

KIC 007832829

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})
007832829-01	OBS	No	2.686943	133.455588	147.8	6.000	10.8	-1.0	2.24	6785	2.75	5005.55
007832829-02	OBS	No	461.661555	178.340831	163.7	12.023	7.4	4.4	2.24	6785	3.12	5.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007832829-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
007832829-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

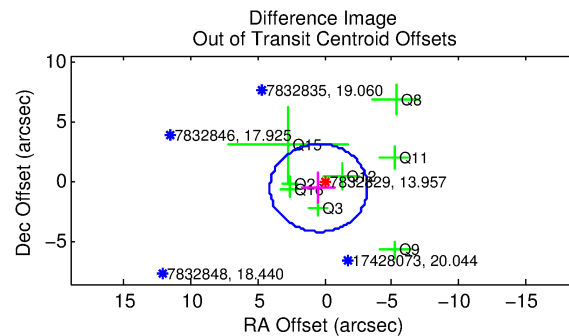
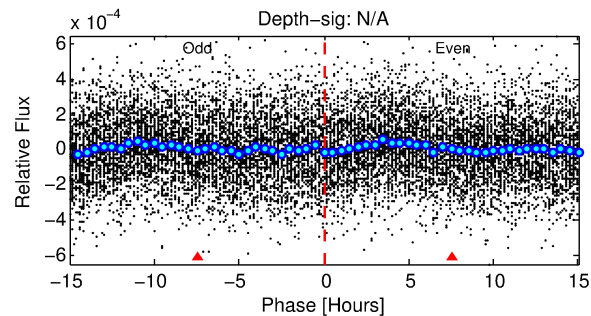
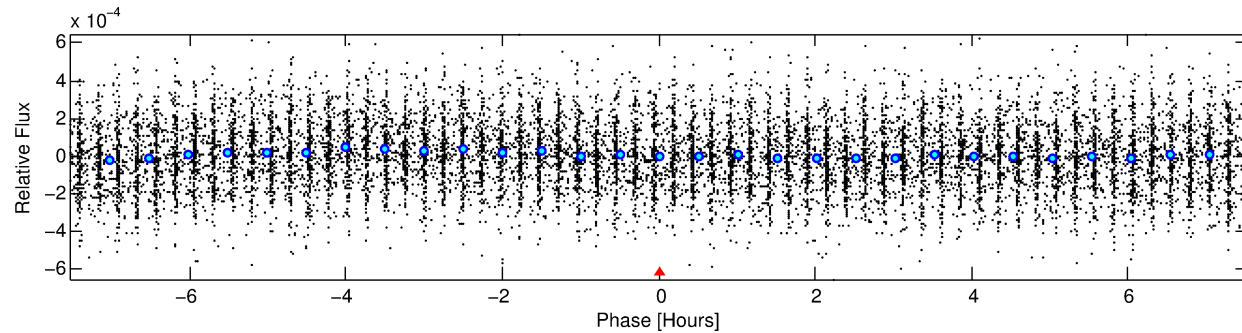
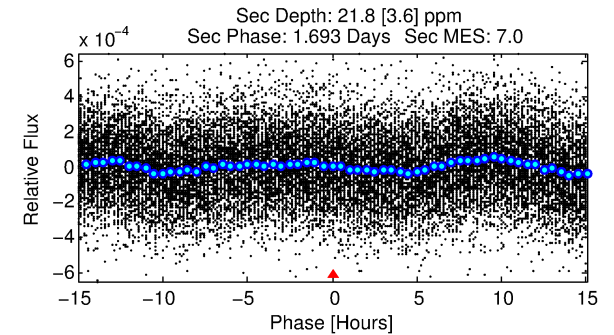
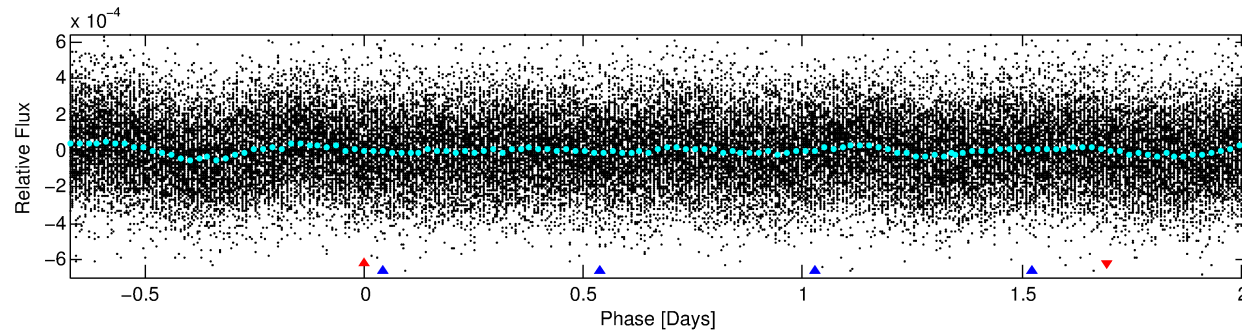
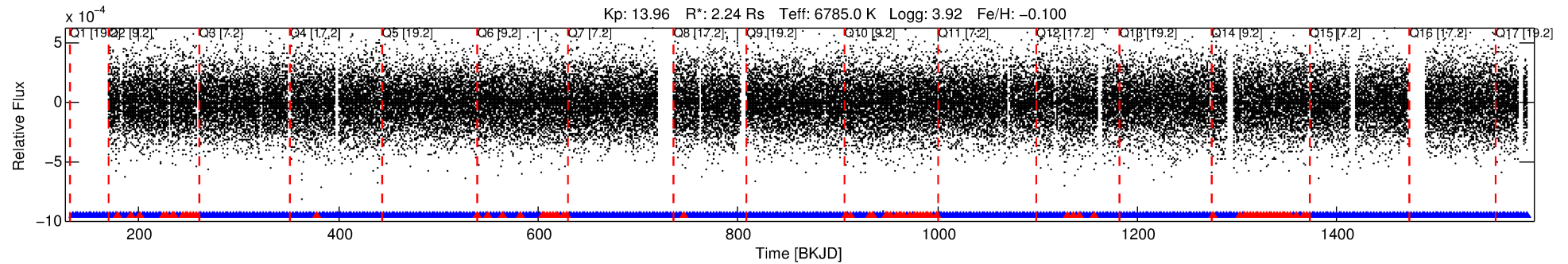
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007832829-01

No Significant Match Found

DV One-Page Summary

KIC: 7832829 Candidate: 1 of 2 Period: 2.687 d



TPS TCE Results:

Period = 2.68694 d
Epoch = 133.4556 BKJD

DV fit results are unavailable

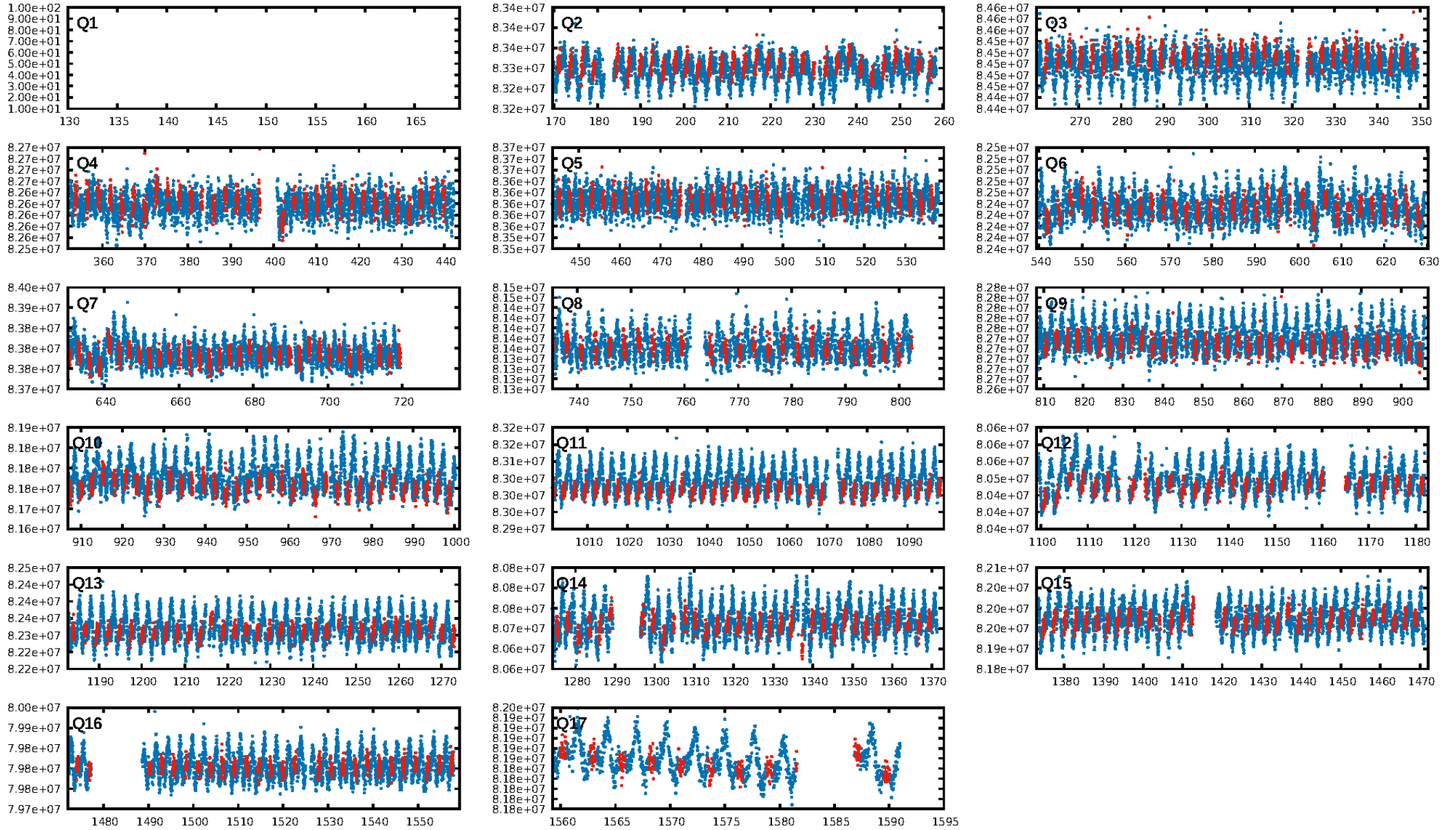
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [819.76 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.70e-22
RollingBand-fgt: 0.84 [398/473]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.671 arcsec [0.55 σ]
KicOffset-rm: 0.659 arcsec [0.54 σ]
OotOffset-st: 1/3/3/1 [8]
KicOffset-st: 1/3/3/1 [8]
DiffImageQuality-fgm: 0.12 [1/8]
DiffImageOverlap-fno: 1.00 [16/16]

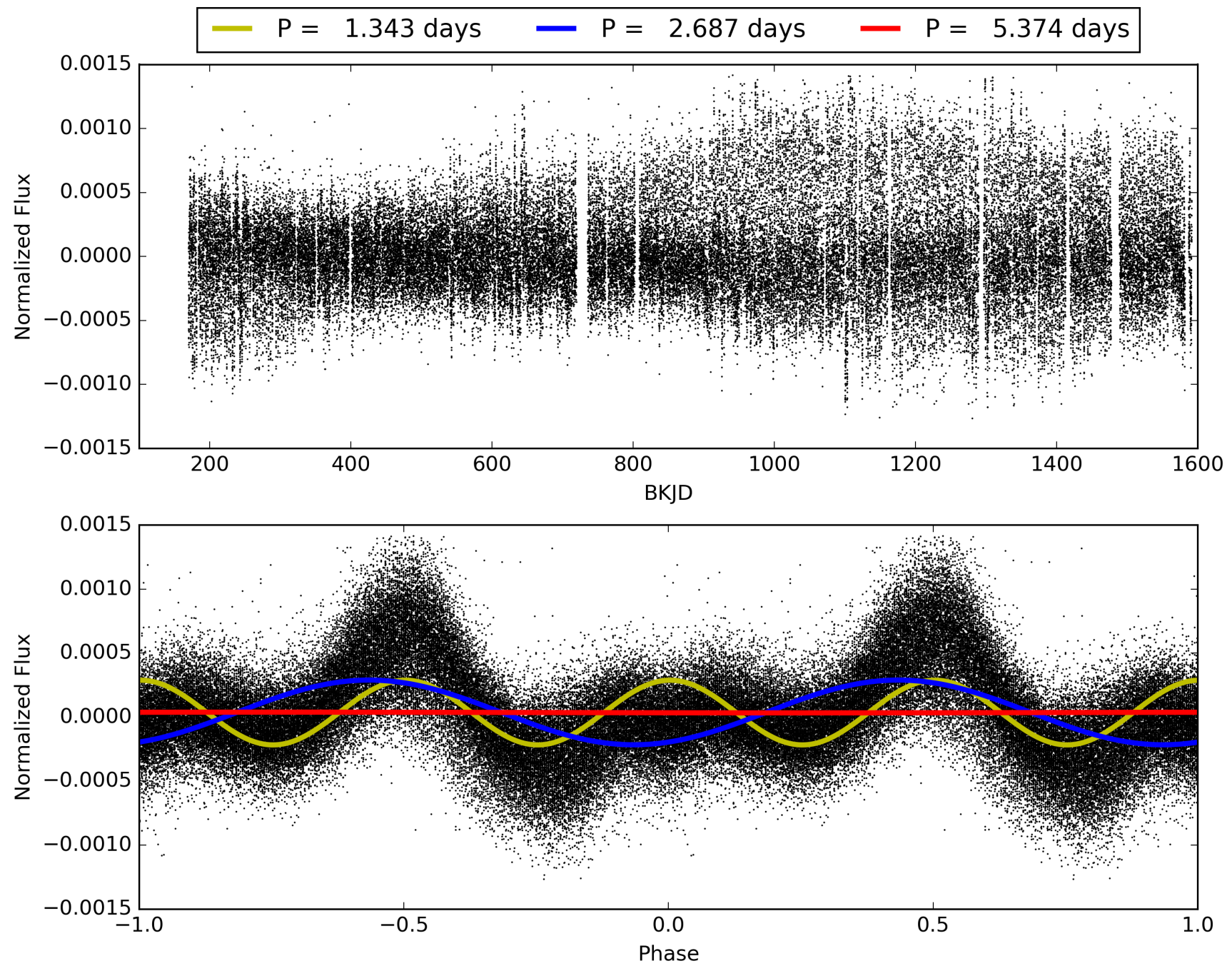
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:15:32 Z

