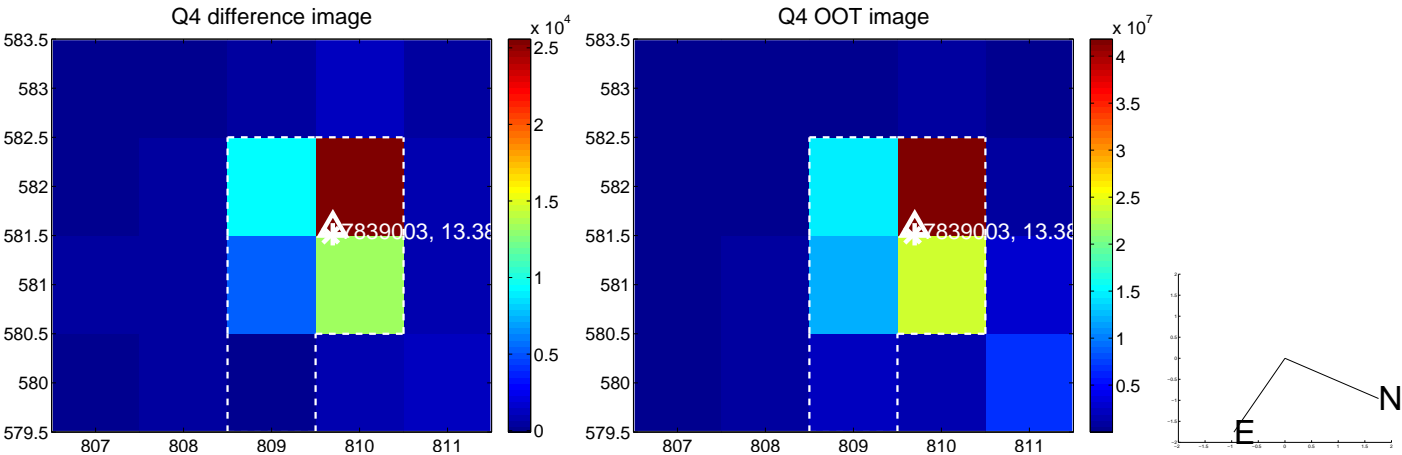
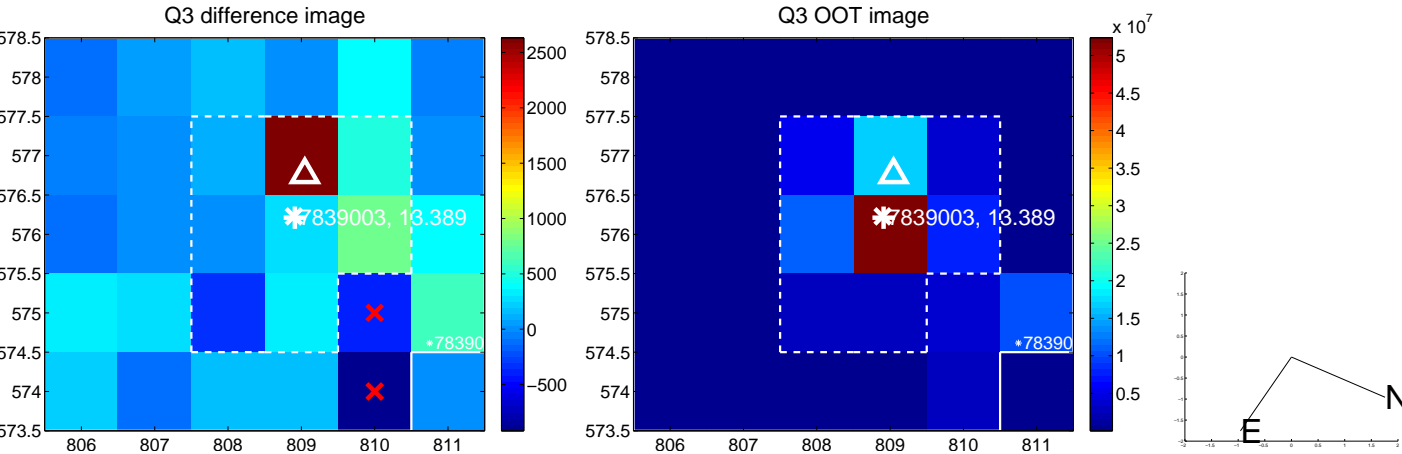
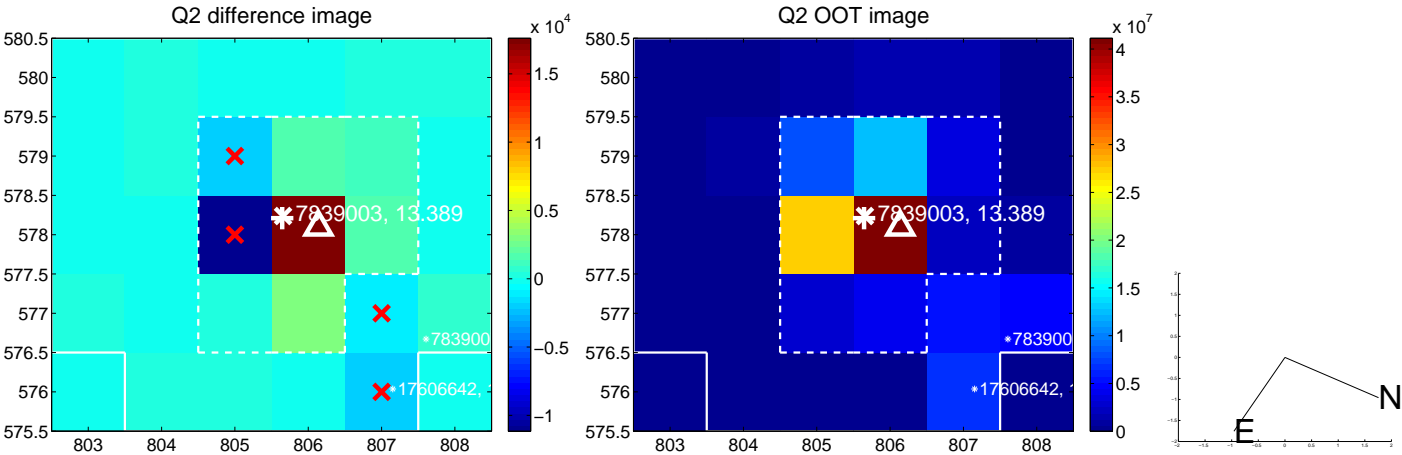
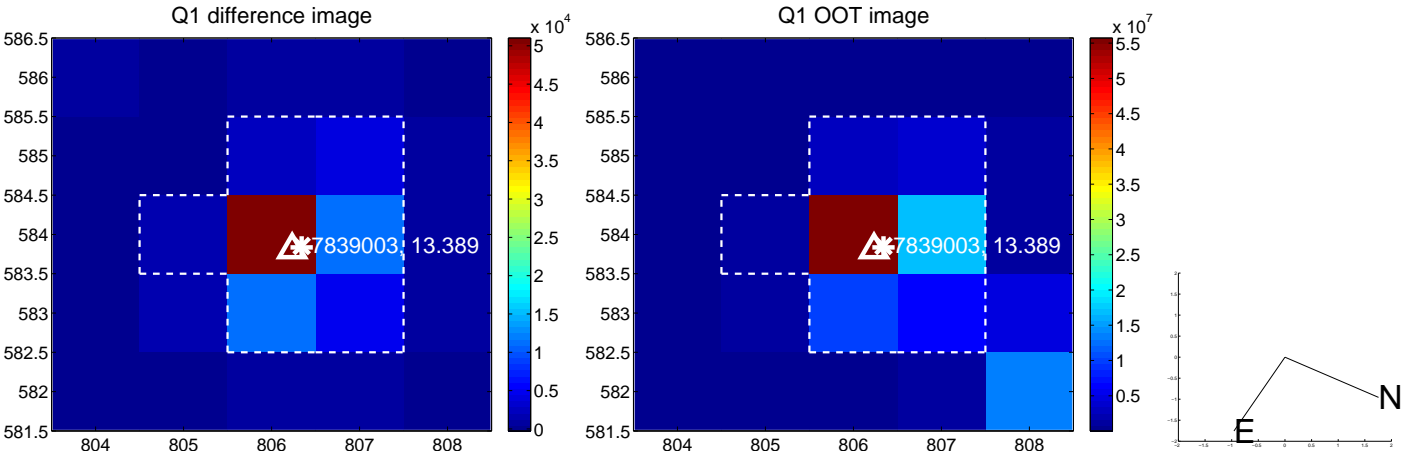
