

KIC 005113053

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})
005113053-01	OBS	3571.01	1.592556	131.698494	371339.8	2.500	9728.6	-1.0	1.28	6516	69.78	3569.49
005113053-02	OBS	No	4.242180	135.560476	4279.4	3.065	714.7	63.1	1.28	6516	15.18	966.67
005113053-03	OBS	No	4.246318	135.258569	38.9	9.068	594.2	0.5	1.28	6516	0.80	965.42
005113053-04	OBS	No	1.592630	132.726791	10846.9	5.000	180.8	-1.0	1.28	6516	13.42	3569.27
005113053-05	OBS	No	44.180804	157.814125	22831.4	1.500	73.4	-1.0	1.28	6516	19.56	42.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005113053-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005113053-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT
005113053-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005113053-04	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
005113053-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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 005113053-01

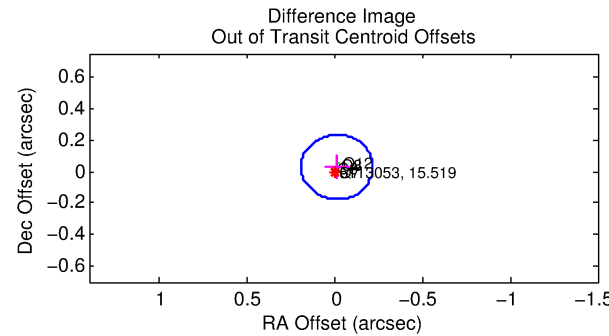
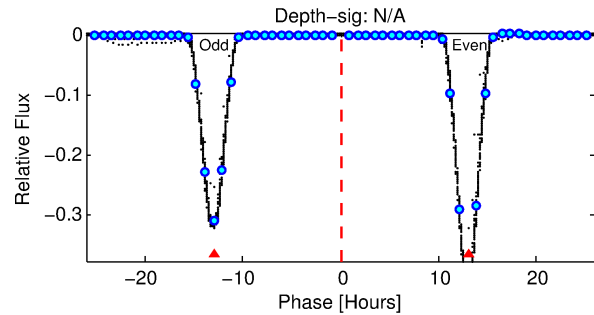
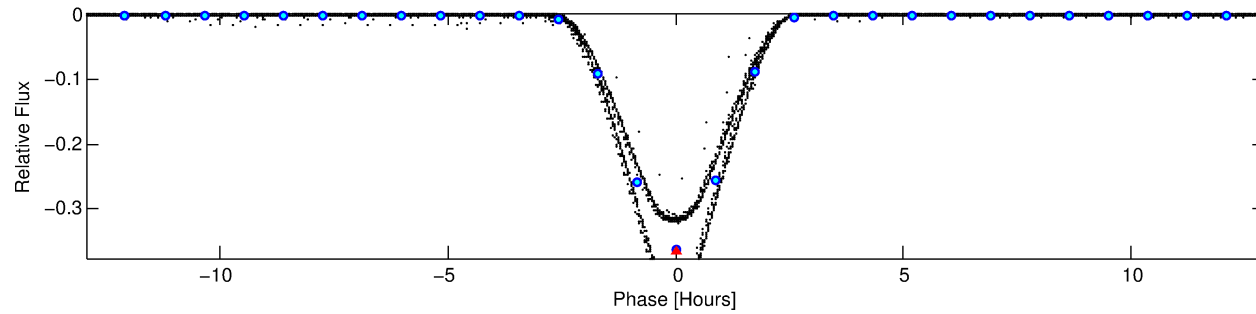
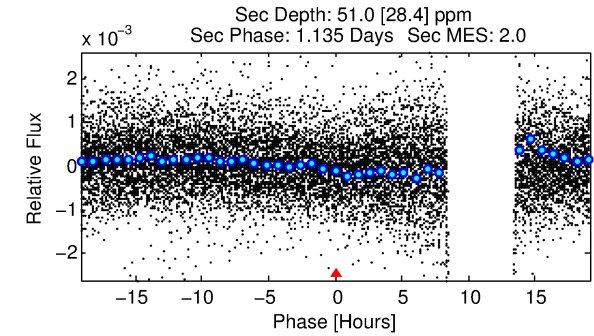
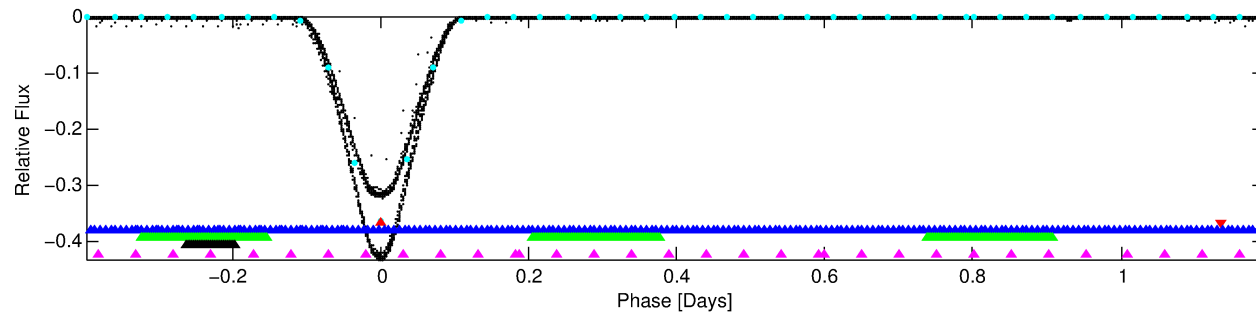
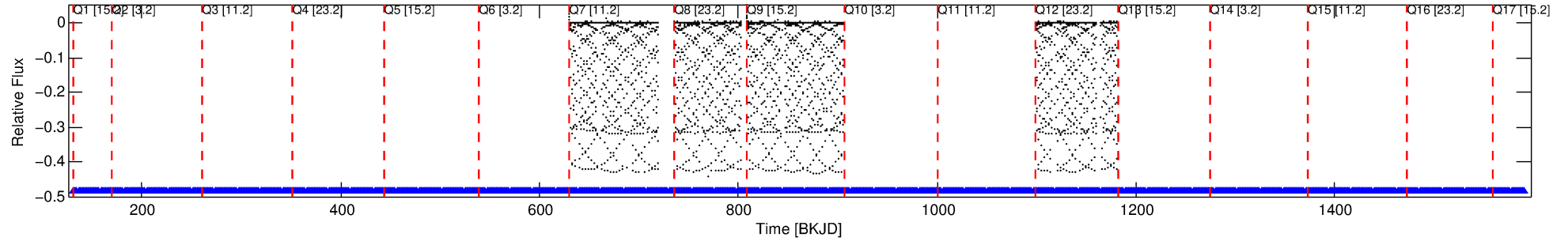
No Significant Match Found

DV One-Page Summary

KIC: 5113053 Candidate: 1 of 5 Period: 1.593 d

KOI: K03571 Corr: No Ephemeris Match

Kp: 15.52 R*: 1.28 Rs Teff: 6516.0 K Logg: 4.25 Fe/H: -0.400



TPS TCE Results:

Period = 1.59256 d
Epoch = 131.6985 BKJD

DV fit results are unavailable

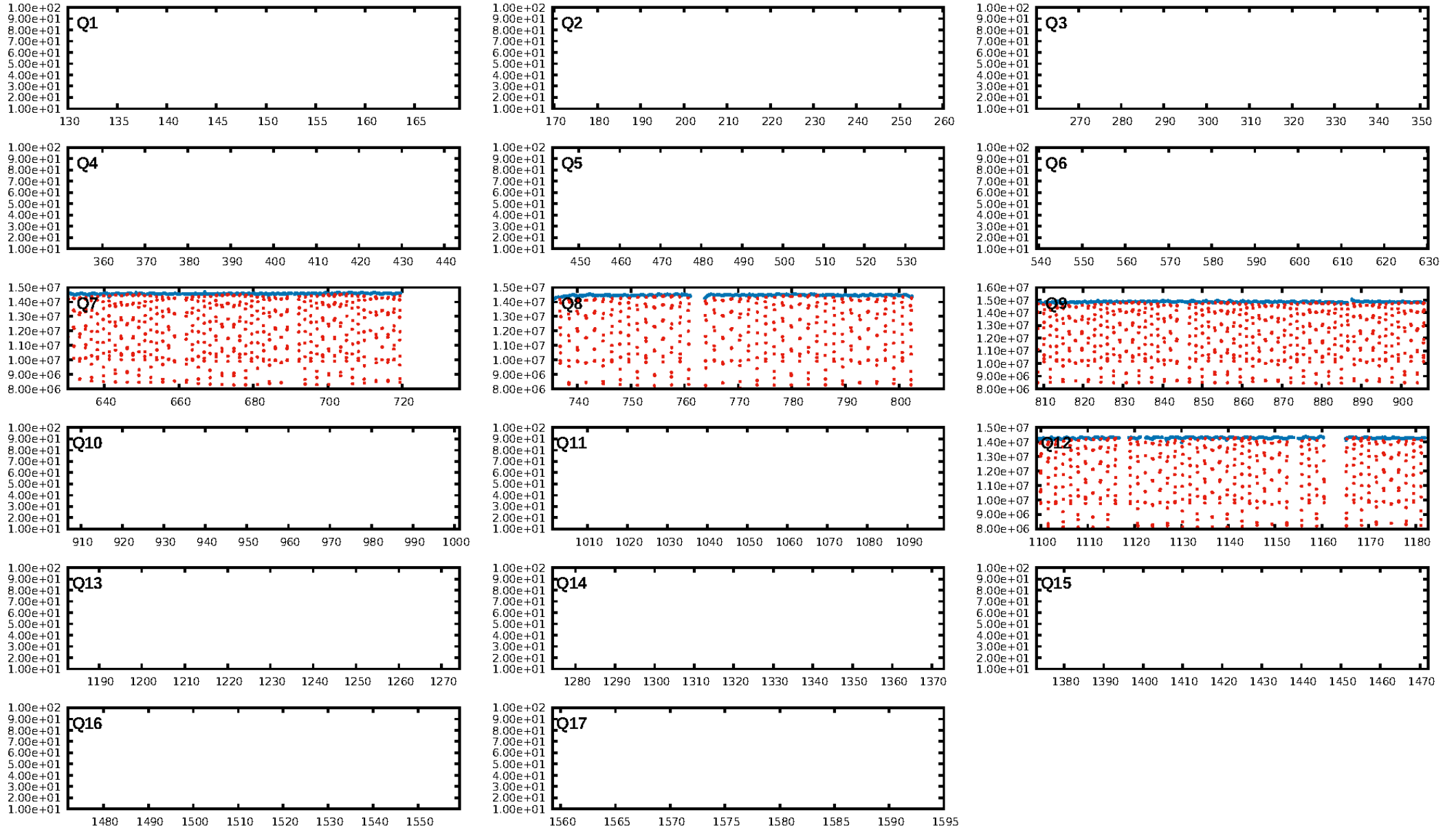
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [205/205]
GhostDiagnostic-chr: 1.065
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.032 arcsec [0.47σ]
KicOffset-rm: 0.154 arcsec [2.25σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 0.00 [0/4]

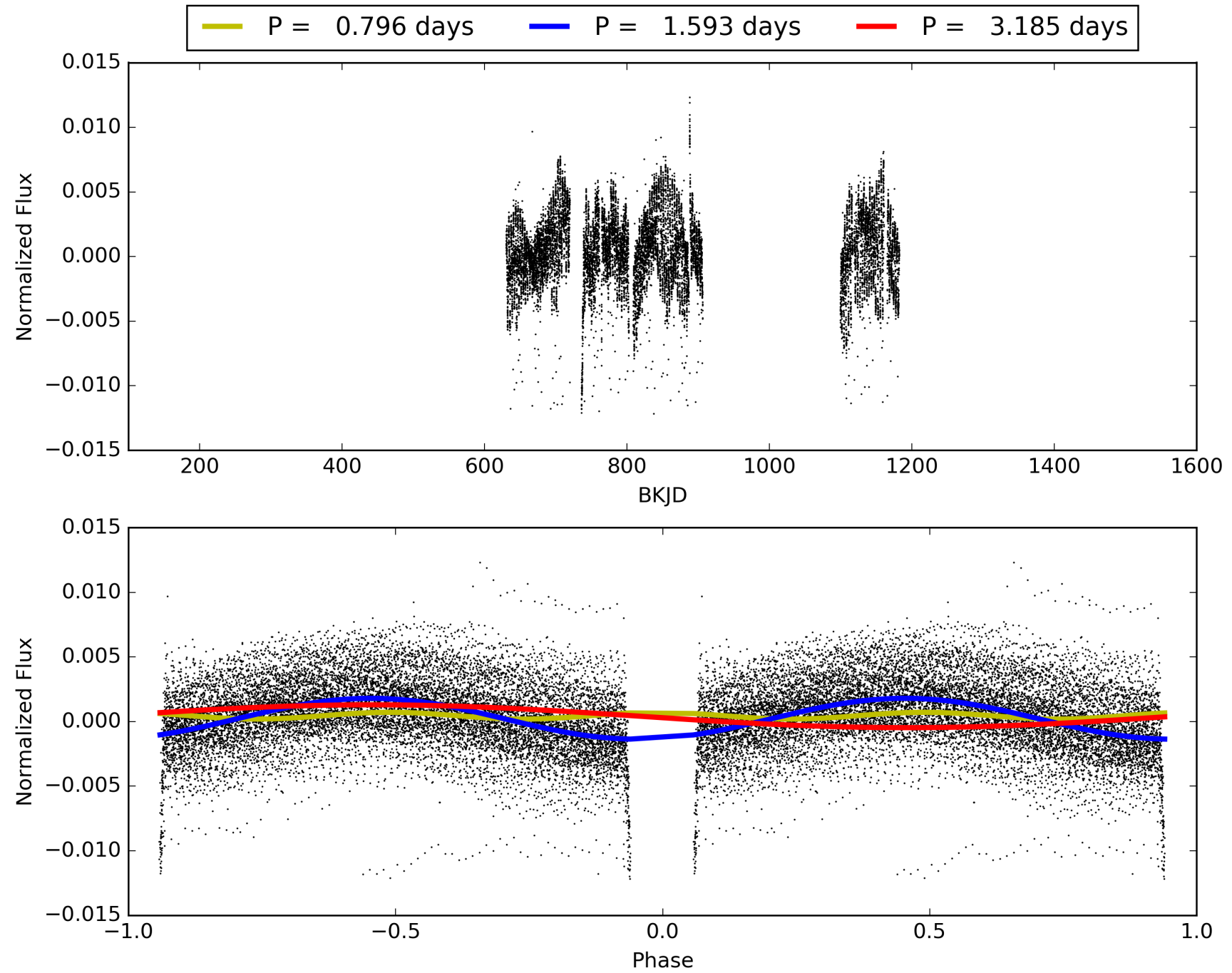
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:02:31 Z

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

TCE 005113053-01, PDC Light Curves

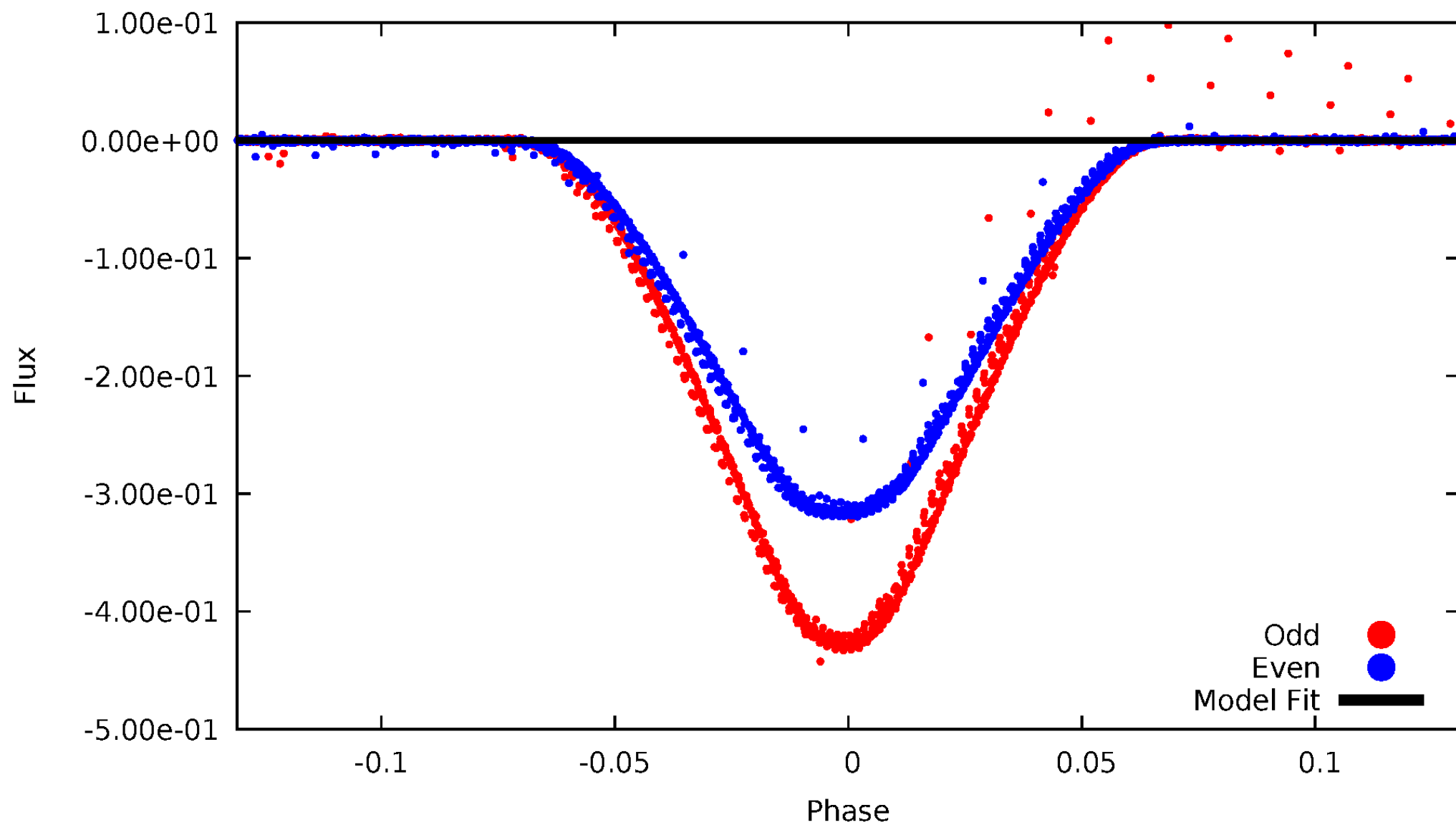


TCE 005113053-01



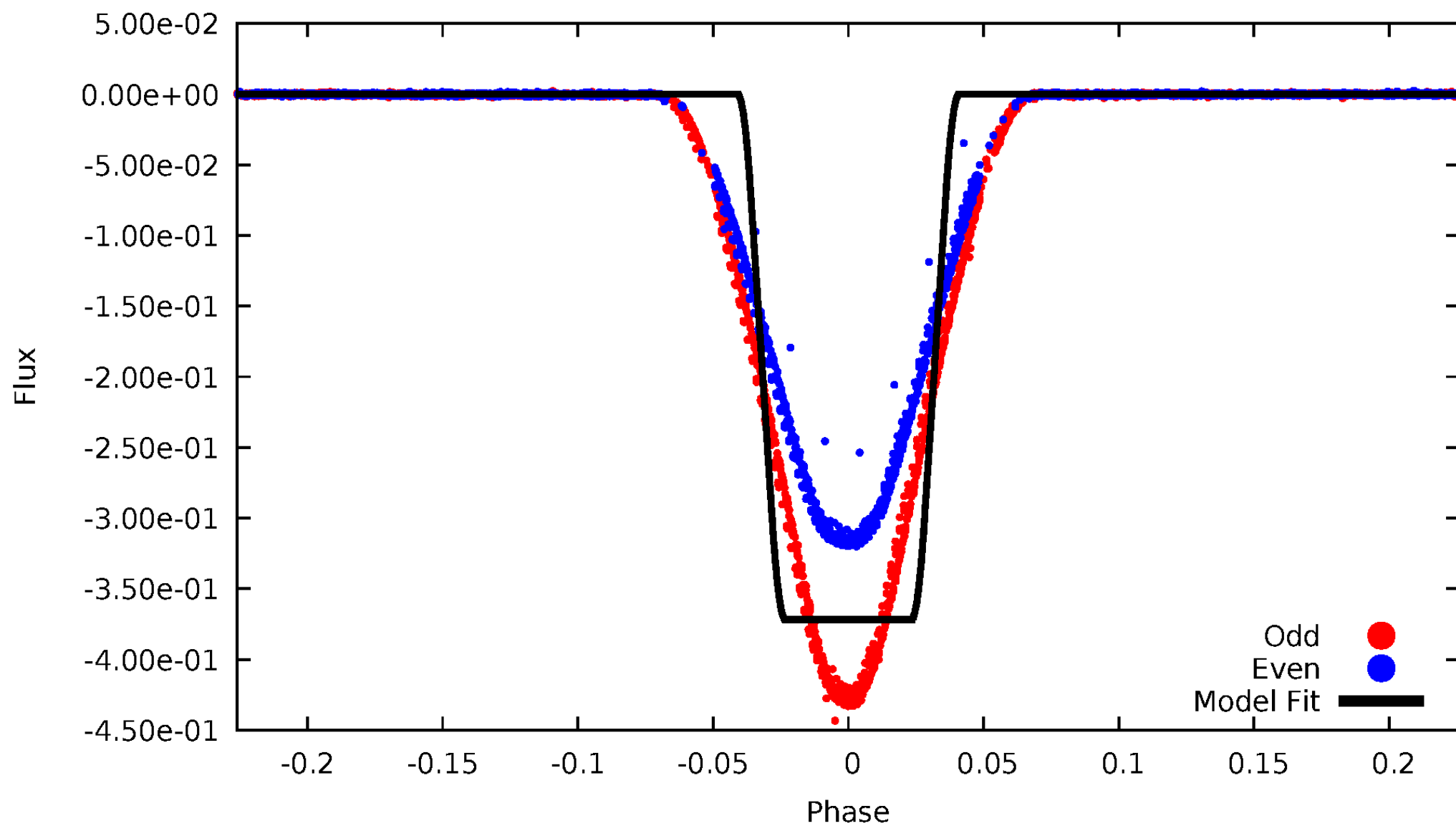
DV Odd/Even

TCE 005113053-01



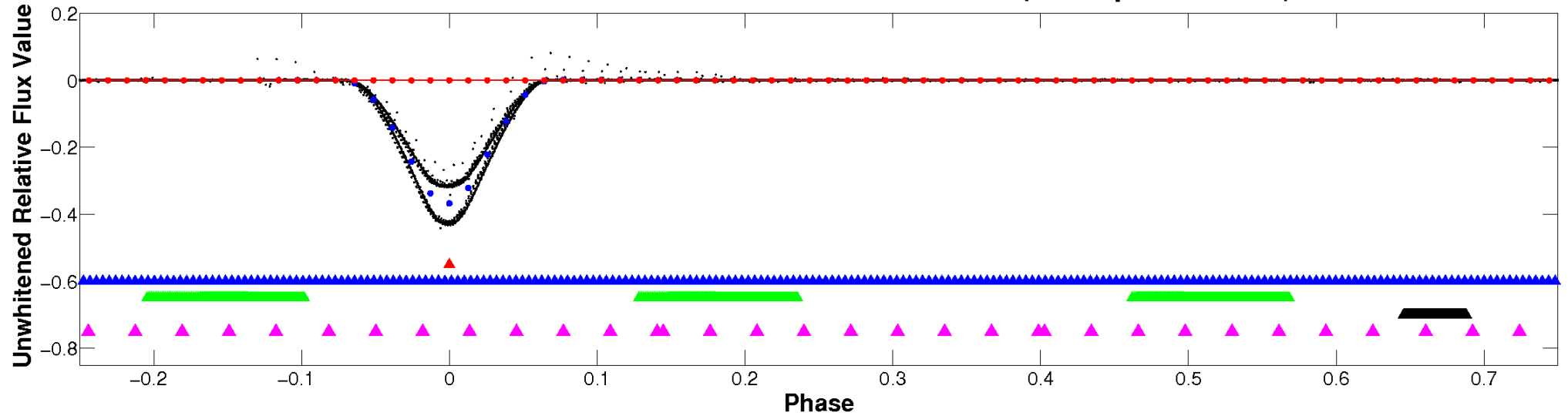
ALT Odd/Even

TCE 005113053-01



Non-Whitened Vs. Whitened Light Curve

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

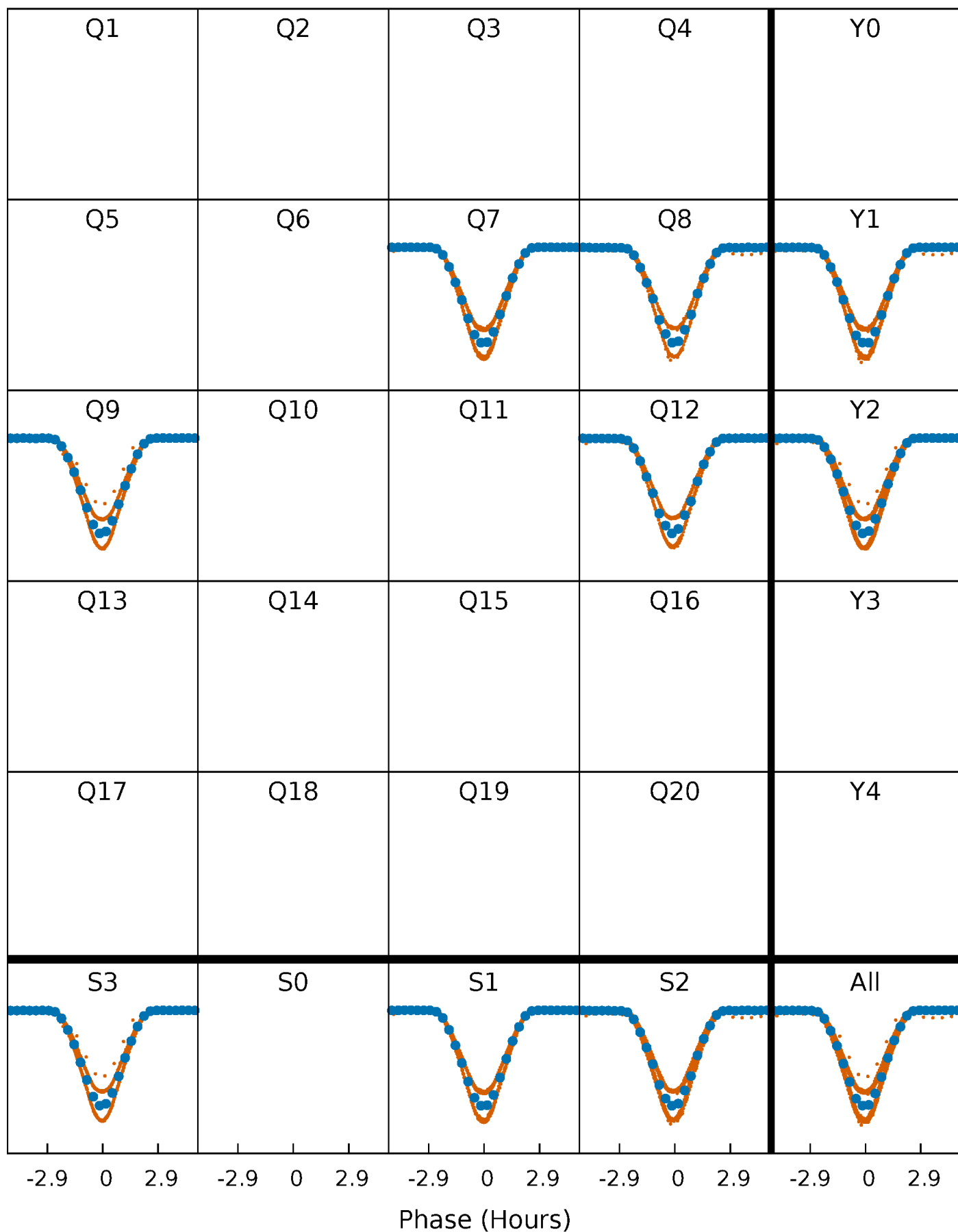


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



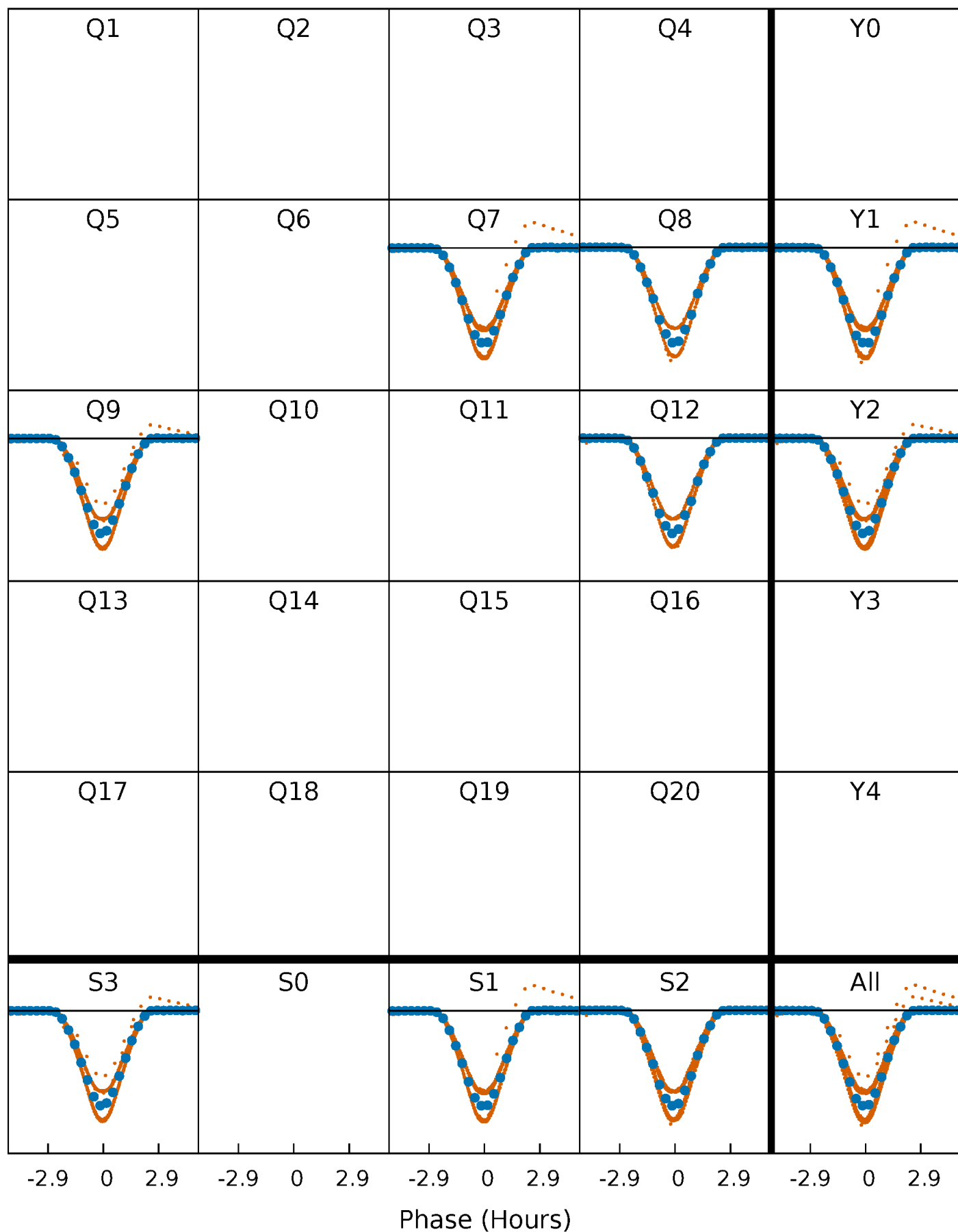
PDC Quarter-Phased Transit Curves

TCE 005113053-01 P= 1.592556 Days $T_0=131.698494$ (BKJD)



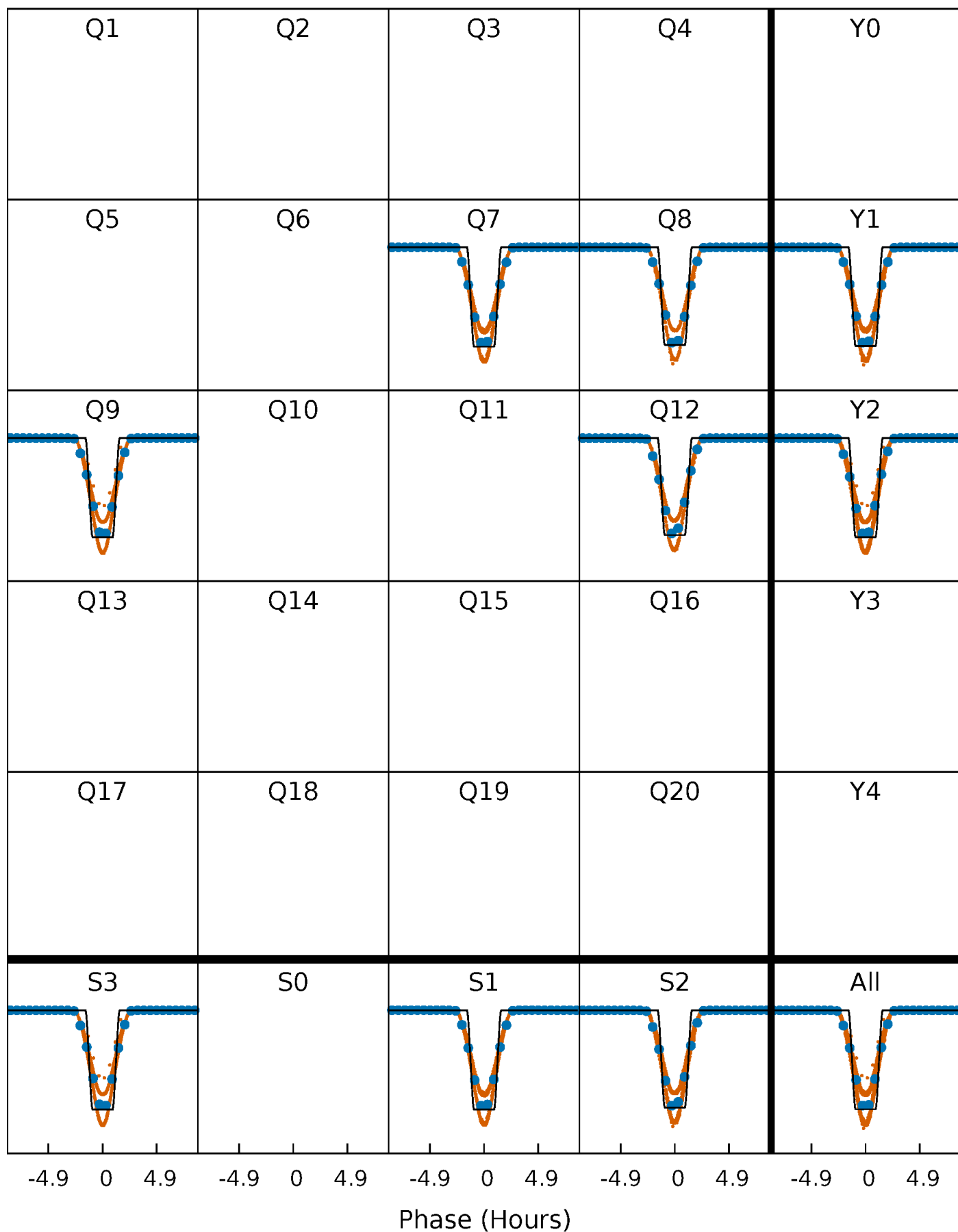
DV Quarter-Phased Transit Curves

TCE 005113053-01 P= 1.592556 Days $T_0=131.698494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

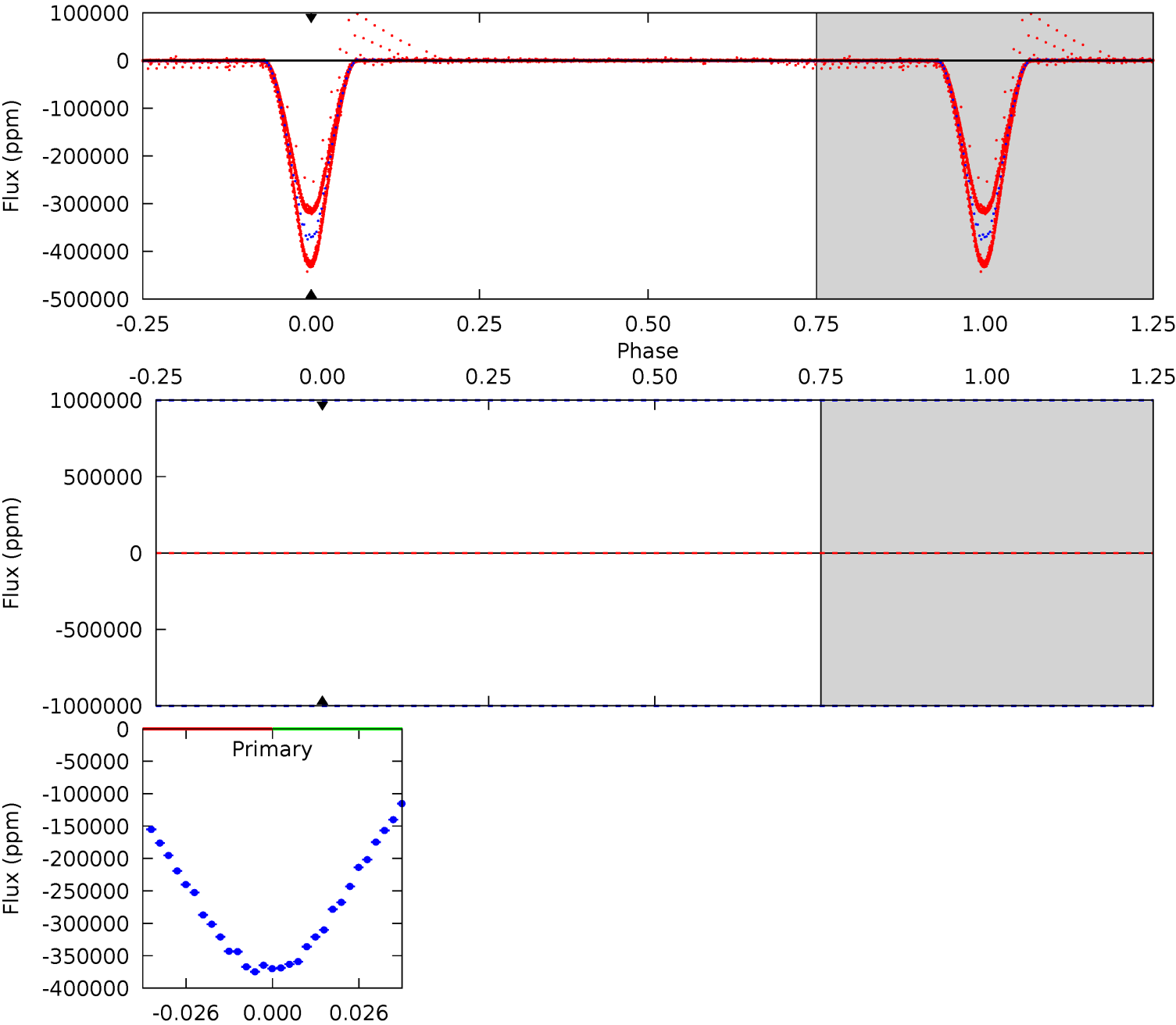
TCE 005113053-01 P= 1.592556 Days $T_0=131.696769$ (BKJD)



