

KIC 007133286

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})
007133286-01	OBS	No	423.615881	271.117908	94667.2	39.827	566.6	107.7	0.64	4374	33.69	0.15
007133286-02	OBS	No	192.553744	271.126932	83975.7	38.528	687.8	211.2	0.64	4374	18.46	0.43
007133286-03	OBS	7581.01	38.523599	155.129949	15760.1	2.000	356.8	-1.0	0.64	4374	7.71	3.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007133286-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007133286-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS
007133286-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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 007133286-01

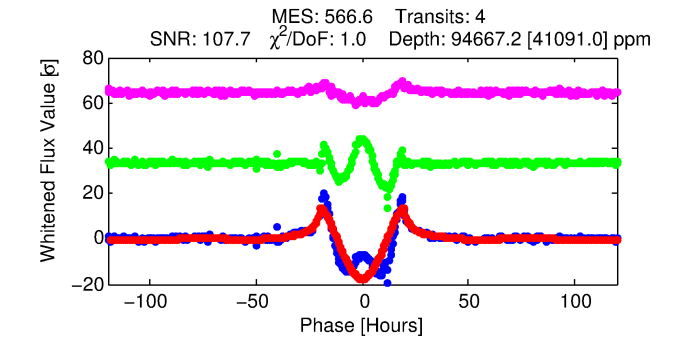
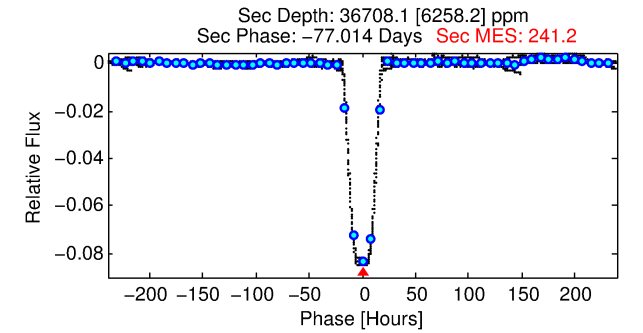
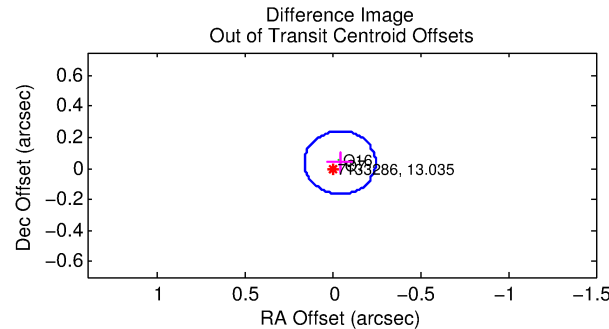
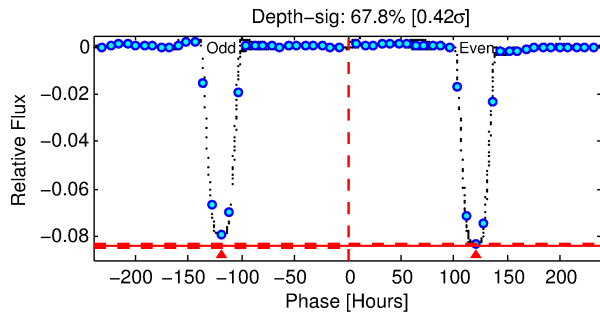
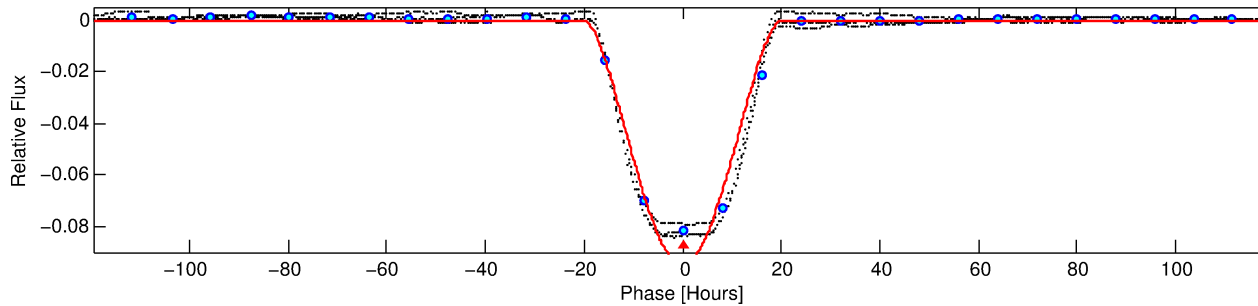
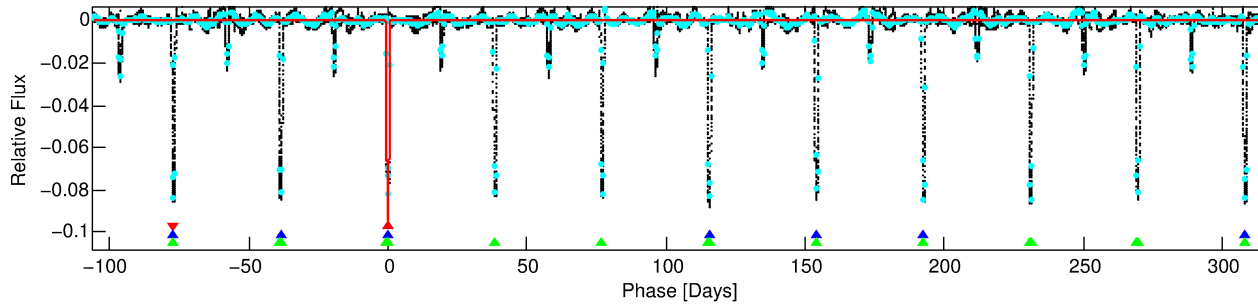
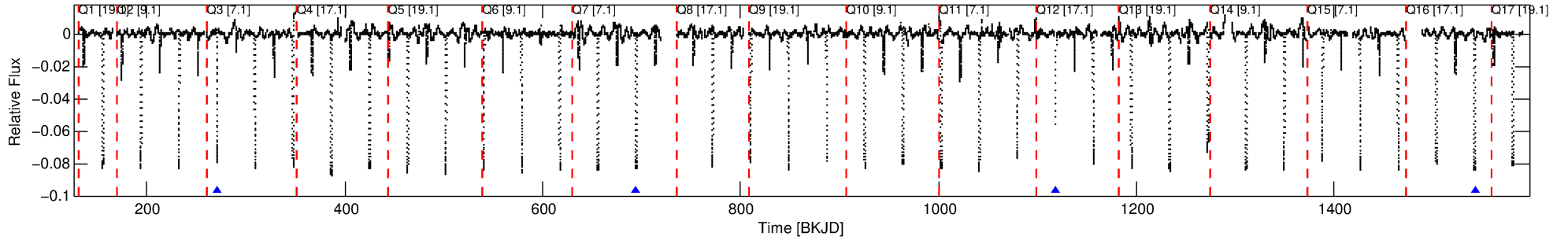
No Significant Match Found

DV One-Page Summary

KIC: 7133286 Candidate: 1 of 3 Period: 423.616 d

KOI: K07581 Corr: No Ephemeris Match

Kp: 13.03 R*: 0.64 Rs Teff: 4374.0 K Logg: 4.63 Fe/H: -0.220



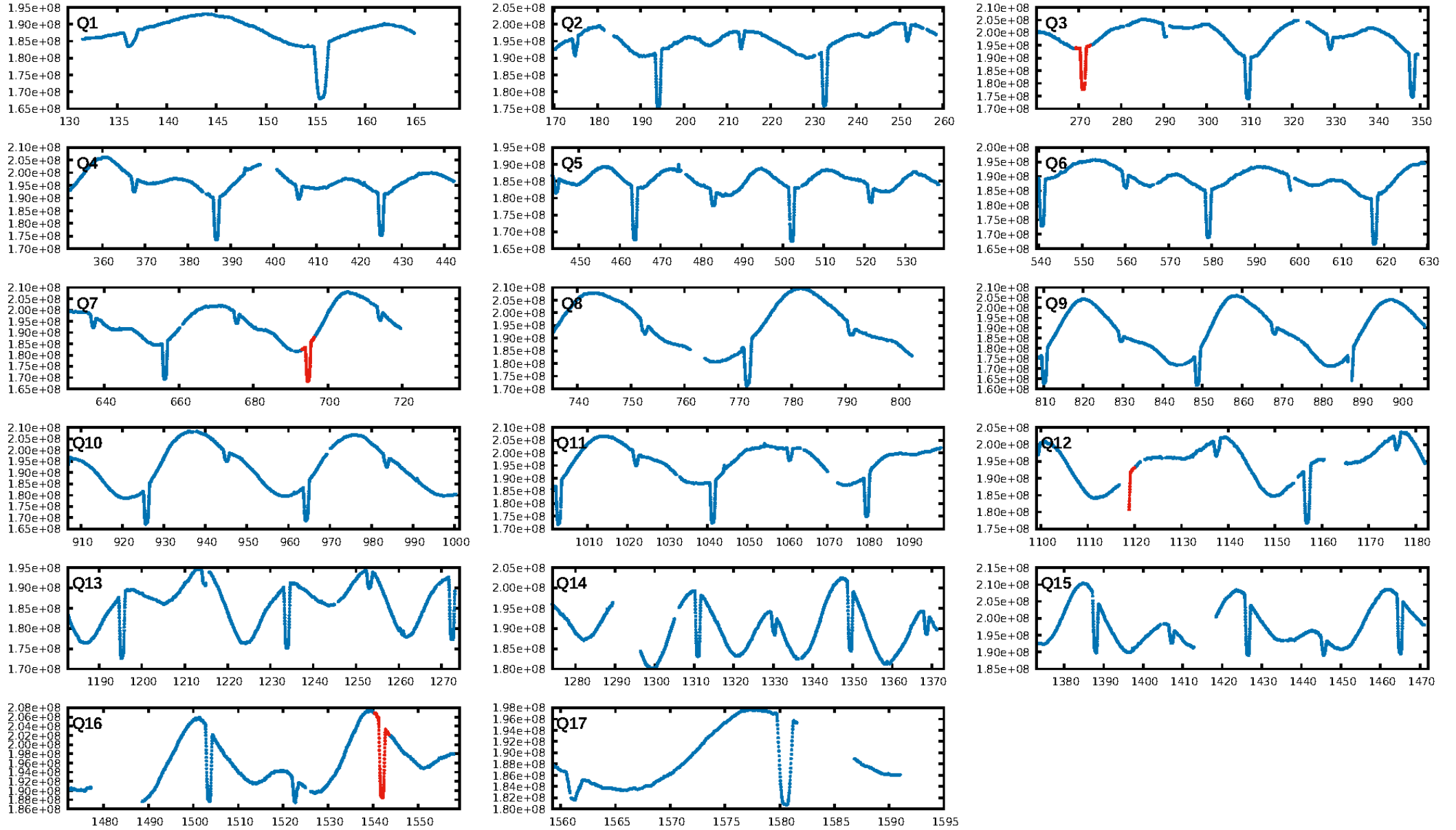
DV Fit Results:

Period = 423.61588 [0.00121] d
Epoch = 271.1179 [0.0021] BKJD
Rp/R* = 0.4862 [0.3085]
a/R* = 89.34 [4.59]
b = 1.00 [0.27]
Seff = 0.15 [0.03]
Teq = 158 [7] K
Rp = 33.69 [21.63] Re
a = 0.9423 [0.0735] AU
Ag = 15799.12 [20298.36] [0.78σ]
Teffp = 2746 [885] K [2.92σ]

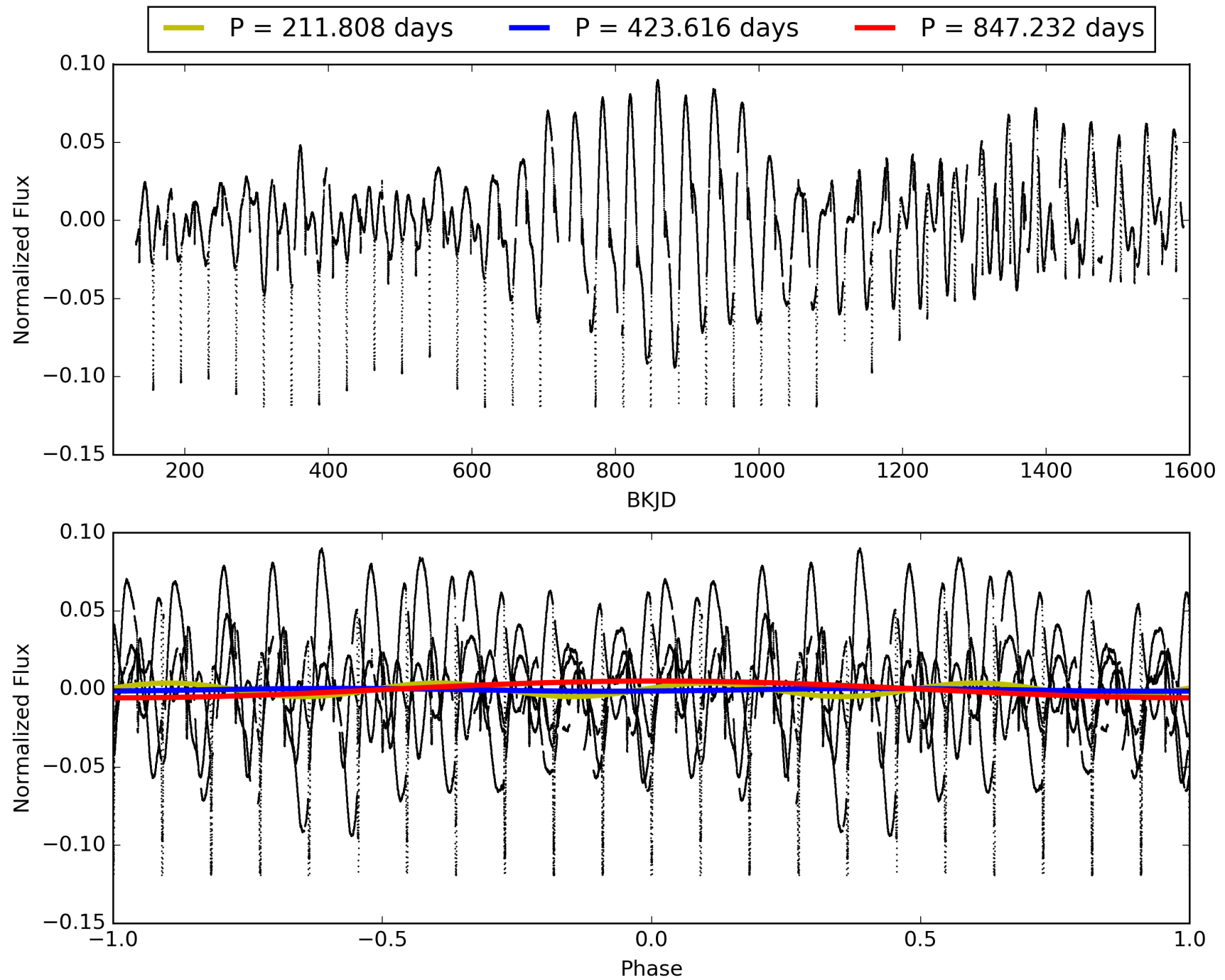
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [100.08σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.9319
Centroid-sig: 0.0%
Centroid-so: 0.100 arcsec [26.26σ]
OotOffset-rm: 0.056 arcsec [0.83σ]
KicOffset-rm: 0.113 arcsec [1.66σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 0.00 [0/2]