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

TCE 007832829-01, PDC Light Curves

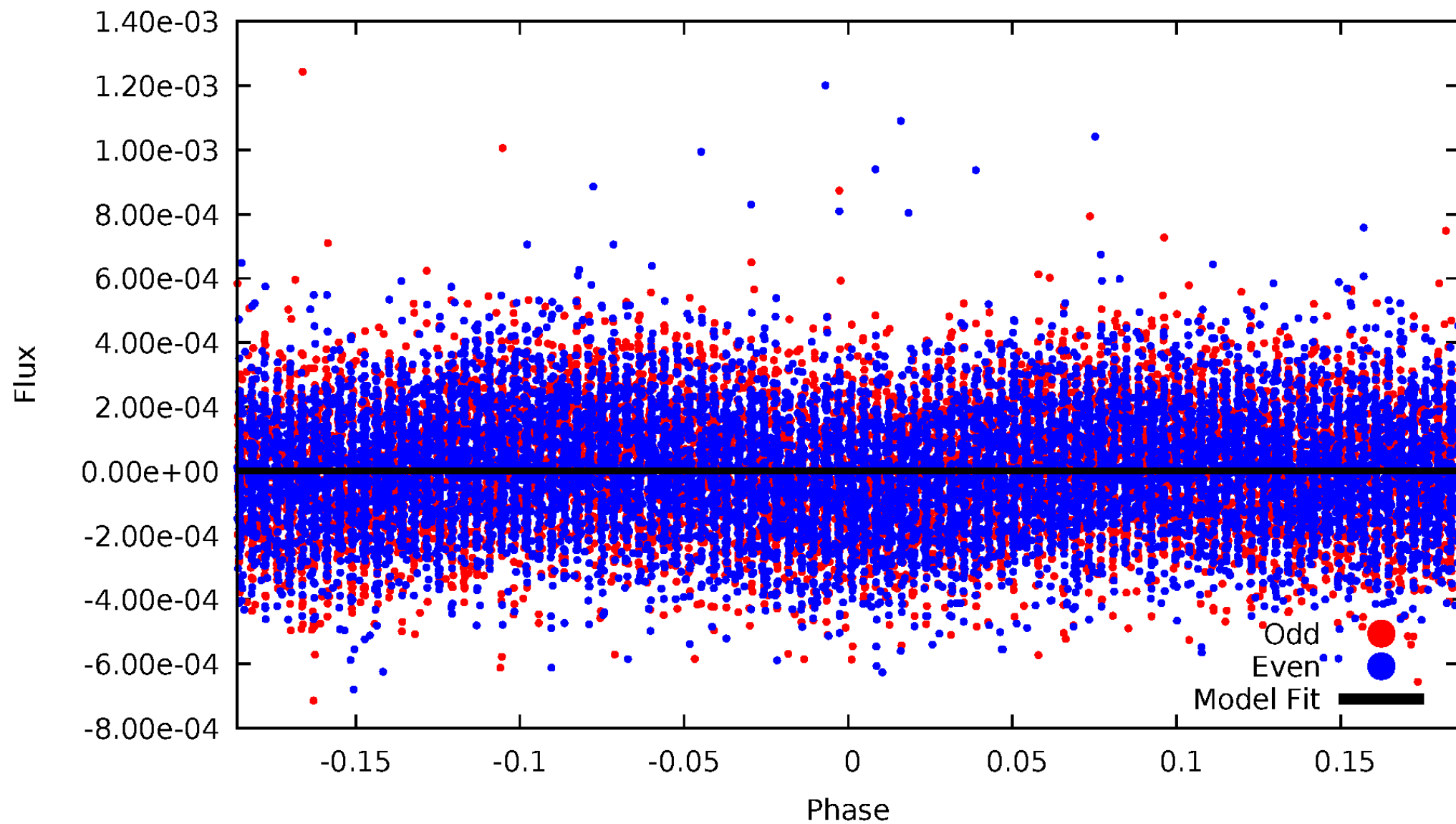


TCE 007832829-01



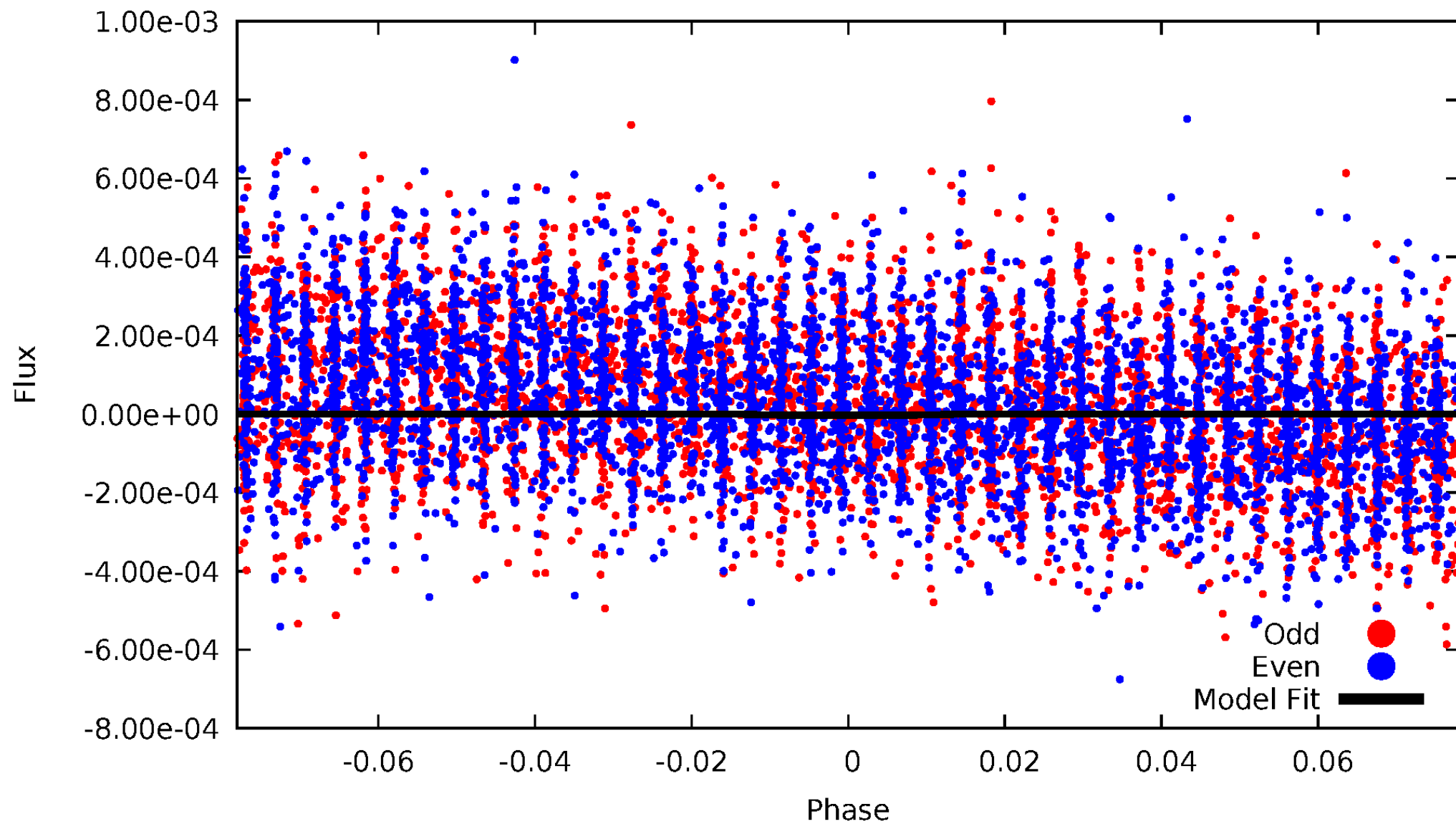
DV Odd/Even

TCE 007832829-01

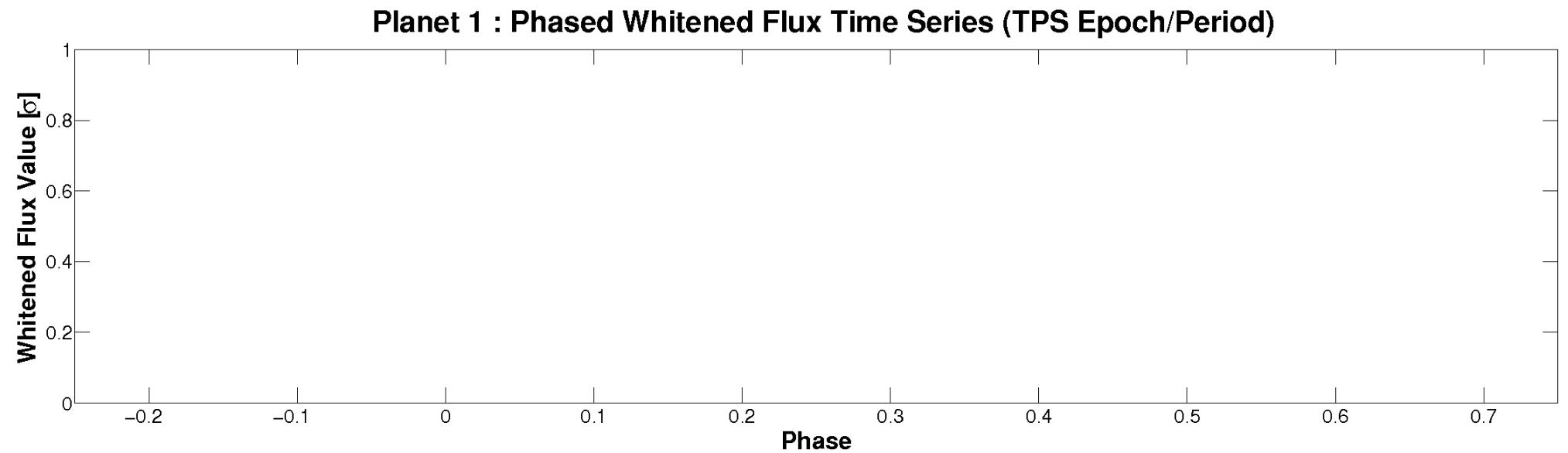
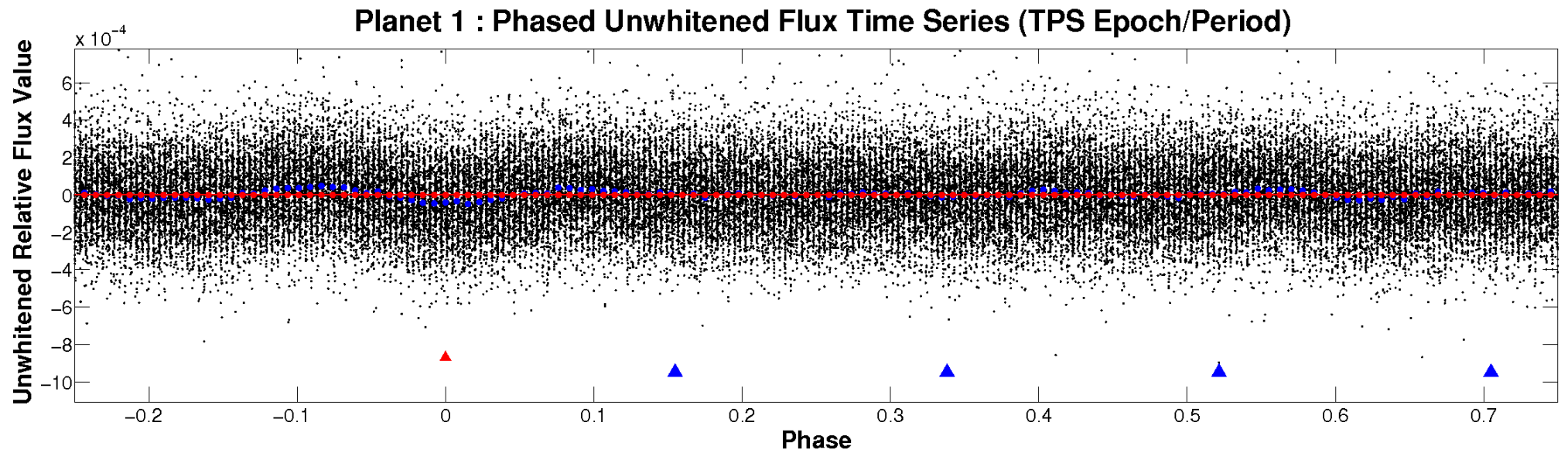


ALT Odd/Even

TCE 007832829-01

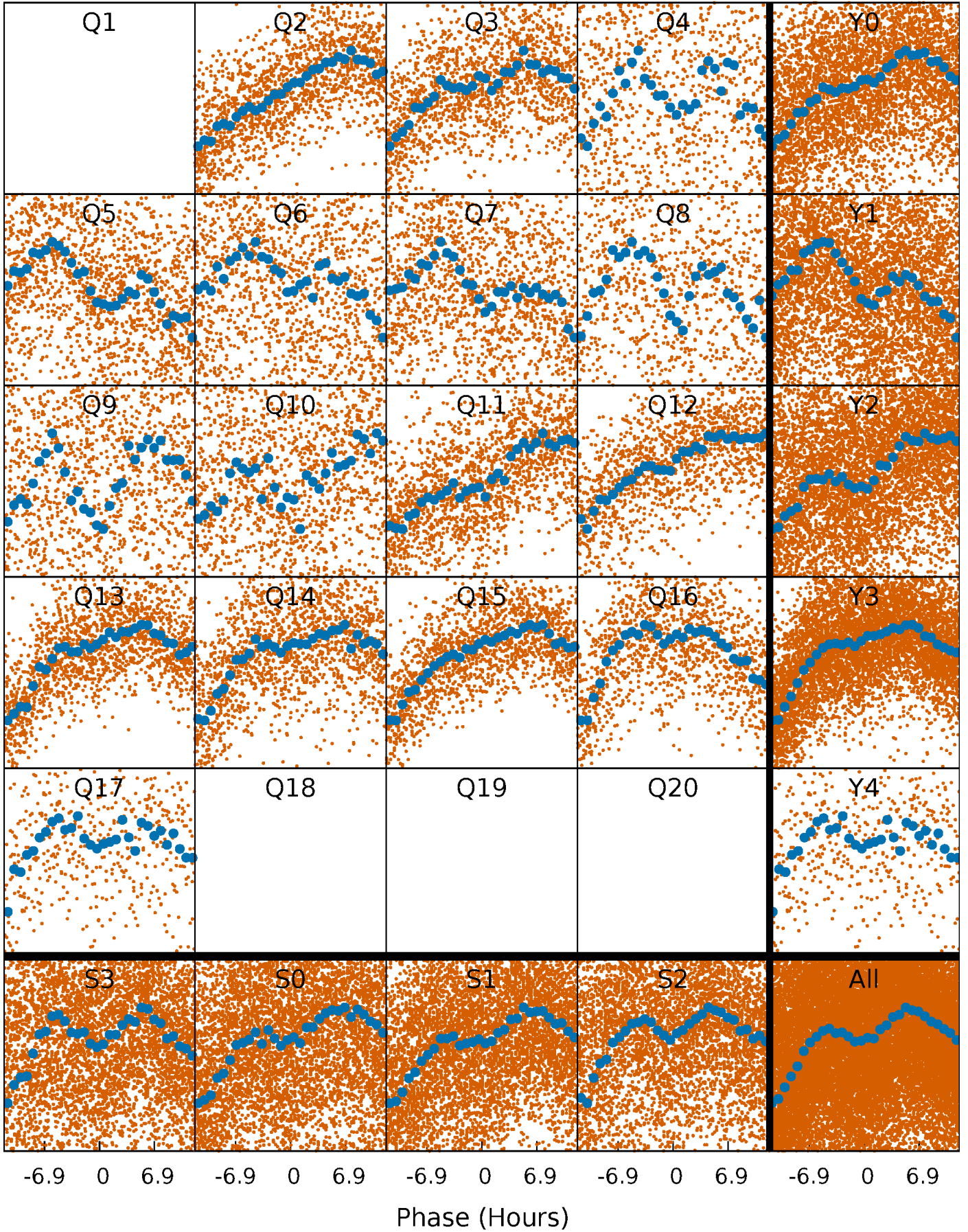


Non-Whitened Vs. Whitened Light Curve



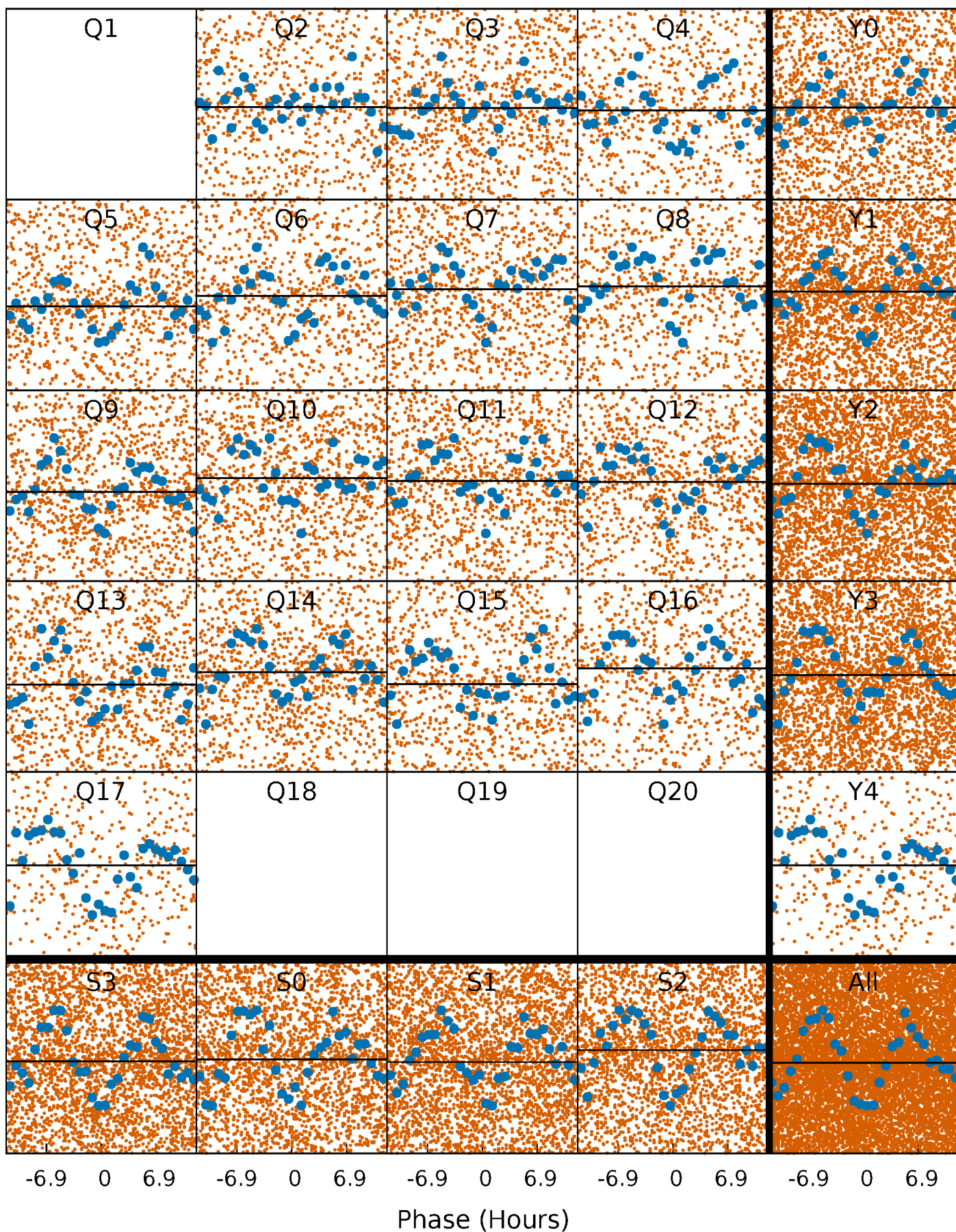
PDC Quarter-Phased Transit Curves

TCE 007832829-01 P= 2.686943 Days $T_0=133.455588$ (BKJD)



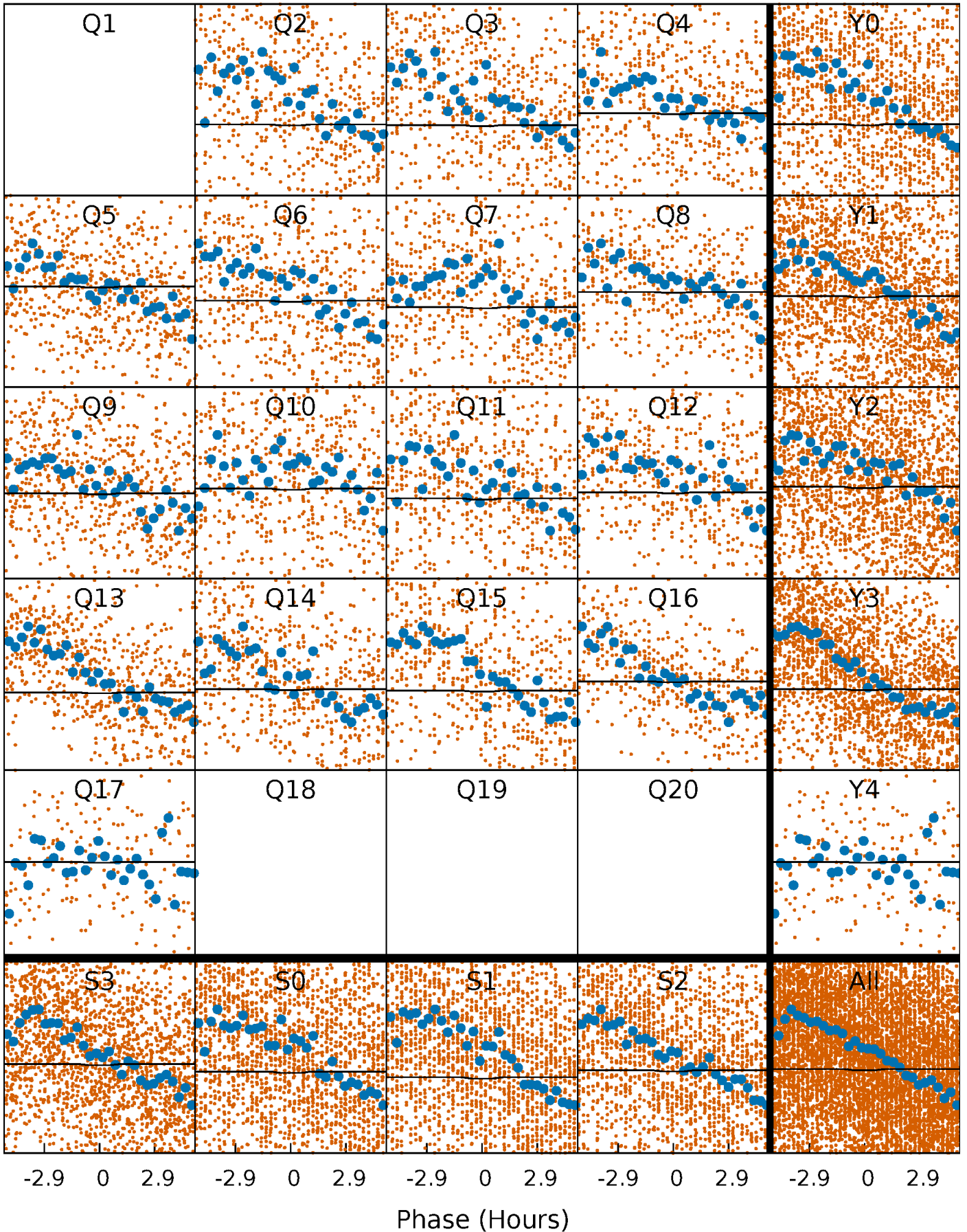
DV Quarter-Phased Transit Curves

TCE 007832829-01 P= 2.686943 Days $T_0=133.455588$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

