

KIC 005395139

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})
005395139-01	OBS	No	0.522062	131.853577	0.0	3.458	8.2	0.0	1.20	6973	0.01	16583.40
005395139-02	OBS	No	23.500139	147.247294	4543.1	1.621	13.9	7.7	1.20	6973	8.29	103.56
005395139-03	OBS	No	28.969234	147.790728	1570.5	1.353	12.5	2.5	1.20	6973	4.81	78.35
005395139-04	OBS	No	63.713039	148.292586	5972.4	1.655	11.5	7.8	1.20	6973	9.99	27.39
005395139-05	OBS	No	31.326267	161.936604	4544.3	9.799	9.1	6.6	1.20	6973	14.43	70.59
005395139-06	OBS	No	34.637435	145.189764	4209.3	1.798	7.9	8.3	1.20	6973	8.35	61.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005395139-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005395139-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT
005395139-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-05	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
005395139-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—HALO_GHOST

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.

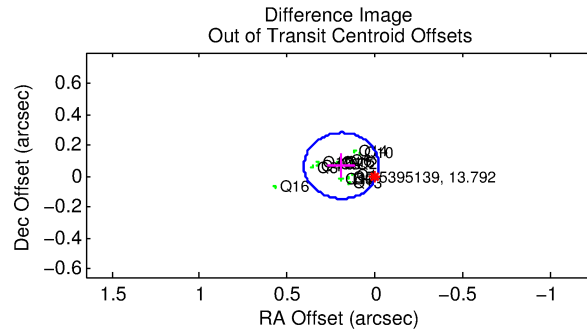
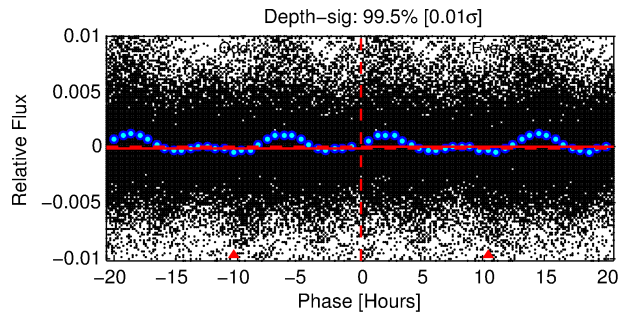
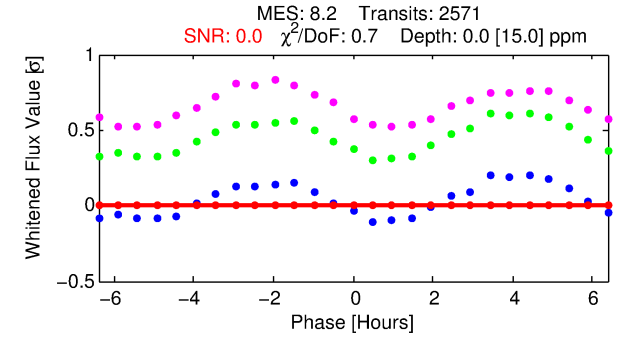
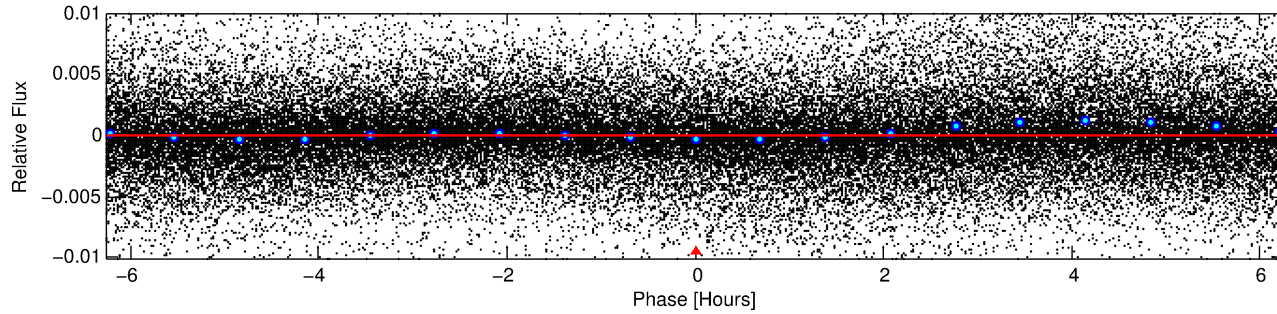
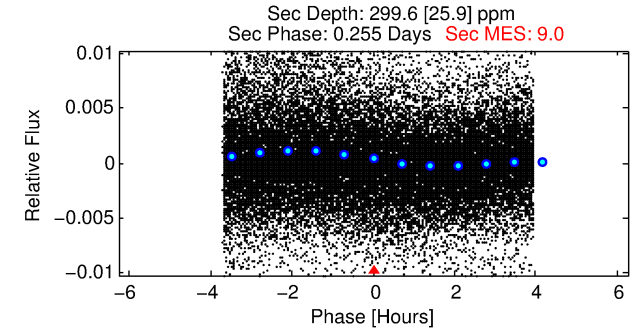
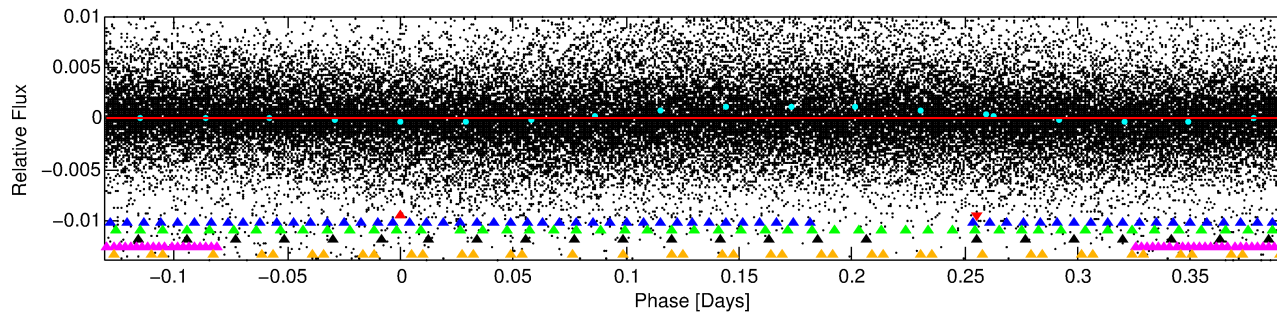
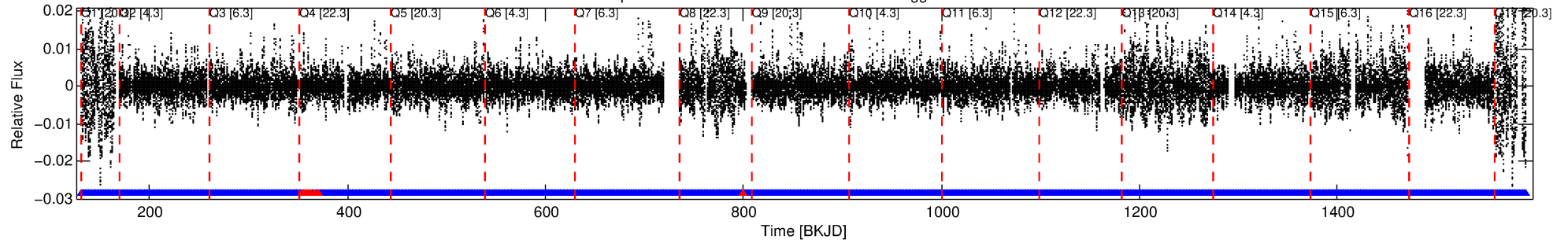
Ephemeris Match Information For 005395139-01

No Significant Match Found

DV One-Page Summary

KIC: 5395139 Candidate: 1 of 6 Period: 0.522 d

Kp: 13.79 R*: 1.20 Rs Teff: 6973.0 K Logg: 4.37 Fe/H: -0.320



DV Fit Results:

Period = 0.52206 [0.44954] d
Epoch = 131.8536 [47.9622] BKJD
Rp/R* = 0.0001 [0.1648]
a/R* = 1.07 [38.83]
b = 0.90 [94.66]
Seff = 16583.39 [20443.38]
Teq = 2894 [892] K
Rp = 0.01 [21.52] Re
a = 0.0135 [0.0087] AU
Ag = 663311.85 [4233442845.06] [0.00σ]
Teff = 127678 [203743905] K [0.00σ]

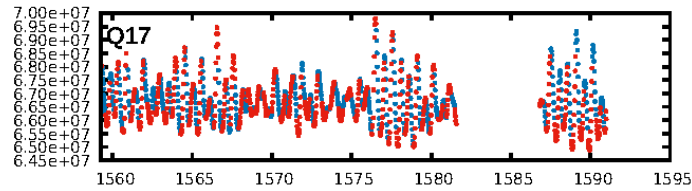
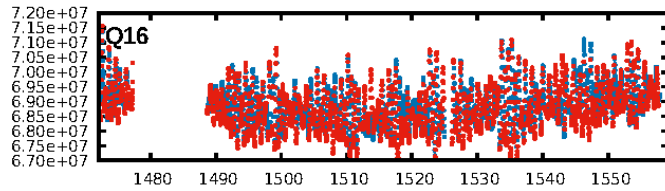
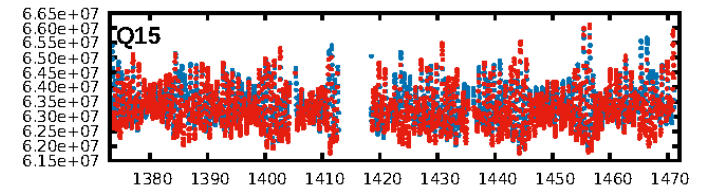
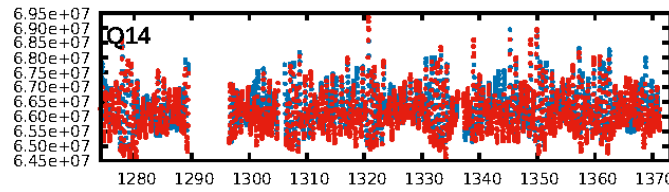
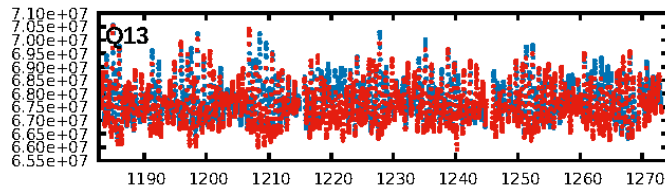
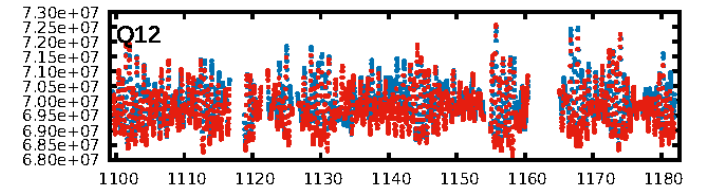
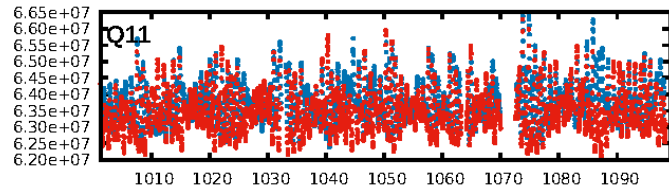
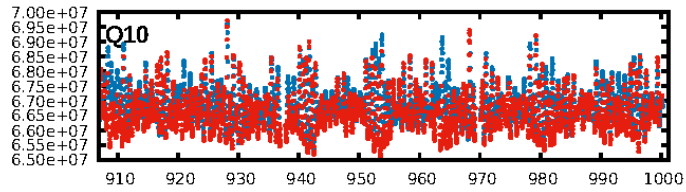
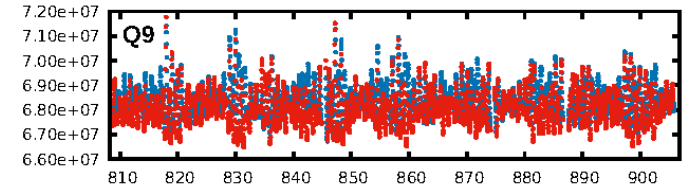
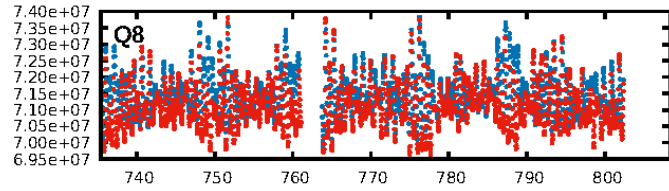
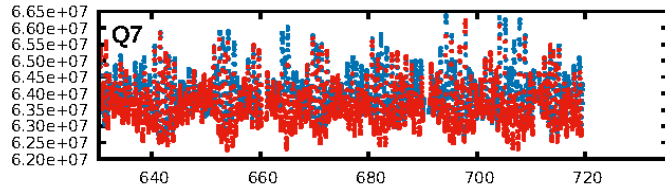
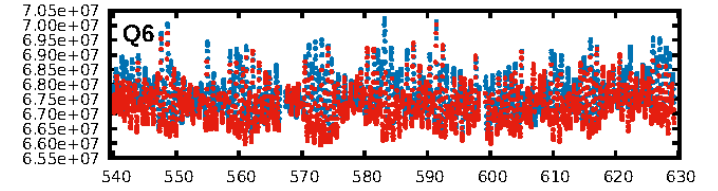
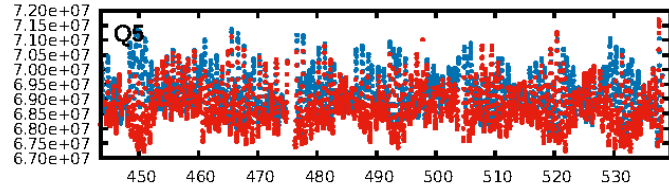
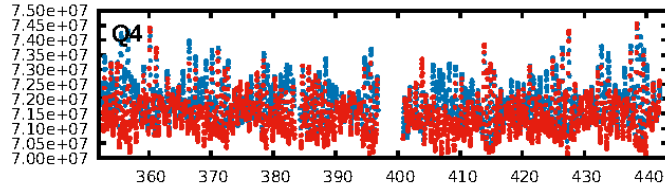
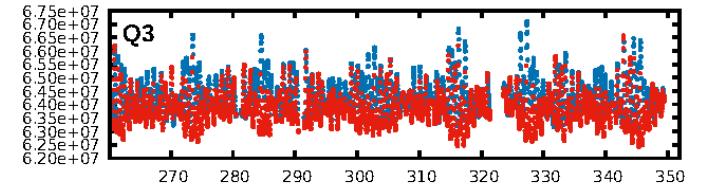
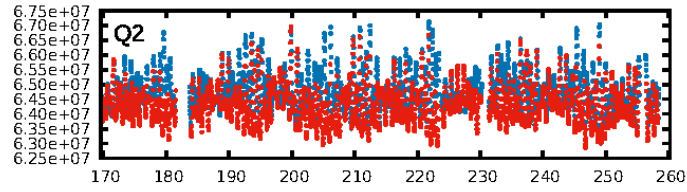
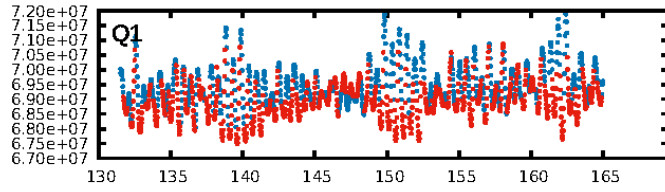
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [144.41σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2439/2454]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
QotOffset-rm: 0.205 arcsec [2.88σ]
KicOffset-rm: 0.173 arcsec [2.47σ]
QotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

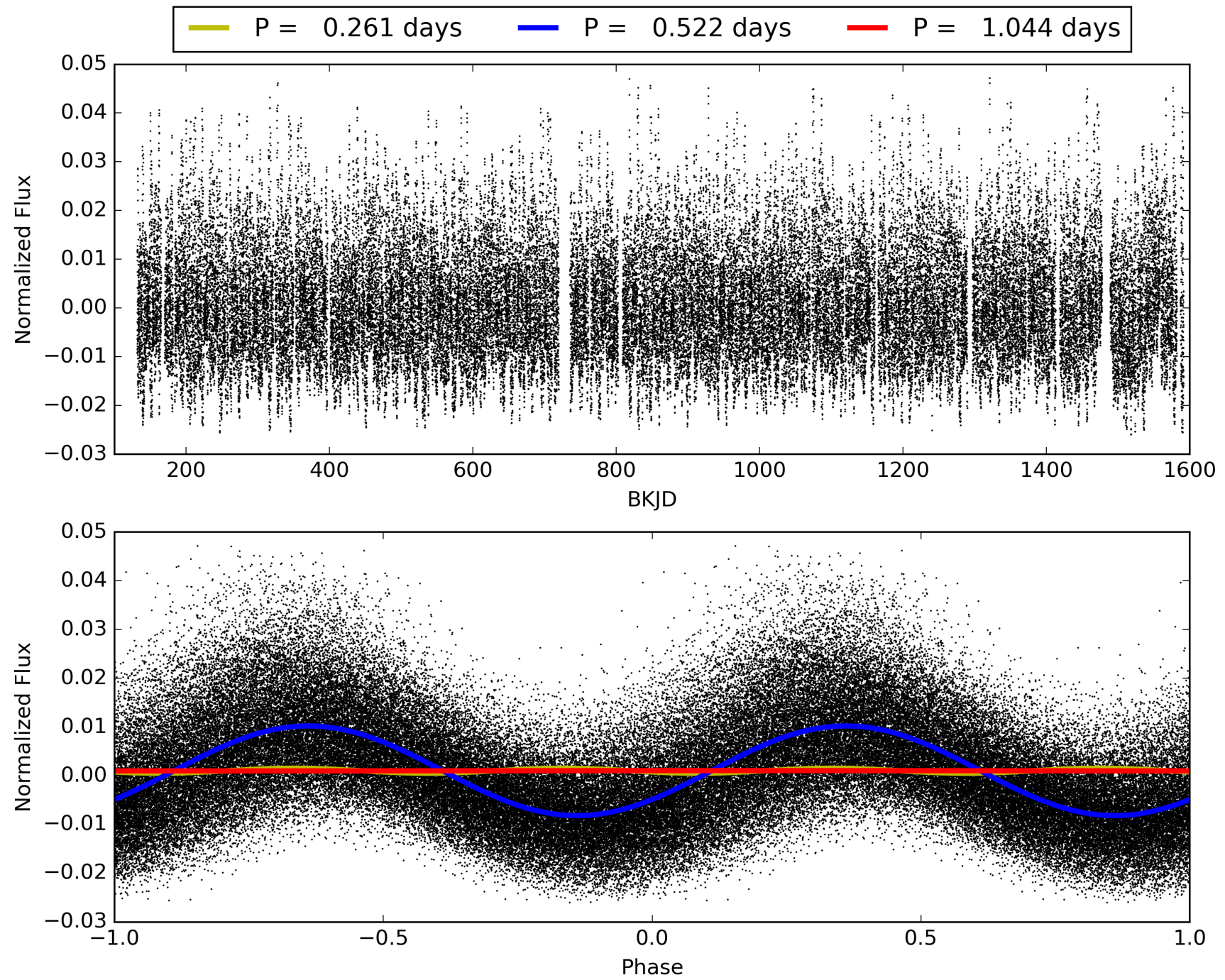
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:49:05 Z

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

TCE 005395139-01, PDC Light Curves

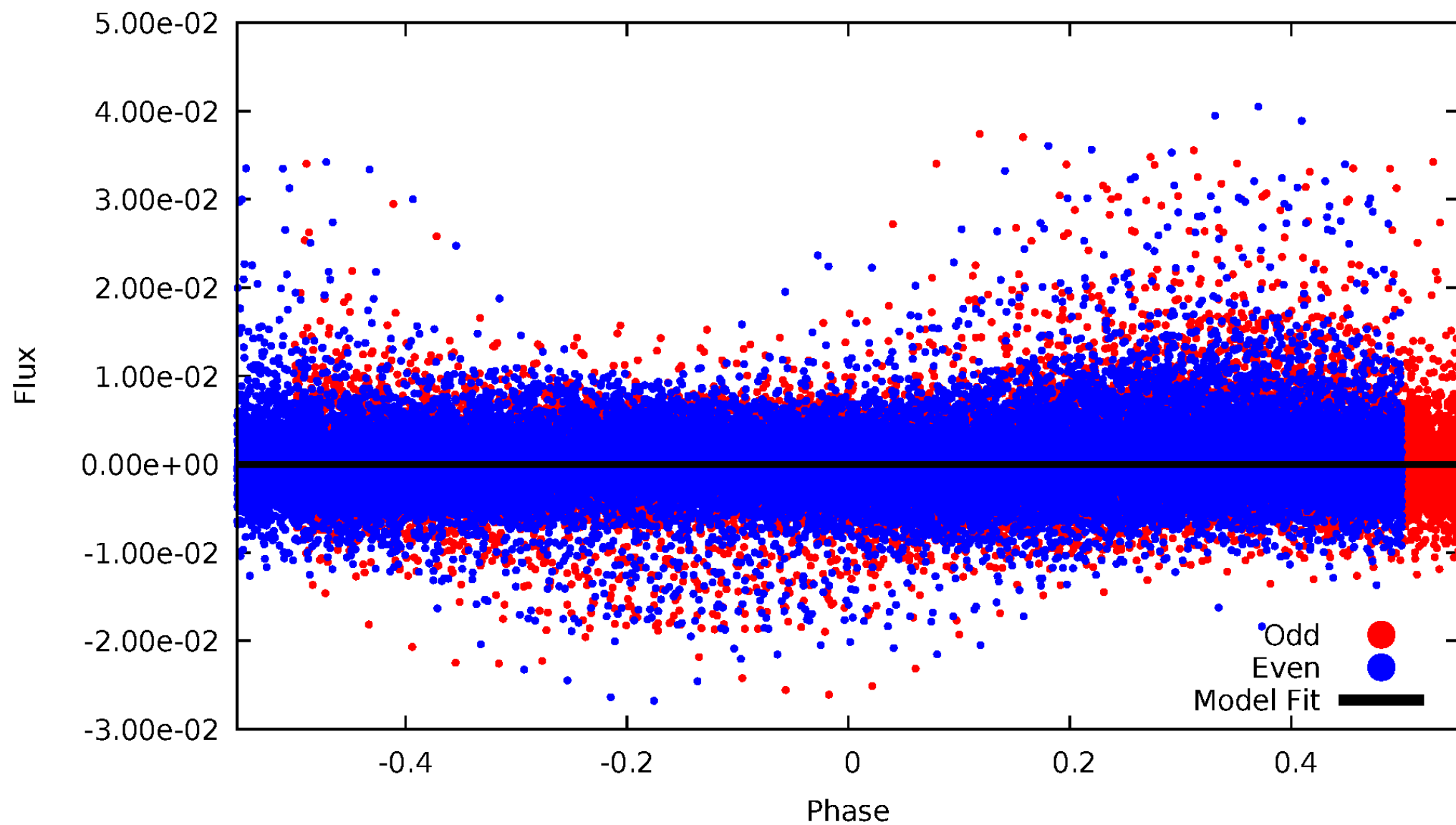


TCE 005395139-01



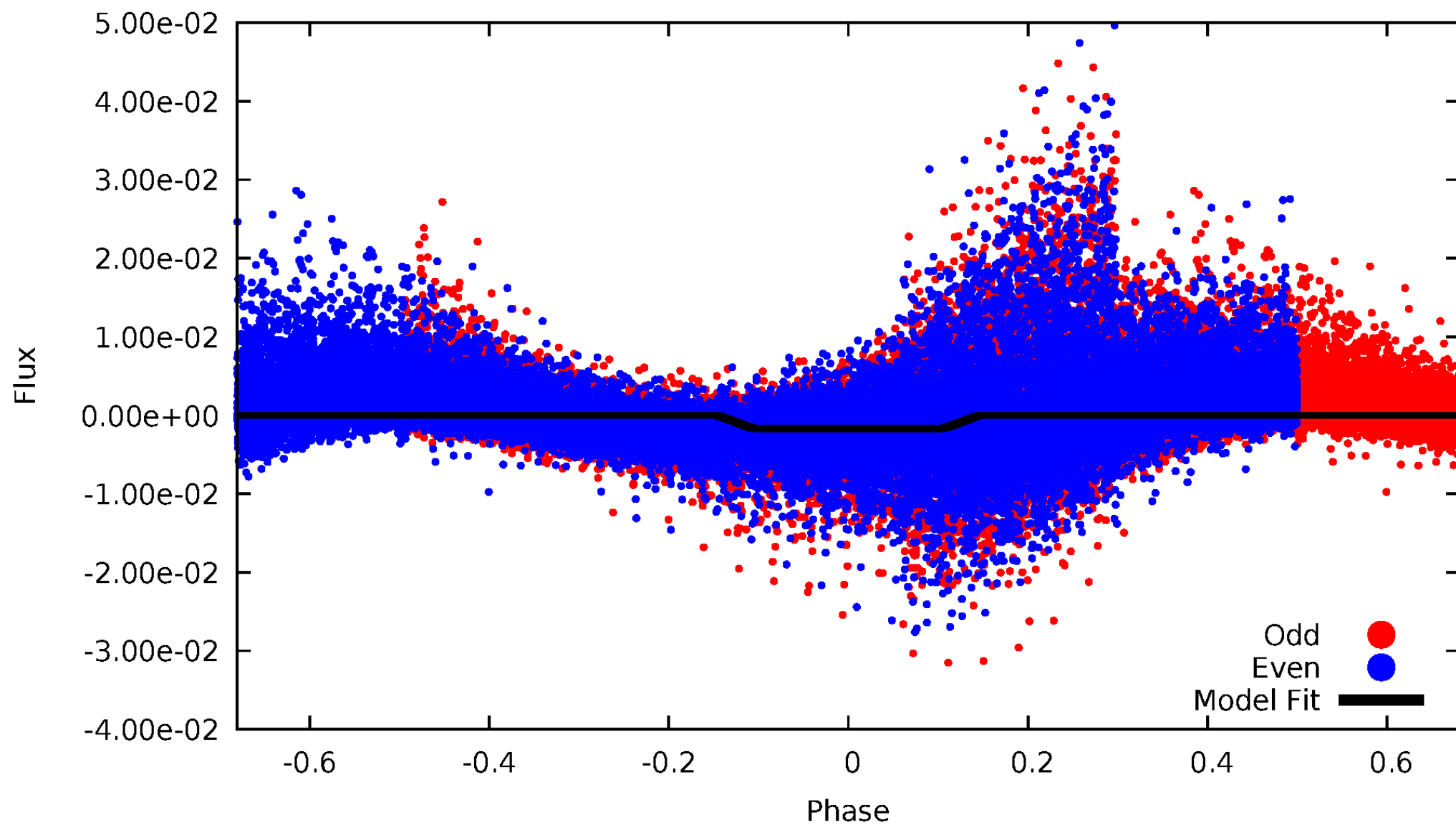
DV Odd/Even

TCE 005395139-01



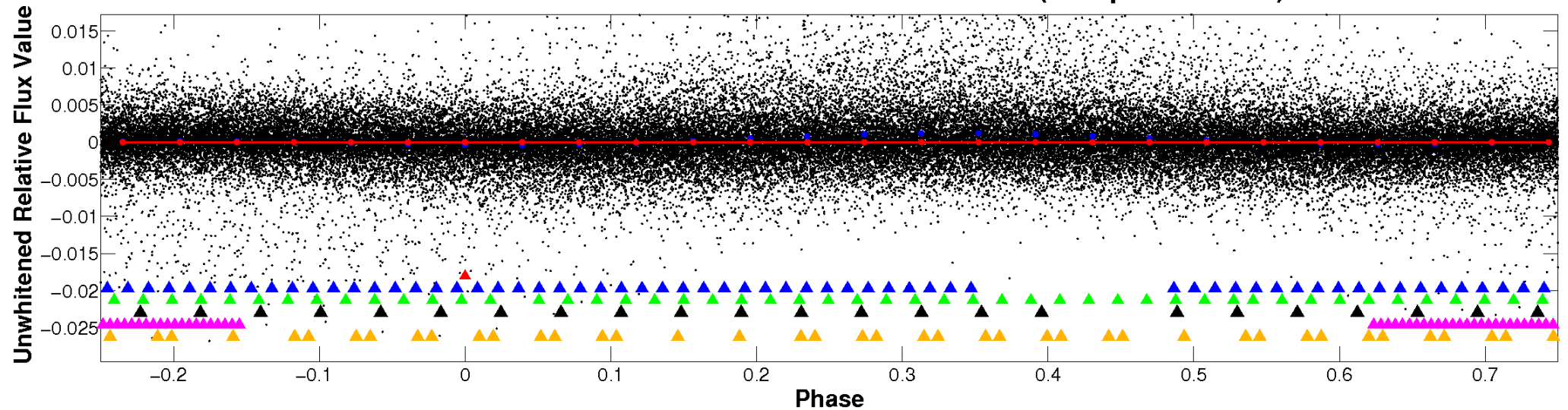
ALT Odd/Even

TCE 005395139-01

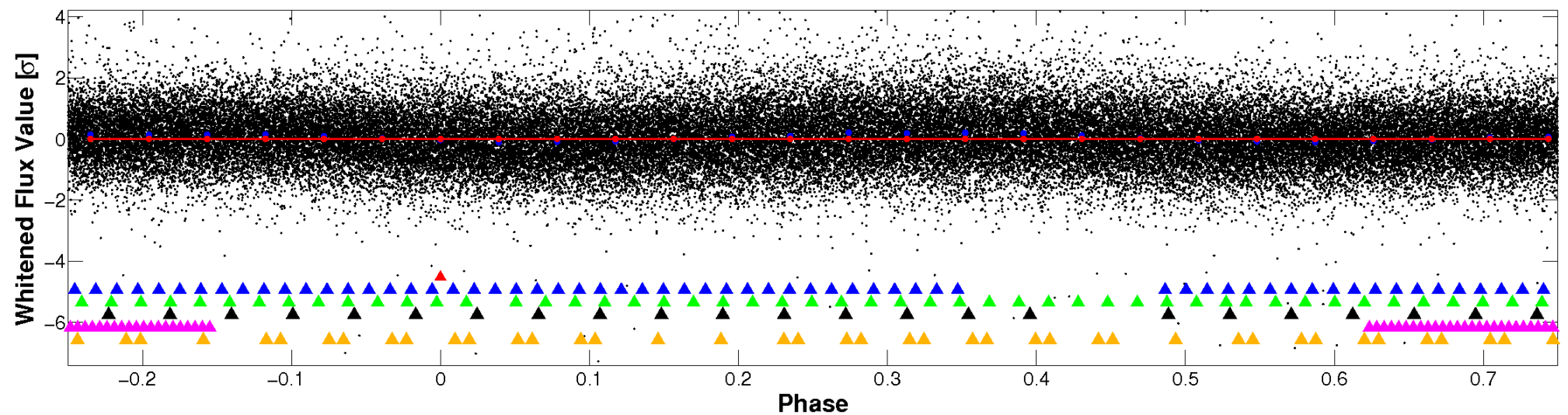


Non-Whitened Vs. Whitened Light Curve

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

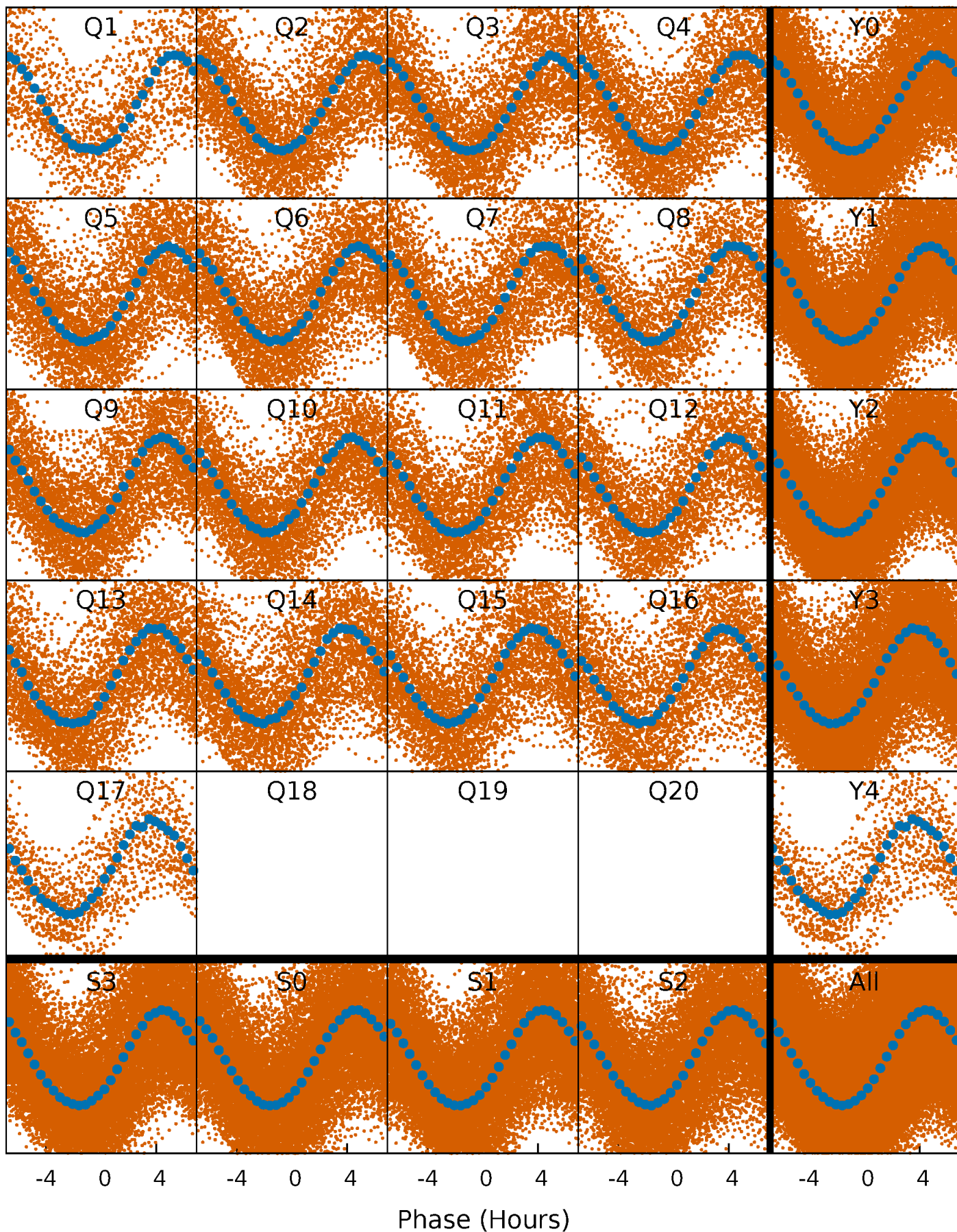


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



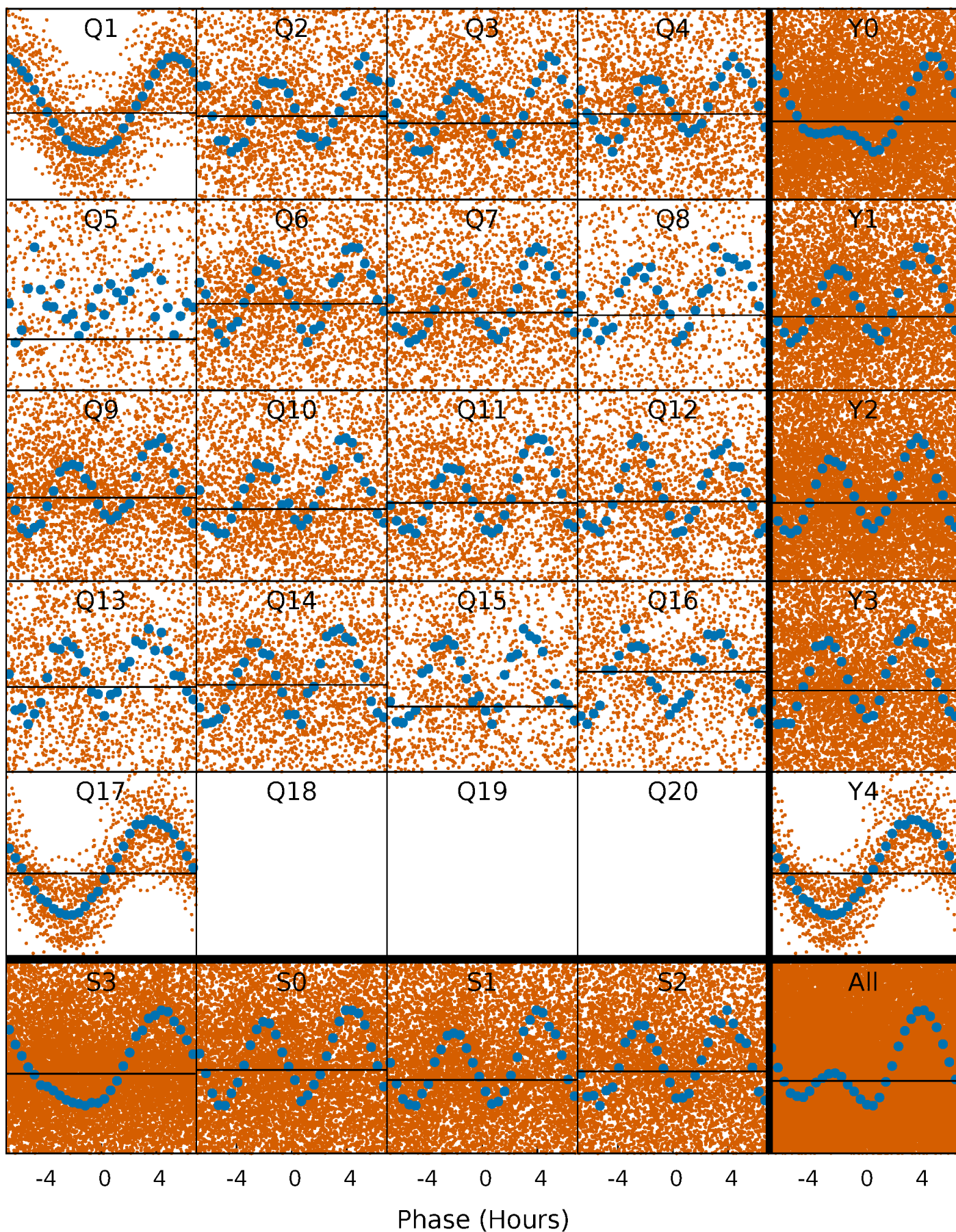
PDC Quarter-Phased Transit Curves

TCE 005395139-01 P= 0.522062 Days $T_0=131.853577$ (BKJD)



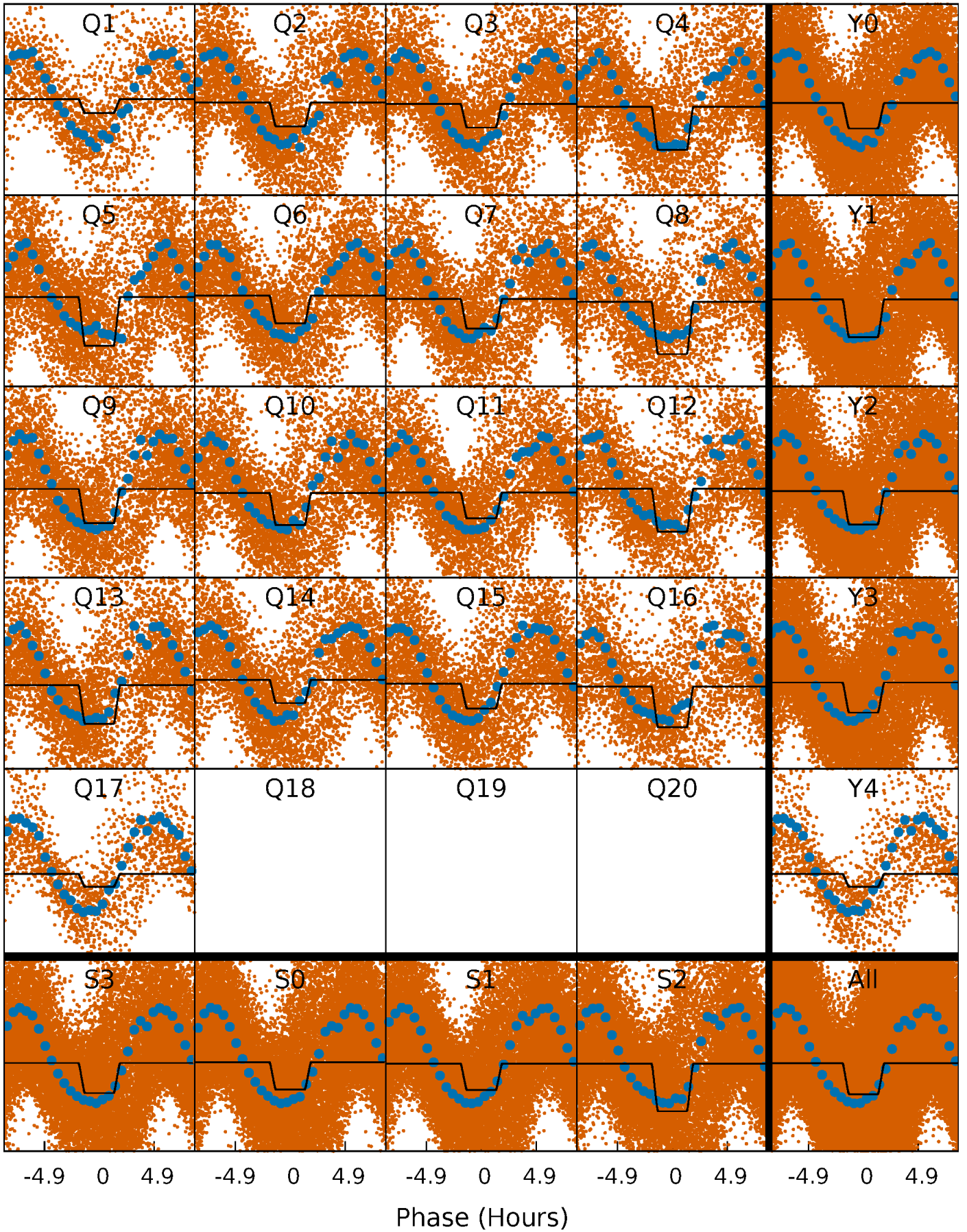
DV Quarter-Phased Transit Curves

TCE 005395139-01 P= 0.522062 Days $T_0=131.853577$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

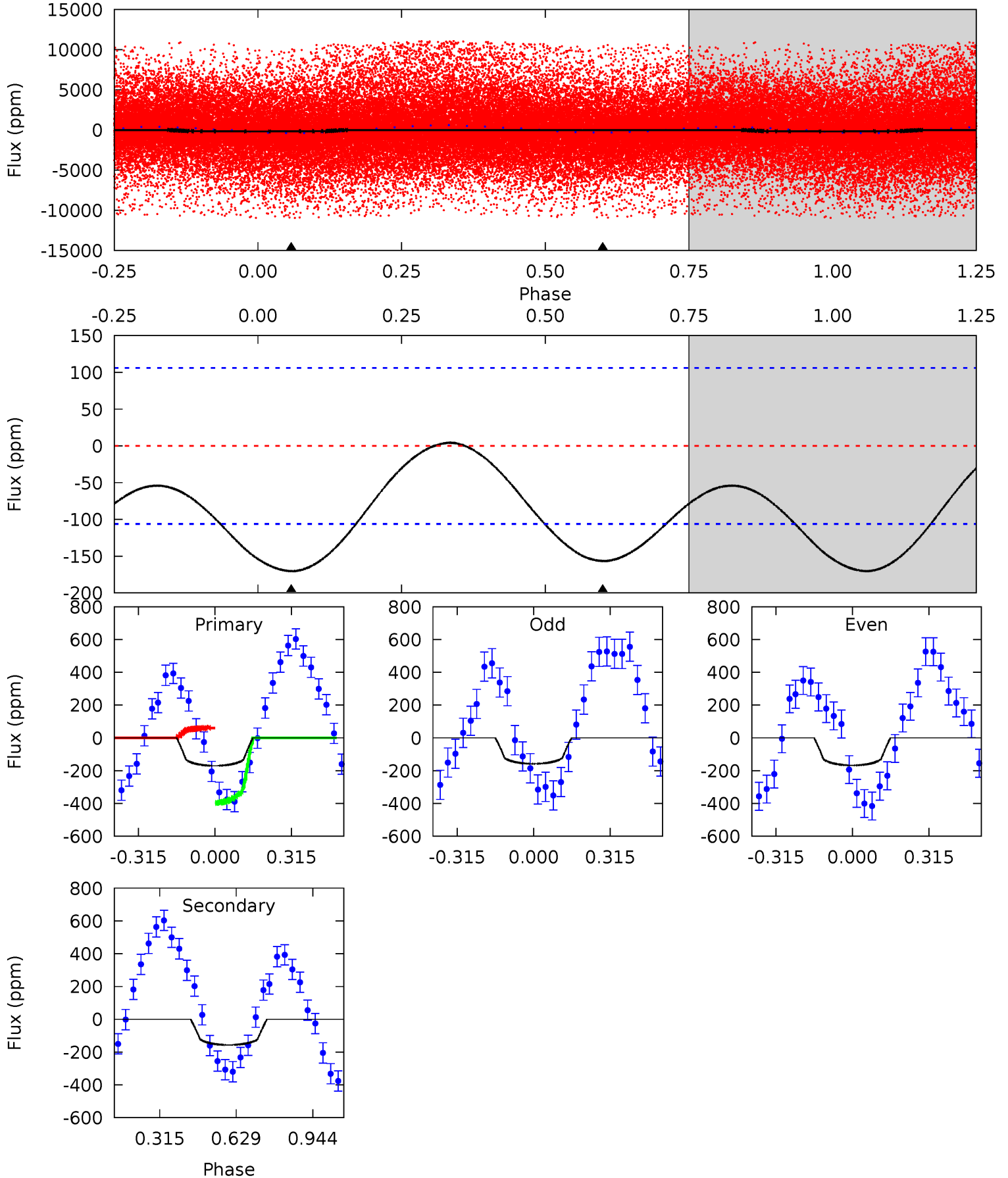
TCE 005395139-01 P= 0.522042 Days $T_0=131.847622$ (BKJD)



DV Model-Shift Uniqueness Test

005395139-01, P = 0.522062 Days, E = 131.331515 Days

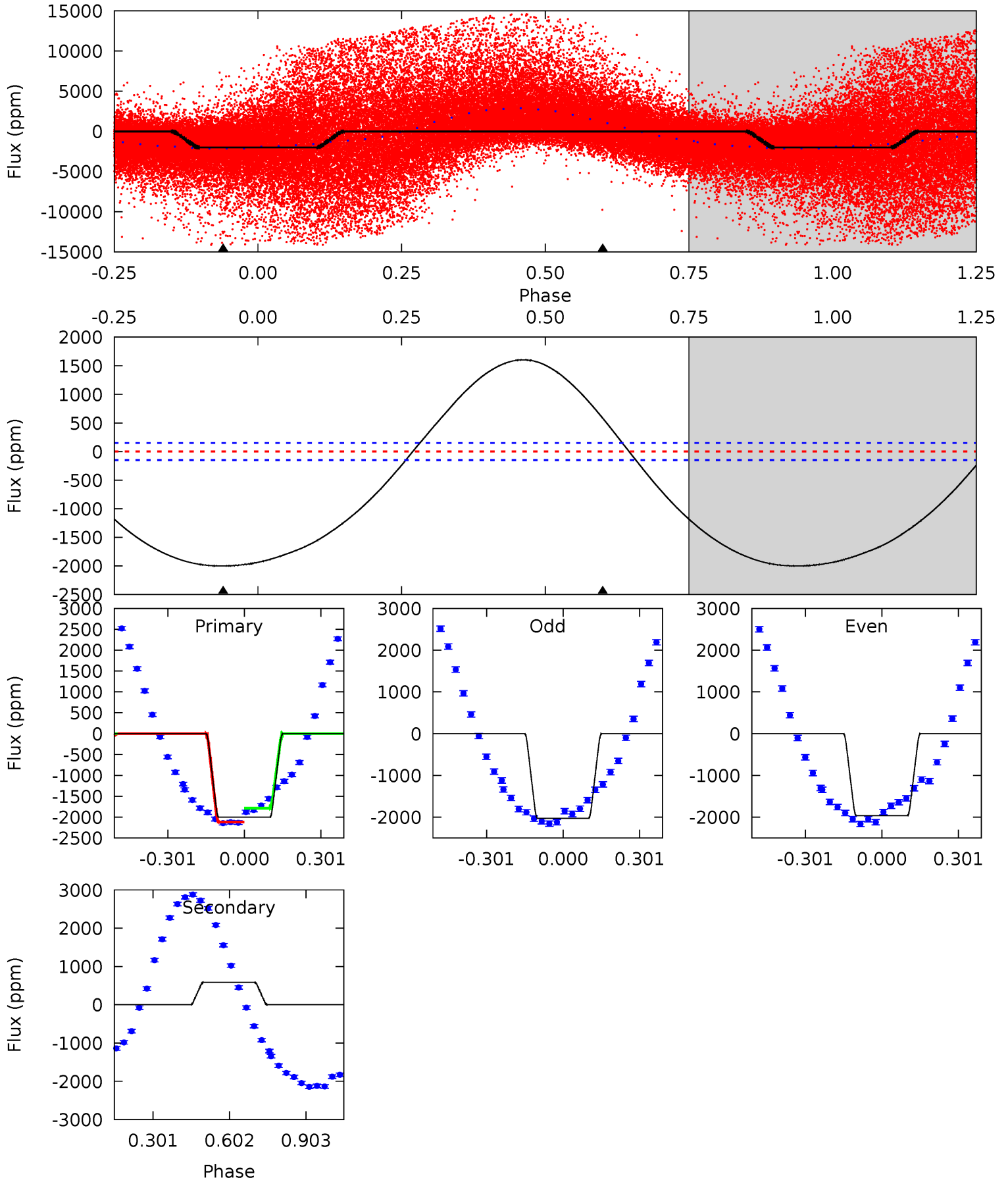
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.94	6.38	0	0	4.32	1.01	0.70	6.94	6.94	6.38	6.38	0.20	3.22	0.03	7.85



Alt Model-Shift Uniqueness Test

005395139-01, P = 0.522042 Days, E = 131.325580 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.4	-17.0	0	0	4.33	1.03	11.0	58.4	58.4	-17.0	-17.0	0.91	1.33	0.44	5.17



Stellar Parameters For KIC 005395139

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6973^{+192}_{-288}	$4.365^{+0.056}_{-0.224}$	$-0.320^{+0.250}_{-0.350}$	$1.197^{+0.425}_{-0.113}$	$1.230^{+0.189}_{-0.154}$	$1.010^{+0.238}_{-0.552}$
	+3%/-4%	+1%/-5%	+78%/-109%	+36%/-9%	+15%/-13%	+24%/-55%
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 005395139-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-157 ± 25	$15.05^{+17.09}_{-10.18}$	3972^{+1517}_{-703}	-3303^{+7021}_{-1155}	$0.067^{+0.658}_{-0.055}$
Alt.	583 ± 34	$17.43^{+18.18}_{-11.92}$	4069^{+1528}_{-795}	-4357^{+672}_{-2009}	$-0.178^{+0.146}_{-1.994}$

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 $A_{obs} \gg 1.0$

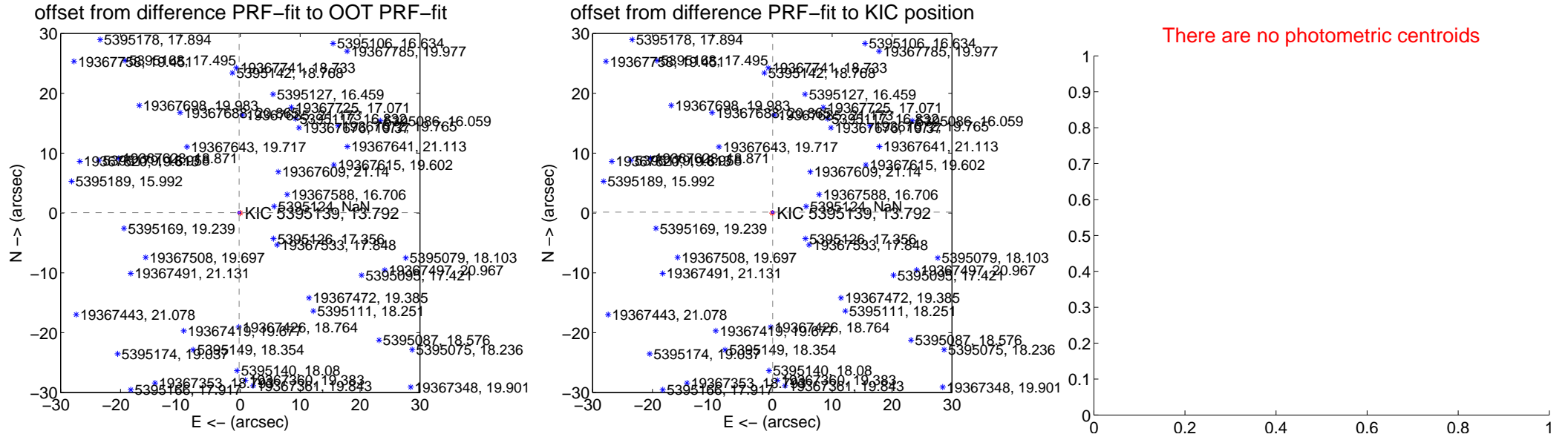
DV Centroid Data

Supplemental centroid analysis for 005395139-01. Kepler magnitude: 13.79. Transit SNR 0.00

