

KIC 010352603

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})
010352603-01	OBS	7317.01	32.779667	136.166440	425270.2	12.000	25656.4	-1.0	0.96	6122	52.60	28.34
010352603-02	OBS	No	32.778630	159.978348	463769.4	6.000	21892.3	-1.0	0.96	6122	52.60	28.34
010352603-03	OBS	No	6.555019	131.817497	6146.0	15.000	205.5	-1.0	0.96	6122	7.56	242.34
010352603-04	OBS	No	294.976825	331.094575	11484.0	3.000	148.0	-1.0	0.96	6122	10.34	1.51
010352603-05	OBS	No	196.598092	134.535161	6430.1	12.500	134.2	-1.0	0.96	6122	7.73	2.60
010352603-06	OBS	No	46.405212	176.342518	361.5	5.771	201.2	10.5	0.96	6122	1.98	17.83
010352603-07	OBS	No	32.782704	140.338292	2001.2	15.000	131.6	-1.0	0.96	6122	4.31	28.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010352603-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
010352603-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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 010352603-01

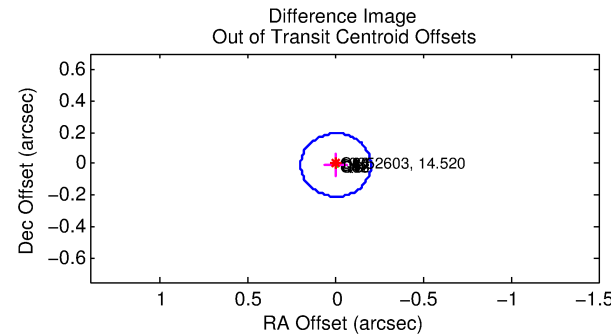
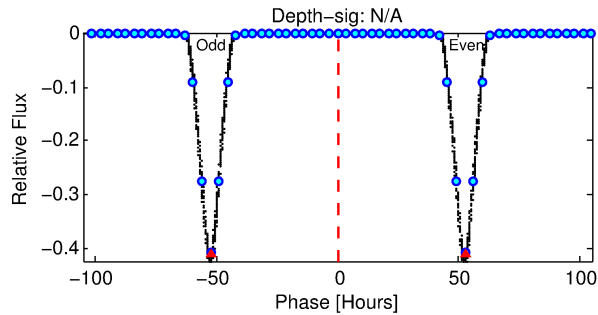
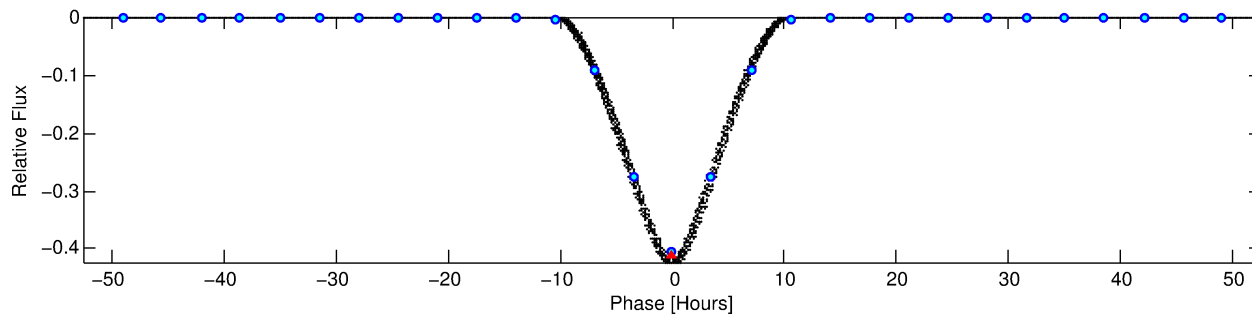
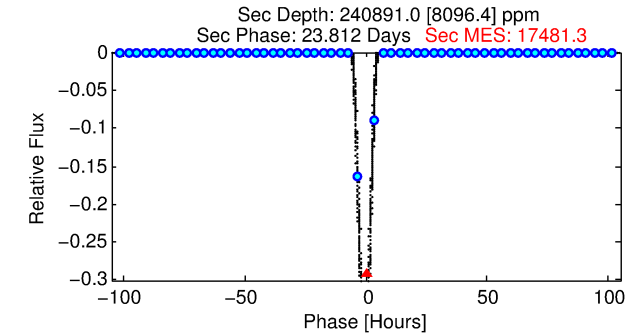
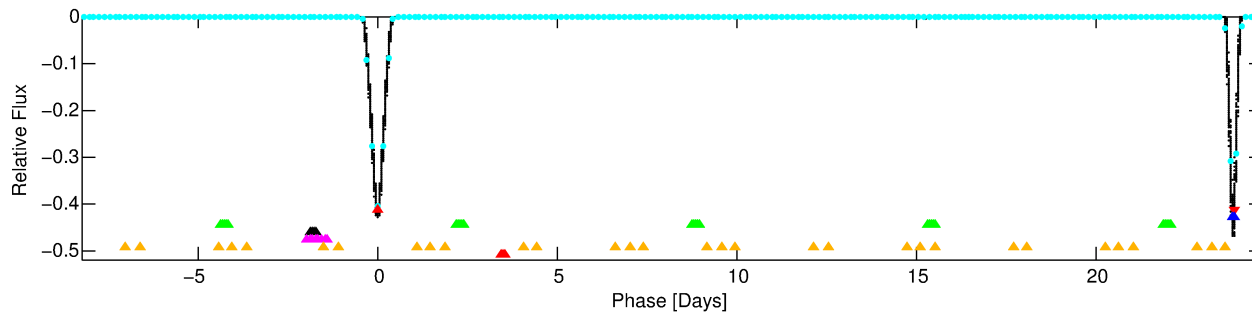
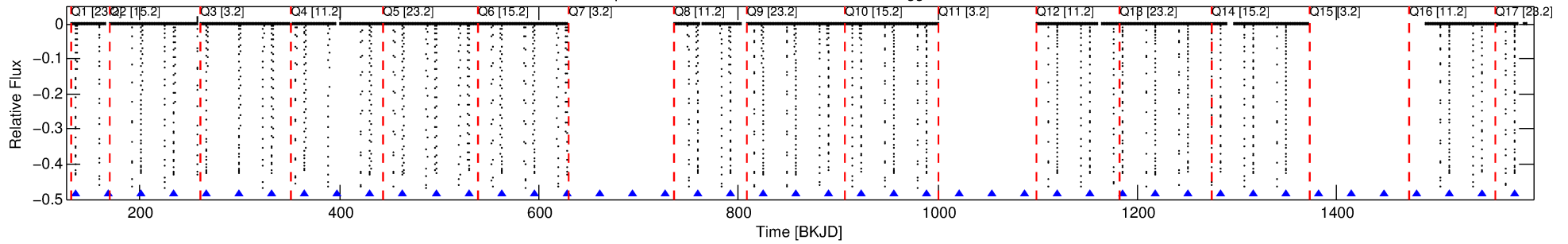
No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 1 of 7 Period: 32.780 d

KOI: K07317.01 Corr: 0.792

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



TPS TCE Results:

Period = 32.77967 d
Epoch = 136.1664 BKJD

DV fit results are unavailable

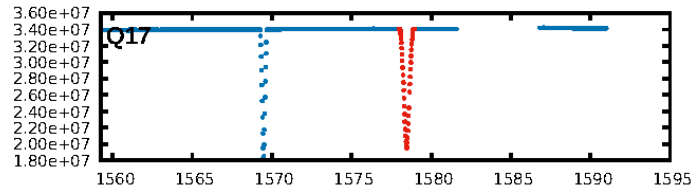
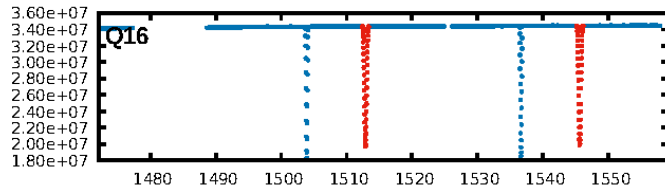
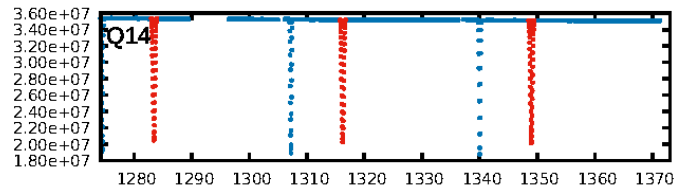
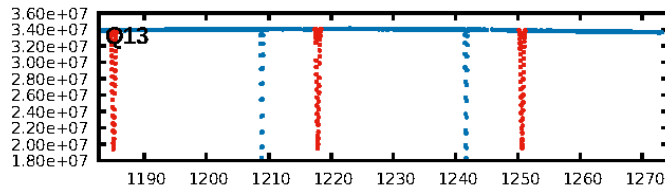
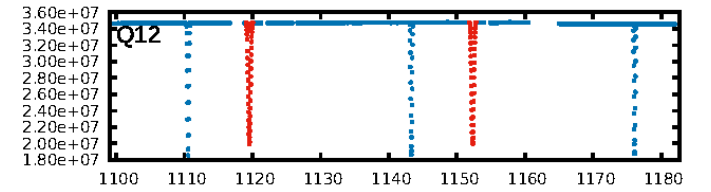
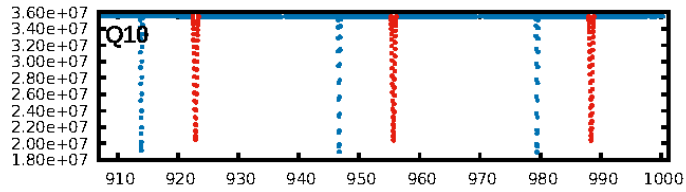
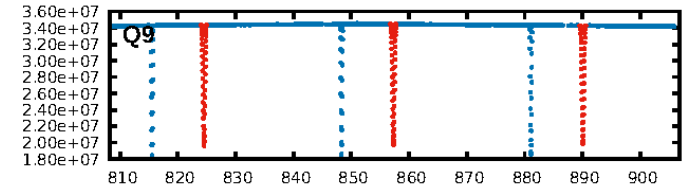
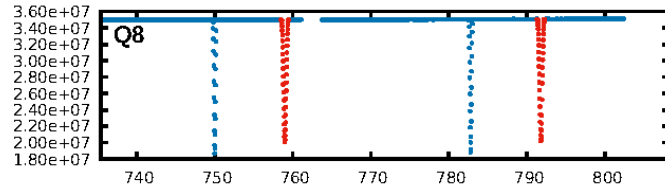
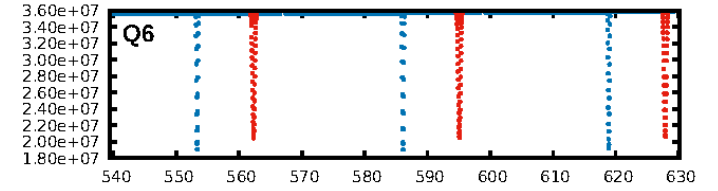
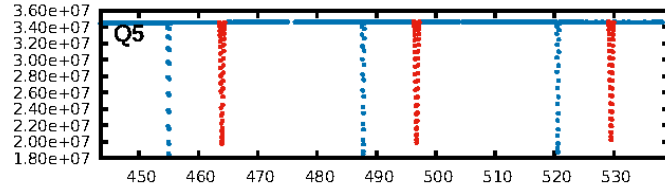
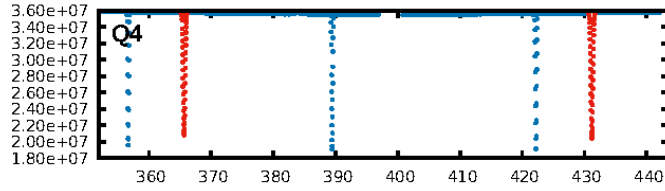
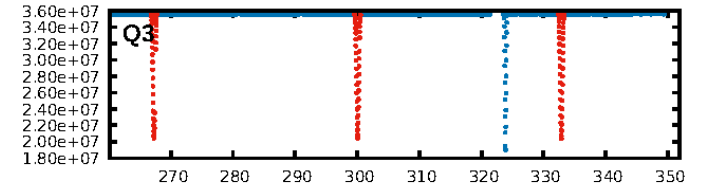
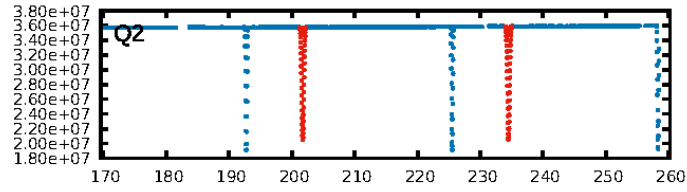
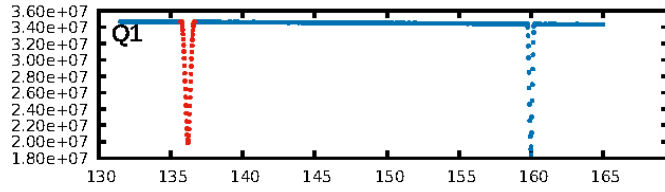
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 0.3% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [31/31]
GhostDiagnostic-chr: 4.882
Centroid-sig: 0.0%
Centroid-so: 0.104 arcsec [187.00σ]
OotOffset-rm: 0.008 arcsec [0.11σ]
KicOffset-rm: 0.034 arcsec [0.50σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 0.93 [13/14]

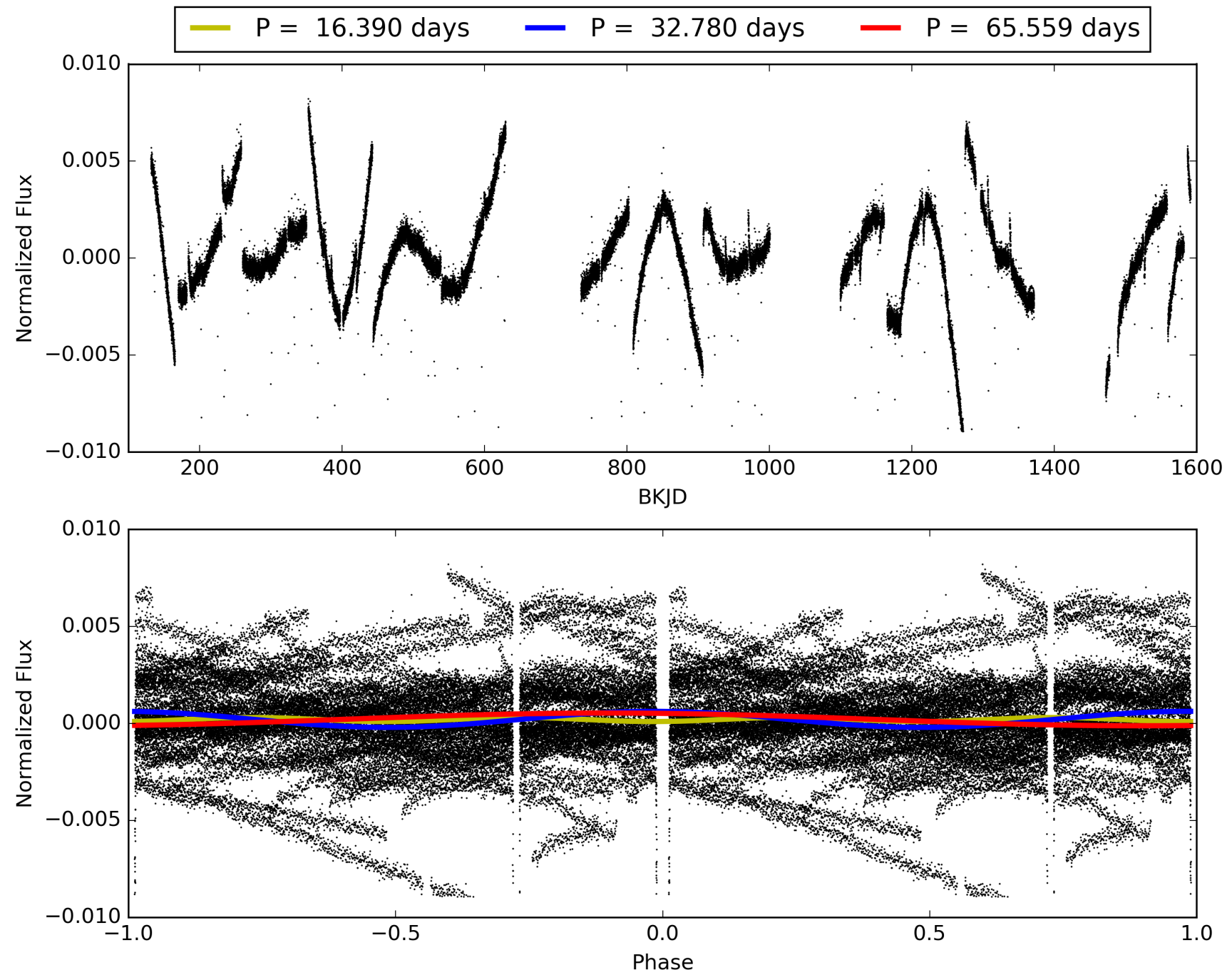
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:07:31 Z

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

TCE 010352603-01, PDC Light Curves

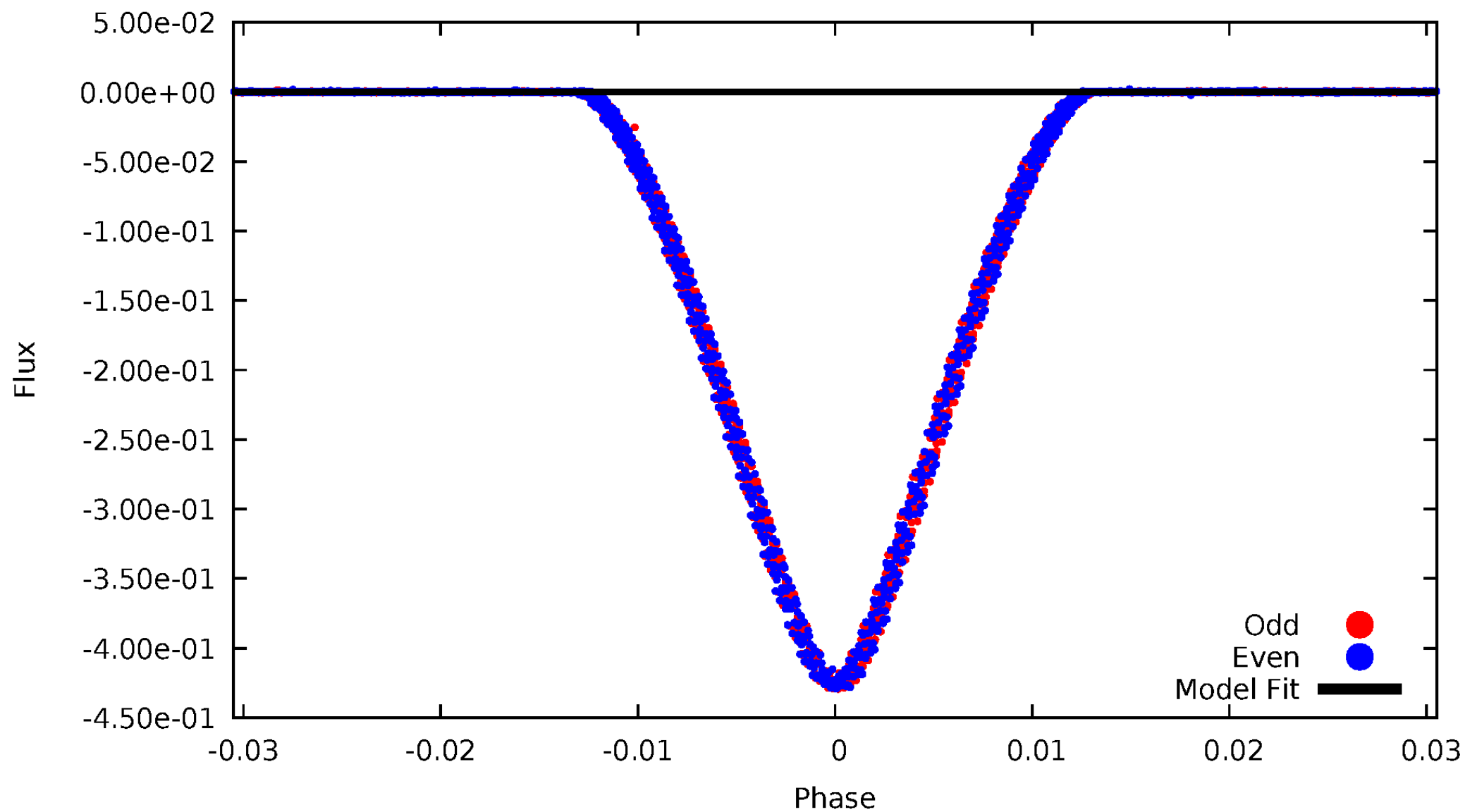


TCE 010352603-01



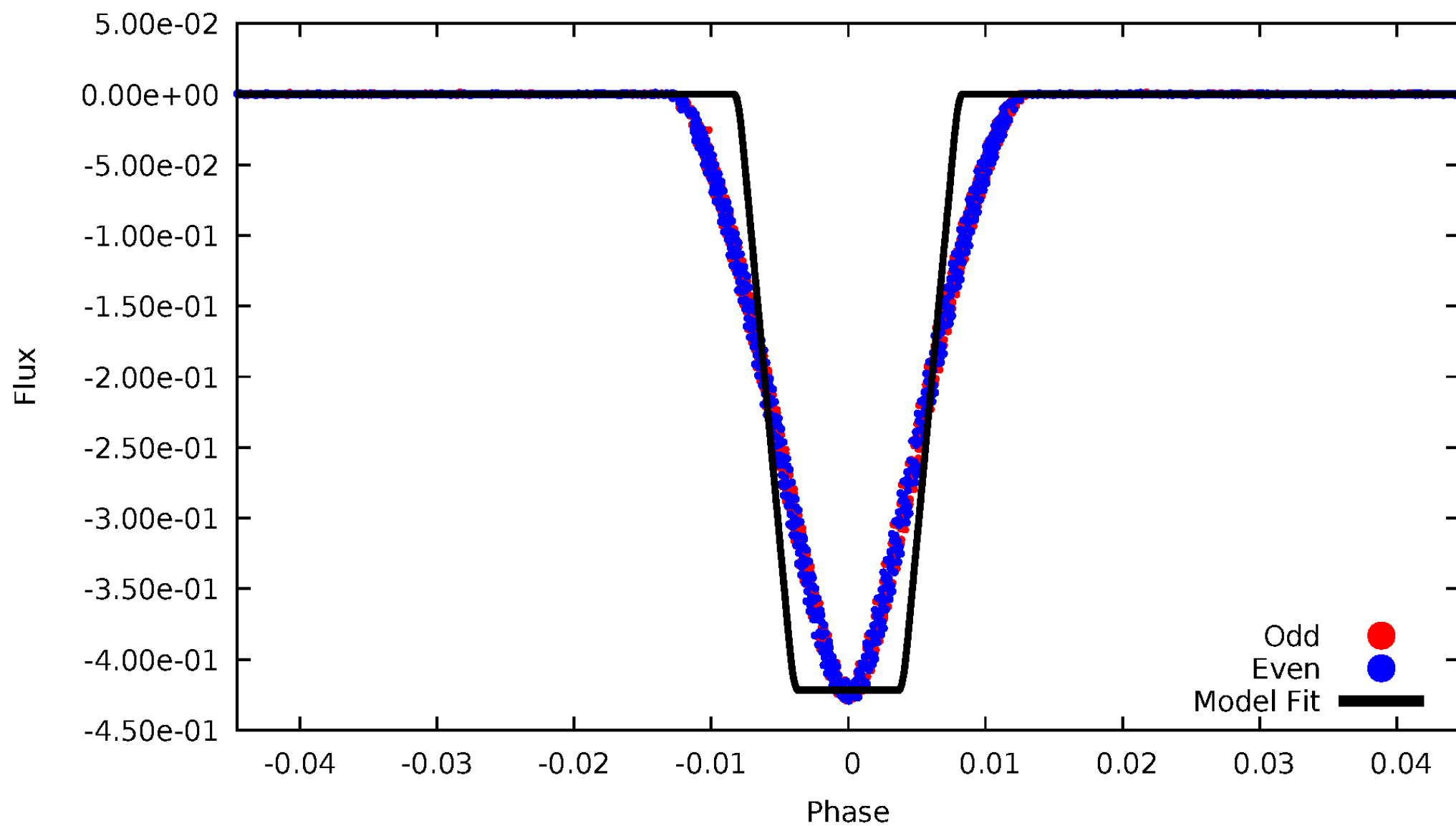
DV Odd/Even

TCE 010352603-01



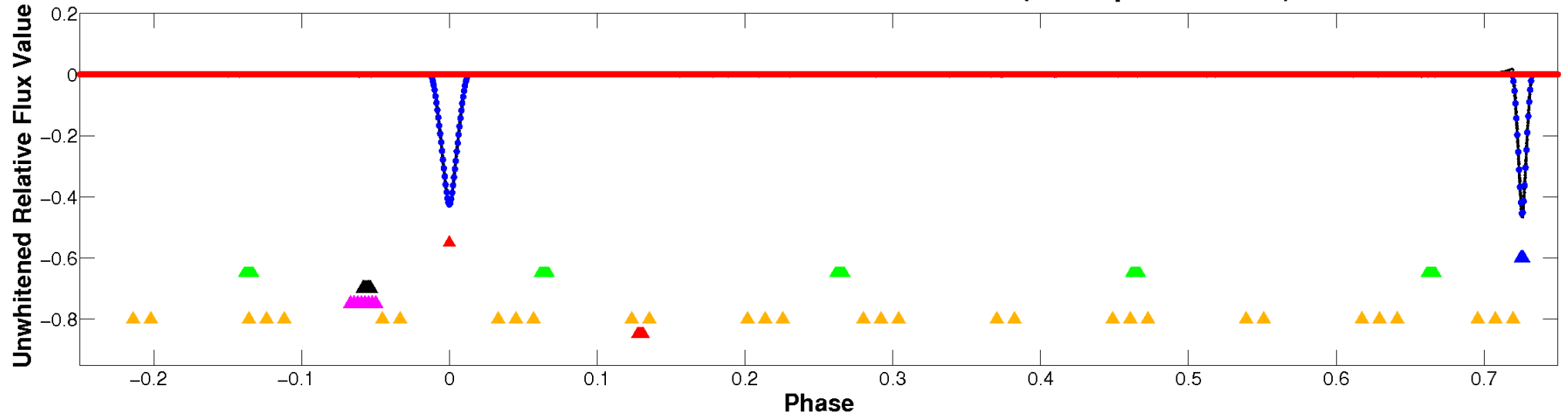
ALT Odd/Even

TCE 010352603-01



Non-Whitened Vs. Whitened Light Curve

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

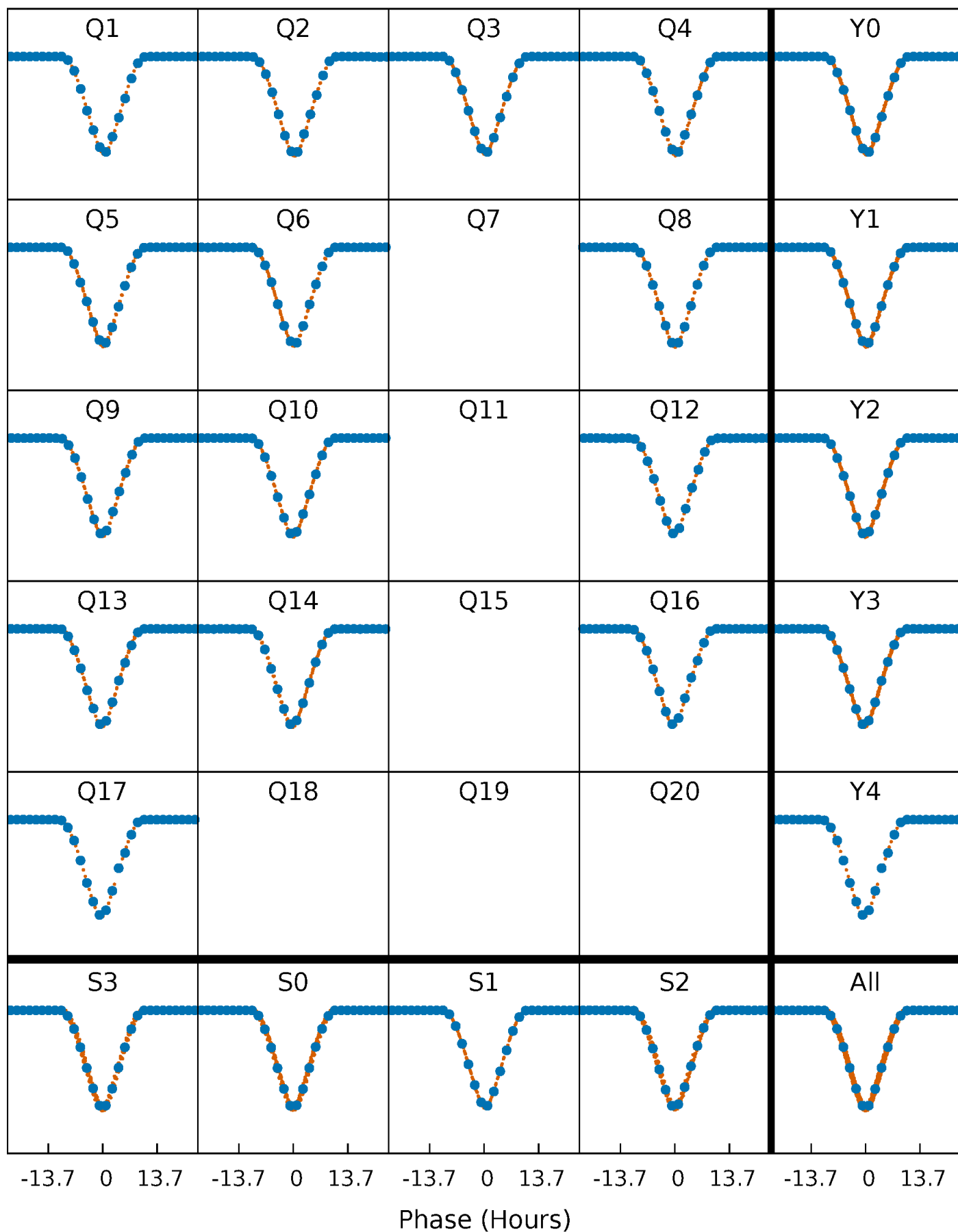


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



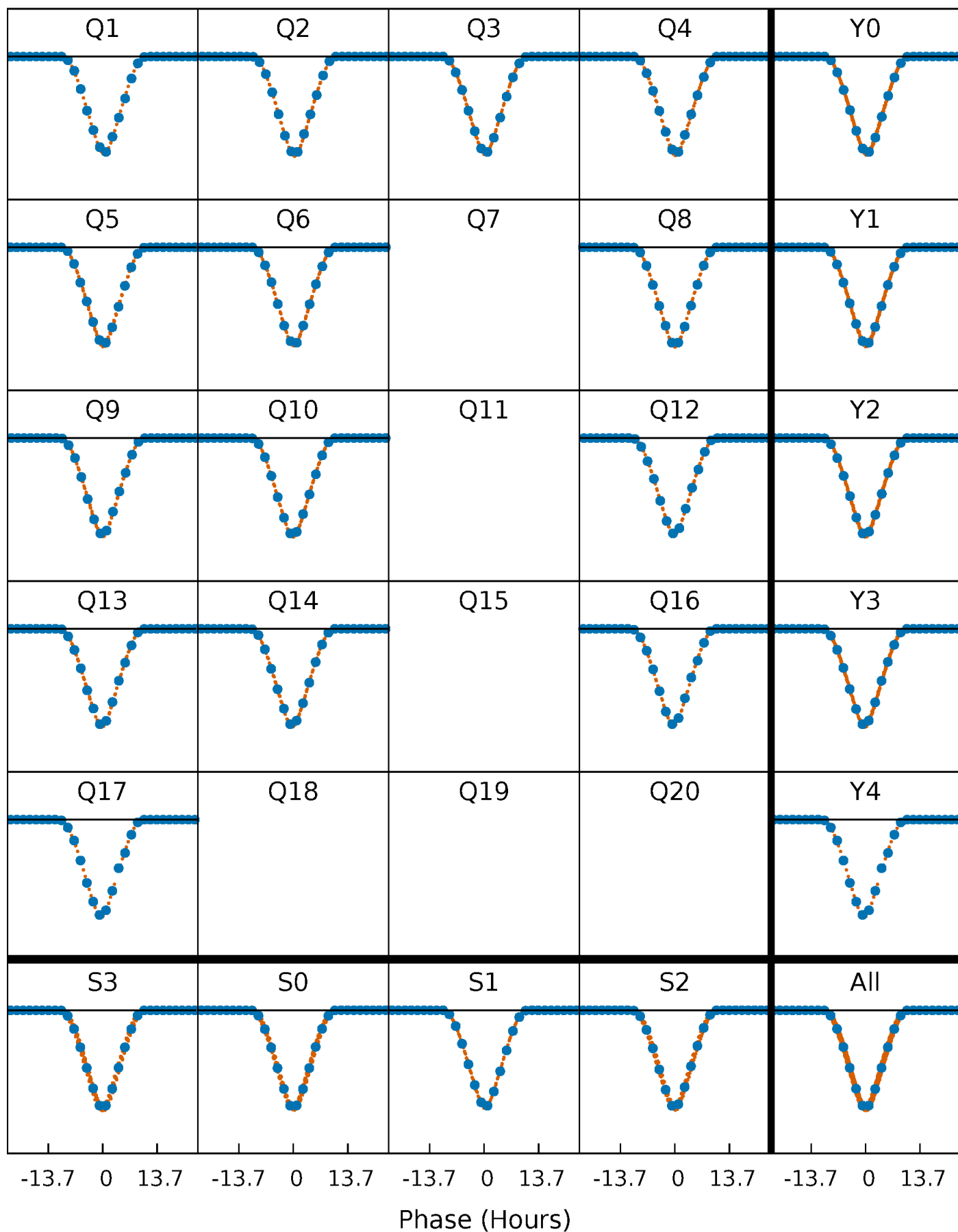
PDC Quarter-Phased Transit Curves

TCE 010352603-01 P= 32.779667 Days $T_0=136.166440$ (BKJD)



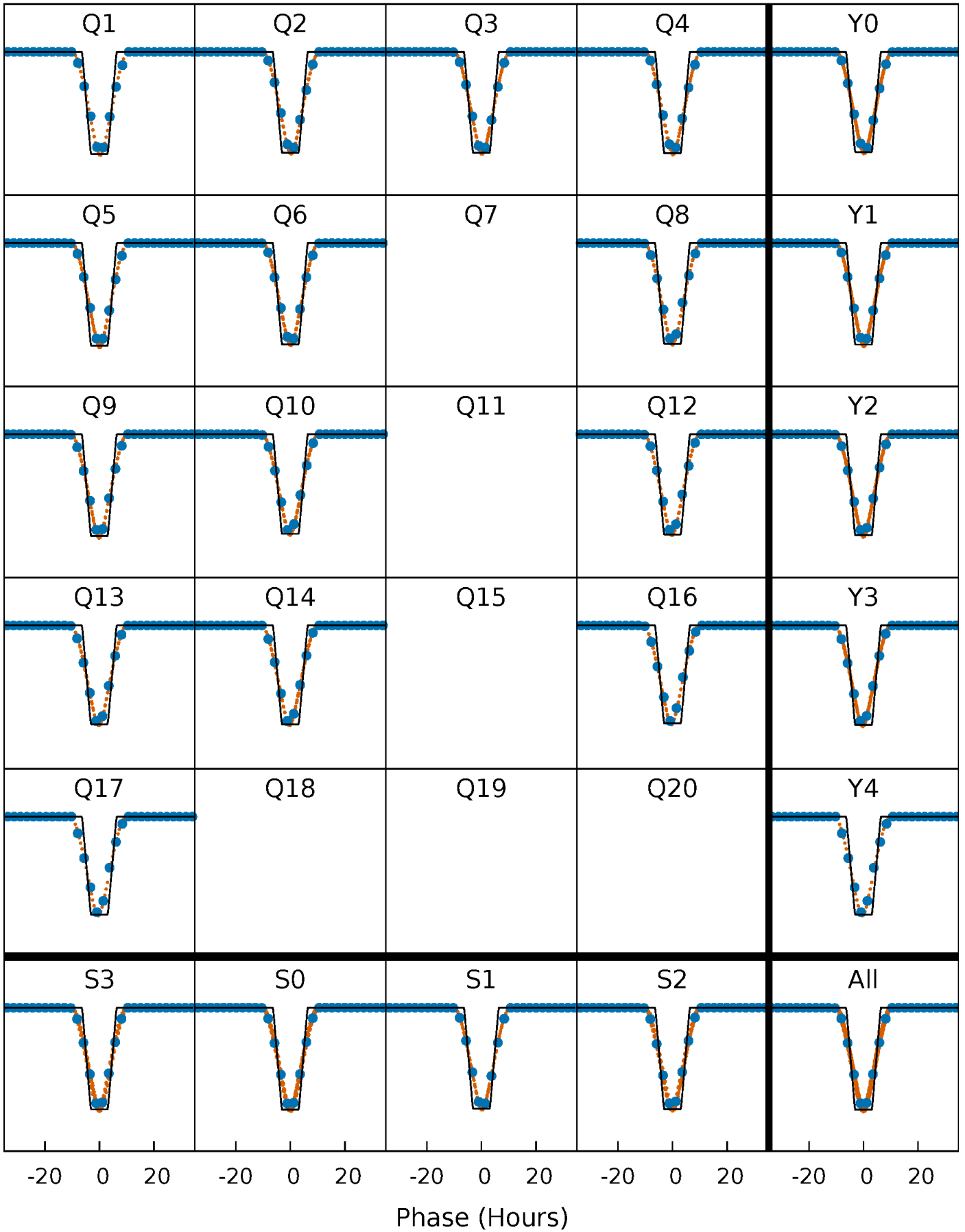
DV Quarter-Phased Transit Curves

TCE 010352603-01 P= 32.779667 Days $T_0=136.166440$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

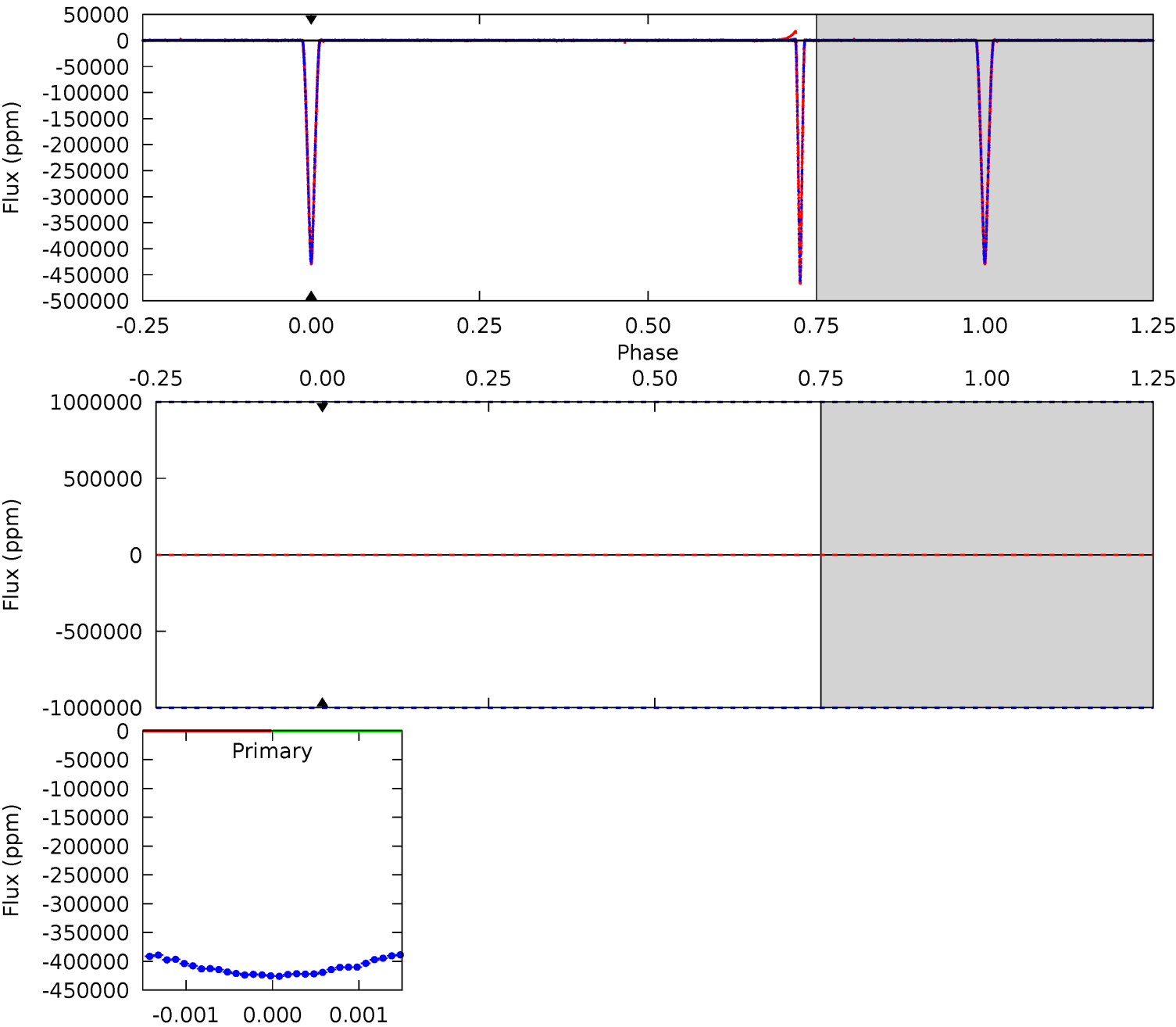
TCE 010352603-01 P= 32.779667 Days $T_0=136.167591$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-01, P = 32.779667 Days, E = 103.386773 Days

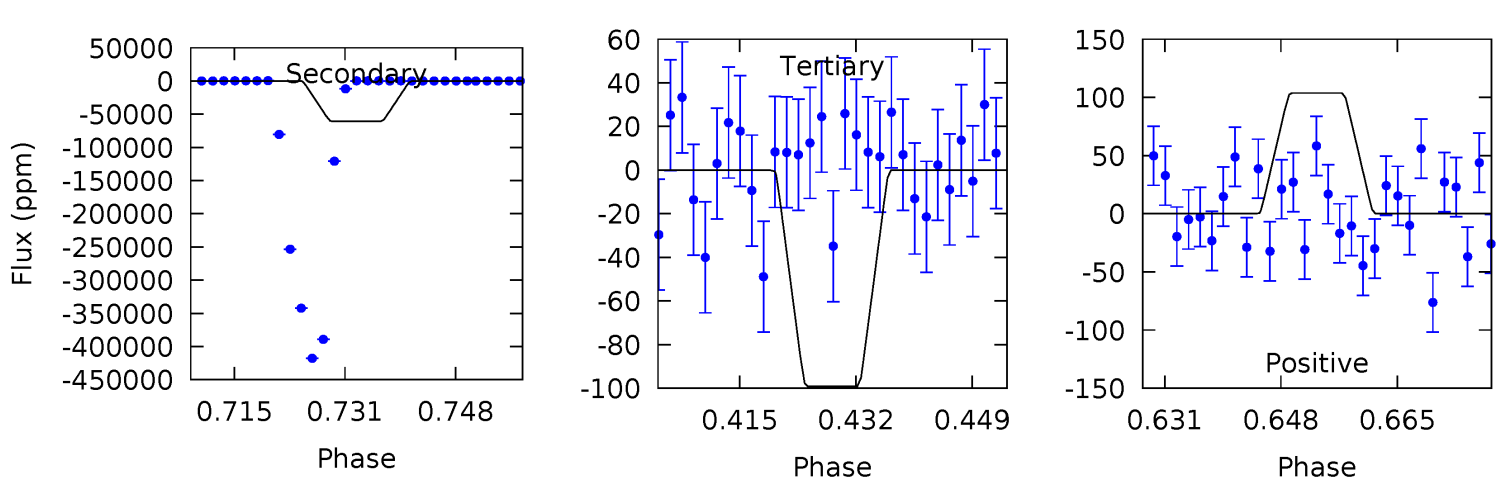
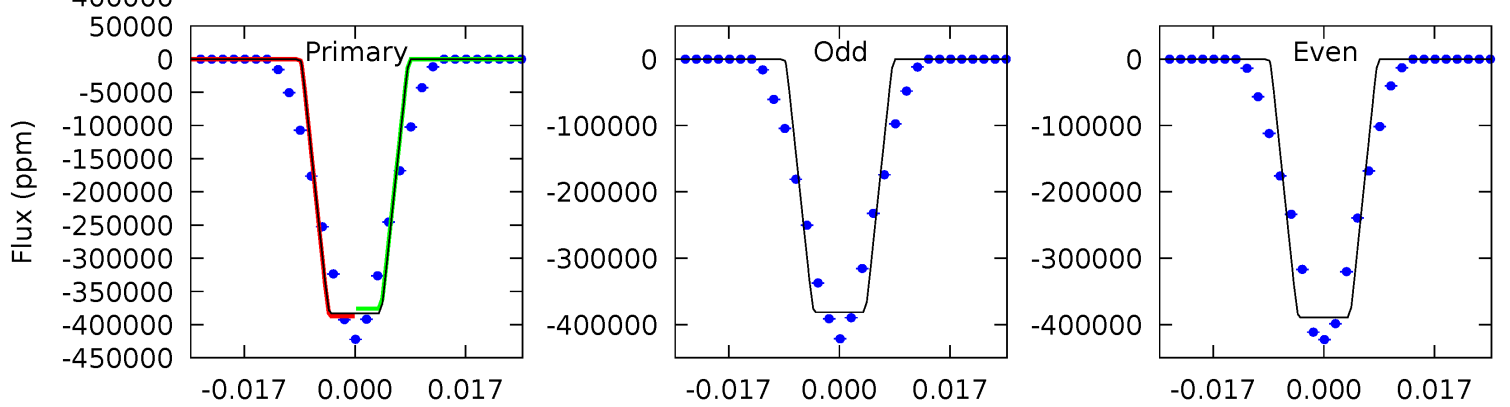
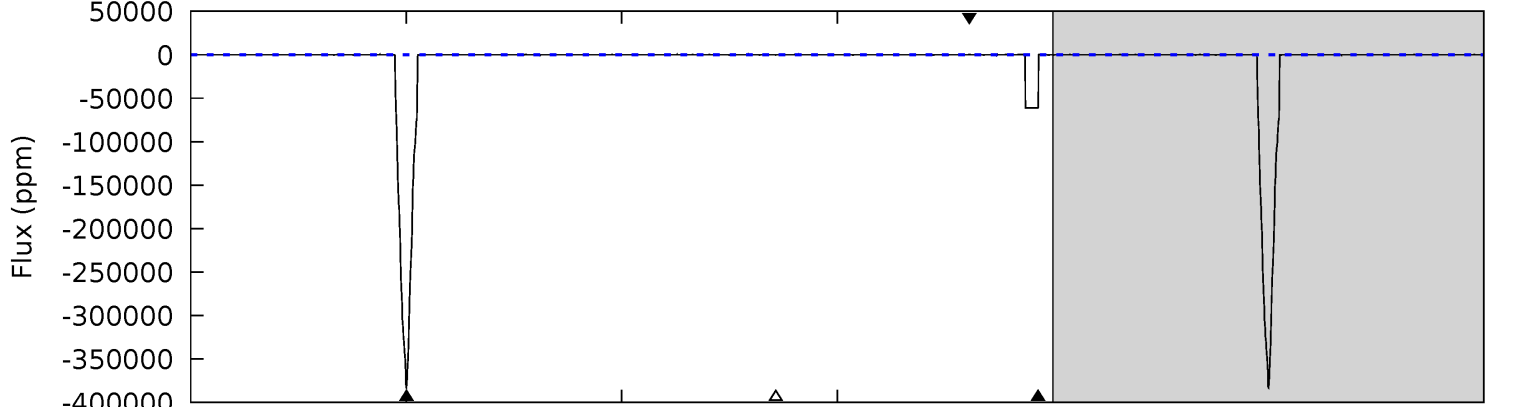
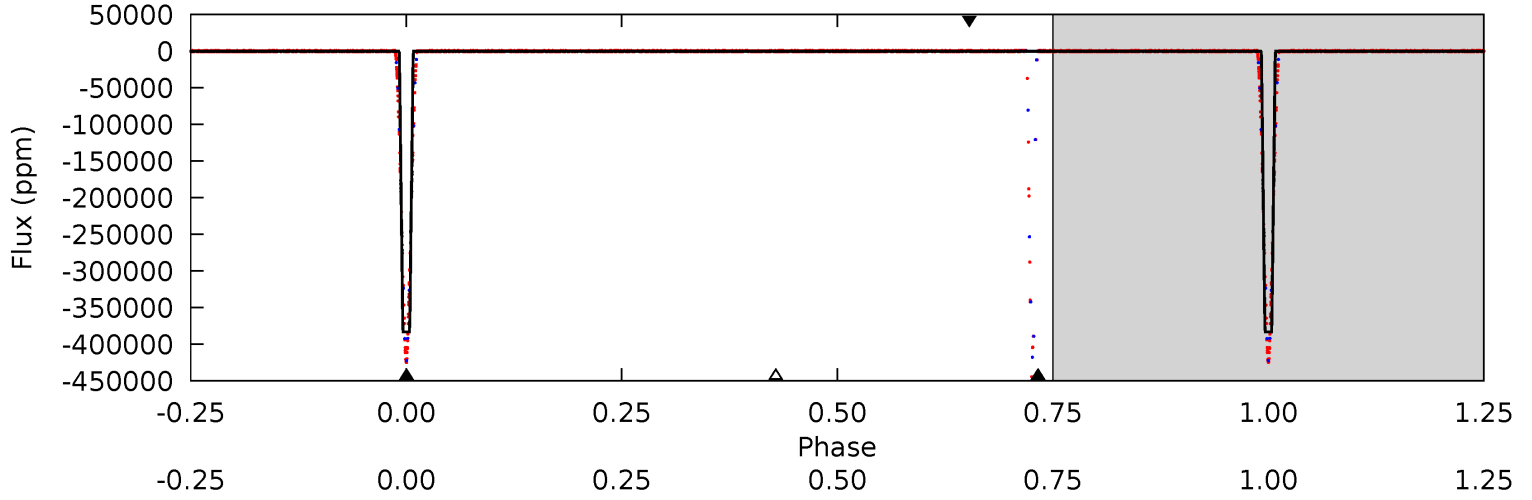
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010352603-01, P = 32.779667 Days, E = 103.387924 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14007	2230	3.62	3.80	4.93	2.40	1.25	14003	14003	2226	2226	141.8	1.00	0.00	0



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-01 / KOI 7317.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$55.59^{+13.50}_{-12.46}$	839^{+65}_{-42}	-2617^{+7689}_{-2235}	$-15.520^{+794.092}_{-647.178}$
Alt.	-60985 ± 27	$72.29^{+13.95}_{-12.30}$	841^{+61}_{-40}	4106^{+253}_{-220}	273^{+118}_{-72}

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

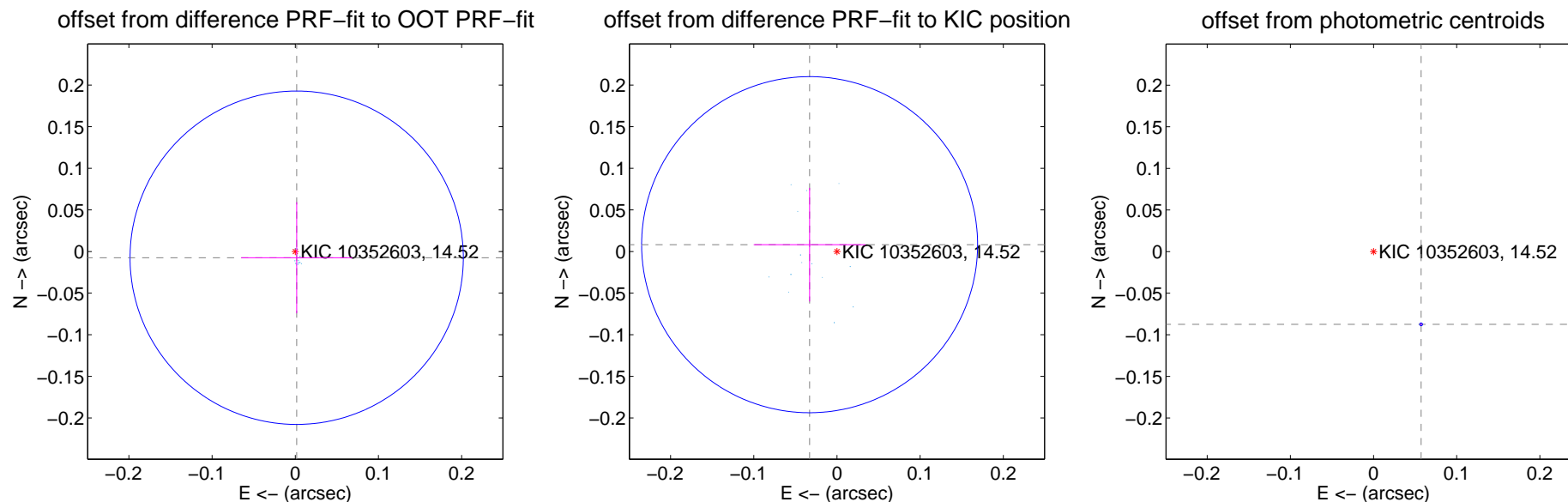
DV Centroid Data

Supplemental centroid analysis for 010352603-01. Kepler magnitude: 14.52. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

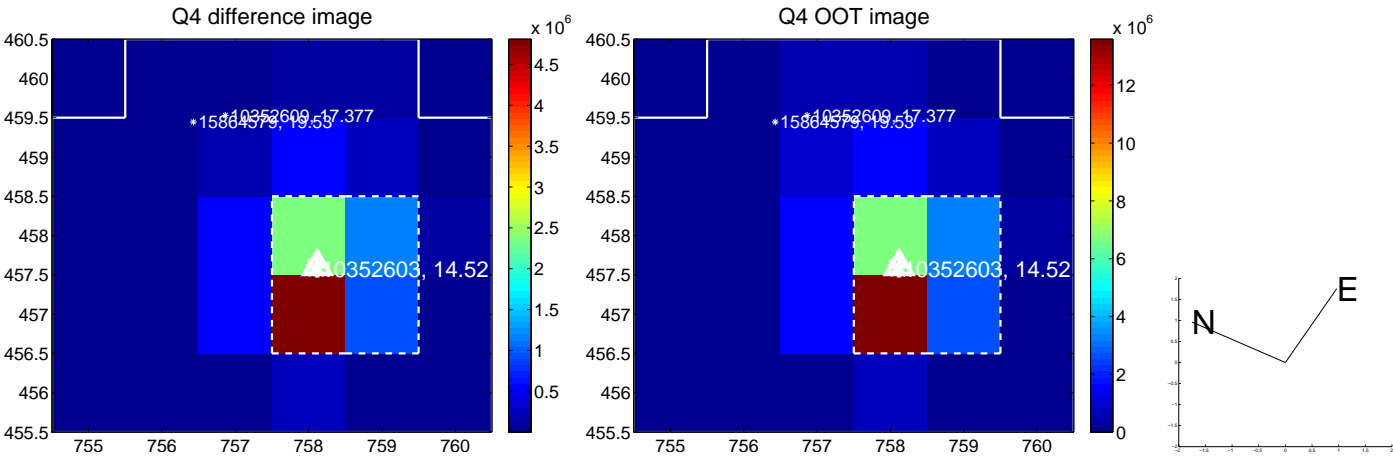
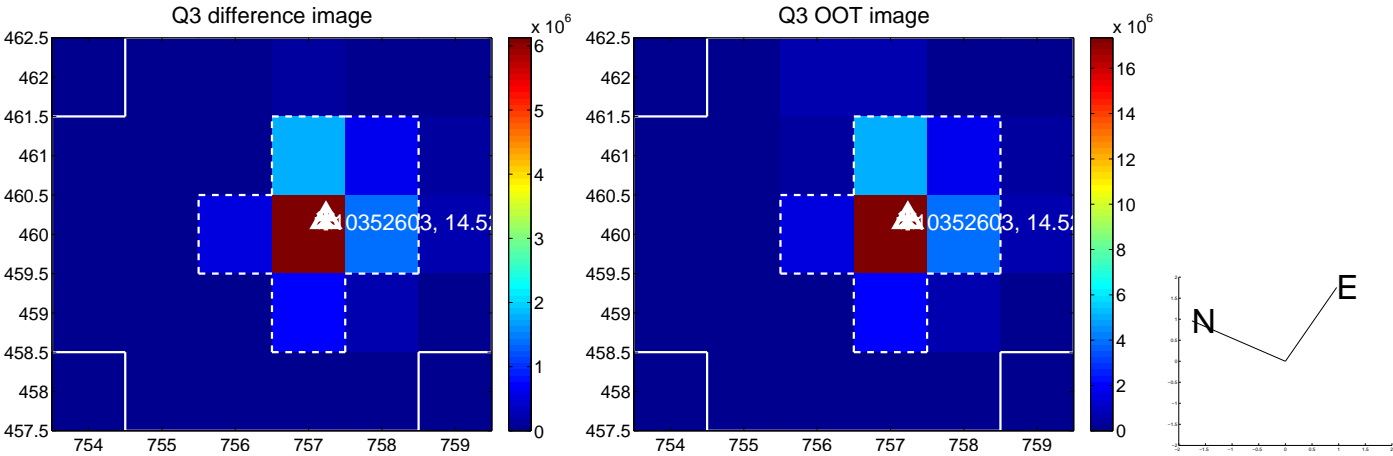
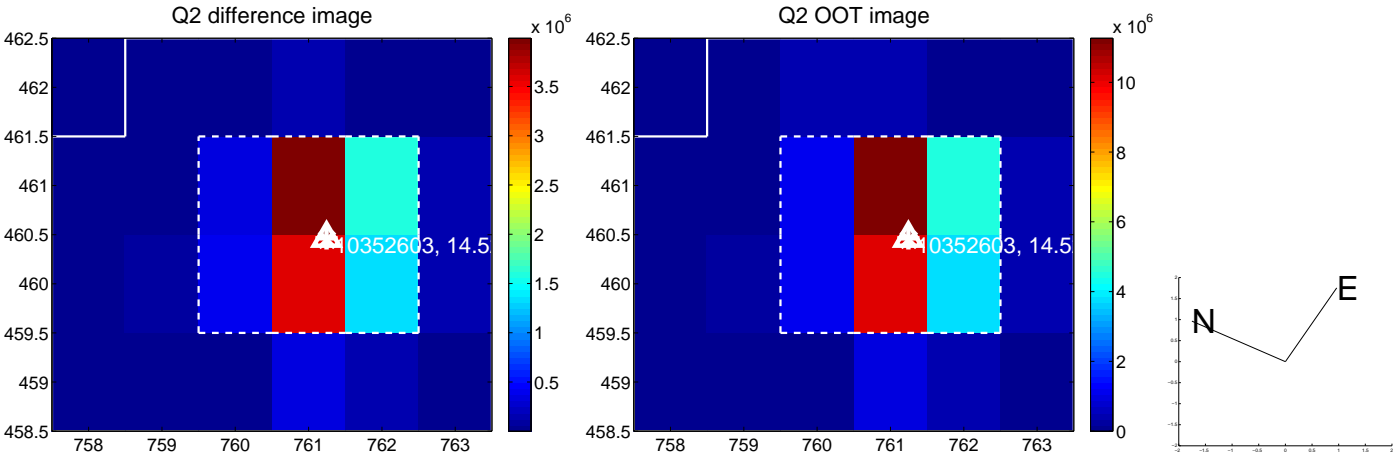
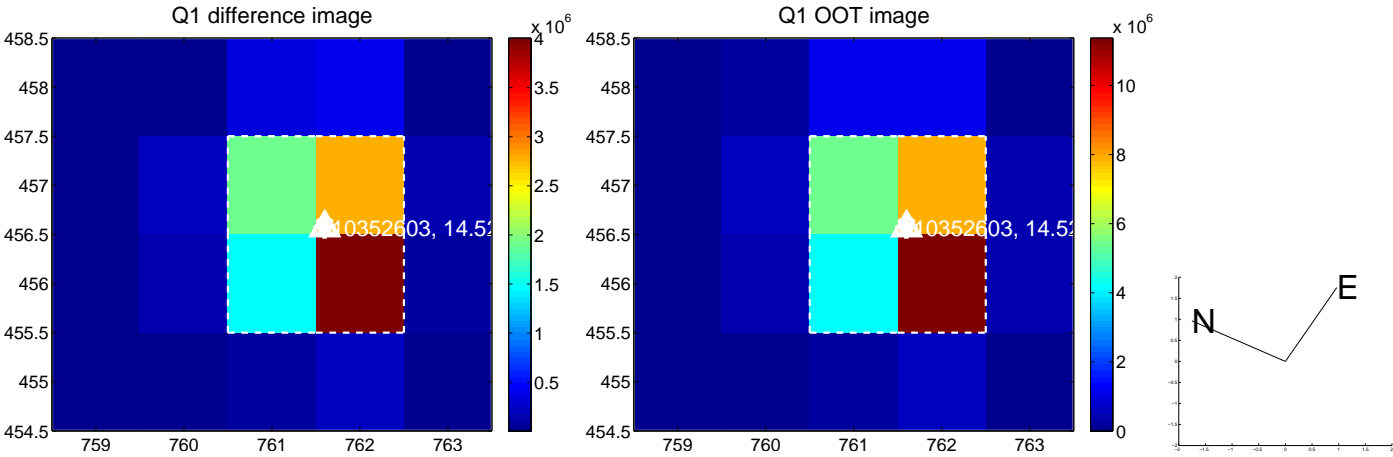
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.008 ± 0.067	0.11	-0.002 ± 0.067	-0.007 ± 0.067
PRF-fit source offset from KIC position	0.034 ± 0.067	0.50	0.033 ± 0.067	0.008 ± 0.068
photometric centroid source offset	0.10 ± 0.00	187.00	-0.06 ± 0.00	-0.09 ± 0.00

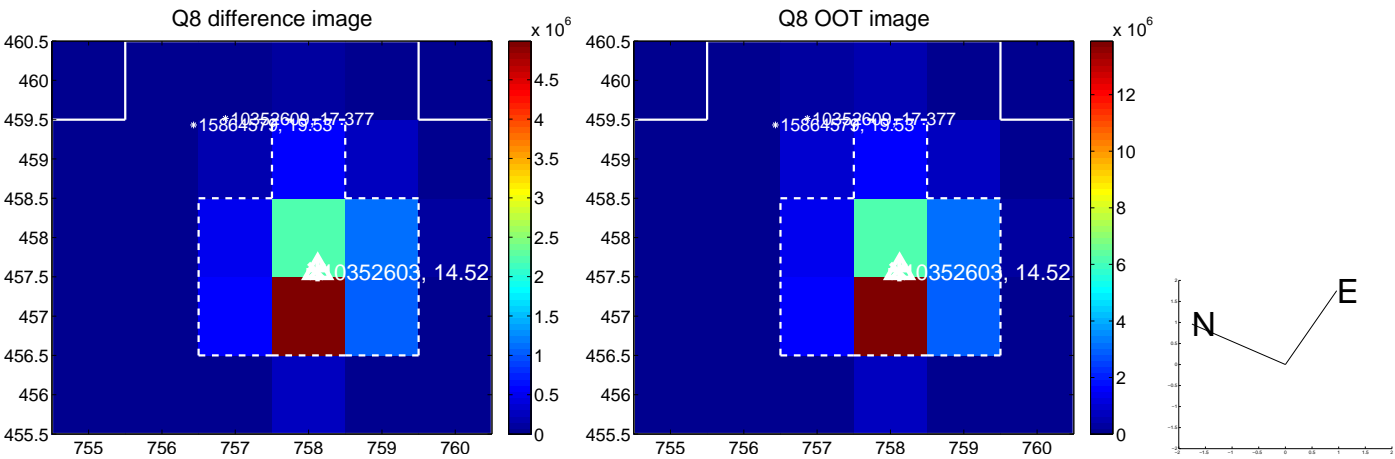
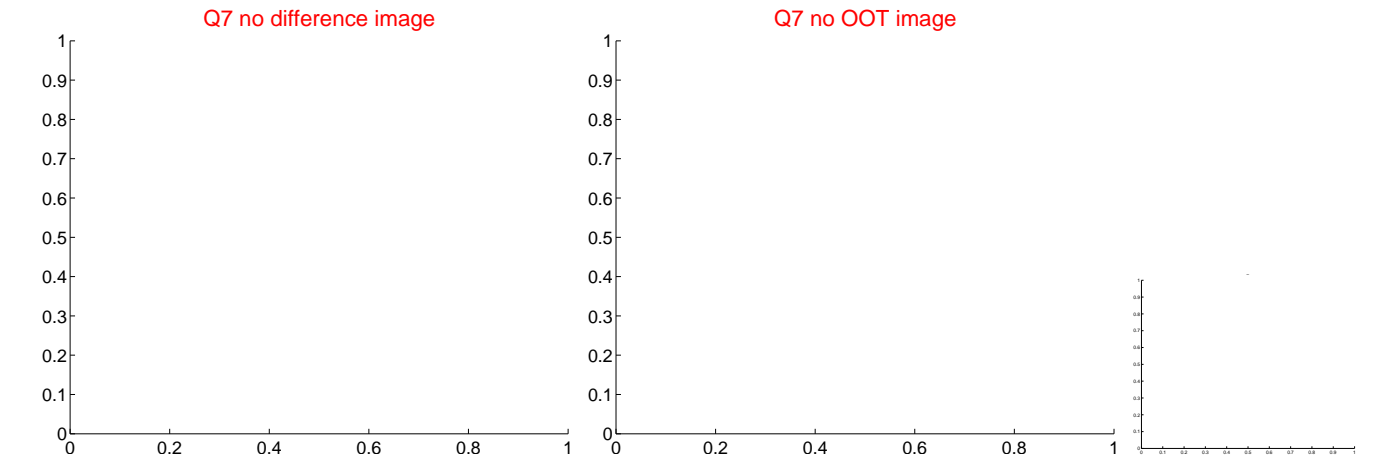
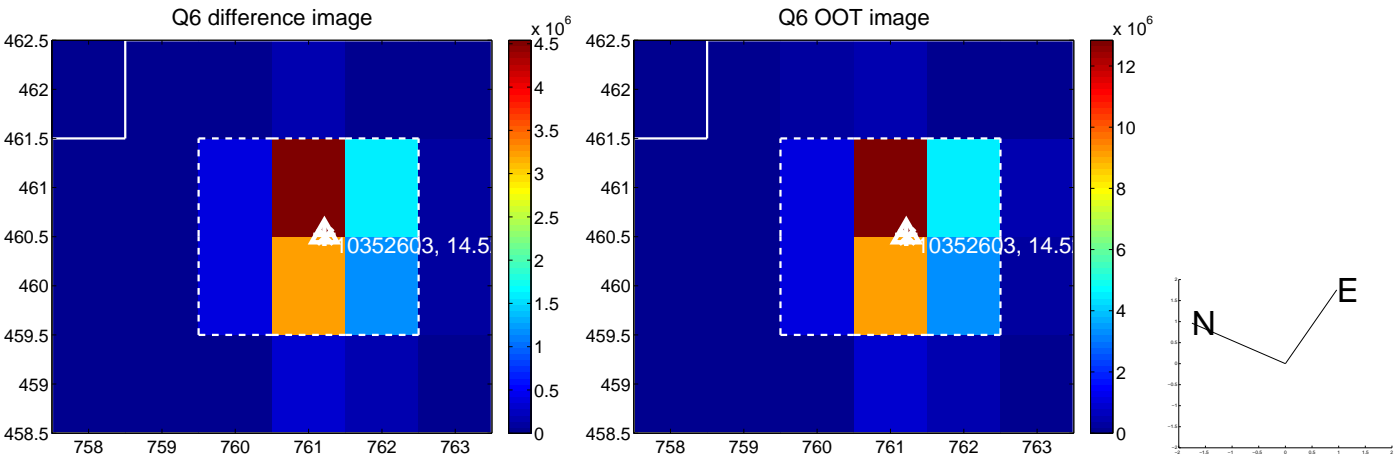
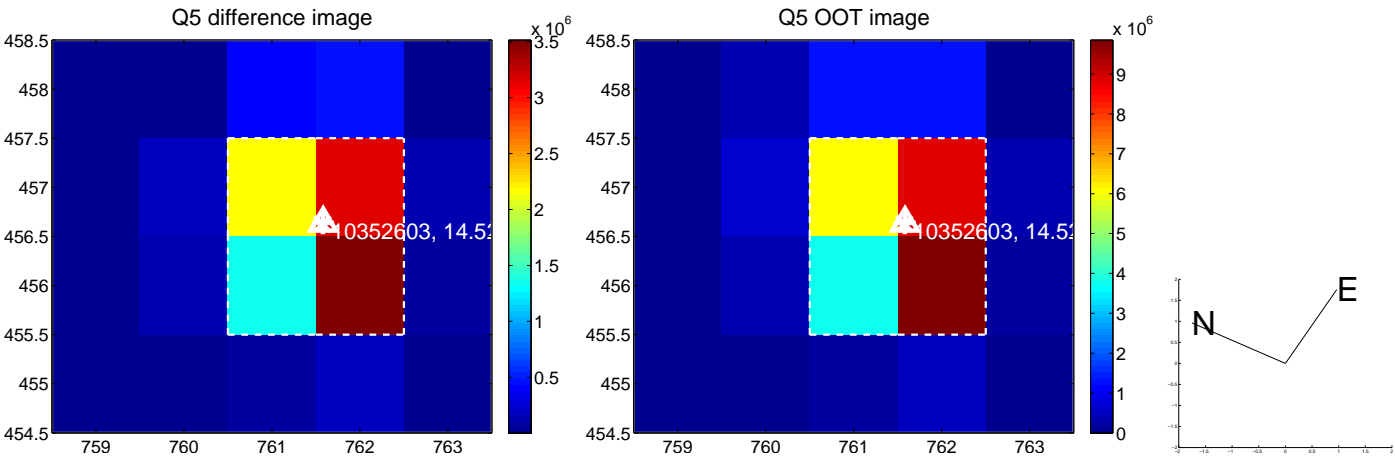


