

KIC 006283344

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})
006283344-01	OBS	No	383.000967	327.745236	4326.5	7.868	13.3	11.0	0.88	5974	10.60	0.89
006283344-02	OBS	No	0.893982	132.121338	83.3	1.045	8.4	3.7	0.88	5974	1.74	2871.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006283344-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006283344-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

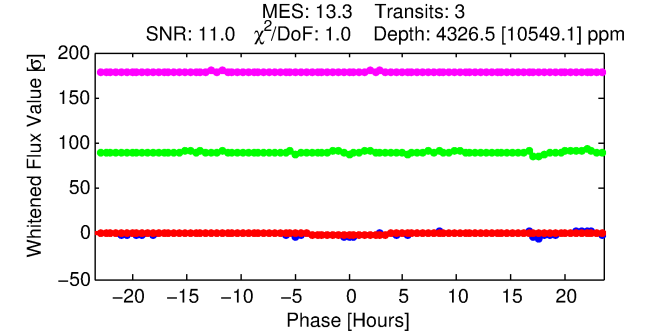
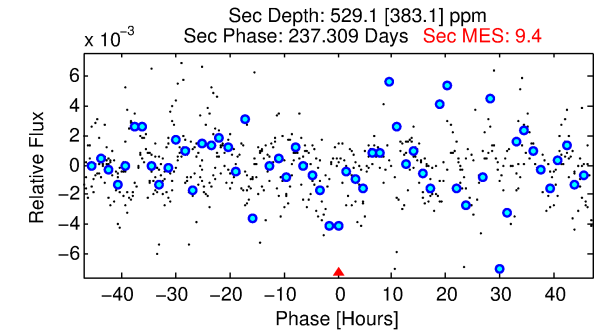
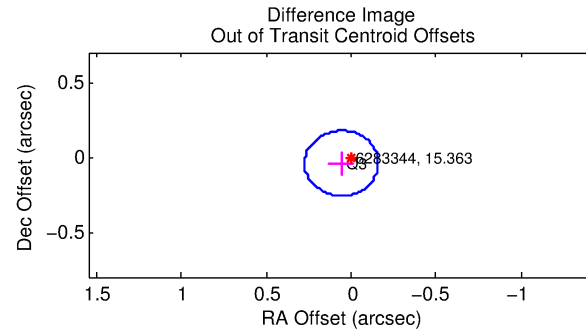
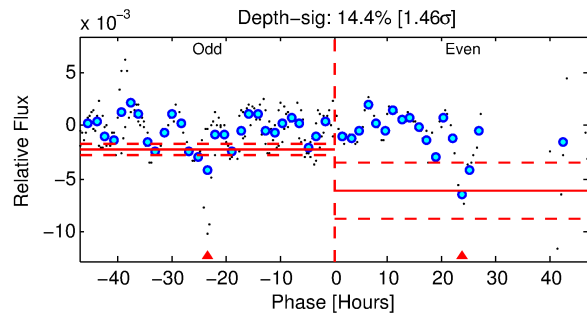
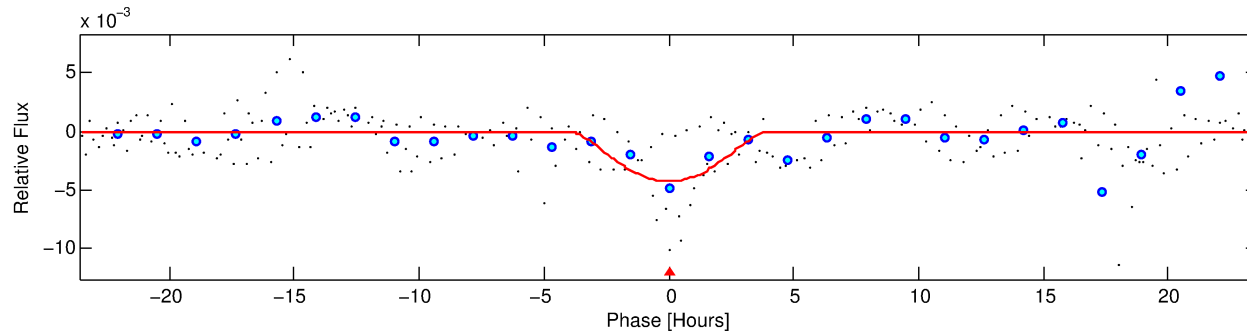
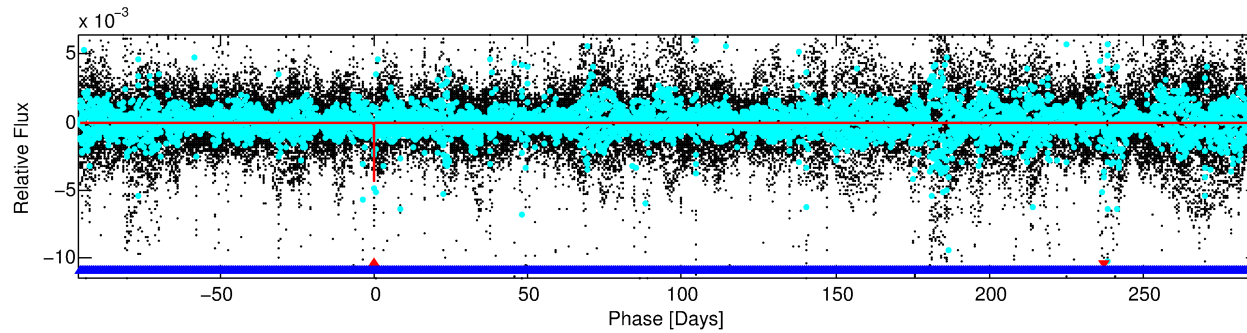
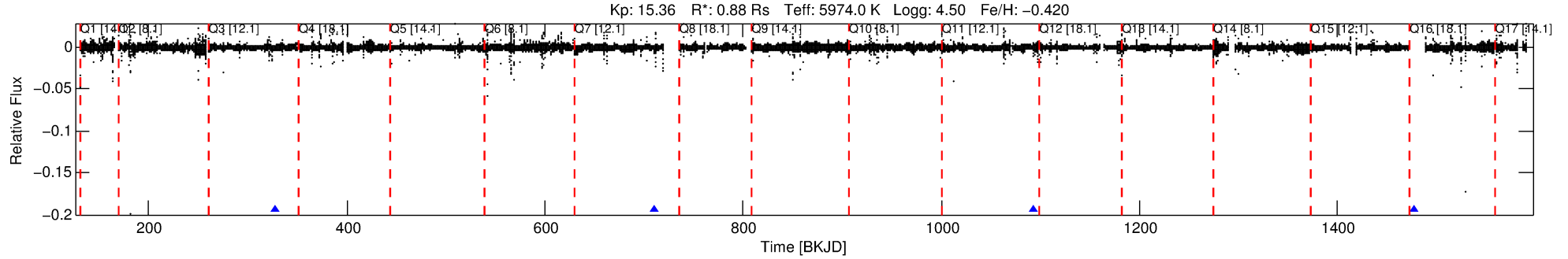
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006283344-01

No Significant Match Found

DV One-Page Summary

KIC: 6283344 Candidate: 1 of 2 Period: 383.001 d



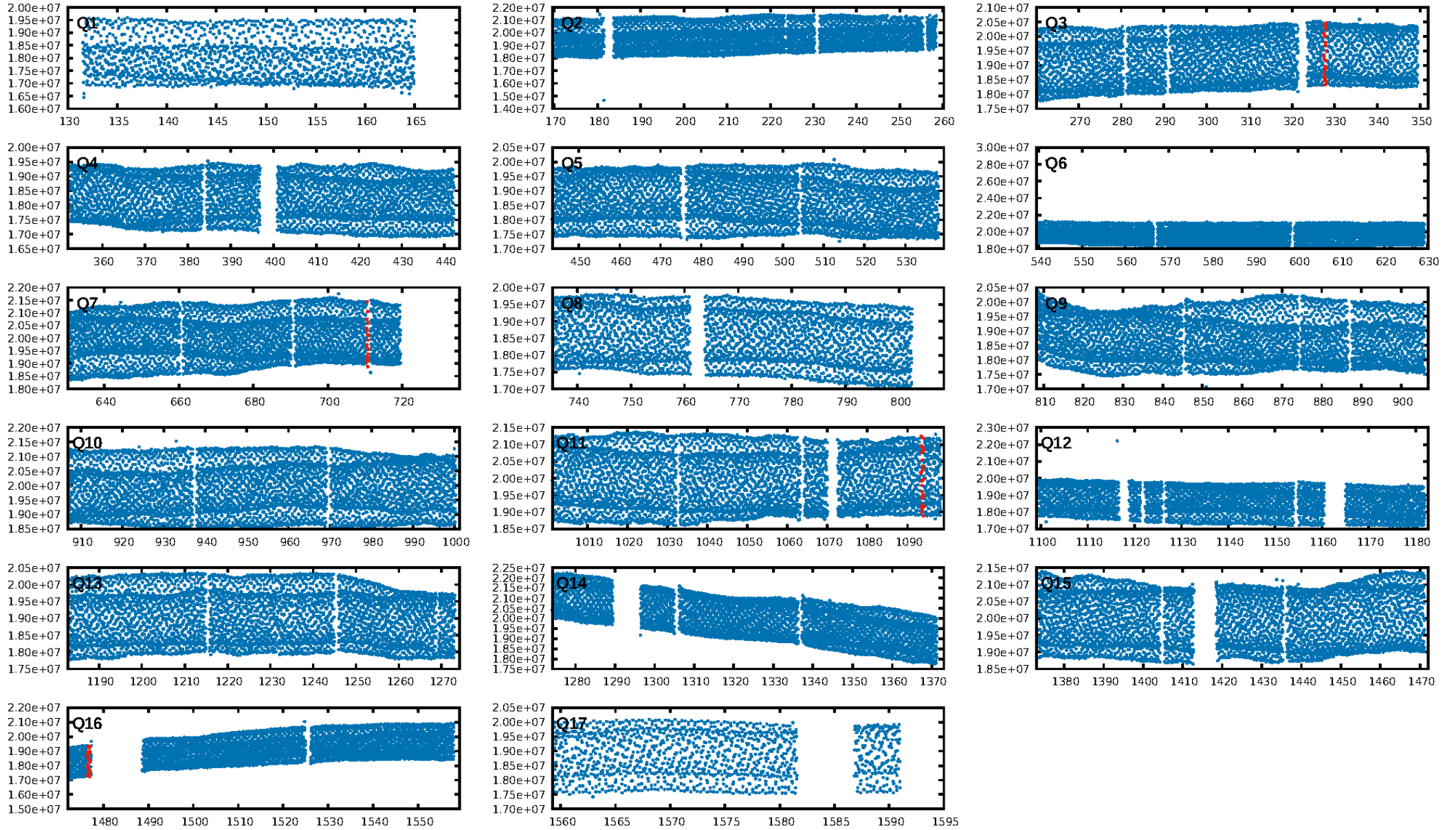
DV Fit Results:

Period = 383.00097 [0.01787] d
Epoch = 327.7452 [0.0193] BKJD
Rp/R* = 0.1102 [0.4786]
a/R* = 179.35 [132.46]
b = 1.00 [0.50]
Seff = 0.89 [0.33]
Teq = 248 [23] K
Rp = 10.60 [46.10] Re
a = 0.9980 [0.2333] AU
Ag = 2582.48 [22523.86] [0.11 σ]
Teffp = 2729 [5947] K [0.42 σ]

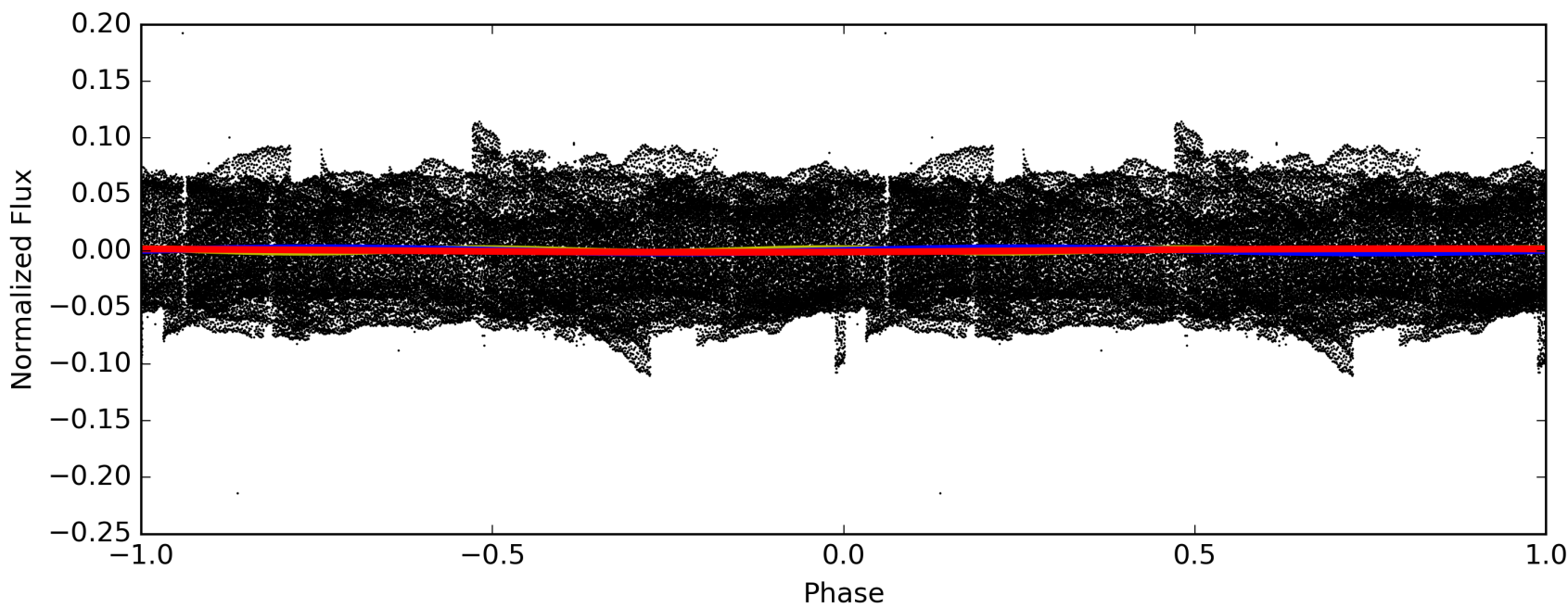
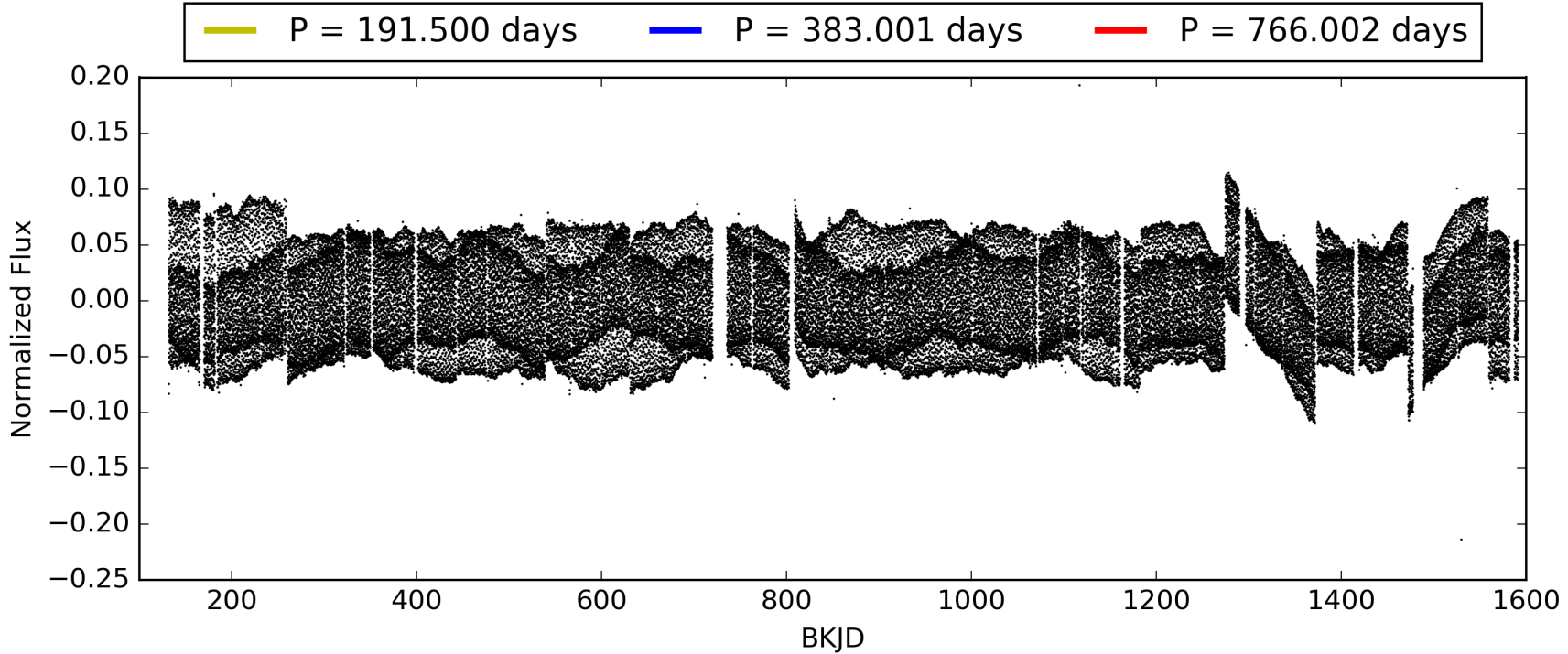
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [1155.42 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 98.0%
Bootstrap-pfa: 1.52e-06
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.7881
Centroid-sig: 67.1%
Centroid-so: 0.156 arcsec [0.49 σ]
OotOffset-rm: 0.071 arcsec [0.99 σ]
KicOffset-rm: 0.332 arcsec [4.61 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/1]

