

KIC 003935332

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})
003935332-01	OBS	No	0.706234	131.561603	97.9	1.067	10.3	7.6	0.77	5865	0.89	2934.19
003935332-02	OBS	No	0.706246	131.877085	0.2	3.099	12.0	0.0	0.77	5865	0.04	2934.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003935332-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
003935332-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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

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

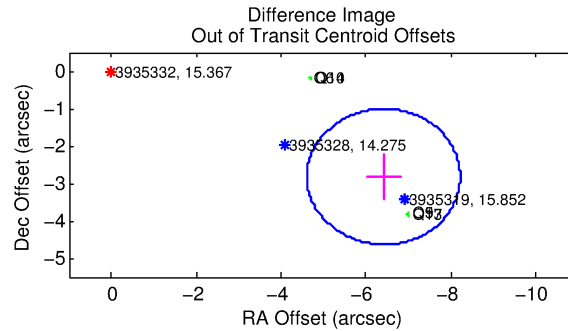
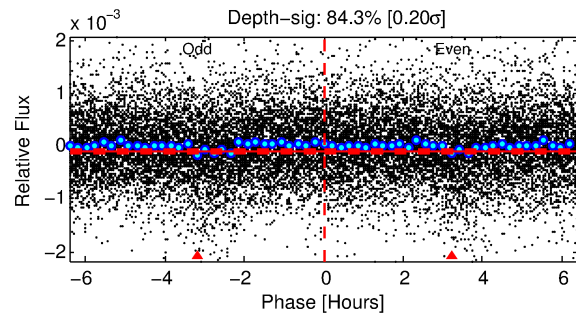
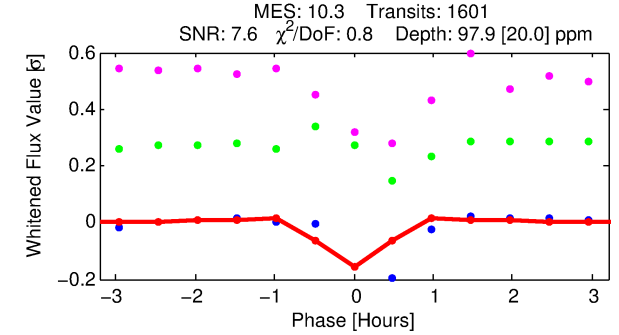
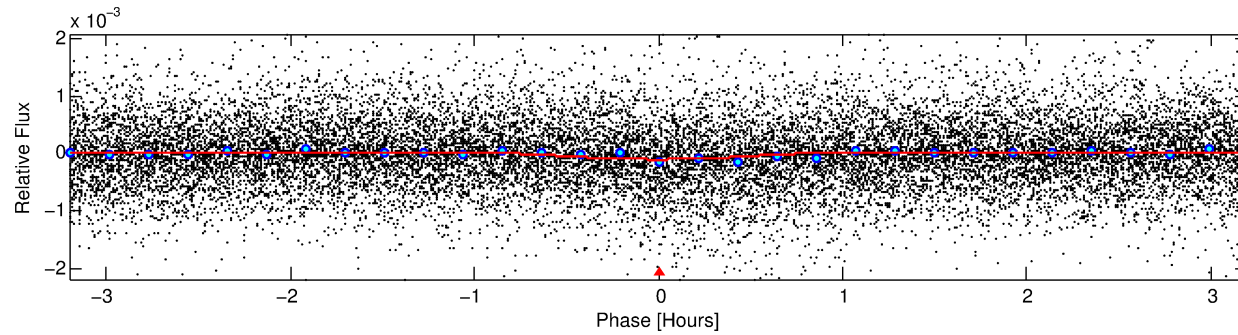
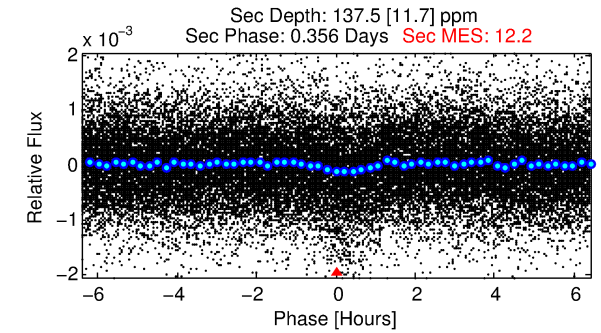
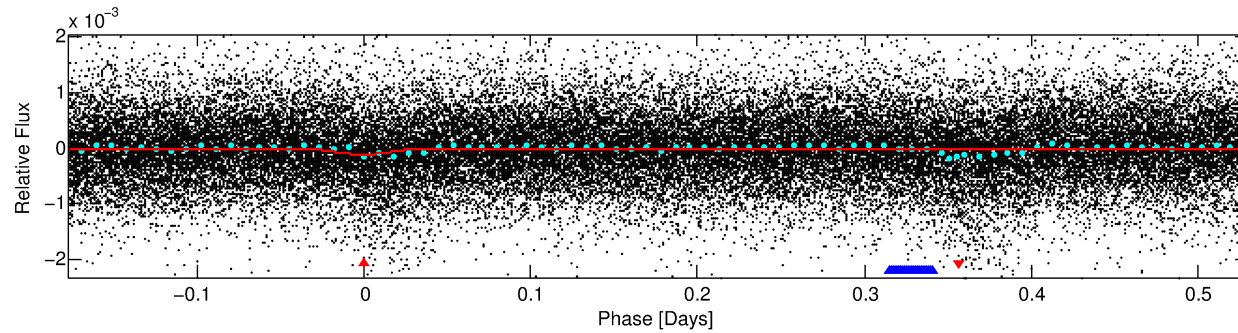
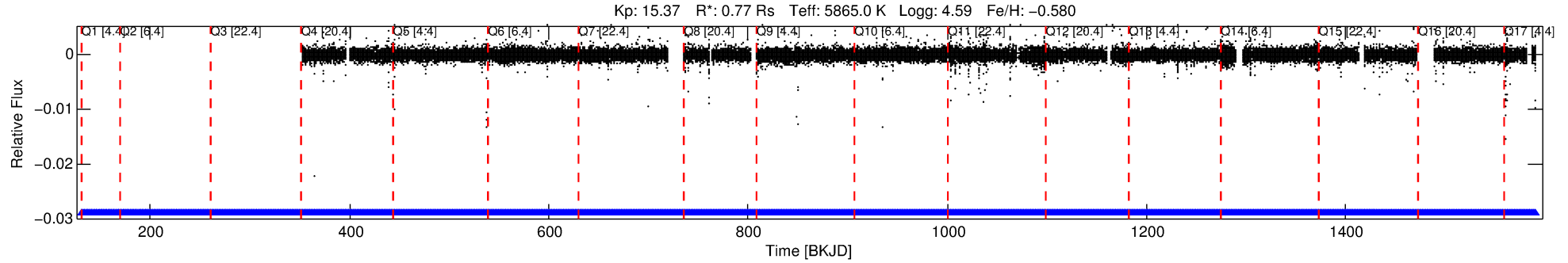
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003935332-01

No Significant Match Found

DV One-Page Summary

KIC: 3935332 Candidate: 1 of 2 Period: 0.706 d



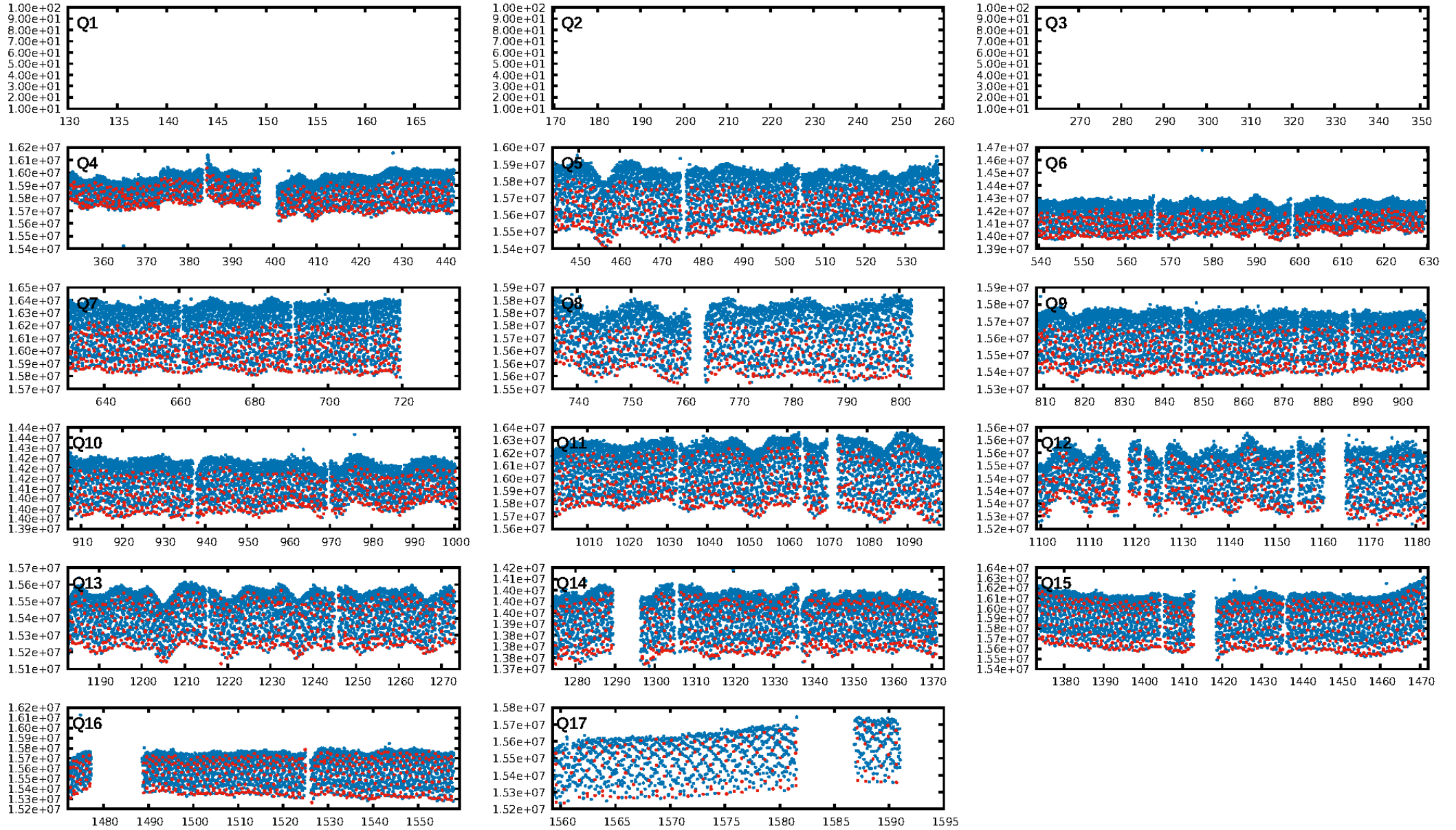
DV Fit Results:

Period = 0.70623 [0.00001] d
Epoch = 131.5616 [0.0022] BKJD
Rp/R* = 0.0105 [0.0055]
a/R* = 2.74 [6.27]
b = 0.87 [0.74]
Seff = 2934.19 [982.79]
Teq = 1877 [157] K
Rp = 0.89 [0.51] Re
a = 0.0147 [0.0031] AU
Ag = 20.74 [22.53] [0.88 σ]
Teffp = 6192 [1626] K [2.64 σ]

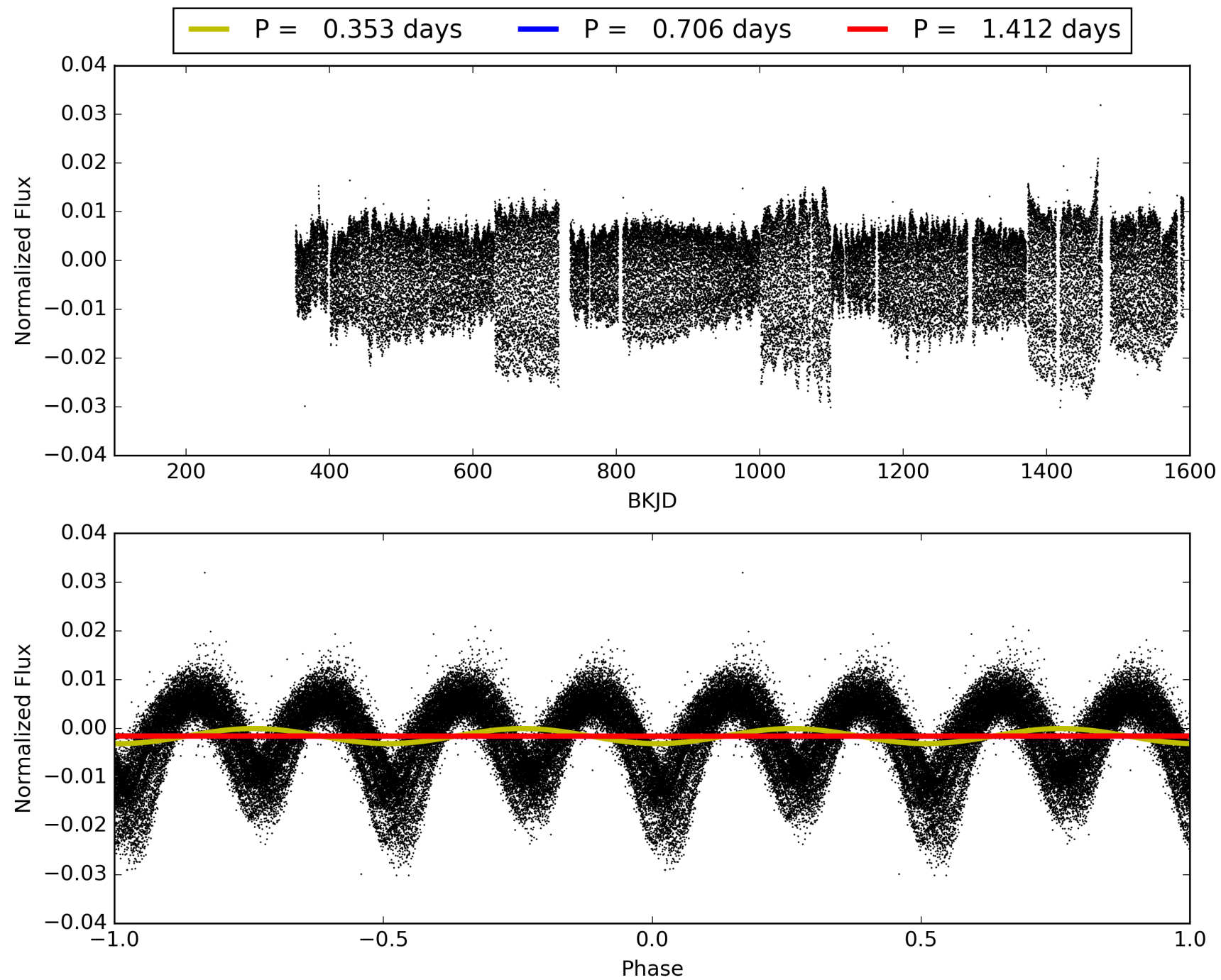
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.12e-25
RollingBand-fgt: 1.00 [1563/1563]
GhostDiagnostic-chr: -0.2701
Centroid-sig: 1.7%
Centroid-so: 8.871 arcsec [2.27 σ]
OotOffset-rm: 7.014 arcsec [11.62 σ]
KicOffset-rm: 6.864 arcsec [9.35 σ]
OotOffset-st: 3/0/0/4 [7]
KicOffset-st: 3/0/0/4 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003935332-01, PDC Light Curves