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

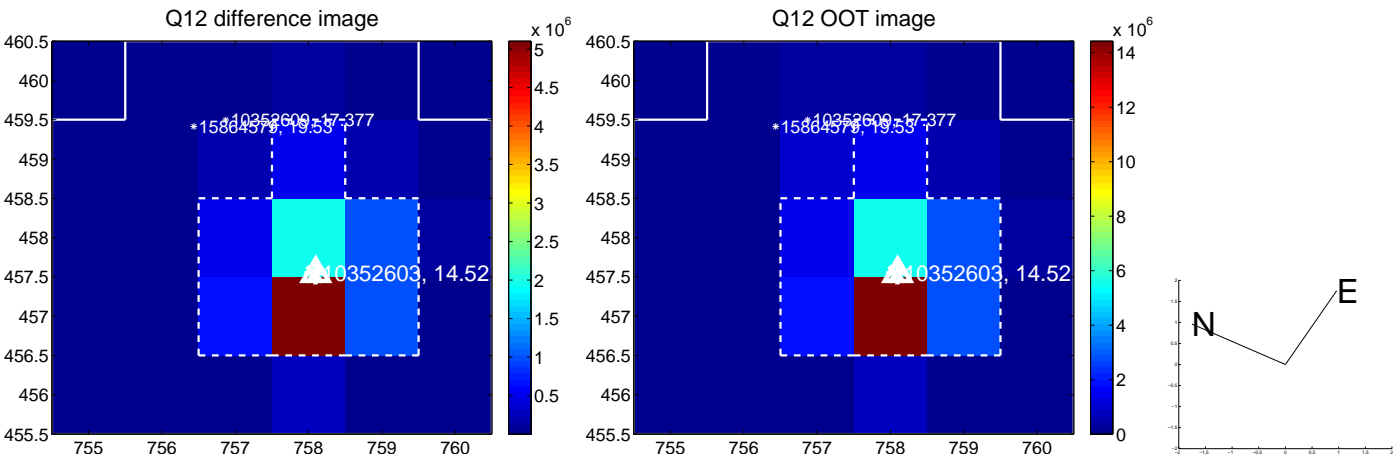
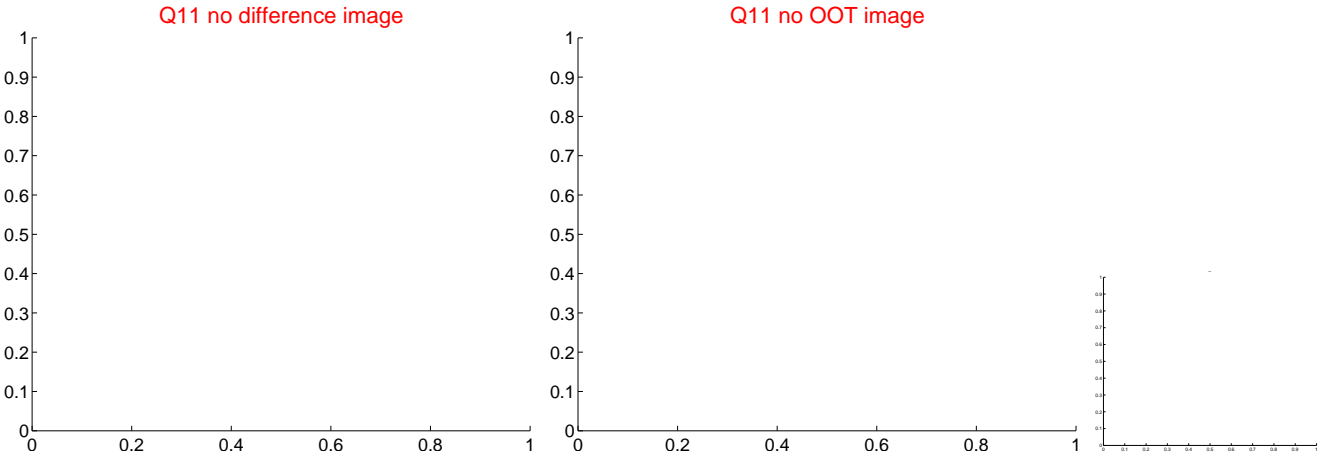
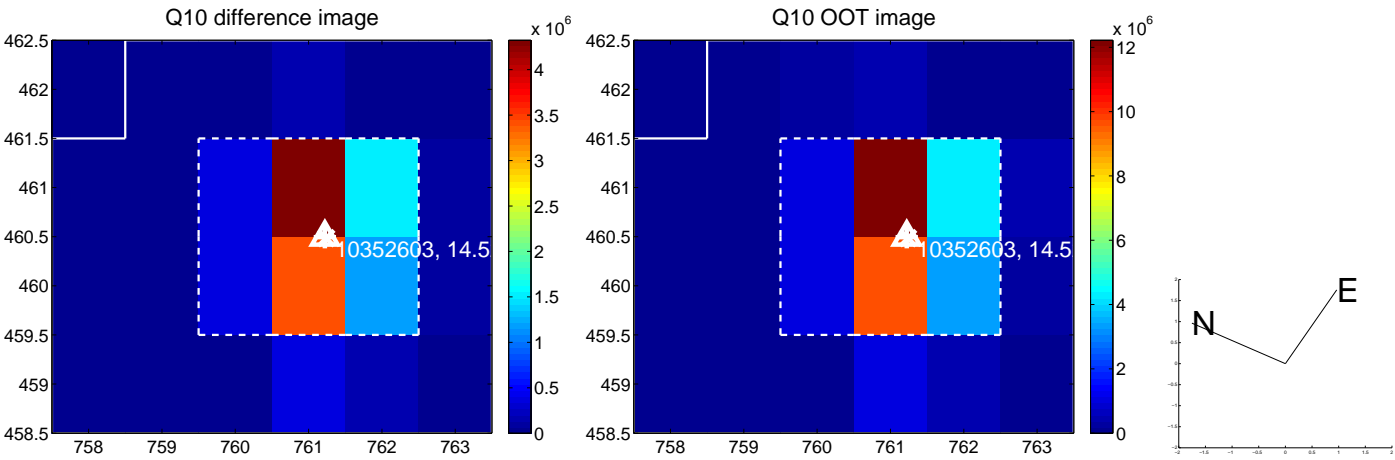
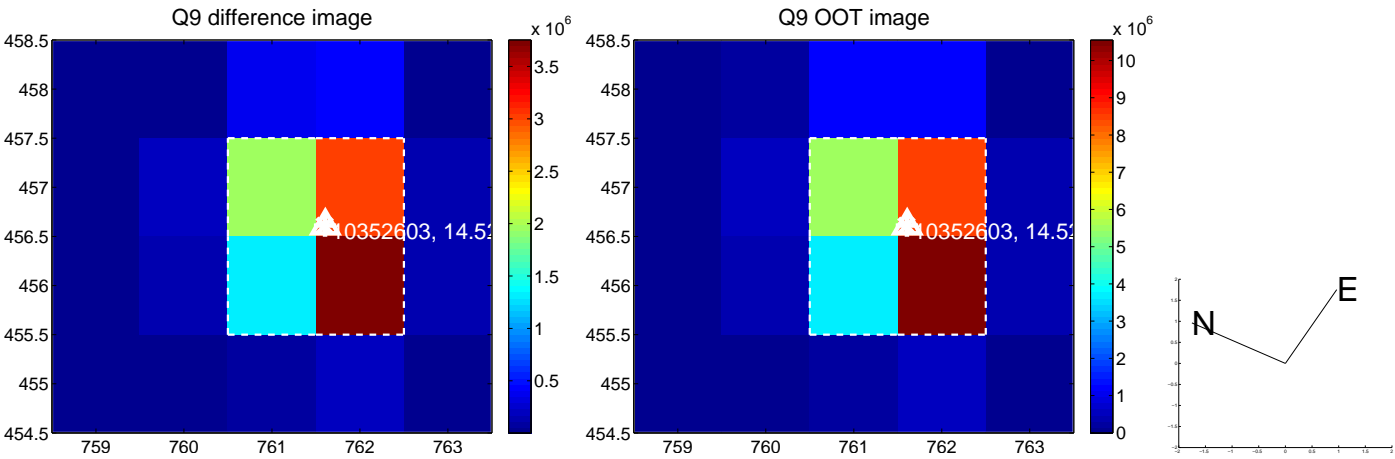
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



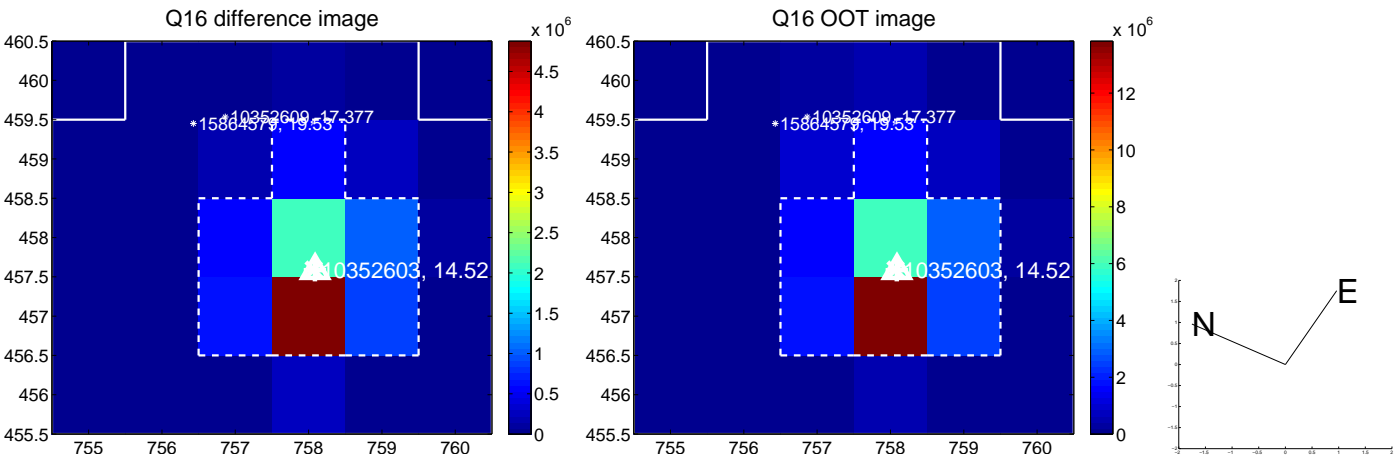
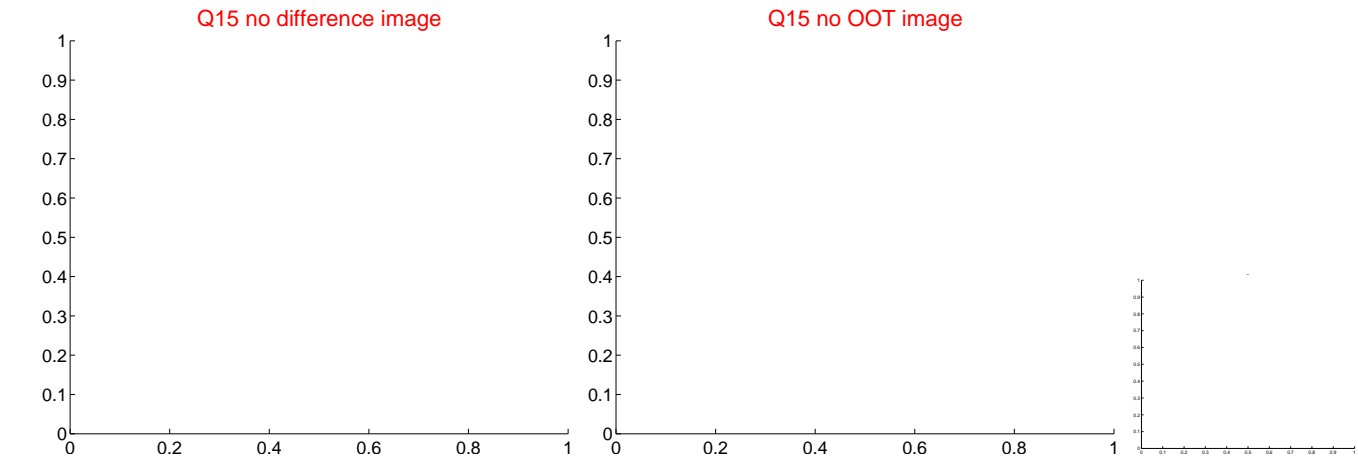
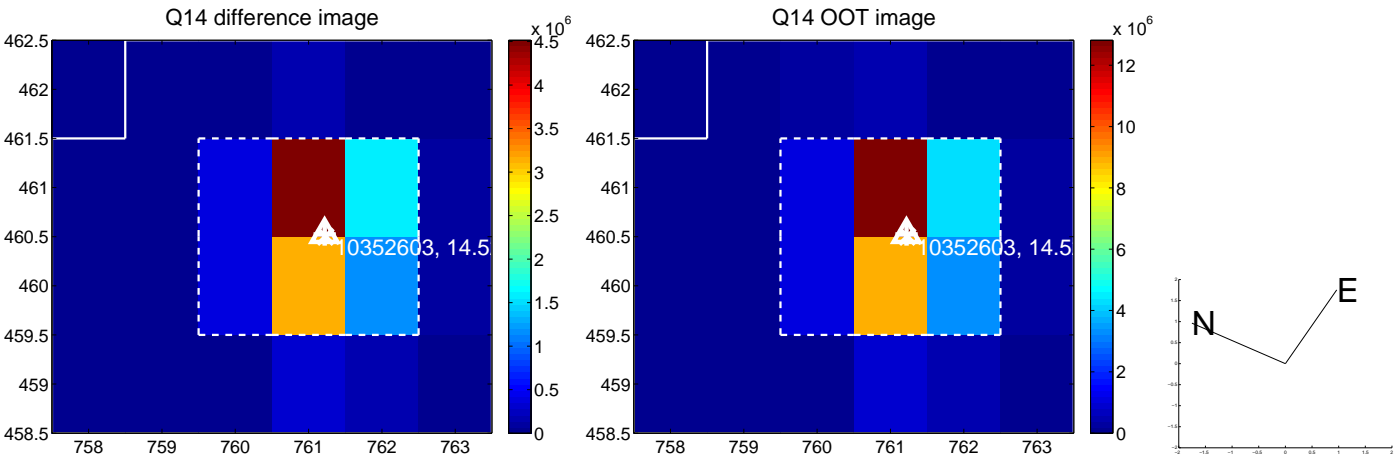
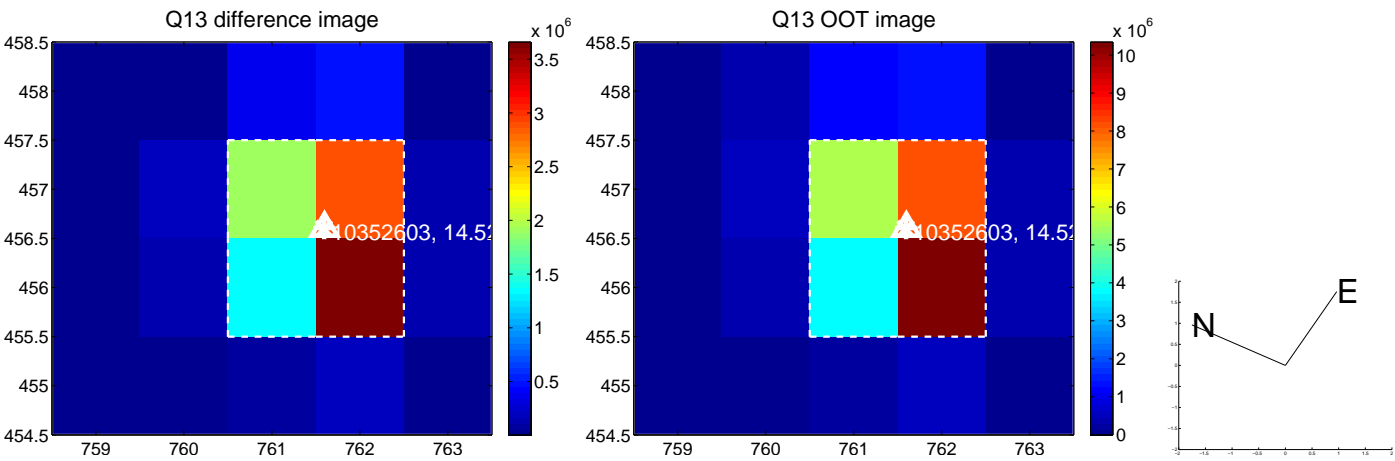
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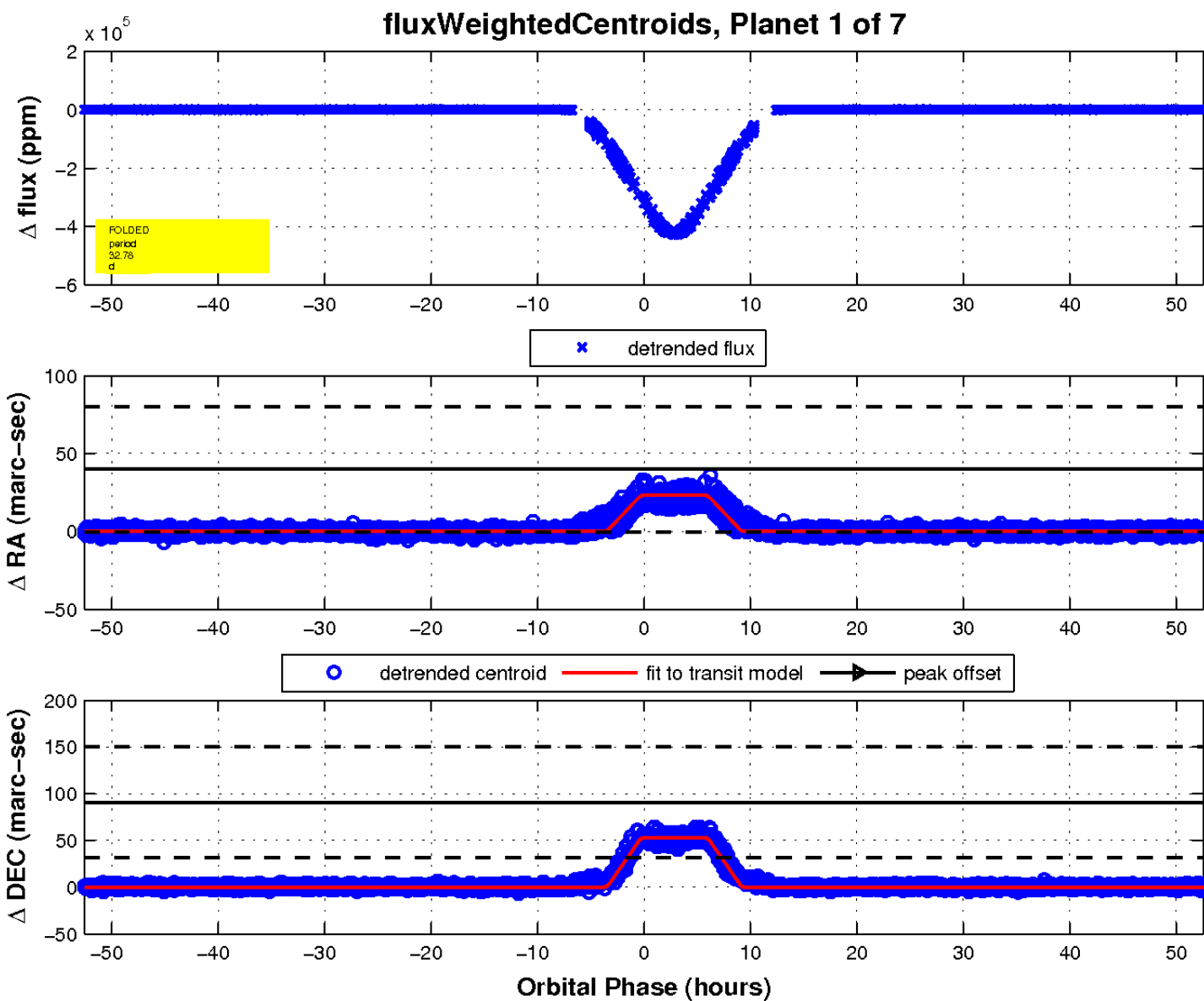
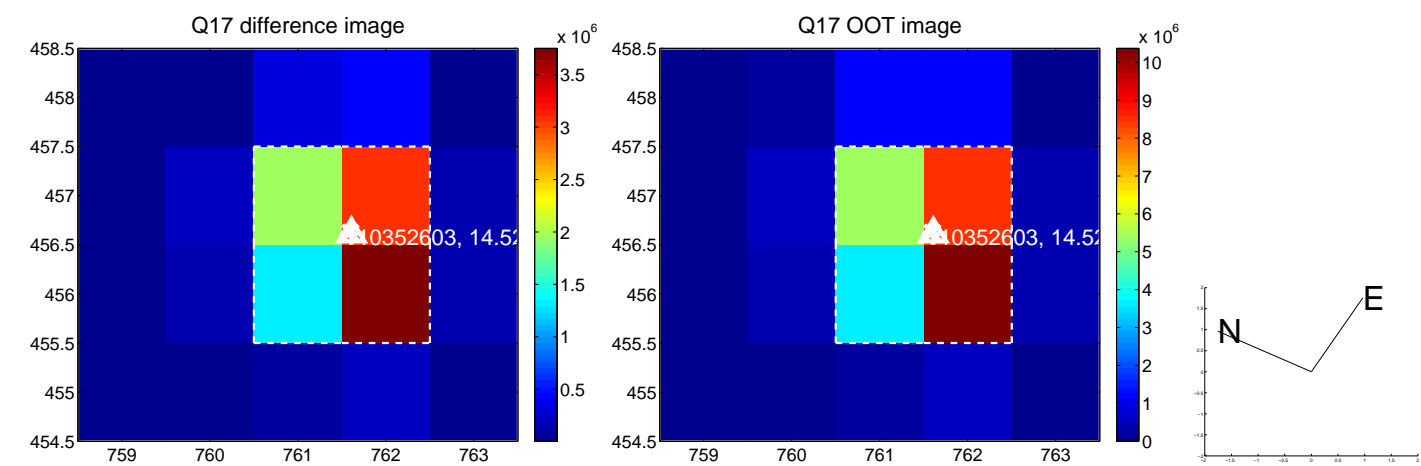
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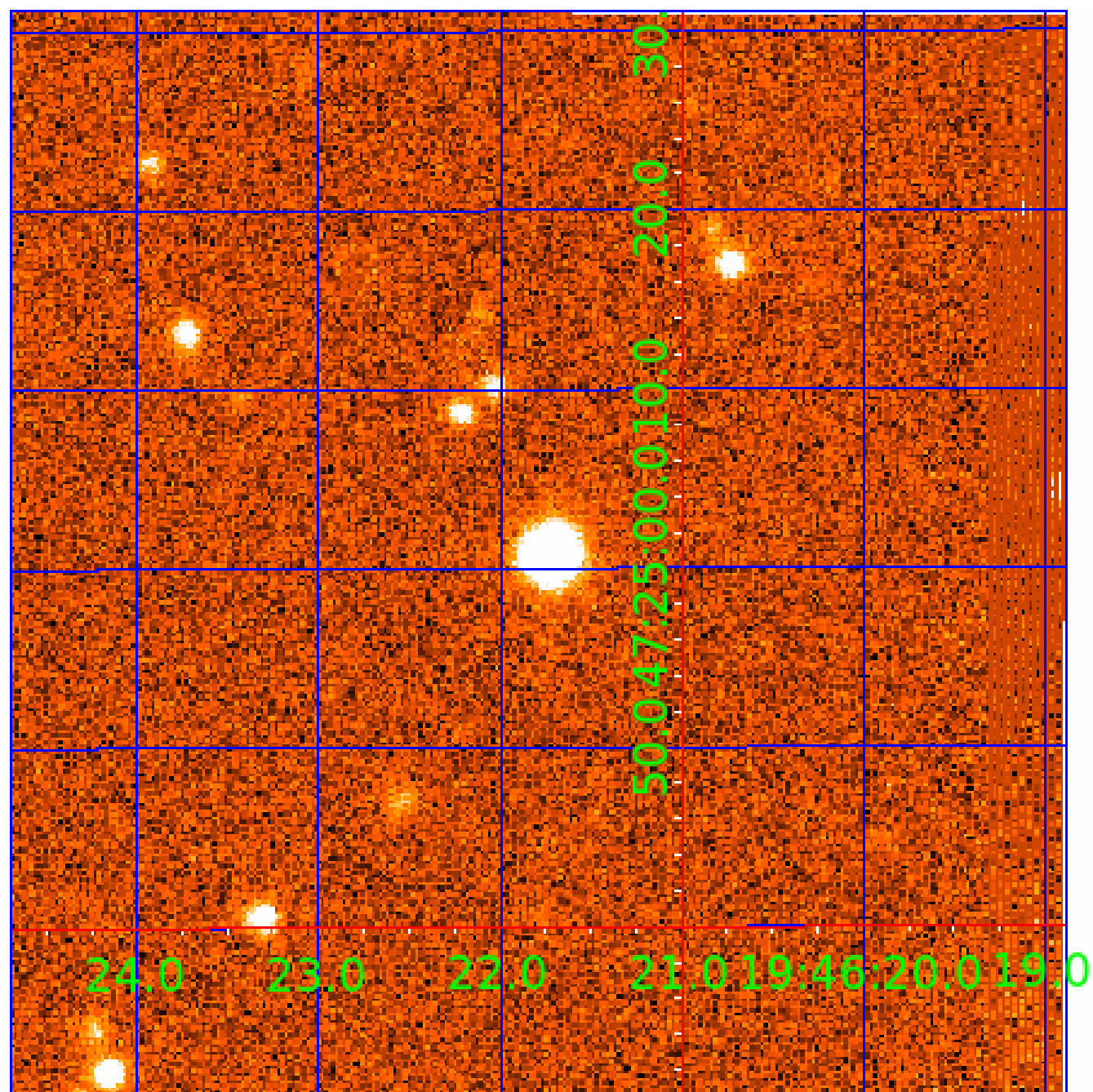


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010352603

Q1-17 DR25 TCE Parameters

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010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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 010352603-02

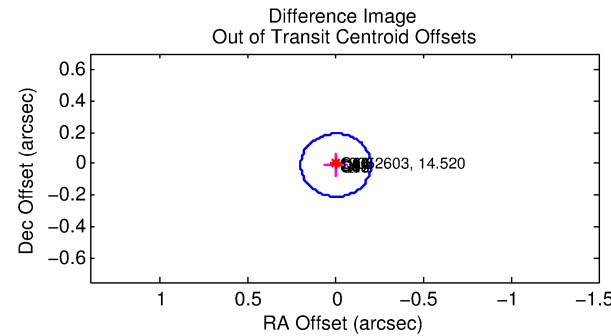
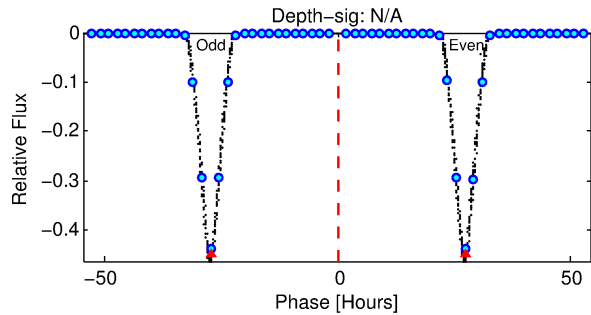
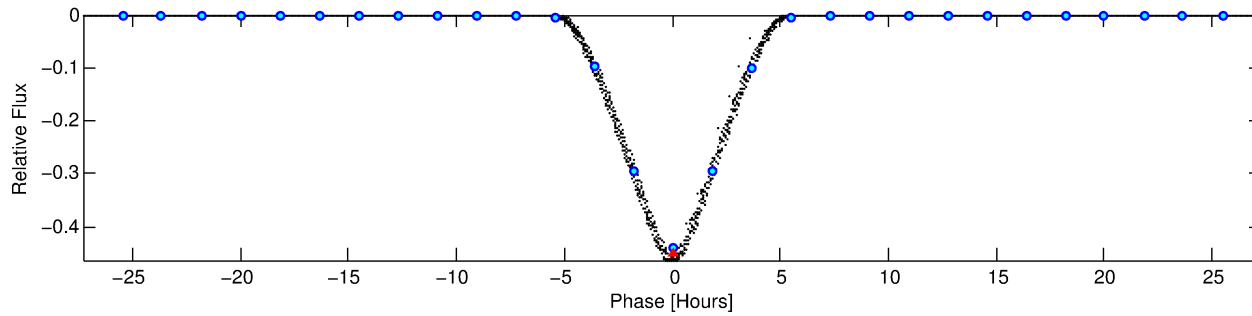
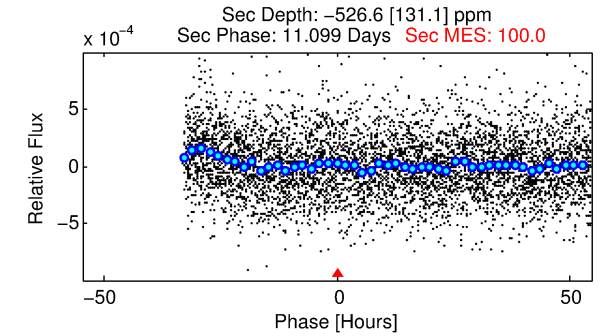
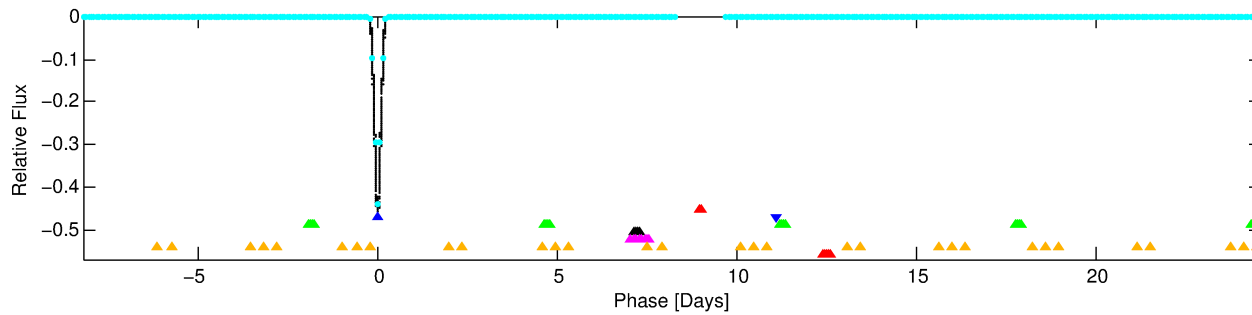
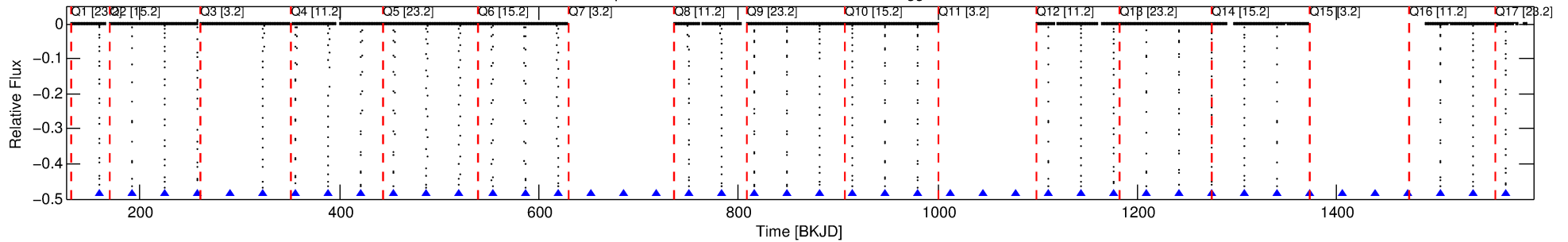
No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 2 of 7 Period: 32.779 d

KOI: K07317 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



TPS TCE Results:

Period = 32.77863 d
Epoch = 159.9783 BKJD

DV fit results are unavailable

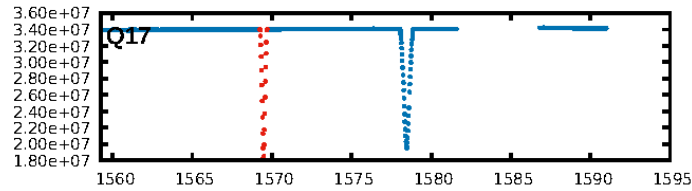
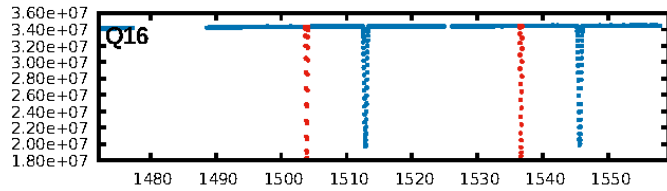
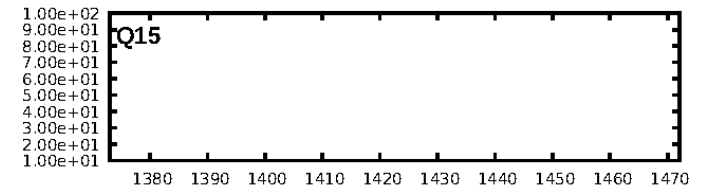
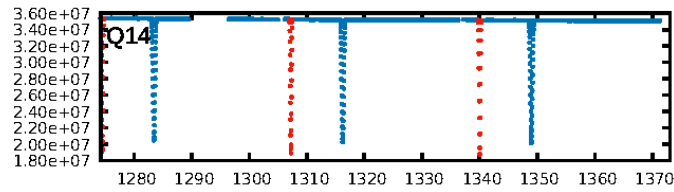
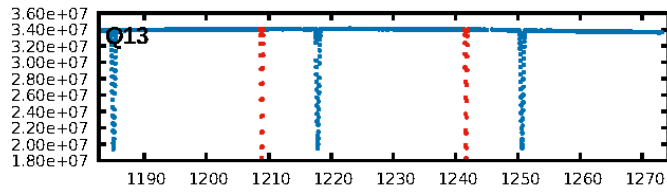
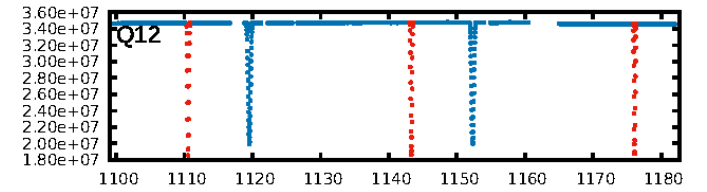
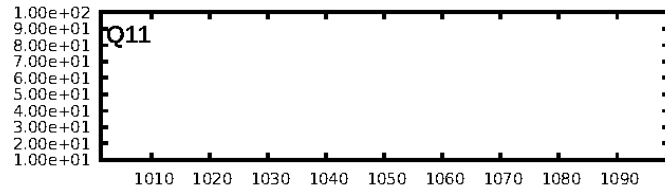
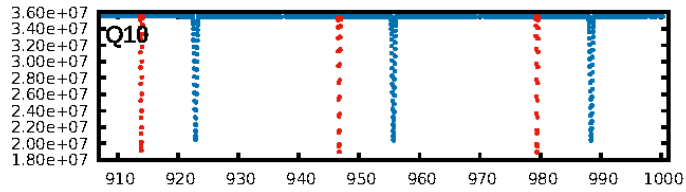
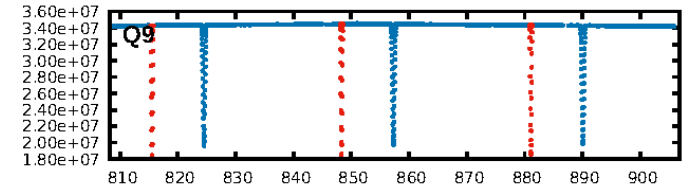
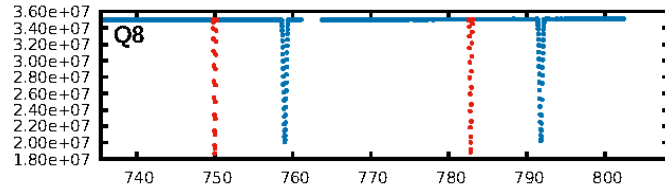
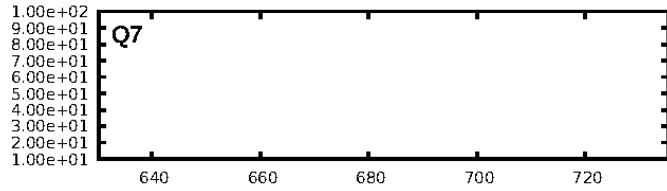
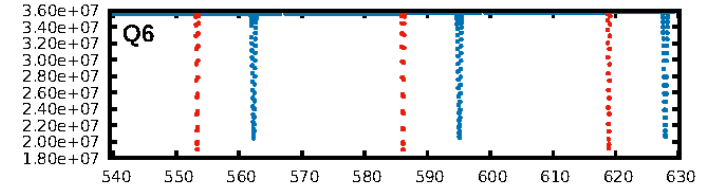
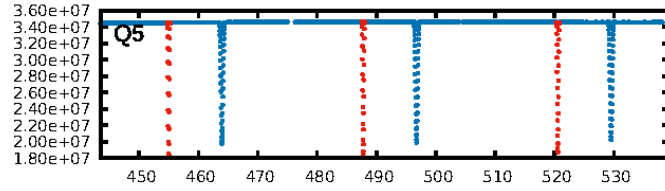
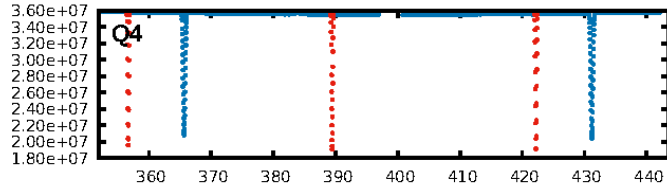
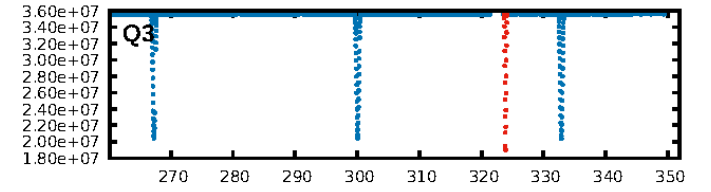
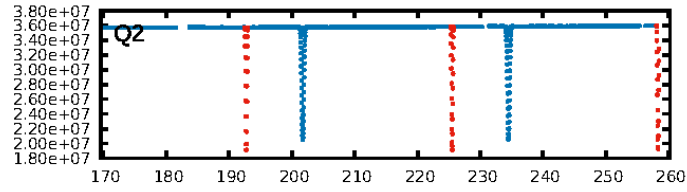
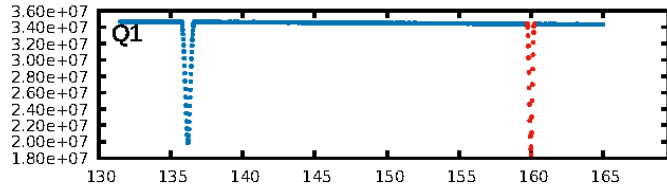
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [38.96σ]
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [31/31]
GhostDiagnostic-chr: 4.651
Centroid-sig: 0.0%
Centroid-so: 0.107 arcsec [175.01σ]
OotOffset-rm: 0.008 arcsec [0.12σ]
KicOffset-rm: 0.034 arcsec [0.50σ]
OotOffset-st: 4/0/4/5 [13]
KicOffset-st: 4/0/4/5 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

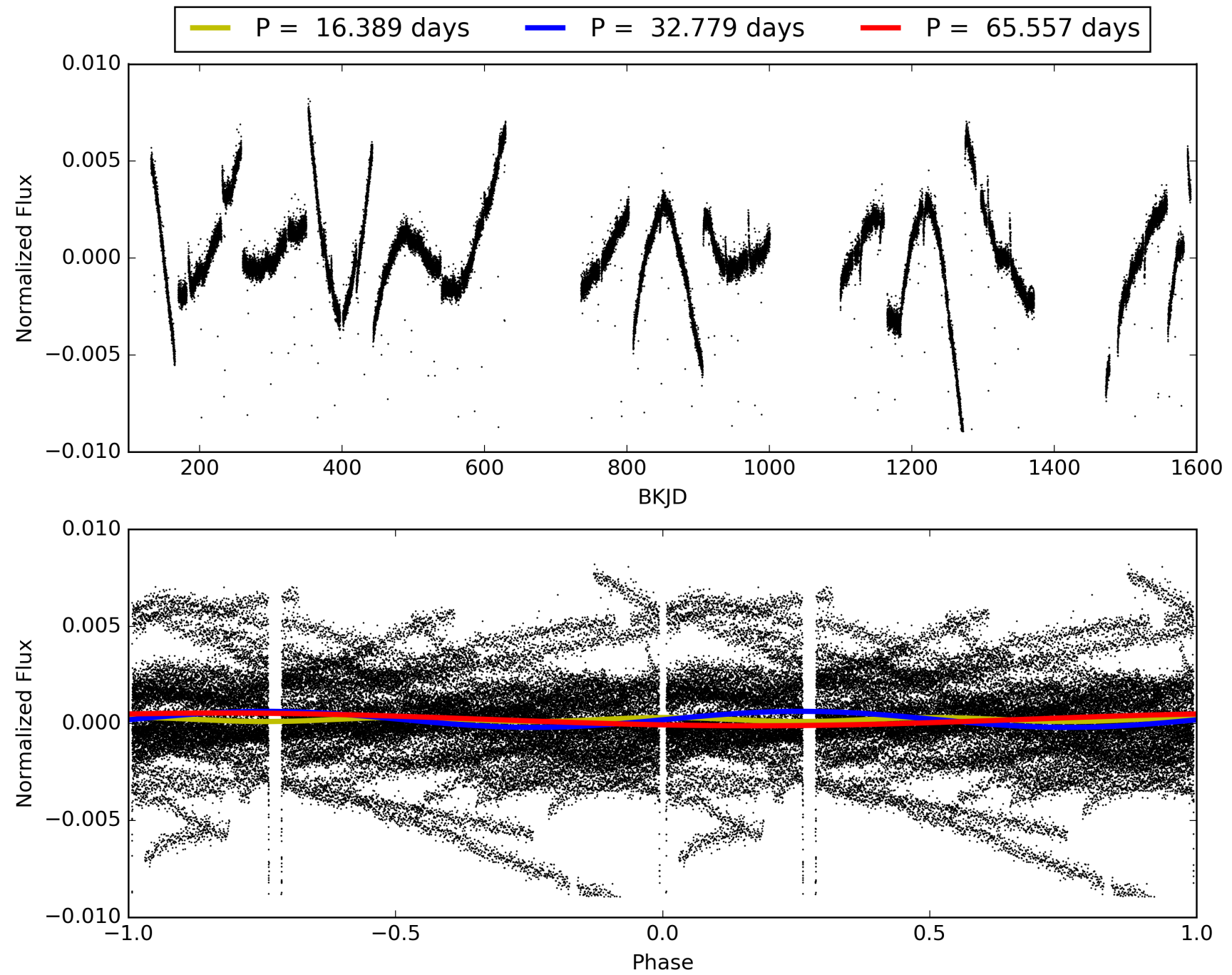
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:07:35 Z

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

TCE 010352603-02, PDC Light Curves

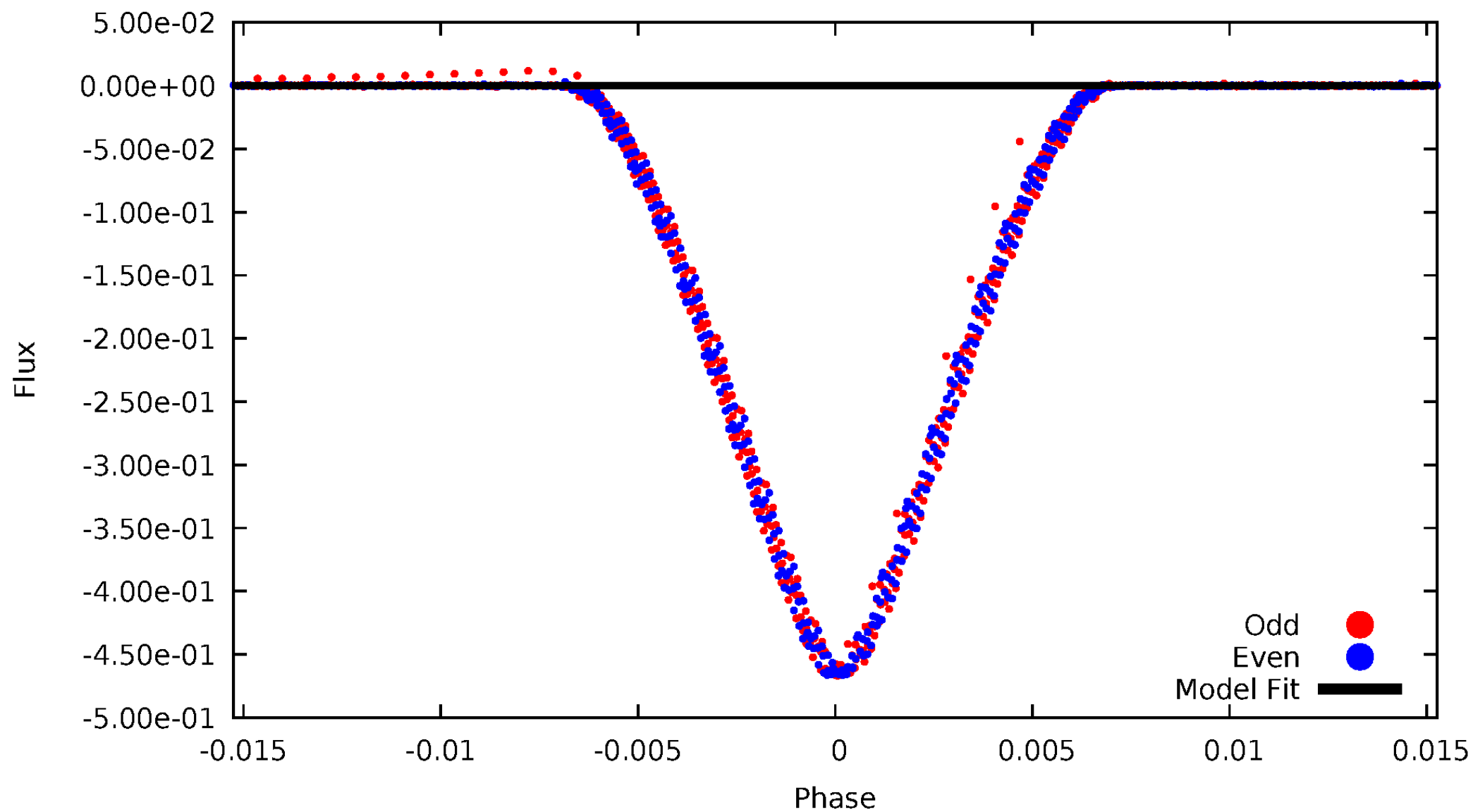


TCE 010352603-02



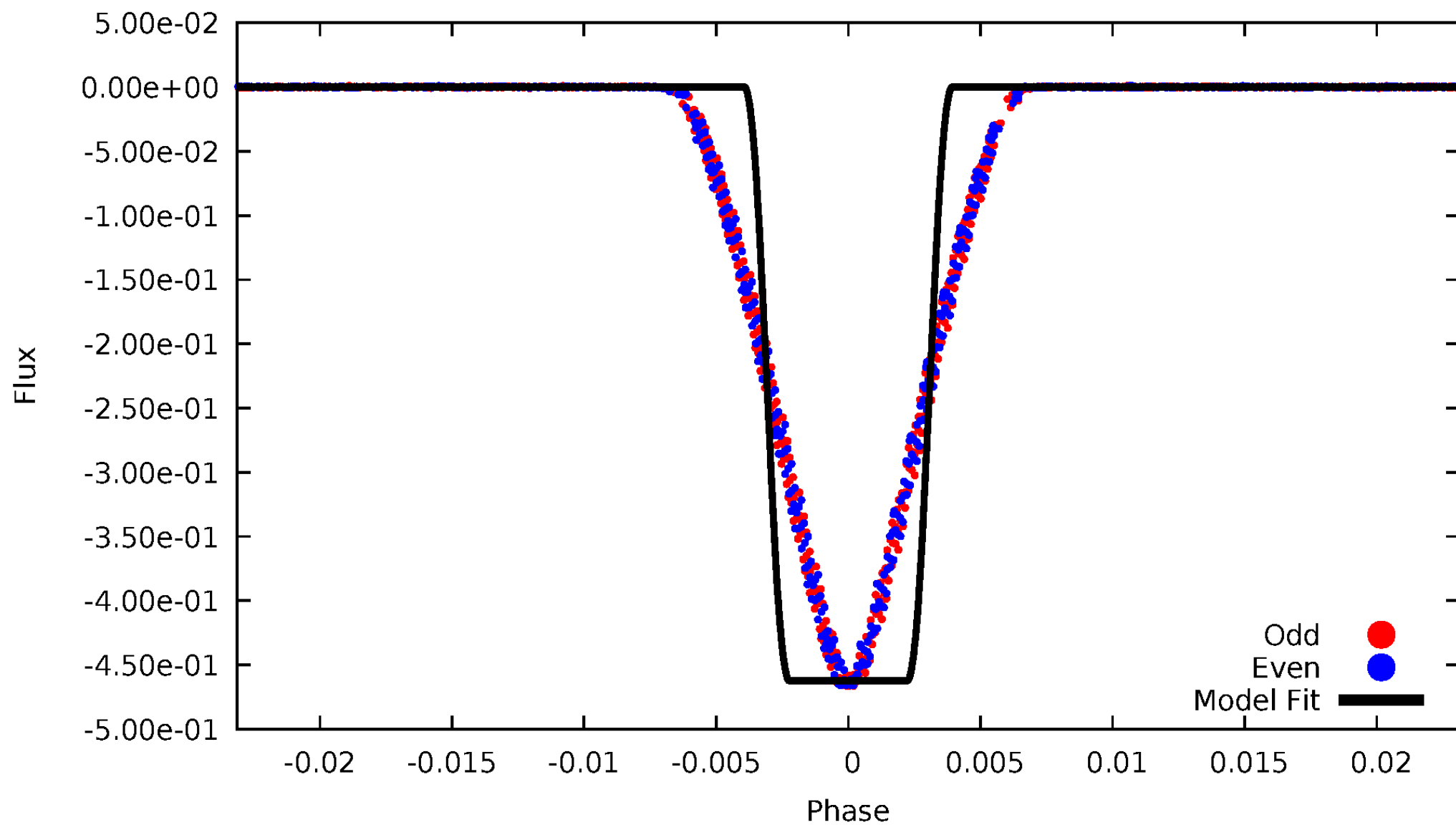
DV Odd/Even

TCE 010352603-02



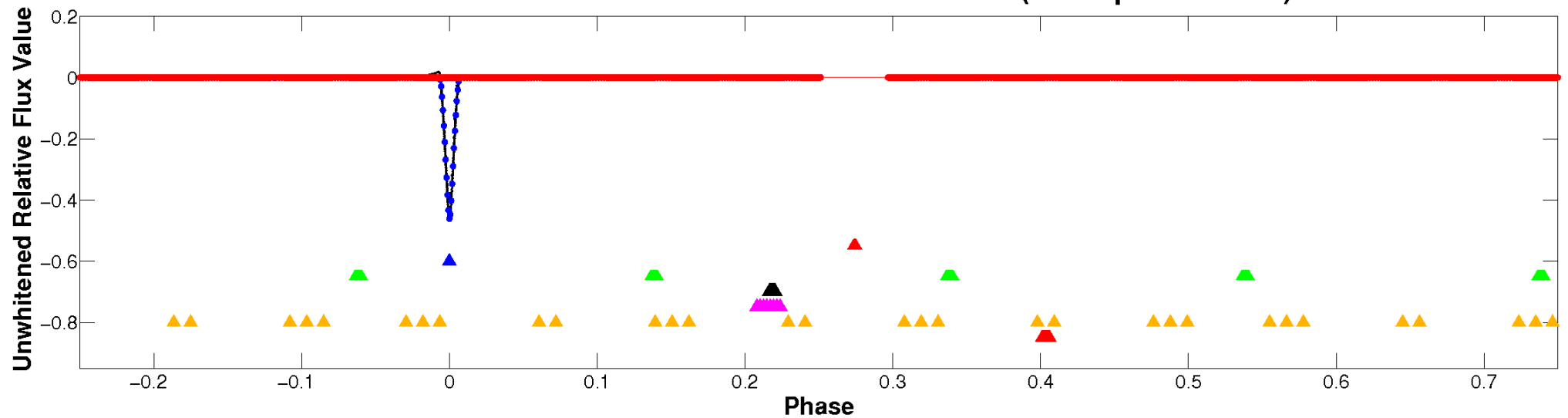
ALT Odd/Even

TCE 010352603-02

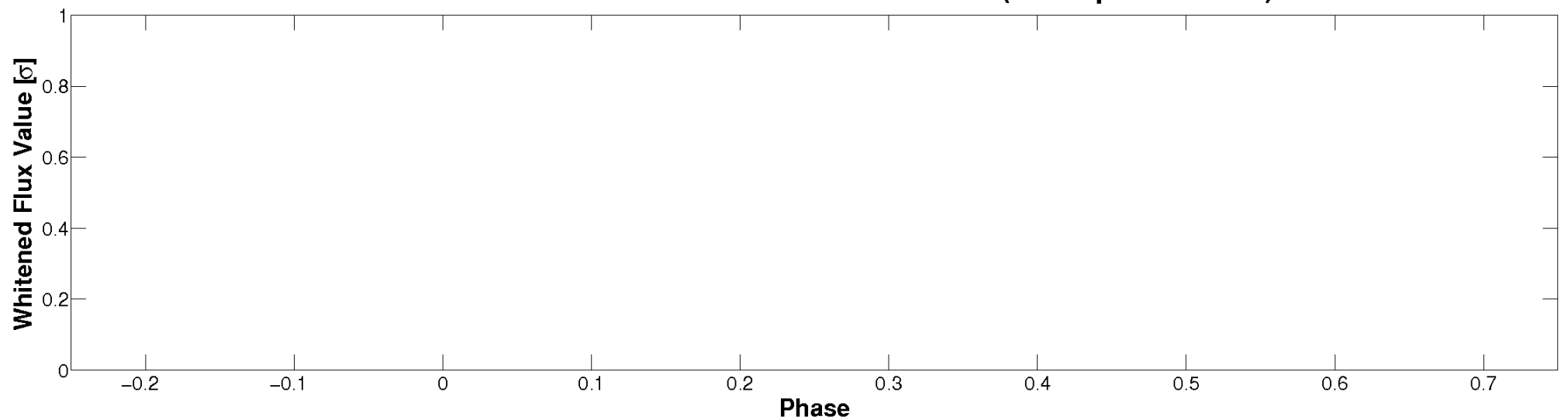


Non-Whitened Vs. Whitened Light Curve

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

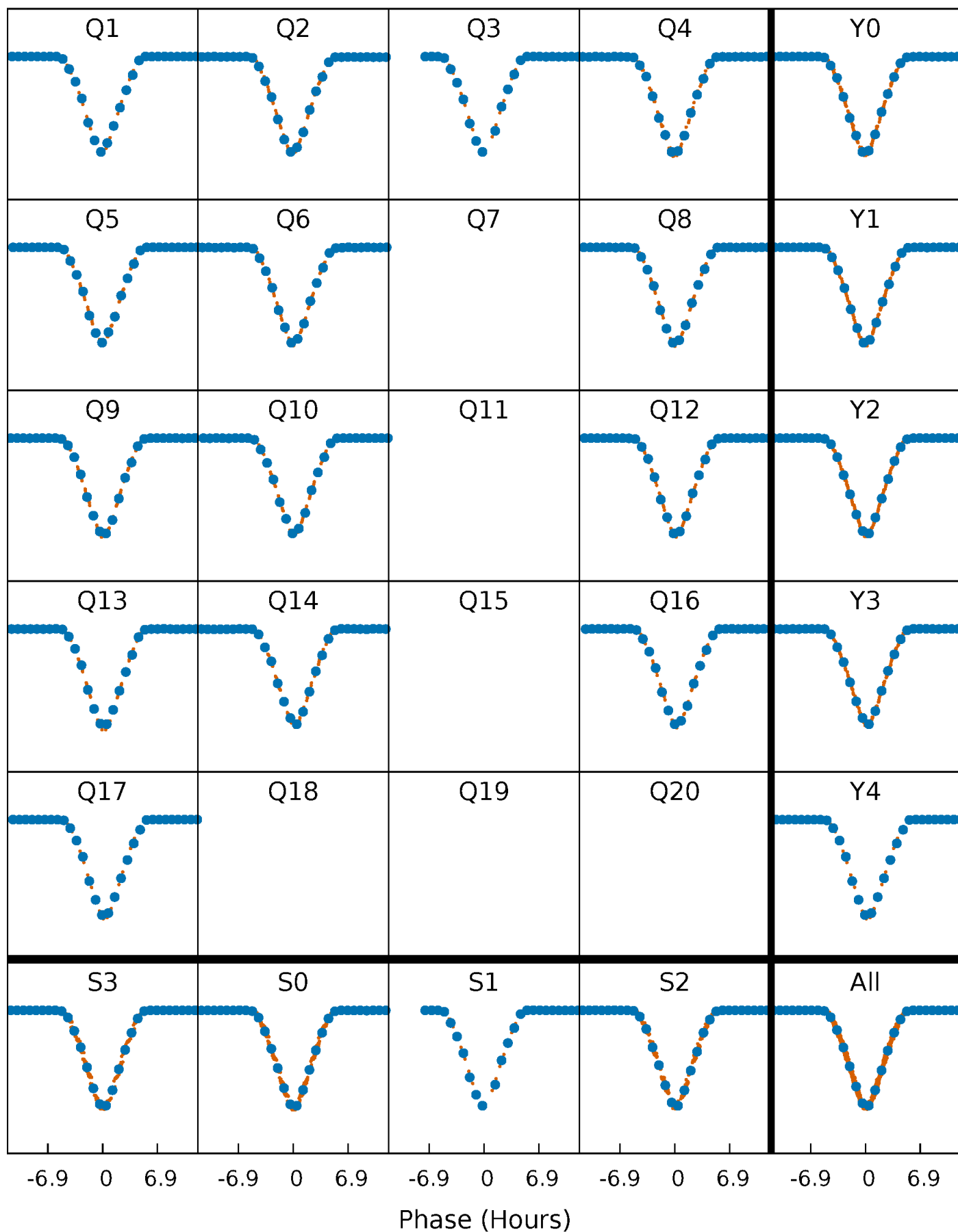


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



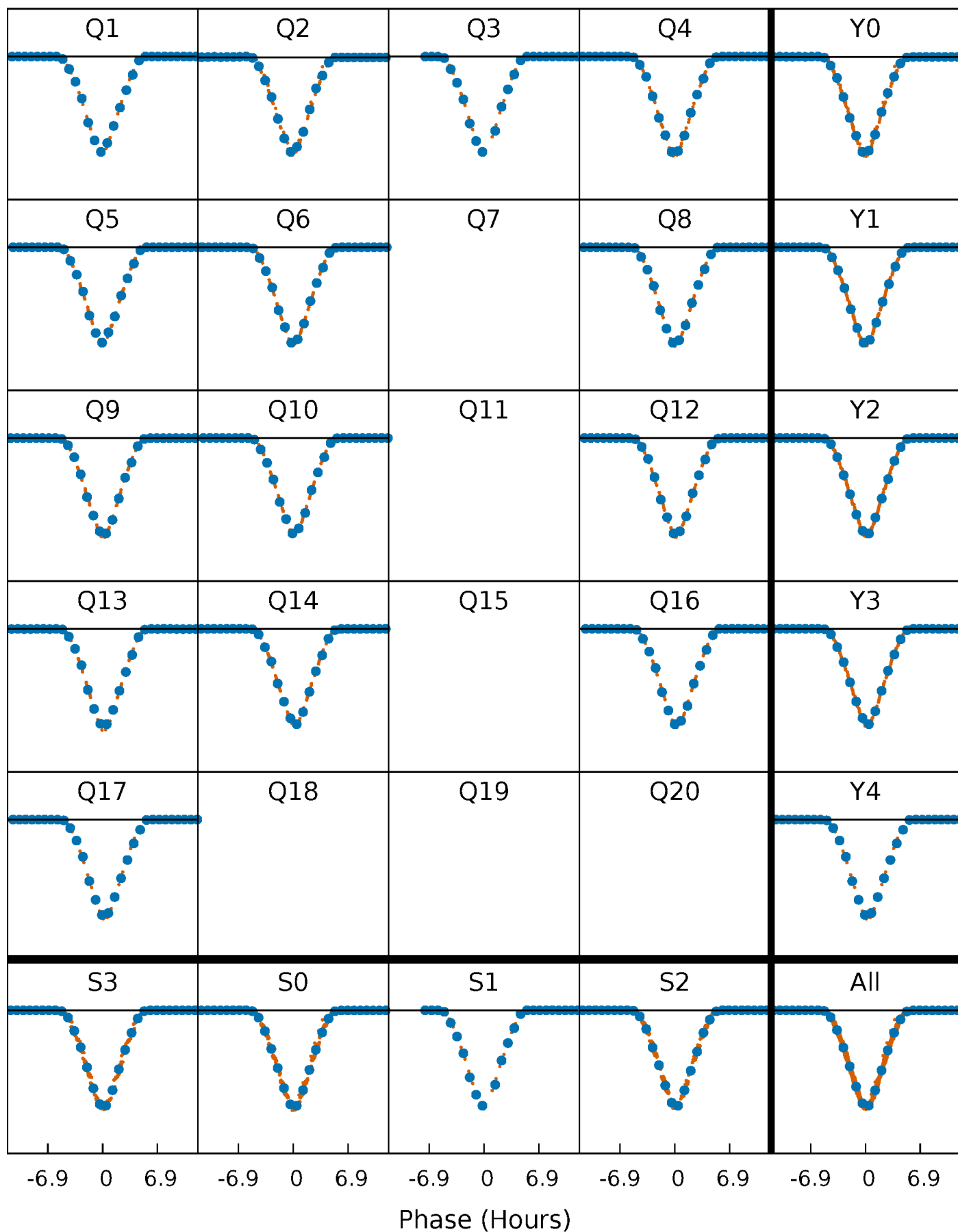
PDC Quarter-Phased Transit Curves

TCE 010352603-02 P= 32.778630 Days $T_0=159.978349$ (BKJD)



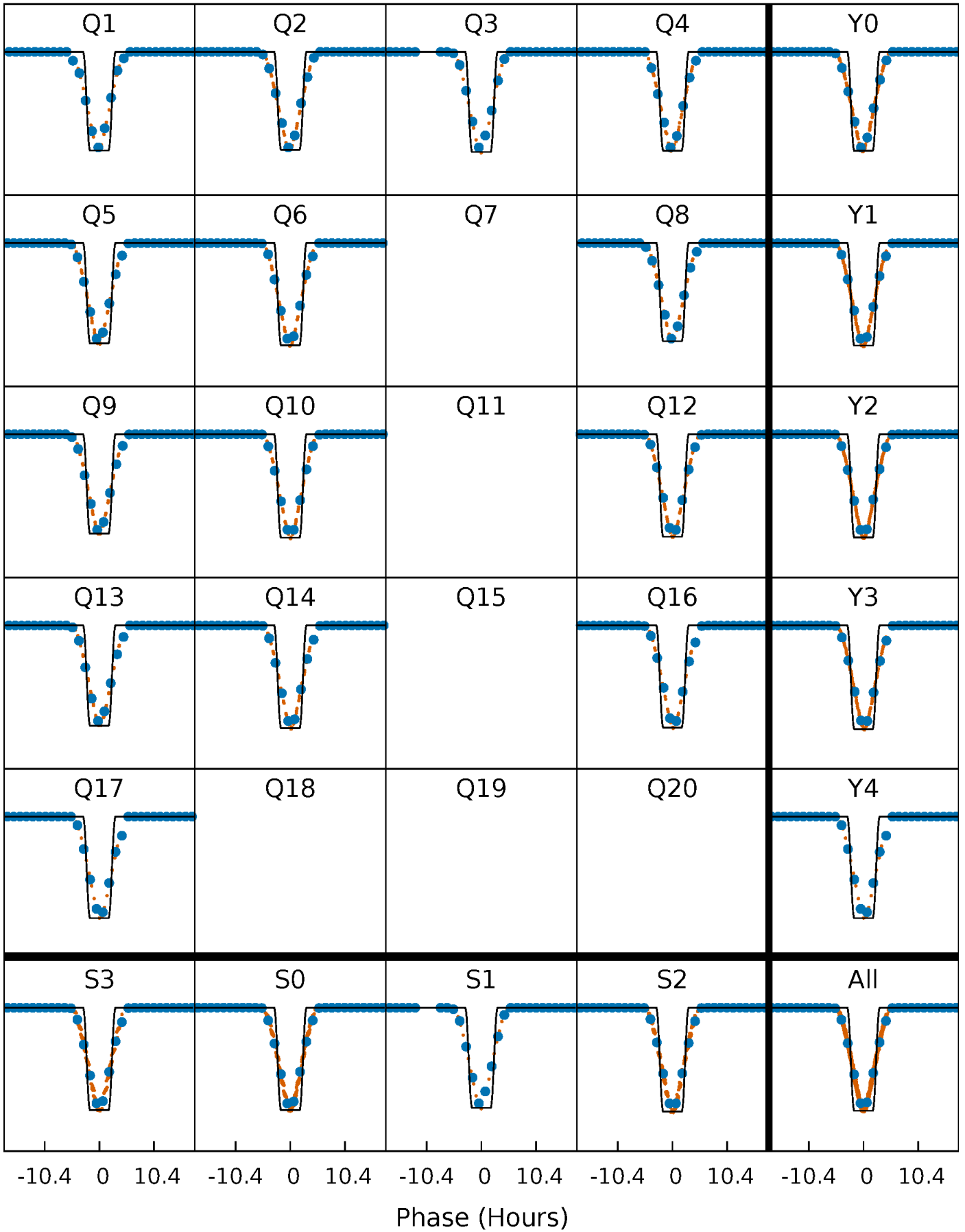
DV Quarter-Phased Transit Curves

TCE 010352603-02 P= 32.778630 Days $T_0=159.978349$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

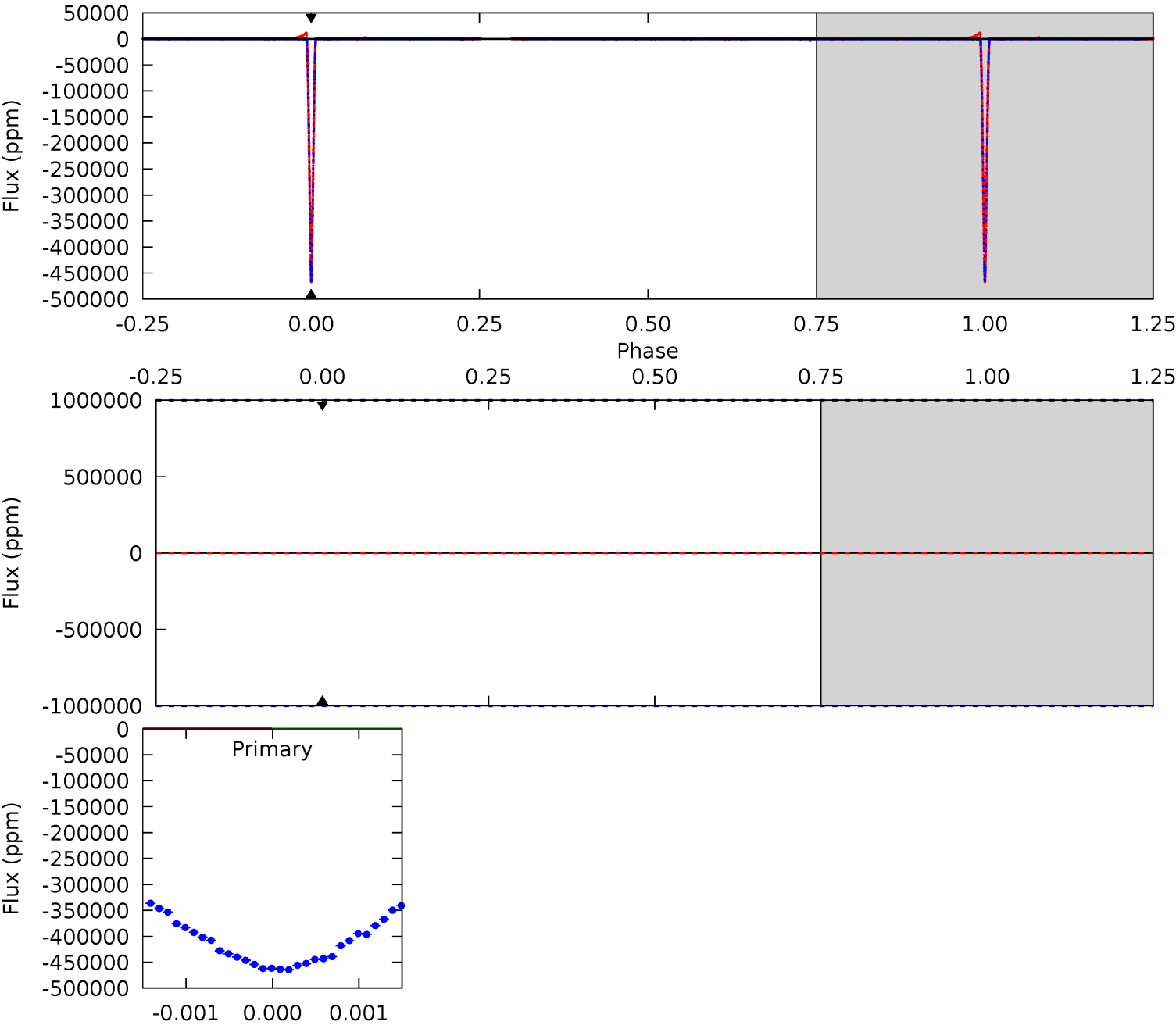
TCE 010352603-02 P= 32.778630 Days $T_0=159.981458$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-02, P = 32.778630 Days, E = 127.199719 Days

