

KIC 002832753

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})
002832753-01	OBS	No	3.550778	134.975359	55.5	9.889	11.8	12.6	2.99	6795	3.10	6124.89
002832753-02	OBS	No	3.551368	132.279179	42.6	3.898	11.1	11.5	2.99	6795	2.29	6123.54
002832753-03	OBS	No	175.324633	194.621416	240.8	12.195	9.3	7.1	2.99	6795	5.02	33.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002832753-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002832753-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
002832753-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

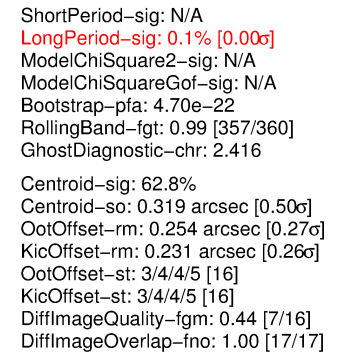
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

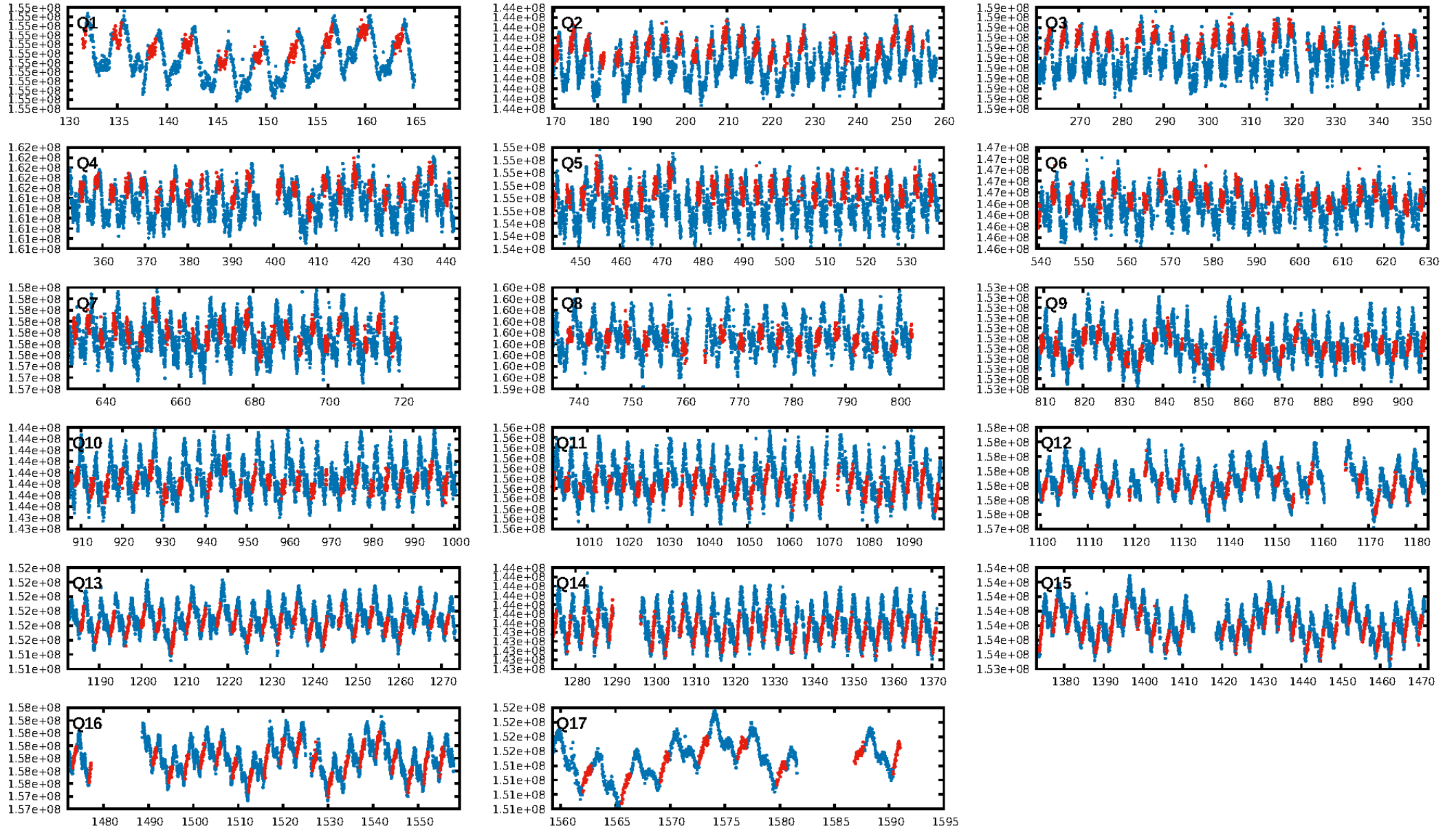
Ephemeris Match Information For 002832753-01

No Significant Match Found

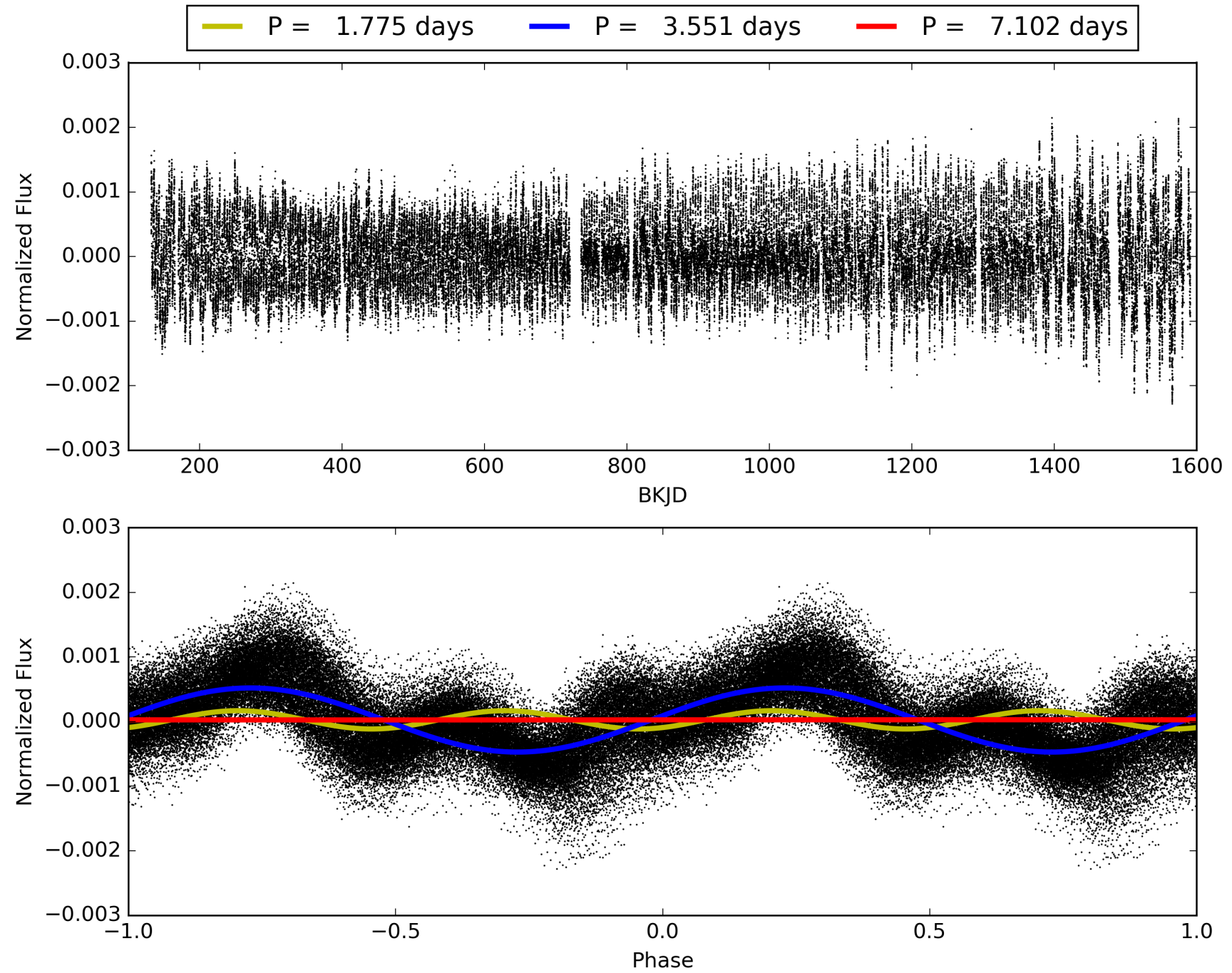
KIC: 2832753 Candidate: 1 of 3 Period: 3.551 d



TCE 002832753-01, PDC Light Curves

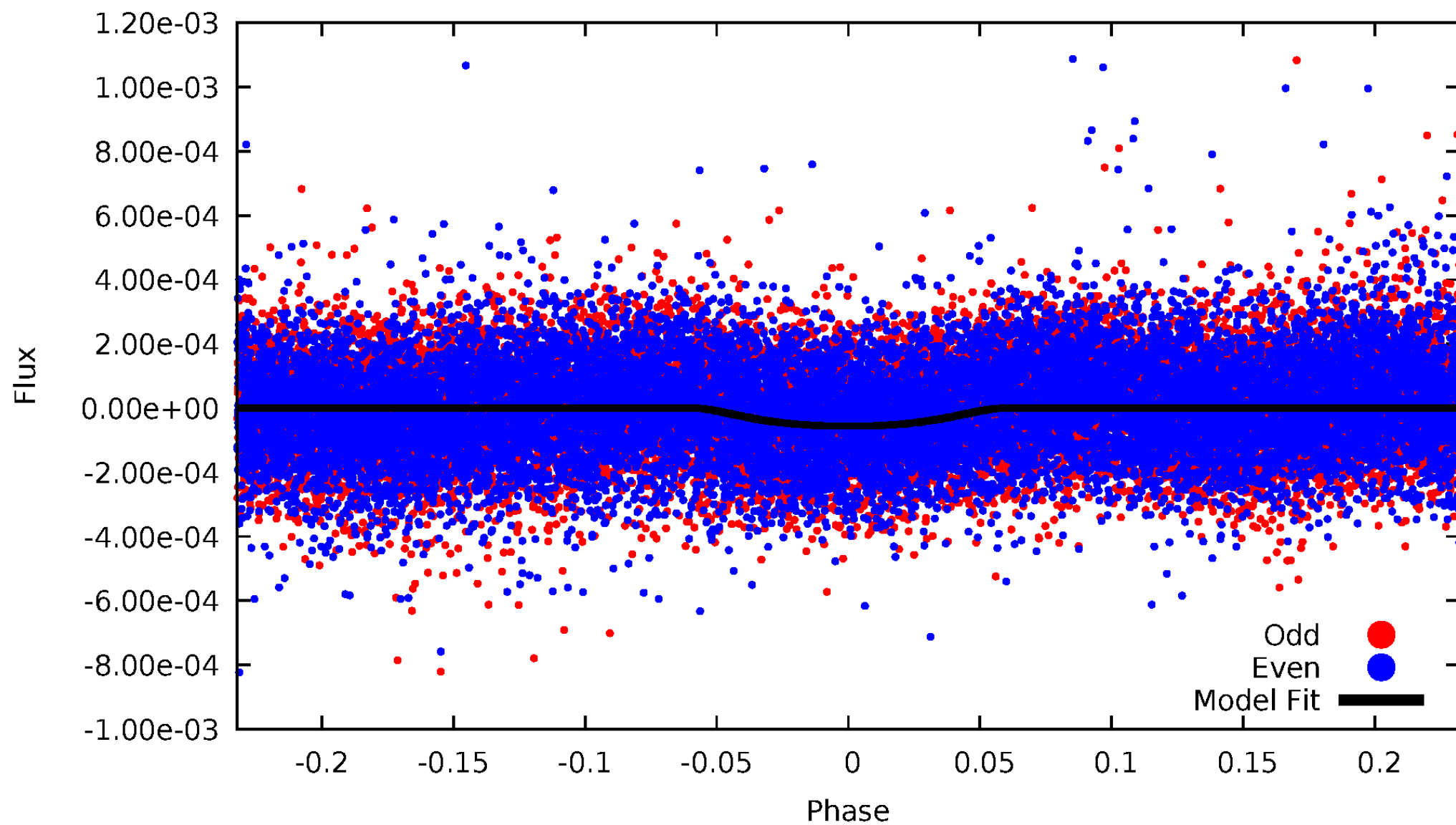


TCE 002832753-01



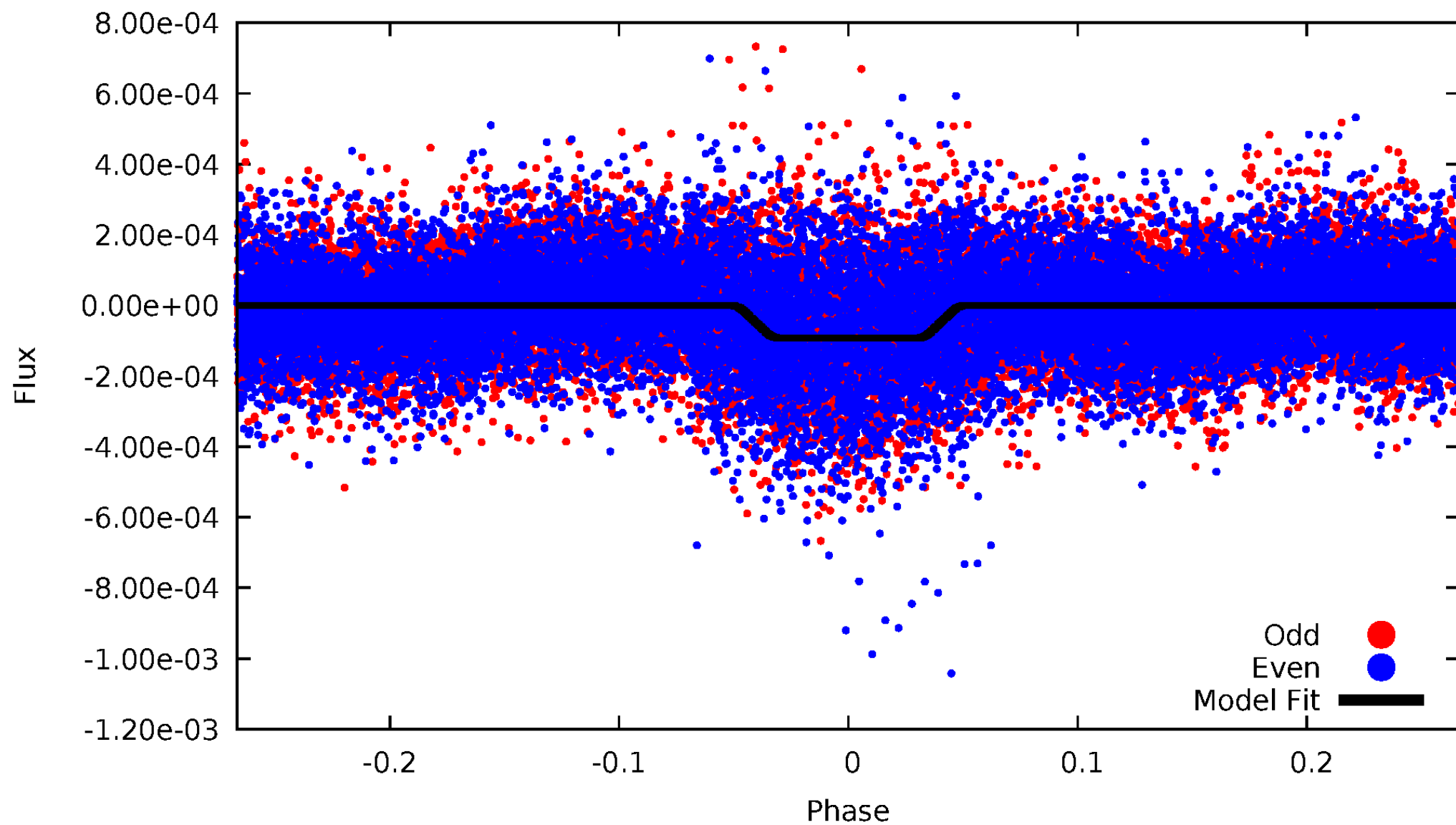
DV Odd/Even

TCE 002832753-01



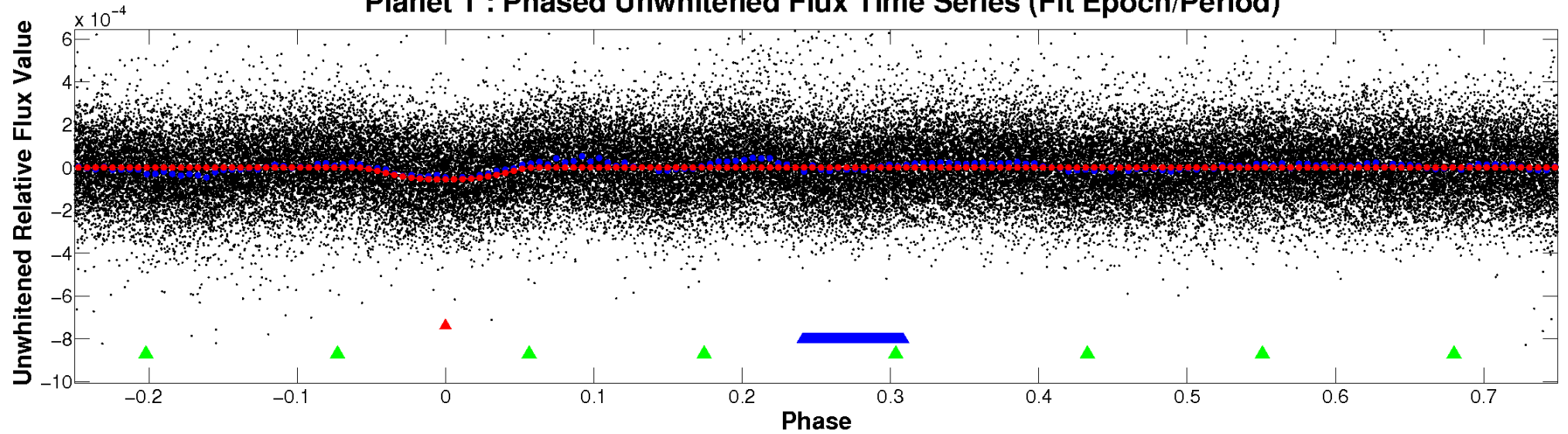
ALT Odd/Even

TCE 002832753-01

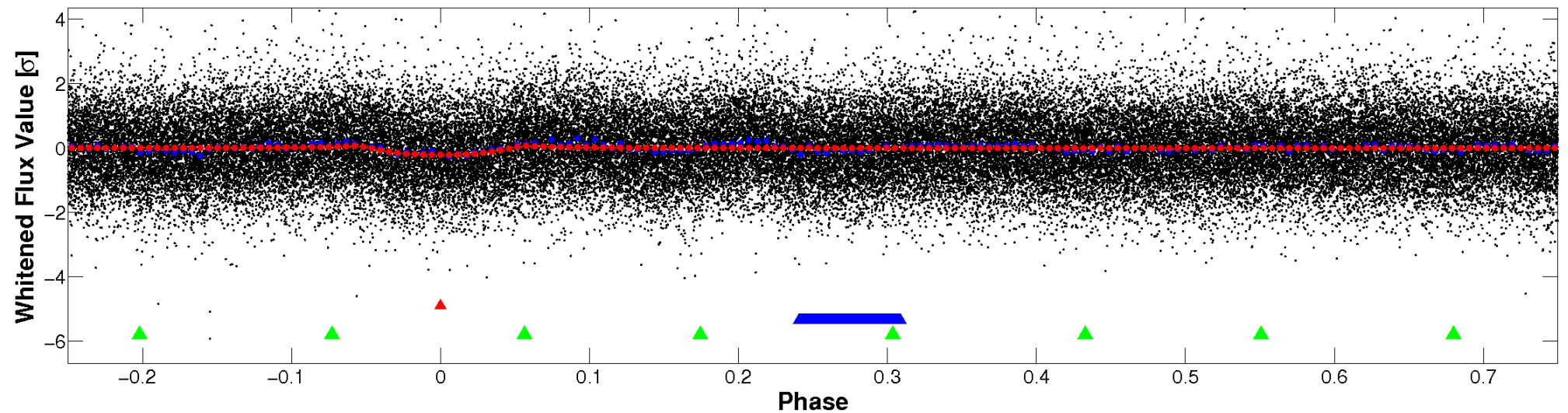


Non-Whitened Vs. Whitened Light Curve

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

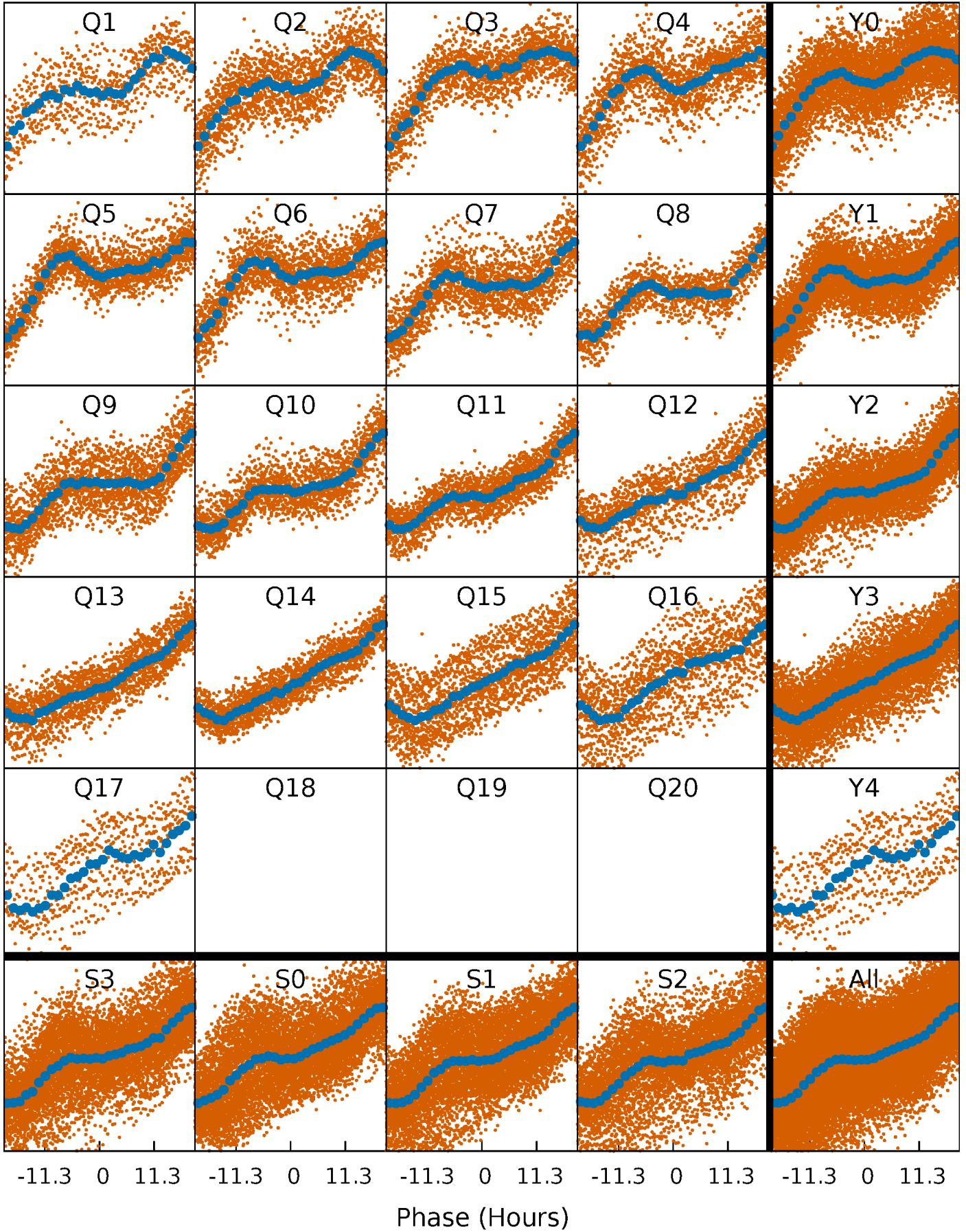


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



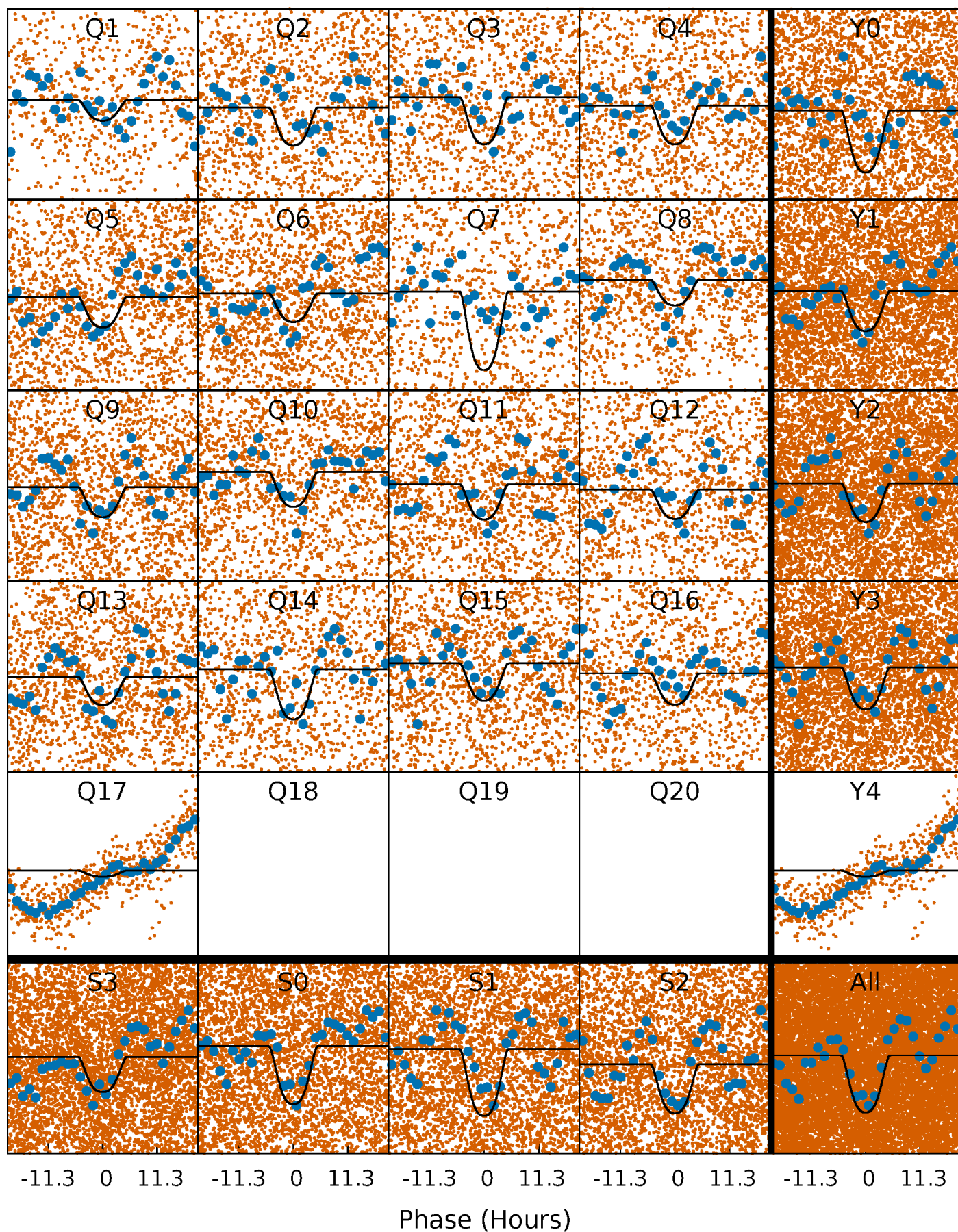
PDC Quarter-Phased Transit Curves

TCE 002832753-01 P= 3.550778 Days $T_0=134.975359$ (BKJD)