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.151 ± 0.207	0.73	0.037 ± 0.255	-0.146 ± 0.185
PRF-fit source offset from KIC position	0.129 ± 0.231	0.56	0.058 ± 0.266	-0.115 ± 0.177
photometric centroid source offset	0.91 ± 0.19	4.91	0.23 ± 0.10	0.89 ± 0.19

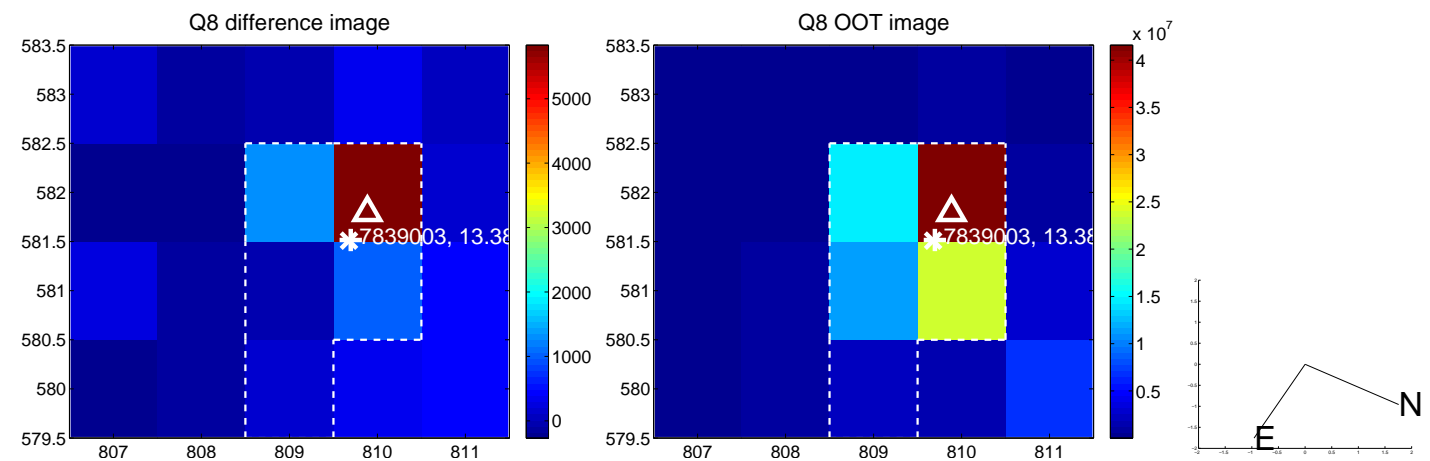