TCE 007133286-01, PDC Light Curves

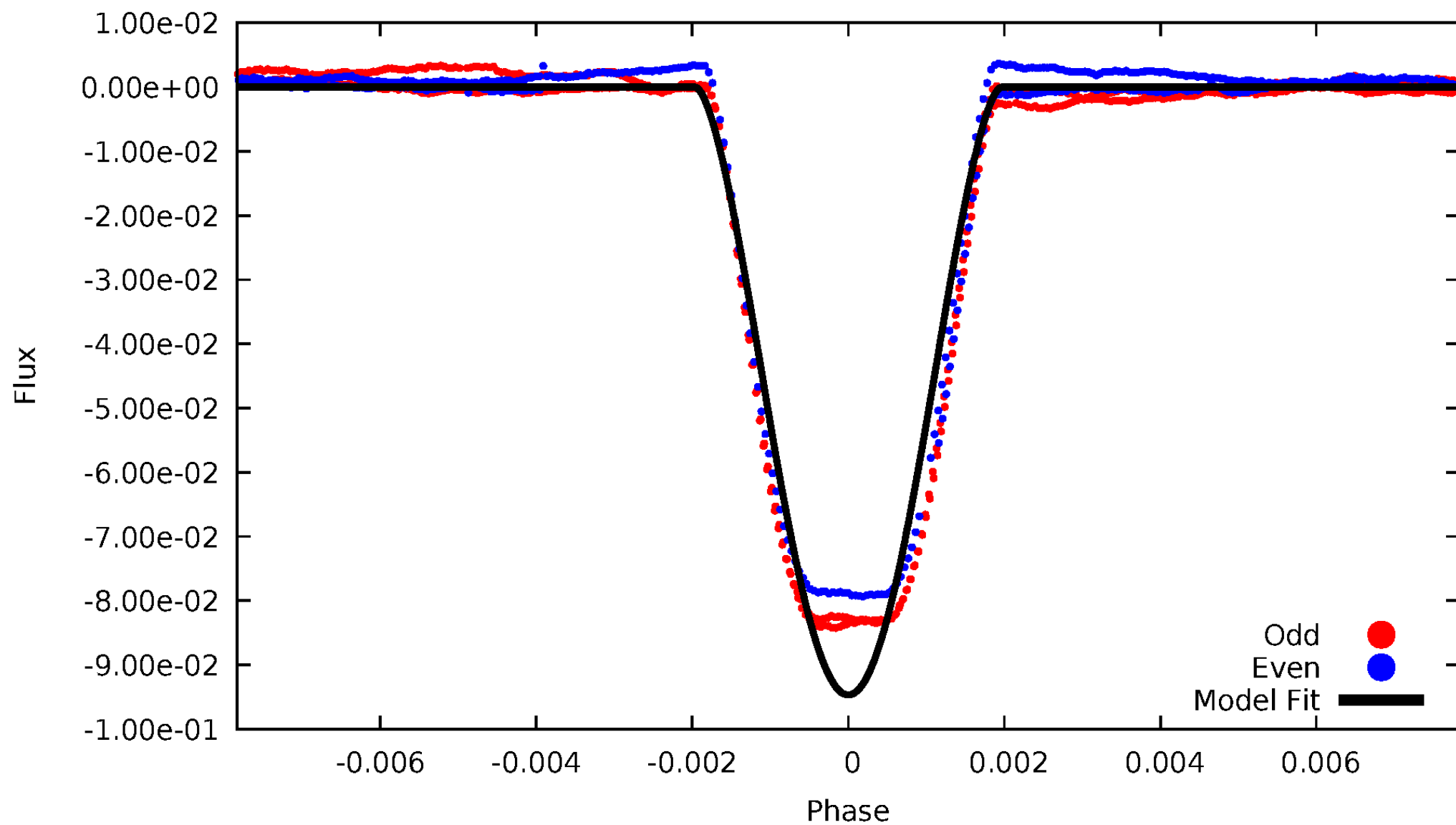


TCE 007133286-01



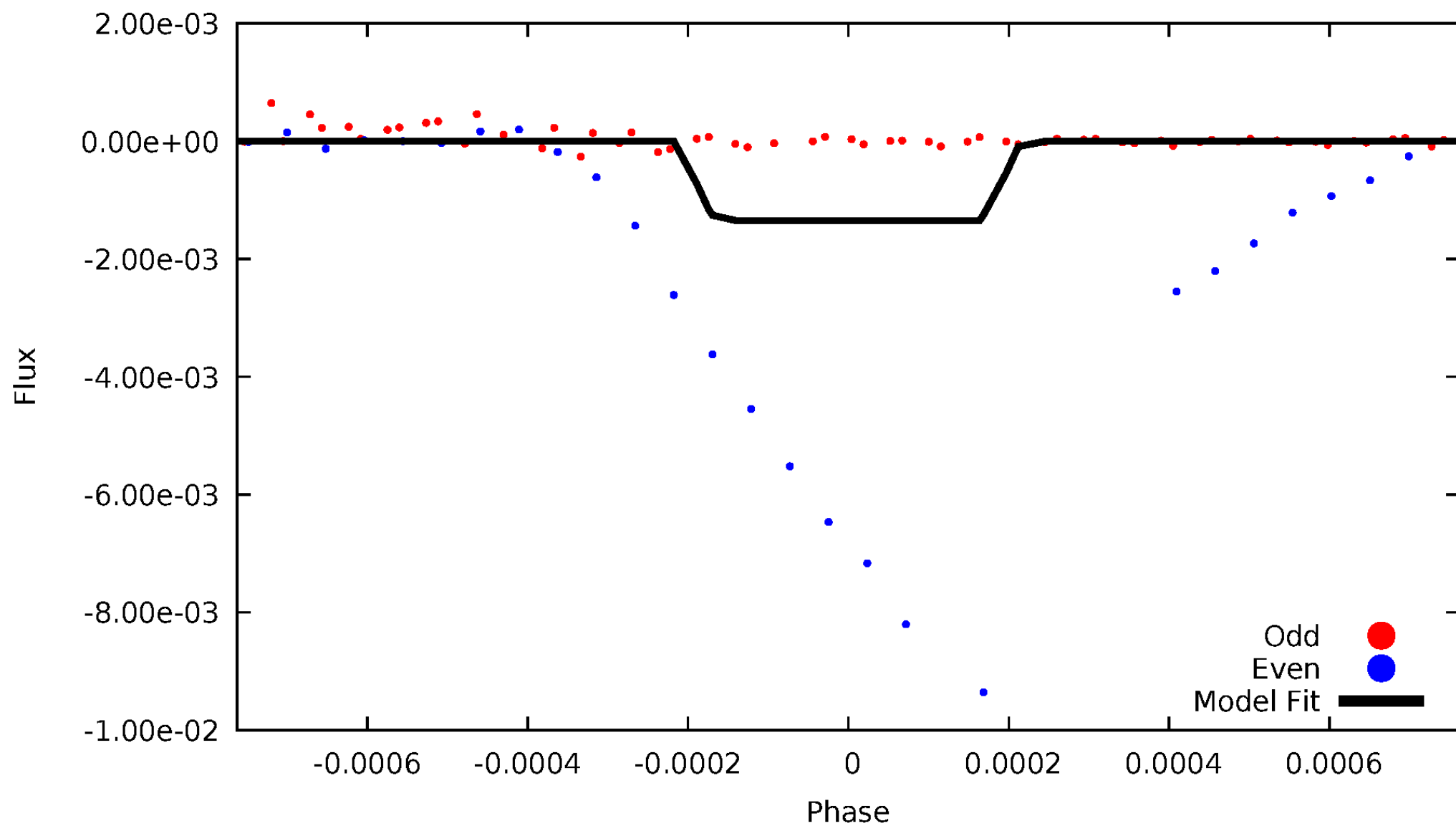
DV Odd/Even

TCE 007133286-01



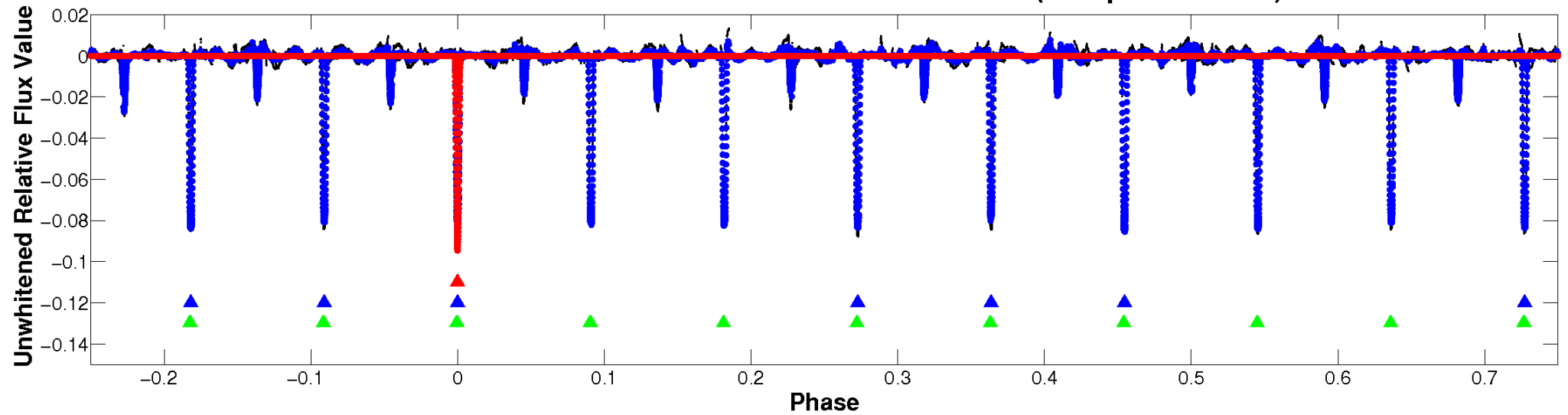
ALT Odd/Even

TCE 007133286-01

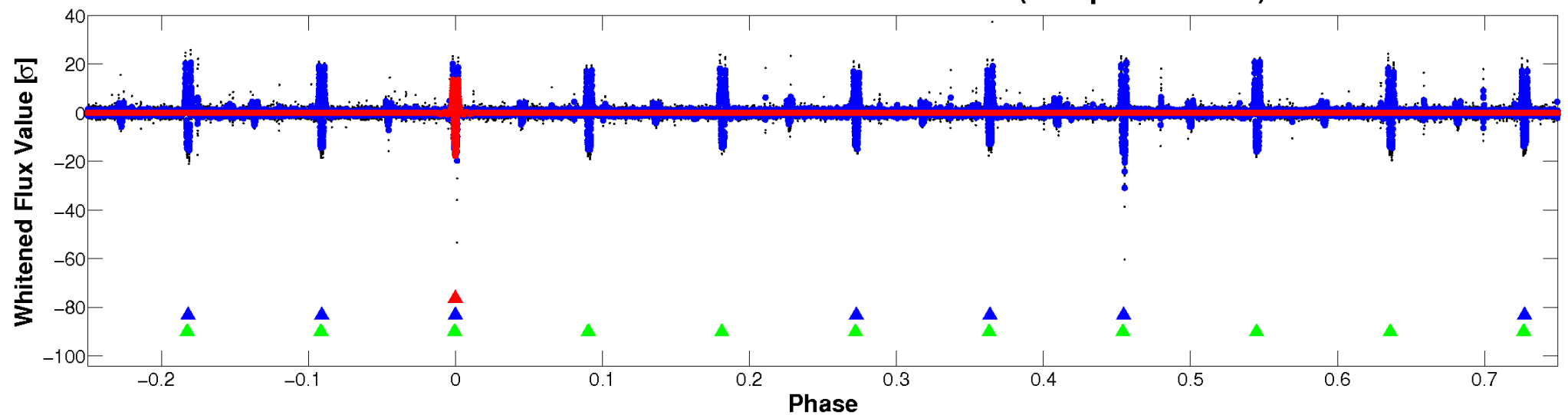


Non-Whitened Vs. Whitened Light Curve

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

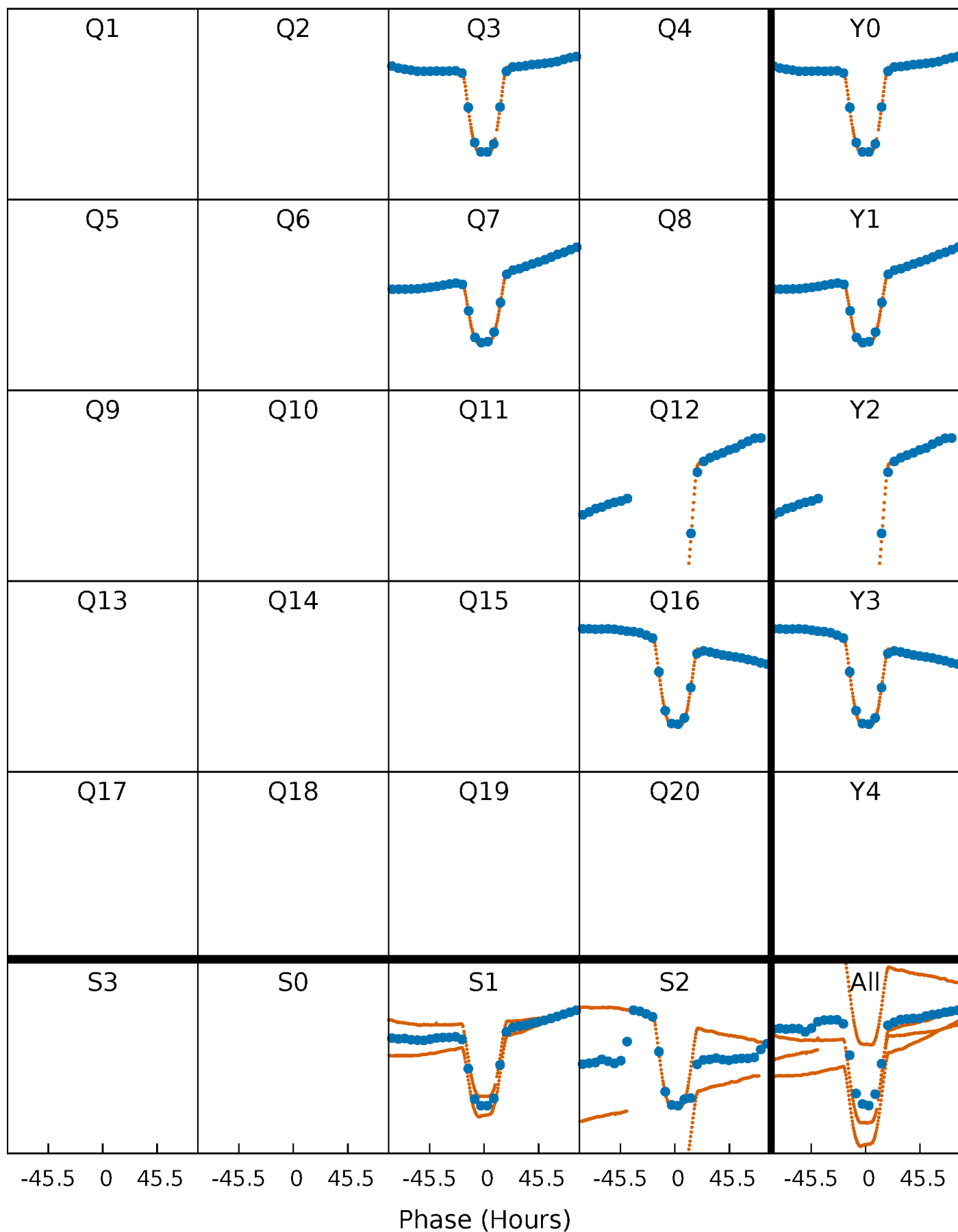


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



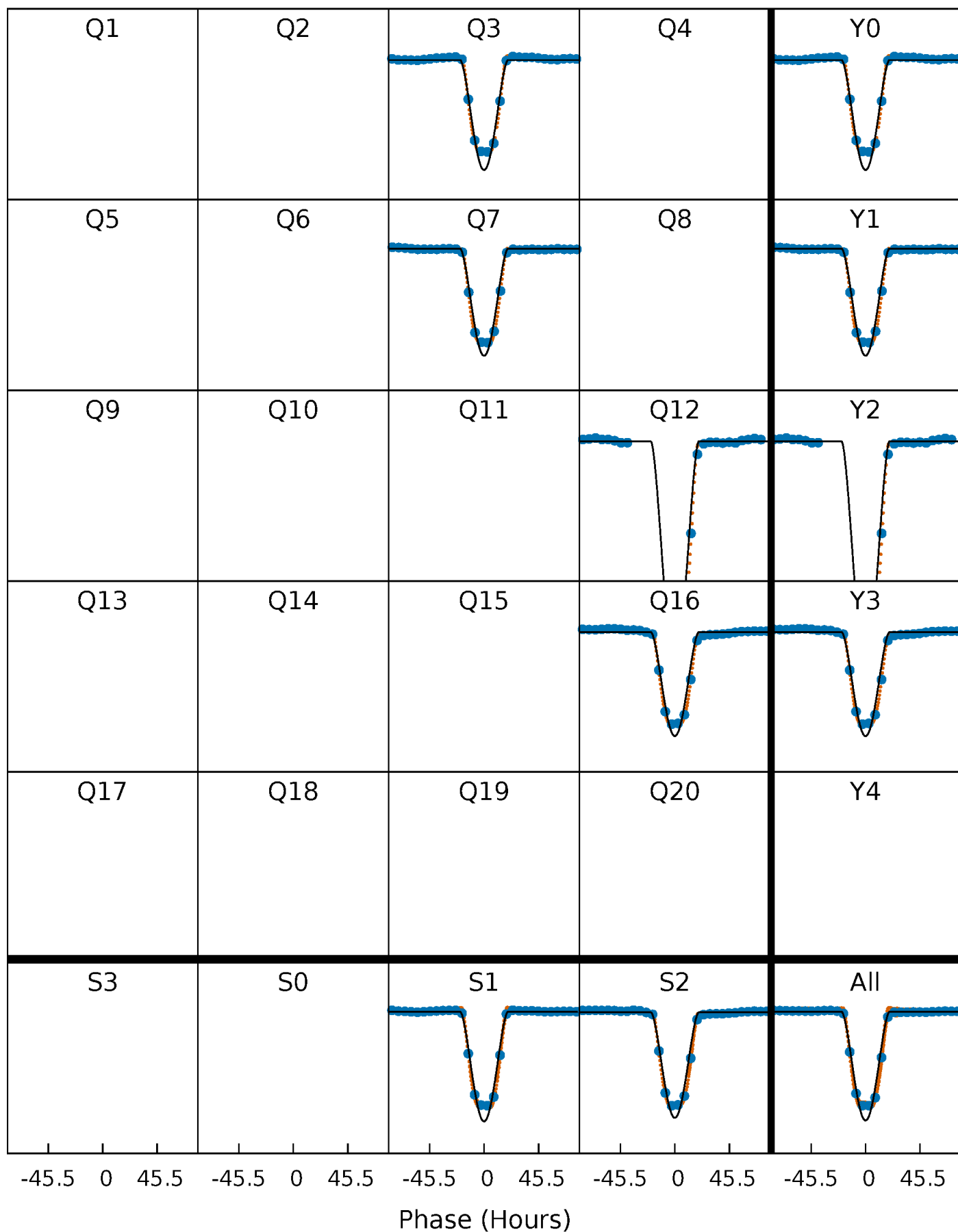
PDC Quarter-Phased Transit Curves

TCE 007133286-01 P=423.615881 Days $T_0=271.117908$ (BKJD)



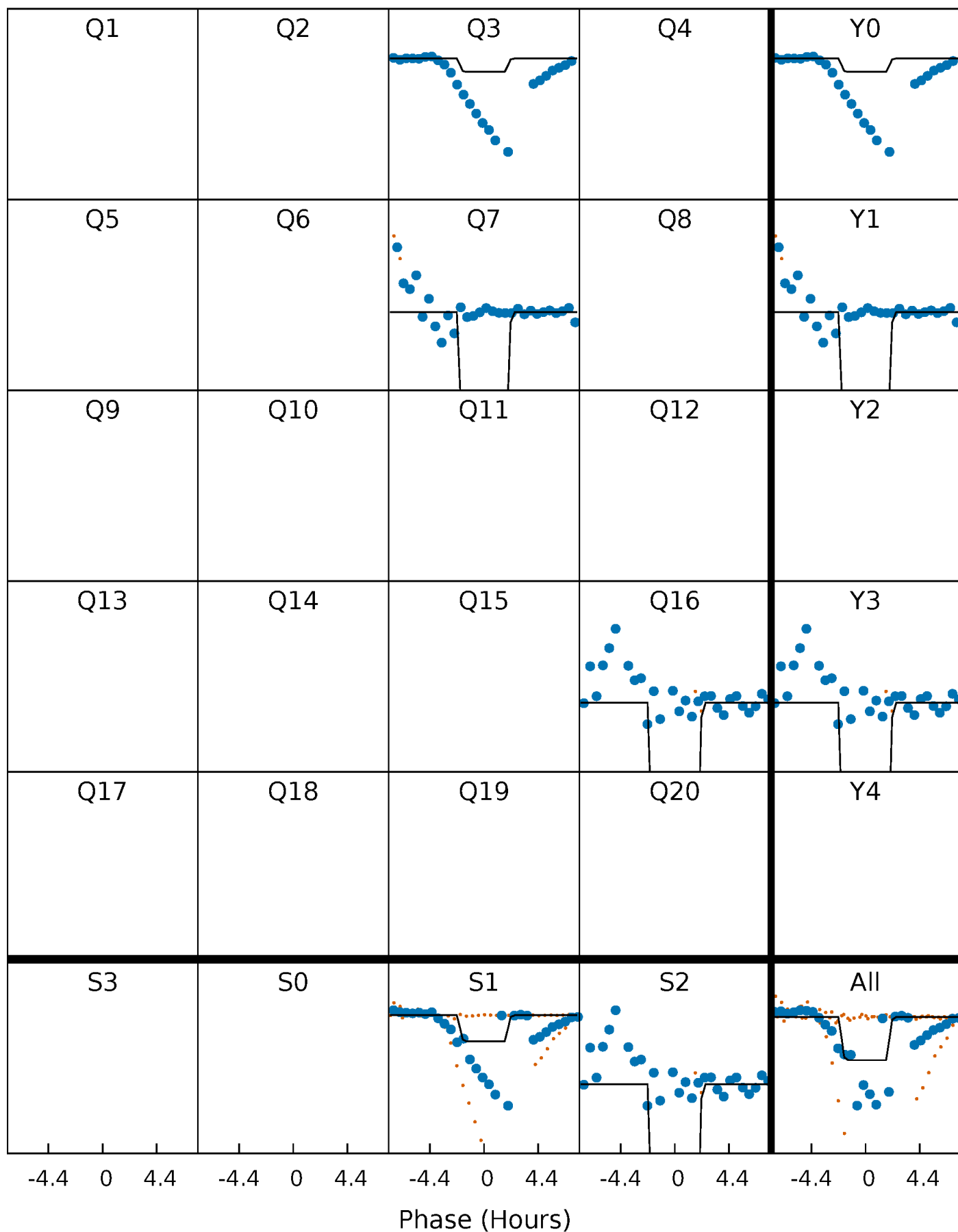
DV Quarter-Phased Transit Curves

TCE 007133286-01 P=423.615881 Days $T_0=271.117908$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

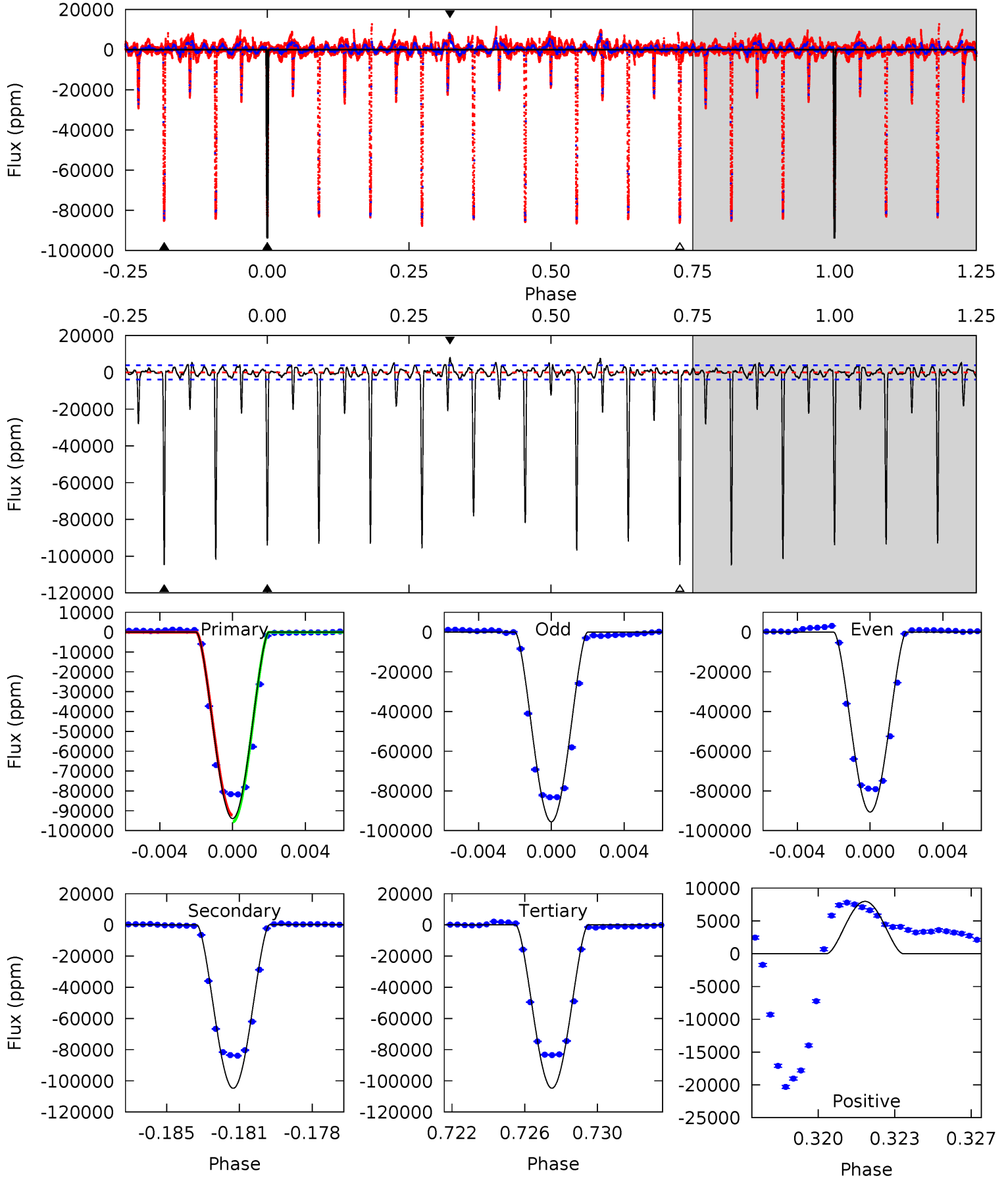
TCE 007133286-01 P=423.614943 Days $T_0=271.412455$ (BKJD)



DV Model-Shift Uniqueness Test

007133286-01, P = 423.615881 Days, E = 271.117908 Days

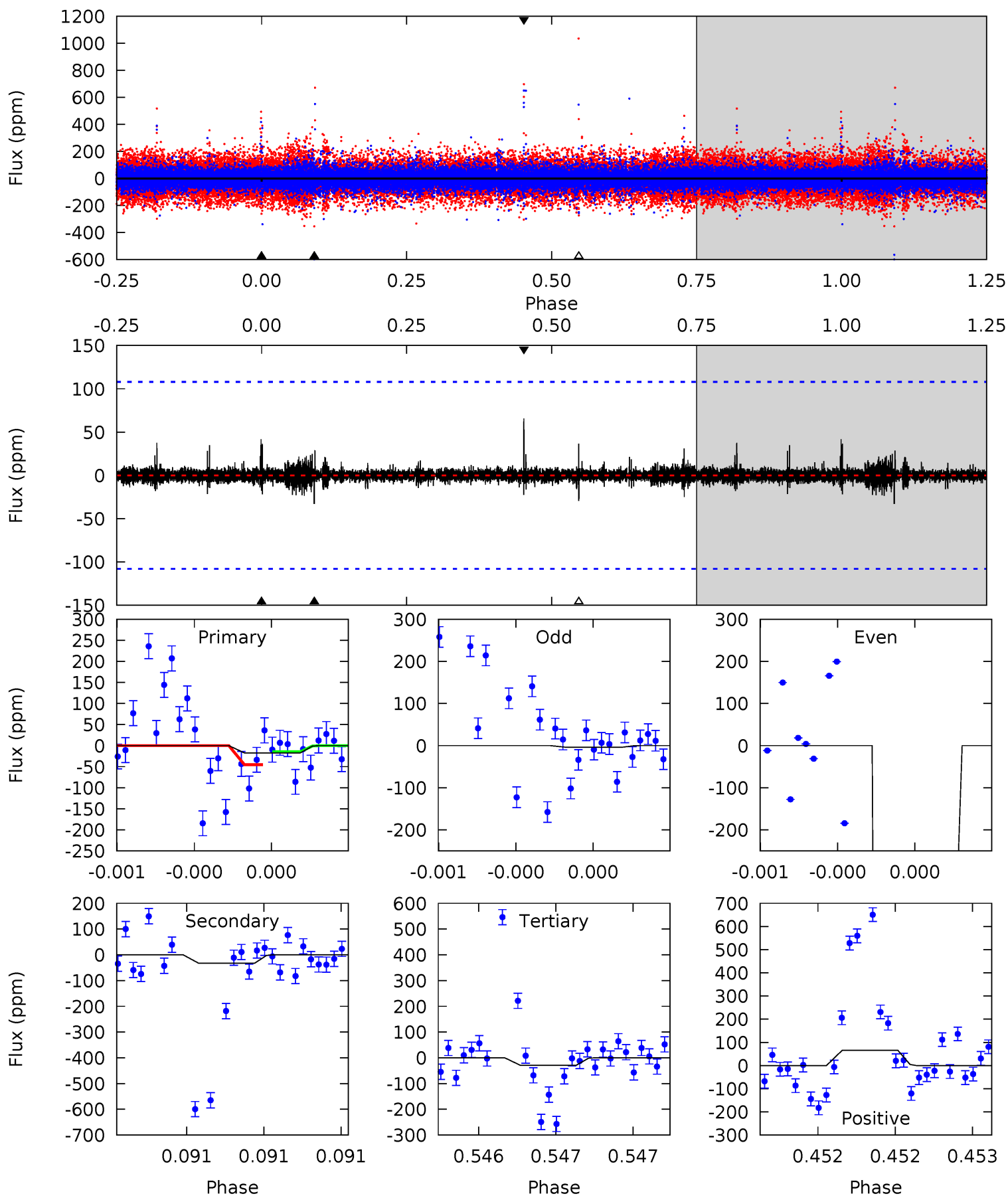
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
126.6	141.3	141.2	10.8	5.20	2.88	17.8	-14.6	115.9	0.07	130.5	3.18	1.08	0.07	2.40



Alt Model-Shift Uniqueness Test

007133286-01, P = 423.614943 Days, E = 271.412455 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.91	1.72	1.52	3.41	5.61	3.54	0.21	-0.61	-2.49	0.19	-1.69	88.7	476.7	0.67	0



Stellar Parameters For KIC 007133286

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4374^{+153}_{-168}	$4.626^{+0.056}_{-0.024}$	$-0.220^{+0.300}_{-0.300}$	$0.635^{+0.045}_{-0.062}$	$0.621^{+0.068}_{-0.056}$	$3.422^{+0.858}_{-0.388}$
	+3%/-4%	+1%/-1%	+136%/-136%	+7%/-10%	+11%/-9%	+25%/-11%
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 007133286-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-104784 ± 742	$35.02^{+21.17}_{-18.65}$	219^{+9}_{-9}	3786^{+1214}_{-540}	$47879^{+162685}_{-29779}$
Alt.	-33 ± 19	$15.04^{+15.86}_{-10.74}$	219^{+9}_{-9}	1698^{+522}_{-248}	61^{+782}_{-51}

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

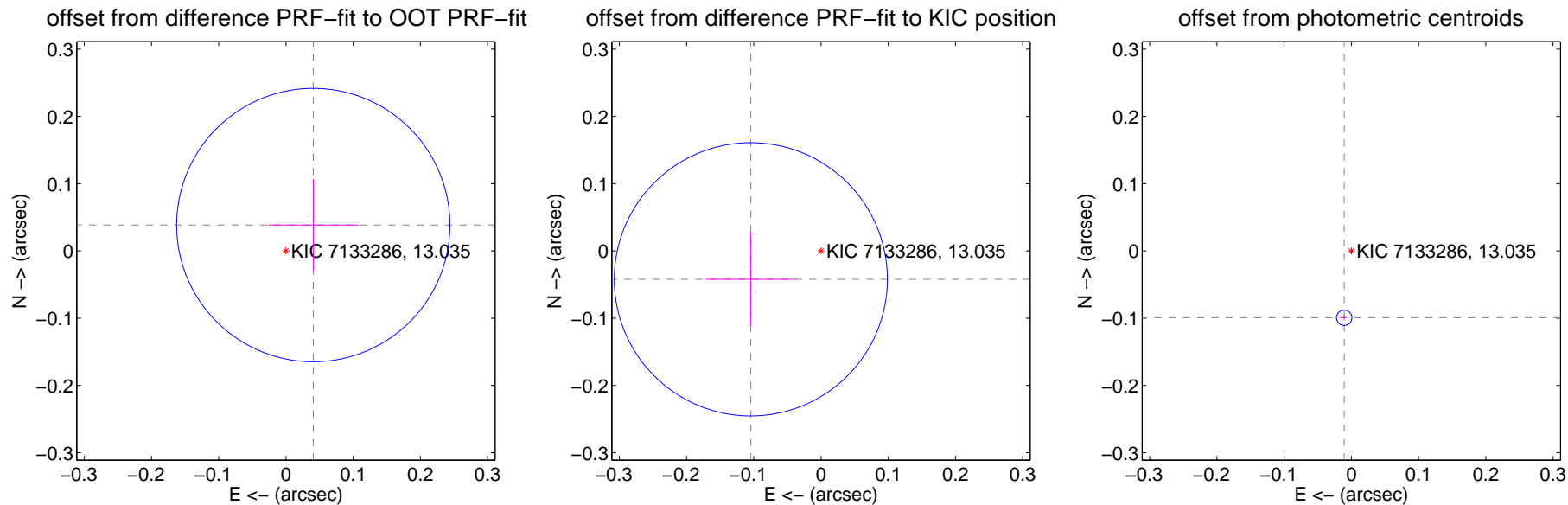
DV Centroid Data

Supplemental centroid analysis for 007133286-01. Kepler magnitude: 13.04. Transit SNR 107.71

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.056 ± 0.068	0.83	-0.041 ± 0.067	0.038 ± 0.069
PRF-fit source offset from KIC position	0.113 ± 0.068	1.66	0.104 ± 0.067	-0.042 ± 0.070
photometric centroid source offset	0.10 ± 0.00	26.26	0.01 ± 0.00	-0.10 ± 0.00

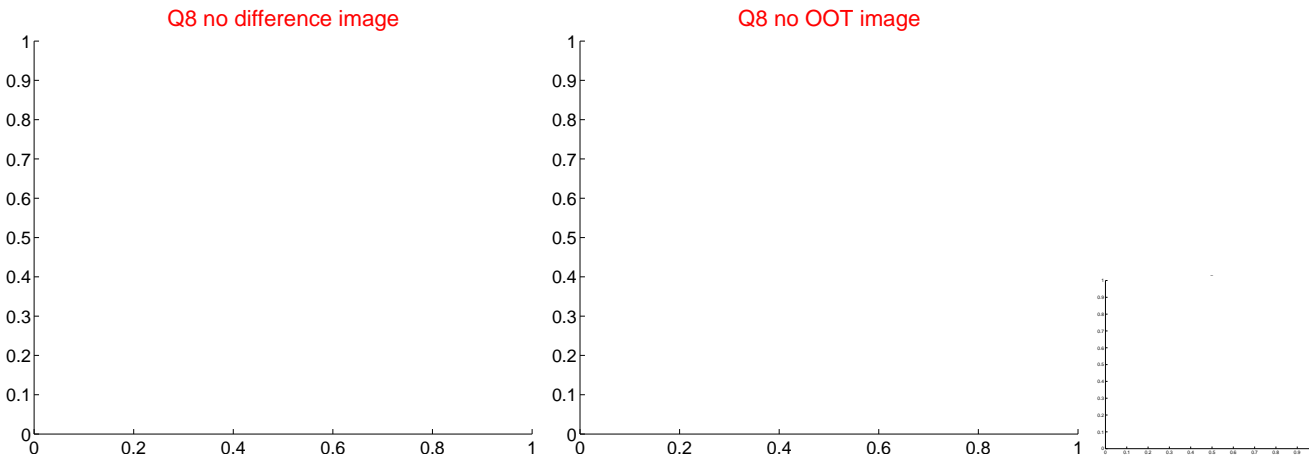
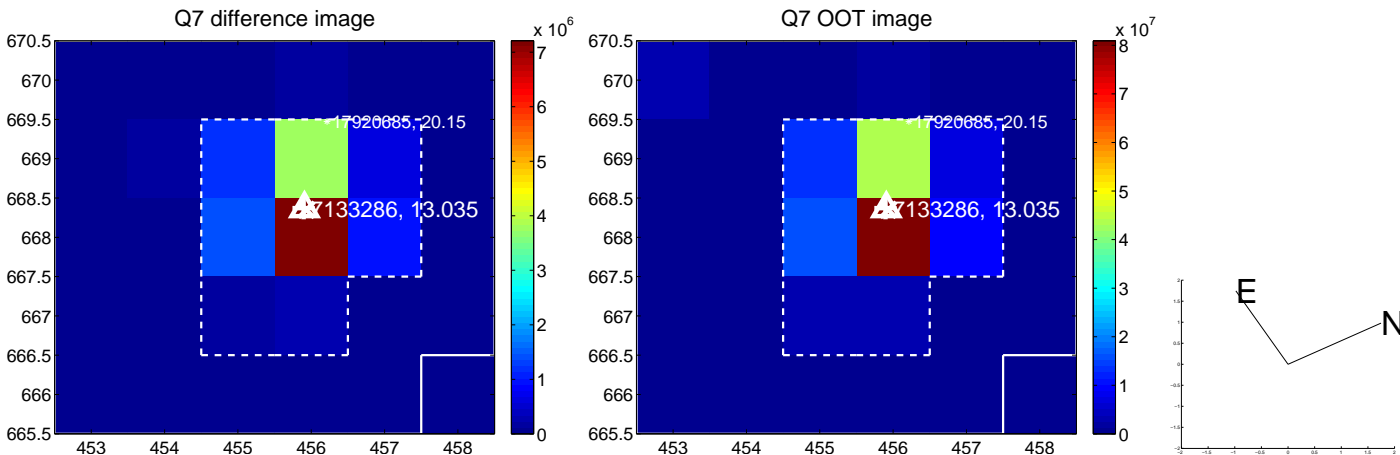
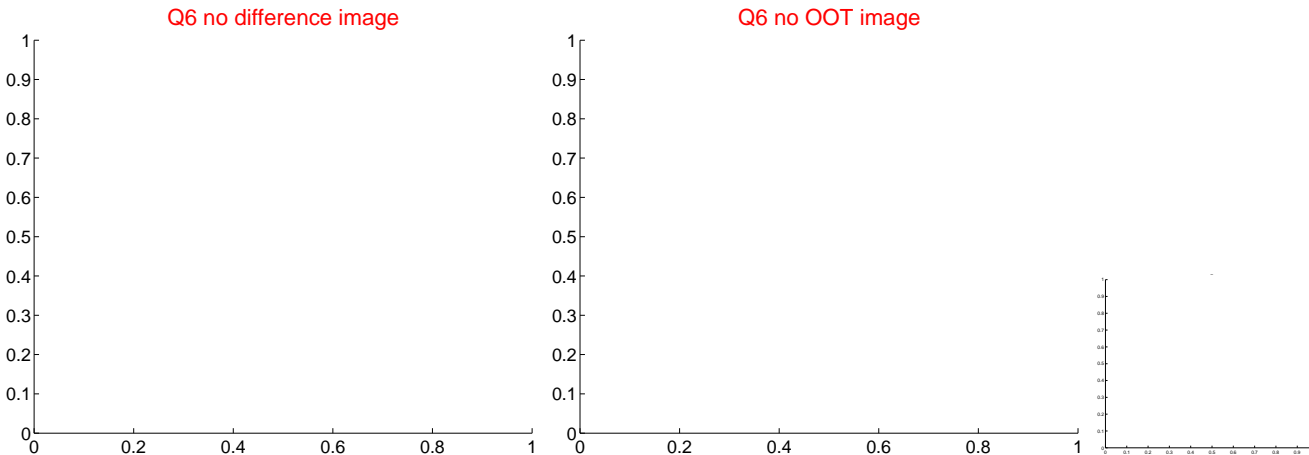
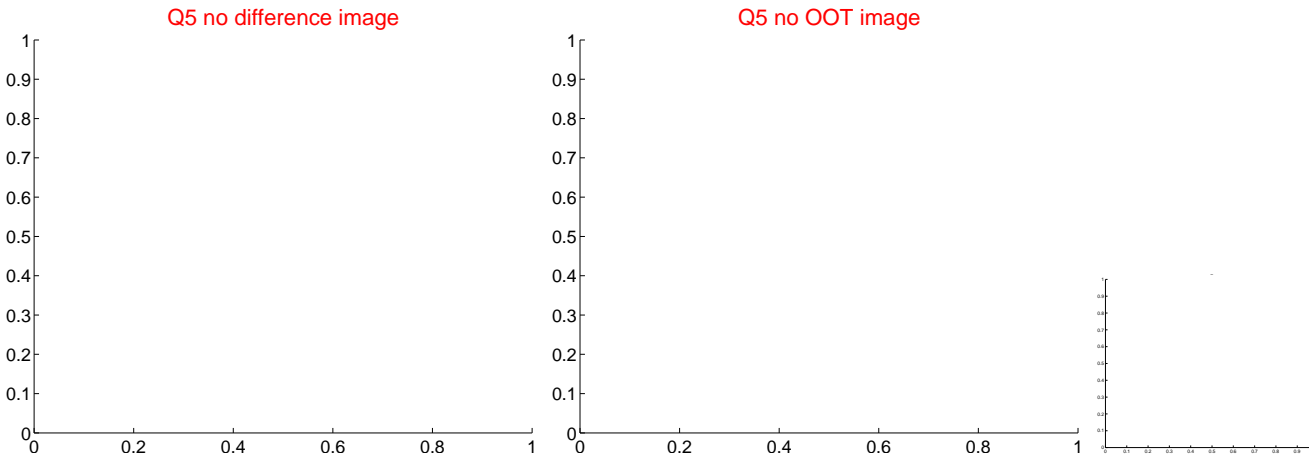