TCE 006283344-01, PDC Light Curves

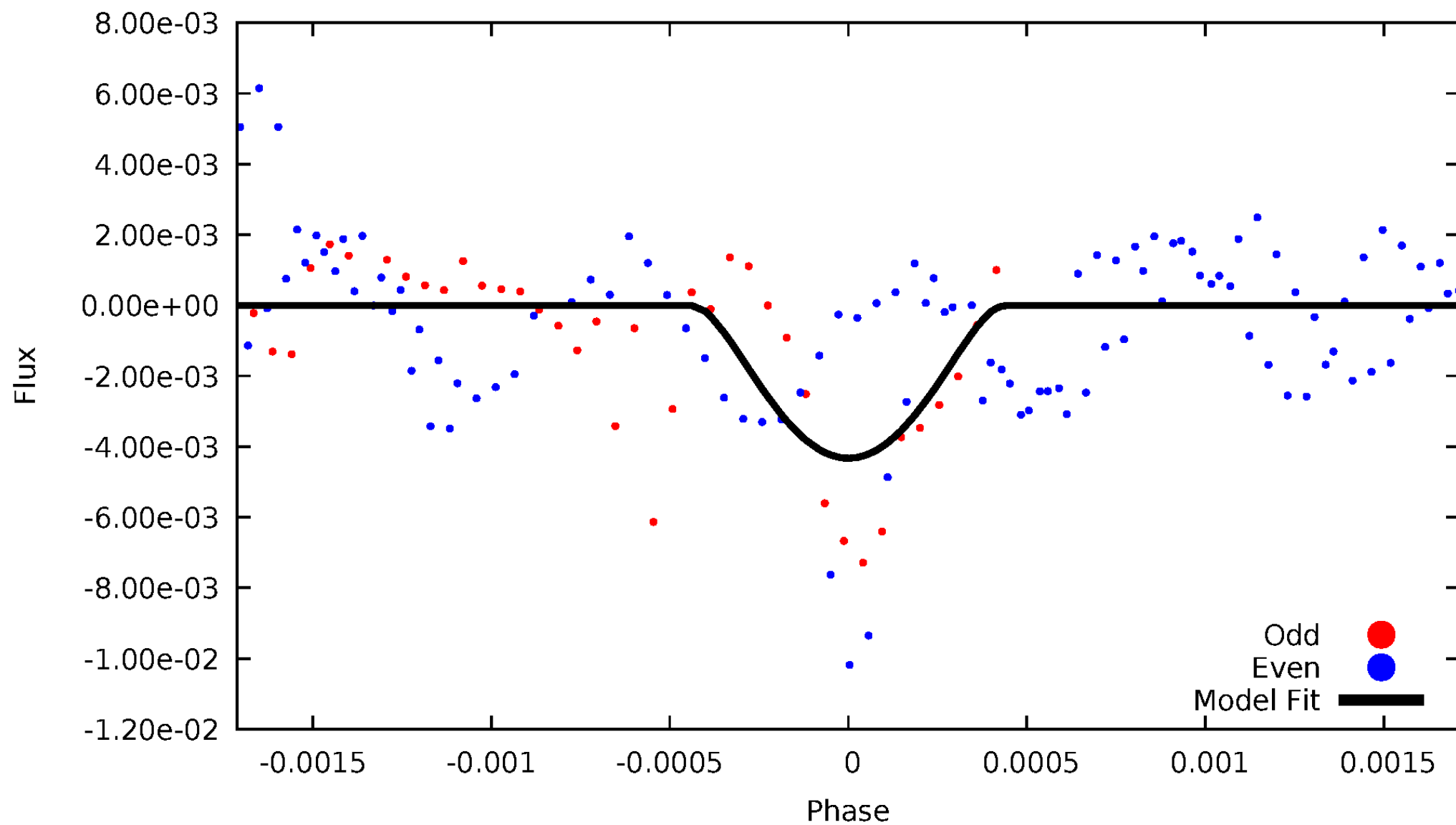


TCE 006283344-01



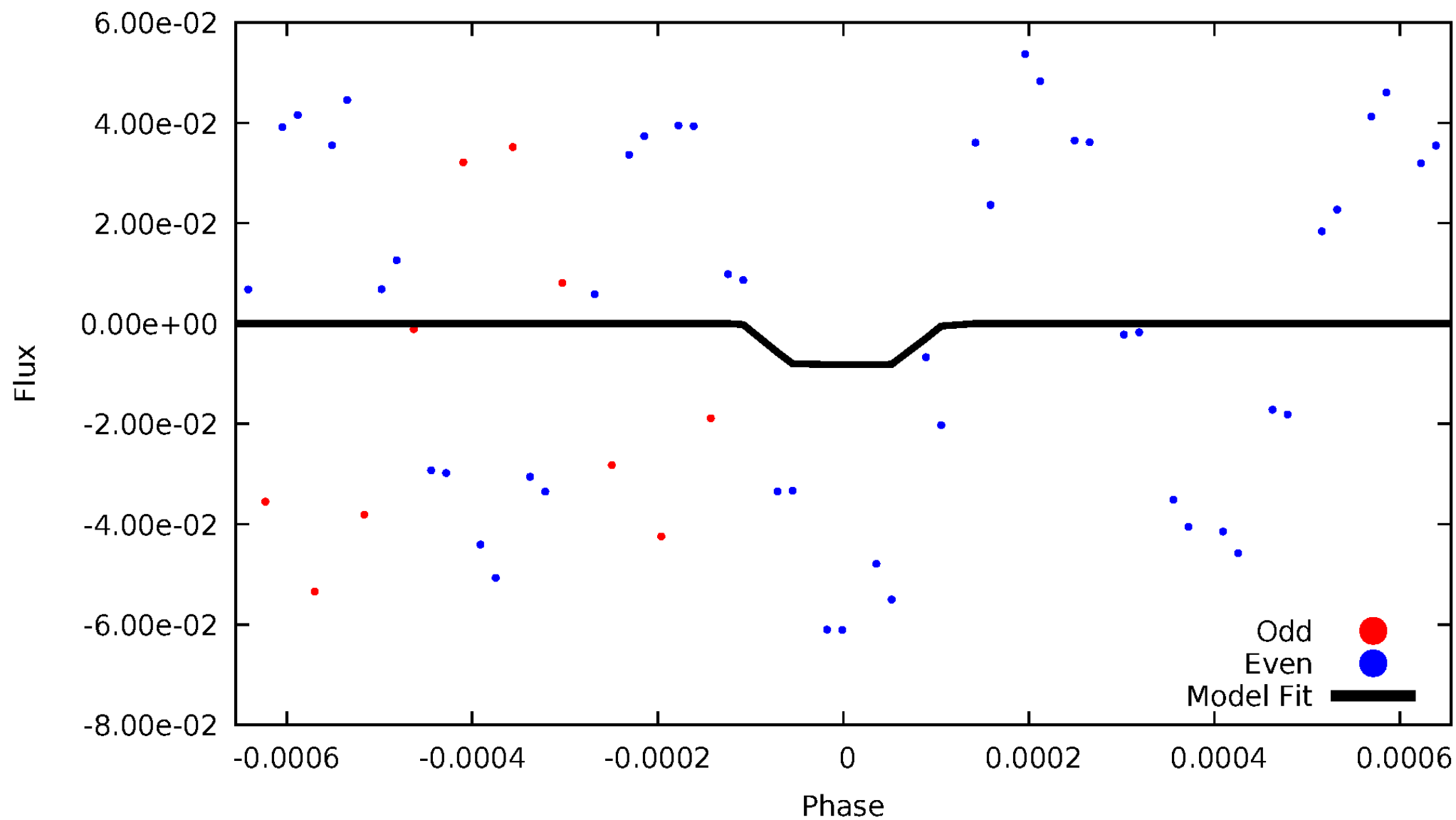
DV Odd/Even

TCE 006283344-01



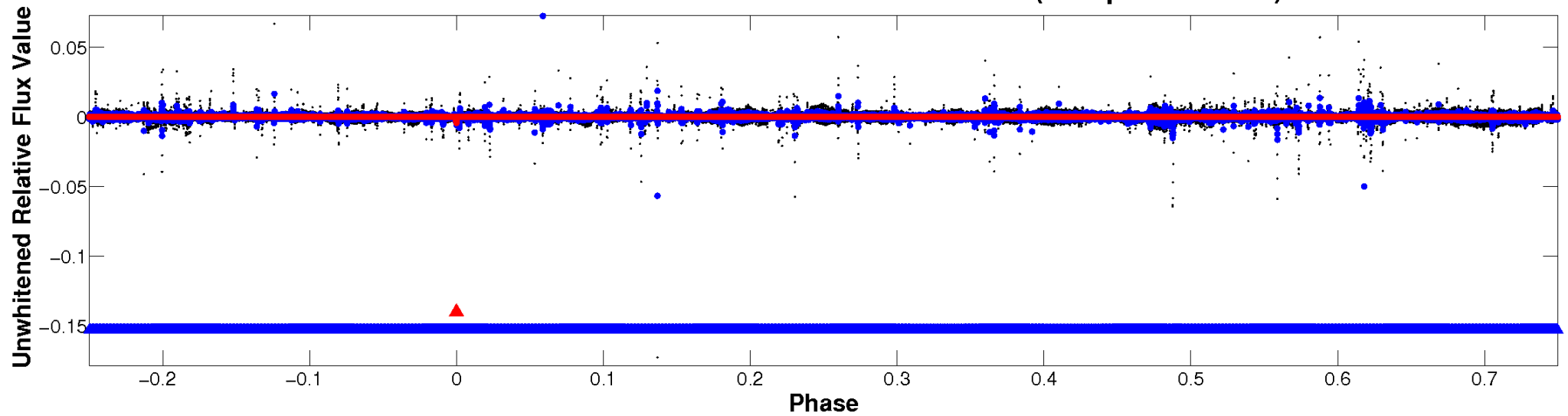
ALT Odd/Even

TCE 006283344-01

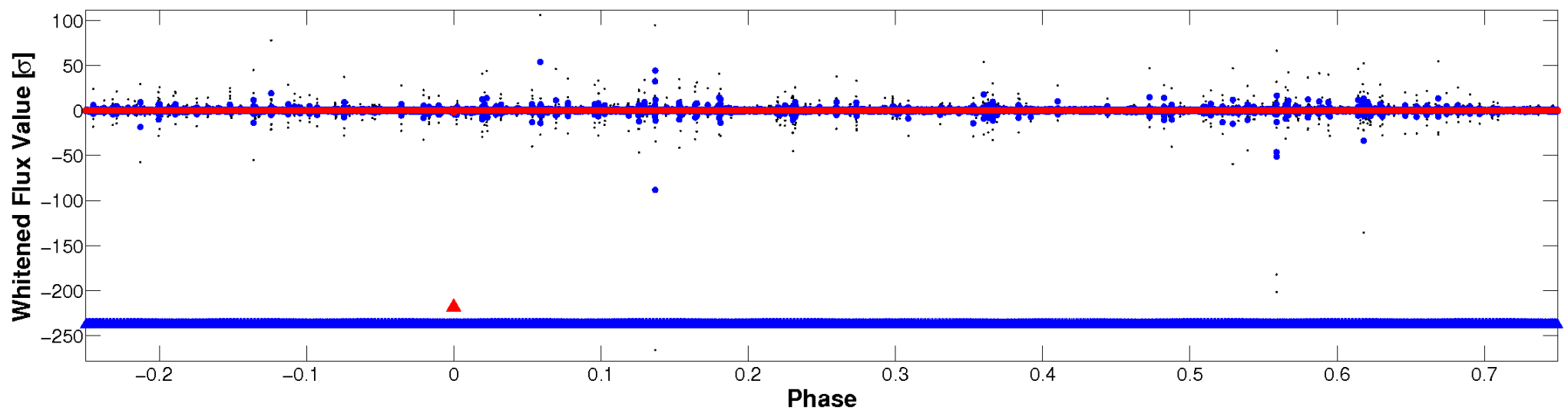


Non-Whitened Vs. Whitened Light Curve

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

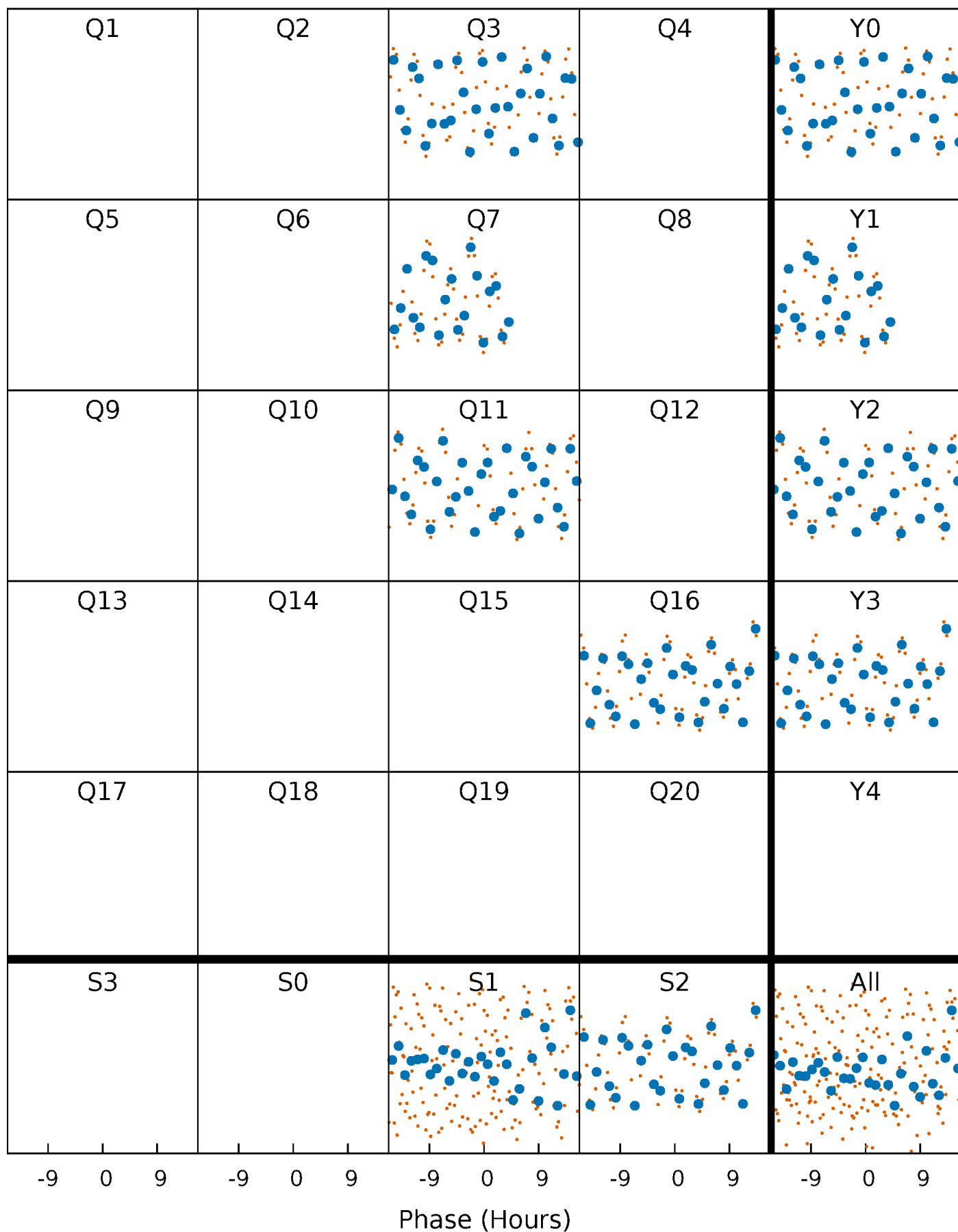


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



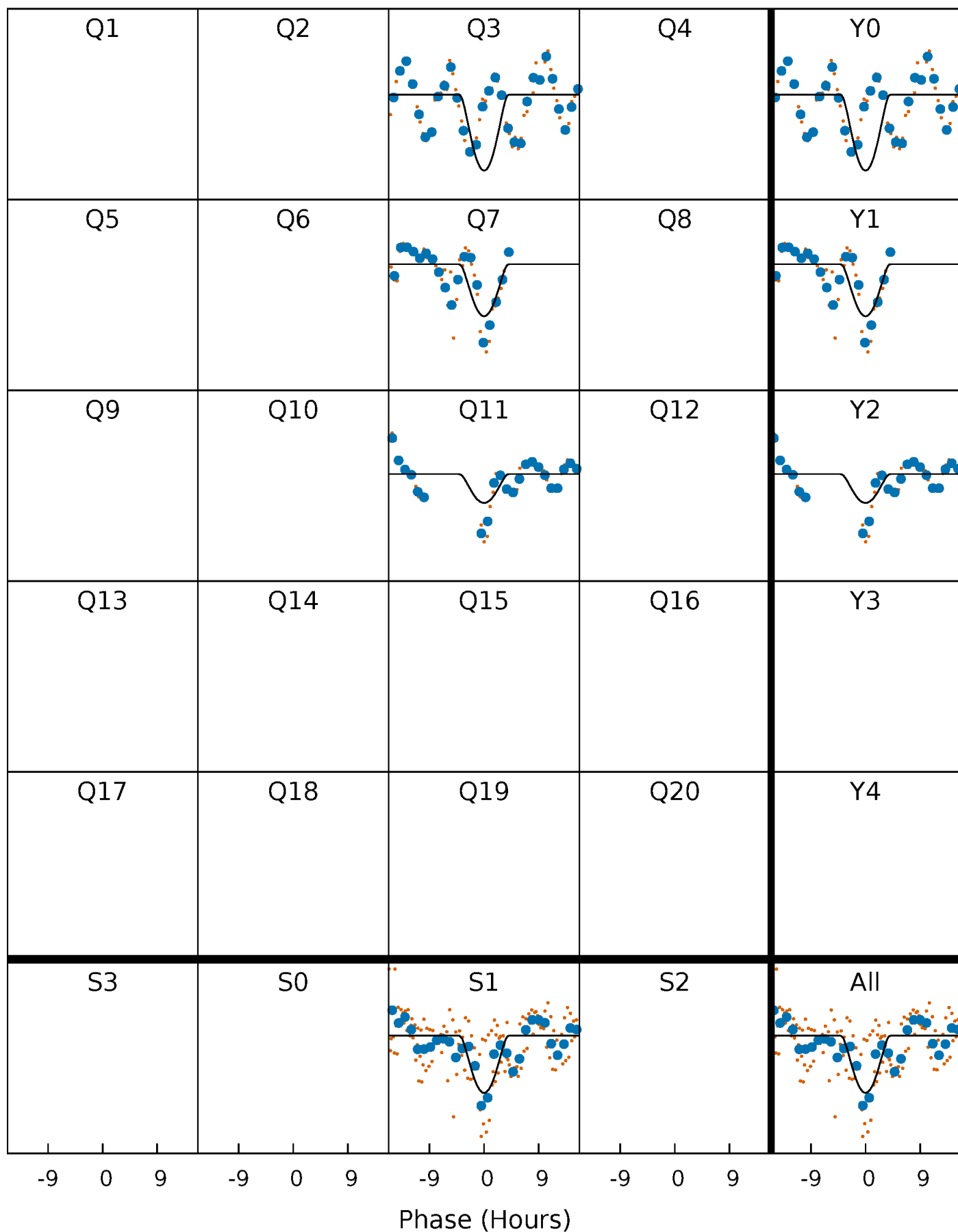
PDC Quarter-Phased Transit Curves

TCE 006283344-01 P=383.000967 Days $T_0=327.745236$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006283344-01 P=383.000967 Days $T_0=327.745236$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