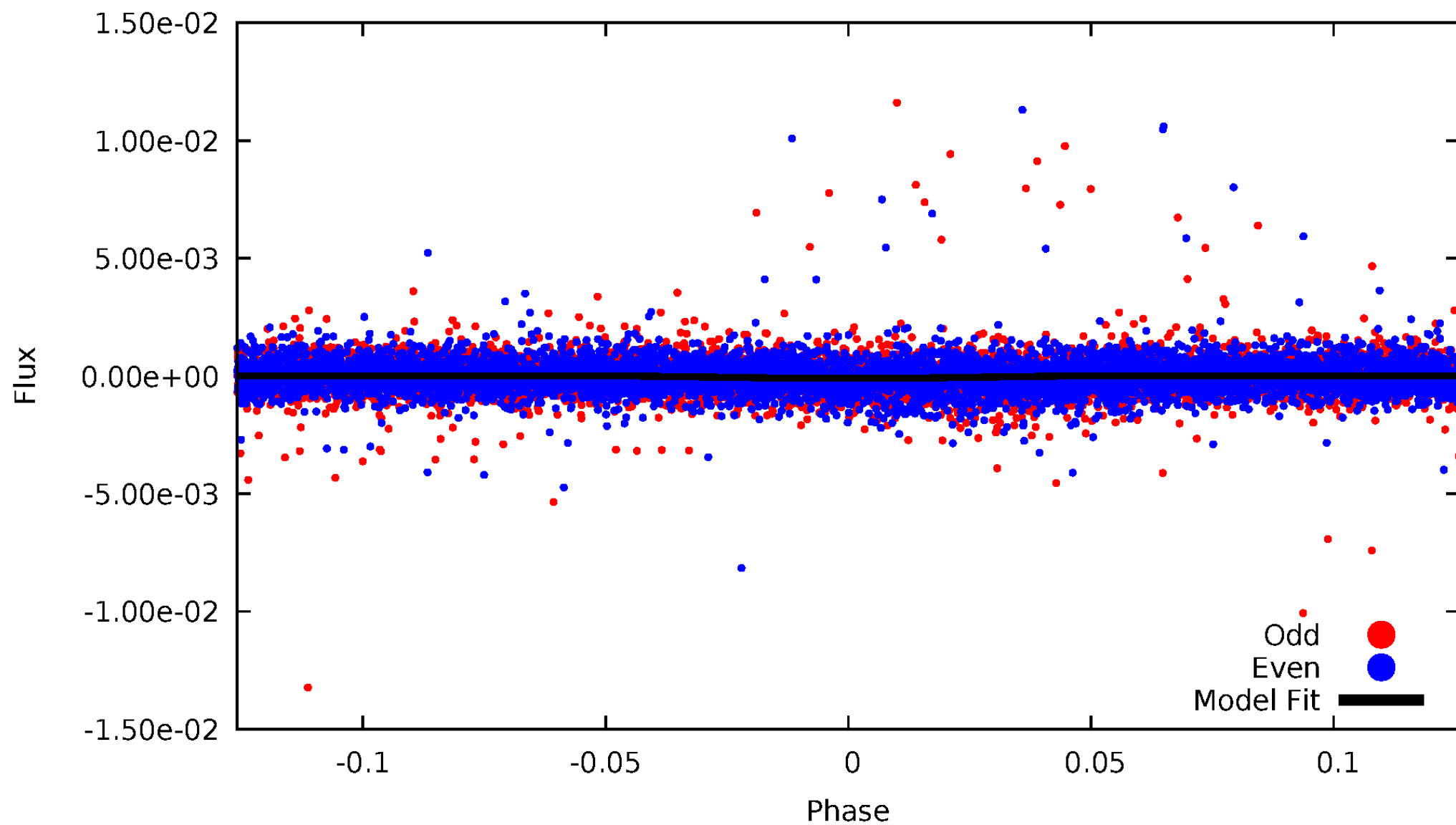


TCE 003935332-01



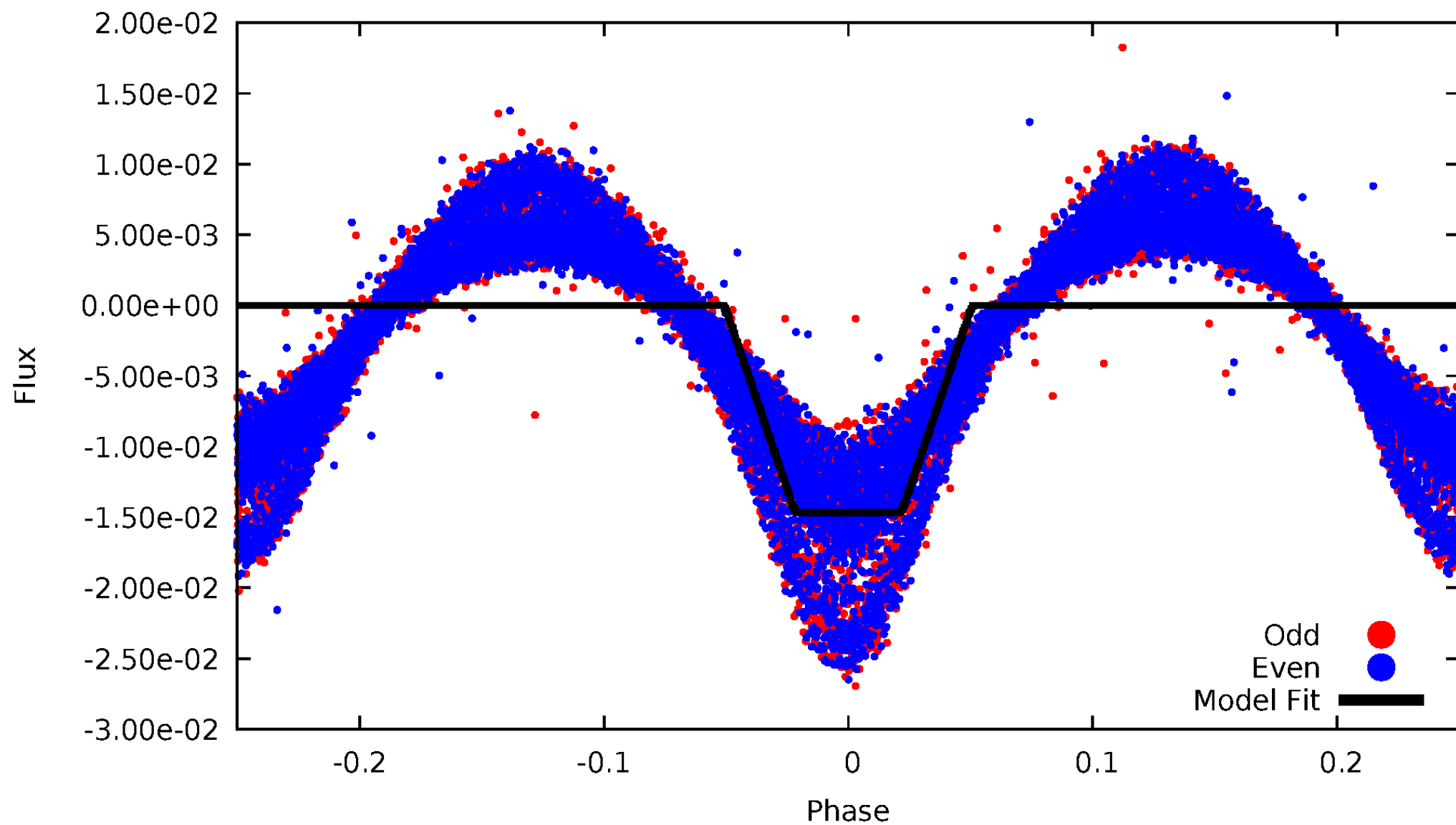
DV Odd/Even

TCE 003935332-01



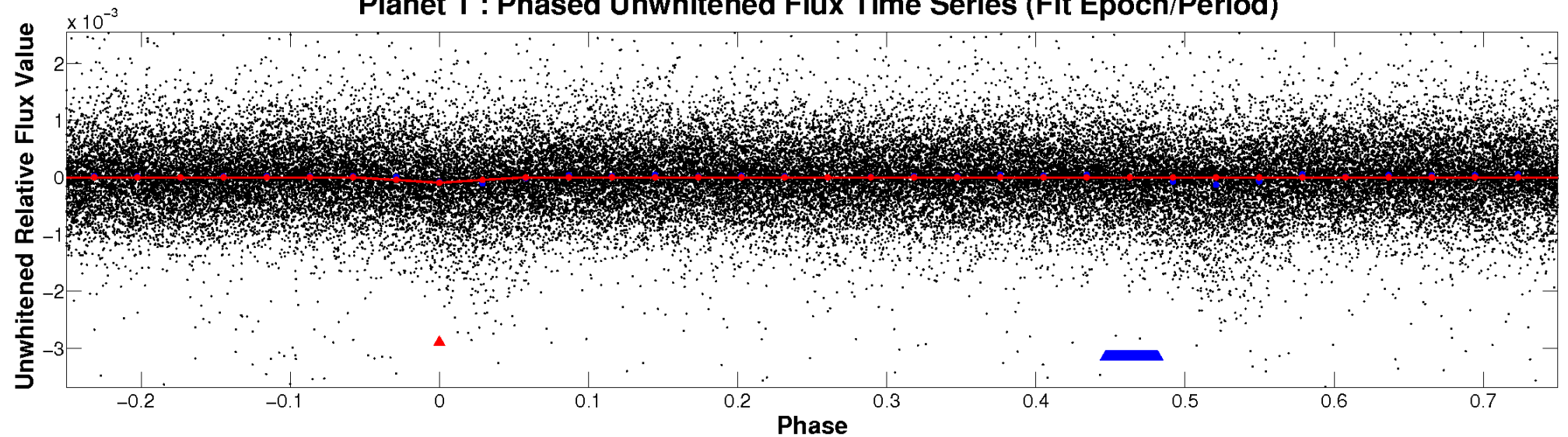
ALT Odd/Even

TCE 003935332-01

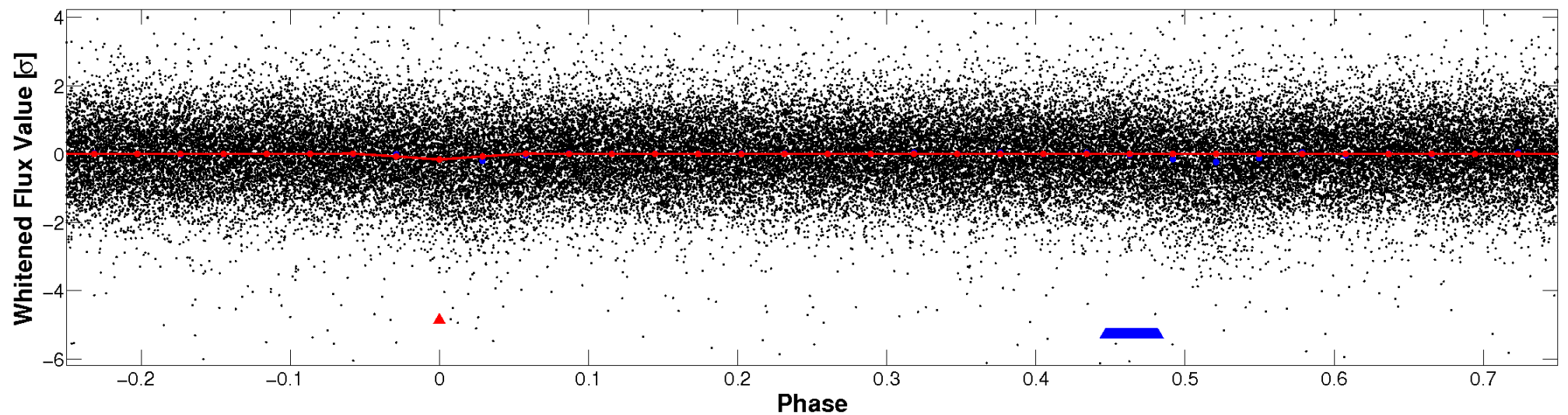


Non-Whitened Vs. Whitened Light Curve

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

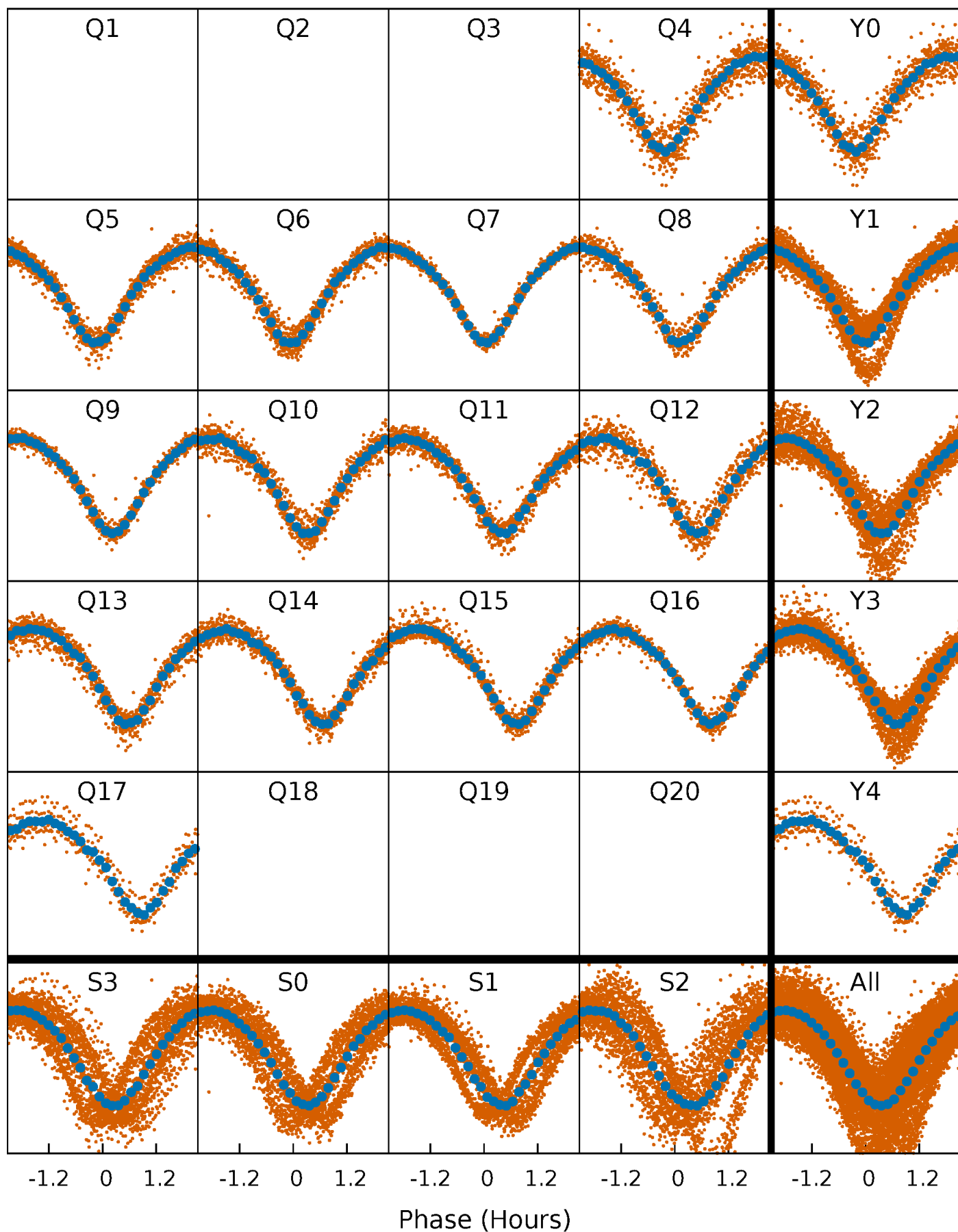


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



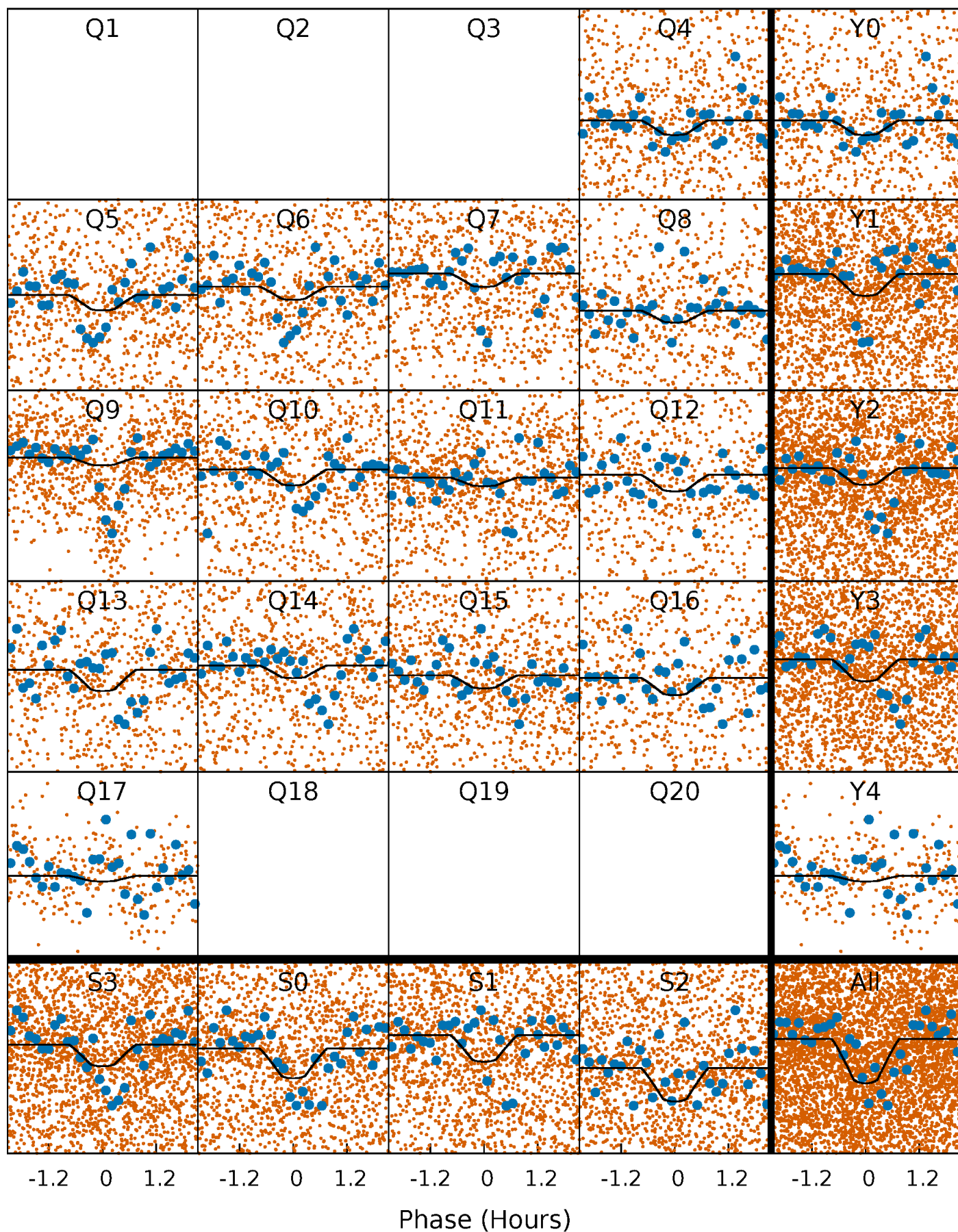
PDC Quarter-Phased Transit Curves

TCE 003935332-01 P= 0.706234 Days $T_0=131.561603$ (BKJD)



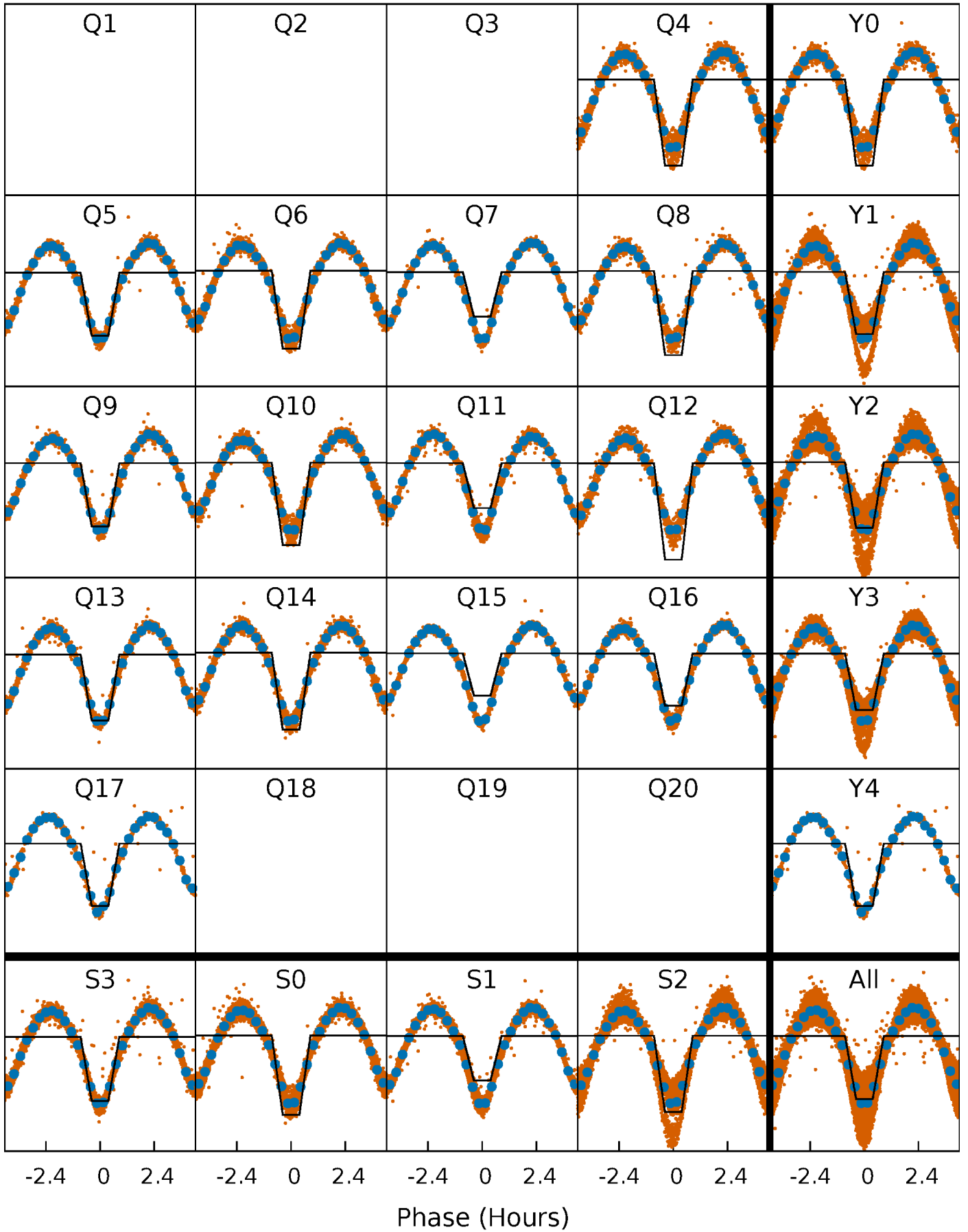
DV Quarter-Phased Transit Curves

TCE 003935332-01 P= 0.706234 Days $T_0=131.561603$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

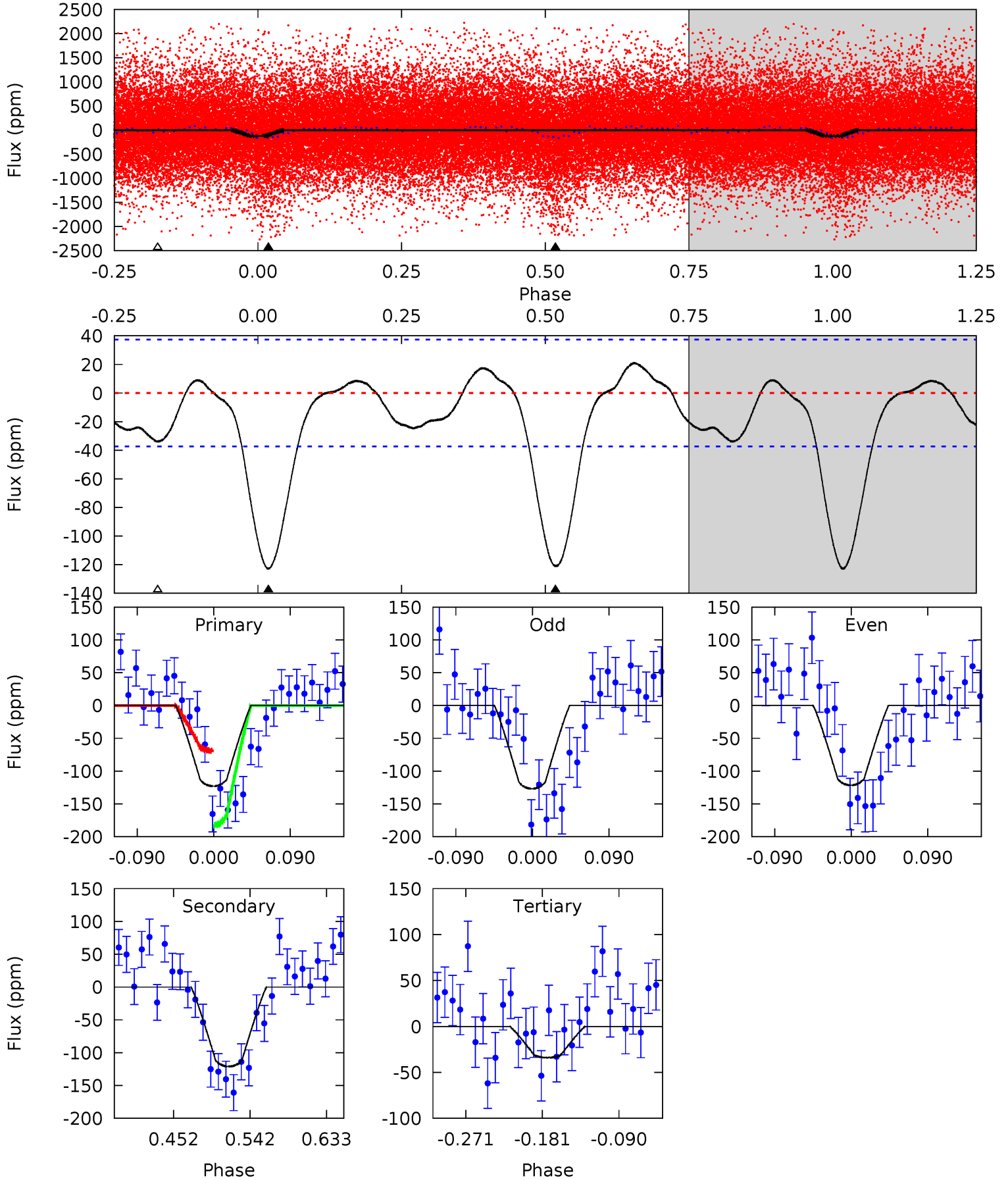
TCE 003935332-01 P= 0.706262 Days $T_0=131.541288$ (BKJD)