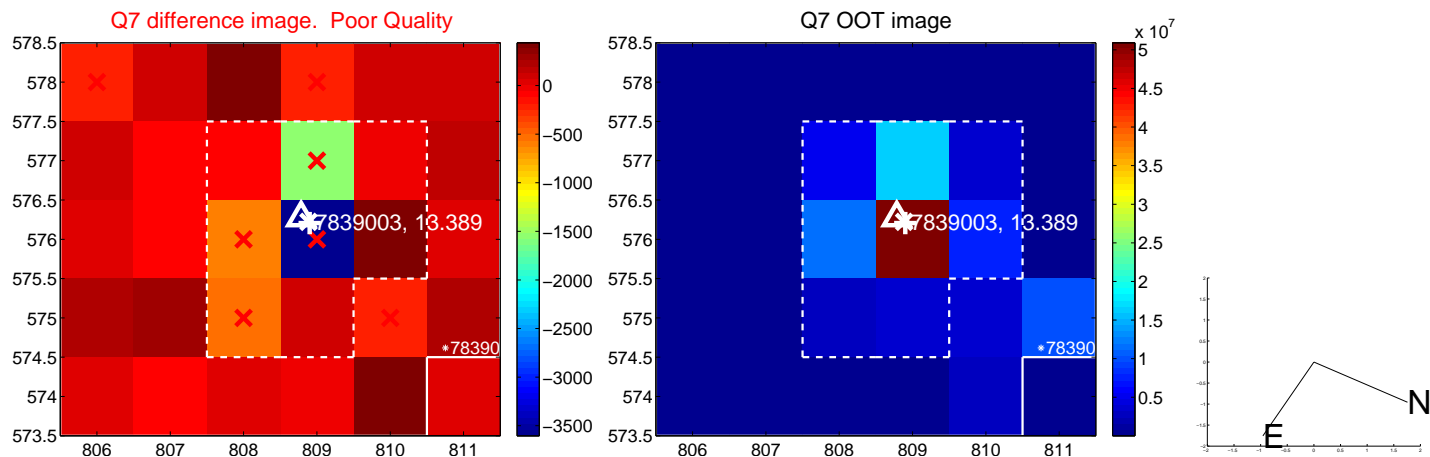
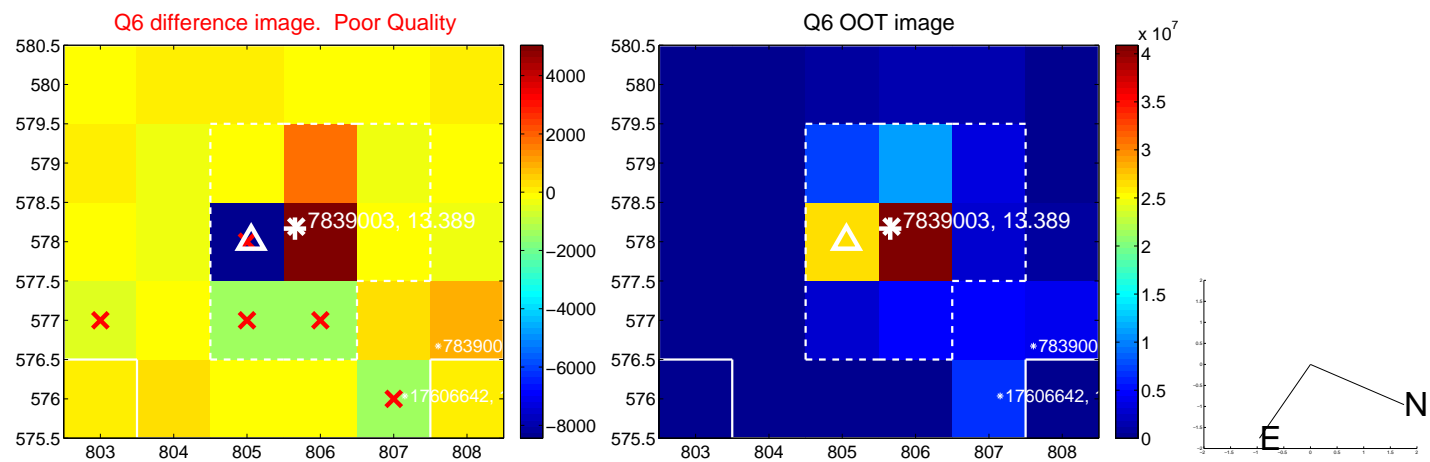
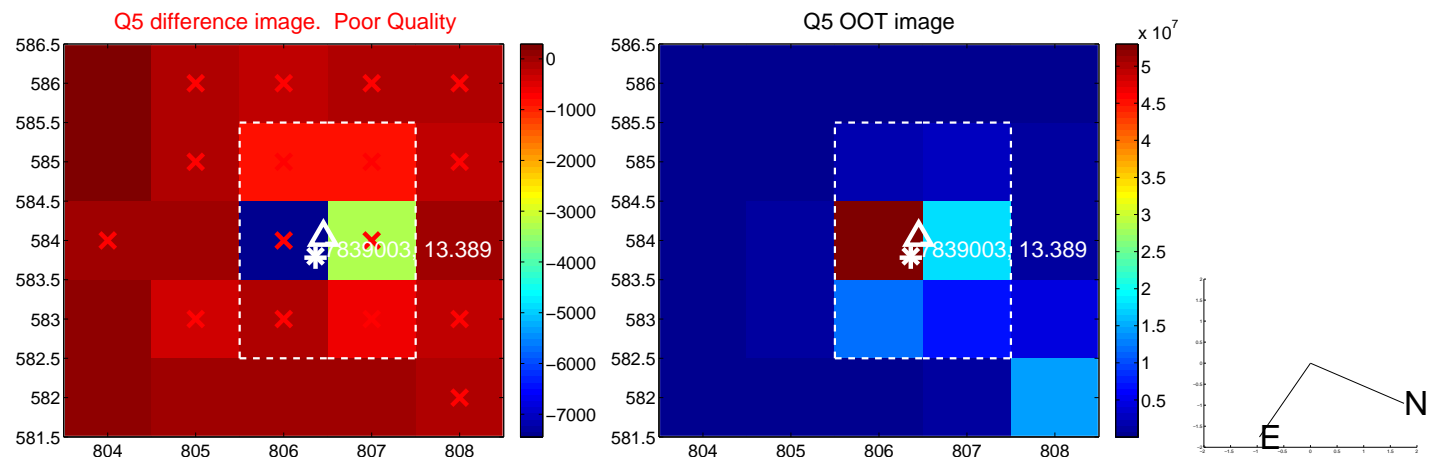


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