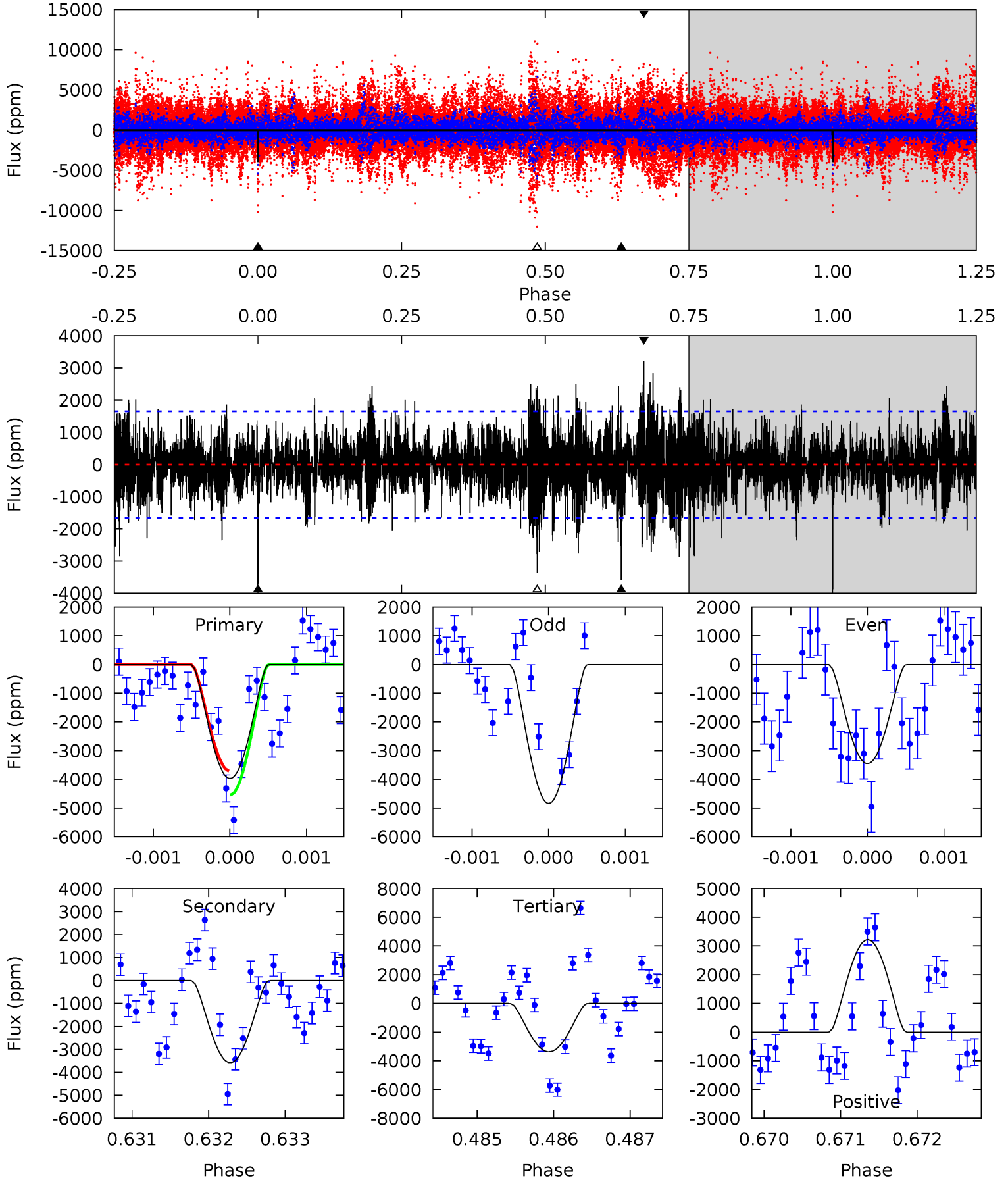
TCE 006283344-01 P=383.020271 Days $T_0=327.939410$ (BKJD)



DV Model-Shift Uniqueness Test

006283344-01, P = 383.000967 Days, E = 327.745236 Days

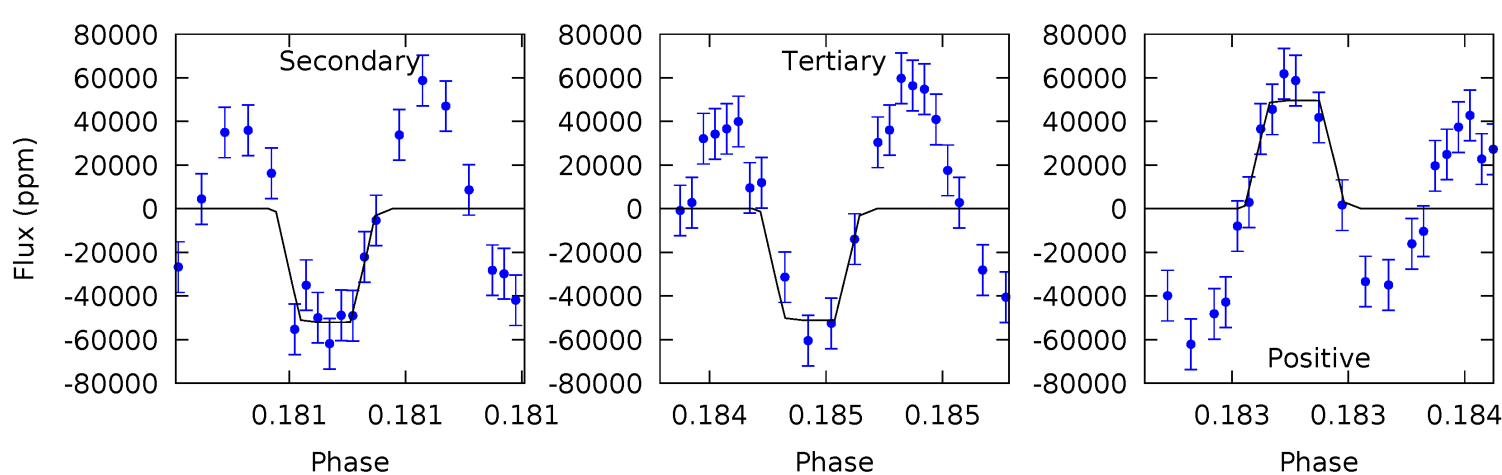
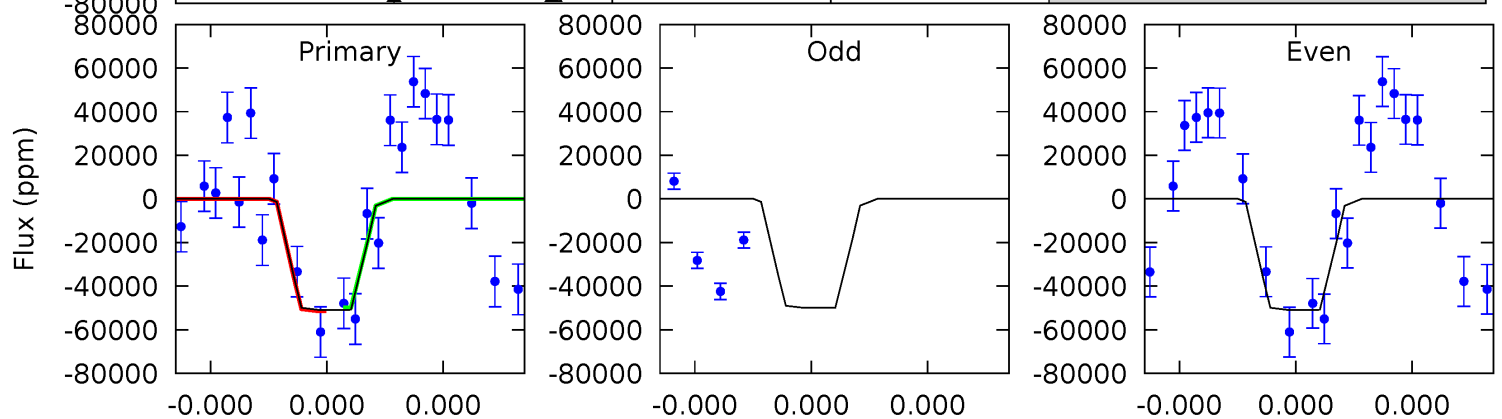
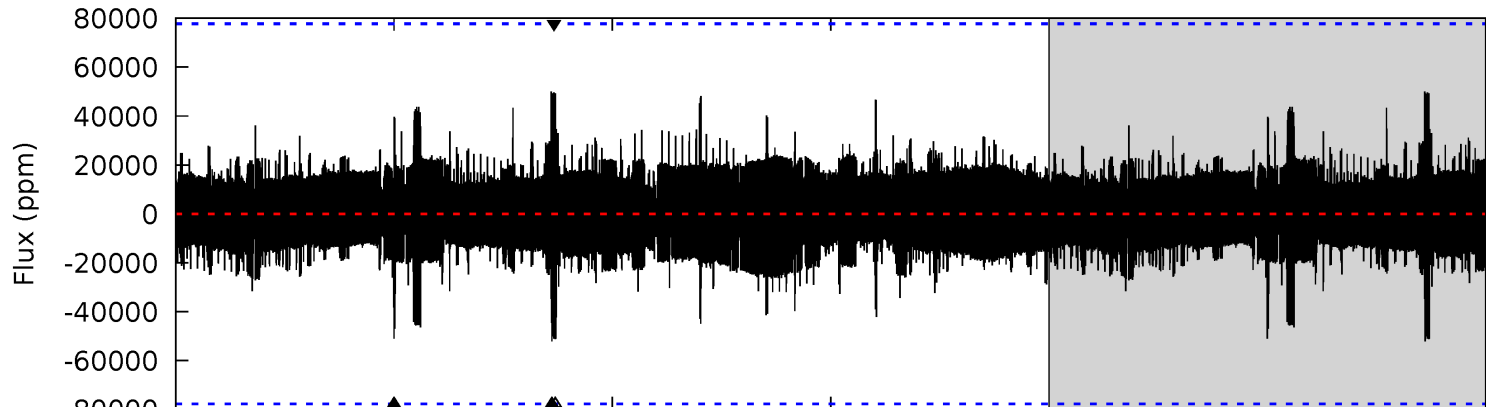
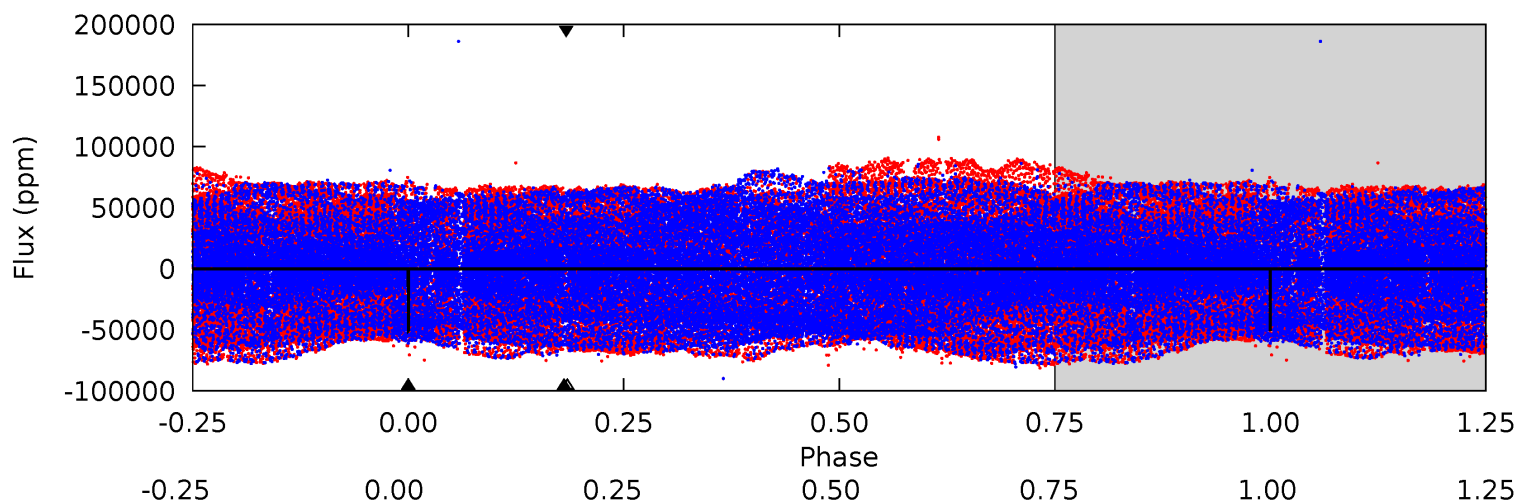
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	11.8	11.1	10.6	5.48	3.33	2.29	2.01	2.49	0.71	1.20	2.01	0.88	0.45	1.37



Alt Model-Shift Uniqueness Test

006283344-01, P = 383.020271 Days, E = 327.939410 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.73	3.81	3.74	3.63	5.69	3.66	0.73	-0.02	0.10	0.07	0.18	0.04	1.00	0.49	0.06



Stellar Parameters For KIC 006283344

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5974^{+161}_{-197}	$4.504^{+0.062}_{-0.188}$	$-0.420^{+0.300}_{-0.300}$	$0.881^{+0.243}_{-0.087}$	$0.904^{+0.110}_{-0.100}$	$1.859^{+0.589}_{-0.923}$
	+3%/-3%	+1%/-4%	+71%/-71%	+28%/-10%	+12%/-11%	+32%/-50%
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 006283344-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3580 ± 302	$36.83^{+41.14}_{-26.16}$	352^{+24}_{-17}	3057^{+1557}_{-548}	1399^{+15472}_{-1080}
Alt.	-52048 ± 13659	$35.84^{+36.24}_{-25.44}$	351^{+23}_{-16}	4902^{+4788}_{-1201}	$22778^{+280328}_{-17739}$

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

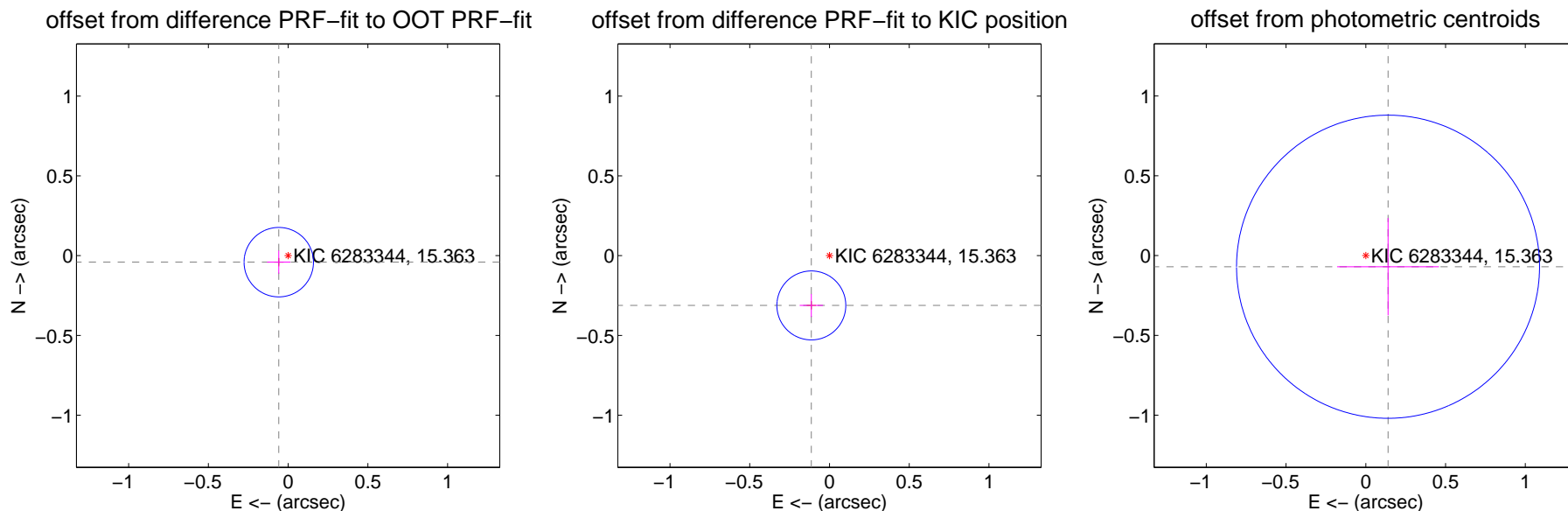
DV Centroid Data

Supplemental centroid analysis for 006283344-01. Kepler magnitude: 15.36. Transit SNR 11.00