DV Model-Shift Uniqueness Test

005113053-01, P = 1.592556 Days, E = 131.698494 Days

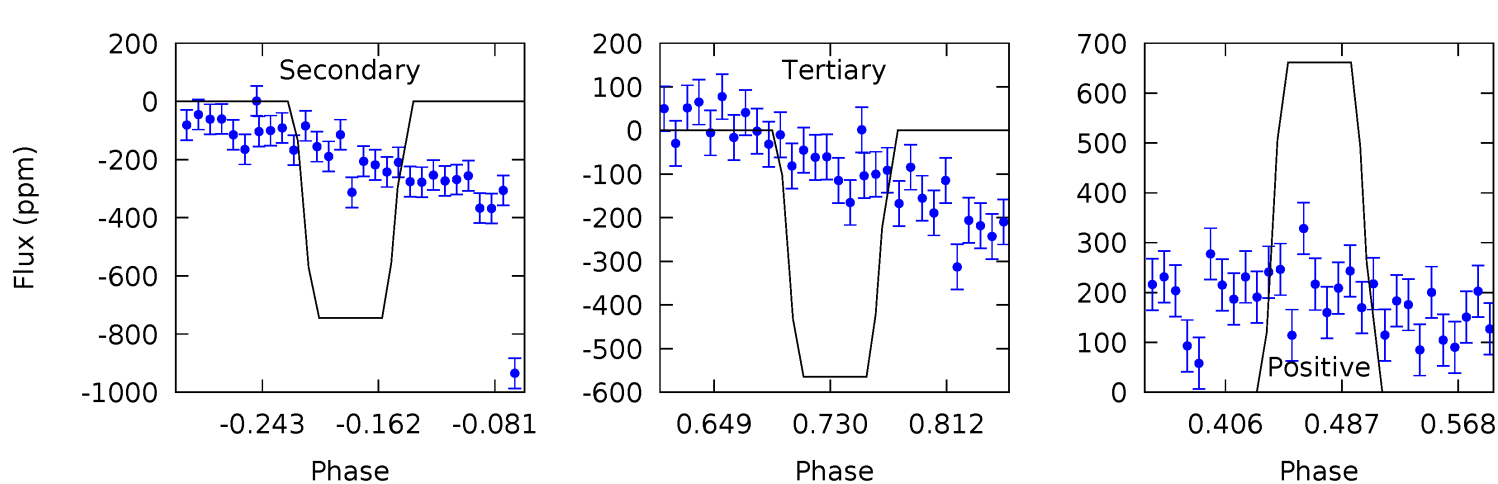
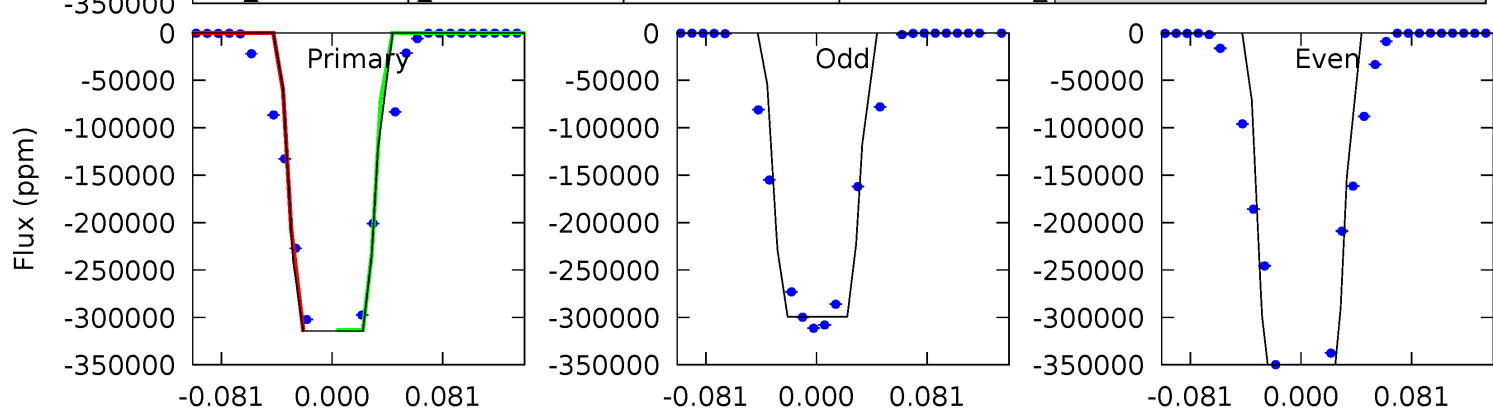
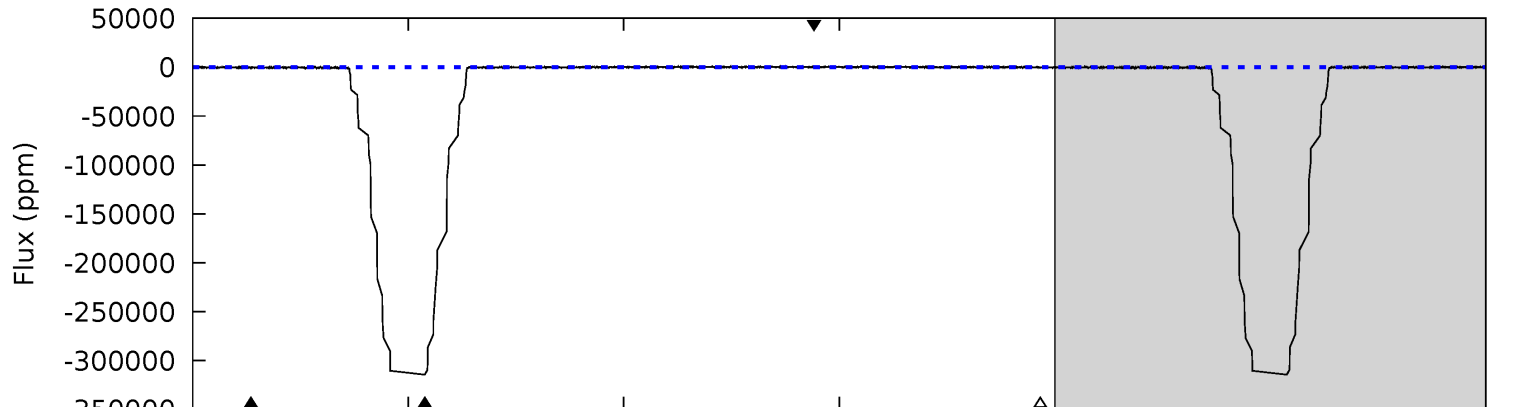
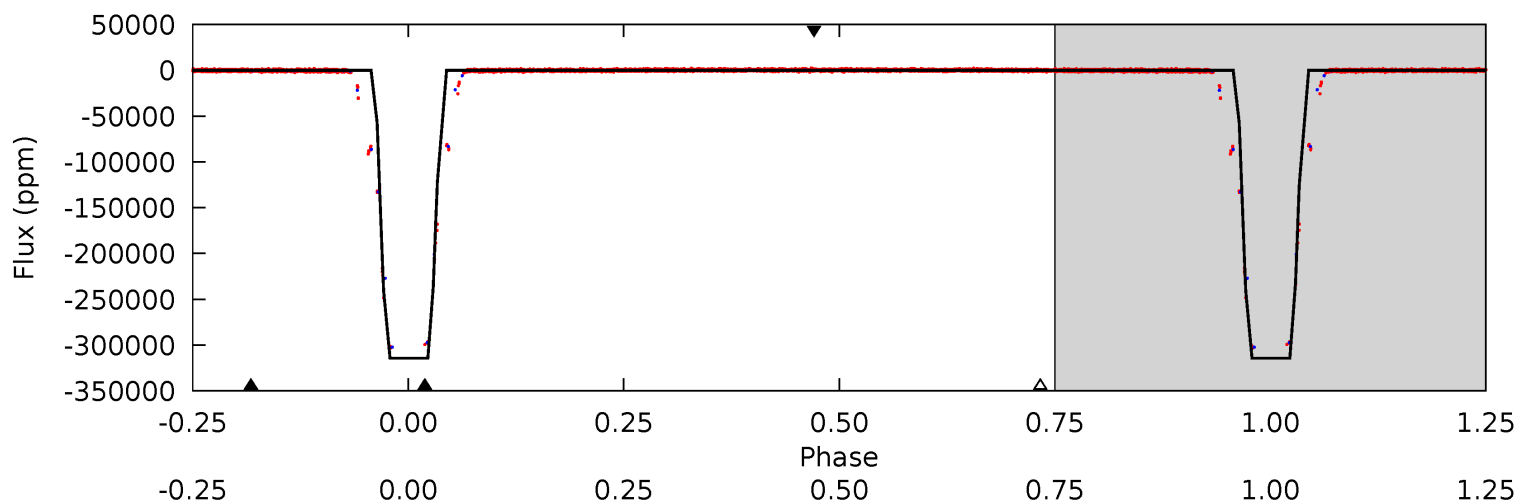
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005113053-01, P = 1.592556 Days, E = 131.696769 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2676	6.34	4.81	5.63	4.61	1.74	3.60	2671	2671	1.53	0.71	1085	0.94	0.00	0



Stellar Parameters For KIC 005113053

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6516^{+181}_{-227}	$4.249^{+0.175}_{-0.175}$	$-0.400^{+0.250}_{-0.300}$	$1.279^{+0.347}_{-0.252}$	$1.055^{+0.175}_{-0.131}$	$0.711^{+0.597}_{-0.321}$
	+3%/-3%	+4%/-4%	+62%/-75%	+27%/-20%	+17%/-12%	+84%/-45%
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 005113053-01 / KOI 3571.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$70.22^{+16.85}_{-16.45}$	2747^{+186}_{-188}	2229^{+3120}_{-7405}	$0.343^{+9.198}_{-8.507}$
Alt.	-745 ± 117	$84.29^{+20.28}_{-16.21}$	2756^{+200}_{-184}	-2879^{+126}_{-134}	$0.042^{+0.023}_{-0.014}$

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

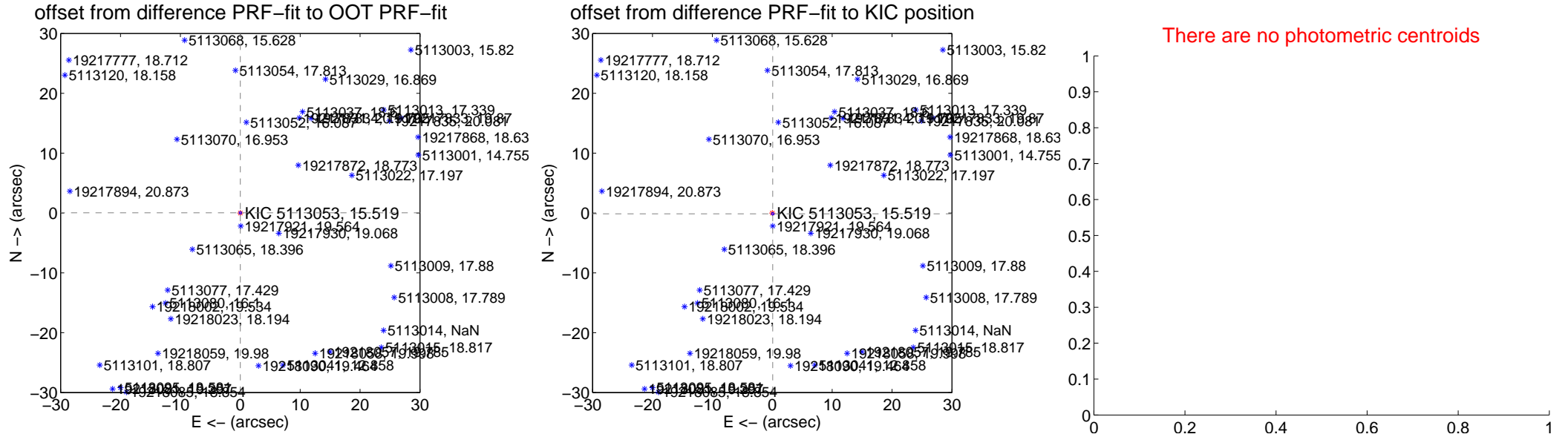
DV Centroid Data

Supplemental centroid analysis for 005113053-01. Kepler magnitude: 15.52. Transit SNR -1.00

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.032 ± 0.068	0.47	-0.012 ± 0.067	0.029 ± 0.068
PRF-fit source offset from KIC position	0.154 ± 0.068	2.25	-0.081 ± 0.068	-0.131 ± 0.069
photometric centroid source offset	—	—	—	—

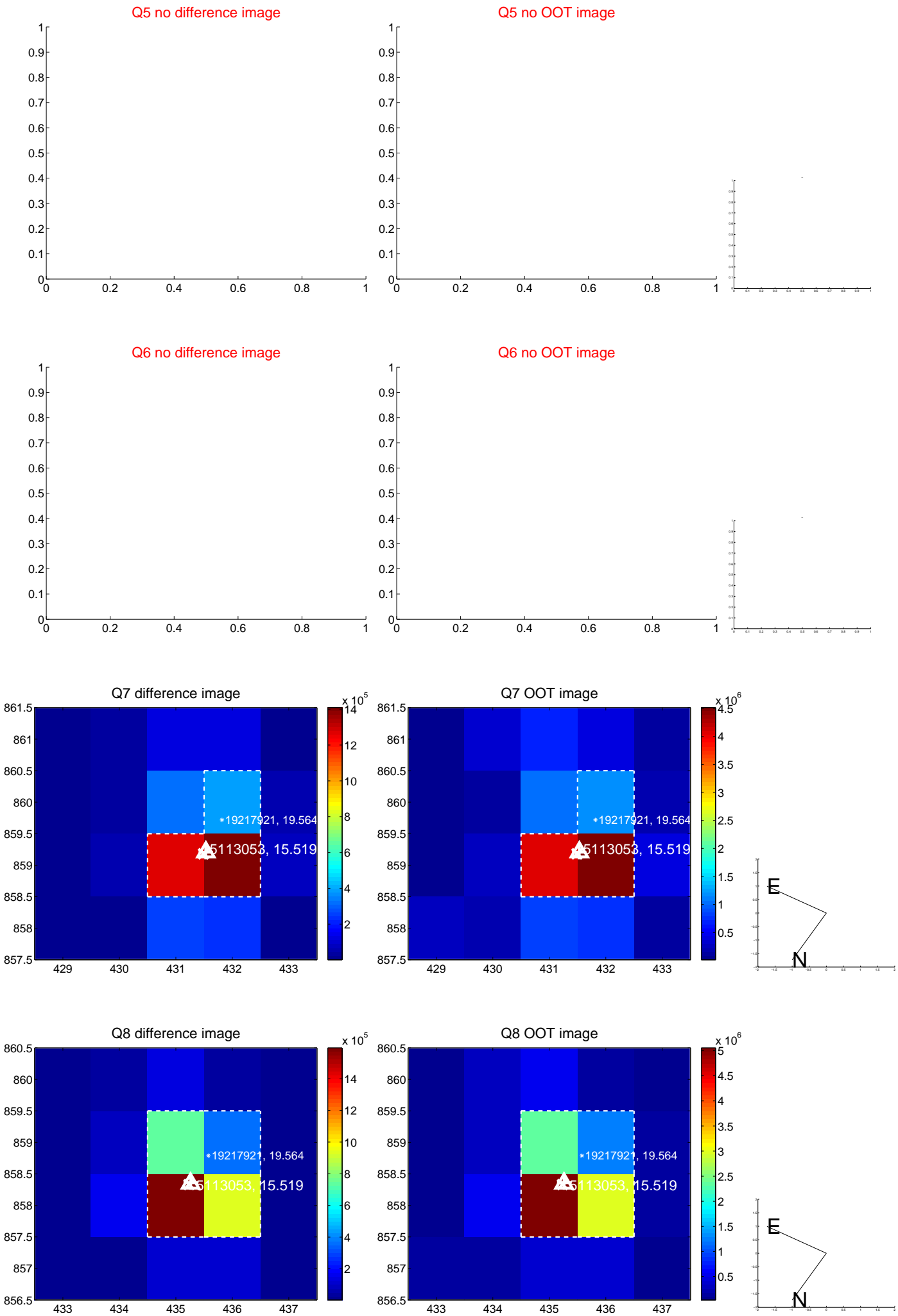


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

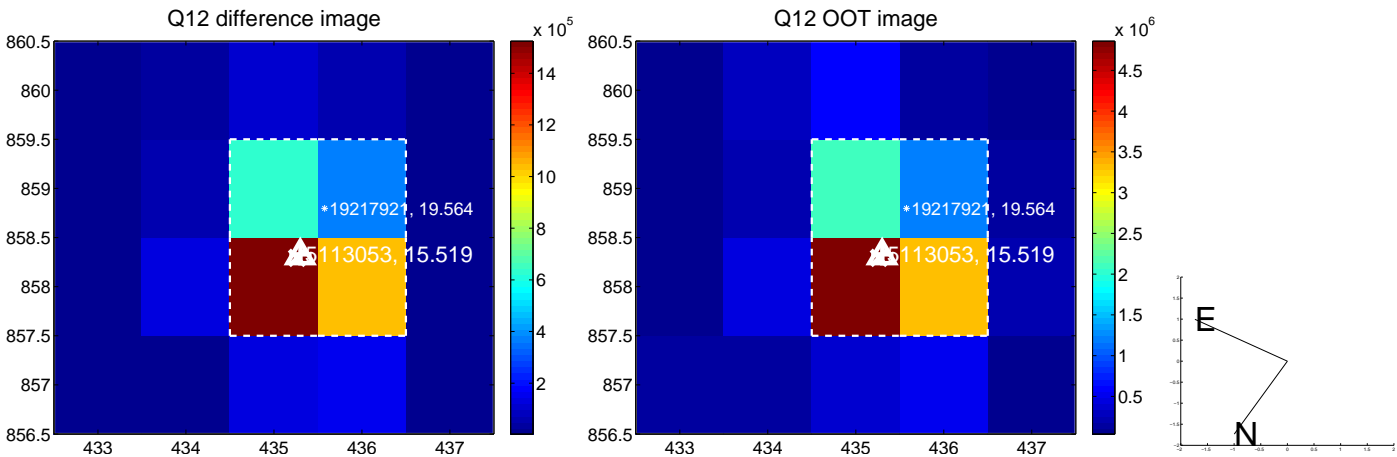
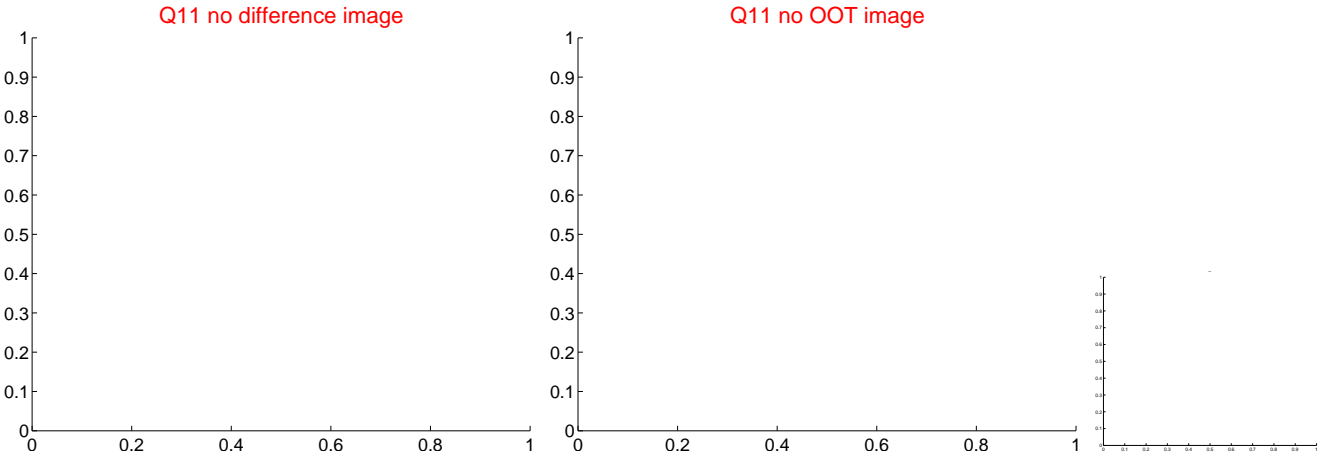
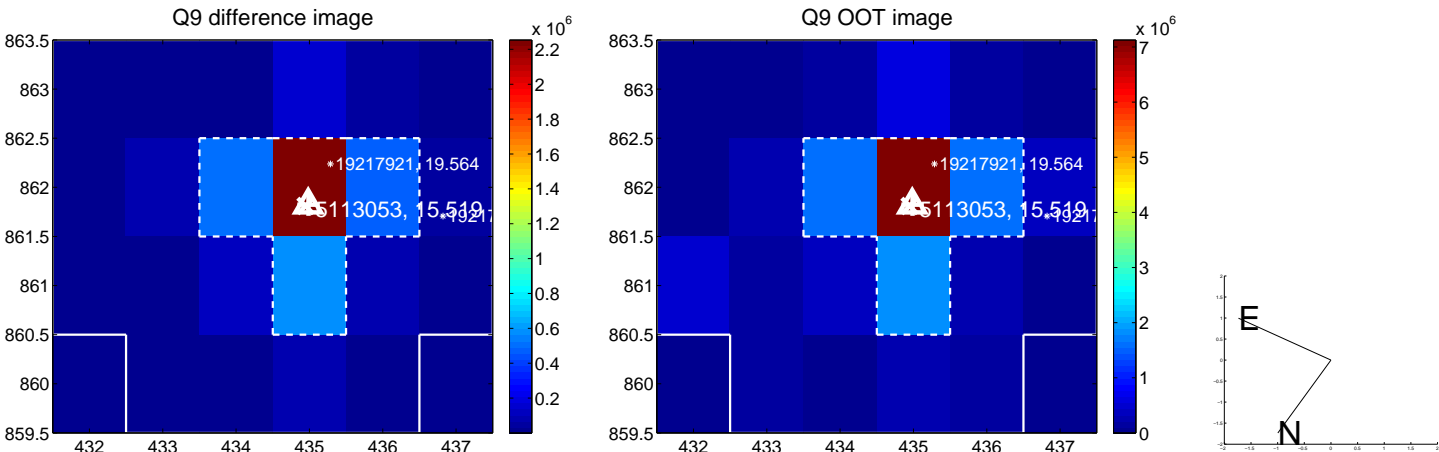
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



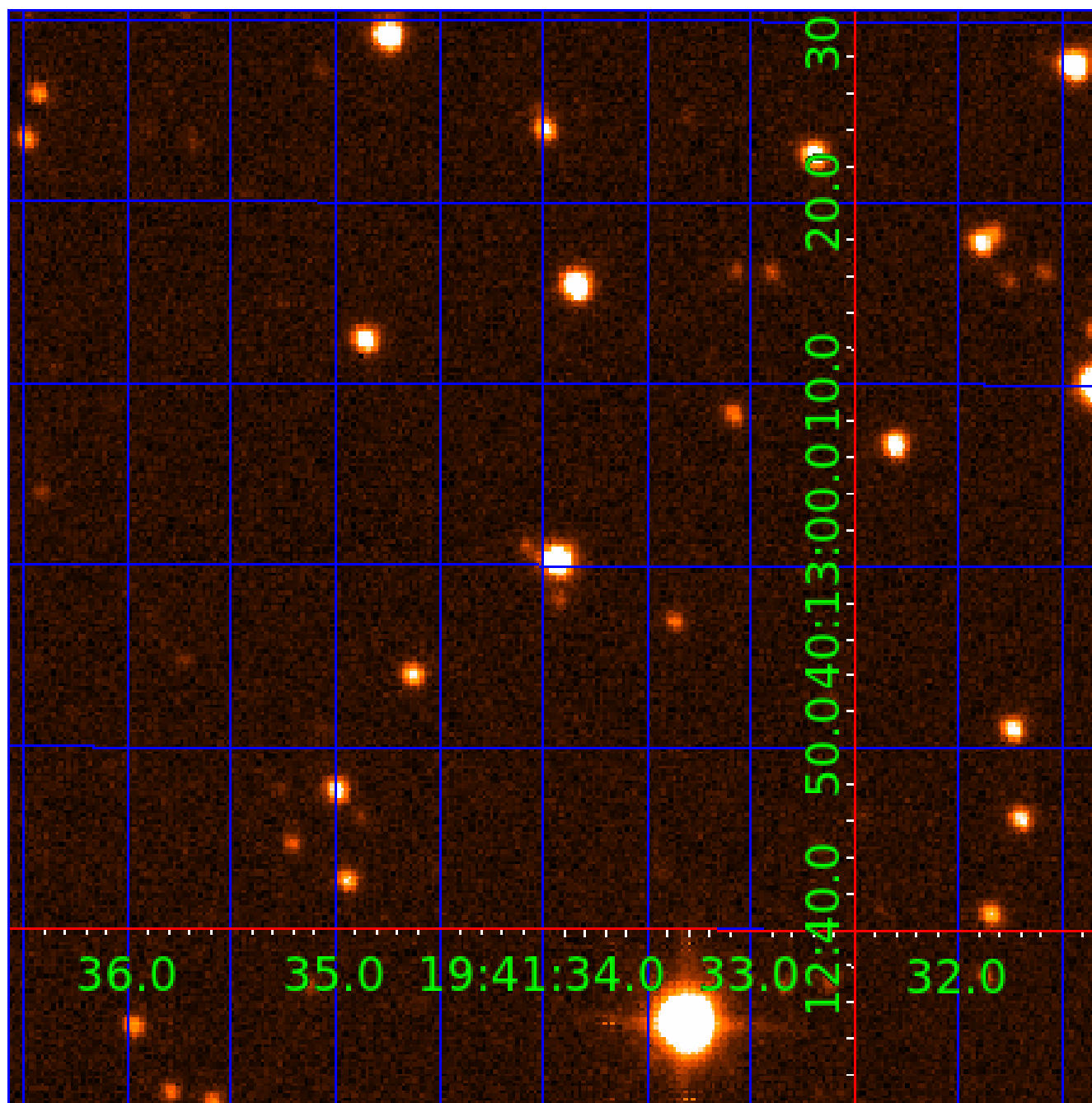
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005113053

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})
005113053-01	OBS	3571.01	1.592556	131.698494	371339.8	2.500	9728.6	-1.0	1.28	6516	69.78	3569.49
005113053-02	OBS	No	4.242180	135.560476	4279.4	3.065	714.7	63.1	1.28	6516	15.18	966.67
005113053-03	OBS	No	4.246318	135.258569	38.9	9.068	594.2	0.5	1.28	6516	0.80	965.42
005113053-04	OBS	No	1.592630	132.726791	10846.9	5.000	180.8	-1.0	1.28	6516	13.42	3569.27
005113053-05	OBS	No	44.180804	157.814125	22831.4	1.500	73.4	-1.0	1.28	6516	19.56	42.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005113053-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005113053-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT
005113053-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005113053-04	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
005113053-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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 005113053-02

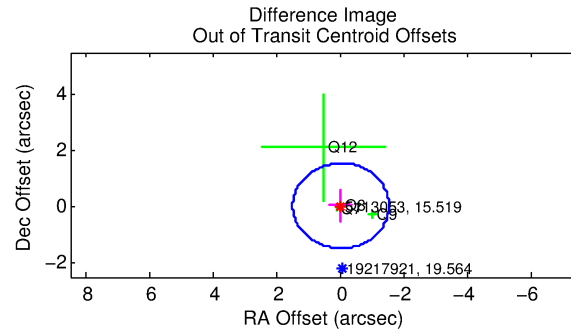
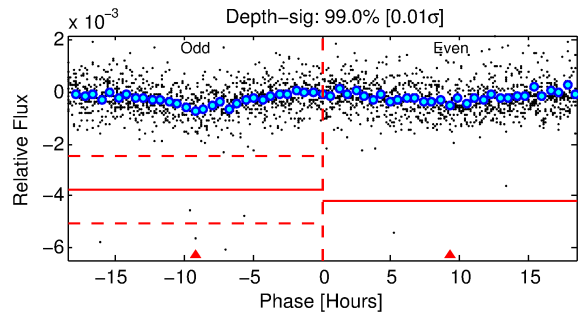
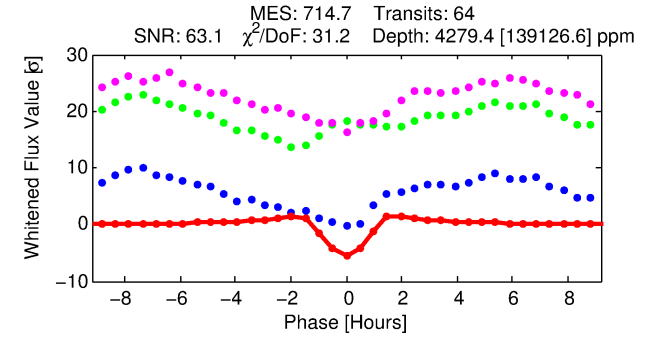
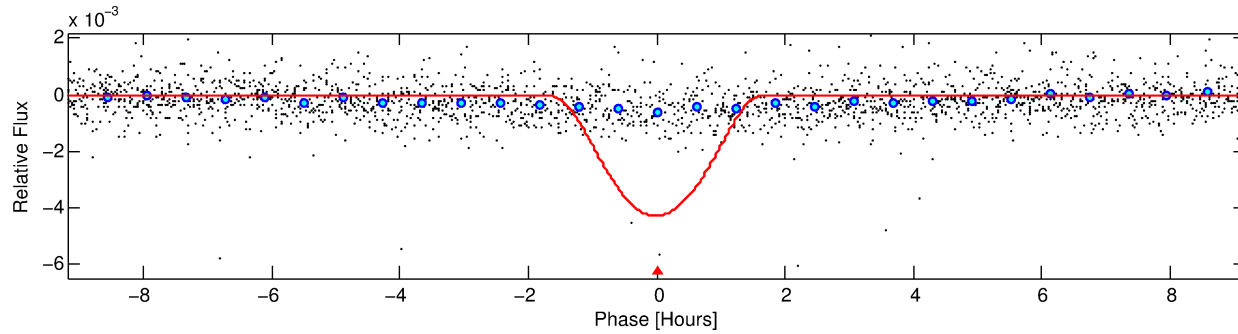
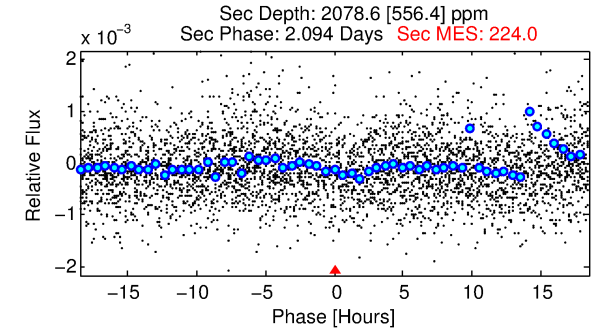
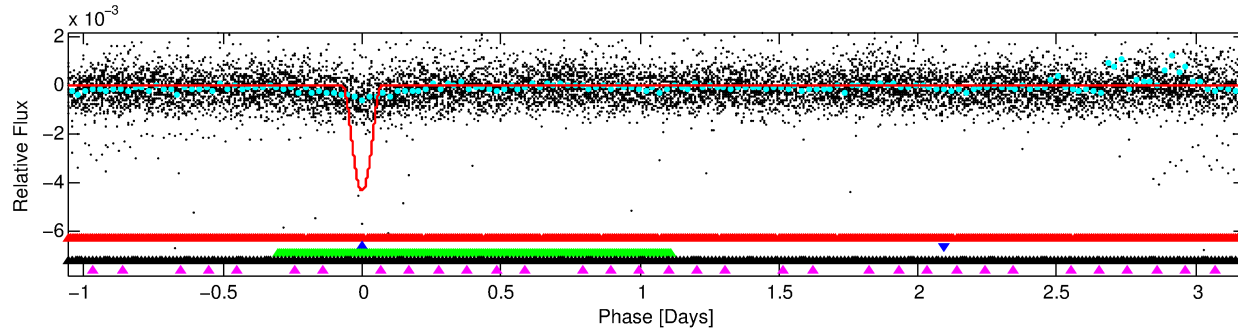
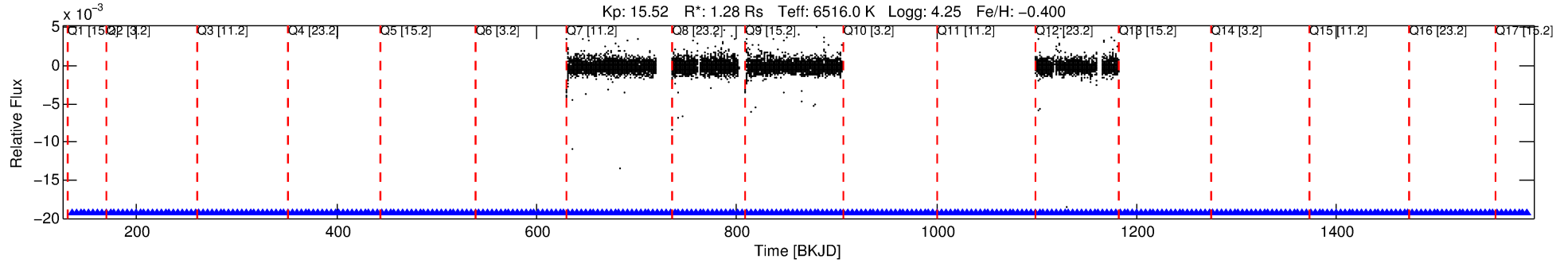
No Significant Match Found

DV One-Page Summary

KIC: 5113053 Candidate: 2 of 5 Period: 4.242 d

KOI: K03571 Corr: No Ephemeris Match

Kp: 15.52 R*: 1.28 Rs Teff: 6516.0 K Logg: 4.25 Fe/H: -0.400



DV Fit Results:

Period = 4.24218 [0.00006] d
Epoch = 135.5605 [0.0095] BKJD
Rp/R* = 0.1088 [0.4370]
a/R* = 5.17 [3.95]
b = 1.00 [1.75]
Seff = 966.67 [340.81]
Teq = 1422 [125] K
Rp = 15.18 [61.13] Re
a = 0.0523 [0.0118] AU
Ag = 13.56 [109.11] [0.12σ]
Teffp = 4218 [8480] K [0.33σ]

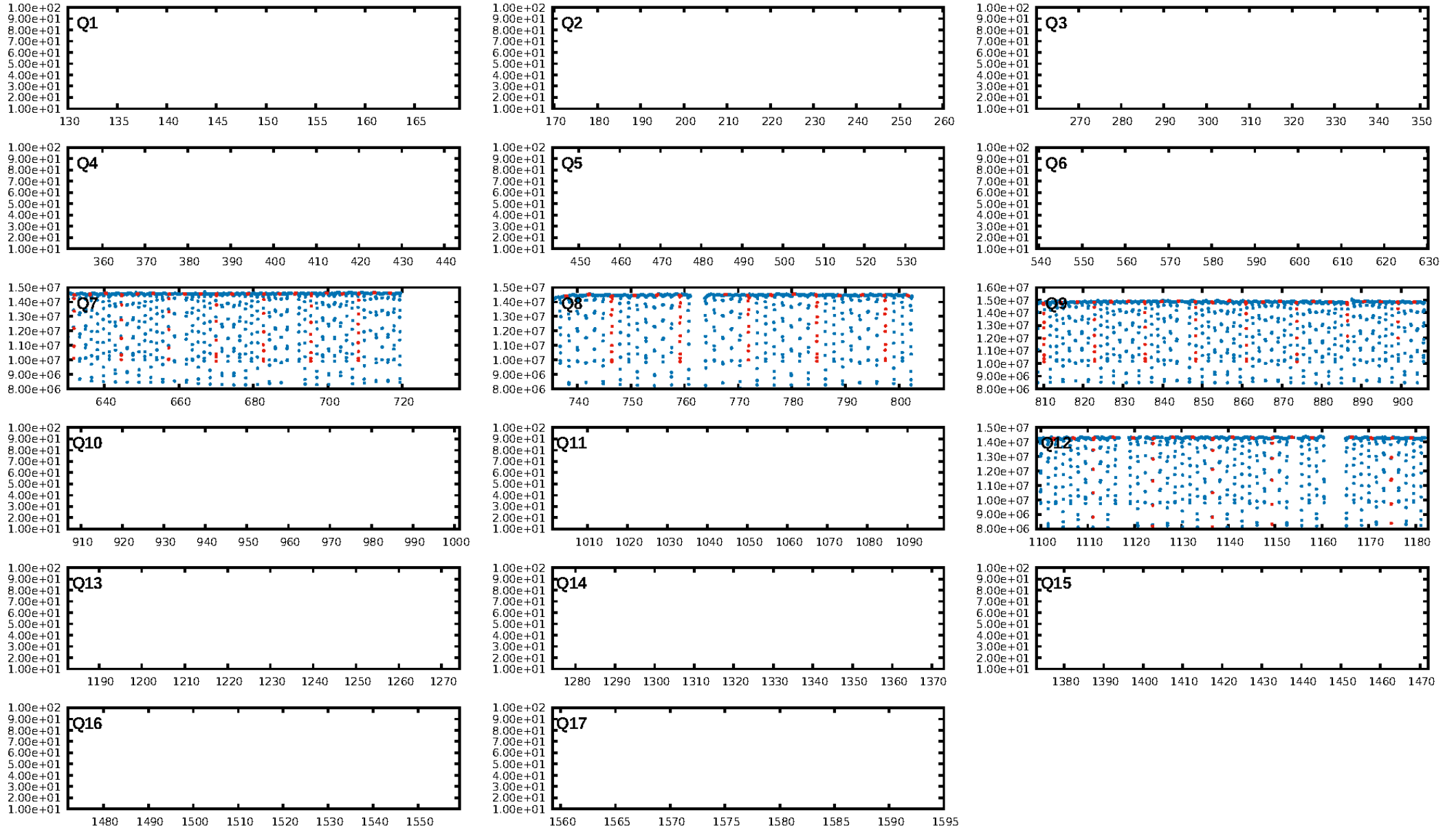
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [10.84σ]
LongPeriod-sig: 0.8% [0.01σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [64/64]
GhostDiagnostic-chr: 2.555
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.036 arcsec [0.07σ]
KicOffset-rm: 0.133 arcsec [0.27σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 0.25 [1/4]

