

KIC 008773961

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})
008773961-01	OBS	No	0.980588	131.912261	11.1	3.894	16.7	6.1	1.49	6850	0.52	10226.20
008773961-02	OBS	No	4.855086	133.896091	42.8	17.608	10.2	12.6	1.49	6850	1.14	1211.81
008773961-03	OBS	No	1.618401	132.266252	41.5	13.611	8.0	16.2	1.49	6850	1.03	5243.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008773961-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
008773961-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008773961-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

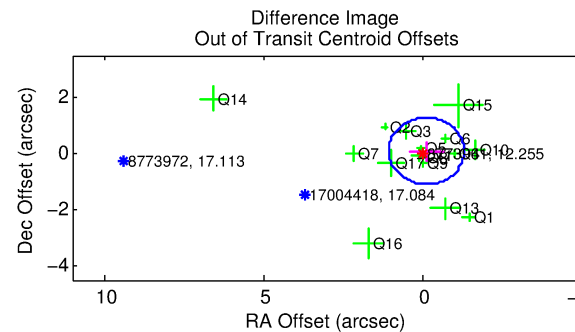
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 008773961-01

No Significant Match Found

KIC: 8773961 Candidate: 1 of 3 Period: 0.981 d

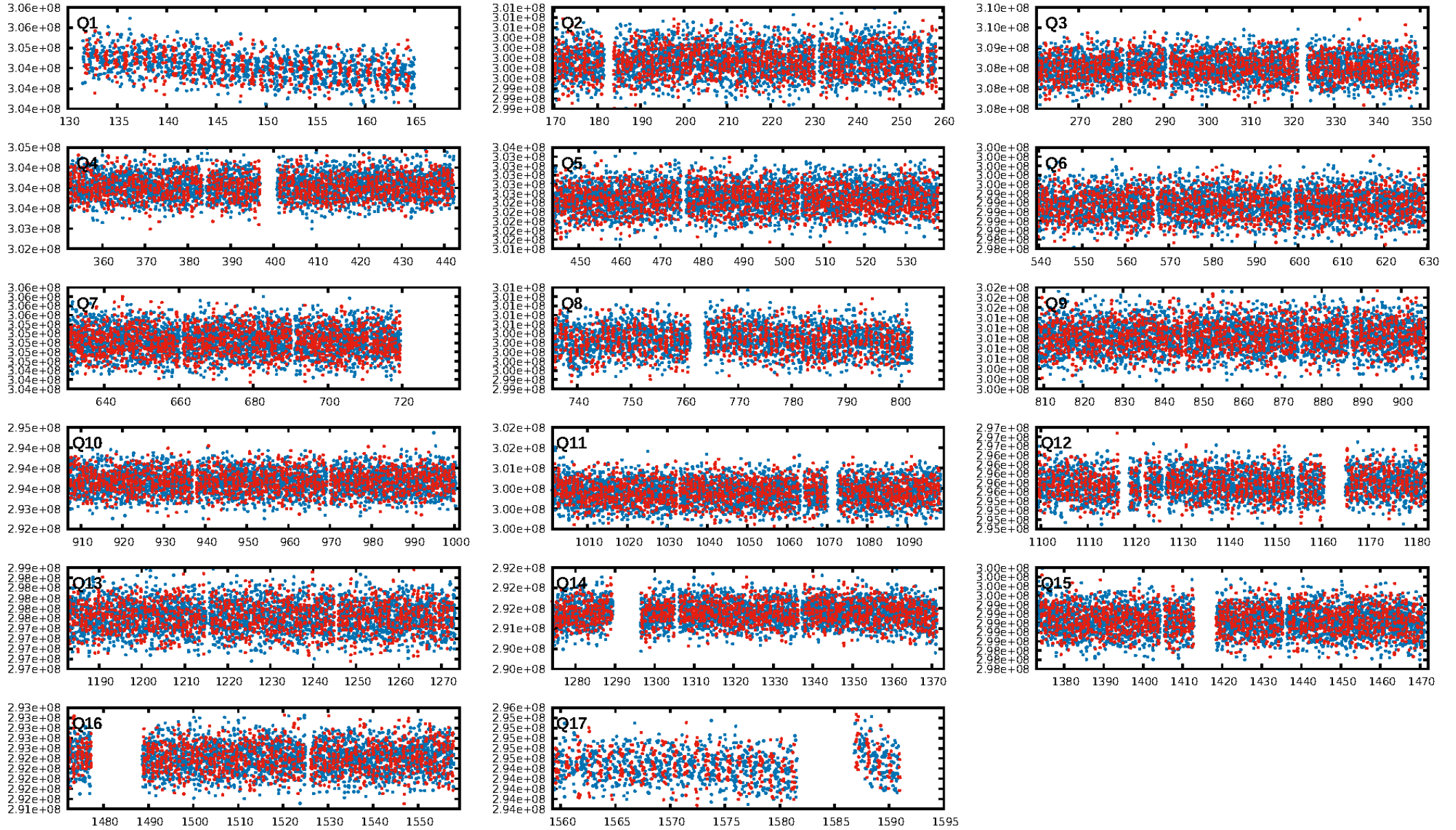


ShortPeriod-sig: N/A
LongPeriod-sig: 72.0% [1.08σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [1258/1307]
GhostDiagnostic-chr: 3.777

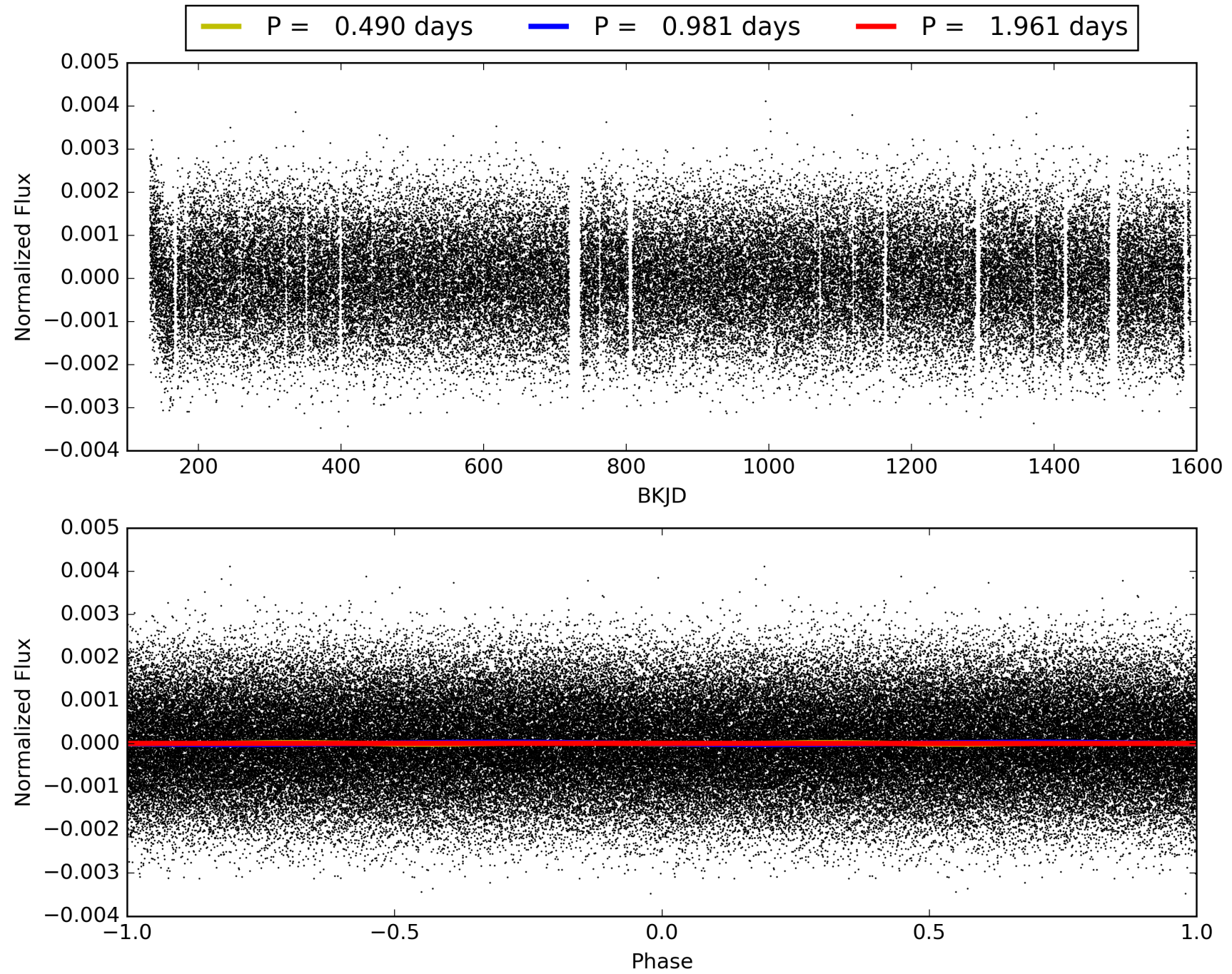
Centroid-sig: 7.3%
Centroid-so: 1.849 arcsec [1.37σ]
OotOffset-rm: 0.161 arcsec [0.41σ]
KicOffset-rm: 0.168 arcsec [0.48σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.69 [11/16]
DiffImageOverlap-fno: 1.00 [17/17]

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

TCE 008773961-01, PDC Light Curves

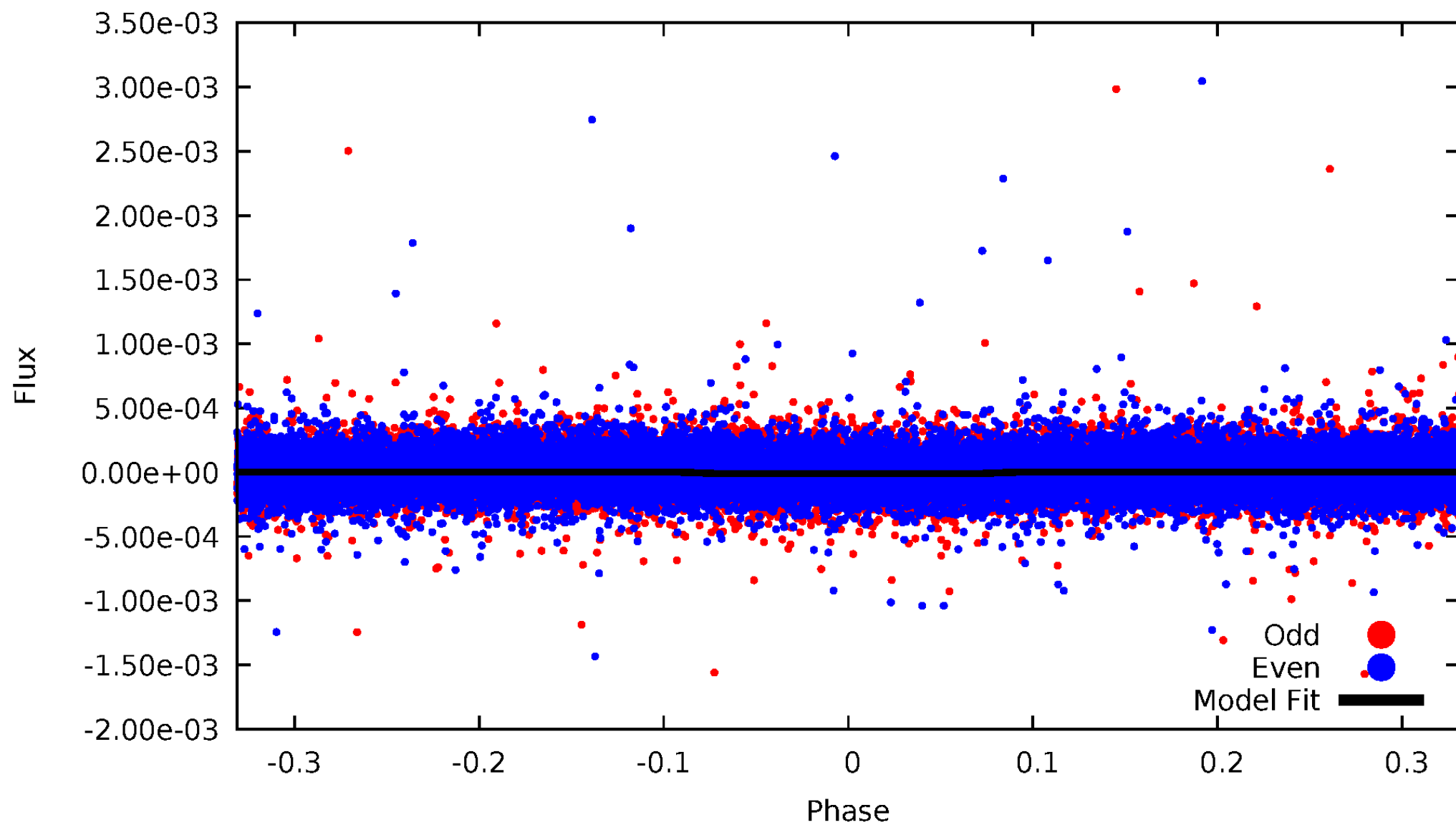


TCE 008773961-01



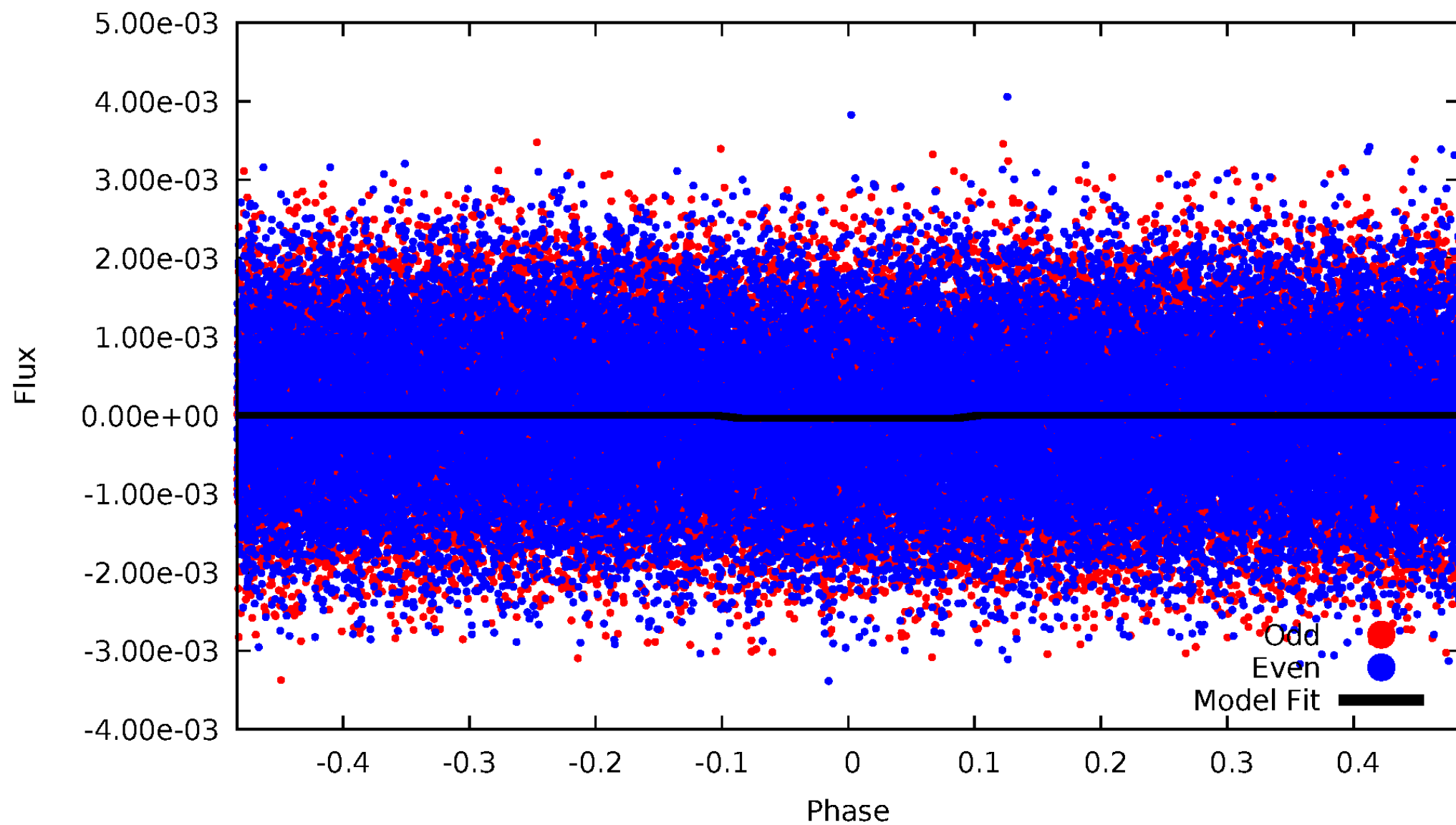
DV Odd/Even

TCE 008773961-01



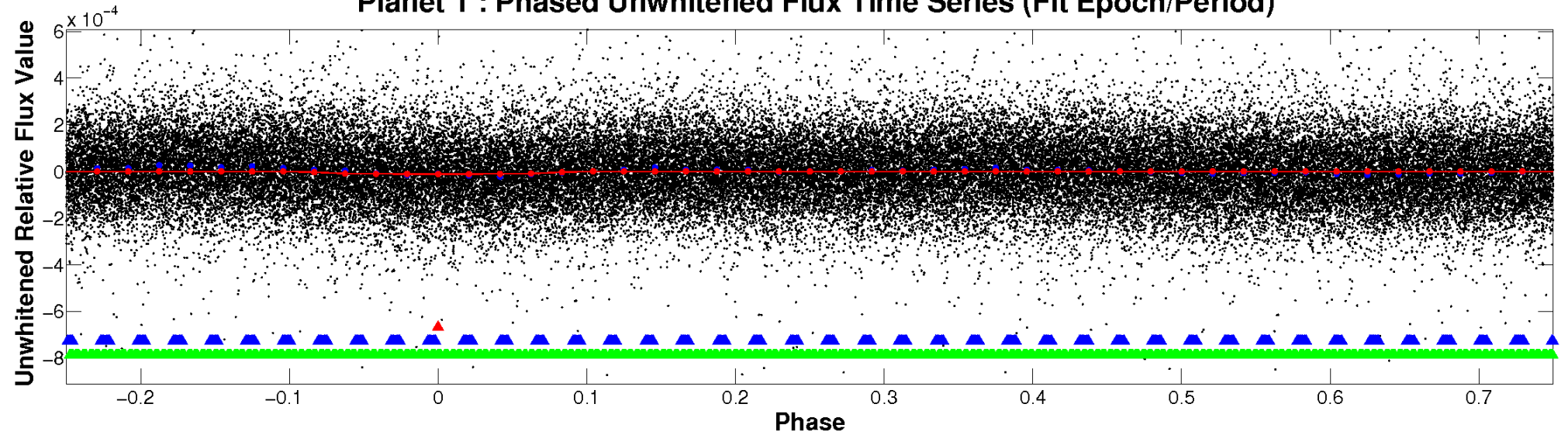
ALT Odd/Even

TCE 008773961-01

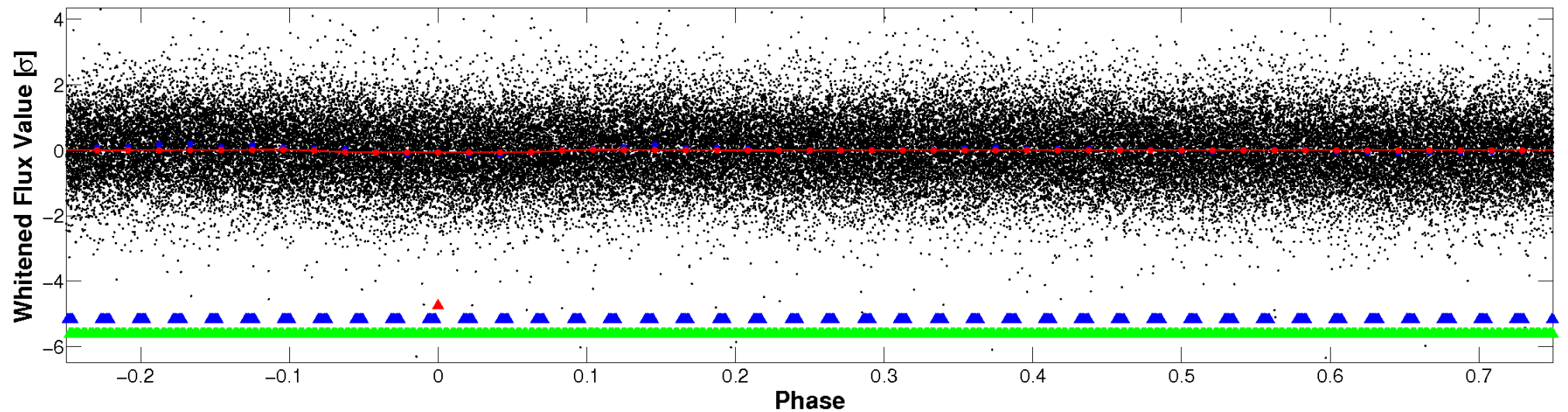


Non-Whitened Vs. Whitened Light Curve

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

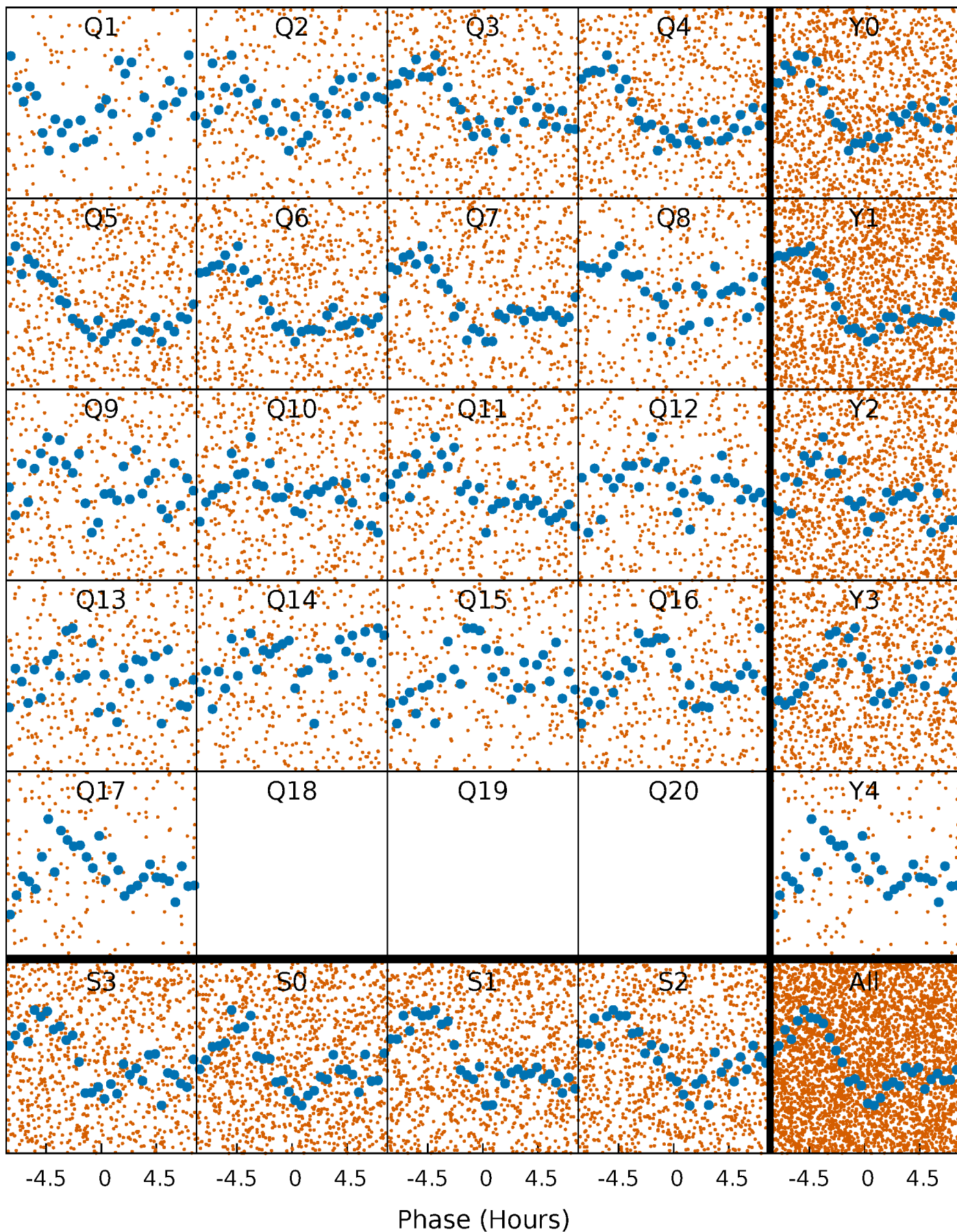


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



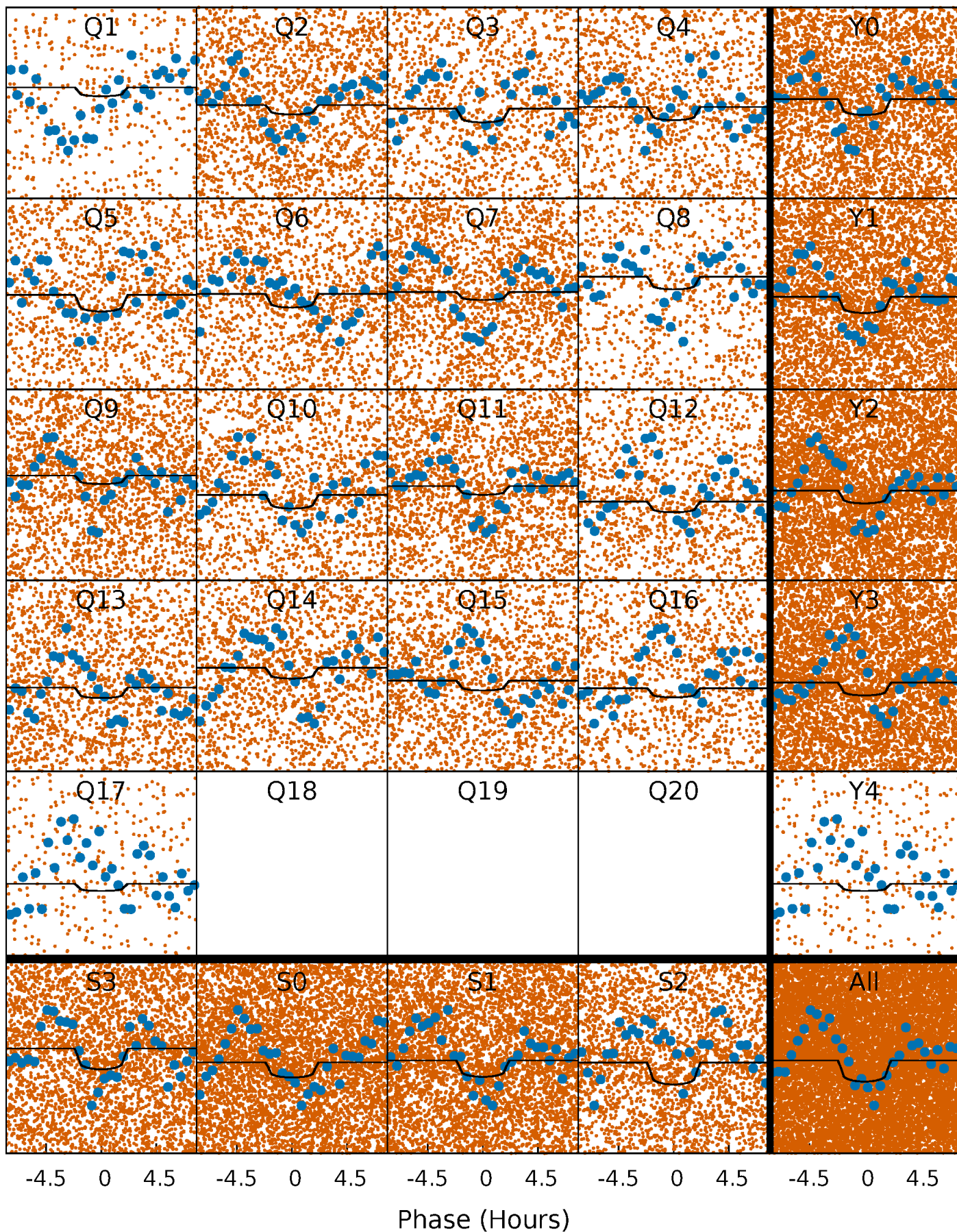
PDC Quarter-Phased Transit Curves

TCE 008773961-01 P= 0.980588 Days $T_0=131.912261$ (BKJD)



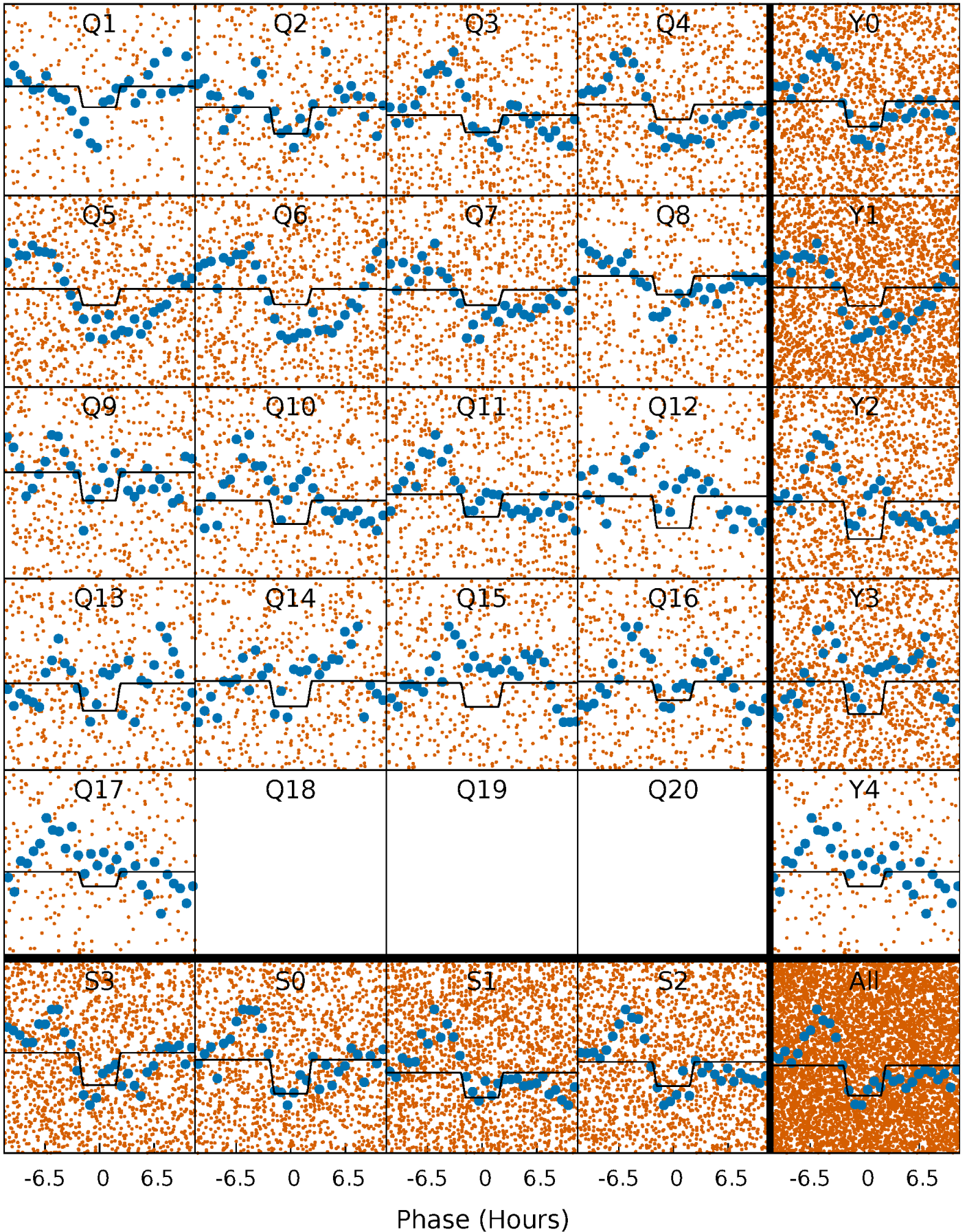
DV Quarter-Phased Transit Curves

TCE 008773961-01 P= 0.980588 Days $T_0=131.912261$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