There are 17 quarters with good PRF difference image offsets

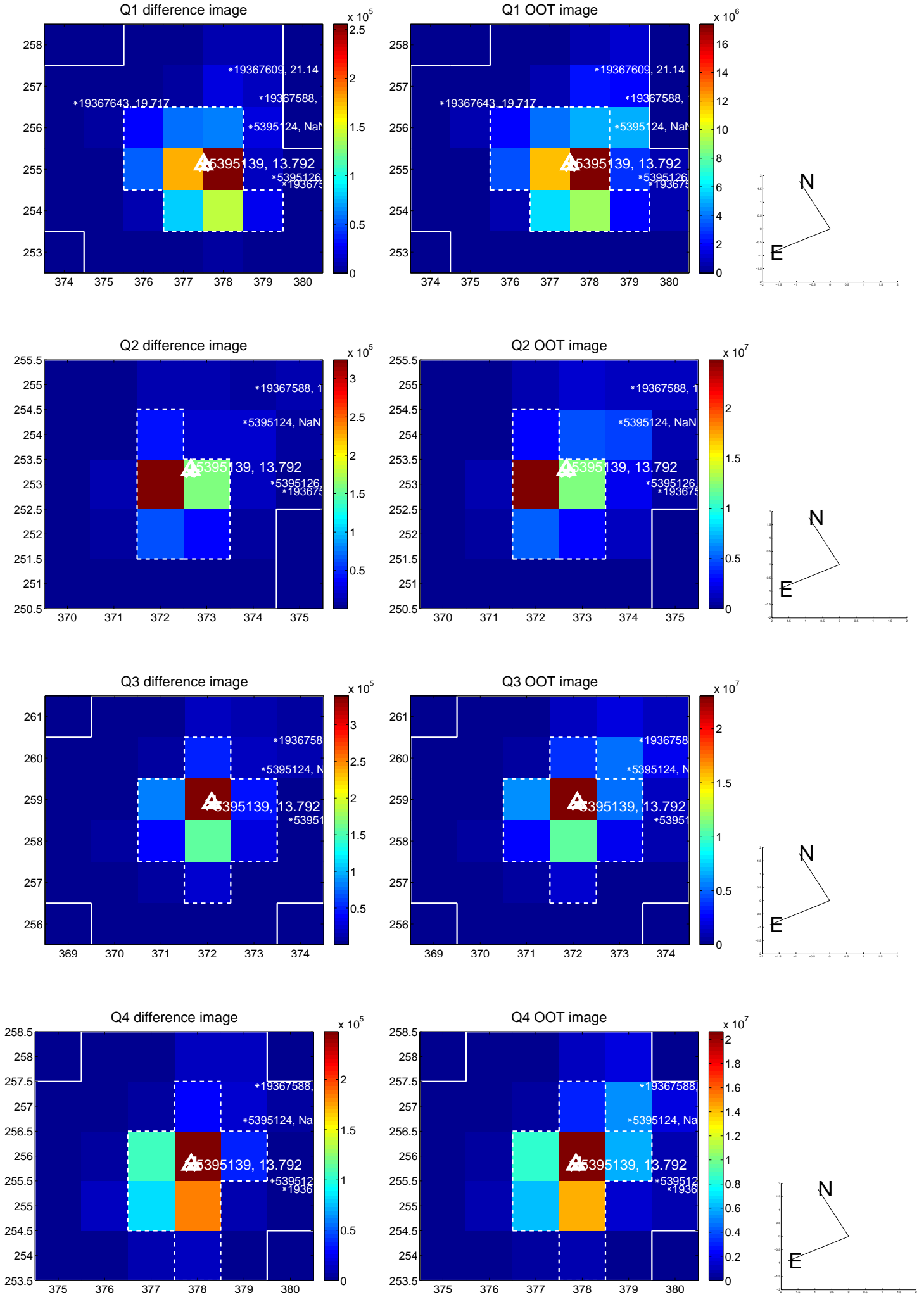
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.205 ± 0.071	2.88	0.193 ± 0.072	0.068 ± 0.068
PRF-fit source offset from KIC position	0.173 ± 0.070	2.47	-0.084 ± 0.071	0.151 ± 0.068
photometric centroid source offset	—	—	—	—

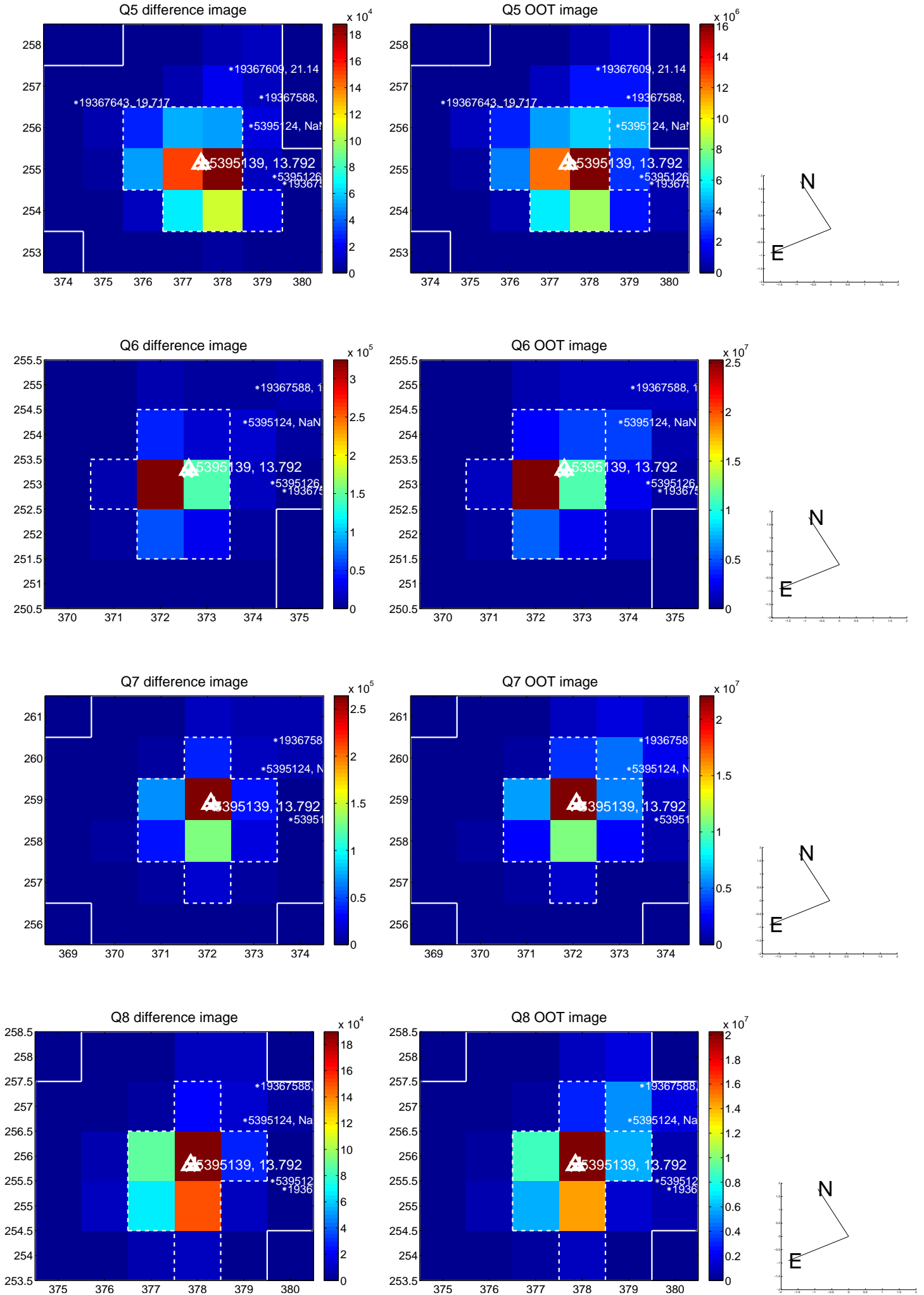


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

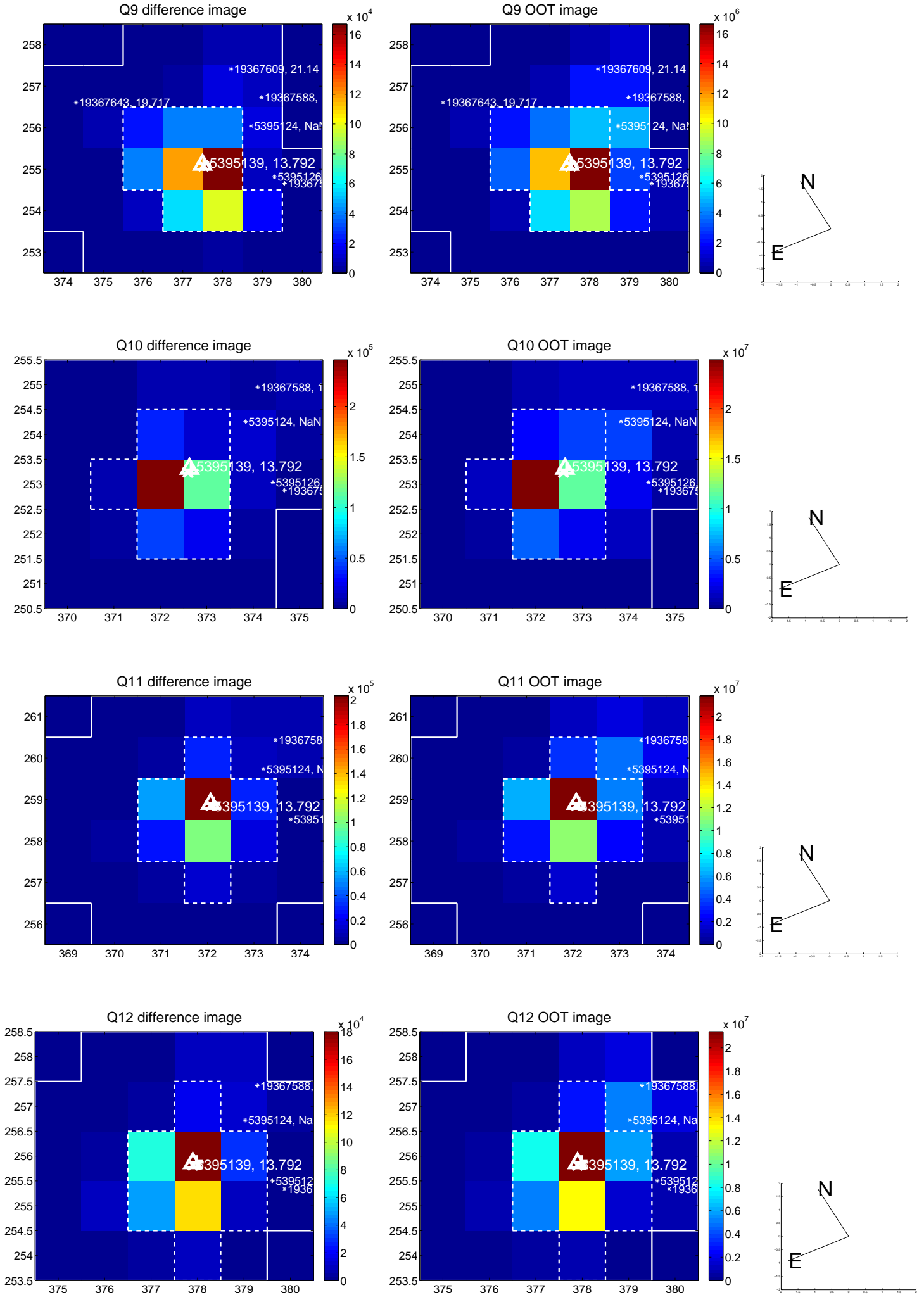
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



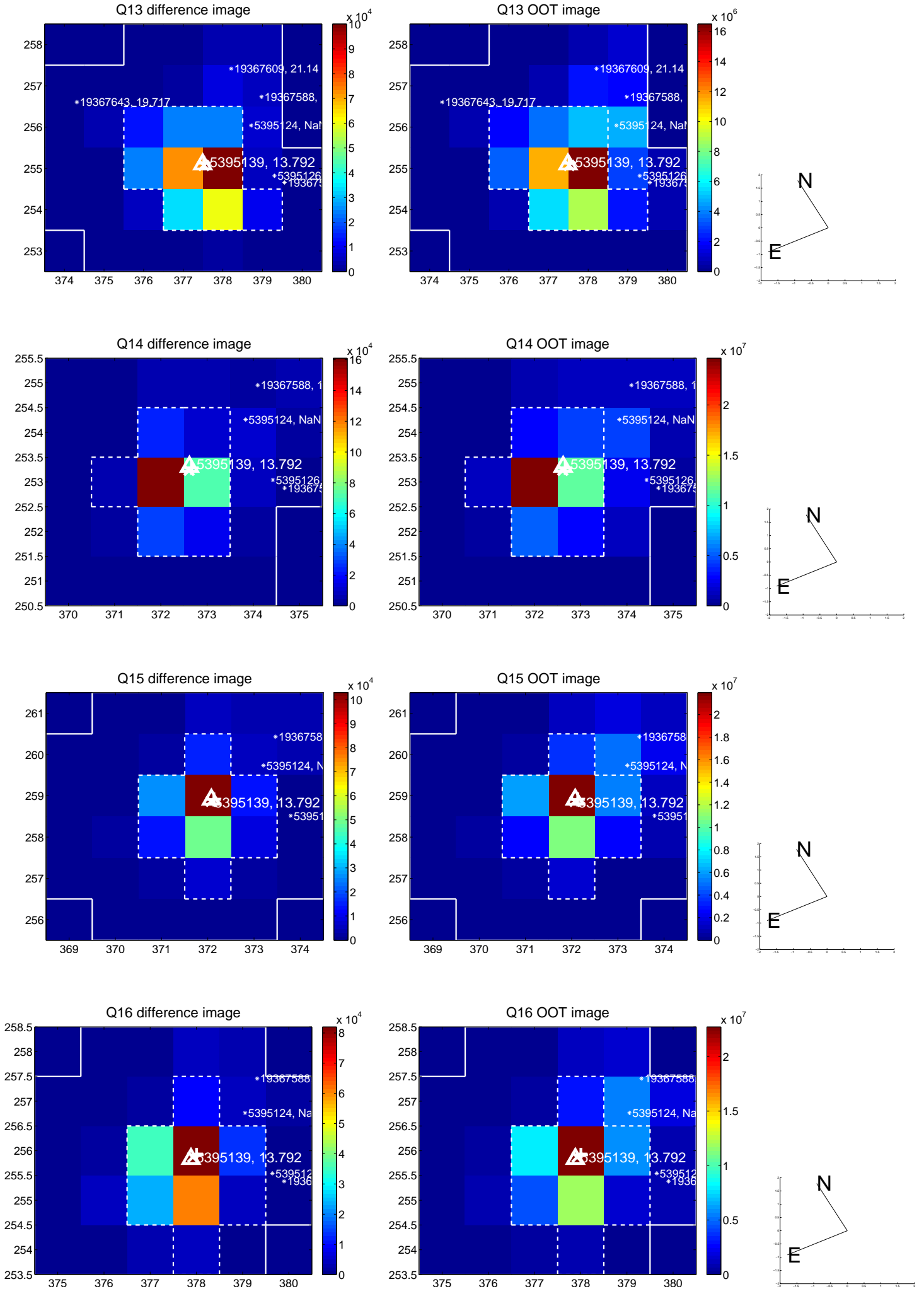
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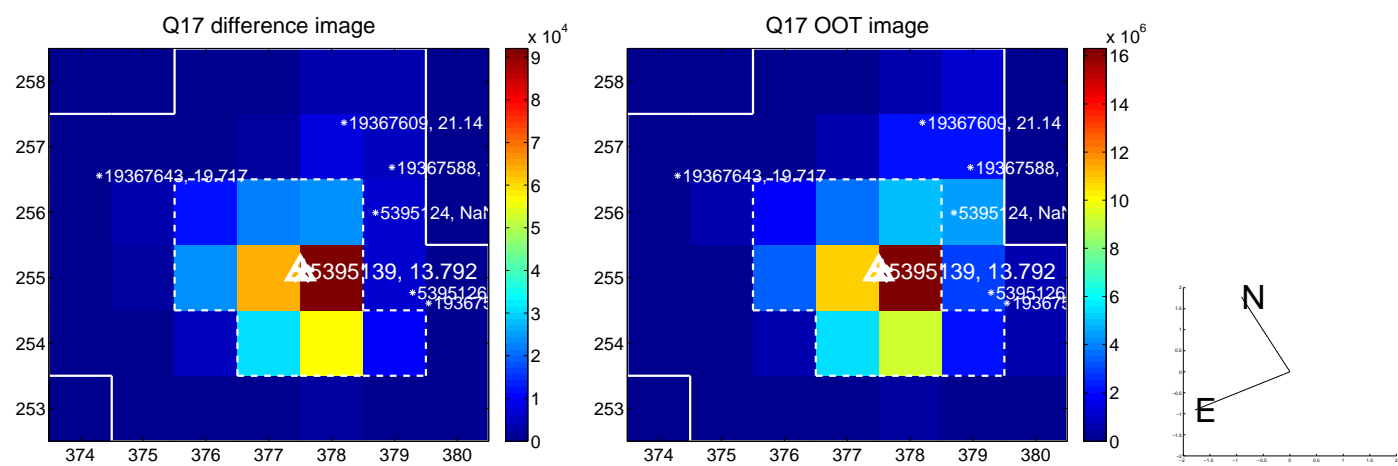
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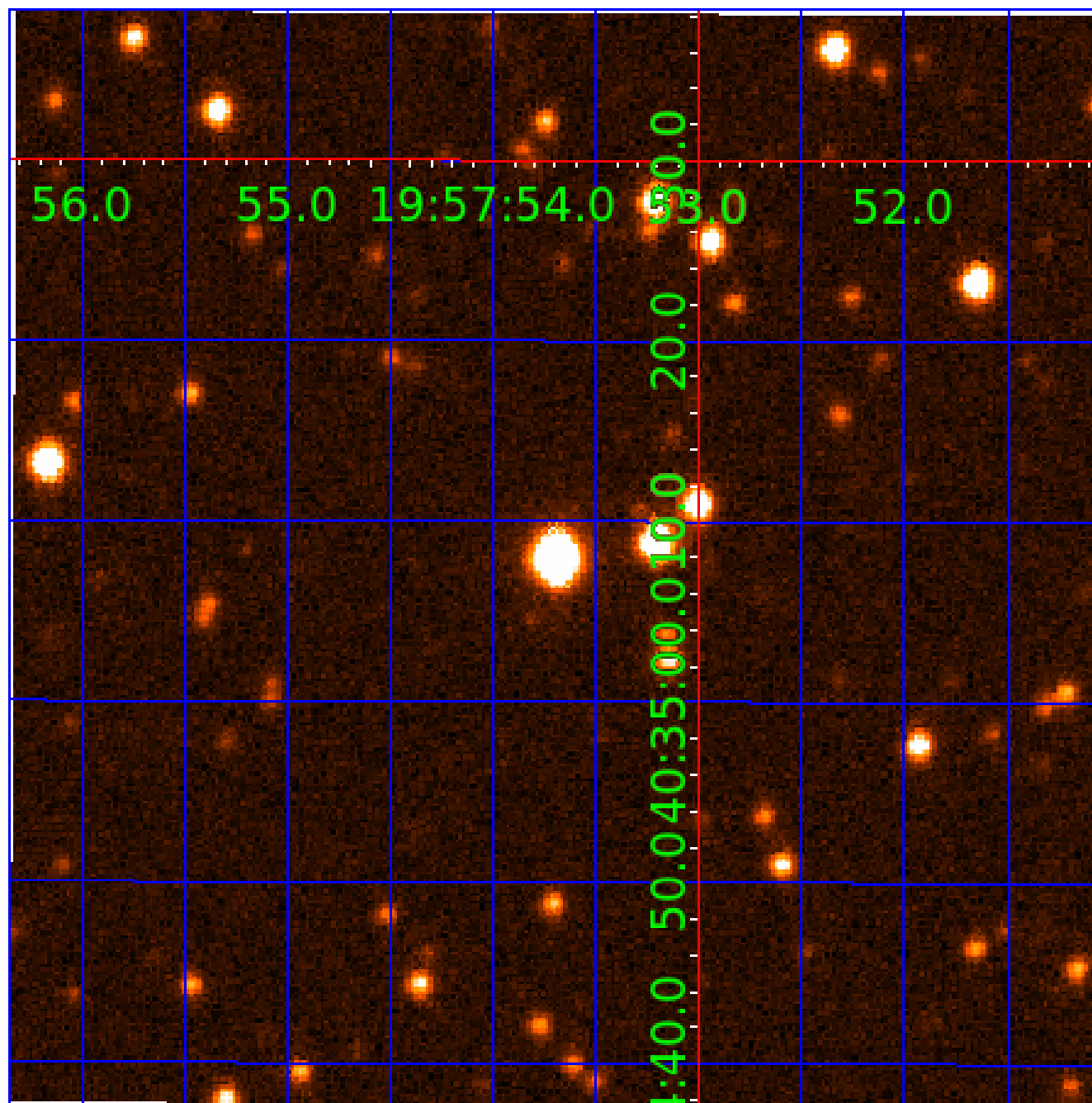
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005395139

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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005395139-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT
005395139-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-05	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
005395139-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—HALO_GHOST

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

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

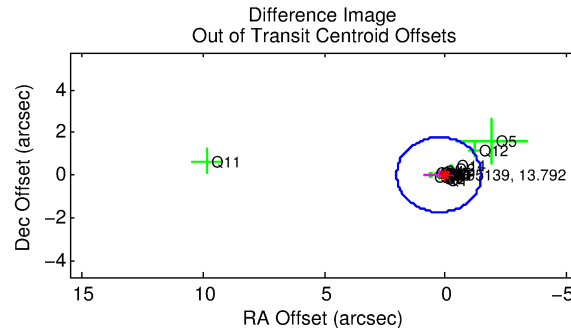
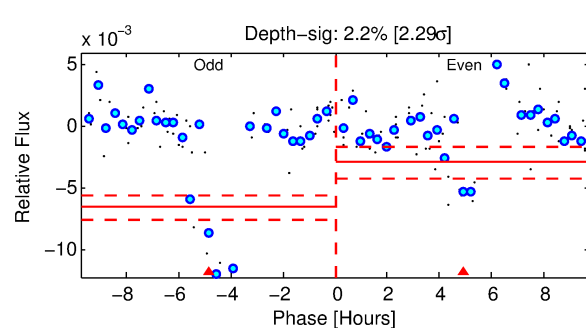
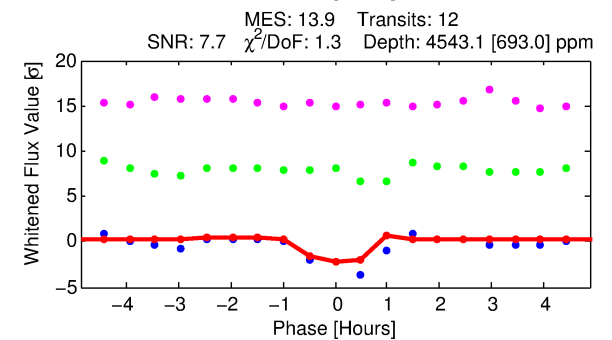
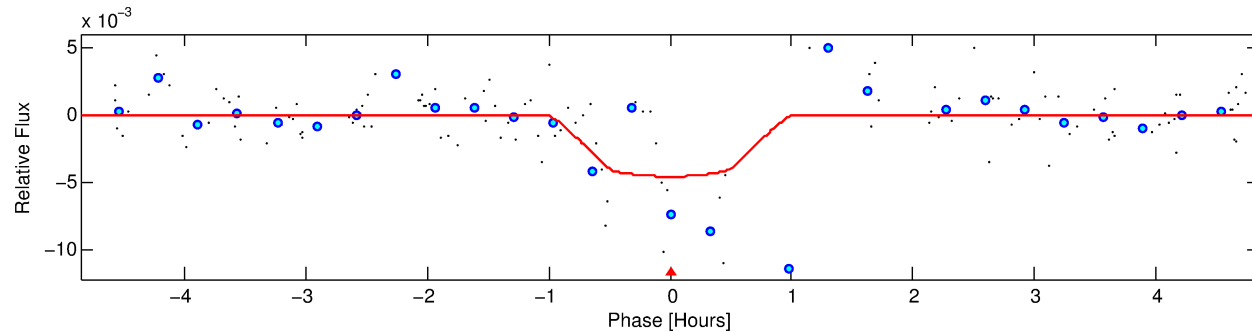
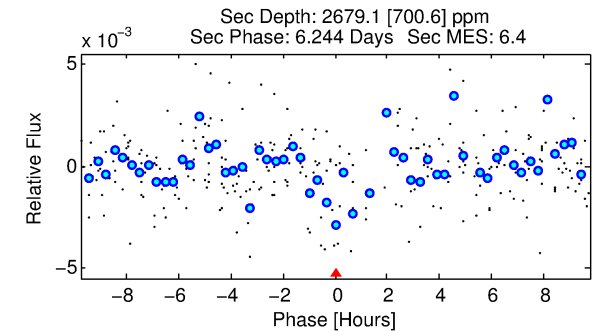
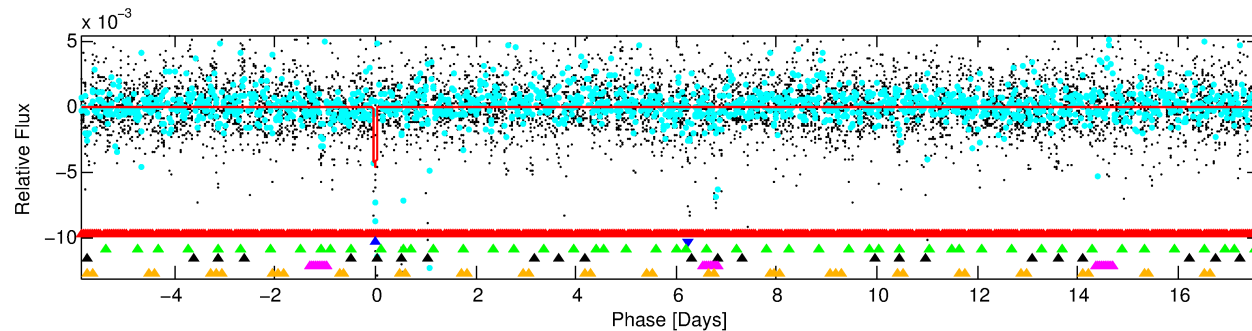
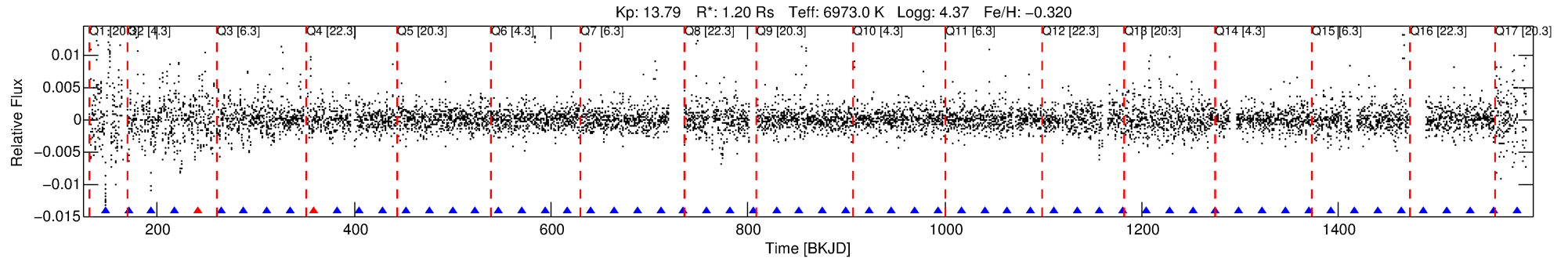
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005395139-02

No Significant Match Found

DV One-Page Summary

KIC: 5395139 Candidate: 2 of 6 Period: 23.500 d



DV Fit Results:

Period = 23.50014 [0.00081] d
Epoch = 147.2473 [0.0058] BKJD
Rp/R* = 0.0635 [0.0947]
a/R* = 110.37 [923.26]
b = 0.37 [19.69]
Seff = 103.56 [46.50]
Teq = 813 [91] K
Rp = 8.29 [12.72] Re
a = 0.1712 [0.0501] AU
Ag = 628.80 [1902.85] [0.33σ]
Teff = 6298 [4726] K [1.16σ]

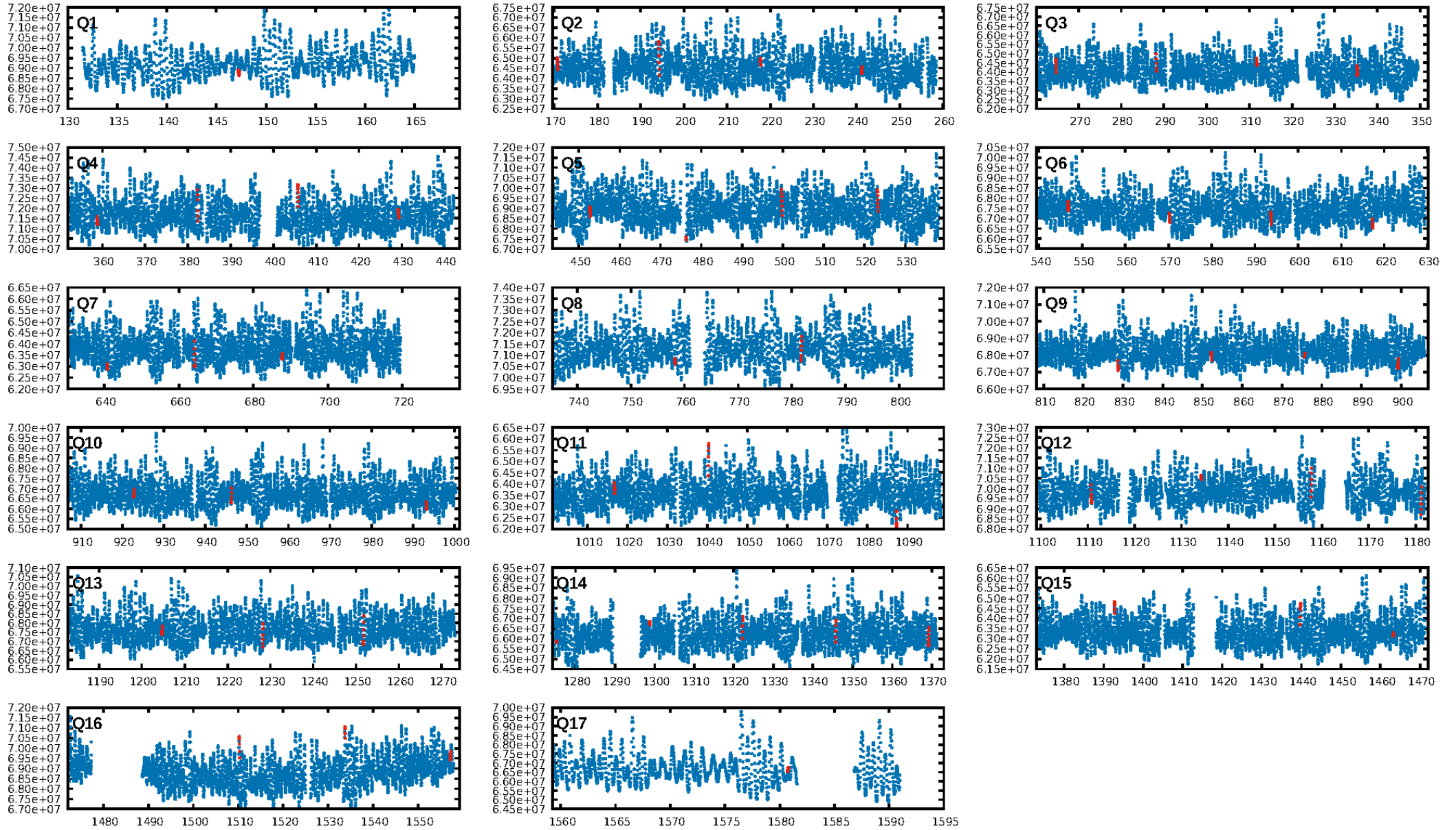
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [144.41σ]
LongPeriod-sig: 100.0% [62.17σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.82 [9/11]
GhostDiagnostic-chr: -0.2522
Centroid-sig: 3.3%
Centroid-so: 0.548 arcsec [4.70σ]
OotOffset-rm: 0.263 arcsec [0.45σ]
KicOffset-rm: 0.097 arcsec [0.54σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 0.00 [0/17]

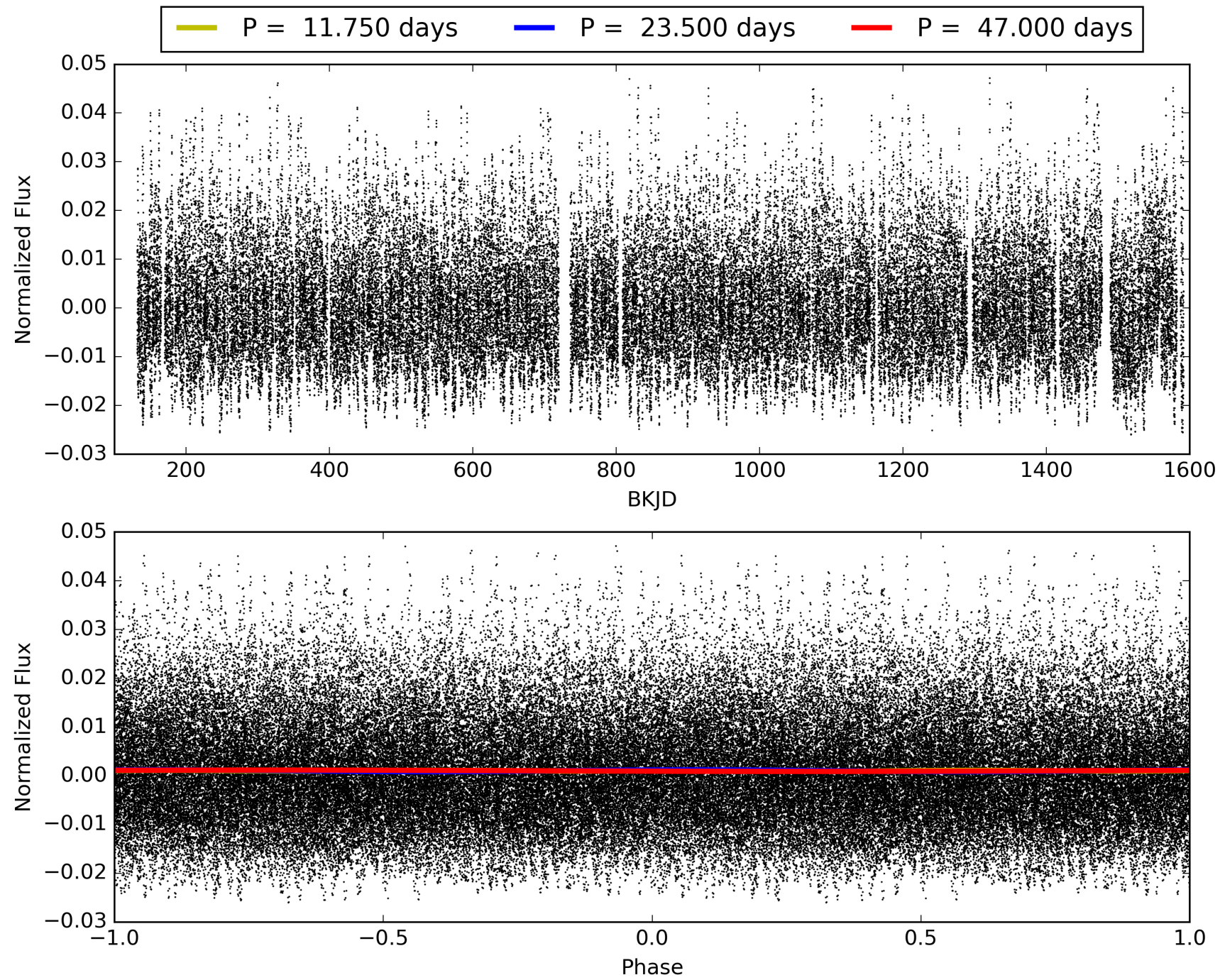
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:49:16 Z

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

TCE 005395139-02, PDC Light Curves

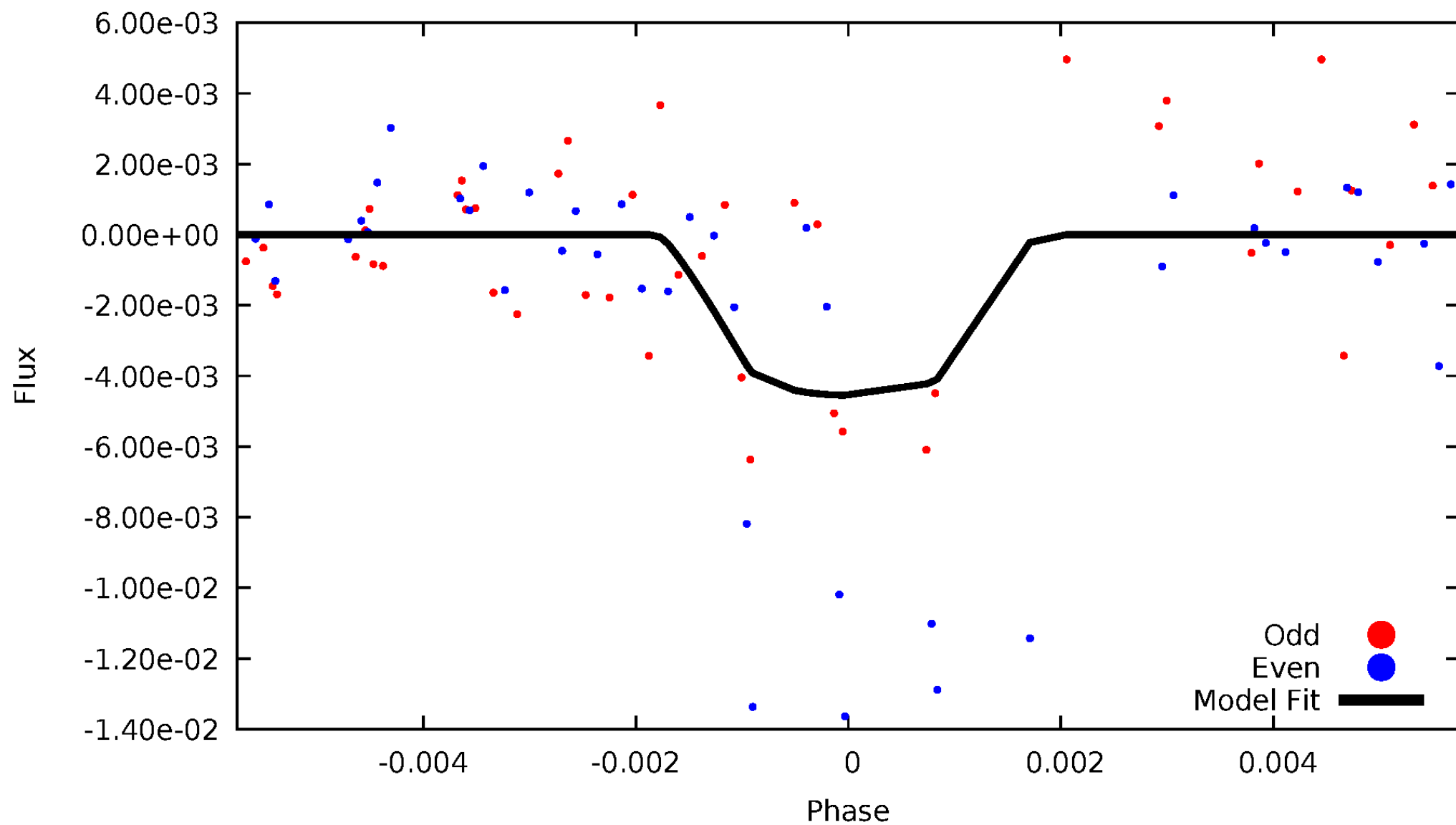


TCE 005395139-02



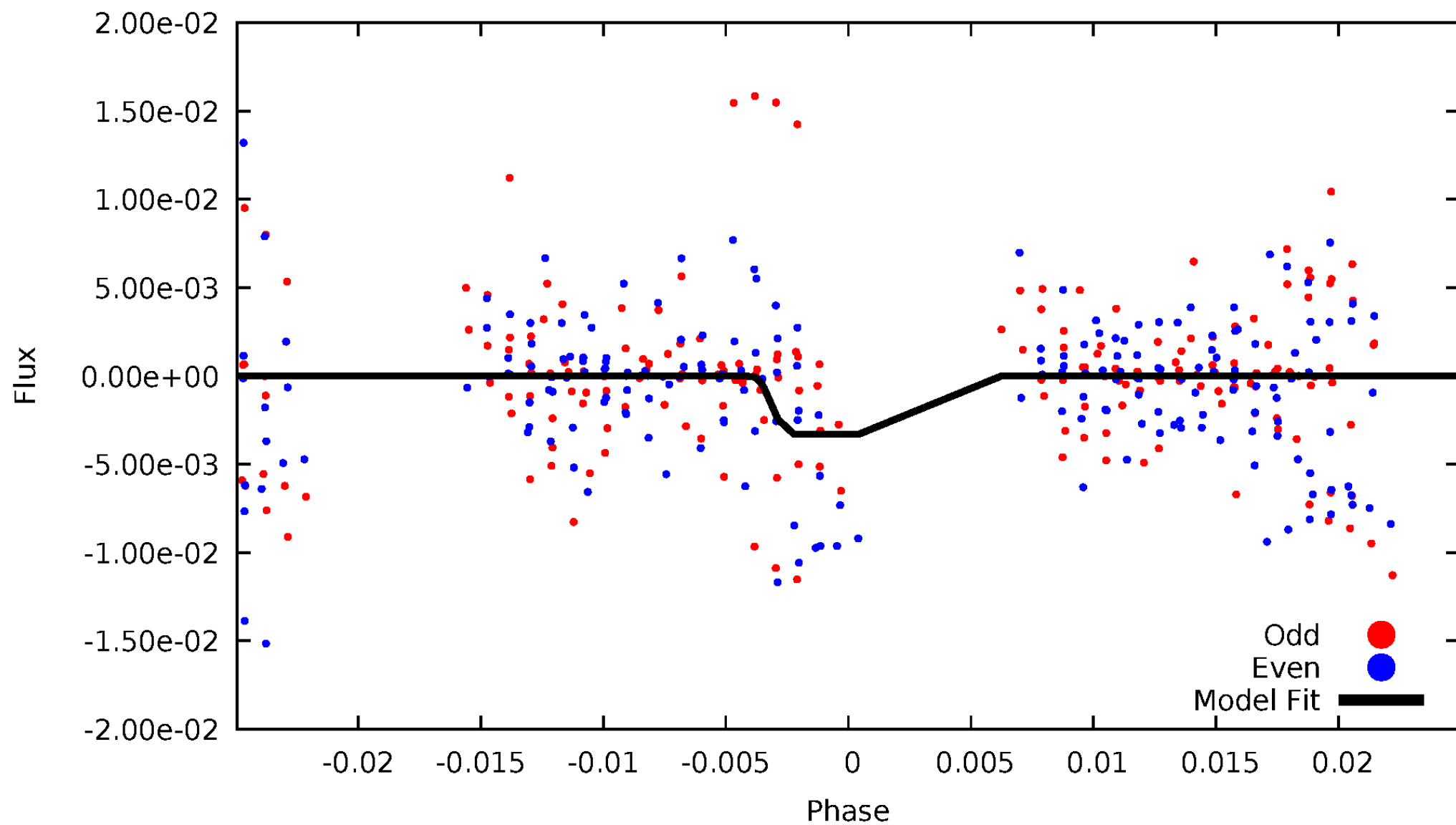
DV Odd/Even

TCE 005395139-02



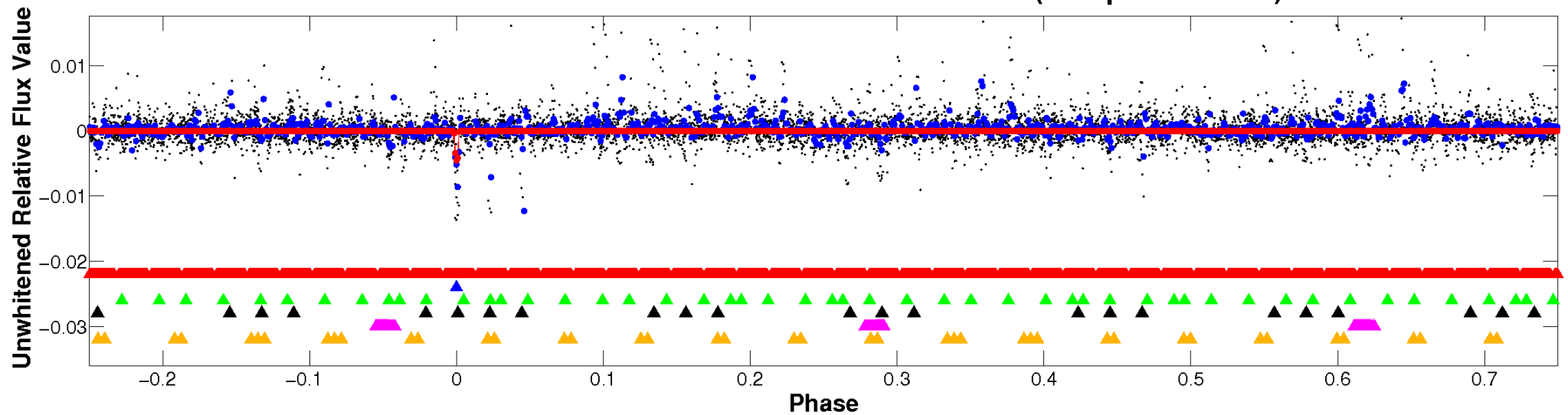
ALT Odd/Even

TCE 005395139-02

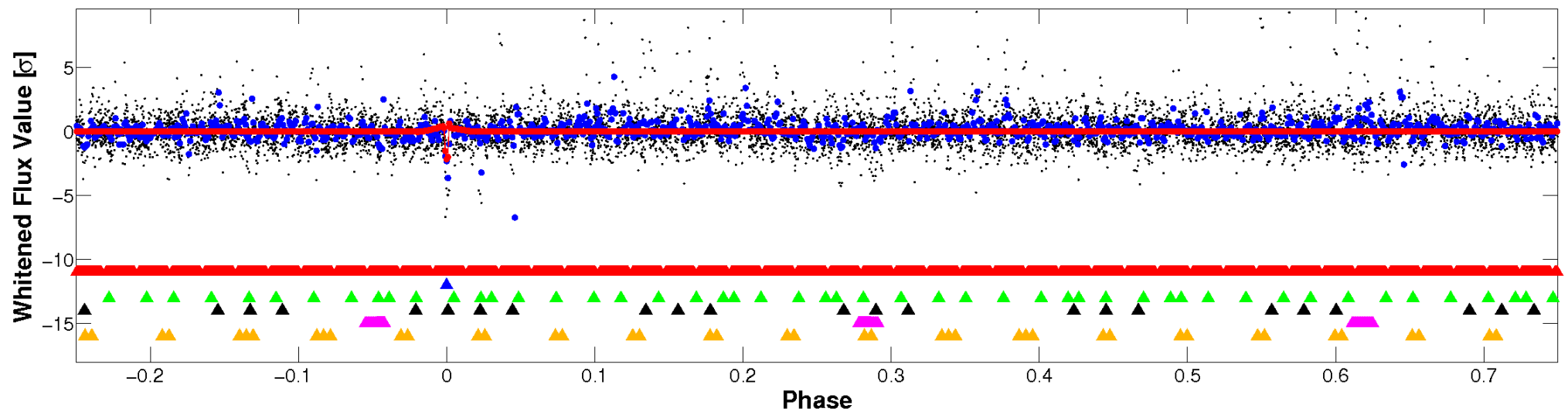


Non-Whitened Vs. Whitened Light Curve

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

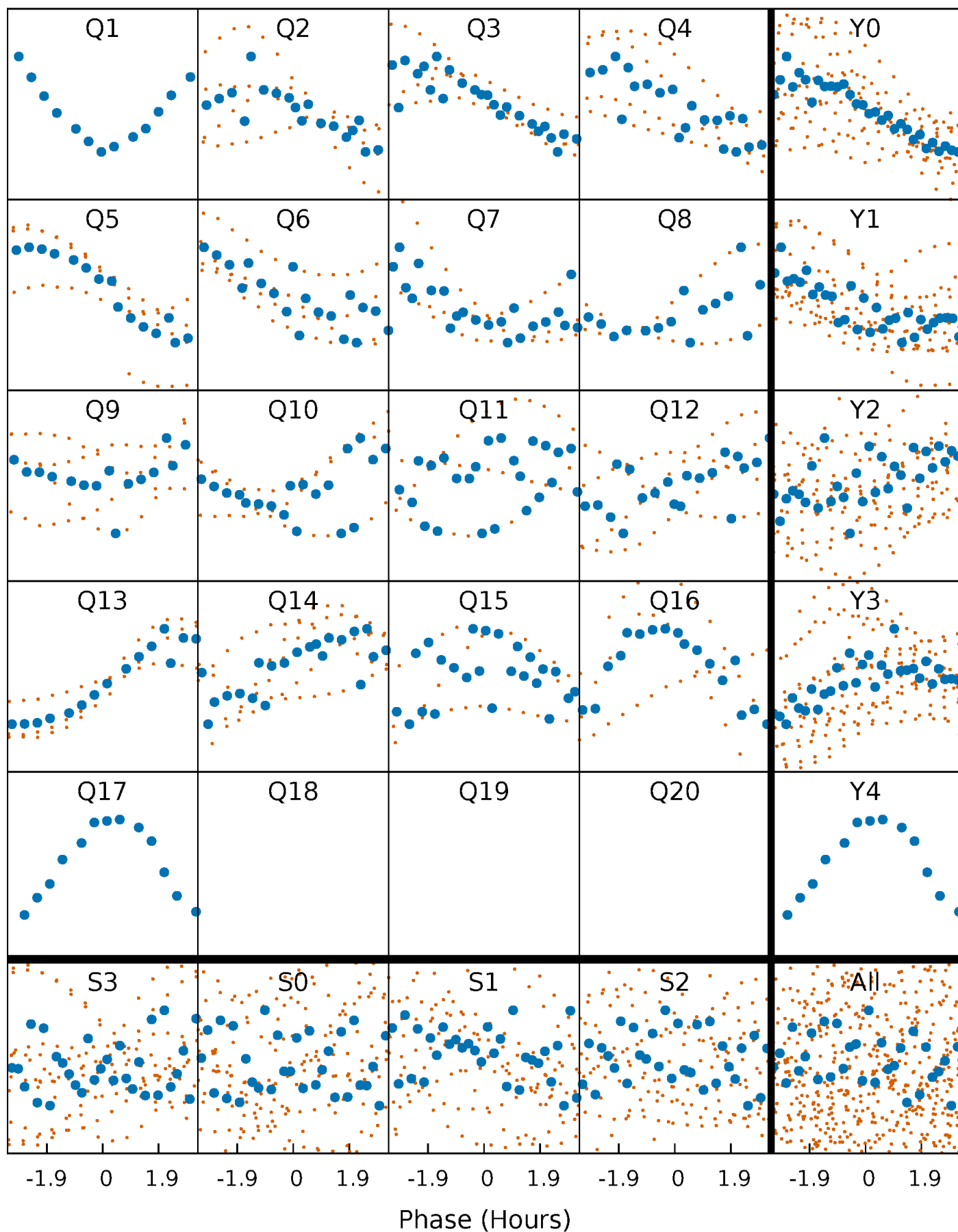


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



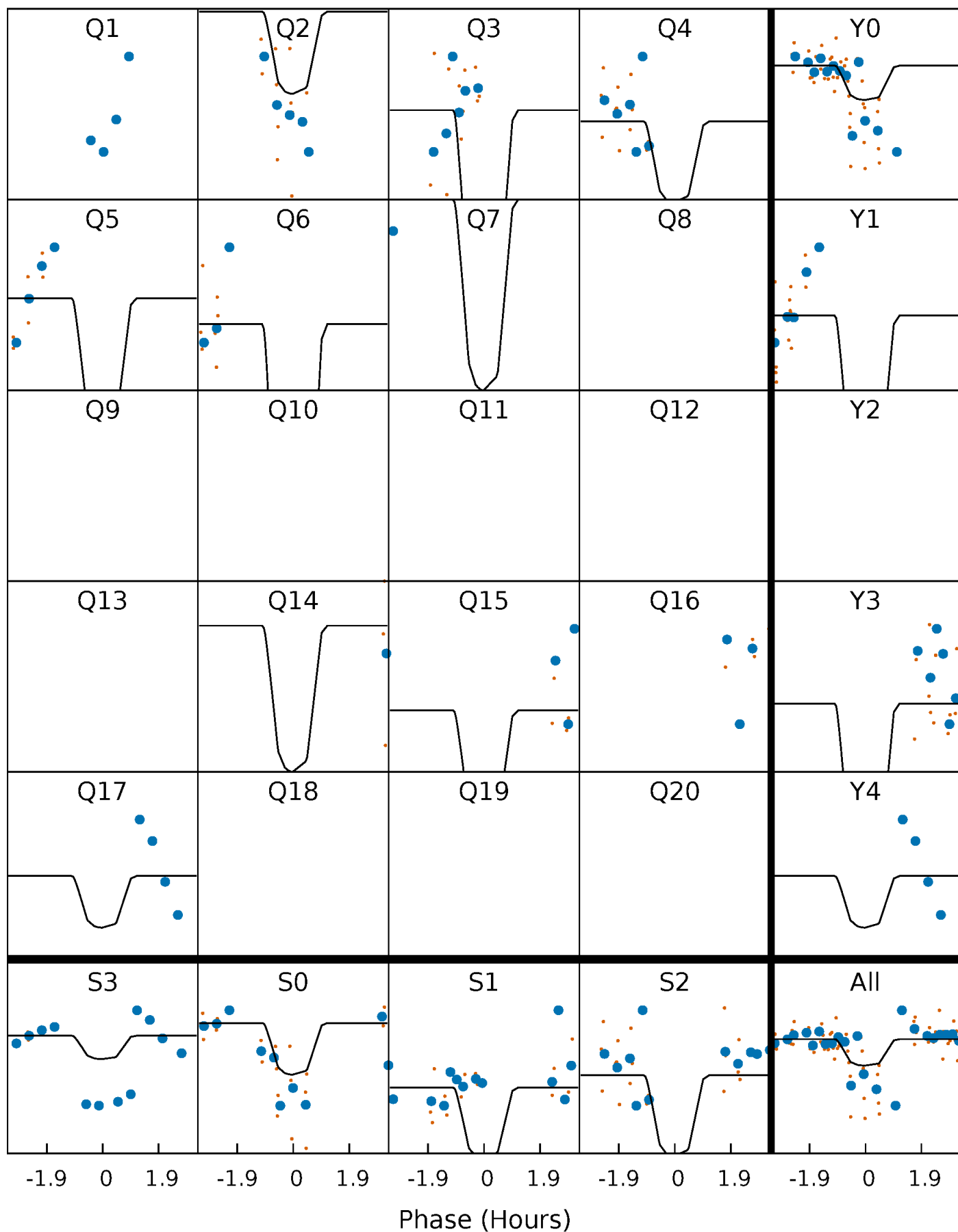
PDC Quarter-Phased Transit Curves

TCE 005395139-02 P= 23.500139 Days $T_0=147.247294$ (BKJD)