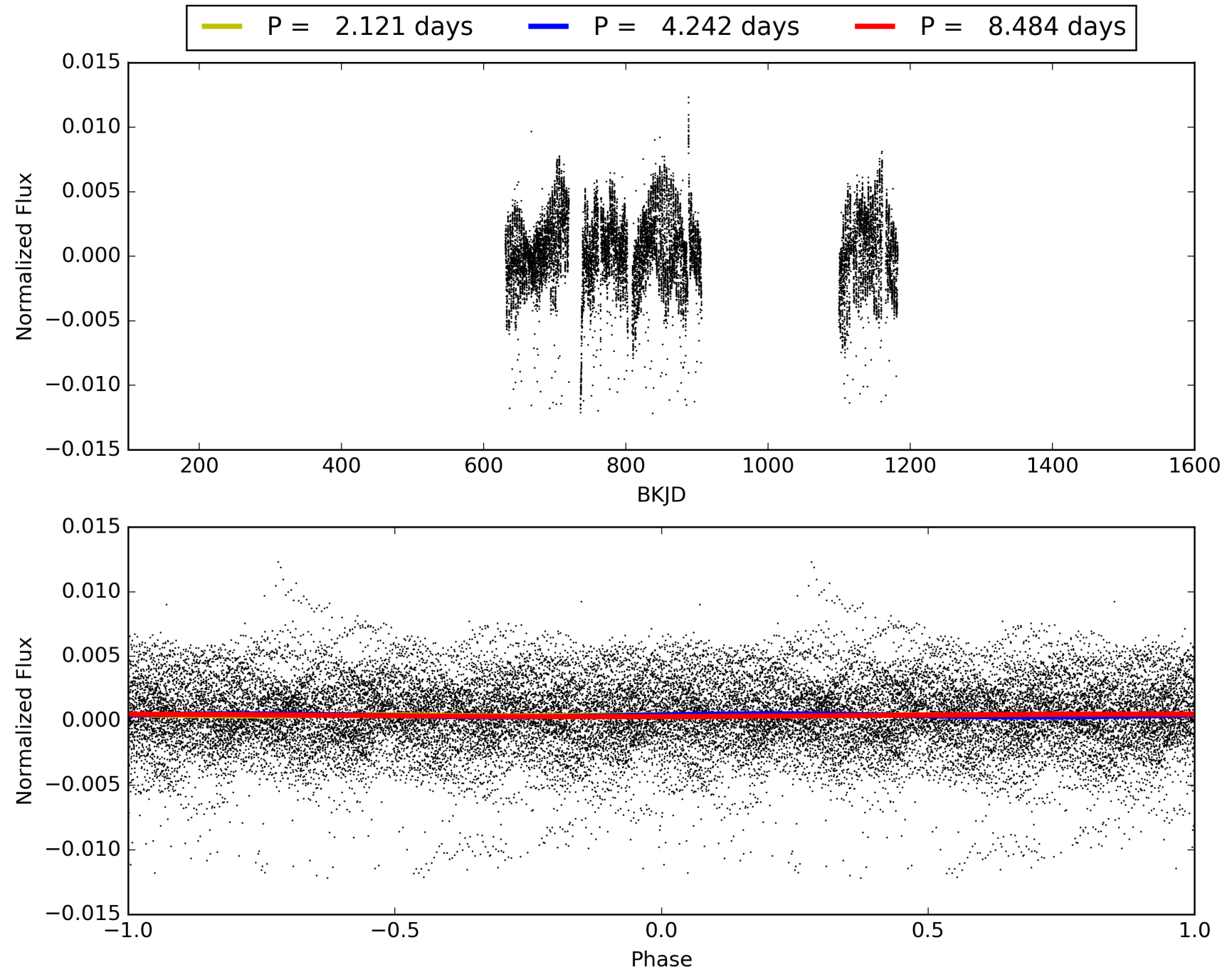
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:02:35 Z

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

TCE 005113053-02, PDC Light Curves

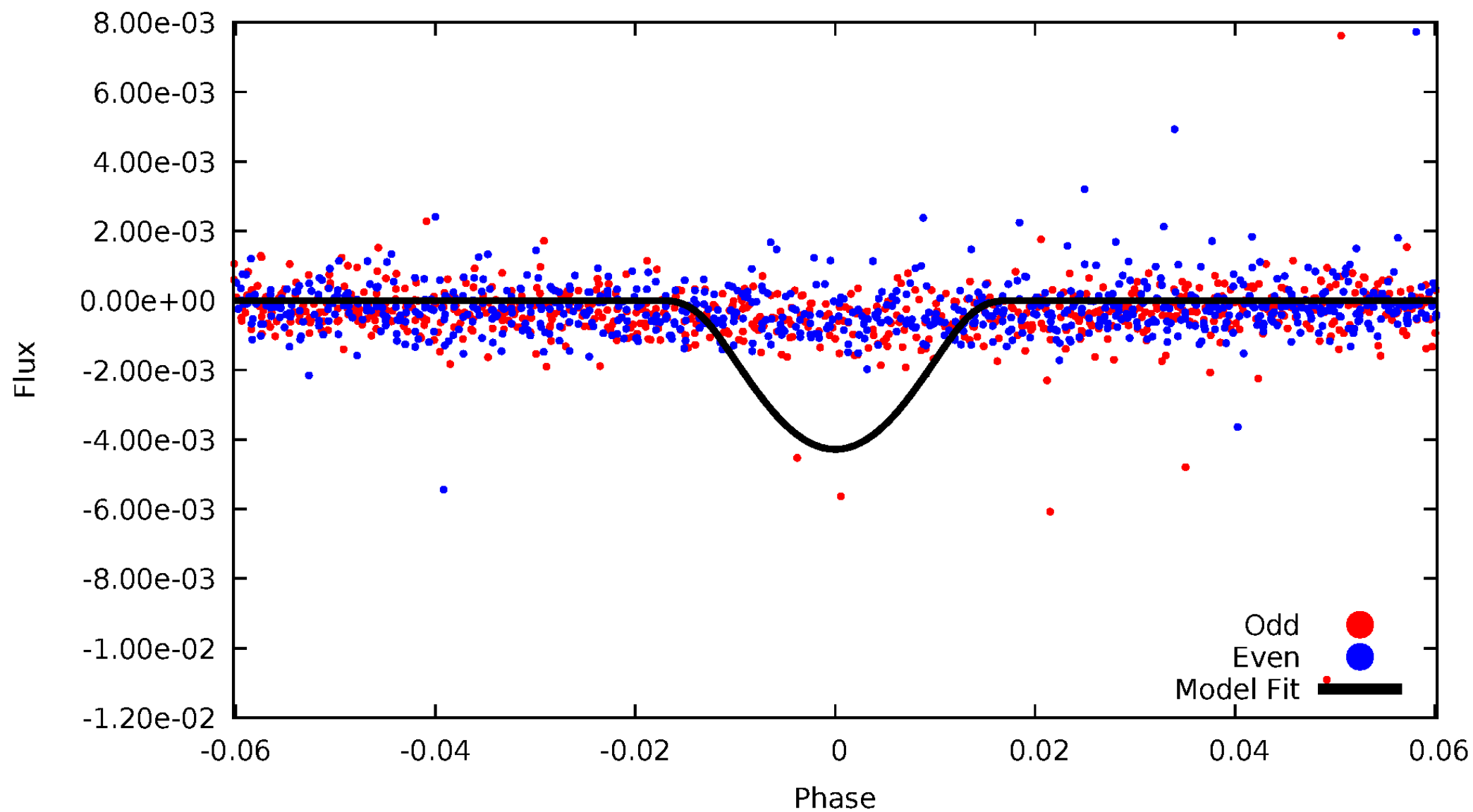


TCE 005113053-02



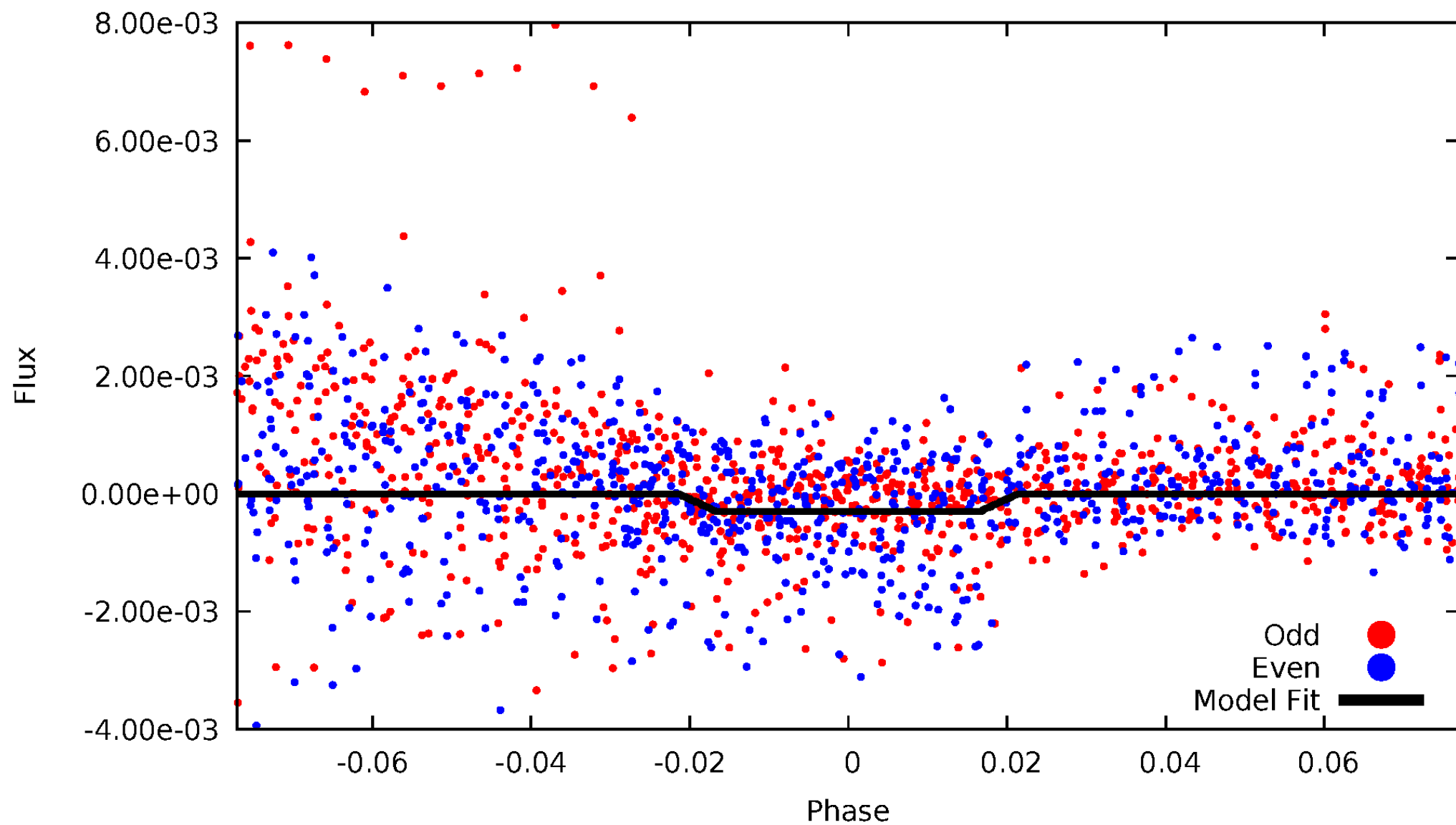
DV Odd/Even

TCE 005113053-02



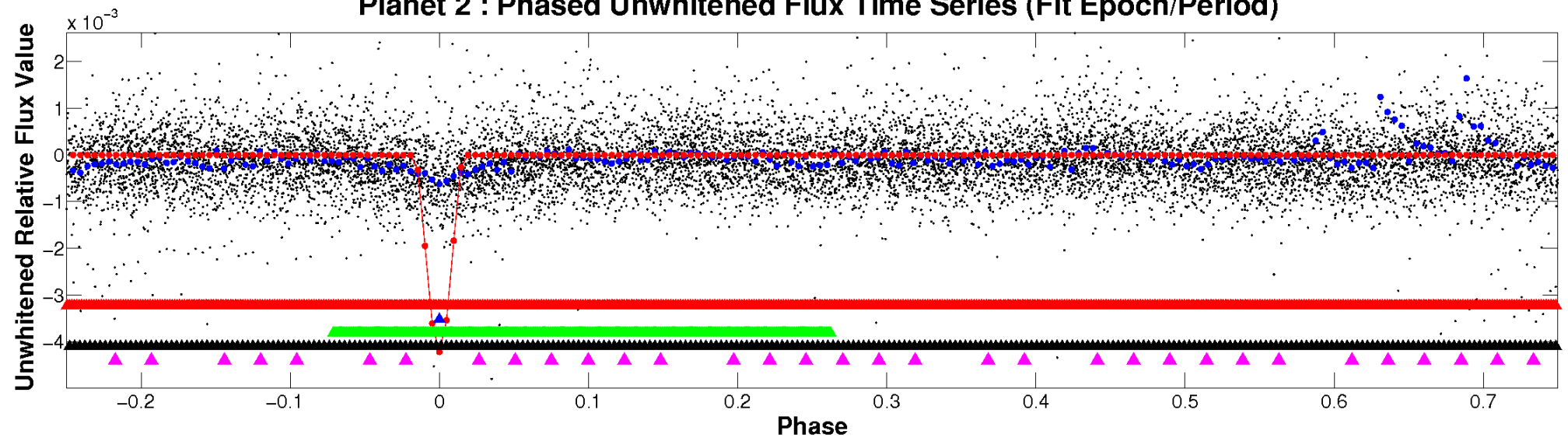
ALT Odd/Even

TCE 005113053-02

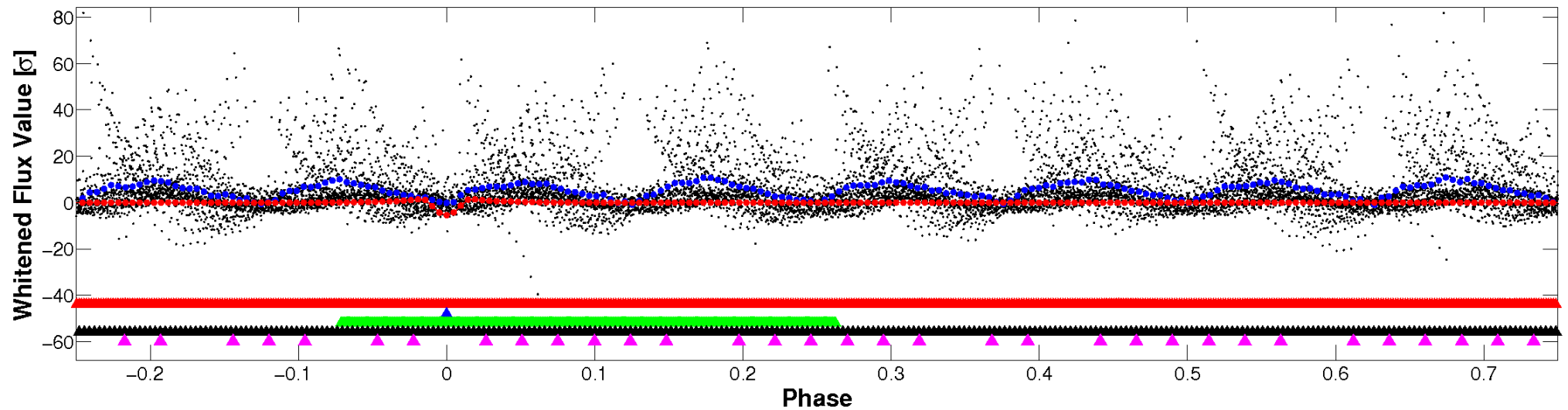


Non-Whitened Vs. Whitened Light Curve

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

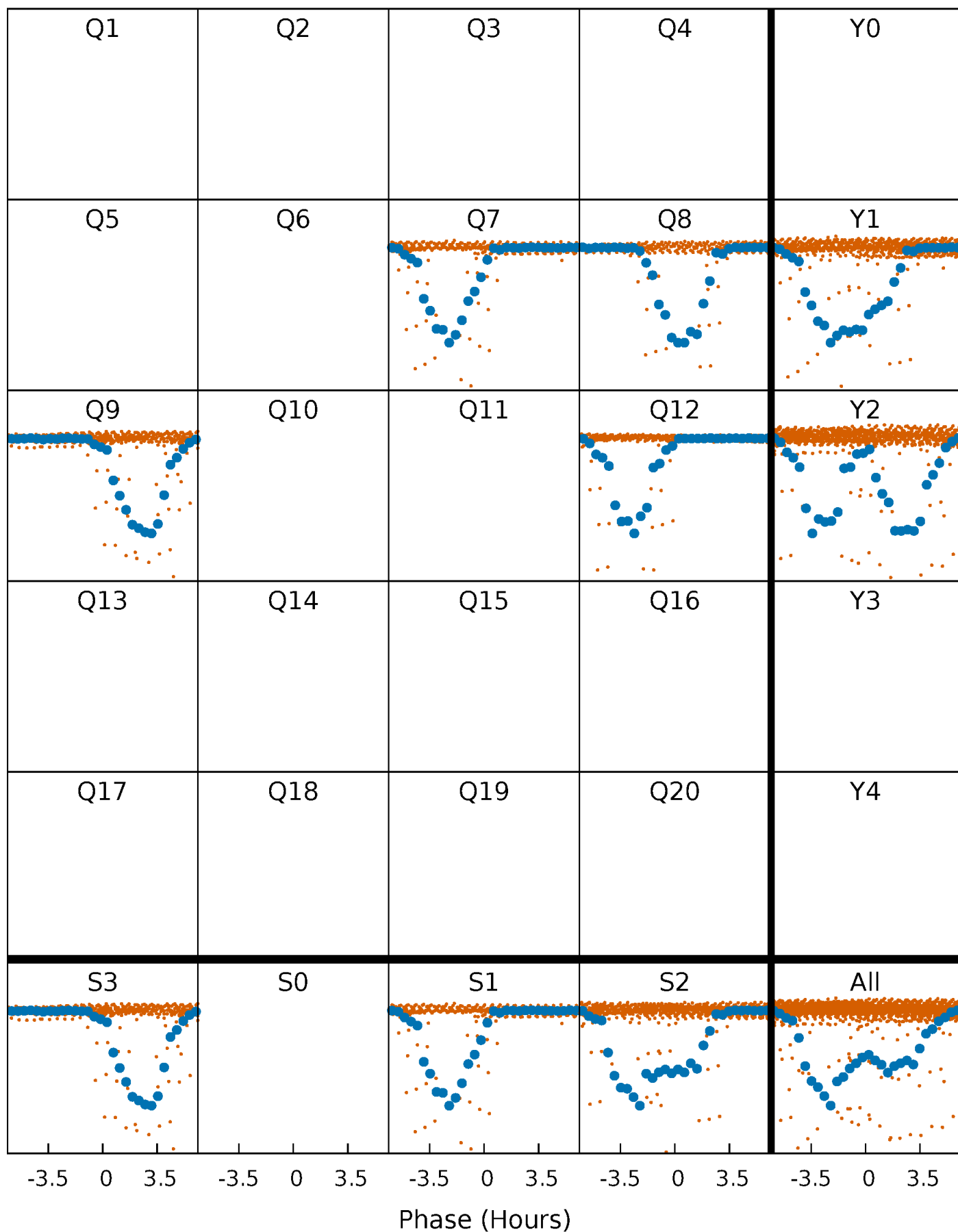


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



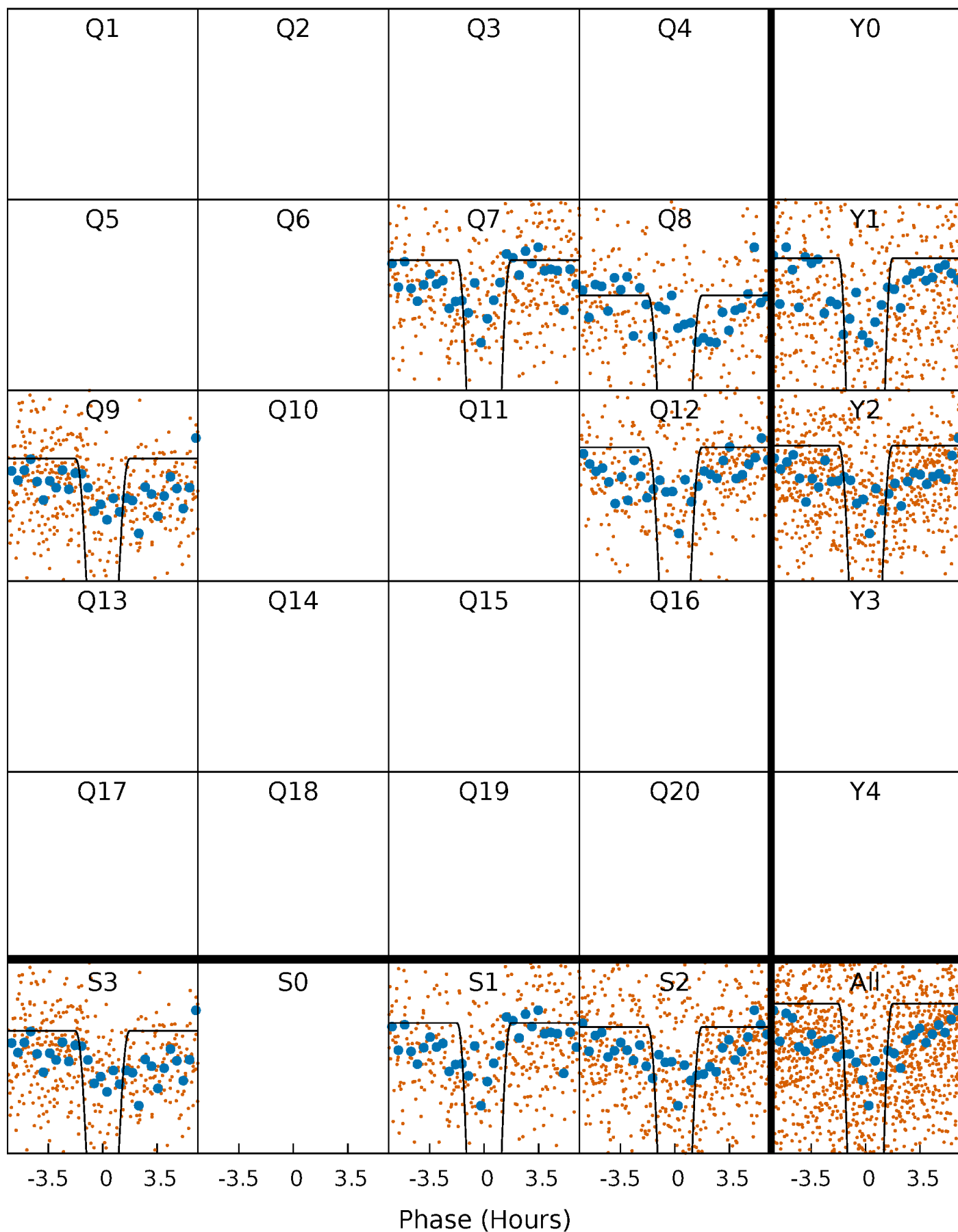
PDC Quarter-Phased Transit Curves

TCE 005113053-02 P= 4.242180 Days $T_0=135.560476$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005113053-02 P= 4.242180 Days $T_0=135.560476$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

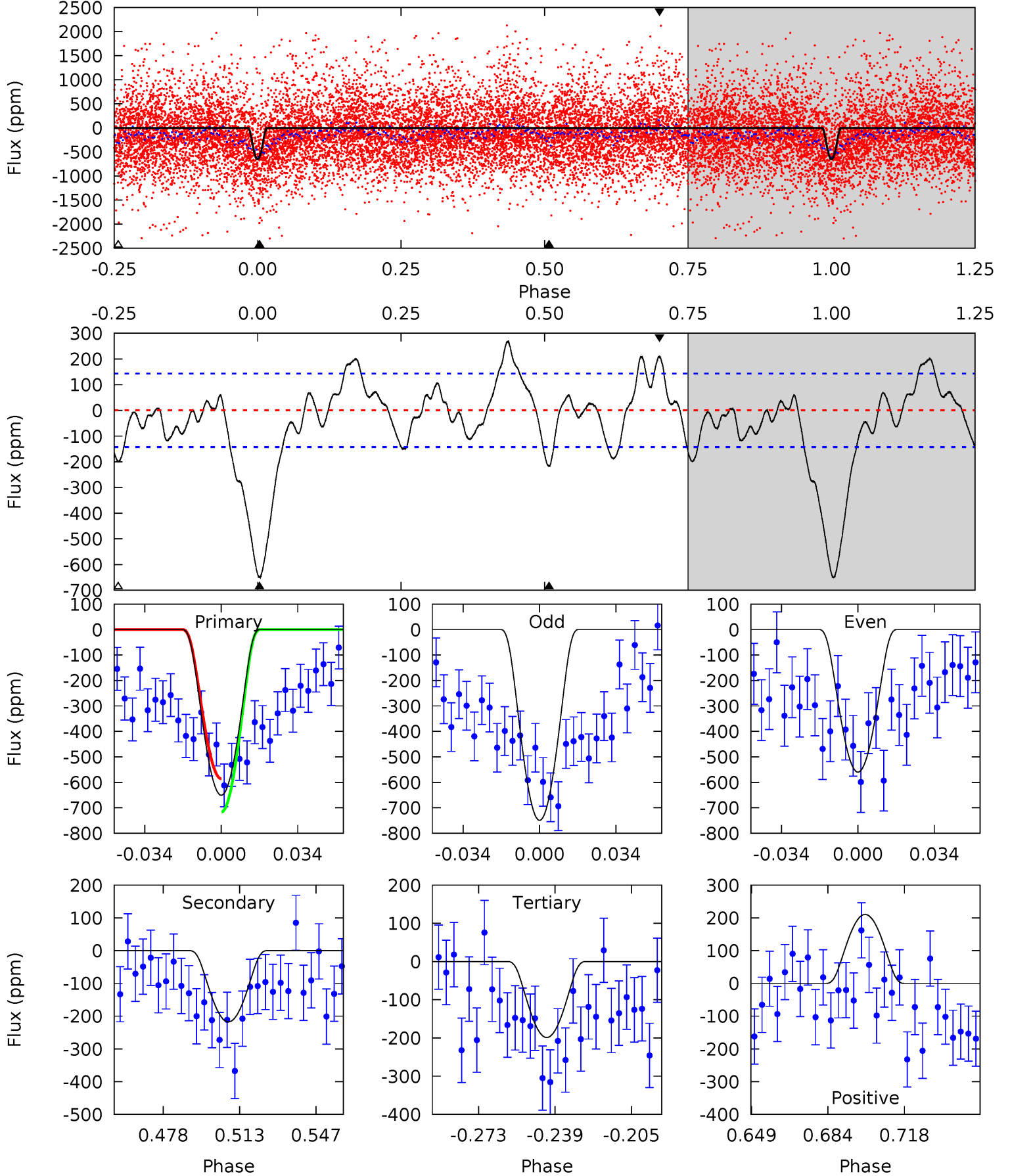
TCE 005113053-02 P= 4.246660 Days $T_0=135.202106$ (BKJD)



DV Model-Shift Uniqueness Test

005113053-02, P = 4.242180 Days, E = 135.560476 Days

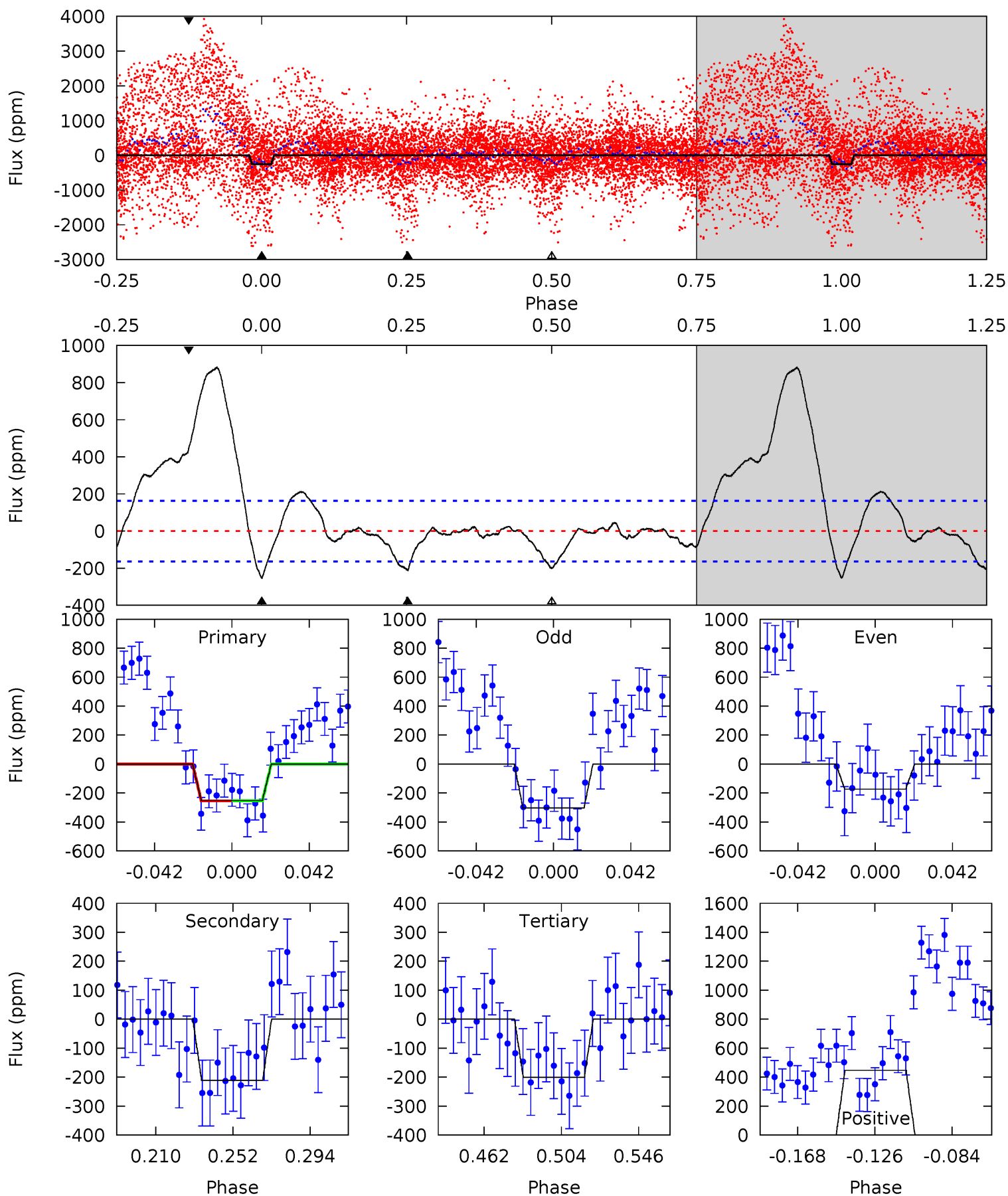
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	7.28	6.65	7.04	4.79	2.12	3.45	15.1	14.7	0.63	0.24	3.21	0.98	0.29	2.21



Alt Model-Shift Uniqueness Test

005113053-02, P = 4.246660 Days, E = 135.202106 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.34	6.13	5.84	13.0	4.74	2.03	6.58	1.50	-5.67	0.29	-6.87	1.90	1.78	0.78	0.03



Stellar Parameters For KIC 005113053

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6516^{+181}_{-227}	$4.249^{+0.175}_{-0.175}$	$-0.400^{+0.250}_{-0.300}$	$1.279^{+0.347}_{-0.252}$	$1.055^{+0.175}_{-0.131}$	$0.711^{+0.597}_{-0.321}$
	+3%/-3%	+4%/-4%	+62%/-75%	+27%/-20%	+17%/-12%	+84%/-45%
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 005113053-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-218 ± 30	$44.95^{+51.48}_{-31.21}$	1980^{+146}_{-130}	-2255^{+5298}_{-213}	$0.156^{+1.690}_{-0.123}$
Alt.	-211 ± 34	$43.12^{+43.69}_{-28.41}$	1979^{+150}_{-137}	-2215^{+5195}_{-250}	$0.177^{+1.418}_{-0.135}$

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

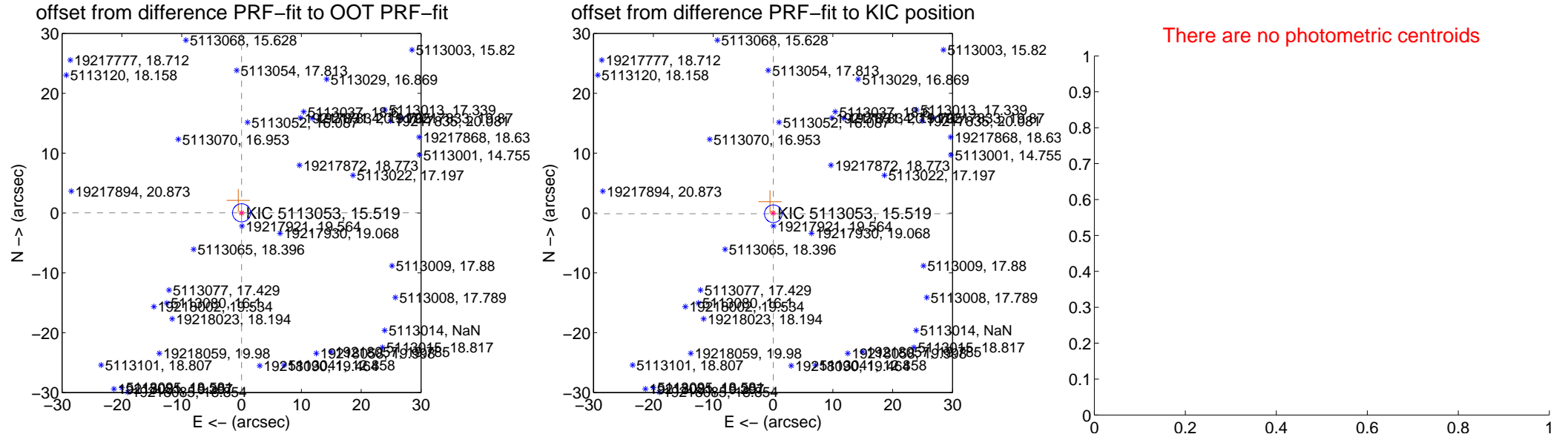
DV Centroid Data

Supplemental centroid analysis for 005113053-02. Kepler magnitude: 15.52. Transit SNR 63.08

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.036 ± 0.505	0.07	-0.008 ± 0.332	0.035 ± 0.578
PRF-fit source offset from KIC position	0.133 ± 0.491	0.27	-0.048 ± 0.327	-0.124 ± 0.418
photometric centroid source offset	—	—	—	—