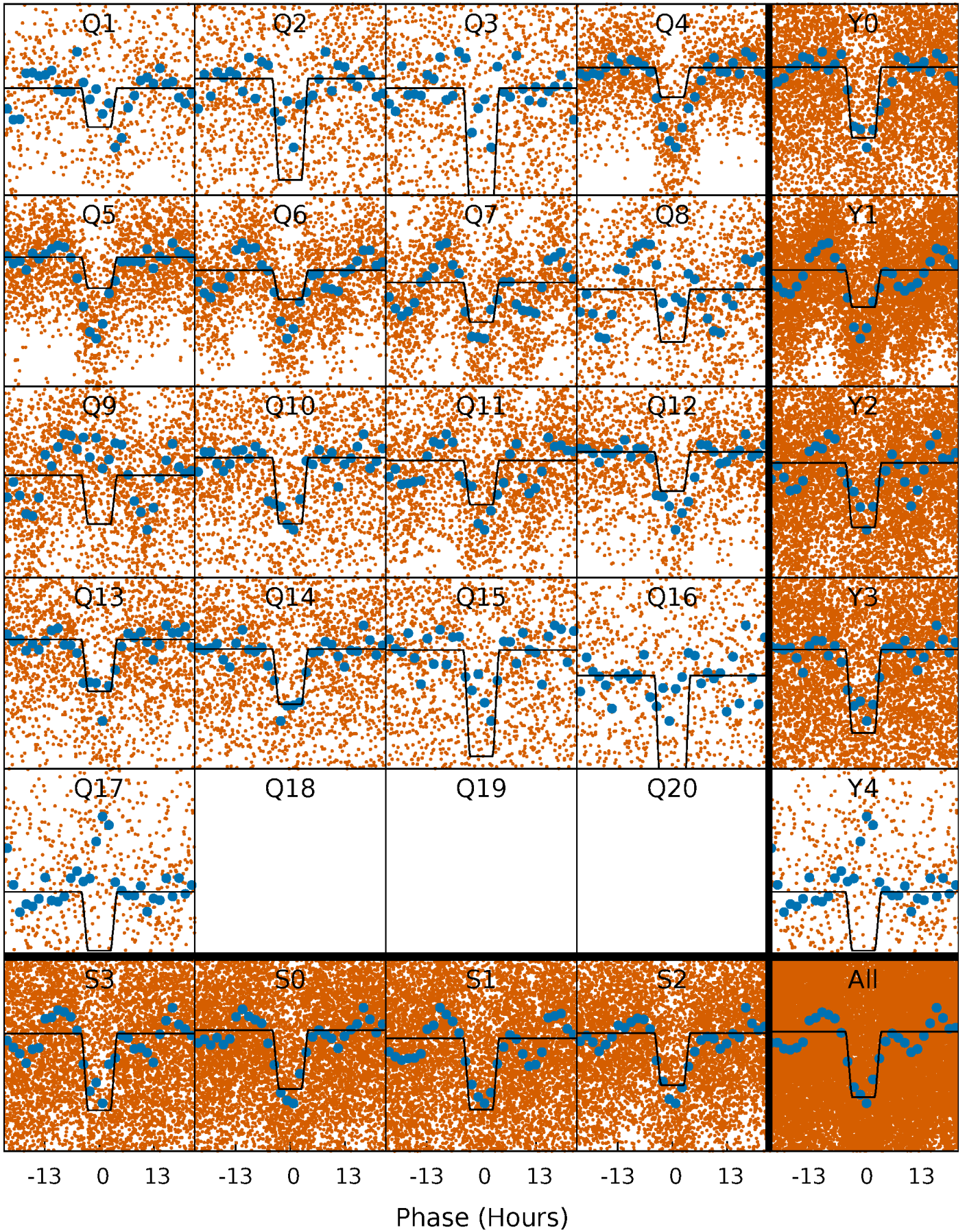
DV Quarter-Phased Transit Curves

TCE 002832753-01 P= 3.550778 Days $T_0=134.975359$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

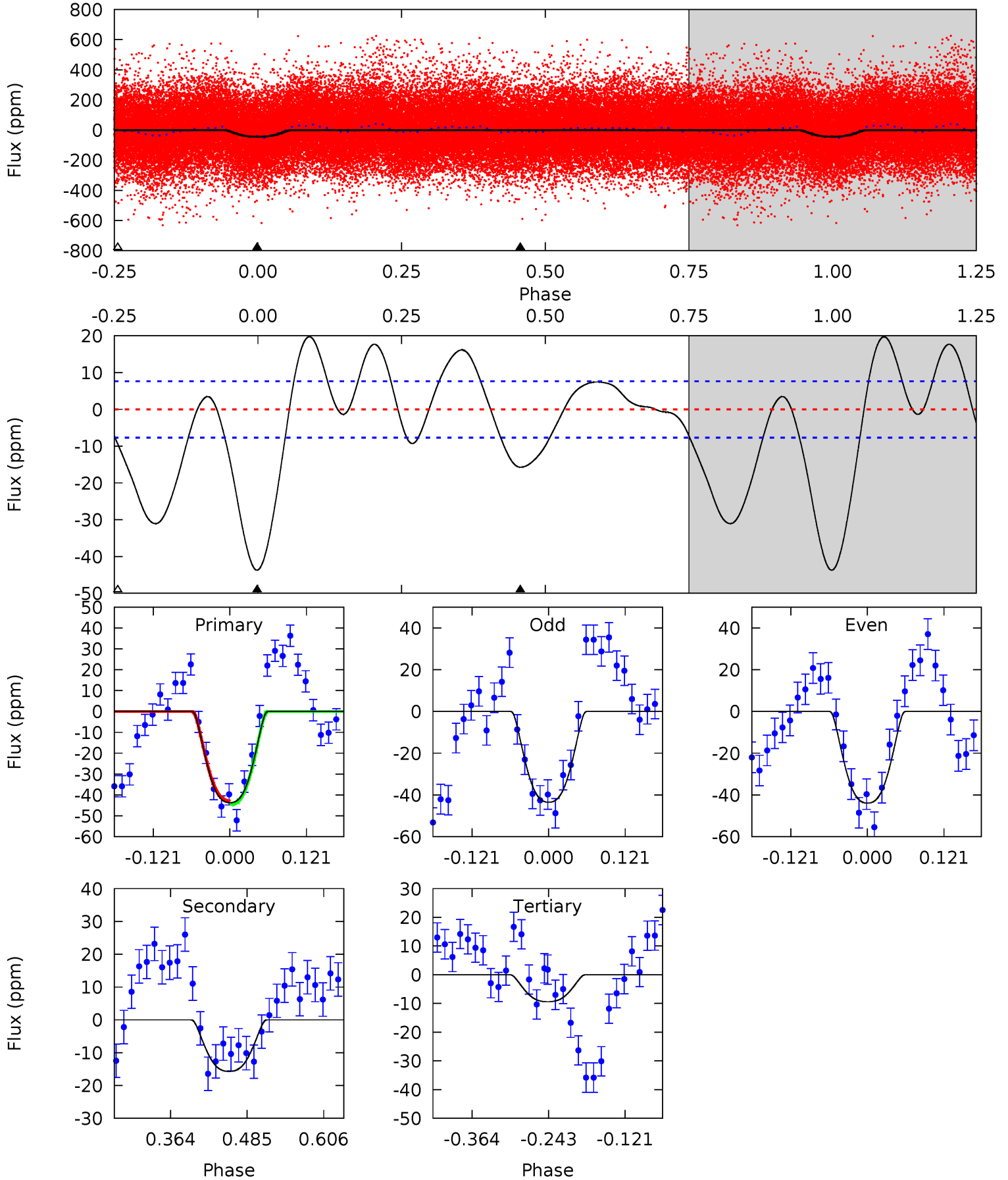
TCE 002832753-01 P= 3.550856 Days $T_0=134.979949$ (BKJD)



DV Model-Shift Uniqueness Test

002832753-01, P = 3.550778 Days, E = 131.424581 Days

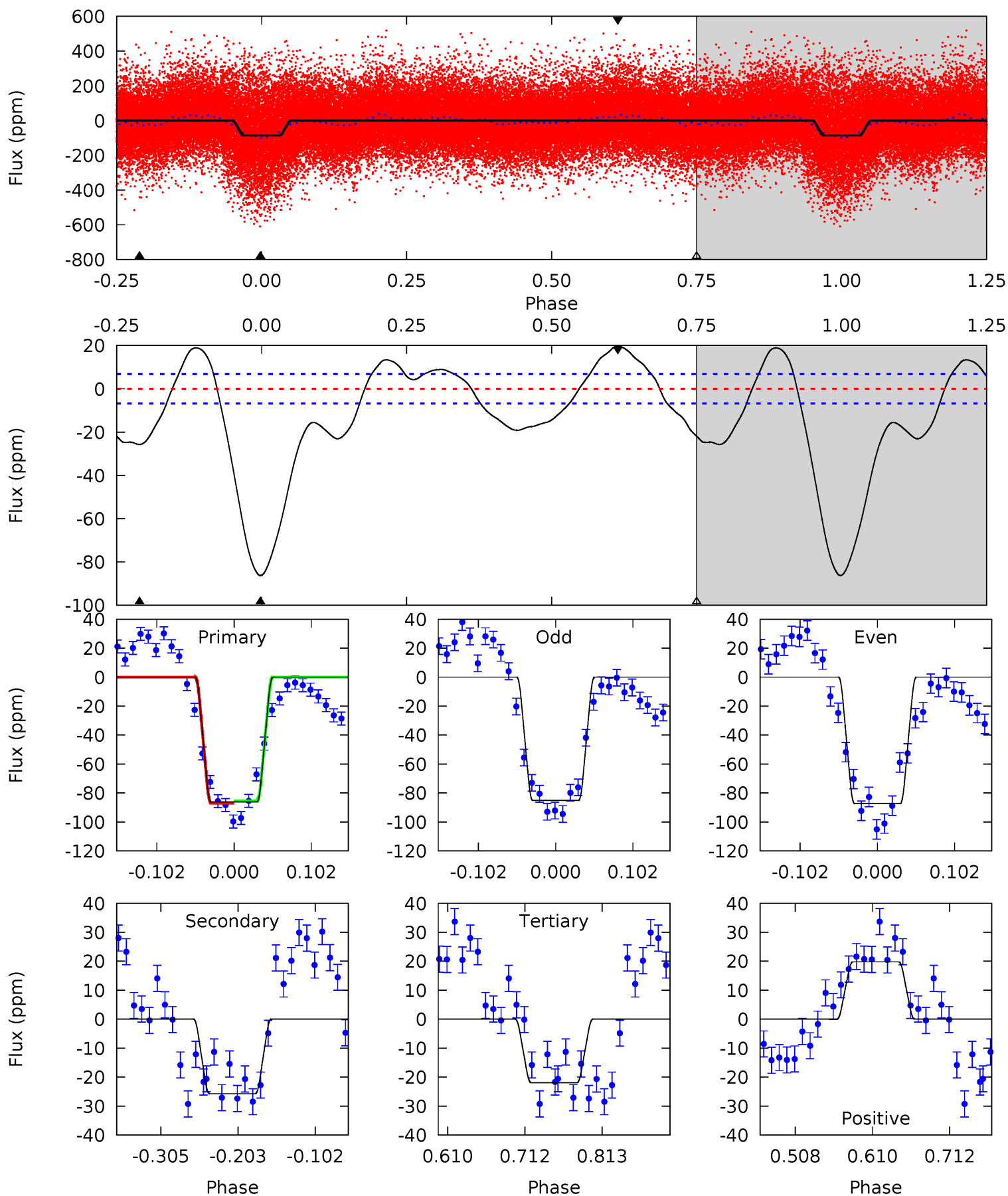
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.8	9.28	5.55	0	4.52	1.55	7.48	20.3	25.8	3.73	9.28	0.13	1.35	0.31	0.50



Alt Model-Shift Uniqueness Test

002832753-01, P = 3.550856 Days, E = 131.429093 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.6	17.1	14.6	13.2	4.56	1.64	8.57	42.9	44.3	2.53	3.94	0.72	1.04	0.19	0.54



Stellar Parameters For KIC 002832753

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6795^{+183}_{-203}	$3.679^{+0.304}_{-0.076}$	$-0.280^{+0.300}_{-0.250}$	$2.991^{+0.446}_{-1.041}$	$1.560^{+0.245}_{-0.299}$	$0.082^{+0.166}_{-0.020}$
	+3%/-3%	+8%/-2%	+107%/-89%	+15%/-35%	+16%/-19%	+202%/-24%
Source	PHO1	FLK73	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 002832753-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-16 ± 2	$2.98^{+0.44}_{-0.59}$	3072^{+175}_{-280}	4423^{+236}_{-201}	$2.763^{+1.322}_{-0.681}$
Alt.	-26 ± 1	$3.01^{+0.50}_{-0.59}$	3077^{+173}_{-270}	4929^{+233}_{-234}	$4.492^{+2.208}_{-1.147}$

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

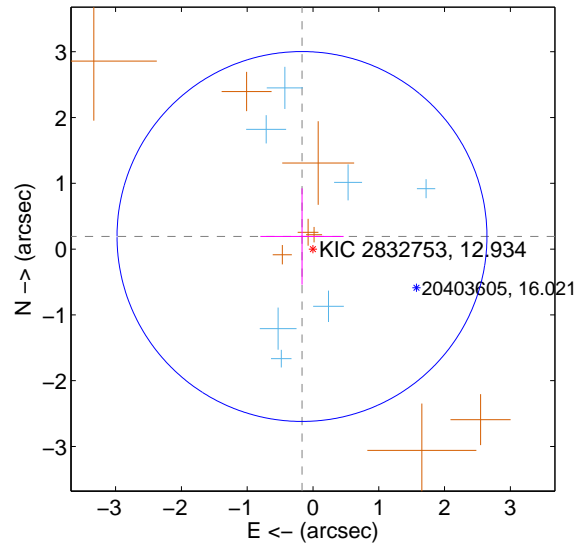
Supplemental centroid analysis for 002832753-01. Kepler magnitude: 12.93. Transit SNR 12.64

There are 7 quarters with good PRF difference image offsets

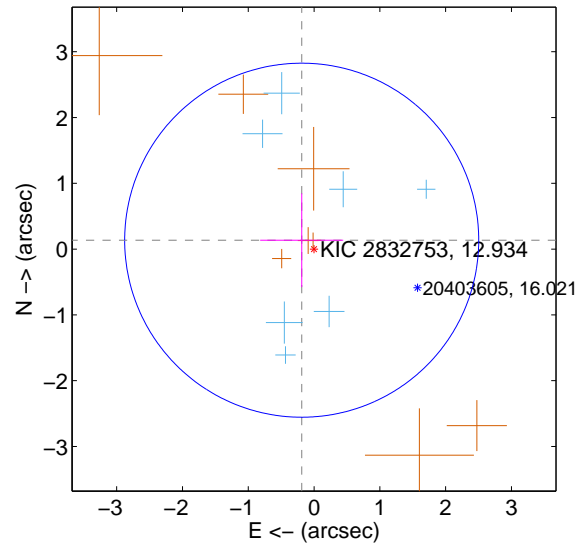
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.254 ± 0.937	0.27	0.167 ± 0.634	0.192 ± 0.733
PRF-fit source offset from KIC position	0.231 ± 0.897	0.26	0.188 ± 0.631	0.135 ± 0.712
photometric centroid source offset	0.32 ± 0.64	0.50	-0.32 ± 0.64	0.00 ± 0.62

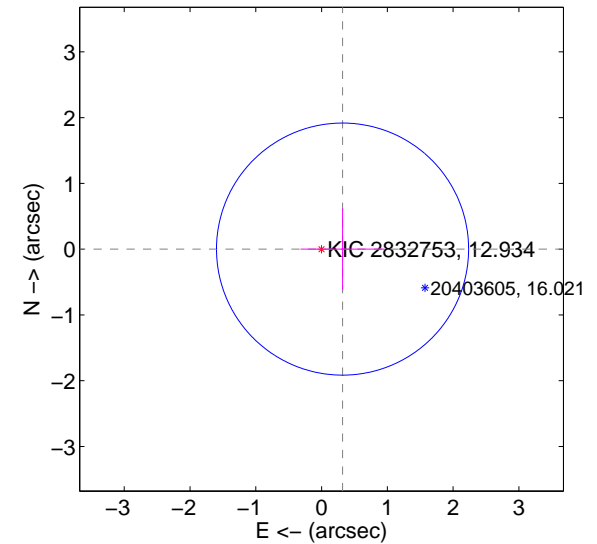
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

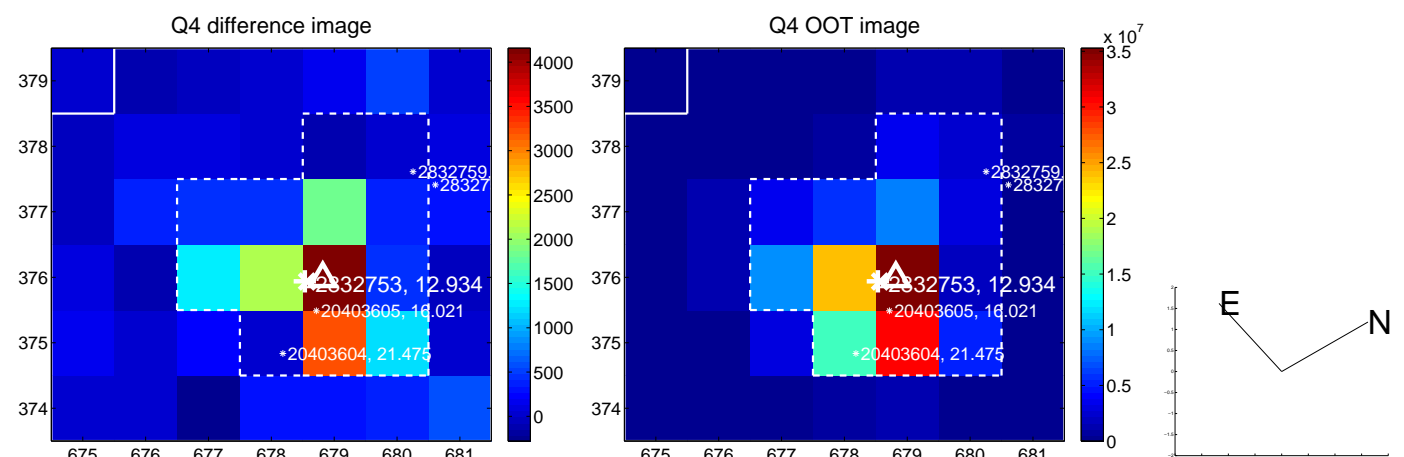
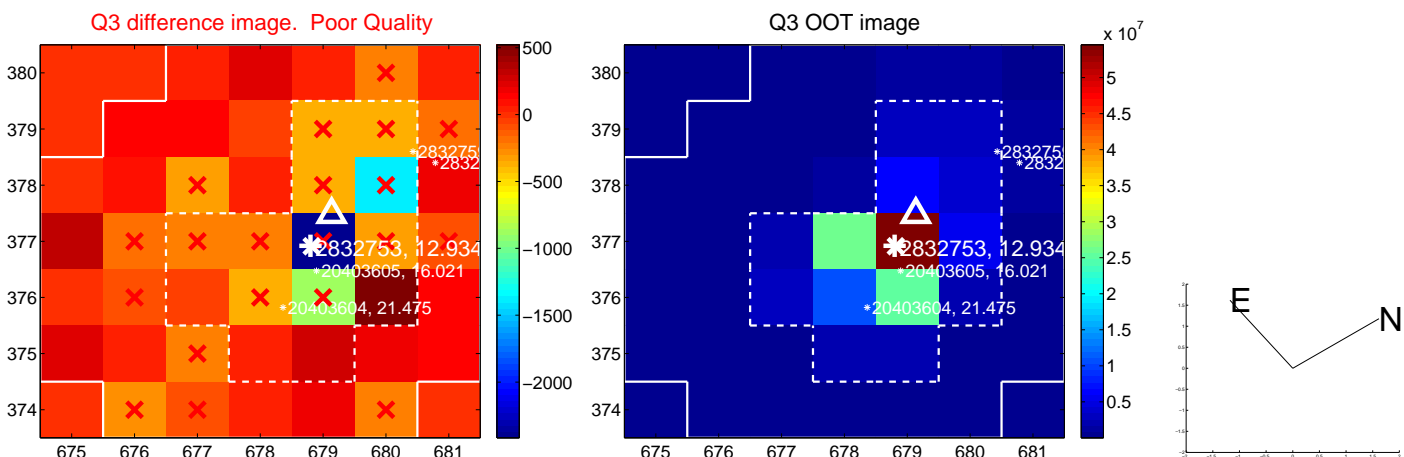
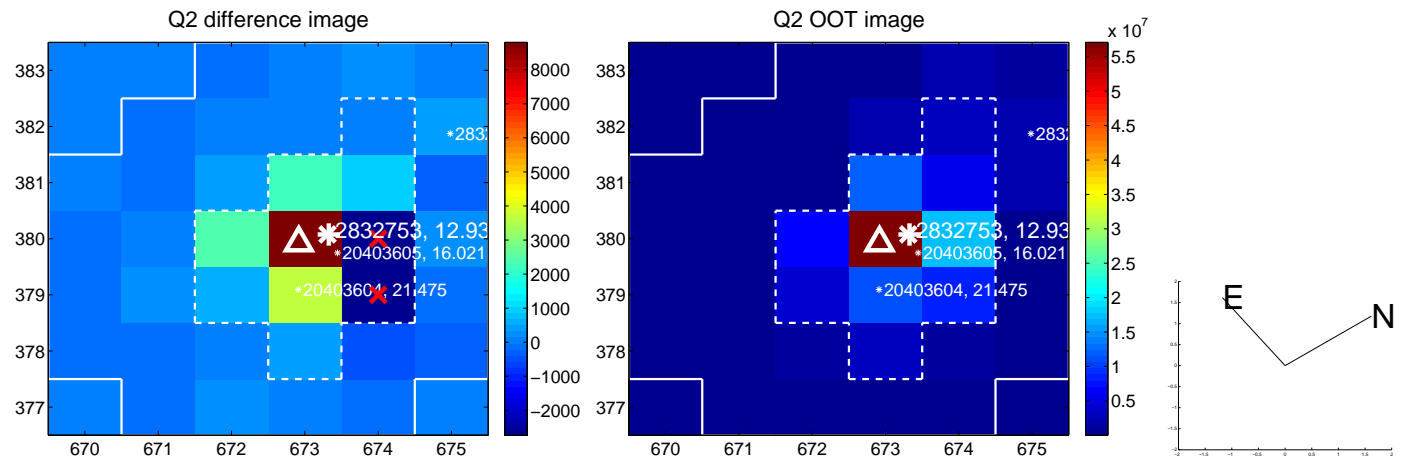
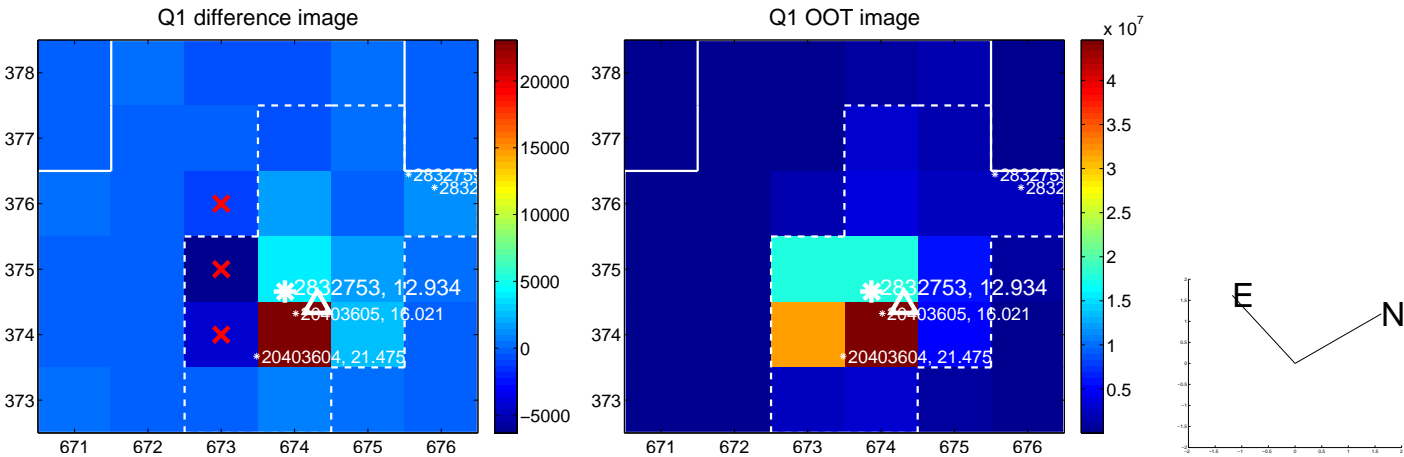