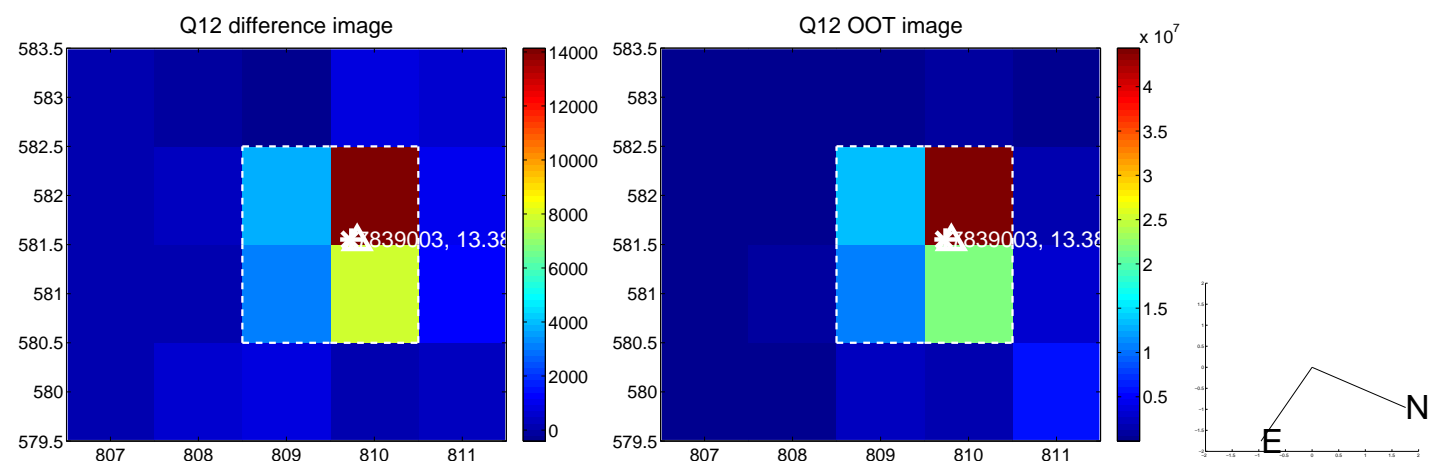
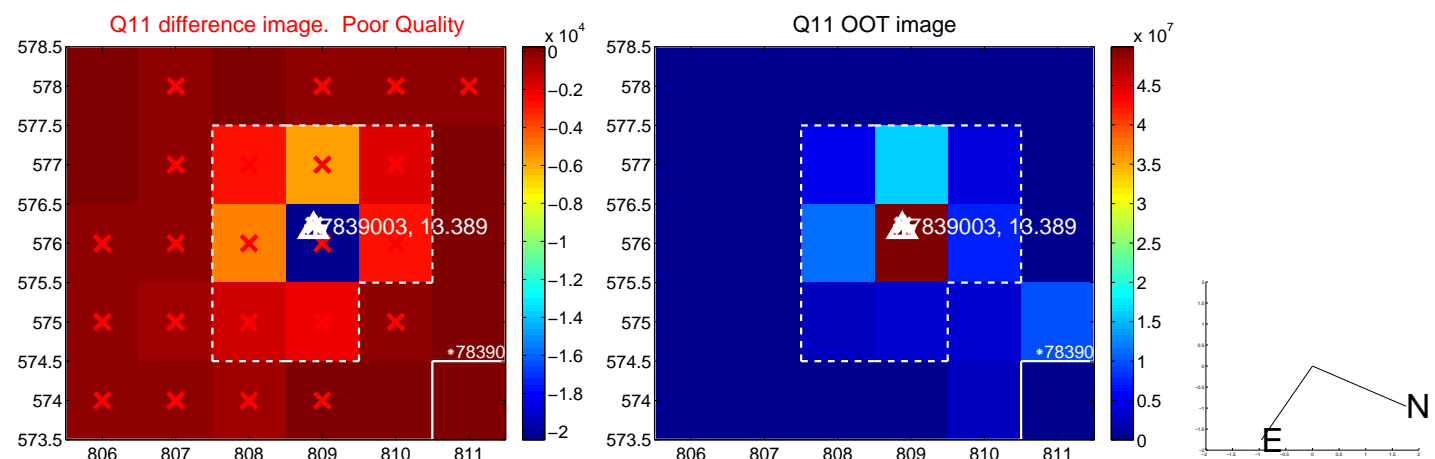
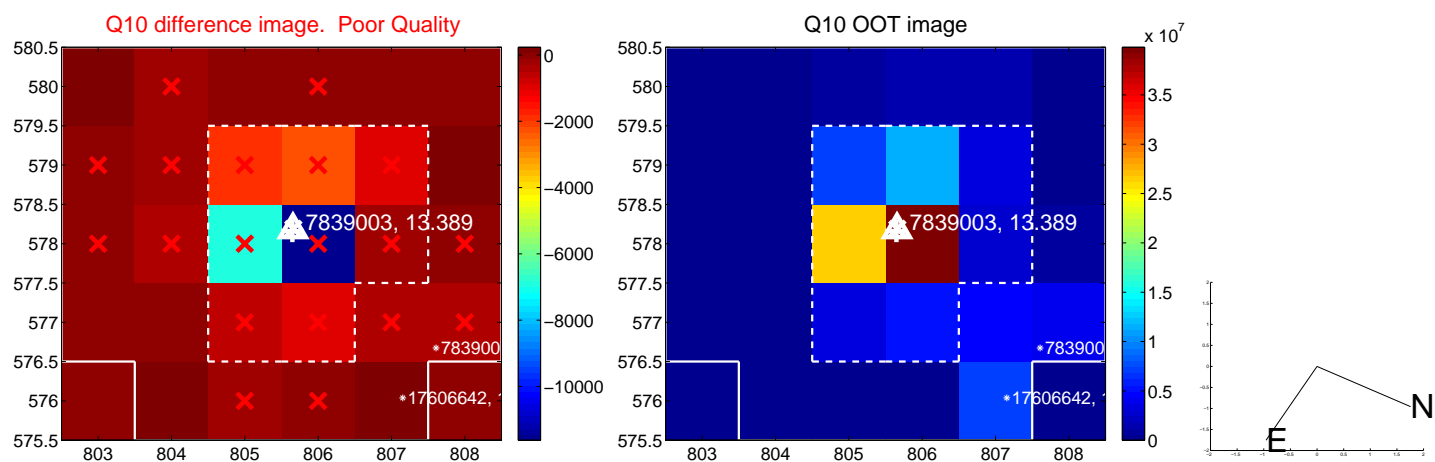
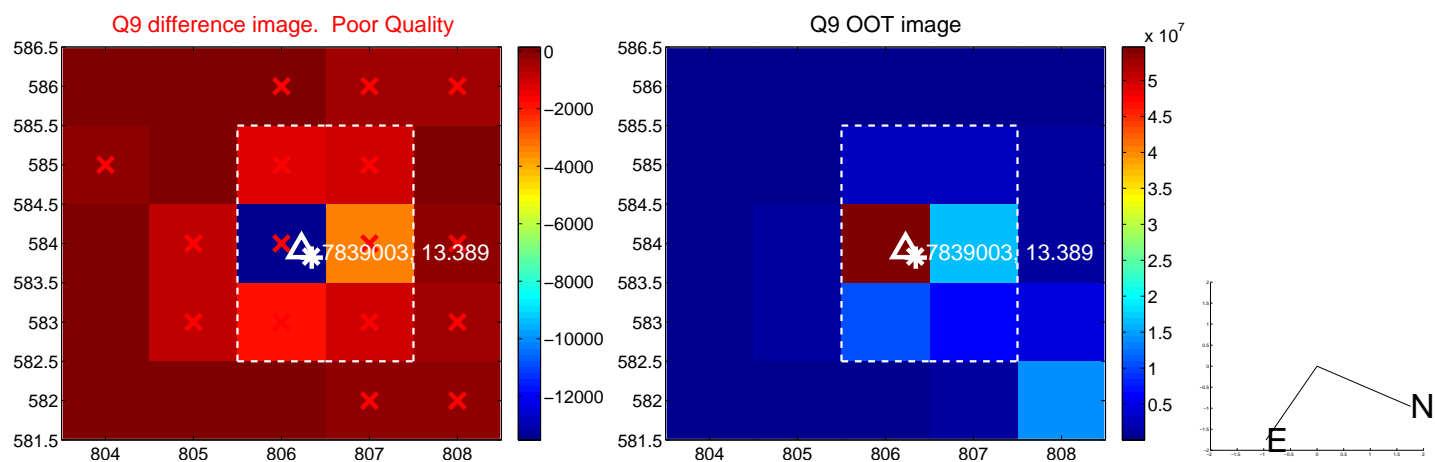