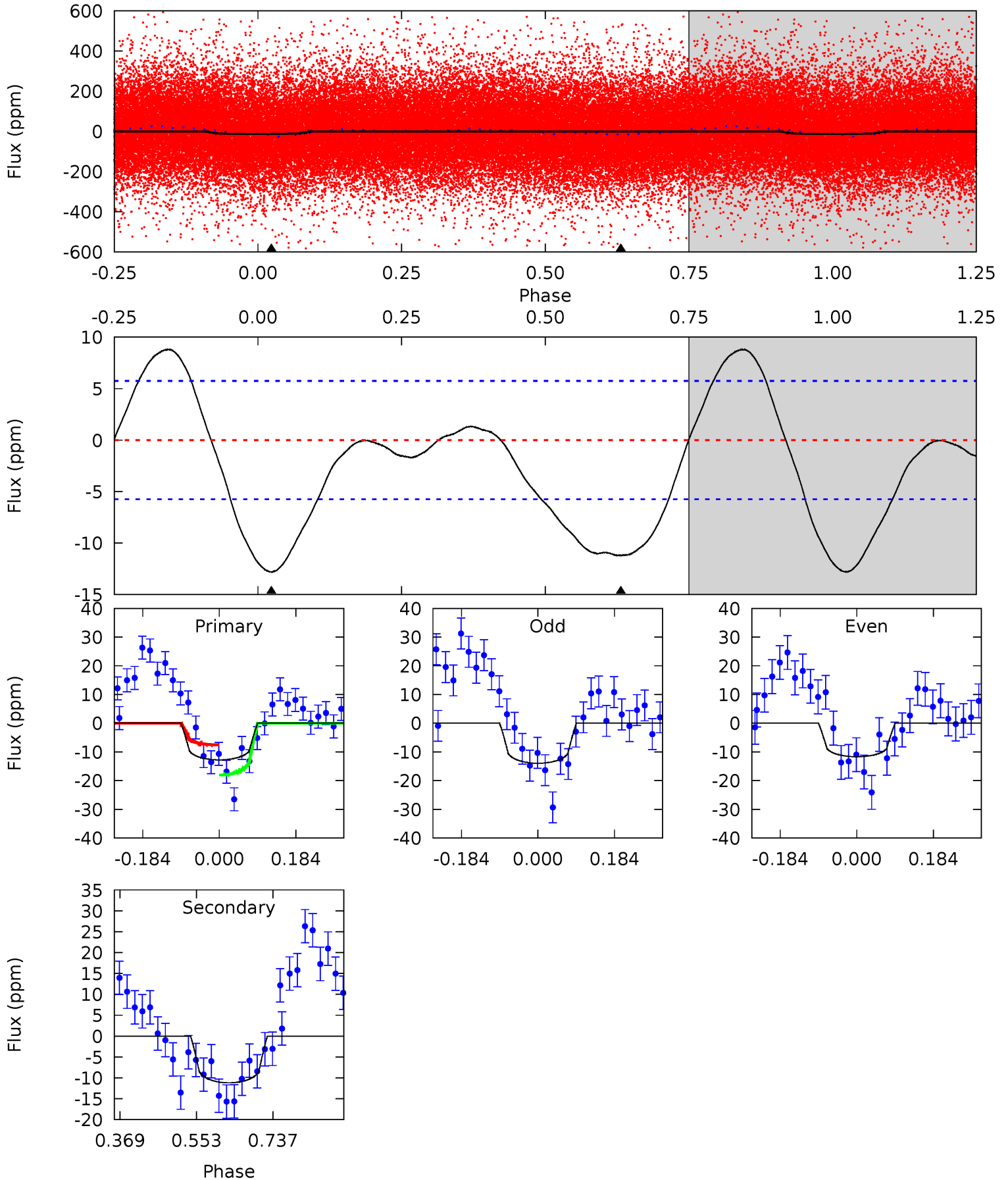
TCE 008773961-01 P= 0.980698 Days $T_0=131.879907$ (BKJD)



DV Model-Shift Uniqueness Test

008773961-01, P = 0.980588 Days, E = 130.931673 Days

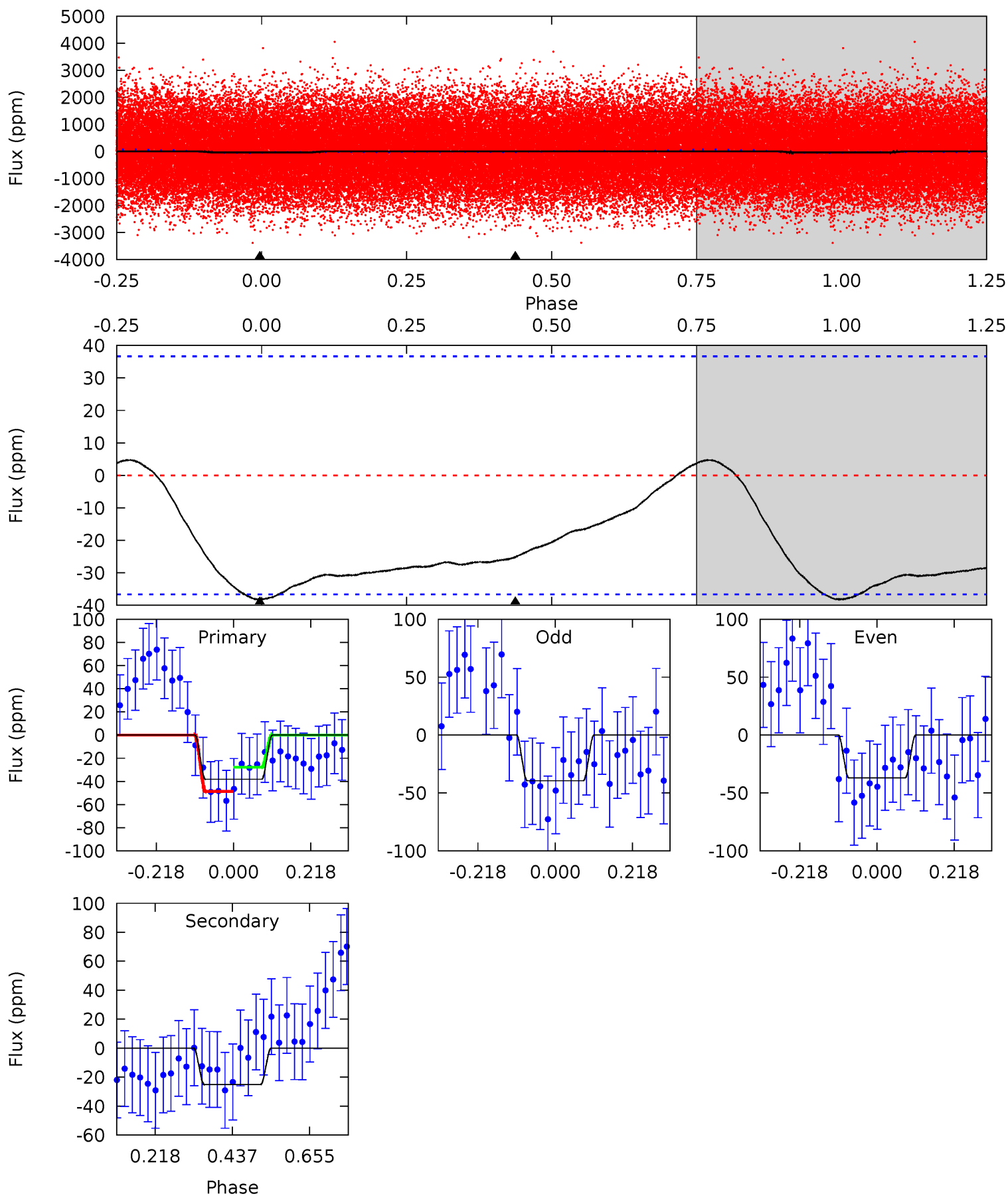
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.88	8.65	0	0	4.43	1.33	2.04	9.88	9.88	8.65	8.65	0.88	0.78	0.41	4.09



Alt Model-Shift Uniqueness Test

008773961-01, P = 0.980698 Days, E = 130.899209 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.58	3.02	0	0	4.40	1.23	0.75	4.58	4.58	3.02	3.02	0.15	1.03	0.11	1.25



Stellar Parameters For KIC 008773961

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6850^{+190}_{-238}	$4.182^{+0.175}_{-0.175}$	$-0.380^{+0.300}_{-0.300}$	$1.493^{+0.441}_{-0.367}$	$1.239^{+0.189}_{-0.189}$	$0.525^{+0.472}_{-0.245}$
	+3%/-3%	+4%/-4%	+79%/-79%	+30%/-25%	+15%/-15%	+90%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008773961-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 1	$0.52^{+0.19}_{-0.16}$	3604^{+257}_{-280}	7006^{+1841}_{-1013}	10^{+12}_{-5}
Alt.	-25 ± 8	$1.03^{+0.24}_{-0.22}$	3588^{+252}_{-250}	5989^{+755}_{-716}	$5.491^{+3.941}_{-2.300}$

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

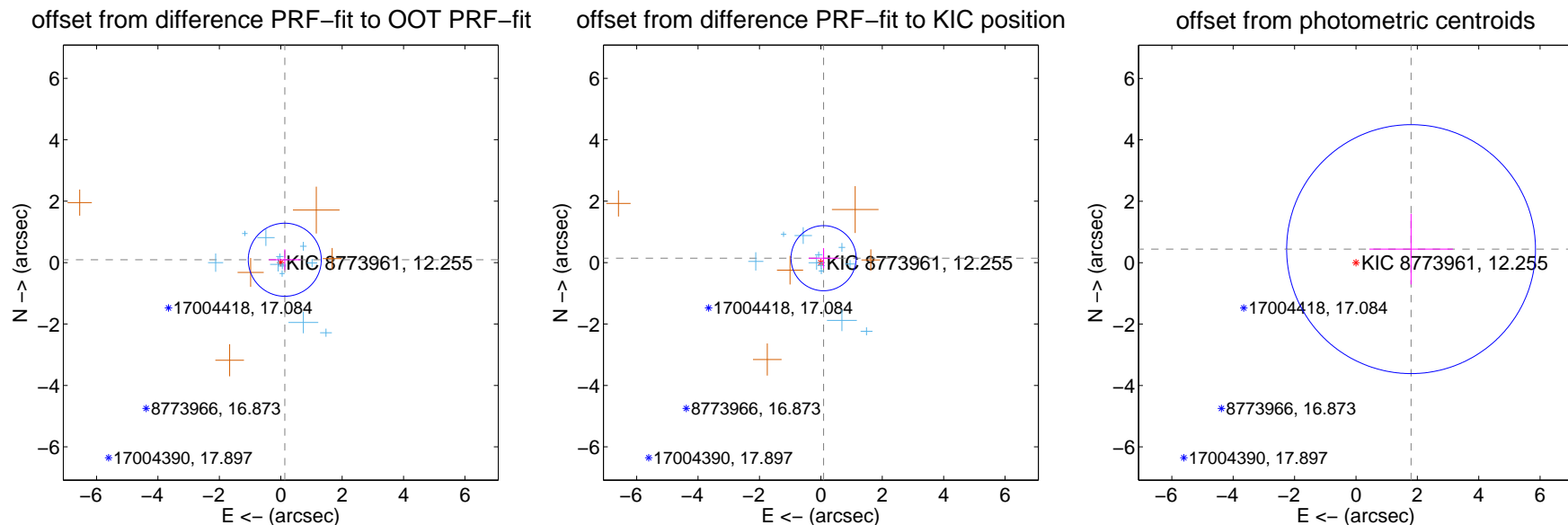
DV Centroid Data

Supplemental centroid analysis for 008773961-01. Kepler magnitude: 12.26. Transit SNR 6.07

There are 11 quarters with good PRF difference image offsets

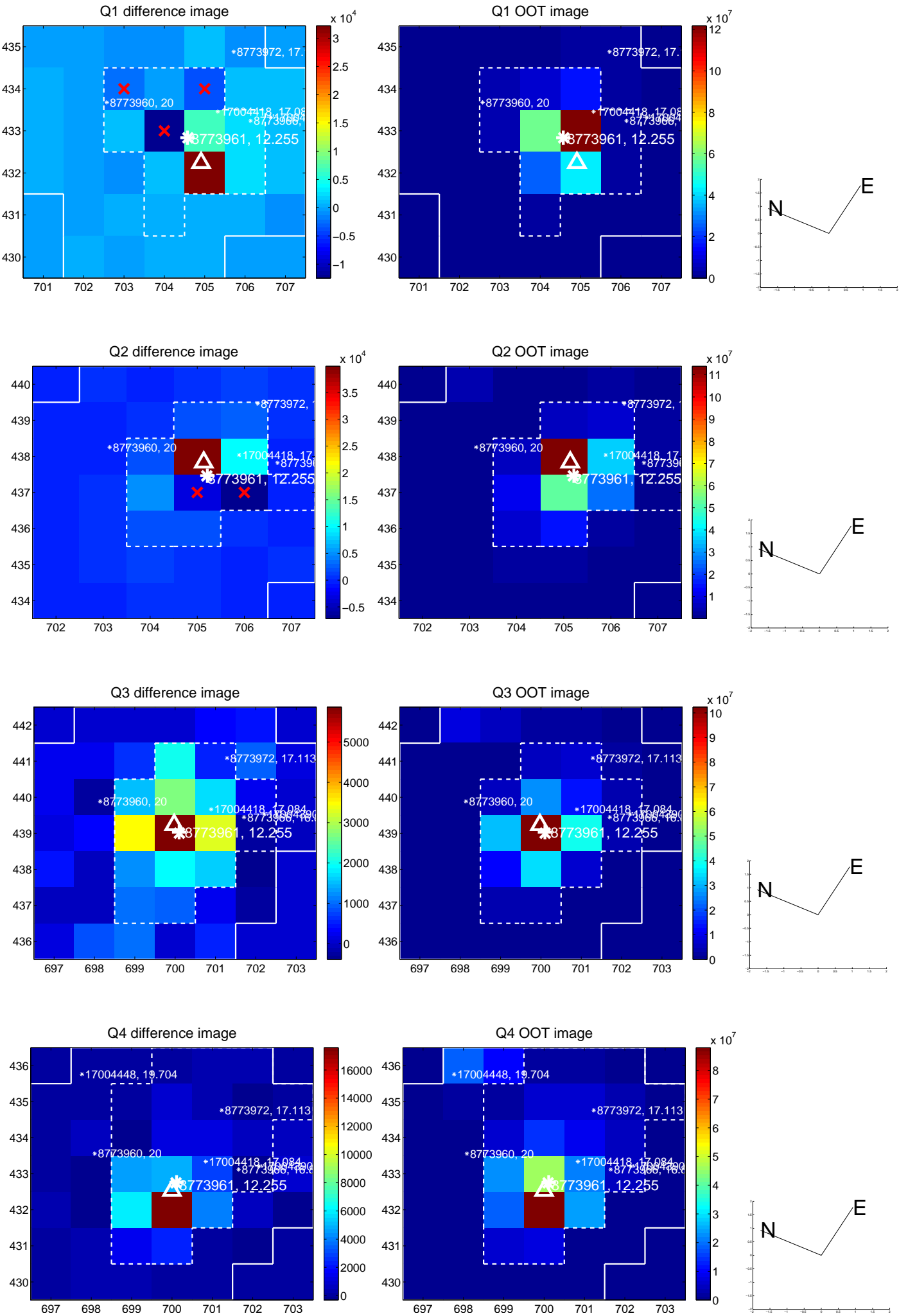
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.161 ± 0.397	0.41	-0.131 ± 0.519	0.093 ± 0.339
PRF-fit source offset from KIC position	0.168 ± 0.353	0.48	-0.089 ± 0.487	0.143 ± 0.329
photometric centroid source offset	1.85 ± 1.35	1.37	-1.80 ± 1.36	0.44 ± 1.15

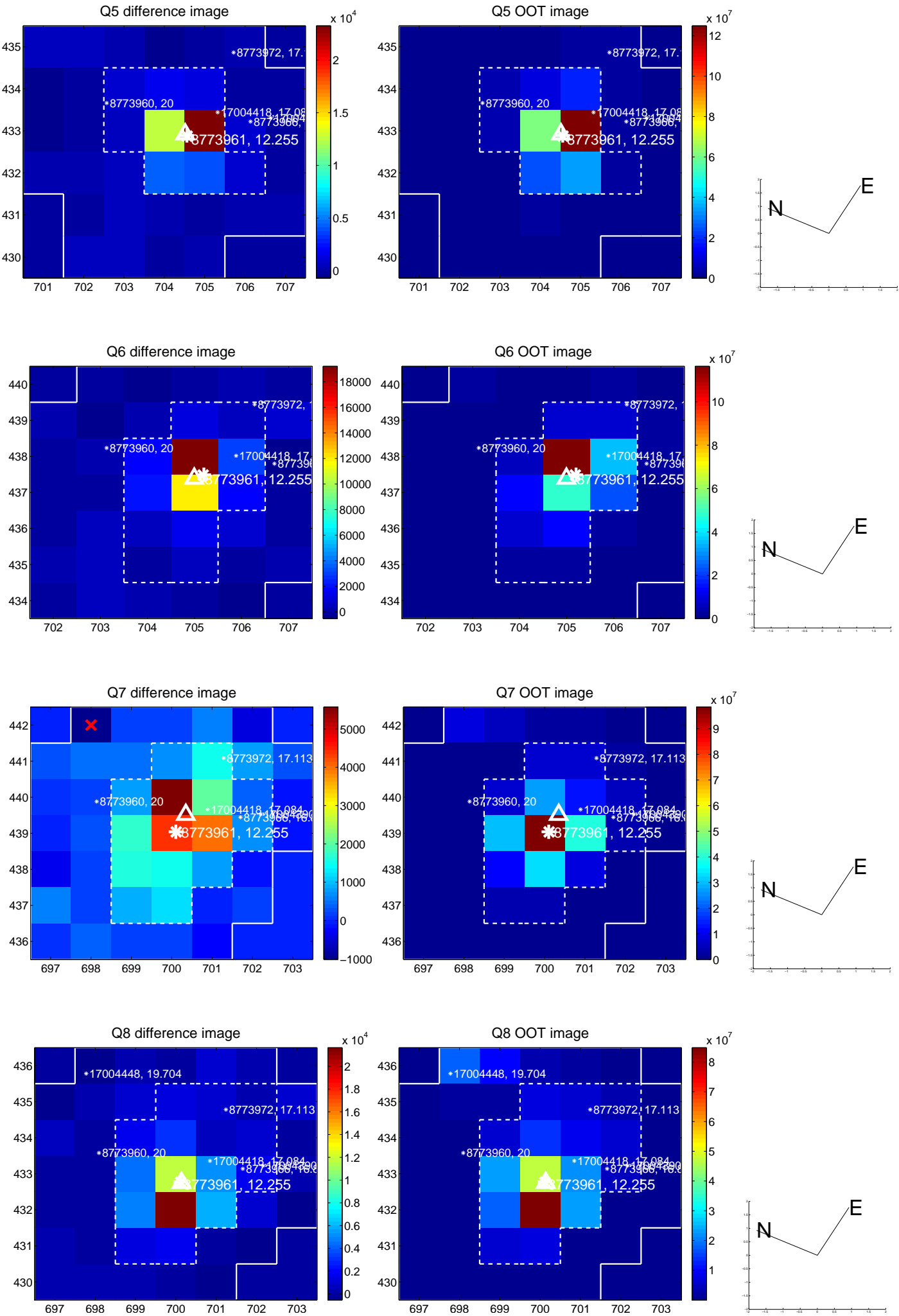


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

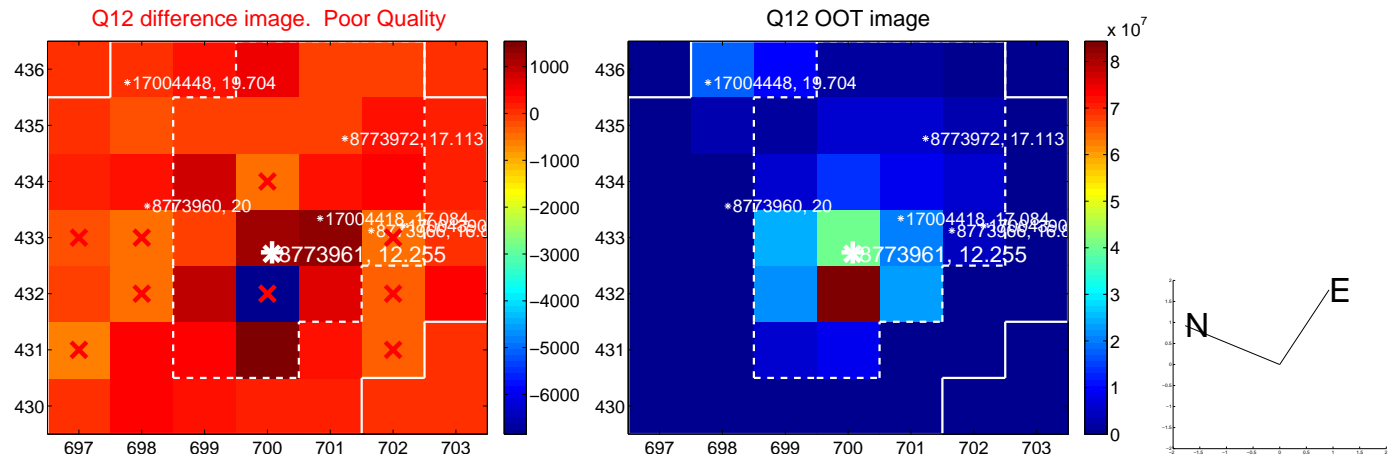
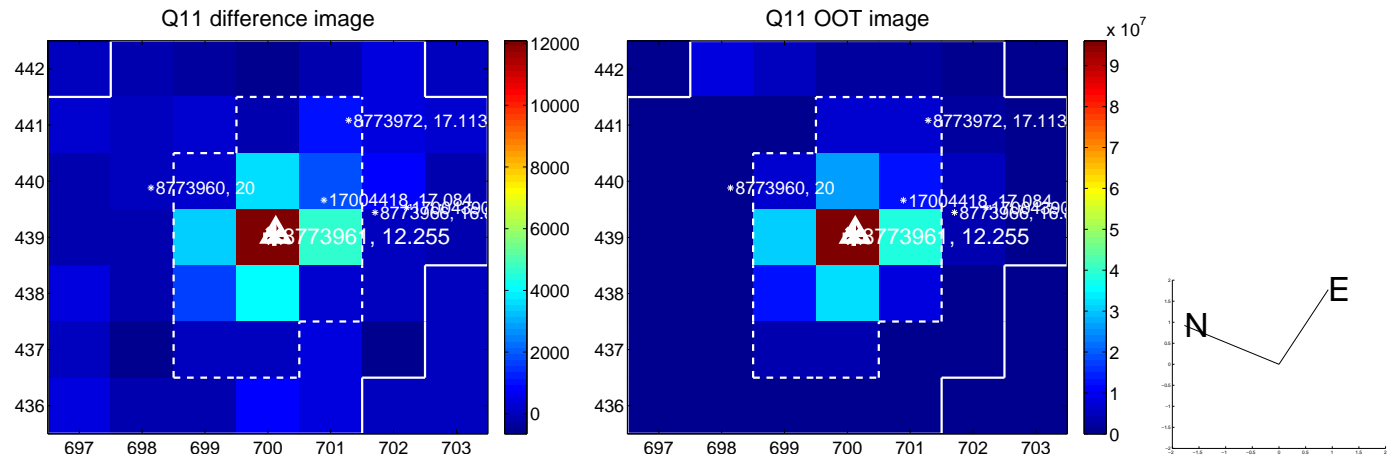
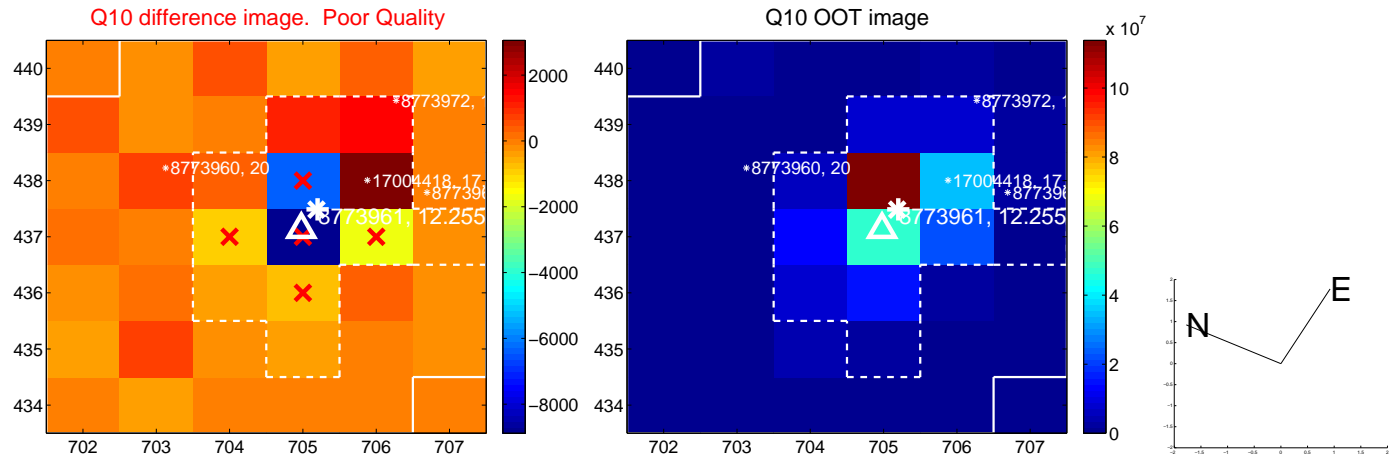
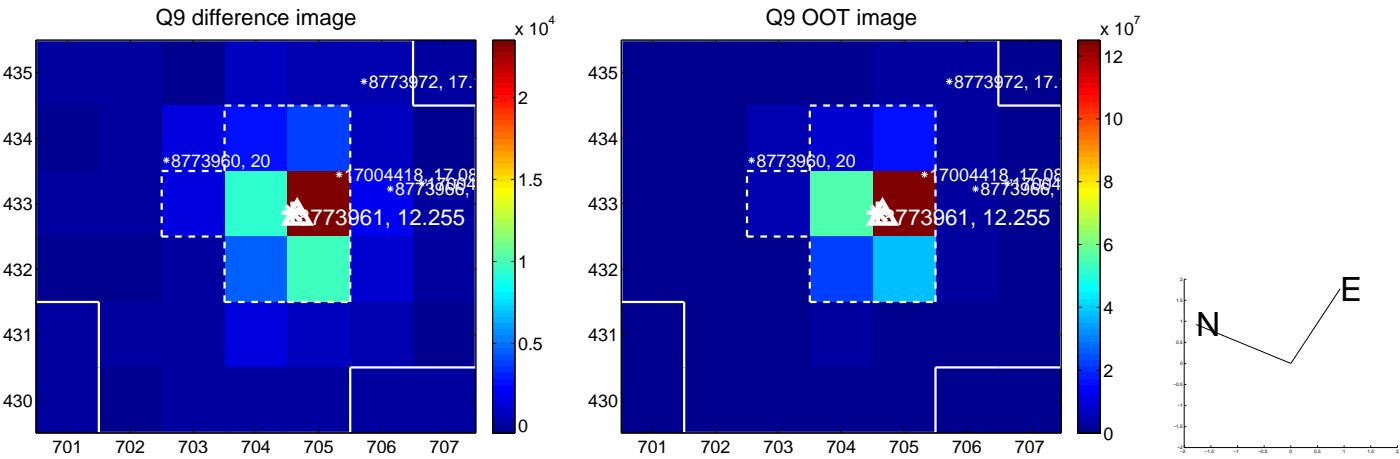
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