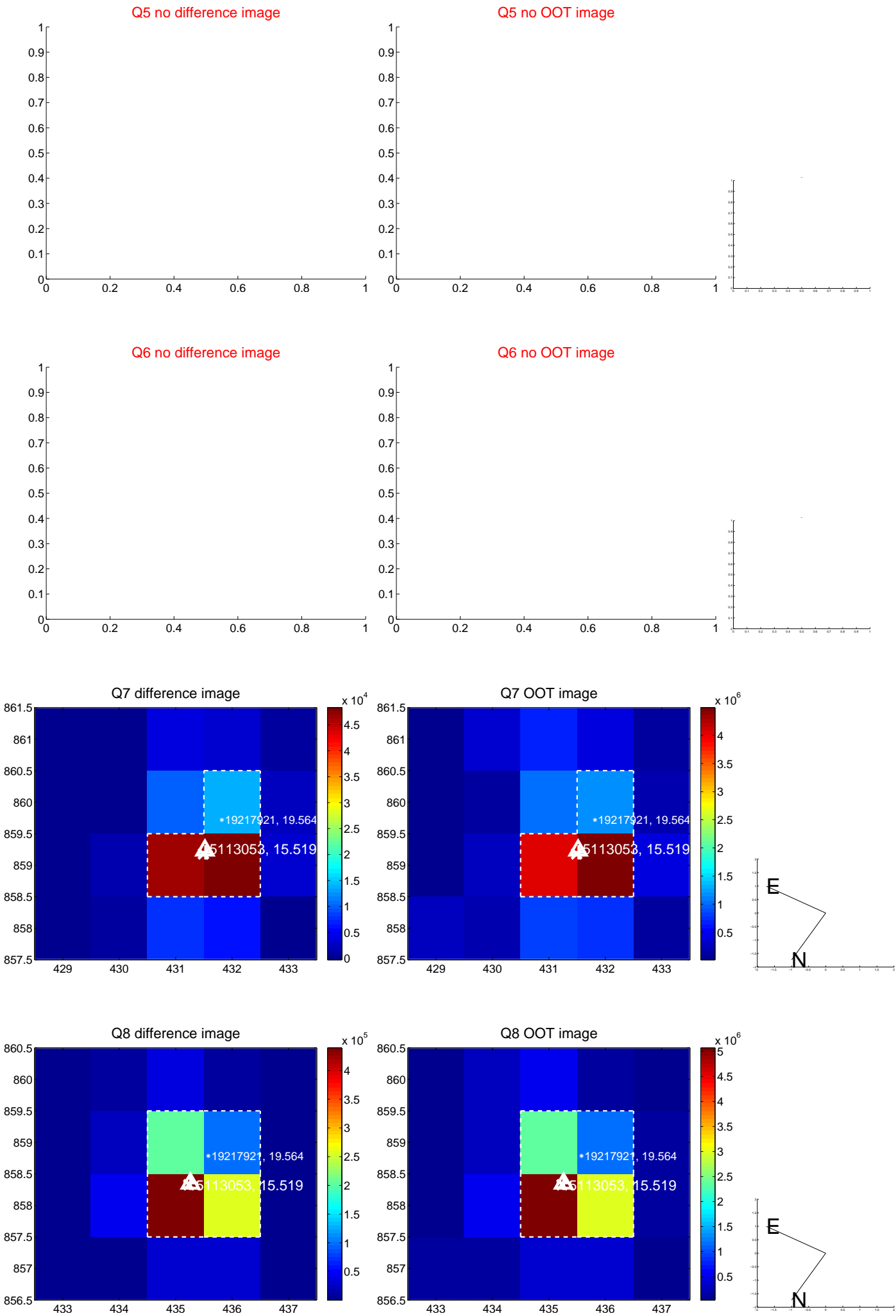


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

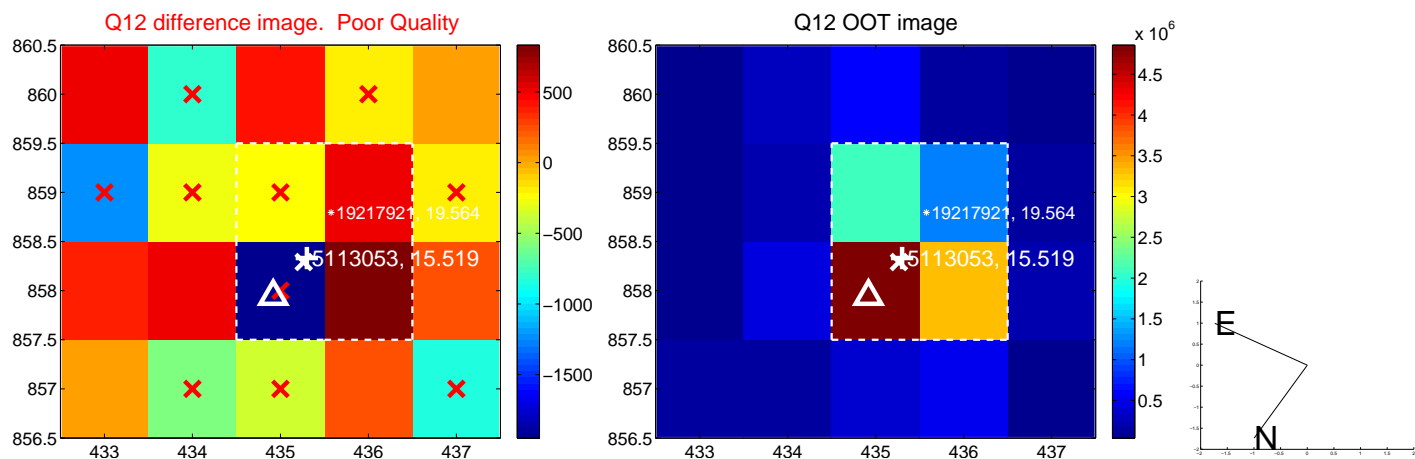
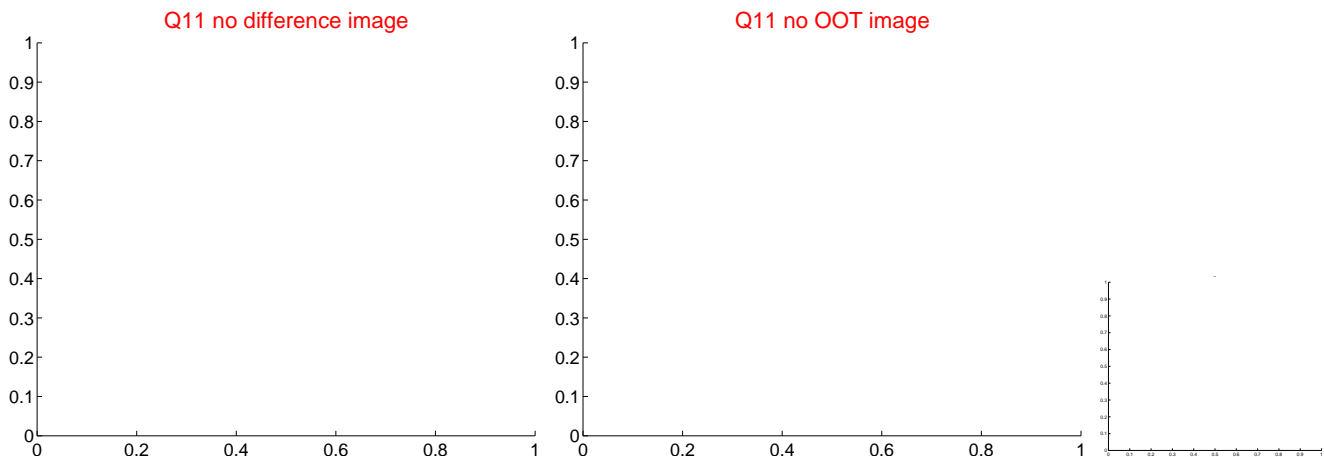
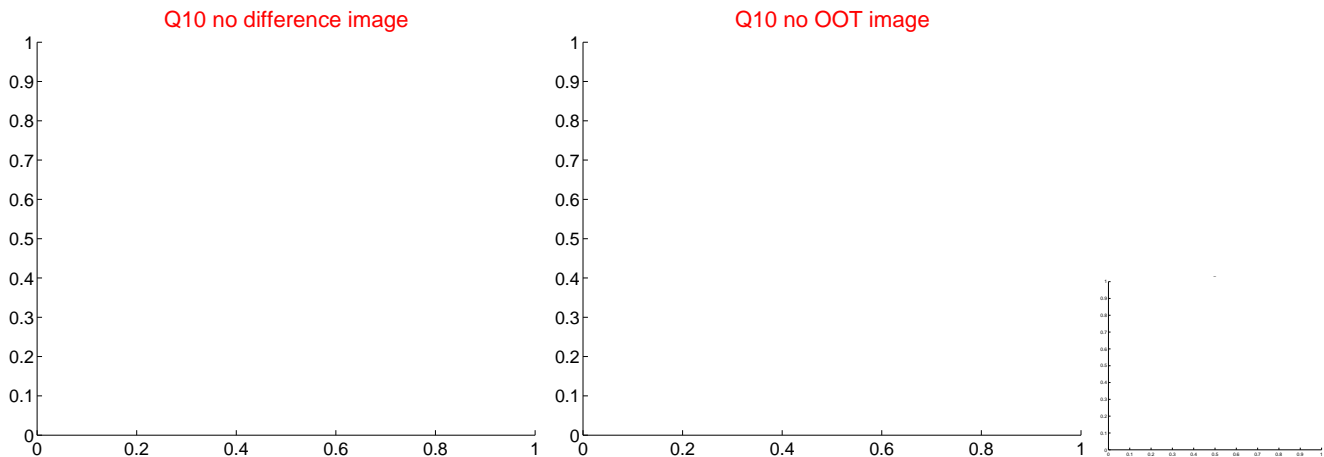
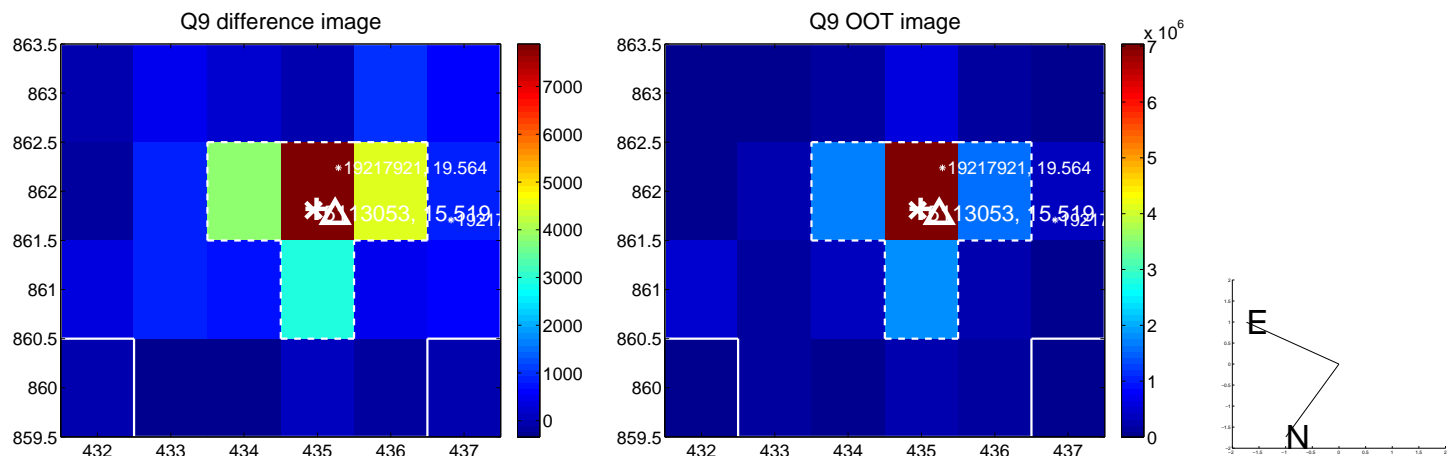
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



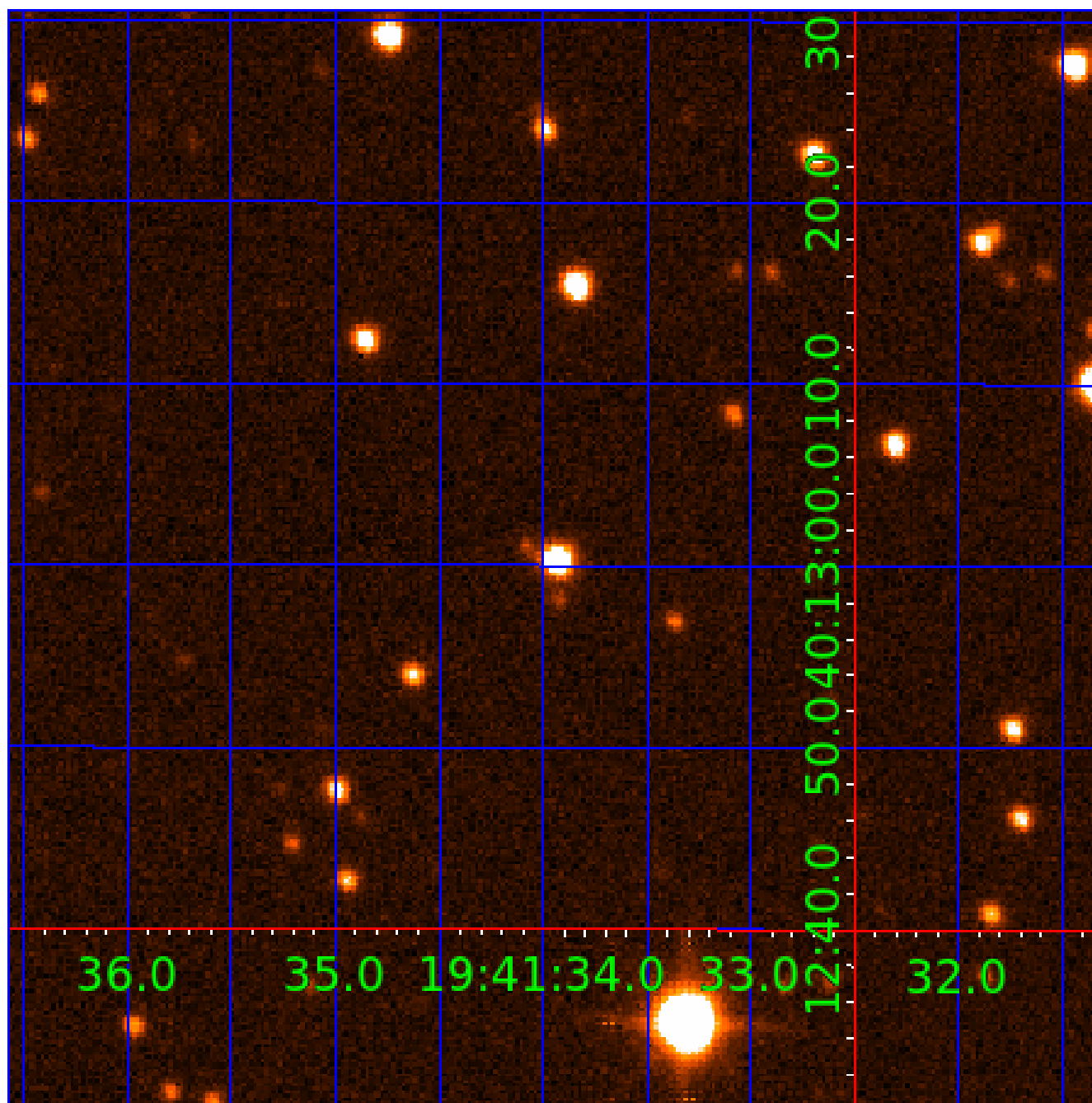
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005113053

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})
005113053-01	OBS	3571.01	1.592556	131.698494	371339.8	2.500	9728.6	-1.0	1.28	6516	69.78	3569.49
005113053-02	OBS	No	4.242180	135.560476	4279.4	3.065	714.7	63.1	1.28	6516	15.18	966.67
005113053-03	OBS	No	4.246318	135.258569	38.9	9.068	594.2	0.5	1.28	6516	0.80	965.42
005113053-04	OBS	No	1.592630	132.726791	10846.9	5.000	180.8	-1.0	1.28	6516	13.42	3569.27
005113053-05	OBS	No	44.180804	157.814125	22831.4	1.500	73.4	-1.0	1.28	6516	19.56	42.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005113053-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005113053-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT
005113053-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005113053-04	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
005113053-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

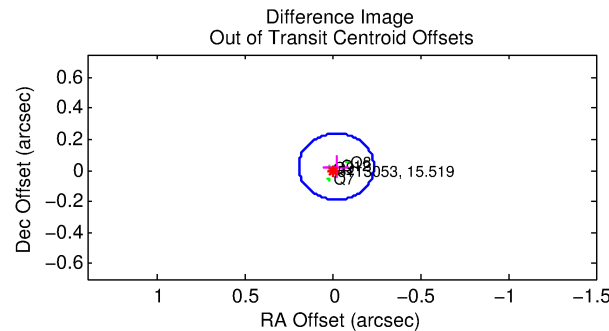
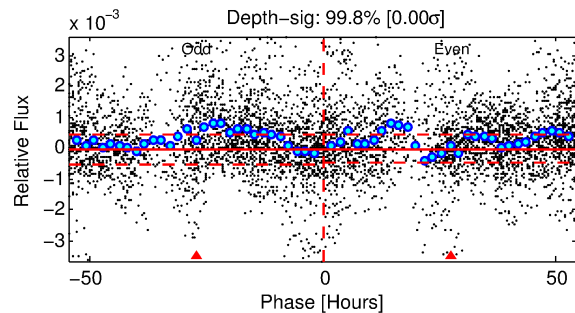
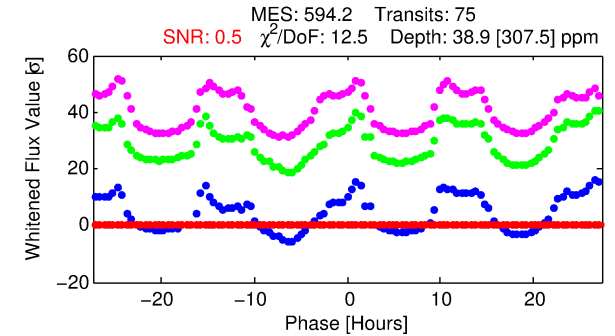
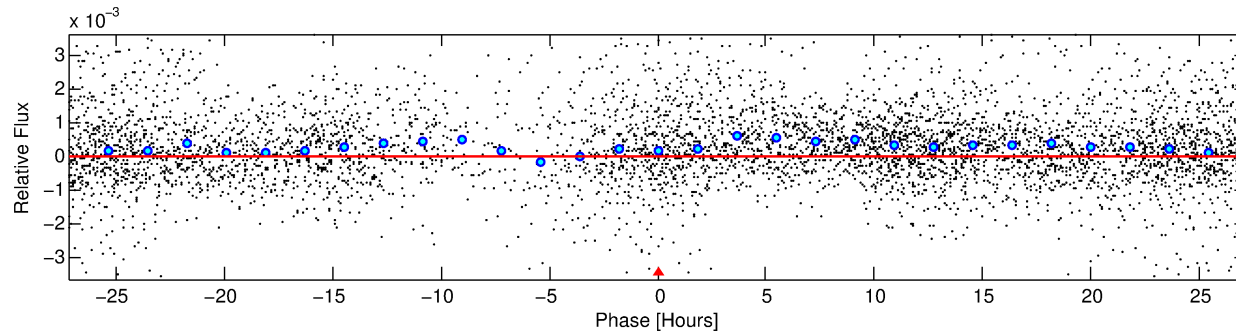
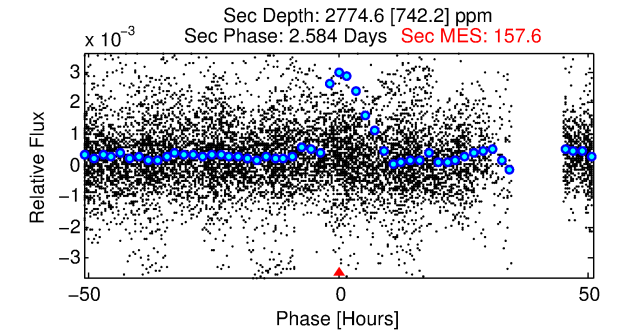
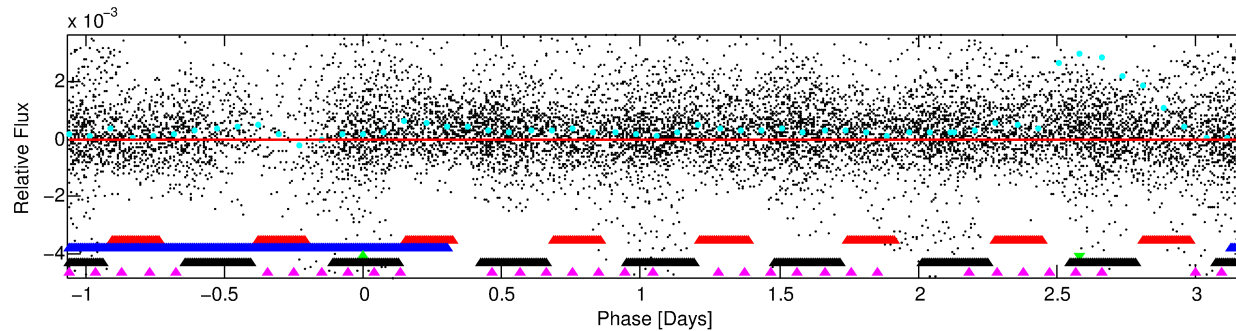
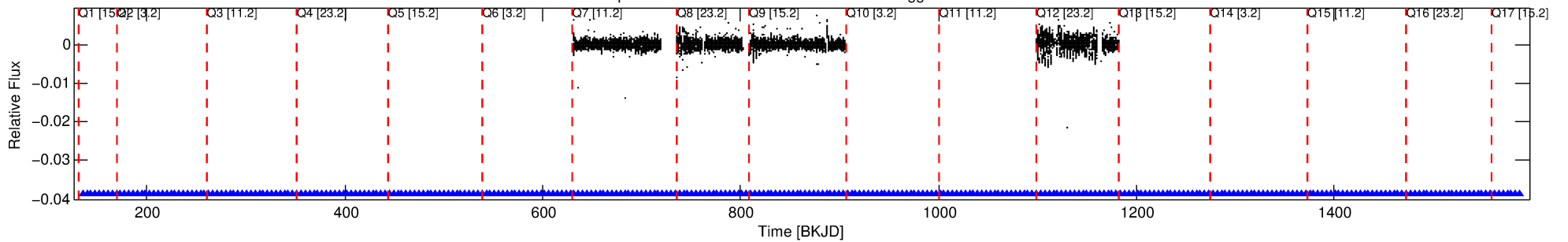
Ephemeris Match Information For 005113053-03

No Significant Match Found

DV One-Page Summary

KIC: 5113053 Candidate: 3 of 5 Period: 4.246 d
KOI: K03571 Corr: No Ephemeris Match

Kp: 15.52 R*: 1.28 Rs Teff: 6516.0 K Logg: 4.25 Fe/H: -0.400



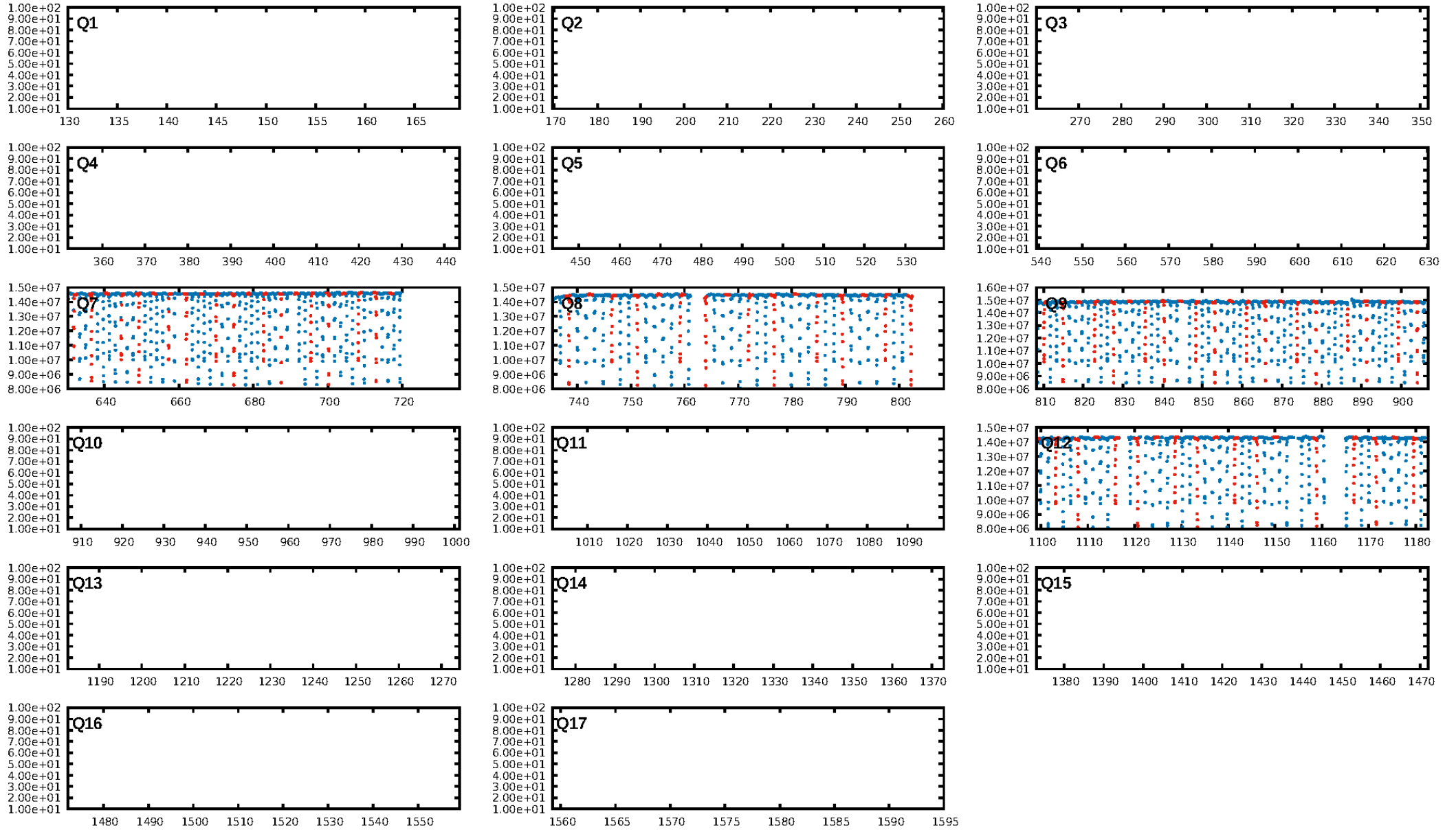
DV Fit Results:

Period = 4.24632 [0.00257] d
Epoch = 135.2586 [0.4049] BKJD
Rp/R* = 0.0058 [0.2129]
a/R* = 3.64 [668.47]
b = 0.03 [6695.15]
Seff = 965.42 [340.37]
Teq = 1421 [125] K
Rp = 0.80 [29.72] Re
a = 0.0523 [0.0118] AU
Ag = 6482.16 [479889.94] [0.01σ]
Teffp = 19719 [364952] K [0.05σ]

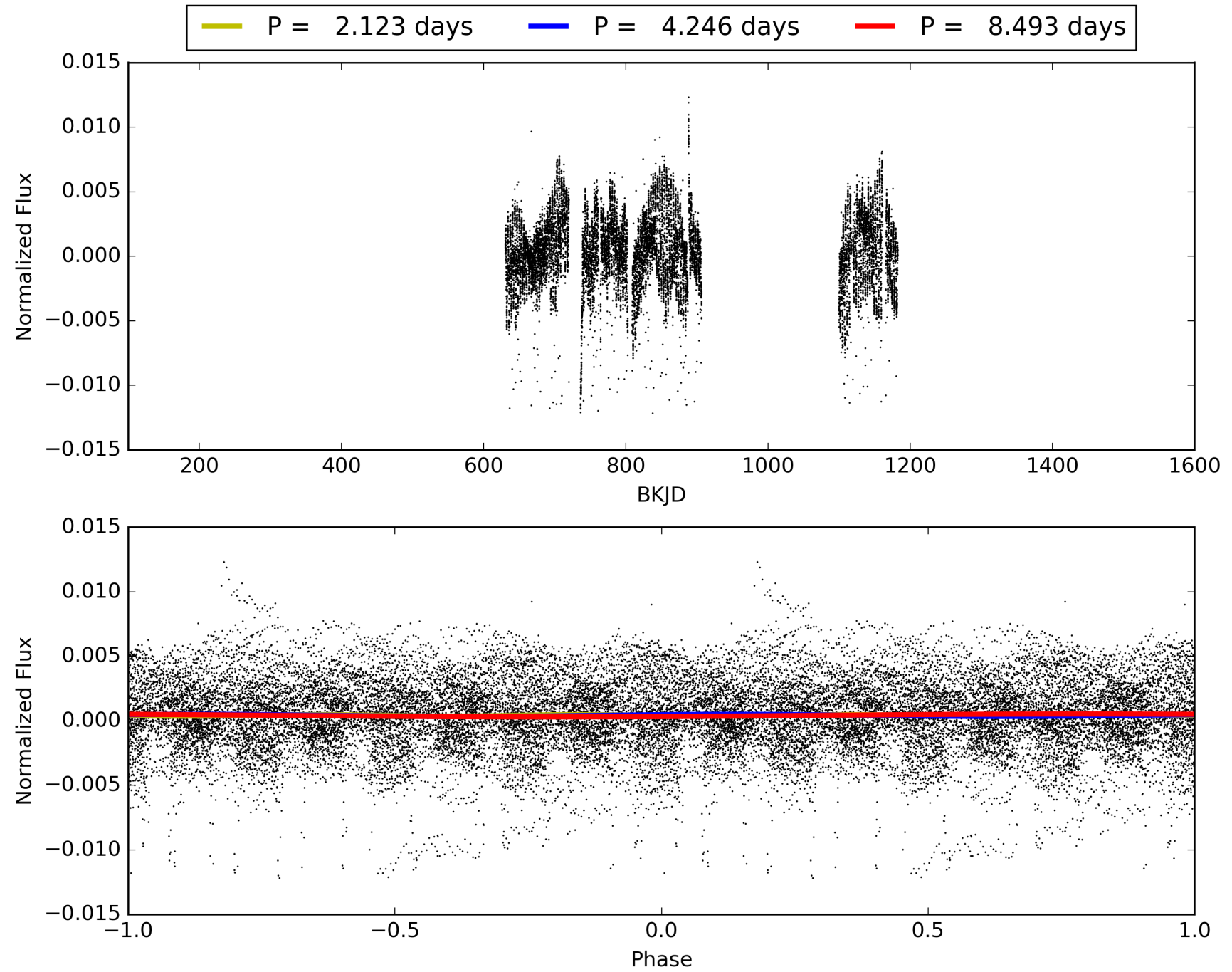
DV Diagnostic Results:

ShortPeriod-sig: 0.8% [0.01σ]
LongPeriod-sig: 100.0% [104.27σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [75/75]
GhostDiagnostic-chr: 1.207
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.032 arcsec [0.44σ]
KicOffset-rm: 0.167 arcsec [2.33σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/4]