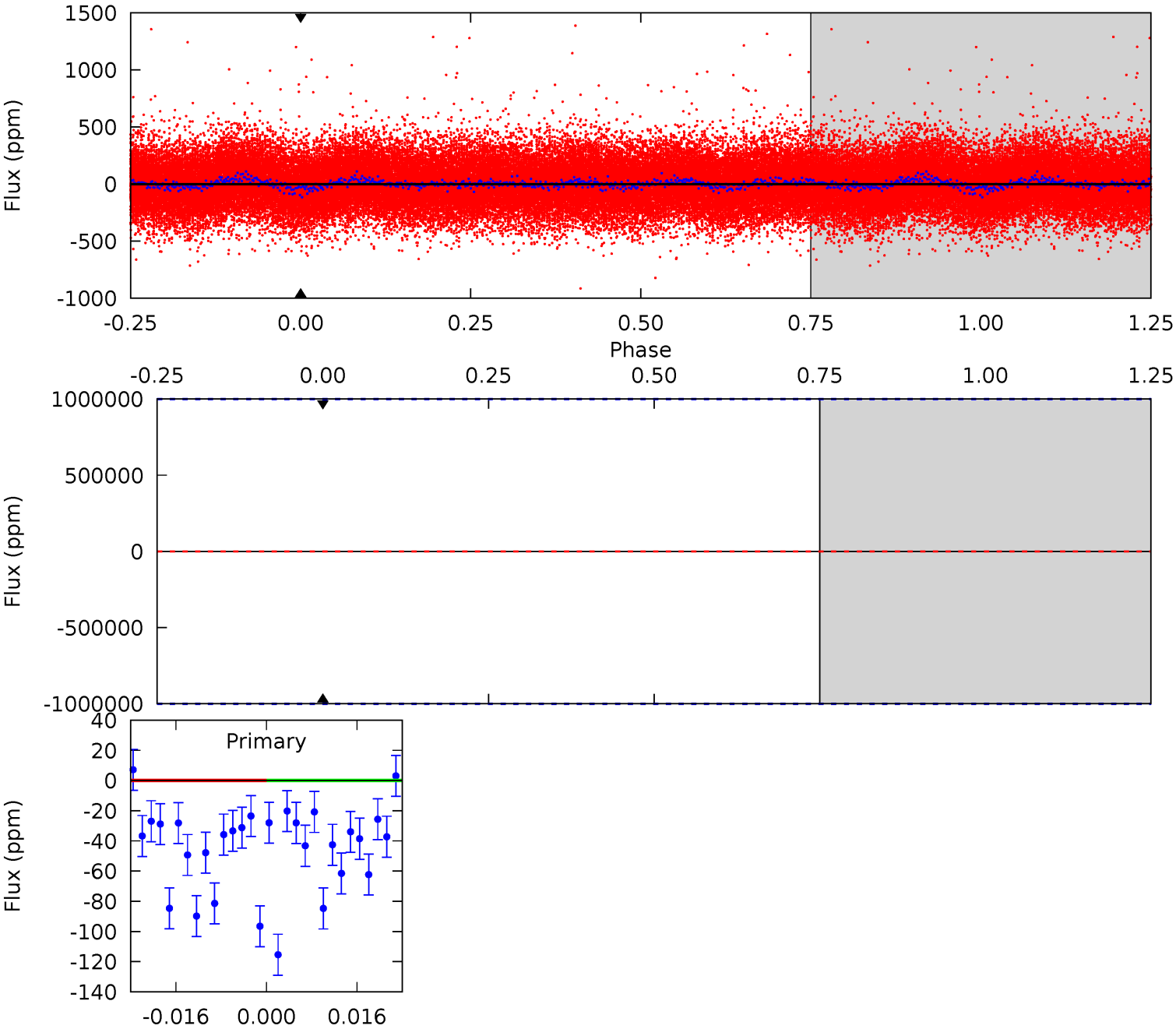
TCE 007832829-01 P= 2.686943 Days $T_0=133.828355$ (BKJD)



DV Model-Shift Uniqueness Test

007832829-01, P = 2.686943 Days, E = 133.455588 Days

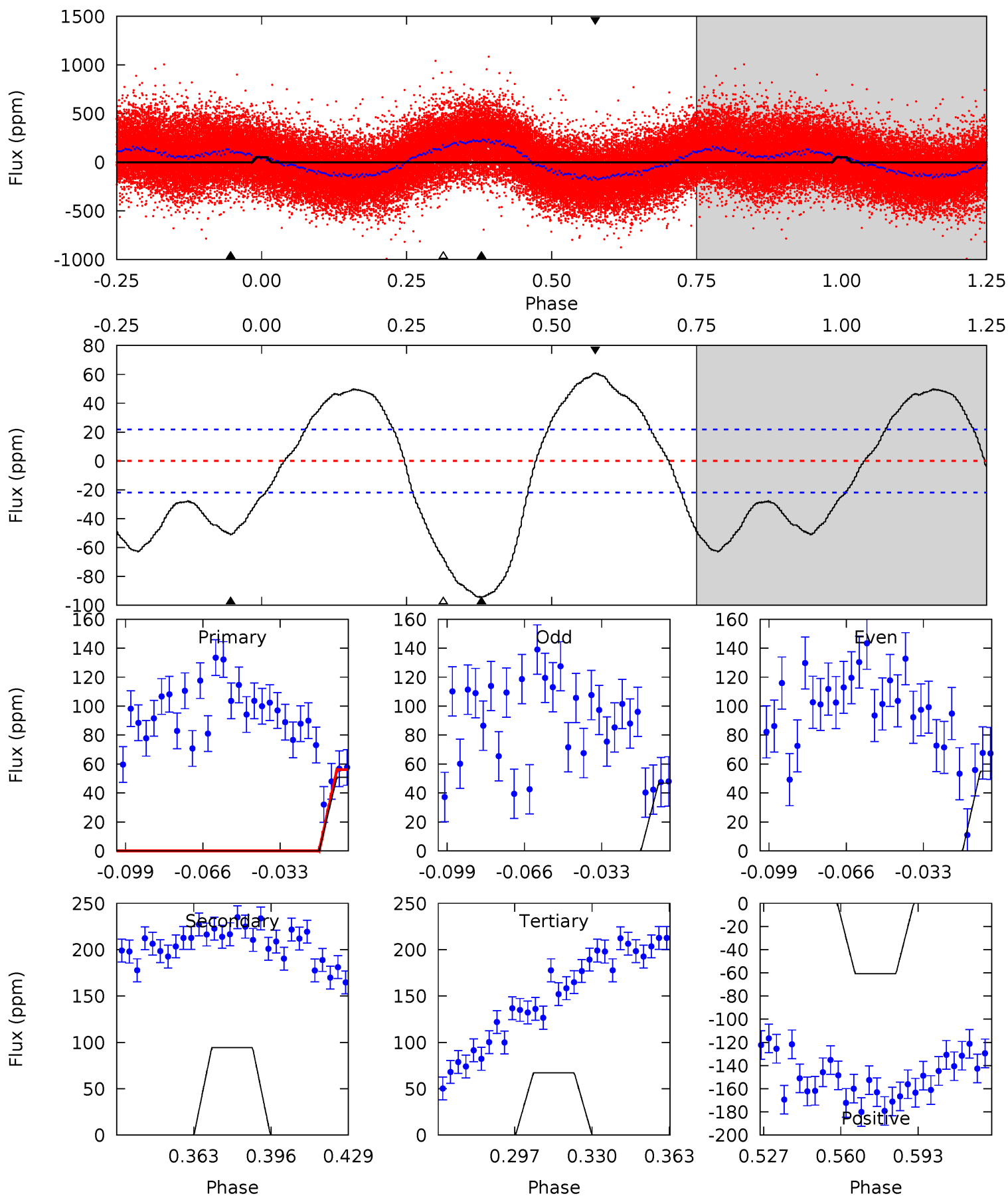
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007832829-01, P = 2.686943 Days, E = 133.828355 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	20.7	14.7	13.3	4.79	2.13	9.40	-3.57	-2.16	5.97	7.38	0.91	1.12	0.39	1.21



Stellar Parameters For KIC 007832829

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6785^{+190}_{-286}	$3.923^{+0.336}_{-0.144}$	$-0.100^{+0.250}_{-0.300}$	$2.239^{+0.570}_{-0.856}$	$1.531^{+0.200}_{-0.372}$	$0.192^{+0.478}_{-0.078}$
	+3%/-4%	+9%/-4%	+250%/-300%	+25%/-38%	+13%/-24%	+249%/-41%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007832829-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$16.29^{+18.40}_{-11.84}$	2940^{+225}_{-285}	3973^{+39086}_{-29471}	$1.523^{+948.084}_{-562.797}$
Alt.	-94 ± 5	$15.77^{+18.80}_{-11.28}$	2945^{+221}_{-275}	2574^{+2154}_{-5500}	$0.399^{+4.285}_{-0.319}$

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

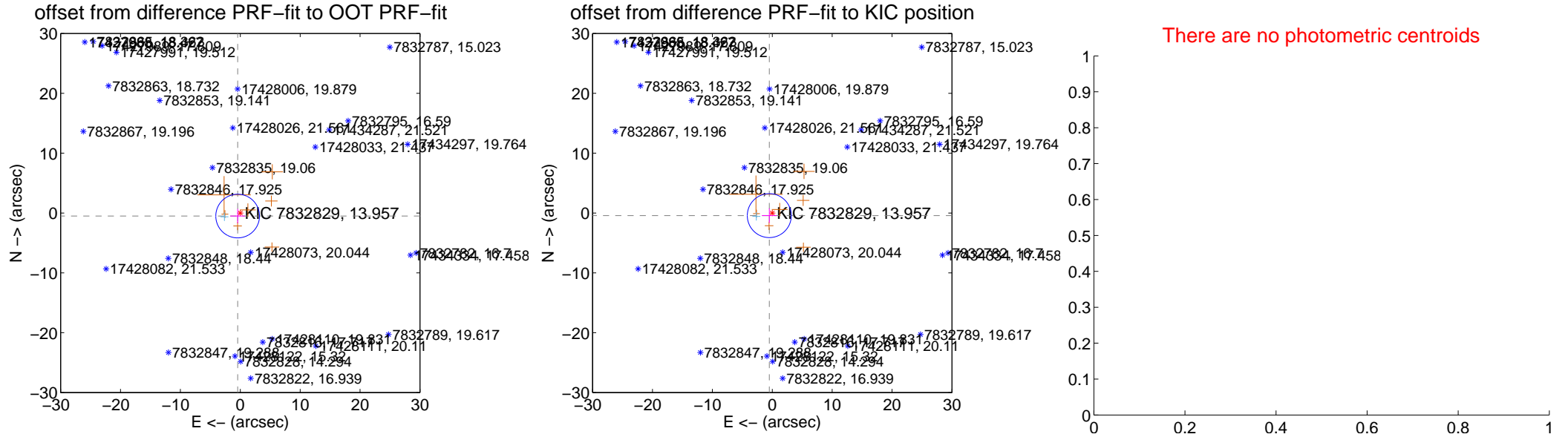
DV Centroid Data

Supplemental centroid analysis for 007832829-01. Kepler magnitude: 13.96. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

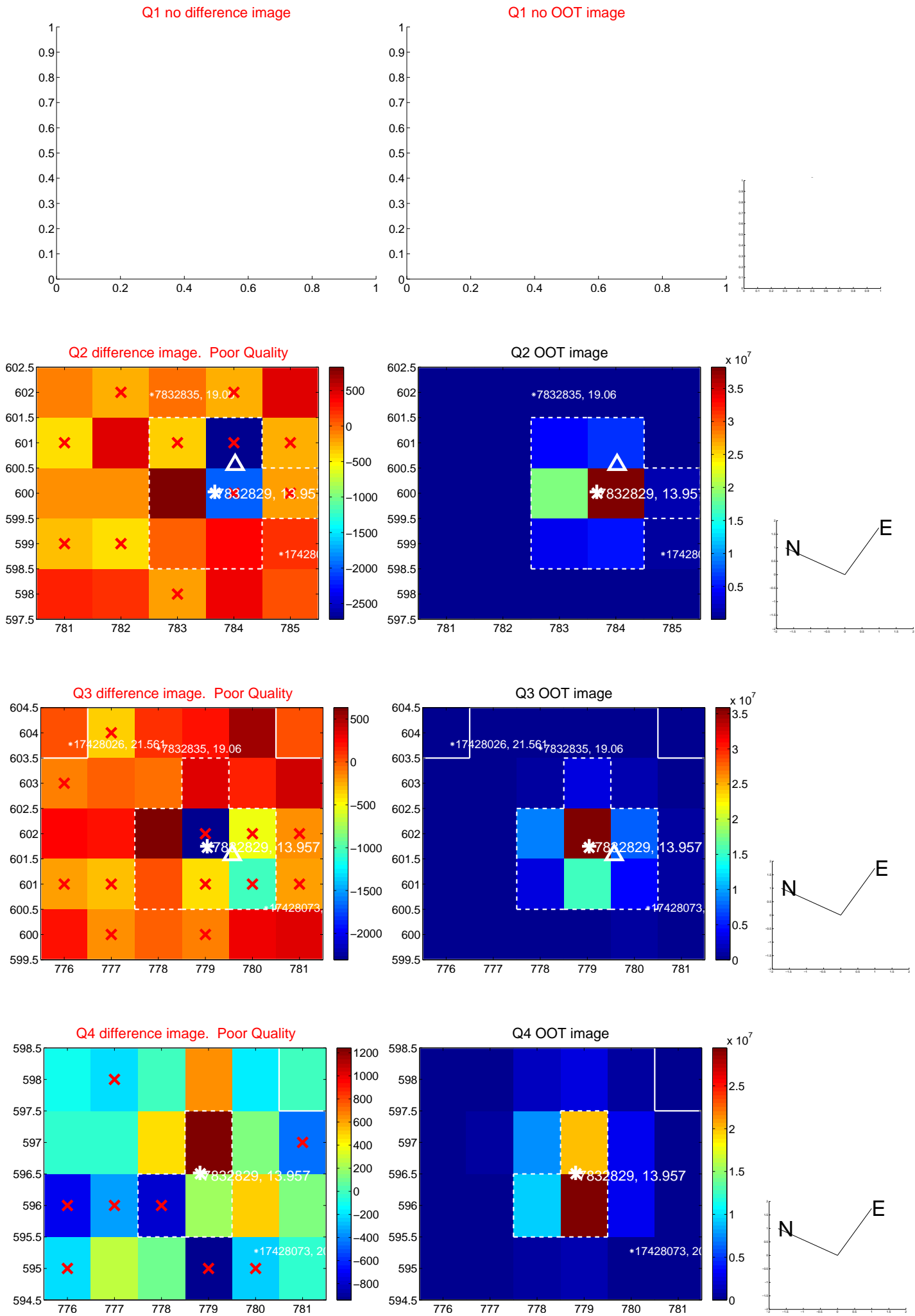
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.671 ± 1.216	0.55	0.440 ± 1.226	-0.506 ± 1.208
PRF-fit source offset from KIC position	0.659 ± 1.224	0.54	0.496 ± 1.228	-0.434 ± 1.219
photometric centroid source offset	—	—	—	—