offset from photometric centroids

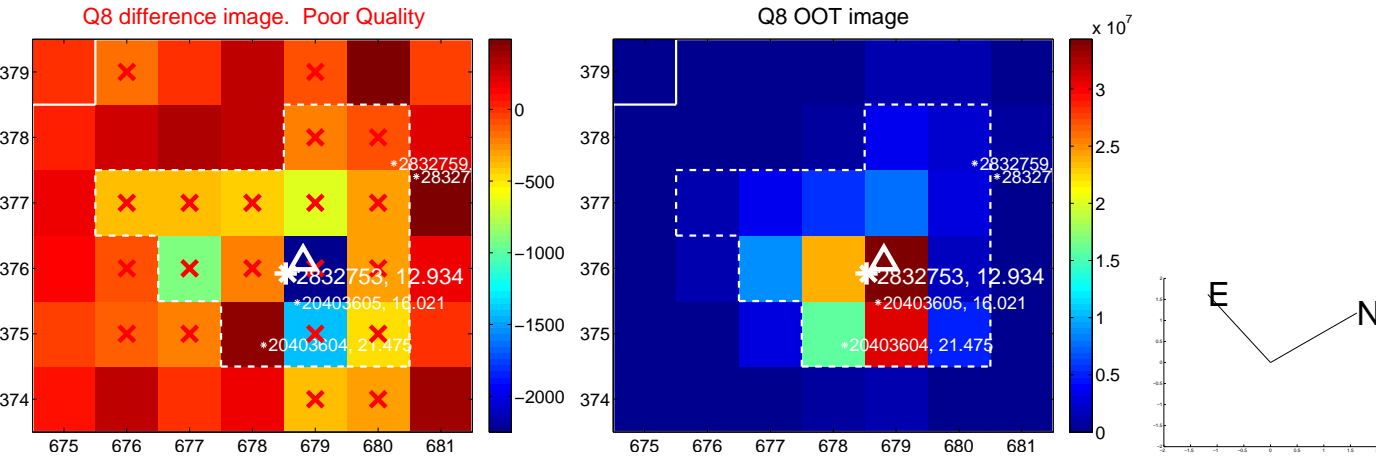
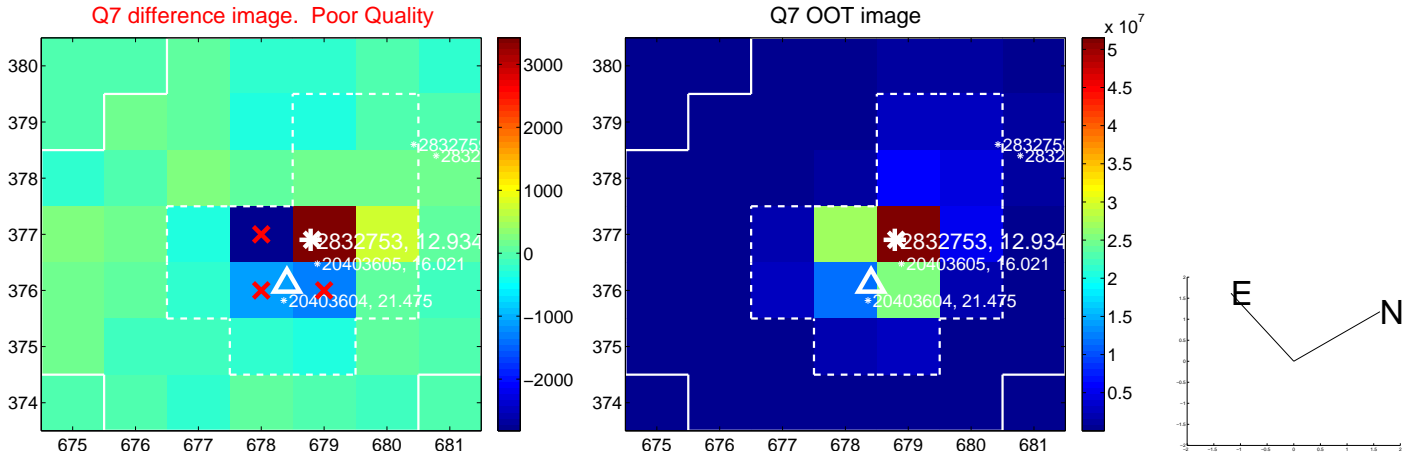
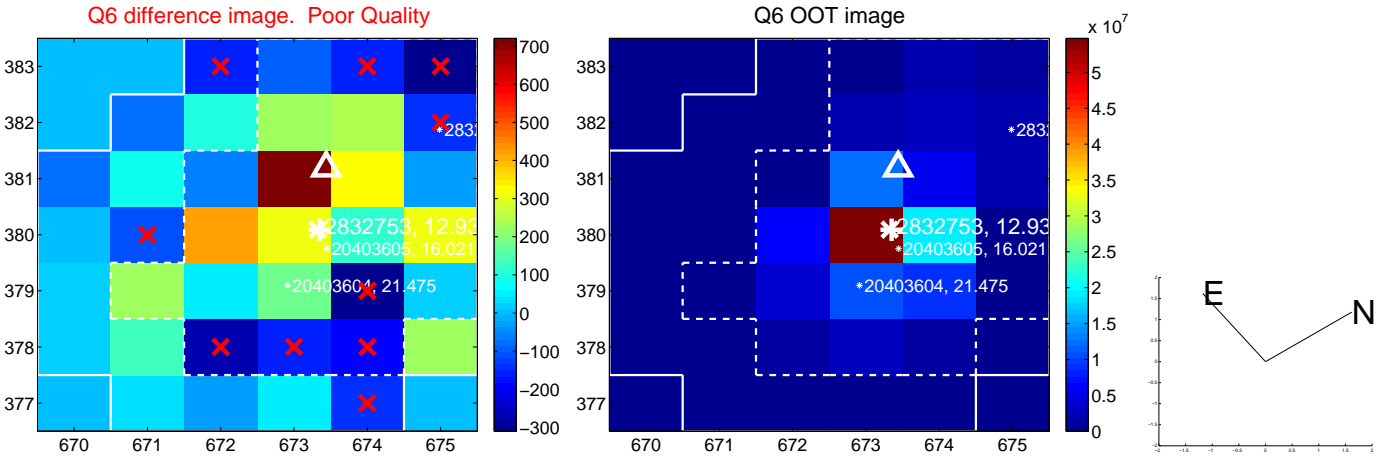
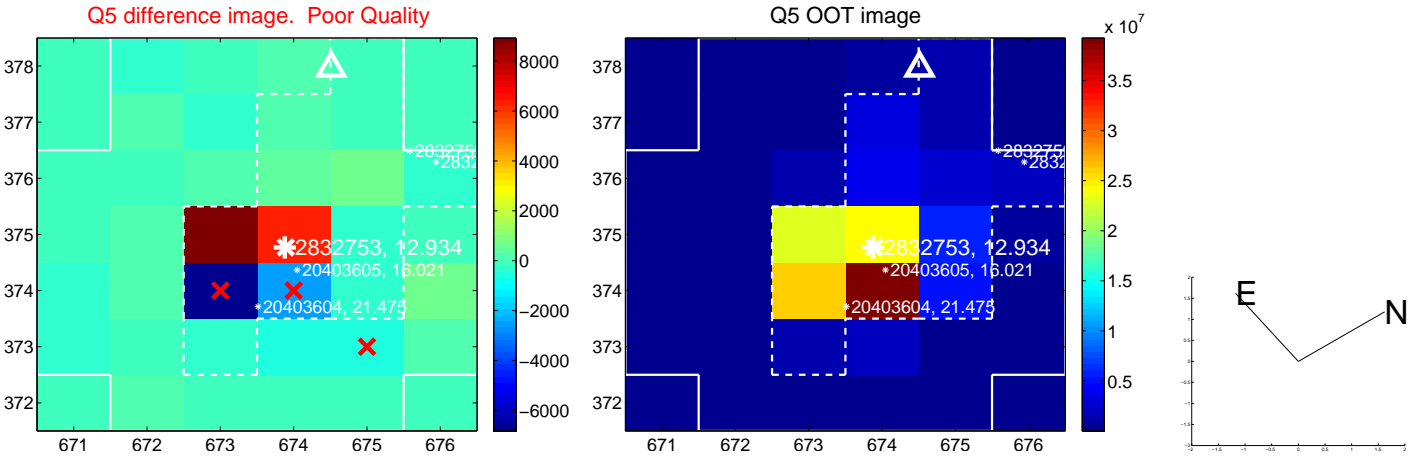


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

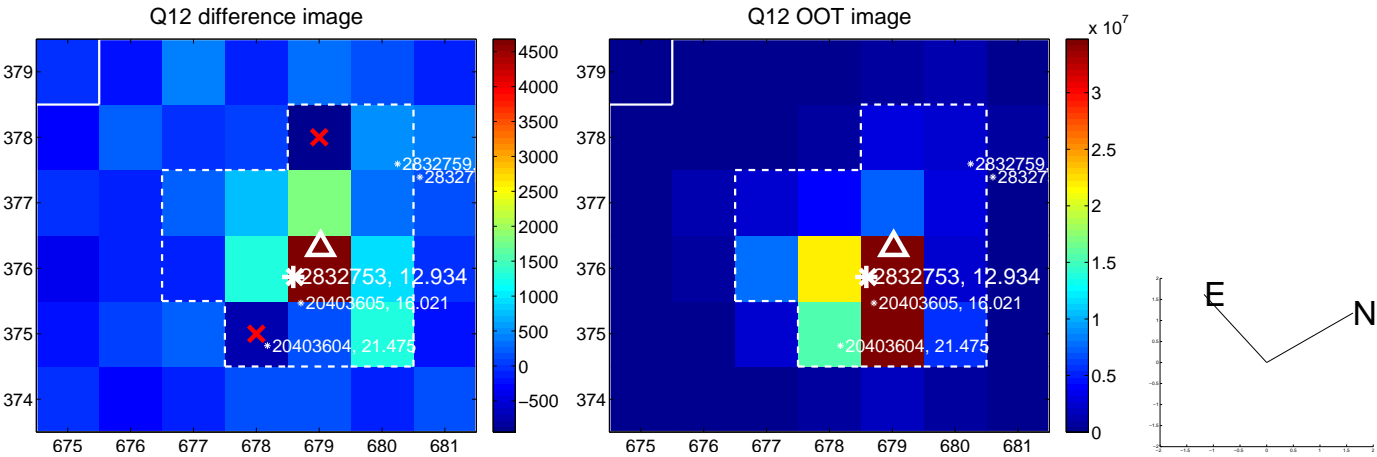
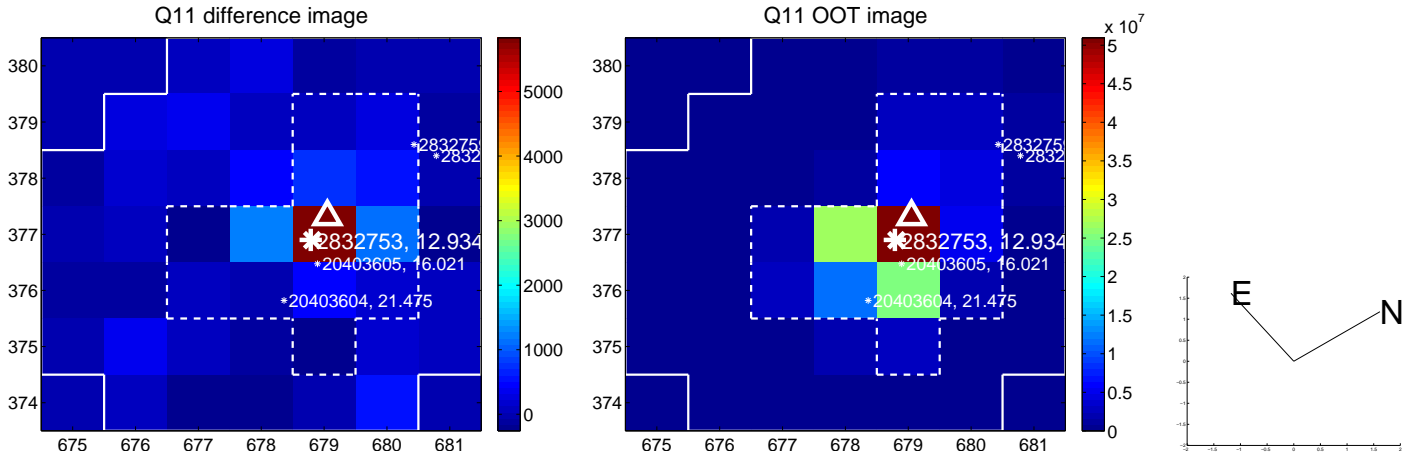
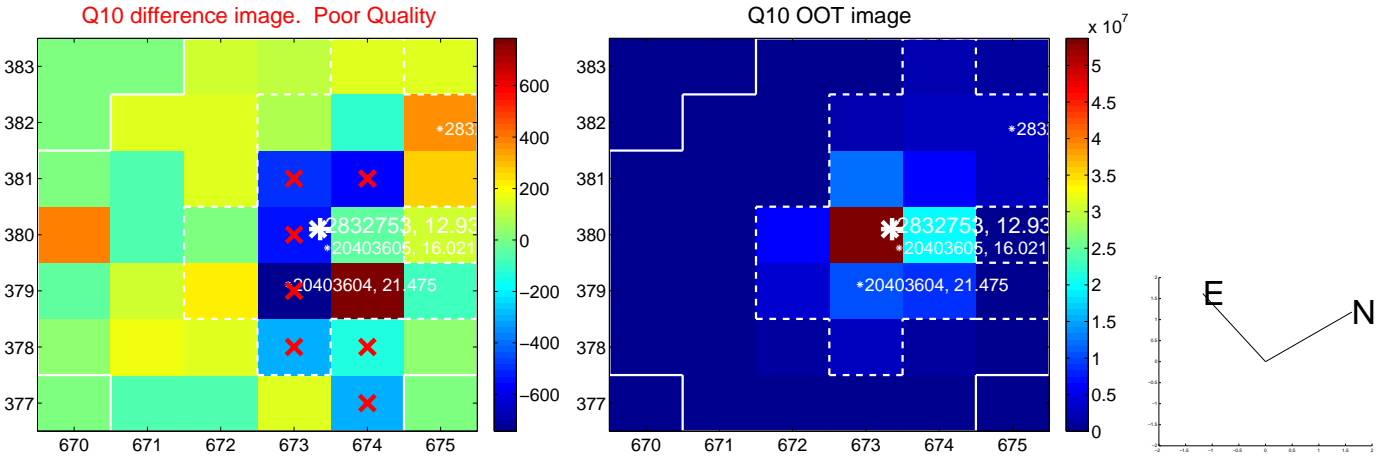
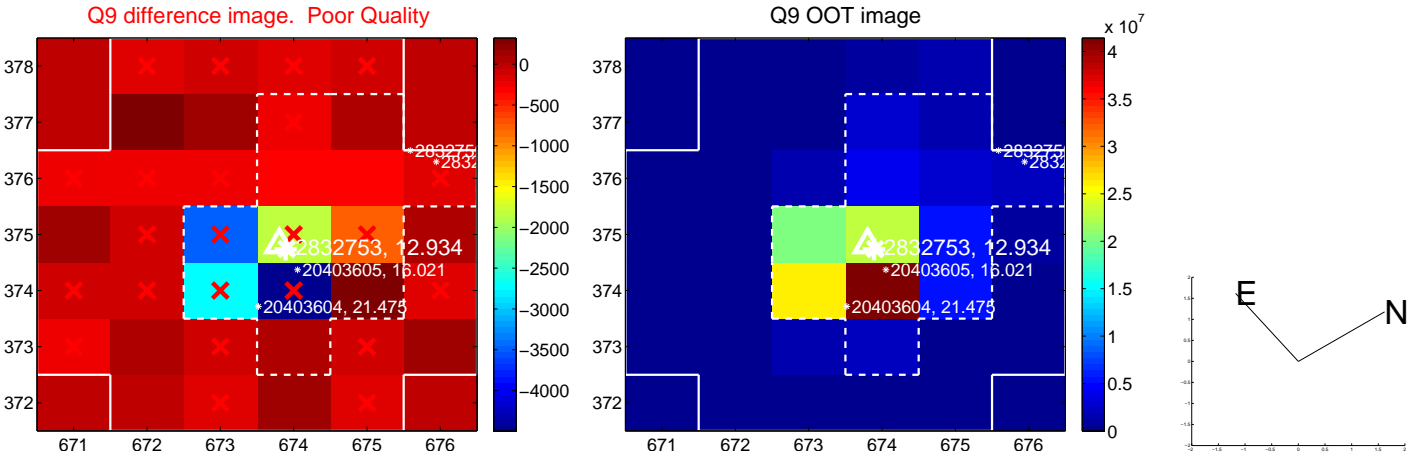
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



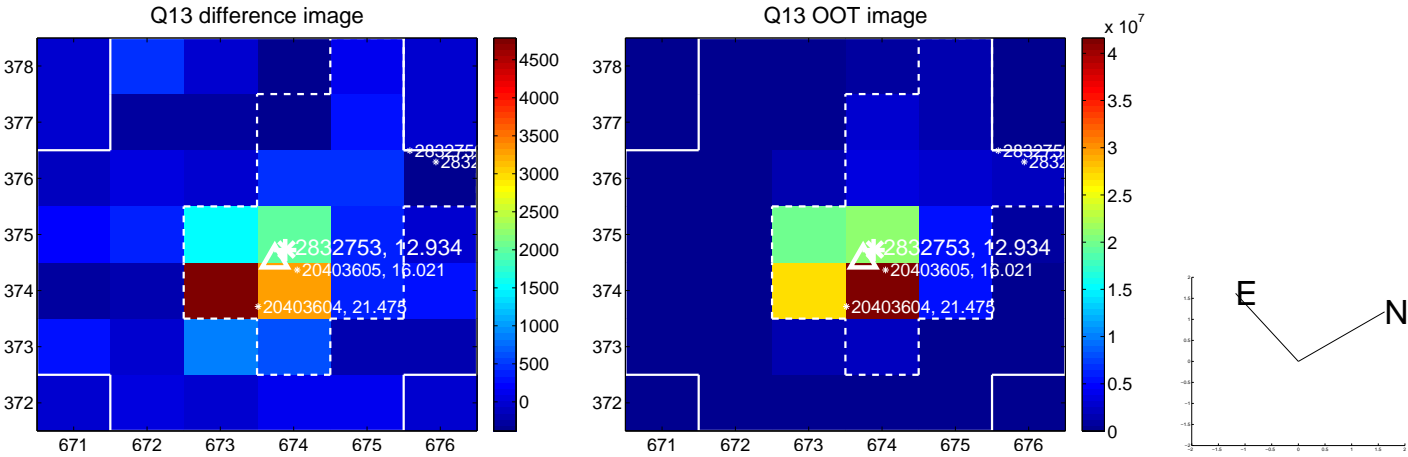
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



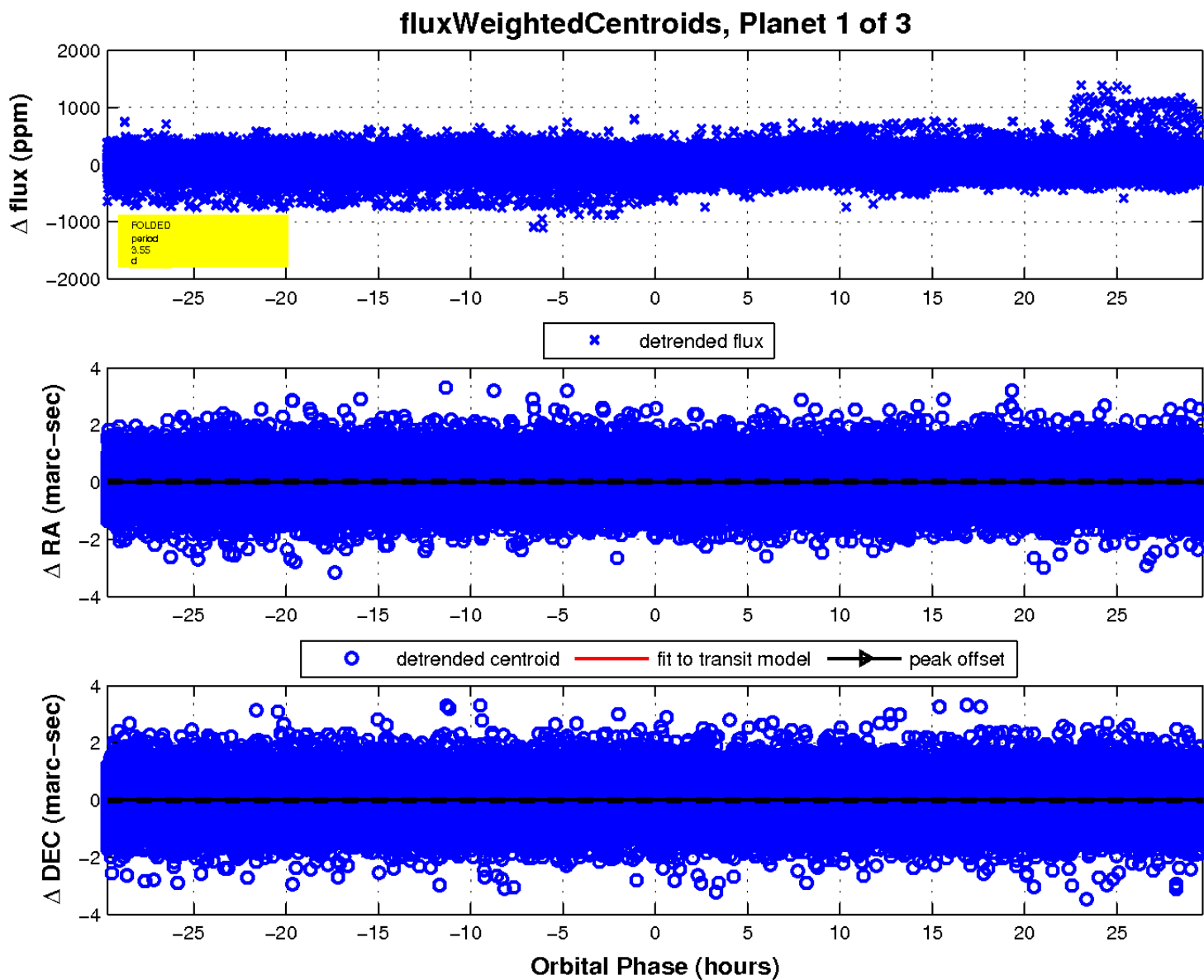
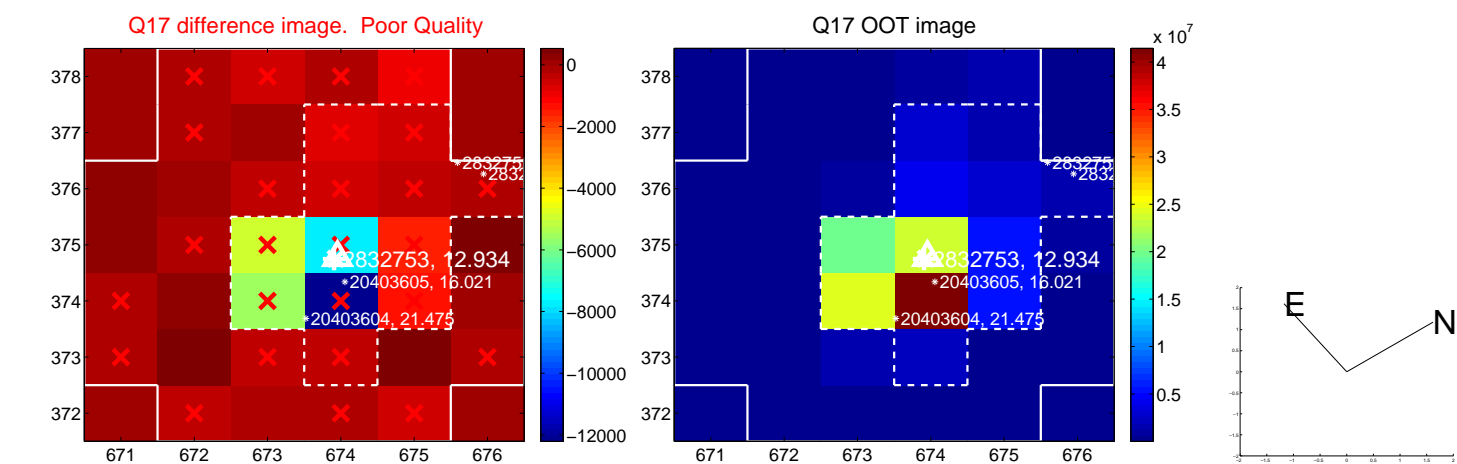
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

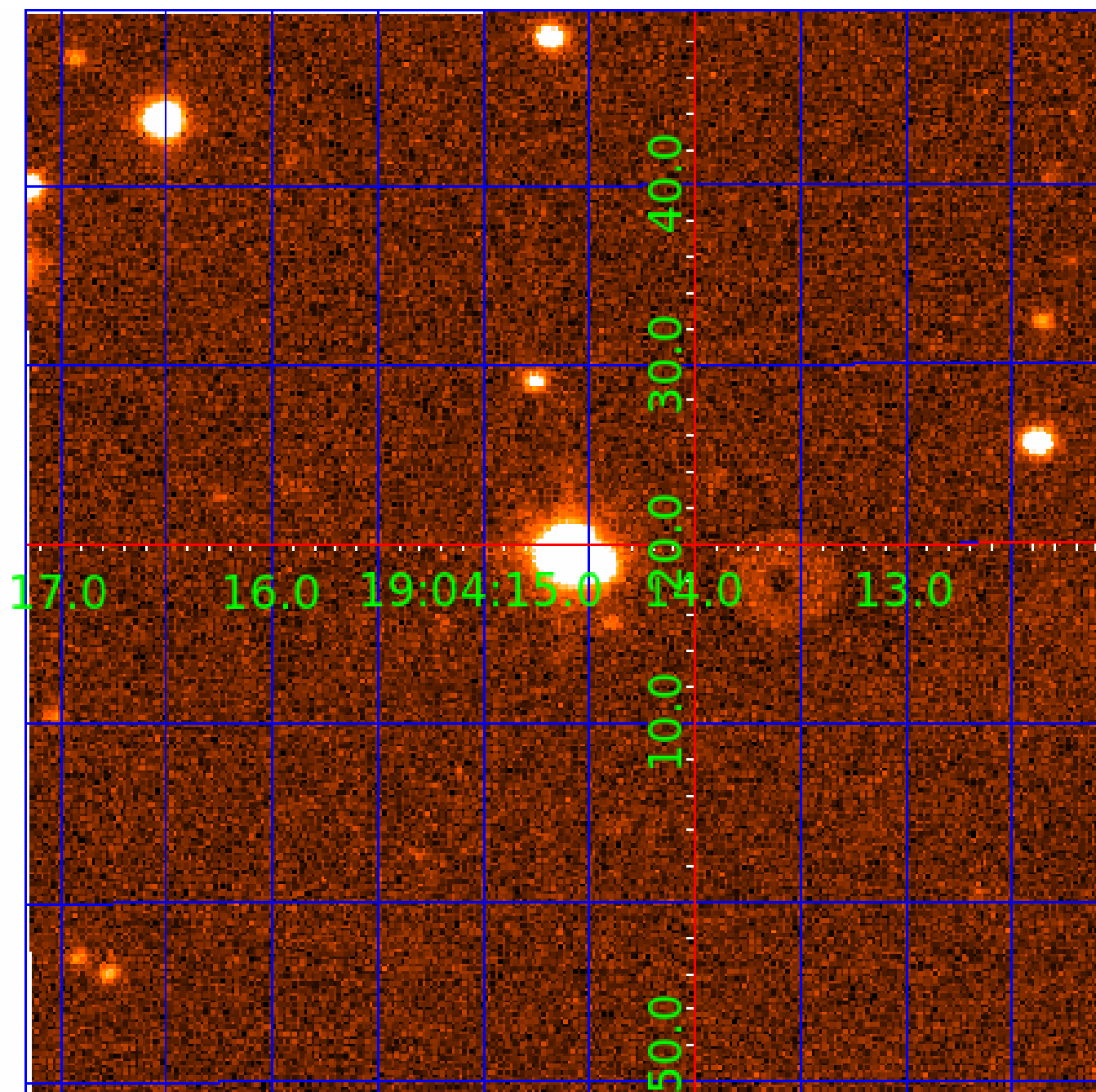


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002832753

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})
002832753-01	OBS	No	3.550778	134.975359	55.5	9.889	11.8	12.6	2.99	6795	3.10	6124.89
002832753-02	OBS	No	3.551368	132.279179	42.6	3.898	11.1	11.5	2.99	6795	2.29	6123.54
002832753-03	OBS	No	175.324633	194.621416	240.8	12.195	9.3	7.1	2.99	6795	5.02	33.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002832753-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002832753-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
002832753-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