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



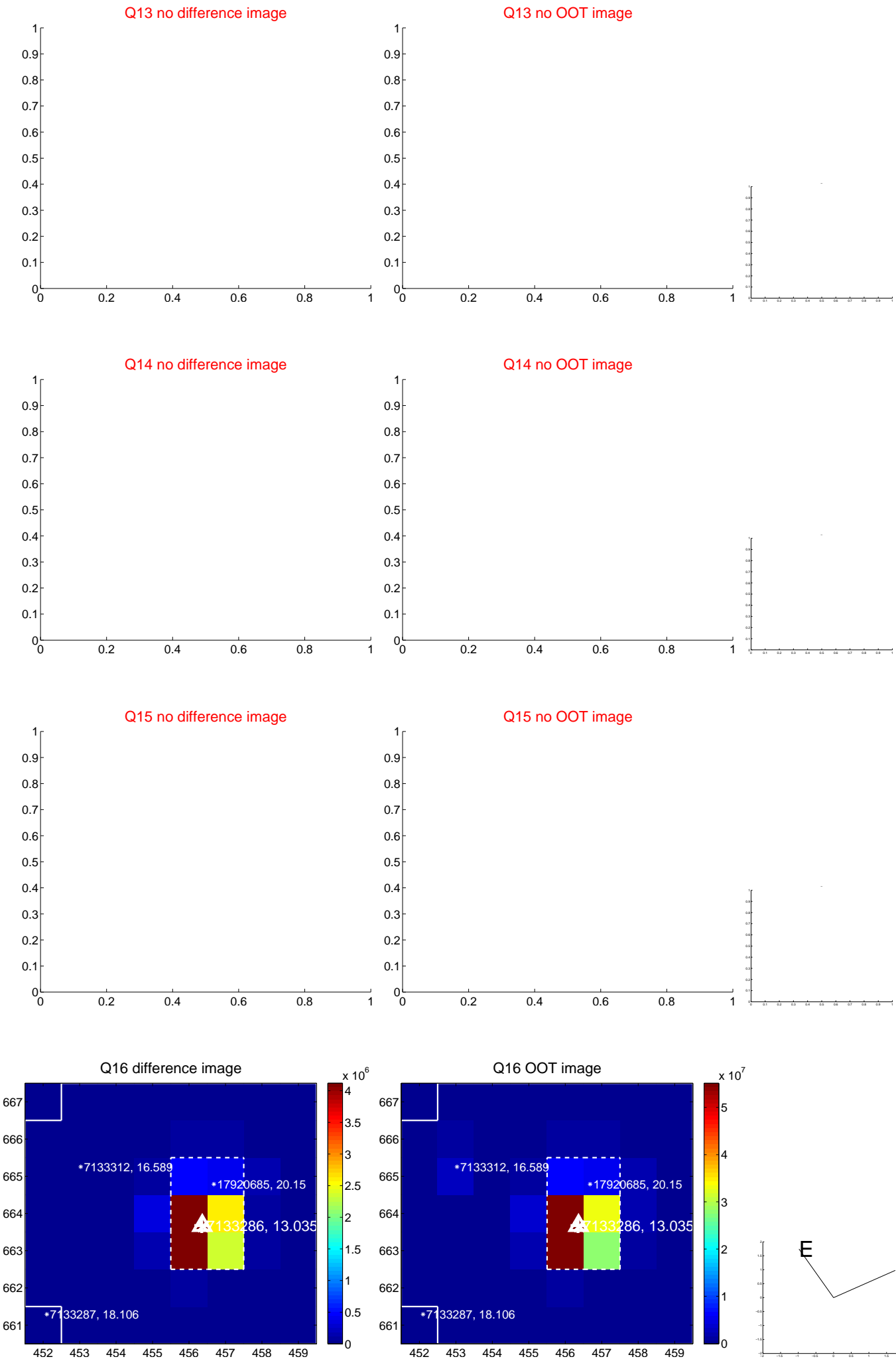
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



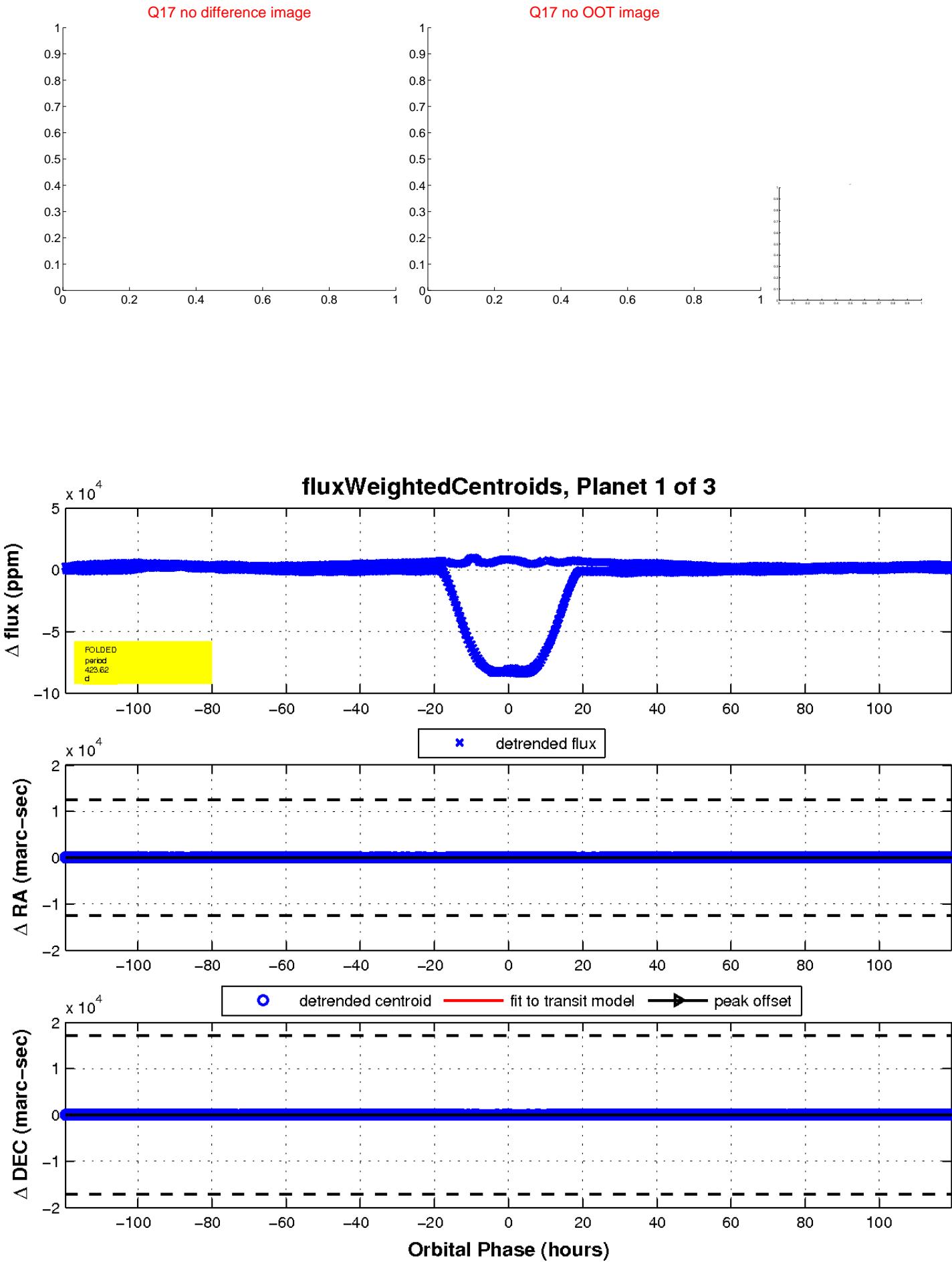
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

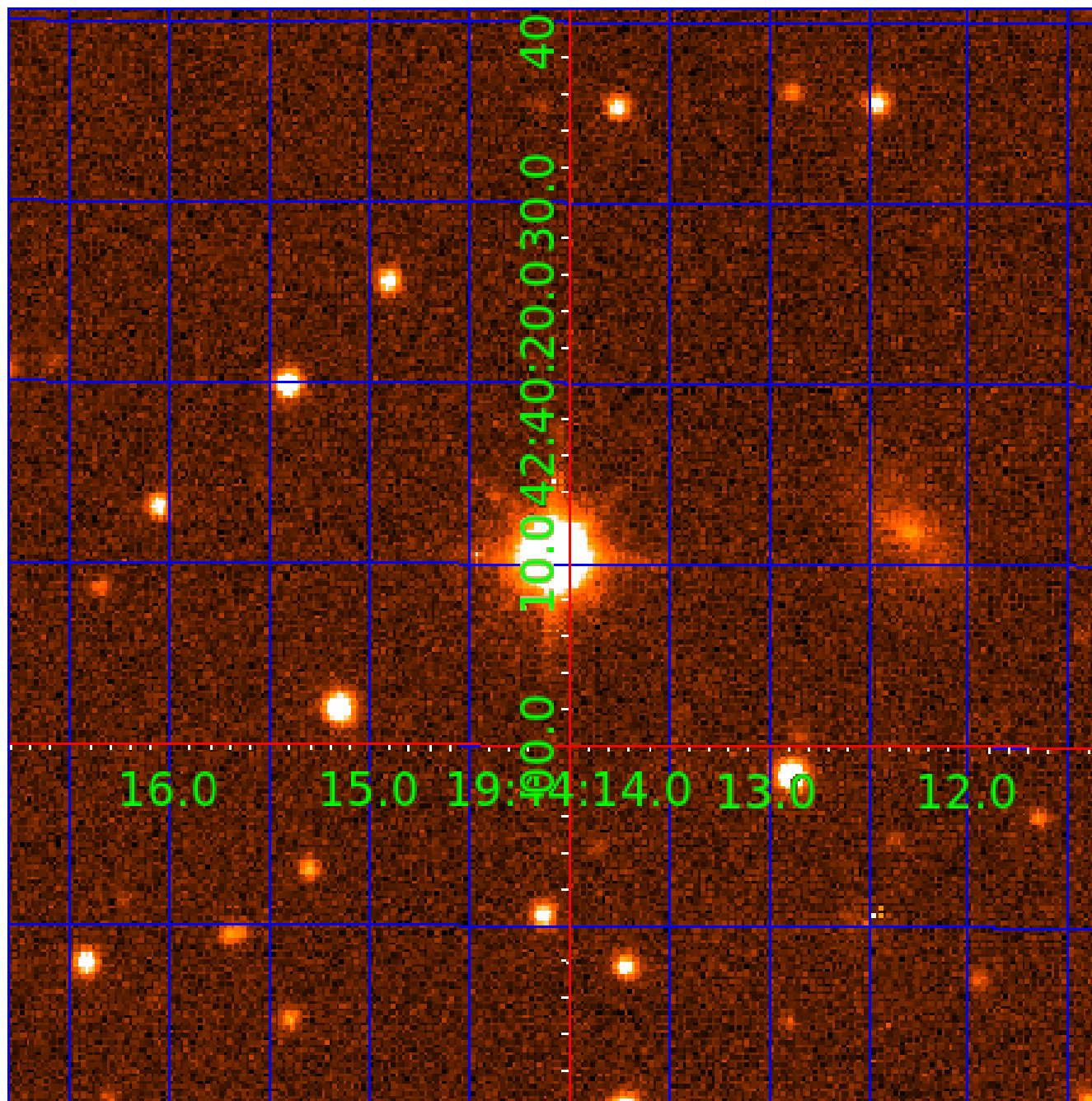


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007133286

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})
007133286-01	OBS	No	423.615881	271.117908	94667.2	39.827	566.6	107.7	0.64	4374	33.69	0.15
007133286-02	OBS	No	192.553744	271.126932	83975.7	38.528	687.8	211.2	0.64	4374	18.46	0.43
007133286-03	OBS	7581.01	38.523599	155.129949	15760.1	2.000	356.8	-1.0	0.64	4374	7.71	3.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007133286-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007133286-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS
007133286-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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.

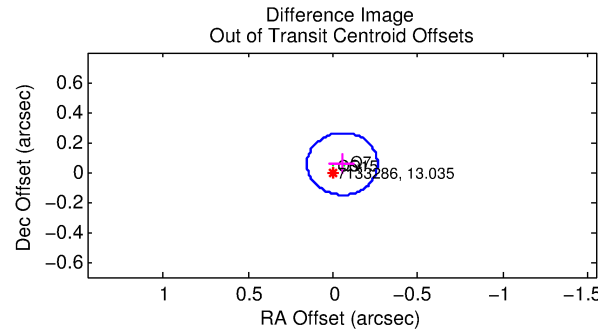
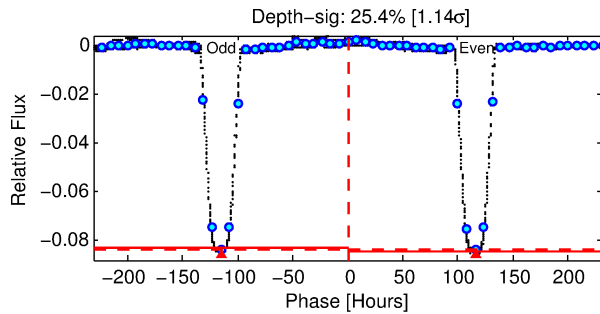
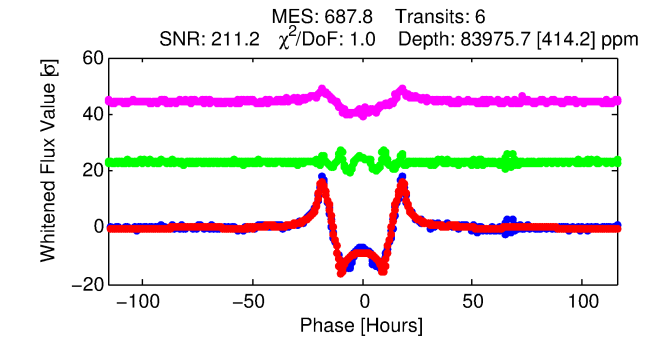
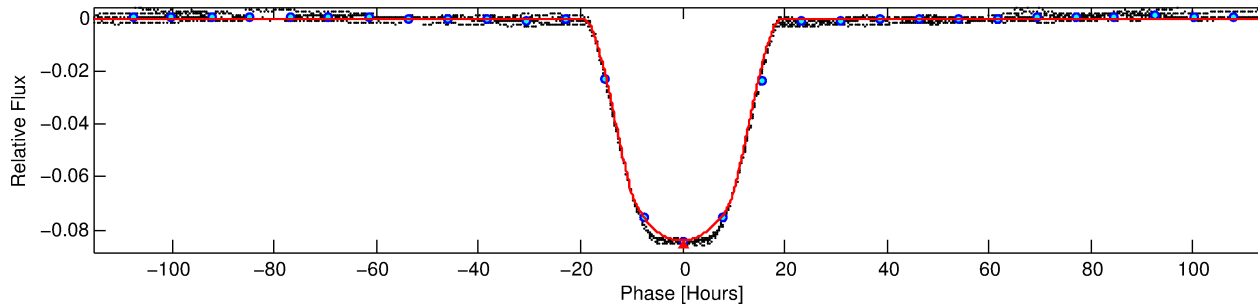
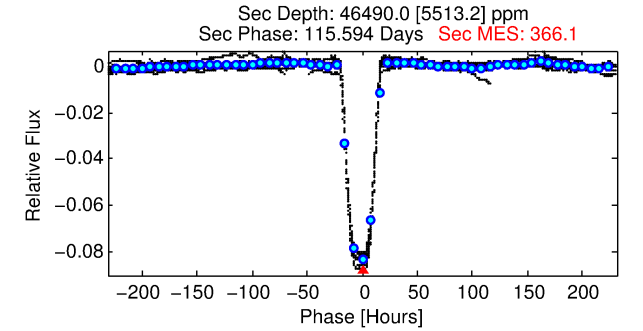
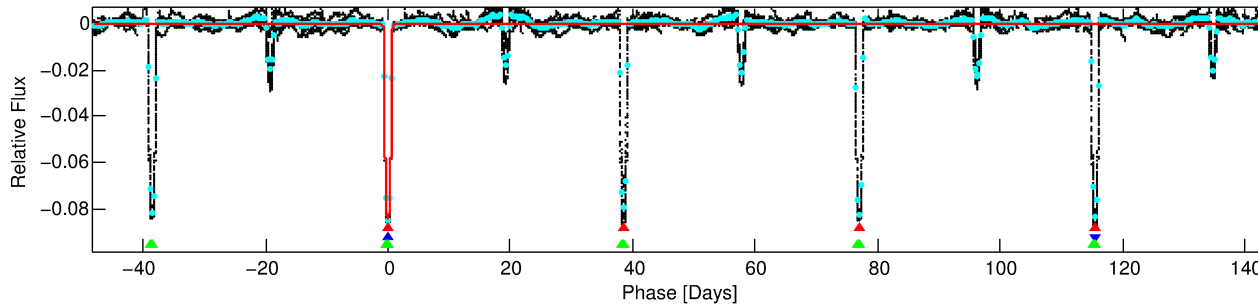
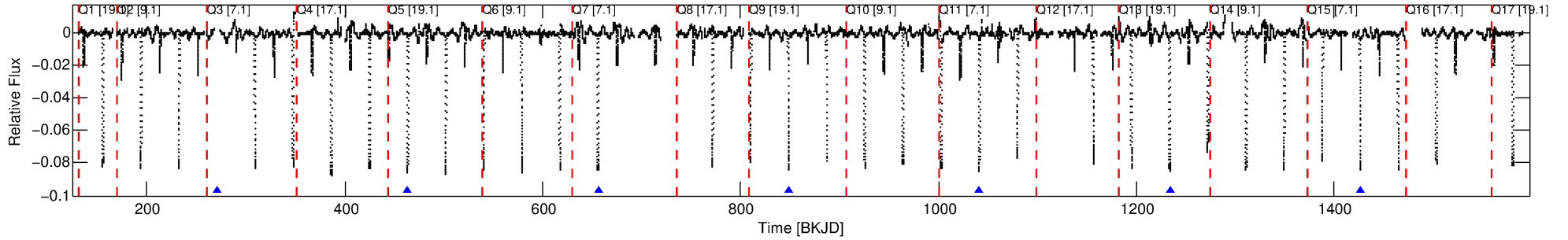
Ephemeris Match Information For 007133286-02

No Significant Match Found

DV One-Page Summary

KIC: 7133286 Candidate: 2 of 3 Period: 192.554 d
KOI: K07581 Corr: No Ephemeris Match

Kp: 13.03 R*: 0.64 Rs Teff: 4374.0 K Logg: 4.63 Fe/H: -0.220



DV Fit Results:

Period = 192.55374 [0.00039] d
Epoch = 271.1269 [0.0015] BKJD
Rp/R* = 0.2664 [0.0007]
a/R* = 45.28 [0.09]
b = 0.44 [0.00]
Seff = 0.43 [0.08]
Teff = 206 [10] K
Rp = 18.46 [1.80] Re
a = 0.5571 [0.0435] AU
Ag = 23289.61 [3734.62] [6.24σ]
Teffp = 3935 [191] K [19.50σ]

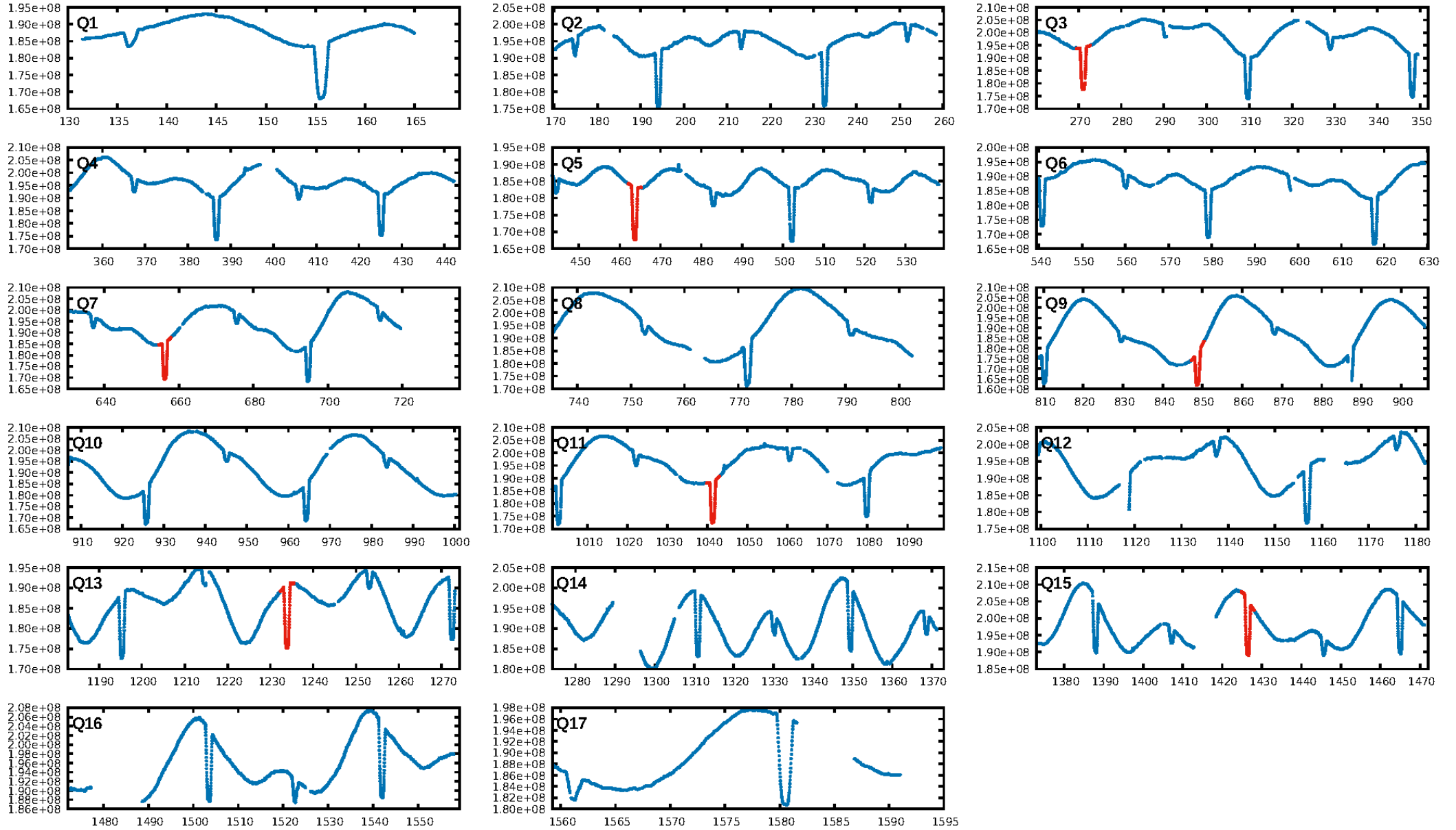
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [95.82σ]
LongPeriod-sig: 100.0% [100.08σ]
ModelChiSquare2-sig: 91.4%
ModelChiSquareGof-sig: 52.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.8578
Centroid-sig: 0.0%
Centroid-so: 0.080 arcsec [28.32σ]
OotOffset-rm: 0.077 arcsec [1.11σ]
KicOffset-rm: 0.095 arcsec [1.40σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/3]

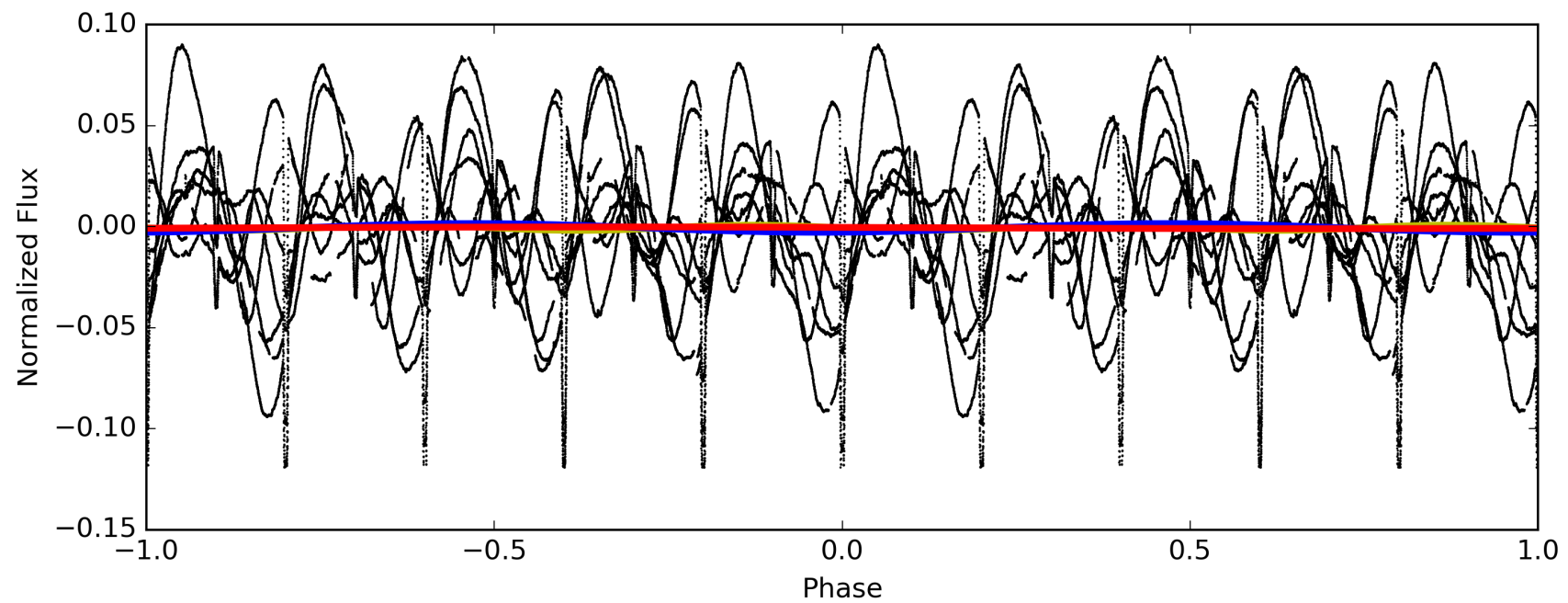
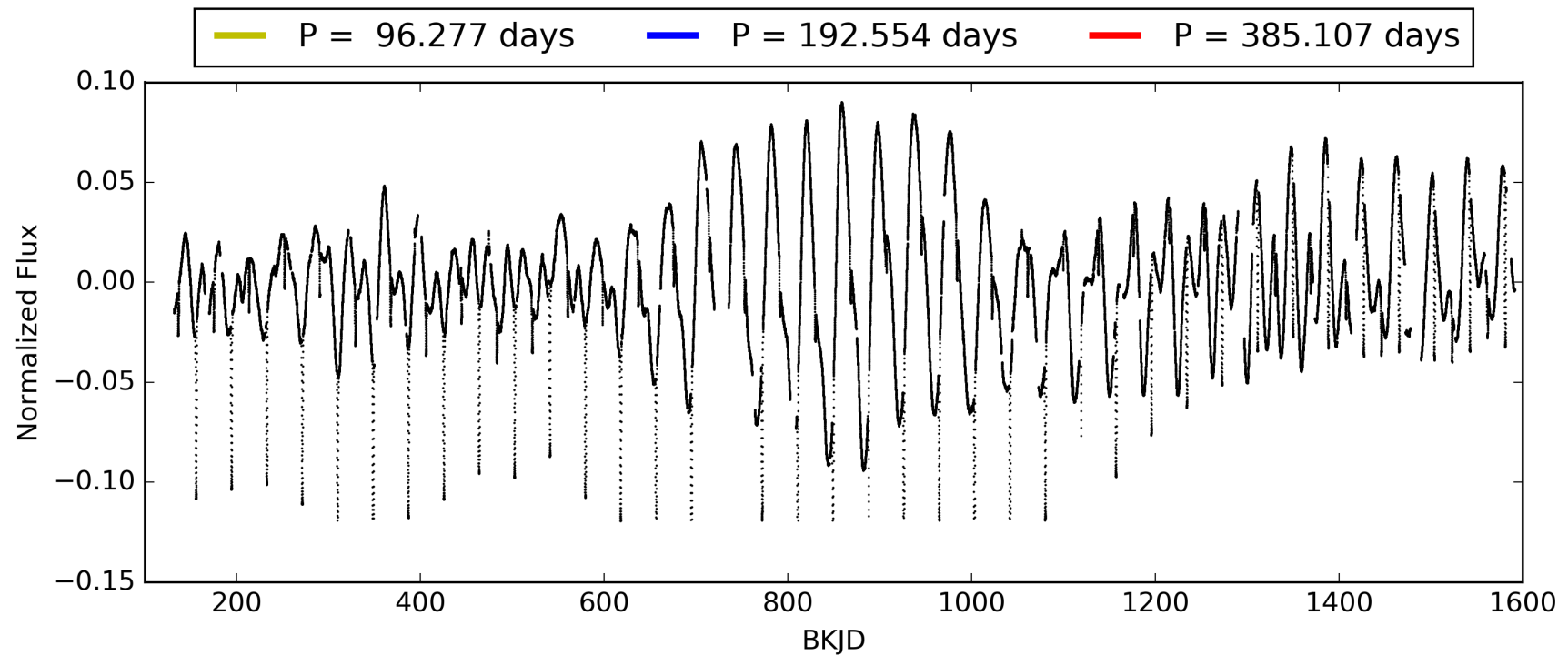
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:58:05 Z