DV Model-Shift Uniqueness Test

003935332-01, P = 0.706234 Days, E = 131.561603 Days

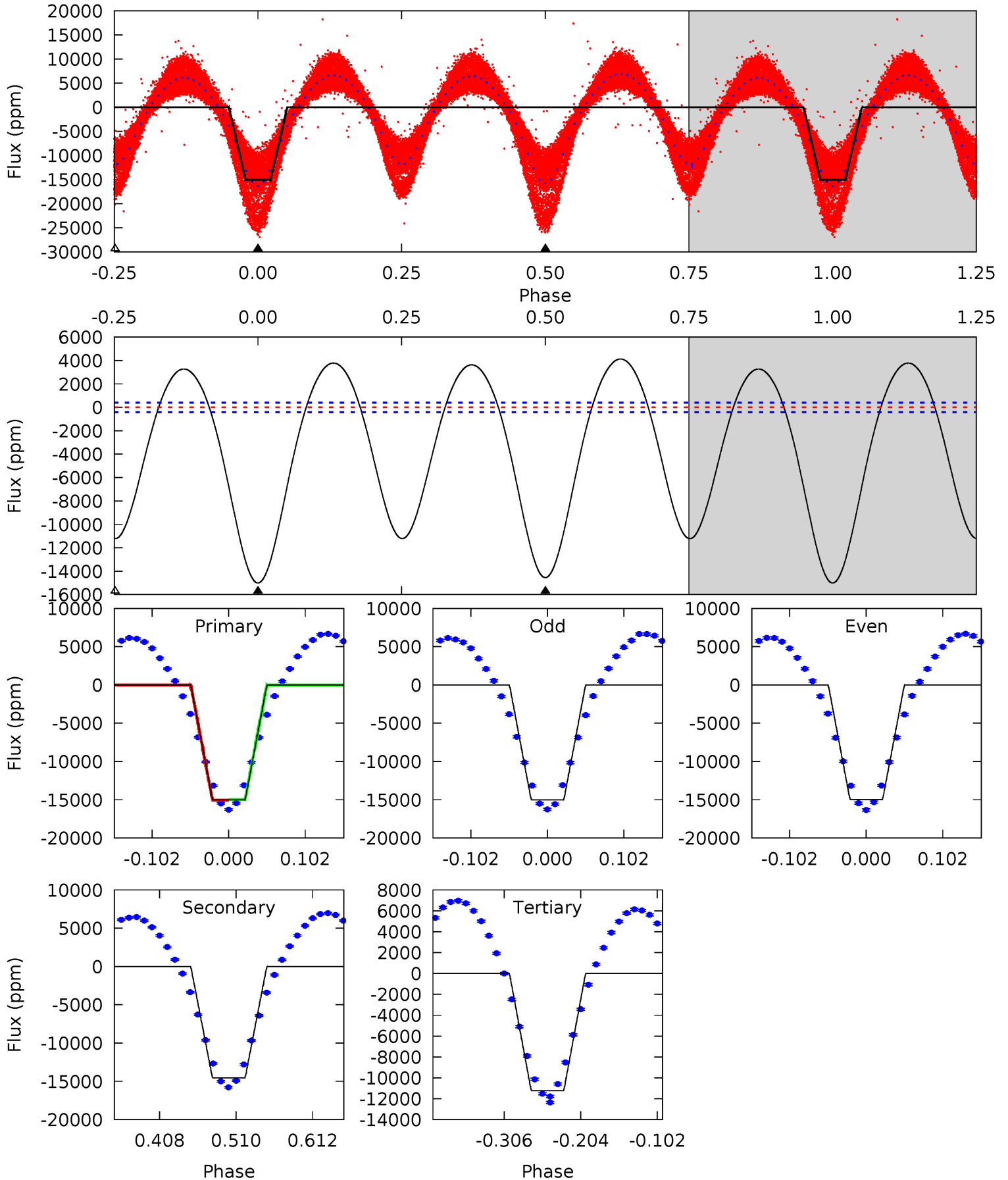
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	14.9	4.17	0	4.59	1.69	1.91	10.9	15.1	10.7	14.9	0.32	0.86	0.15	6.97



Alt Model-Shift Uniqueness Test

003935332-01, P = 0.706262 Days, E = 131.541288 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
168.0	162.9	125.6	0	4.56	1.64	60.1	42.4	168.0	37.3	162.9	0.28	1.07	0.22	0.53



Stellar Parameters For KIC 003935332

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5865^{+195}_{-195}	$4.590^{+0.042}_{-0.168}$	$-0.580^{+0.300}_{-0.300}$	$0.773^{+0.194}_{-0.065}$	$0.850^{+0.088}_{-0.088}$	$2.588^{+0.549}_{-1.181}$
	+3%/-3%	+1%/-4%	+52%/-52%	+25%/-8%	+10%/-10%	+21%/-46%
Source	KIC0	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 003935332-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-121±8	$0.95^{+0.49}_{-0.45}$	2683^{+159}_{-139}	5908^{+2545}_{-1024}	16^{+41}_{-9}
Alt.	-14551±89	$10.51^{+1.38}_{-0.82}$	2679^{+169}_{-130}	5838^{+254}_{-211}	16^{+2}_{-3}

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 $A_{obs} \gg 1.0$

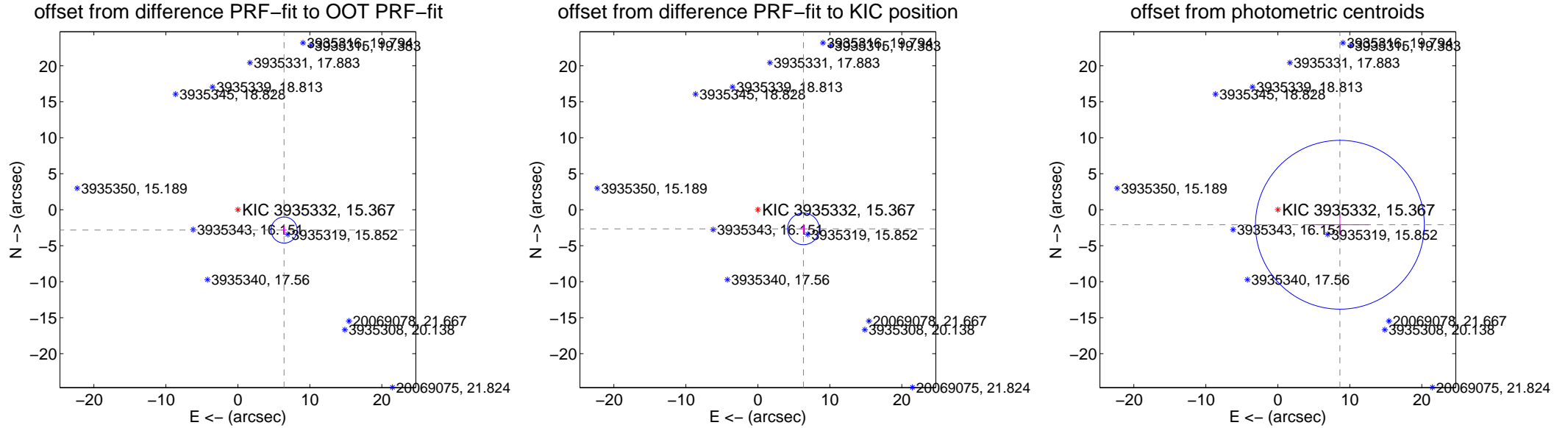
DV Centroid Data

Supplemental centroid analysis for 003935332-01. Kepler magnitude: 15.37. Transit SNR 7.62

There are 7 quarters with good PRF difference image offsets

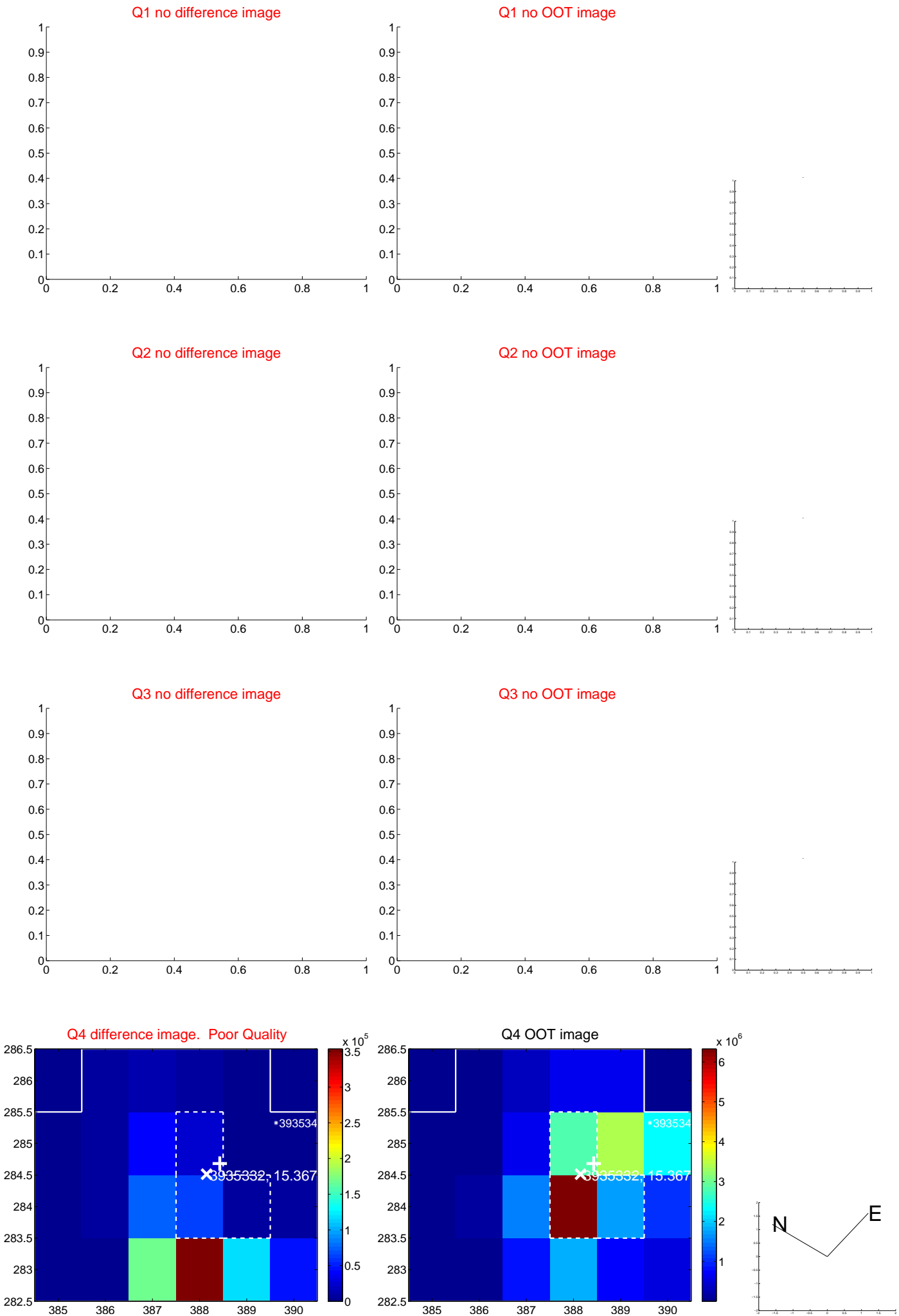
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.014 ± 0.603	11.62	-6.420 ± 0.394	-2.824 ± 0.611
PRF-fit source offset from KIC position	6.864 ± 0.734	9.35	-6.329 ± 0.553	-2.657 ± 0.584
photometric centroid source offset	8.87 ± 3.91	2.27	-8.62 ± 4.01	-2.09 ± 1.49

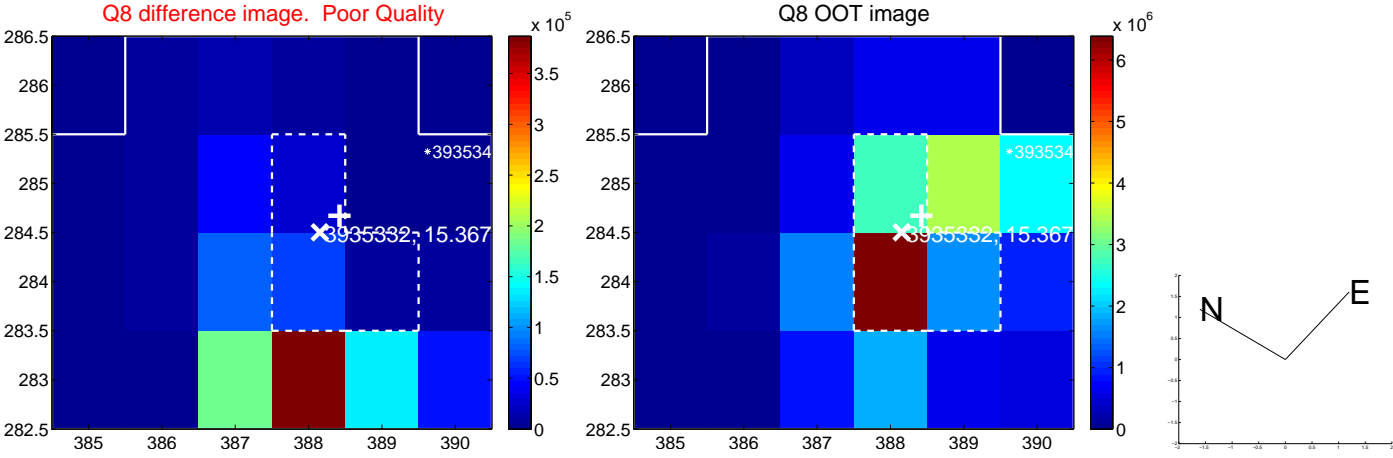
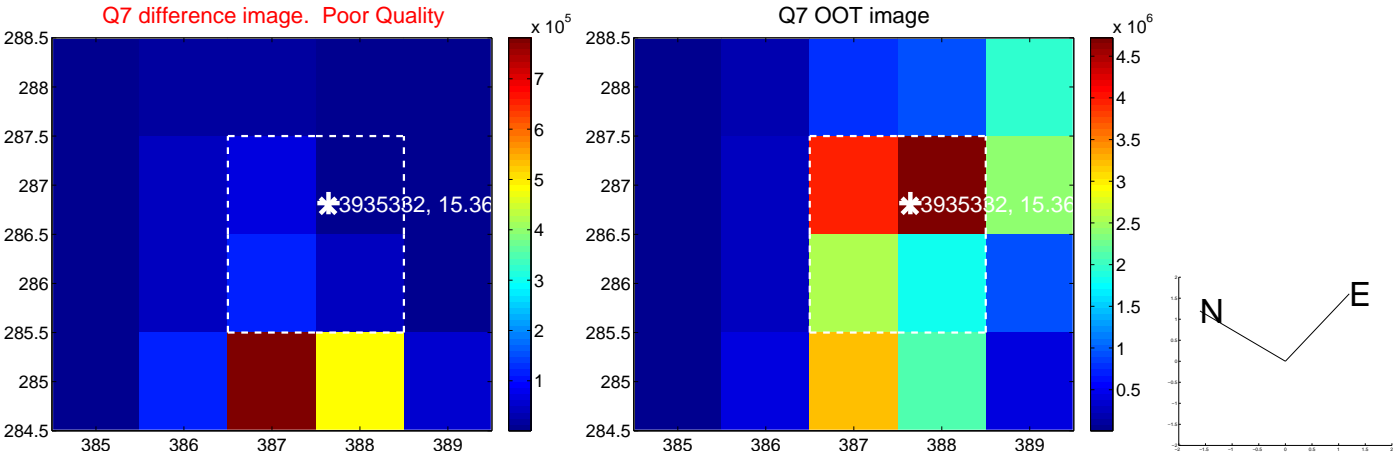
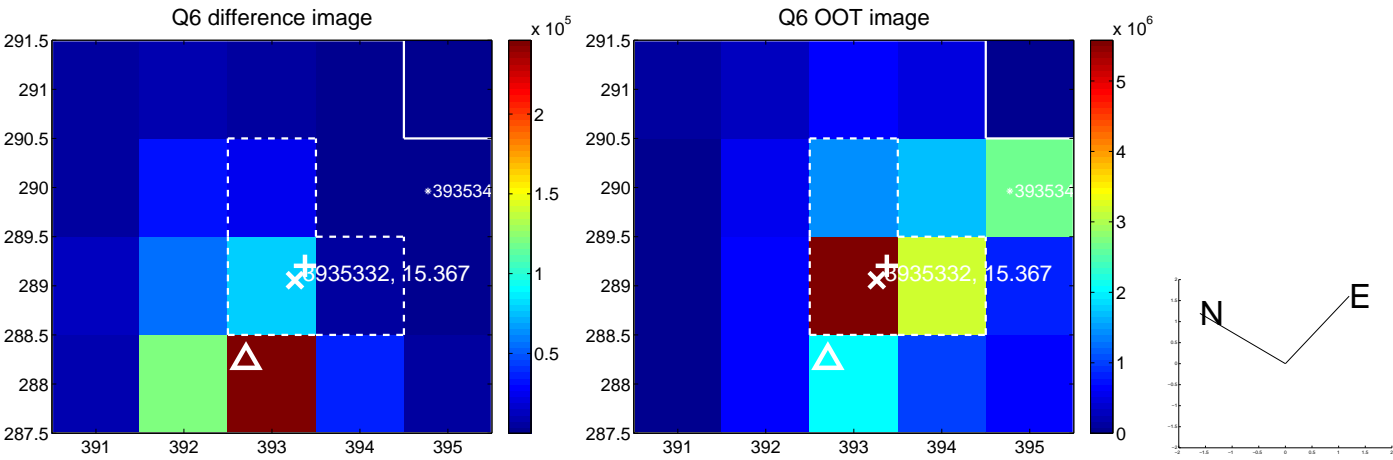
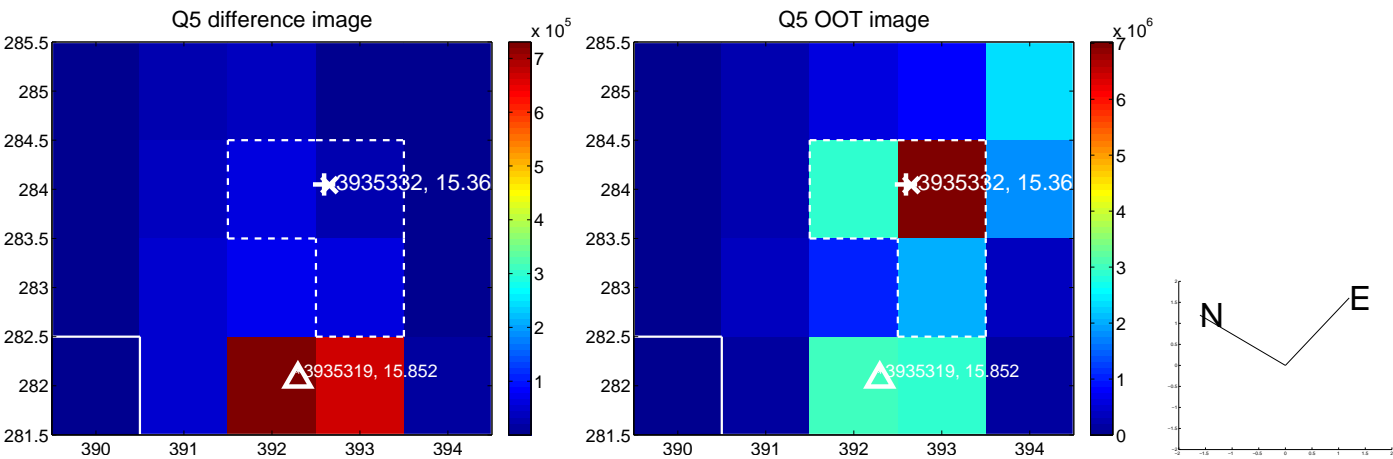