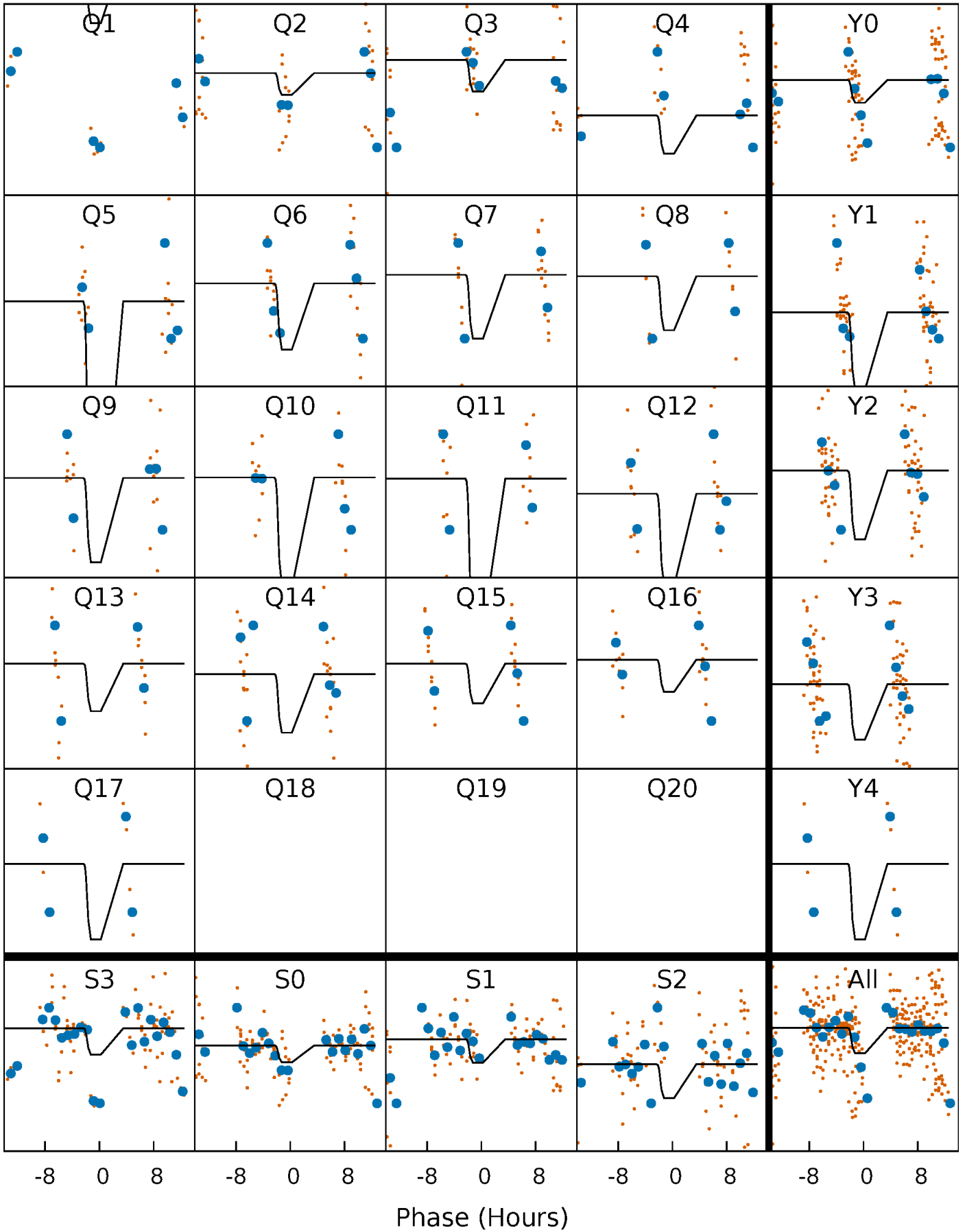
DV Quarter-Phased Transit Curves

TCE 005395139-02 P= 23.500139 Days $T_0=147.247294$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

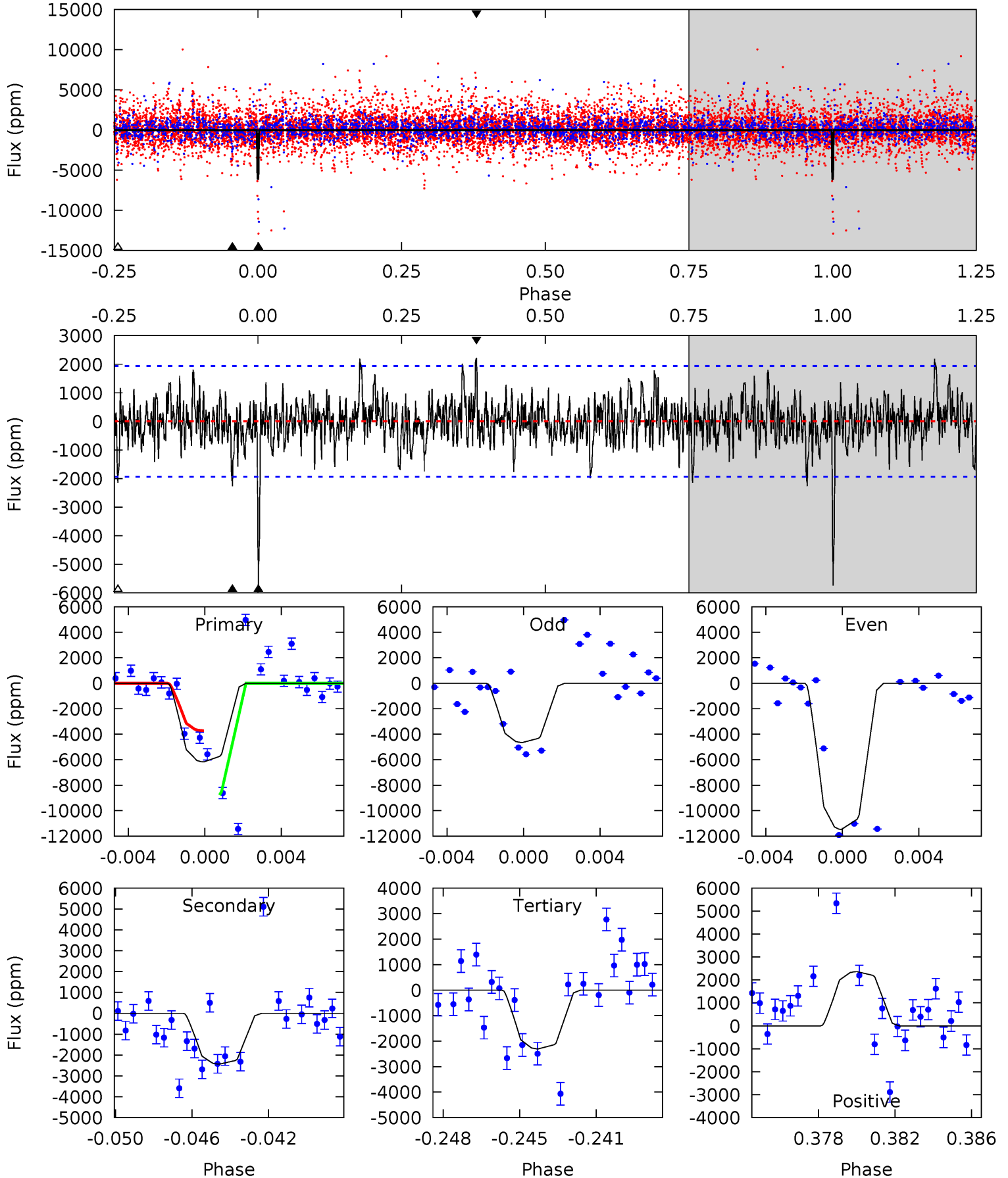
TCE 005395139-02 P= 23.498022 Days $T_0=147.277877$ (BKJD)



DV Model-Shift Uniqueness Test

005395139-02, P = 23.500139 Days, E = 123.747155 Days

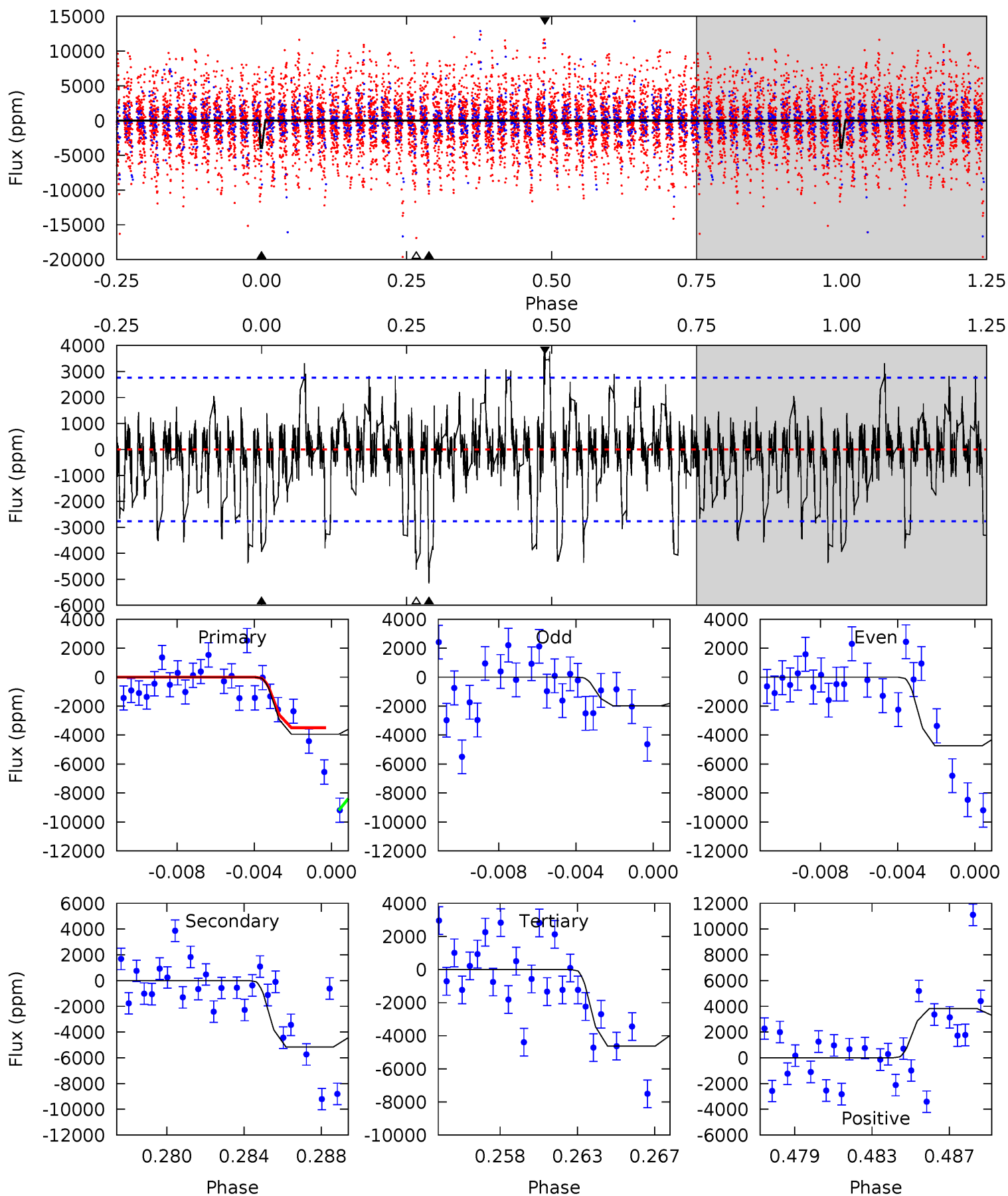
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	6.08	5.76	5.90	5.21	2.89	1.46	9.66	9.52	0.32	0.18	8.08	1.18	0.28	0



Alt Model-Shift Uniqueness Test

005395139-02, P = 23.498022 Days, E = 123.779855 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.40	9.67	8.69	7.19	5.19	2.86	1.76	-1.29	0.21	0.98	2.48	2.52	0	0.43	7.84



Stellar Parameters For KIC 005395139

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6973^{+192}_{-288}	$4.365^{+0.056}_{-0.224}$	$-0.320^{+0.250}_{-0.350}$	$1.197^{+0.425}_{-0.113}$	$1.230^{+0.189}_{-0.154}$	$1.010^{+0.238}_{-0.552}$
	+3%/-4%	+1%/-5%	+78%/-109%	+36%/-9%	+15%/-13%	+24%/-55%
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 005395139-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2263 ± 372	$13.89^{+10.57}_{-9.08}$	1158^{+80}_{-64}	4890^{+3275}_{-1002}	190^{+1305}_{-133}
Alt.	-5151 ± 533	$13.03^{+10.99}_{-8.67}$	1162^{+92}_{-63}	5982^{+6425}_{-1376}	466^{+4116}_{-324}

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

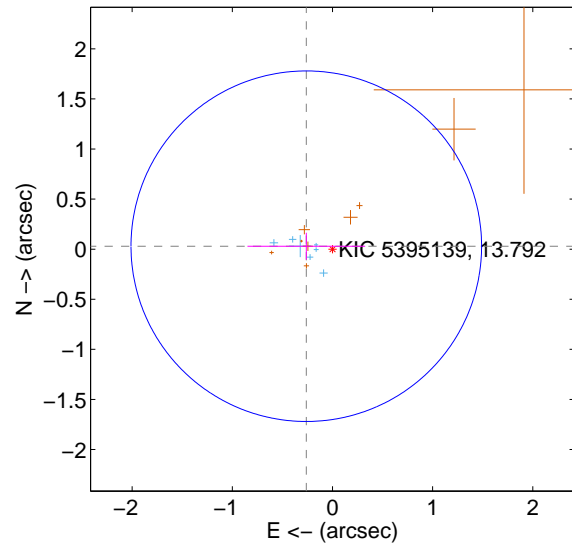
Supplemental centroid analysis for 005395139-02. Kepler magnitude: 13.79. Transit SNR 7.69

There are 7 quarters with good PRF difference image offsets

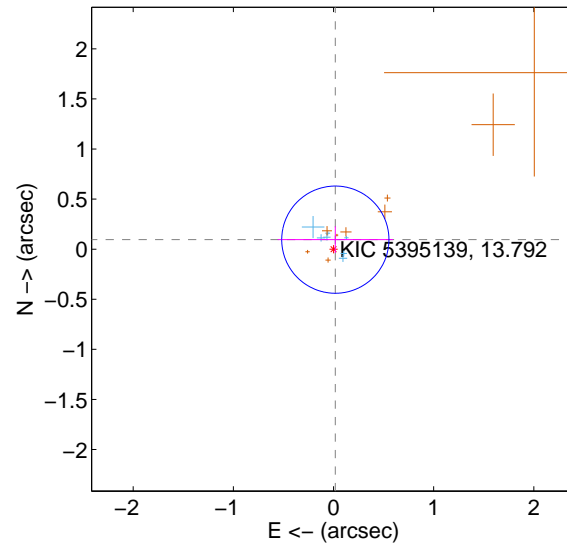
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.263 ± 0.583	0.45	0.261 ± 0.587	0.030 ± 0.135
PRF-fit source offset from KIC position	0.097 ± 0.178	0.54	-0.018 ± 0.575	0.095 ± 0.133
photometric centroid source offset	0.55 ± 0.12	4.70	-0.54 ± 0.12	-0.11 ± 0.06

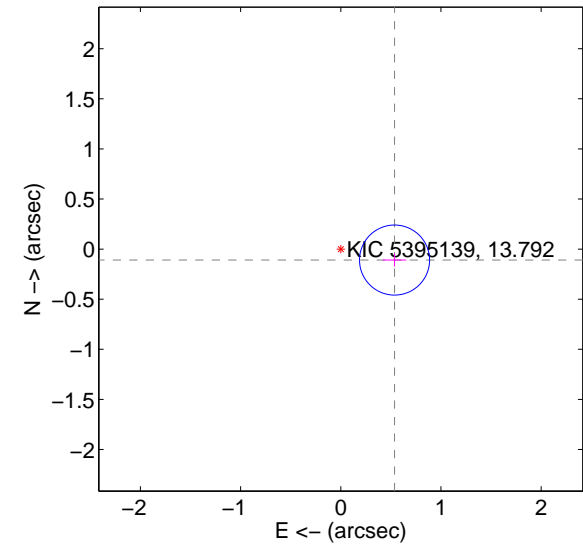
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

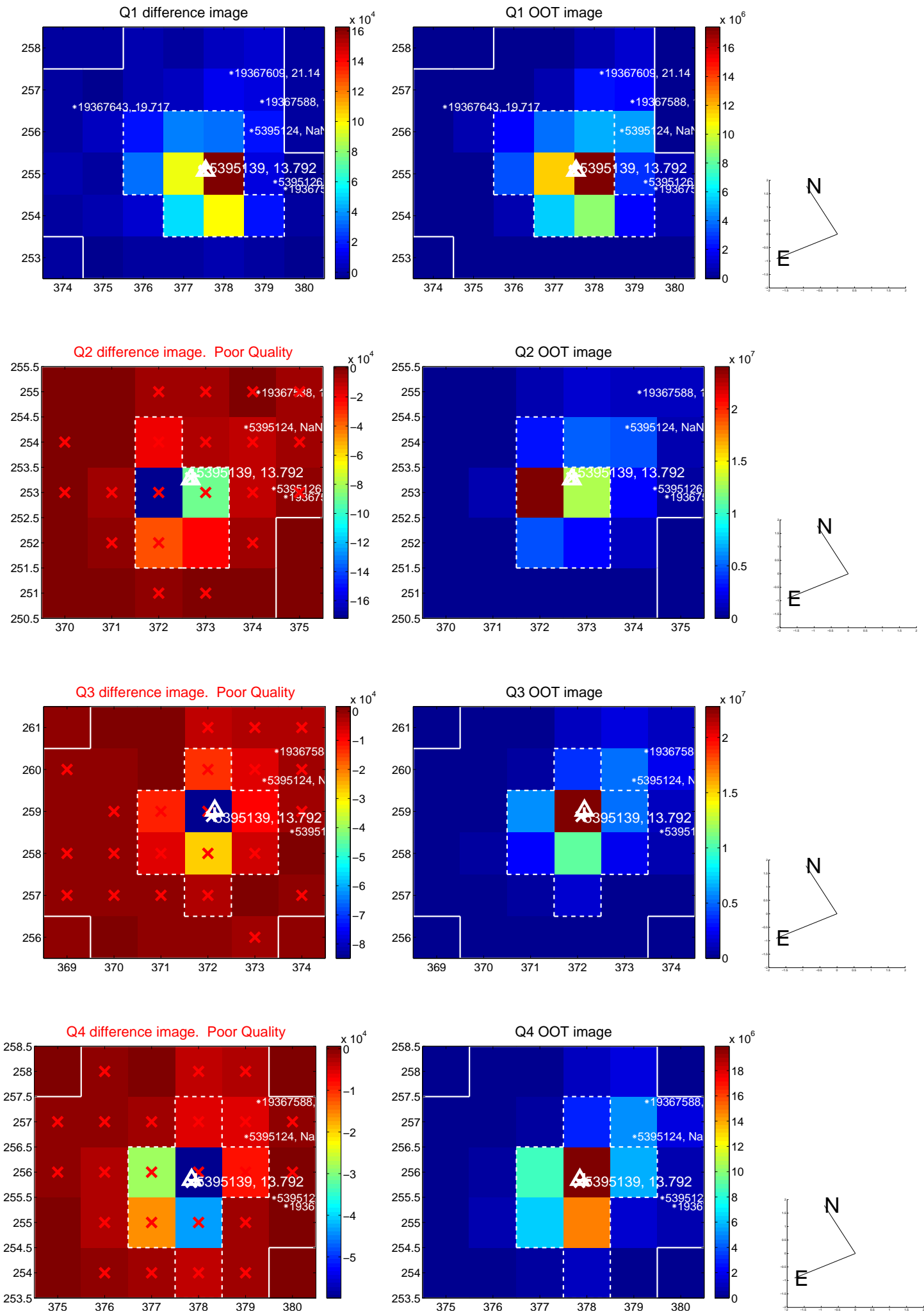


offset from photometric centroids

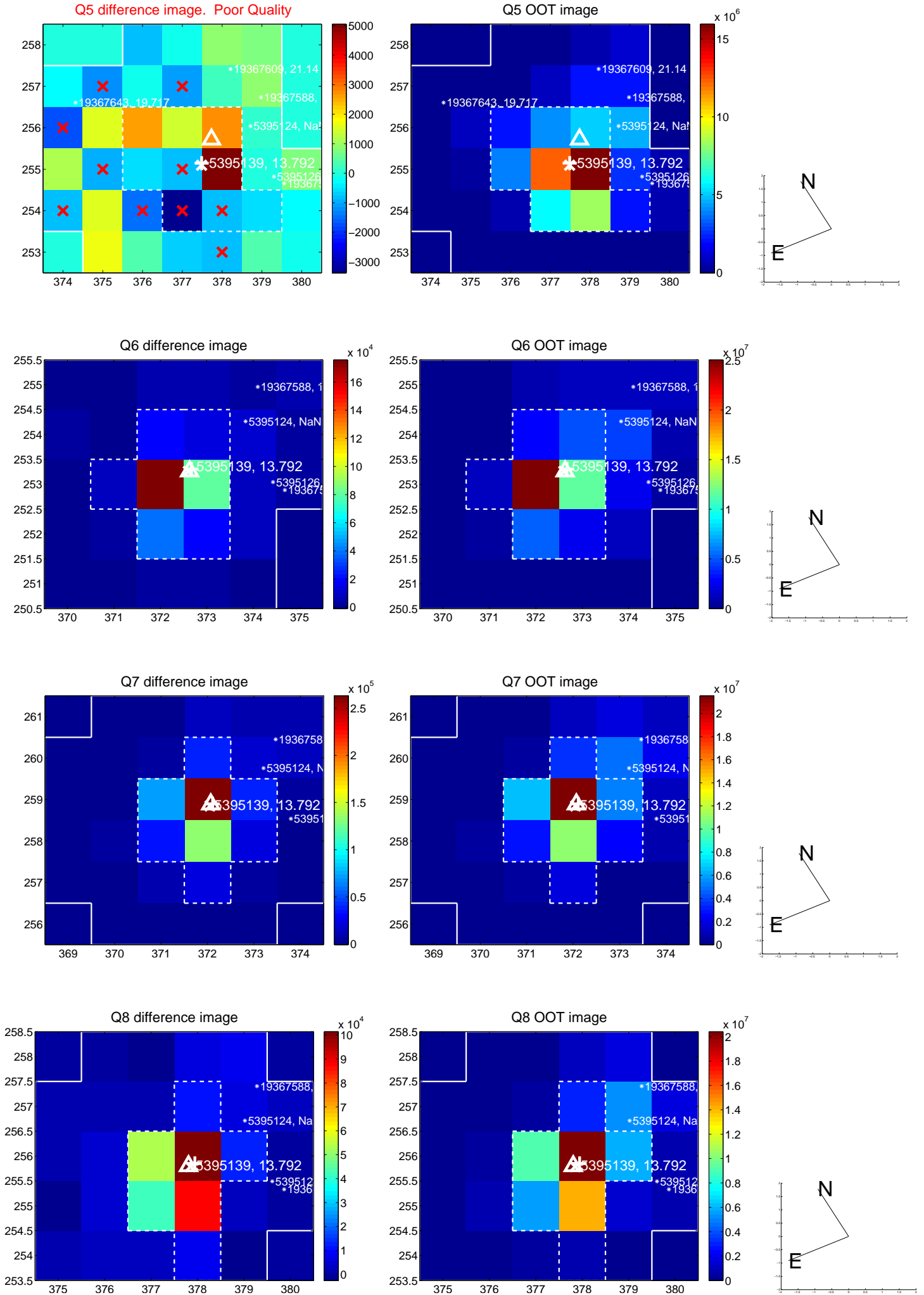


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

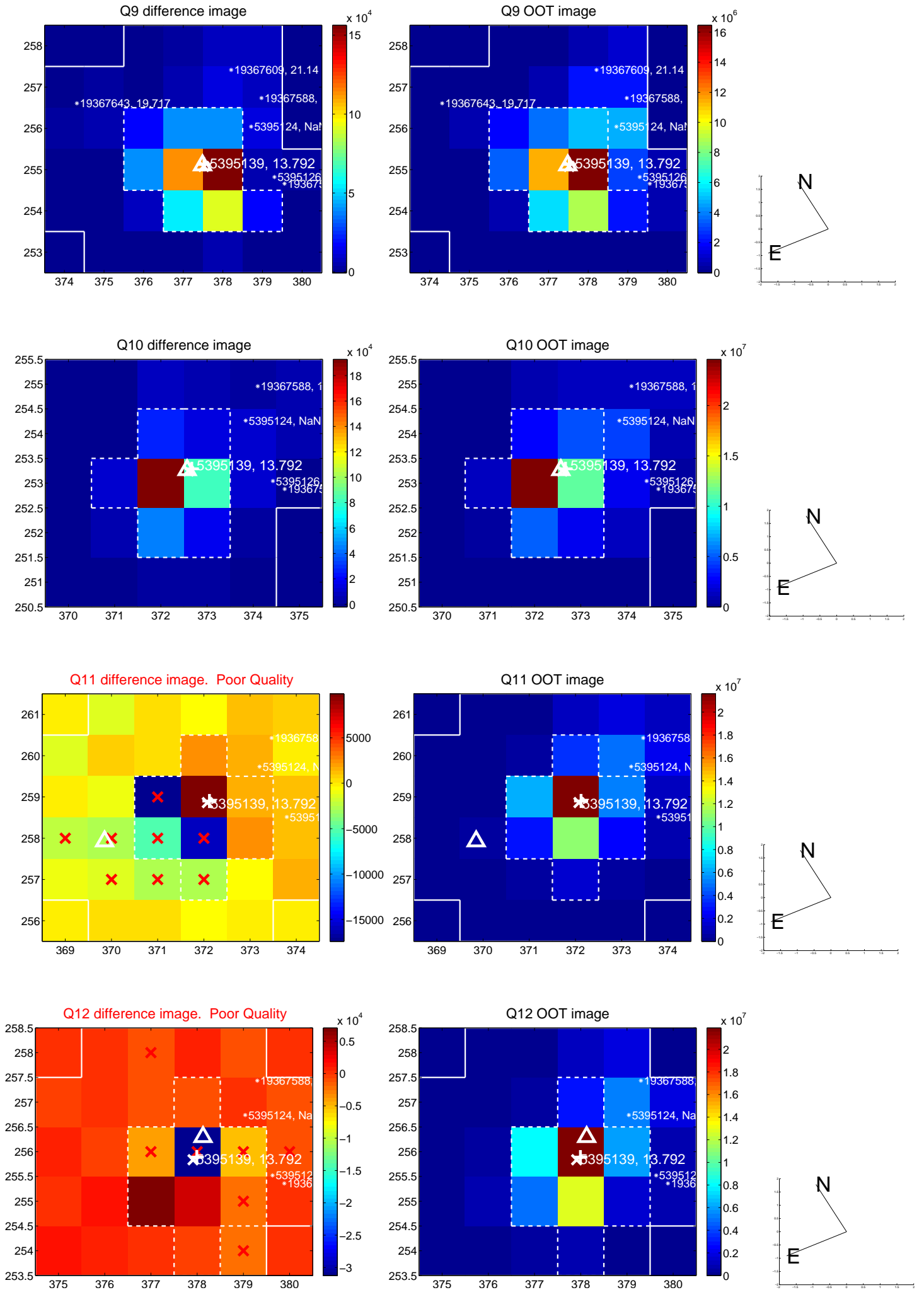
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



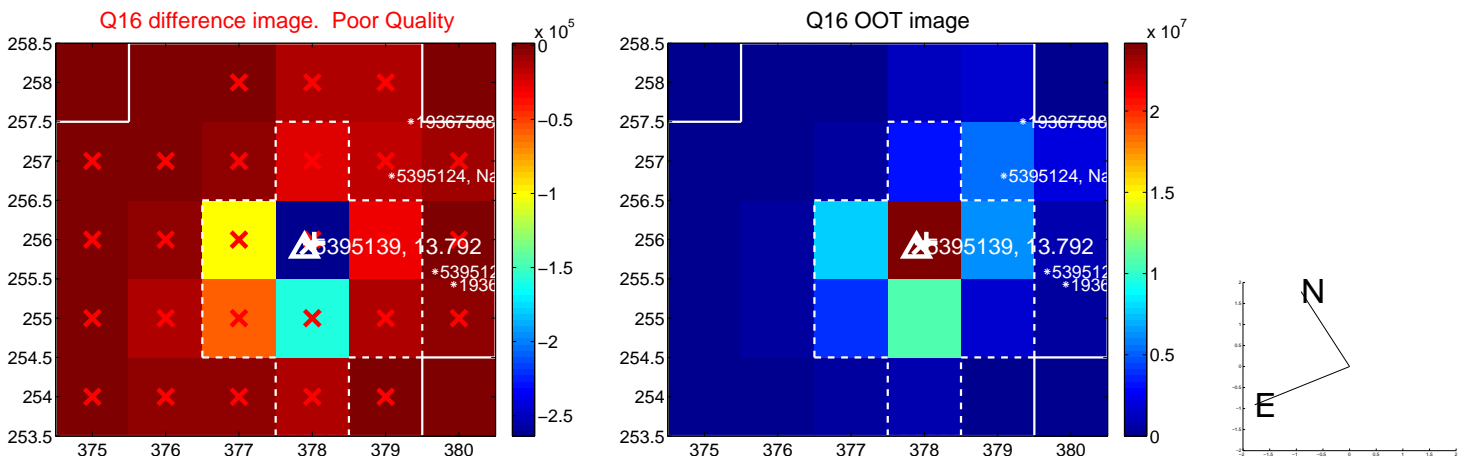
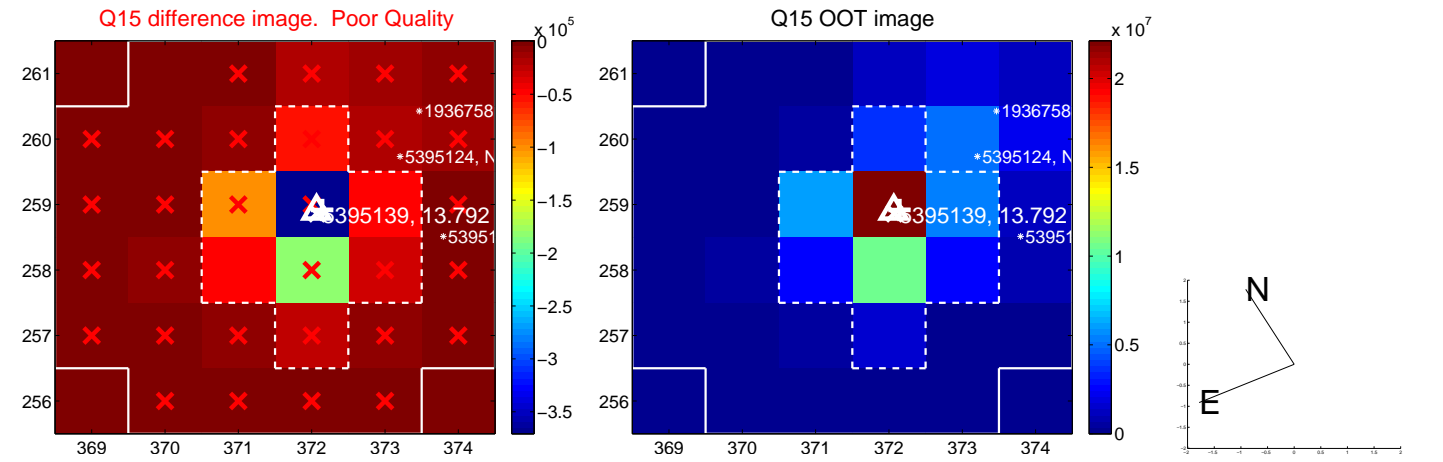
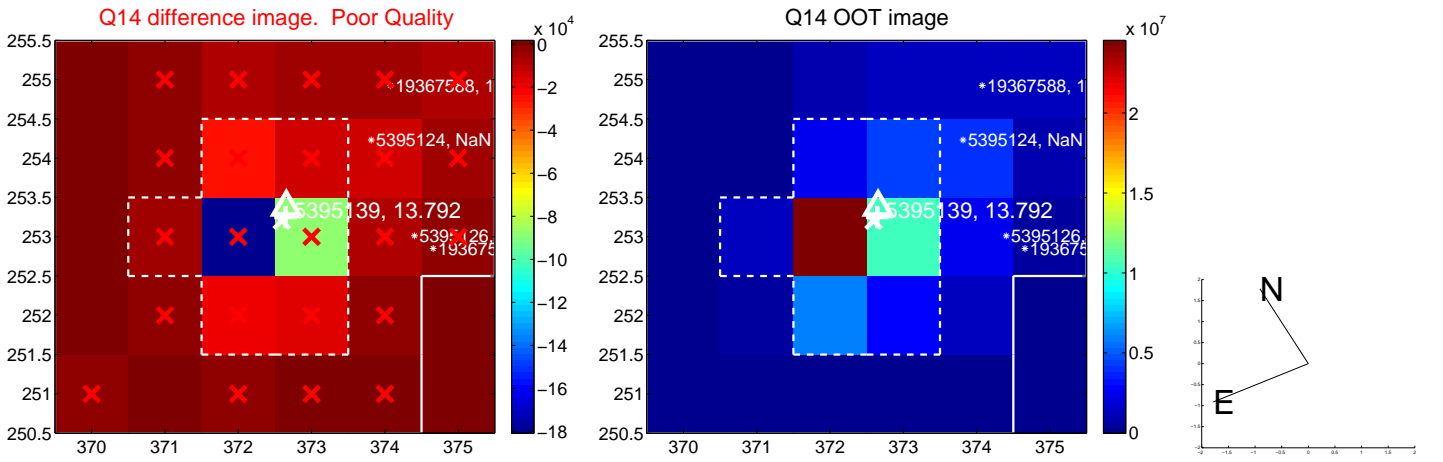
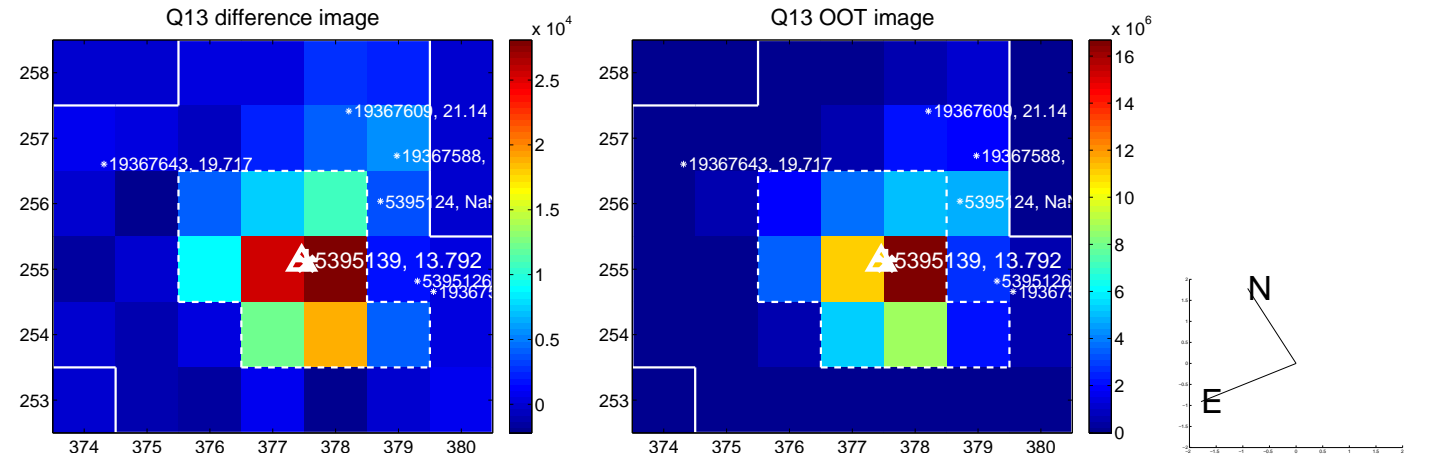
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



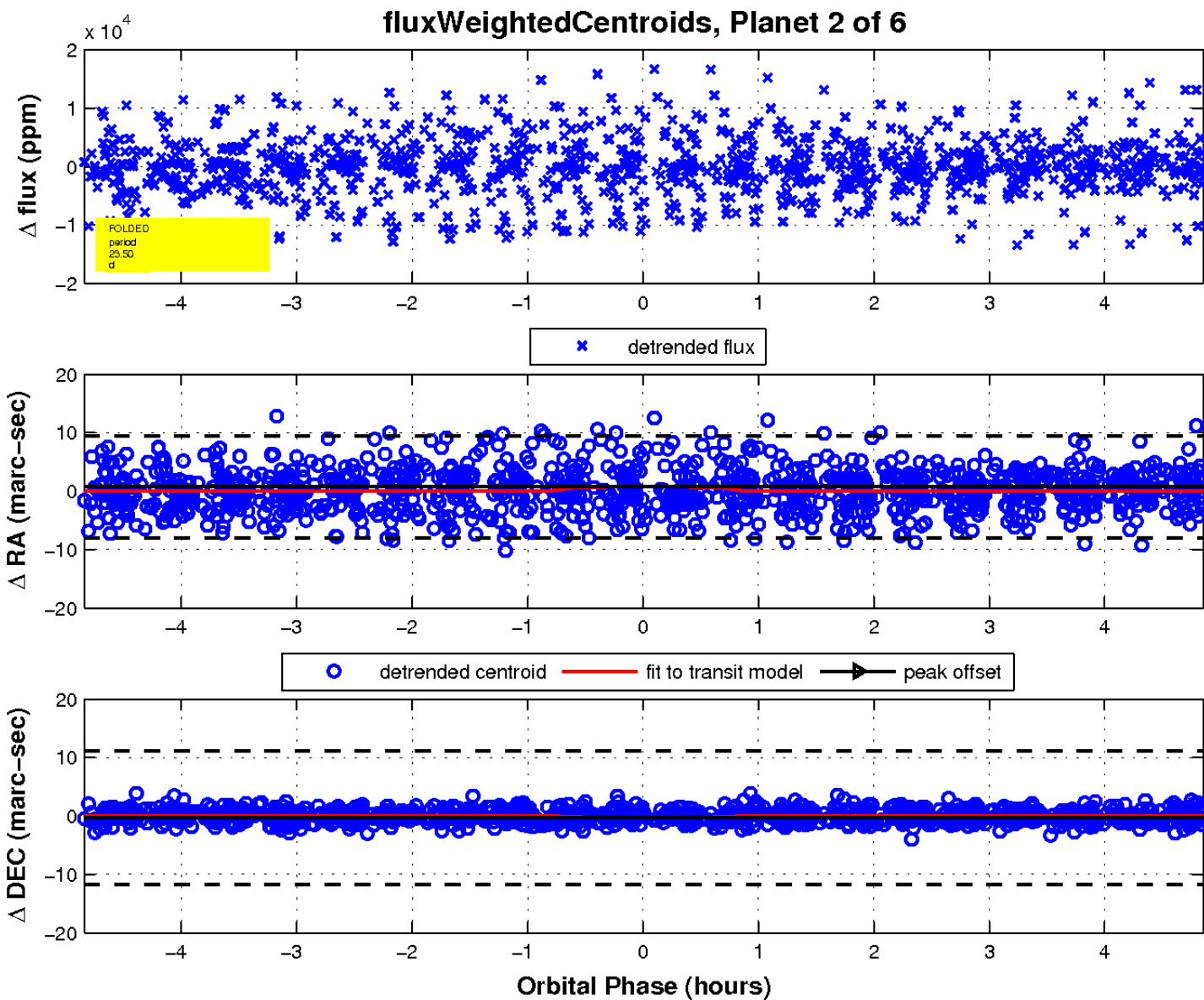
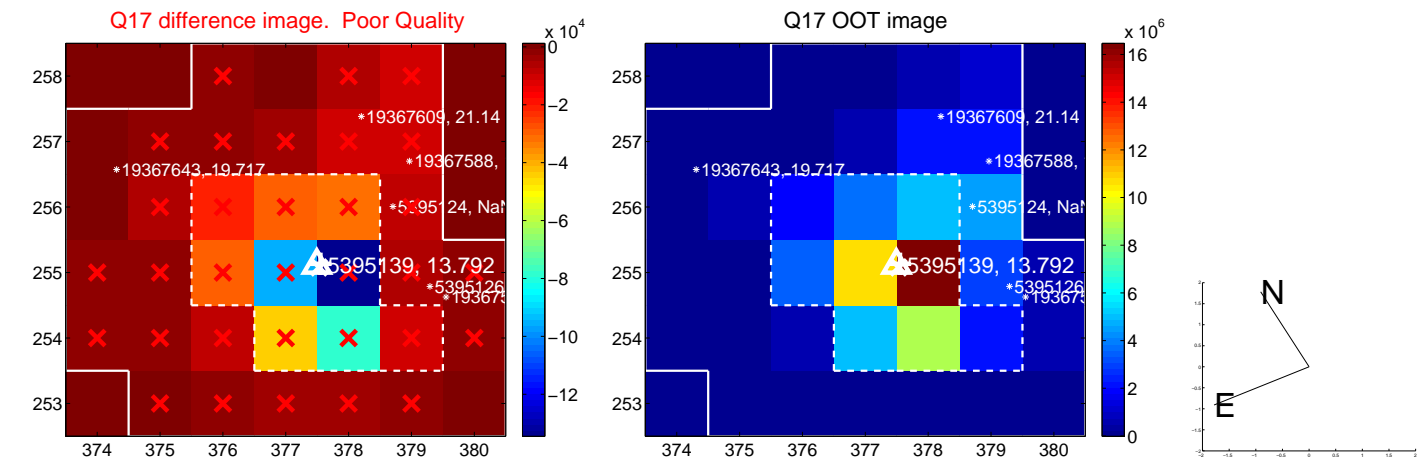
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

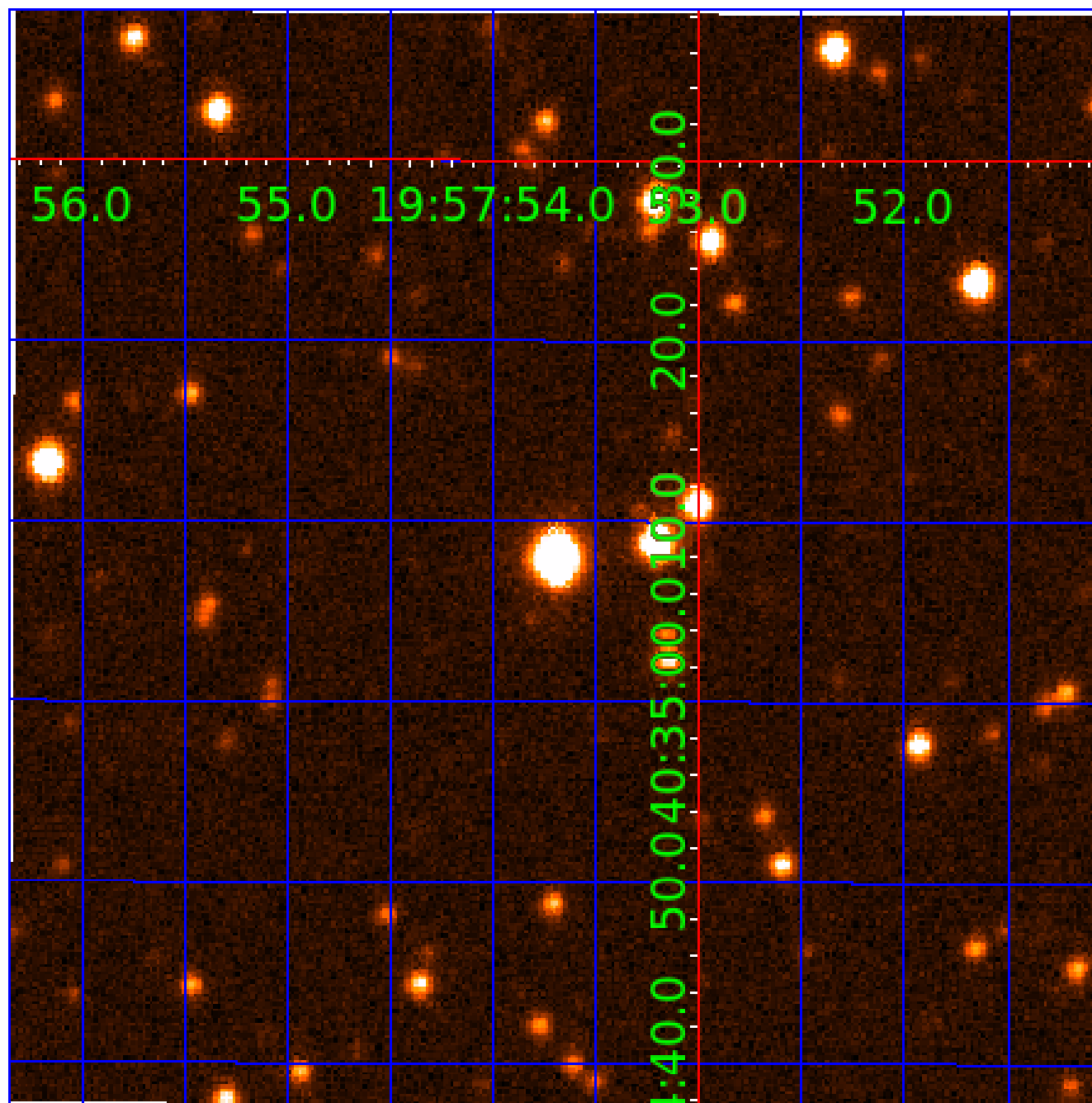


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005395139

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})
005395139-01	OBS	No	0.522062	131.853577	0.0	3.458	8.2	0.0	1.20	6973	0.01	16583.40
005395139-02	OBS	No	23.500139	147.247294	4543.1	1.621	13.9	7.7	1.20	6973	8.29	103.56
005395139-03	OBS	No	28.969234	147.790728	1570.5	1.353	12.5	2.5	1.20	6973	4.81	78.35
005395139-04	OBS	No	63.713039	148.292586	5972.4	1.655	11.5	7.8	1.20	6973	9.99	27.39
005395139-05	OBS	No	31.326267	161.936604	4544.3	9.799	9.1	6.6	1.20	6973	14.43	70.59
005395139-06	OBS	No	34.637435	145.189764	4209.3	1.798	7.9	8.3	1.20	6973	8.35	61.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005395139-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005395139-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT
005395139-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-05	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
005395139-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—HALO_GHOST

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

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

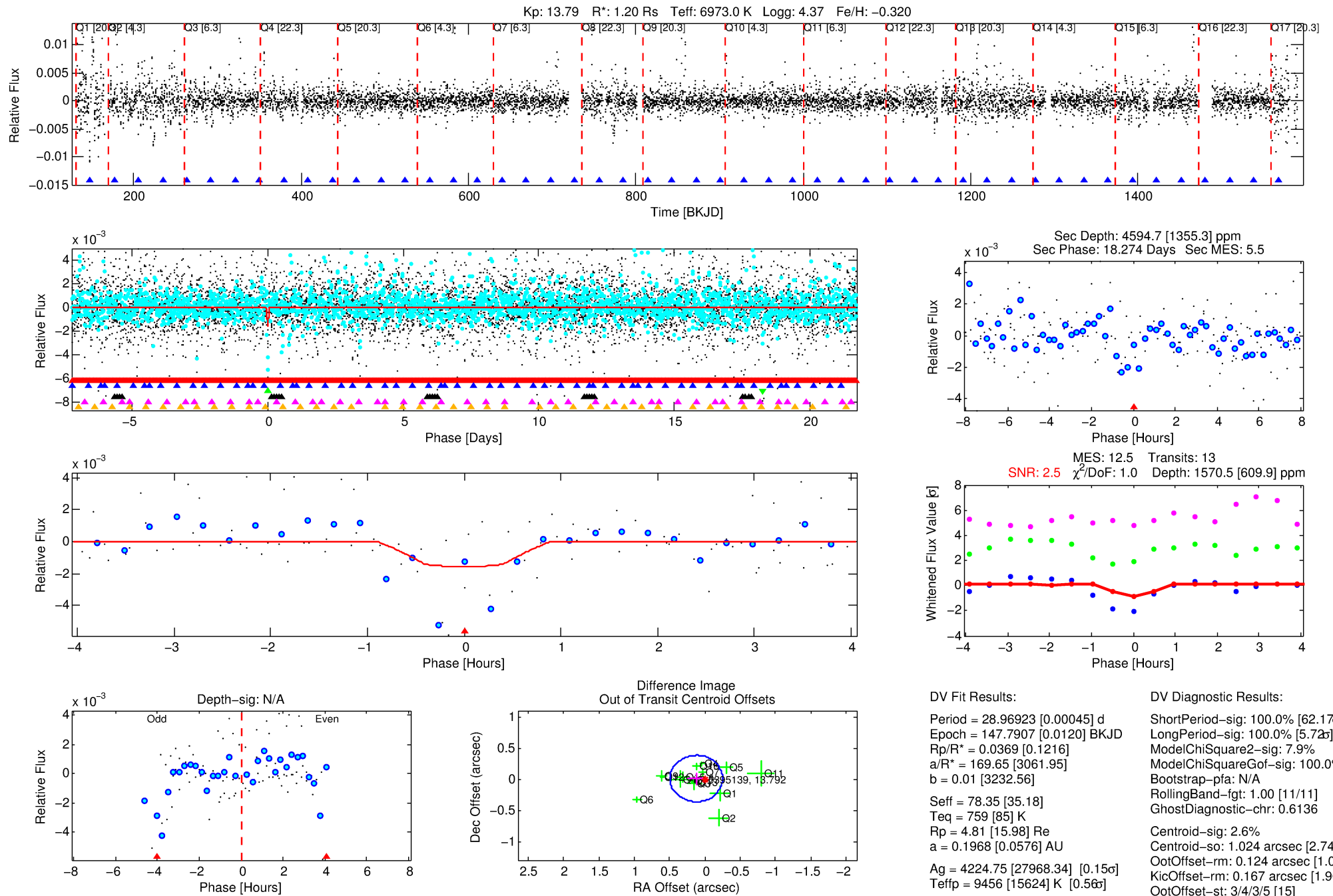
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005395139-03

No Significant Match Found

DV One-Page Summary

KIC: 5395139 Candidate: 3 of 6 Period: 28.969 d



DV Fit Results:

Period = 28.96923 [0.00045] d
Epoch = 147.7907 [0.0120] BKJD
Rp/R* = 0.0369 [0.1216]
a/R* = 169.65 [3061.95]
b = 0.01 [3232.56]
Seff = 78.35 [35.18]
Teq = 759 [85] K
Rp = 4.81 [15.98] Re
a = 0.1968 [0.0576] AU
Ag = 4224.75 [27968.34] [0.15σ]
Teff = 9456 [15624] K [0.56σ]

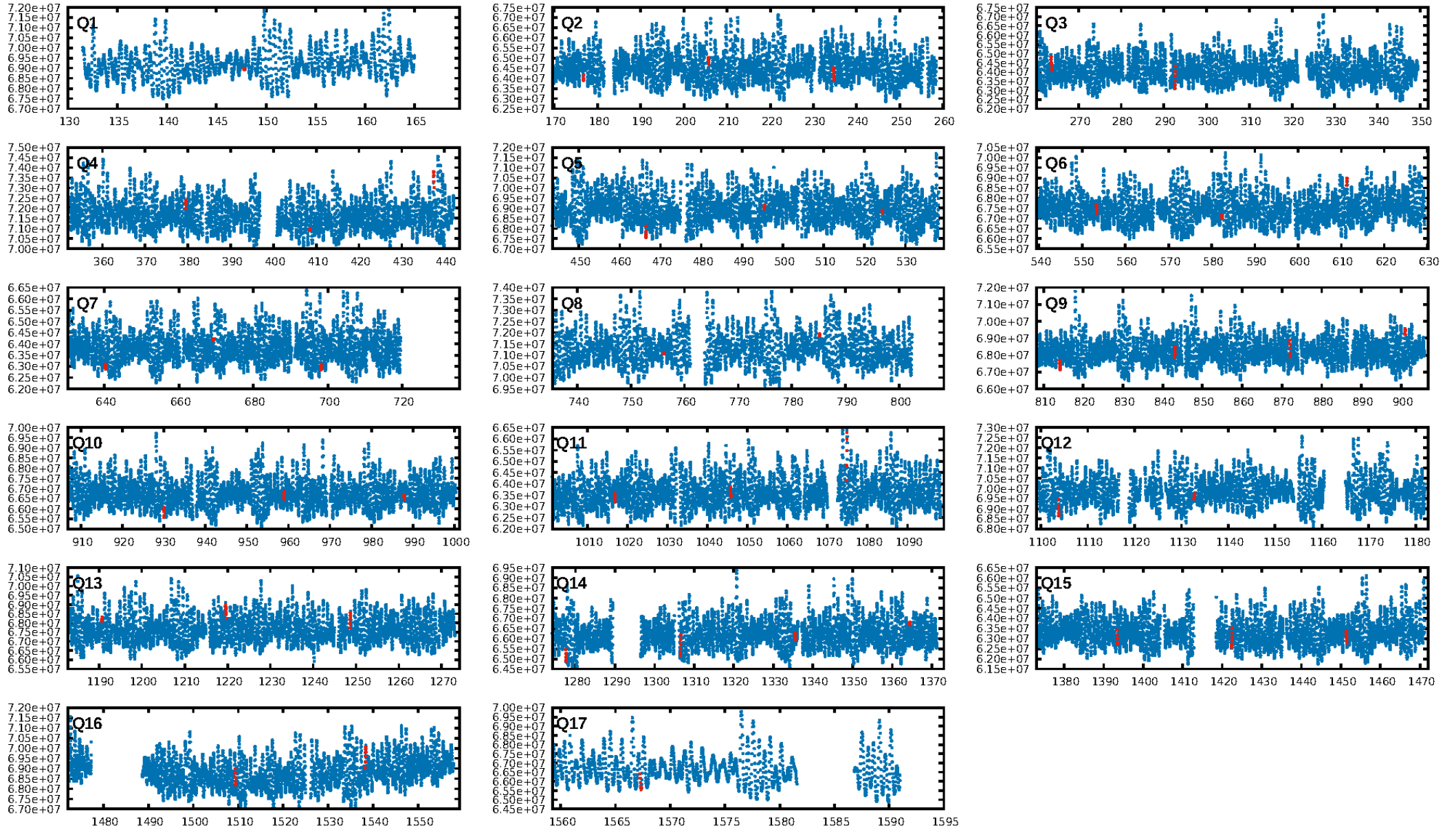
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [62.17σ]
LongPeriod-sig: 100.0% [5.72σ]
ModelChiSquare2-sig: 7.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 0.6136
Centroid-sig: 2.6%
Centroid-so: 1.024 arcsec [2.74σ]
OotOffset-rm: 0.124 arcsec [1.00σ]
KicOffset-rm: 0.167 arcsec [1.90σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 0.00 [0/17]