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

TCE 007133286-02, PDC Light Curves

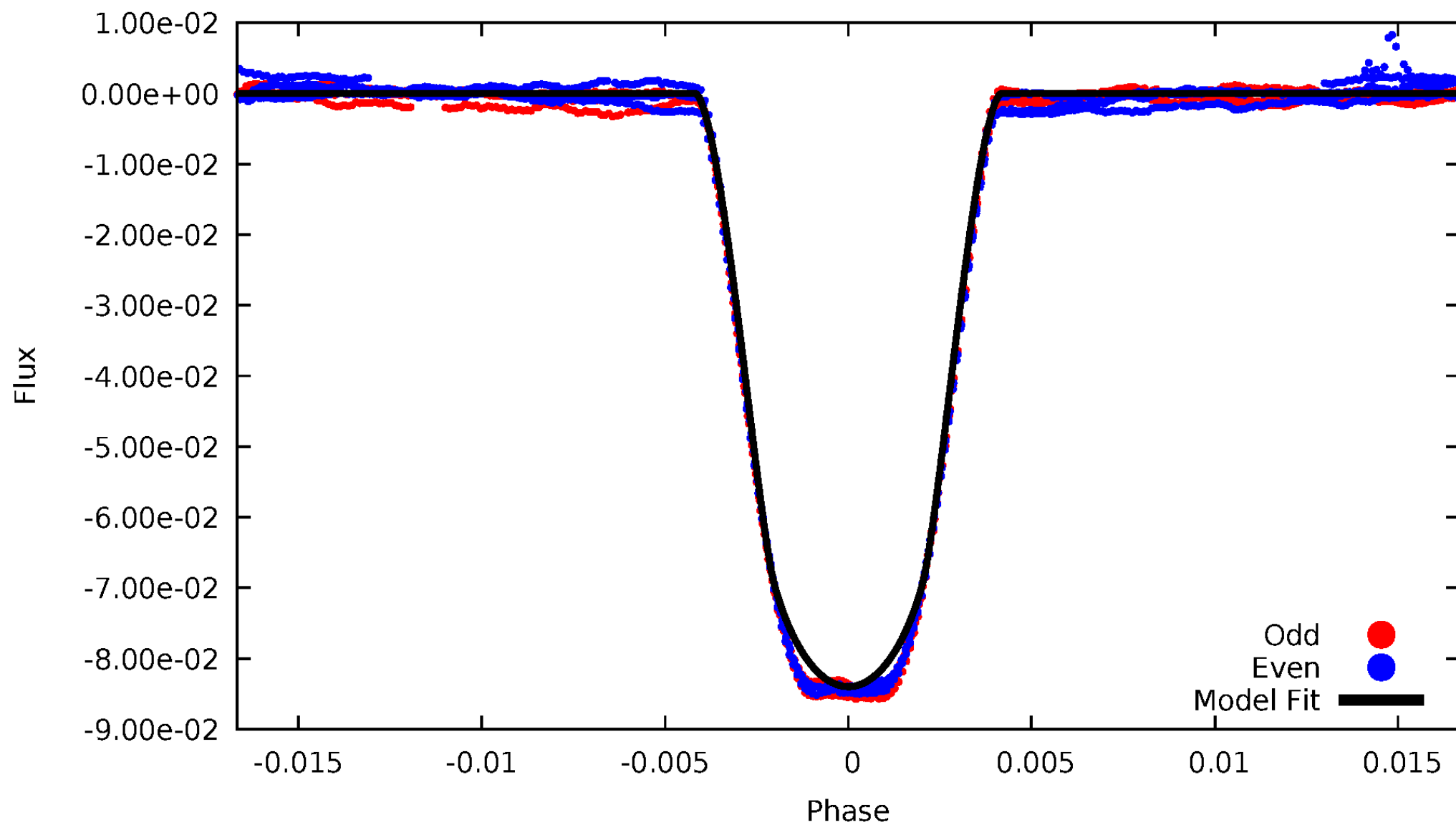


TCE 007133286-02



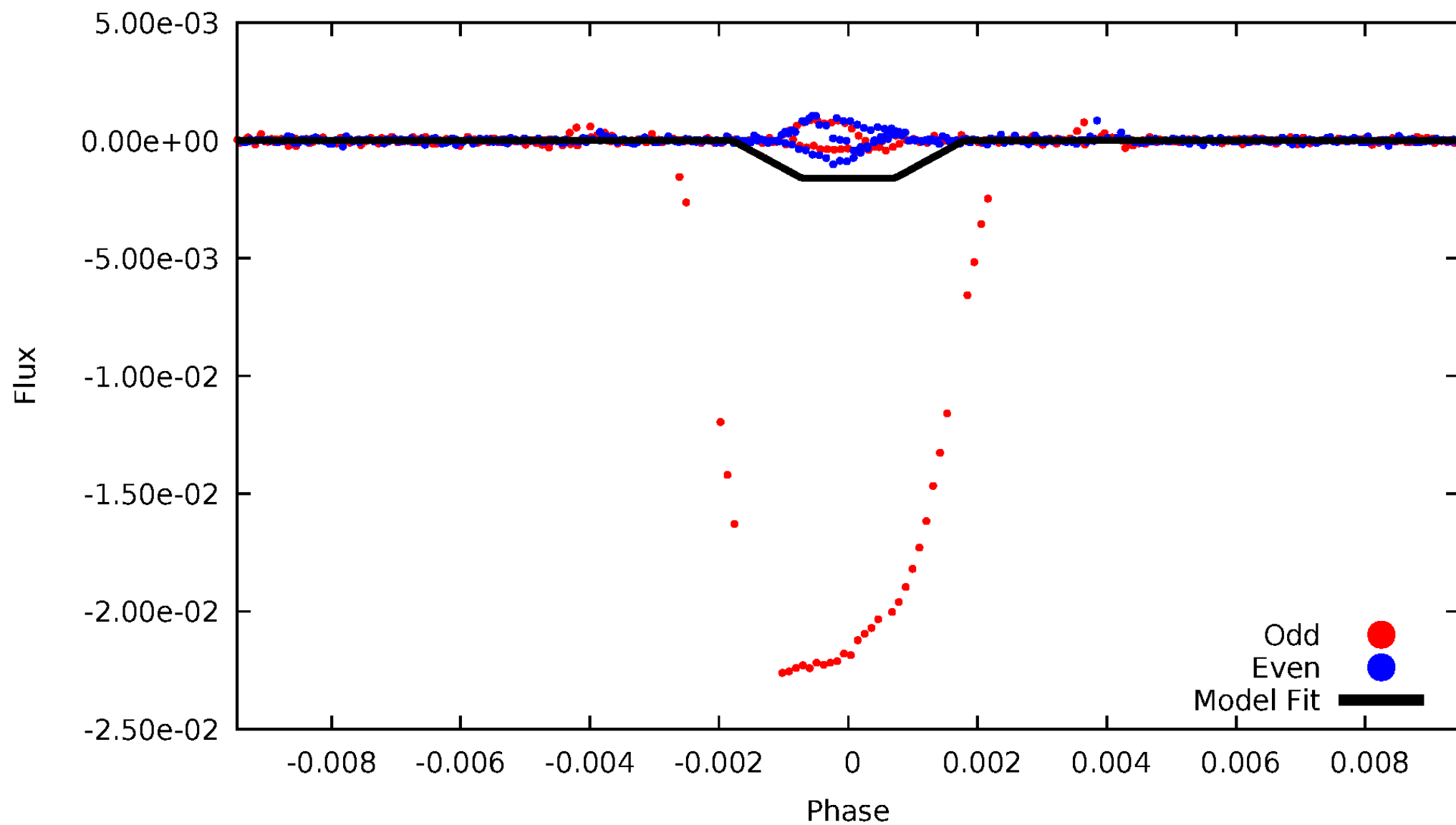
DV Odd/Even

TCE 007133286-02



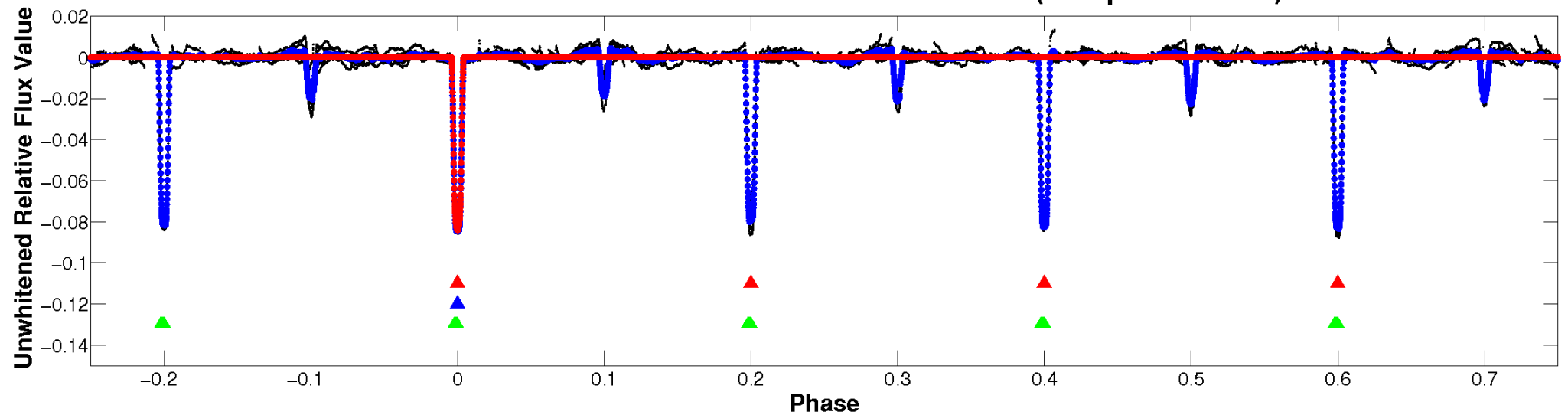
ALT Odd/Even

TCE 007133286-02

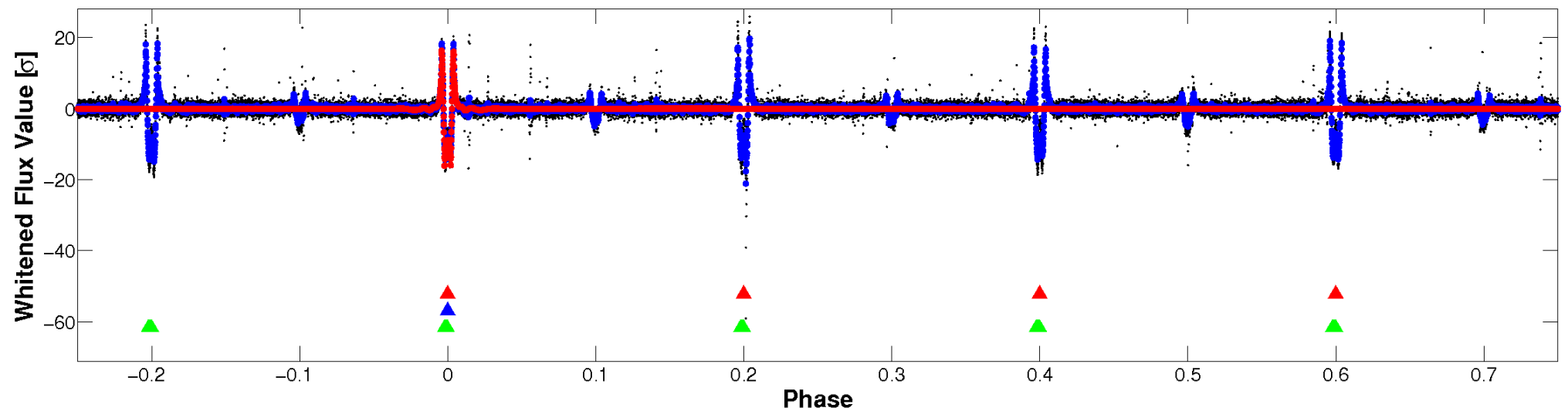


Non-Whitened Vs. Whitened Light Curve

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

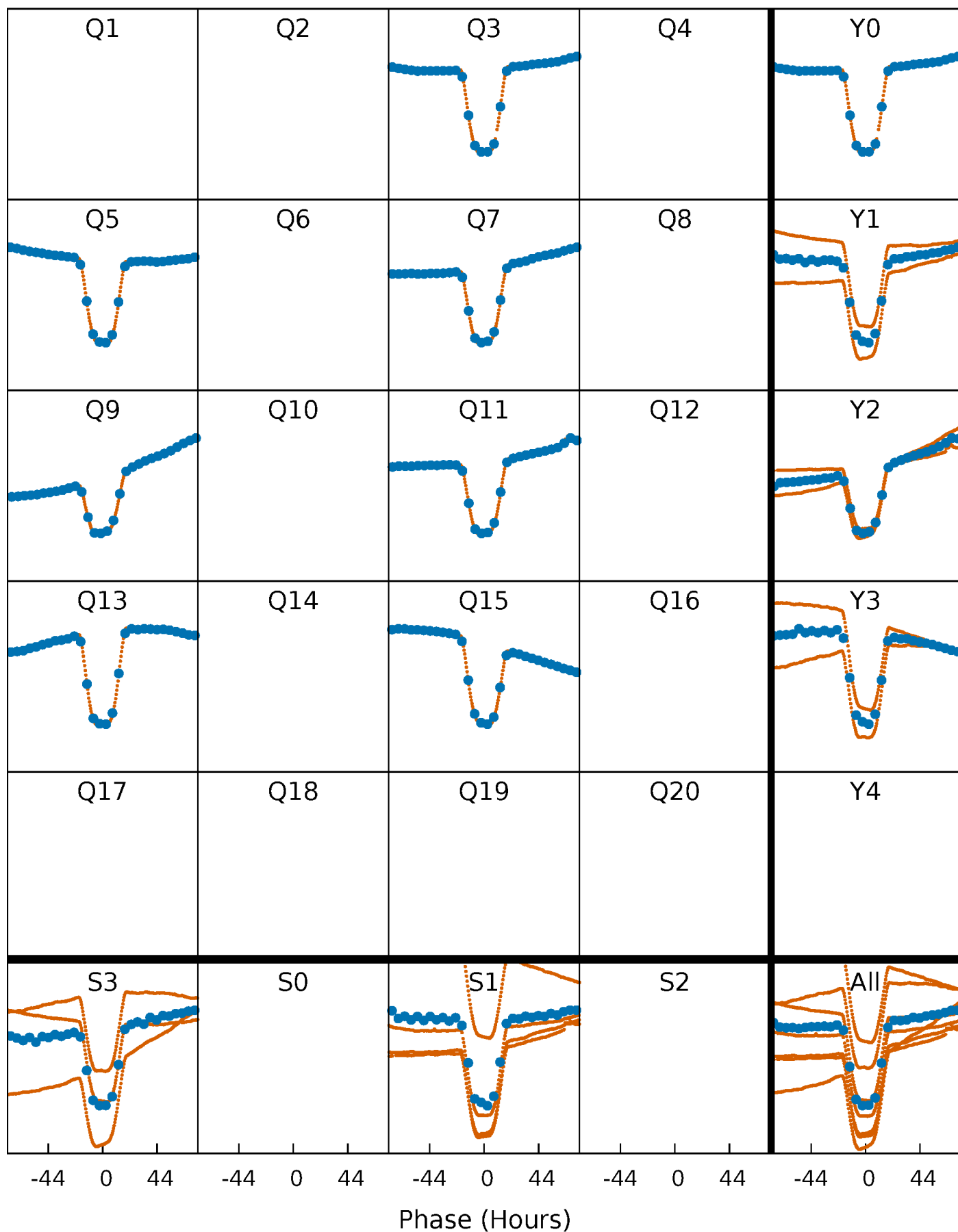


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



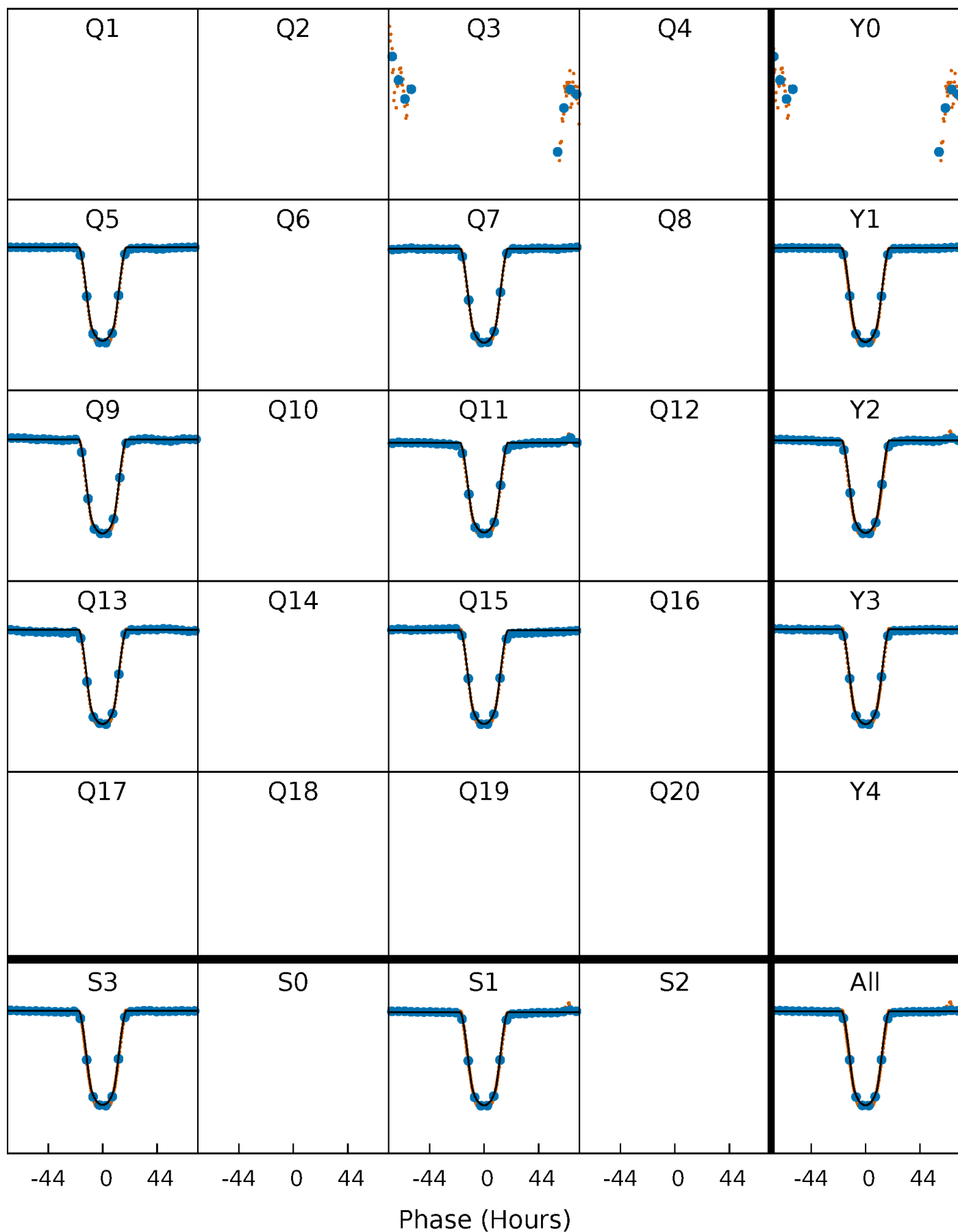
PDC Quarter-Phased Transit Curves

TCE 007133286-02 P=192.553744 Days $T_0=271.126932$ (BKJD)



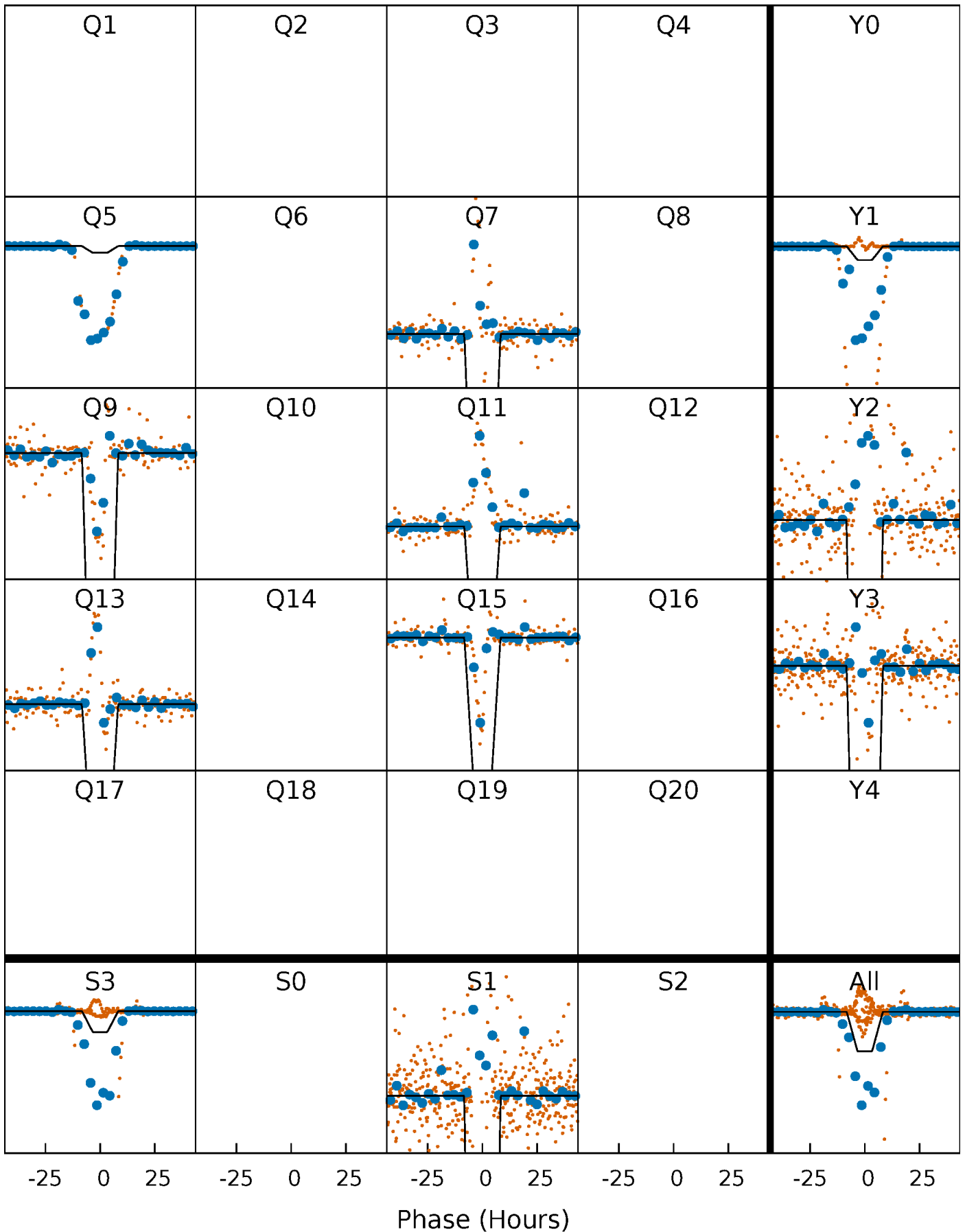
DV Quarter-Phased Transit Curves

TCE 007133286-02 $P=192.553744$ Days $T_0=271.126932$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

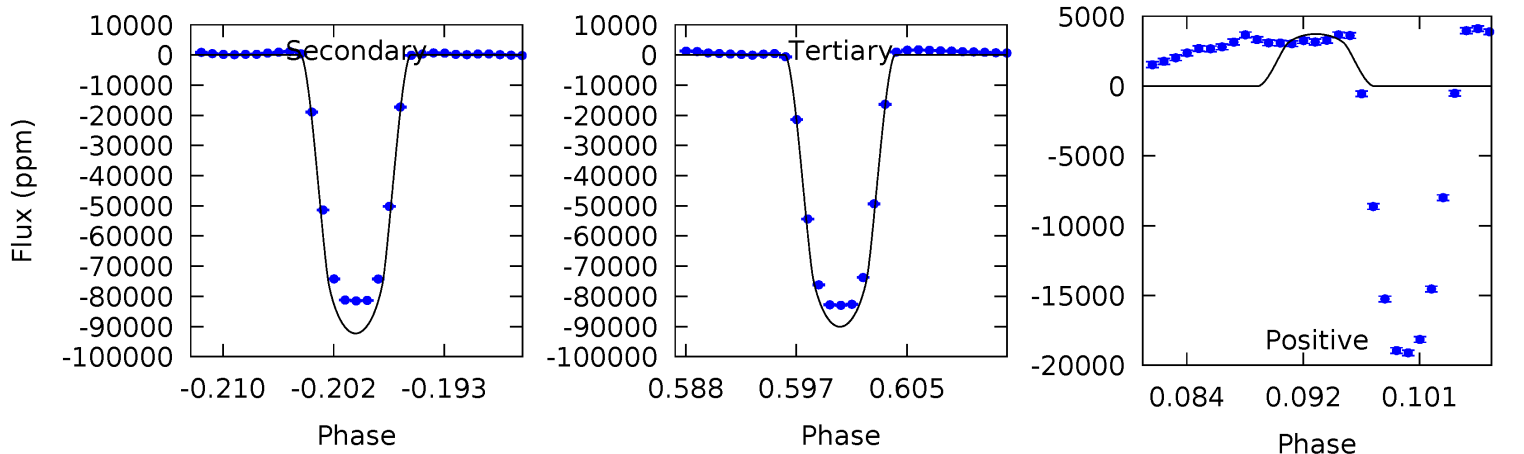
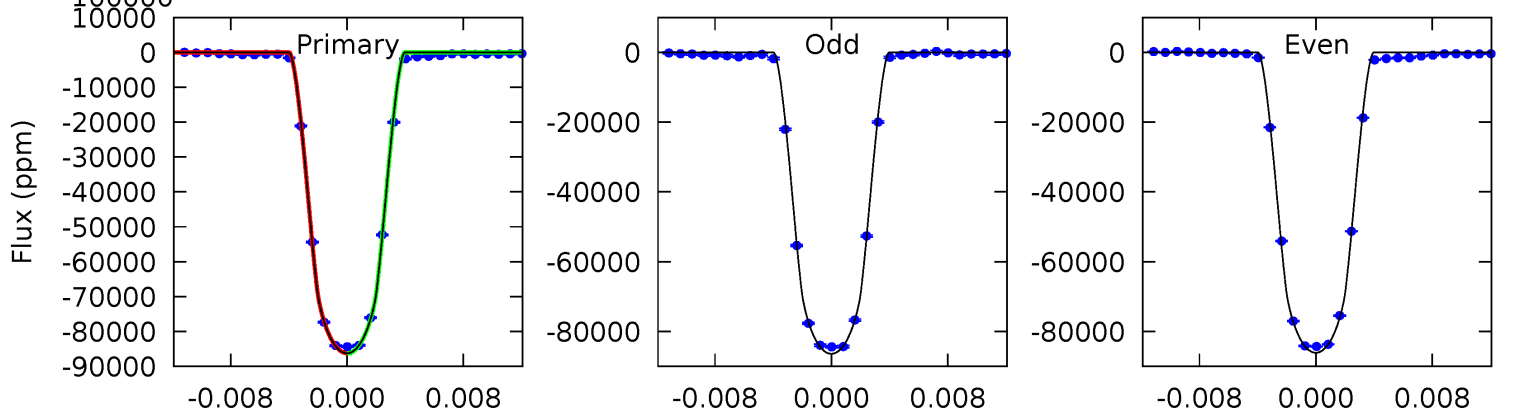
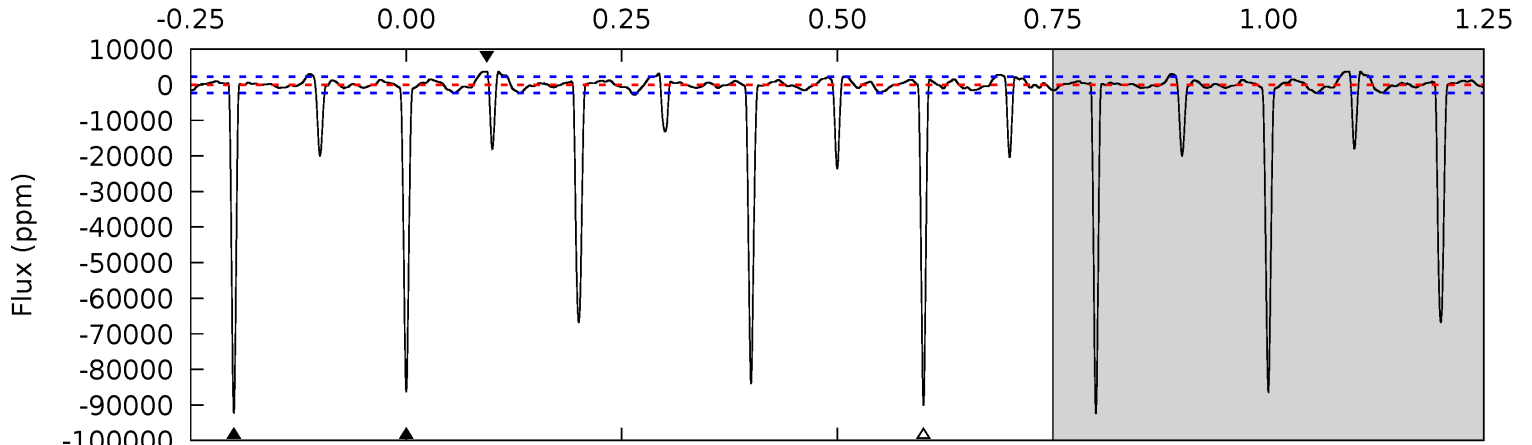
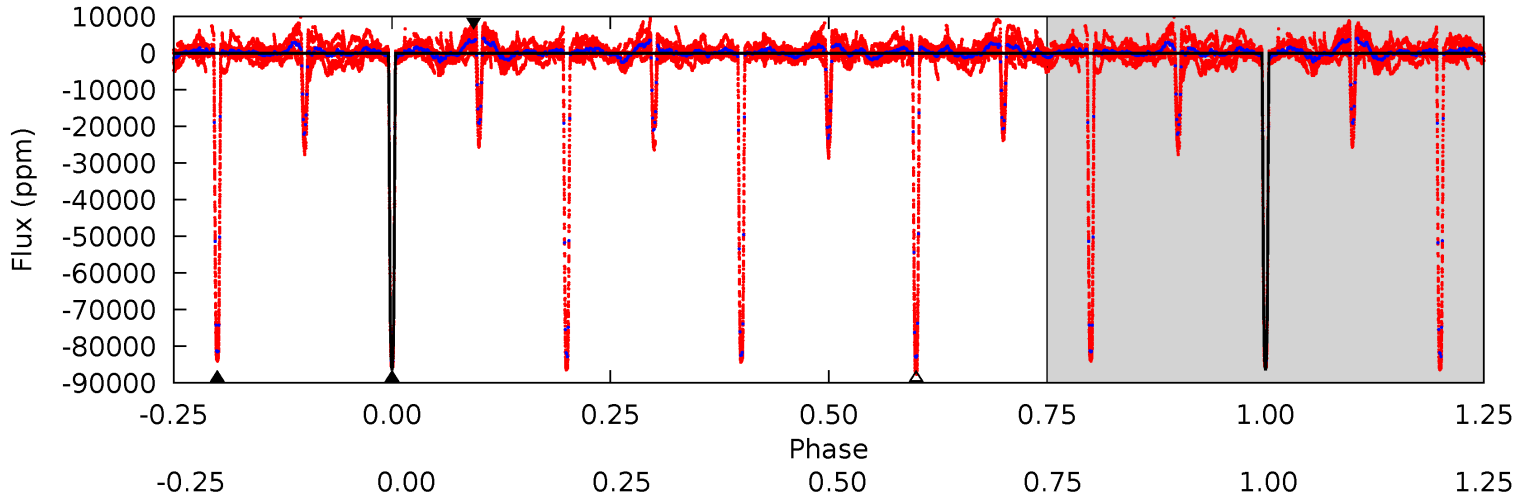
TCE 007133286-02 P=192.540319 Days $T_0=271.172021$ (BKJD)