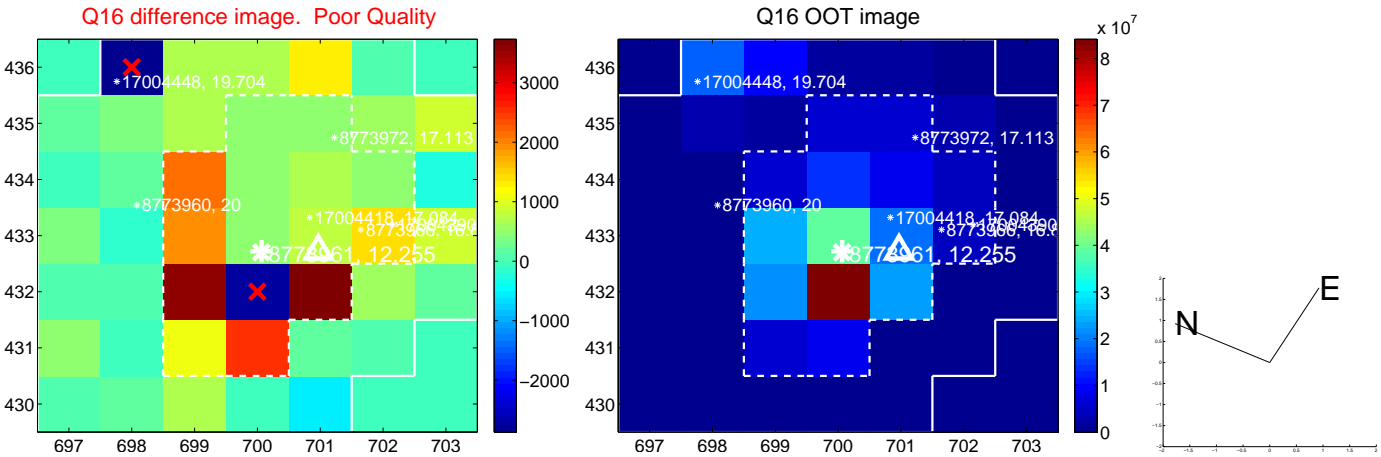
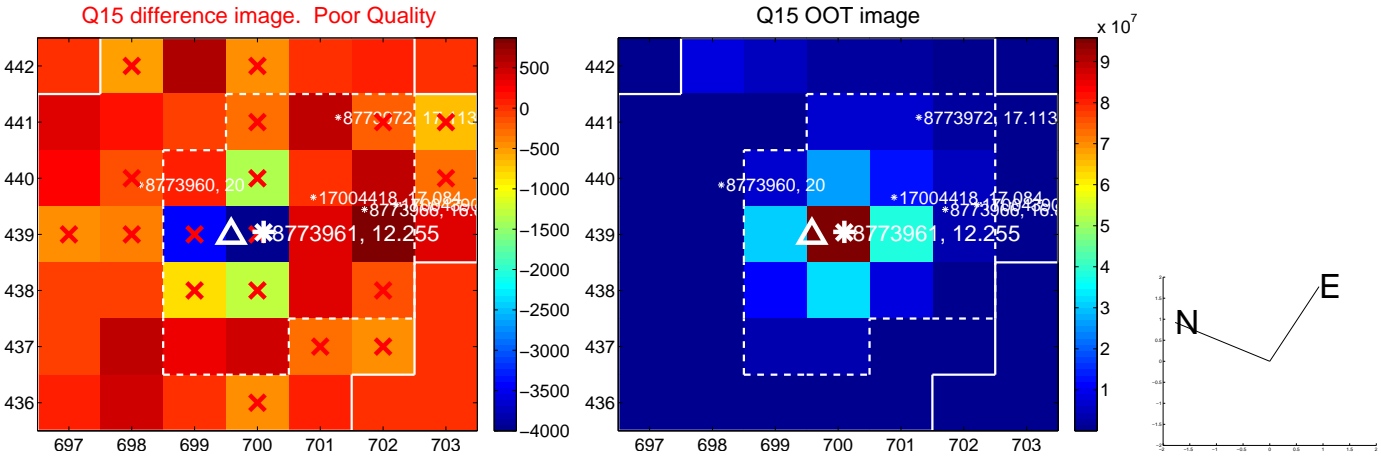
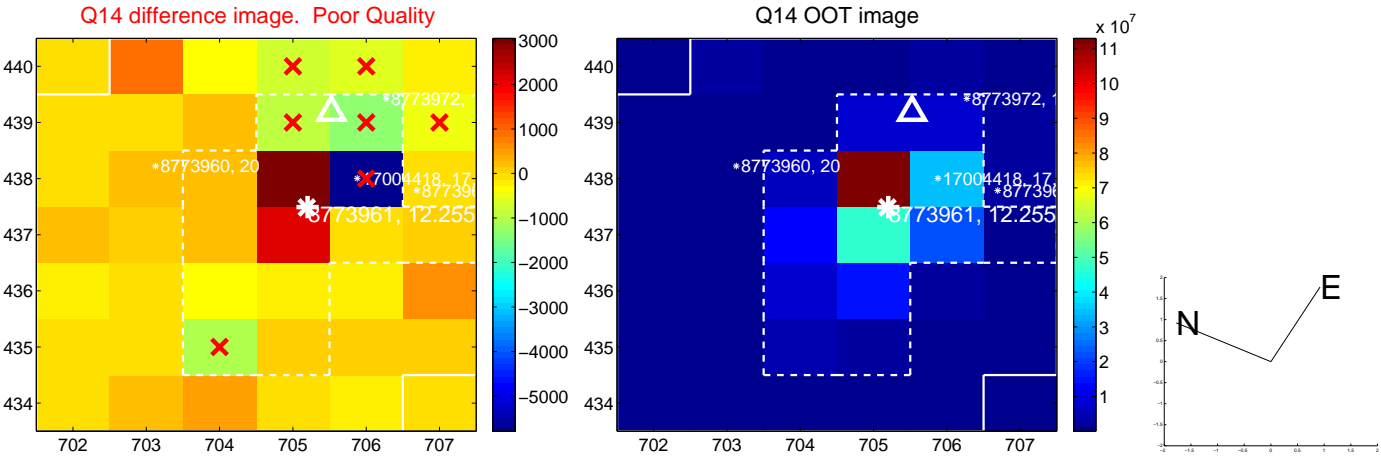
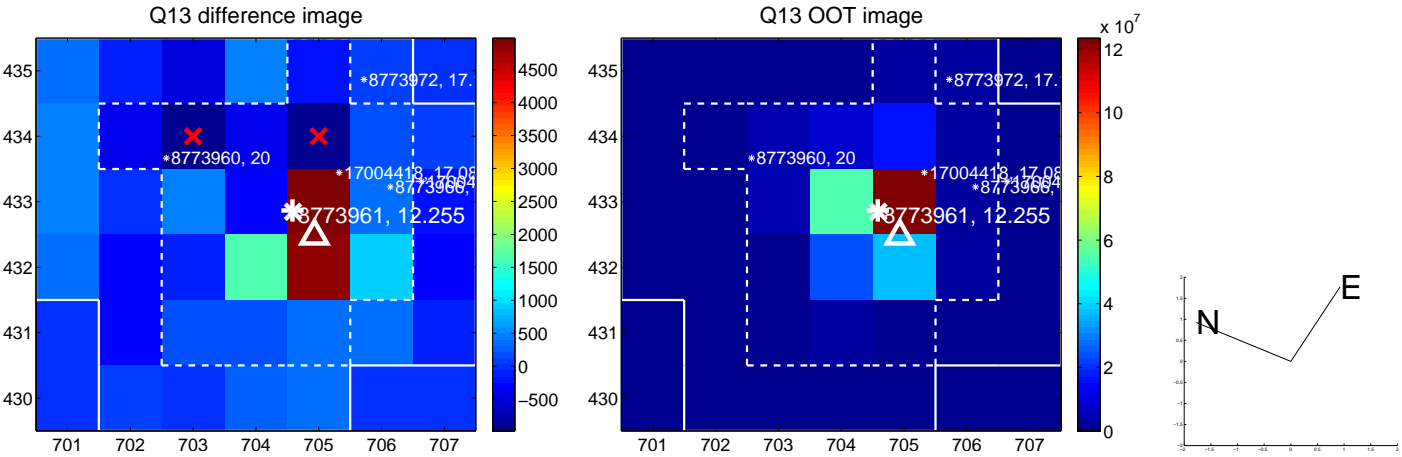
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



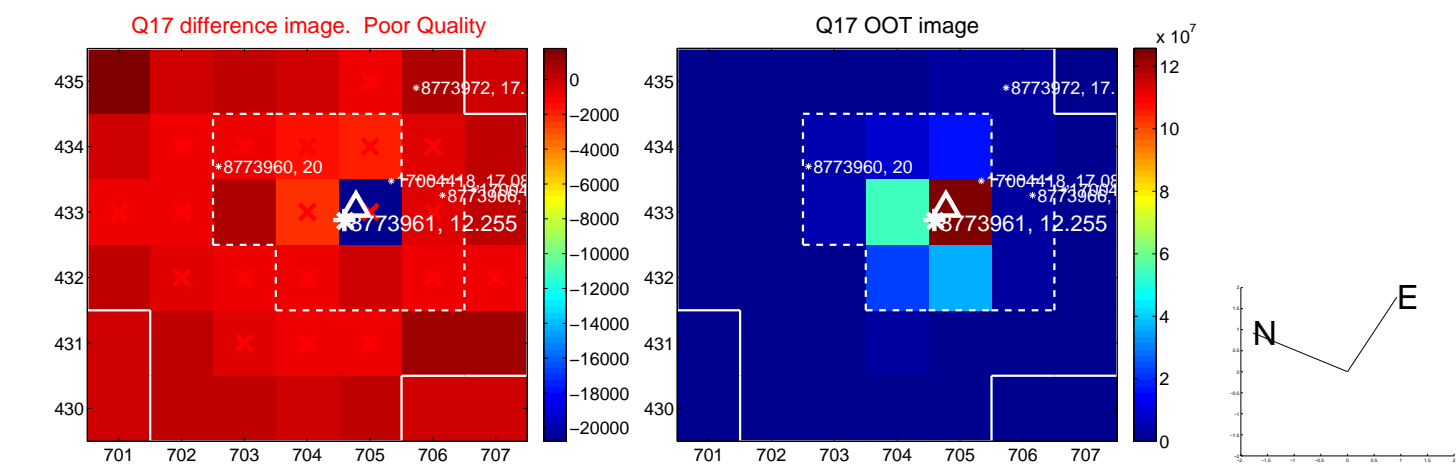
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



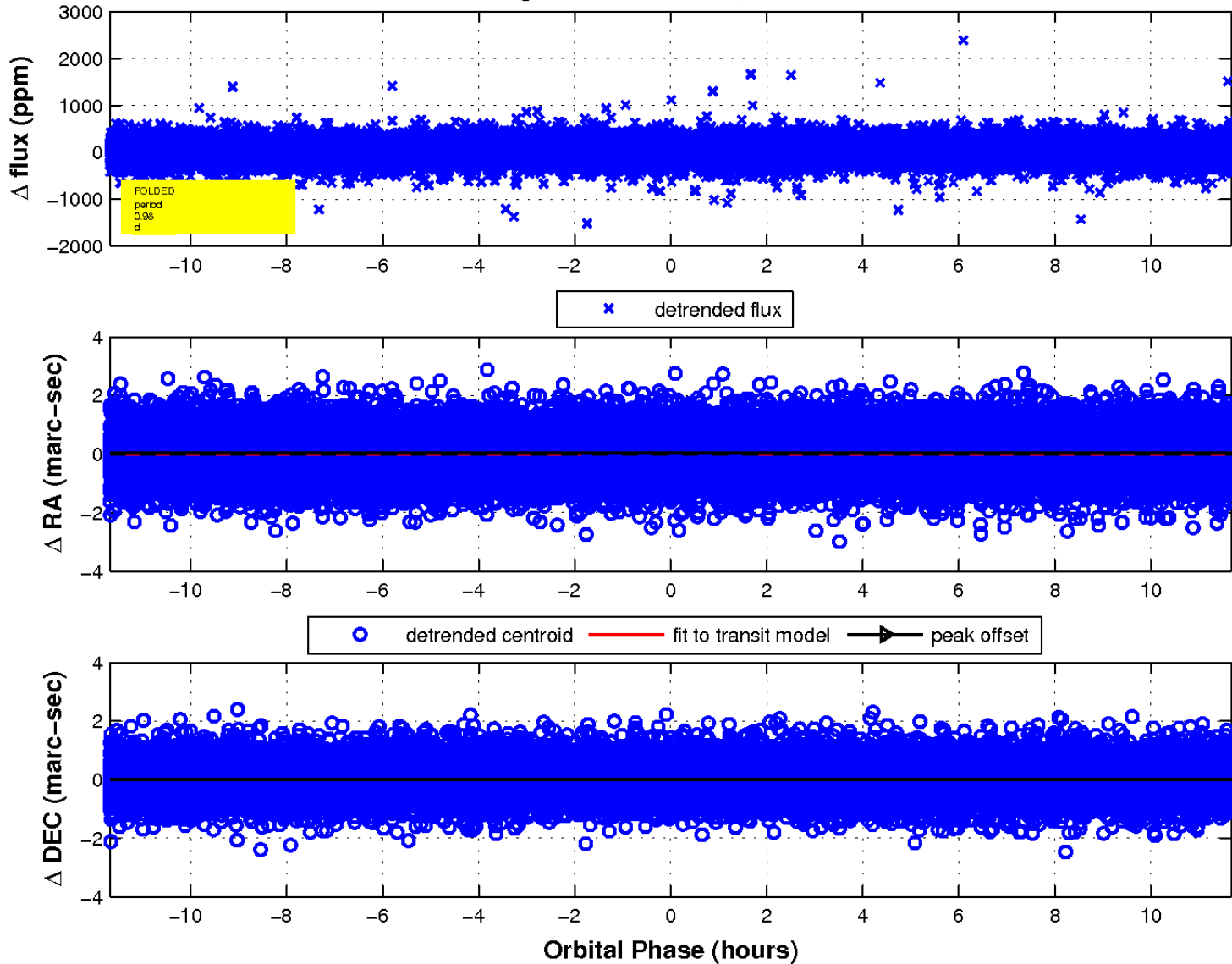
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



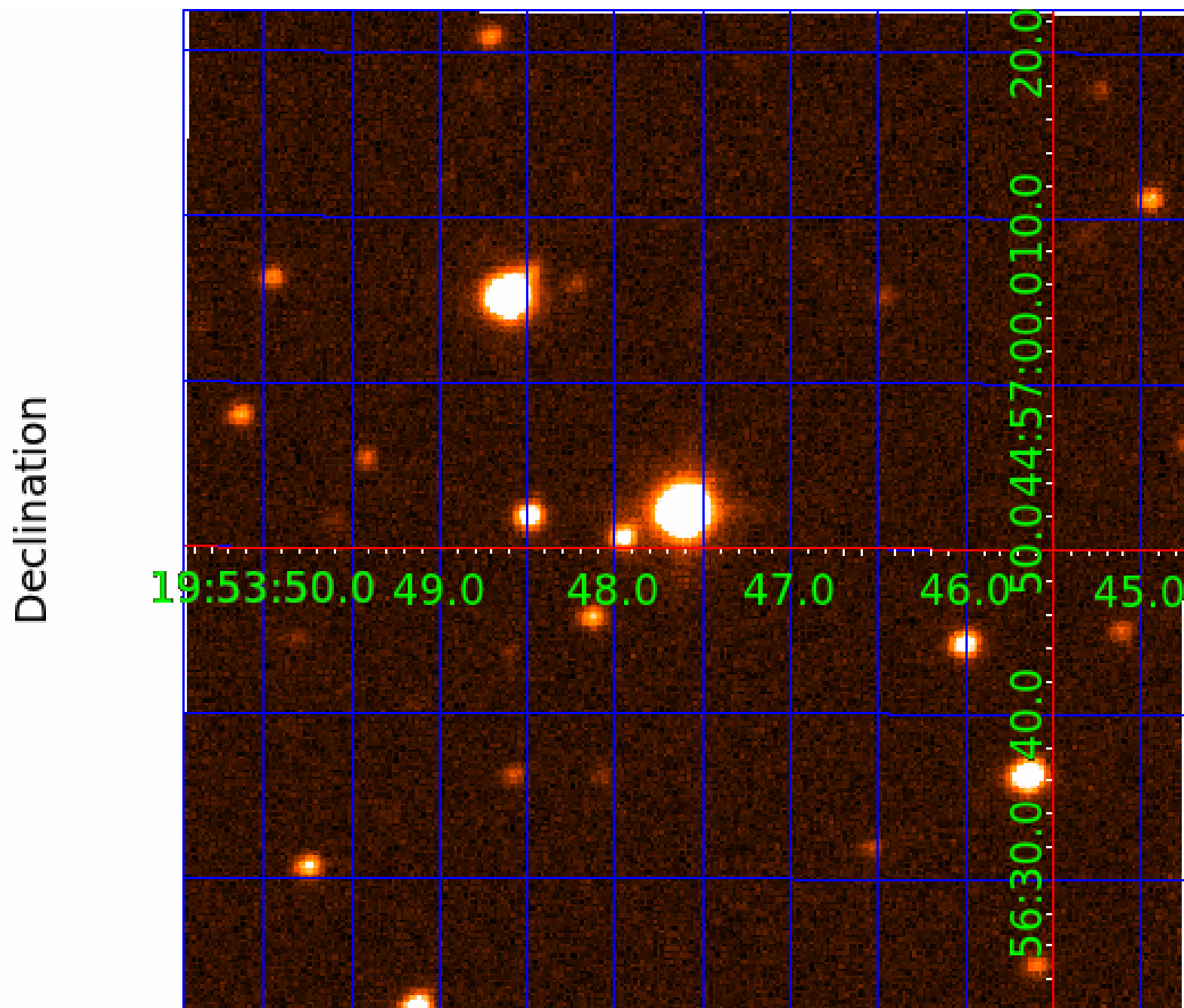
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 3



UKIRT Image



KIC 008773961

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})
008773961-01	OBS	No	0.980588	131.912261	11.1	3.894	16.7	6.1	1.49	6850	0.52	10226.20
008773961-02	OBS	No	4.855086	133.896091	42.8	17.608	10.2	12.6	1.49	6850	1.14	1211.81
008773961-03	OBS	No	1.618401	132.266252	41.5	13.611	8.0	16.2	1.49	6850	1.03	5243.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008773961-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
008773961-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008773961-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

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

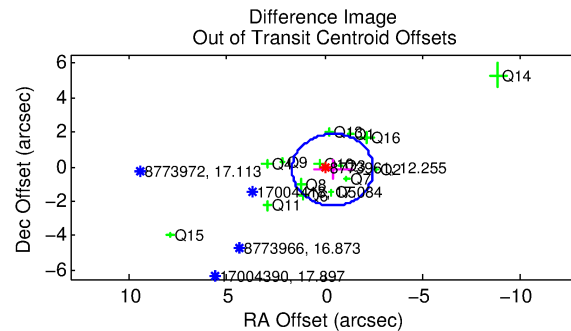
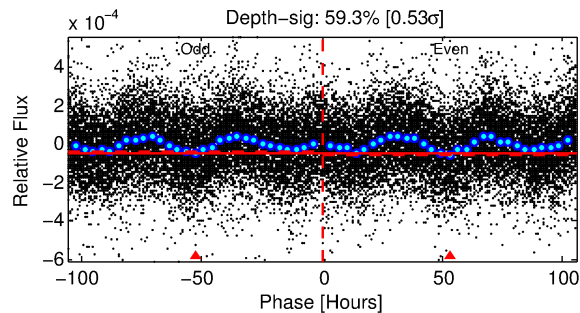
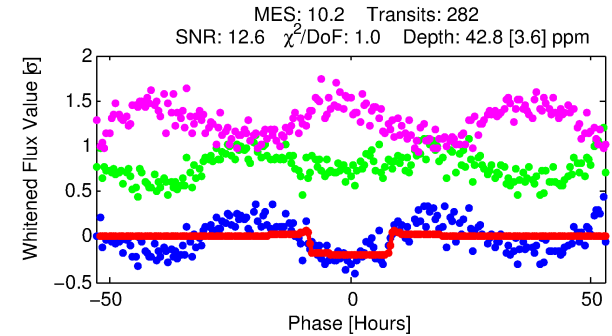
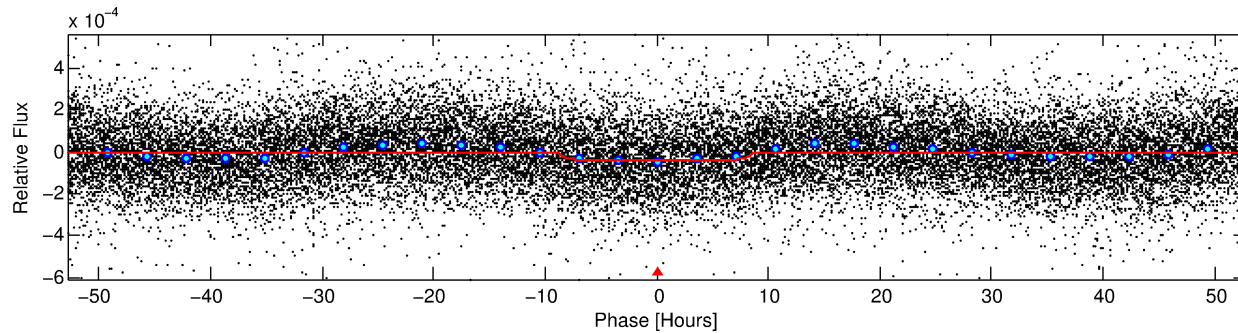
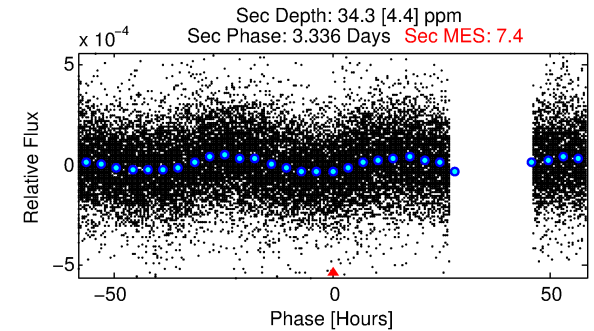
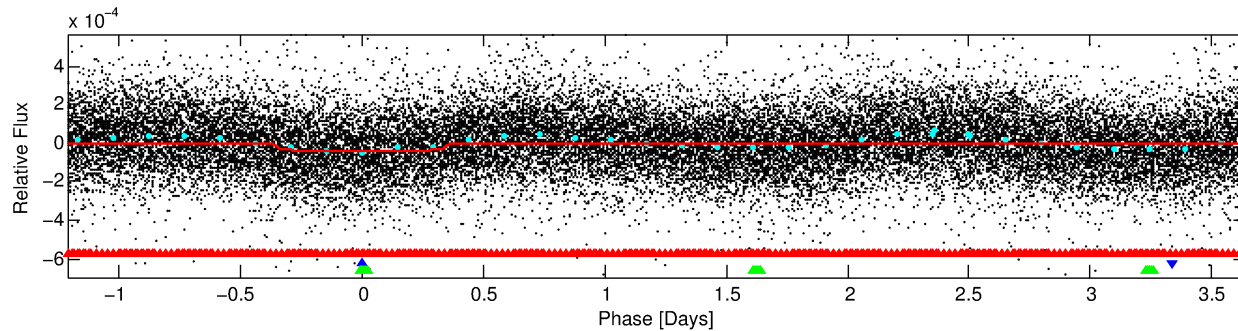
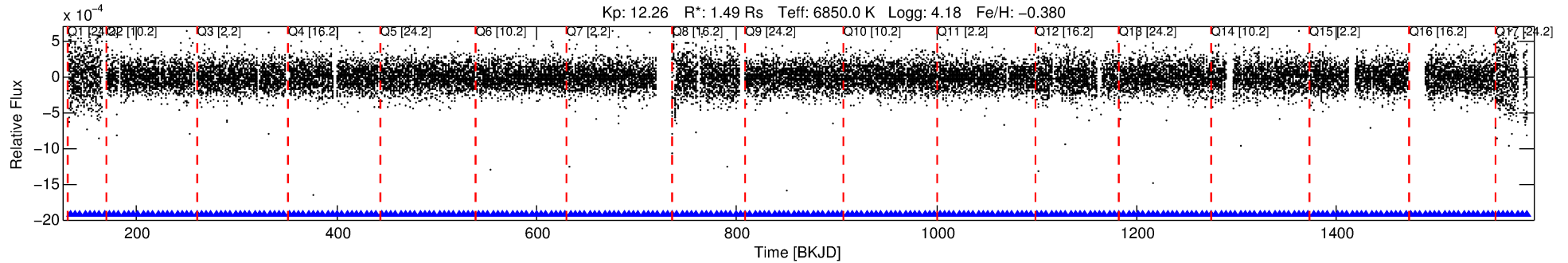
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008773961-02

No Significant Match Found

DV One-Page Summary

KIC: 8773961 Candidate: 2 of 3 Period: 4.855 d



DV Fit Results:

Period = 4.85509 [0.00008] d
Epoch = 133.8961 [0.0115] BKJD
Rp/R* = 0.0070 [0.0007]
a/R* = 1.34 [0.32]
b = 0.90 [0.12]
Seff = 1211.81 [437.35]
Teq = 1504 [136] K
Rp = 1.14 [0.35] Re
a = 0.0602 [0.0144] AU
Ag = 53.21 [21.72] [2.40σ]
Teffp = 6282 [430] K [10.59σ]

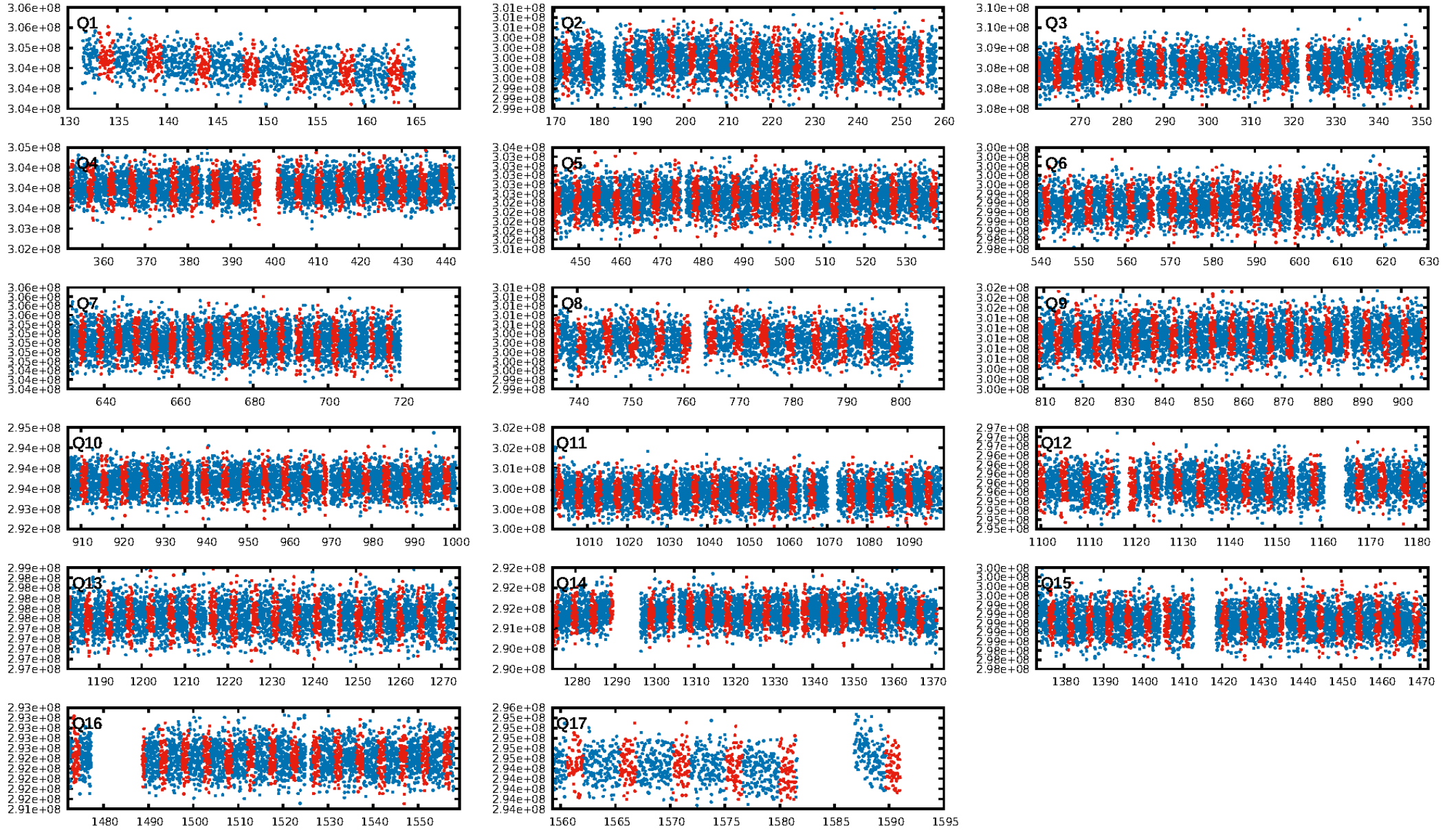
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.49σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [269/269]
GhostDiagnostic-chr: 1.984
Centroid-sig: 0.0%
Centroid-so: 0.569 arcsec [1.06σ]
OotOffset-rm: 0.441 arcsec [0.64σ]
KicOffset-rm: 0.383 arcsec [0.59σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.67 [10/15]
DiffImageOverlap-fno: 0.00 [0/17]

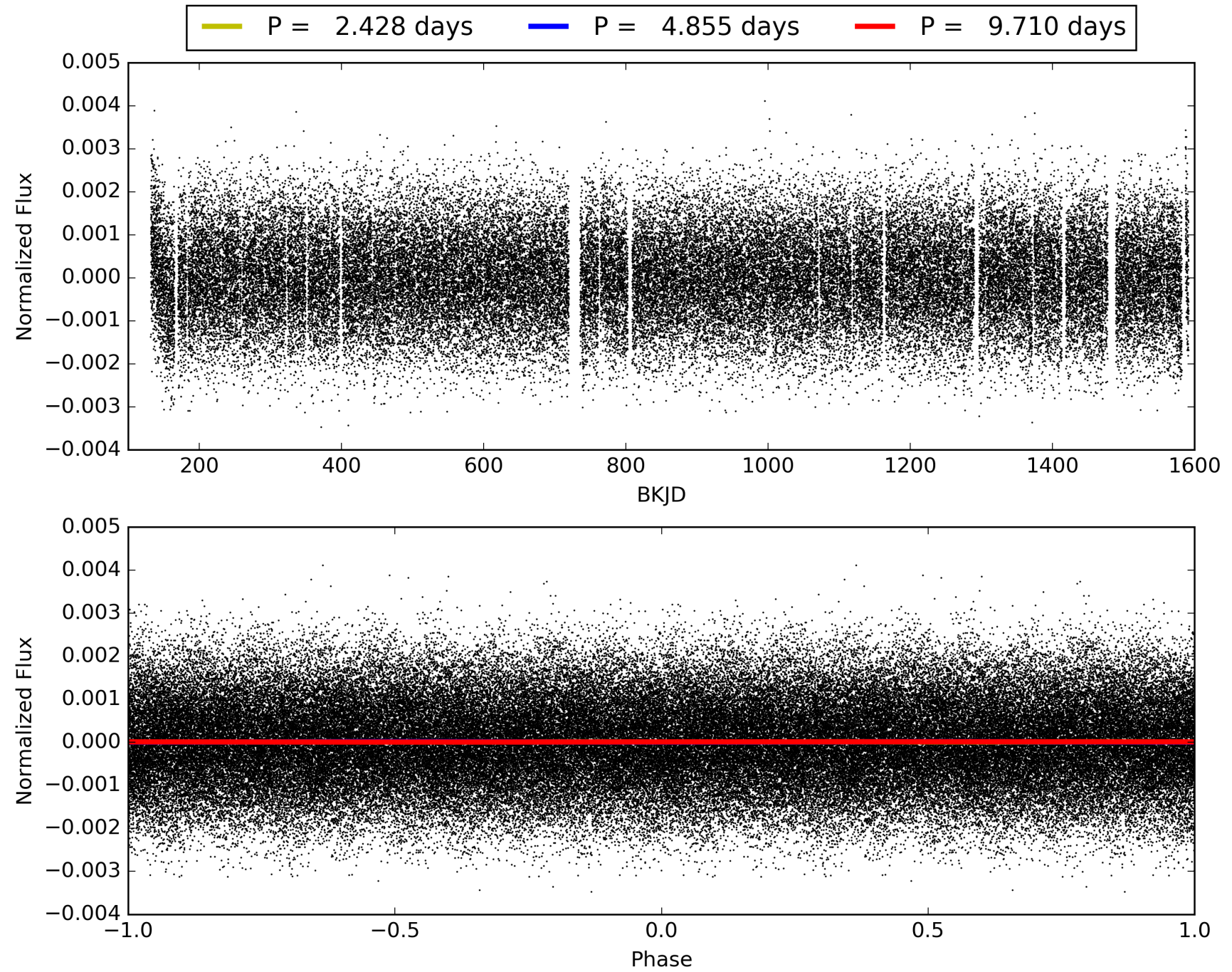
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:21:44 Z