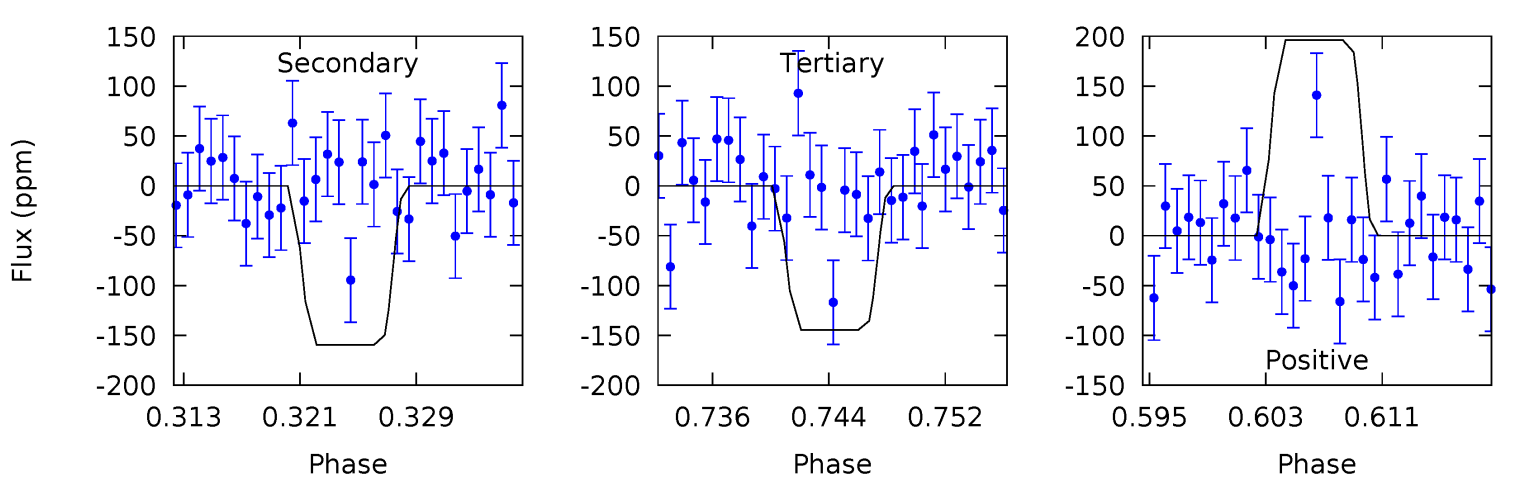
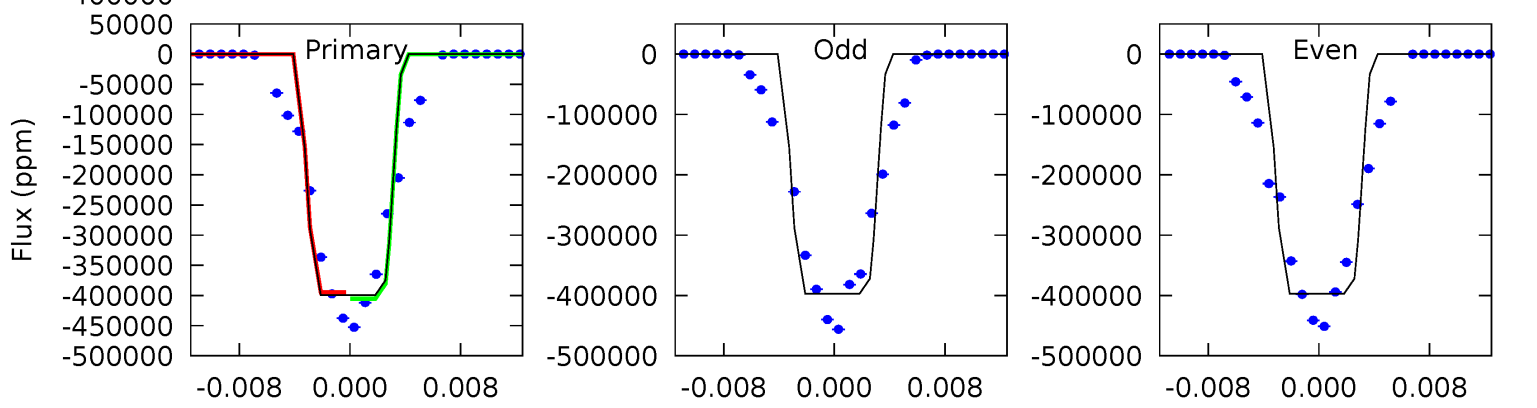
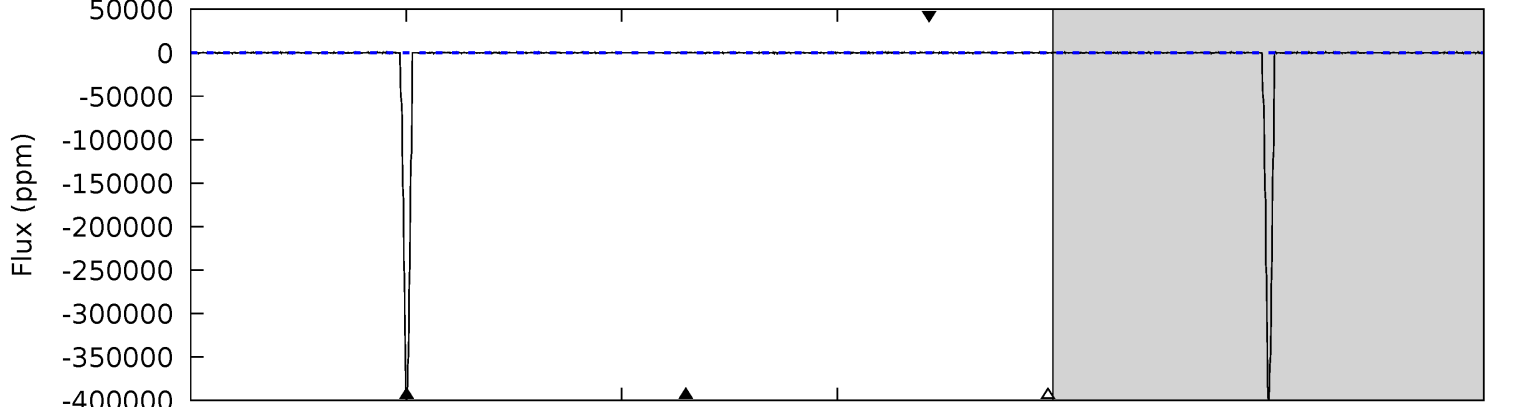
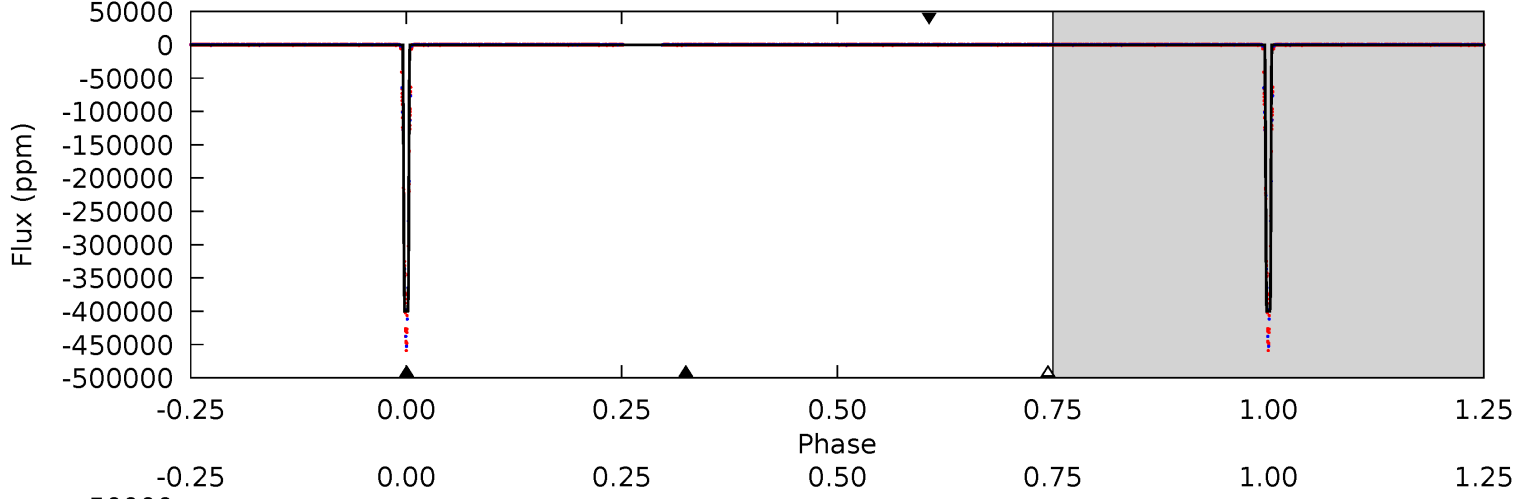
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010352603-02, P = 32.778630 Days, E = 127.202828 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9996	3.99	3.62	4.91	5.07	2.66	1.11	9993	9991	0.38	-0.91	0.82	1.00	0.00	0



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$54.93^{+14.35}_{-11.99}$	840^{+60}_{-37}	-3232^{+8185}_{-1778}	$-58.922^{+801.736}_{-697.853}$
Alt.	-160 ± 40	$74.49^{+16.39}_{-11.78}$	841^{+62}_{-39}	1744^{+121}_{-188}	$0.619^{+0.341}_{-0.246}$

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

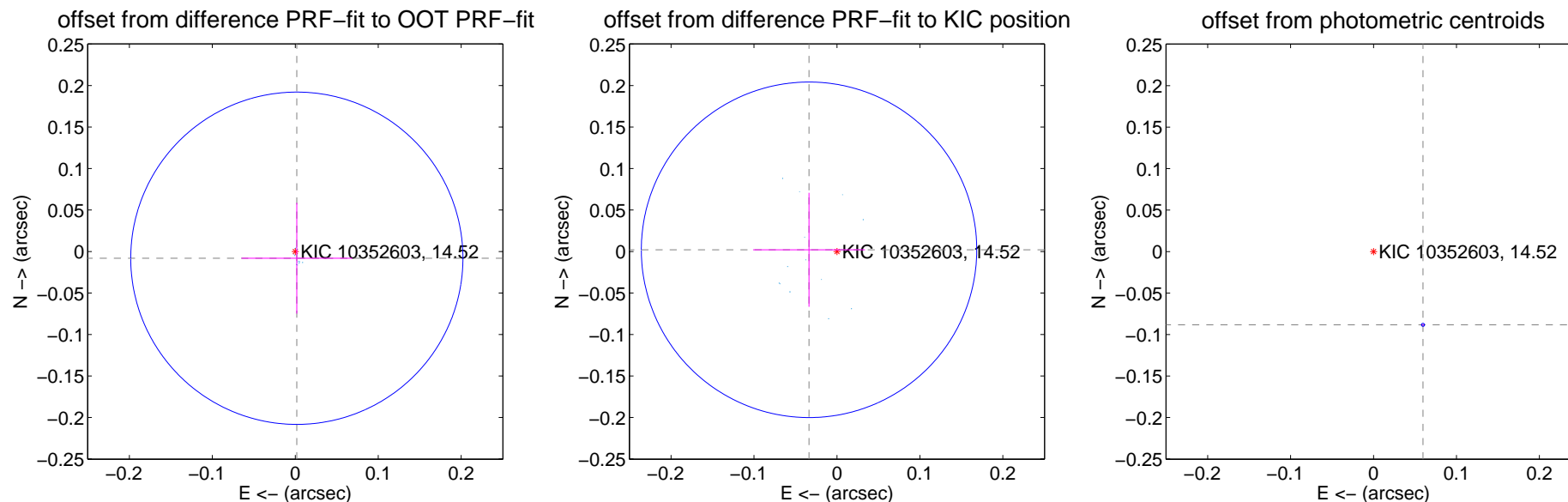
DV Centroid Data

Supplemental centroid analysis for 010352603-02. Kepler magnitude: 14.52. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

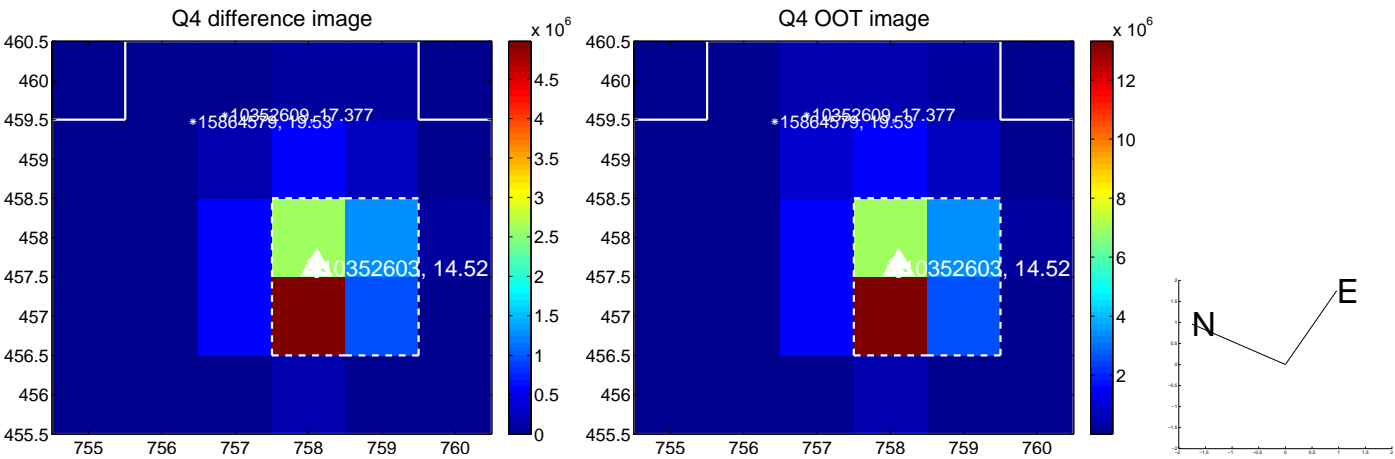
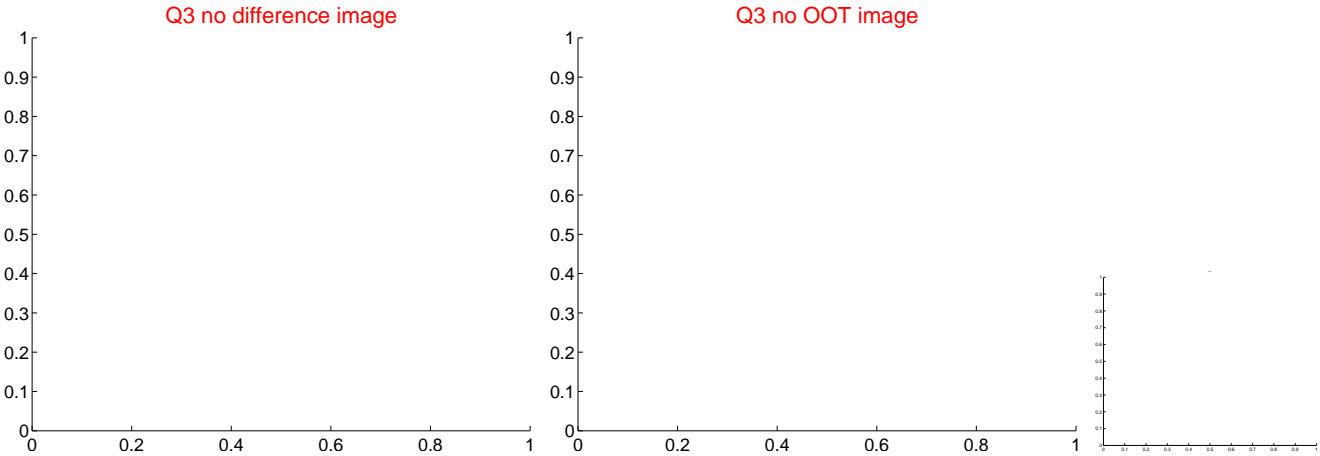
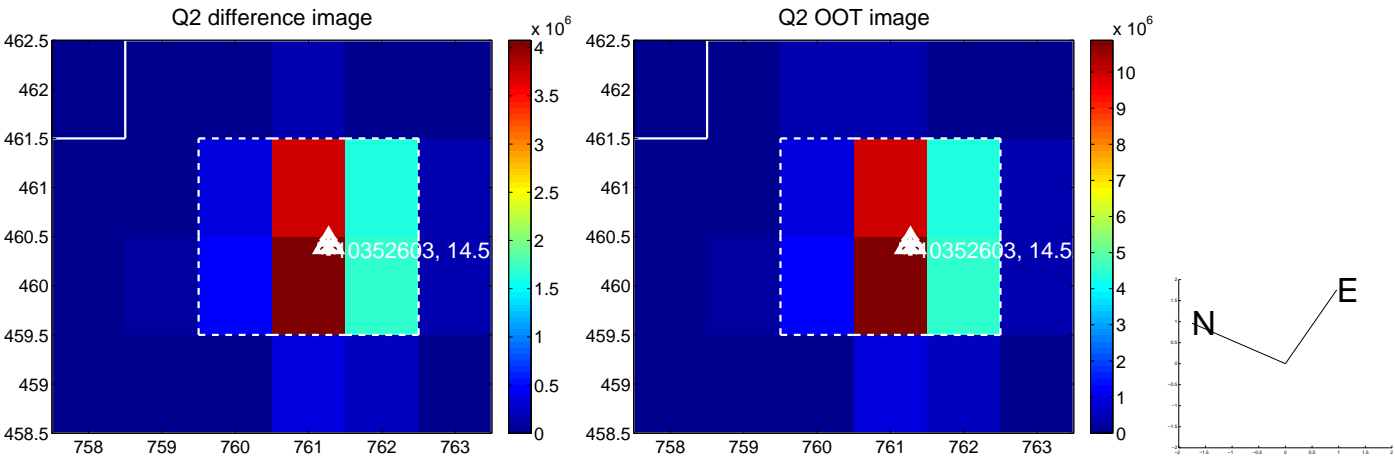
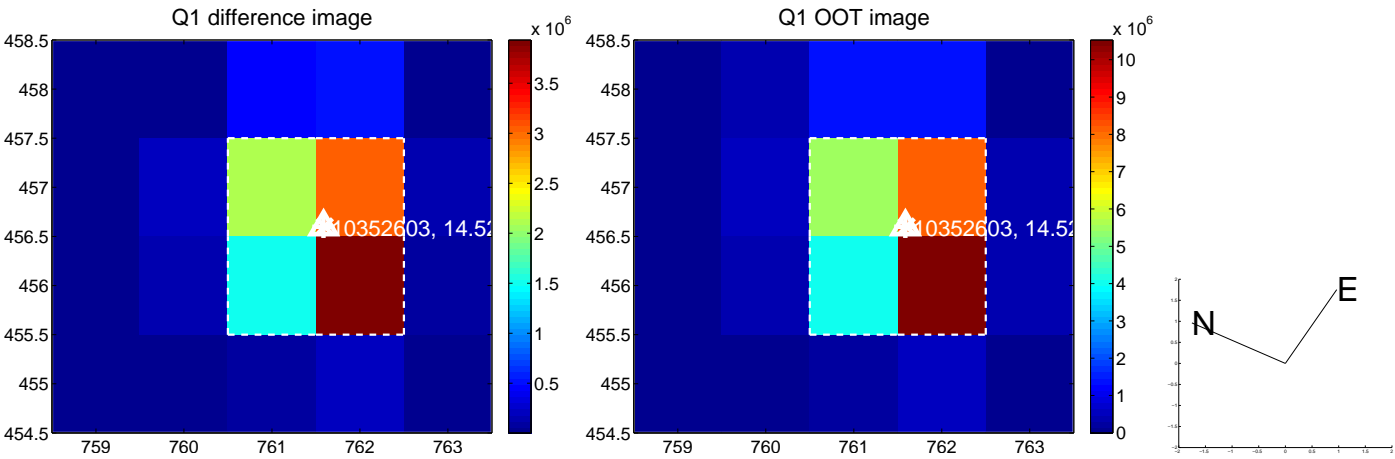
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.008 ± 0.067	0.12	-0.002 ± 0.067	-0.008 ± 0.067
PRF-fit source offset from KIC position	0.034 ± 0.067	0.50	0.034 ± 0.067	0.002 ± 0.069
photometric centroid source offset	0.11 ± 0.00	175.01	-0.06 ± 0.00	-0.09 ± 0.00

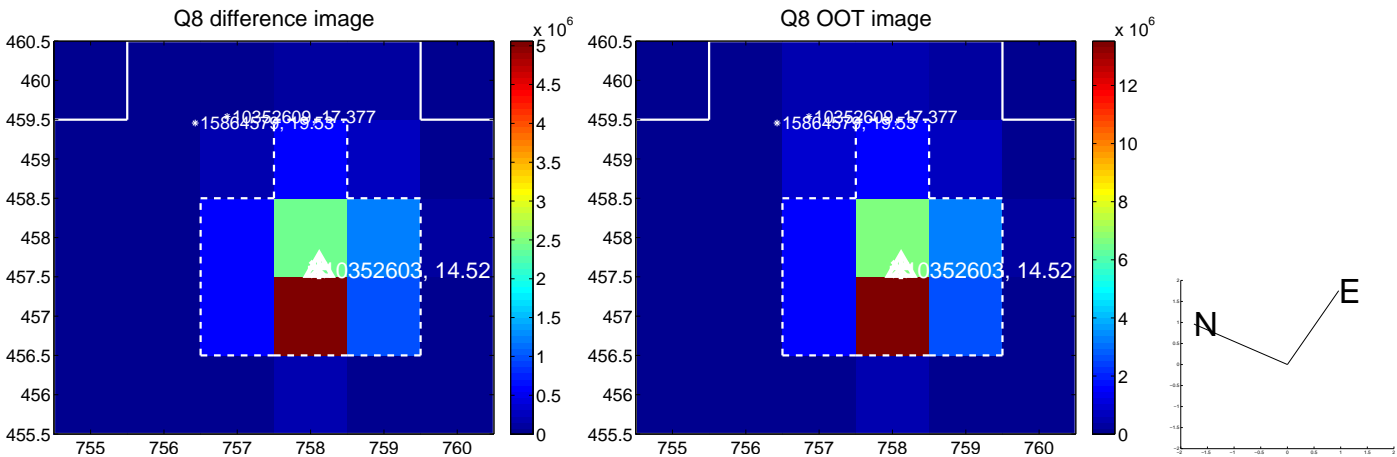
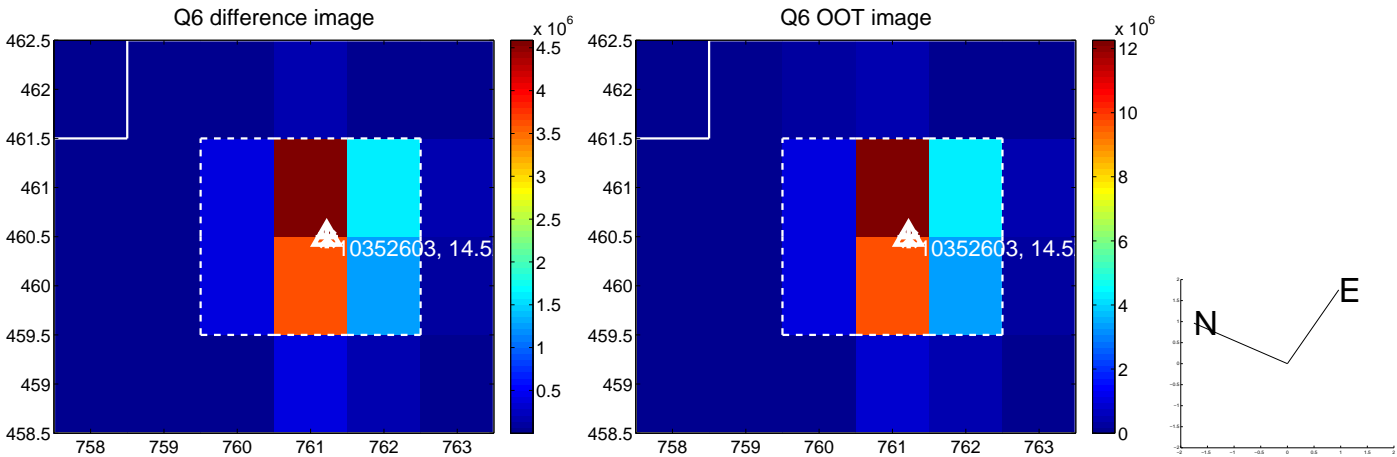
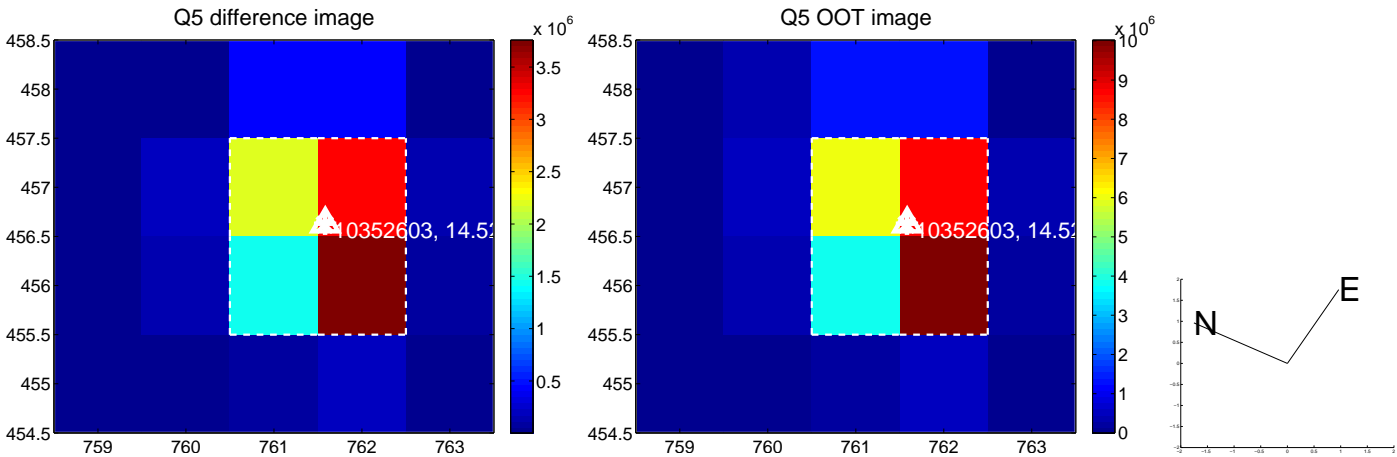


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

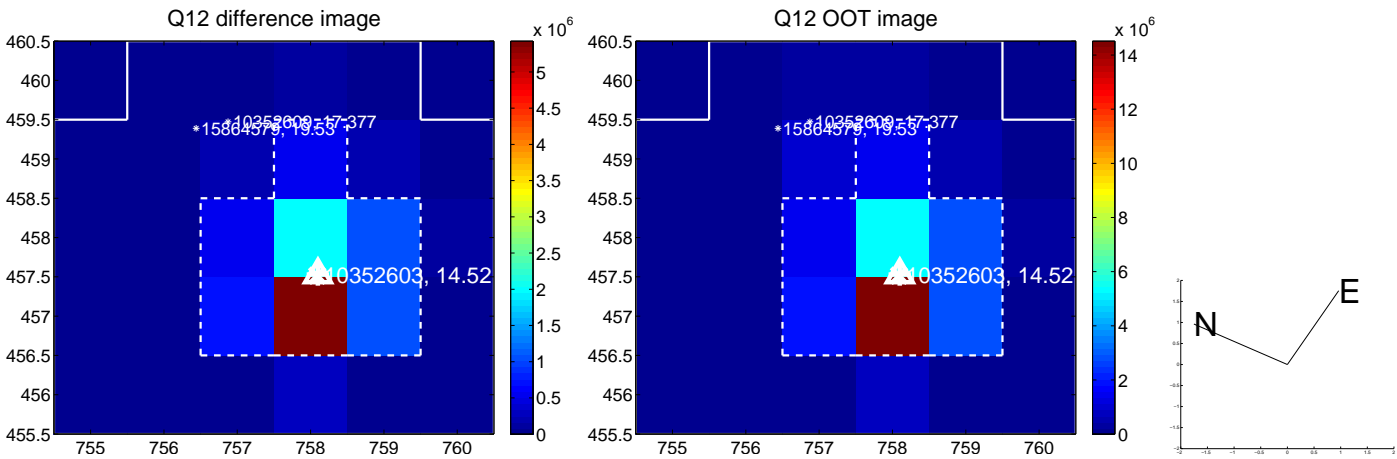
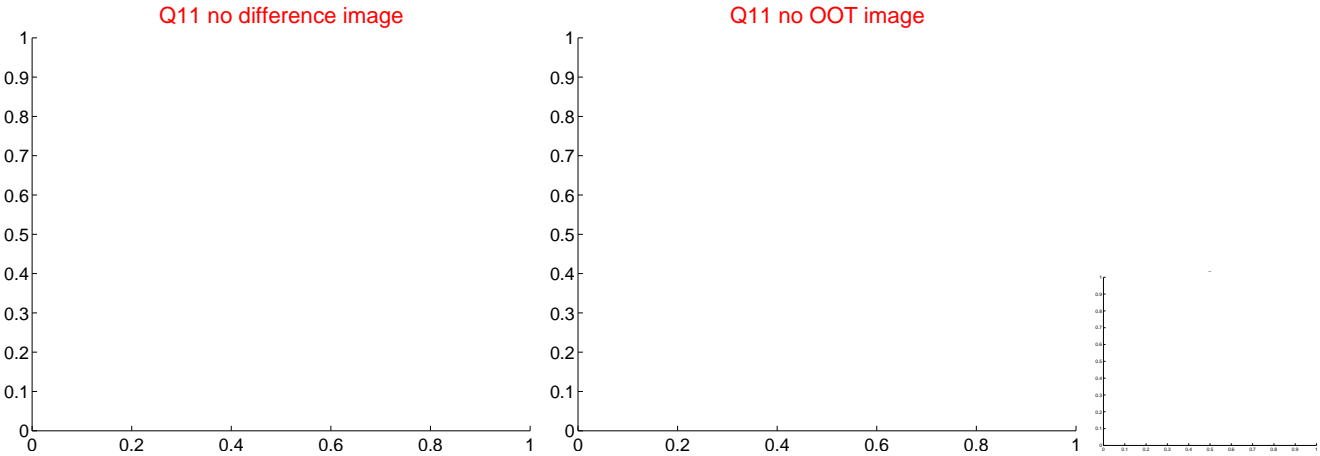
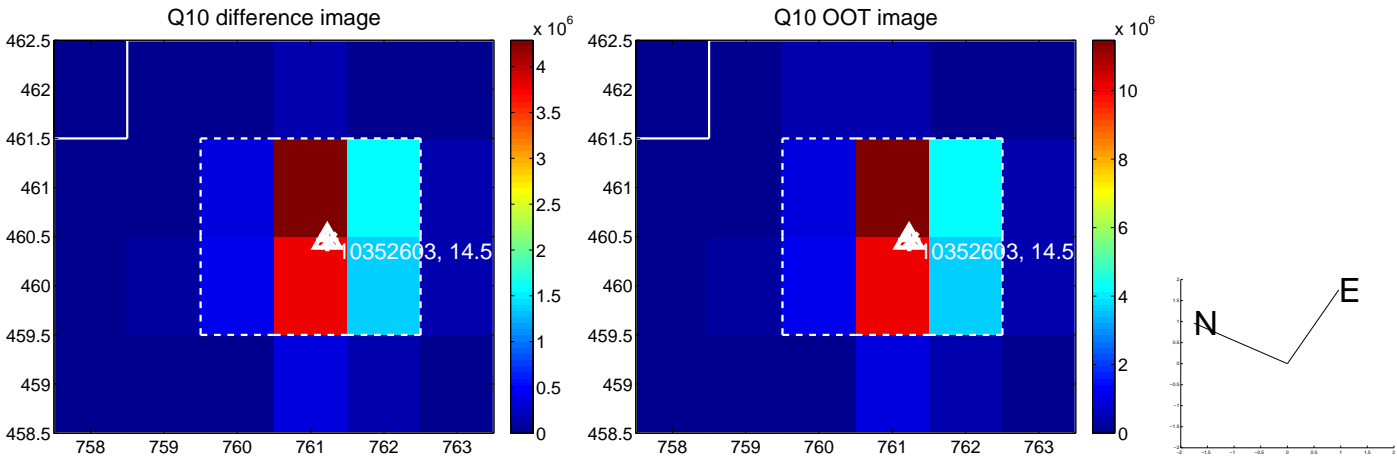
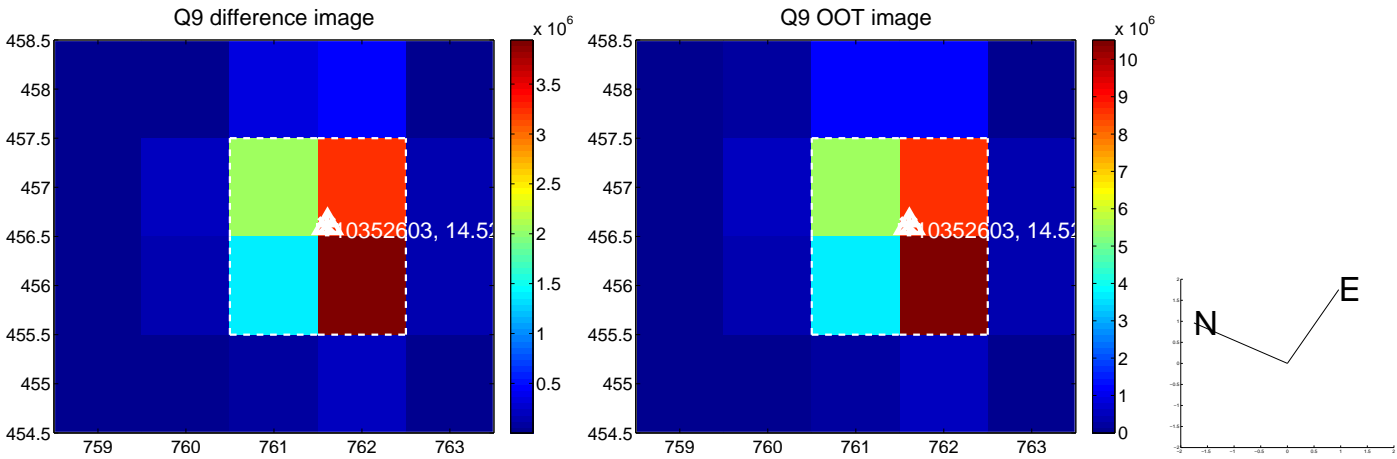
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



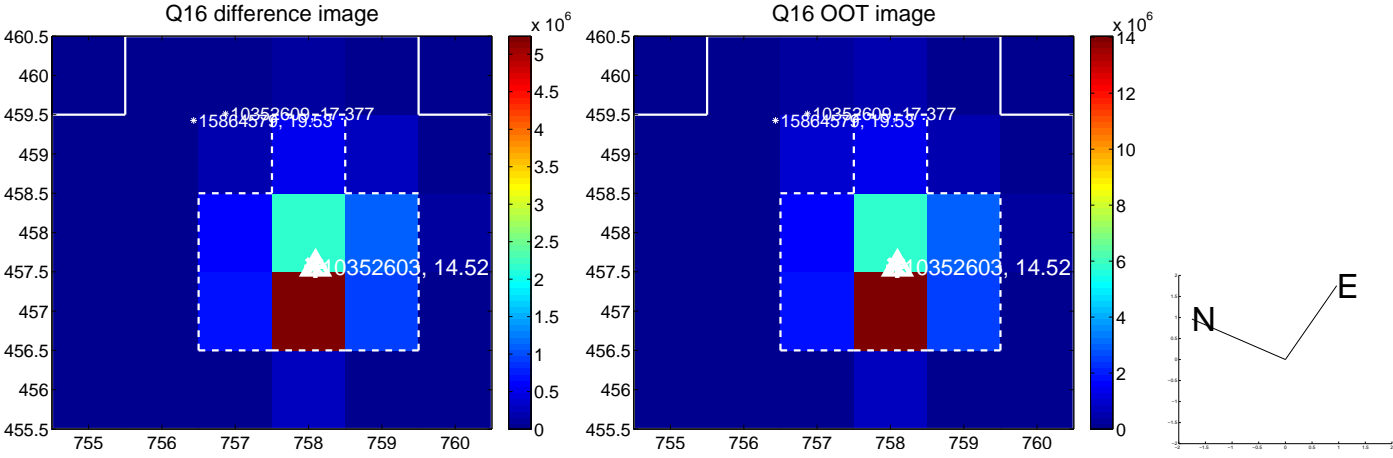
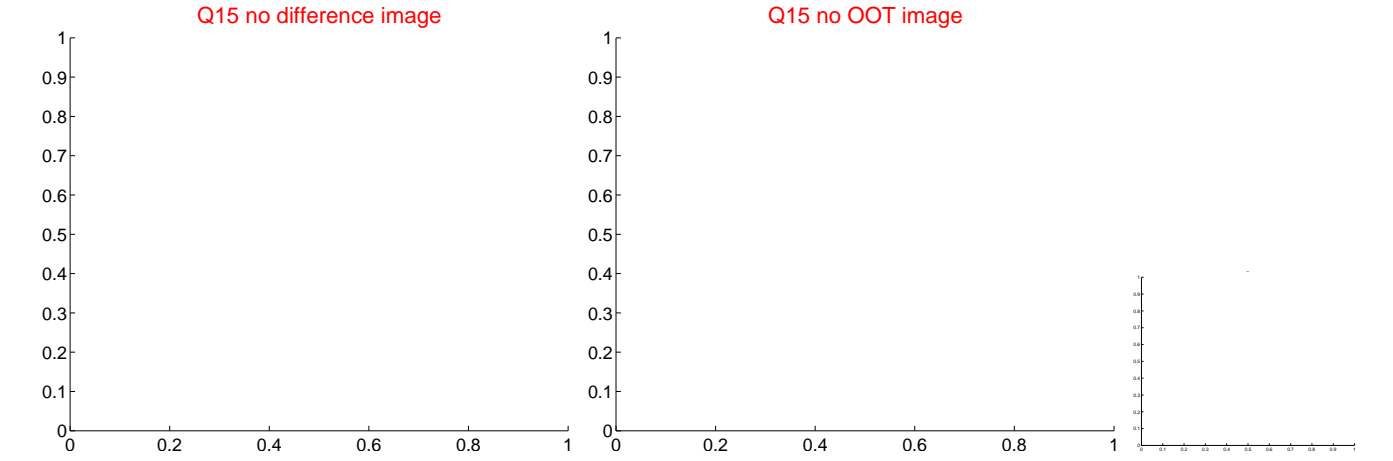
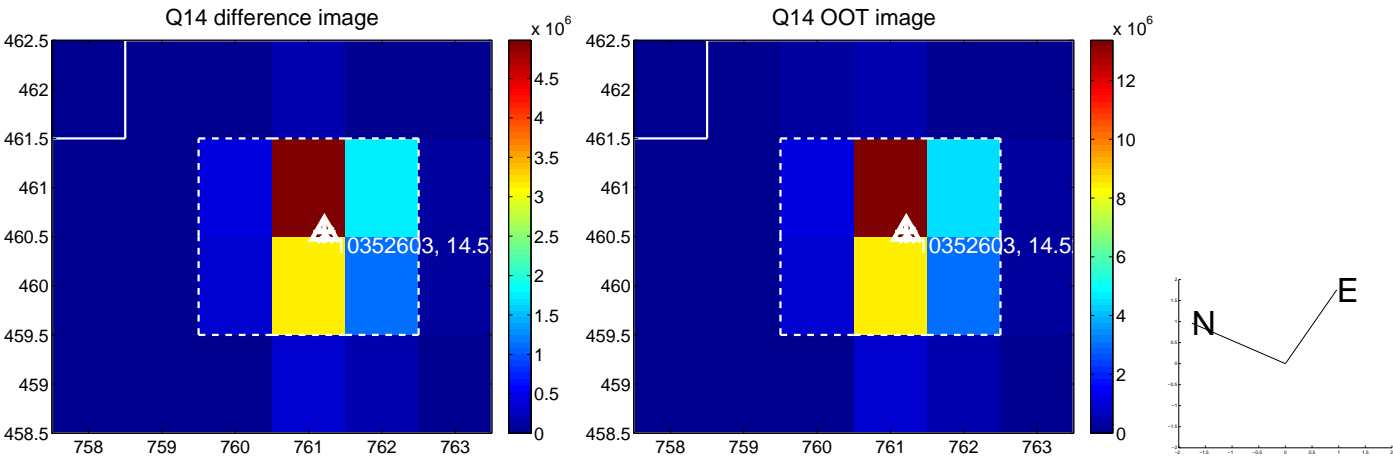
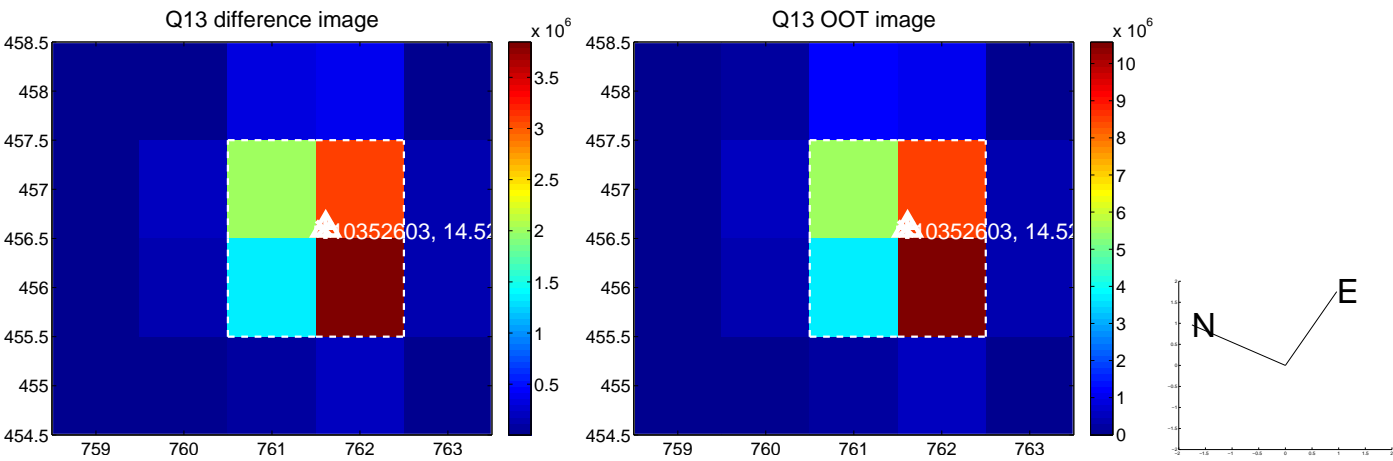
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



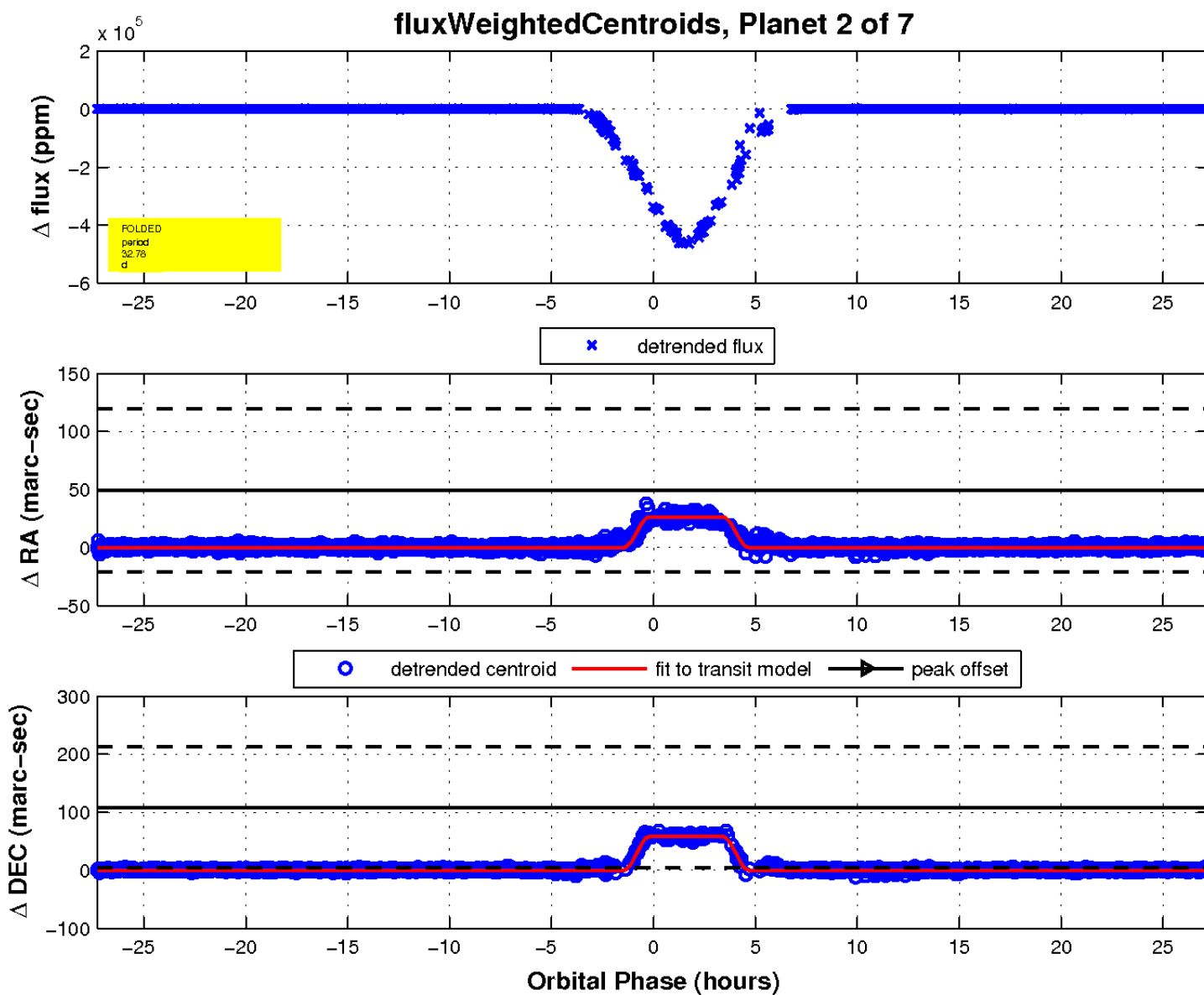
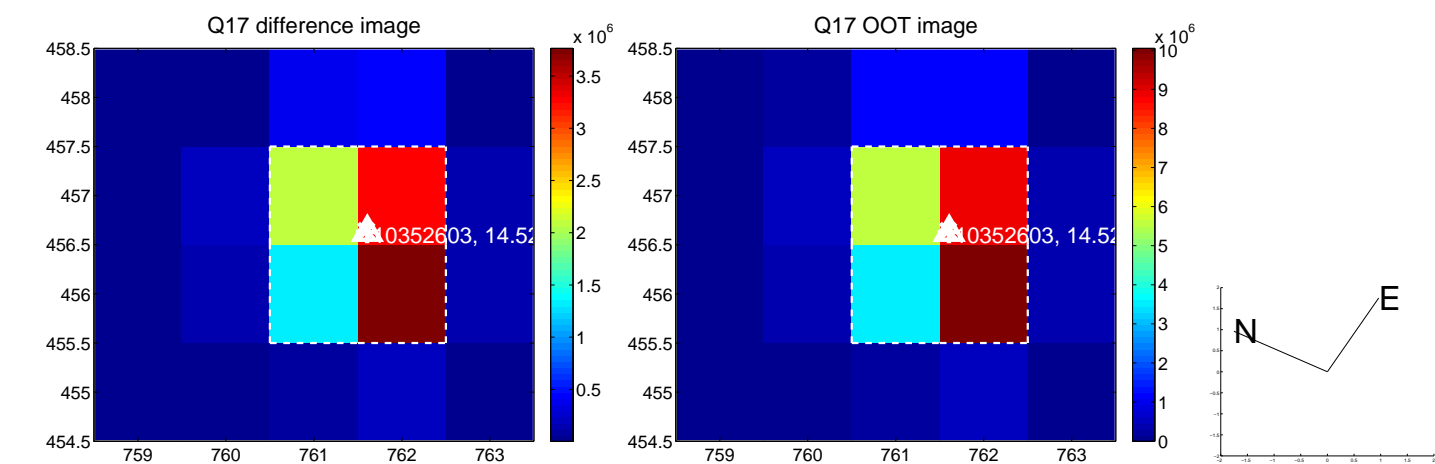
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

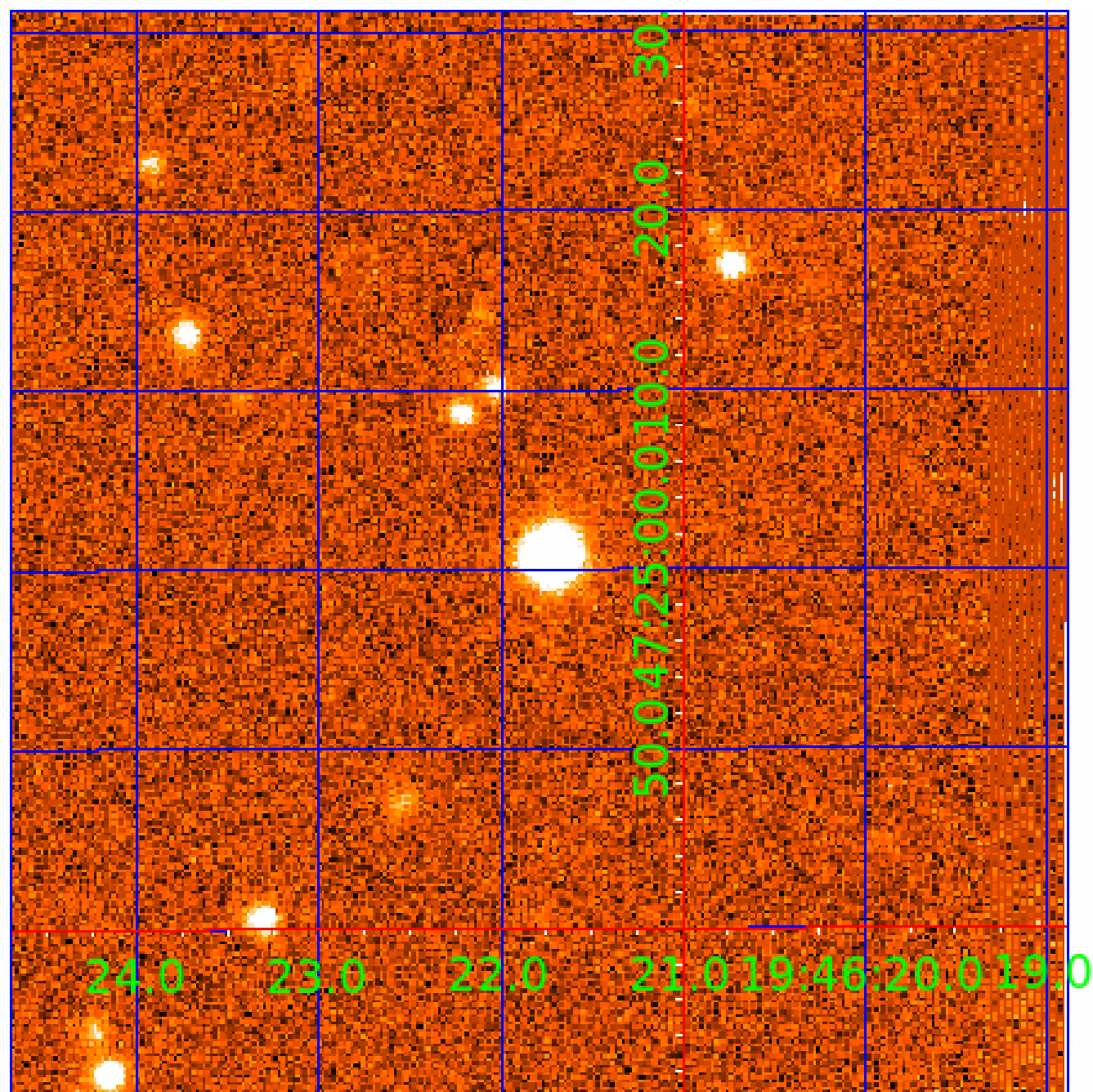


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010352603

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})
010352603-01	OBS	7317.01	32.779667	136.166440	425270.2	12.000	25656.4	-1.0	0.96	6122	52.60	28.34
010352603-02	OBS	No	32.778630	159.978348	463769.4	6.000	21892.3	-1.0	0.96	6122	52.60	28.34
010352603-03	OBS	No	6.555019	131.817497	6146.0	15.000	205.5	-1.0	0.96	6122	7.56	242.34
010352603-04	OBS	No	294.976825	331.094575	11484.0	3.000	148.0	-1.0	0.96	6122	10.34	1.51
010352603-05	OBS	No	196.598092	134.535161	6430.1	12.500	134.2	-1.0	0.96	6122	7.73	2.60
010352603-06	OBS	No	46.405212	176.342518	361.5	5.771	201.2	10.5	0.96	6122	1.98	17.83
010352603-07	OBS	No	32.782704	140.338292	2001.2	15.000	131.6	-1.0	0.96	6122	4.31	28.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010352603-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
010352603-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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.

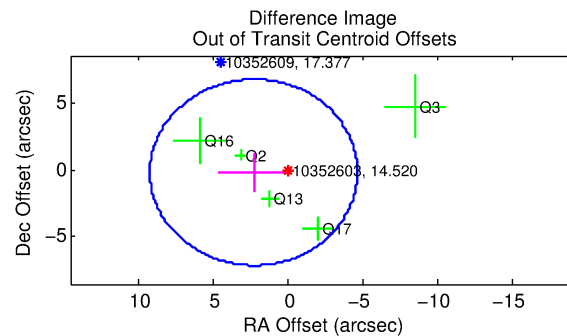
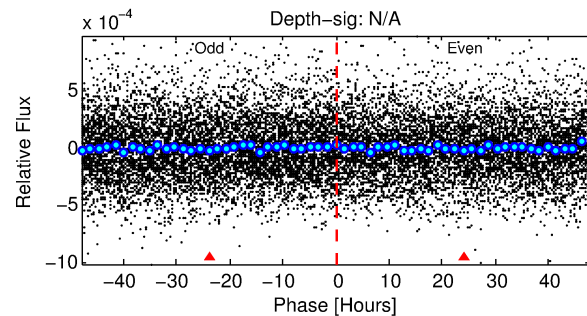
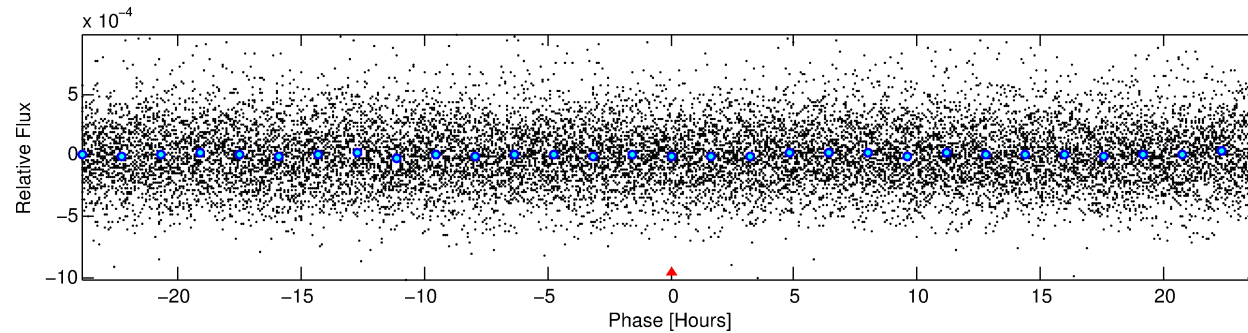
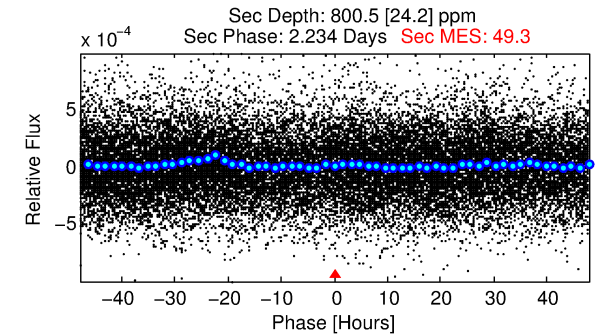
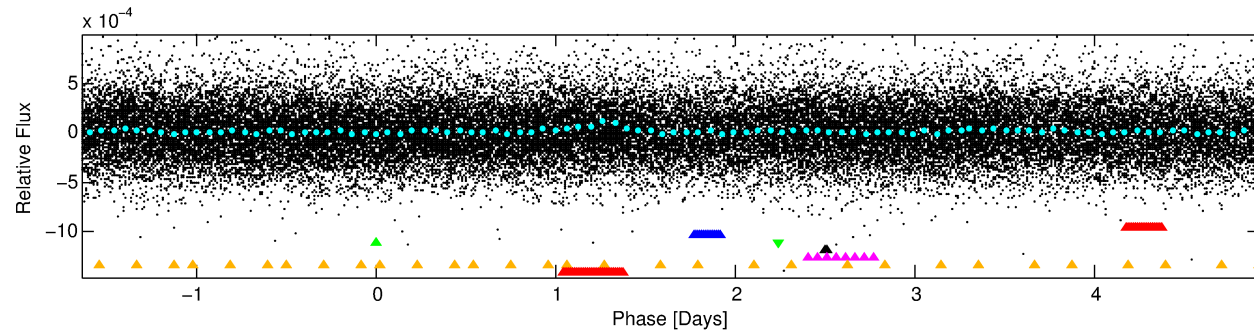
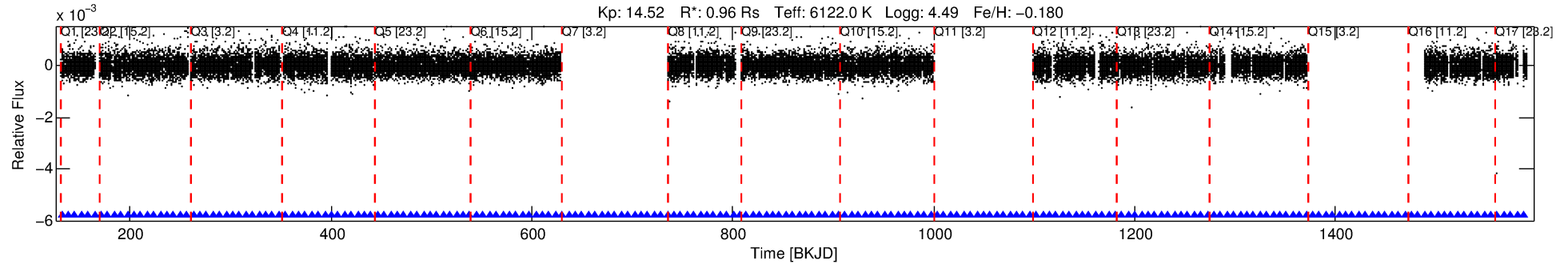
Ephemeris Match Information For 010352603-03

No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 3 of 7 Period: 6.555 d
KOI: K07317 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



TPS TCE Results:

Period = 6.55502 d
Epoch = 131.8175 BKJD

DV fit results are unavailable

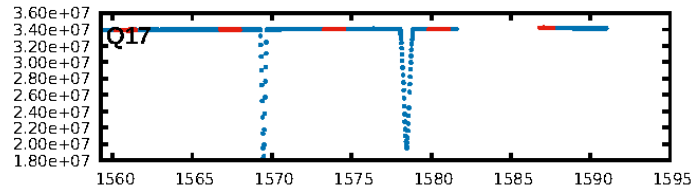
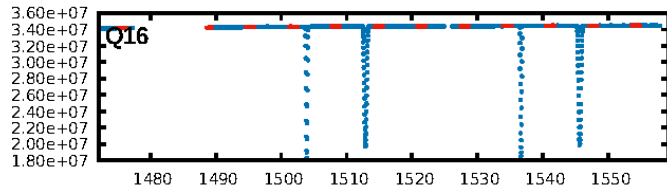
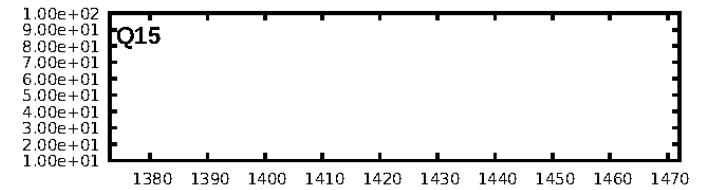
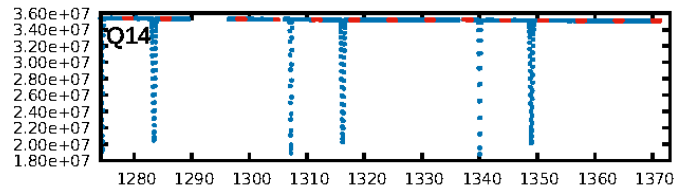
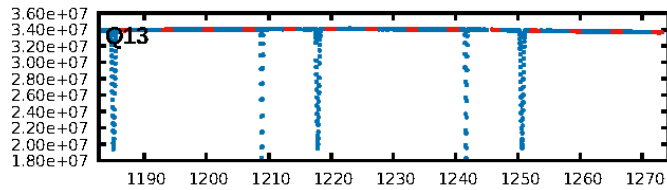
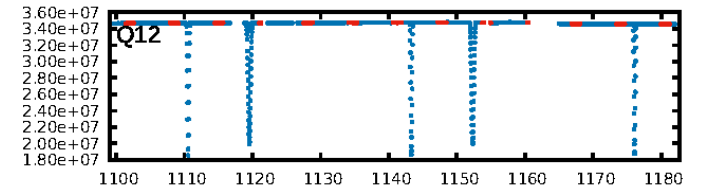
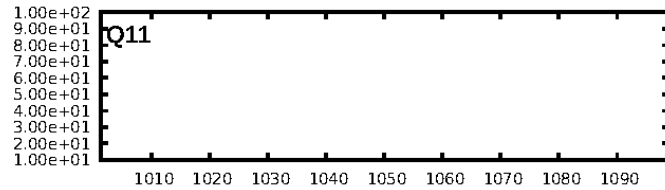
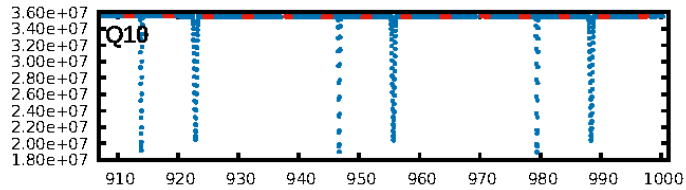
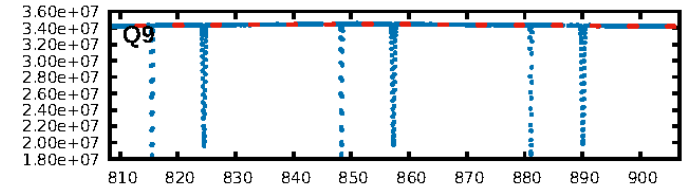
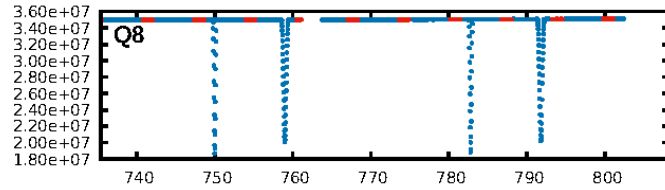
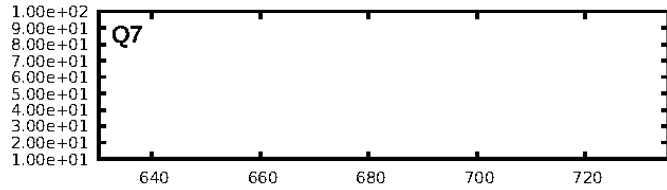
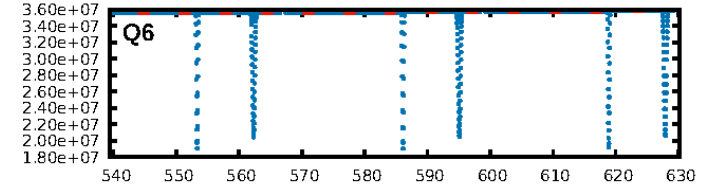
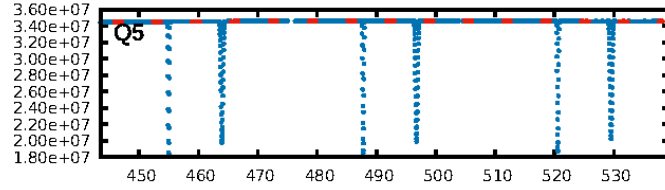
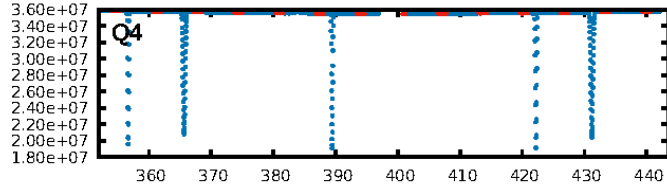
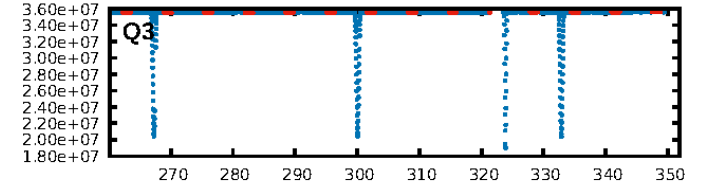
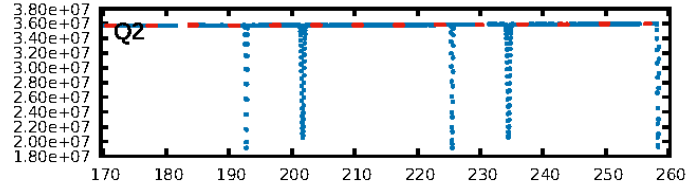
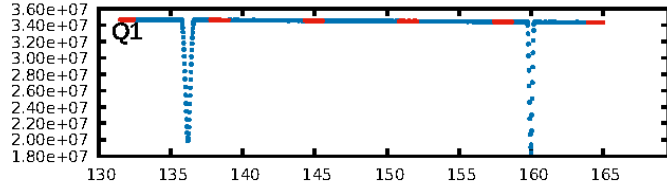
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [38.96]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [154/154]
GhostDiagnostic-chr: 0.3121
Centroid-sig: 20.9%
Centroid-so: 5.250 arcsec [1.22]
OotOffset-rm: 2.252 arcsec [0.97]
KicOffset-rm: 2.283 arcsec [0.98]
OotOffset-st: 1/1/1/2 [5]
KicOffset-st: 1/1/1/2 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [14/14]

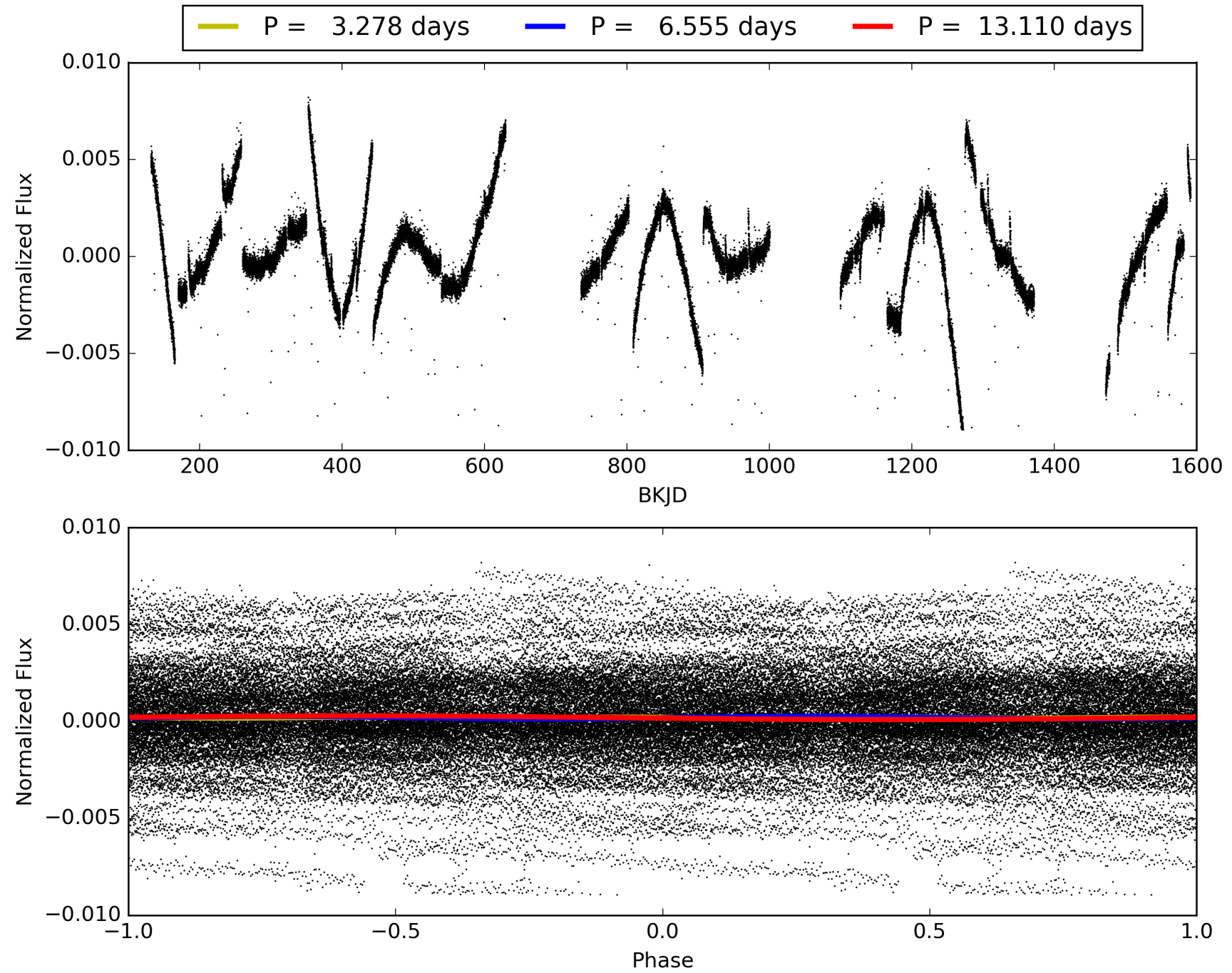
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:07:40 Z