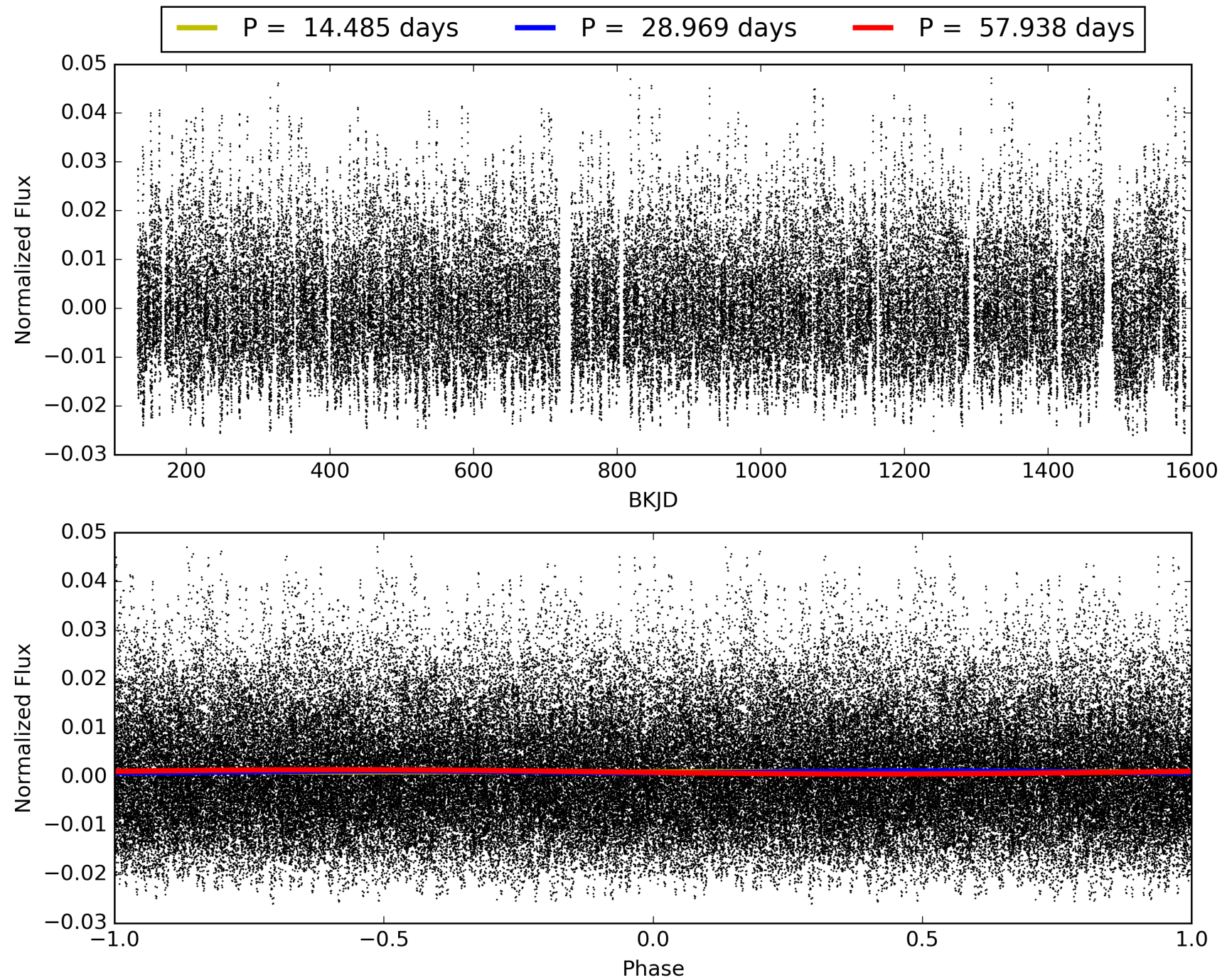
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:49:19 Z

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

TCE 005395139-03, PDC Light Curves

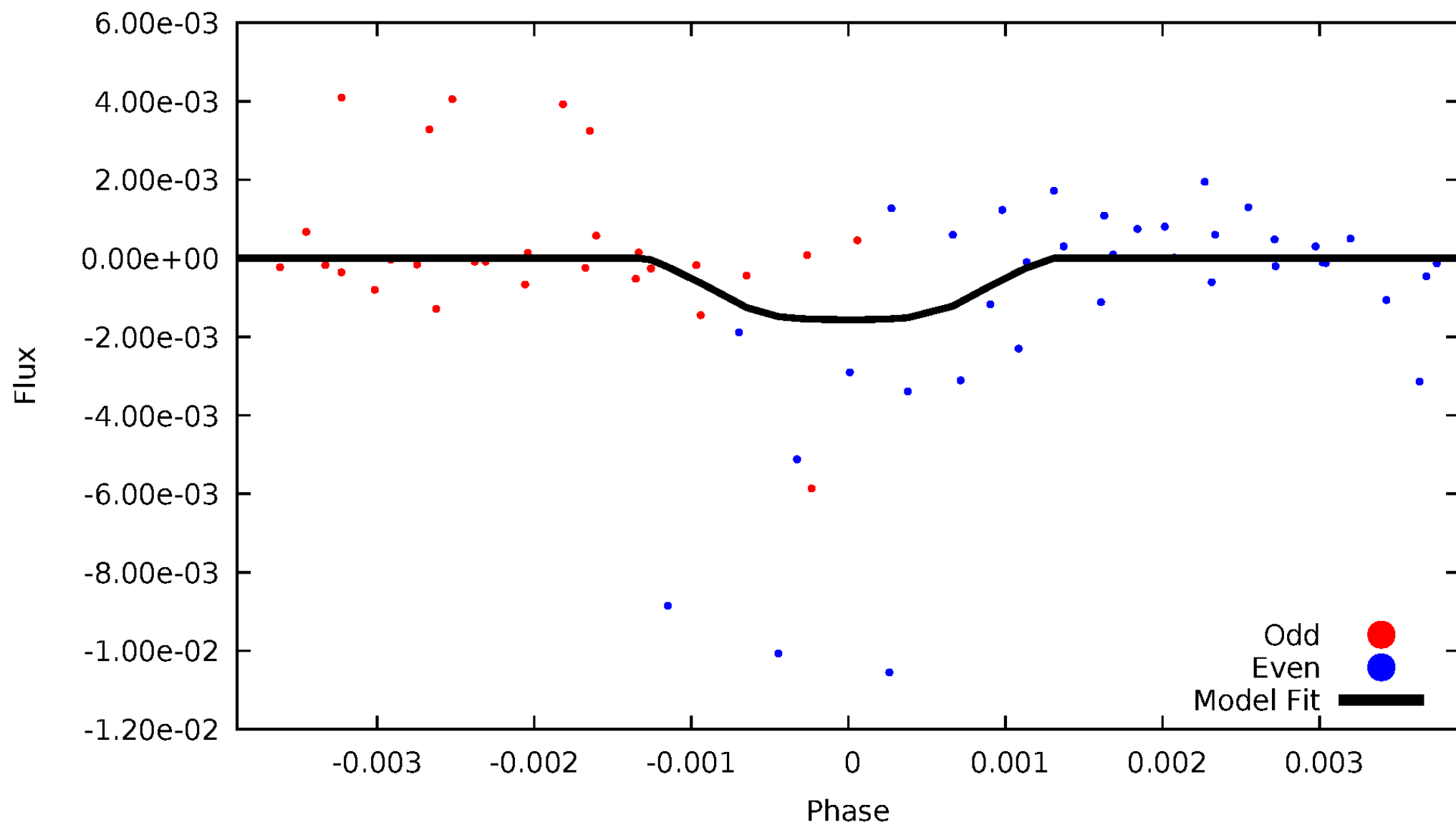


TCE 005395139-03



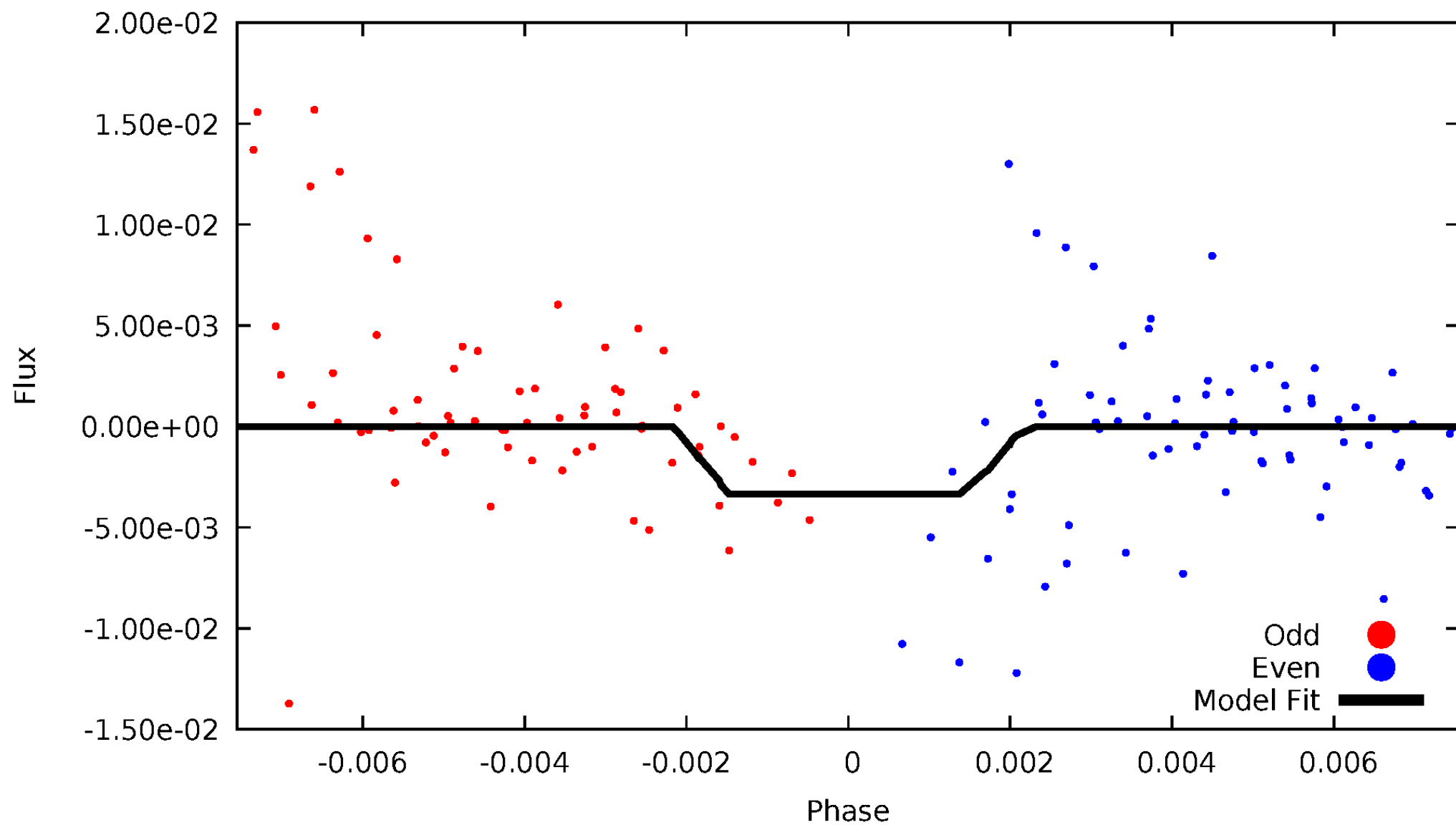
DV Odd/Even

TCE 005395139-03



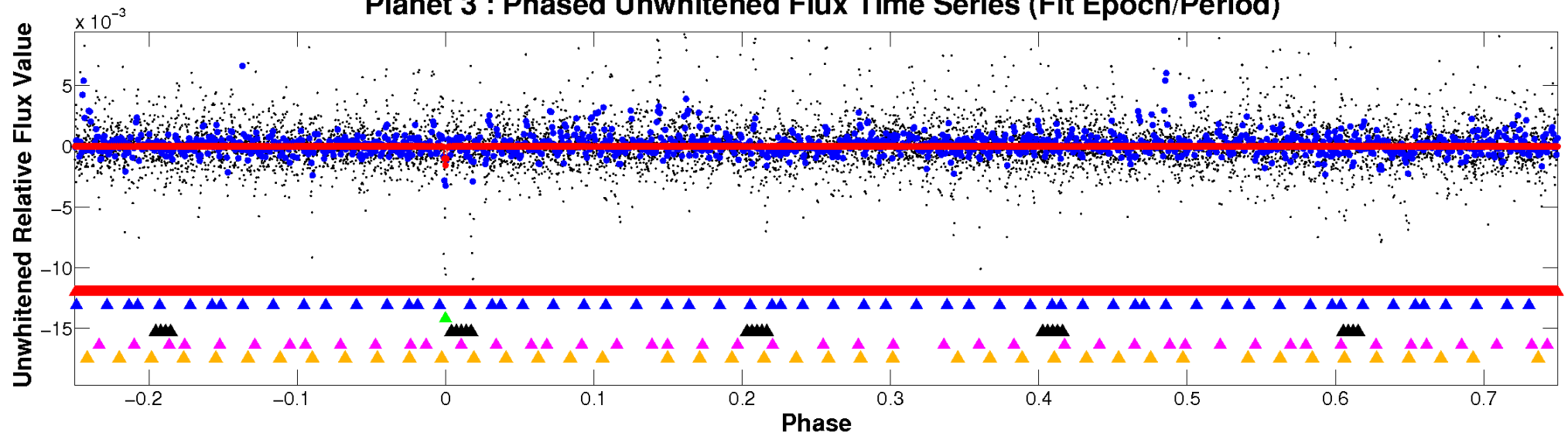
ALT Odd/Even

TCE 005395139-03

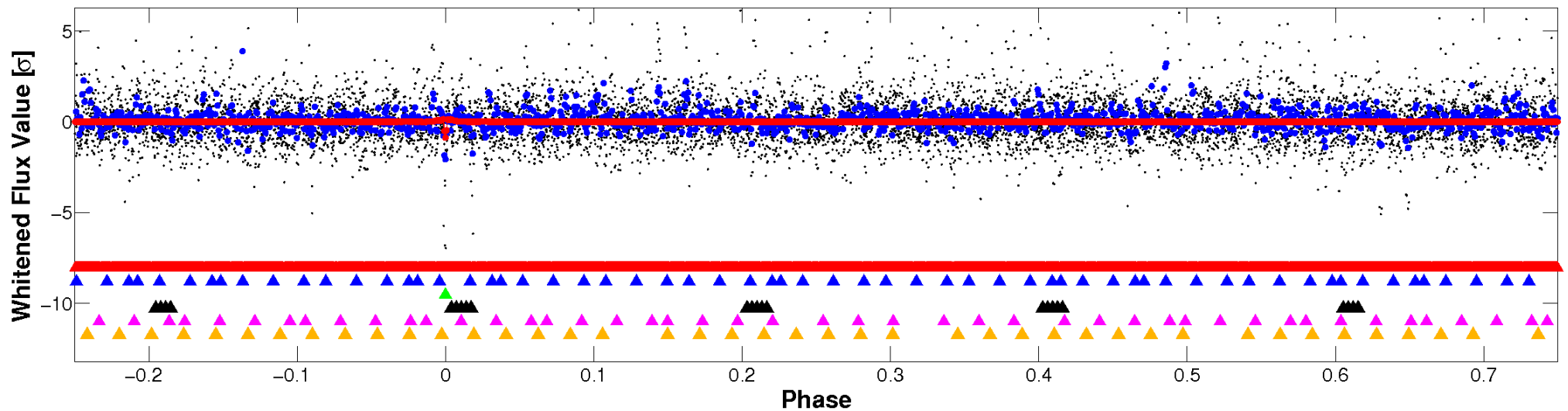


Non-Whitened Vs. Whitened Light Curve

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

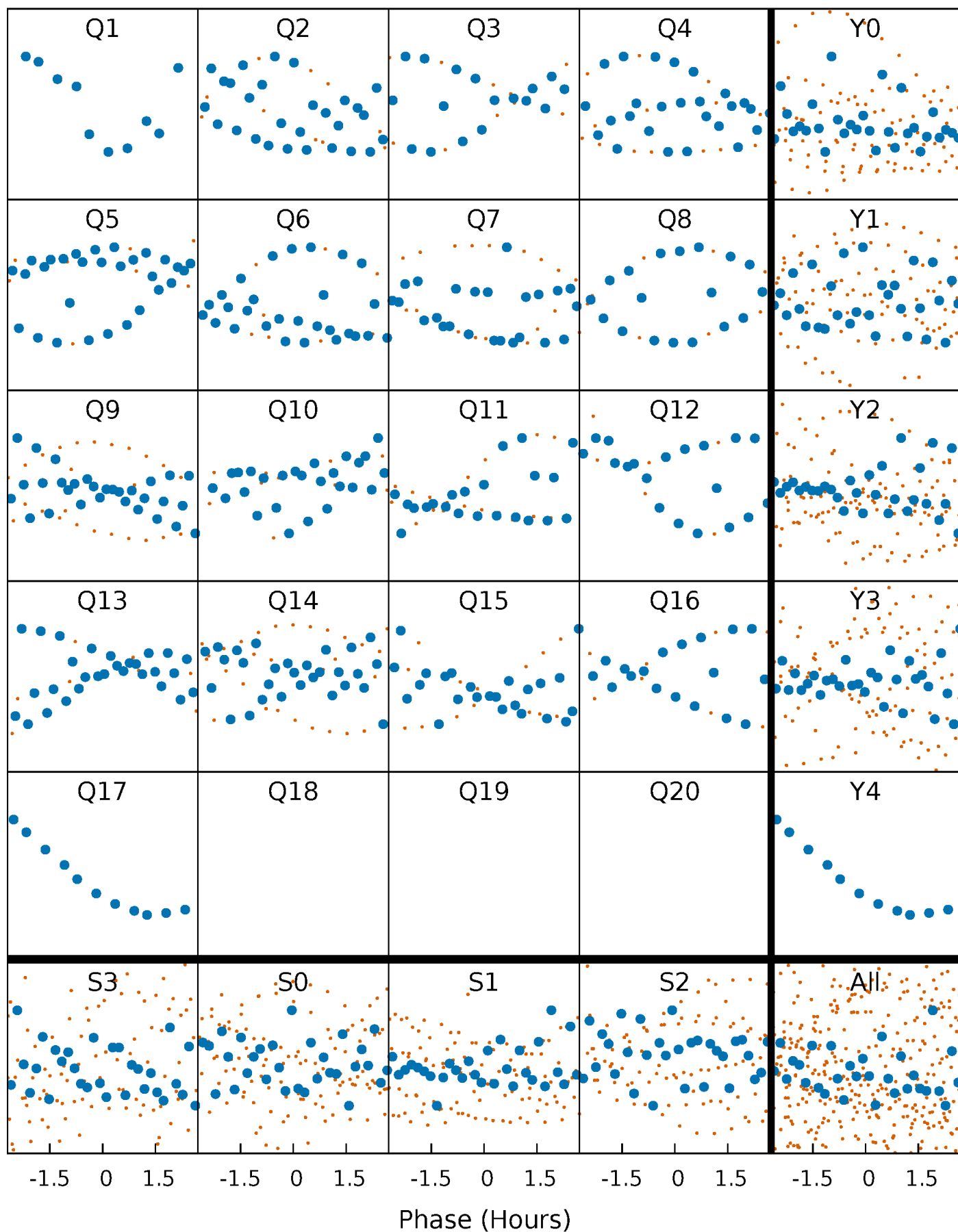


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



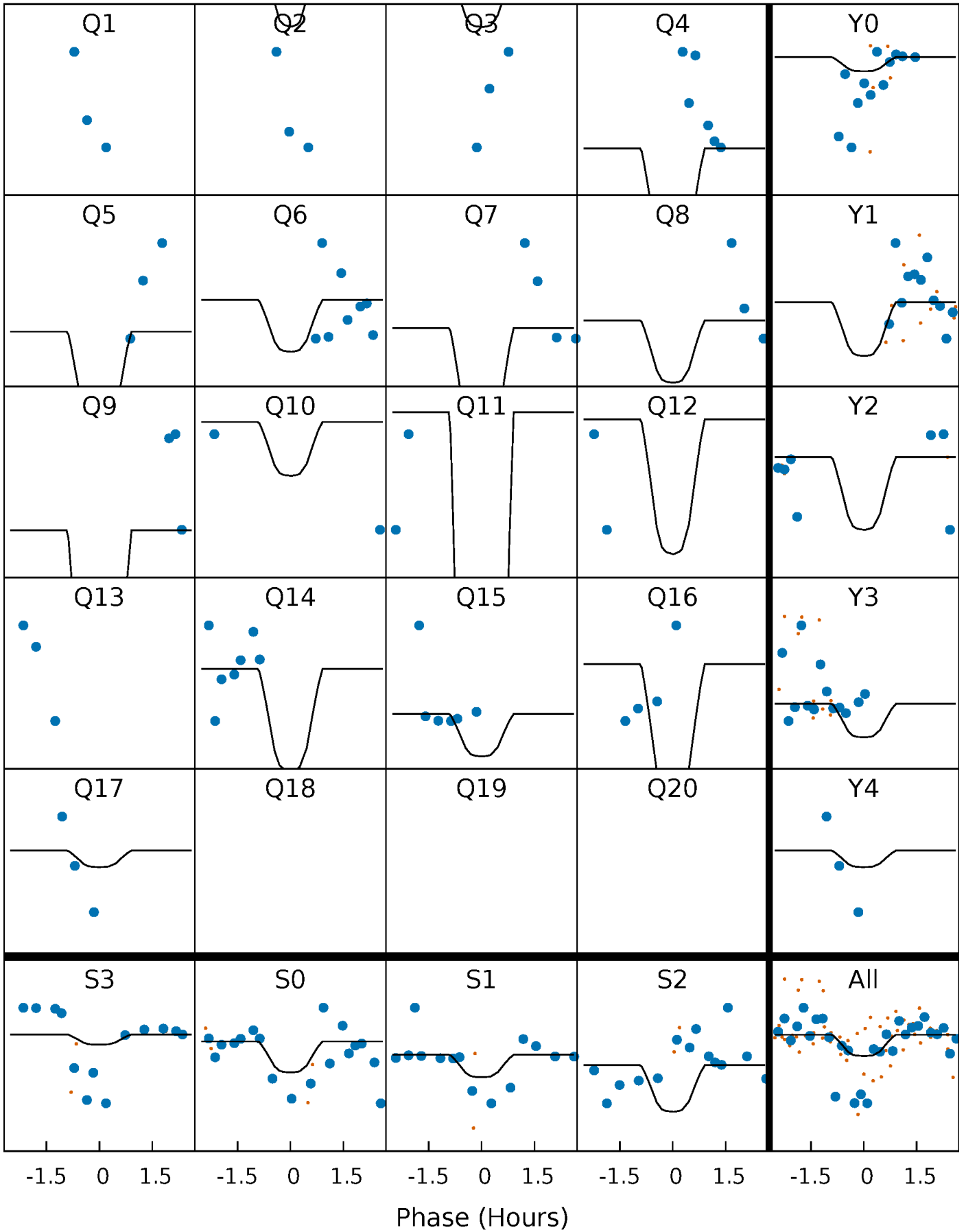
PDC Quarter-Phased Transit Curves

TCE 005395139-03 P= 28.969234 Days $T_0=147.790728$ (BKJD)



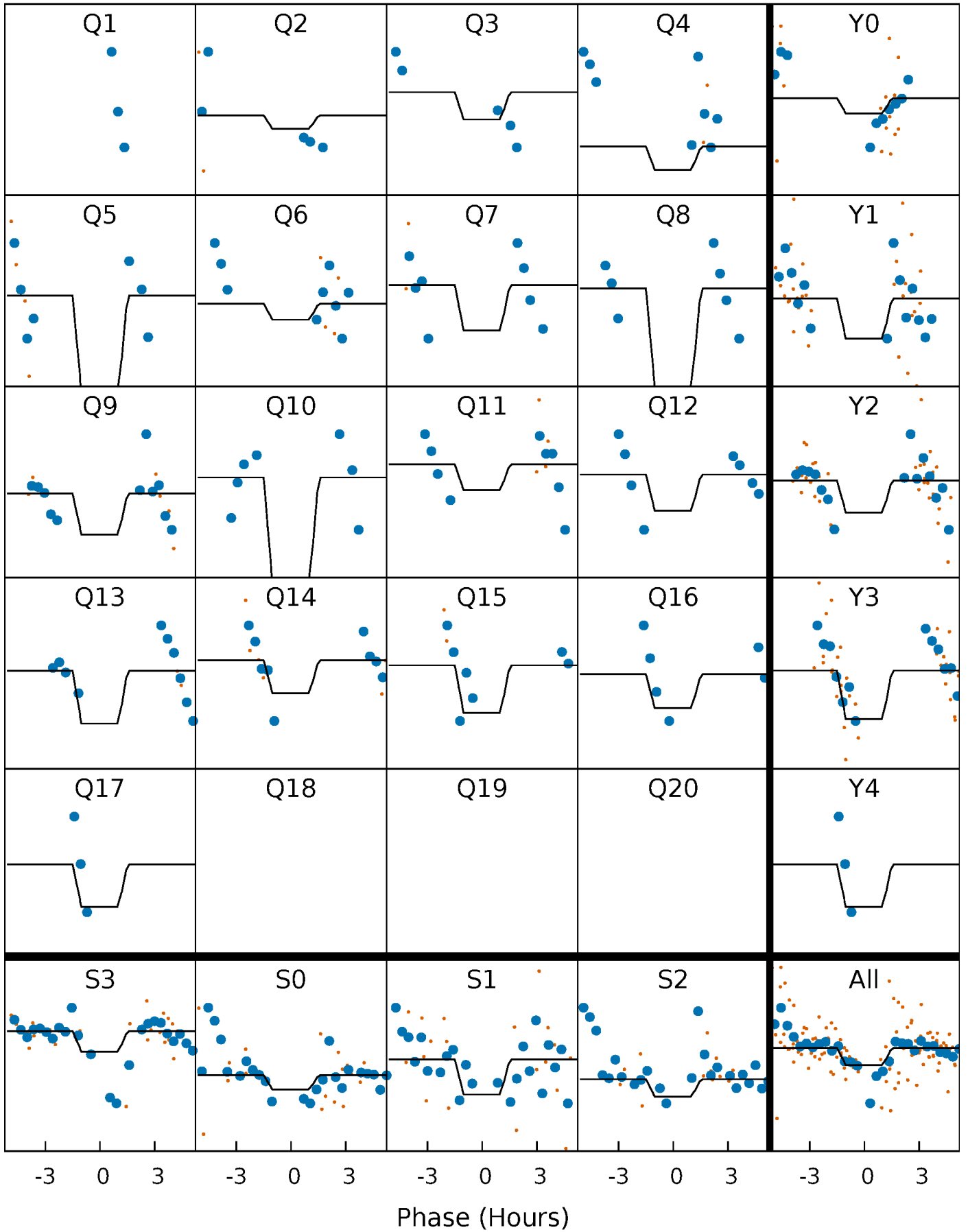
DV Quarter-Phased Transit Curves

TCE 005395139-03 P= 28.969234 Days $T_0=147.790728$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

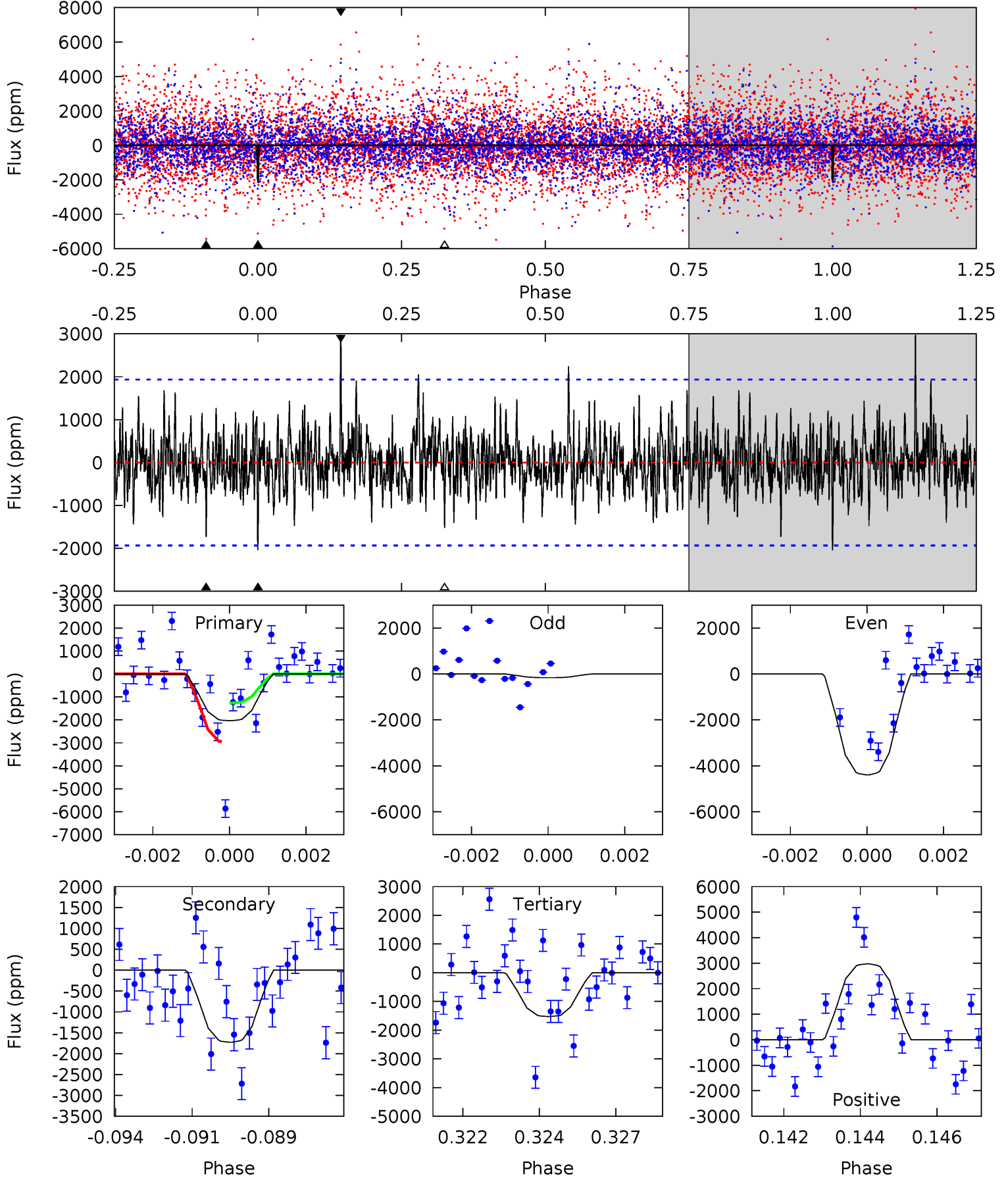
TCE 005395139-03 P= 28.970683 Days $T_0=147.738145$ (BKJD)



DV Model-Shift Uniqueness Test

005395139-03, P = 28.969234 Days, E = 118.821494 Days

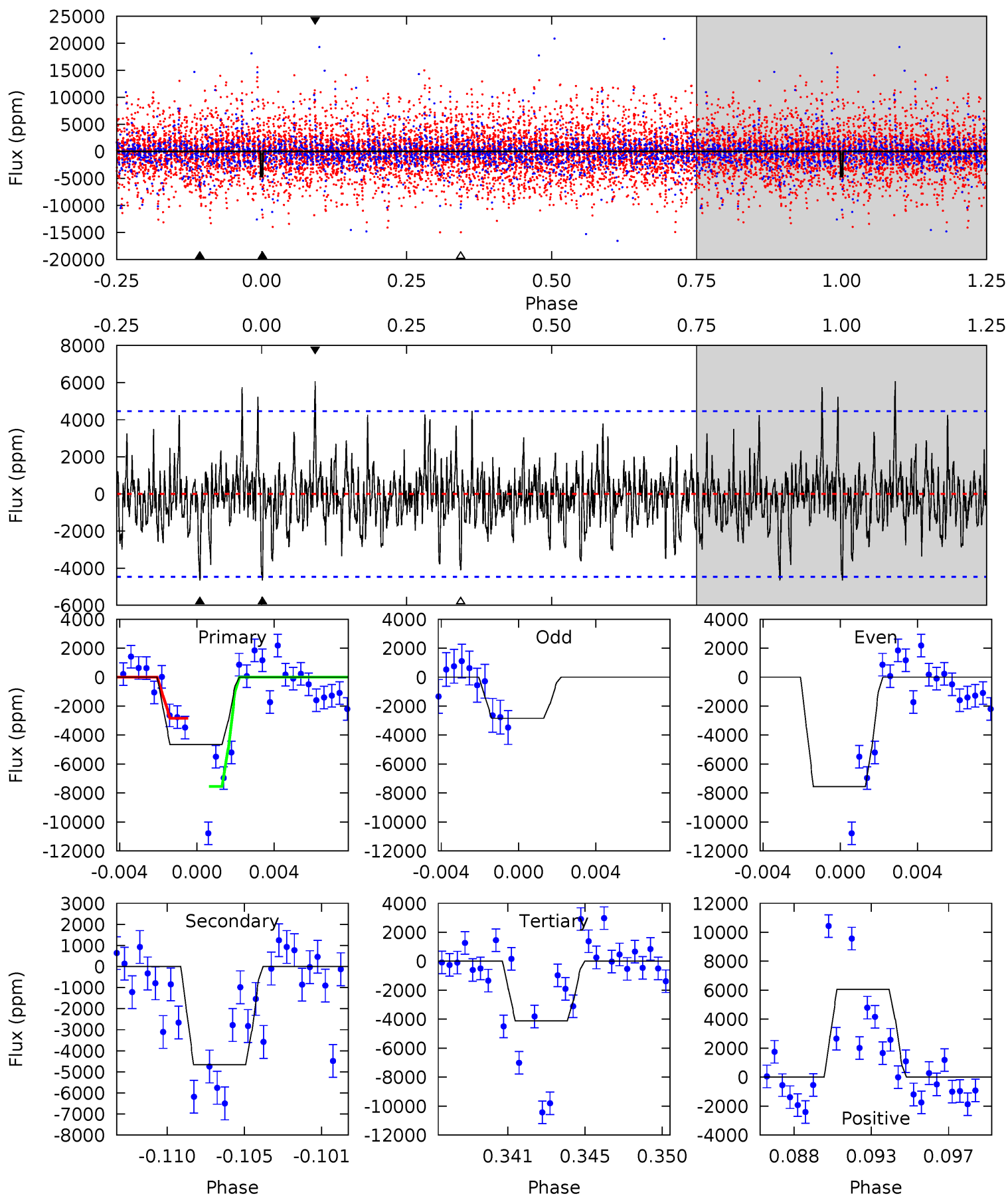
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.59	4.74	4.18	8.16	5.30	3.05	1.49	1.41	-2.57	0.55	-3.42	5.12	1.03	0.59	2.33



Alt Model-Shift Uniqueness Test

005395139-03, P = 28.970683 Days, E = 118.767462 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.41	5.43	4.78	7.05	5.19	2.86	1.34	0.63	-1.65	0.64	-1.63	2.77	1.62	0.57	2.79



Stellar Parameters For KIC 005395139

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6973^{+192}_{-288}	$4.365^{+0.056}_{-0.224}$	$-0.320^{+0.250}_{-0.350}$	$1.197^{+0.425}_{-0.113}$	$1.230^{+0.189}_{-0.154}$	$1.010^{+0.238}_{-0.552}$
	+3%/-4%	+1%/-5%	+78%/-109%	+36%/-9%	+15%/-13%	+24%/-55%
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 005395139-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1728 ± 365	$13.42^{+14.55}_{-8.83}$	1078^{+89}_{-58}	4656^{+3243}_{-1105}	198^{+1572}_{-154}
Alt.	-4667 ± 860	$14.65^{+12.59}_{-9.80}$	1079^{+91}_{-60}	5592^{+4984}_{-1335}	442^{+3646}_{-312}

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

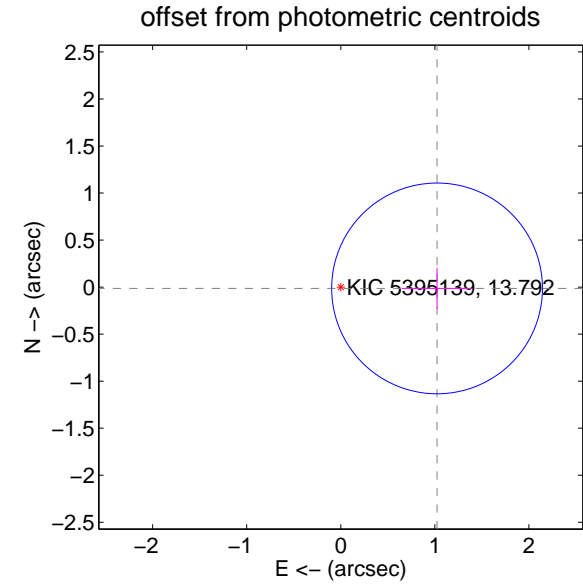
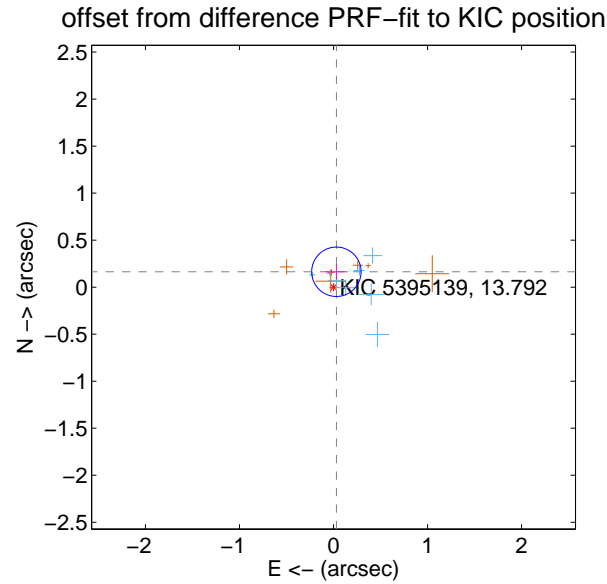
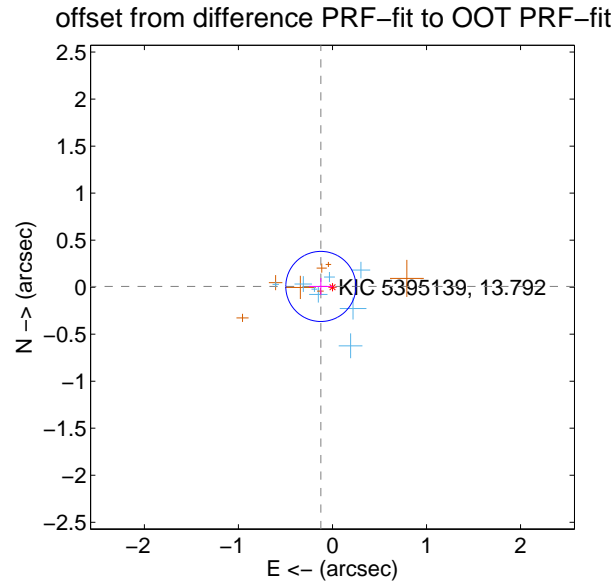
DV Centroid Data

Supplemental centroid analysis for 005395139-03. Kepler magnitude: 13.79. Transit SNR 2.47

There are 8 quarters with good PRF difference image offsets

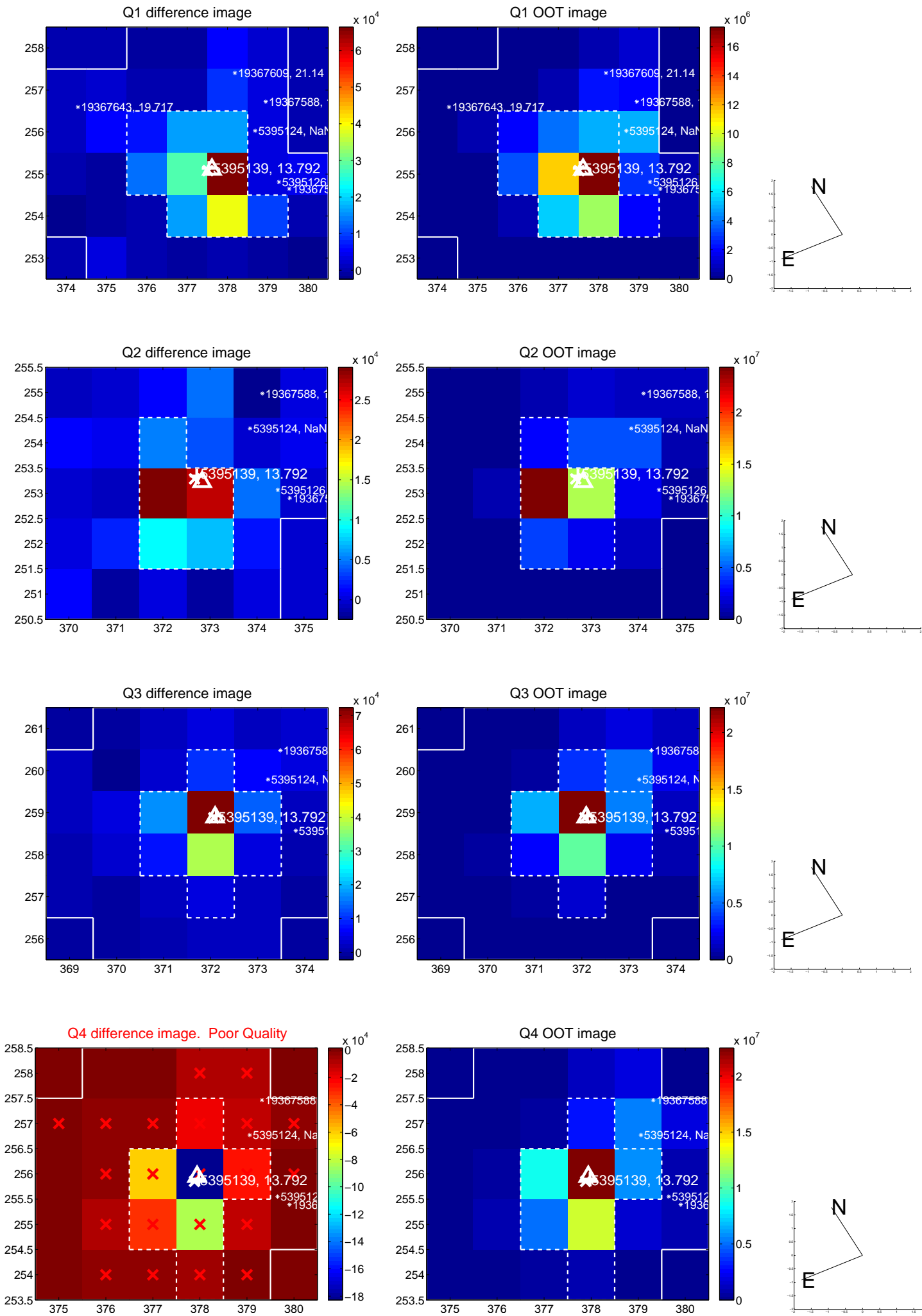
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.124 ± 0.124	1.00	0.124 ± 0.125	0.008 ± 0.089
PRF-fit source offset from KIC position	0.167 ± 0.088	1.90	-0.031 ± 0.120	0.164 ± 0.086
photometric centroid source offset	1.02 ± 0.37	2.74	-1.02 ± 0.37	-0.01 ± 0.22

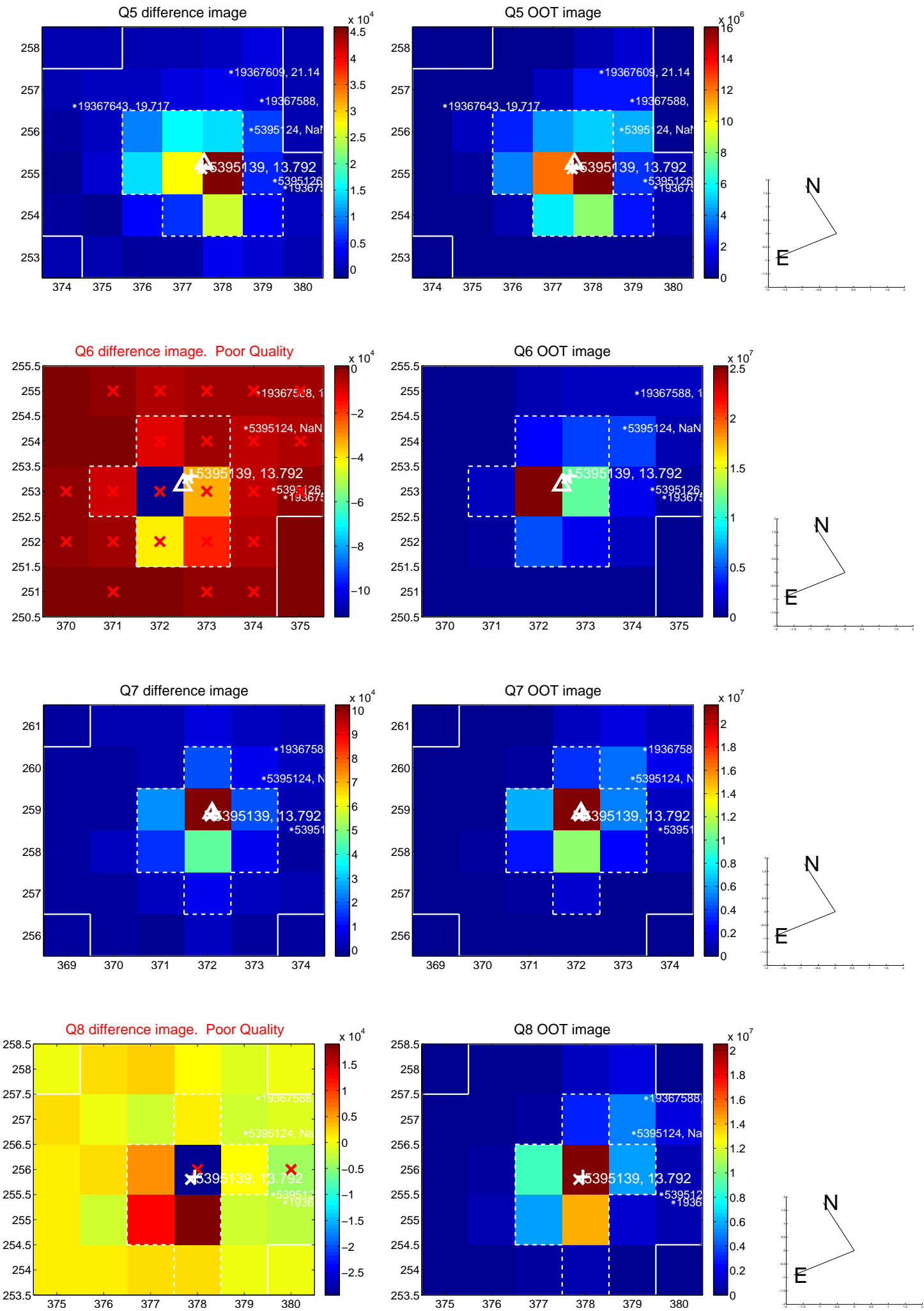


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

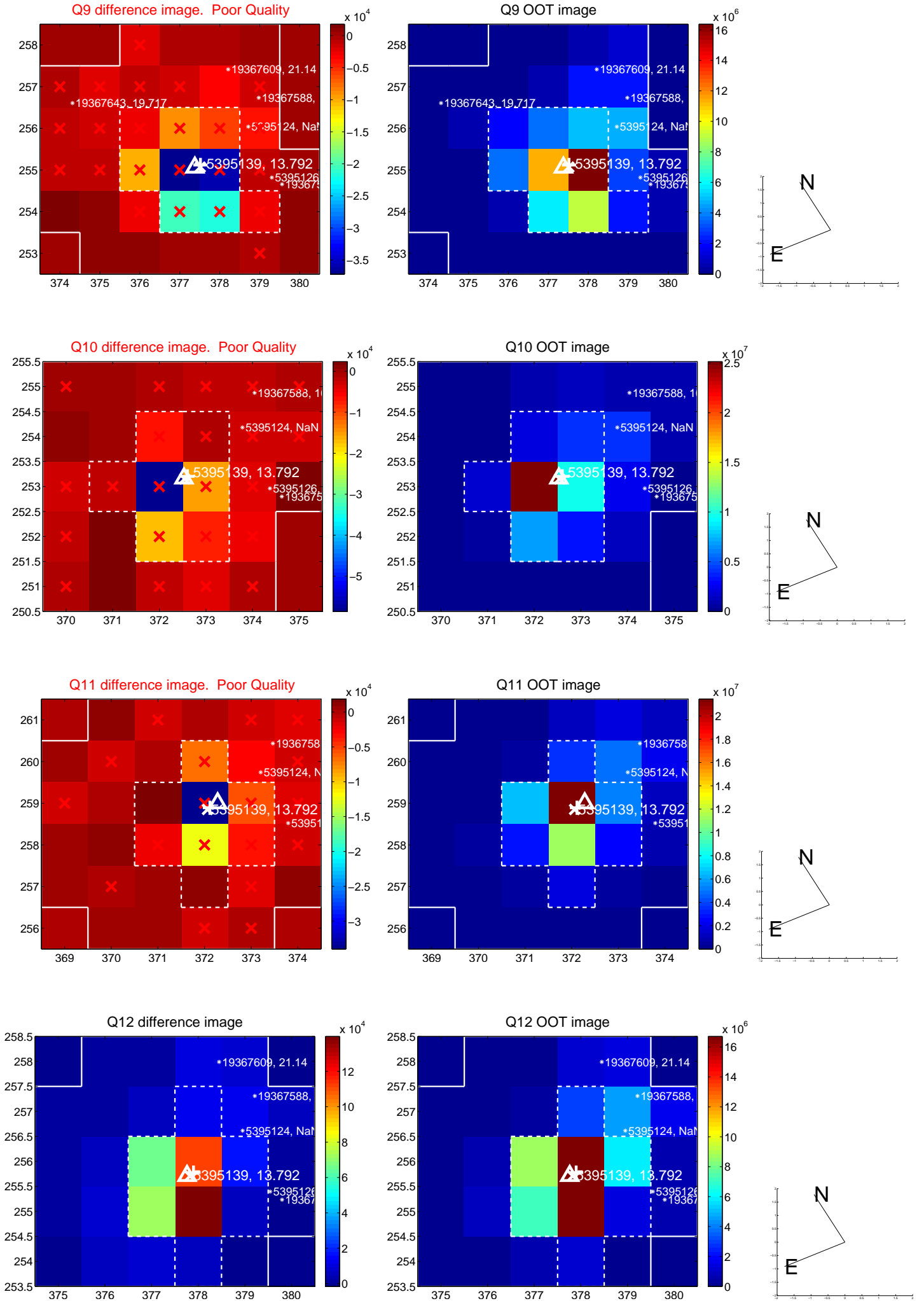
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



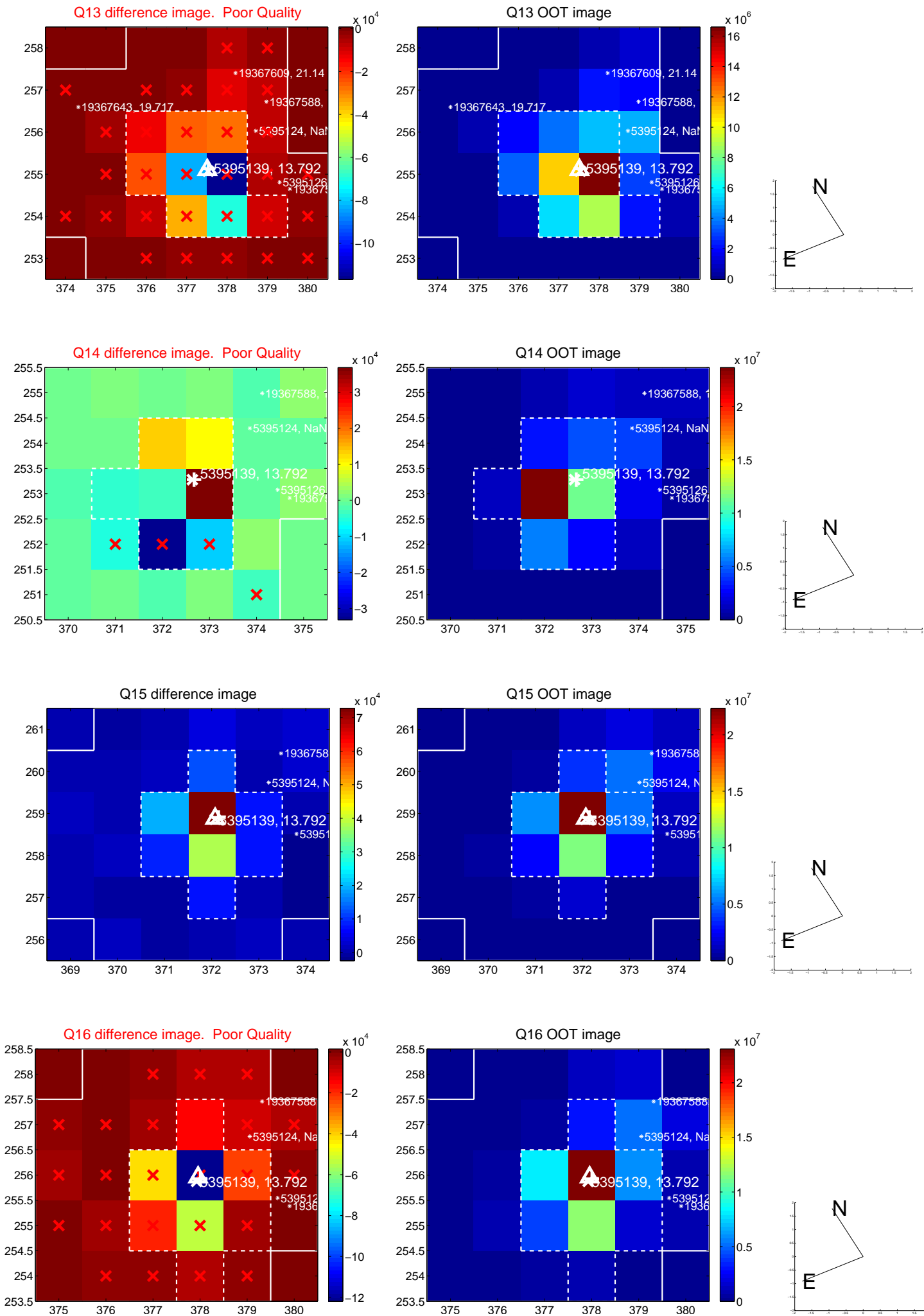
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