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

TCE 008773961-02, PDC Light Curves

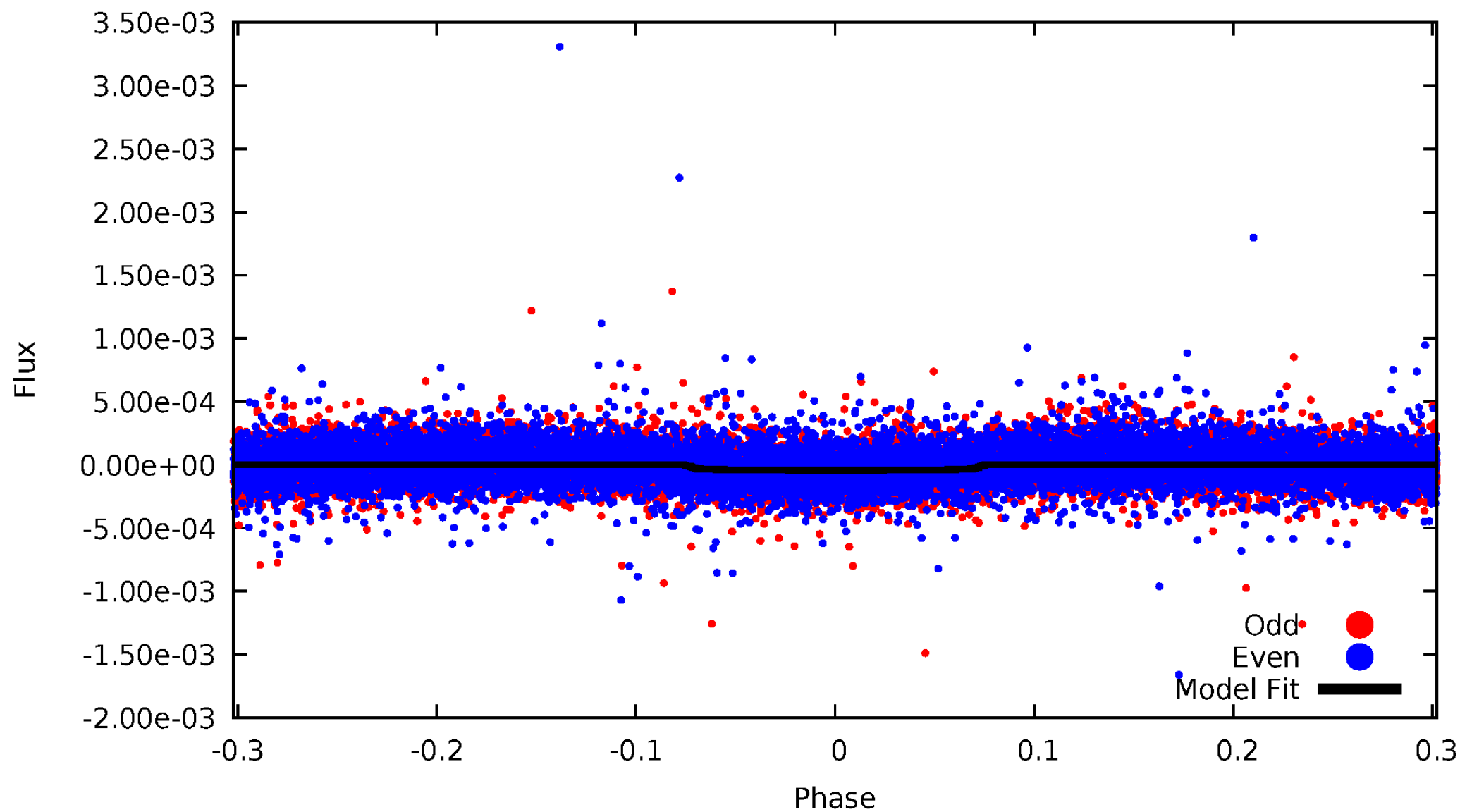


TCE 008773961-02



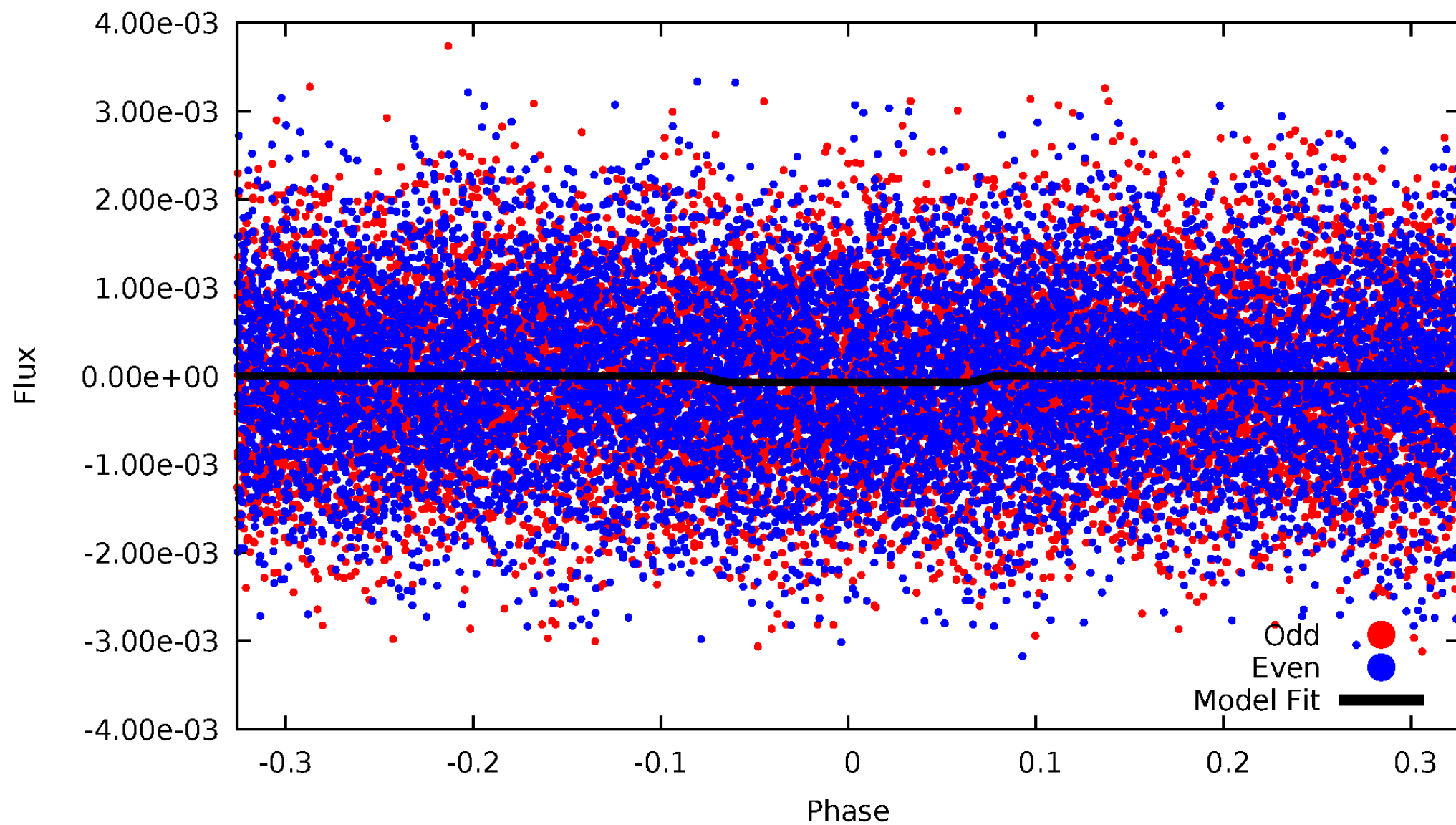
DV Odd/Even

TCE 008773961-02



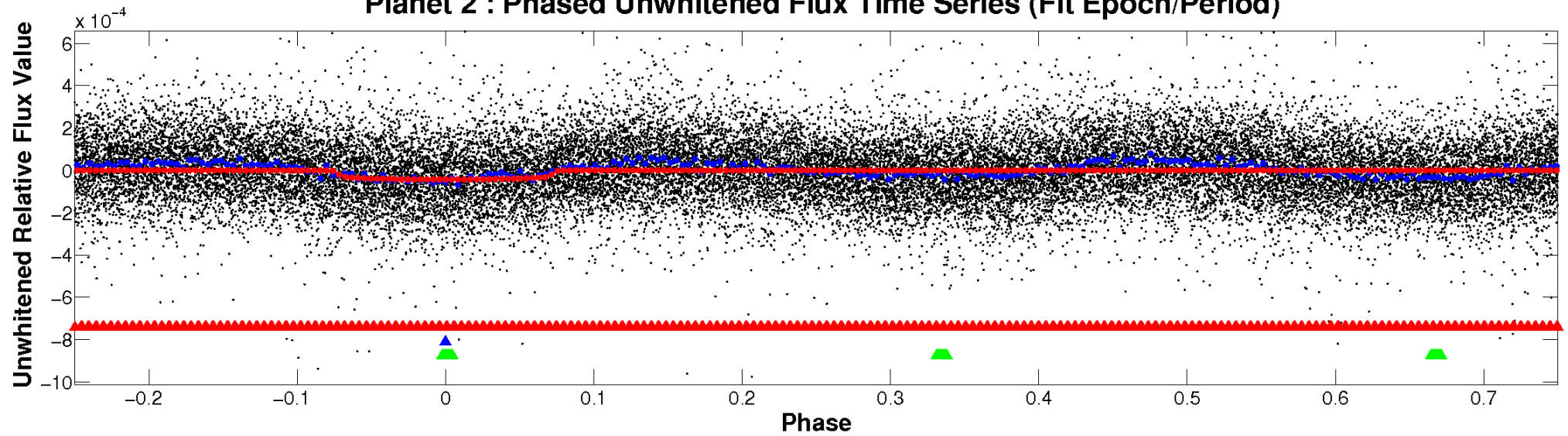
ALT Odd/Even

TCE 008773961-02

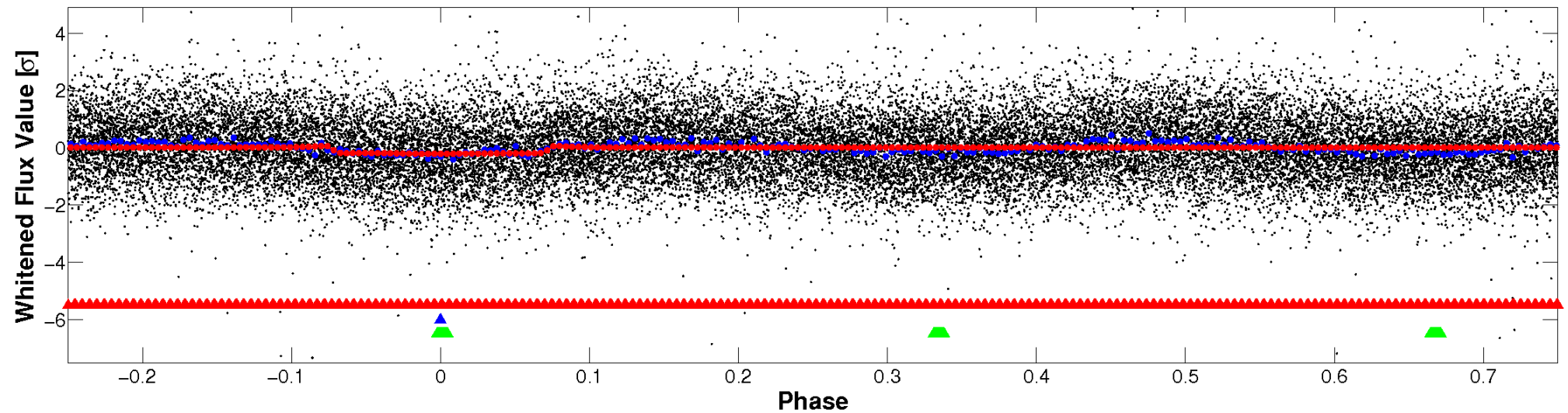


Non-Whitened Vs. Whitened Light Curve

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

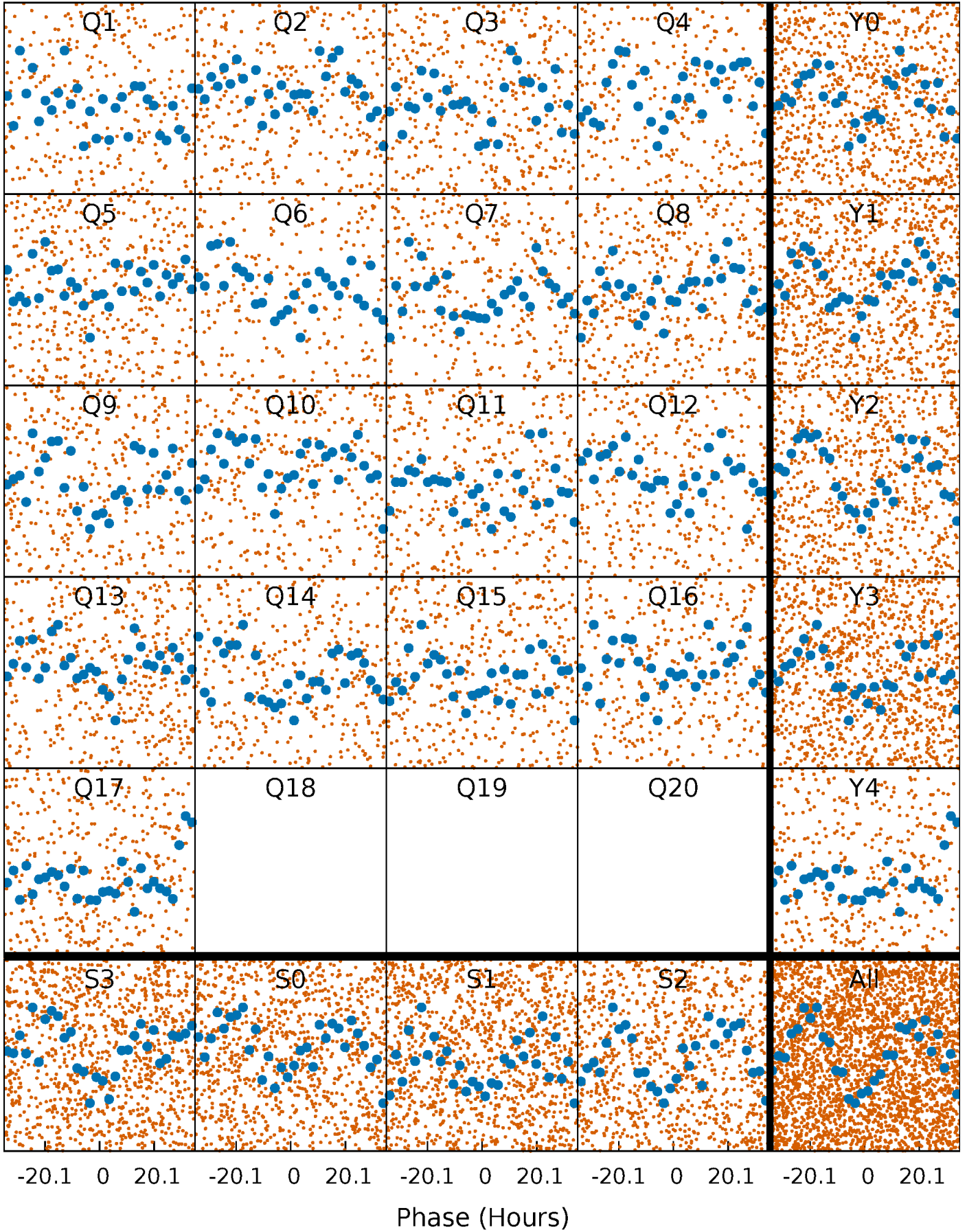


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



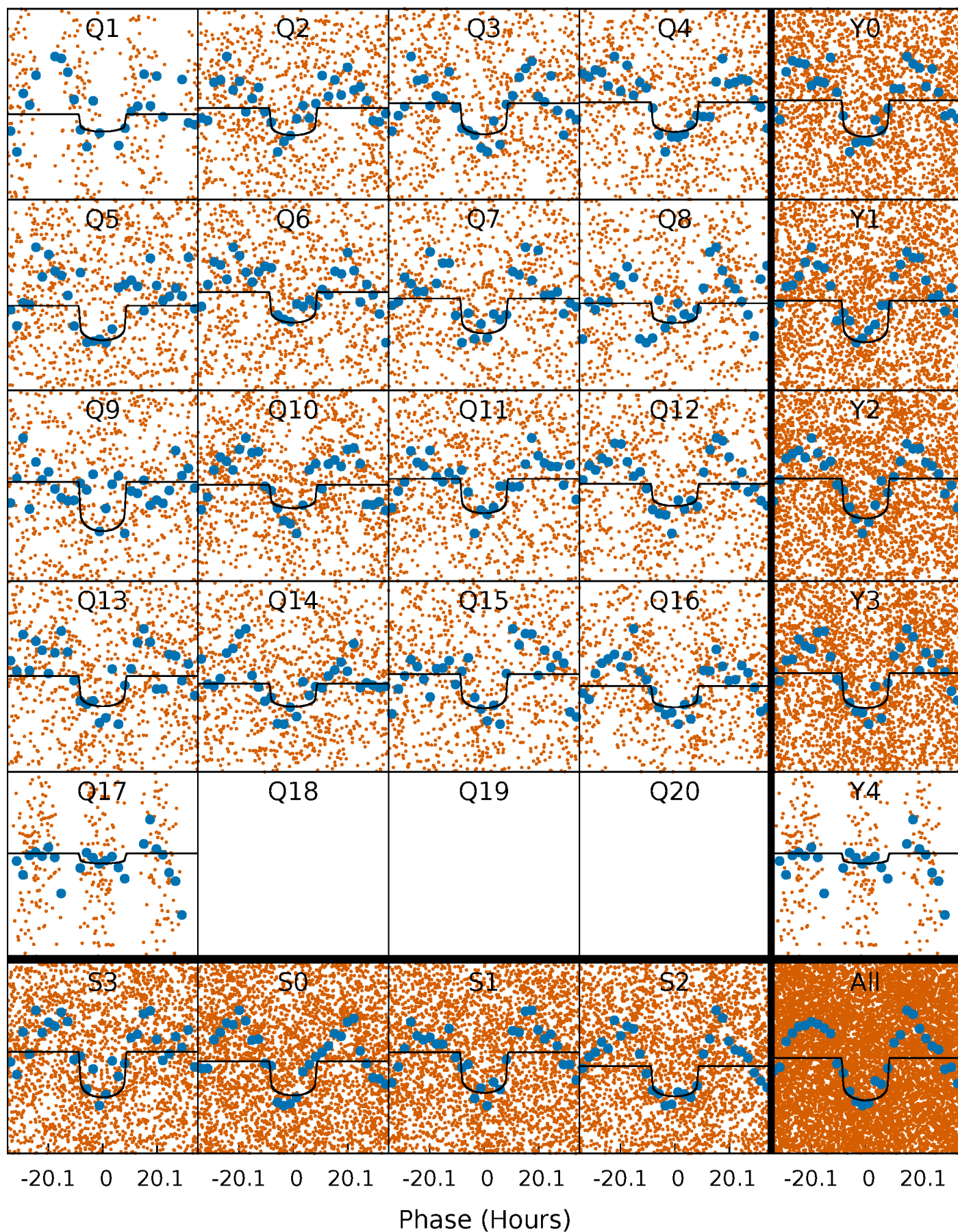
PDC Quarter-Phased Transit Curves

TCE 008773961-02 P= 4.855086 Days $T_0=133.896091$ (BKJD)



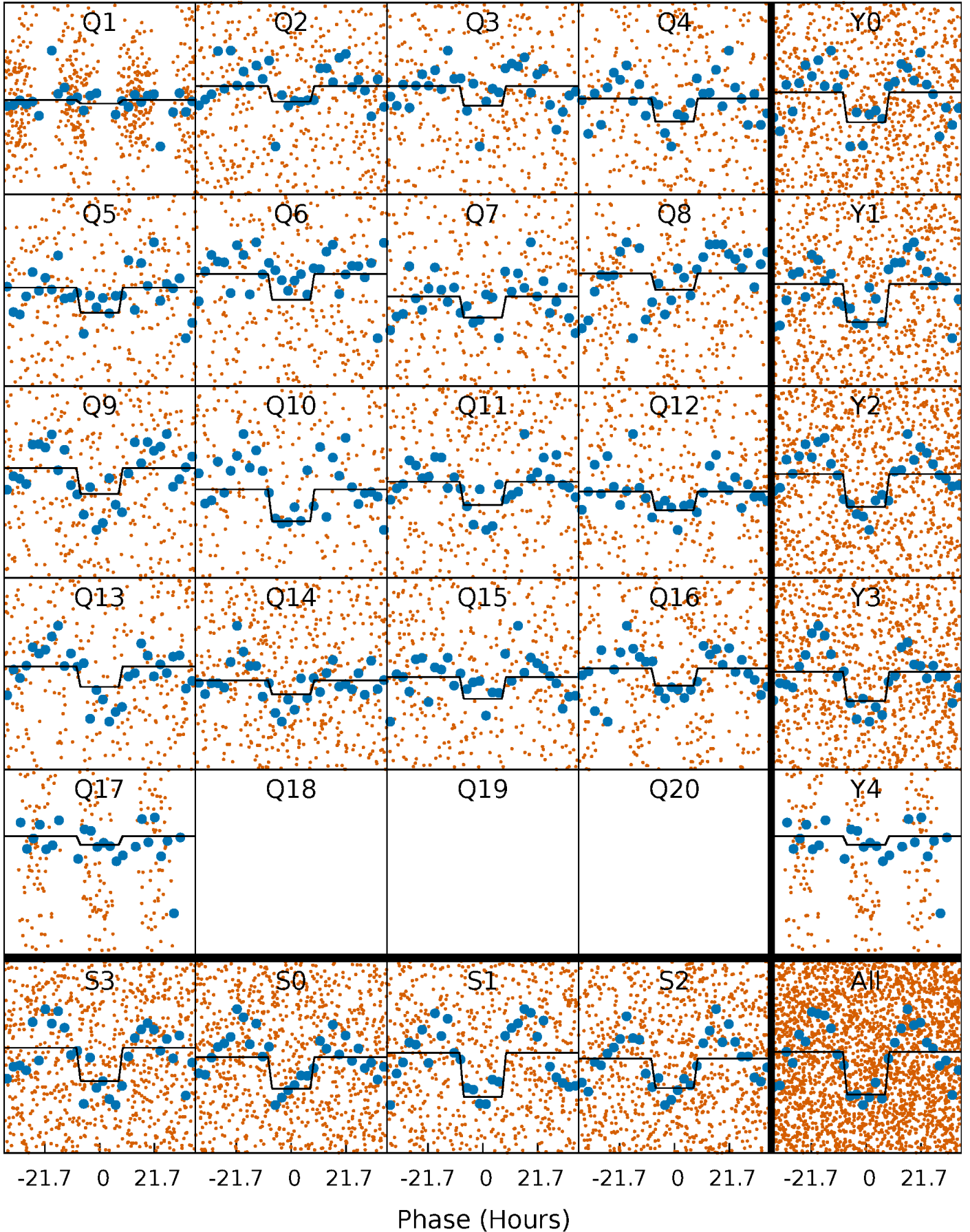
DV Quarter-Phased Transit Curves

TCE 008773961-02 P= 4.855086 Days $T_0=133.896091$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

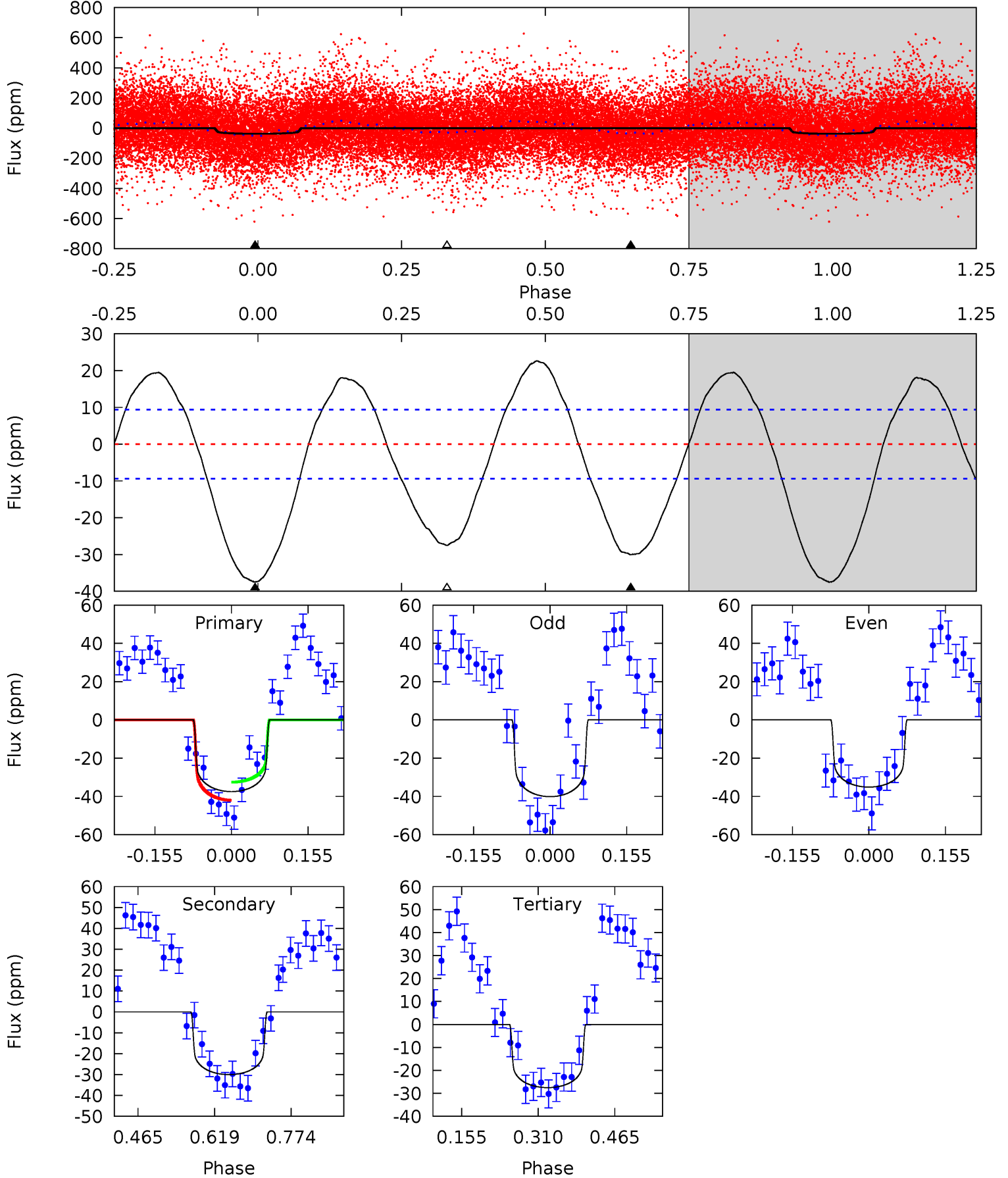
TCE 008773961-02 P= 4.854974 Days $T_0=133.914644$ (BKJD)



DV Model-Shift Uniqueness Test

008773961-02, P = 4.855086 Days, E = 129.041005 Days

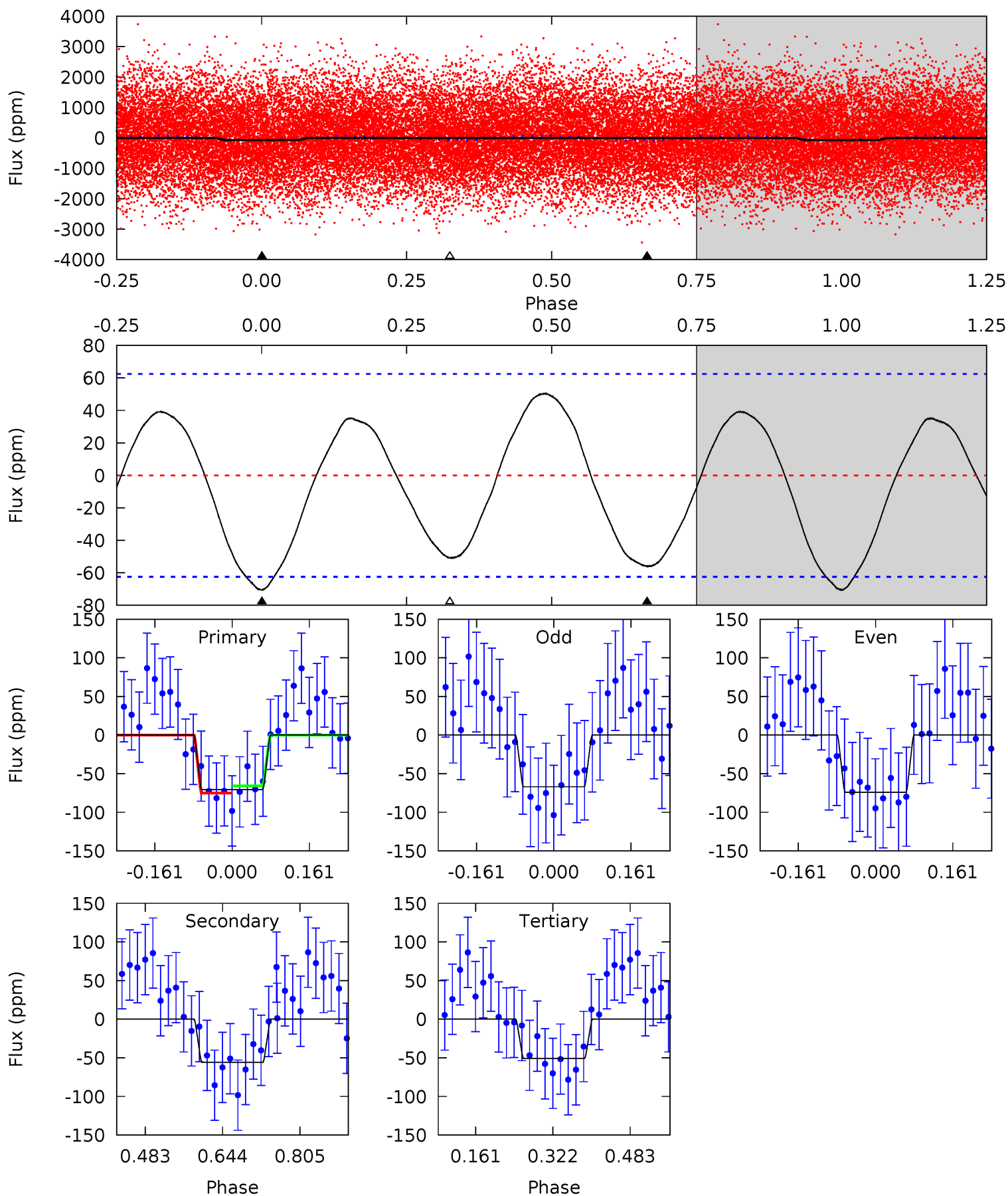
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	14.3	13.1	0	4.47	1.42	8.34	4.74	17.9	1.20	14.3	1.20	1.01	0.38	2.28



Alt Model-Shift Uniqueness Test

008773961-02, P = 4.854974 Days, E = 129.059670 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.04	4.00	3.63	0	4.46	1.40	2.46	1.41	5.04	0.37	4.00	0.26	1.06	0.42	0.33



Stellar Parameters For KIC 008773961

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6850^{+190}_{-238}	$4.182^{+0.175}_{-0.175}$	$-0.380^{+0.300}_{-0.300}$	$1.493^{+0.441}_{-0.367}$	$1.239^{+0.189}_{-0.189}$	$0.525^{+0.472}_{-0.245}$
	+3%/-3%	+4%/-4%	+79%/-79%	+30%/-25%	+15%/-15%	+90%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008773961-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-30 ± 2	$1.12^{+0.22}_{-0.17}$	2089^{+159}_{-146}	6027^{+373}_{-329}	47^{+18}_{-13}
Alt.	-56 ± 14	$1.40^{+0.24}_{-0.21}$	2115^{+148}_{-143}	6355^{+588}_{-519}	56^{+26}_{-19}

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

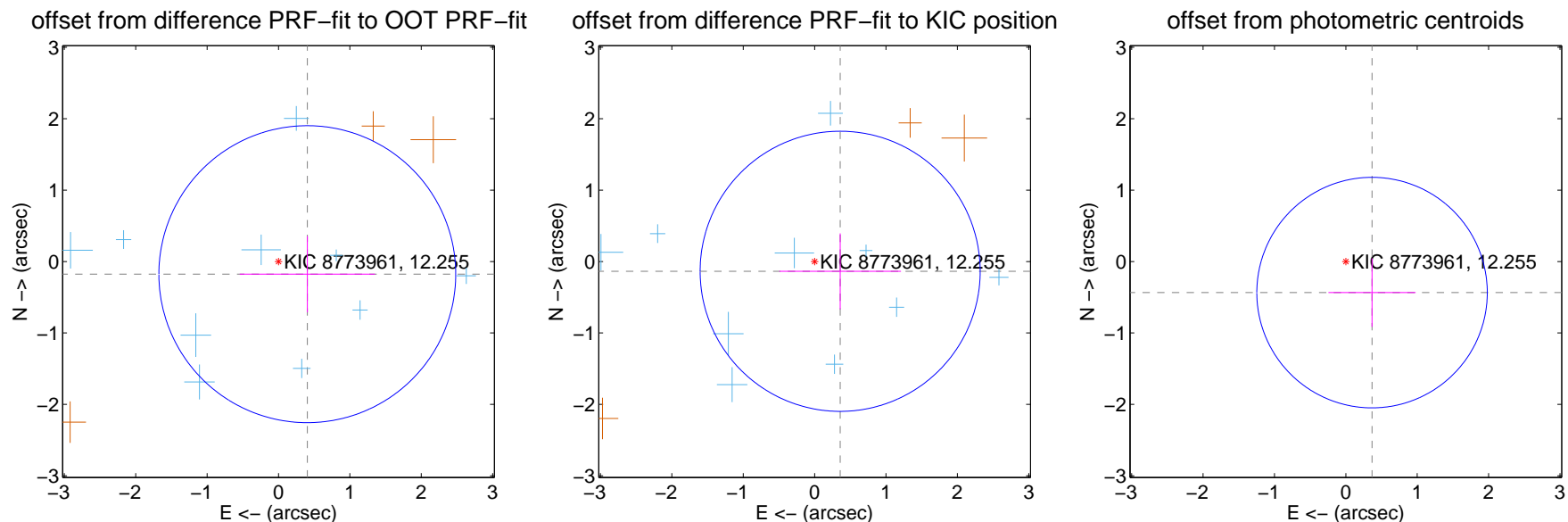
DV Centroid Data

Supplemental centroid analysis for 008773961-02. Kepler magnitude: 12.26. Transit SNR 12.63