DV Model-Shift Uniqueness Test

007133286-02, P = 192.553744 Days, E = 78.573188 Days

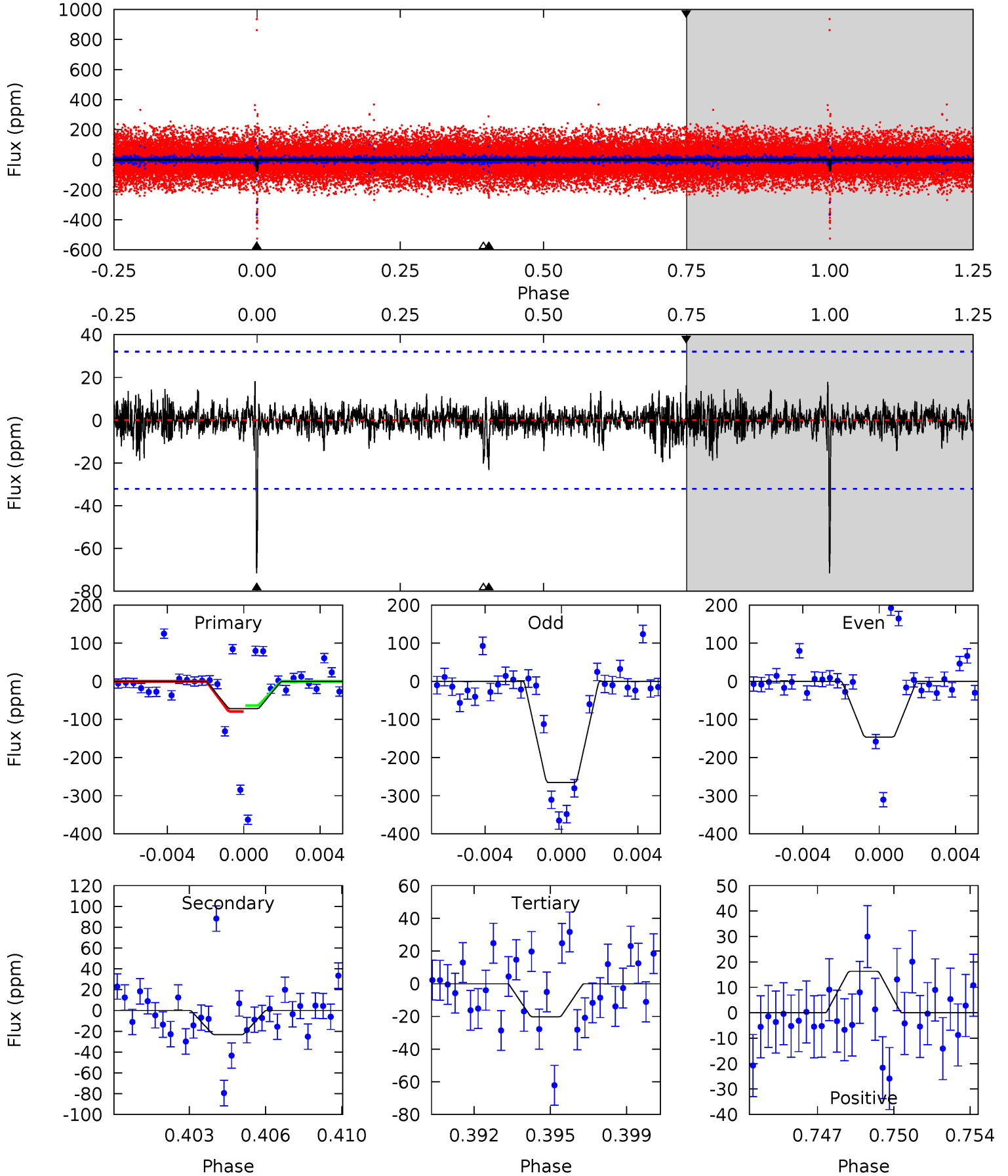
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
191.0	204.4	199.5	8.25	5.06	2.64	21.1	-8.44	182.8	4.92	196.1	0.35	1.00	0.04	0.14



Alt Model-Shift Uniqueness Test

007133286-02, P = 192.540319 Days, E = 78.631702 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	3.79	3.28	2.65	5.22	2.91	0.69	8.34	8.98	0.50	1.14	9.06	-210.3	0.20	1.25



Stellar Parameters For KIC 007133286

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4374^{+153}_{-168}	$4.626^{+0.056}_{-0.024}$	$-0.220^{+0.300}_{-0.300}$	$0.635^{+0.045}_{-0.062}$	$0.621^{+0.068}_{-0.056}$	$3.422^{+0.858}_{-0.388}$
	+3%/-4%	+1%/-1%	+136%/-136%	+7%/-10%	+11%/-9%	+25%/-11%
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 007133286-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-92299 ± 452	$18.43^{+0.84}_{-1.07}$	286^{+11}_{-12}	4701^{+179}_{-199}	52084^{+4062}_{-3230}
Alt.	-23 ± 6	$2.76^{+0.13}_{-0.16}$	286^{+11}_{-12}	2337^{+88}_{-93}	523^{+135}_{-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 $A_{\text{obs}} \gg 1.0$

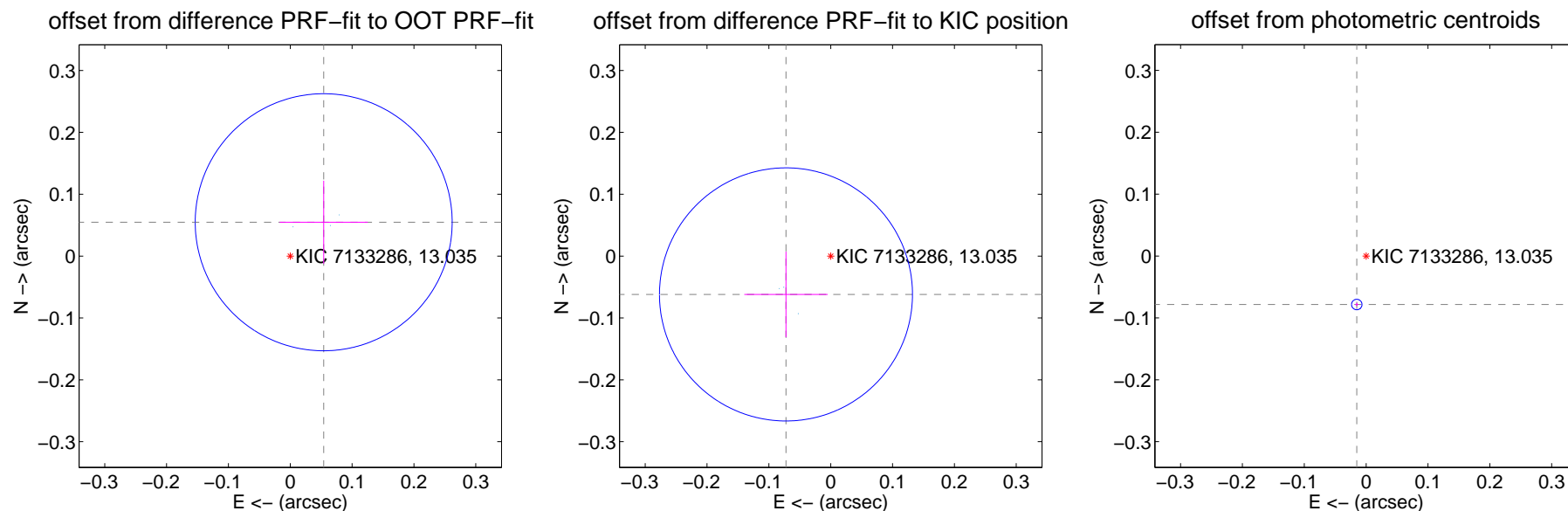
DV Centroid Data

Supplemental centroid analysis for 007133286-02. Kepler magnitude: 13.04. Transit SNR 211.22

There are 3 quarters with good PRF difference image offsets

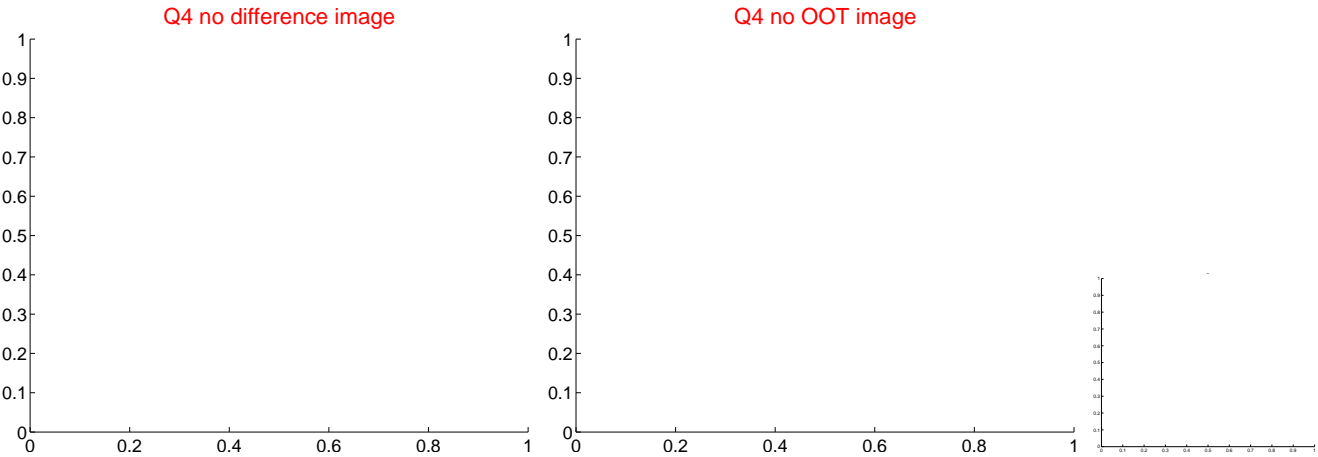
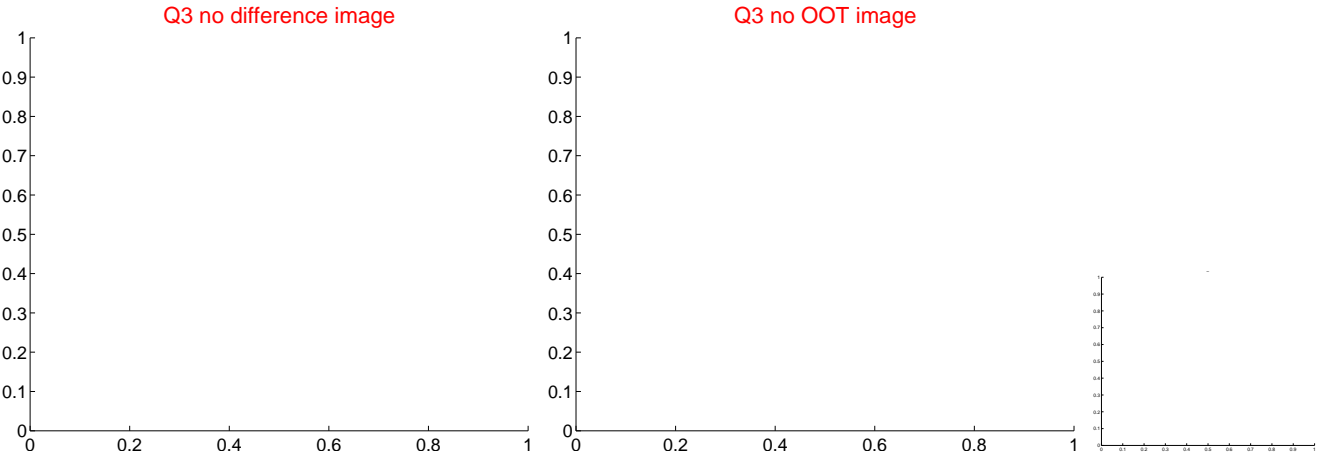
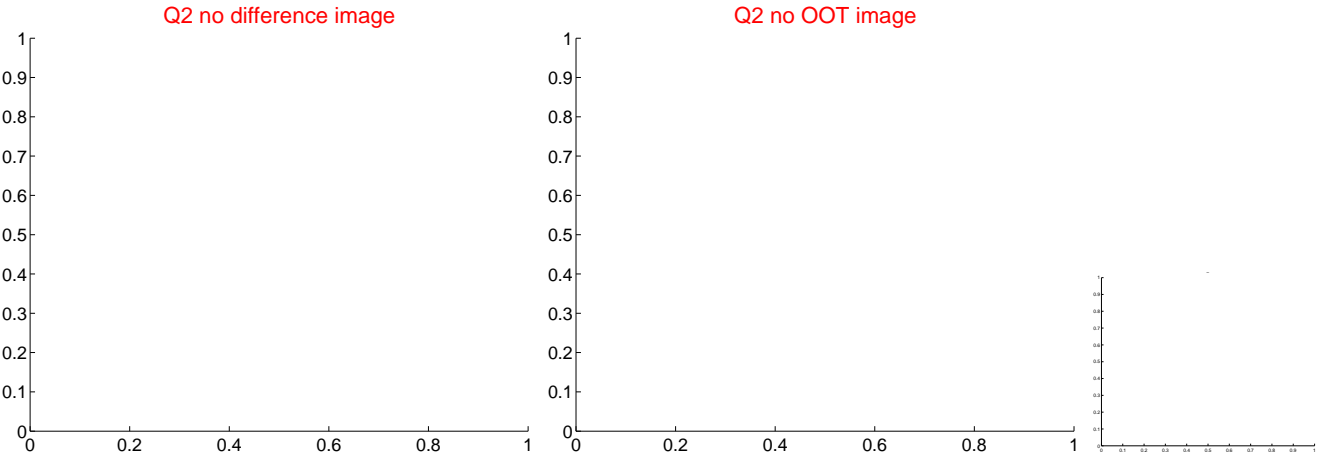
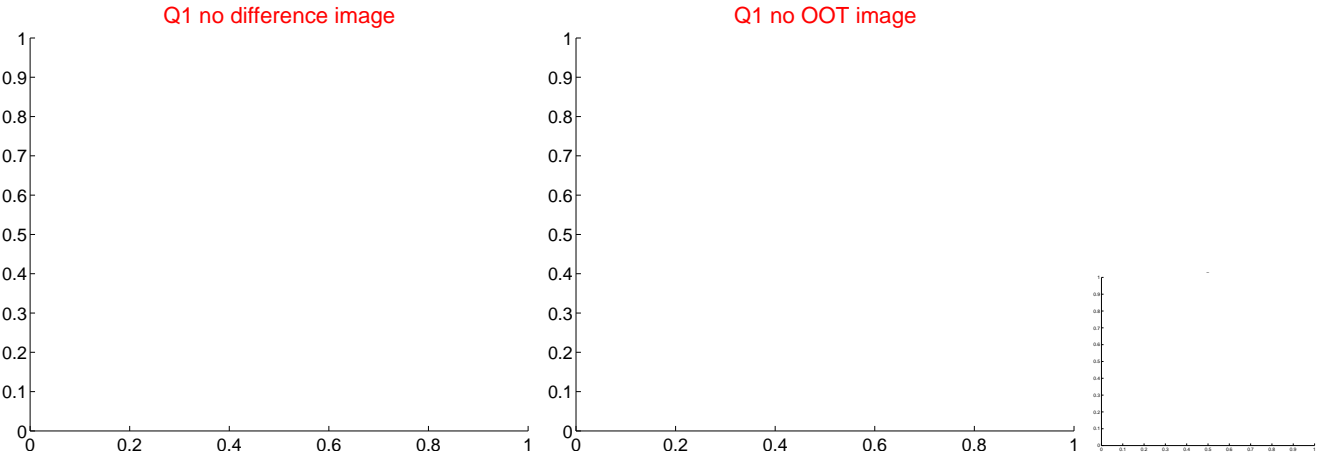
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.077 ± 0.069	1.11	-0.054 ± 0.071	0.055 ± 0.067
PRF-fit source offset from KIC position	0.095 ± 0.068	1.40	0.072 ± 0.067	-0.062 ± 0.069
photometric centroid source offset	0.08 ± 0.00	28.32	0.02 ± 0.00	-0.08 ± 0.00

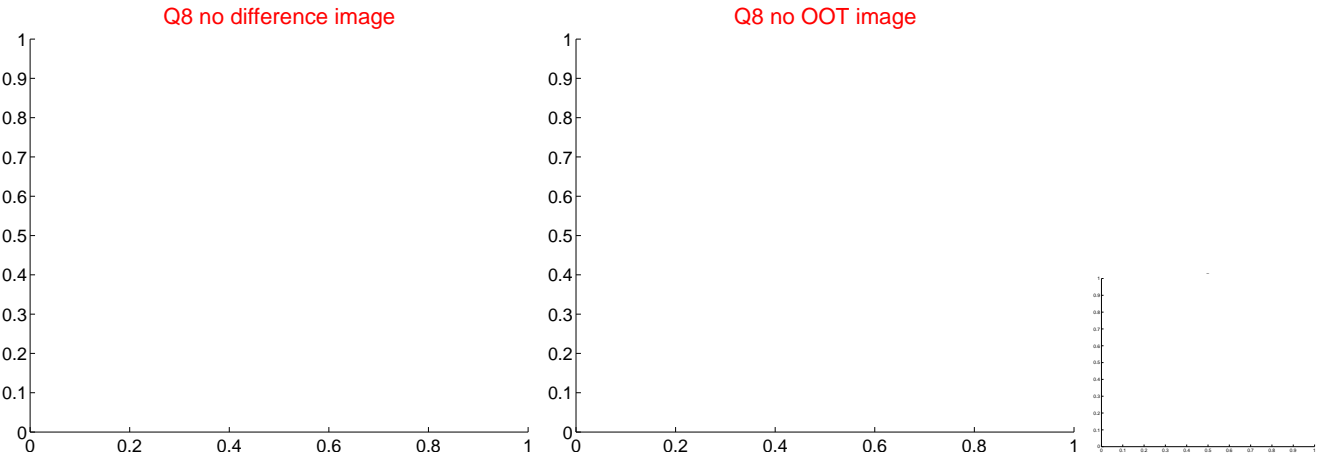
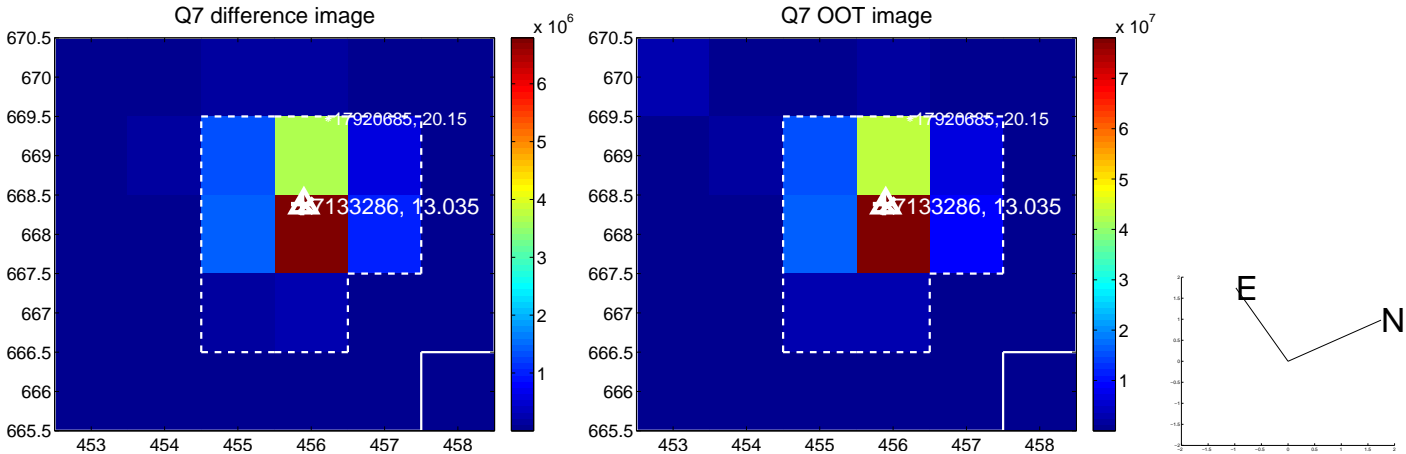
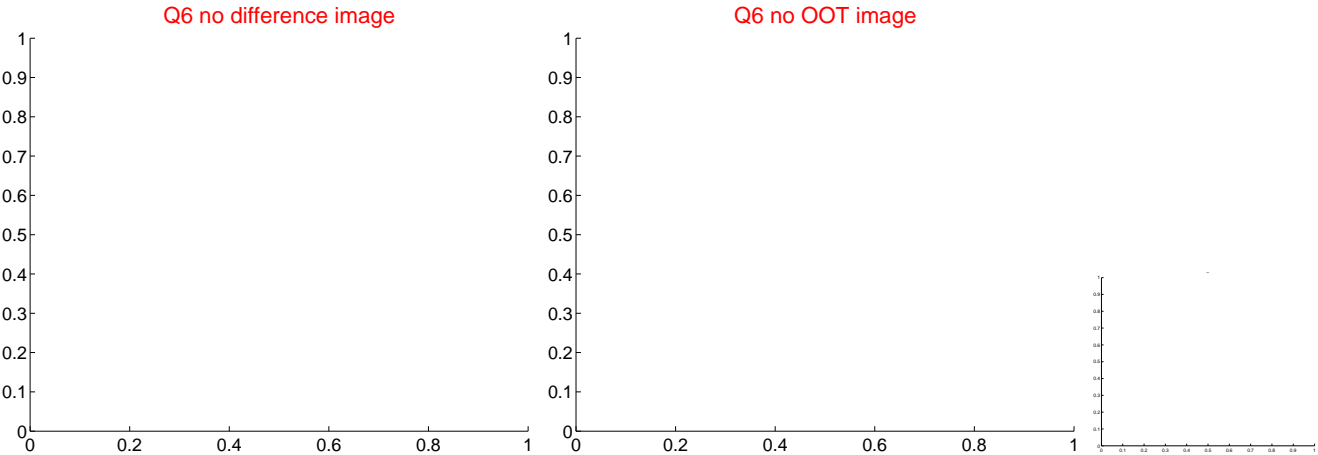
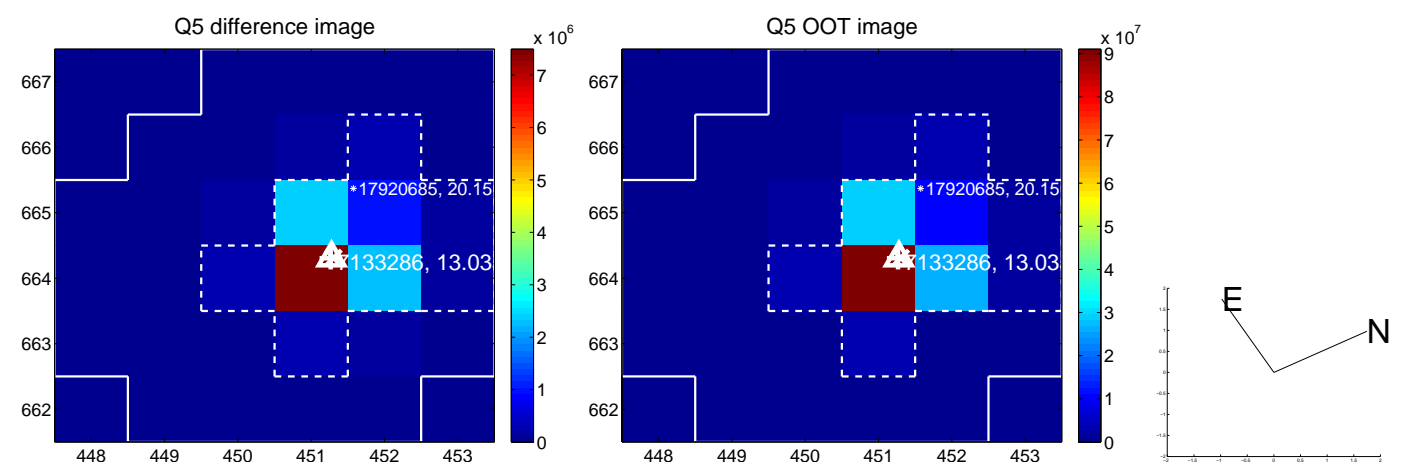