TCE 005113053-03, PDC Light Curves

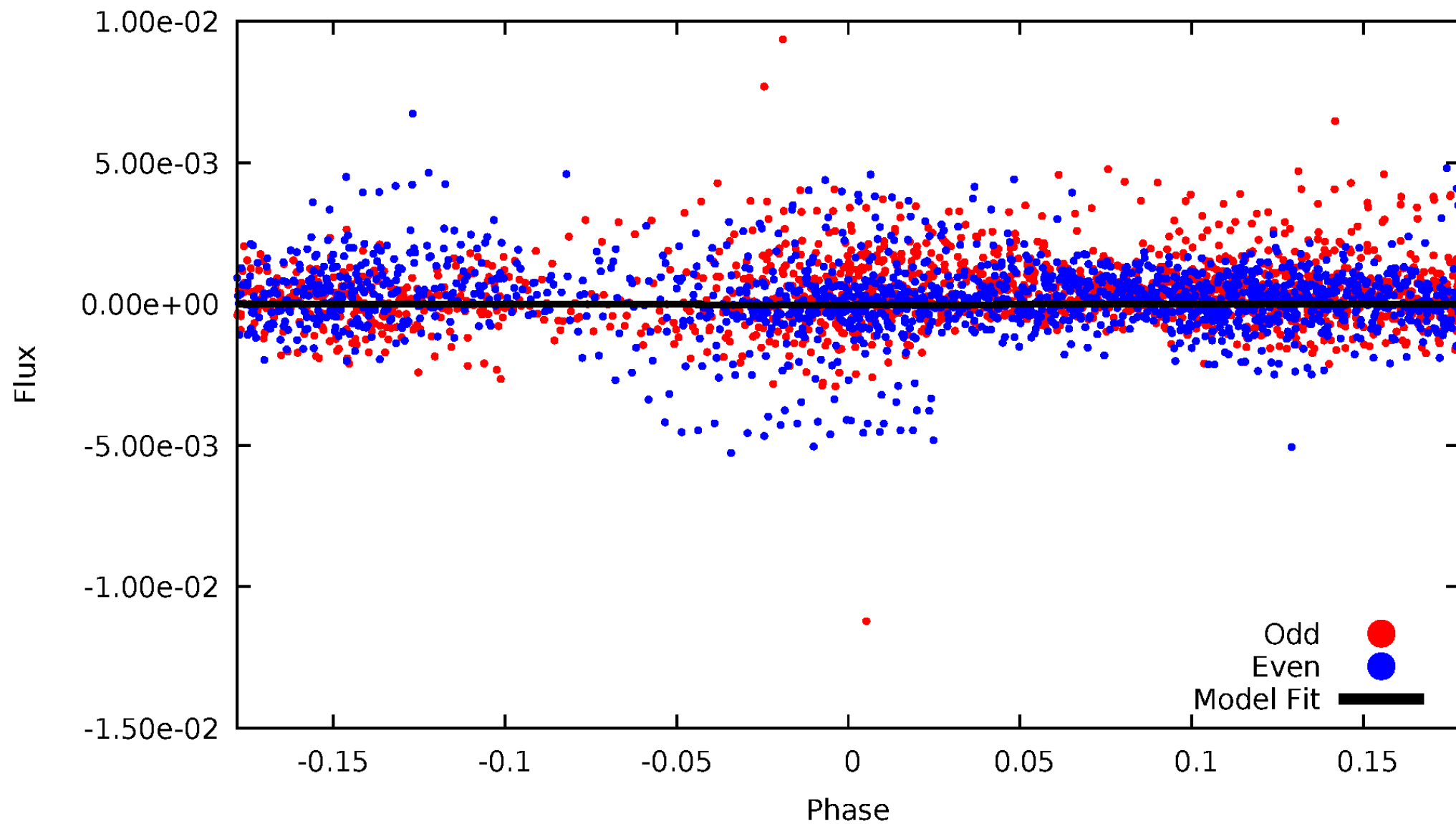


TCE 005113053-03



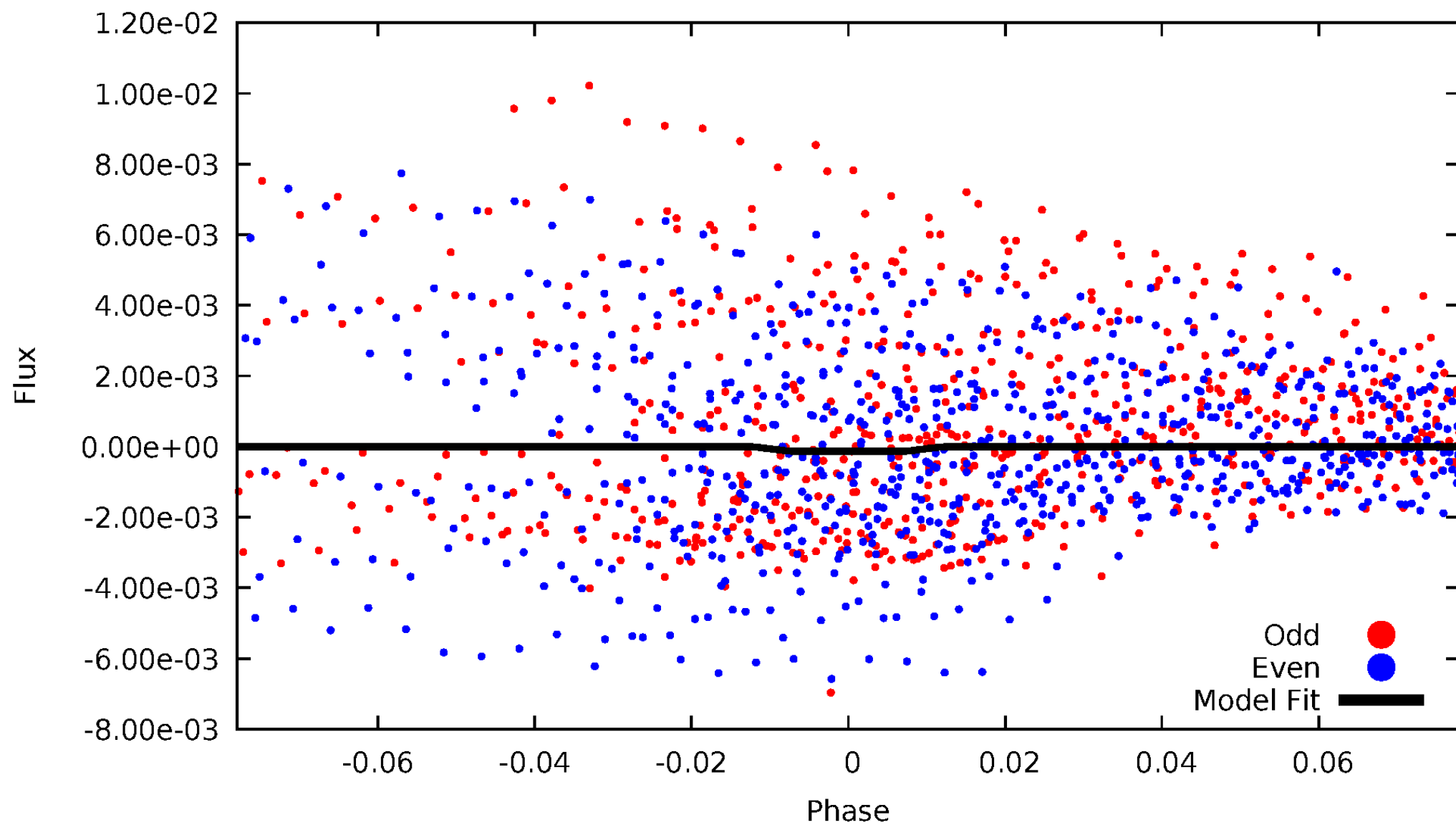
DV Odd/Even

TCE 005113053-03



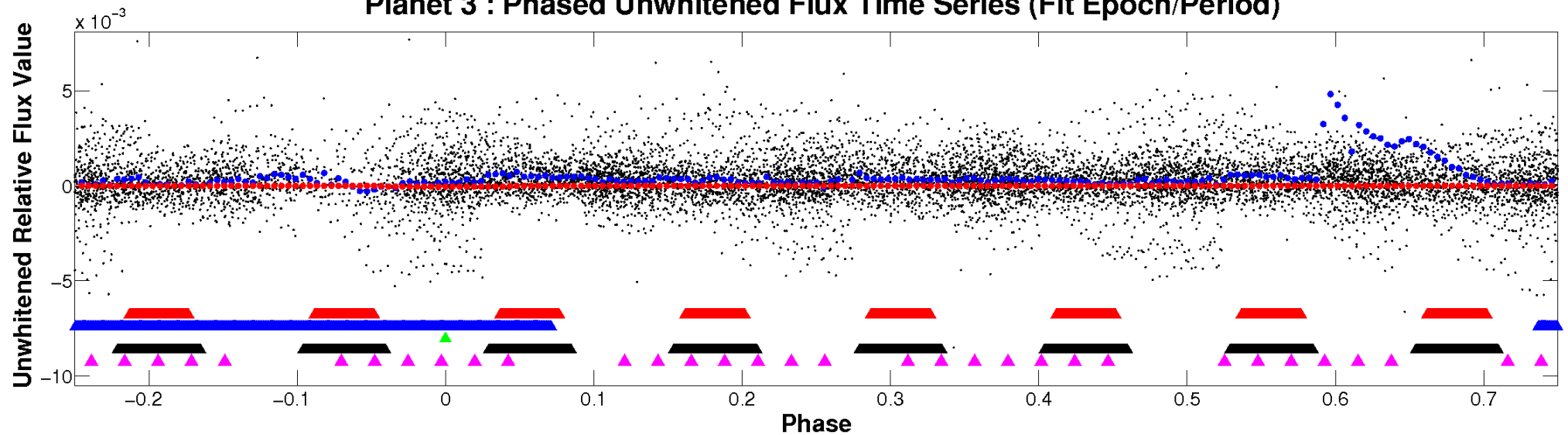
ALT Odd/Even

TCE 005113053-03

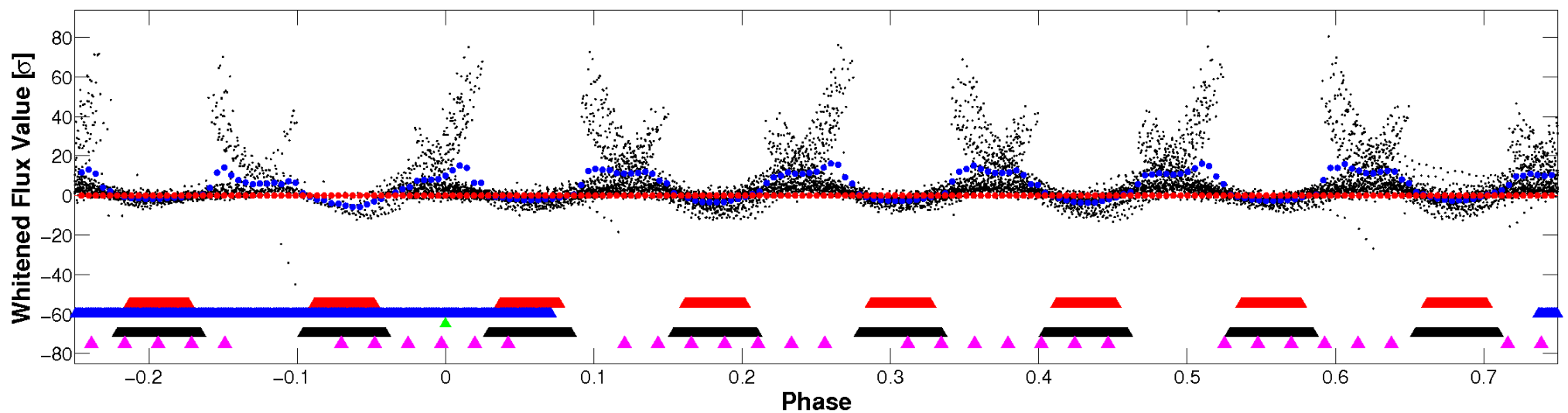


Non-Whitened Vs. Whitened Light Curve

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

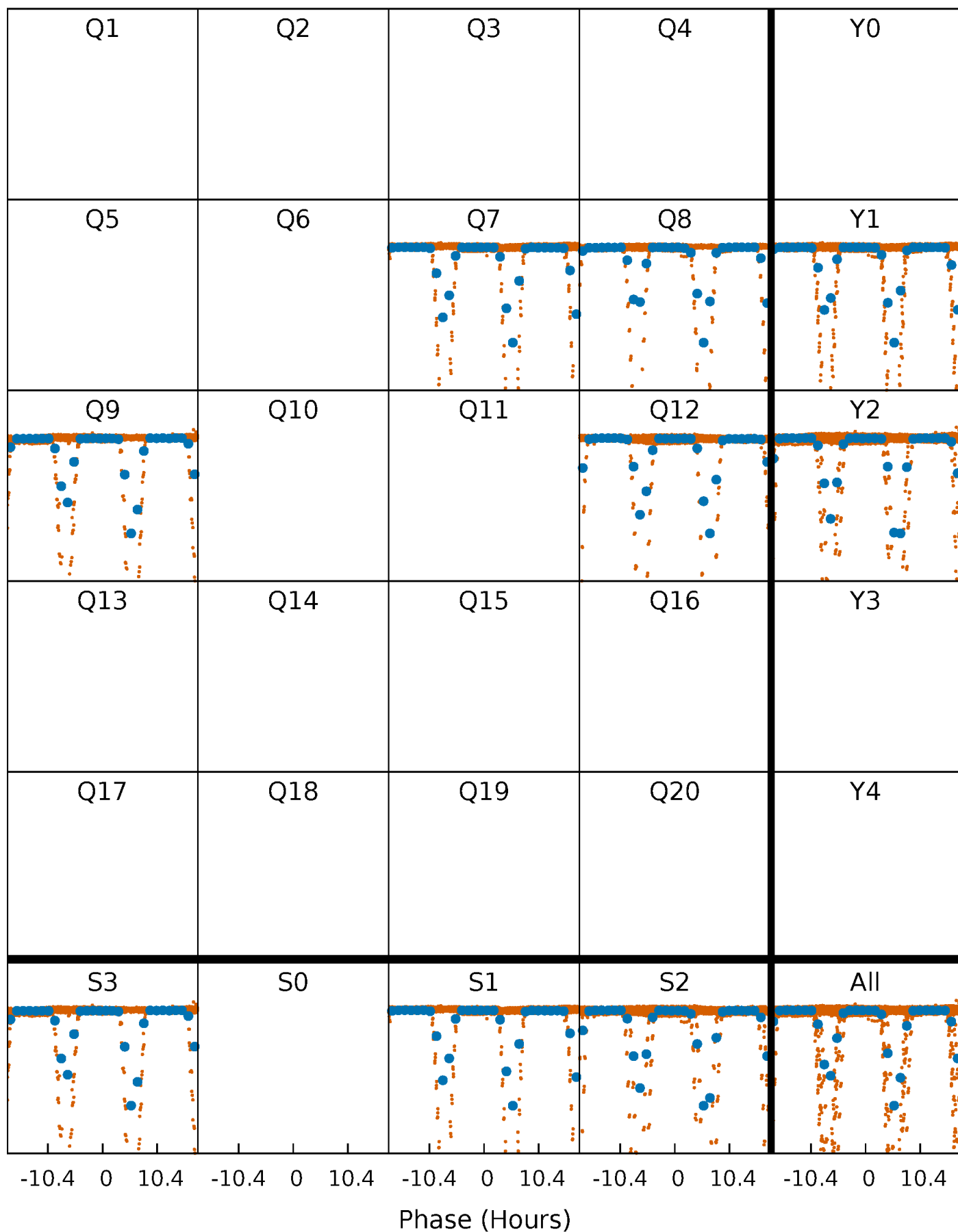


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



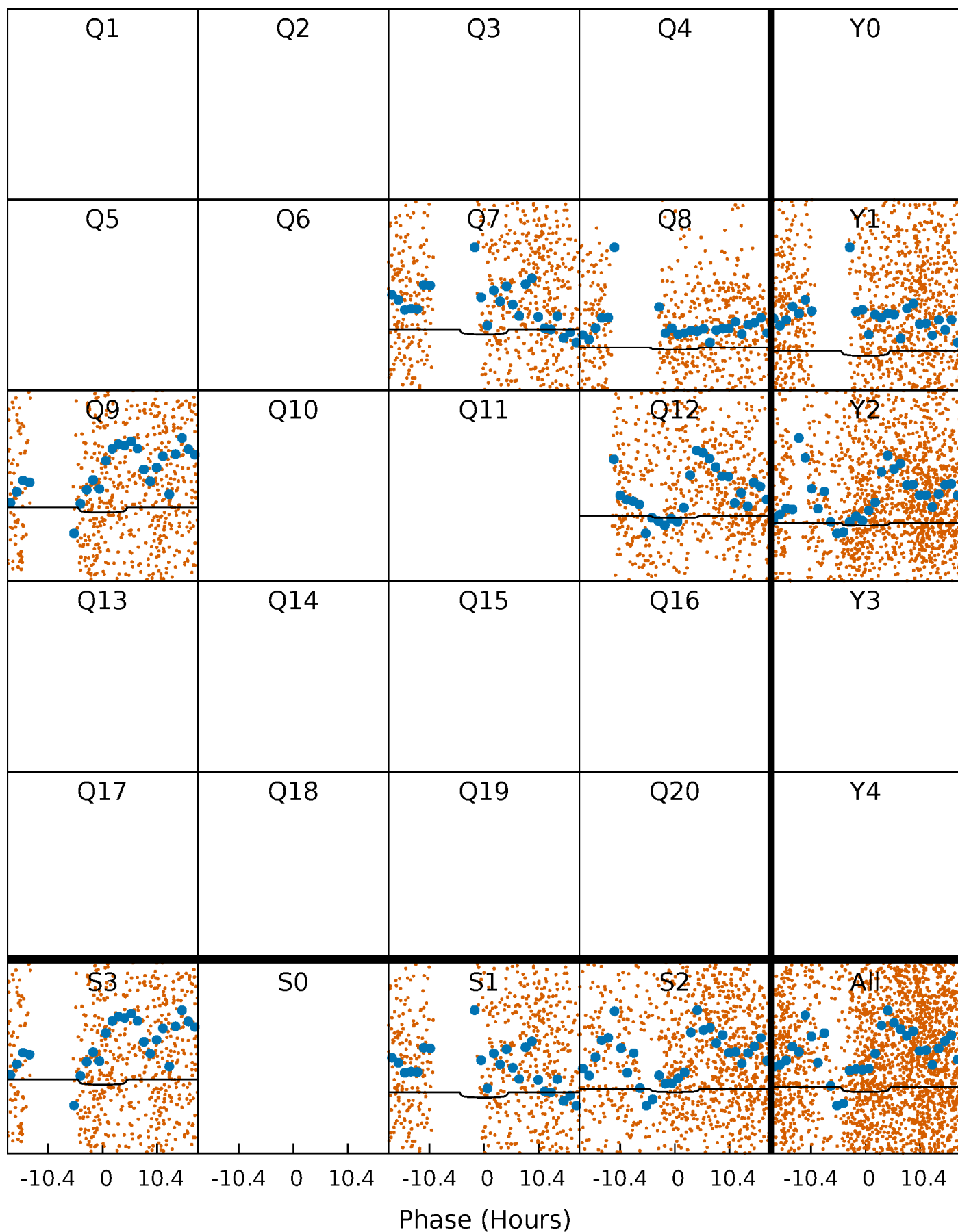
PDC Quarter-Phased Transit Curves

TCE 005113053-03 P= 4.246318 Days $T_0=135.258569$ (BKJD)



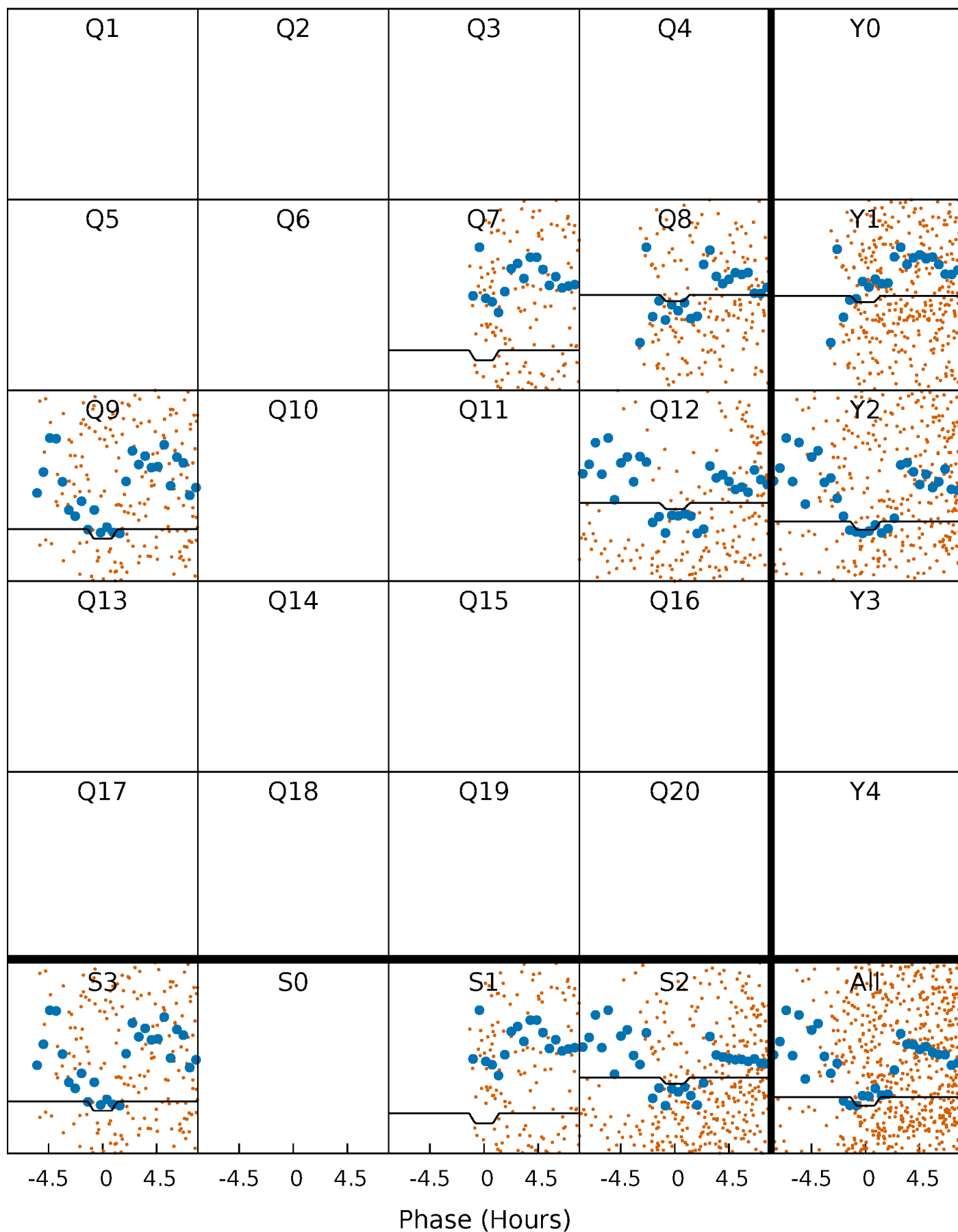
DV Quarter-Phased Transit Curves

TCE 005113053-03 P= 4.246318 Days $T_0=135.258569$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

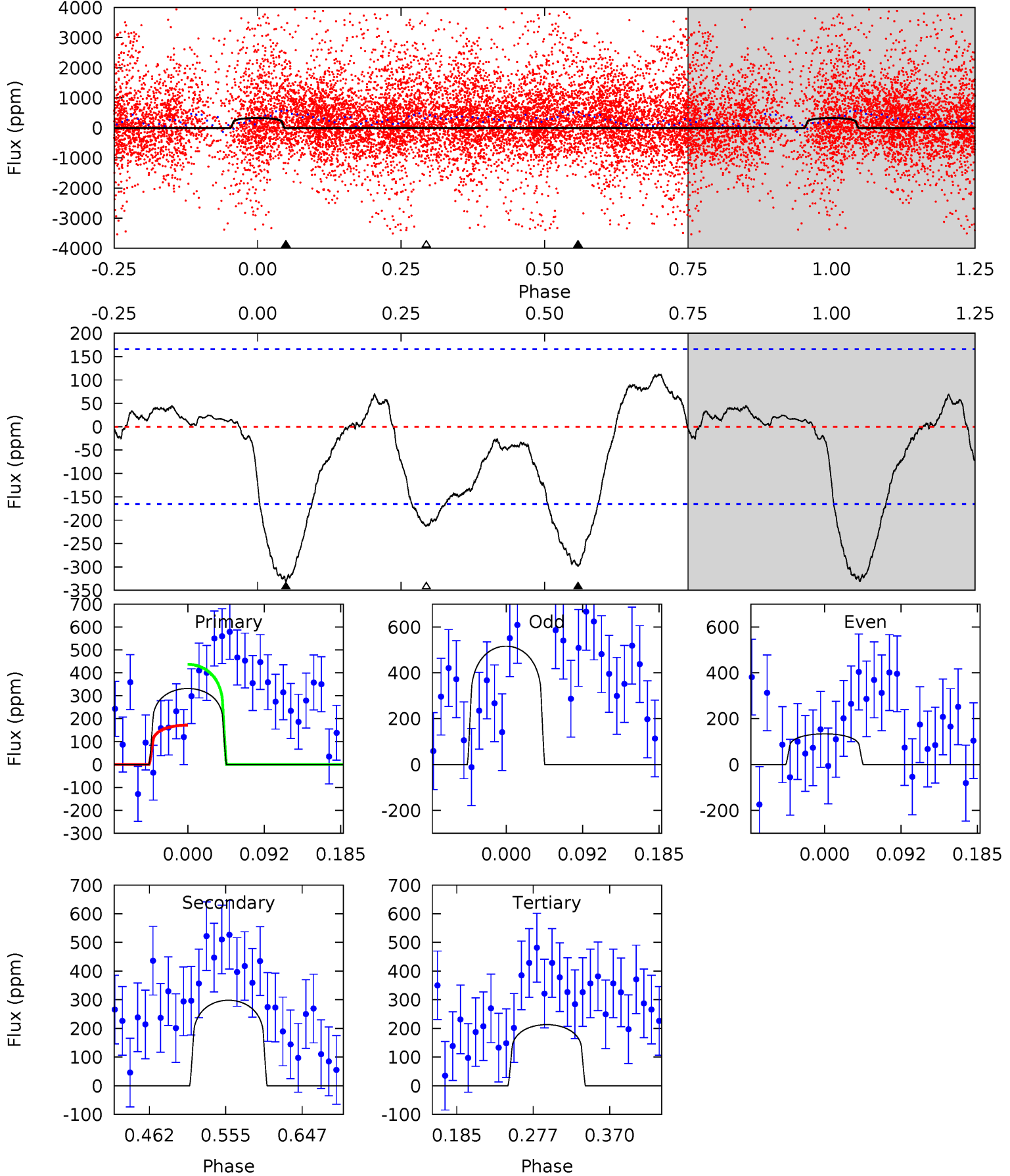
TCE 005113053-03 P= 4.246297 Days $T_0=135.255796$ (BKJD)



DV Model-Shift Uniqueness Test

005113053-03, P = 4.246318 Days, E = 135.258569 Days

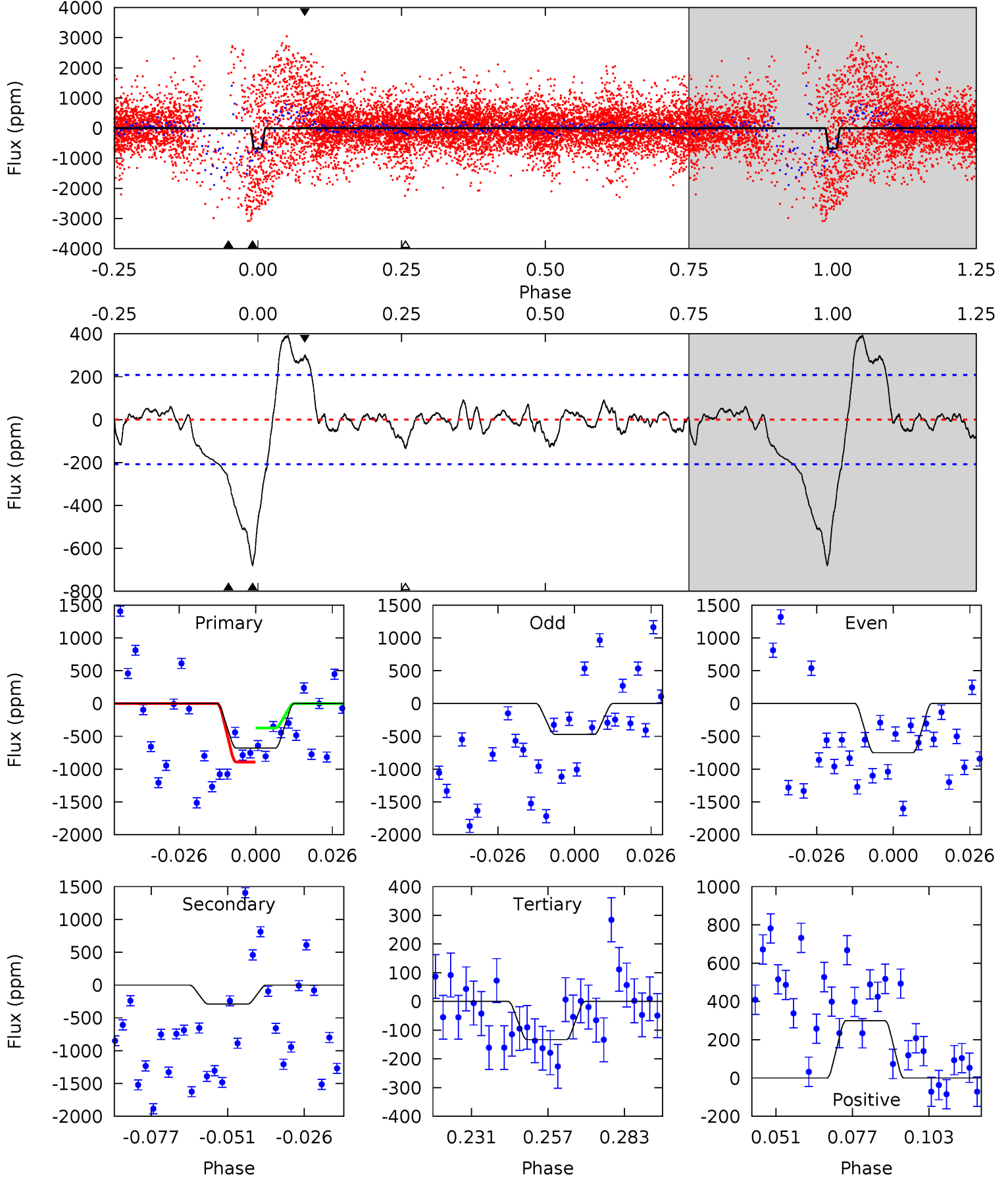
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.17	8.25	5.89	0	4.58	1.68	2.41	3.27	9.17	2.35	8.25	5.30	1.13	0.25	3.66



Alt Model-Shift Uniqueness Test

005113053-03, P = 4.246297 Days, E = 135.255796 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	6.76	3.09	6.96	4.84	2.23	1.96	12.7	8.87	3.66	-0.20	3.02	0.01	0.37	0



Stellar Parameters For KIC 005113053

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6516^{+181}_{-227}	$4.249^{+0.175}_{-0.175}$	$-0.400^{+0.250}_{-0.300}$	$1.279^{+0.347}_{-0.252}$	$1.055^{+0.175}_{-0.131}$	$0.711^{+0.597}_{-0.321}$
	+3%/-3%	+4%/-4%	+62%/-75%	+27%/-20%	+17%/-12%	+84%/-45%
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 005113053-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-298 ± 36	$19.65^{+21.38}_{-14.17}$	1974^{+155}_{-137}	2855^{+1543}_{-4804}	$1.187^{+13.917}_{-0.921}$
Alt.	-290 ± 43	$19.50^{+22.77}_{-14.05}$	1976^{+157}_{-131}	2809^{+1668}_{-4909}	$1.163^{+13.704}_{-0.934}$

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

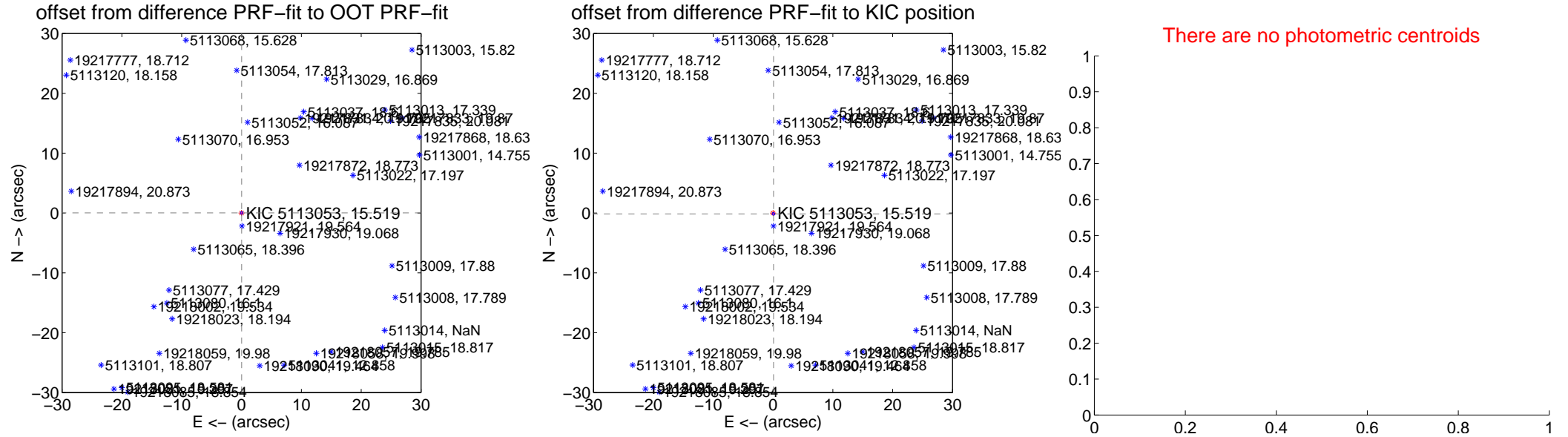
DV Centroid Data

Supplemental centroid analysis for 005113053-03. Kepler magnitude: 15.52. Transit SNR 0.54

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.032 ± 0.072	0.44	-0.020 ± 0.069	0.025 ± 0.070
PRF-fit source offset from KIC position	0.167 ± 0.072	2.33	-0.086 ± 0.068	-0.143 ± 0.073
photometric centroid source offset	—	—	—	—

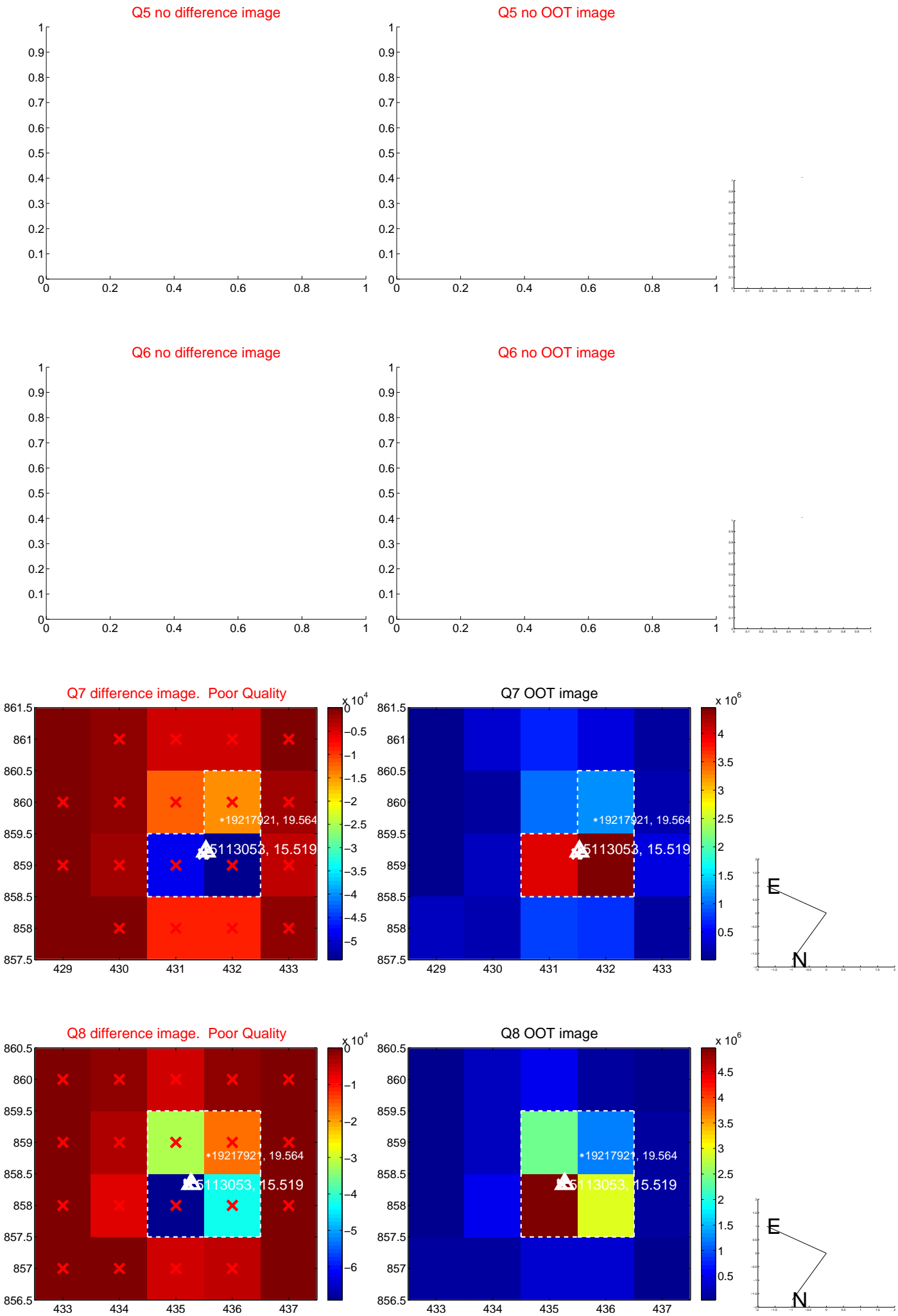


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

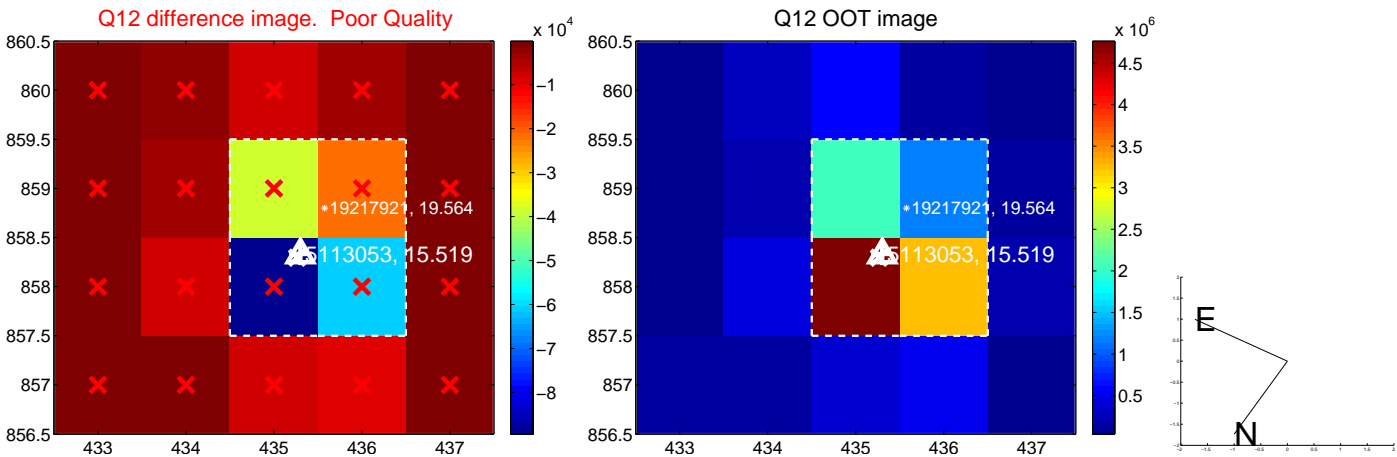
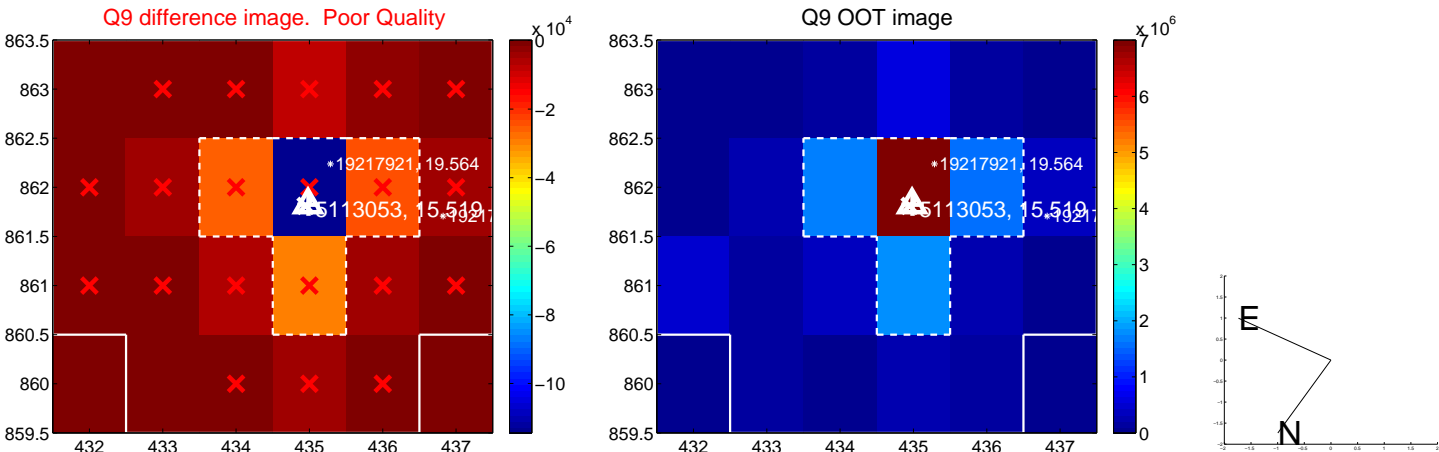
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



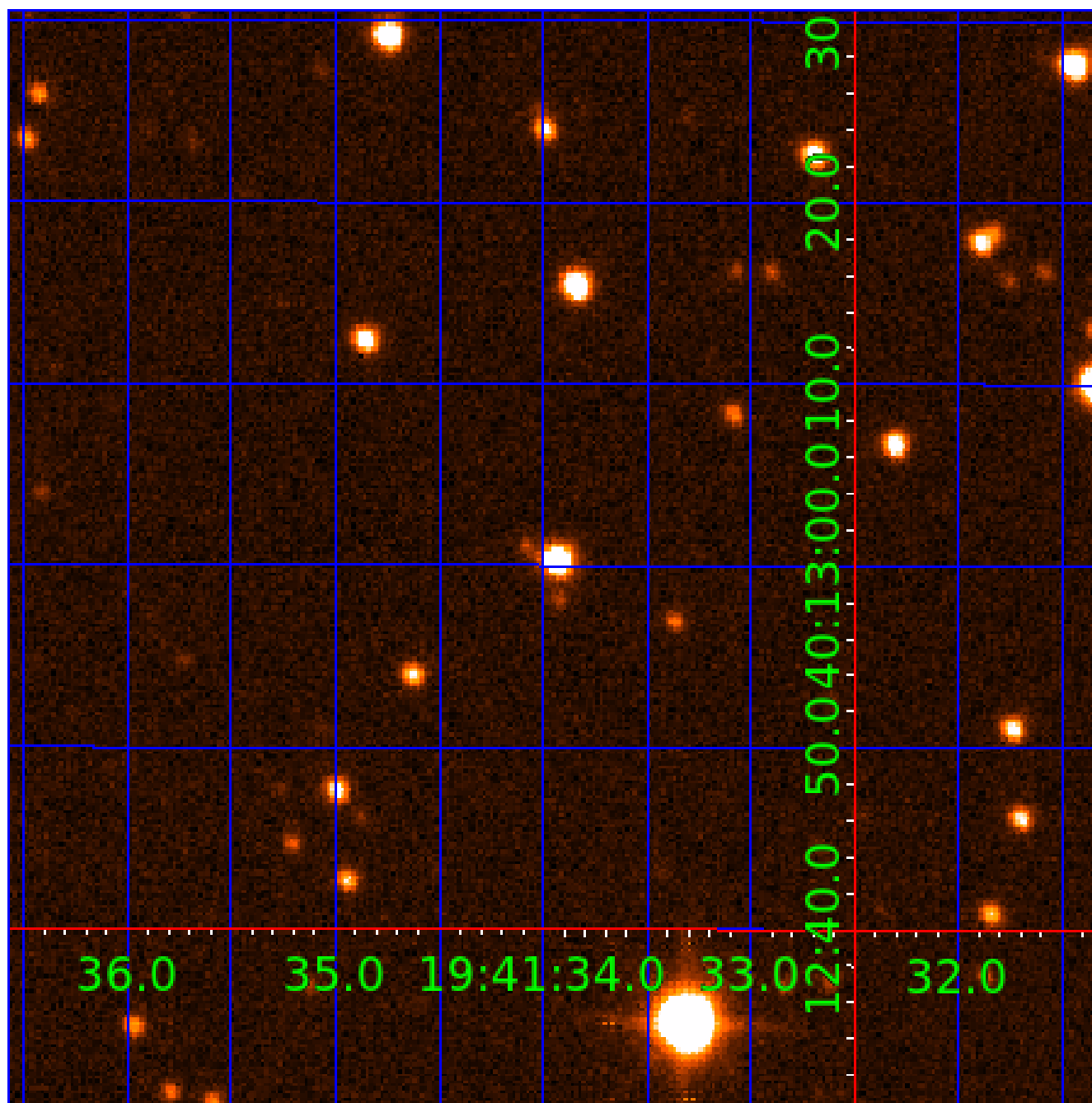
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005113053

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})
005113053-01	OBS	3571.01	1.592556	131.698494	371339.8	2.500	9728.6	-1.0	1.28	6516	69.78	3569.49
005113053-02	OBS	No	4.242180	135.560476	4279.4	3.065	714.7	63.1	1.28	6516	15.18	966.67
005113053-03	OBS	No	4.246318	135.258569	38.9	9.068	594.2	0.5	1.28	6516	0.80	965.42
005113053-04	OBS	No	1.592630	132.726791	10846.9	5.000	180.8	-1.0	1.28	6516	13.42	3569.27
005113053-05	OBS	No	44.180804	157.814125	22831.4	1.500	73.4	-1.0	1.28	6516	19.56	42.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005113053-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005113053-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT
005113053-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005113053-04	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
005113053-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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 005113053-04

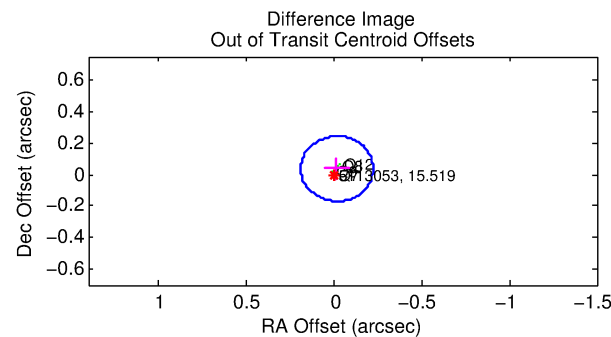
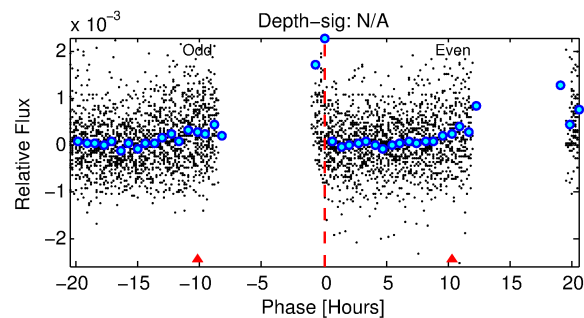
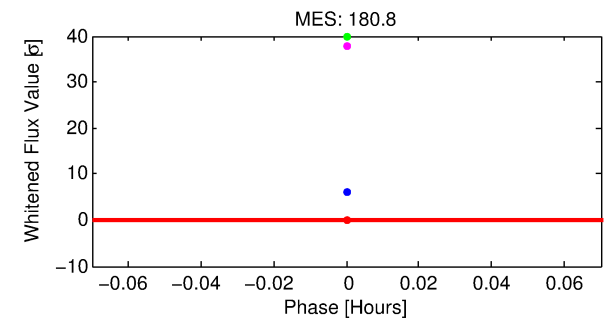
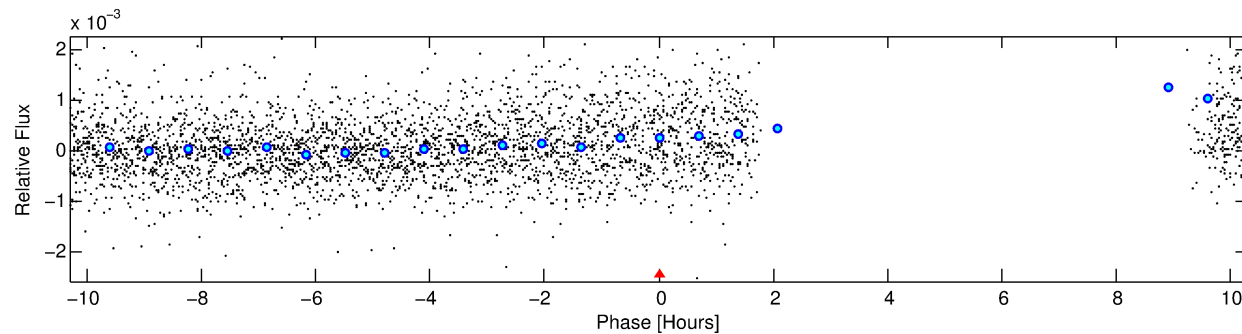
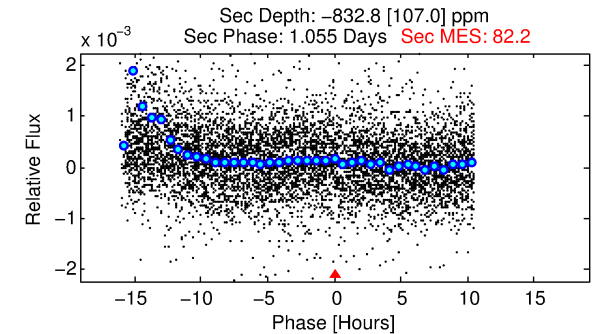
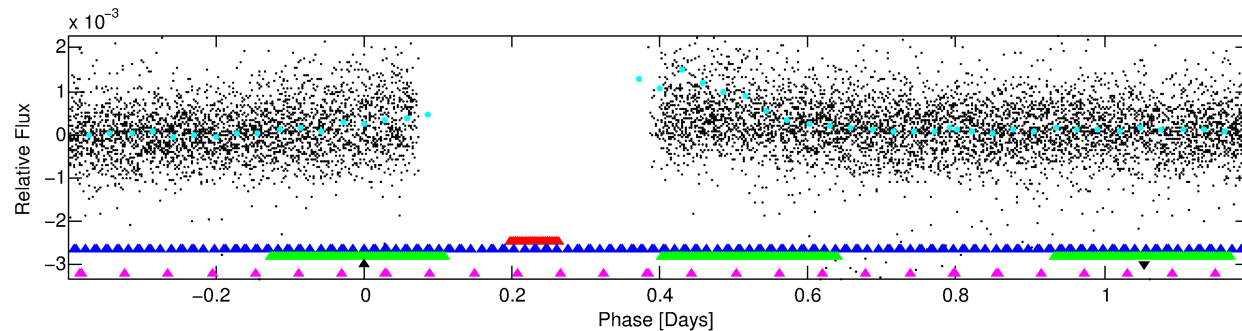
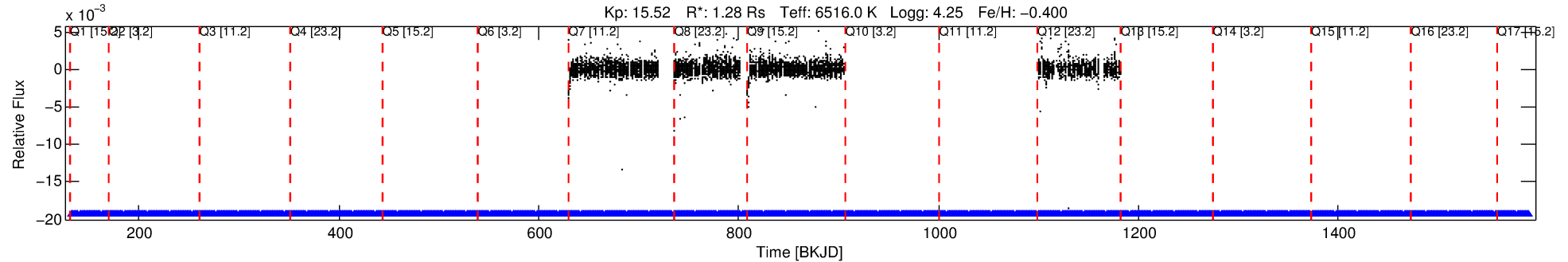
No Significant Match Found