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

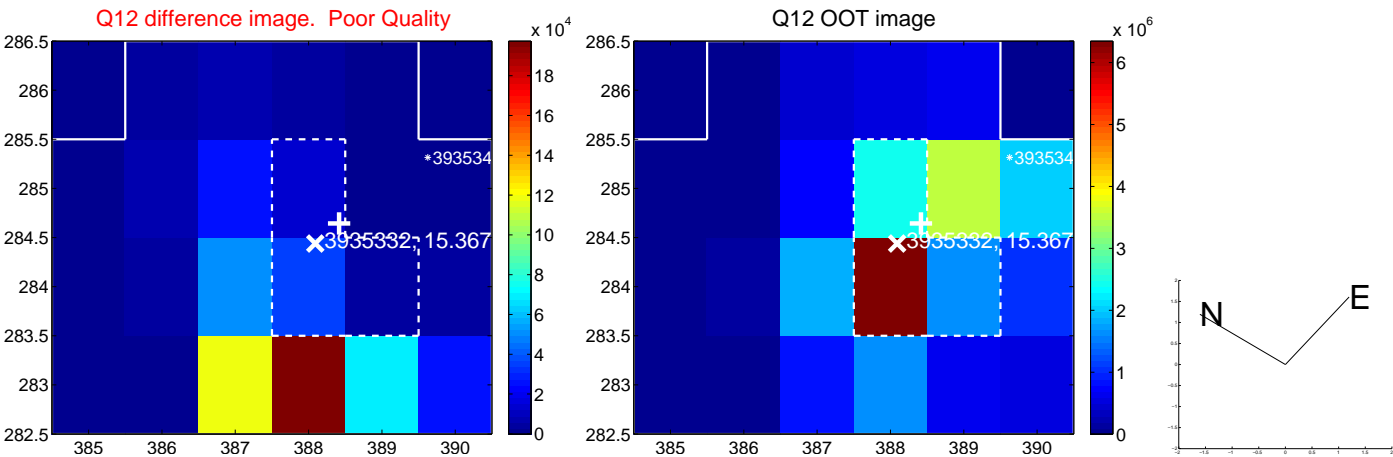
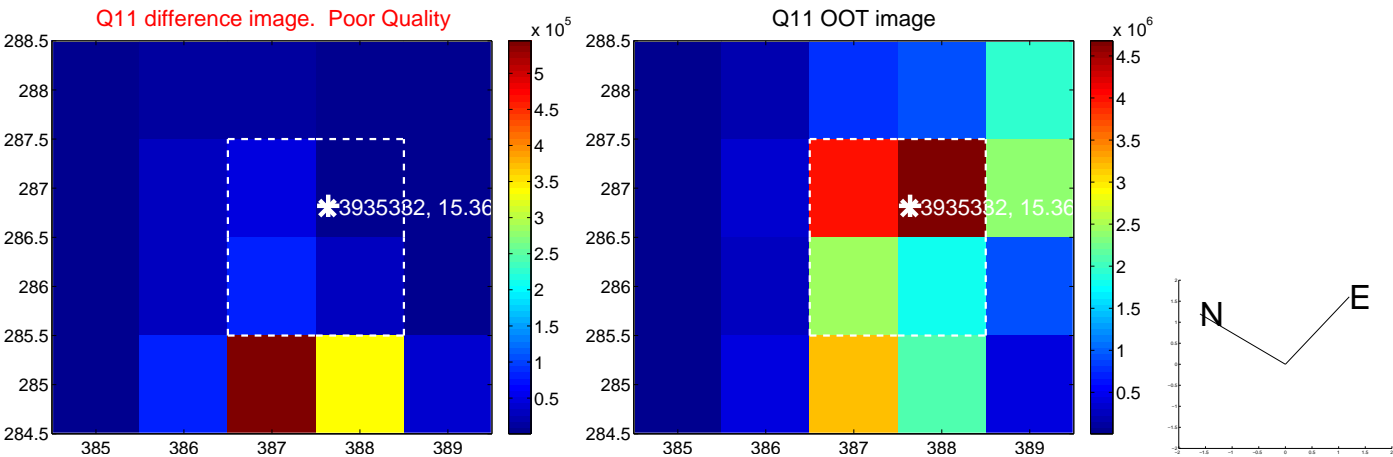
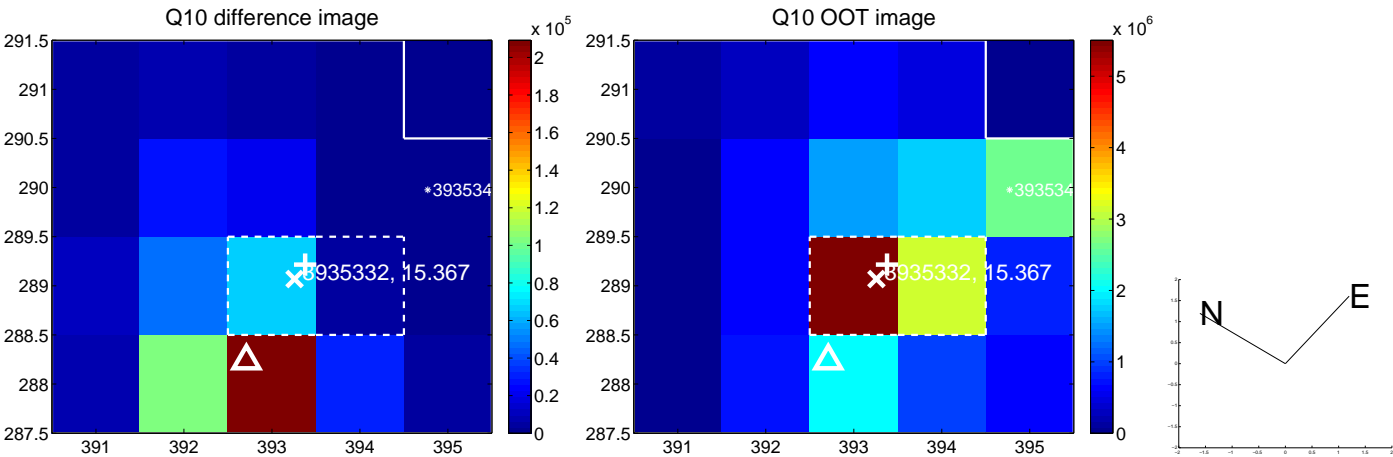
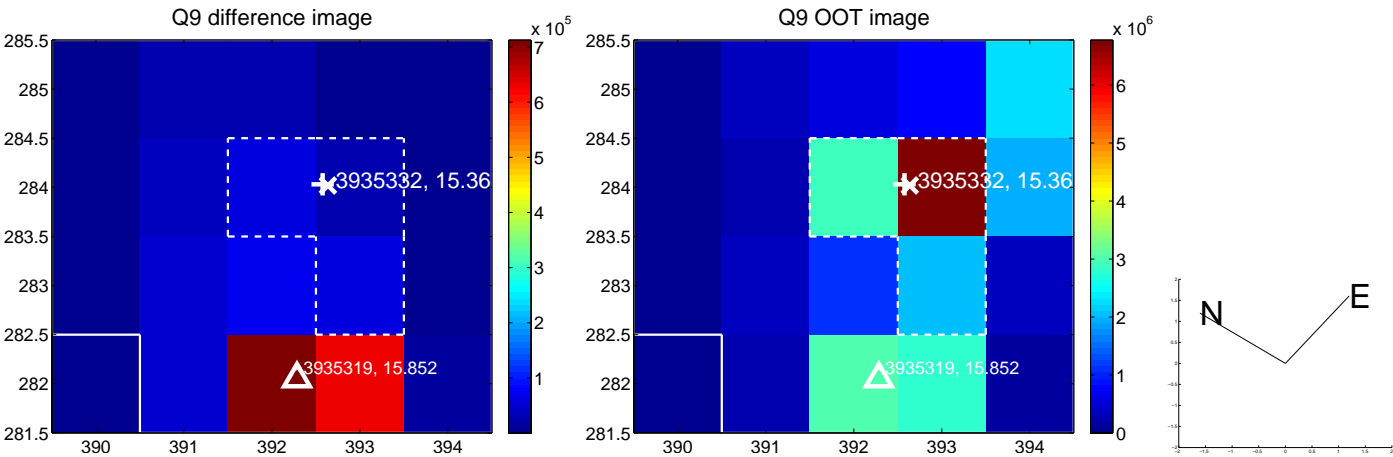
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



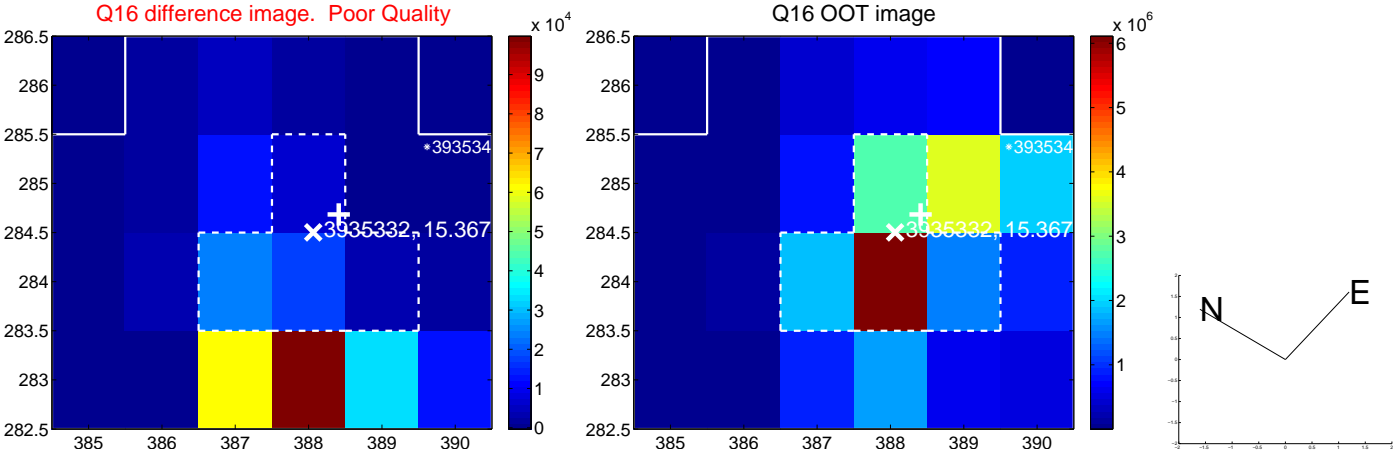
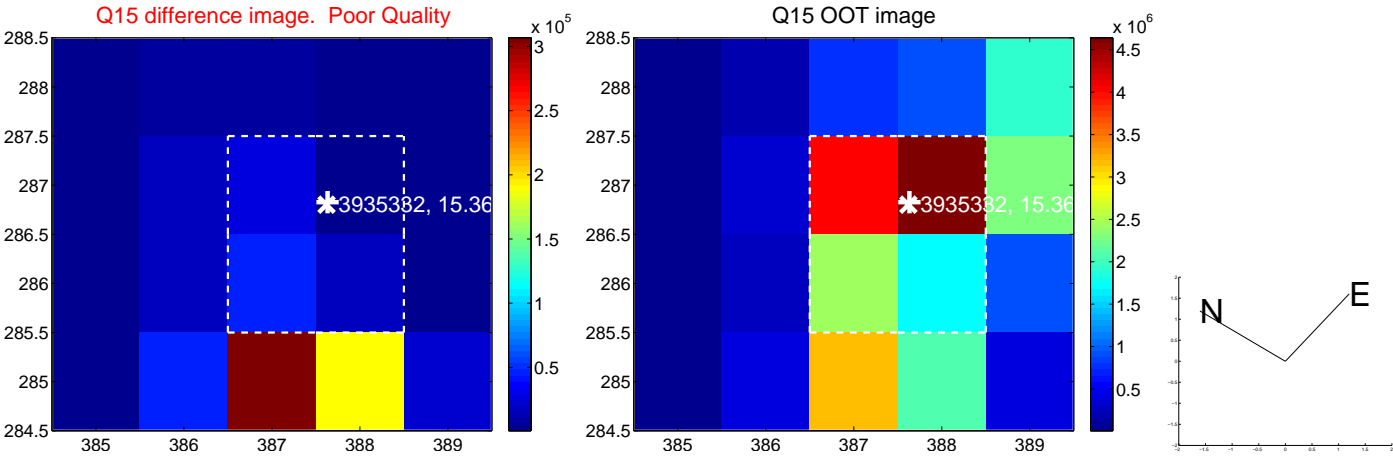
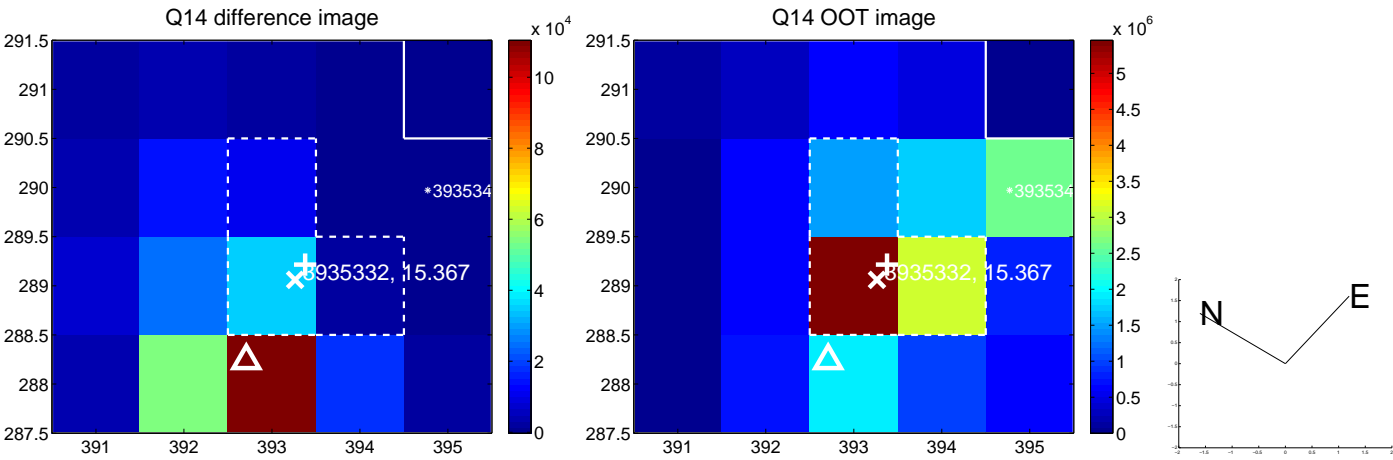
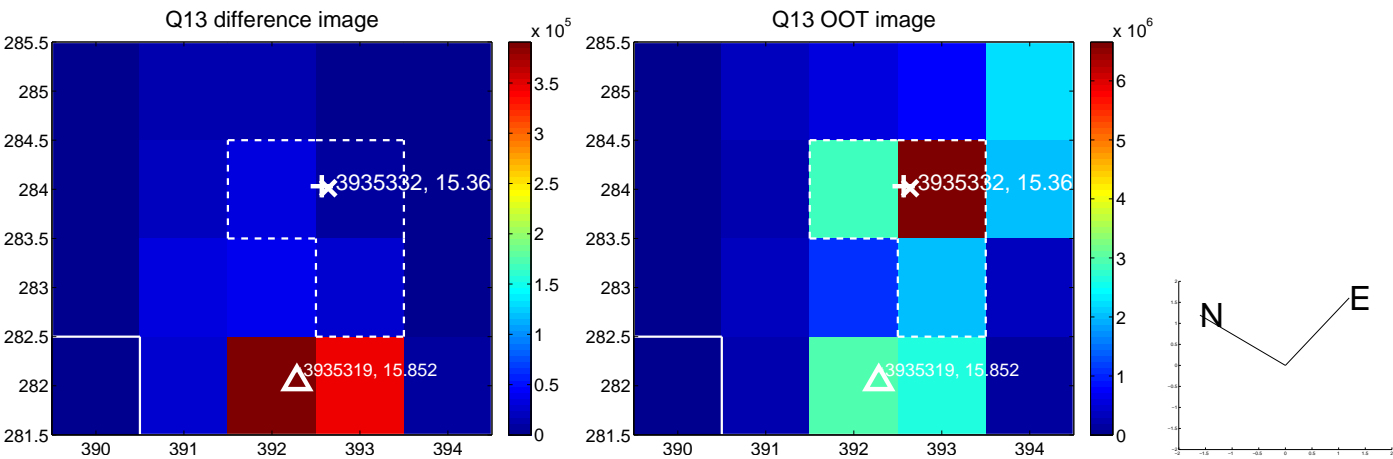
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



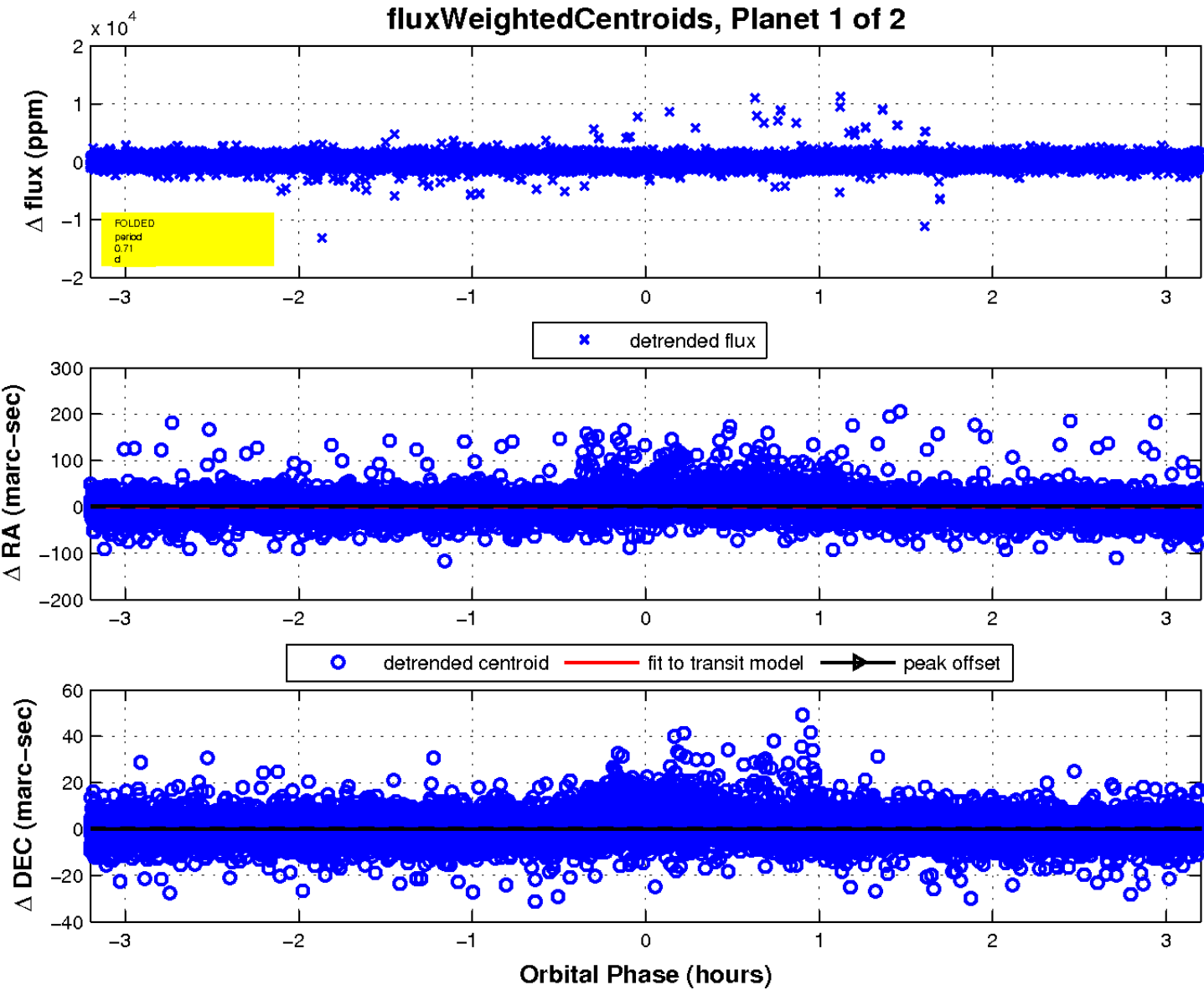
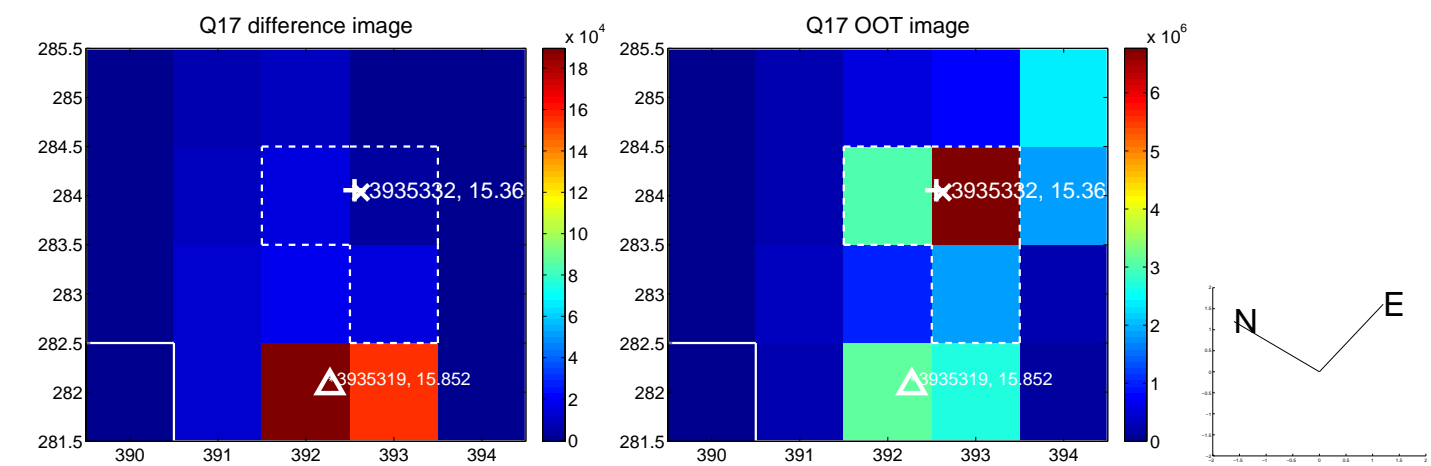
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