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

TCE 010352603-03, PDC Light Curves

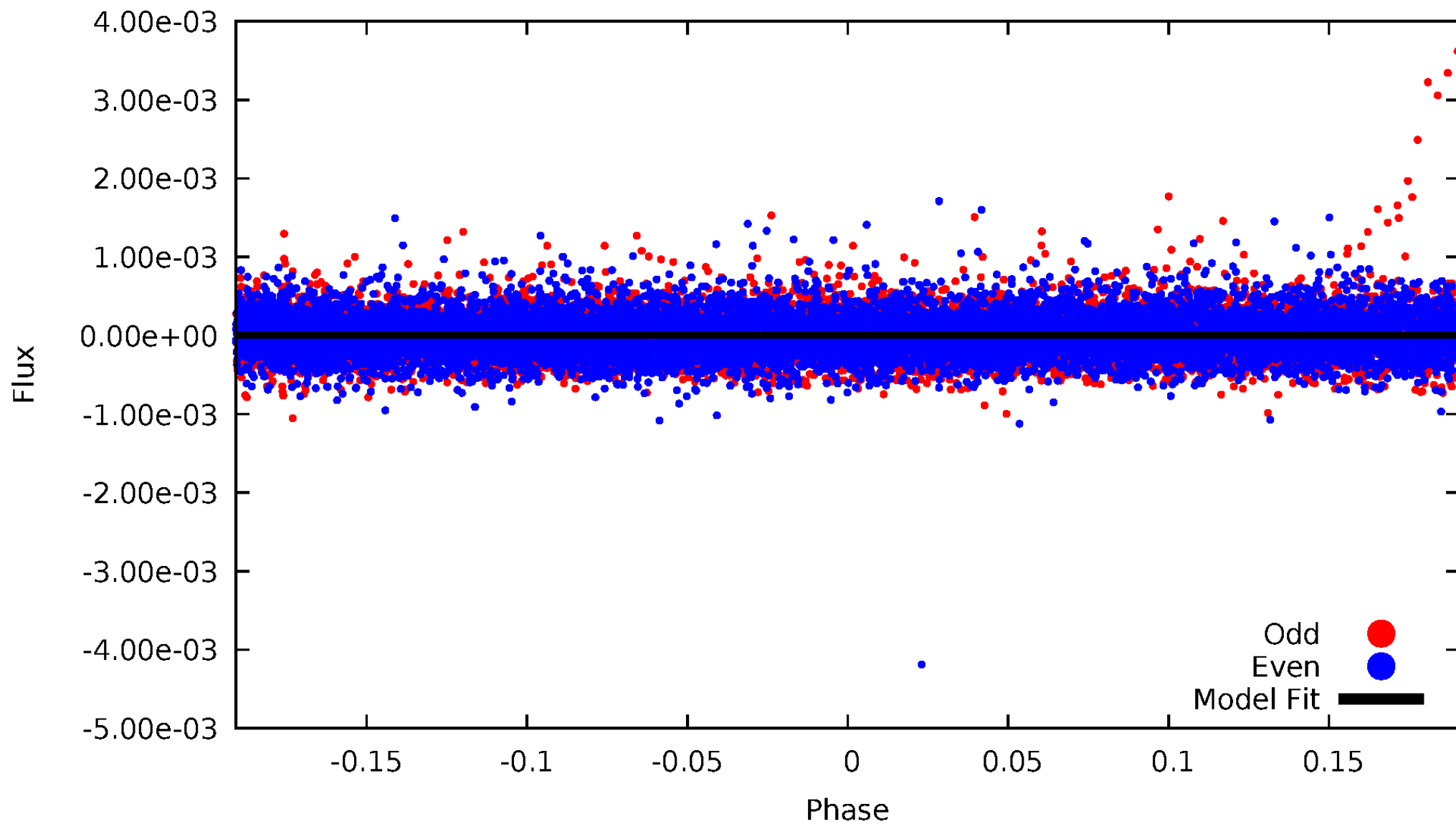


TCE 010352603-03



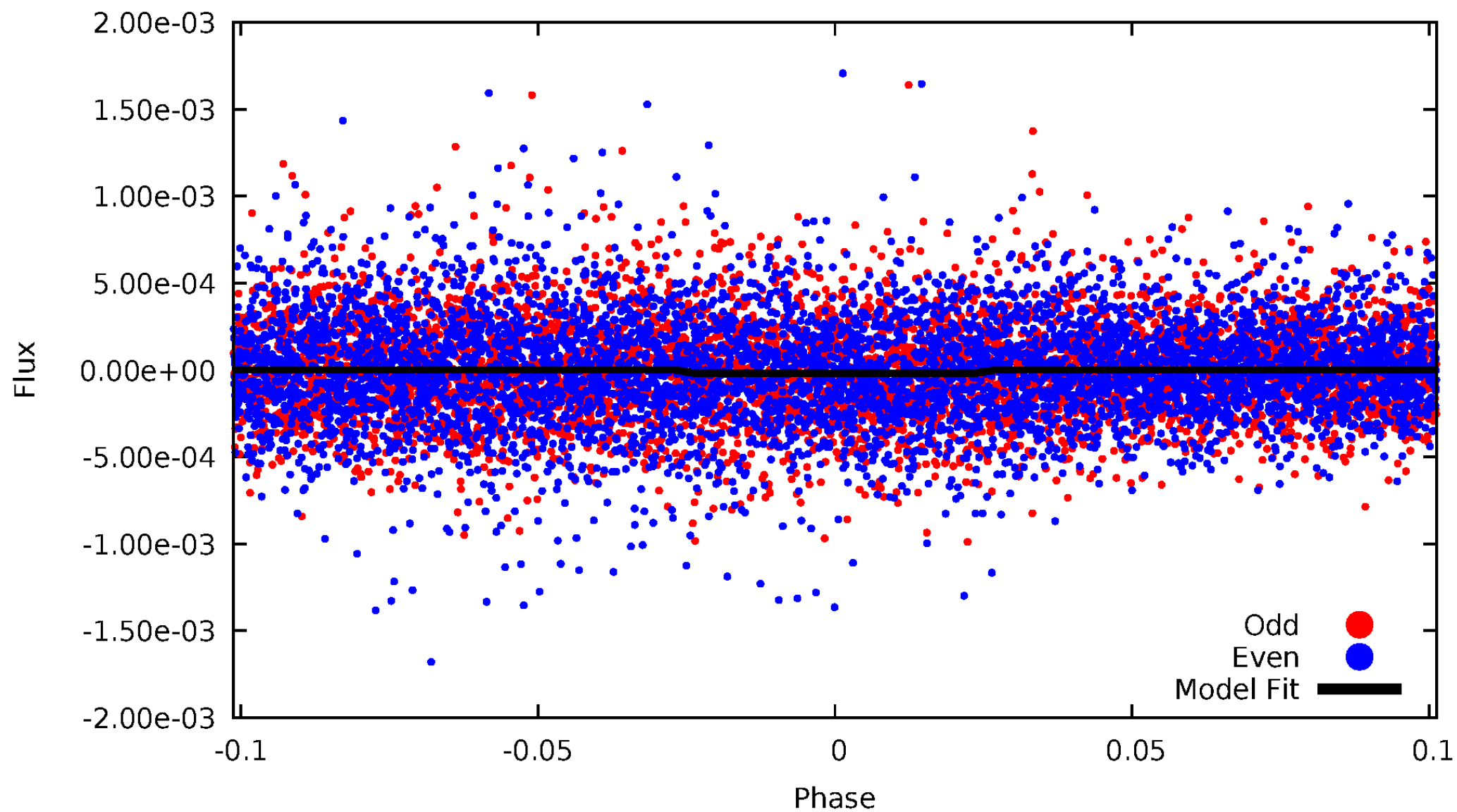
DV Odd/Even

TCE 010352603-03

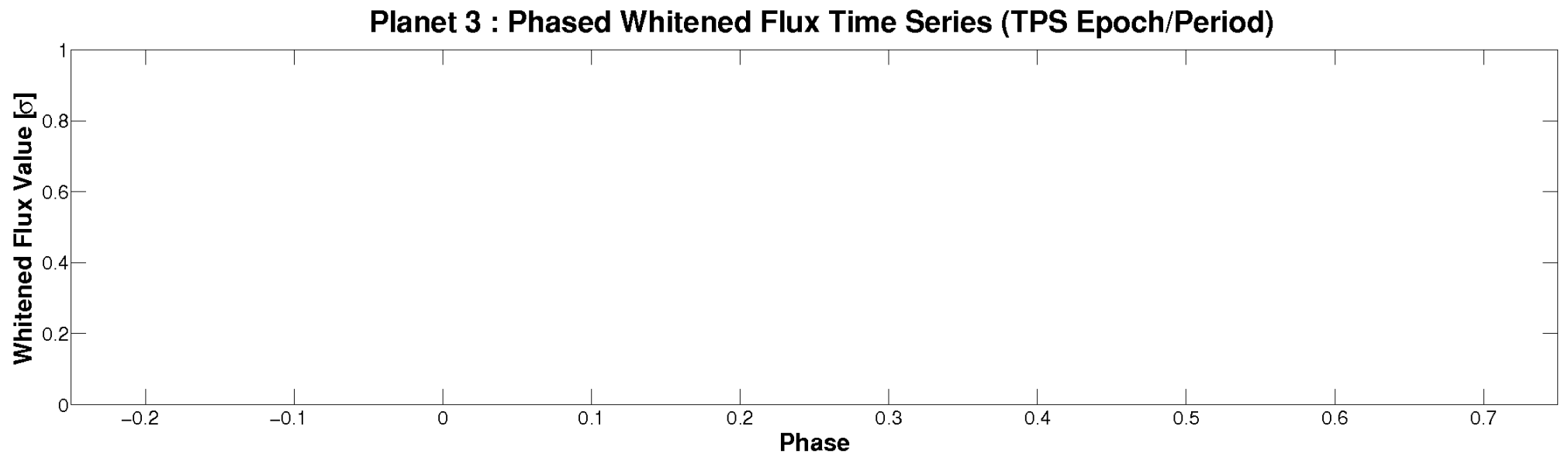
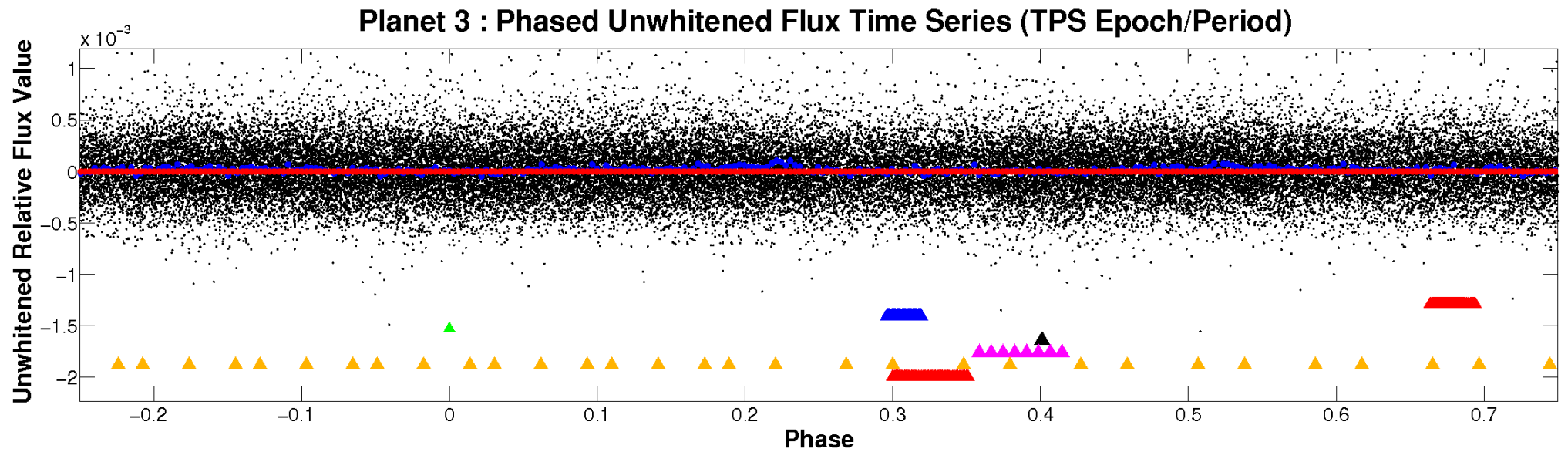


ALT Odd/Even

TCE 010352603-03

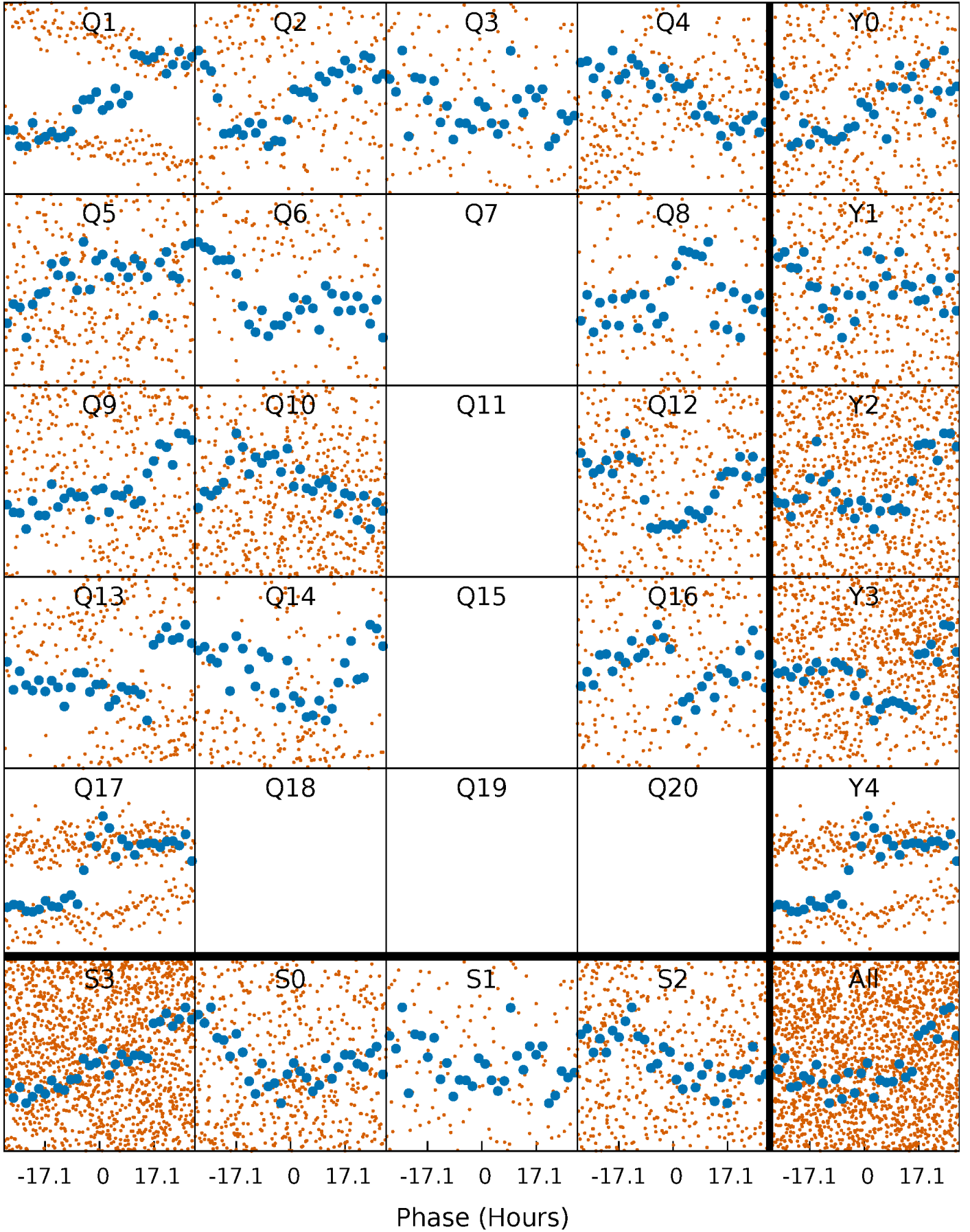


Non-Whitened Vs. Whitened Light Curve



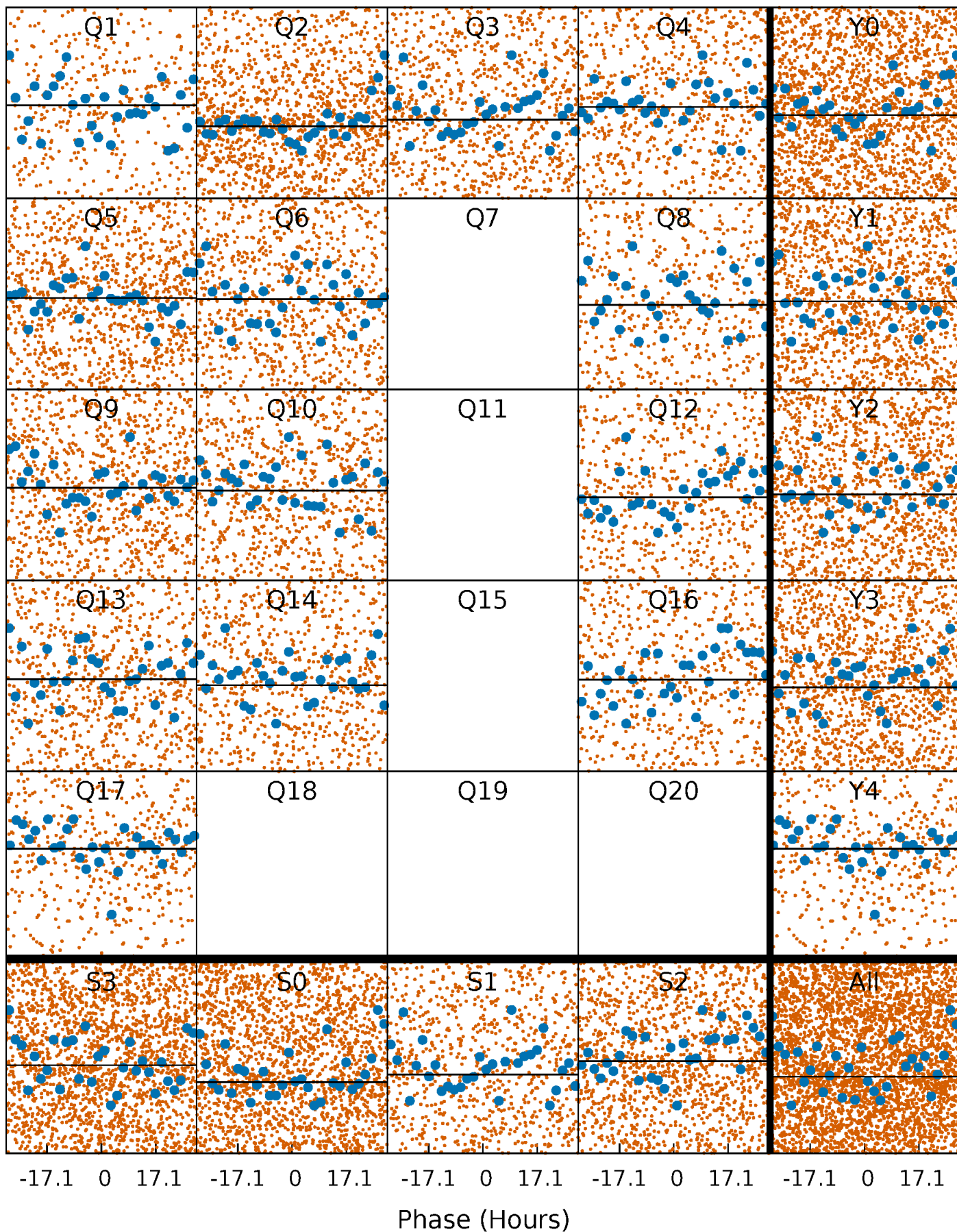
PDC Quarter-Phased Transit Curves

TCE 010352603-03 P= 6.555019 Days $T_0=131.817497$ (BKJD)



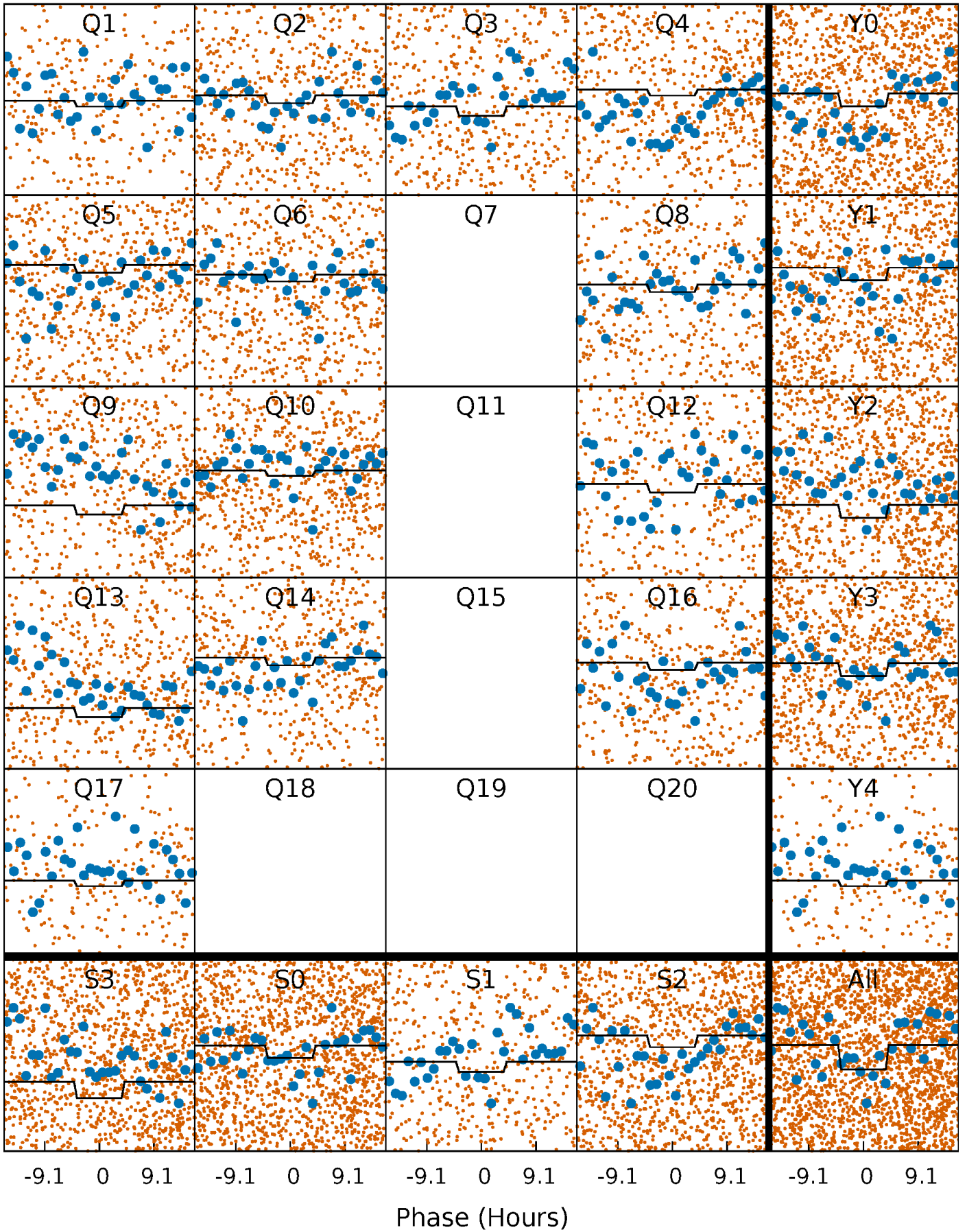
DV Quarter-Phased Transit Curves

TCE 010352603-03 P= 6.555019 Days $T_0=131.817497$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

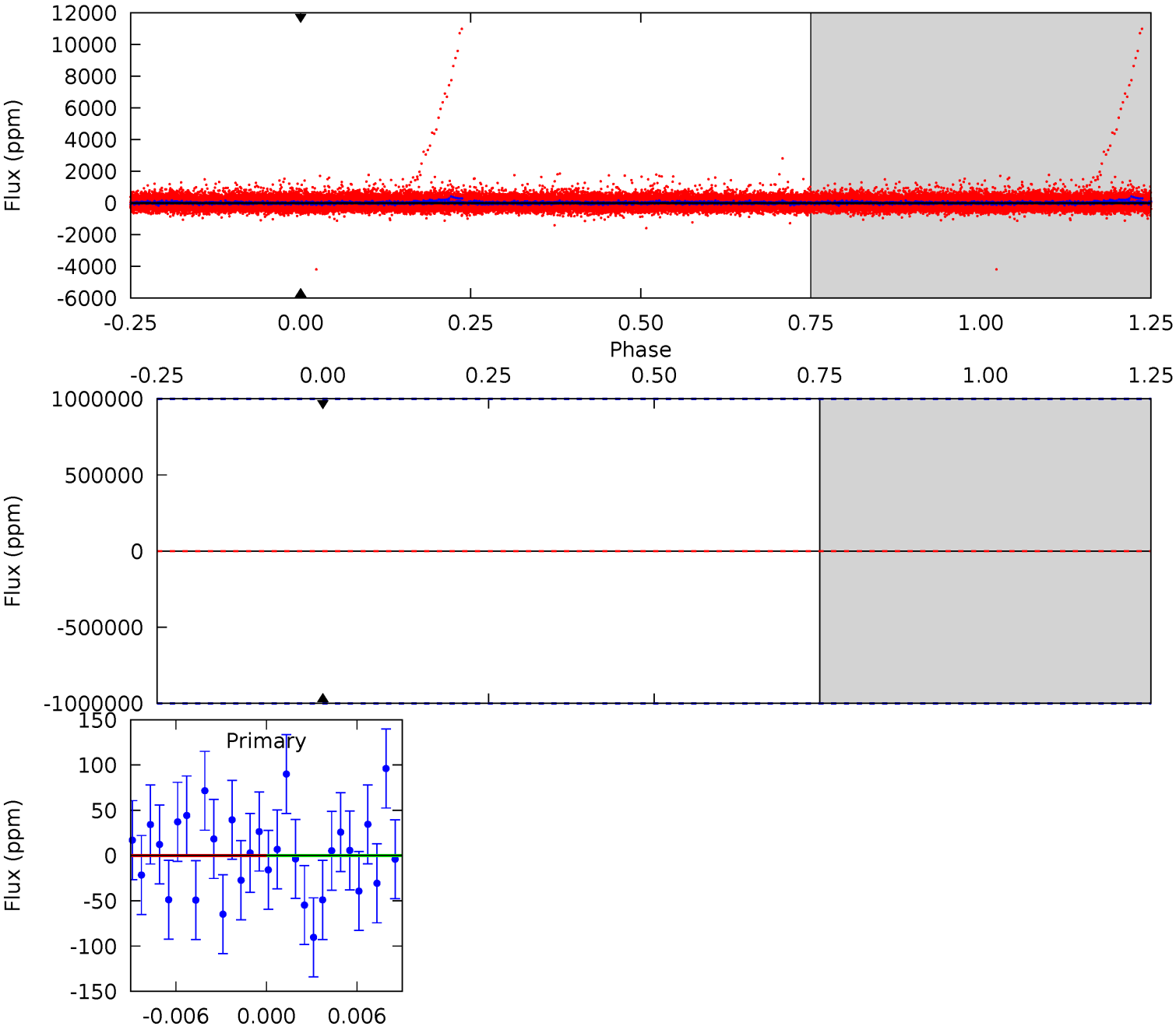
TCE 010352603-03 P= 6.555019 Days $T_0=131.995425$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-03, P = 6.555019 Days, E = 125.262478 Days

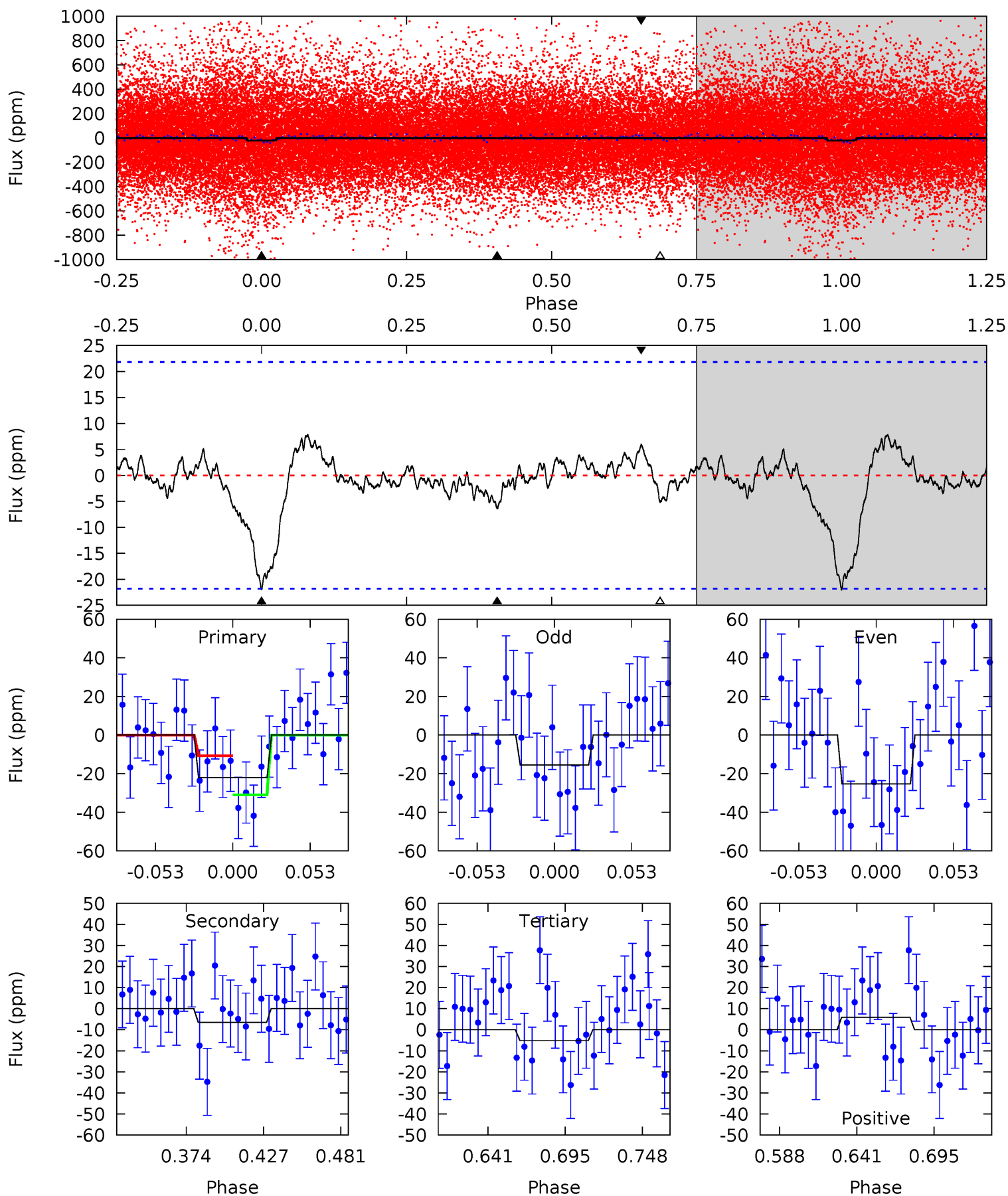
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010352603-03, P = 6.555019 Days, E = 125.440406 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.74	1.39	1.11	1.27	4.69	1.93	0.54	3.64	3.47	0.29	0.12	1.05	1.75	0.26	2.18



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$11.34^{+9.85}_{-7.47}$	1436^{+100}_{-65}	4717^{+12983}_{-18698}	64^{+3983}_{-2525}
Alt.	-6 ± 5	$7.37^{+8.87}_{-5.30}$	1435^{+102}_{-70}	-1758^{+4537}_{-382}	$0.257^{+2.788}_{-0.227}$

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

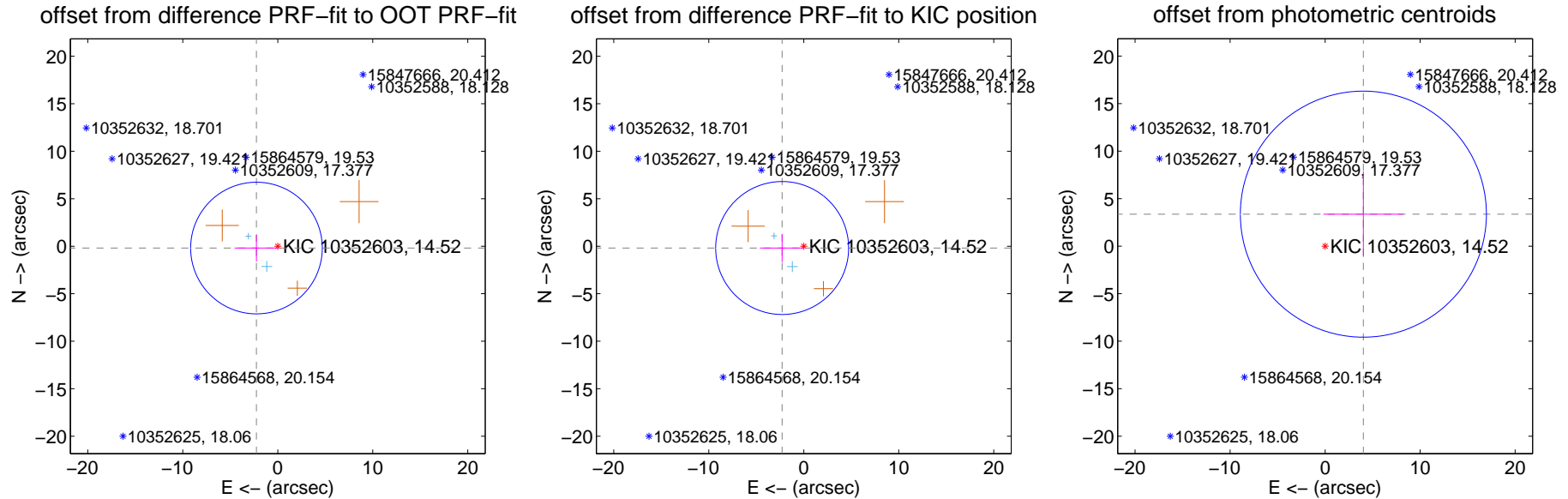
DV Centroid Data

Supplemental centroid analysis for 010352603-03. Kepler magnitude: 14.52. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

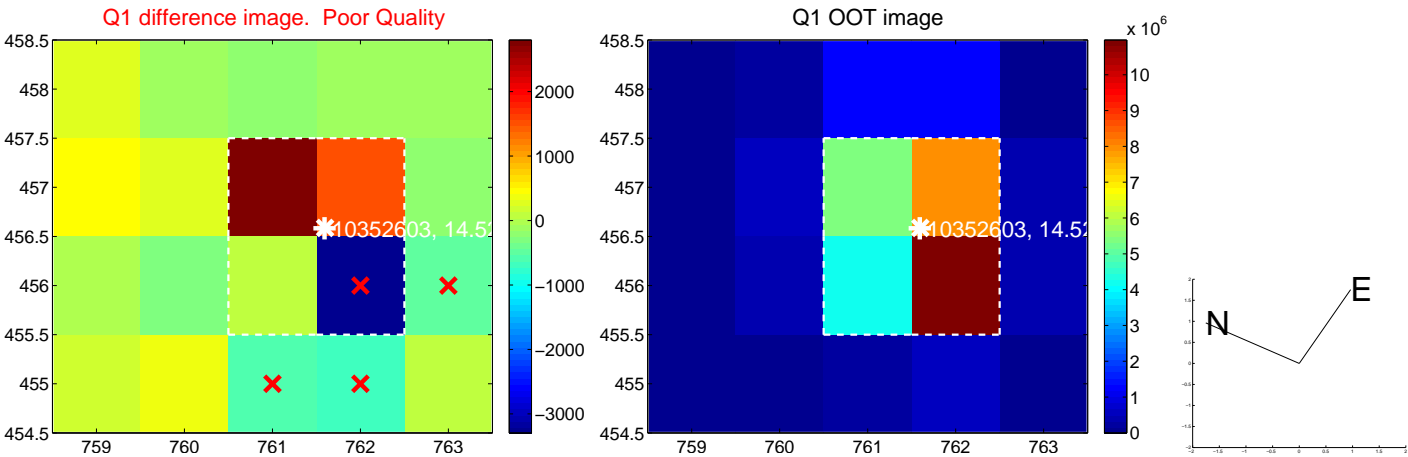
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.252 ± 2.310	0.97	2.243 ± 2.314	-0.193 ± 1.419
PRF-fit source offset from KIC position	2.283 ± 2.333	0.98	2.275 ± 2.335	-0.189 ± 1.484
photometric centroid source offset	5.25 ± 4.32	1.22	-4.03 ± 4.19	3.37 ± 4.49

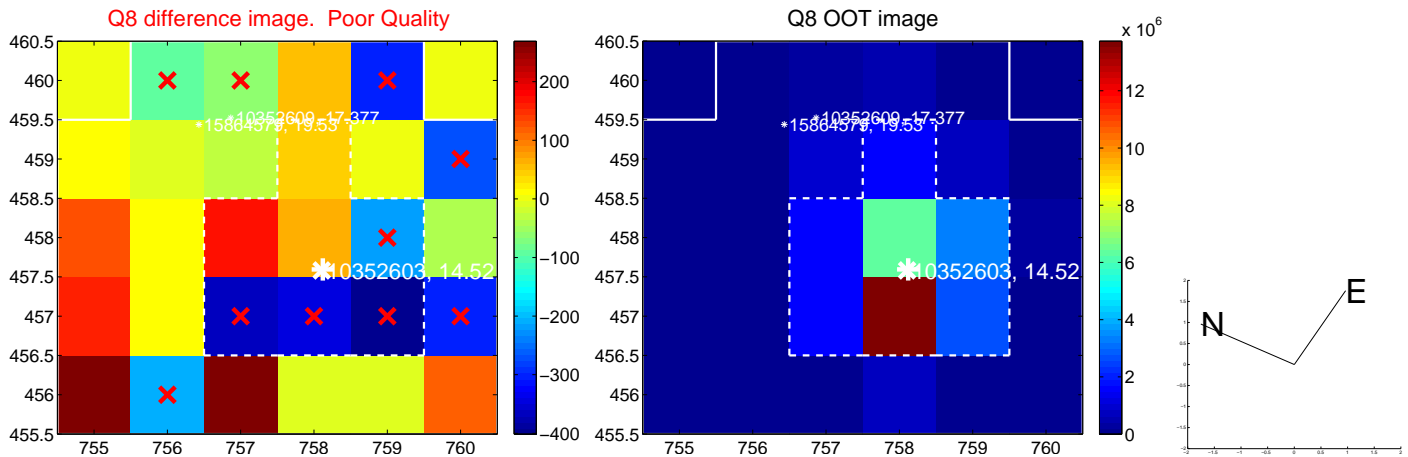
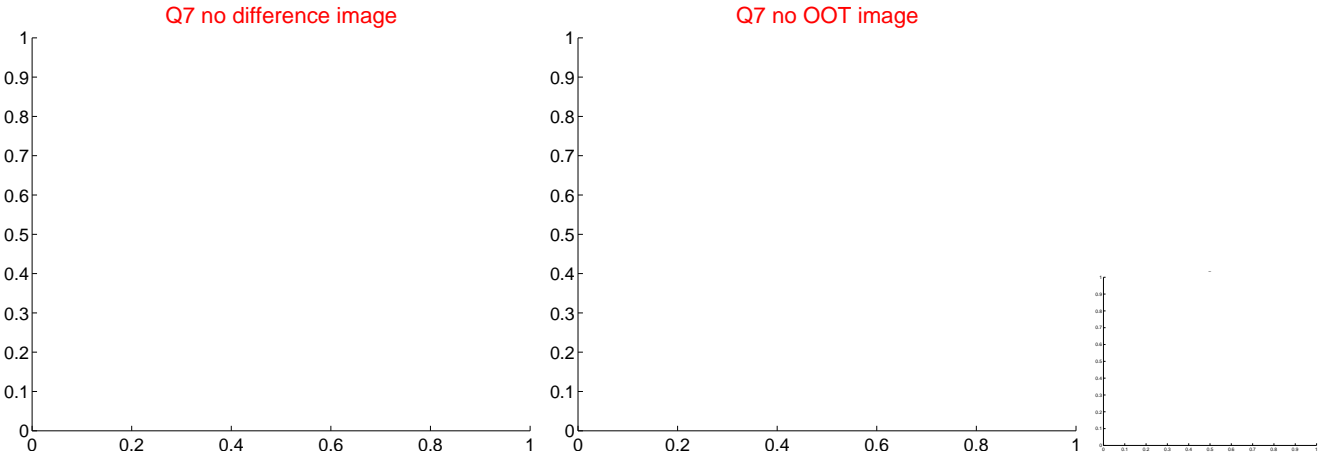
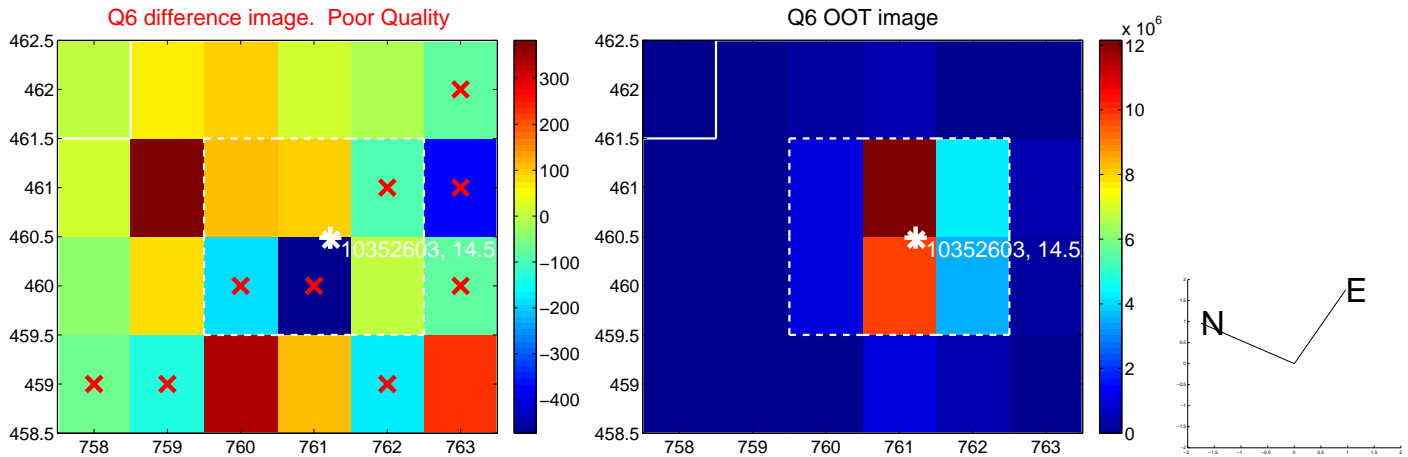
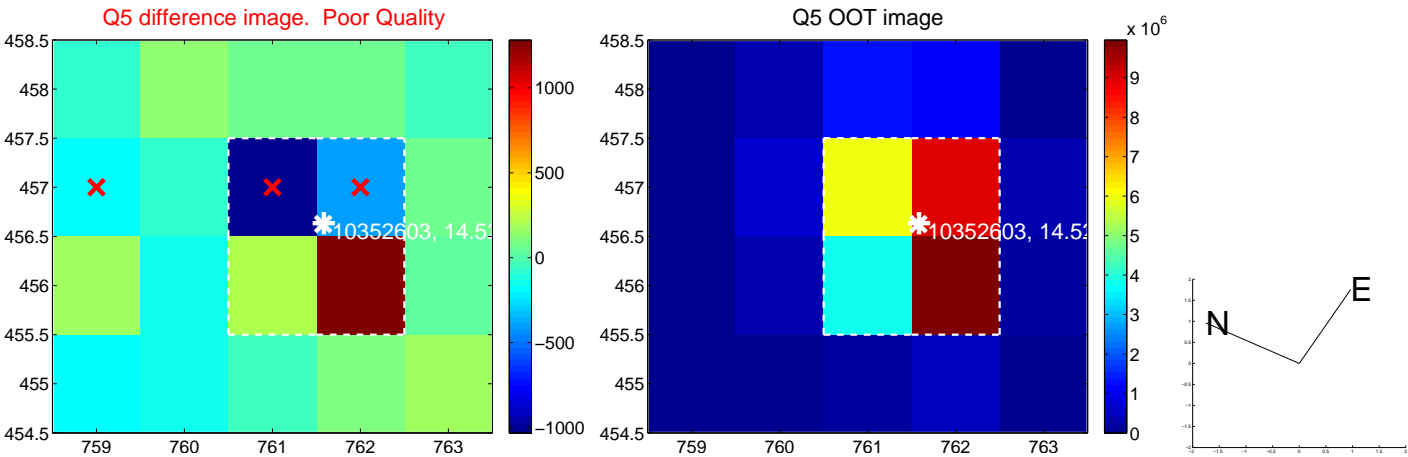


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

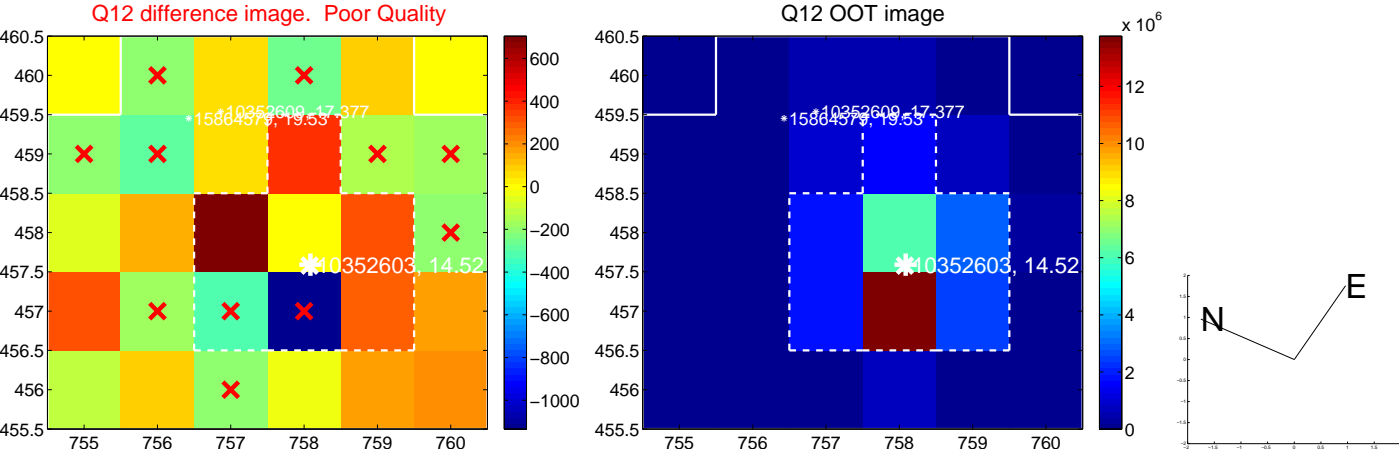
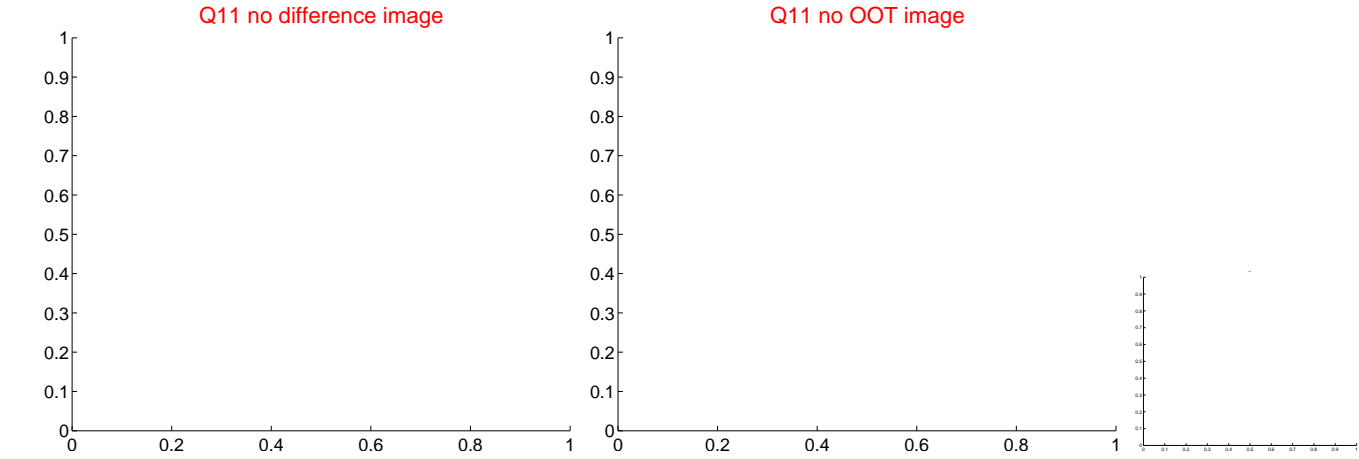
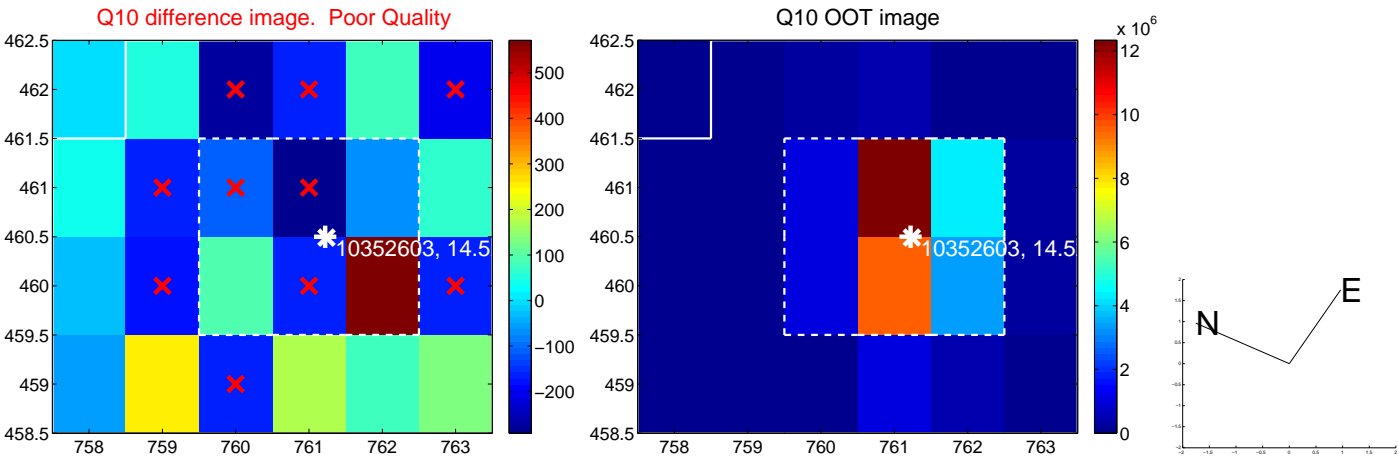
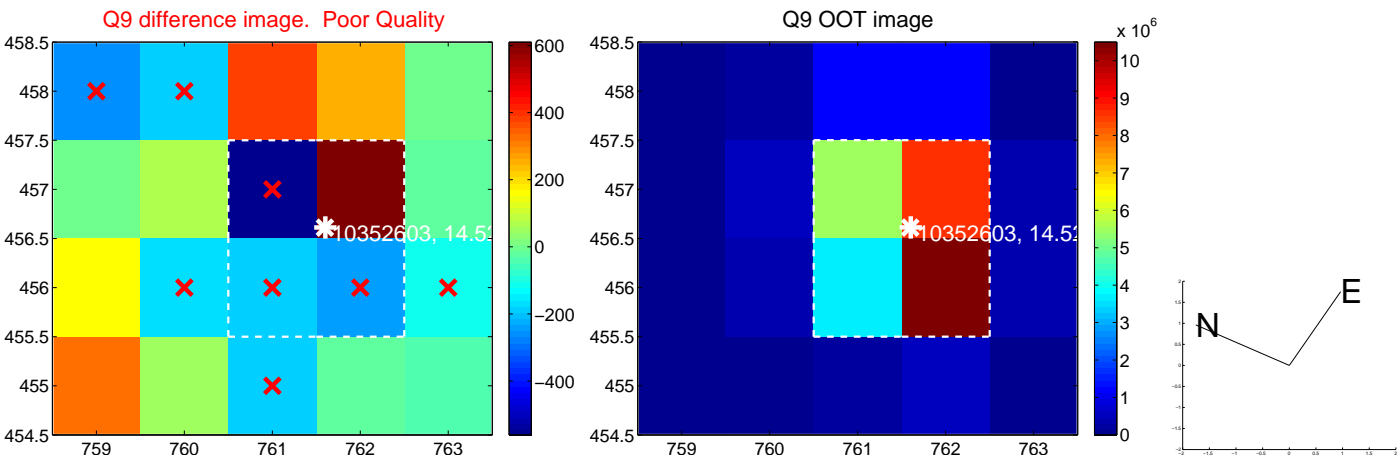
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



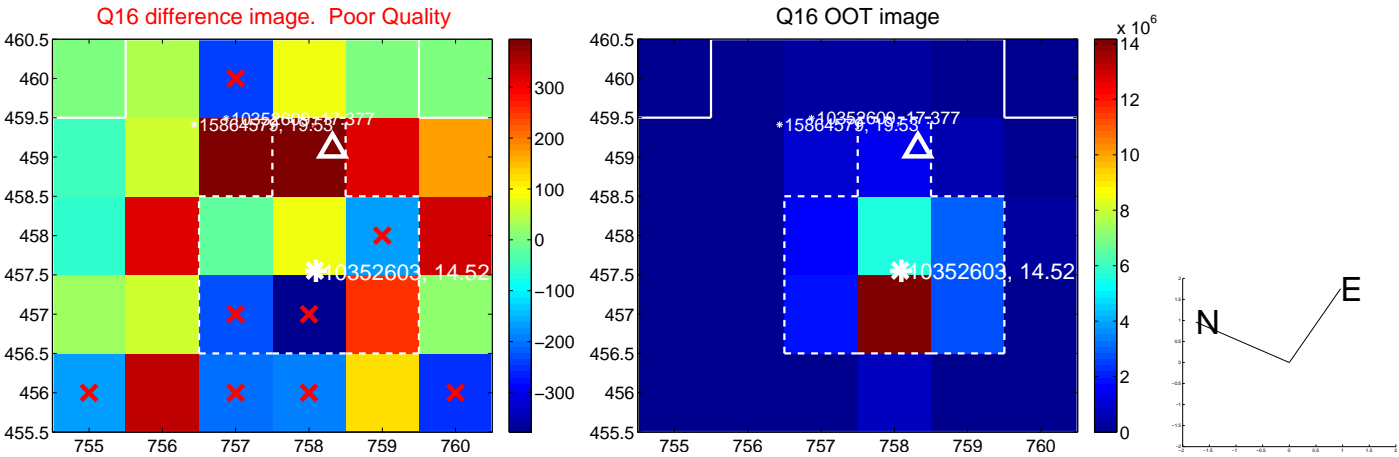
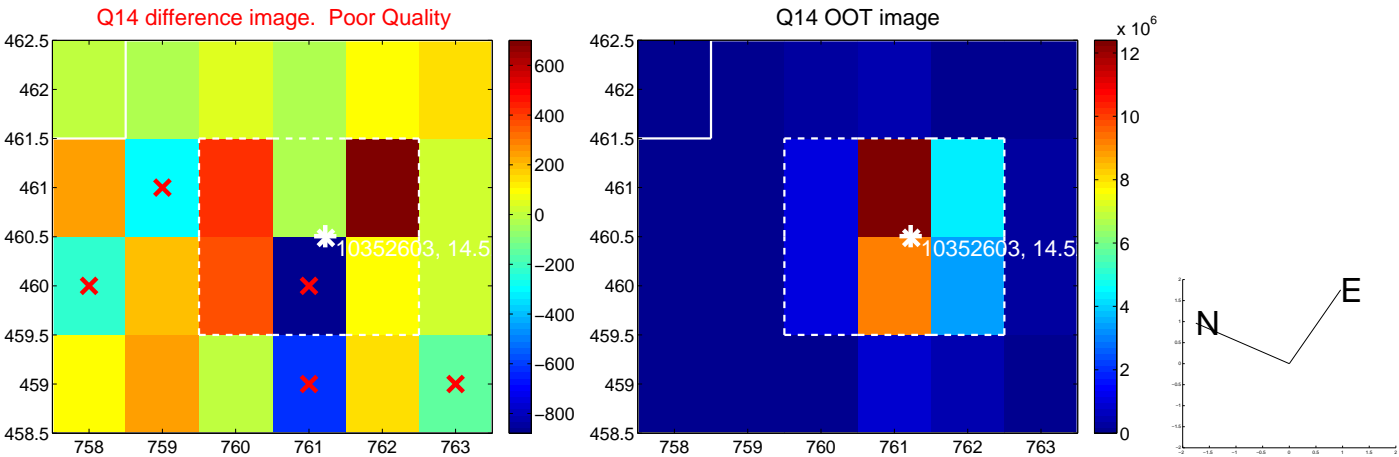
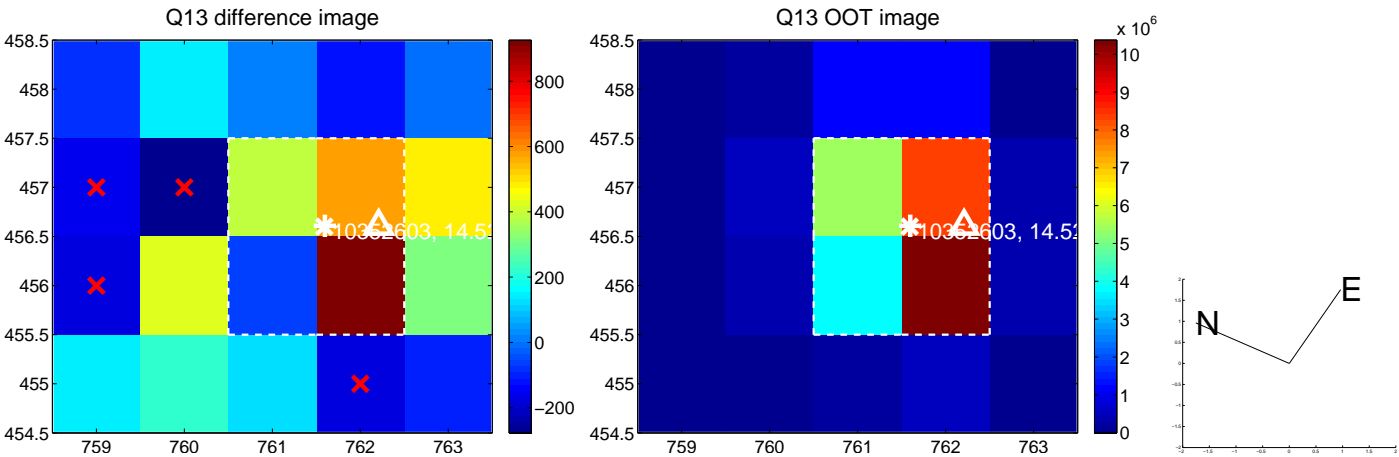
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



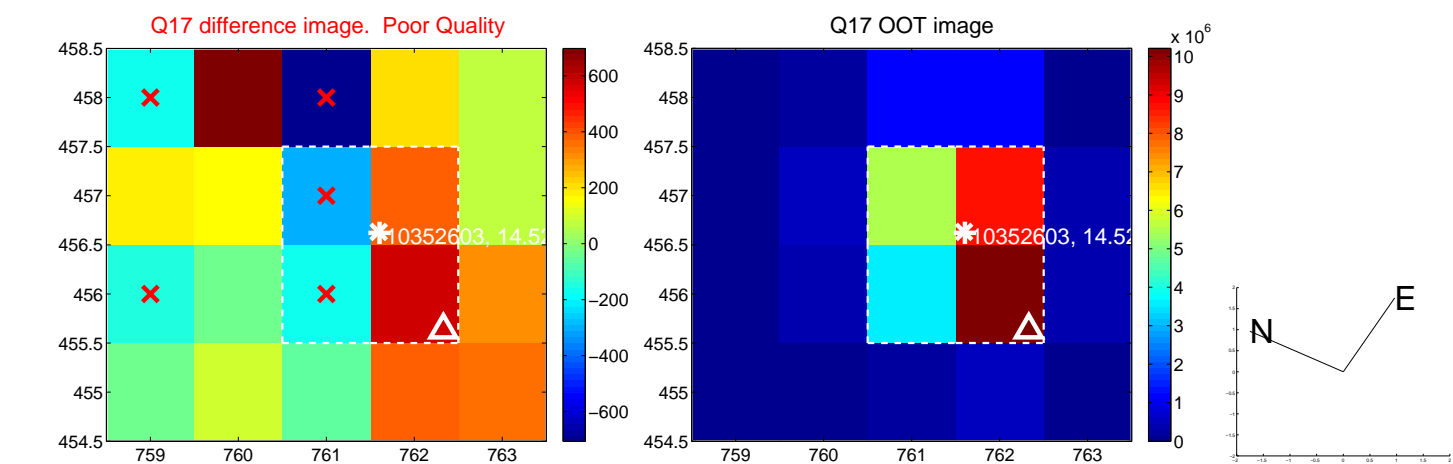
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



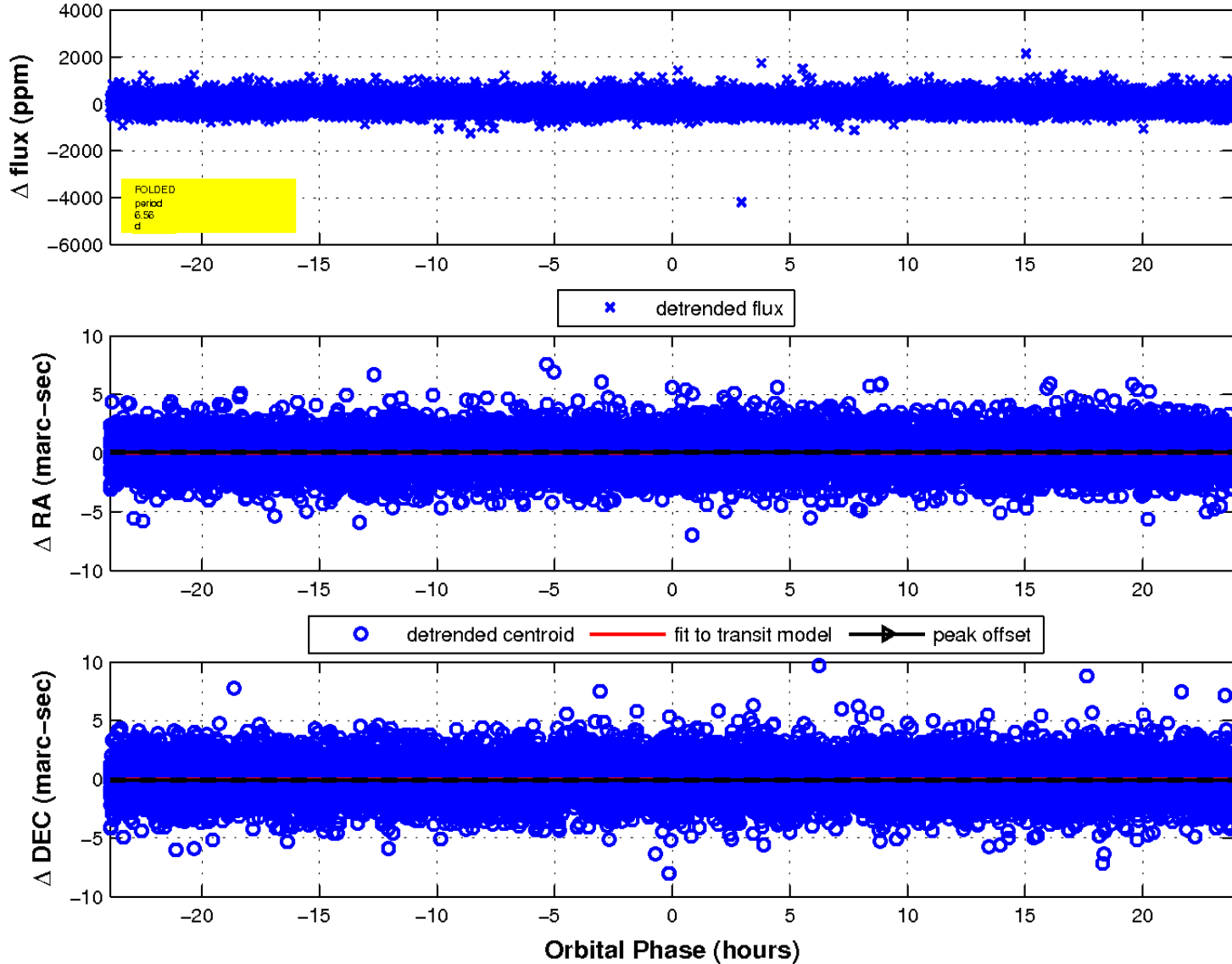
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

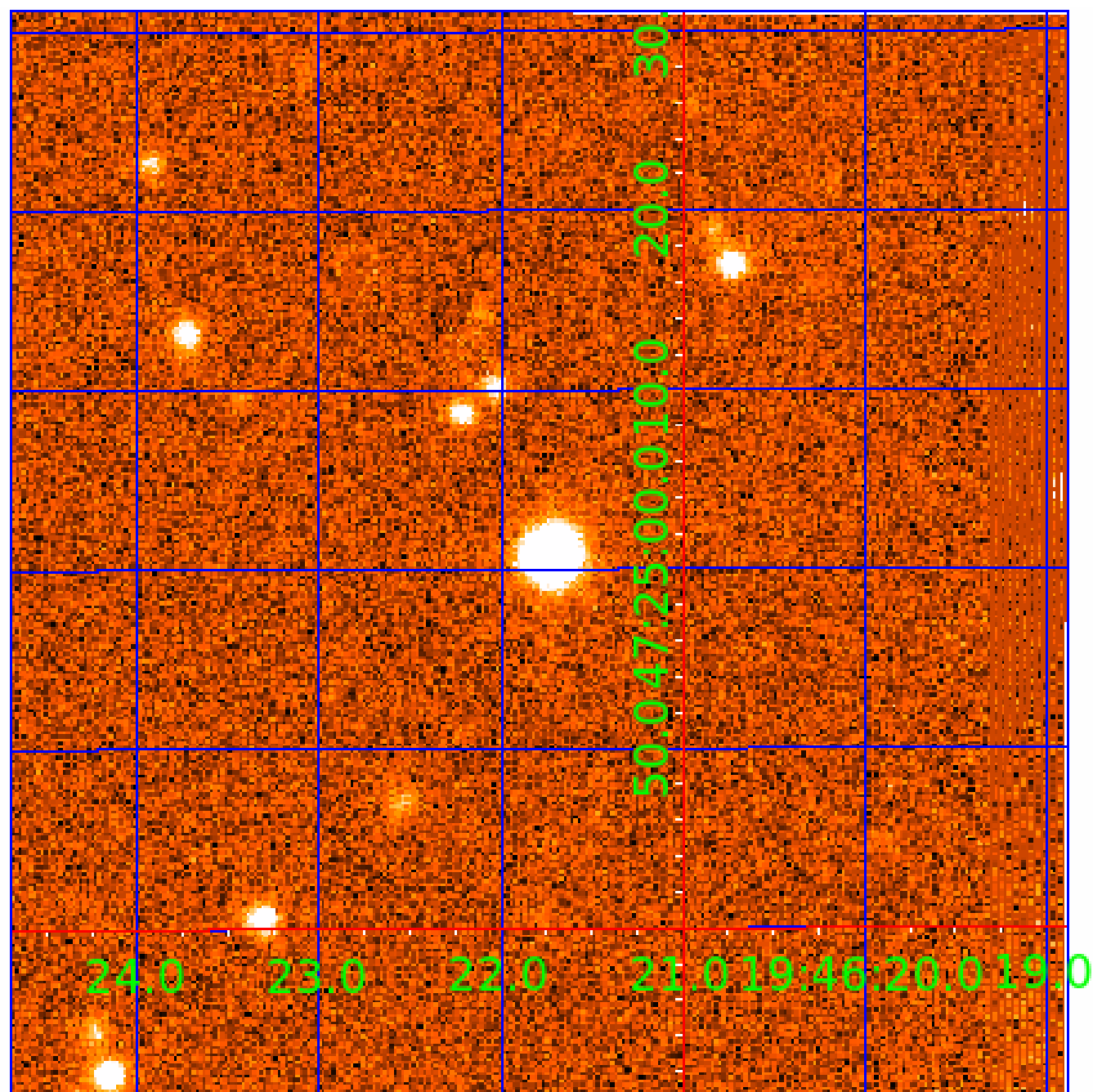


fluxWeightedCentroids, Planet 3 of 7



UKIRT Image

Declination



KIC 010352603

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})
010352603-01	OBS	7317.01	32.779667	136.166440	425270.2	12.000	25656.4	-1.0	0.96	6122	52.60	28.34
010352603-02	OBS	No	32.778630	159.978348	463769.4	6.000	21892.3	-1.0	0.96	6122	52.60	28.34
010352603-03	OBS	No	6.555019	131.817497	6146.0	15.000	205.5	-1.0	0.96	6122	7.56	242.34
010352603-04	OBS	No	294.976825	331.094575	11484.0	3.000	148.0	-1.0	0.96	6122	10.34	1.51
010352603-05	OBS	No	196.598092	134.535161	6430.1	12.500	134.2	-1.0	0.96	6122	7.73	2.60
010352603-06	OBS	No	46.405212	176.342518	361.5	5.771	201.2	10.5	0.96	6122	1.98	17.83
010352603-07	OBS	No	32.782704	140.338292	2001.2	15.000	131.6	-1.0	0.96	6122	4.31	28.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010352603-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
010352603-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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 010352603-04

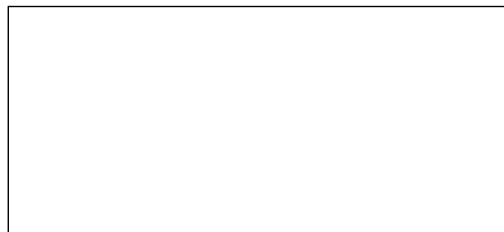
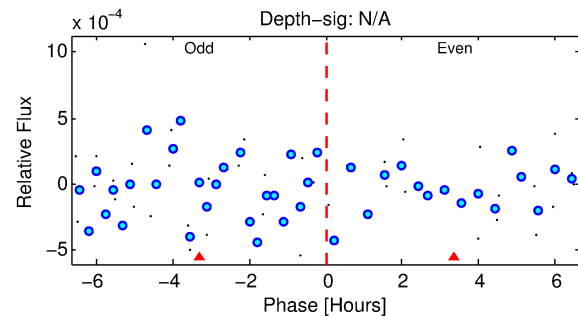
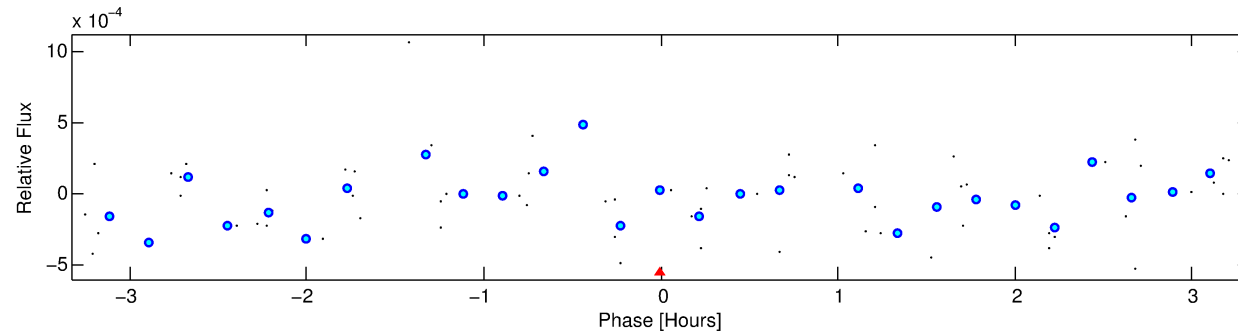
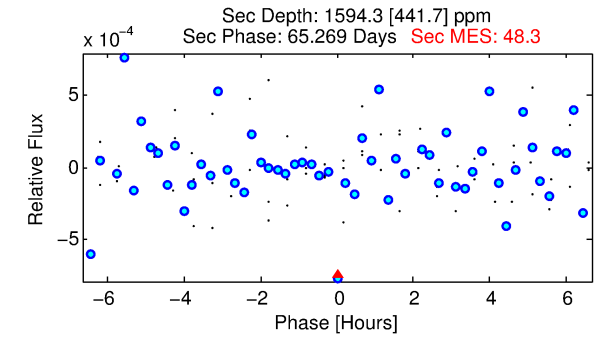
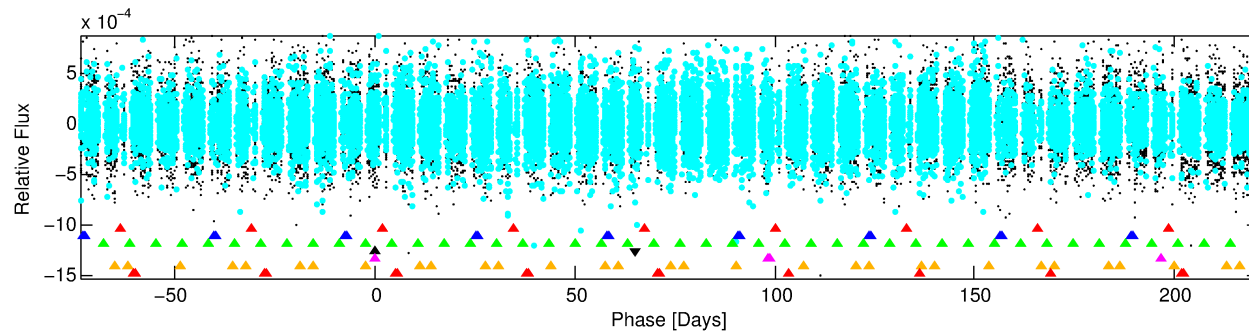
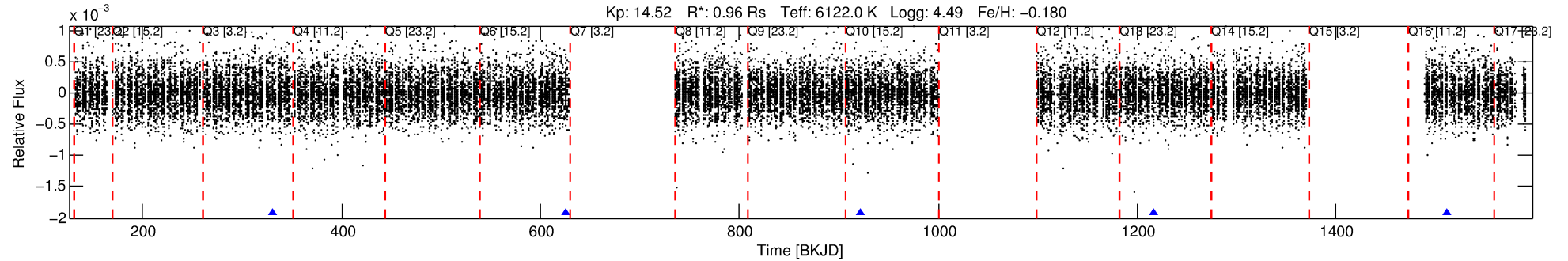
No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 4 of 7 Period: 294.977 d

KOI: K07317 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



TPS TCE Results:

Period = 294.97683 d
Epoch = 331.0946 BKJD

DV fit results are unavailable

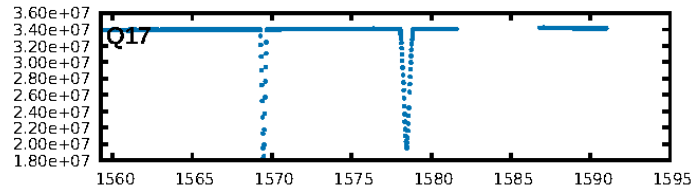
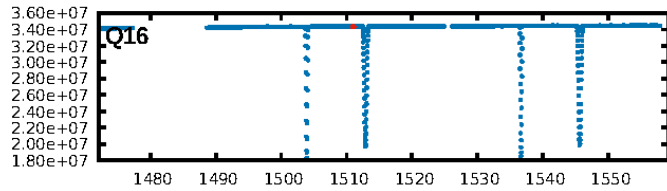
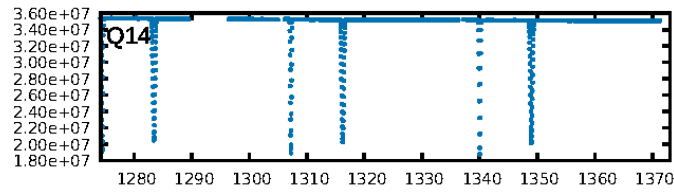
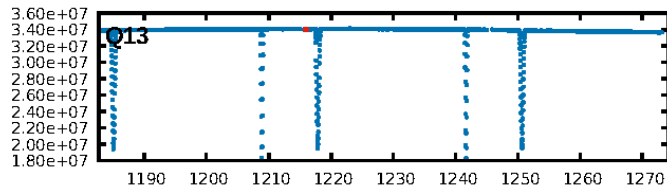
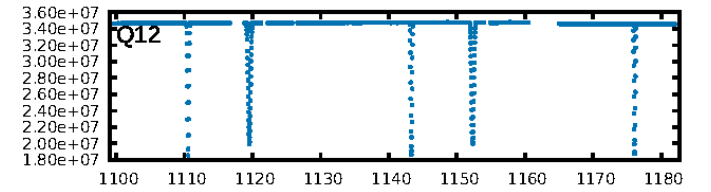
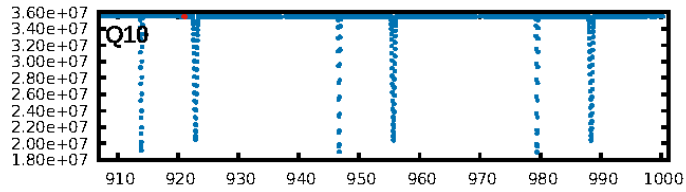
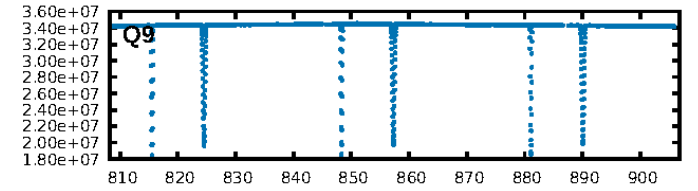
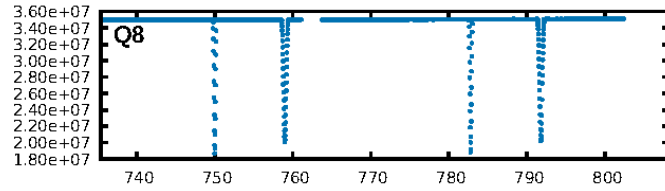
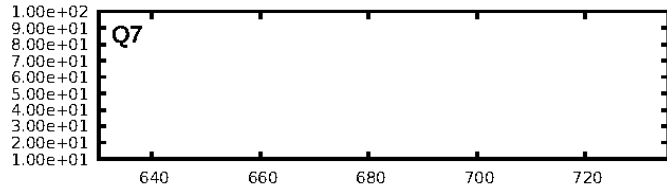
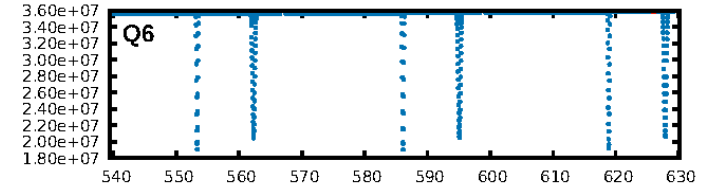
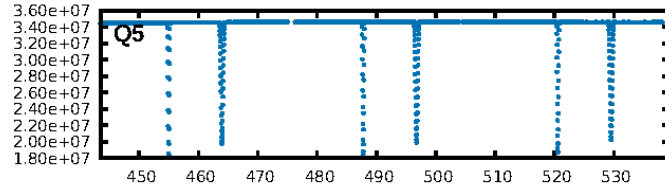
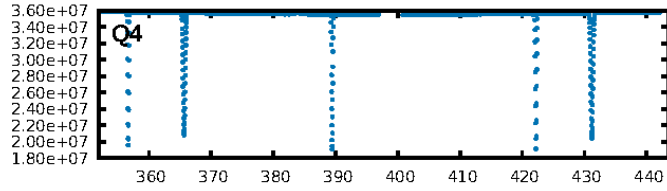
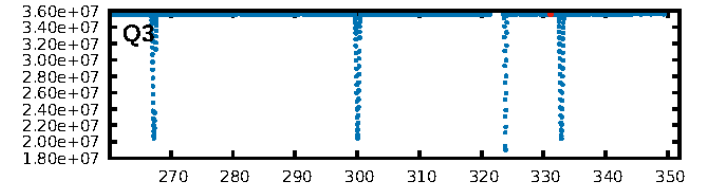
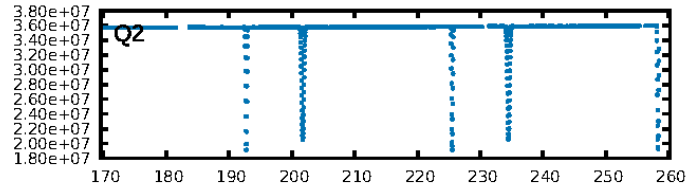
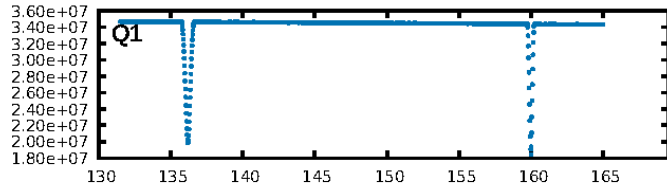
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [183.67σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -1.05
Centroid-sig: 98.7%
Centroid-so: 0.983 arcsec [0.10σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 0.00 [0/1]

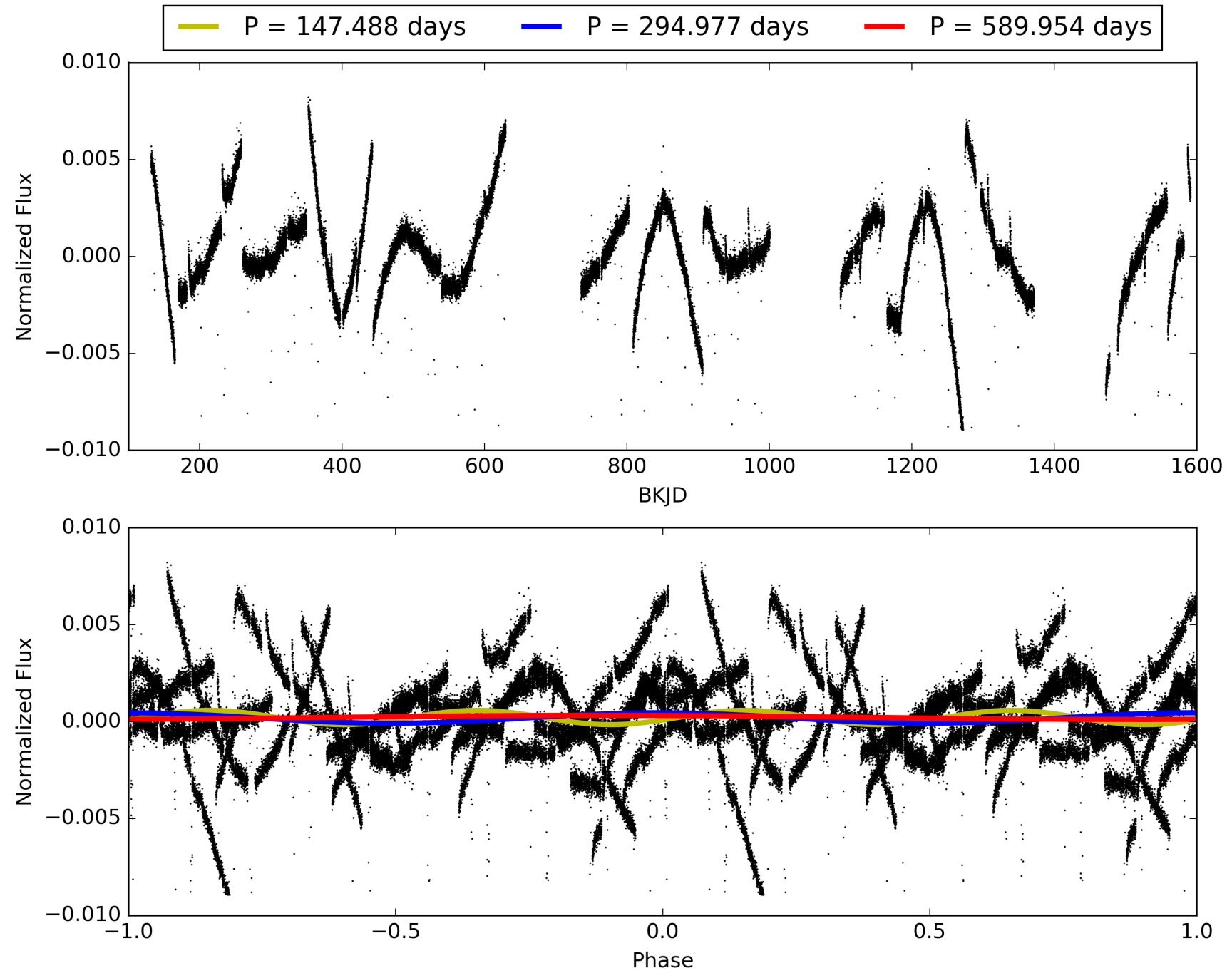
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:08:00 Z

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

TCE 010352603-04, PDC Light Curves

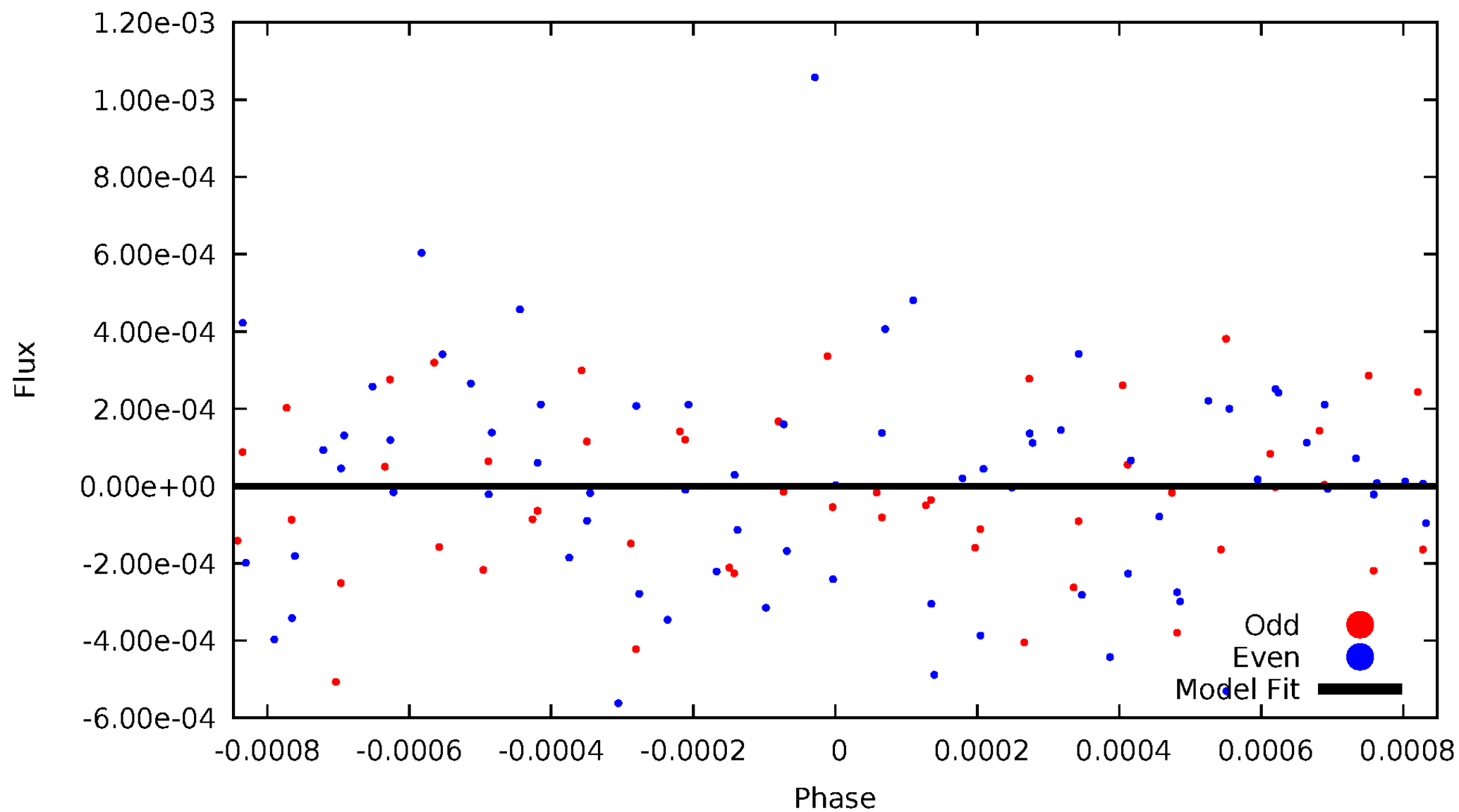


TCE 010352603-04



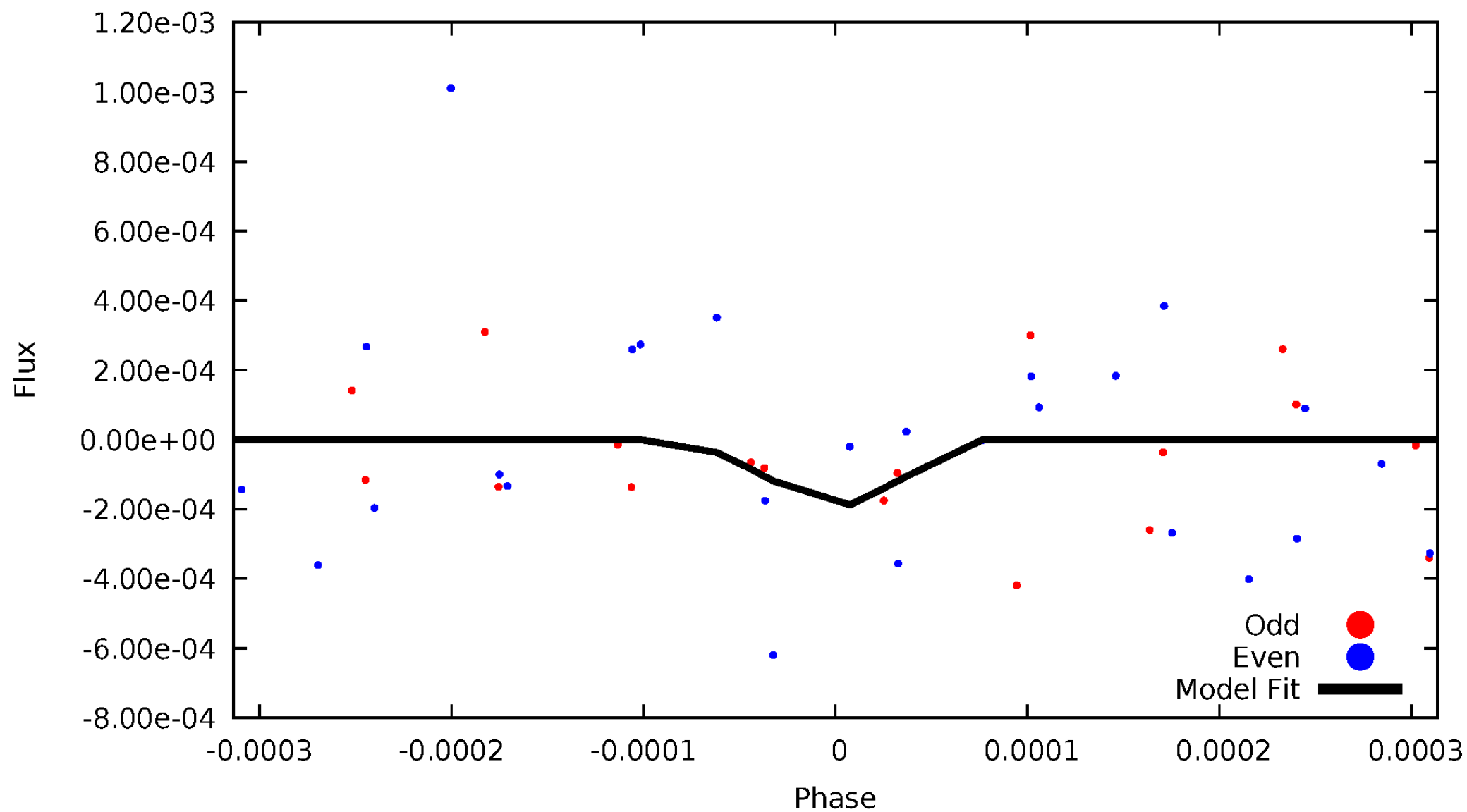
DV Odd/Even

TCE 010352603-04



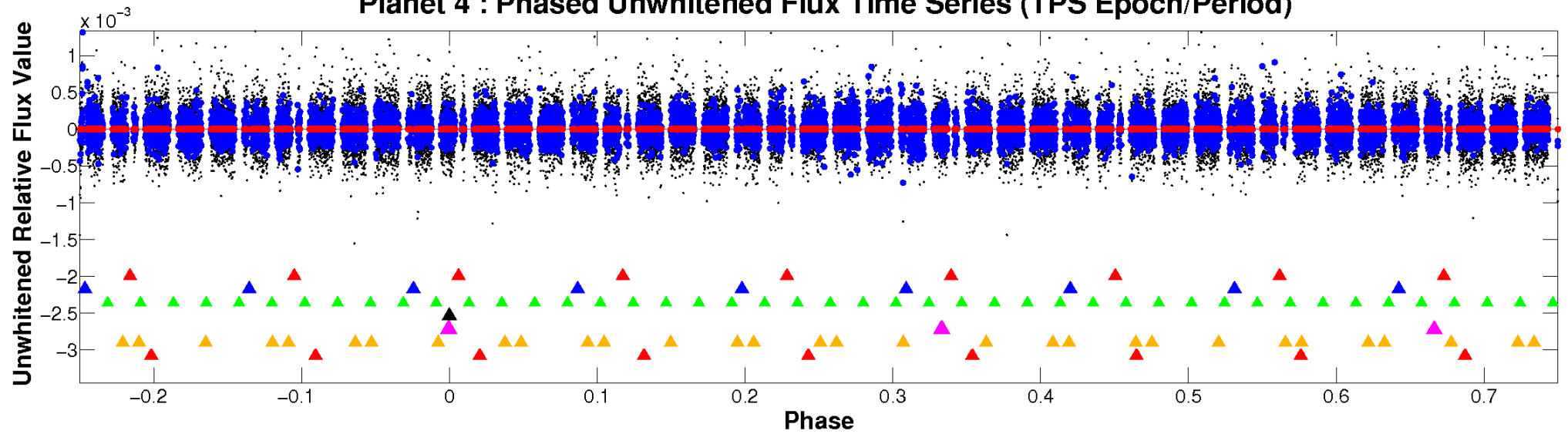
ALT Odd/Even

TCE 010352603-04



Non-Whitened Vs. Whitened Light Curve

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

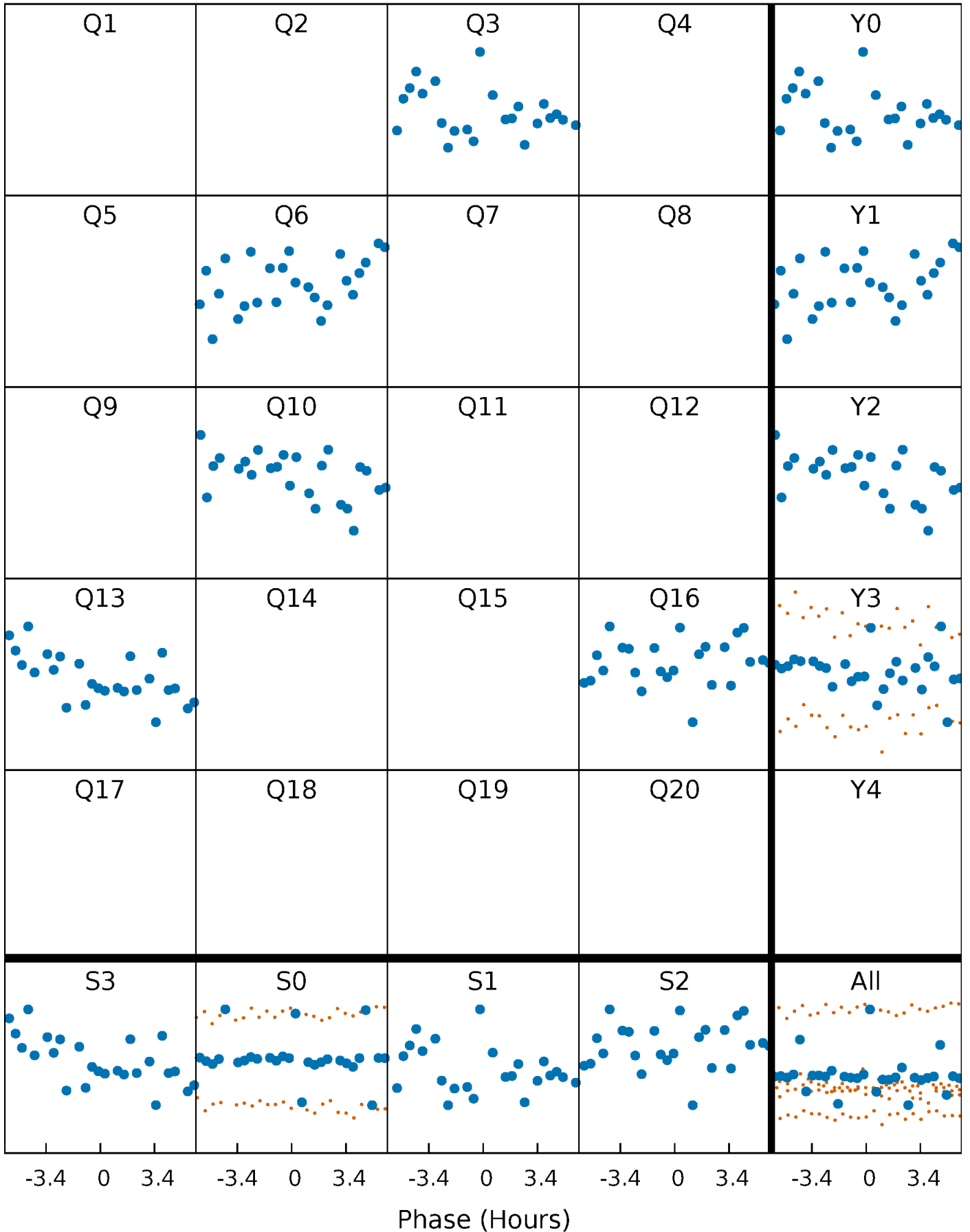


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



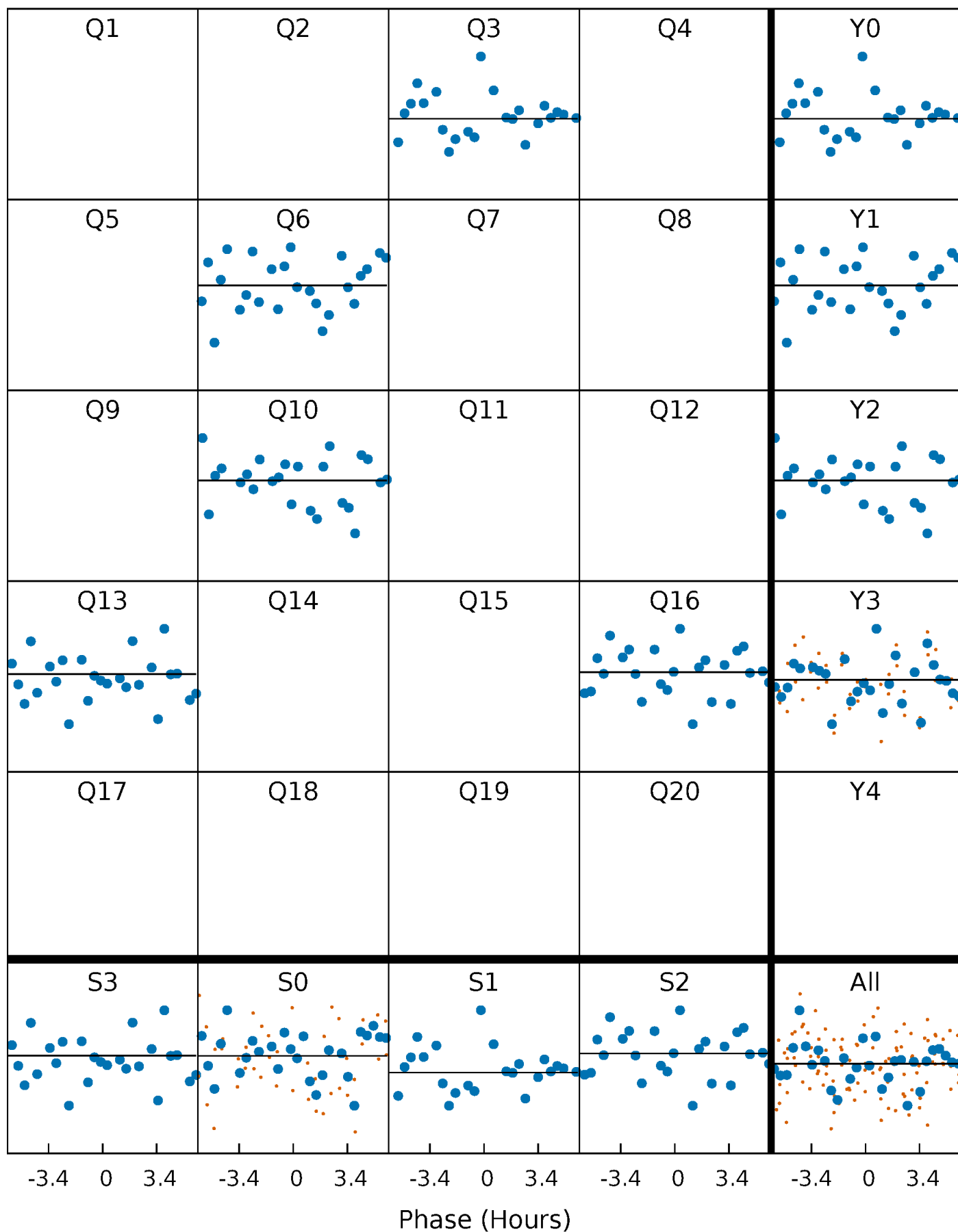
PDC Quarter-Phased Transit Curves

TCE 010352603-04 $P=294.976826$ Days $T_0=331.094575$ (BKJD)



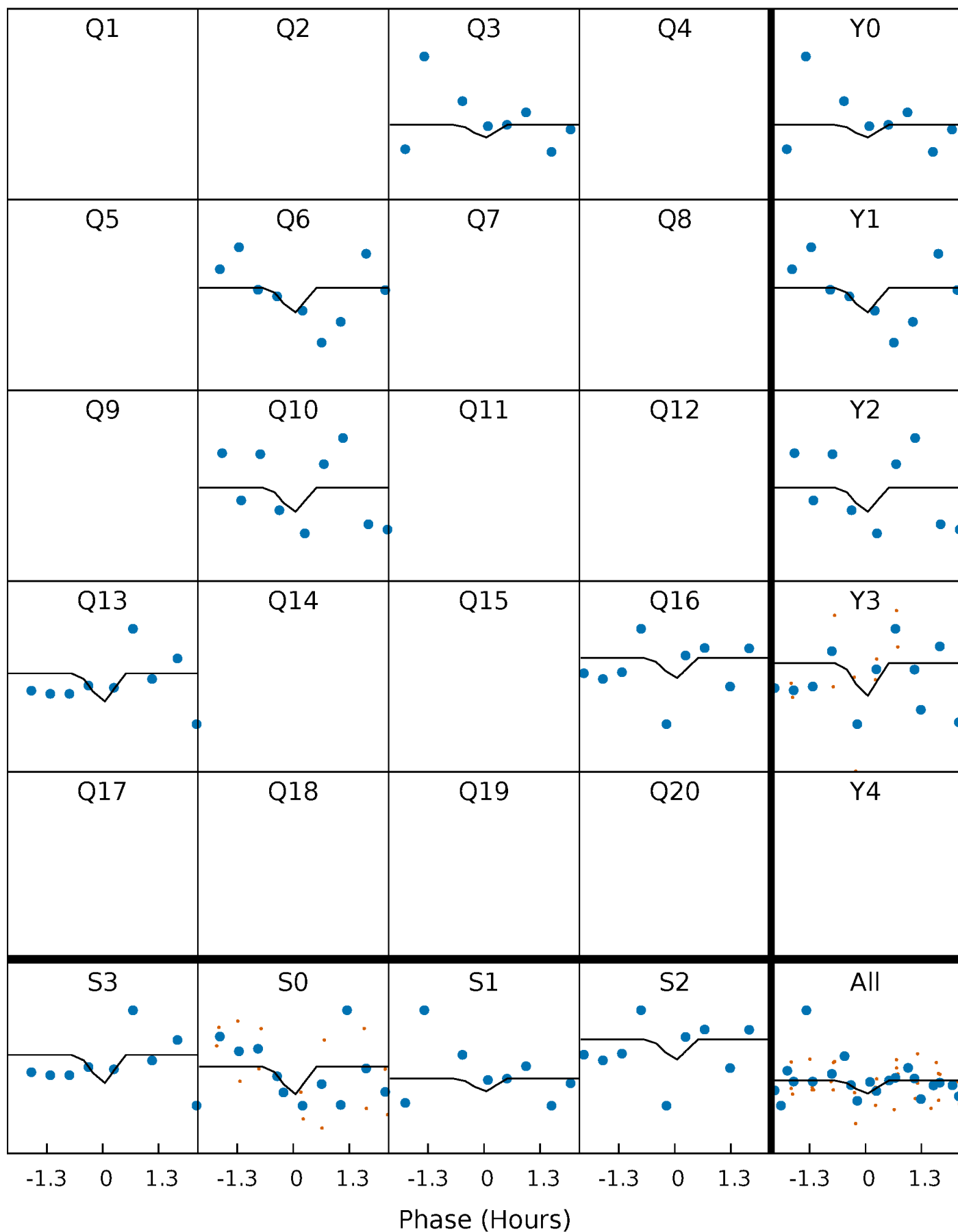
DV Quarter-Phased Transit Curves

TCE 010352603-04 $P=294.976826$ Days $T_0=331.094575$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

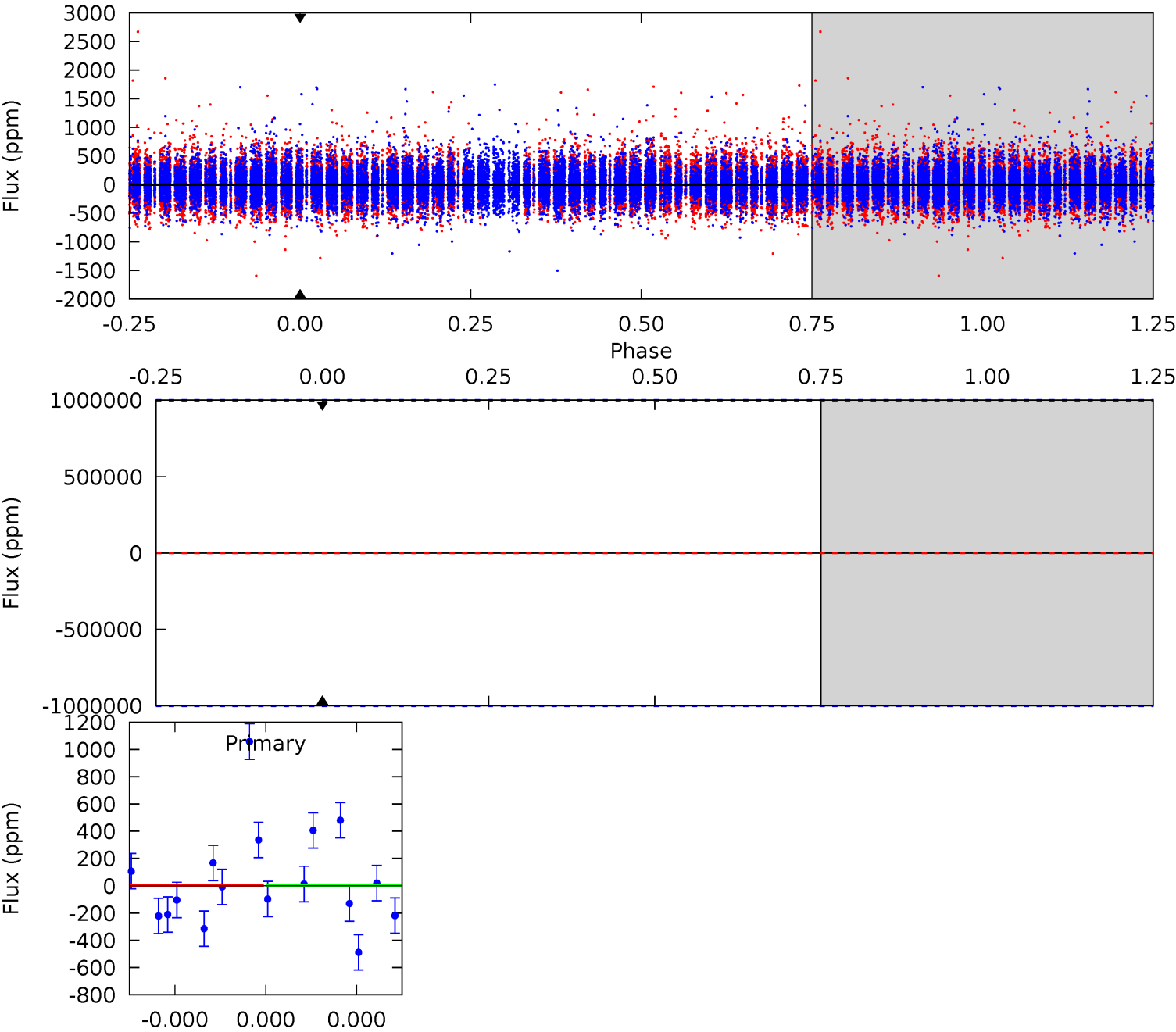
TCE 010352603-04 $P=294.976826$ Days $T_0=331.145258$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-04, P = 294.976826 Days, E = 36.117749 Days

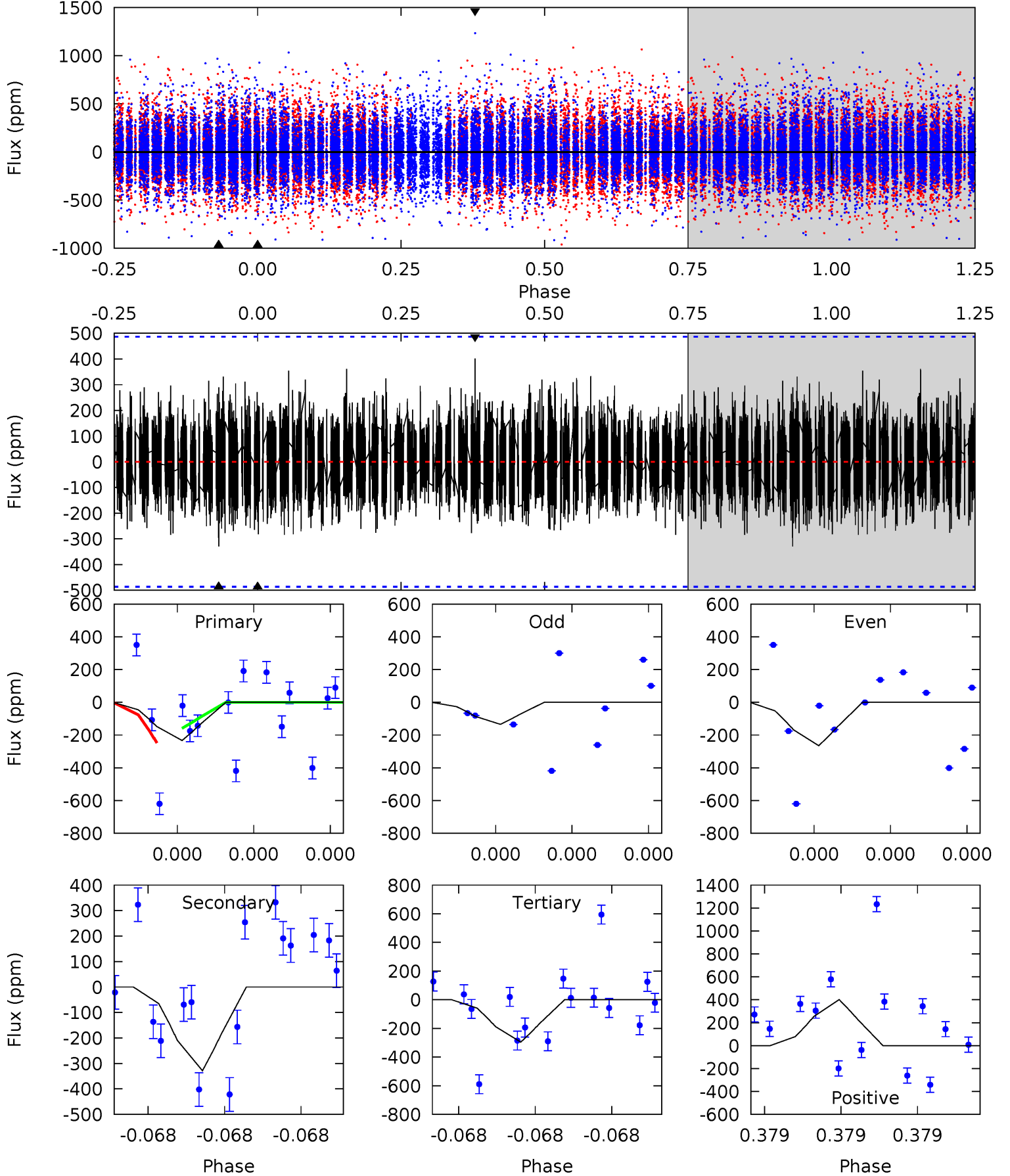
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010352603-04, P = 294.976826 Days, E = 36.168432 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.79	3.93	3.53	4.80	5.82	3.84	1.06	-0.74	-2.01	0.40	-0.87	0.79	1.22	0.55	0.52



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$12.15^{+10.13}_{-7.79}$	402^{+28}_{-18}	3685^{+11915}_{-17852}	$2553^{+471813}_{-442816}$
Alt.	-329 ± 84	$7.90^{+8.43}_{-5.39}$	404^{+28}_{-20}	3541^{+1948}_{-689}	2126^{+20314}_{-1650}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

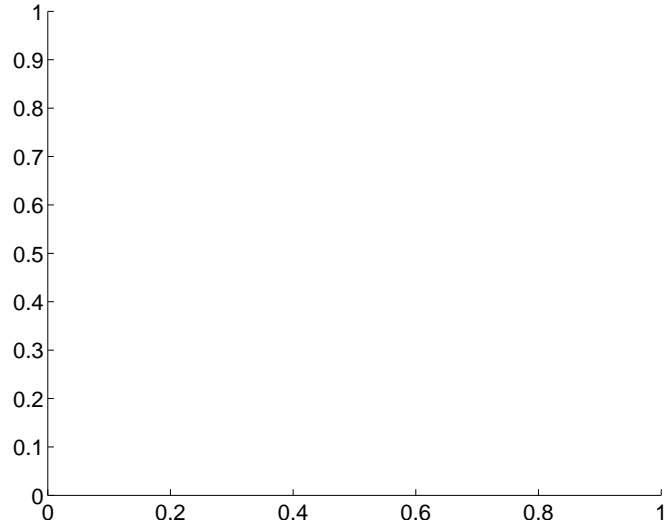
Supplemental centroid analysis for 010352603-04. Kepler magnitude: 14.52. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

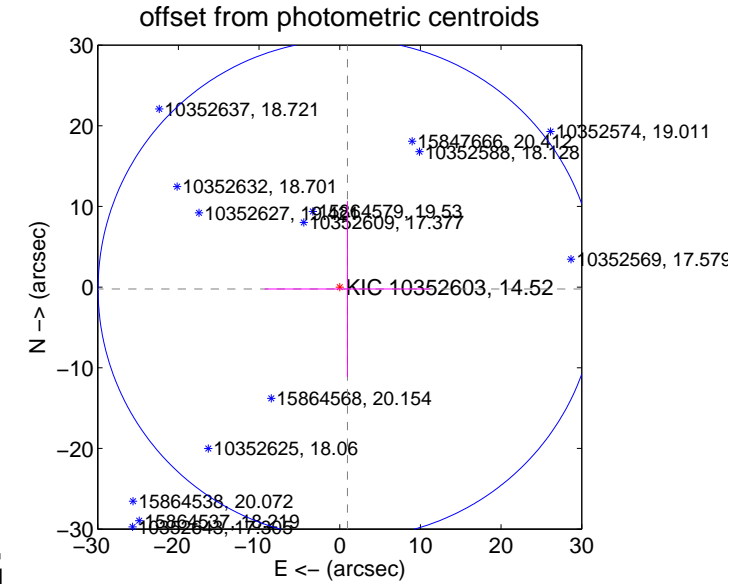
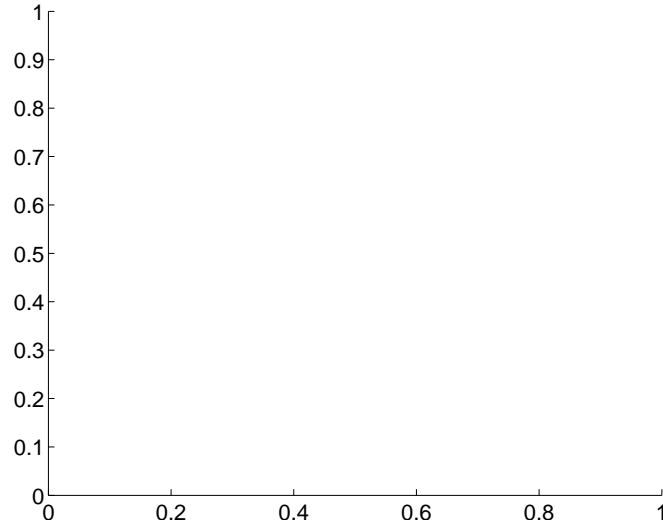
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.98 ± 10.30	0.10	-0.95 ± 10.26	-0.24 ± 10.91

There is no PRF-fit offset from OOT-fit

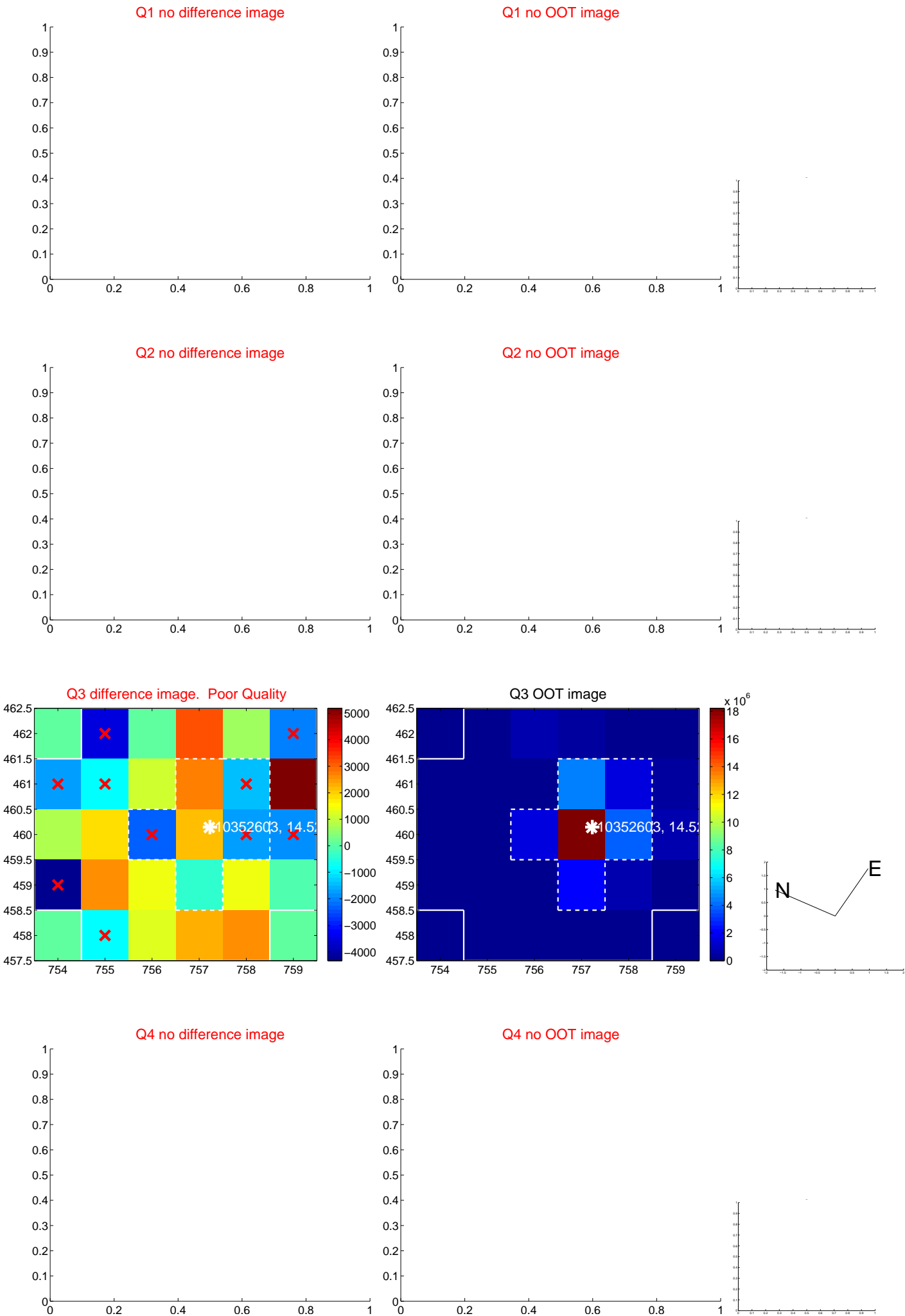


There is no PRF-fit offset from KIC



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.



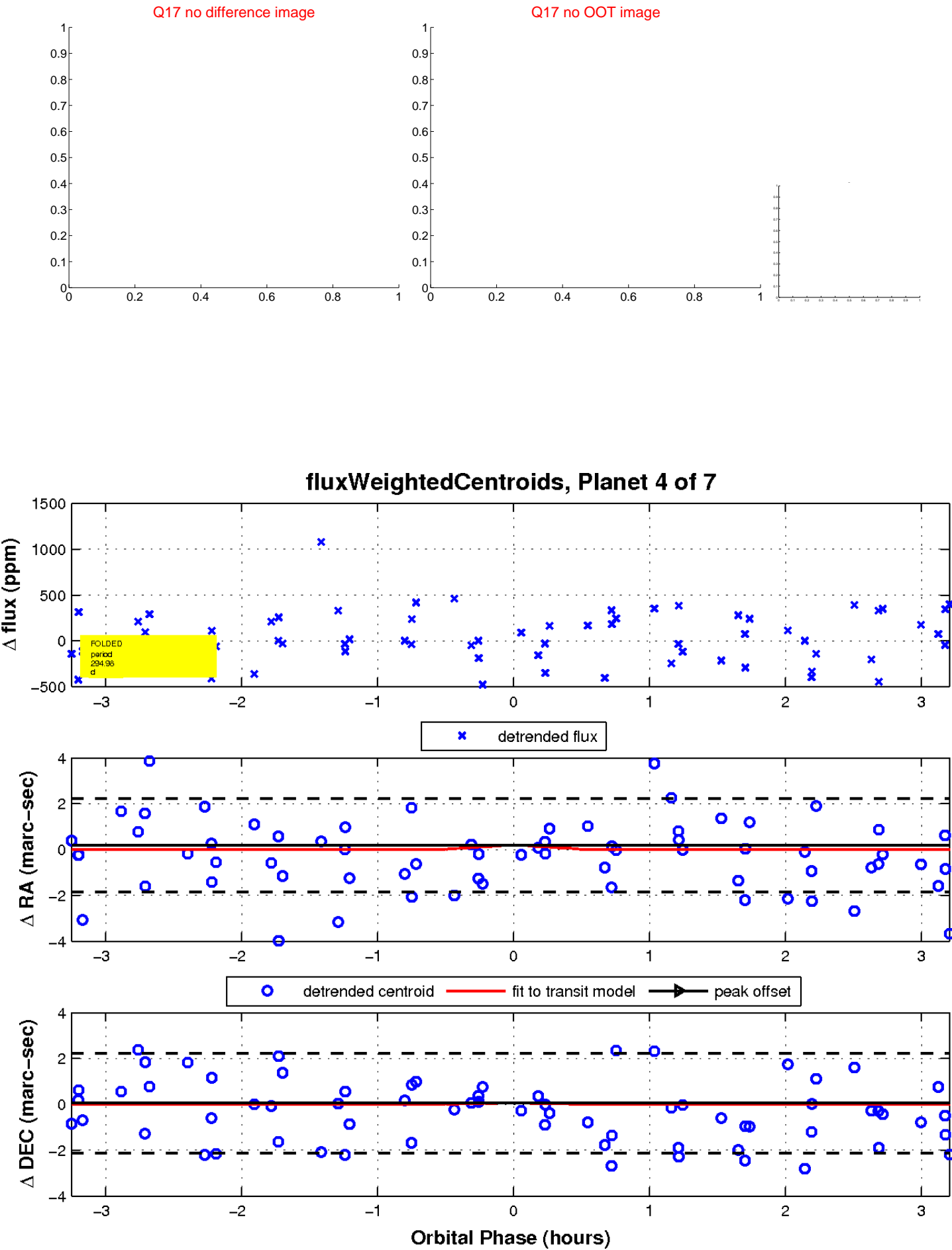
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

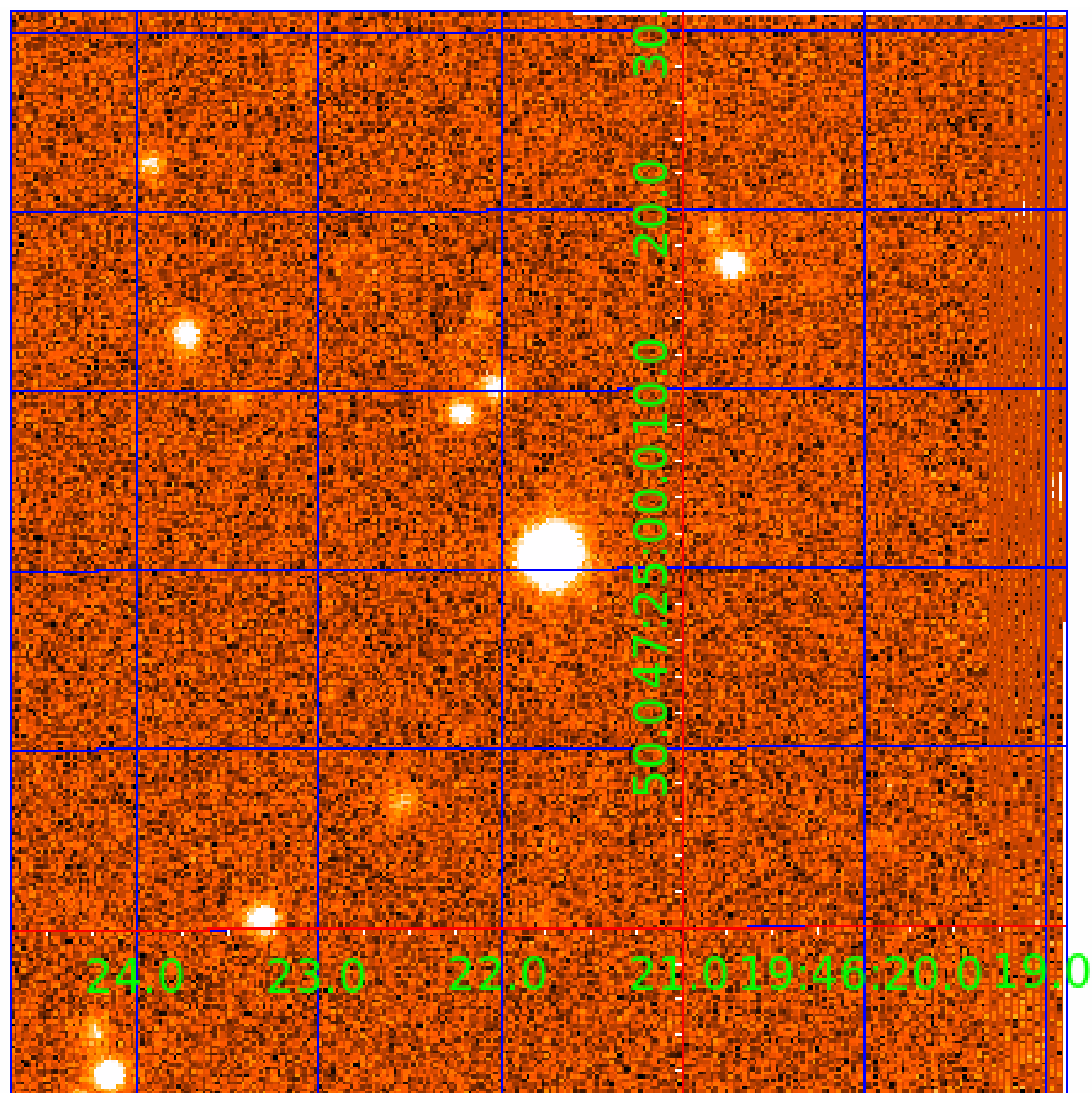


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010352603

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})
010352603-01	OBS	7317.01	32.779667	136.166440	425270.2	12.000	25656.4	-1.0	0.96	6122	52.60	28.34
010352603-02	OBS	No	32.778630	159.978348	463769.4	6.000	21892.3	-1.0	0.96	6122	52.60	28.34
010352603-03	OBS	No	6.555019	131.817497	6146.0	15.000	205.5	-1.0	0.96	6122	7.56	242.34
010352603-04	OBS	No	294.976825	331.094575	11484.0	3.000	148.0	-1.0	0.96	6122	10.34	1.51
010352603-05	OBS	No	196.598092	134.535161	6430.1	12.500	134.2	-1.0	0.96	6122	7.73	2.60
010352603-06	OBS	No	46.405212	176.342518	361.5	5.771	201.2	10.5	0.96	6122	1.98	17.83
010352603-07	OBS	No	32.782704	140.338292	2001.2	15.000	131.6	-1.0	0.96	6122	4.31	28.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010352603-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
010352603-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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.

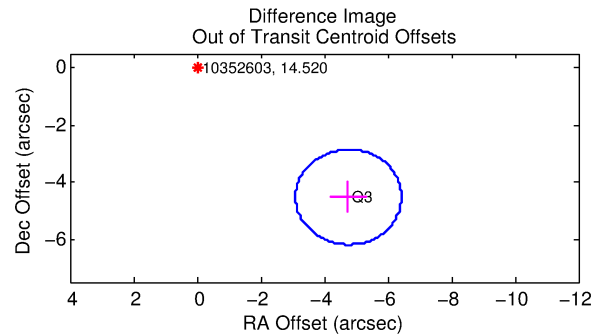
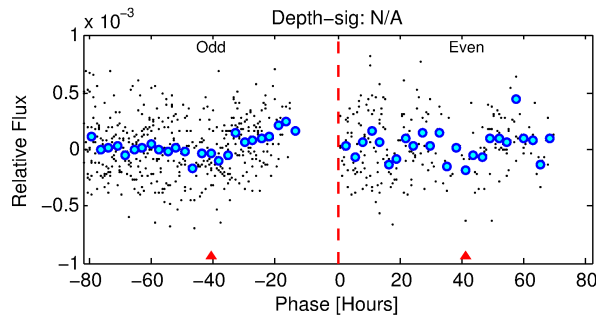
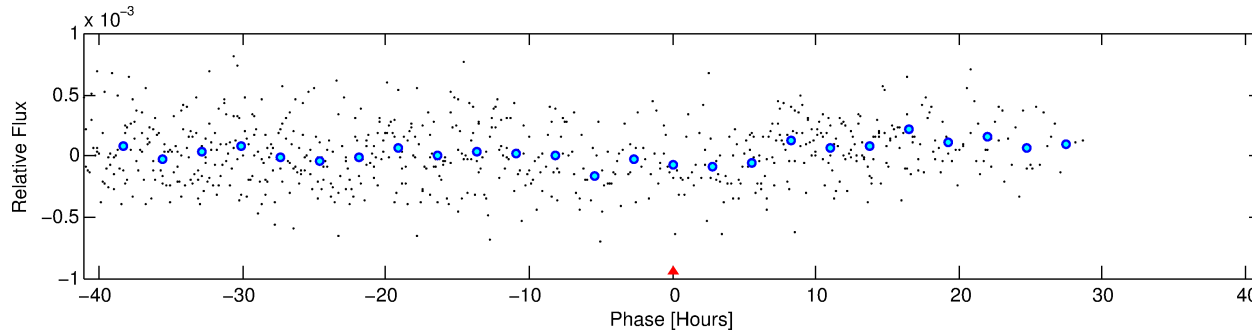
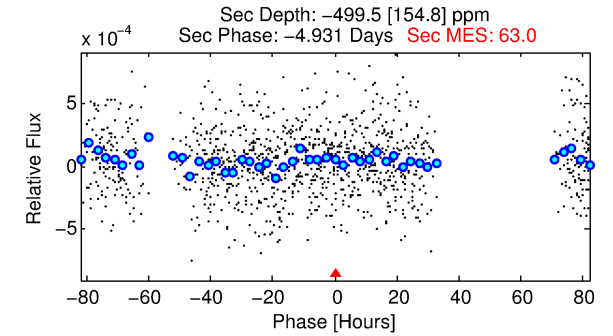
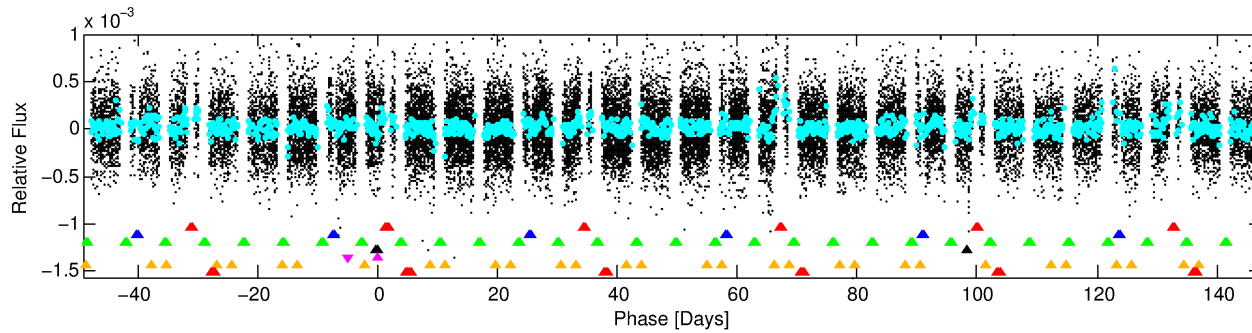
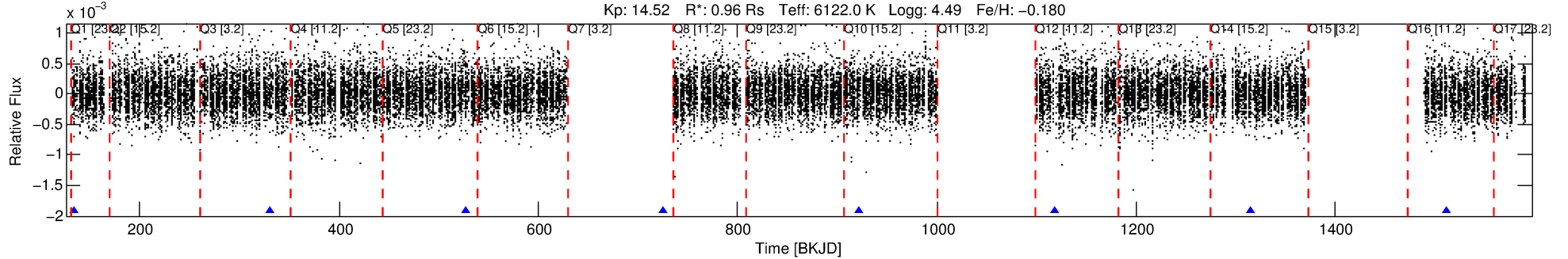
Ephemeris Match Information For 010352603-05

No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 5 of 7 Period: 196.598 d
KOI: K07317 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



TPS TCE Results:

Period = 196.59809 d
Epoch = 134.5352 BKJD

DV fit results are unavailable

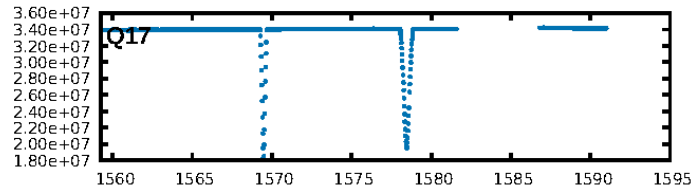
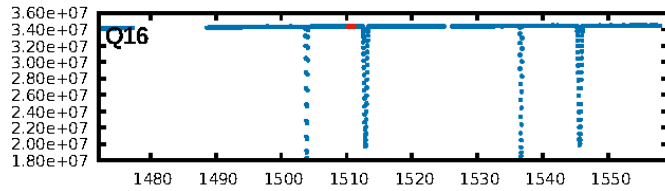
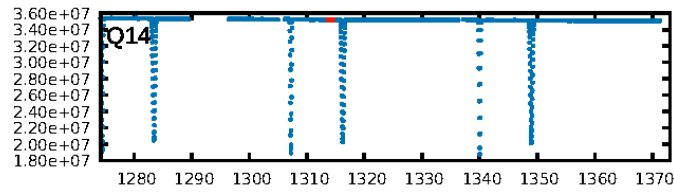
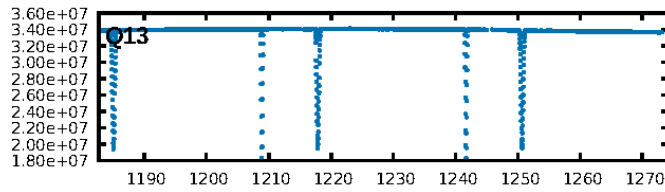
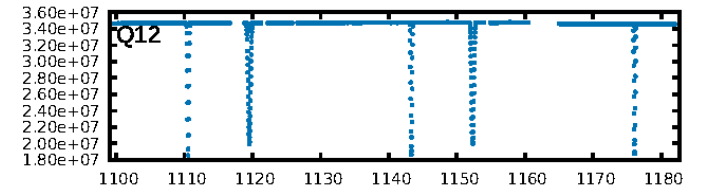
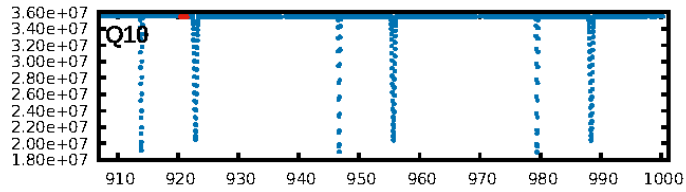
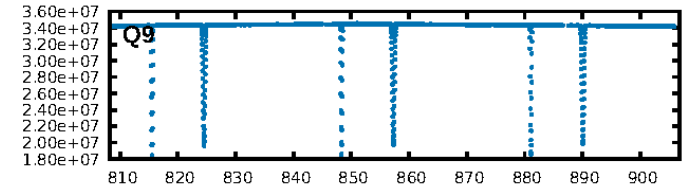
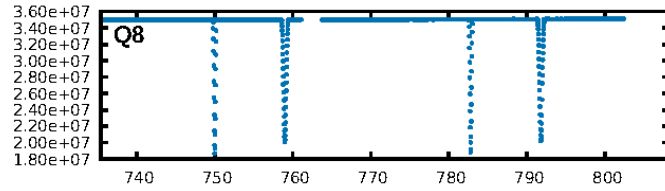
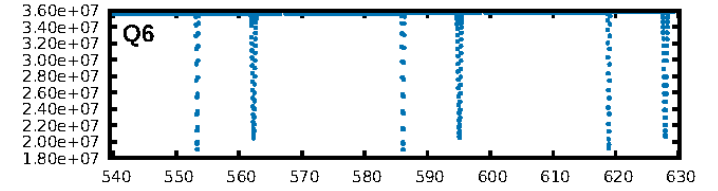
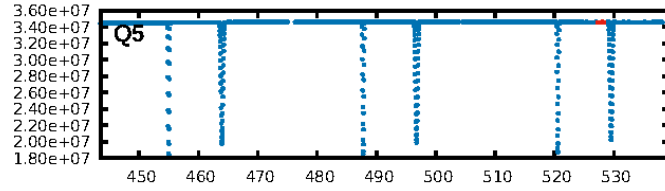
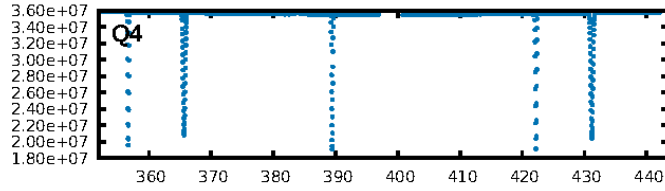
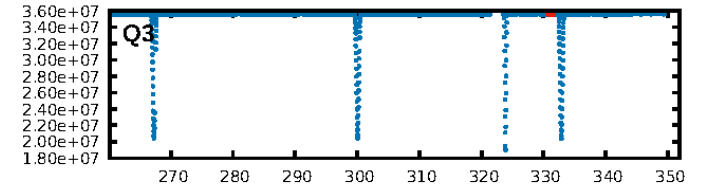
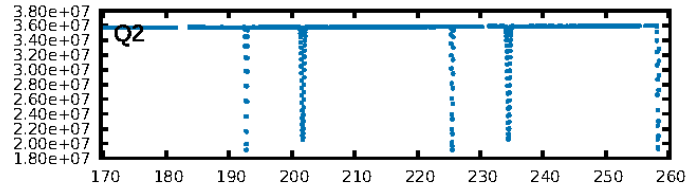
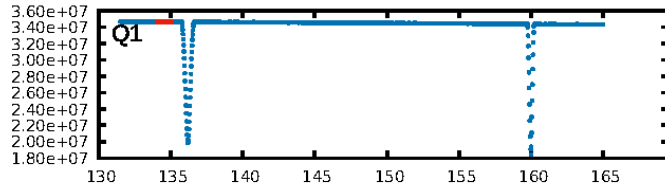
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [261.82σ]
LongPeriod-sig: 100.0% [183.67σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -2.436
Centroid-sig: 36.7%
Centroid-so: 4.132 arcsec [1.15σ]
OotOffset-rm: 6.571 arcsec [11.83σ]
KicOffset-rm: 6.560 arcsec [11.81σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
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DiffImageOverlap-fno: 0.60 [3/5]

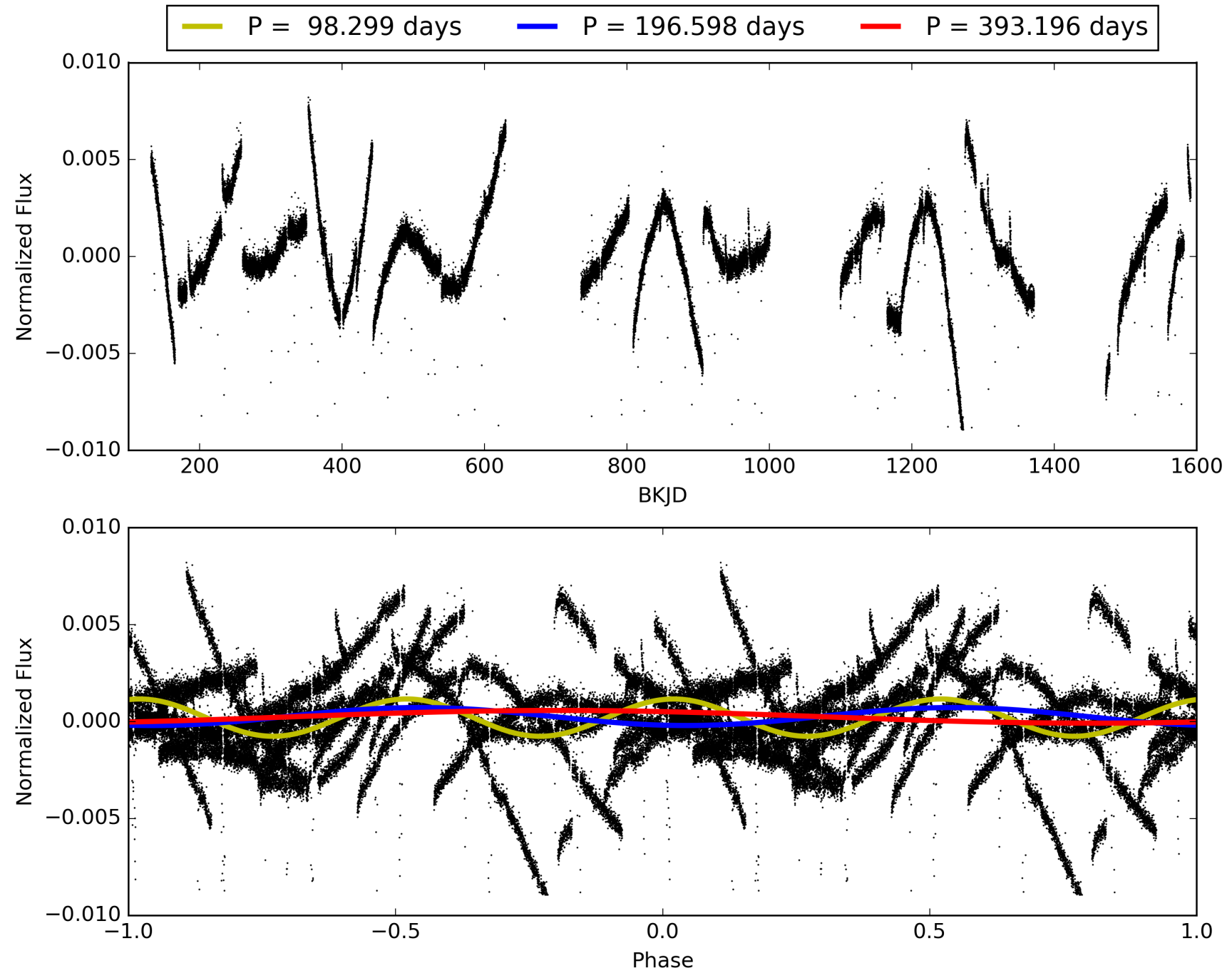
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:08:06 Z