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

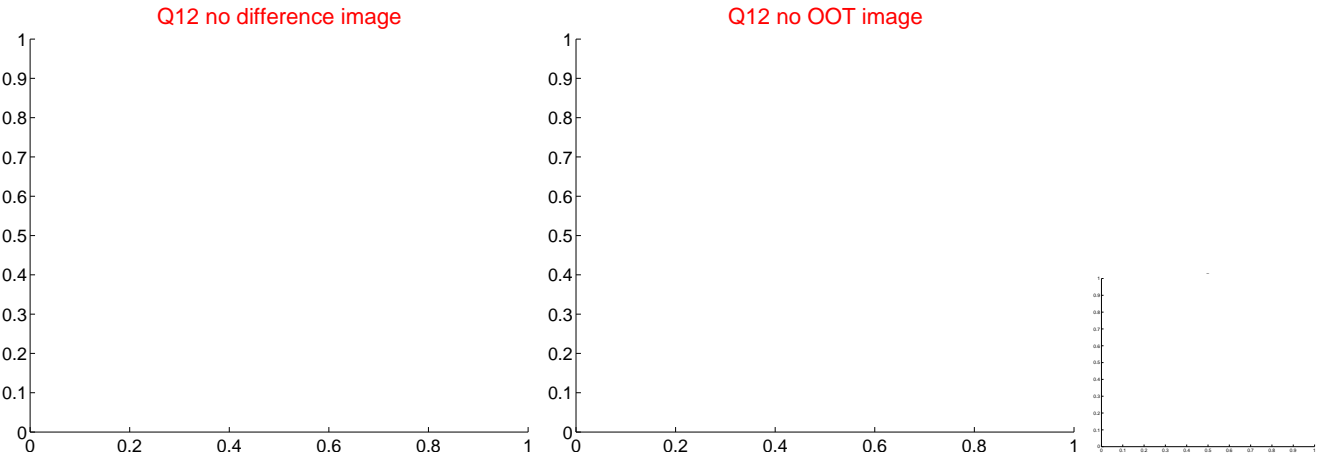
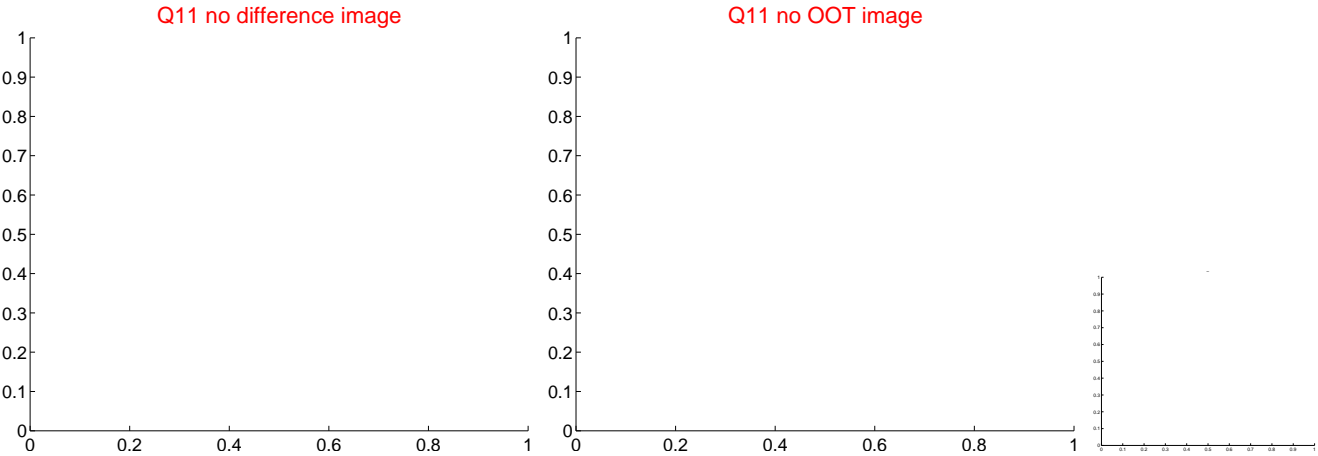
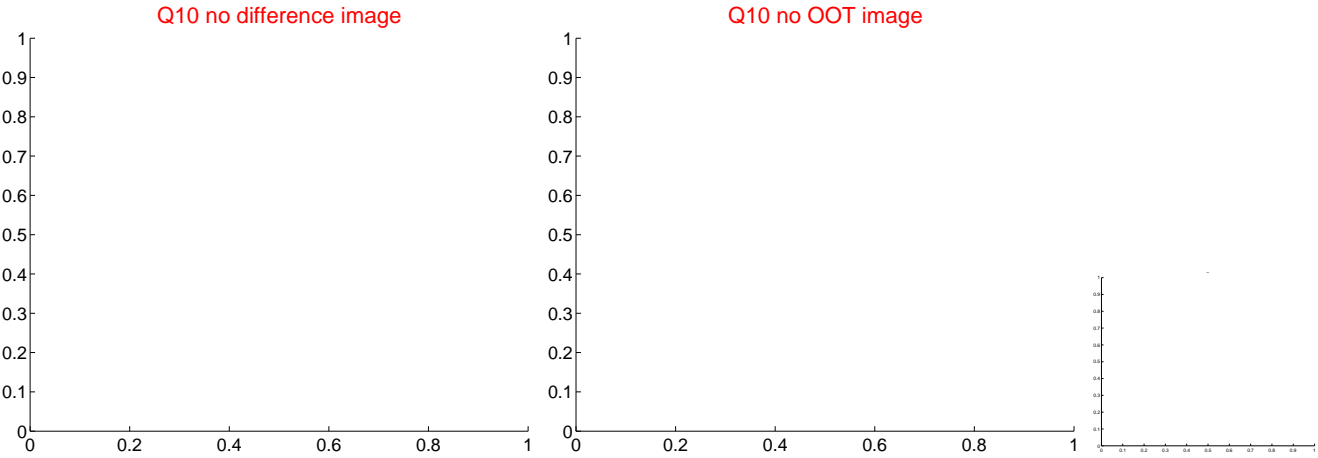
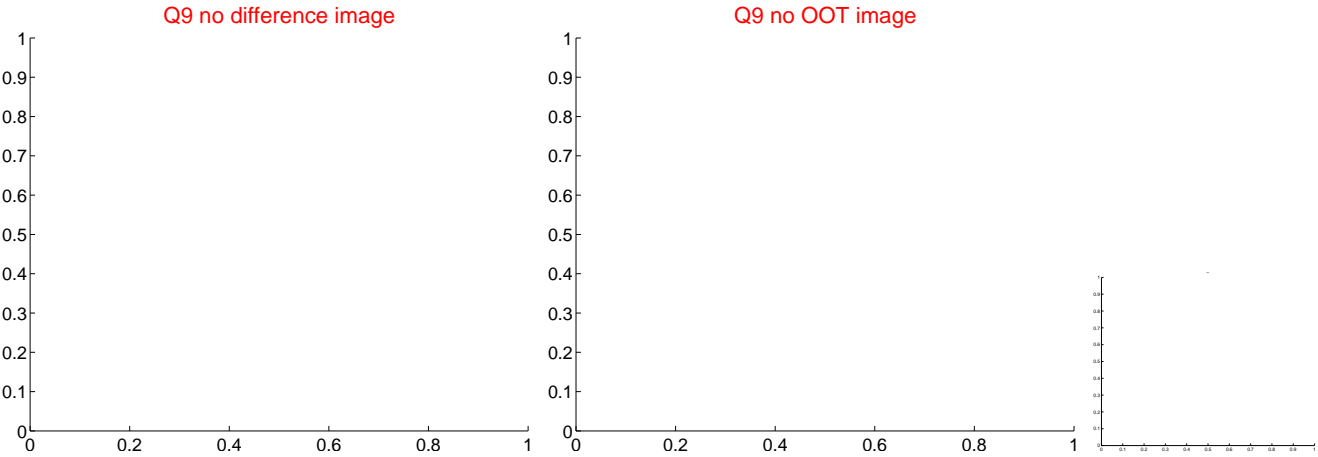
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



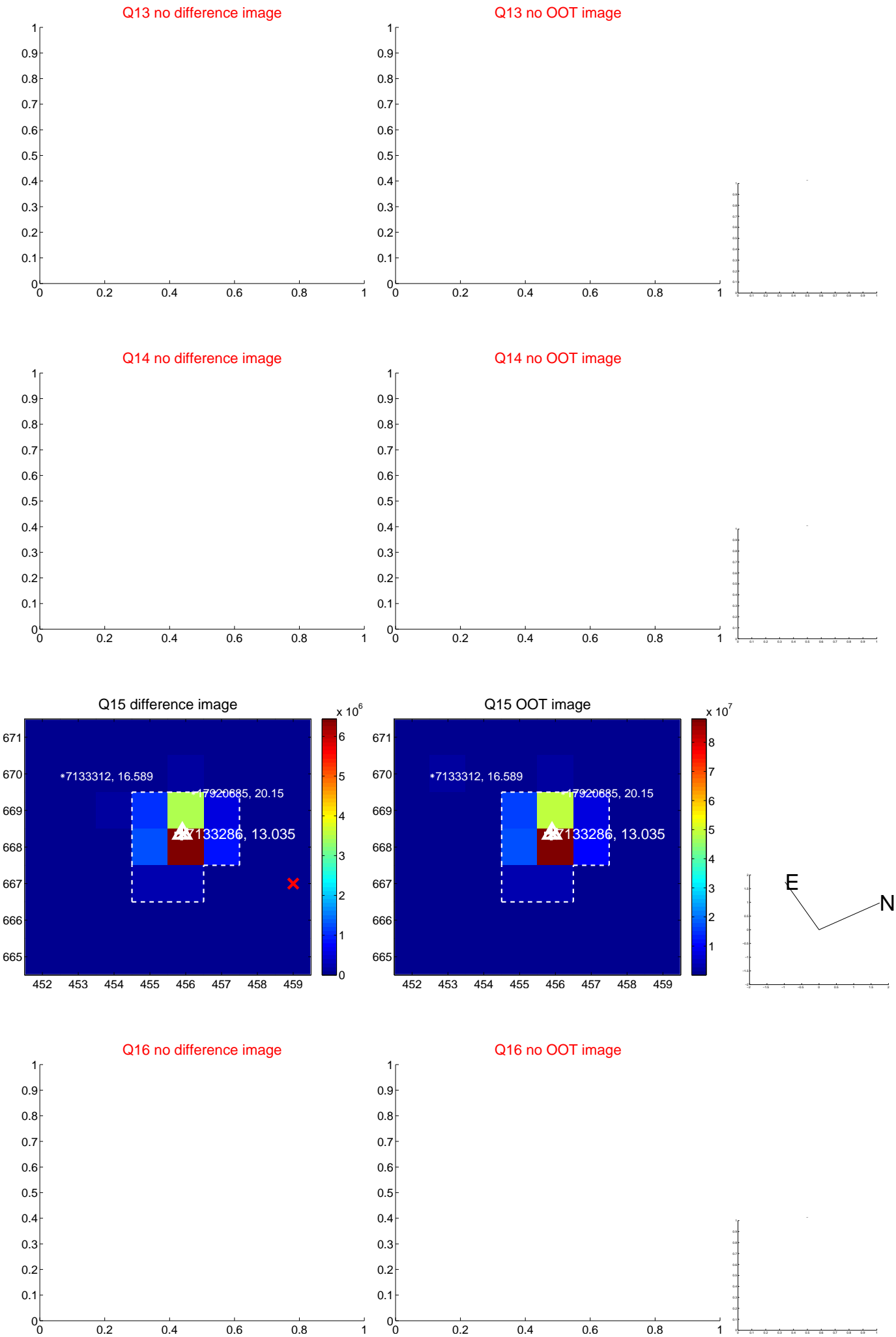
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



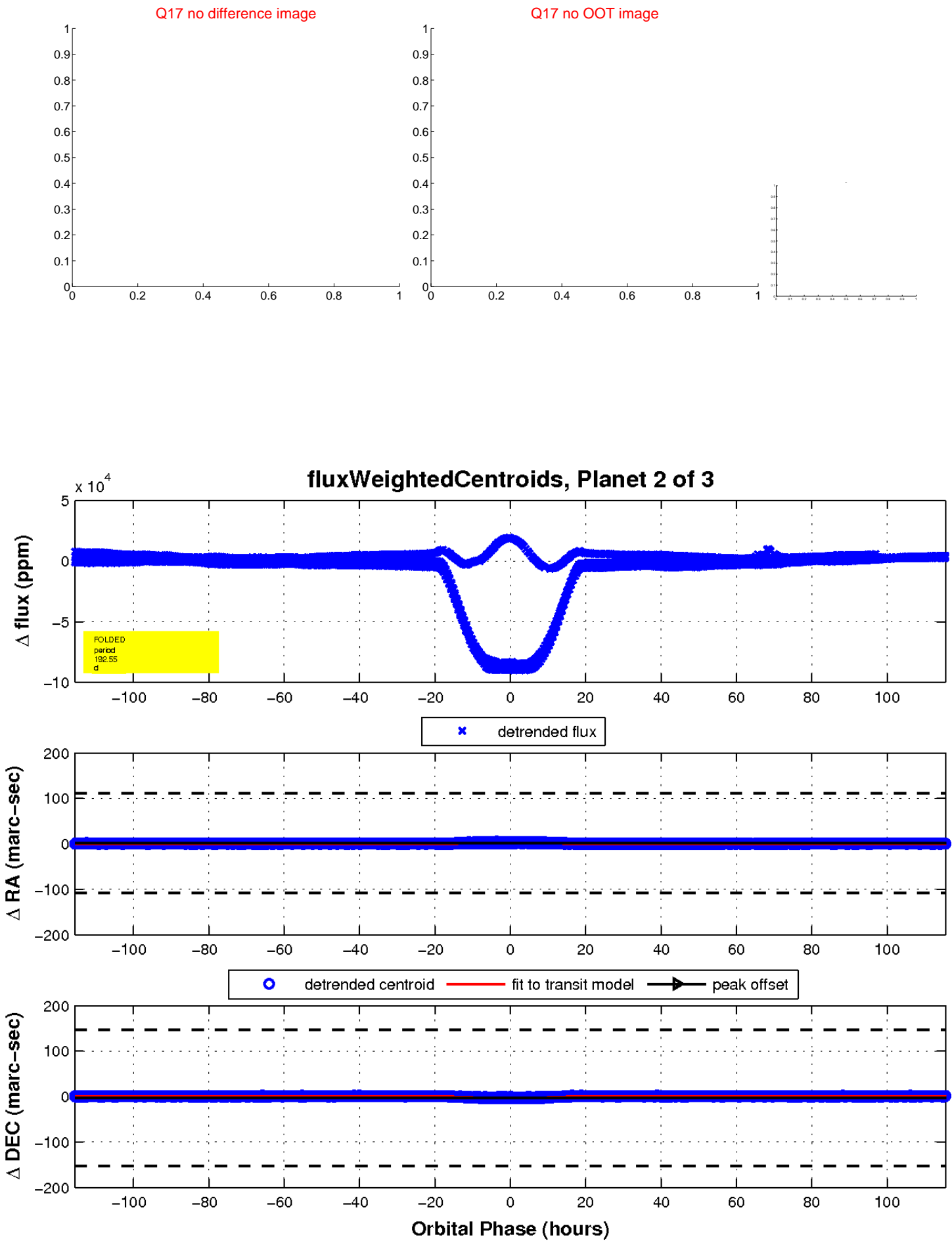
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

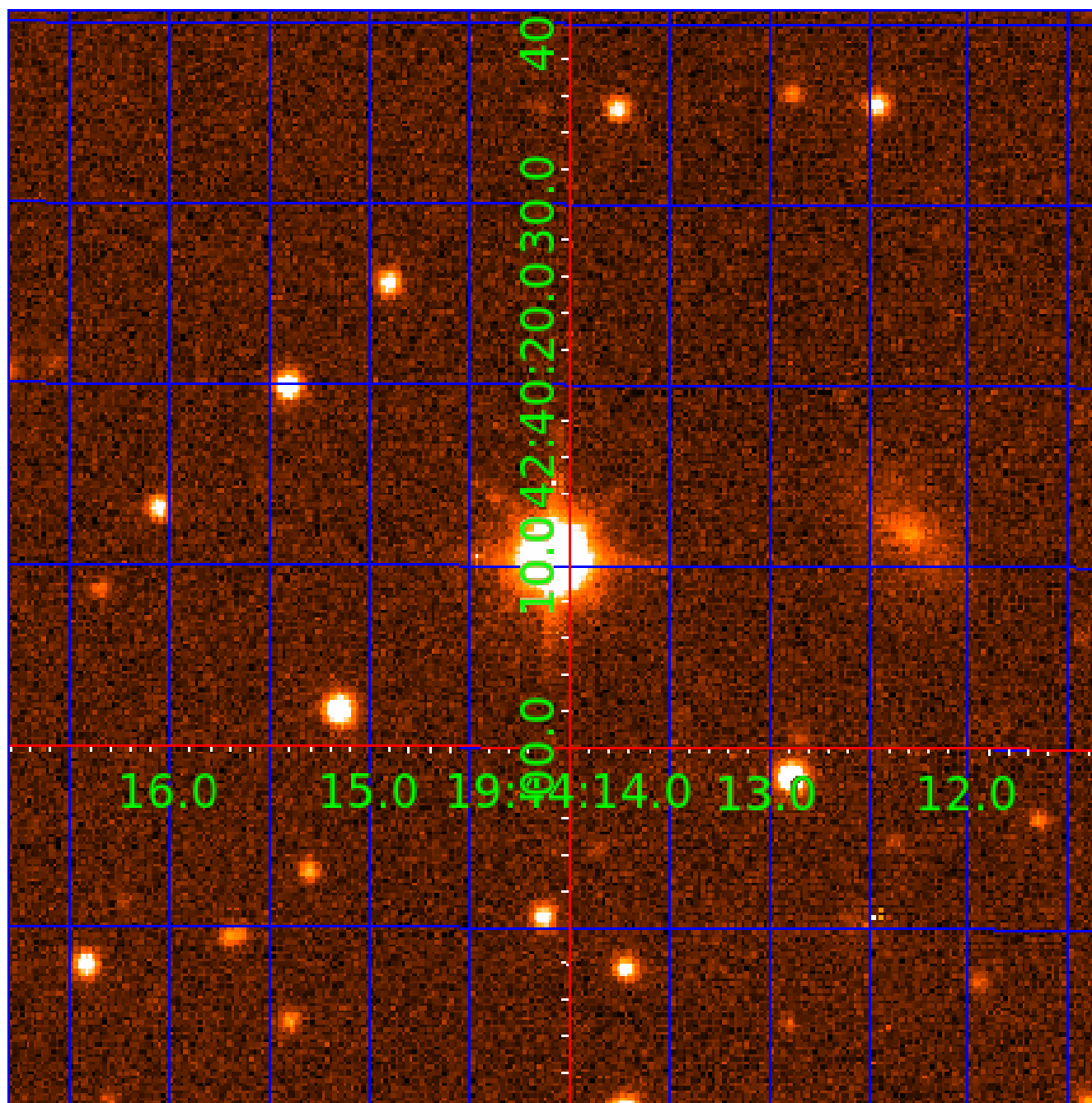


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007133286

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})
007133286-01	OBS	No	423.615881	271.117908	94667.2	39.827	566.6	107.7	0.64	4374	33.69	0.15
007133286-02	OBS	No	192.553744	271.126932	83975.7	38.528	687.8	211.2	0.64	4374	18.46	0.43
007133286-03	OBS	7581.01	38.523599	155.129949	15760.1	2.000	356.8	-1.0	0.64	4374	7.71	3.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007133286-01	OBS	FP	0.00	1	0	0	0	LPP_ALT—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007133286-02	OBS	FP	0.00	1	0	0	0	LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS
007133286-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS

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.

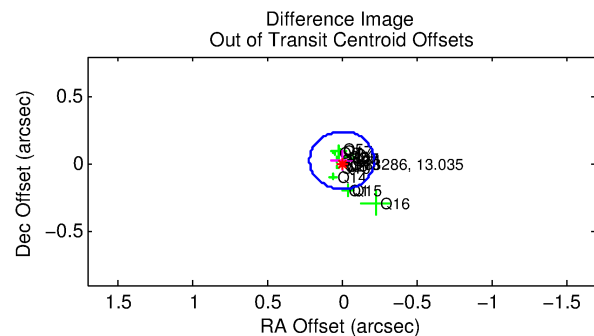
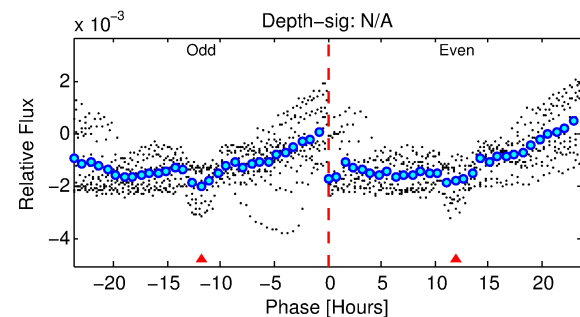
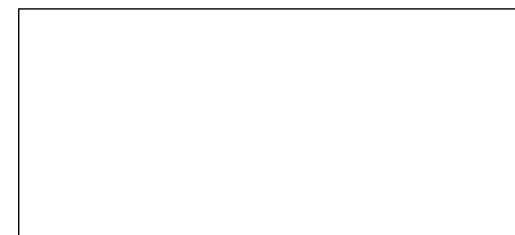
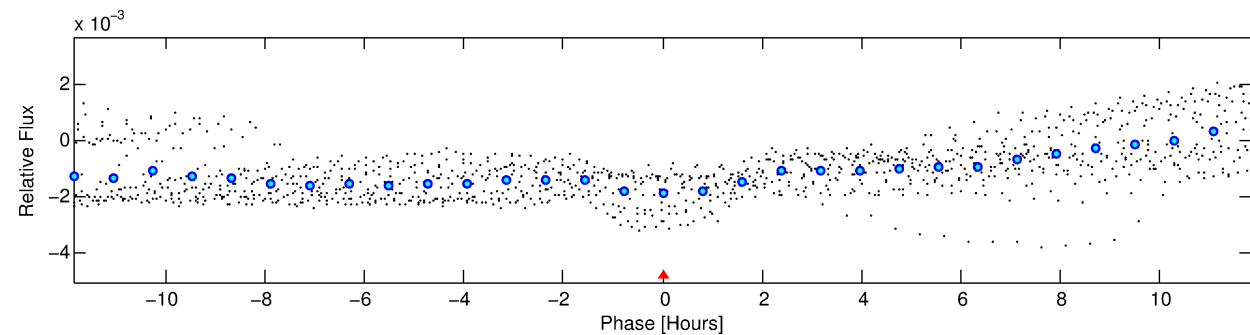
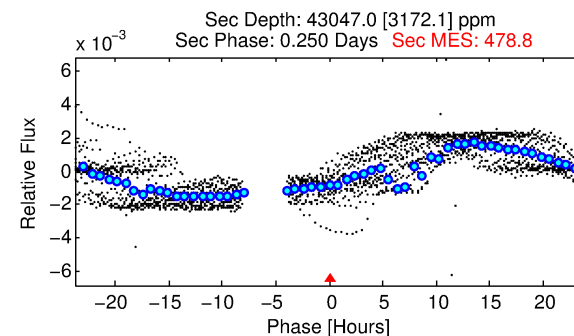
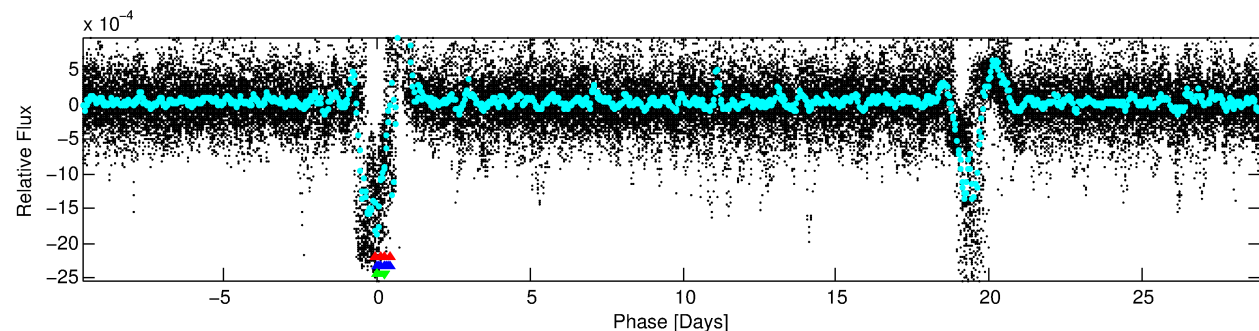
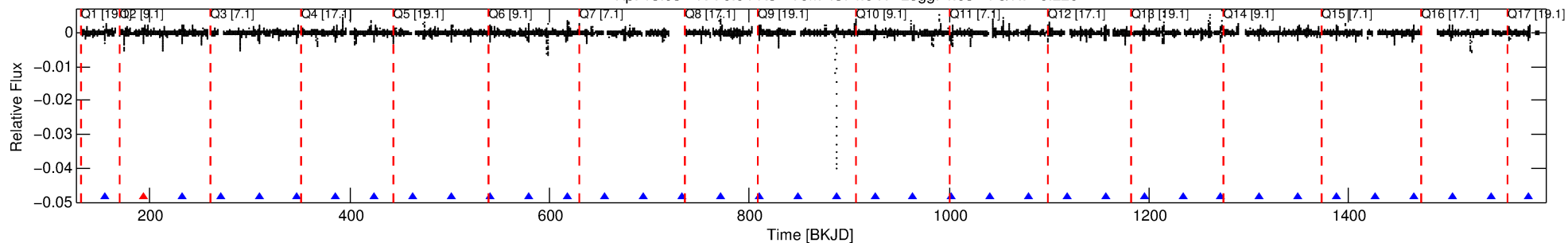
Ephemeris Match Information For 007133286-03

No Significant Match Found

DV One-Page Summary

KIC: 7133286 Candidate: 3 of 3 Period: 38.524 d
KOI: K07581 Corr: No Ephemeris Match

Kp: 13.03 R*: 0.64 Rs Teff: 4374.0 K Logg: 4.63 Fe/H: -0.220



TPS TCE Results:

Period = 38.52360 d
Epoch = 155.1299 BKJD

DV fit results are unavailable

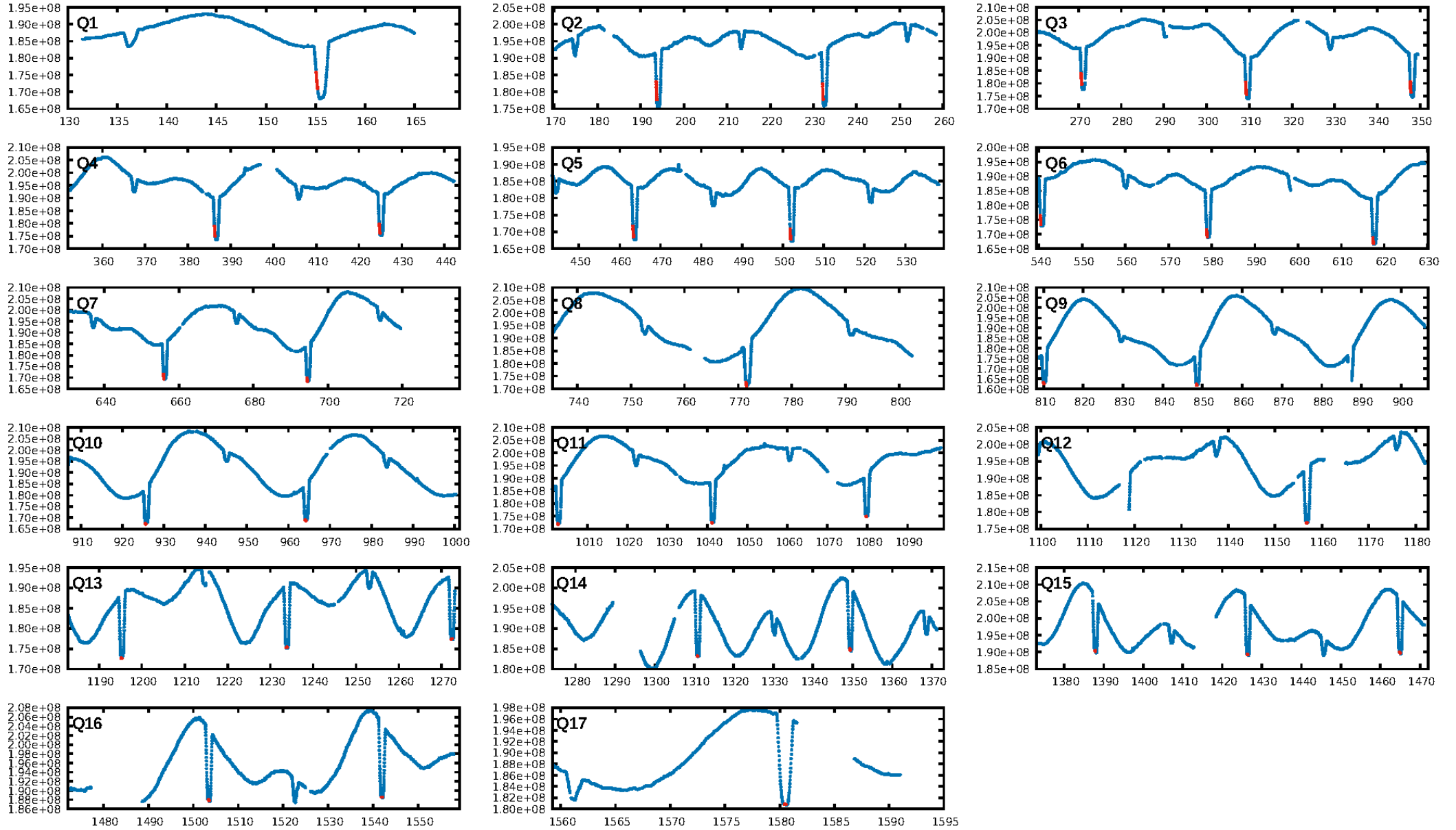
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [95.82σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [23/24]
GhostDiagnostic-chr: 0.5008
Centroid-sig: 24.2%
Centroid-so: 0.113 arcsec [1.53σ]
OotOffset-rm: 0.027 arcsec [0.37σ]
KicOffset-rm: 0.094 arcsec [1.38σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.94 [16/17]