DV One-Page Summary

KIC: 5113053 Candidate: 4 of 5 Period: 1.593 d

KOI: K03571 Corr: No Ephemeris Match

Kp: 15.52 R*: 1.28 Rs Teff: 6516.0 K Logg: 4.25 Fe/H: -0.400



TPS TCE Results:

Period = 1.59263 d
Epoch = 132.7268 BKJD

DV fit results are unavailable

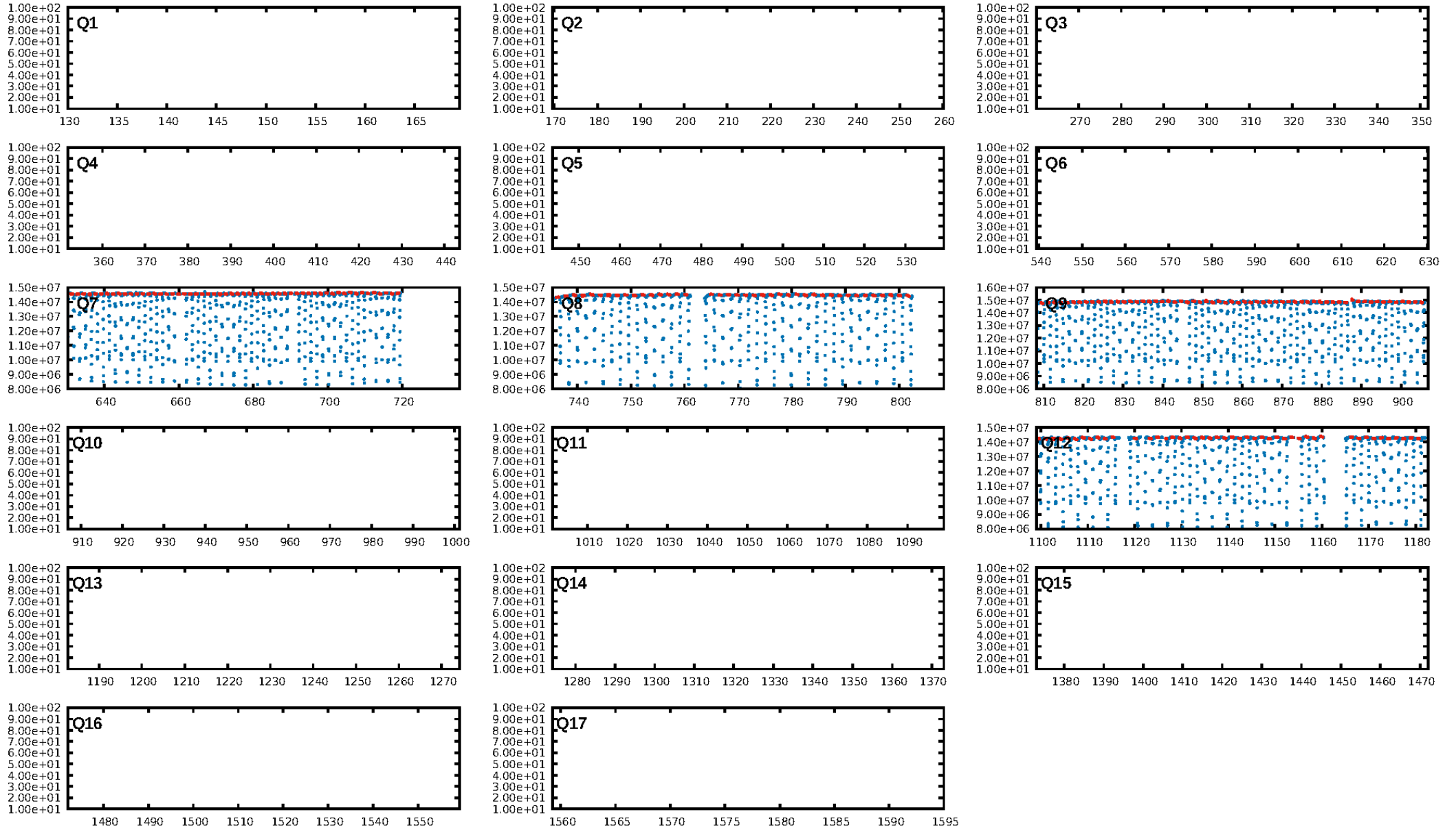
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [10.84σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [160/160]
GhostDiagnostic-chr: 2.146
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.042 arcsec [0.60σ]
KicOffset-rm: 0.153 arcsec [2.21σ]
OotOffset-st: 0/1/2/1 [4]
KicOffset-st: 0/1/2/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/4]

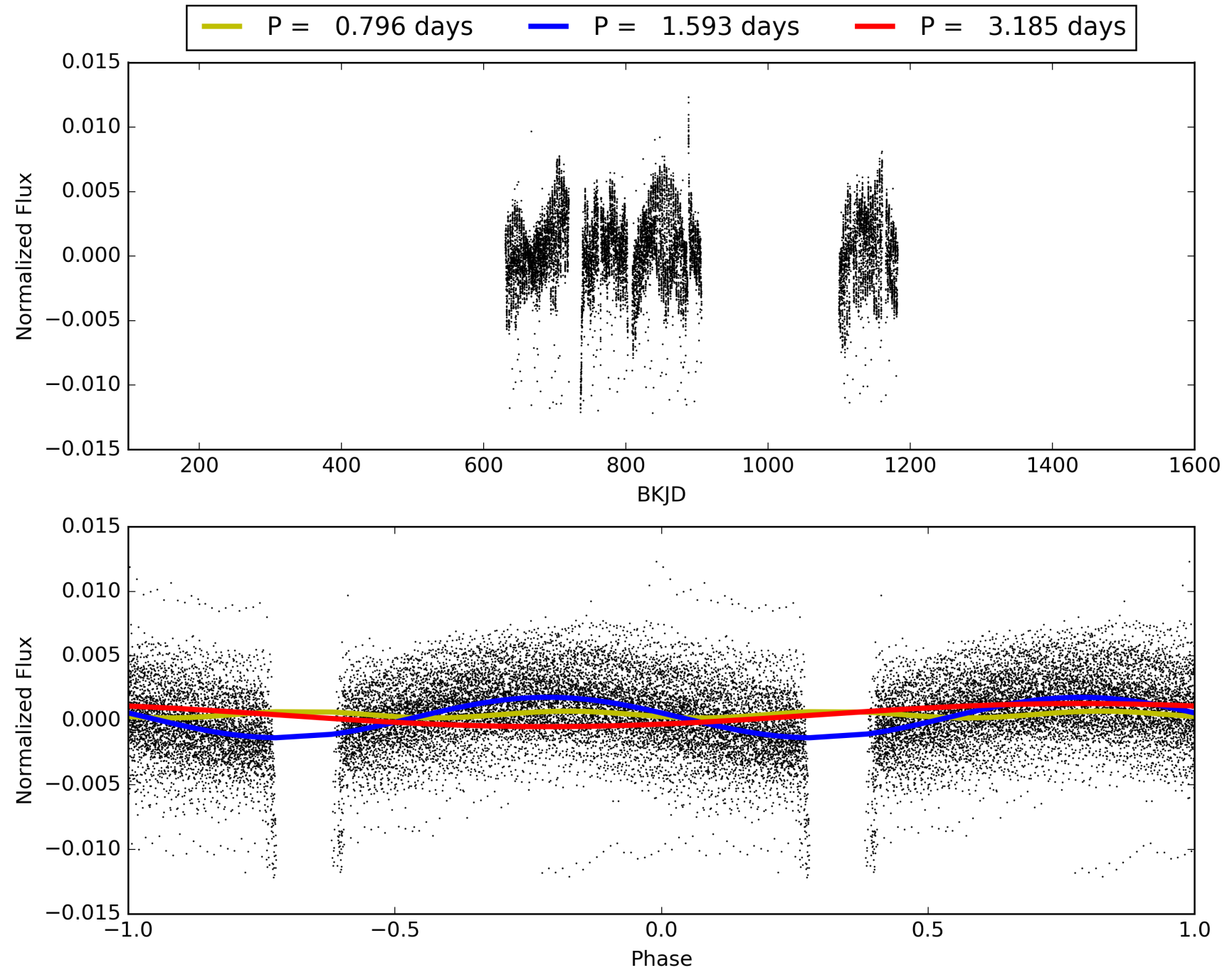
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:02:45 Z

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

TCE 005113053-04, PDC Light Curves

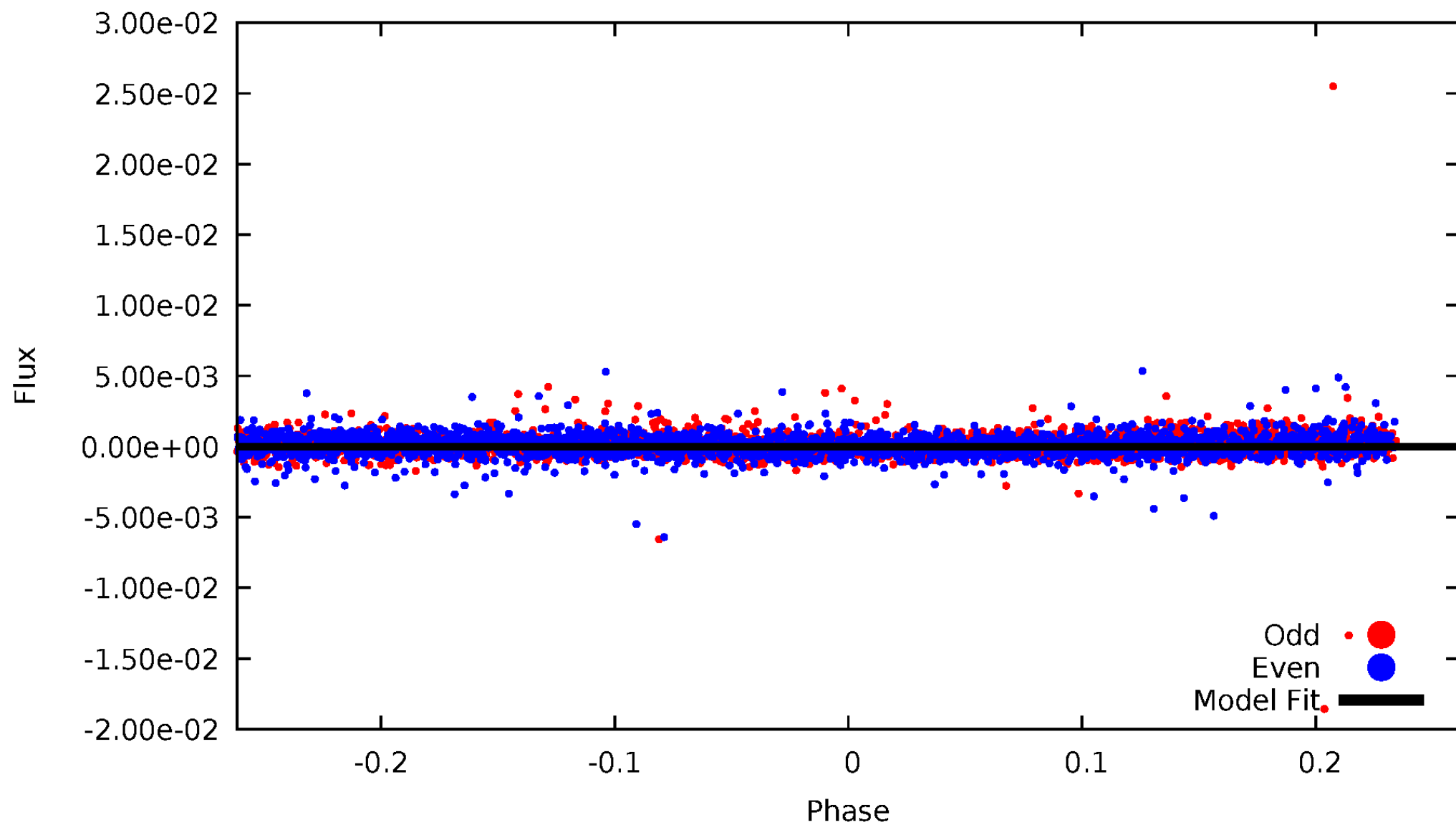


TCE 005113053-04



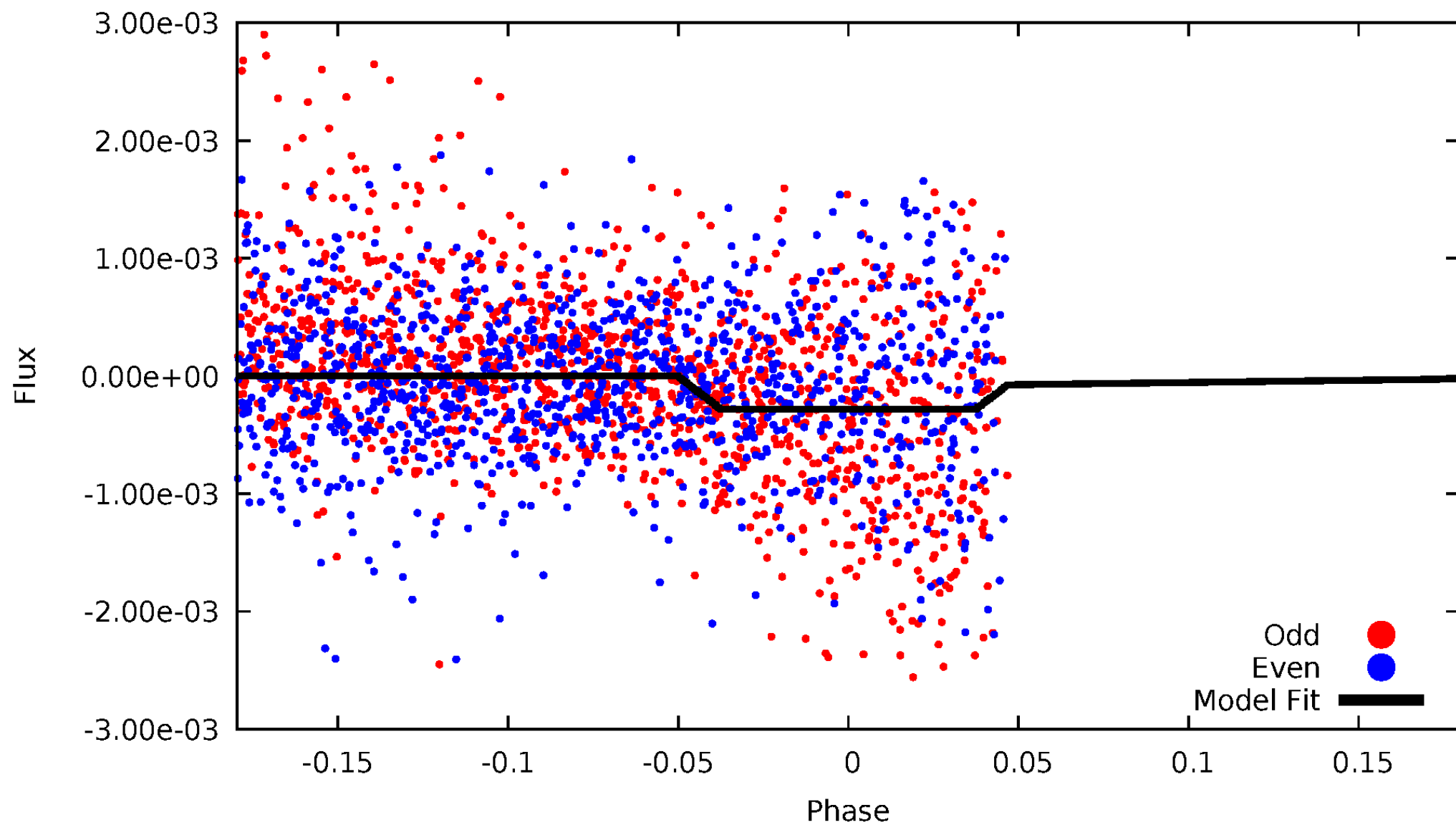
DV Odd/Even

TCE 005113053-04



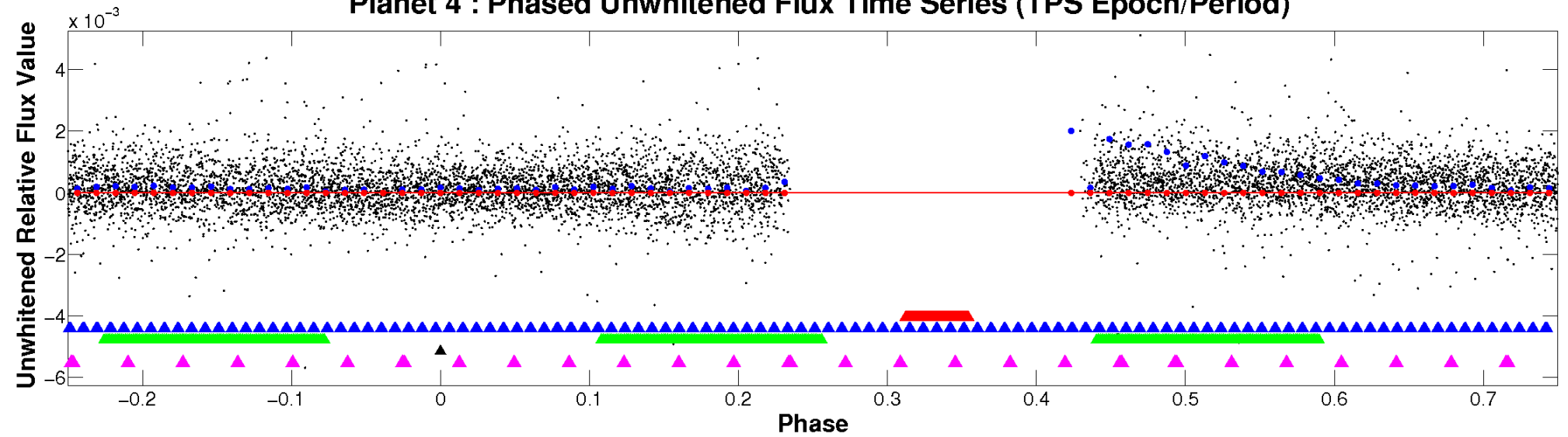
ALT Odd/Even

TCE 005113053-04



Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

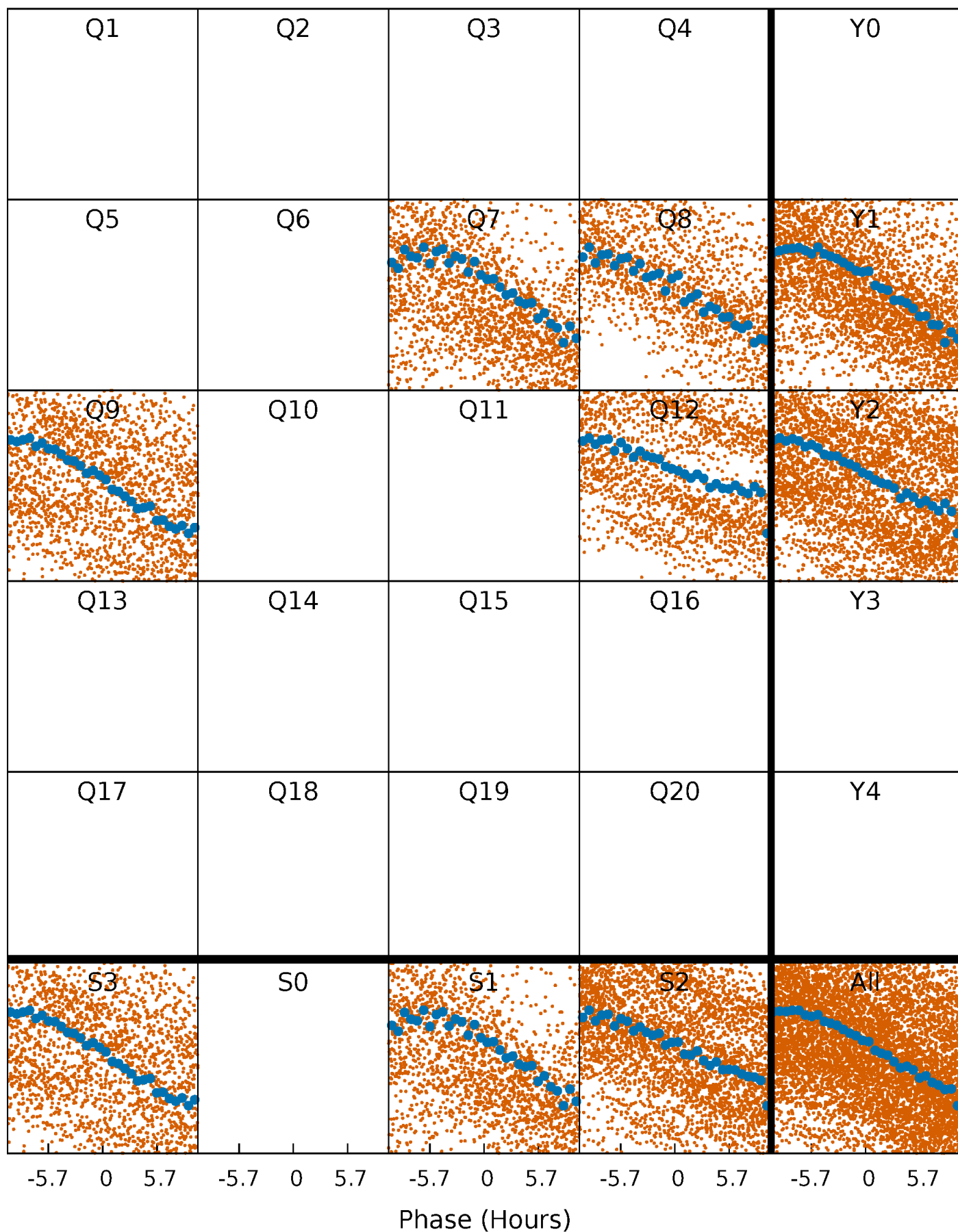


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



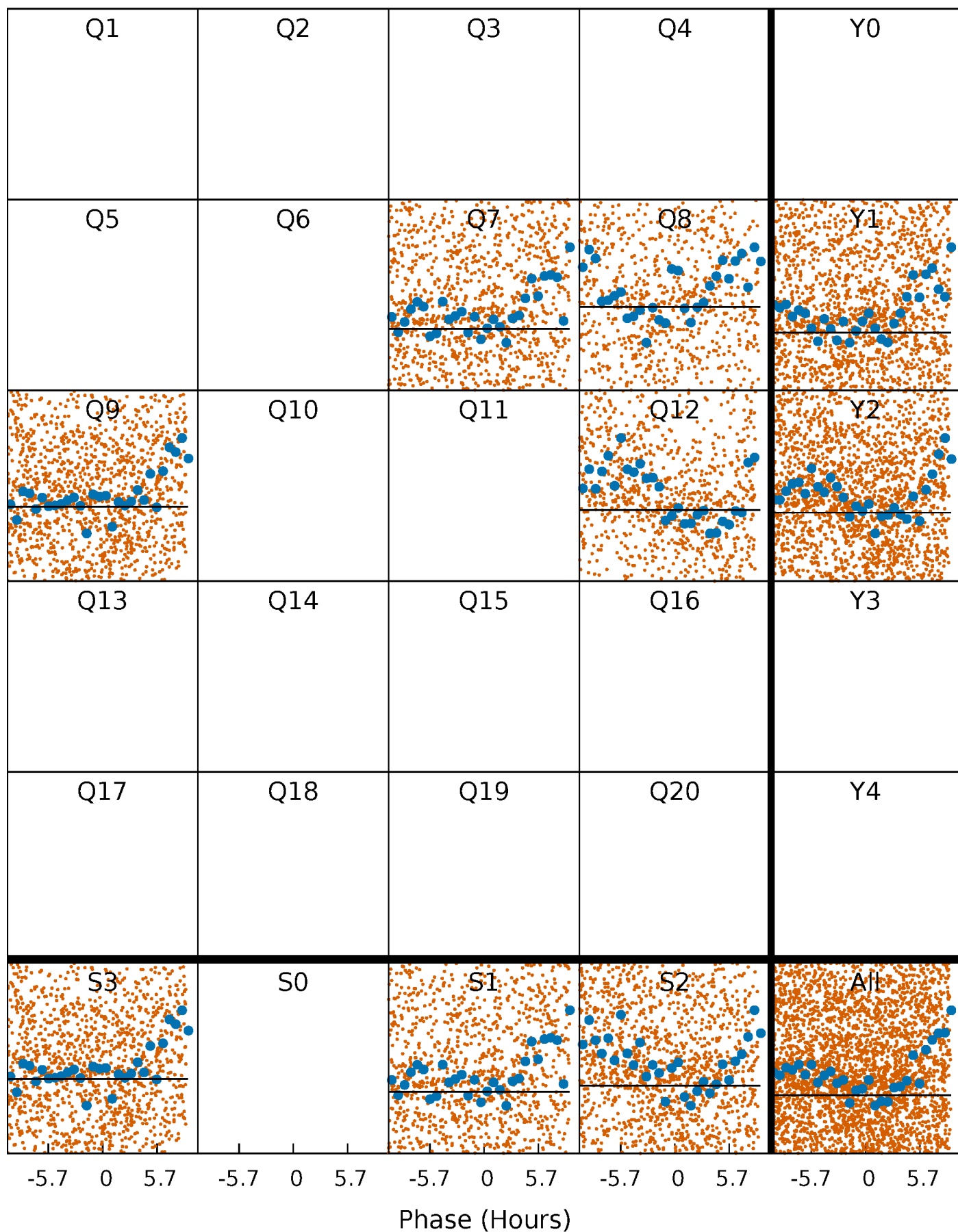
PDC Quarter-Phased Transit Curves

TCE 005113053-04 P= 1.592630 Days $T_0=132.726791$ (BKJD)



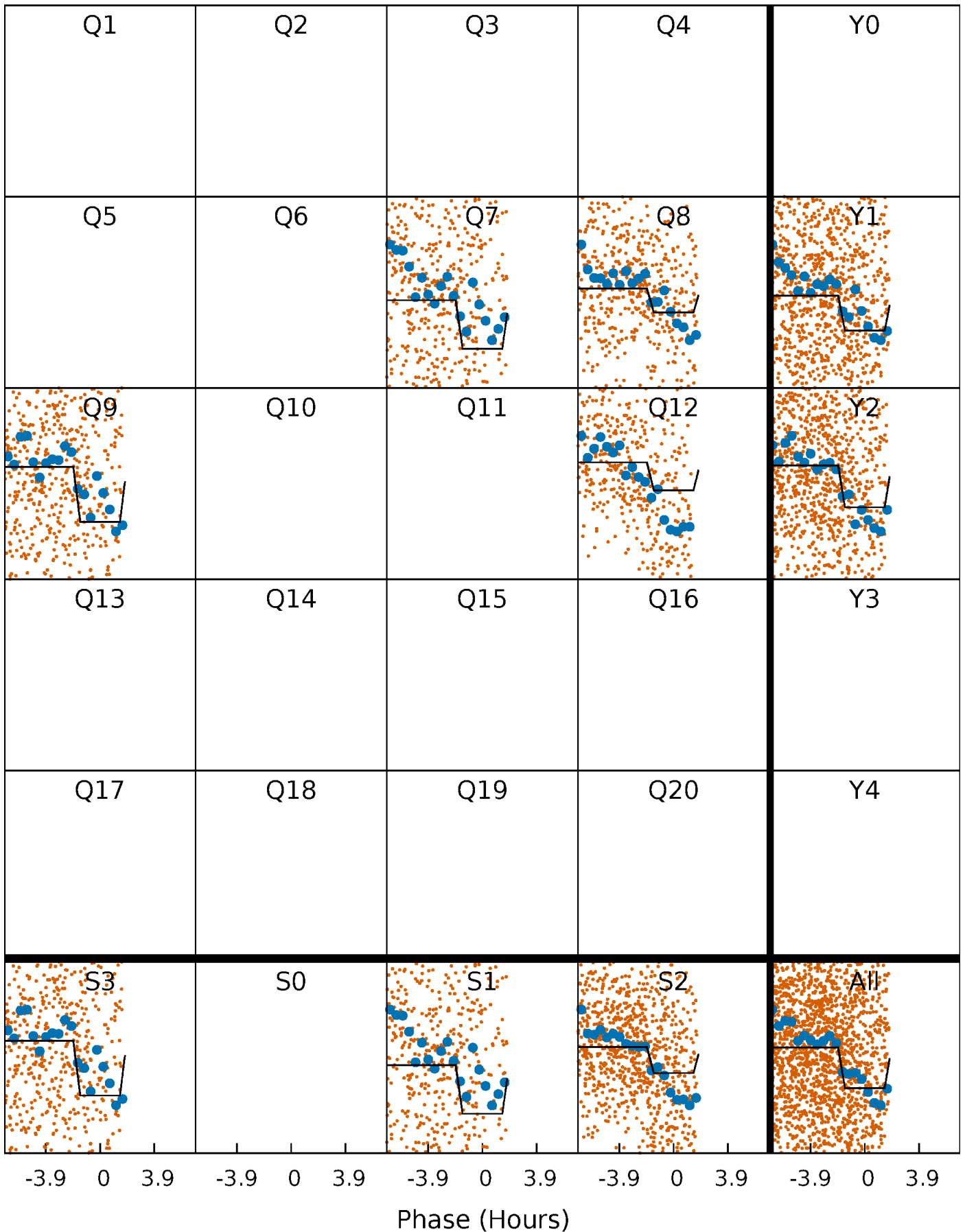
DV Quarter-Phased Transit Curves

TCE 005113053-04 P= 1.592630 Days $T_0=132.726791$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

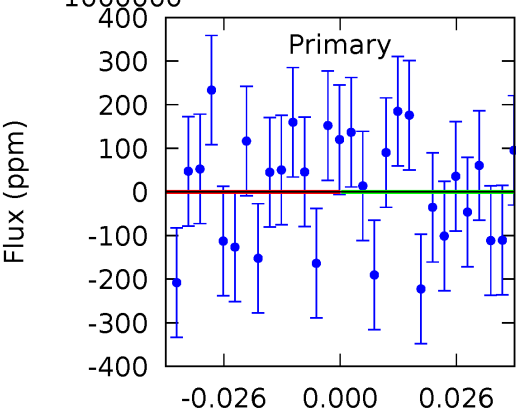
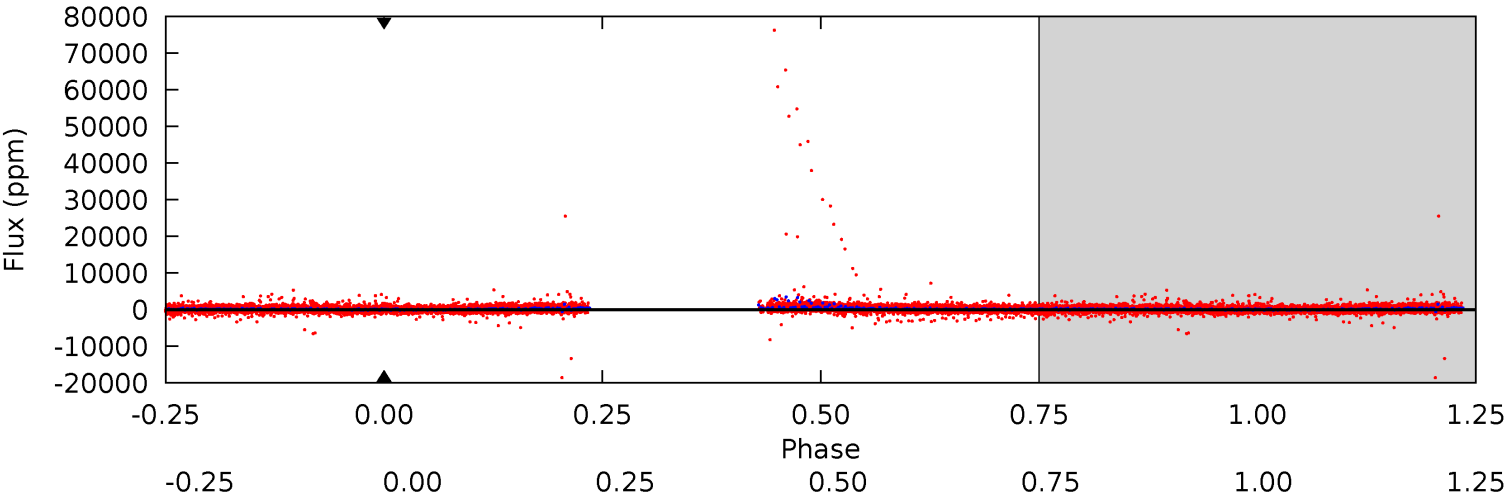
TCE 005113053-04 $P = 1.592630$ Days $T_0 = 133.025852$ (BKJD)



DV Model-Shift Uniqueness Test

005113053-04, P = 1.592630 Days, E = 132.726791 Days

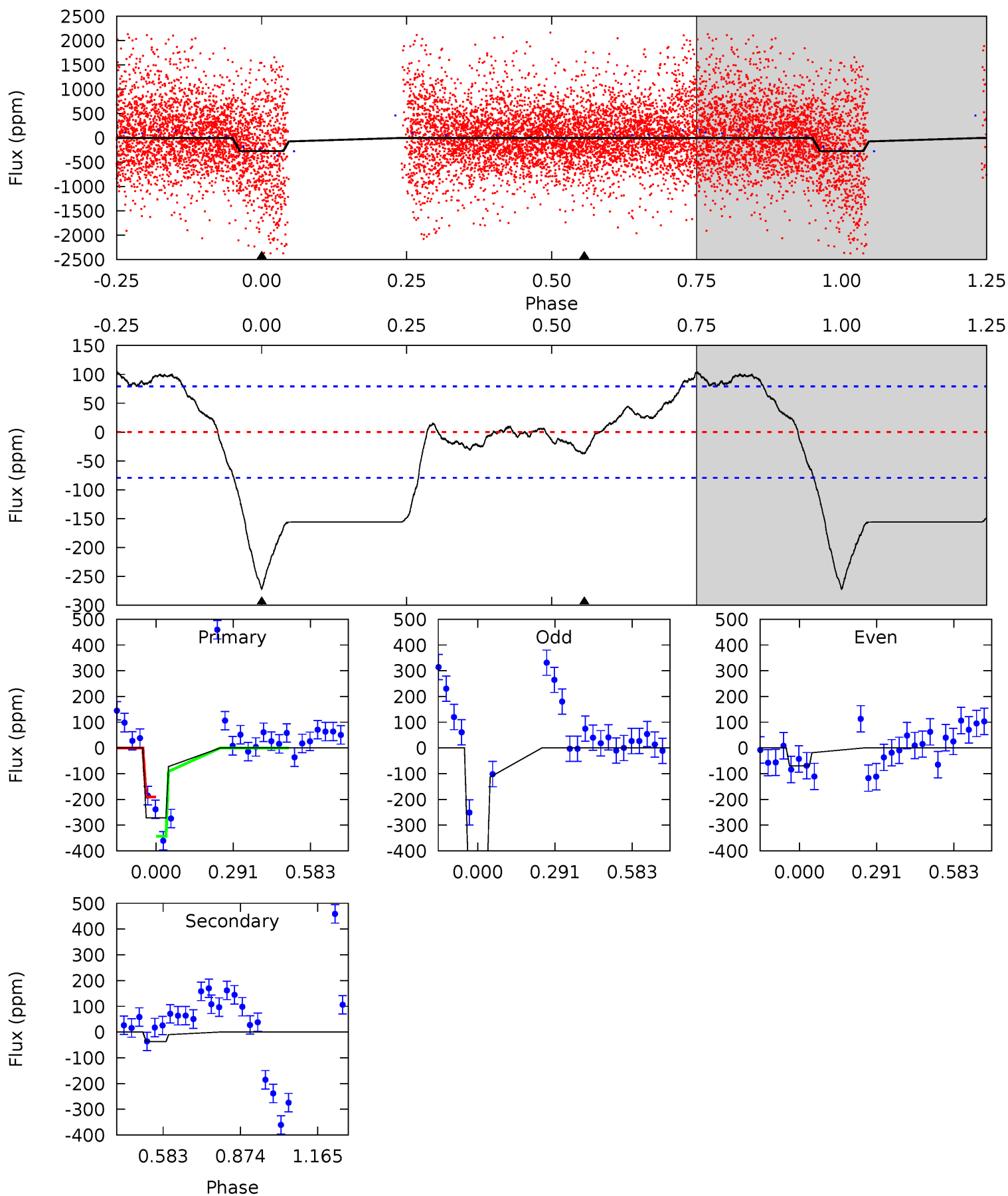
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005113053-04, P = 1.592630 Days, E = 133.025852 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	2.04	0	0	4.34	1.06	0.24	14.9	14.9	2.04	2.04	8.11	1.09	0.28	3.97