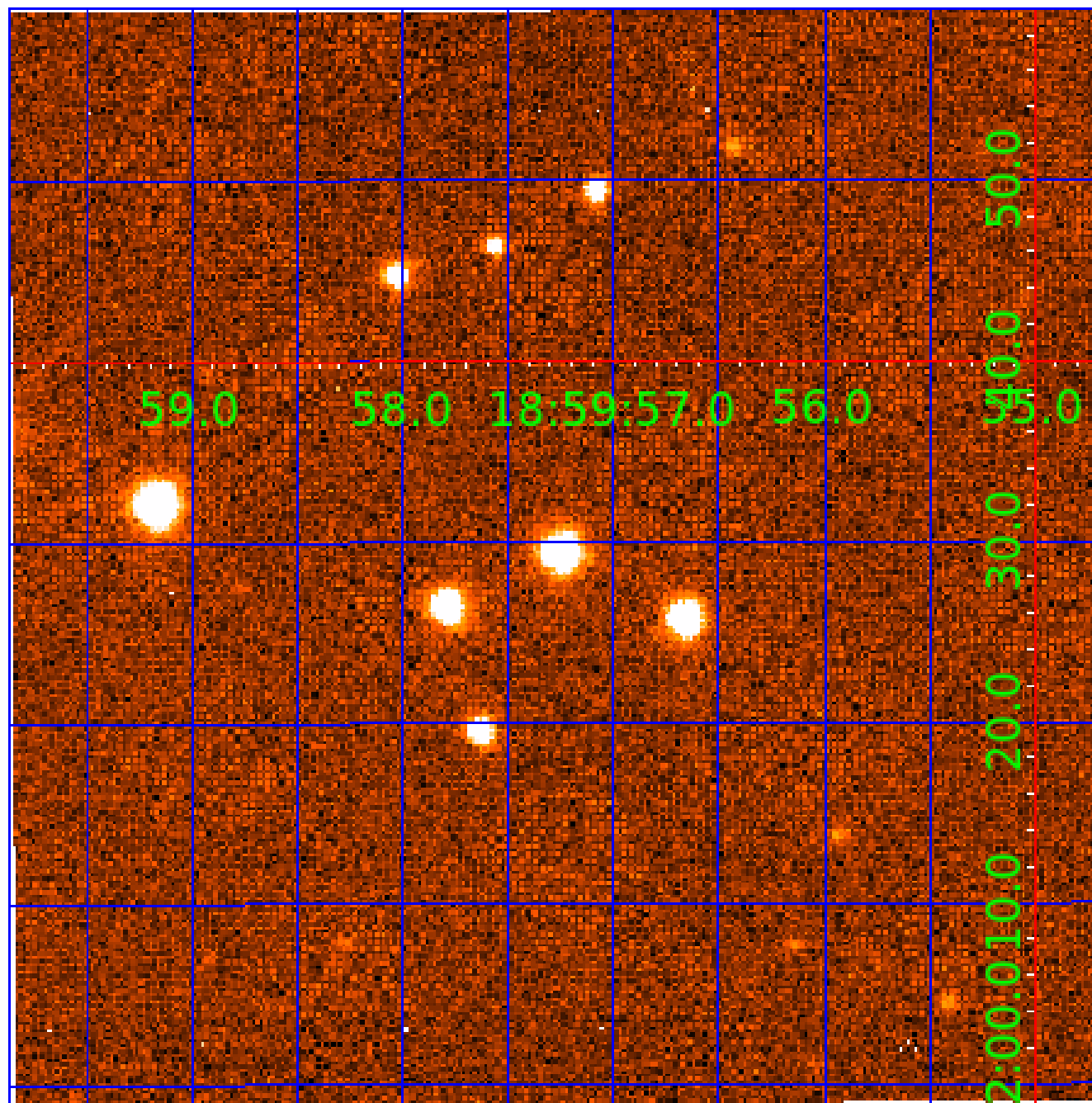


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003935332

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})
003935332-01	OBS	No	0.706234	131.561603	97.9	1.067	10.3	7.6	0.77	5865	0.89	2934.19
003935332-02	OBS	No	0.706246	131.877085	0.2	3.099	12.0	0.0	0.77	5865	0.04	2934.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003935332-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET
003935332-02	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET

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

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

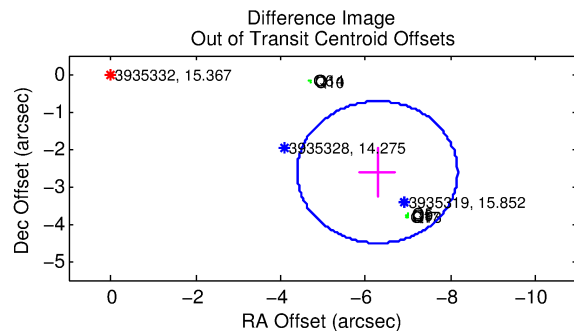
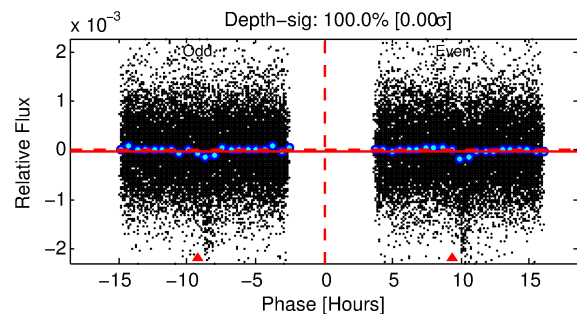
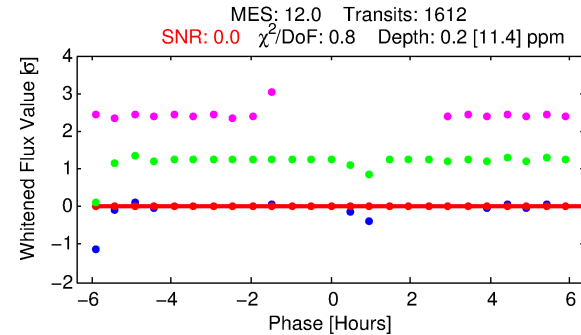
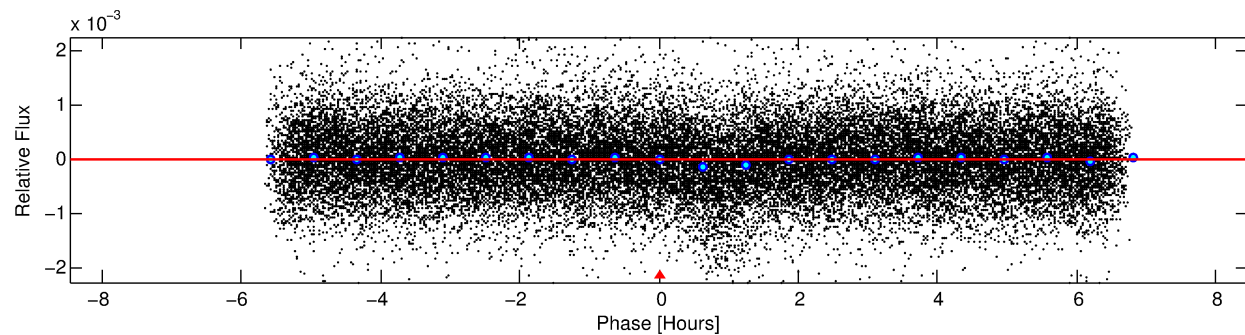
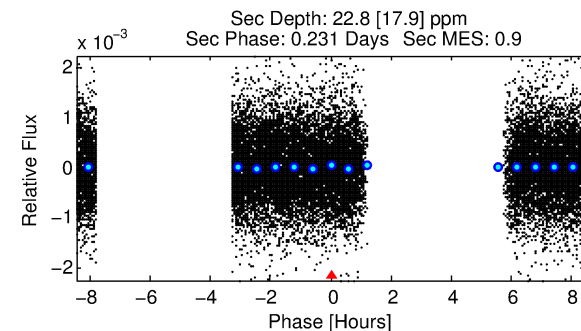
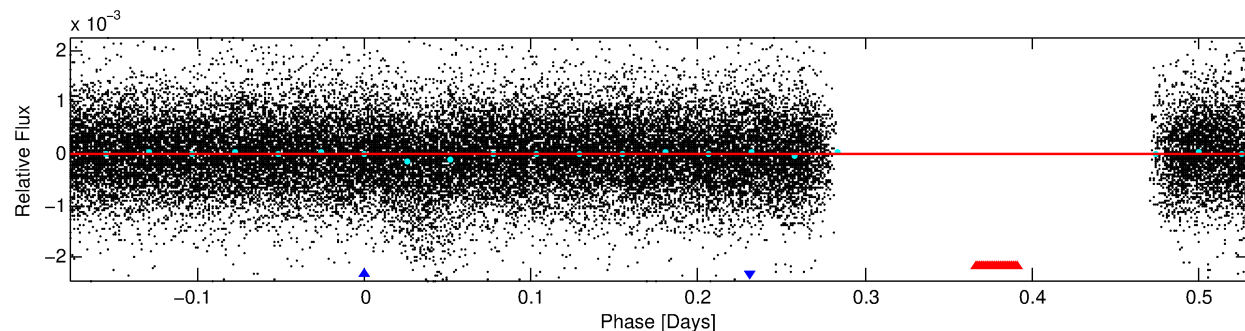
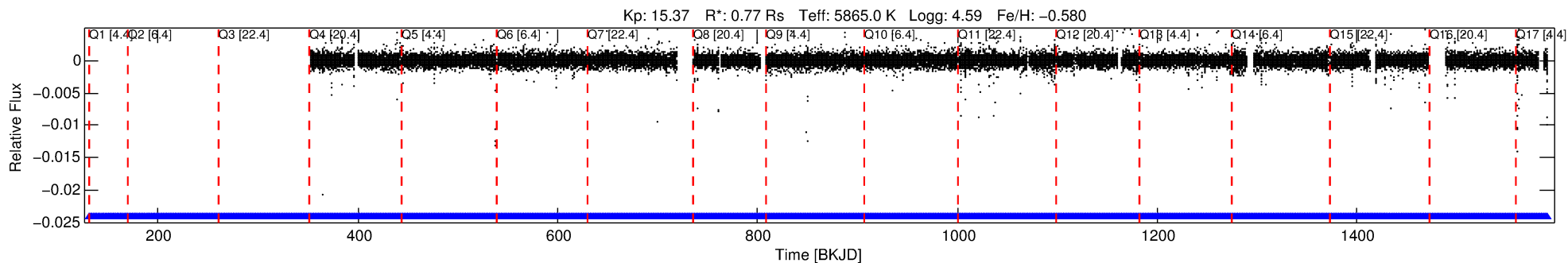
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003935332-02

No Significant Match Found

DV One-Page Summary

KIC: 3935332 Candidate: 2 of 2 Period: 0.706 d



DV Fit Results:

Period = 0.70625 [0.00381] d
Epoch = 131.8771 [1.2581] BKJD
Rp/R* = 0.0004 [0.0948]
a/R* = 1.83 [1412.68]
b = 0.10 [10924.78]
Seff = 2934.12 [982.99]
Teq = 1877 [157] K
Rp = 0.04 [8.00] Re
a = 0.0147 [0.0031] AU
Ag = 2097.92 [934199.49] [0.00σ]
Teffp = 19637 [2186119] K [0.01σ]

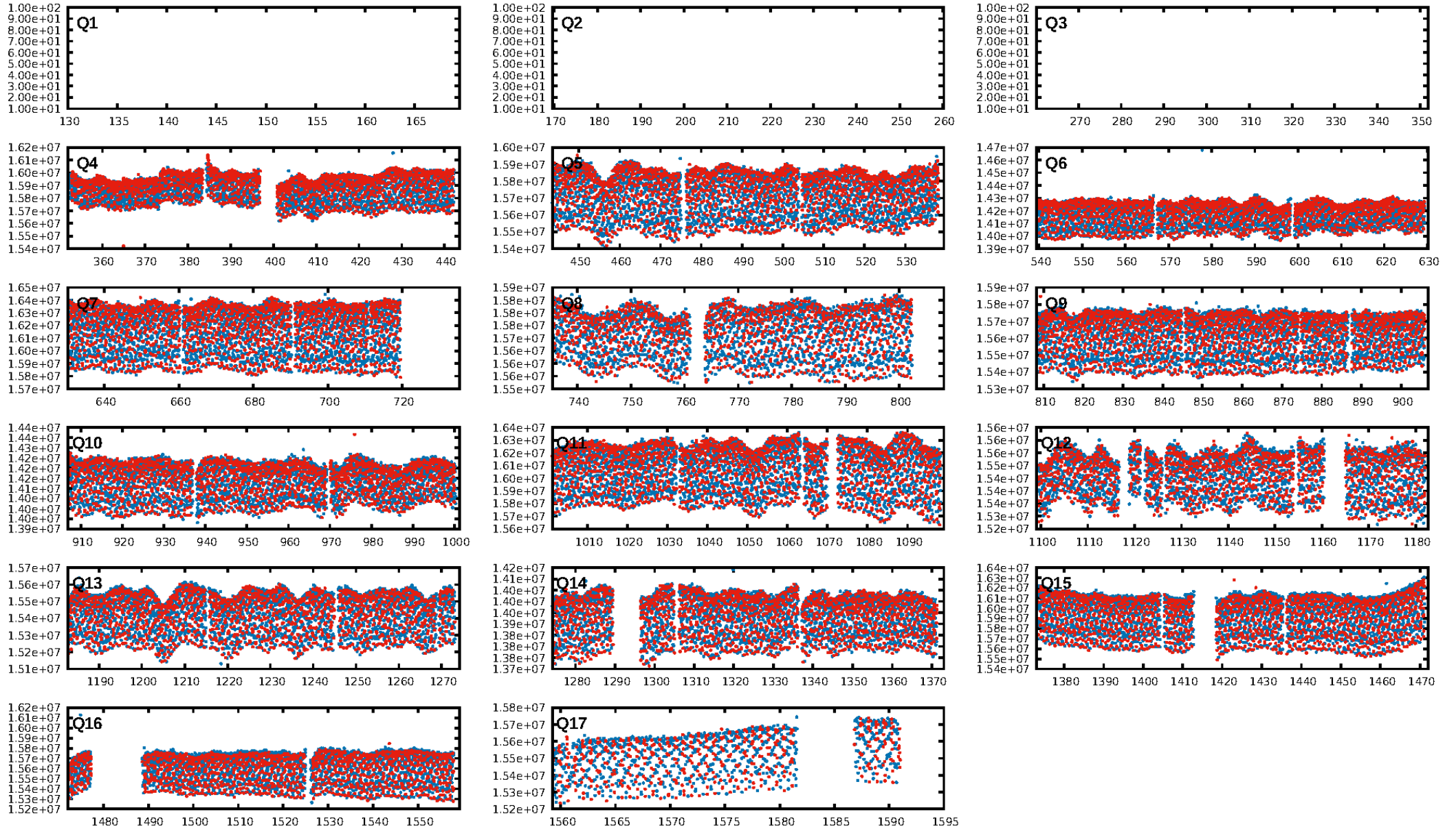
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.13e-32
RollingBand-fgt: 1.00 [1574/1574]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 6.809 arcsec [10.79σ]
KicOffset-rm: 6.609 arcsec [8.54σ]
OotOffset-st: 3/0/0/4 [7]
KicOffset-st: 3/0/0/4 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 0.00 [0/14]

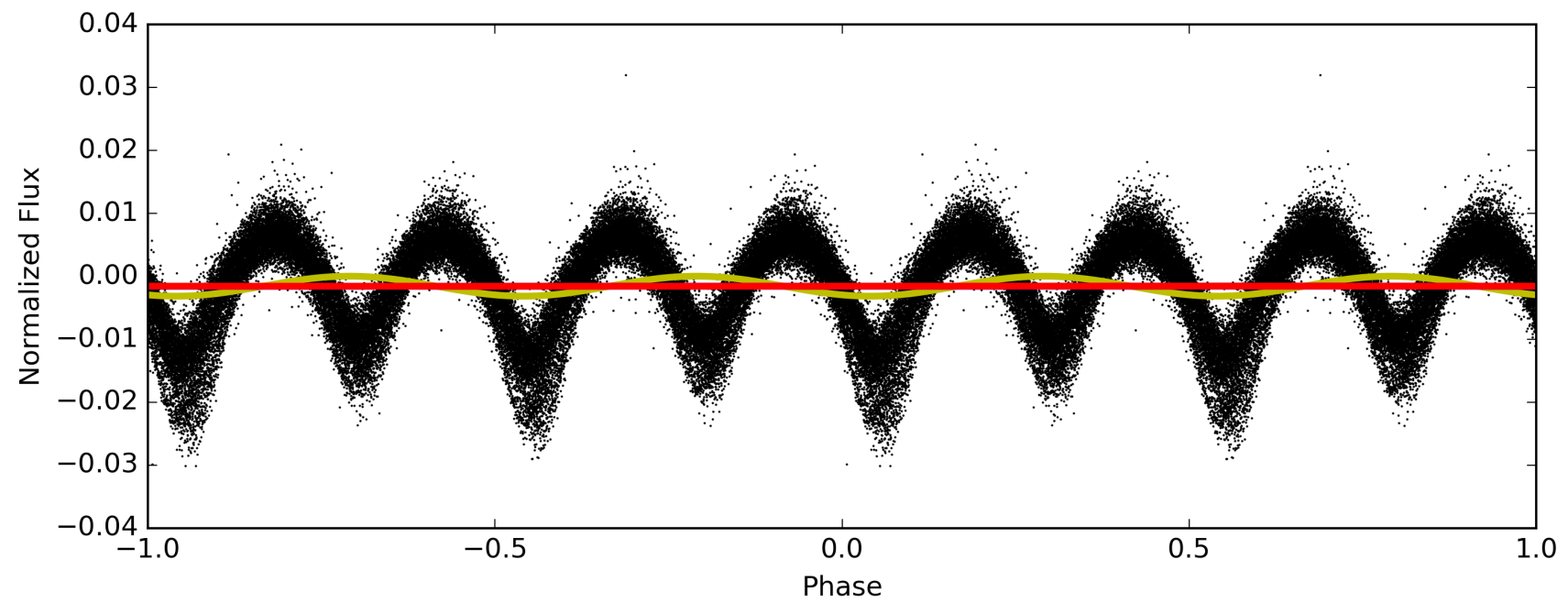
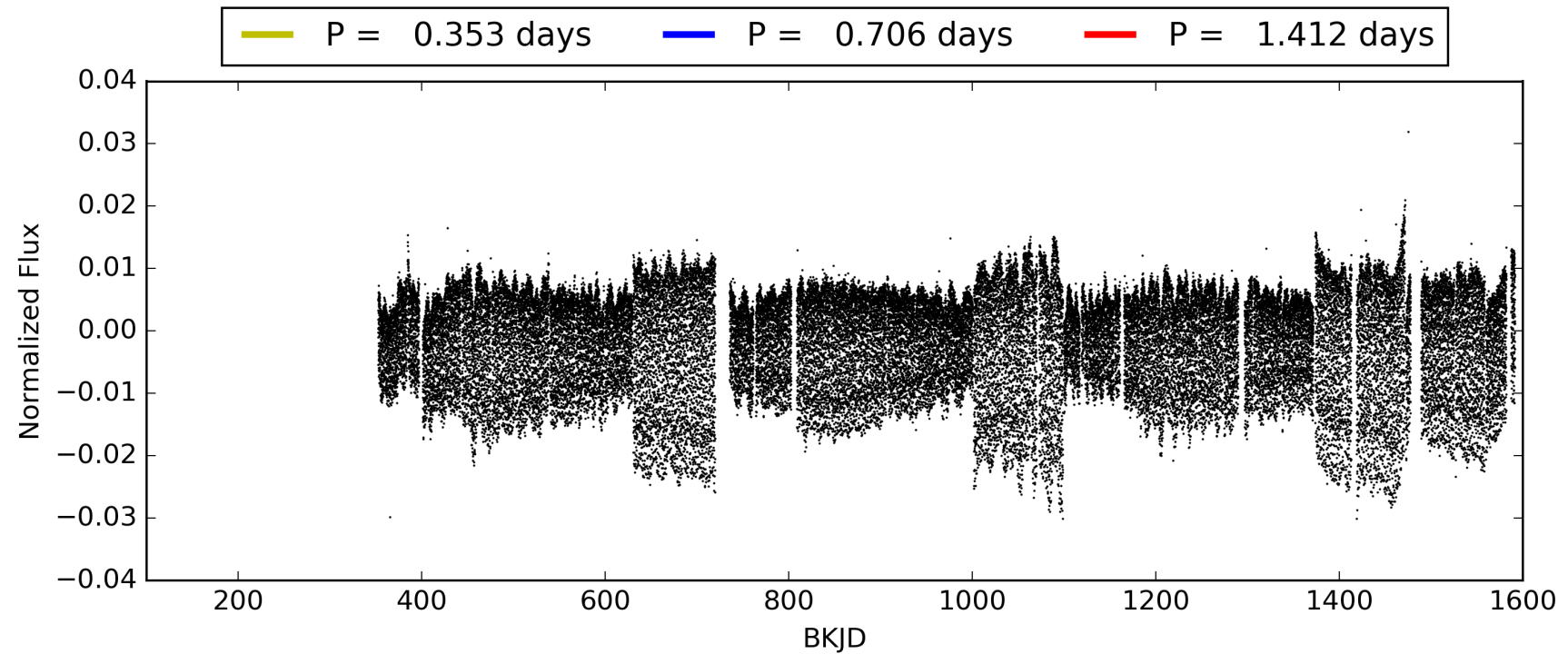
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 20:10:28 Z