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



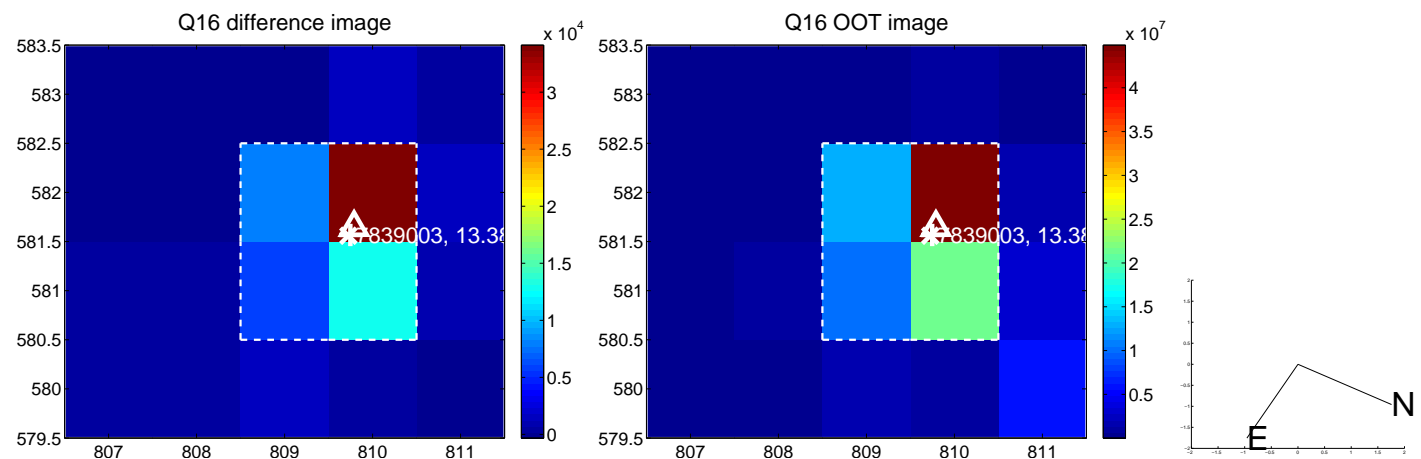
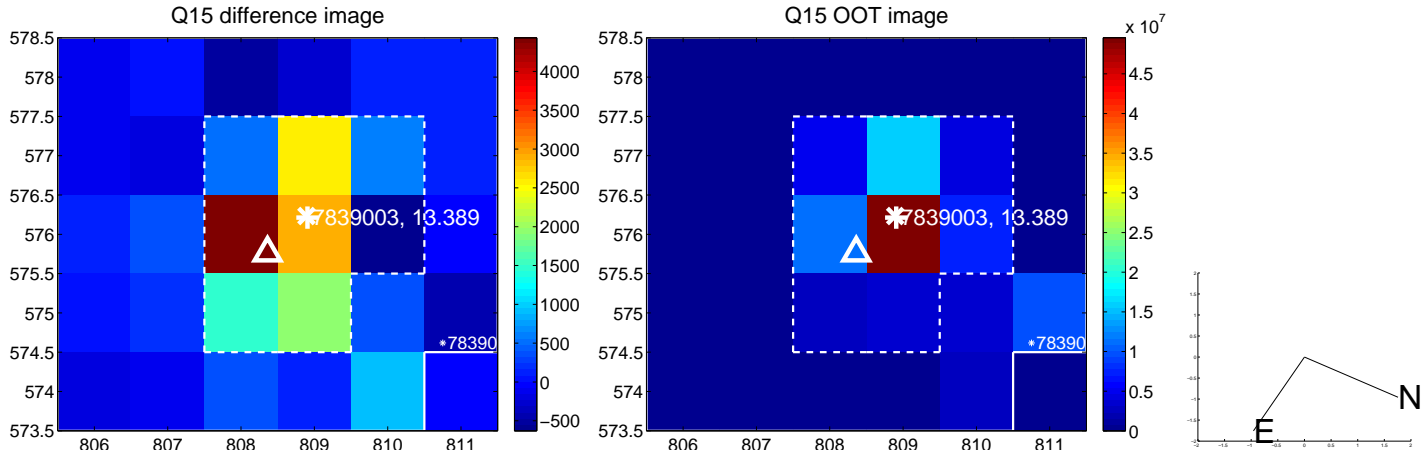