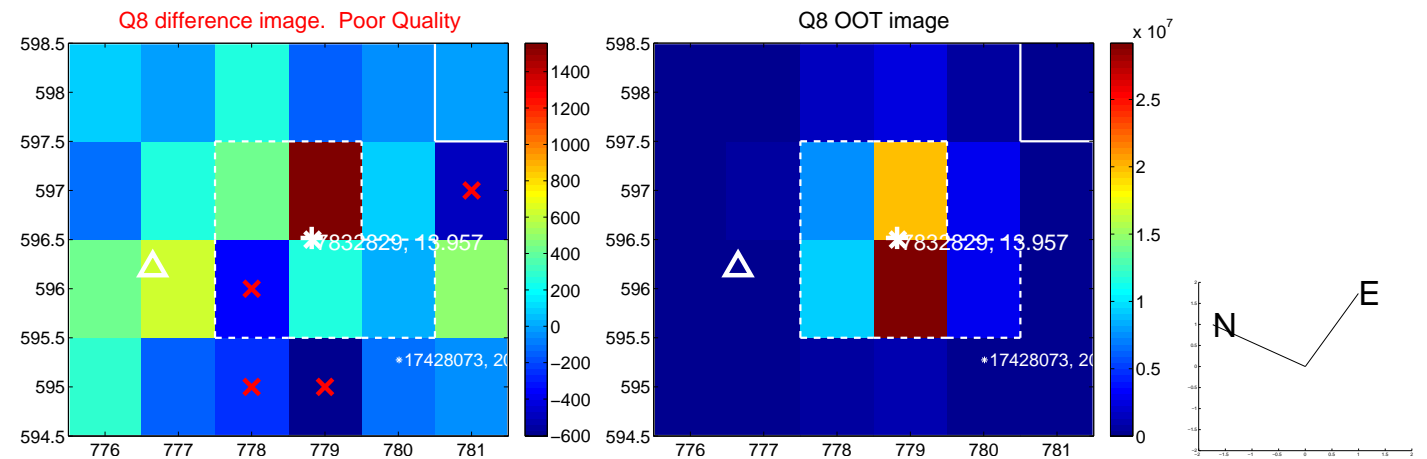
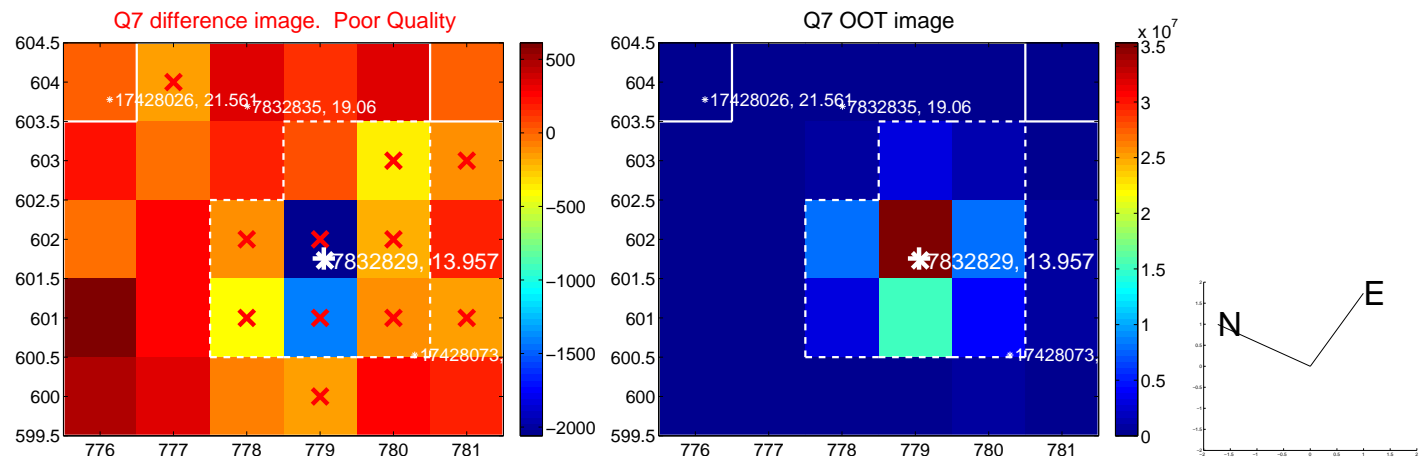
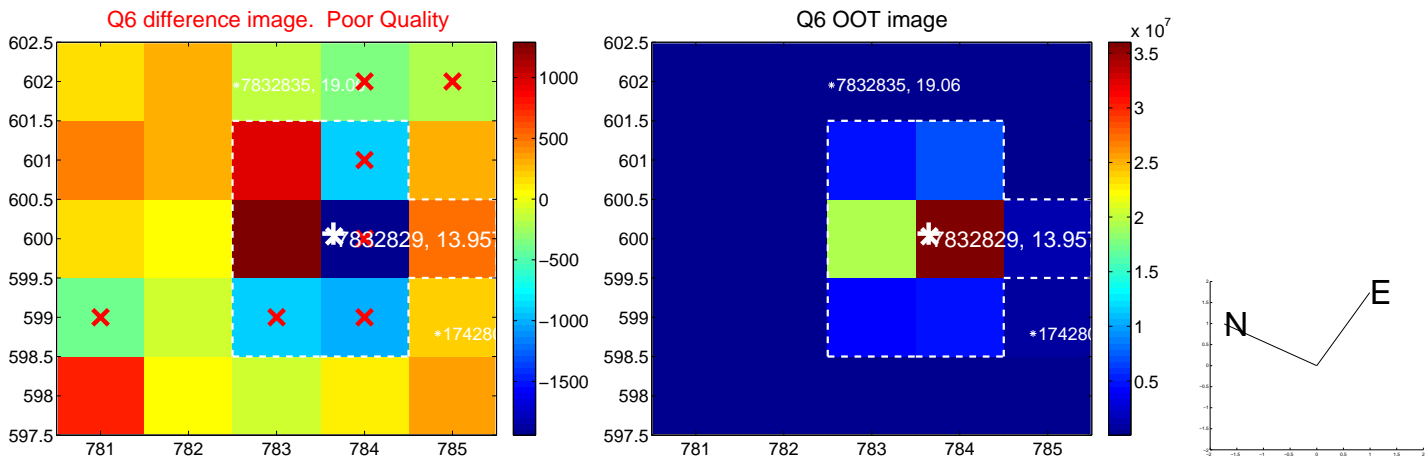
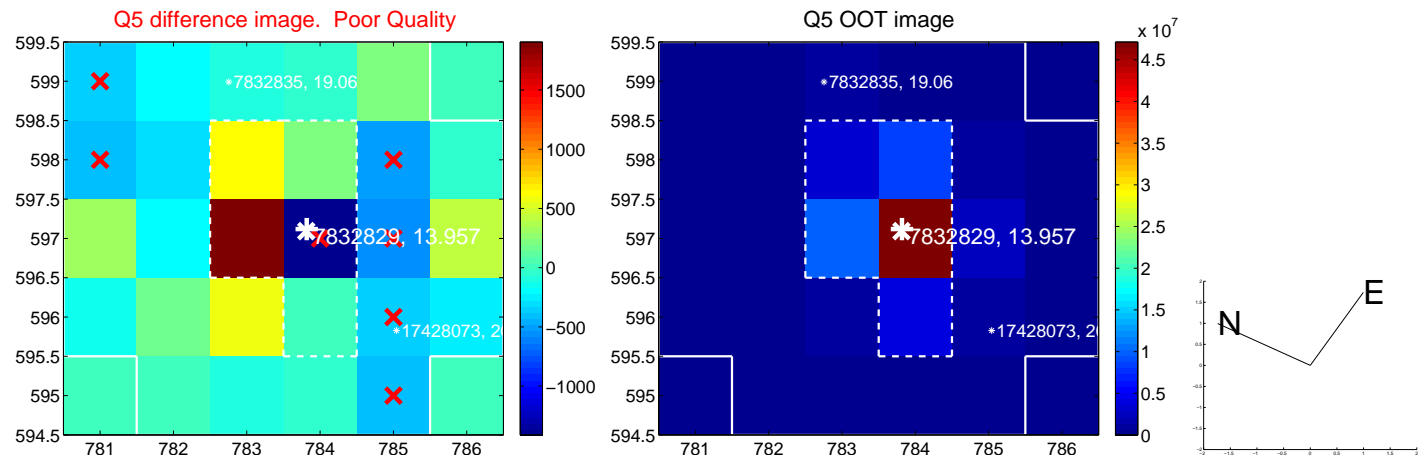


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

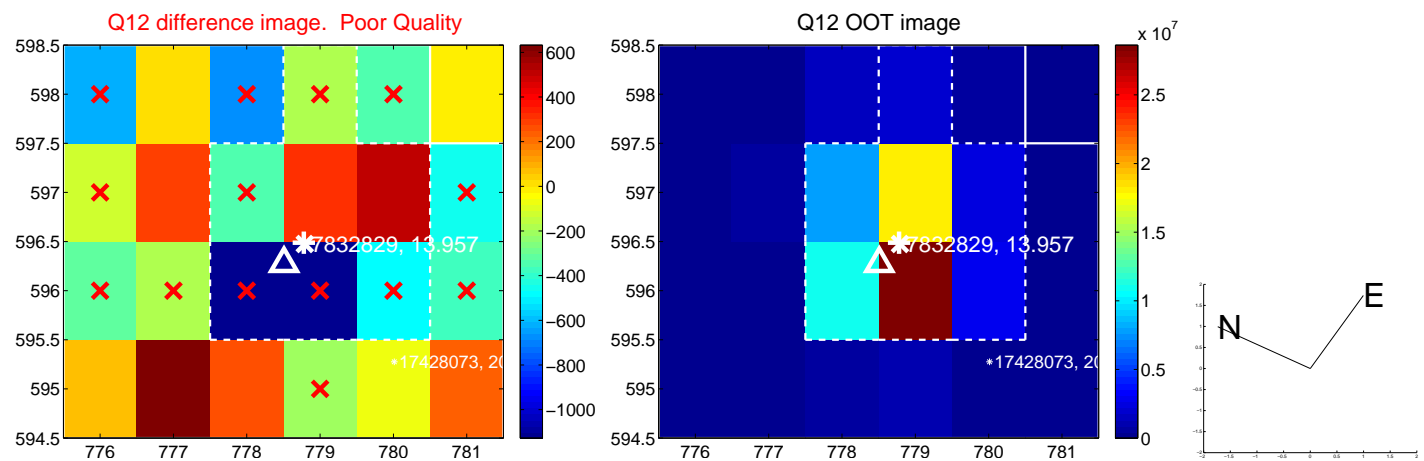
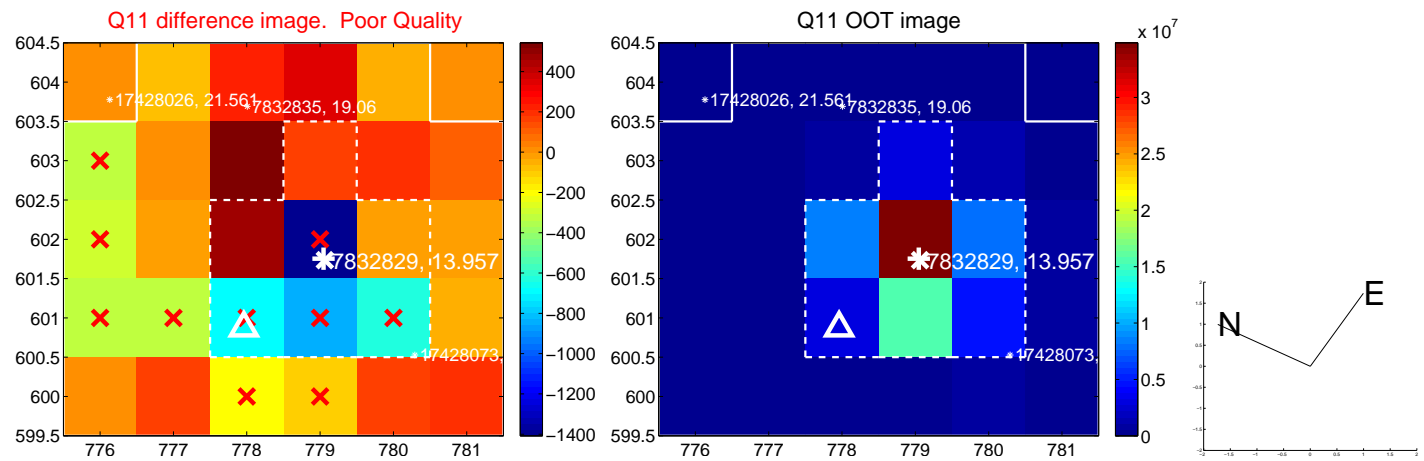
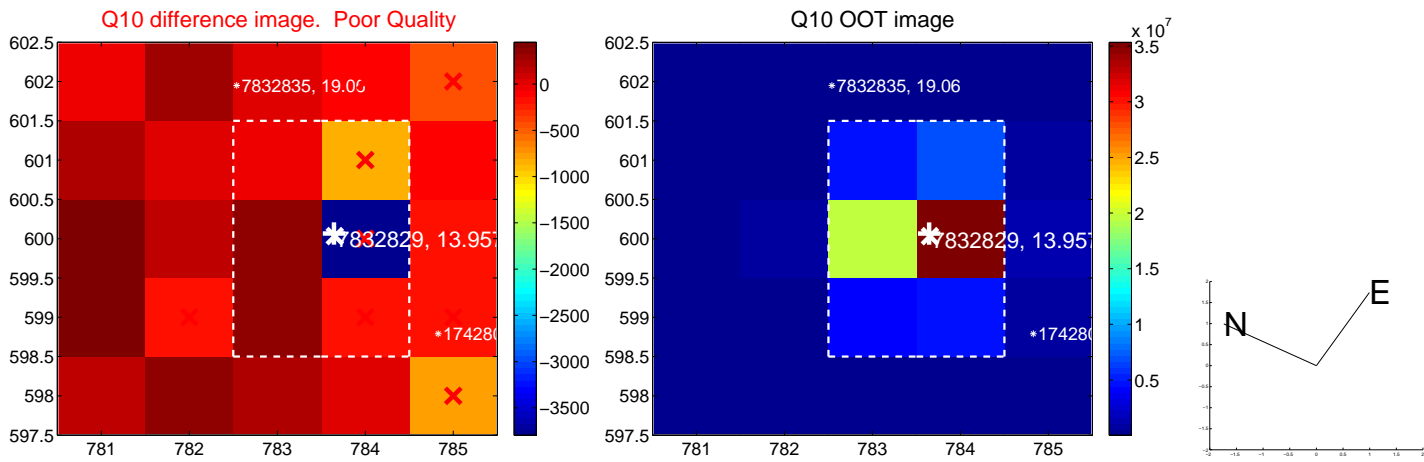
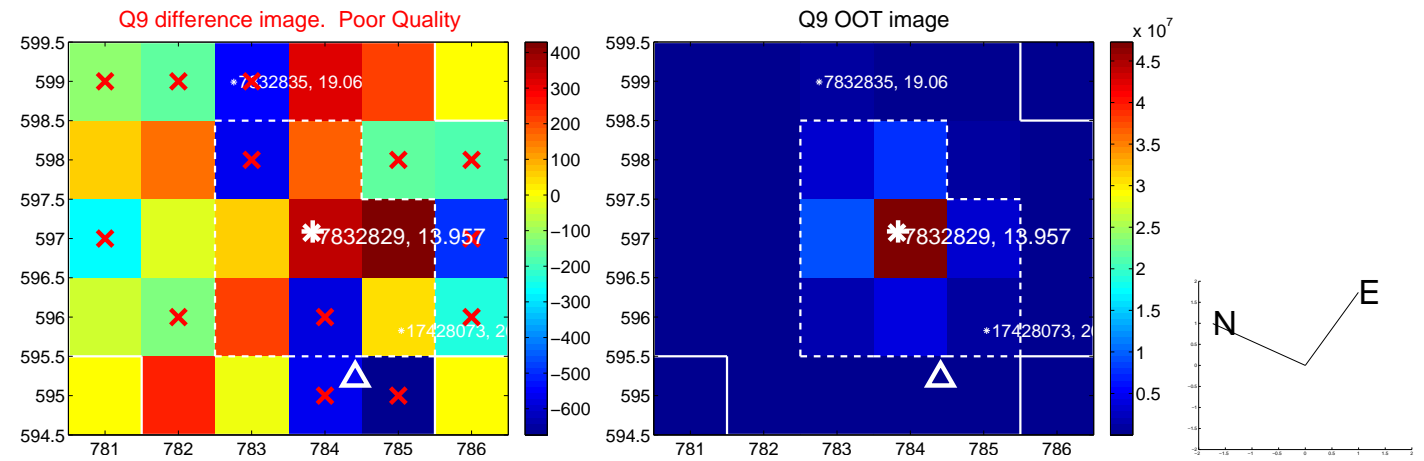
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



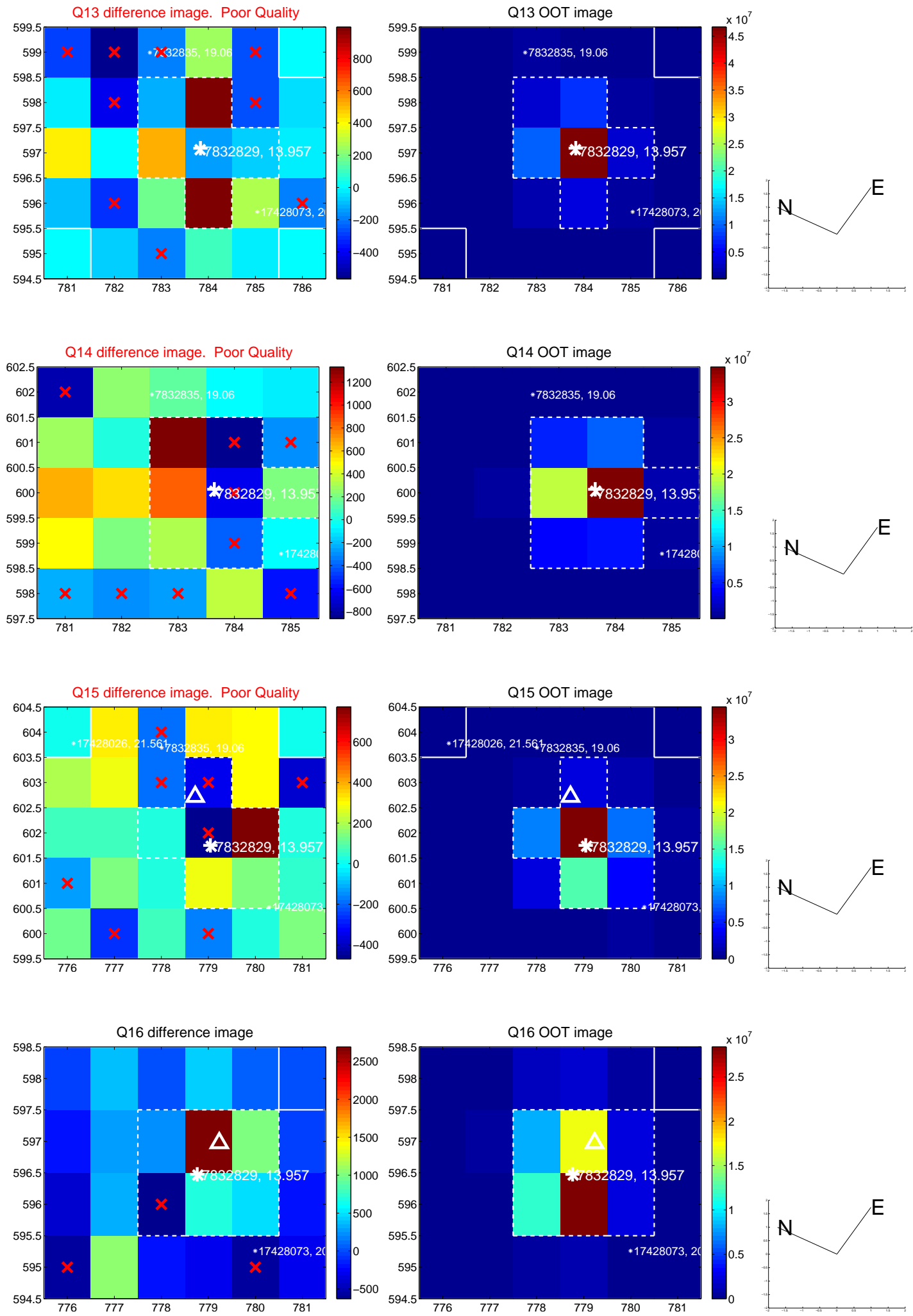
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