There are 0 quarters with good PRF difference image offsets

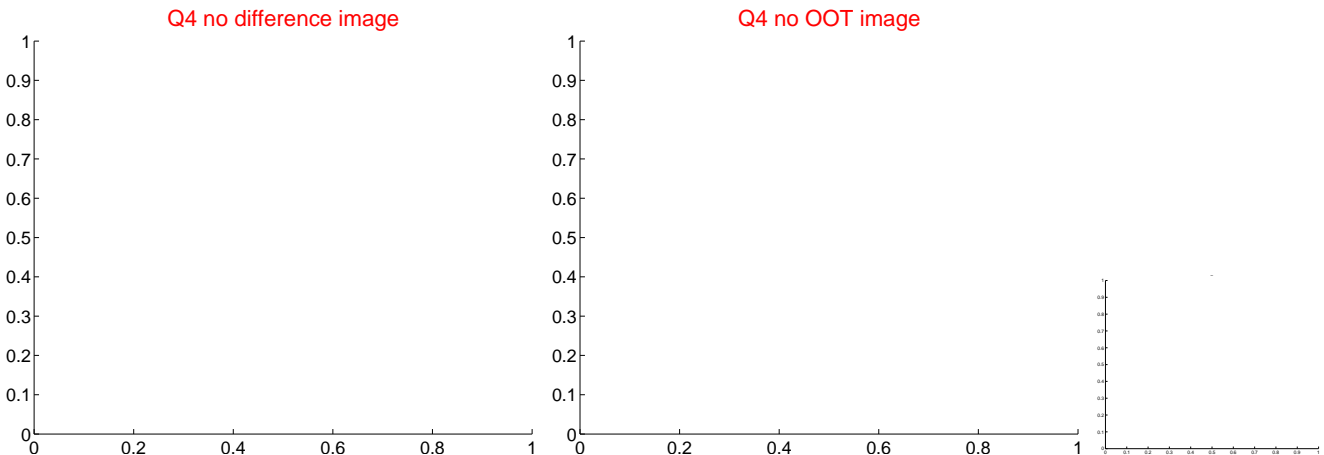
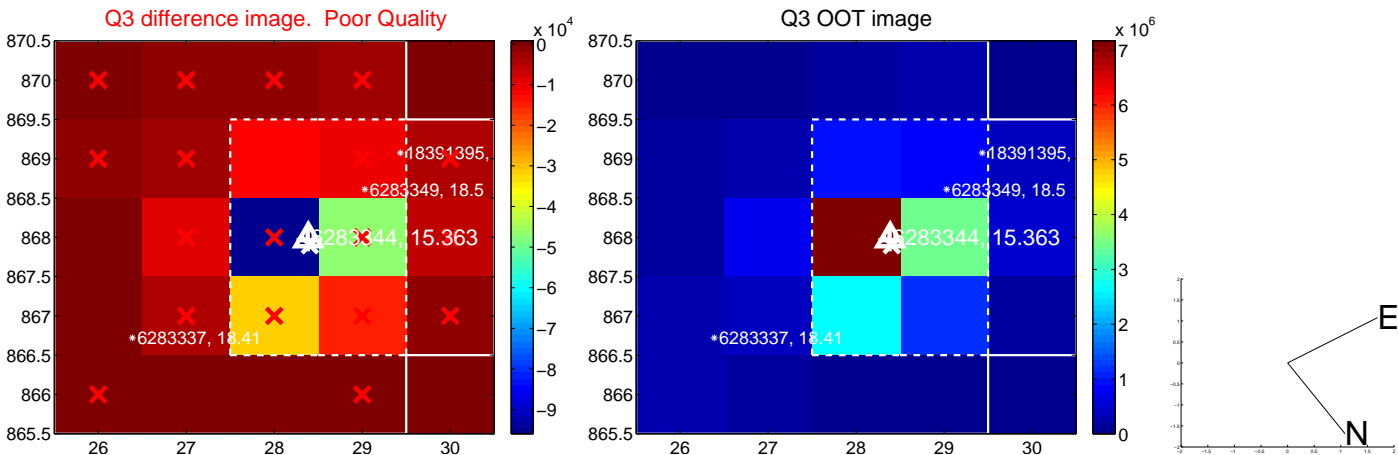
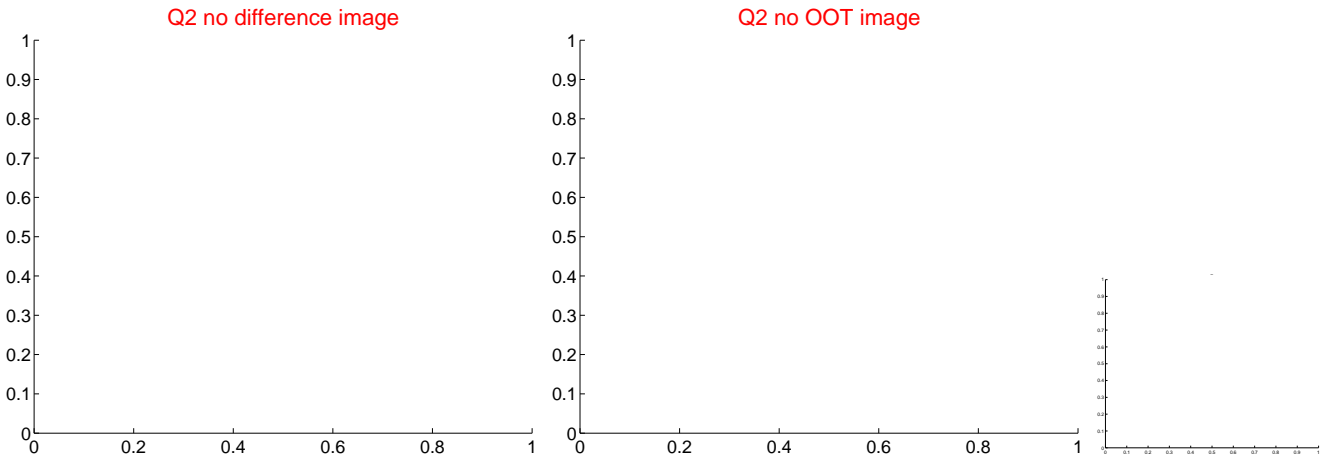
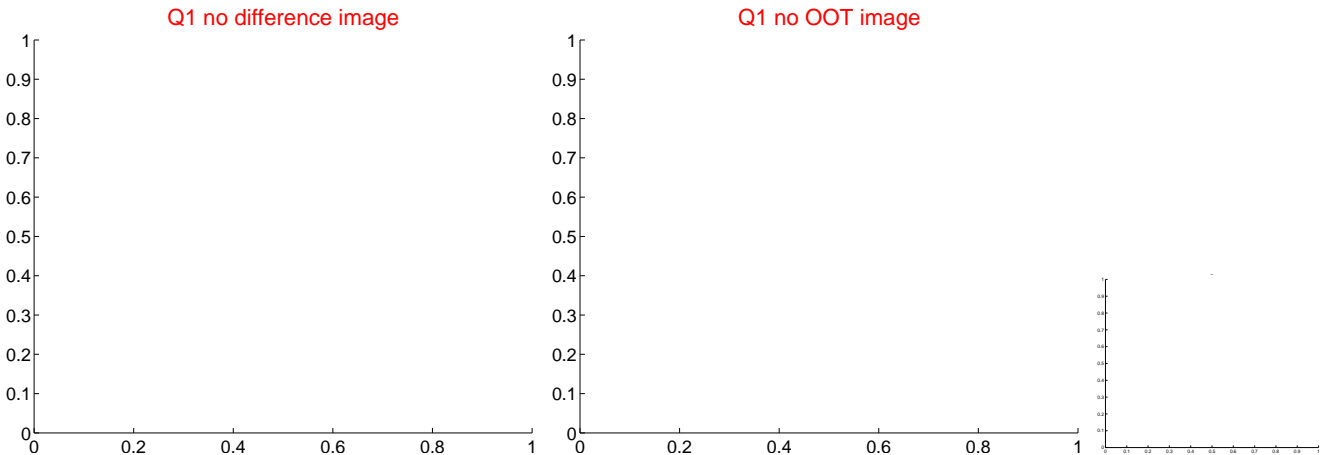
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.071 ± 0.073	0.99	0.059 ± 0.073	-0.041 ± 0.072
PRF-fit source offset from KIC position	0.332 ± 0.072	4.61	0.114 ± 0.073	-0.312 ± 0.072
photometric centroid source offset	0.16 ± 0.32	0.49	-0.14 ± 0.32	-0.07 ± 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.



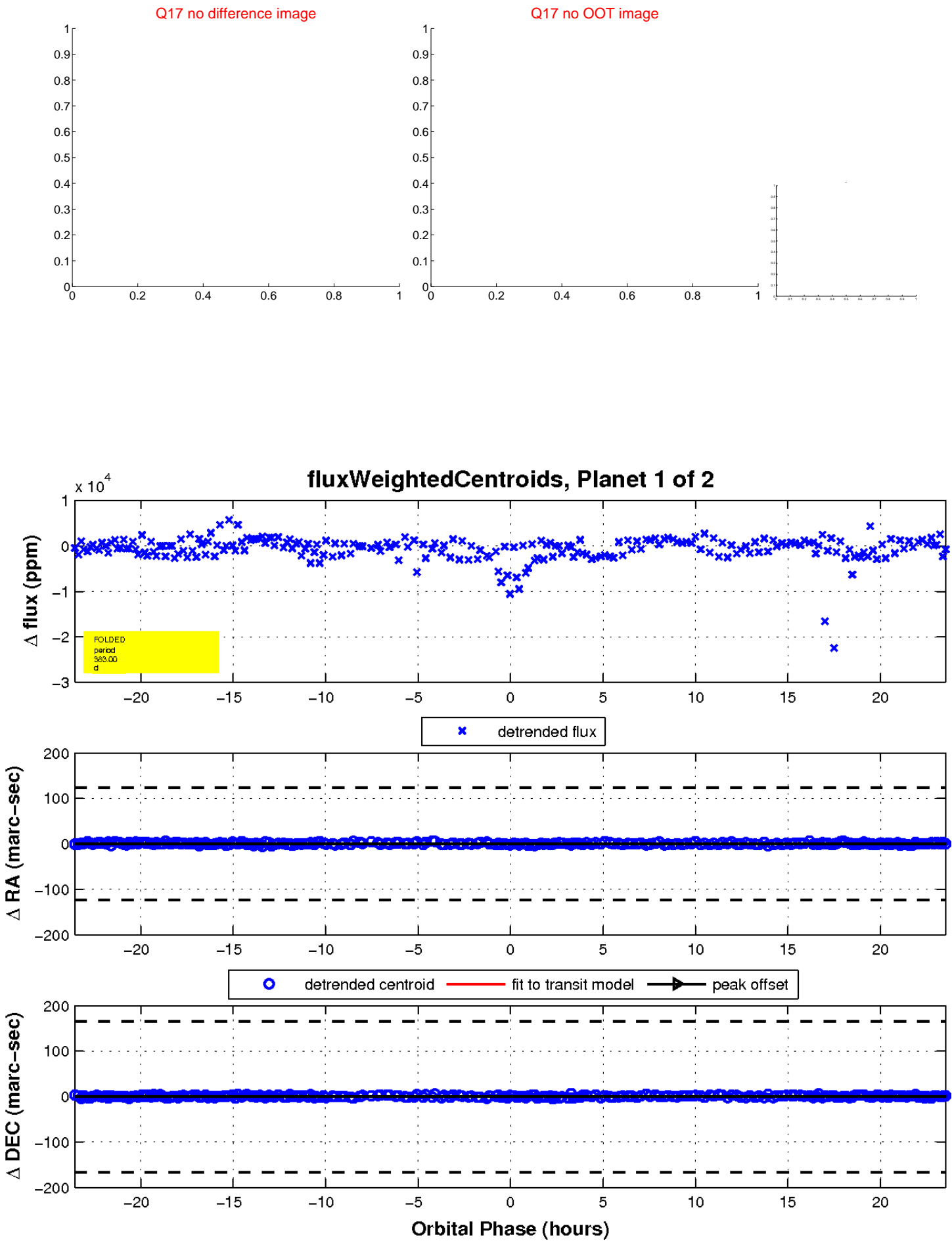
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

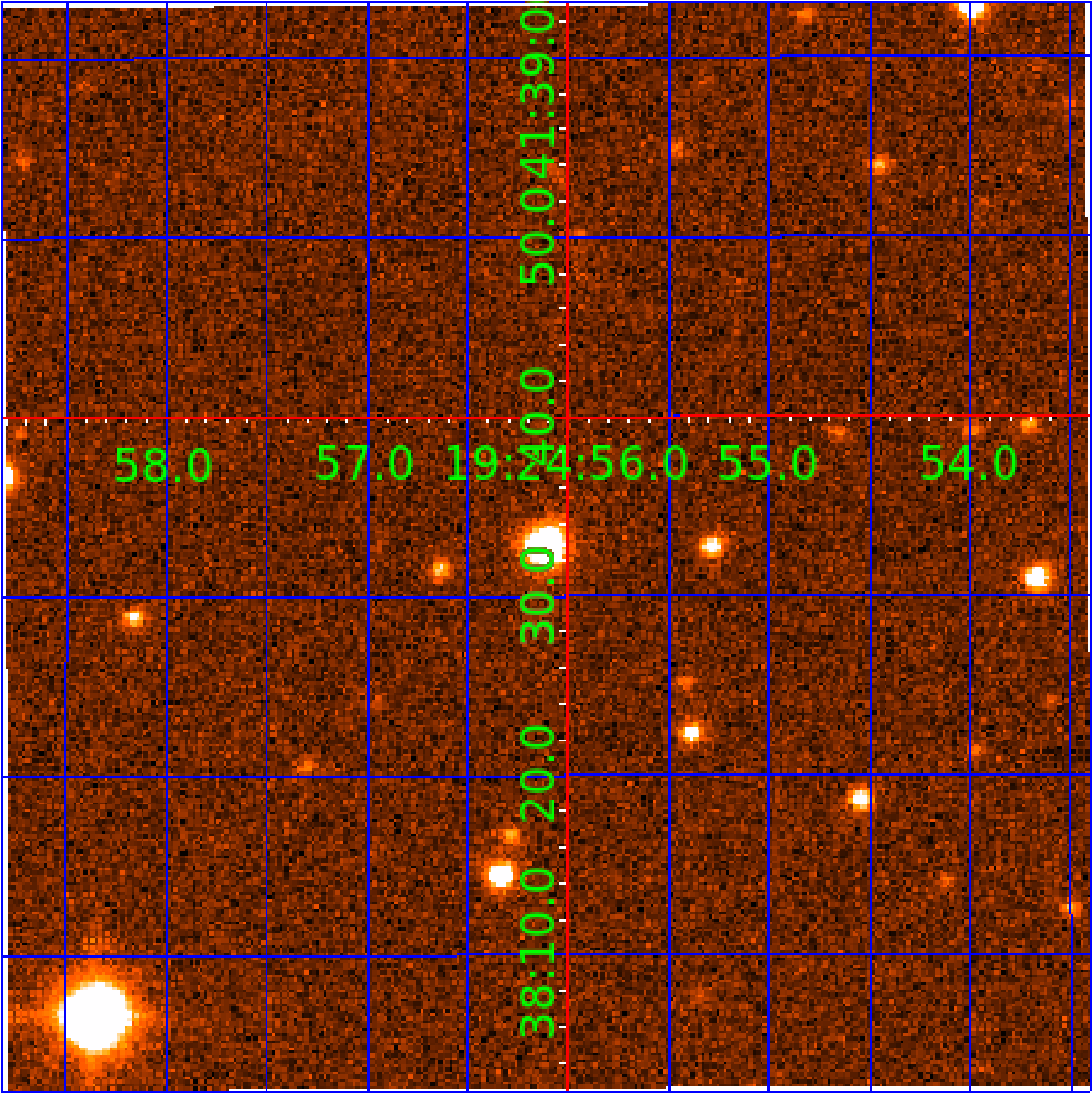


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006283344

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})
006283344-01	OBS	No	383.000967	327.745236	4326.5	7.868	13.3	11.0	0.88	5974	10.60	0.89
006283344-02	OBS	No	0.893982	132.121338	83.3	1.045	8.4	3.7	0.88	5974	1.74	2871.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006283344-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
006283344-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT

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

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

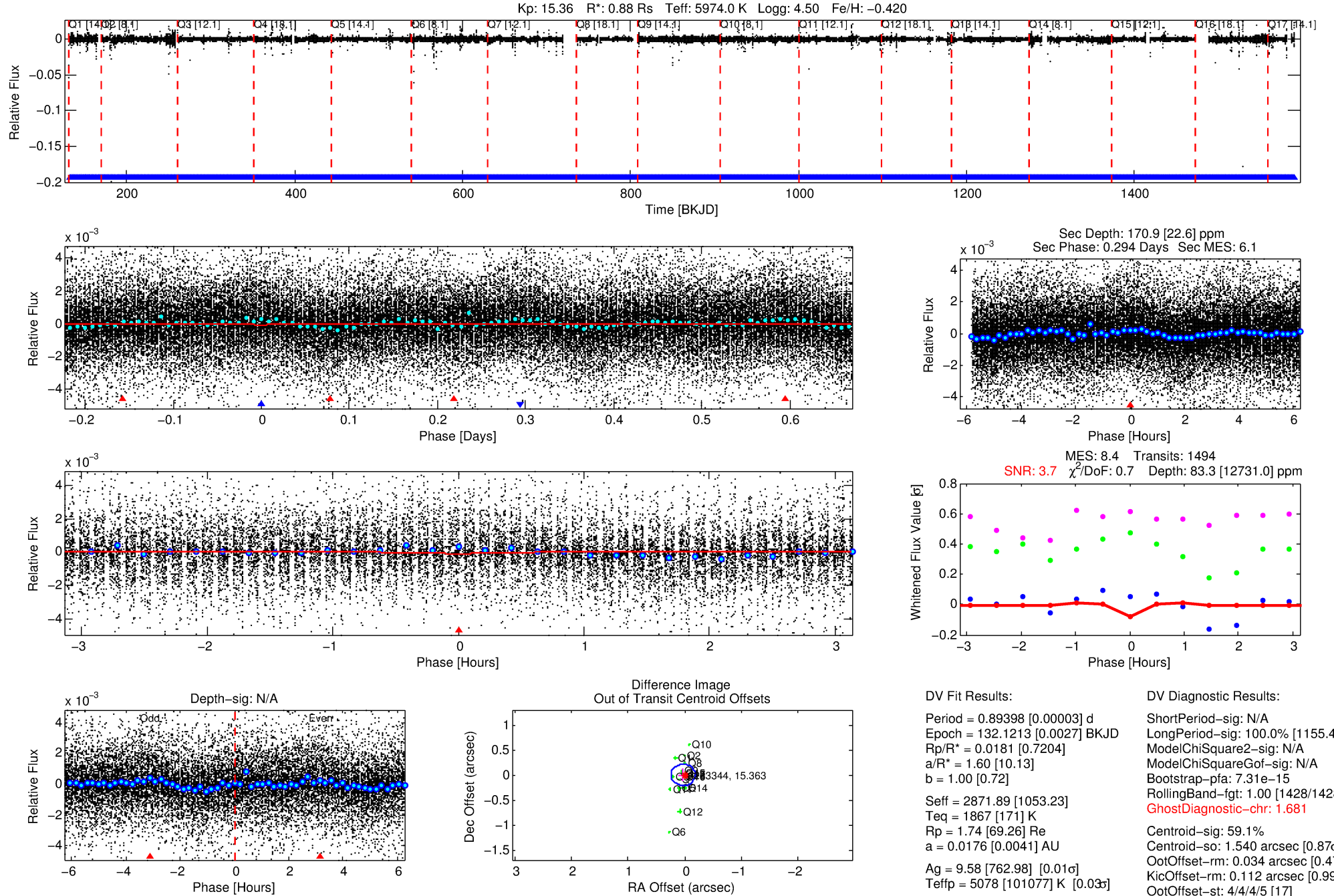
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006283344-02