There are 10 quarters with good PRF difference image offsets

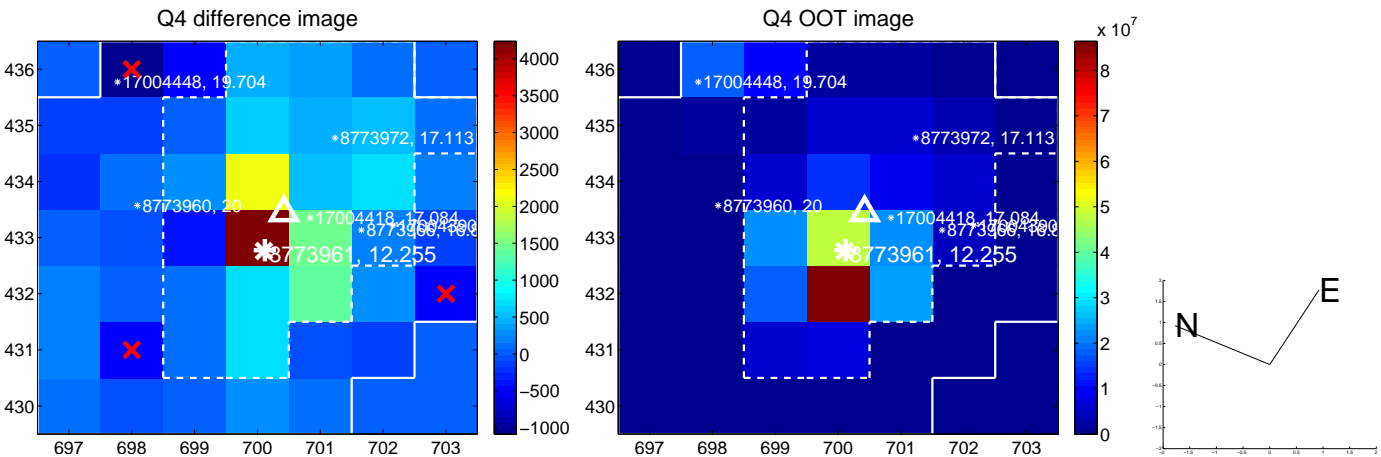
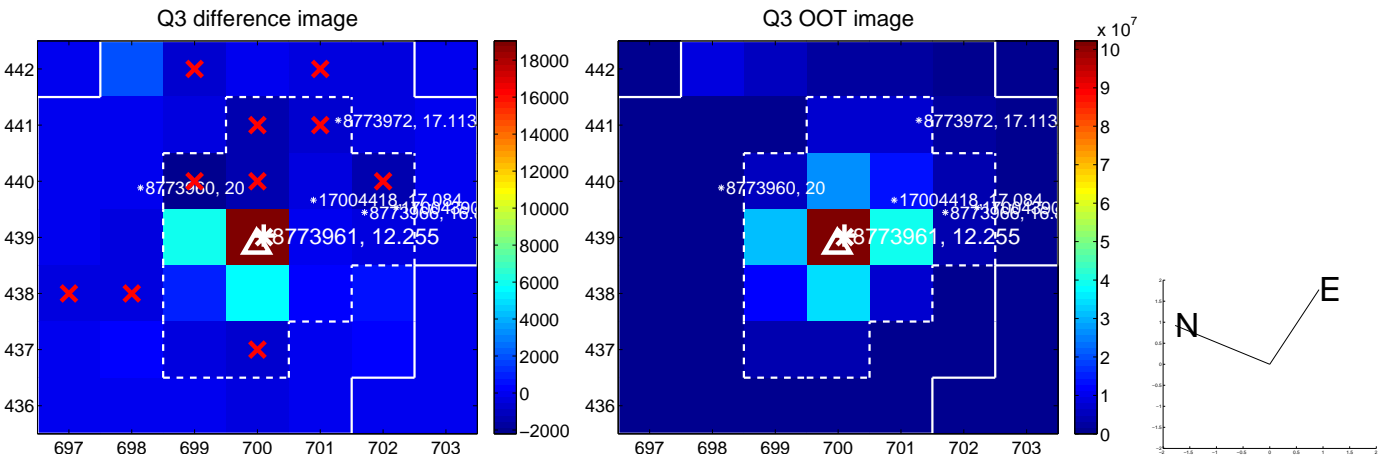
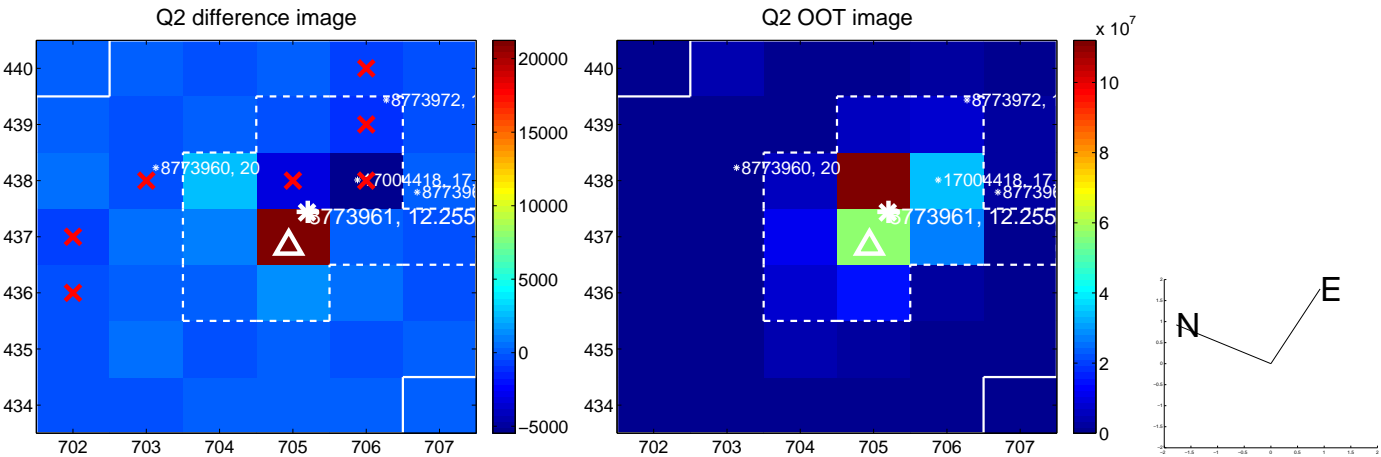
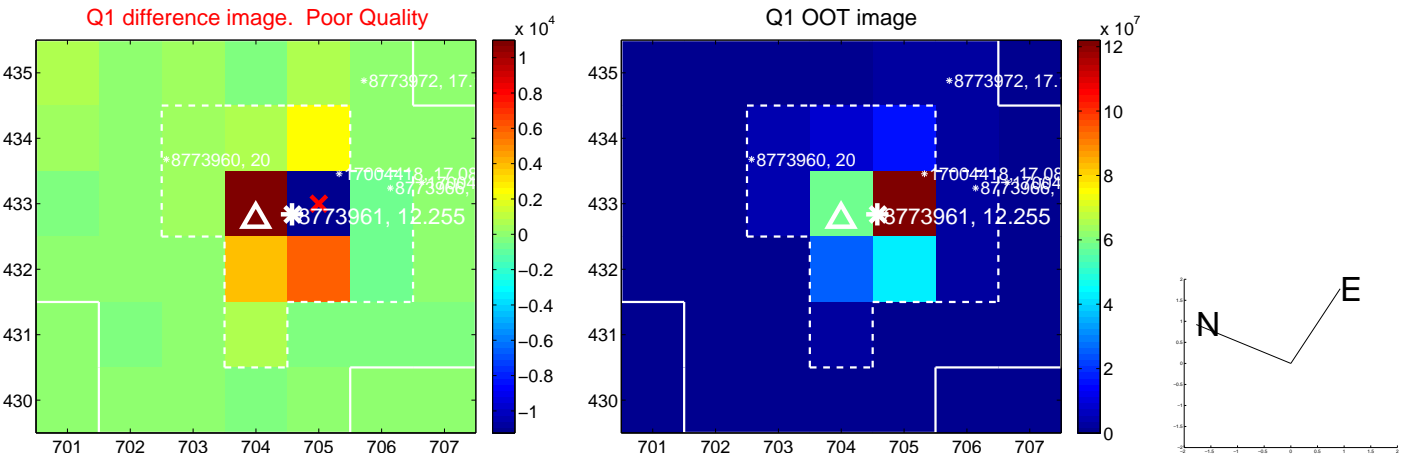
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.441 ± 0.693	0.64	-0.404 ± 0.947	-0.177 ± 0.533
PRF-fit source offset from KIC position	0.383 ± 0.654	0.59	-0.358 ± 0.853	-0.137 ± 0.531
photometric centroid source offset	0.57 ± 0.54	1.06	-0.37 ± 0.61	-0.43 ± 0.48

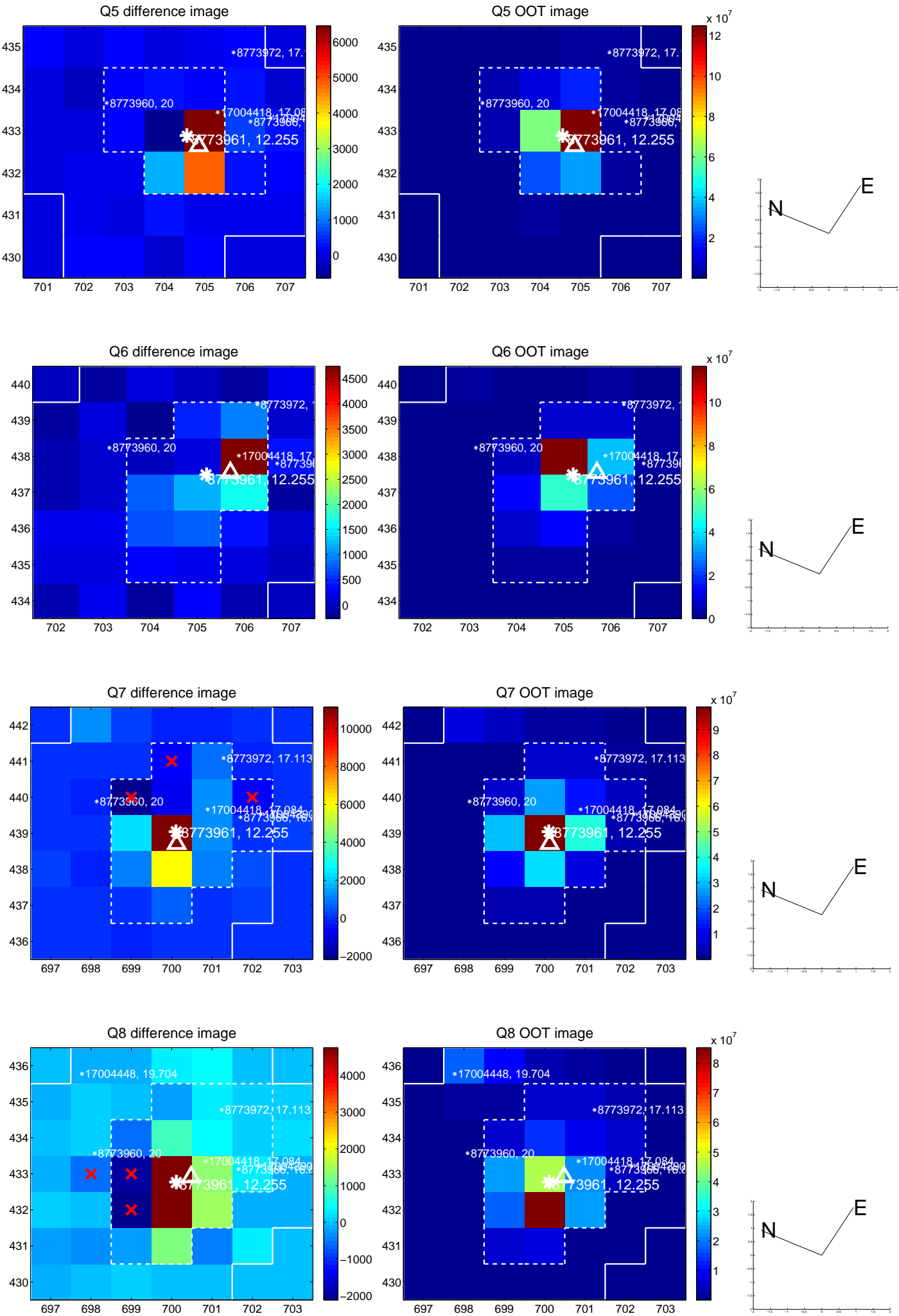


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

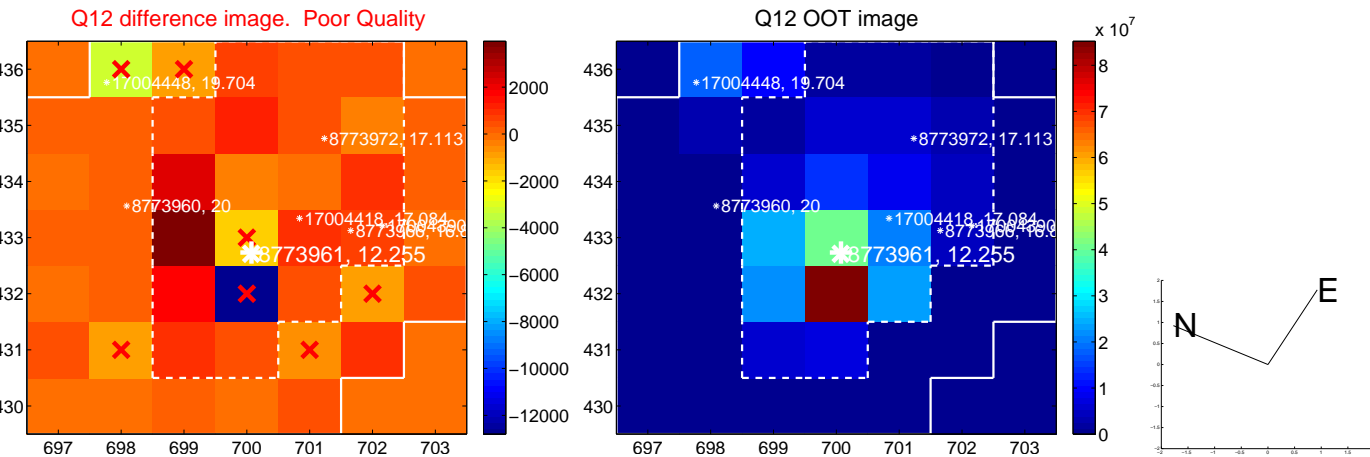
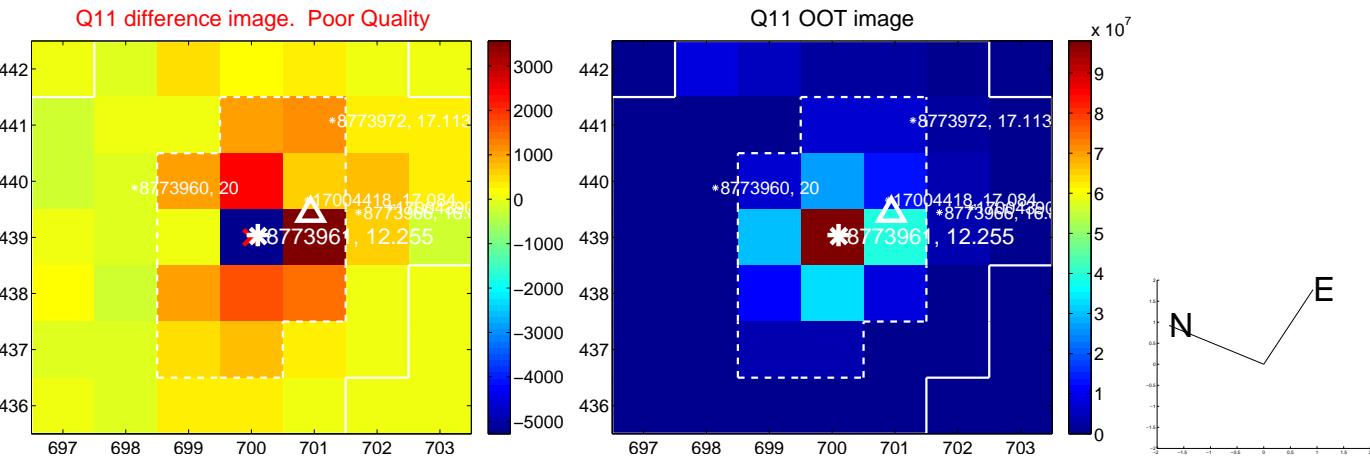
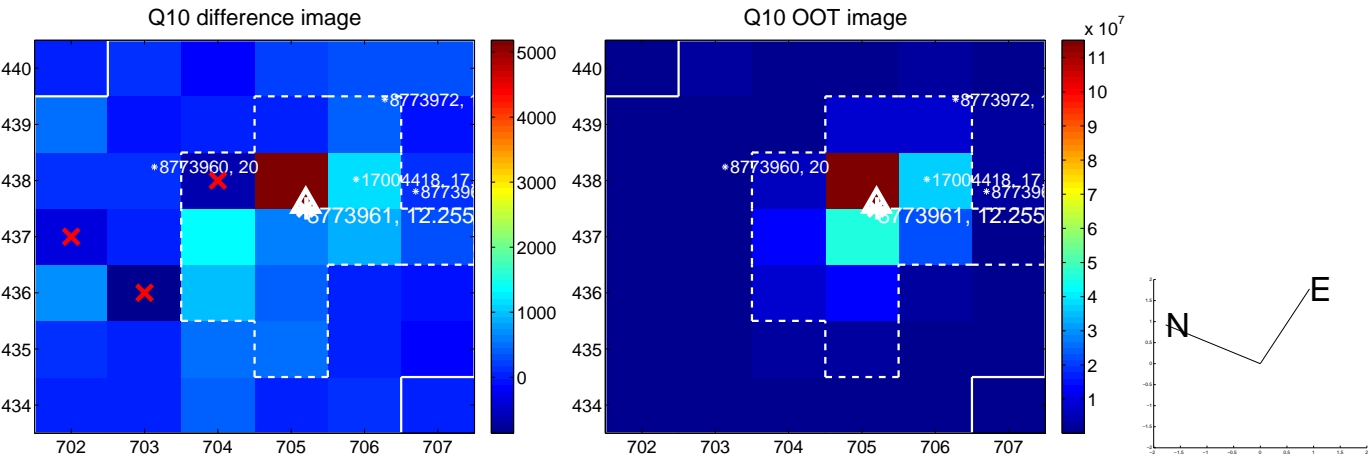
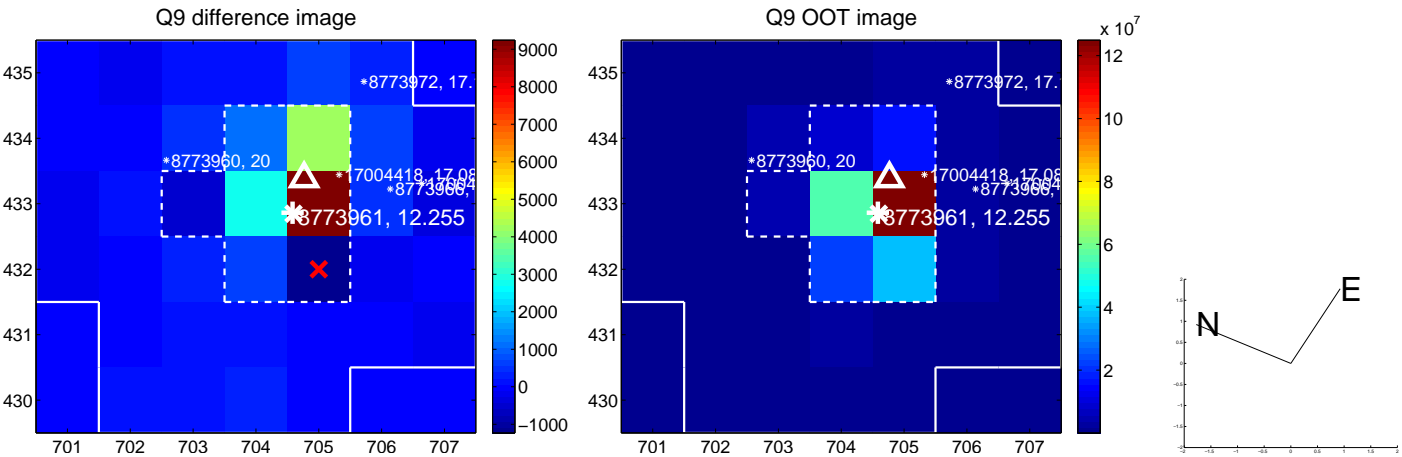
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



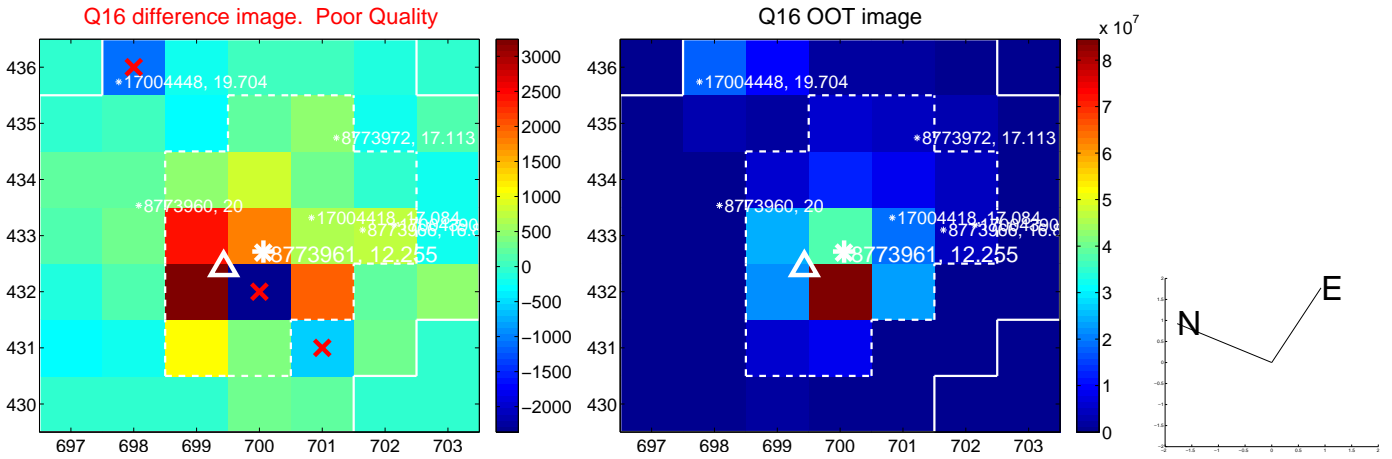
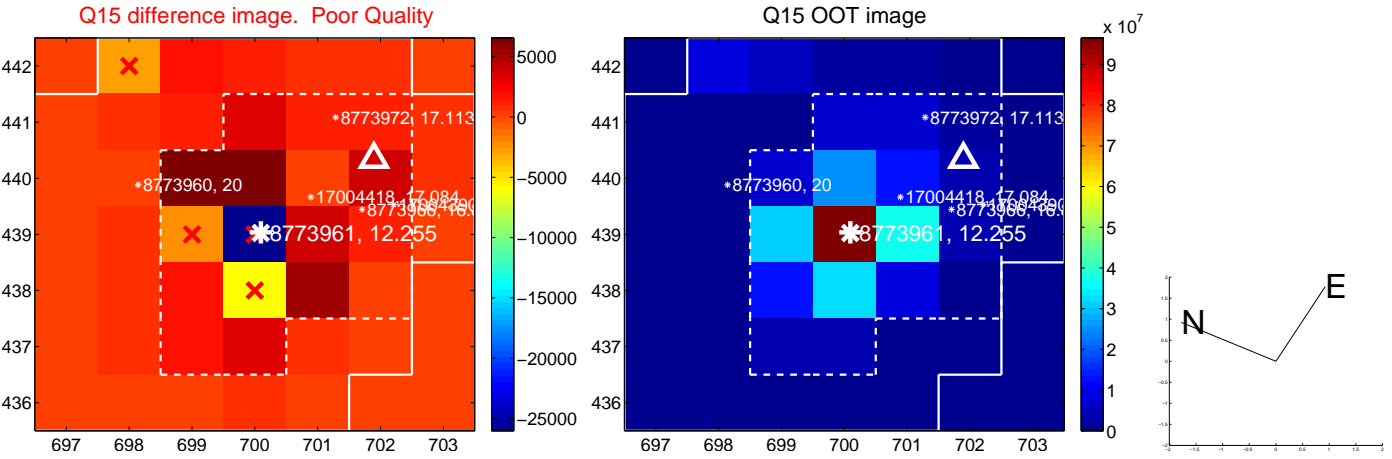
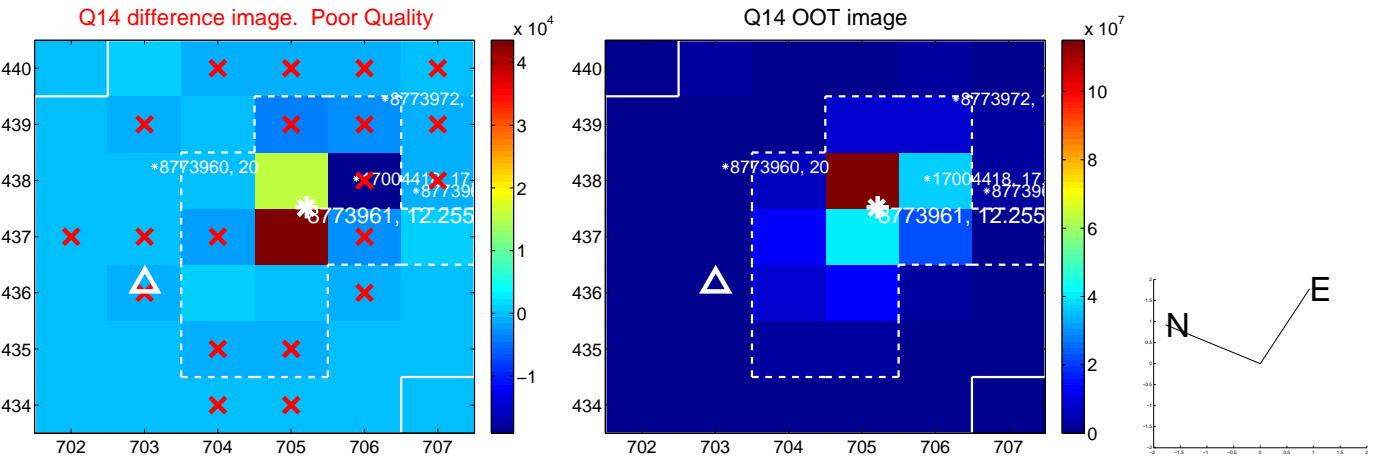
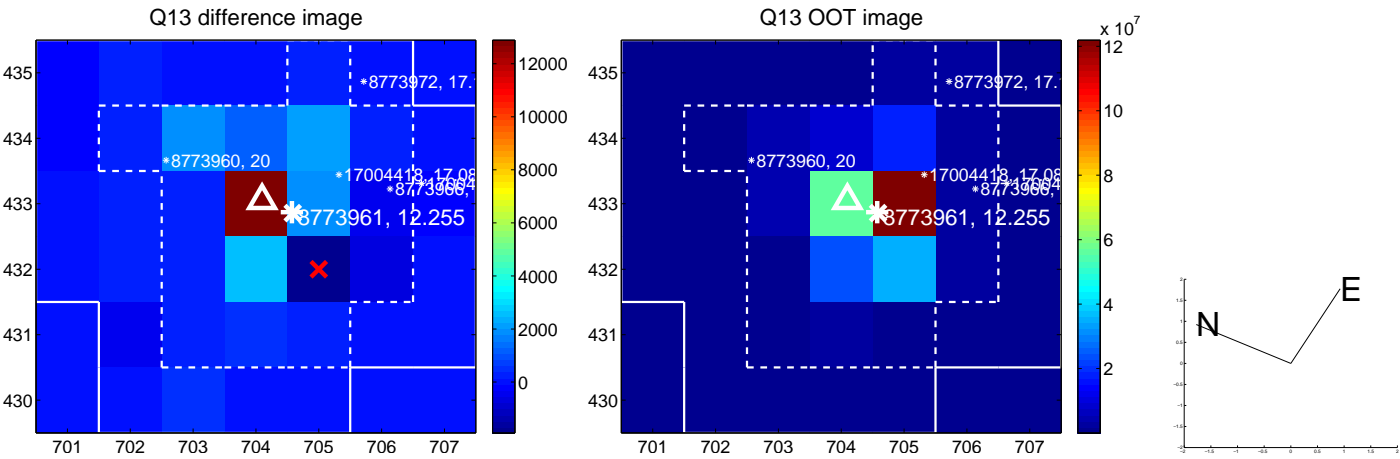
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



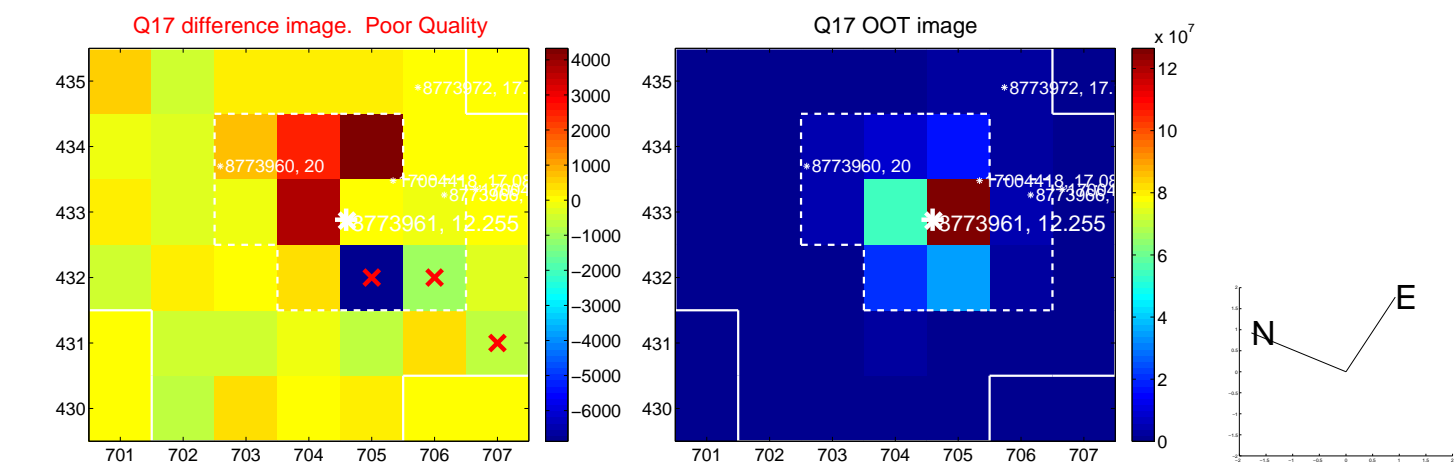
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