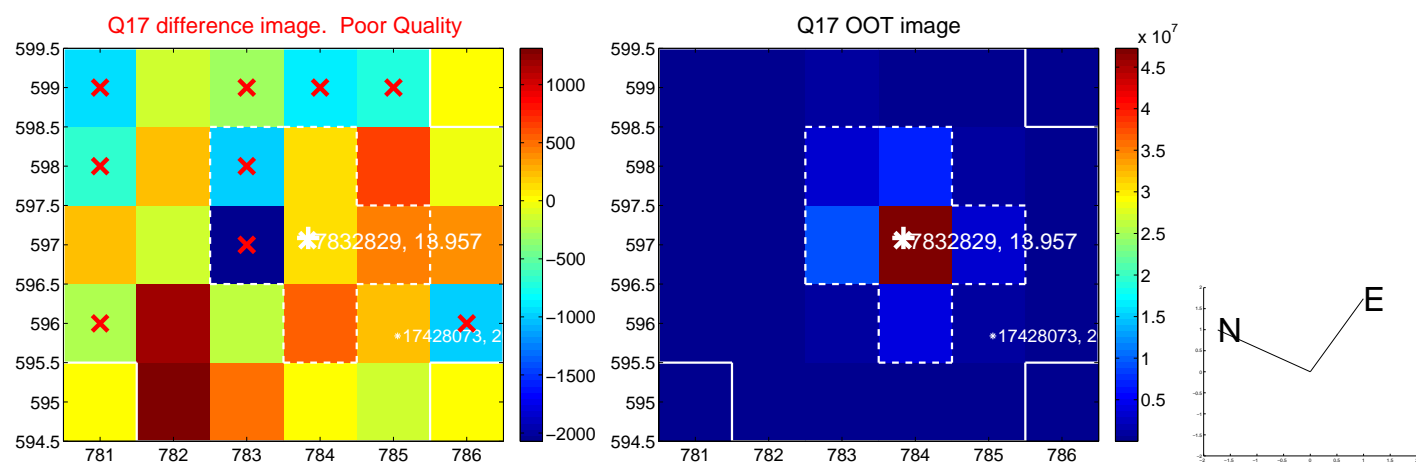
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

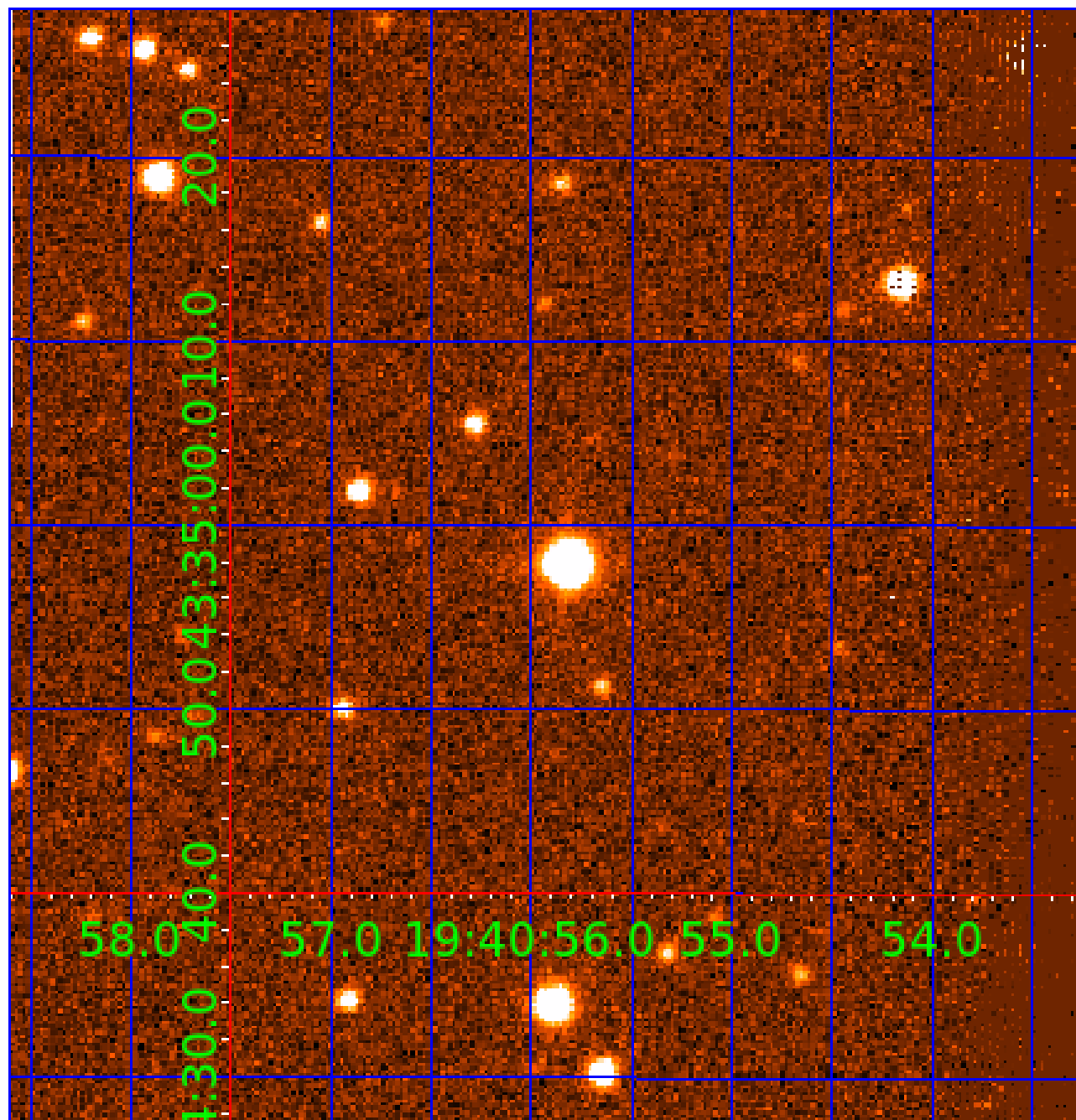


folded centroid time series figure for this object.



UKIRT Image

Declination



KIC 007832829

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})
007832829-01	OBS	No	2.686943	133.455588	147.8	6.000	10.8	-1.0	2.24	6785	2.75	5005.55
007832829-02	OBS	No	461.661555	178.340831	163.7	12.023	7.4	4.4	2.24	6785	3.12	5.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007832829-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_NOFITS
007832829-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

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

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

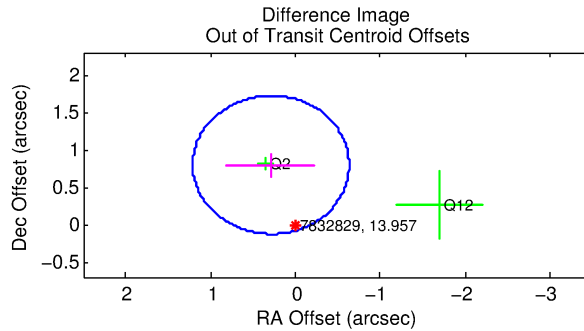
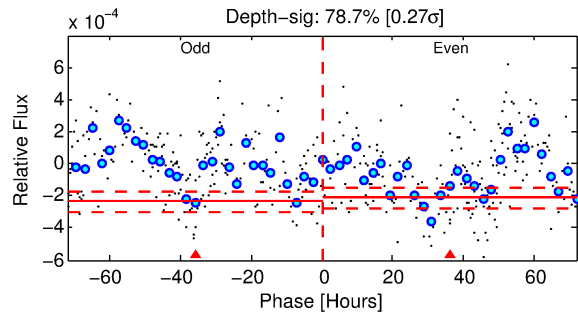
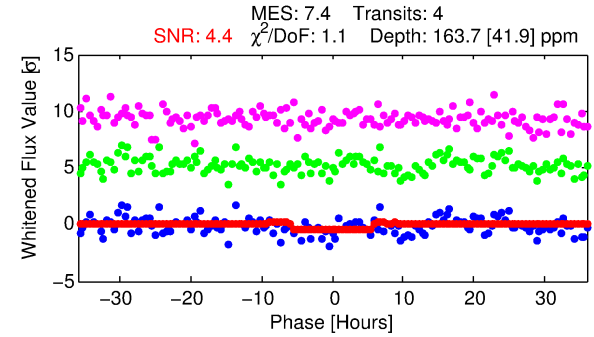
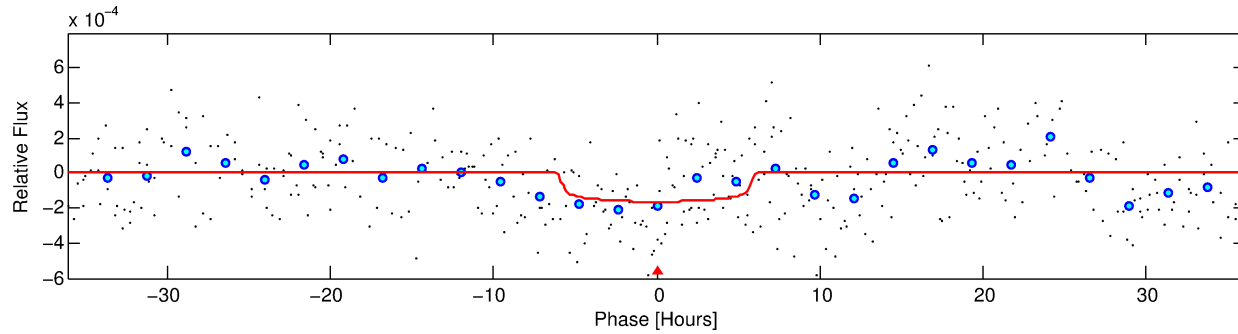
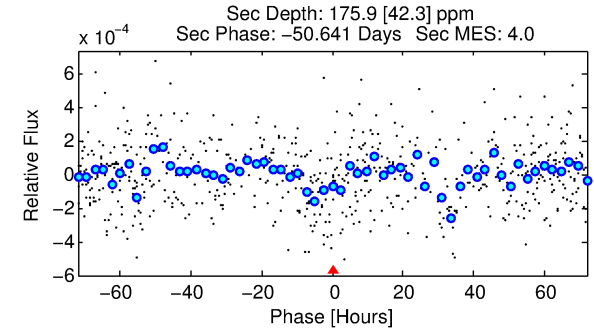
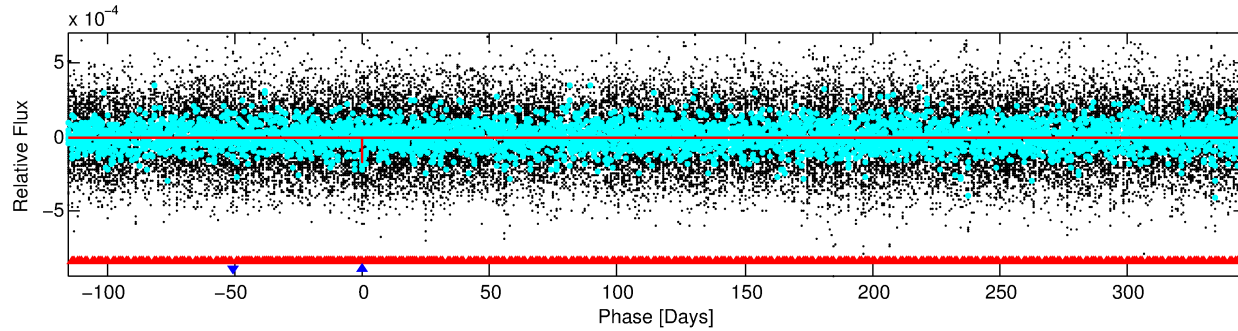
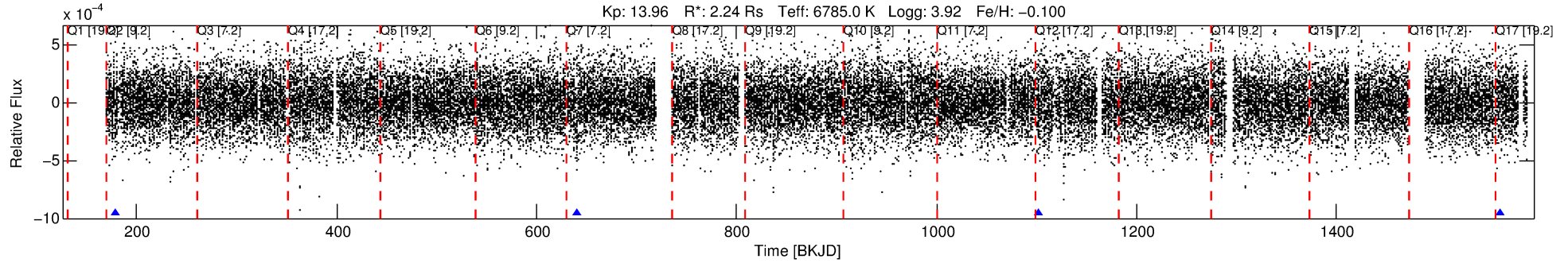
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007832829-02

No Significant Match Found

DV One-Page Summary

KIC: 7832829 Candidate: 2 of 2 Period: 461.662 d



DV Fit Results:

Period = 461.66156 [0.01748] d
Epoch = 178.3408 [0.0246] BKJD
Rp/R* = 0.0128 [0.0066]
a/R* = 195.22 [556.61]
b = 0.76 [1.57]
Seff = 5.24 [3.14]
Teq = 386 [58] K
Rp = 3.12 [2.01] Re
a = 1.3478 [0.4887] AU
Ag = 18047.55 [21808.76] [0.83σ]
Teffp = 6914 [1860] K [3.51σ]

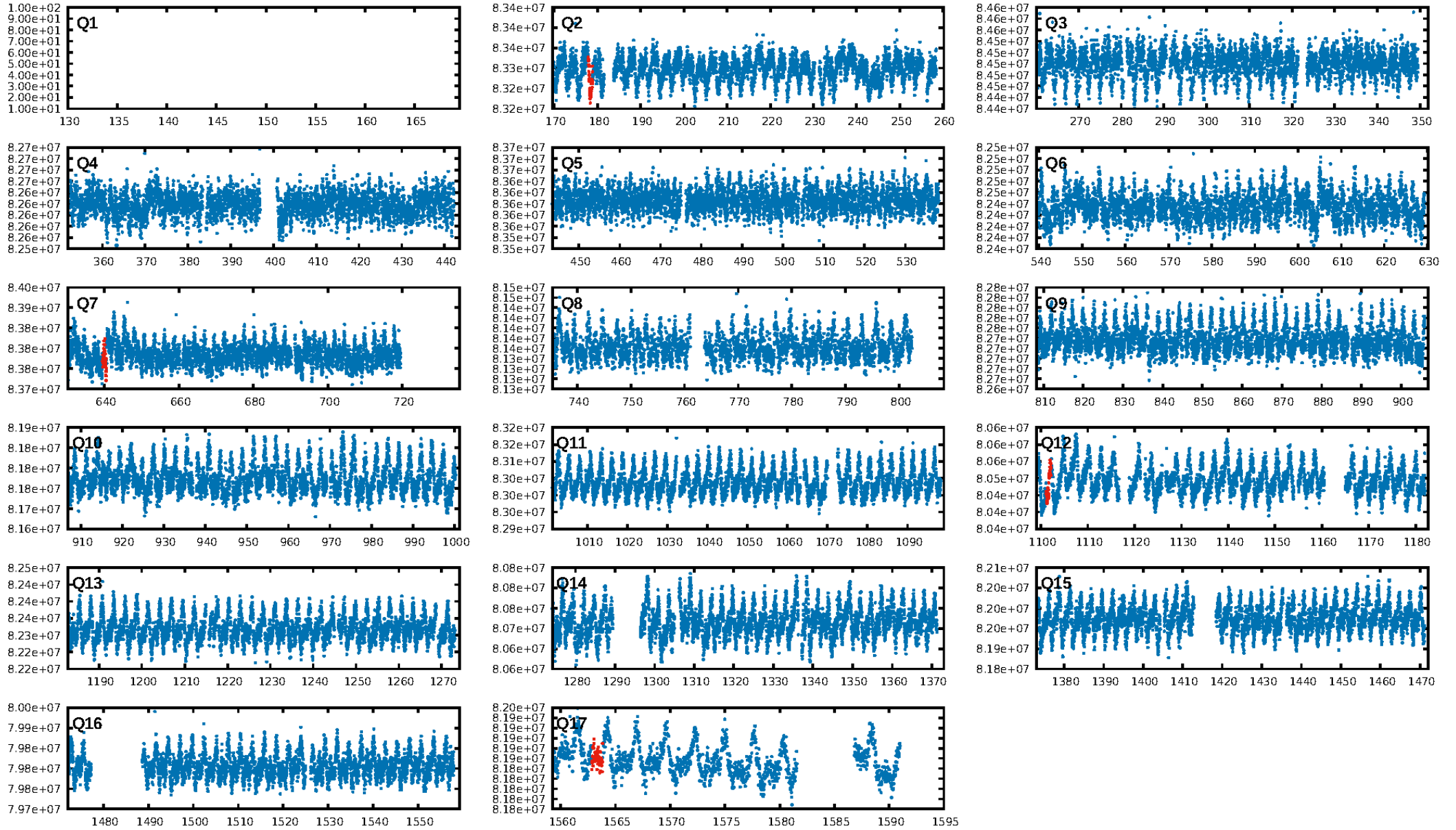
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [819.76σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.95e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -45.37
Centroid-sig: 96.1%
Centroid-so: 0.440 arcsec [0.21σ]
OotOffset-rm: 0.846 arcsec [2.75σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-rm: 0.909 arcsec [1.24σ]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.50 [2/4]

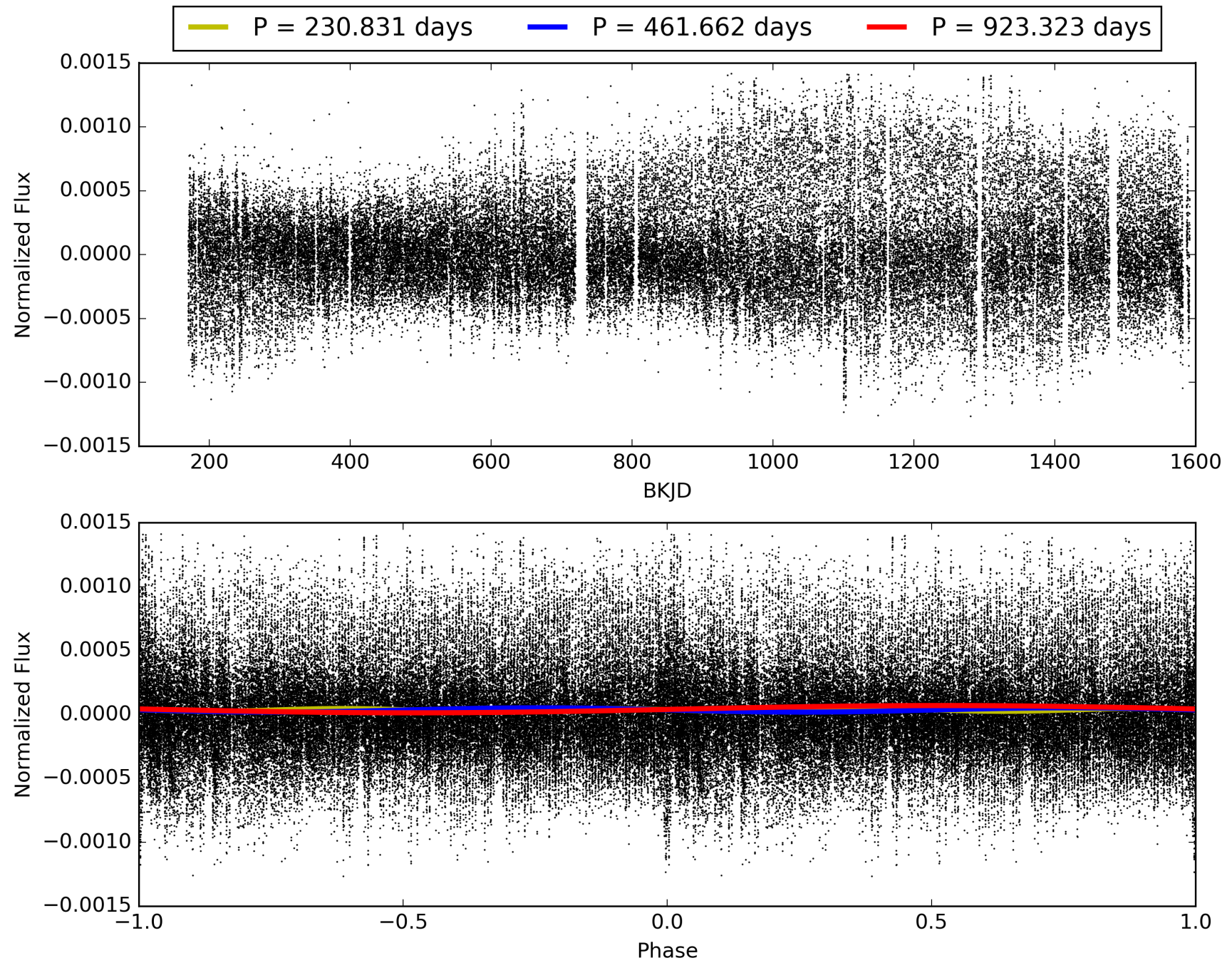
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:15:42 Z