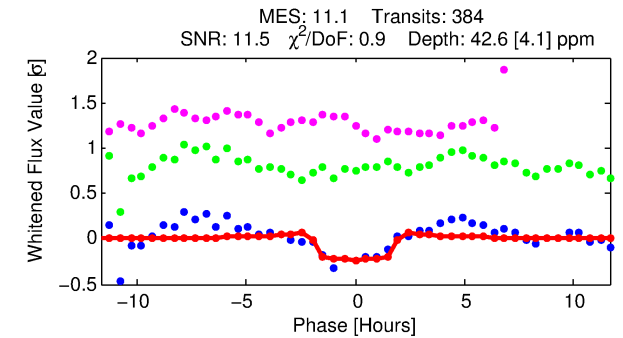
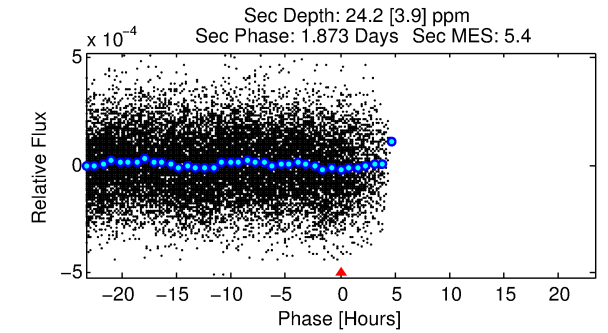
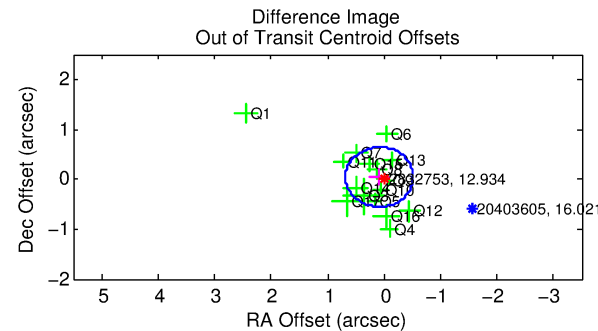
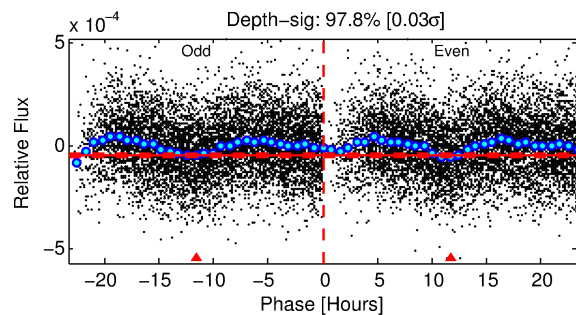
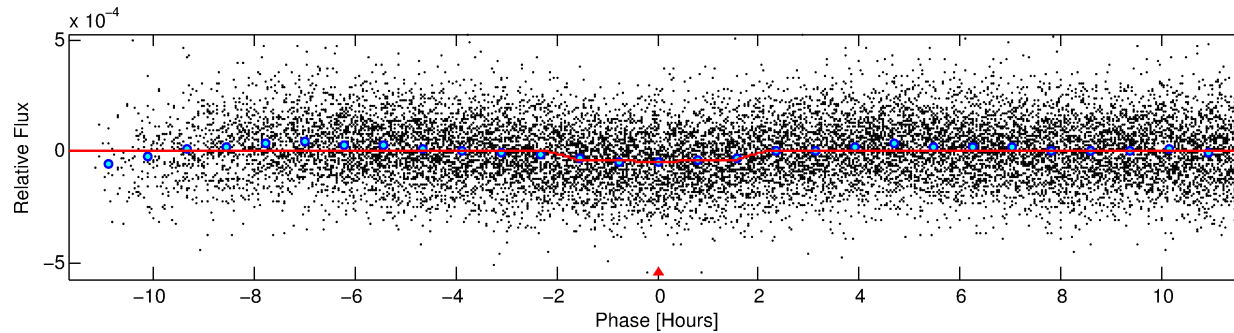
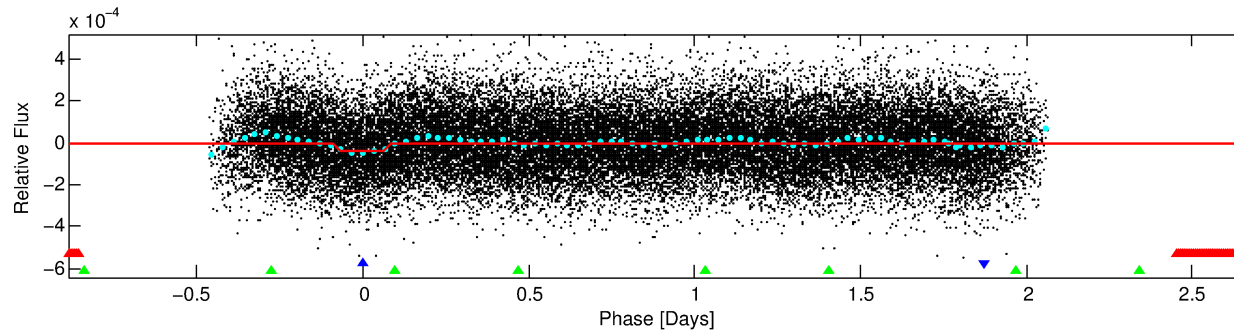
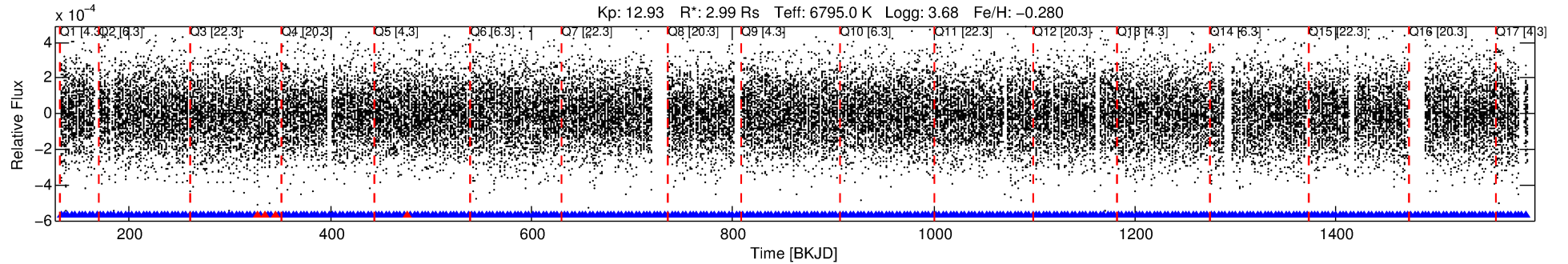
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002832753-02

No Significant Match Found

DV One-Page Summary

KIC: 2832753 Candidate: 2 of 3 Period: 3.551 d



DV Fit Results:

Period = 3.55137 [0.00002] d
Epoch = 132.2792 [0.0038] BKJD
Rp/R* = 0.0070 [0.0020]
a/R* = 3.15 [4.88]
b = 0.91 [0.33]
Seff = 6123.54 [3274.16]
Teq = 2256 [302] K
Rp = 2.29 [1.03] Re
a = 0.0528 [0.0174] AU
Ag = 7.09 [5.60] [1.09σ]
Teffp = 5691 [860] K [3.77σ]

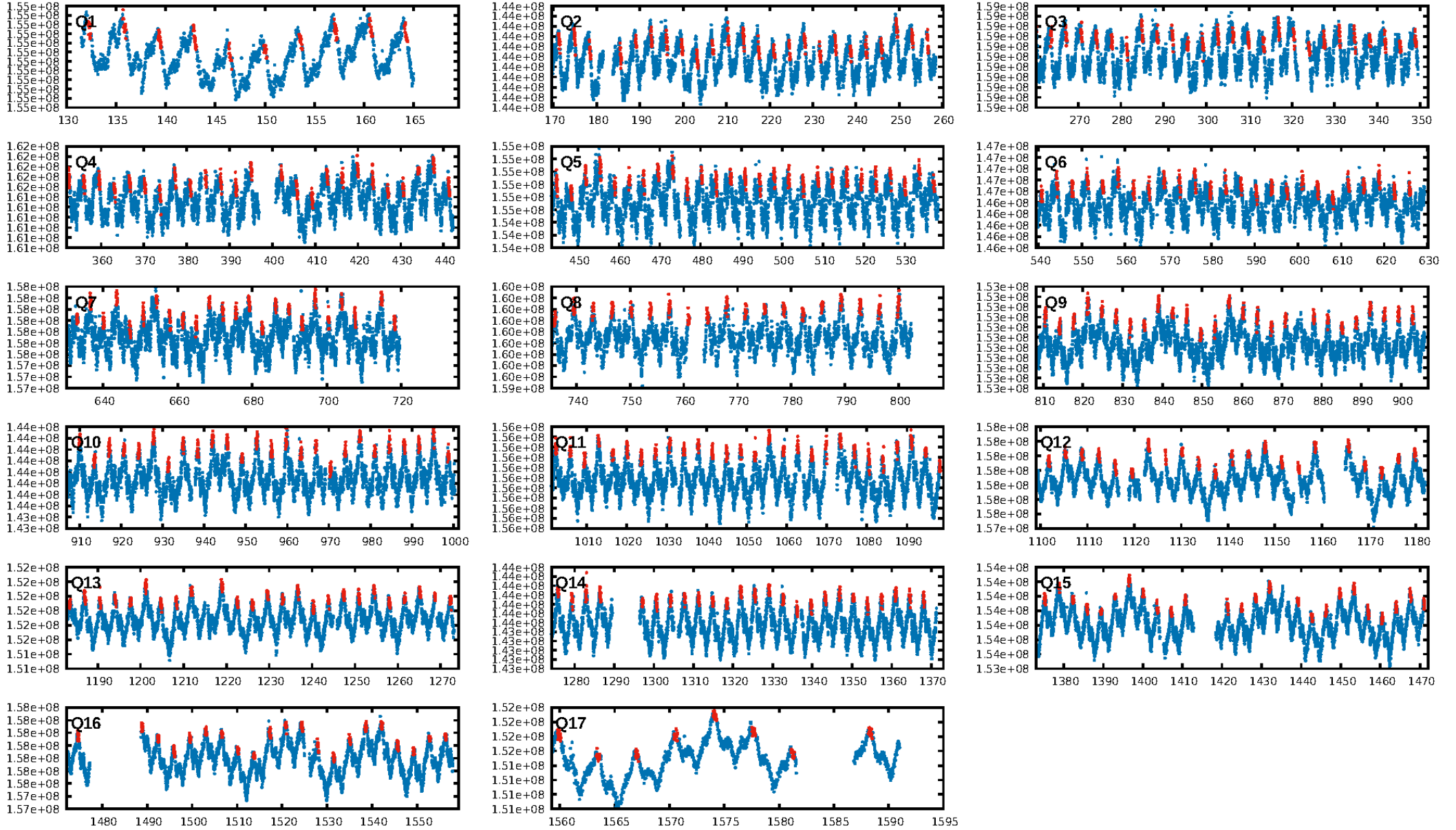
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 100.0% [322.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.10e-21
RollingBand-fgt: 0.99 [362/366]
GhostDiagnostic-chr: -5.735
Centroid-sig: 5.4%
Centroid-so: 1.589 arcsec [1.64σ]
OotOffset-rm: 0.097 arcsec [0.49σ]
KicOffset-rm: 0.110 arcsec [0.67σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.00 [0/16]
DiffImageOverlap-fno: 1.00 [17/17]

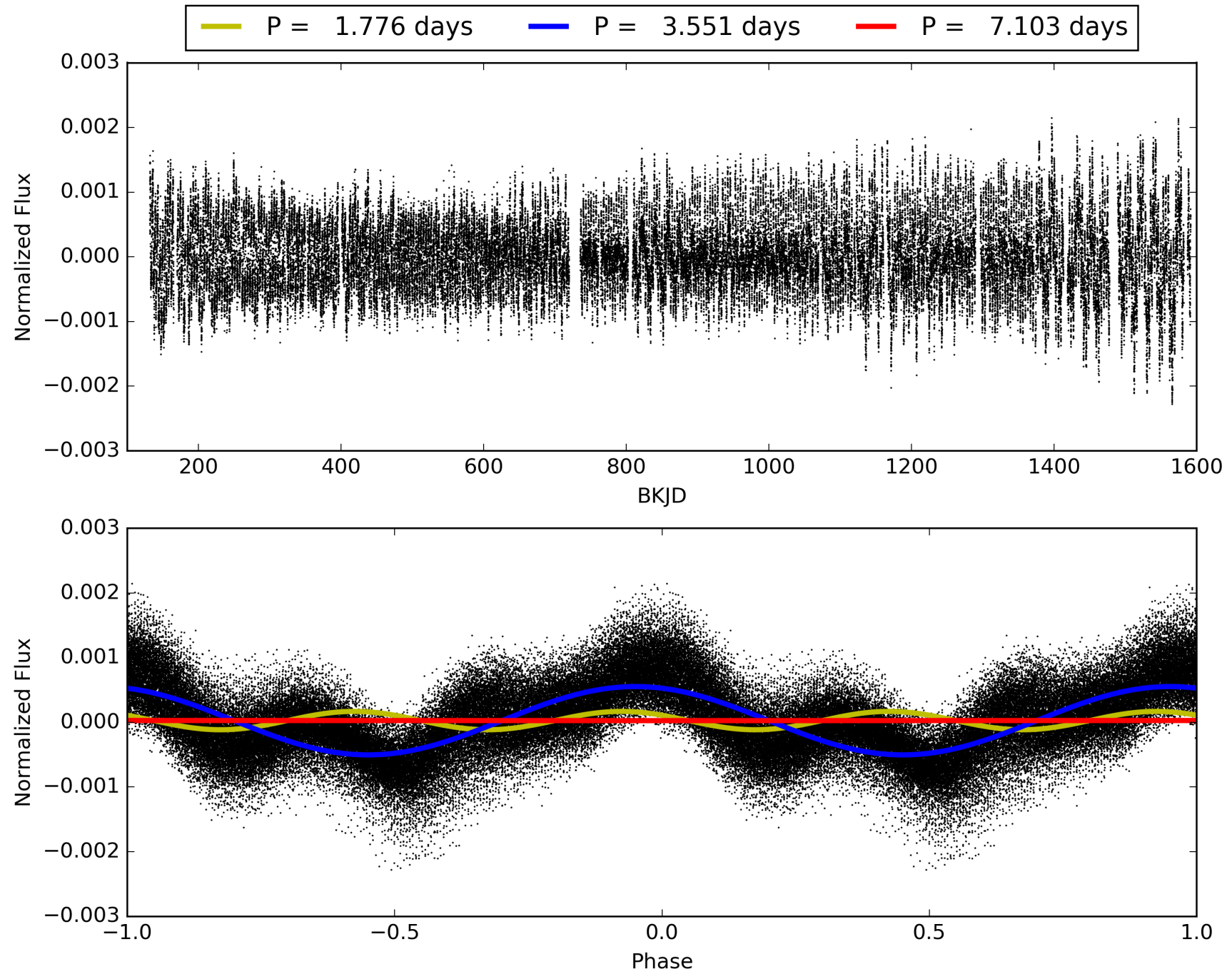
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:44:25 Z

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

TCE 002832753-02, PDC Light Curves

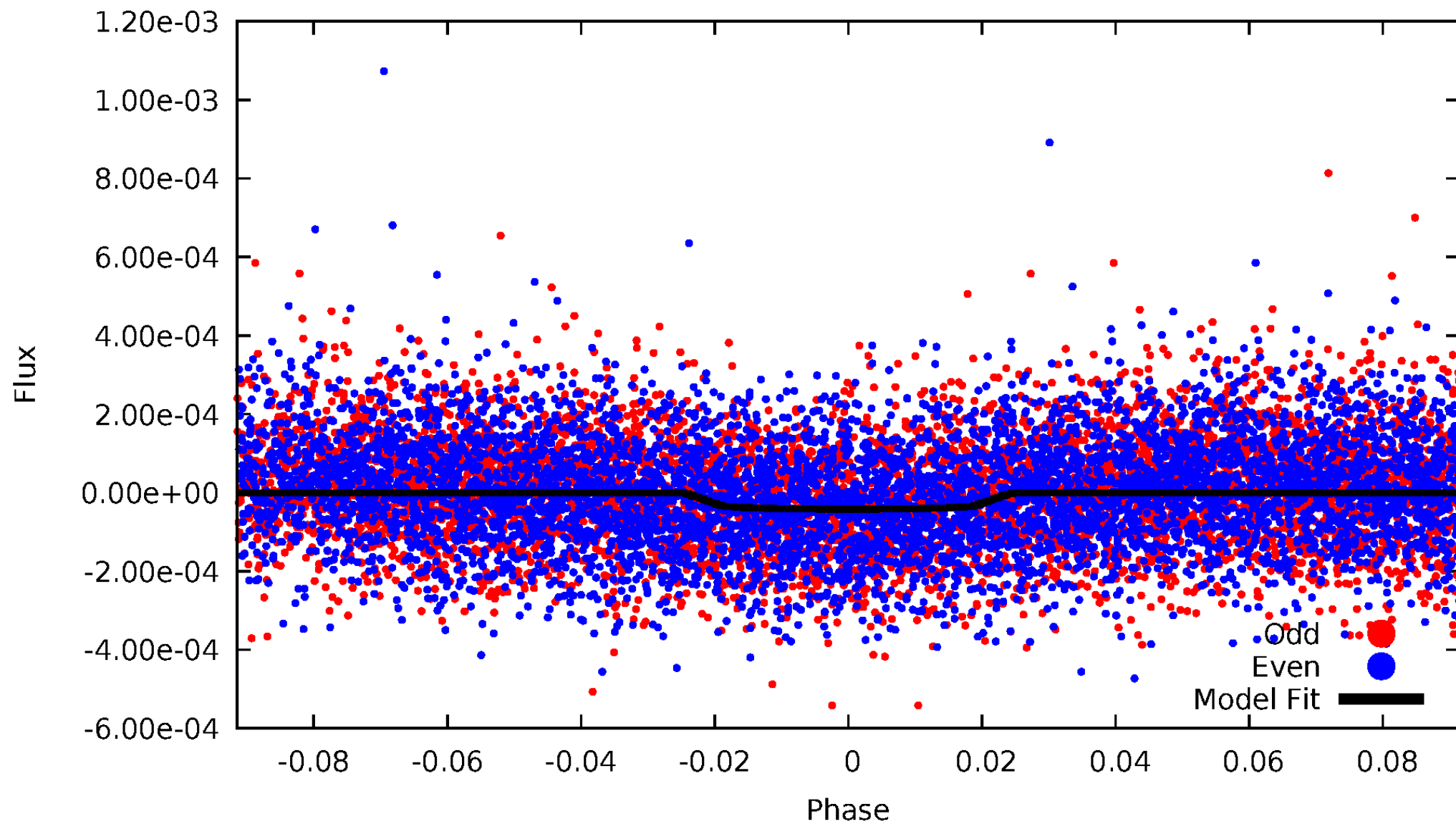


TCE 002832753-02



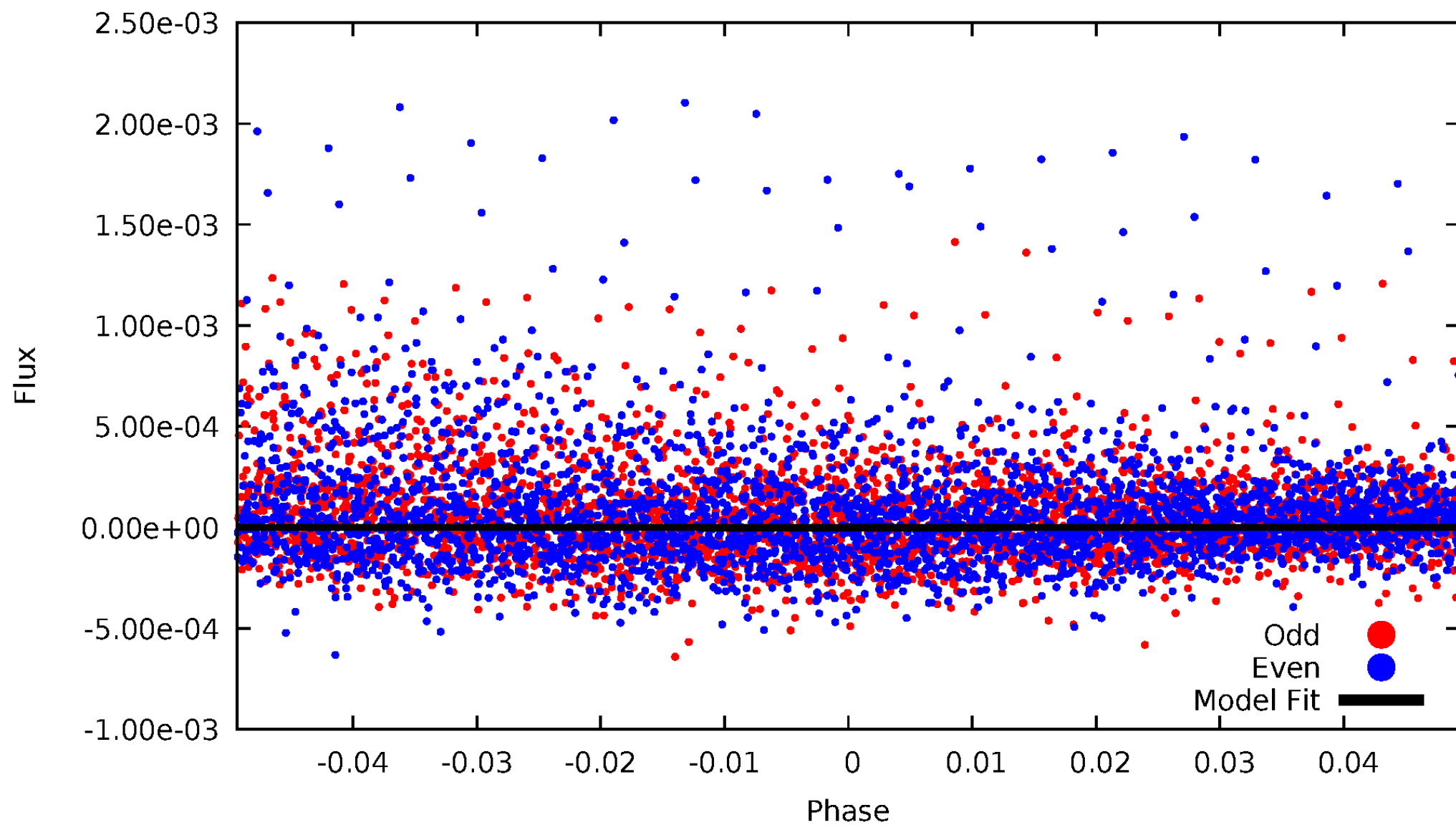
DV Odd/Even

TCE 002832753-02



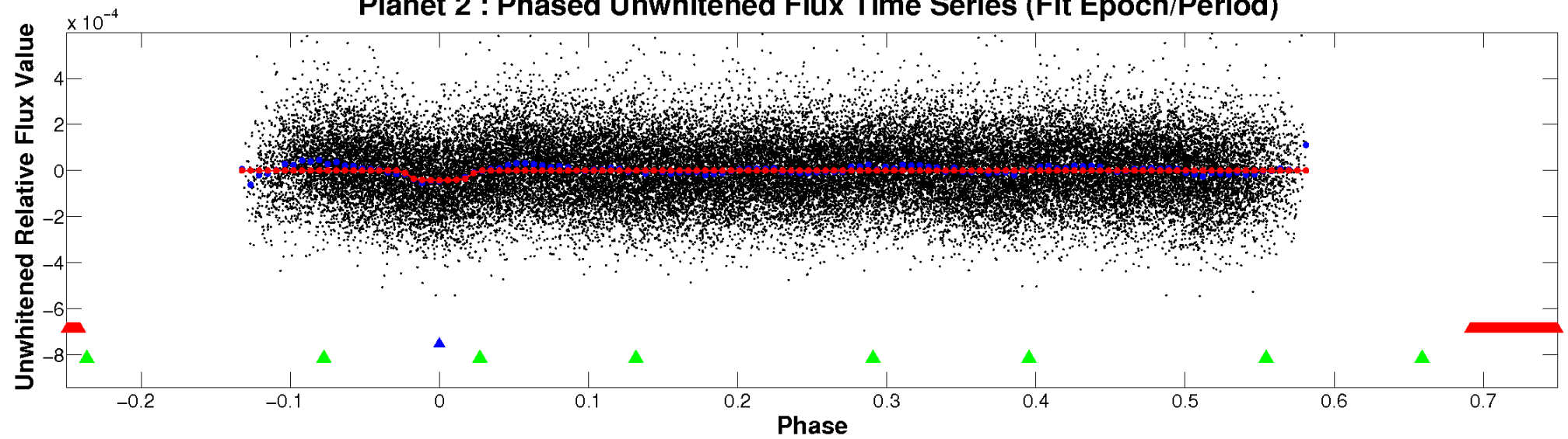
ALT Odd/Even

TCE 002832753-02

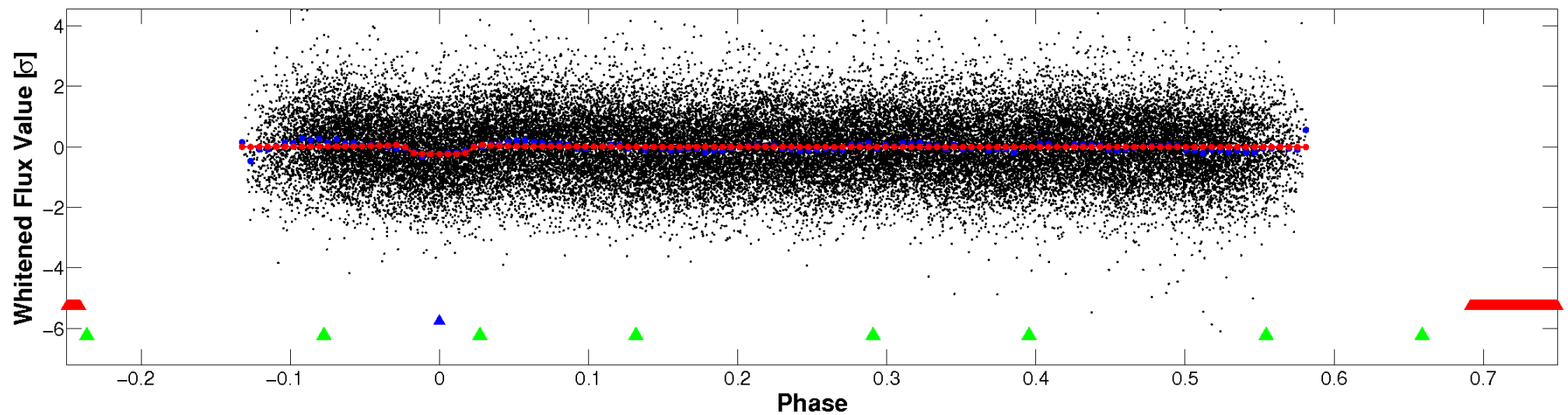


Non-Whitened Vs. Whitened Light Curve

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

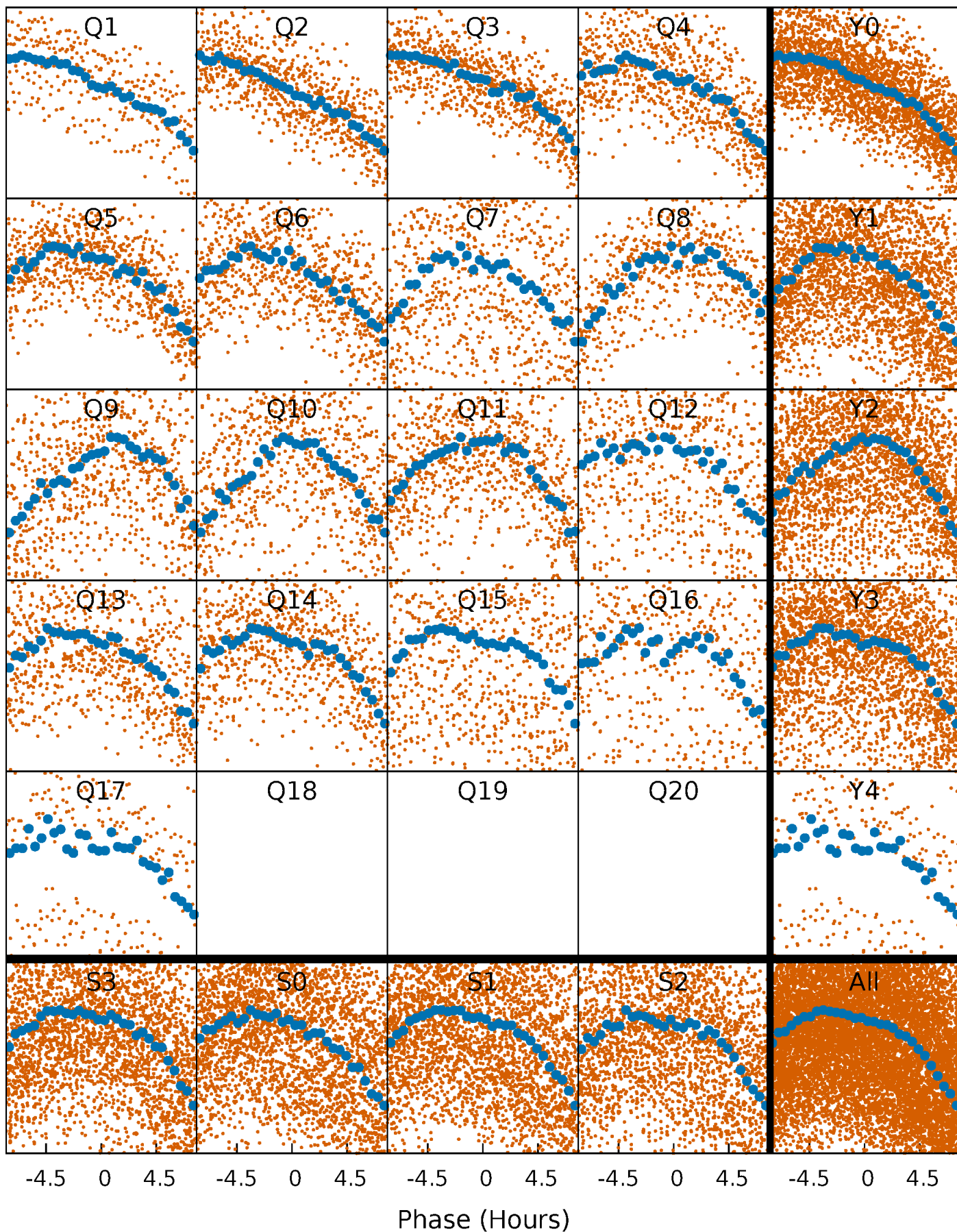


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



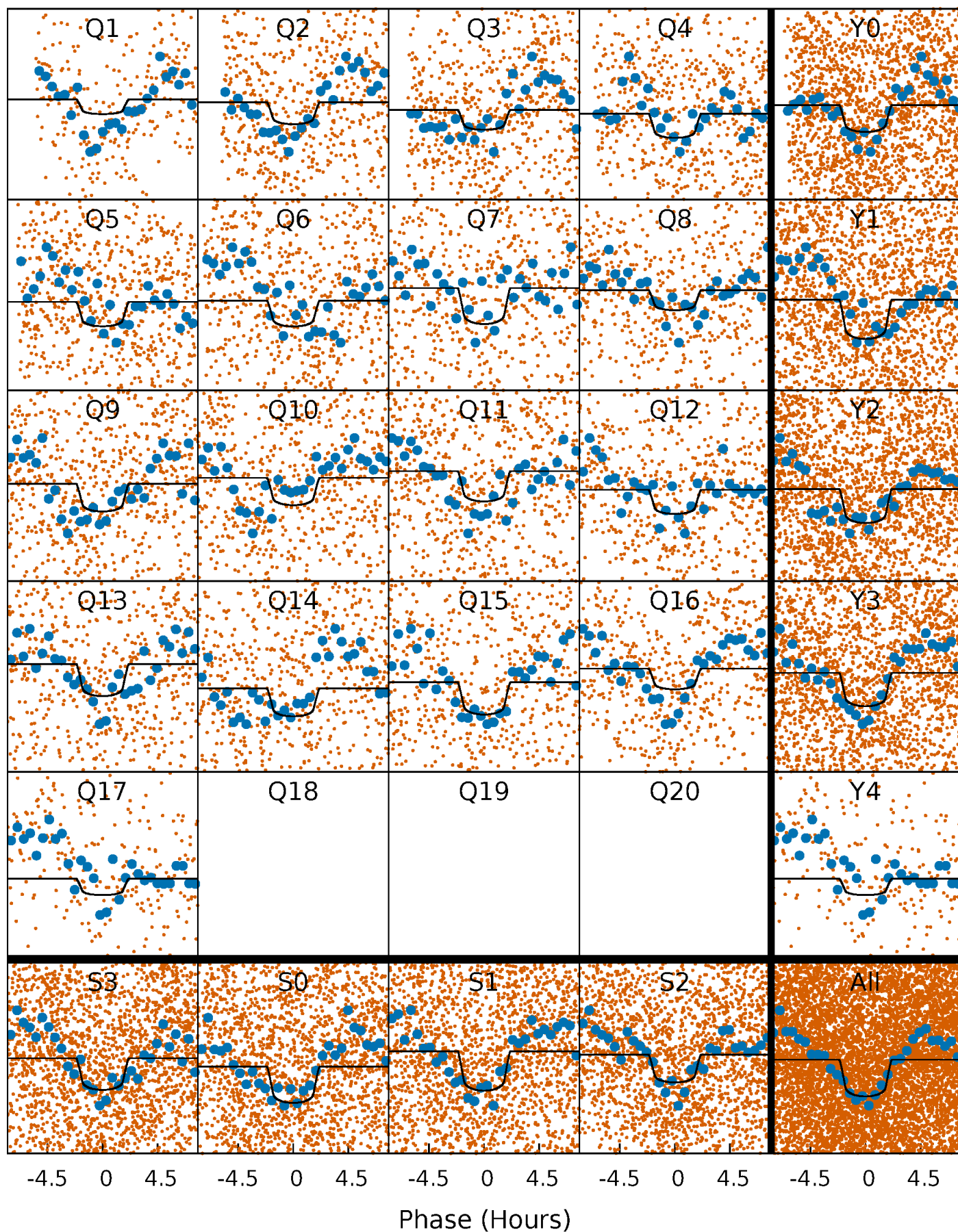
PDC Quarter-Phased Transit Curves

TCE 002832753-02 P= 3.551368 Days $T_0=132.279179$ (BKJD)