Stellar Parameters For KIC 005113053

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6516^{+181}_{-227}	$4.249^{+0.175}_{-0.175}$	$-0.400^{+0.250}_{-0.300}$	$1.279^{+0.347}_{-0.252}$	$1.055^{+0.175}_{-0.131}$	$0.711^{+0.597}_{-0.321}$
	+3%/-3%	+4%/-4%	+62%/-75%	+27%/-20%	+17%/-12%	+84%/-45%
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 005113053-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$16.84^{+14.32}_{-10.83}$	2751^{+193}_{-181}	-3779^{+18810}_{-11425}	$-1.264^{+231.817}_{-238.192}$
Alt.	-37 ± 18	$10.22^{+12.73}_{-7.06}$	2758^{+189}_{-176}	-2694^{+6264}_{-253}	$0.131^{+1.277}_{-0.107}$

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

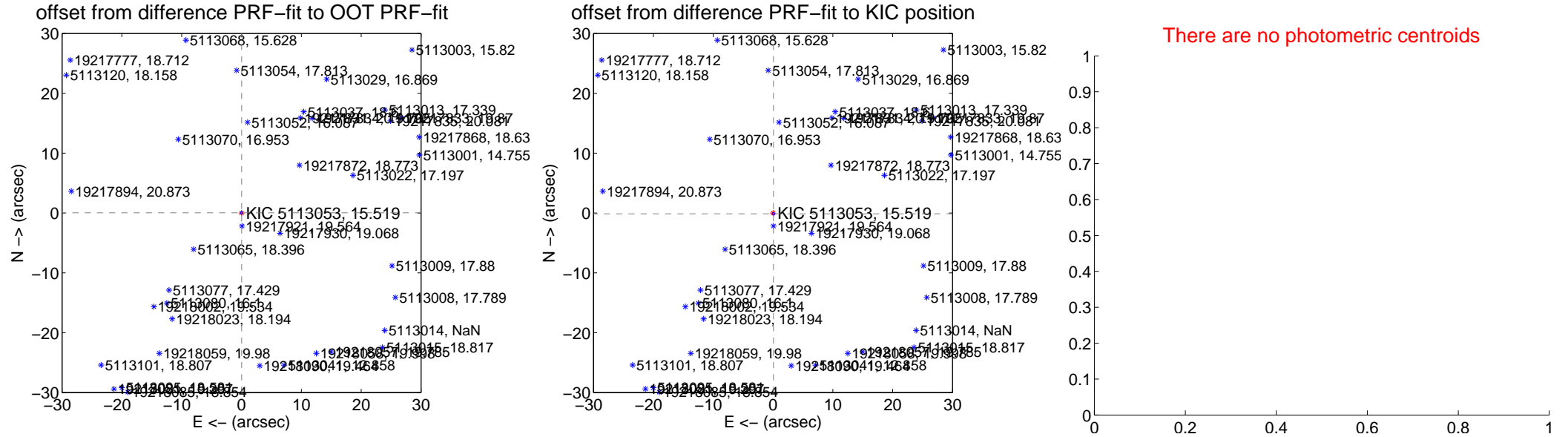
DV Centroid Data

Supplemental centroid analysis for 005113053-04. Kepler magnitude: 15.52. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.042 ± 0.069	0.60	-0.017 ± 0.068	0.038 ± 0.069
PRF-fit source offset from KIC position	0.153 ± 0.069	2.21	-0.079 ± 0.067	-0.131 ± 0.070
photometric centroid source offset	—	—	—	—

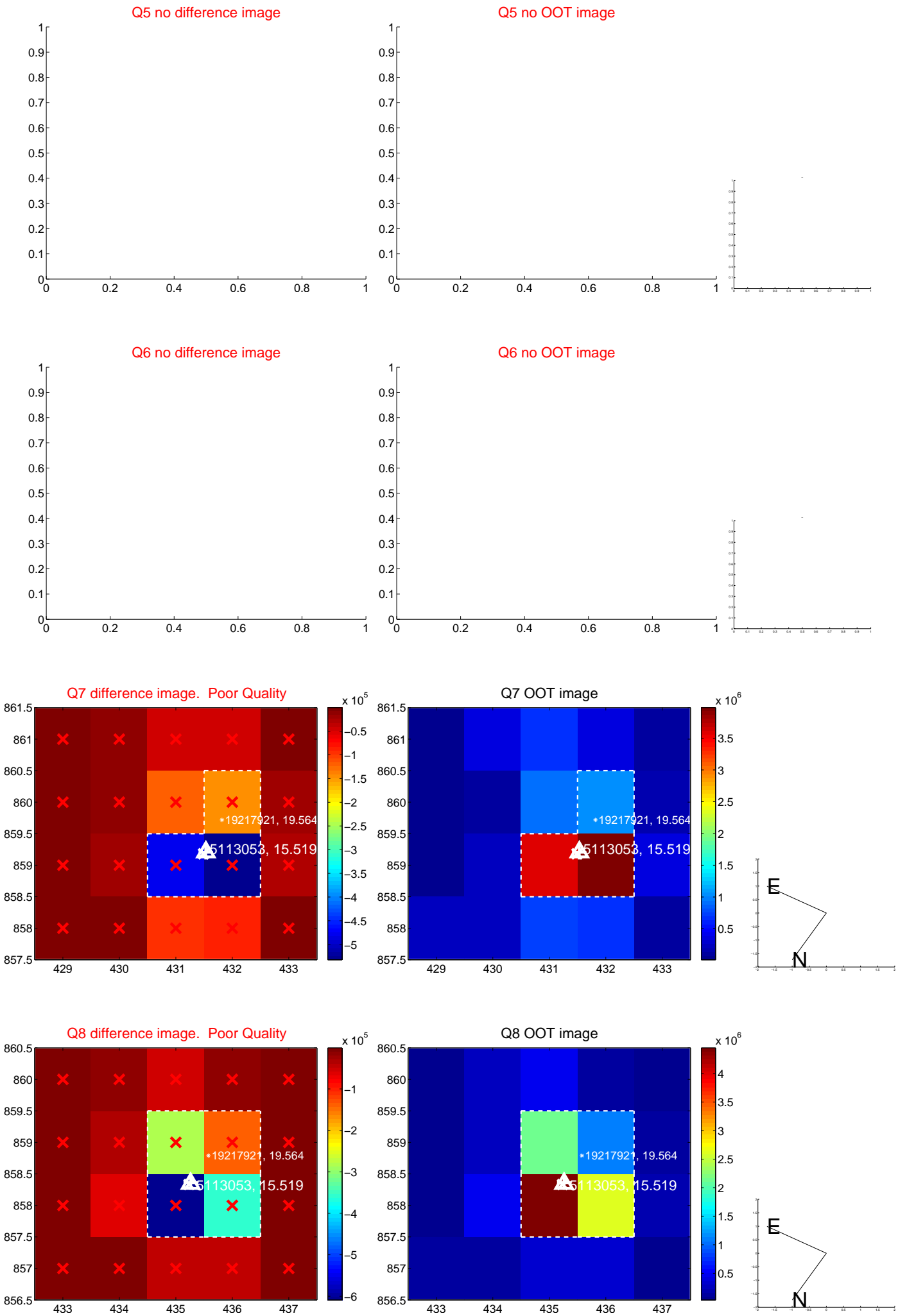


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

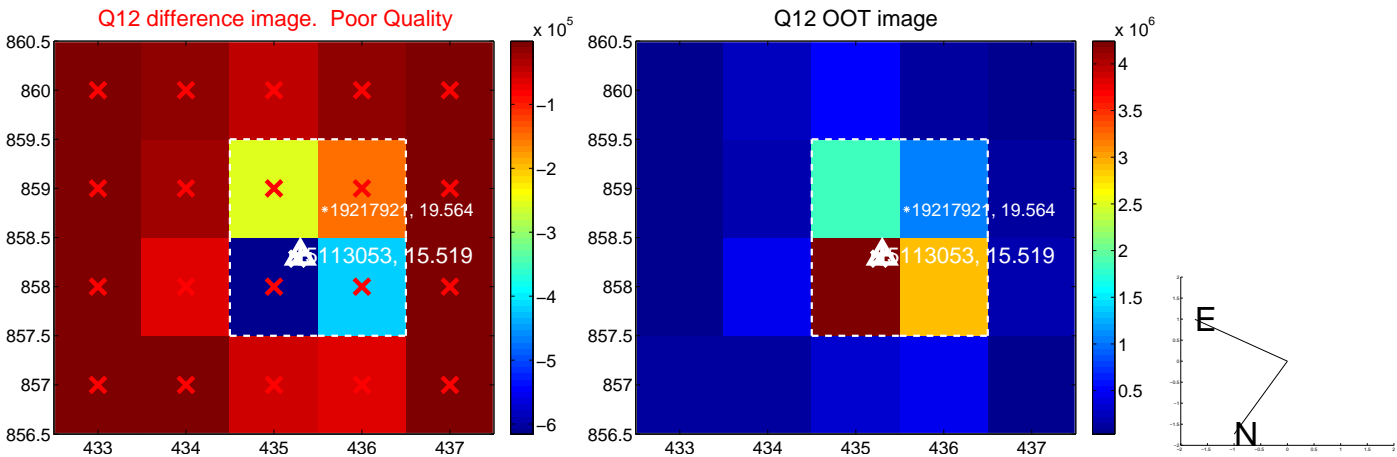
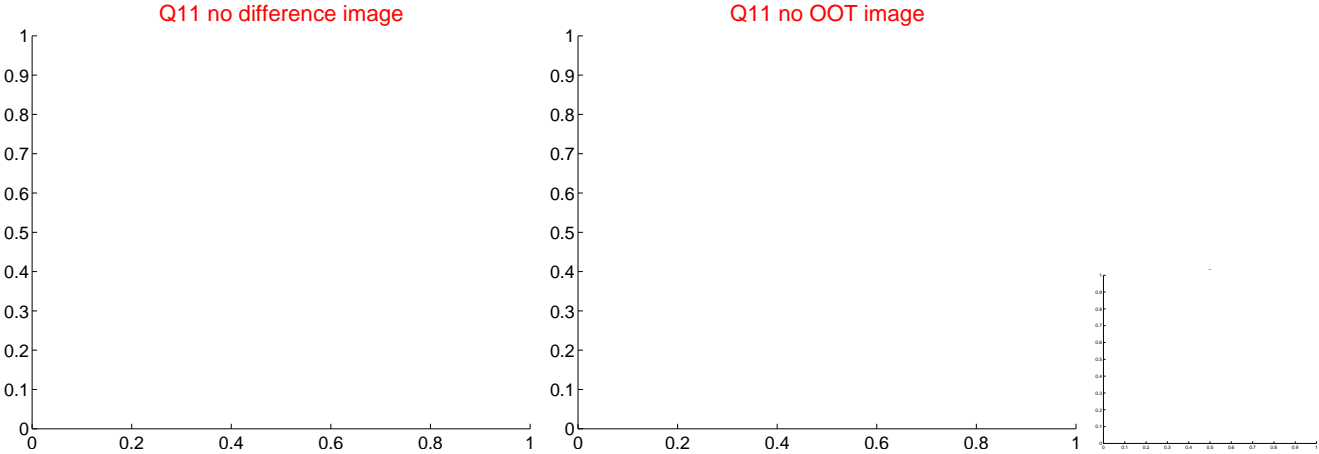
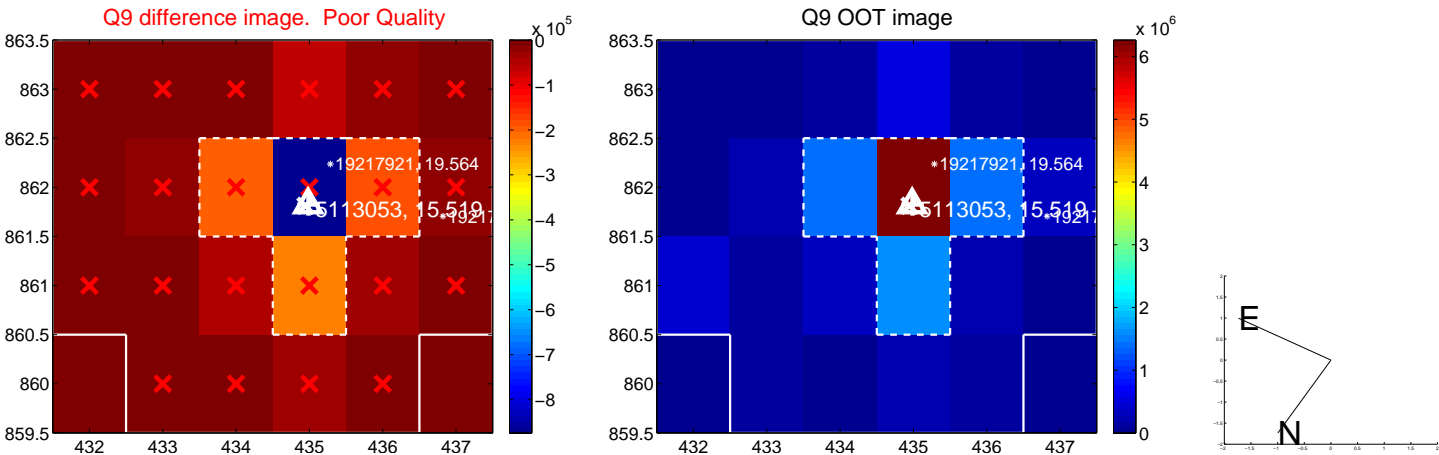
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



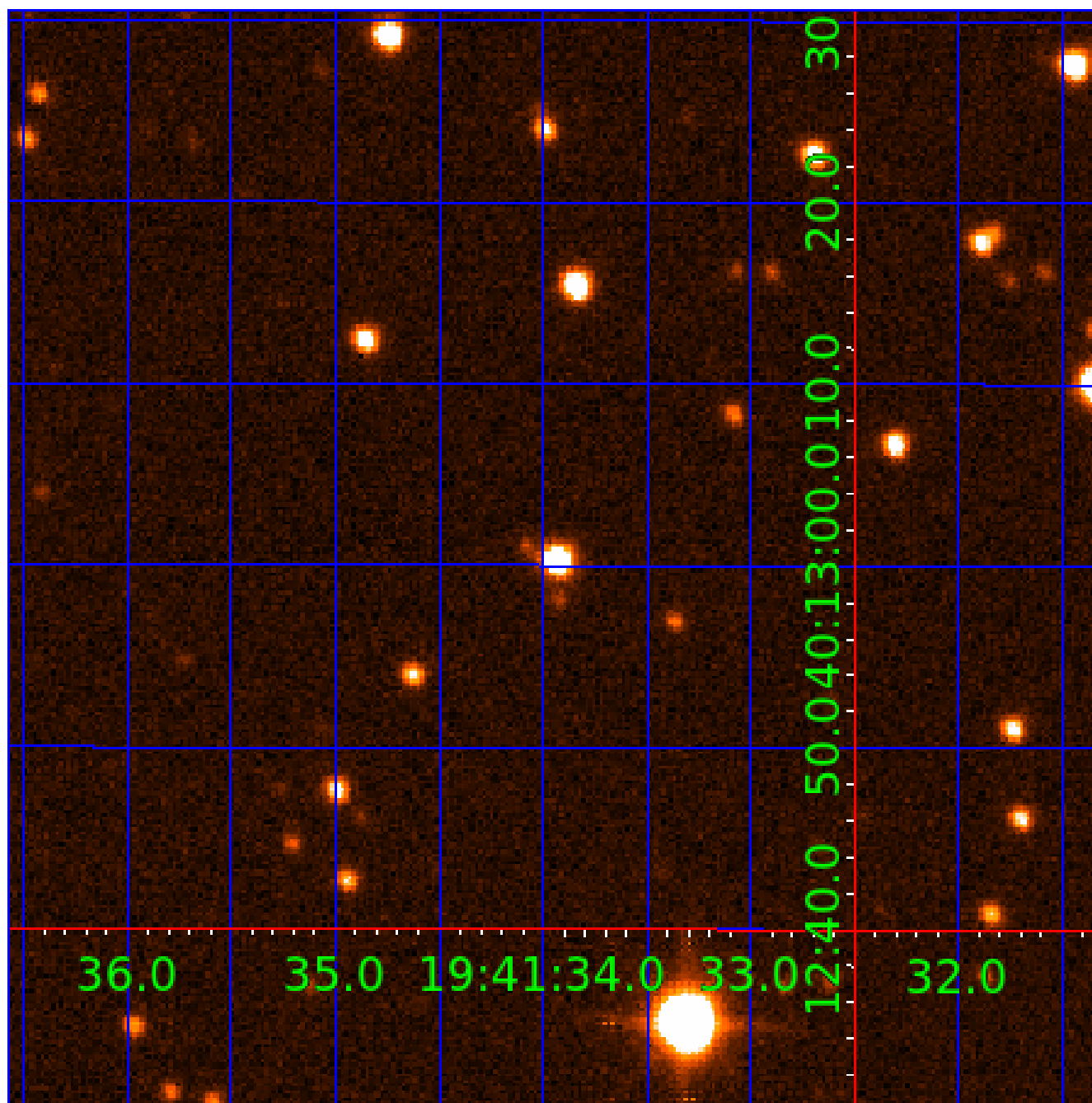
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005113053

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})
005113053-01	OBS	3571.01	1.592556	131.698494	371339.8	2.500	9728.6	-1.0	1.28	6516	69.78	3569.49
005113053-02	OBS	No	4.242180	135.560476	4279.4	3.065	714.7	63.1	1.28	6516	15.18	966.67
005113053-03	OBS	No	4.246318	135.258569	38.9	9.068	594.2	0.5	1.28	6516	0.80	965.42
005113053-04	OBS	No	1.592630	132.726791	10846.9	5.000	180.8	-1.0	1.28	6516	13.42	3569.27
005113053-05	OBS	No	44.180804	157.814125	22831.4	1.500	73.4	-1.0	1.28	6516	19.56	42.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005113053-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005113053-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT
005113053-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005113053-04	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
005113053-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

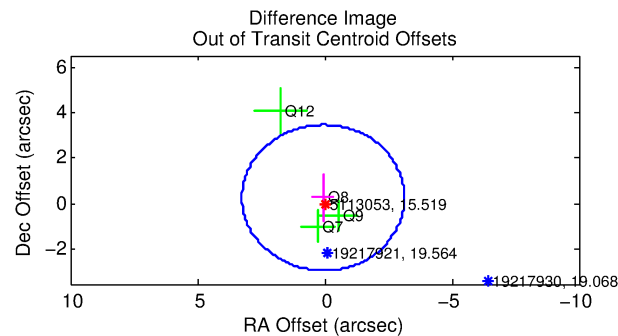
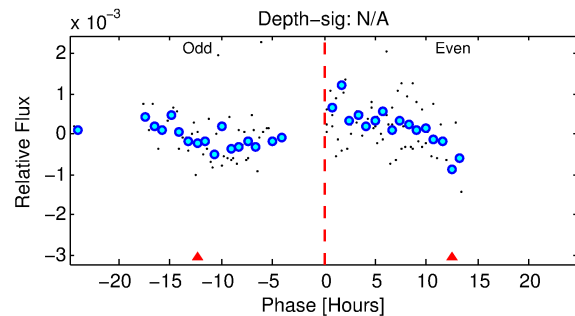
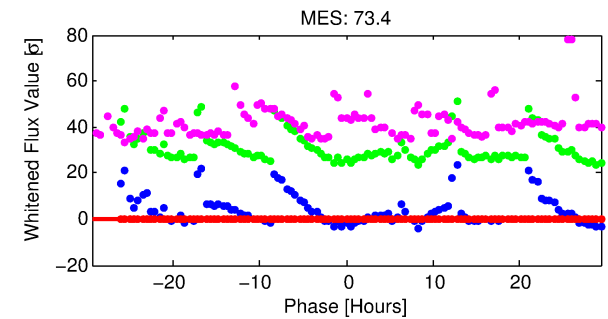
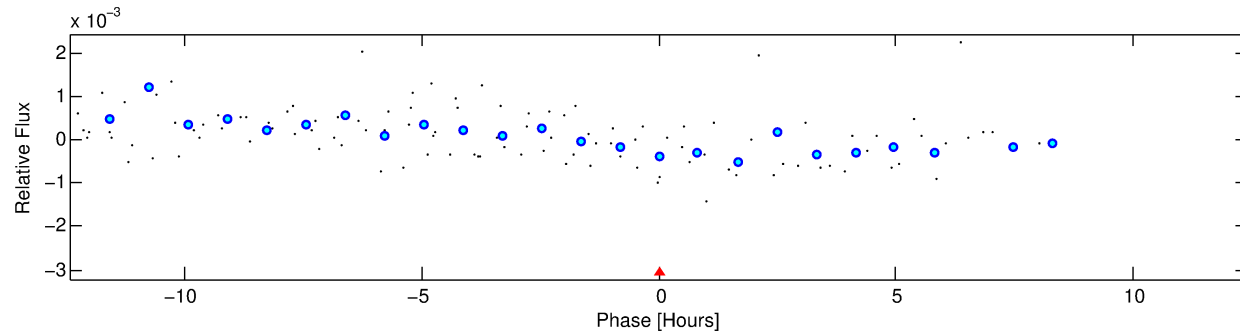
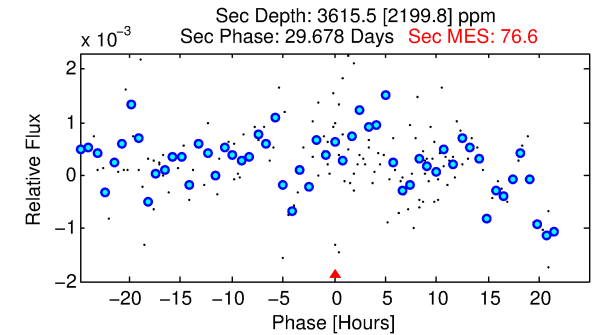
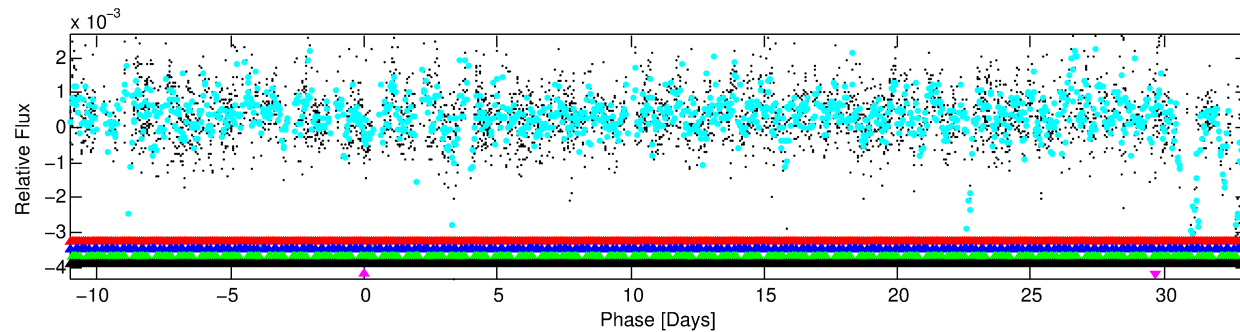
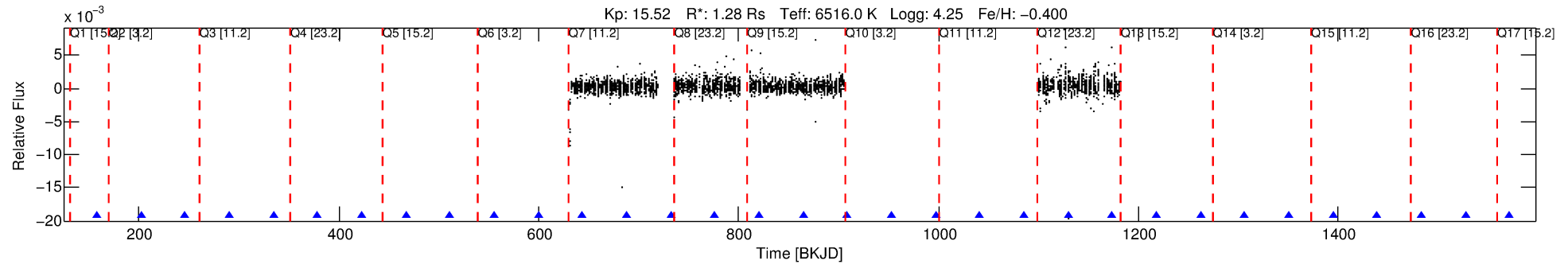
Ephemeris Match Information For 005113053-05

No Significant Match Found

DV One-Page Summary

KIC: 5113053 Candidate: 5 of 5 Period: 44.181 d

KOI: K03571 Corr: No Ephemeris Match



TPS TCE Results:

Period = 44.18080 d

Epoch = 157.8141 BKJD

DV fit results are unavailable

DV Diagnostic Results:

ShortPeriod-sig: 100.0% [104.27σ]

LongPeriod-sig: N/A

ModelChiSquare2-sig: N/A

ModelChiSquareGof-sig: N/A

Bootstrap-pfa: N/A

RollingBand-fgt: 1.00 [4/4]

GhostDiagnostic-chr: 0.303

Centroid-sig: N/A

Centroid-so: N/A

OotOffset-rm: 0.283 arcsec [0.27σ]

KicOffset-rm: 0.163 arcsec [0.17σ]

OotOffset-st: 0/1/2/1 [4]

KicOffset-st: 0/1/2/1 [4]

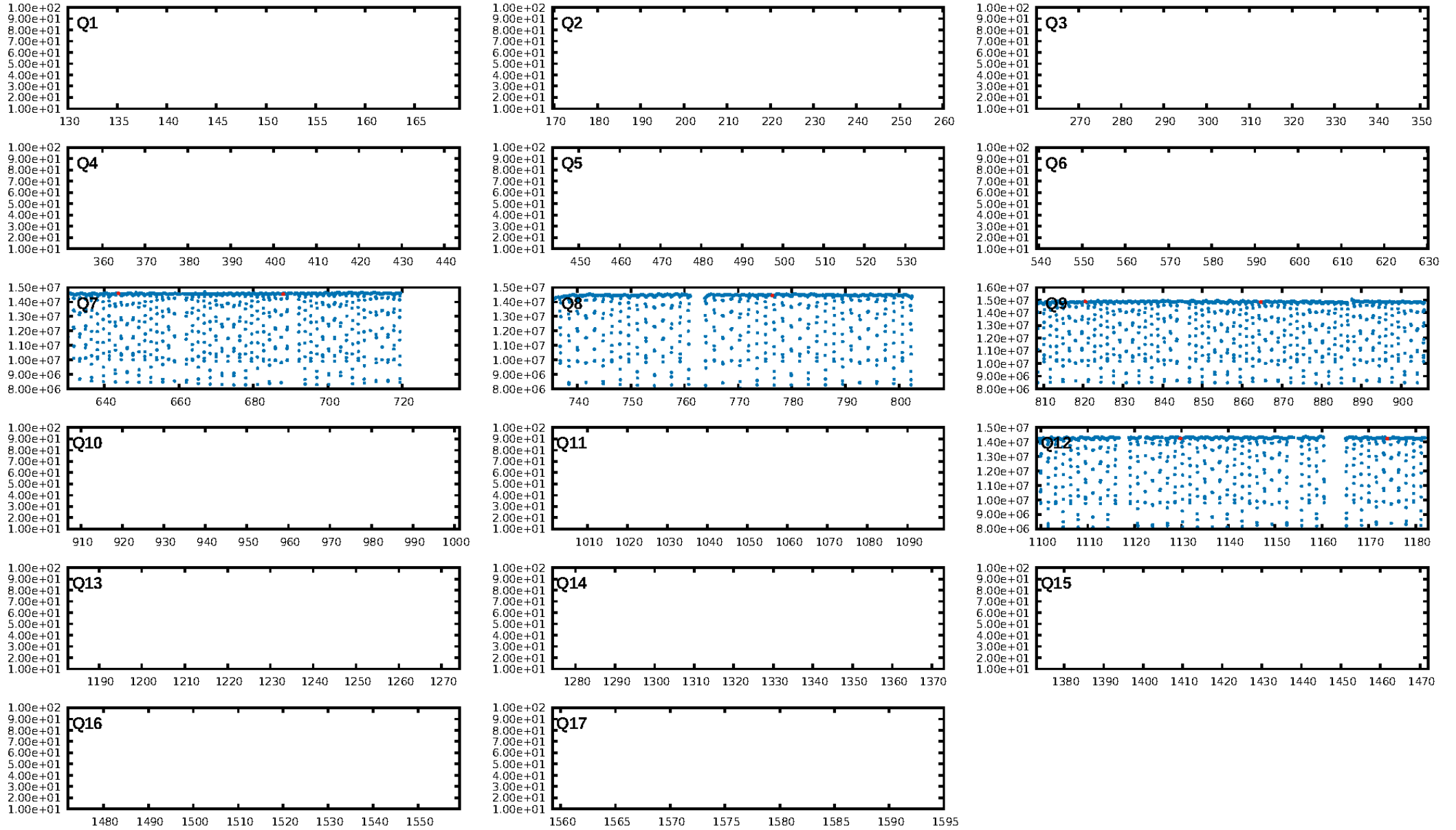
DiffImageQuality-fgm: 0.00 [0/4]

DiffImageOverlap-fno: 0.75 [3/4]

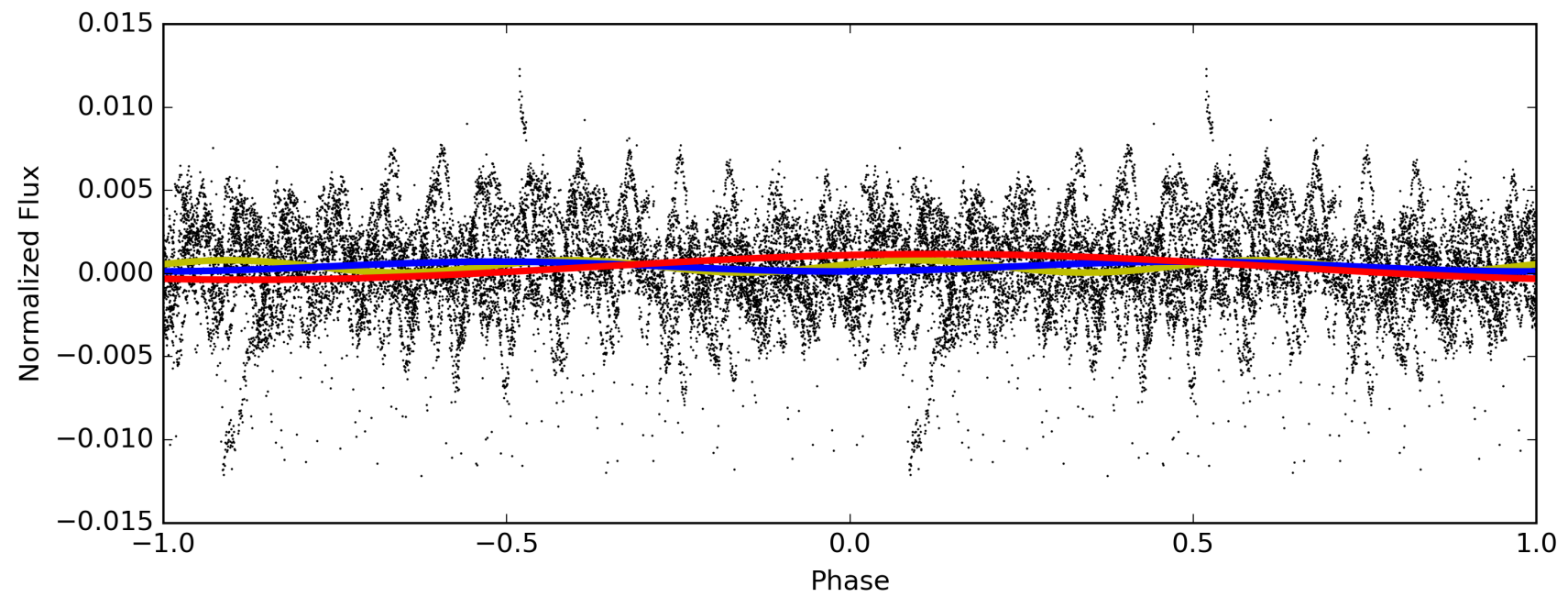
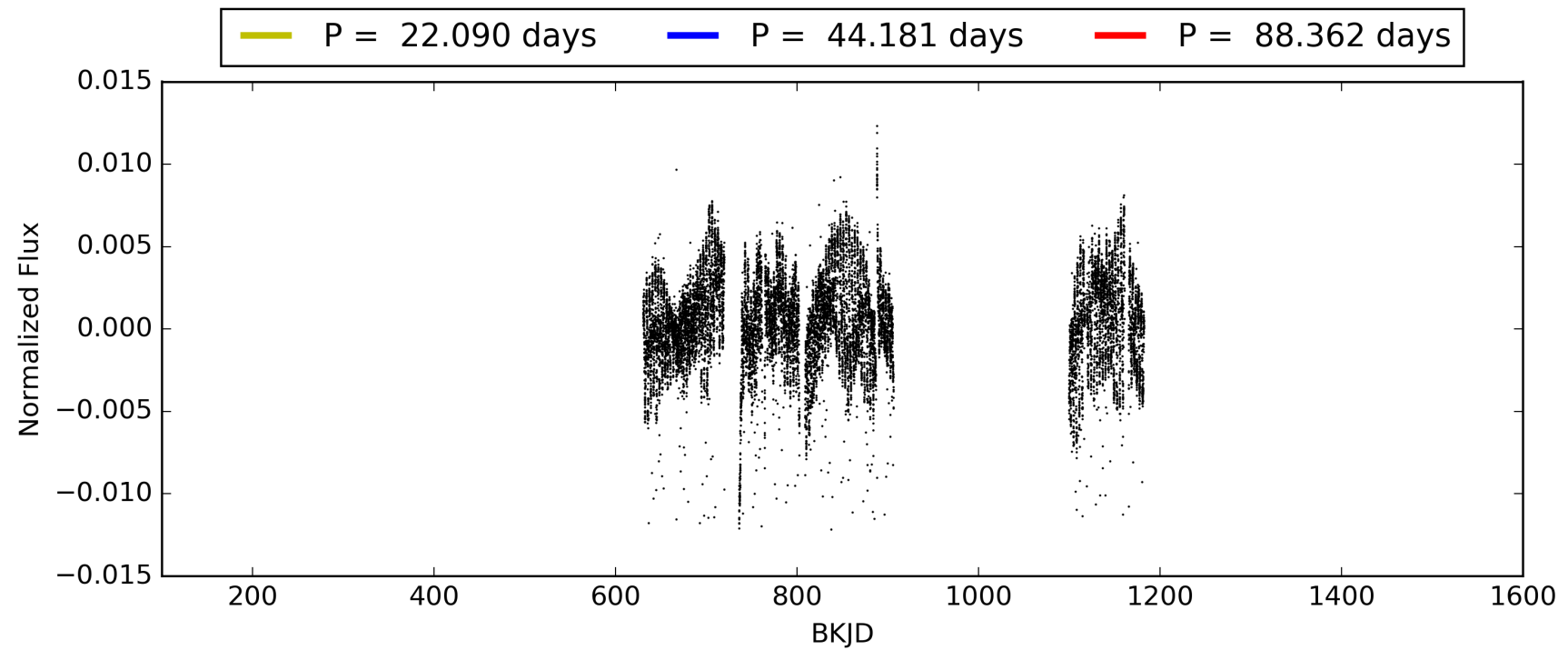
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:02:49 Z