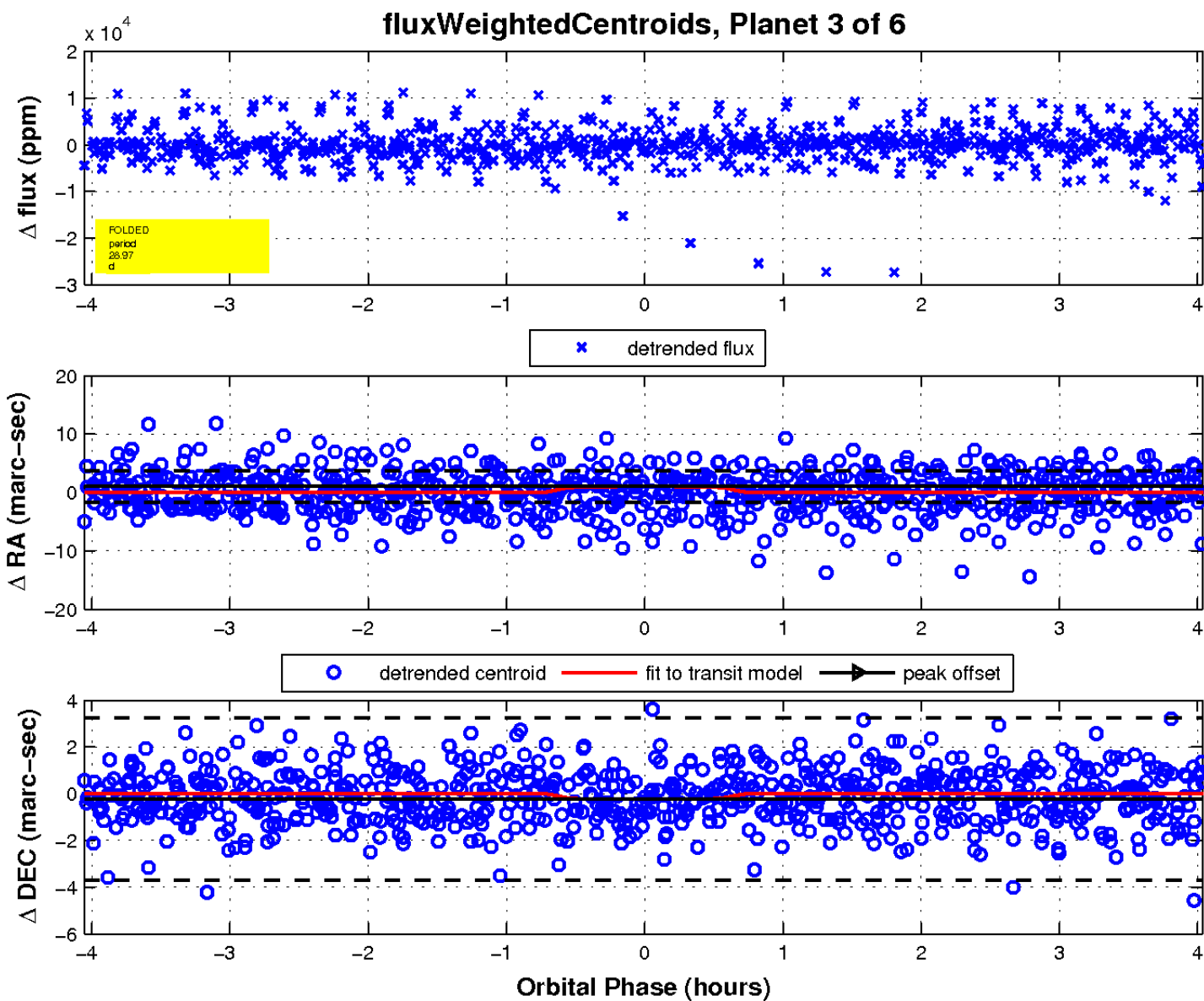
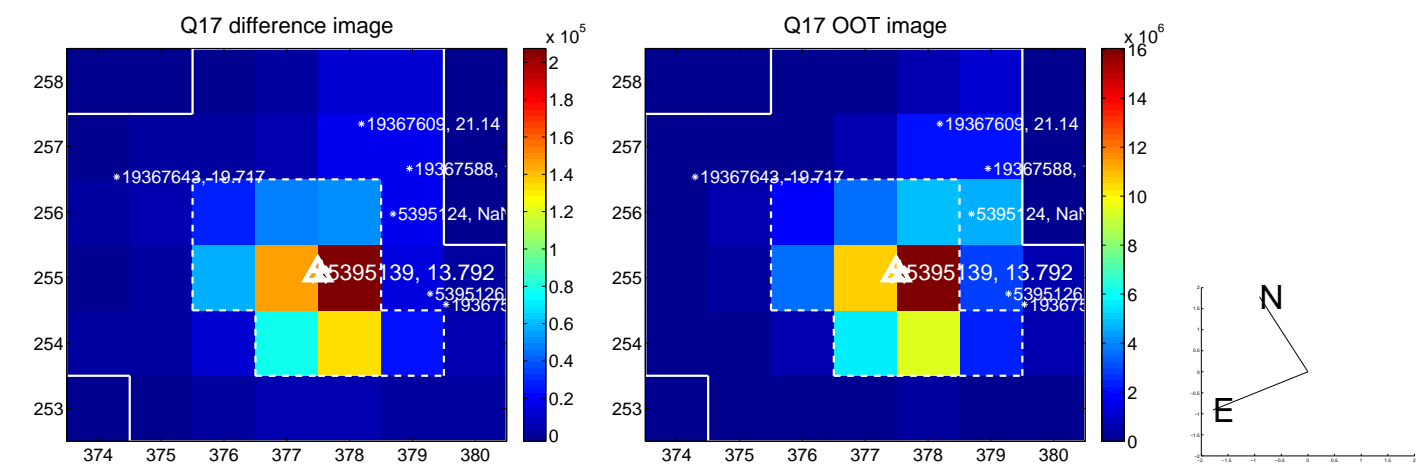
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

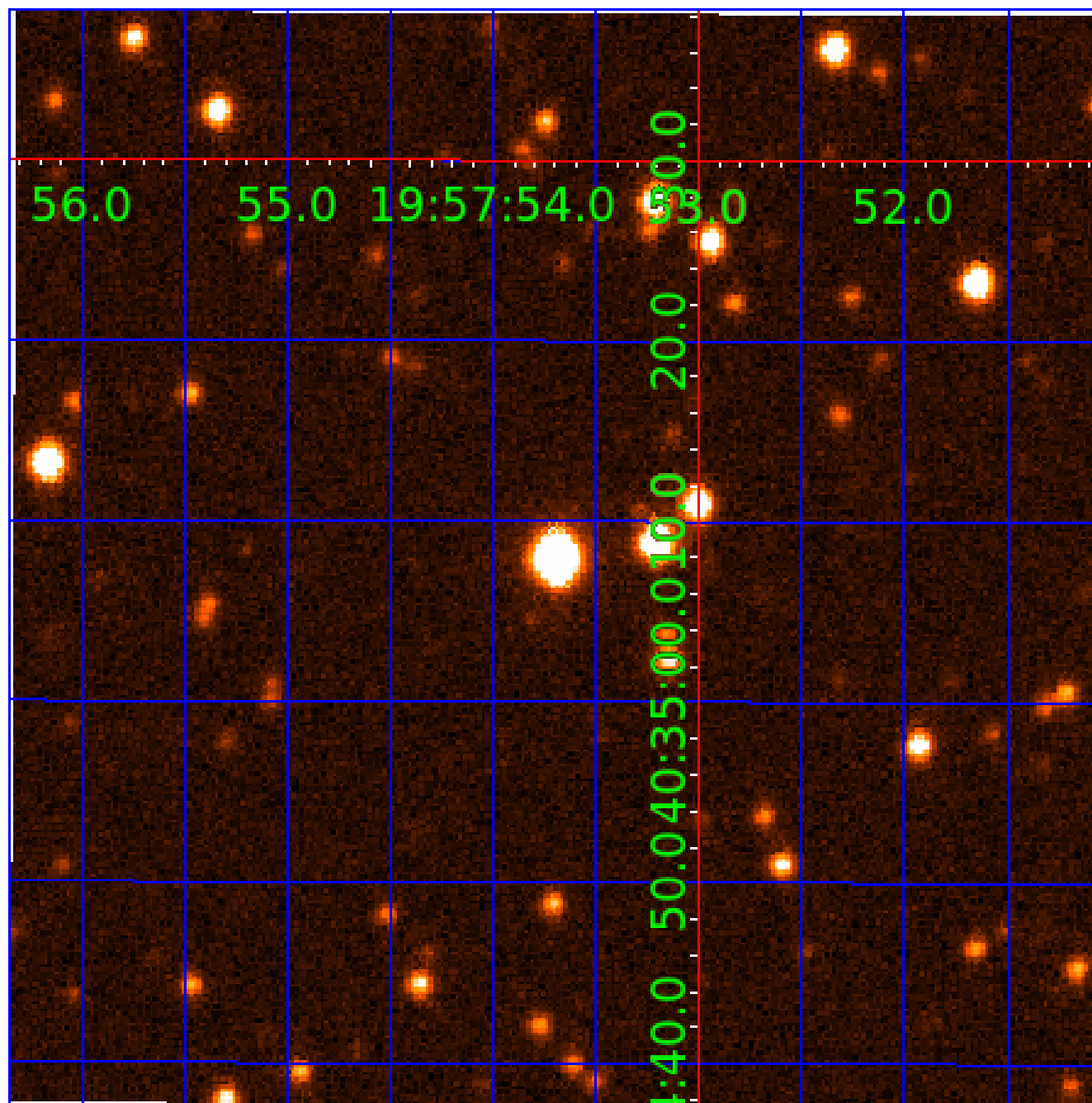


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005395139

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})
005395139-01	OBS	No	0.522062	131.853577	0.0	3.458	8.2	0.0	1.20	6973	0.01	16583.40
005395139-02	OBS	No	23.500139	147.247294	4543.1	1.621	13.9	7.7	1.20	6973	8.29	103.56
005395139-03	OBS	No	28.969234	147.790728	1570.5	1.353	12.5	2.5	1.20	6973	4.81	78.35
005395139-04	OBS	No	63.713039	148.292586	5972.4	1.655	11.5	7.8	1.20	6973	9.99	27.39
005395139-05	OBS	No	31.326267	161.936604	4544.3	9.799	9.1	6.6	1.20	6973	14.43	70.59
005395139-06	OBS	No	34.637435	145.189764	4209.3	1.798	7.9	8.3	1.20	6973	8.35	61.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005395139-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005395139-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT
005395139-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-05	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
005395139-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—HALO_GHOST

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

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

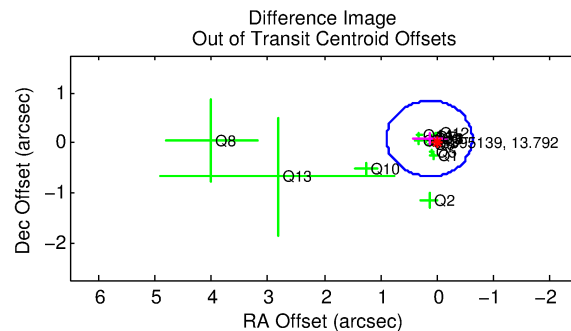
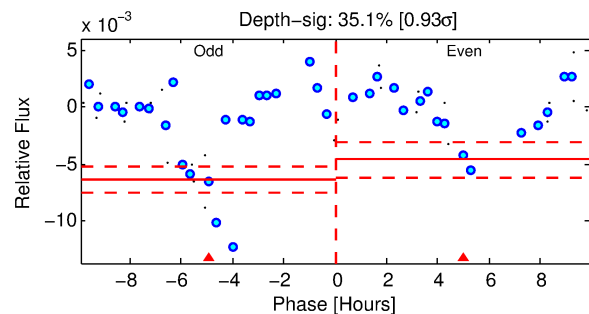
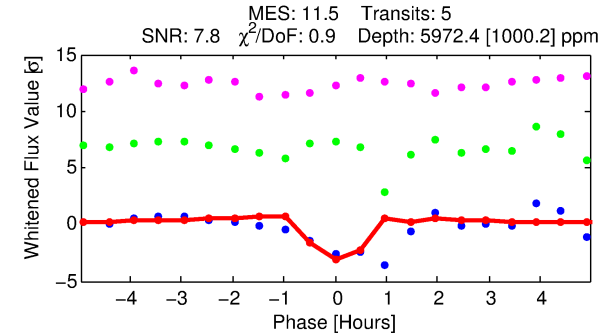
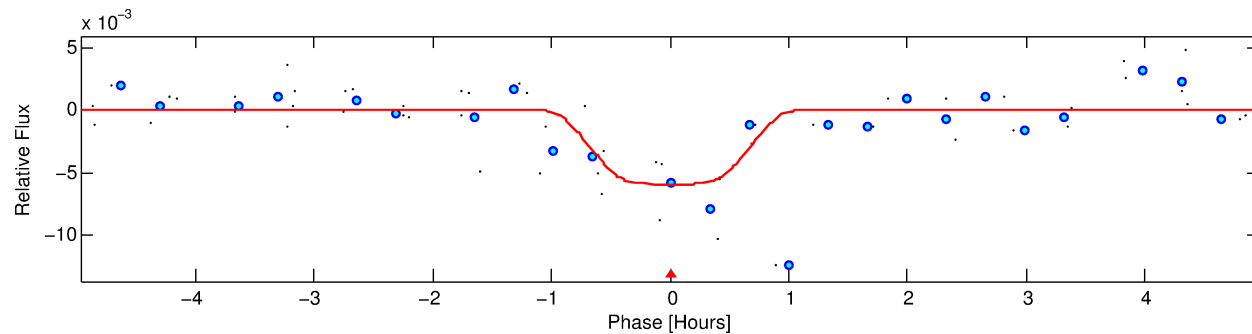
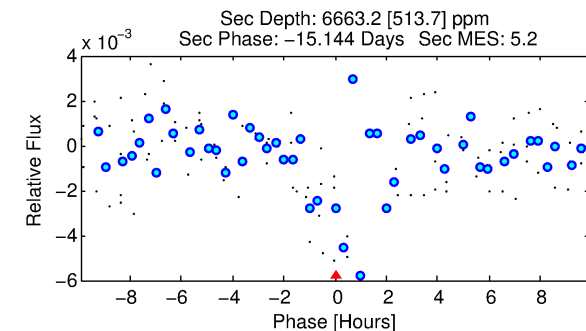
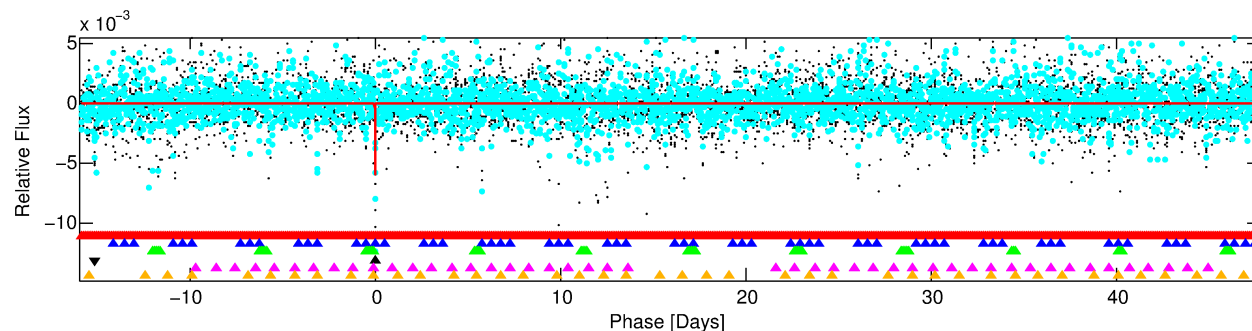
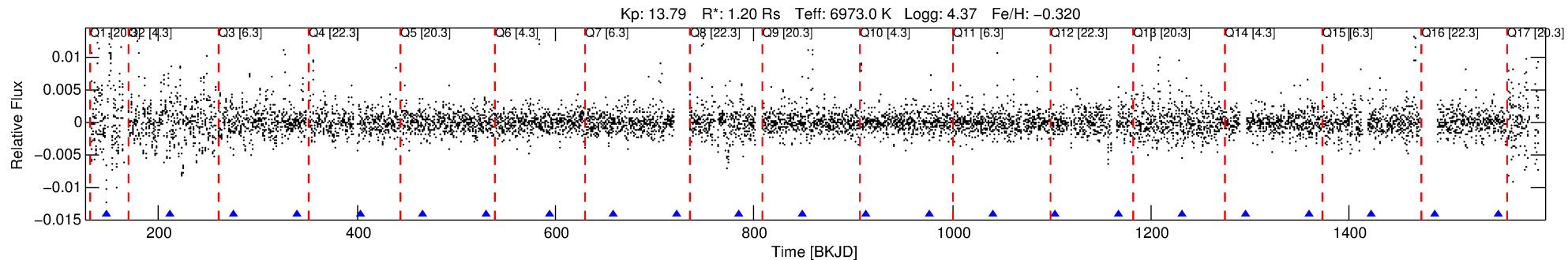
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005395139-04

No Significant Match Found

DV One-Page Summary

KIC: 5395139 Candidate: 4 of 6 Period: 63.713 d



DV Fit Results:

Period = 63.71304 [0.00040] d
Epoch = 148.2926 [0.0036] BKJD
Rp/R* = 0.0765 [0.0393]
a/R* = 236.45 [634.45]
b = 0.72 [1.87]
Seff = 27.39 [12.30]
Teq = 583 [65] K
Rp = 9.99 [6.23] Re
a = 0.3328 [0.0974] AU
Ag = 4069.36 [4520.34] [0.90σ]
Teff = 7204 [1878] K [3.52σ]

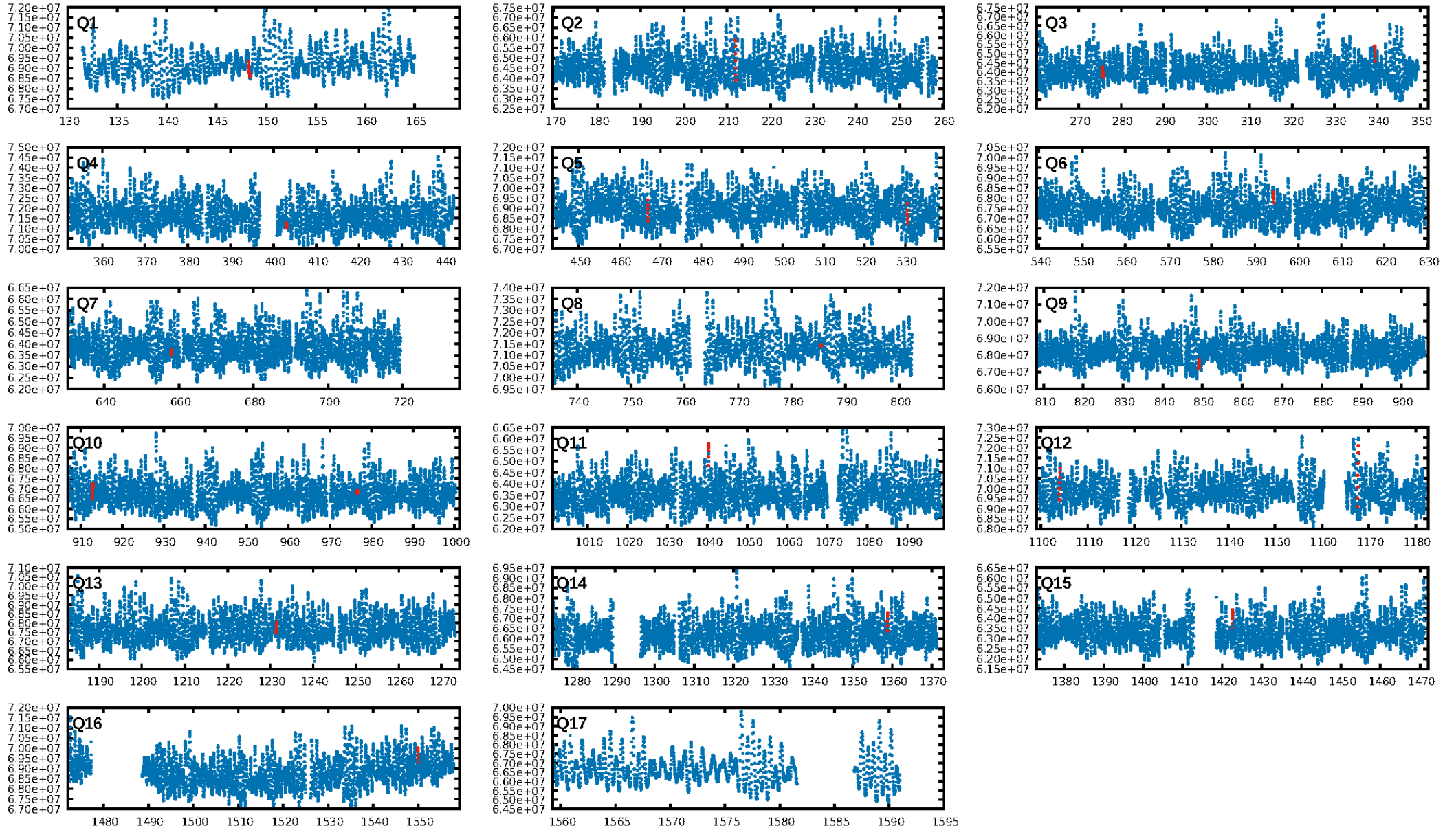
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [285.58σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 45.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.293
Centroid-sig: 2.9%
Centroid-so: 0.631 arcsec [4.42σ]
OotOffset-rm: 0.162 arcsec [0.64σ]
KicOffset-rm: 0.143 arcsec [0.74σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.38 [6/16]
DiffImageOverlap-fno: 0.00 [0/16]

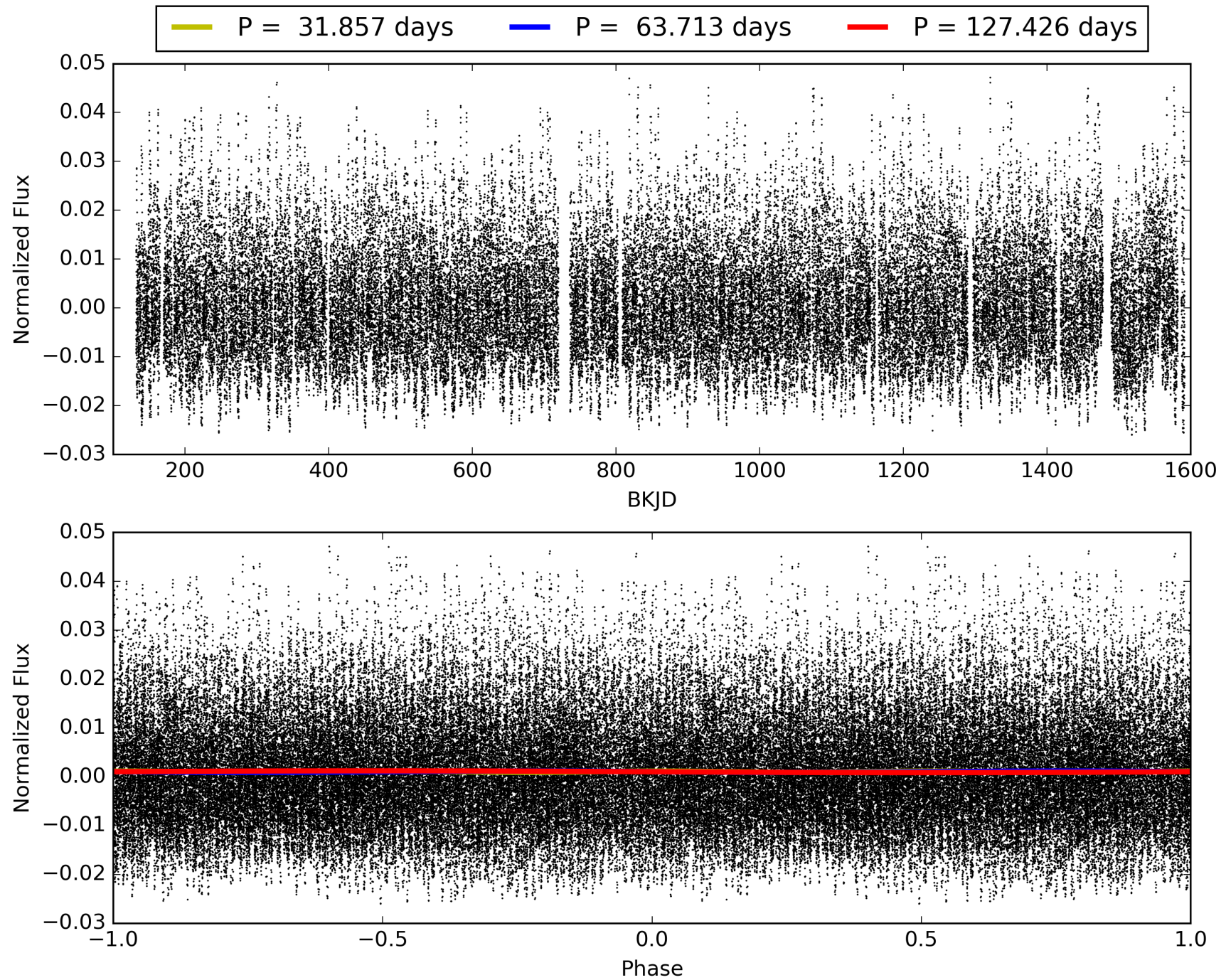
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:49:23 Z

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

TCE 005395139-04, PDC Light Curves

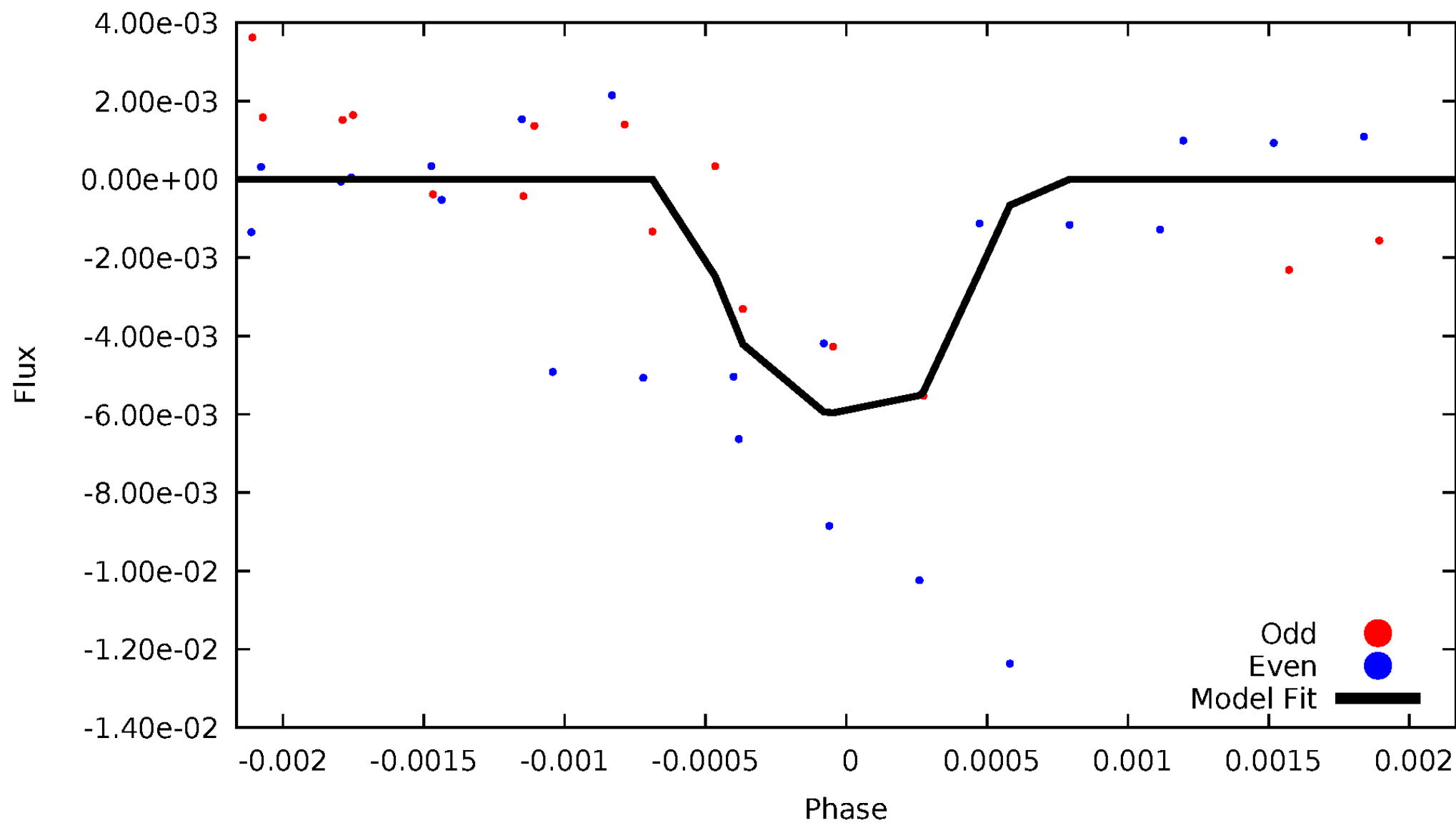


TCE 005395139-04



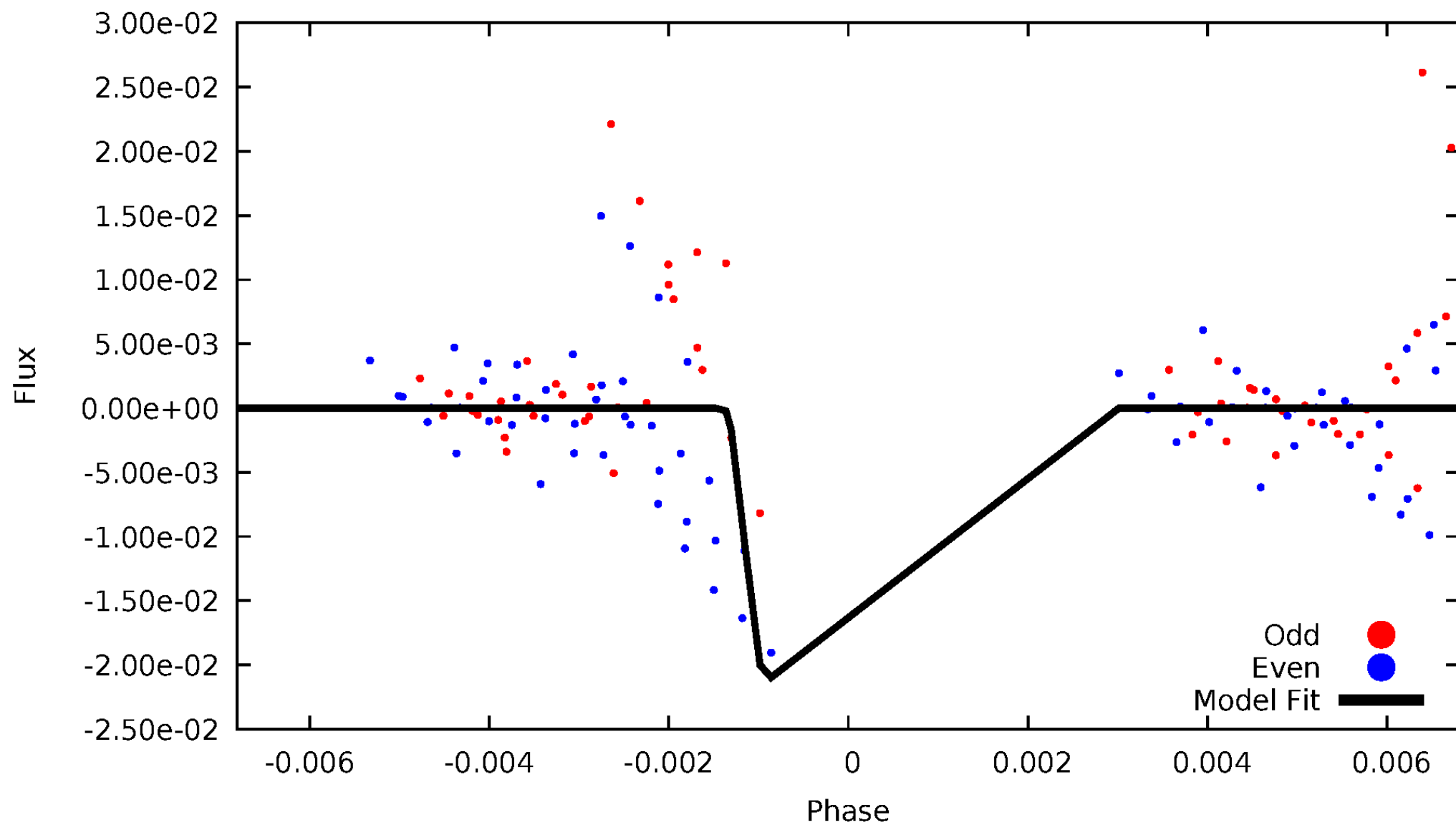
DV Odd/Even

TCE 005395139-04



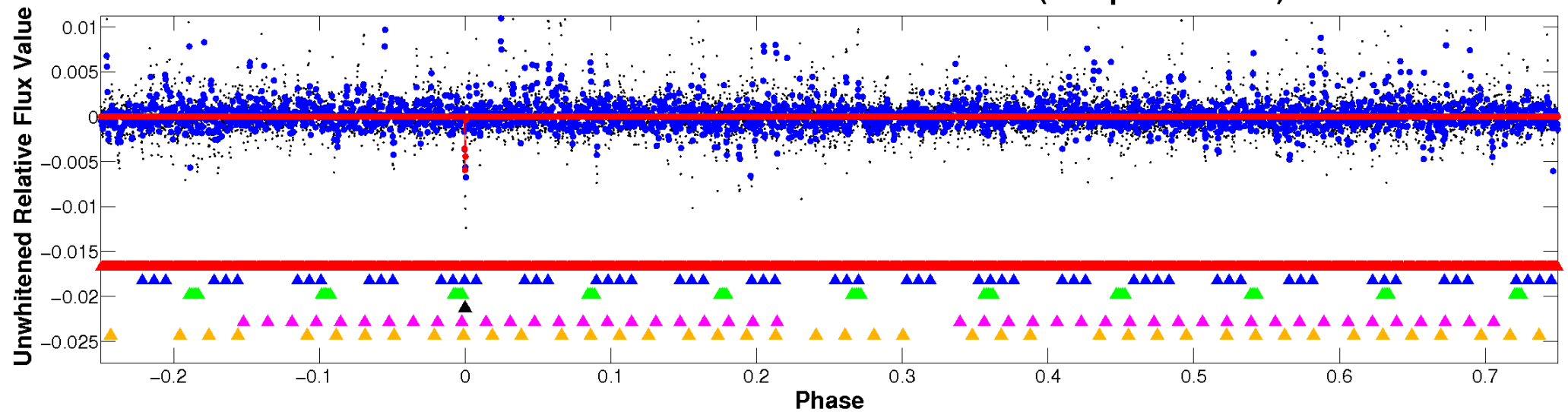
ALT Odd/Even

TCE 005395139-04

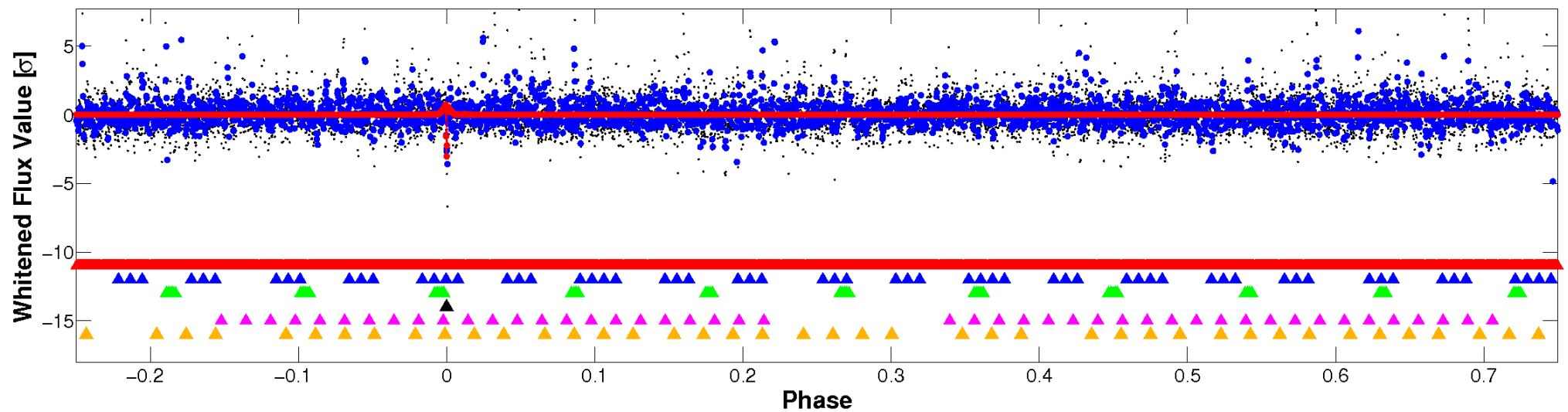


Non-Whitened Vs. Whitened Light Curve

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

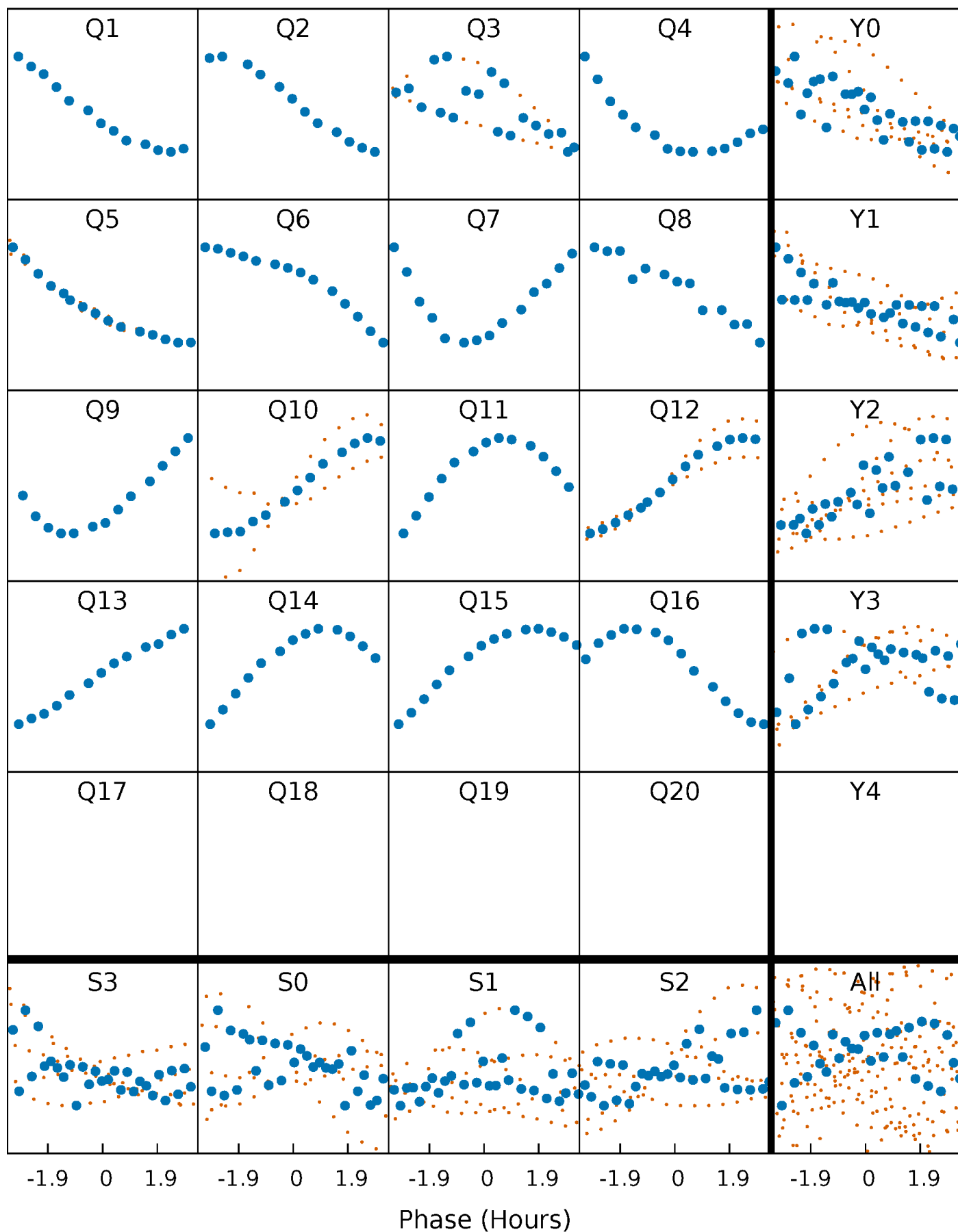


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



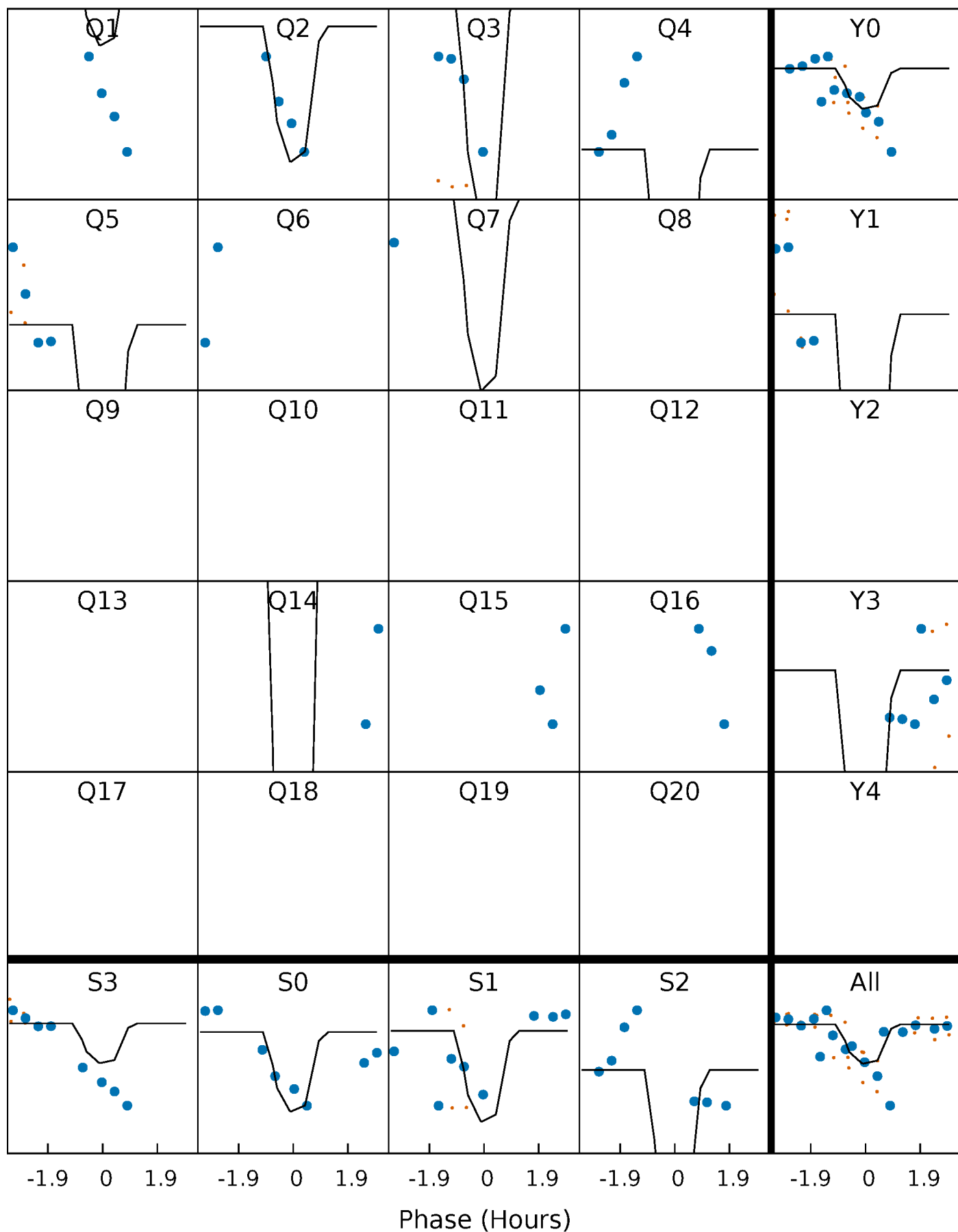
PDC Quarter-Phased Transit Curves

TCE 005395139-04 P= 63.713039 Days $T_0=148.292586$ (BKJD)



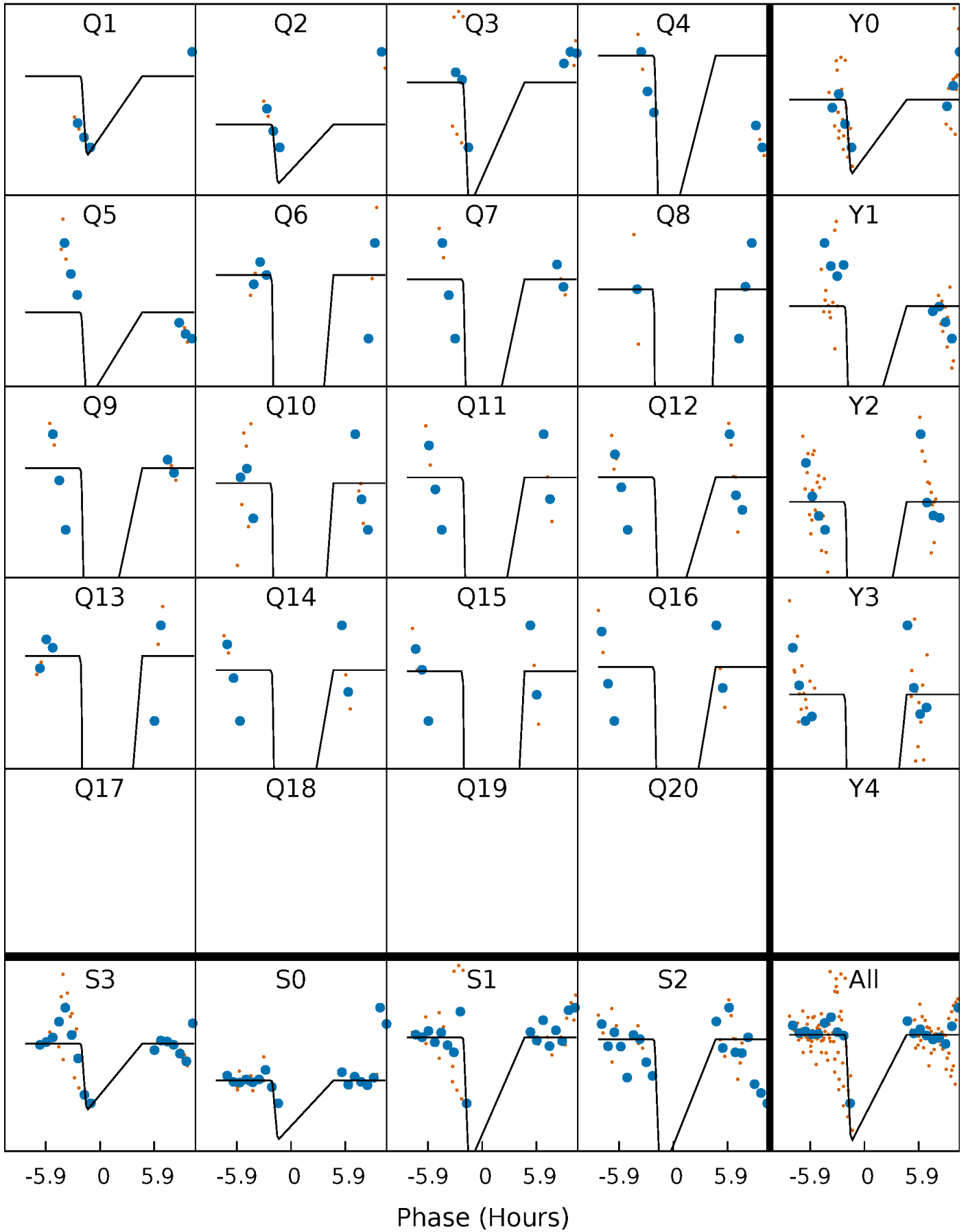
DV Quarter-Phased Transit Curves

TCE 005395139-04 P= 63.713039 Days $T_0=148.292586$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

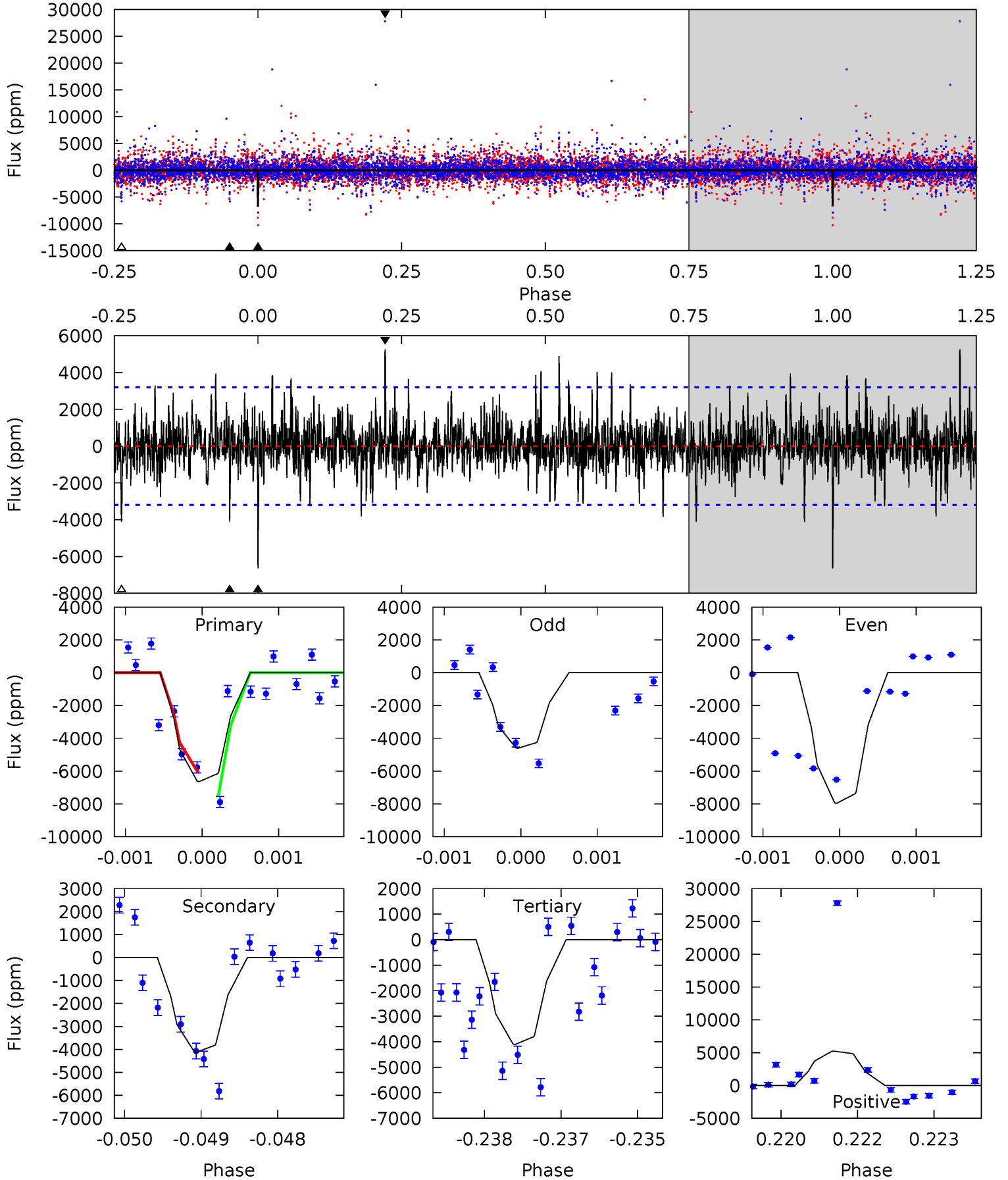
TCE 005395139-04 P= 63.701514 Days $T_0=148.384275$ (BKJD)



DV Model-Shift Uniqueness Test

005395139-04, P = 63.713039 Days, E = 84.579547 Days

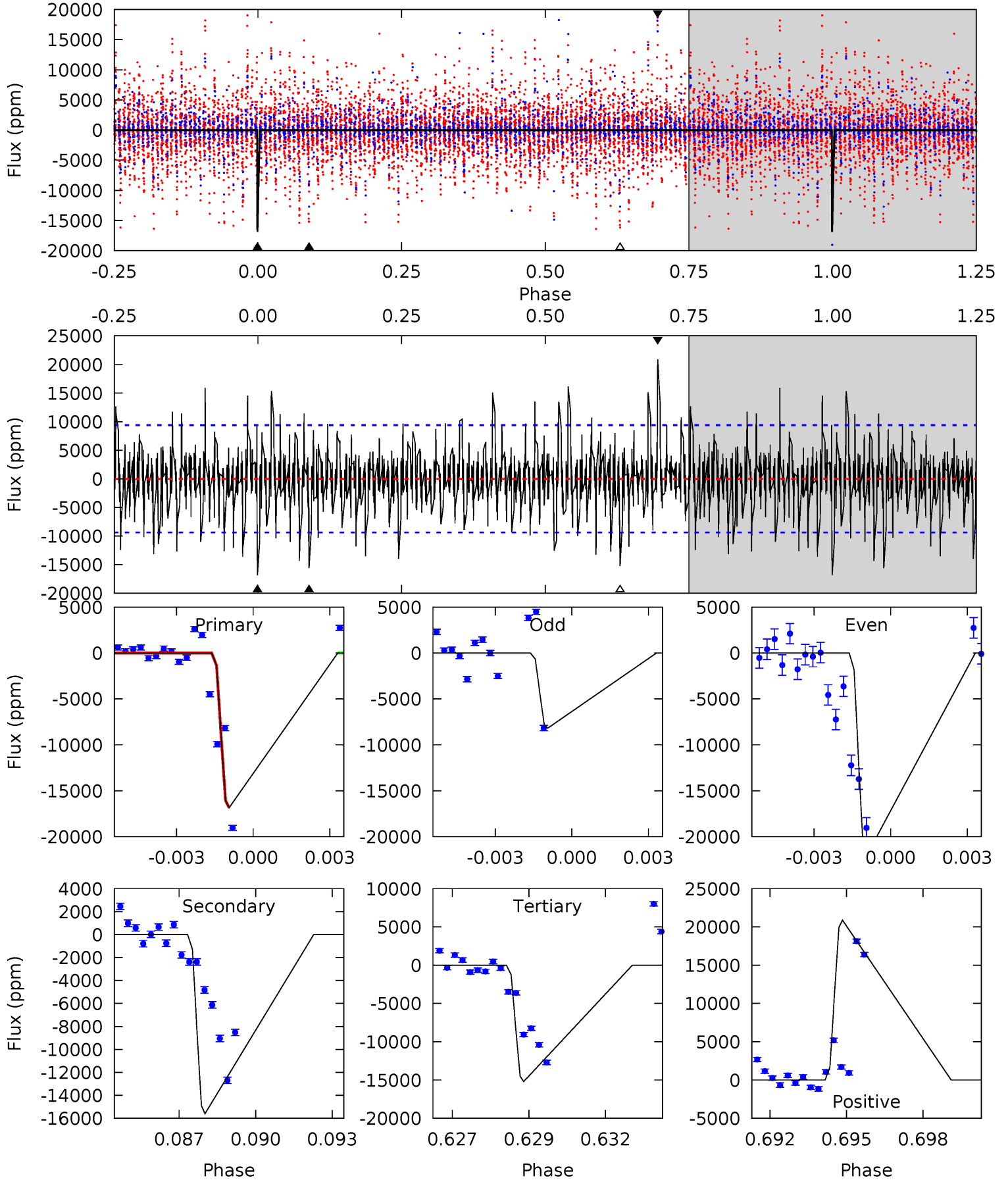
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	6.98	6.96	8.88	5.41	3.23	1.65	4.29	2.37	0.03	-1.89	2.31	1.30	0.44	1.19



Alt Model-Shift Uniqueness Test

005395139-04, P = 63.701514 Days, E = 84.682761 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.46	8.76	8.54	11.7	5.27	3.00	1.77	0.92	-2.27	0.23	-2.97	3.54	0	0.55	0



Stellar Parameters For KIC 005395139

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6973^{+192}_{-288}	$4.365^{+0.056}_{-0.224}$	$-0.320^{+0.250}_{-0.350}$	$1.197^{+0.425}_{-0.113}$	$1.230^{+0.189}_{-0.154}$	$1.010^{+0.238}_{-0.552}$
	+3%/-4%	+1%/-5%	+78%/-109%	+36%/-9%	+15%/-13%	+24%/-55%
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 005395139-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4124 ± 591	$10.26^{+6.29}_{-4.79}$	832^{+63}_{-44}	6373^{+3045}_{-1242}	2332^{+6395}_{-1429}
Alt.	-15605 ± 1781	$19.82^{+6.45}_{-5.47}$	831^{+67}_{-43}	6433^{+1340}_{-768}	2439^{+2307}_{-1038}