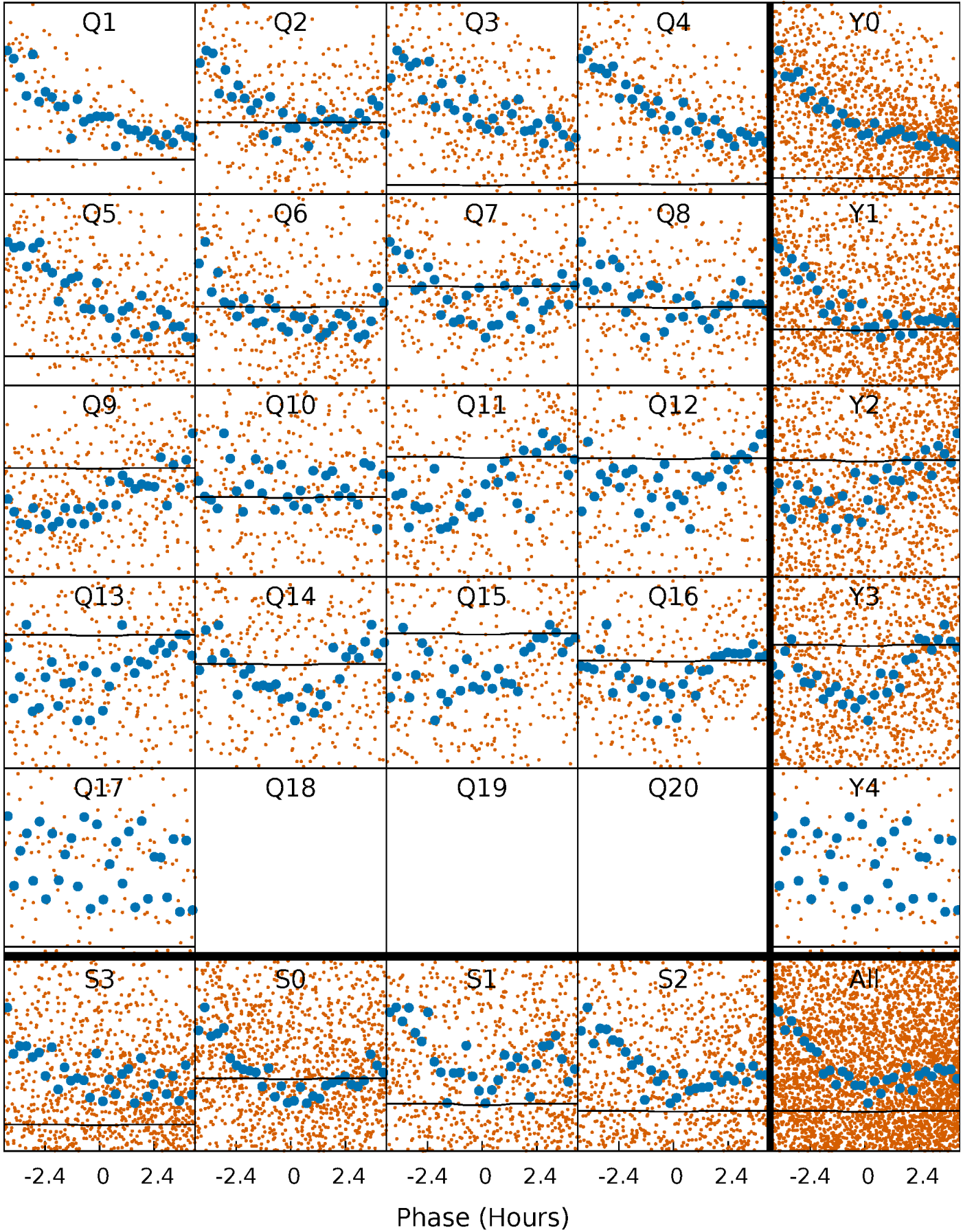
DV Quarter-Phased Transit Curves

TCE 002832753-02 P= 3.551368 Days $T_0=132.279179$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

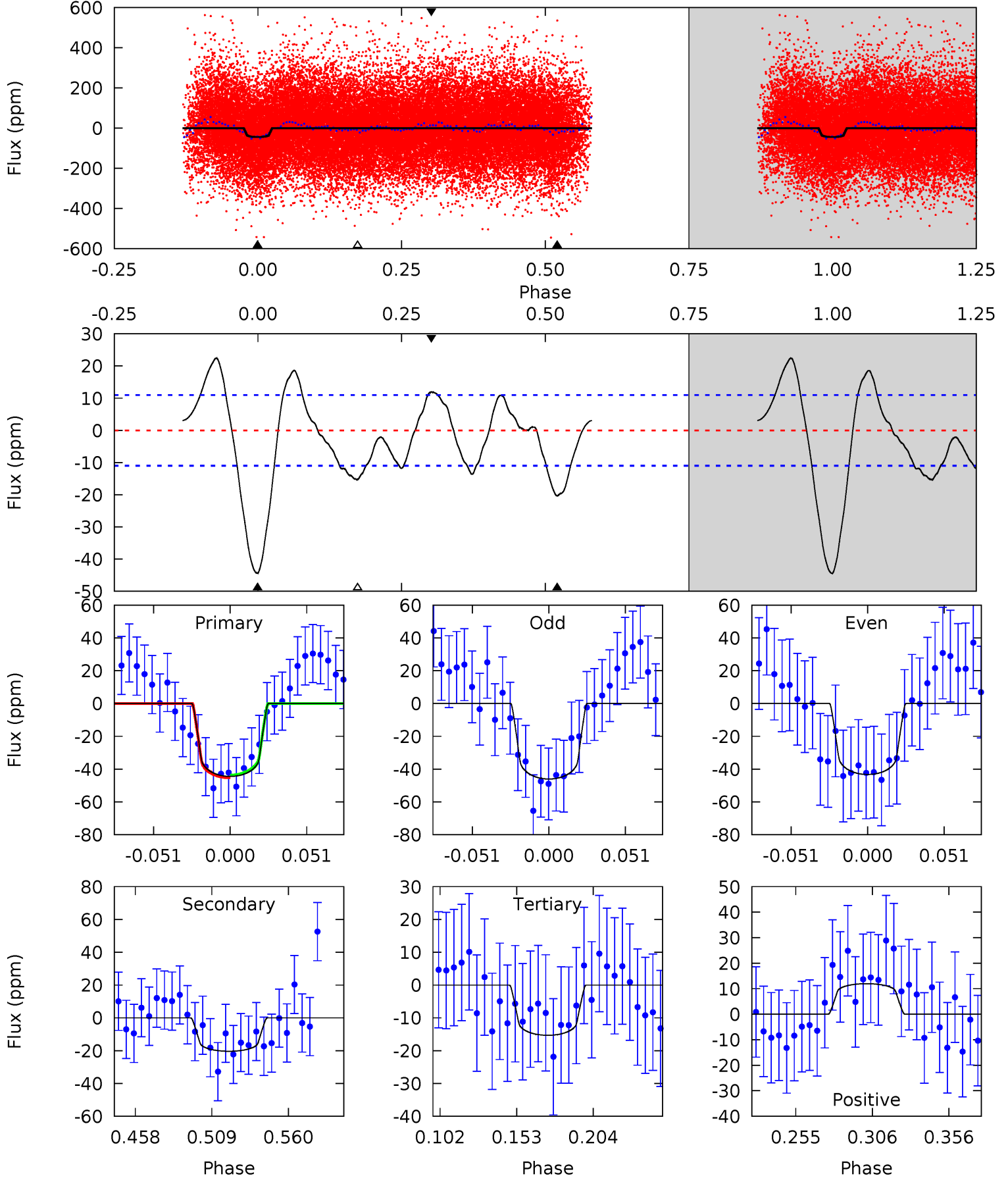
TCE 002832753-02 P= 3.551259 Days $T_0=132.317927$ (BKJD)



DV Model-Shift Uniqueness Test

002832753-02, P = 3.551368 Days, E = 128.727811 Days

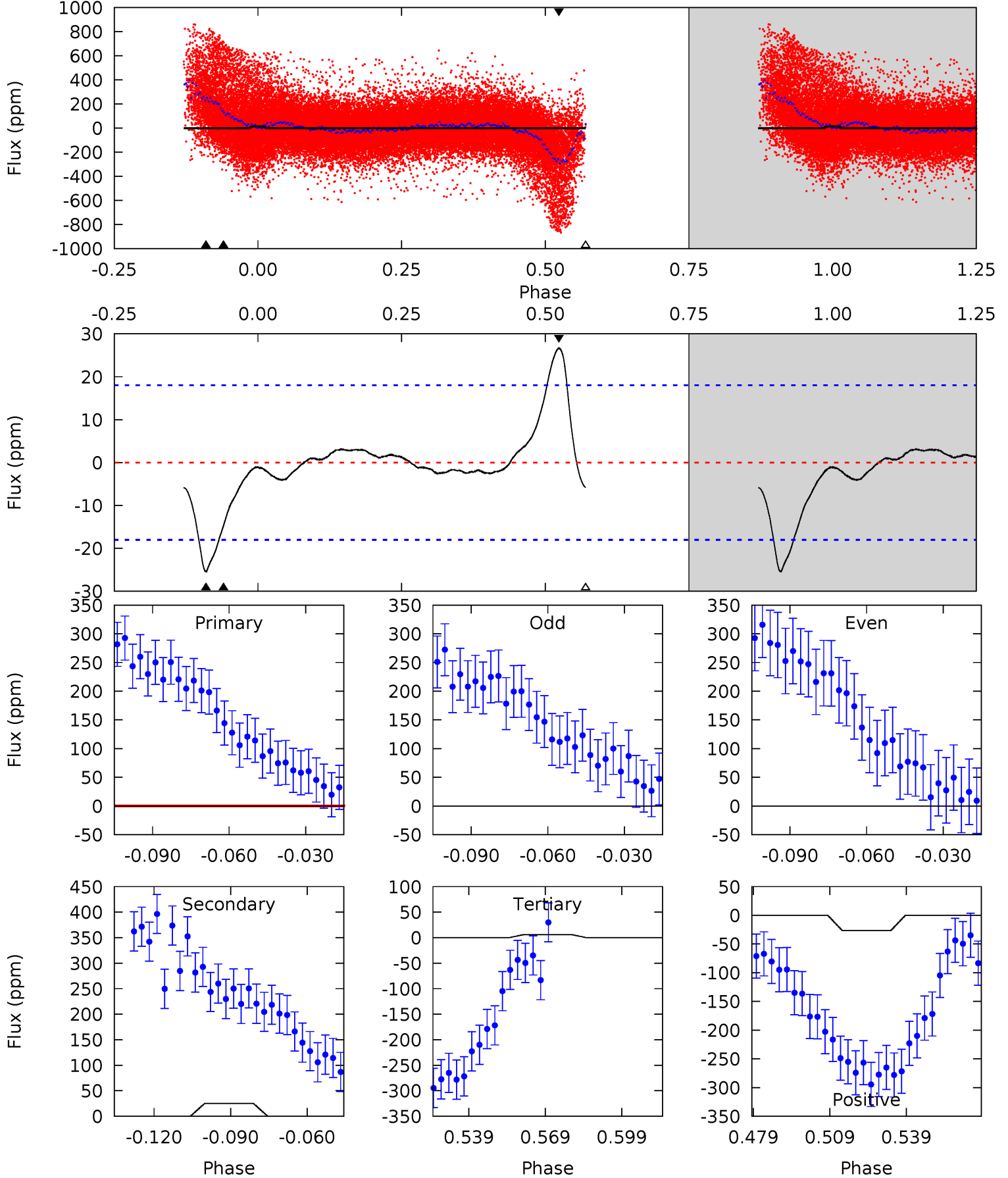
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	8.71	6.55	5.12	4.70	1.95	4.30	12.5	13.9	2.16	3.59	0.59	1.00	0.34	0.33



Alt Model-Shift Uniqueness Test

002832753-02, P = 3.551259 Days, E = 128.766668 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.93	6.79	1.55	7.11	4.81	2.17	1.63	2.38	-3.19	5.24	-0.32	0.74	-3.35	0.51	2.46



Stellar Parameters For KIC 002832753

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6795^{+183}_{-203}	$3.679^{+0.304}_{-0.076}$	$-0.280^{+0.300}_{-0.250}$	$2.991^{+0.446}_{-1.041}$	$1.560^{+0.245}_{-0.299}$	$0.082^{+0.166}_{-0.020}$
	+3%/-3%	+8%/-2%	+107%/-89%	+15%/-35%	+16%/-19%	+202%/-24%
Source	PHO1	FLK73	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 002832753-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20 ± 2	$2.10^{+0.79}_{-0.67}$	3071^{+167}_{-273}	5399^{+1002}_{-614}	$7.149^{+7.831}_{-3.312}$
Alt.	-25 ± 4	$0.59^{+0.51}_{-0.38}$	3068^{+188}_{-253}	12941^{+34780}_{-4825}	110^{+845}_{-79}

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

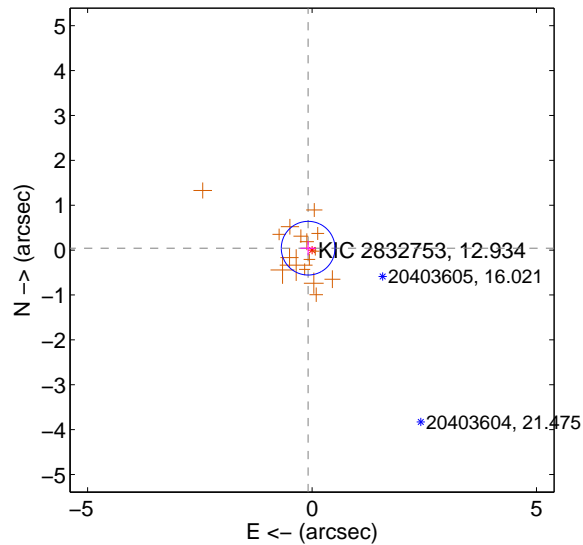
Supplemental centroid analysis for 002832753-02. Kepler magnitude: 12.93. Transit SNR 11.52

There are 0 quarters with good PRF difference image offsets

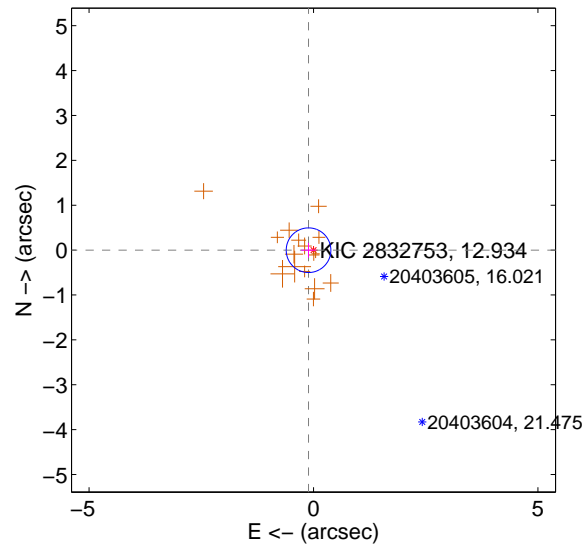
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.097 ± 0.199	0.49	0.087 ± 0.172	0.043 ± 0.159
PRF-fit source offset from KIC position	0.110 ± 0.166	0.67	0.110 ± 0.167	-0.002 ± 0.165
photometric centroid source offset	1.59 ± 0.97	1.64	-0.89 ± 0.97	-1.31 ± 0.97

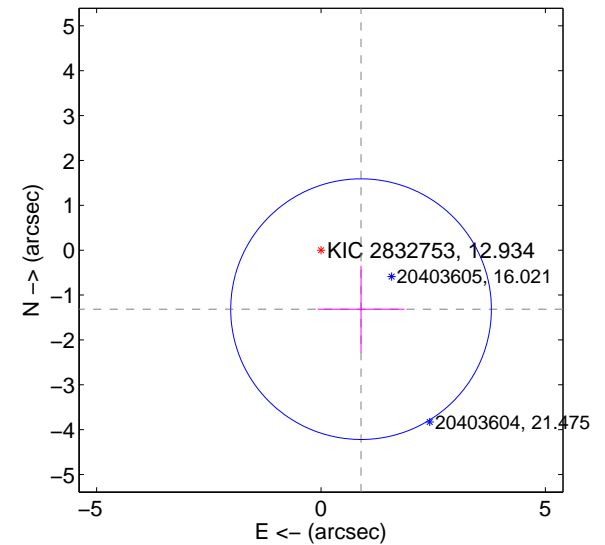
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

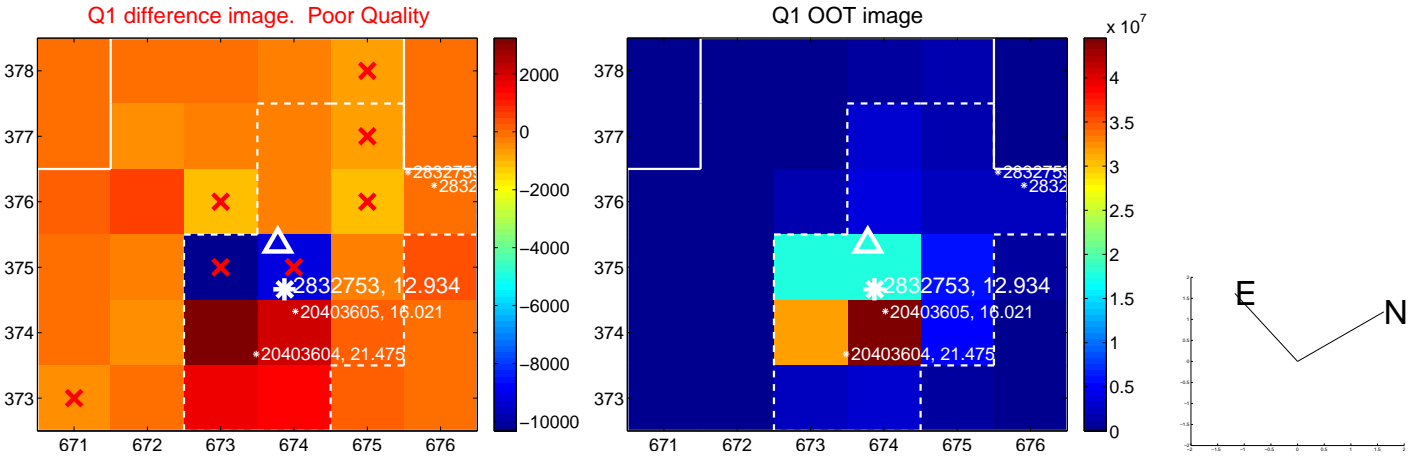


offset from photometric centroids

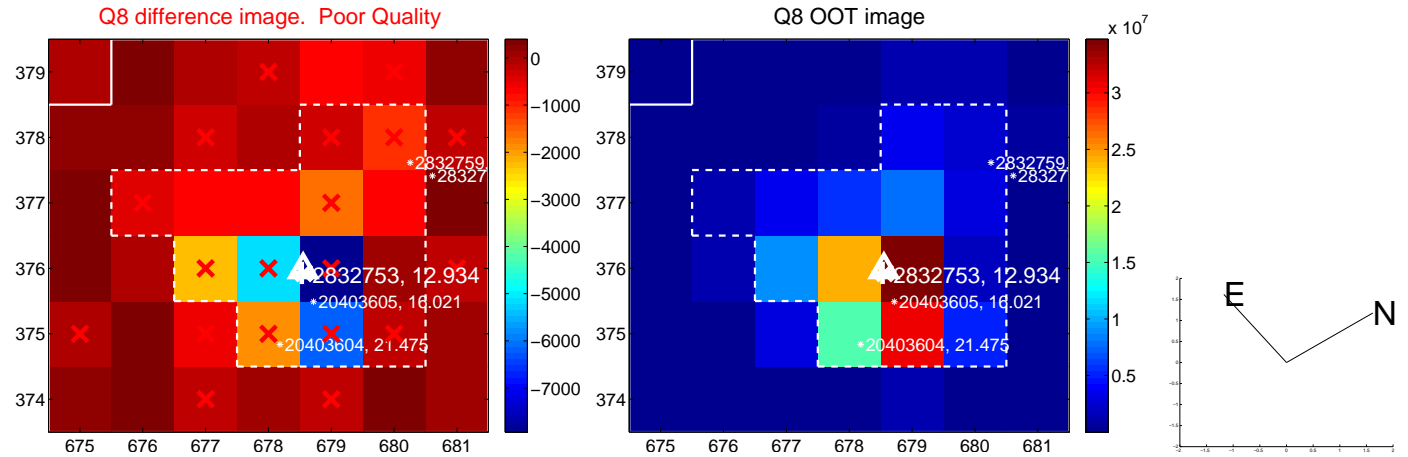
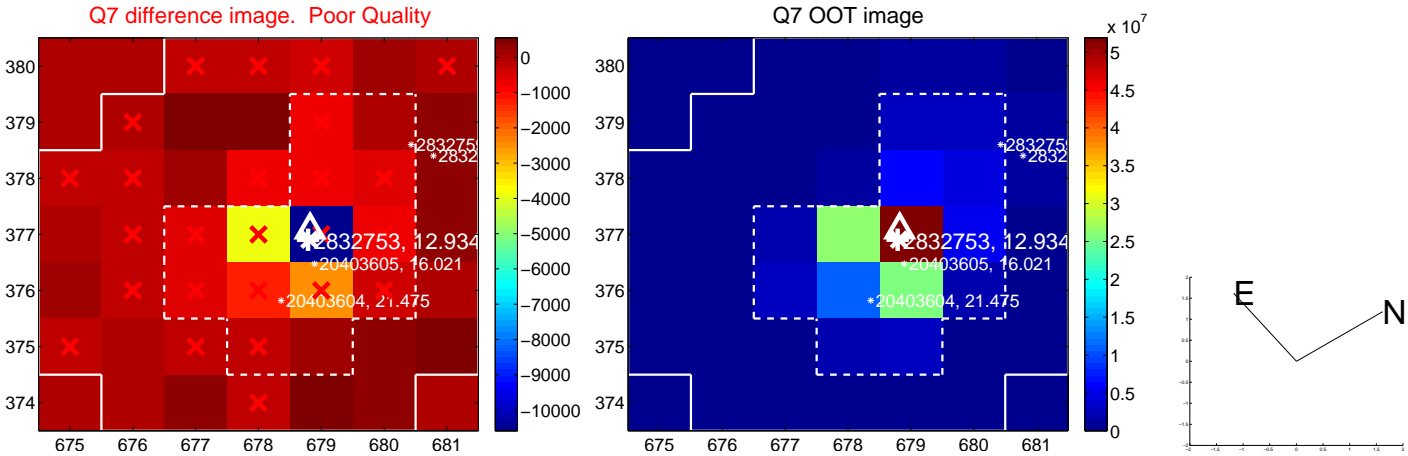
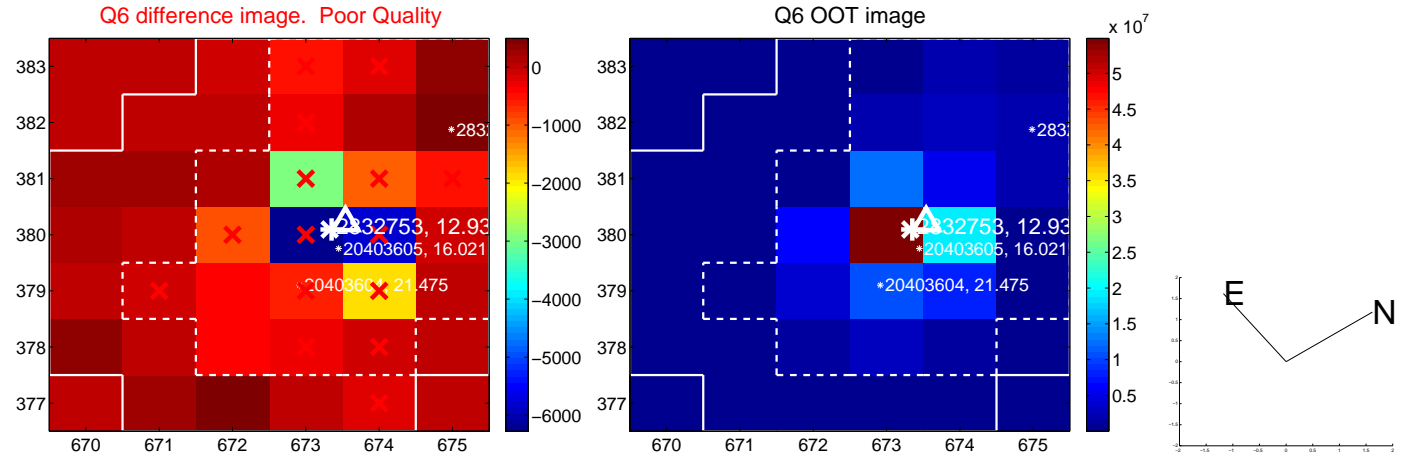
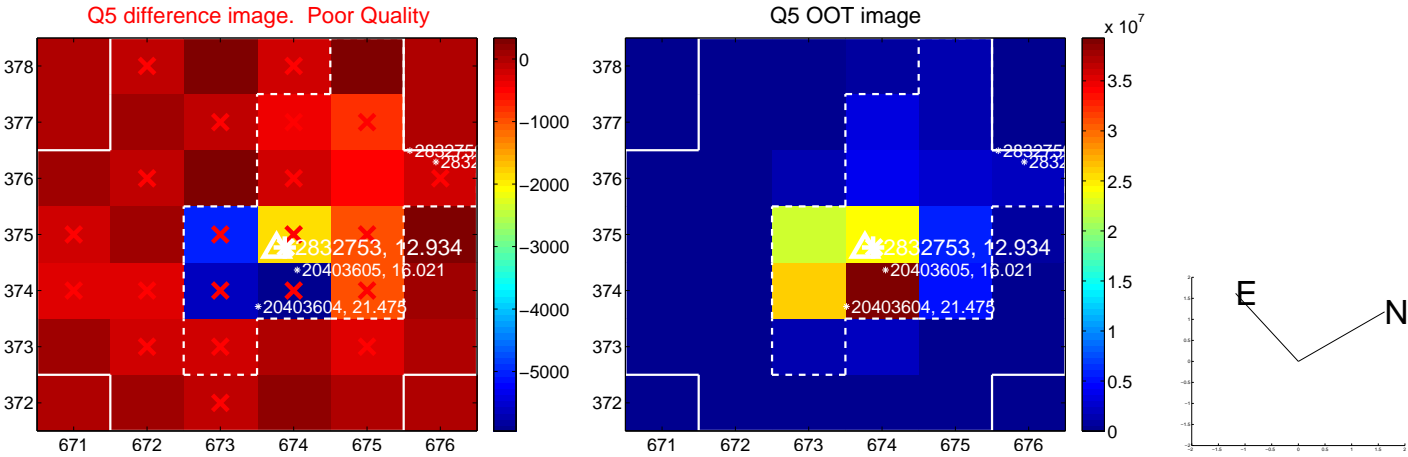