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

TCE 010352603-05, PDC Light Curves

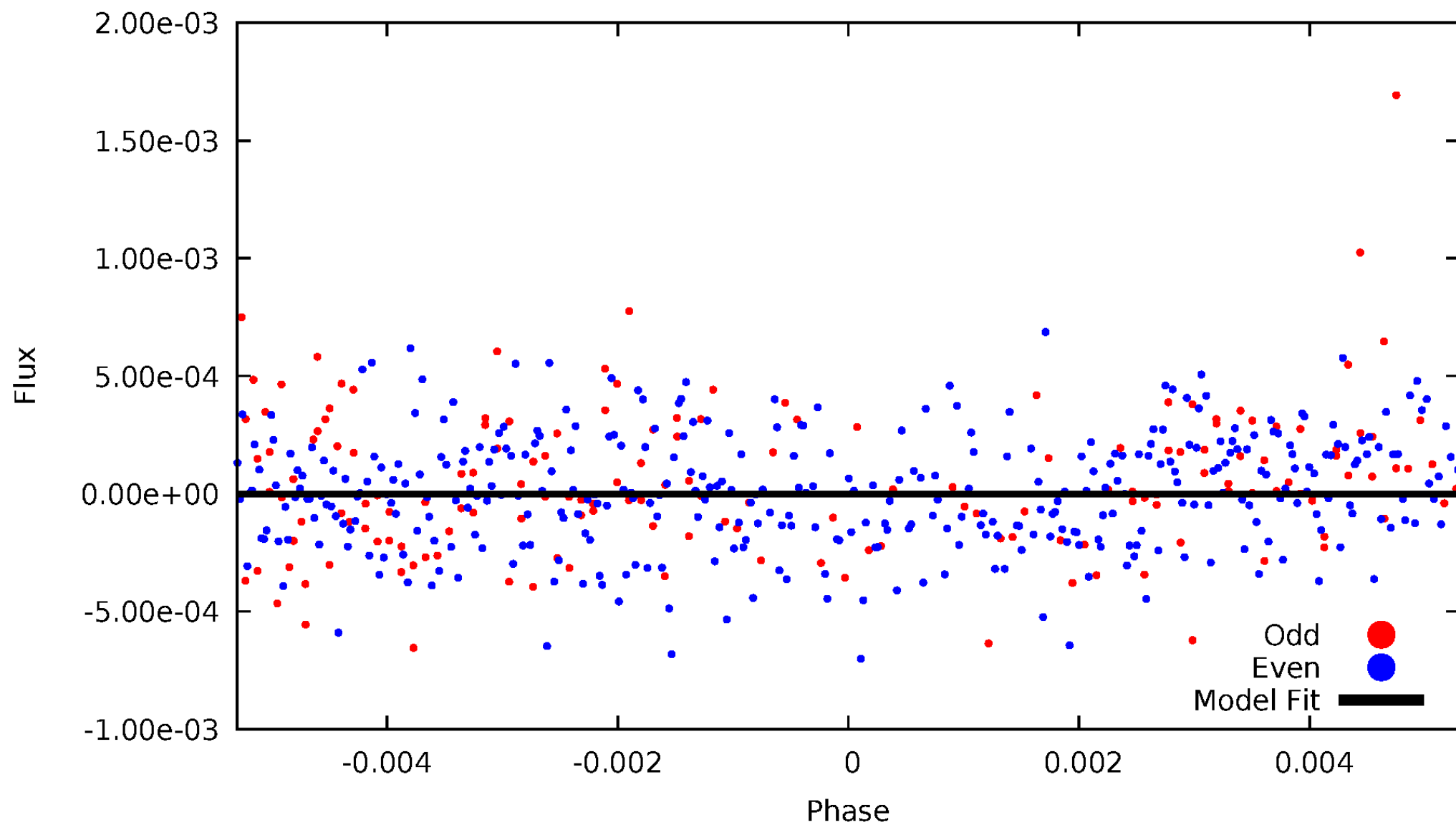


TCE 010352603-05



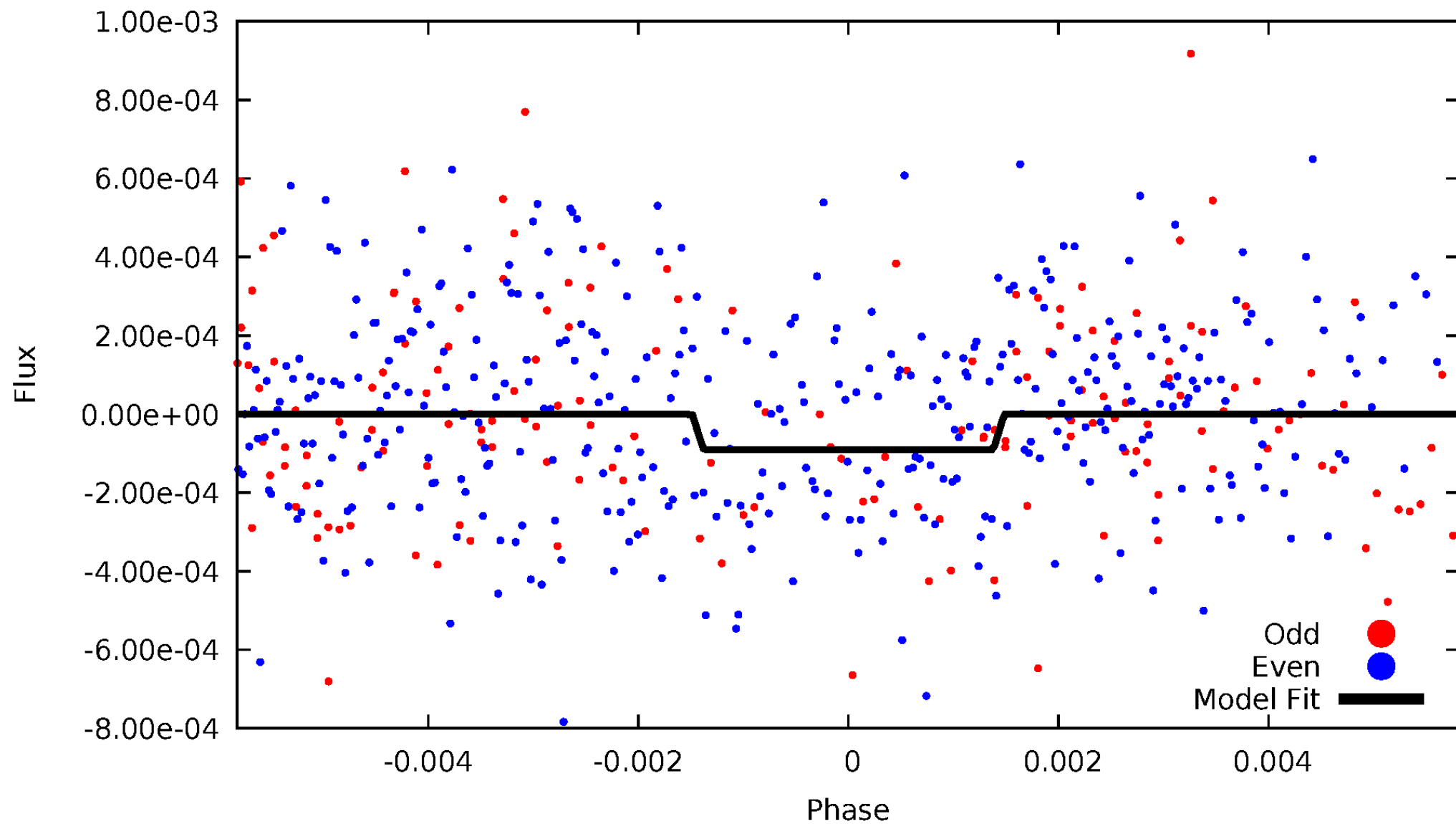
DV Odd/Even

TCE 010352603-05

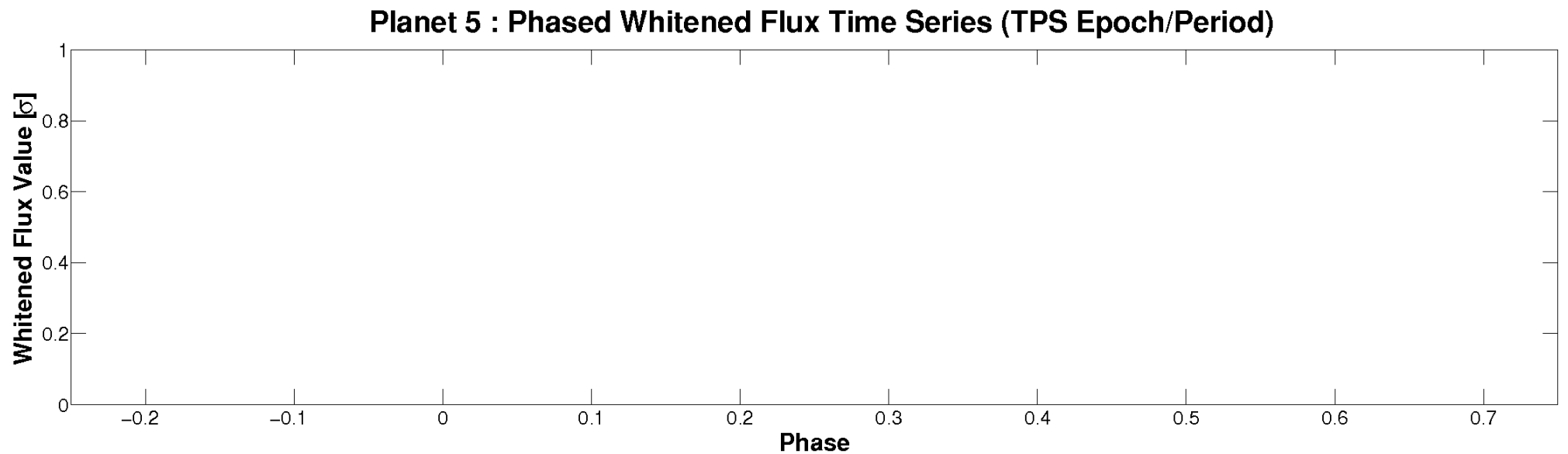
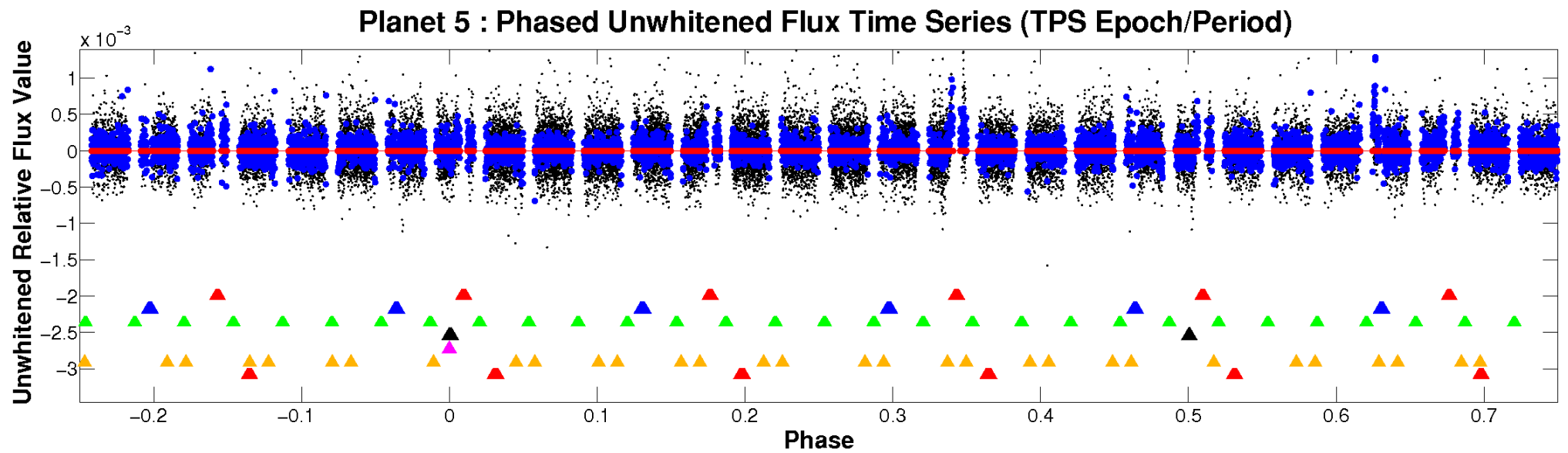


ALT Odd/Even

TCE 010352603-05

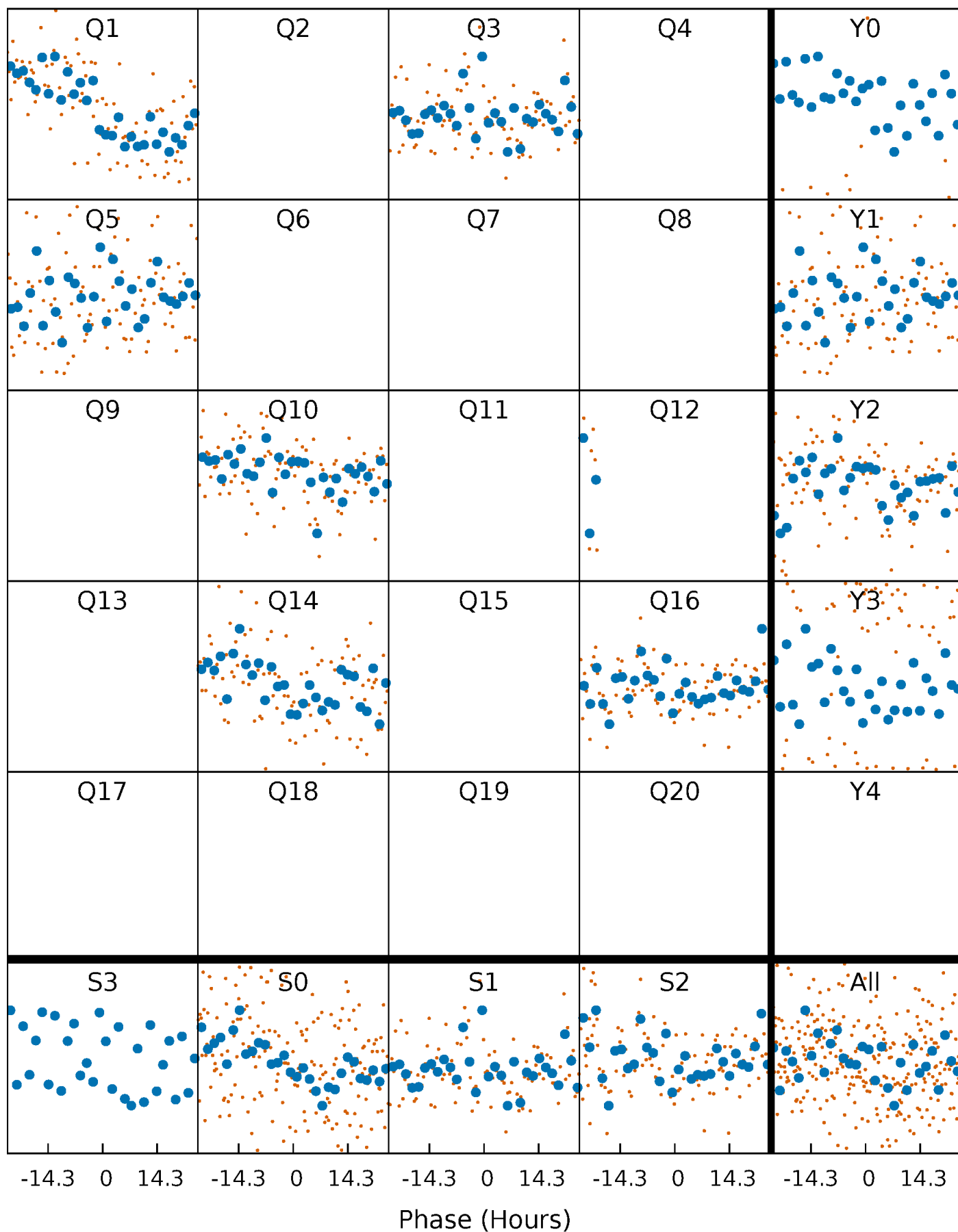


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 010352603-05 $P=196.598092$ Days $T_0=134.535161$ (BKJD)



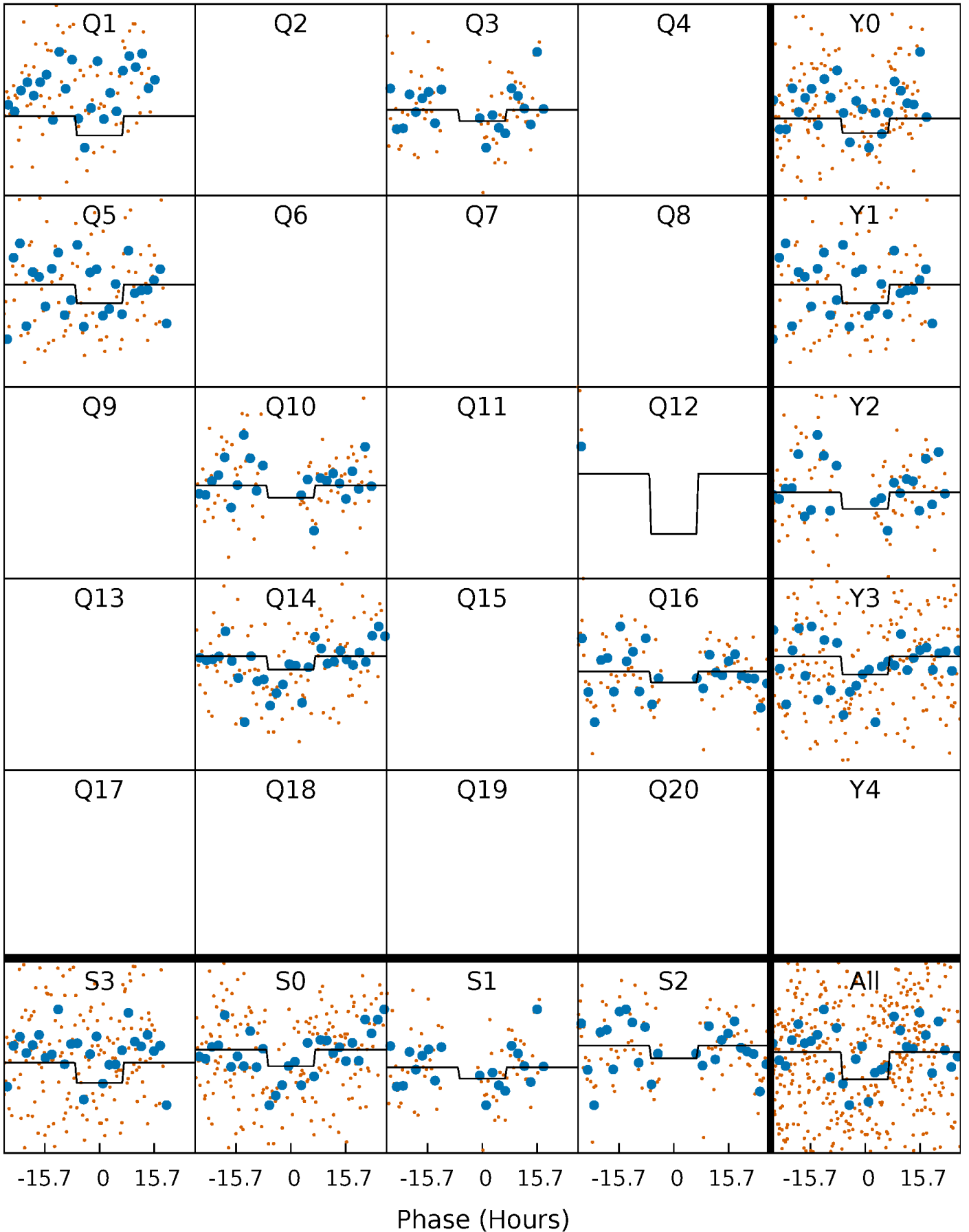
DV Quarter-Phased Transit Curves

TCE 010352603-05 $P=196.598092$ Days $T_0=134.535161$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

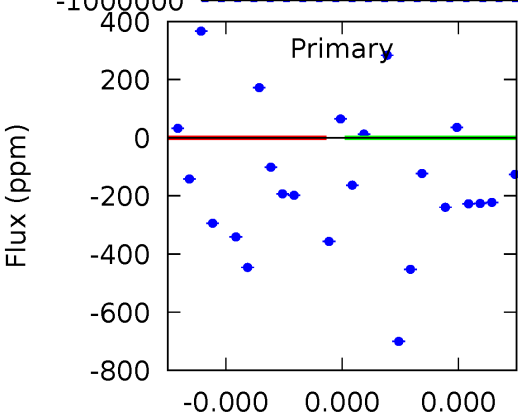
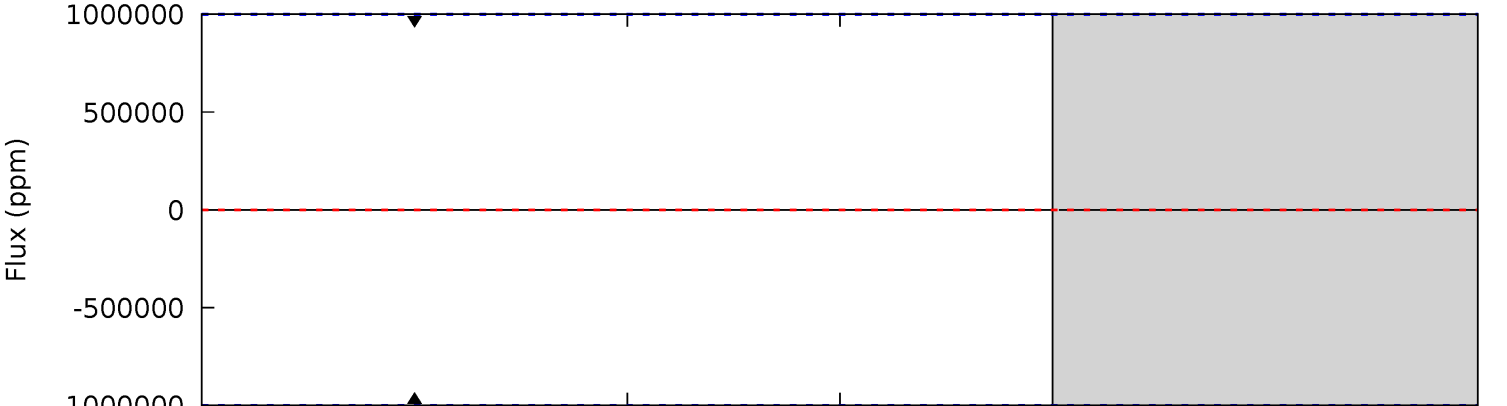
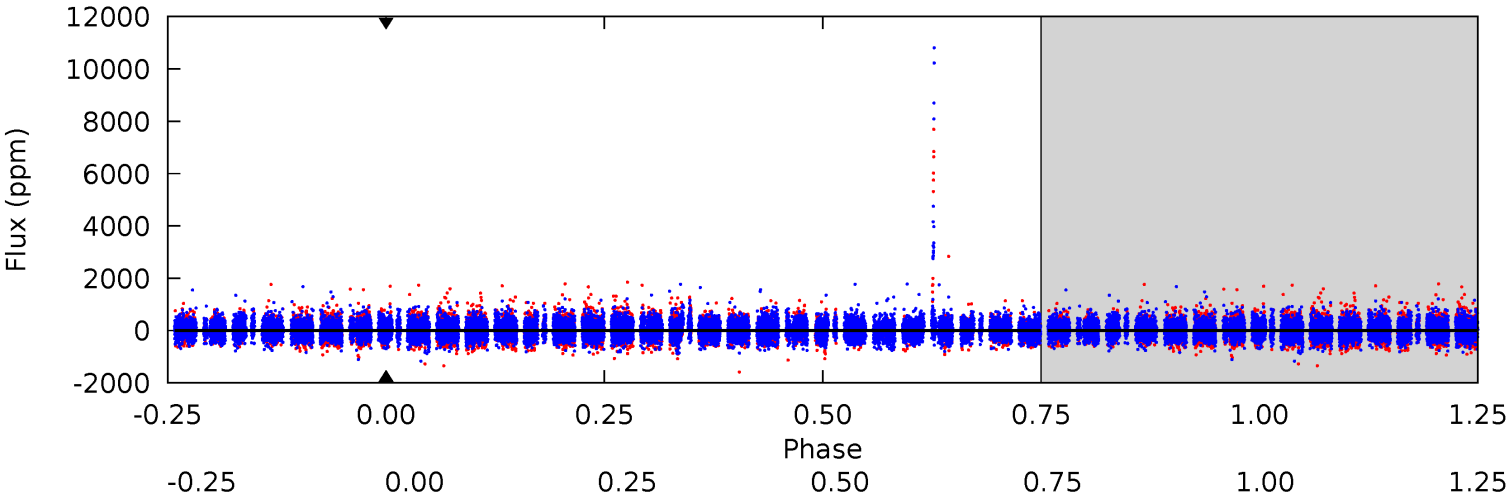
TCE 010352603-05 $P=196.598092$ Days $T_0=134.766532$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-05, P = 196.598092 Days, E = 134.535161 Days

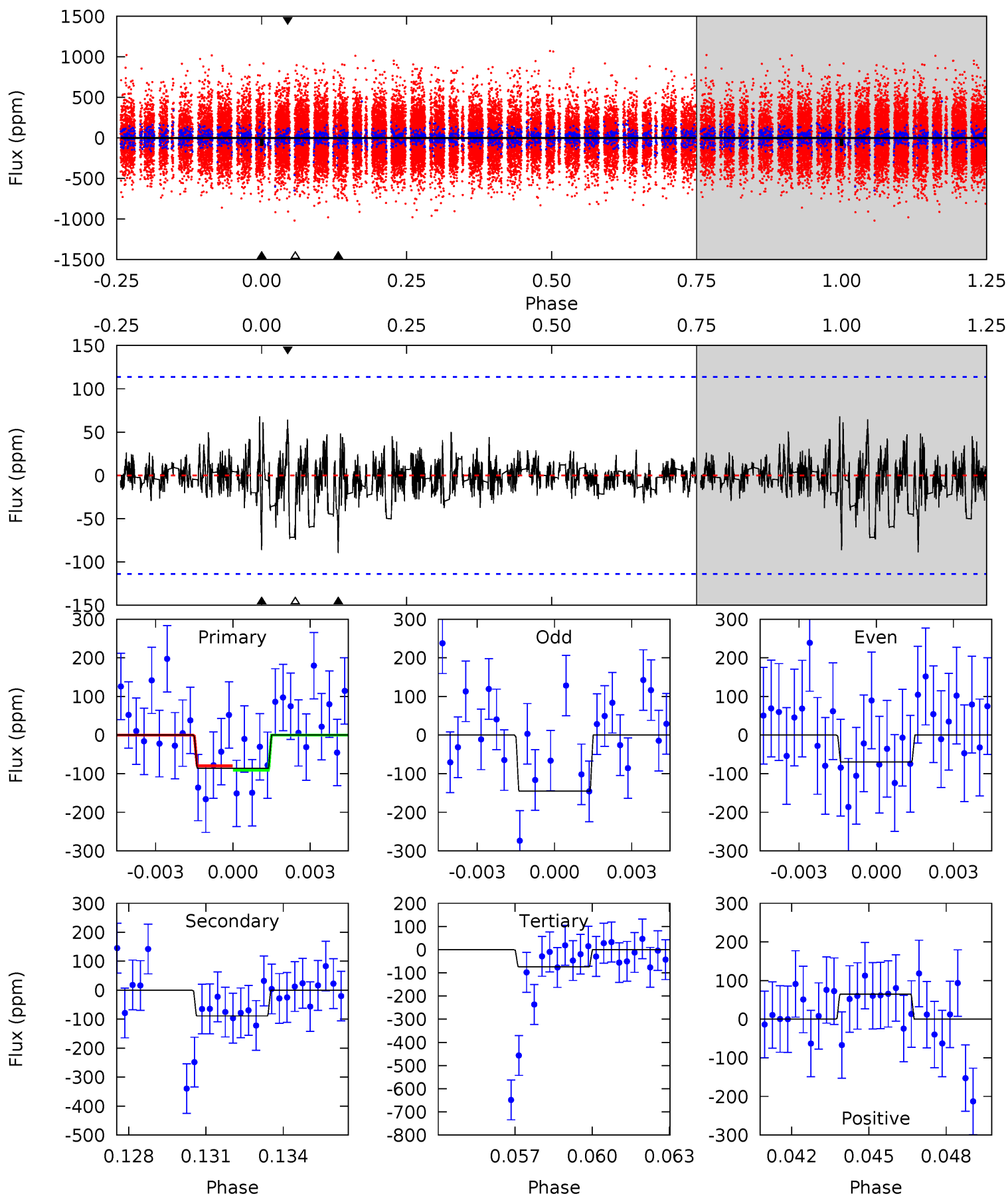
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010352603-05, P = 196.598092 Days, E = 134.766532 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.99	4.10	3.40	2.98	5.25	2.97	0.71	0.58	1.01	0.70	1.12	1.42	0.93	0.43	0.26



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$11.61^{+9.45}_{-7.53}$	461^{+32}_{-22}	4679^{+11974}_{-20517}	$5871^{+310883}_{-305159}$
Alt.	-89 ± 22	$8.39^{+8.01}_{-5.98}$	461^{+29}_{-21}	2864^{+1390}_{-454}	306^{+3340}_{-228}

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

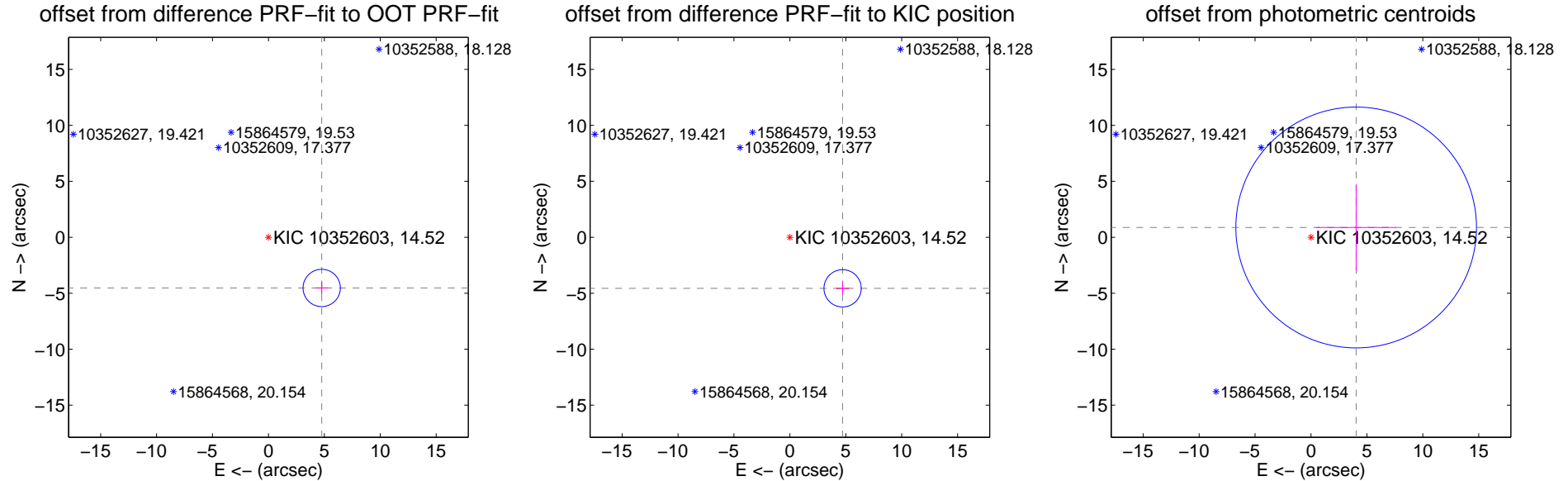
DV Centroid Data

Supplemental centroid analysis for 010352603-05. Kepler magnitude: 14.52. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

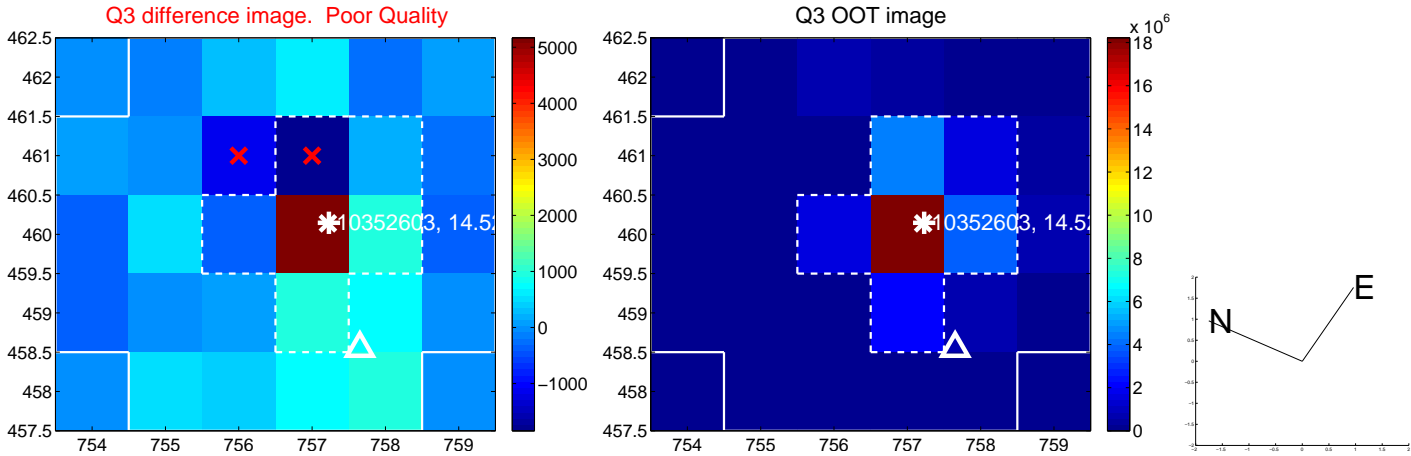
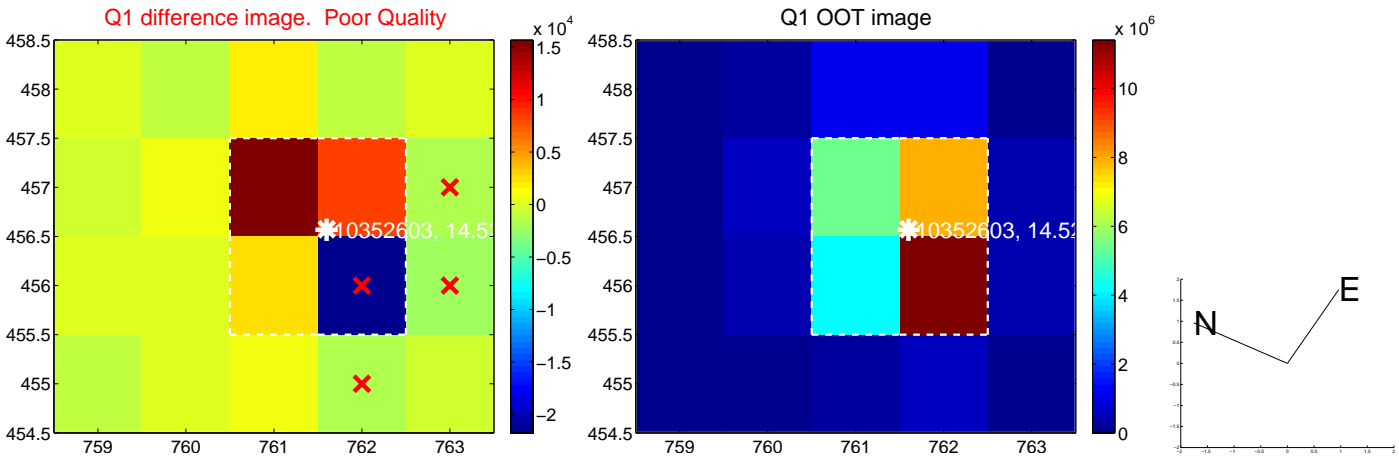
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.571 ± 0.556	11.83	-4.763 ± 0.572	-4.526 ± 0.537
PRF-fit source offset from KIC position	6.560 ± 0.555	11.81	-4.714 ± 0.572	-4.562 ± 0.537
photometric centroid source offset	4.13 ± 3.59	1.15	-4.04 ± 3.57	0.87 ± 3.84

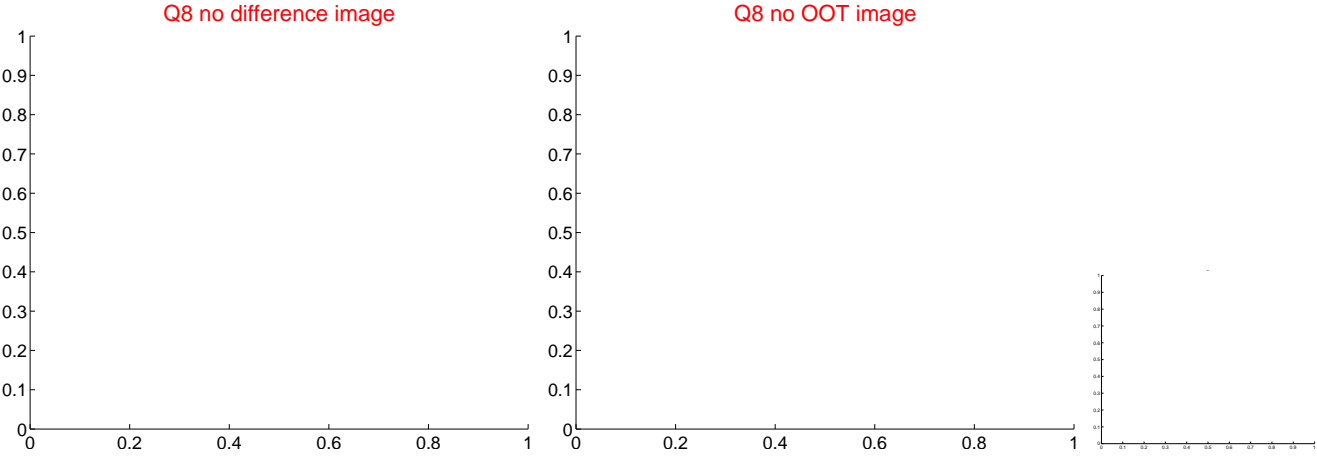
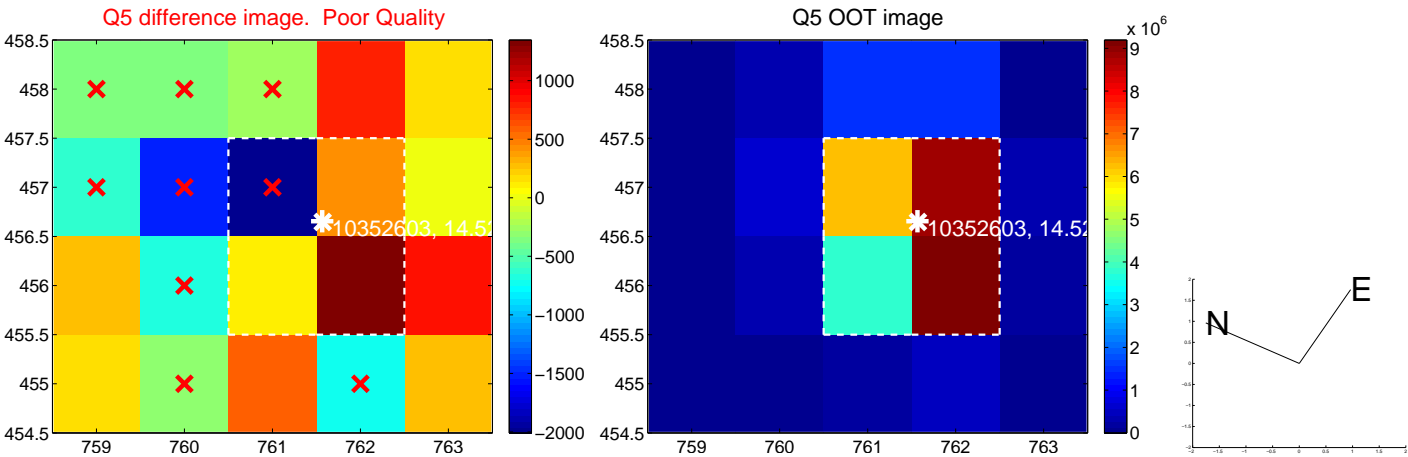


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

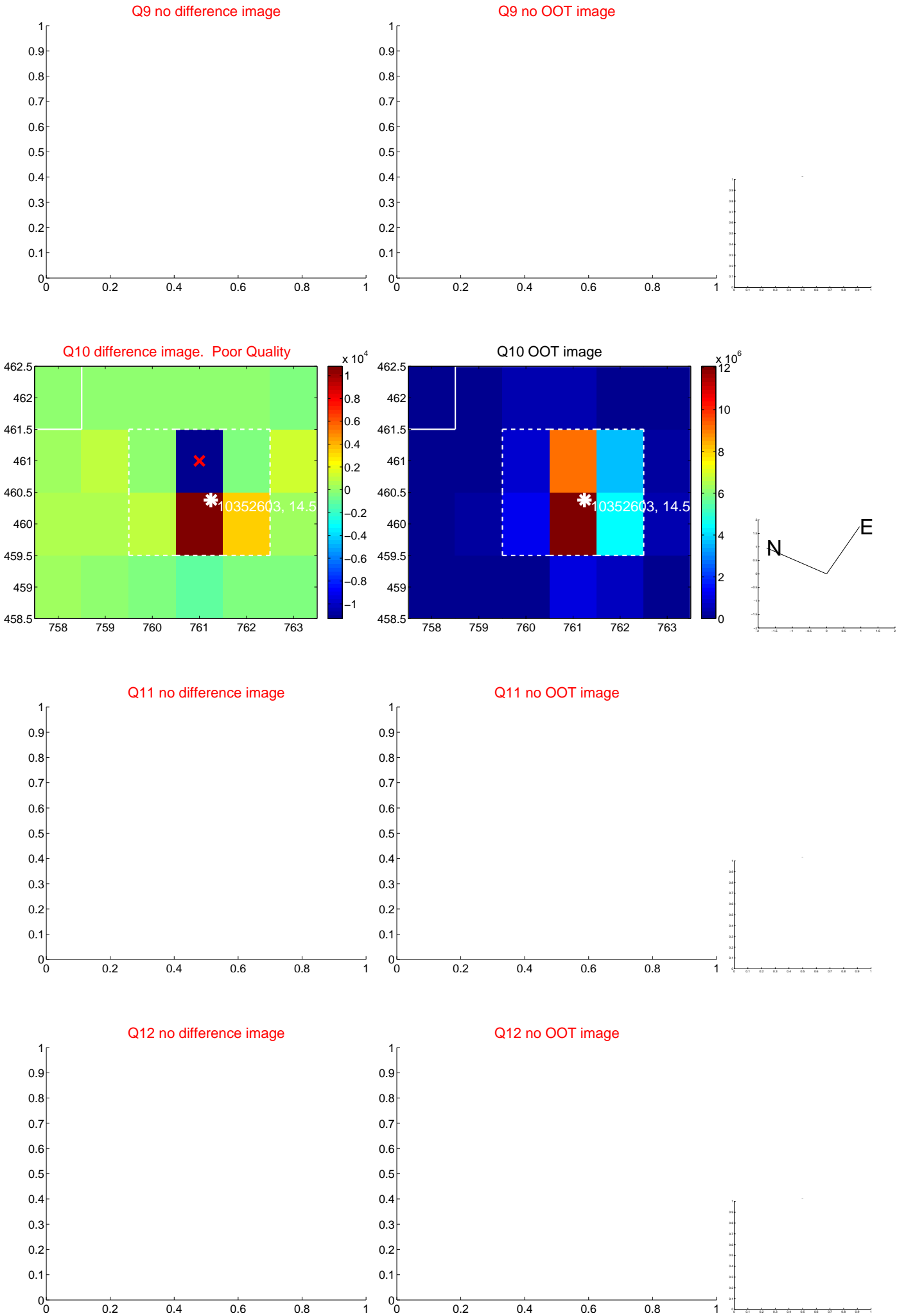
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



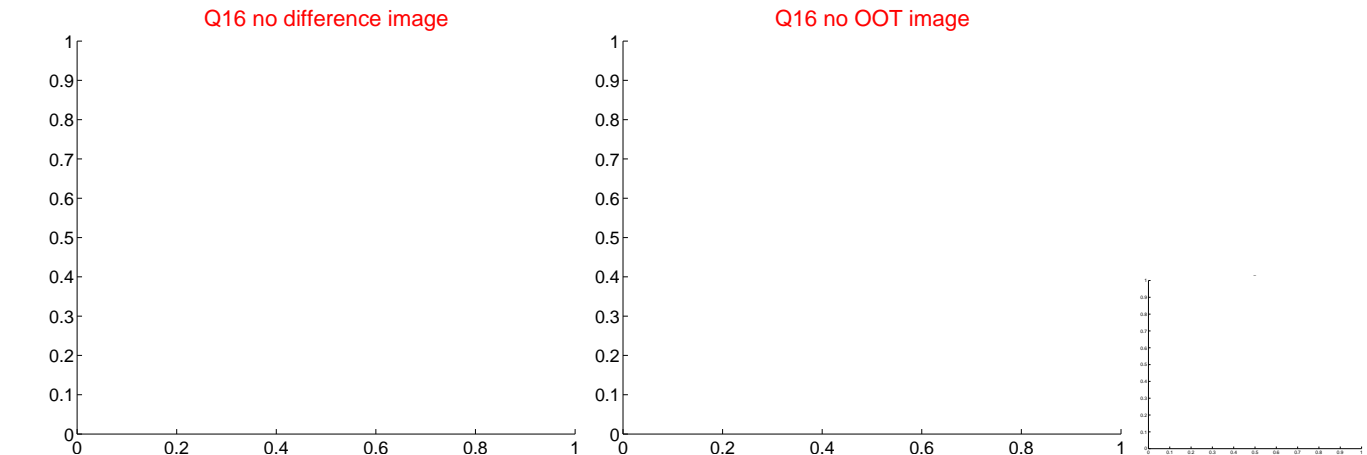
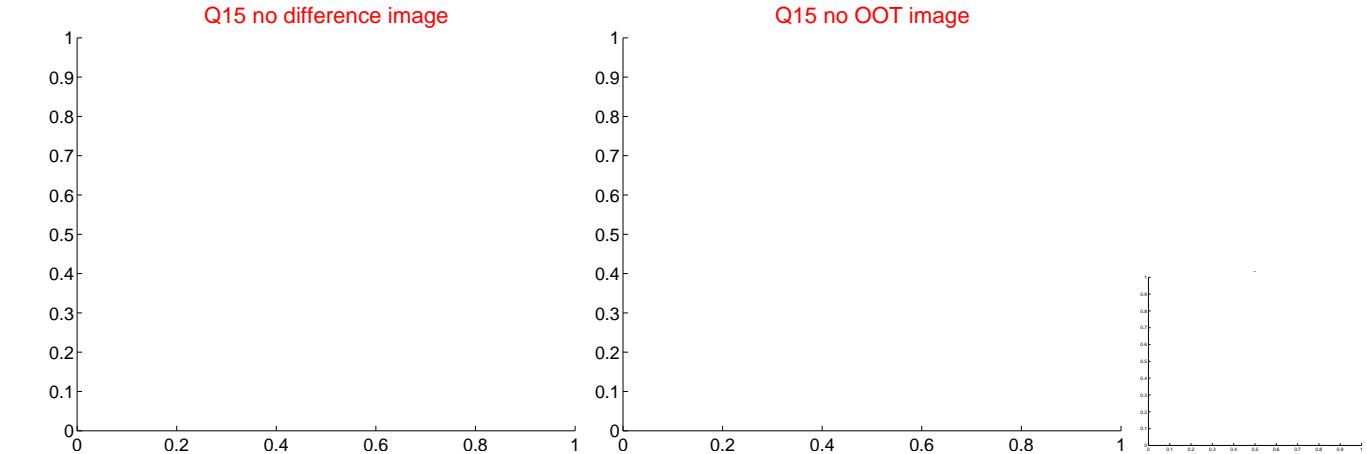
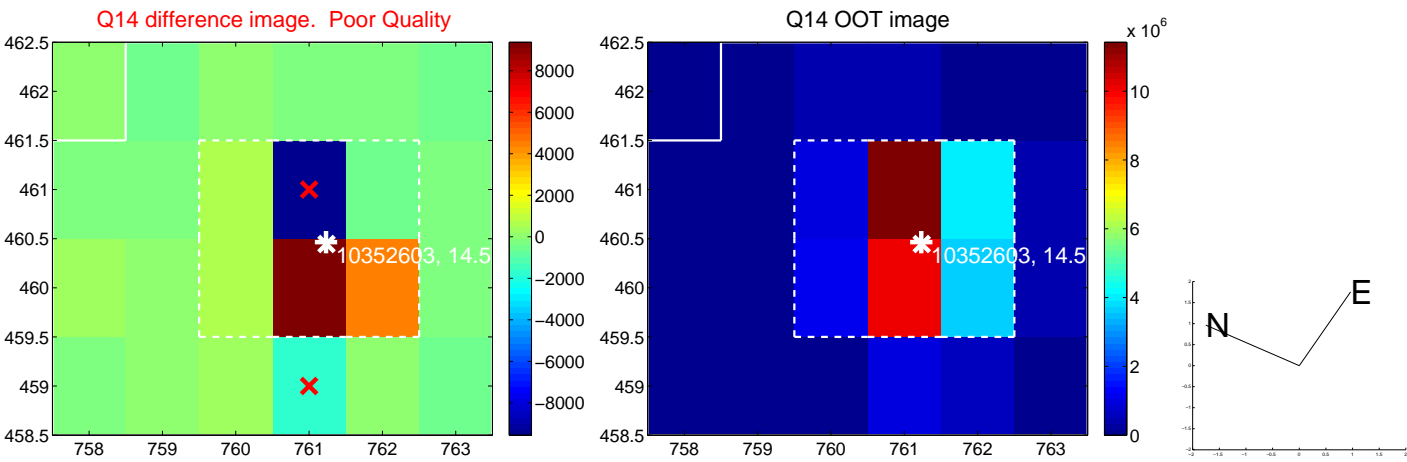
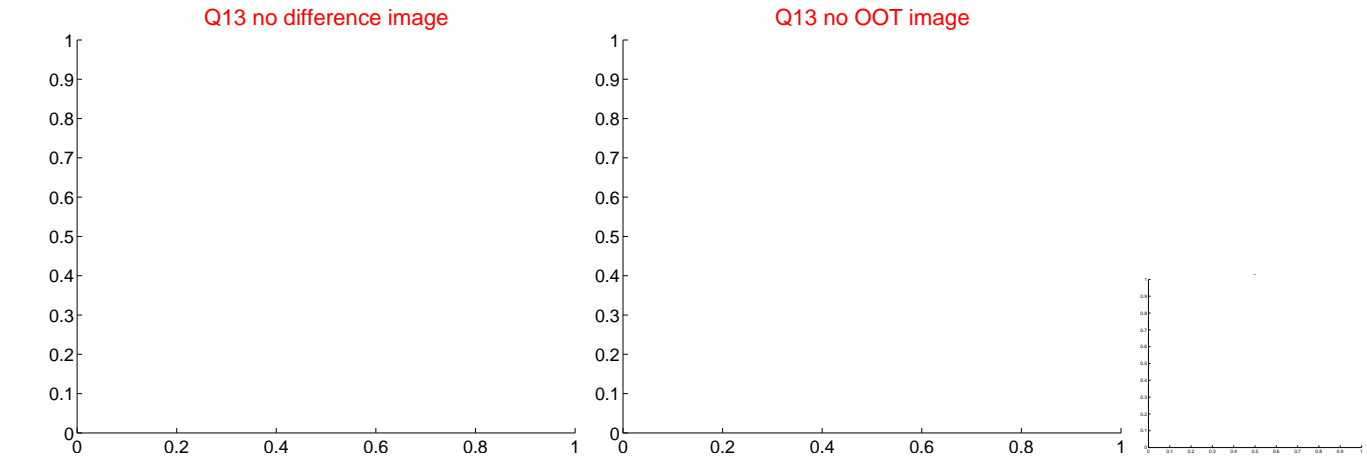
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



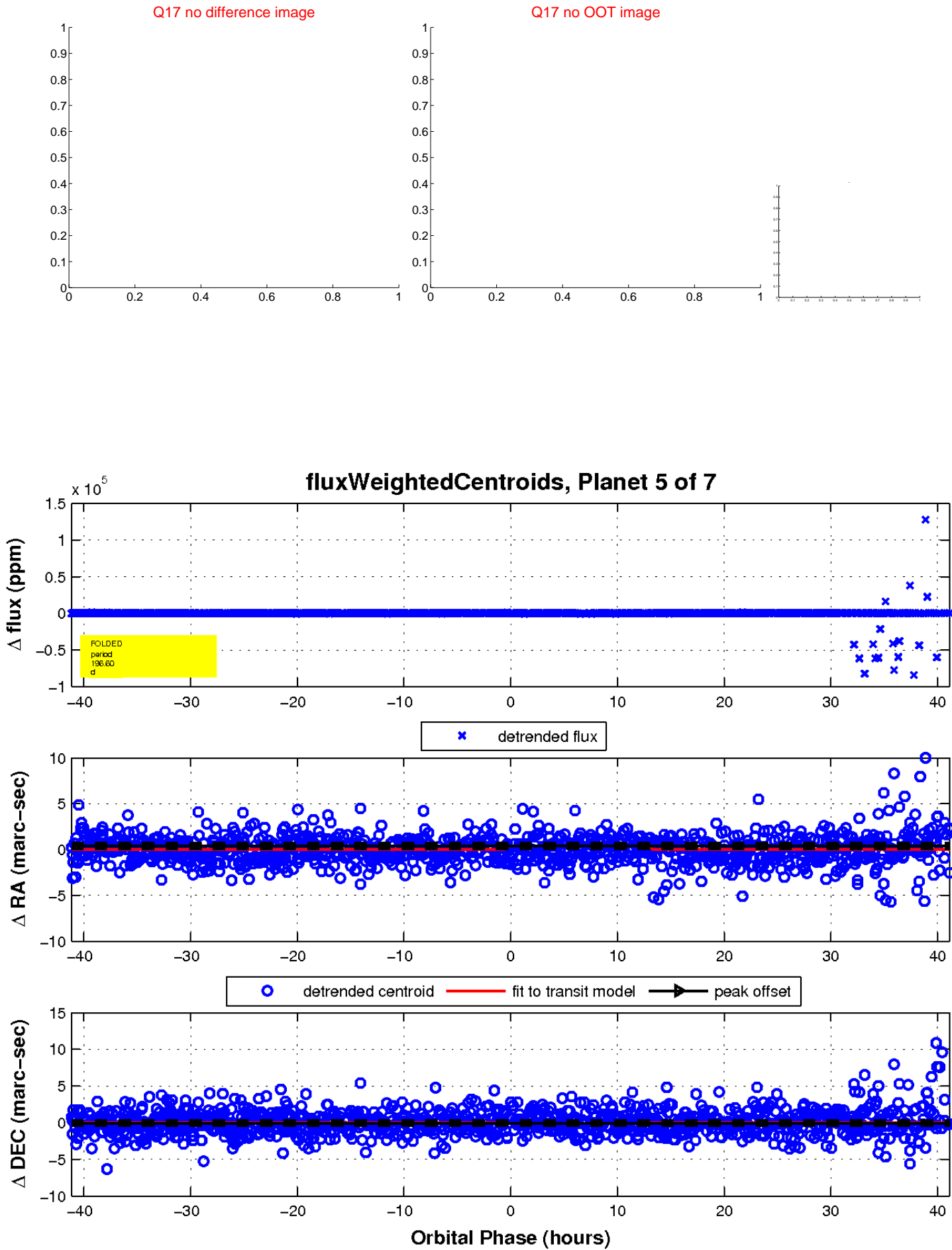
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

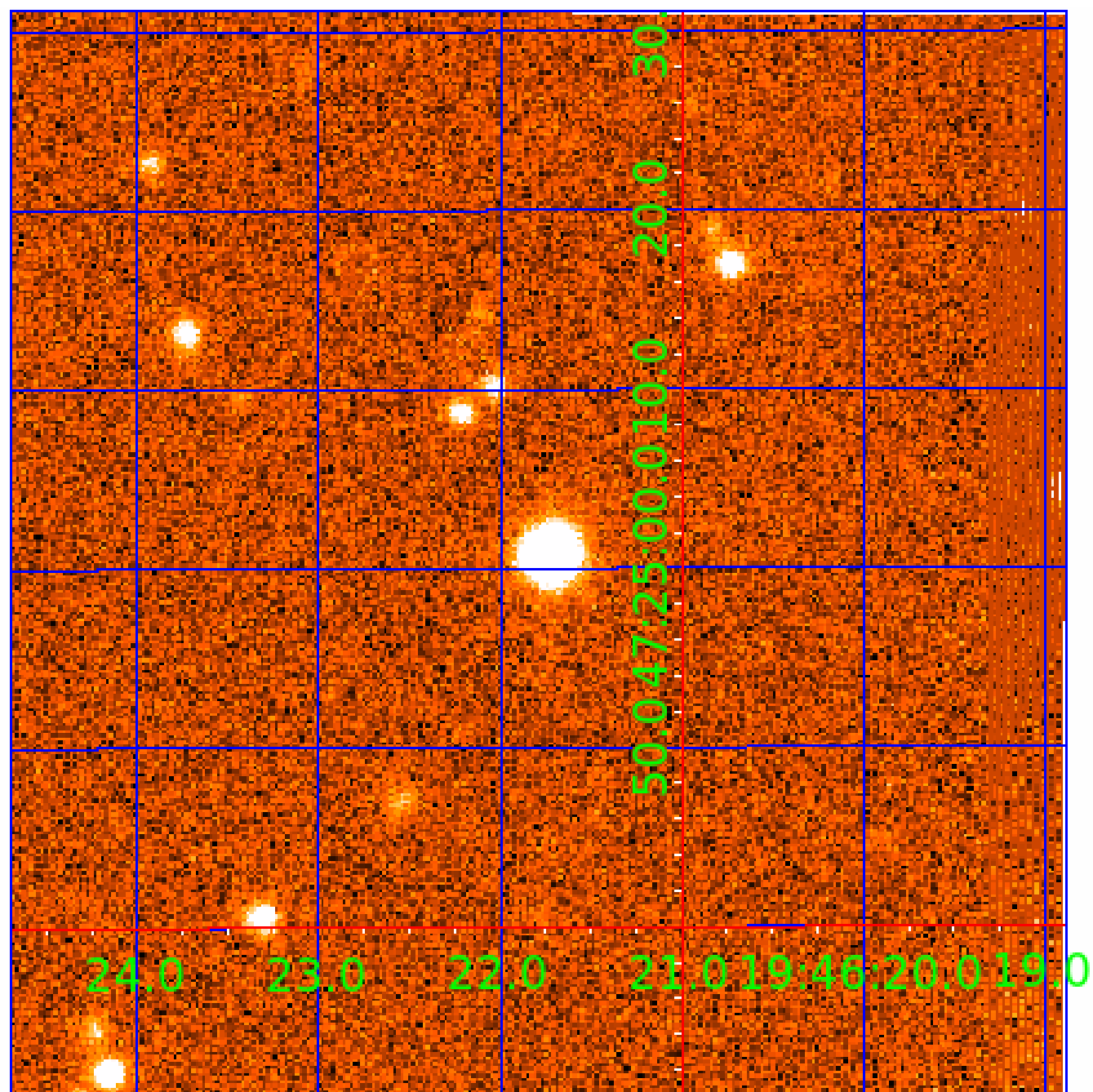


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010352603

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})
010352603-01	OBS	7317.01	32.779667	136.166440	425270.2	12.000	25656.4	-1.0	0.96	6122	52.60	28.34
010352603-02	OBS	No	32.778630	159.978348	463769.4	6.000	21892.3	-1.0	0.96	6122	52.60	28.34
010352603-03	OBS	No	6.555019	131.817497	6146.0	15.000	205.5	-1.0	0.96	6122	7.56	242.34
010352603-04	OBS	No	294.976825	331.094575	11484.0	3.000	148.0	-1.0	0.96	6122	10.34	1.51
010352603-05	OBS	No	196.598092	134.535161	6430.1	12.500	134.2	-1.0	0.96	6122	7.73	2.60
010352603-06	OBS	No	46.405212	176.342518	361.5	5.771	201.2	10.5	0.96	6122	1.98	17.83
010352603-07	OBS	No	32.782704	140.338292	2001.2	15.000	131.6	-1.0	0.96	6122	4.31	28.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010352603-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
010352603-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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.

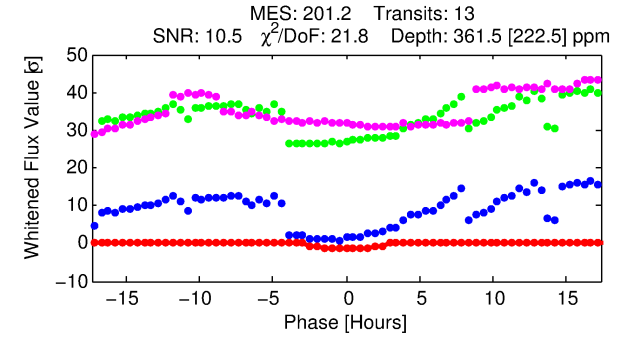
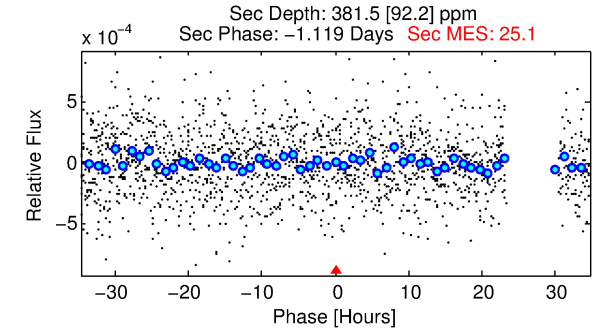
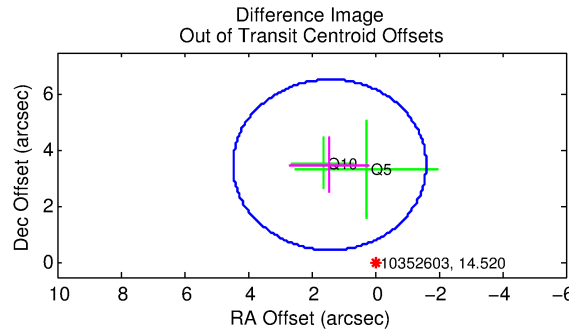
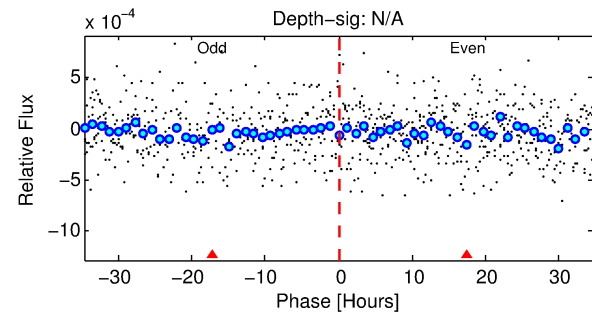
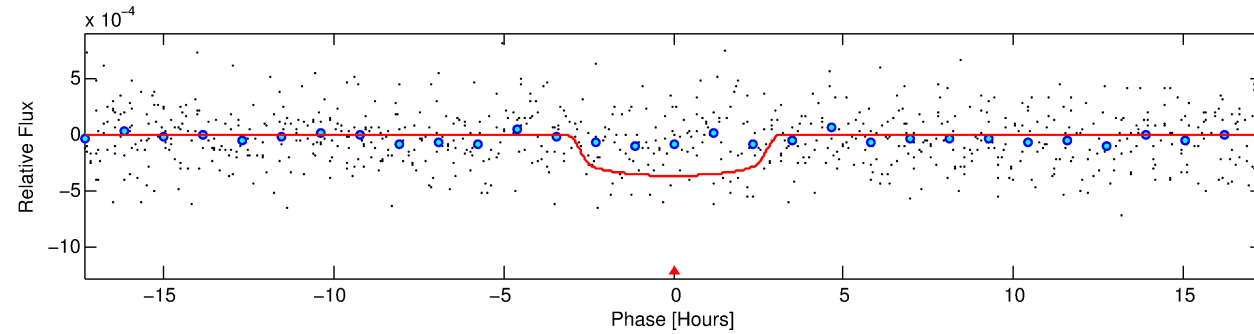
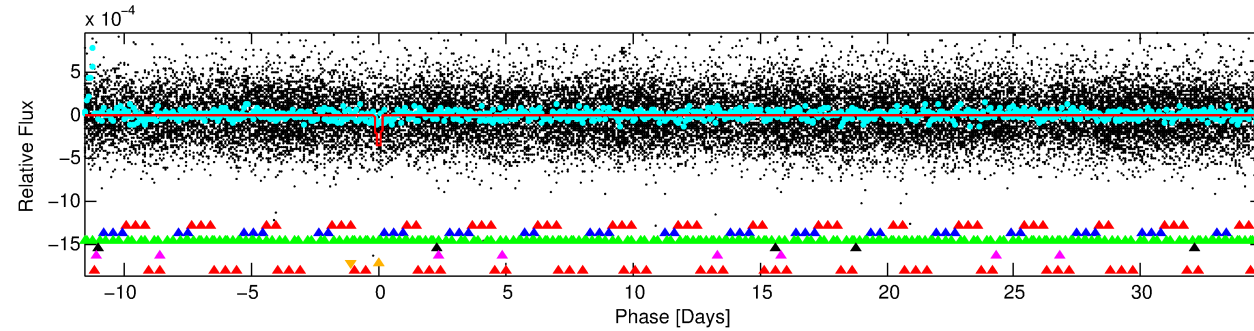
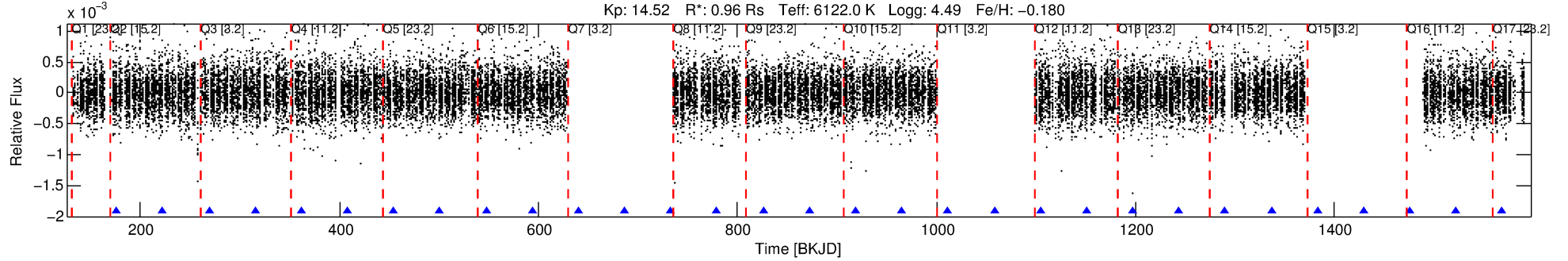
Ephemeris Match Information For 010352603-06

No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 6 of 7 Period: 46.405 d
KOI: K07317 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



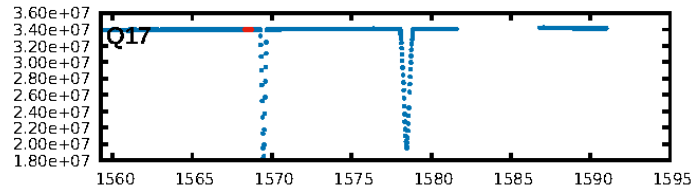
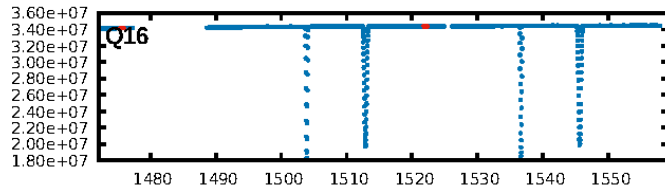
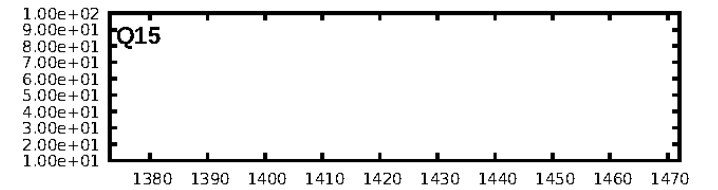
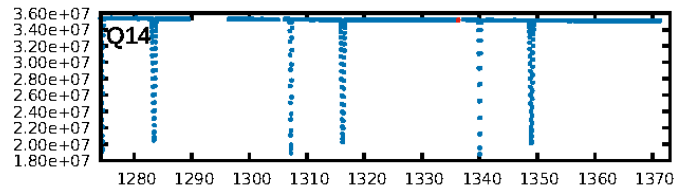
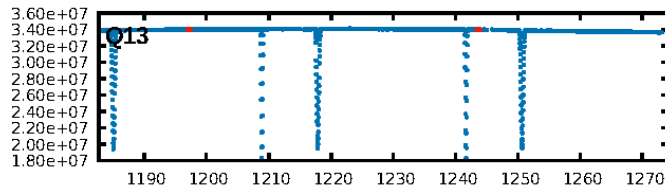
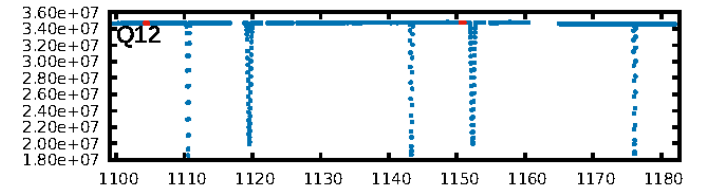
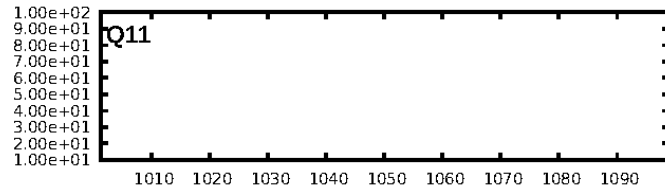
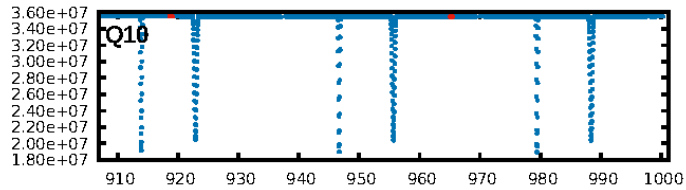
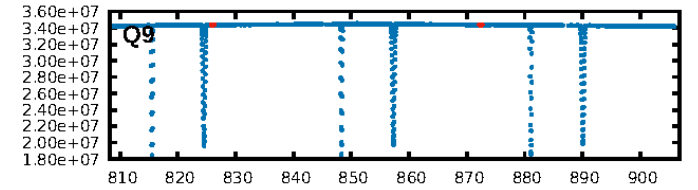
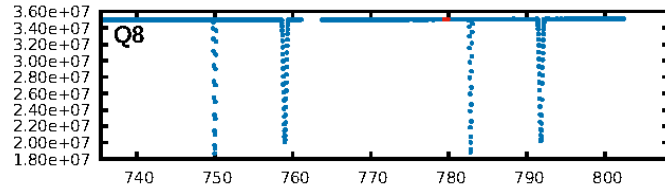
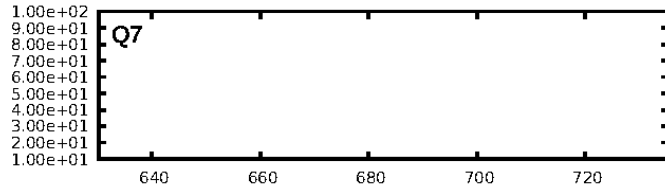
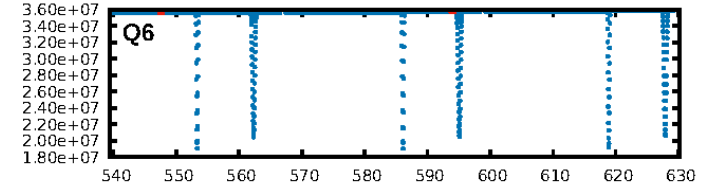
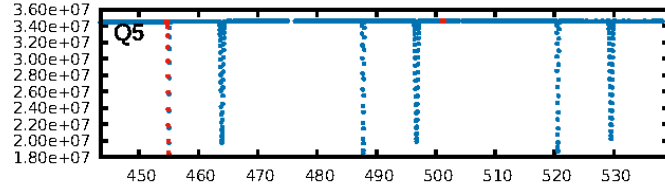
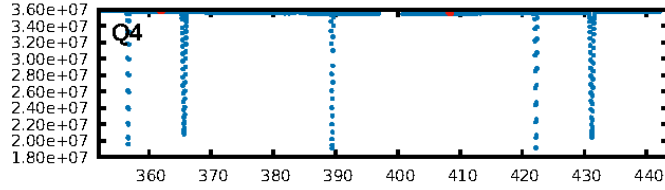
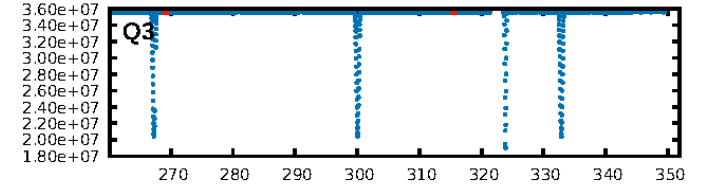
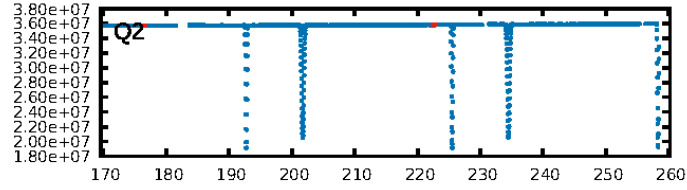
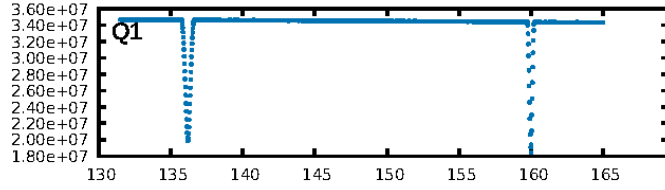
DV Fit Results:

Period = 46.40521 [0.00346] d
Epoch = 176.3425 [0.0635] BKJD
Rp/R* = 0.0188 [0.0712]
a/R* = 43.71 [832.07]
b = 0.73 [12.32]
Seff = 17.83 [6.86]
Teq = 524 [50] K
Rp = 1.98 [7.51] Re
a = 0.2561 [0.0637] AU
Ag = 3525.60 [26749.20] [0.13σ]
Teff = 6242 [11828] K [0.48σ]

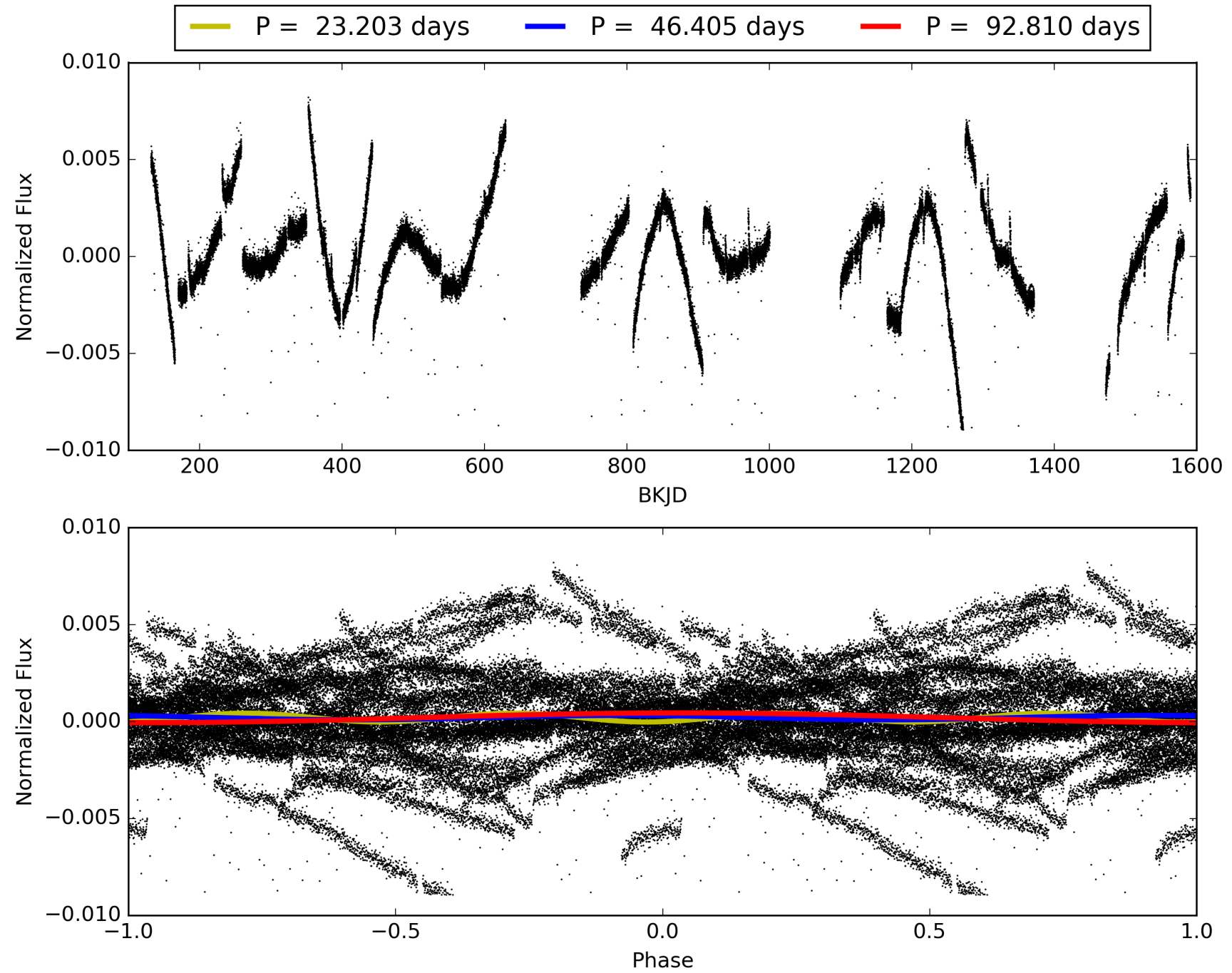
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [20.34σ]
LongPeriod-sig: 100.0% [261.82σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -2.86
Centroid-sig: 3.6%
Centroid-so: 1.708 arcsec [2.18σ]
OotOffset-rm: 3.775 arcsec [3.73σ]
KicOffset-rm: 3.860 arcsec [3.81σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.83 [10/12]

TCE 010352603-06, PDC Light Curves

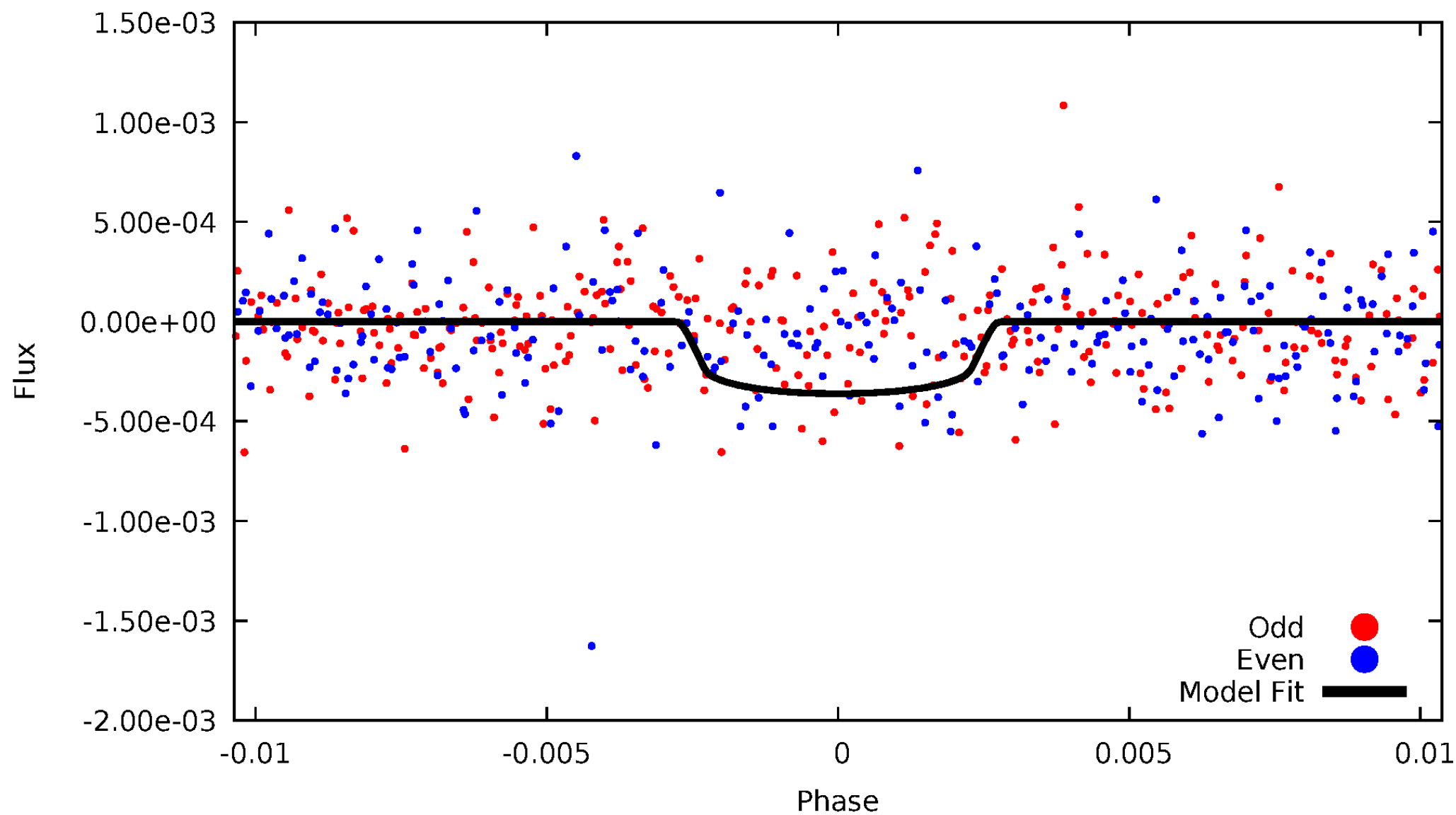


TCE 010352603-06



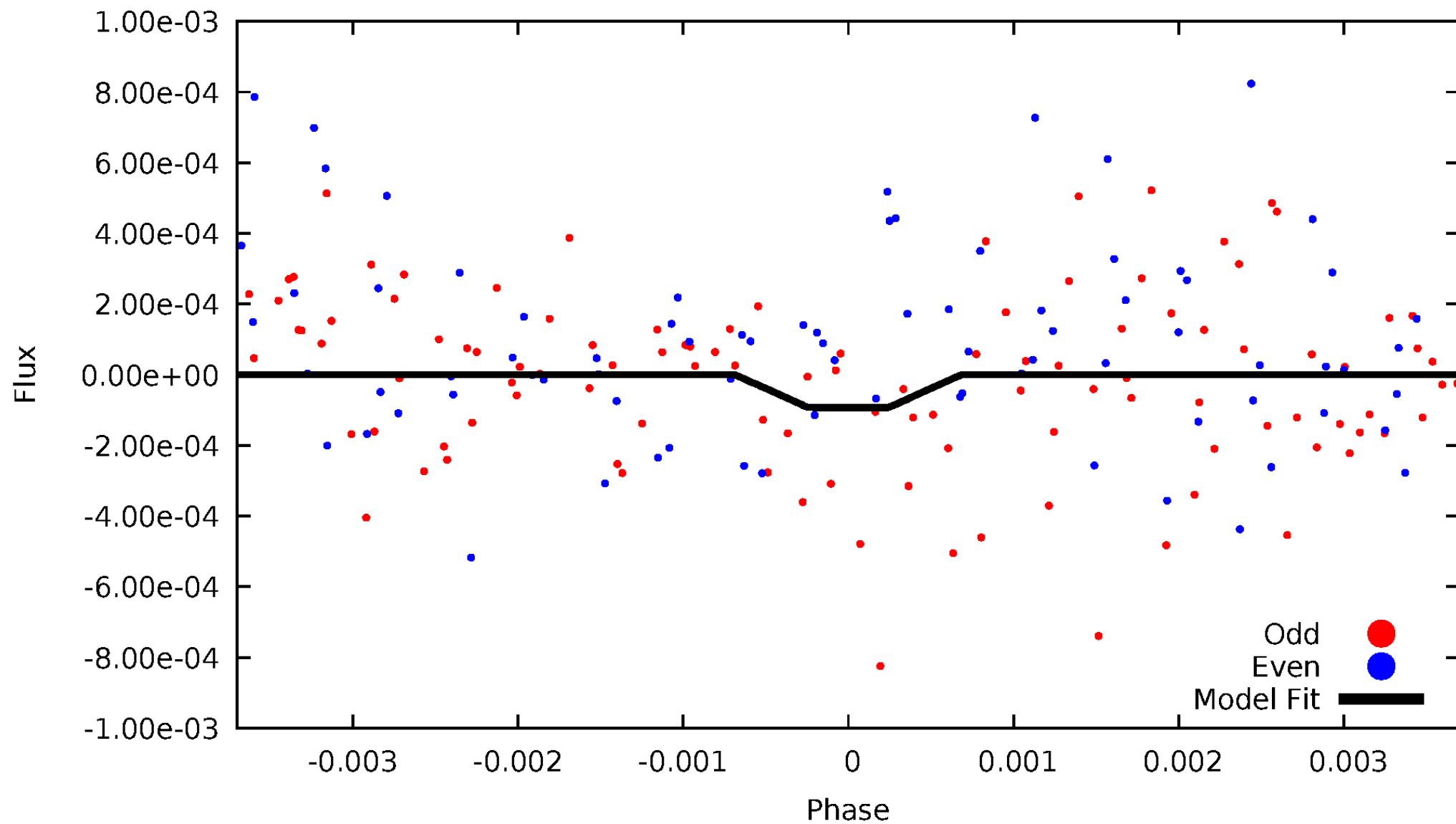
DV Odd/Even

TCE 010352603-06



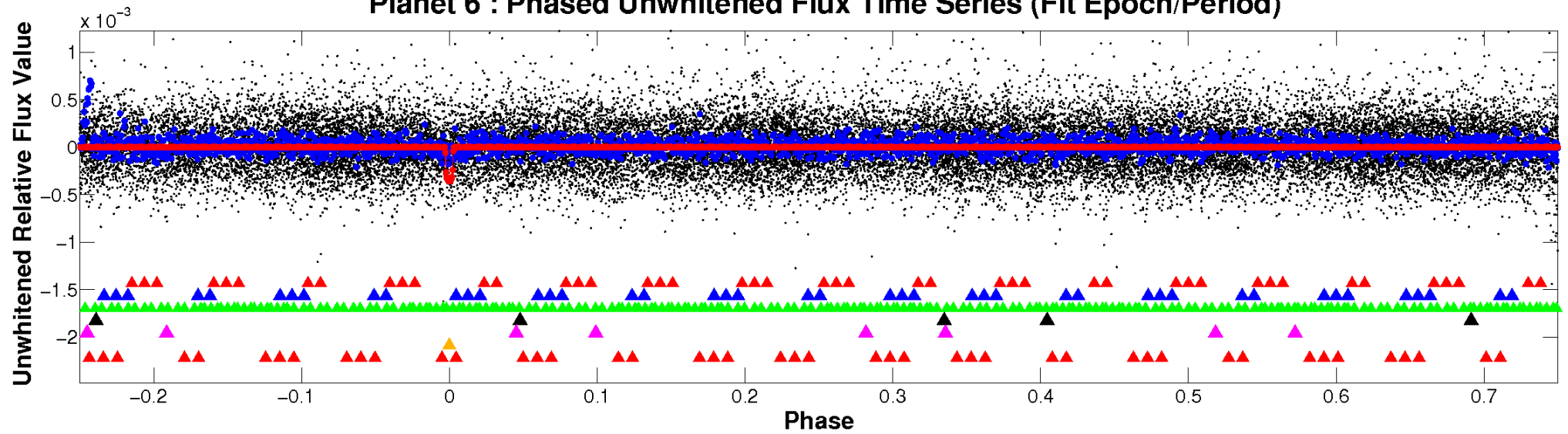
ALT Odd/Even

TCE 010352603-06

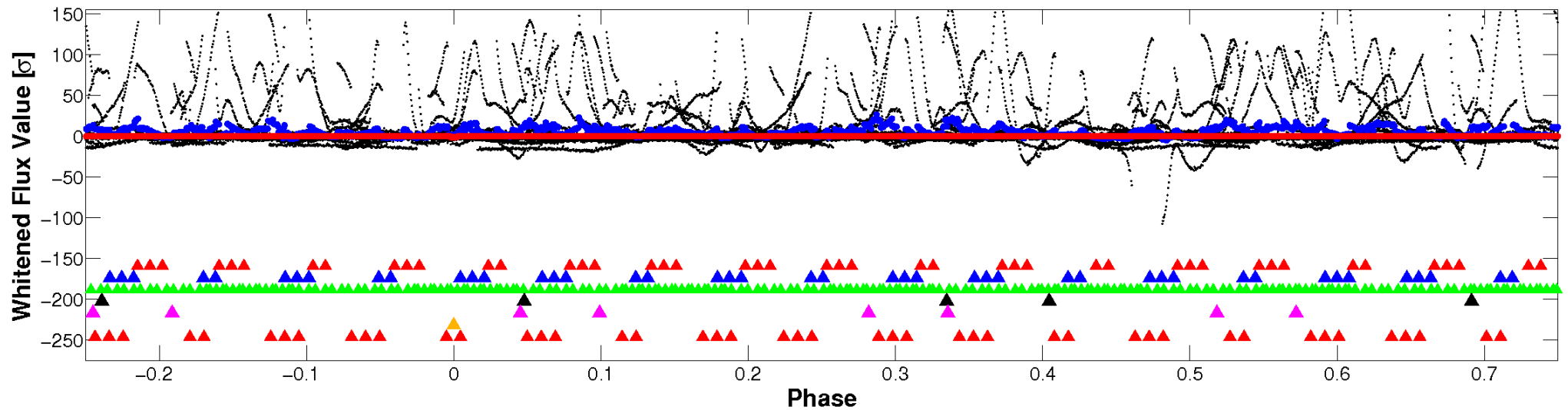


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

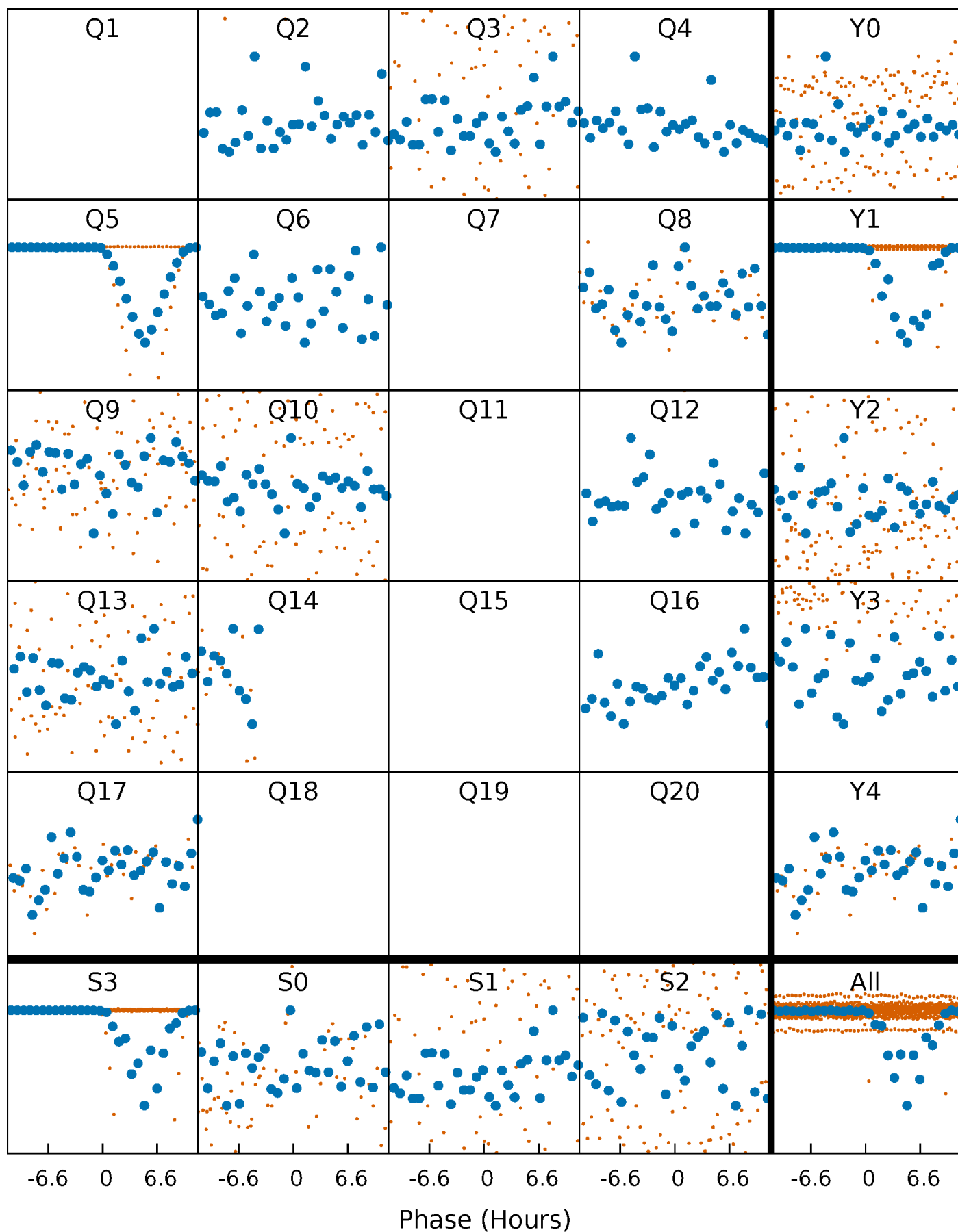


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



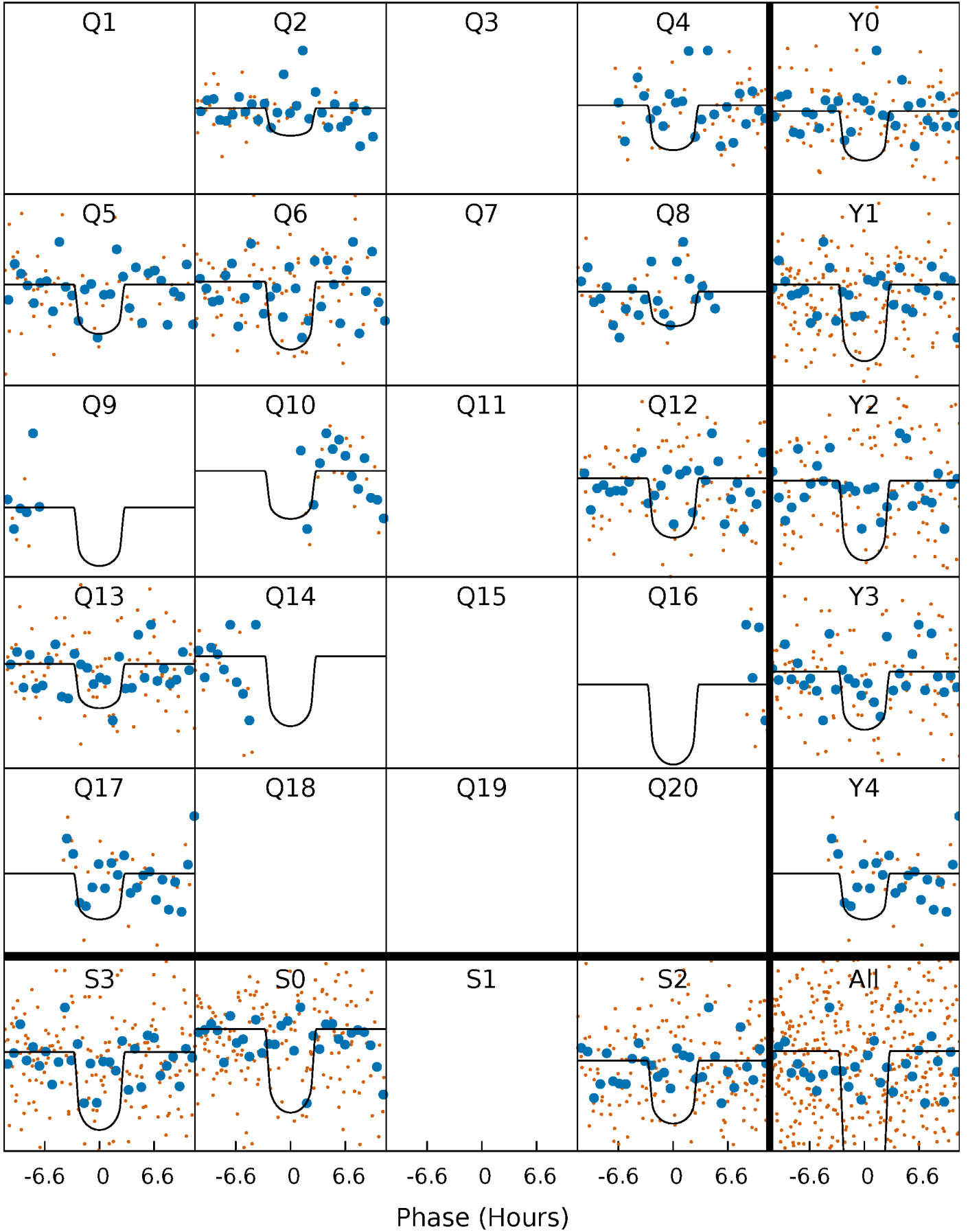
PDC Quarter-Phased Transit Curves

TCE 010352603-06 $P = 46.405212$ Days $T_0 = 176.342518$ (BKJD)



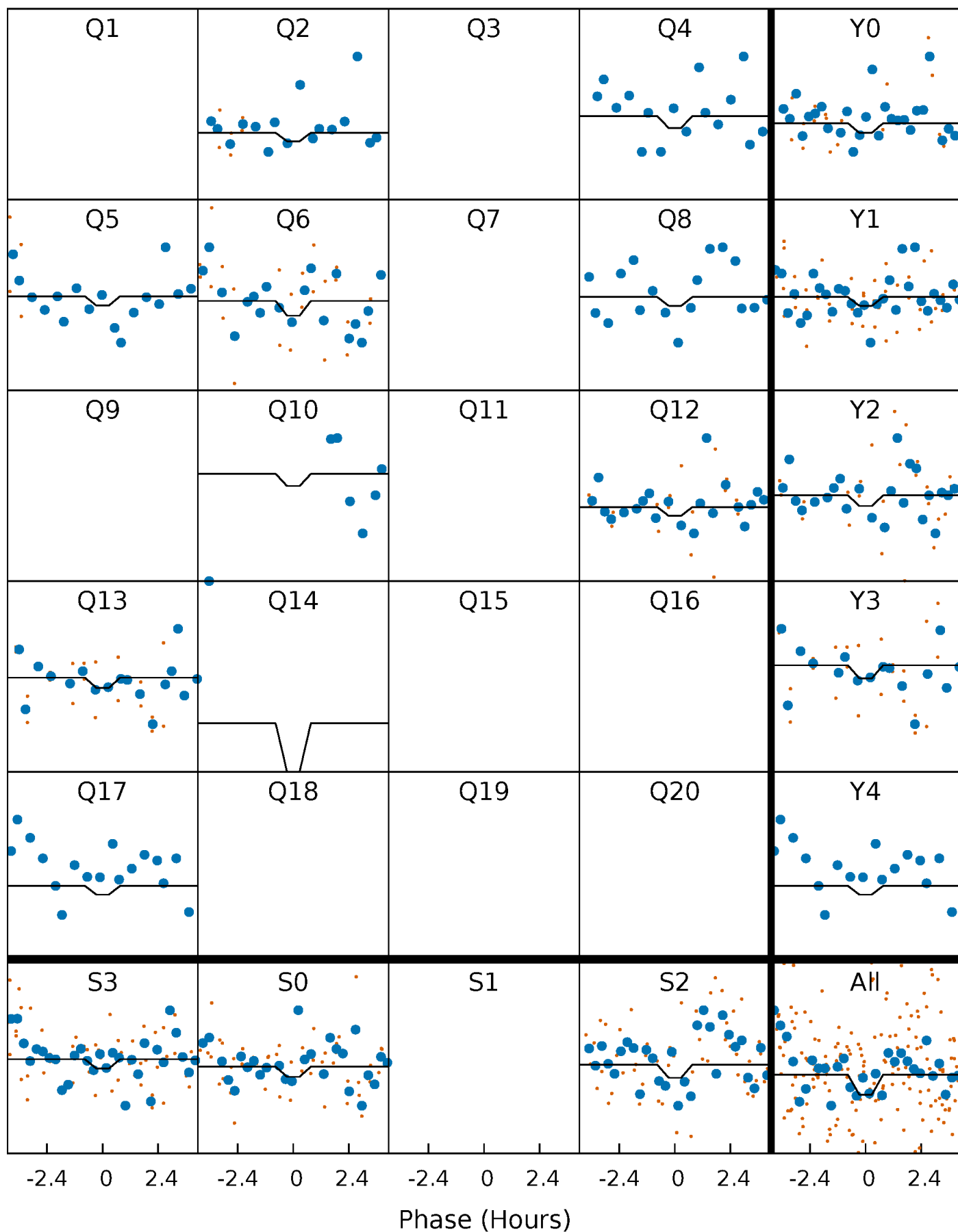
DV Quarter-Phased Transit Curves

TCE 010352603-06 $P = 46.405212$ Days $T_0 = 176.342518$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

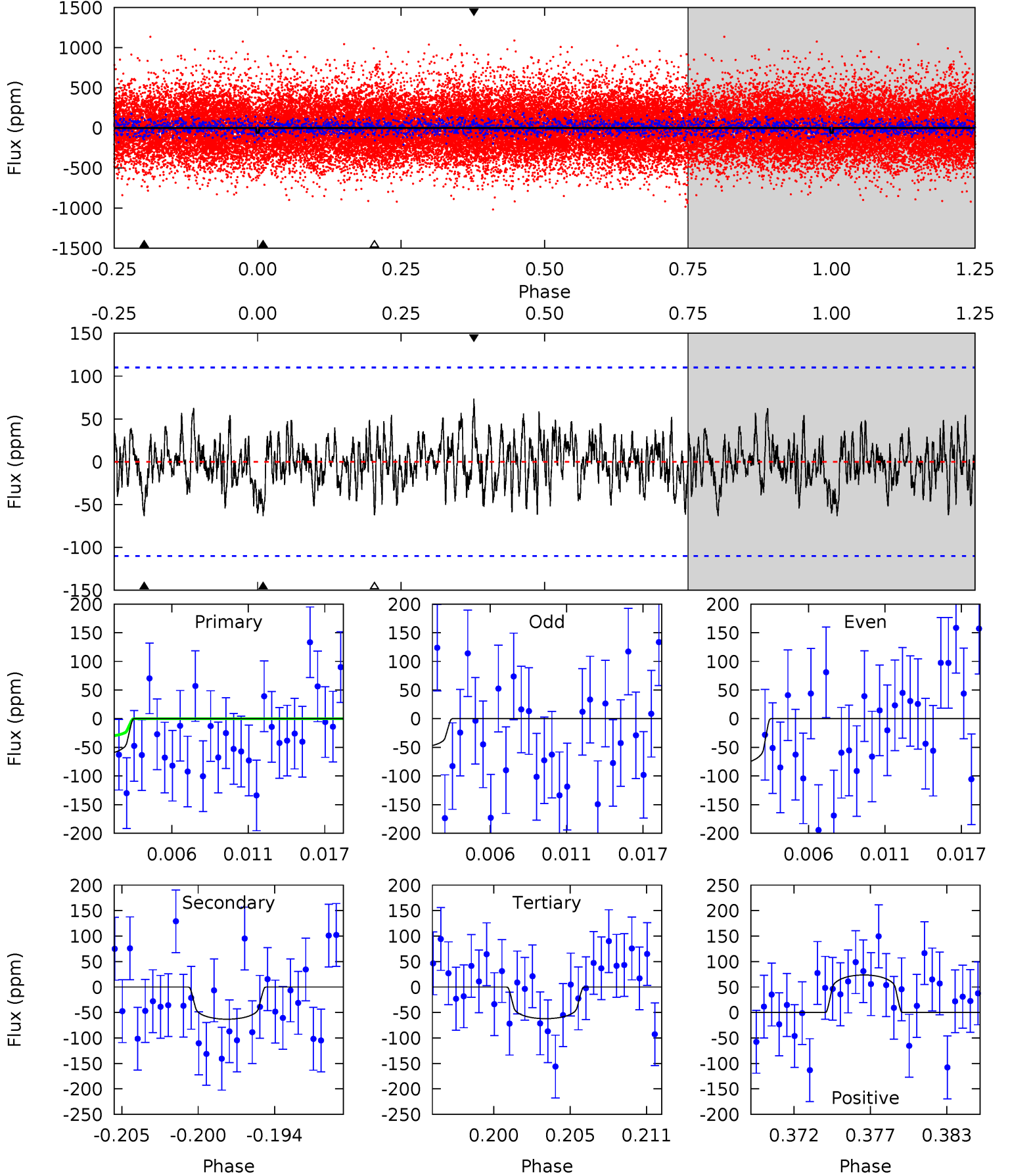
TCE 010352603-06 P= 46.406557 Days $T_0=176.292804$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-06, $P = 46.405212$ Days, $E = 129.937306$ Days

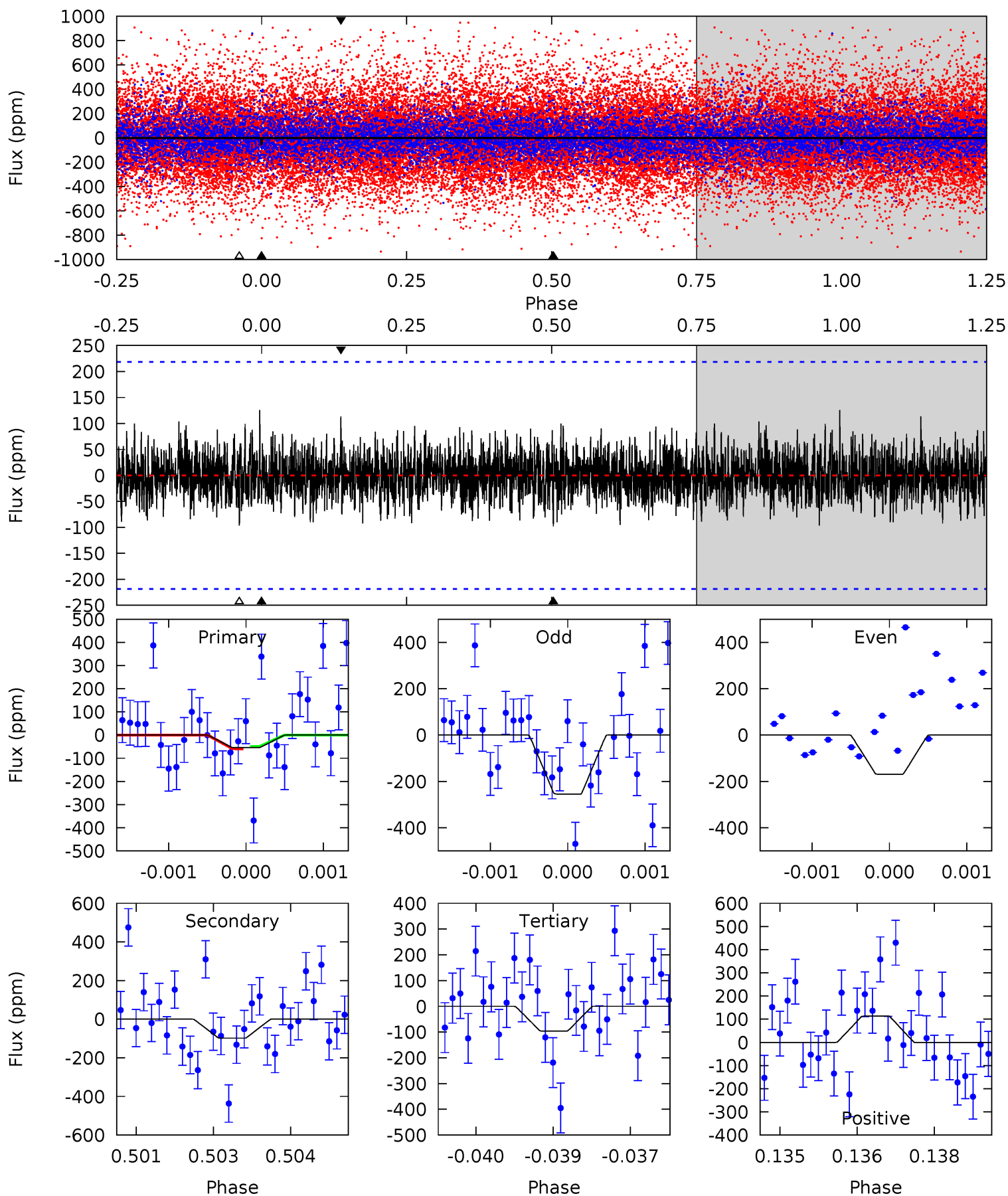
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.95	2.95	2.90	3.44	5.14	2.77	1.07	0.05	-0.49	0.05	-0.49	0.69	1.02	0.54	1.51



Alt Model-Shift Uniqueness Test

010352603-06, $P = 46.406557$ Days, $E = 129.886247$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.34	2.42	2.38	2.80	5.39	3.20	0.80	-1.04	-1.46	0.04	-0.38	1.05	0.69	0.56	0.12



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-63 ± 21	$6.23^{+6.57}_{-4.33}$	747^{+50}_{-35}	2929^{+1397}_{-517}	53^{+536}_{-41}
Alt.	-98 ± 41	$5.81^{+6.46}_{-3.94}$	745^{+51}_{-35}	3194^{+1587}_{-629}	100^{+836}_{-81}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

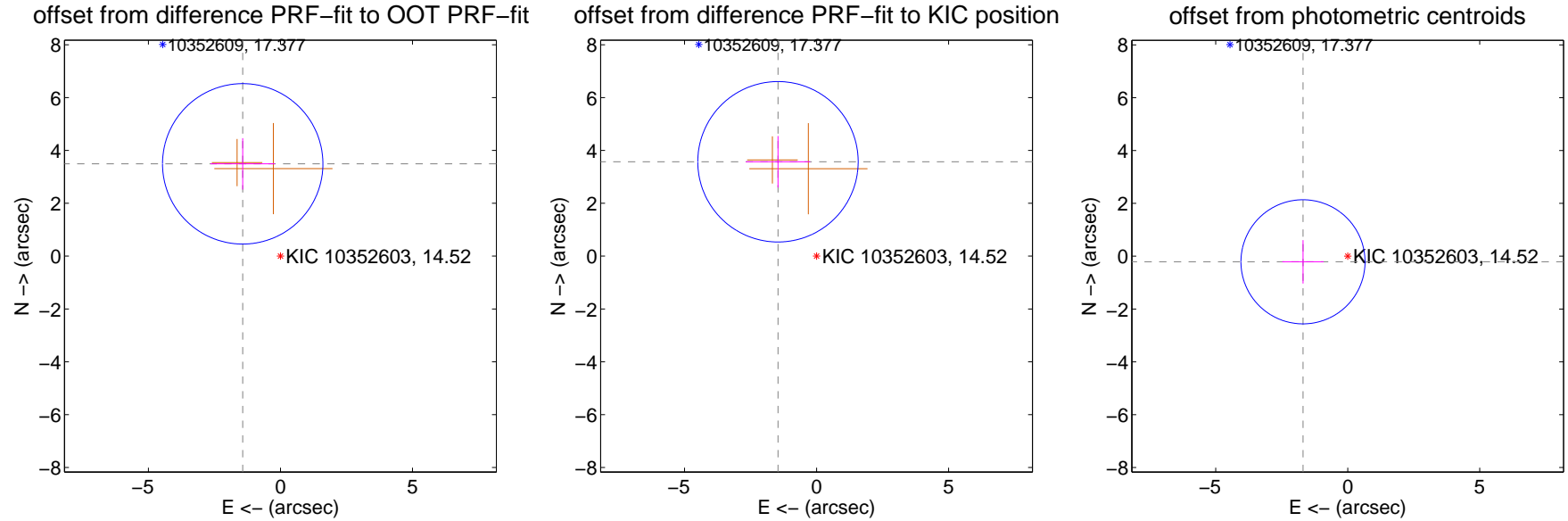
DV Centroid Data

Supplemental centroid analysis for 010352603-06. Kepler magnitude: 14.52. Transit SNR 10.47

There are 0 quarters with good PRF difference image offsets

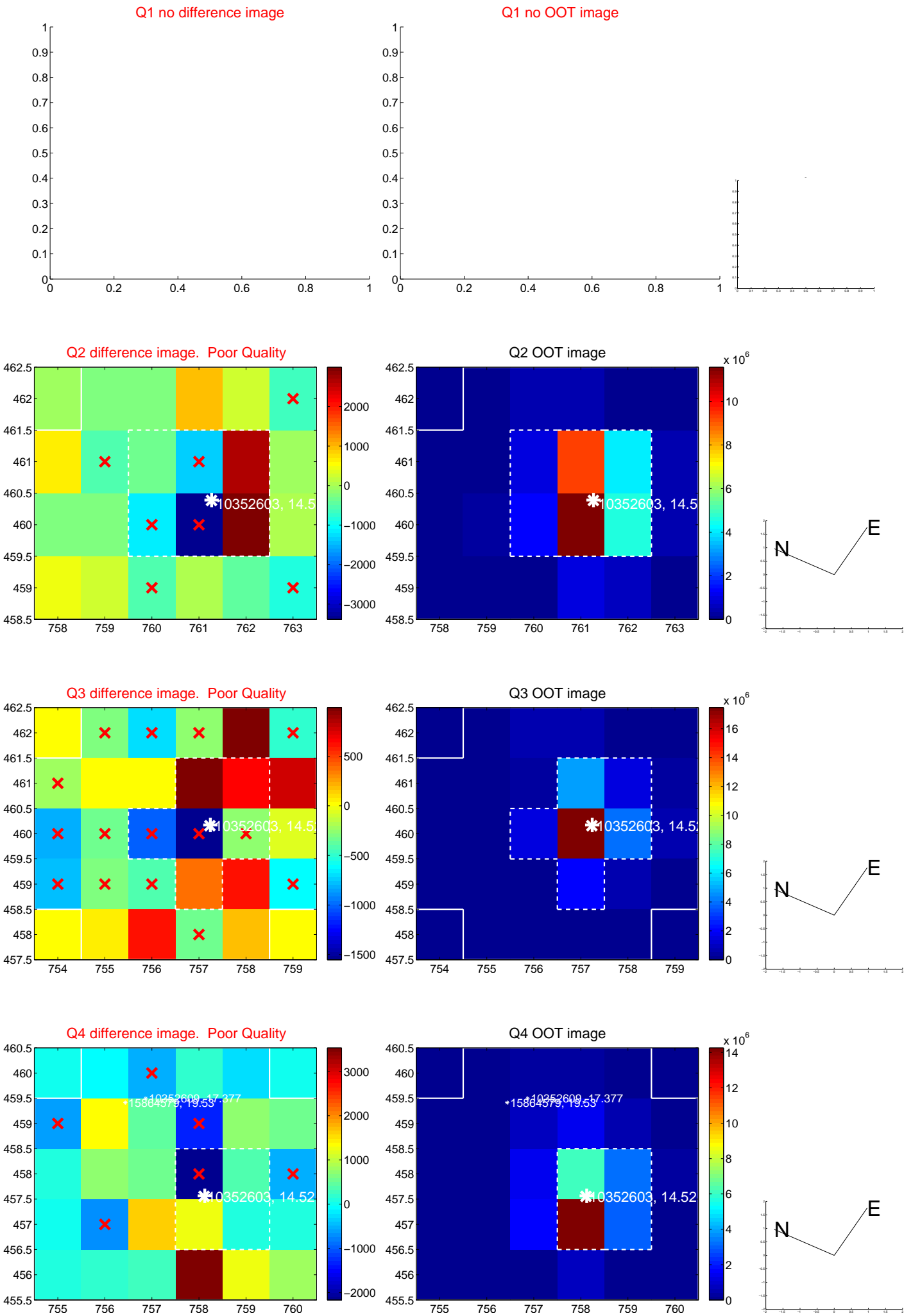
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.775 ± 1.012	3.73	1.429 ± 1.219	3.494 ± 0.974
PRF-fit source offset from KIC position	3.860 ± 1.012	3.81	1.462 ± 1.219	3.572 ± 0.974
photometric centroid source offset	1.71 ± 0.78	2.18	1.69 ± 0.78	-0.21 ± 0.82

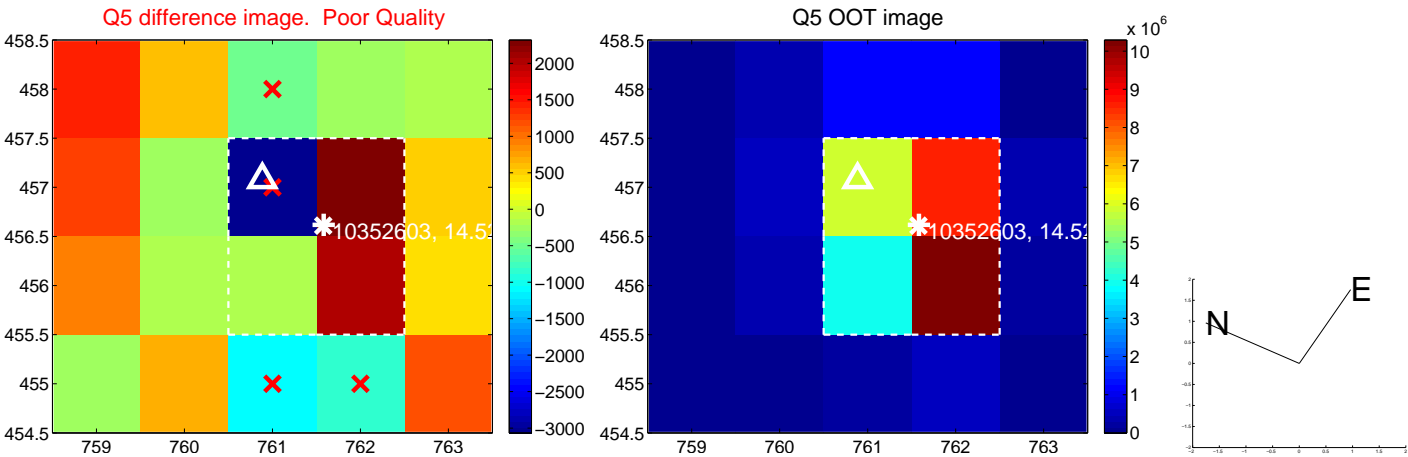


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

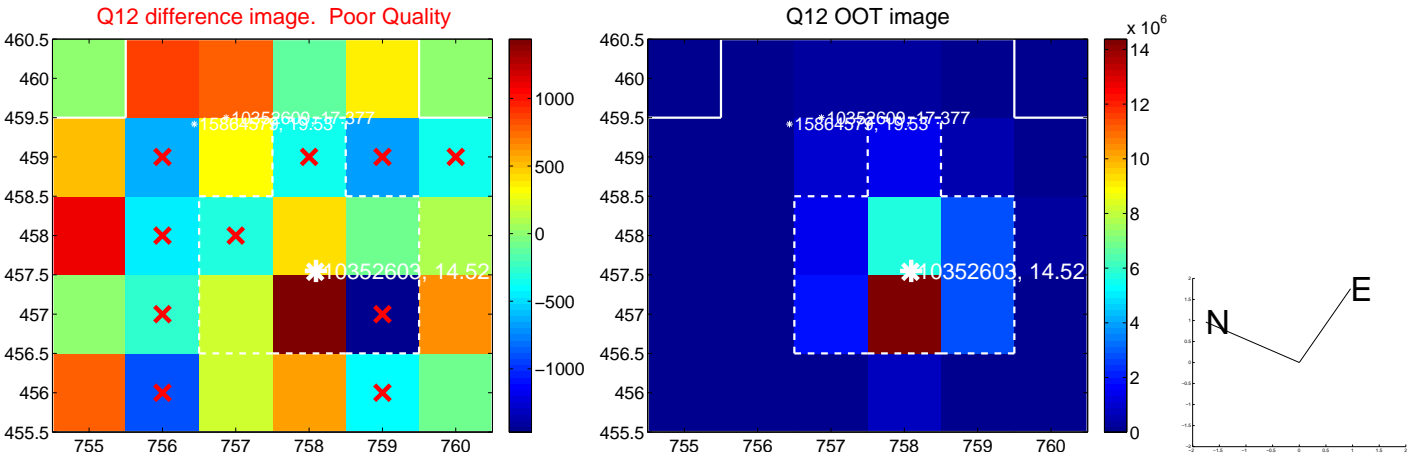
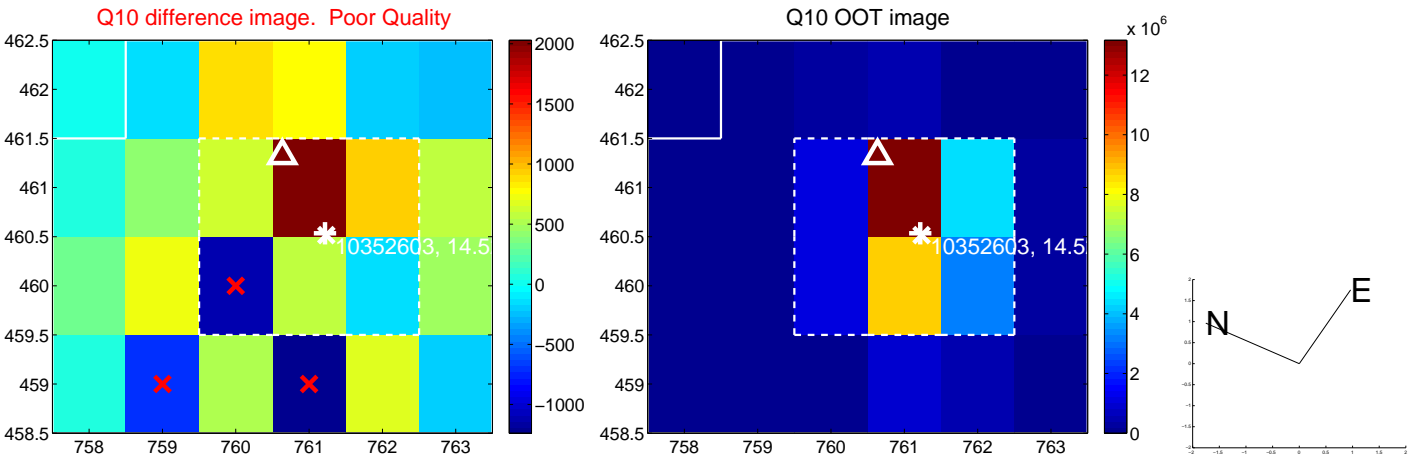
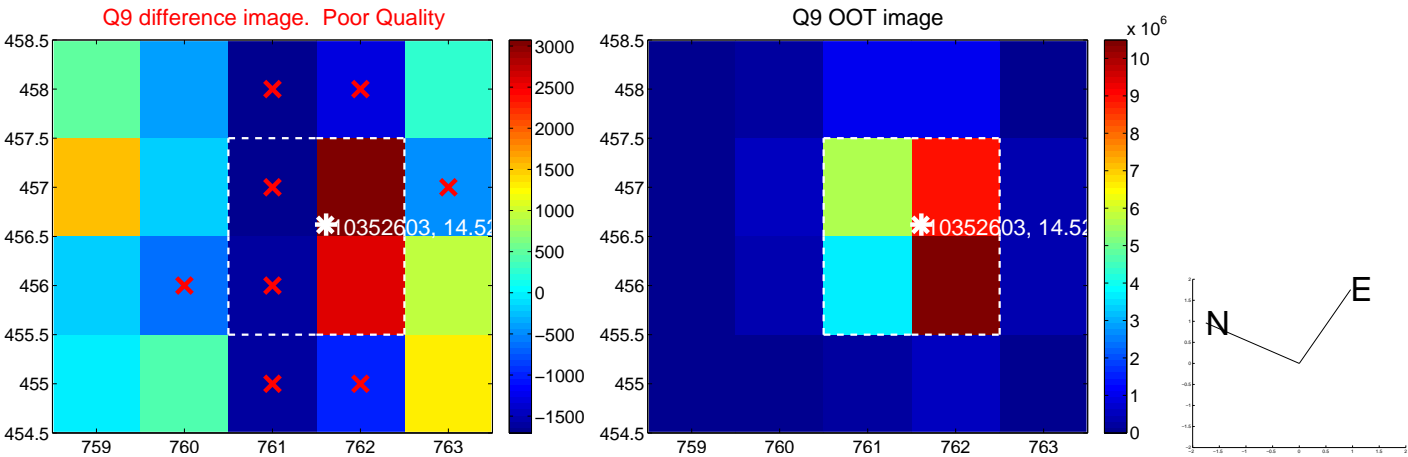
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



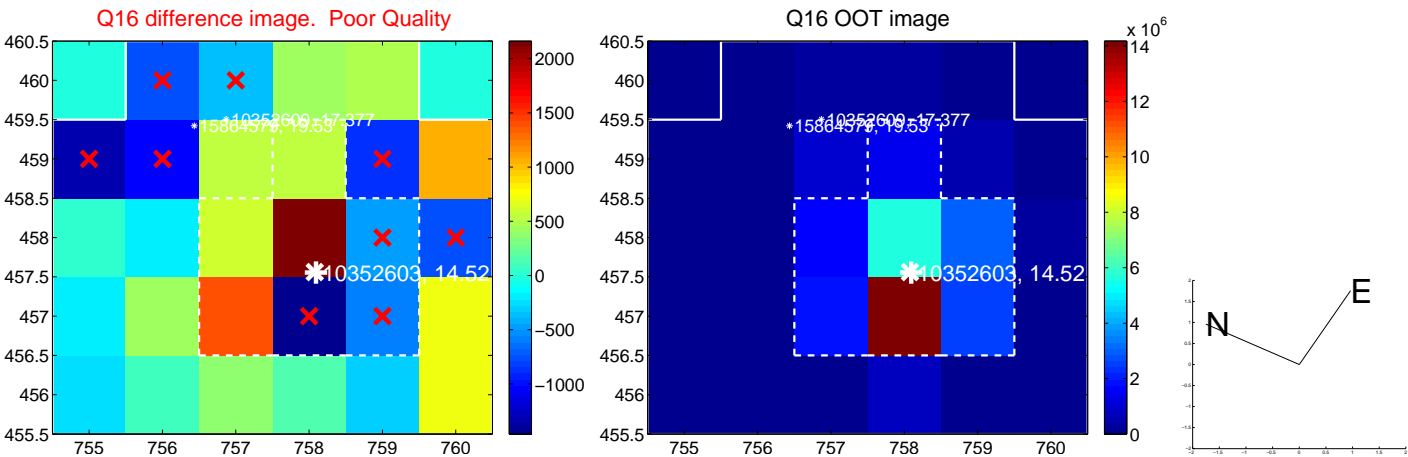
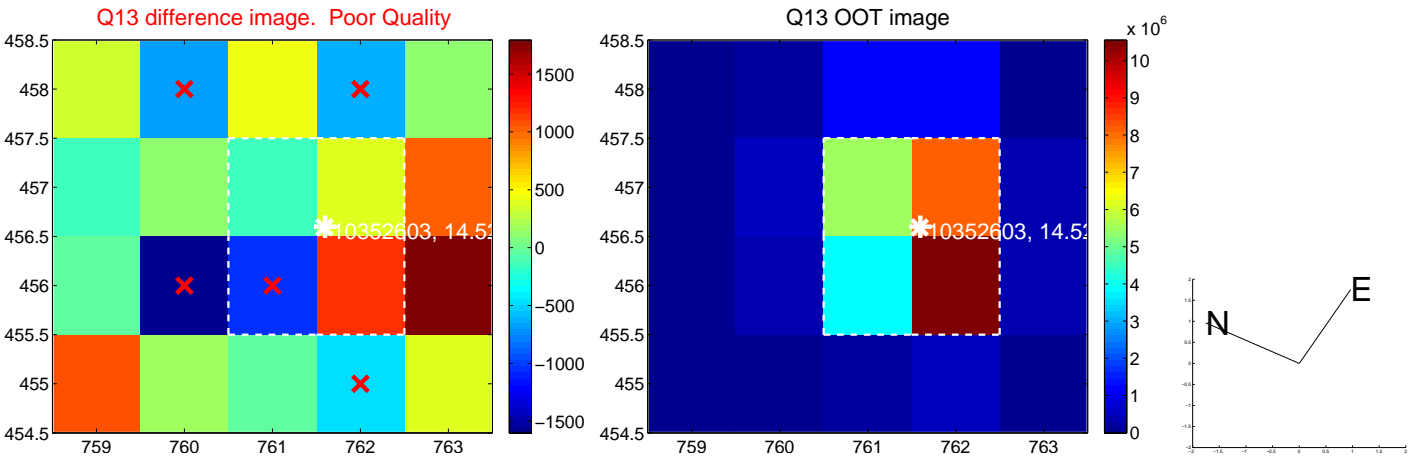
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



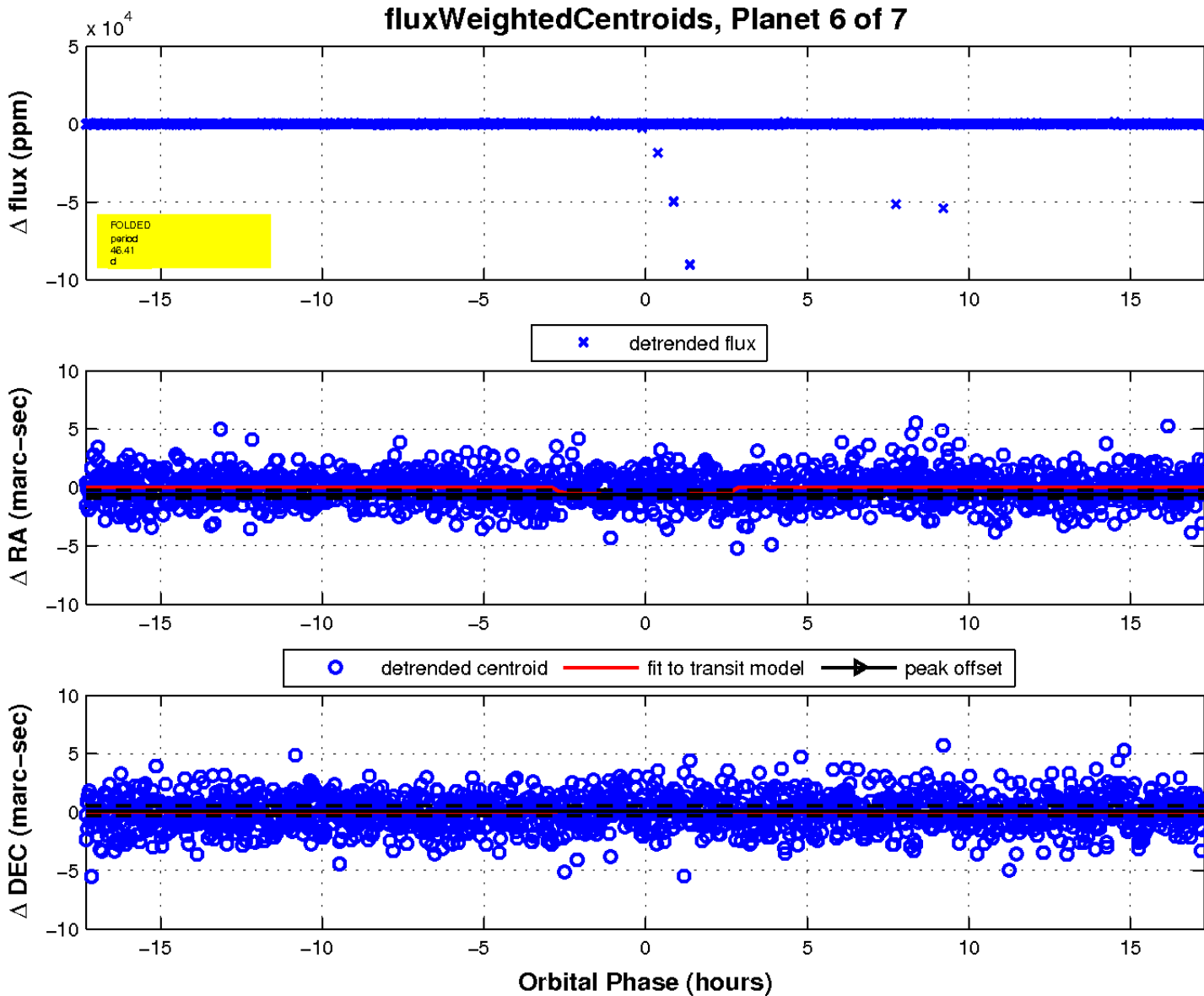
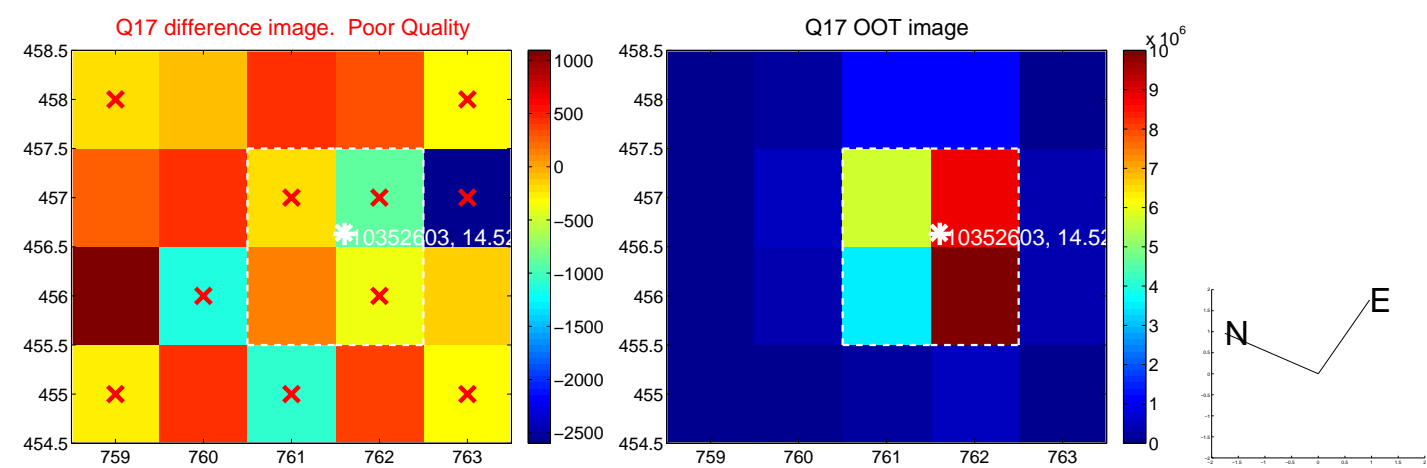
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

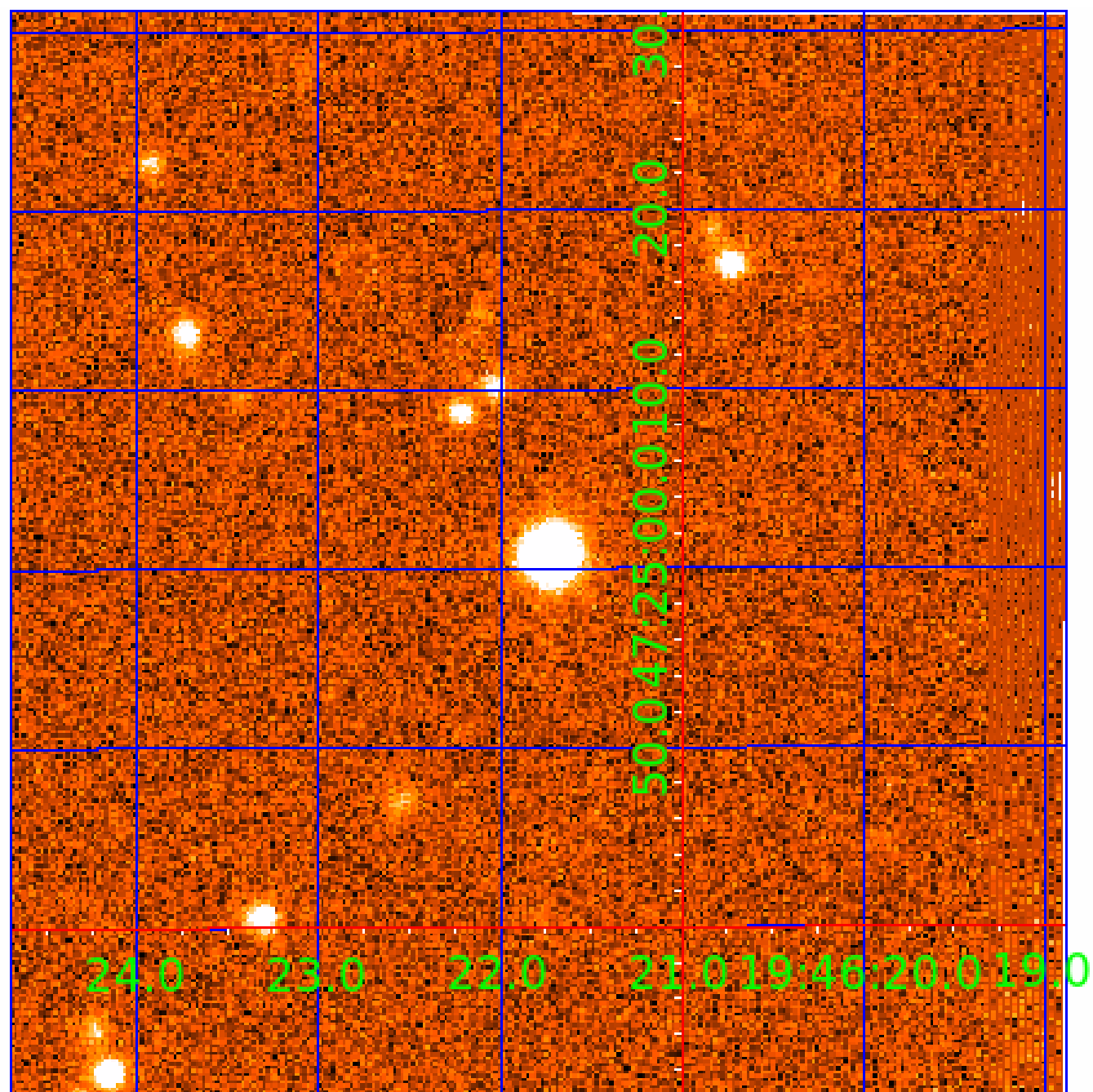


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010352603

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})
010352603-01	OBS	7317.01	32.779667	136.166440	425270.2	12.000	25656.4	-1.0	0.96	6122	52.60	28.34
010352603-02	OBS	No	32.778630	159.978348	463769.4	6.000	21892.3	-1.0	0.96	6122	52.60	28.34
010352603-03	OBS	No	6.555019	131.817497	6146.0	15.000	205.5	-1.0	0.96	6122	7.56	242.34
010352603-04	OBS	No	294.976825	331.094575	11484.0	3.000	148.0	-1.0	0.96	6122	10.34	1.51
010352603-05	OBS	No	196.598092	134.535161	6430.1	12.500	134.2	-1.0	0.96	6122	7.73	2.60
010352603-06	OBS	No	46.405212	176.342518	361.5	5.771	201.2	10.5	0.96	6122	1.98	17.83
010352603-07	OBS	No	32.782704	140.338292	2001.2	15.000	131.6	-1.0	0.96	6122	4.31	28.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010352603-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
010352603-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—CENT_NOFITS
010352603-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_NOFITS
010352603-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS
010352603-05	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
010352603-06	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
010352603-07	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS—HALO_GHOST

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.