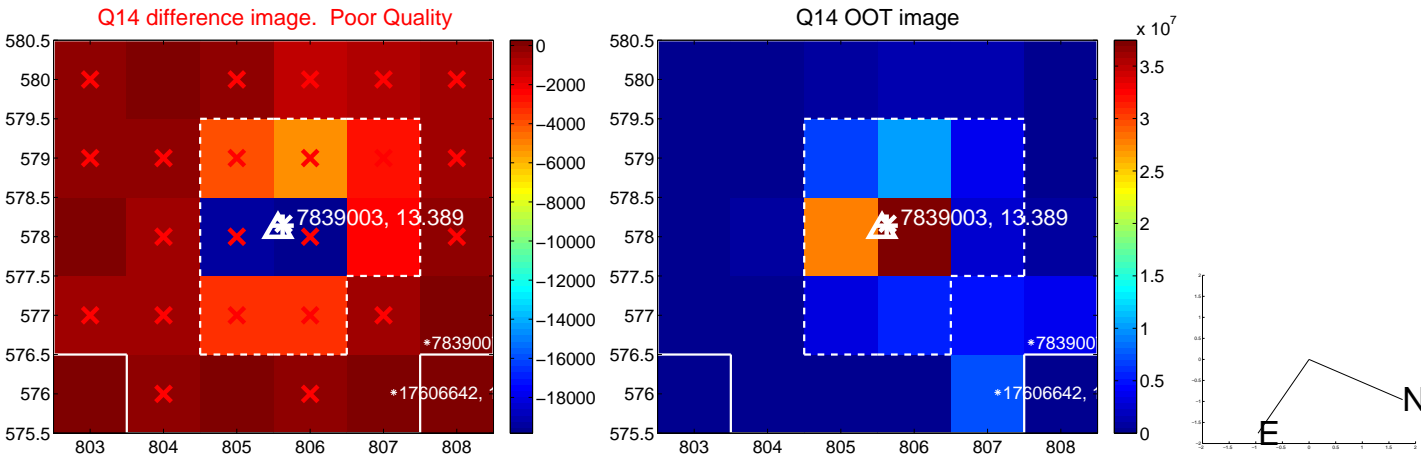
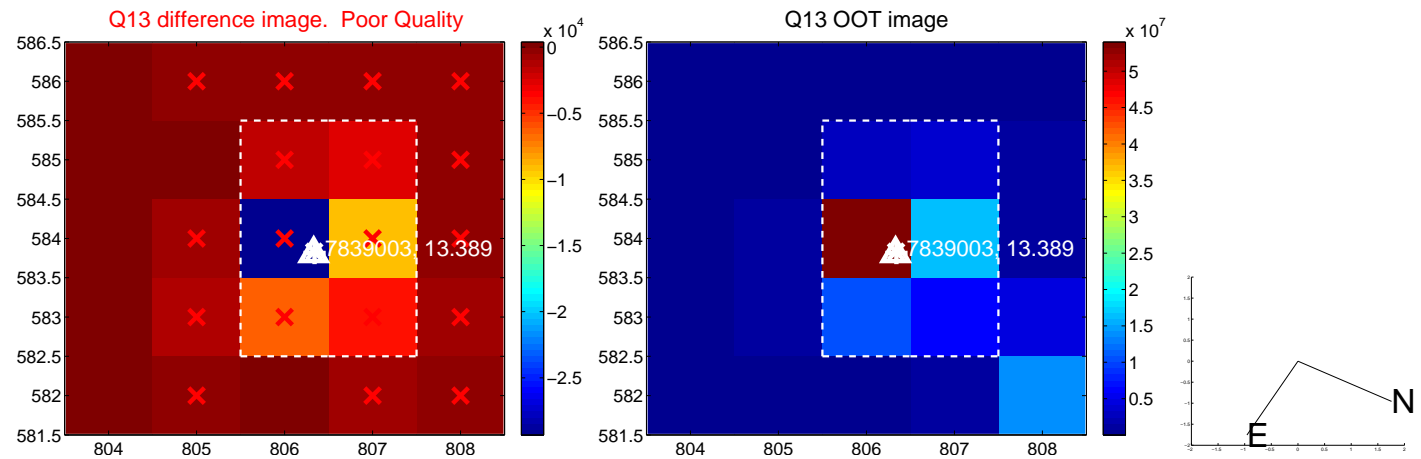
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



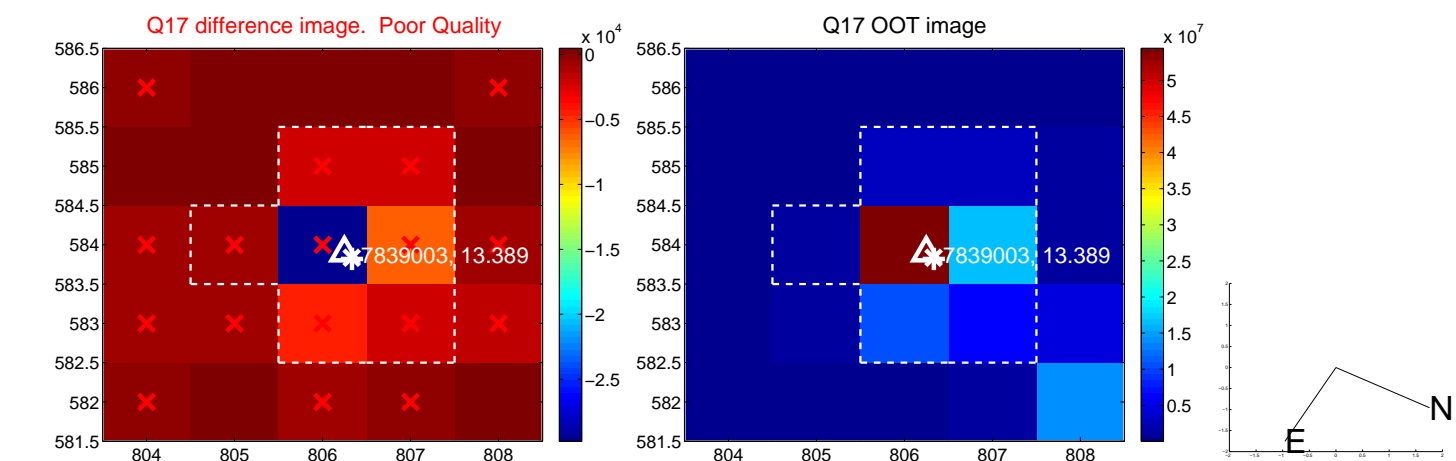