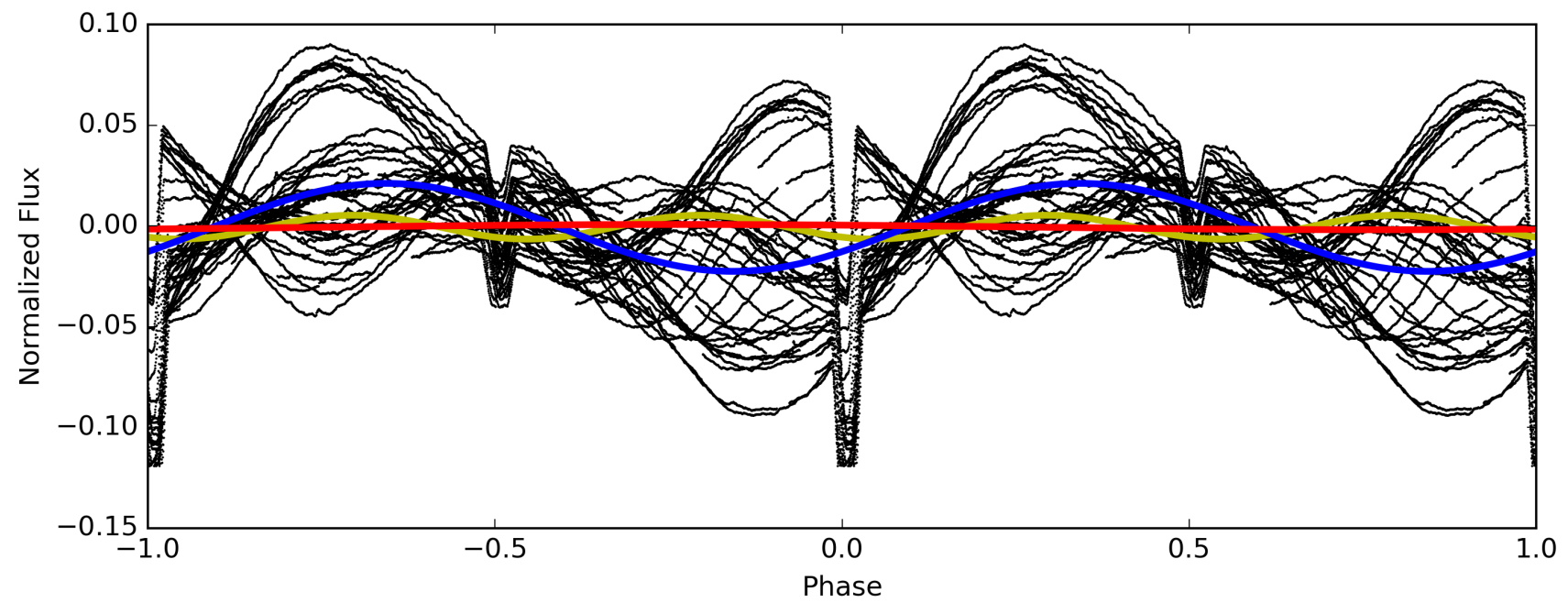
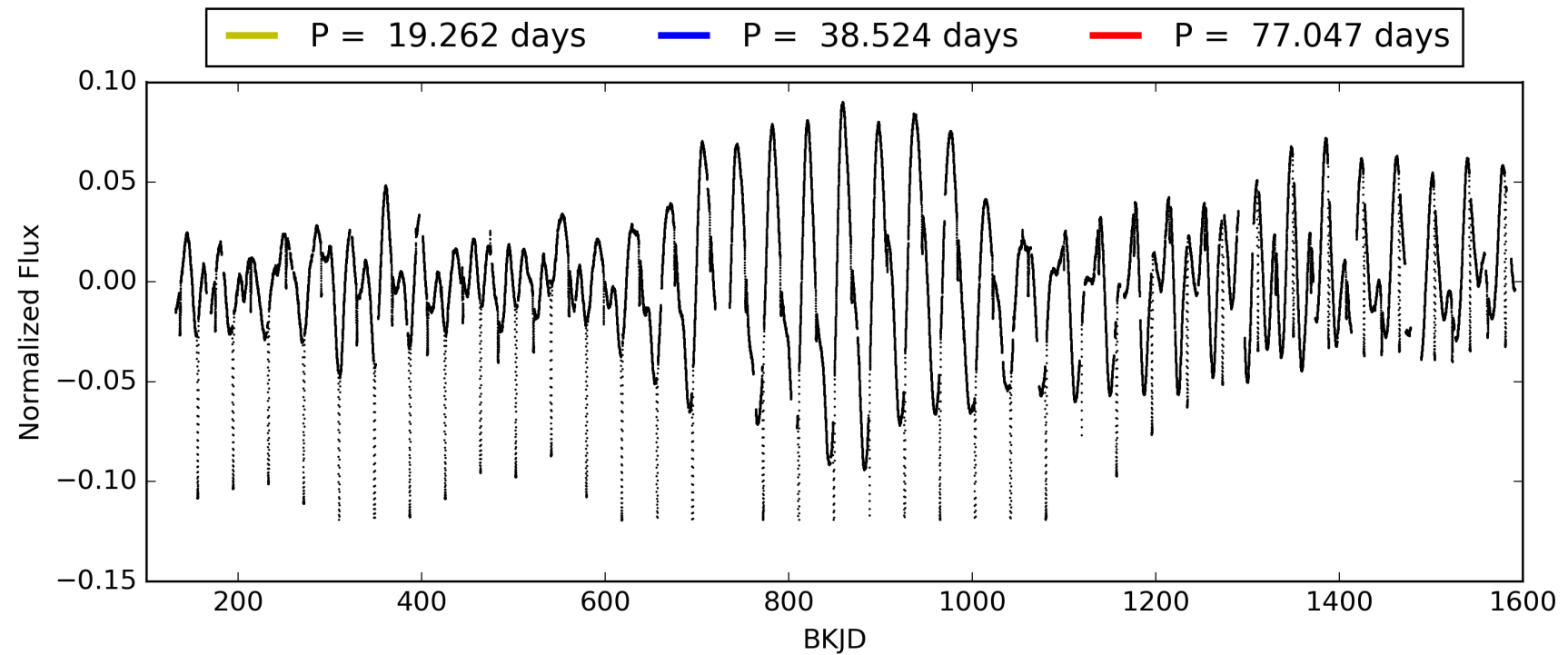
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:58:10 Z

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

TCE 007133286-03, PDC Light Curves

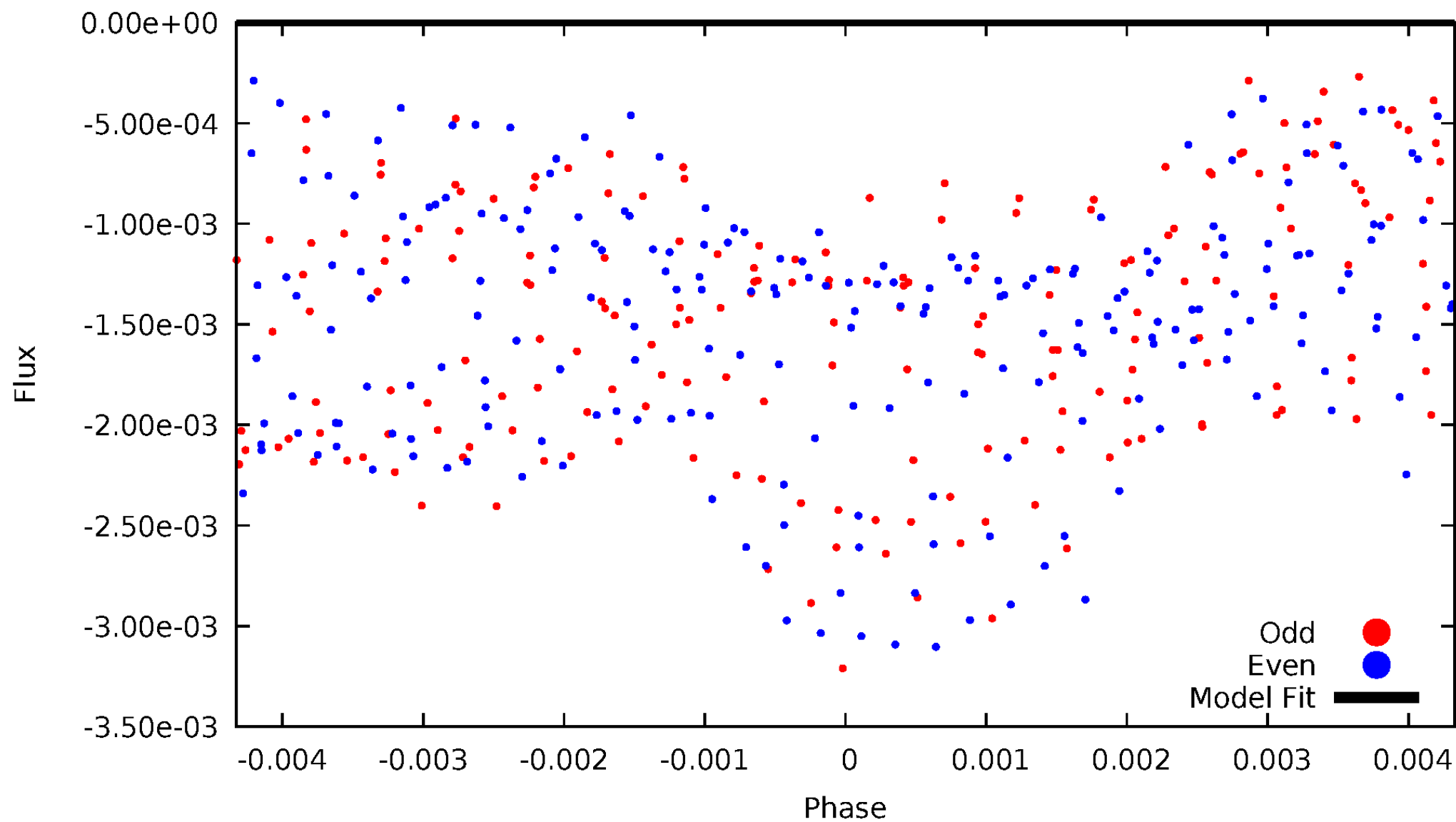


TCE 007133286-03



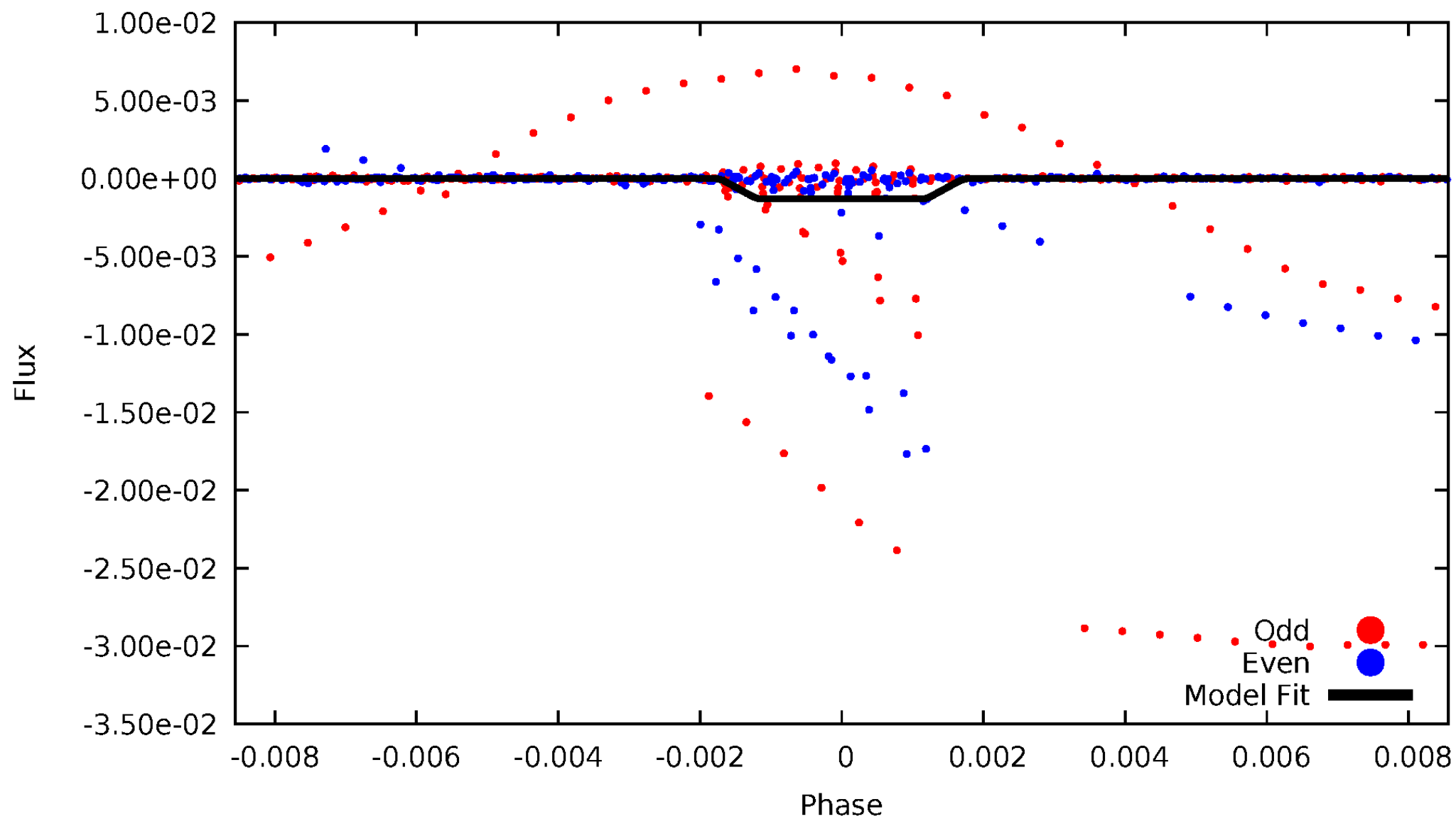
DV Odd/Even

TCE 007133286-03



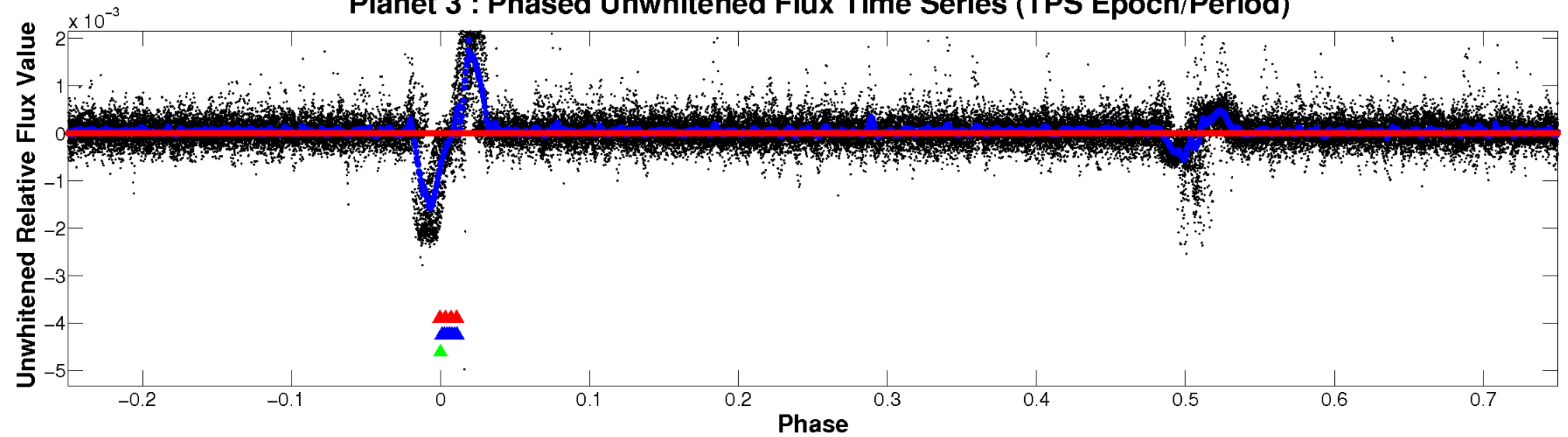
ALT Odd/Even

TCE 007133286-03

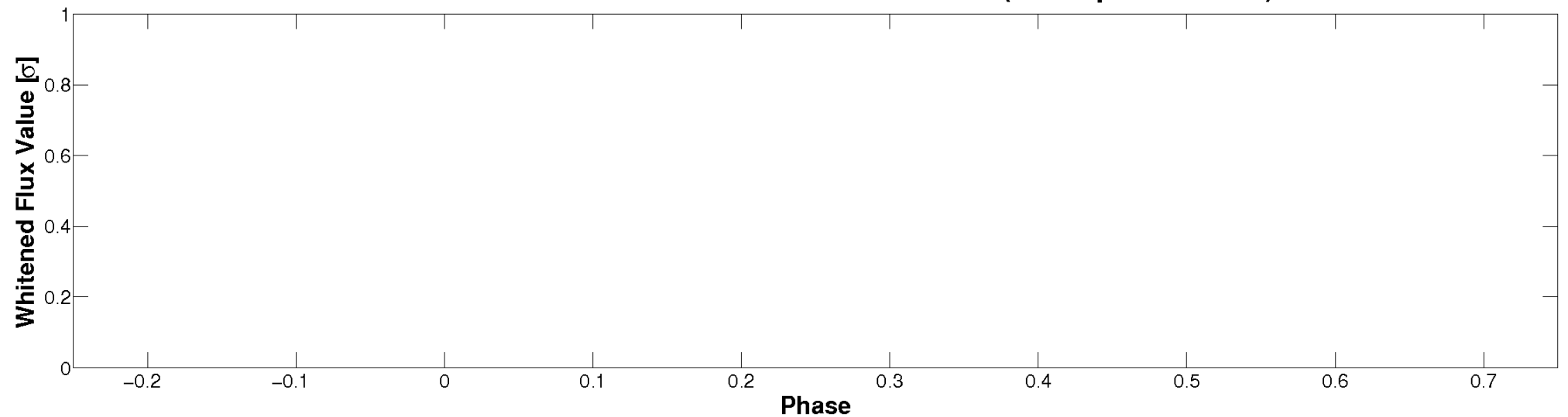


Non-Whitened Vs. Whitened Light Curve

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

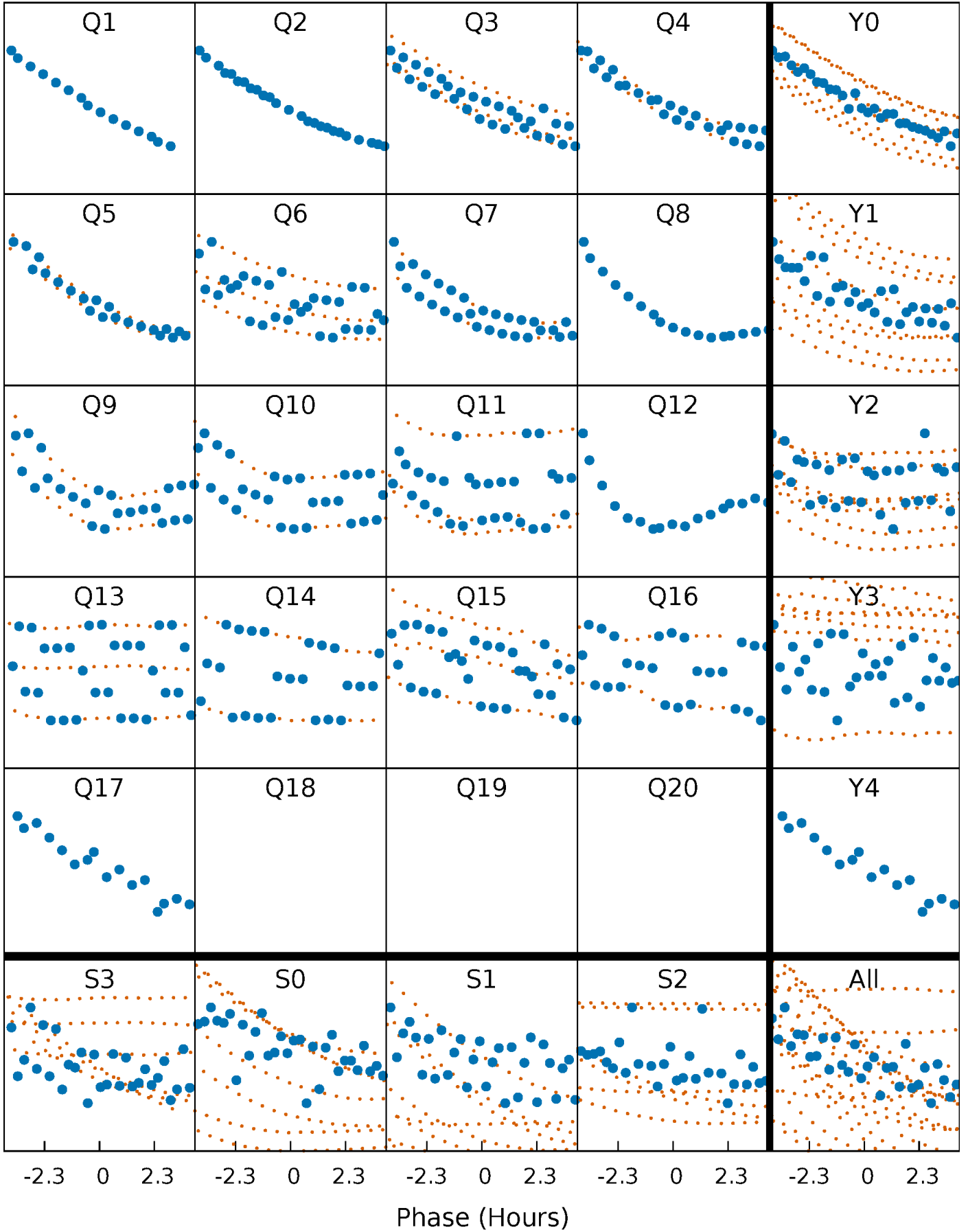


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



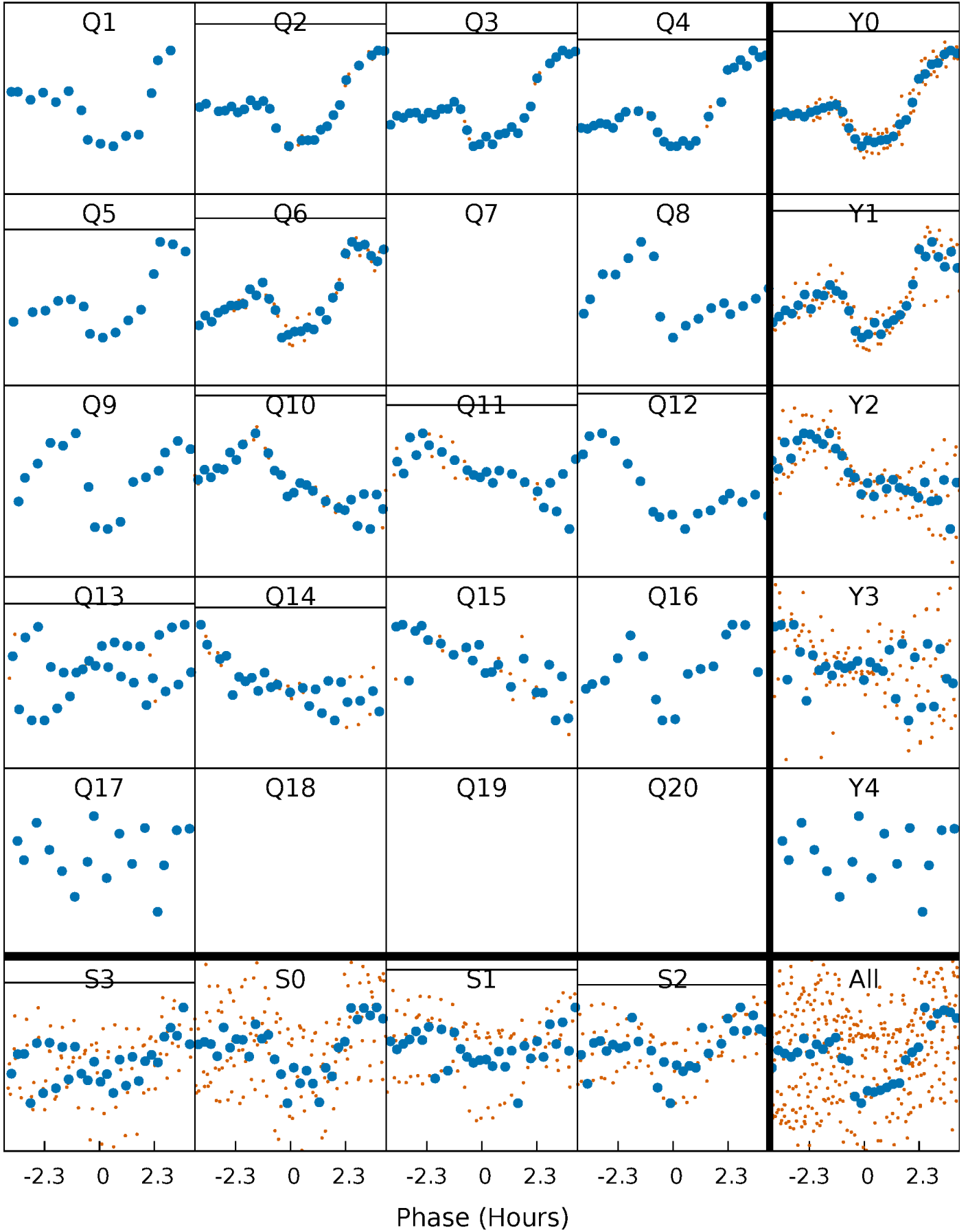
PDC Quarter-Phased Transit Curves

TCE 007133286-03 P= 38.523599 Days $T_0=155.129949$ (BKJD)



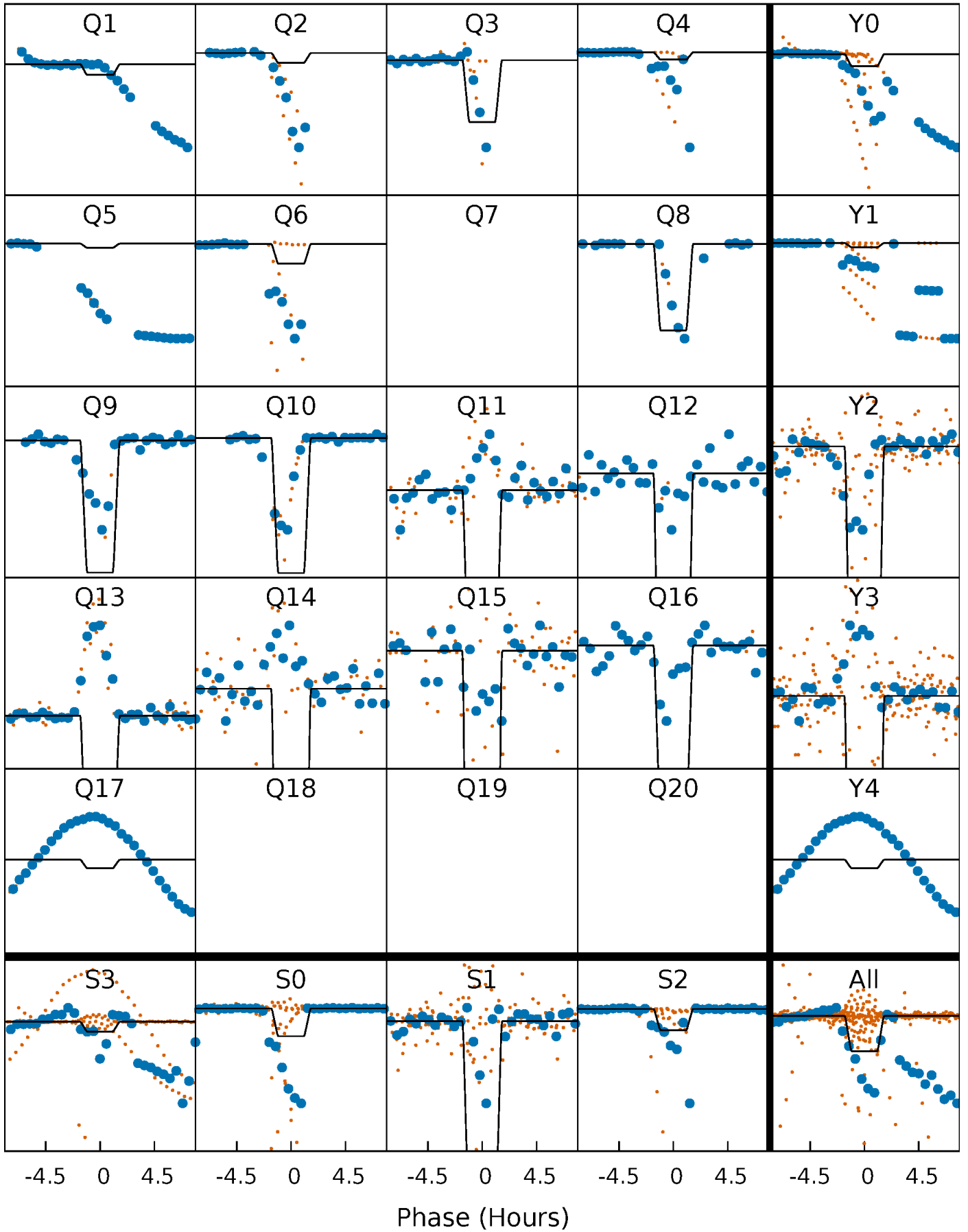
DV Quarter-Phased Transit Curves

TCE 007133286-03 P= 38.523599 Days $T_0=155.129949$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