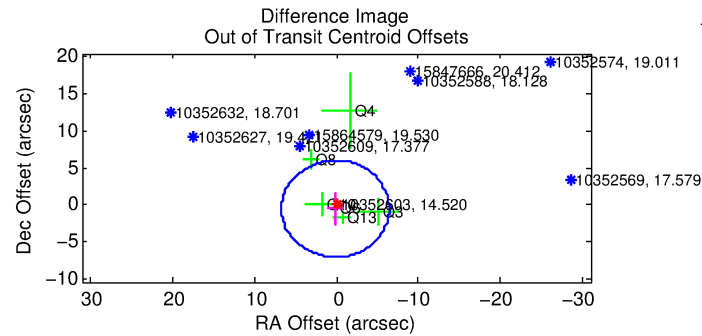
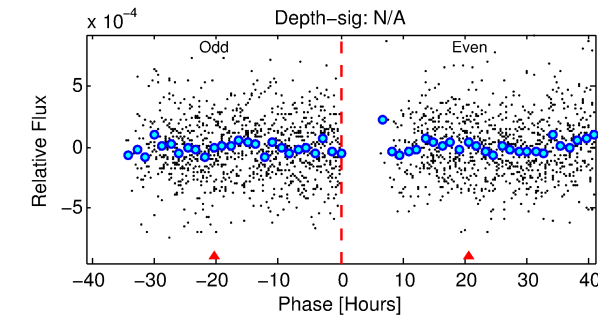
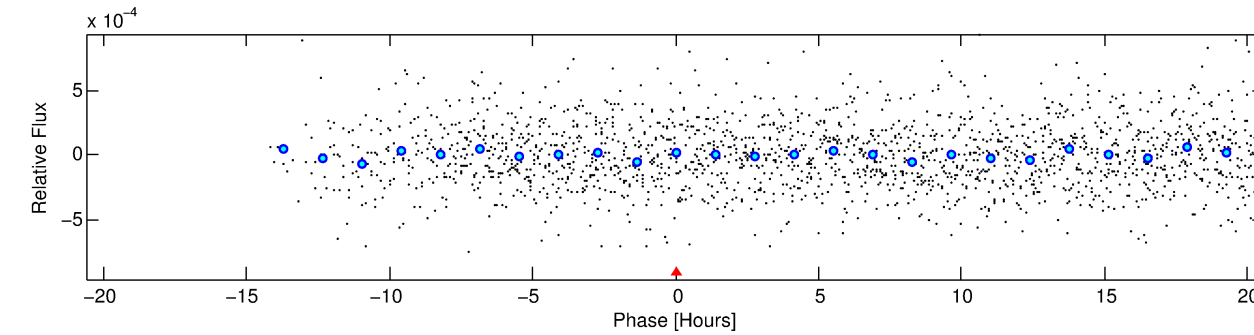
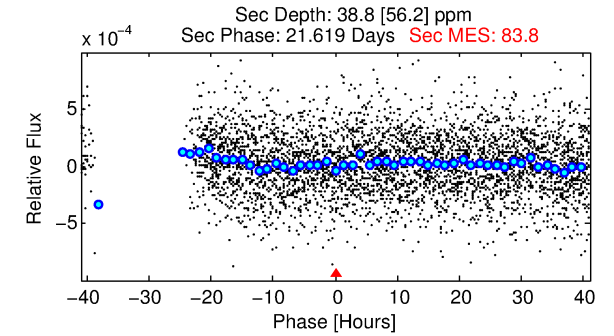
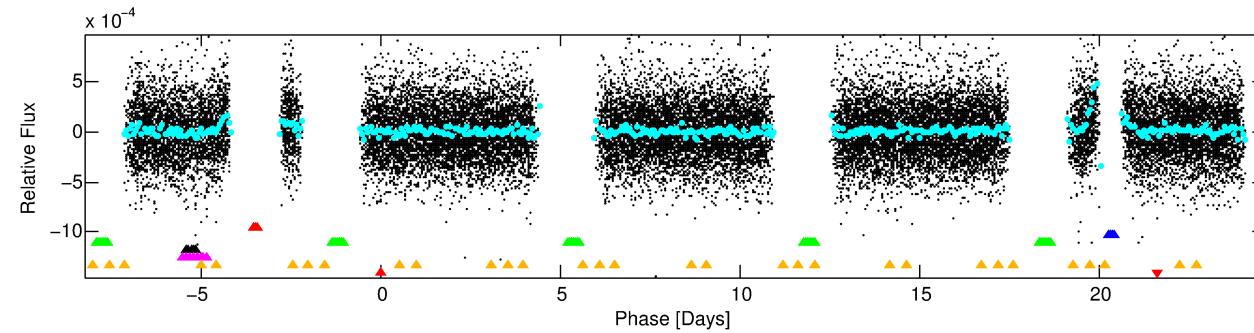
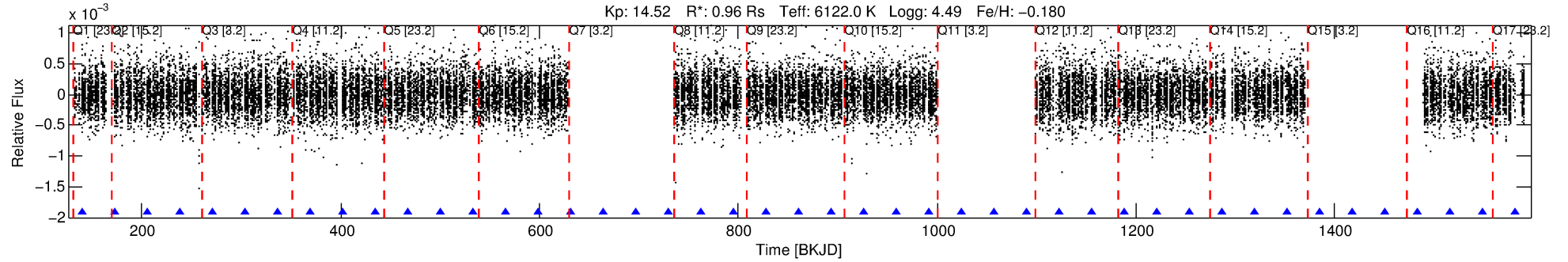
Ephemeris Match Information For 010352603-07

No Significant Match Found

DV One-Page Summary

KIC: 10352603 Candidate: 7 of 7 Period: 32.783 d
KOI: K07317 Corr: No Ephemeris Match

Kp: 14.52 R*: 0.96 Rs Teff: 6122.0 K Logg: 4.49 Fe/H: -0.180



TPS TCE Results:

Period = 32.78270 d
Epoch = 140.3383 BKJD

DV fit results are unavailable

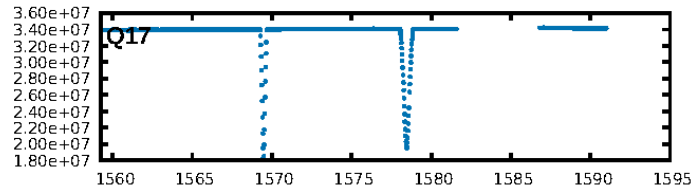
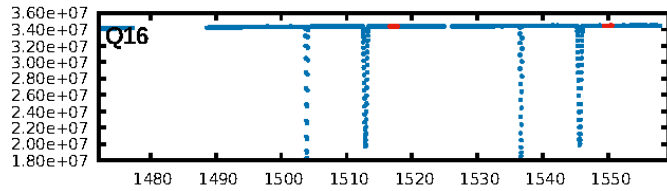
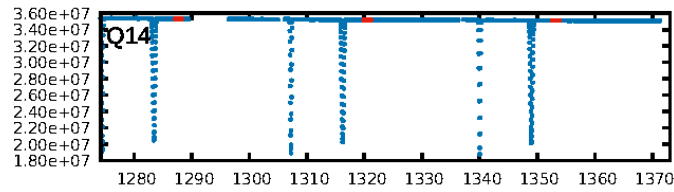
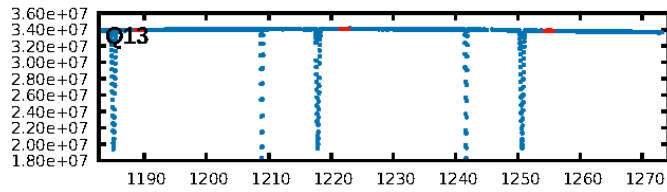
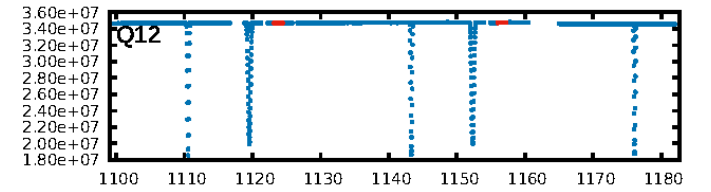
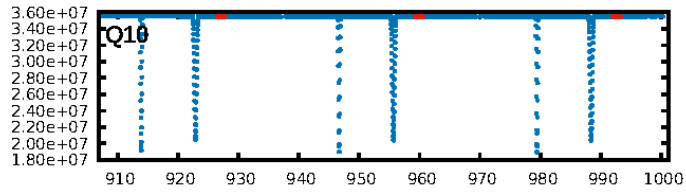
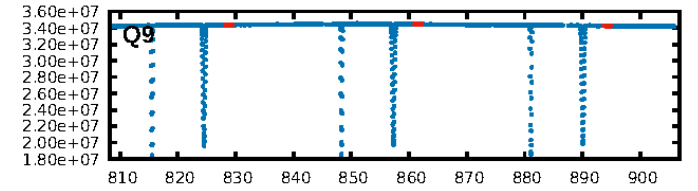
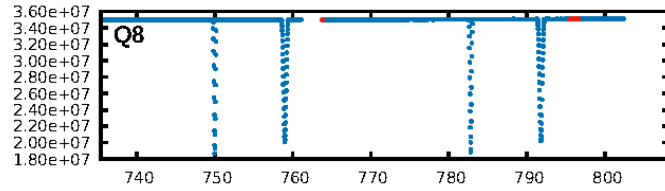
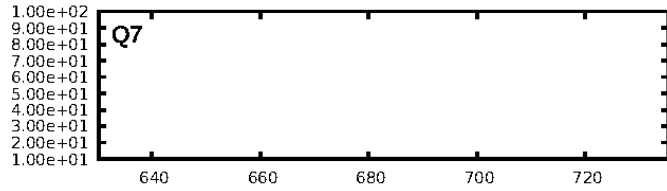
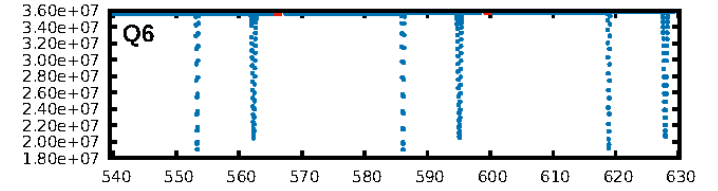
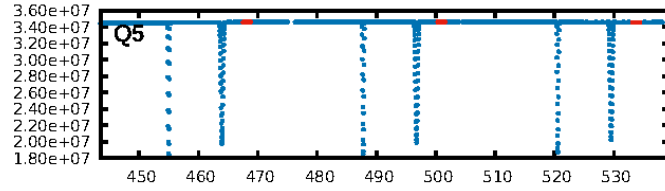
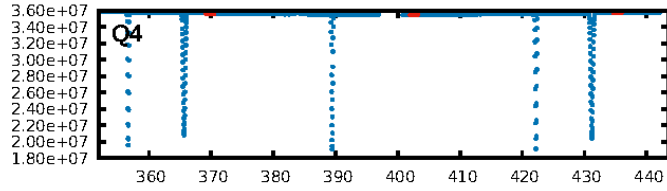
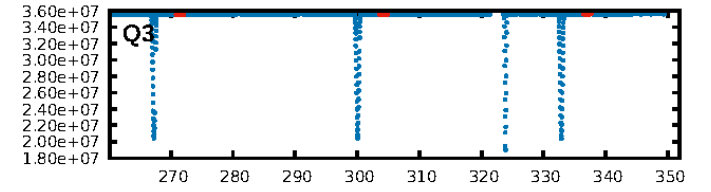
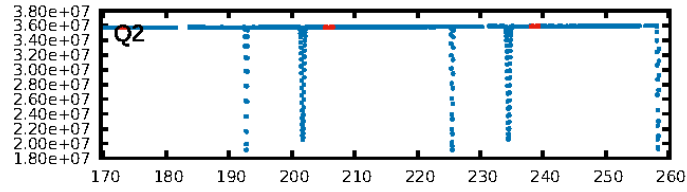
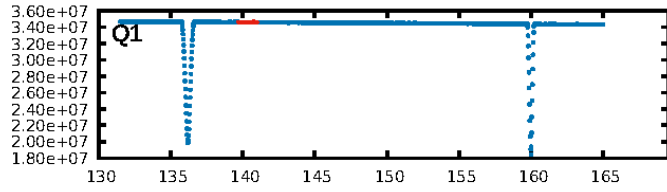
DV Diagnostic Results:

ShortPeriod-sig: 0.3% [0.00σ]
LongPeriod-sig: 100.0% [20.34σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [30/30]
GhostDiagnostic-chr: -0.0742
Centroid-sig: 91.7%
Centroid-so: 2.536 arcsec [0.26σ]
OotOffset-rm: 0.578 arcsec [0.26σ]
KicOffset-rm: 0.537 arcsec [0.26σ]
OotOffset-st: 2/1/2/1 [6]
KicOffset-st: 2/1/2/1 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 1.00 [11/11]

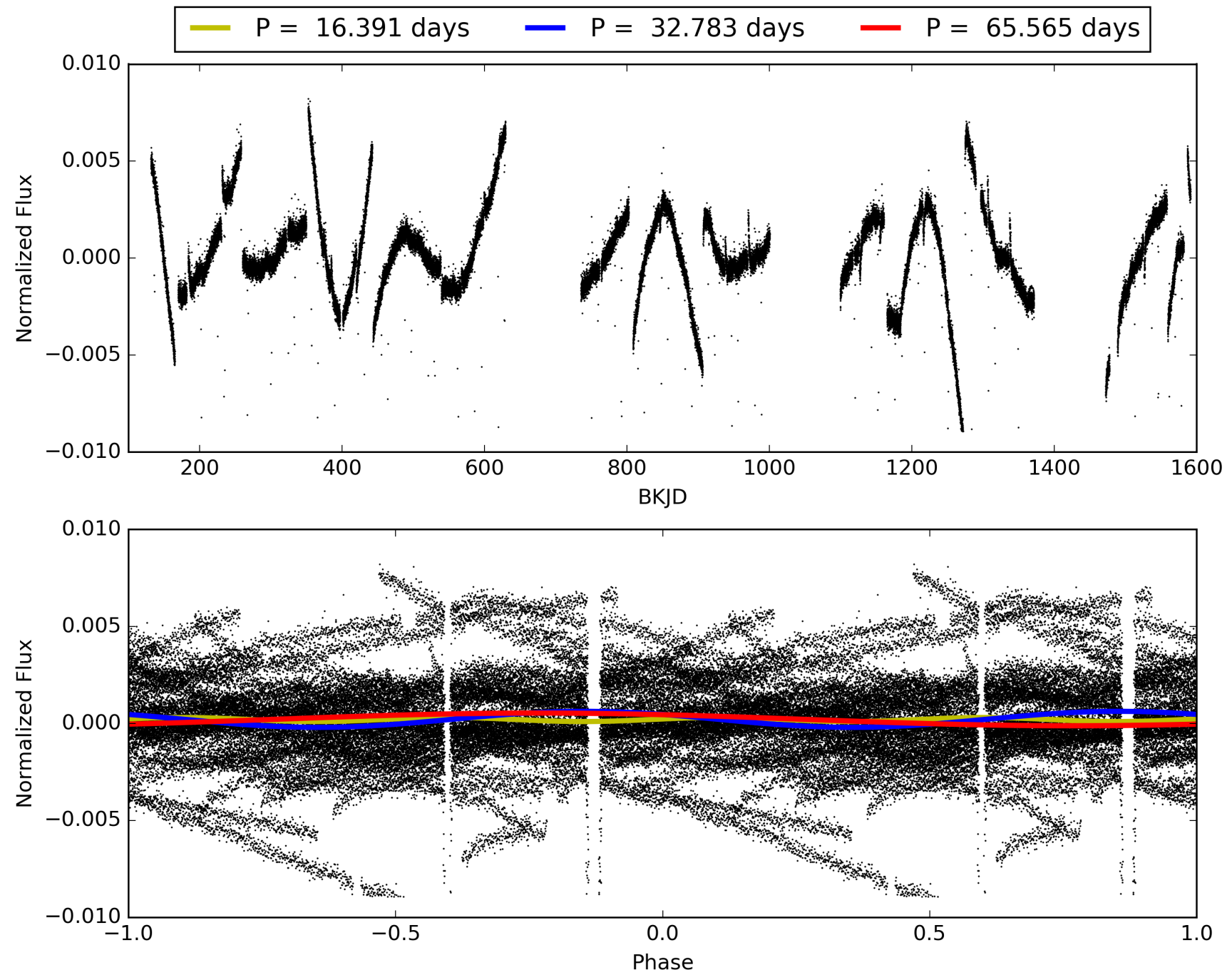
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:08:16 Z

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

TCE 010352603-07, PDC Light Curves

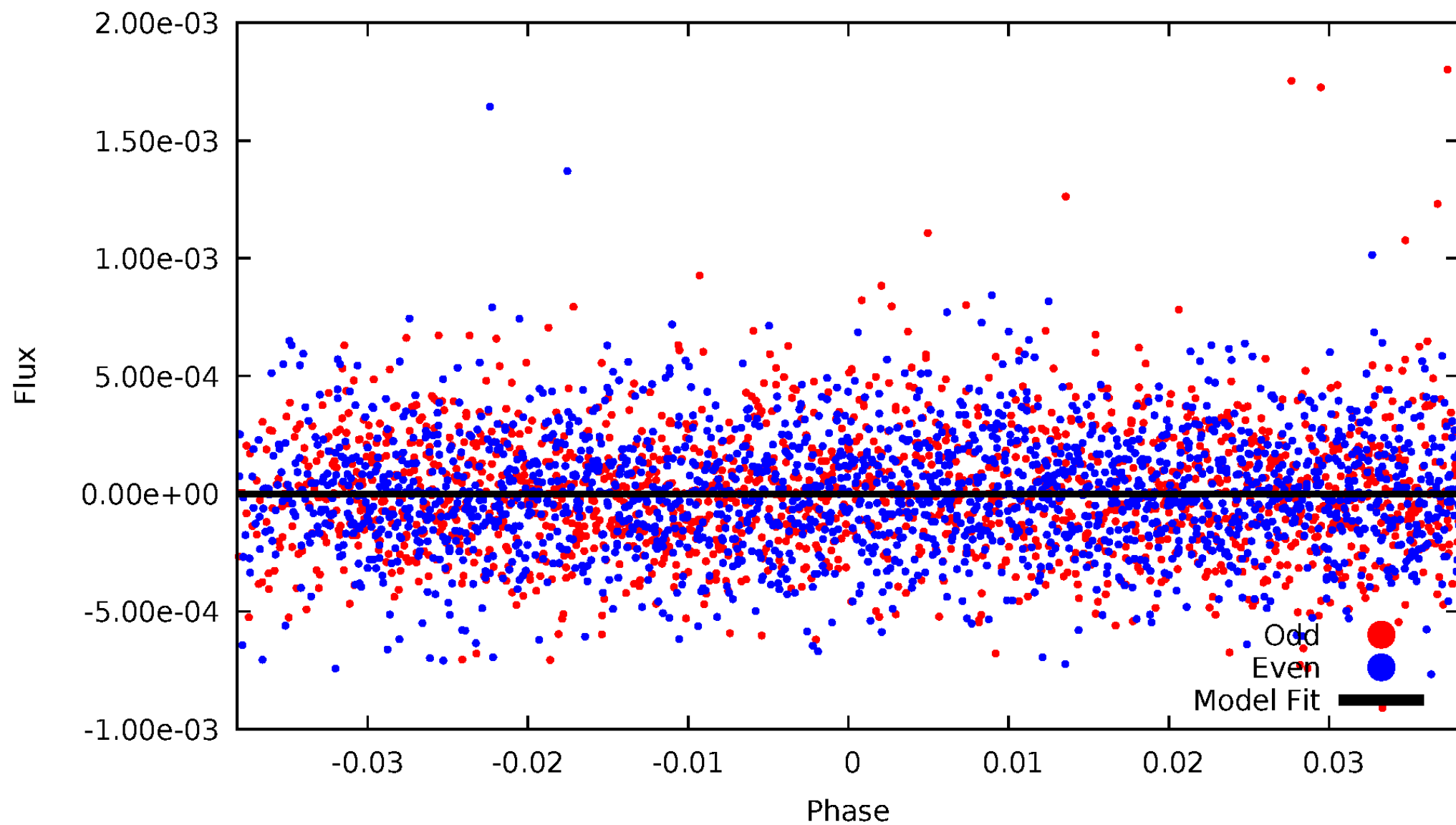


TCE 010352603-07



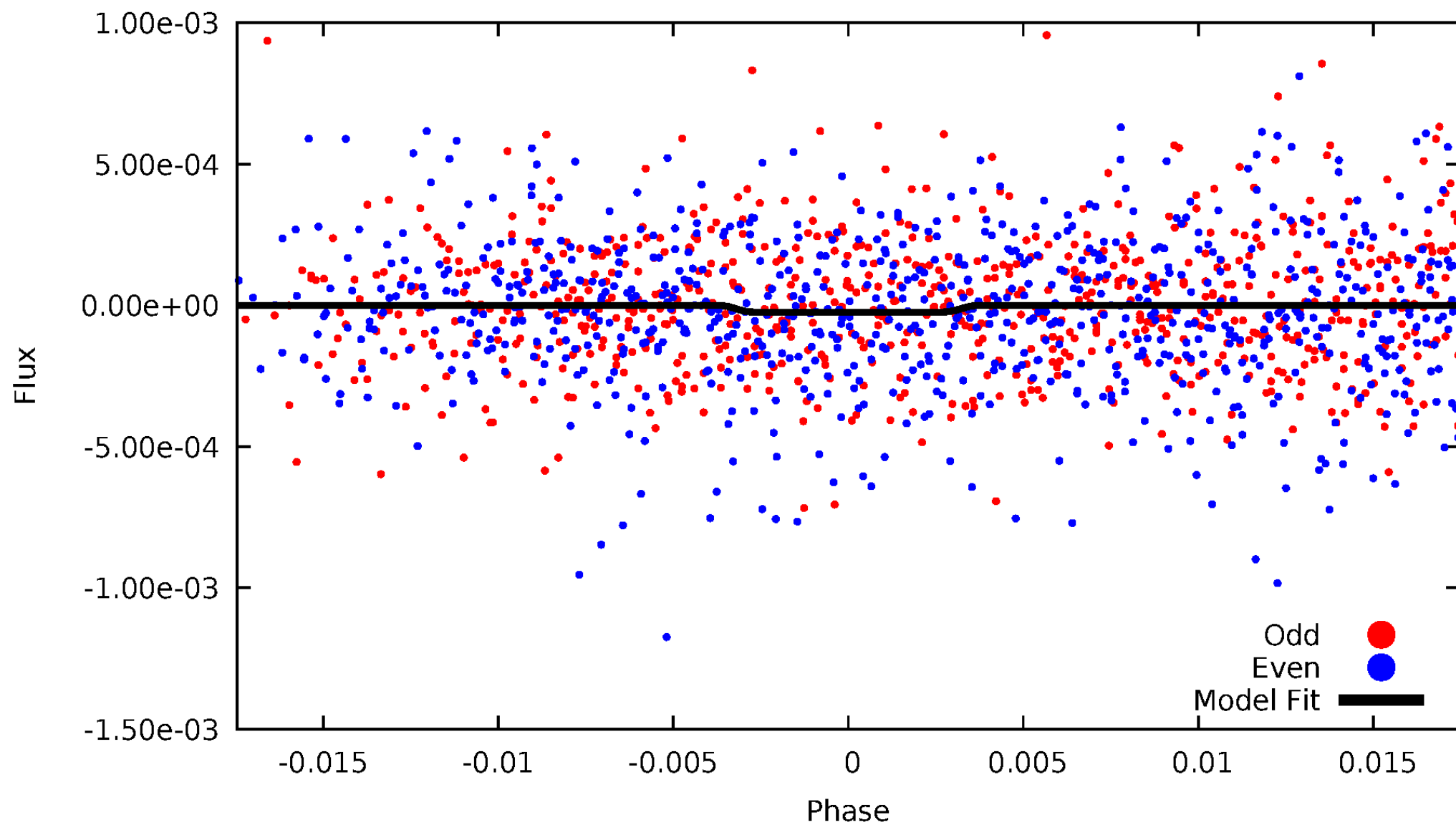
DV Odd/Even

TCE 010352603-07

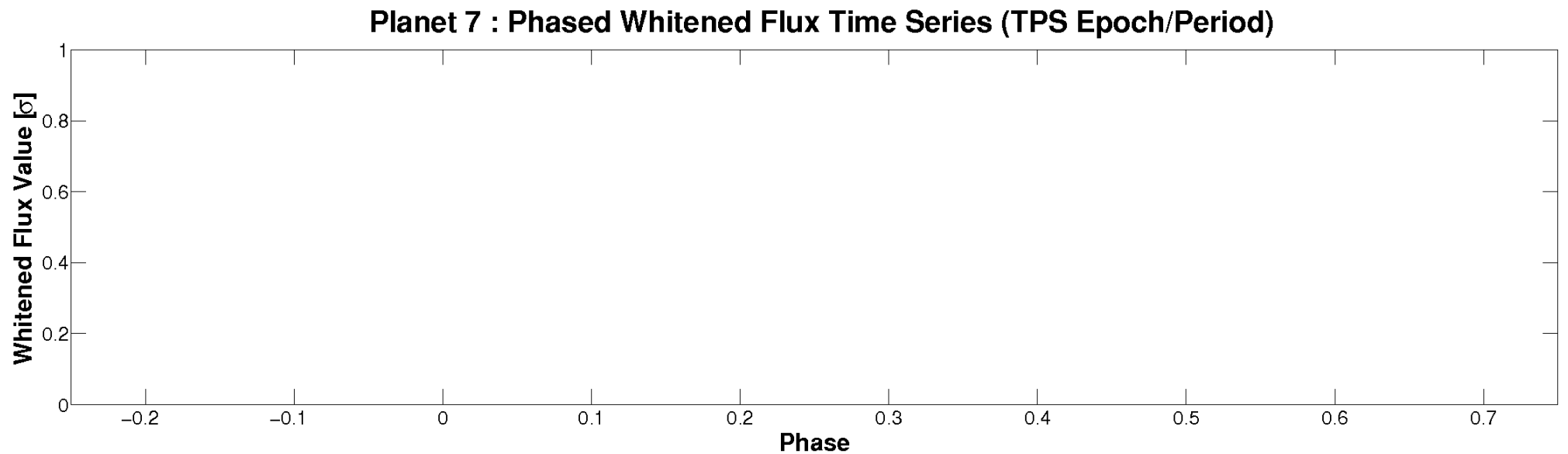
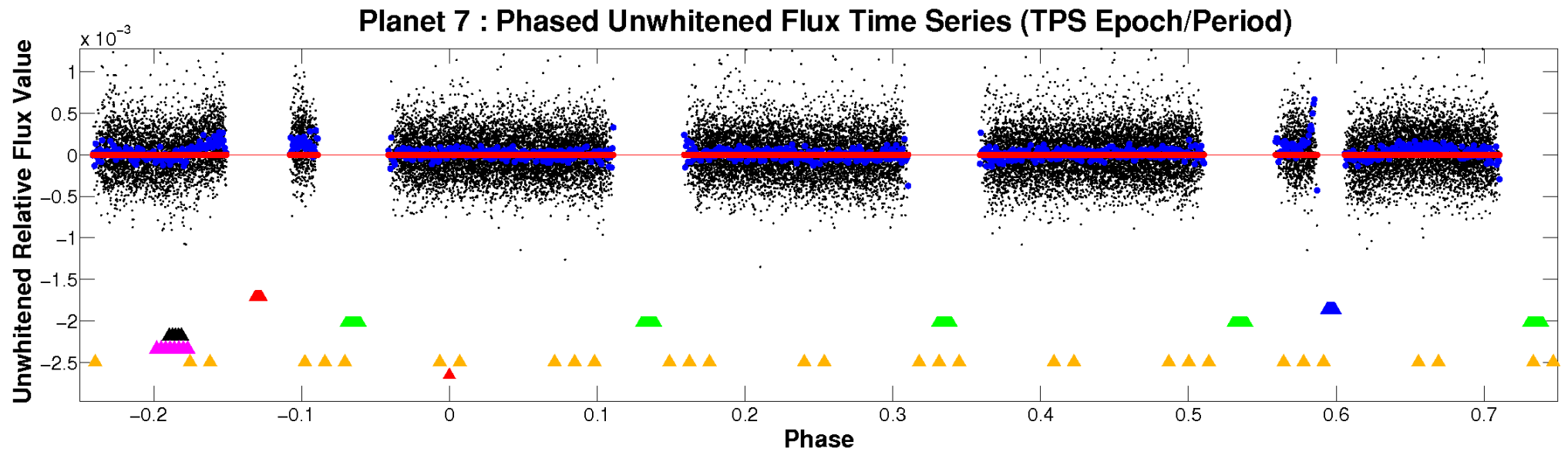


ALT Odd/Even

TCE 010352603-07

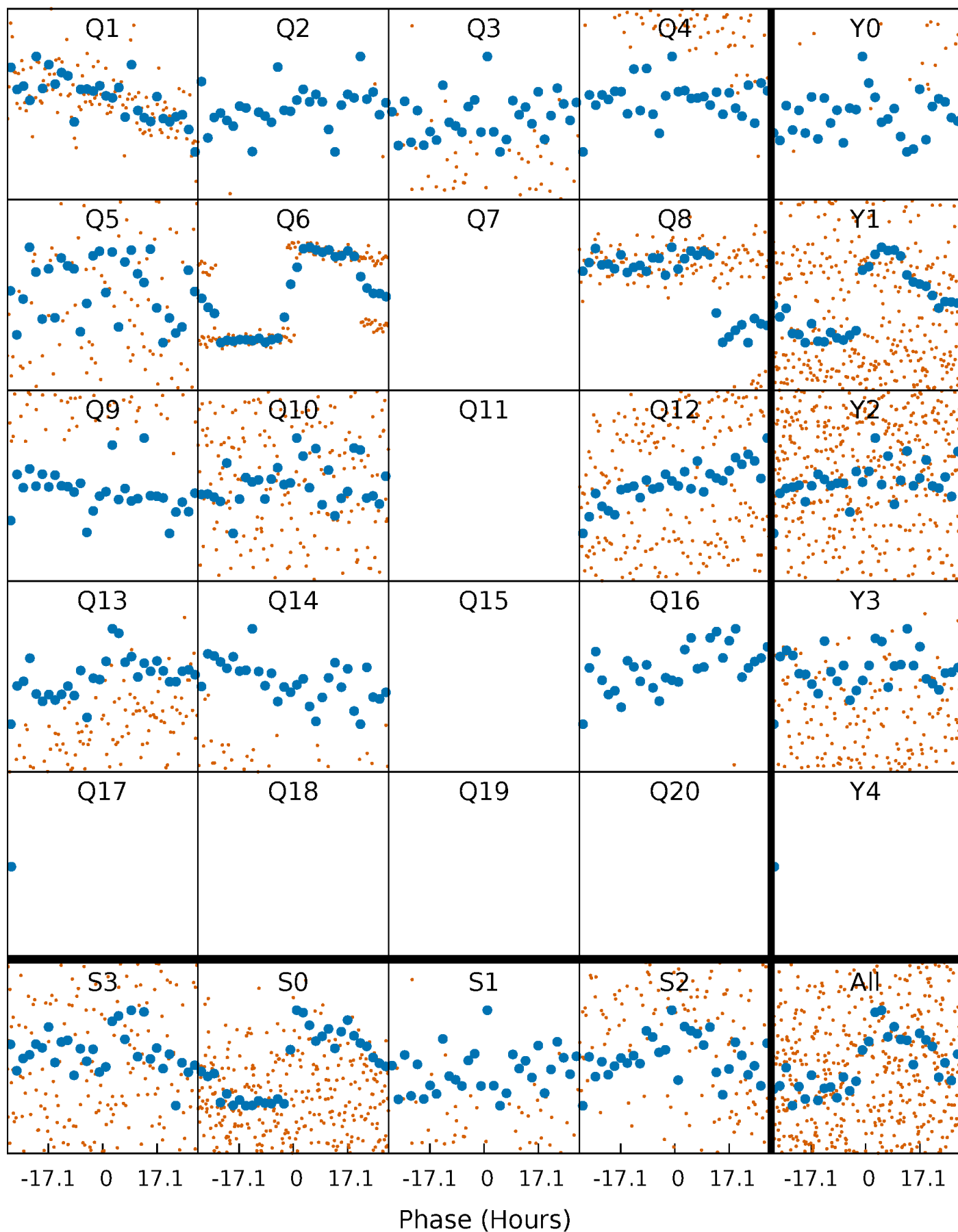


Non-Whitened Vs. Whitened Light Curve



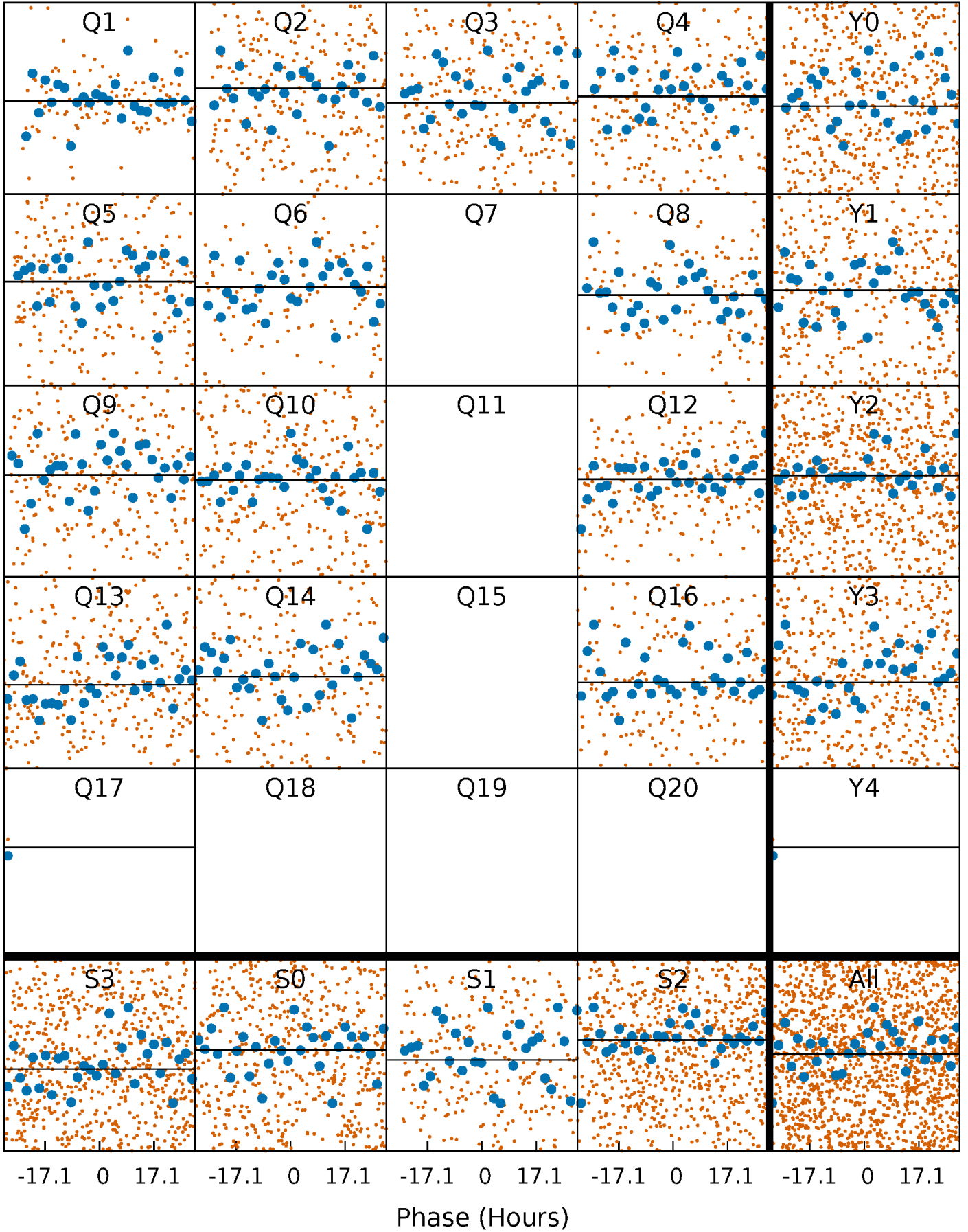
PDC Quarter-Phased Transit Curves

TCE 010352603-07 P= 32.782704 Days $T_0=140.338292$ (BKJD)



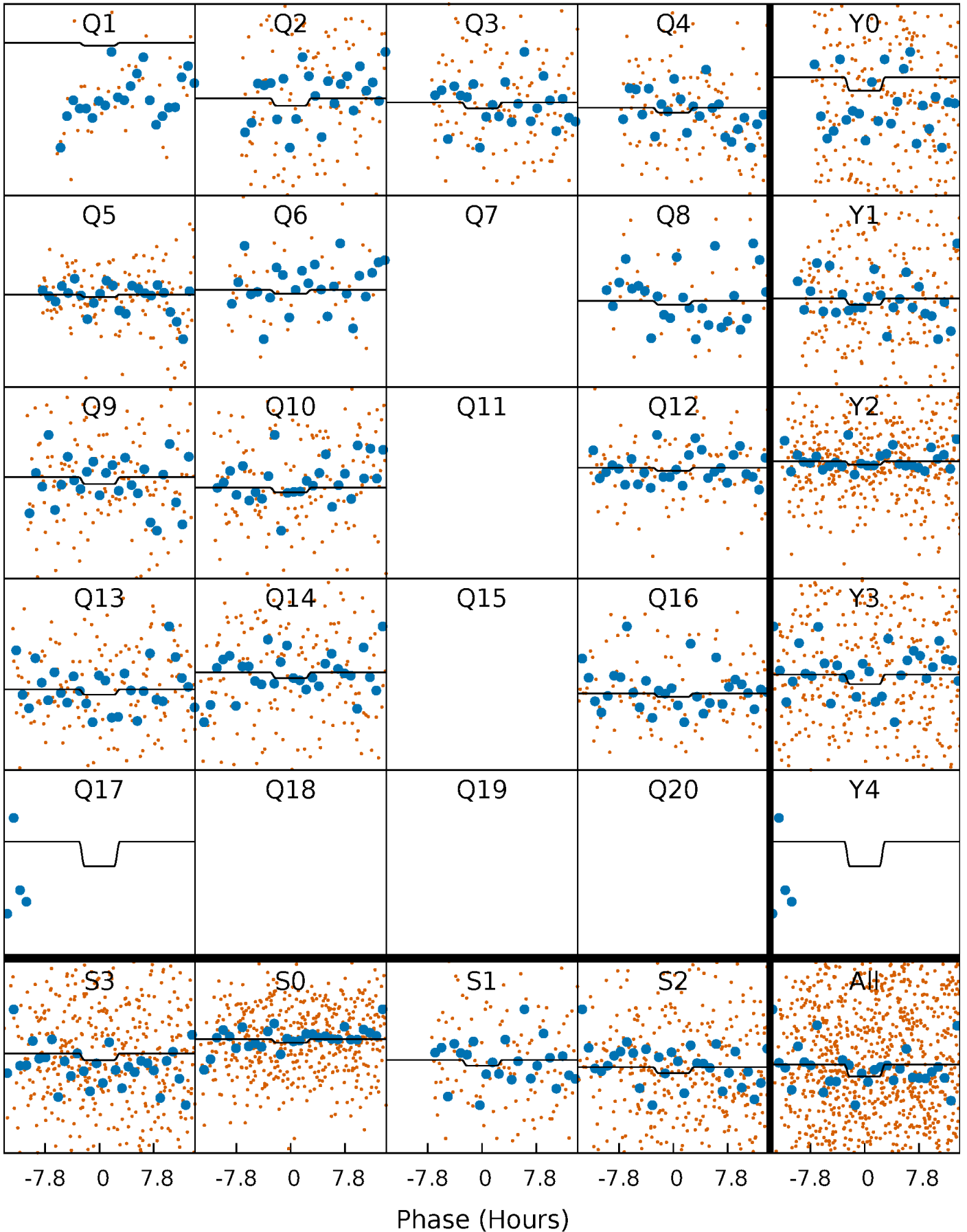
DV Quarter-Phased Transit Curves

TCE 010352603-07 $P = 32.782704$ Days $T_0 = 140.338292$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

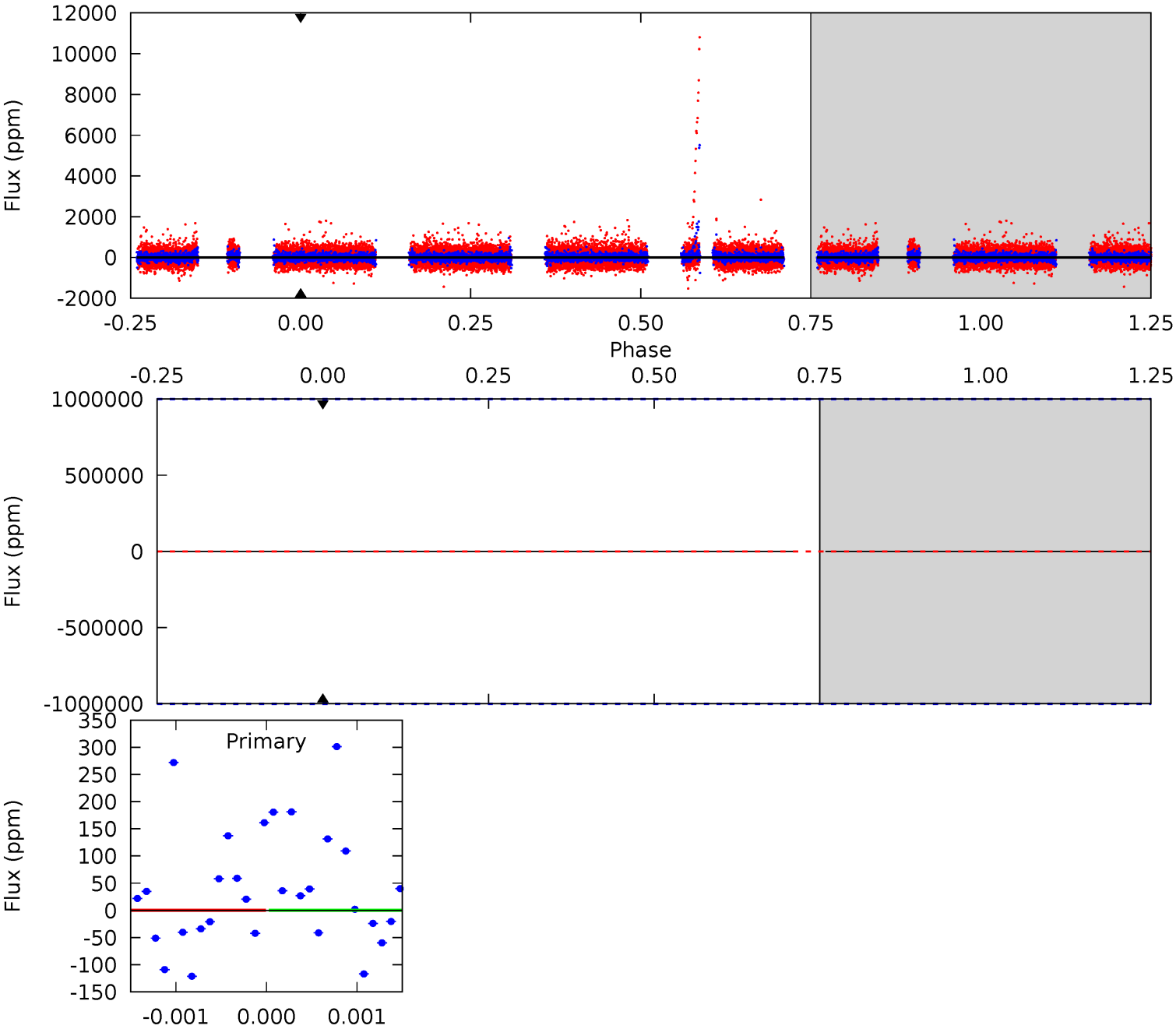
TCE 010352603-07 $P = 32.782704$ Days $T_0 = 139.590158$ (BKJD)



DV Model-Shift Uniqueness Test

010352603-07, P = 32.782704 Days, E = 107.555588 Days

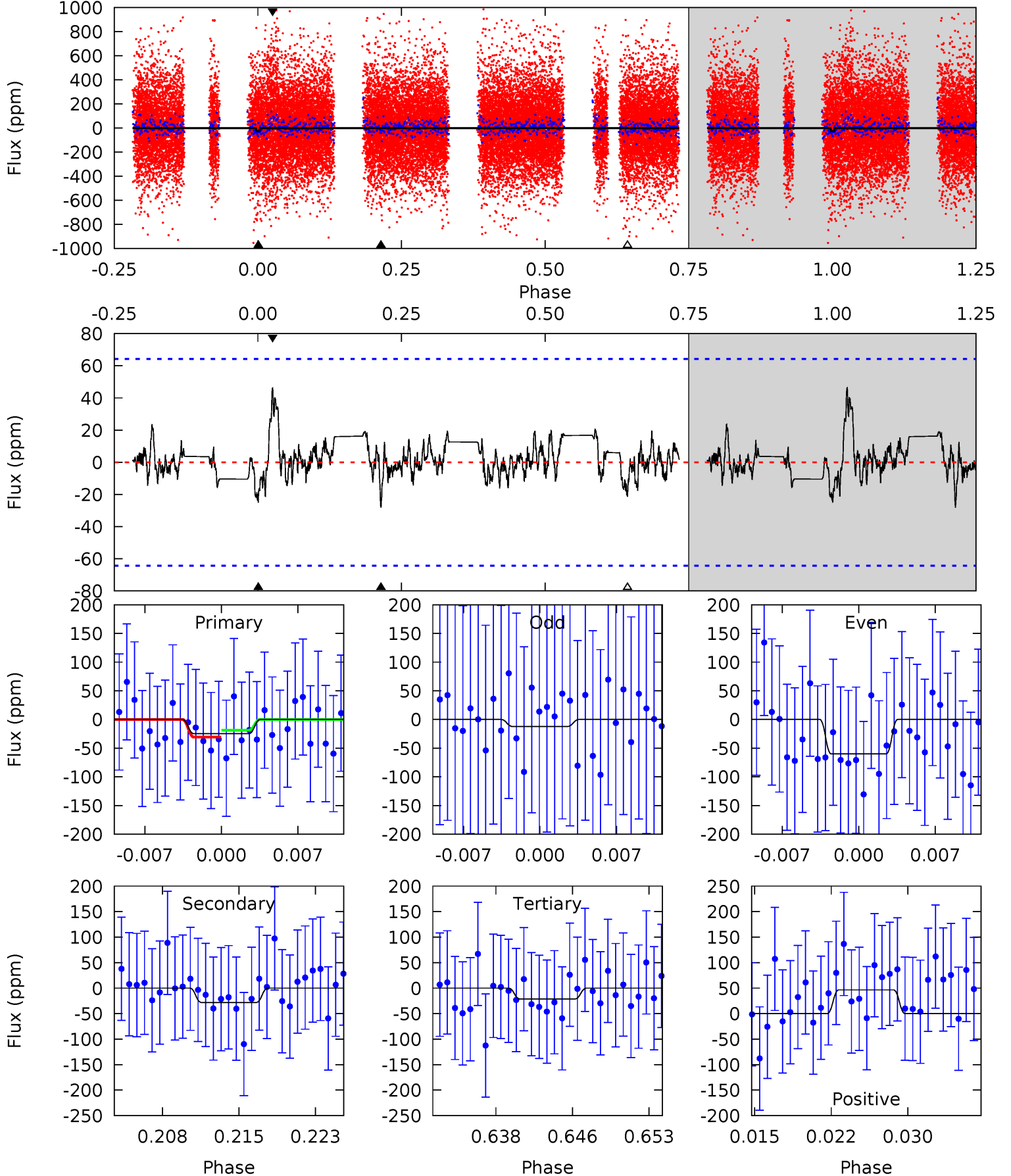
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010352603-07, $P = 32.782704$ Days, $E = 106.807454$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.96	2.22	1.68	3.68	5.08	2.68	0.72	0.28	-1.72	0.54	-1.45	1.91	102.6	0.62	0.48



Stellar Parameters For KIC 010352603

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+169}_{-190}	$4.487^{+0.050}_{-0.200}$	$-0.180^{+0.250}_{-0.350}$	$0.964^{+0.283}_{-0.101}$	$1.041^{+0.139}_{-0.139}$	$1.635^{+0.434}_{-0.827}$
	+3%/-3%	+1%/-4%	+139%/-194%	+29%/-10%	+13%/-13%	+27%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010352603-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$9.72^{+10.33}_{-6.37}$	838^{+57}_{-37}	4143^{+16143}_{-22740}	263^{+48239}_{-37313}
Alt.	-28 ± 13	$7.75^{+8.54}_{-5.41}$	840^{+57}_{-39}	2483^{+875}_{-433}	$9.323^{+78.098}_{-7.411}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

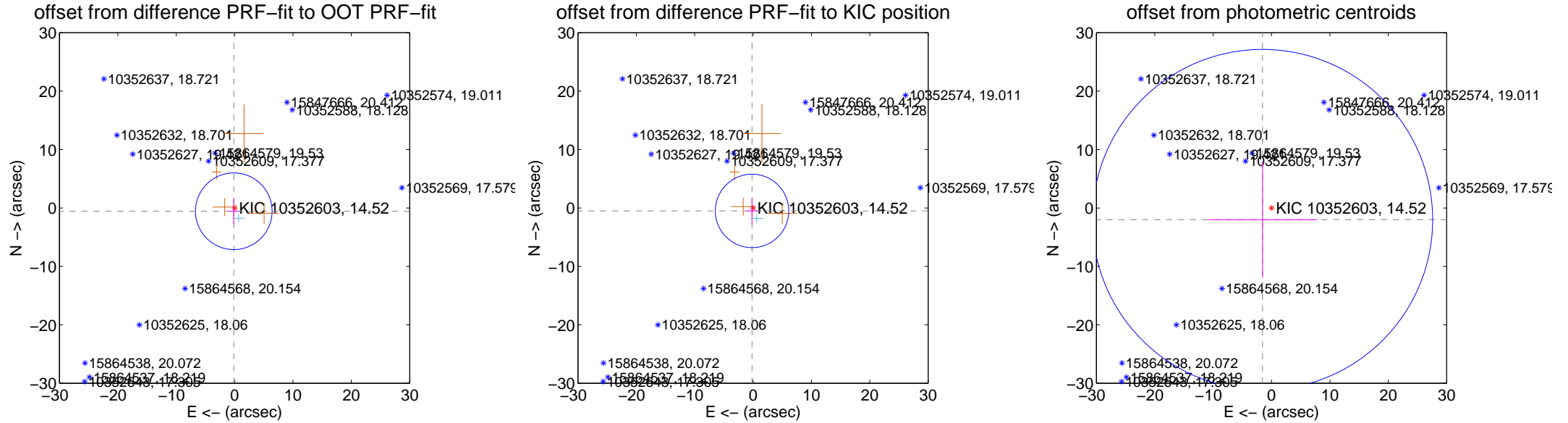
DV Centroid Data

Supplemental centroid analysis for 010352603-07. Kepler magnitude: 14.52. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

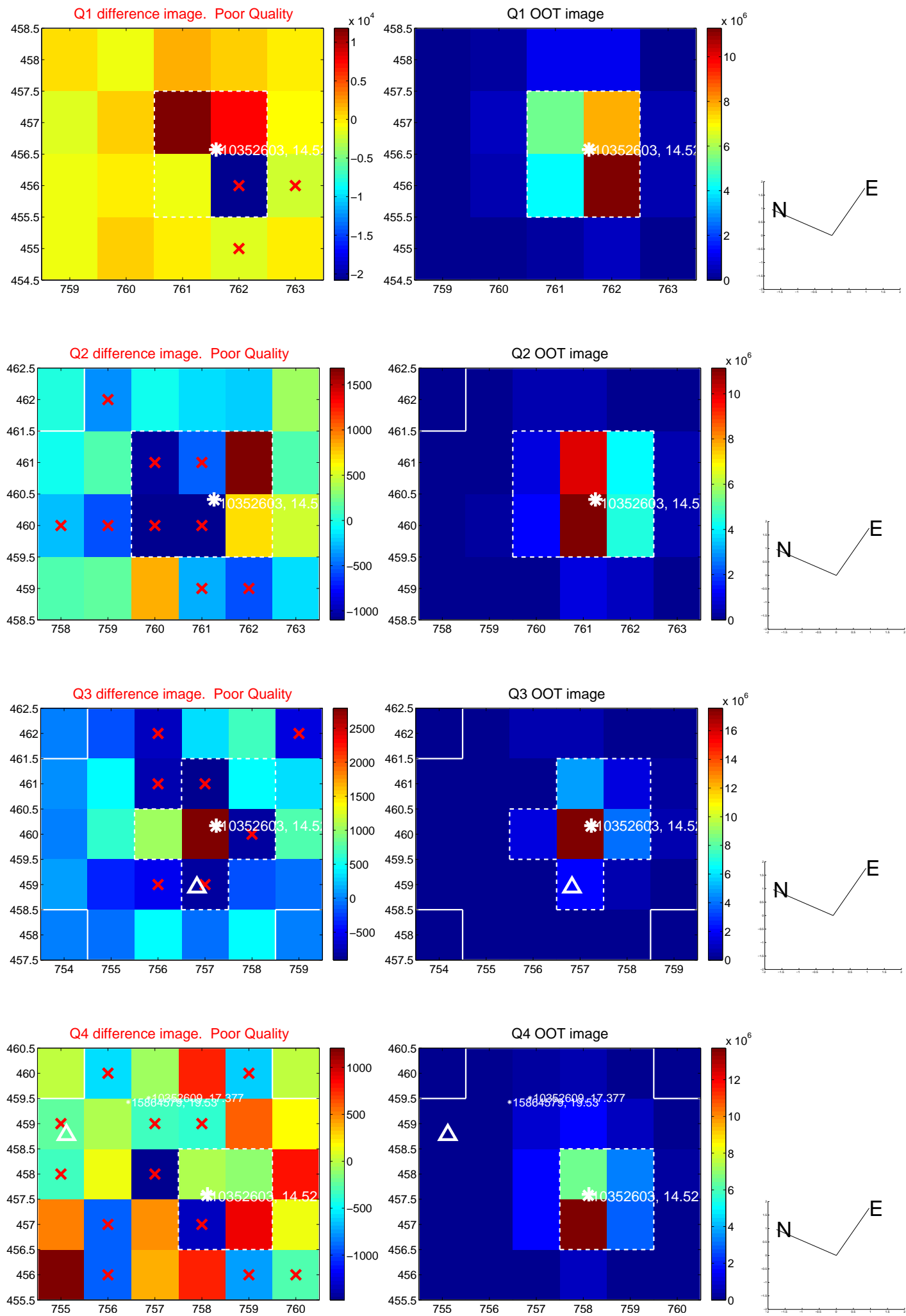
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.578 ± 2.187	0.26	0.135 ± 0.931	-0.562 ± 2.241
PRF-fit source offset from KIC position	0.537 ± 2.096	0.26	0.172 ± 0.959	-0.509 ± 2.299
photometric centroid source offset	2.54 ± 9.72	0.26	1.54 ± 9.34	-2.01 ± 9.93

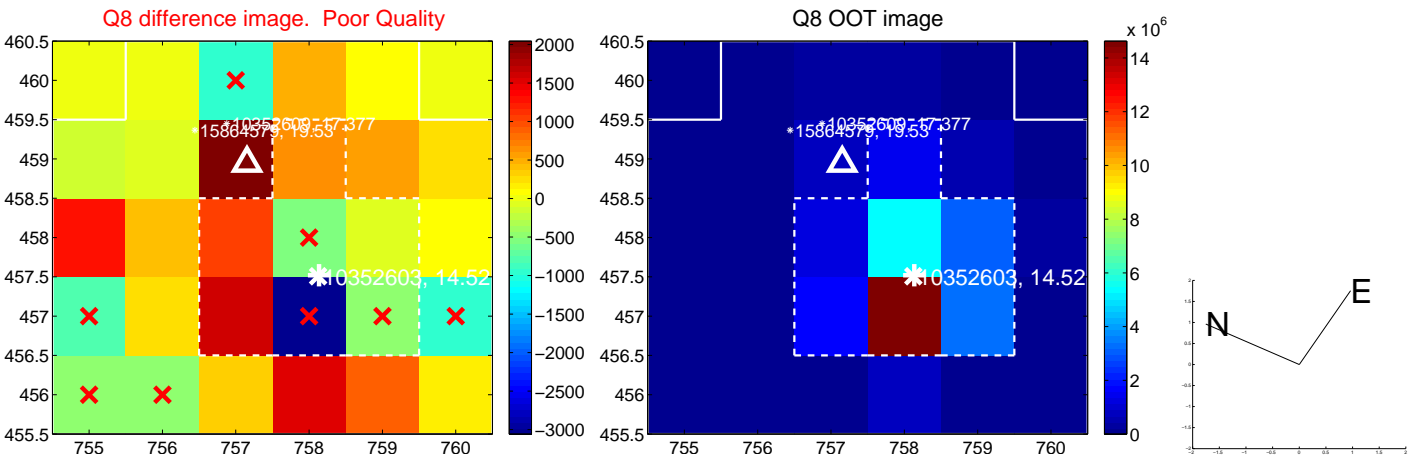
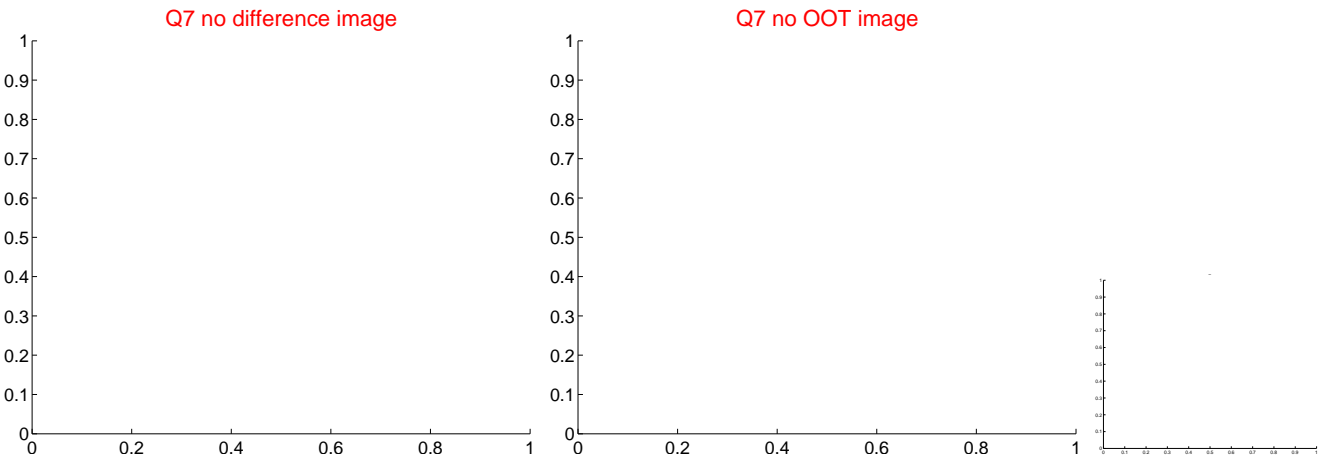
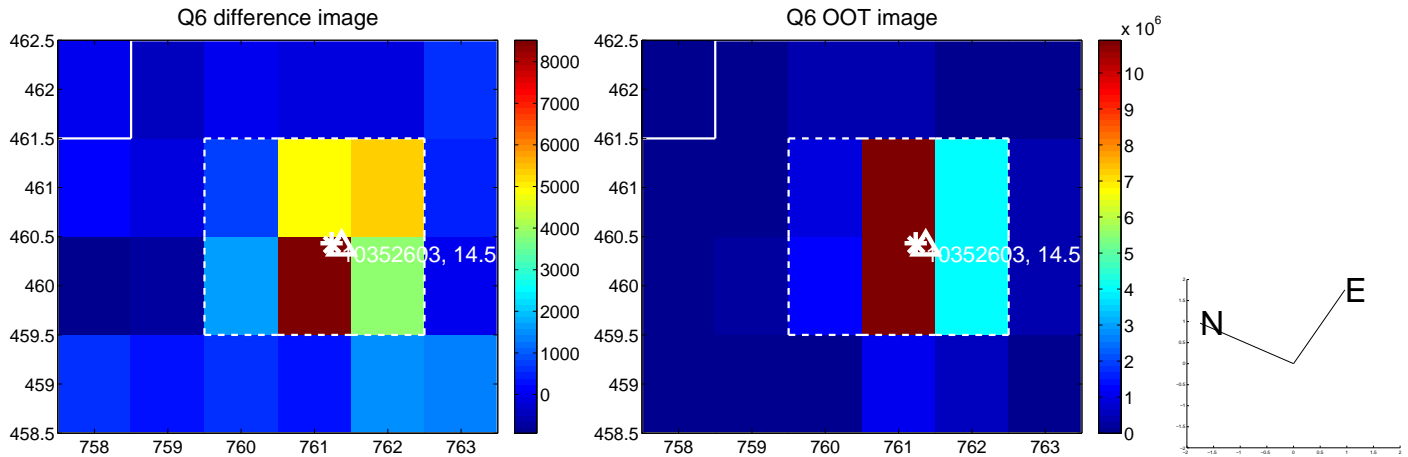
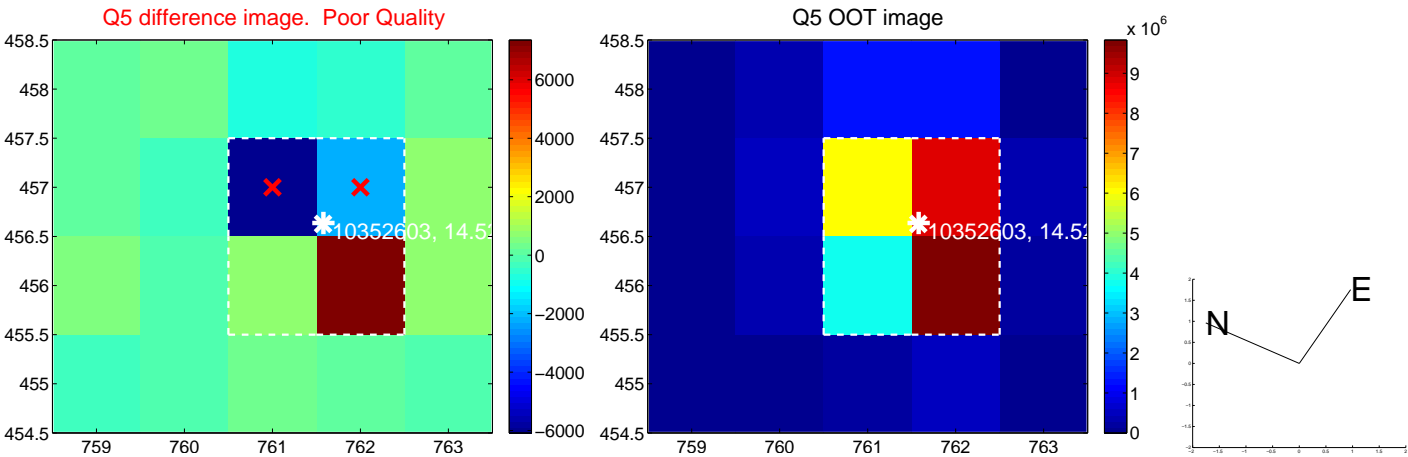


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

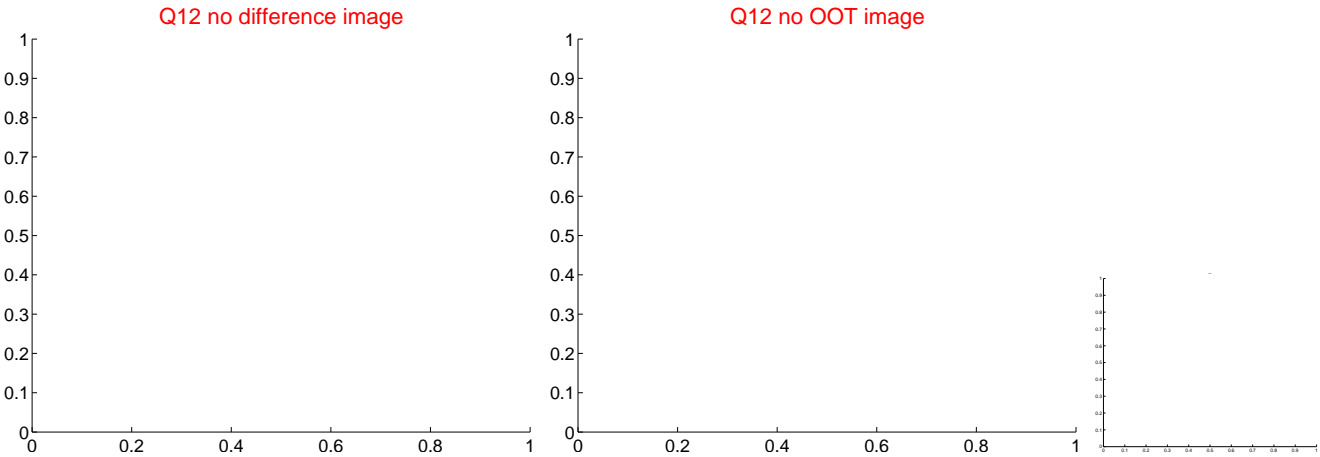
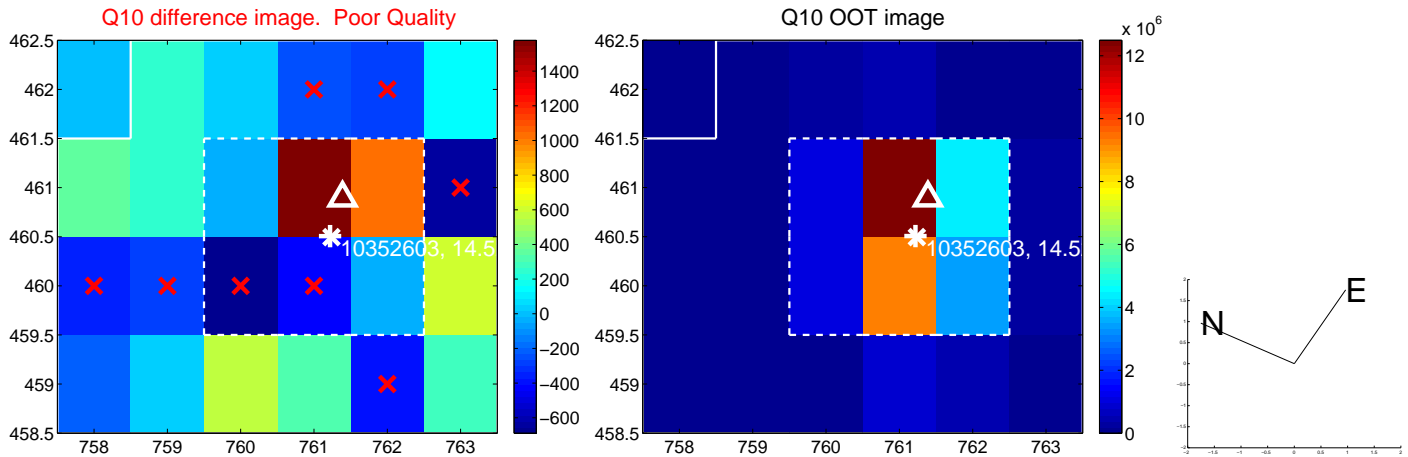
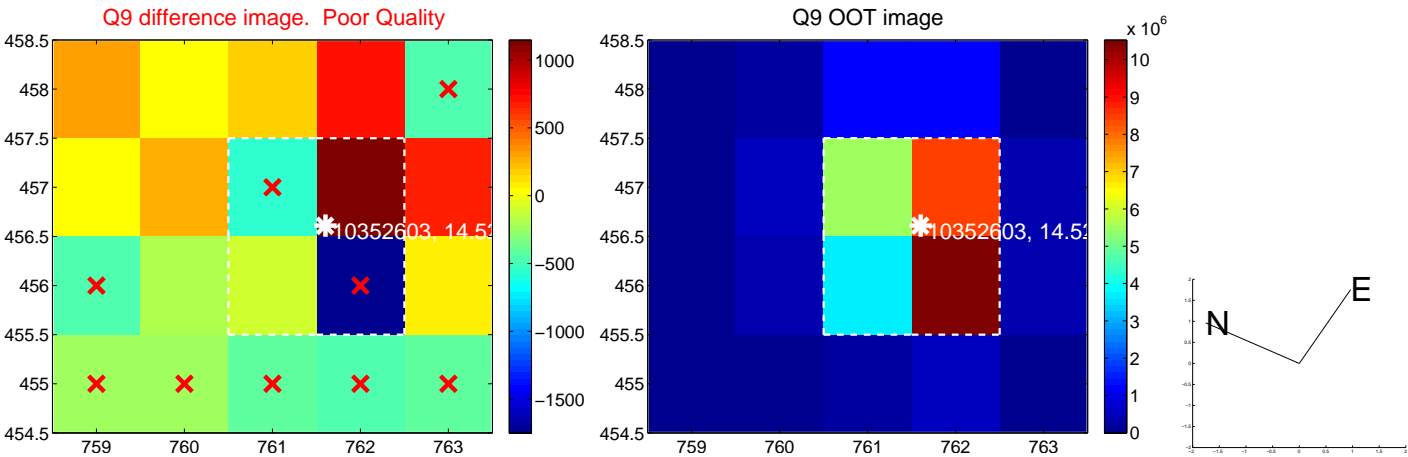
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



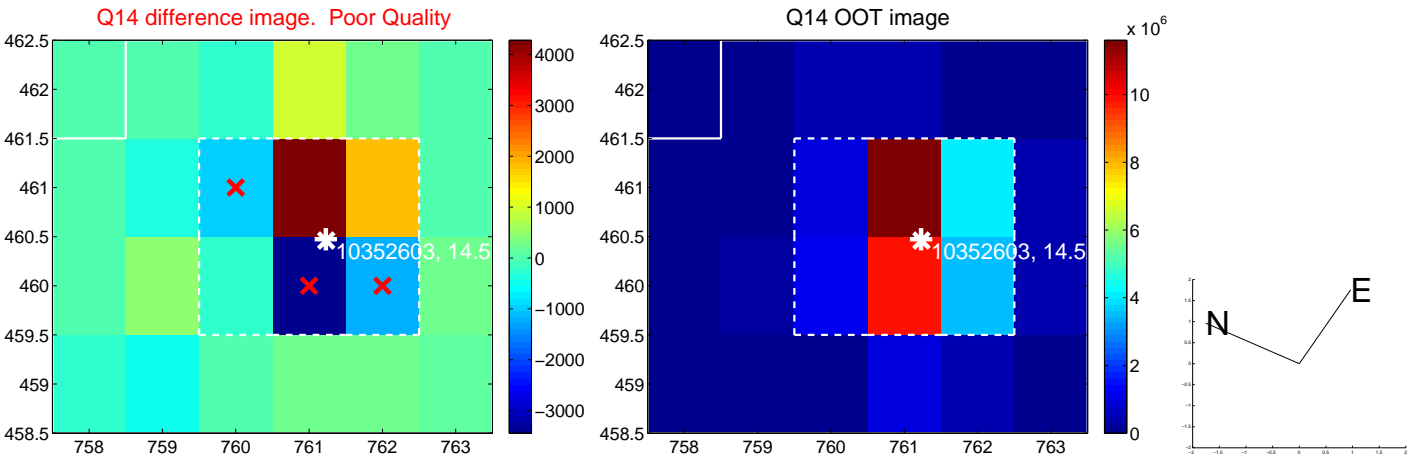
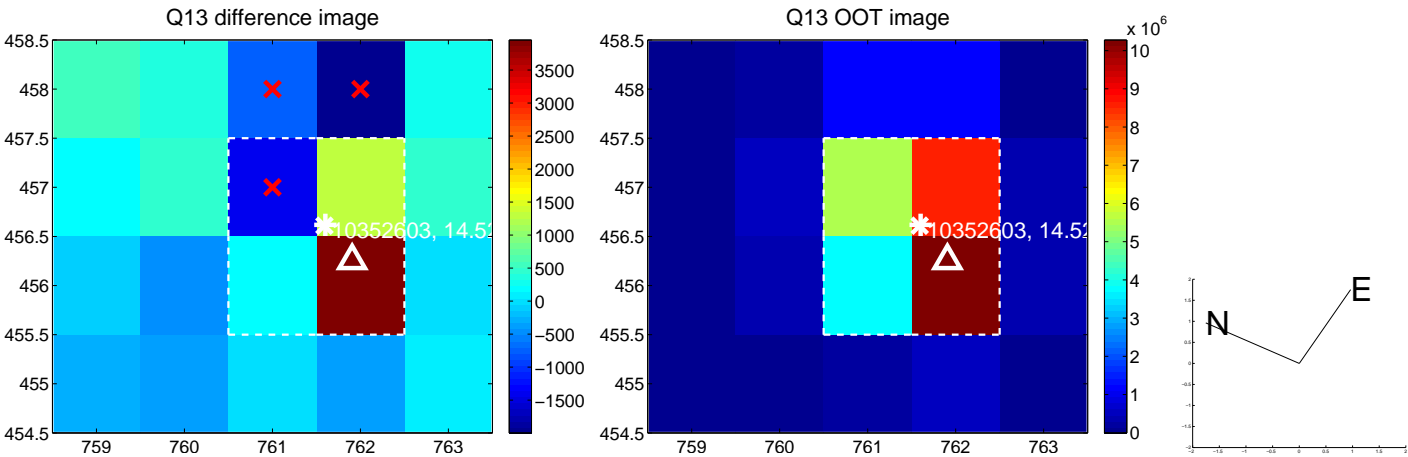
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



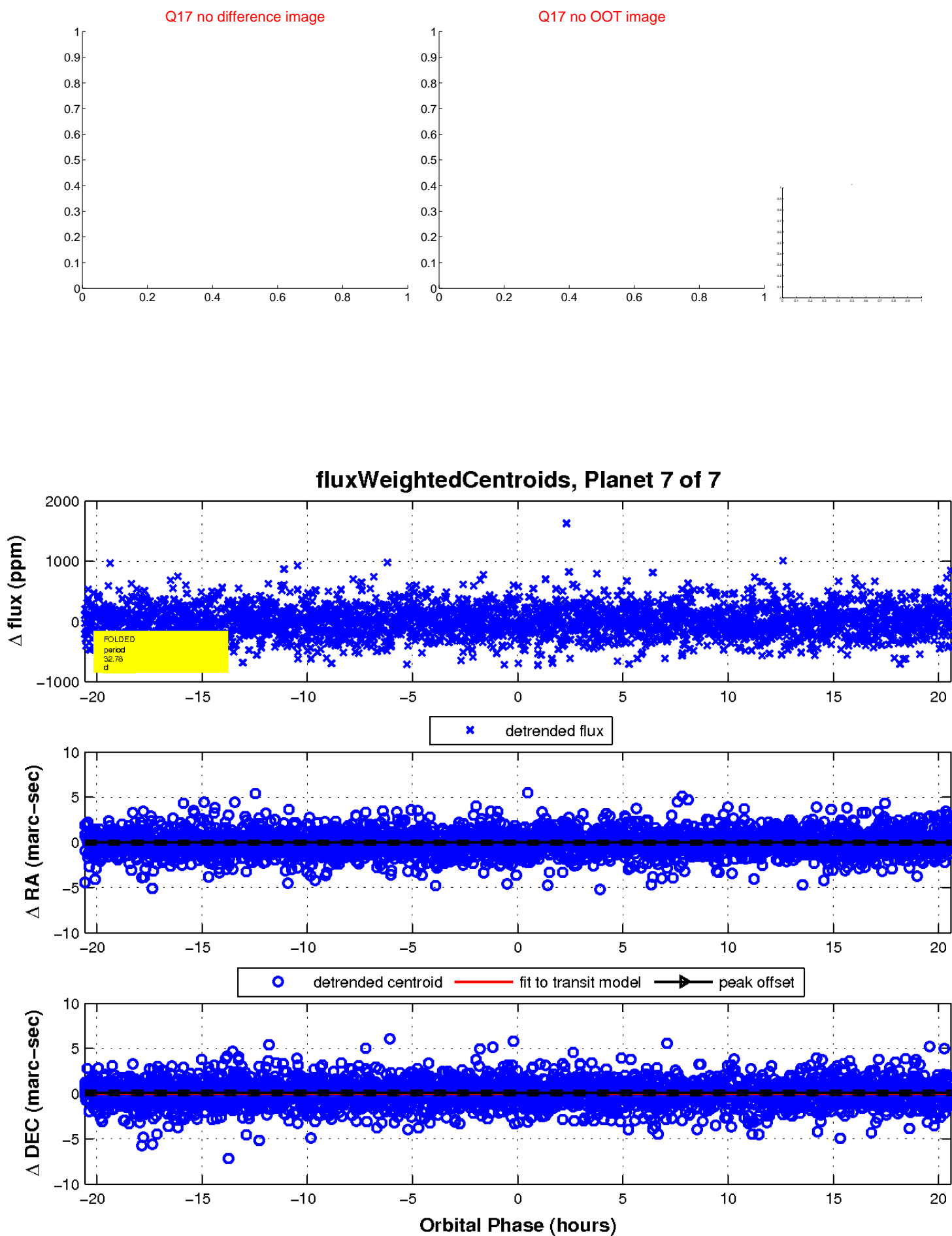
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