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



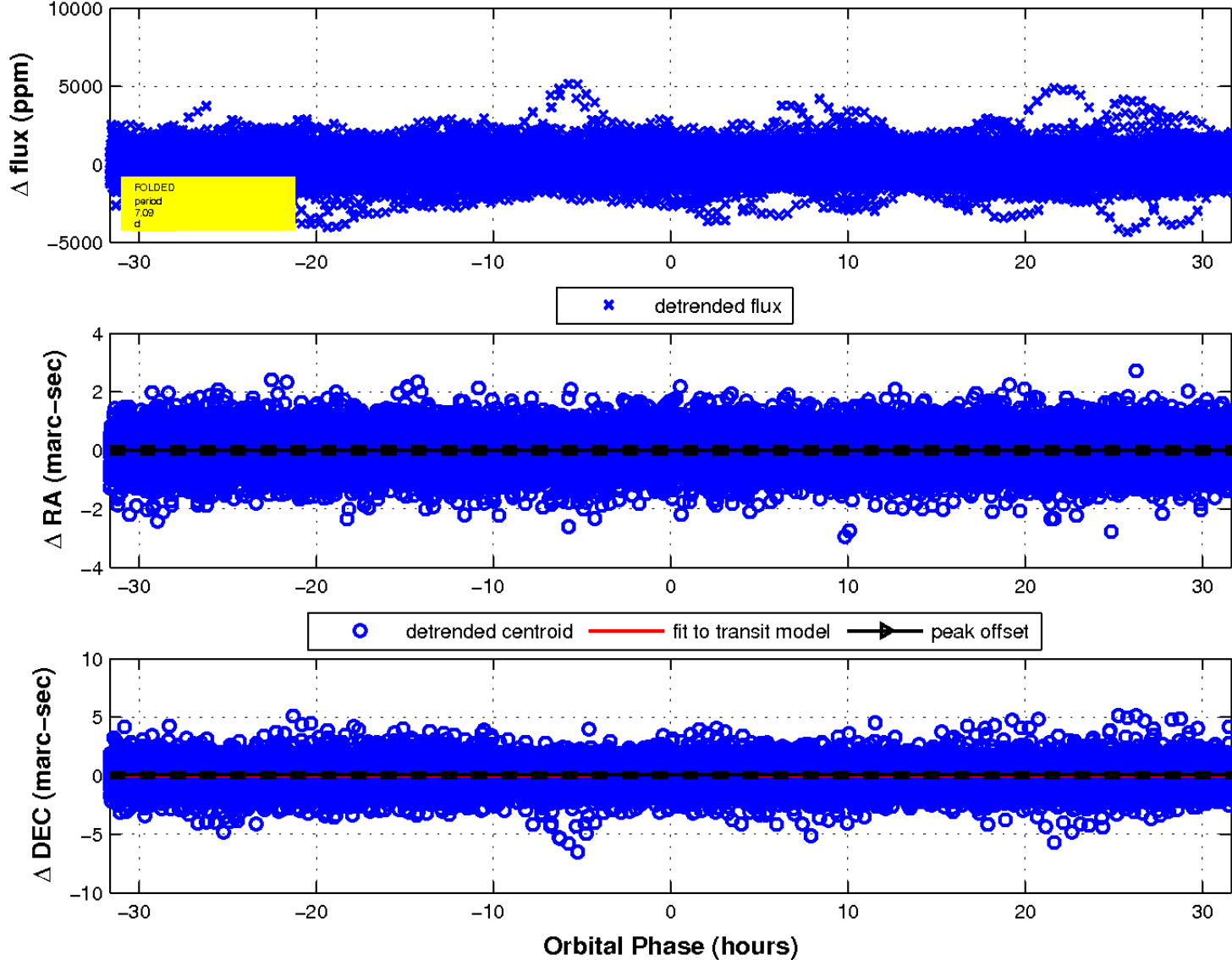
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