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

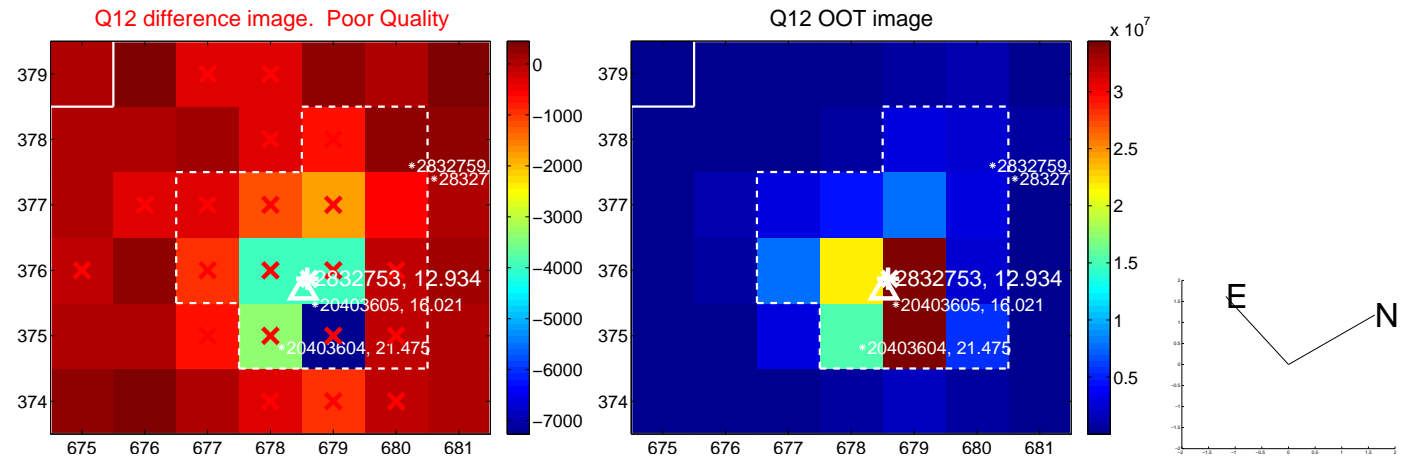
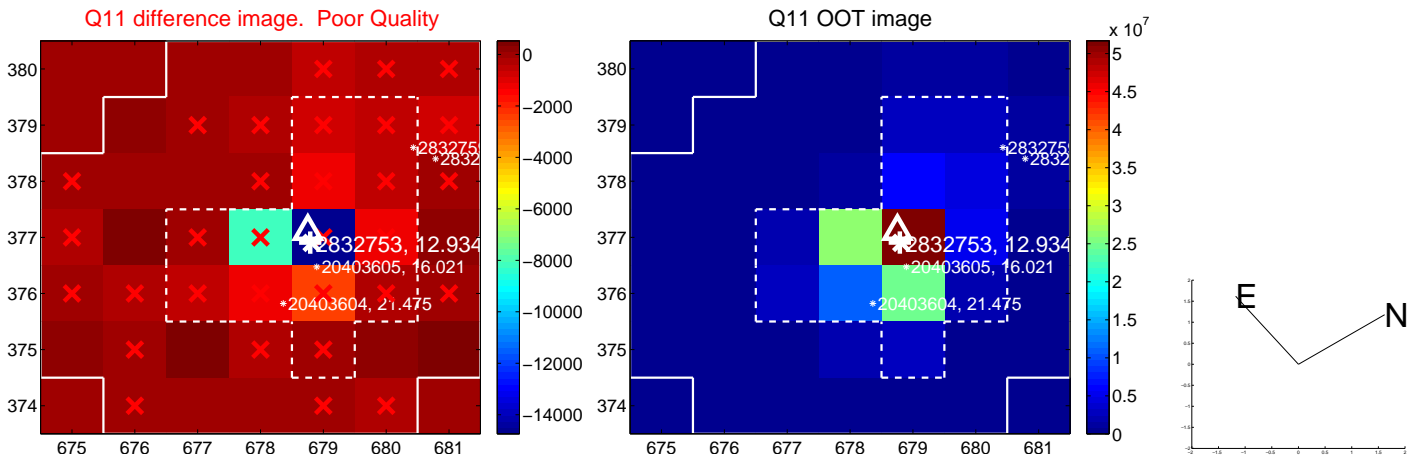
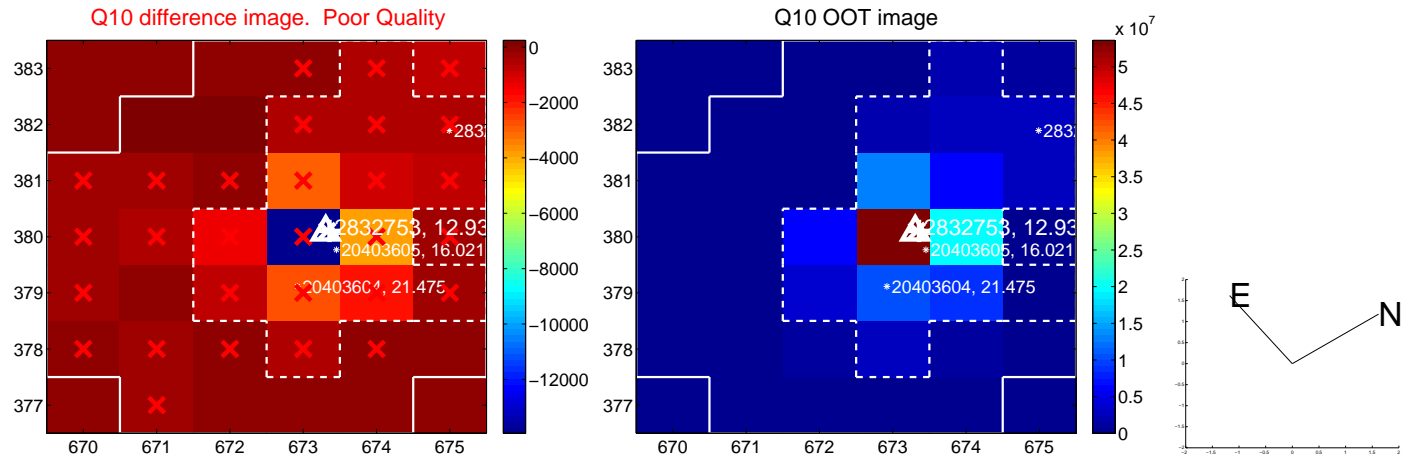
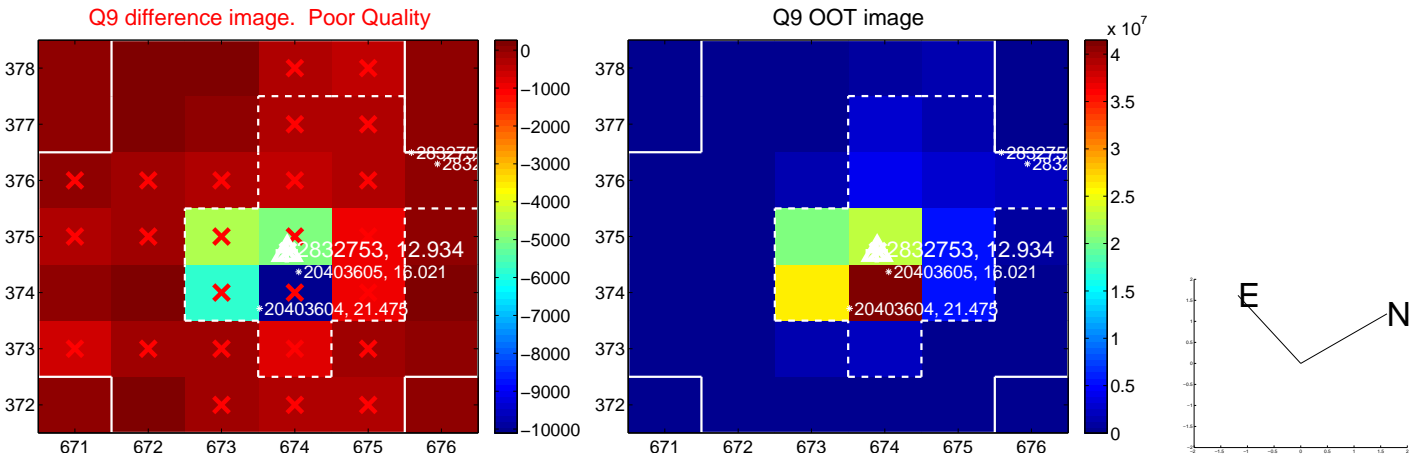
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



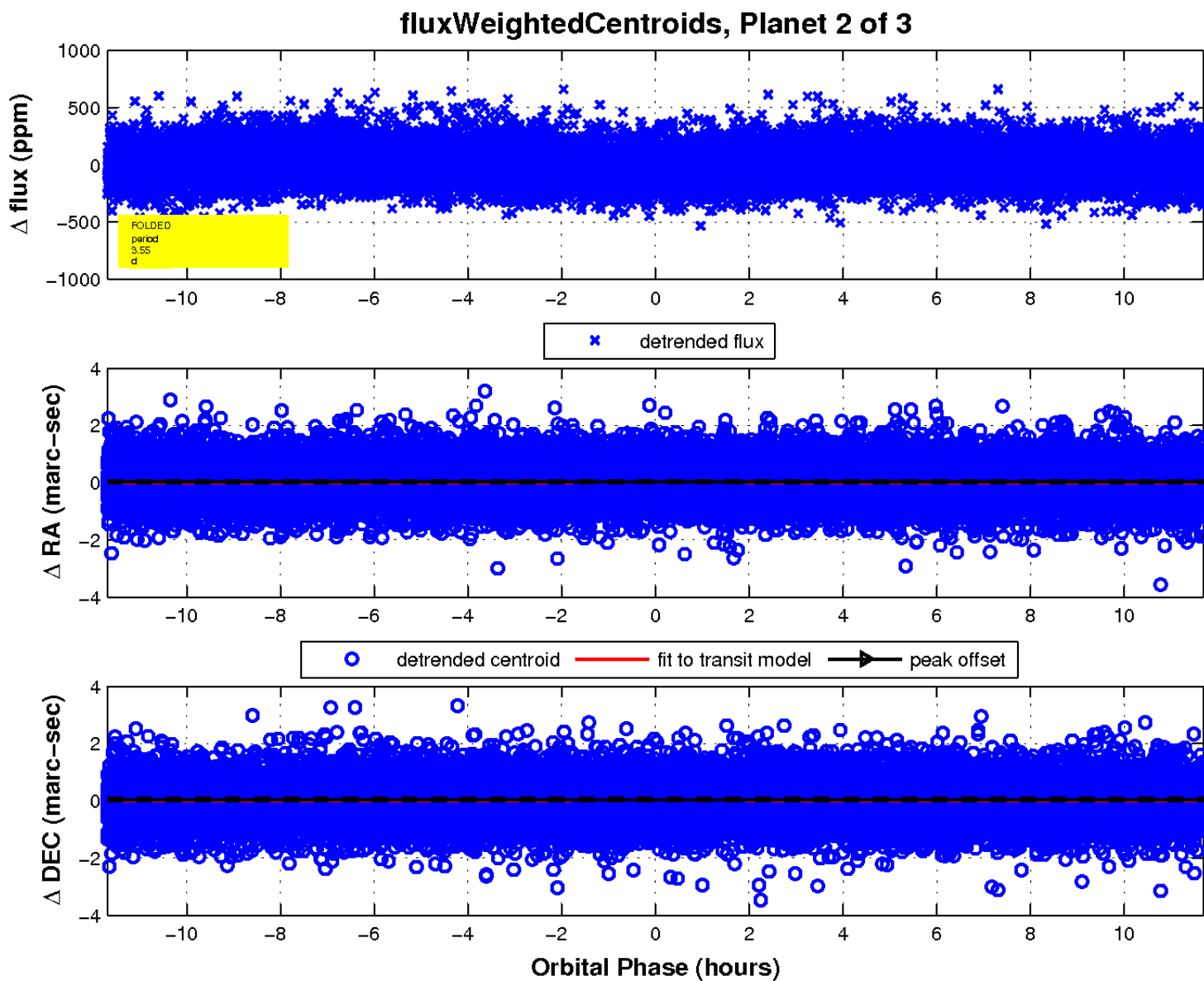
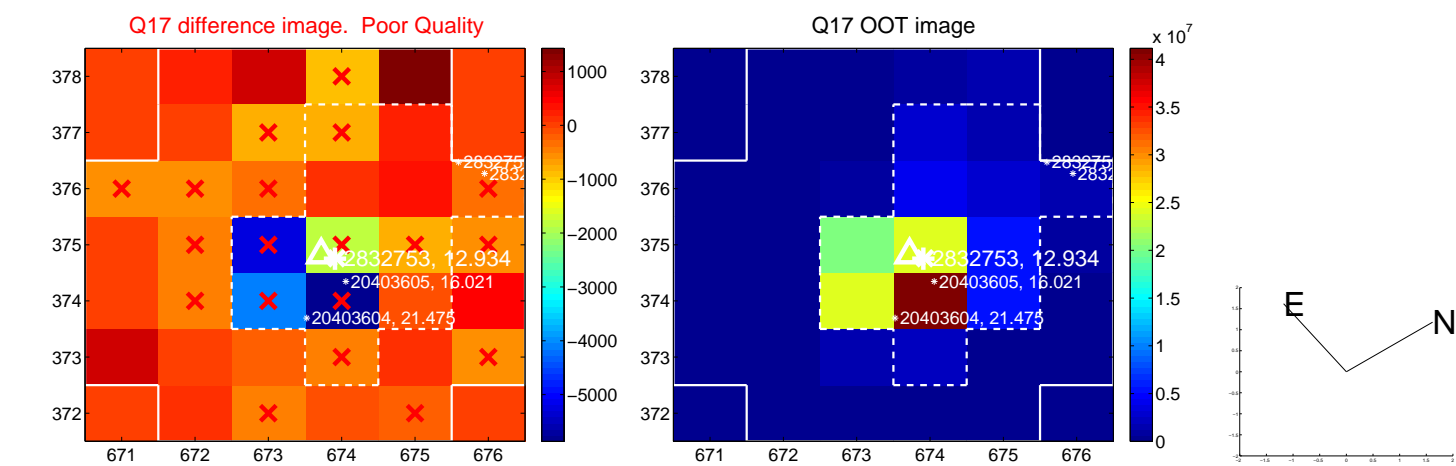
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

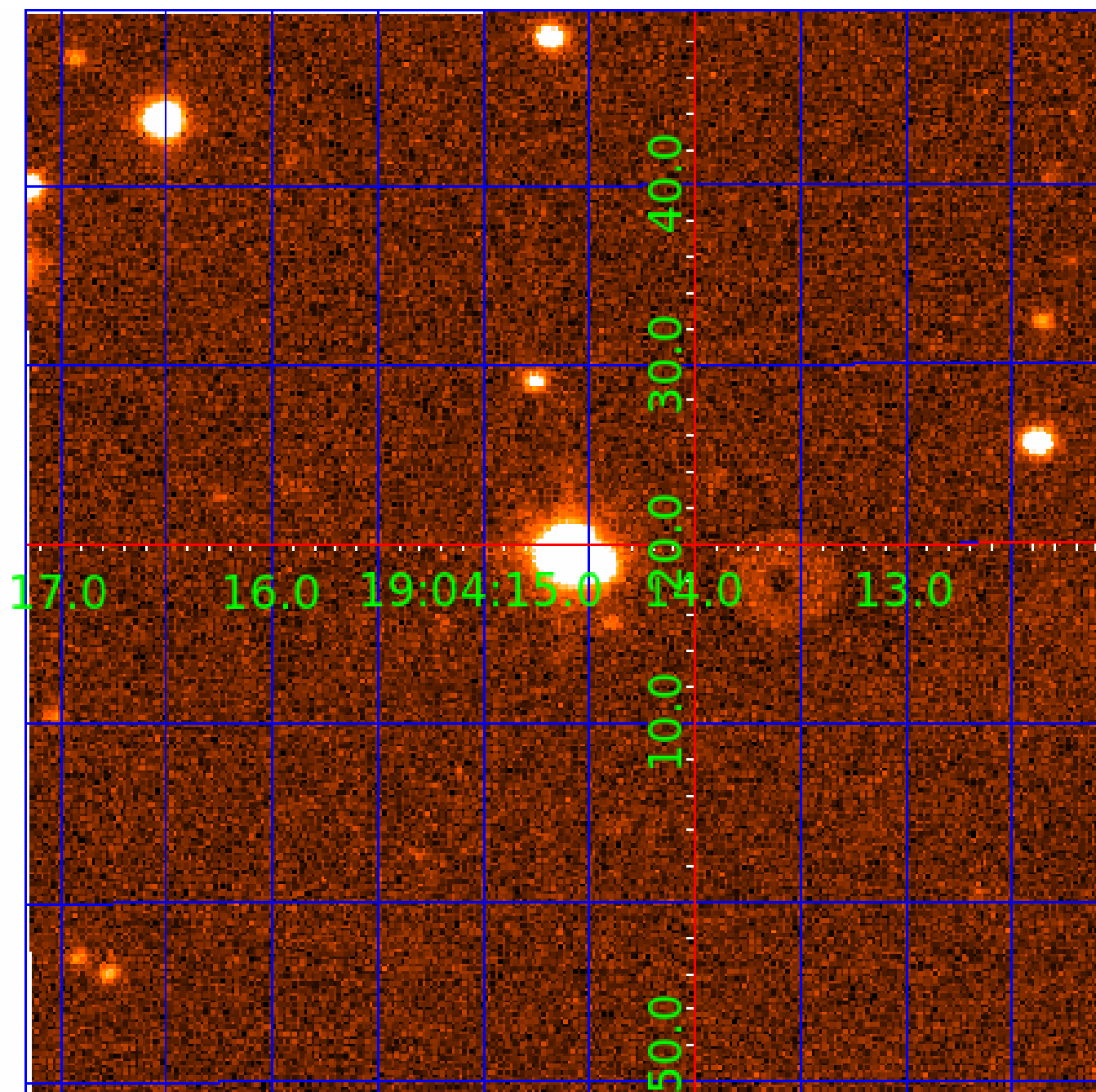


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002832753

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})
002832753-01	OBS	No	3.550778	134.975359	55.5	9.889	11.8	12.6	2.99	6795	3.10	6124.89
002832753-02	OBS	No	3.551368	132.279179	42.6	3.898	11.1	11.5	2.99	6795	2.29	6123.54
002832753-03	OBS	No	175.324633	194.621416	240.8	12.195	9.3	7.1	2.99	6795	5.02	33.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002832753-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002832753-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
002832753-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

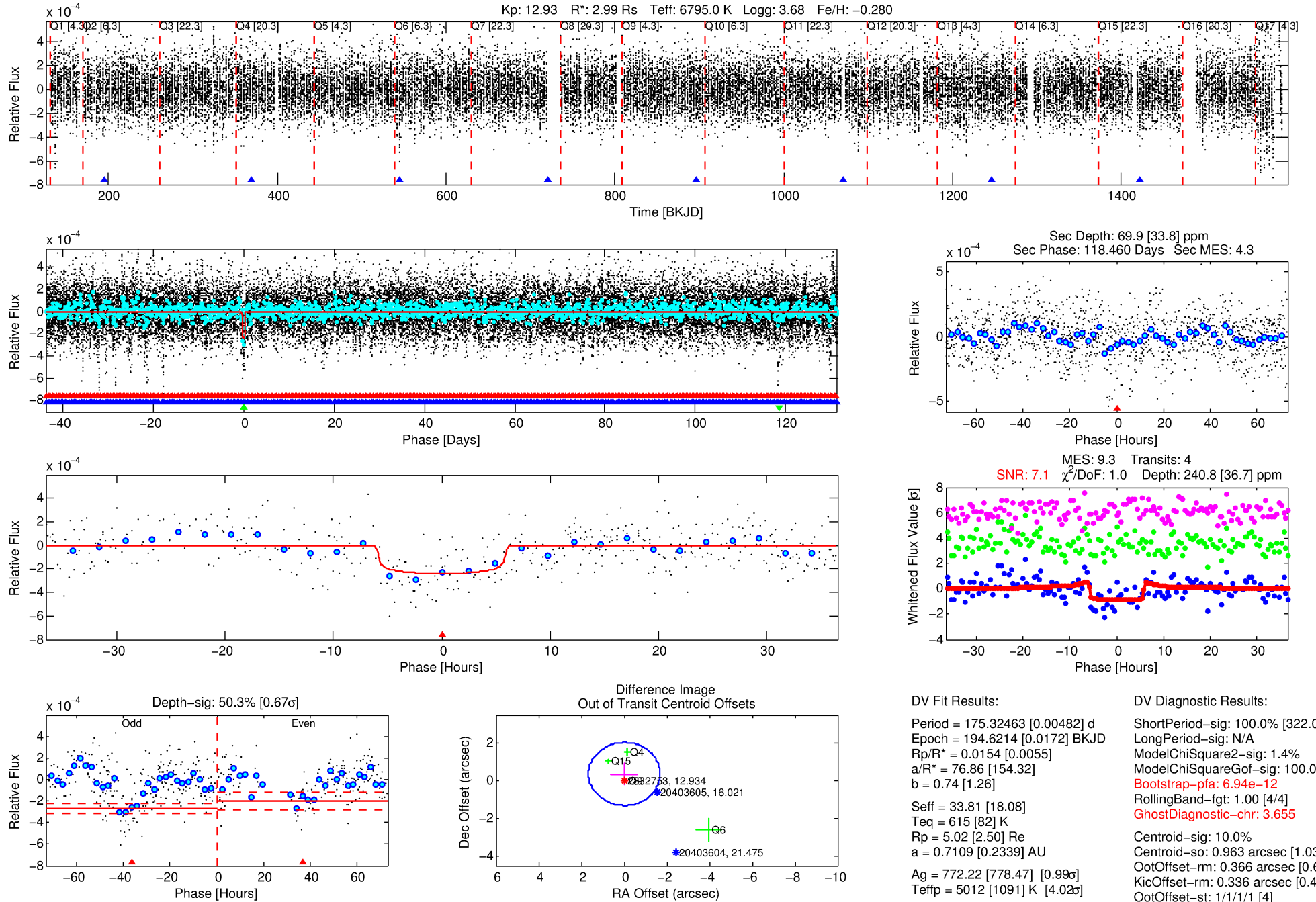
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002832753-03

No Significant Match Found

DV One-Page Summary

KIC: 2832753 Candidate: 3 of 3 Period: 175.325 d



DV Fit Results:

Period = 175.32463 [0.00482] d
Epoch = 194.6214 [0.0172] BKJD
Rp/R* = 0.0154 [0.0055]
a/R* = 76.86 [154.32]
b = 0.74 [1.26]
Seff = 33.81 [18.08]
Teq = 615 [82] K
Rp = 5.02 [2.50] Re
a = 0.7109 [0.2339] AU
Ag = 772.22 [778.47] [0.99 σ]
Teffp = 5012 [1091] K [4.02 σ]

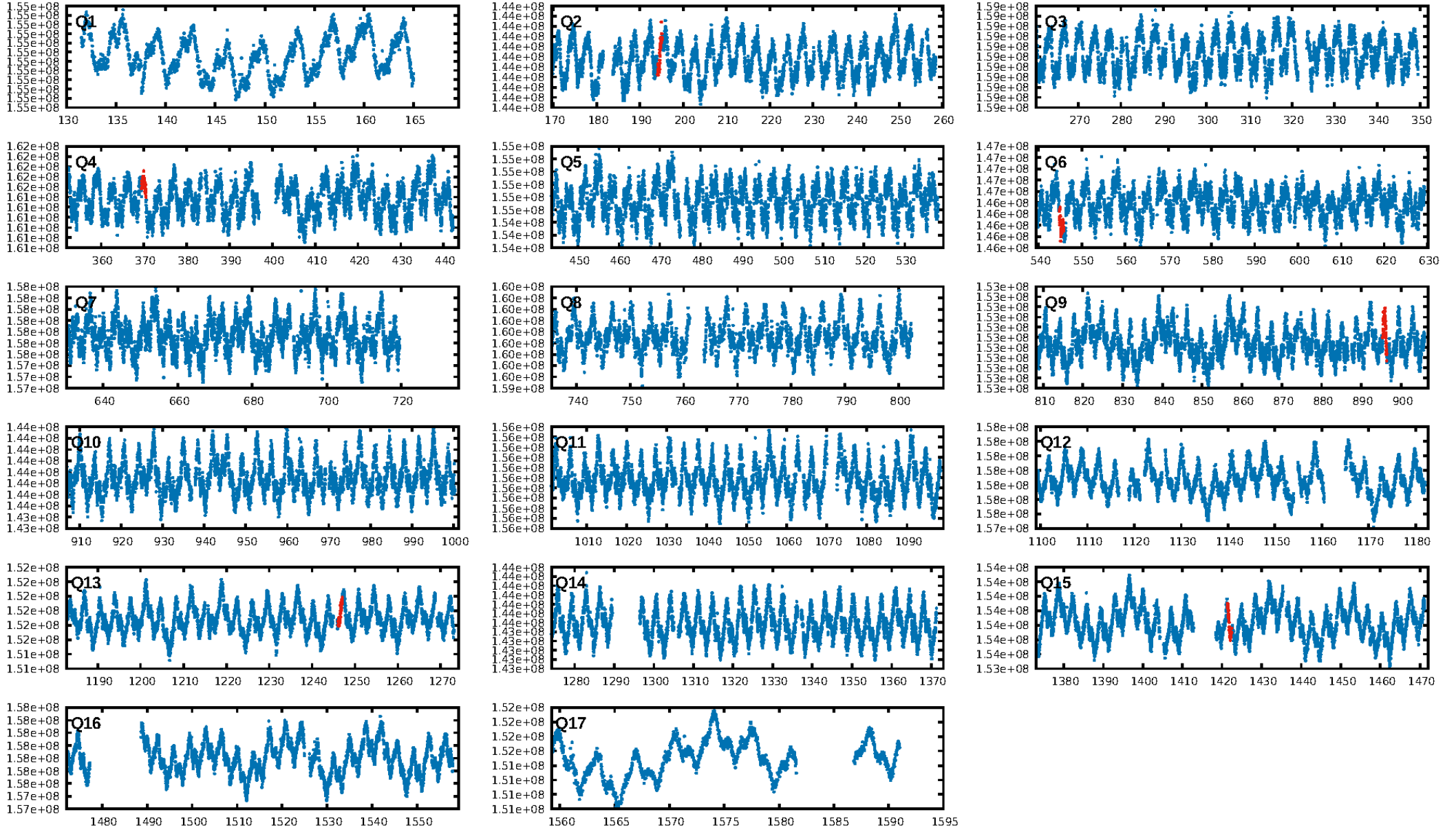
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [322.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.94e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 3.655
Centroid-sig: 10.0%
Centroid-so: 0.963 arcsec [1.03 σ]
OotOffset-rm: 0.366 arcsec [0.66 σ]
KicOffset-rm: 0.336 arcsec [0.40 σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 0.20 [1/5]