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 $A_{obs} \gg 1.0$

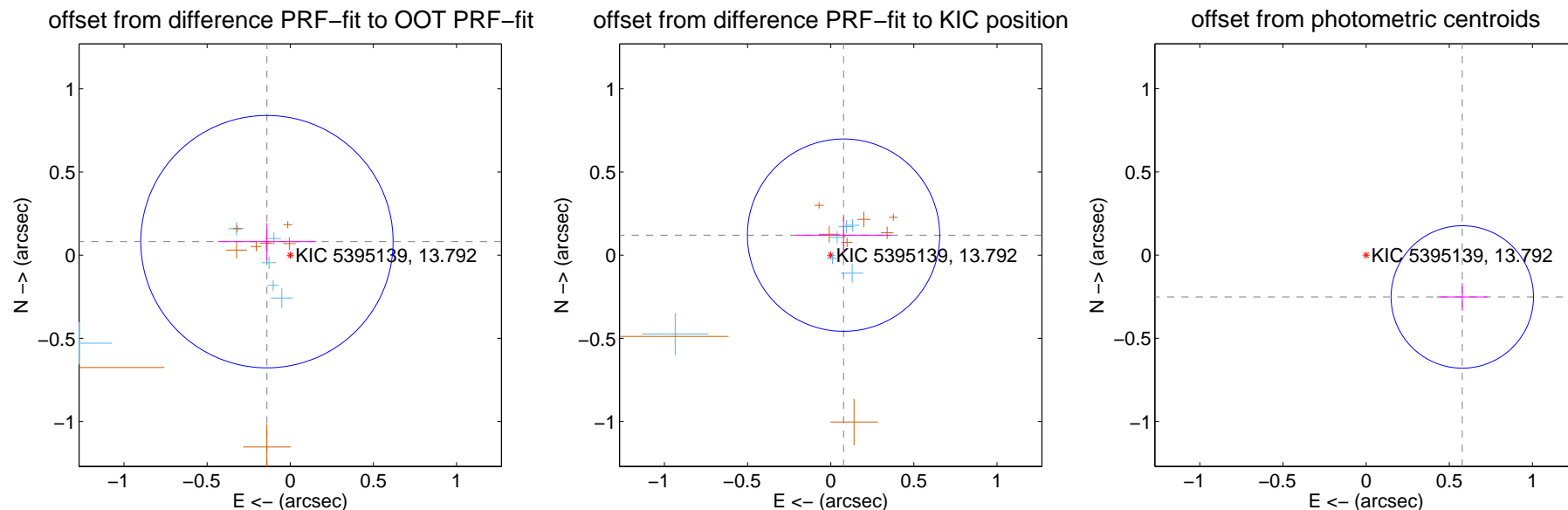
DV Centroid Data

Supplemental centroid analysis for 005395139-04. Kepler magnitude: 13.79. Transit SNR 7.76

There are 6 quarters with good PRF difference image offsets

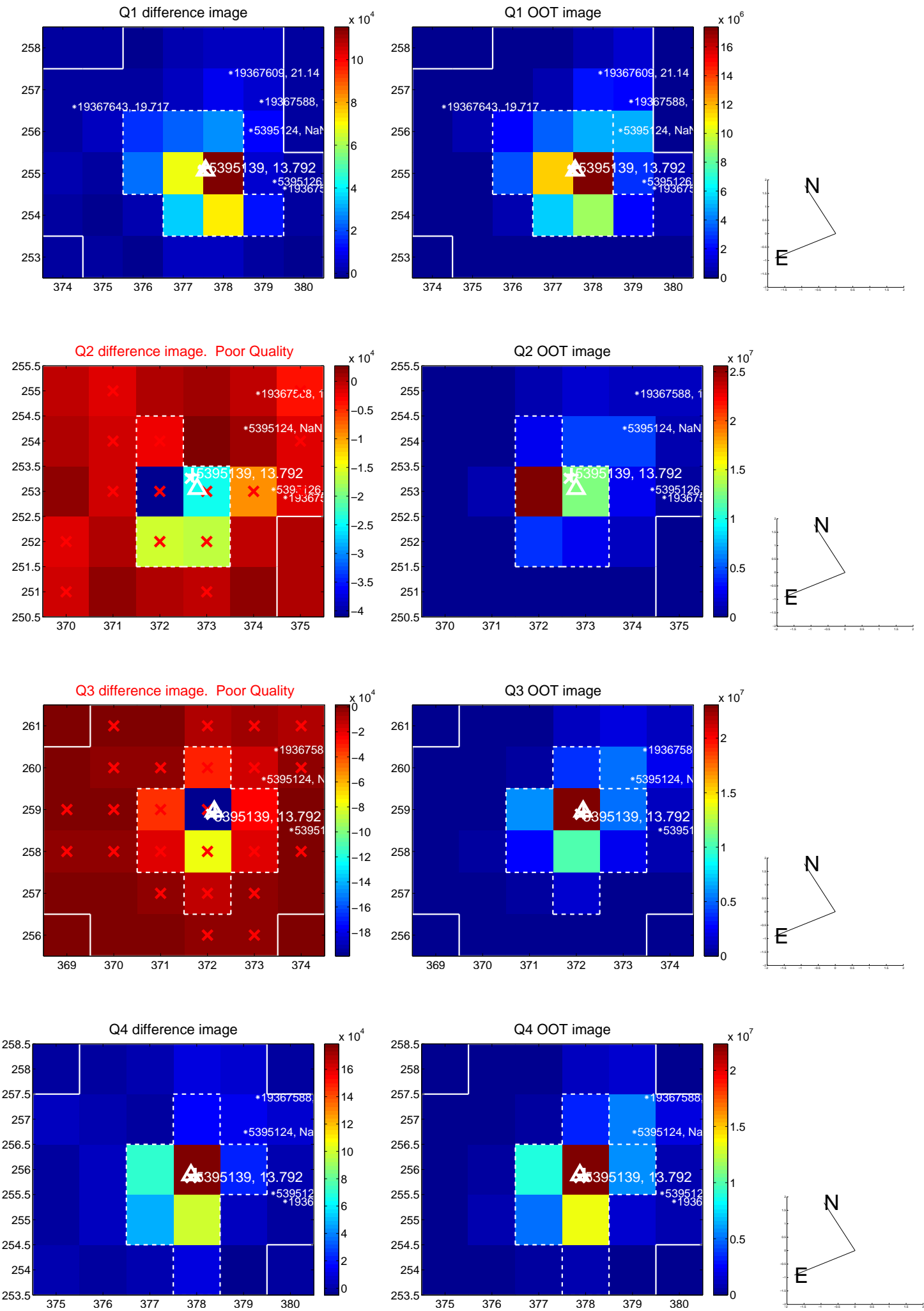
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.162 ± 0.253	0.64	0.140 ± 0.295	0.081 ± 0.112
PRF-fit source offset from KIC position	0.143 ± 0.193	0.74	-0.077 ± 0.287	0.120 ± 0.111
photometric centroid source offset	0.63 ± 0.14	4.42	-0.58 ± 0.15	-0.25 ± 0.08

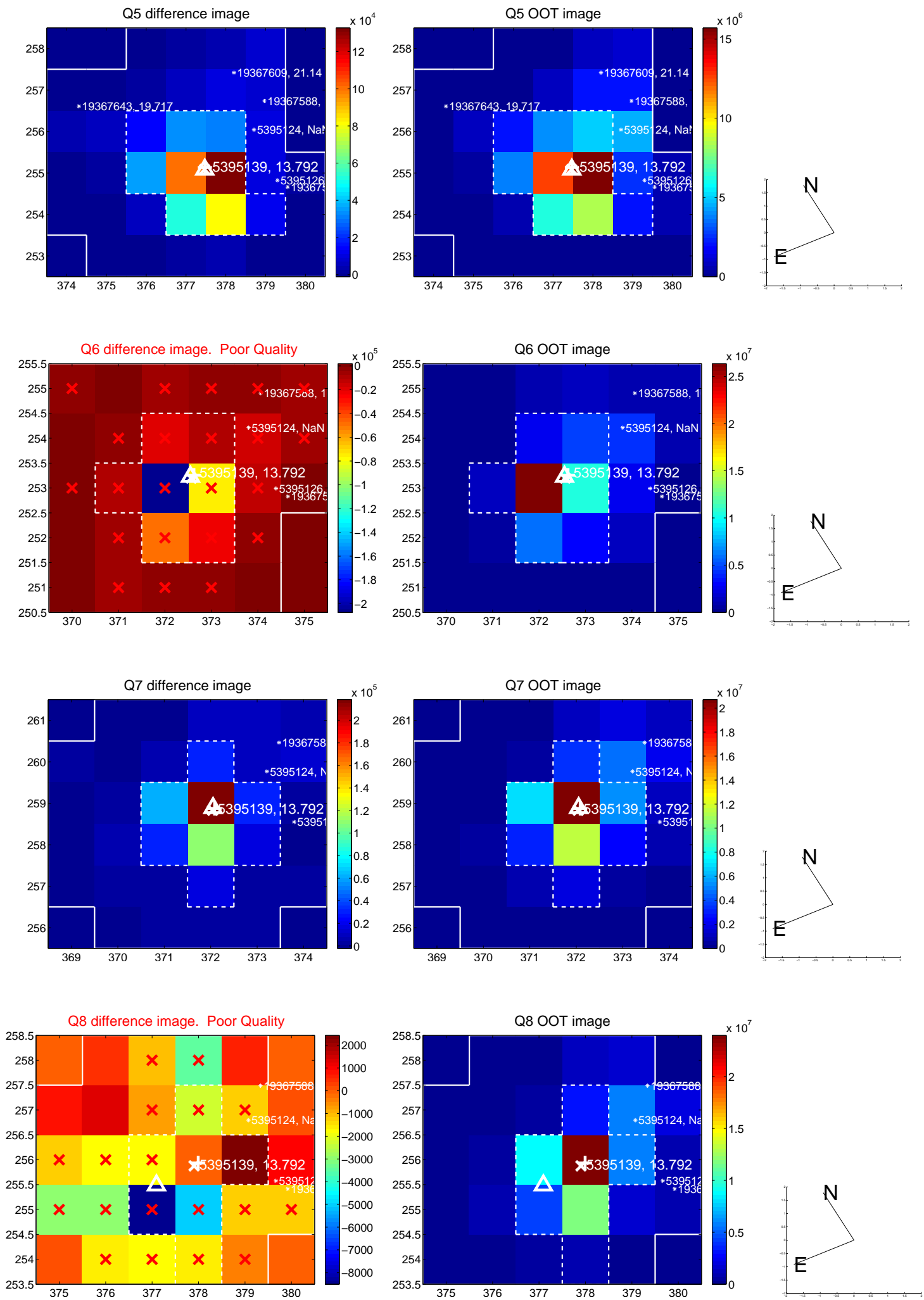


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

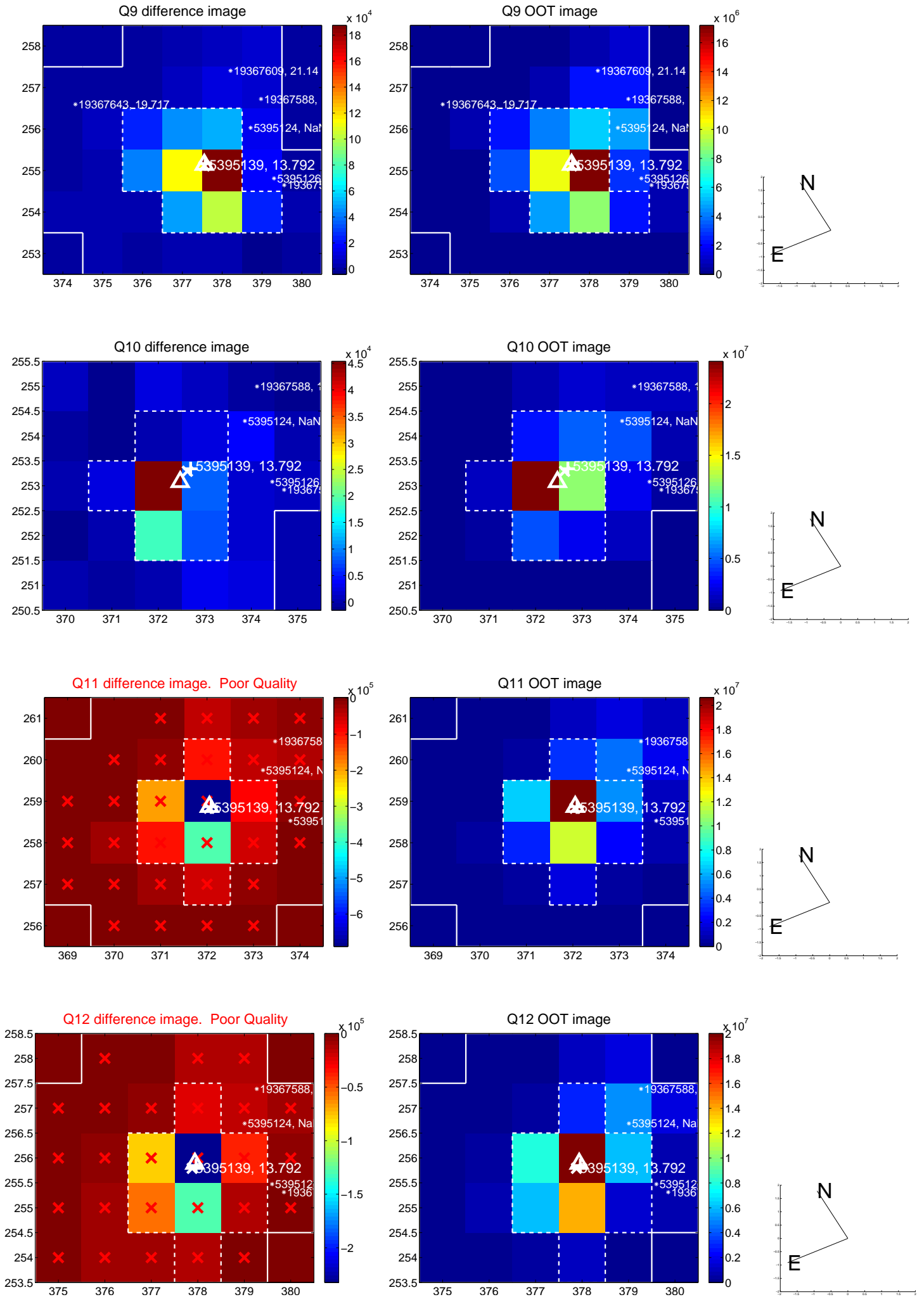
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



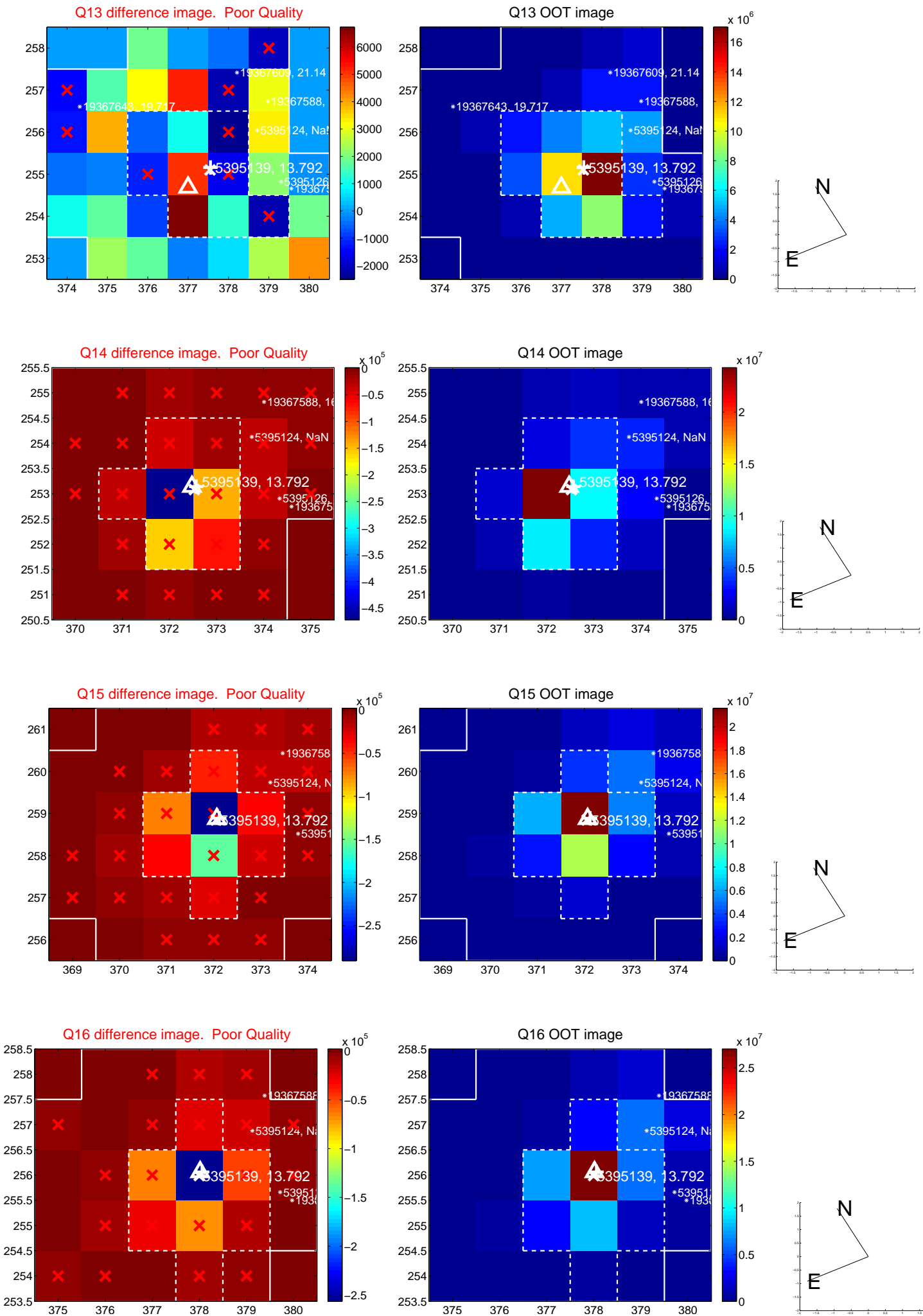
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



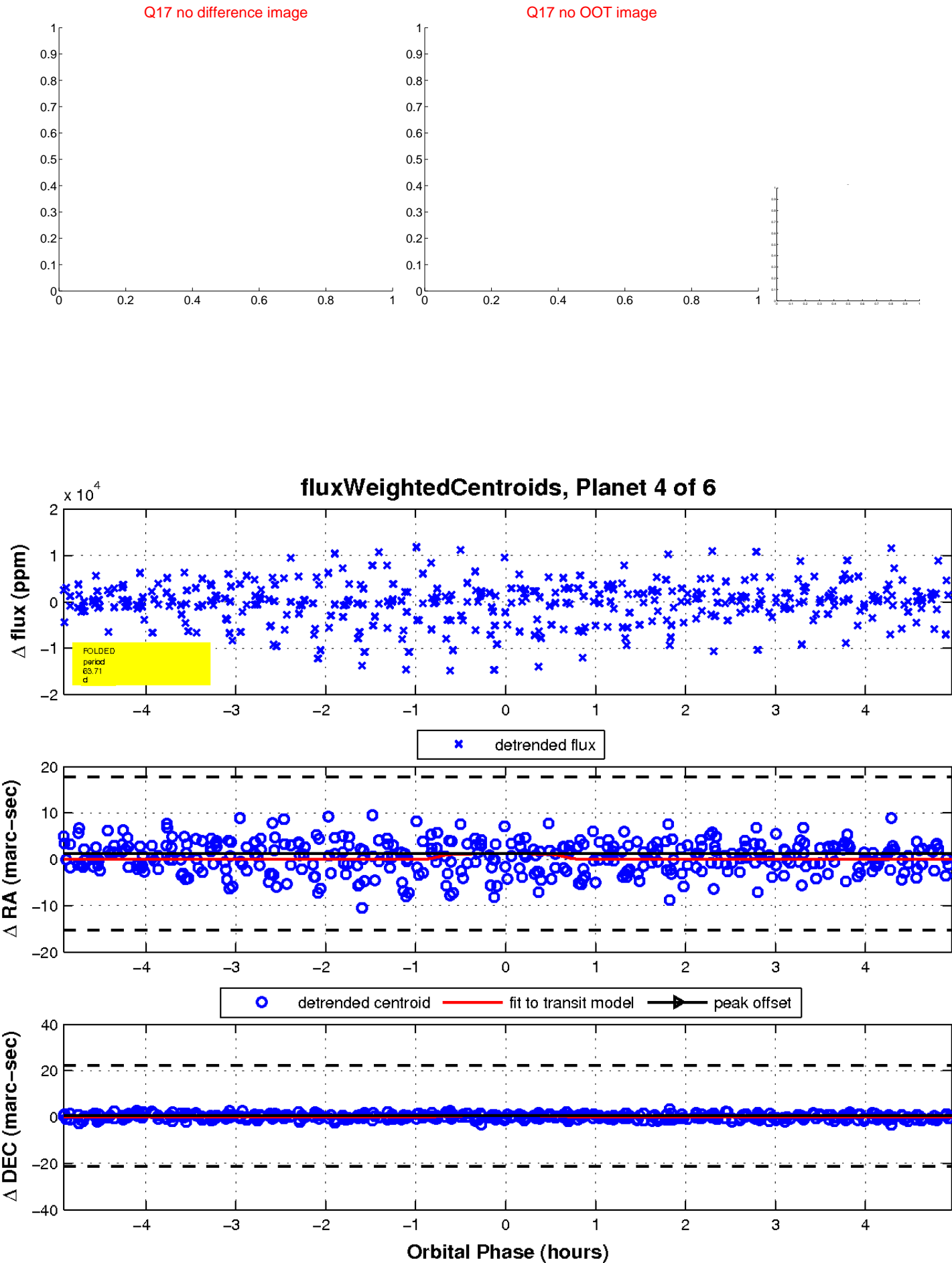
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

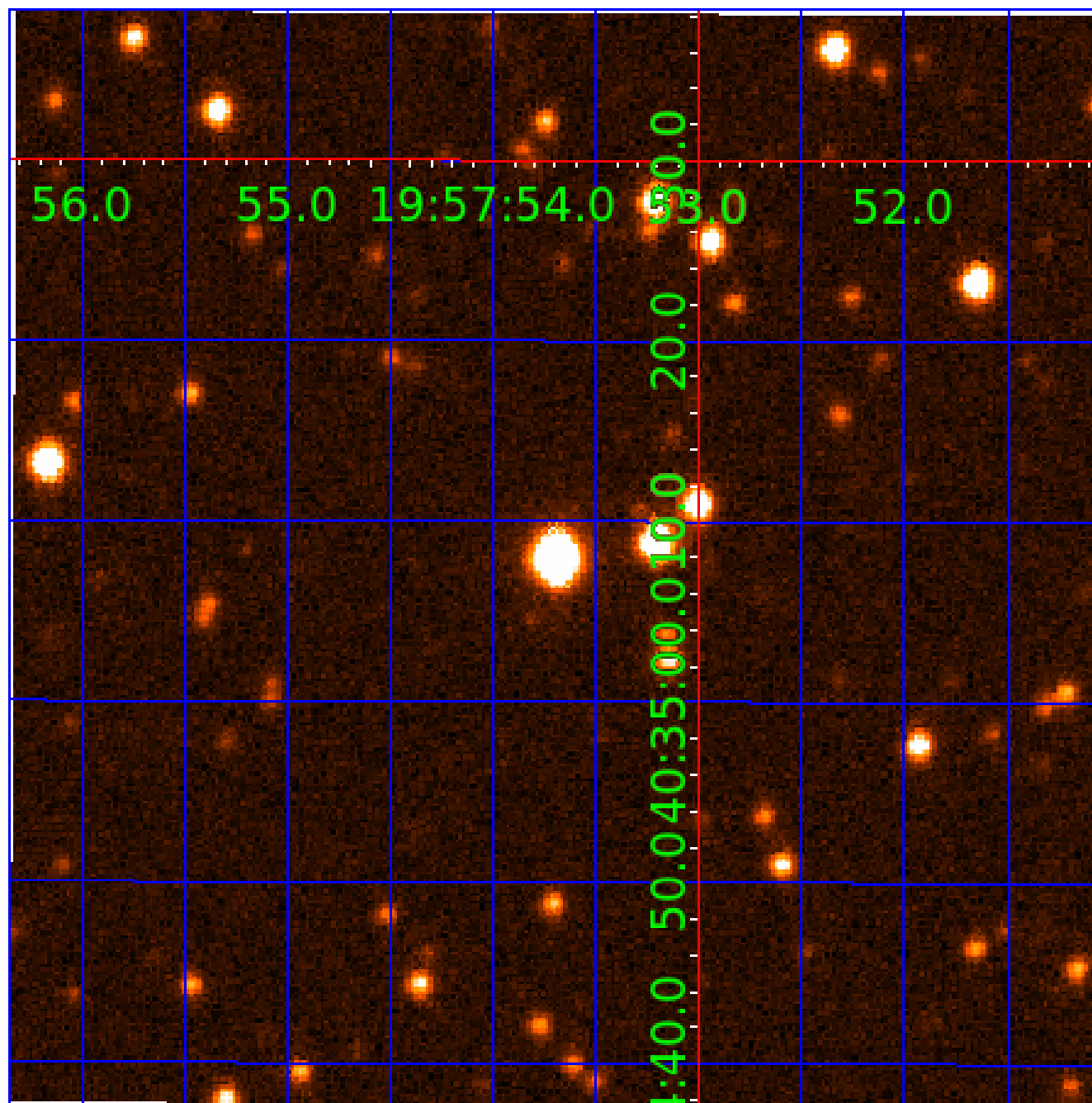


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005395139

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})
005395139-01	OBS	No	0.522062	131.853577	0.0	3.458	8.2	0.0	1.20	6973	0.01	16583.40
005395139-02	OBS	No	23.500139	147.247294	4543.1	1.621	13.9	7.7	1.20	6973	8.29	103.56
005395139-03	OBS	No	28.969234	147.790728	1570.5	1.353	12.5	2.5	1.20	6973	4.81	78.35
005395139-04	OBS	No	63.713039	148.292586	5972.4	1.655	11.5	7.8	1.20	6973	9.99	27.39
005395139-05	OBS	No	31.326267	161.936604	4544.3	9.799	9.1	6.6	1.20	6973	14.43	70.59
005395139-06	OBS	No	34.637435	145.189764	4209.3	1.798	7.9	8.3	1.20	6973	8.35	61.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005395139-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005395139-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT
005395139-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-05	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
005395139-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—HALO_GHOST

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

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

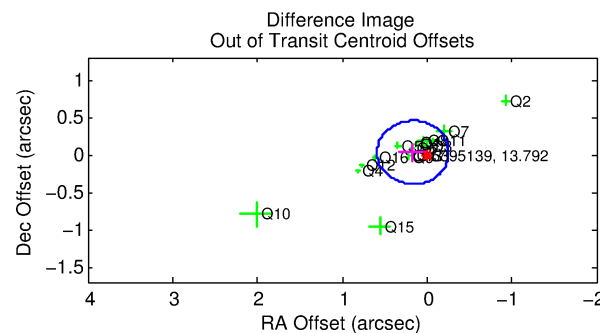
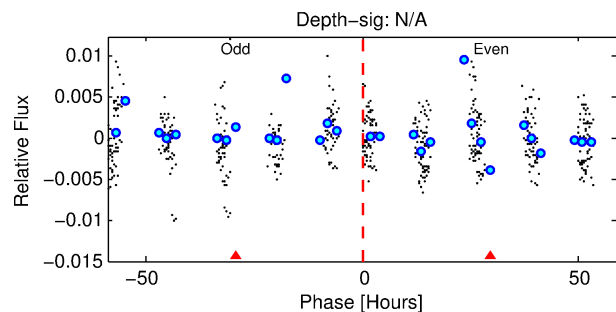
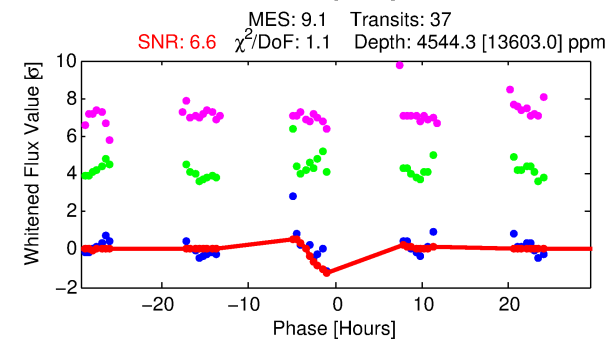
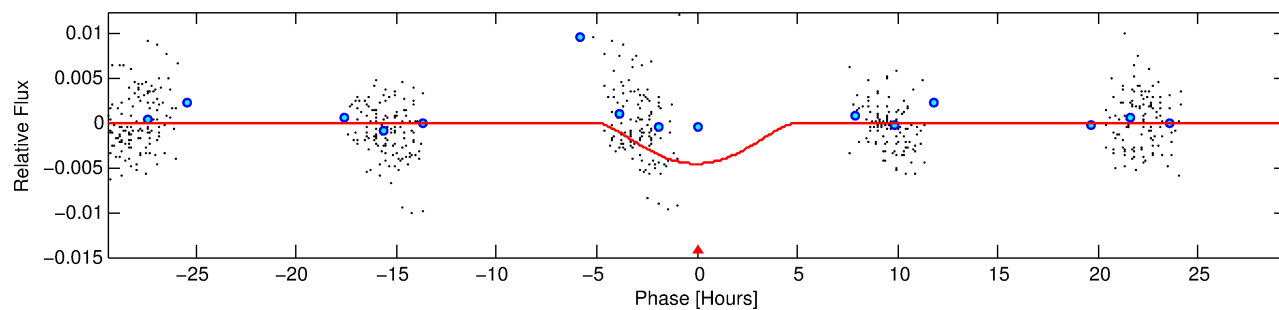
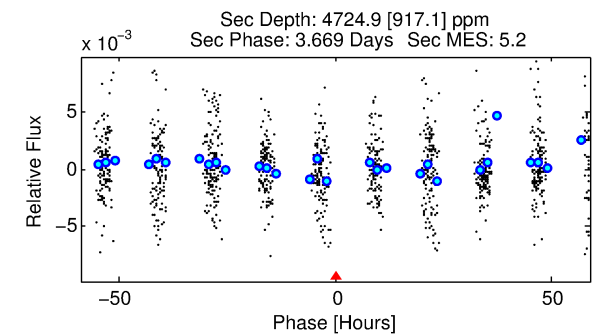
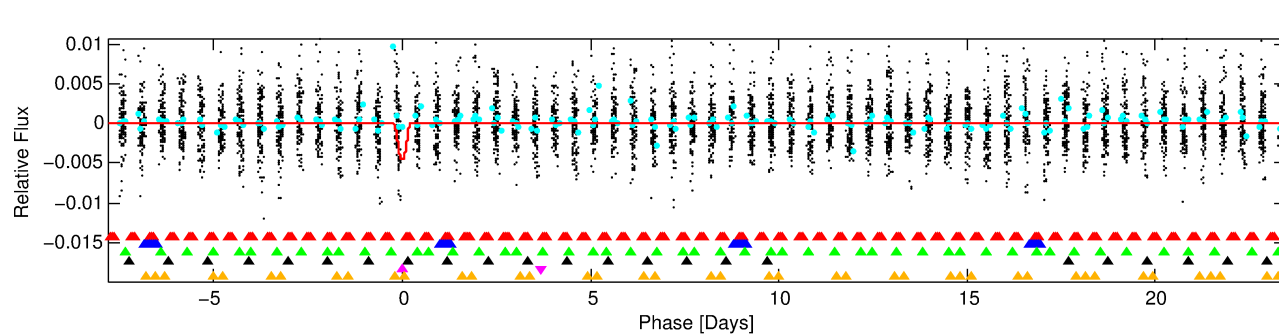
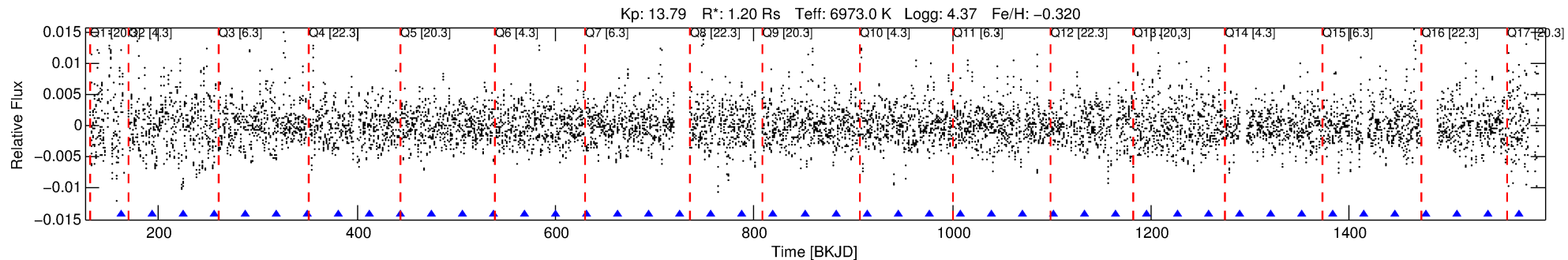
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005395139-05

No Significant Match Found

DV One-Page Summary

KIC: 5395139 Candidate: 5 of 6 Period: 31.326 d



DV Fit Results:

Period = 31.32627 [0.00111] d
Epoch = 161.9366 [0.0388] BKJD
Rp/R* = 0.1105 [0.4889]
a/R* = 11.84 [9.20]
b = 1.00 [0.47]
Seff = 70.59 [31.69]
Teq = 739 [83] K
Rp = 14.43 [64.07] Re
a = 0.2073 [0.0607] AU
Ag = 536.87 [4759.21] [0.11σ]
Teff = 5501 [12179] K [0.39σ]

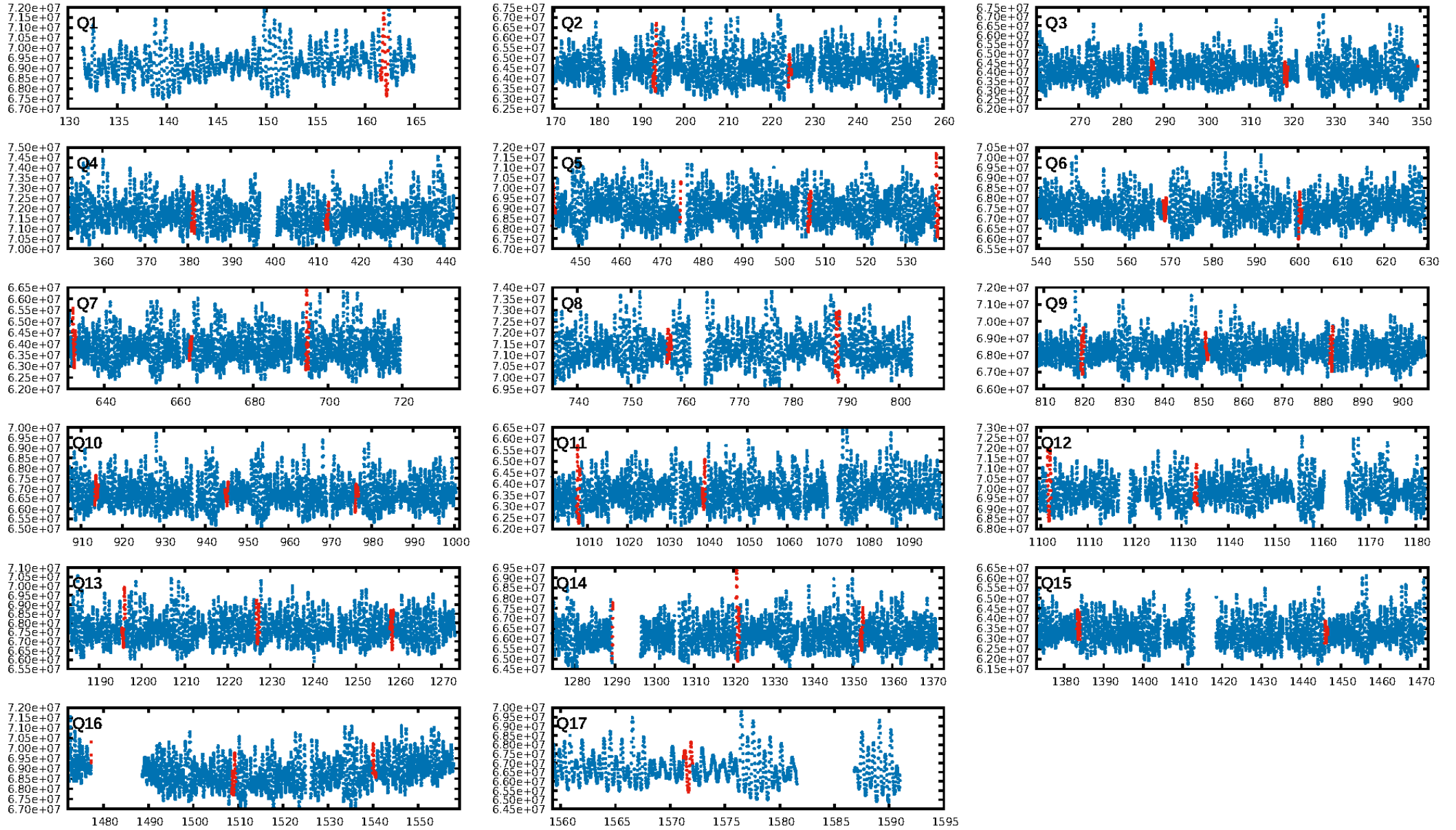
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.72σ]
LongPeriod-sig: 100.0% [7.98σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [35/35]
GhostDiagnostic-chr: 55.79
Centroid-sig: 18.2%
Centroid-so: 0.301 arcsec [1.94σ]
OotOffset-rm: 0.171 arcsec [1.21σ]
KicOffset-rm: 0.184 arcsec [1.70σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.65 [11/17]
DiffImageOverlap-fno: 0.00 [0/17]

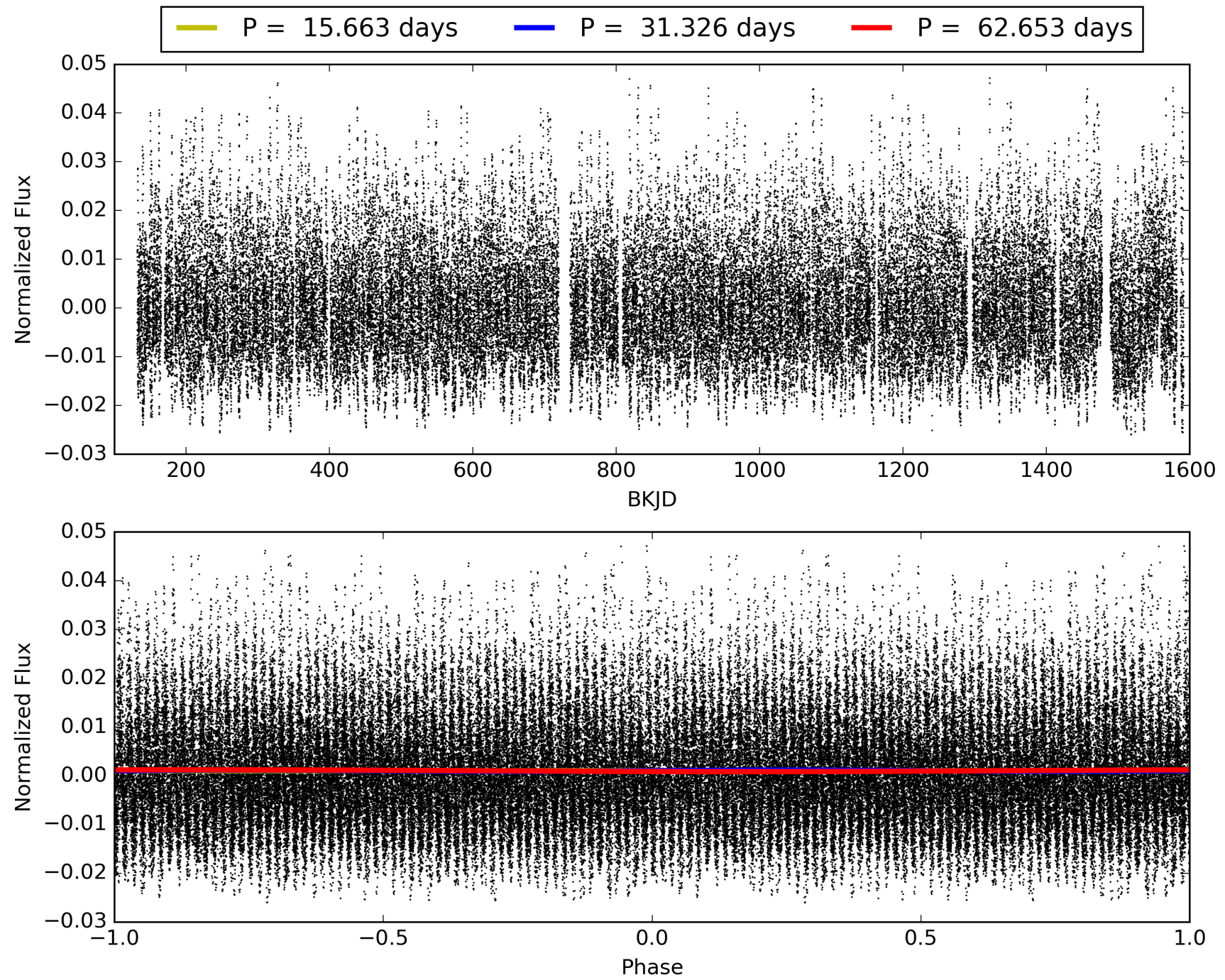
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:49:27 Z

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

TCE 005395139-05, PDC Light Curves

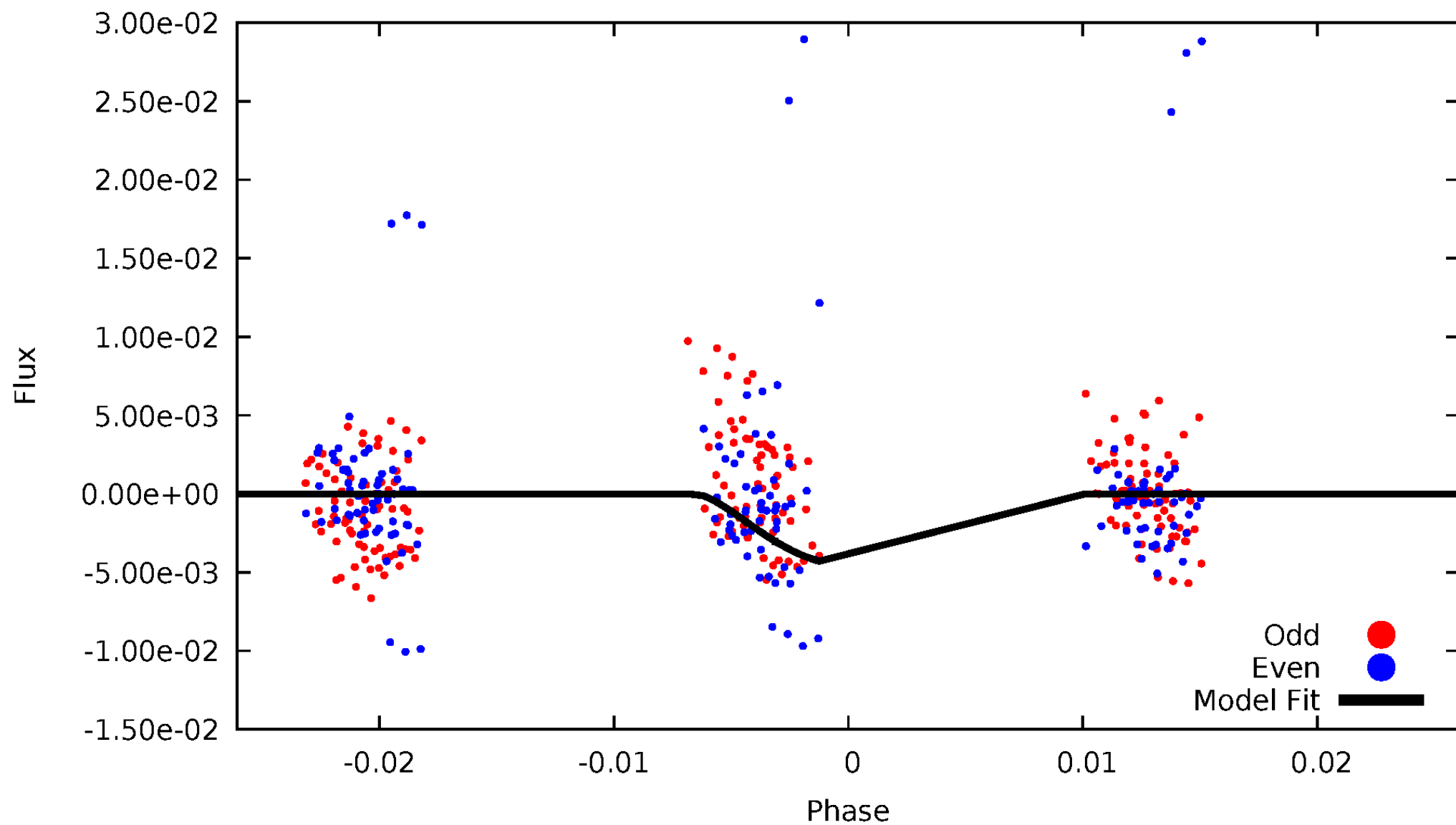


TCE 005395139-05



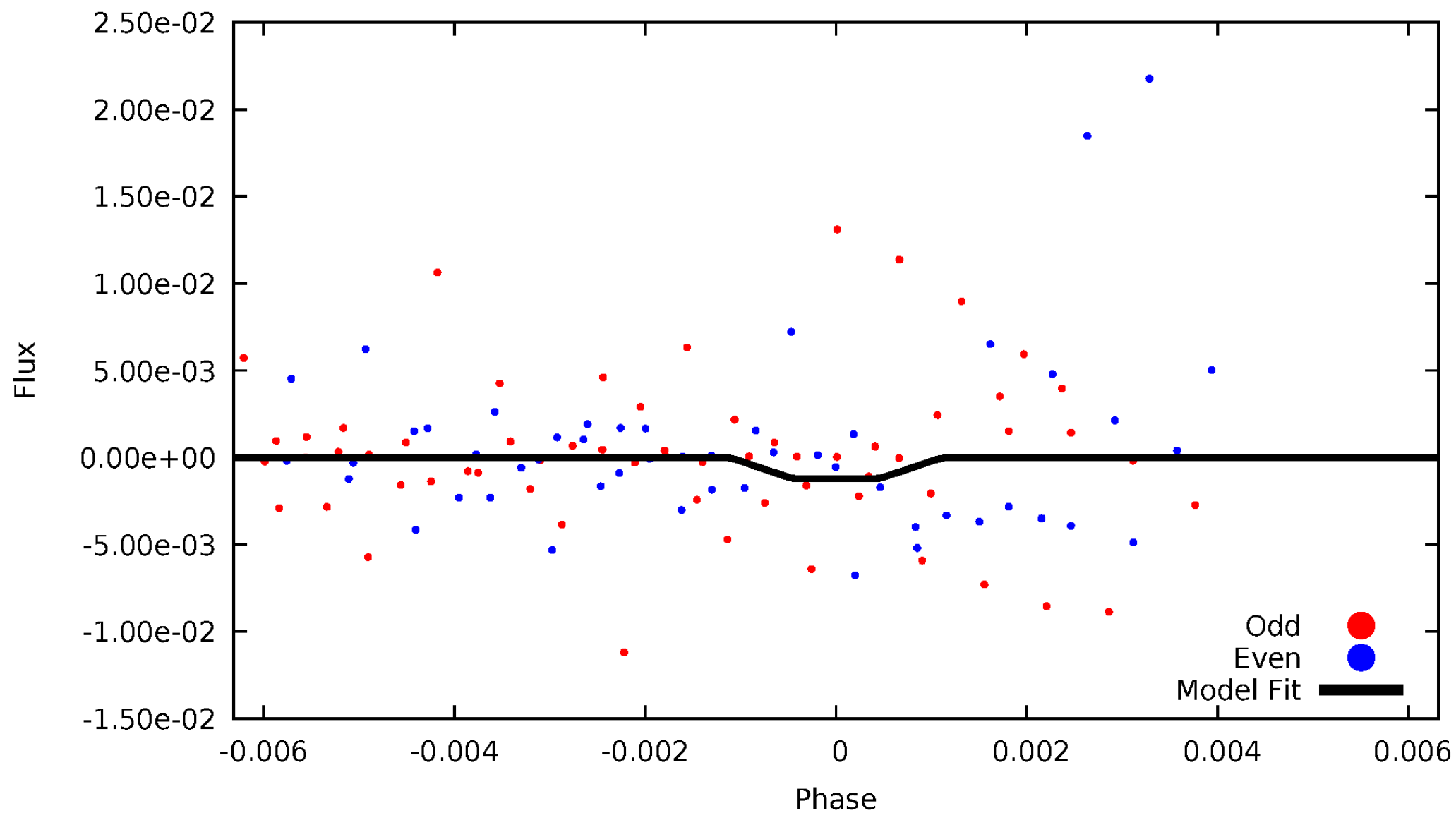
DV Odd/Even

TCE 005395139-05



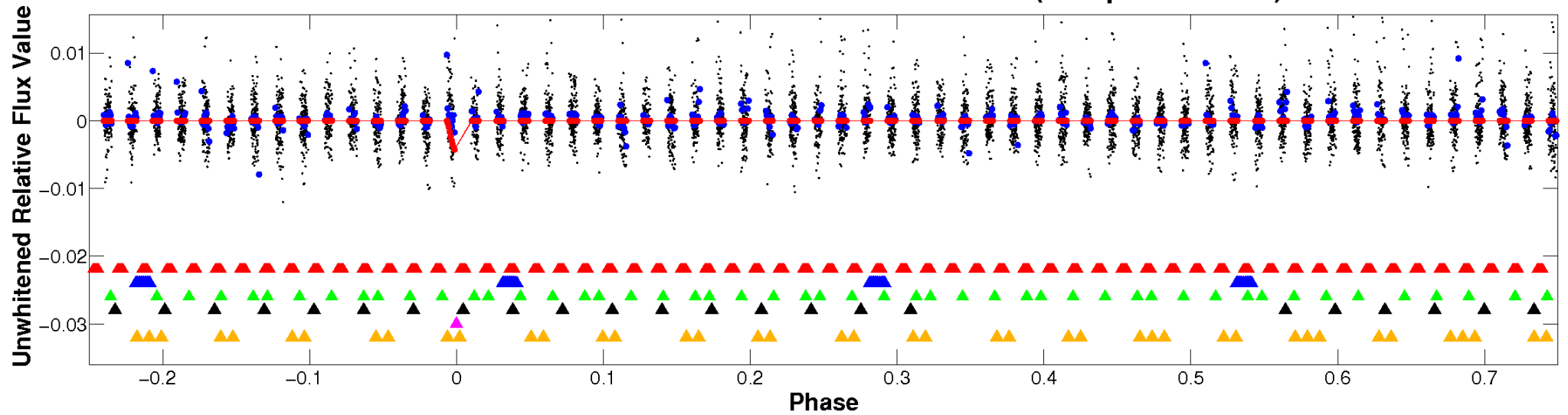
ALT Odd/Even

TCE 005395139-05

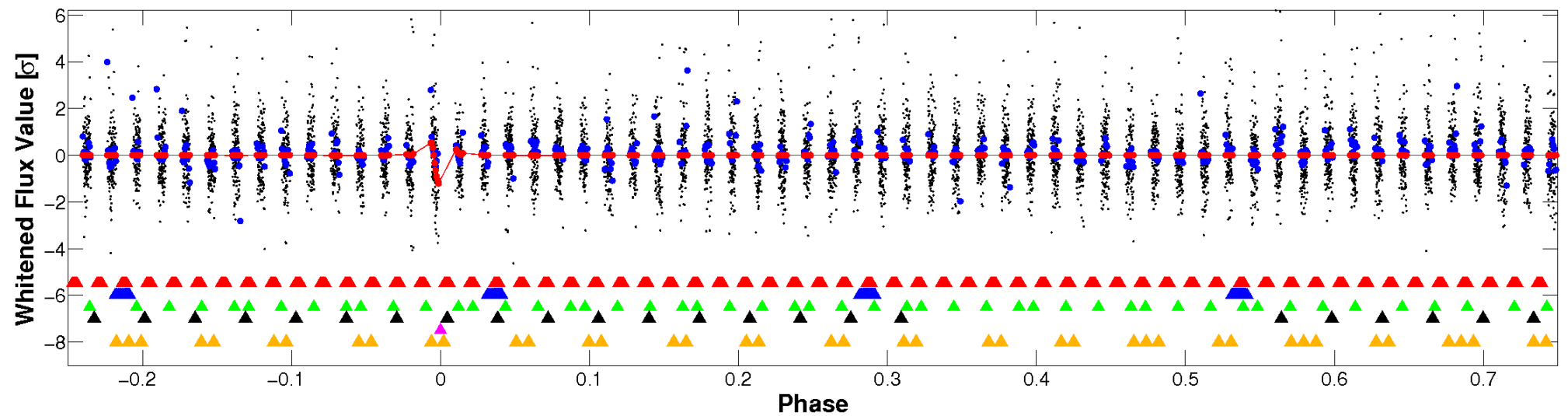


Non-Whitened Vs. Whitened Light Curve

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

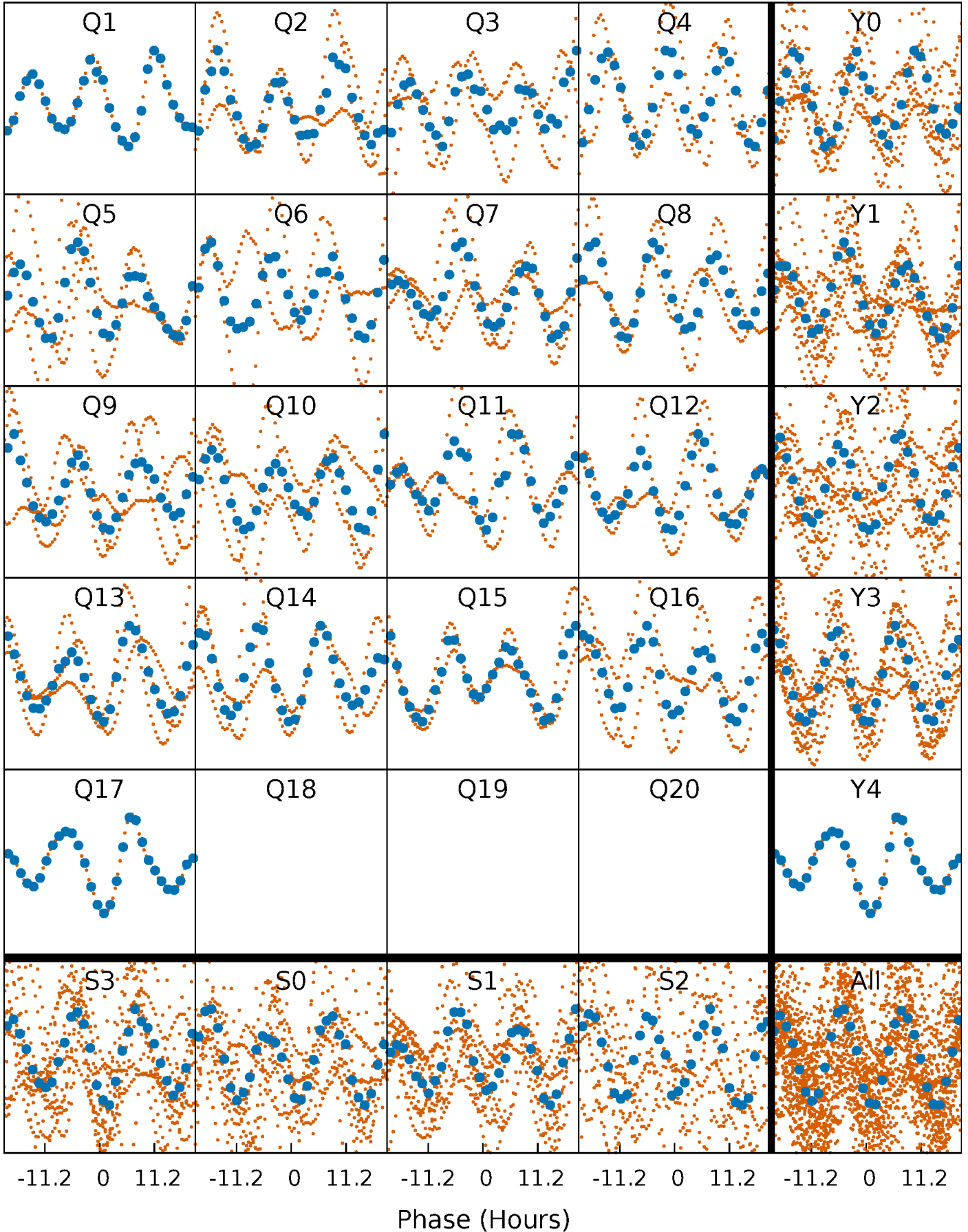


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



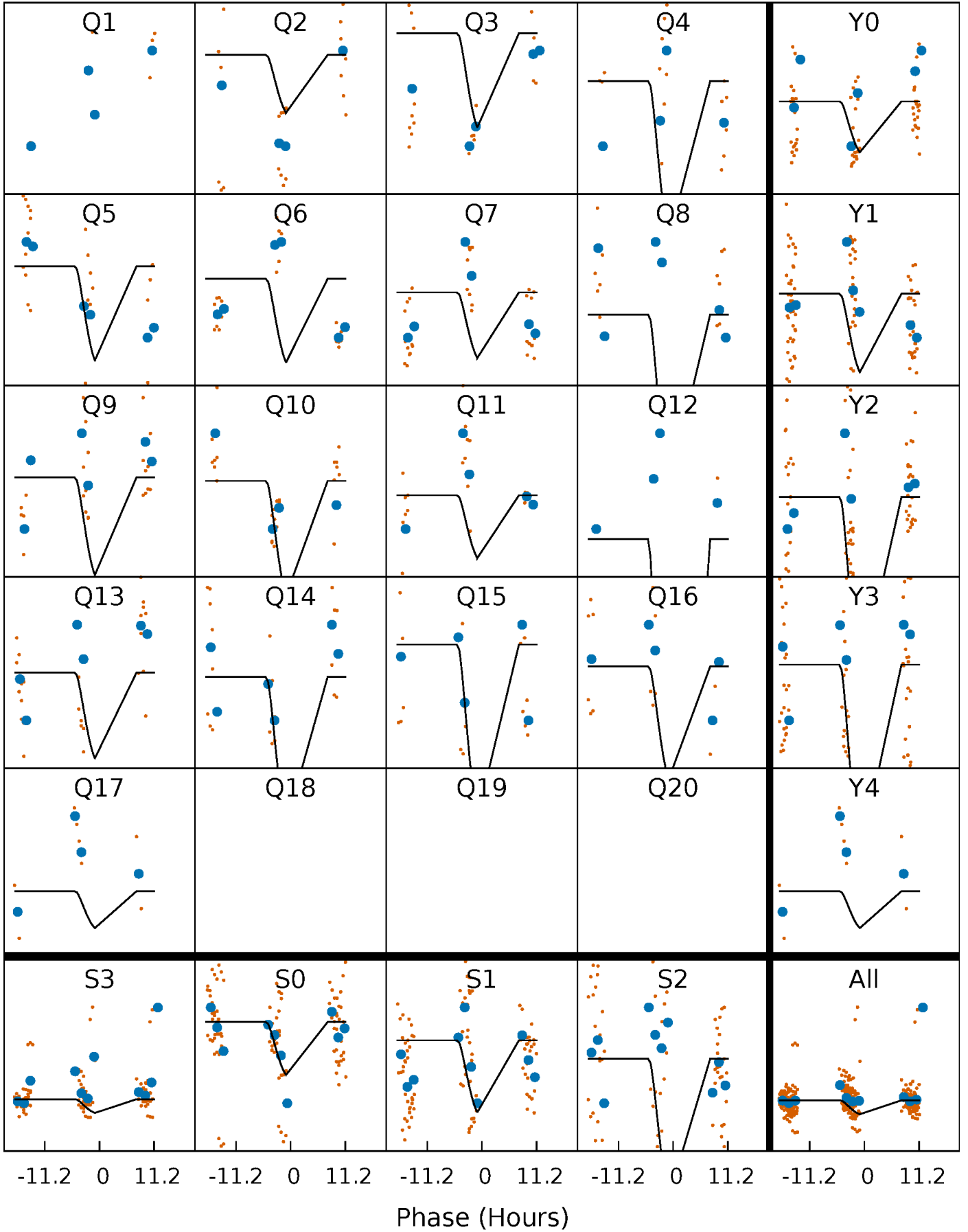
PDC Quarter-Phased Transit Curves

TCE 005395139-05 P= 31.326267 Days $T_0=161.936604$ (BKJD)