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

TCE 003935332-02, PDC Light Curves

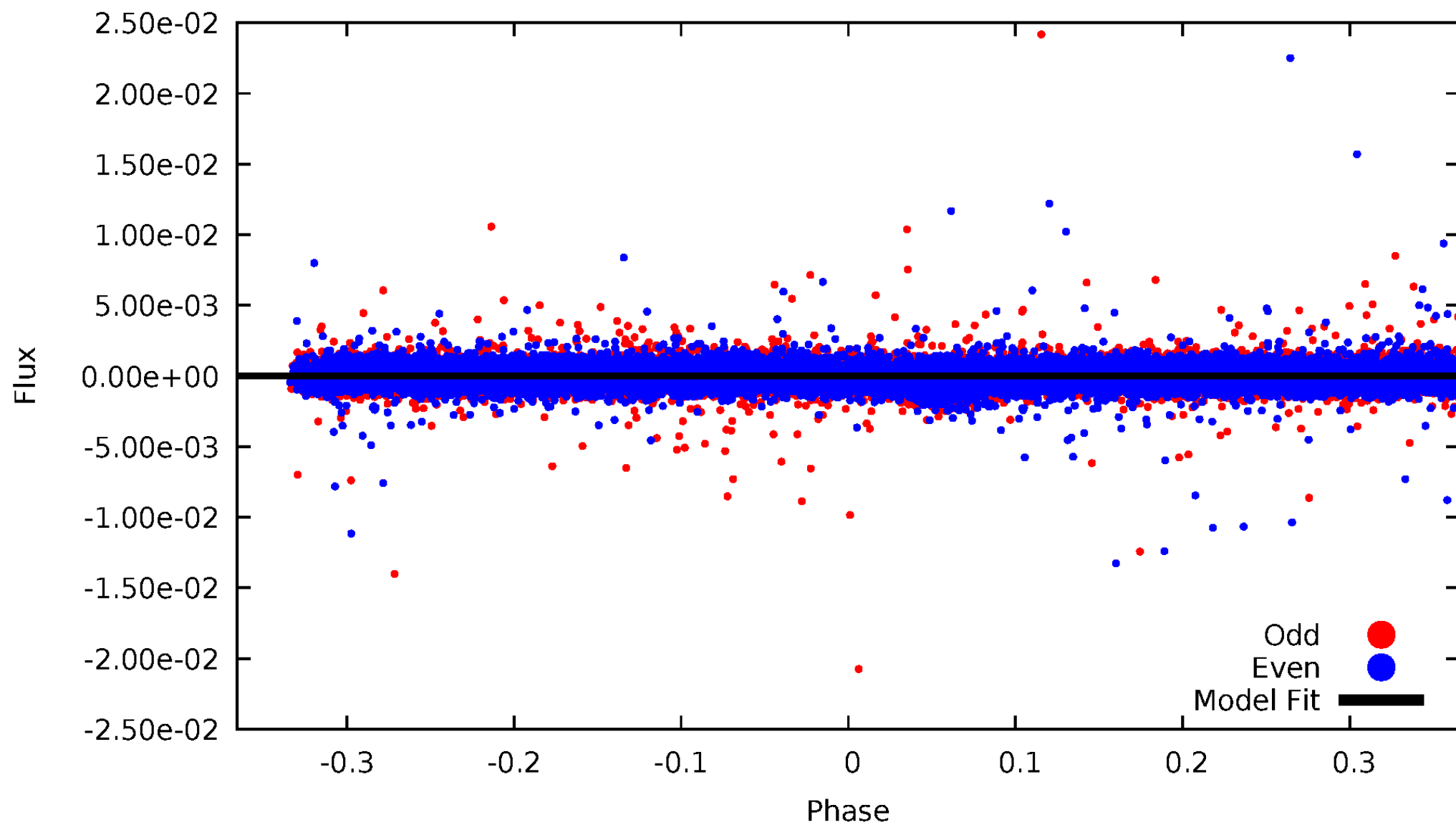


TCE 003935332-02



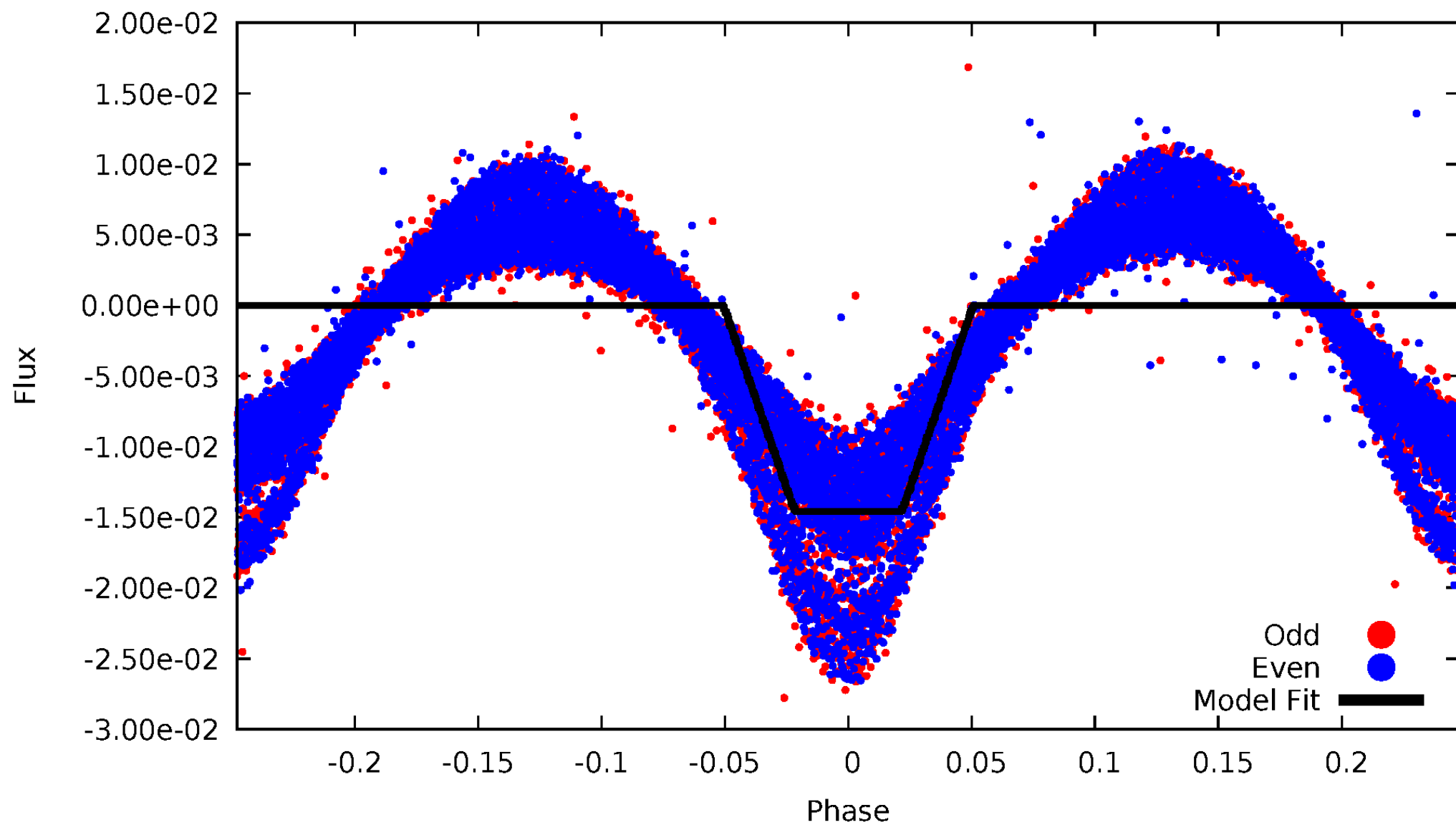
DV Odd/Even

TCE 003935332-02



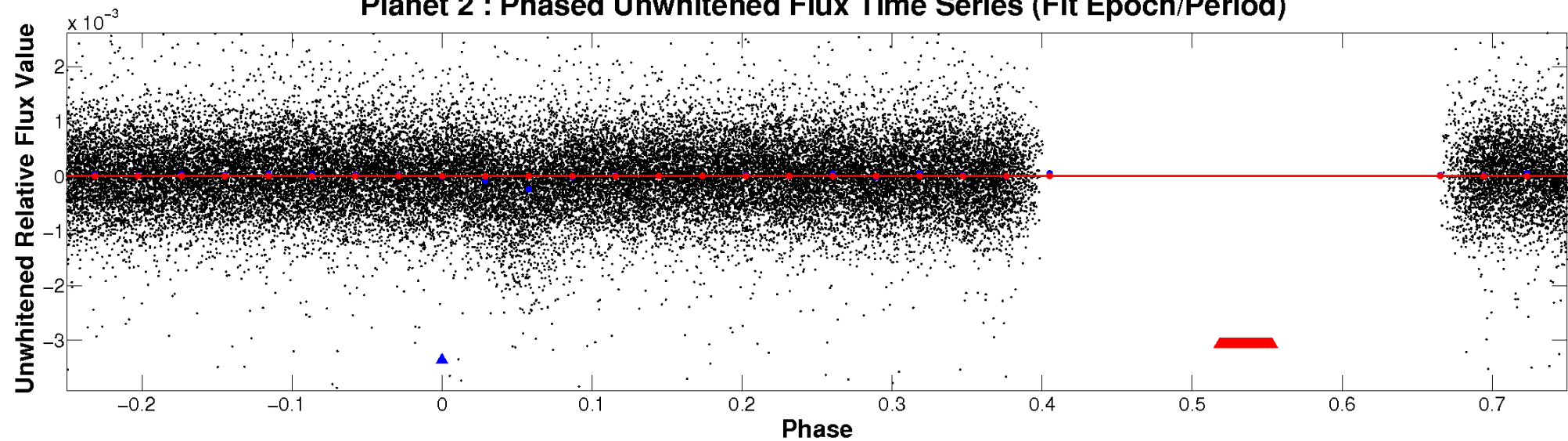
ALT Odd/Even

TCE 003935332-02

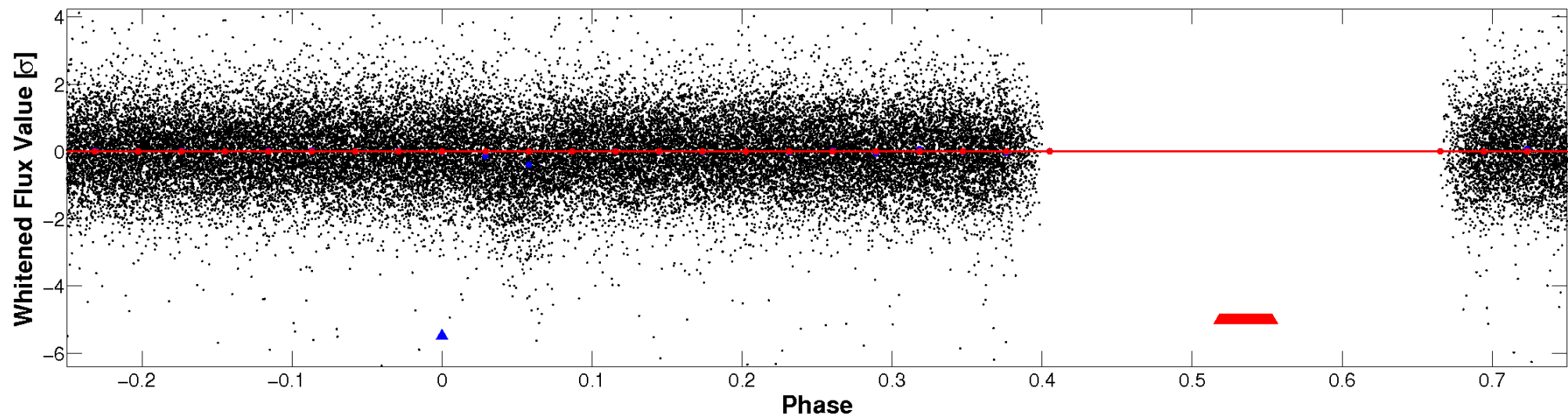


Non-Whitened Vs. Whitened Light Curve

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

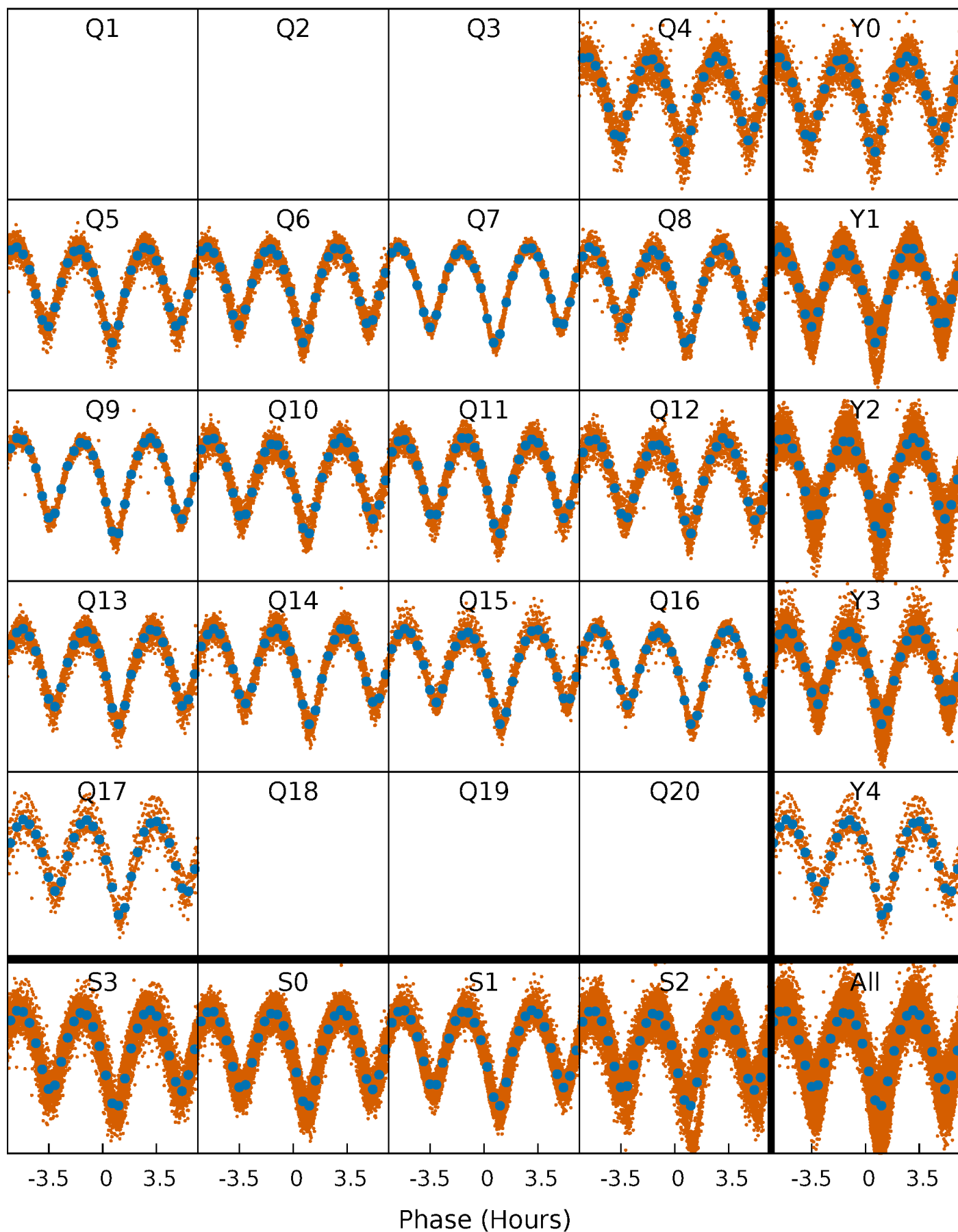


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



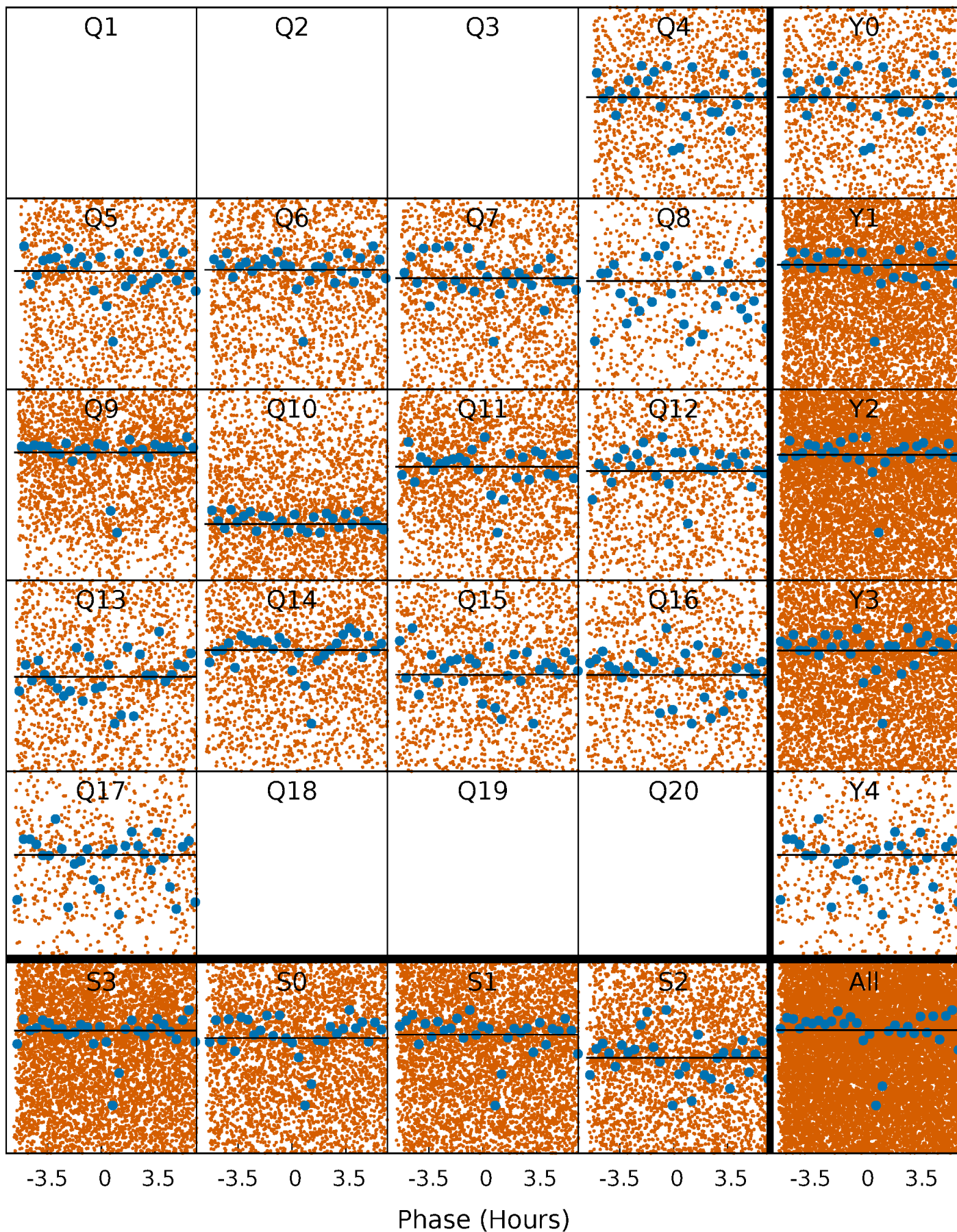
PDC Quarter-Phased Transit Curves

TCE 003935332-02 P= 0.706246 Days $T_0=131.877085$ (BKJD)