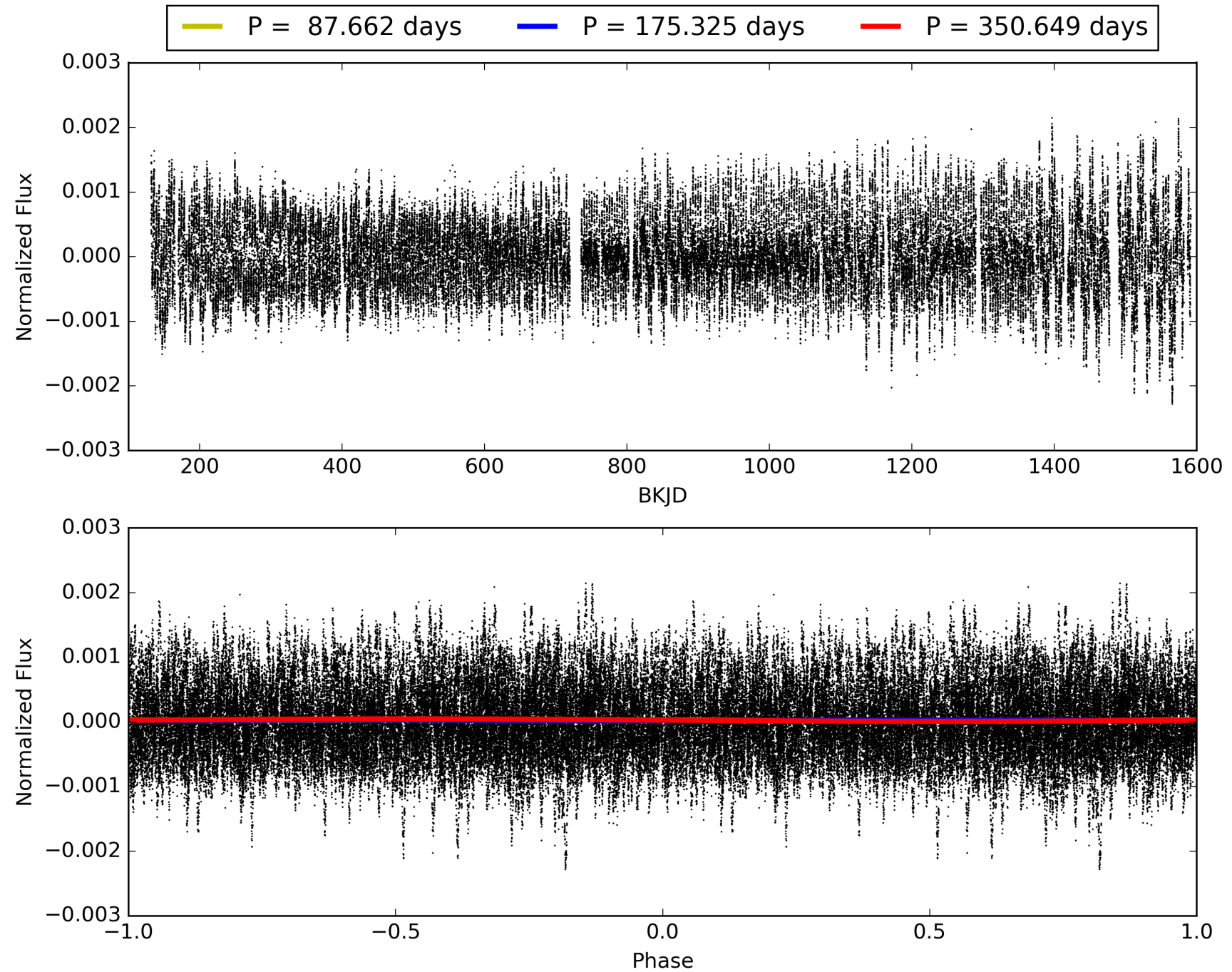
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:44:36 Z

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

TCE 002832753-03, PDC Light Curves

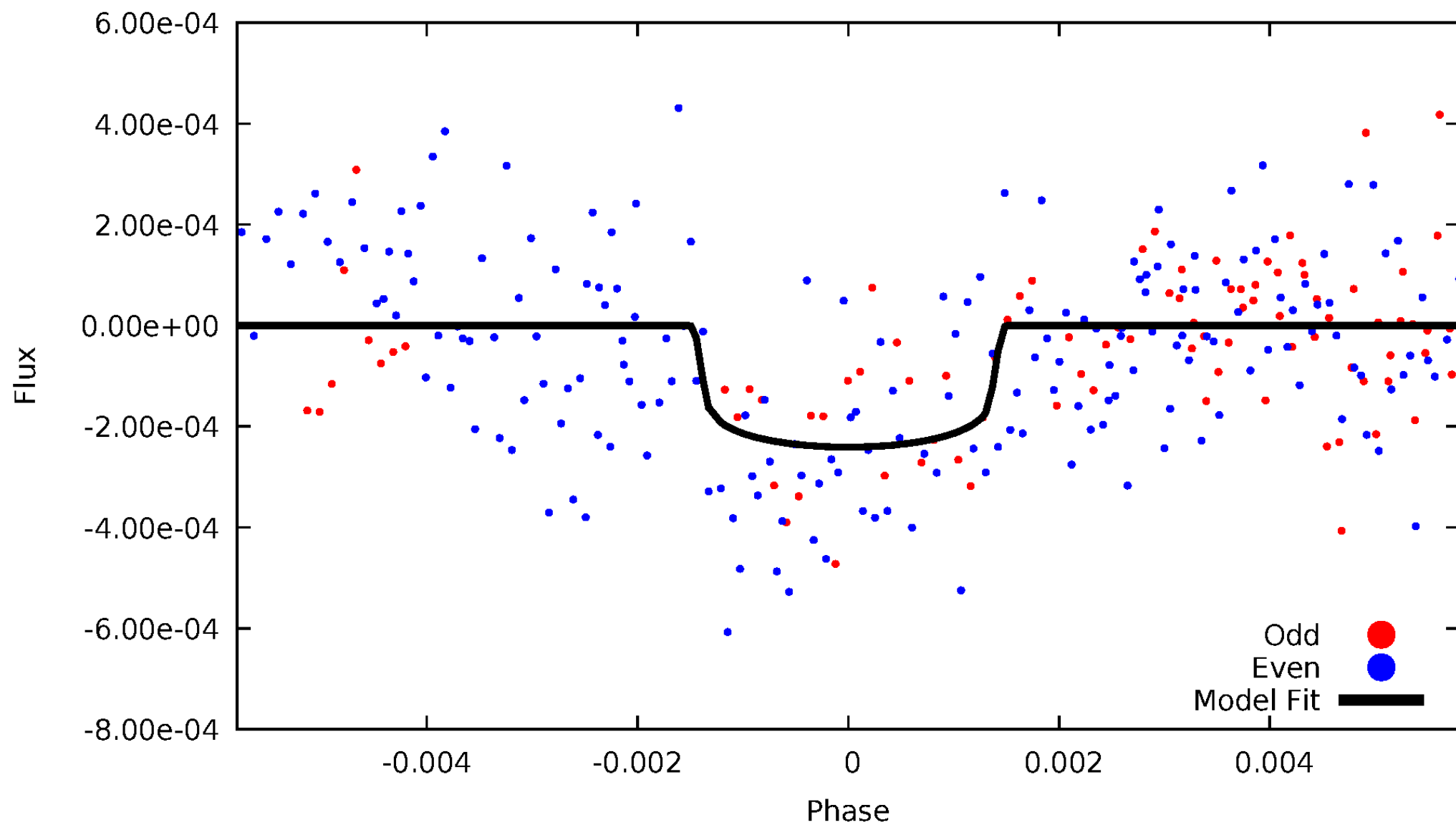


TCE 002832753-03



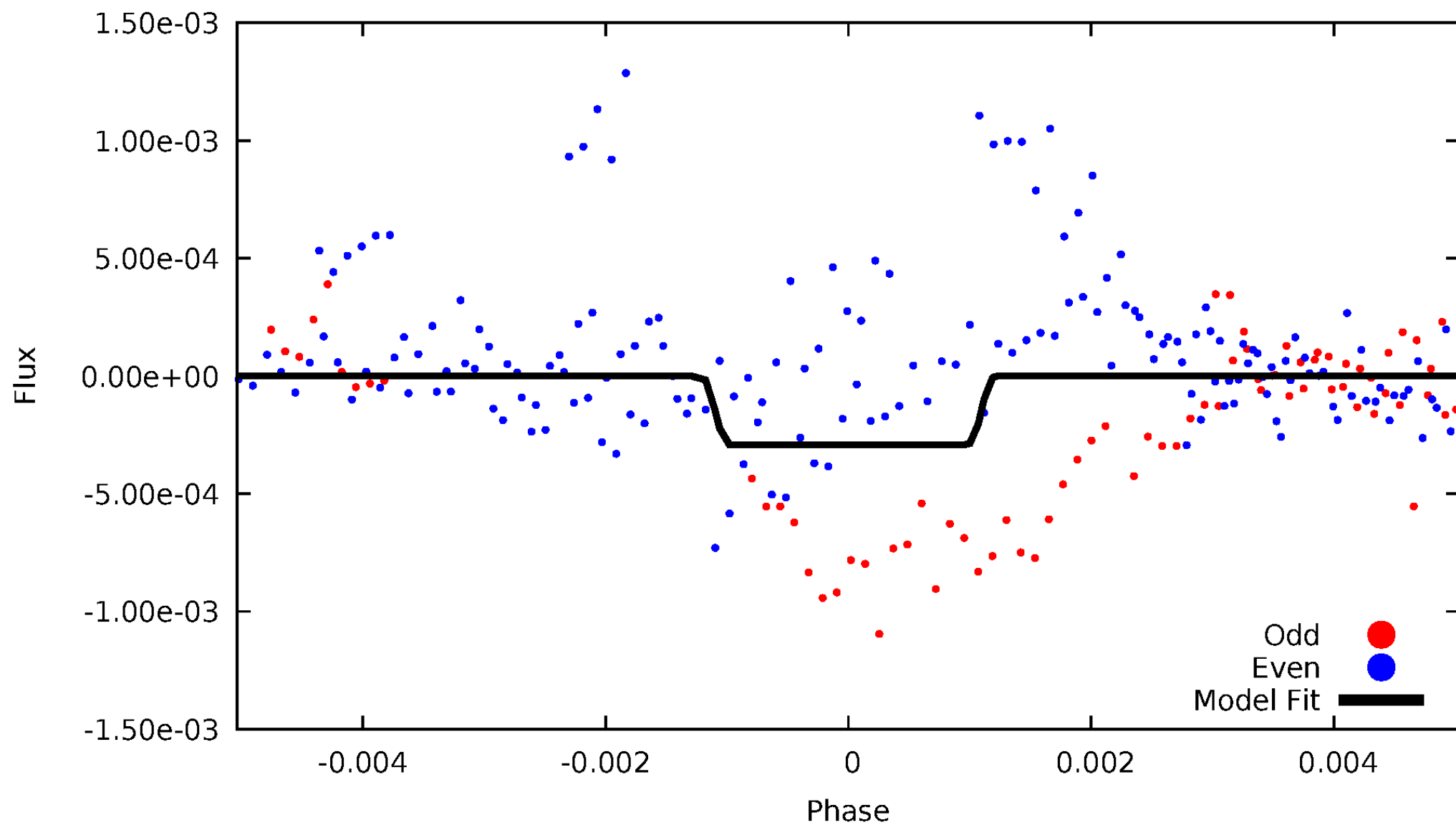
DV Odd/Even

TCE 002832753-03

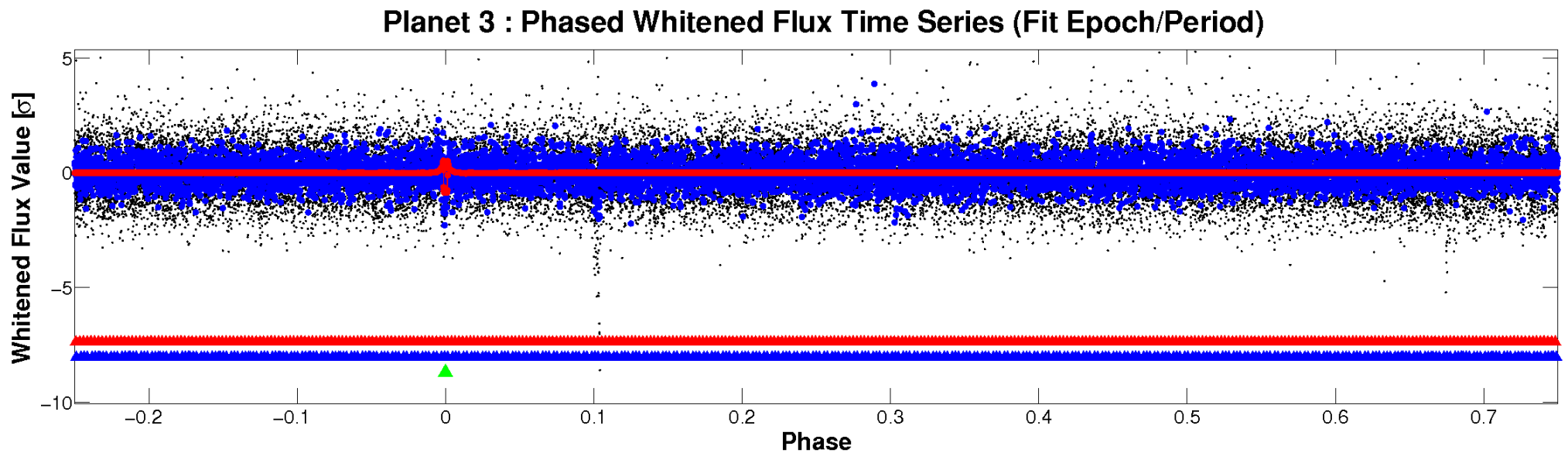
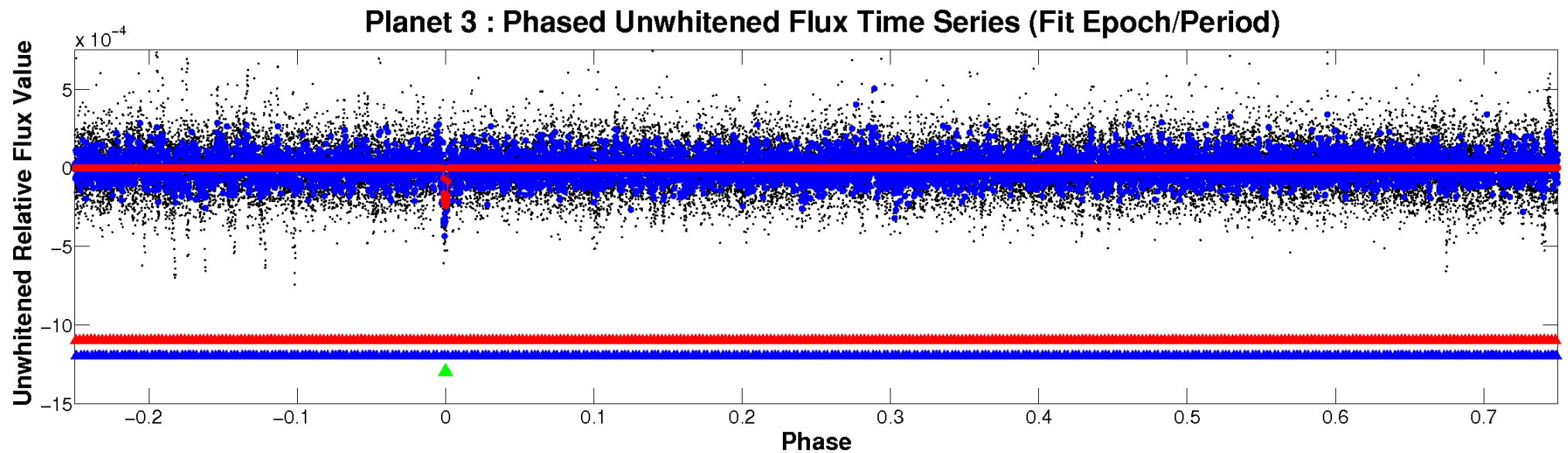


ALT Odd/Even

TCE 002832753-03

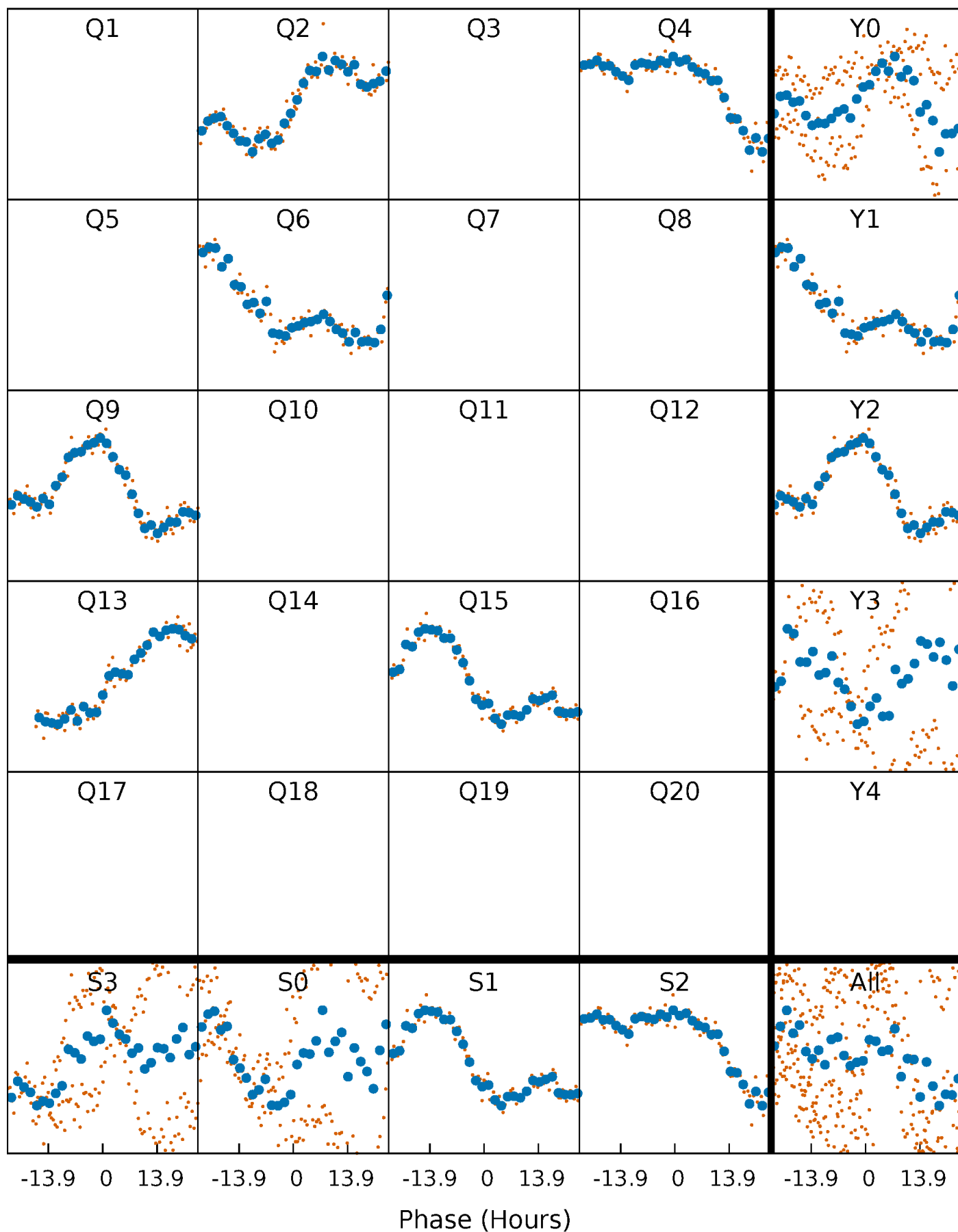


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 002832753-03 $P=175.324633$ Days $T_0=194.621416$ (BKJD)



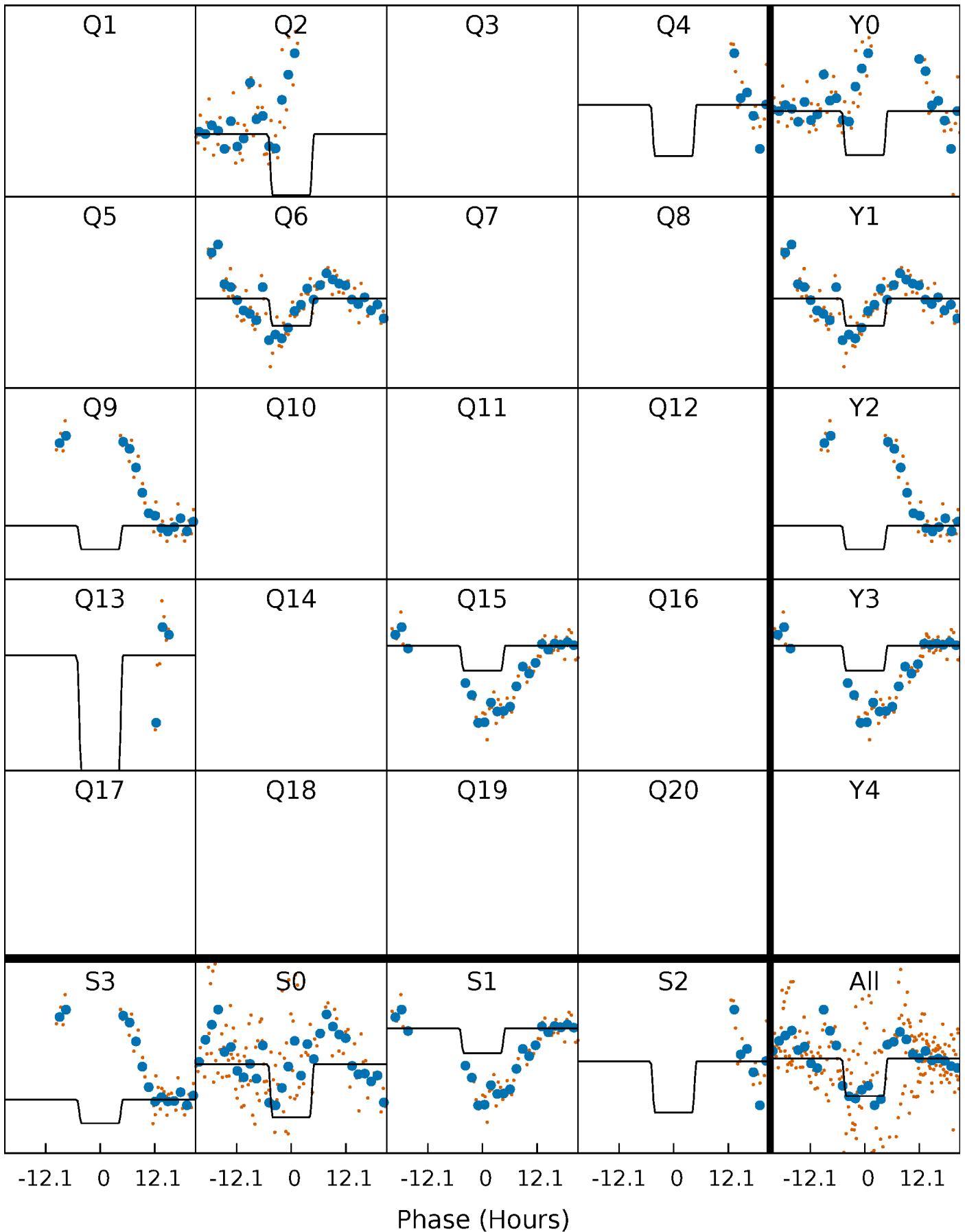
DV Quarter-Phased Transit Curves

TCE 002832753-03 P=175.324633 Days $T_0=194.621416$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

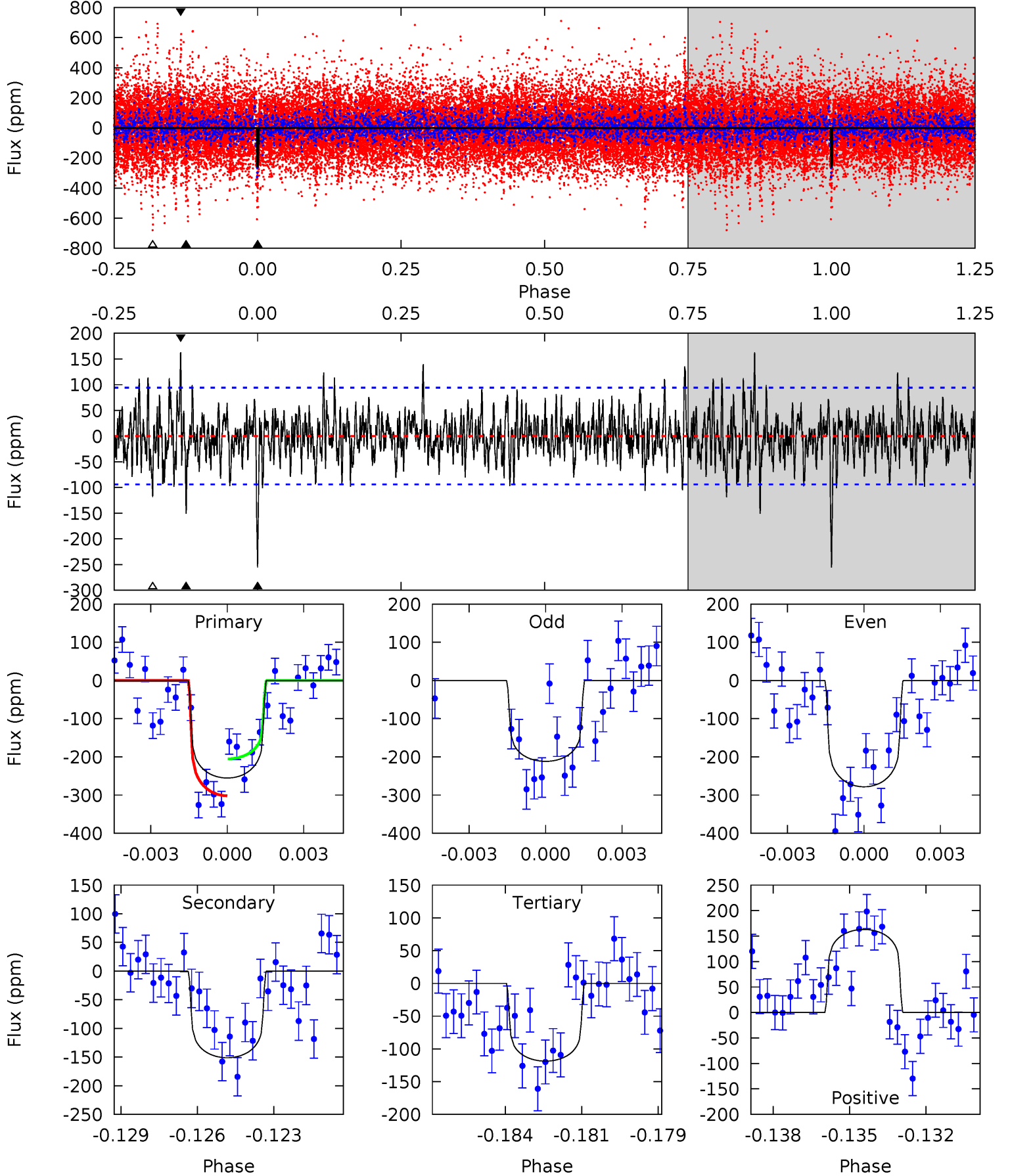
TCE 002832753-03 P=175.313134 Days $T_0=194.635983$ (BKJD)