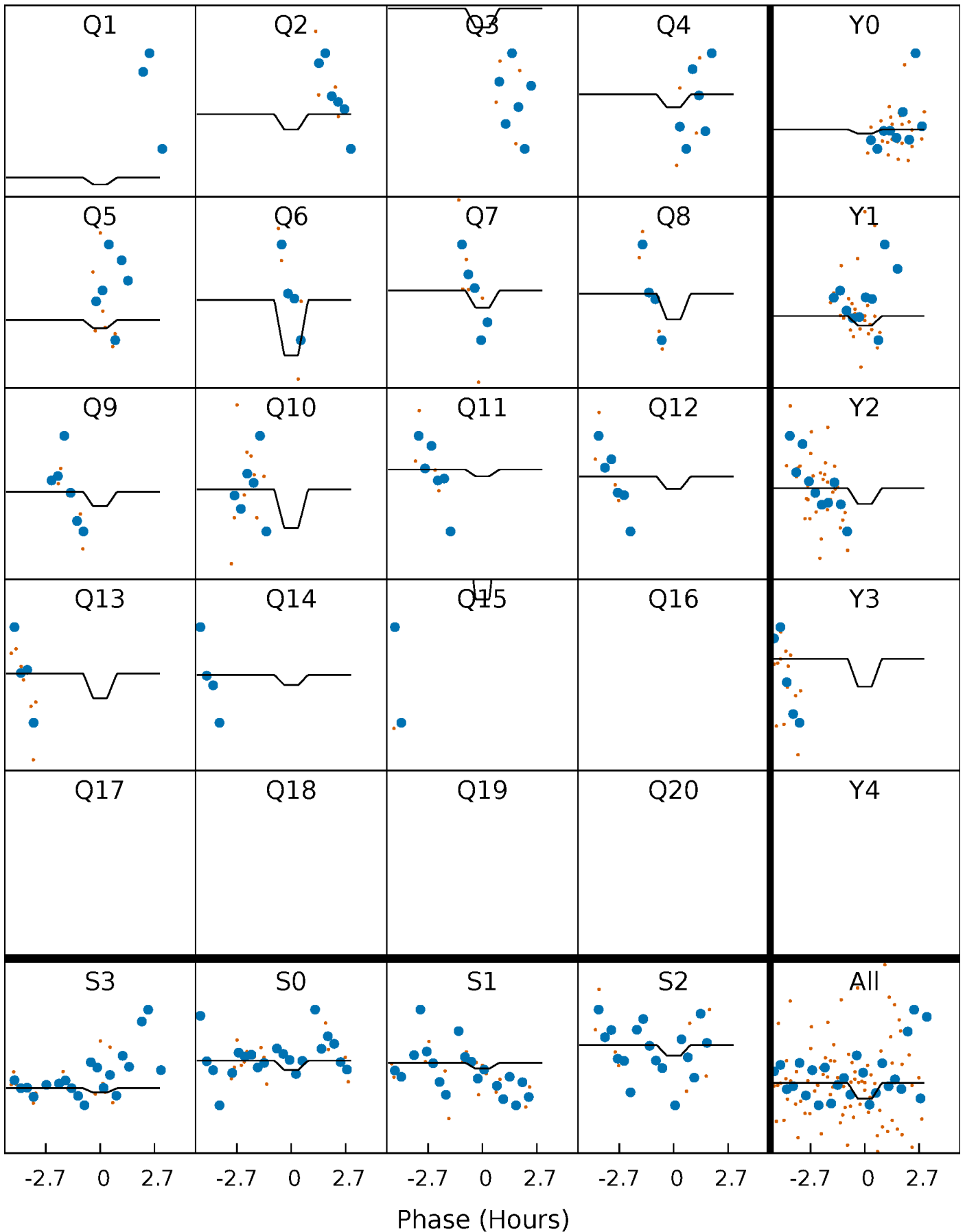
DV Quarter-Phased Transit Curves

TCE 005395139-05 P= 31.326267 Days $T_0=161.936604$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

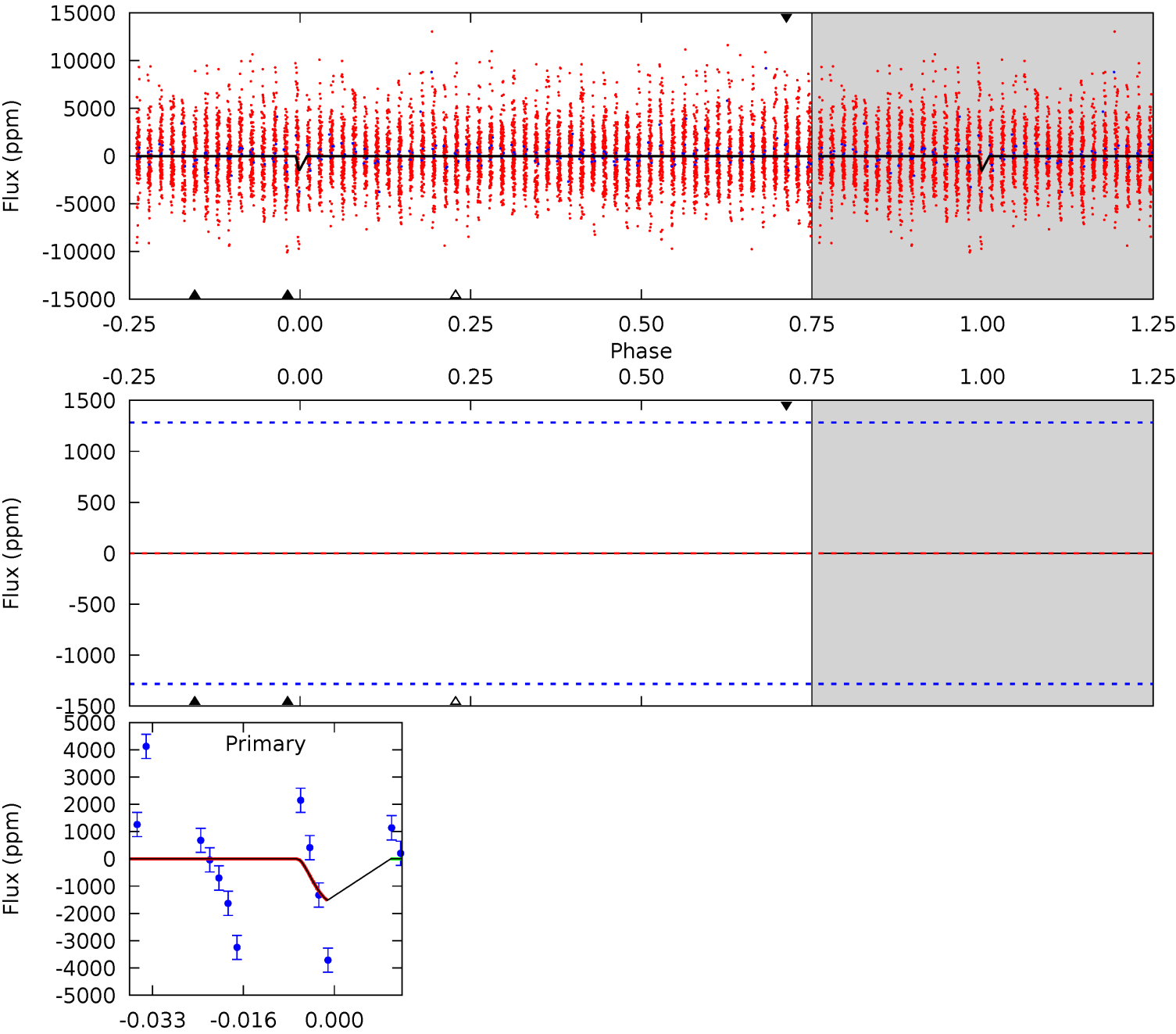
TCE 005395139-05 $P = 31.331126$ Days $T_0 = 161.774703$ (BKJD)



DV Model-Shift Uniqueness Test

005395139-05, P = 31.326267 Days, E = 130.610337 Days

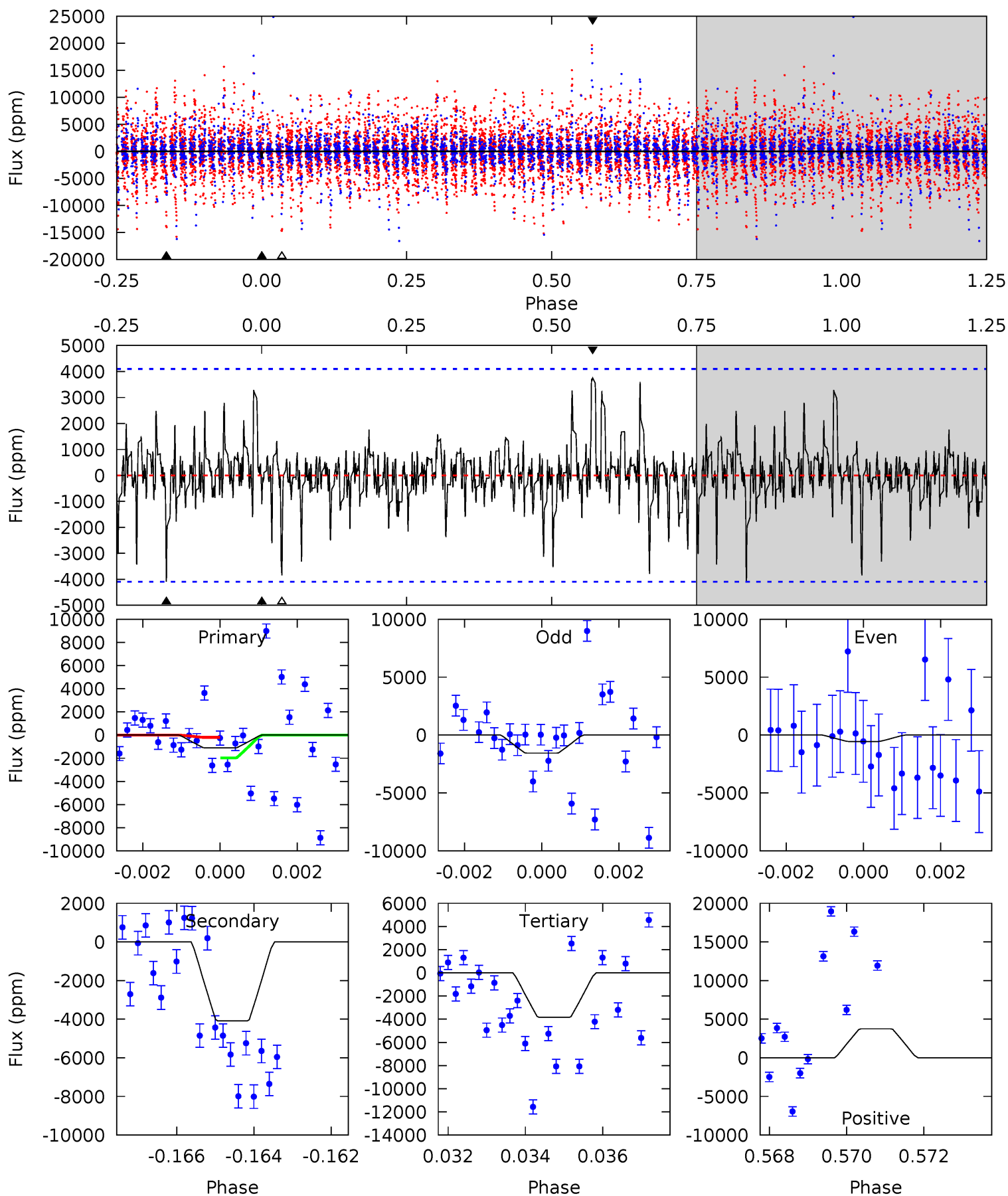
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	4.93	2.40	0	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005395139-05, P = 31.331126 Days, E = 130.443577 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.43	5.30	4.99	4.86	5.32	3.07	1.05	-3.55	-3.43	0.31	0.44	0.63	-0.57	0.48	1.17



Stellar Parameters For KIC 005395139

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6973^{+192}_{-288}	$4.365^{+0.056}_{-0.224}$	$-0.320^{+0.250}_{-0.350}$	$1.197^{+0.425}_{-0.113}$	$1.230^{+0.189}_{-0.154}$	$1.010^{+0.238}_{-0.552}$
	+3%/-4%	+1%/-5%	+78%/-109%	+36%/-9%	+15%/-13%	+24%/-55%
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 005395139-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0 ± 260	$52.55^{+57.86}_{-35.03}$	1055^{+81}_{-59}	-1882^{+4367}_{-562}	$0.044^{+4.175}_{-2.969}$
Alt.	-4084 ± 770	$47.62^{+54.22}_{-34.39}$	1057^{+80}_{-60}	3466^{+2132}_{-694}	42^{+495}_{-33}

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

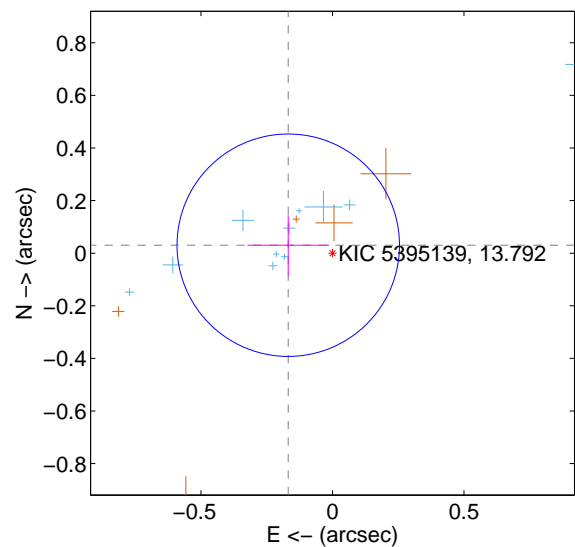
Supplemental centroid analysis for 005395139-05. Kepler magnitude: 13.79. Transit SNR 6.61

There are 11 quarters with good PRF difference image offsets

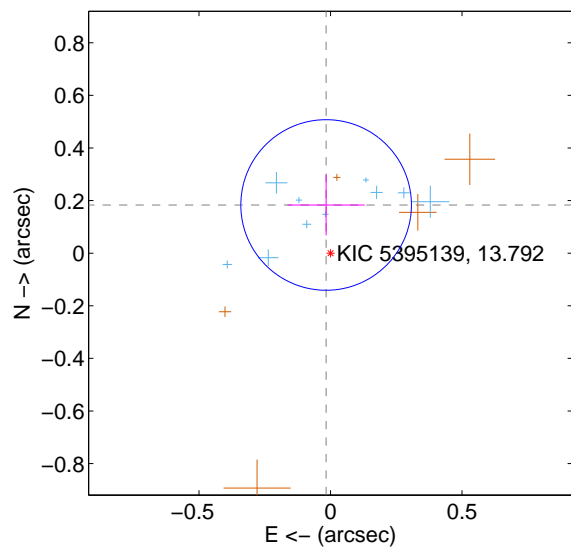
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.171 ± 0.141	1.21	0.168 ± 0.155	0.030 ± 0.113
PRF-fit source offset from KIC position	0.184 ± 0.108	1.70	0.017 ± 0.147	0.183 ± 0.116
photometric centroid source offset	0.30 ± 0.16	1.94	-0.22 ± 0.21	-0.21 ± 0.05

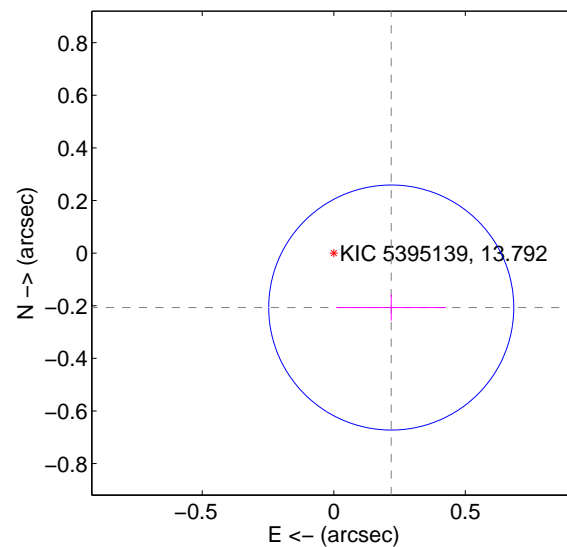
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

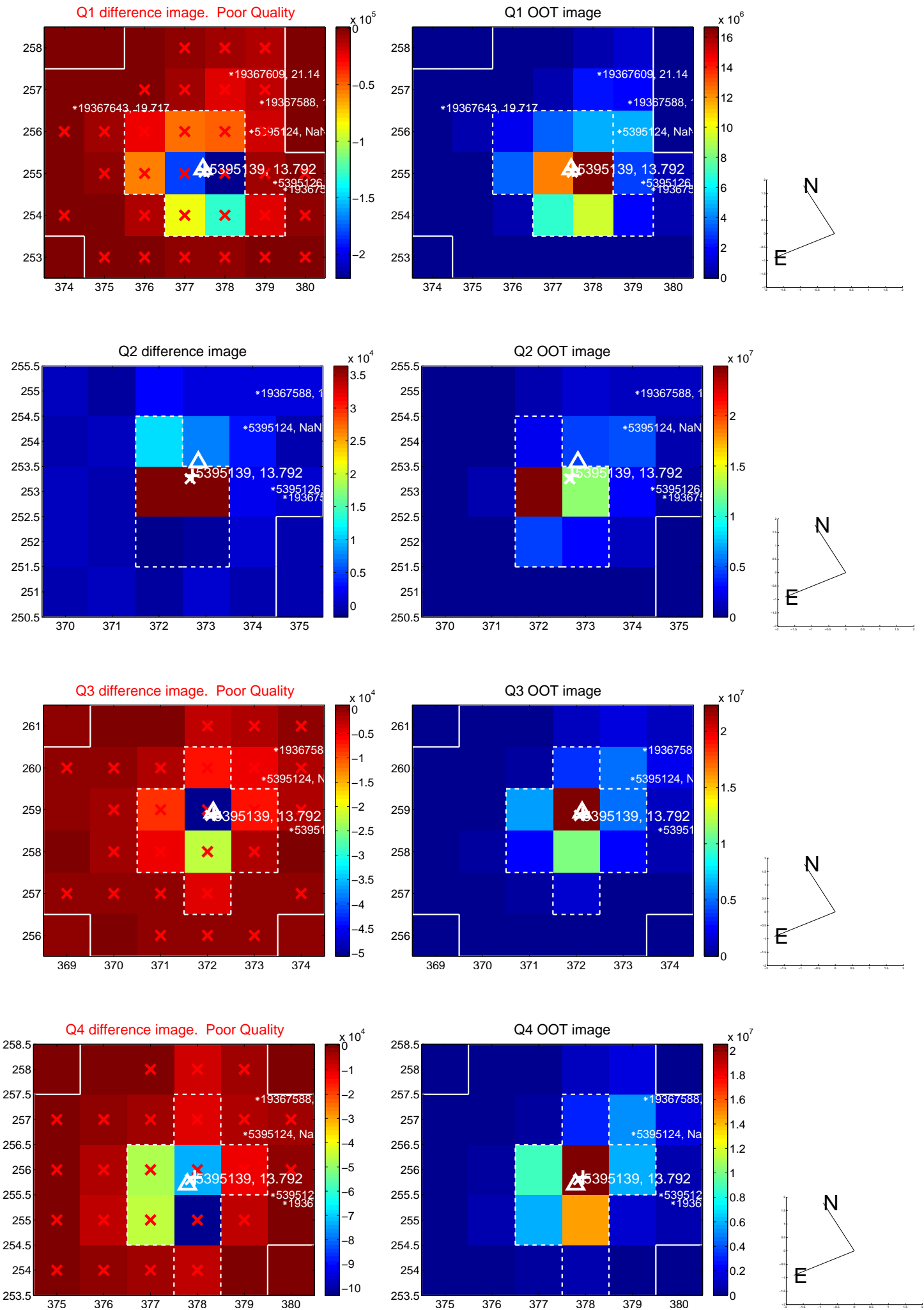


offset from photometric centroids

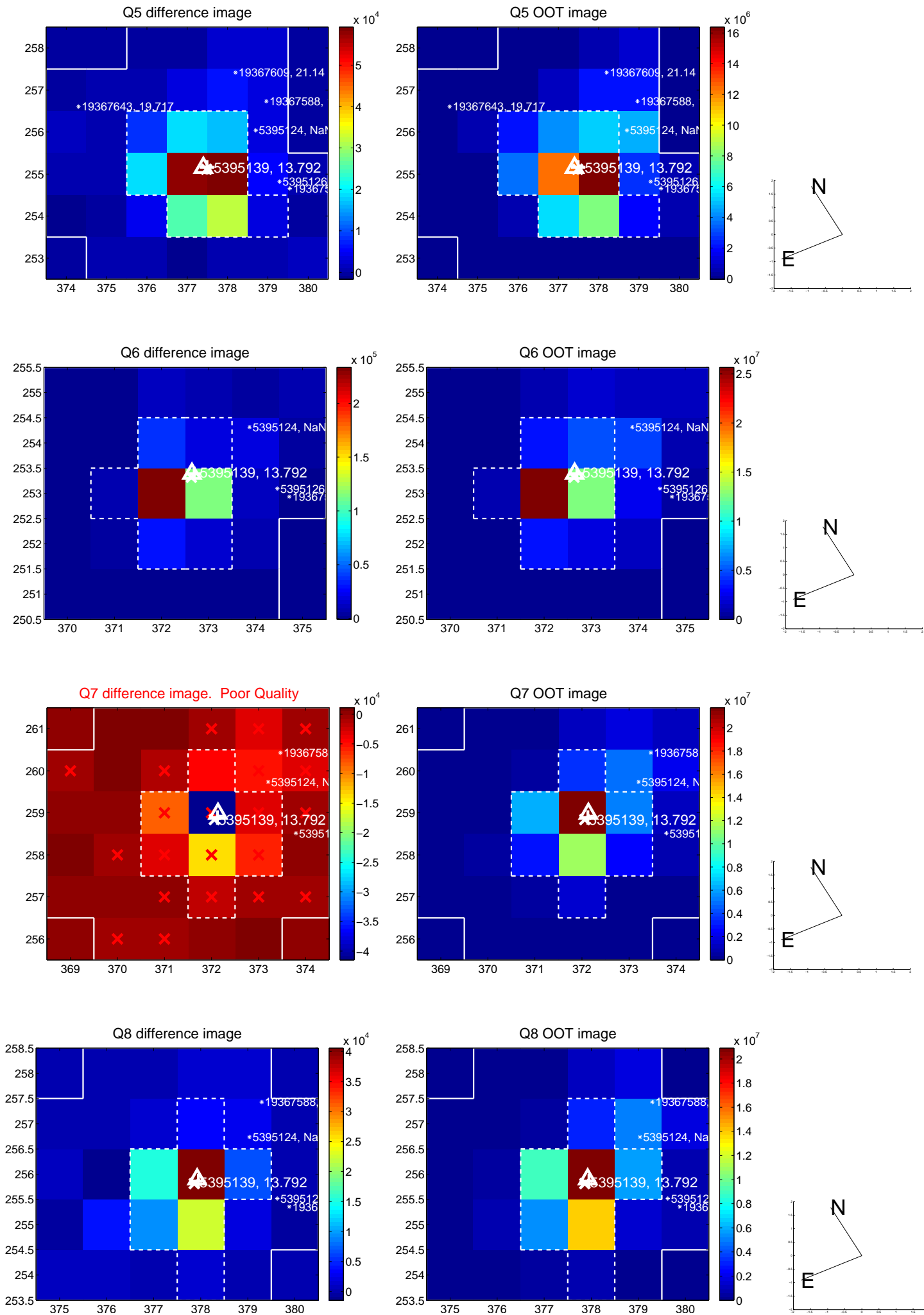


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

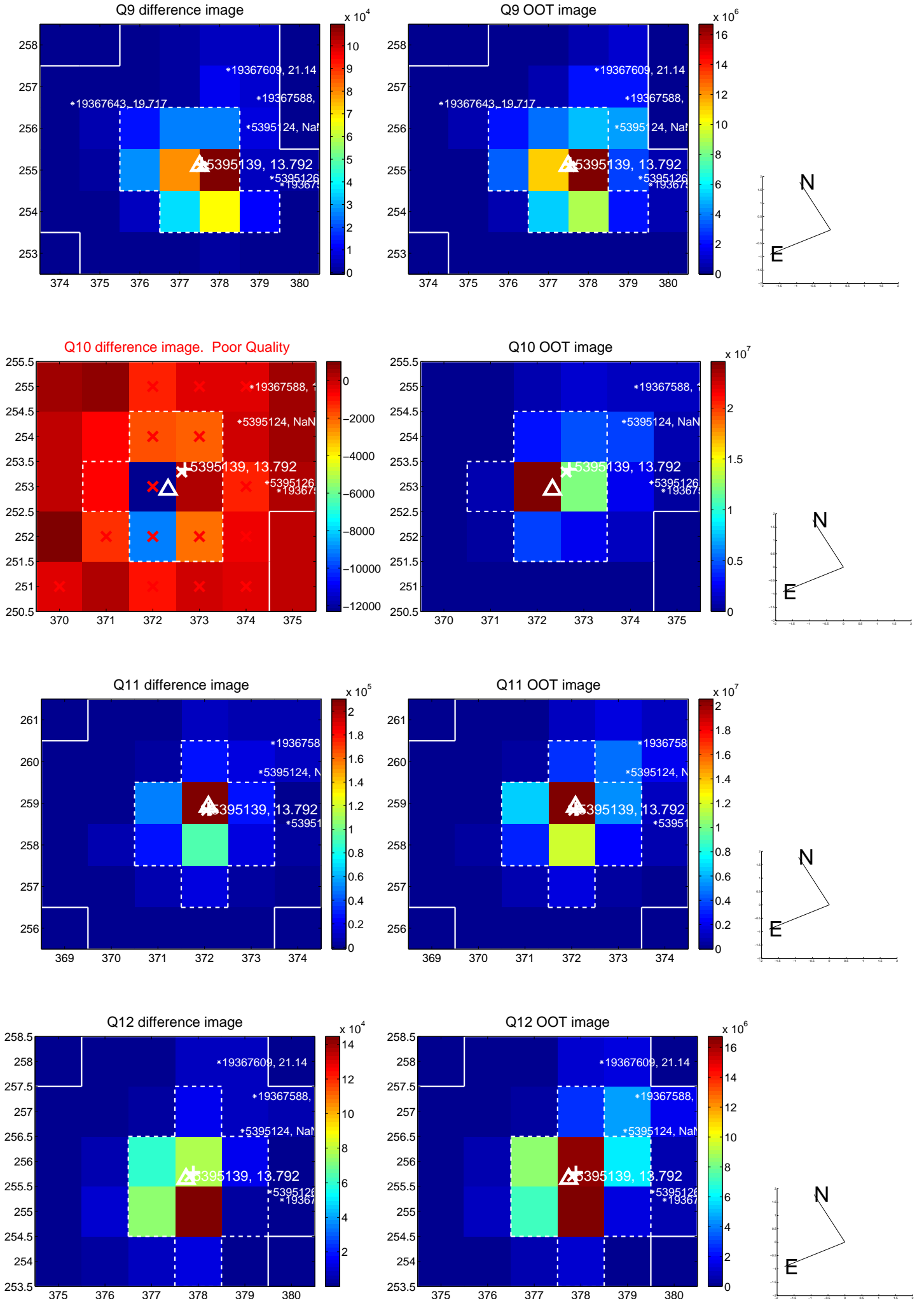
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



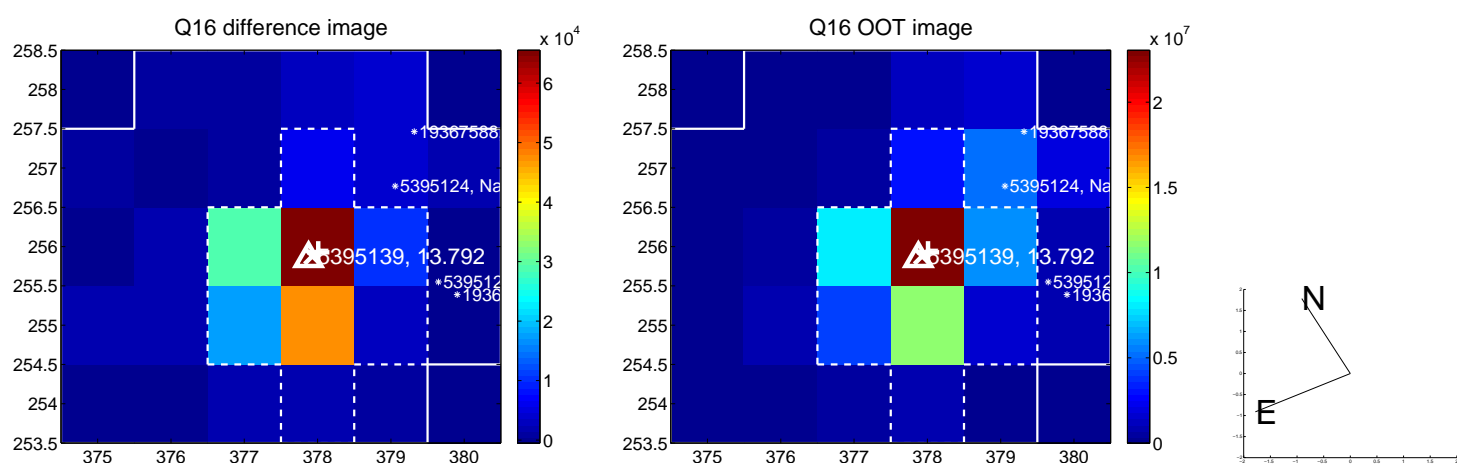
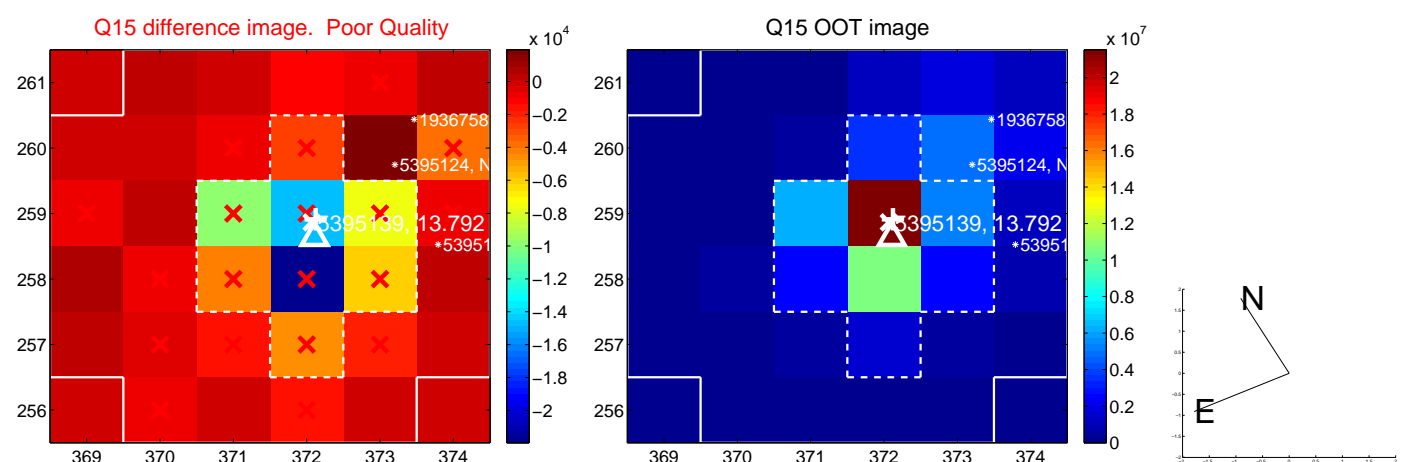
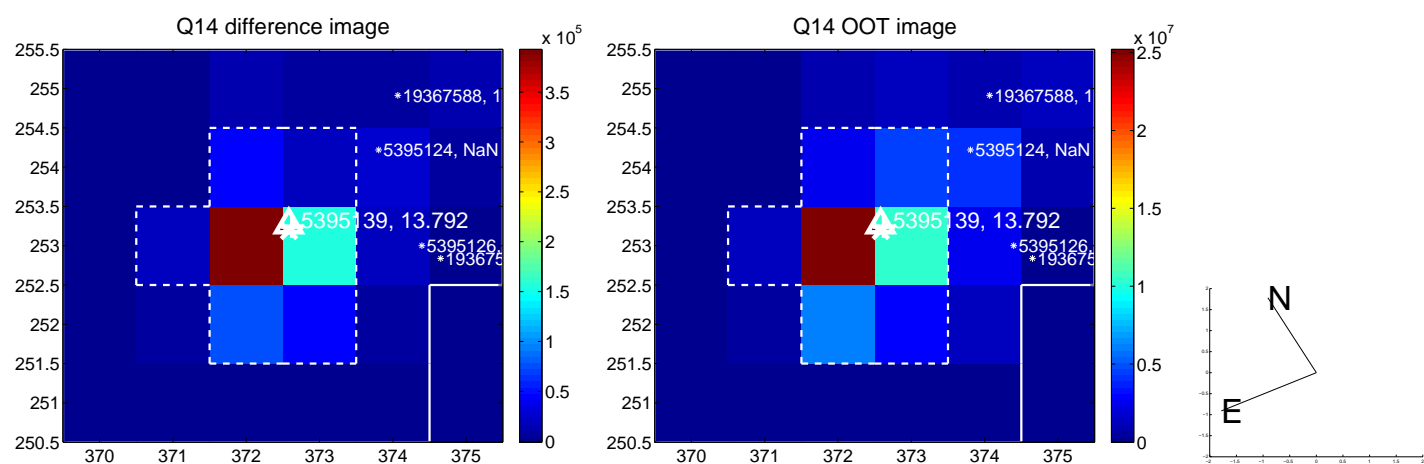
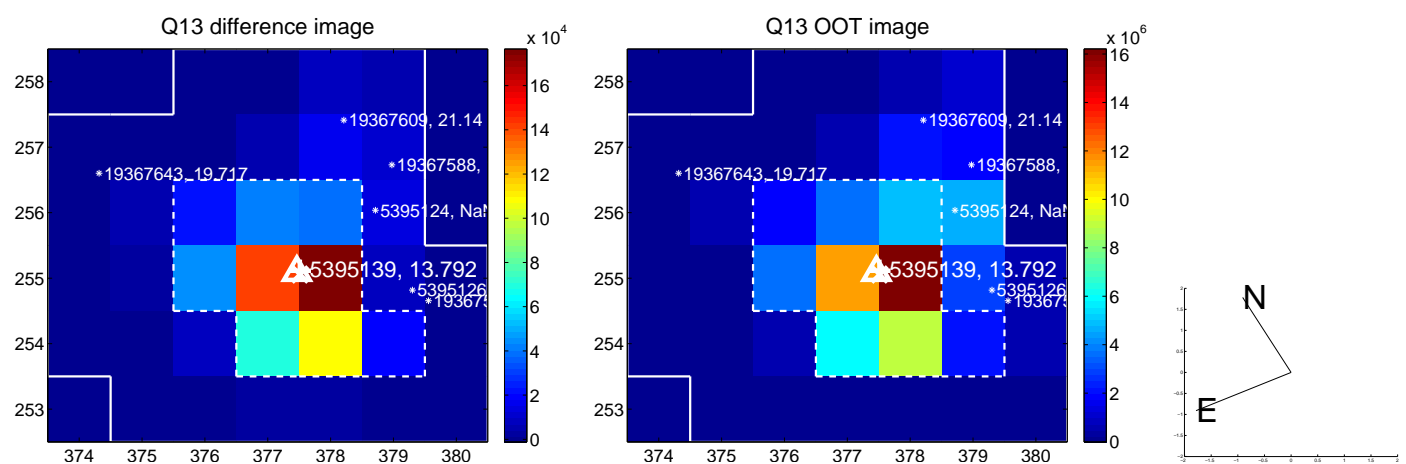
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



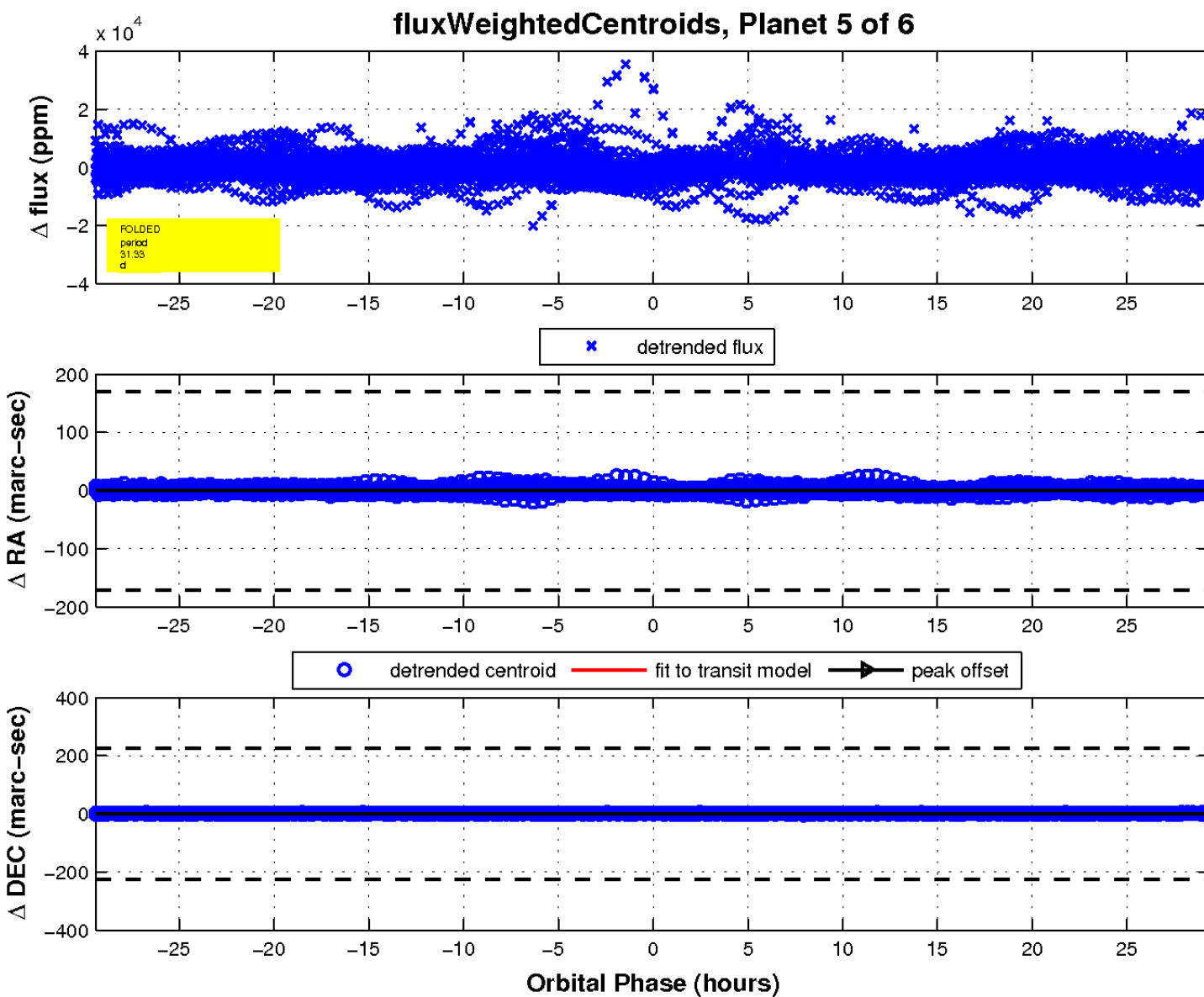
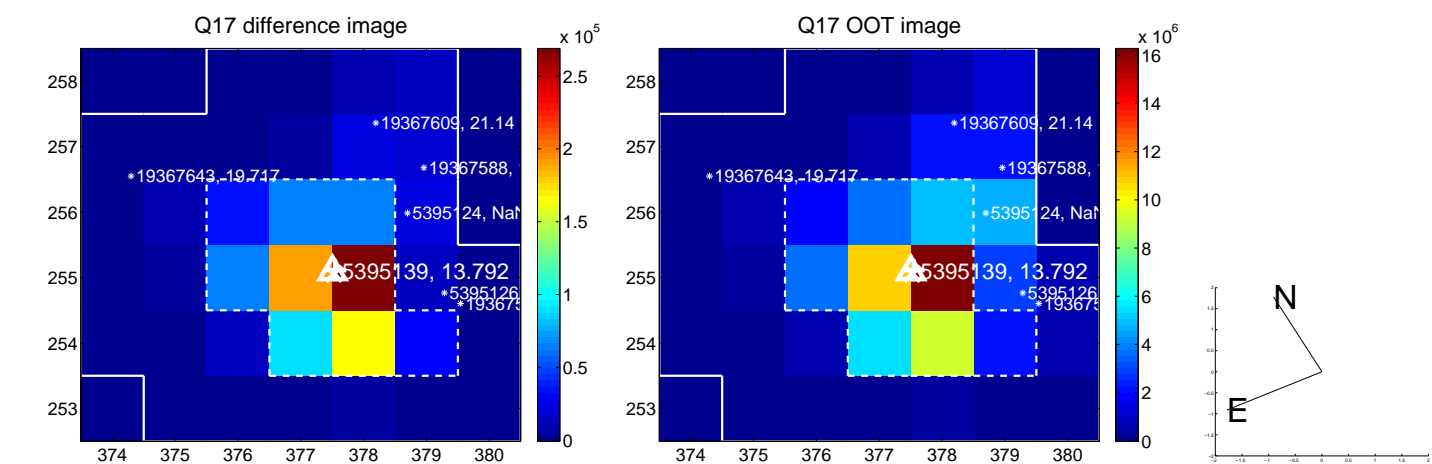
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

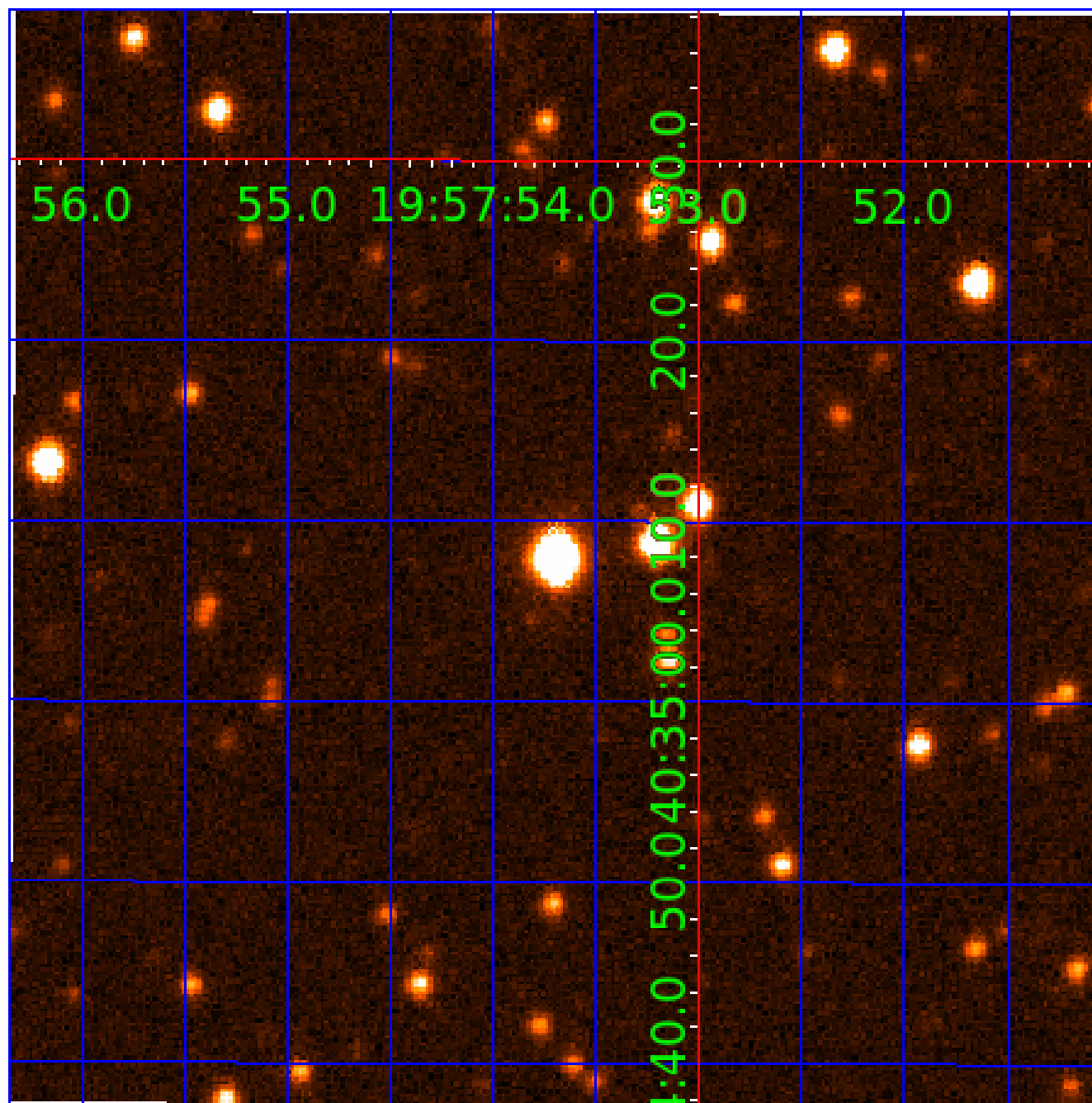


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005395139

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})
005395139-01	OBS	No	0.522062	131.853577	0.0	3.458	8.2	0.0	1.20	6973	0.01	16583.40
005395139-02	OBS	No	23.500139	147.247294	4543.1	1.621	13.9	7.7	1.20	6973	8.29	103.56
005395139-03	OBS	No	28.969234	147.790728	1570.5	1.353	12.5	2.5	1.20	6973	4.81	78.35
005395139-04	OBS	No	63.713039	148.292586	5972.4	1.655	11.5	7.8	1.20	6973	9.99	27.39
005395139-05	OBS	No	31.326267	161.936604	4544.3	9.799	9.1	6.6	1.20	6973	14.43	70.59
005395139-06	OBS	No	34.637435	145.189764	4209.3	1.798	7.9	8.3	1.20	6973	8.35	61.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005395139-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
005395139-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT
005395139-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_TER_ALT—MOD_POS_ALT
005395139-05	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
005395139-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—HALO_GHOST

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

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

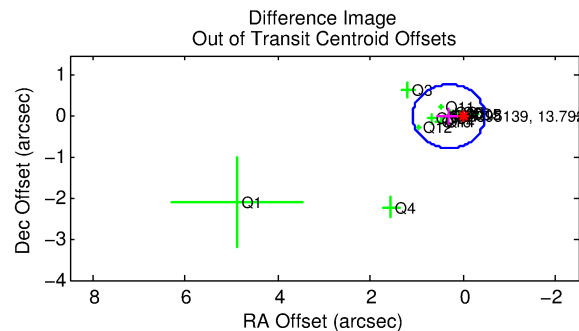
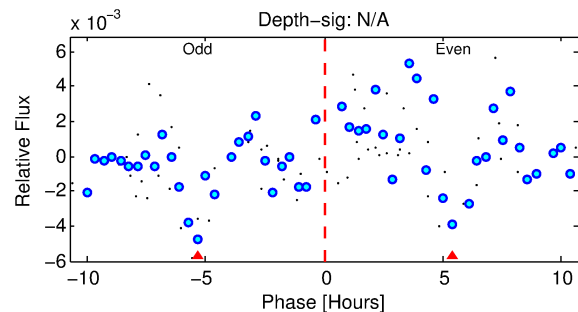
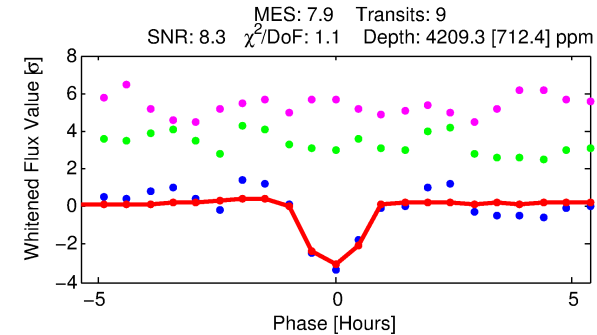
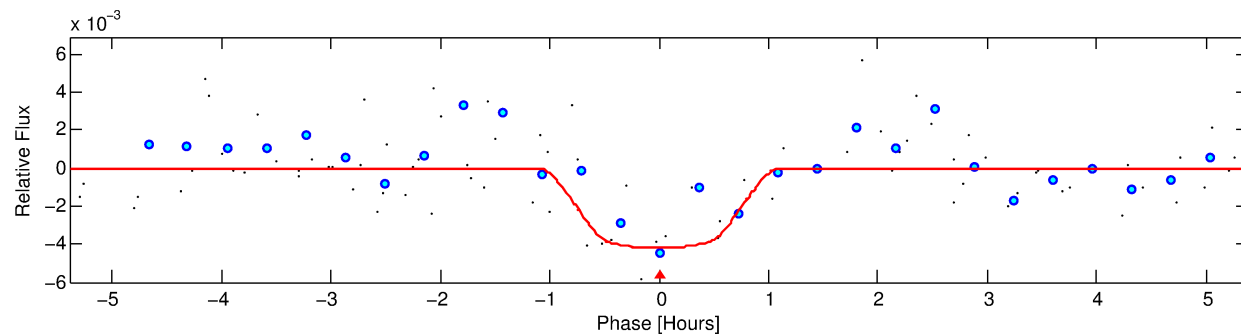
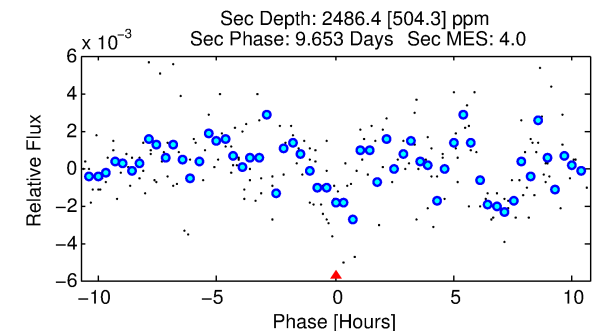
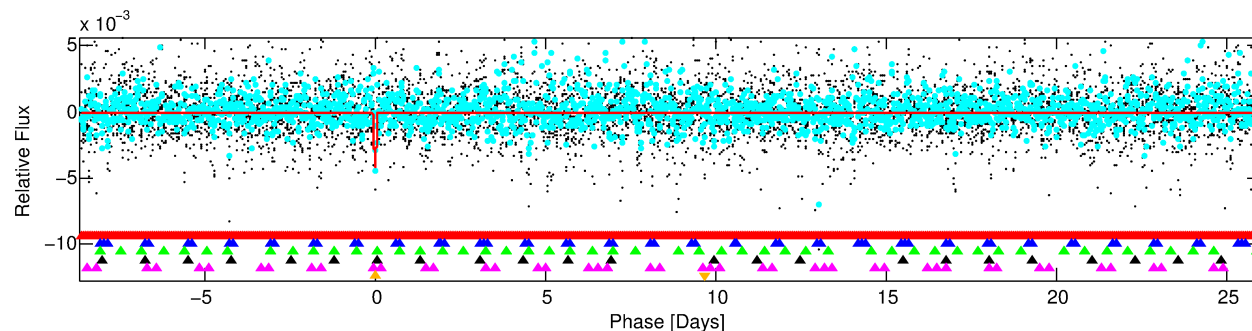
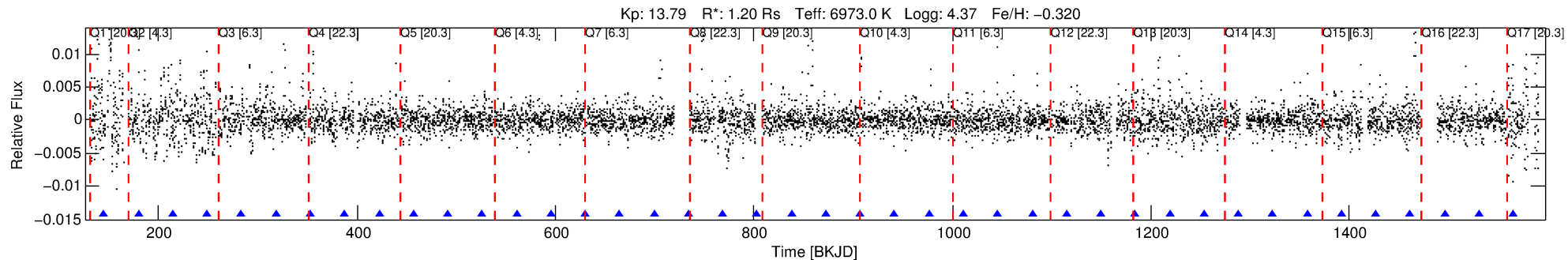
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005395139-06