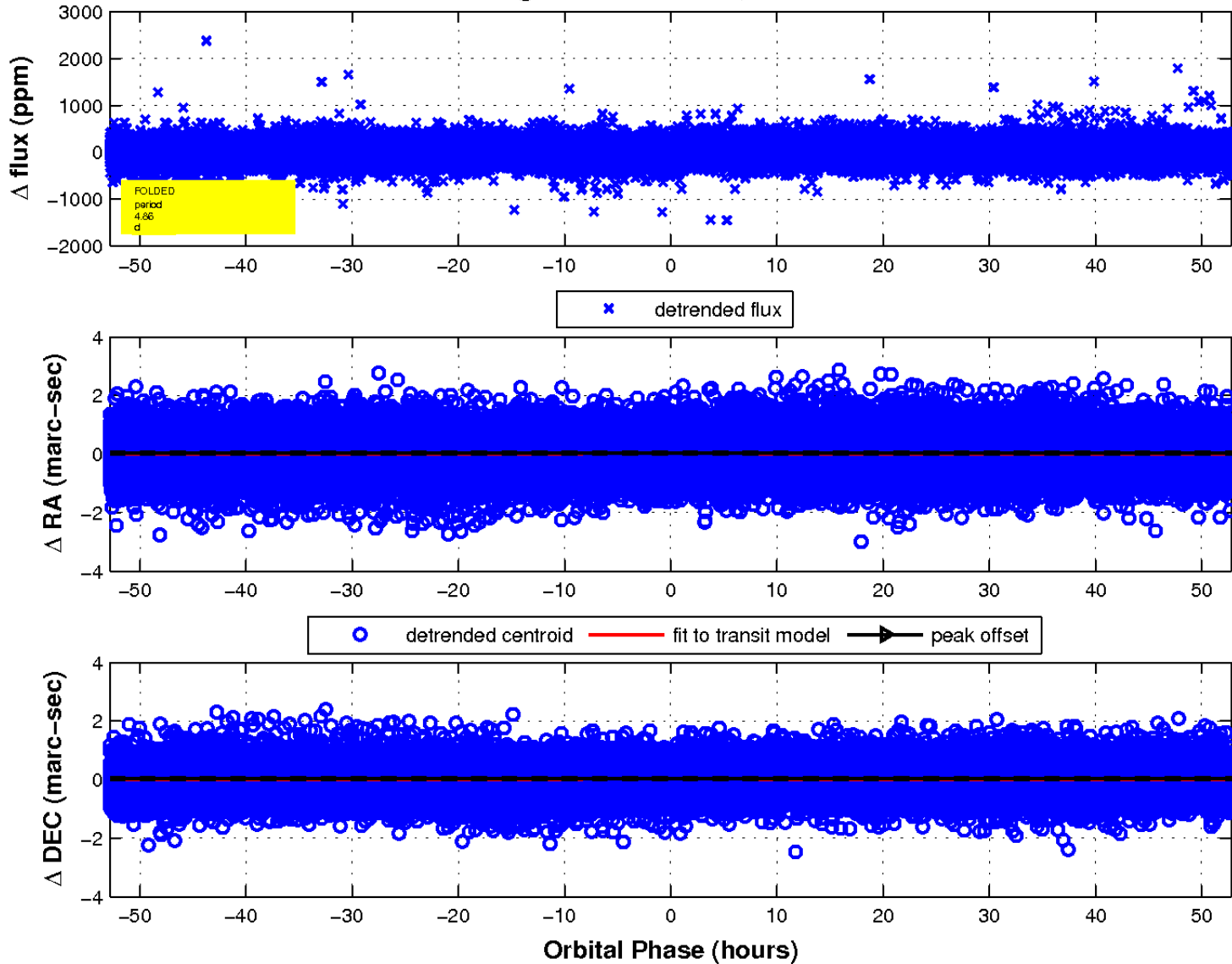
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



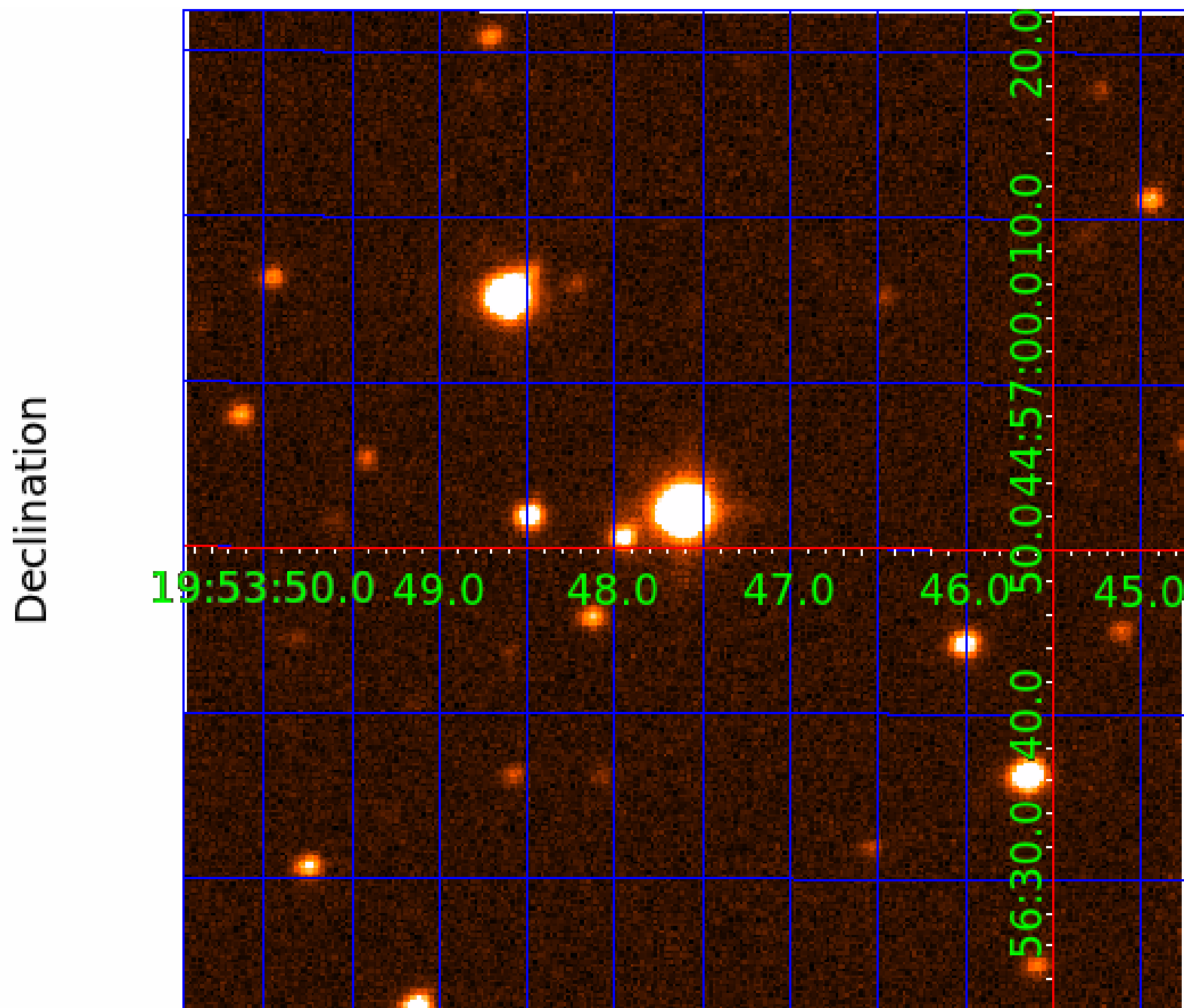
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 008773961

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})
008773961-01	OBS	No	0.980588	131.912261	11.1	3.894	16.7	6.1	1.49	6850	0.52	10226.20
008773961-02	OBS	No	4.855086	133.896091	42.8	17.608	10.2	12.6	1.49	6850	1.14	1211.81
008773961-03	OBS	No	1.618401	132.266252	41.5	13.611	8.0	16.2	1.49	6850	1.03	5243.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008773961-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
008773961-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008773961-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS

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

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

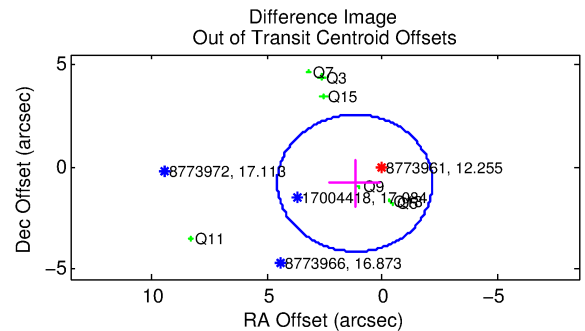
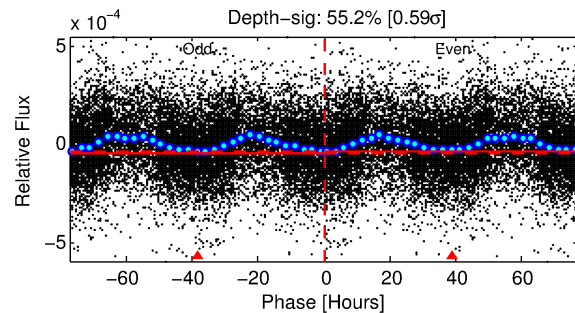
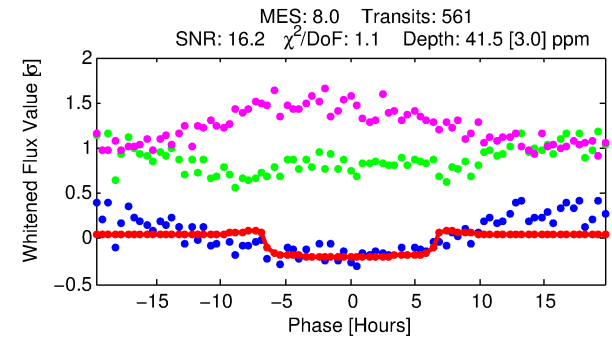
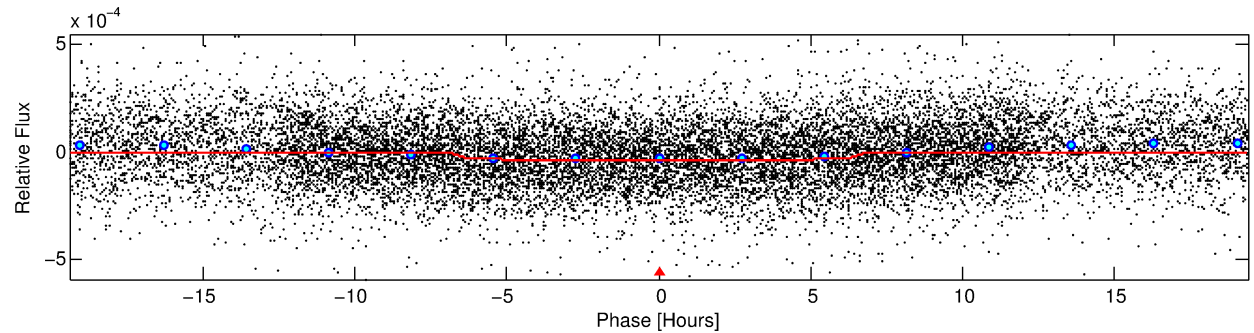
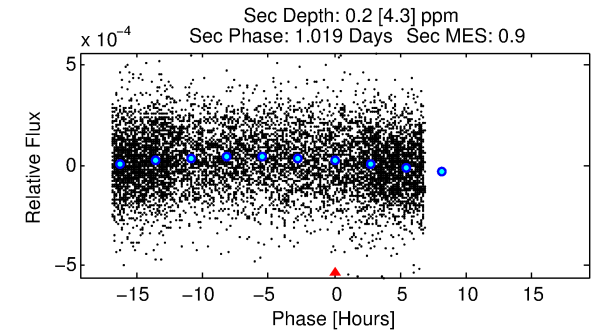
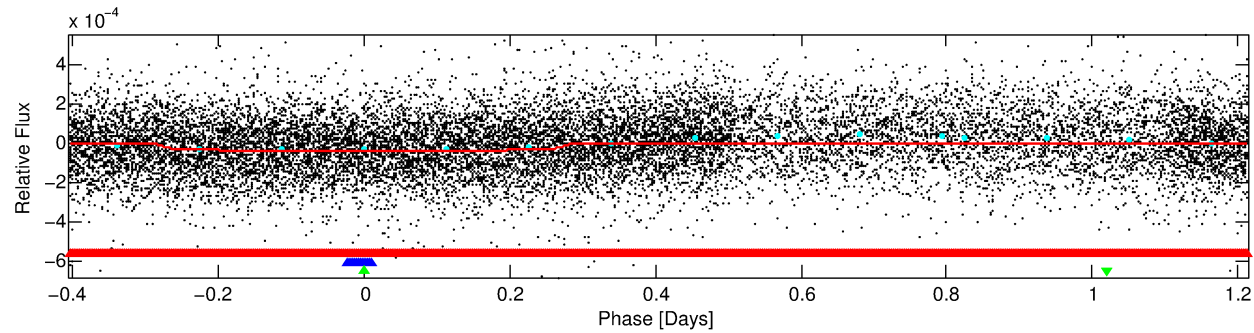
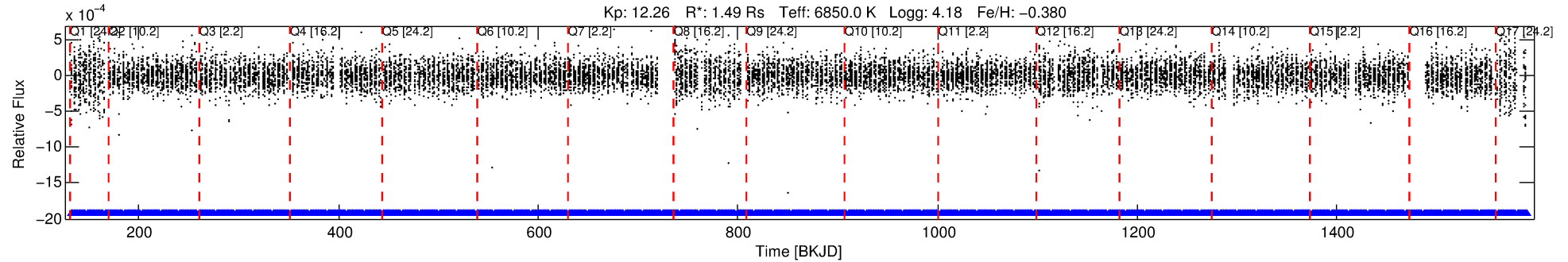
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008773961-03

No Significant Match Found

DV One-Page Summary

KIC: 8773961 Candidate: 3 of 3 Period: 1.618 d



DV Fit Results:

Period = 1.61840 [0.00002] d
Epoch = 132.2663 [0.0055] BKJD
Rp/R* = 0.0063 [0.0025]
a/R* = 1.07 [0.32]
b = 0.70 [1.71]
Seff = 5243.02 [1892.26]
Teff = 2170 [196] K
Rp = 1.03 [0.51] Re
a = 0.0290 [0.0069] AU
Ag = 0.08 [1.88] [-0.49σ]
Teffp = 1797 [10268] K [-0.04σ]

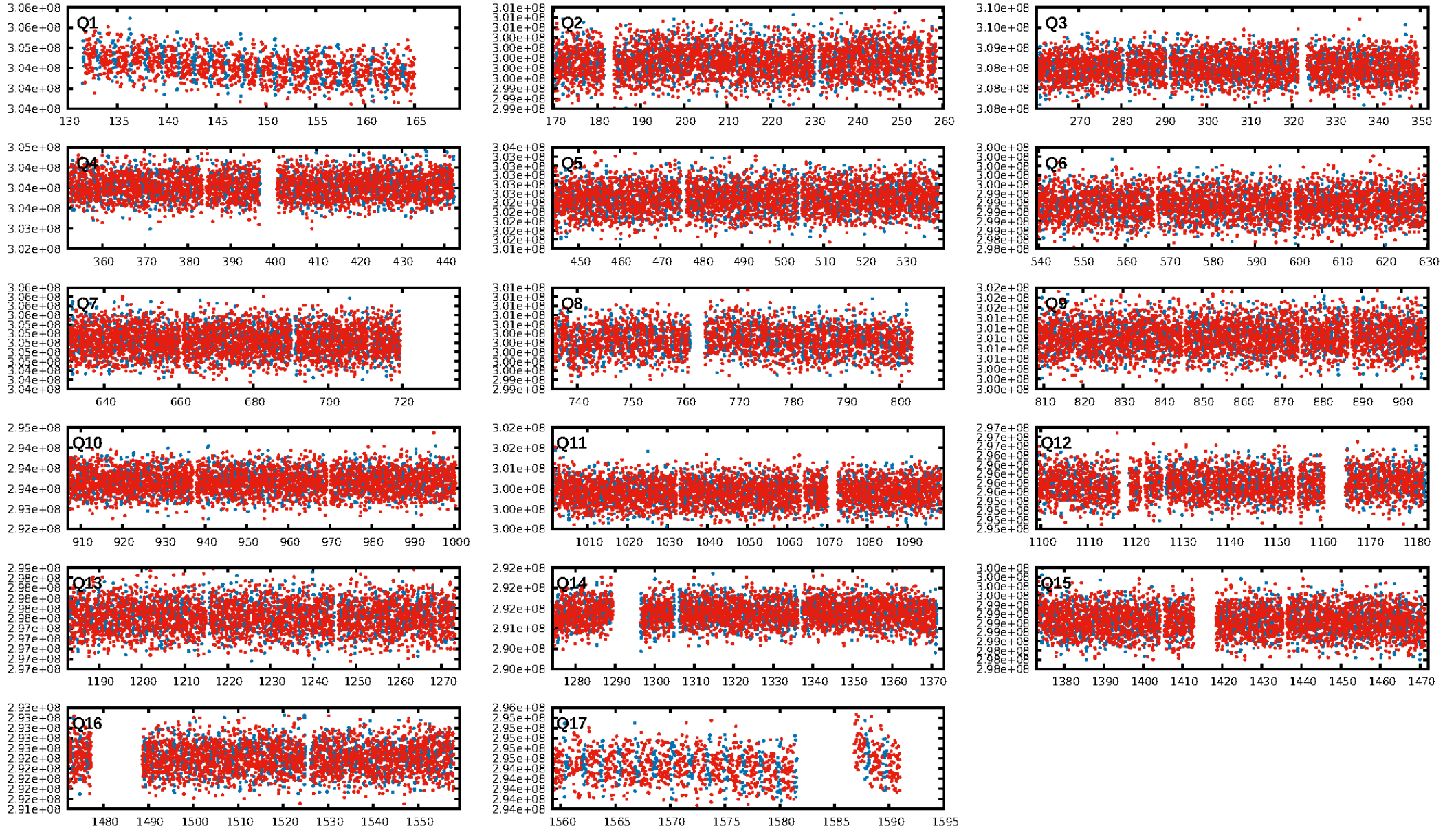
DV Diagnostic Results:

ShortPeriod-sig: 72.0% [1.08σ]
LongPeriod-sig: 100.0% [3.49σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [536/536]
GhostDiagnostic-chr: 3.151
Centroid-sig: 0.2%
Centroid-so: 0.698 arcsec [2.30σ]
OotOffset-rm: 1.440 arcsec [1.29σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-rm: 1.421 arcsec [1.28σ]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 0.00 [0/17]

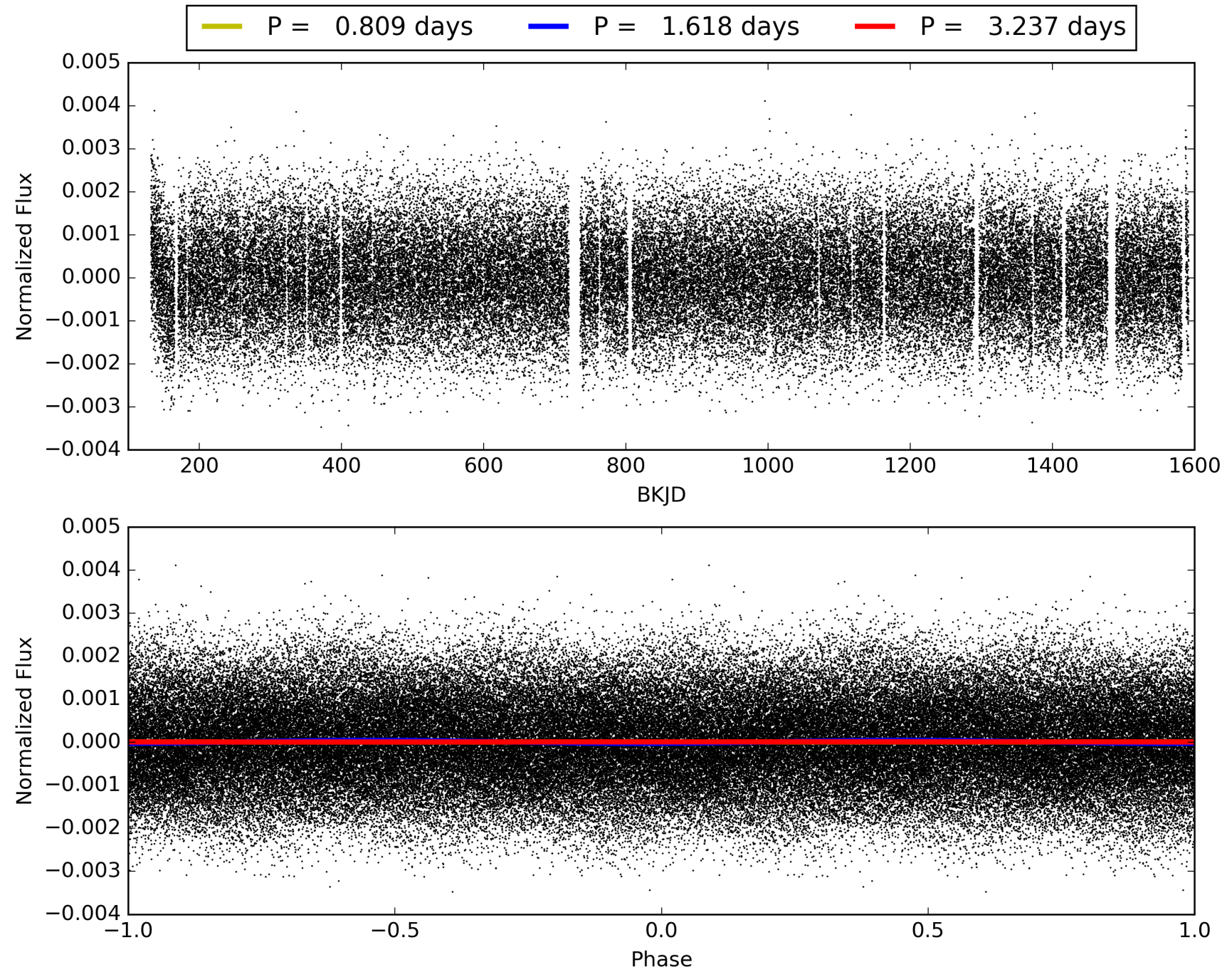
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:21:56 Z