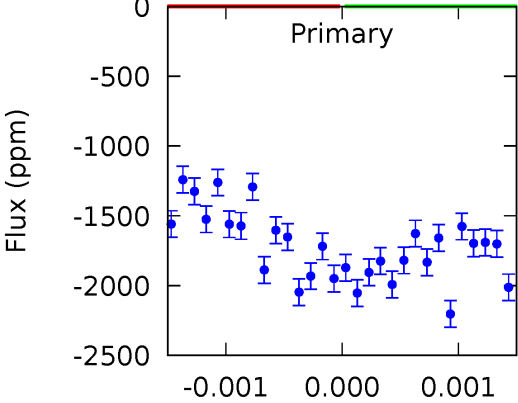
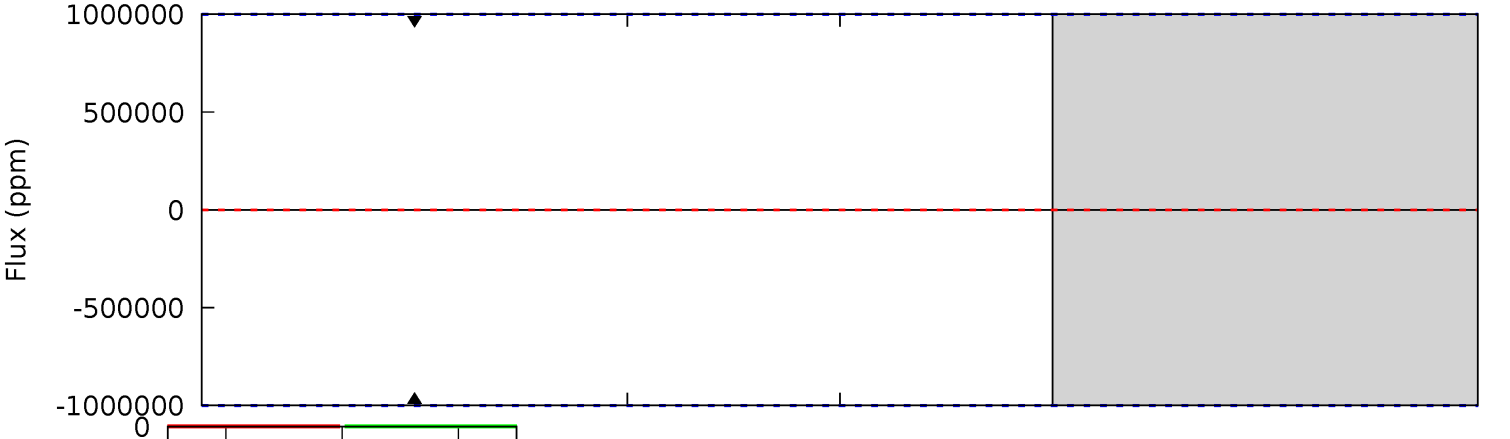
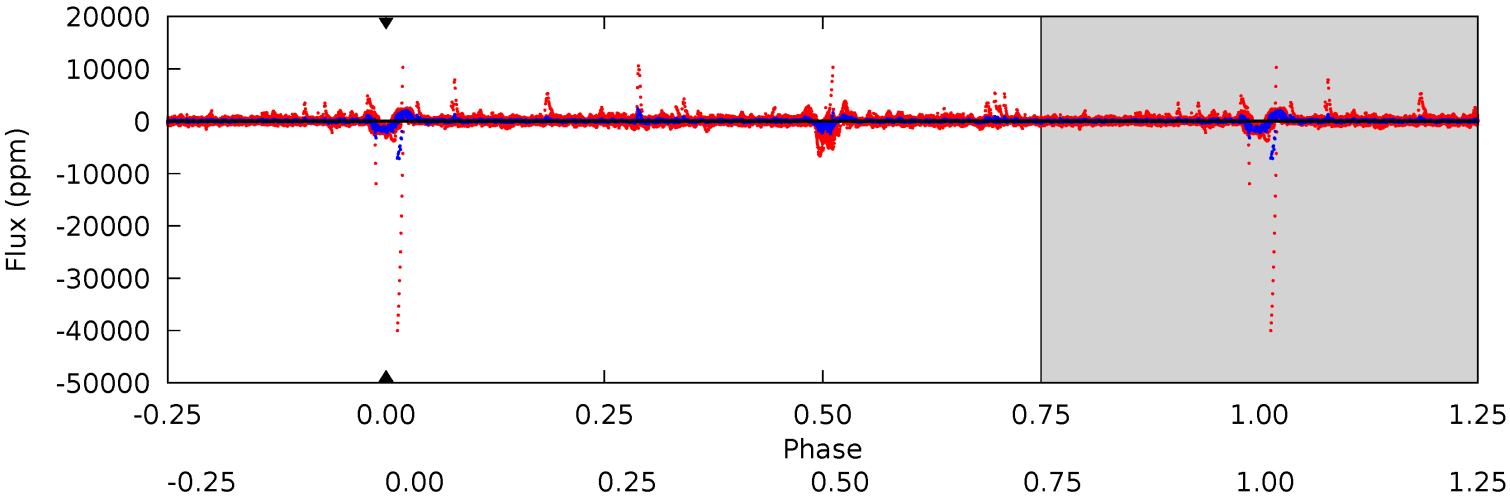
TCE 007133286-03 P= 38.523599 Days $T_0=155.149168$ (BKJD)



DV Model-Shift Uniqueness Test

007133286-03, P = 38.523599 Days, E = 116.606350 Days

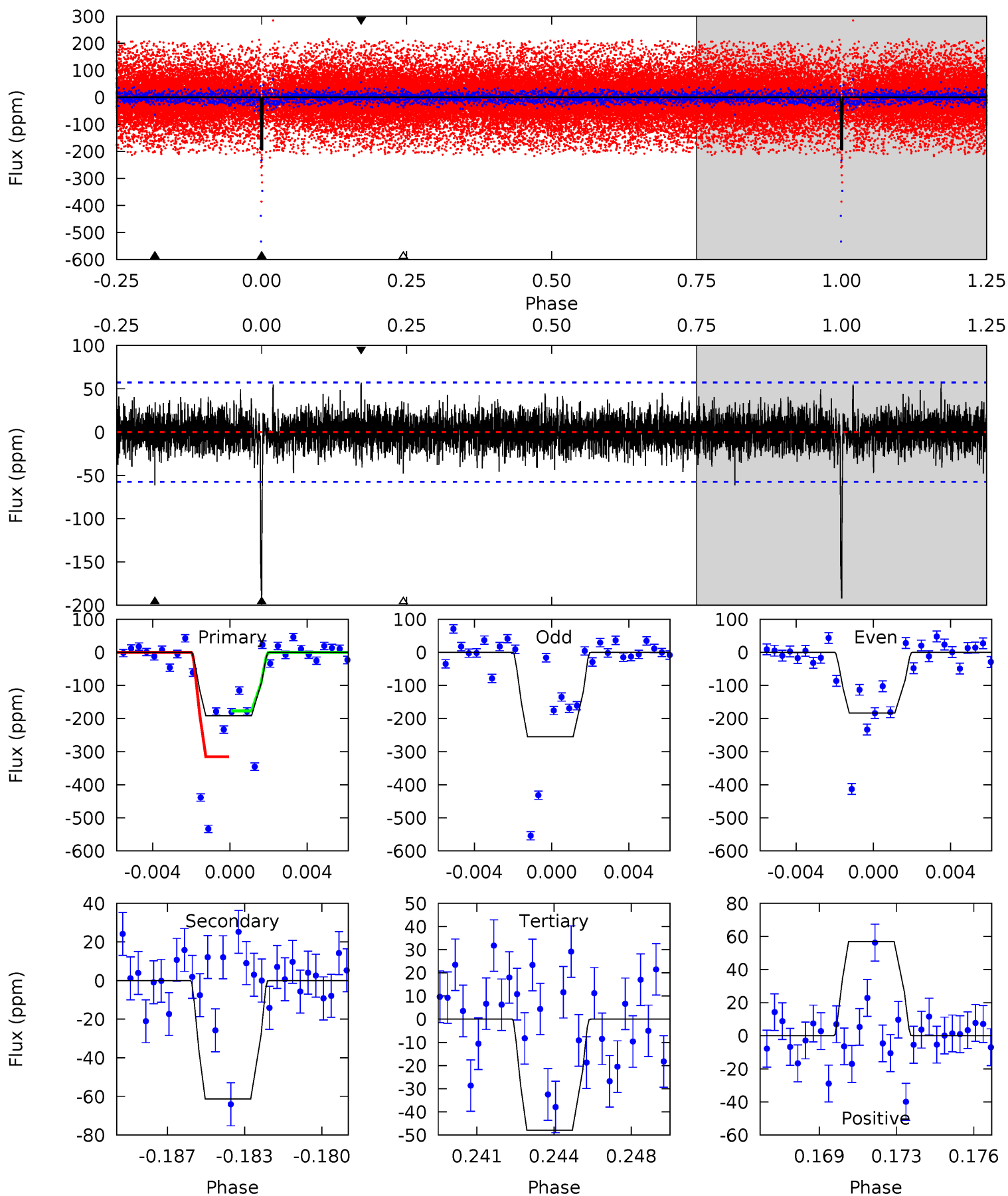
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007133286-03, P = 38.523599 Days, E = 116.625569 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	5.58	4.36	5.18	5.22	2.91	1.18	13.1	12.3	1.22	0.40	3.58	6.24	0.23	0



Stellar Parameters For KIC 007133286

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4374^{+153}_{-168}	$4.626^{+0.056}_{-0.024}$	$-0.220^{+0.300}_{-0.300}$	$0.635^{+0.045}_{-0.062}$	$0.621^{+0.068}_{-0.056}$	$3.422^{+0.858}_{-0.388}$
	+3%/-4%	+1%/-1%	+136%/-136%	+7%/-10%	+11%/-9%	+25%/-11%
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 007133286-03 / KOI 7581.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$8.77^{+6.14}_{-5.06}$	488^{+20}_{-21}	-3346^{+10849}_{-3384}	$-960.947^{+45949.945}_{-29666.408}$
Alt.	-61 ± 11	$5.10^{+6.29}_{-3.59}$	487^{+21}_{-21}	2264^{+834}_{-350}	48^{+495}_{-38}

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

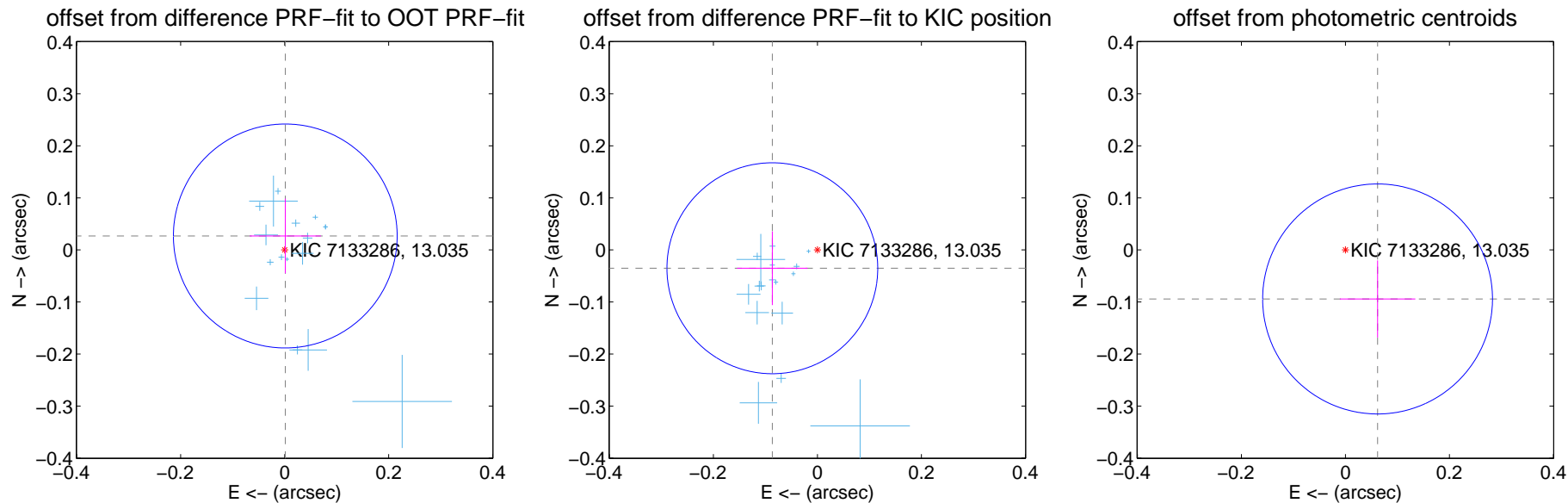
DV Centroid Data

Supplemental centroid analysis for 007133286-03. Kepler magnitude: 13.04. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

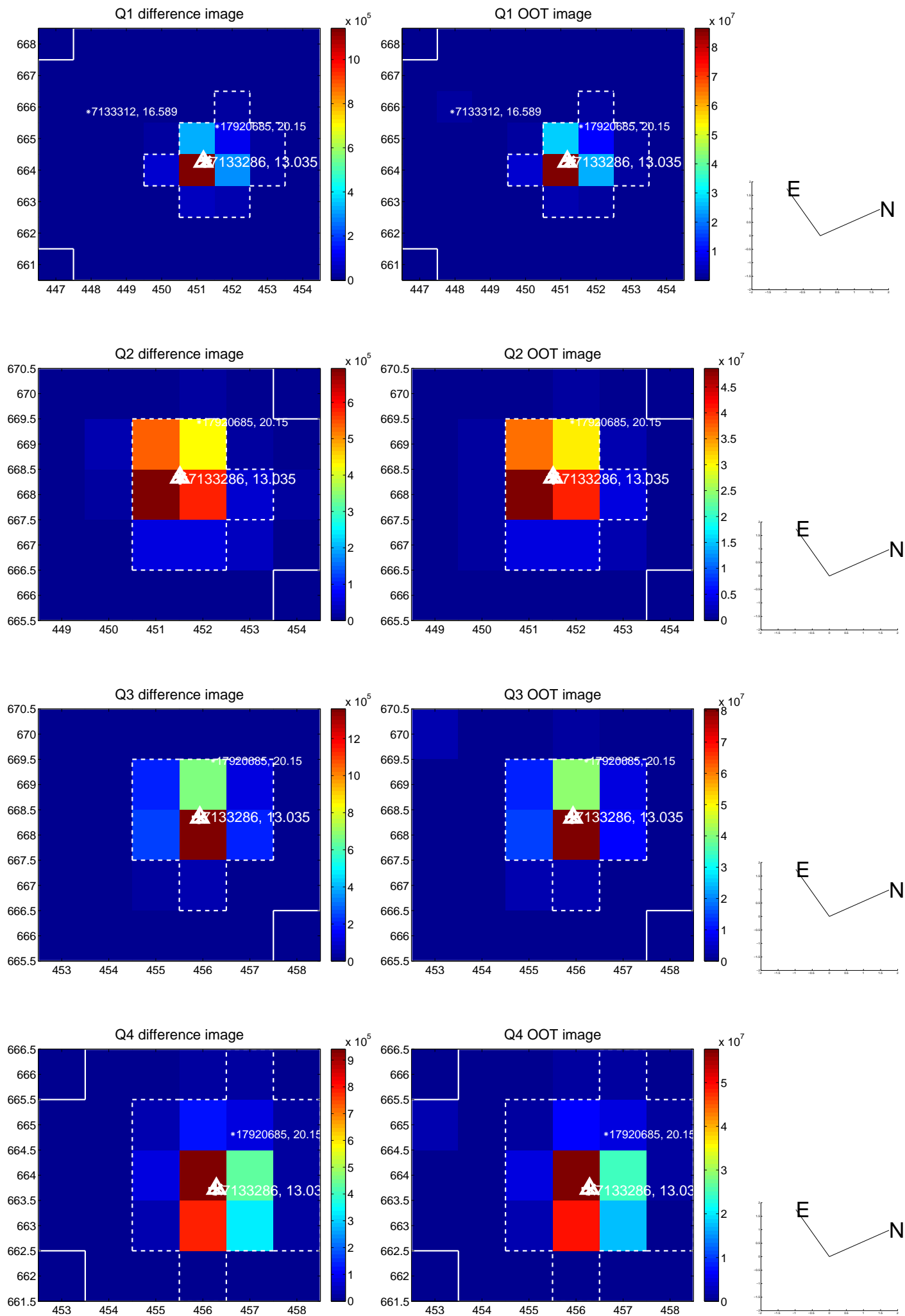
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.027 ± 0.072	0.37	-0.001 ± 0.068	0.027 ± 0.072
PRF-fit source offset from KIC position	0.094 ± 0.068	1.38	0.087 ± 0.068	-0.035 ± 0.071
photometric centroid source offset	0.11 ± 0.07	1.53	-0.06 ± 0.07	-0.09 ± 0.07

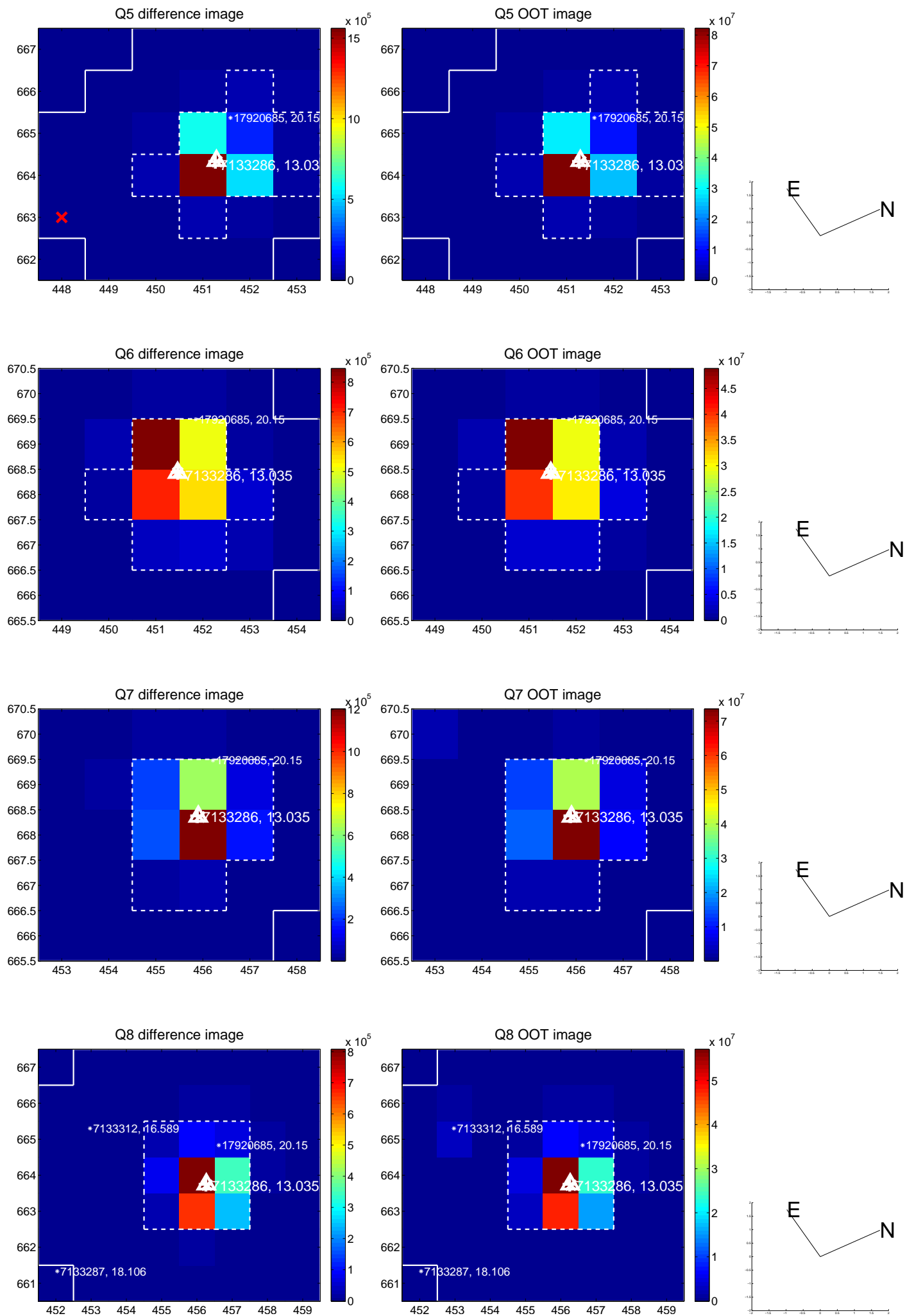


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

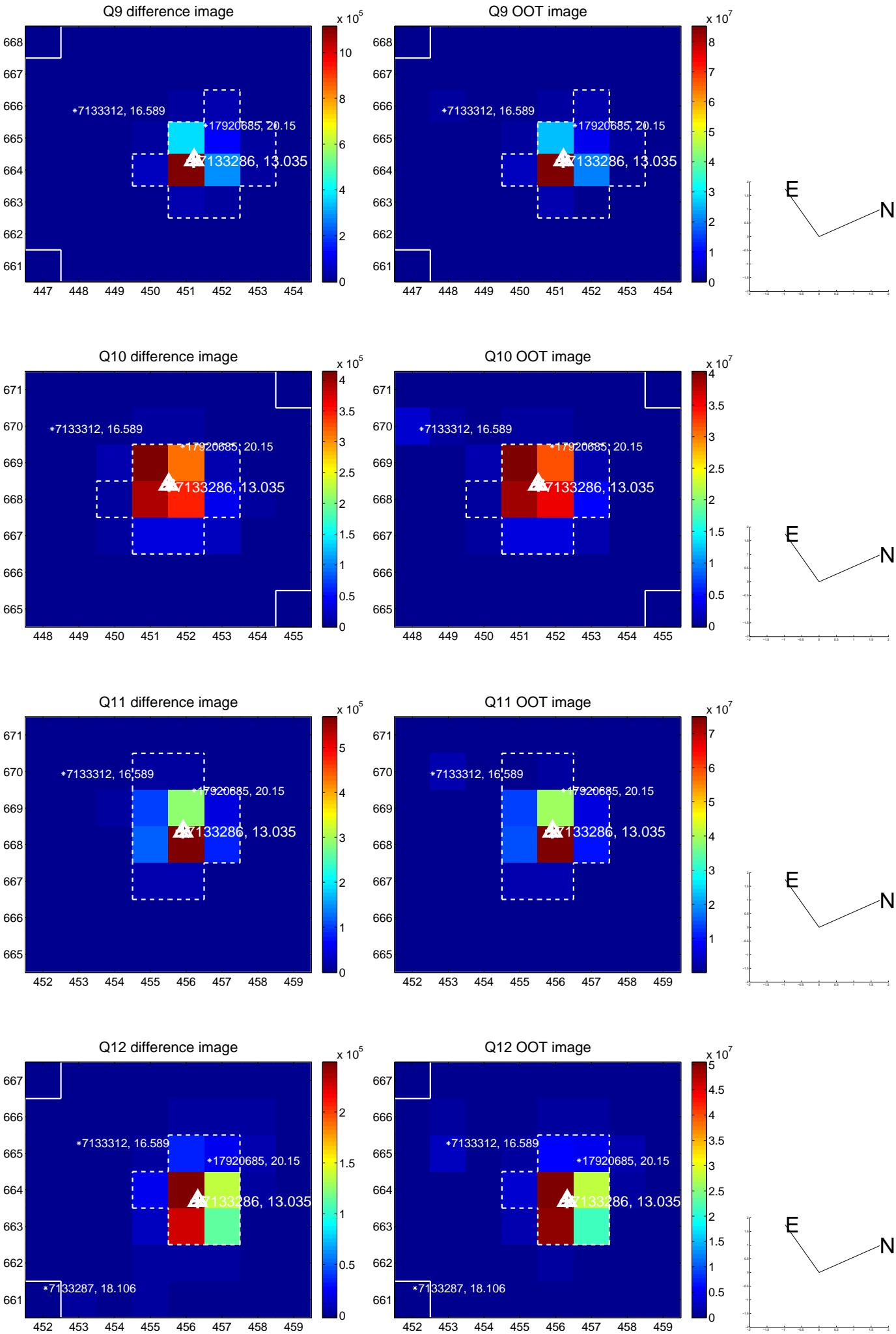
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



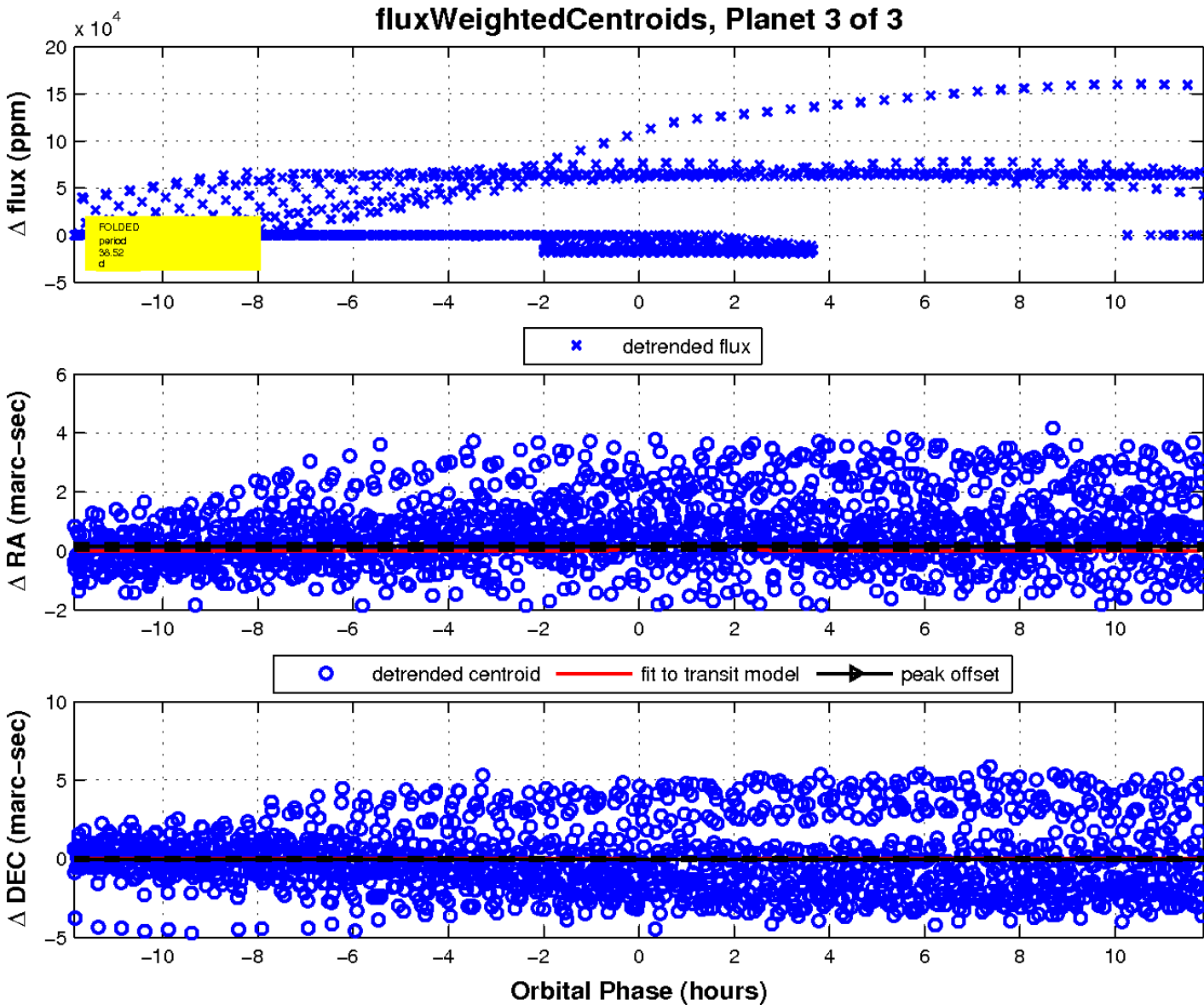
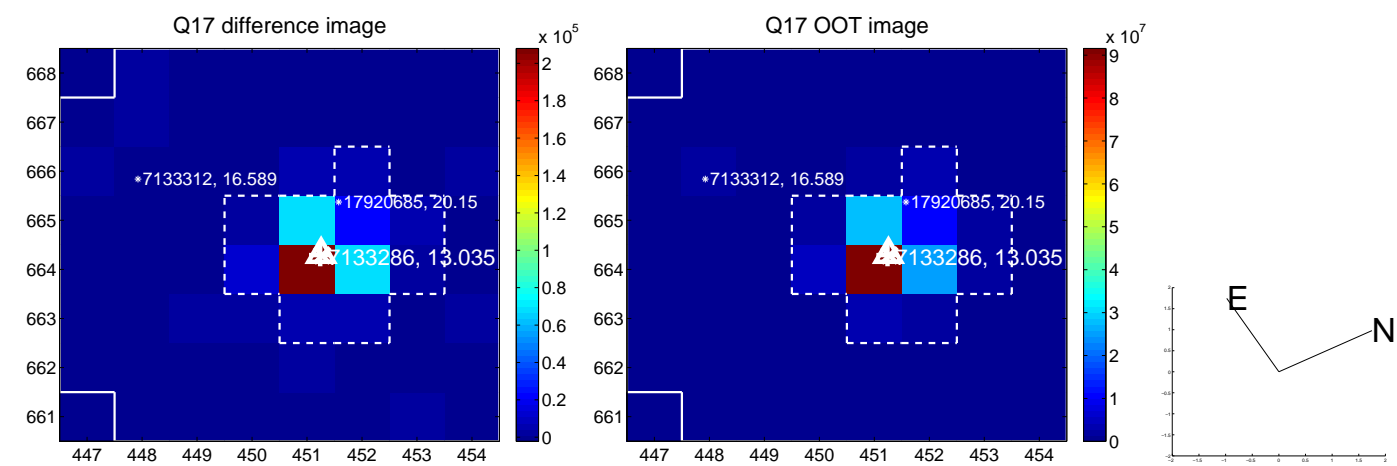
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