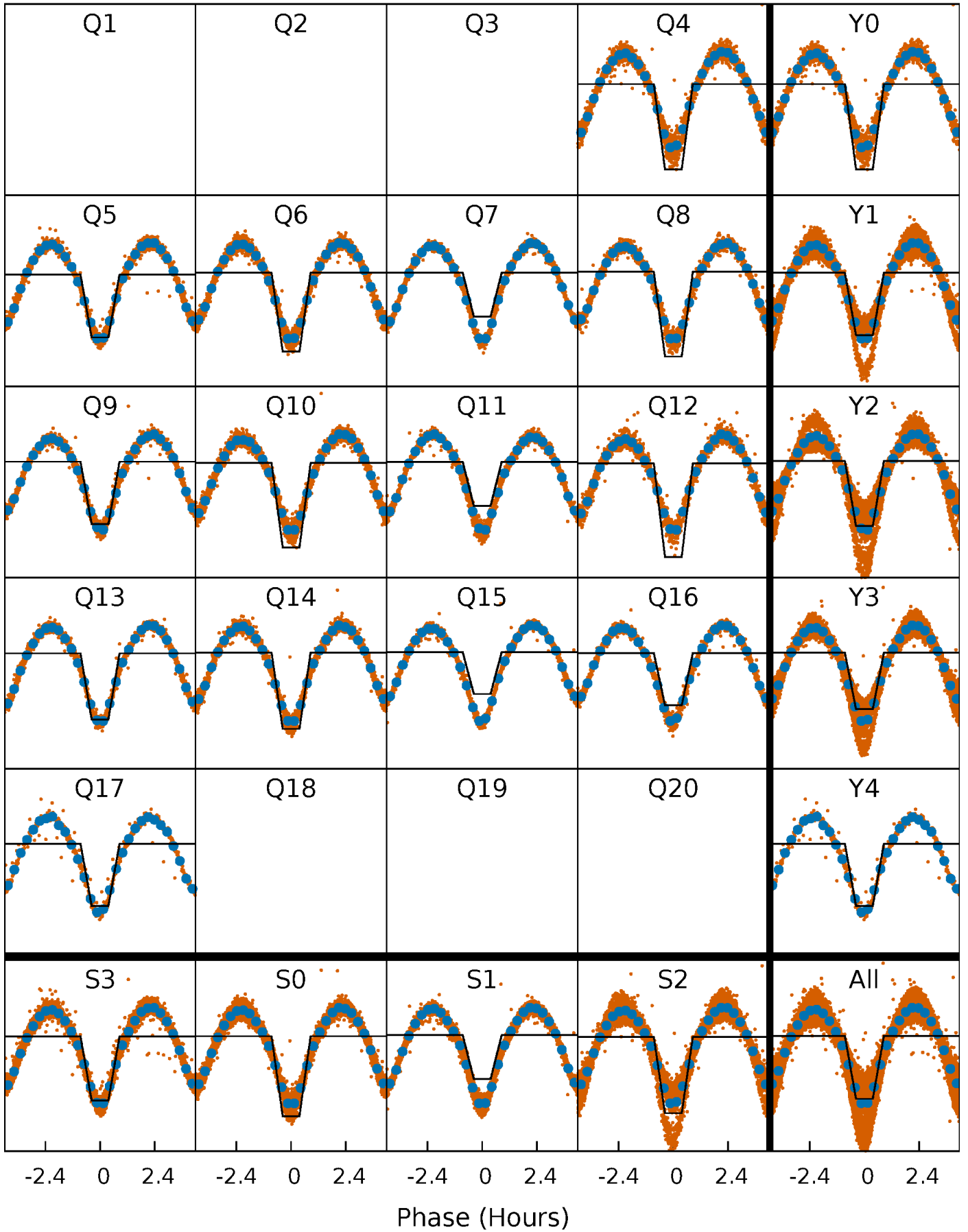
DV Quarter-Phased Transit Curves

TCE 003935332-02 P= 0.706246 Days $T_0=131.877085$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

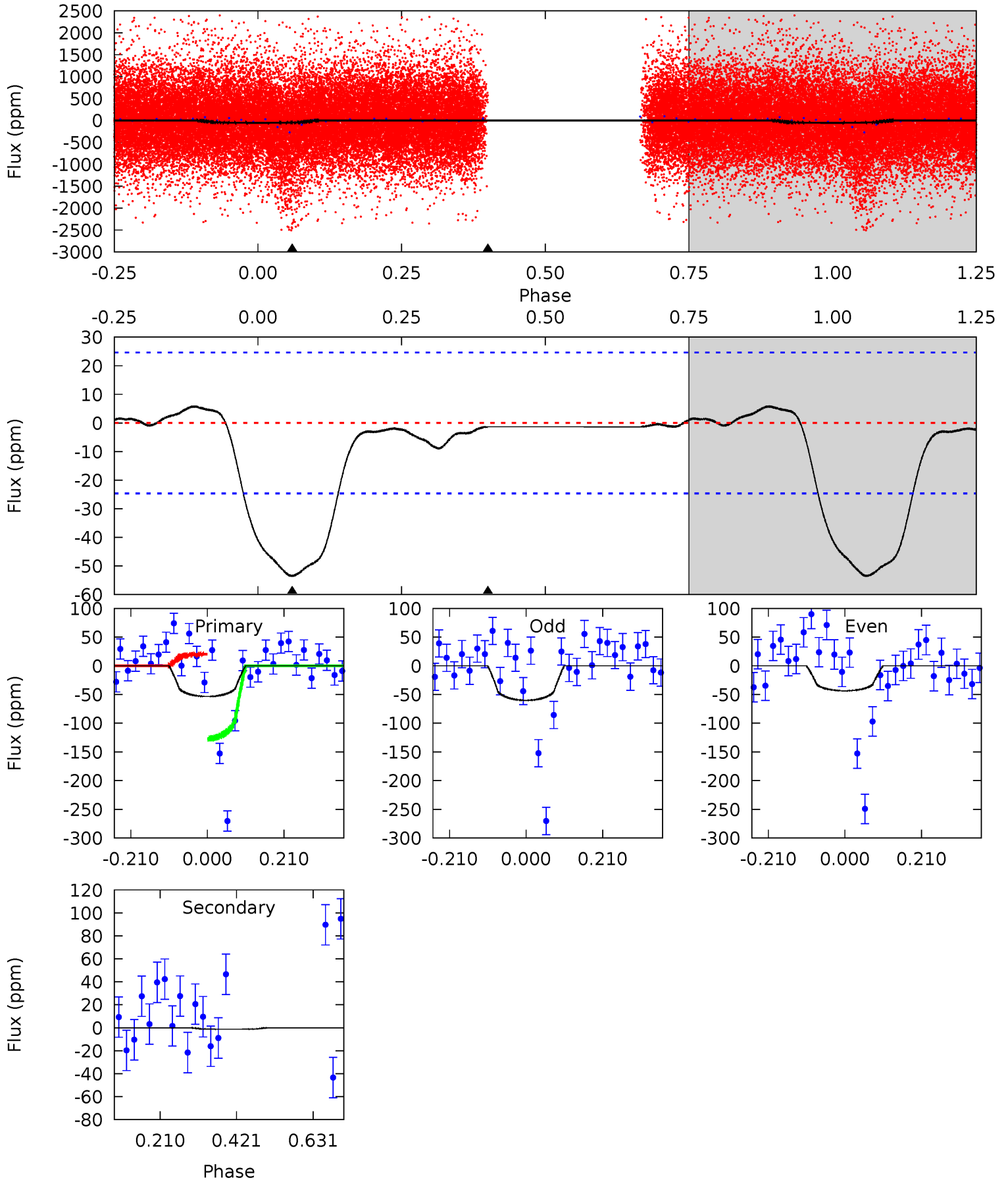
TCE 003935332-02 P= 0.706262 Days $T_0=131.894433$ (BKJD)



DV Model-Shift Uniqueness Test

003935332-02, P = 0.706246 Days, E = 131.877085 Days

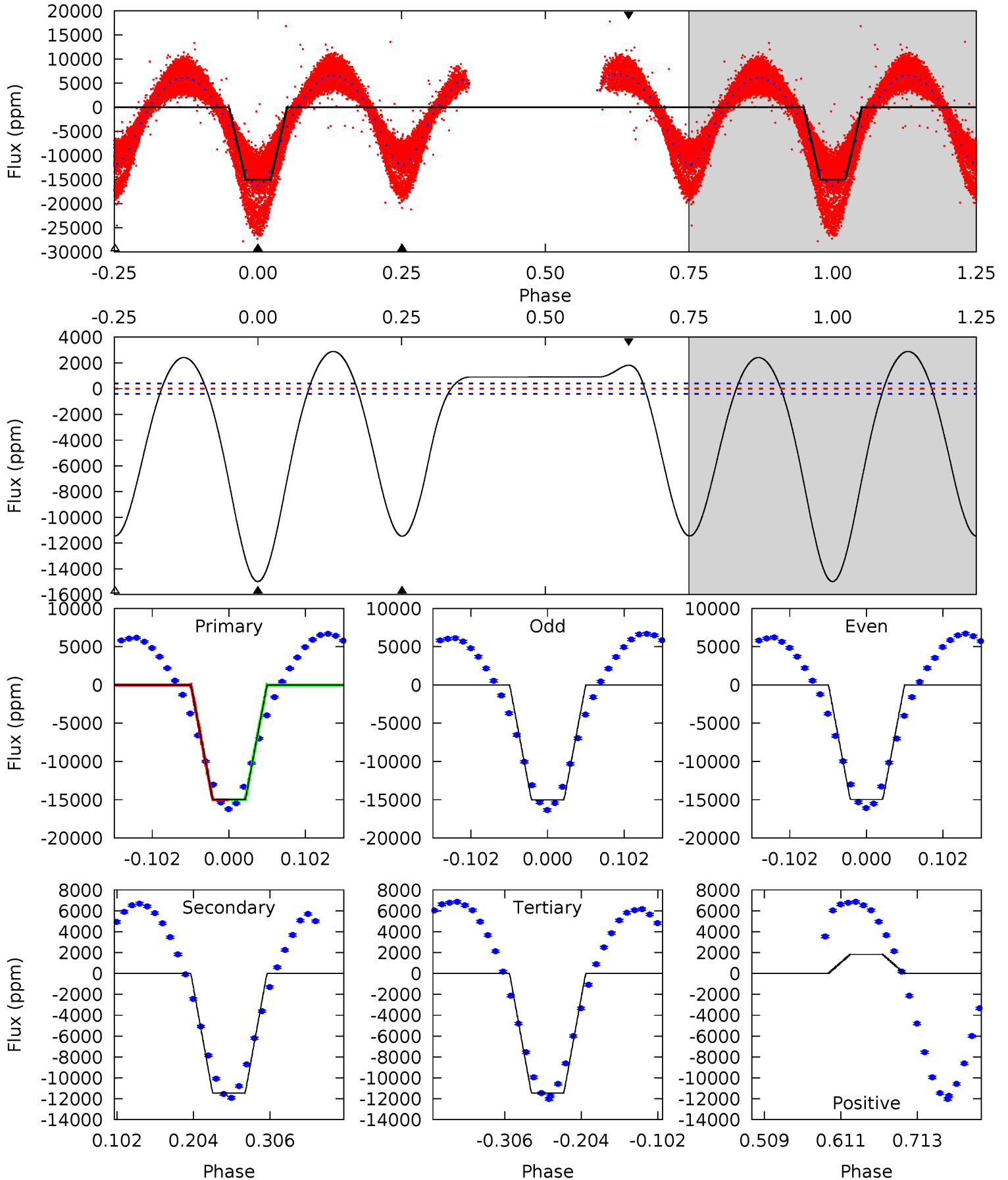
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.57	0.24	0	0	4.41	1.25	0.19	9.57	9.57	0.24	0.24	1.49	0.96	0.10	9.43



Alt Model-Shift Uniqueness Test

003935332-02, P = 0.706262 Days, E = 131.894433 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
168.4	128.8	128.6	20.4	4.56	1.64	56.0	39.8	148.0	0.21	108.4	0.34	1.07	0.16	0.22



Stellar Parameters For KIC 003935332

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5865^{+195}_{-195}	$4.590^{+0.042}_{-0.168}$	$-0.580^{+0.300}_{-0.300}$	$0.773^{+0.194}_{-0.065}$	$0.850^{+0.088}_{-0.088}$	$2.588^{+0.549}_{-1.181}$
	+3%/-3%	+1%/-4%	+52%/-52%	+25%/-8%	+10%/-10%	+21%/-46%
Source	KIC0	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 003935332-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1 ± 6	$6.10^{+6.09}_{-4.27}$	2675^{+163}_{-121}	-2891^{+126}_{-131}	$0.002^{+0.049}_{-0.020}$
Alt.	-11466 ± 89	$12.02^{+7.20}_{-7.27}$	2671^{+159}_{-128}	5269^{+3273}_{-1015}	$9.609^{+48.917}_{-5.929}$

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 $A_{obs} \gg 1.0$

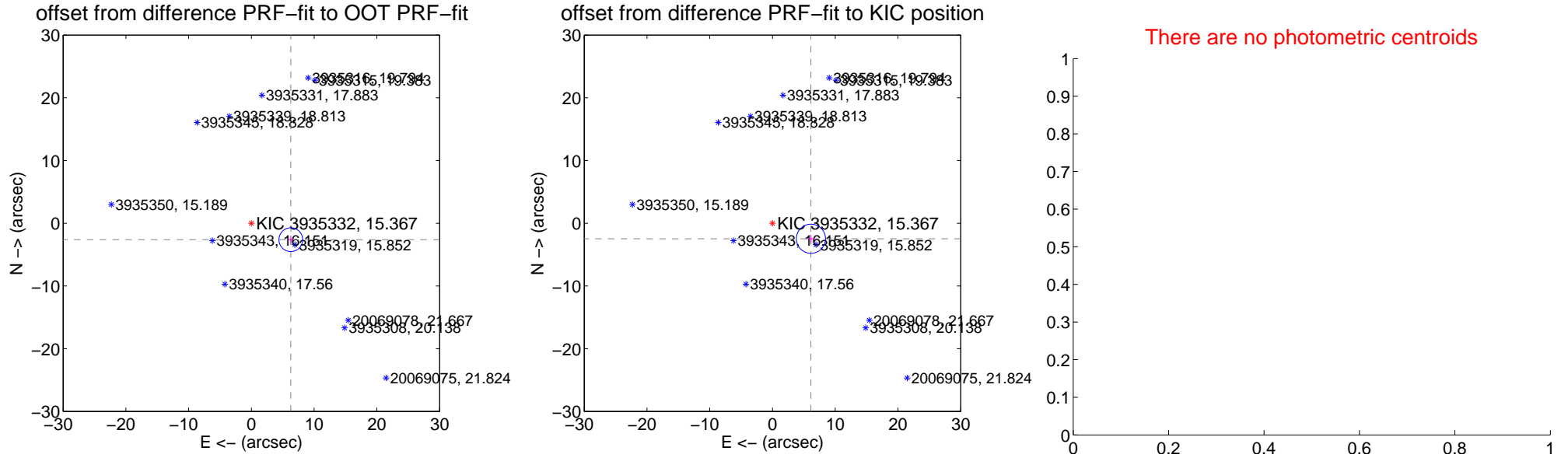
DV Centroid Data

Supplemental centroid analysis for 003935332-02. Kepler magnitude: 15.37. Transit SNR 0.03

There are 7 quarters with good PRF difference image offsets

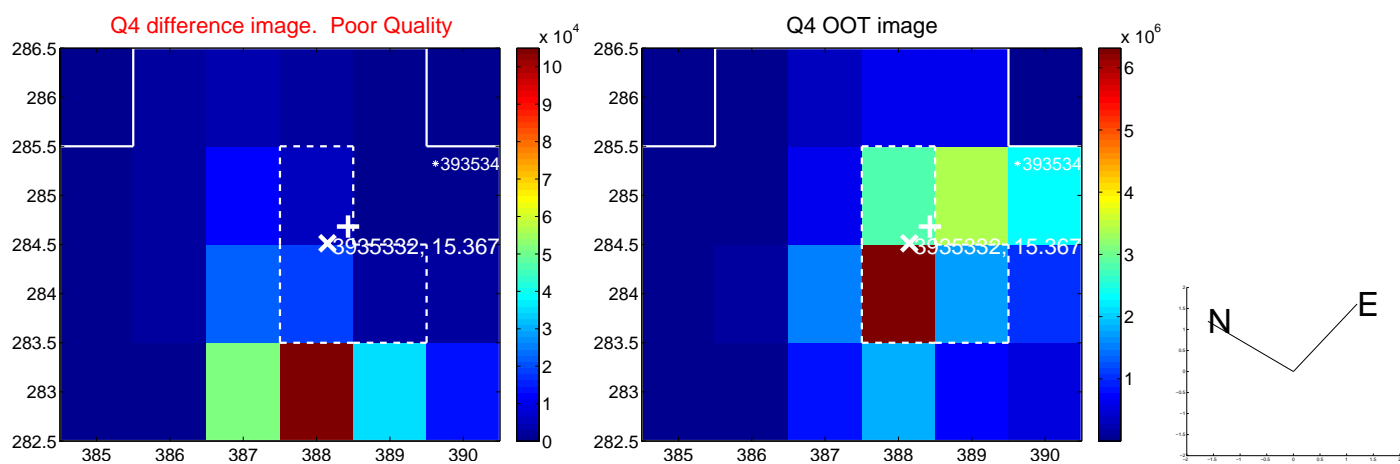
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.809 ± 0.631	10.79	-6.284 ± 0.417	-2.622 ± 0.648
PRF-fit source offset from KIC position	6.609 ± 0.774	8.54	-6.129 ± 0.586	-2.471 ± 0.621
photometric centroid source offset	—	—	—	—

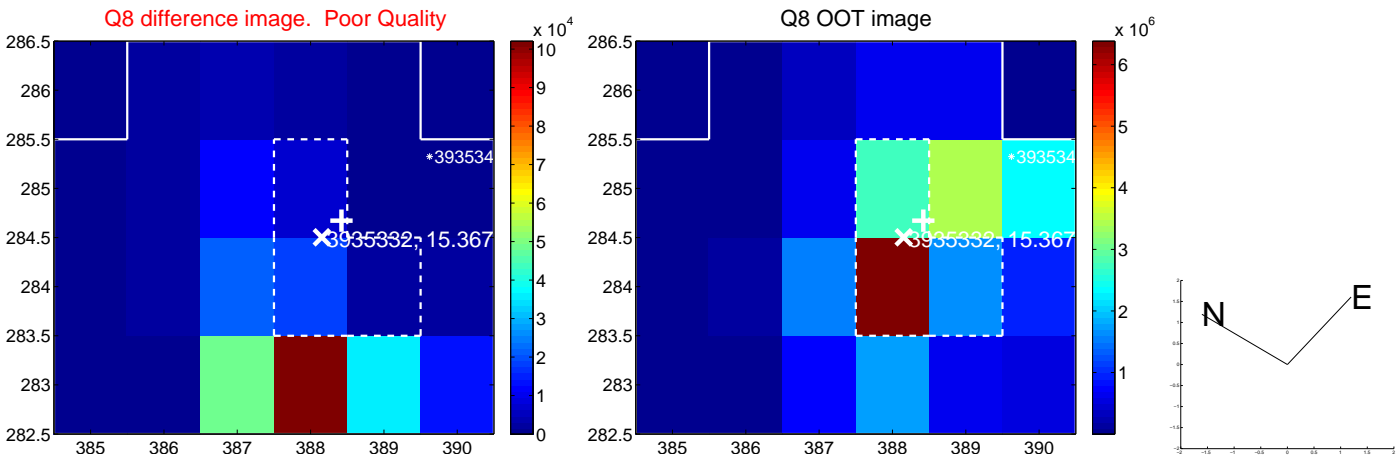
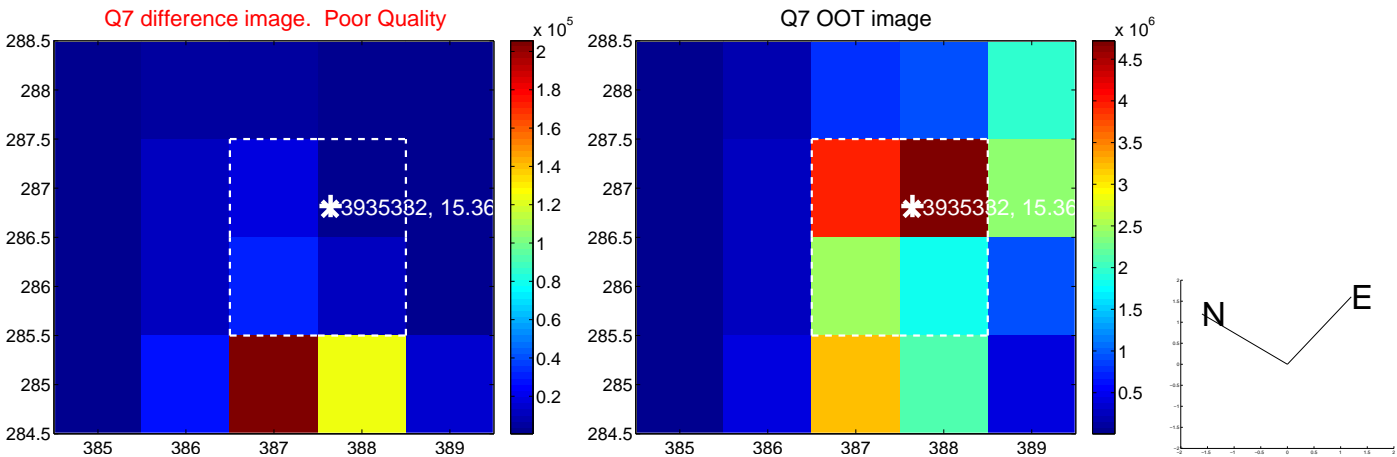
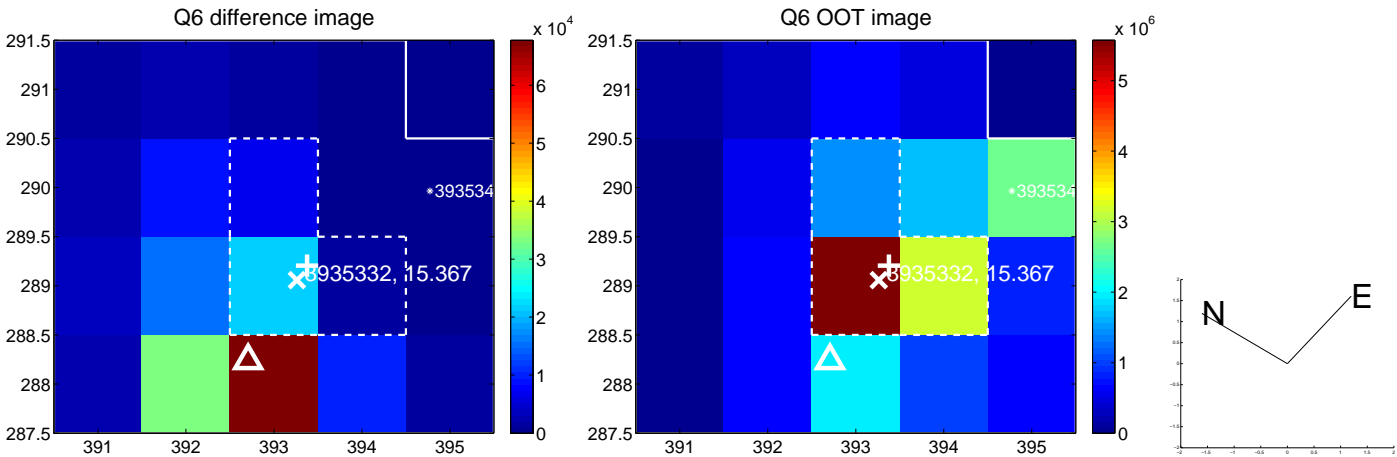
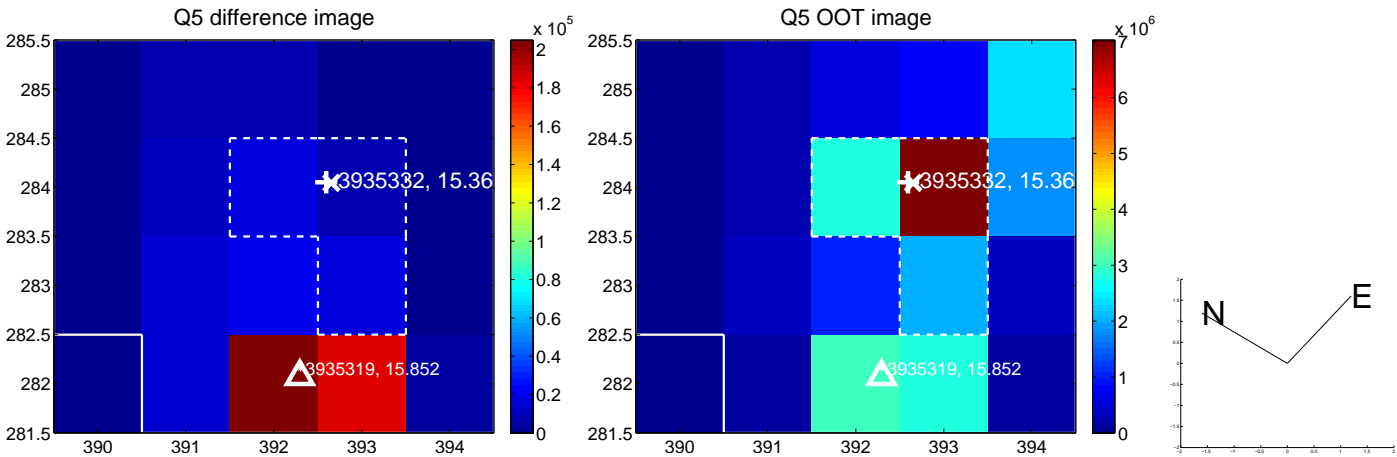