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

TCE 008773961-03, PDC Light Curves

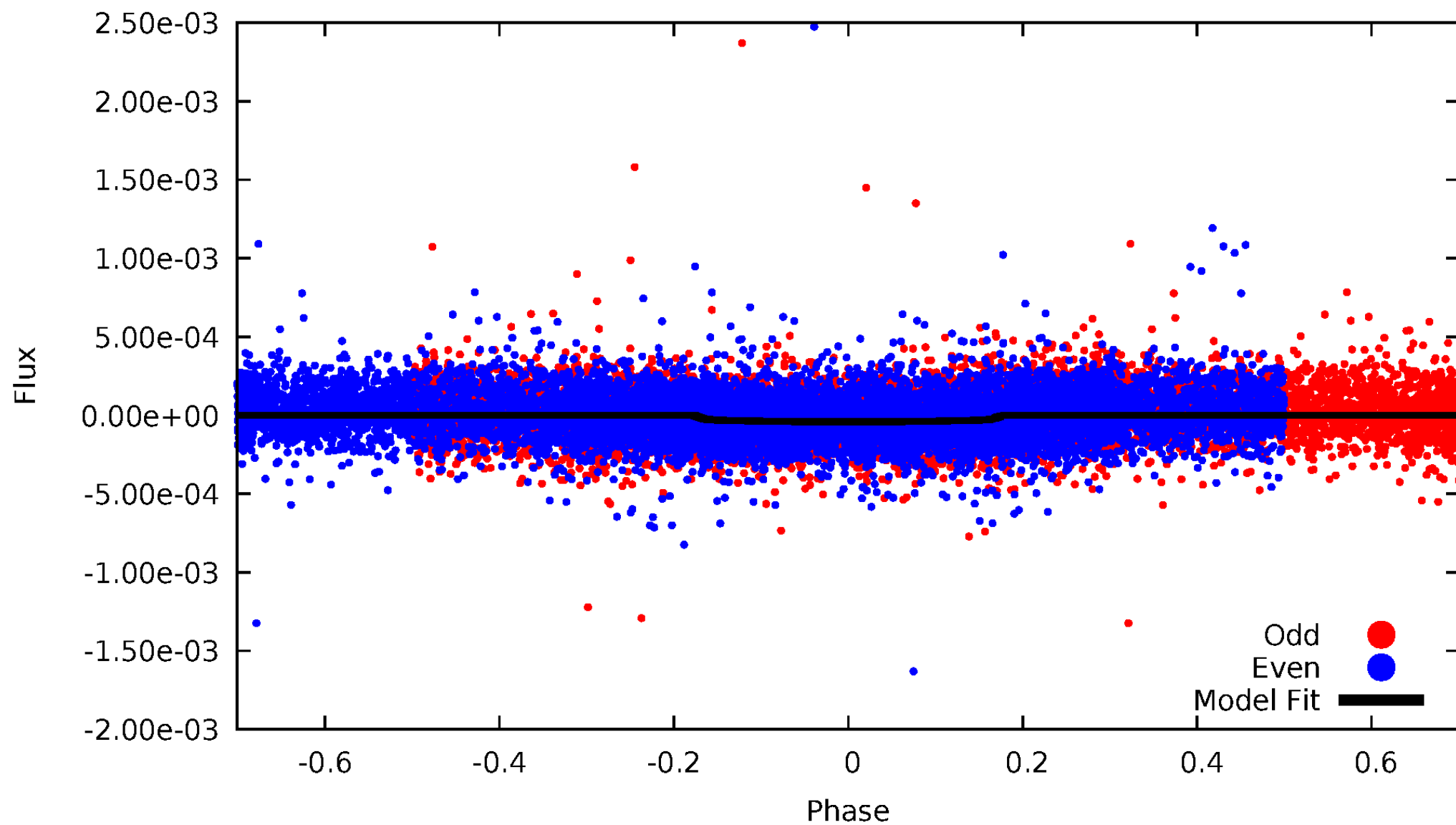


TCE 008773961-03



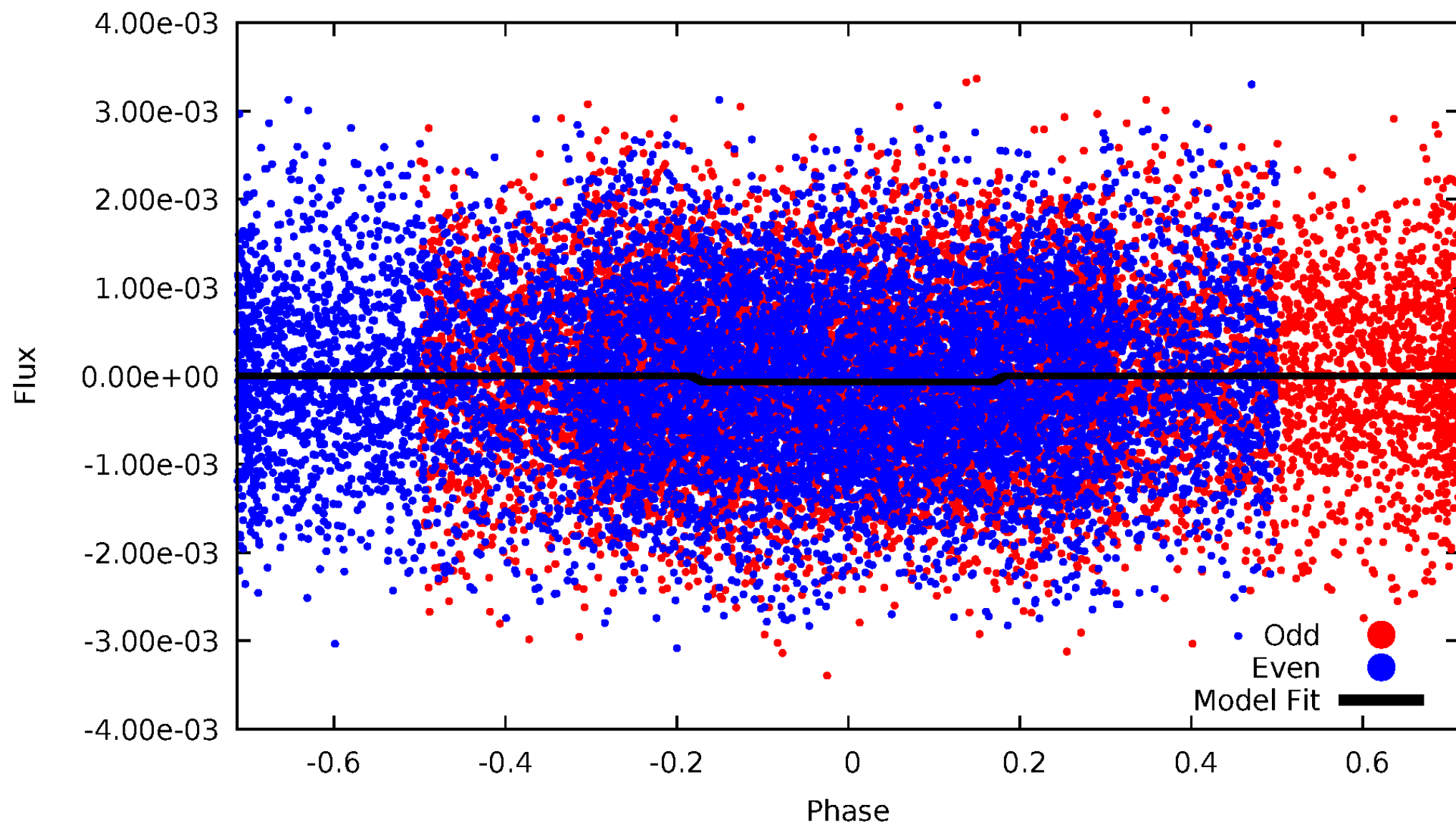
DV Odd/Even

TCE 008773961-03



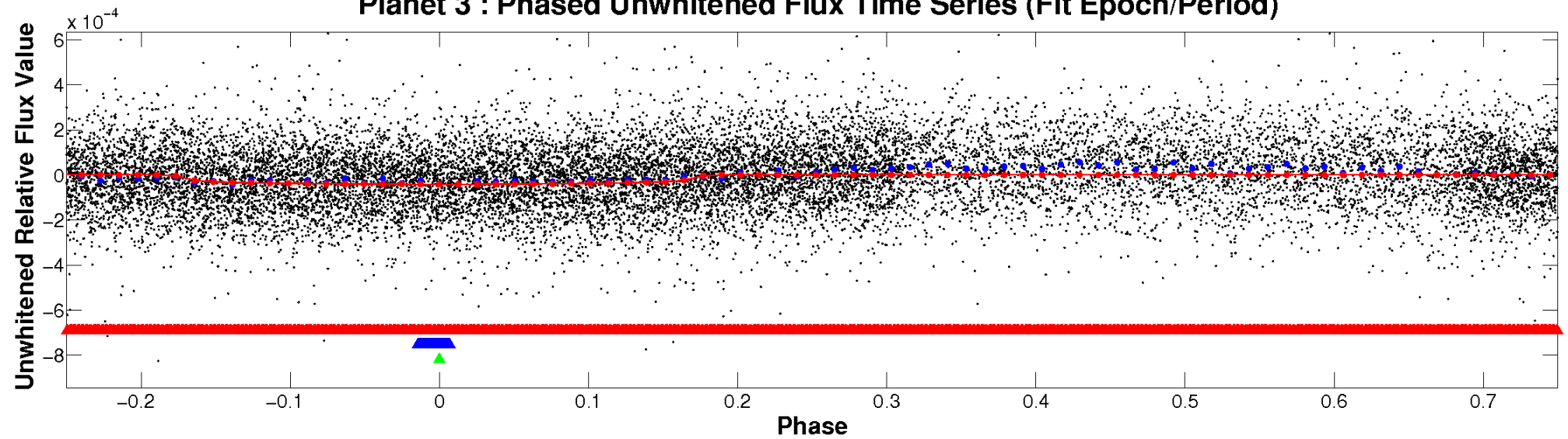
ALT Odd/Even

TCE 008773961-03

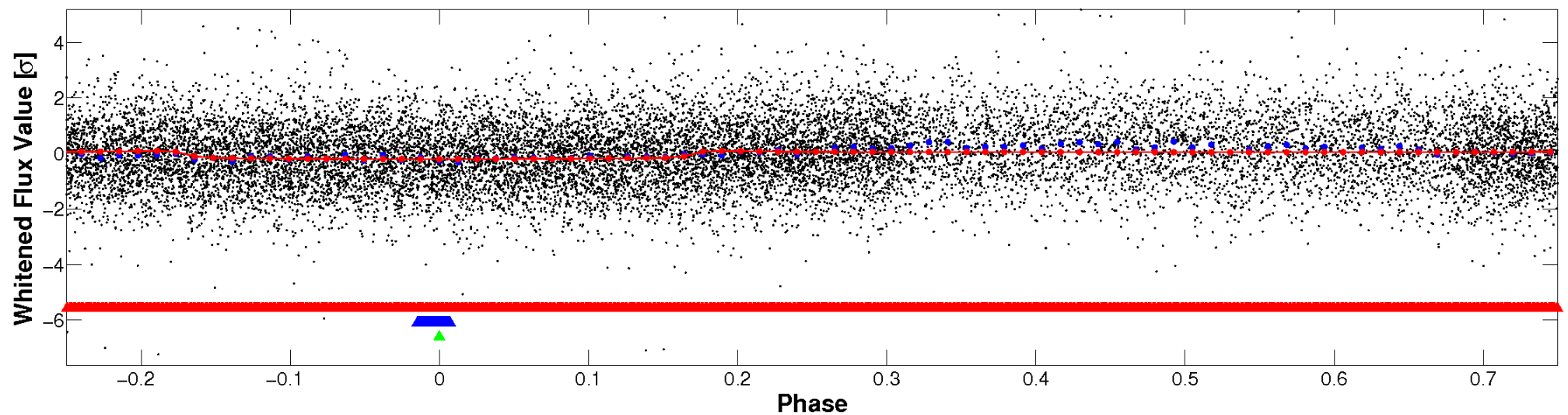


Non-Whitened Vs. Whitened Light Curve

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

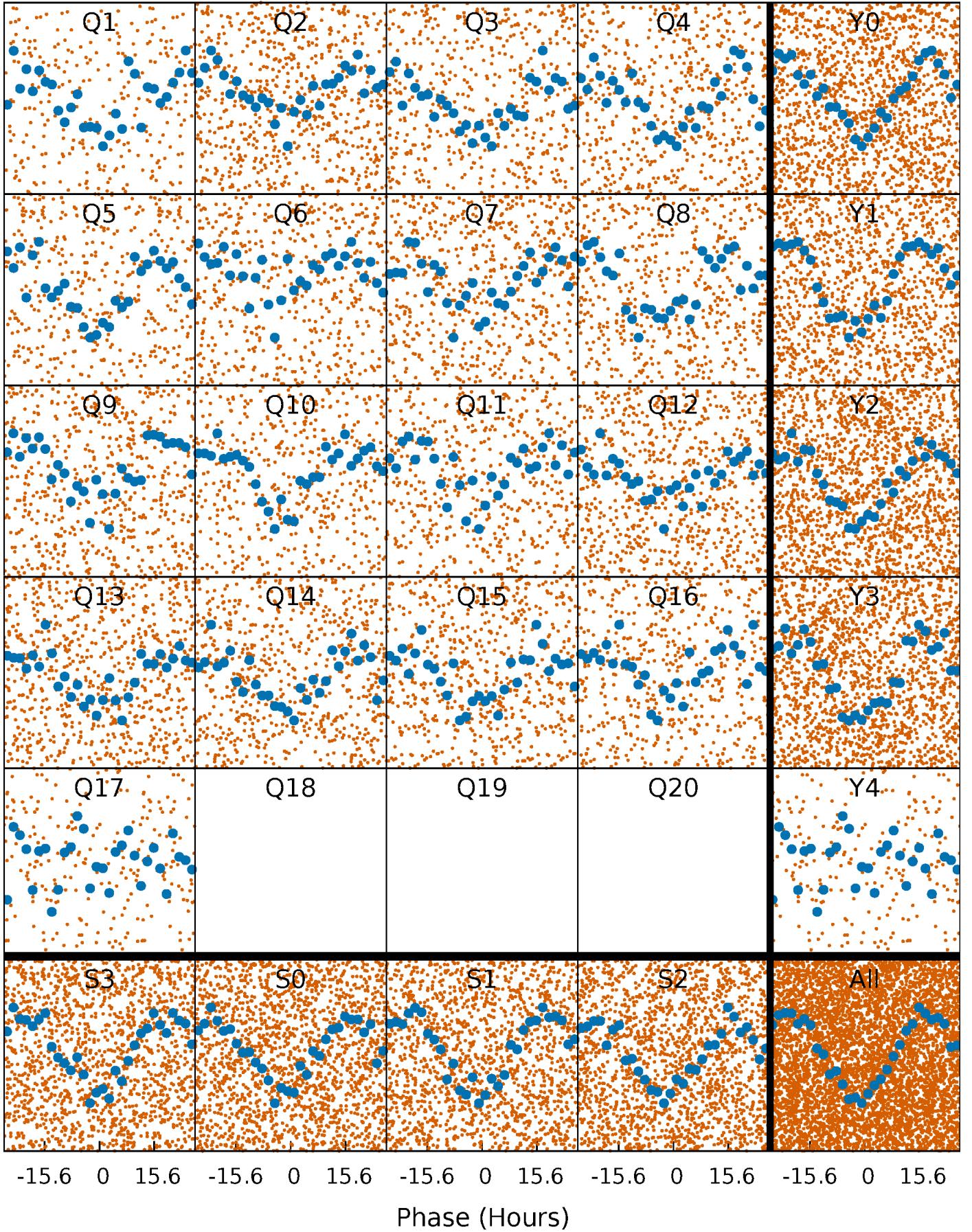


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



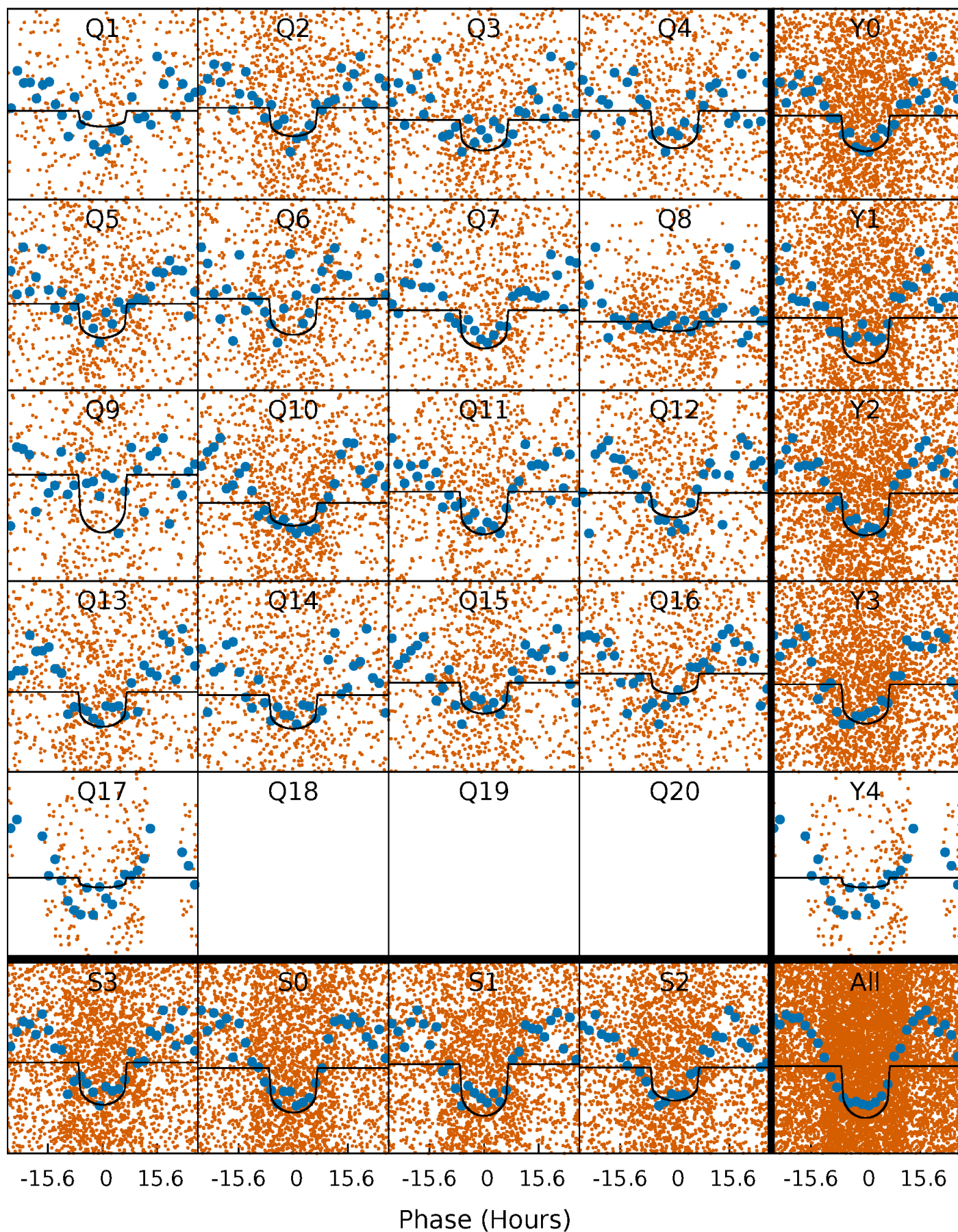
PDC Quarter-Phased Transit Curves

TCE 008773961-03 P= 1.618401 Days $T_0=132.266252$ (BKJD)



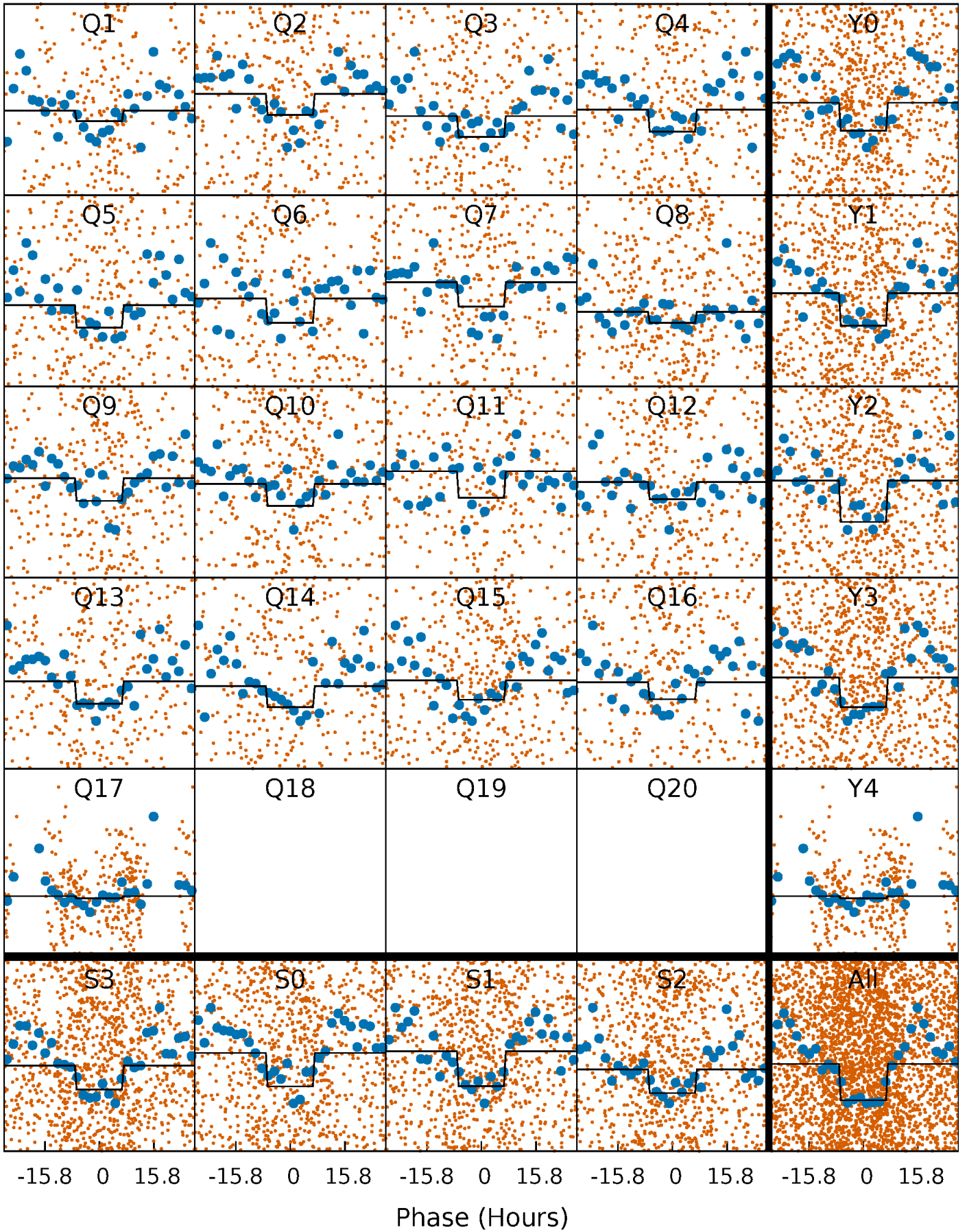
DV Quarter-Phased Transit Curves

TCE 008773961-03 P= 1.618401 Days $T_0=132.266252$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

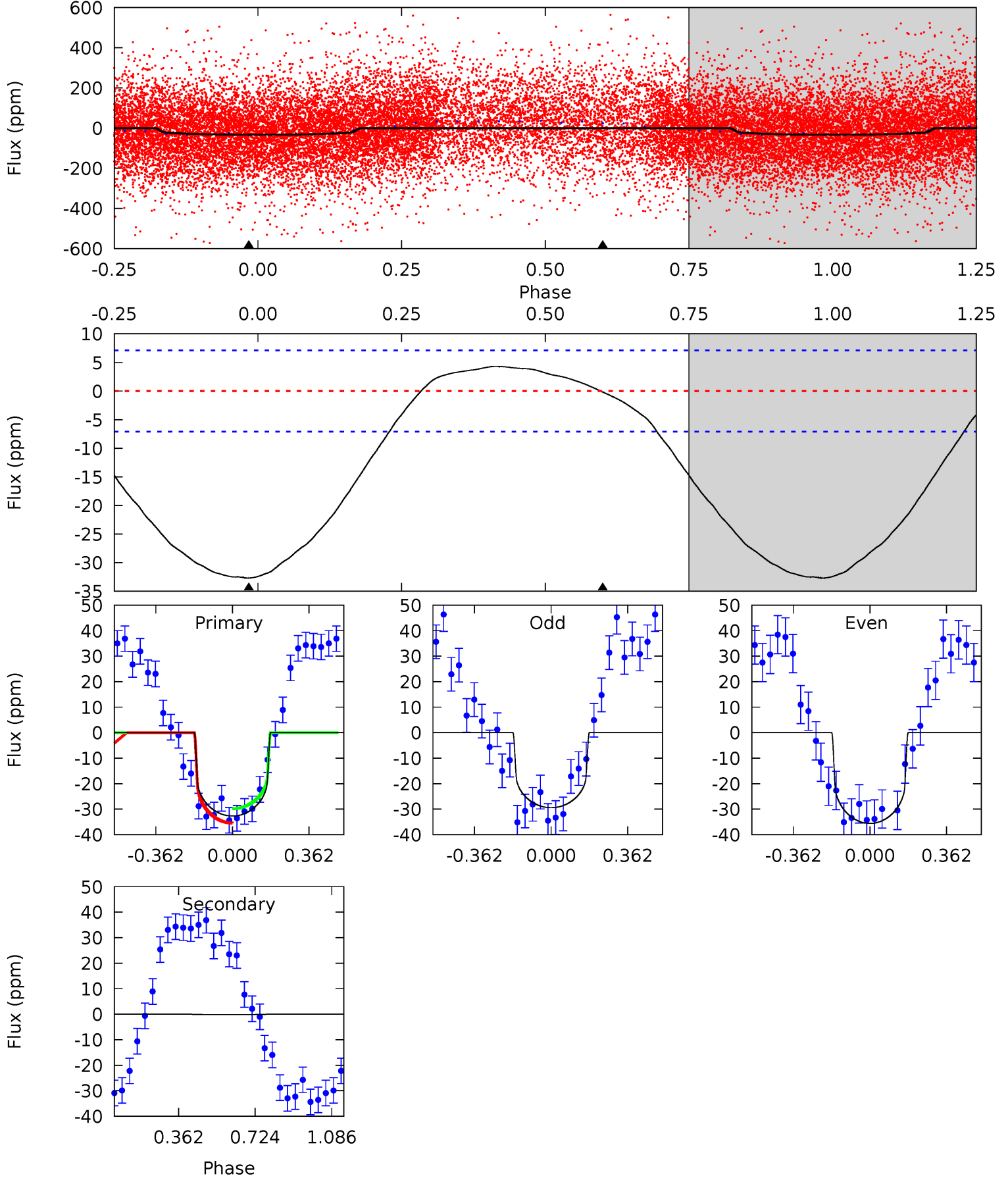
TCE 008773961-03 P= 1.618374 Days $T_0=132.275080$ (BKJD)



DV Model-Shift Uniqueness Test

008773961-03, P = 1.618401 Days, E = 130.647851 Days

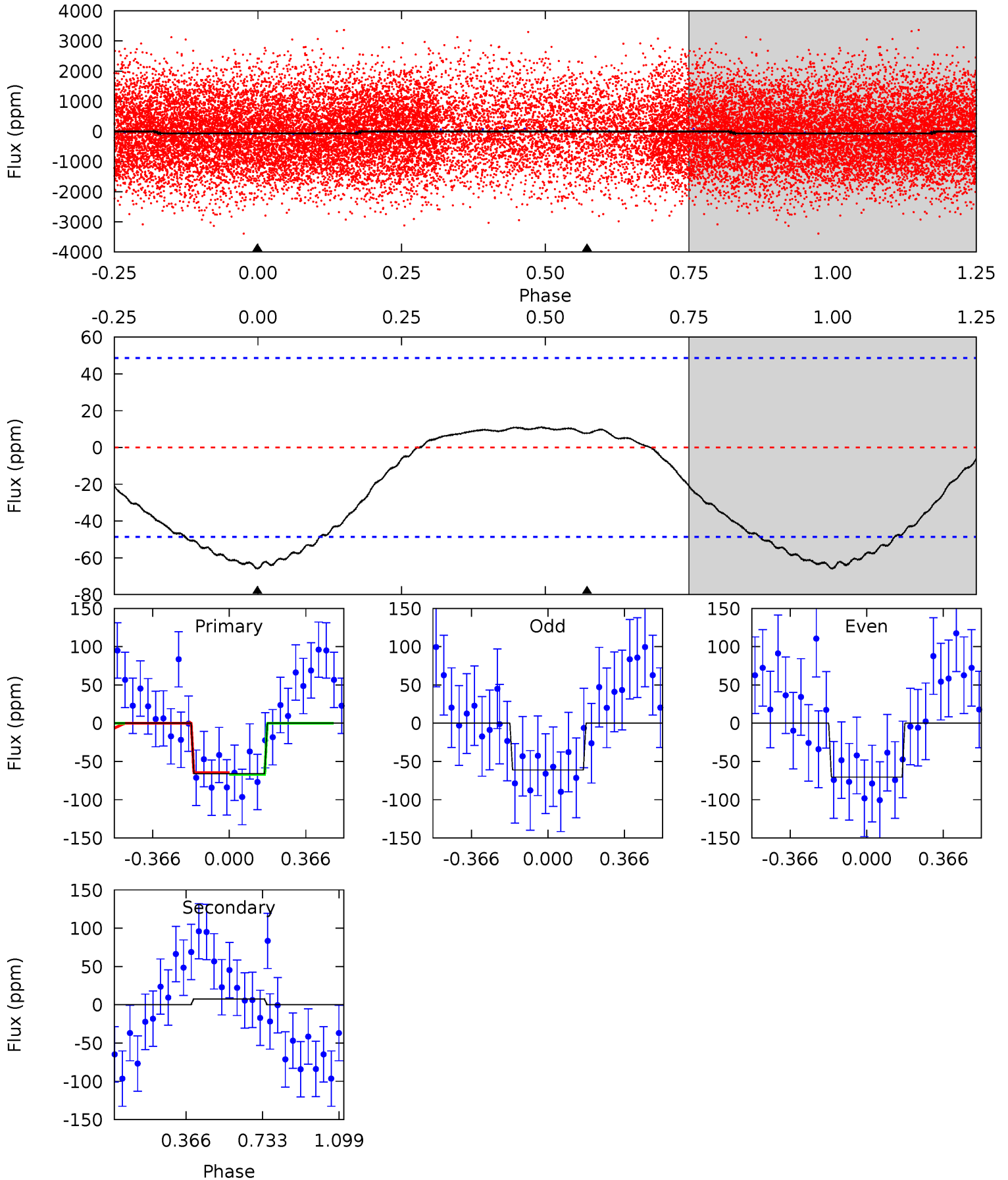
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	0.10	0	0	4.29	0.91	1.48	19.7	19.7	0.10	0.10	1.85	0.93	0.12	1.81



Alt Model-Shift Uniqueness Test

008773961-03, P = 1.618374 Days, E = 130.656706 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.80	-0.68	0	0	4.28	0.90	0.42	5.80	5.80	-0.68	-0.68	0.41	0.94	0.14	0.10



Stellar Parameters For KIC 008773961

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6850^{+190}_{-238}	$4.182^{+0.175}_{-0.175}$	$-0.380^{+0.300}_{-0.300}$	$1.493^{+0.441}_{-0.367}$	$1.239^{+0.189}_{-0.189}$	$0.525^{+0.472}_{-0.245}$
	+3%/-3%	+4%/-4%	+79%/-79%	+30%/-25%	+15%/-15%	+90%/-47%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 008773961-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0 ± 2	$1.02^{+0.48}_{-0.44}$	3020^{+227}_{-200}	-3058^{+6479}_{-724}	$0.039^{+0.847}_{-0.766}$
Alt.	8 ± 11	$1.31^{+0.50}_{-0.43}$	3021^{+227}_{-219}	-4258^{+7820}_{-1079}	$-1.781^{+2.892}_{-4.931}$

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

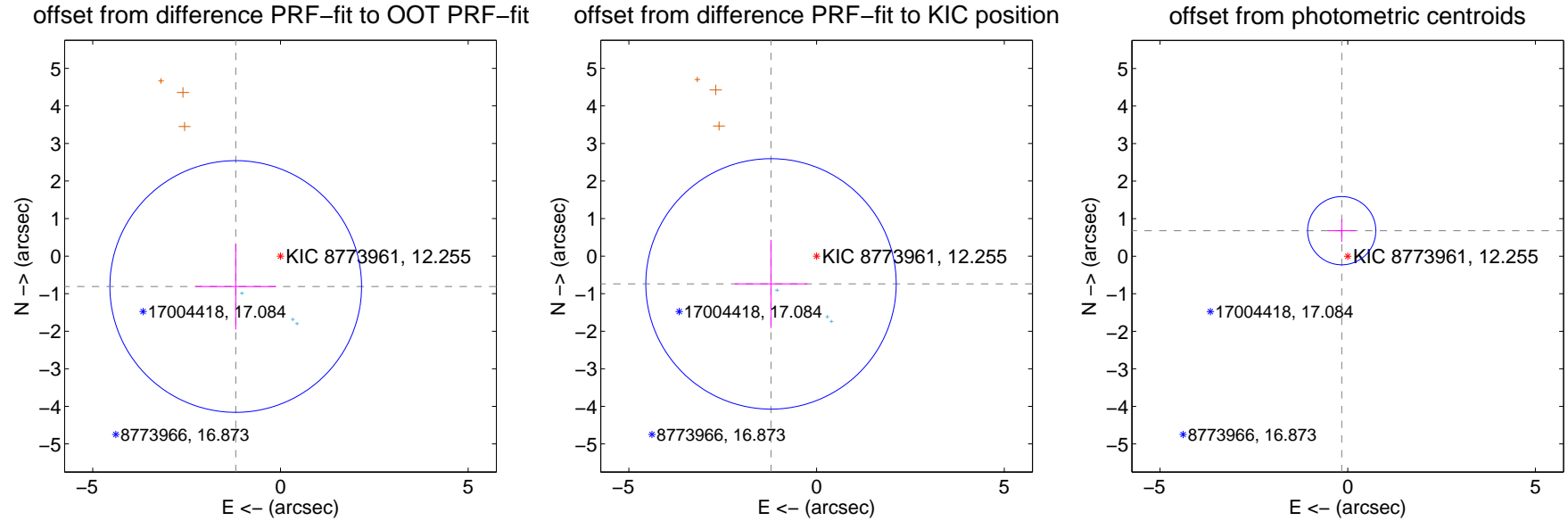
DV Centroid Data

Supplemental centroid analysis for 008773961-03. Kepler magnitude: 12.26. Transit SNR 16.20

There are 3 quarters with good PRF difference image offsets

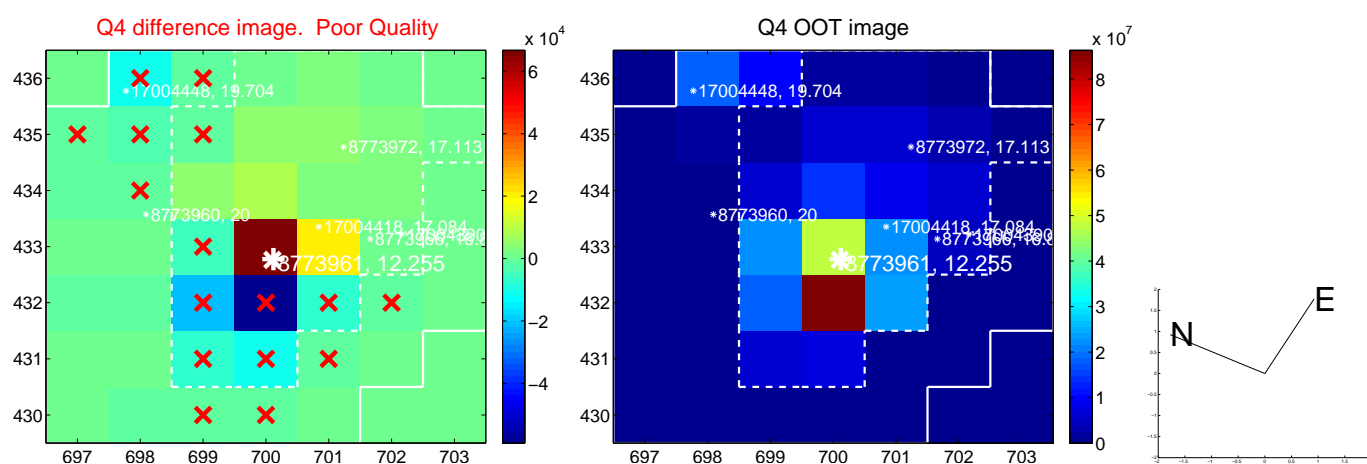
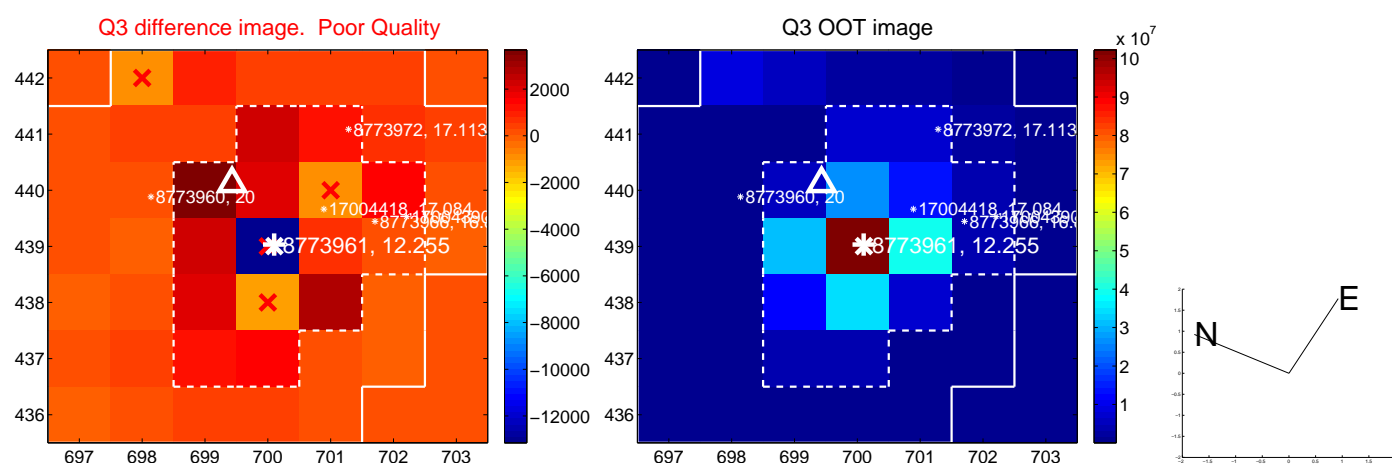
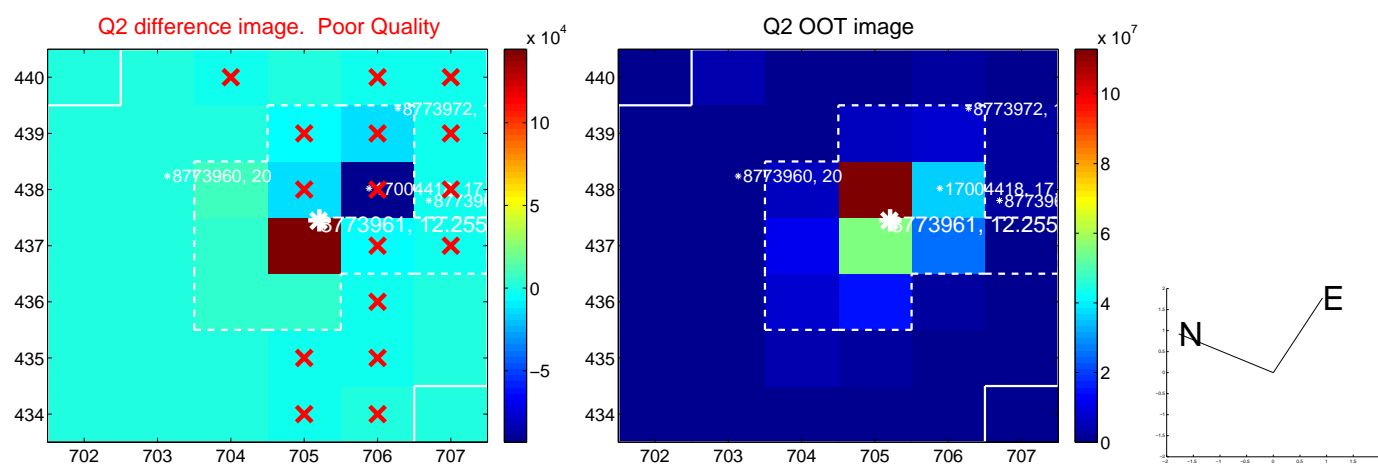
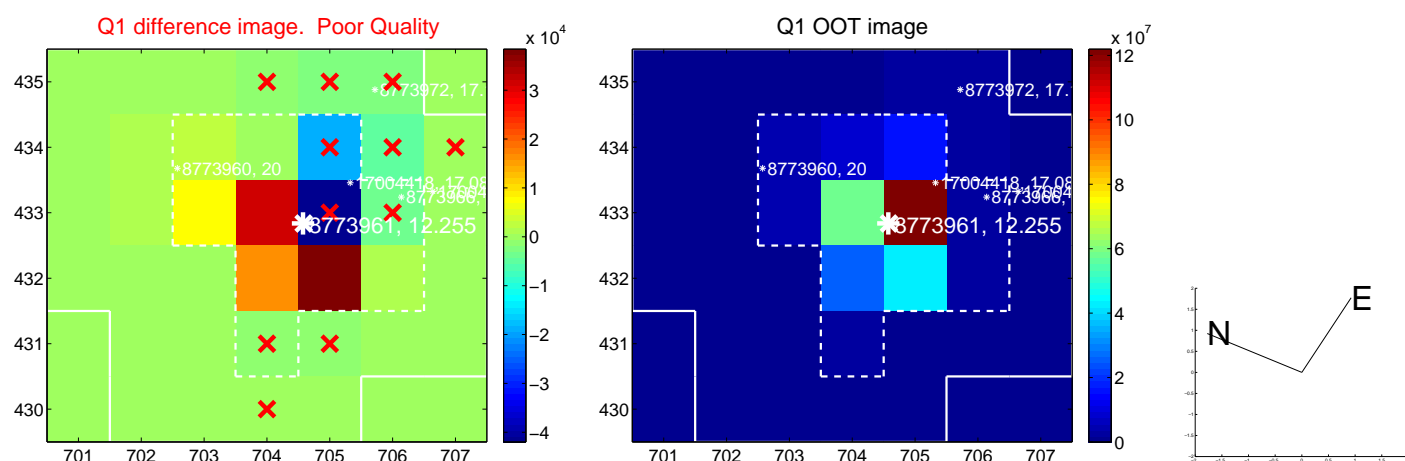
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.440 ± 1.117	1.29	1.191 ± 1.075	-0.808 ± 1.147
PRF-fit source offset from KIC position	1.421 ± 1.111	1.28	1.213 ± 0.967	-0.739 ± 1.171
photometric centroid source offset	0.70 ± 0.30	2.30	0.16 ± 0.37	0.68 ± 0.30