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

TCE 007832829-02, PDC Light Curves

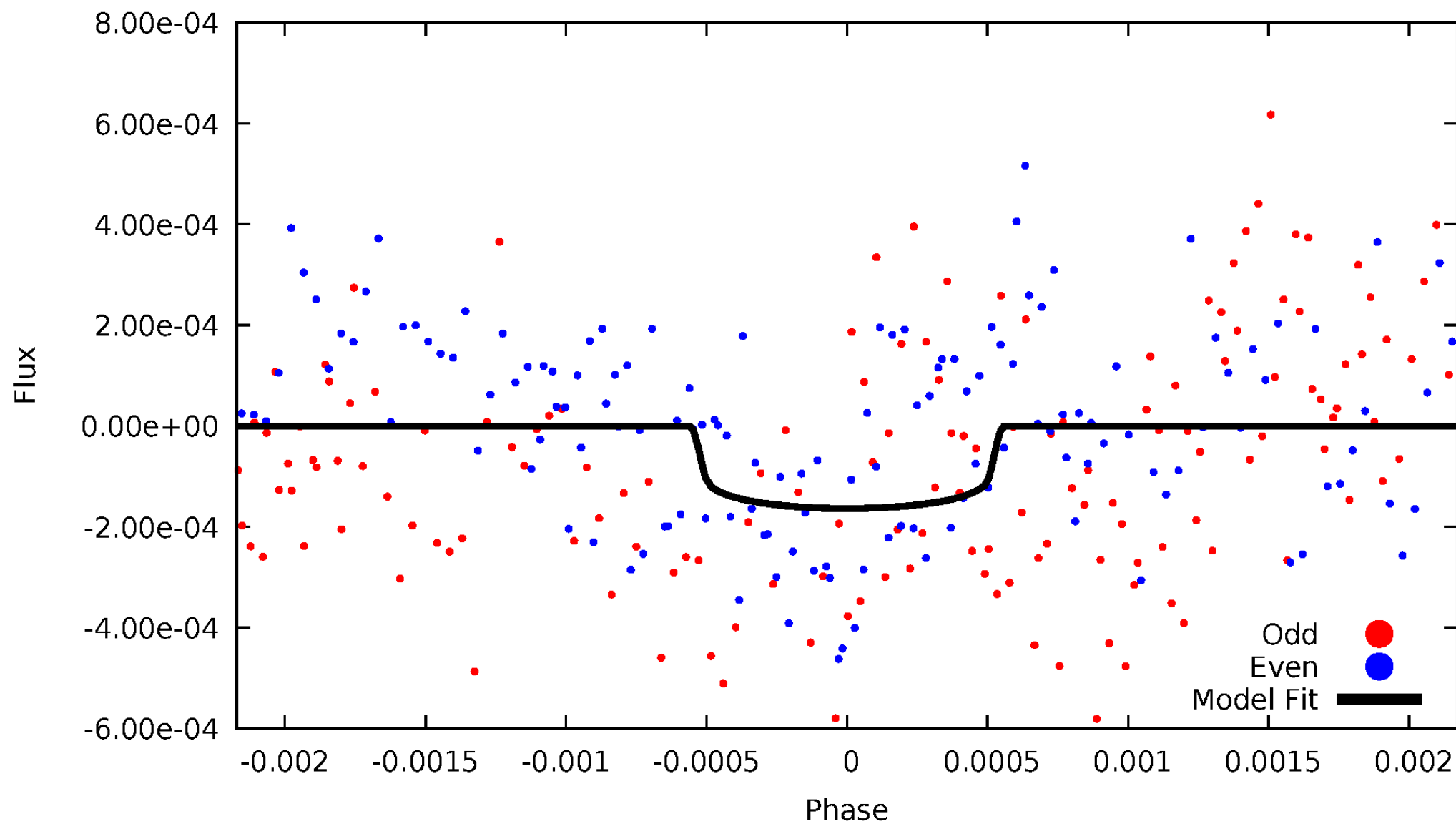


TCE 007832829-02



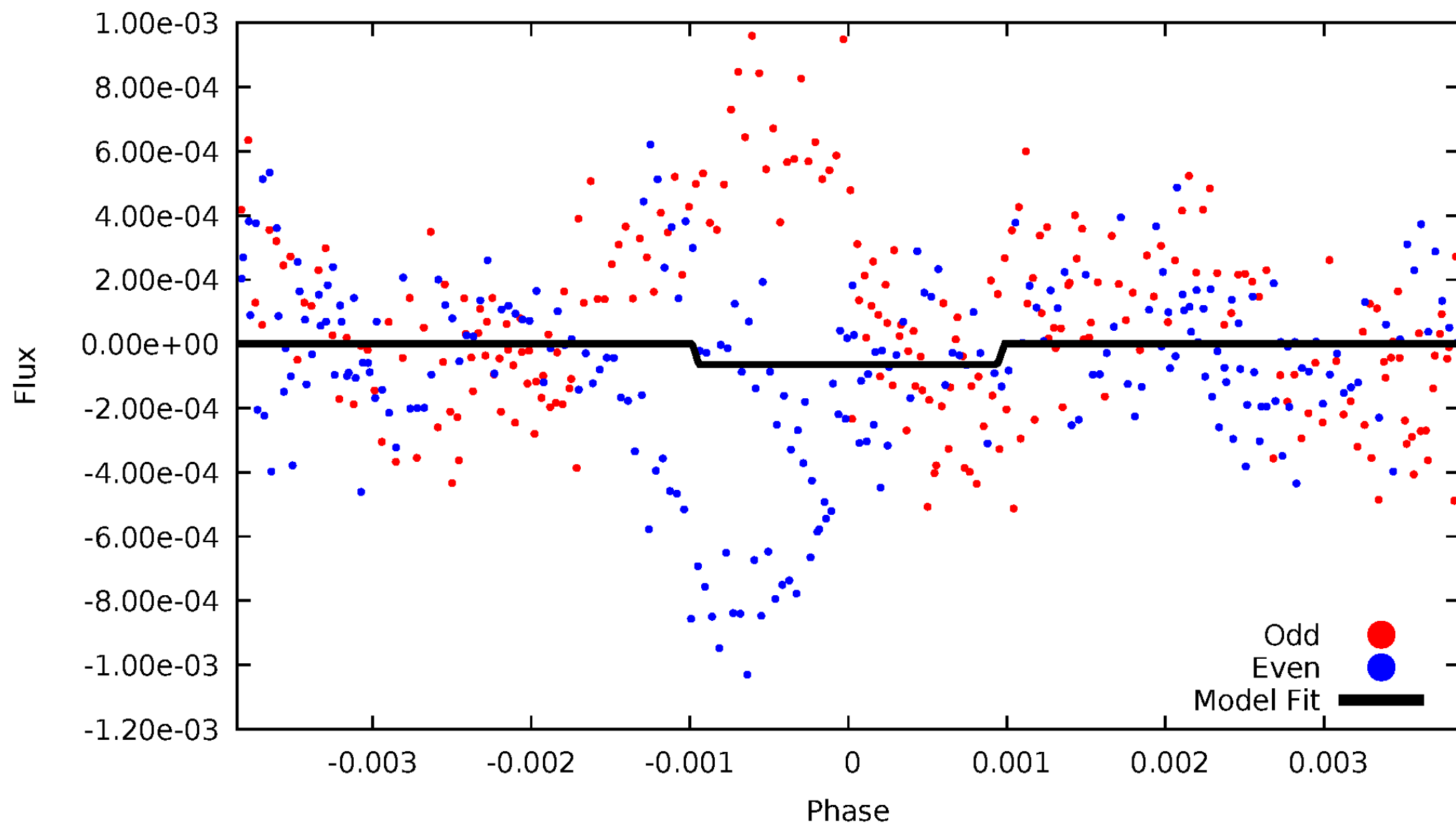
DV Odd/Even

TCE 007832829-02



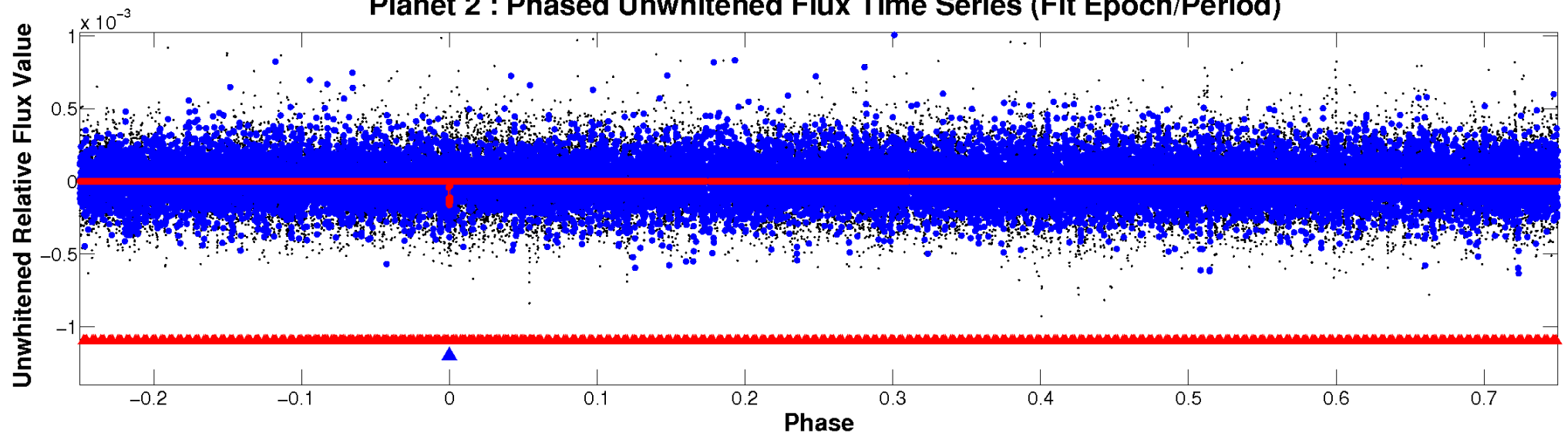
ALT Odd/Even

TCE 007832829-02

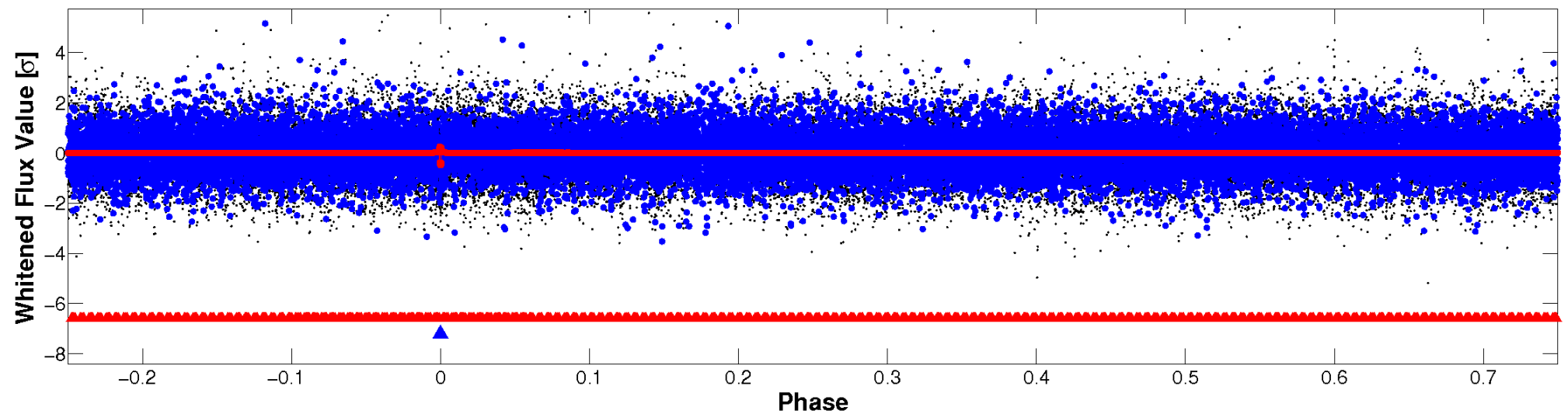


Non-Whitened Vs. Whitened Light Curve

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

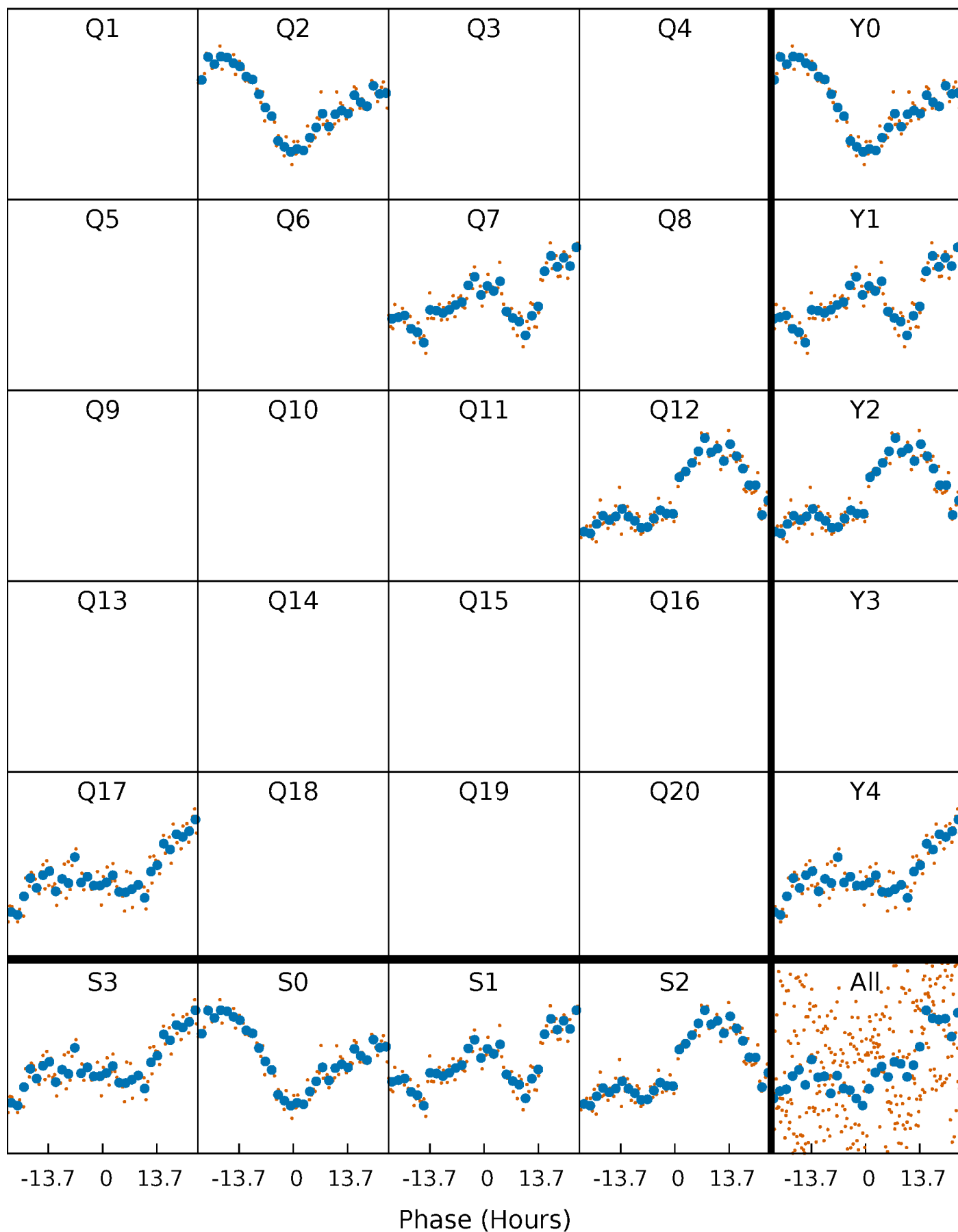


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



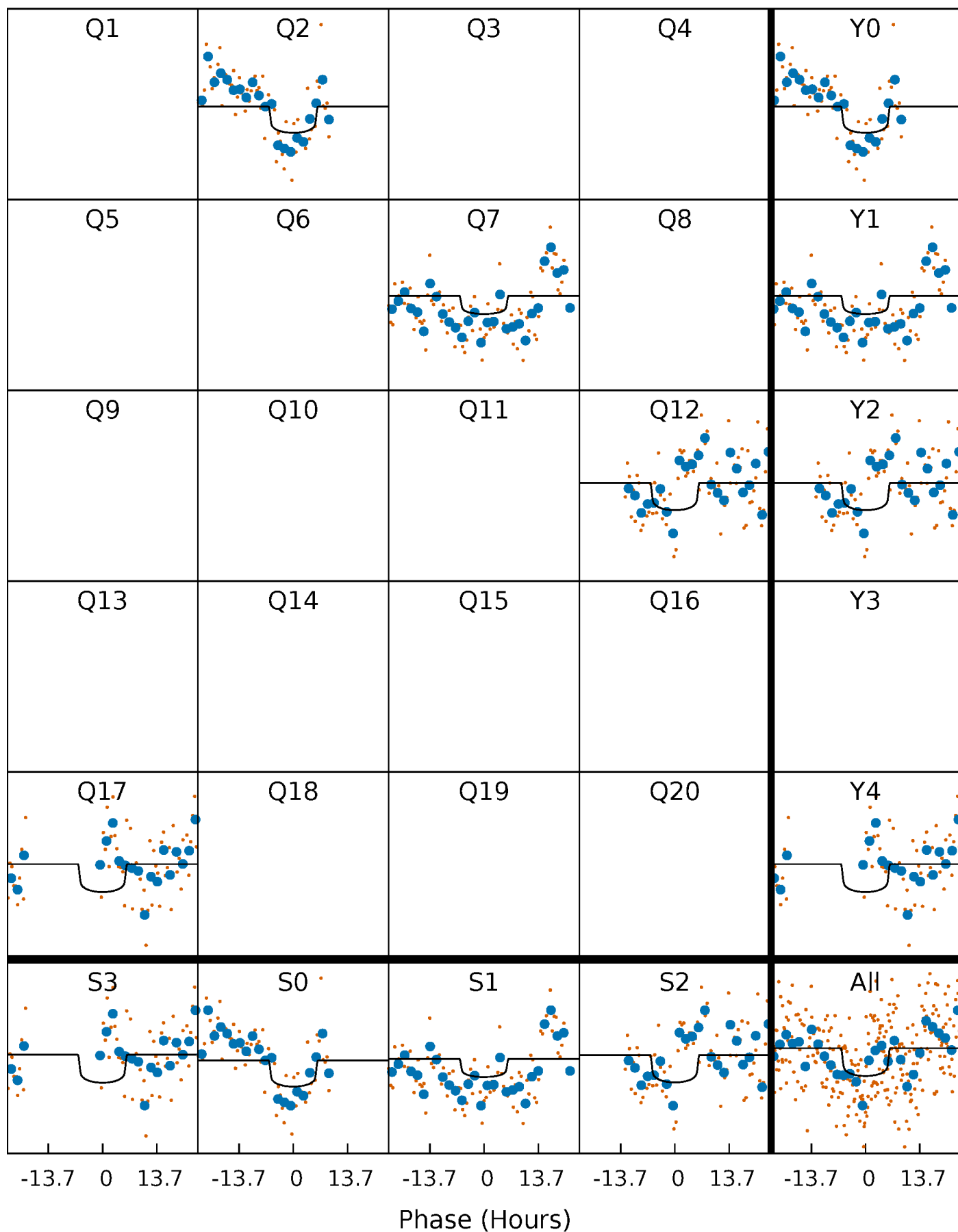
PDC Quarter-Phased Transit Curves

TCE 007832829-02 P=461.661555 Days $T_0=178.340831$ (BKJD)