No Significant Match Found

DV One-Page Summary

KIC: 5395139 Candidate: 6 of 6 Period: 34.637 d



DV Fit Results:

Period = 34.63743 [0.00031] d
Epoch = 145.1898 [0.0078] BKJD
Rp/R* = 0.0639 [0.0345]
a/R* = 117.39 [345.32]
b = 0.70 [2.11]
Seff = 61.74 [27.72]
Teq = 715 [80] K
Rp = 8.35 [5.39] Re
a = 0.2217 [0.0649] AU
Ag = 963.87 [1131.90] [0.85σ]
Teff = 6158 [1709] K [3.18σ]

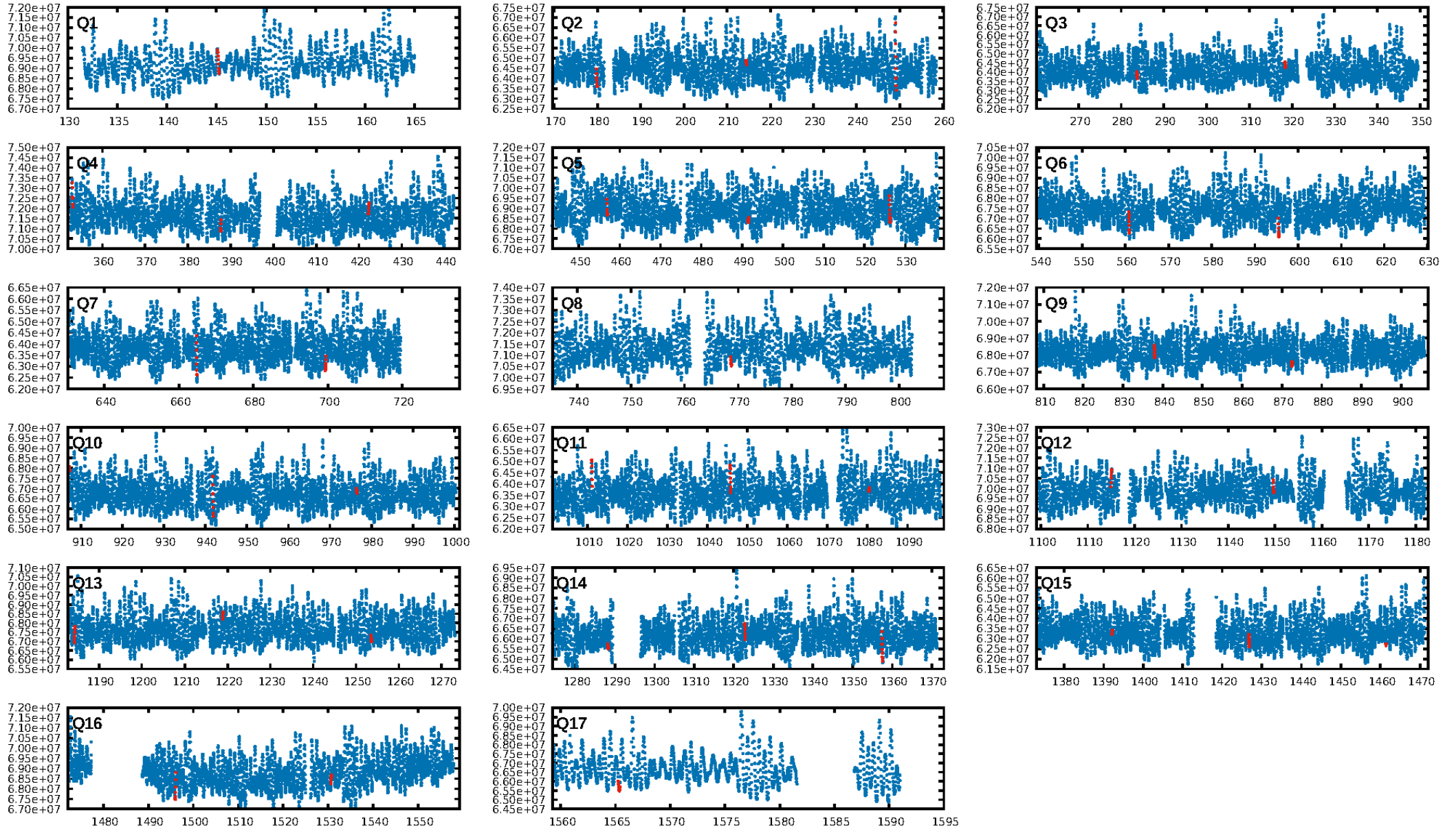
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.98σ]
LongPeriod-sig: 100.0% [285.58σ]
ModelChiSquare2-sig: 63.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 0.04413
Centroid-sig: 61.7%
Centroid-so: 0.368 arcsec [2.78σ]
OotOffset-rm: 0.311 arcsec [1.19σ]
KicOffset-rm: 0.115 arcsec [0.86σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.82 [14/17]
DiffImageOverlap-fno: 0.00 [0/17]

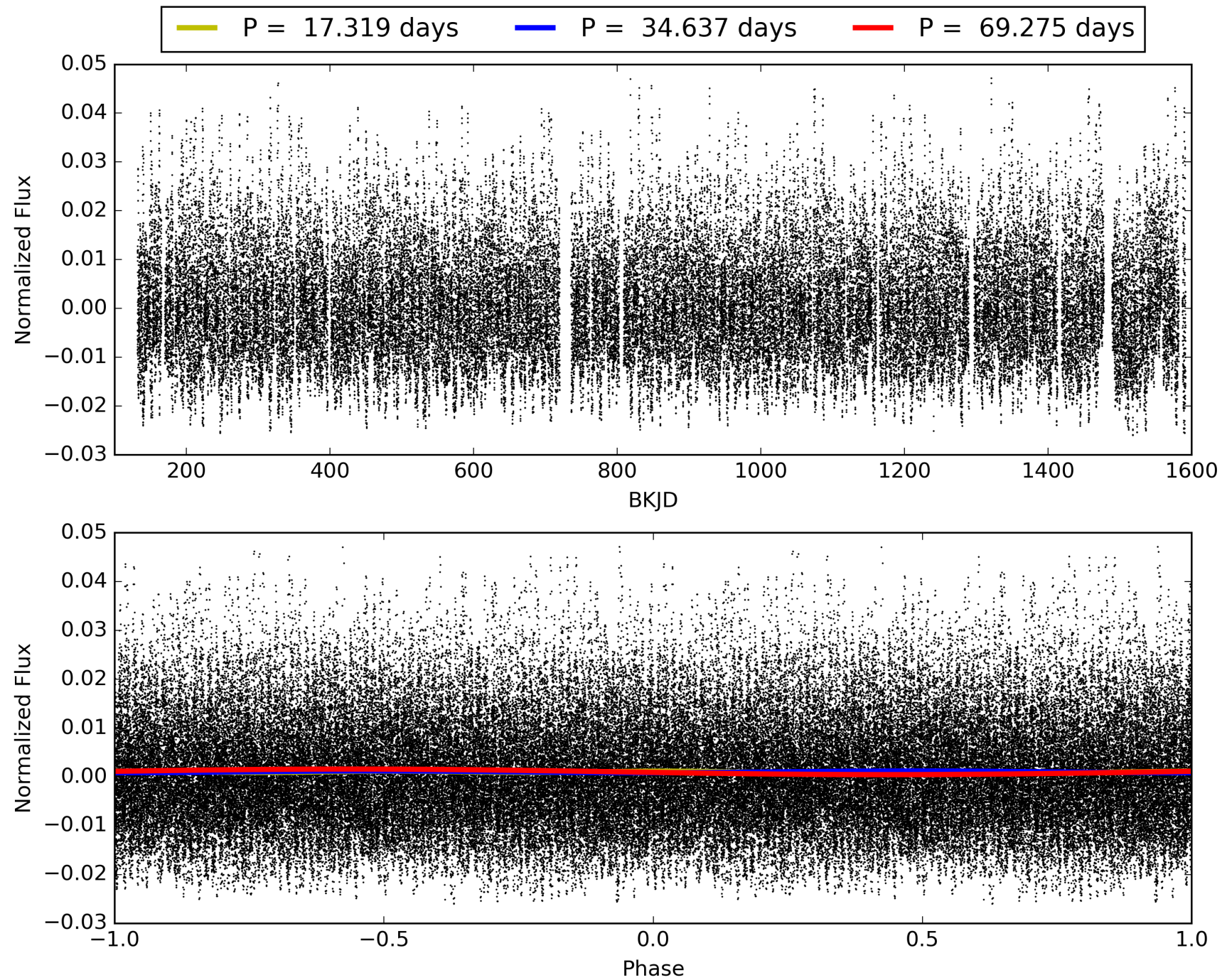
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:49:30 Z

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

TCE 005395139-06, PDC Light Curves

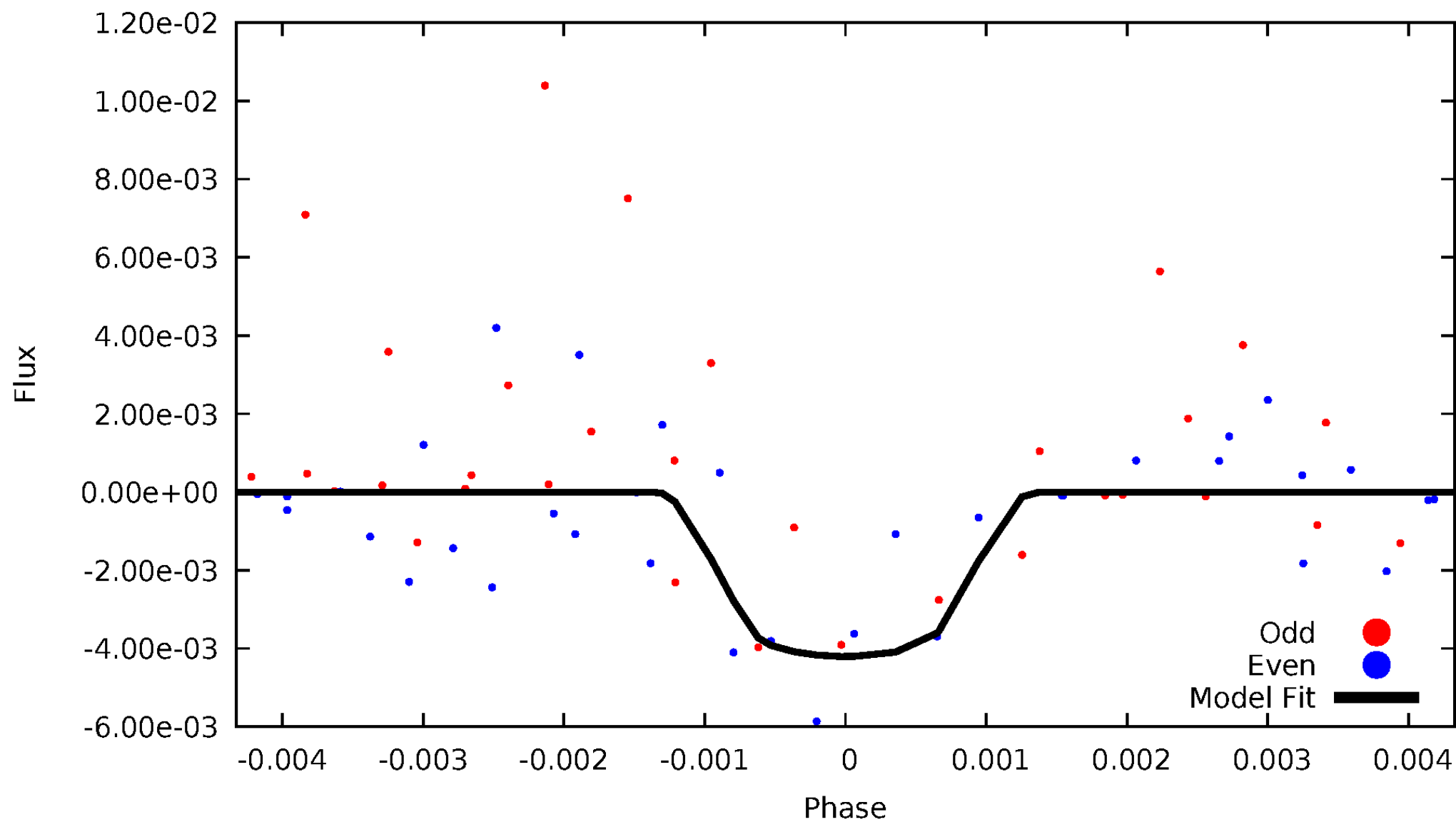


TCE 005395139-06



DV Odd/Even

TCE 005395139-06

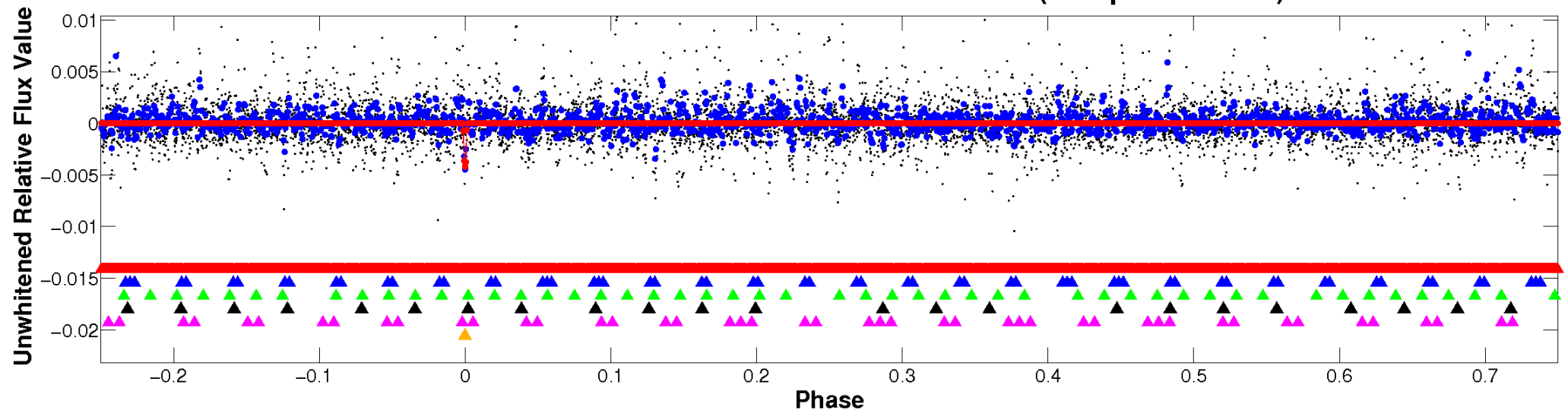


ALT Odd/Even

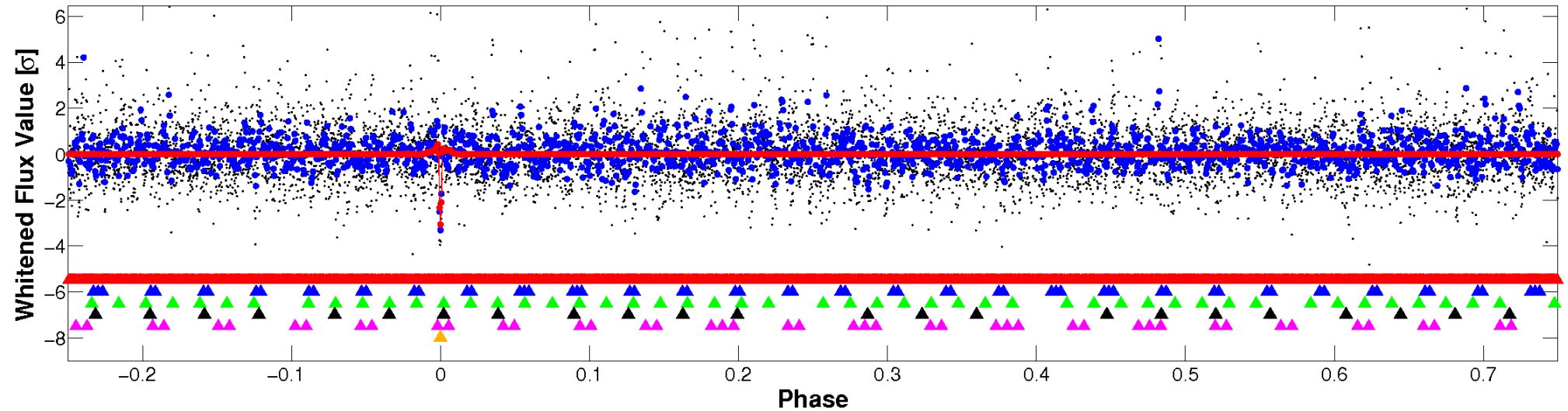
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

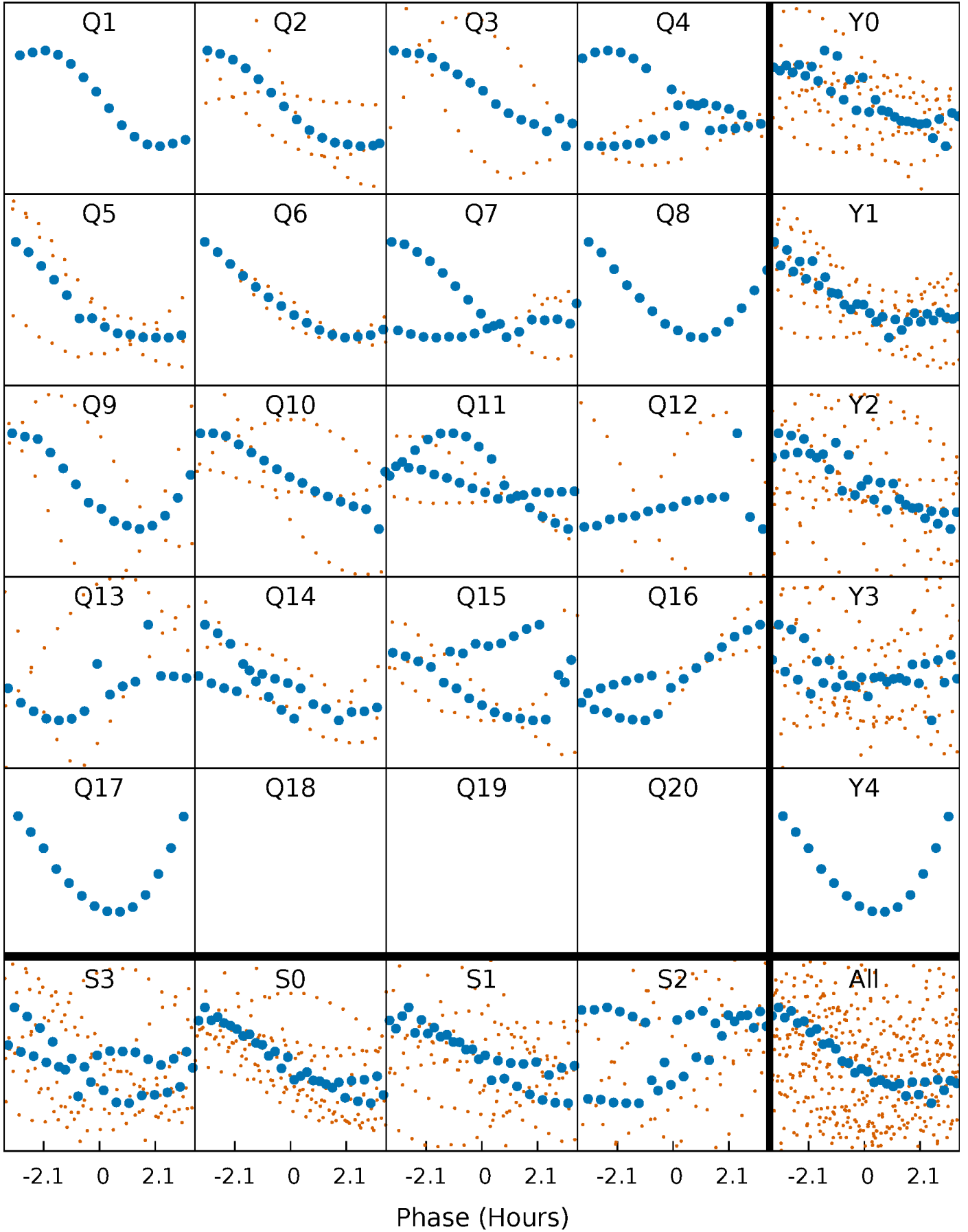


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



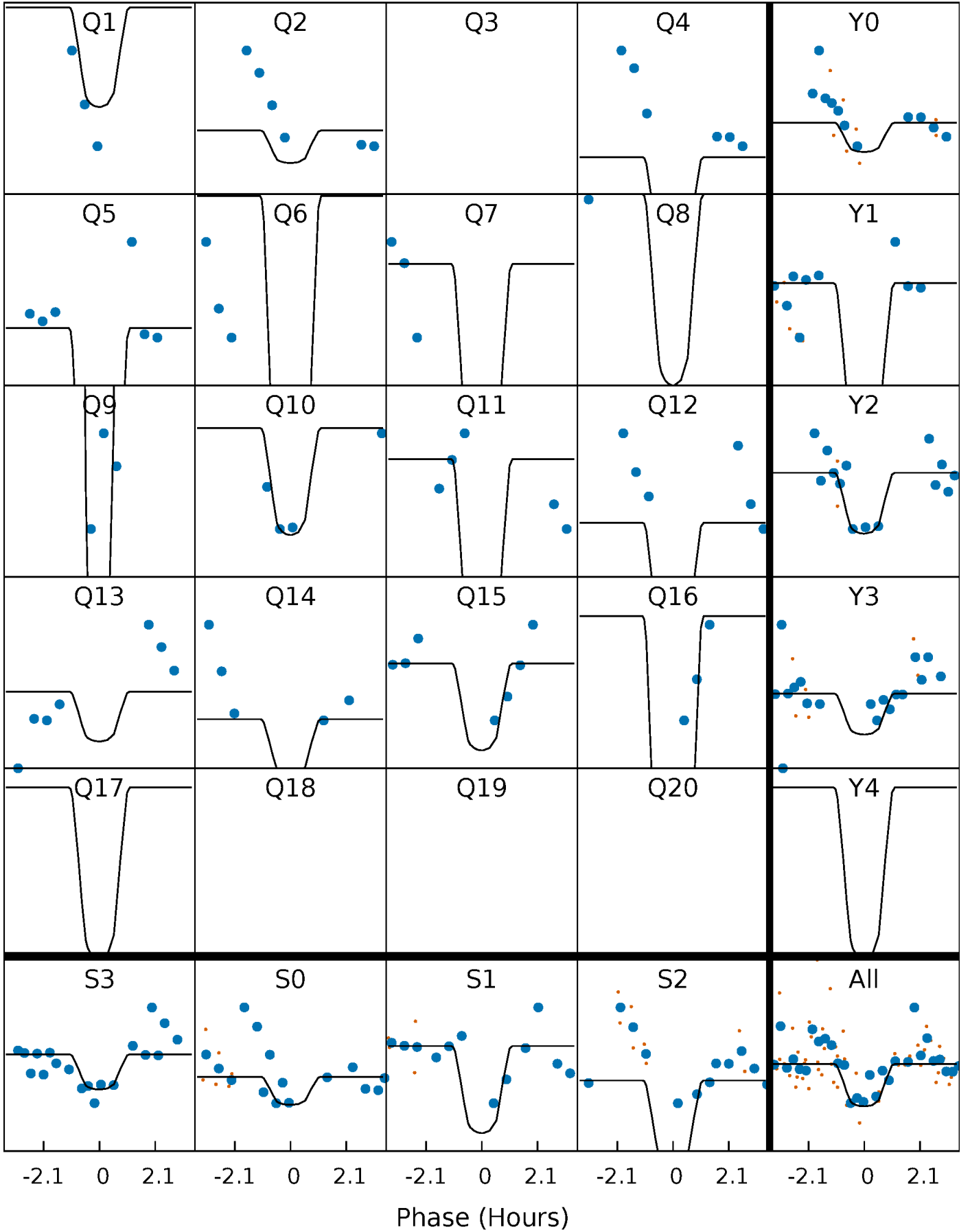
PDC Quarter-Phased Transit Curves

TCE 005395139-06 P= 34.637435 Days $T_0=145.189764$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005395139-06 P= 34.637435 Days $T_0=145.189764$ (BKJD)

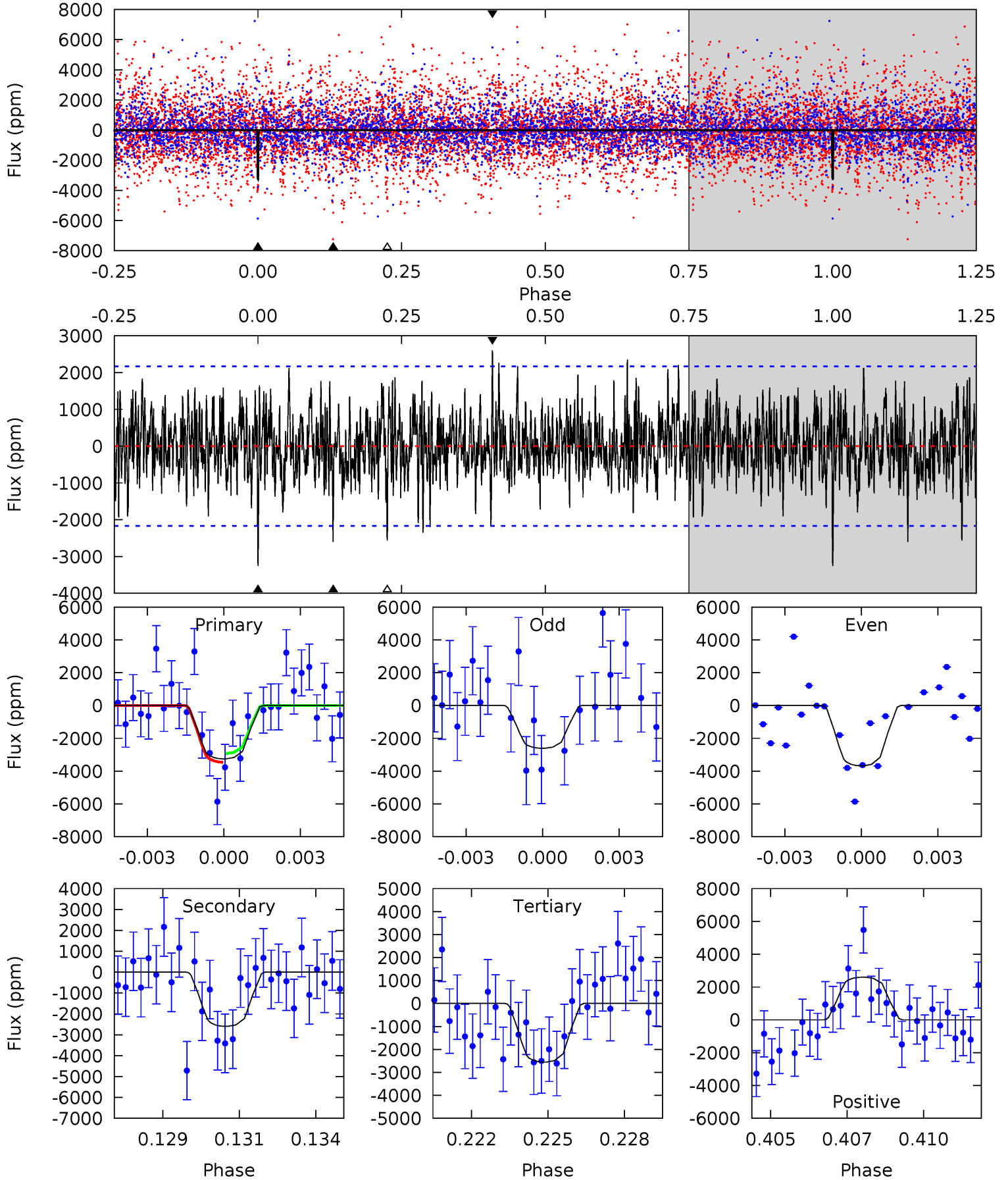


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005395139-06, $P = 34.637435$ Days, $E = 110.552329$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.92	6.32	6.22	6.33	5.27	3.00	1.72	1.70	1.59	0.10	-0.02	1.24	0.84	0.44	0.63



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005395139

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6973^{+192}_{-288}	$4.365^{+0.056}_{-0.224}$	$-0.320^{+0.250}_{-0.350}$	$1.197^{+0.425}_{-0.113}$	$1.230^{+0.189}_{-0.154}$	$1.010^{+0.238}_{-0.552}$
	+3%/-4%	+1%/-5%	+78%/-109%	+36%/-9%	+15%/-13%	+24%/-55%
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 005395139-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2598 ± 411	$9.35^{+4.86}_{-4.46}$	1022^{+84}_{-59}	6046^{+2580}_{-1078}	797^{+2140}_{-462}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

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

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

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

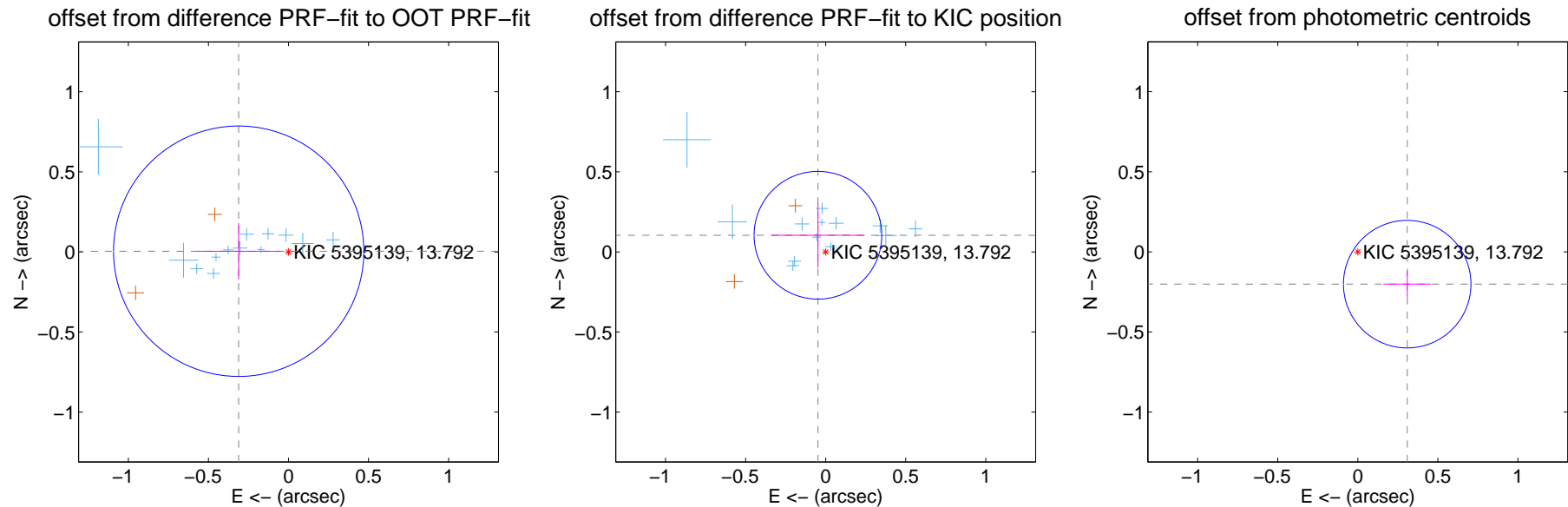
DV Centroid Data

Supplemental centroid analysis for 005395139-06. Kepler magnitude: 13.79. Transit SNR 8.27

There are 14 quarters with good PRF difference image offsets

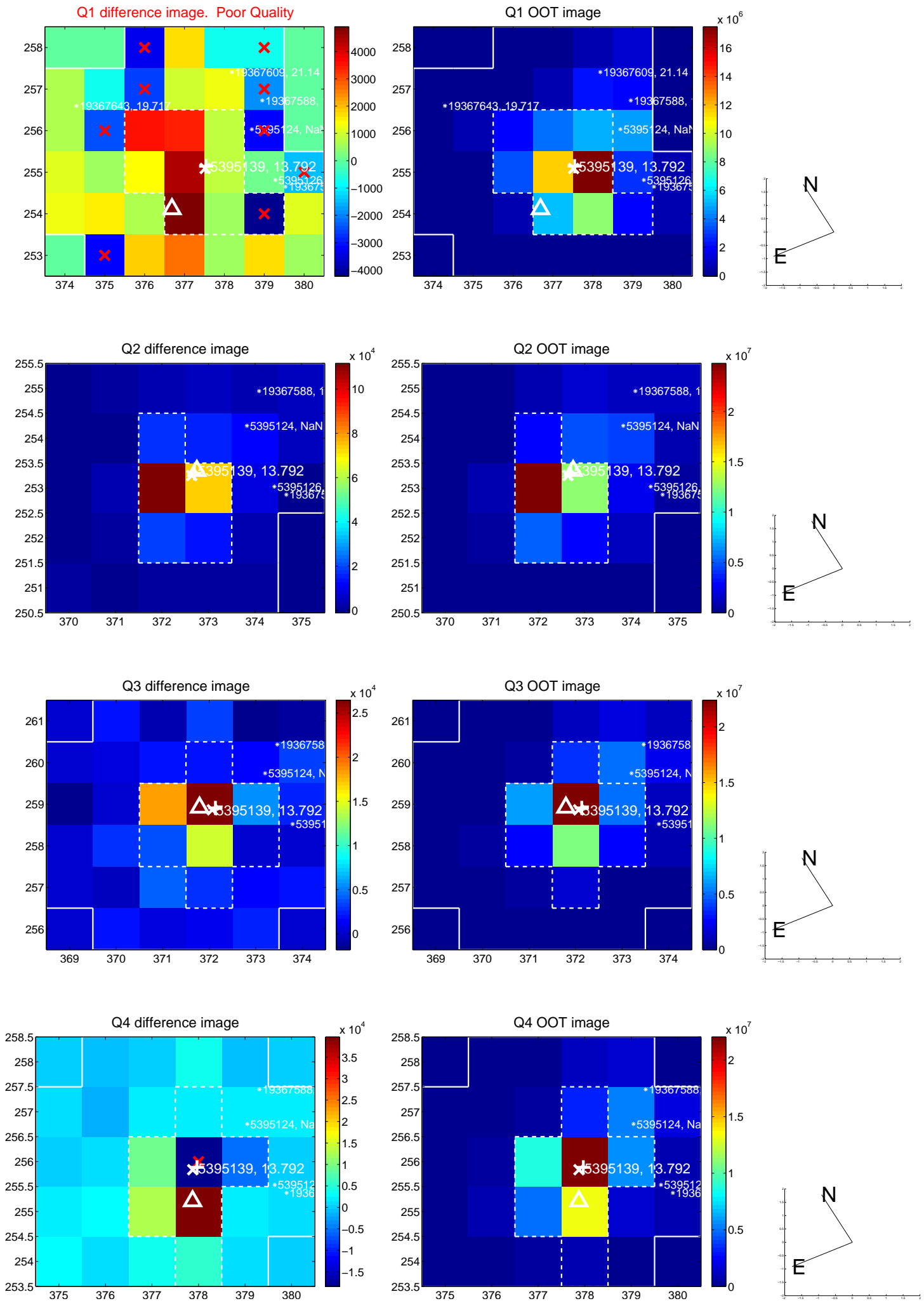
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.311 ± 0.260	1.19	0.311 ± 0.262	0.004 ± 0.176
PRF-fit source offset from KIC position	0.115 ± 0.133	0.86	0.048 ± 0.291	0.104 ± 0.203
photometric centroid source offset	0.37 ± 0.13	2.78	-0.31 ± 0.15	-0.20 ± 0.08

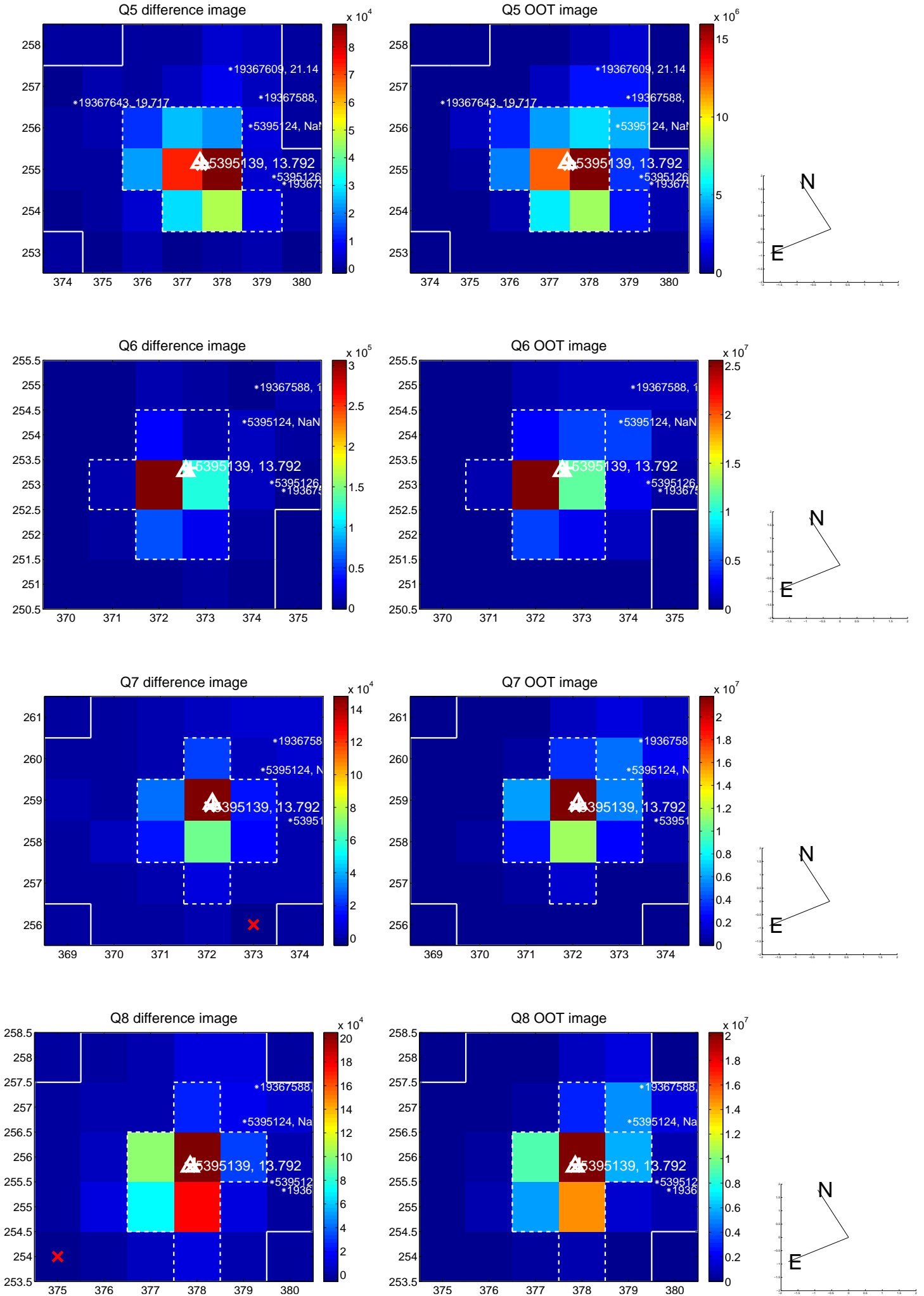


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

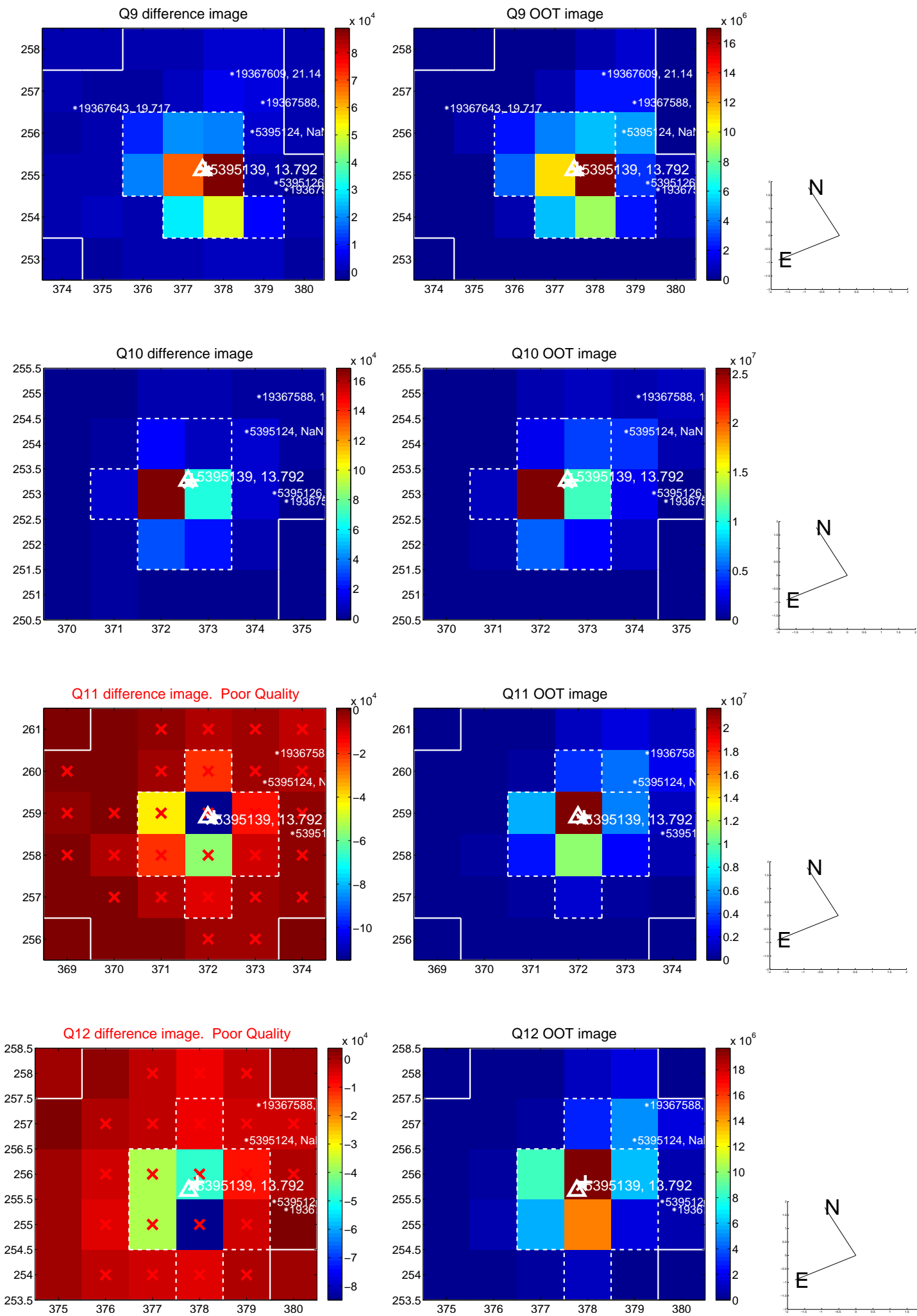
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



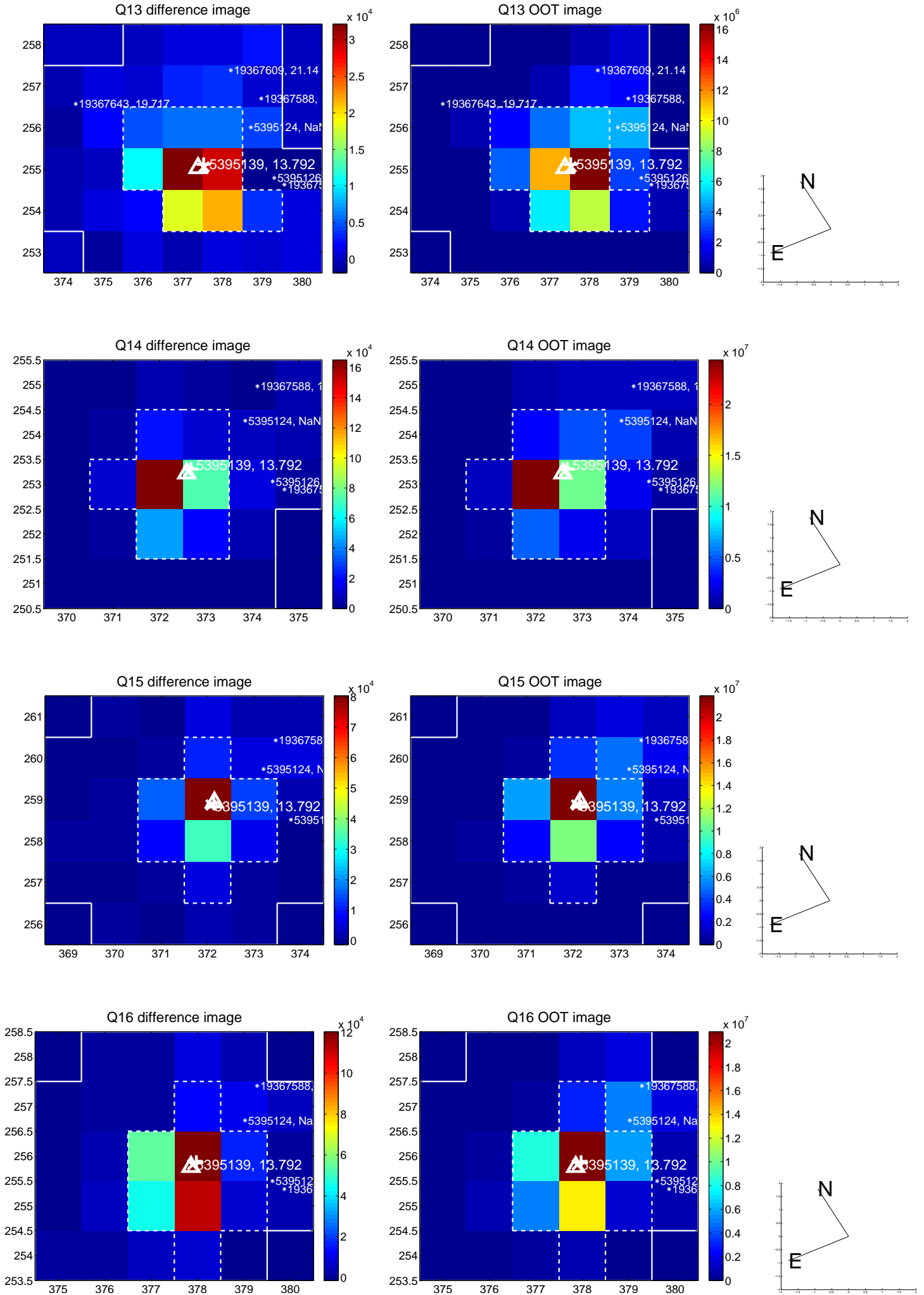
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



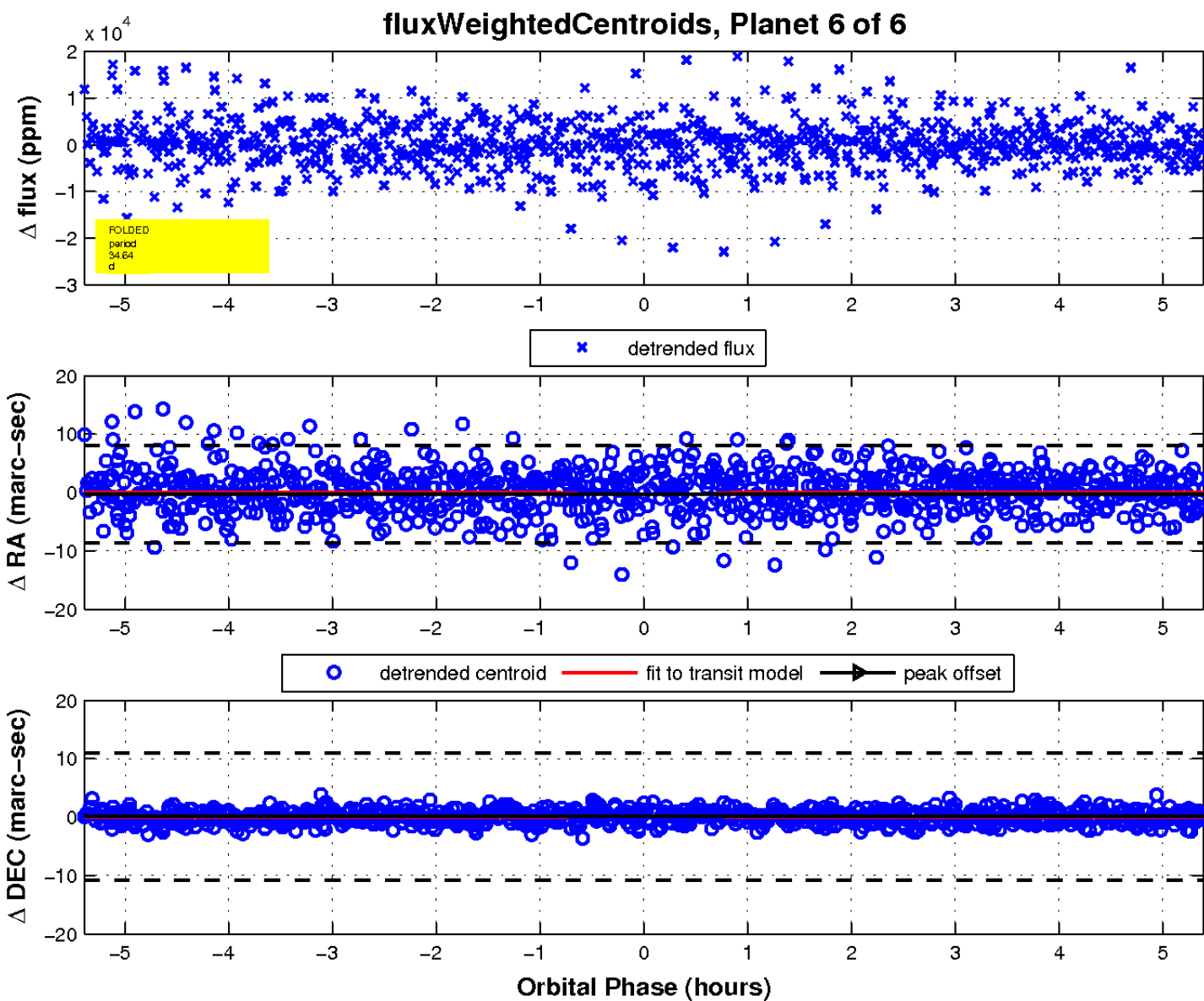
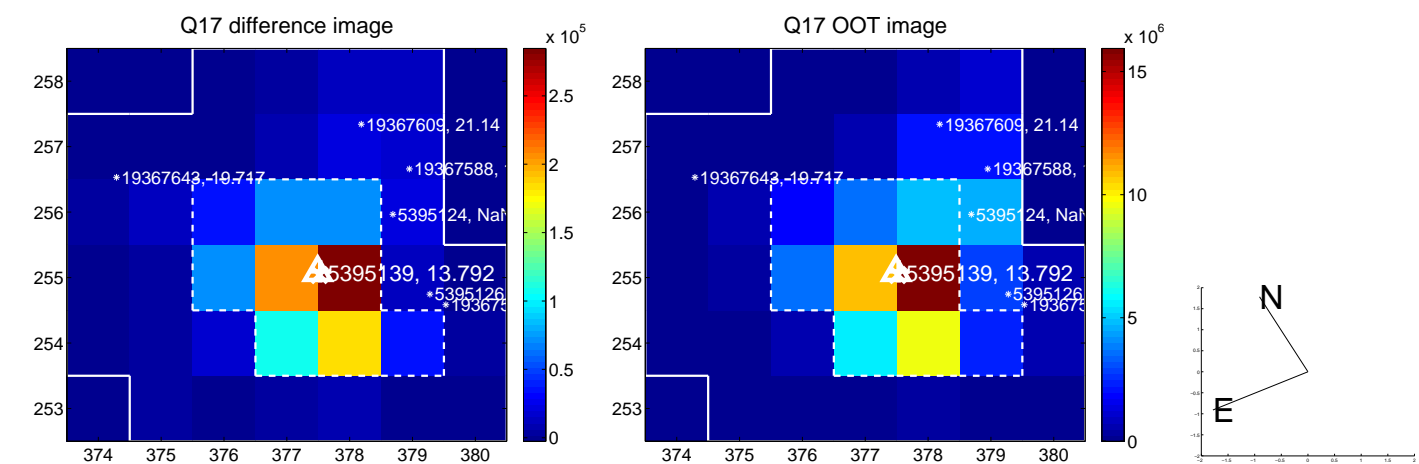
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