DV Model-Shift Uniqueness Test

002832753-03, P = 175.324633 Days, E = 19.296783 Days

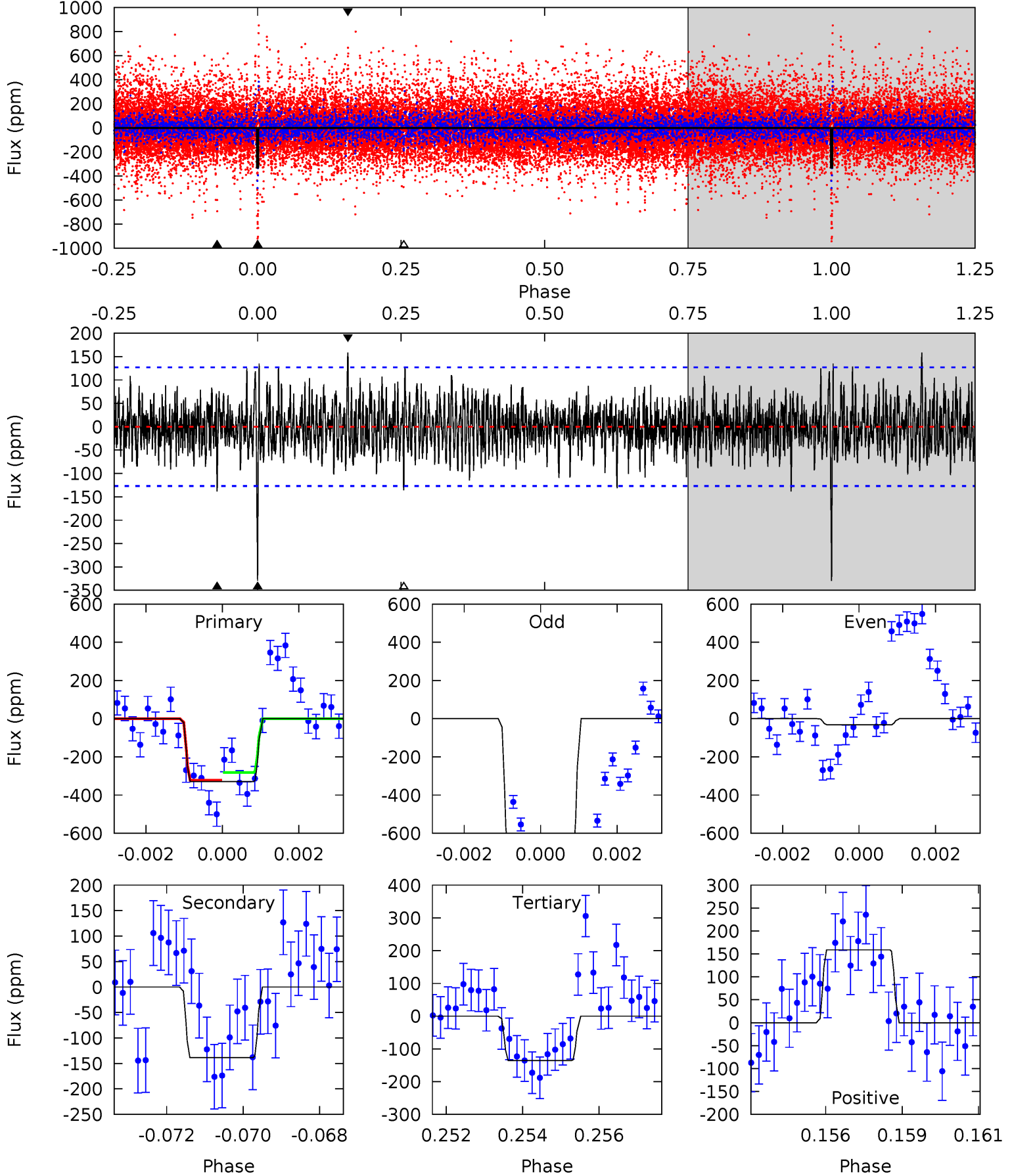
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	8.45	6.64	9.11	5.26	2.98	2.09	7.64	5.16	1.82	-0.66	1.78	0.88	0.39	2.71



Alt Model-Shift Uniqueness Test

002832753-03, P = 175.313134 Days, E = 19.322849 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	5.77	5.67	6.62	5.30	3.04	1.63	8.09	7.13	0.11	-0.85	15.1	-13.9	0.32	0.84



Stellar Parameters For KIC 002832753

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6795^{+183}_{-203}	$3.679^{+0.304}_{-0.076}$	$-0.280^{+0.300}_{-0.250}$	$2.991^{+0.446}_{-1.041}$	$1.560^{+0.245}_{-0.299}$	$0.082^{+0.166}_{-0.020}$
	+3%/-3%	+8%/-2%	+107%/-89%	+15%/-35%	+16%/-19%	+202%/-24%
Source	PHO1	FLK73	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 002832753-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-151 ± 18	$4.70^{+1.90}_{-1.75}$	837^{+53}_{-76}	6015^{+1429}_{-773}	1889^{+2719}_{-905}
Alt.	-138 ± 24	$5.13^{+2.03}_{-1.86}$	839^{+47}_{-64}	5657^{+1460}_{-728}	1446^{+2356}_{-681}

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

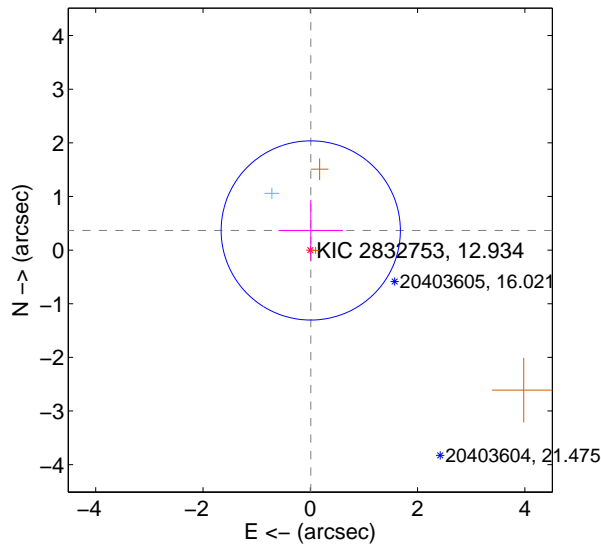
Supplemental centroid analysis for 002832753-03. Kepler magnitude: 12.93. Transit SNR 7.07

There are 1 quarters with good PRF difference image offsets

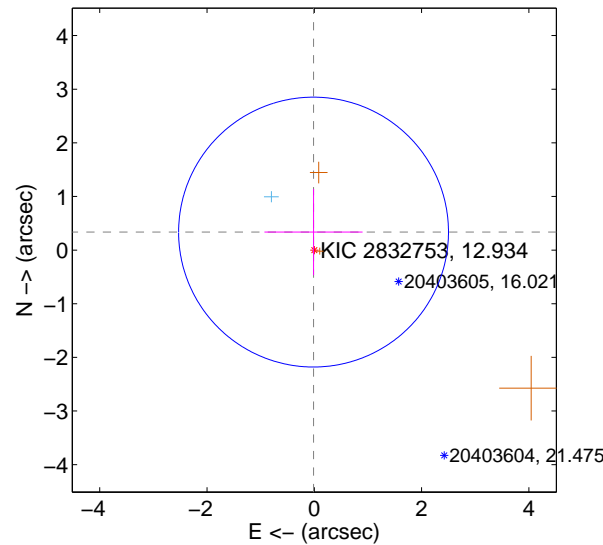
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.366 ± 0.557	0.66	-0.009 ± 0.600	0.366 ± 0.569
PRF-fit source offset from KIC position	0.336 ± 0.839	0.40	0.014 ± 0.915	0.336 ± 0.803
photometric centroid source offset	0.96 ± 0.93	1.03	0.71 ± 0.96	0.65 ± 0.90

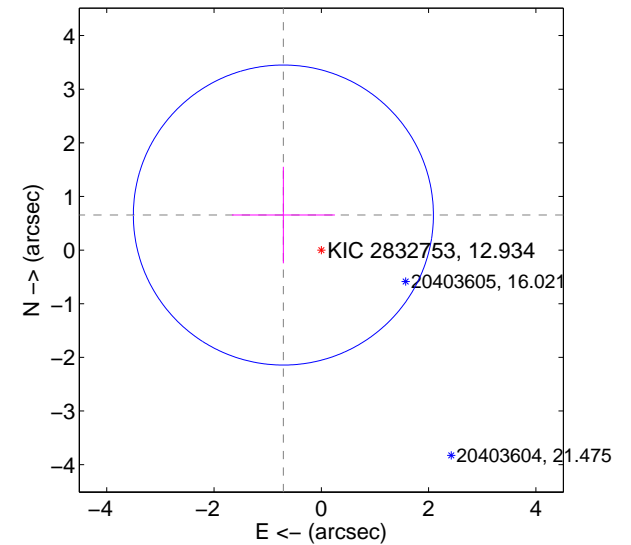
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



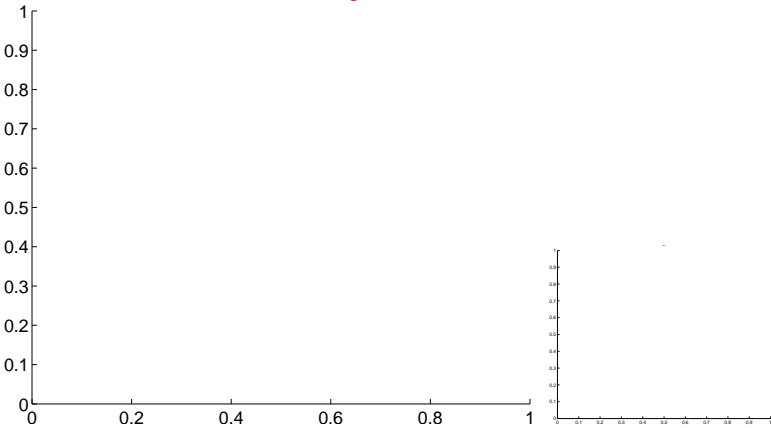
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

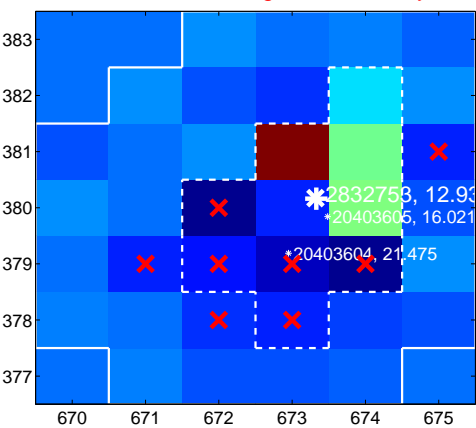
Q1 no difference image



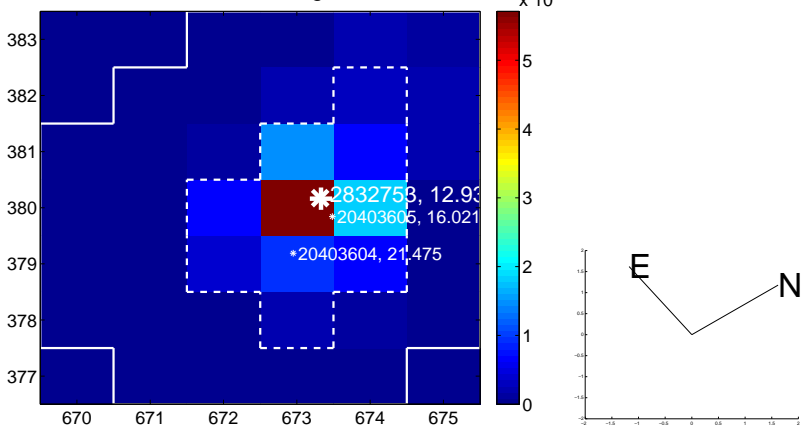
Q1 no OOT image



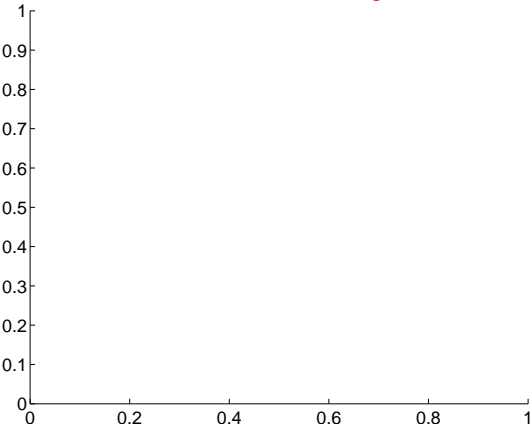
Q2 difference image. Poor Quality



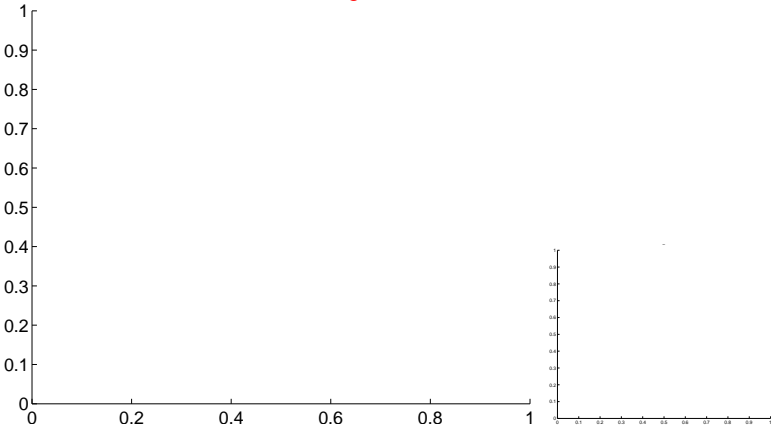
Q2 OOT image



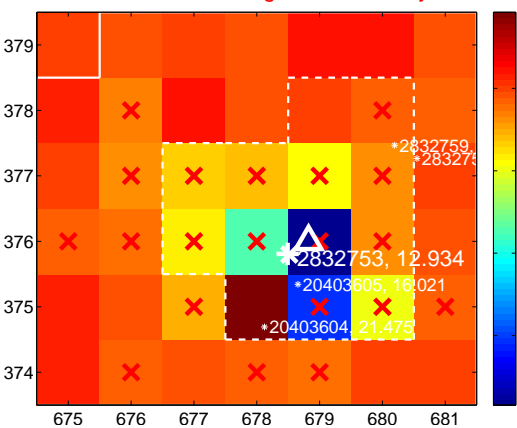
Q3 no difference image



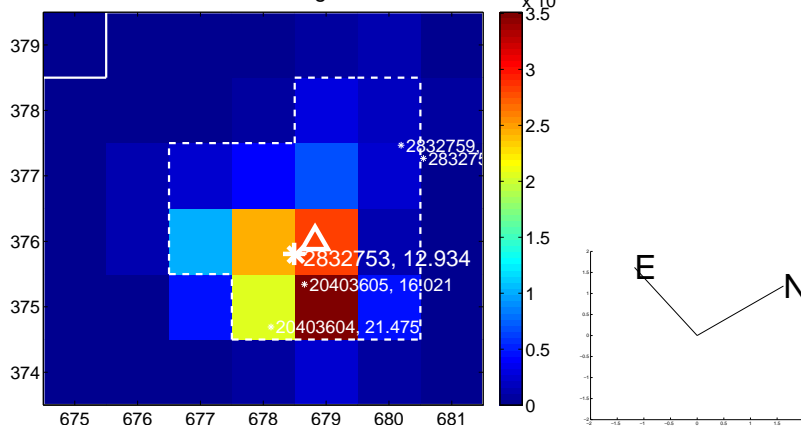
Q3 no OOT image



Q4 difference image. Poor Quality



Q4 OOT image



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

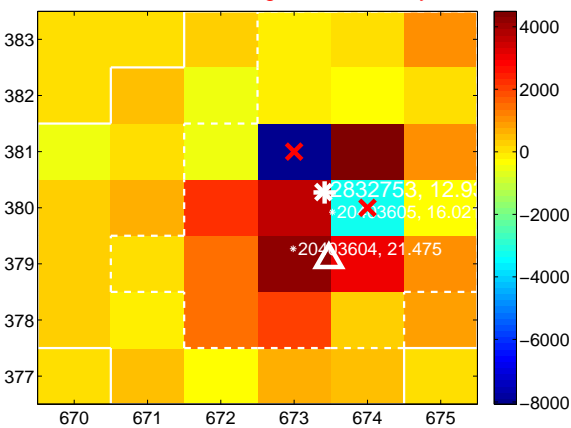
Q5 no difference image



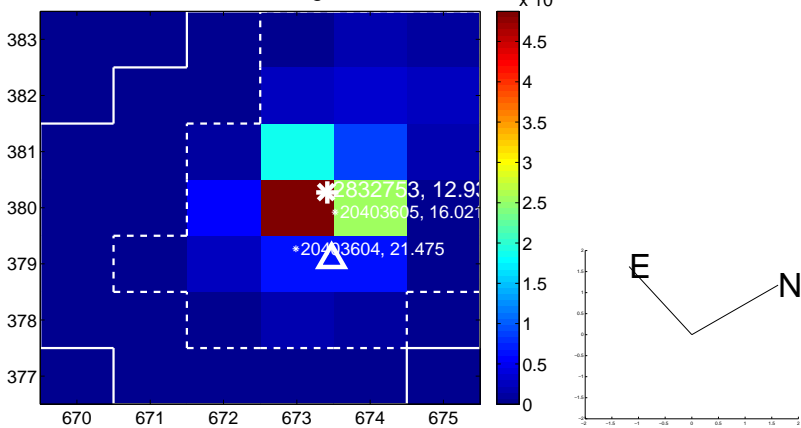
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



Q7 no difference image



Q7 no OOT image



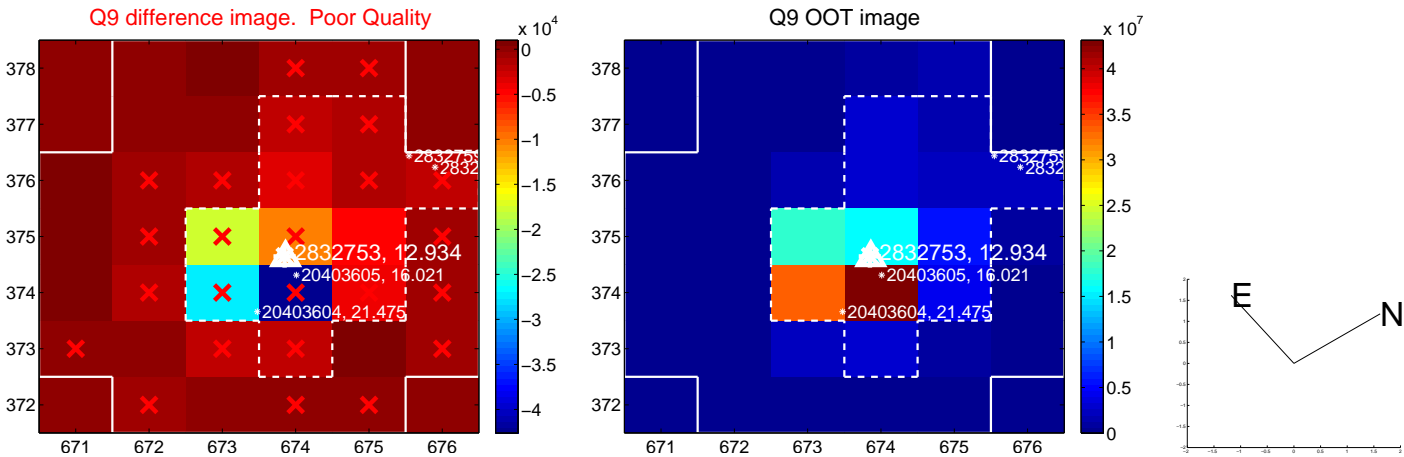
Q8 no difference image



Q8 no OOT image



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

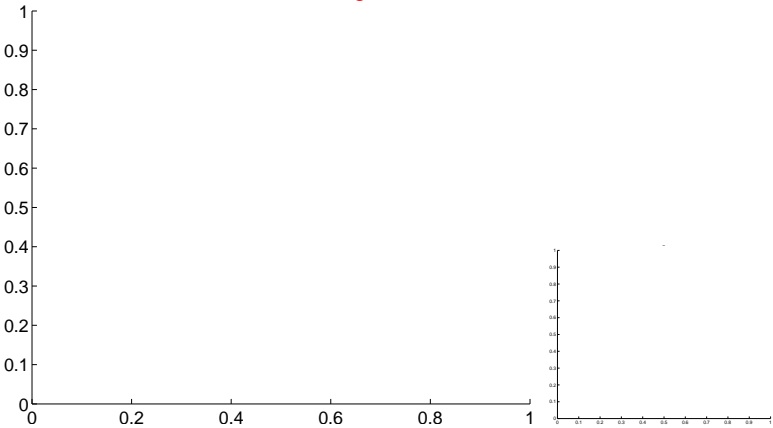


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q13 no difference image



Q13 no OOT image



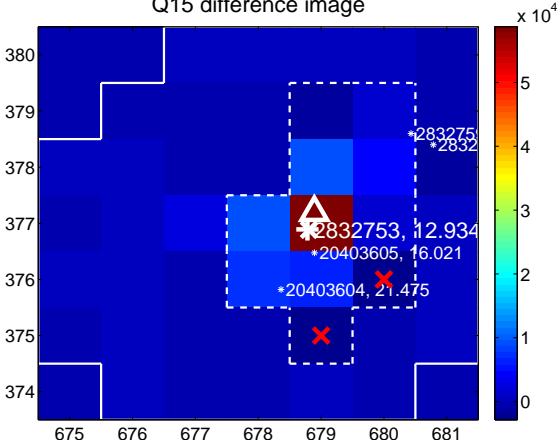
Q14 no difference image



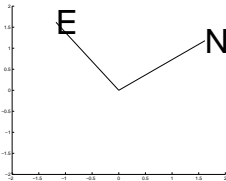
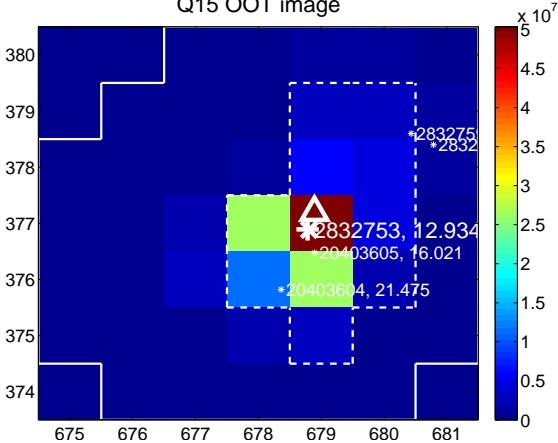
Q14 no OOT image



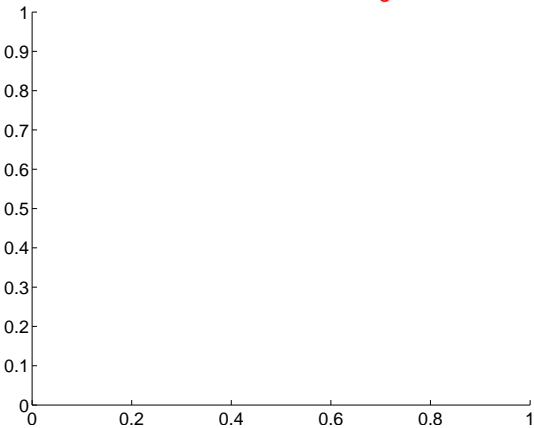
Q15 difference image



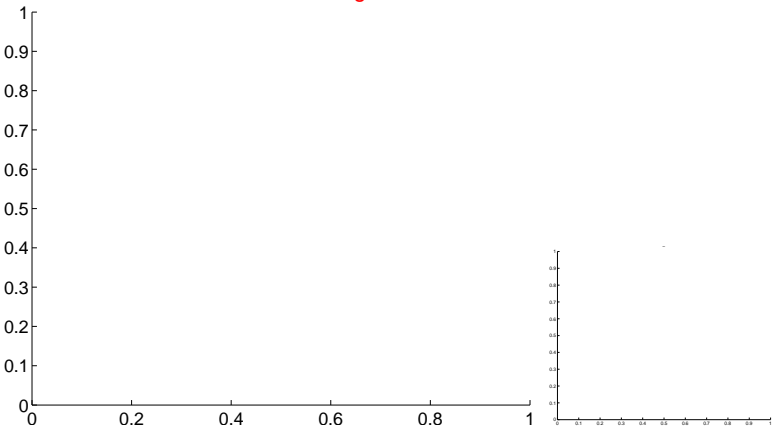
Q15 OOT image



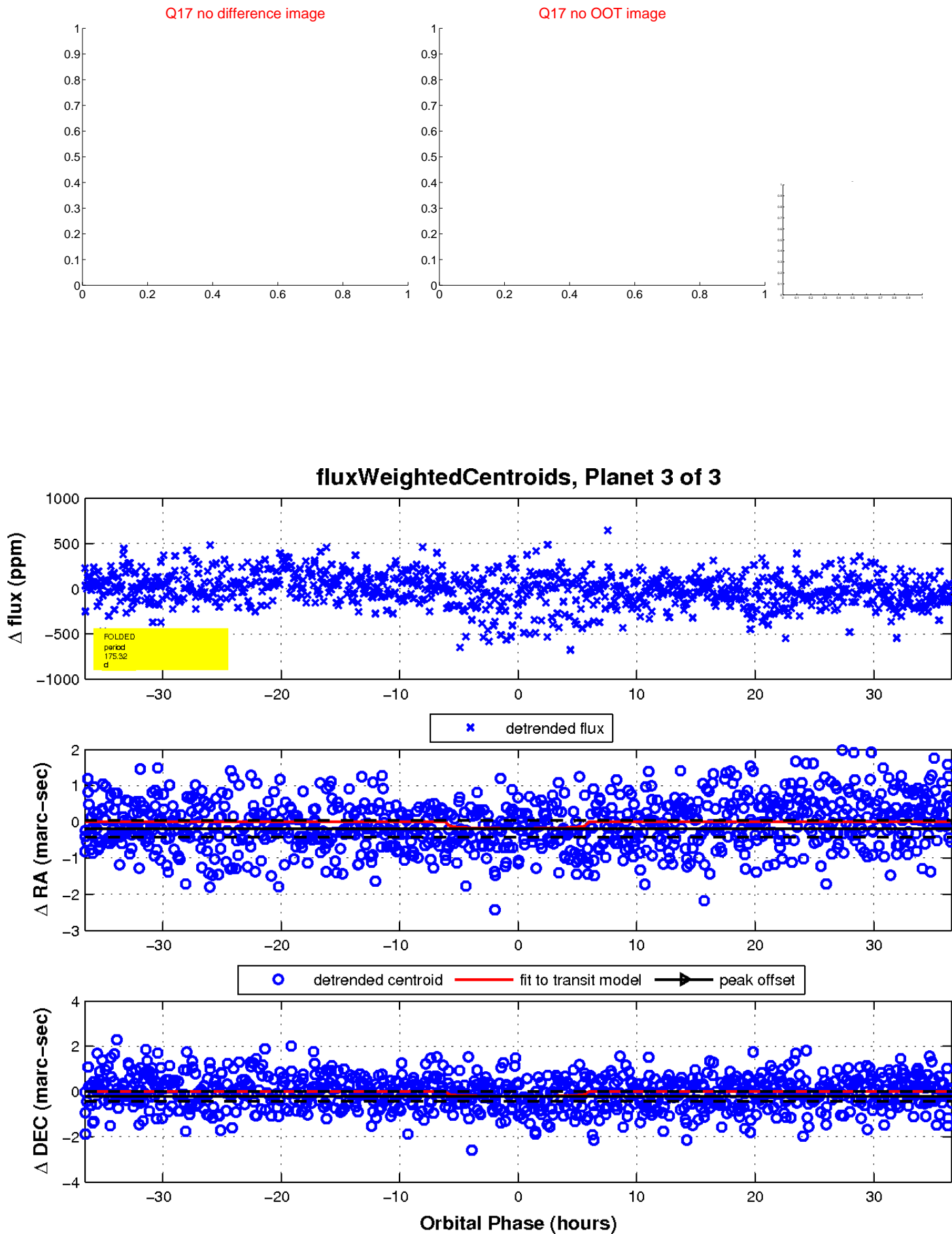
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