No Significant Match Found

DV One-Page Summary

KIC: 6283344 Candidate: 2 of 2 Period: 0.894 d



DV Fit Results:

Period = 0.89398 [0.00003] d
Epoch = 132.1213 [0.0027] BKJD
Rp/R* = 0.0181 [0.7204]
a/R* = 1.60 [10.13]
b = 1.00 [0.72]
Seff = 2871.89 [1053.23]
Teq = 1867 [171] K
Rp = 1.74 [69.26] Re
a = 0.0176 [0.0041] AU
Ag = 9.58 [762.98] [0.01σ]
Teffp = 5078 [101077] K [0.03σ]

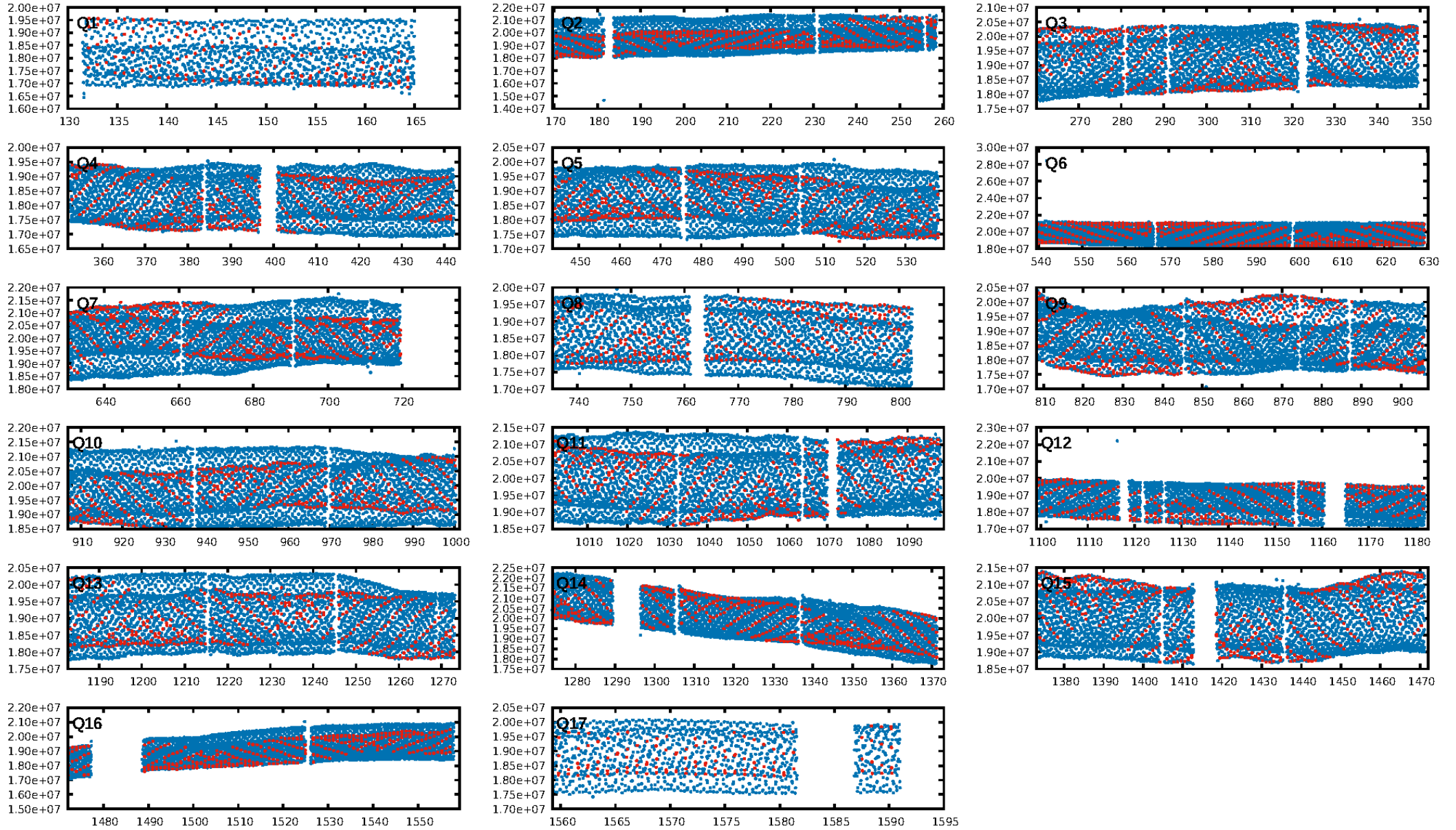
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1155.42σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.31e-15
RollingBand-fgt: 1.00 [1428/1428]
GhostDiagnostic-chr: 1.681
Centroid-sig: 59.1%
Centroid-so: 1.540 arcsec [0.87σ]
OotOffset-rm: 0.034 arcsec [0.47σ]
KicOffset-rm: 0.112 arcsec [0.99σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 1.00 [17/17]

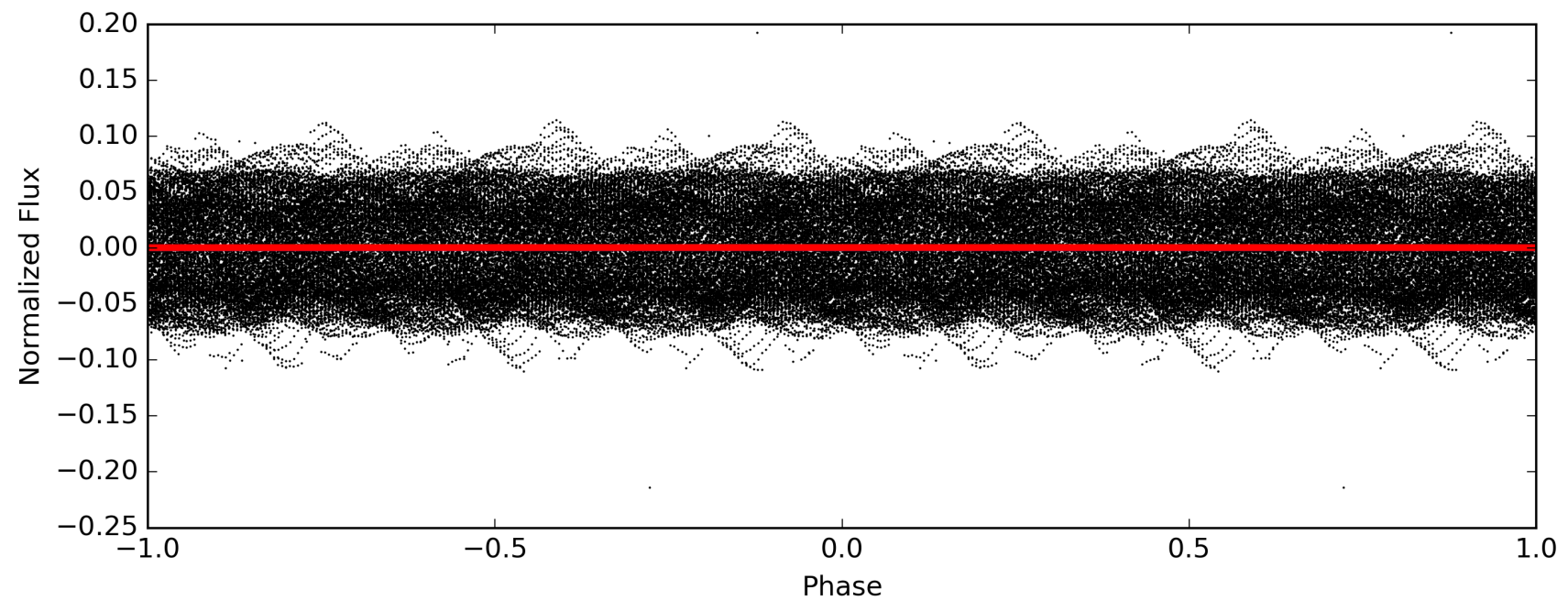
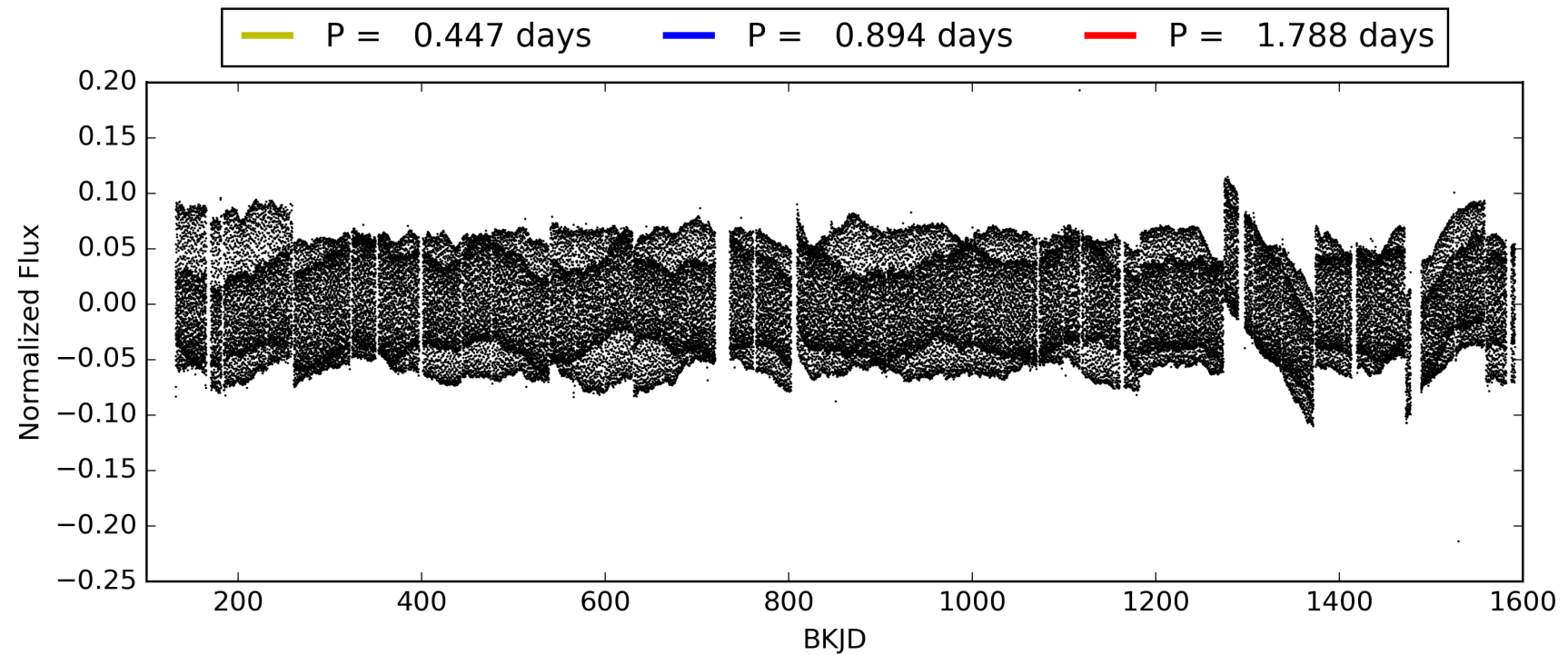
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:38:32 Z