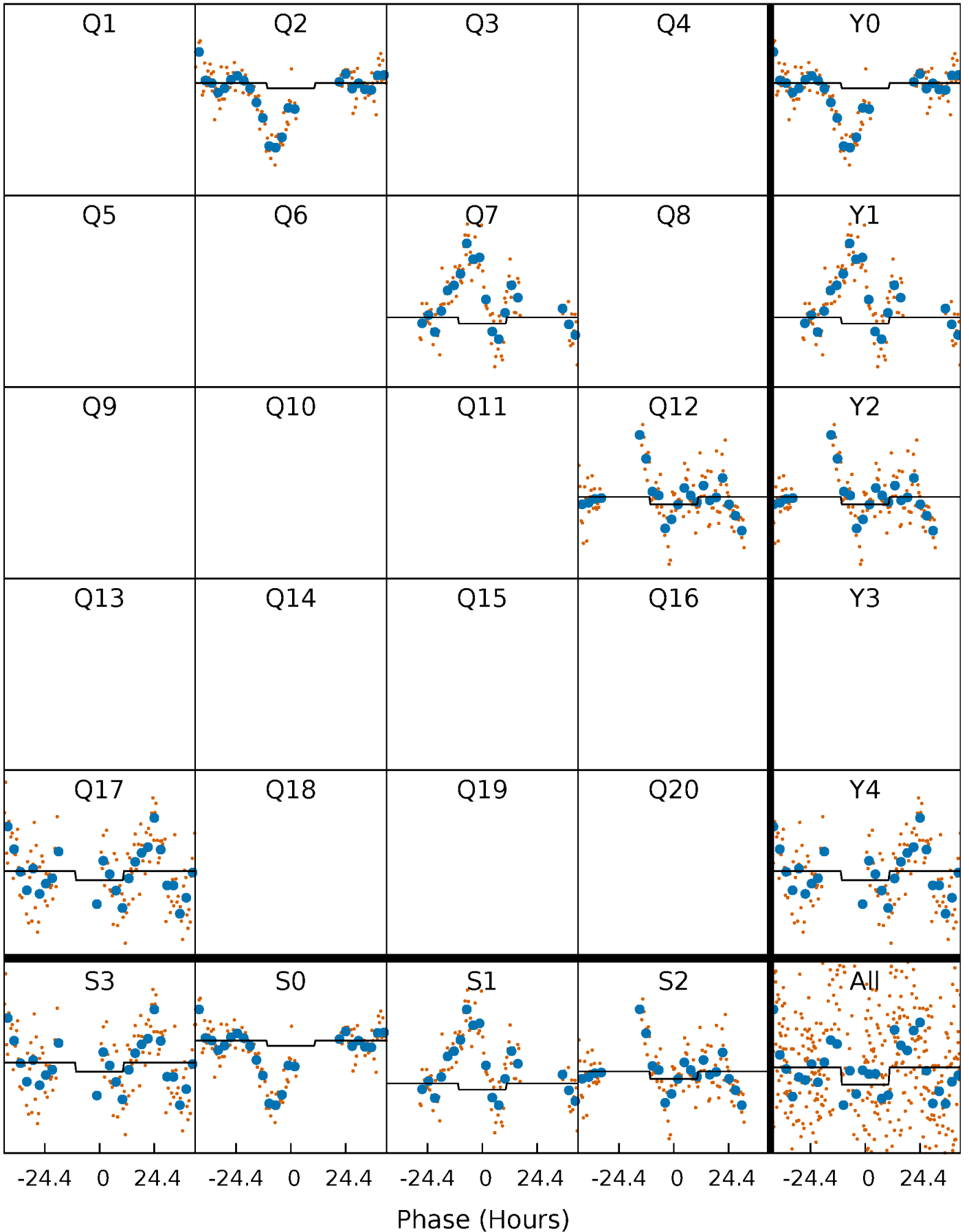
DV Quarter-Phased Transit Curves

TCE 007832829-02 P=461.661555 Days $T_0=178.340831$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

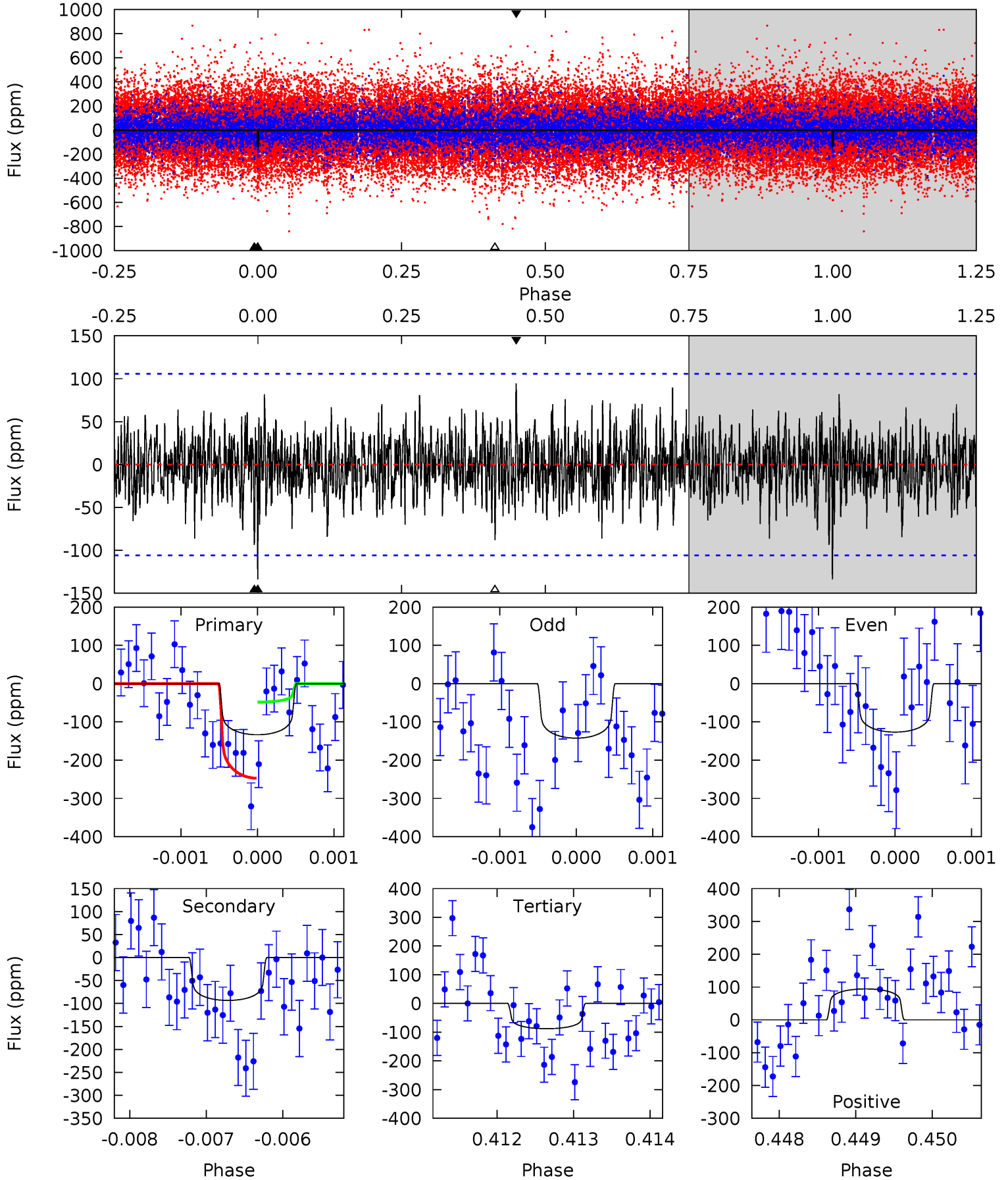
TCE 007832829-02 P=461.560064 Days $T_0=178.621513$ (BKJD)



DV Model-Shift Uniqueness Test

007832829-02, P = 461.661555 Days, E = 178.340831 Days

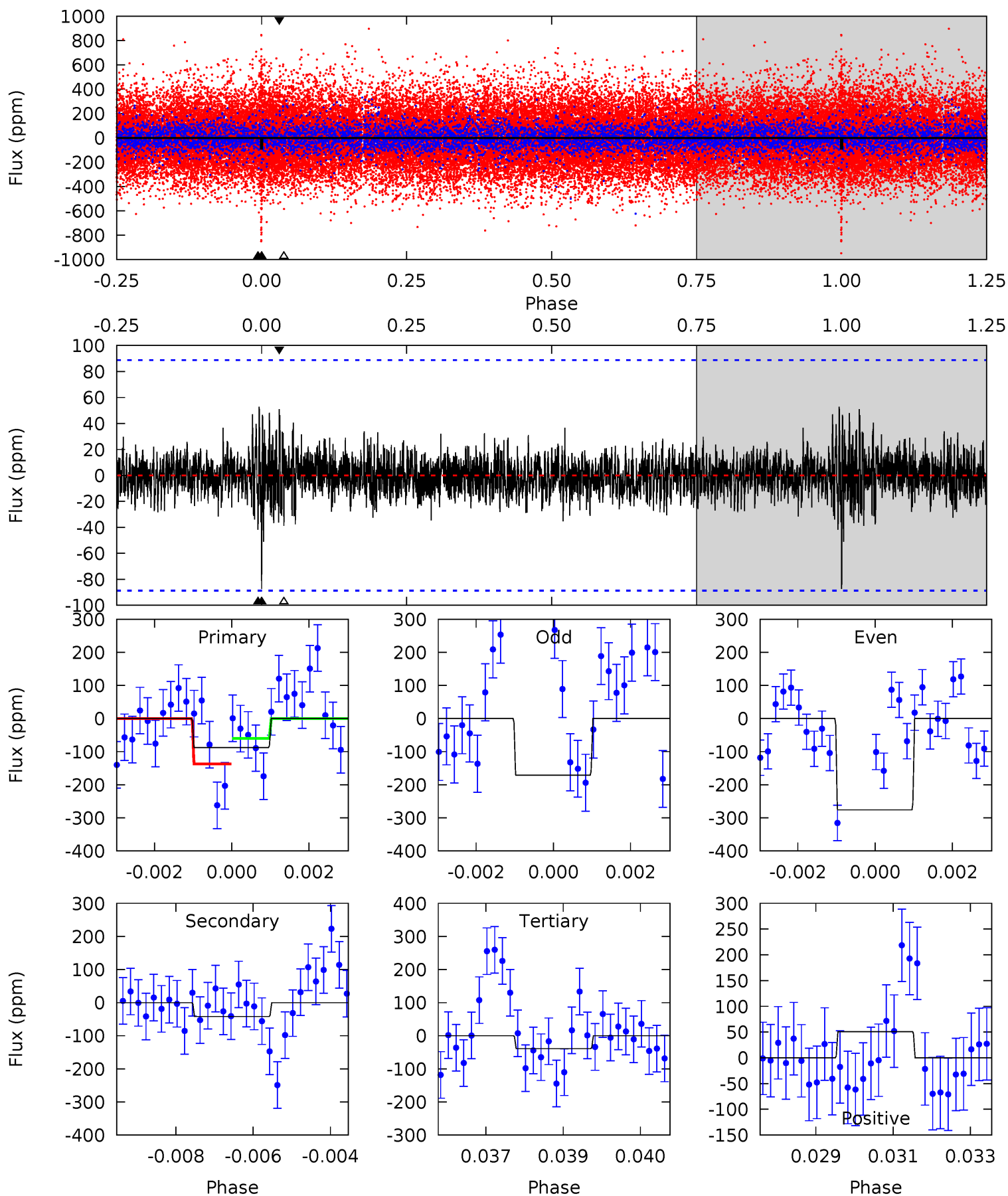
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.87	4.80	4.52	4.85	5.43	3.26	1.40	2.35	2.02	0.28	-0.05	0.41	0.86	0.41	5.06



Alt Model-Shift Uniqueness Test

007832829-02, P = 461.560064 Days, E = 178.621513 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.26	2.52	2.34	3.06	5.33	3.10	0.69	2.92	2.19	0.18	-0.54	3.25	1.62	0.38	2.25



Stellar Parameters For KIC 007832829

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6785^{+190}_{-286}	$3.923^{+0.336}_{-0.144}$	$-0.100^{+0.250}_{-0.300}$	$2.239^{+0.570}_{-0.856}$	$1.531^{+0.200}_{-0.372}$	$0.192^{+0.478}_{-0.078}$
	+3%/-4%	+9%/-4%	+250%/-300%	+25%/-38%	+13%/-24%	+249%/-41%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 007832829-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-93 ± 19	$2.92^{+1.80}_{-1.40}$	529^{+41}_{-55}	5829^{+2289}_{-1028}	10443^{+29057}_{-6357}
Alt.	-42 ± 17	$2.12^{+1.60}_{-1.25}$	527^{+45}_{-50}	5523^{+3803}_{-1121}	8234^{+44932}_{-5576}

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

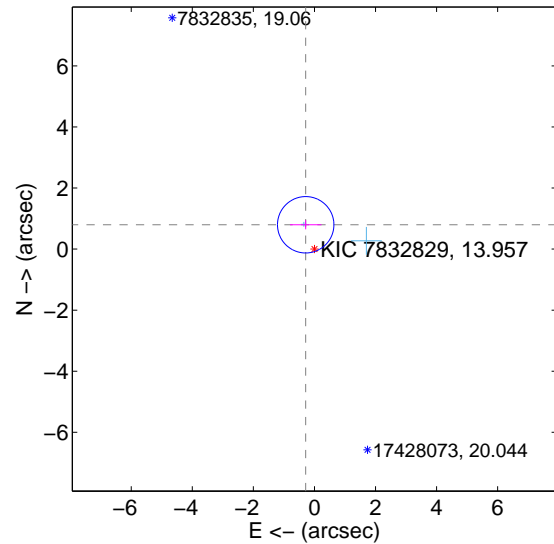
Supplemental centroid analysis for 007832829-02. Kepler magnitude: 13.96. Transit SNR 4.37

There are 2 quarters with good PRF difference image offsets

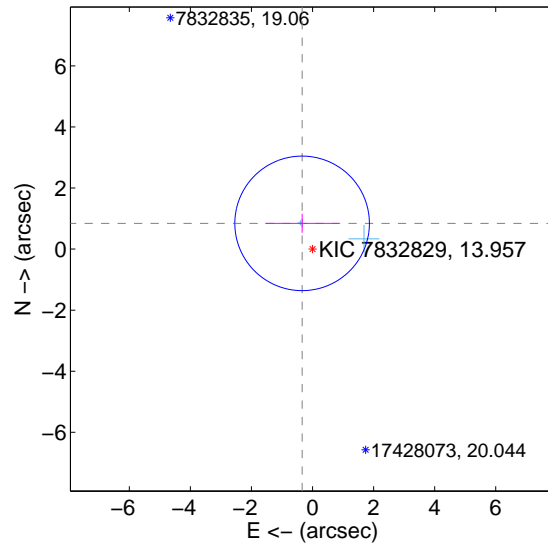
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.846 ± 0.308	2.75	0.286 ± 0.516	0.796 ± 0.151
PRF-fit source offset from KIC position	0.909 ± 0.734	1.24	0.341 ± 1.206	0.843 ± 0.309
photometric centroid source offset	0.44 ± 2.05	0.21	0.44 ± 2.05	0.01 ± 2.04

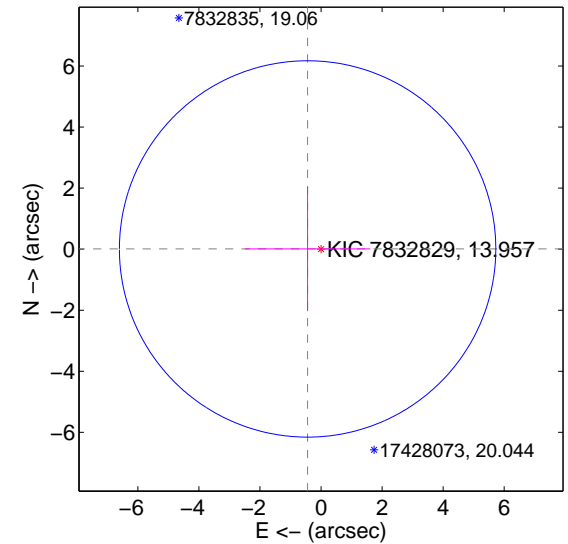
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