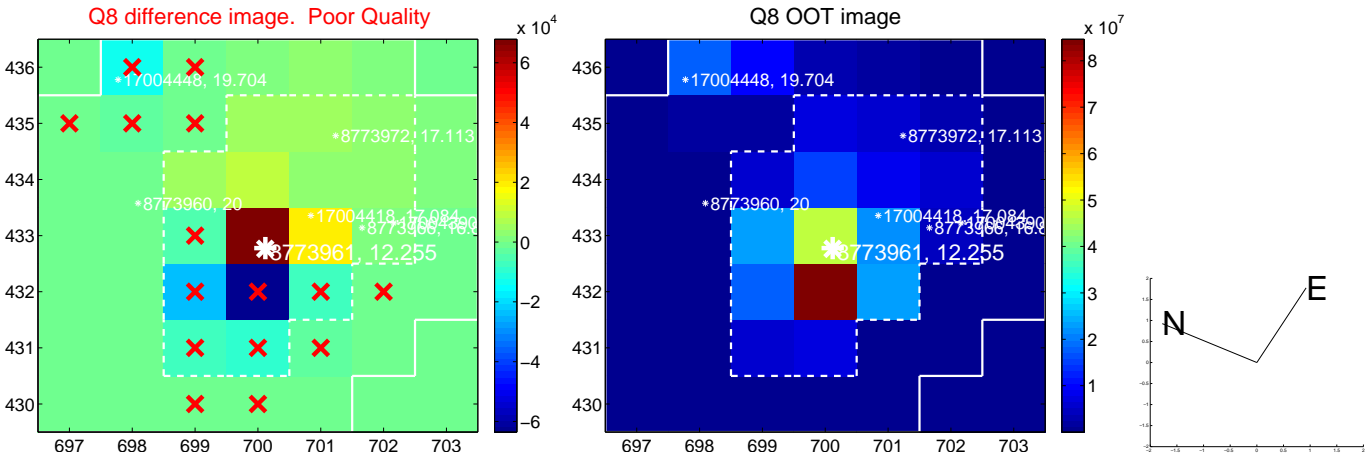
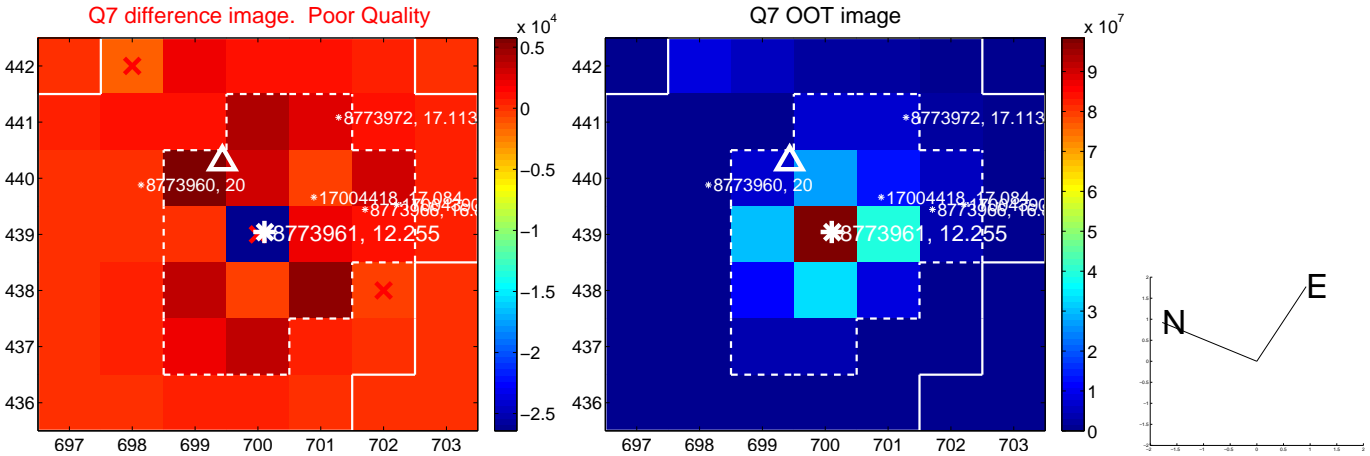
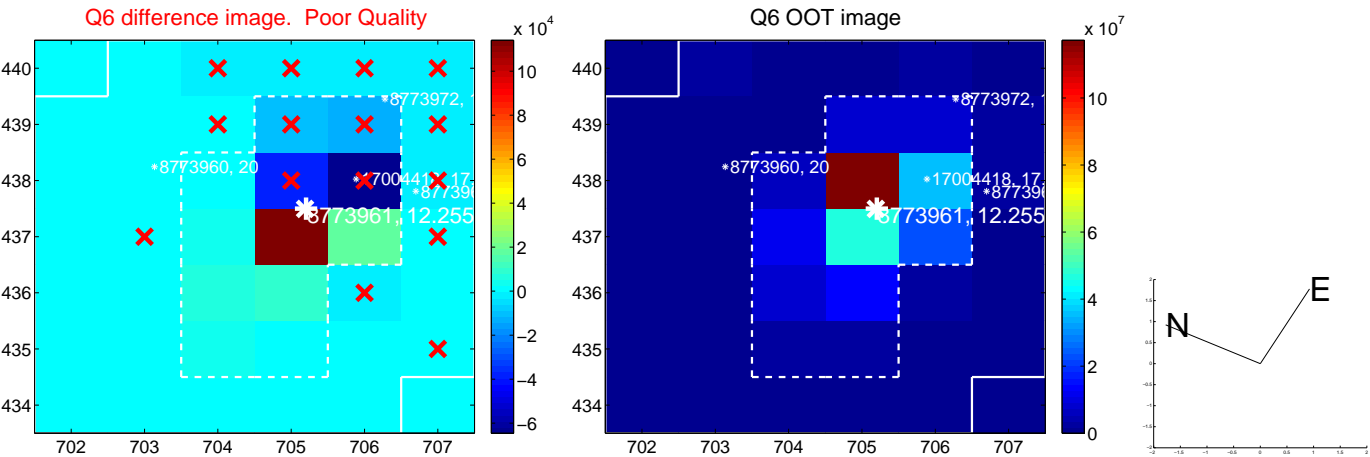
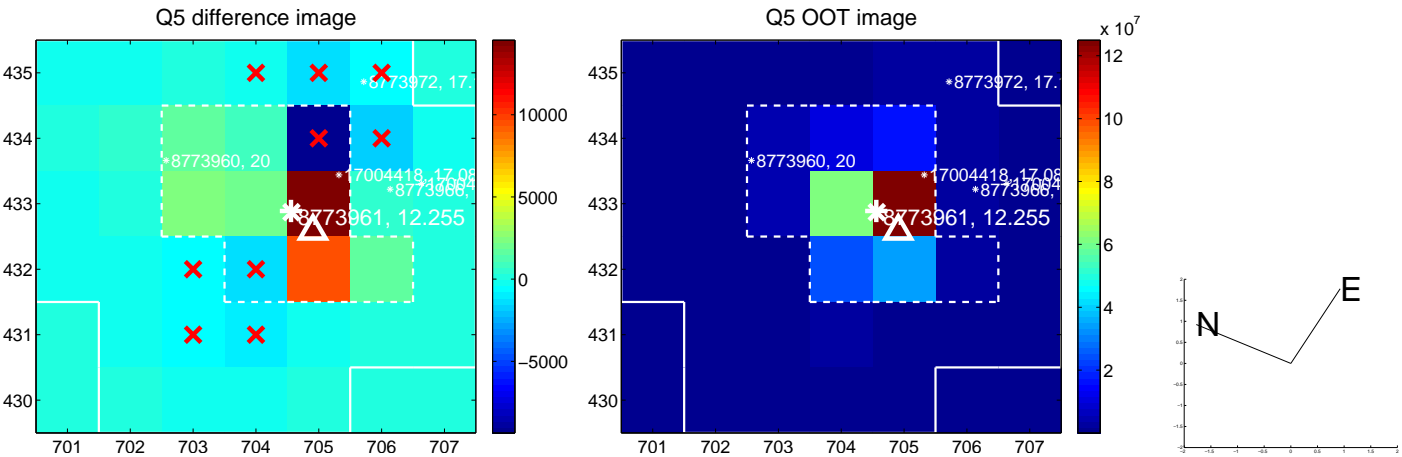


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

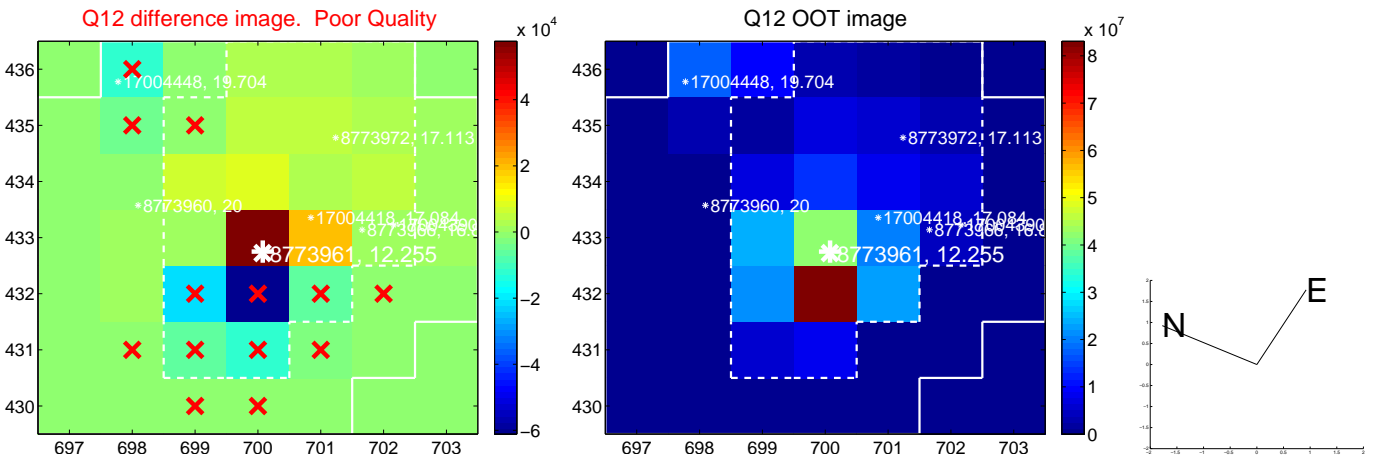
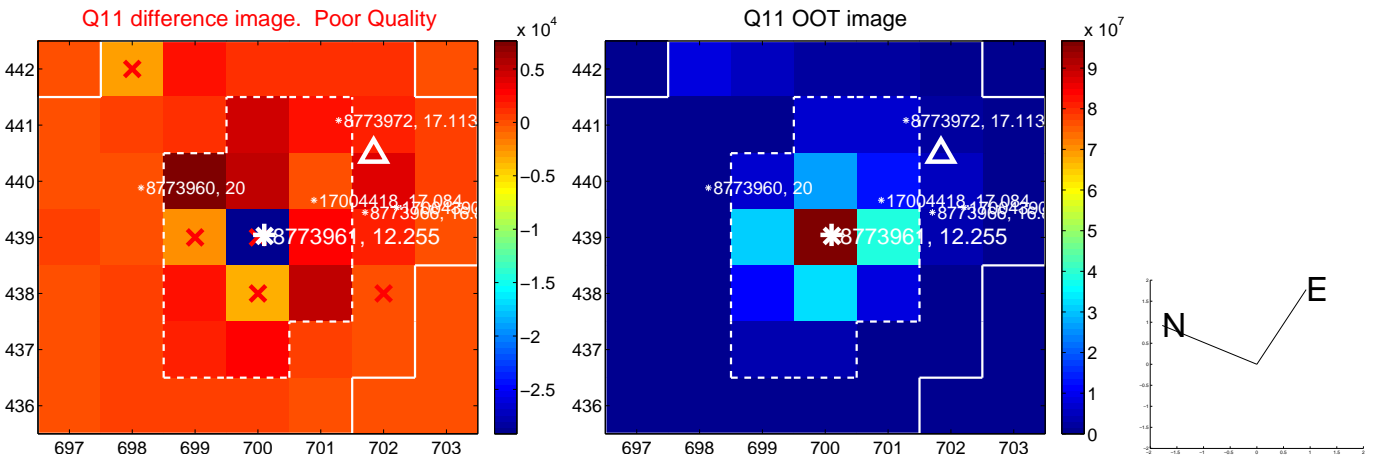
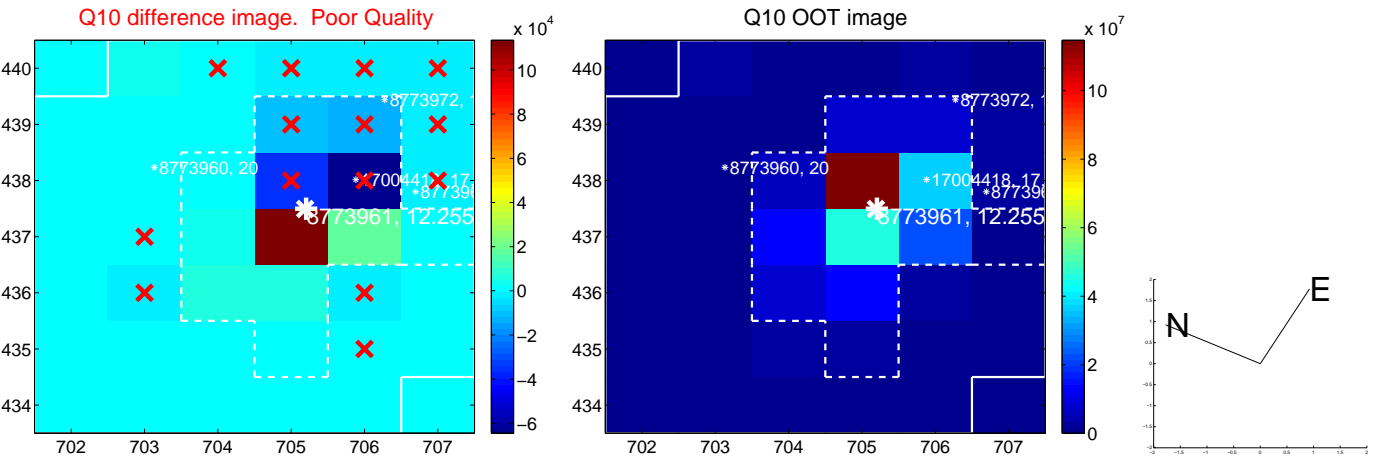
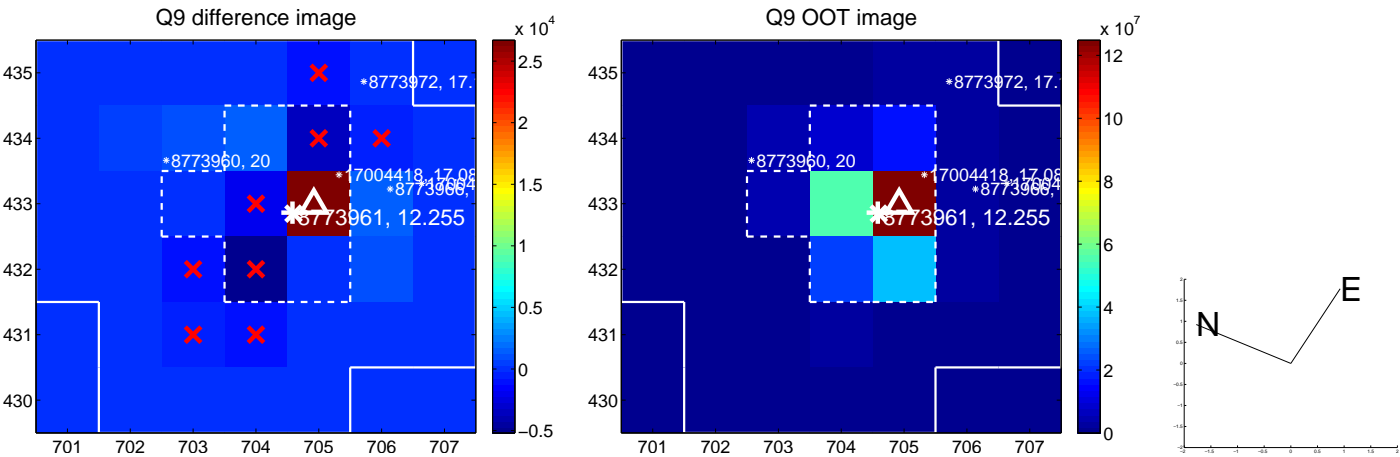
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



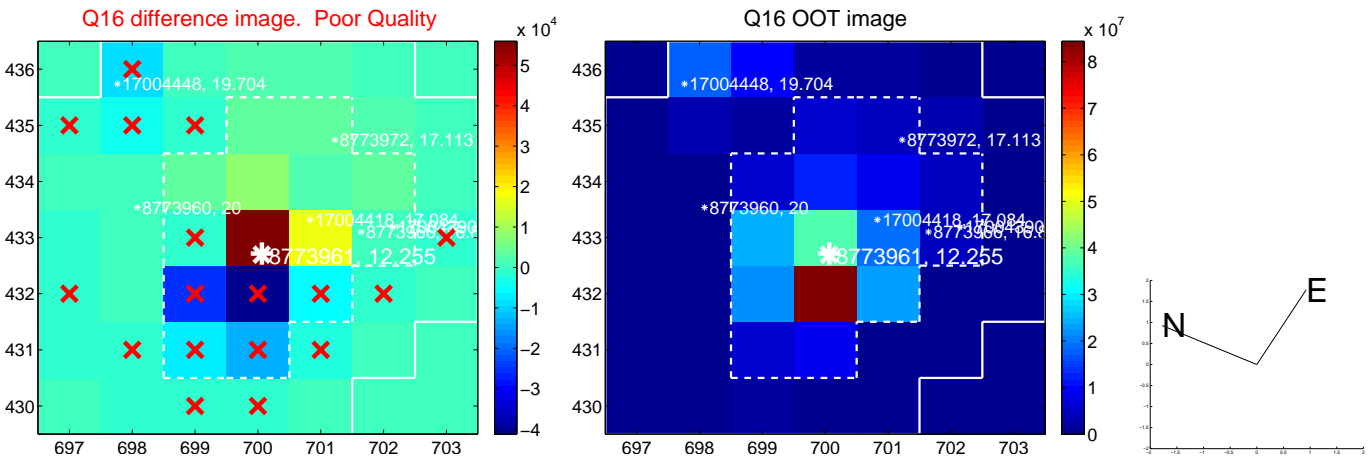
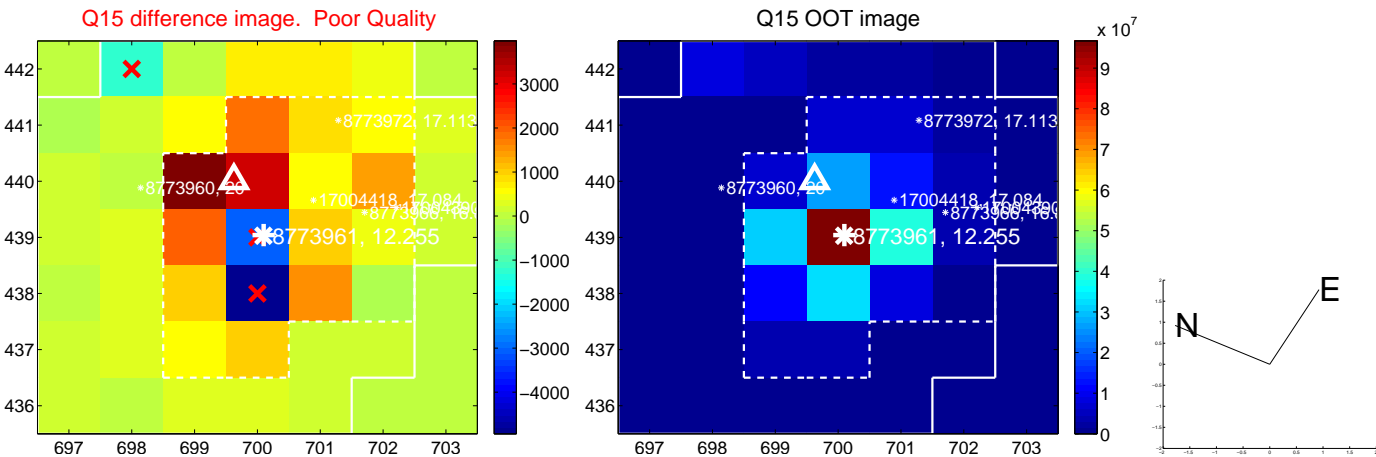
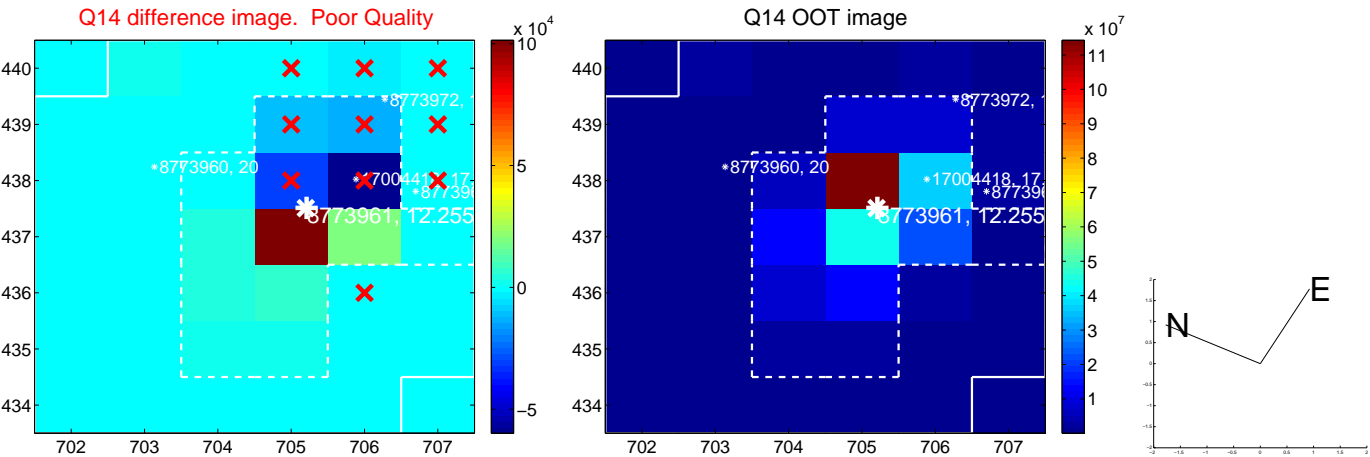
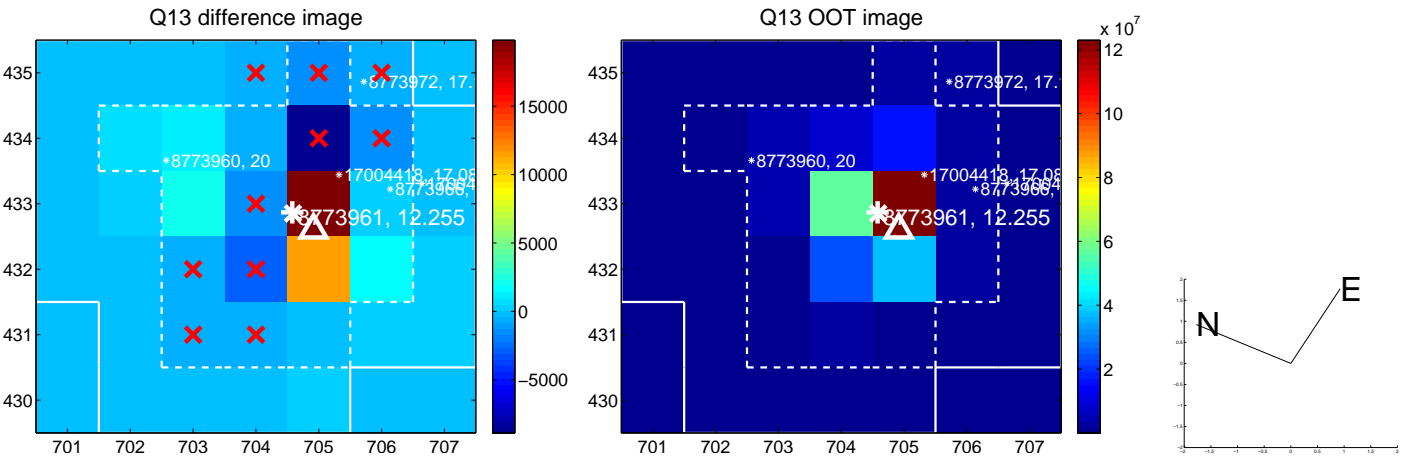
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



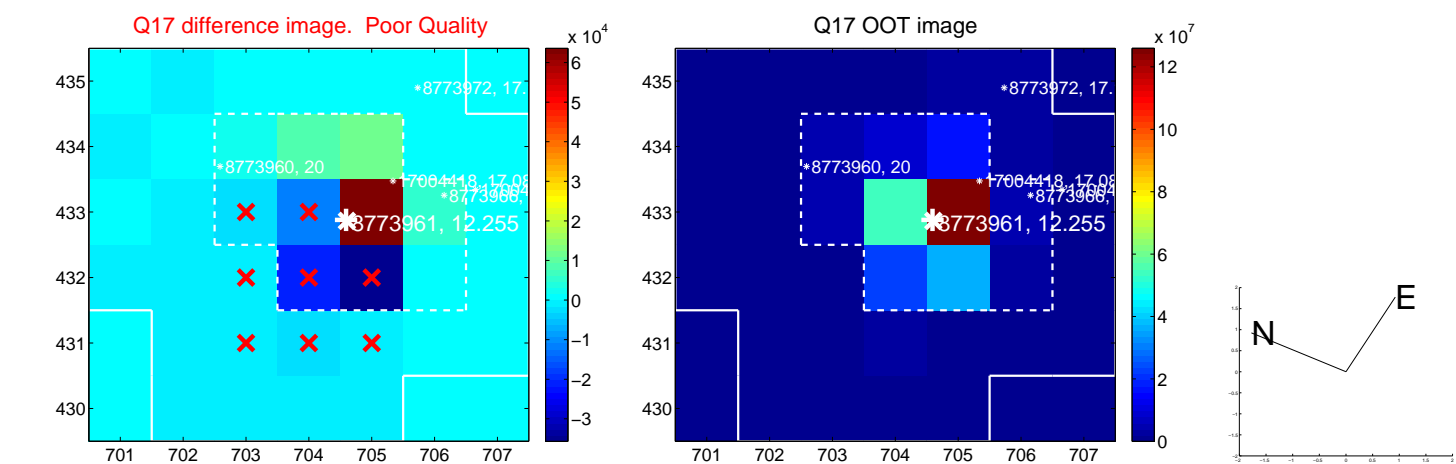
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



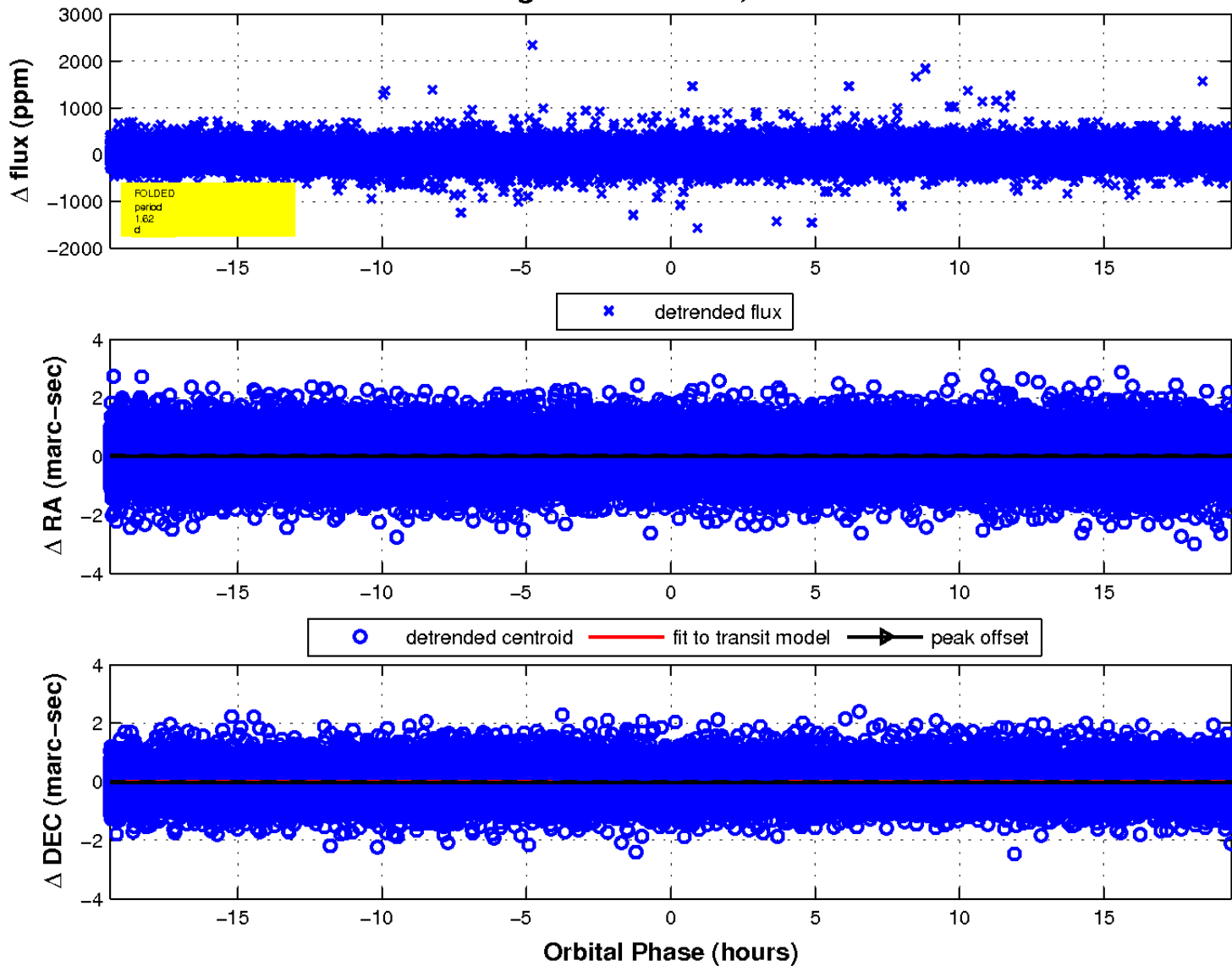
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