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

TCE 006283344-02, PDC Light Curves

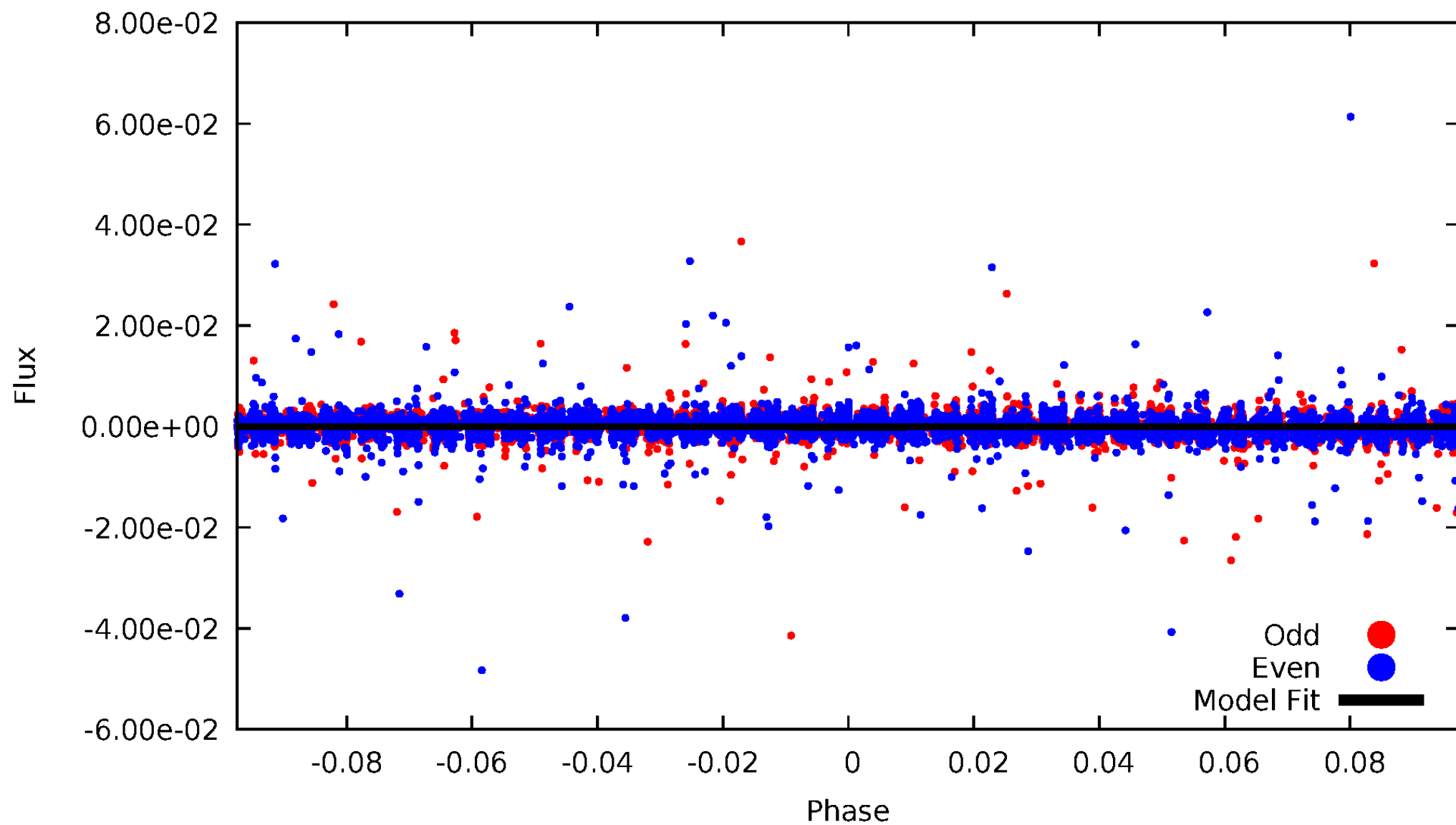


TCE 006283344-02



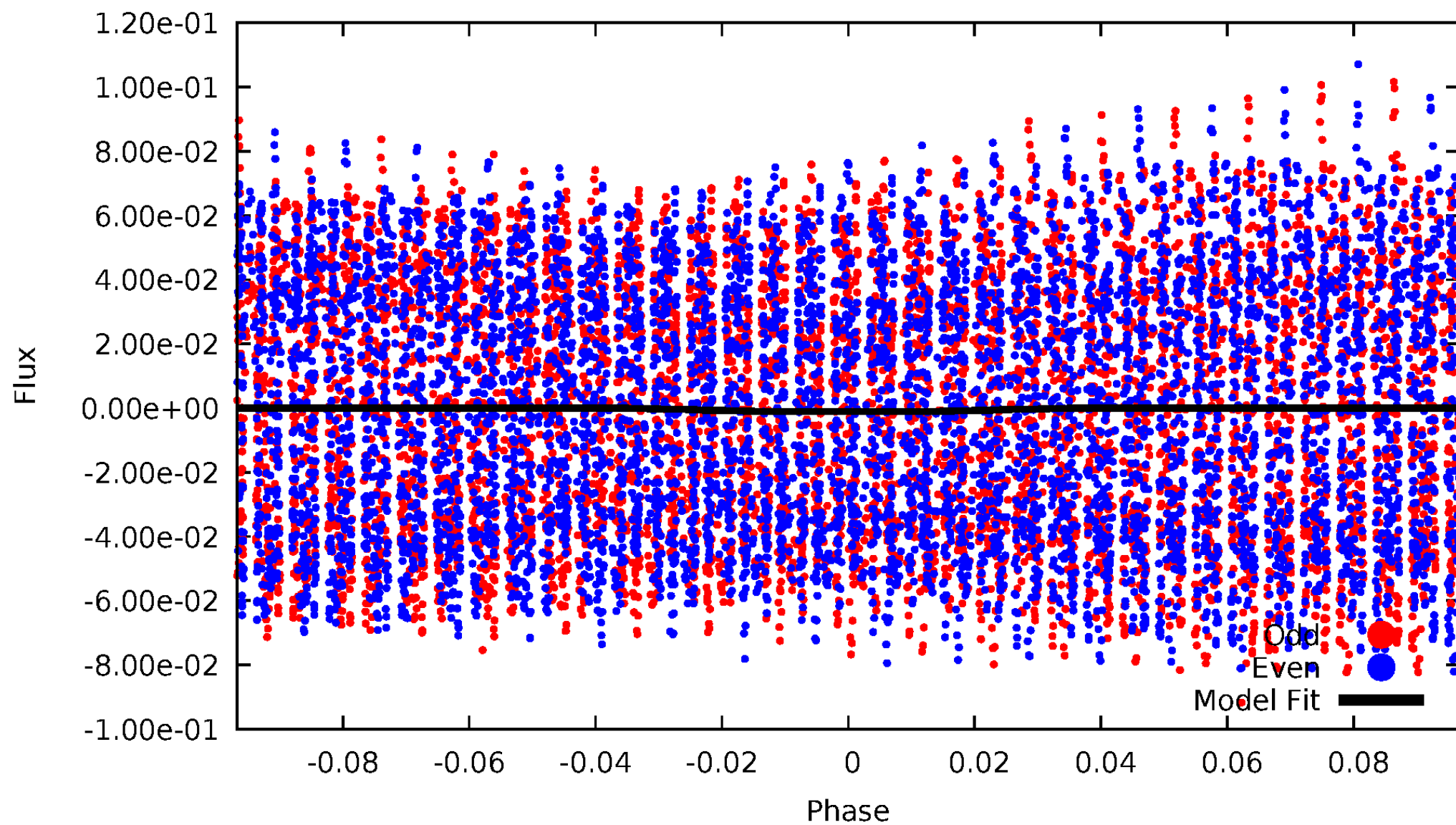
DV Odd/Even

TCE 006283344-02



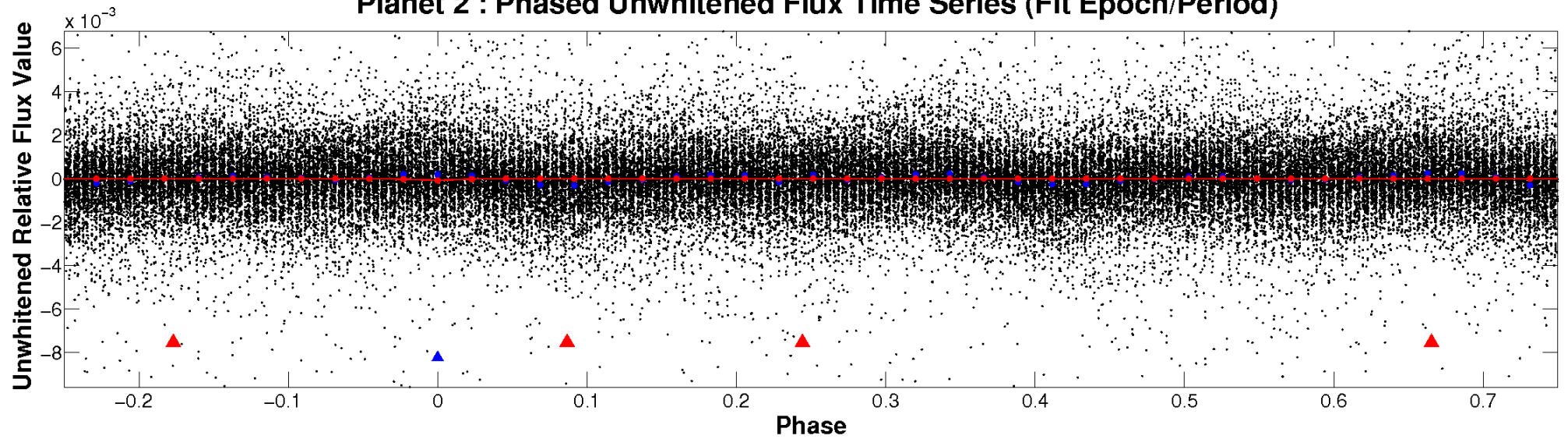
ALT Odd/Even

TCE 006283344-02

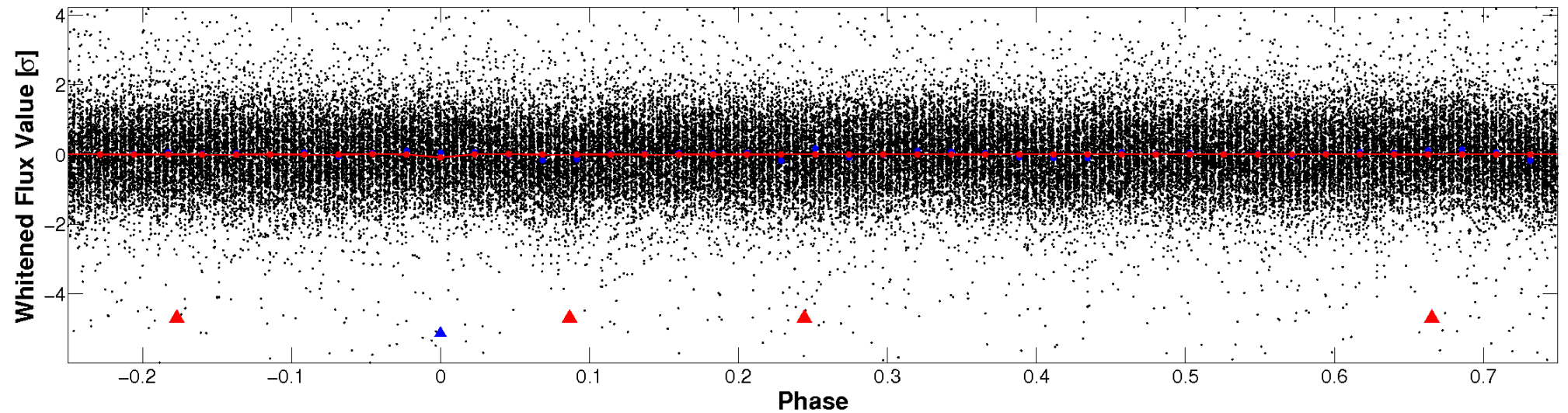


Non-Whitened Vs. Whitened Light Curve

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

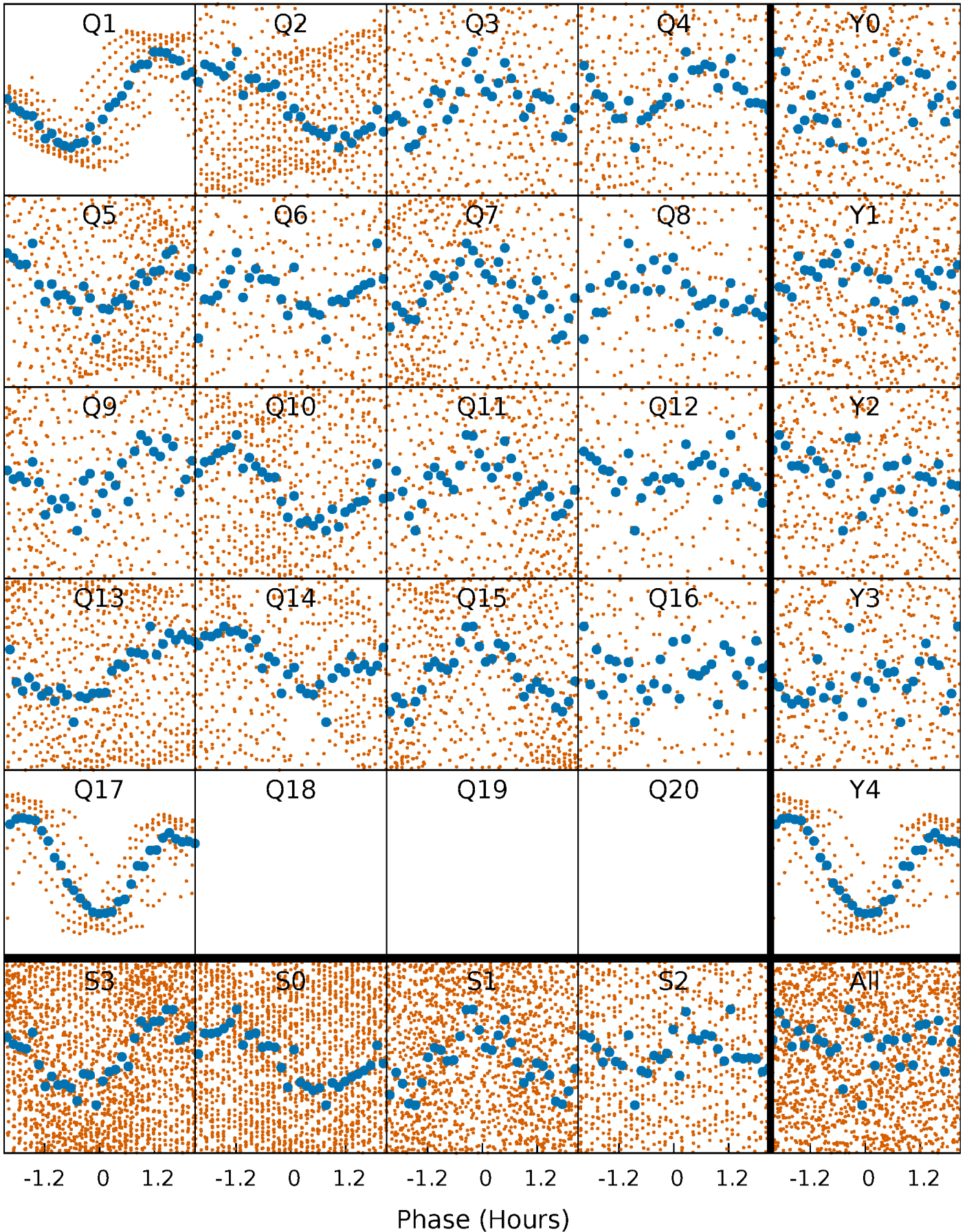


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



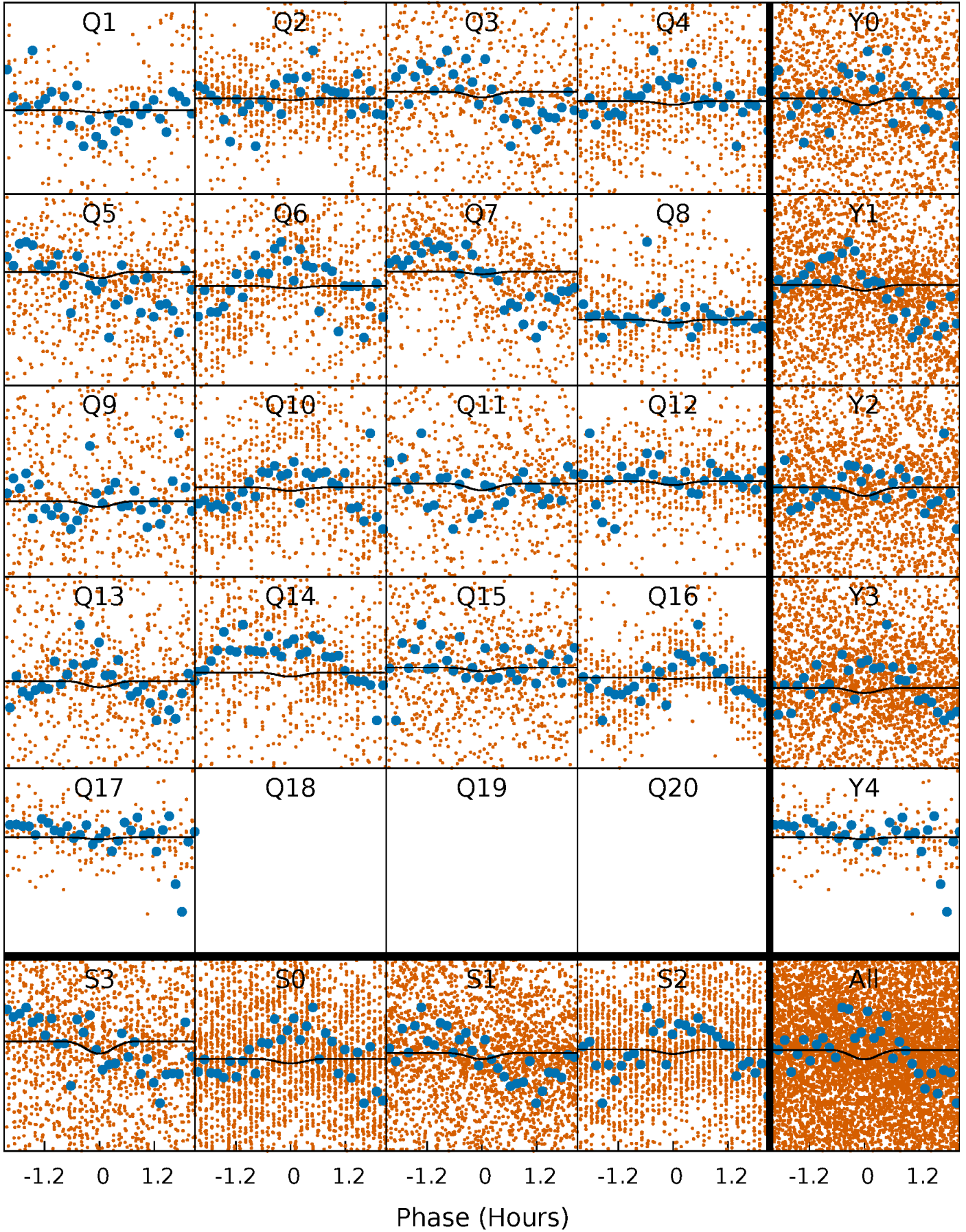
PDC Quarter-Phased Transit Curves

TCE 006283344-02 P= 0.893982 Days $T_0=132.121338$ (BKJD)



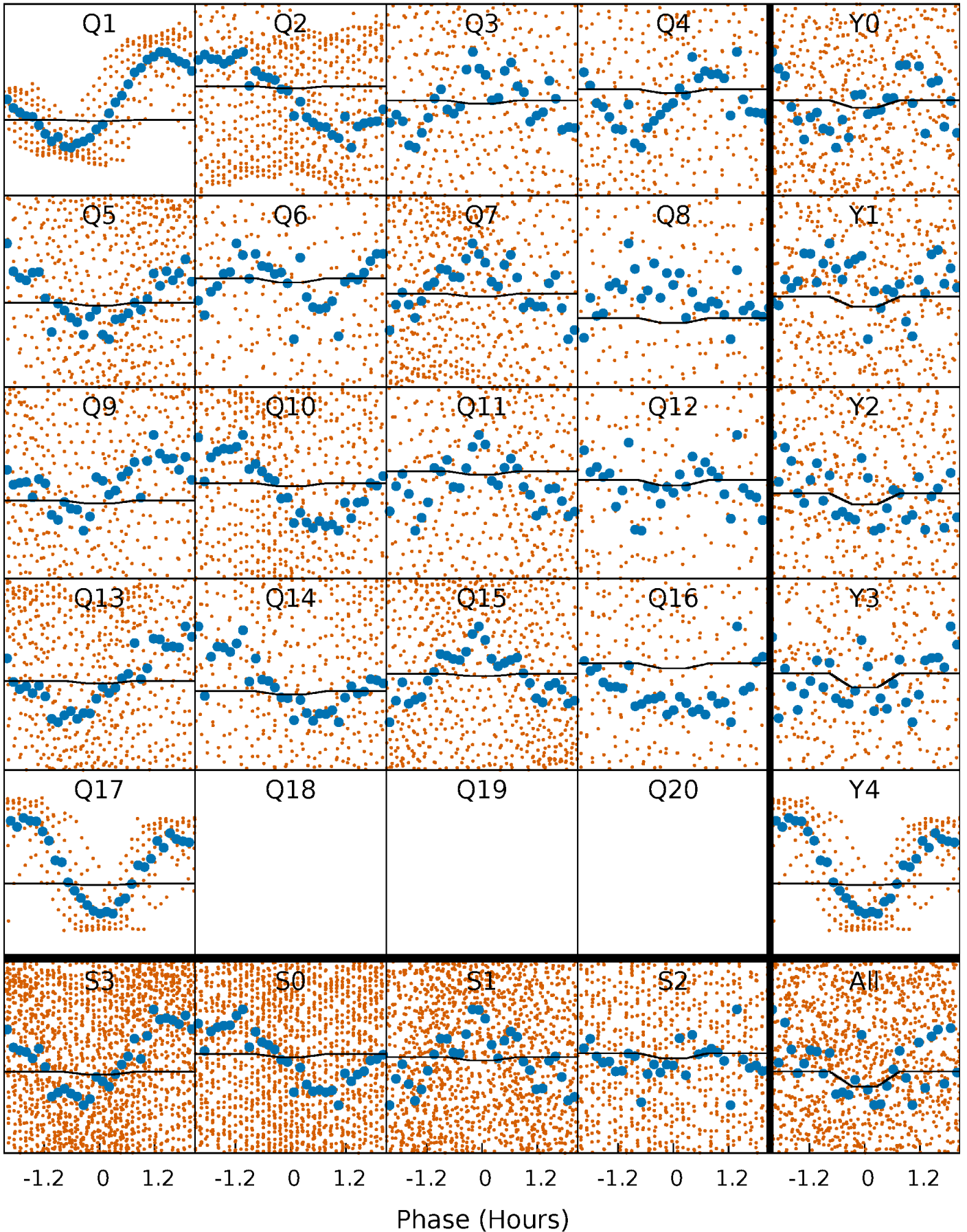
DV Quarter-Phased Transit Curves

TCE 006283344-02 P= 0.893982 Days $T_0=132.121338$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