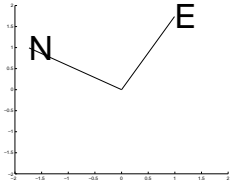
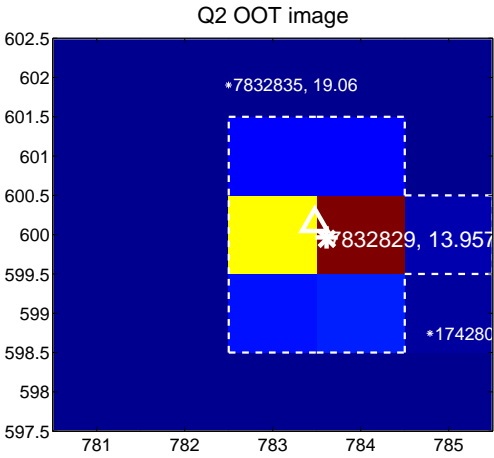
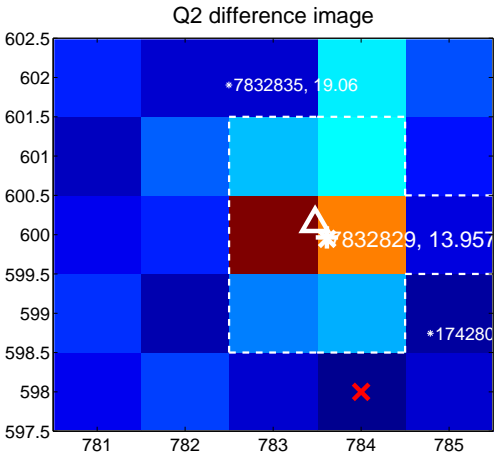
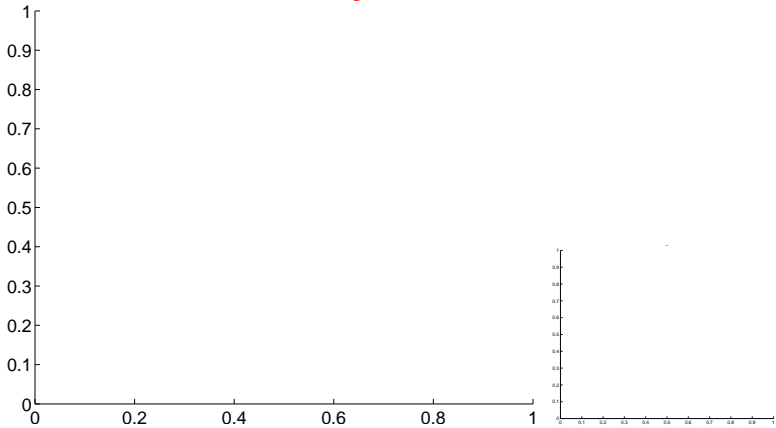
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

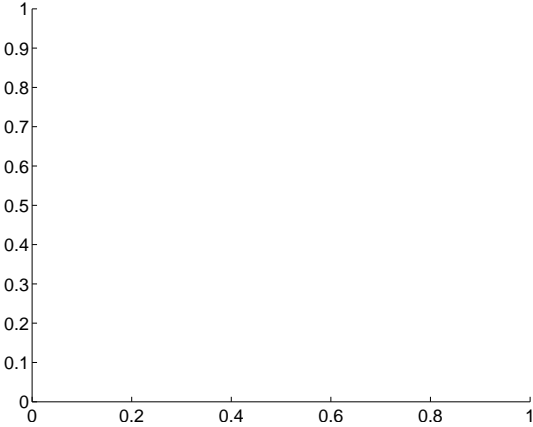
Q1 no difference image



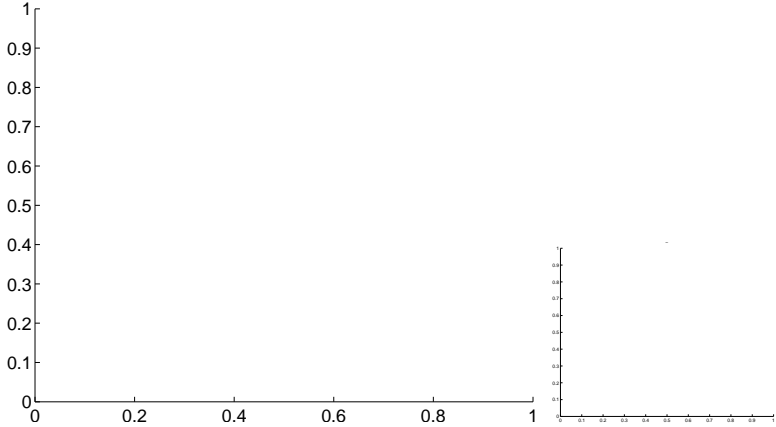
Q1 no OOT image



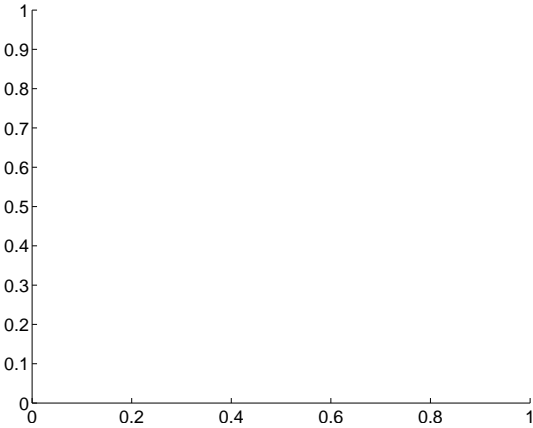
Q3 no difference image



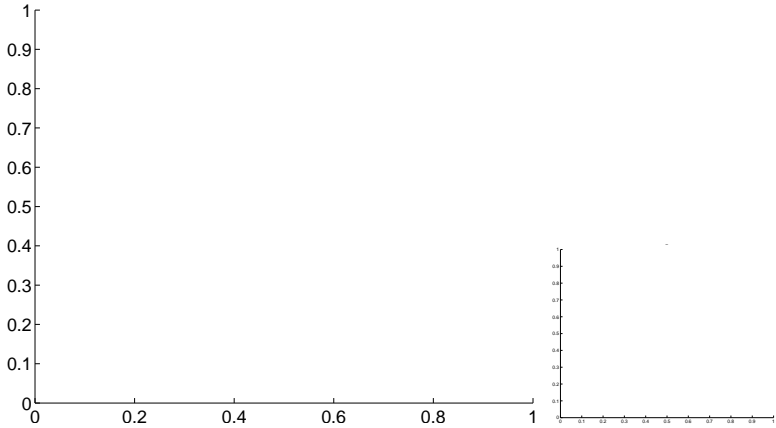
Q3 no OOT image



Q4 no difference image



Q4 no OOT image



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

Q5 no difference image



Q5 no OOT image



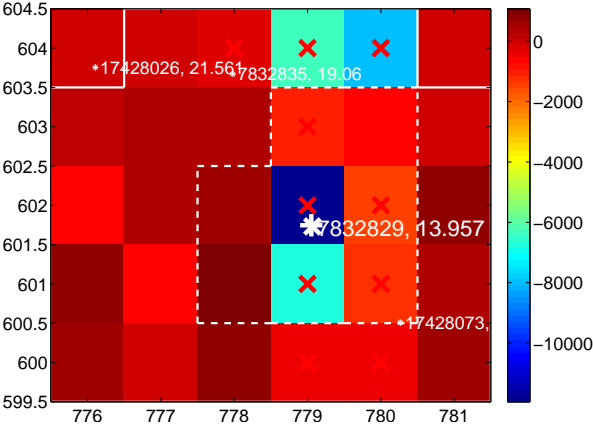
Q6 no difference image



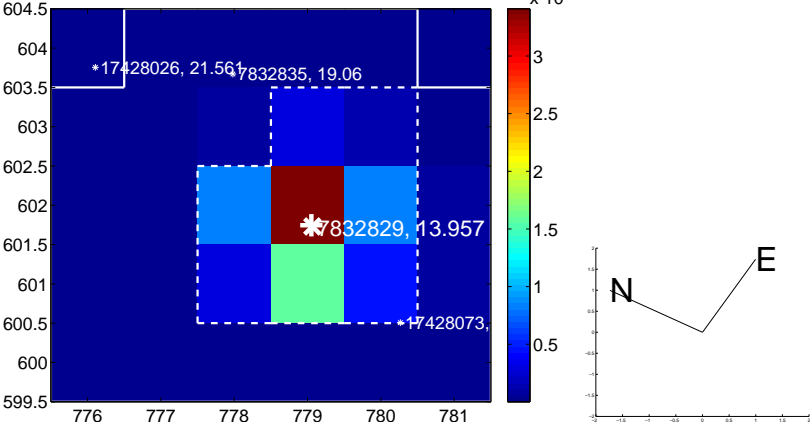
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



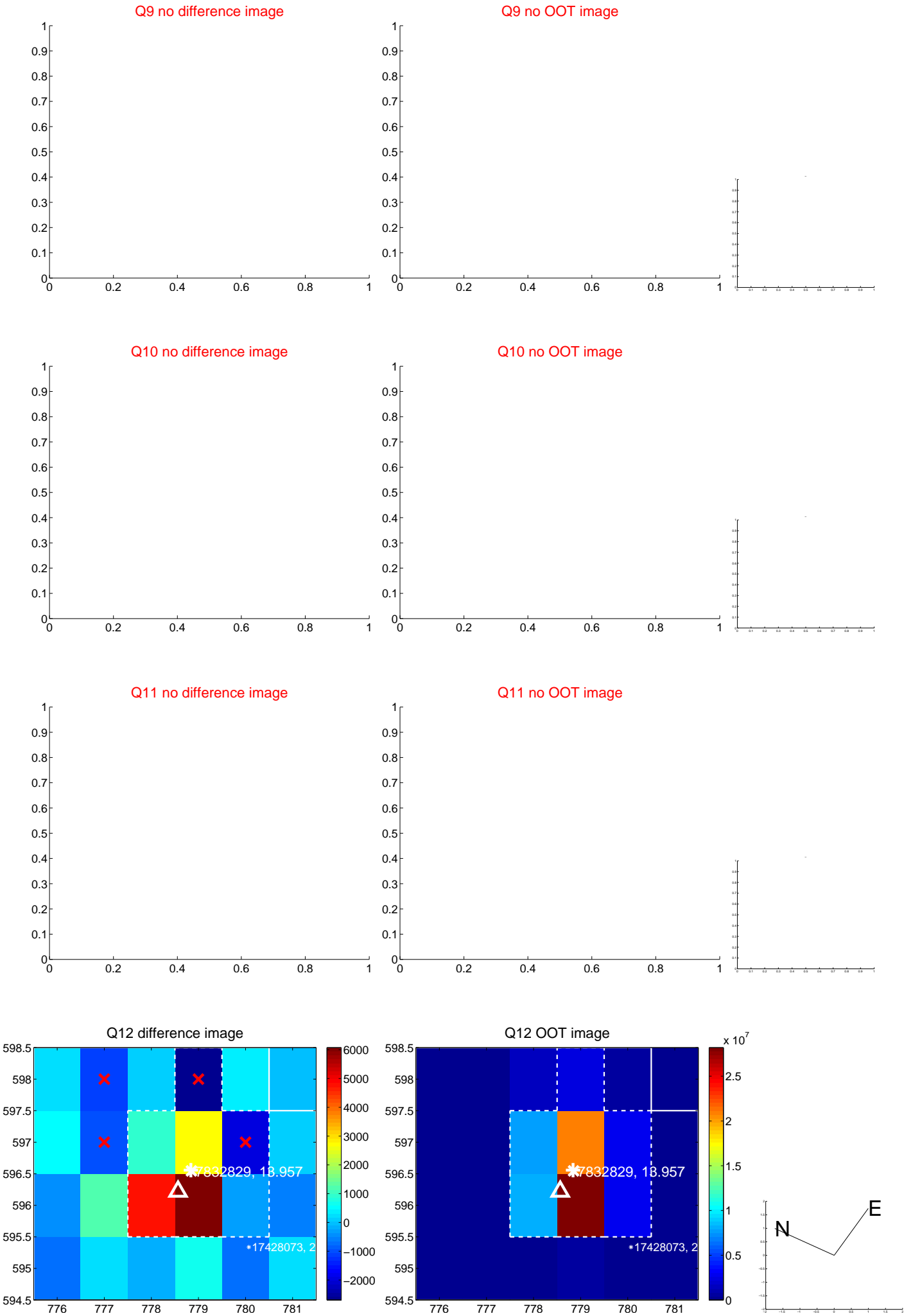
Q8 no difference image



Q8 no OOT image



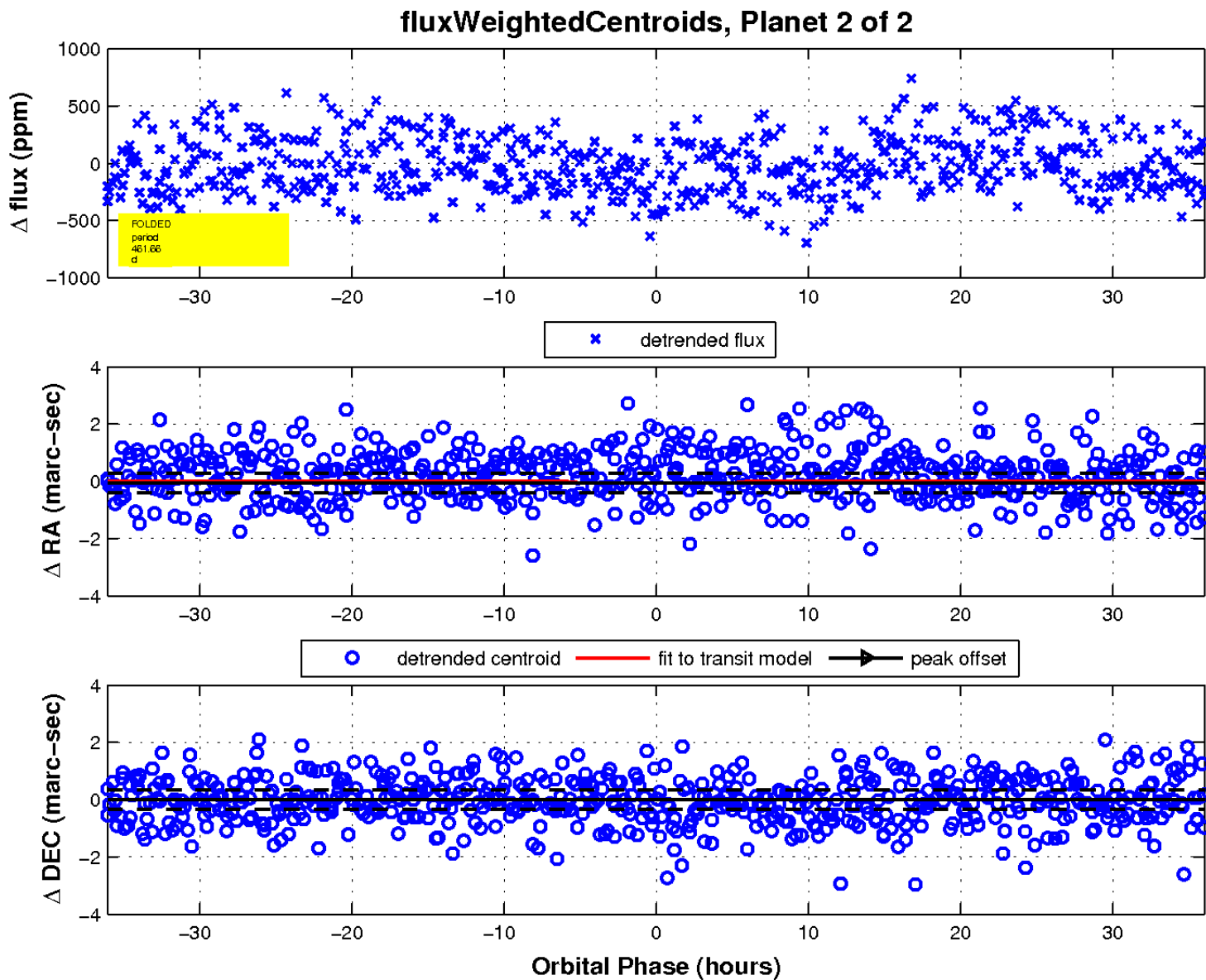
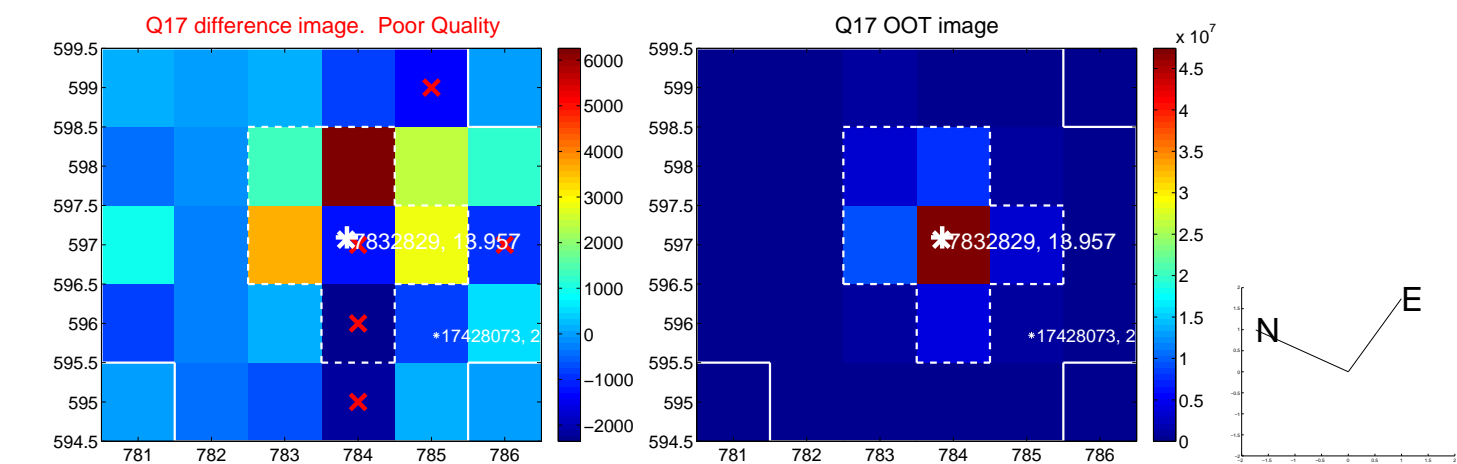
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