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

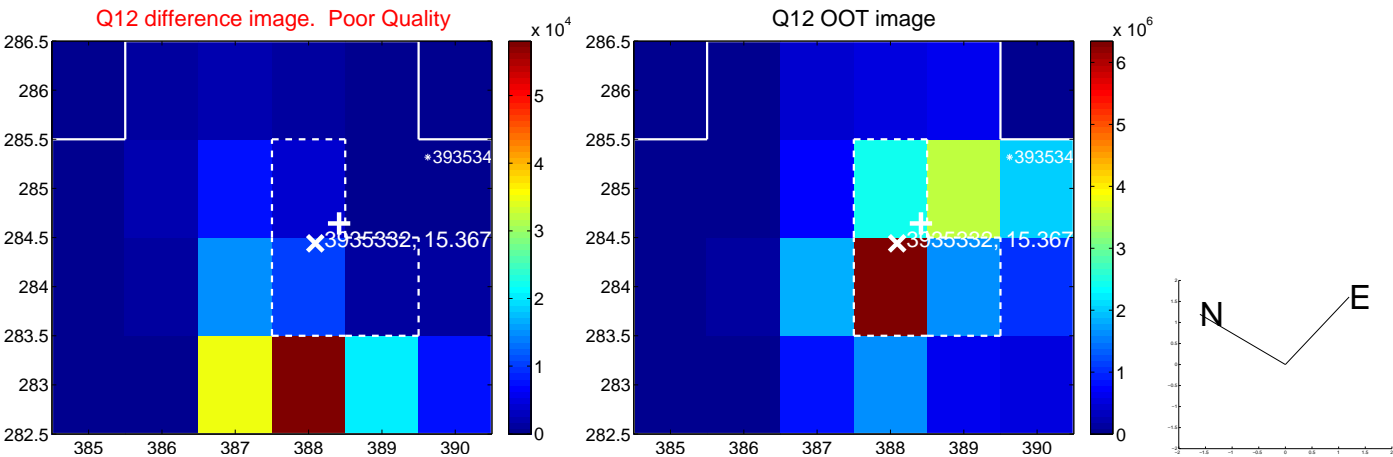
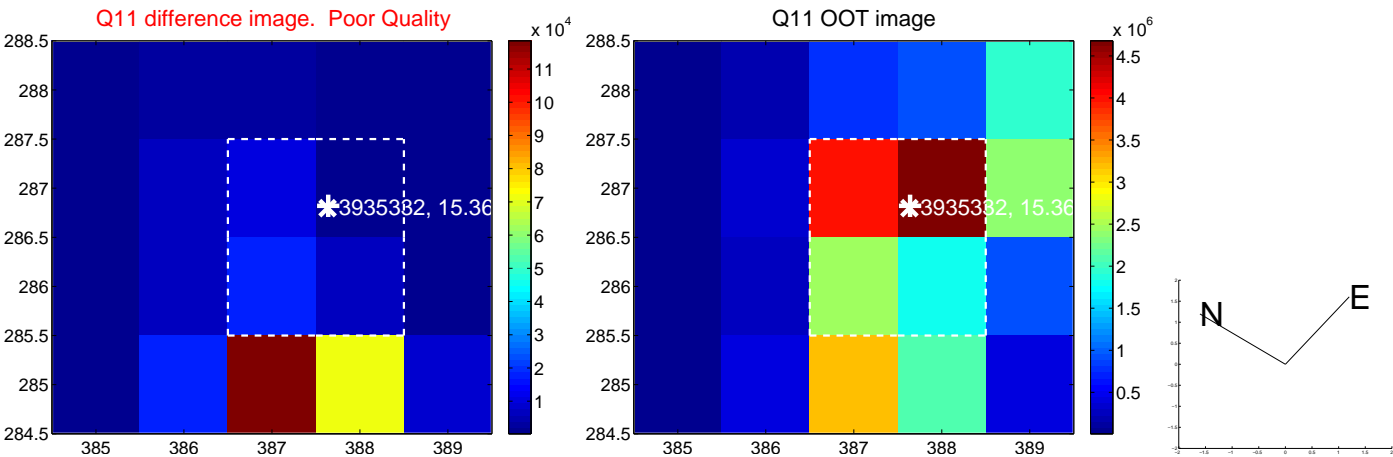
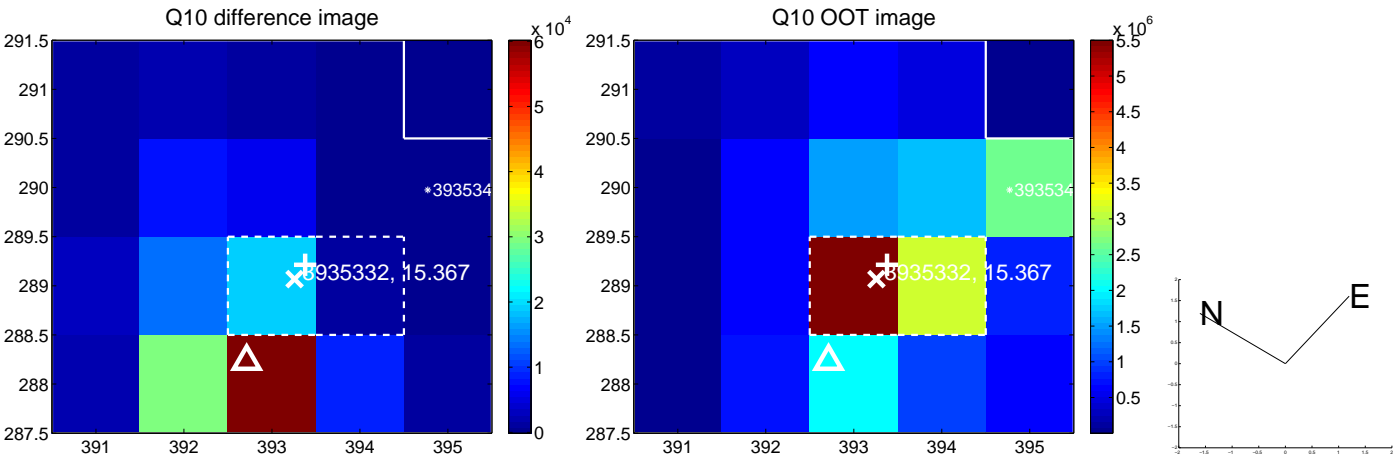
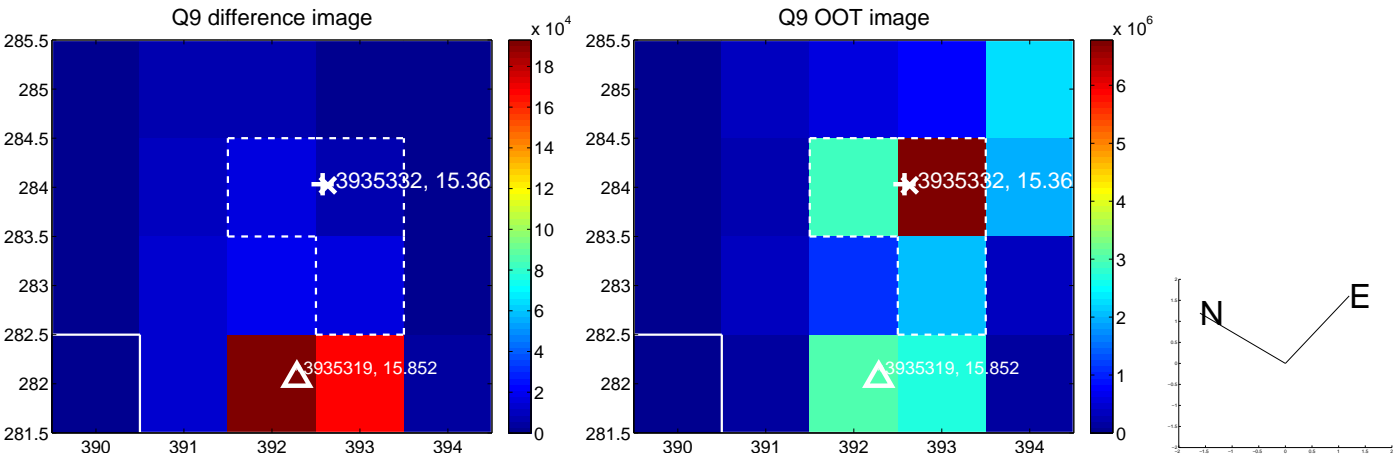
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



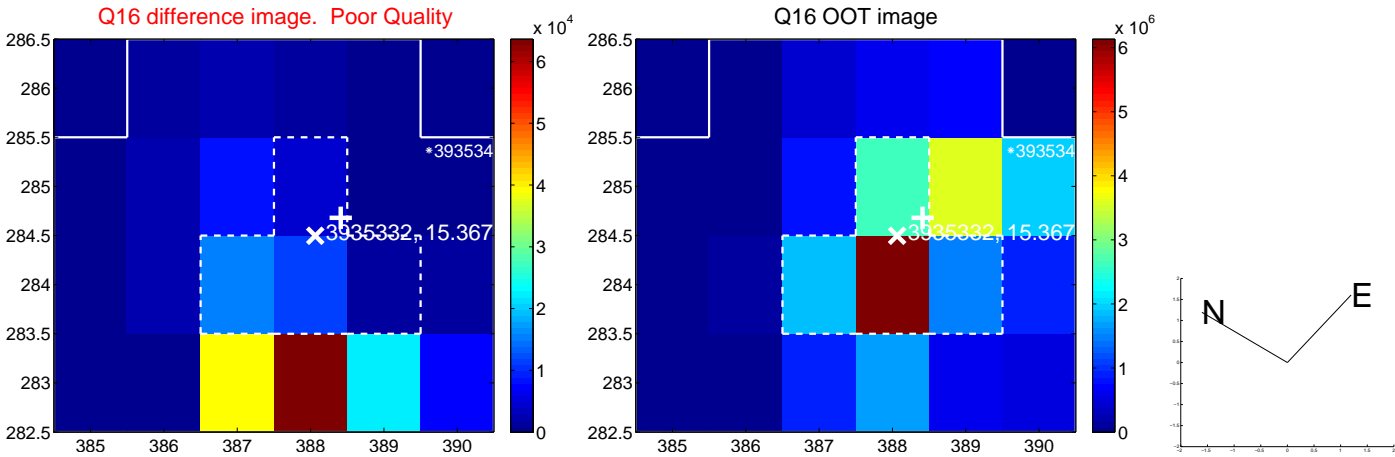
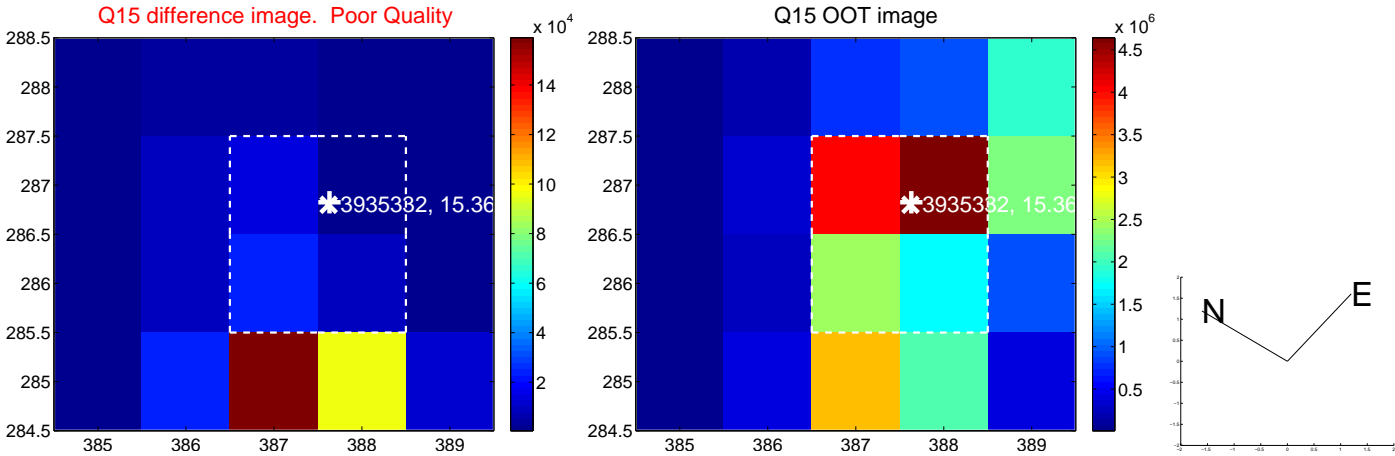
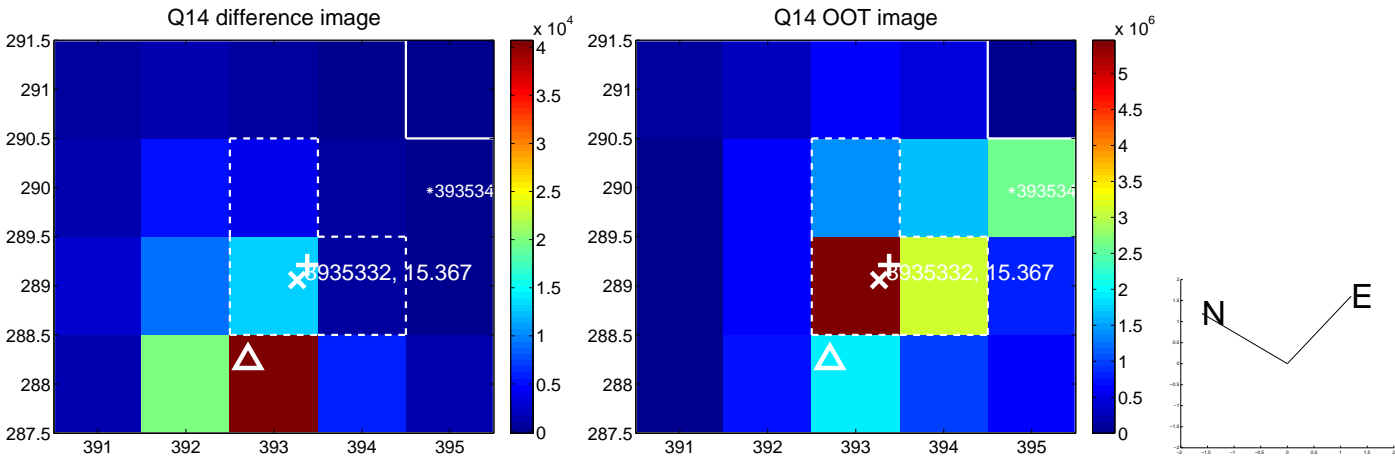
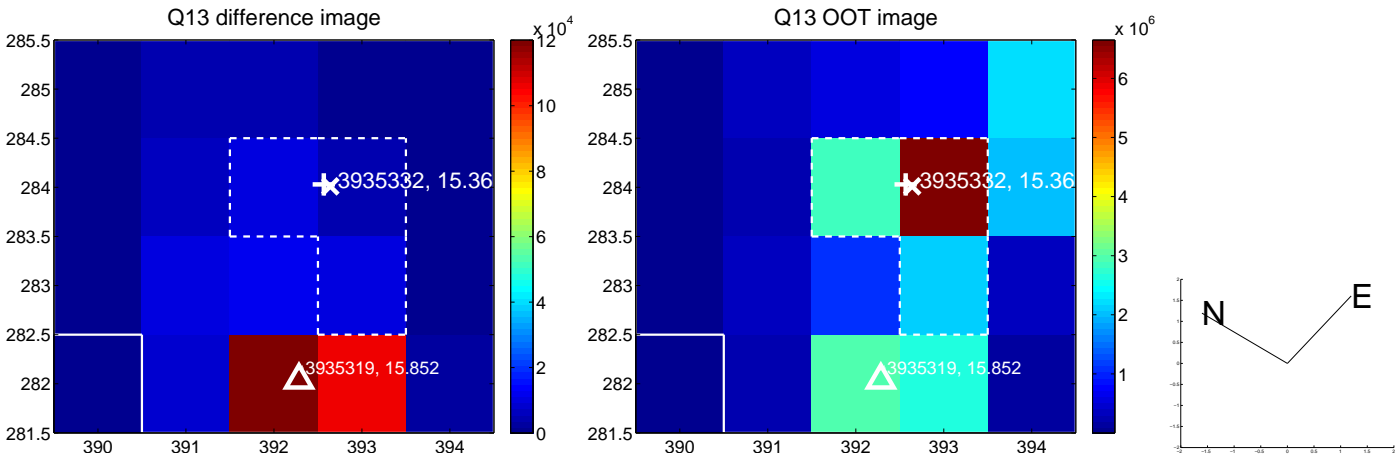
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



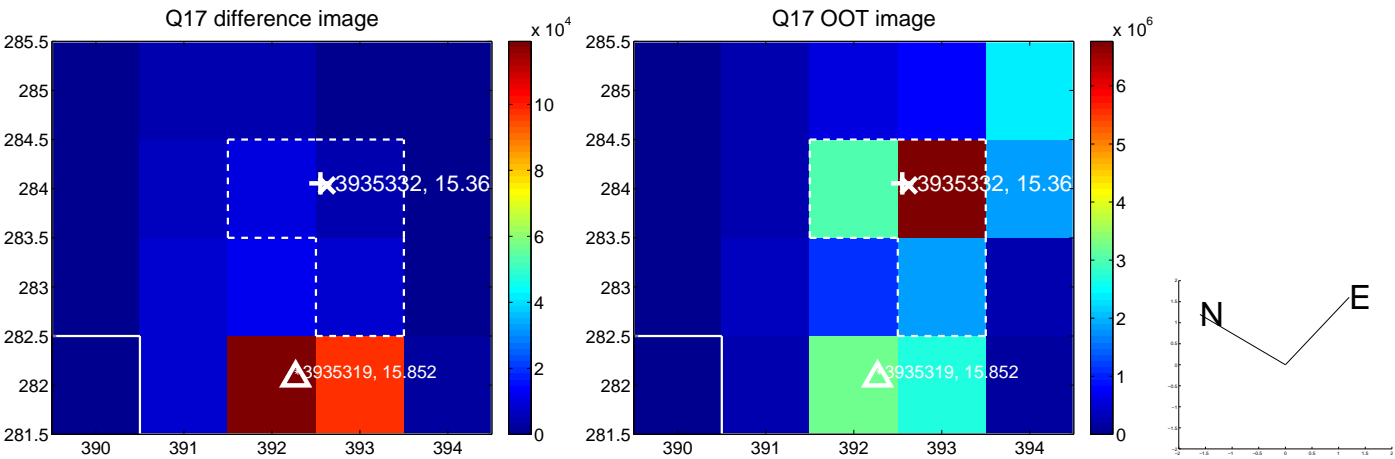
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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