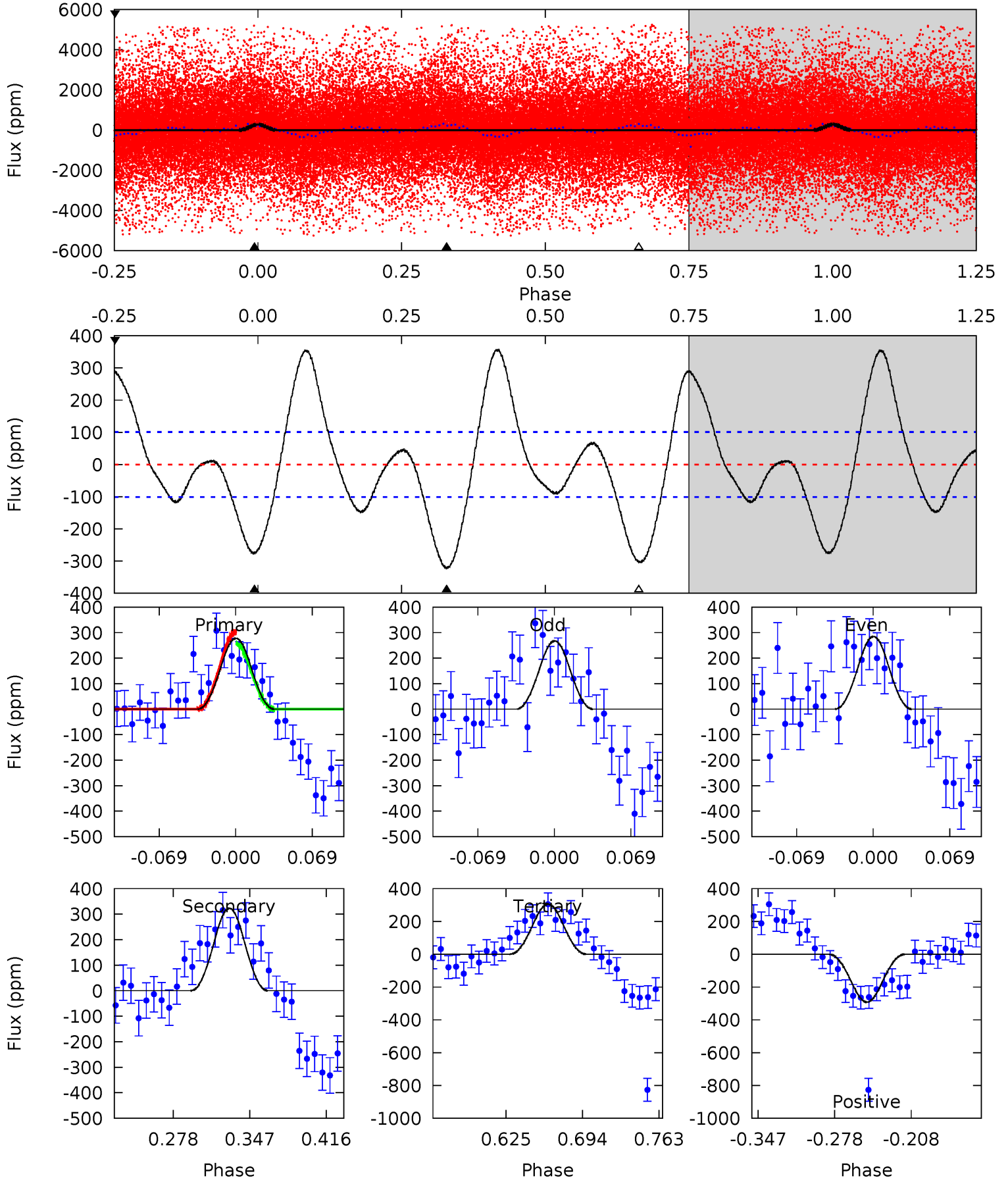
TCE 006283344-02 P= 0.893982 Days $T_0=132.120486$ (BKJD)



DV Model-Shift Uniqueness Test

006283344-02, P = 0.893982 Days, E = 131.227356 Days

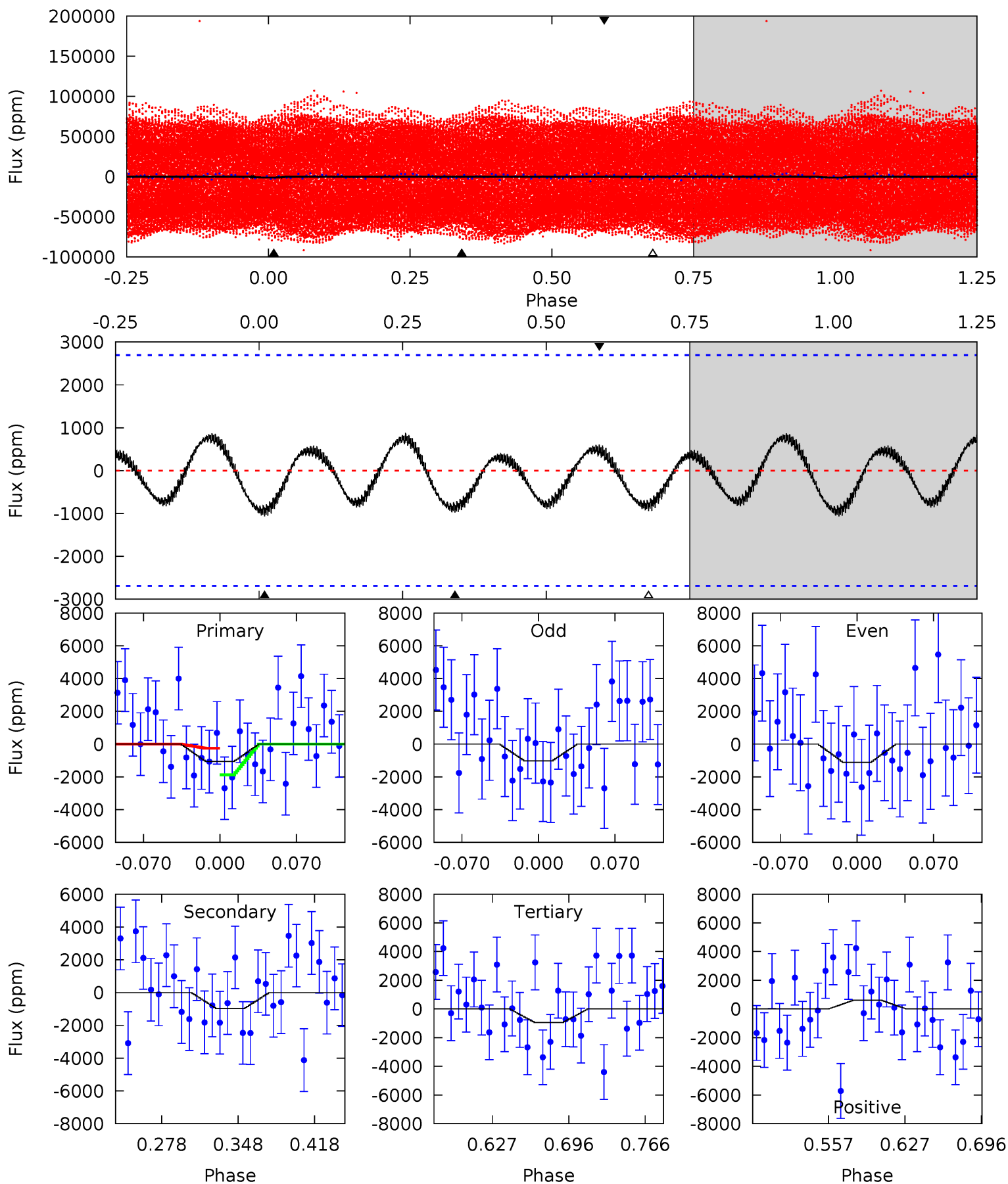
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	14.8	14.0	13.4	4.64	1.82	7.45	-1.25	-0.65	0.83	1.44	0.41	2.63	0.53	1.09



Alt Model-Shift Uniqueness Test

006283344-02, P = 0.893982 Days, E = 131.226504 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.84	1.68	1.63	1.05	4.64	1.81	0.85	0.21	0.79	0.05	0.63	0.08	0.40	0.45	1.40



Stellar Parameters For KIC 006283344

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5974^{+161}_{-197}	$4.504^{+0.062}_{-0.188}$	$-0.420^{+0.300}_{-0.300}$	$0.881^{+0.243}_{-0.087}$	$0.904^{+0.110}_{-0.100}$	$1.859^{+0.589}_{-0.923}$
	+3%/-3%	+1%/-4%	+71%/-71%	+28%/-10%	+12%/-11%	+32%/-50%
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 006283344-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-323 ± 22	$49.50^{+51.96}_{-34.83}$	2641^{+185}_{-121}	-2817^{+548}_{-123}	$0.023^{+0.226}_{-0.018}$
Alt.	-973 ± 580	$51.59^{+53.84}_{-36.23}$	2644^{+174}_{-124}	-2761^{+5706}_{-152}	$0.057^{+0.583}_{-0.047}$

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

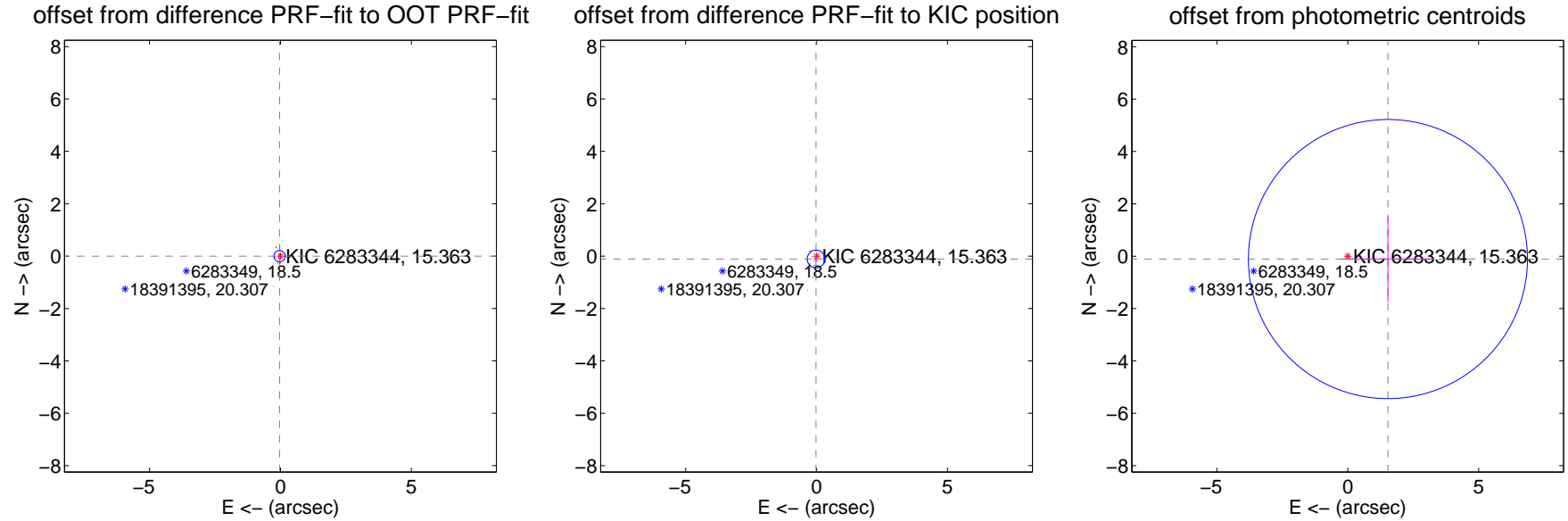
DV Centroid Data

Supplemental centroid analysis for 006283344-02. Kepler magnitude: 15.36. Transit SNR 3.74

There are 9 quarters with good PRF difference image offsets

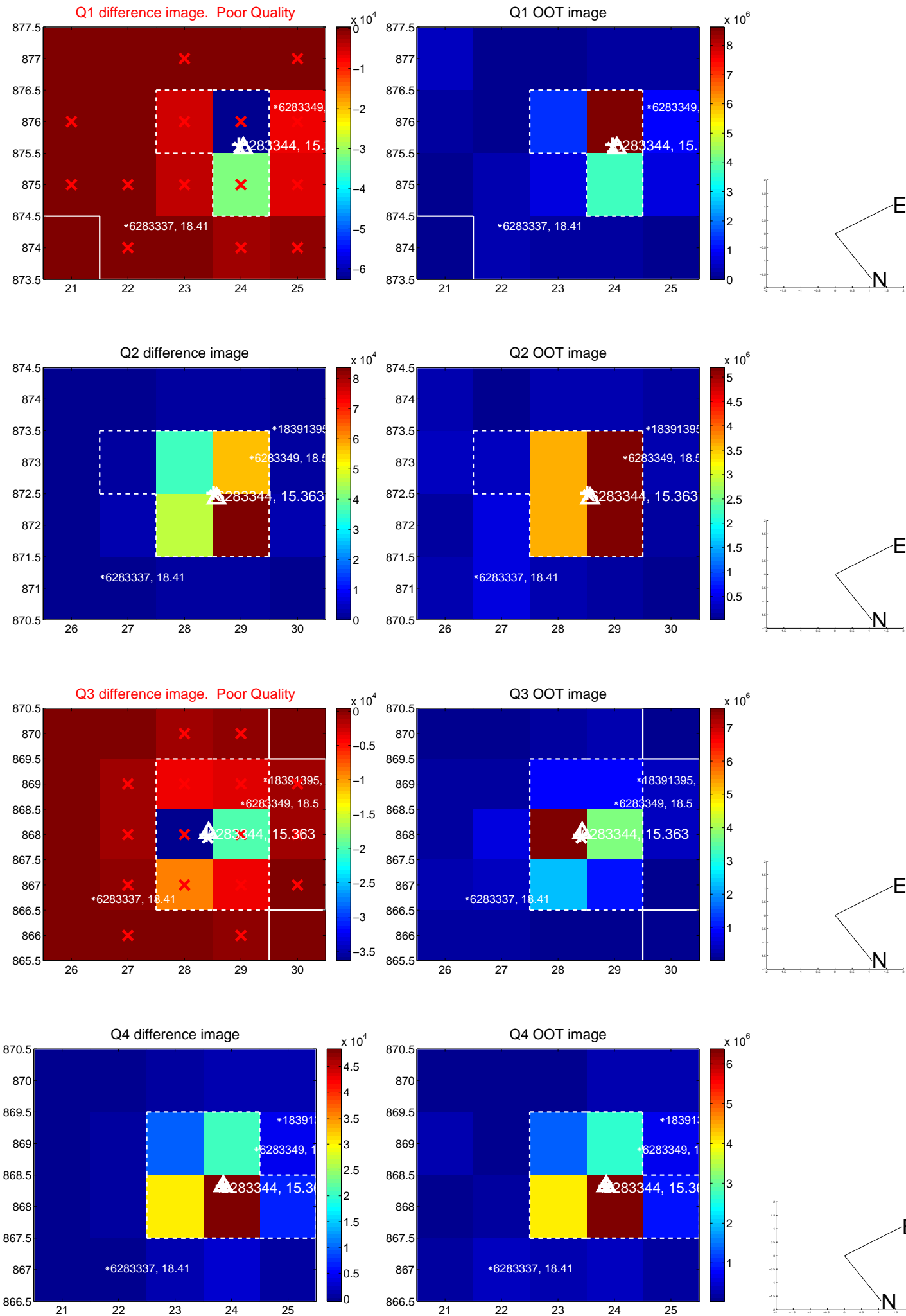
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.034 ± 0.071	0.47	0.034 ± 0.071	-0.001 ± 0.121
PRF-fit source offset from KIC position	0.112 ± 0.113	0.99	0.020 ± 0.072	-0.110 ± 0.112
photometric centroid source offset	1.54 ± 1.78	0.87	-1.54 ± 1.78	-0.11 ± 1.64