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

TCE 005113053-05, PDC Light Curves

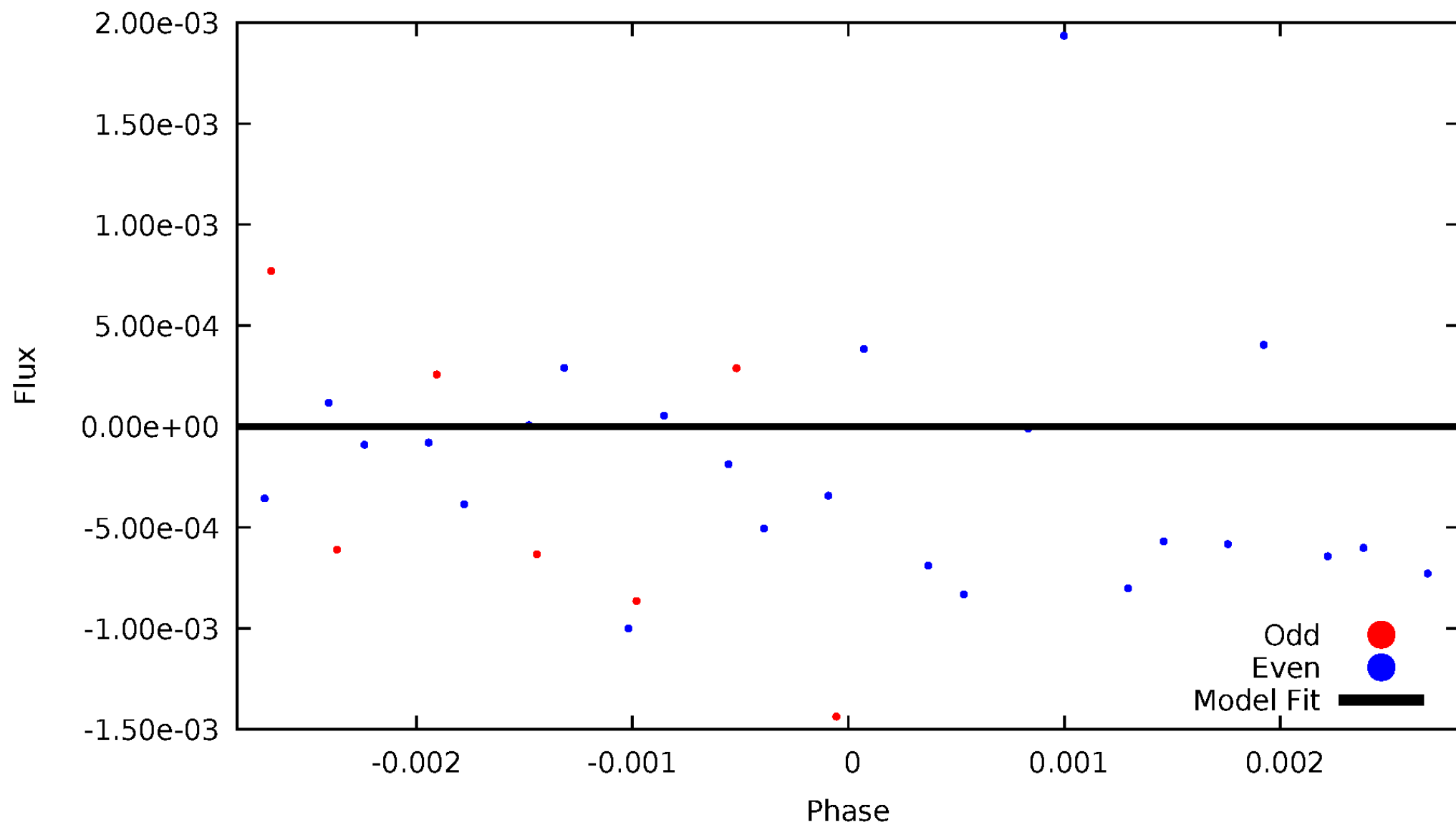


TCE 005113053-05



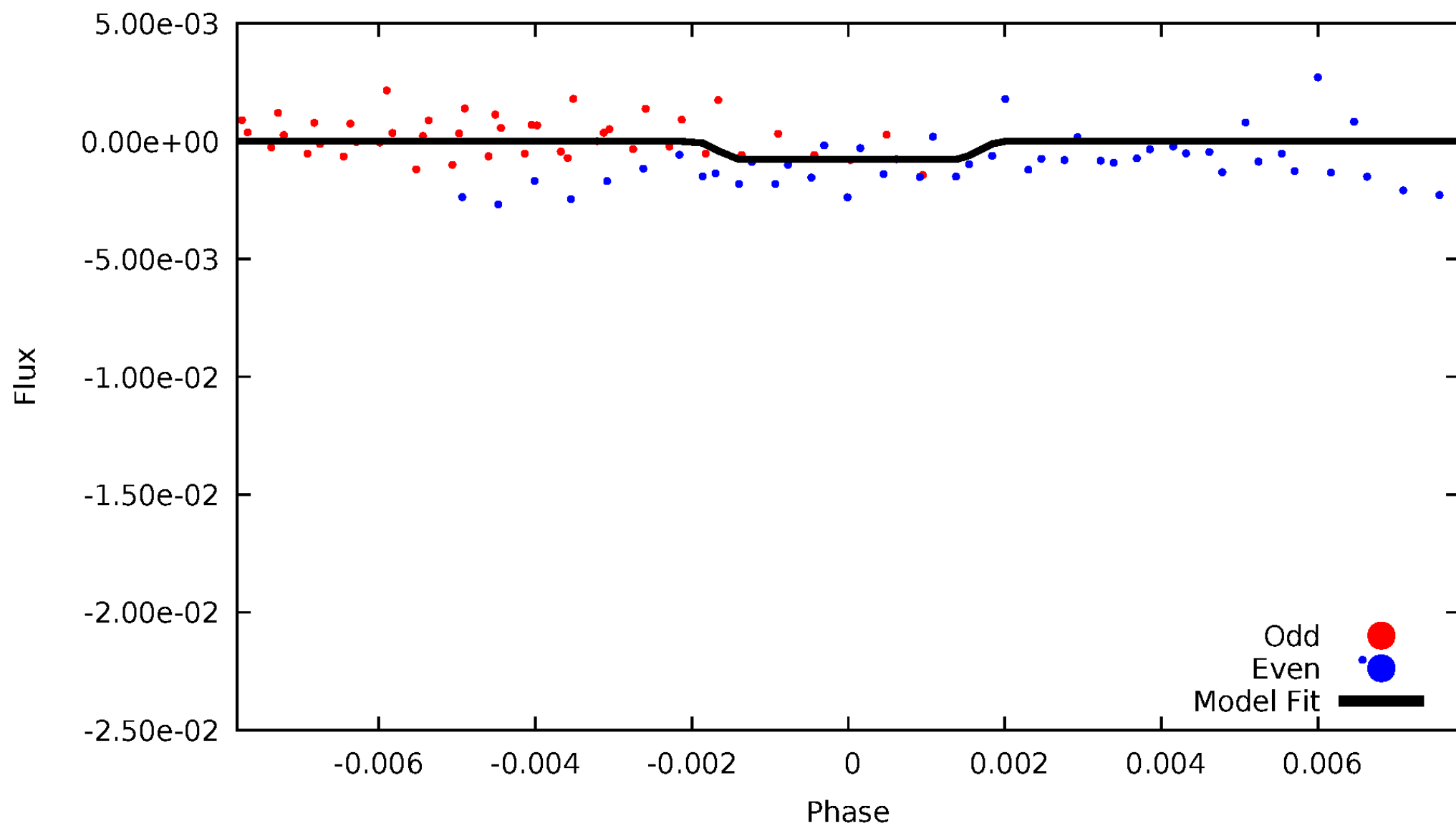
DV Odd/Even

TCE 005113053-05

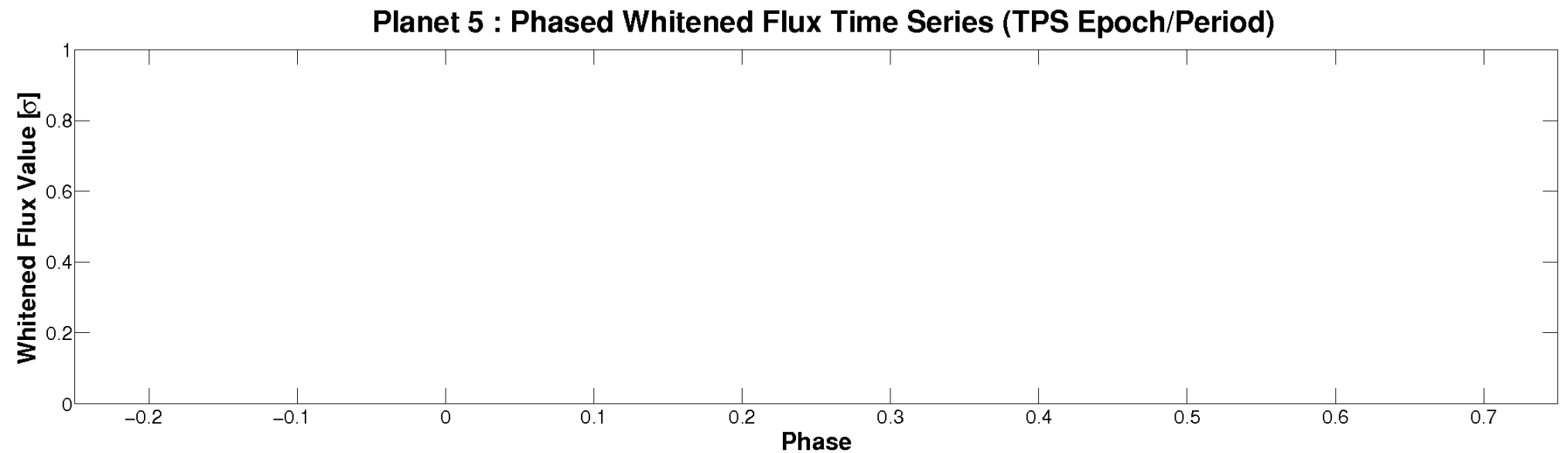
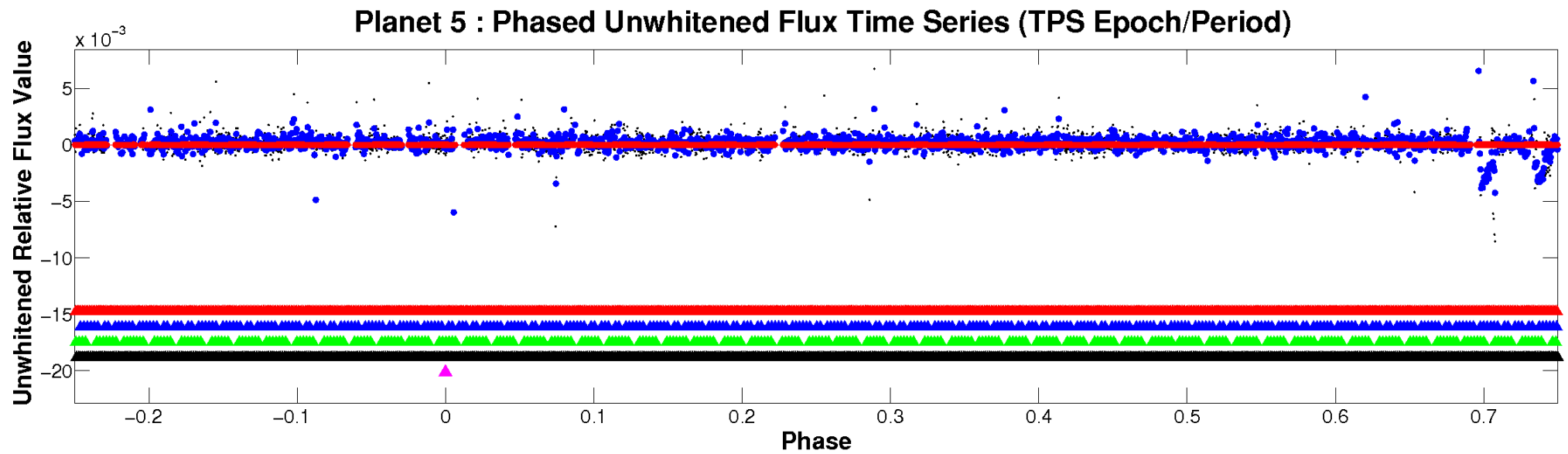


ALT Odd/Even

TCE 005113053-05

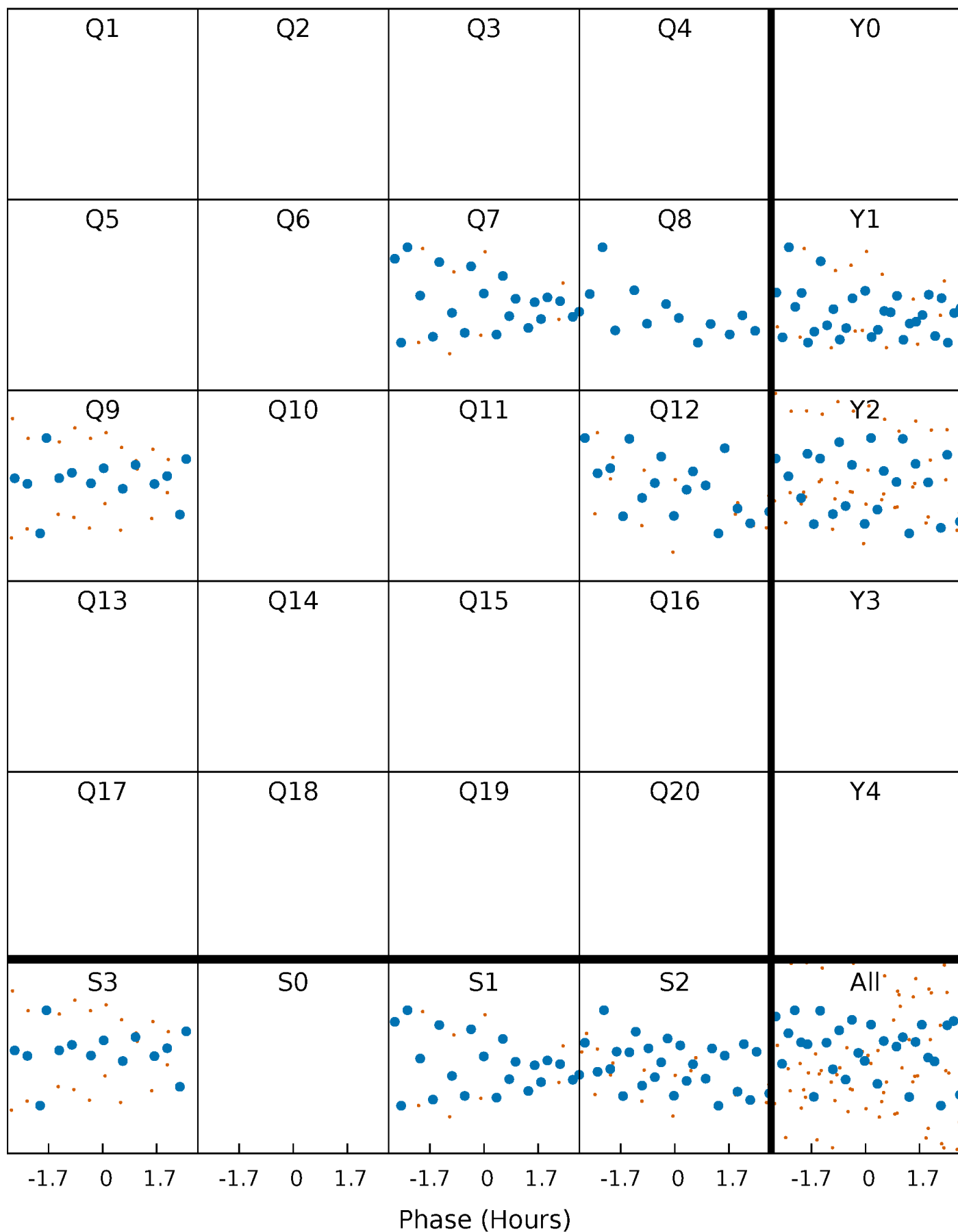


Non-Whitened Vs. Whitened Light Curve



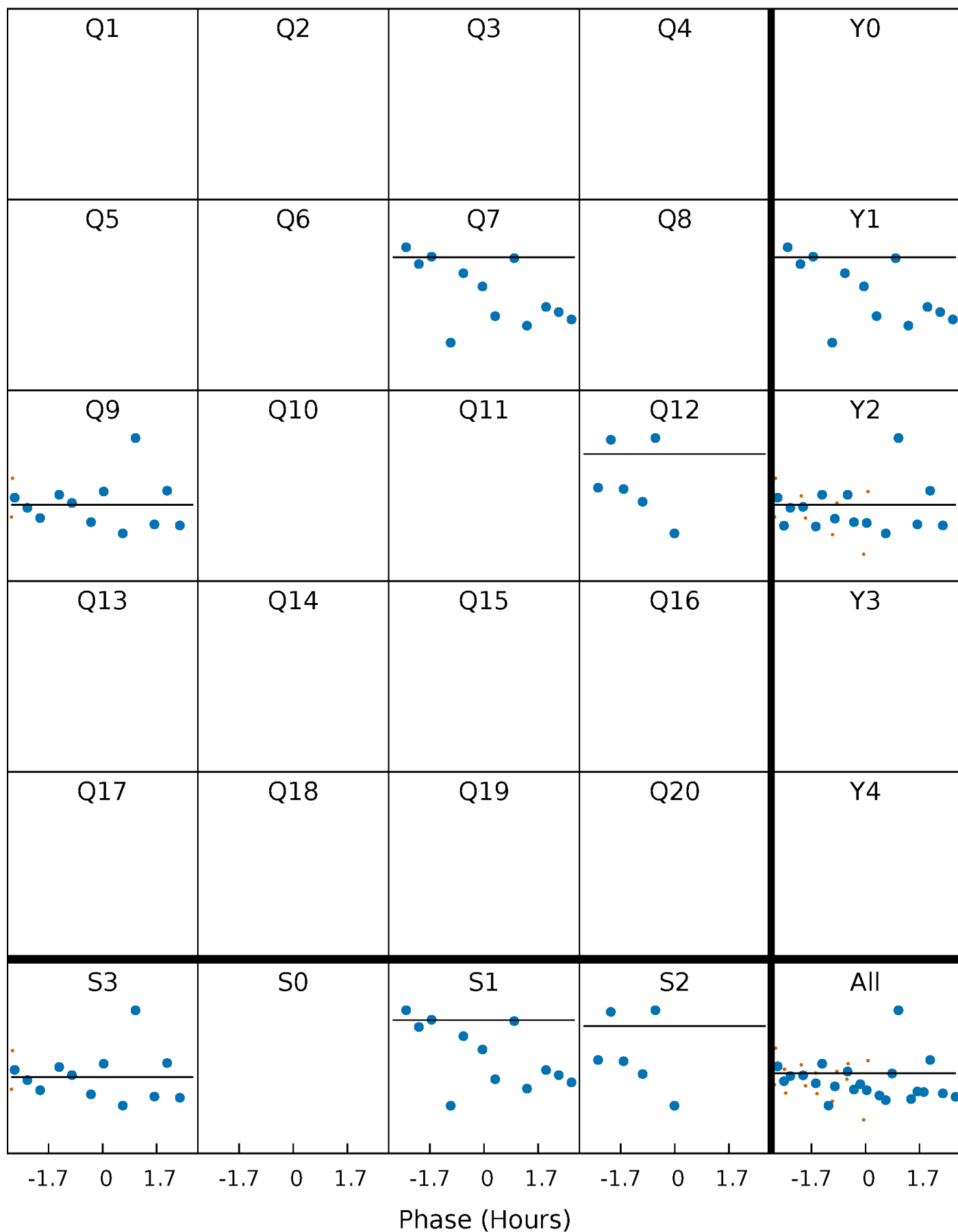
PDC Quarter-Phased Transit Curves

TCE 005113053-05 $P = 44.180804$ Days $T_0 = 157.814125$ (BKJD)



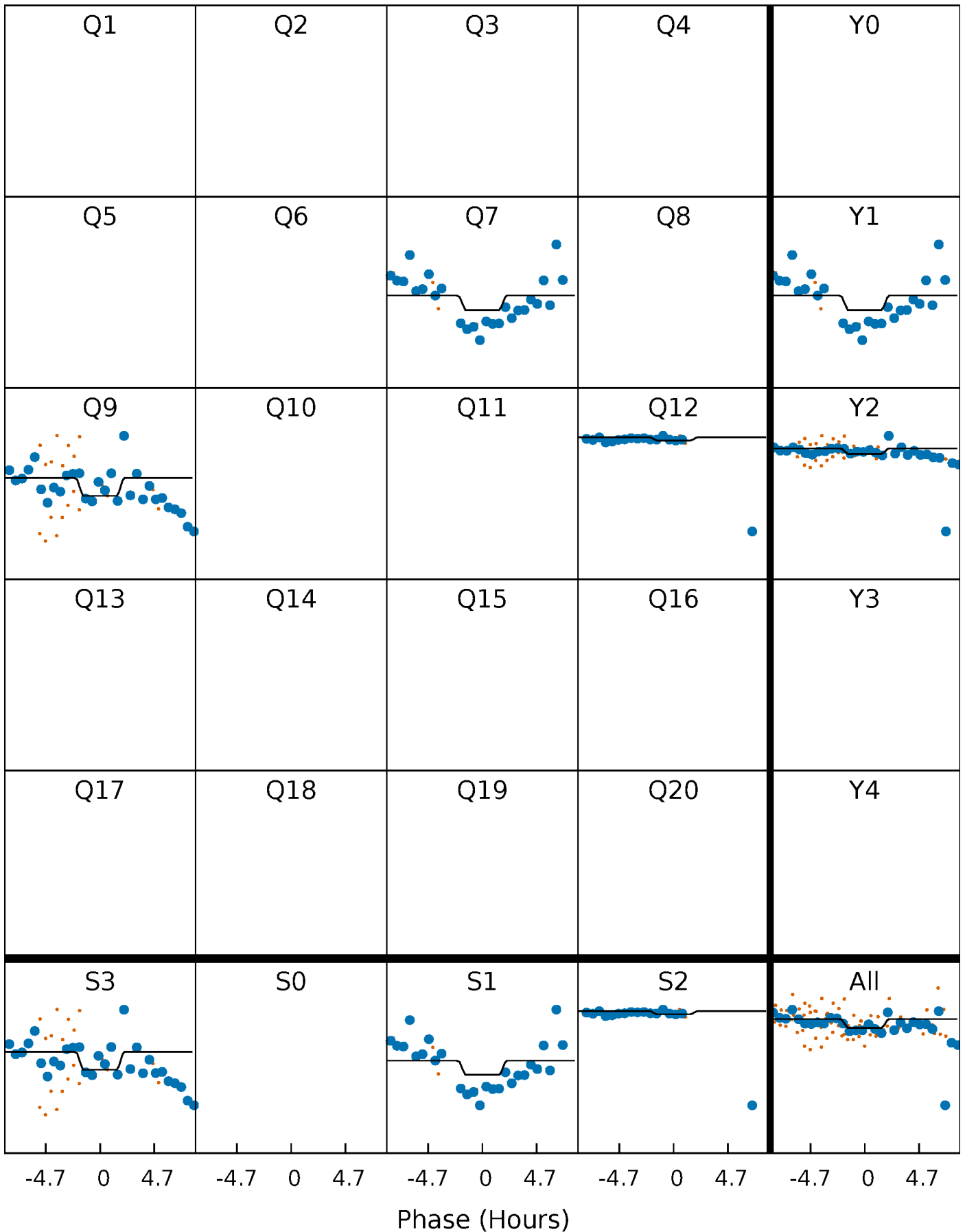
DV Quarter-Phased Transit Curves

TCE 005113053-05 $P = 44.180804$ Days $T_0 = 157.814125$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

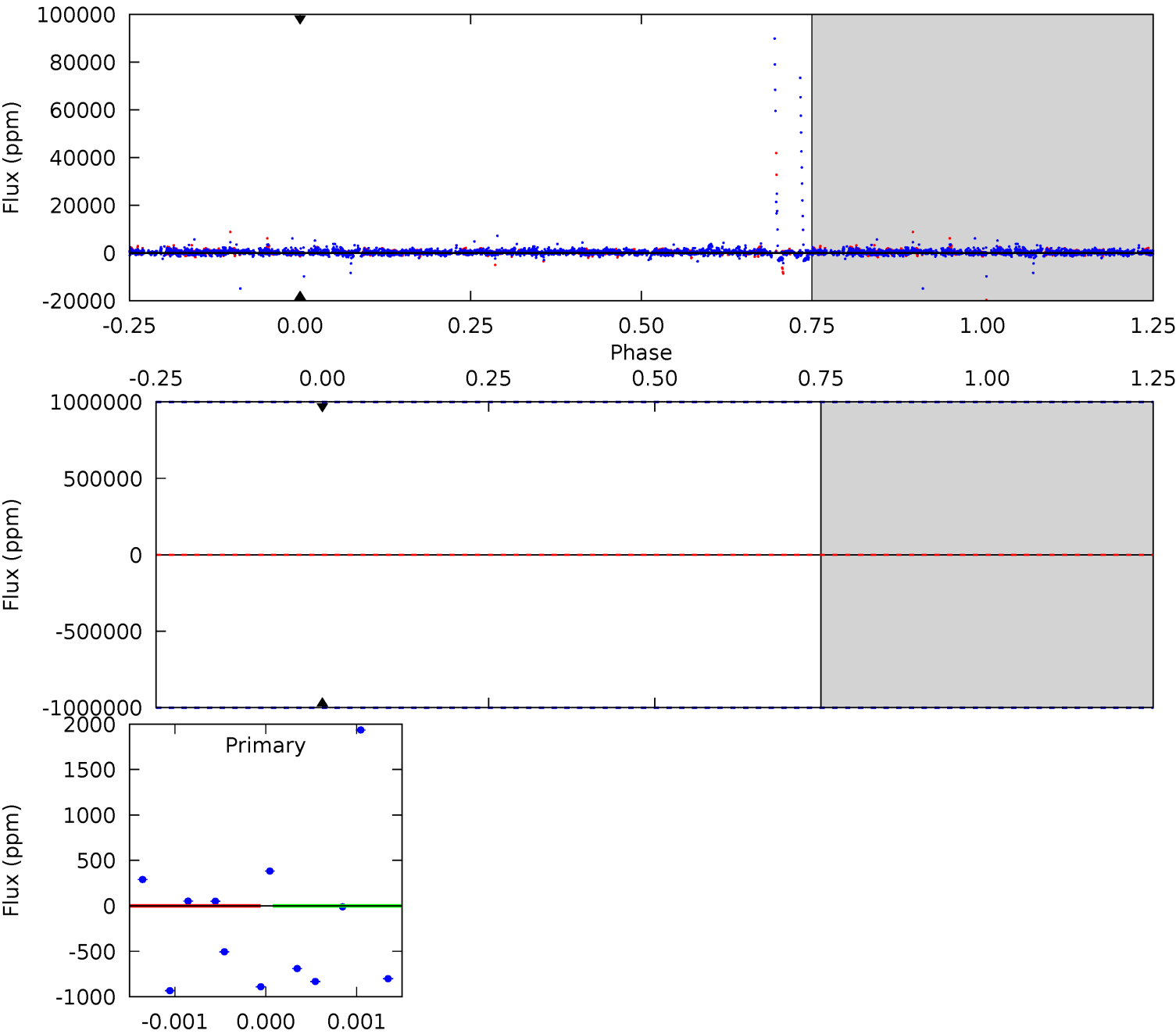
TCE 005113053-05 $P = 44.180804$ Days $T_0 = 157.769653$ (BKJD)



DV Model-Shift Uniqueness Test

005113053-05, P = 44.180804 Days, E = 157.814125 Days

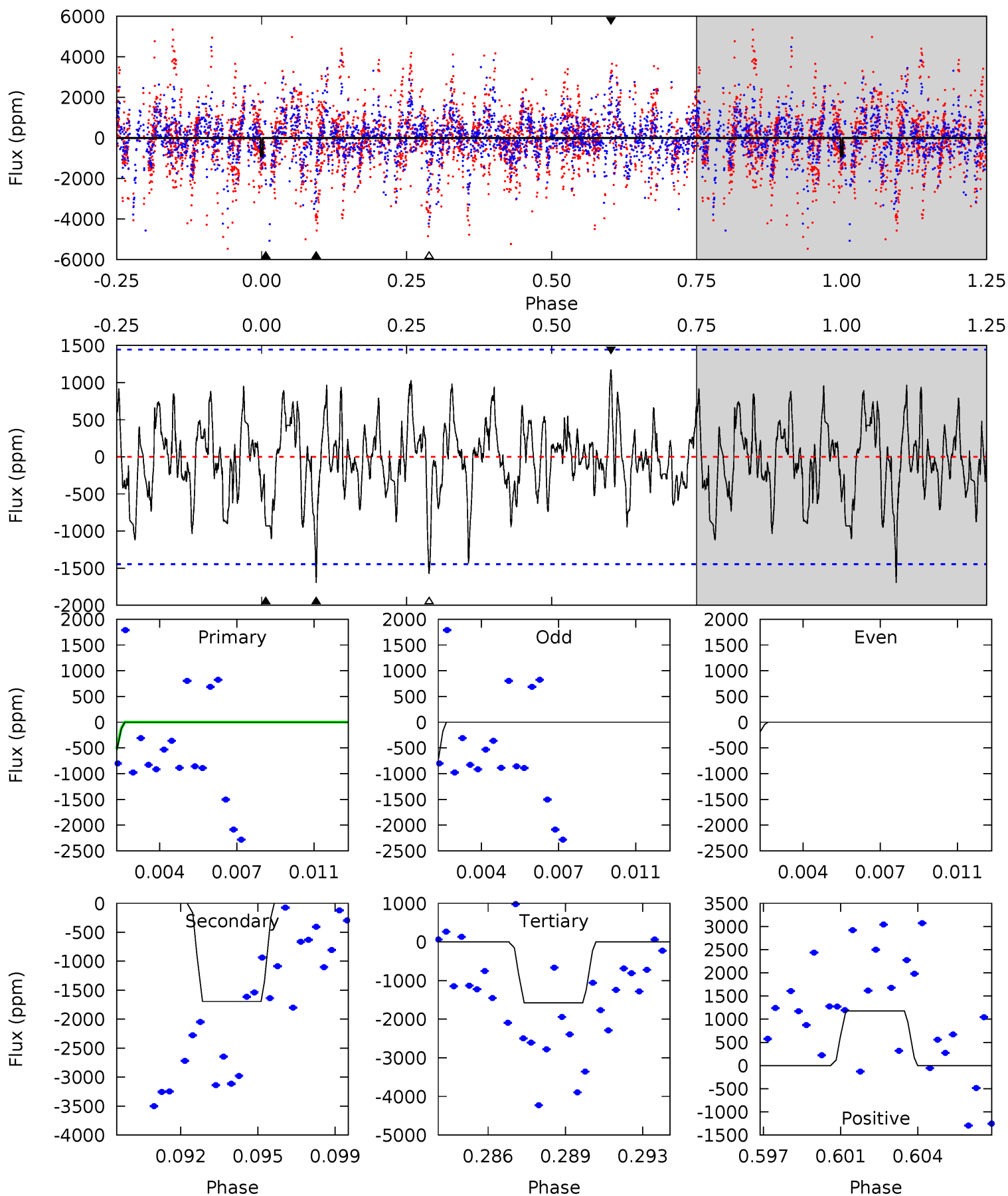
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005113053-05, P = 44.180804 Days, E = 157.769653 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.30	6.12	5.68	4.24	5.22	2.91	1.56	-2.38	-0.94	0.43	1.87	1.45	1.50	0.41	0.28



Stellar Parameters For KIC 005113053

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6516^{+181}_{-227}	$4.249^{+0.175}_{-0.175}$	$-0.400^{+0.250}_{-0.300}$	$1.279^{+0.347}_{-0.252}$	$1.055^{+0.175}_{-0.131}$	$0.711^{+0.597}_{-0.321}$
	+3%/-3%	+4%/-4%	+62%/-75%	+27%/-20%	+17%/-12%	+84%/-45%
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 005113053-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$19.88^{+14.67}_{-11.34}$	910^{+72}_{-57}	4362^{+8569}_{-16204}	285^{+13033}_{-11408}
Alt.	-1695 ± 277	$10.42^{+12.03}_{-6.91}$	912^{+64}_{-60}	4899^{+3910}_{-1176}	524^{+4235}_{-412}

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

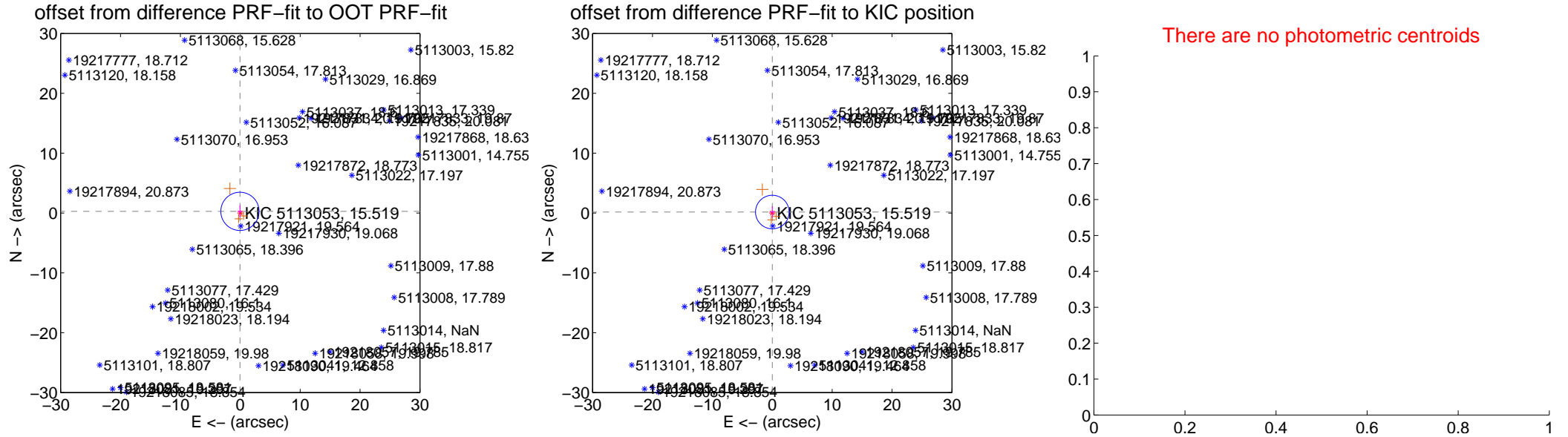
DV Centroid Data

Supplemental centroid analysis for 005113053-05. Kepler magnitude: 15.52. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.283 ± 1.064	0.27	0.057 ± 0.423	0.277 ± 1.006
PRF-fit source offset from KIC position	0.163 ± 0.935	0.17	-0.010 ± 0.433	0.163 ± 0.961
photometric centroid source offset	—	—	—	—

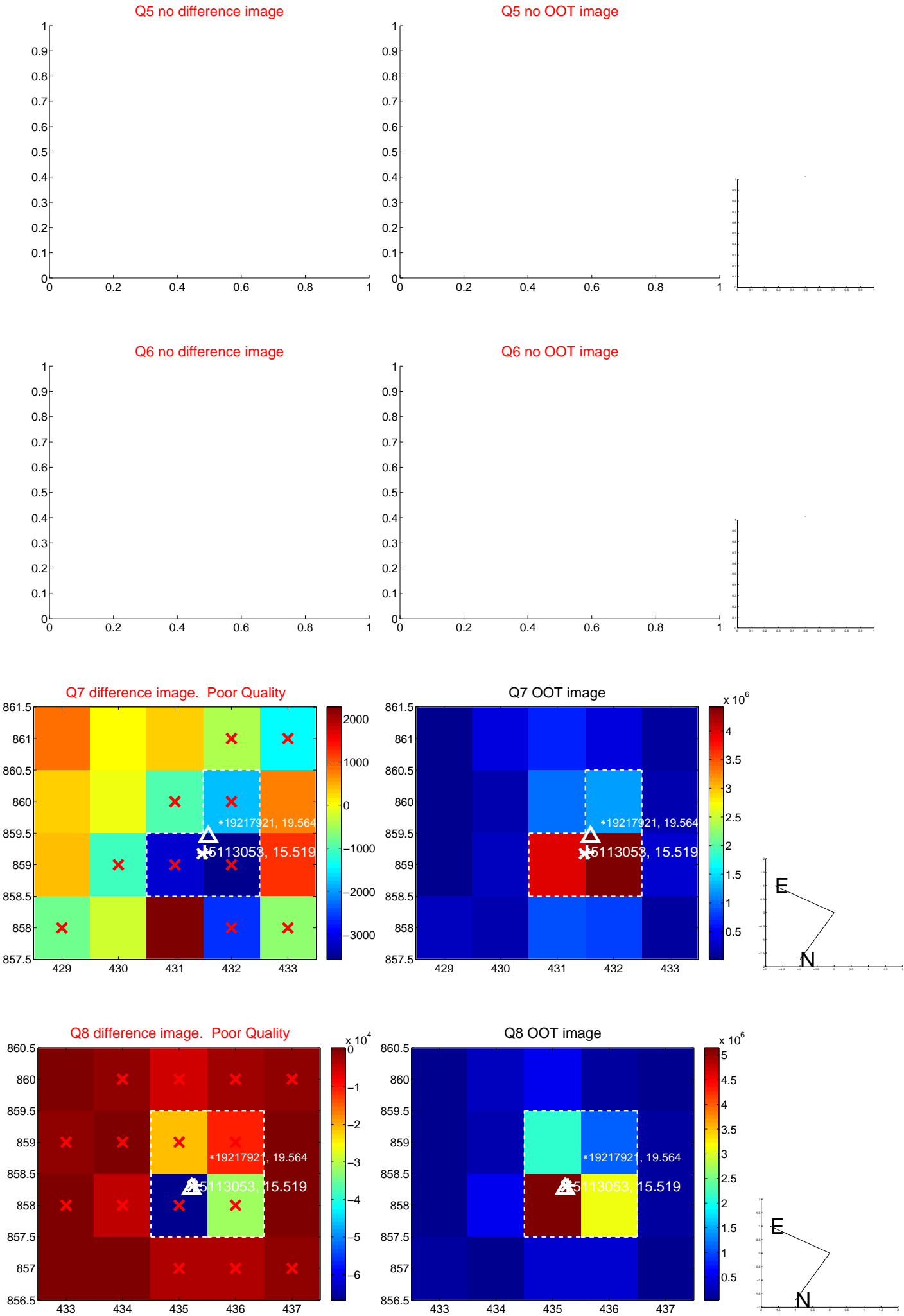


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

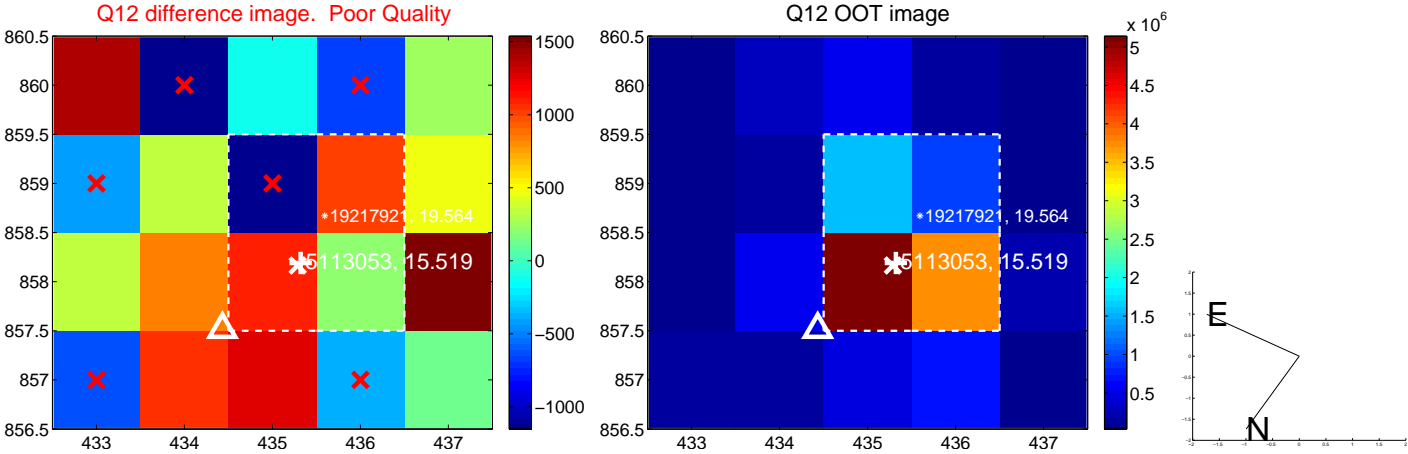
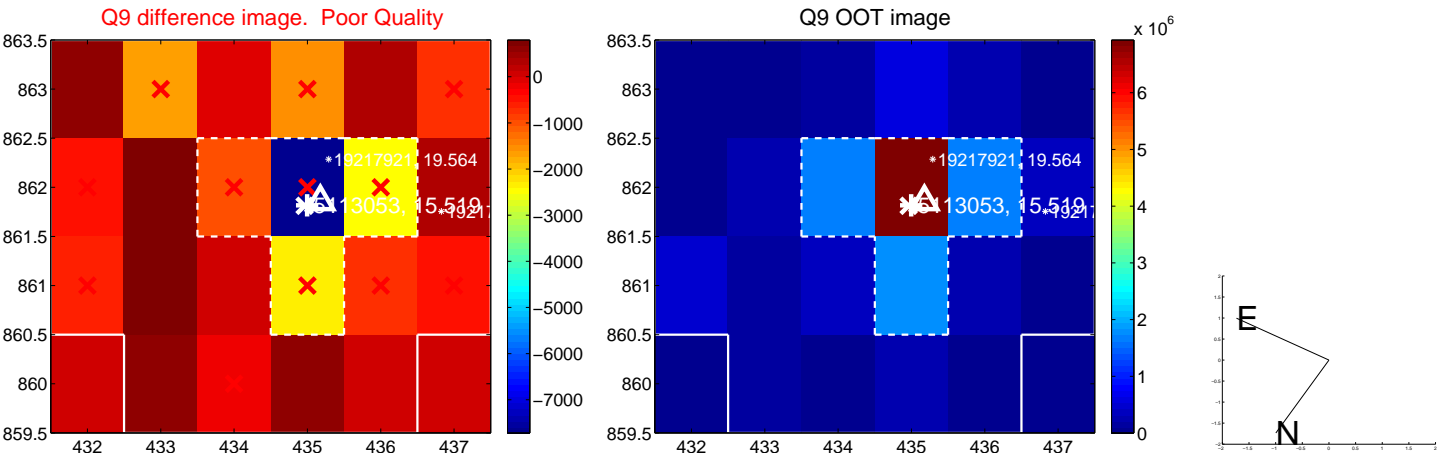
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