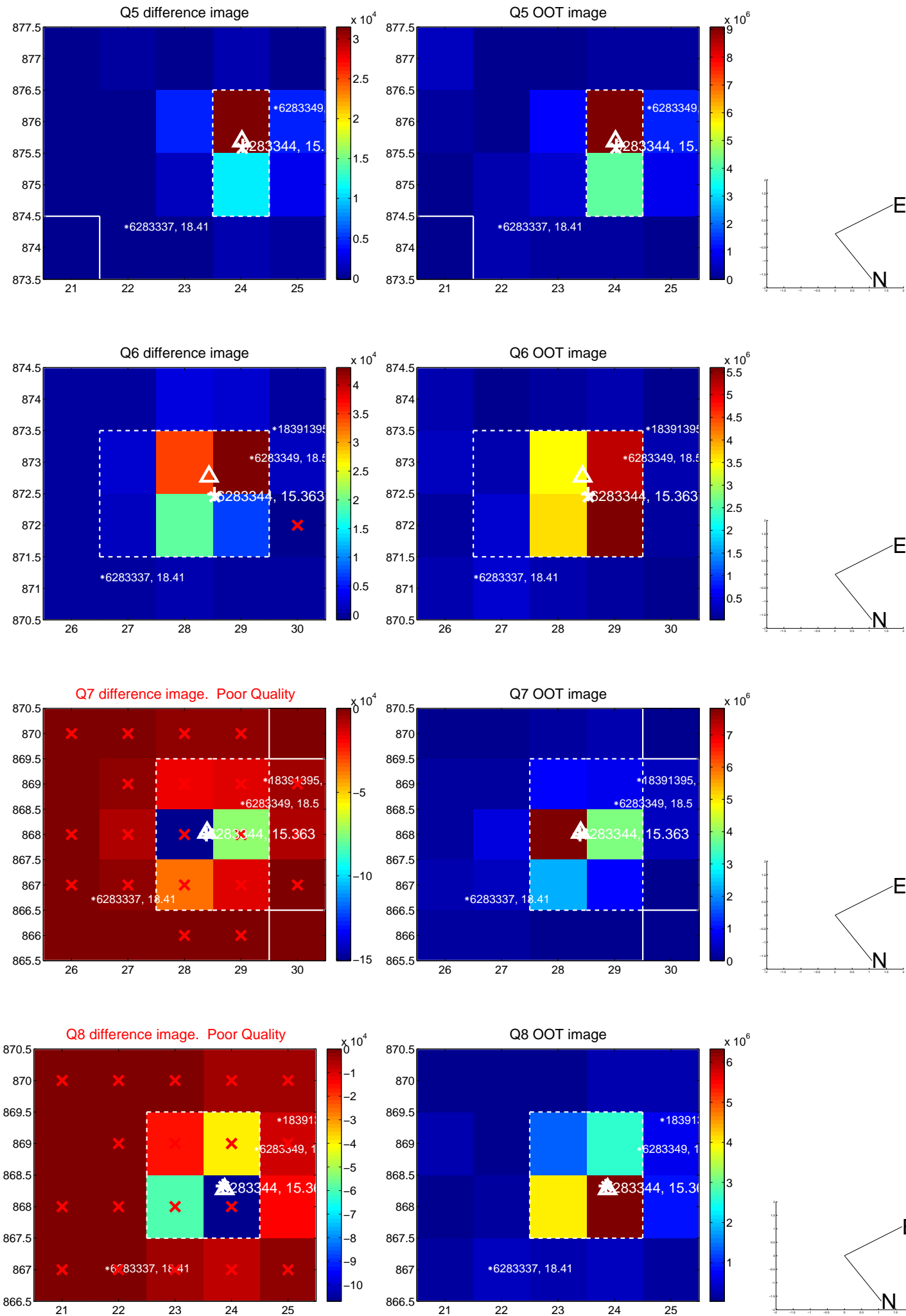


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

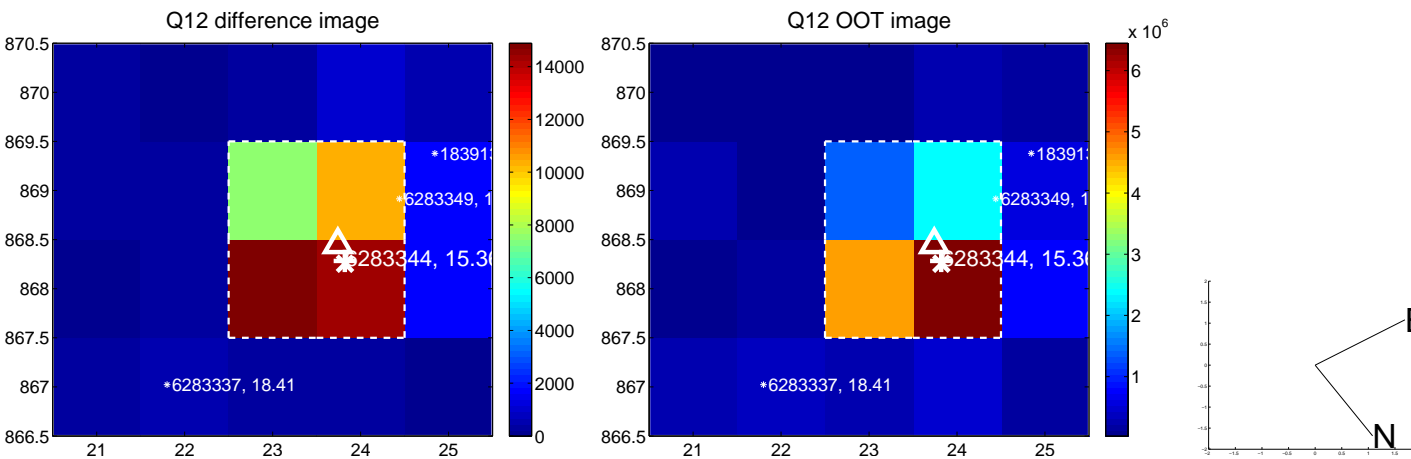
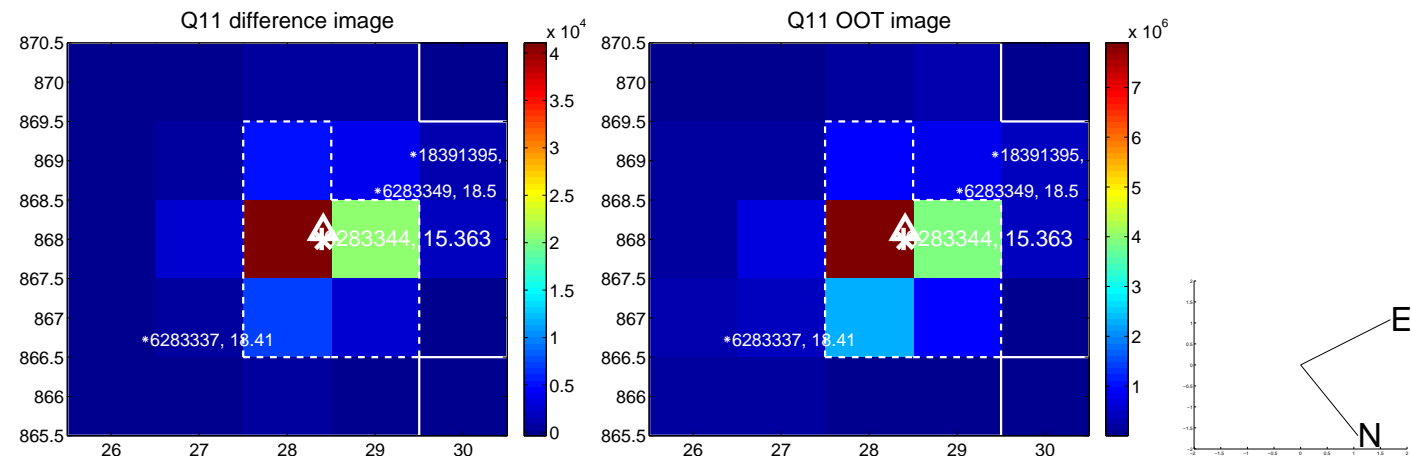
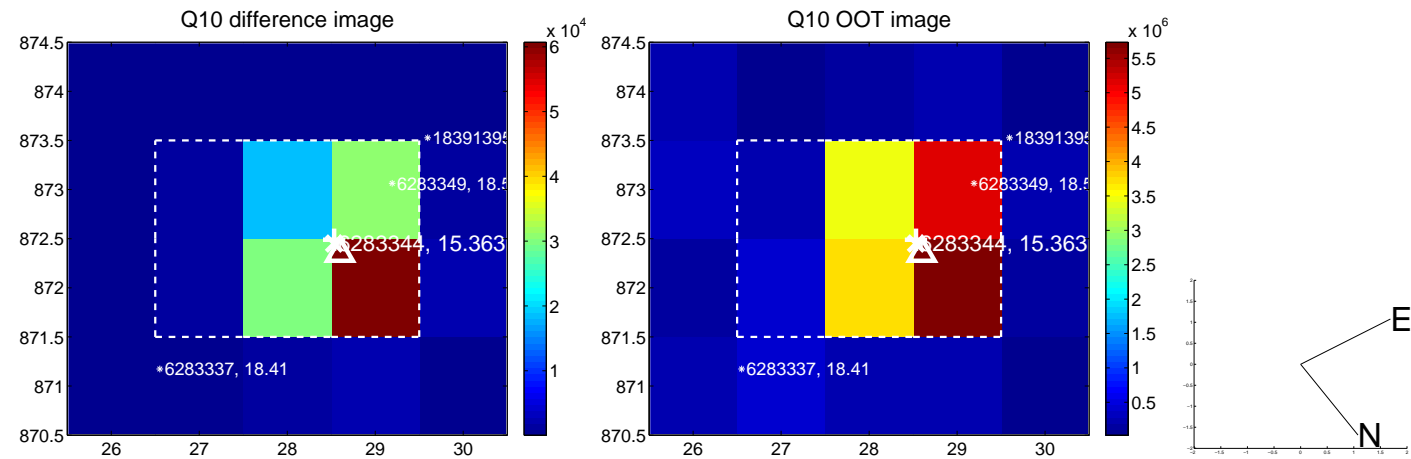
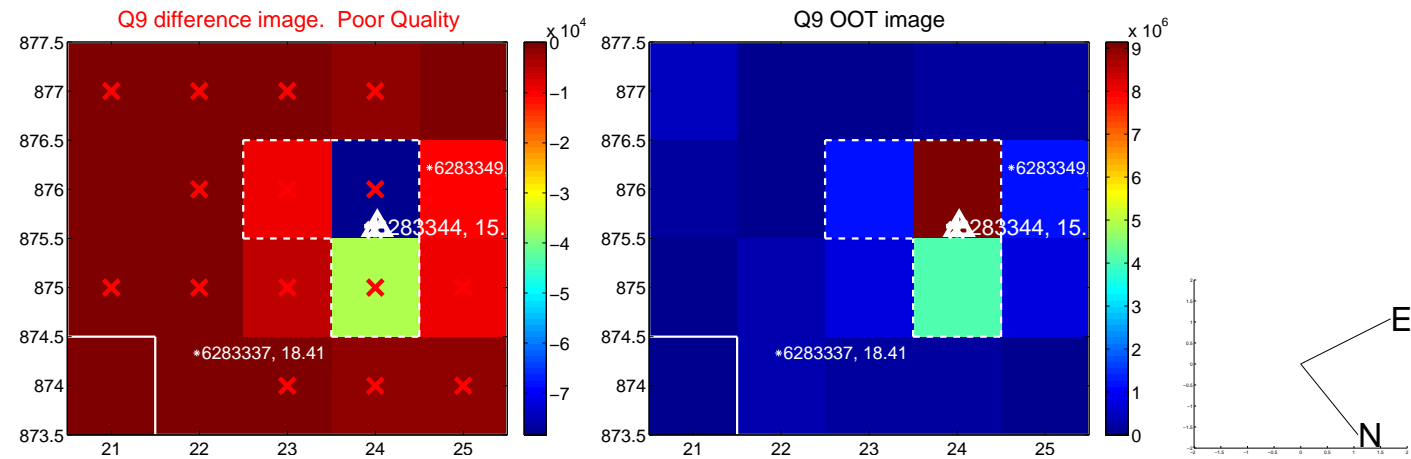
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



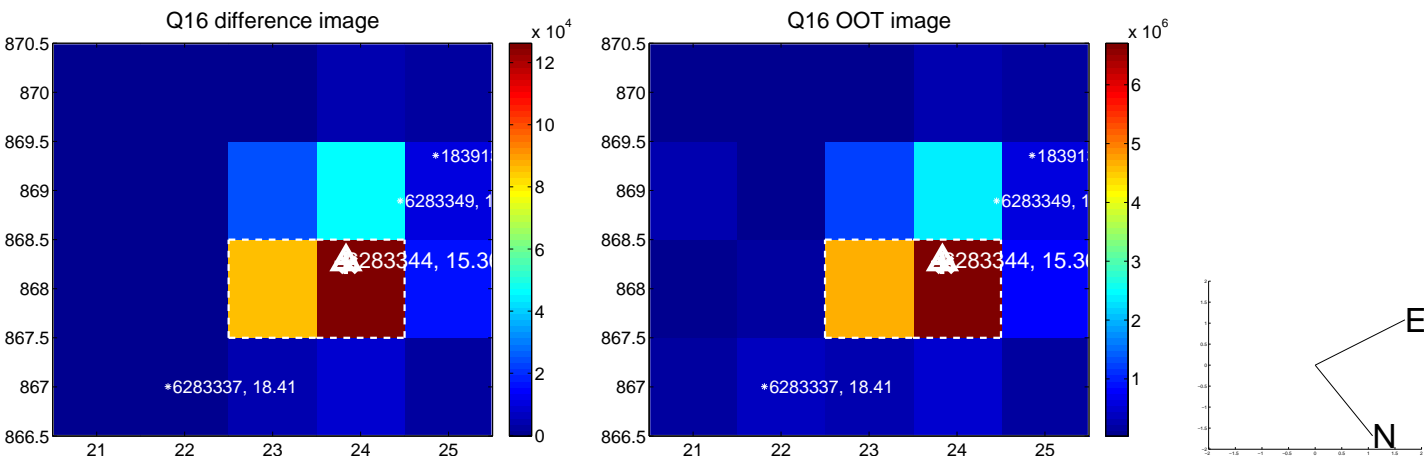
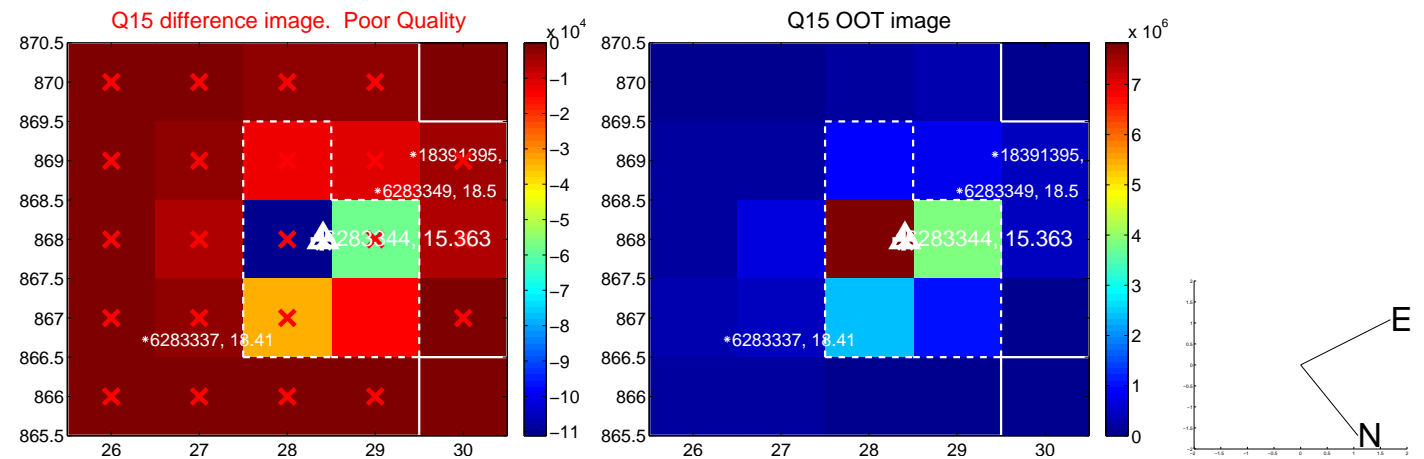
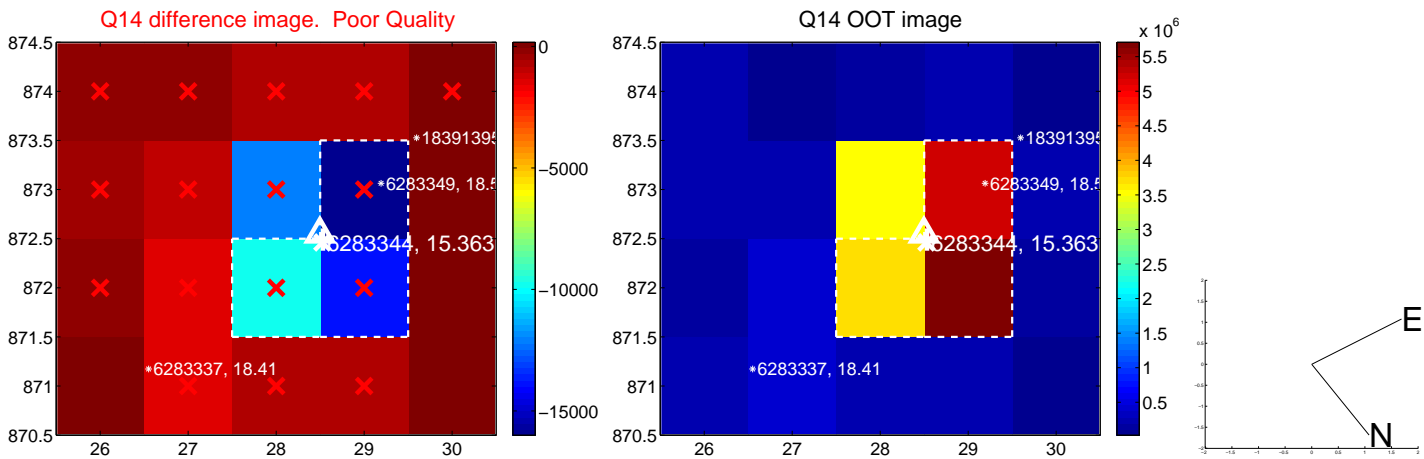
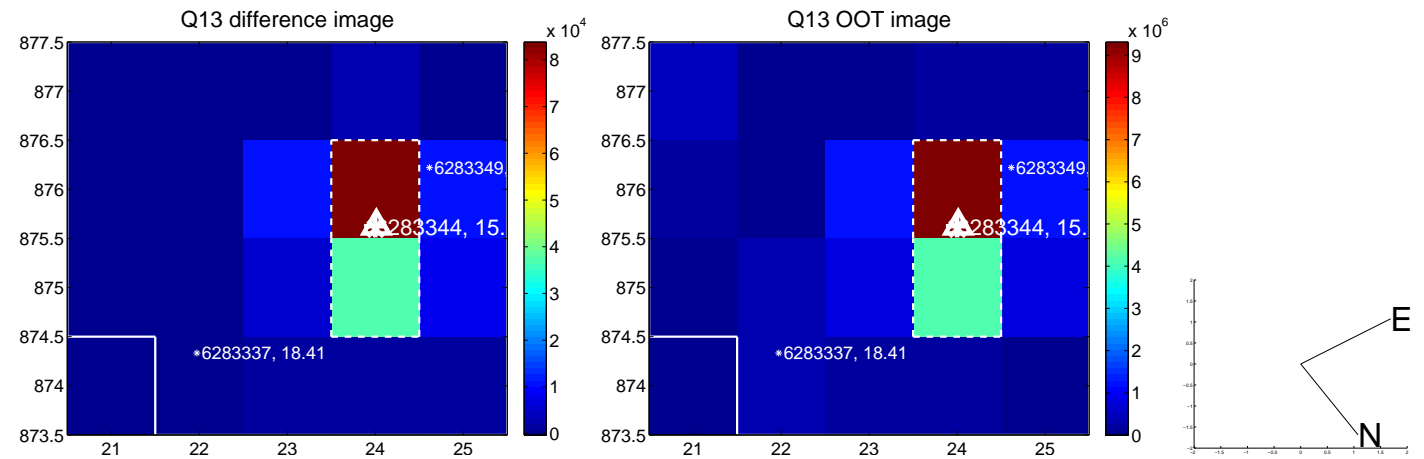
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

